



Analytical Resources, LLC
Analytical Chemists and Consultants

26 June 2023

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

RE: AOC5 MR Phase 1

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

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

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

Associated Work Order(s)
23D0136

Associated SDG ID(s)
N/A

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

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

Analytical Resources, LLC

Susan Dunnihoo, Director, Client Services

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



23D0136

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3992

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

Ship to: ARL
 Attn: Sue Dummhoo
 Shipper: COURIER
 Form filled out by: S. Peplinger
 Shipping Date: 4/6/23
 Airbill Number: -
 Turnaround requested: Std.

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions (Jar tag number(s))
					PCBS	SMS SVOCs	TOC/TS	SMS Metals	D/F	Archive		
4.5.2023	1145	LDW23-SS1804	4	Sediment	X	X	X	X	X	X		
↓	1215	LDW23-SC1804	4	↓	X		X			X		
↓	1605	LDW23-SS1804	4	↓	X	X	X	X		X		
↓	1630	LDW23-SC1804	4	↓	X		X			X		
Total Number of Containers			16	Purchase Order / Statement of Work # APJ-110222-AOC5-ARL								

1) Released by: Print name: <u>Amara Vandervort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>4/6/23 1030</u>	1) Rec'd by: <u>[Signature]</u> Company: <u>Net LLC</u> Date/Time: <u>04/06/23 1030</u>	2) Released by: Print name: Signature: Company: Date/Time:	2) Rec'd by: Company: Date/Time:
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* Distribution: White copies accompany shipment; yellow retained by consignor.



200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364

To be completed by Laboratory upon sample receipt:

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

23D0136

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3992

Project/Client Name: AOC5 MR Phase 1 (LDW)
 Project Number: 210075.01.02
 Contact Name: Annara Vandervort
 Sampled By: Windward

Ship to: ARL
 Attn: Sue Dunning
 Shipper: Courier
 Form filled out by: S. Replinger
 Shipping Date: 4/6/23
 Airbill Number: -
 Turnaround requested: Std.

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)						Comments / Instructions (jar tag number(s))
					PCBS	SMS SVOCs	TOC/TS	SMS metals	D/F	Archive	
4.5.2023	1145	LDW23-SS1804	4	Sediment	X	X	X	X	X	X	
	1215	LDW23-SC1804	4		X		X			X	
	1605	LDW23-SS1804-3	4		X	X	X	X		X	
	1630	LDW23-SC1804-3 AN	4		X		X			X	
Total Number of Containers			16	Purchase Order / Statement of Work # <u>APS-110222-AOC5-ARL</u>							

1) Released by: Print name: <u>Annara Vandervort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>4/6/23 1030</u>	1) Rec'd by: <u>[Signature]</u> Company: <u>ARL IIC</u> Date/Time: <u>04/06/23 1030</u>	2) Released by: Print name: Signature: Company: Date/Time:	2) Rec'd by: Company: Date/Time:
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* Distribution: White copies accompany shipment; yellow retained by consignor.



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To be completed by Laboratory upon sample receipt:

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

RE: 23D0136 - AOC5 receipts

Amara Vandervort <amarav@windwardenv.com>

Mon 4/10/2023 2:35 PM

To: Sue Dunnihoo <lmsadm@arilabs.com>; Labdata <labdata@anchorqea.com>

Cc: Ali Judkins <ajudkins@anchorqea.com>; Anastasia Barr <anastasiab@windwardenv.com>

📎 1 attachments (217 KB)

AOC5_Phase1_ARL_UnderStructure_040523_v2.pdf;

Hi,

We checked the field collection forms and updated the COC. Please use the attached updated version of the COC.

Amara Vandervort

Associate

Direct line: 206-812-5415

E-mail: amarav@windwardenv.com | www.windwardenv.com

200 First Avenue West, Suite 500 | Seattle, WA 98119



From: Amara Vandervort

Sent: Monday, April 10, 2023 1:51 PM

To: Sue Dunnihoo <lmsadm@arilabs.com>; Labdata <labdata@anchorqea.com>

Cc: Ali Judkins <ajudkins@anchorqea.com>; Anastasia Barr <anastasiab@windwardenv.com>

Subject: RE: 23D0136 - AOC5 receipts

Hello,

One of these sample sets should be for location 1803. Were the jars both labeled as 1804 or did one set happen to be labeled as 1803? I am checking with the field crew to confirm times on their end.

Amara Vandervort

Associate

Direct line: 206-812-5415

E-mail: amarav@windwardenv.com | www.windwardenv.com

200 First Avenue West, Suite 500 | Seattle, WA 98119



From: Sue Dunninghoo <limsadm@arilabs.com>
Sent: Friday, April 7, 2023 9:20 AM
To: Labdata <labdata@anchoragea.com>
Cc: Ali Judkins <ajudkins@anchoragea.com>; Amara Vandervort <amarav@windwardenv.com>; Anastasia Barr <anastasiab@windwardenv.com>
Subject: 23D0136 - AOC5 receipts

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please find attached for your review.

Did you really want two samples at different times with the same name?

Sue

*** I will be out of the office April 24-25 ***

*** NOTE - TATs are running 3 to 6 weeks depending on analysis ***

Courier requests cannot be guaranteed for same day pick-ups or deliveries. Please schedule in advance.

****Please email you bottle requests to your project manager several days before needed to give staff time to assemble the kit - we may not be able to accommodate your request as a walk-in****

Susan D. Dunninghoo

She/her/hers

Client Services Director

Analytical Resources, LLC

Analytical Chemists and Consultants

4611 South 134th Place, Suite 100

Tukwila, WA 98168

(206) 695-6207 office

sue.dunnihoo@arilabs.com

www.arilabs.com

As some of our staff are still working remotely we have changed sample receiving hours to 8 to 5 until further notice. Thank you for understanding.

Versions have been updated for SW-846 8260 and 8270 analyses, see our [post](#) explaining the details.

"Don't wish it were easier. Wish you were better." - Jim Rohn

Before printing, think about ENVIRONMENTAL responsibility

How was your customer experience?

Please take our 5 minute [Online Customer Survey](#).

Analytical Resources, LLC
Analytical Chemists and Consultants

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If you have received this correspondence in error, please notify sender and delete this message immediately. Thank you.

[Analytical Resources, LLC](#)



Cooler Receipt Form

ARI Client: Windows
COC No(s): 3992
Assigned ARI Job No: 2300136

NA 4/11/23

Project Name: Aocs MR Phase I (LOW)
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
Were custody papers included with the cooler? YES NO
Were custody papers properly filled out (ink, signed, etc.) YES NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1312 5.9
If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 7009208

Cooler Accepted by: [Signature] Date: 4/11/23 Time: 1030

Complete custody forms and attach all shipping documents

Log-In Phase:

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

Samples Logged by: [Signature] Date: 4/6/23 Time: 1554 Labels checked by: _____

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

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

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



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

Project: AOC5 MR Phase 1
Project Number: 210075-01.02
Project Manager: Ali Judkins

Reported:
06/26/2023 15:44

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
23D0136-01	LDW23-SS1804	Solid	04/05/23 11:45	04/06/23 10:30
23D0136-02	LDW23-SC1804	Solid	04/05/23 12:15	04/06/23 10:30
23D0136-03	LDW23-SS1803	Solid	04/05/23 16:05	04/06/23 10:30
23D0136-04	LDW23-SC1803	Solid	04/05/23 16:30	04/06/23 10:30



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

Project: AOC5 MR Phase 1
Project Number: 210075-01.02
Project Manager: Ali Judkins

Reported:
26-Jun-2023 15:44

Case Narrative

Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Work Order: 23D0136

Sample receipt

Samples as listed on the preceding page were received 06-Apr-2023 10:30 under ARI work order 23D0136. For details regarding sample receipt, please refer to the Cooler Receipt Form. Samples were frozen on receipt to preserve holding times.

On 10-April-2023, instructions were received to update sample IDs per the enclosed ROC.

Semivolatiles - EPA Method SW8270E

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

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

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

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

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

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

Semivolatiles - EPA Method SW8270E-SIM

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

Initial and continuing calibrations were within method requirements, with accepted excursions outside the 20% window. Associated positive results have been "Q"-flagged.

SLE0466-ICV1 showed benzoic acid and pentachlorophenol low of limits. SLE0466-LCV2 was run to verify benzoic acid response, and the MRL/LOD adjusted to the verified level of 200 ug/kg (initial) as the LCV at 80 ug/kg had not been analyzed.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

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

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries were within control limits. The relative percent difference (RPD) for benzoic acid was outside control limits and flagged on the summary sheet. As the MS/MSD recoveries and RPD were within limits, no further action was taken.



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Project: AOC5 MR Phase 1
Project Number: 210075-01.02
Project Manager: Ali Judkins

Reported:
26-Jun-2023 15:44

Case Narrative

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

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

Pesticides - EPA Method SW8081B (Hexachlorobenzene)

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

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits. Hexabromobiphenyl does not apply to the target compound and outliers are not addressed.

The surrogate percent recoveries were within control limits.

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

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

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

PCB Aroclors - EPA Method SW8082A

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen. The analyst noted extract were diluted 5x to mitigate matrix interference causing internal standard failures.

SLE0029-CCV3 showed response for tetra-chloro-m-xylene (TCMX) exceeding the upper limit on the second column. As TCMX is used internally as an indicator of blow-down efficiency and is not required by the method, no corrective action was required.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

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

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

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

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

The analyst noted identification of aroclors were made using the best possible fit, as there were miscellaneous interfering peaks throughout the runs inflating results and obscuring patterns.

Total Metals - EPA Method 6020B

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



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Project: AOC5 MR Phase 1
Project Number: 210075-01.02
Project Manager: Ali Judkins

Reported:
26-Jun-2023 15:44

Case Narrative

SLE0209-CAL4 was noted as slightly noisy for indium-1, with %R and analytes okay. SLE0209- IFA showed chromium-53 high.

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

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

The batch BLD0687 duplicate (DUP) relative percent difference (RPD) were within advisory control limits, reported under work order 23D0394.

The batch BLD0687 matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent differences (RPD) were within advisory control limits, reported under work order 23D0394.

Total Mercury - EPA Method 7471B

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

Initial and continuing calibrations were within method requirements.

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

The blank spike (BS/LCS) percent recovery was within control limits.

The batch BLD0688 duplicate (DUP) relative percent difference (RPD) were within advisory control limits, defaulted to +/- the reporting limit due to the low level and "L"-flagged, reported under work order 23D0394.

The batch BLD0688 matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent differences (RPD) were within advisory control limits, reported under work order 23D0394.

Wet Chemistry (Total Organic Carbon and Total Solids)

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

Initial and continuing calibrations were within method requirements.

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

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

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

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

Dioxin/Furans - EPA Method 1613

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

The standard SLE0060-CCV1 had recovery for 13C12-1,2,3,6,7,8-HxCDD (81.4%) below the control limit.

Labeled internal standard areas were within limits.



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Project: AOC5 MR Phase 1
Project Number: 210075-01.02
Project Manager: Ali Judkins

Reported:
26-Jun-2023 15:44

Case Narrative

The cleanup surrogate percent recoveries were within control limits.

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

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

The batch BLD0657 duplicate (DUP) relative percent differences (RPD) for OCDD and OCDF were outside advisory control limits and flagged on the summary sheet, reported under work order 23D0063.

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



QUALIFIERS AND NOTES

<u>Qualifier</u>	<u>Definition</u>
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
L	Analyte concentration is ≤ 5 times the reporting limit and the replicate control limit defaults to \pm RL instead of 20% RPD
J	Estimated concentration value detected below the reporting limit.
HC	The natural concentration of the spiked analyte is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
H	Hold time violation - Hold time was exceeded.
EMPC	Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin
D	The reported value is from a dilution
B	This analyte was detected in the method blank.
*	Flagged value is not within established control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0136-01 A

SDG: 23D0136

Sampled: 04/05/23 11:45

Prepared: 04/18/23 11:16

File ID: NT1005052311.D

% Solids: 49.34

Preparation: EPA 3546 (Microwave)

Analyzed: 05/05/23 17:15

Batch: BLD0329

Sequence: SLE0101

Initial/Final: 20.29 g Wet / 1 mL

Instrument: NT10

Column: ZB-5MSi

Calibration: GE00012

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	1470		4.4	20.0
106-44-5	4-Methylphenol	1	22.5		7.4	20.0
91-20-3	Naphthalene	1	18.7	J	4.2	20.0
91-57-6	2-Methylnaphthalene	1	13.3	J	4.5	20.0
208-96-8	Acenaphthylene	1	12.6	J	6.2	20.0
131-11-3	Dimethylphthalate	1	7.7	J	4.4	20.0
83-32-9	Acenaphthene	1	14.9	J	5.2	20.0
132-64-9	Dibenzofuran	1	17.2	J	14.1	20.0
86-73-7	Fluorene	1	21.5		14.6	20.0
85-01-8	Phenanthrene	1	86.7		8.7	20.0
120-12-7	Anthracene	1	53.3		7.2	20.0
206-44-0	Fluoranthene	1	268		6.1	20.0
129-00-0	Pyrene	1	232		5.7	20.0
85-68-7	Butylbenzylphthalate	1	19.7	J	9.4	20.0
56-55-3	Benzo(a)anthracene	1	110		6.0	20.0
218-01-9	Chrysene	1	203		6.1	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	185		5.5	49.9
	Benzo(a)fluoranthene, Total	1	318		10.0	40.0
50-32-8	Benzo(a)pyrene	1	113		4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	62.9		14.6	20.0
53-70-3	Dibenzo(a,h)anthracene	1	23.5		17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	80.5		13.6	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	749.17	384	51.2	27 - 120	
Phenol-d5	749.17	456	60.8	29 - 120	
2-Chlorophenol-d4	749.17	499	66.6	31 - 120	
1,2-Dichlorobenzene-d4	499.45	310	62.0	32 - 120	
Nitrobenzene-d5	499.45	355	71.2	30 - 120	
2-Fluorobiphenyl	499.45	368	73.8	35 - 120	



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC
 Client: Anchor OEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment
 Sampled: 04/05/23 11:45
 % Solids: 49.34
 Batch: BLD0329
 Instrument: NT10
 Cleanups: GPC

Laboratory ID: 23D0136-01 A
 Prepared: 04/18/23 11:16
 Preparation: EPA 3546 (Microwave)
 Sequence: SLE0101
 Column: ZB-5MSi

SDG: 23D0136
 File ID: NT1005052311.D
 Analyzed: 05/05/23 17:15
 Initial/Final: 20.29 g Wet / 1 mL
 Calibration: GE00012

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	749.17	642	85.7	24 - 134	
p-Terphenyl-d14	499.45	372	74.4	37 - 120	

Data File: \\target\share\chem3\nt10.1\20230505.6\NT1005052311.D

Date: 05-May-2023 17:15

Client ID:

Sample Info: 23D0136-01

Page 1

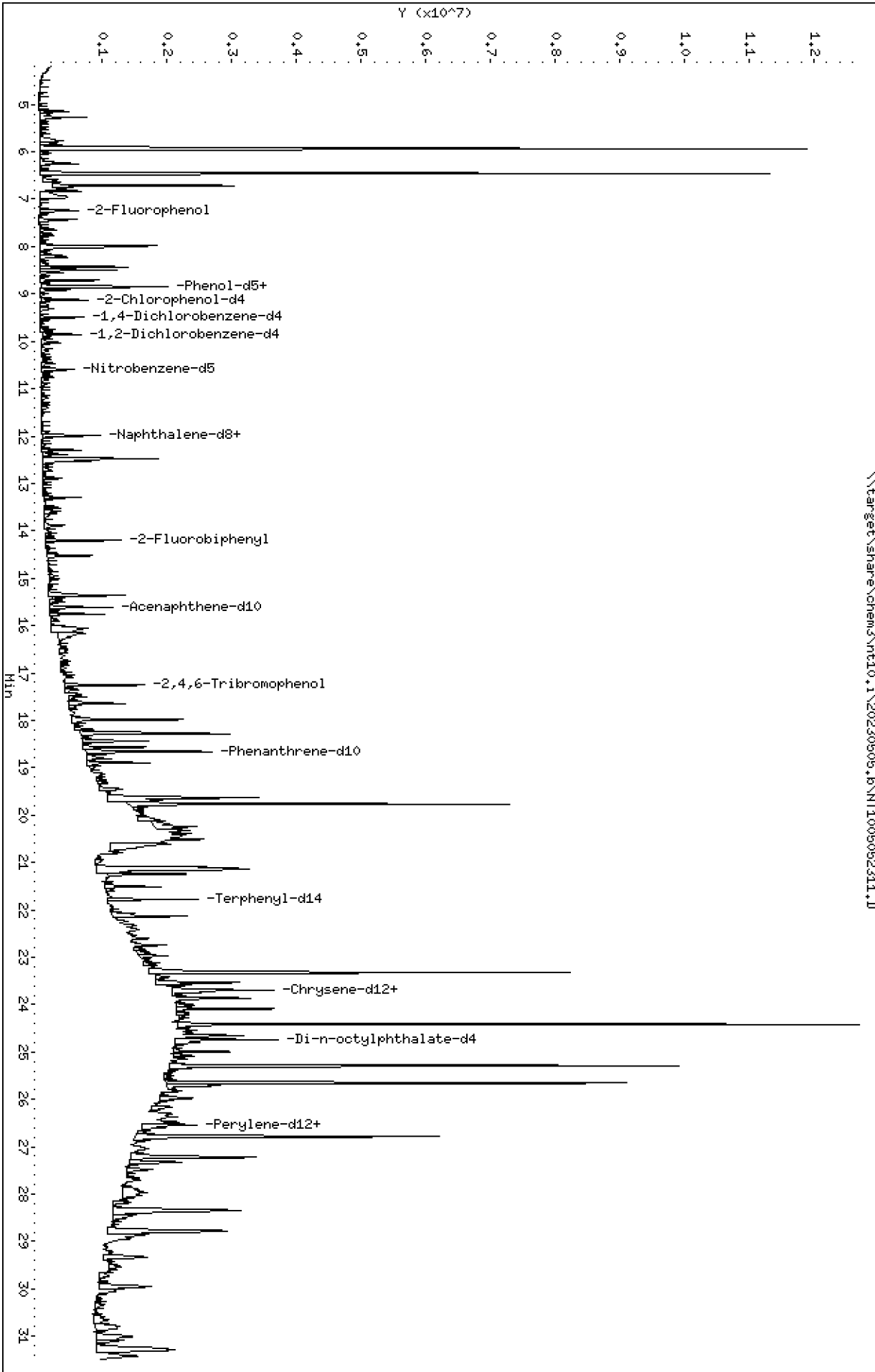
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230505.6\NT1005052311.D



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

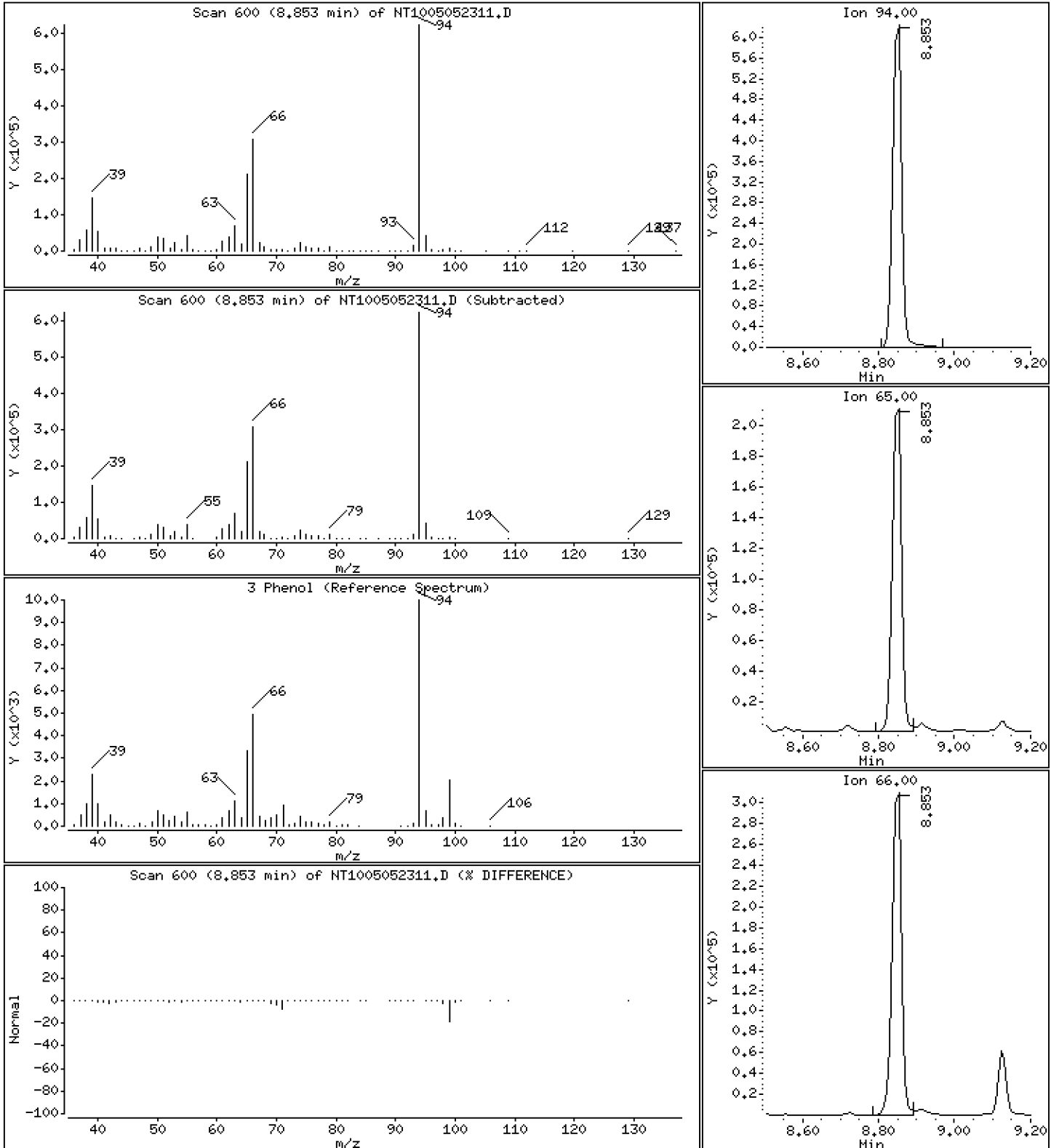
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 14,72 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

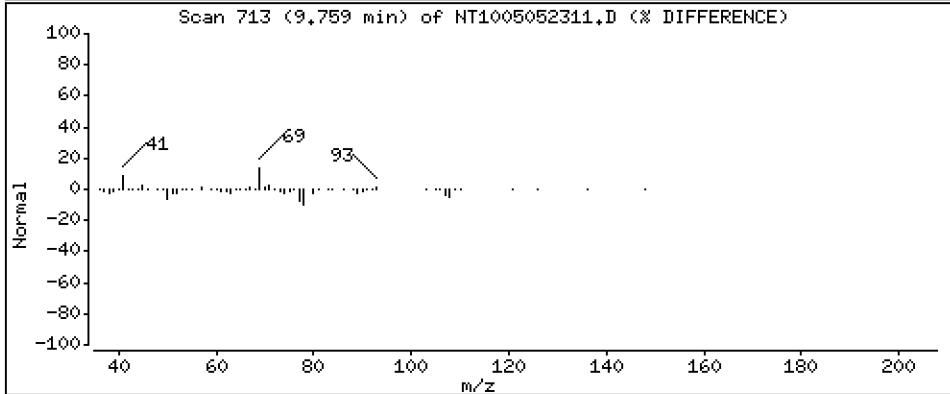
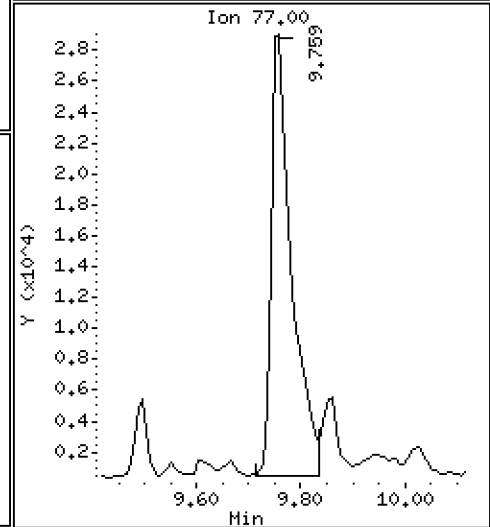
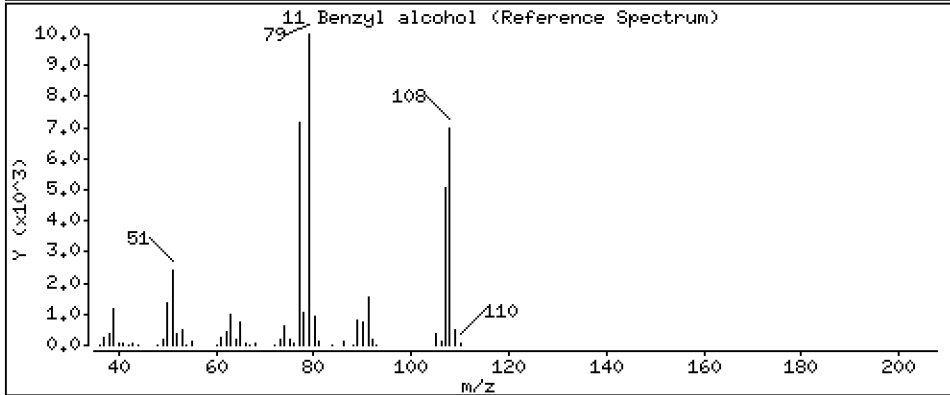
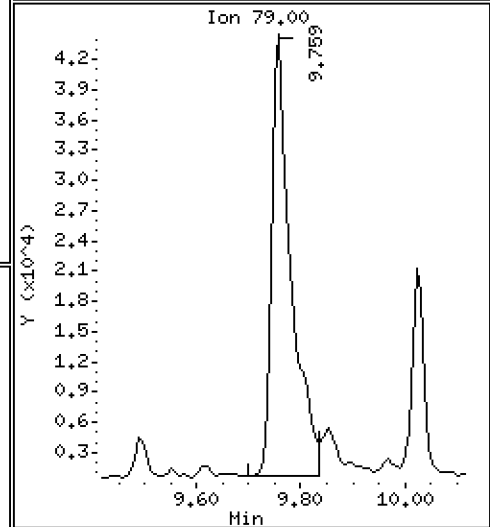
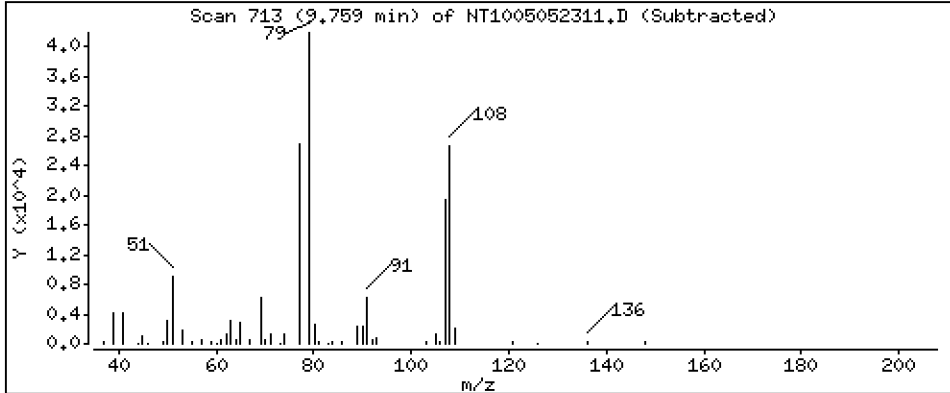
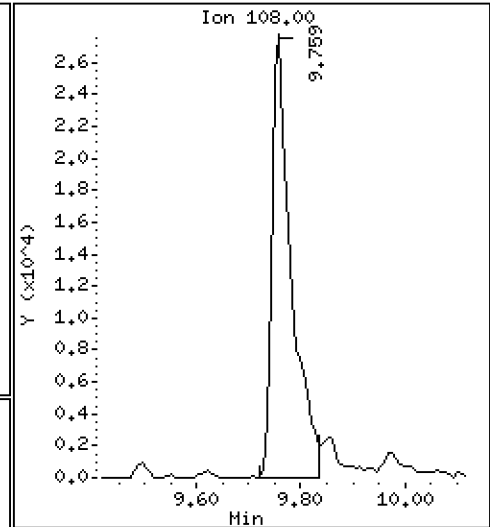
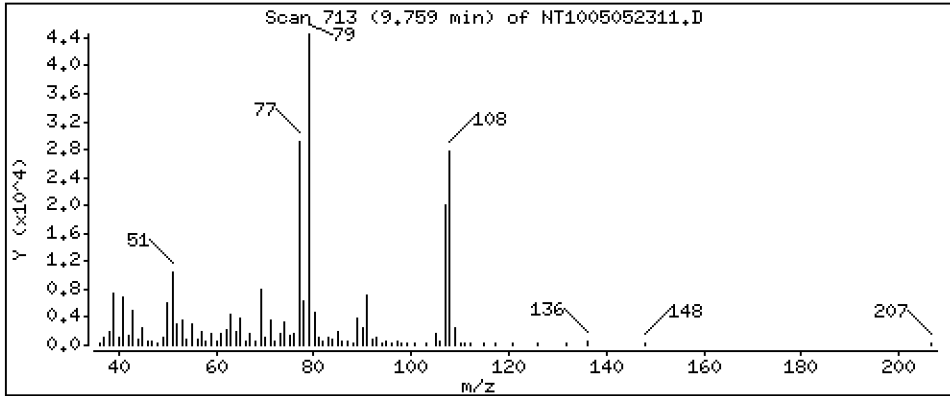
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 2,305 ug/mL



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Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

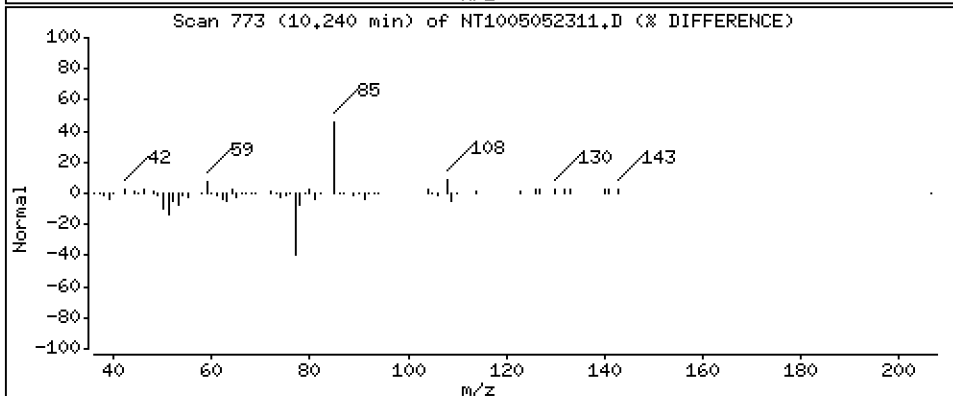
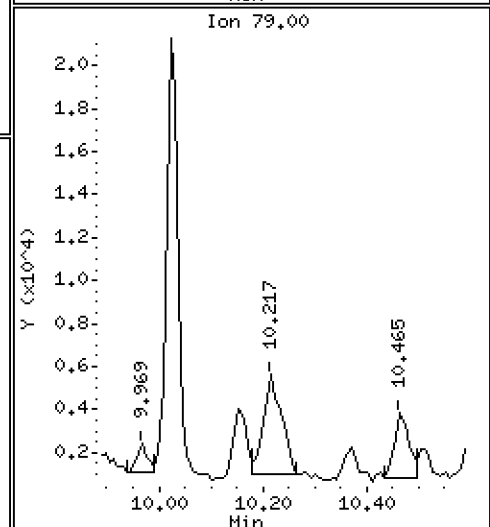
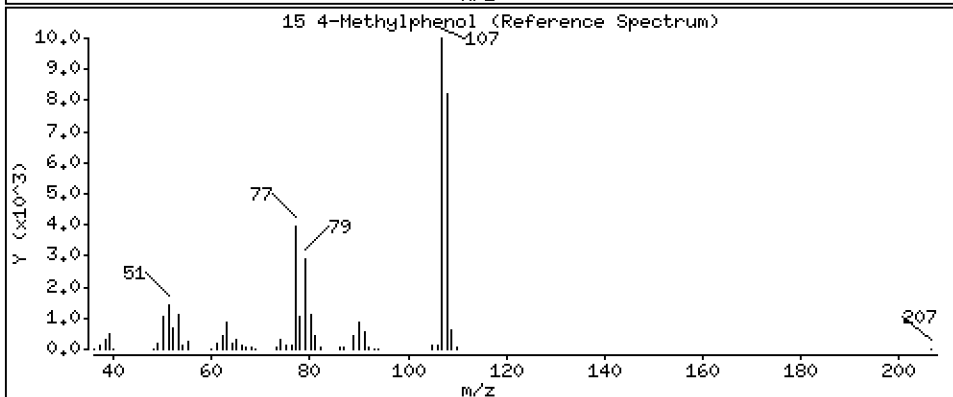
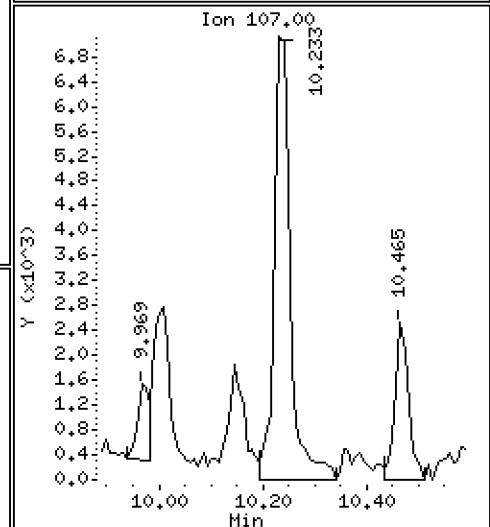
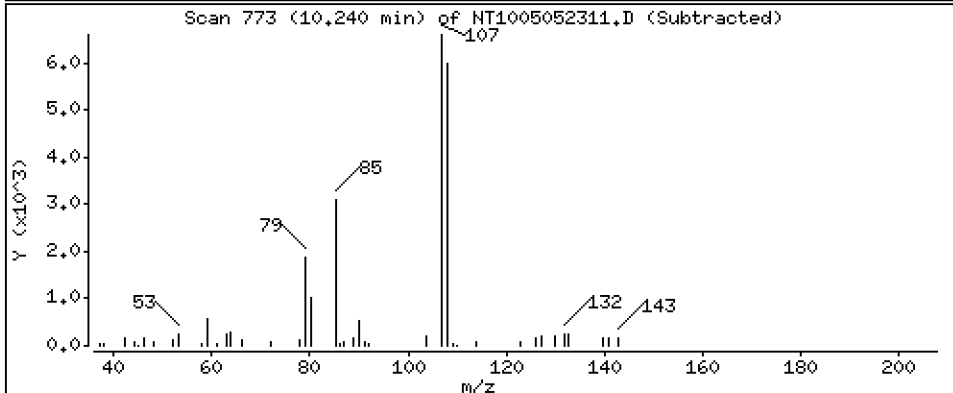
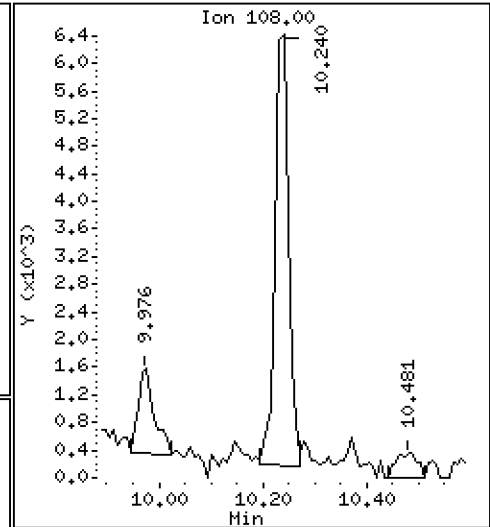
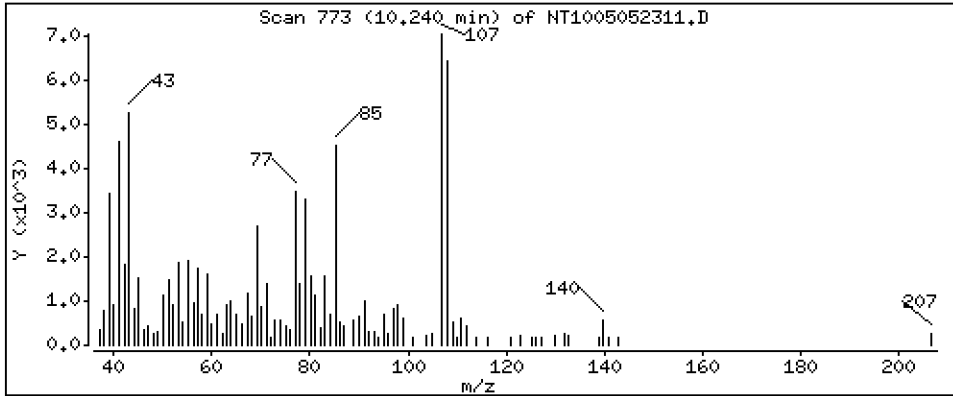
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Concentration: 0.2254 ug/mL

15 4-Methylphenol



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

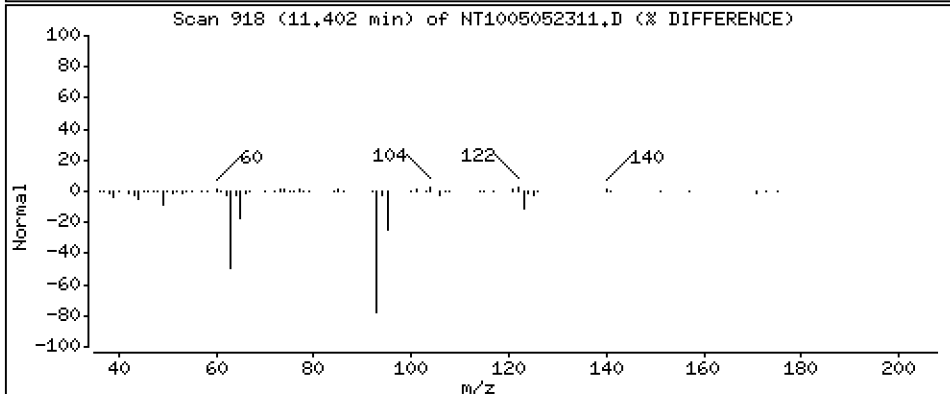
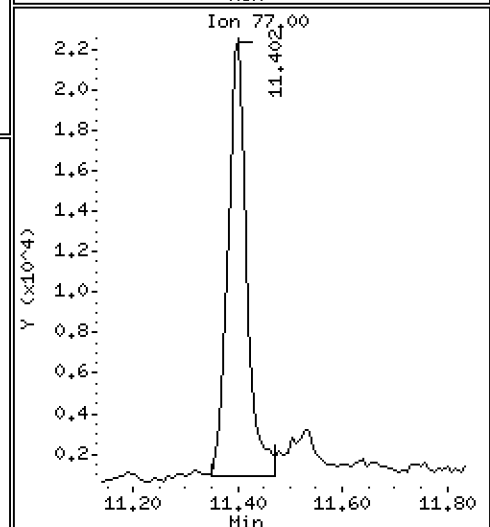
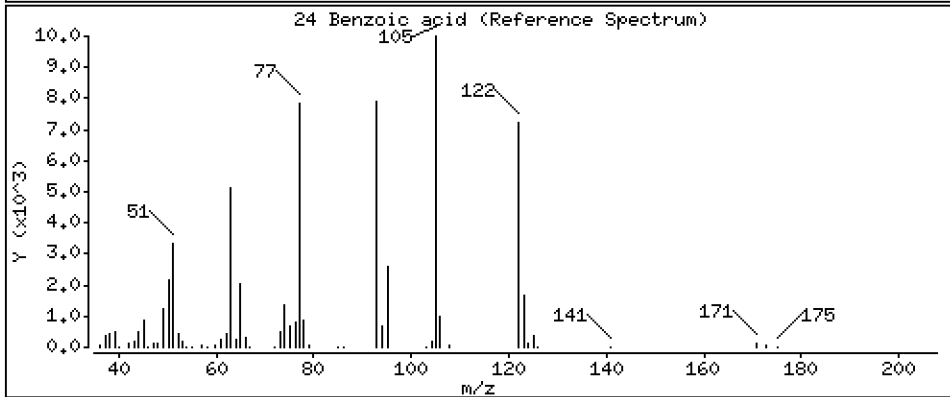
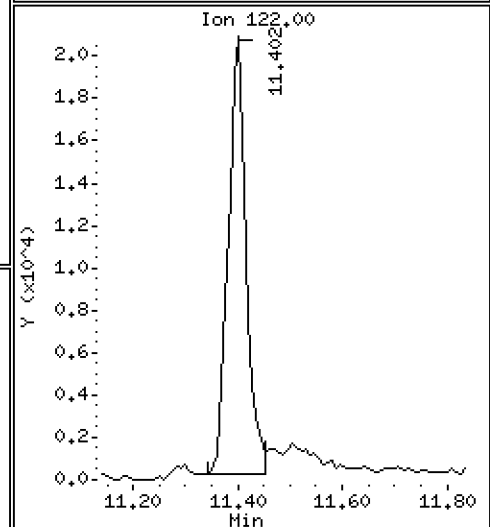
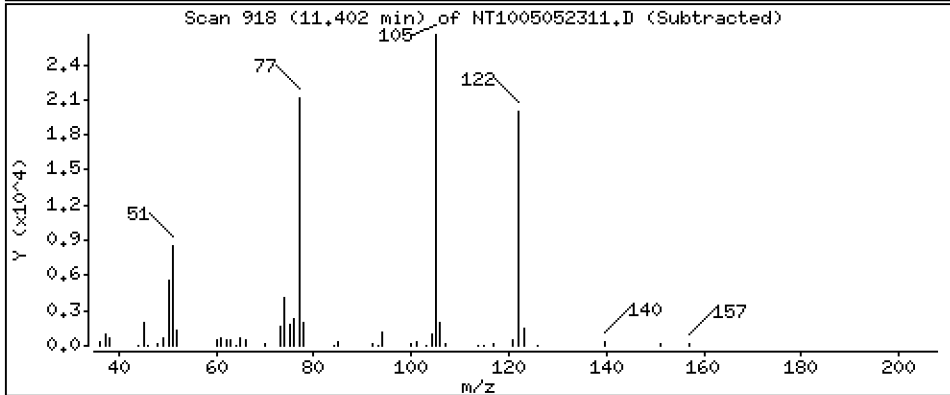
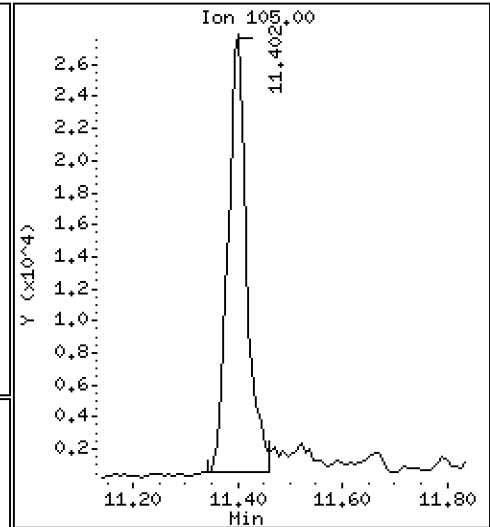
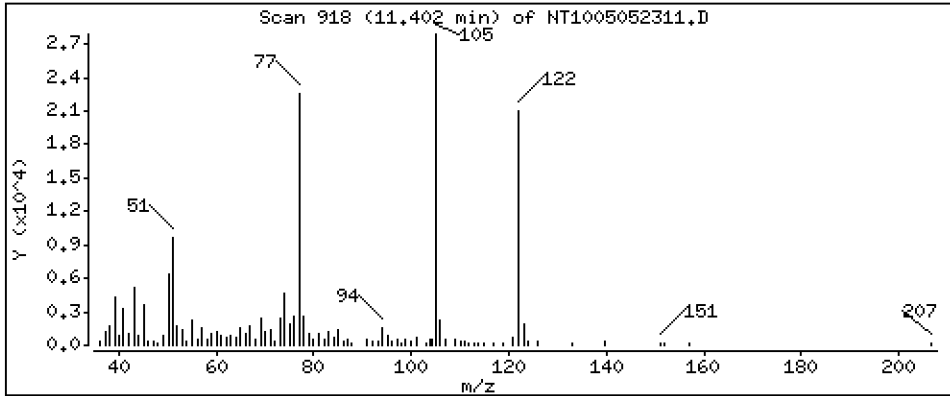
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 1.478 ug/mL



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Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

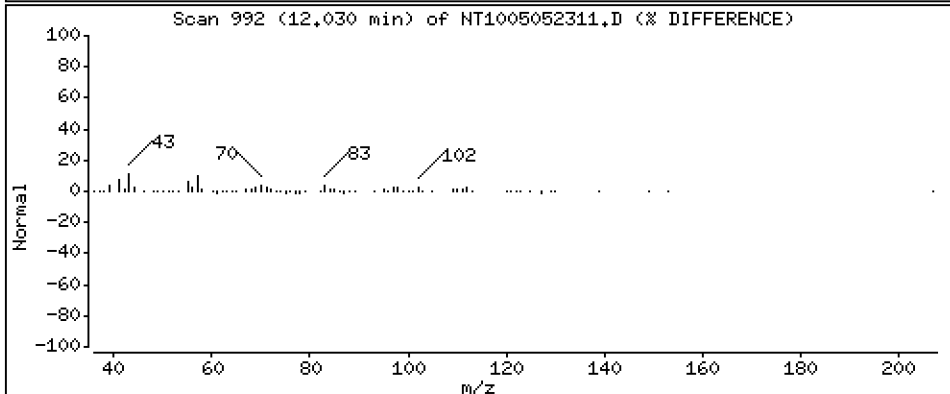
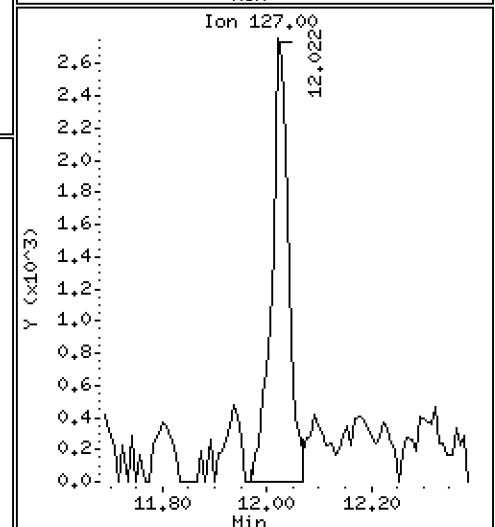
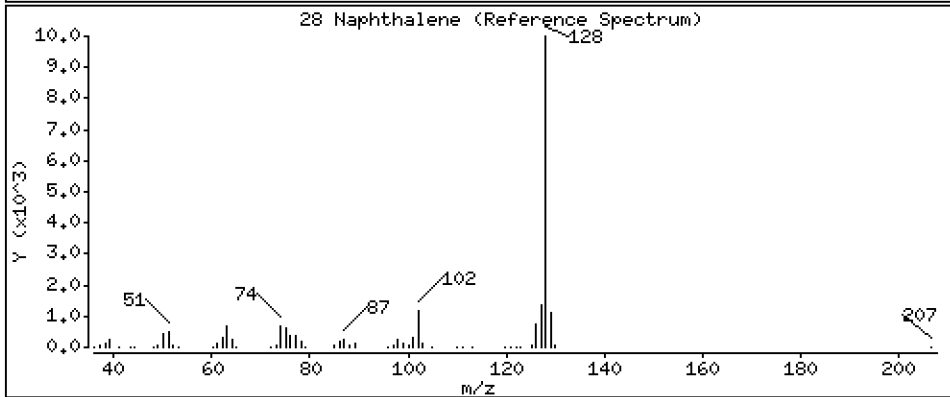
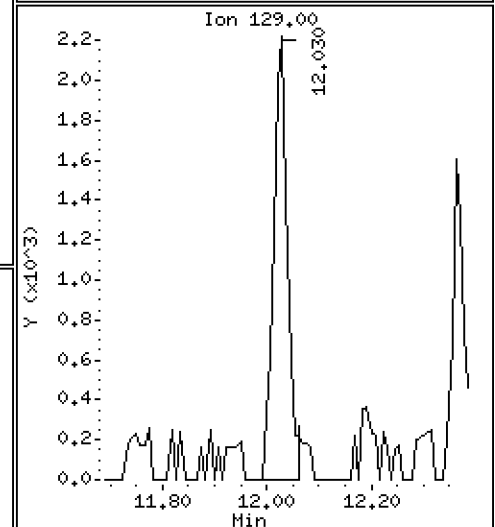
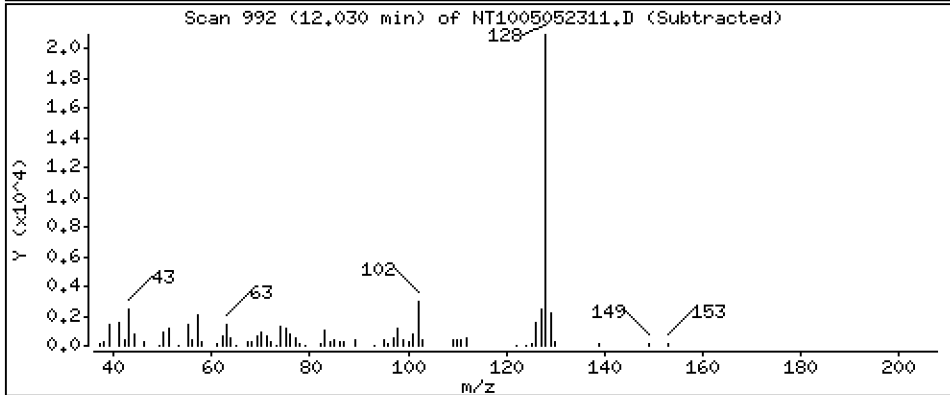
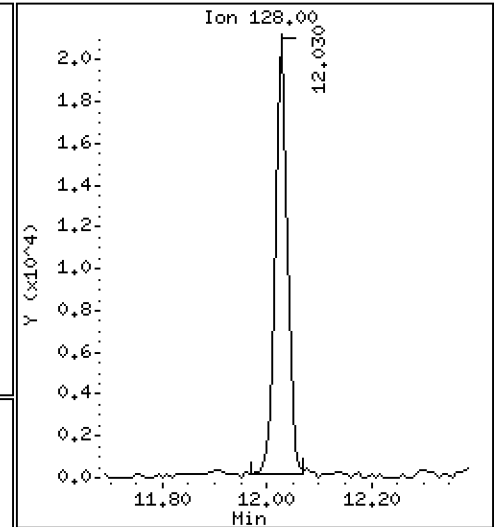
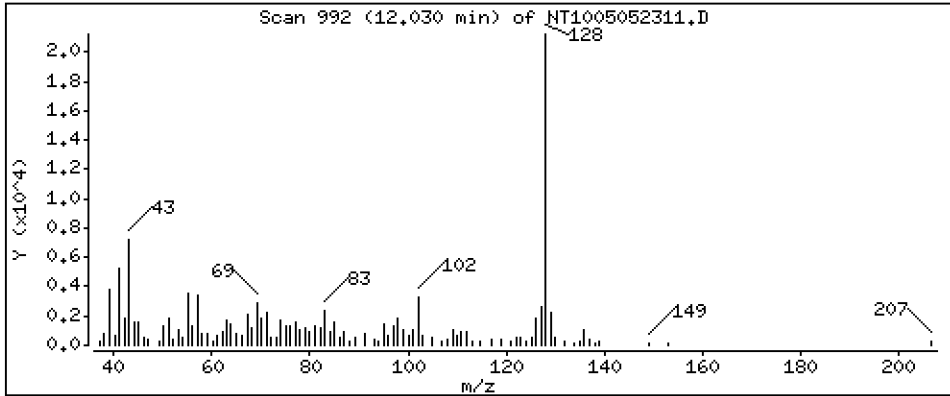
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 0.1874 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

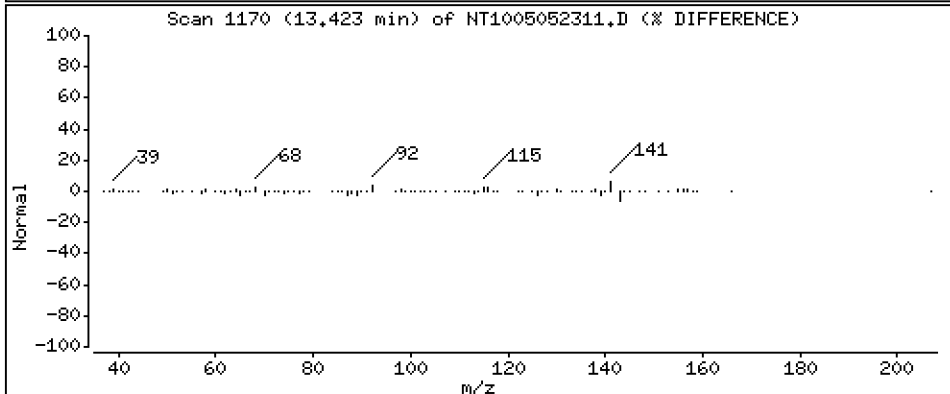
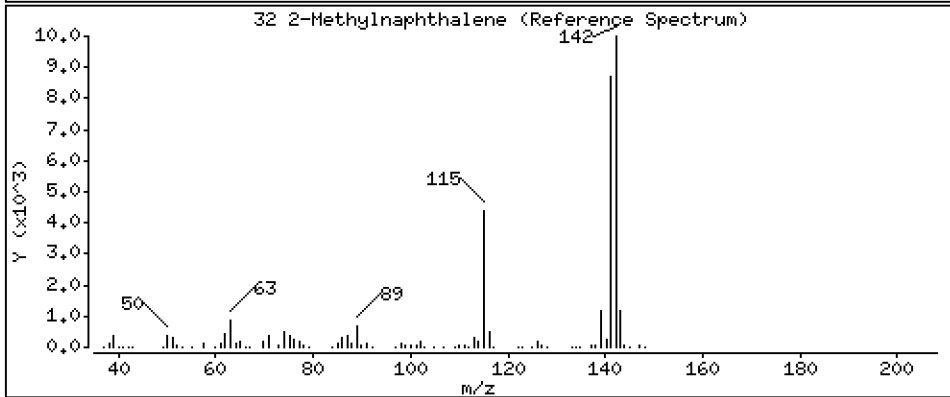
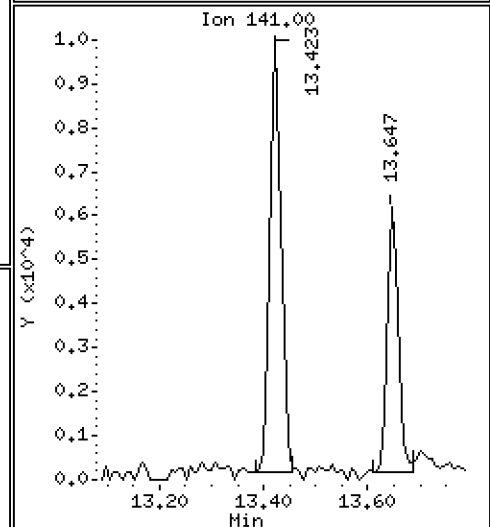
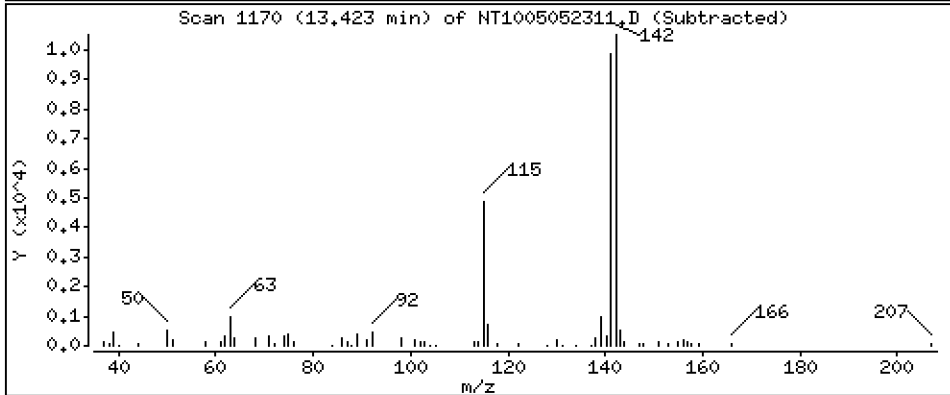
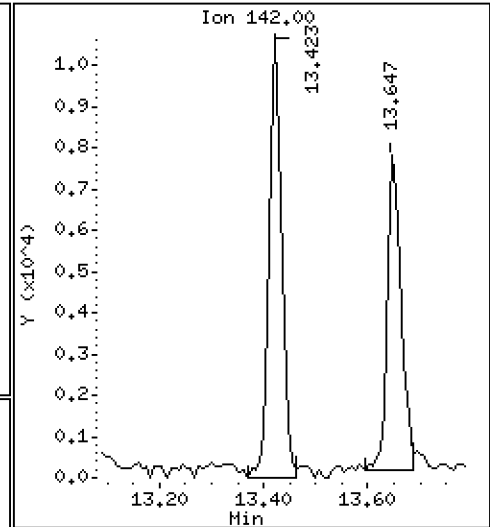
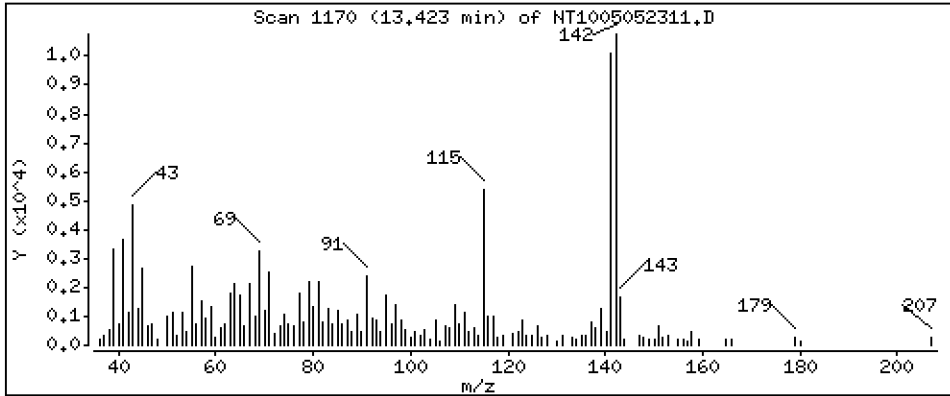
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

32 2-Methylnaphthalene

Concentration: 0.1333 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

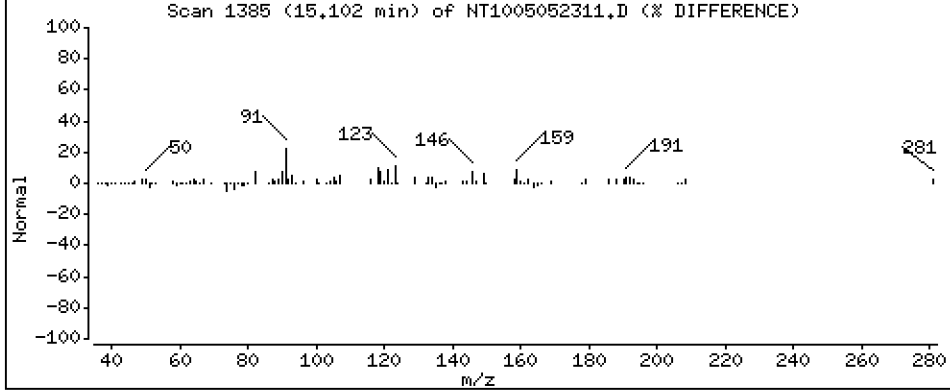
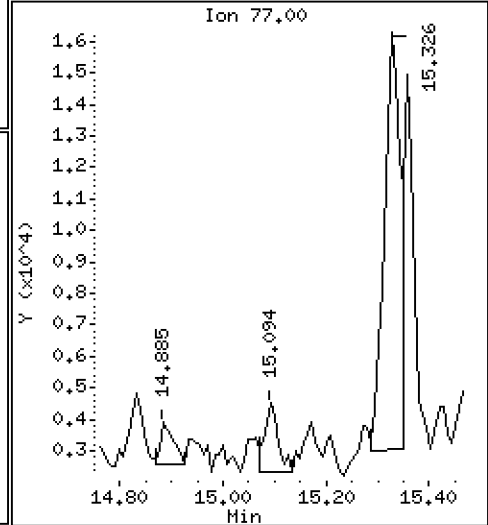
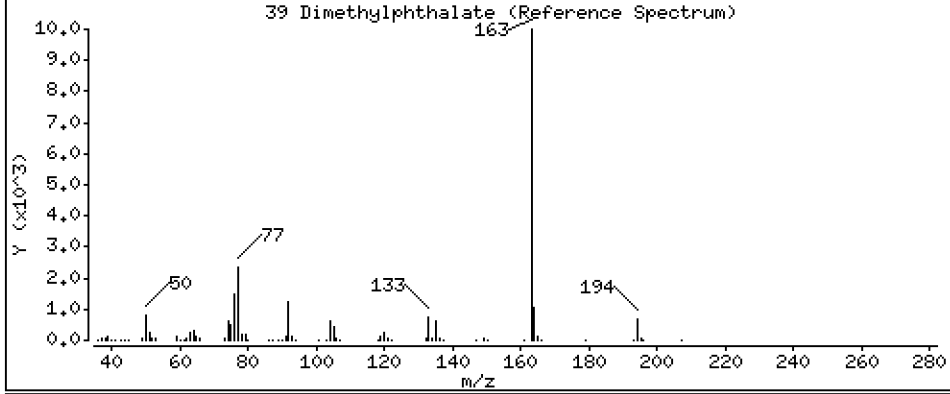
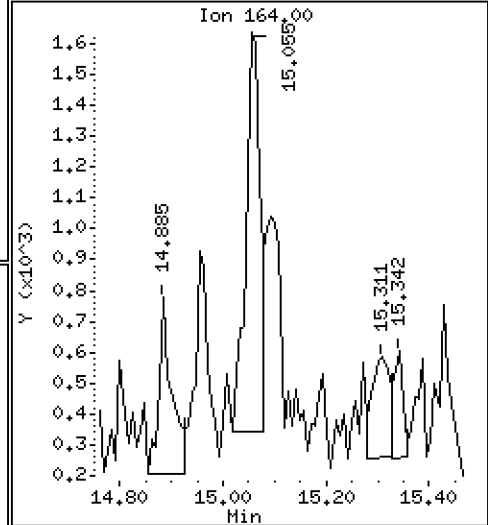
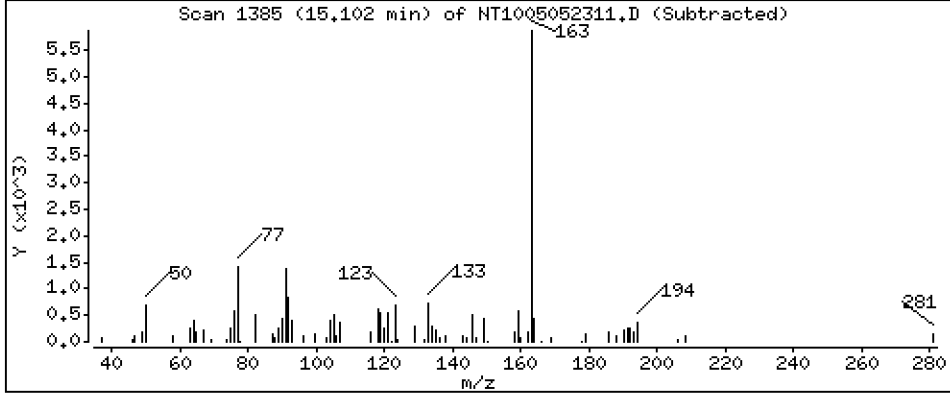
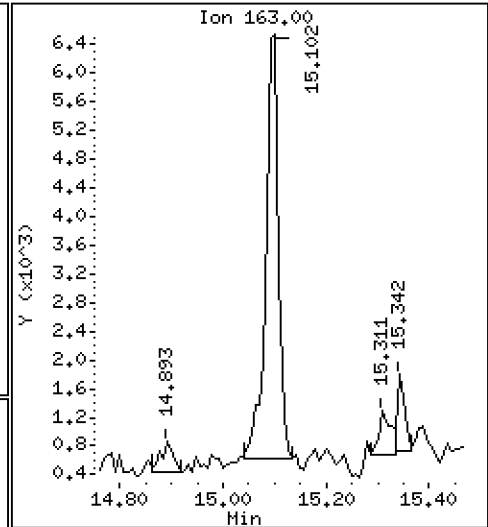
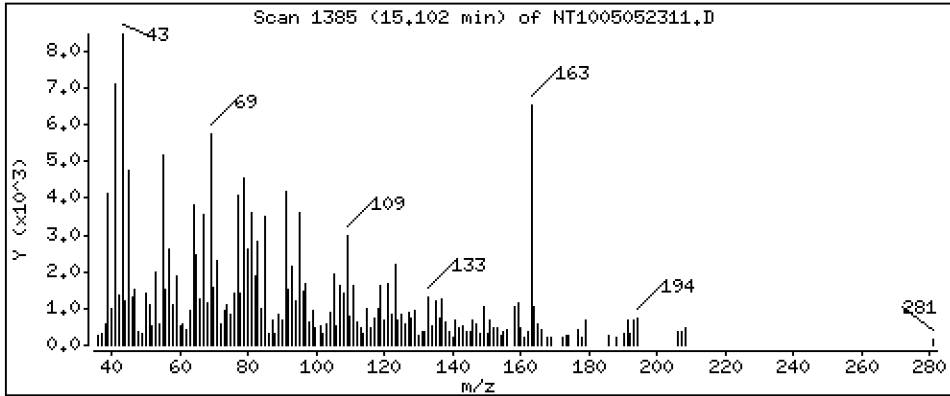
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.07716 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

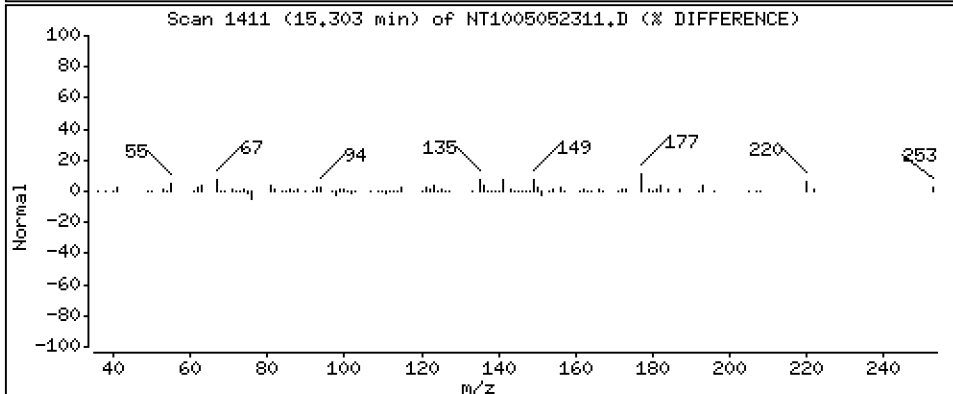
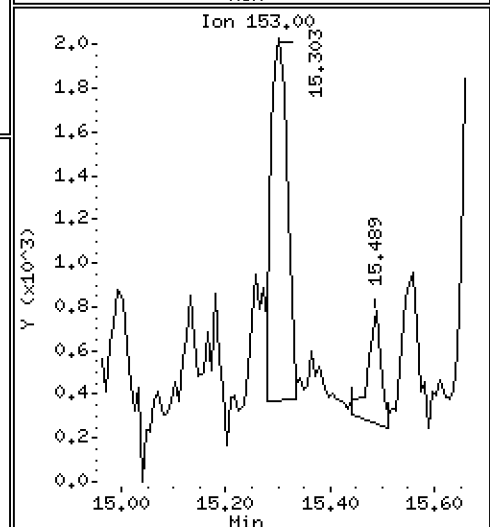
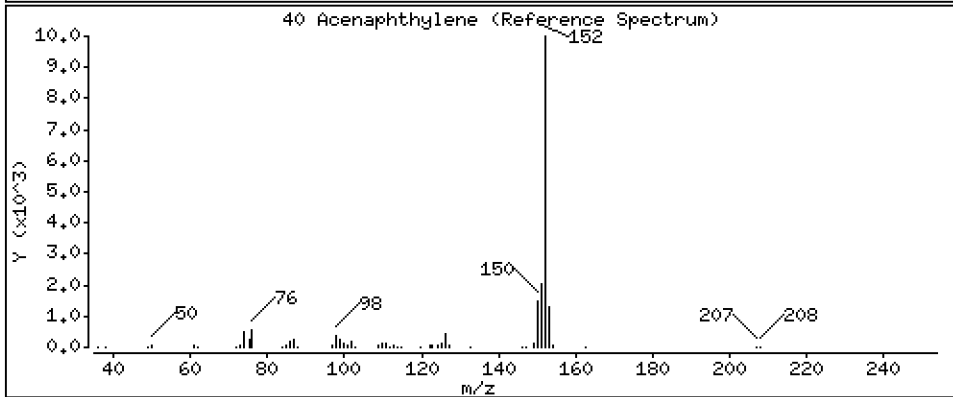
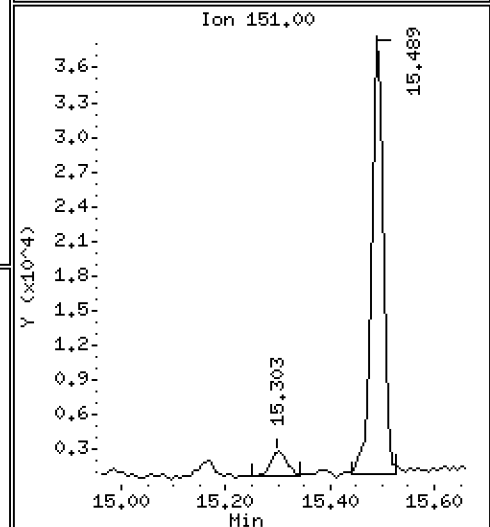
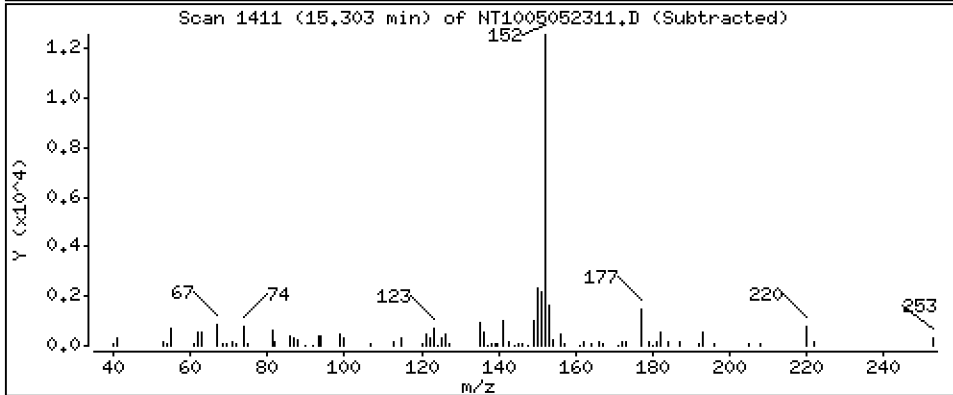
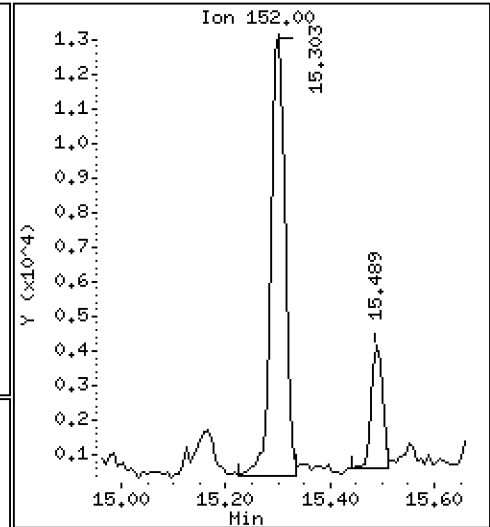
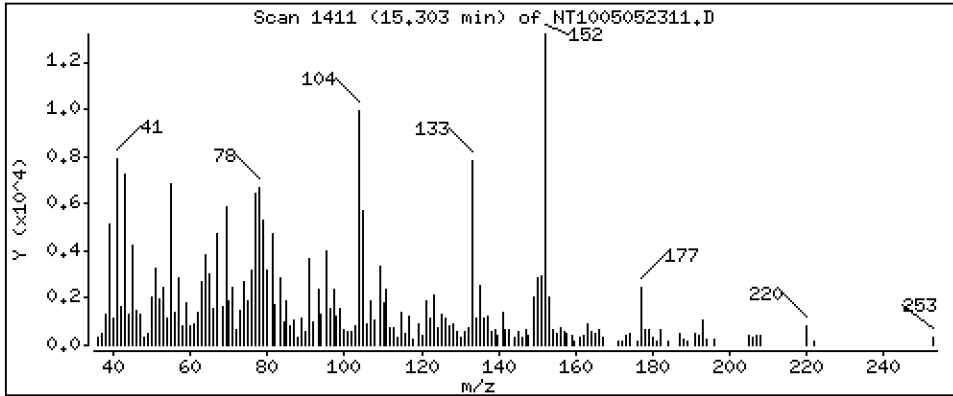
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 0.1260 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

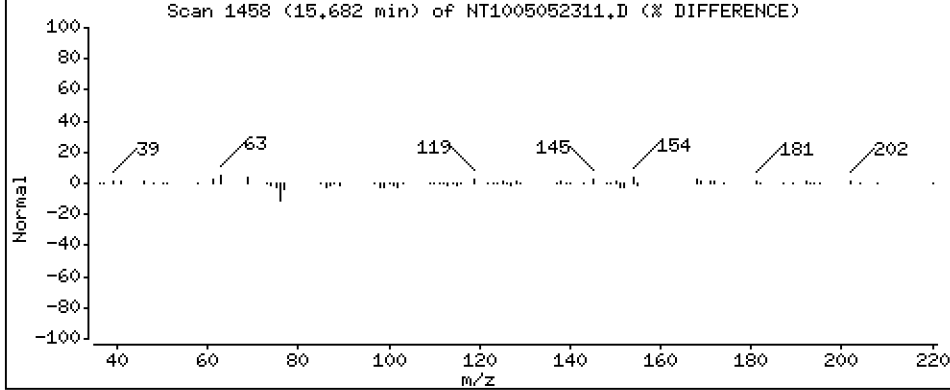
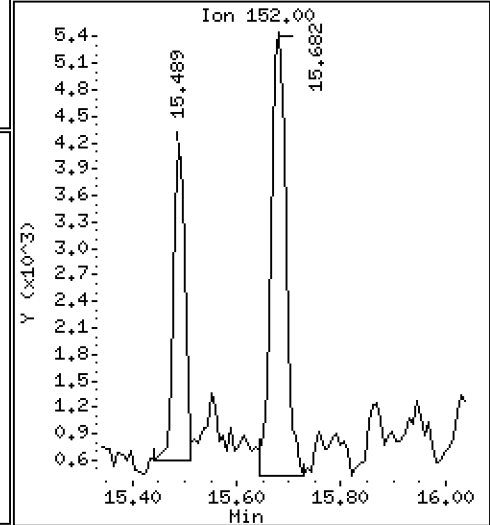
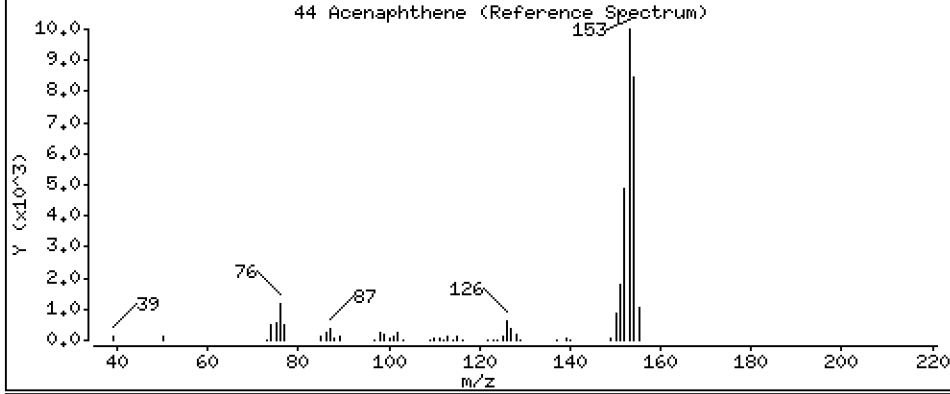
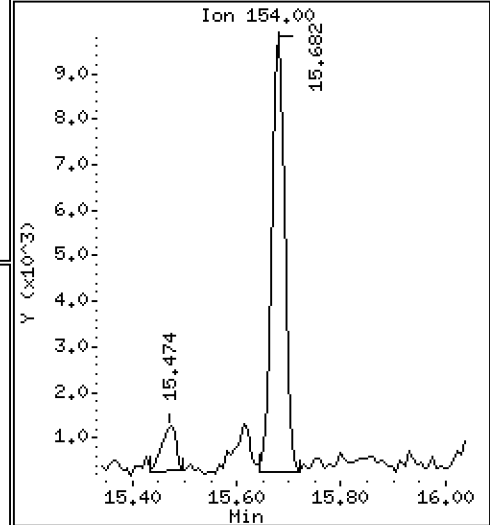
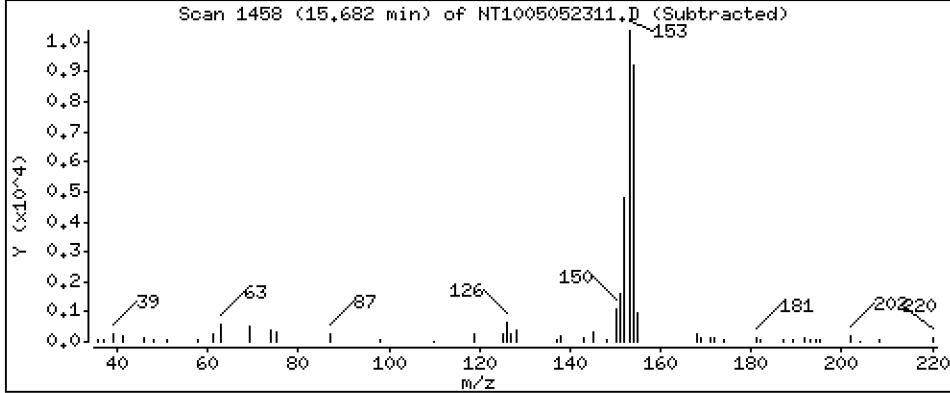
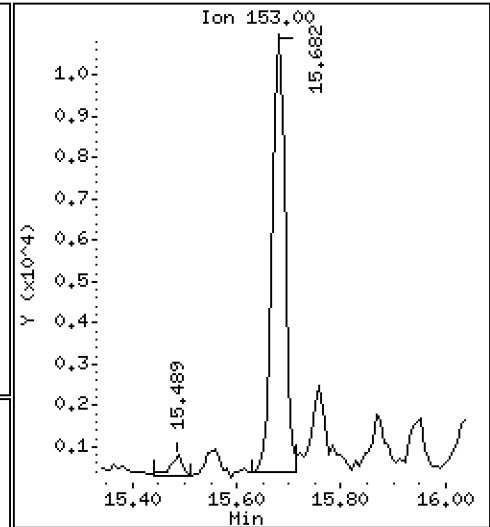
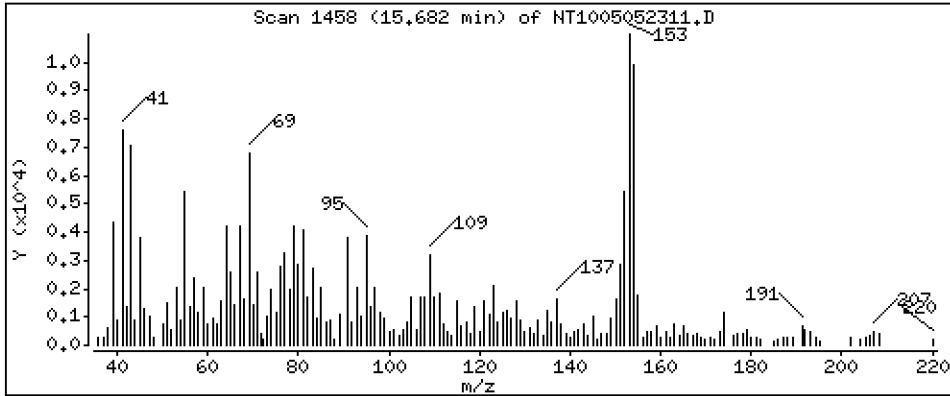
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,1492 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

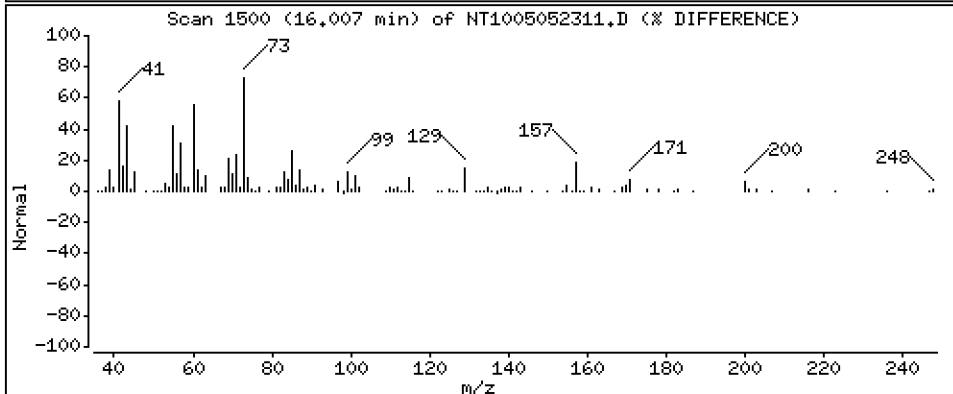
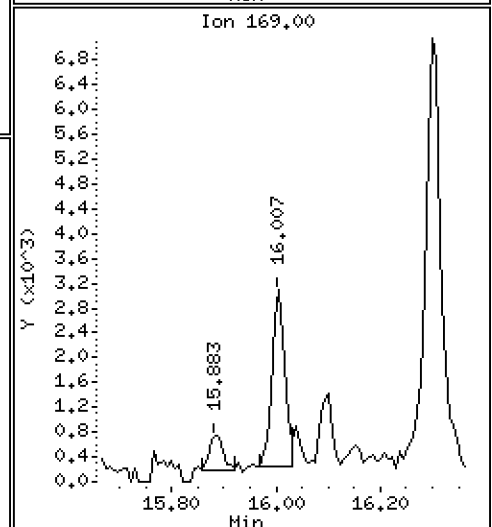
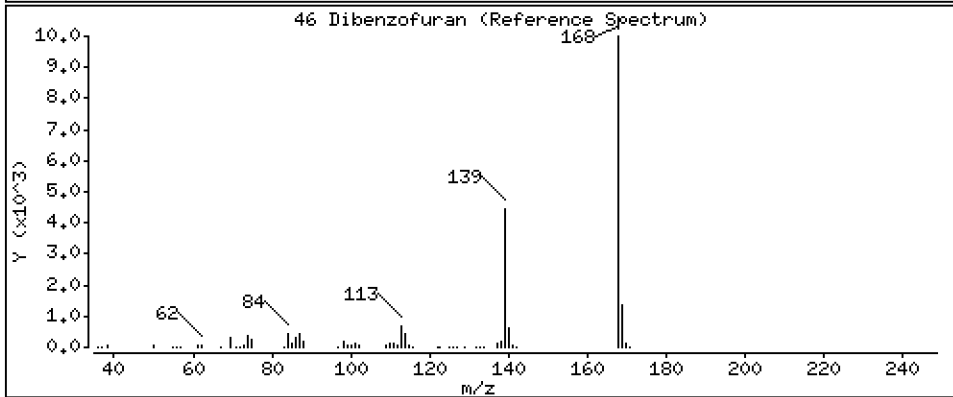
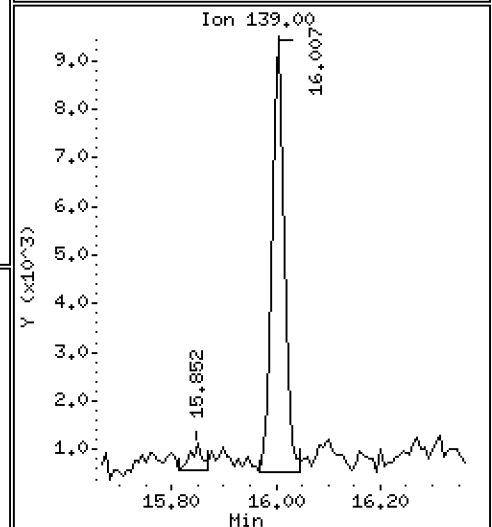
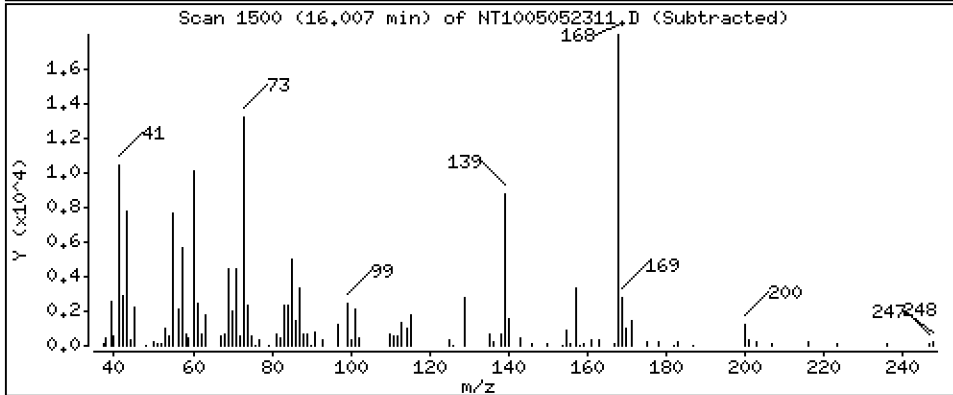
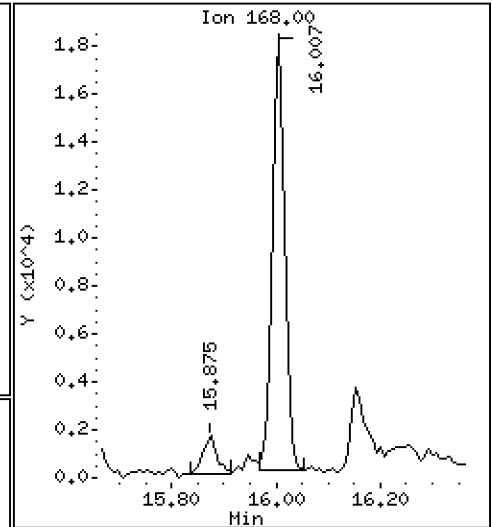
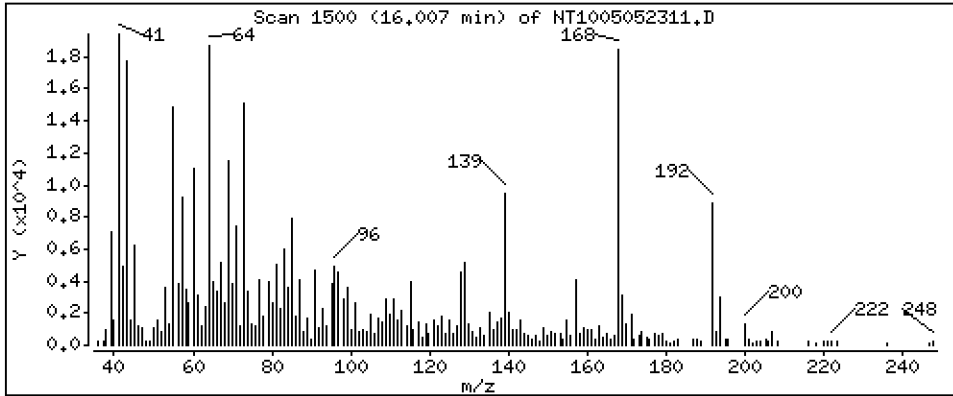
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

46 Dibenzofuran

Concentration: 0.1726 ug/mL



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Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

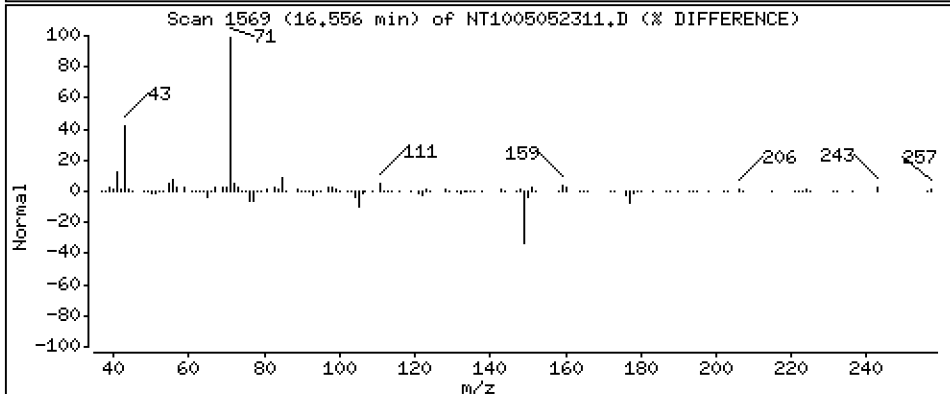
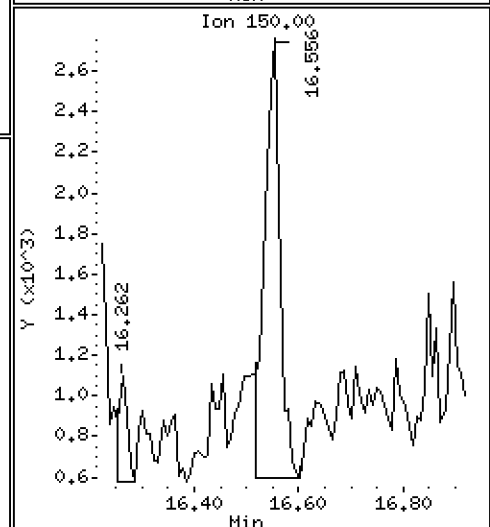
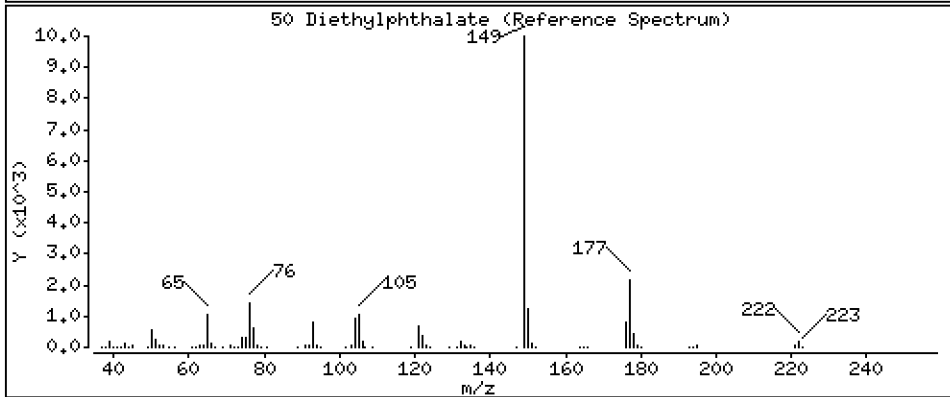
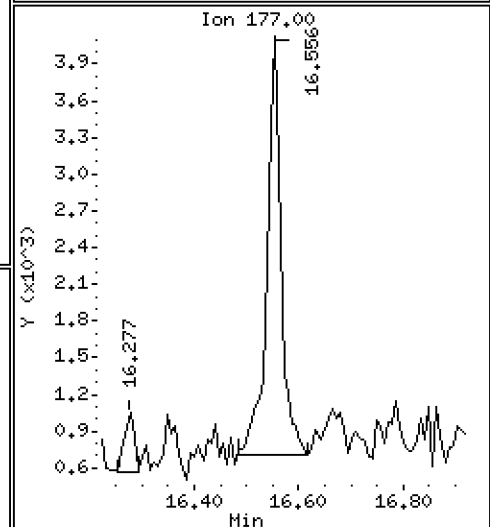
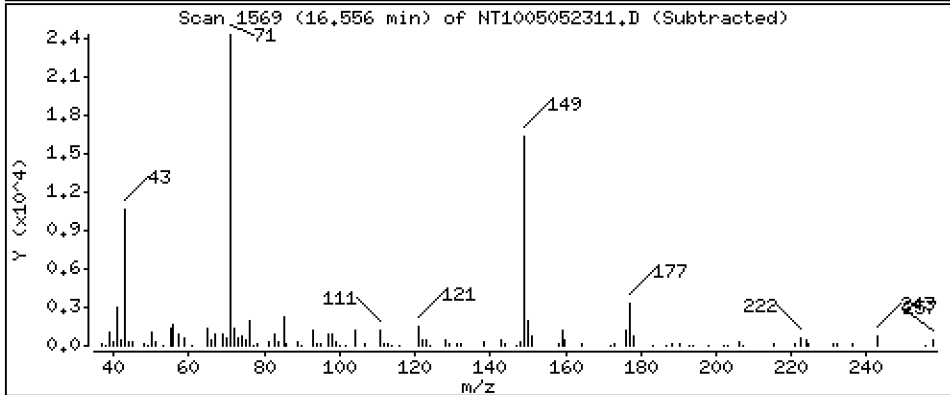
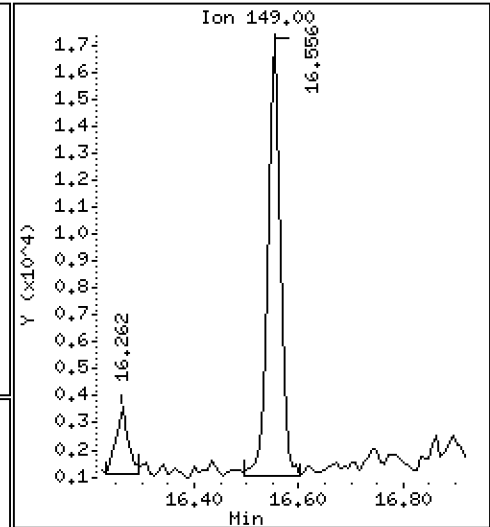
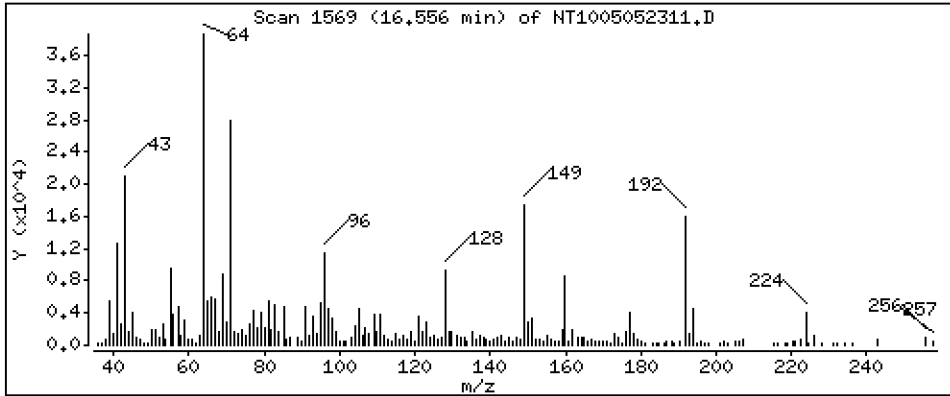
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.2270 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

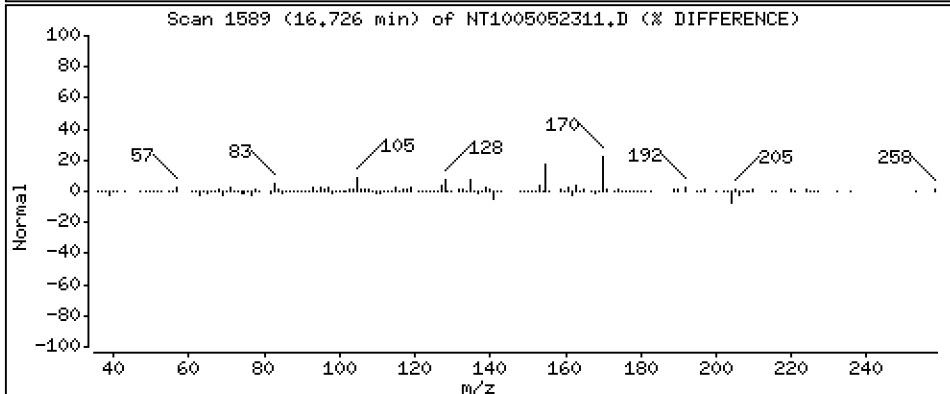
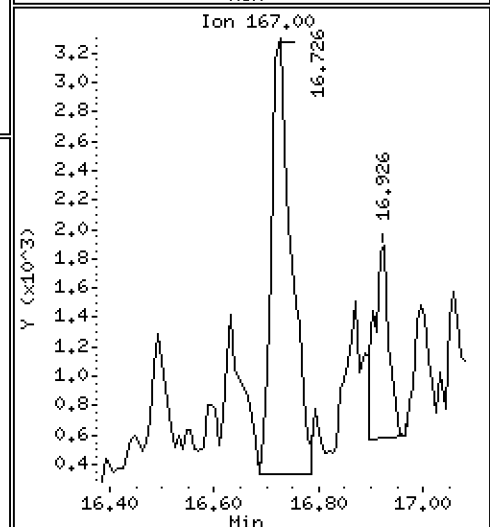
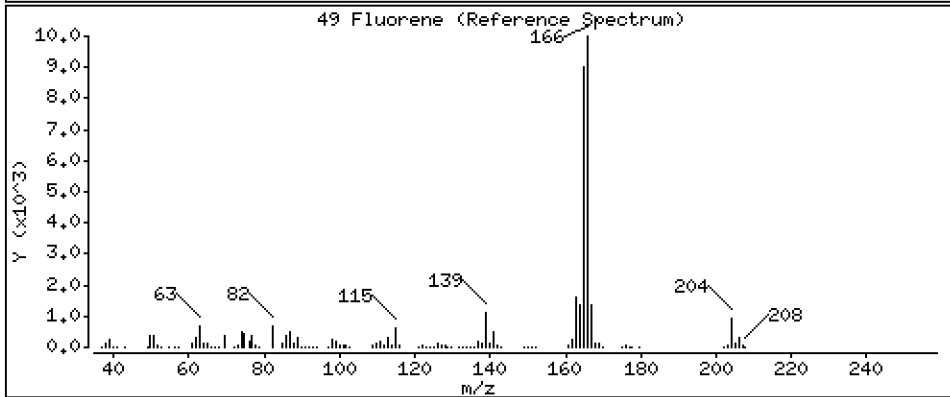
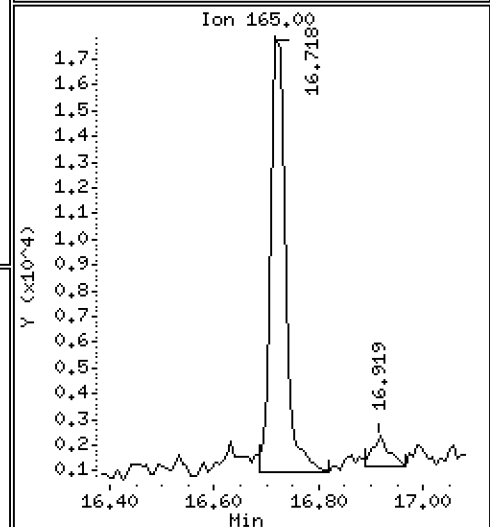
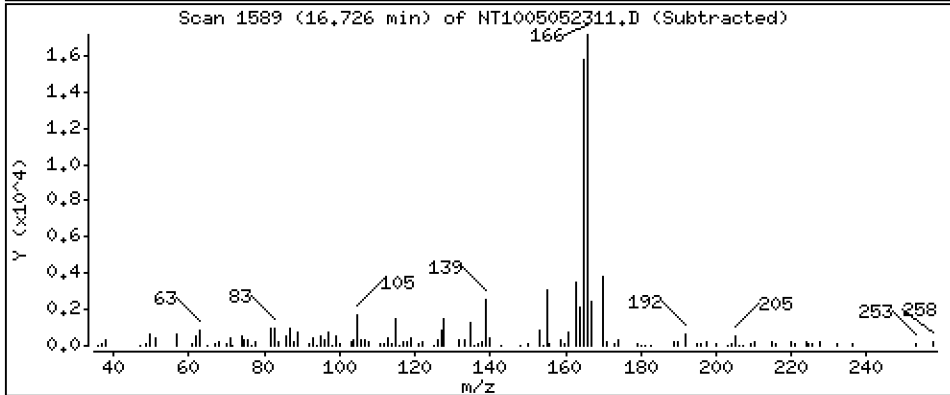
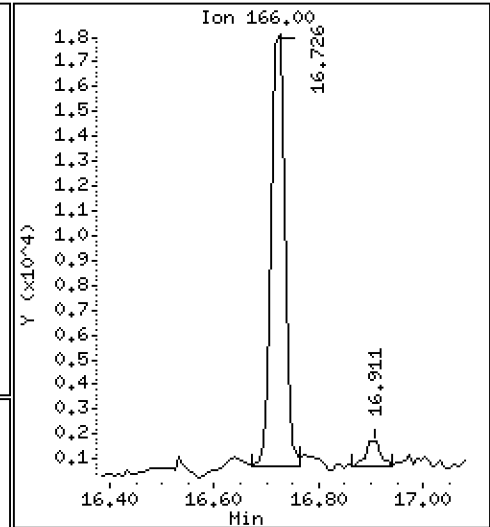
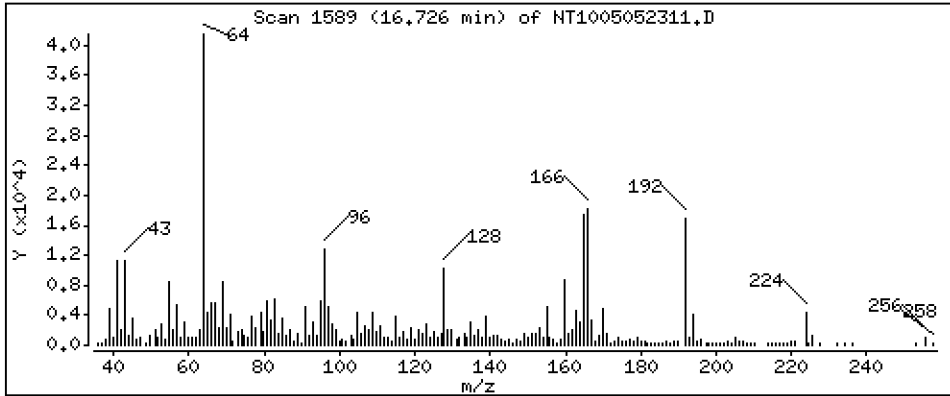
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.2149 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

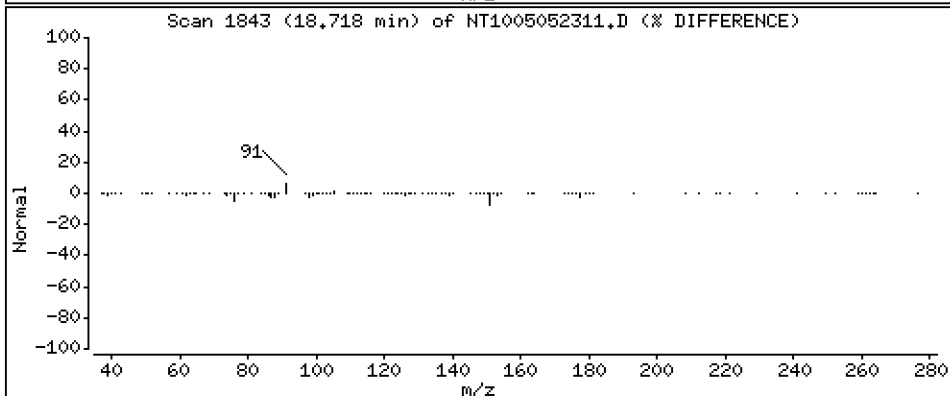
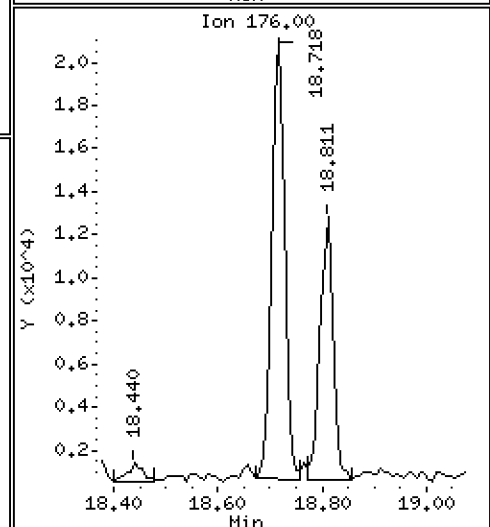
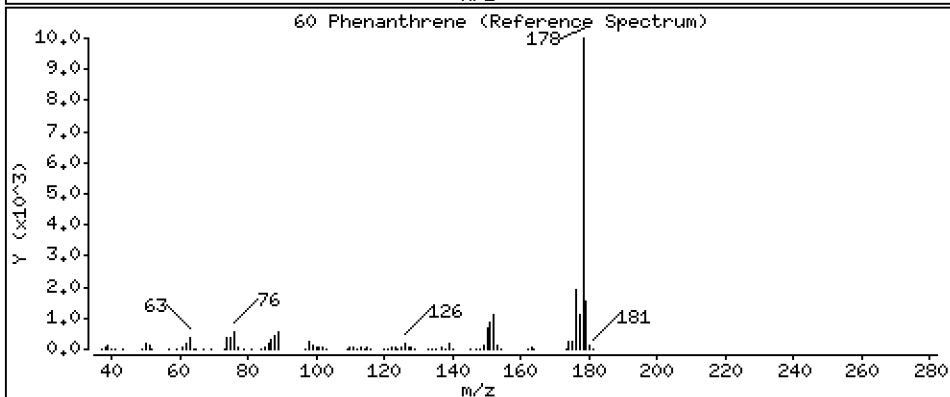
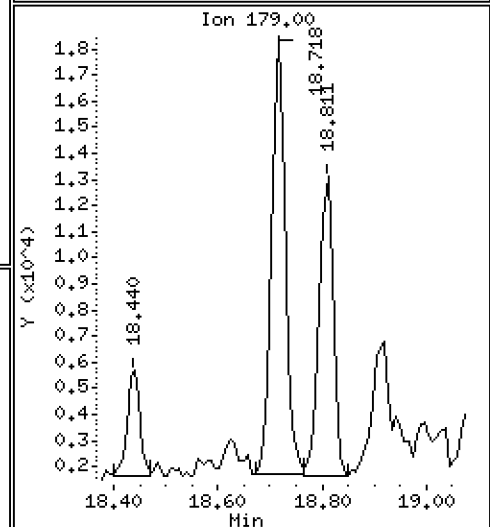
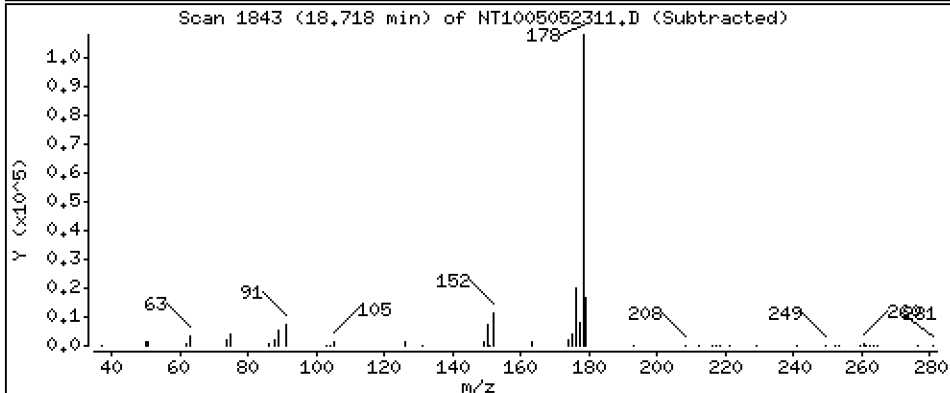
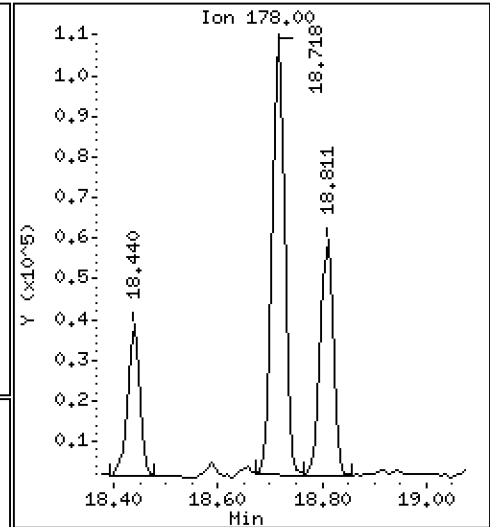
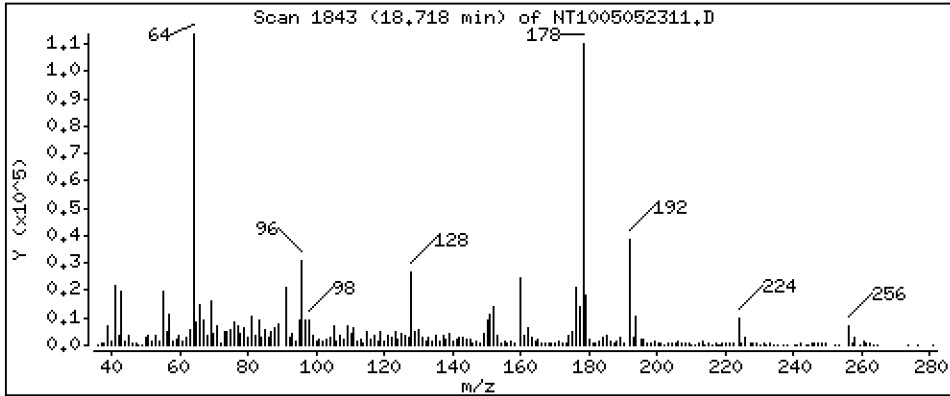
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,8677 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

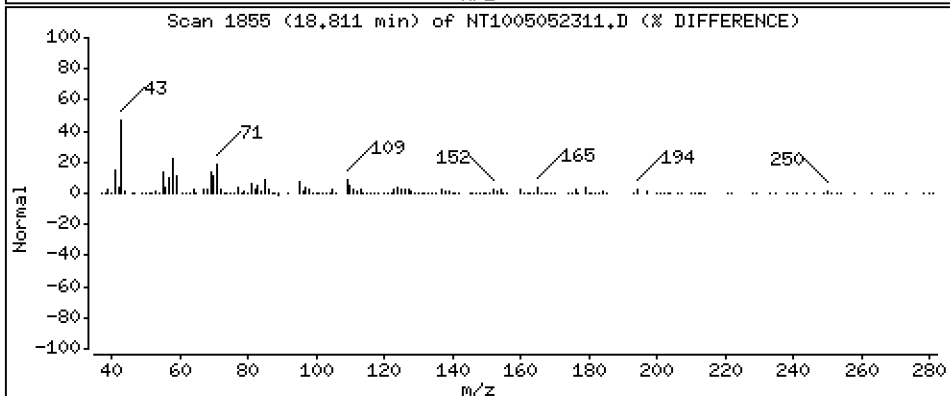
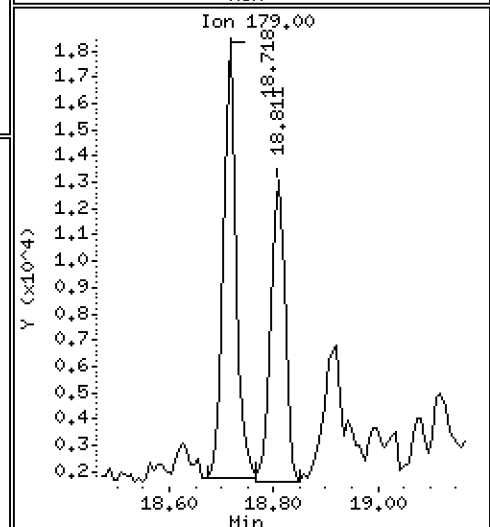
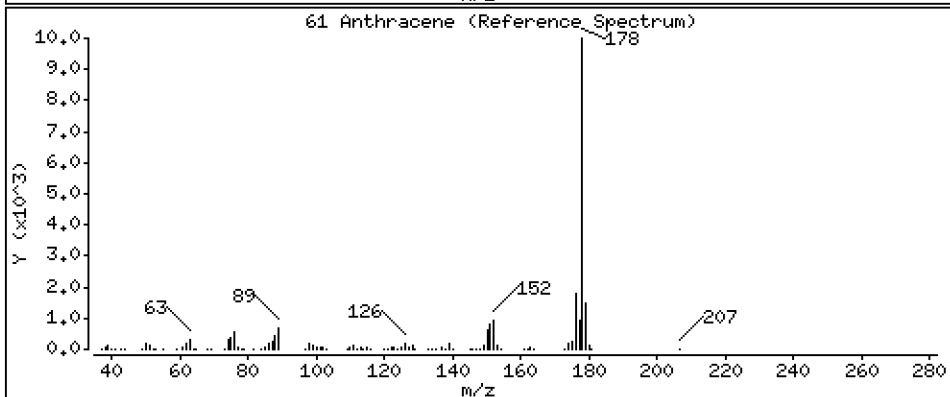
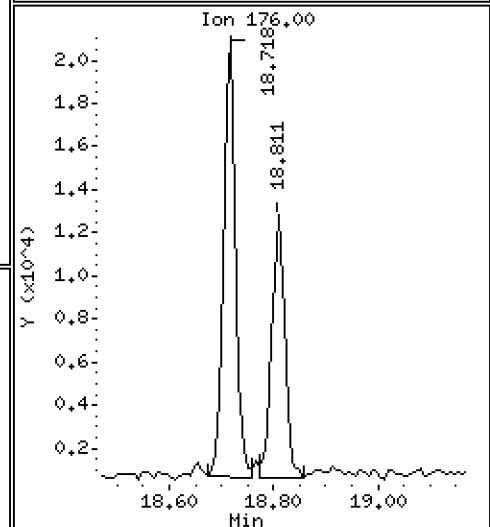
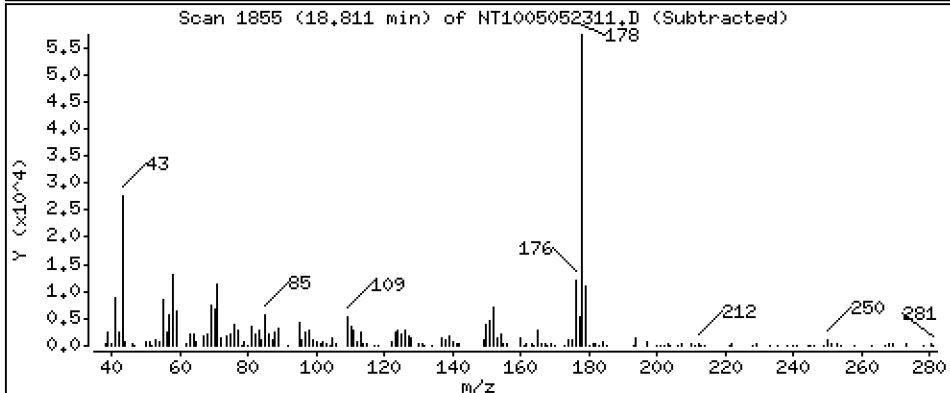
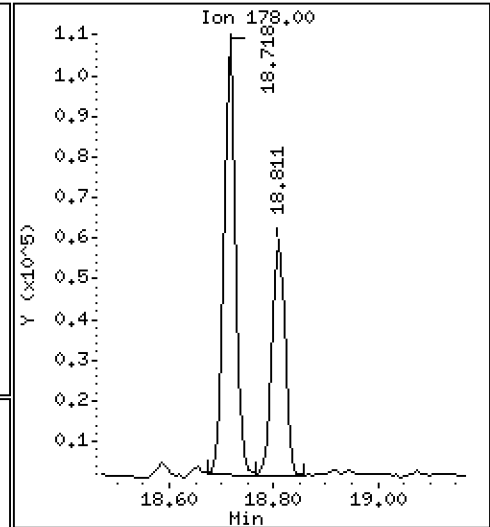
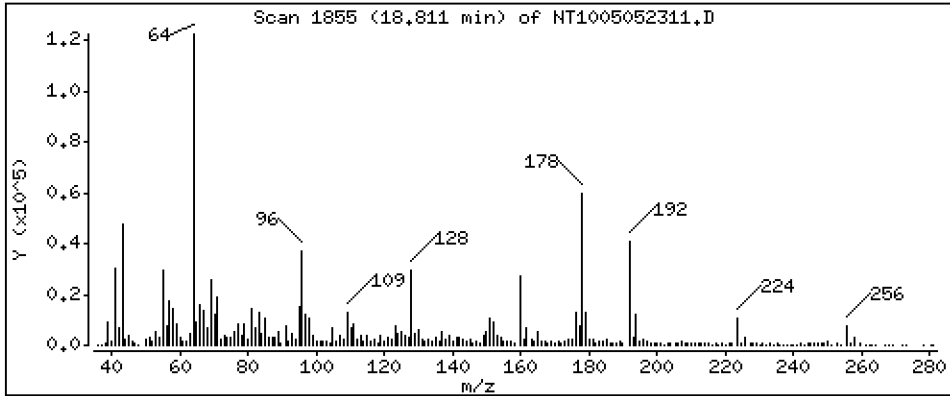
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5336 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

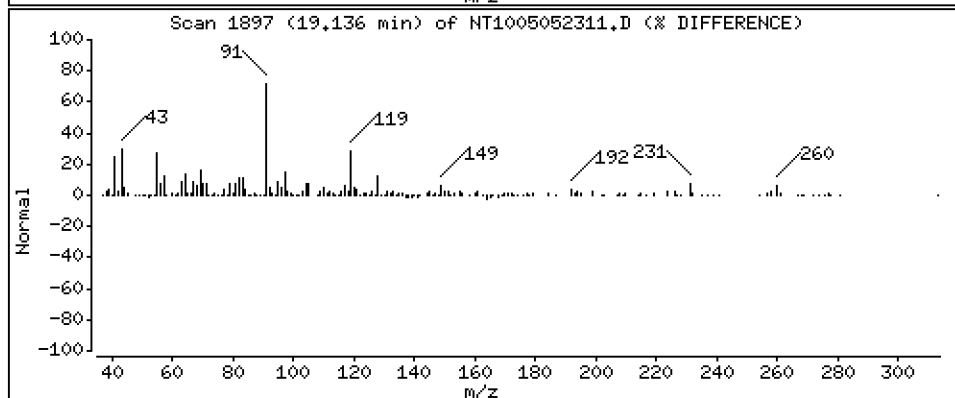
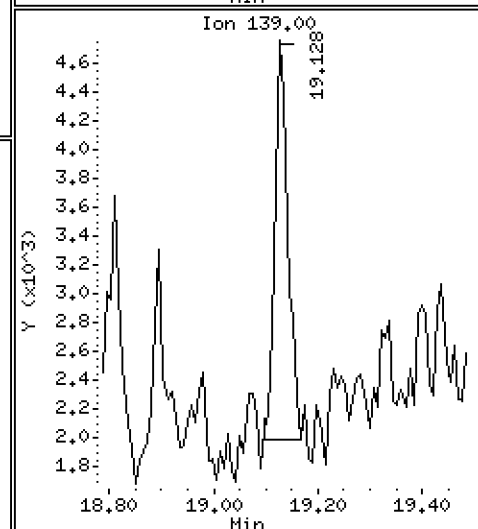
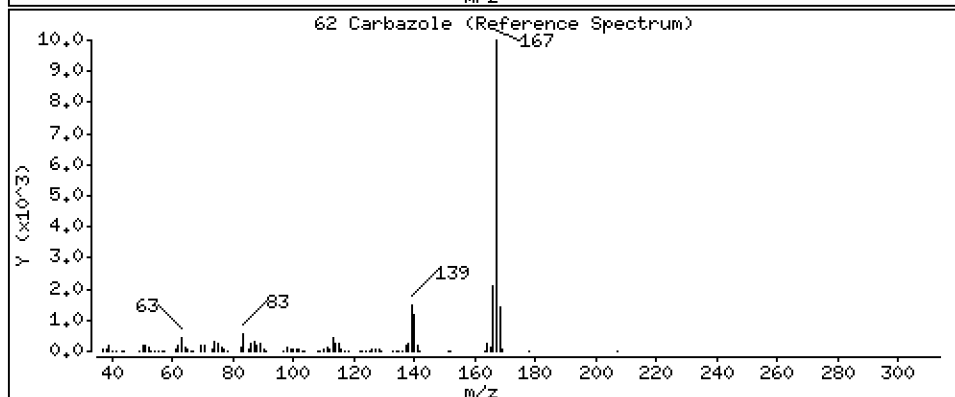
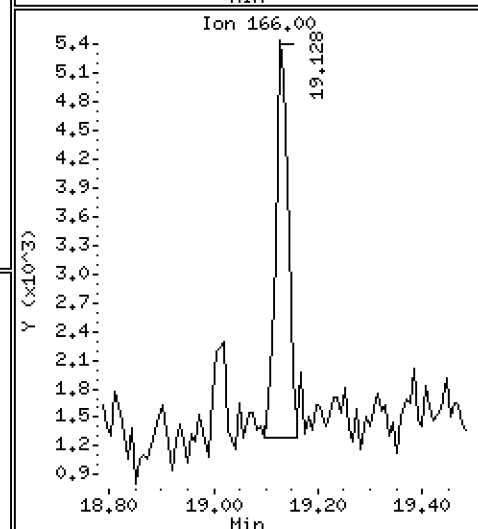
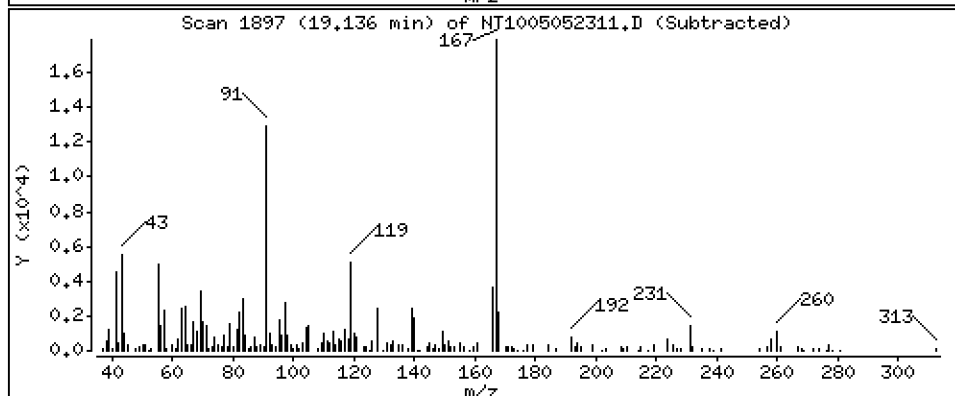
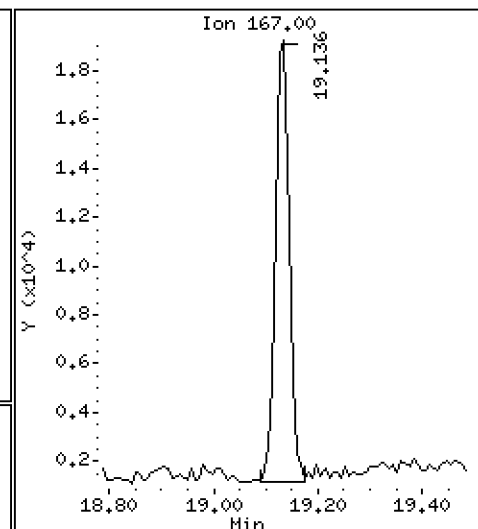
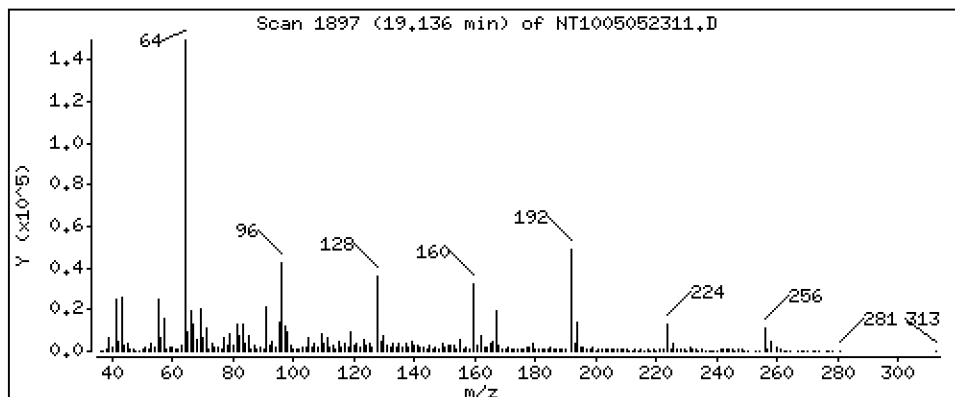
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,1994 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

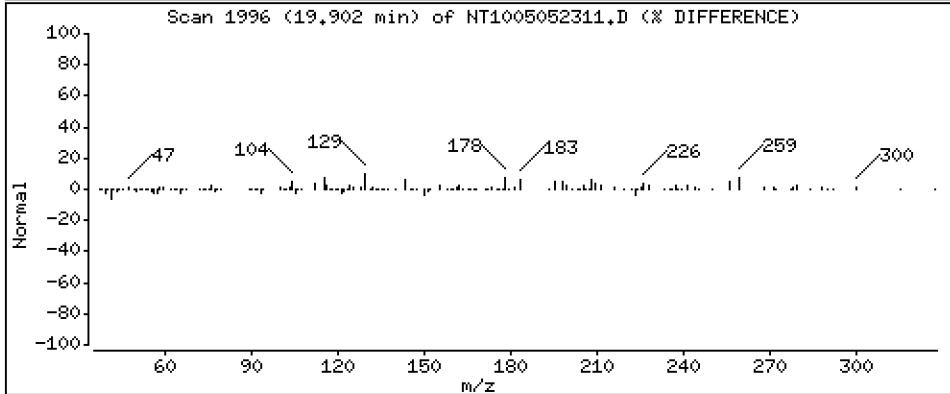
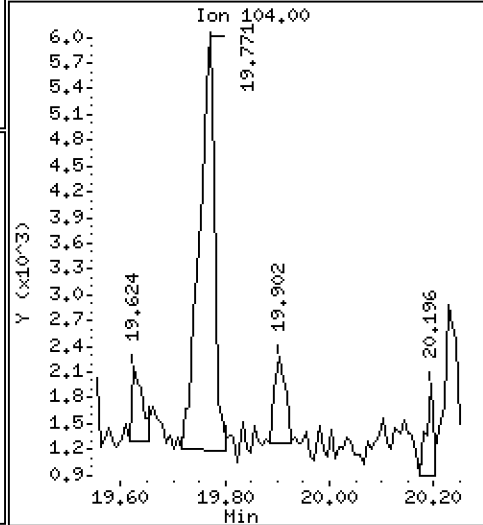
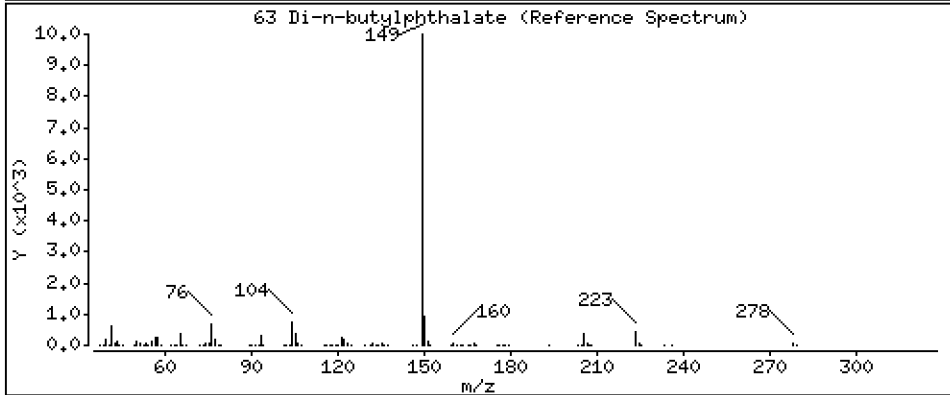
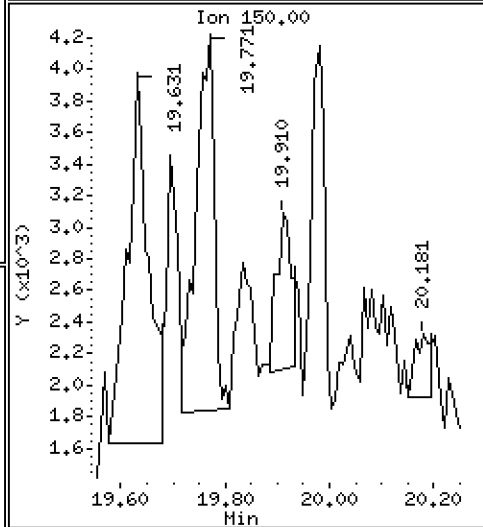
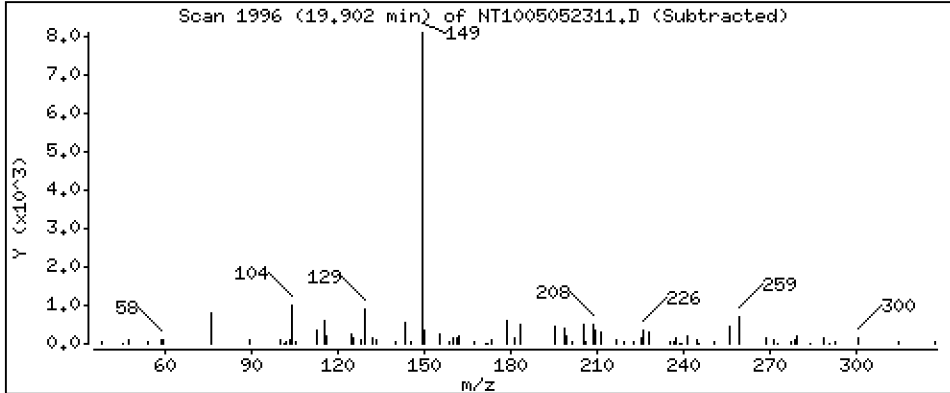
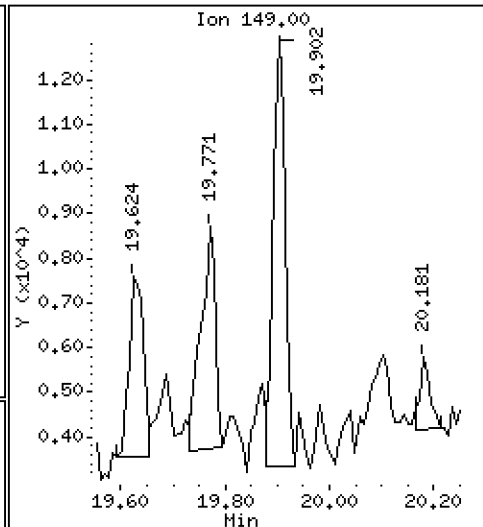
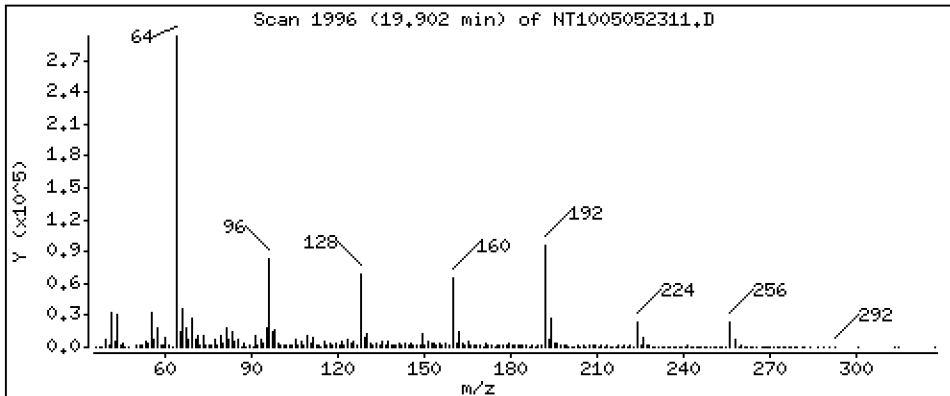
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.06155 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

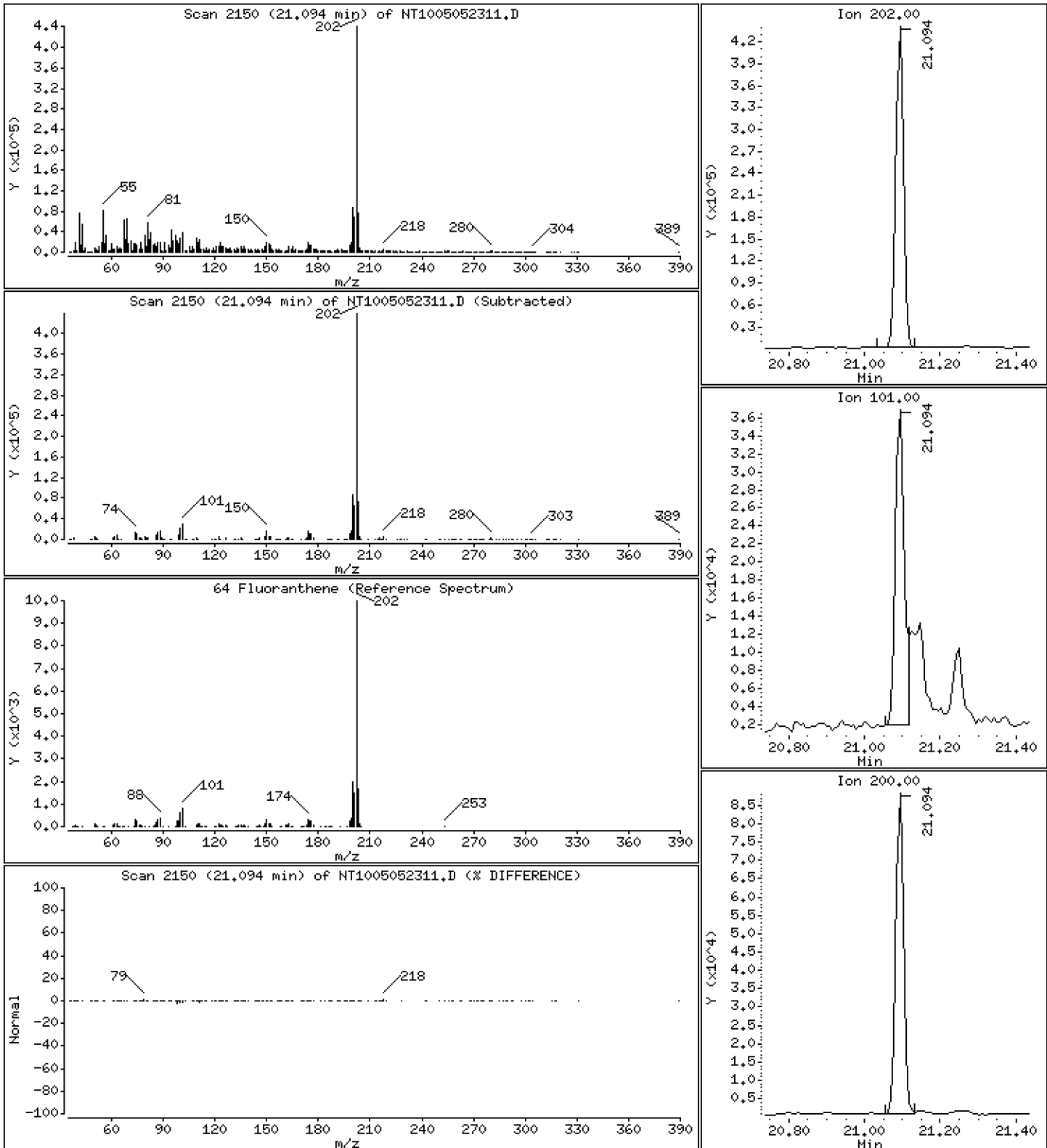
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 2,687 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

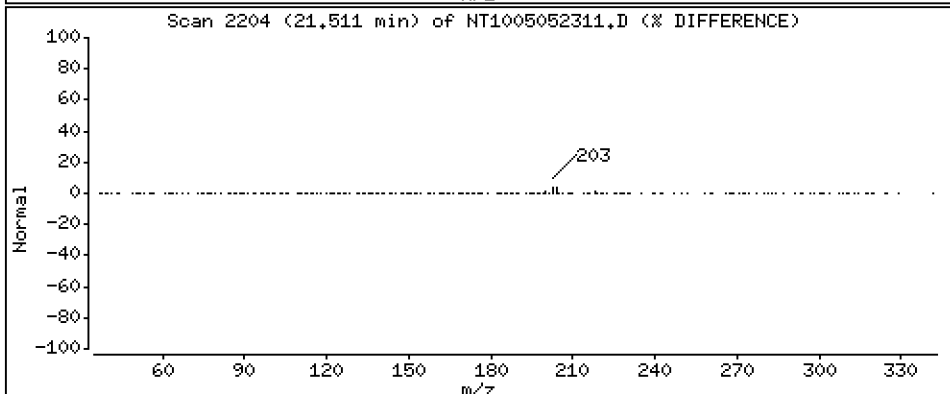
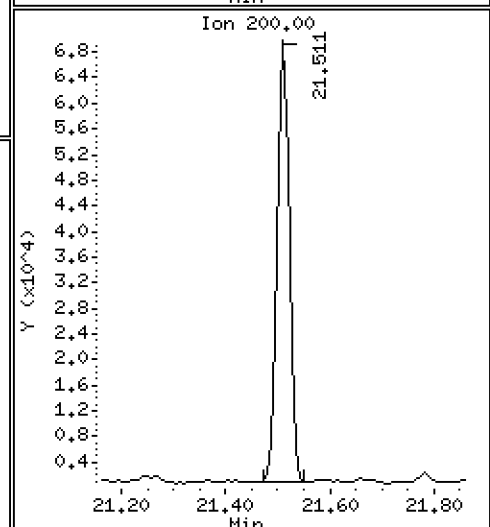
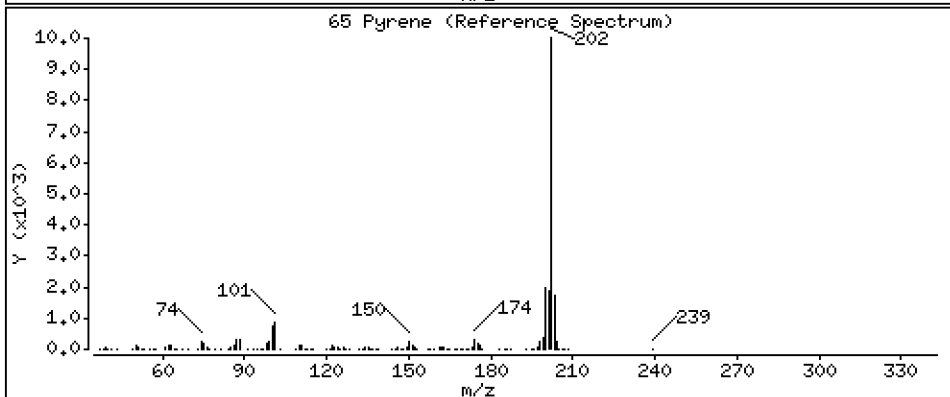
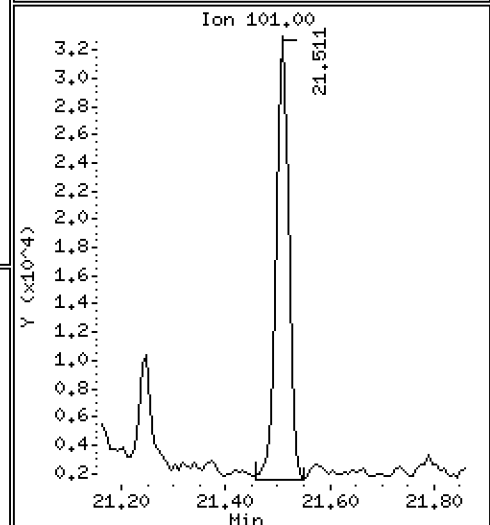
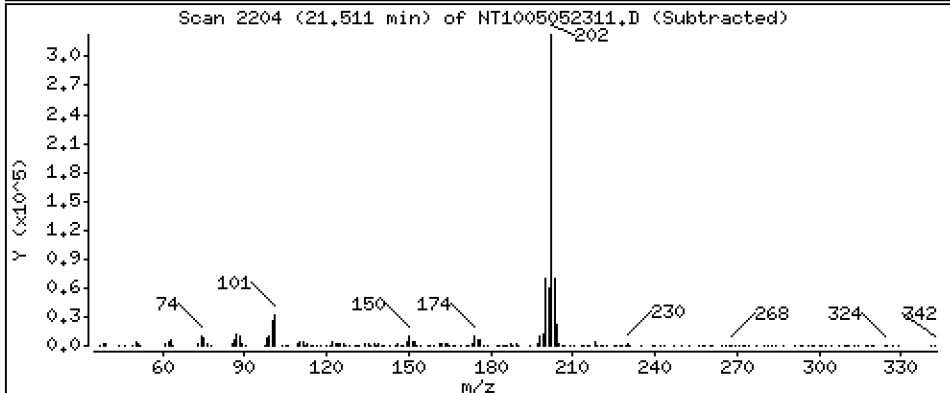
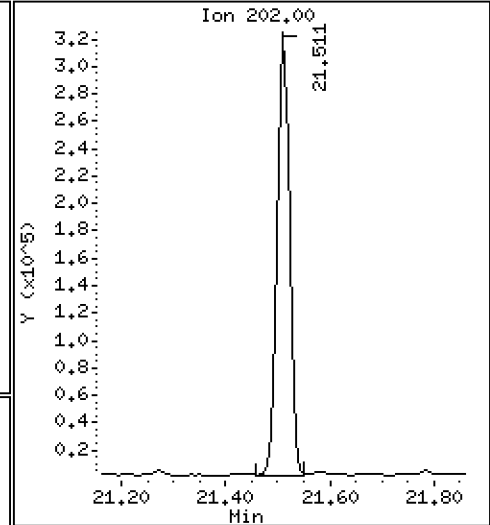
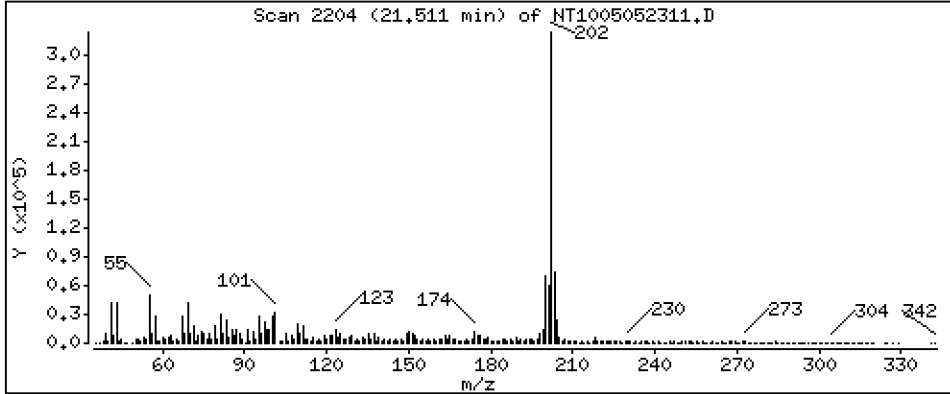
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 2,327 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

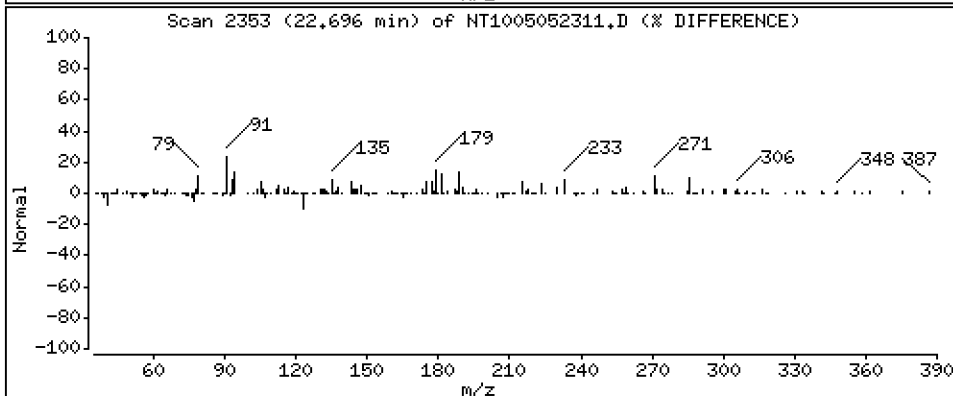
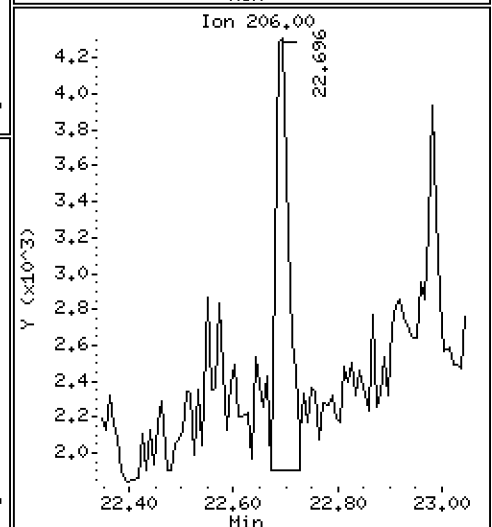
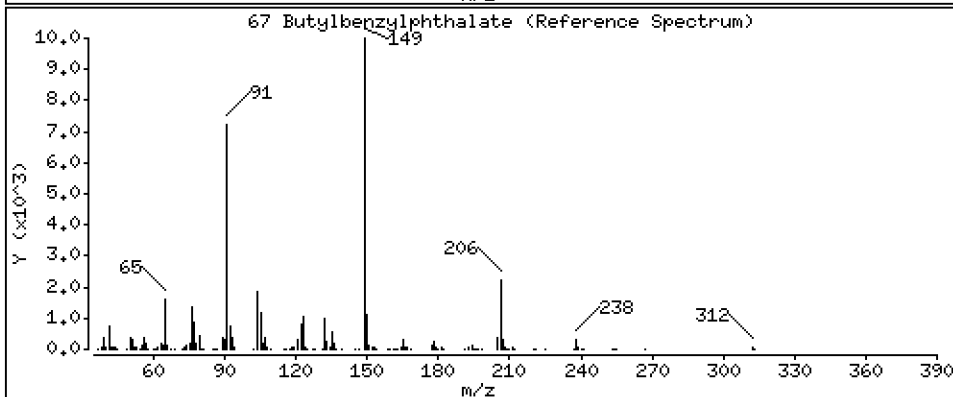
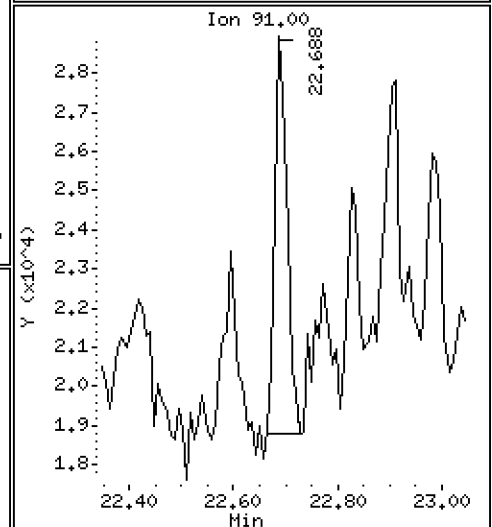
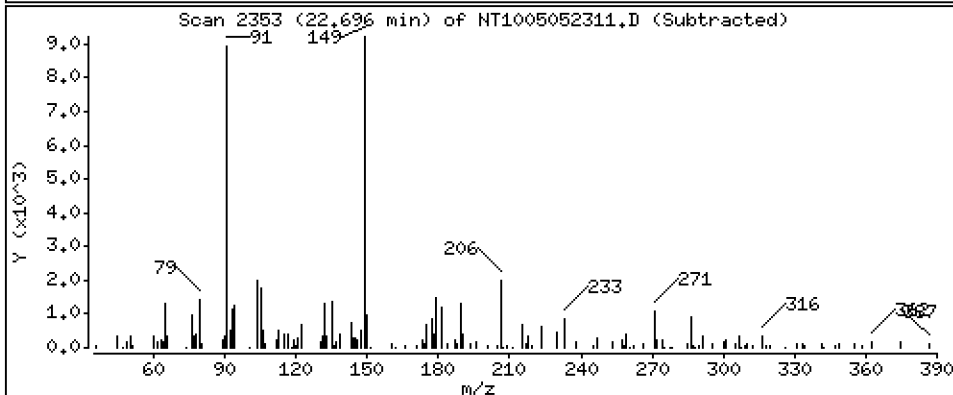
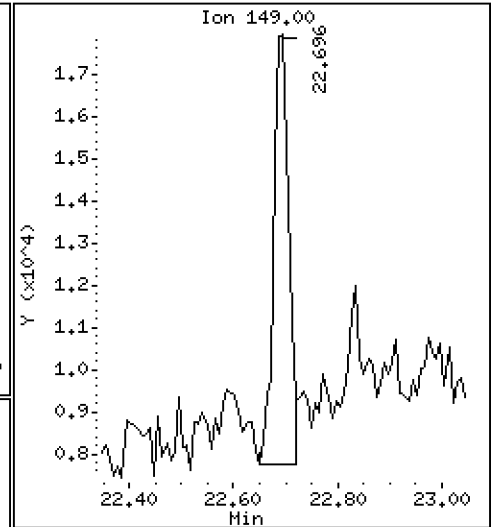
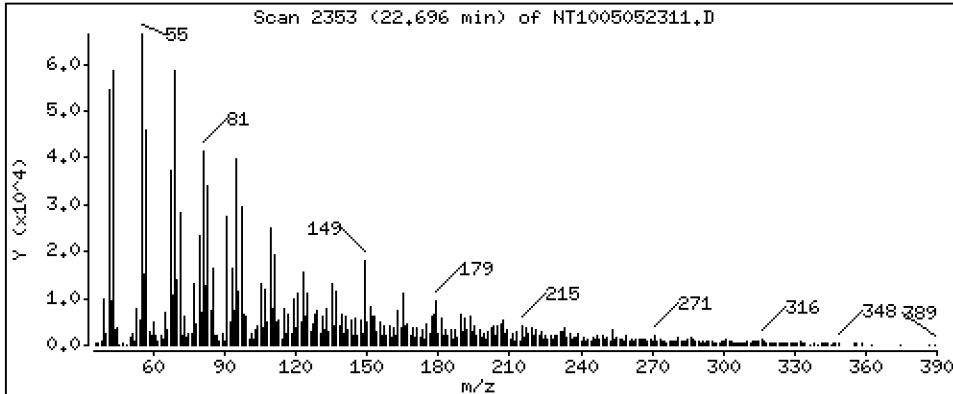
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.1971 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

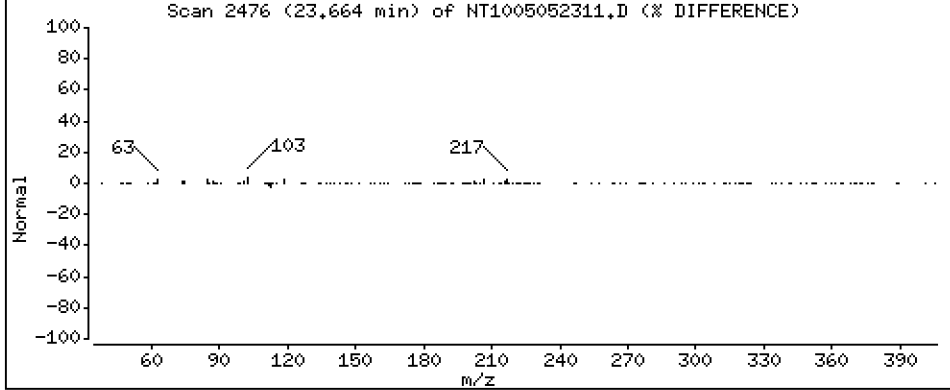
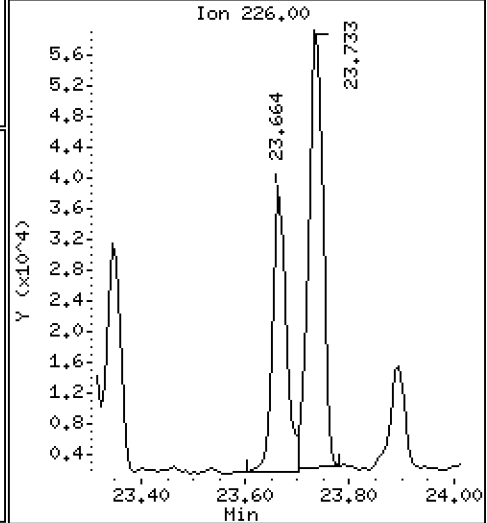
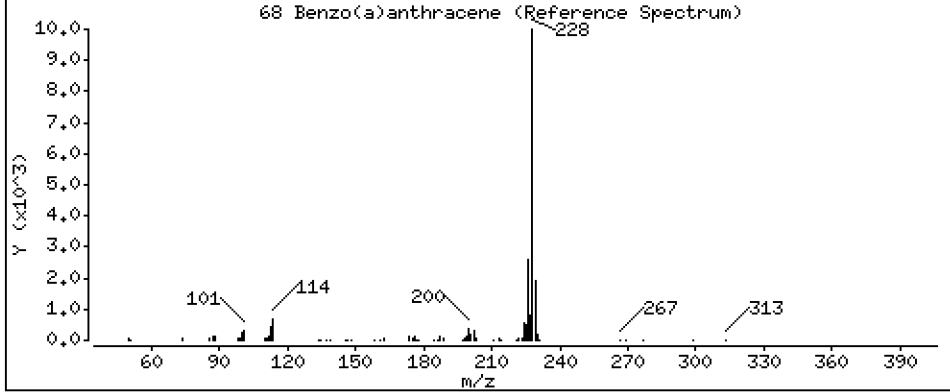
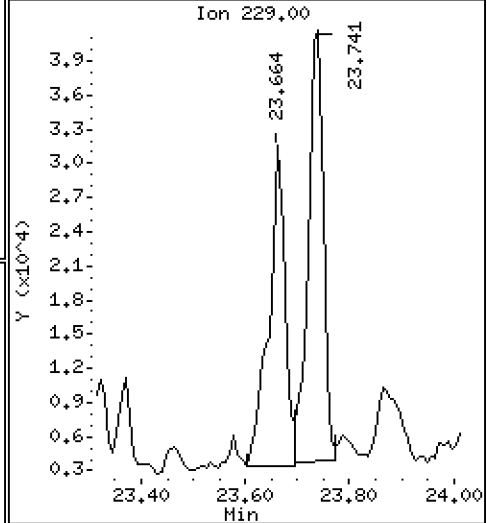
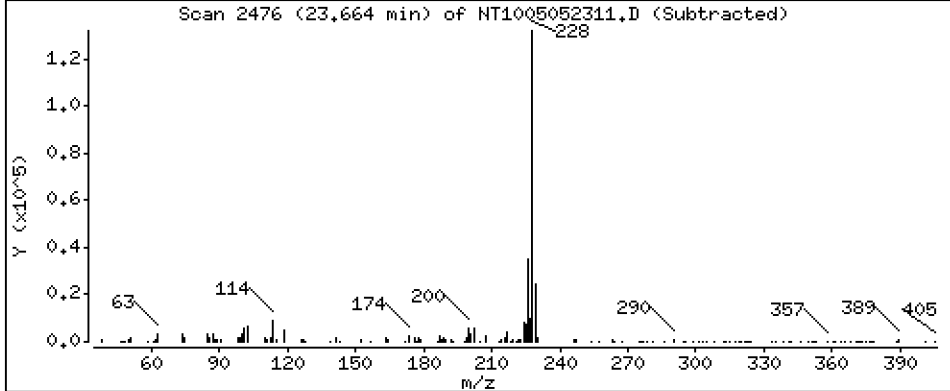
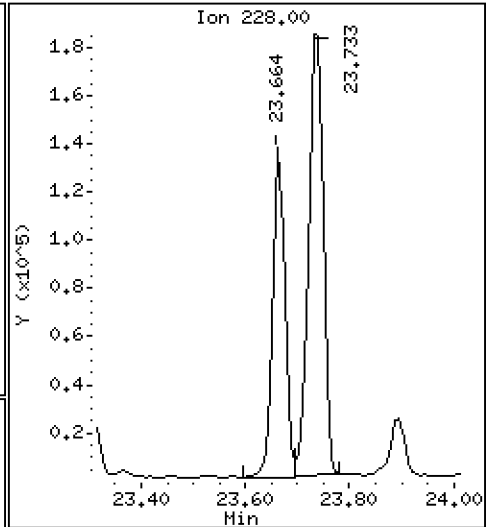
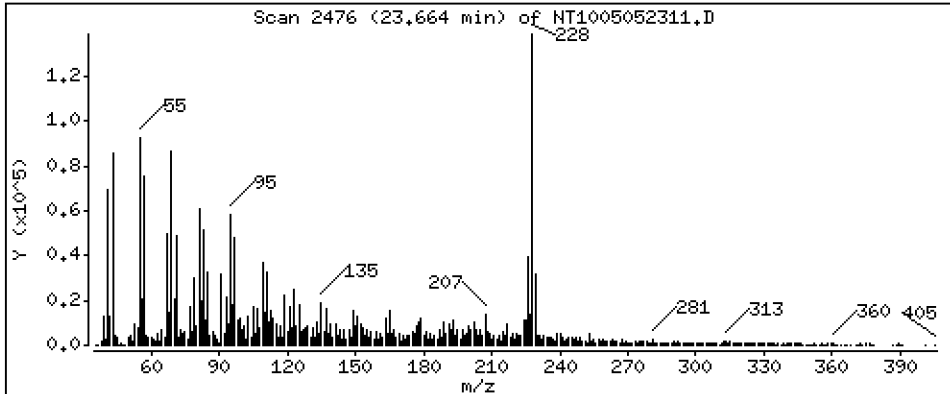
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 1,103 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

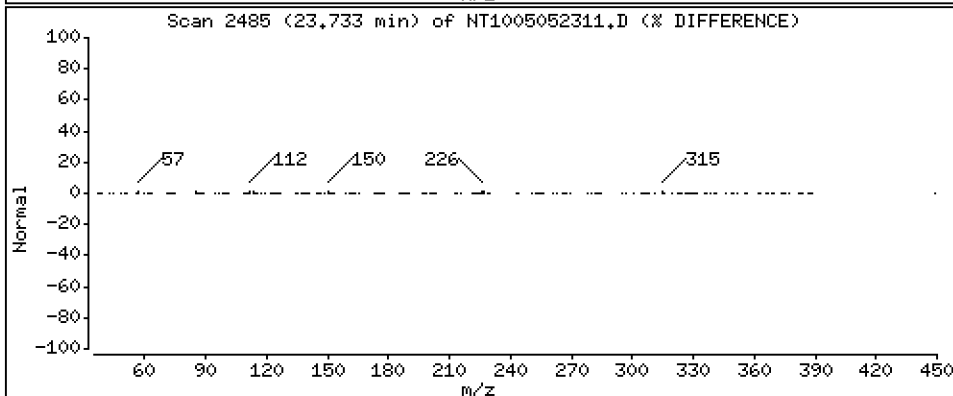
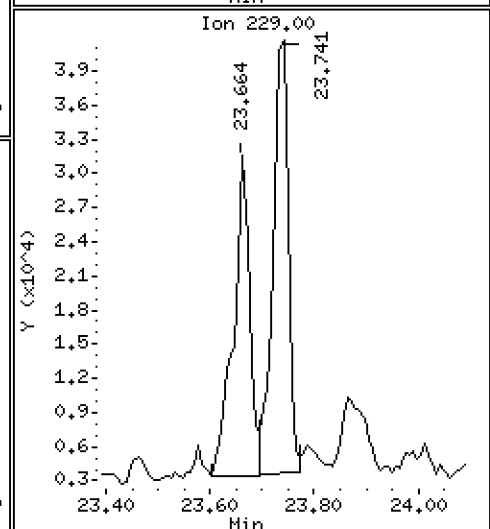
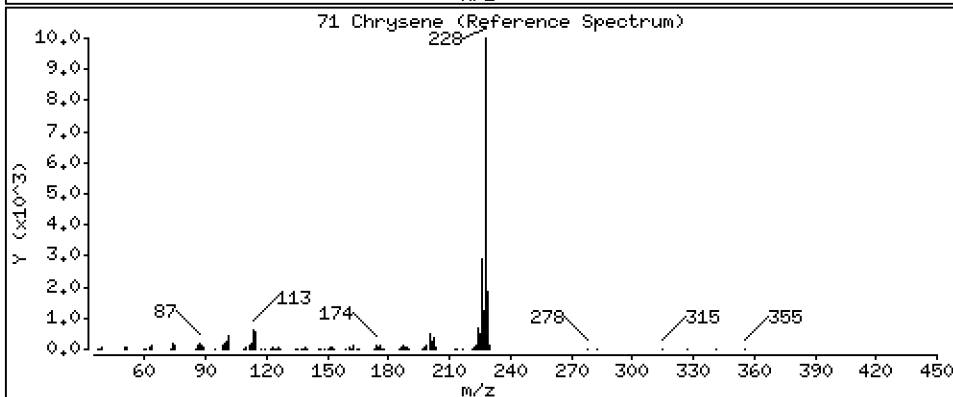
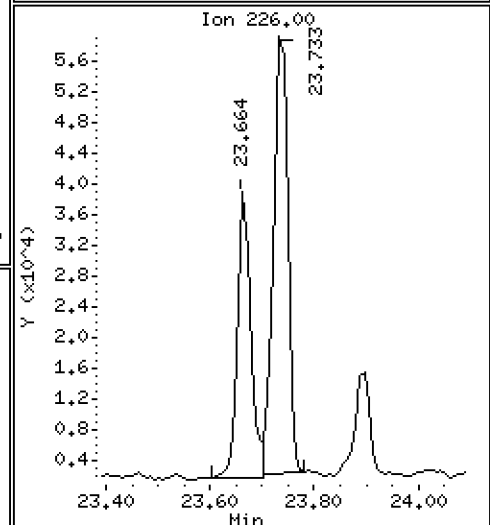
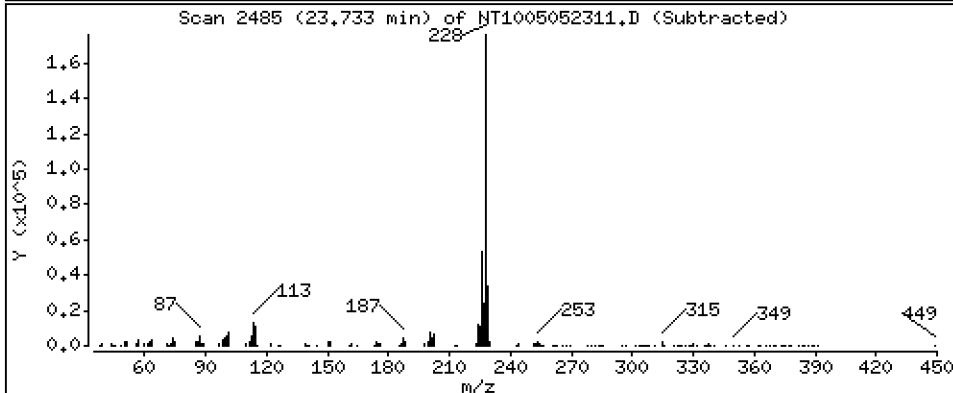
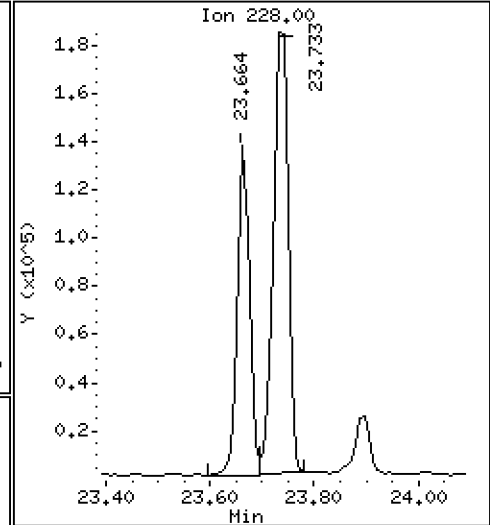
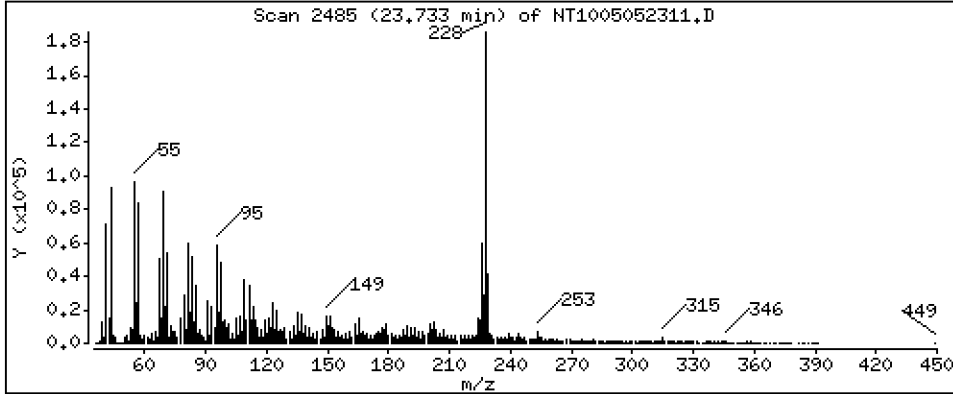
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 2,033 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

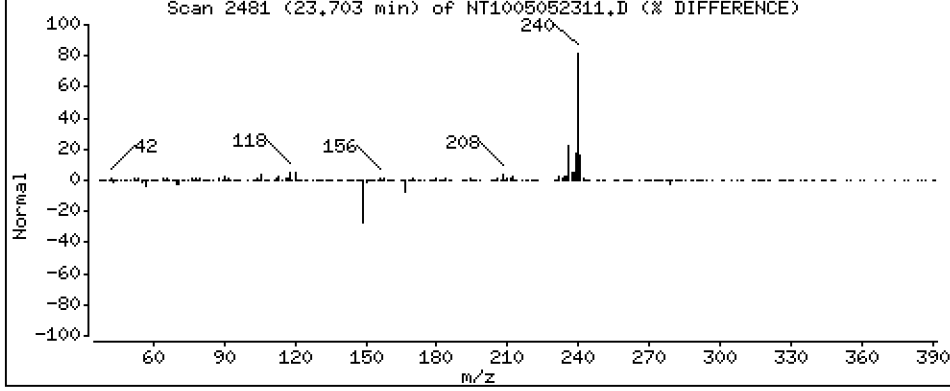
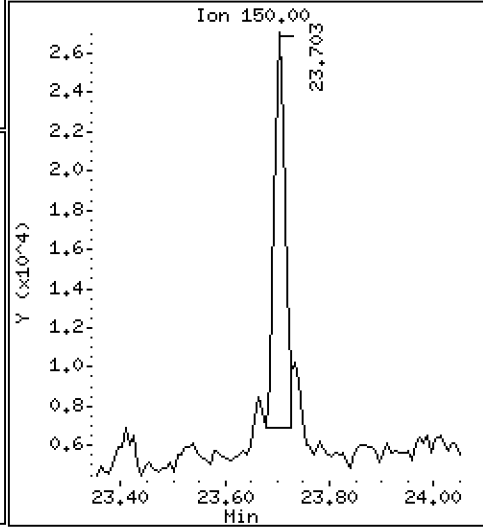
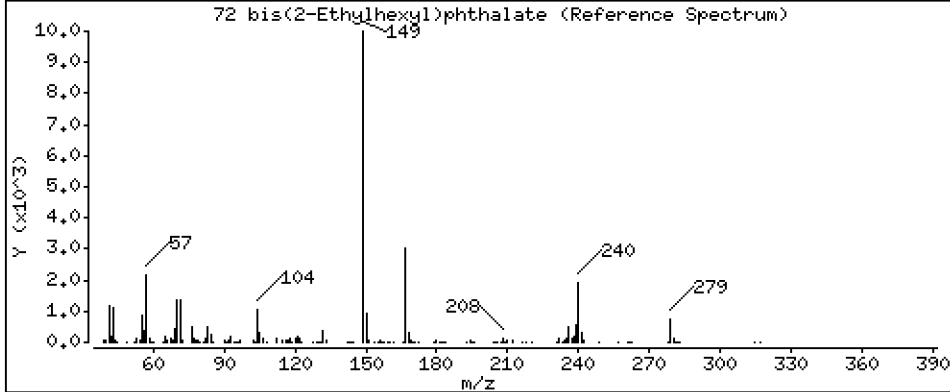
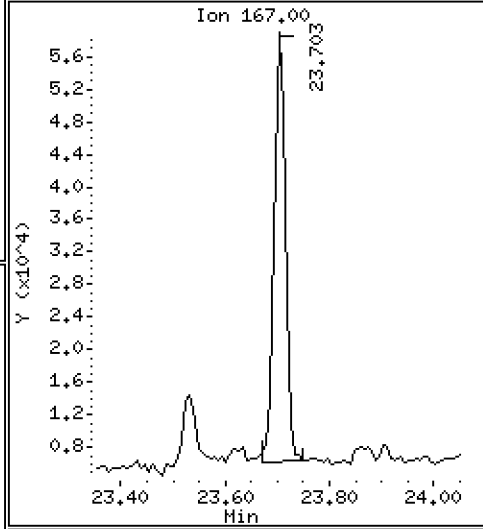
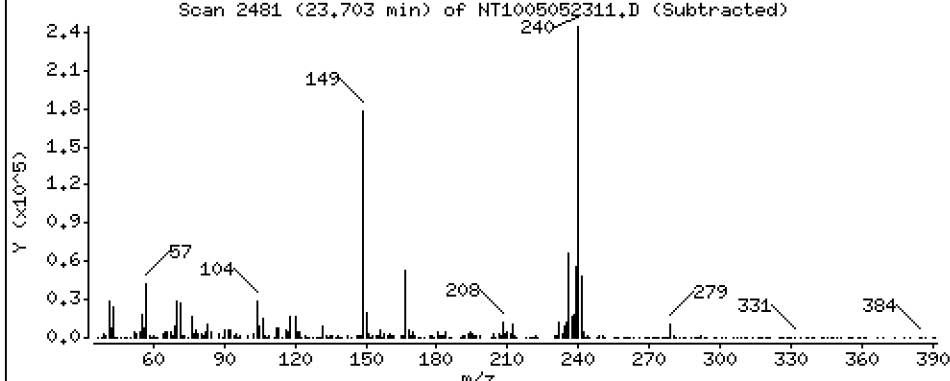
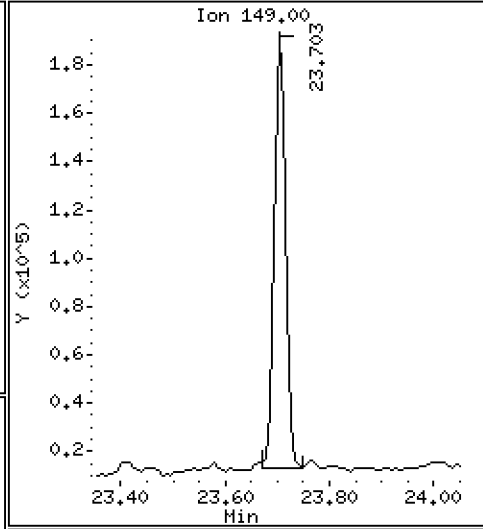
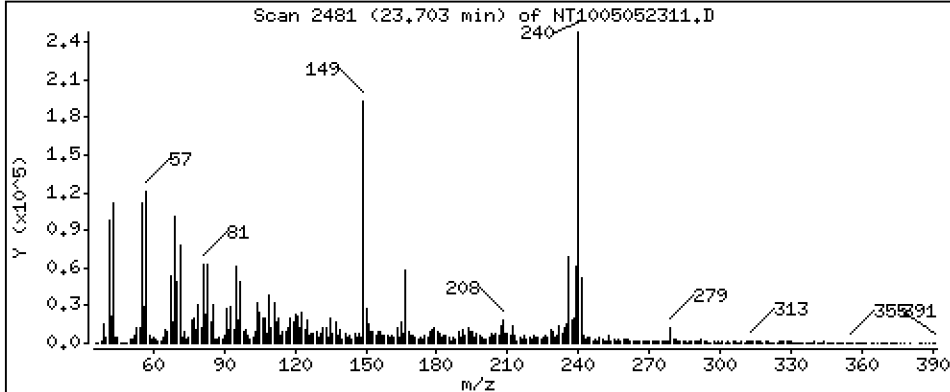
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 1,855 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

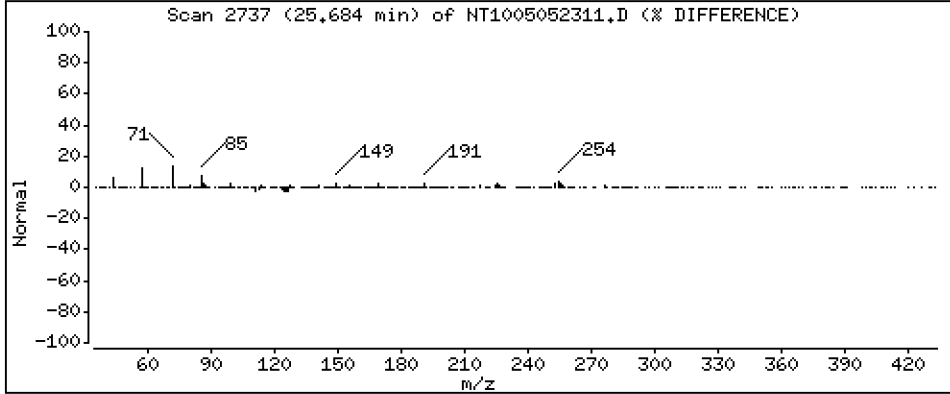
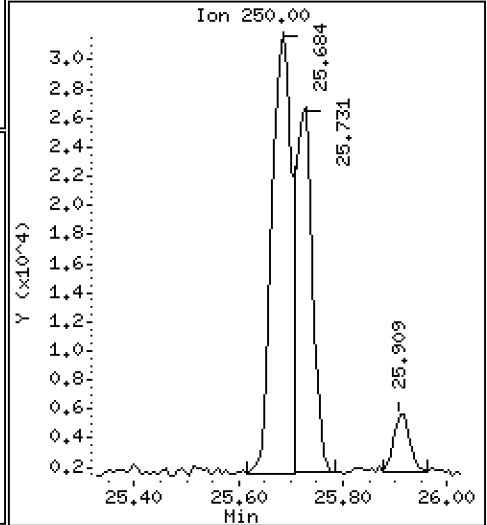
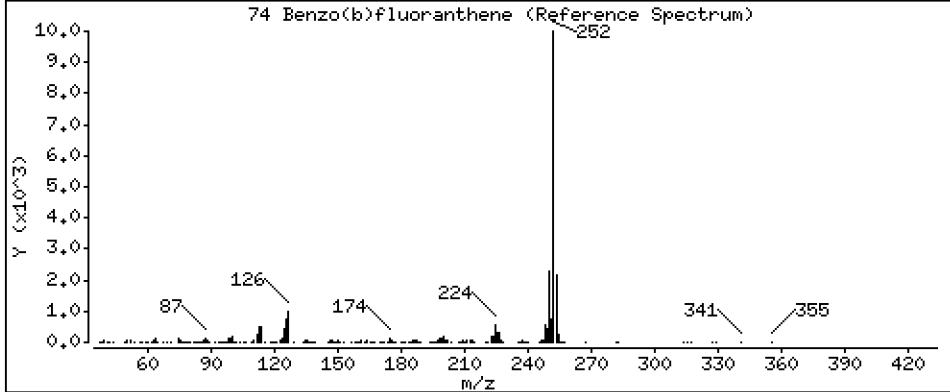
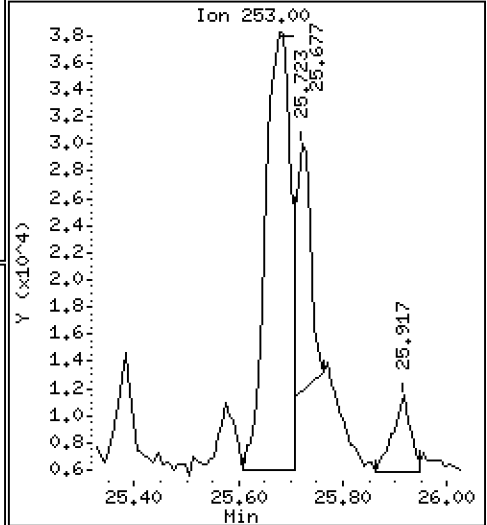
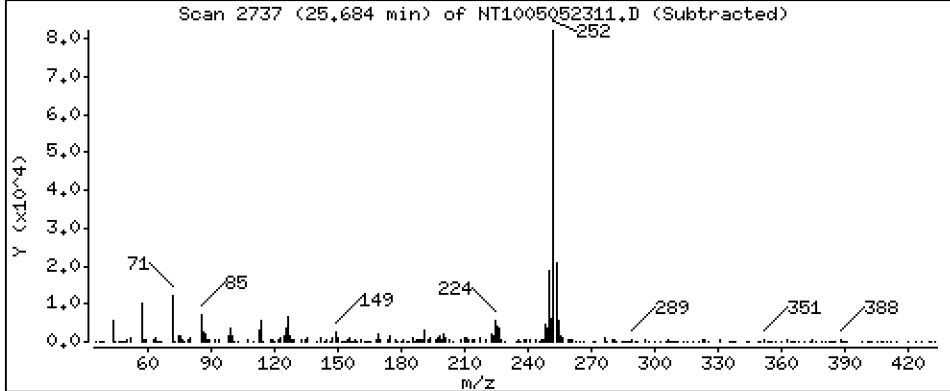
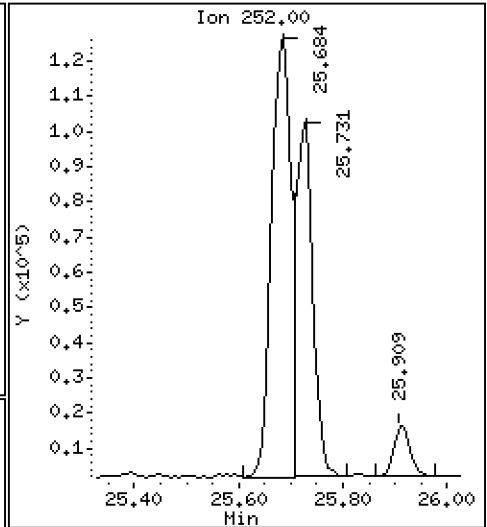
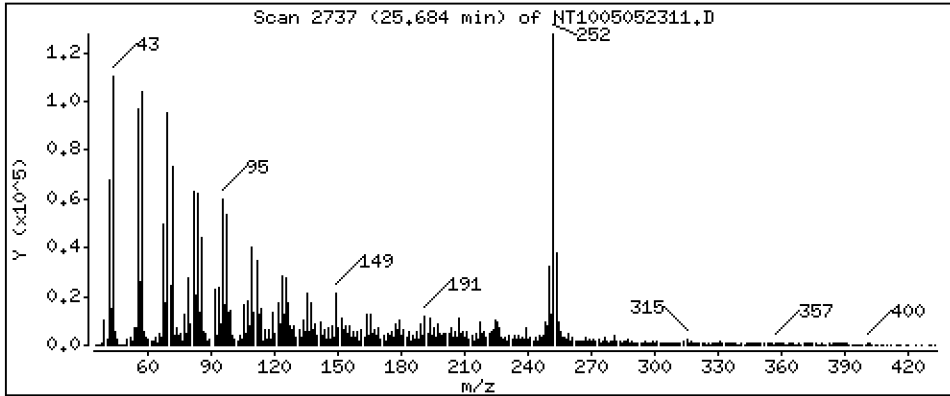
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 1,923 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

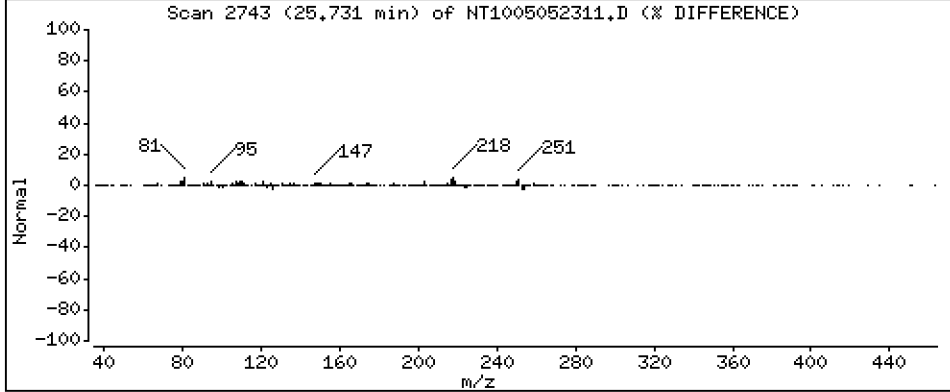
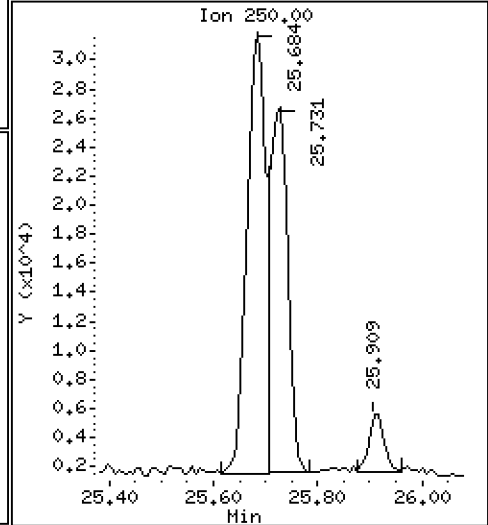
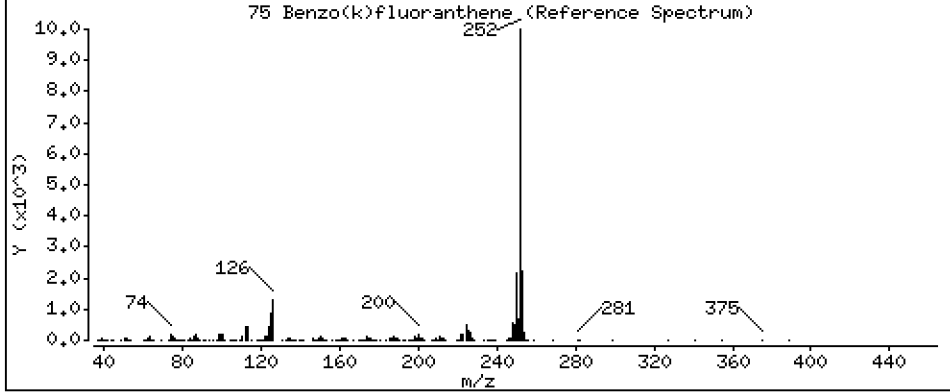
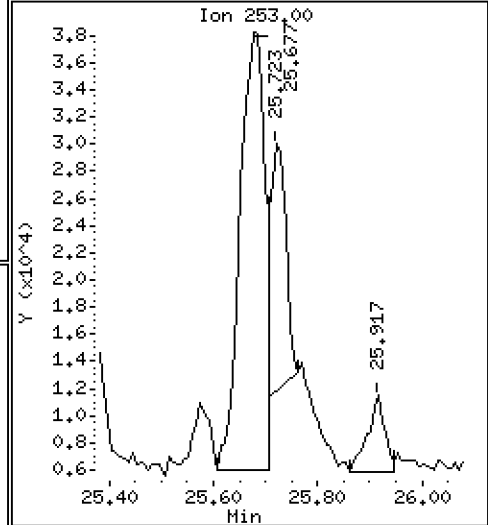
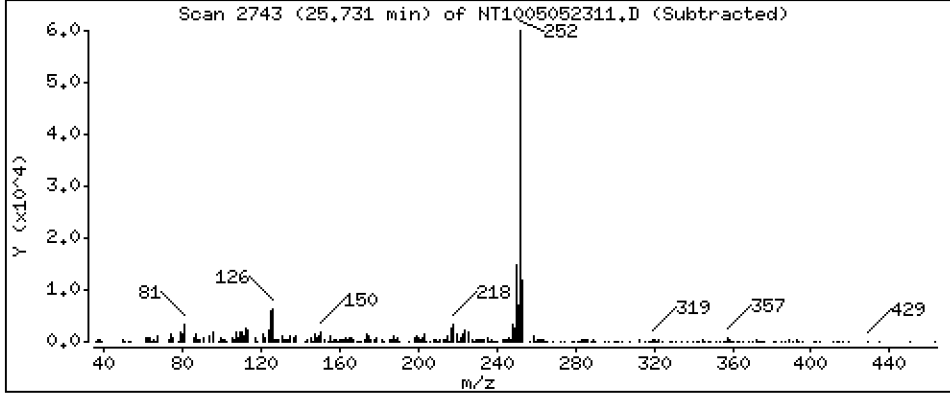
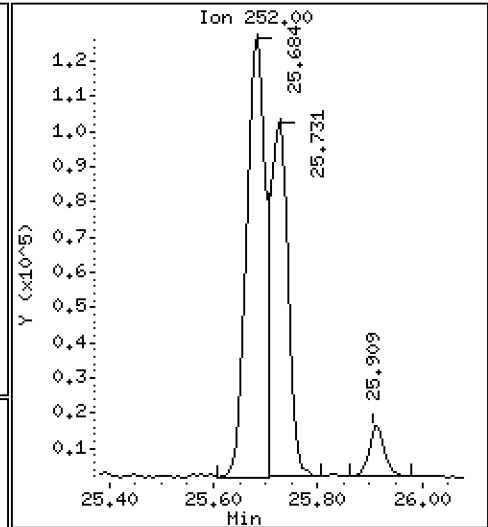
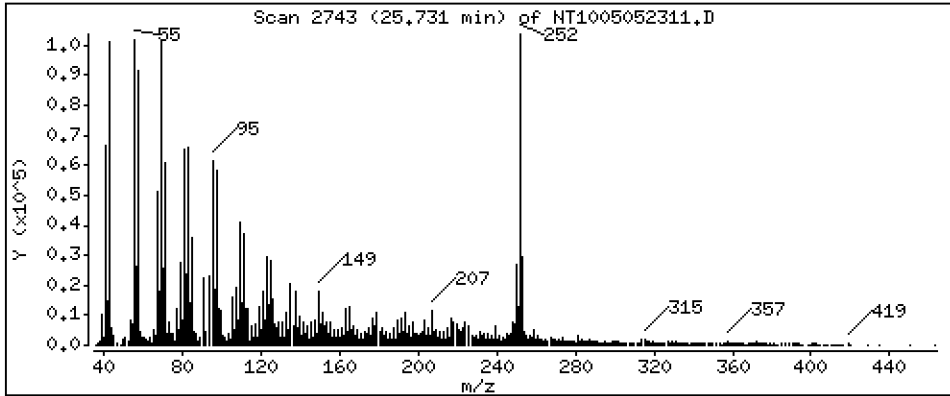
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 1,376 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

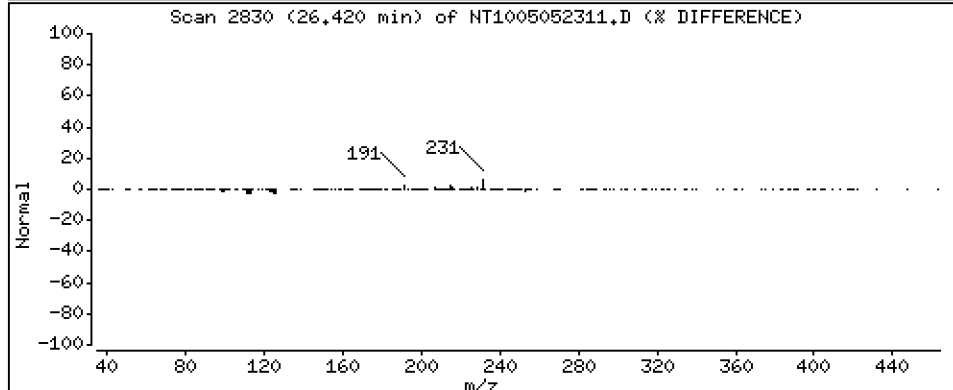
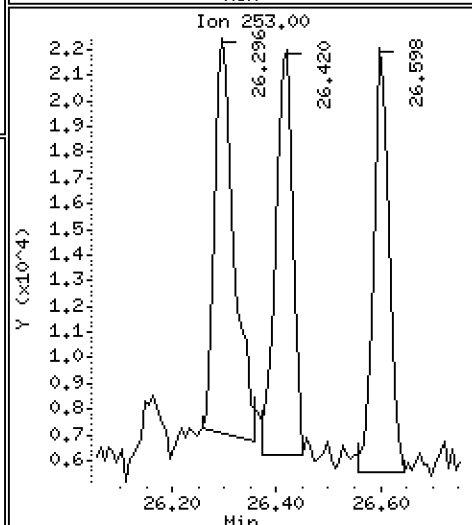
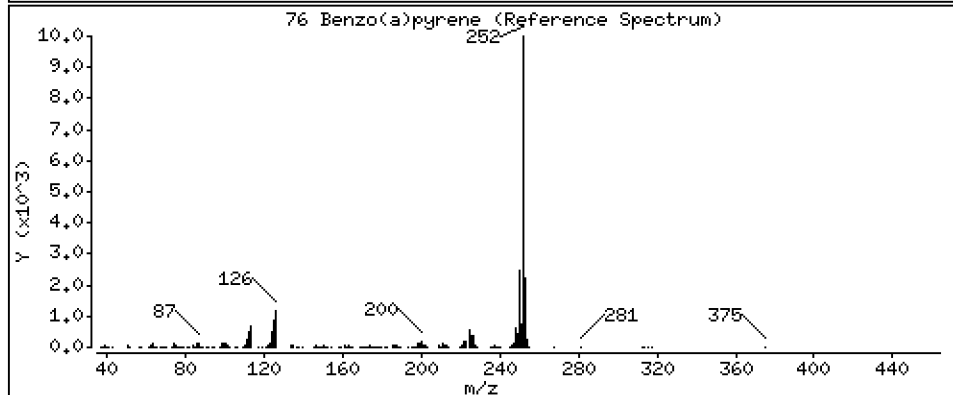
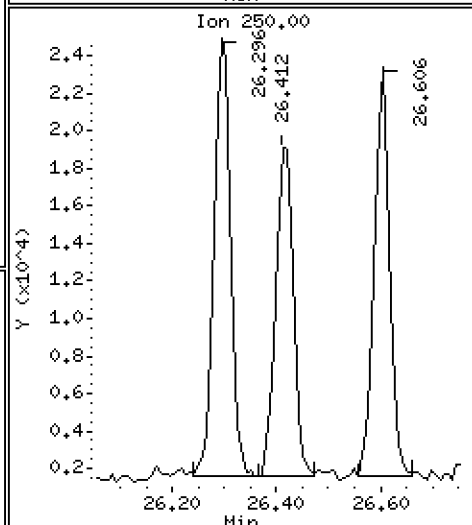
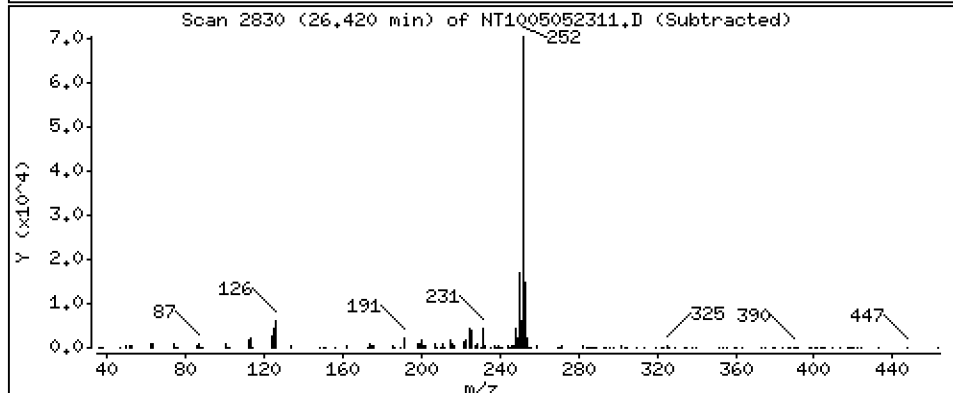
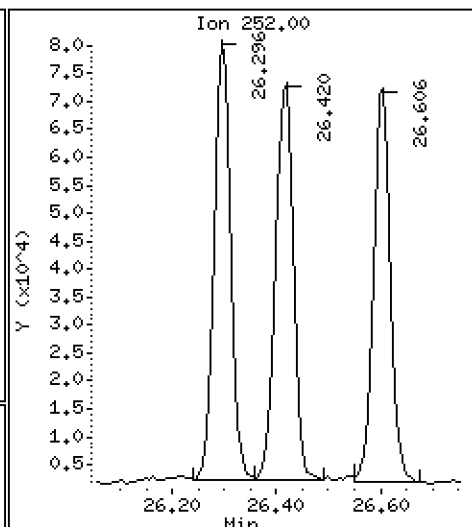
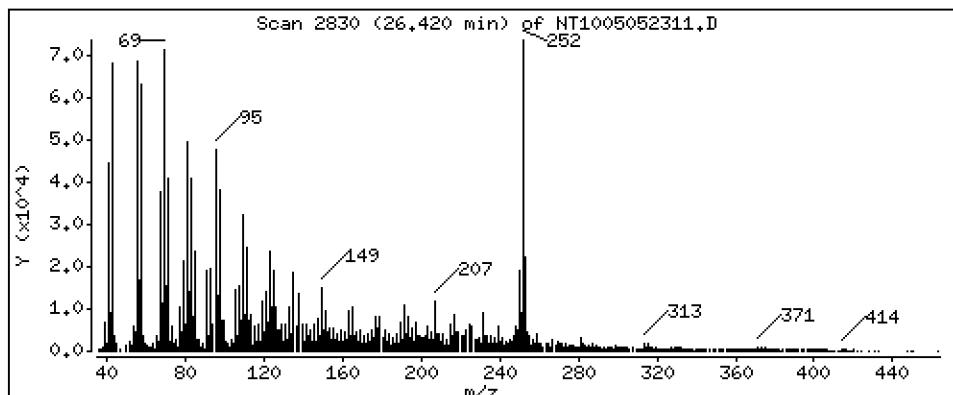
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 1,132 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

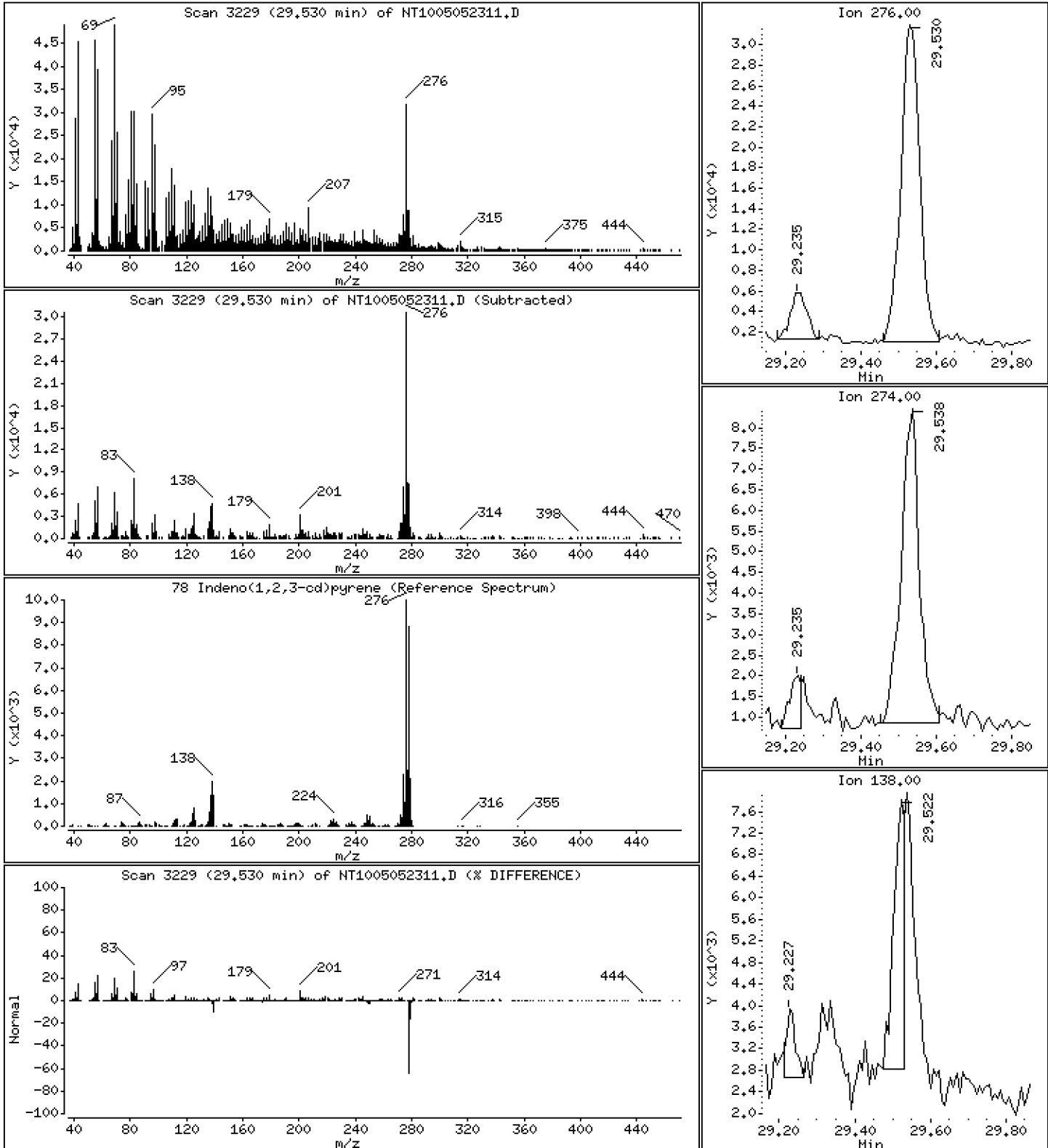
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,6299 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

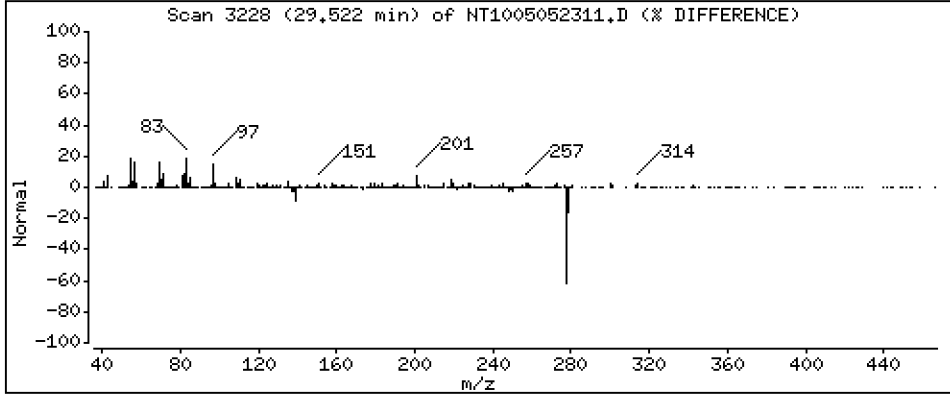
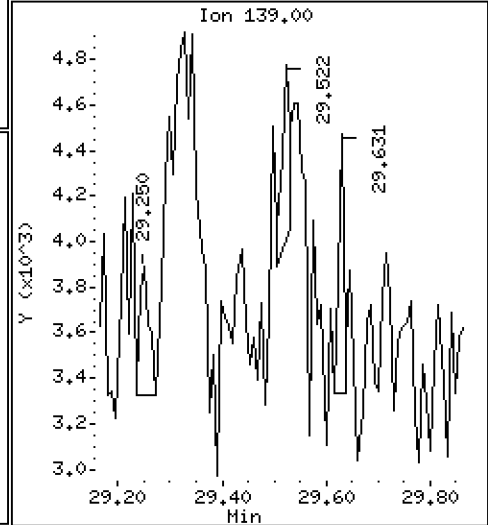
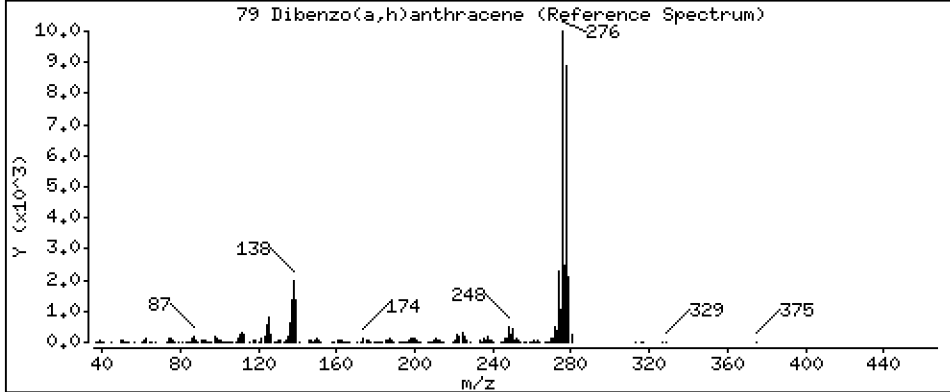
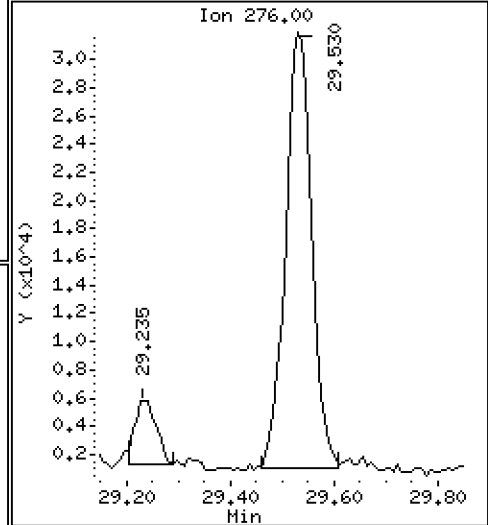
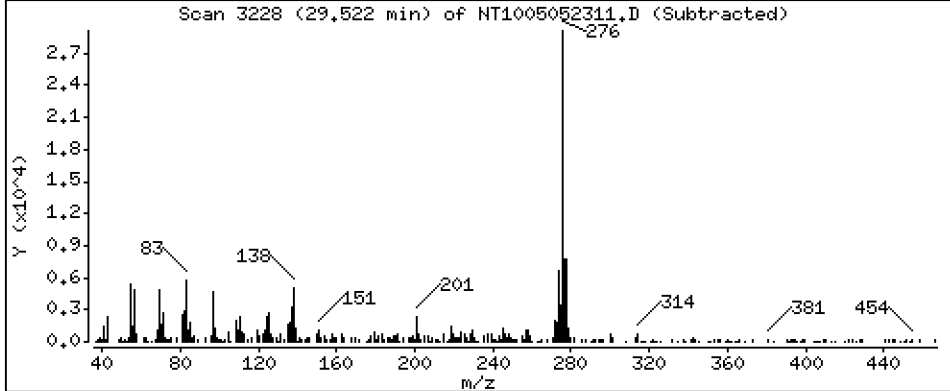
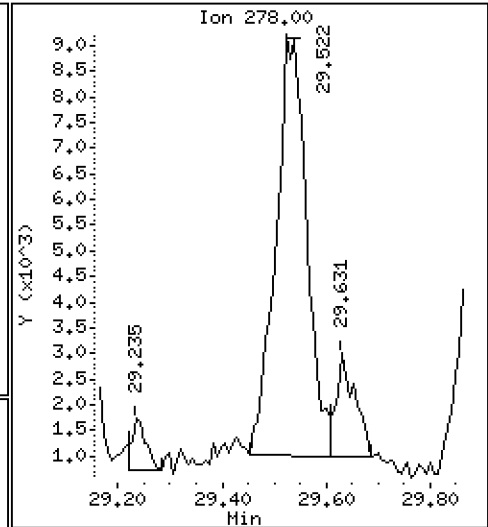
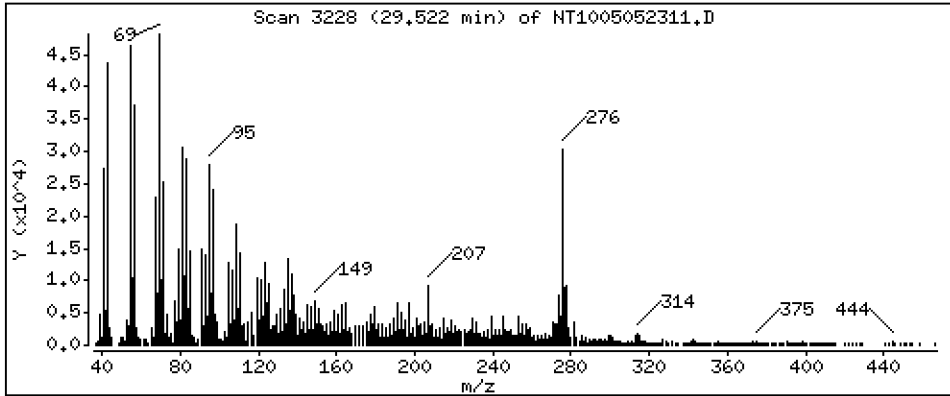
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,2350 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

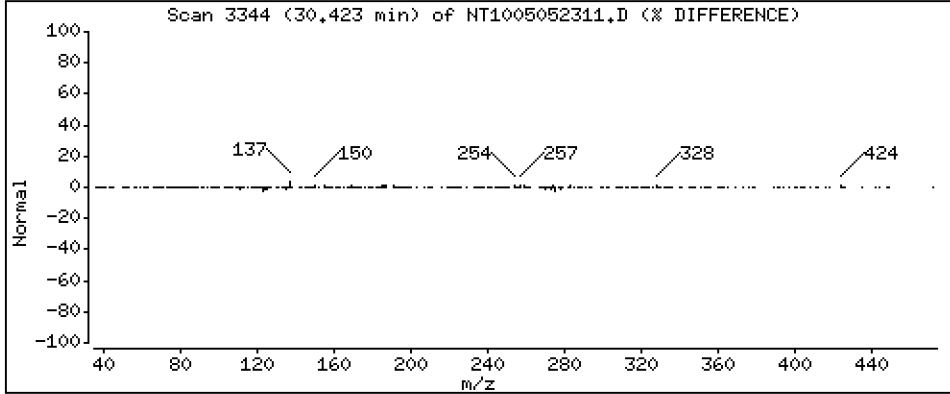
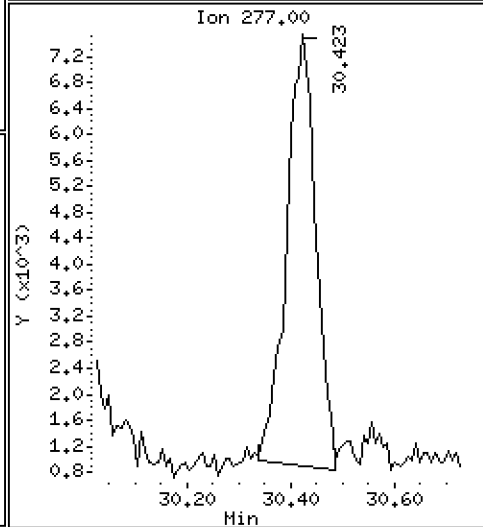
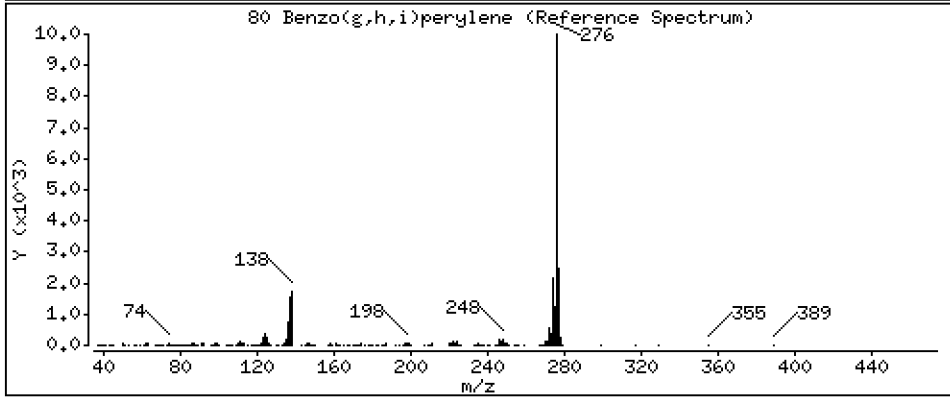
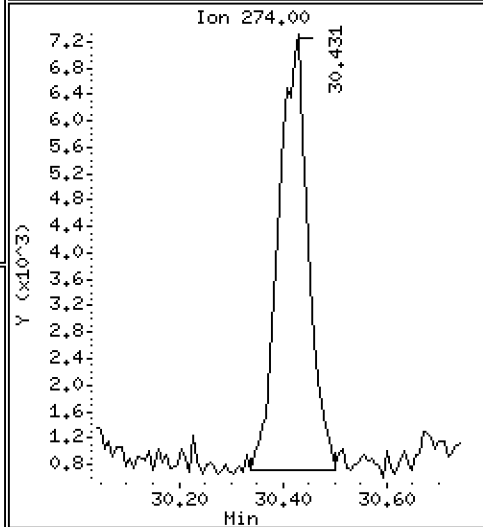
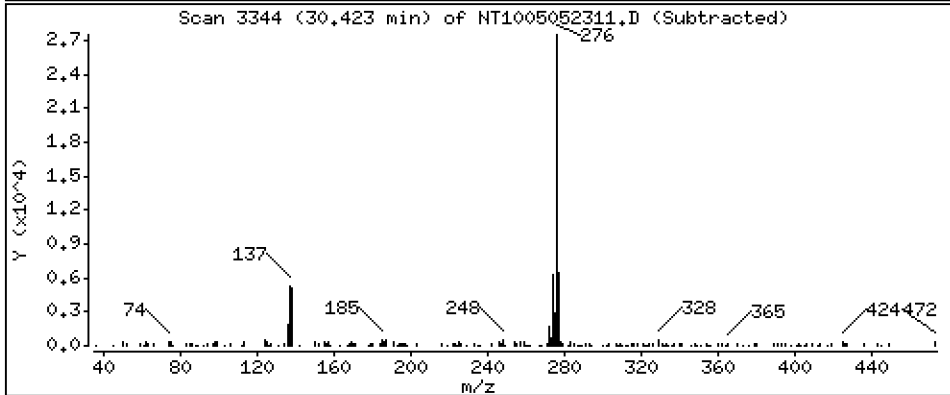
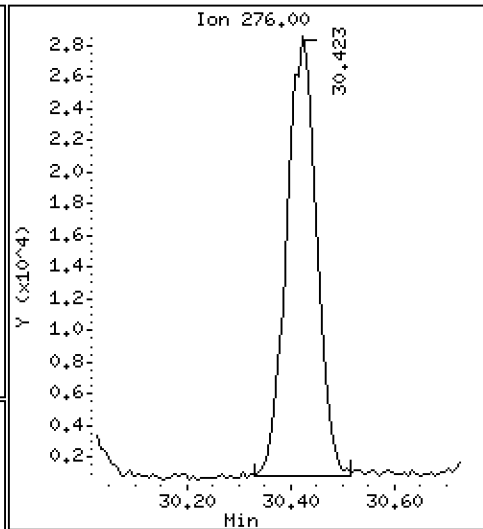
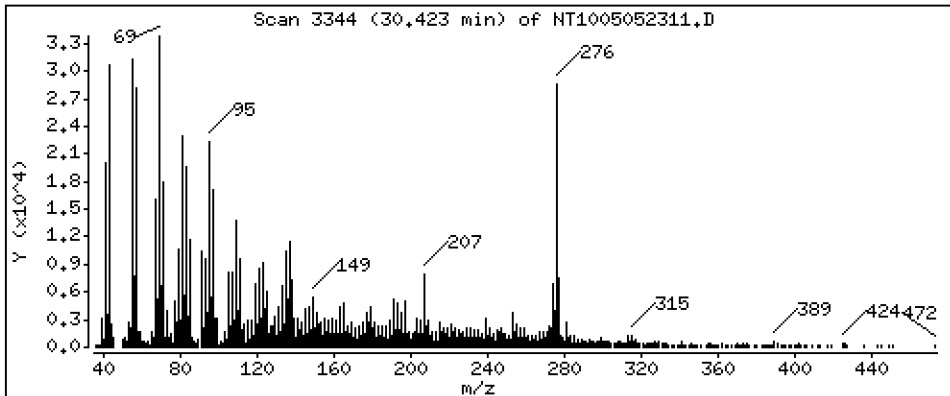
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,8056 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

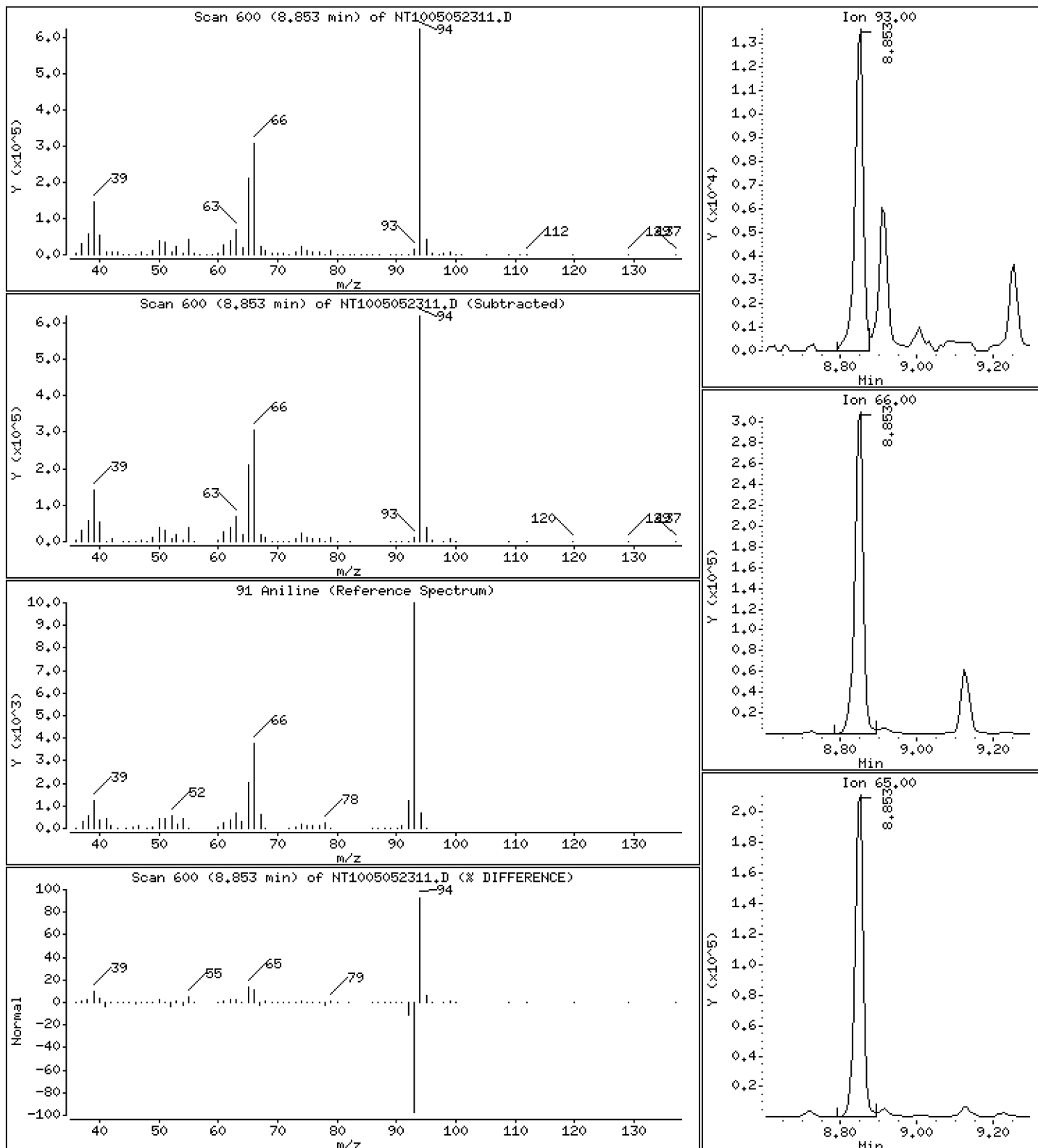
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 0.4053 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

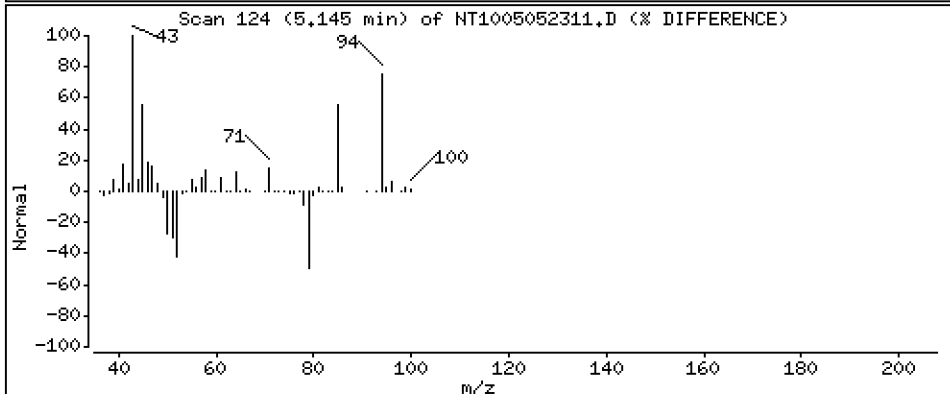
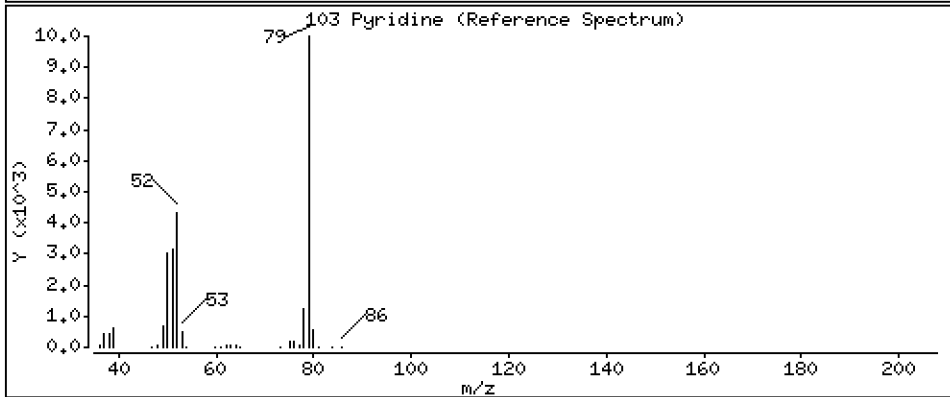
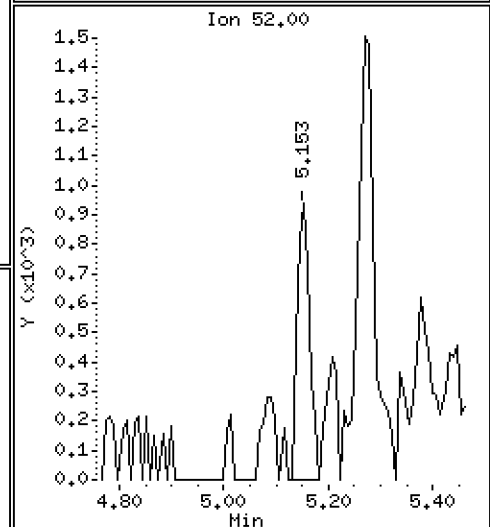
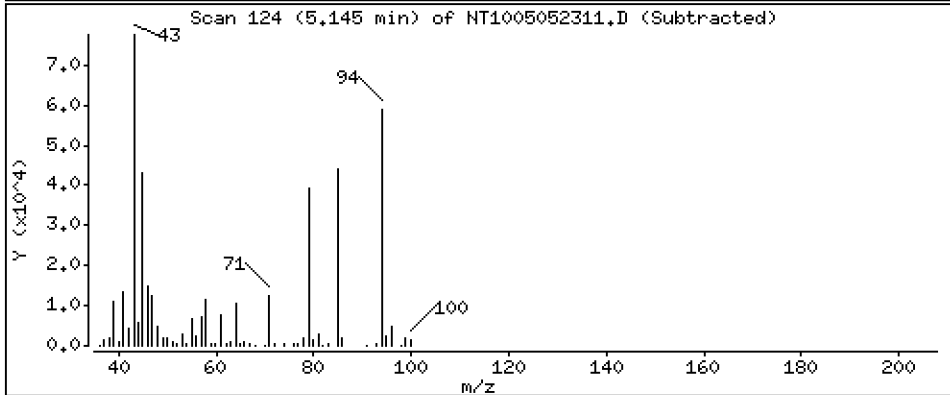
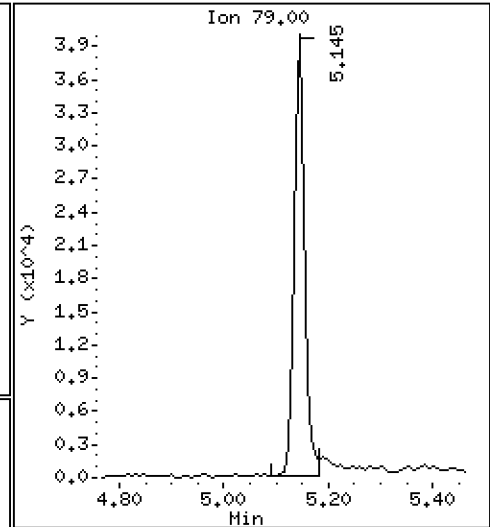
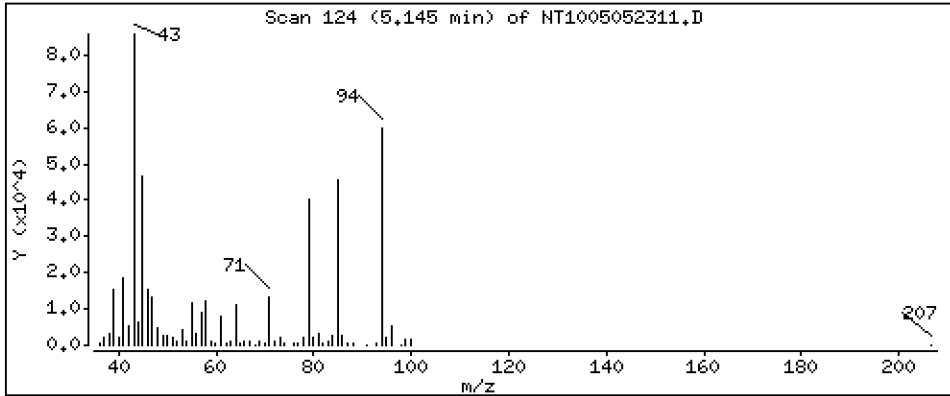
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 1,354 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

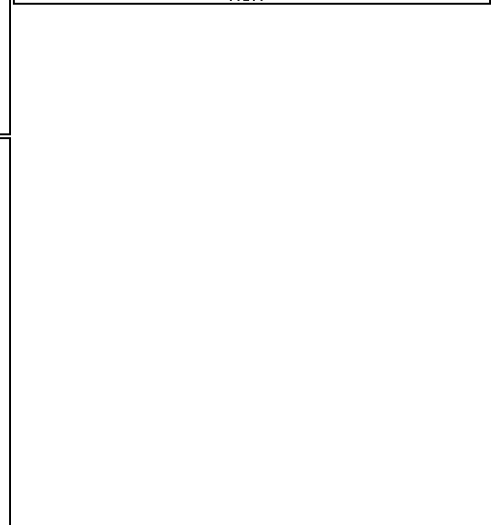
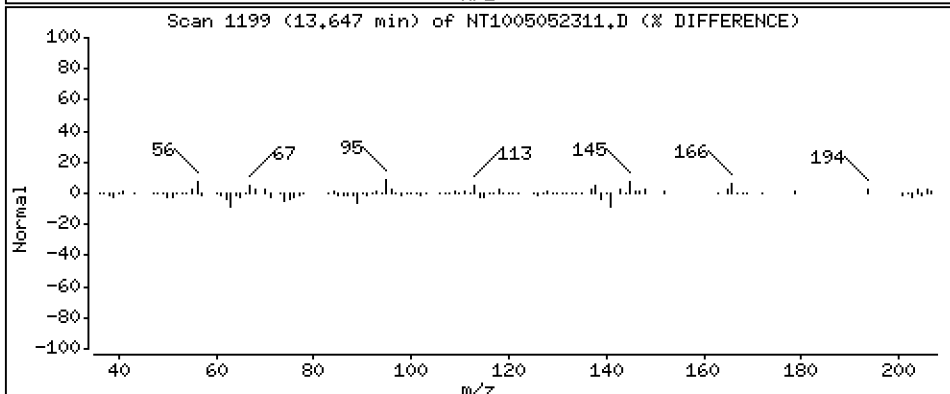
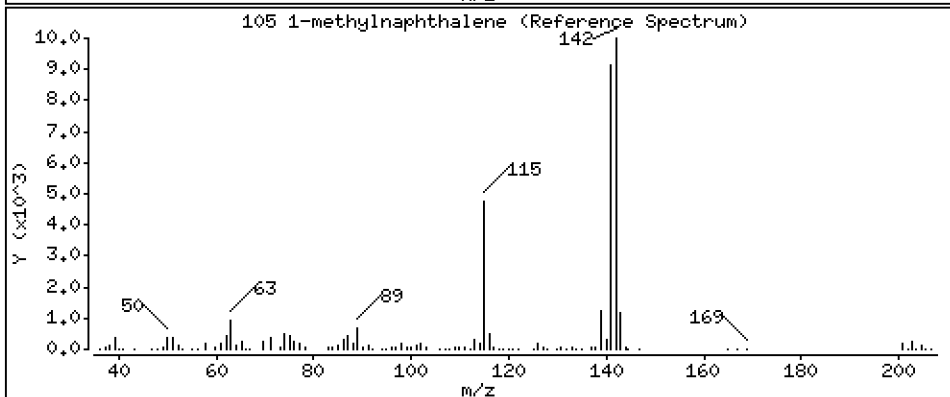
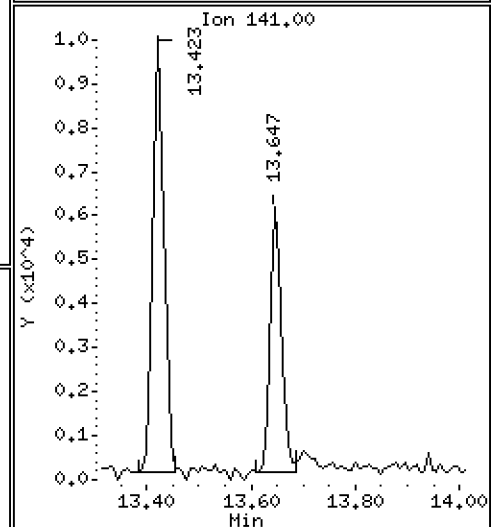
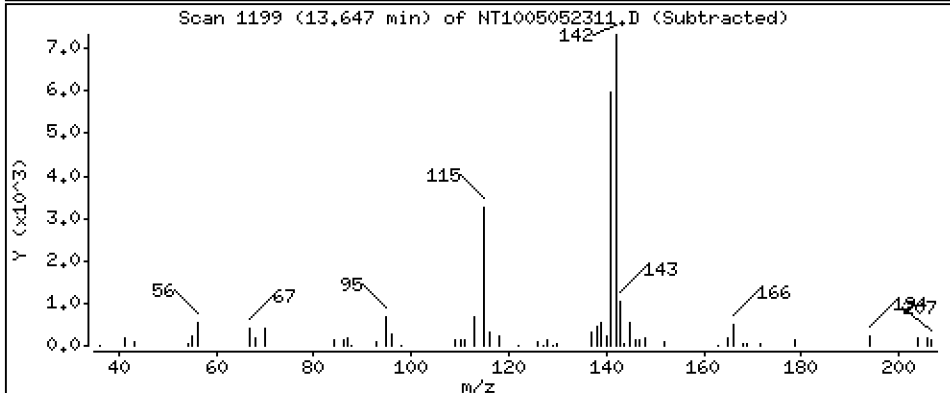
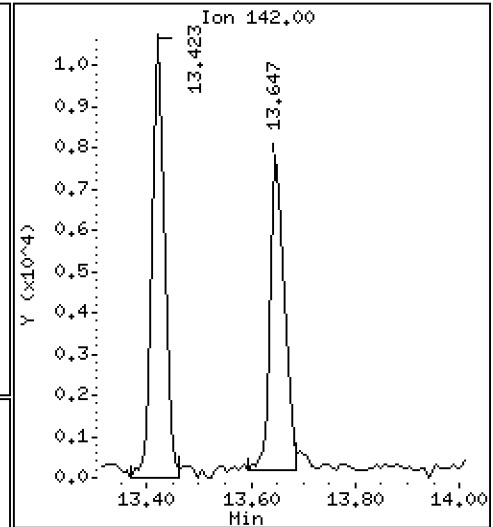
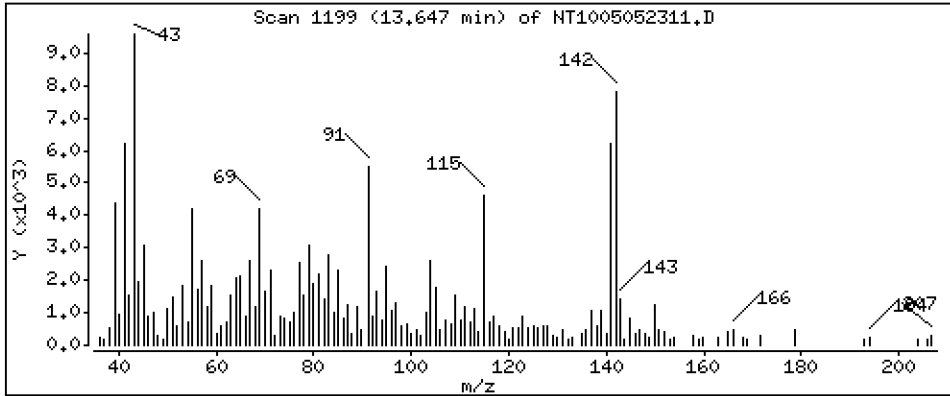
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1194 ug/mL



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

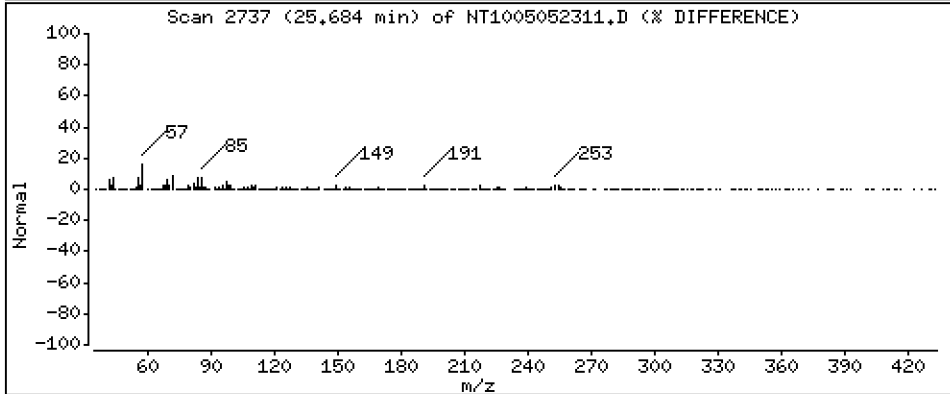
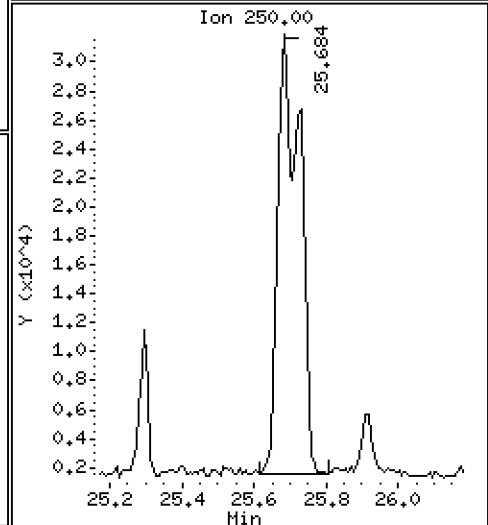
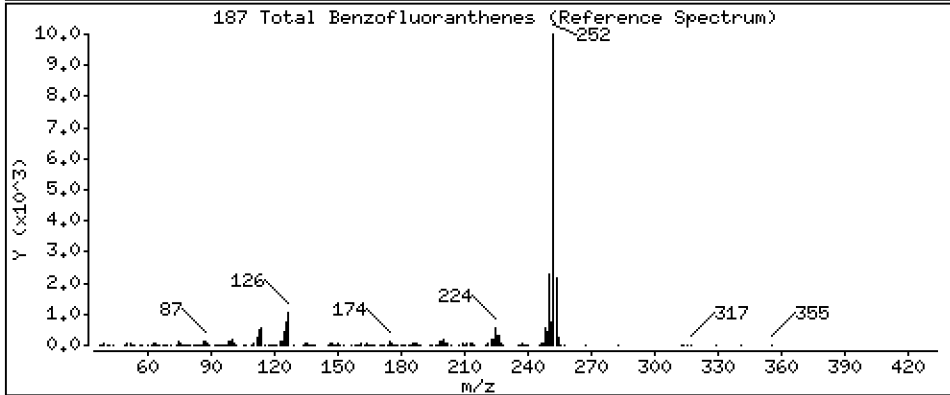
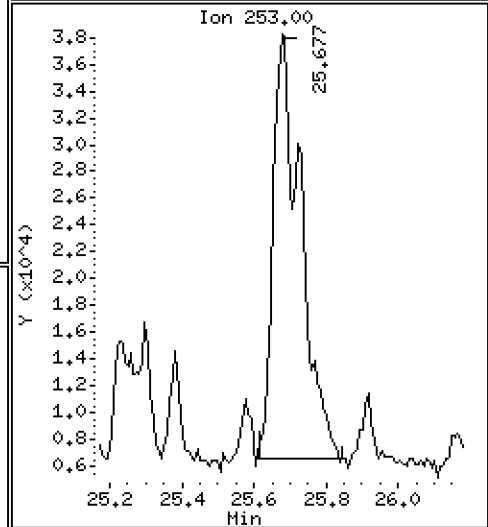
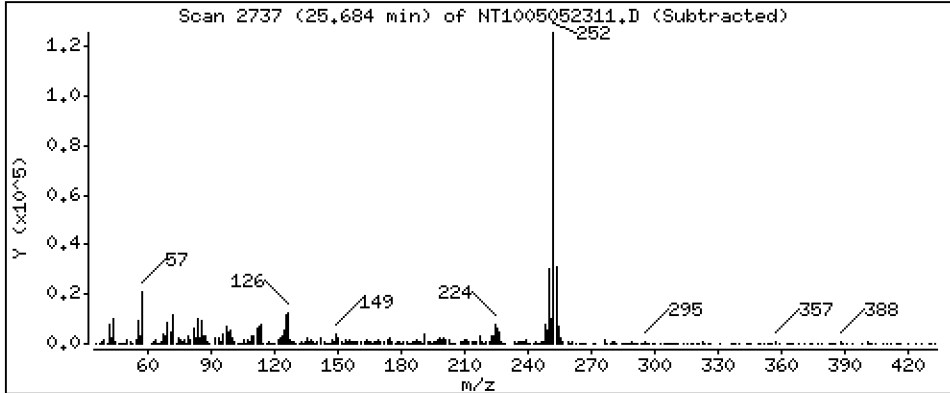
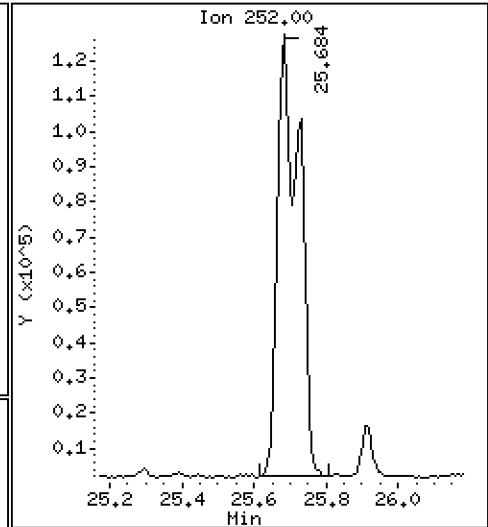
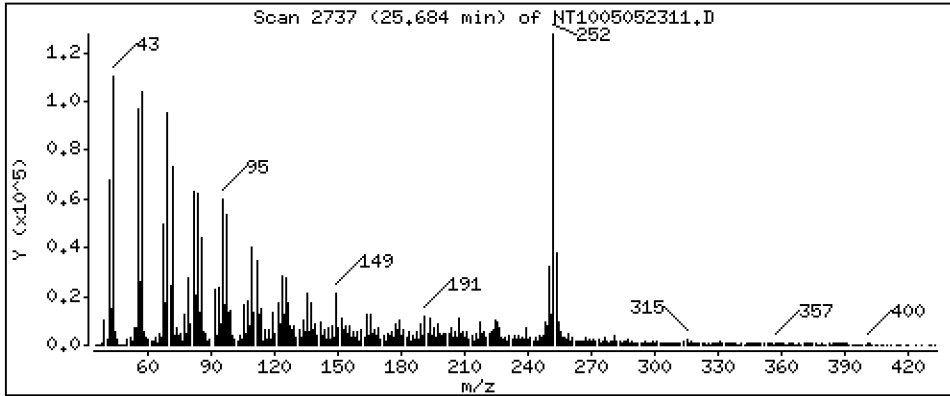
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 3,183 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052311.D
 Lab Smp Id: 23D0136-01
 Inj Date : 05-MAY-2023 17:15
 Operator : VTS
 Smp Info : 23D0136-01
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.246	7.253	(1.000)	192812	3.83964	3.840
\$ 2 Phenol-d5	99		8.830	8.830	(1.000)	276156	4.56139	4.561
3 Phenol	94		8.853	8.853	(1.000)	952934	14.7209	14.72
\$ 5 2-Chlorophenol-d4	132		9.123	9.139	(1.000)	289898	4.99657	4.997
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.495	9.502	(1.000)	165950	4.00000	(M)
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.852	9.867	(1.000)	132694	3.10014	3.100
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.758	9.766	(1.000)	71706	2.30458	2.305
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.240	10.240	(1.000)	12845	0.22536	0.2254
\$ 18 Nitrobenzene-d5	82		10.589	10.604	(0.884)	252117	3.55880	3.559
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.402	11.486	(0.951)	68383	1.47773	1.478
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.983	11.999	(1.000)	633949	4.00000	
28 Naphthalene	128		12.030	12.037	(1.004)	33141	0.18737	0.1874
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.422	13.437	(1.120)	17625	0.13328	0.1333
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		Compound Not Detected.					
35 2,4,5-Trichlorophenol	196		Compound Not Detected.					
\$ 36 2-Fluorobiphenyl	172		14.204	14.211	(0.910)	549770	3.68869	3.689
37 2-Chloronaphthalene	162		Compound Not Detected.					
38 2-Nitroaniline	65		Compound Not Detected.					
39 Dimethylphthalate	163		15.101	15.109	(0.967)	10185	0.07716	0.07716
40 Acenaphthylene	152		15.303	15.310	(0.980)	23093	0.12603	0.1260
41 2,6-Dinitrotoluene	165		Compound Not Detected.					
* 42 Acenaphthene-d10	164		15.612	15.628	(1.000)	344264	4.00000	
43 3-Nitroaniline	138		Compound Not Detected.					
44 Acenaphthene	153		15.682	15.689	(1.004)	17384	0.14917	0.1492
45 2,4-Dinitrophenol	184		Compound Not Detected.					
46 Dibenzofuran	168		16.006	16.014	(1.025)	29322	0.17257	0.1726
47 4-Nitrophenol	109		Compound Not Detected.					
48 2,4-Dinitrotoluene	165		Compound Not Detected.					
50 Diethylphthalate	149		16.555	16.571	(1.060)	31113	0.22702	0.2270
49 Fluorene	166		16.725	16.733	(1.071)	30124	0.21491	0.2149
51 4-Chlorophenyl-phenylether	204		Compound Not Detected.					
52 4-Nitroaniline	138		Compound Not Detected.					
53 4,6-Dinitro-2-methylphenol	198		Compound Not Detected.					
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
\$ 55 2,4,6-Tribromophenol	330		17.257	17.265	(1.105)	109839	6.42425	6.424
56 4-Bromophenyl-phenylether	248		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					
58 Pentachlorophenol	266		Compound Not Detected.					
* 59 Phenanthrene-d10	188		18.671	18.679	(1.000)	665495	4.00000	
60 Phenanthrene	178		18.718	18.726	(1.002)	169431	0.86767	0.8677
61 Anthracene	178		18.811	18.818	(1.007)	96286	0.53360	0.5336
62 Carbazole	167		19.136	19.136	(1.025)	31853	0.19942	0.1994
63 Di-n-butylphthalate	149		19.902	19.902	(1.066)	14702	0.06155	0.06155
64 Fluoranthene	202		21.093	21.085	(0.890)	578888	2.68739	2.687
65 Pyrene	202		21.511	21.511	(0.908)	500816	2.32739	2.327
\$ 66 Terphenyl-d14	244		21.782	21.782	(0.919)	633034	3.71968	3.720
67 Butylbenzylphthalate	149		22.695	22.695	(0.958)	19887	0.19714	0.1971
68 Benzo(a)anthracene	228		23.663	23.663	(0.999)	210735	1.10332	1.103
* 69 Chrysene-d12	240		23.694	23.694	(1.000)	482469	4.00000	
70 3,3'-Dichlorobenzidine	252		Compound Not Detected.					
71 Chrysene	228		23.733	23.741	(1.002)	347500	2.03274	2.033
72 bis(2-Ethylhexyl)phthalate	149		23.702	23.702	(0.958)	252369	1.85535	1.855
* 134 Di-n-octylphthalate-d4	153		24.739	24.739	(1.000)	944282	4.00000	
73 Di-n-octylphthalate	149		Compound Not Detected.					
74 Benzo(b)fluoranthene	252		25.684	25.676	(0.968)	333782	1.92300	1.923
75 Benzo(k)fluoranthene	252		25.730	25.730	(0.969)	236933	1.37560	1.376
76 Benzo(a)pyrene	252		26.419	26.404	(0.995)	164451	1.13193	1.132
* 77 Perylene-d12	264		26.543	26.528	(1.000)	422532	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		29.530	29.498	(1.113)	109936	0.62988	0.6299
79 Dibenzo(a,h)anthracene	278		29.522	29.514	(1.112)	34343	0.23495	0.2350
80 Benzo(g,h,i)perylene	276		30.423	30.376	(1.146)	112065	0.80556	0.8056
90 N-Nitrosodimethylamine	74		Compound Not Detected.					
91 Aniline	93		8.853	8.953	(1.000)	21623	0.40529	0.4053
93 Benzidine	184		Compound Not Detected.					
103 Pyridine	79		5.144	5.114	(1.000)	57912	1.35401	1.354
105 1-methylnaphthalene	142		13.646	13.662	(1.139)	14474	0.11938	0.1194
111 Azobenzene (1,2-DP-Hydrazine)	77		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.684	25.676	(0.968)	531895	3.18349	3.183
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052311.D Calibration Time: 11:37
 Lab Smp Id: 23D0136-01
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	165950	-7.53
27 Naphthalene-d8	621628	310814	1243256	633949	1.98
42 Acenaphthene-d10	353112	176556	706224	344264	-2.51
59 Phenanthrene-d10	694933	347467	1389866	665495	-4.24
69 Chrysene-d12	553967	276984	1107934	482469	-12.91
134 Di-n-octylphthala	895601	447801	1791202	944282	5.44
77 Perylene-d12	482573	241287	965146	422532	-12.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.50	-0.08
27 Naphthalene-d8	12.00	11.50	12.50	11.98	-0.13
42 Acenaphthene-d10	15.63	15.13	16.13	15.61	-0.10
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.69	23.19	24.19	23.69	0.00
134 Di-n-octylphthala	24.74	24.24	25.24	24.74	0.00
77 Perylene-d12	26.53	26.03	27.03	26.54	0.06

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

REVIEW SUMMARY FOR FILE - NT1005052311.D

Lab ID: 23D0136-01
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 17:15

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.951	0.957	-0.0059	Benzoic acid

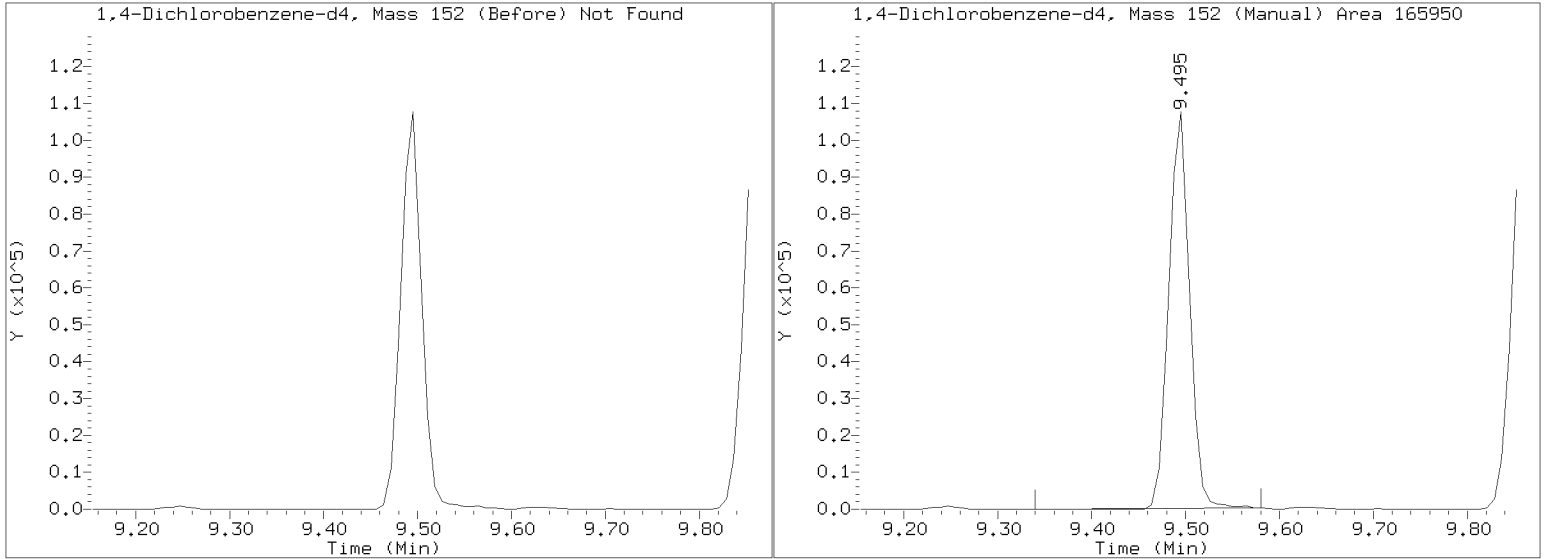
RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052311.D
Injection Date: 05-MAY-2023 17:15
Lab ID:23D0136-01 Client ID:
Report Date: 05/08/2023 10:15



APPROVED

By Deenay Dunmore at 10:39 am, May 08, 2023



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0136-03 A

SDG: 23D0136

Sampled: 04/05/23 16:05

Prepared: 04/18/23 11:16

File ID: NT1005052312.D

% Solids: 44.31

Preparation: EPA 3546 (Microwave)

Analyzed: 05/05/23 17:54

Batch: BLD0329

Sequence: SLE0101

Initial/Final: 22.58 g Wet / 1 mL

Instrument: NT10

Column: ZB-5MSi

Calibration: GE00012

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	109		4.4	20.0
106-44-5	4-Methylphenol	1	76.8		7.4	20.0
91-20-3	Naphthalene	1	21.7		4.2	20.0
91-57-6	2-Methylnaphthalene	1	16.4	J	4.5	20.0
208-96-8	Acenaphthylene	1	14.2	J	6.2	20.0
131-11-3	Dimethylphthalate	1	7.2	J	4.4	20.0
83-32-9	Acenaphthene	1	15.9	J	5.2	20.0
132-64-9	Dibenzofuran	1	20.3		14.1	20.0
86-73-7	Fluorene	1	23.7		14.6	20.0
85-01-8	Phenanthrene	1	92.0		8.7	20.0
120-12-7	Anthracene	1	60.4		7.2	20.0
206-44-0	Fluoranthene	1	258		6.1	20.0
129-00-0	Pyrene	1	235		5.7	20.0
85-68-7	Butylbenzylphthalate	1	20.8		9.4	20.0
56-55-3	Benzo(a)anthracene	1	135		6.0	20.0
218-01-9	Chrysene	1	233		6.1	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	196		5.5	50.0
	Benzo(a)fluoranthene, Total	1	377		10.0	40.0
50-32-8	Benzo(a)pyrene	1	136		4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	68.9		14.6	20.0
53-70-3	Dibenzo(a,h)anthracene	1	24.3		17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	87.0		13.6	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	749.61	554	73.9	27 - 120	
Phenol-d5	749.61	586	78.1	29 - 120	
2-Chlorophenol-d4	749.61	641	85.5	31 - 120	
1,2-Dichlorobenzene-d4	499.74	367	73.5	32 - 120	
Nitrobenzene-d5	499.74	421	84.3	30 - 120	
2-Fluorobiphenyl	499.74	411	82.3	35 - 120	



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0136-03 A

SDG: 23D0136

Sampled: 04/05/23 16:05

Prepared: 04/18/23 11:16

File ID: NT1005052312.D

% Solids: 44.31

Preparation: EPA 3546 (Microwave)

Analyzed: 05/05/23 17:54

Batch: BLD0329

Sequence: SLE0101

Initial/Final: 22.58 g Wet / 1 mL

Instrument: NT10

Column: ZB-5MSi

Calibration: GE00012

Cleanups: GPC

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	749.61	683	91.2	24 - 134	
p-Terphenyl-d14	499.74	386	77.2	37 - 120	

Data File: \\target\share\chem3\nt10.1\20230505.6\NT1005052312.D

Date: 05-May-2023 17:54

Client ID:

Sample Info: 23D0136-03

Page 1

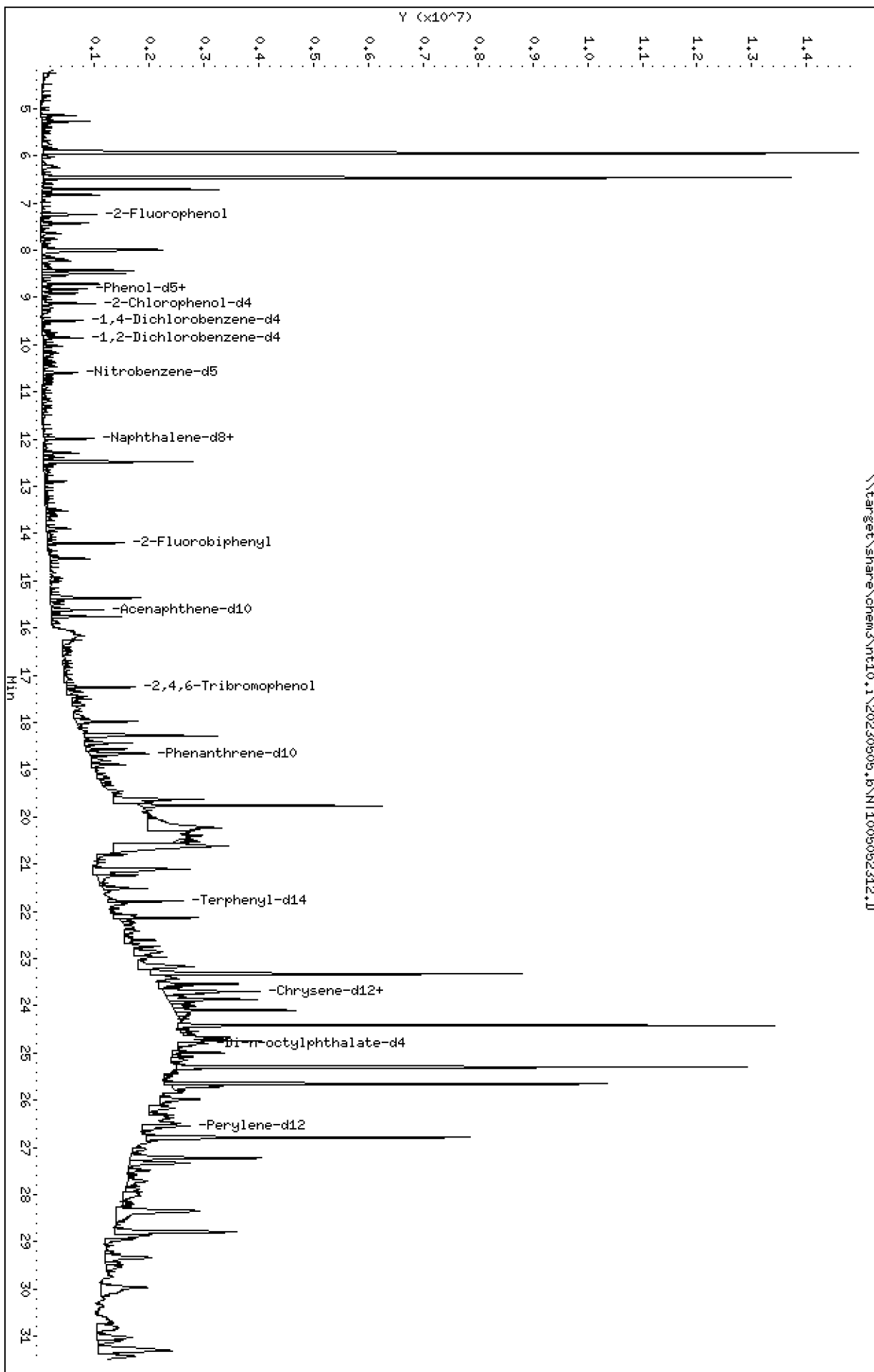
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230505.6\NT1005052312.D



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

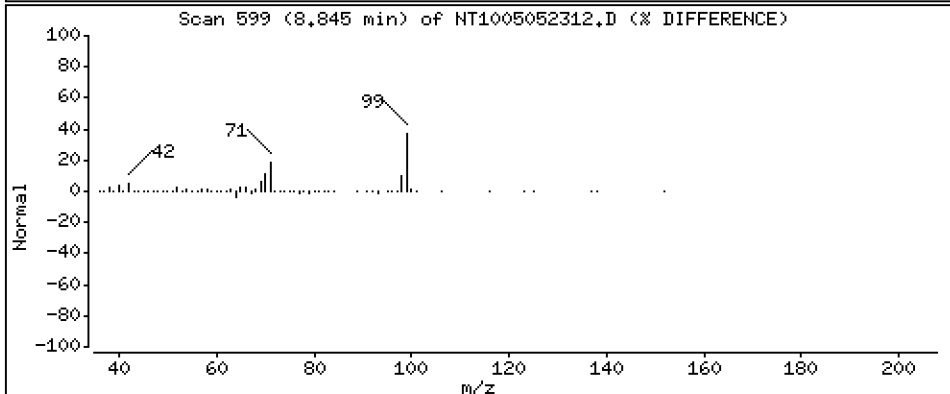
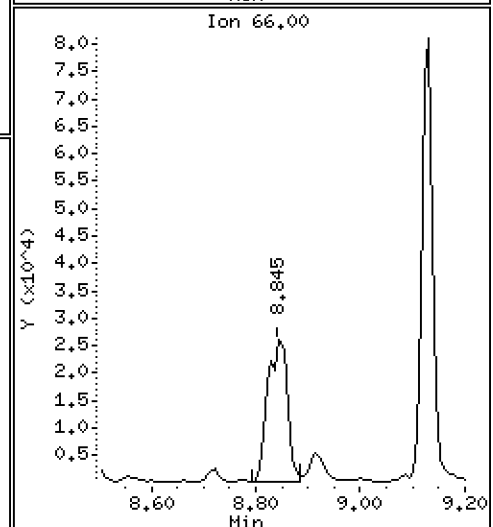
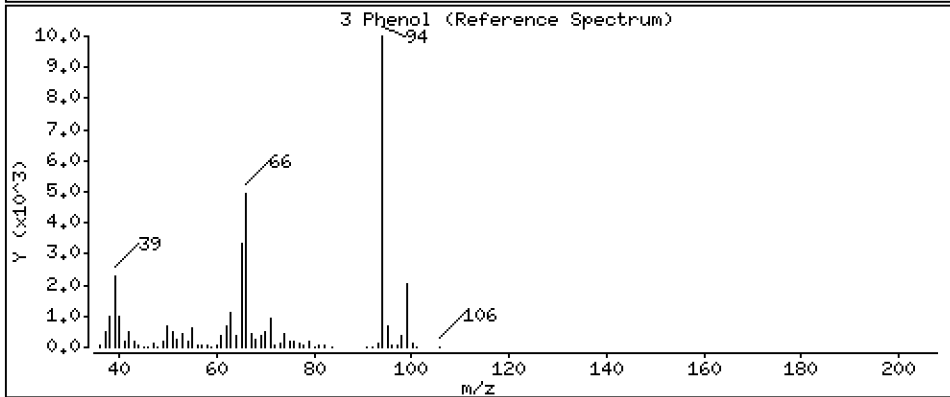
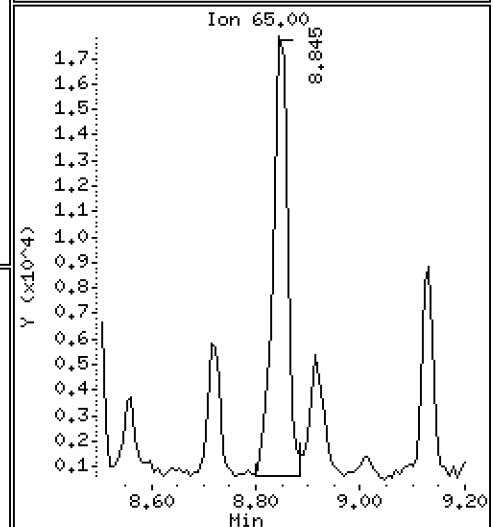
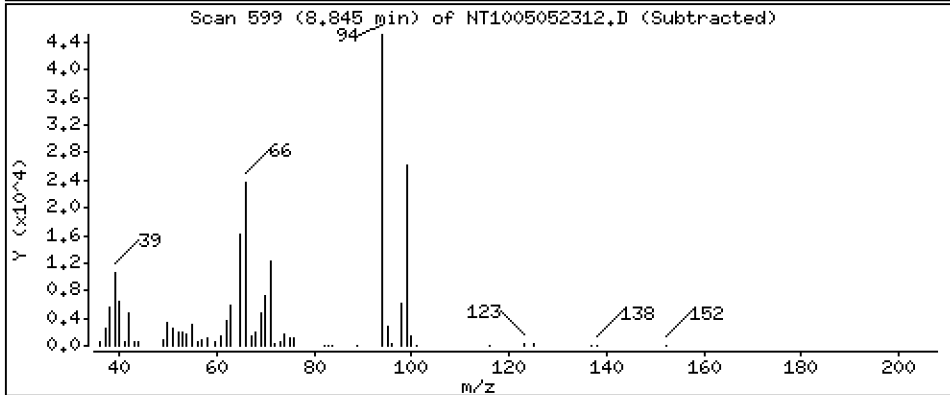
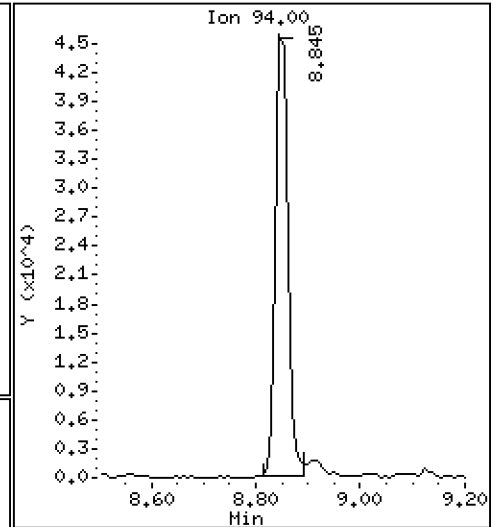
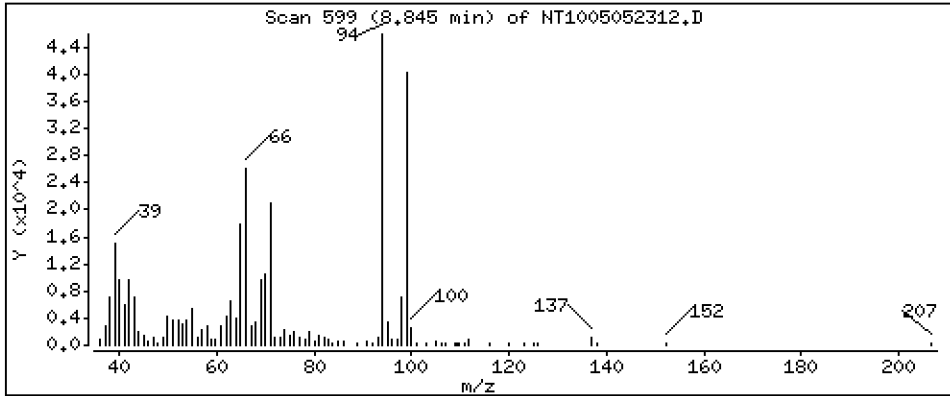
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 1.095 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

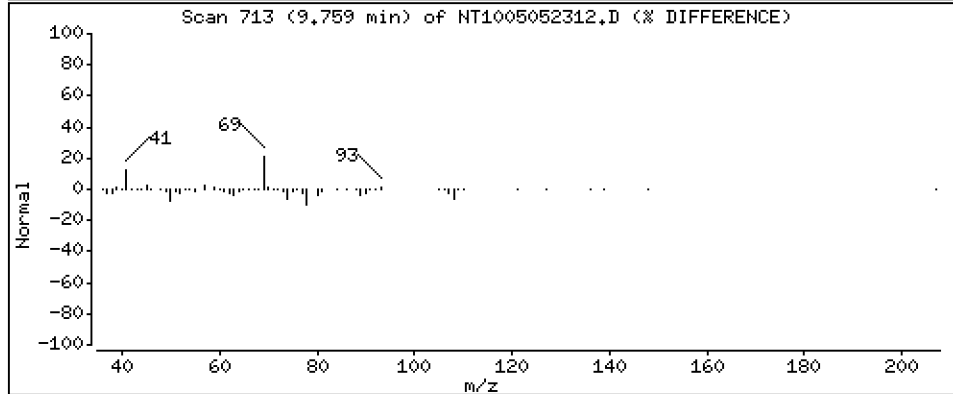
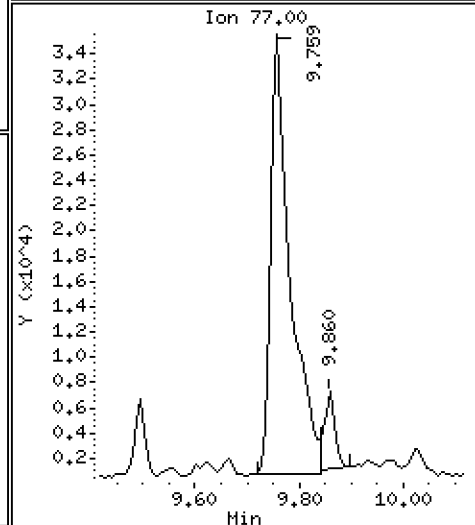
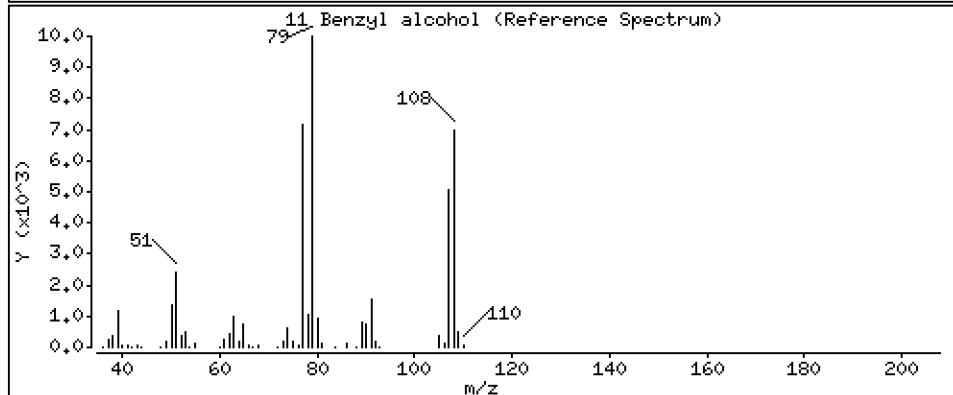
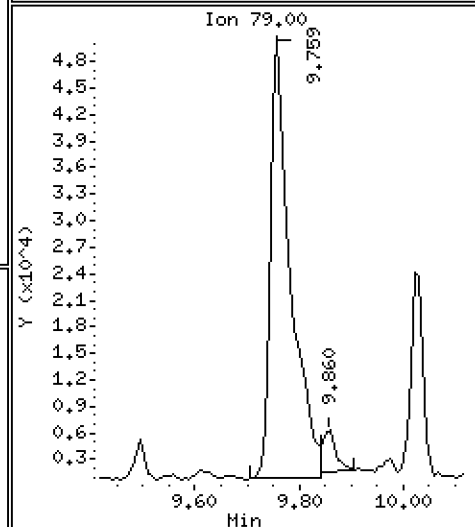
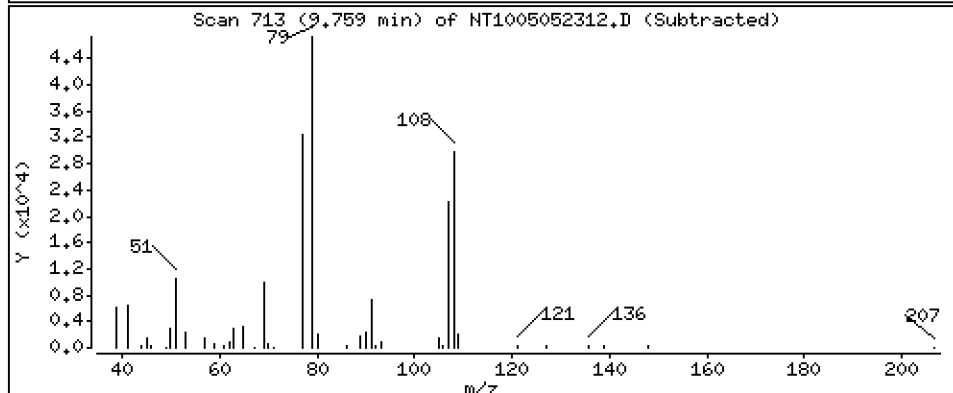
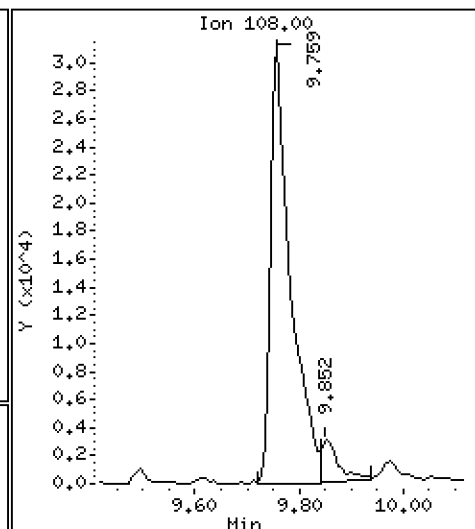
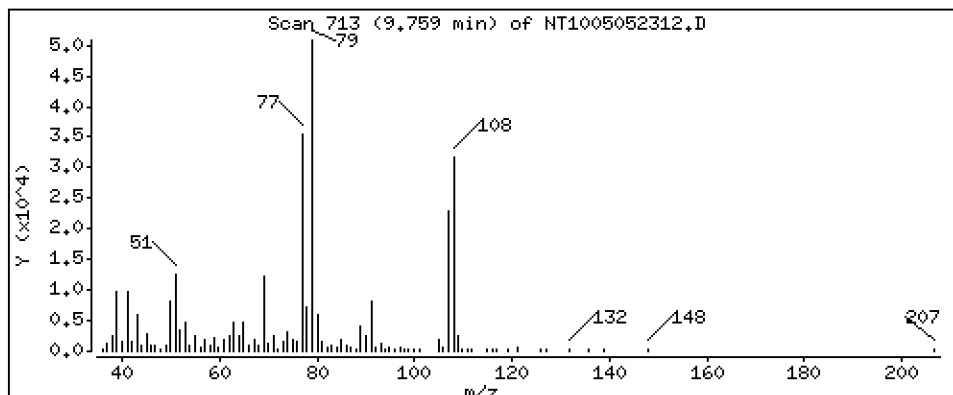
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 2,687 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

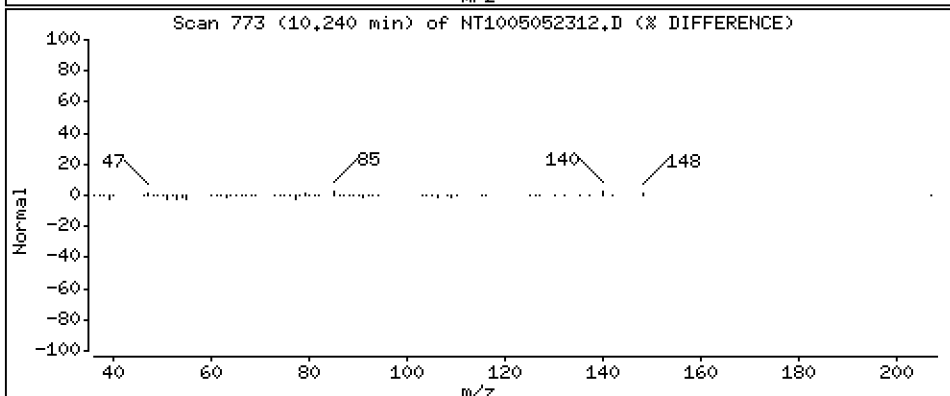
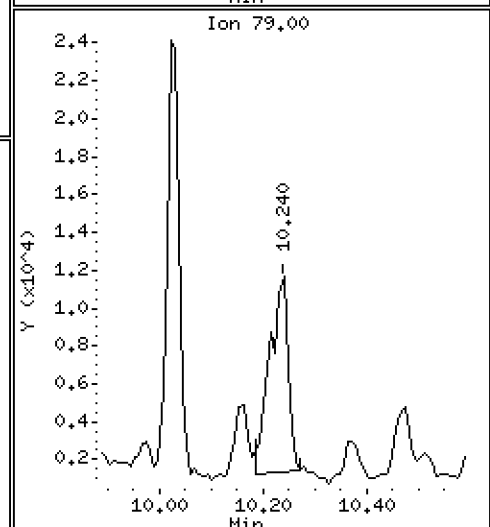
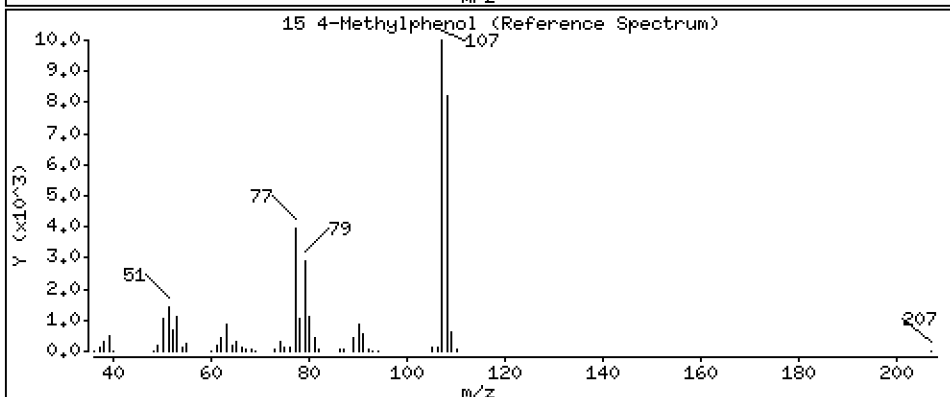
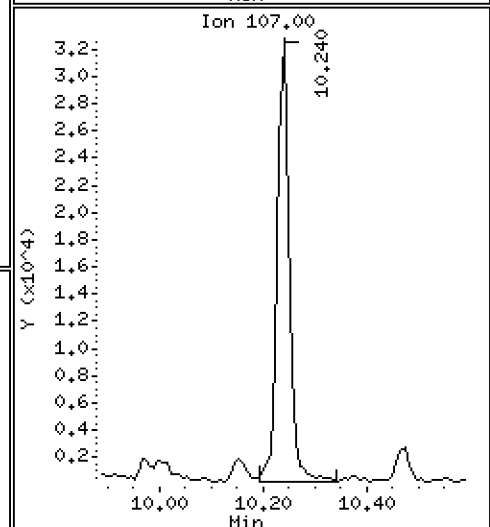
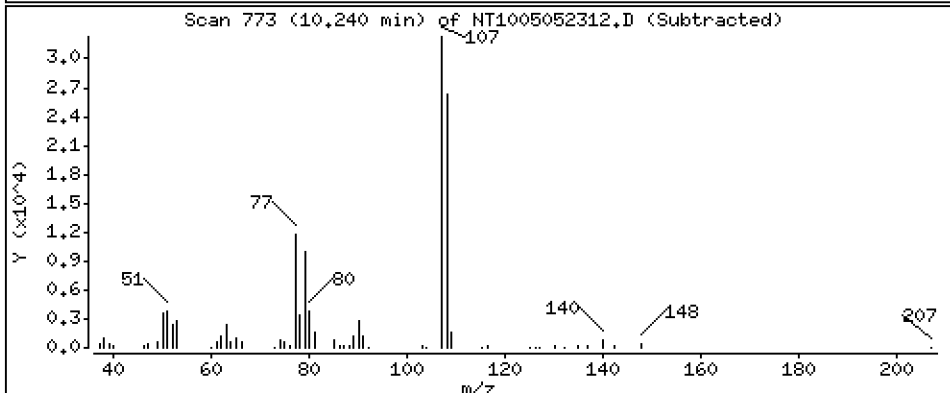
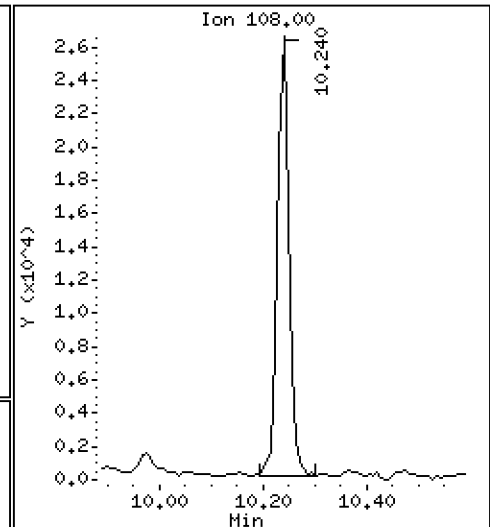
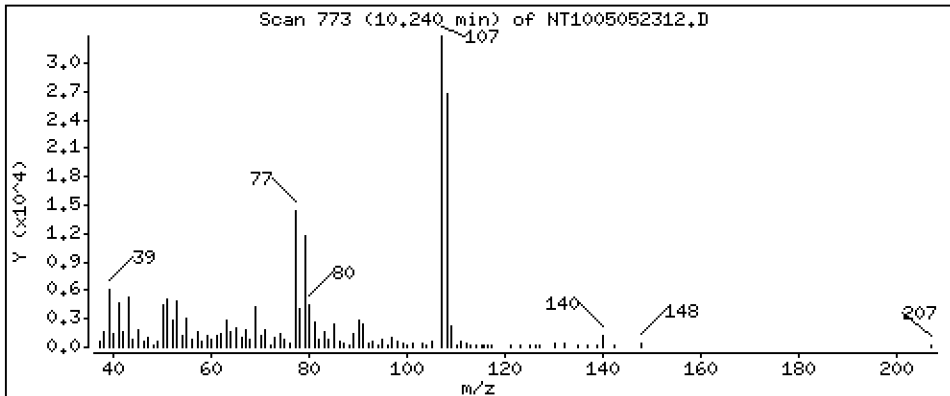
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.7686 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

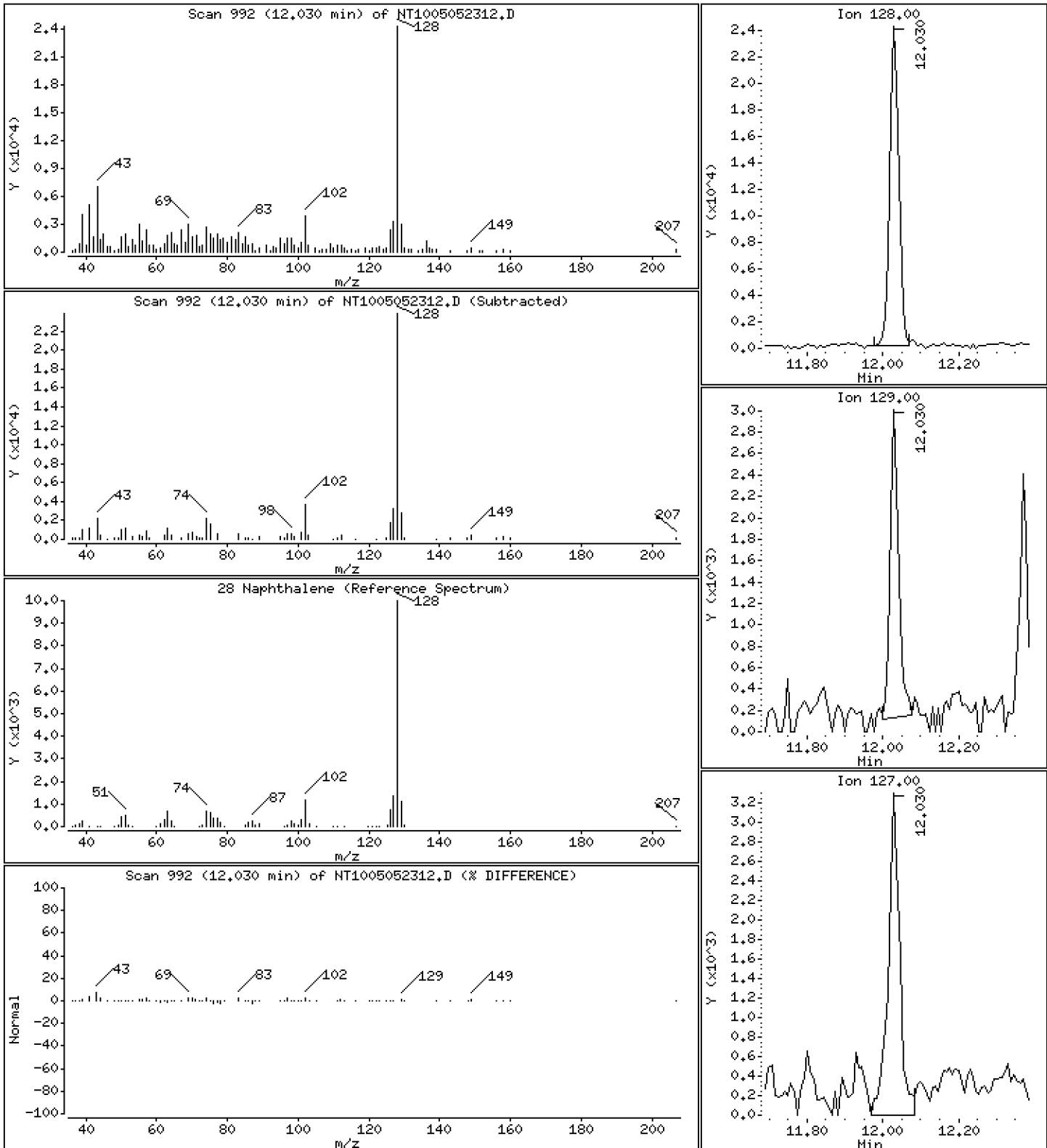
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,2176 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

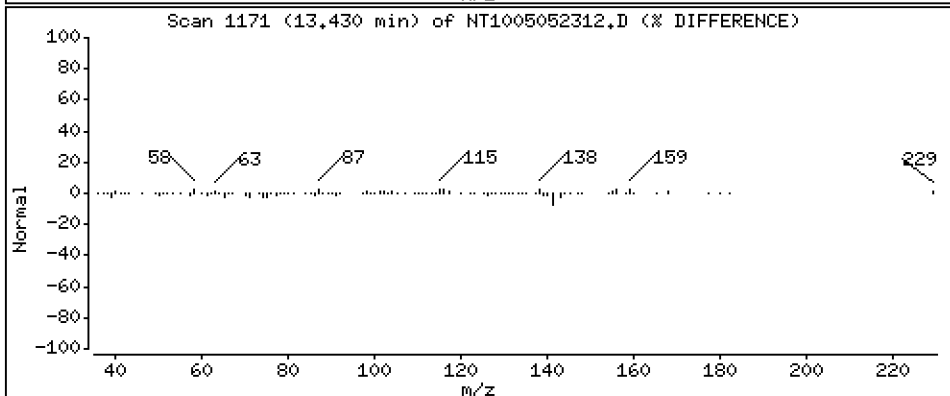
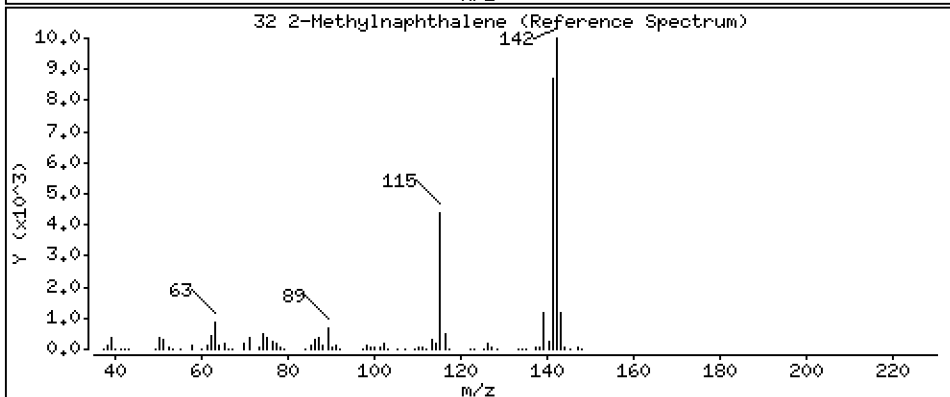
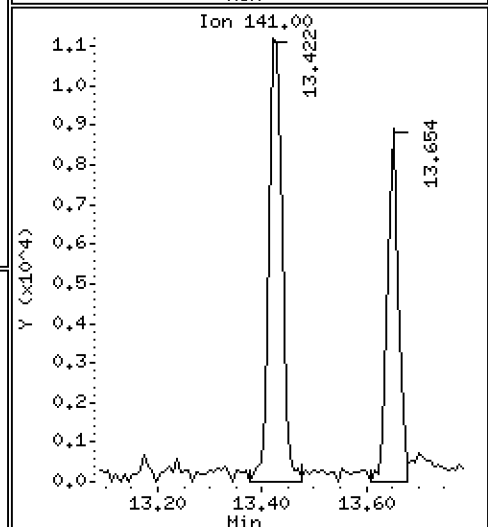
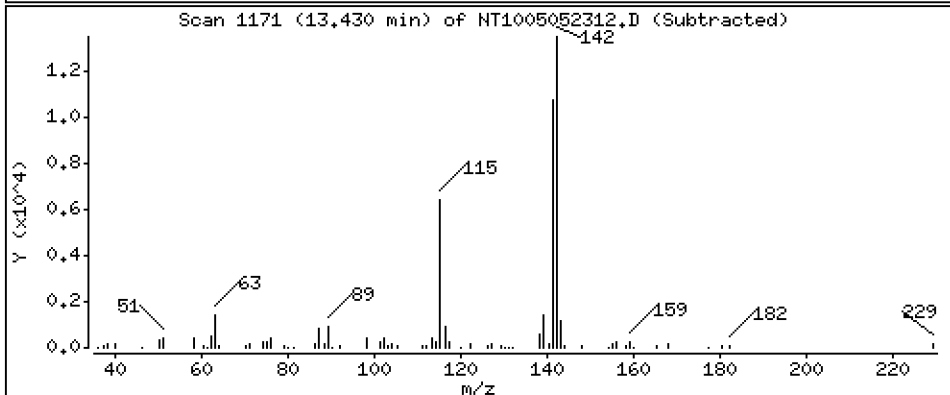
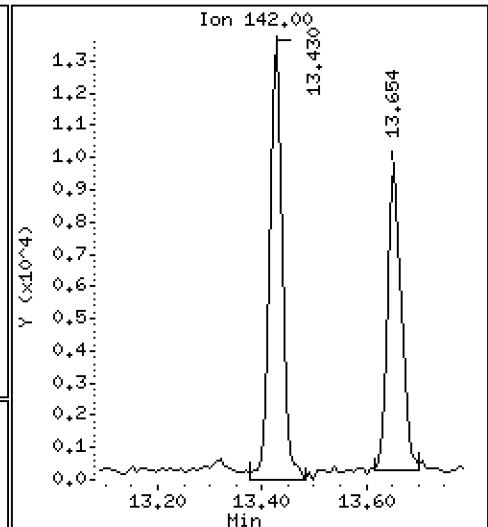
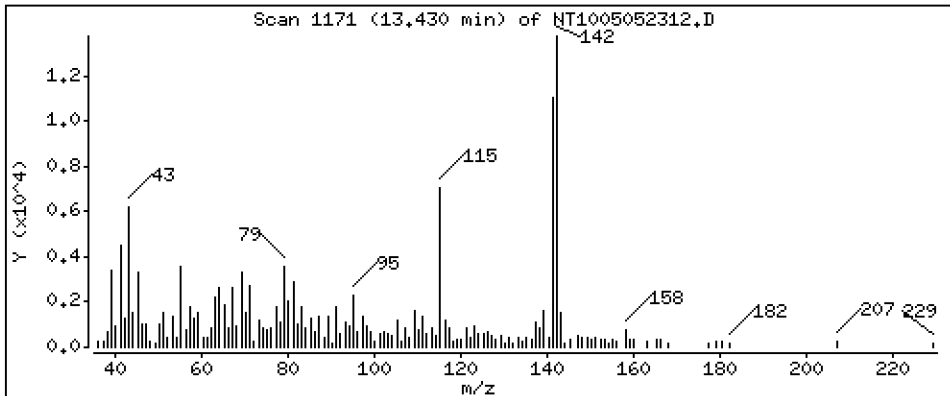
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,1643 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

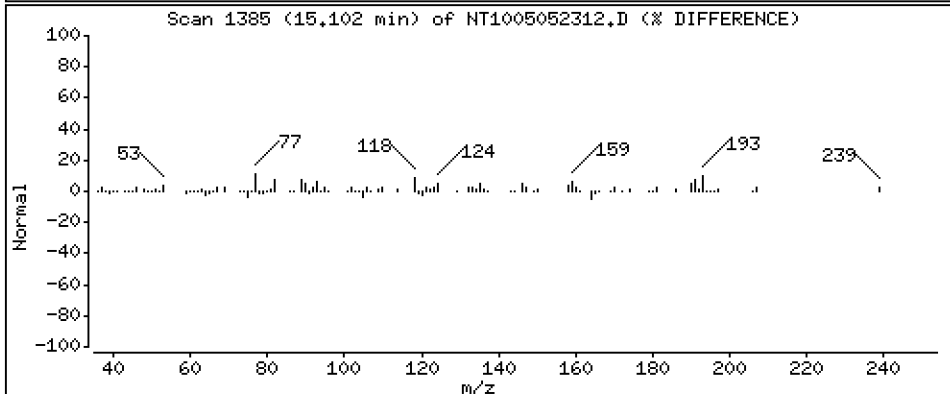
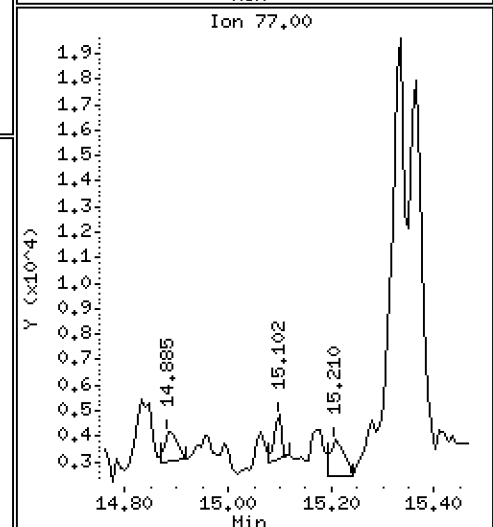
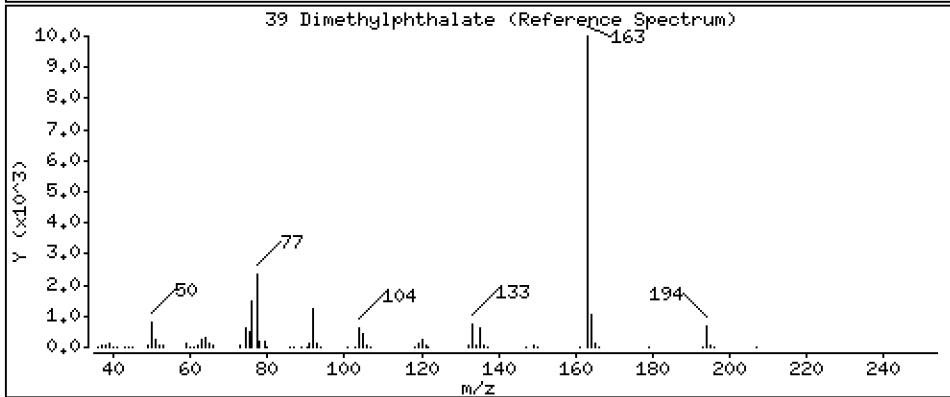
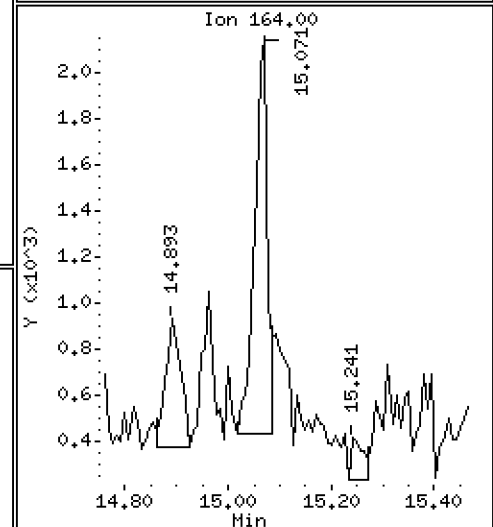
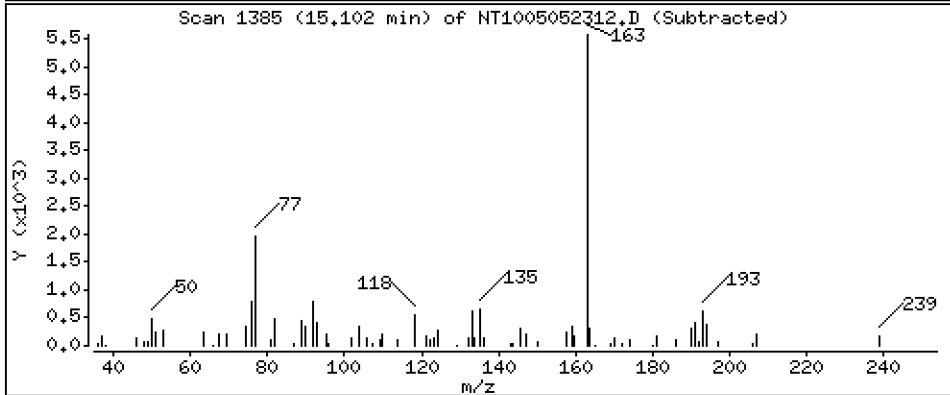
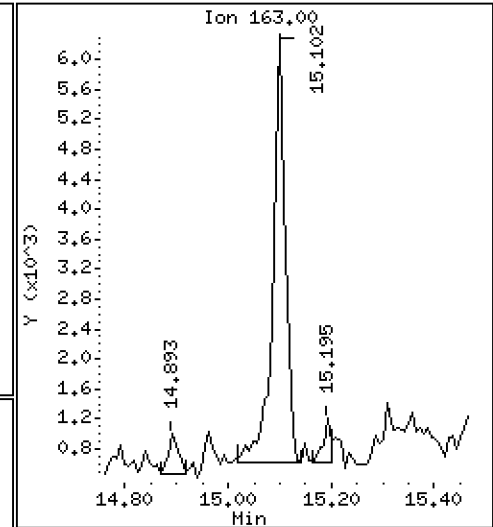
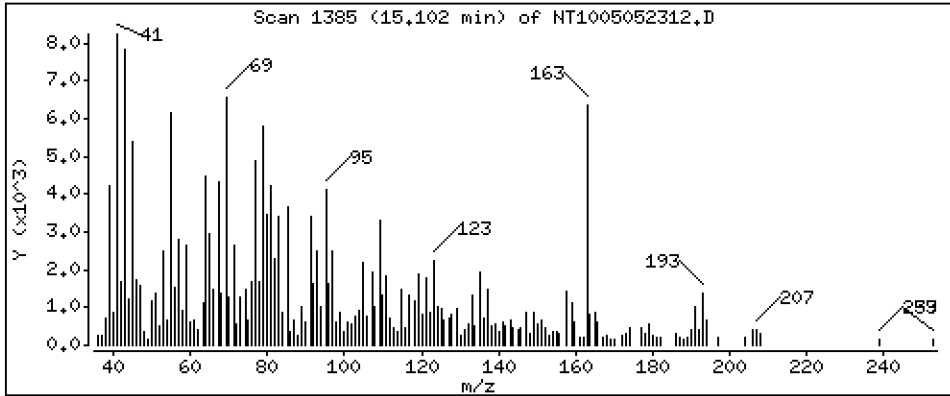
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.07215 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

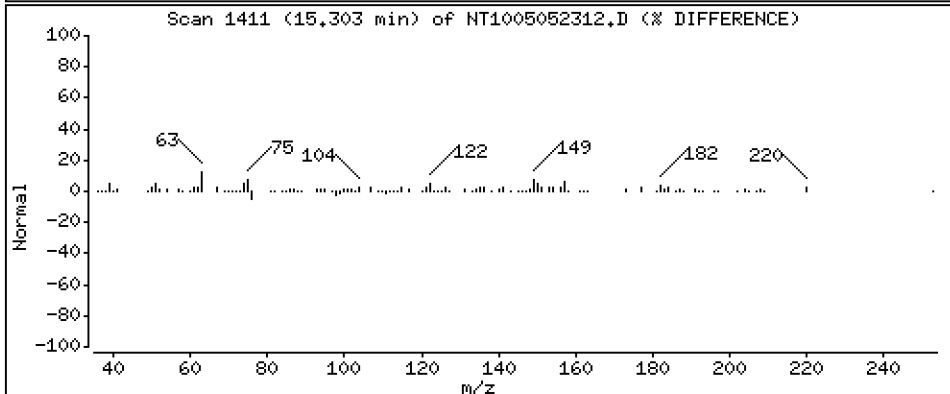
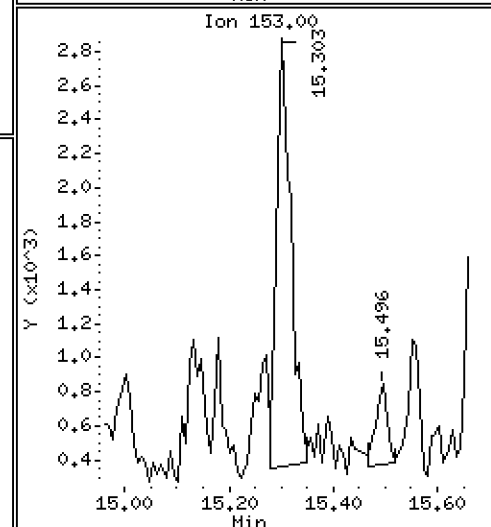
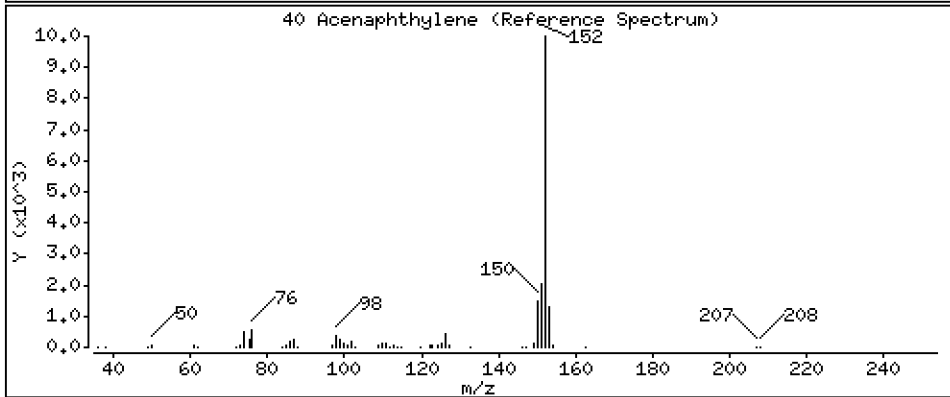
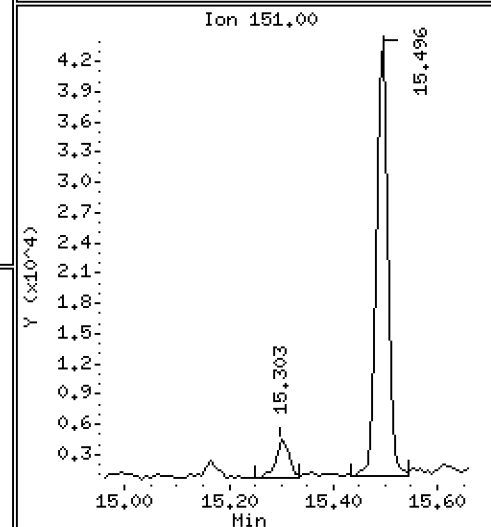
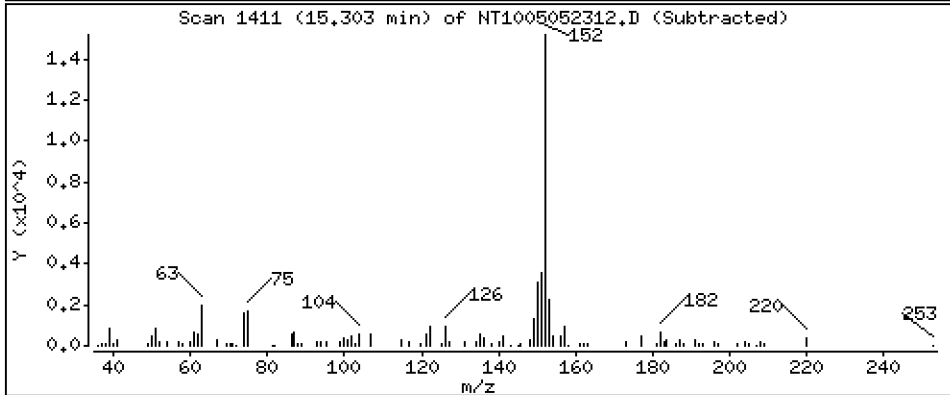
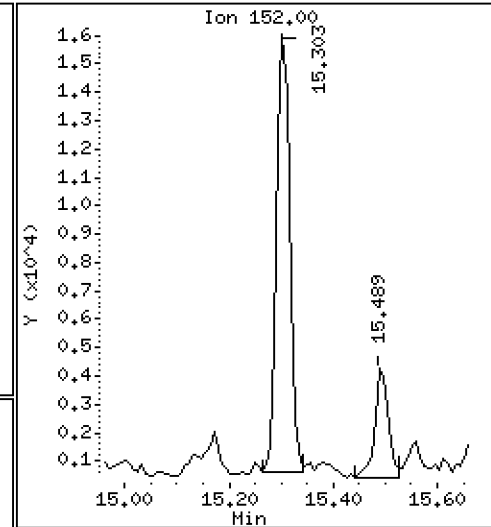
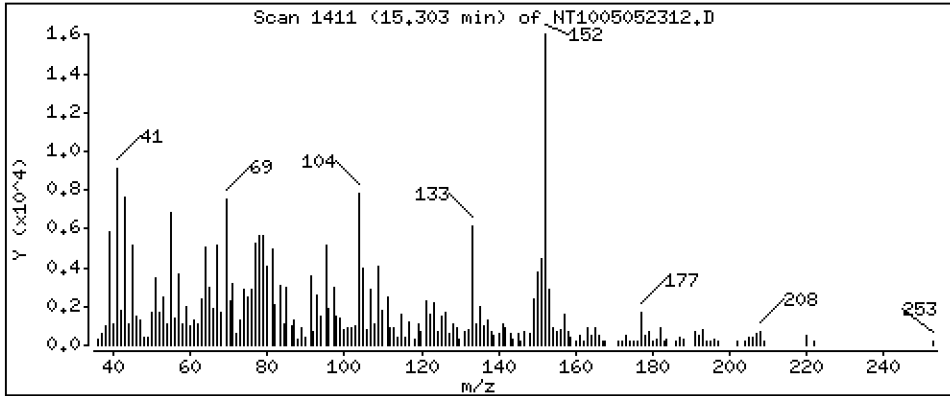
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 0.1418 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

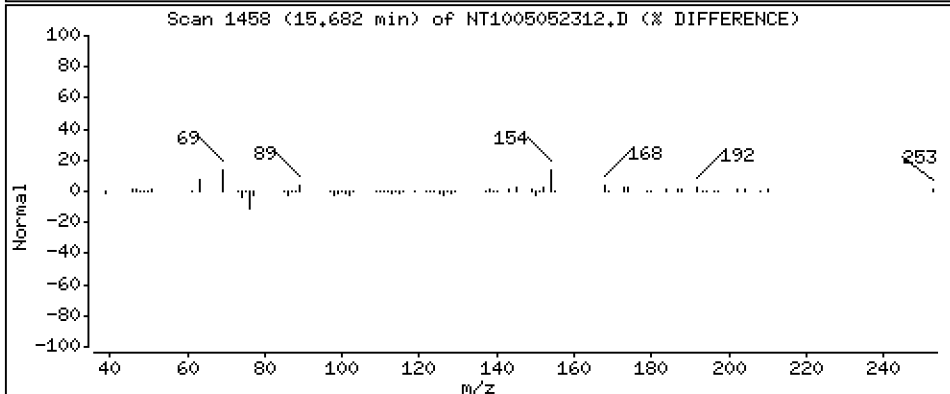
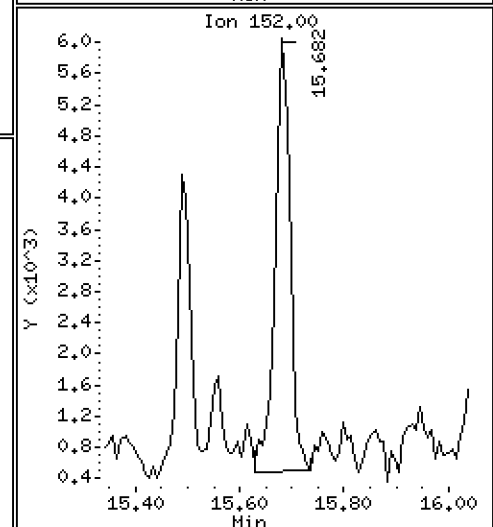
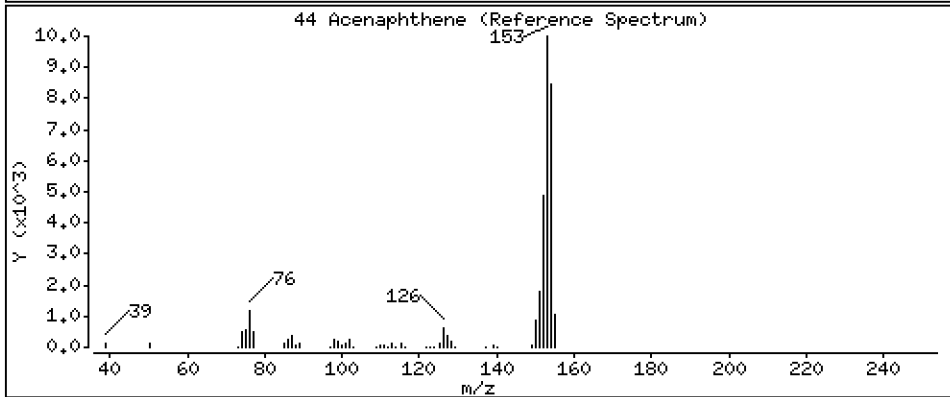
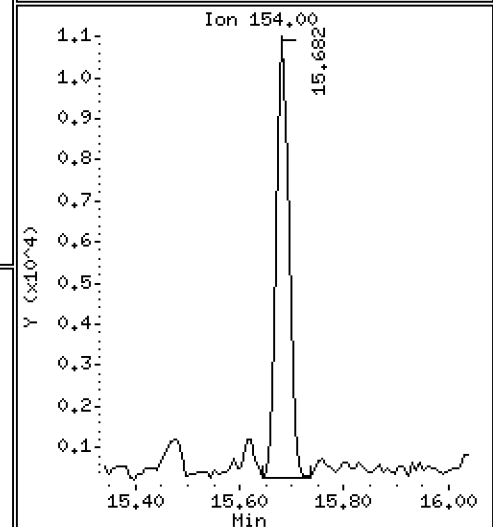
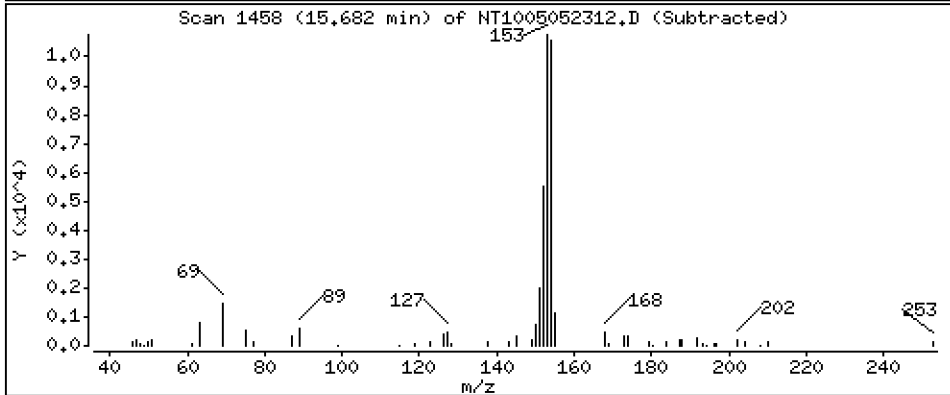
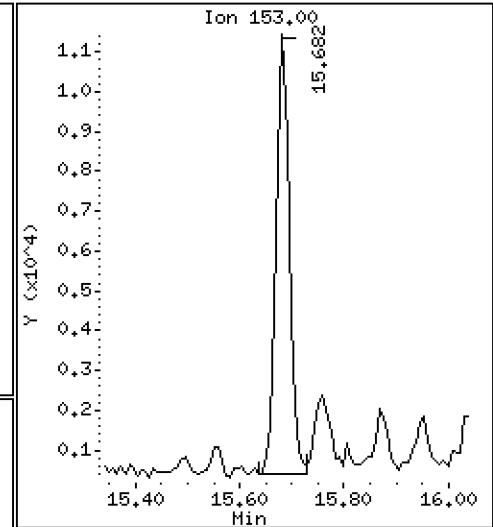
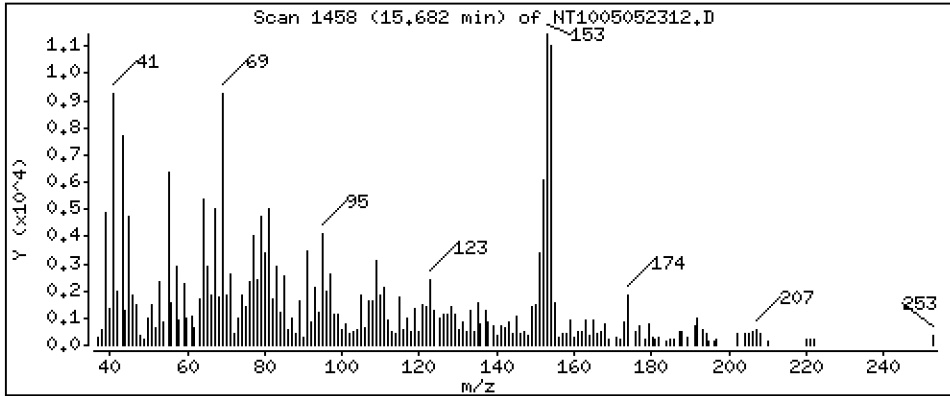
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

44 Acenaphthene

Concentration: 0.1586 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

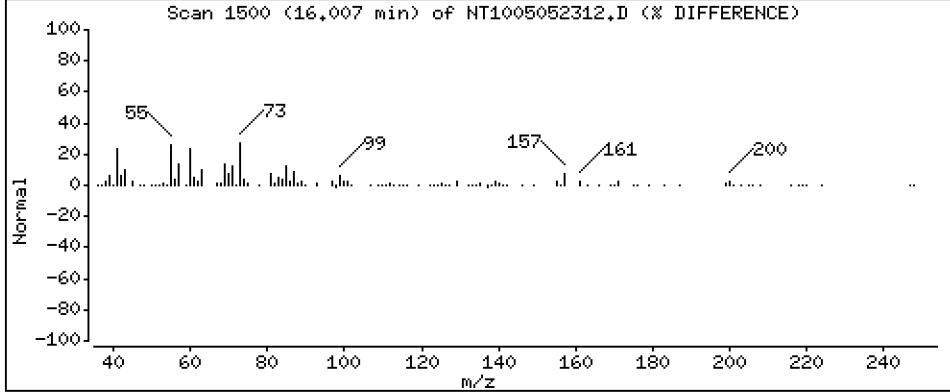
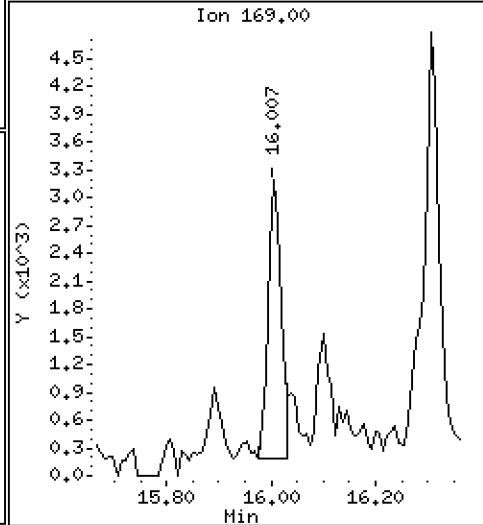
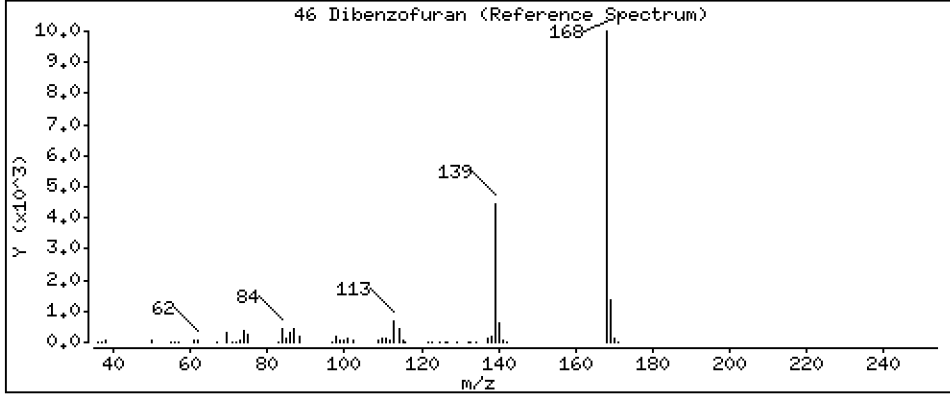
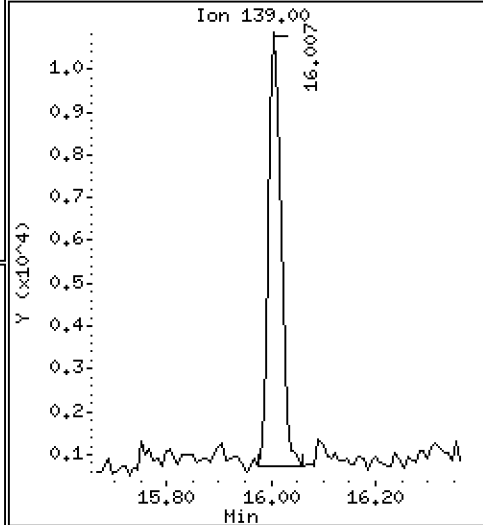
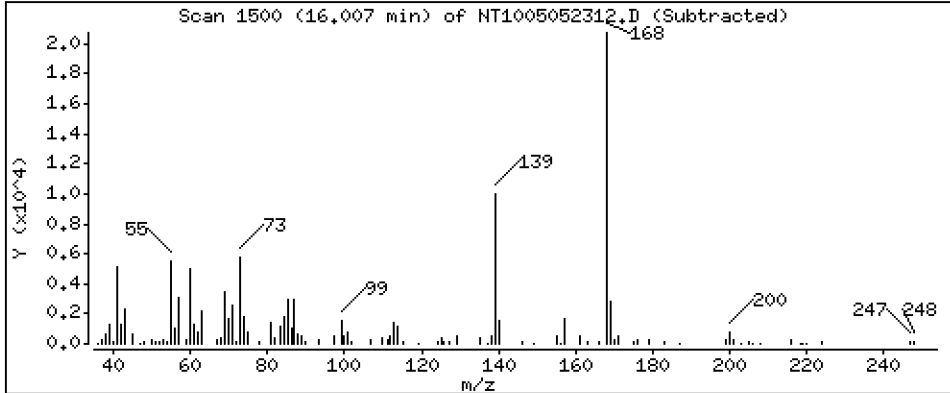
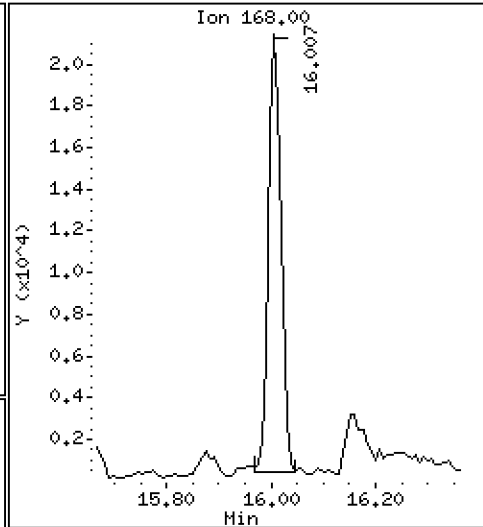
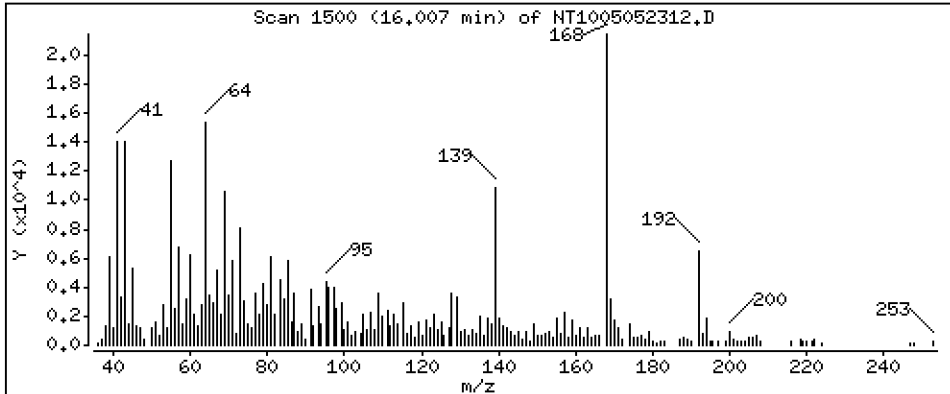
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,2034 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

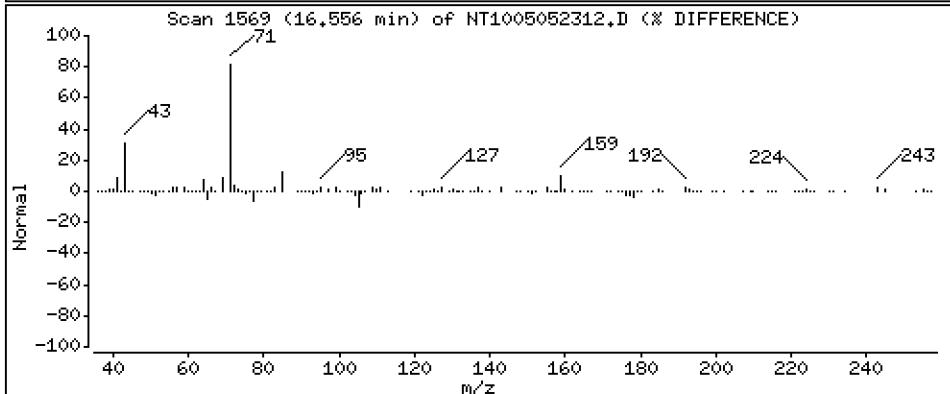
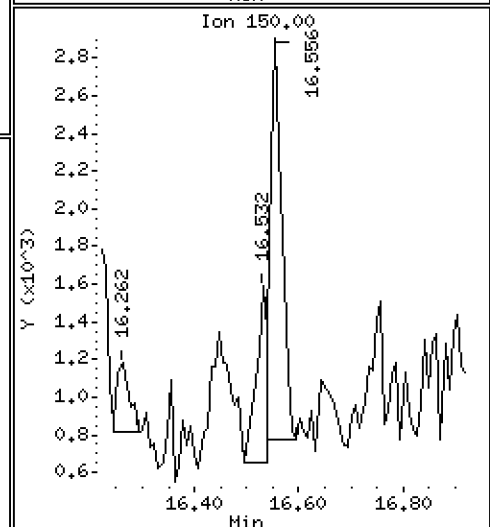
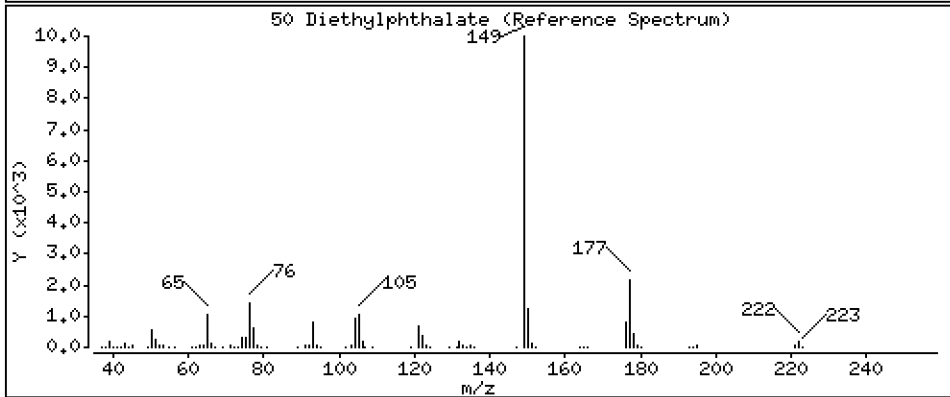
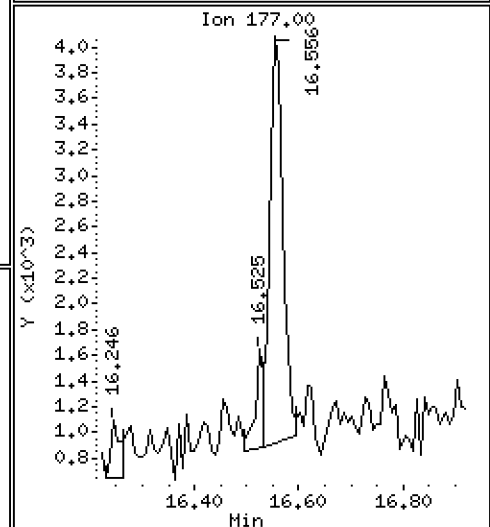
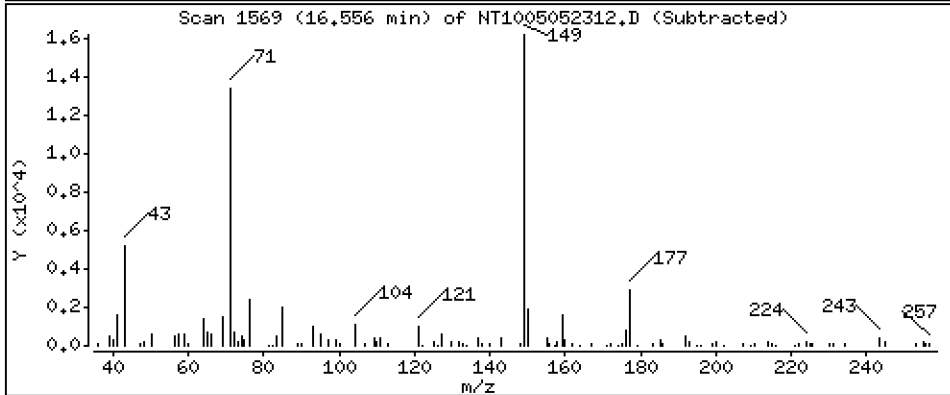
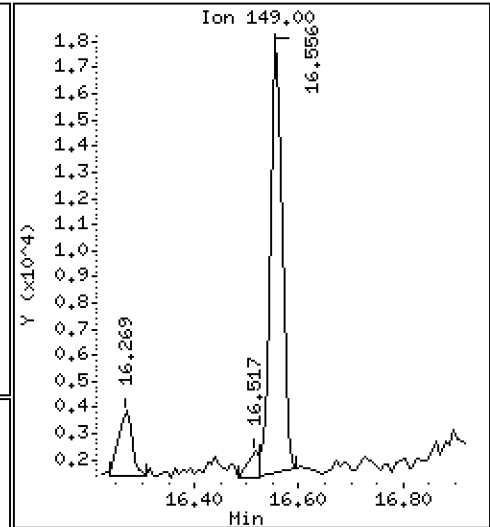
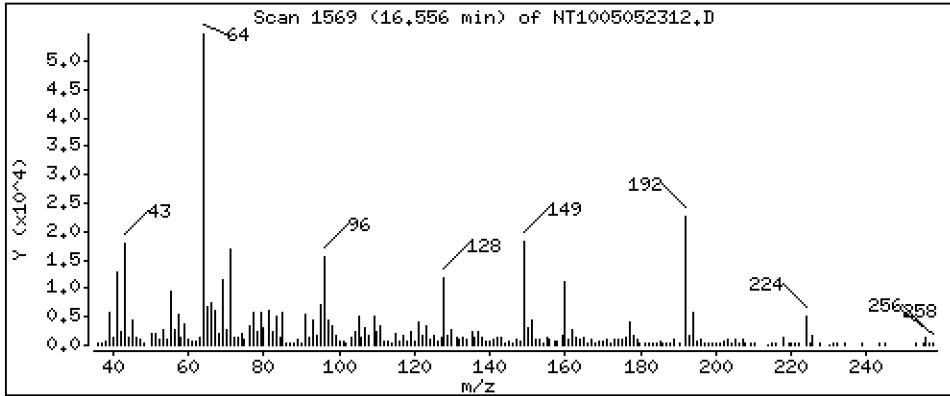
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1854 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

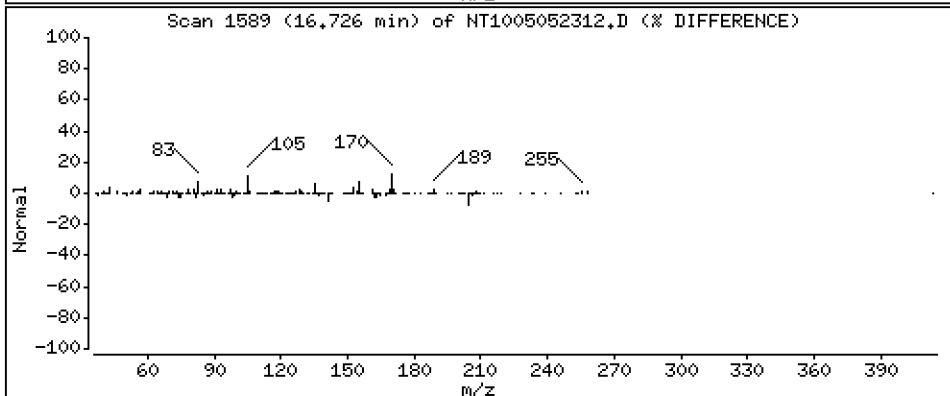
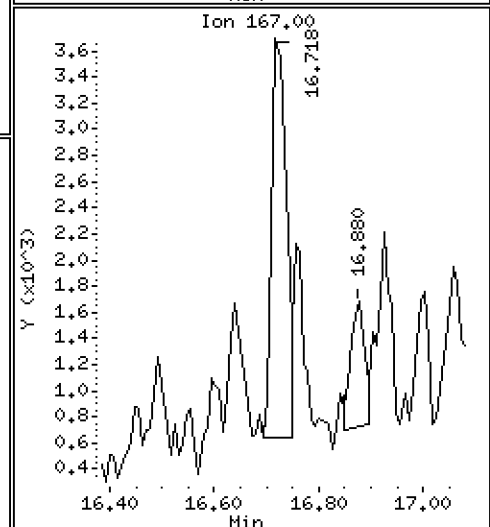
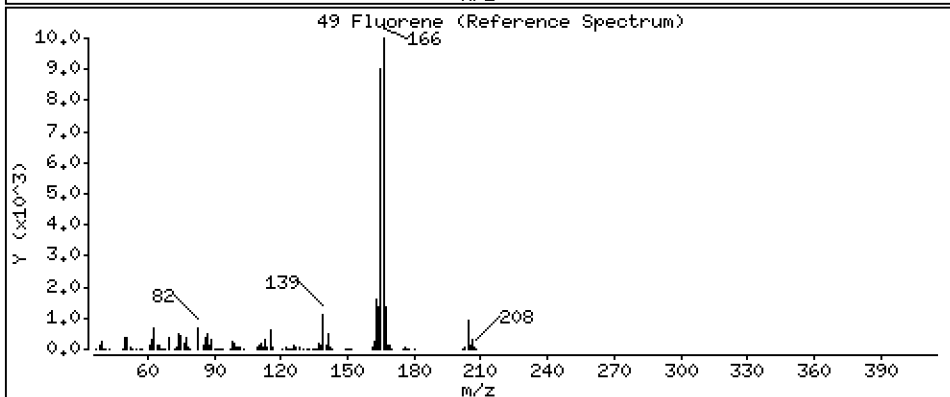
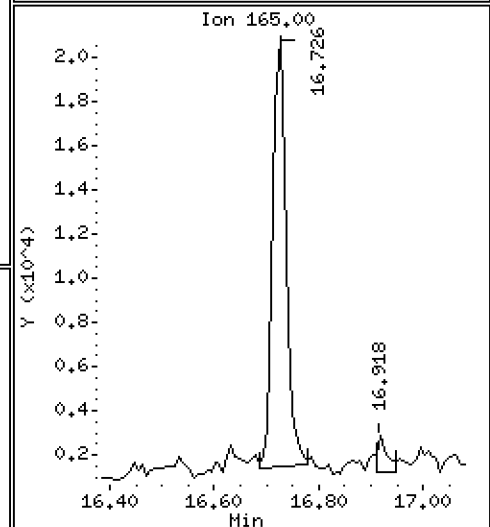
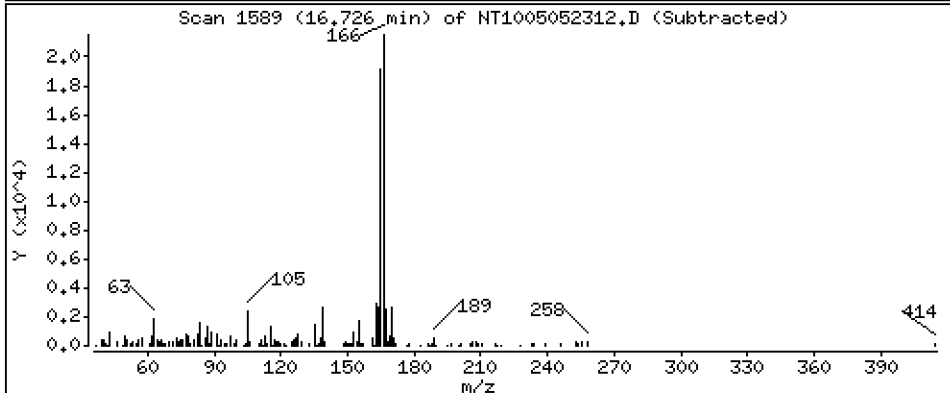
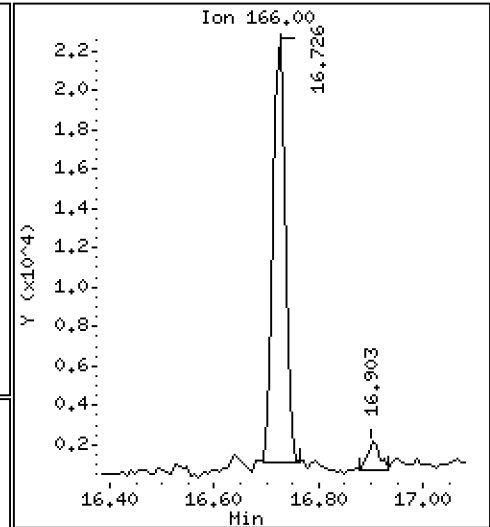
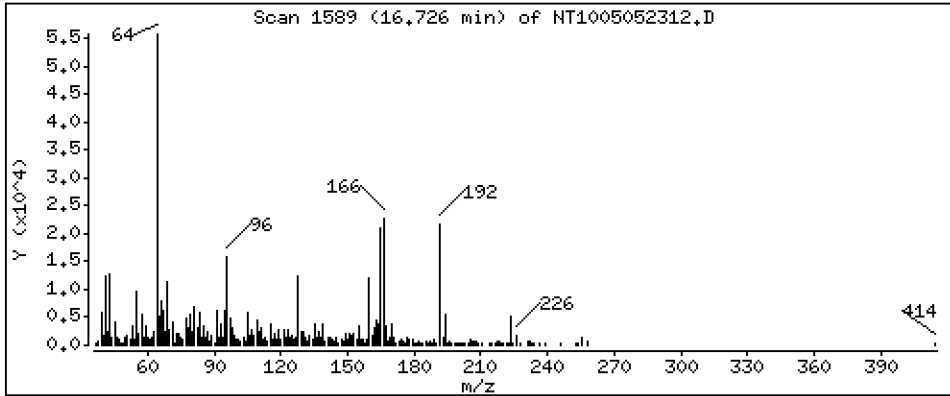
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,2375 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

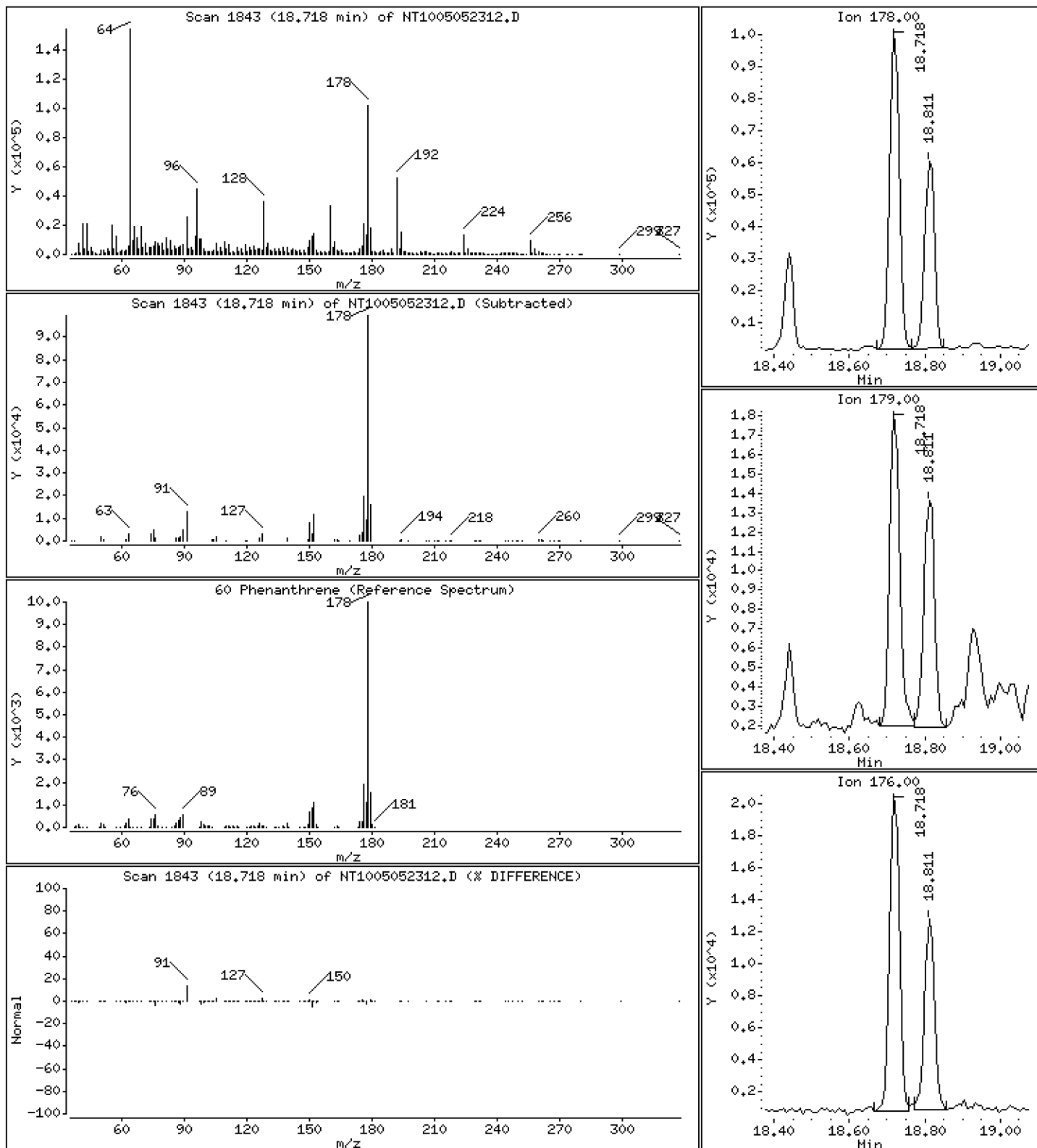
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,9205 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

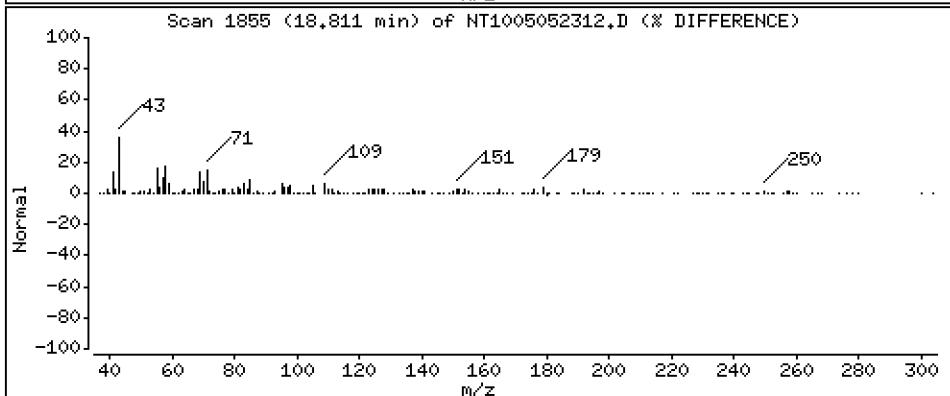
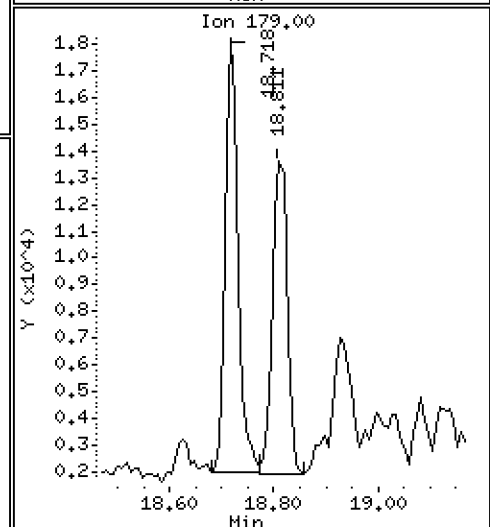
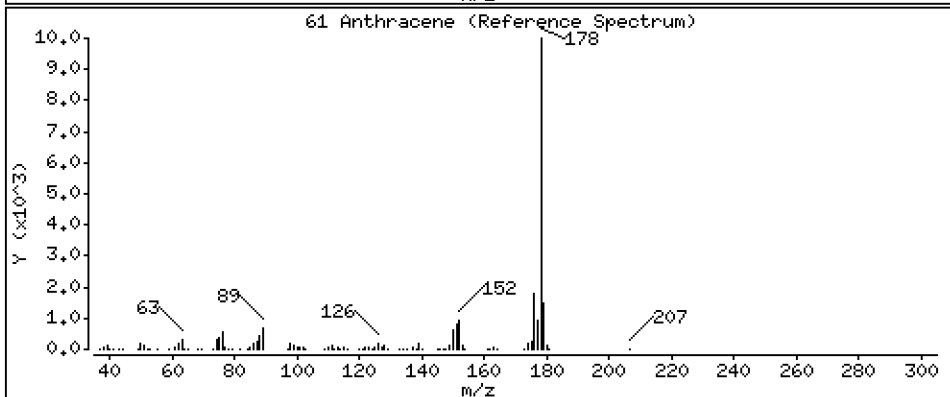
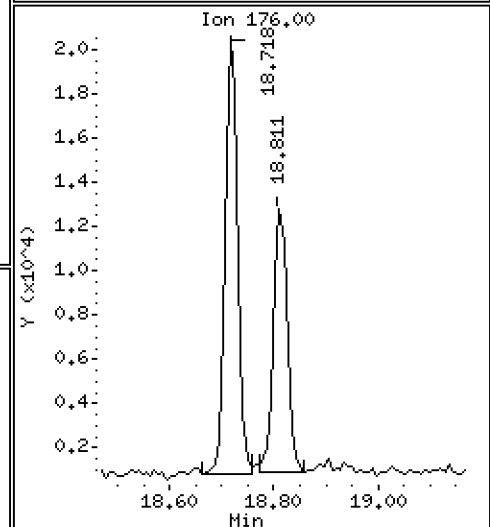
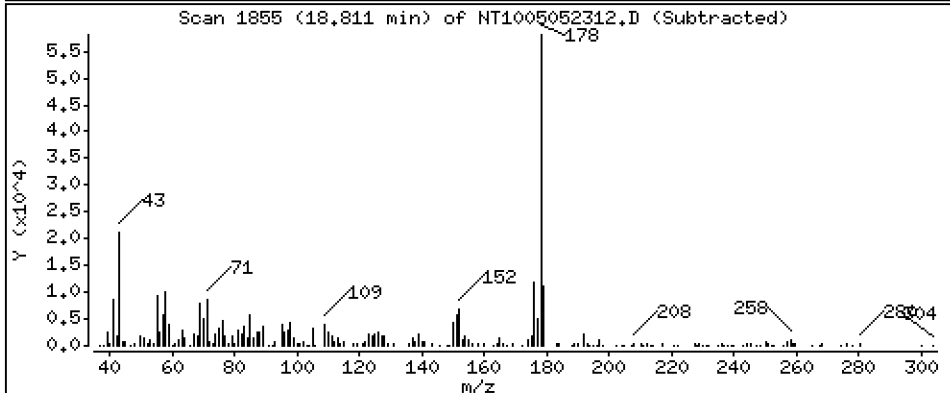
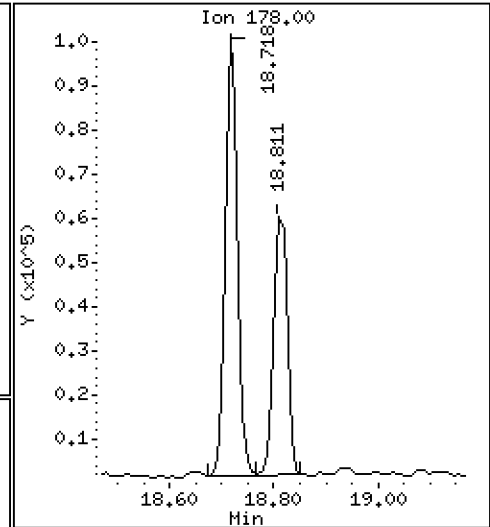
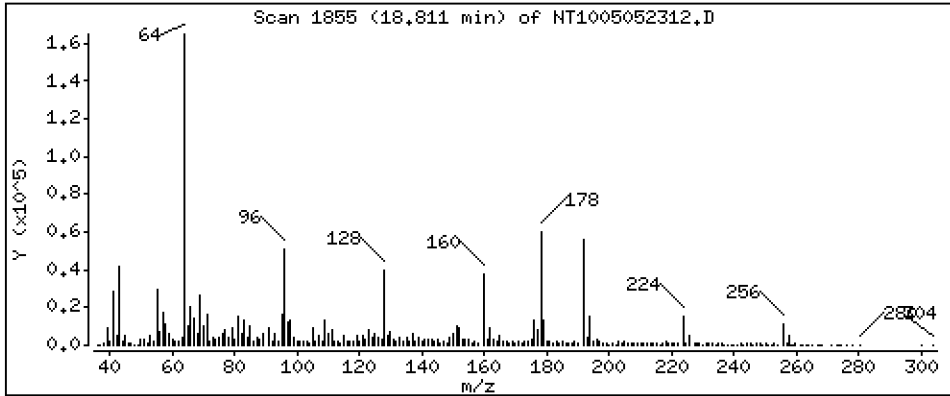
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,6046 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

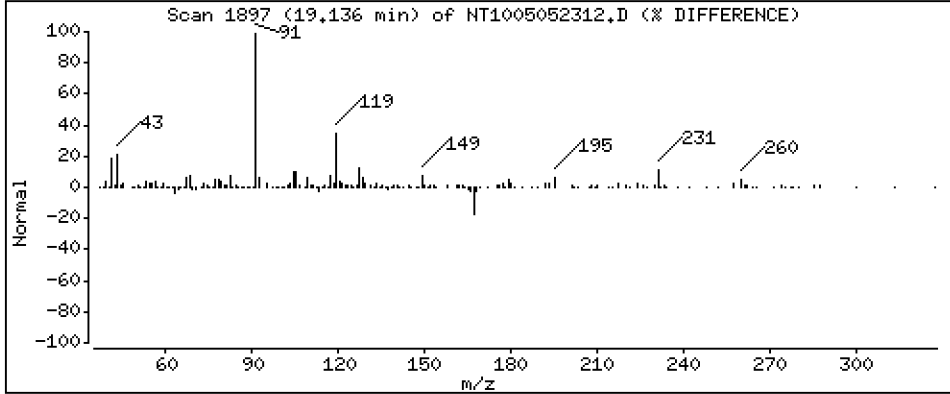
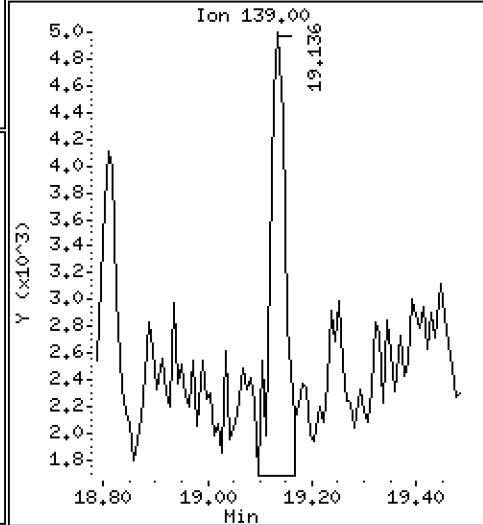
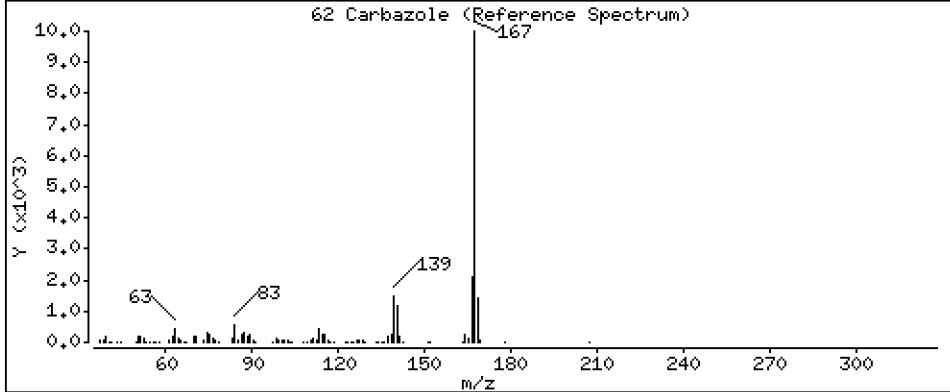
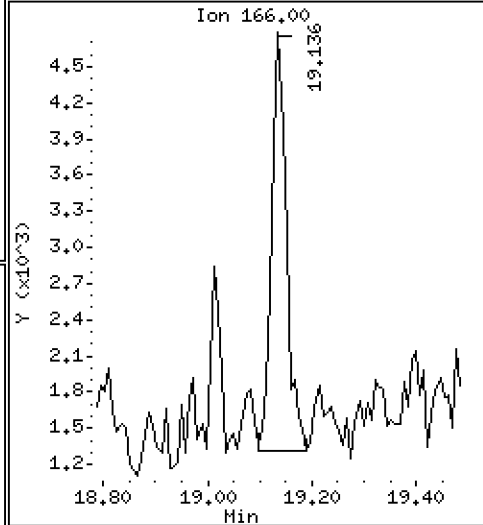
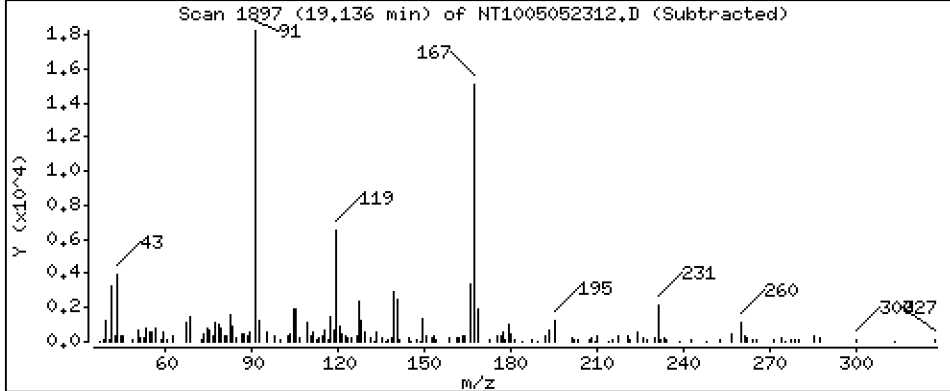
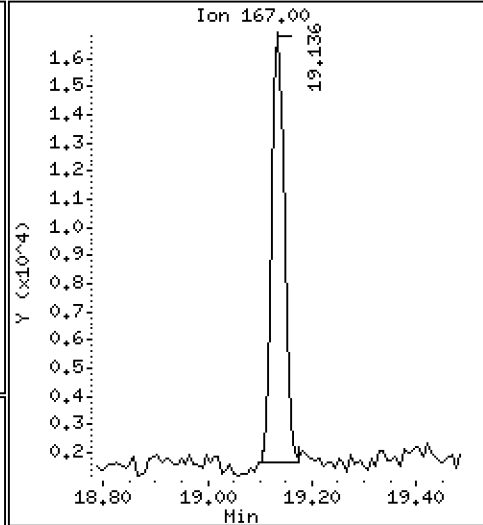
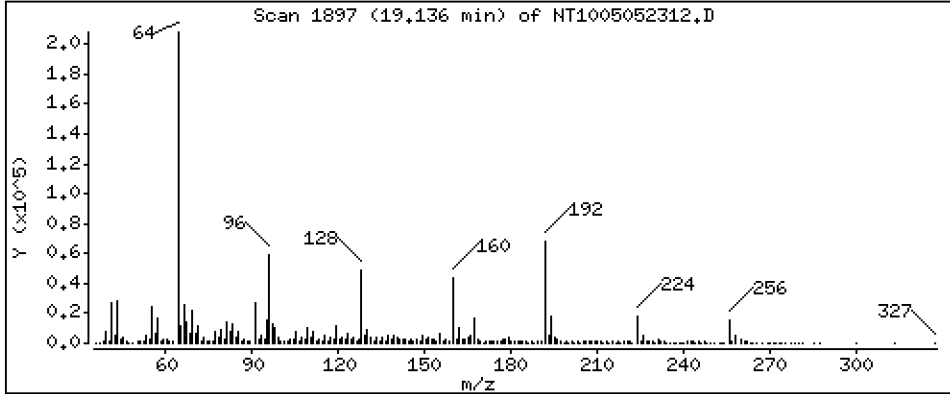
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 0.1642 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

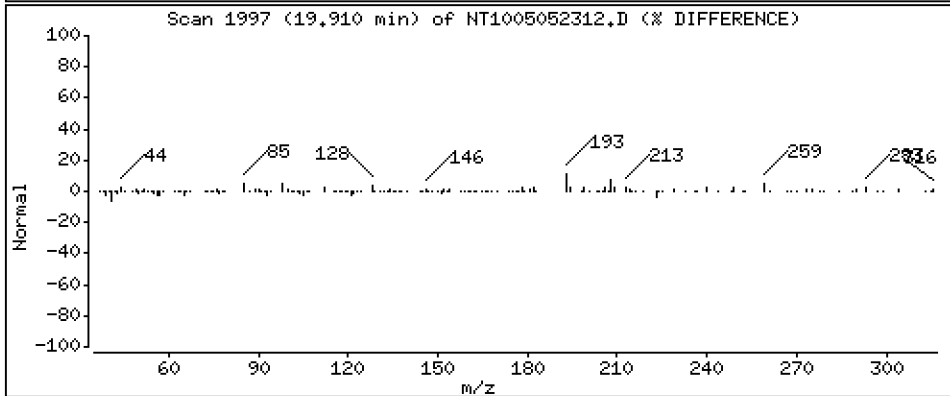
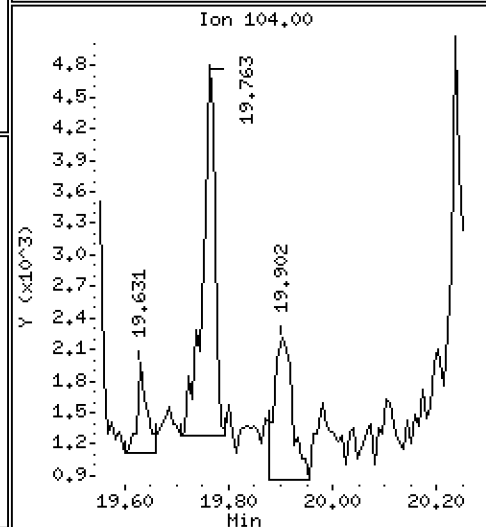
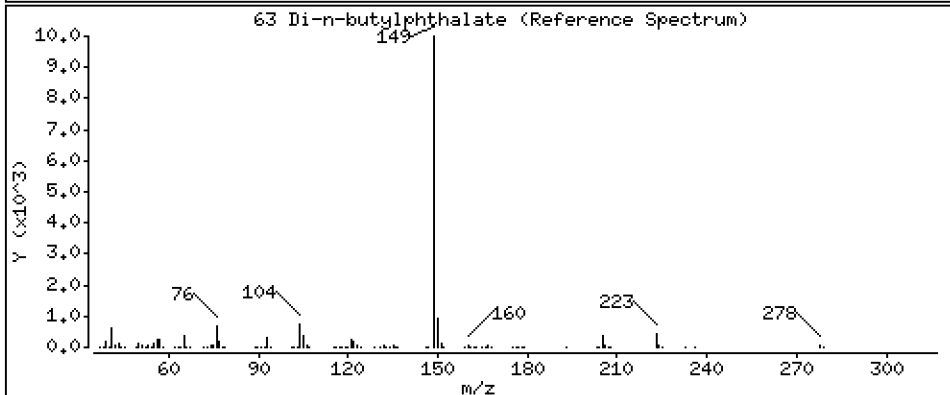
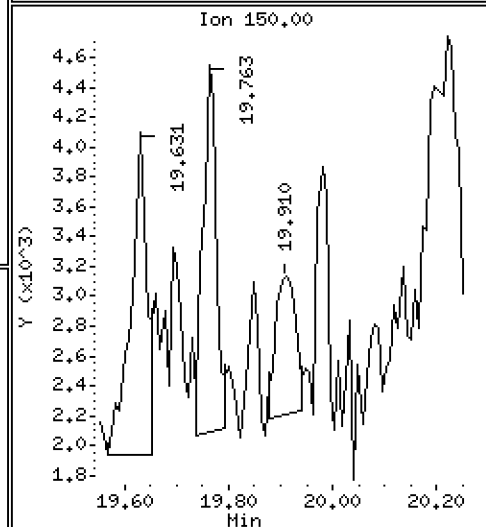
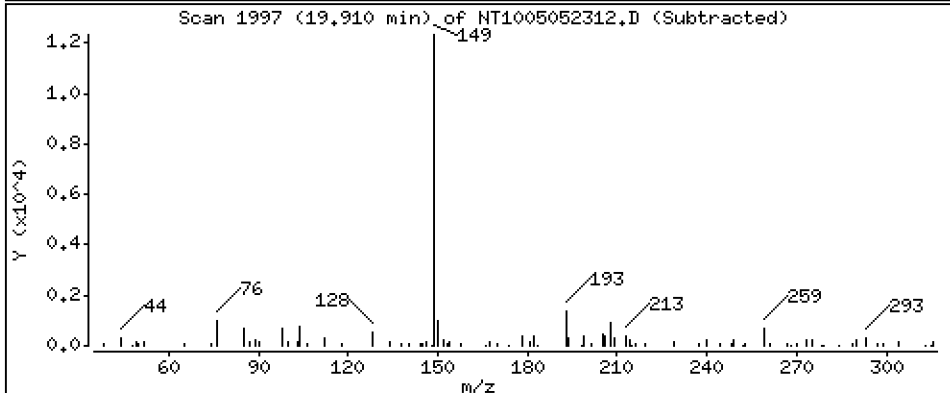
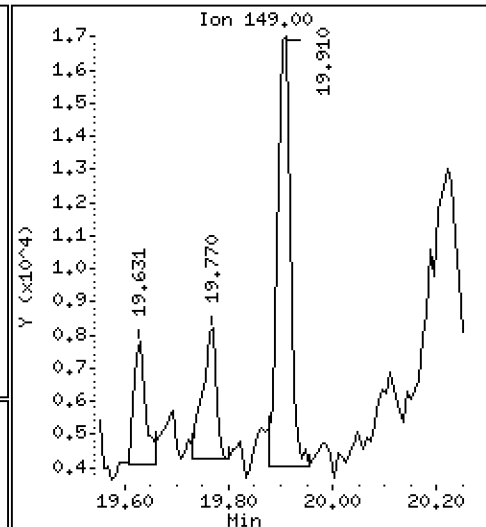
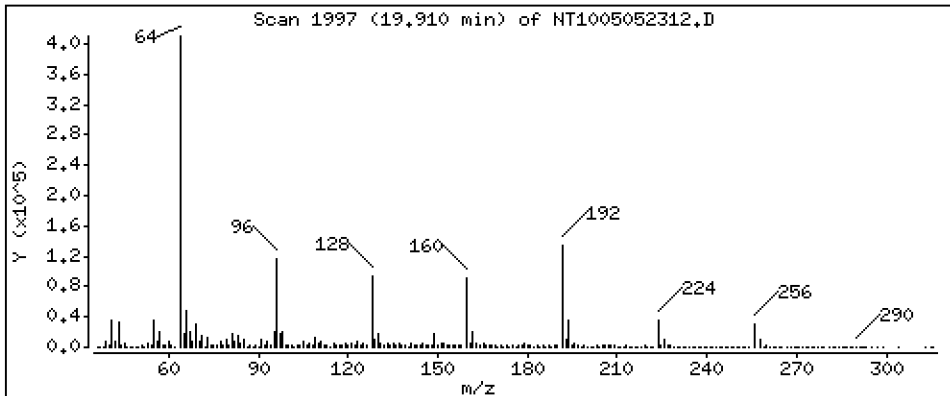
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.09810 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

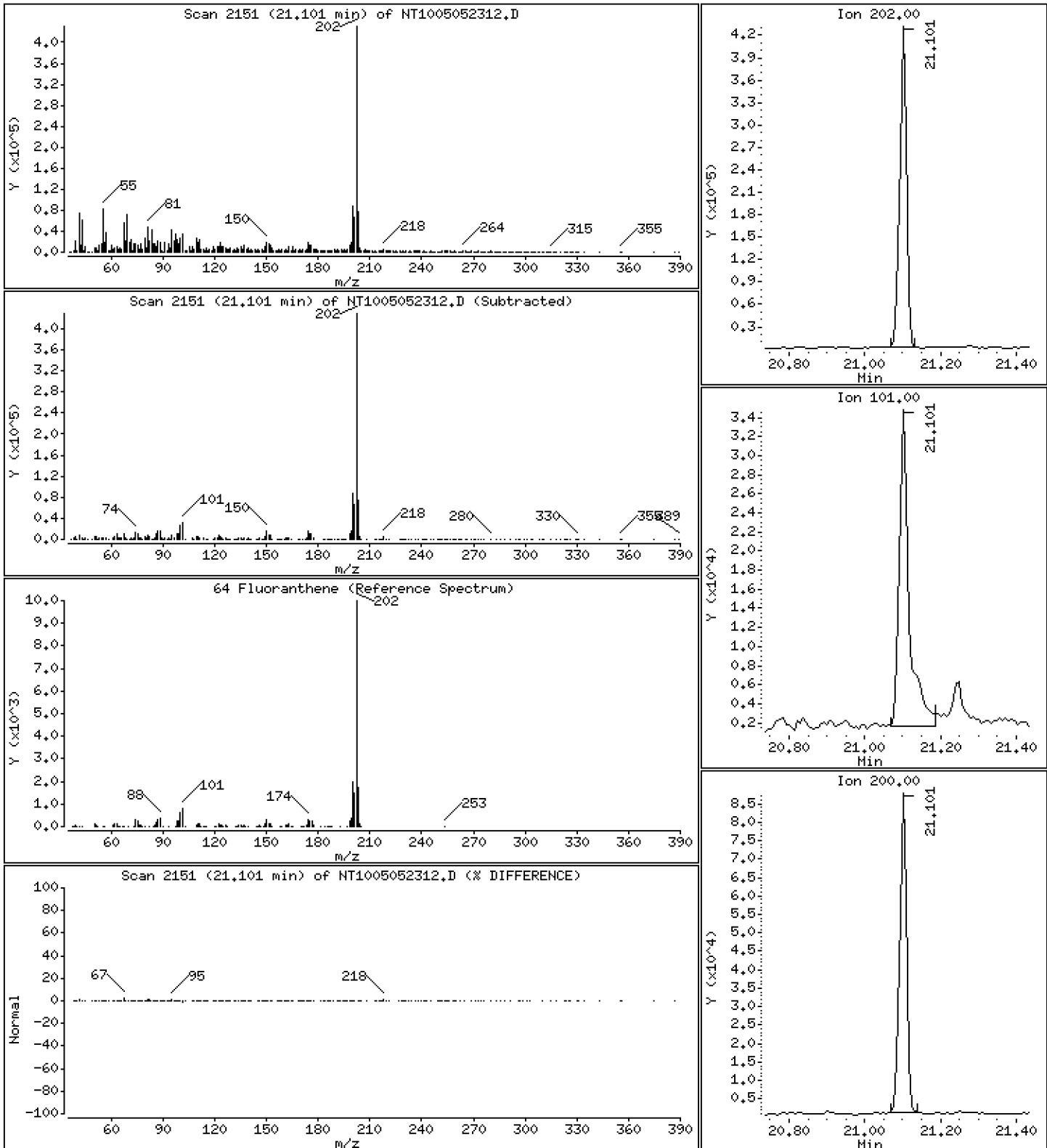
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 2,578 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

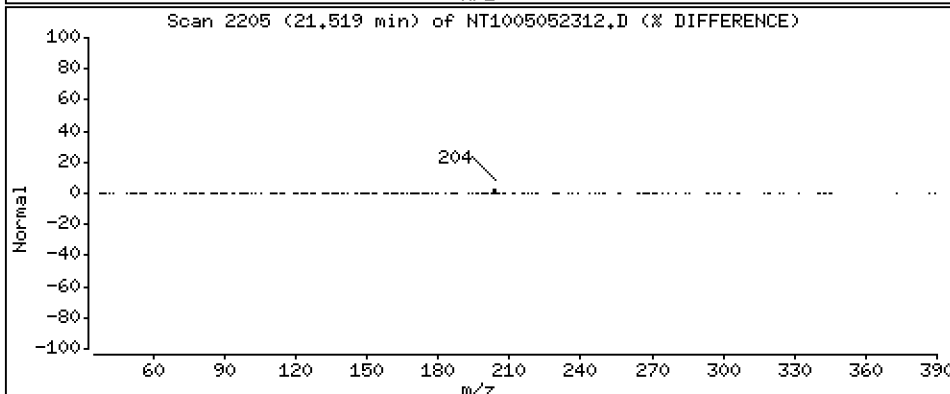
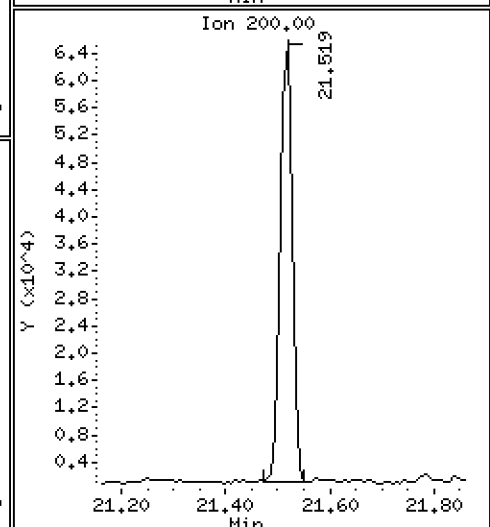
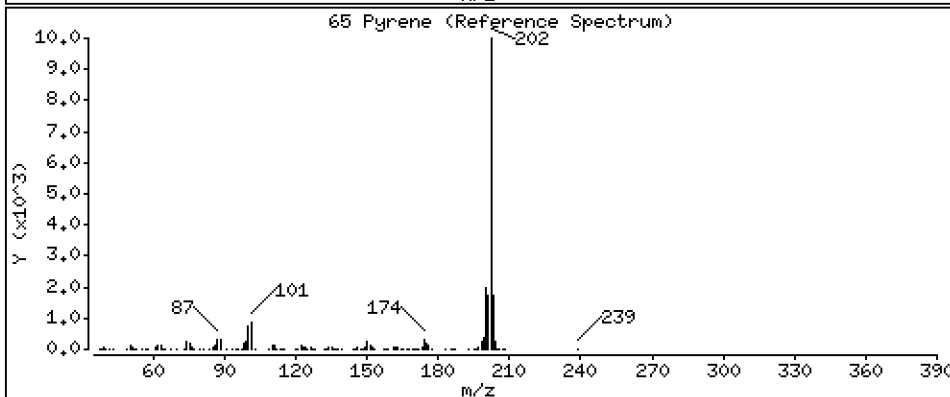
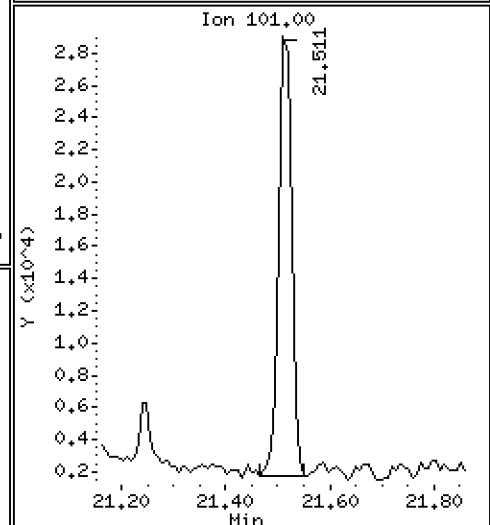
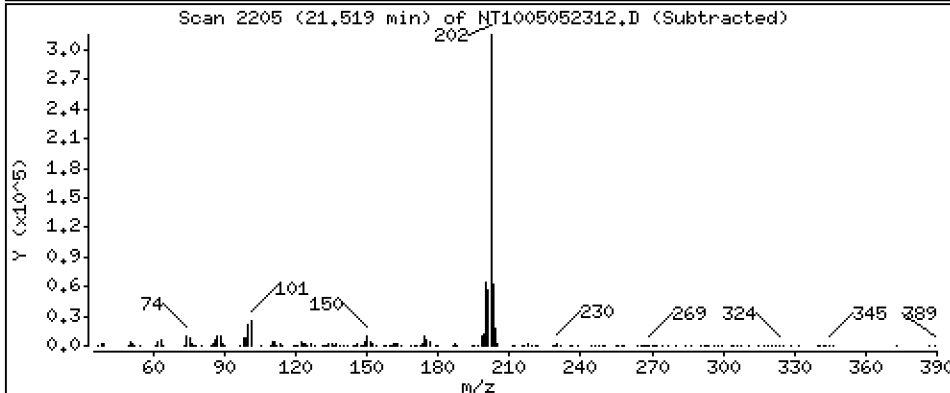
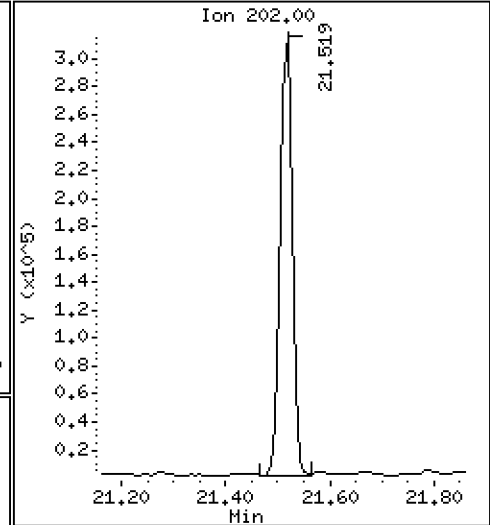
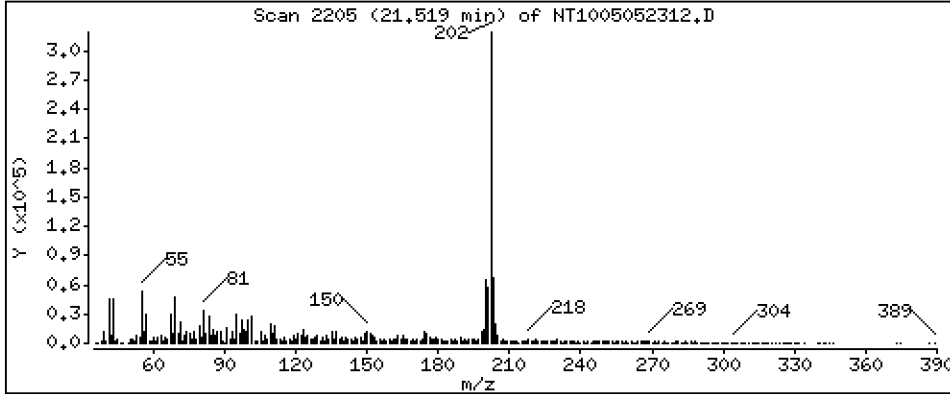
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 2,349 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

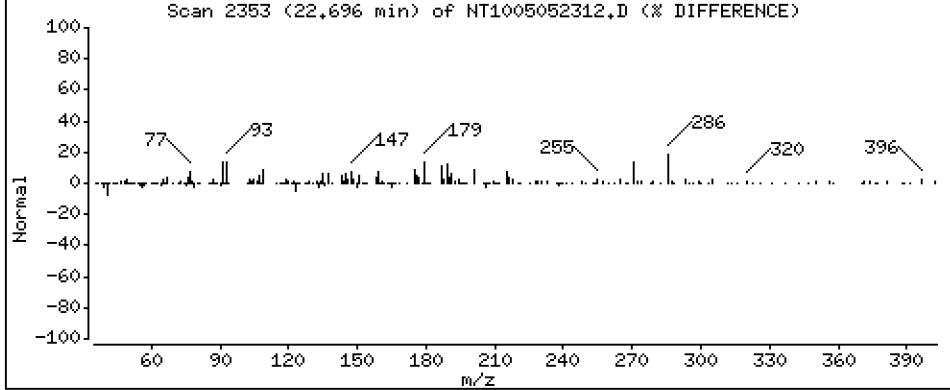
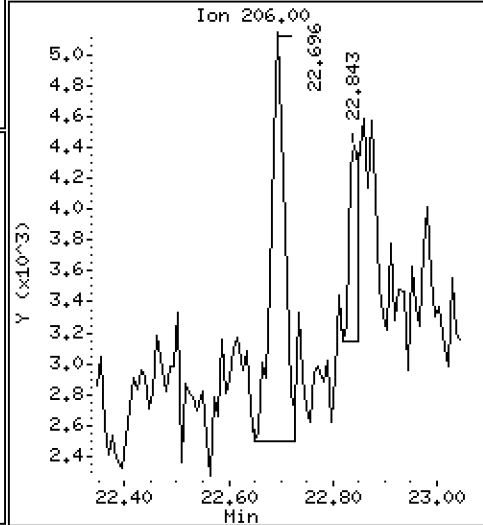
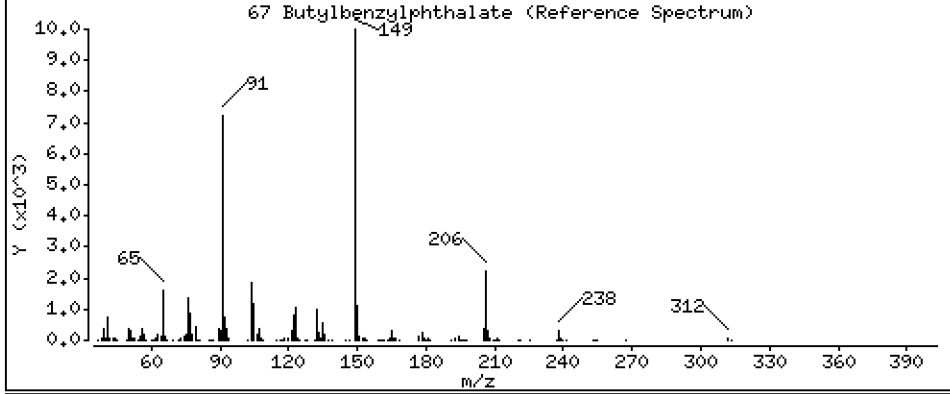
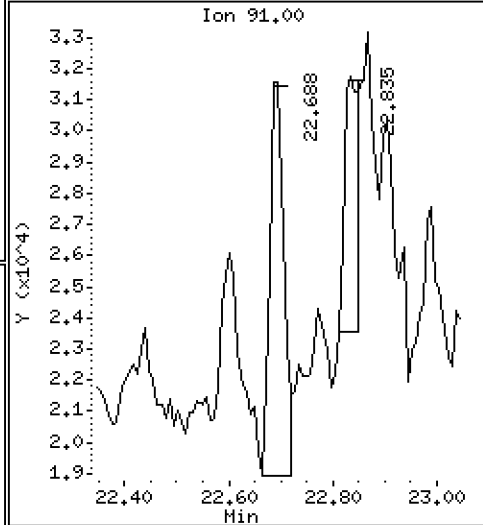
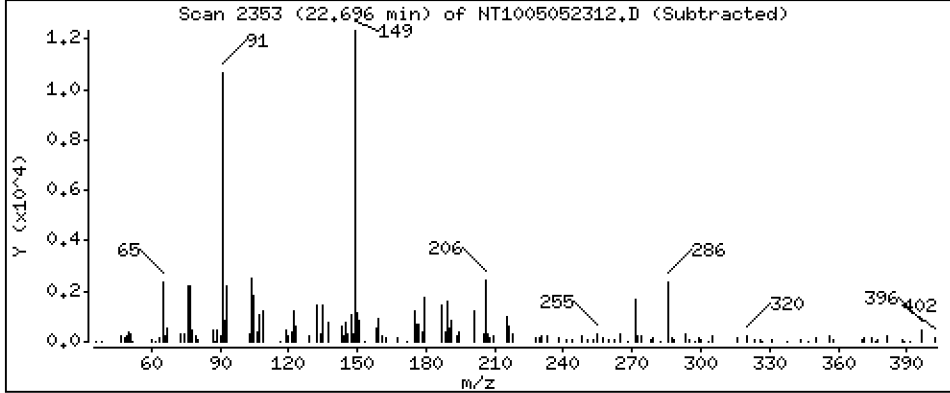
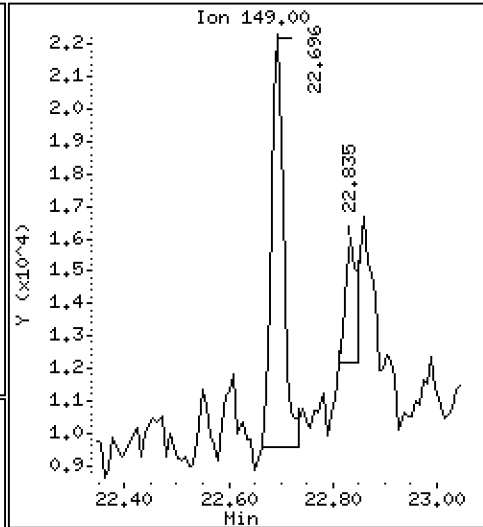
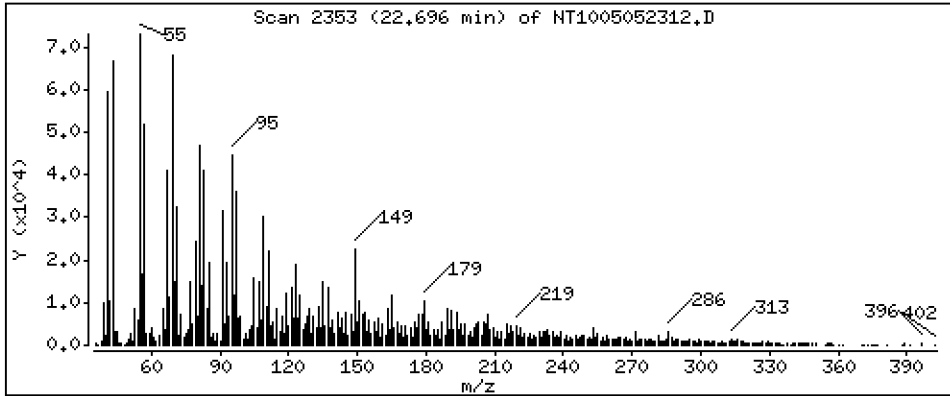
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.2078 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

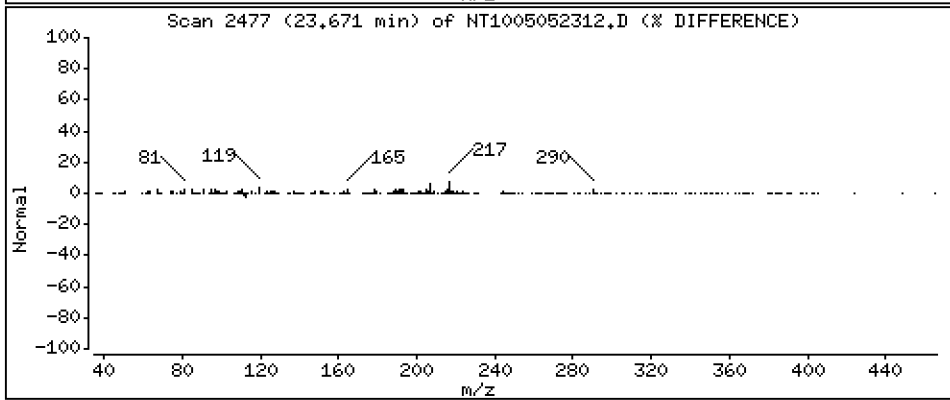
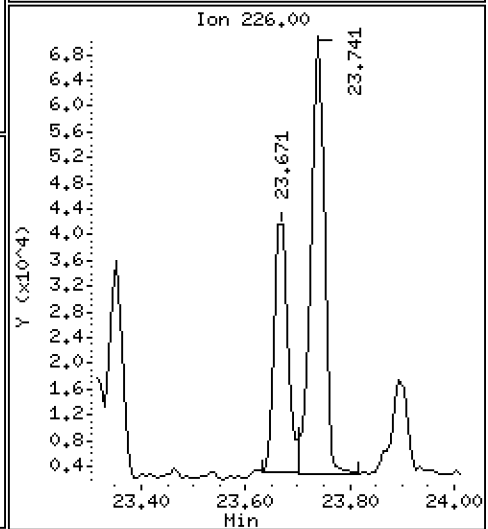
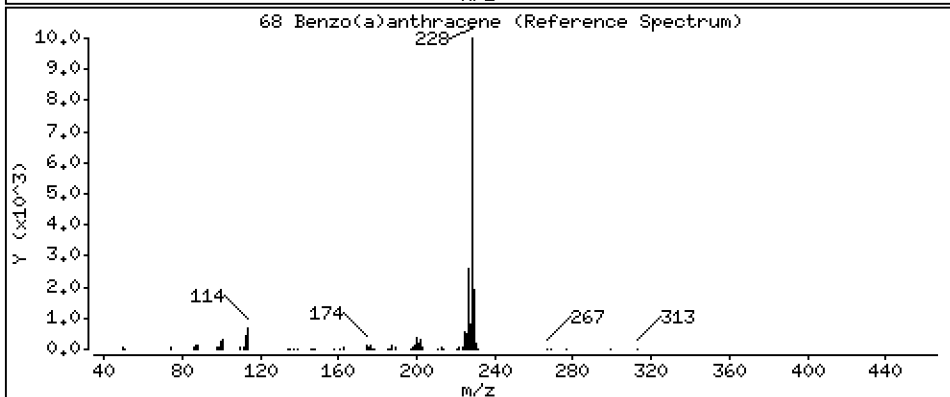
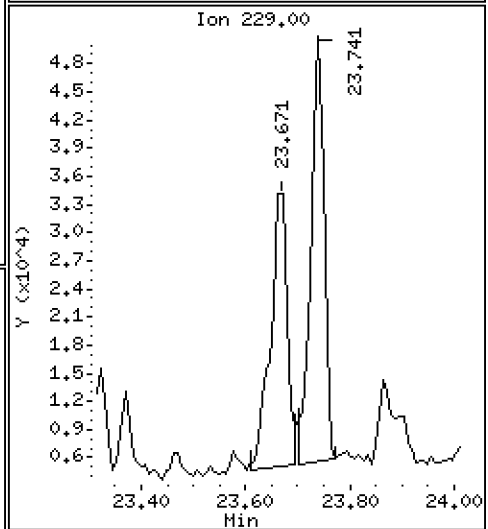
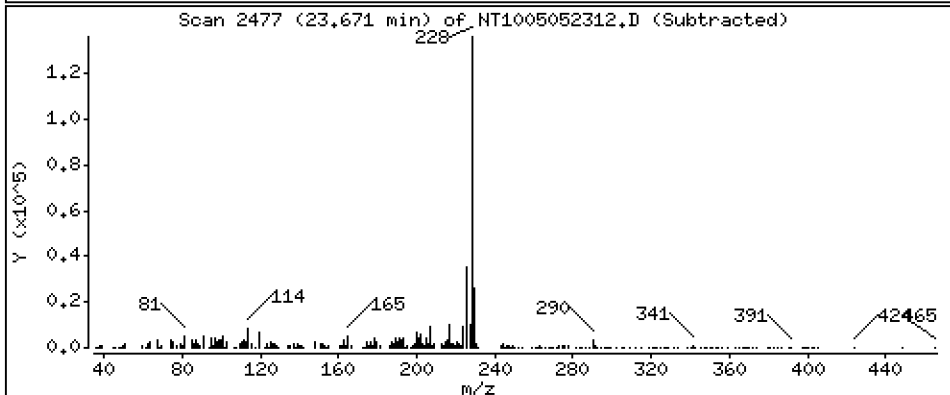
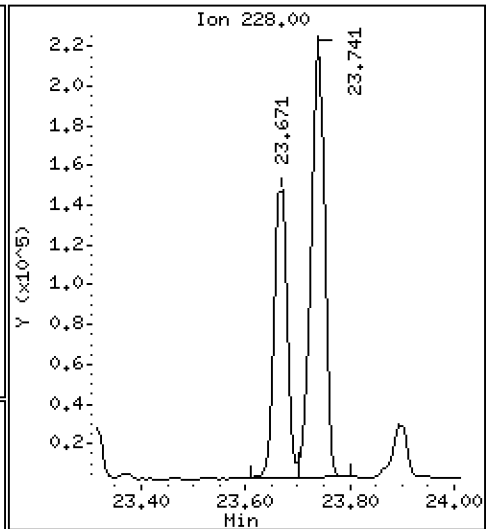
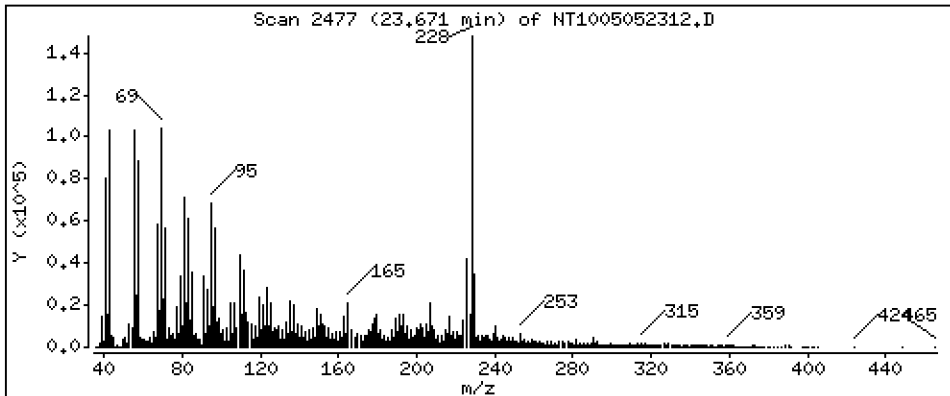
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 1,351 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

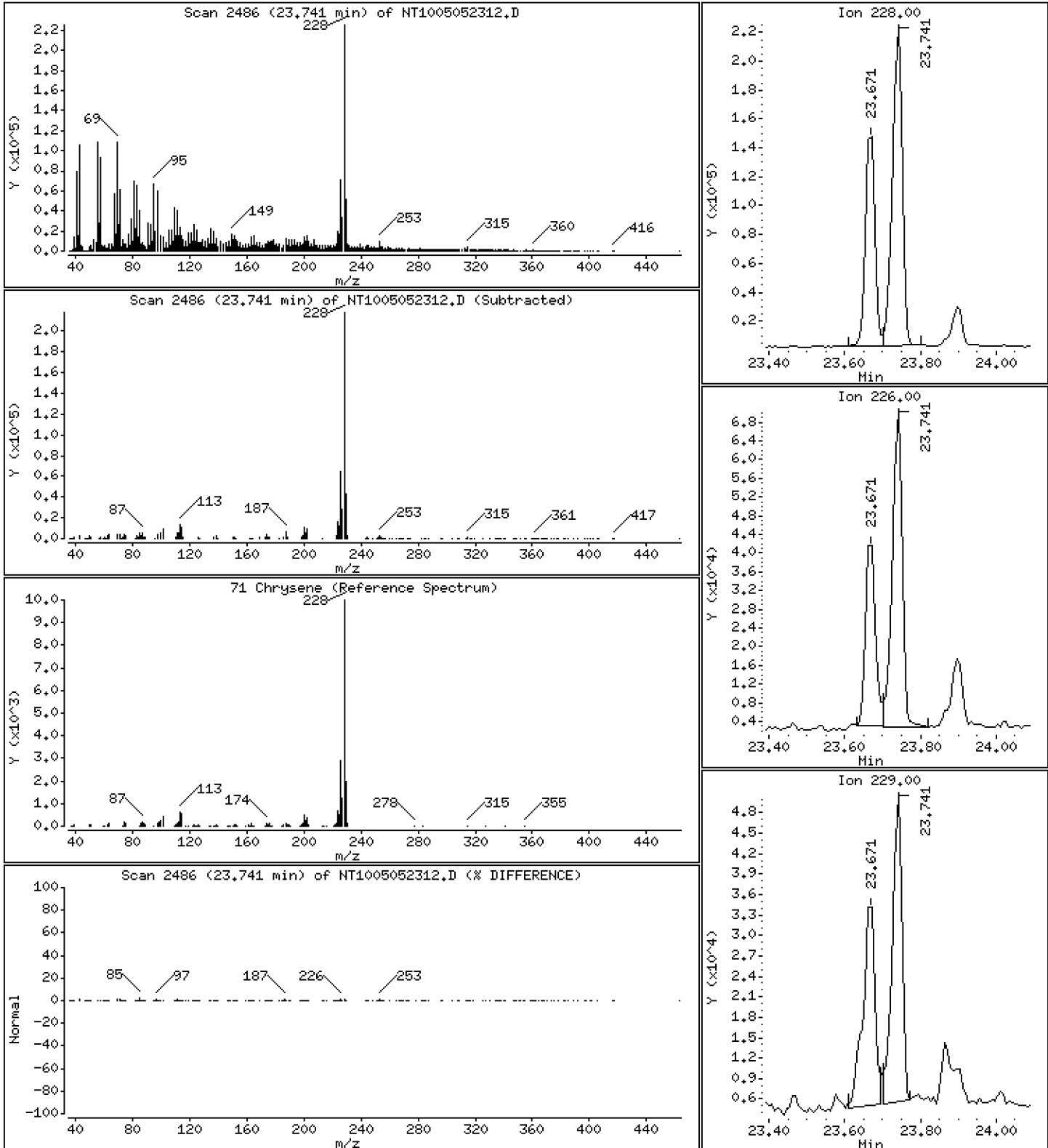
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 2,333 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

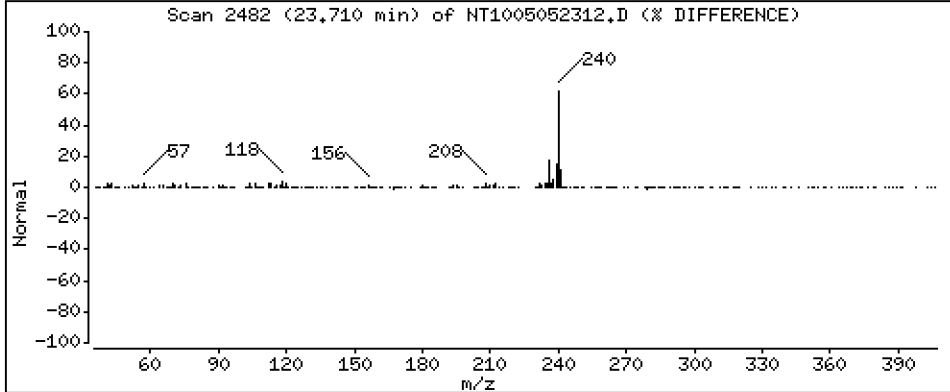
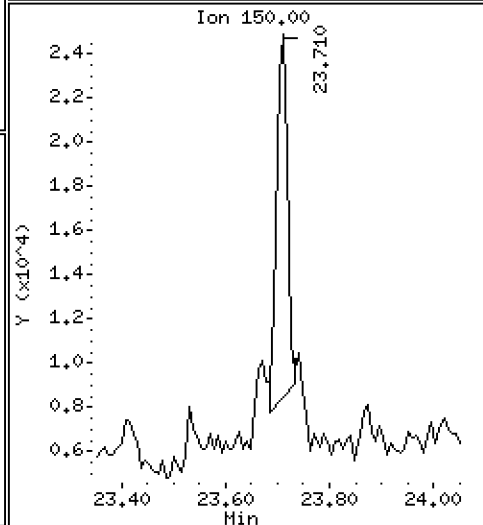
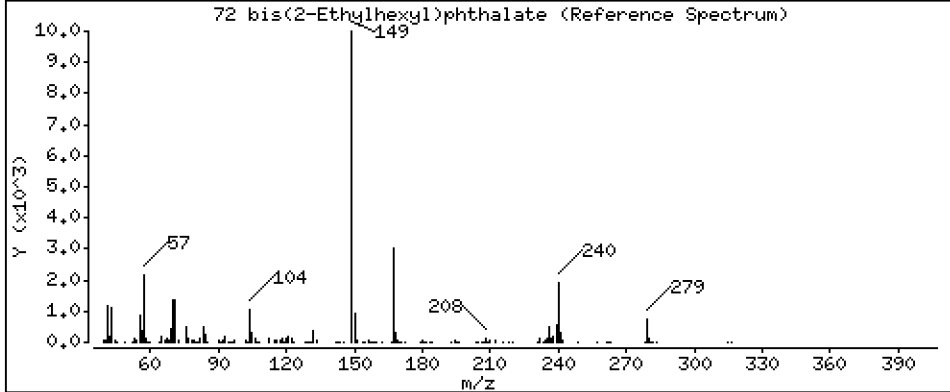
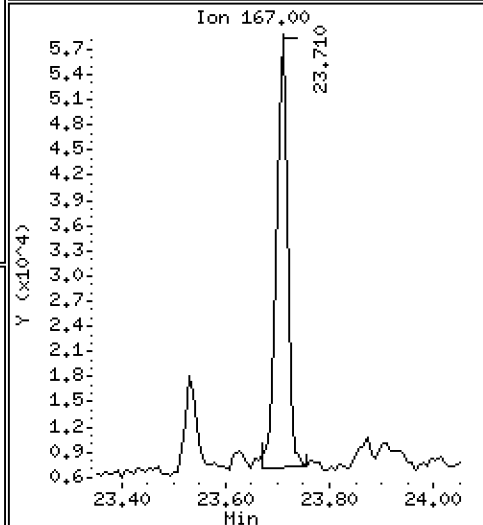
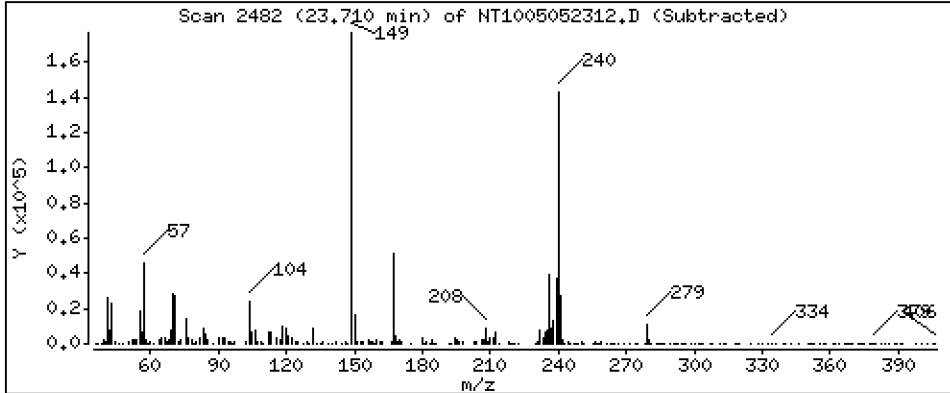
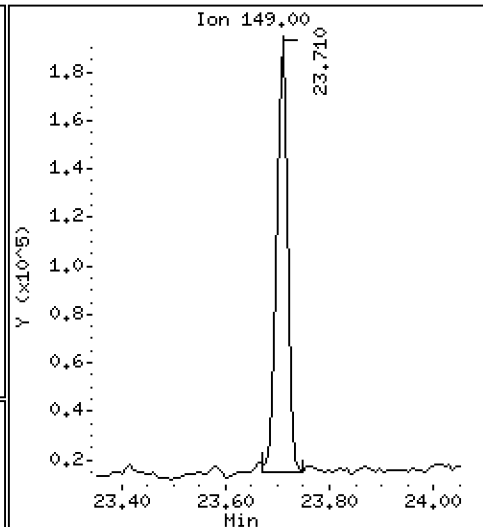
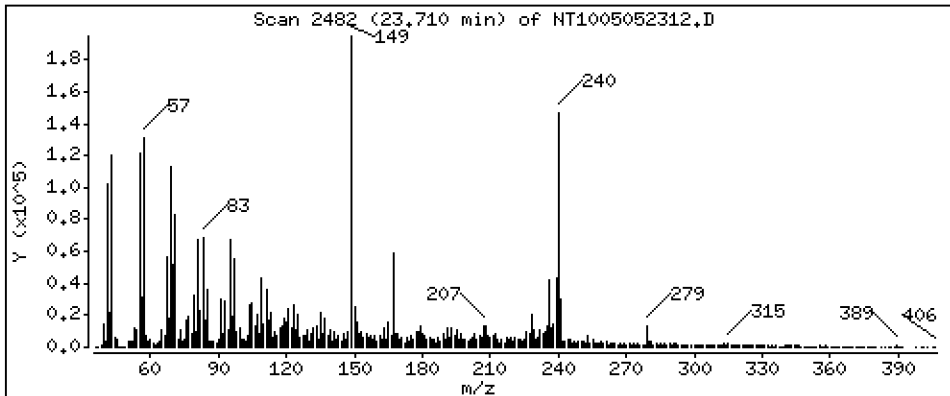
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 1,964 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

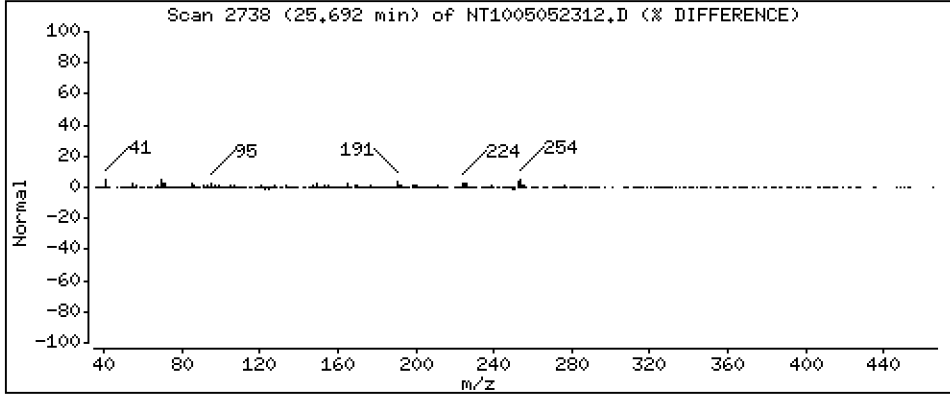
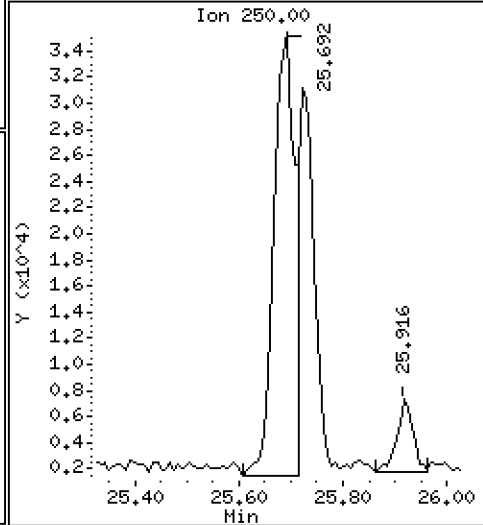
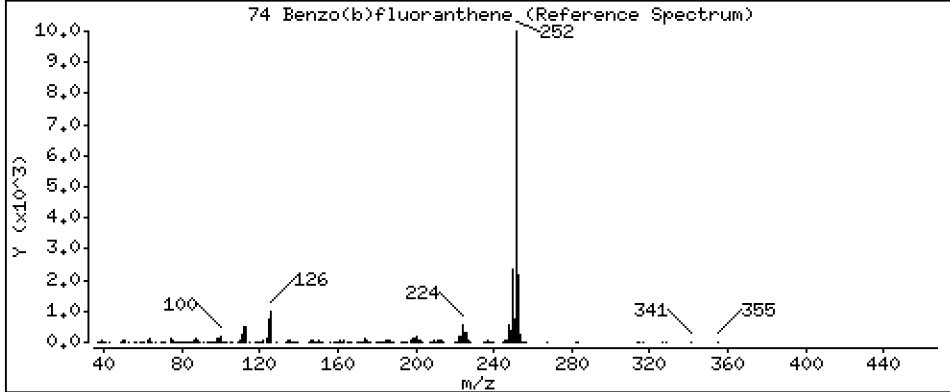
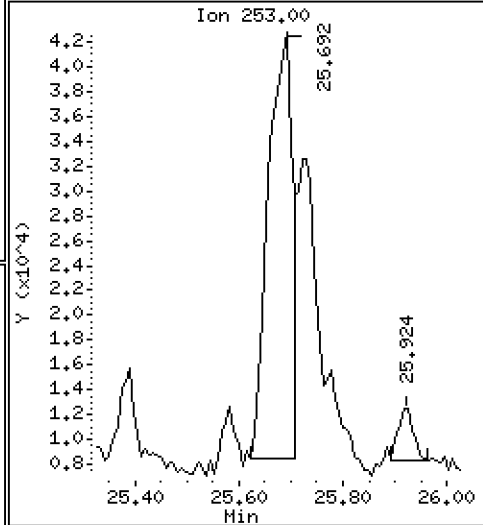
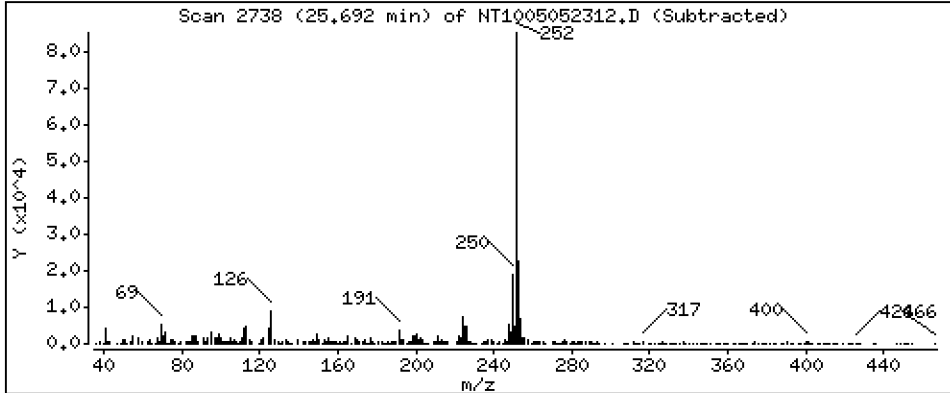
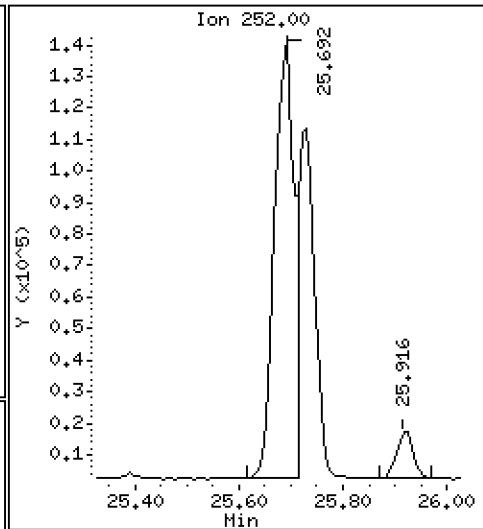
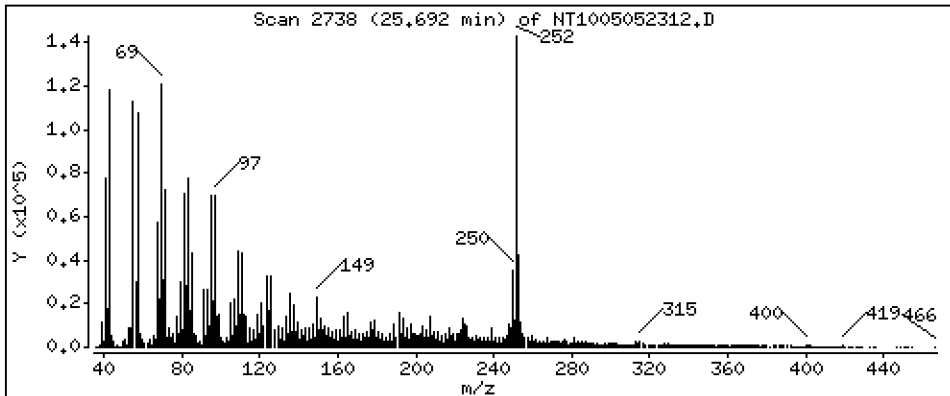
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 2,385 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

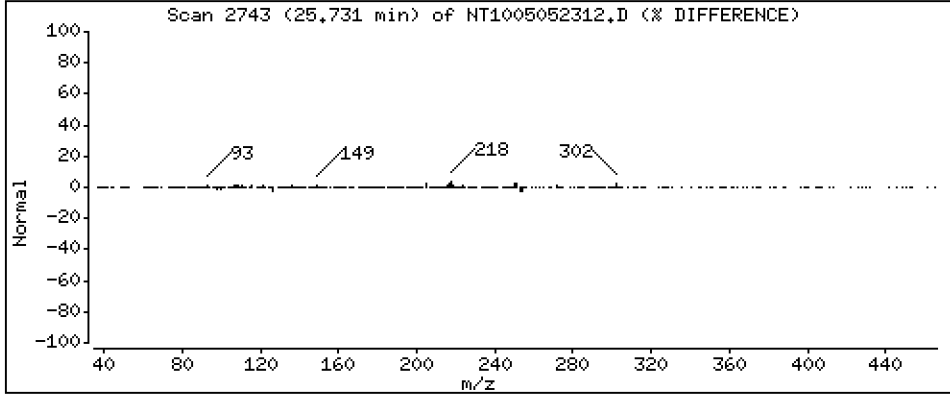
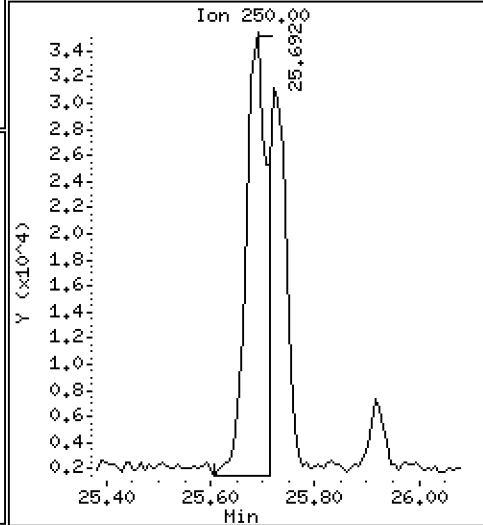
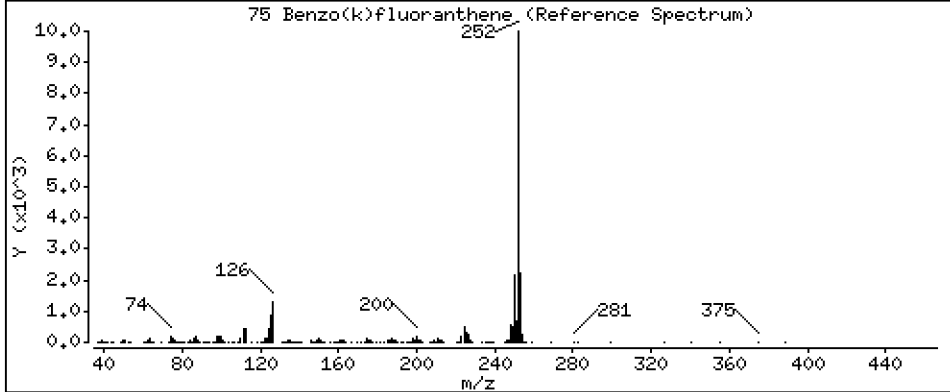
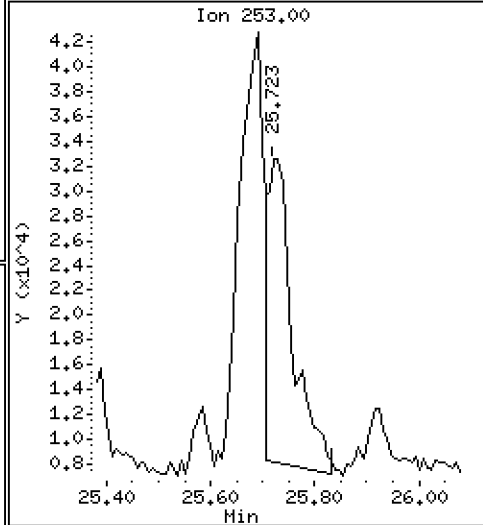
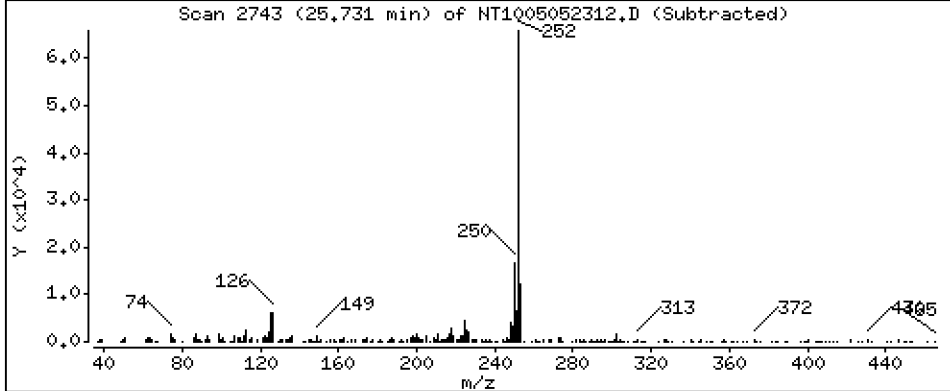
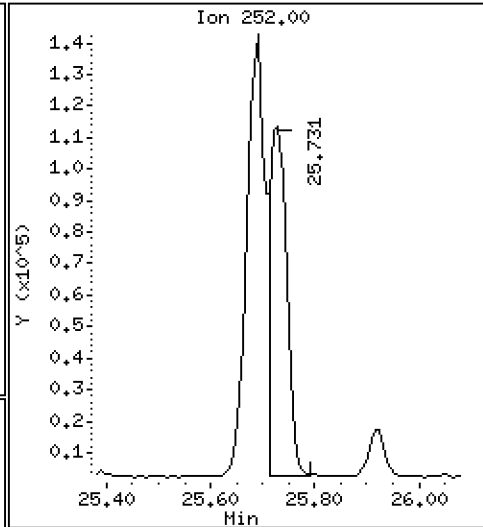
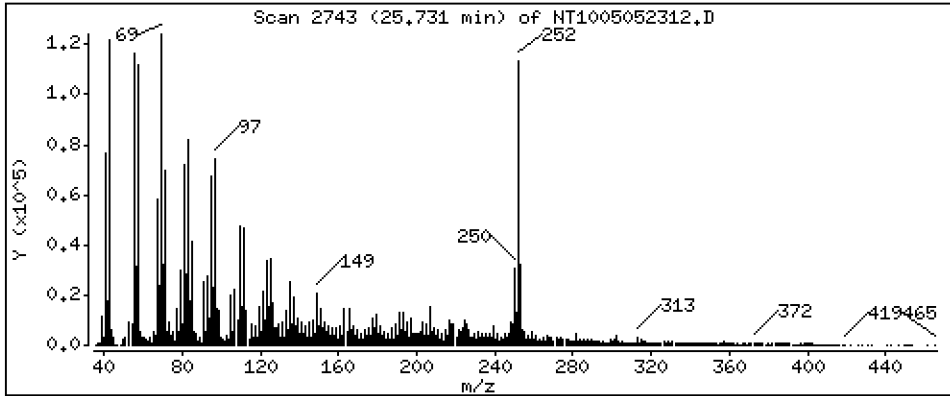
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 1,523 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

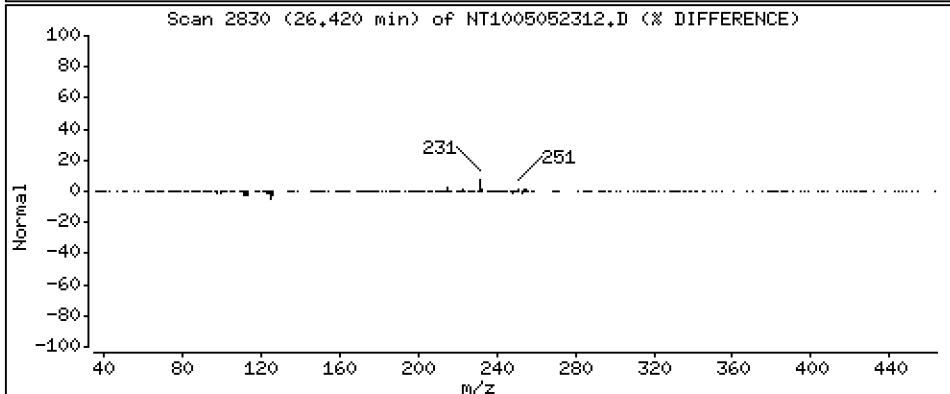
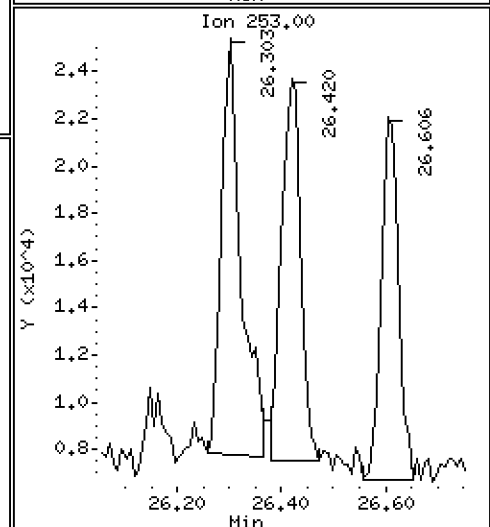
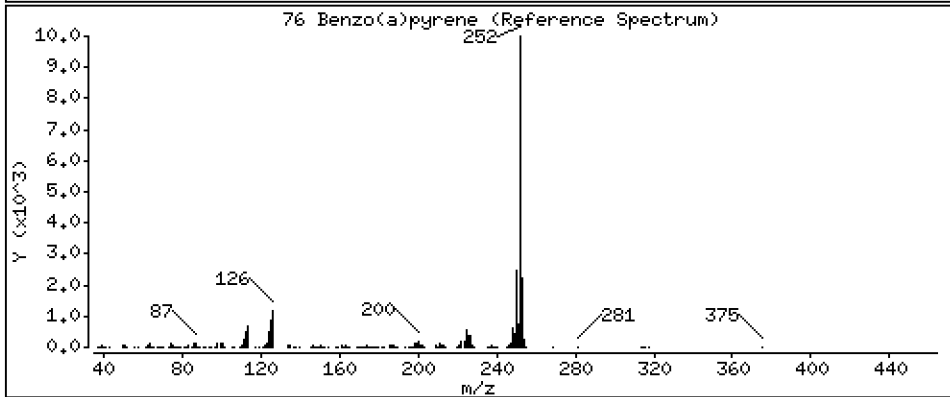
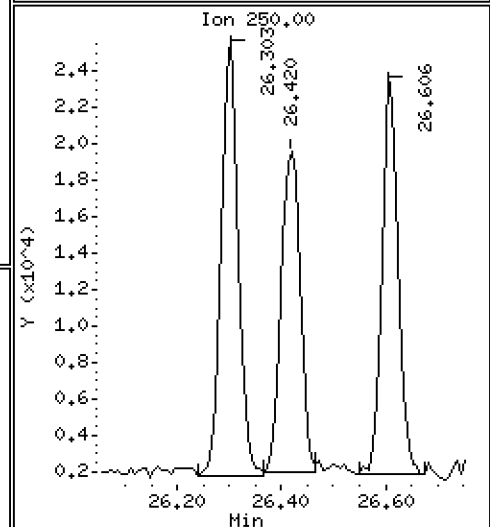
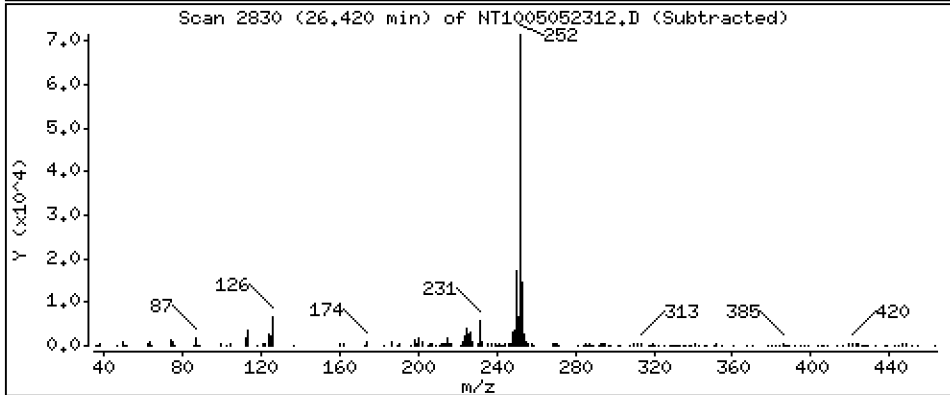
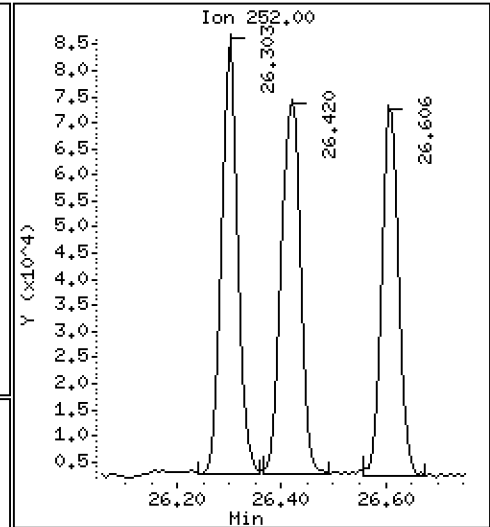
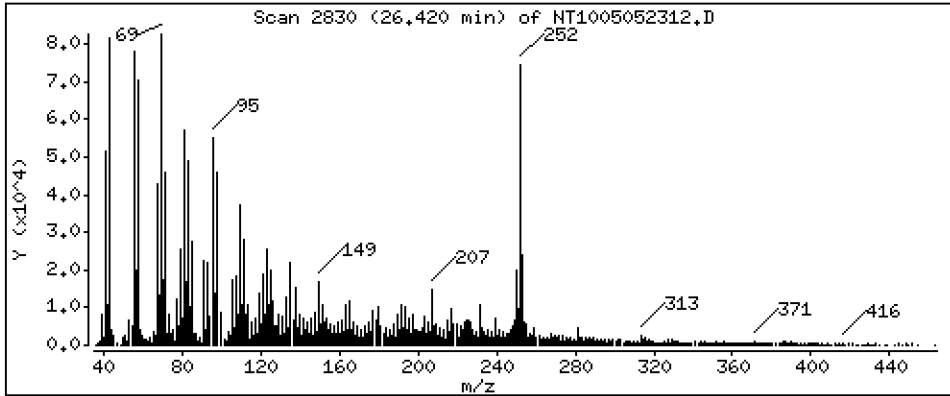
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 1,358 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

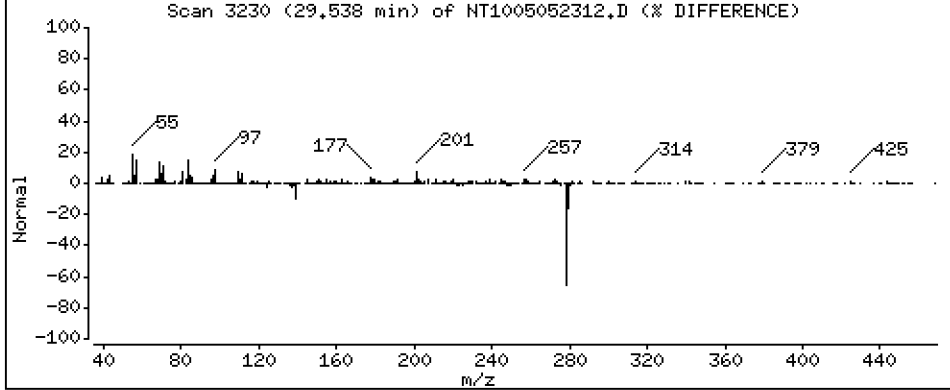
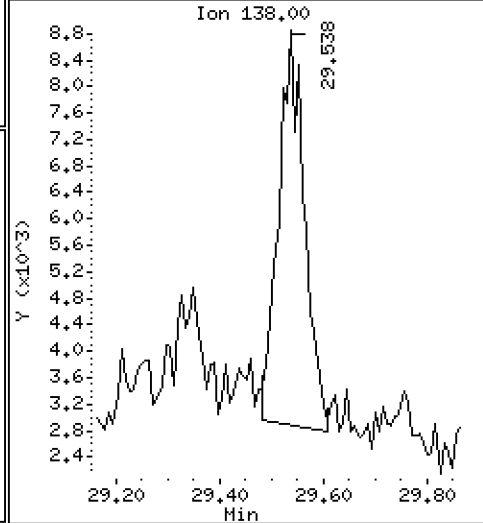
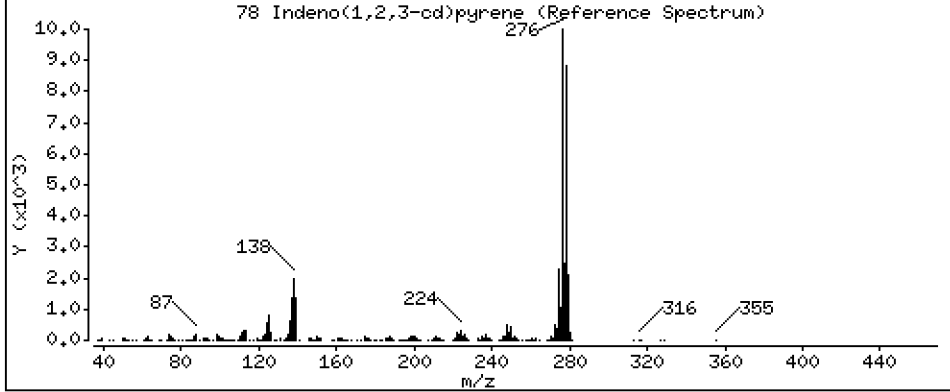
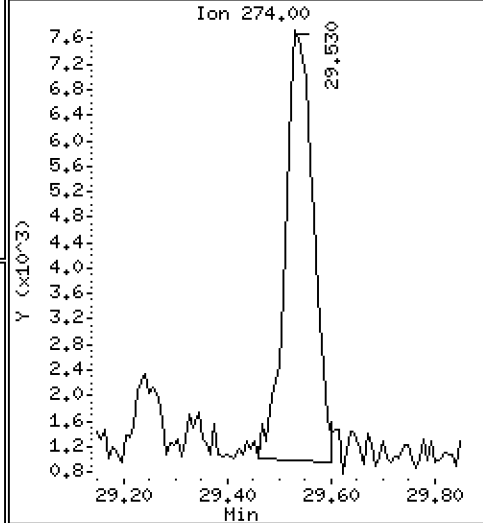
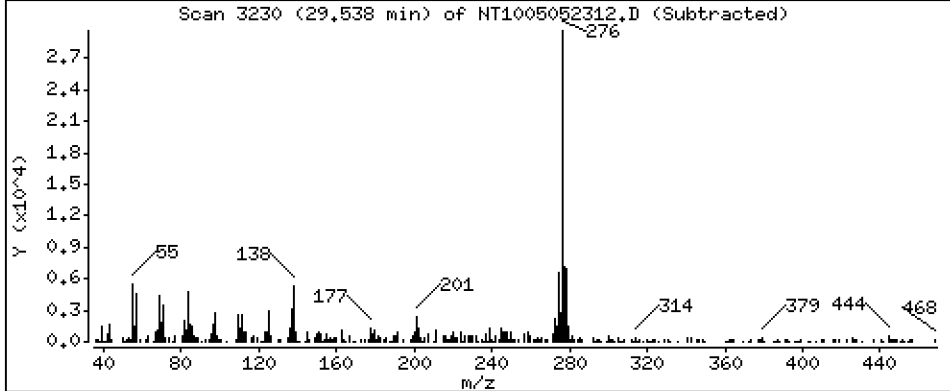
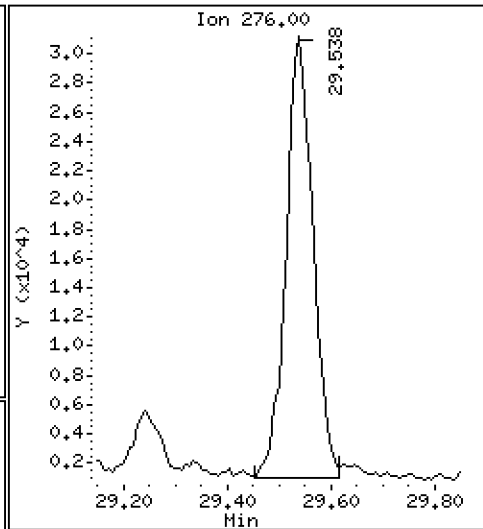
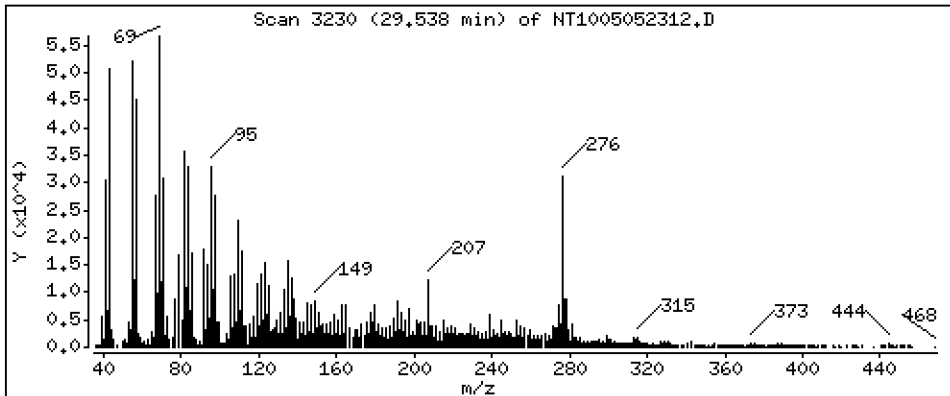
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,6889 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

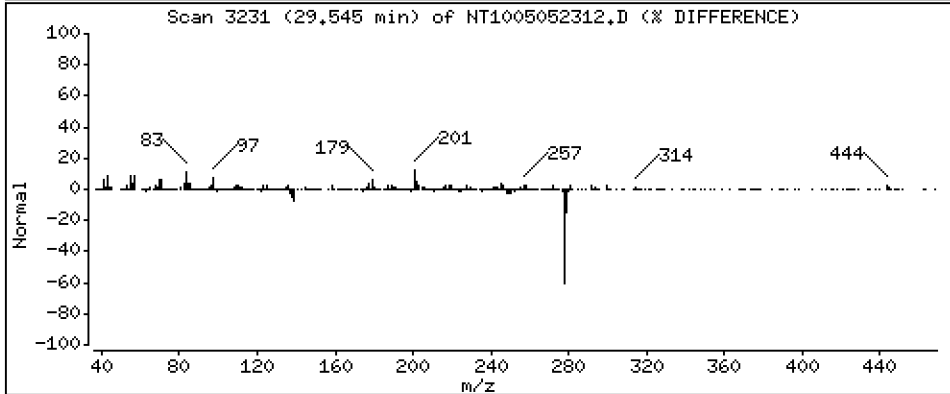
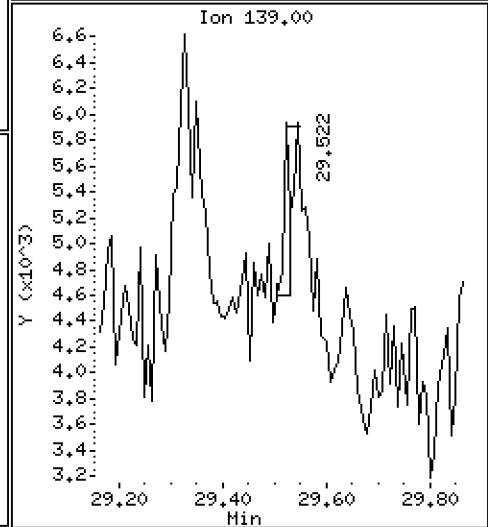
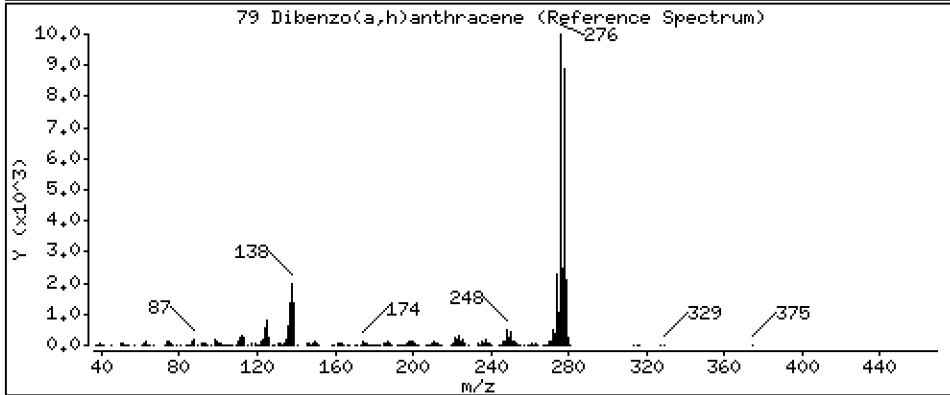
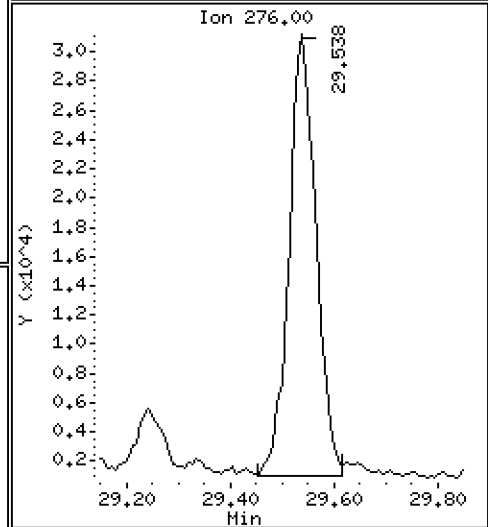
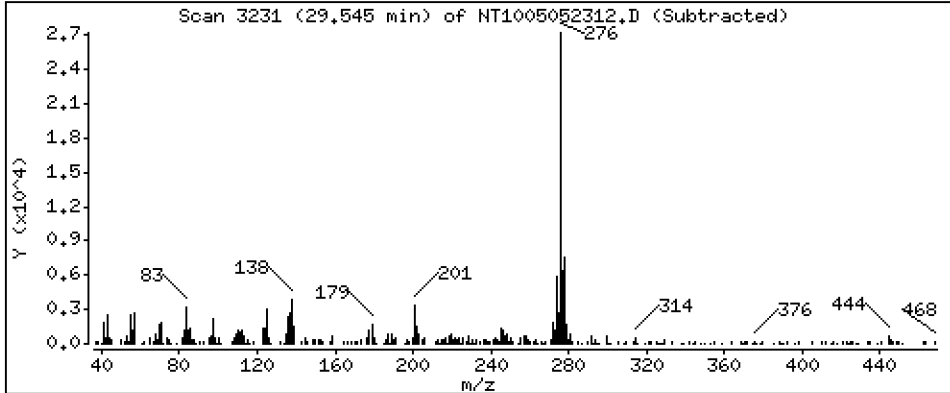
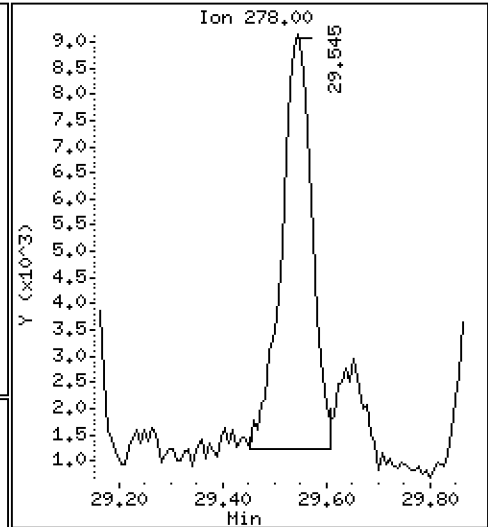
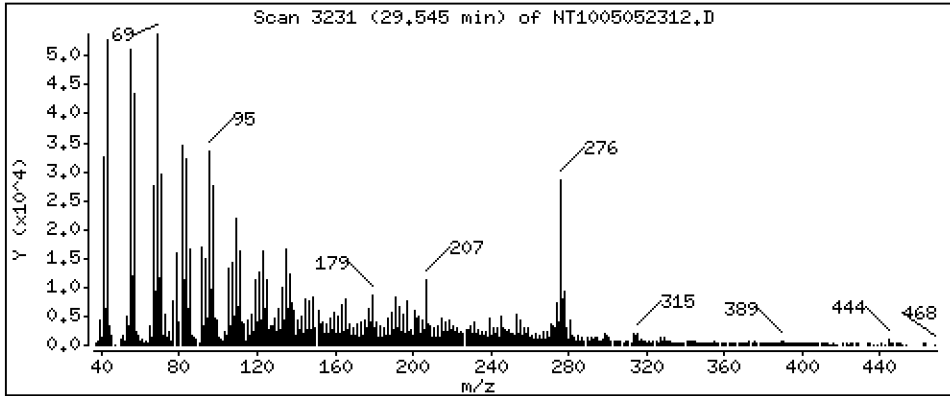
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,2427 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

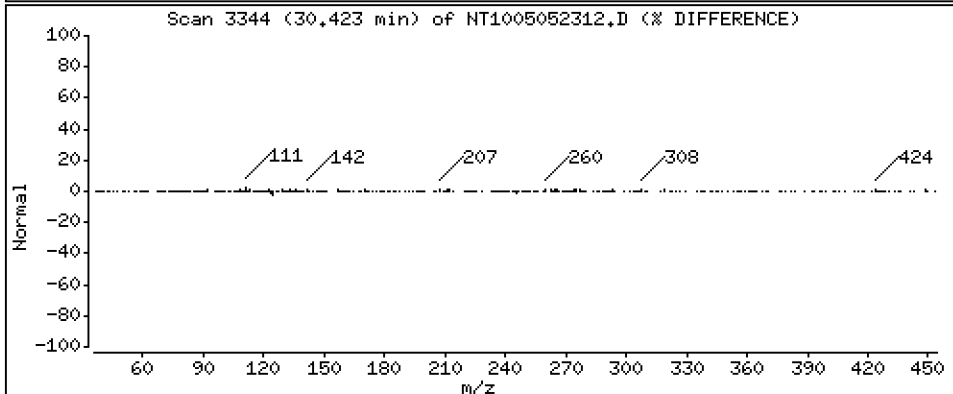
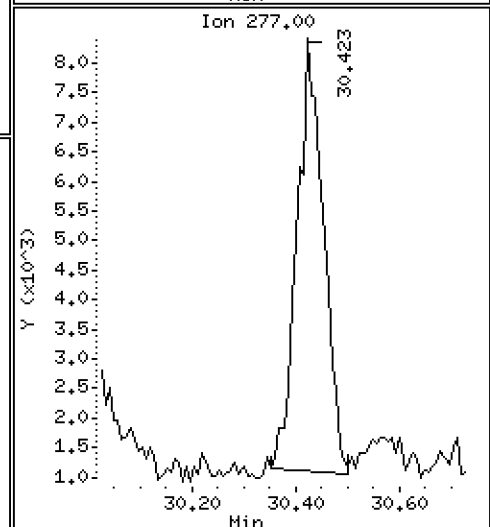
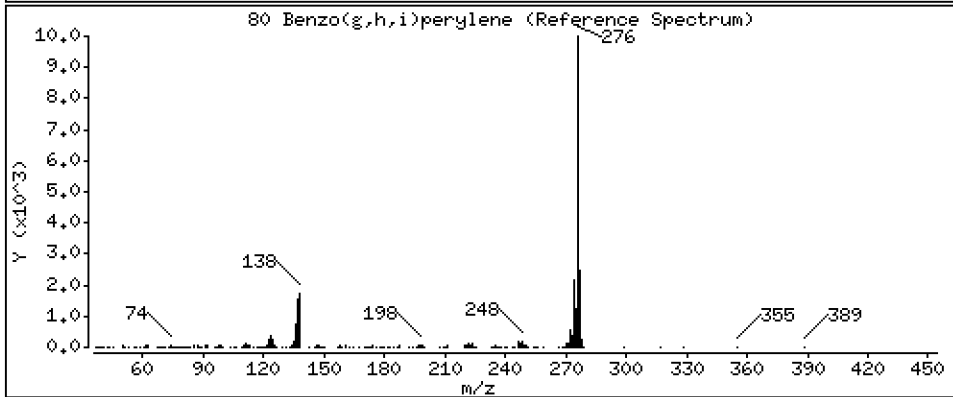
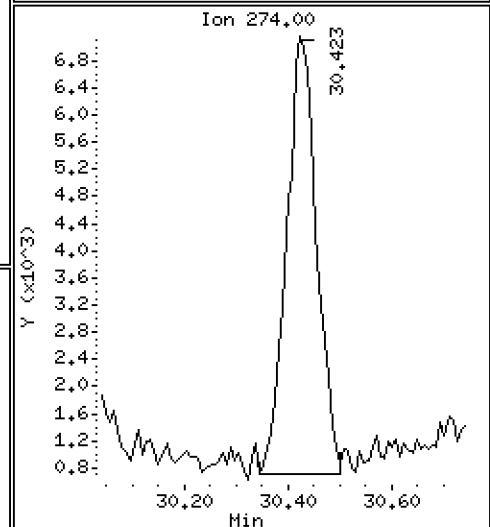
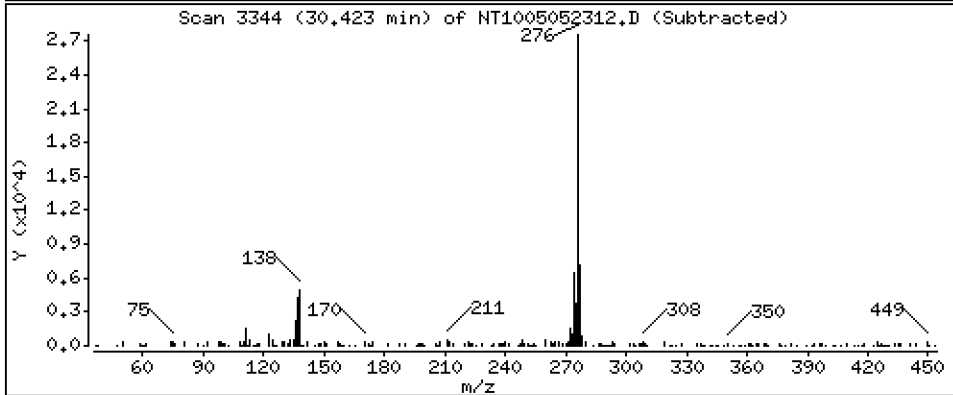
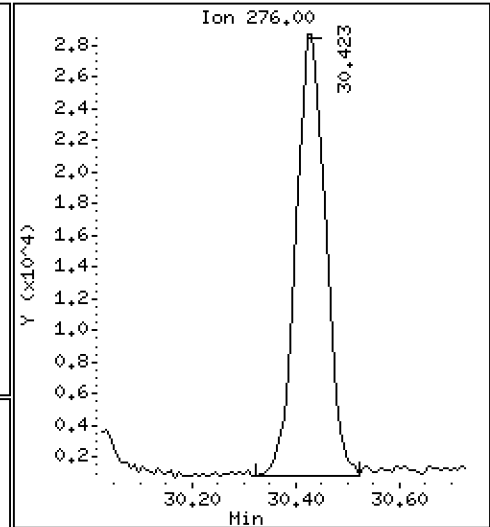
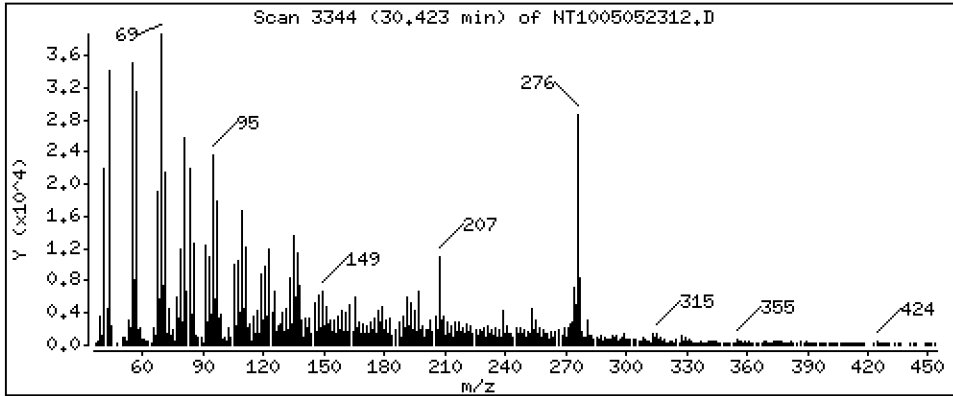
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,8707 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

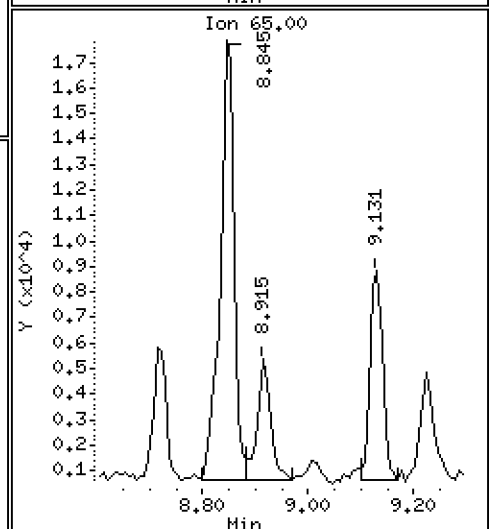
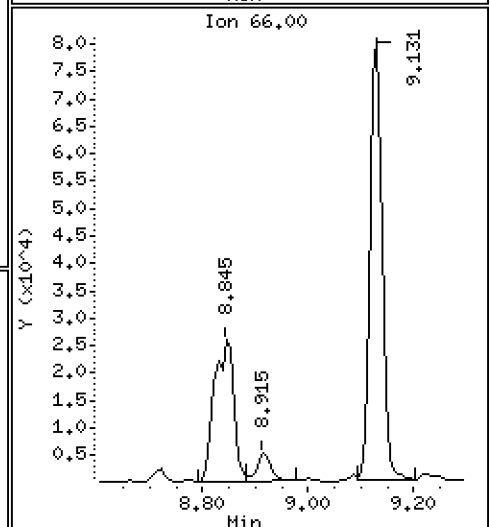
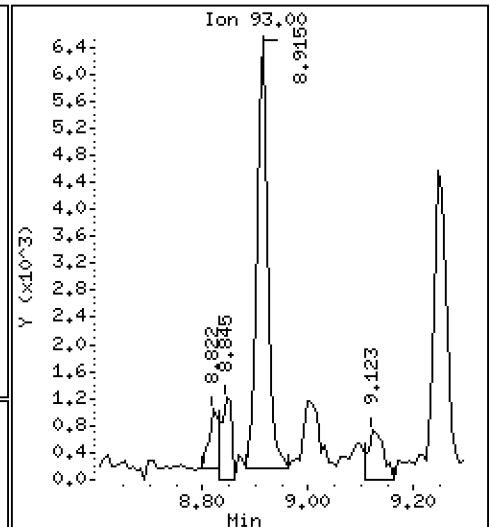
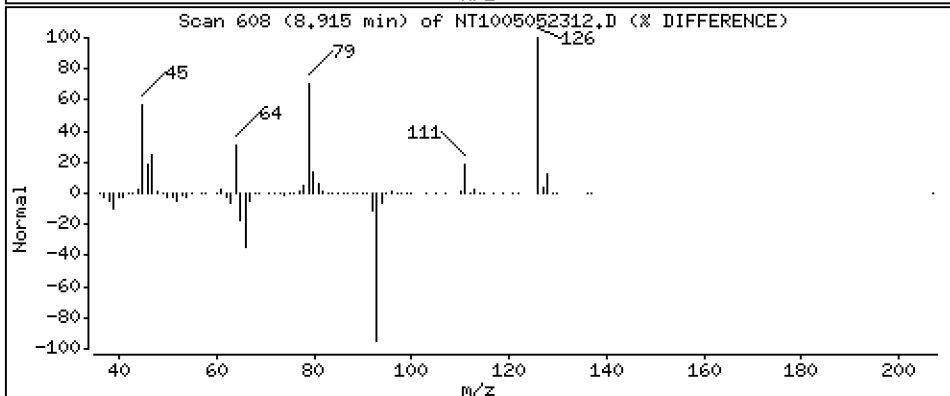
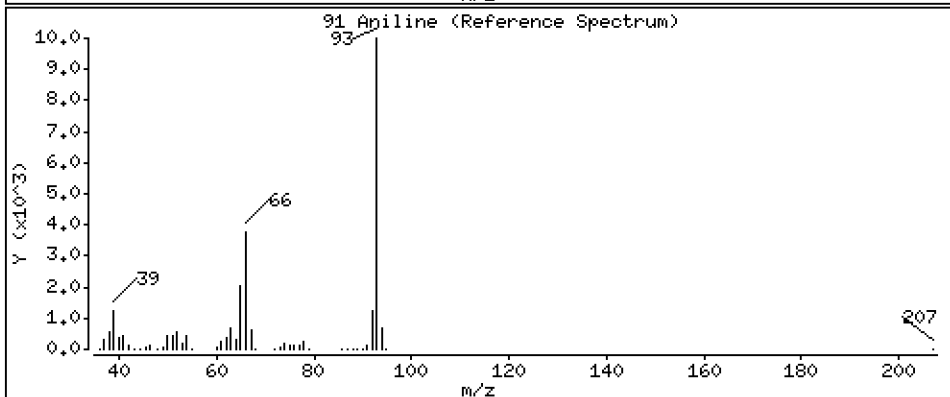
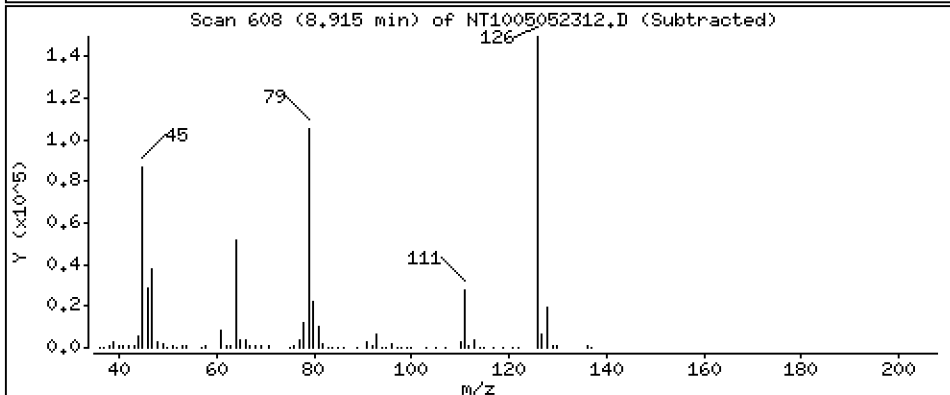
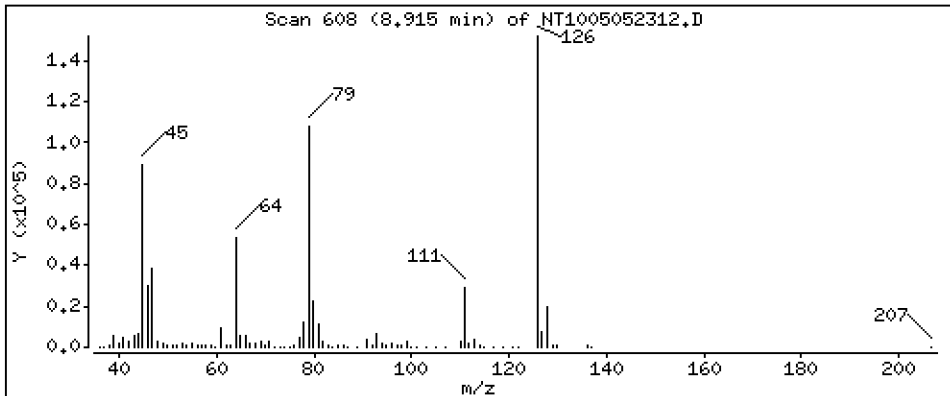
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 0.1758 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

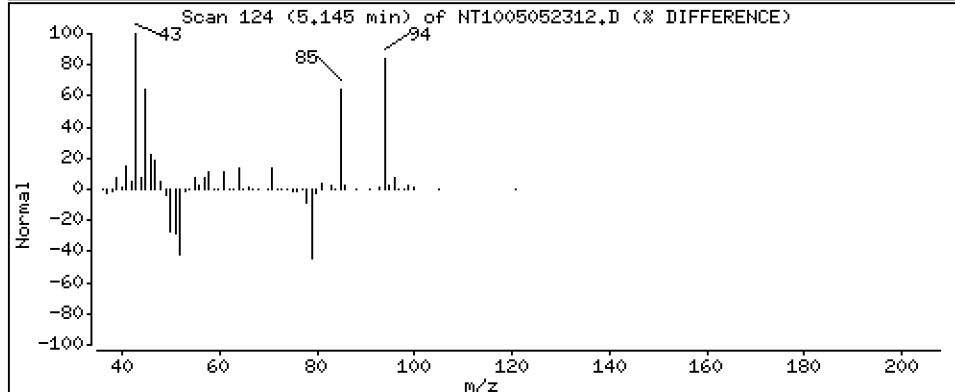
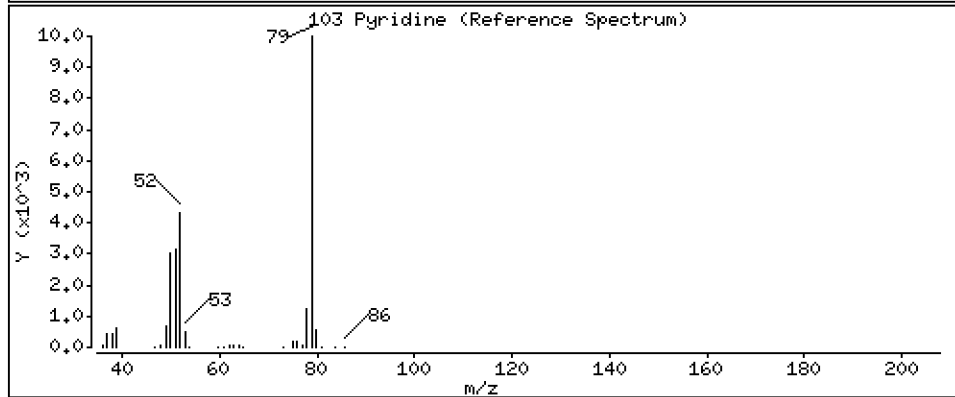
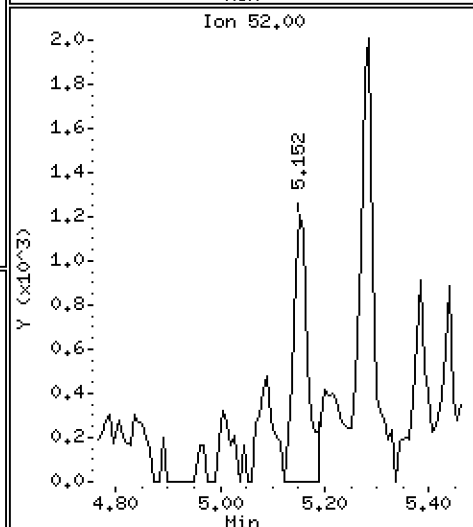
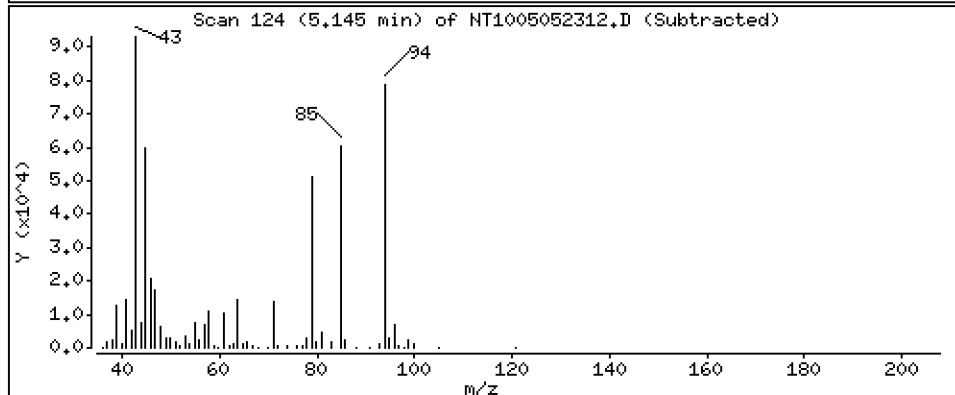
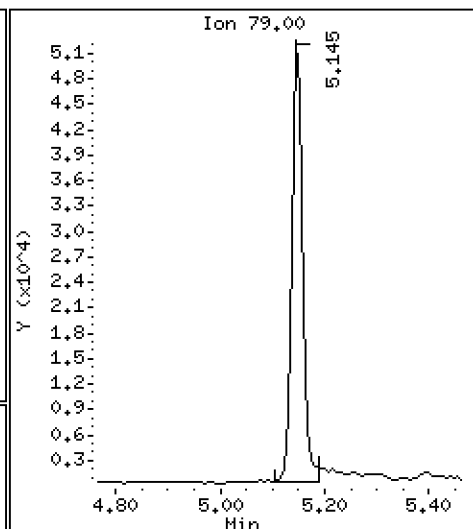
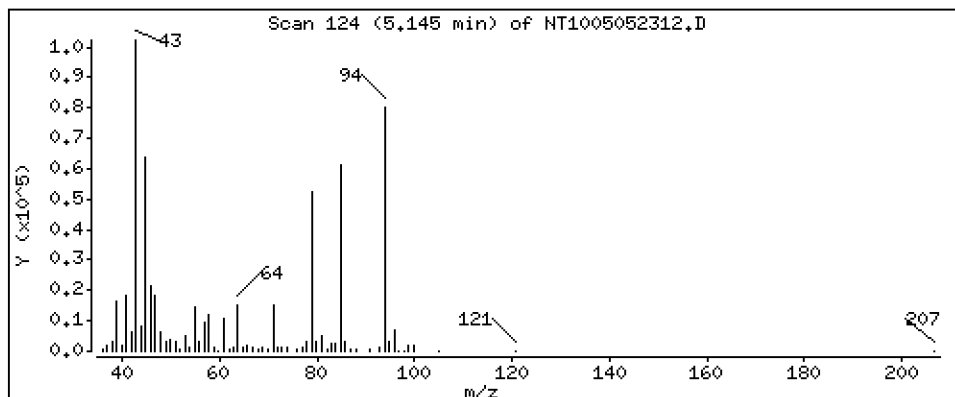
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 1,827 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

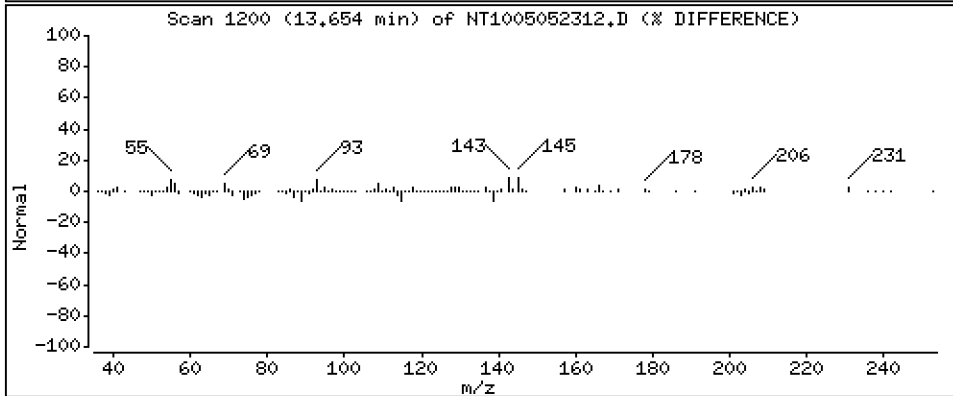
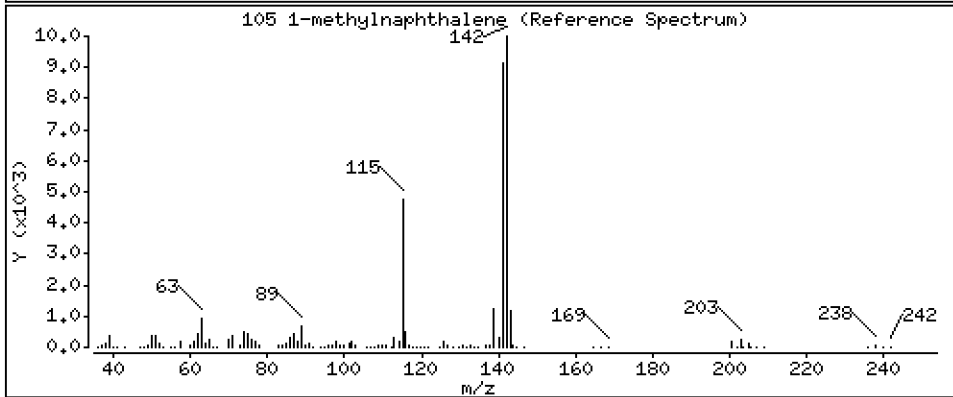
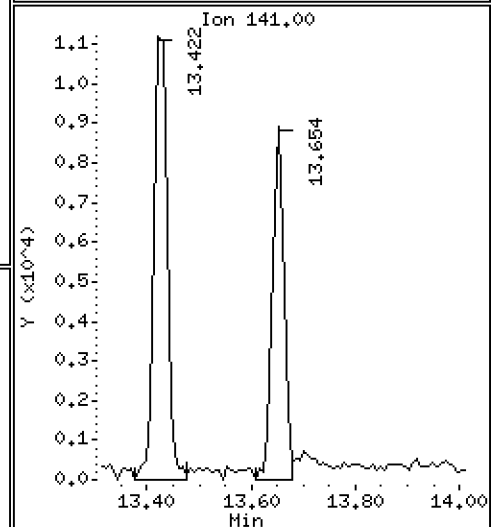
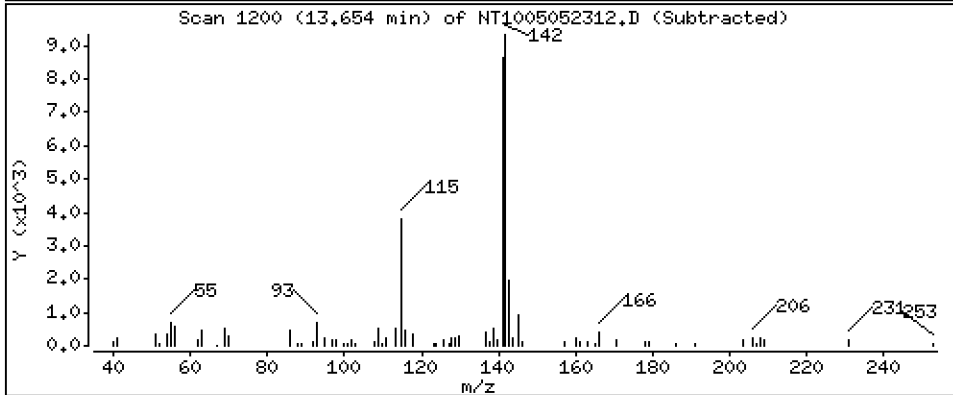
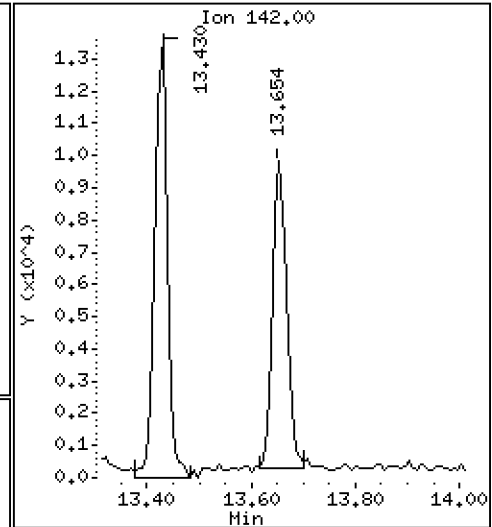
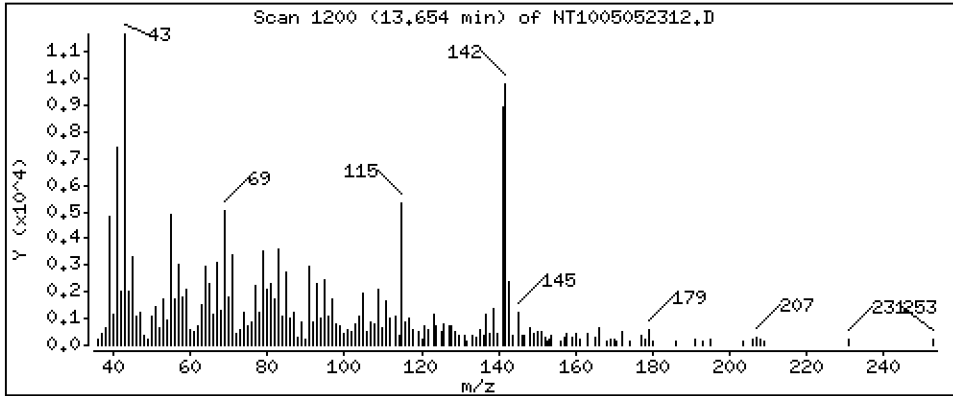
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1386 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

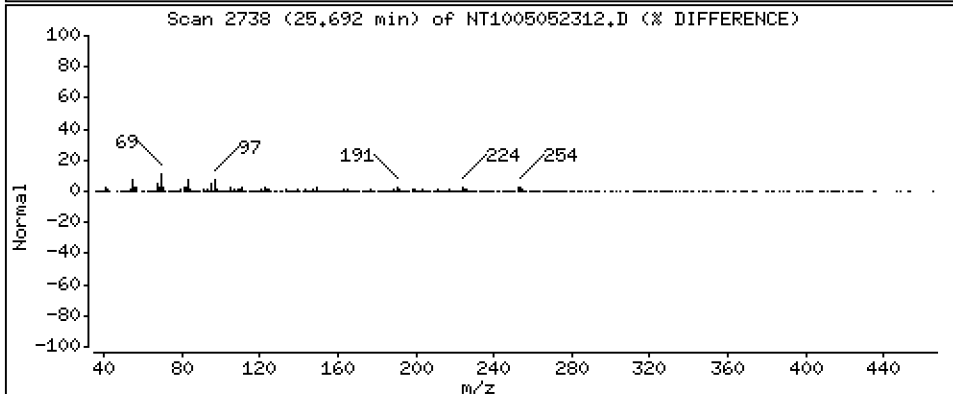
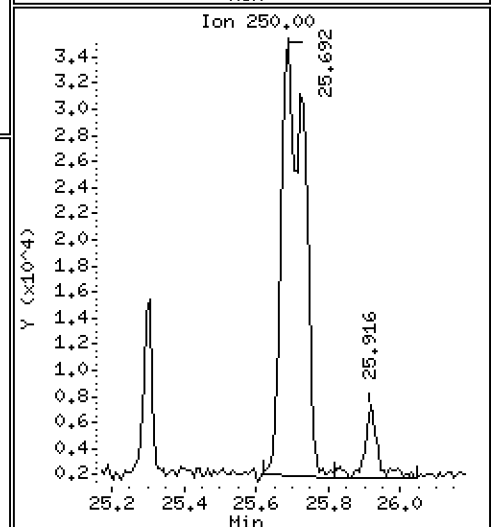
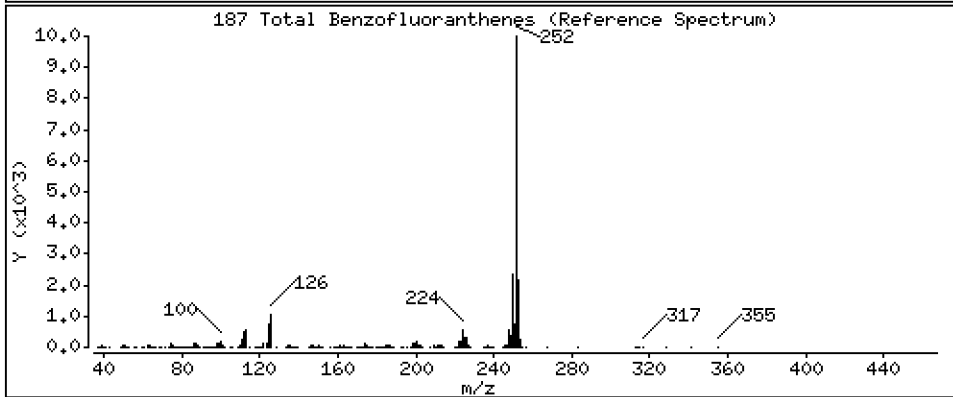
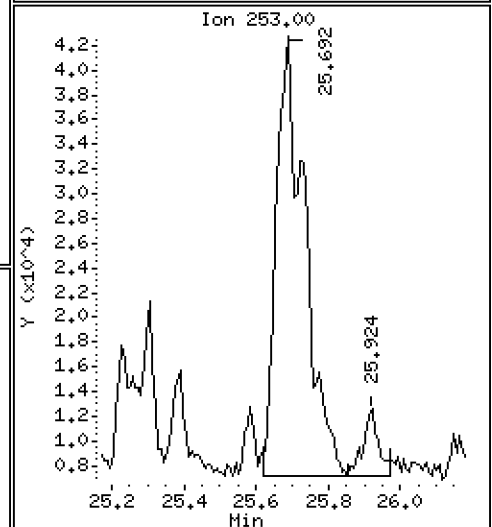
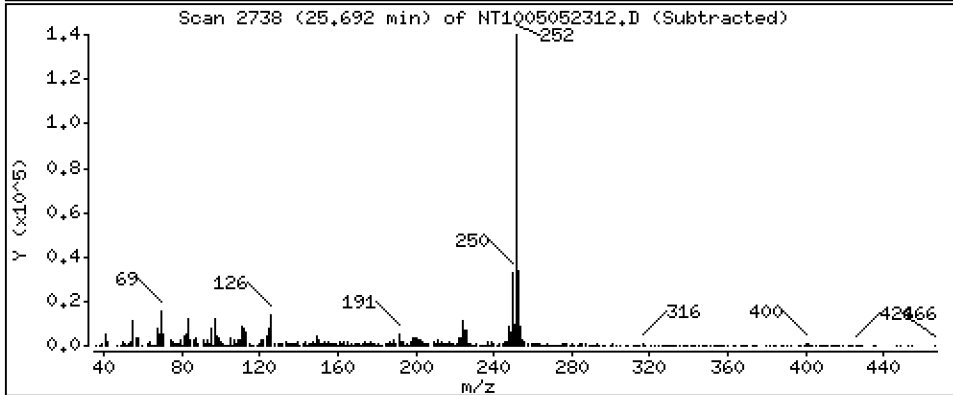
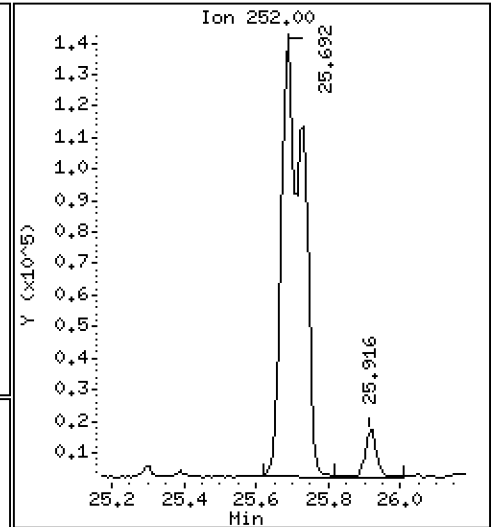
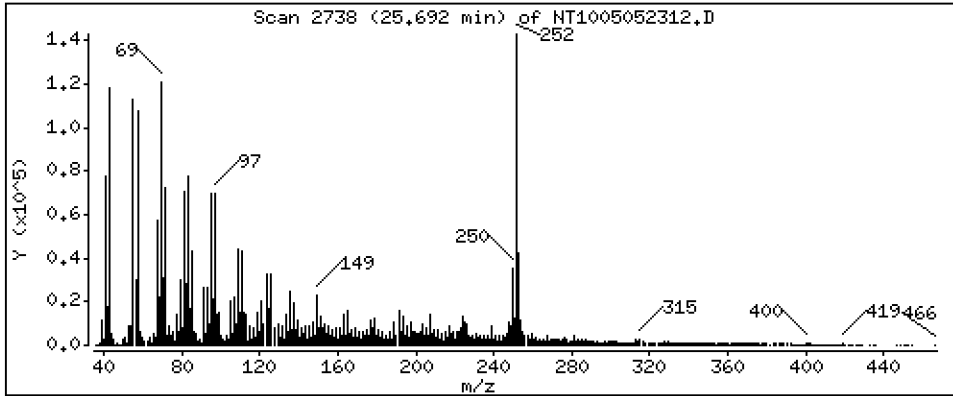
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 3,774 ug/mL



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

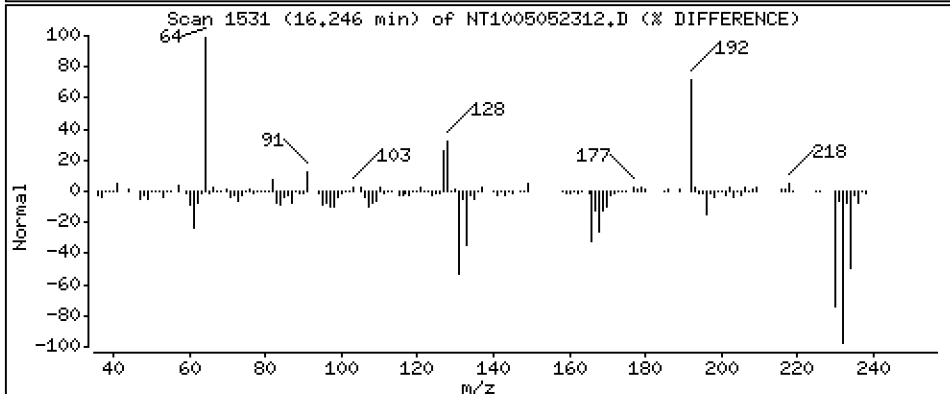
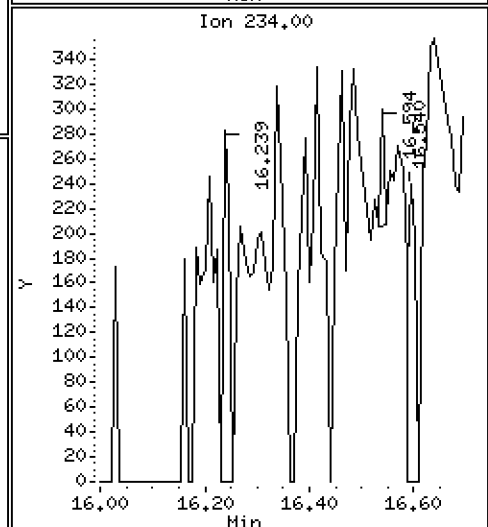
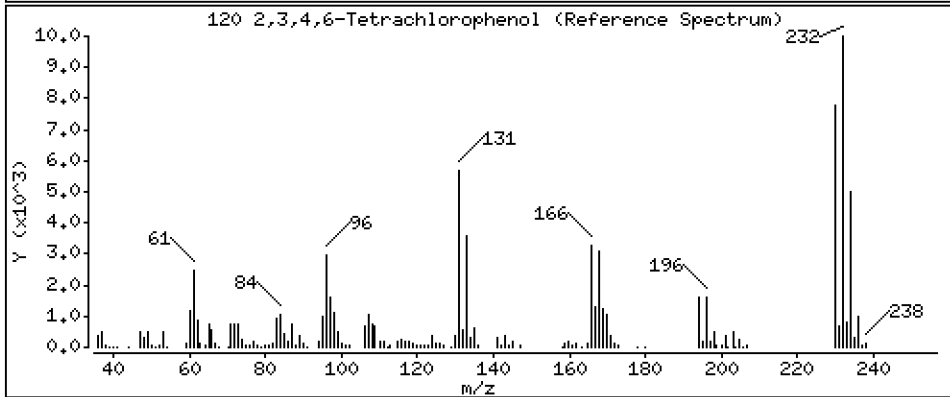
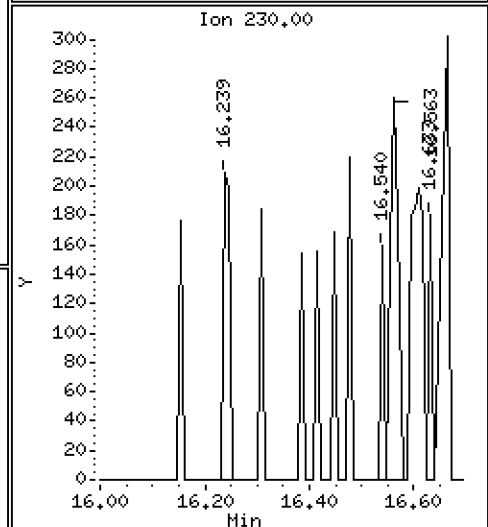
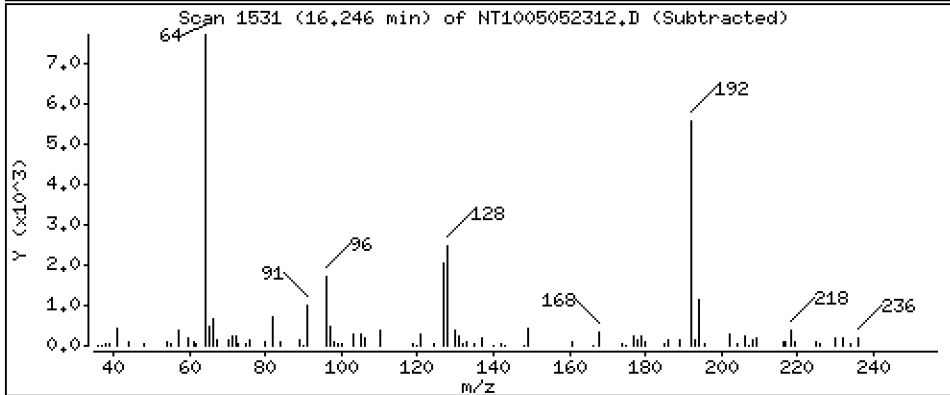
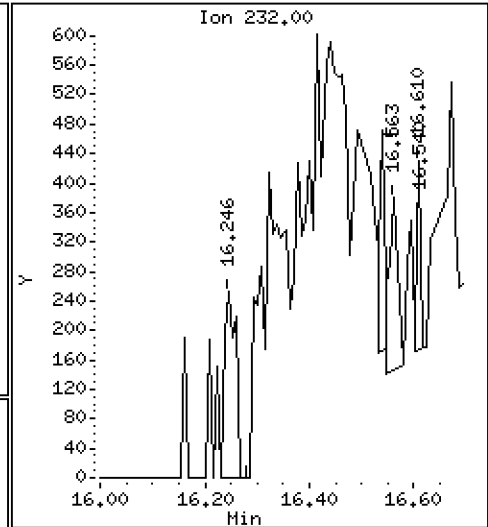
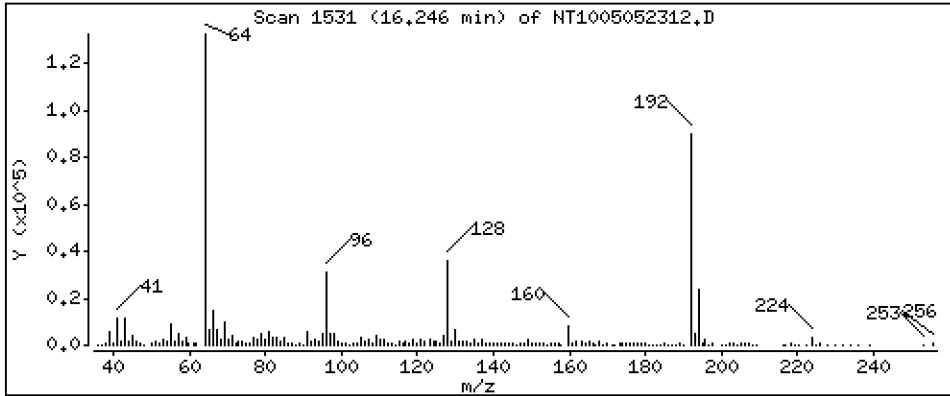
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,009003 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052312.D
 Lab Smp Id: 23D0136-03
 Inj Date : 05-MAY-2023 17:54
 Operator : VTS
 Smp Info : 23D0136-03
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.246	7.253	(1.000)	279389	5.54598	5.546
\$ 2 Phenol-d5	99		8.829	8.830	(1.000)	355982	5.86116	5.861
3 Phenol	94		8.845	8.853	(1.000)	71117	1.09511	1.095
\$ 5 2-Chlorophenol-d4	132		9.131	9.139	(1.000)	373121	6.41046	6.410
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.494	9.502	(1.000)	166481	4.00000	(M)
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.859	9.867	(1.000)	157720	3.67308	3.673
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.758	9.766	(1.000)	83861	2.68663	2.687
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.240	10.240	(1.000)	43947	0.76857	0.7686
\$ 18 Nitrobenzene-d5	82		10.596	10.604	(0.884)	300690	4.21414	4.214
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.991	11.999	(1.000)	638506	4.00000	
28 Naphthalene	128		12.029	12.037	(1.003)	38757	0.21756	0.2176
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.429	13.437	(1.120)	21883	0.16430	0.1643
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		Compound Not Detected.					
35 2,4,5-Trichlorophenol	196		Compound Not Detected.					
\$ 36 2-Fluorobiphenyl	172		14.203	14.211	(0.909)	609588	4.11343	4.113
37 2-Chloronaphthalene	162		Compound Not Detected.					
38 2-Nitroaniline	65		Compound Not Detected.					
39 Dimethylphthalate	163		15.101	15.109	(0.967)	9470	0.07215	0.07215
40 Acenaphthylene	152		15.302	15.310	(0.980)	25836	0.14181	0.1418
41 2,6-Dinitrotoluene	165		Compound Not Detected.					
* 42 Acenaphthene-d10	164		15.620	15.628	(1.000)	342307	4.00000	
43 3-Nitroaniline	138		Compound Not Detected.					
44 Acenaphthene	153		15.681	15.689	(1.004)	18376	0.15859	0.1586
45 2,4-Dinitrophenol	184		Compound Not Detected.					
46 Dibenzofuran	168		16.006	16.014	(1.025)	34358	0.20336	0.2034
47 4-Nitrophenol	109		Compound Not Detected.					
48 2,4-Dinitrotoluene	165		Compound Not Detected.					
50 Diethylphthalate	149		16.555	16.571	(1.060)	25264	0.18540	0.1854
49 Fluorene	166		16.725	16.733	(1.071)	33095	0.23746	0.2375
51 4-Chlorophenyl-phenylether	204		Compound Not Detected.					
52 4-Nitroaniline	138		Compound Not Detected.					
53 4,6-Dinitro-2-methylphenol	198		Compound Not Detected.					
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
\$ 55 2,4,6-Tribromophenol	330		17.265	17.265	(1.105)	116516	6.83667	6.837
56 4-Bromophenyl-phenylether	248		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					
58 Pentachlorophenol	266		Compound Not Detected.					
* 59 Phenanthrene-d10	188		18.671	18.679	(1.000)	618530	4.00000	
60 Phenanthrene	178		18.718	18.726	(1.002)	167056	0.92047	0.9205
61 Anthracene	178		18.810	18.818	(1.007)	101402	0.60462	0.6046
62 Carbazole	167		19.135	19.136	(1.025)	24382	0.16424	0.1642
63 Di-n-butylphthalate	149		19.909	19.902	(1.066)	21782	0.09810	0.09810
64 Fluoranthene	202		21.101	21.085	(0.890)	522927	2.57783	2.578
65 Pyrene	202		21.518	21.511	(0.908)	476018	2.34905	2.349
\$ 66 Terphenyl-d14	244		21.789	21.782	(0.919)	618548	3.85948	3.859
67 Butylbenzylphthalate	149		22.695	22.695	(0.958)	19740	0.20781	0.2078
68 Benzo(a)anthracene	228		23.671	23.663	(0.999)	242965	1.35079	1.351
* 69 Chrysene-d12	240		23.702	23.694	(1.000)	454352	4.00000	
70 3,3'-Dichlorobenzidine	252		Compound Not Detected.					
71 Chrysene	228		23.740	23.741	(1.002)	375641	2.33333	2.333
72 bis(2-Ethylhexyl)phthalate	149		23.709	23.702	(0.958)	252607	1.96424	1.964
* 134 Di-n-octylphthalate-d4	153		24.739	24.739	(1.000)	892773	4.00000	
73 Di-n-octylphthalate	149		Compound Not Detected.					
74 Benzo(b)fluoranthene	252		25.691	25.676	(0.968)	382213	2.38515	2.385
75 Benzo(k)fluoranthene	252		25.730	25.730	(0.969)	242115	1.52259	1.523 (M)
76 Benzo(a)pyrene	252		26.419	26.404	(0.995)	182086	1.35754	1.358
* 77 Perylene-d12	264		26.551	26.528	(1.000)	390090	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		29.537	29.498	(1.112)	111011	0.68894	0.6889
79 Dibenzo(a,h)anthracene	278		29.545	29.514	(1.113)	32754	0.24272	0.2427
80 Benzo(g,h,i)perylene	276		30.423	30.376	(1.146)	111832	0.87074	0.8707
90 N-Nitrosodimethylamine	74		Compound Not Detected.					
91 Aniline	93		8.914	8.953	(1.000)	9407	0.17576	0.1758
93 Benzidine	184		Compound Not Detected.					
103 Pyridine	79		5.144	5.114	(1.000)	78384	1.82681	1.827
105 1-methylnaphthalene	142		13.654	13.662	(1.139)	16928	0.13863	0.1386
111 Azobenzene (1,2-DP-Hydrazine)	77		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.691	25.676	(0.968)	582151	3.77406	3.774
120 2,3,4,6-Tetrachlorophenol	232	16.246	16.346	(1.040)	396	0.00900	0.009003

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052312.D Calibration Time: 11:37
 Lab Smp Id: 23D0136-03
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	166481	-7.23
27 Naphthalene-d8	621628	310814	1243256	638506	2.72
42 Acenaphthene-d10	353112	176556	706224	342307	-3.06
59 Phenanthrene-d10	694933	347467	1389866	618530	-10.99
69 Chrysene-d12	553967	276984	1107934	454352	-17.98
134 Di-n-octylphthala	895601	447801	1791202	892773	-0.32
77 Perylene-d12	482573	241287	965146	390090	-19.16

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	12.00	11.50	12.50	11.99	-0.07
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.69	23.19	24.19	23.70	0.03
134 Di-n-octylphthala	24.74	24.24	25.24	24.74	-0.00
77 Perylene-d12	26.53	26.03	27.03	26.55	0.09

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

REVIEW SUMMARY FOR FILE - NT1005052312.D

Lab ID: 23D0136-03
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 17:54

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.040	1.046	-0.0059	2,3,4,6-Tetrachlorophenol

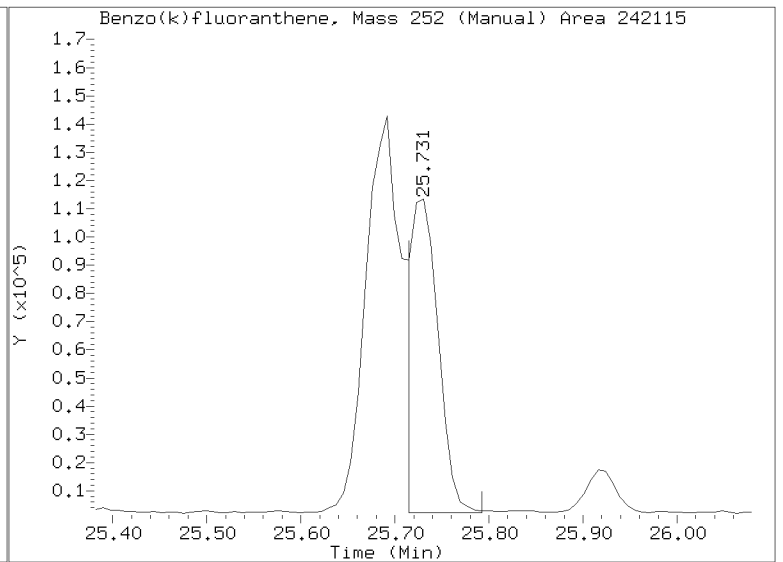
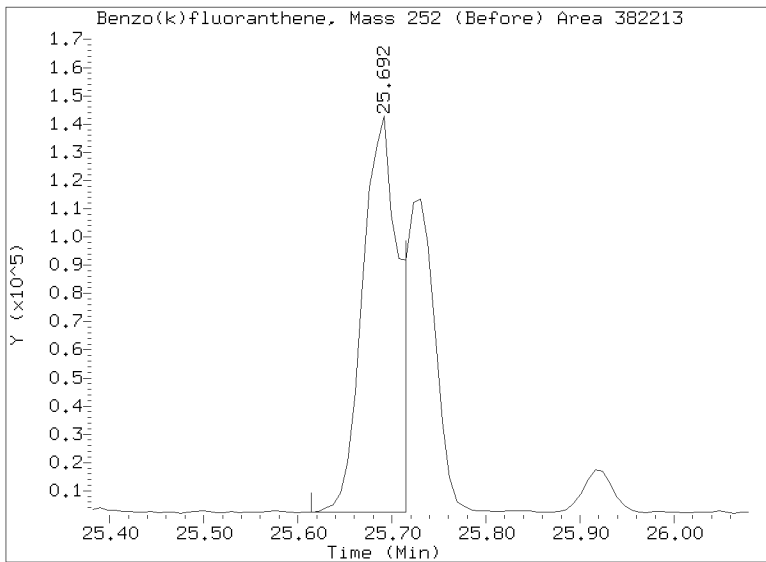
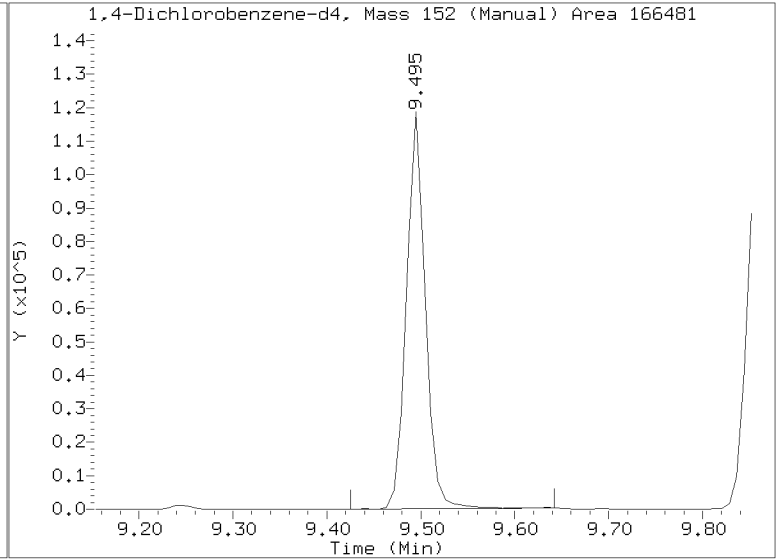
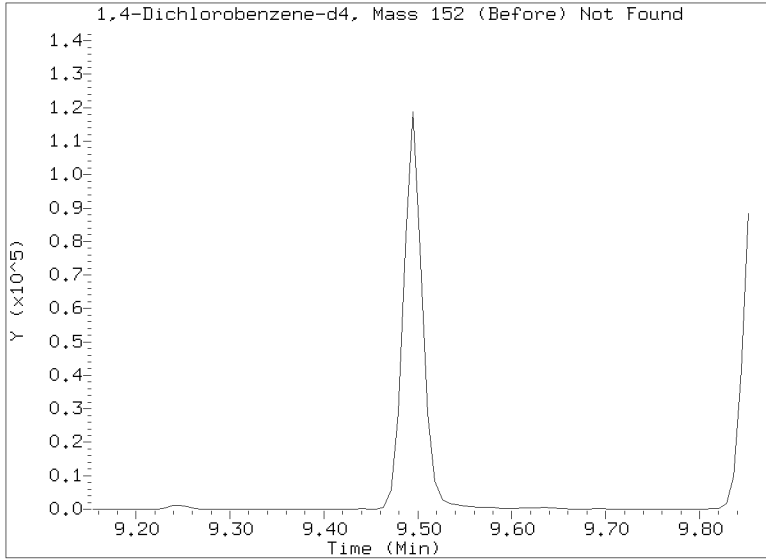
RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052312.D
Injection Date: 05-MAY-2023 17:54
Lab ID:23D0136-03 Client ID:
Report Date: 05/08/2023 10:15



APPROVED
By Deenay Dunmore at 10:39 am, May 08, 2023



Batch: BLD0329

Prepared using: EPA 3546 (Microwave)

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

Matrix: Solid

Date Prepared: 4/18/23

Balance ID: B146462614

Set Up By: CTO 4/15/23

WO Comments
23D0136: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E> Sample ID for -03 and -04 changed by client

The following standards may be missing from this batch!

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

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

Lab Number & Container	% Solids	Initial (g)		(REQ) GPC C/U (1:1)	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
23D0136-01 A	49.3	(20.27)	26.29	1 2 3 (1:1)	1mL	1	0.5	
23D0136-03 A	44.3	(22.57)	22.58	(1:1)	1mL	1	0.5	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) GPC C/U (1:1)	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
BLD0329-BLK1	100.0	(10.00)	10.00	1 2 3 (1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0329-BS1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0329-BSD1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0329-MS1	44.3	(22.57)	22.57	(1:1)	1mL	1	0.5	Use 23D0136-03
BLD0329-MSD1	44.3	(22.57)	22.57	(1:1)	1mL	1	0.5	Use 23D0136-03
BLD0329-SRM1	100.0	(10.00)	1.00	(1:1)	1mL	1	0.5	Use K003477

+1g DI WATER

Client Verified By: [Signature] Date: 4/18/23
Preparation Reviewed By: AA Date: 5-4-23
Extraction Date and Time: 4/18/23 11:16



Batch: BLD0329

Prepared using: EPA 3546 (Microwave)

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

WO Comments
23D0136: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E> Sample ID for -03 and -04 changed by client

Prep Steps	Reagents Used	Surrogates & Spike Standards Used																																					
Microwave 0 2 3 Analyst/Date: 4/18/23	Station/Reagent Standard ID Microwave Analyst: JCT Date: 4/18/23 Anhydrous Sodium Sulfate L003657 1:1 Methylene Chloride/Acetone L002244 Methylene Chloride L002621 Pre-Deactivated Glass Wool L001924	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>A L001153</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">JCT</td> </tr> <tr> <td>100/150µg/mL</td> <td>Exp Date: 8/11/2023</td> <td></td> </tr> <tr> <td>Full List Spike (Freezer)</td> <td>7 L001812 (V)</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">JCT</td> </tr> <tr> <td>100µg/mL</td> <td>Exp Date: 8/4/2023</td> <td></td> </tr> <tr> <td>Base Spike</td> <td>56 L001812 (V)</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">JCT</td> </tr> <tr> <td>200µg/mL</td> <td>Exp Date: 8/20/2023</td> <td></td> </tr> <tr> <td>Acid Spike</td> <td>38 L001812 (V)</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">JCT</td> </tr> <tr> <td>100/200µg/mL</td> <td>Exp Date: 8/20/2023</td> <td></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	A L001153	50µL	CT	JCT	100/150µg/mL	Exp Date: 8/11/2023		Full List Spike (Freezer)	7 L001812 (V)	50µL	CT	JCT	100µg/mL	Exp Date: 8/4/2023		Base Spike	56 L001812 (V)	50µL	CT	JCT	200µg/mL	Exp Date: 8/20/2023		Acid Spike	38 L001812 (V)	50µL	CT	JCT	100/200µg/mL	Exp Date: 8/20/2023	
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100/200µg/mL	Exp Date: 8/20/2023																																						
Pre-GPC KD 100°C Exchange to Hexane (add 10 mL to KD) 0 2 4 6 Analyst/Date: 4/24/23	Pre-Deactivated Glass Wool Pre GPC KD Analyst: CR Date: 4/24/23 Pre-Deactivated Glass Wool																																						
TurboVap Pre GPC 1 2 3 4 5 Analyst/Date: 4/26/23	Anhydrous Sodium Sulfate Methylene Chloride L002621 Hexane L003500 GPC Filter Prep Analyst: LJ Date: 4/26/23	<p>MANUALLY ENTER EXPIRATION DATES!</p> <p>(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.</p> <p>If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).</p>																																					
Post GPC KD 80-85°C 0 2 4 5 6 Analyst/Date: 5/13/23	Methylene Chloride K005941 GPC Filter L001799 GPC Analyst: AA Date: 4-27-23																																						
TurboVap 1 2 3 4 5 Analyst/Date: 5-4-23	Methylene Chloride K005941 GPC Calibration File C1C0059-GPC2 Post GPC KD Analyst: LJ Date: 5/13/23																																						
Water Wash Analyst/Date: 5-4-23	Methylene Chloride L004175 Vialing Analyst: AA Date: 5-4-23 Methylene Chloride L004175																																						



Batch: BLD0329

Prepared using: EPA 3546 (Microwave)

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

WO Comments

23D0136: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E> Sample ID for -03 and -04 changed by client

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"> 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in Refridgerator 05. Re-homogenize while cool. 7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using 1:1 DCM/ACE. 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD: Add 10 mL Hexane directly to extract in the KD. 12. GPC REQUIRED 100°C water bath (CLP) KD to 5mL. 13. Vialers to take 1:5 Split Pre- GPC. 14. (After GPC): KD at 80°C. 15. TurboVap to 1mL in DCM. 16. WATER WASH REQUIRED: <ol style="list-style-type: none"> 16a. Vial 1mL of all extracts in 2mL amber vials in DCM. 16b. Add ~0.5mL DI water and vortex for ~5 seconds each. 16c. Centrifuge extracts for 5 minutes at 1500-2000rpm. 16d. Transfer and vial 0.5mL to new 2mL amber vials (Avoiding collecting water in syringe and cleaning syringe with Acetone and DCM between each vial). 17. Archive water wahed vials and deliever new vials to GC Department for analysis. <p>A. Need Total Solids Y <input checked="" type="checkbox"/> N</p> <p>B. Archive/Freeze <input checked="" type="checkbox"/> Y N</p>	



Extraction Parameter: SMA Extraction Batch 230329

Total Solids Batch: BLD0208 Work Order(s): 2300136

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>01-04</u>	<u>CR 4/12/23</u>
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / (N)	<u>CR 4/12/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y / (N)	<u>CR 4/12/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0051

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8270E

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BLD0329-BLK1	NT1005052307.D	05/04/2023	
Reference	BLD0329-SRM1	NT1005052310.D	05/04/2023	
Matrix Spike Dup	BLD0329-MSD1	NT1005052314.D	05/04/2023	
Matrix Spike	BLD0329-MS1	NT1005052313.D	05/04/2023	
LCS Dup	BLD0329-BSD1	NT1005052309.D	05/04/2023	
LCS	BLD0329-BS1	NT1005052308.D	05/04/2023	
LDW23-SS1803	23D0136-03	NT1005052312.D	05/04/2023	
LDW23-SS1804	23D0136-01	NT1005052311.D	05/04/2023	

Data File: \\target\share\chem3\nt10.1\20230505.6\NT1005052307.D

Date: 05-May-2023 14:40

Client ID:

Sample Info: BLD0329-BLK1

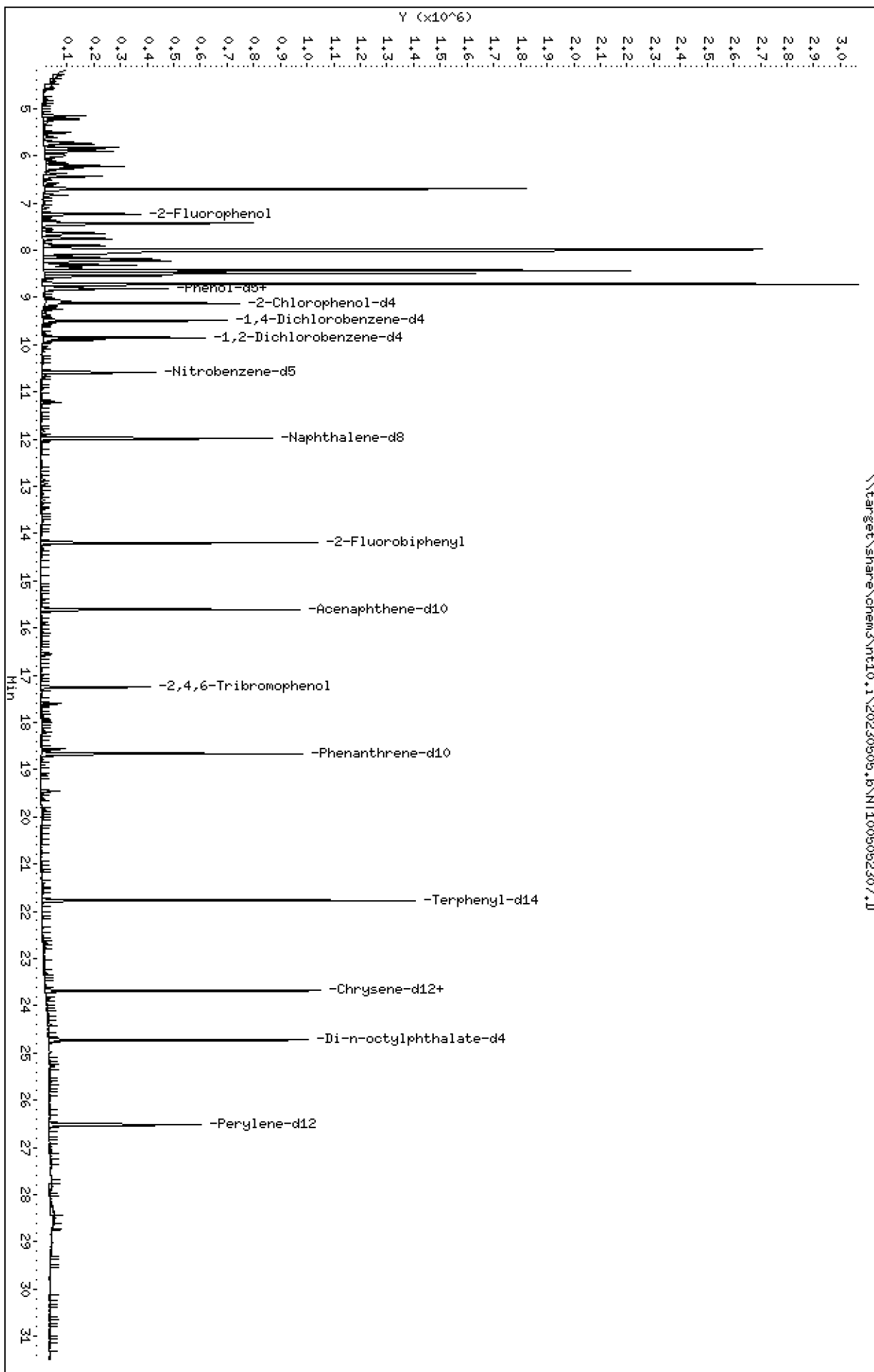
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230505.6\NT1005052307.D



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK1

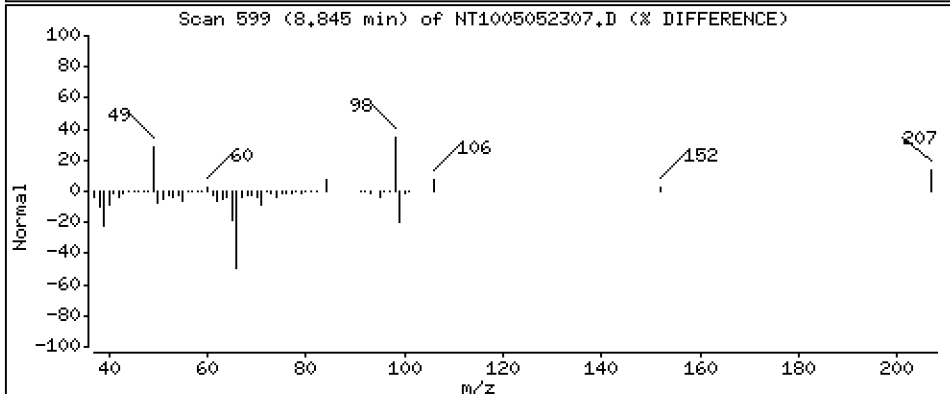
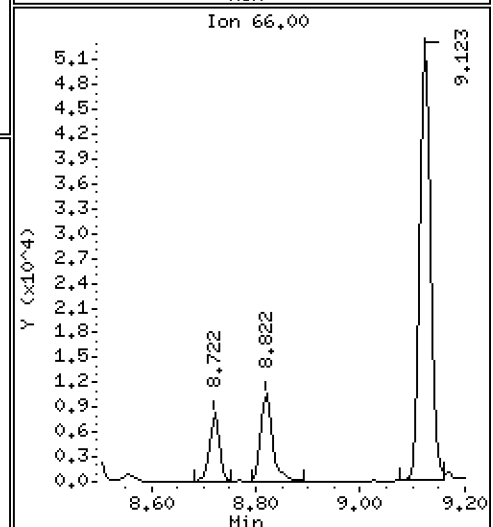
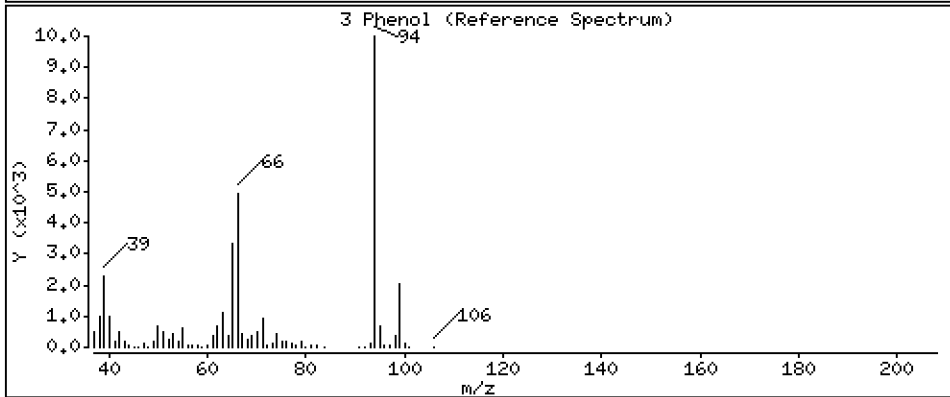
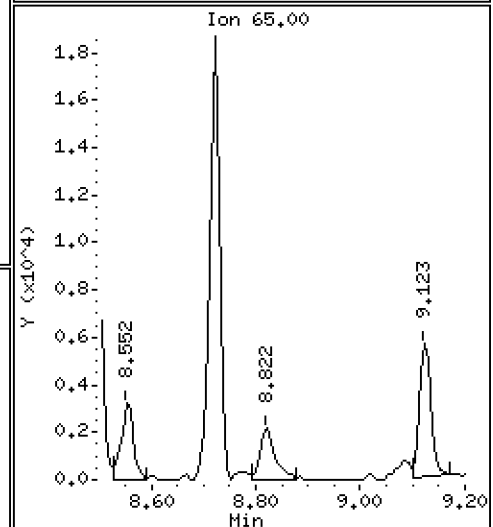
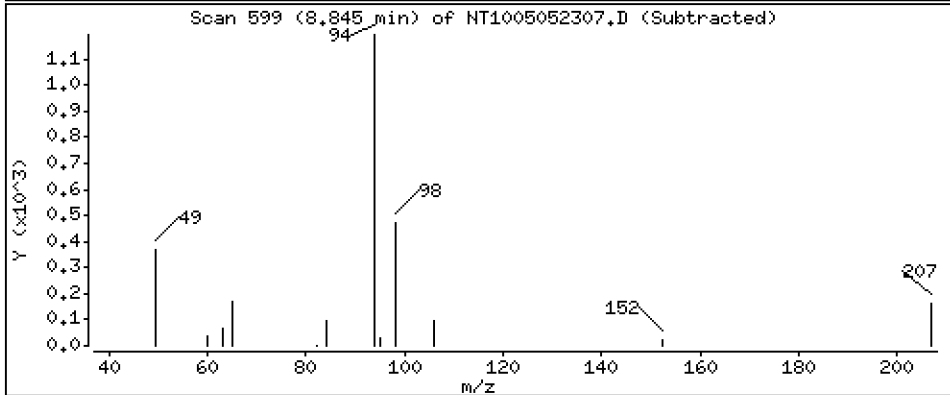
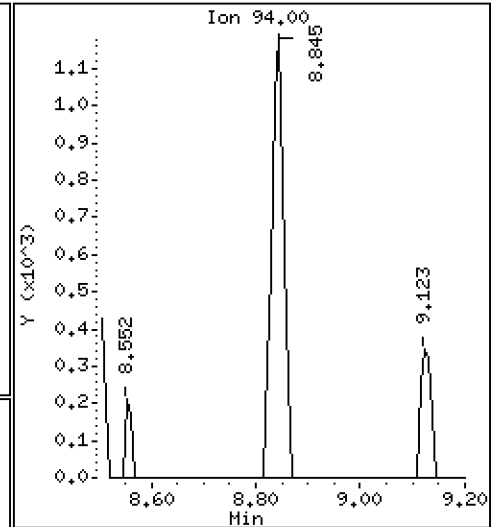
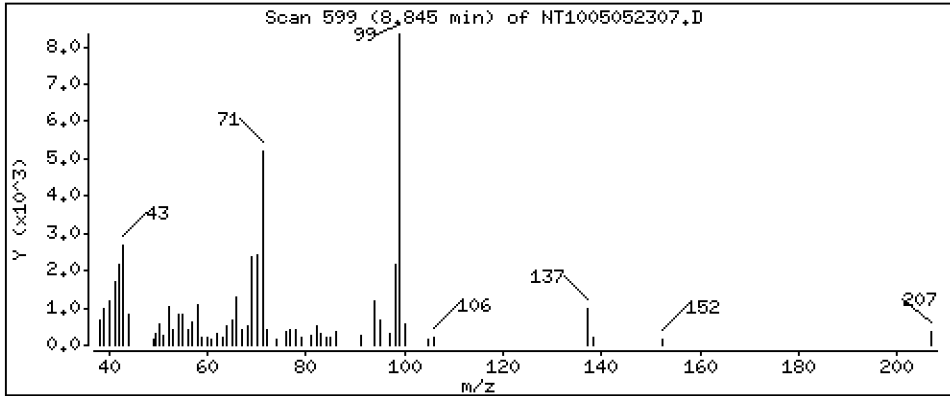
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,02808 ug/mL



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK1

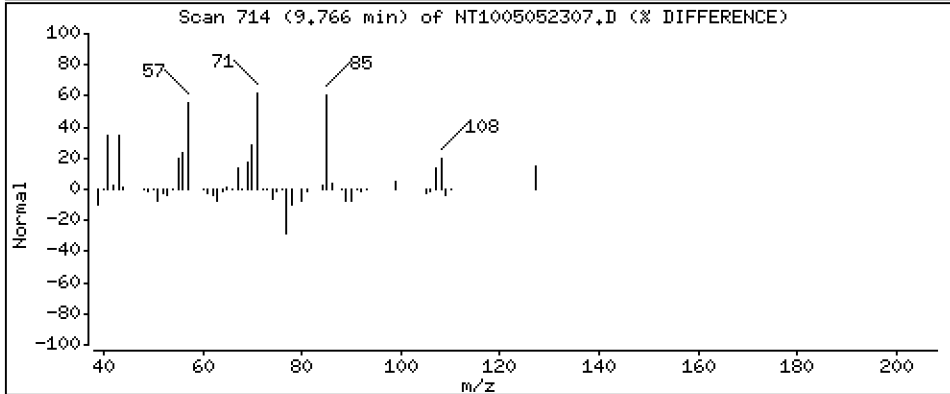
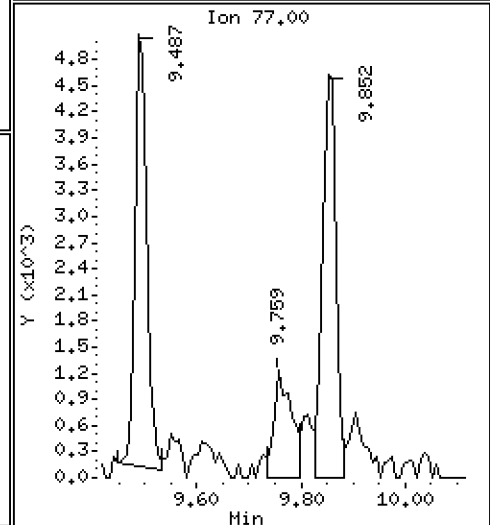
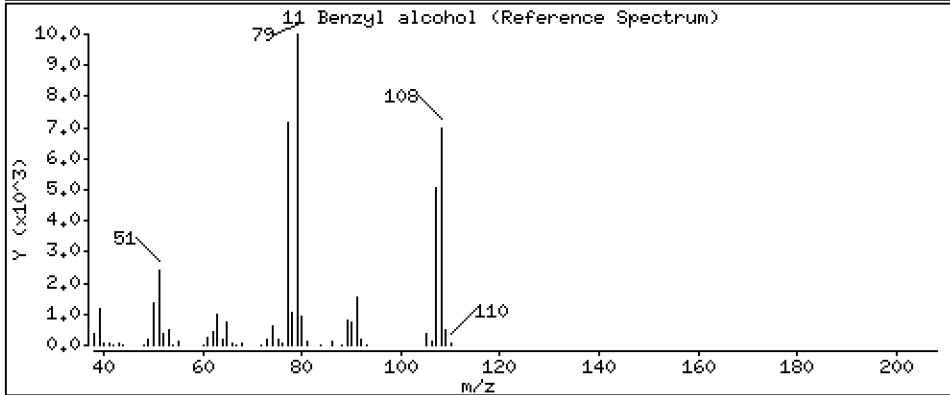
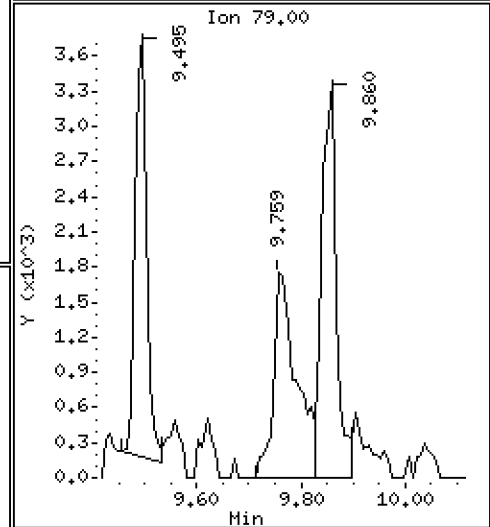
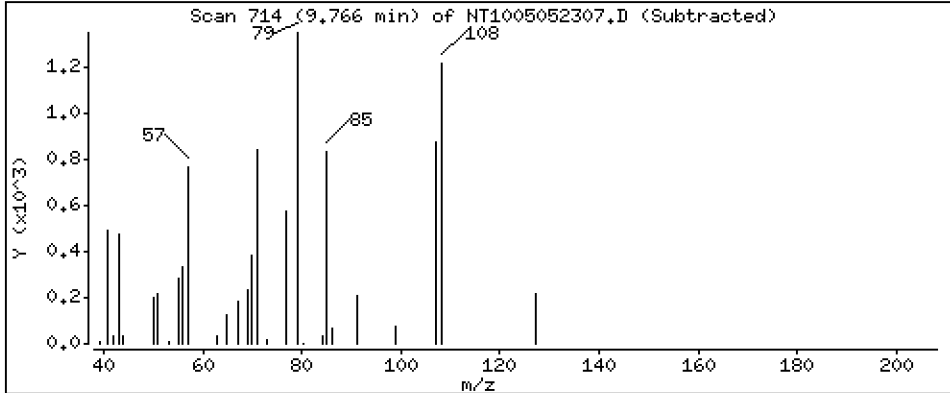
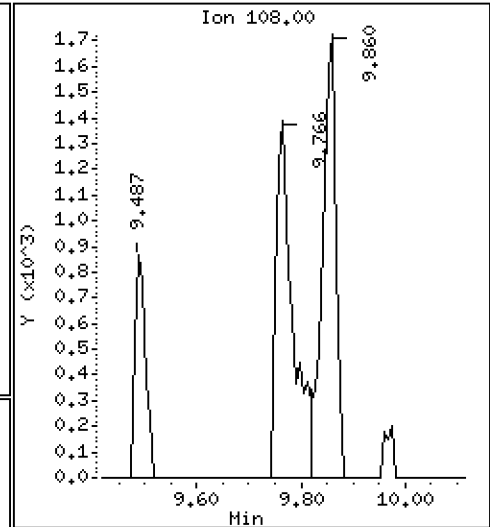
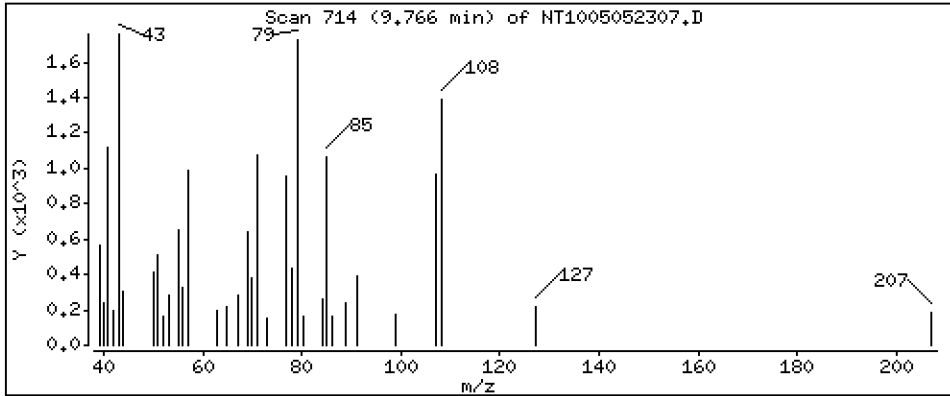
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.09858 ug/mL



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK1

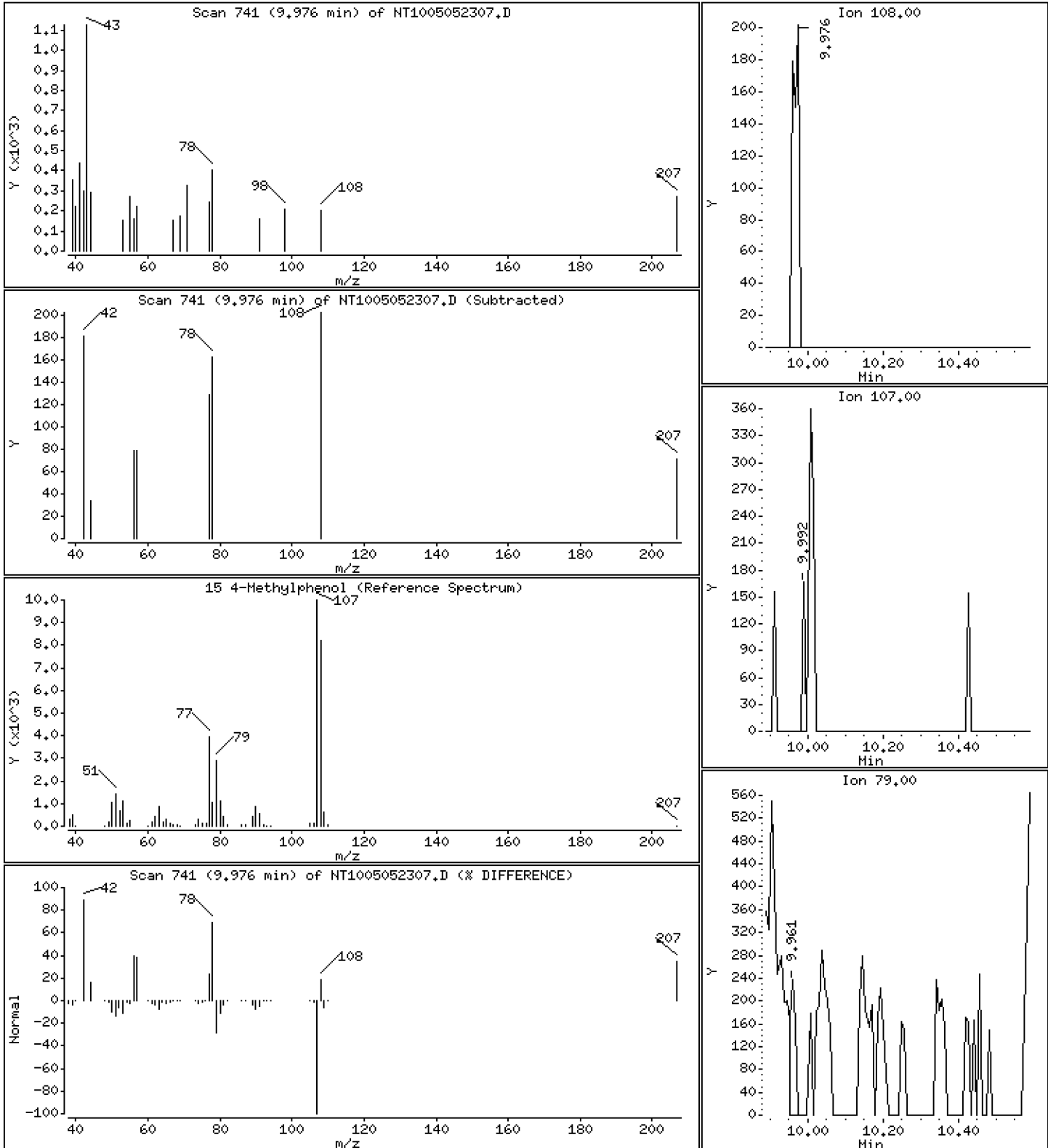
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,004325 ug/mL



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK1

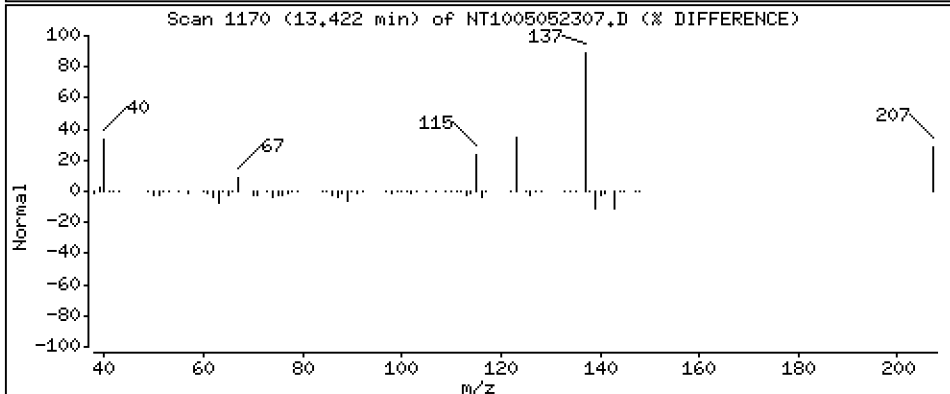
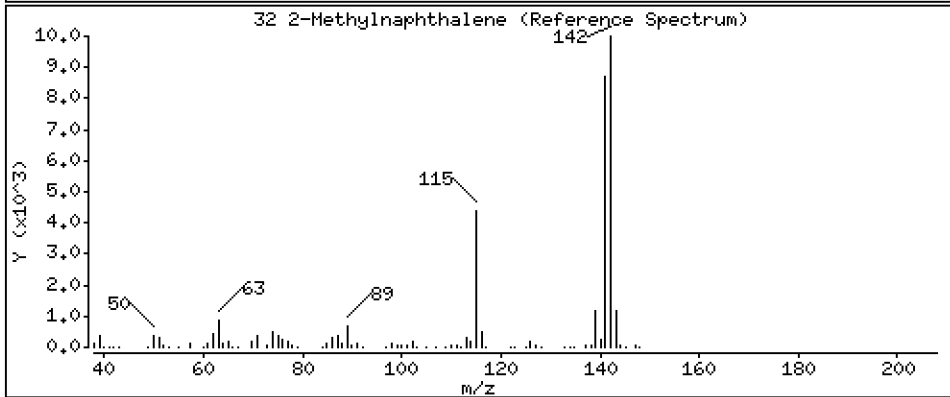
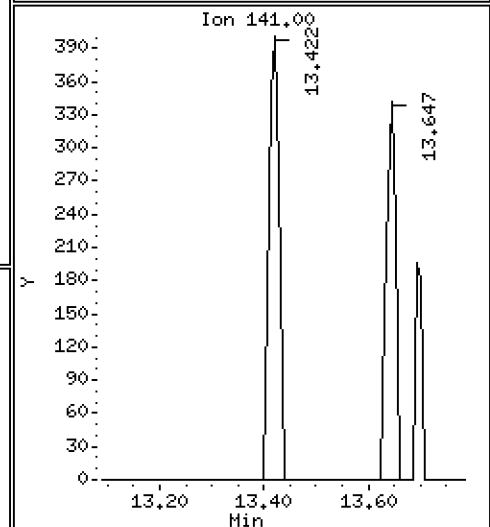
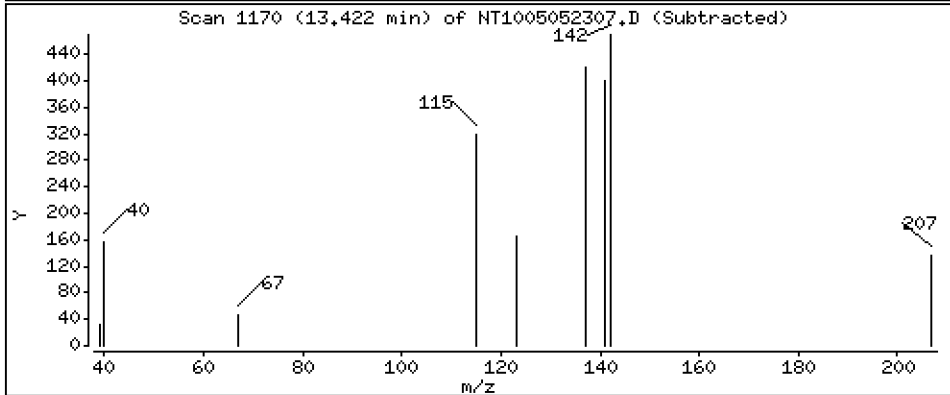
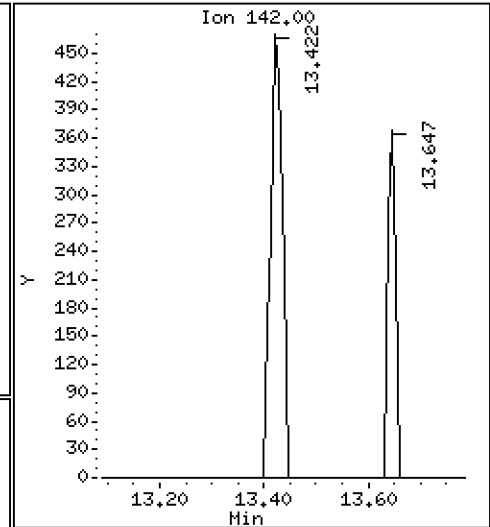
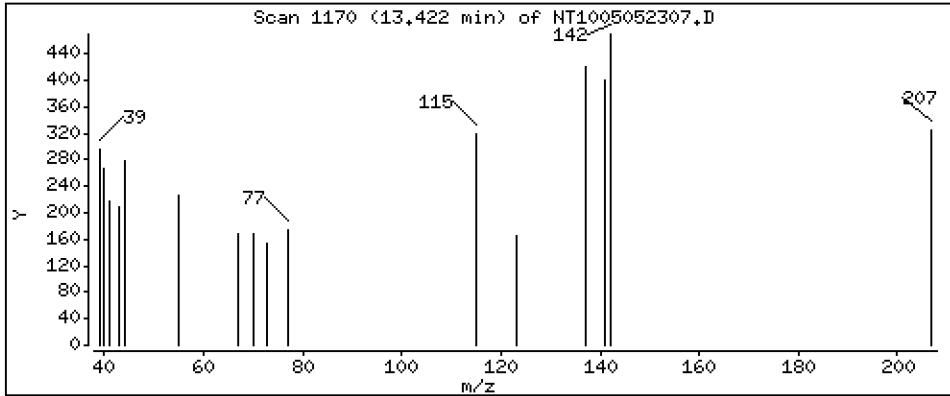
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,005467 ug/mL



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK1

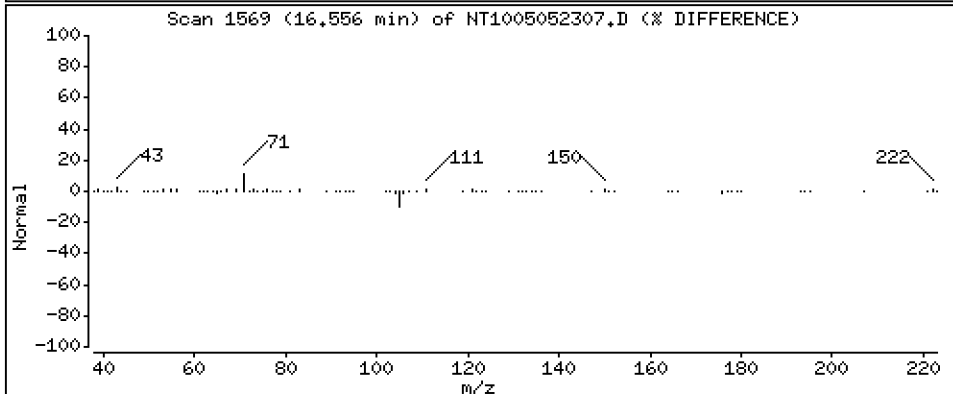
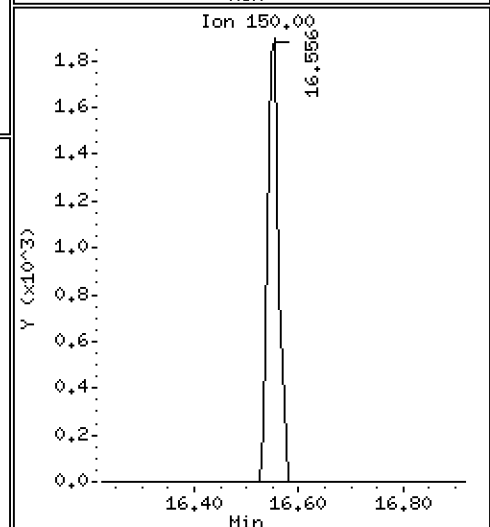
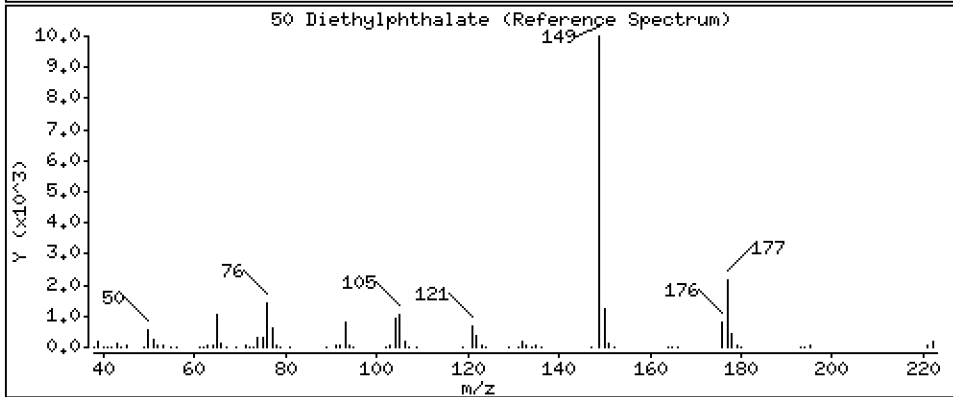
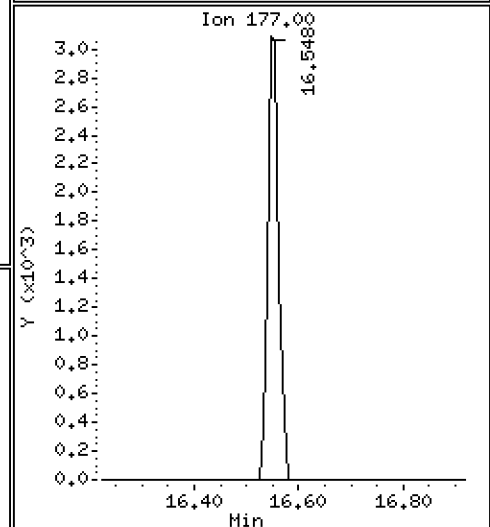
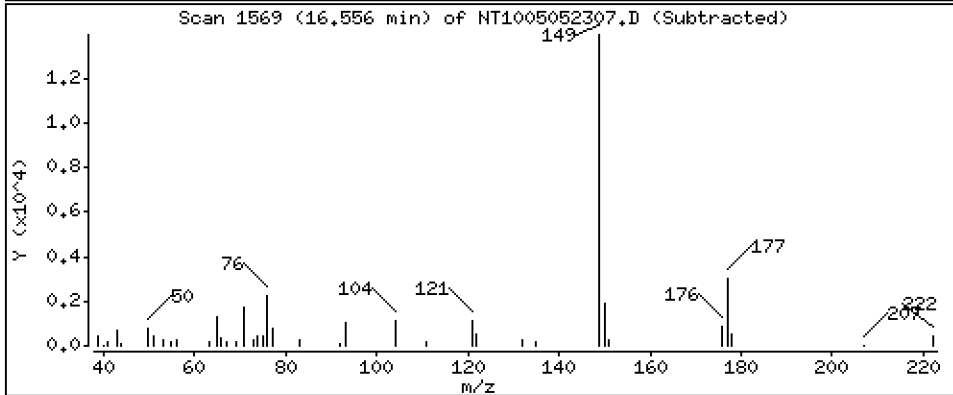
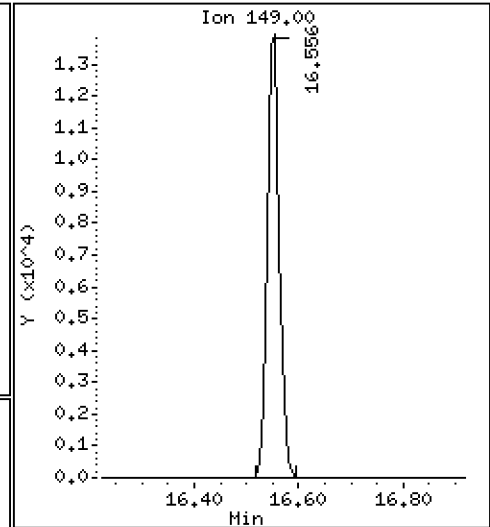
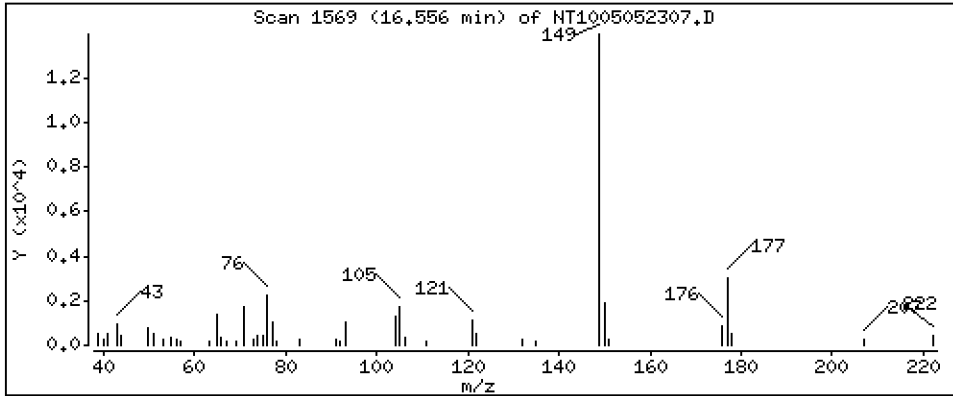
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1654 ug/mL



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK1

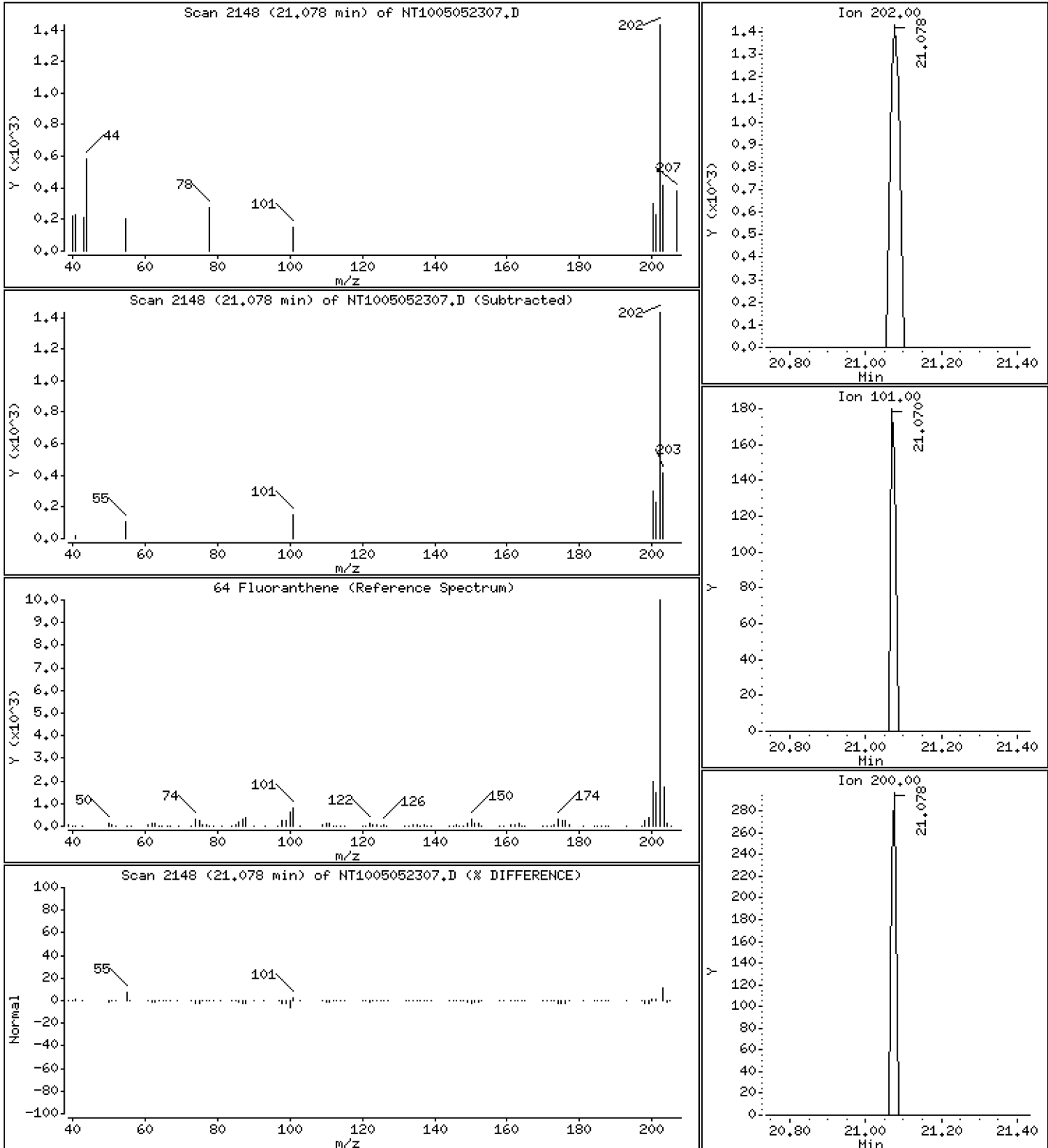
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,009968 ug/mL



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK1

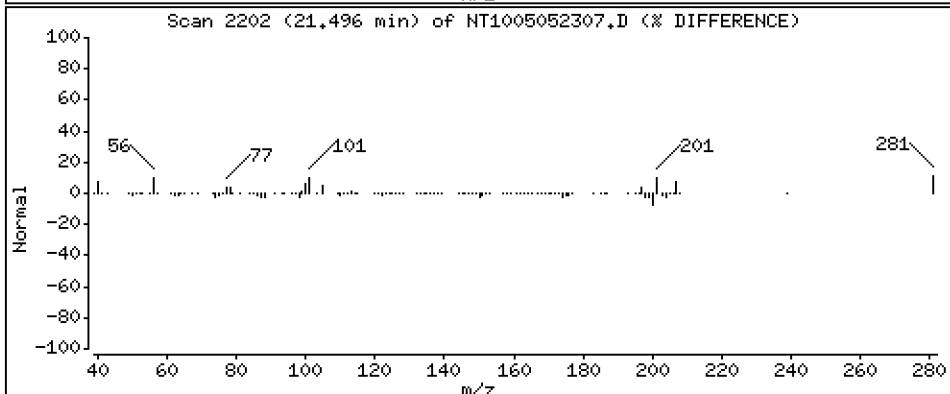
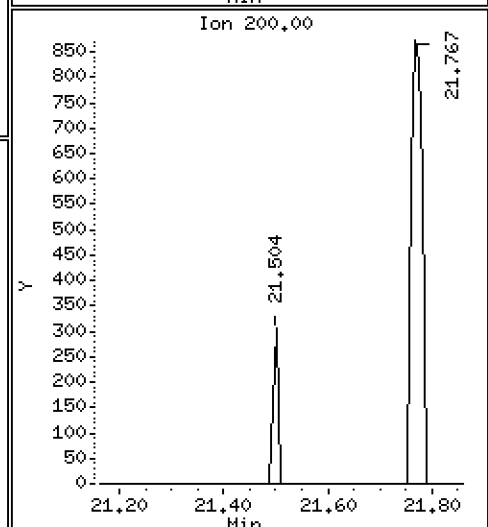
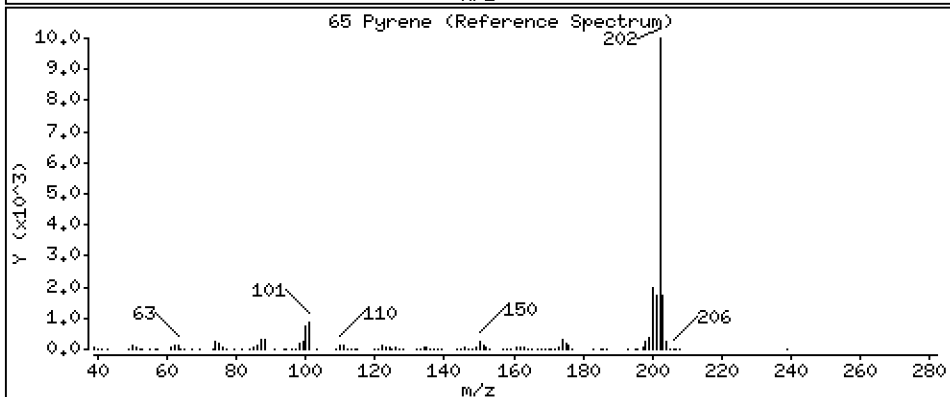
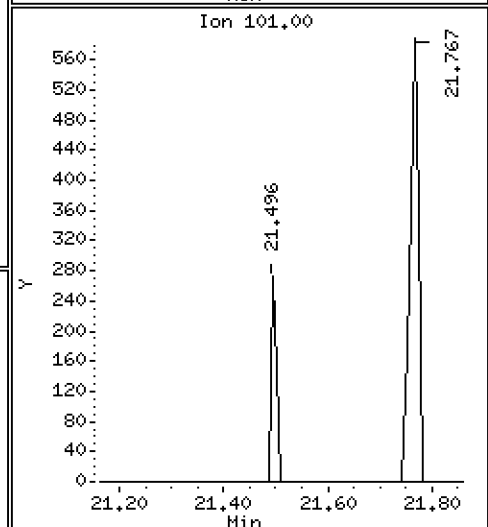
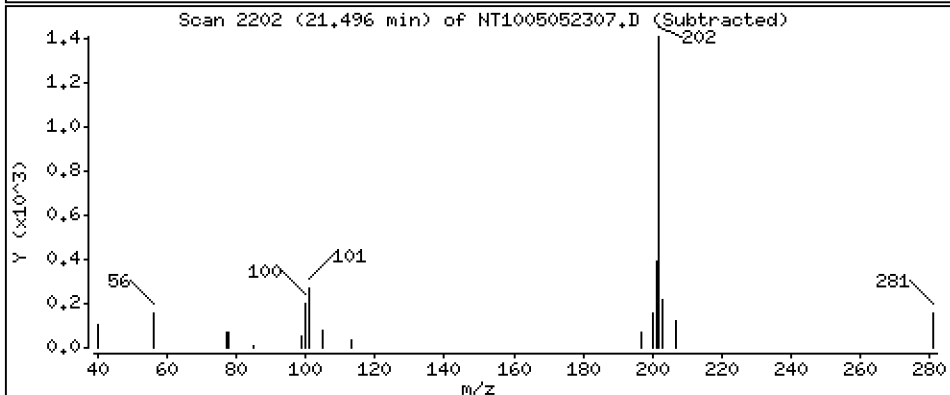
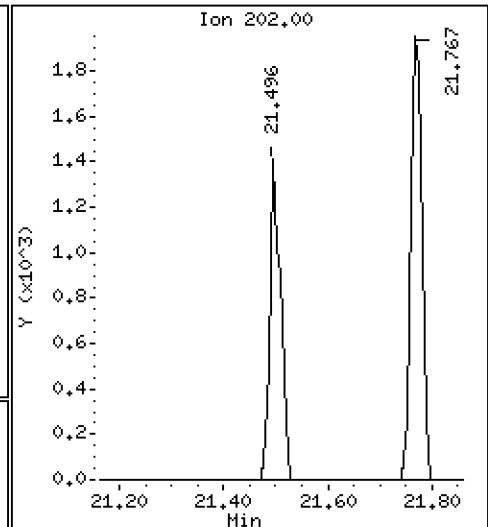
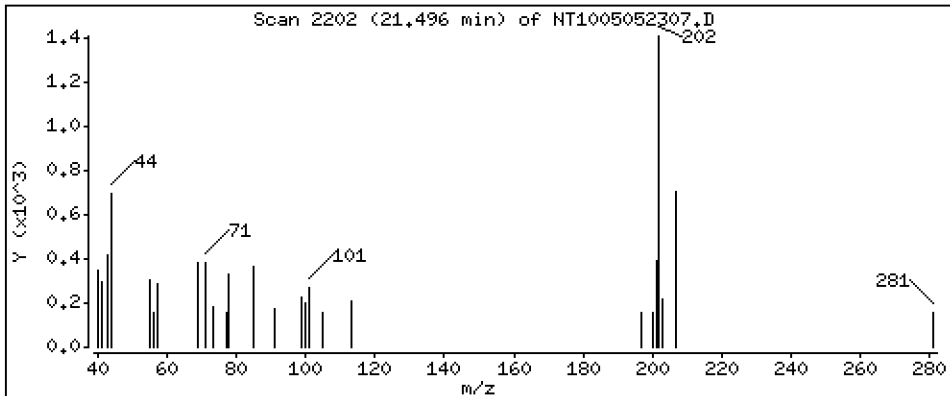
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,008680 ug/mL



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK1

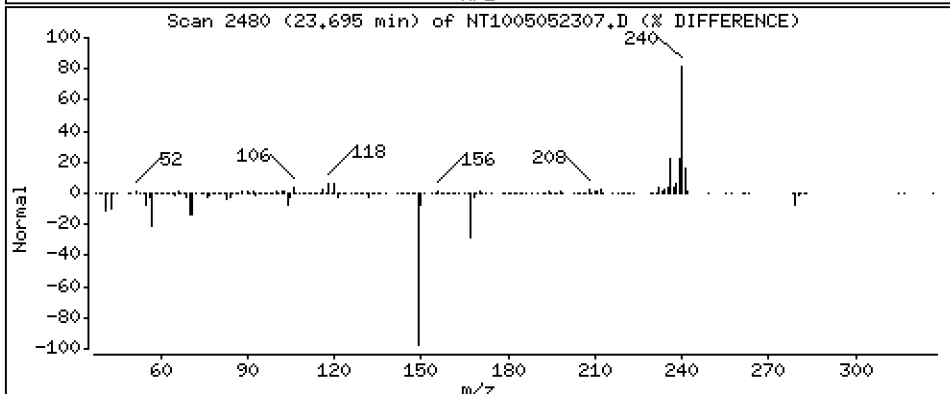
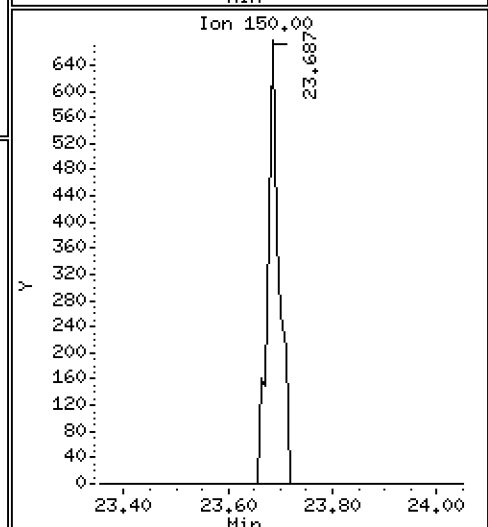
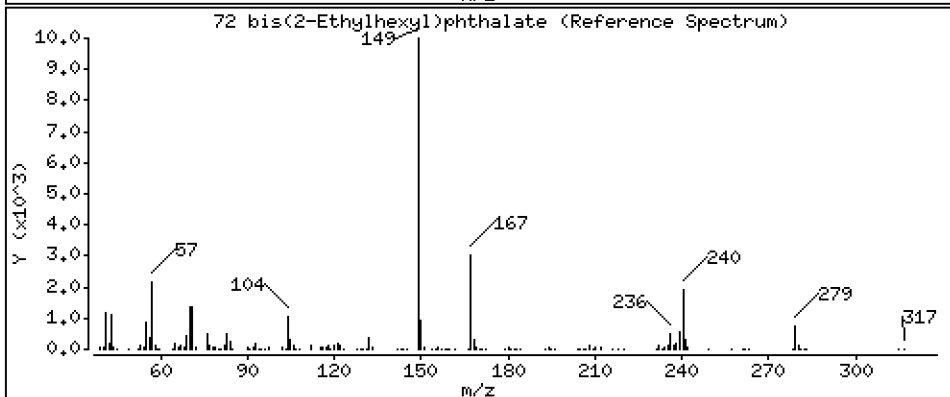
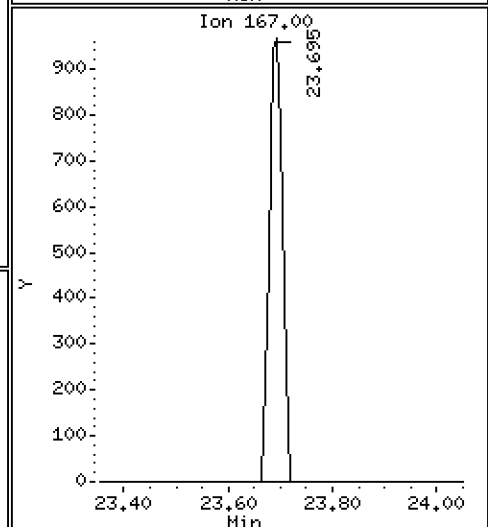
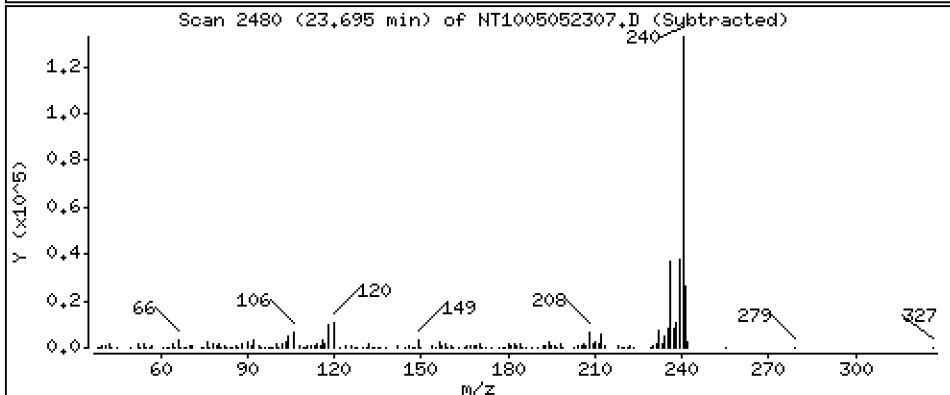
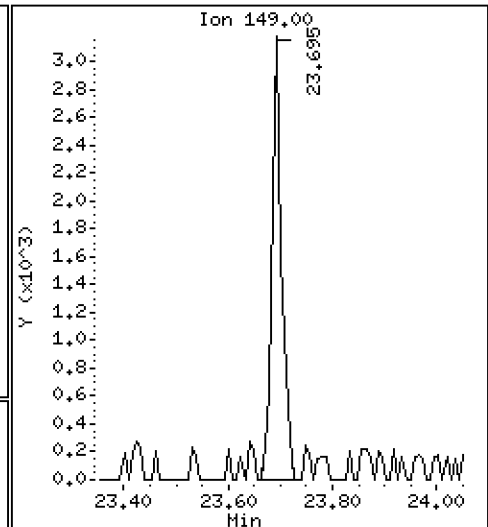
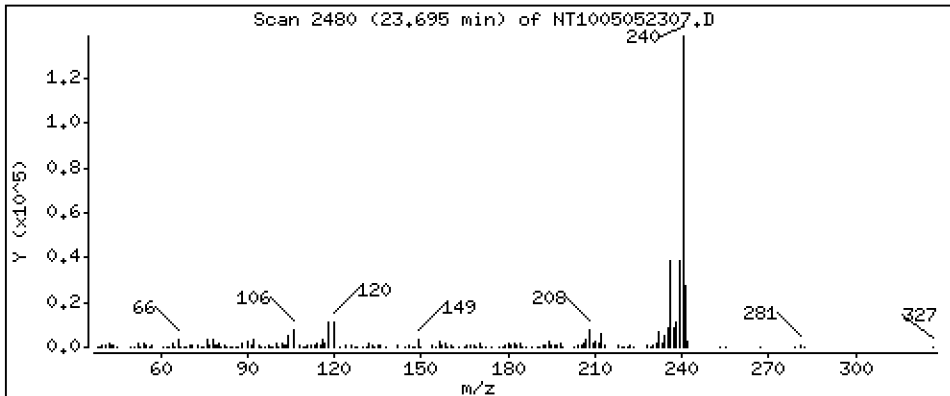
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,03666 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052307.D
 Lab Smp Id: BLD0329-BLK1
 Inj Date : 05-MAY-2023 14:40
 Operator : VTS
 Smp Info : BLD0329-BLK1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.238	7.253	(1.000)	146072	2.90344	2.903
\$ 2 Phenol-d5	99		8.822	8.830	(1.000)	202067	3.33141	3.331
3 Phenol	94		8.845	8.853	(1.000)	1821	0.02808	0.02808
\$ 5 2-Chlorophenol-d4	132		9.123	9.139	(1.000)	251018	4.31838	4.318
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.494	9.502	(1.000)	166260	4.00000	(M)
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.851	9.867	(1.000)	136052	3.17267	3.173
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.766	9.766	(1.000)	3073	0.09858	0.09858
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		9.976	10.240	(1.000)	247	0.00433	0.004325
\$ 18 Nitrobenzene-d5	82		10.589	10.604	(0.884)	226439	3.24569	3.246
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.983	11.999	(1.000)	624309	4.00000	
28 Naphthalene	128		Compound Not Detected.					
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.422	13.437	(1.120)	712	0.00547	0.005467
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====
34 2,4,6-Trichlorophenol	196					Compound Not Detected.		
35 2,4,5-Trichlorophenol	196					Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172		14.196	14.211	(0.909)	478168	3.25587	3.256
37 2-Chloronaphthalene	162					Compound Not Detected.		
38 2-Nitroaniline	65					Compound Not Detected.		
39 Dimethylphthalate	163					Compound Not Detected.		
40 Acenaphthylene	152					Compound Not Detected.		
41 2,6-Dinitrotoluene	165					Compound Not Detected.		
* 42 Acenaphthene-d10	164		15.612	15.628	(1.000)	339232	4.00000	
43 3-Nitroaniline	138					Compound Not Detected.		
44 Acenaphthene	153					Compound Not Detected.		
45 2,4-Dinitrophenol	184					Compound Not Detected.		
46 Dibenzofuran	168					Compound Not Detected.		
47 4-Nitrophenol	109					Compound Not Detected.		
48 2,4-Dinitrotoluene	165					Compound Not Detected.		
50 Diethylphthalate	149		16.555	16.571	(1.060)	22336	0.16539	0.1654
49 Fluorene	166					Compound Not Detected.		
51 4-Chlorophenyl-phenylether	204					Compound Not Detected.		
52 4-Nitroaniline	138					Compound Not Detected.		
53 4,6-Dinitro-2-methylphenol	198					Compound Not Detected.		
54 N-Nitrosodiphenylamine	169					Compound Not Detected.		
\$ 55 2,4,6-Tribromophenol	330		17.257	17.265	(1.105)	51380	3.10935	3.109
56 4-Bromophenyl-phenylether	248					Compound Not Detected.		
57 Hexachlorobenzene	284					Compound Not Detected.		
58 Pentachlorophenol	266					Compound Not Detected.		
* 59 Phenanthrene-d10	188		18.664	18.679	(1.000)	627090	4.00000	
60 Phenanthrene	178					Compound Not Detected.		
61 Anthracene	178					Compound Not Detected.		
62 Carbazole	167					Compound Not Detected.		
63 Di-n-butylphthalate	149					Compound Not Detected.		
64 Fluoranthene	202		21.077	21.085	(0.890)	2282	0.00997	0.009968
65 Pyrene	202		21.495	21.511	(0.908)	1985	0.00868	0.008680
\$ 66 Terphenyl-d14	244		21.766	21.782	(0.919)	692728	3.83004	3.830
67 Butylbenzylphthalate	149					Compound Not Detected.		
68 Benzo(a)anthracene	228					Compound Not Detected.		
* 69 Chrysene-d12	240		23.679	23.694	(1.000)	512752	4.00000	
70 3,3'-Dichlorobenzidine	252					Compound Not Detected.		
71 Chrysene	228					Compound Not Detected.		
72 bis(2-Ethylhexyl)phthalate	149		23.694	23.702	(0.958)	4056	0.03666	0.03666
* 134 Di-n-octylphthalate-d4	153		24.724	24.739	(1.000)	768100	4.00000	
73 Di-n-octylphthalate	149					Compound Not Detected.		
74 Benzo(b)fluoranthene	252					Compound Not Detected.		
75 Benzo(k)fluoranthene	252					Compound Not Detected.		
76 Benzo(a)pyrene	252					Compound Not Detected.		
* 77 Perylene-d12	264		26.520	26.528	(1.000)	443652	4.00000	
78 Indeno(1,2,3-cd)pyrene	276					Compound Not Detected.		
79 Dibenzo(a,h)anthracene	278					Compound Not Detected.		
80 Benzo(g,h,i)perylene	276					Compound Not Detected.		
90 N-Nitrosodimethylamine	74					Compound Not Detected.		
91 Aniline	93					Compound Not Detected.		
93 Benzidine	184					Compound Not Detected.		
103 Pyridine	79					Compound Not Detected.		
105 1-methylnaphthalene	142					Compound Not Detected.		
111 Azobenzene (1,2-DP-Hydrazine)	77					Compound Not Detected.		

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052307.D Calibration Time: 11:37
 Lab Smp Id: BLD0329-BLK1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	166260	-7.36
27 Naphthalene-d8	621628	310814	1243256	624309	0.43
42 Acenaphthene-d10	353112	176556	706224	339232	-3.93
59 Phenanthrene-d10	694933	347467	1389866	627090	-9.76
69 Chrysene-d12	553967	276984	1107934	512752	-7.44
134 Di-n-octylphthala	895601	447801	1791202	768100	-14.24
77 Perylene-d12	482573	241287	965146	443652	-8.07

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	12.00	11.50	12.50	11.98	-0.13
42 Acenaphthene-d10	15.63	15.13	16.13	15.61	-0.10
59 Phenanthrene-d10	18.68	18.18	19.18	18.66	-0.08
69 Chrysene-d12	23.69	23.19	24.19	23.68	-0.07
134 Di-n-octylphthala	24.74	24.24	25.24	24.72	-0.06
77 Perylene-d12	26.53	26.03	27.03	26.52	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005052307.D

Lab ID: BLD0329-BLK1
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 14:40

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

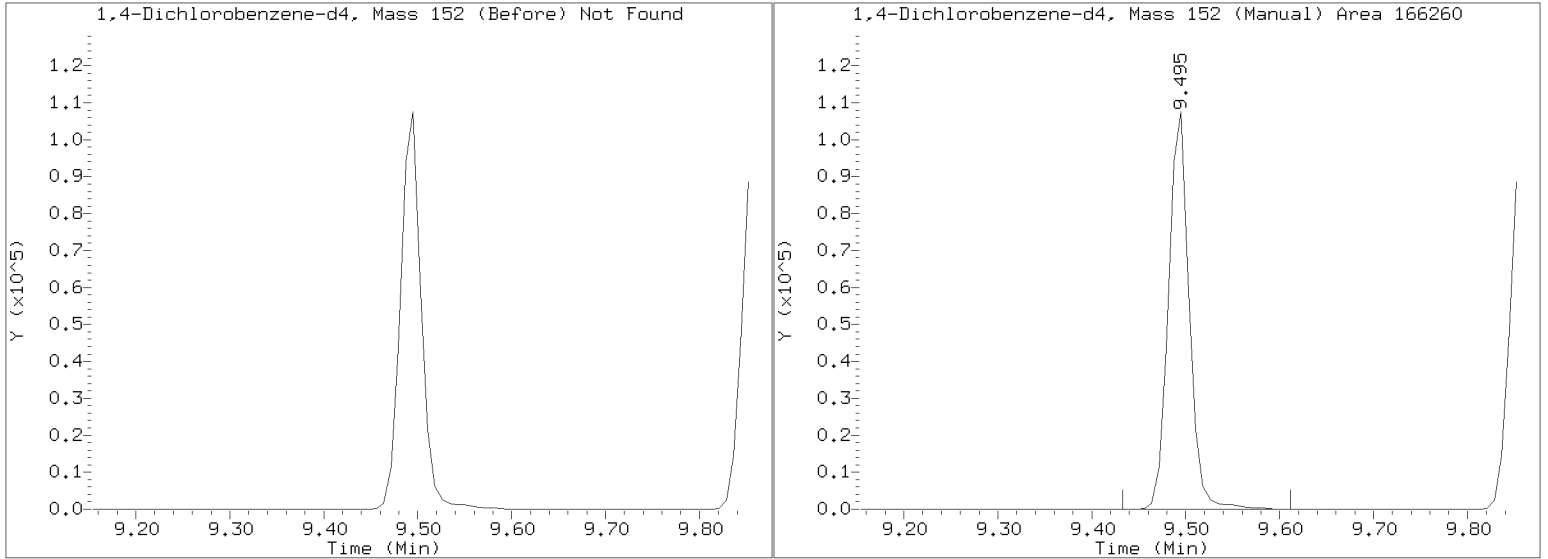
RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052307.D
Injection Date: 05-MAY-2023 14:40
Lab ID:BLD0329-BLK1 Client ID:
Report Date: 05/08/2023 10:14



APPROVED

By Deenay Dunmore at 10:40 am, May 08, 2023



LCS / LCS DUPLICATE RECOVERY
EPA 8270E

Laboratory: Analytical Resources, LLC SDG: 23D0136
 Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
 Matrix: Solid Analyzed: 05/05/23 15:18
 Batch: BLD0329 Laboratory ID: BLD0329-BS1
 Preparation: EPA 3546 (Microwave) Sequence Name: LCS
 Initial/Final: 10 g / 1 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Phenol	500	231		46.3	34 - 120
4-Methylphenol	500	266		53.1	29 - 120
Naphthalene	500	307		61.5	43 - 120
2-Methylnaphthalene	500	300		60.0	43 - 120
Acenaphthylene	500	299		59.7	42 - 120
Dimethylphthalate	500	362		72.5	43 - 120
Acenaphthene	500	319		63.7	45 - 120
Dibenzofuran	500	319		63.9	43 - 120
Fluorene	500	317		63.3	45 - 120
Phenanthrene	500	341		68.2	49 - 120
Anthracene	500	295		59.1	45 - 120
Fluoranthene	500	354		70.8	53 - 145
Pyrene	500	353		70.6	52 - 134
Butylbenzylphthalate	500	367		73.4	45 - 132
Benzo(a)anthracene	500	355		70.9	49 - 120
Chrysene	500	355		71.0	47 - 120
bis(2-Ethylhexyl)phthalate	500	408		81.6	34 - 130
Benzofluoranthenes, Total	1000	734		73.4	30 - 160
Benzo(a)pyrene	500	349		69.9	42 - 120
Indeno(1,2,3-cd)pyrene	500	376		75.2	42 - 163
Dibenzo(a,h)anthracene	500	371		74.2	30 - 133
Benzo(g,h,i)perylene	500	380		76.1	46 - 148

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Phenol	500	262		52.3	12.4	30	34 - 120
4-Methylphenol	500	314		62.8	16.8	30	29 - 120
Naphthalene	500	339		67.8	9.84	30	43 - 120
2-Methylnaphthalene	500	334		66.8	10.7	30	43 - 120
Acenaphthylene	500	344		68.7	14.0	30	42 - 120
Dimethylphthalate	500	414		82.9	13.4	30	43 - 120
Acenaphthene	500	360		72.0	12.3	30	45 - 120

* Indicates values outside of QC limits



LCS / LCS DUPLICATE RECOVERY
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/05/23 15:57</u>
Batch:	<u>BLD0329</u>	Laboratory ID:	<u>BLD0329-BSD1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS Dup</u>
Initial/Final:	<u>10 g / 1 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Dibenzofuran	500	365		73.0	13.3	30	43 - 120
Fluorene	500	367		73.4	14.7	30	45 - 120
Phenanthrene	500	370		74.0	8.13	30	49 - 120
Anthracene	500	335		66.9	12.5	30	45 - 120
Fluoranthene	500	387		77.5	8.99	30	53 - 145
Pyrene	500	388		77.7	9.56	30	52 - 134
Butylbenzylphthalate	500	393		78.5	6.70	30	45 - 132
Benzo(a)anthracene	500	389		77.7	9.13	30	49 - 120
Chrysene	500	386		77.3	8.51	30	47 - 120
bis(2-Ethylhexyl)phthalate	500	448		89.6	9.26	30	34 - 130
Benzo(a)fluoranthene, Total	1000	815		81.5	10.5	30	30 - 160
Benzo(a)pyrene	500	387		77.4	10.2	30	42 - 120
Indeno(1,2,3-cd)pyrene	500	406		81.1	7.59	30	42 - 163
Dibenzo(a,h)anthracene	500	404		80.8	8.52	30	30 - 133
Benzo(g,h,i)perylene	500	408		81.6	7.07	30	46 - 148

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.6\NT1005052308.D

Date: 05-May-2023 15:18

Client ID:

Sample Info: BLD0329-BS1

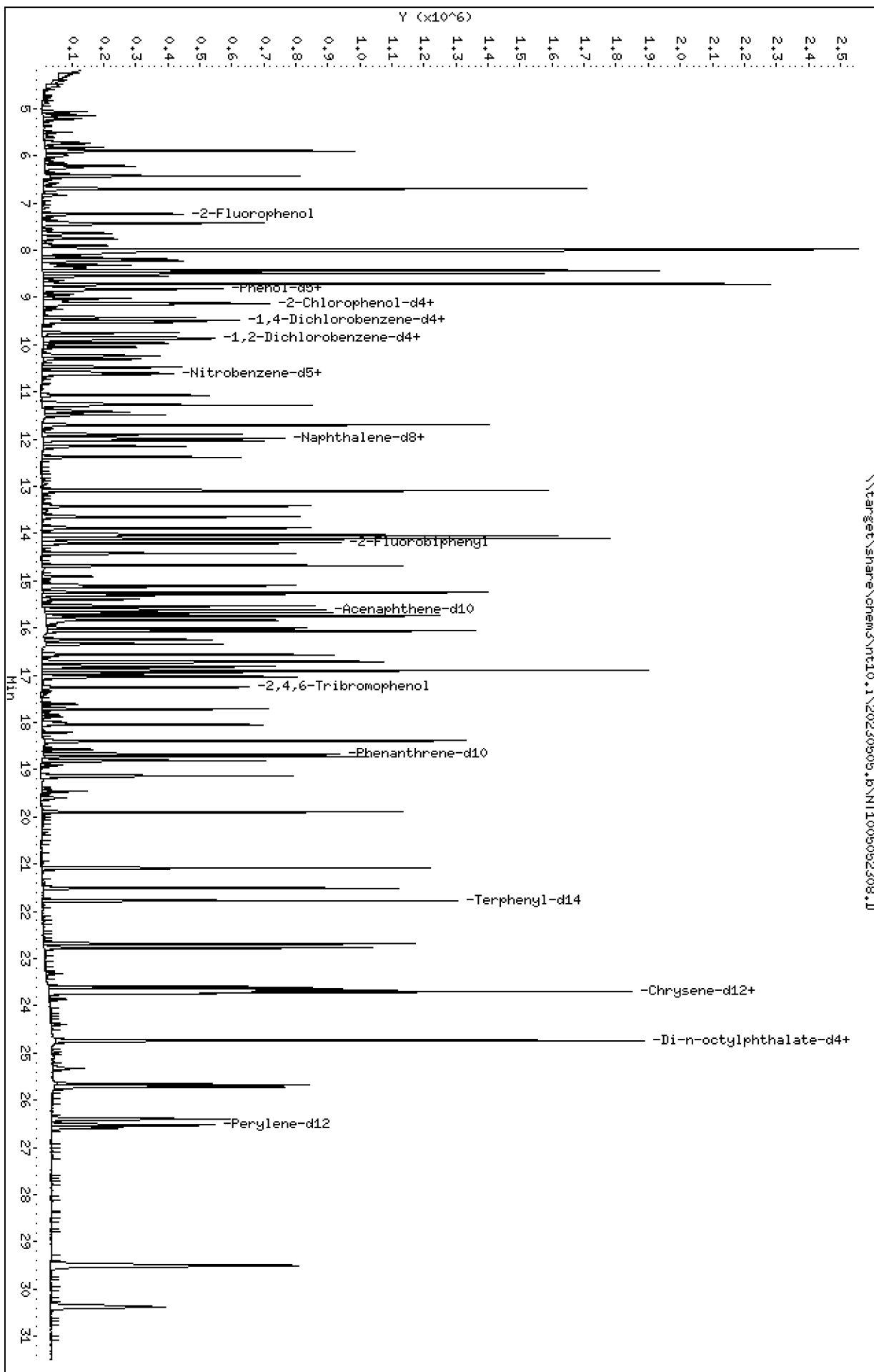
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

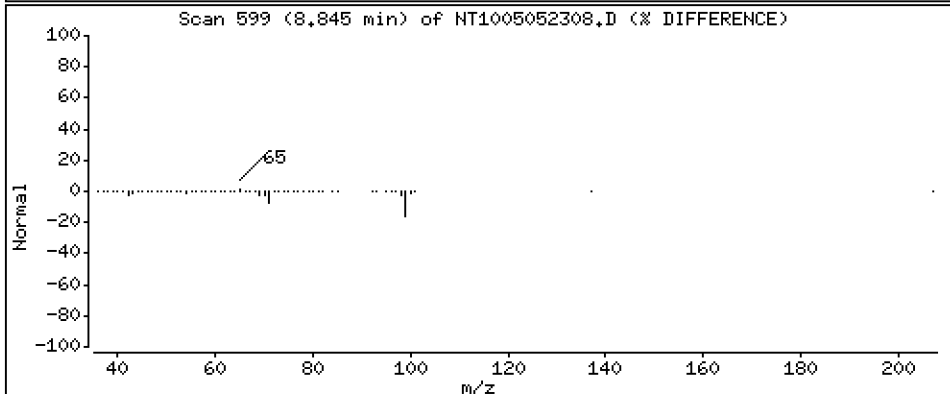
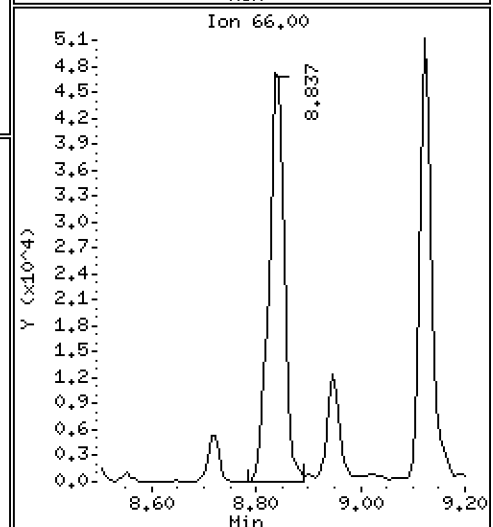
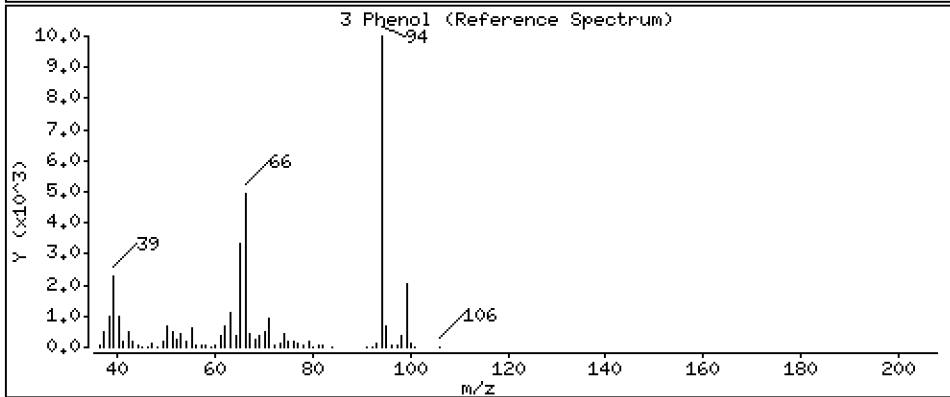
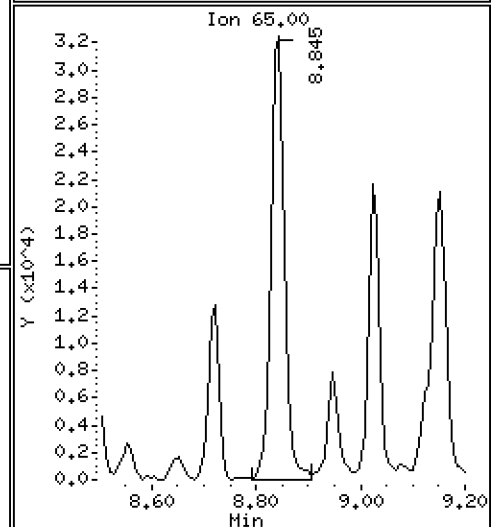
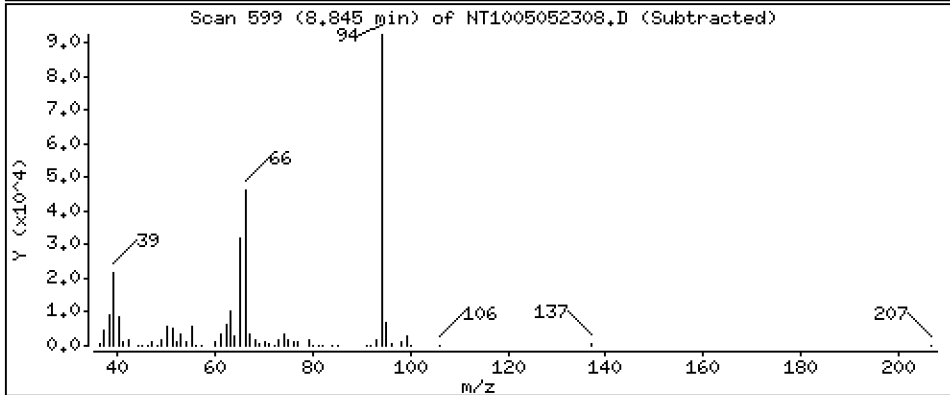
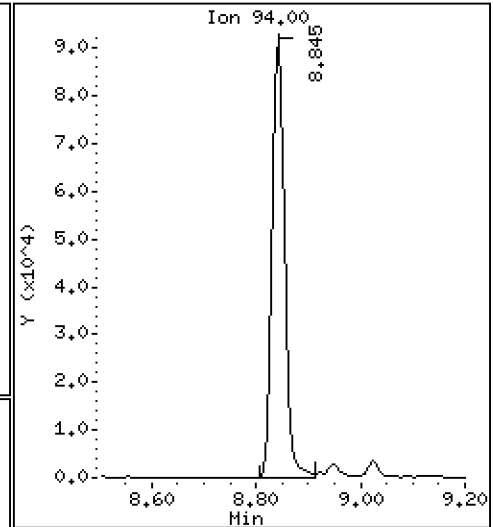
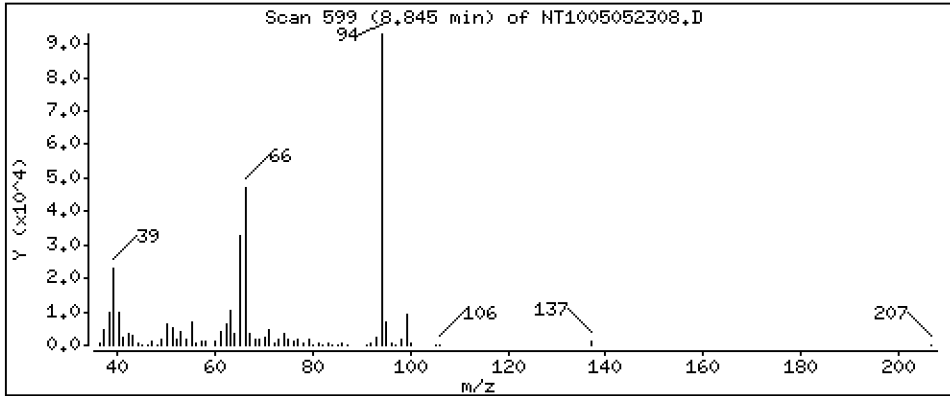
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 2.313 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

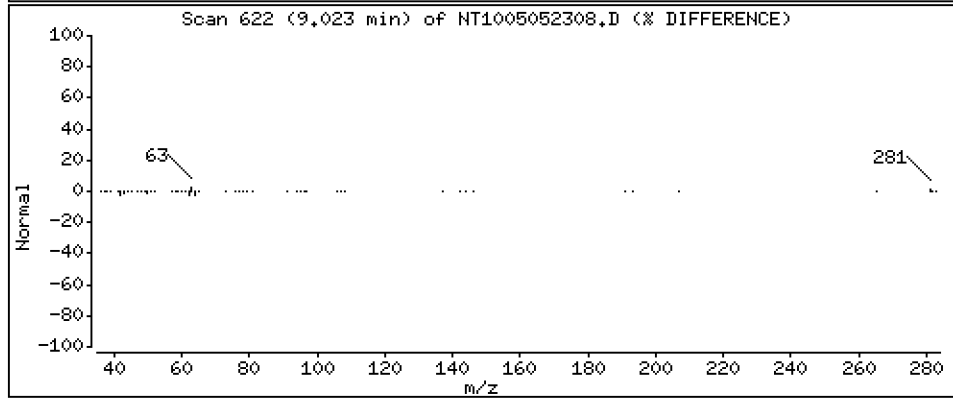
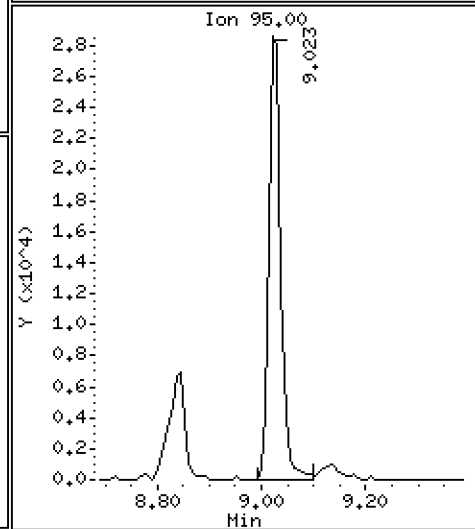
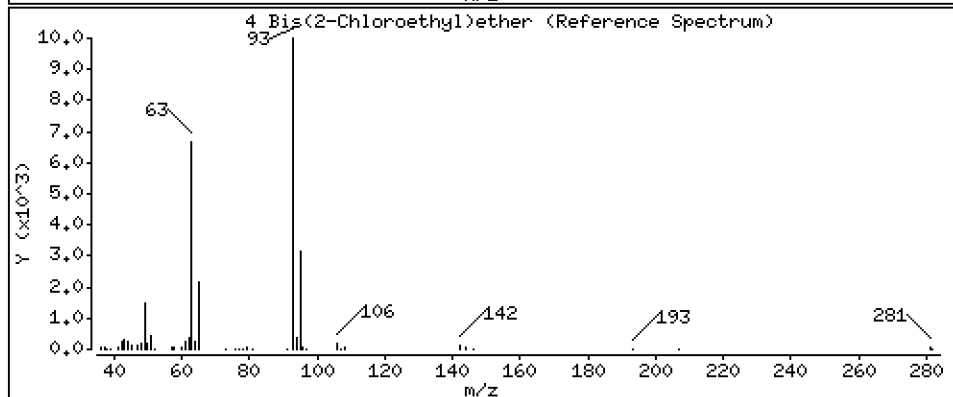
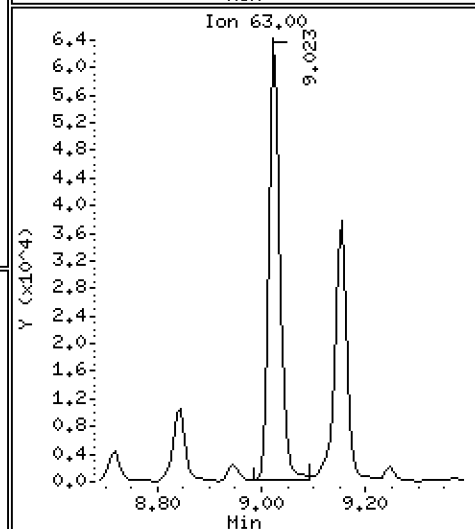
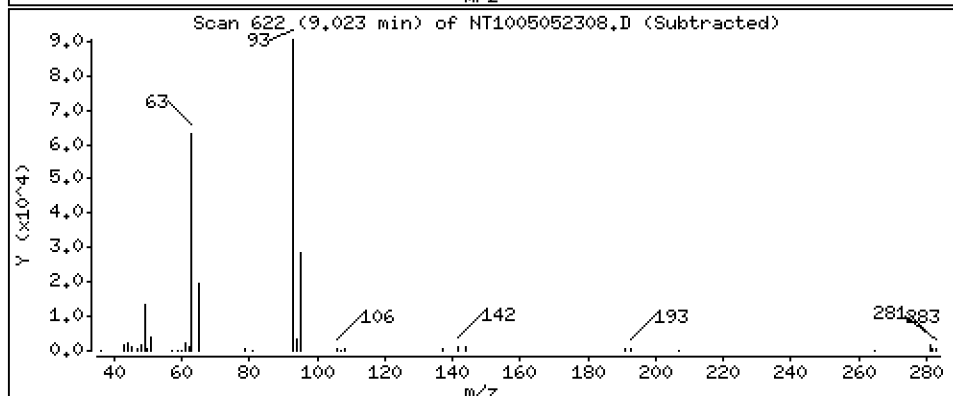
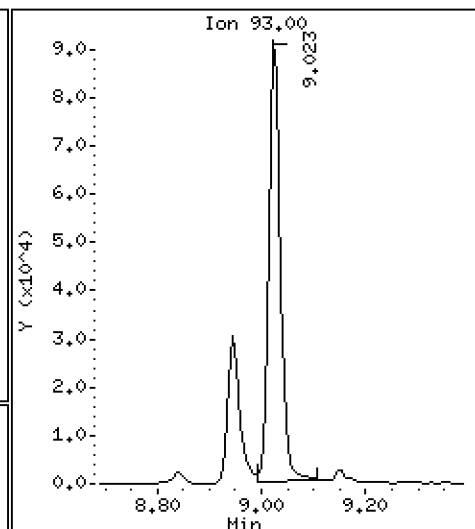
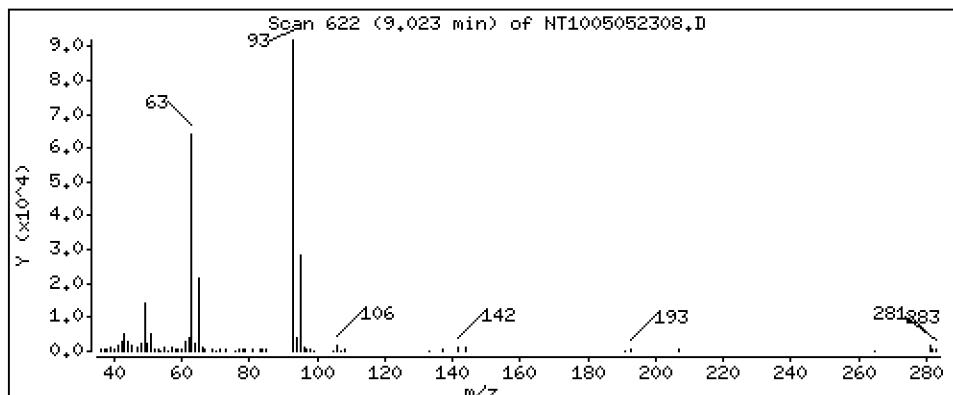
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 3,104 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

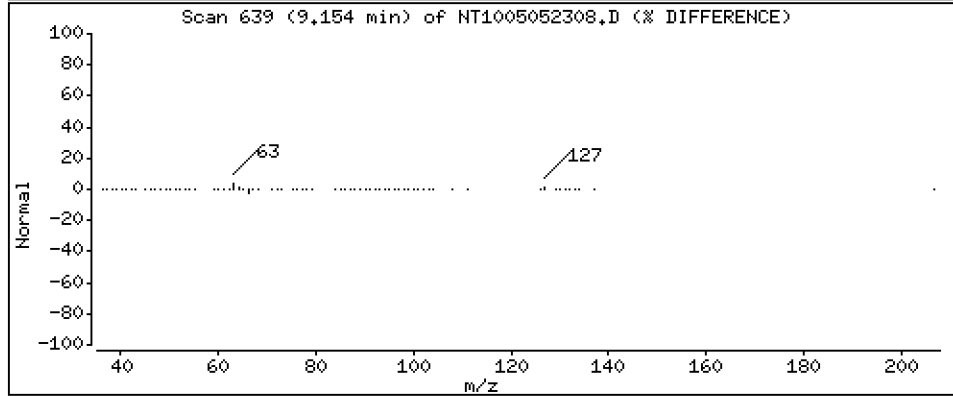
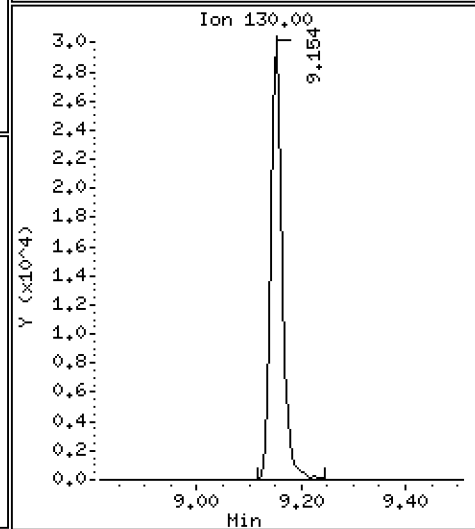
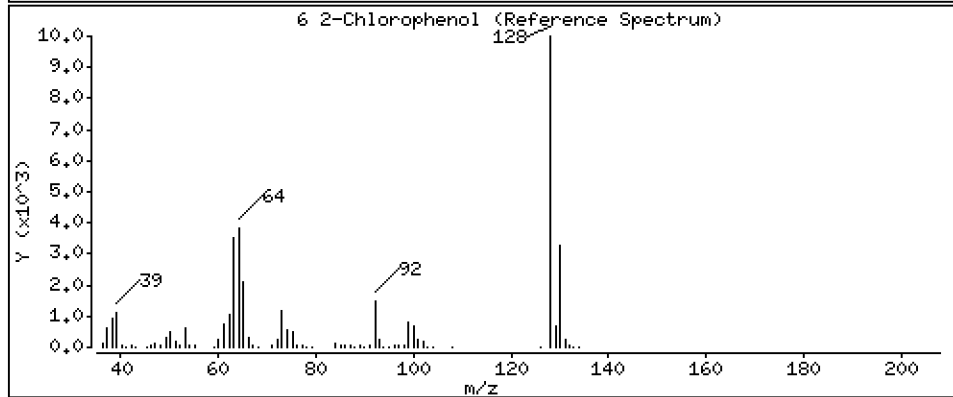
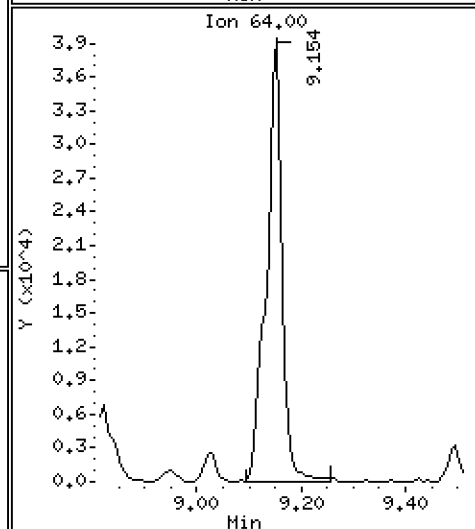
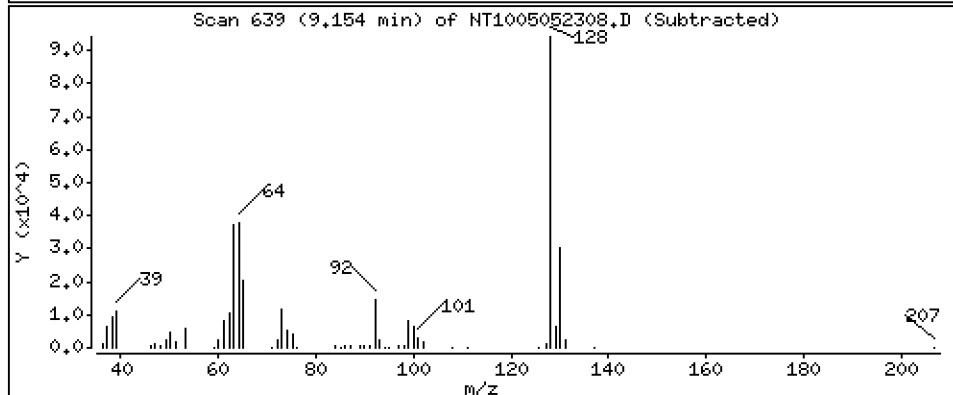
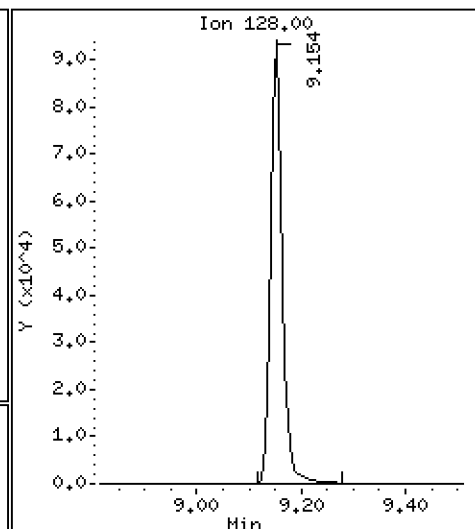
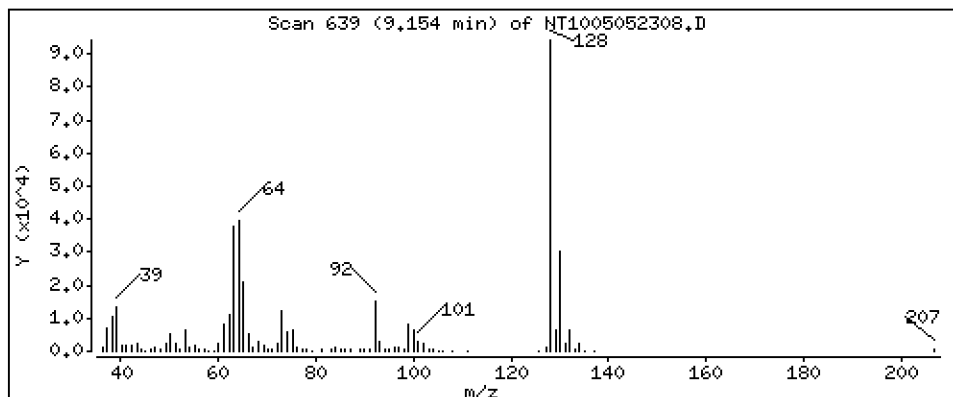
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 2,663 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

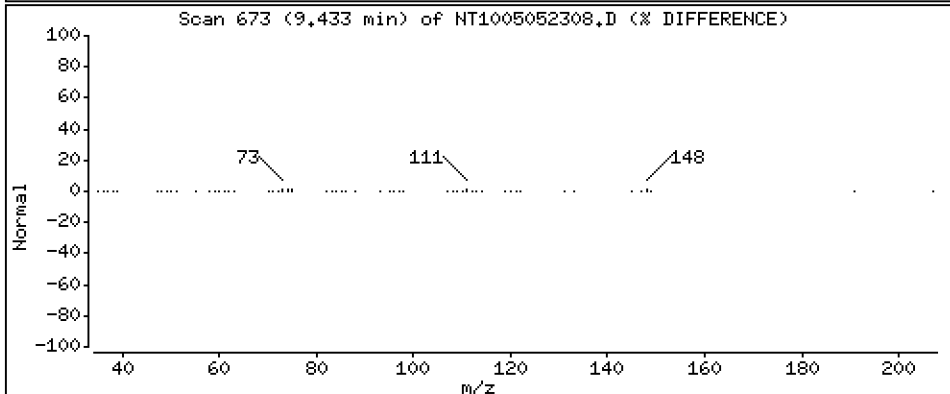
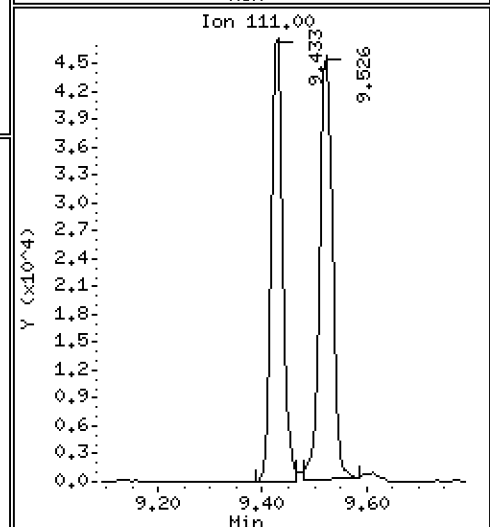
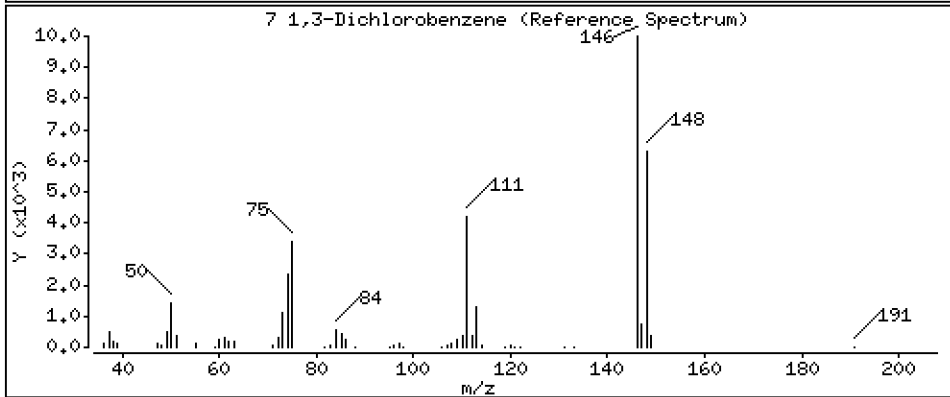
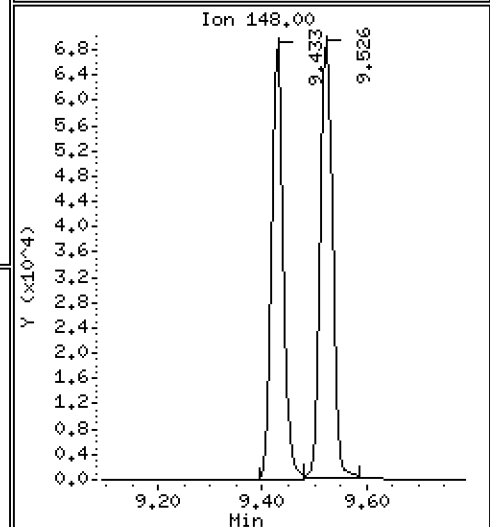
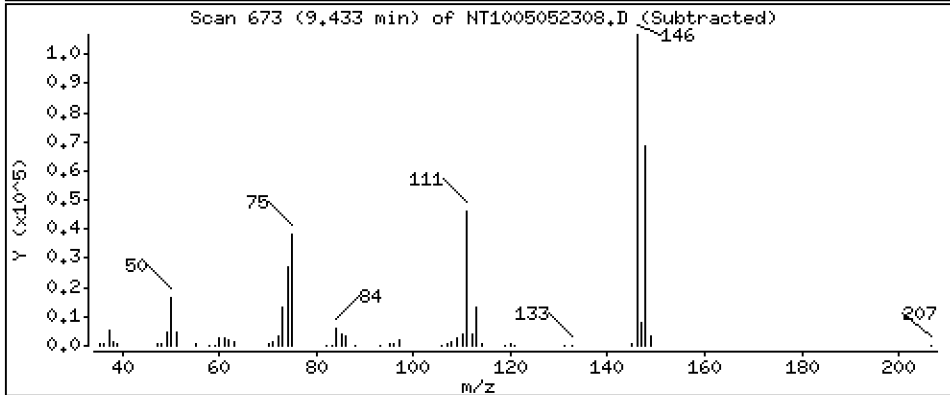
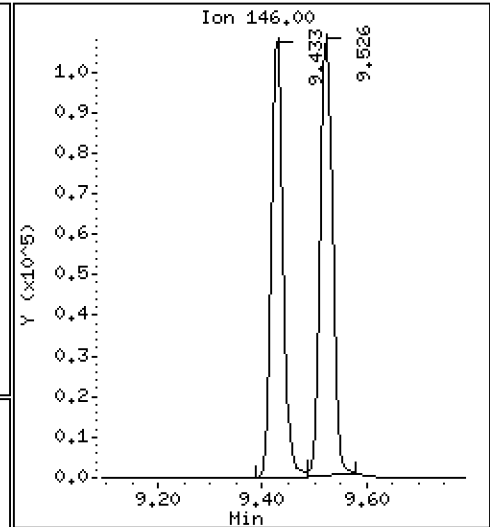
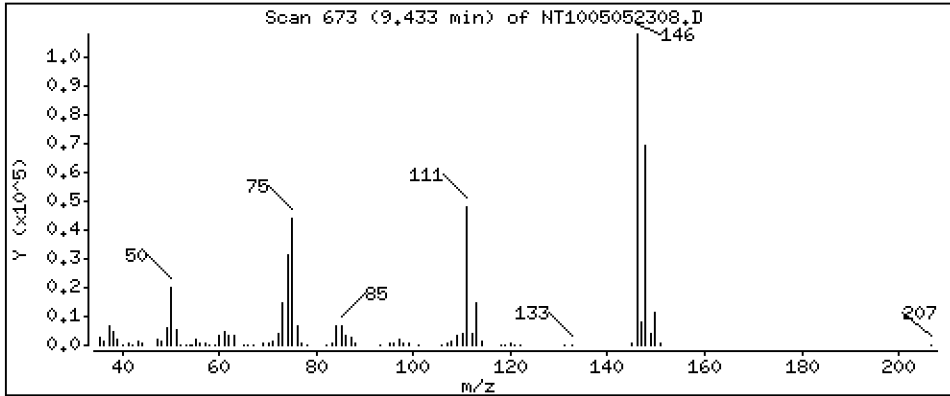
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 2,815 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

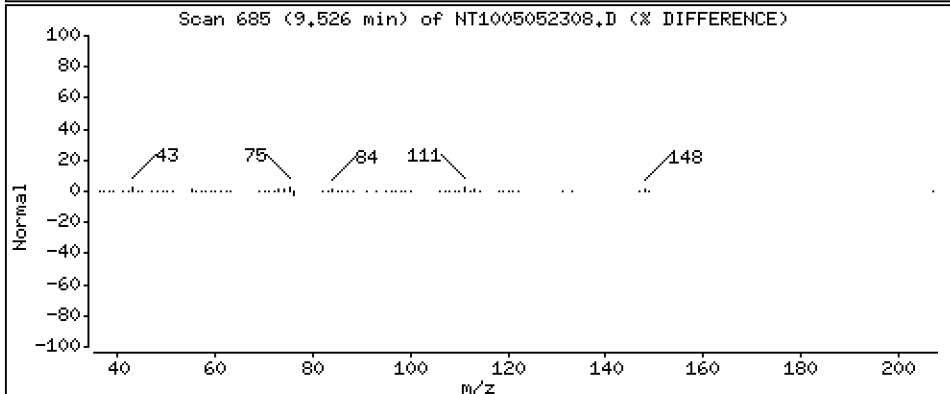
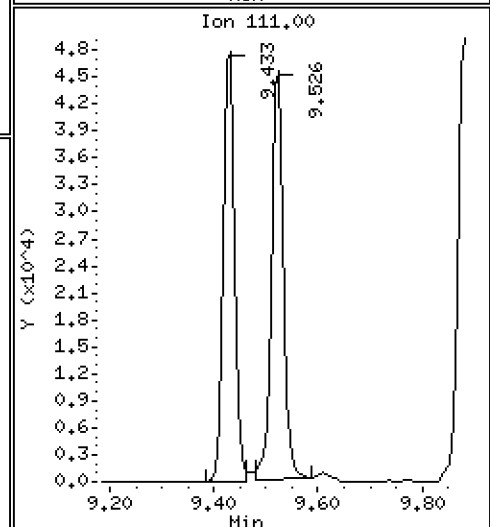
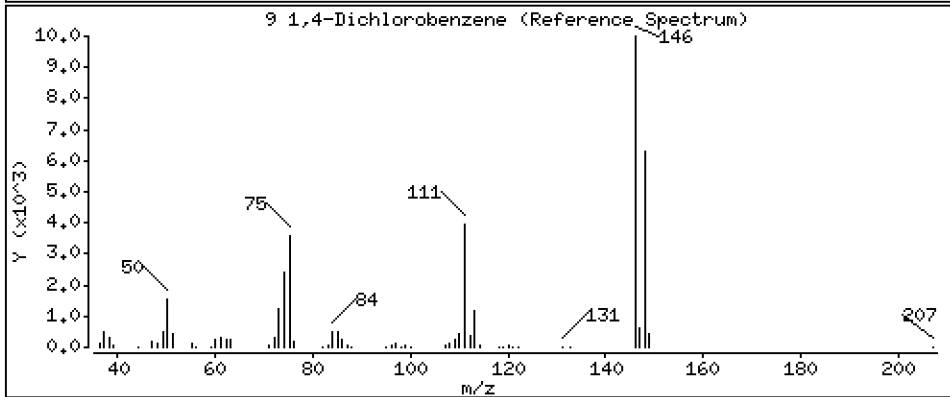
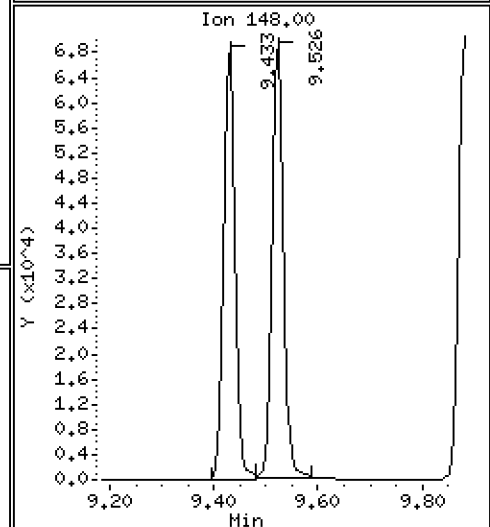
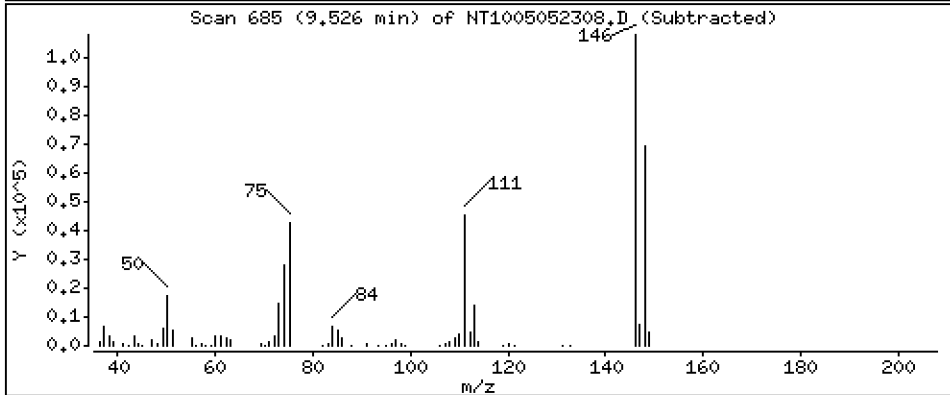
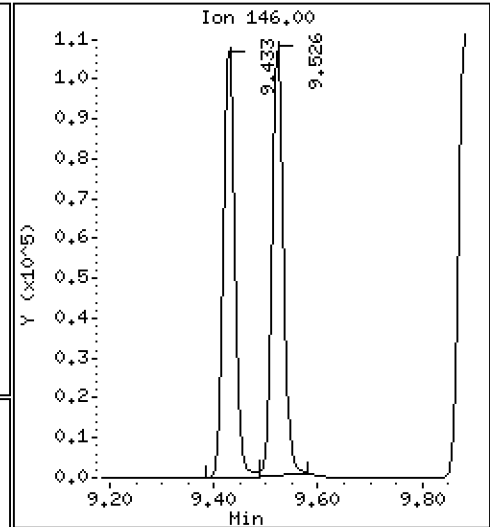
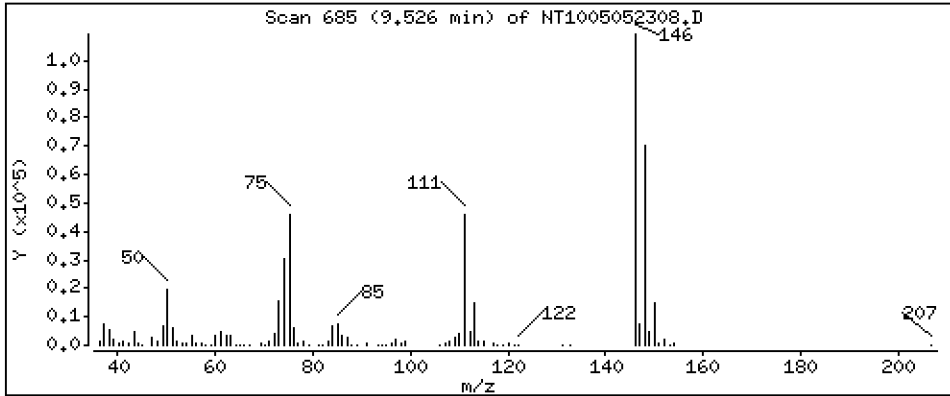
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 2,777 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

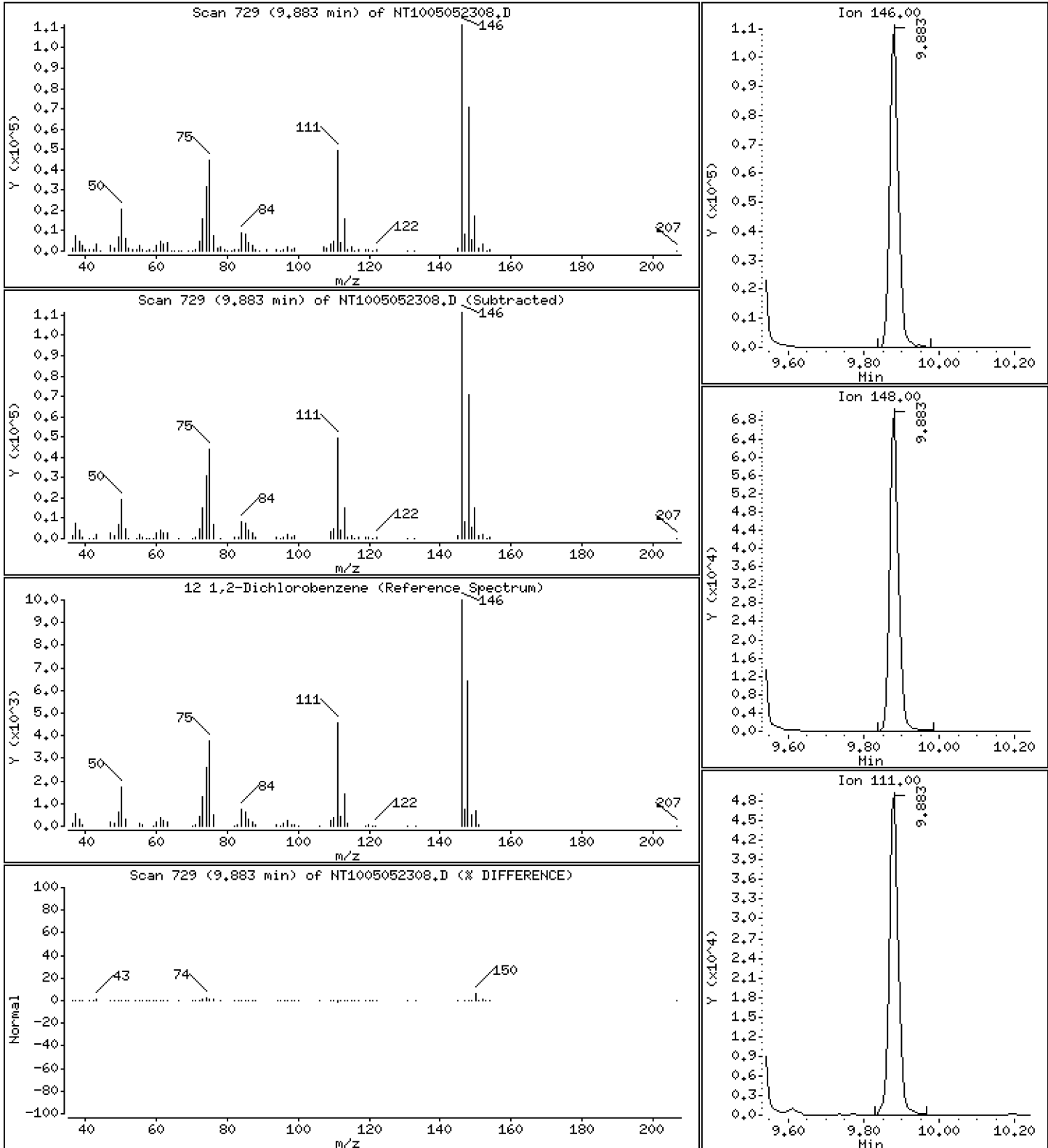
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 2,904 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

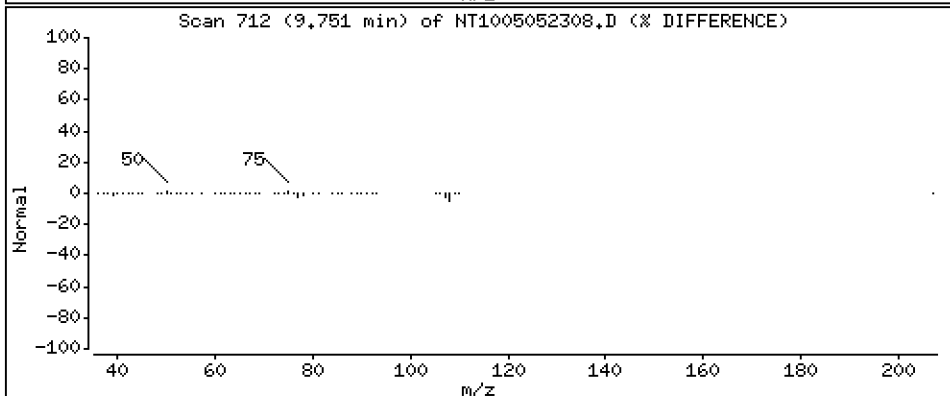
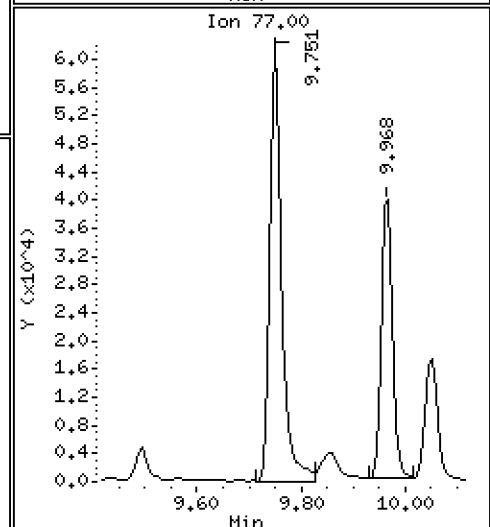
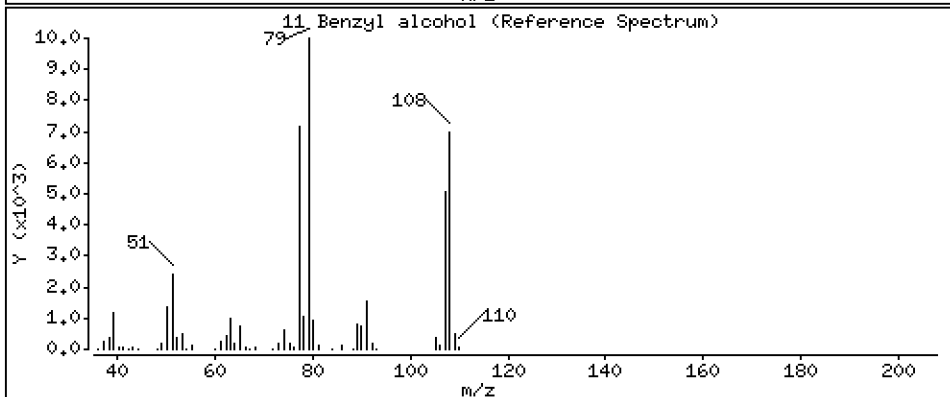
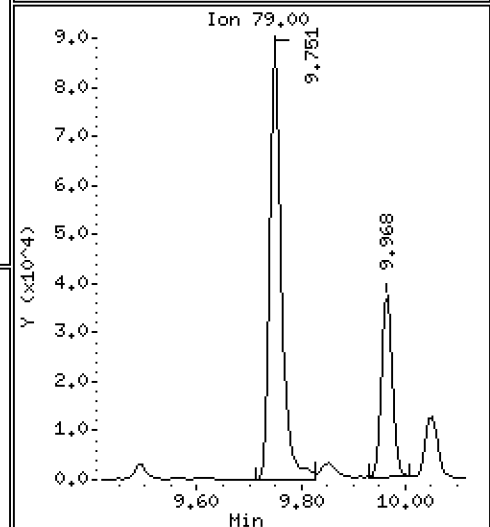
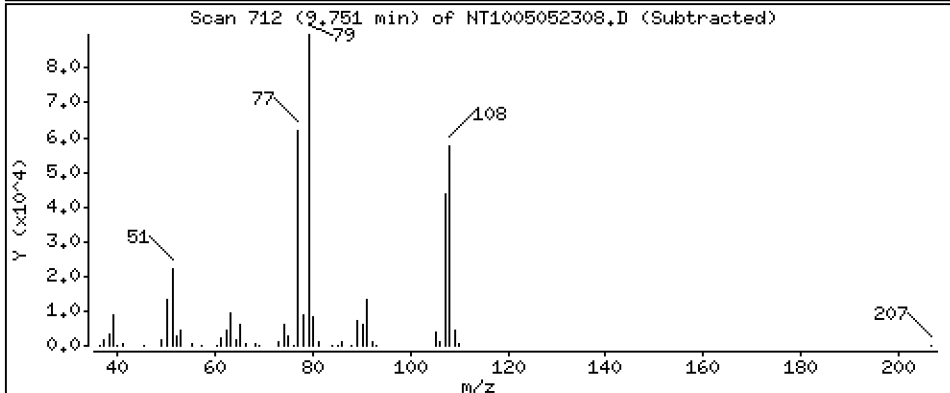
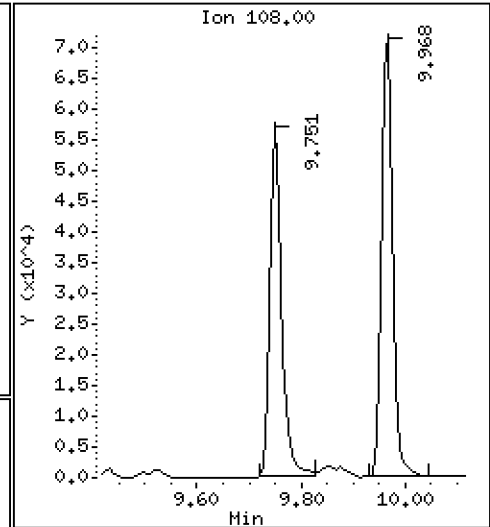
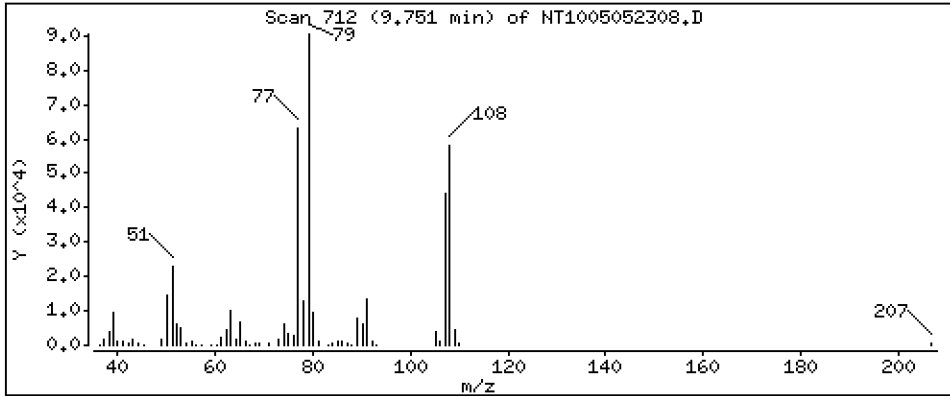
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 3,000 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

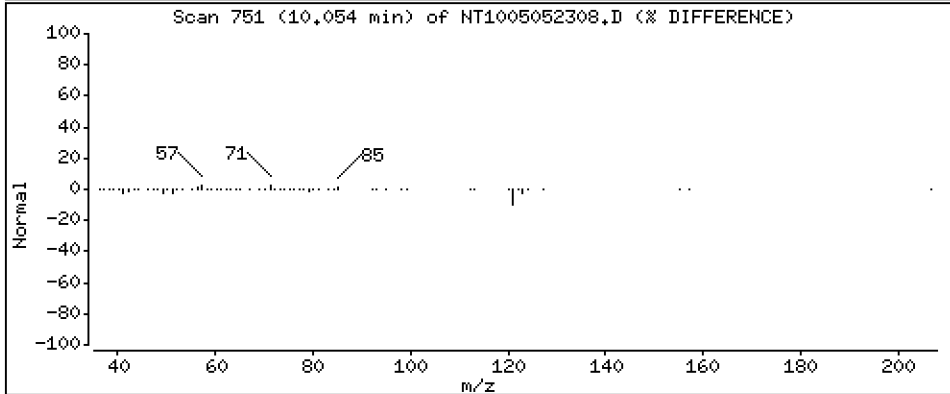
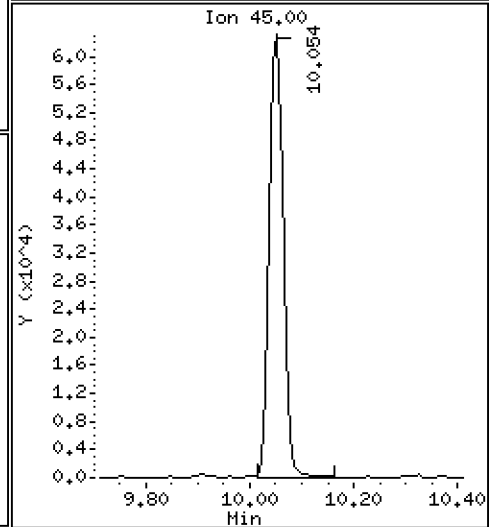
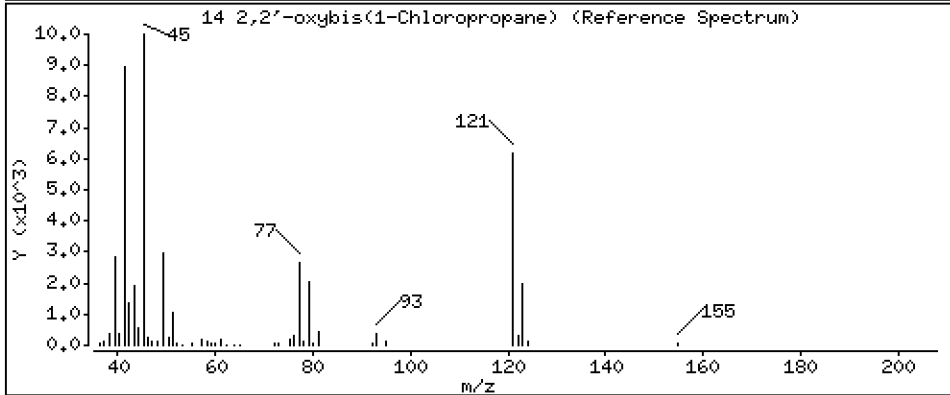
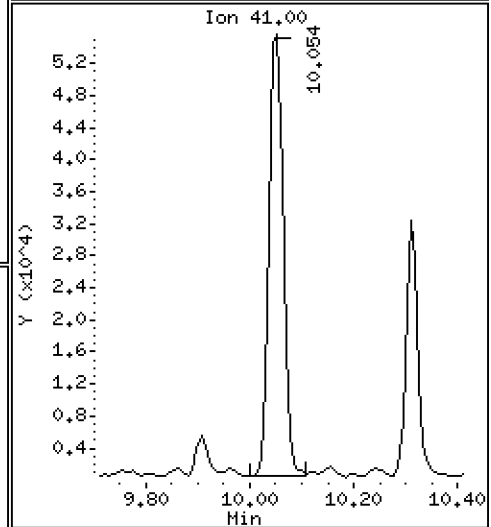
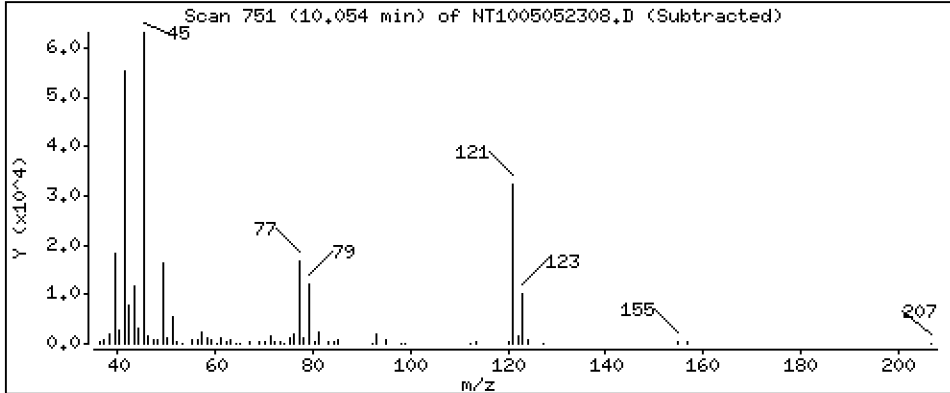
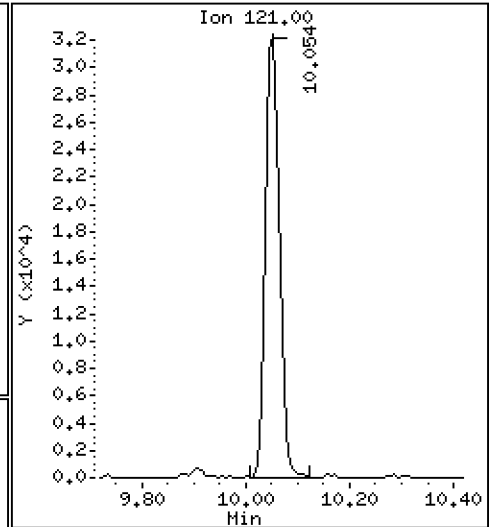
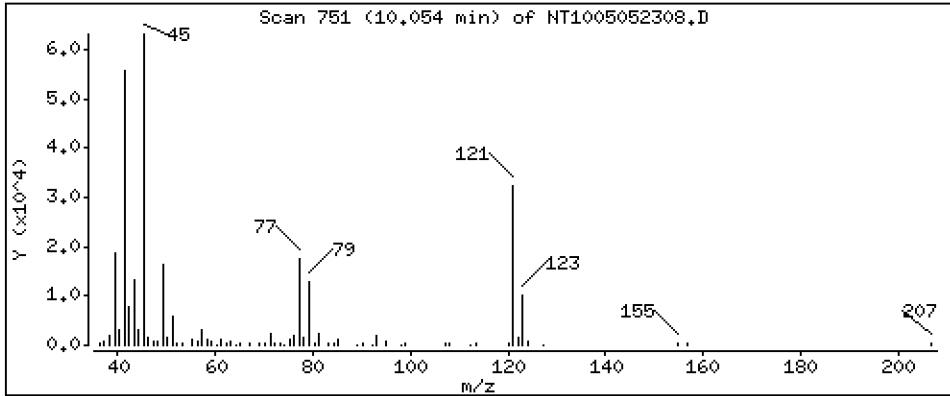
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 3,491 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

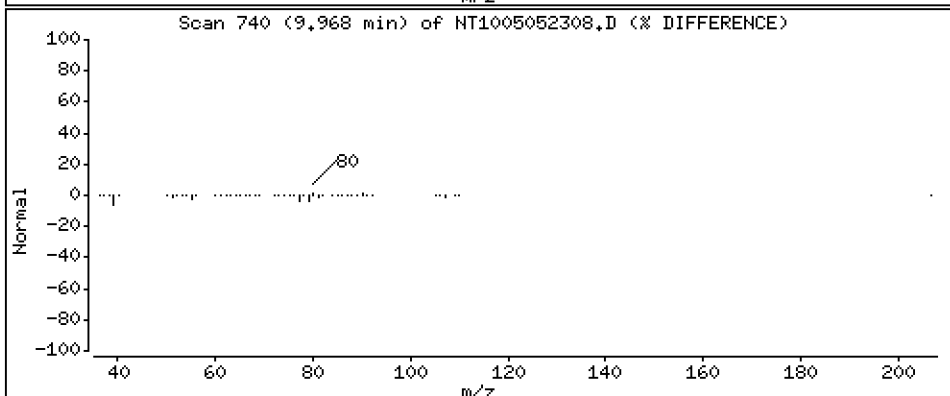
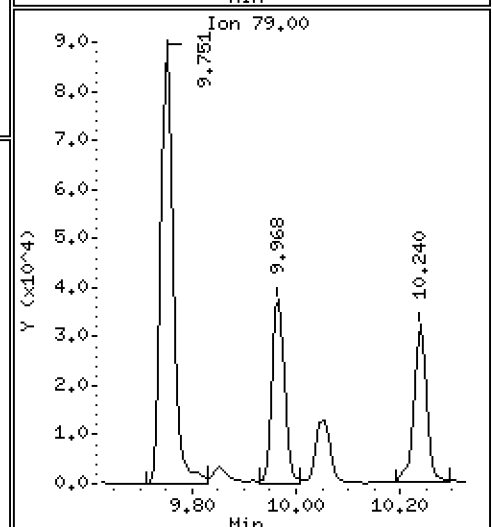
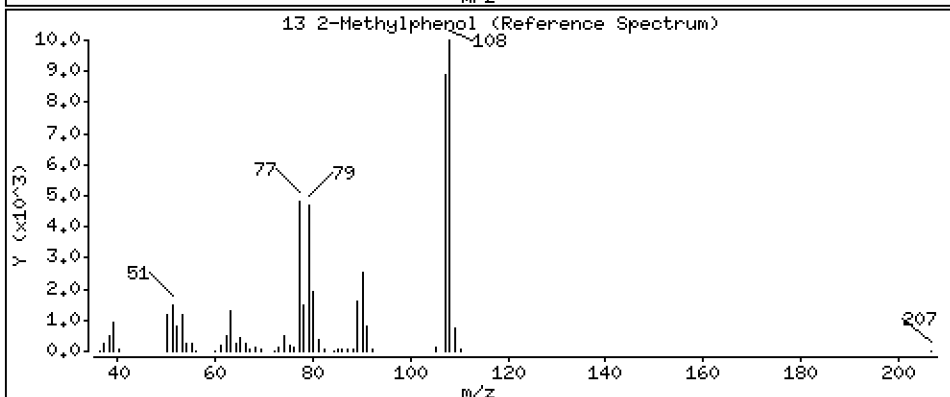
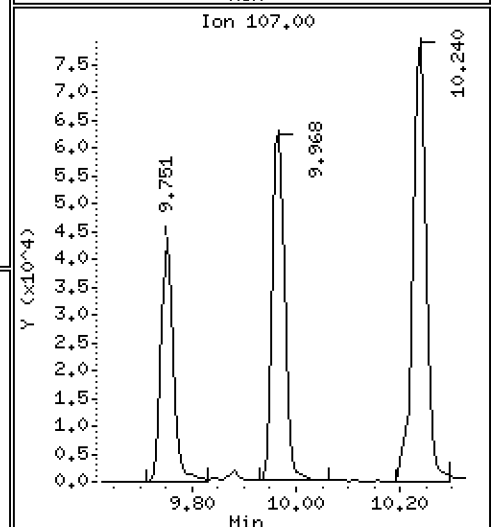
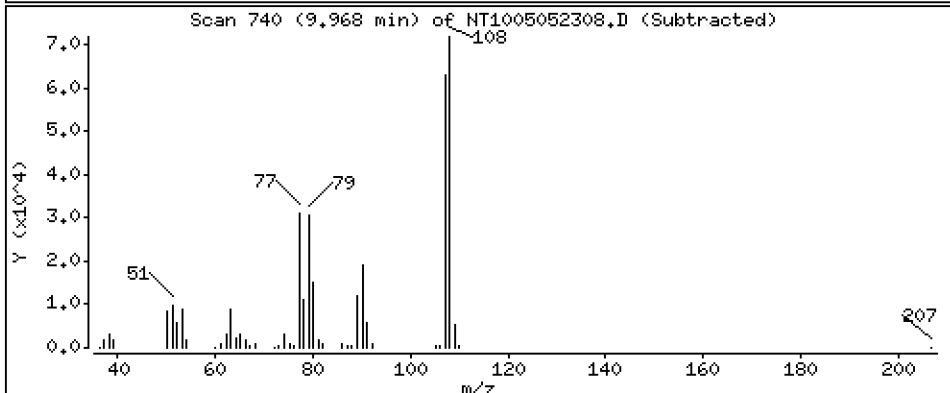
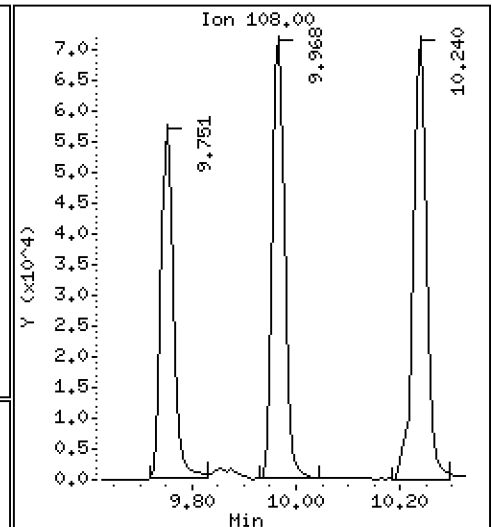
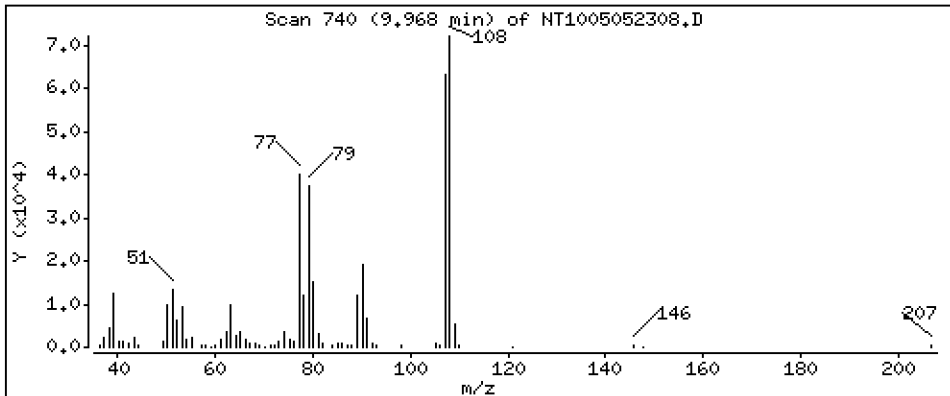
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 2.428 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

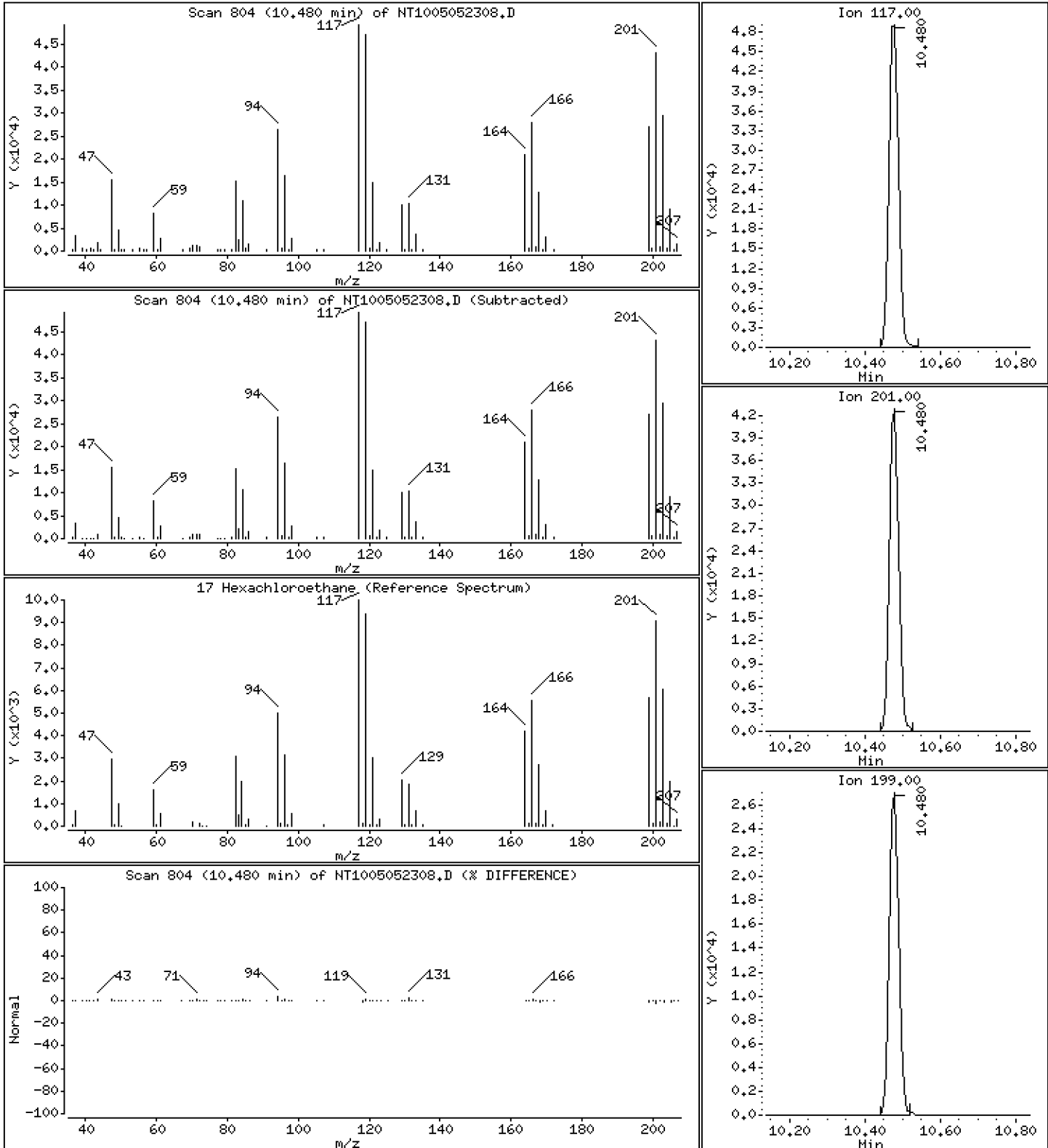
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 3,092 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

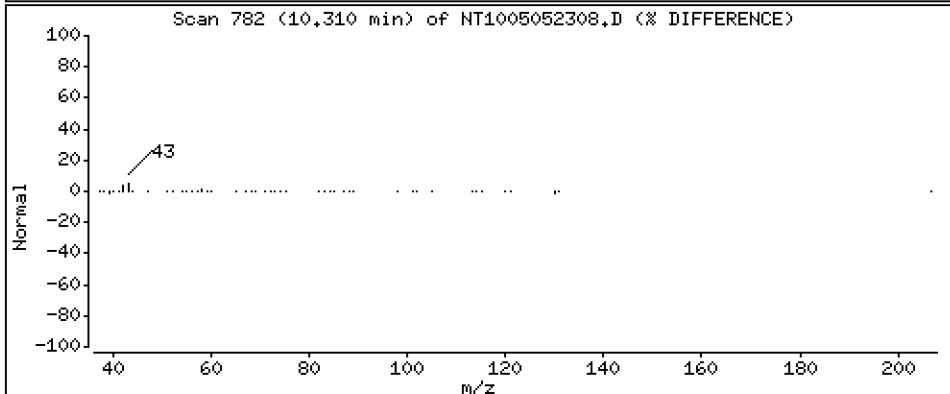
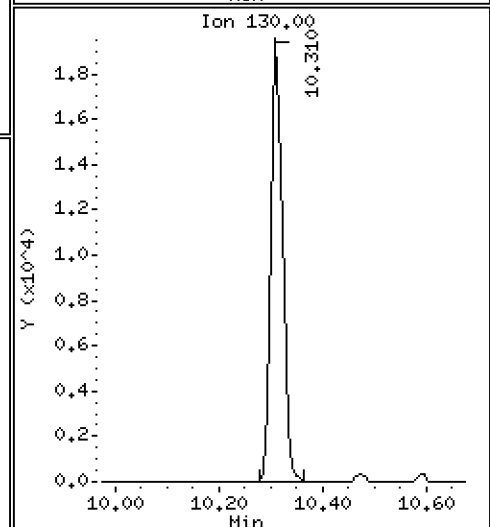
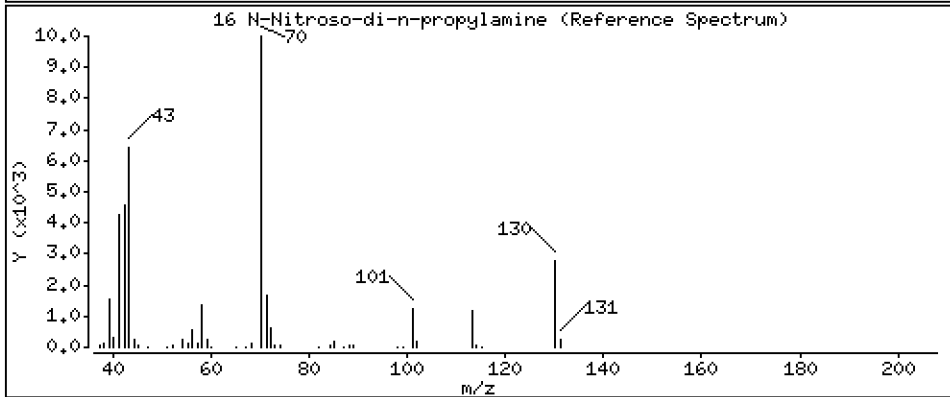
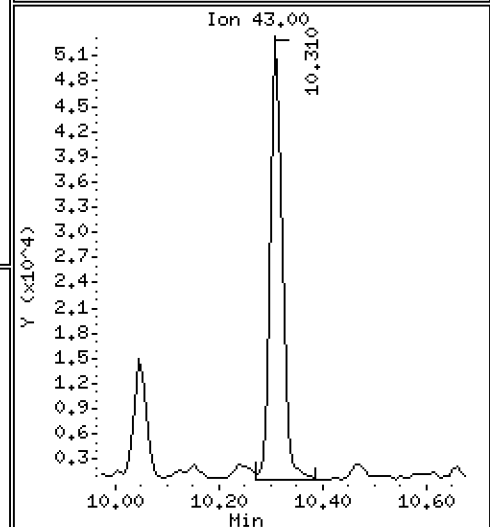
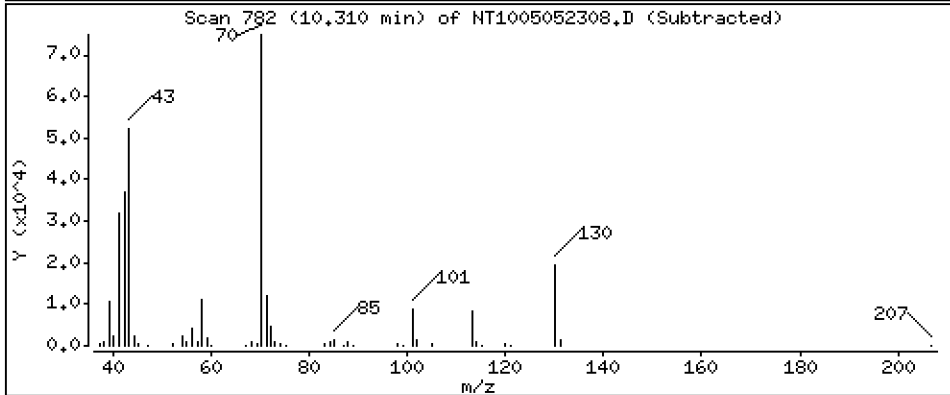
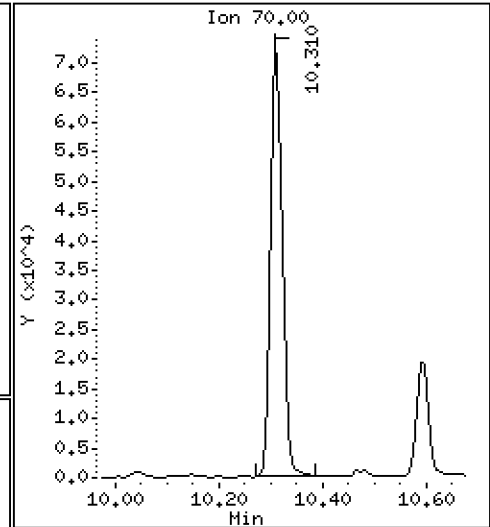
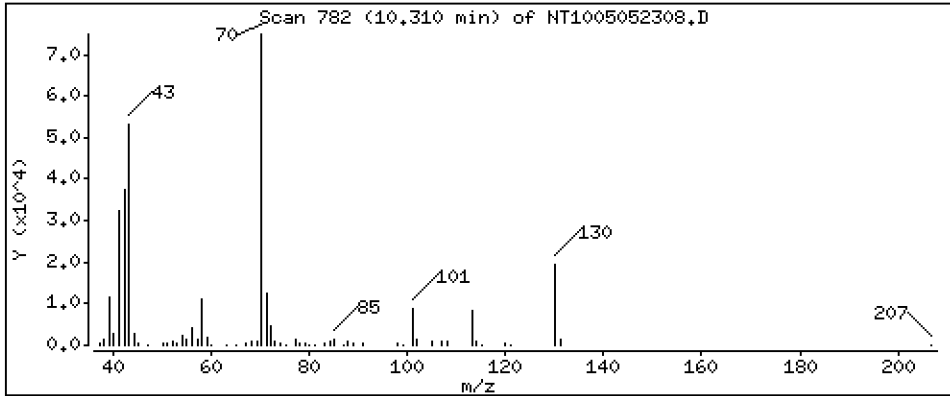
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 3,044 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

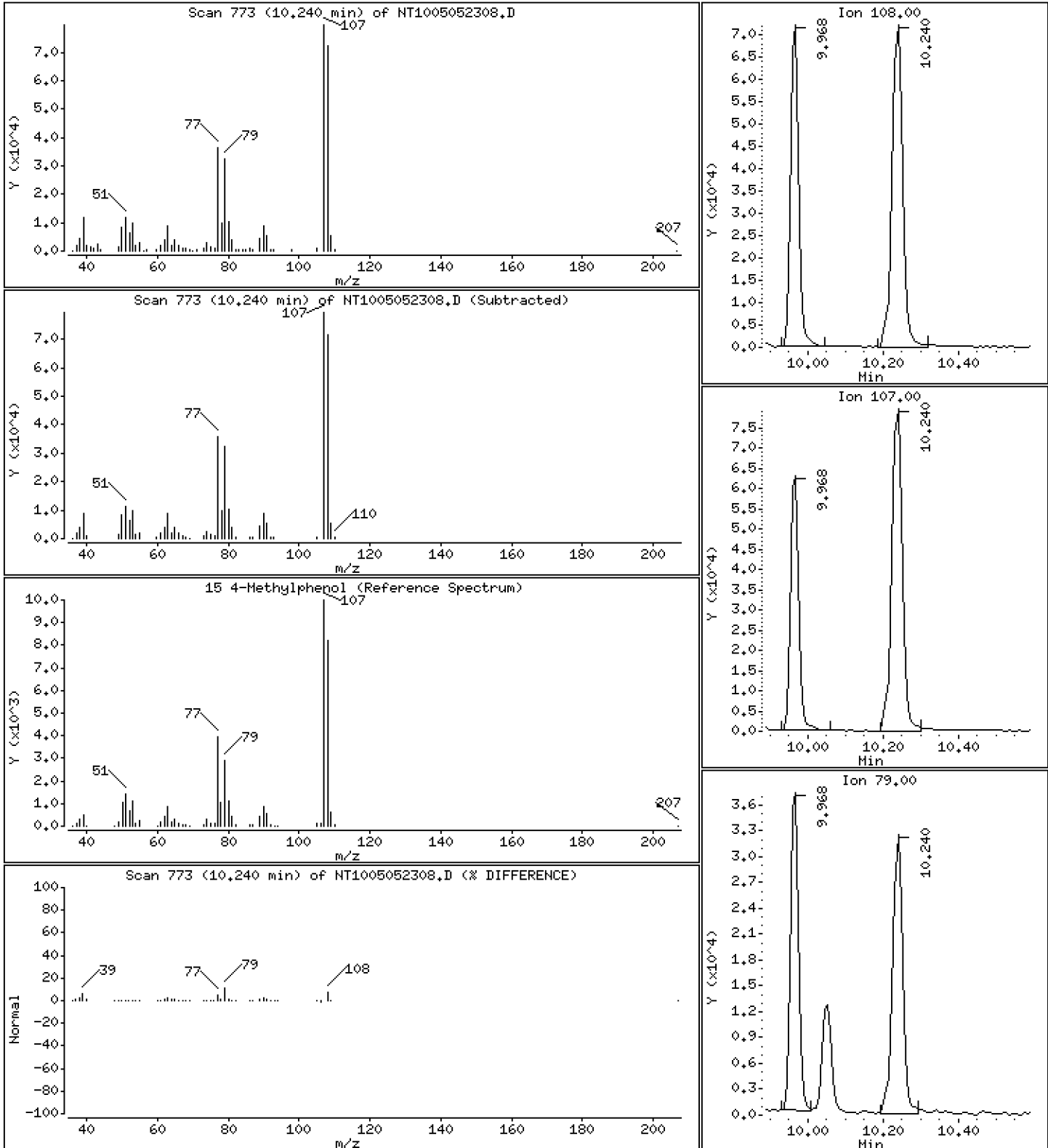
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 2,656 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

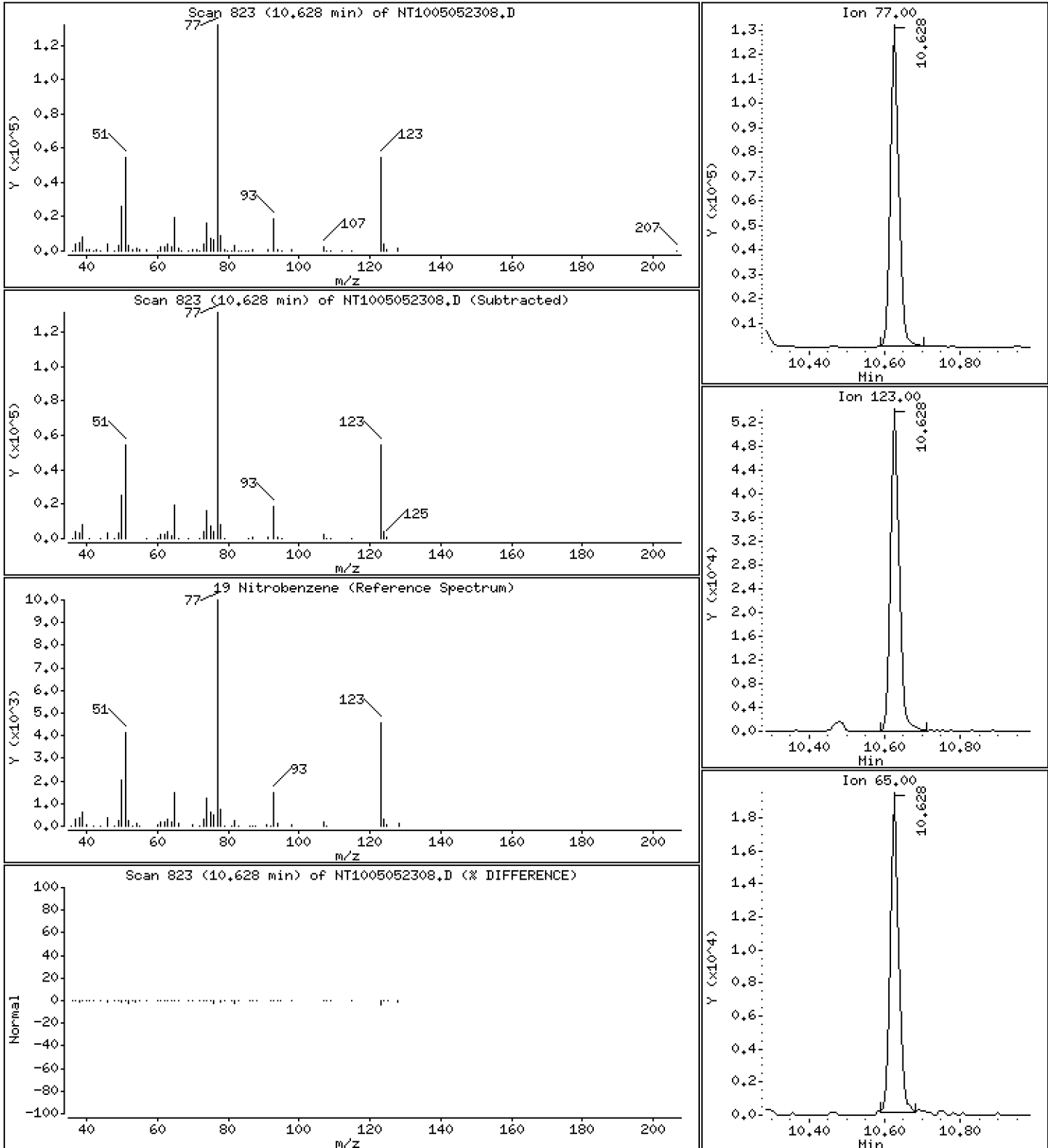
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 3,229 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

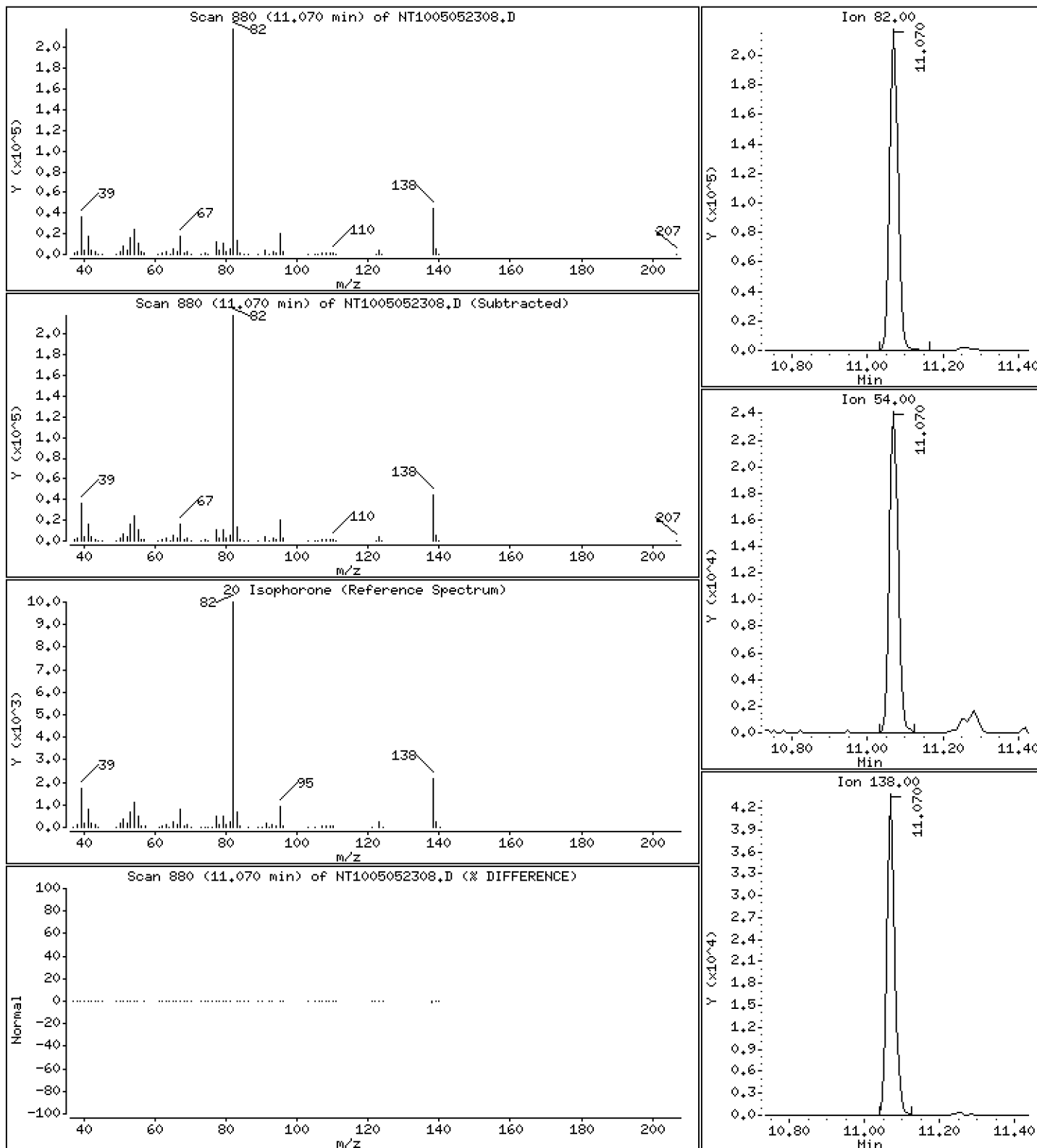
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 4,996 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

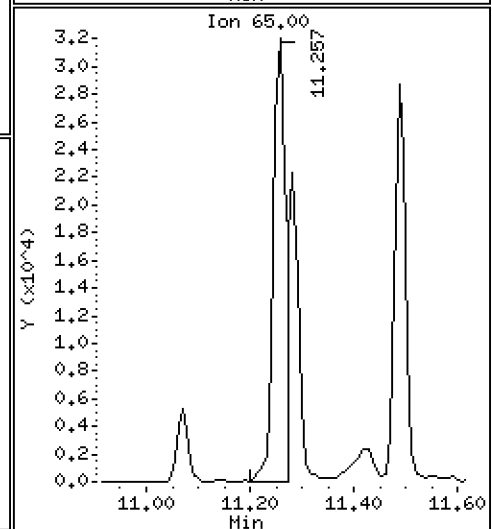
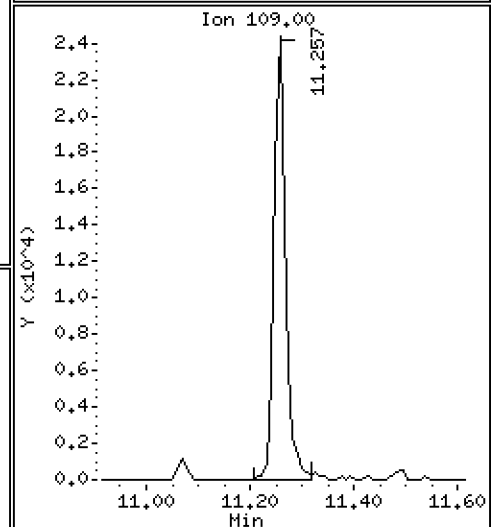
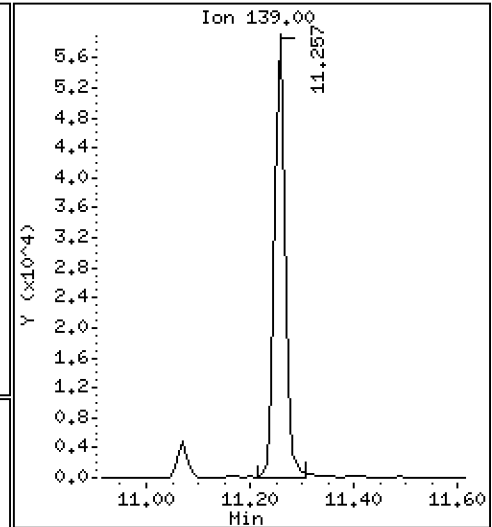
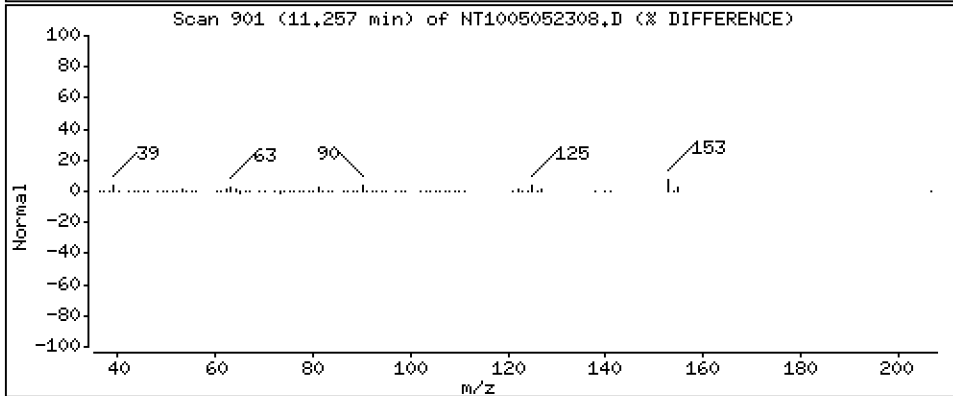
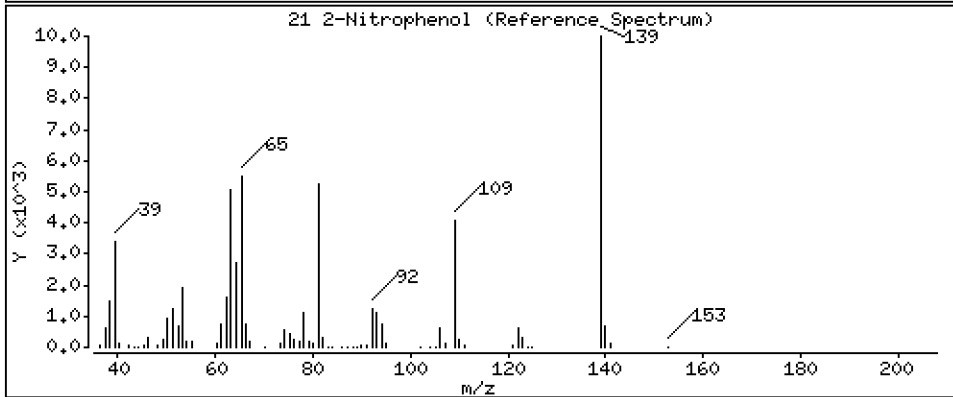
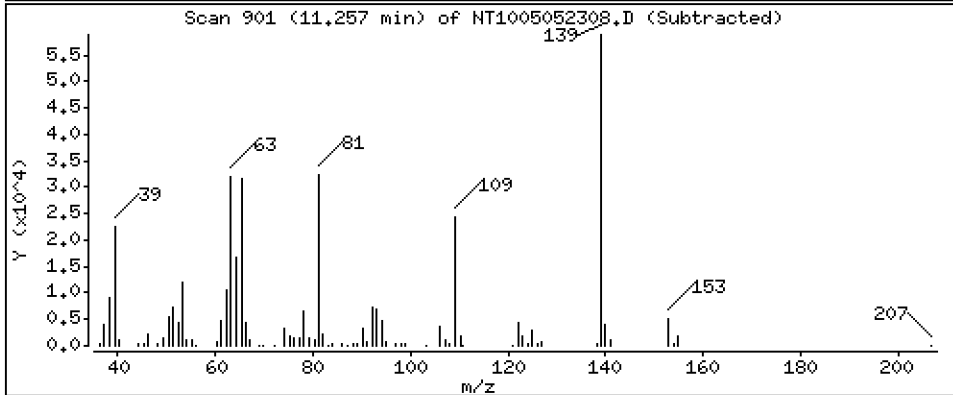
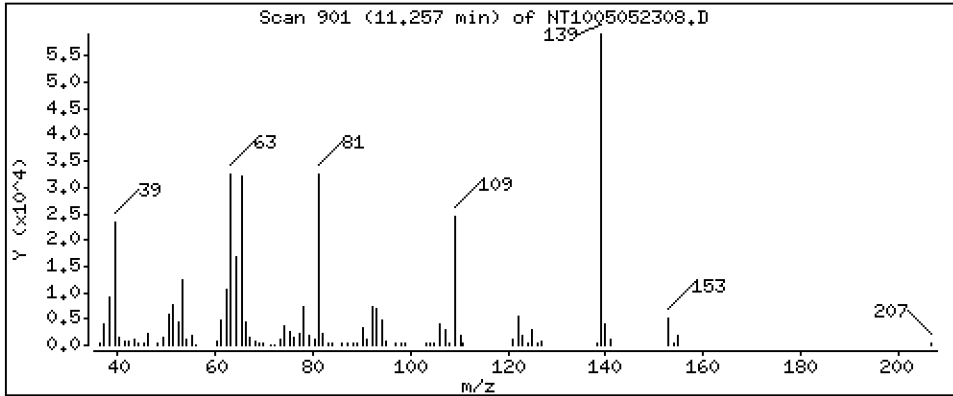
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 2,642 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

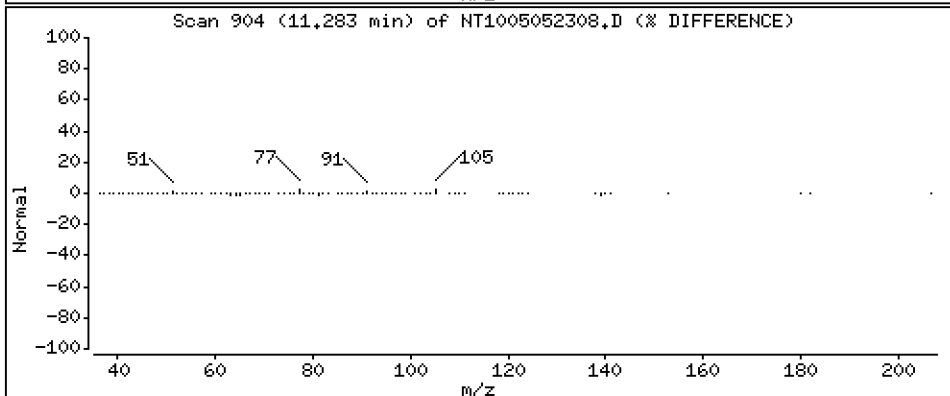
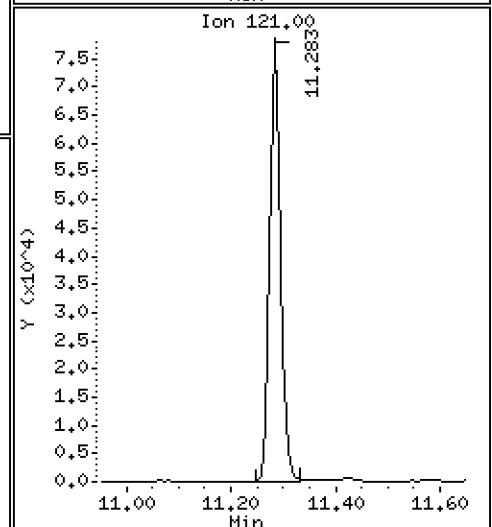
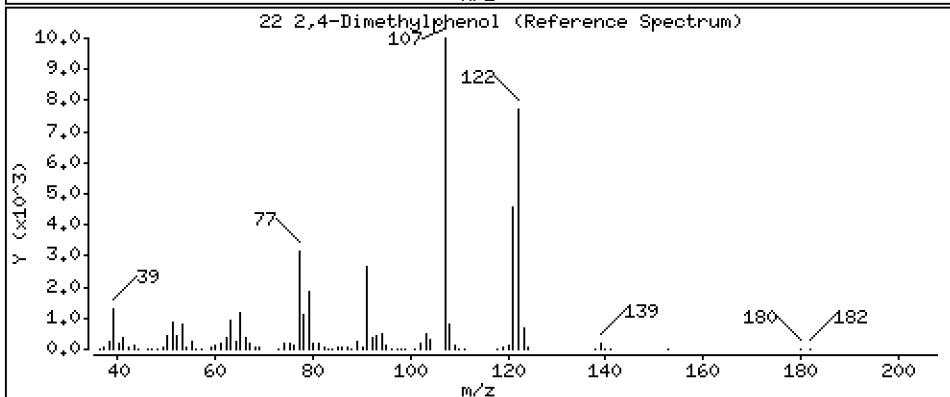
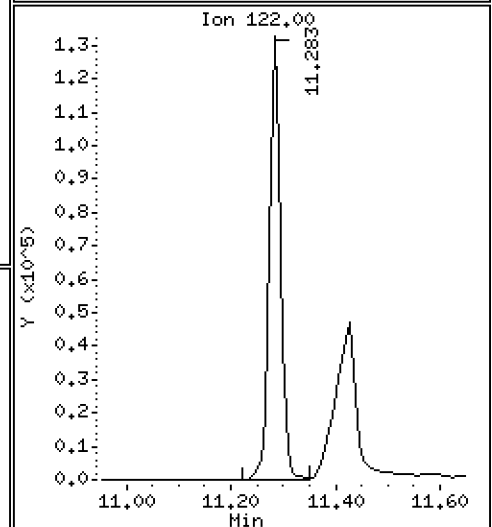
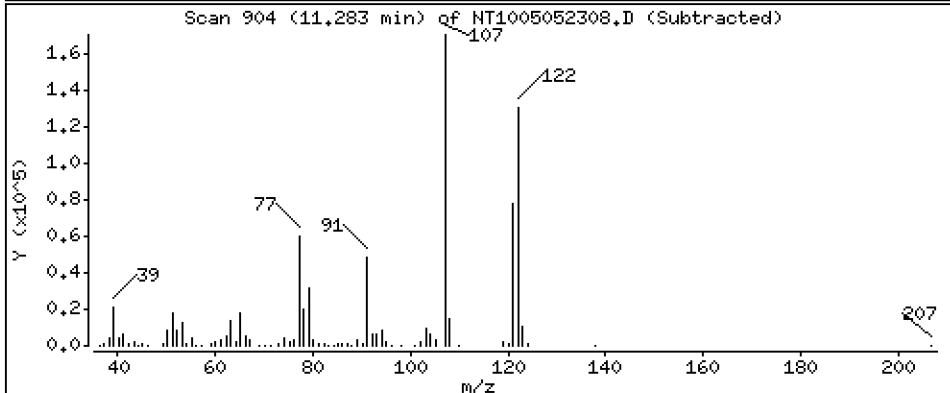
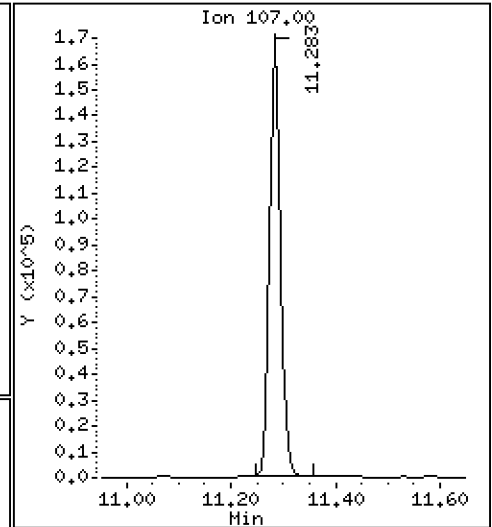
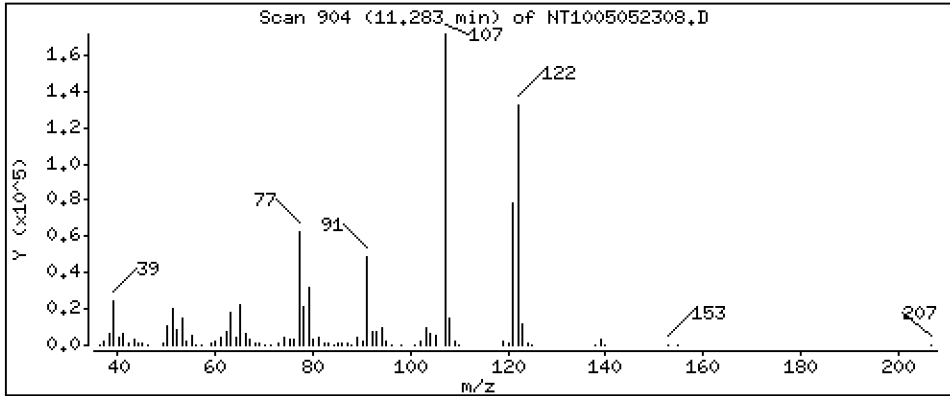
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 4,095 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

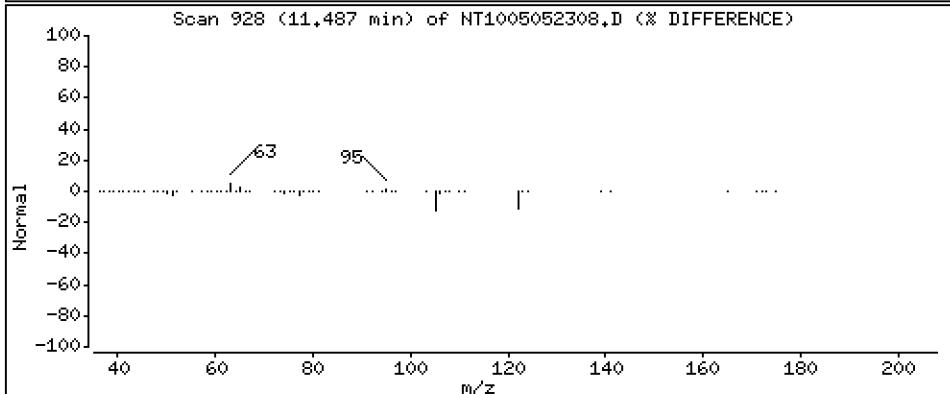
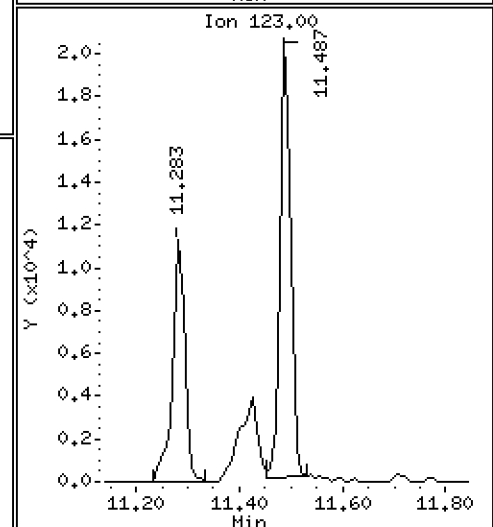
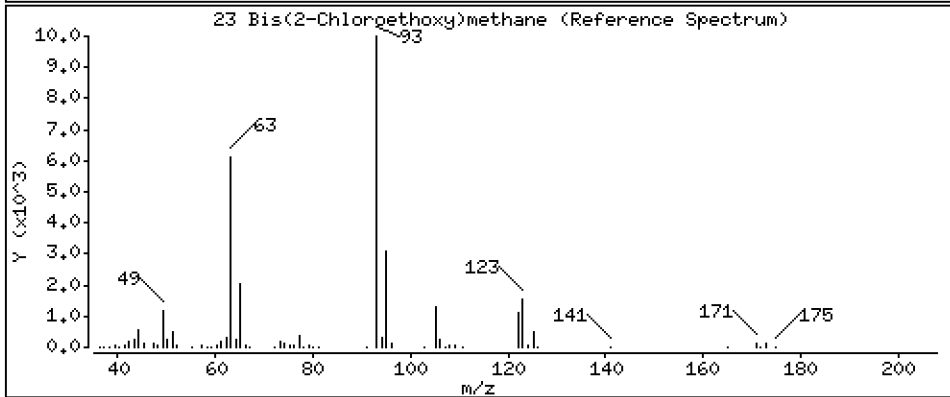
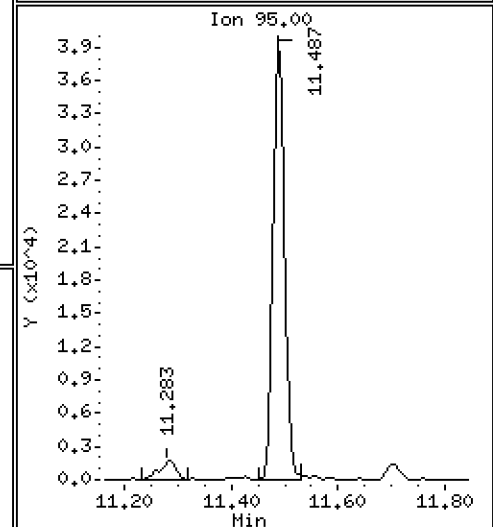
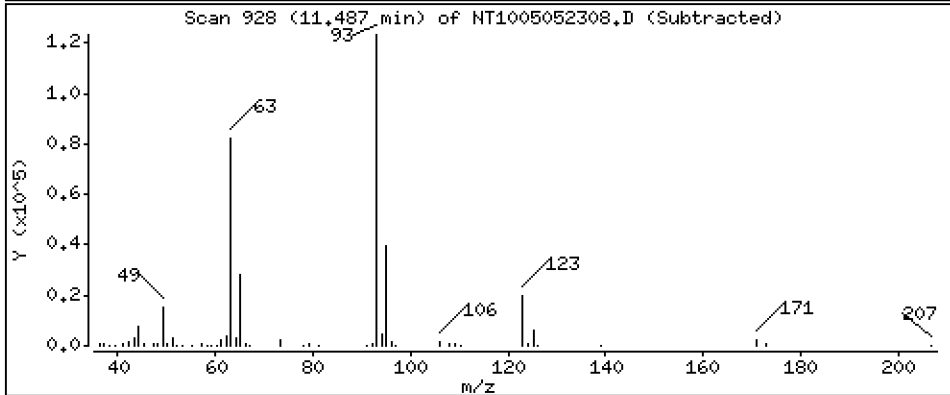
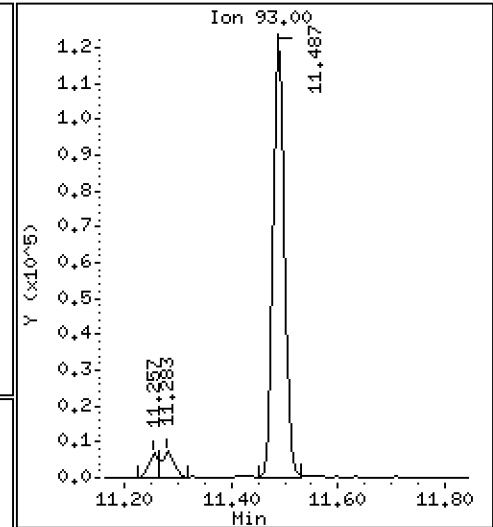
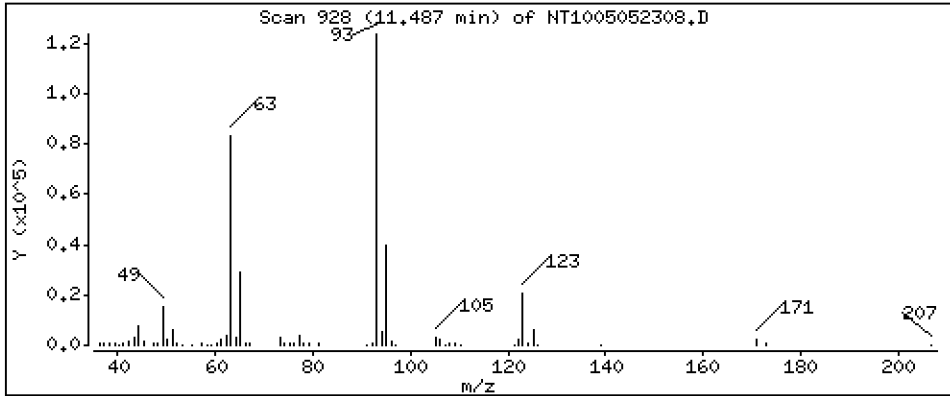
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 4,017 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

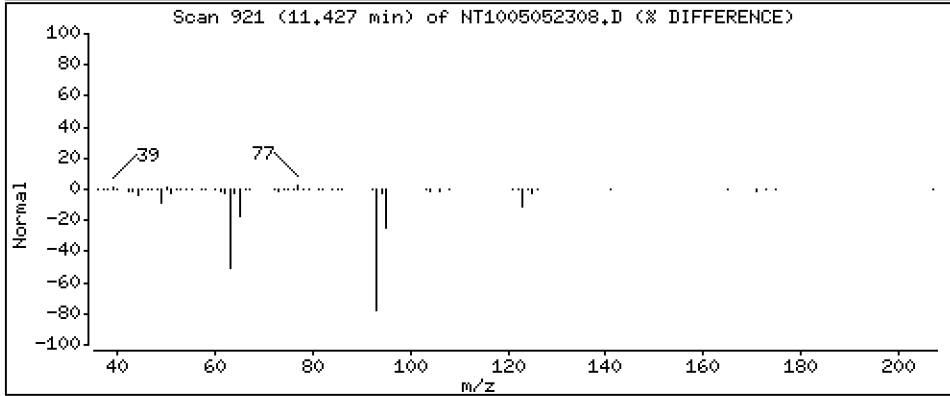
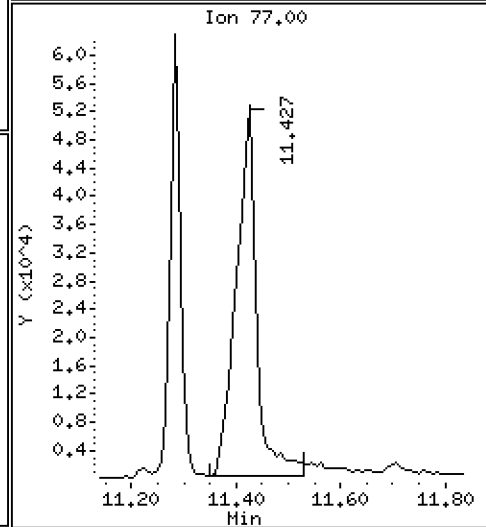
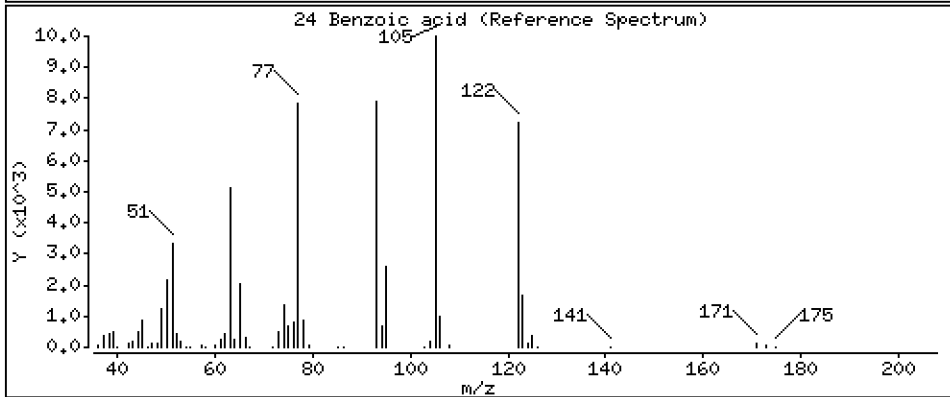
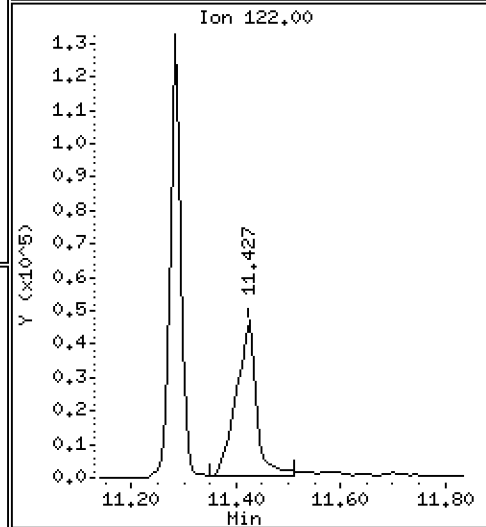
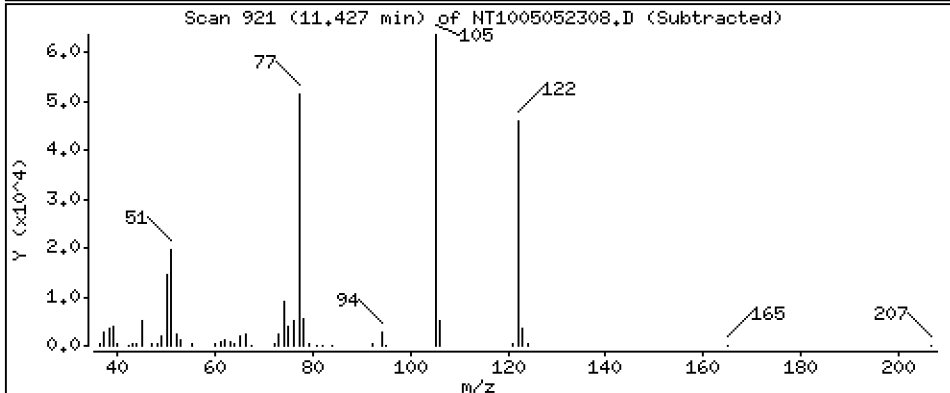
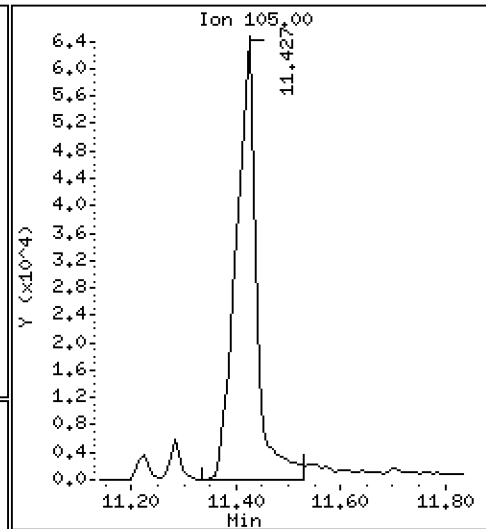
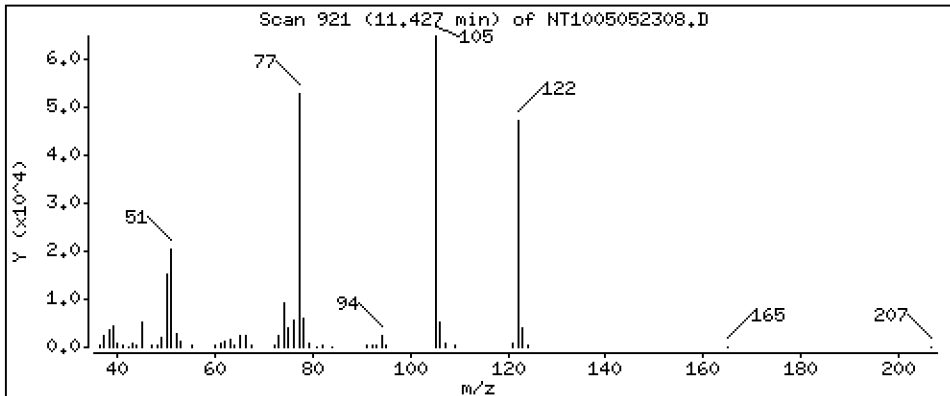
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 4,402 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

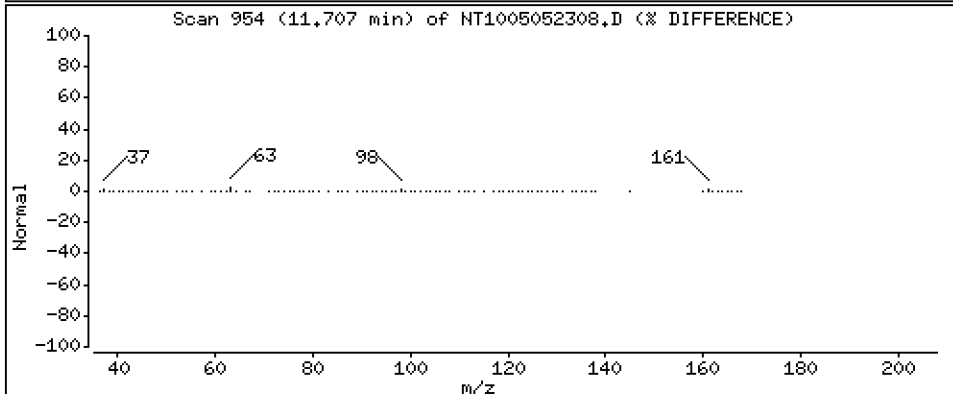
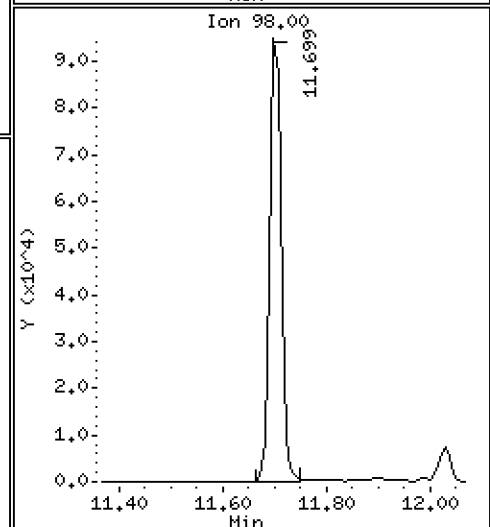
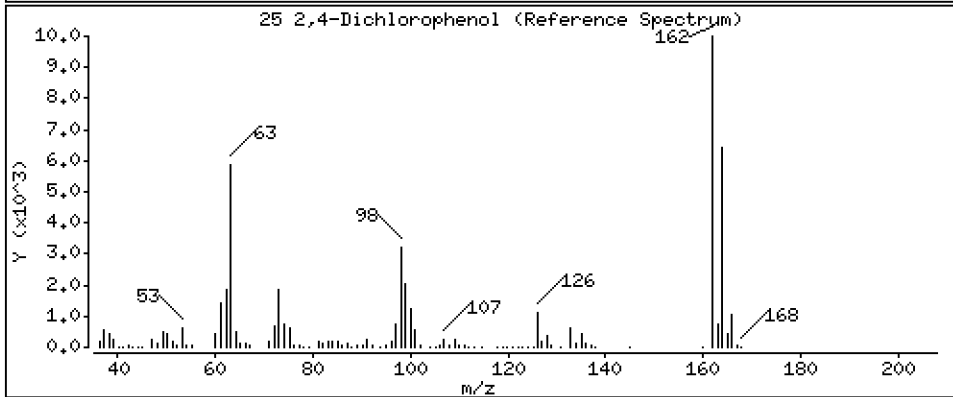
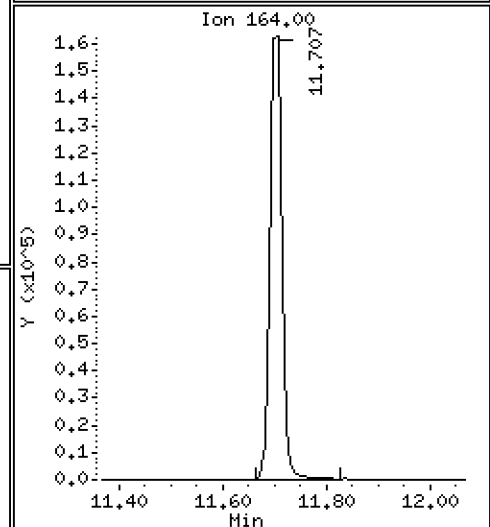
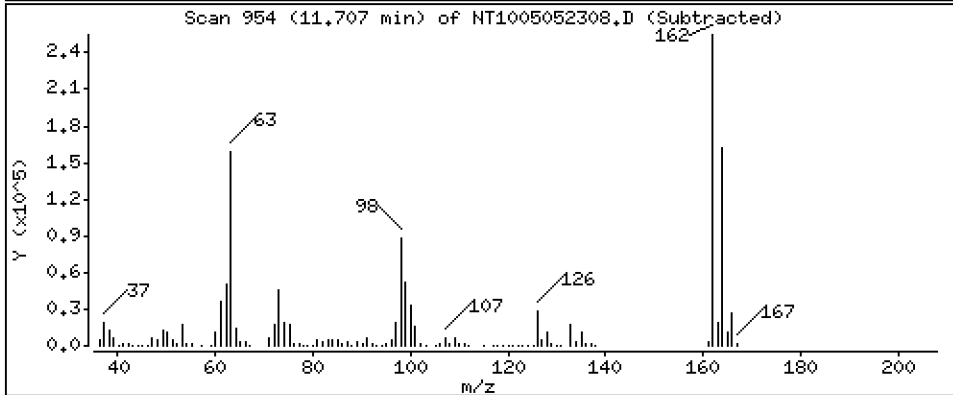
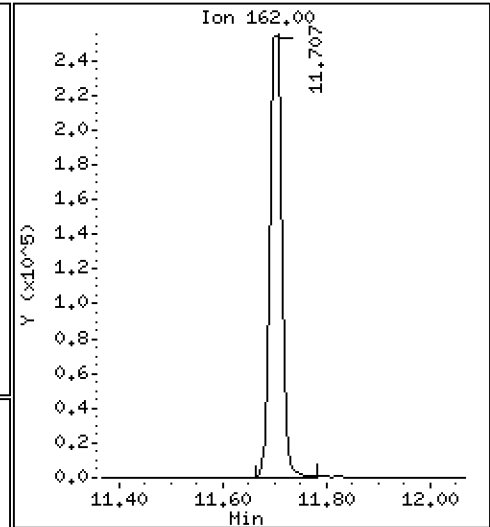
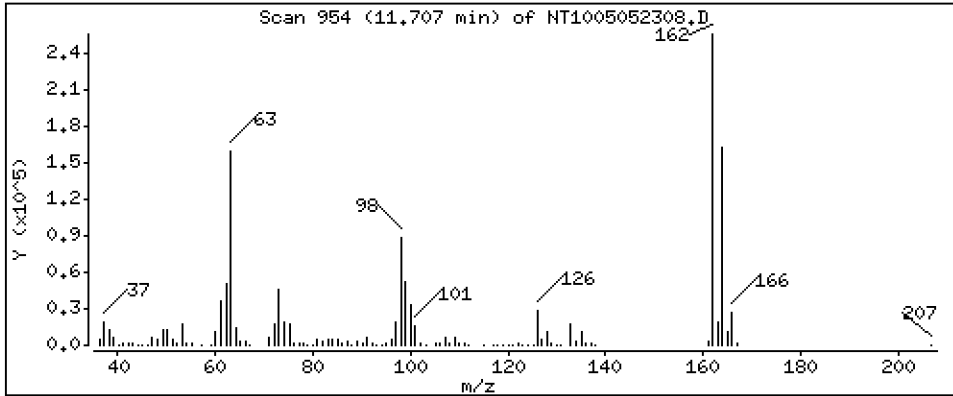
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 8,815 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

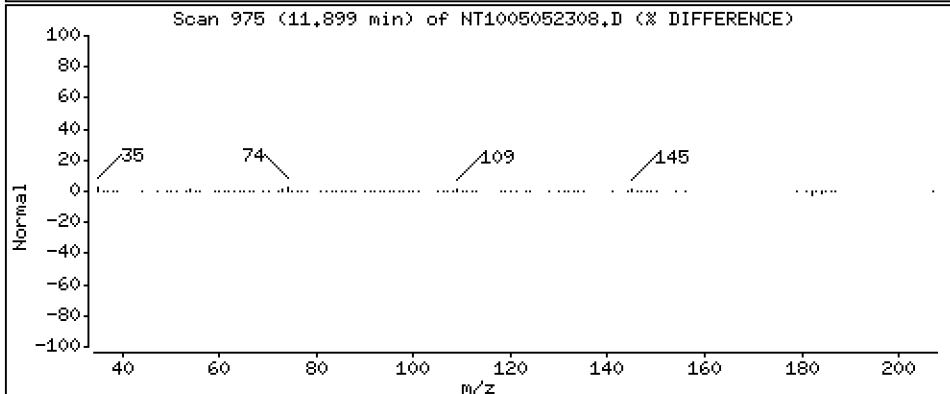
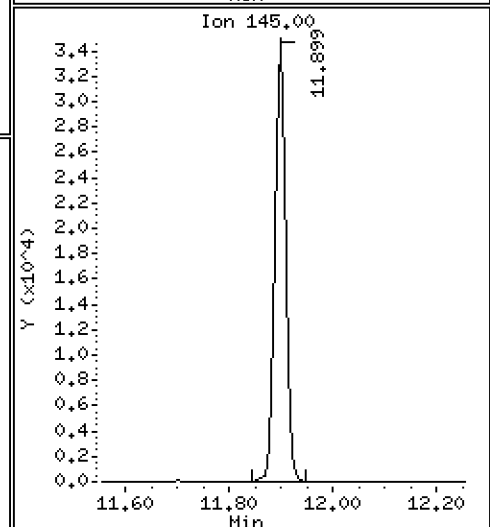
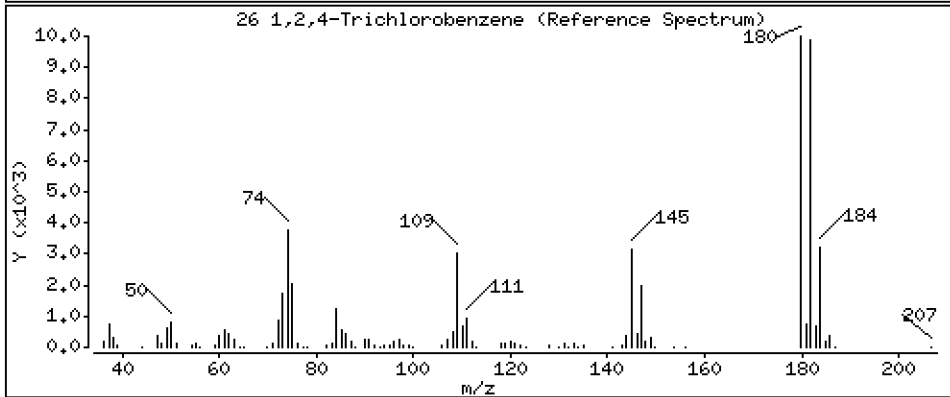
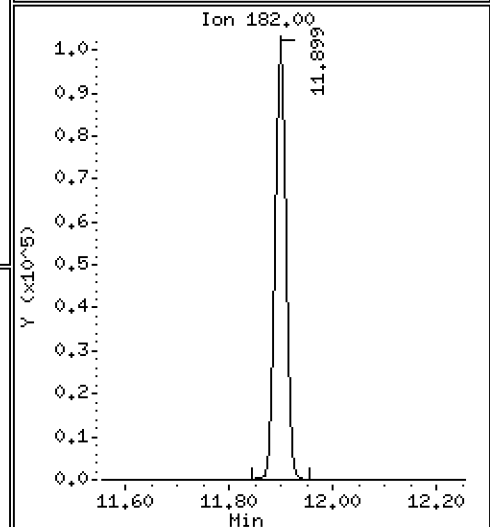
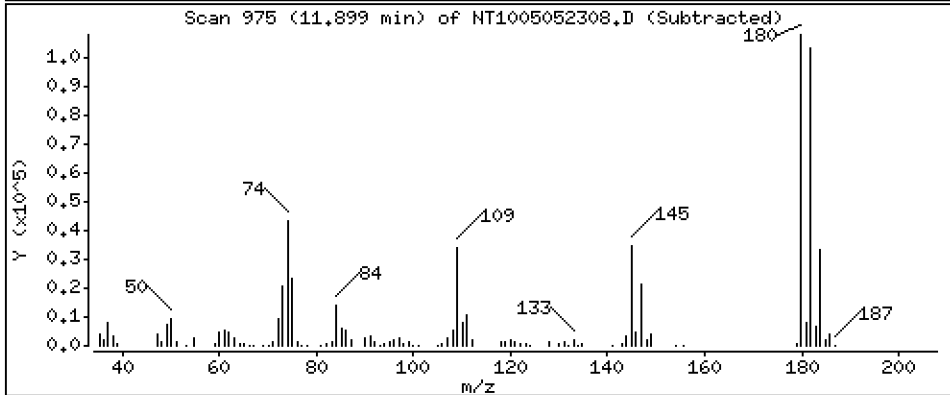
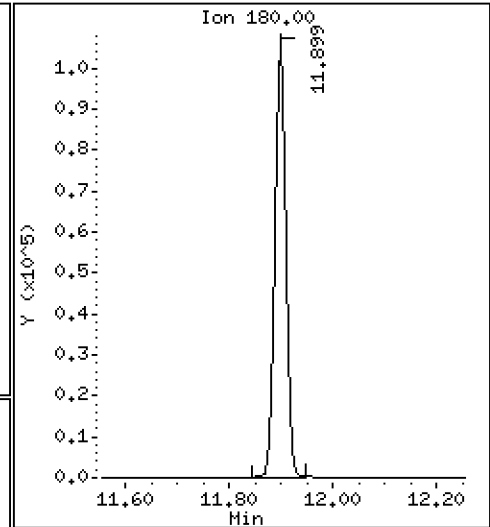
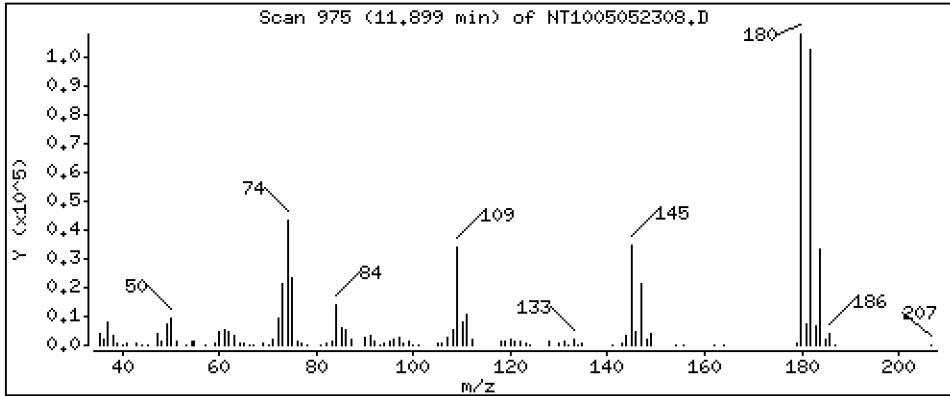
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 2,948 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

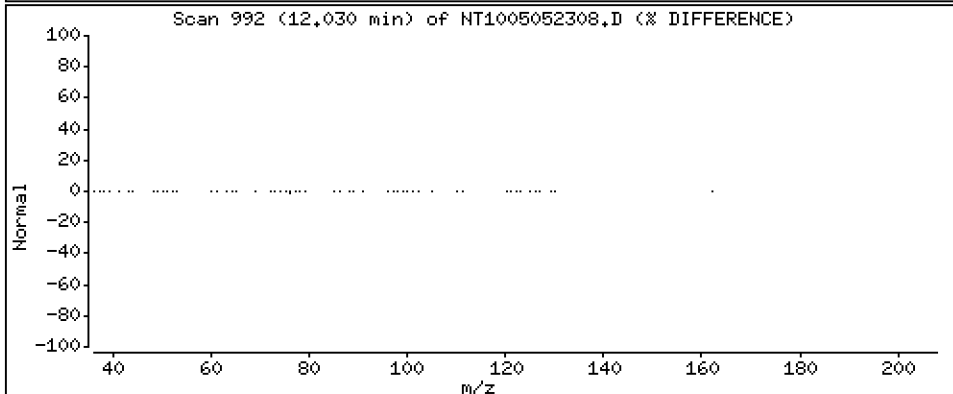
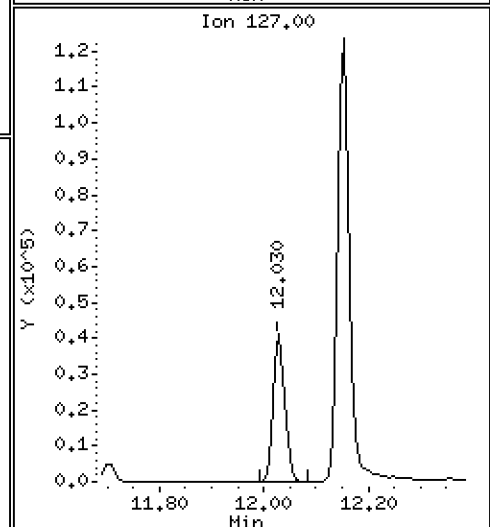
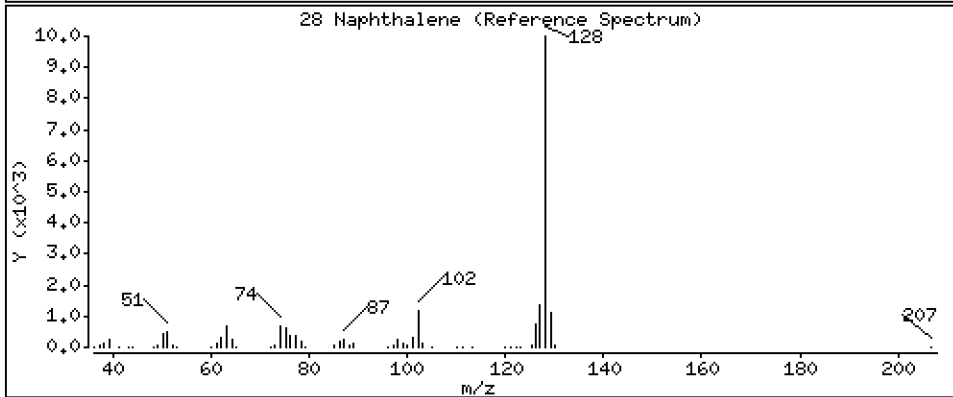
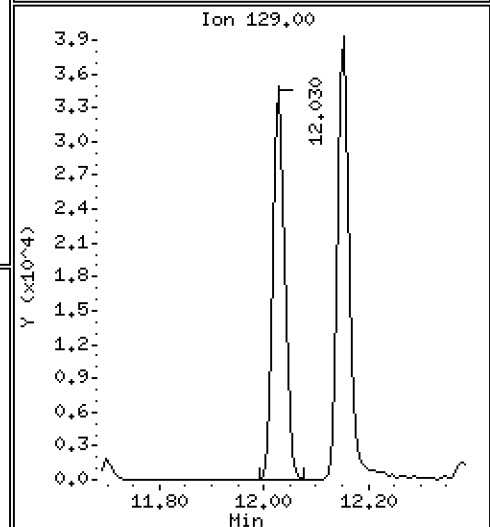
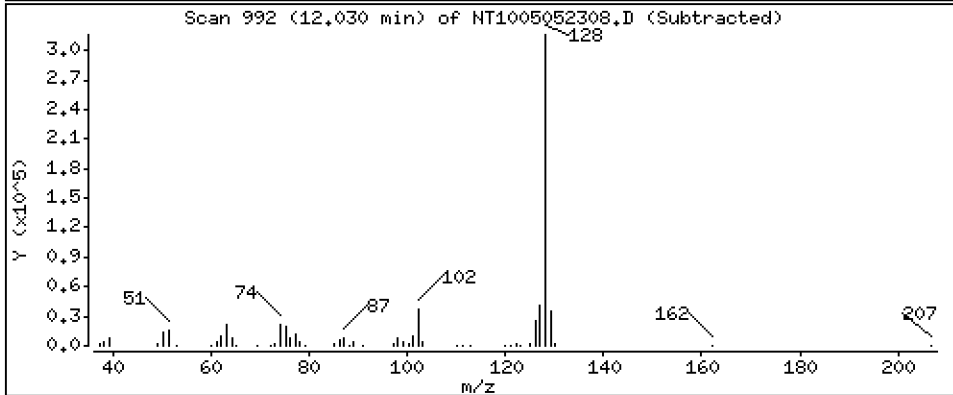
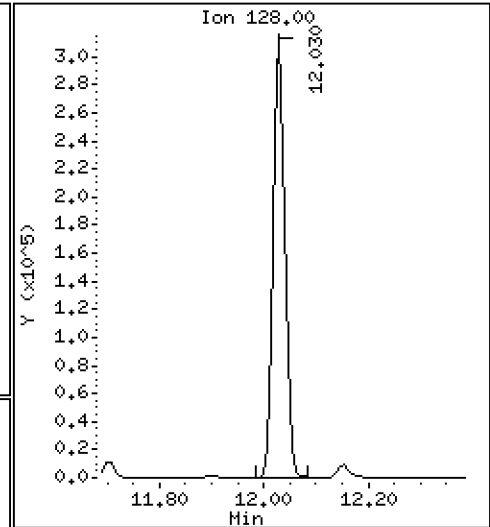
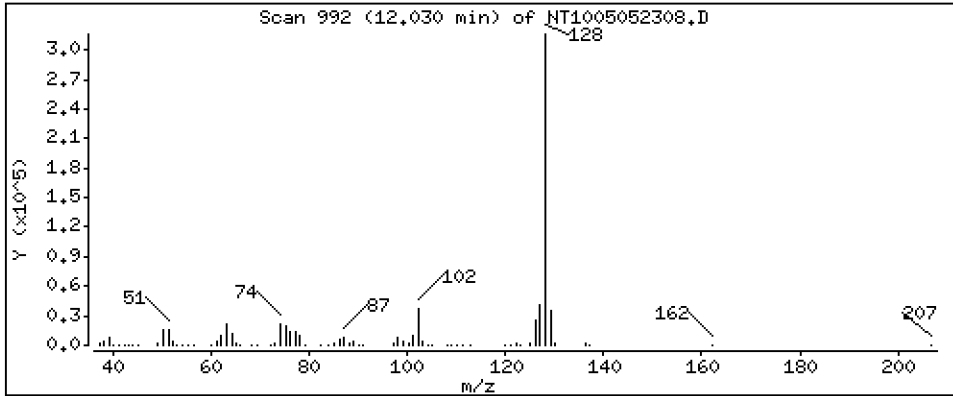
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 3,073 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

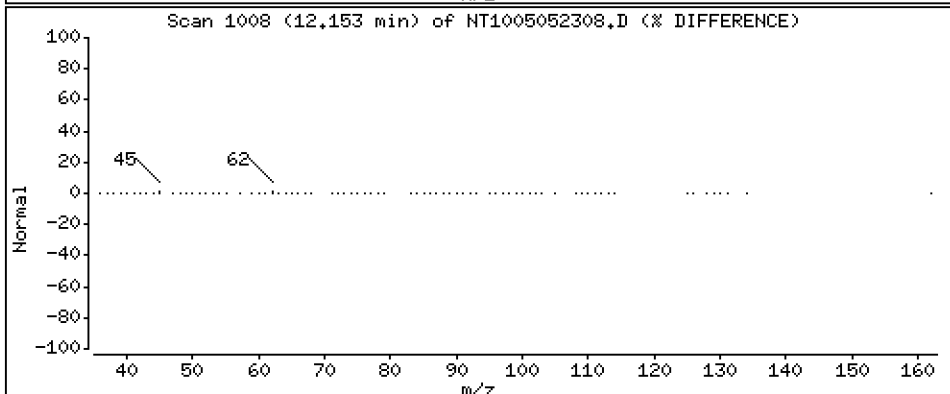
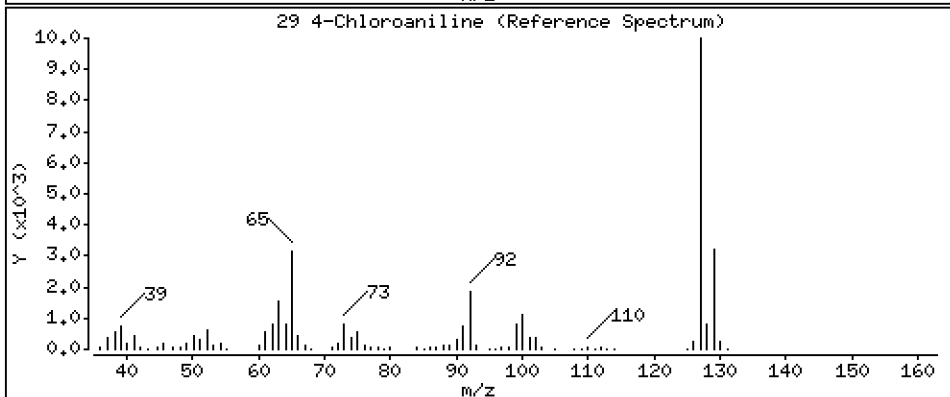
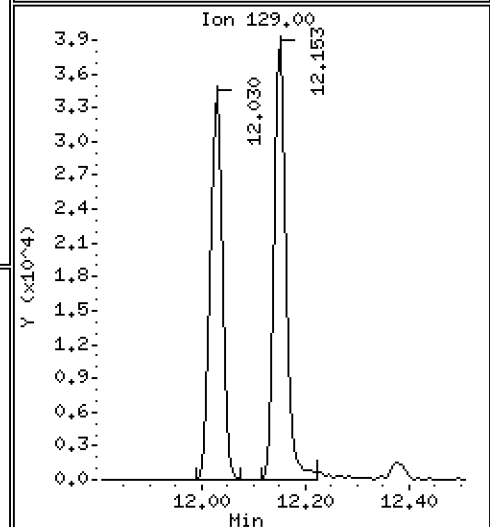
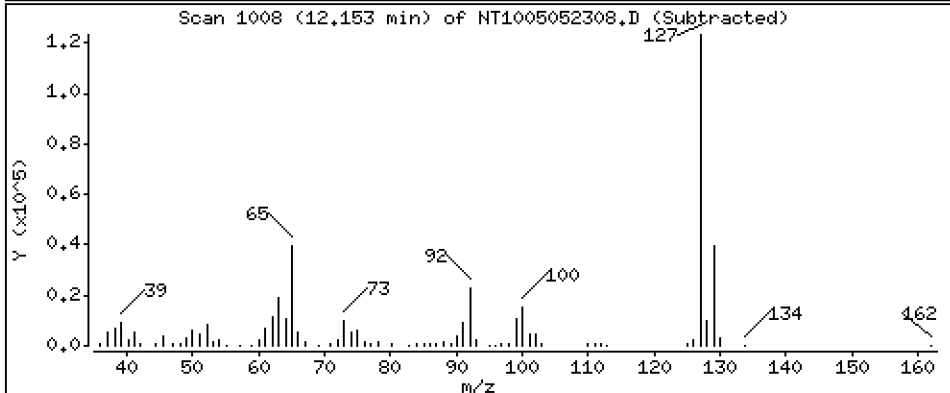
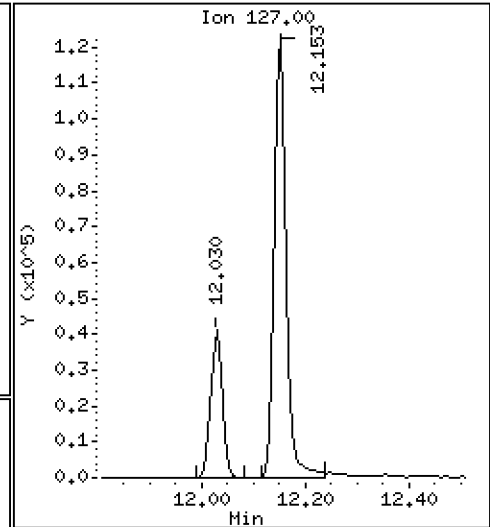
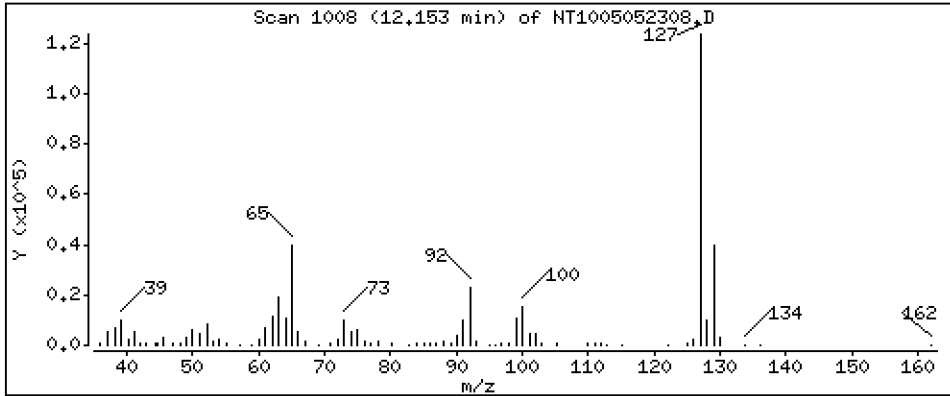
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,578 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

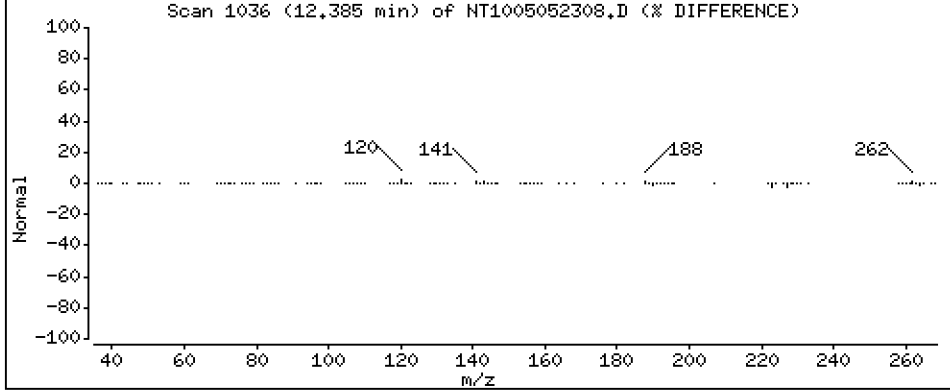
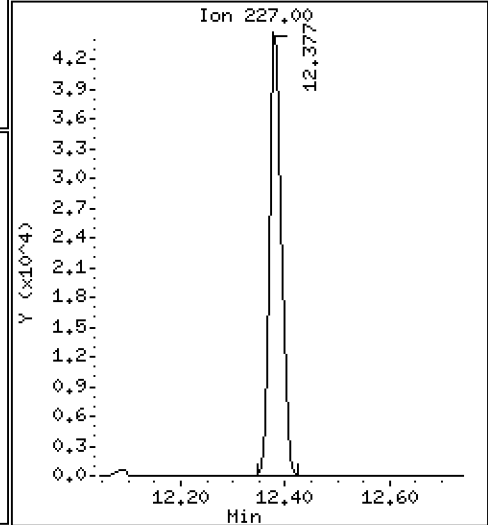
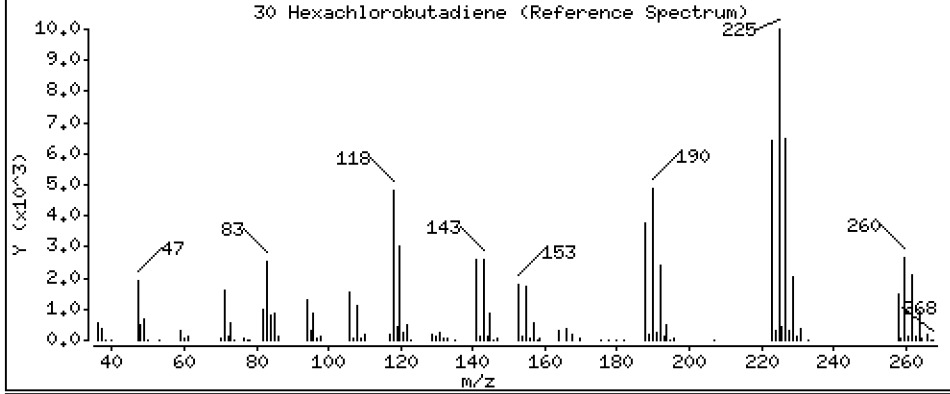
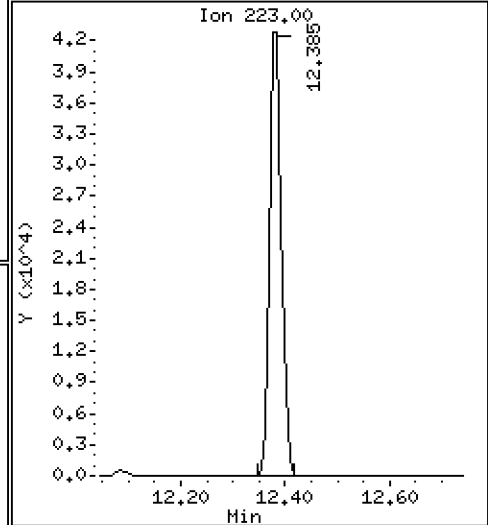
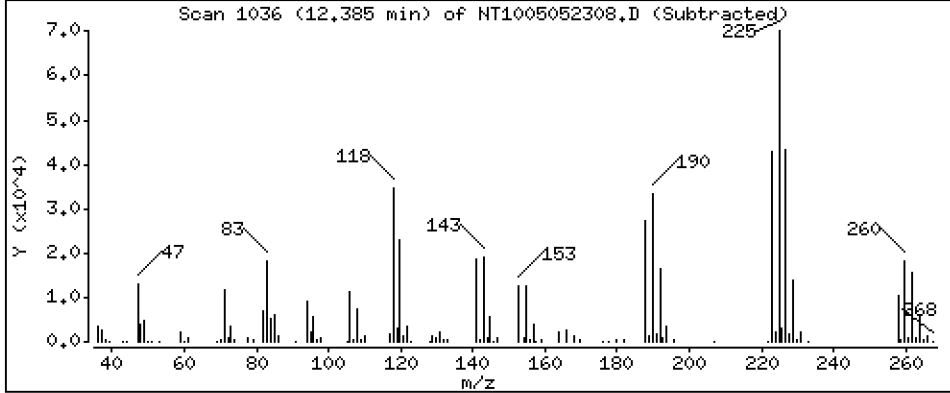
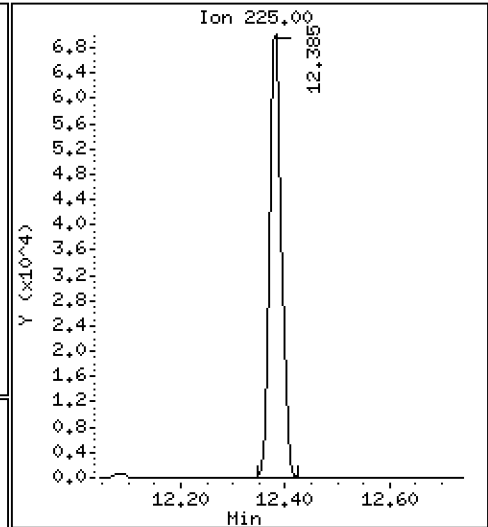
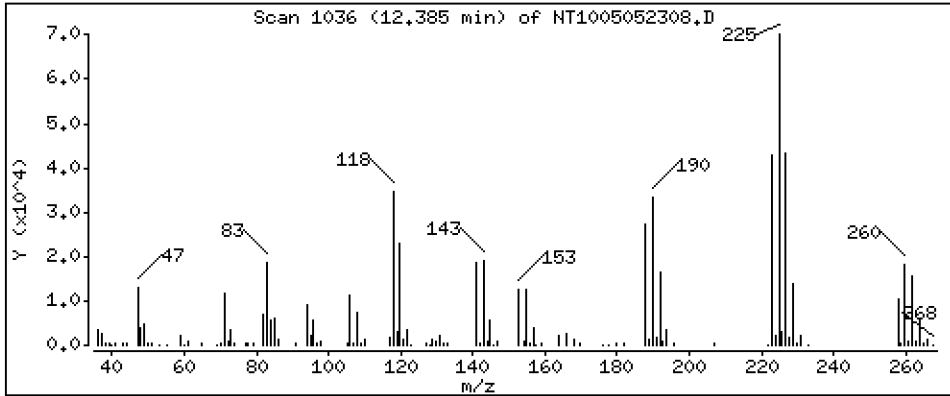
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,027 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

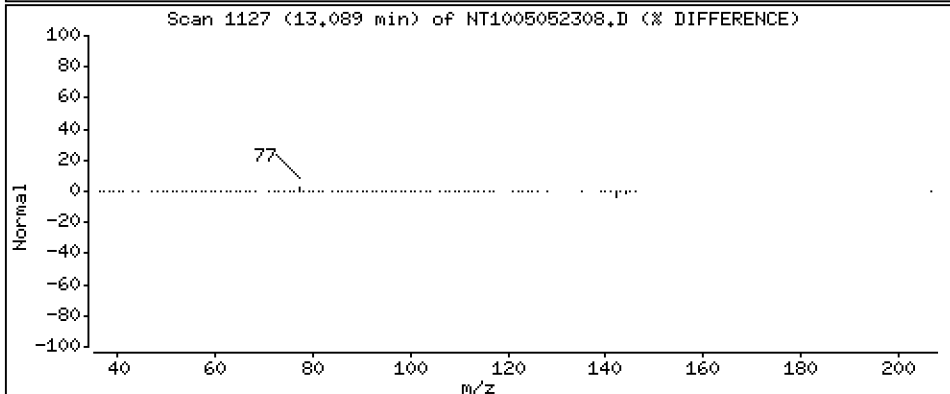
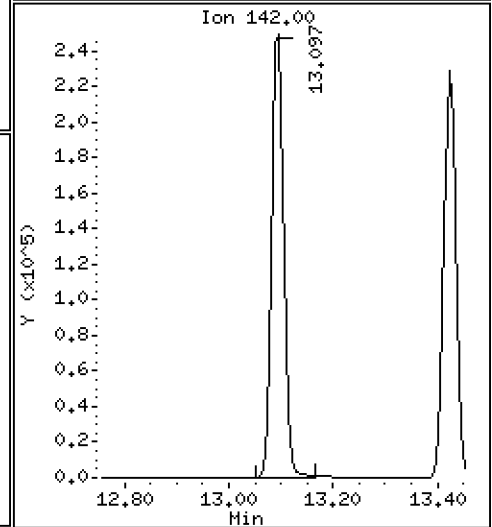
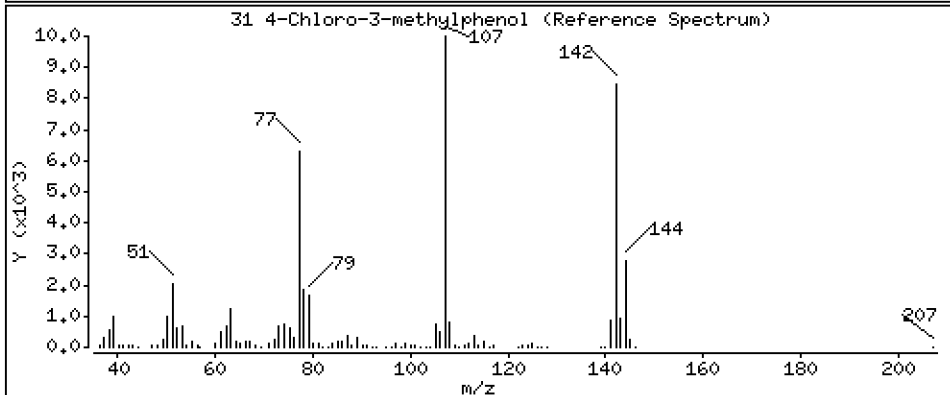
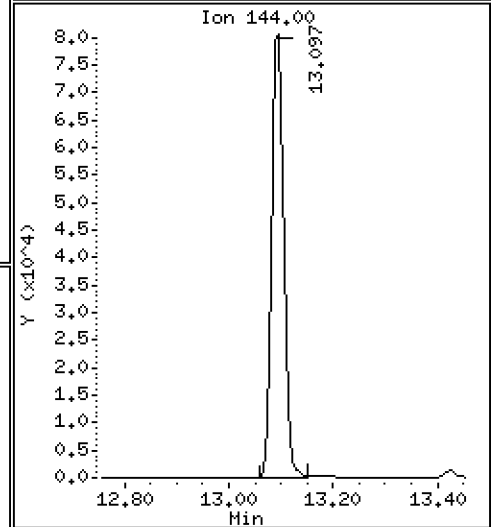
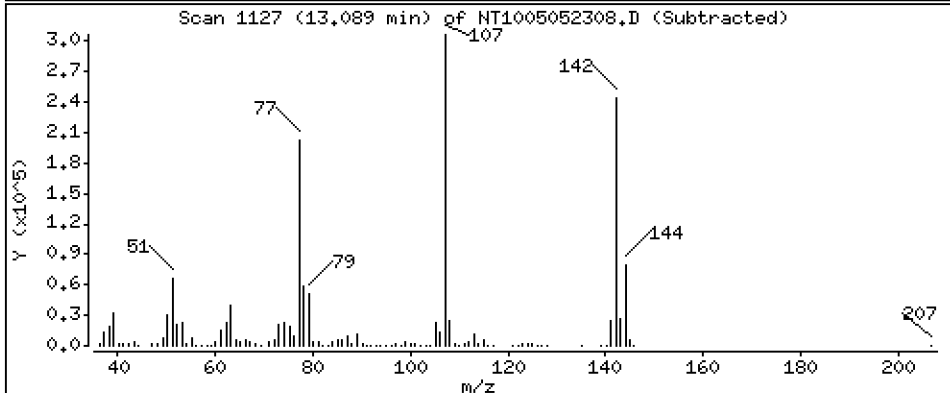
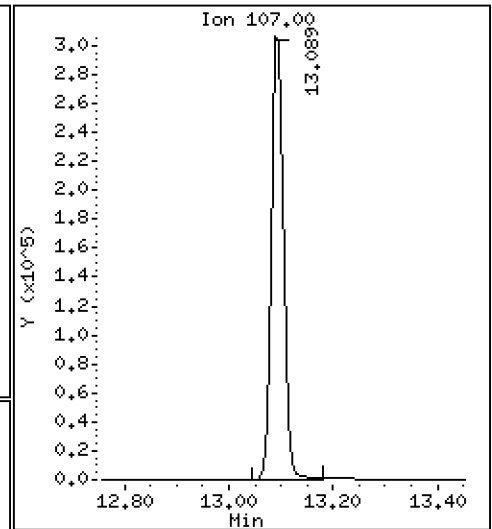
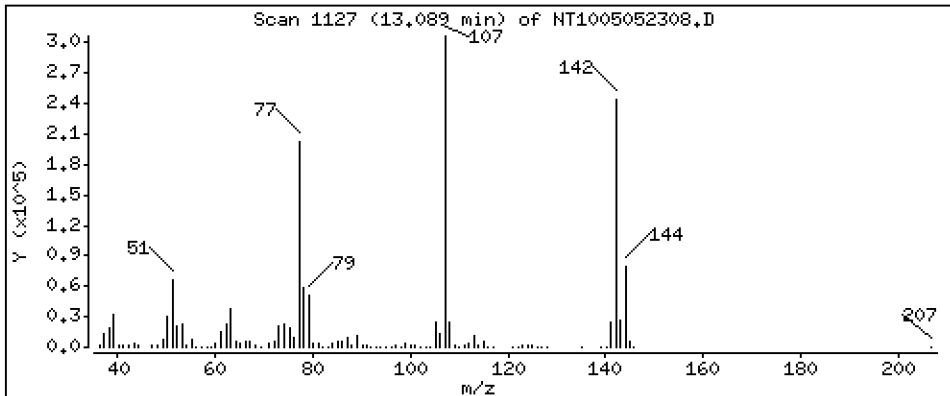
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 9,402 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

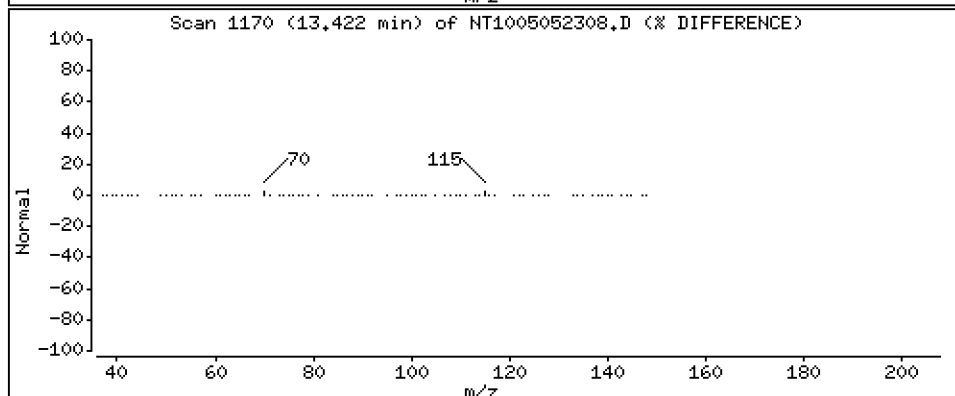
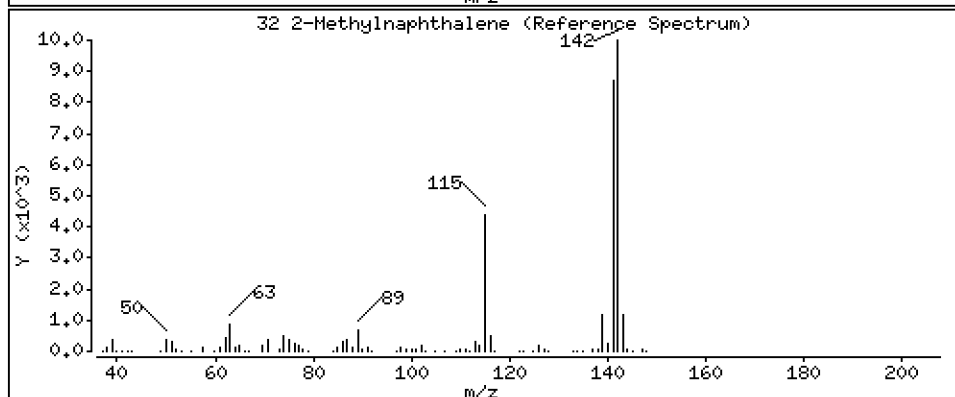
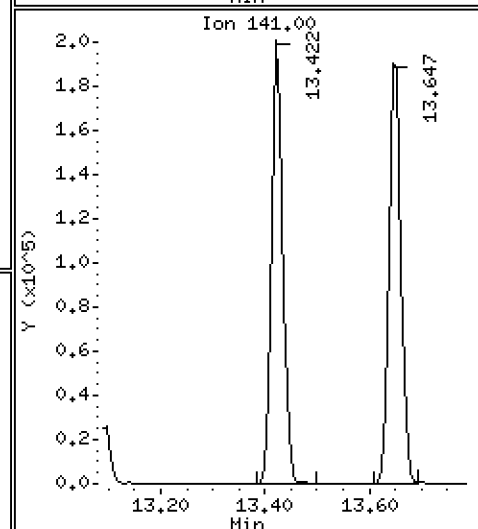
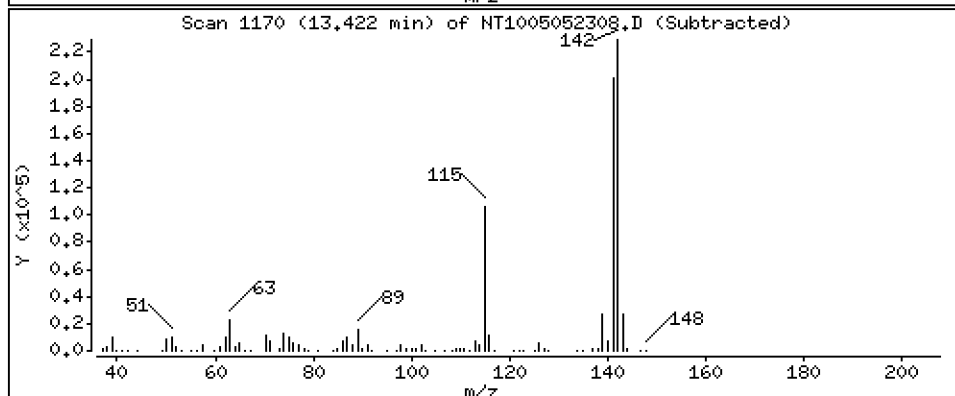
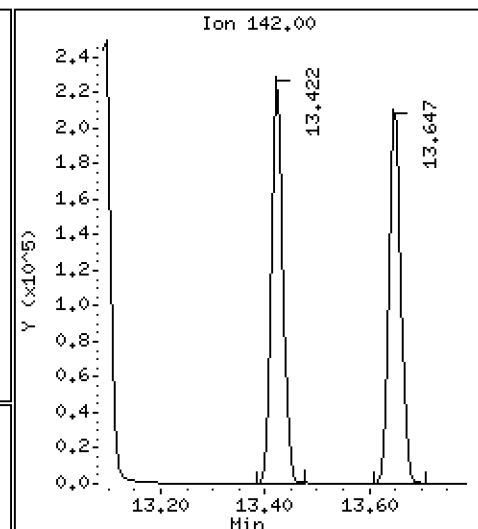
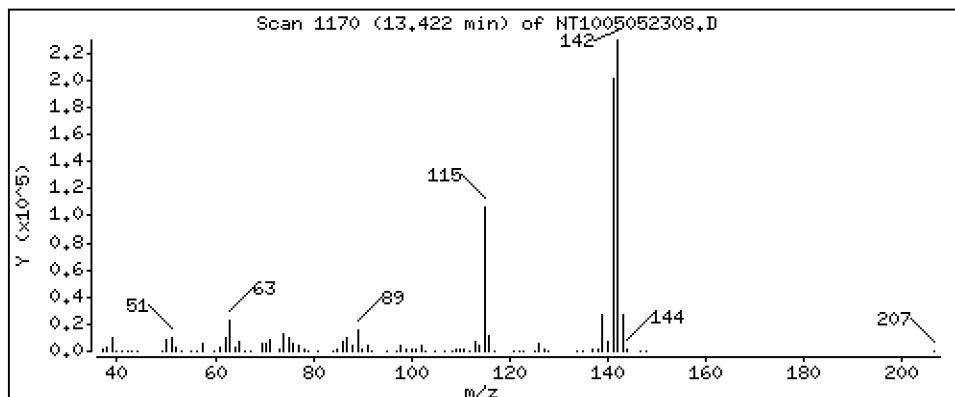
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 3,000 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

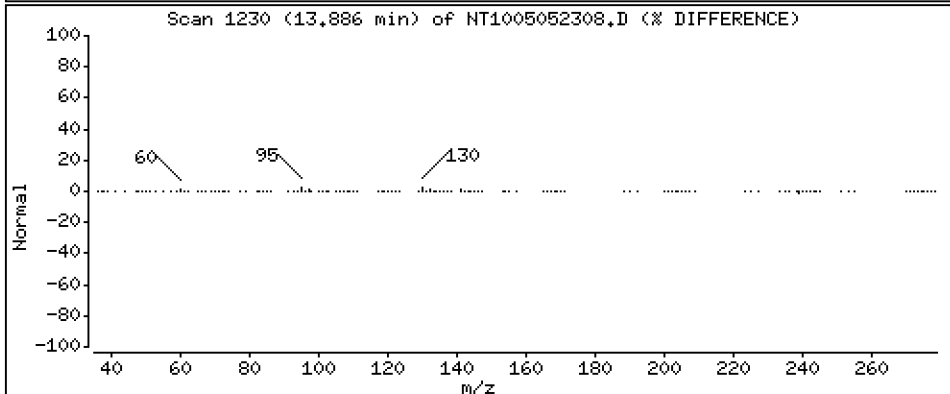
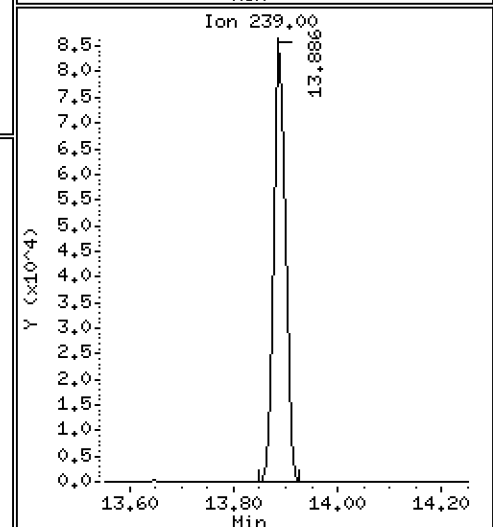
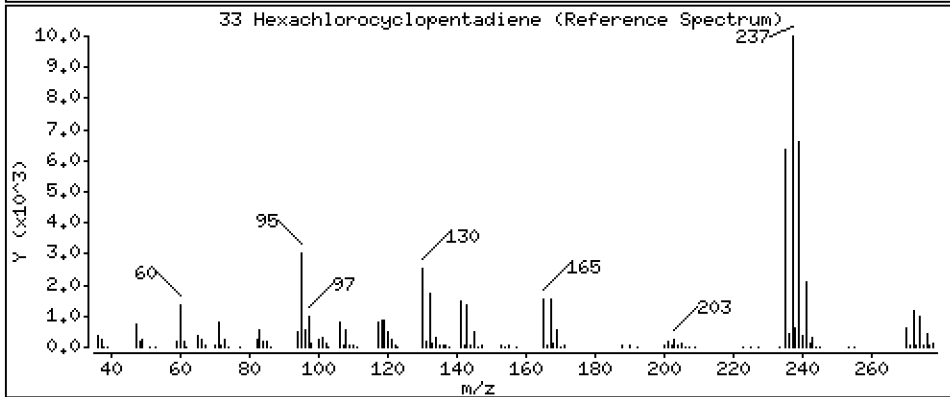
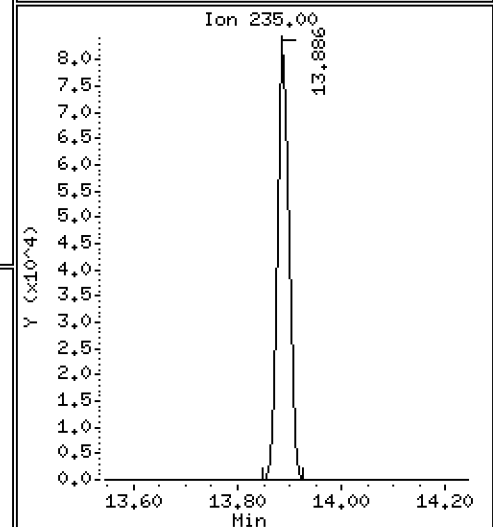
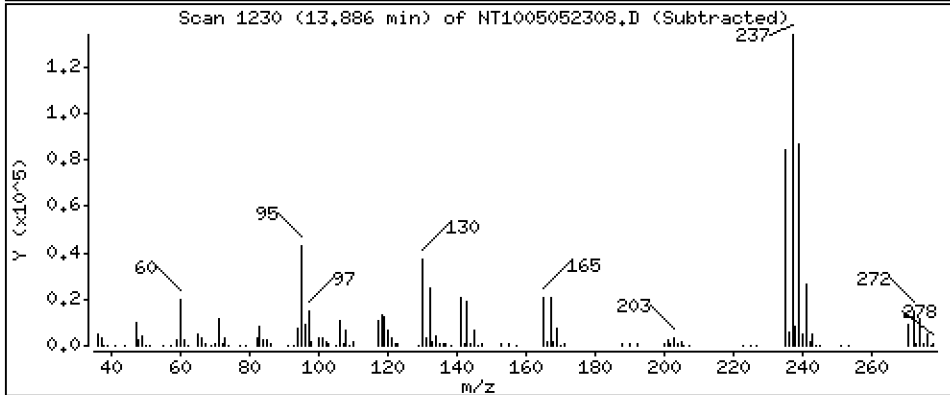
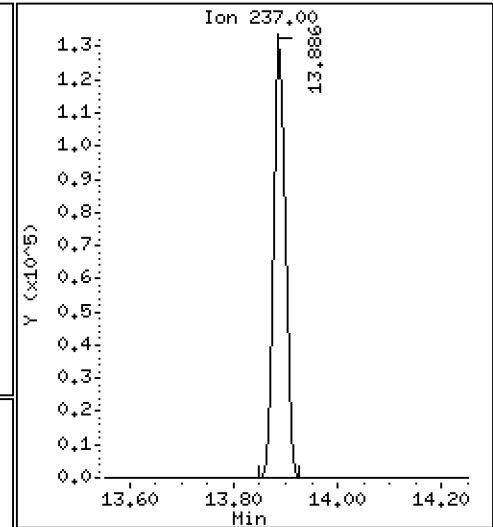
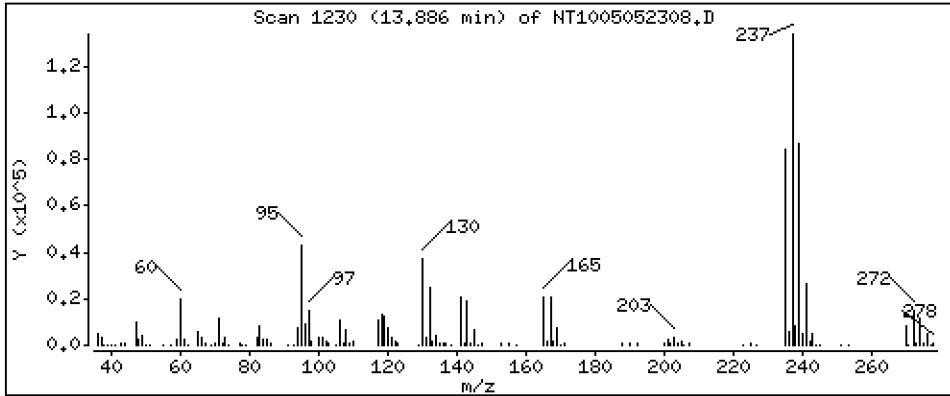
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 5,001 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

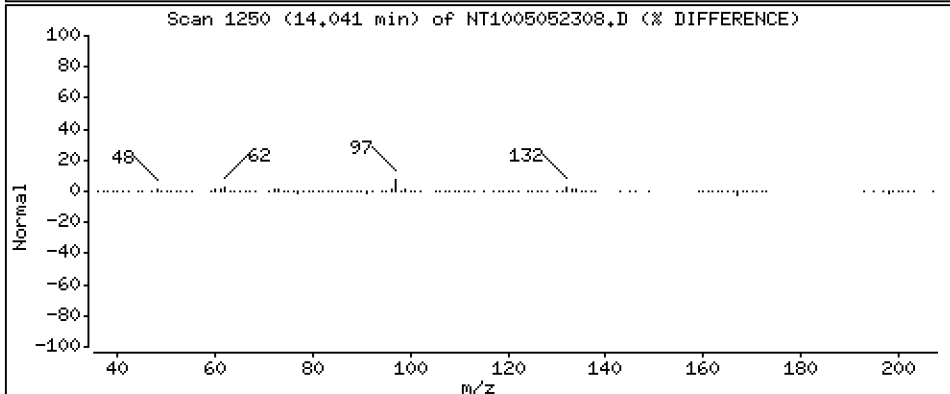
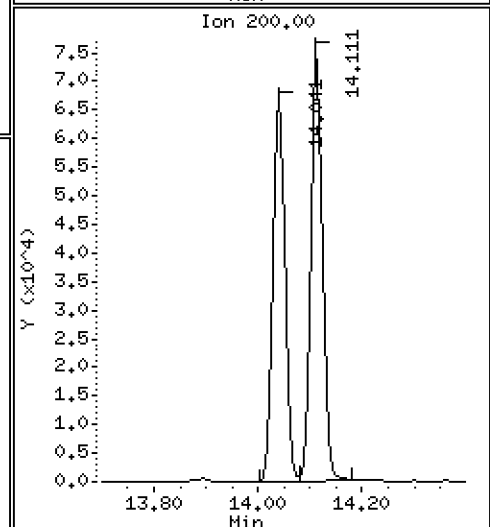
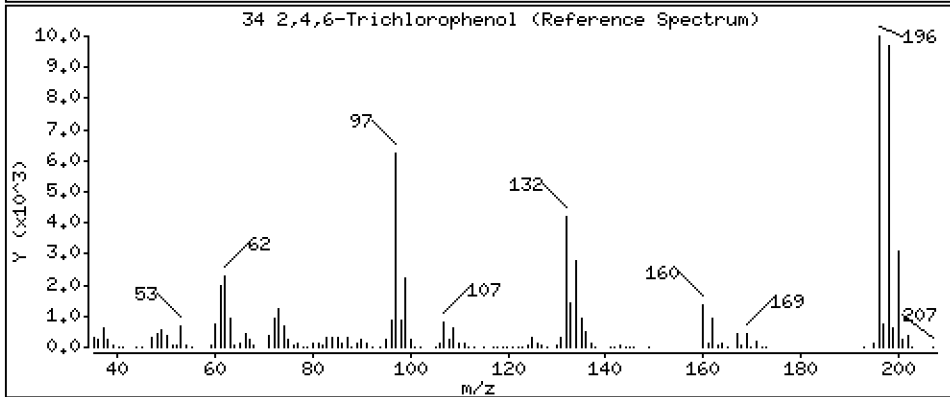
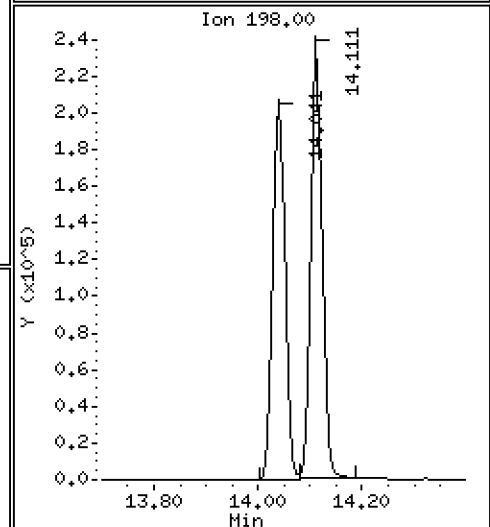
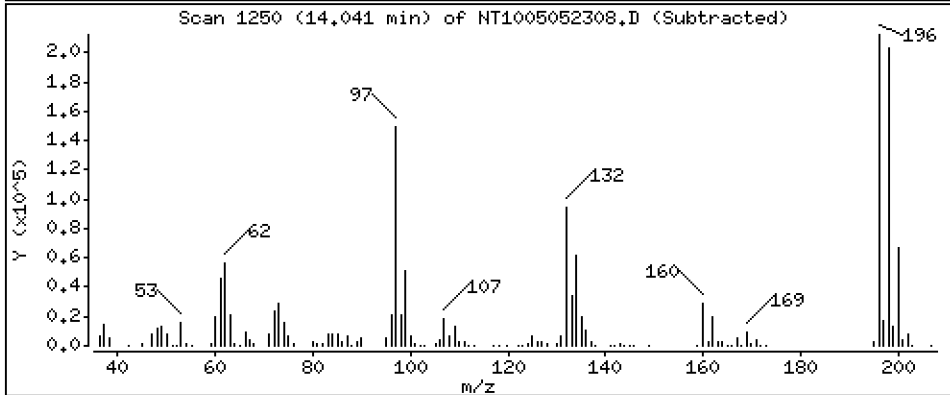
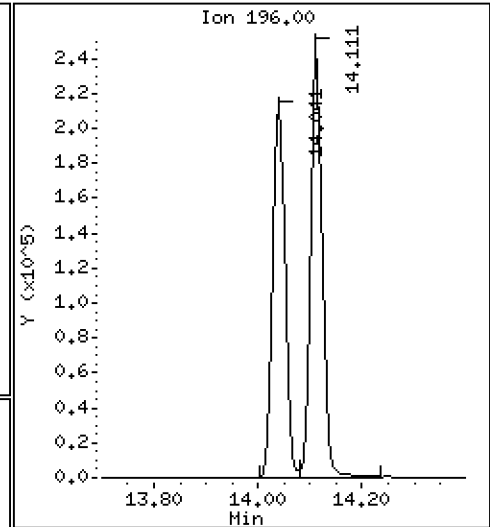
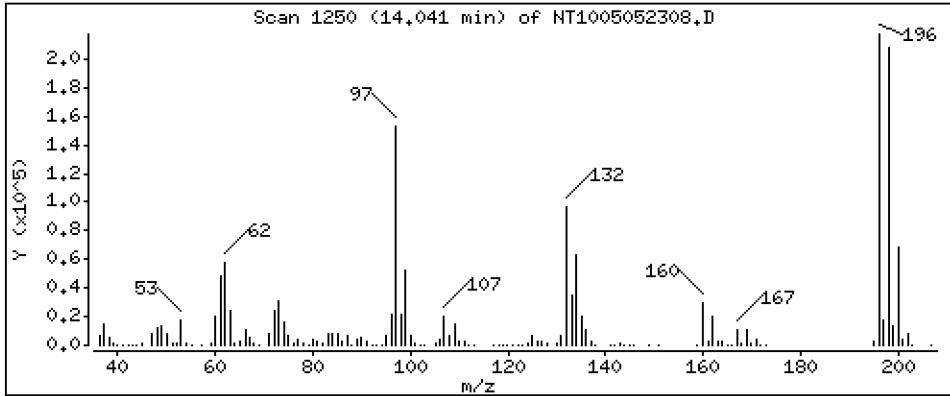
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 8,505 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

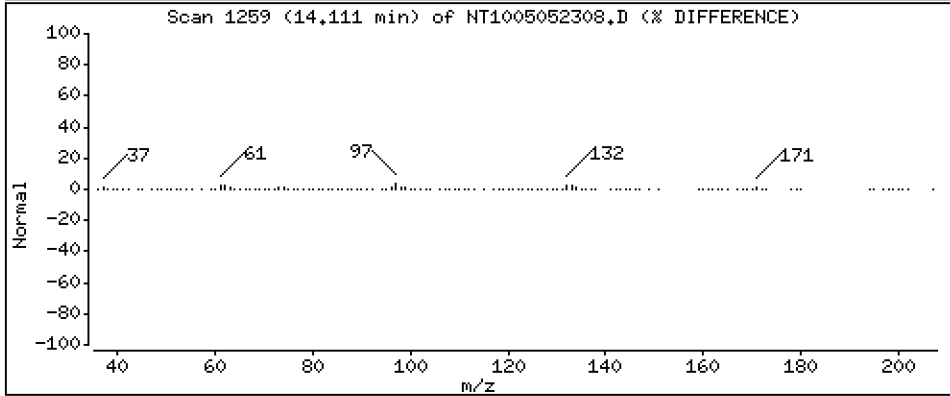
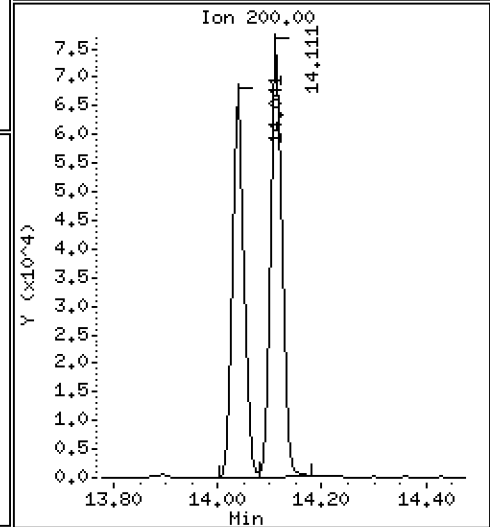
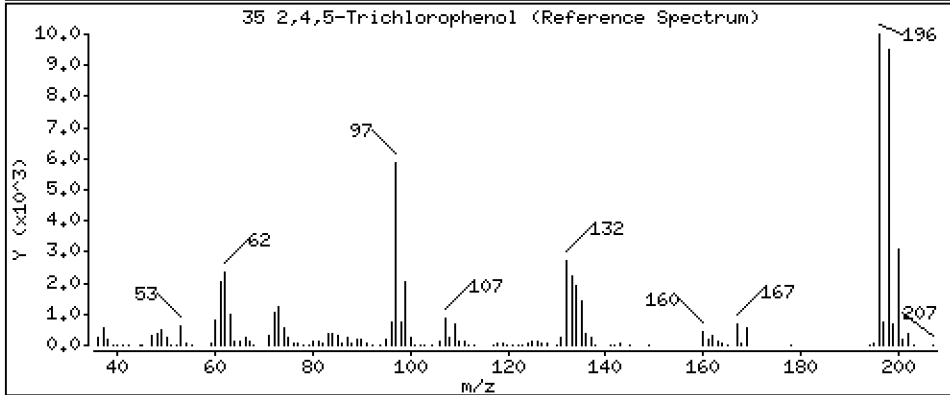
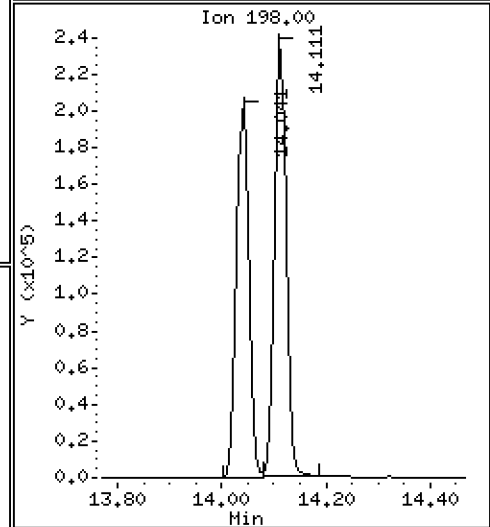
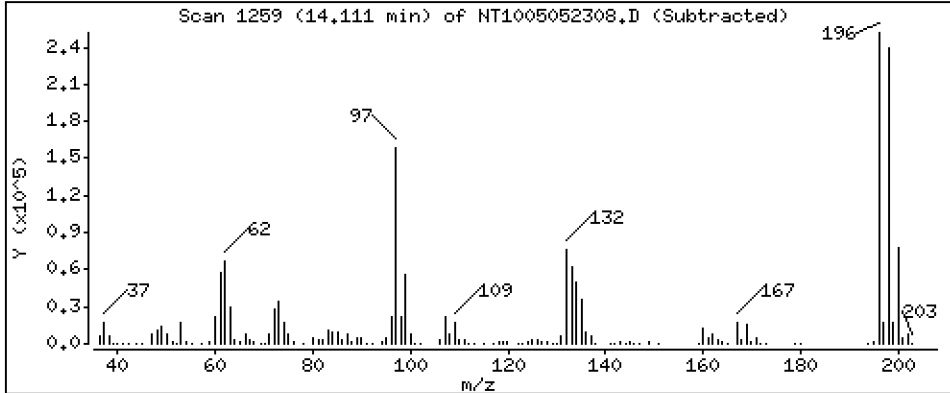
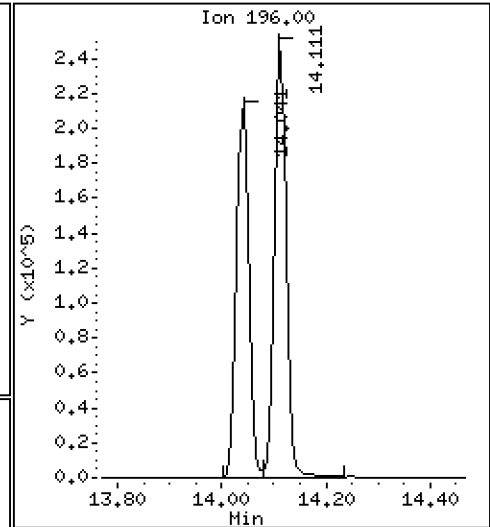
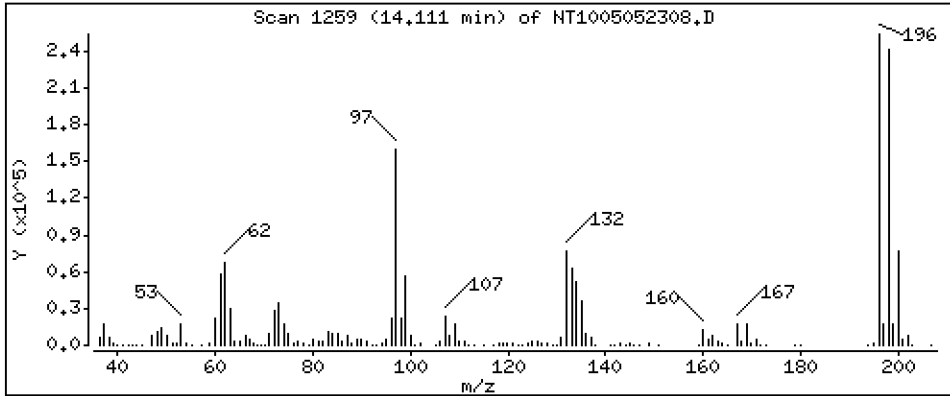
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 8,594 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

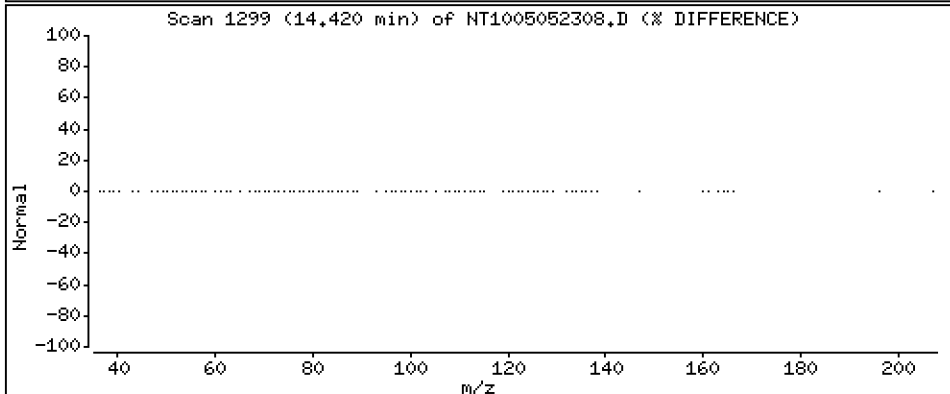
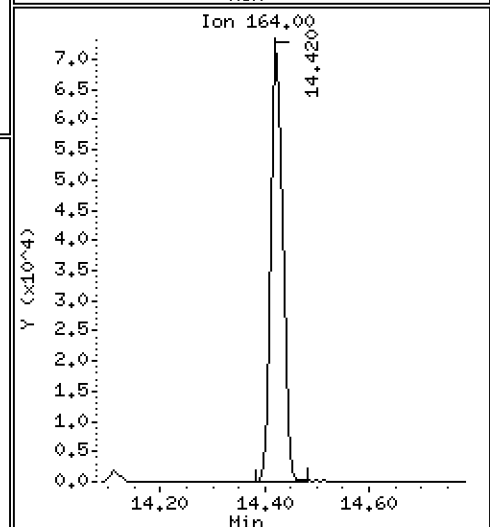
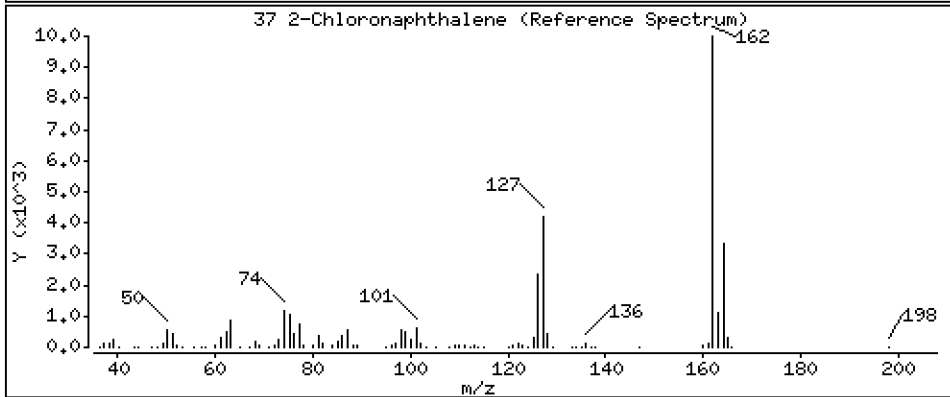
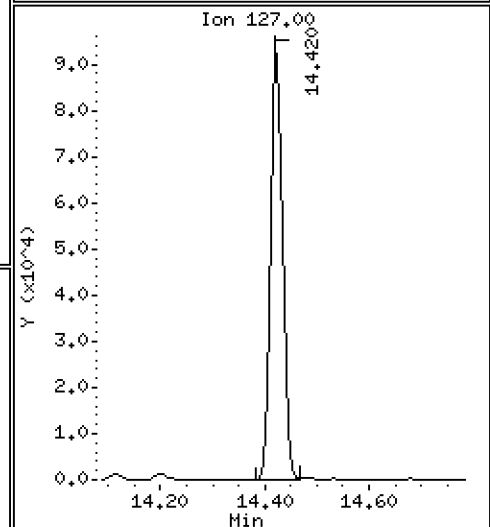
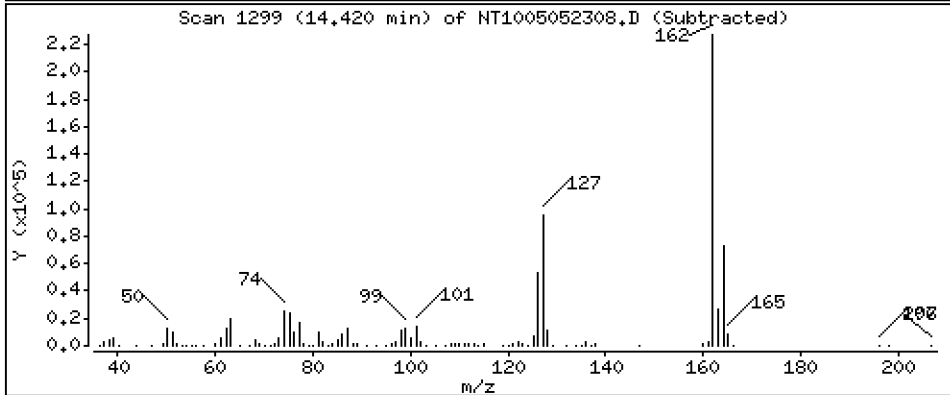
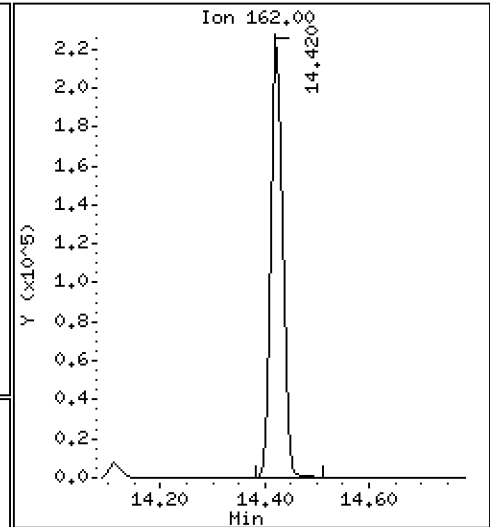
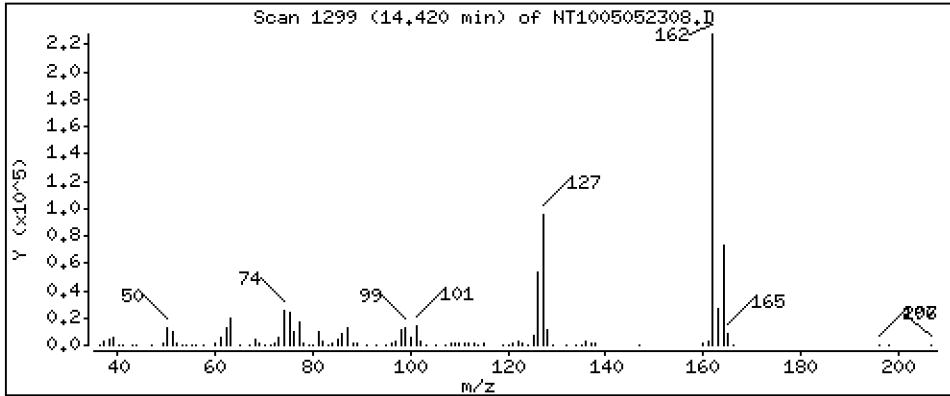
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 3,127 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

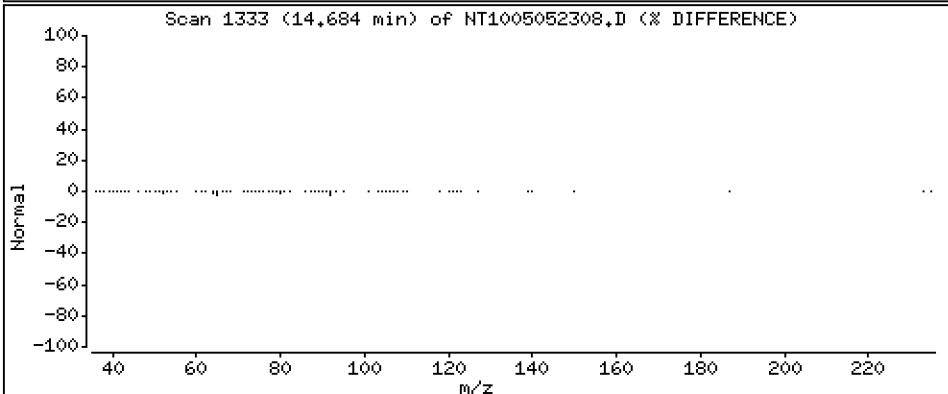
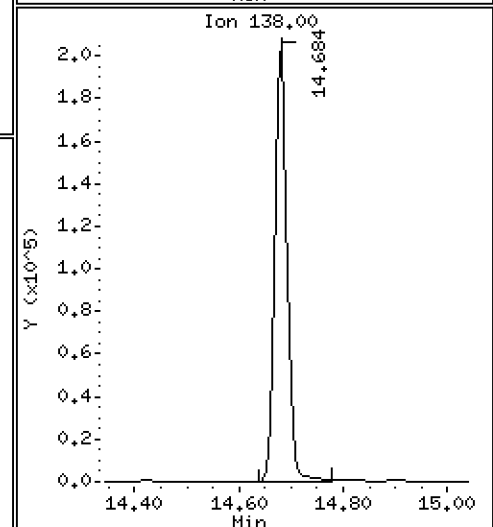
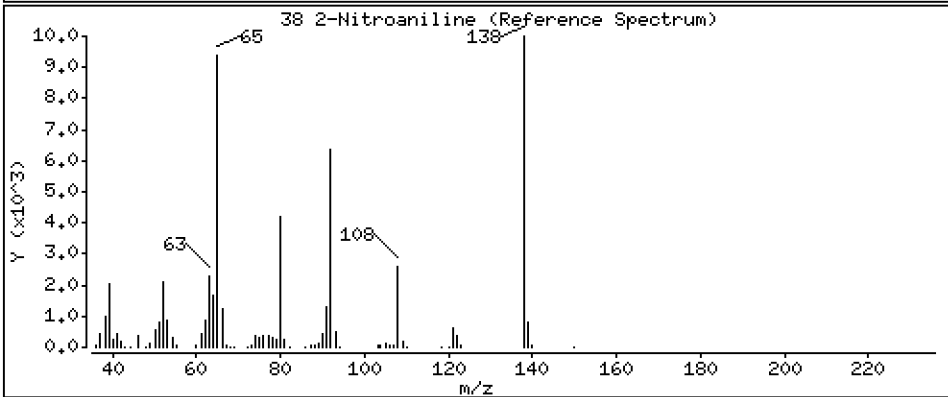
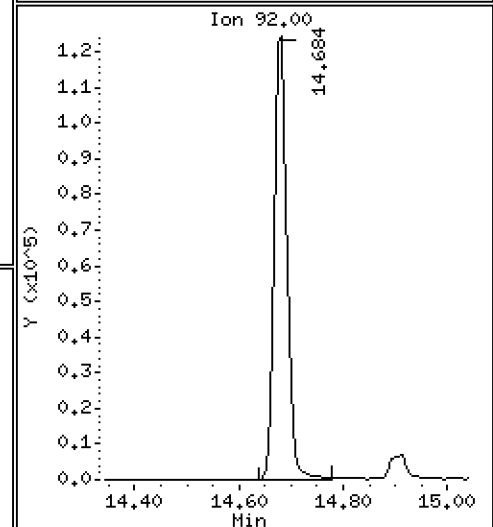
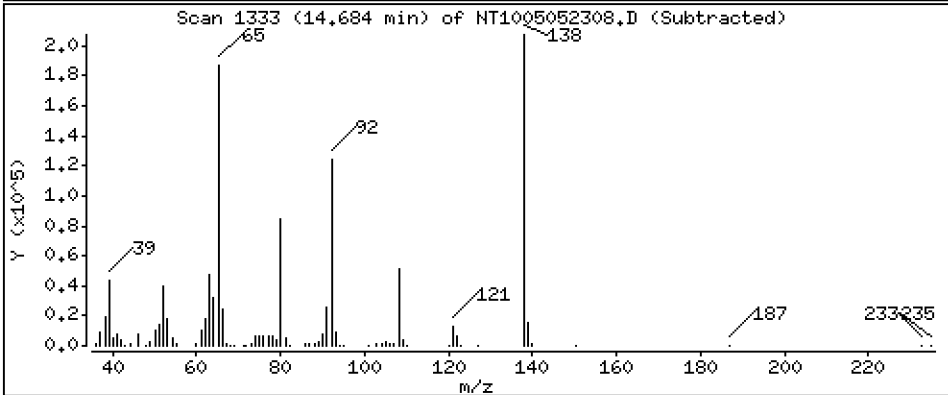
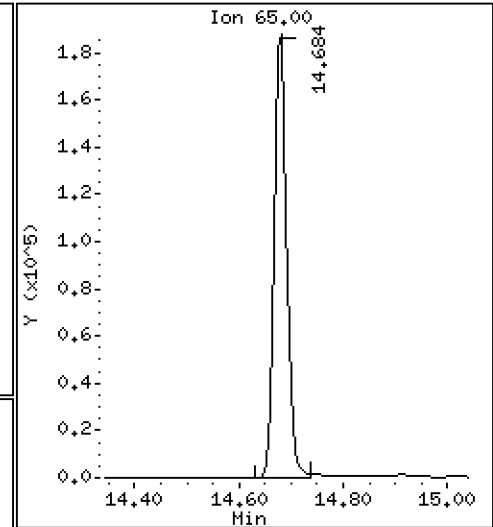
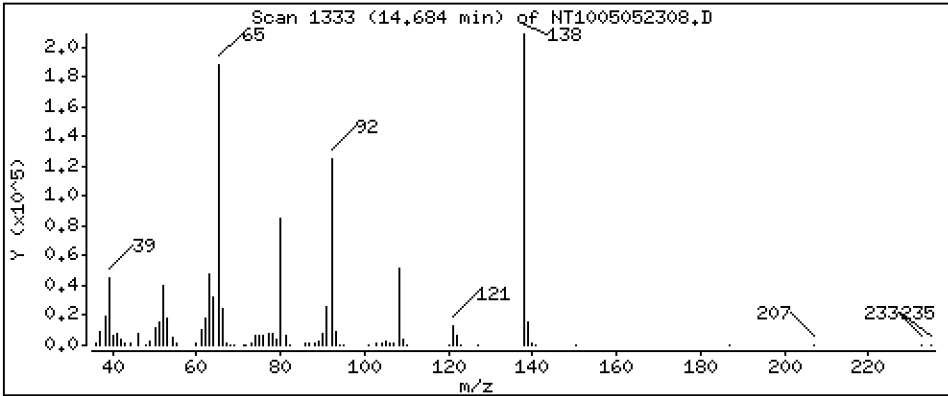
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 9,806 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

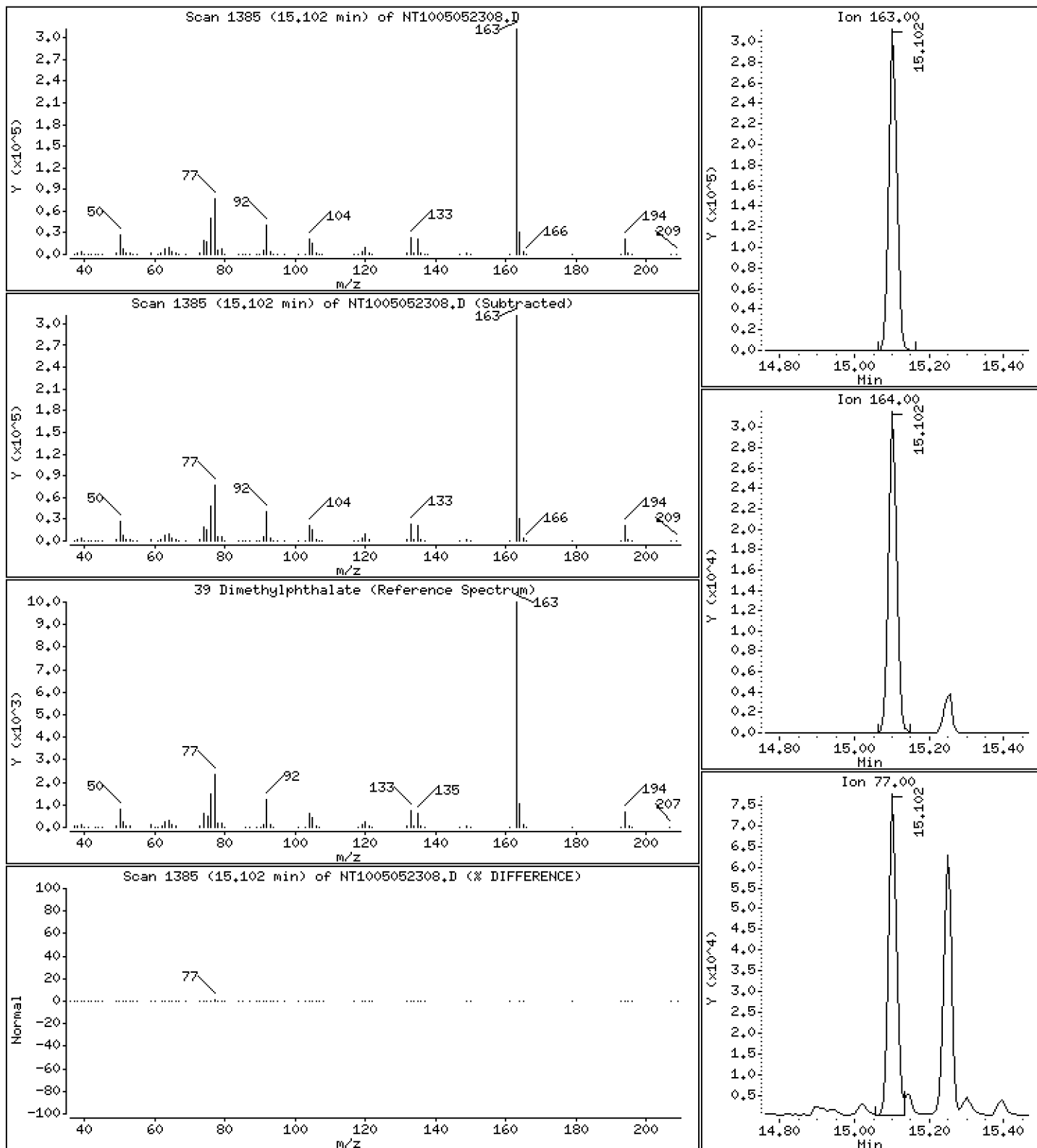
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 3,624 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

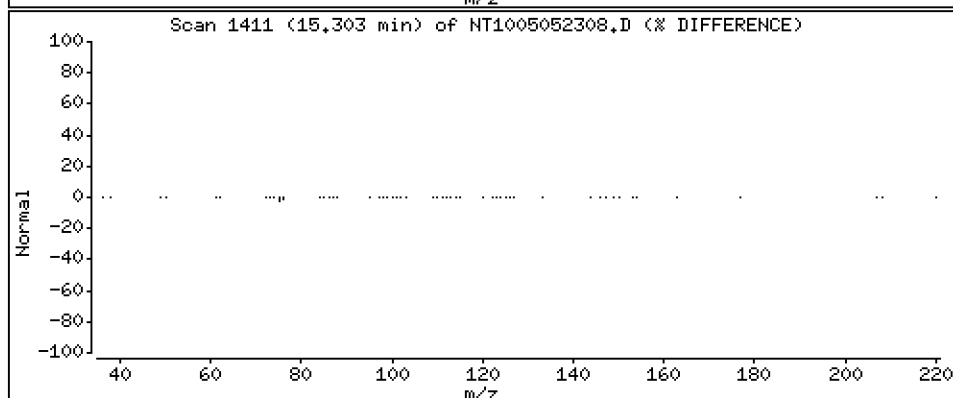
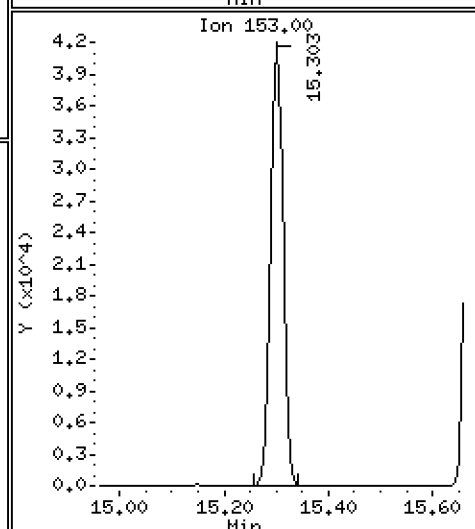
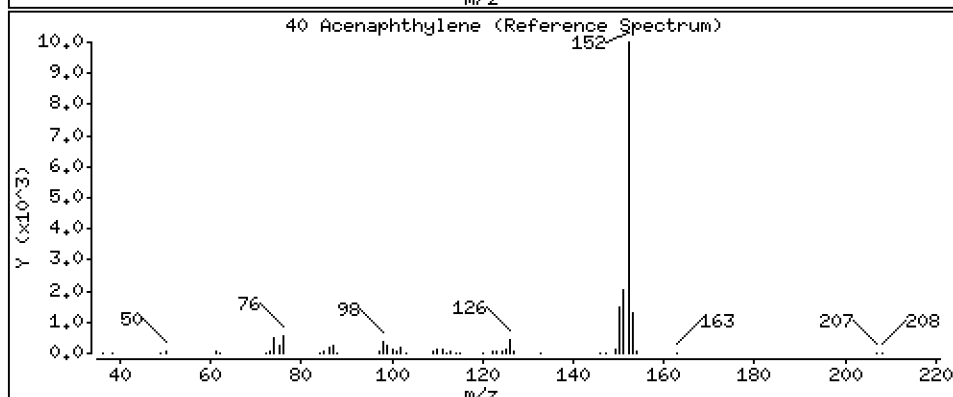
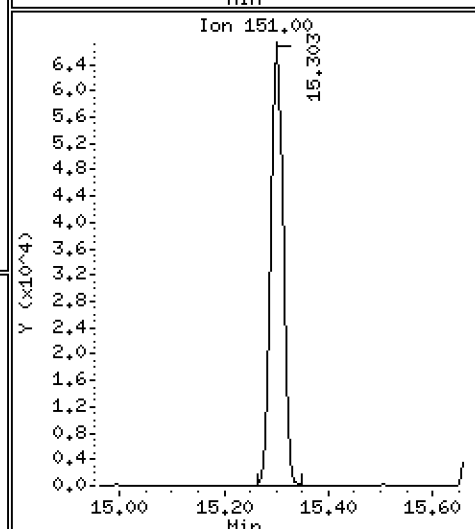
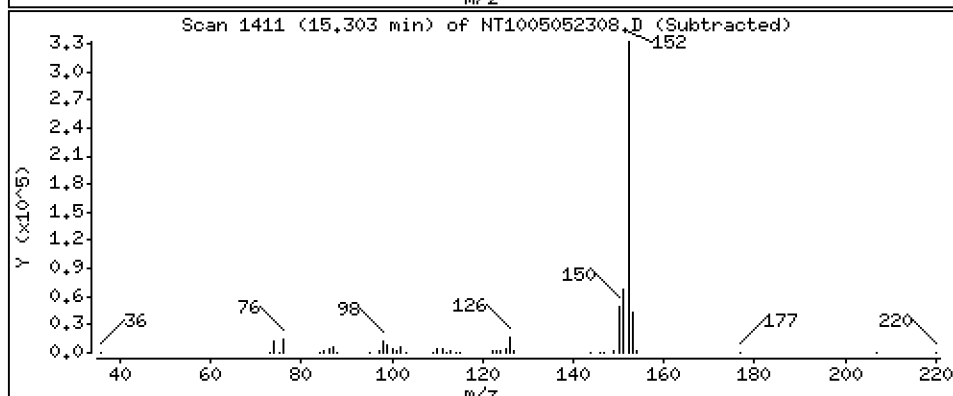
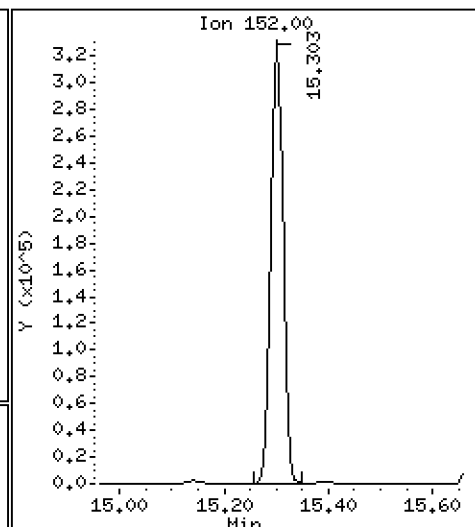
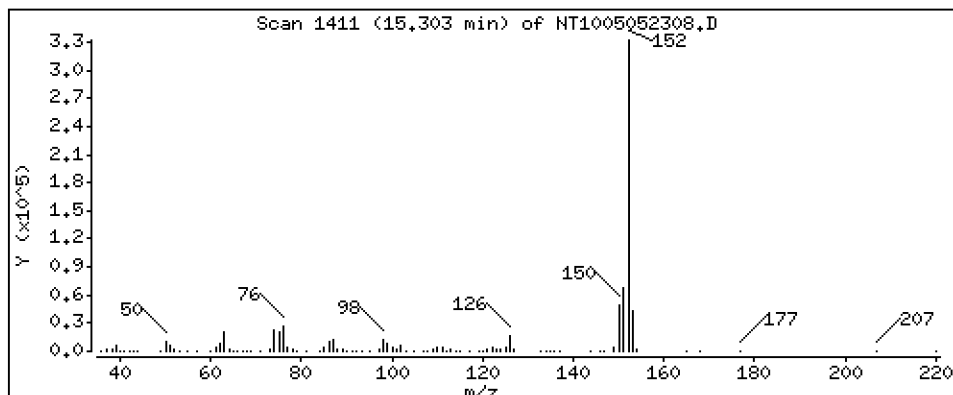
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 2,987 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

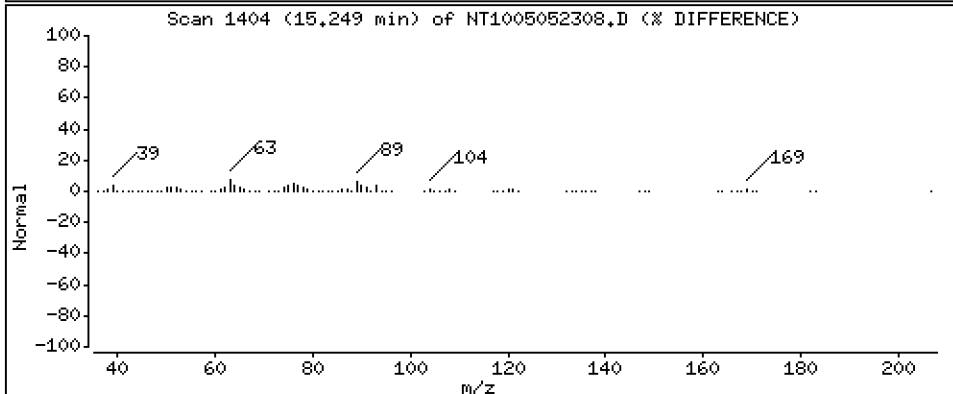
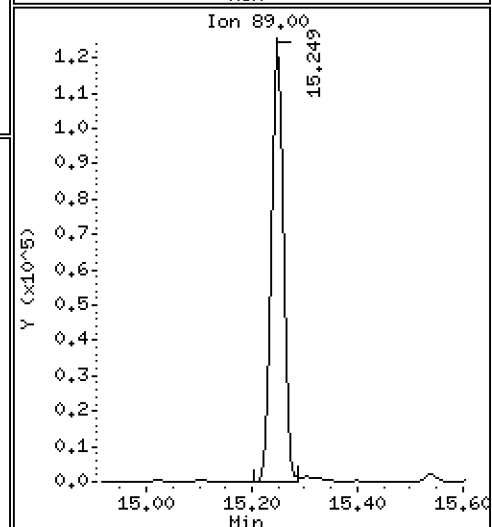
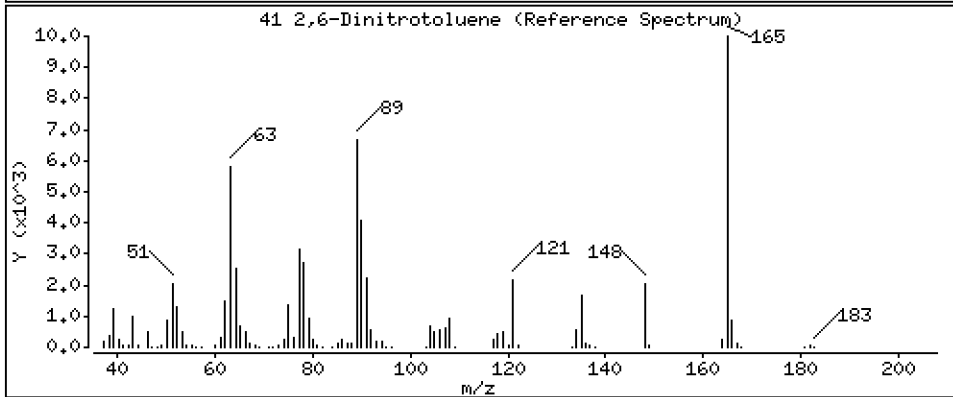
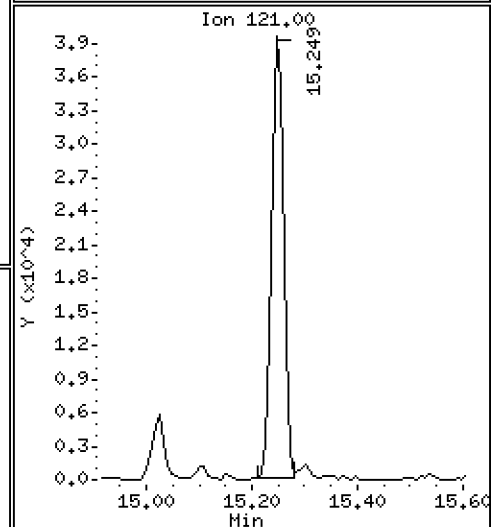
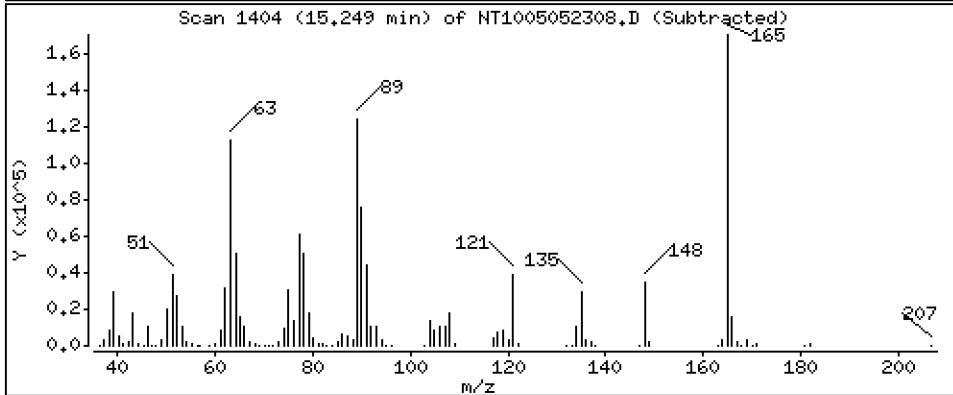
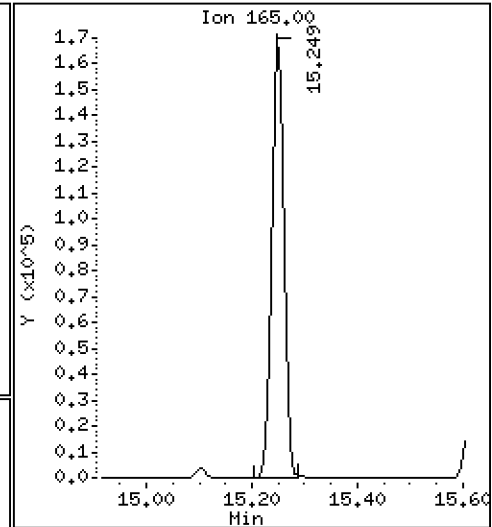
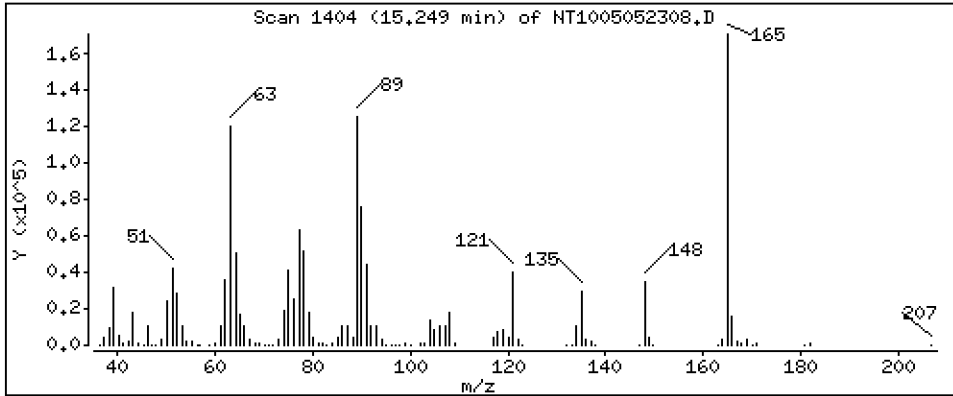
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 9,535 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

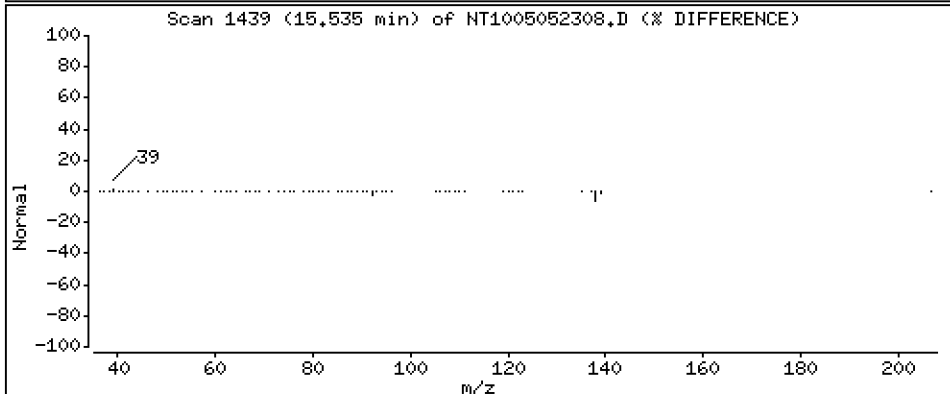
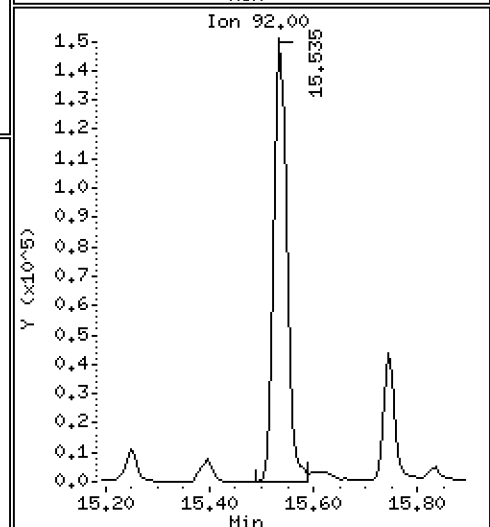
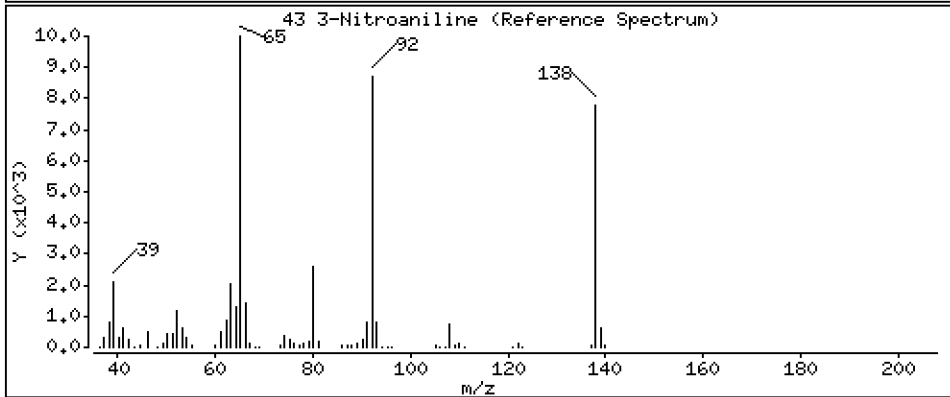
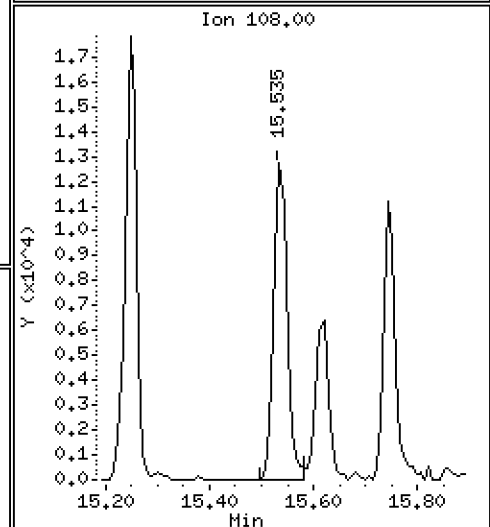
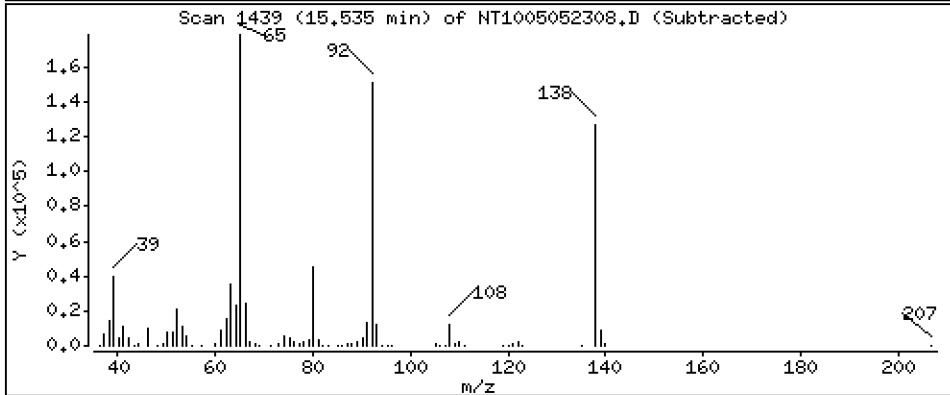
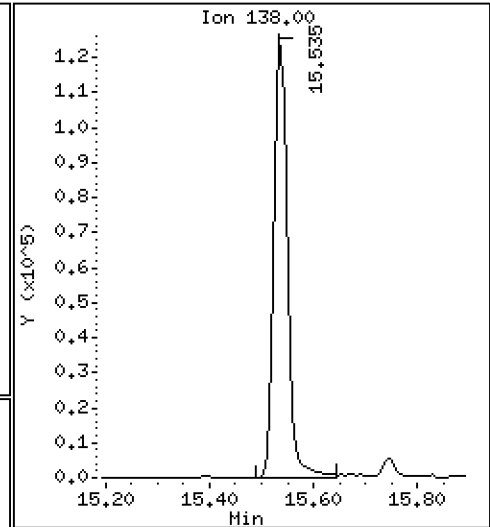
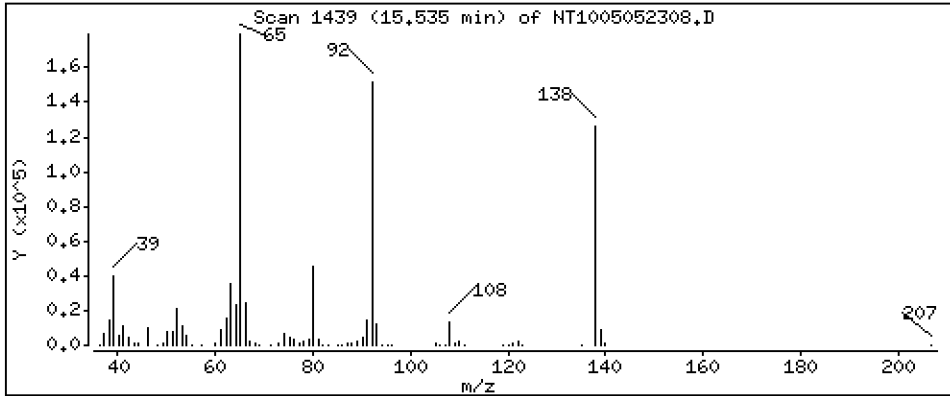
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 7,904 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

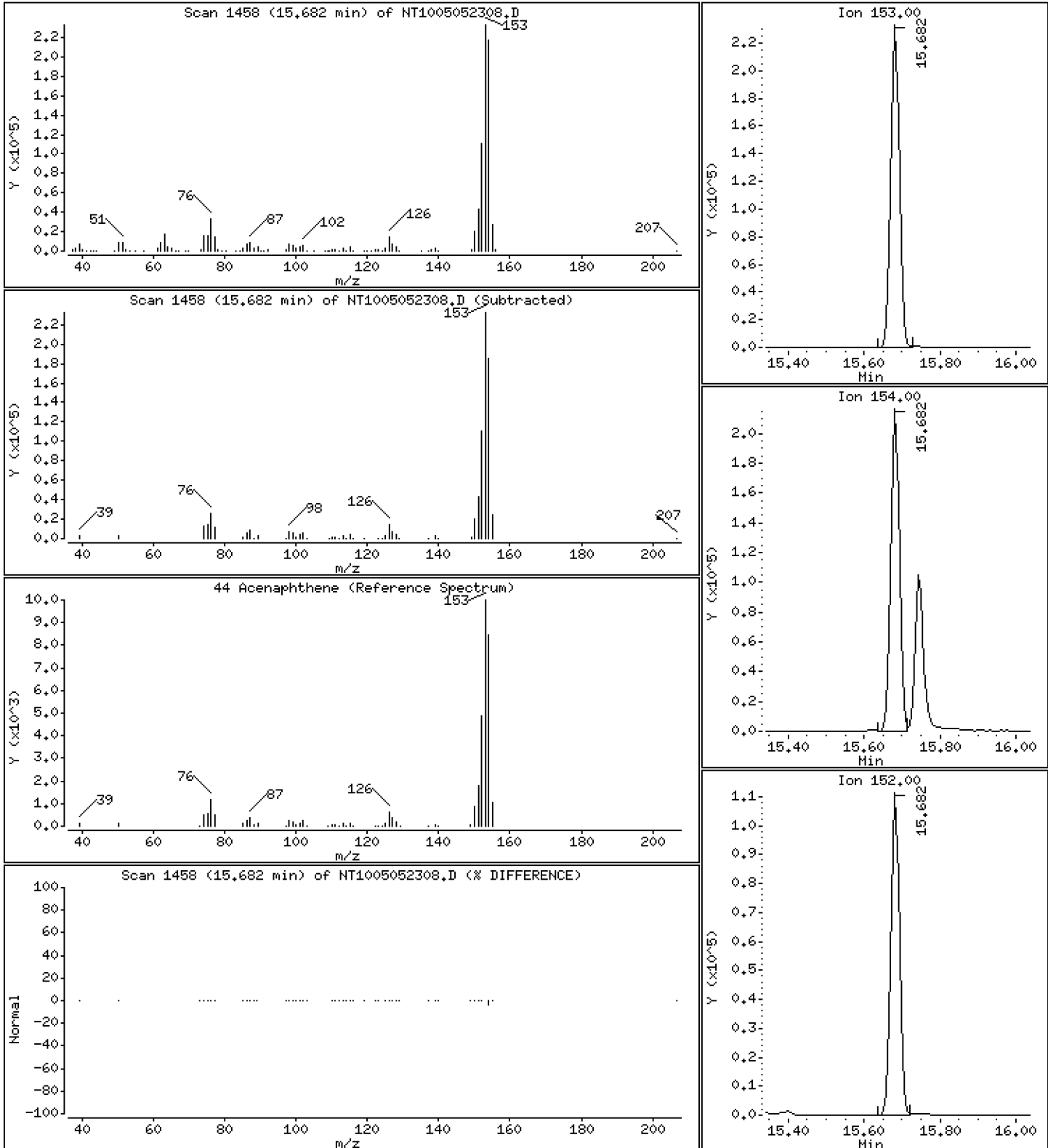
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 3,185 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

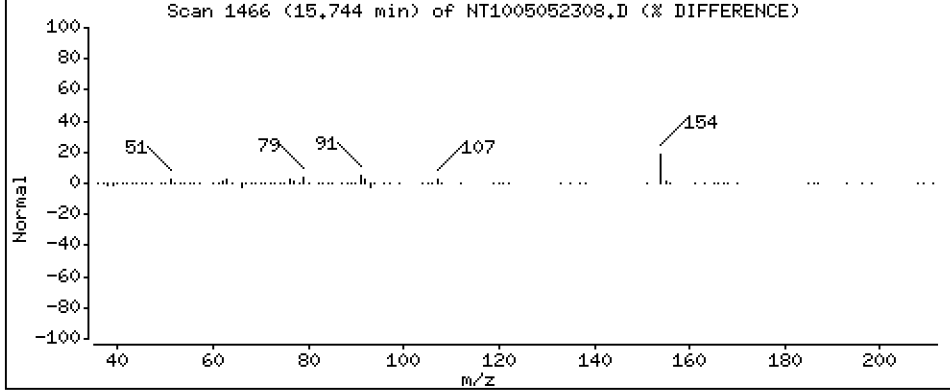
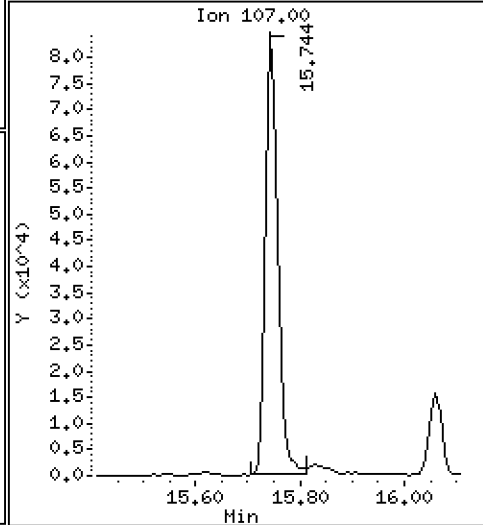
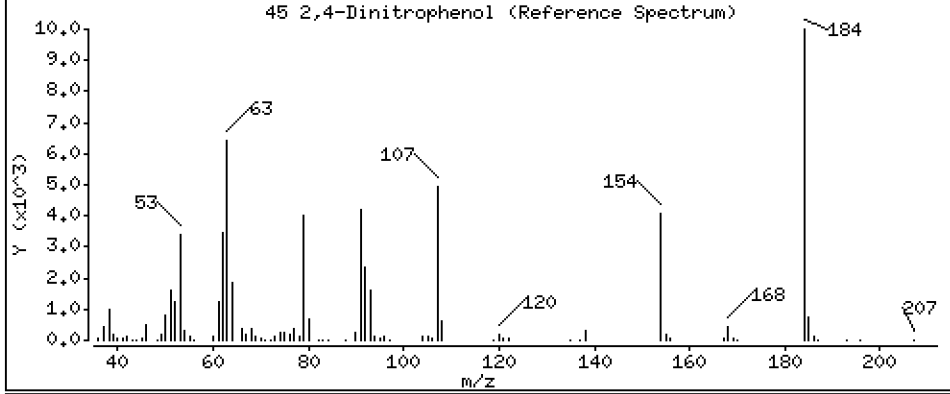
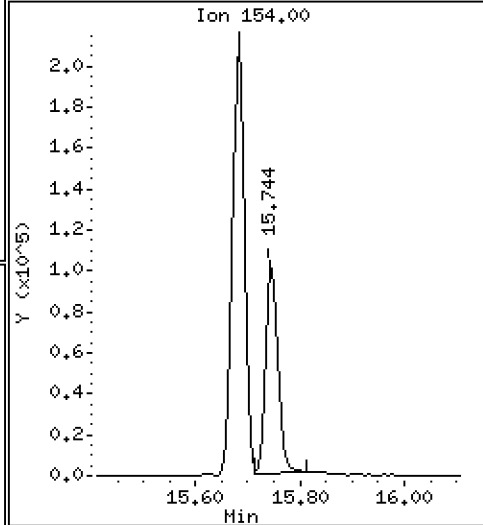
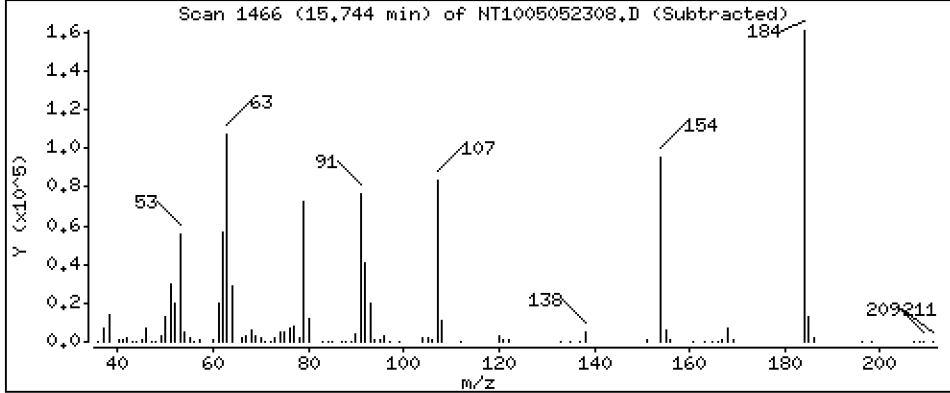
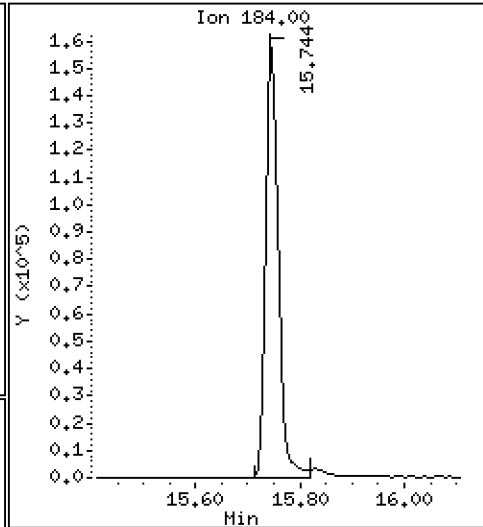
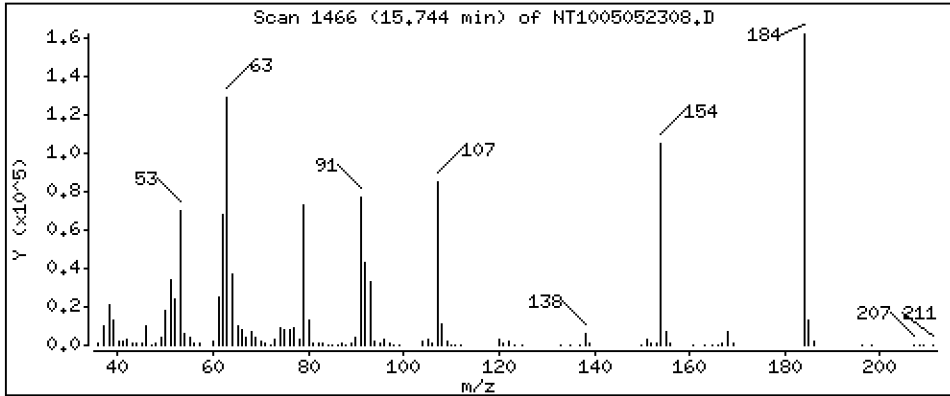
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 11,86 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

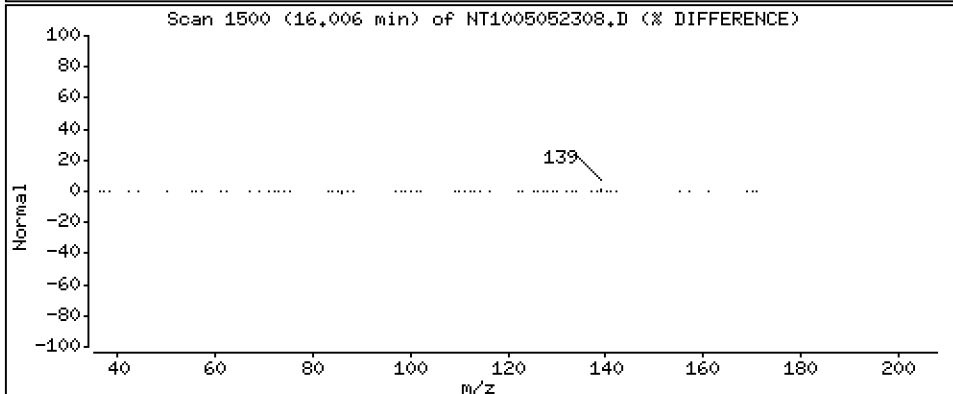
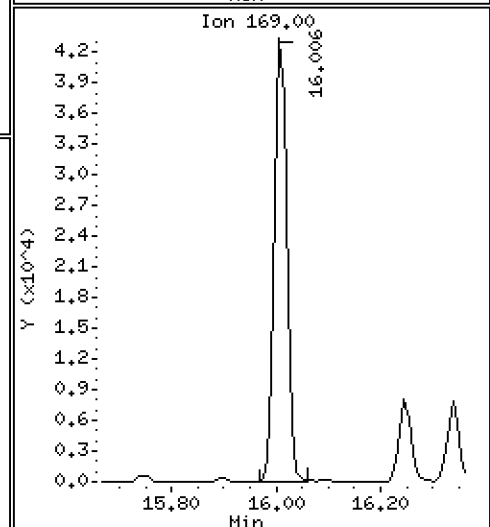
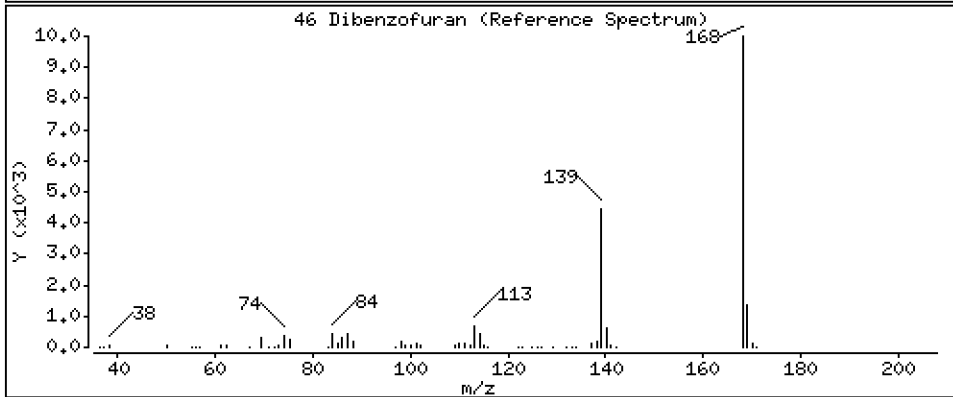
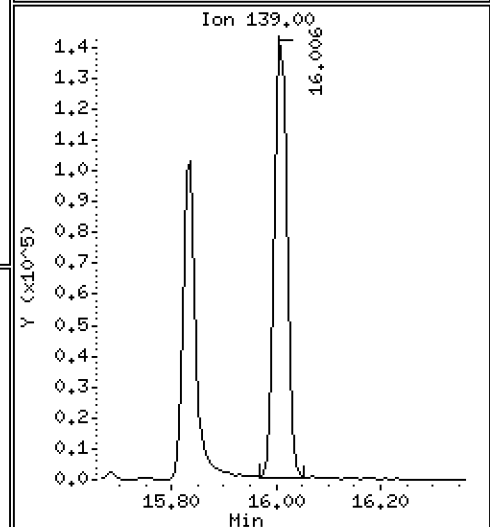
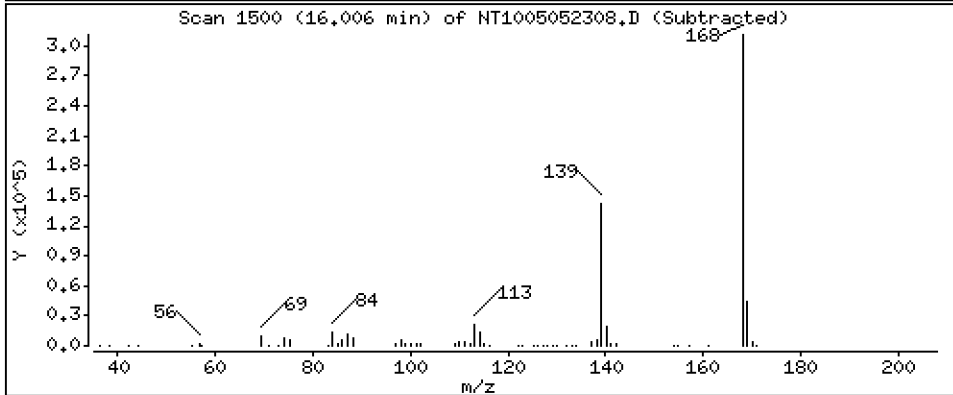
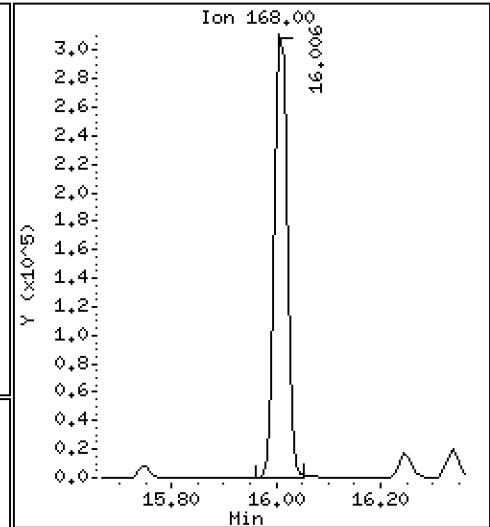
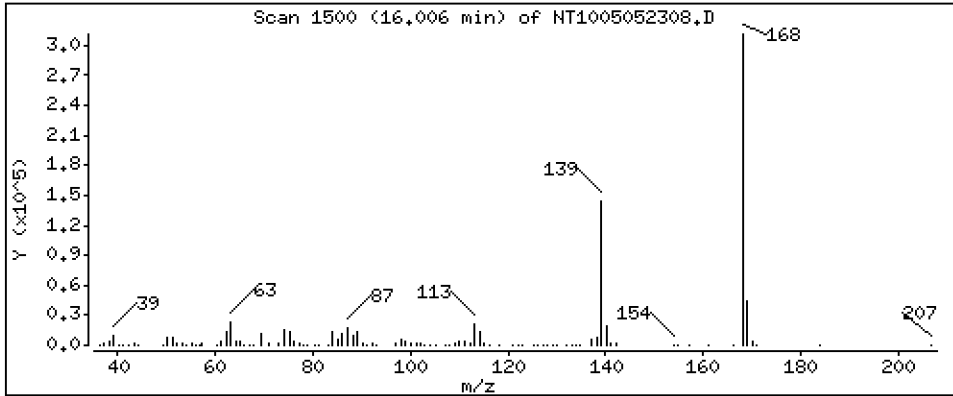
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 3,194 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

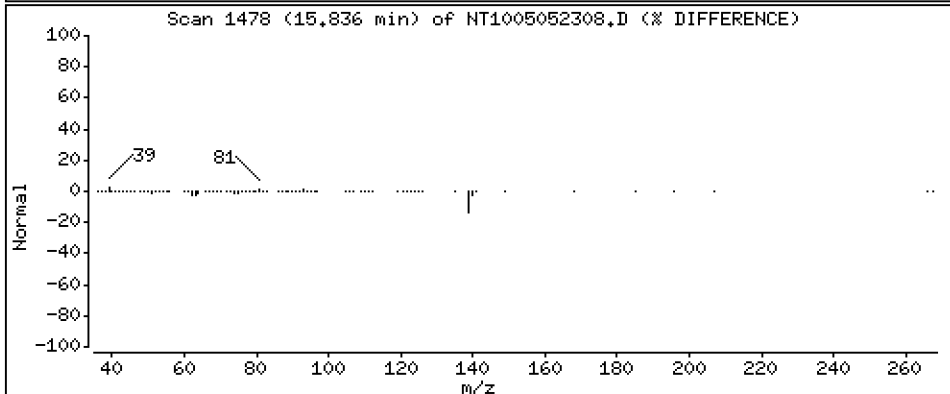
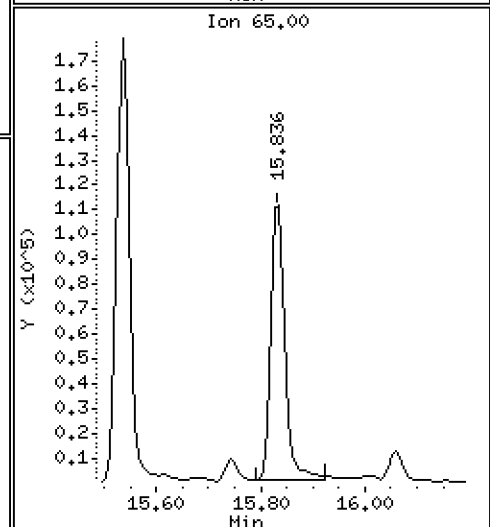
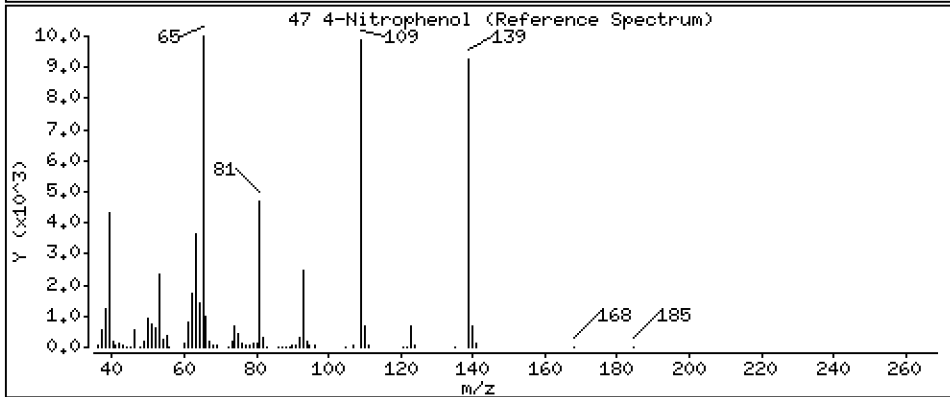
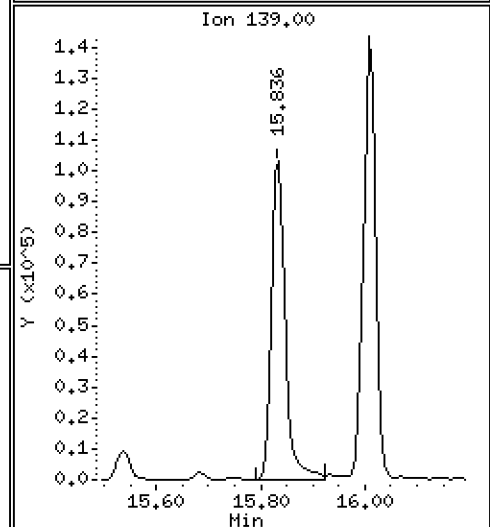
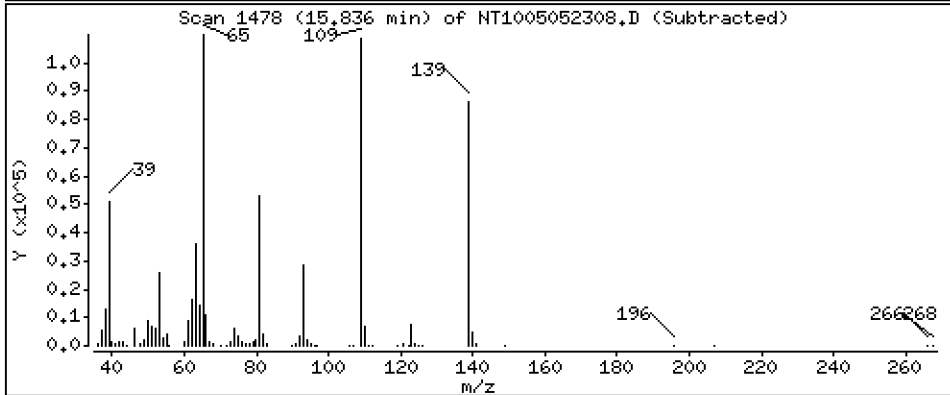
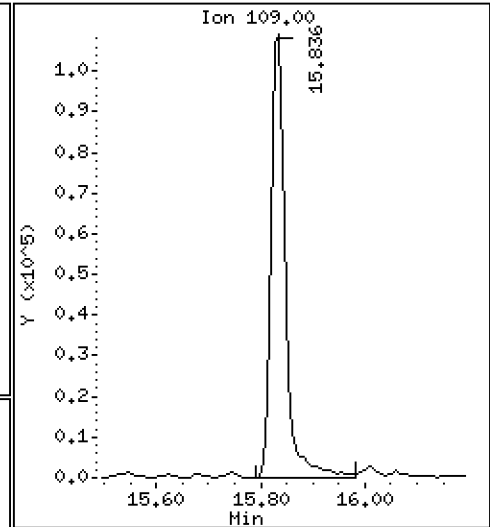
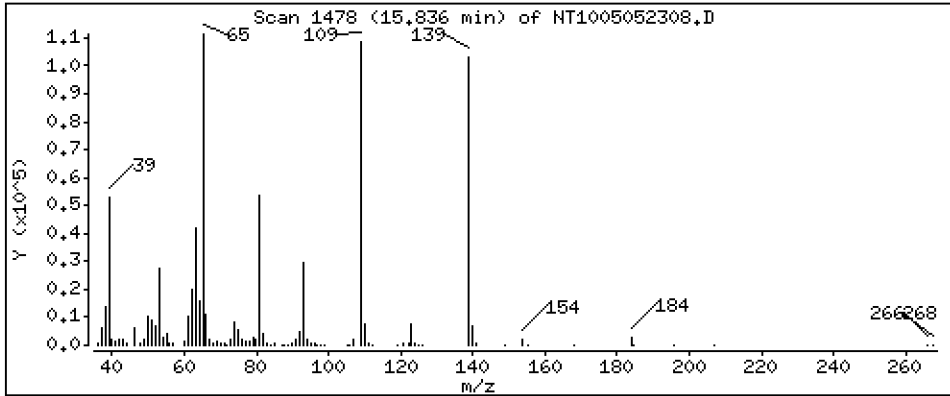
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 7,906 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

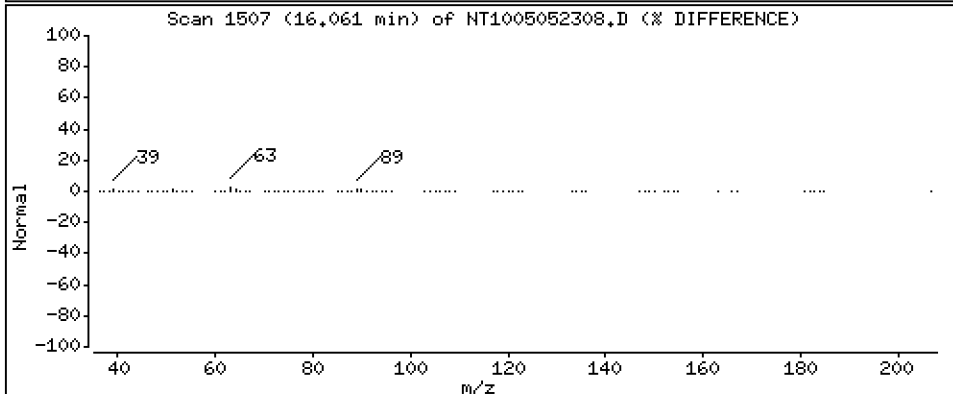
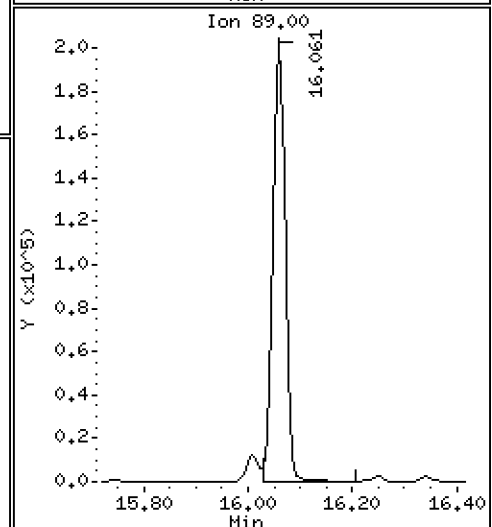
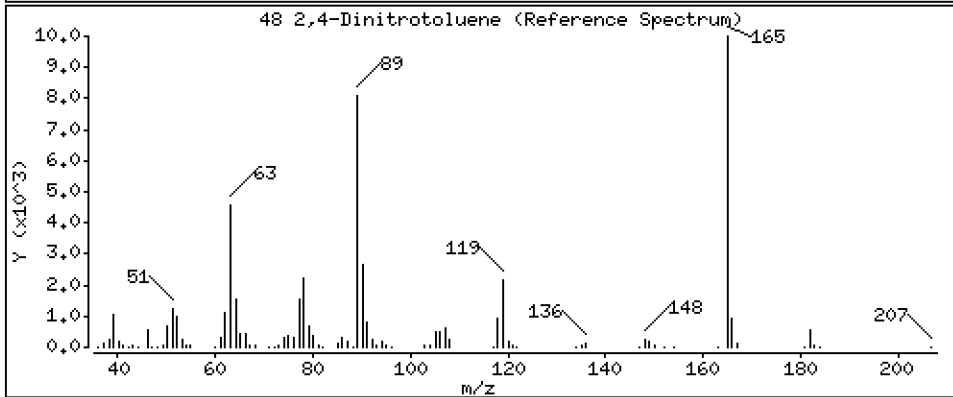
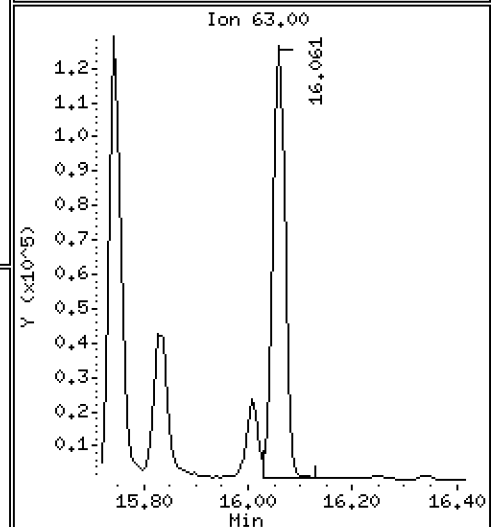
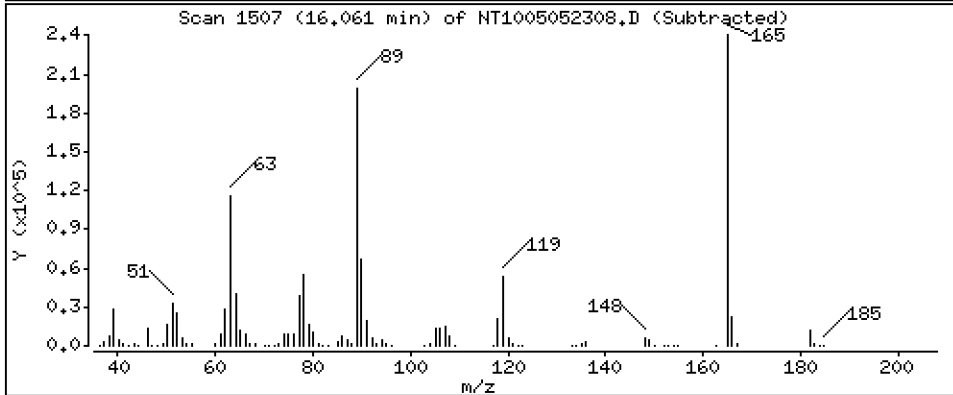
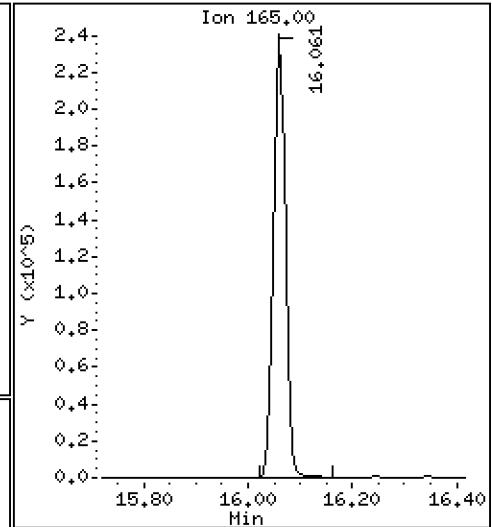
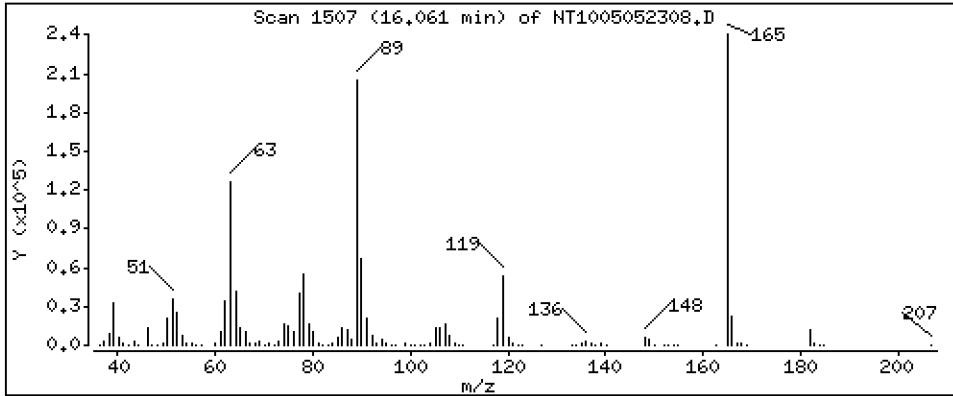
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 8,908 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

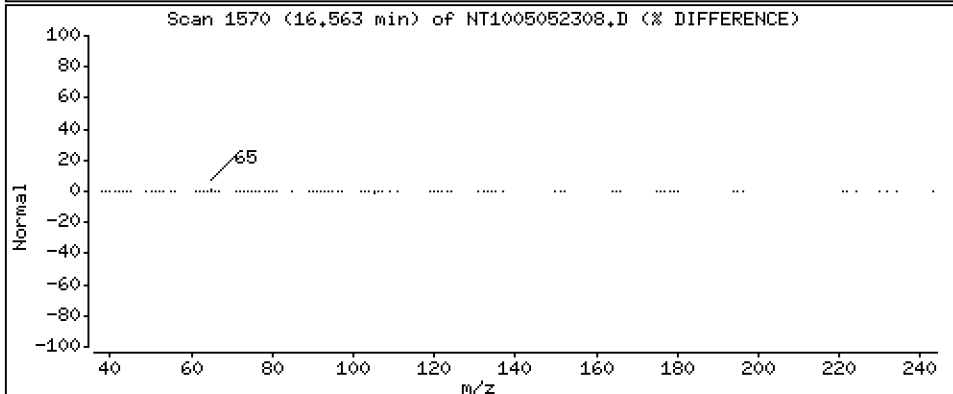
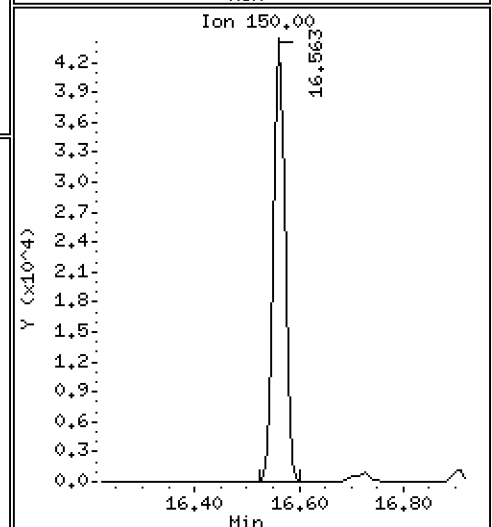
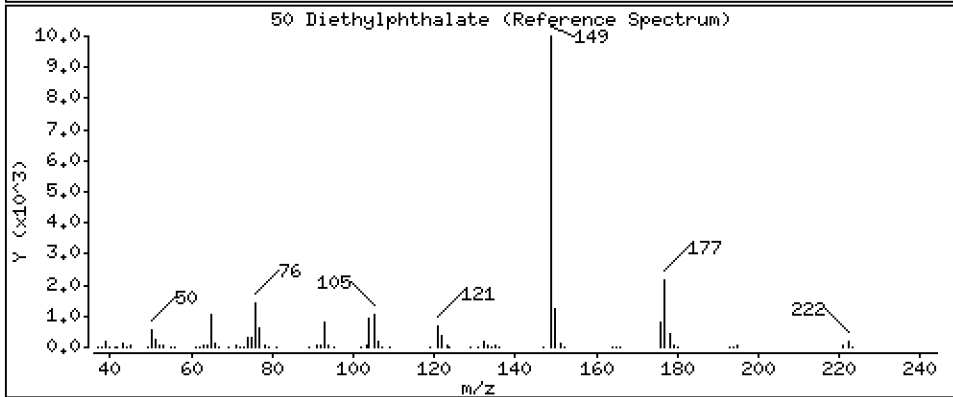
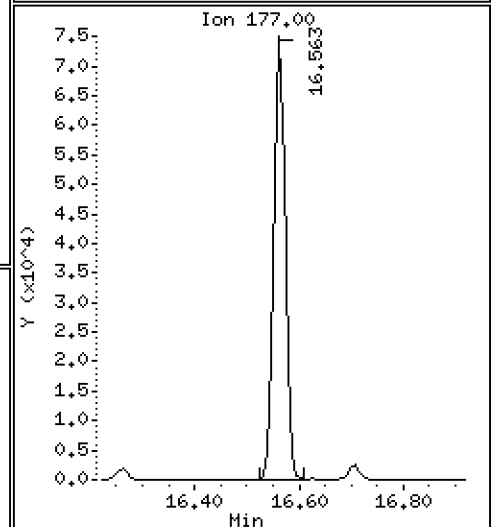
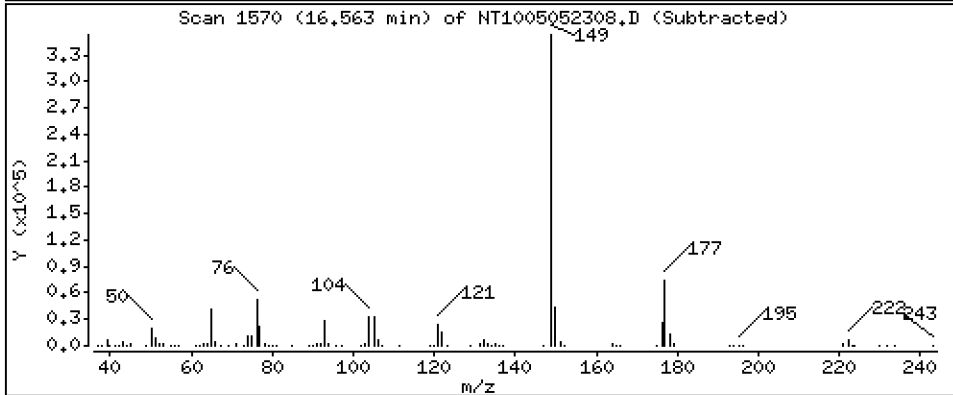
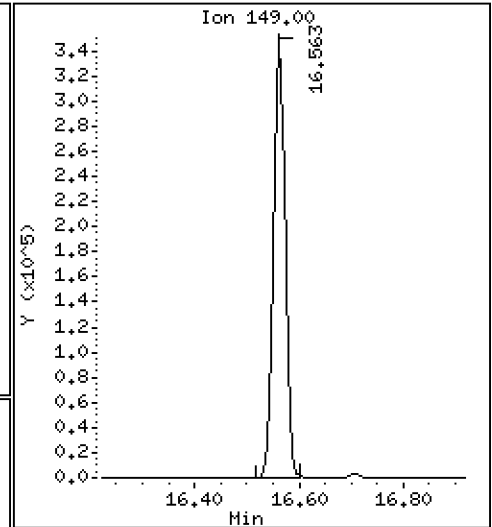
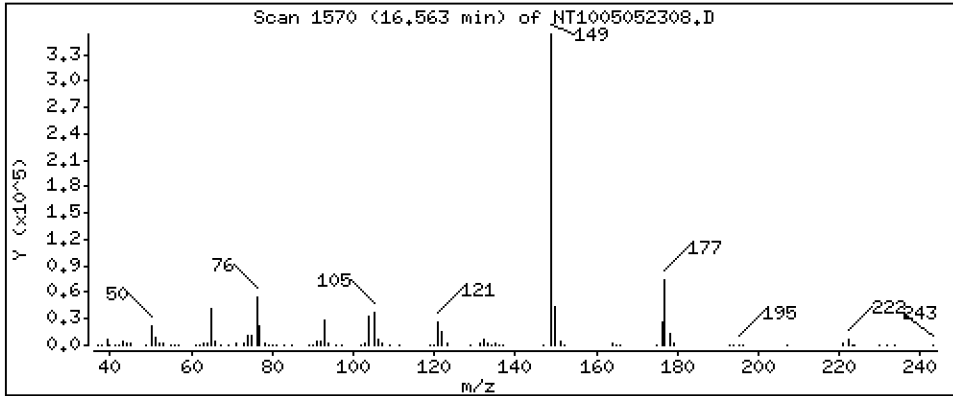
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 3.967 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

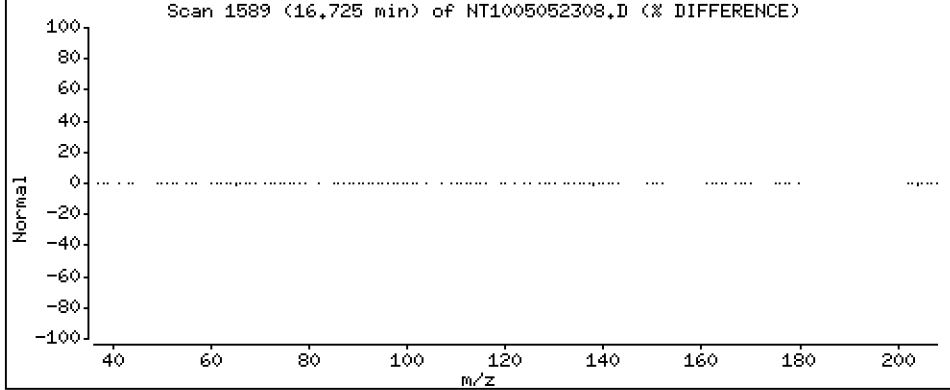
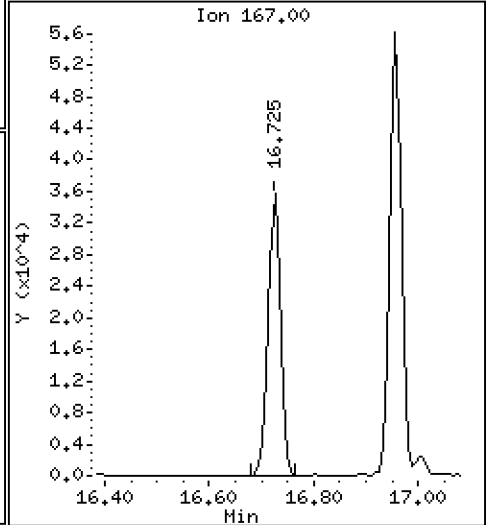
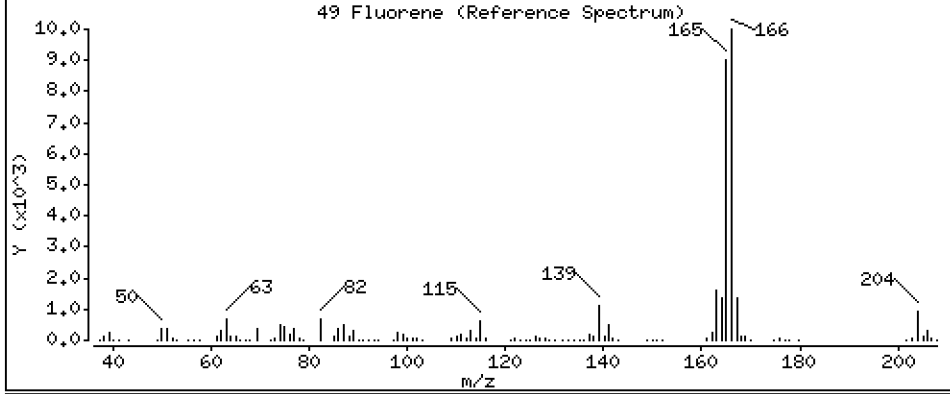
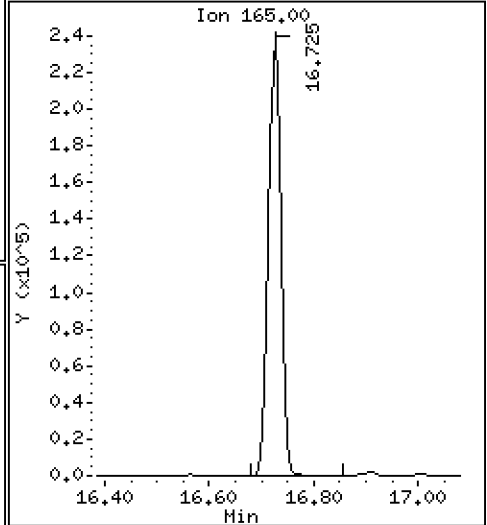
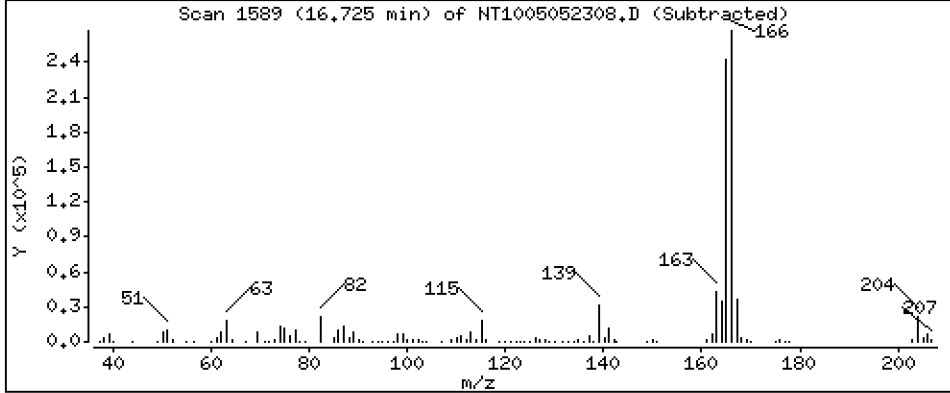
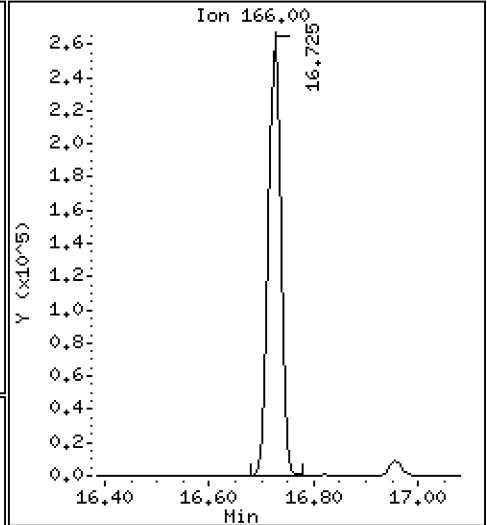
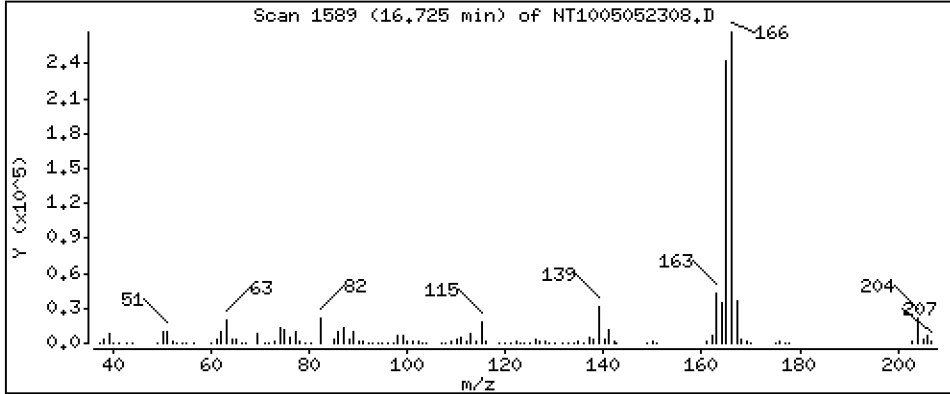
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,165 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

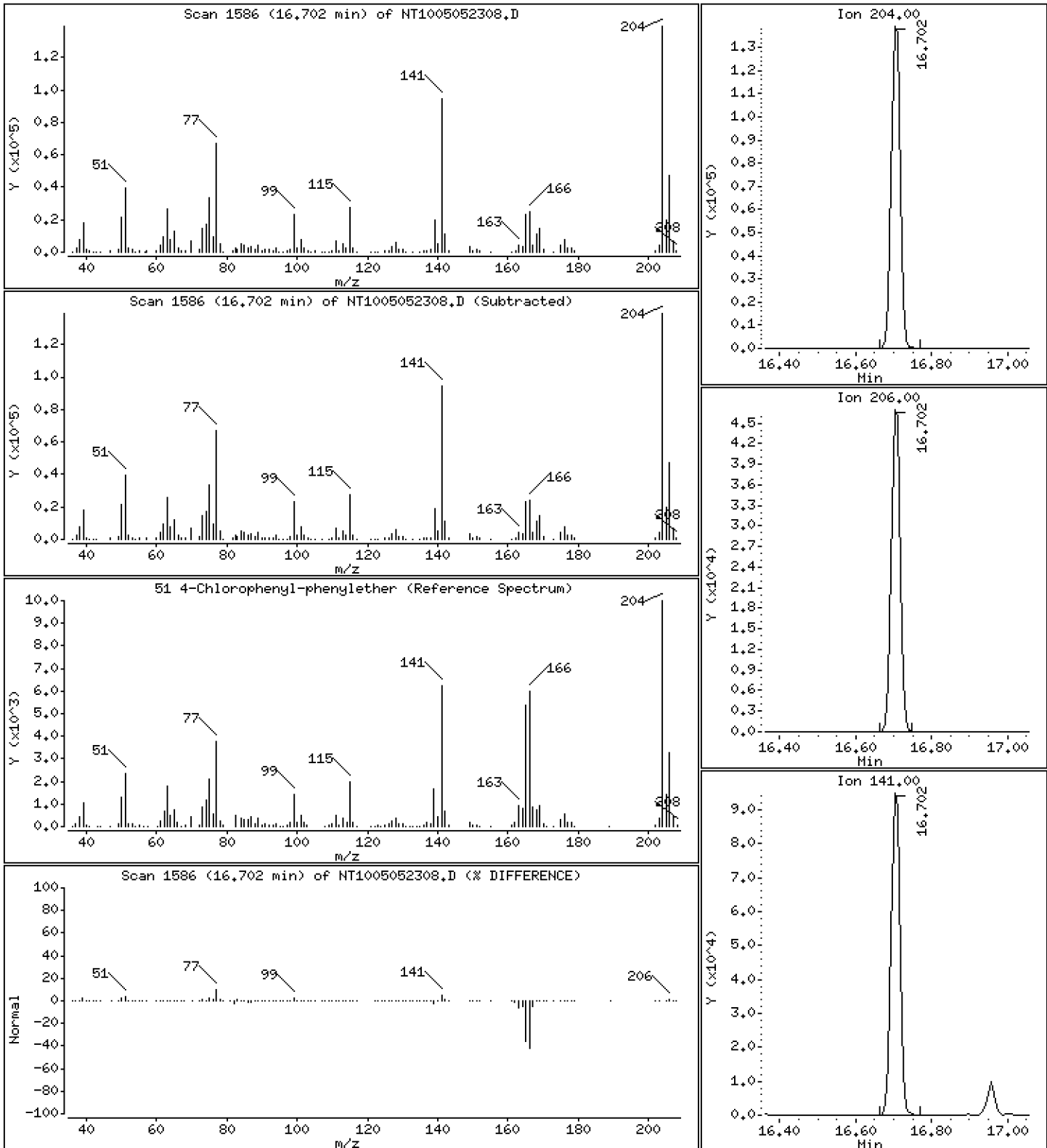
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 3,346 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

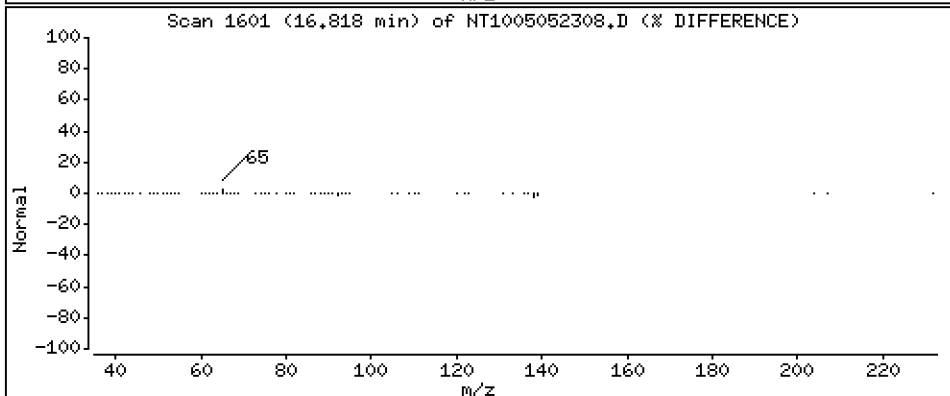
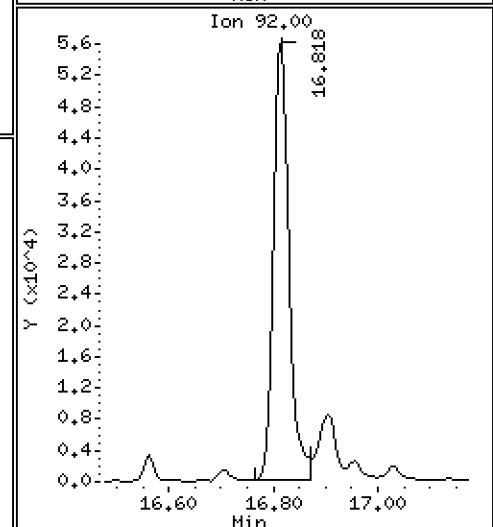
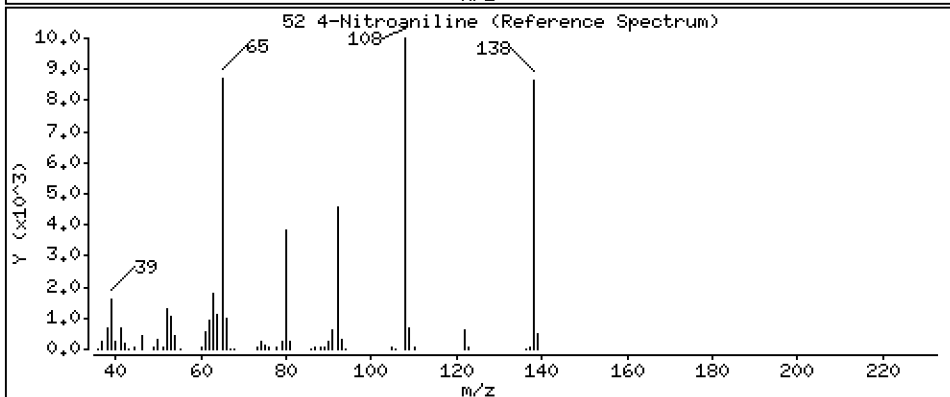
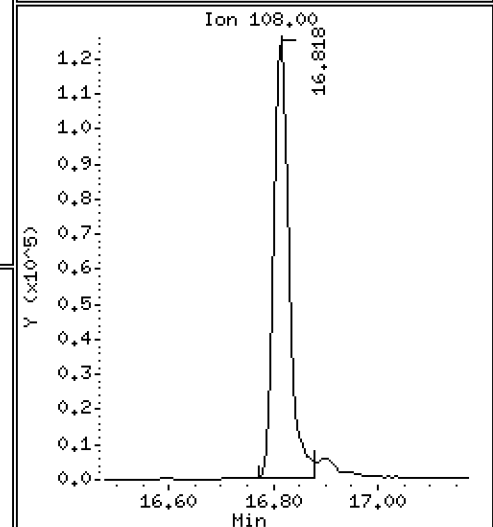
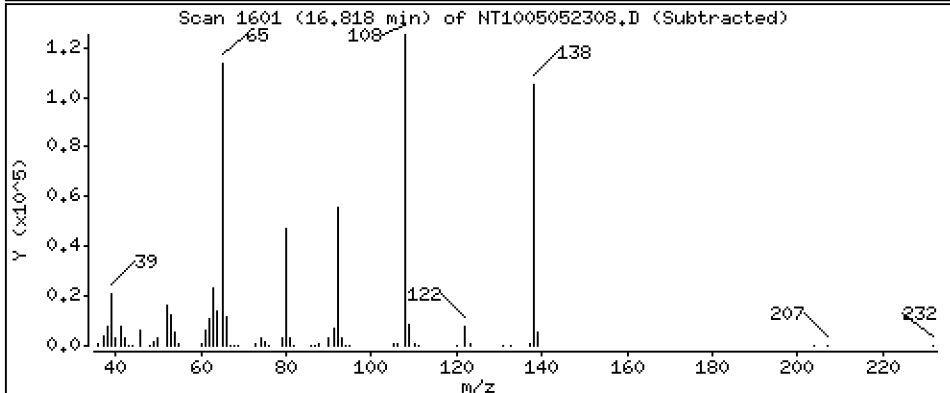
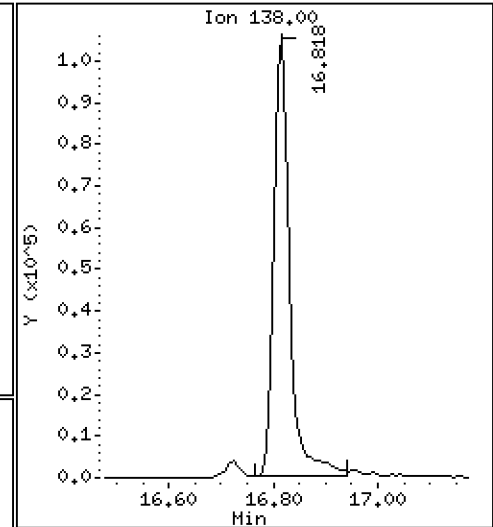
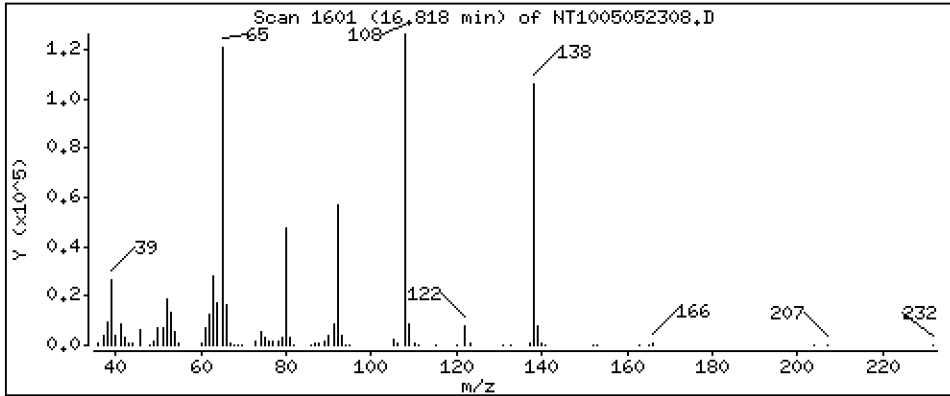
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 8,008 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

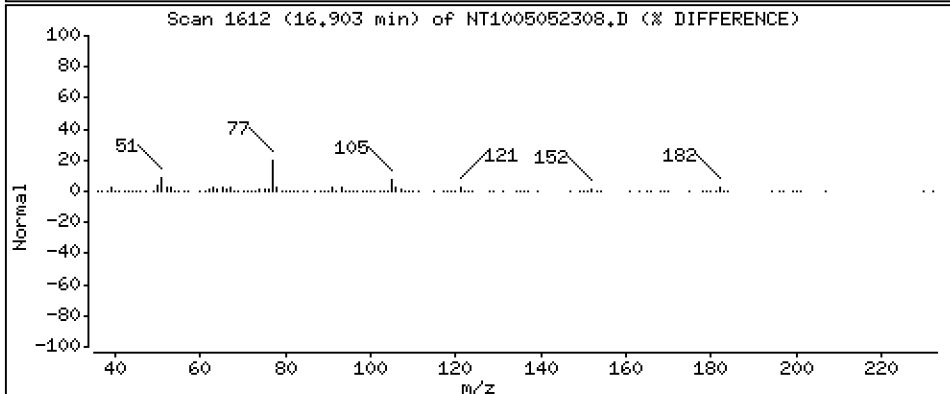
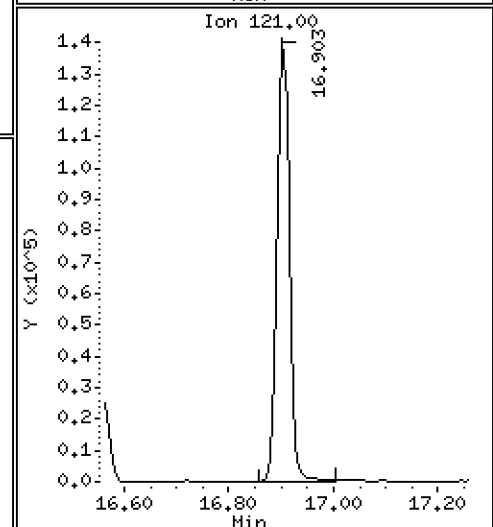
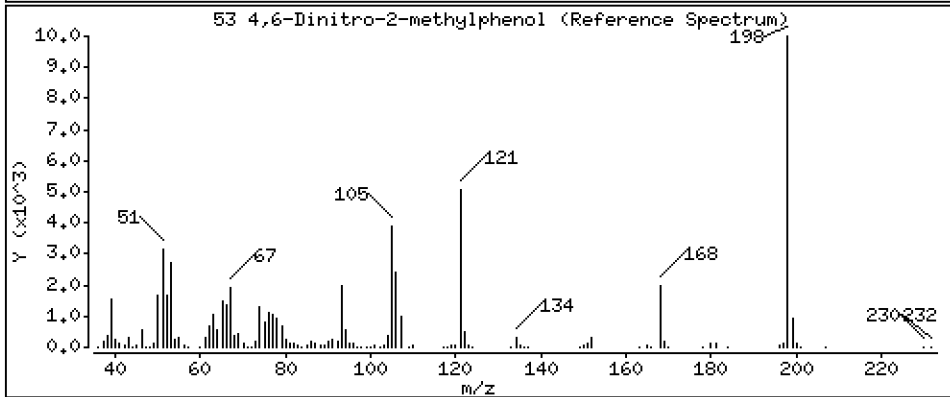
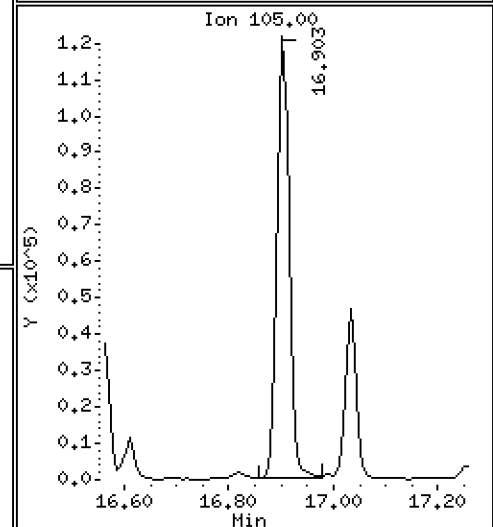
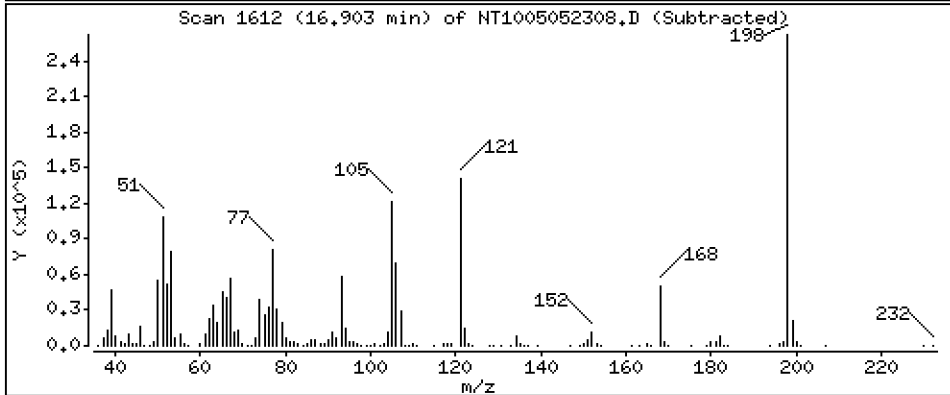
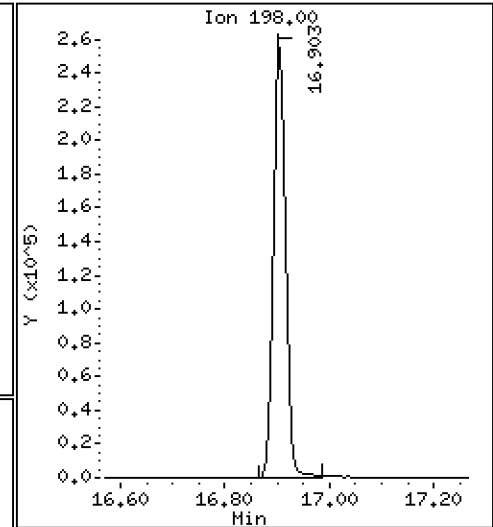
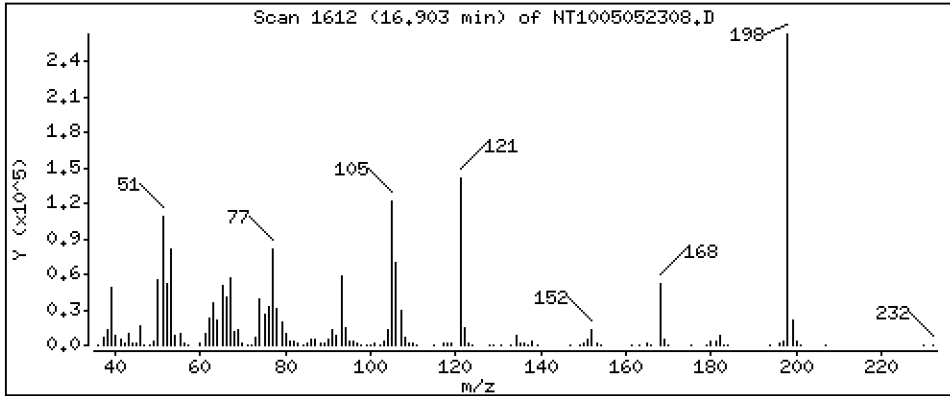
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 17,47 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

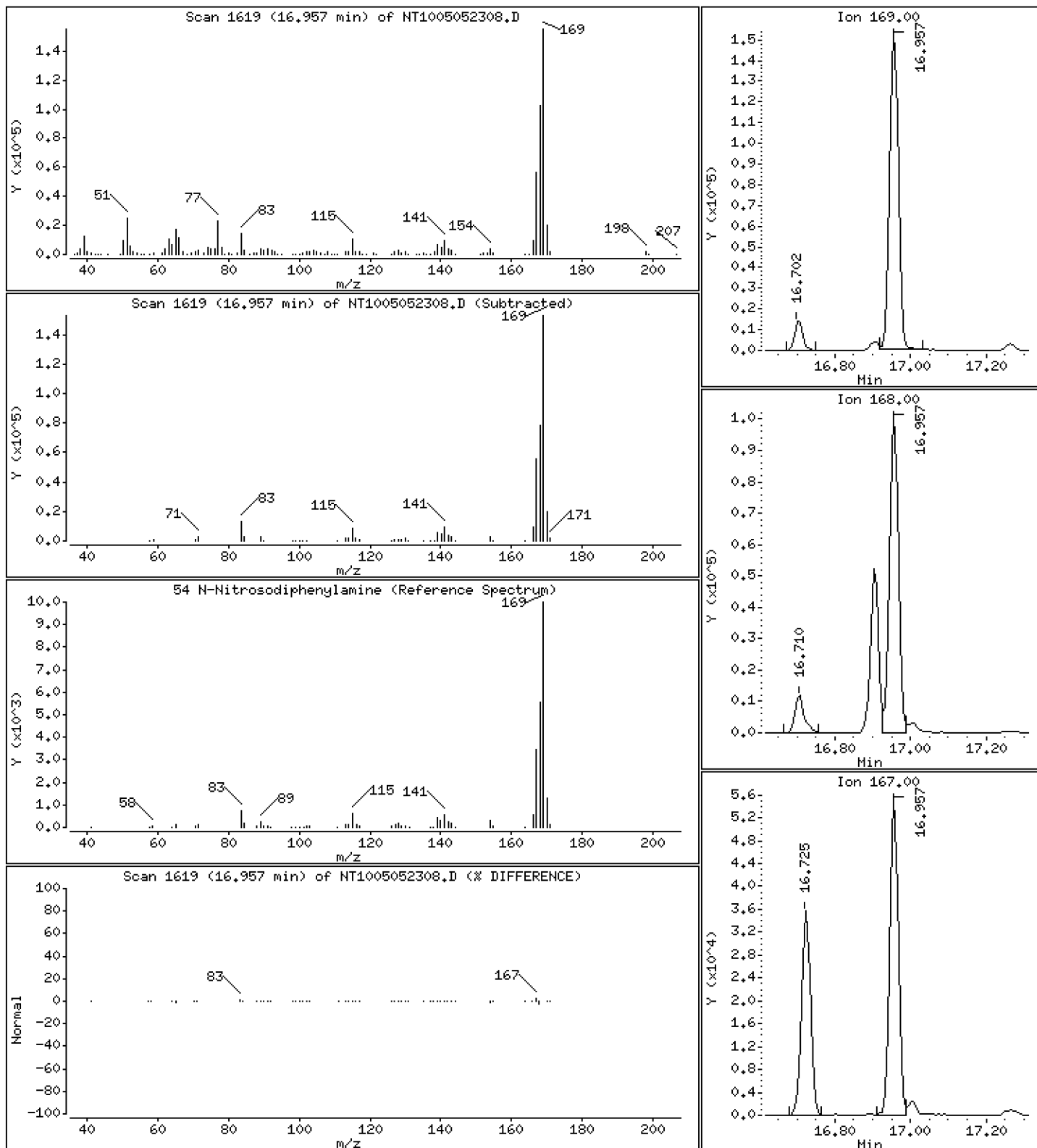
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 3,106 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

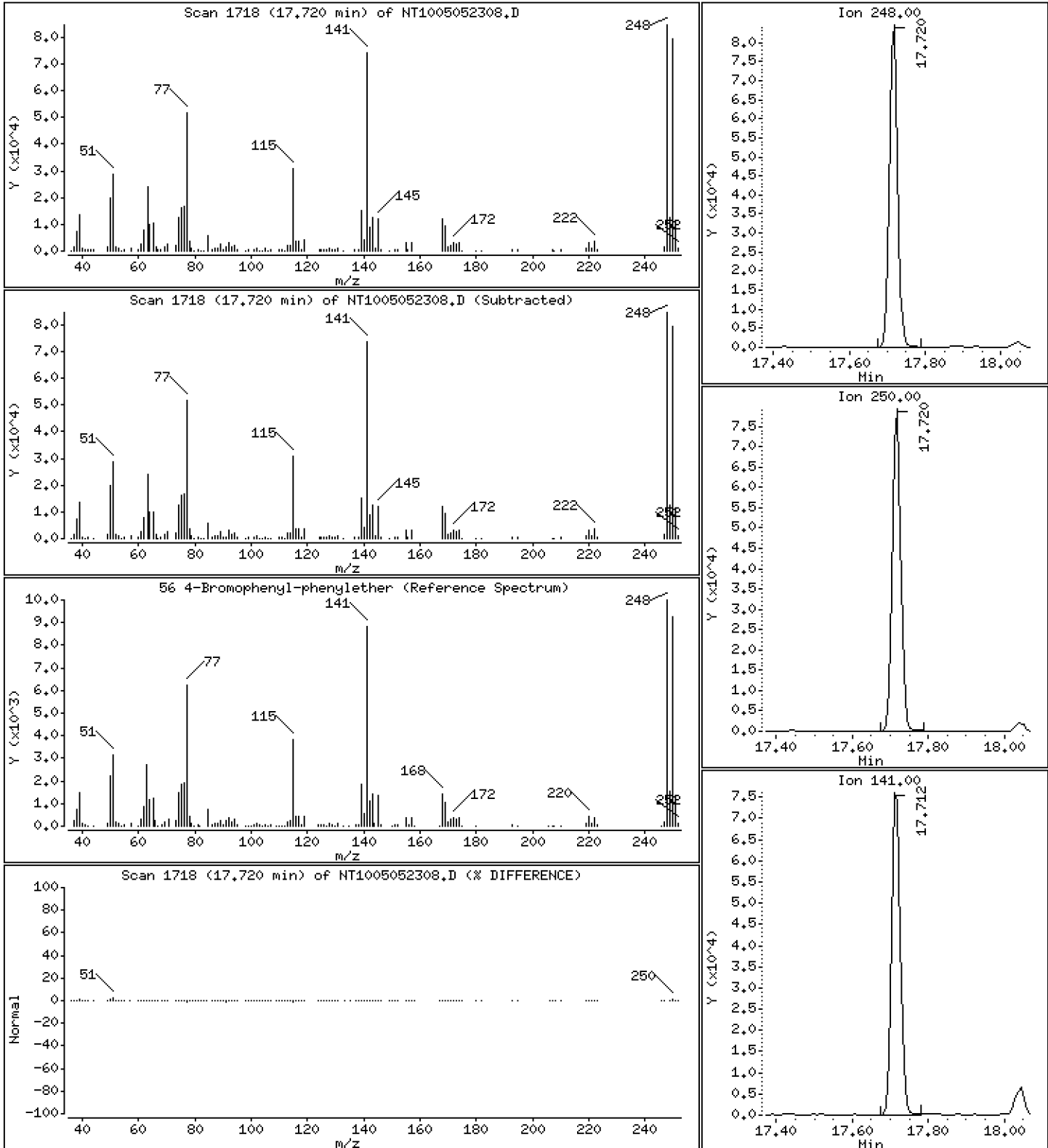
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 3,678 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

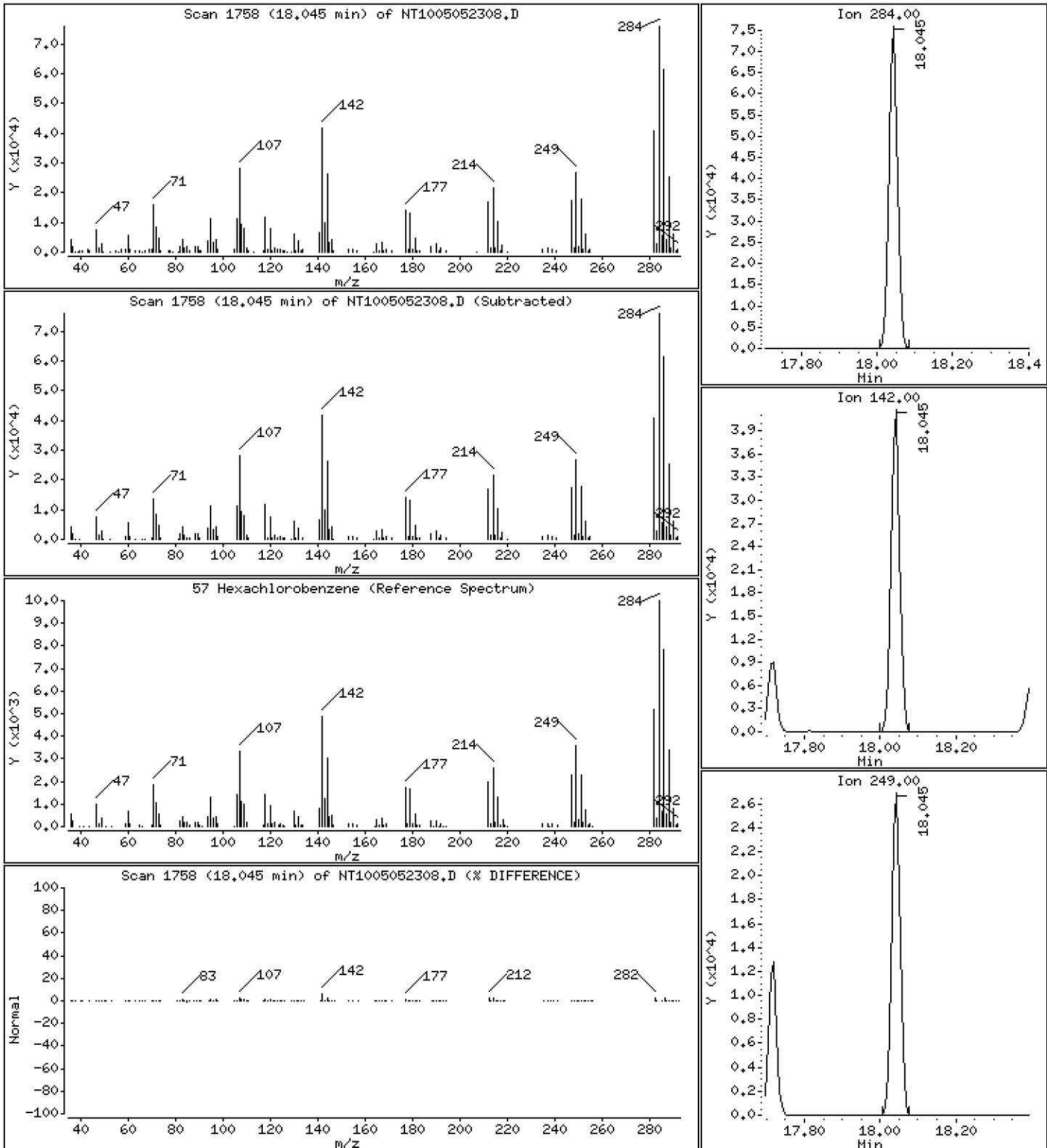
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 3,274 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

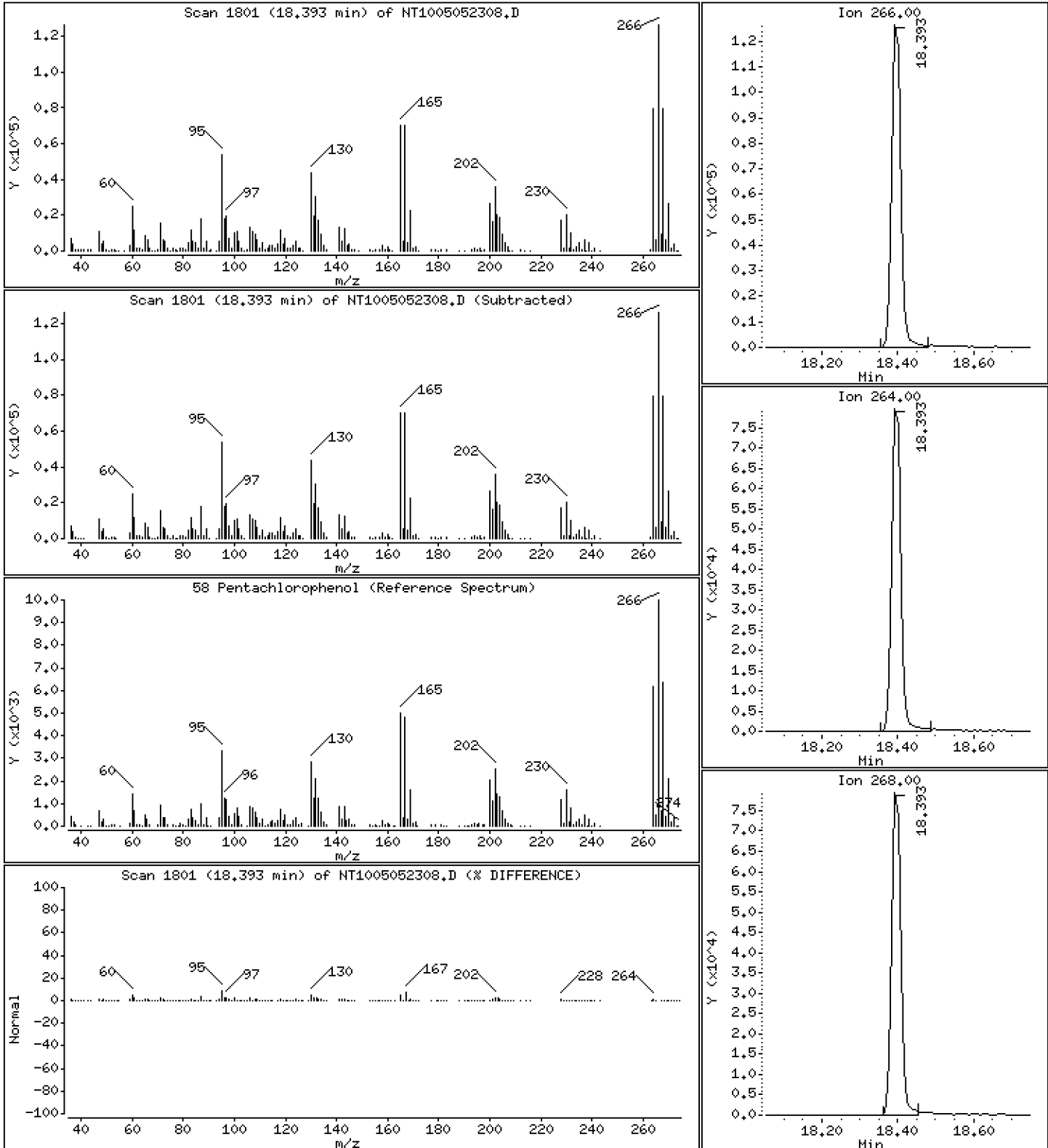
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 7,820 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

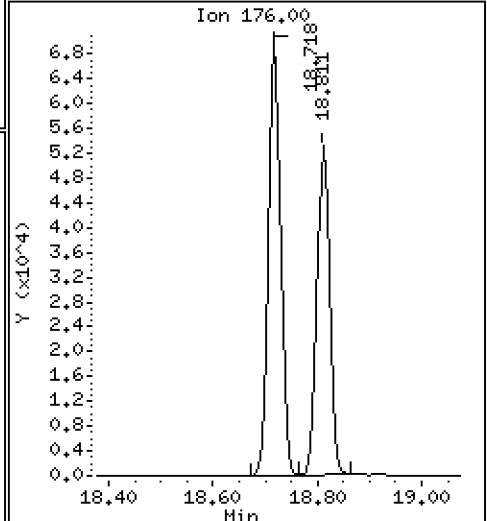
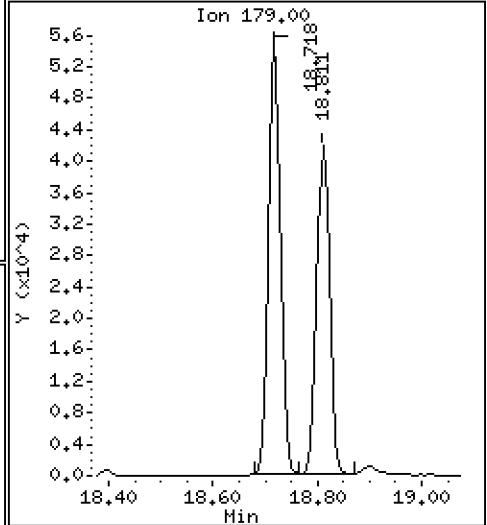
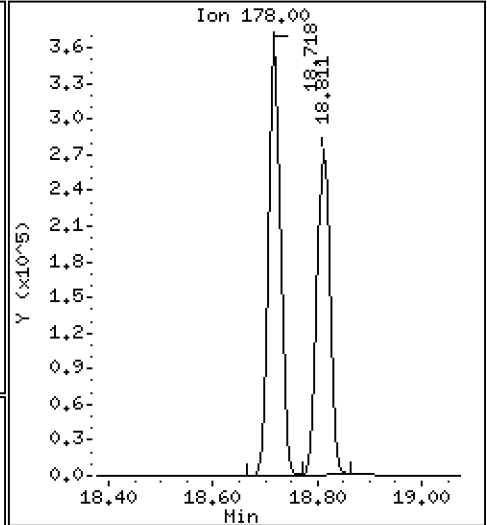
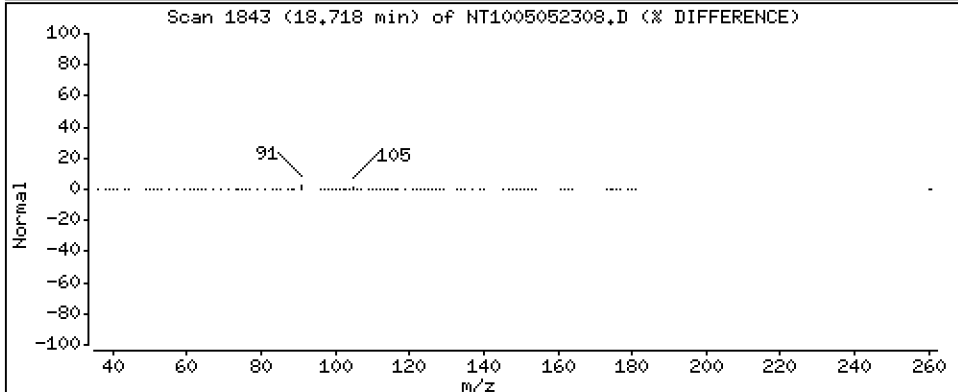
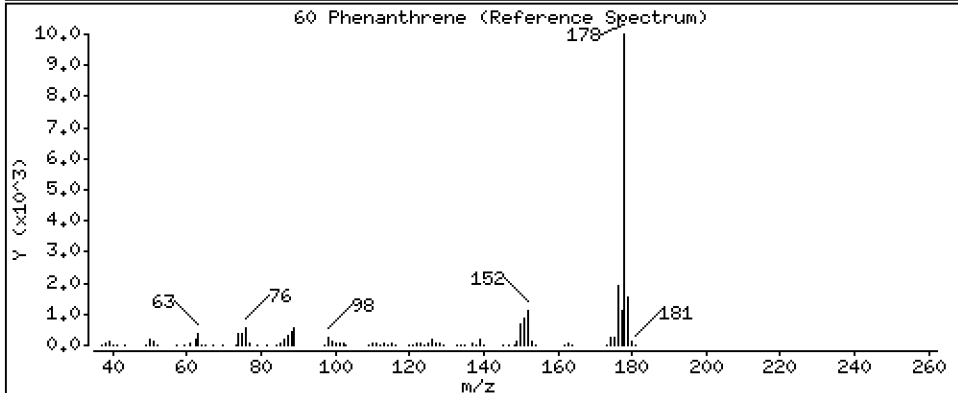
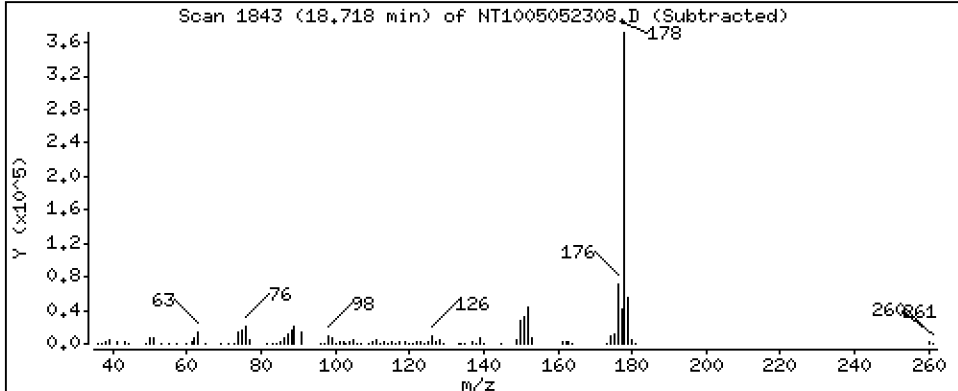
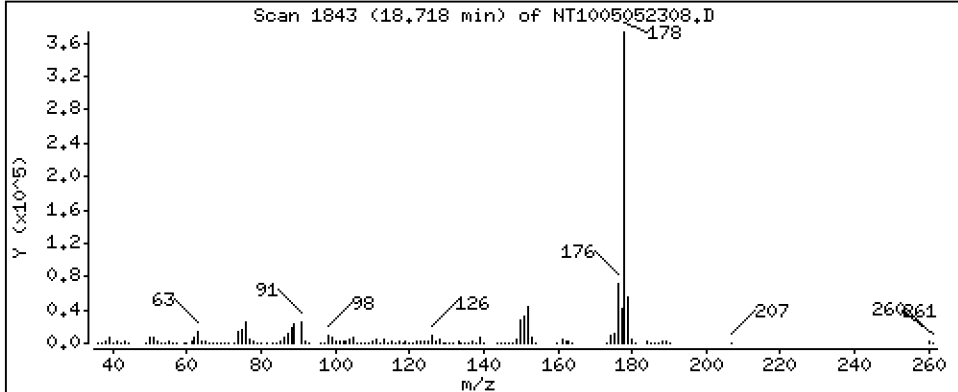
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 3,409 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

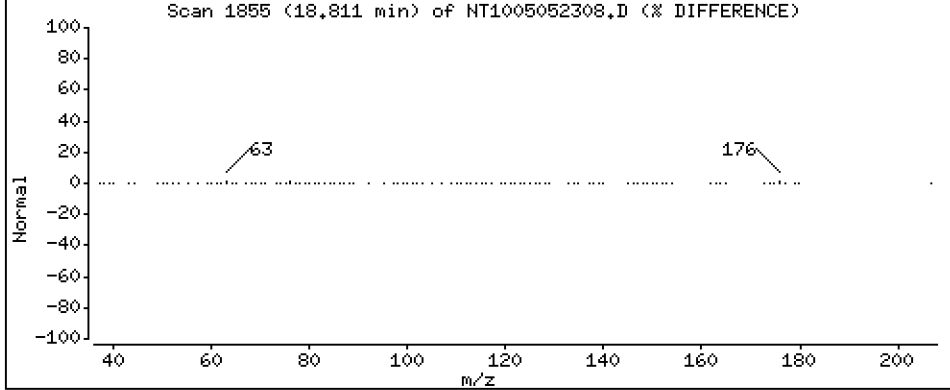
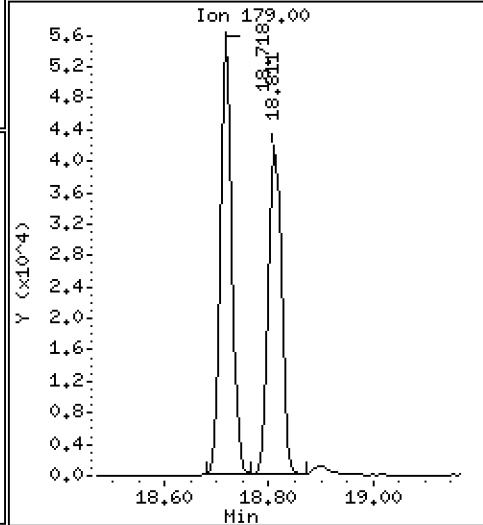
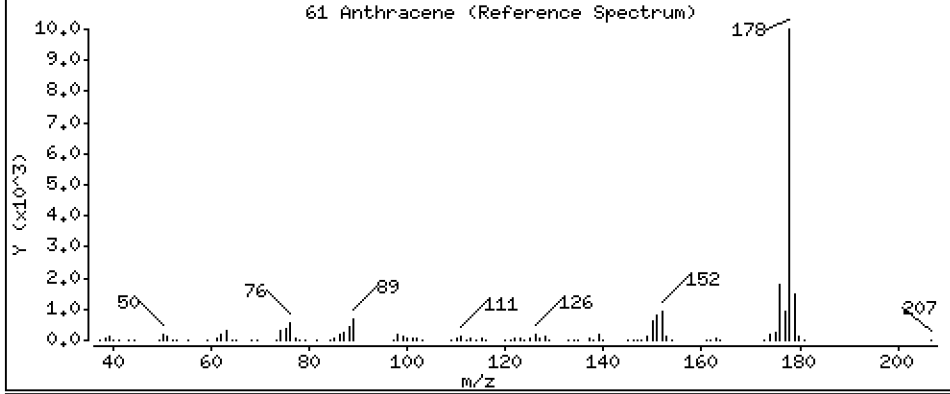
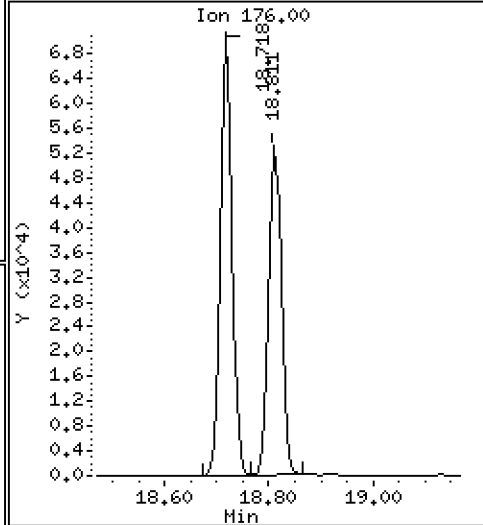
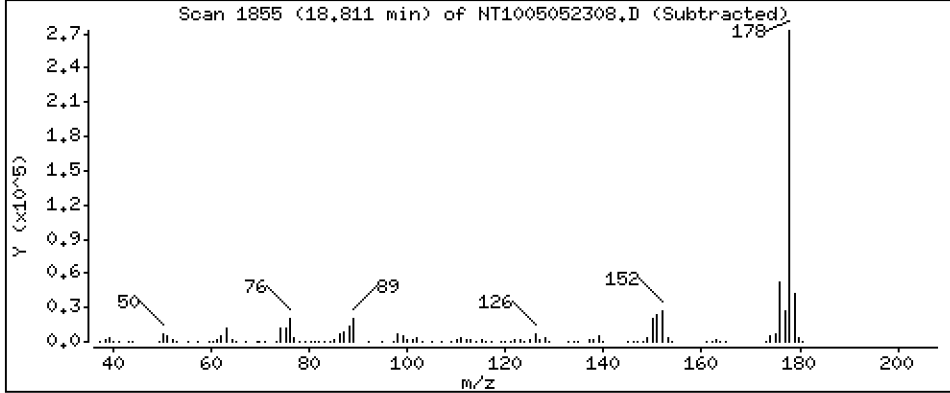
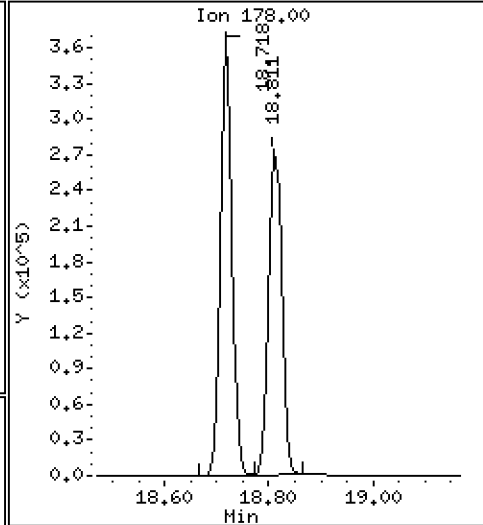
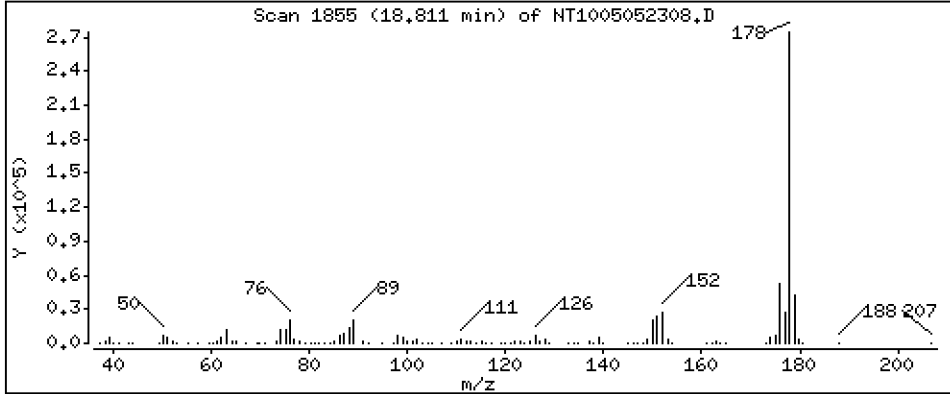
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 2,953 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

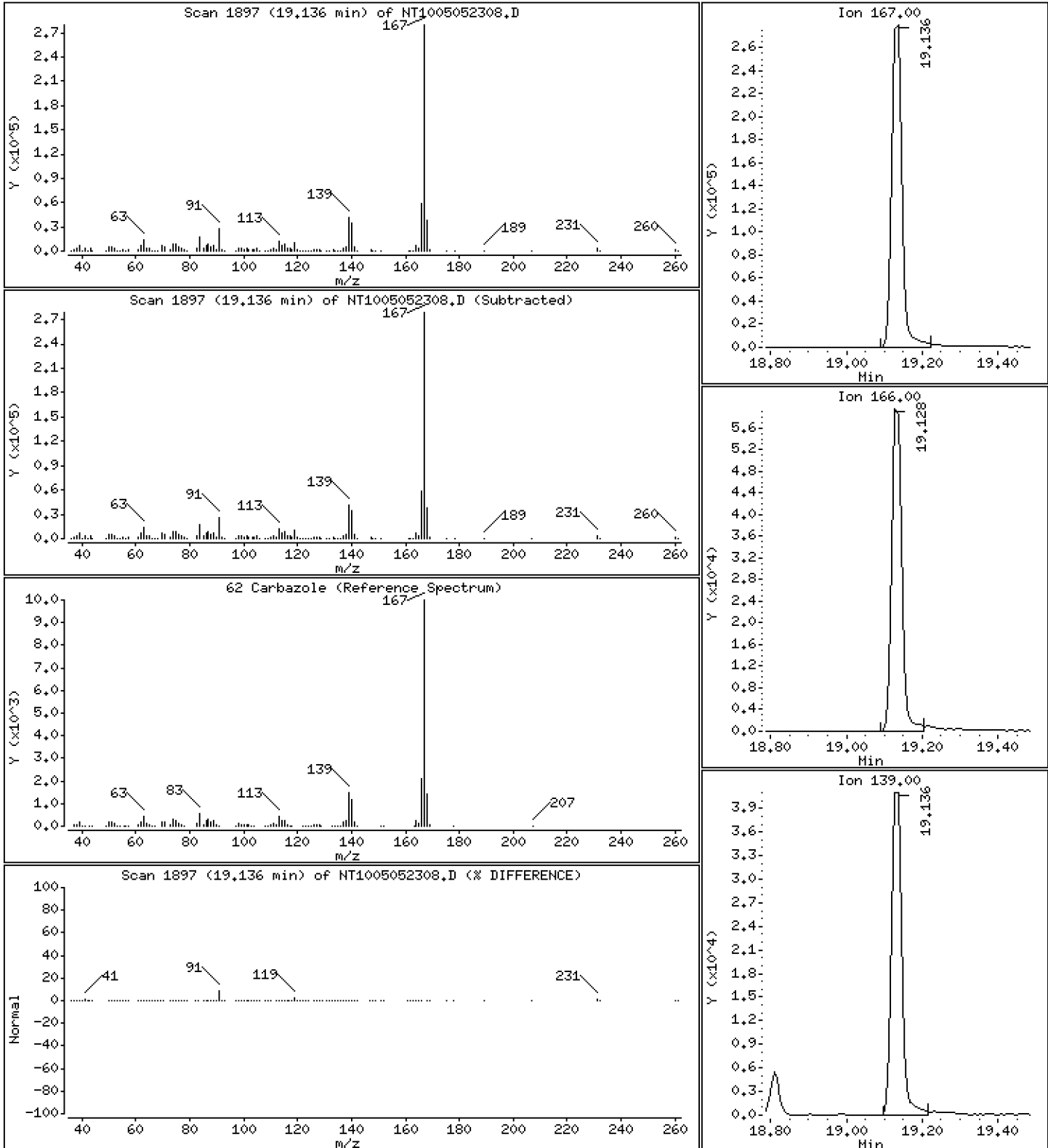
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 3,629 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

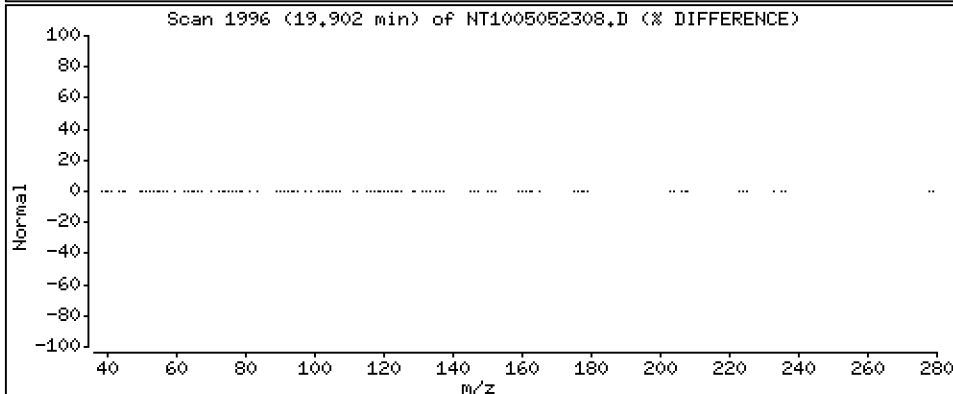
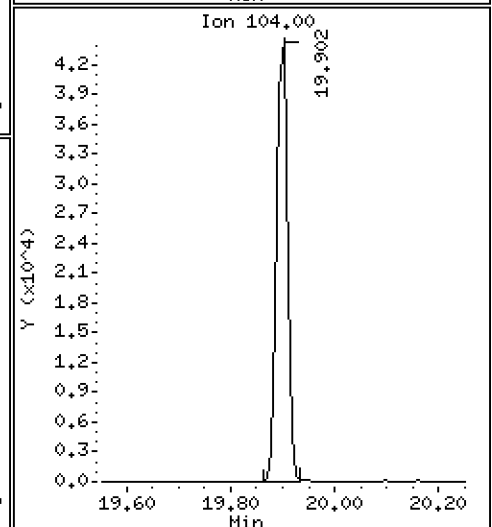
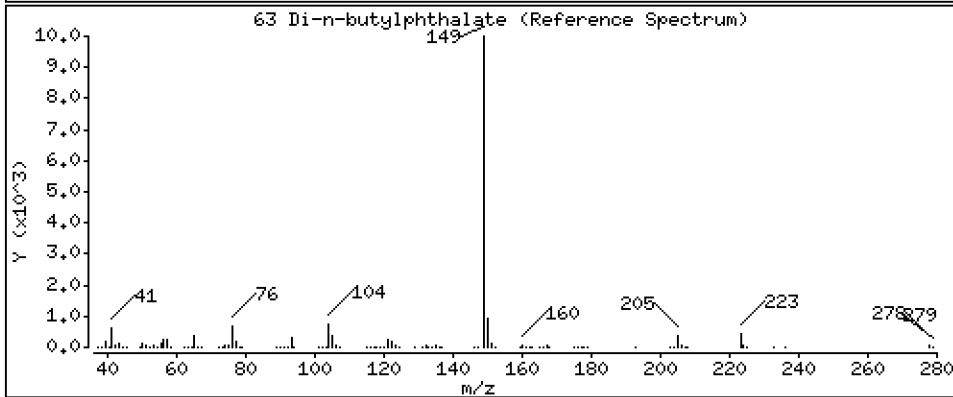
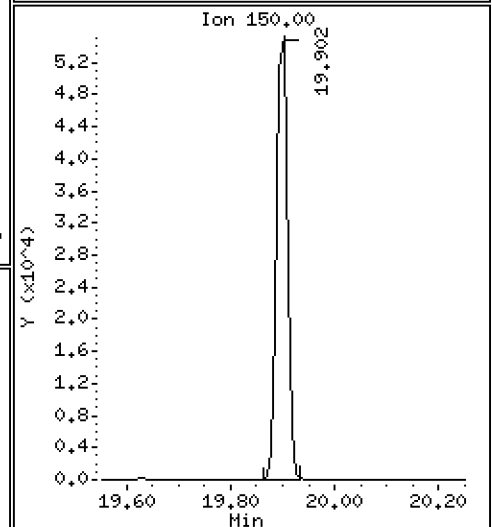
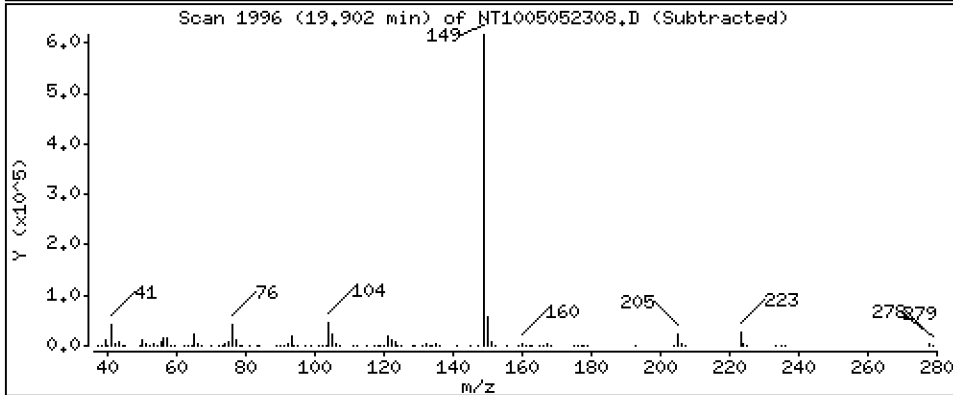
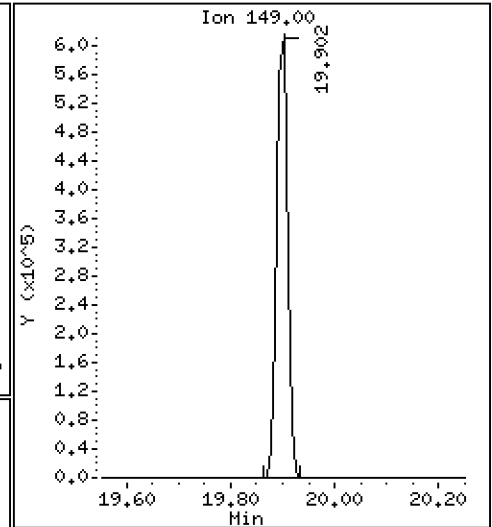
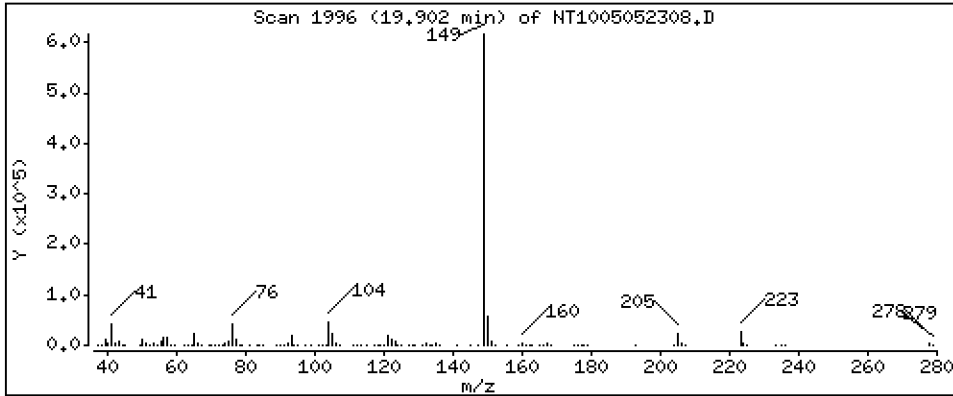
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 3,990 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

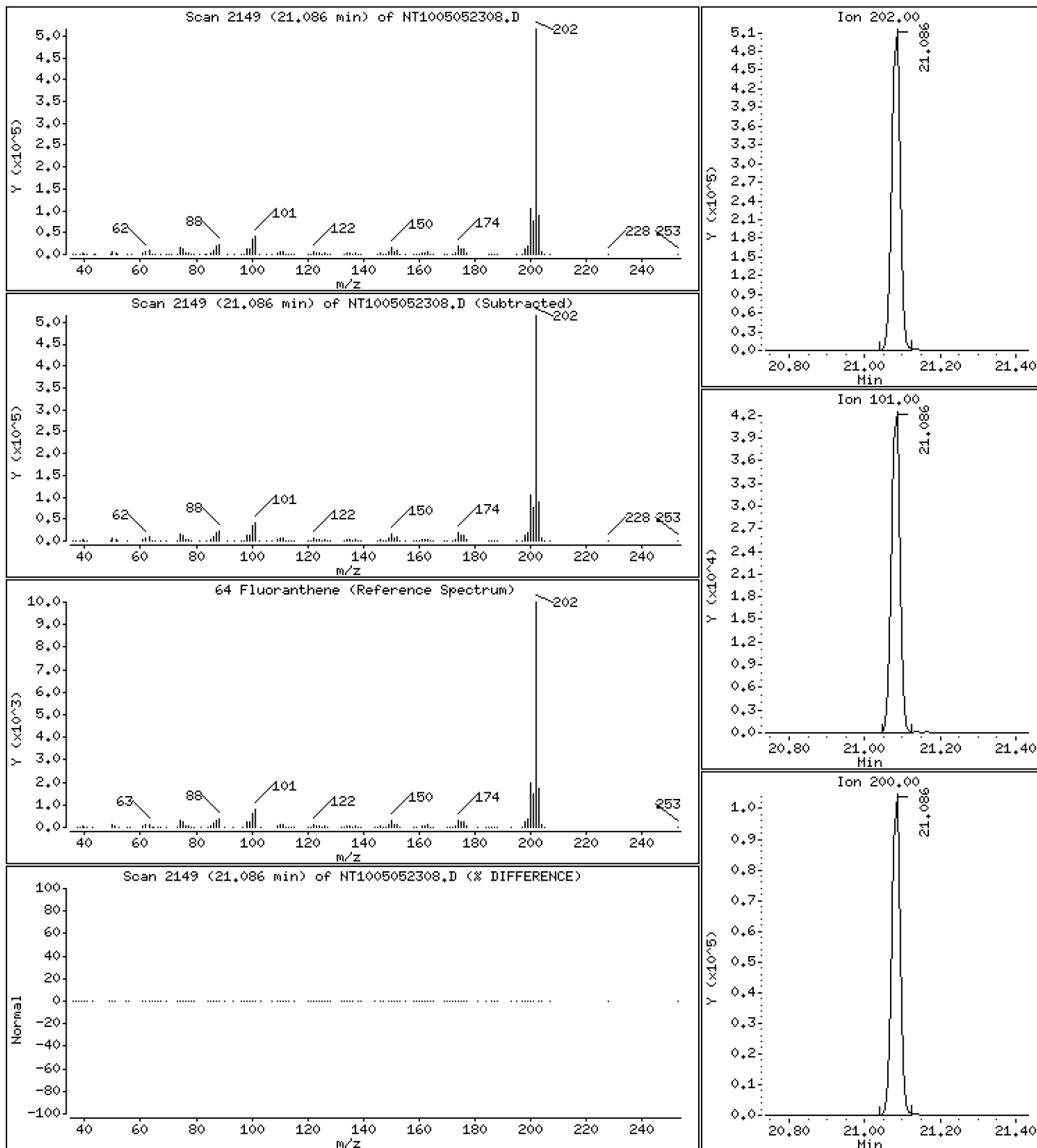
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 3,542 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

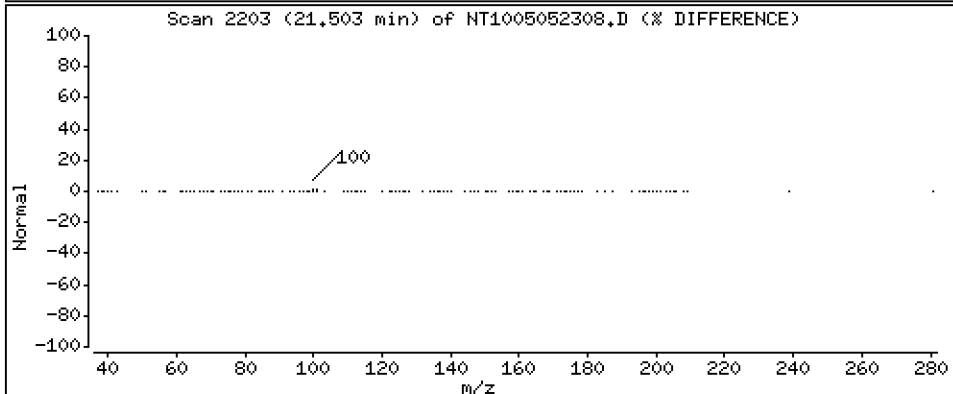
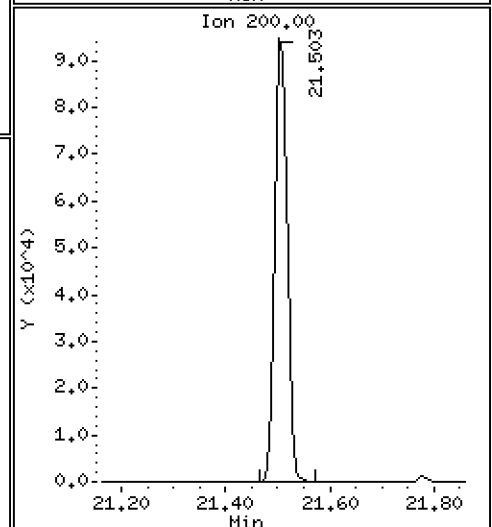
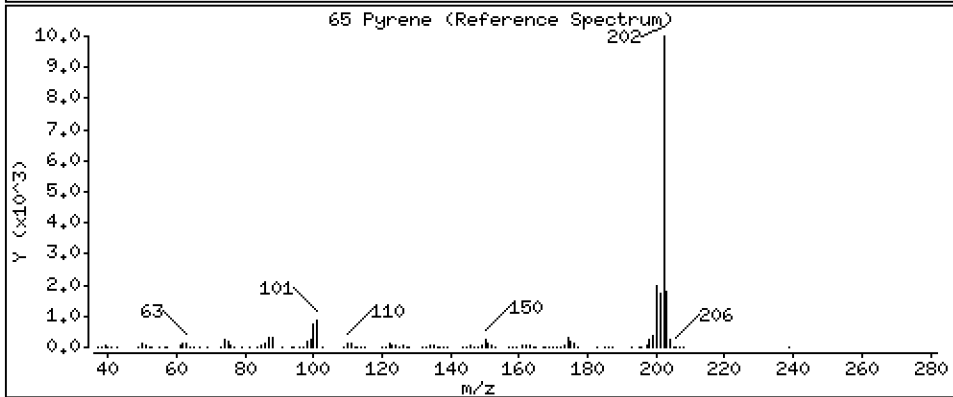
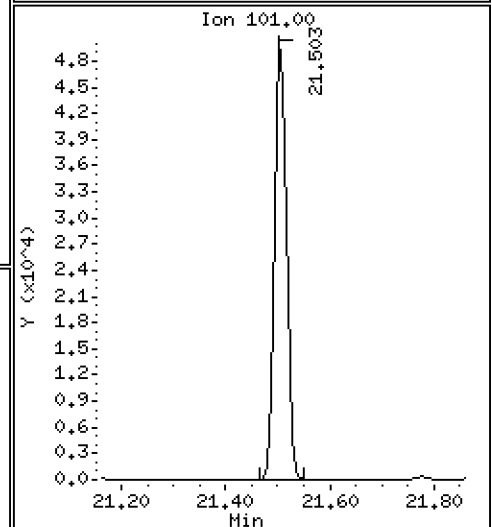
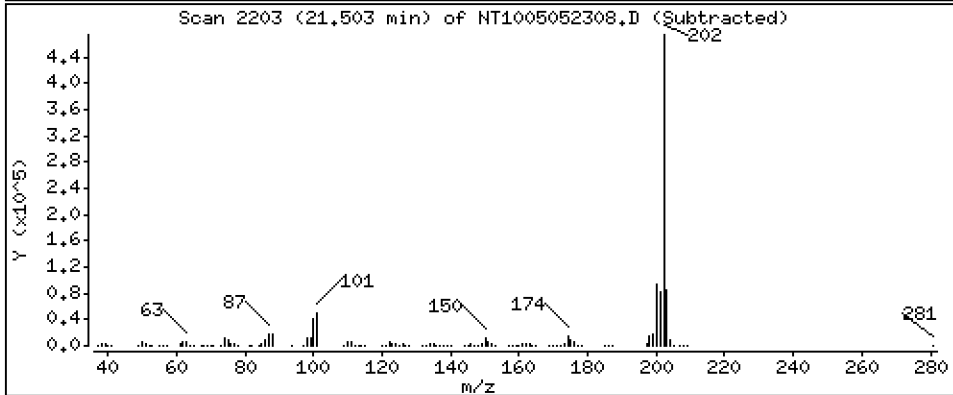
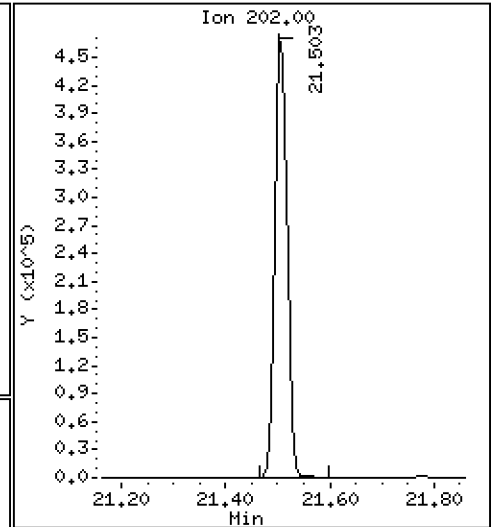
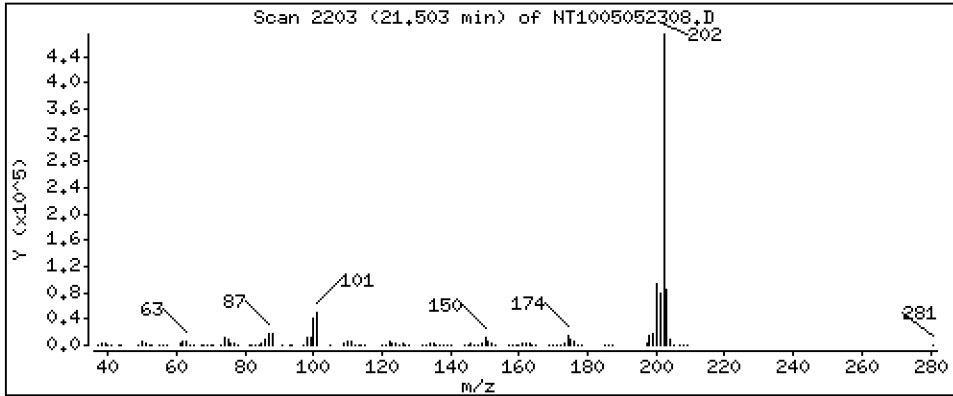
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 3,529 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

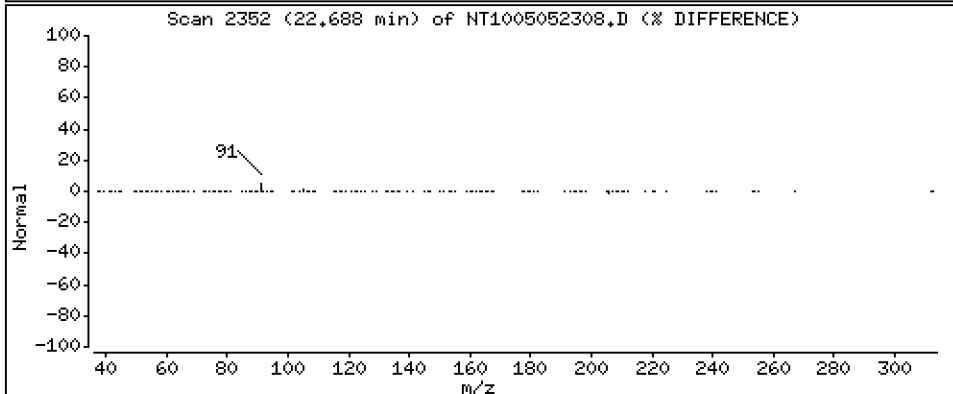
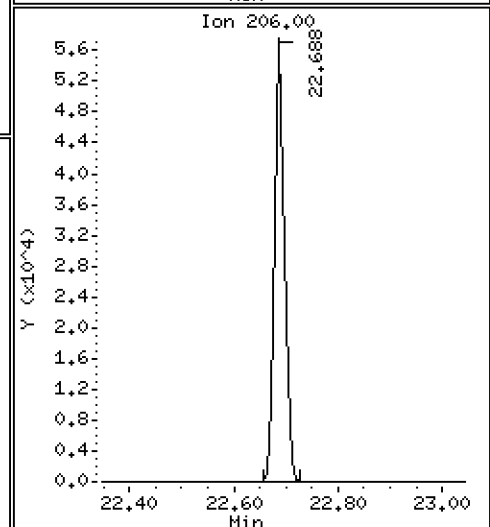
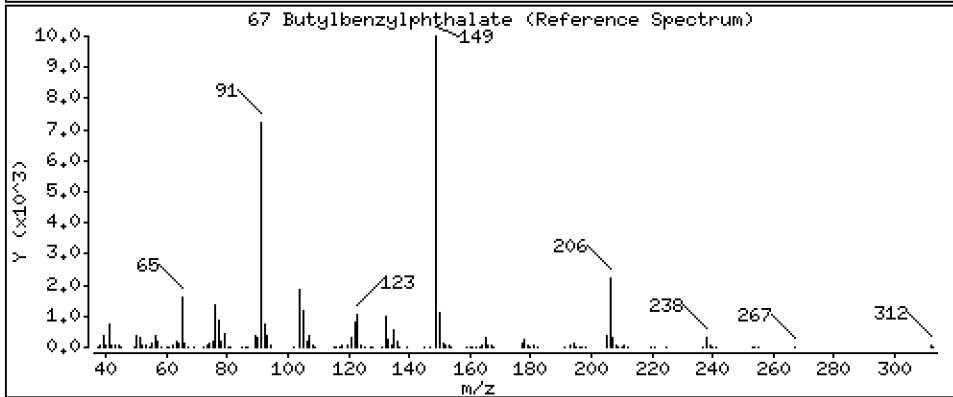
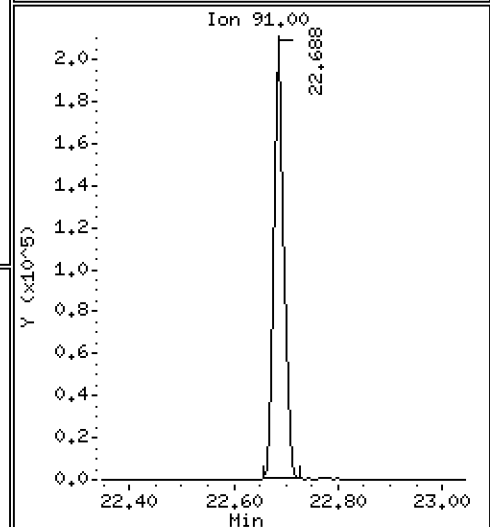
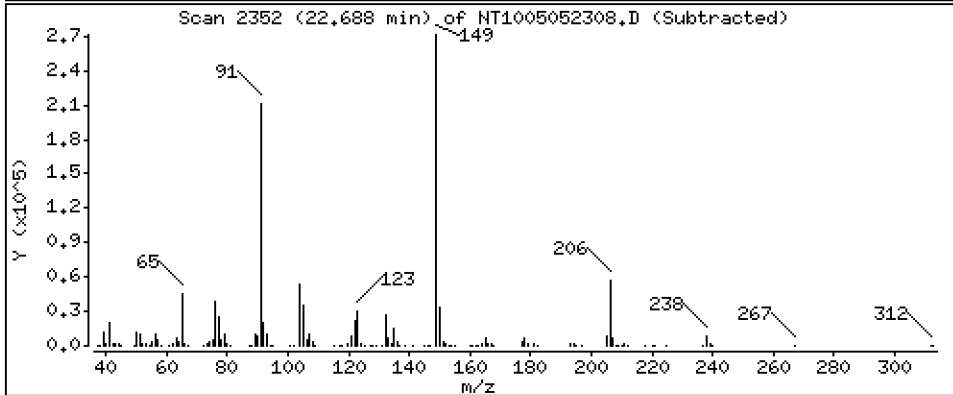
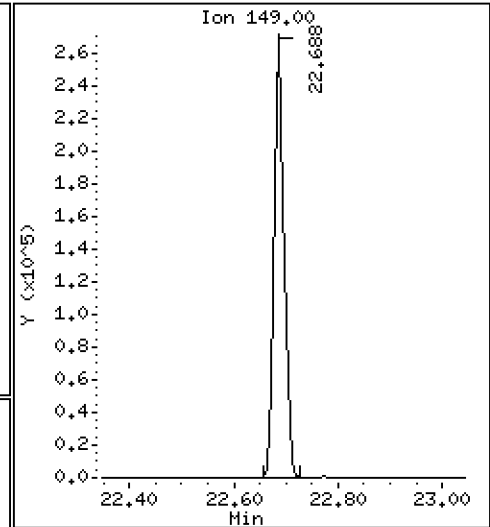
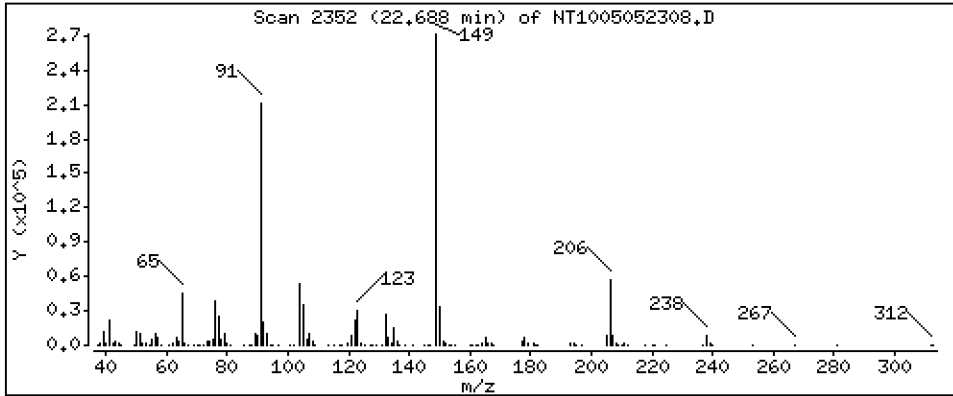
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 3,671 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

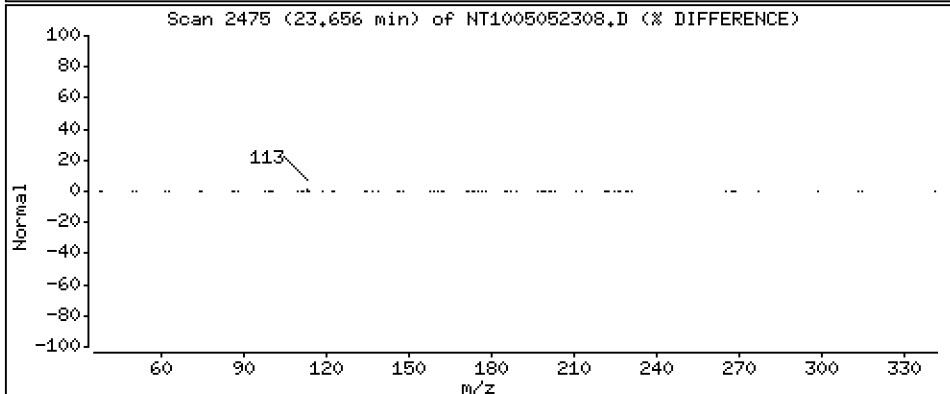
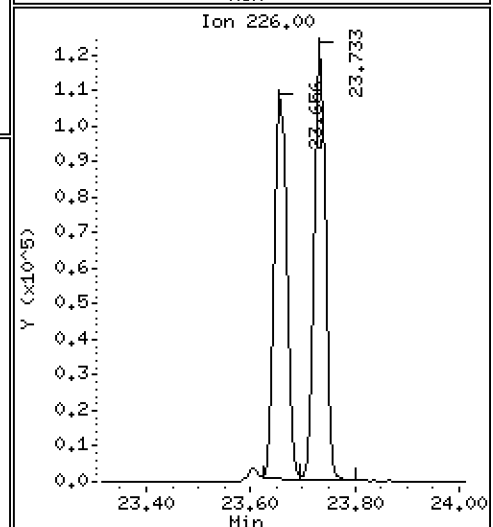
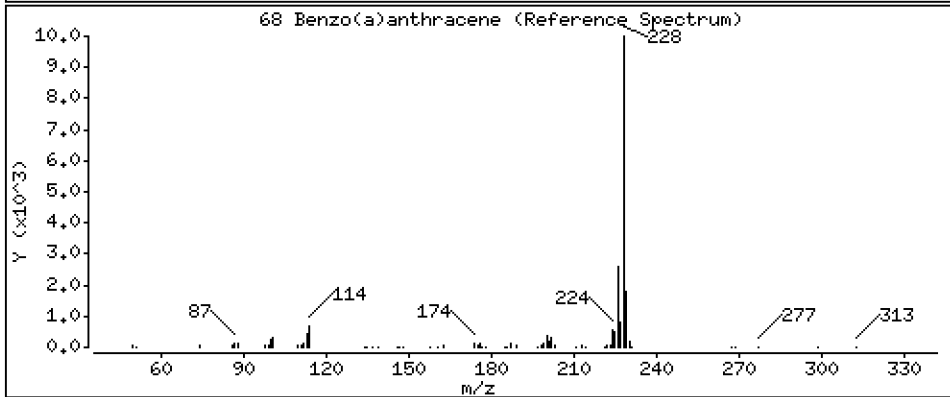
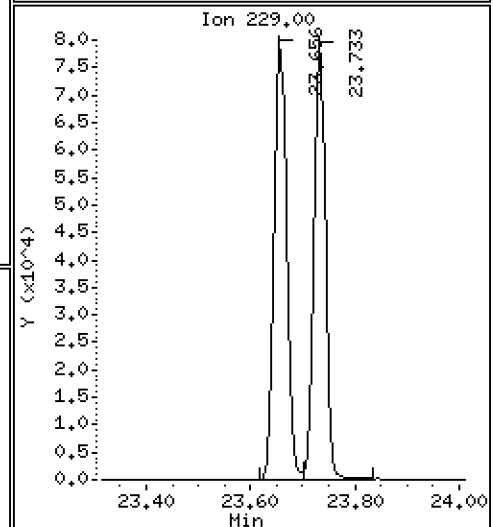
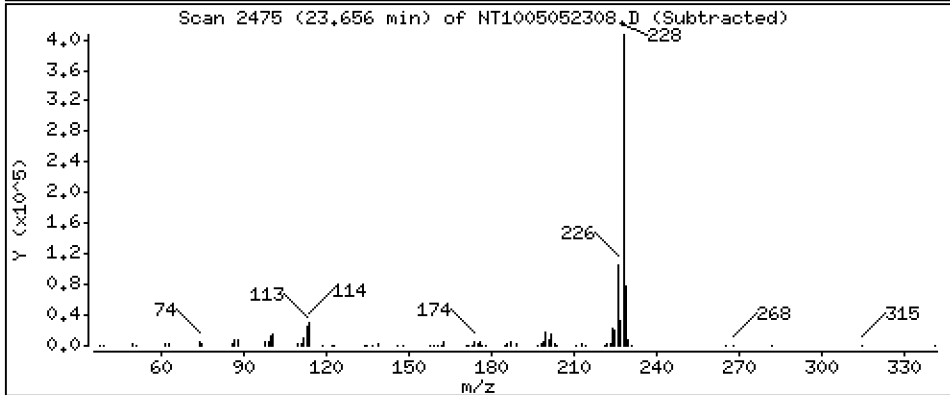
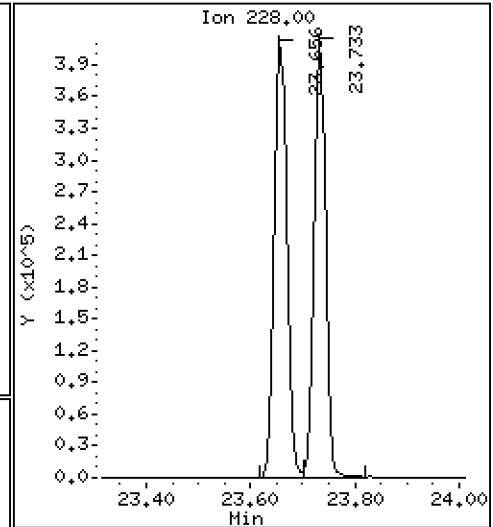
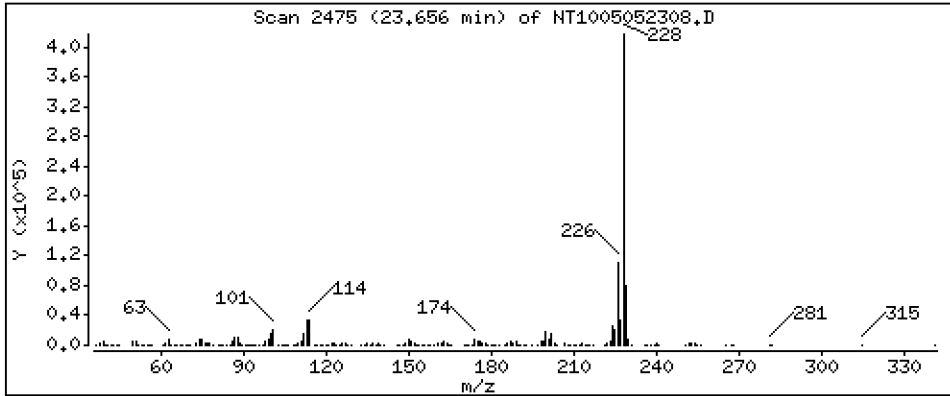
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 3,546 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

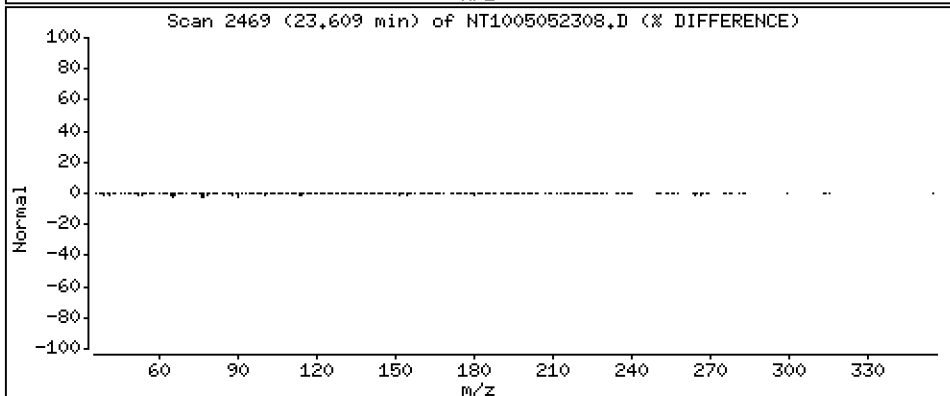
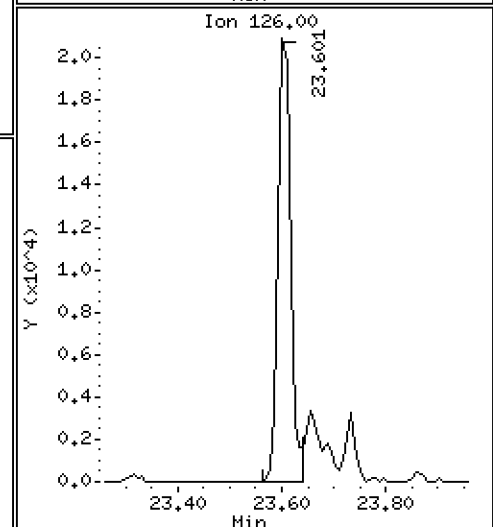
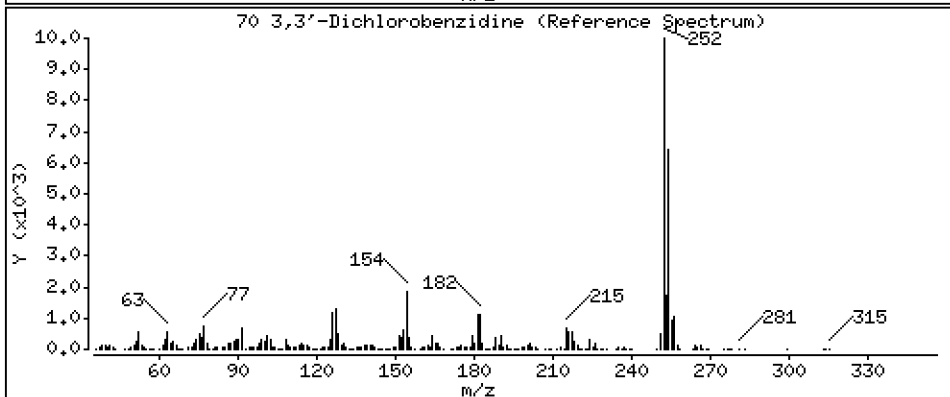
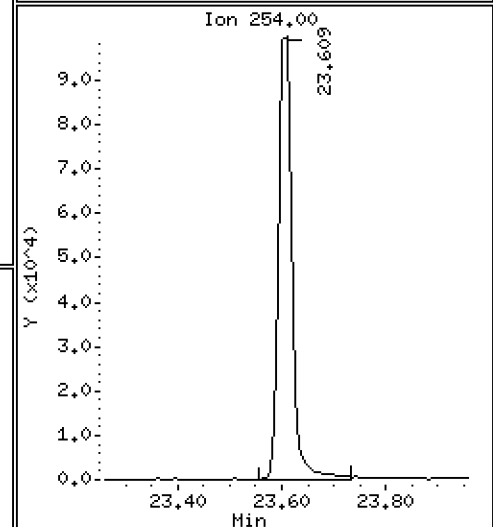
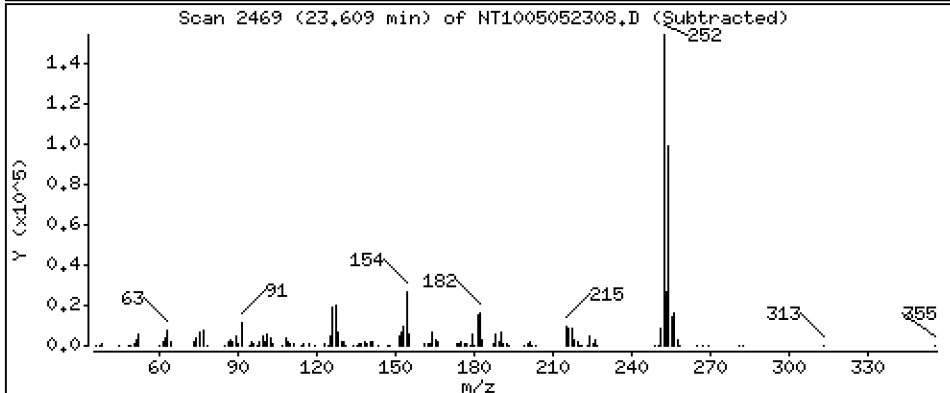
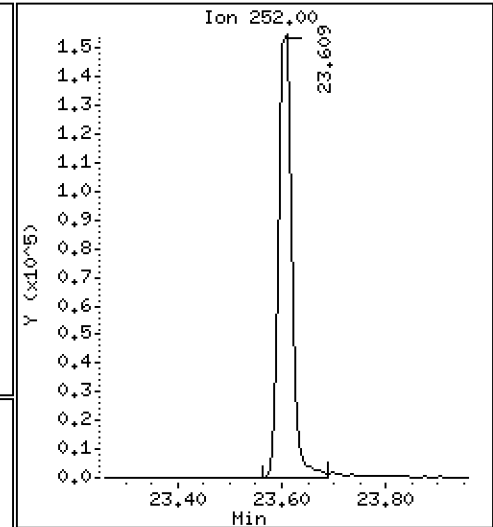
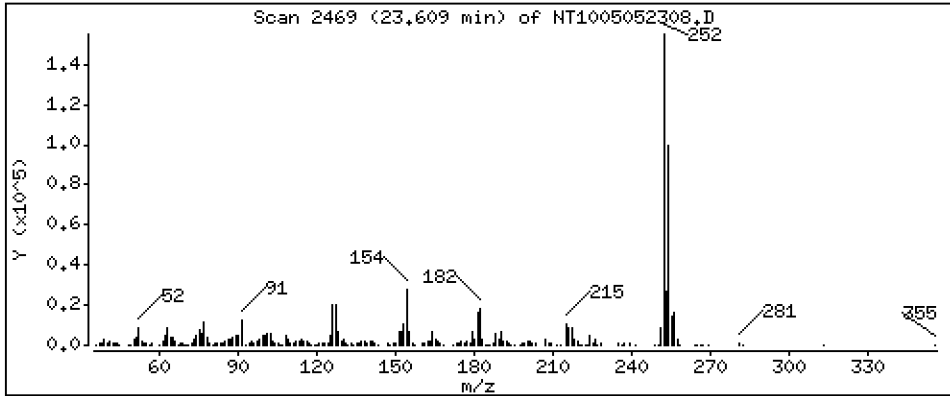
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 4,516 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

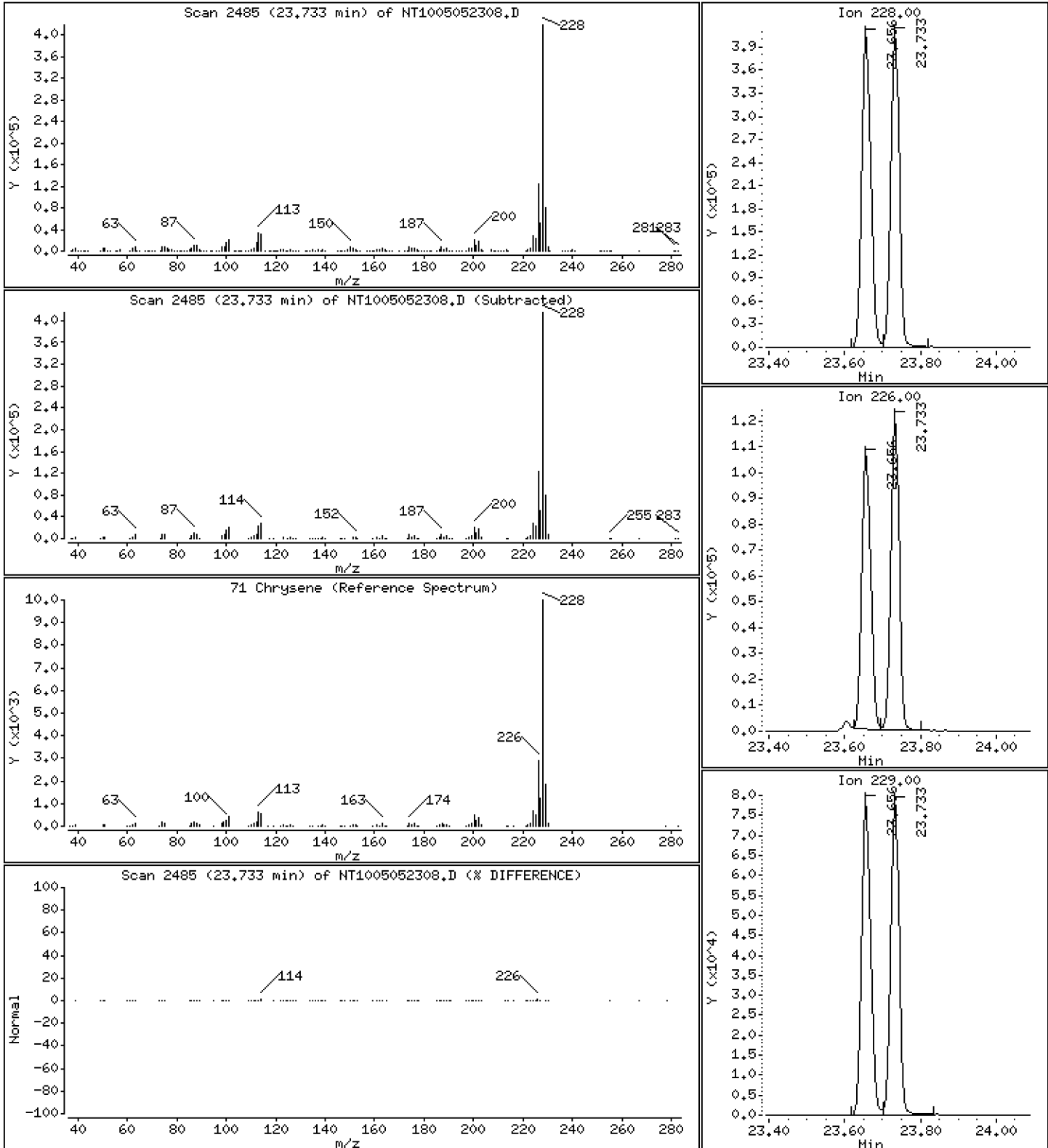
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 3,548 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

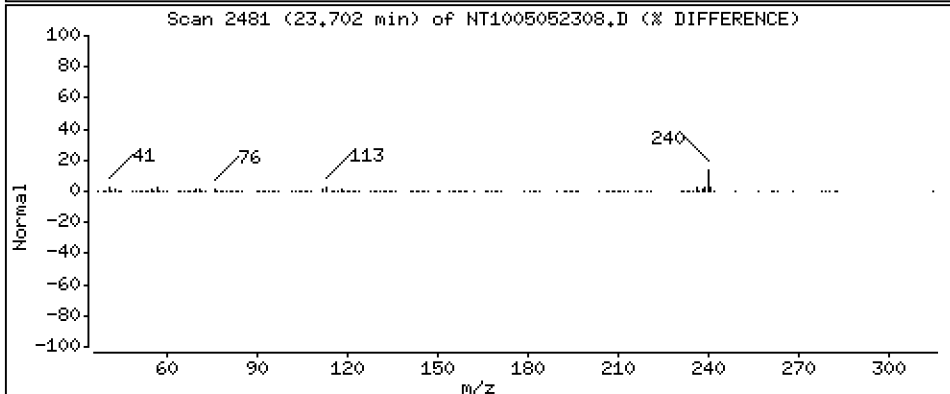
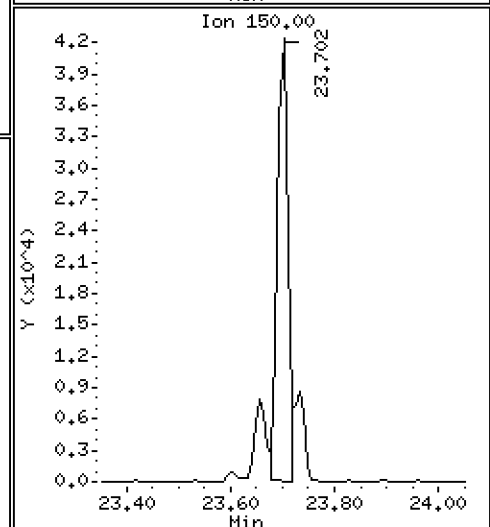
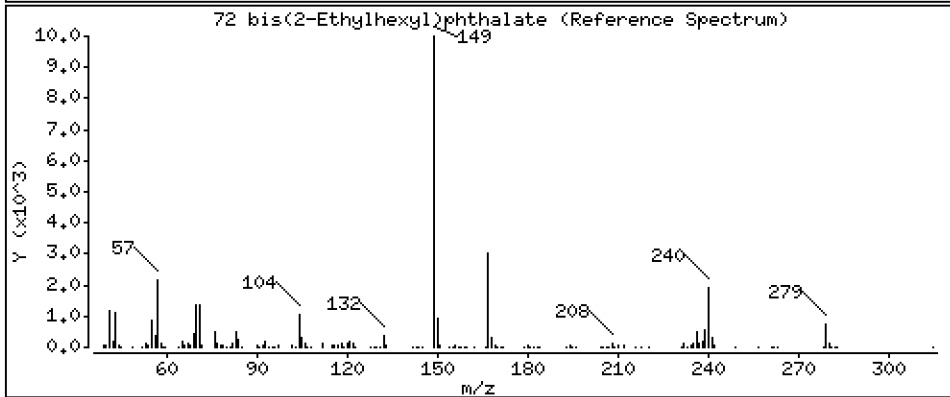
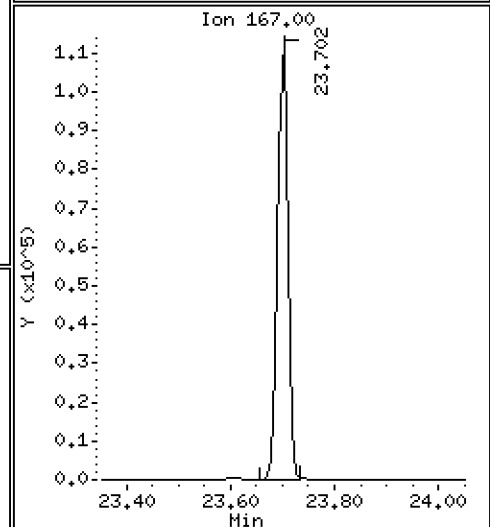
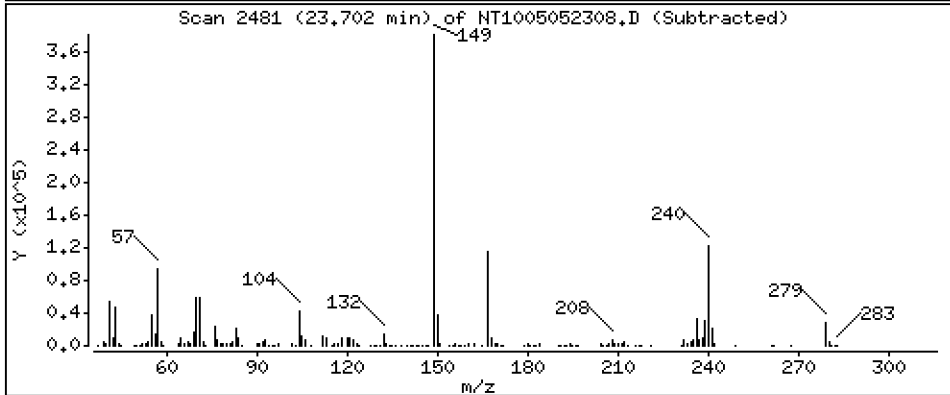
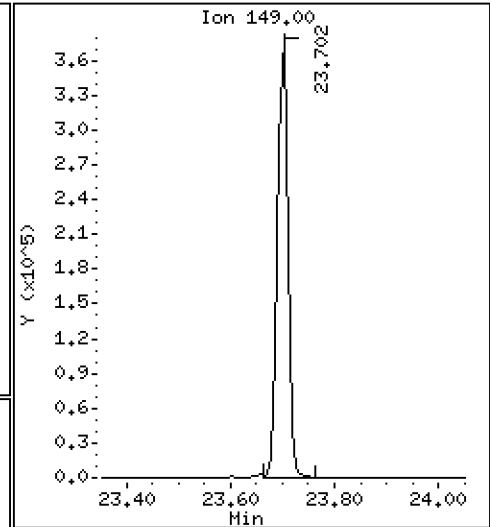
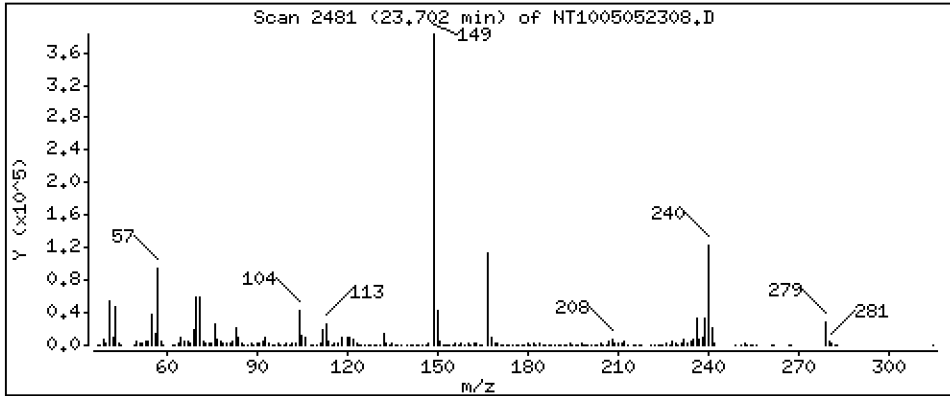
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,082 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

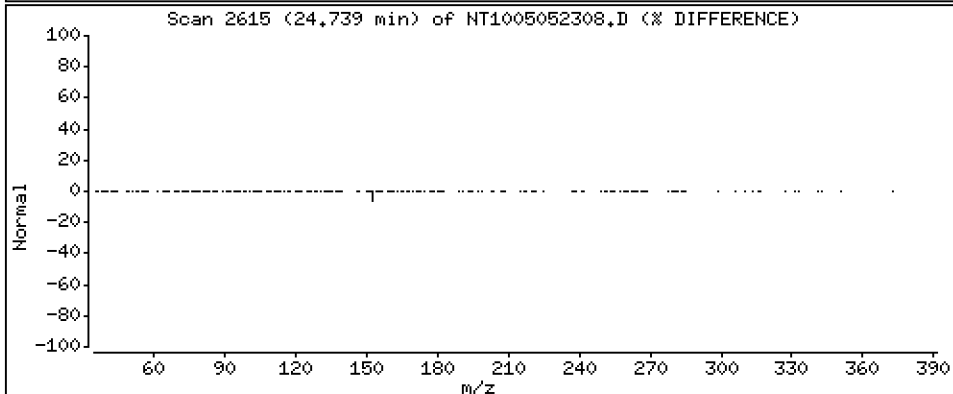
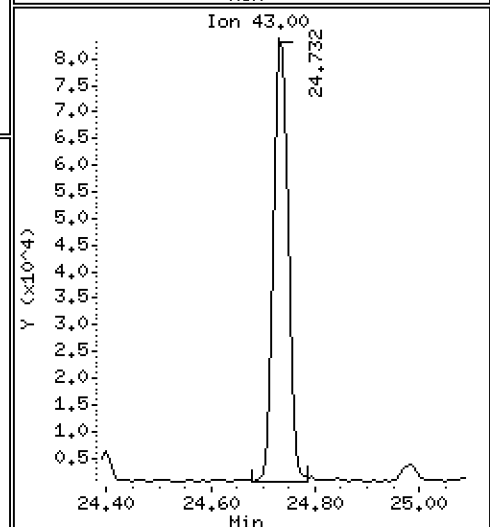
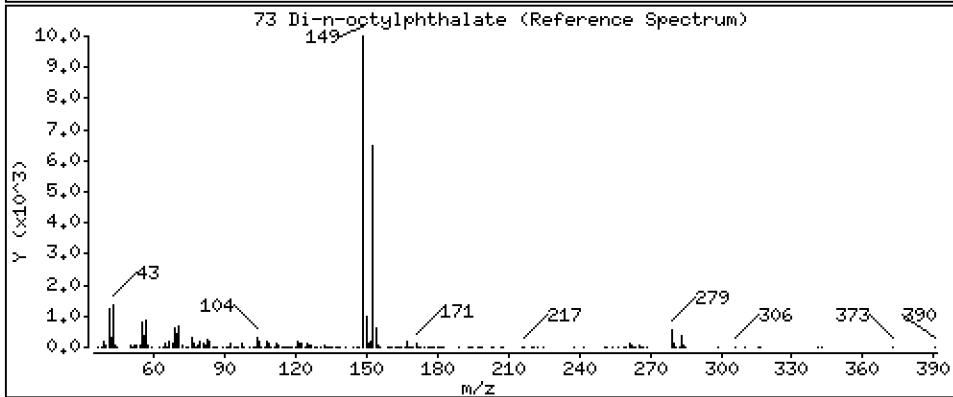
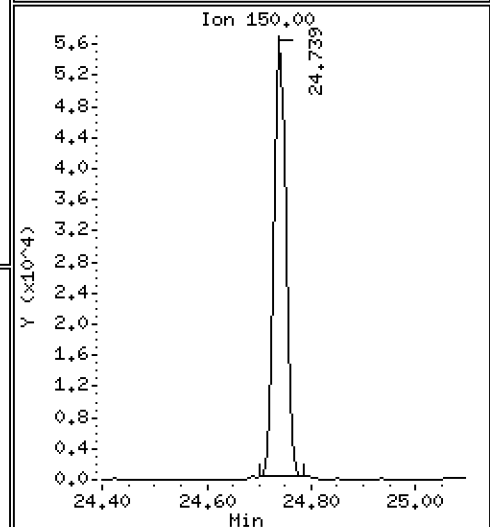
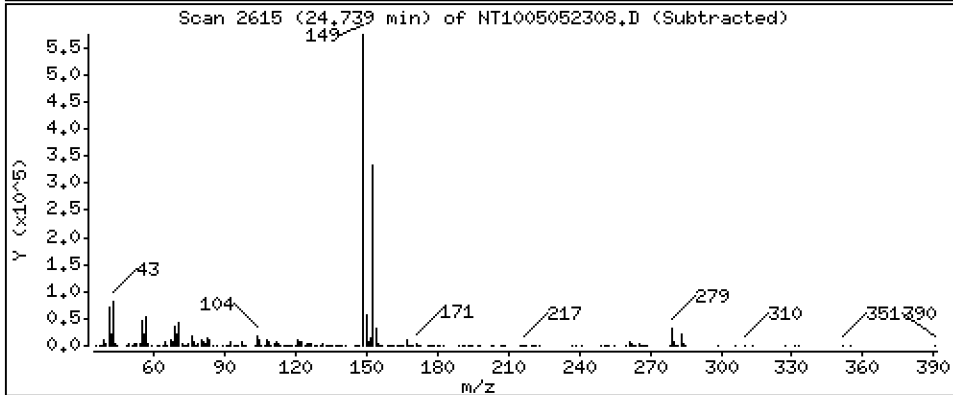
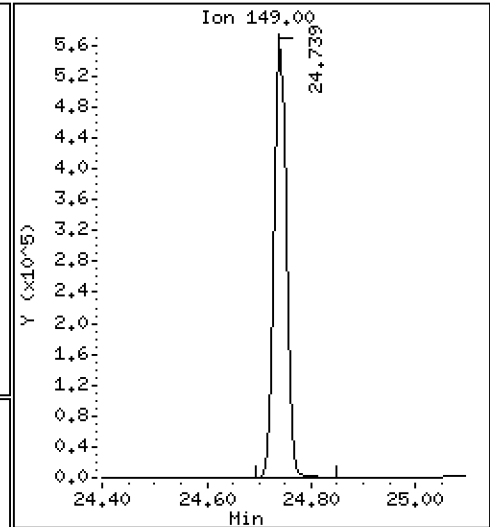
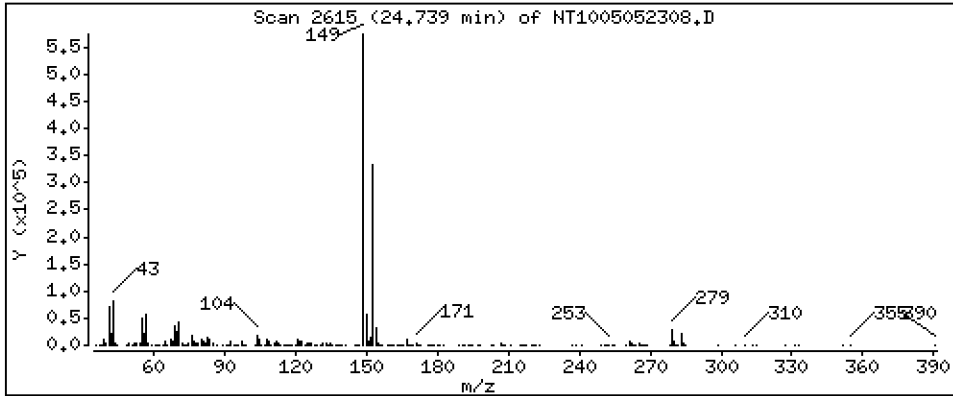
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 3,981 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

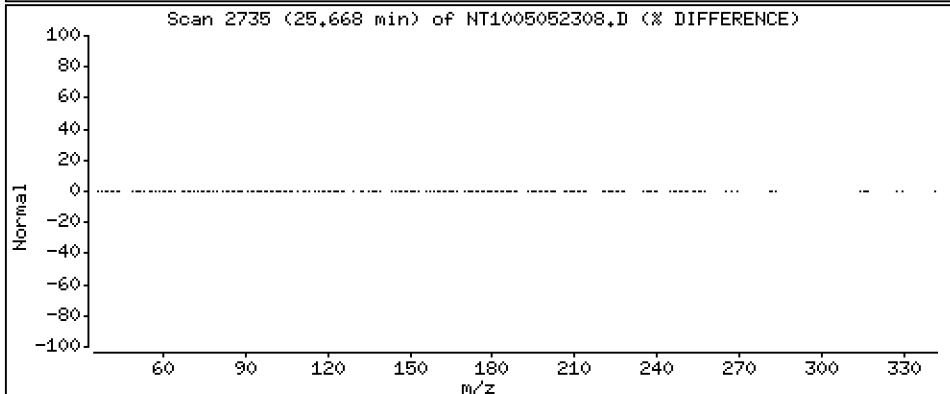
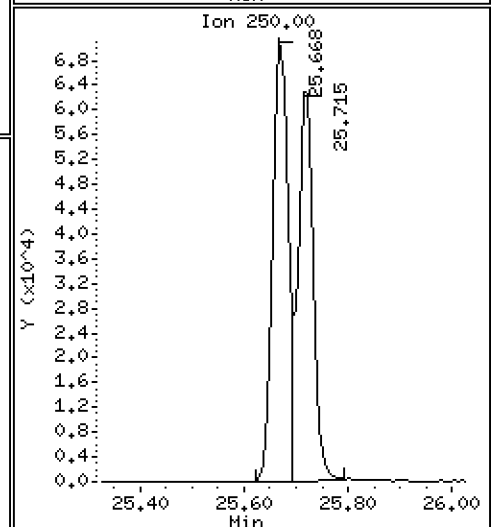
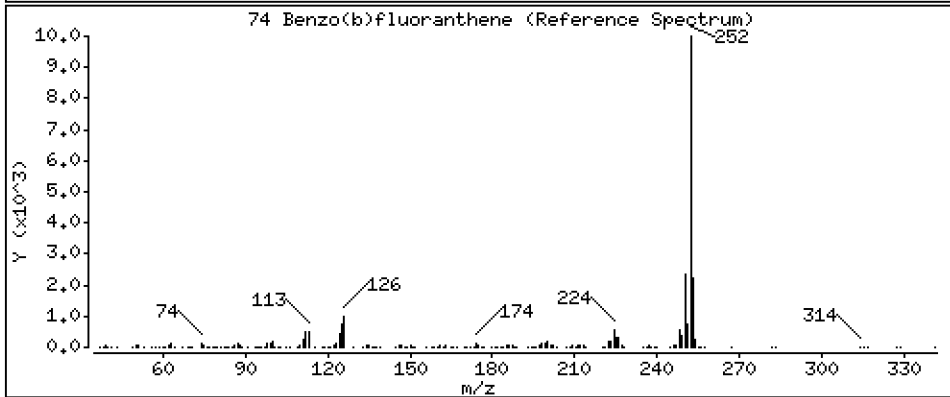
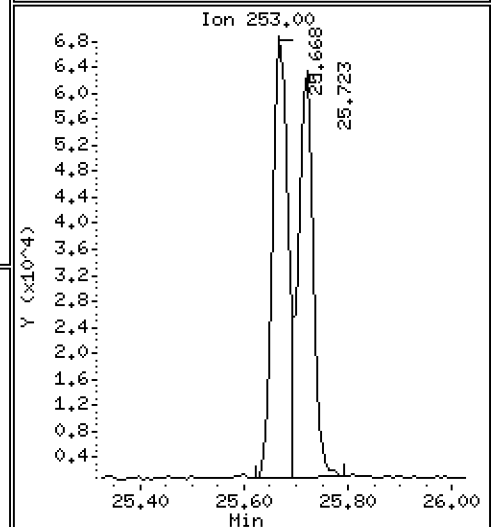
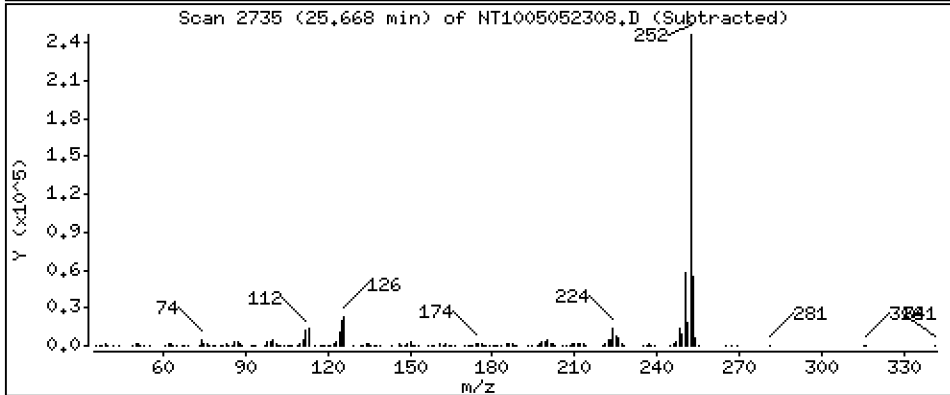
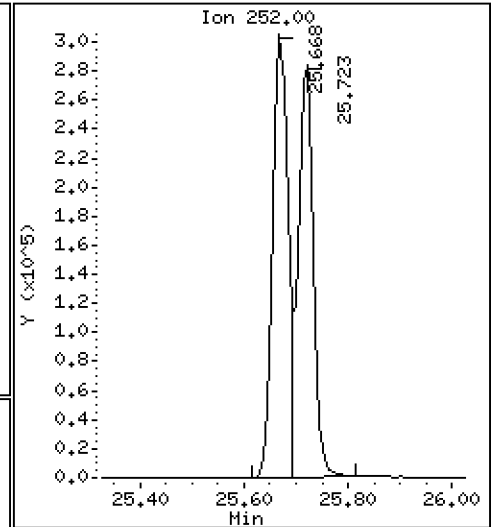
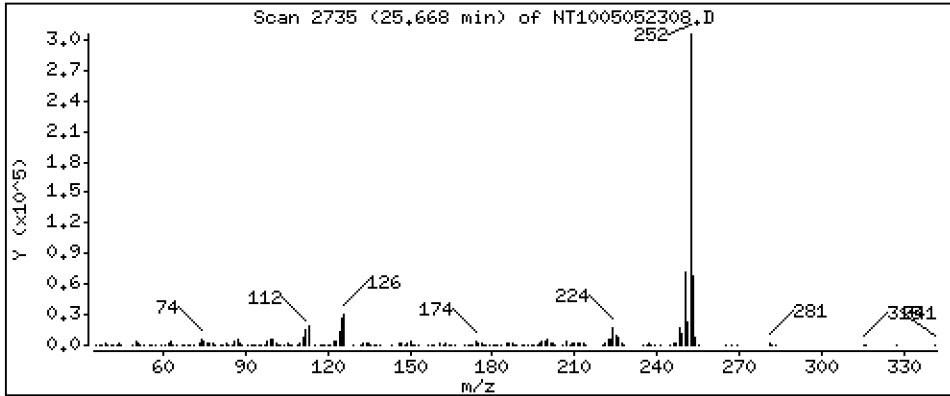
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 3,613 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

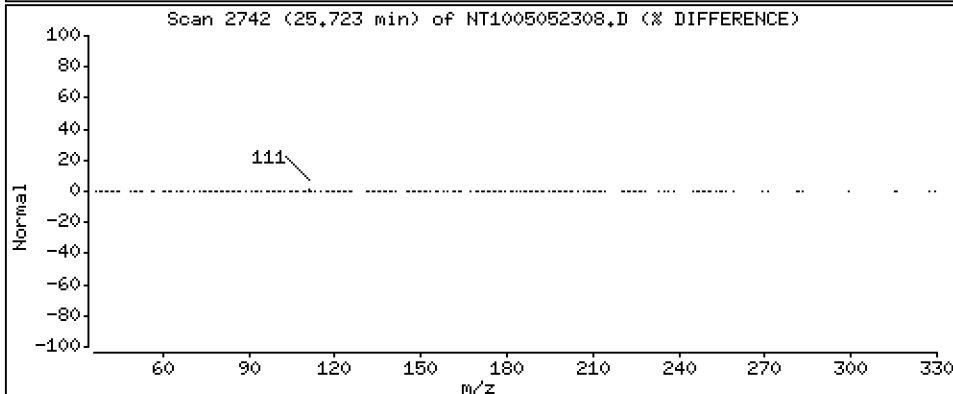
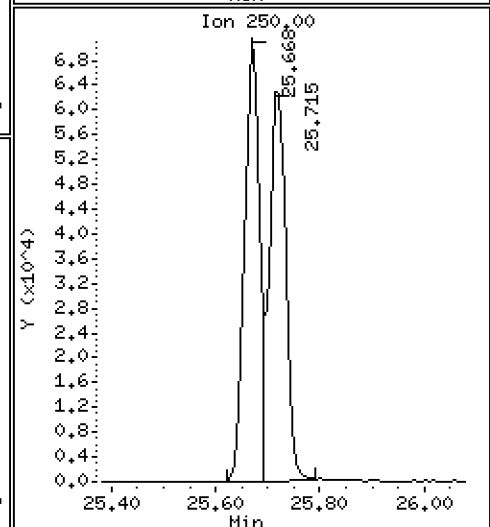
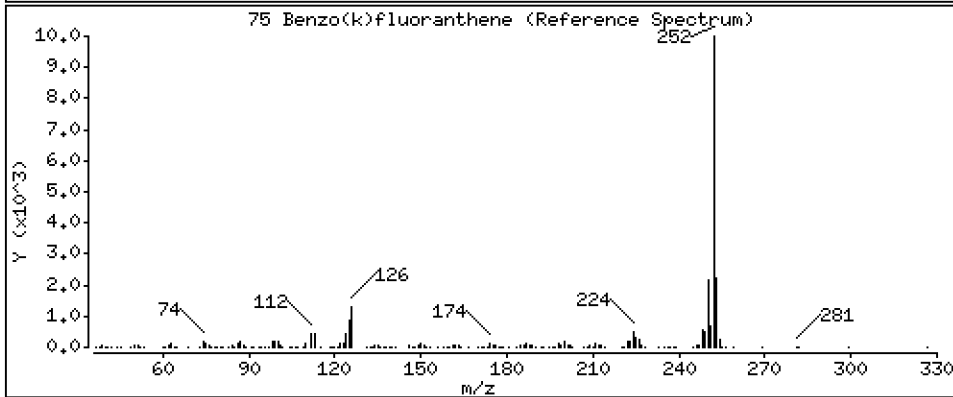
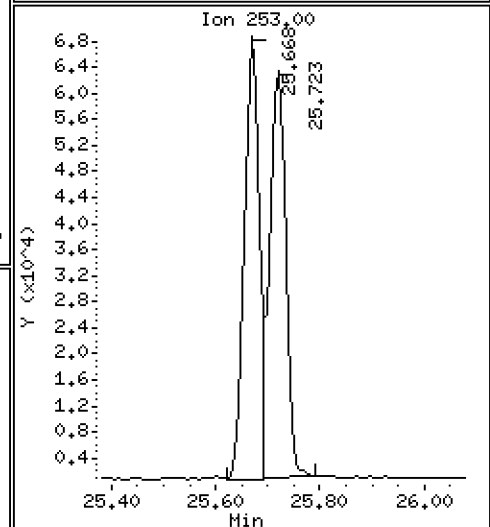
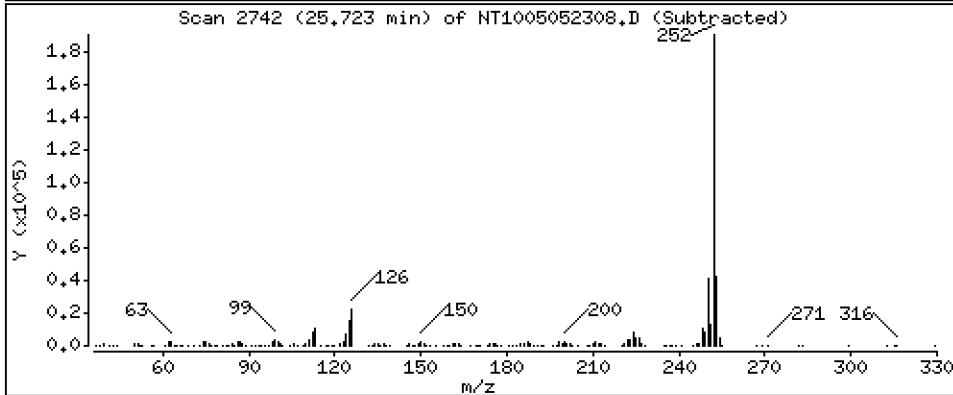
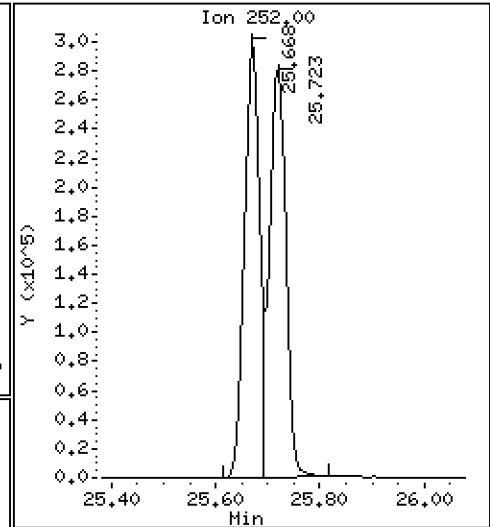
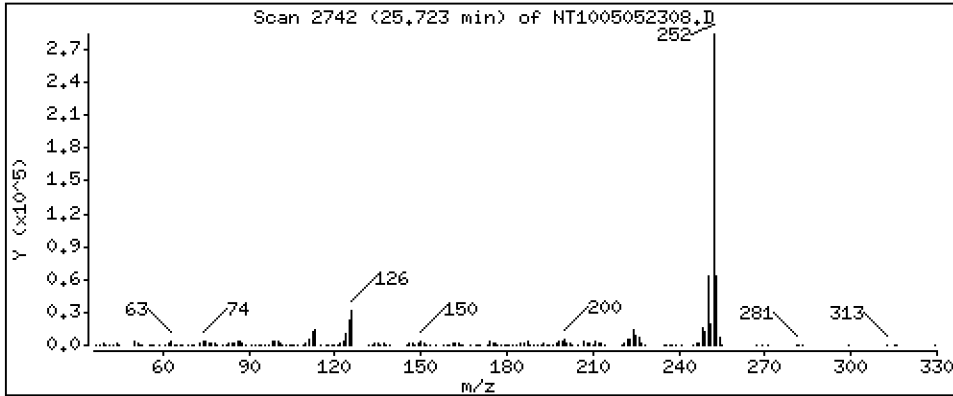
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 3,769 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

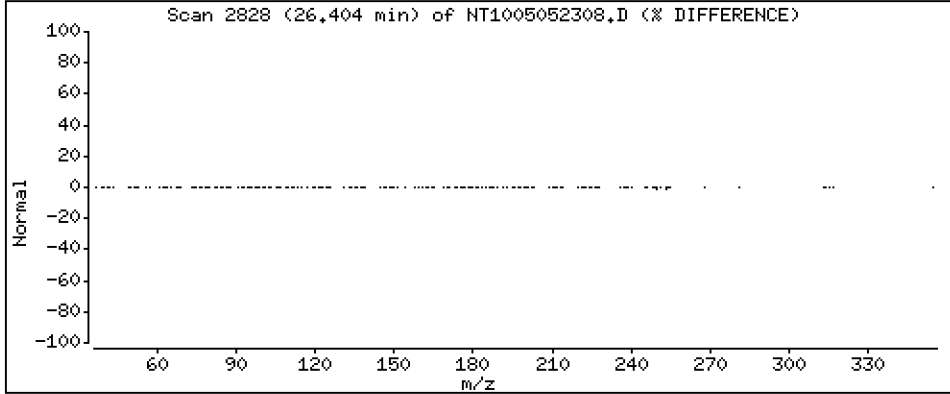
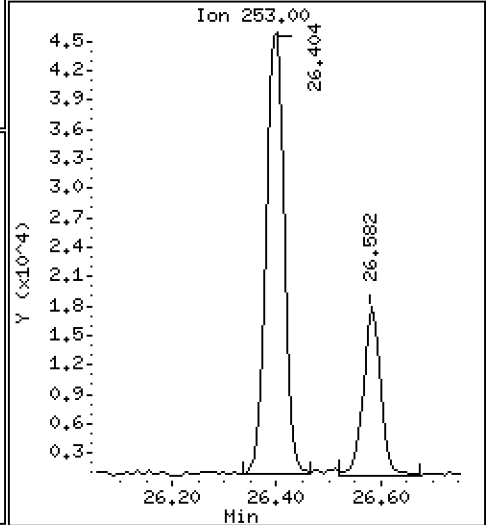
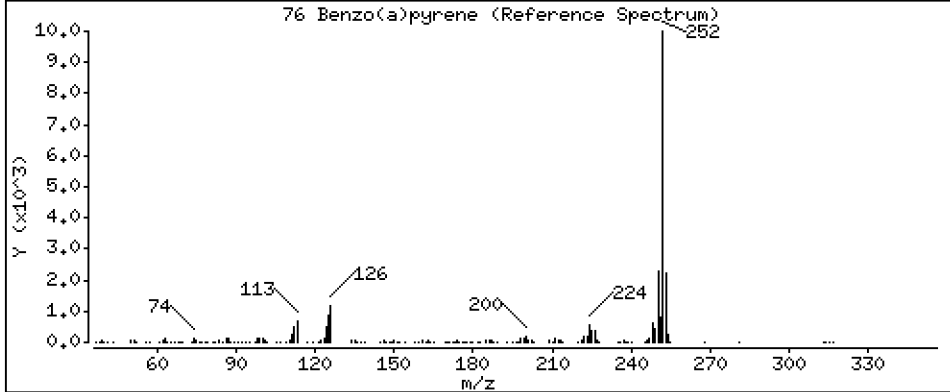
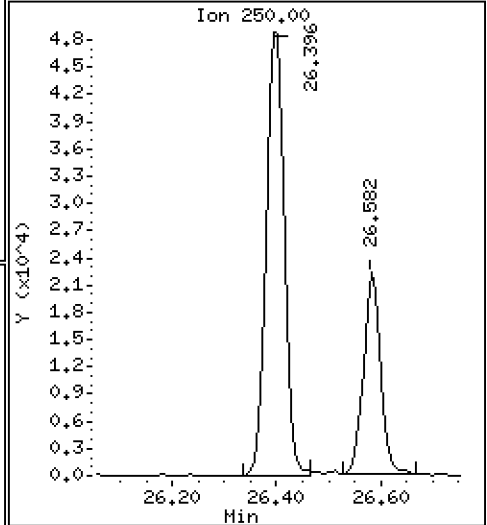
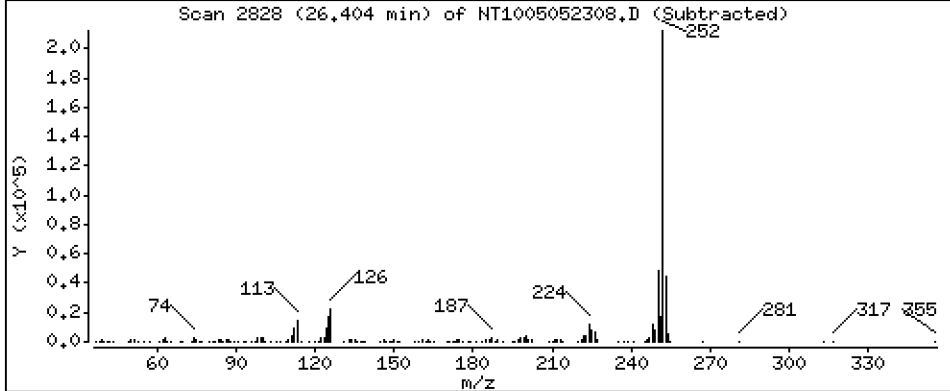
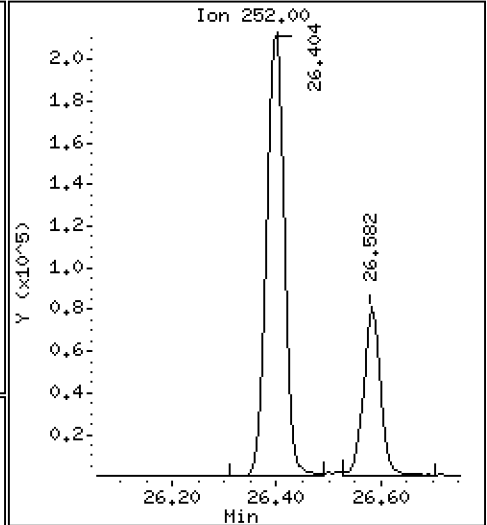
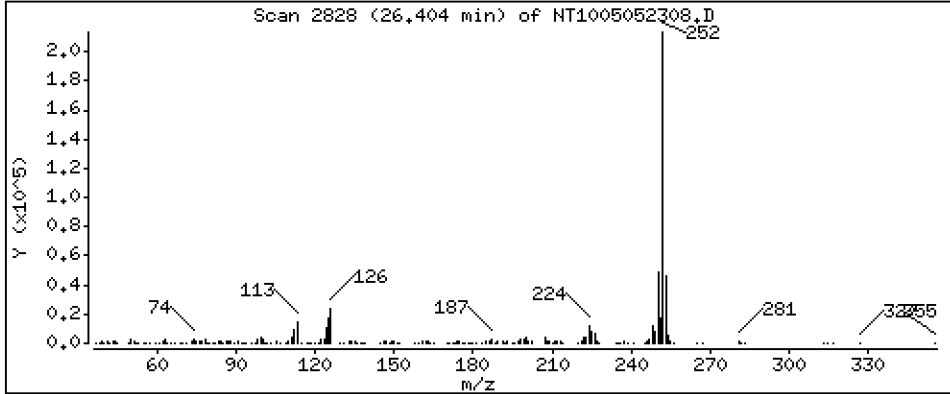
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 3,494 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

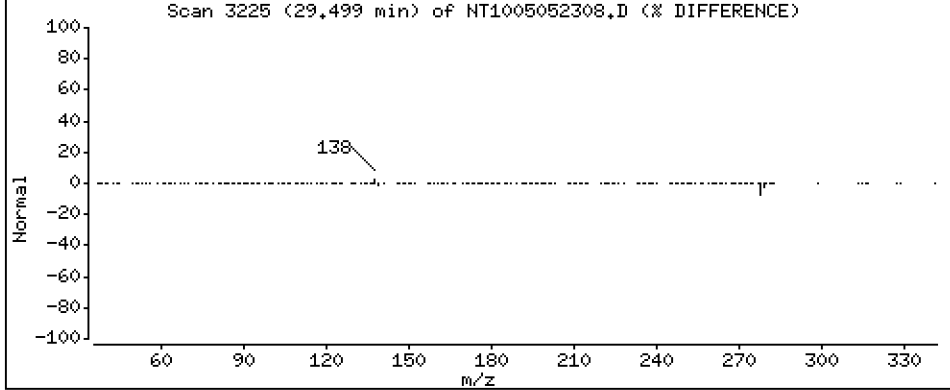
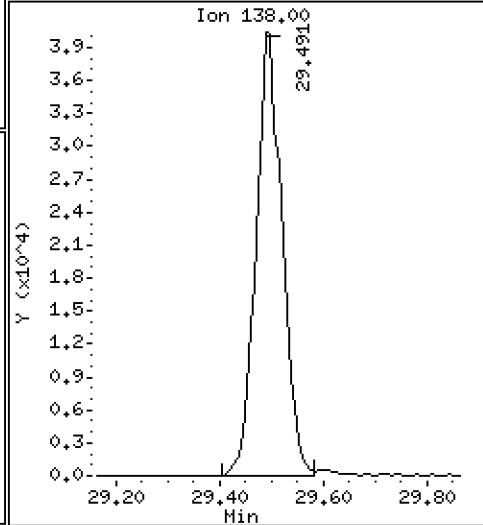
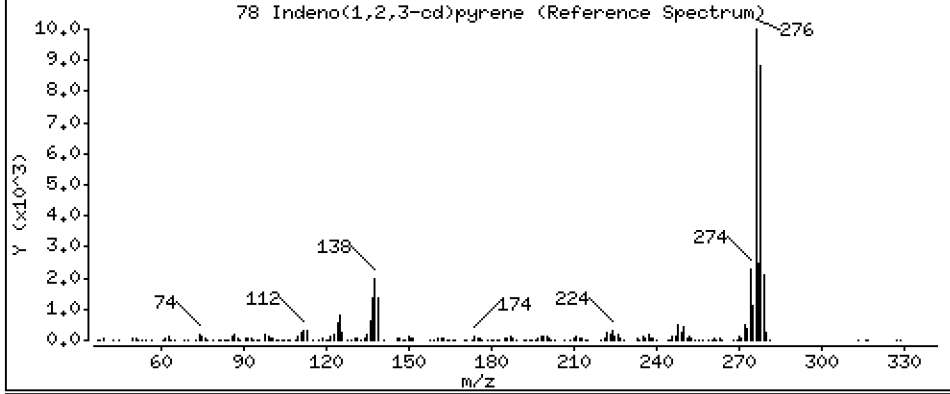
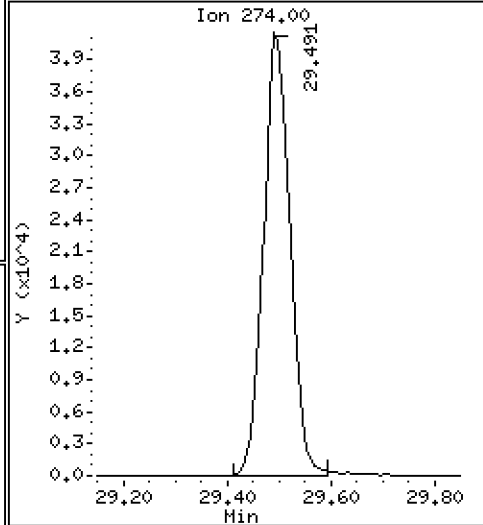
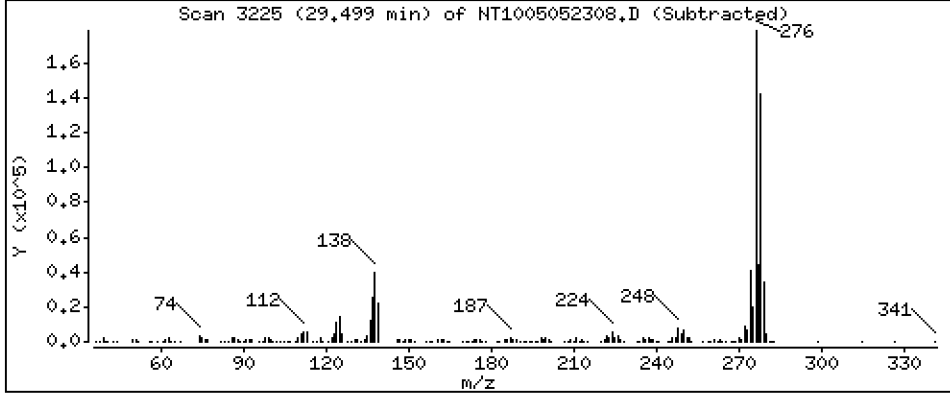
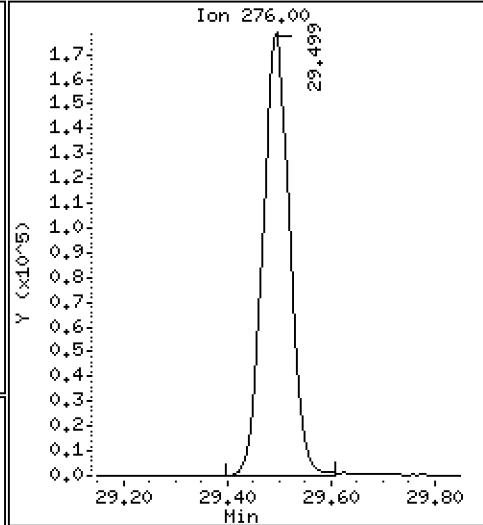
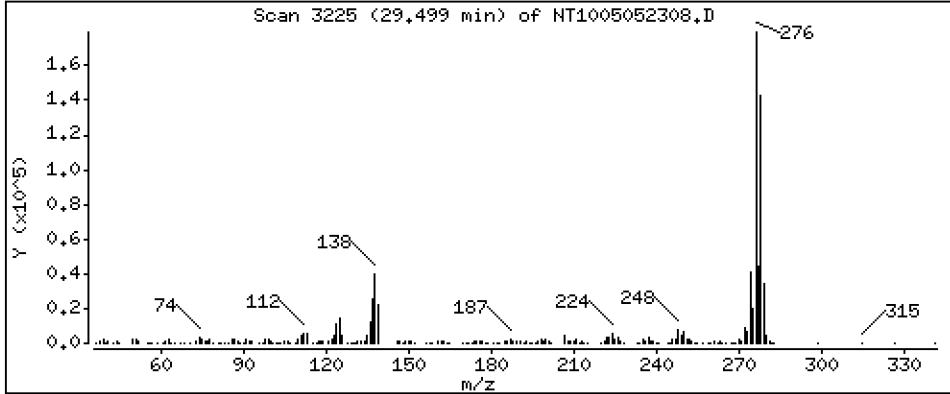
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 3,760 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

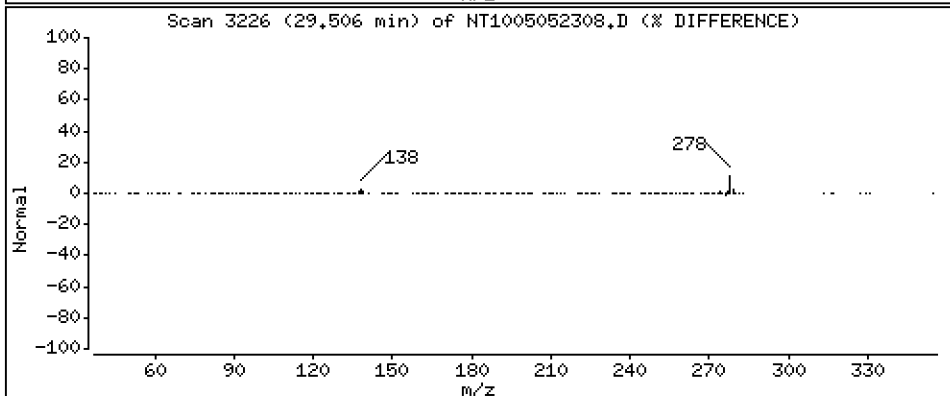
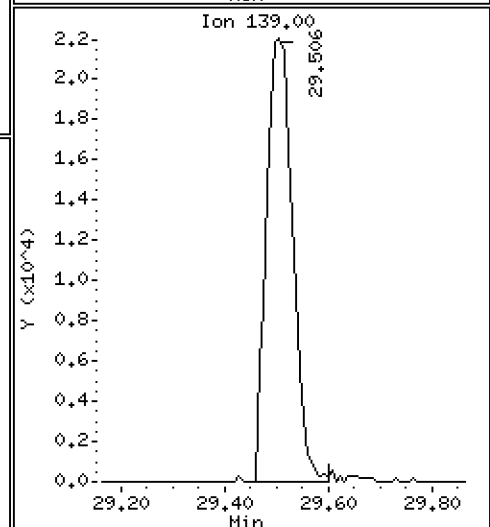
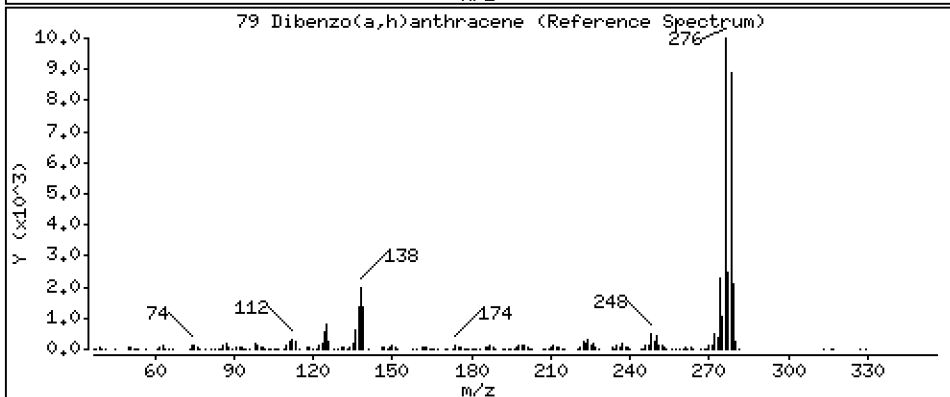
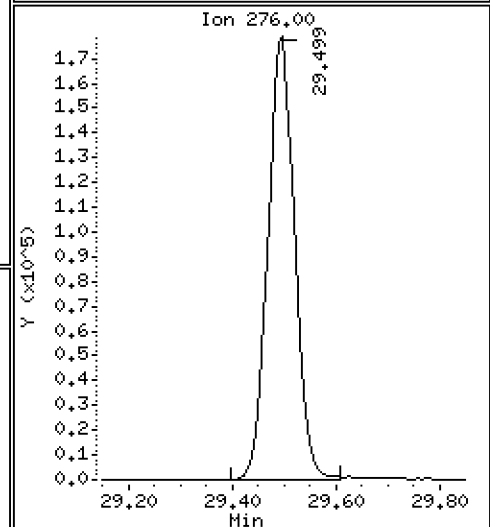
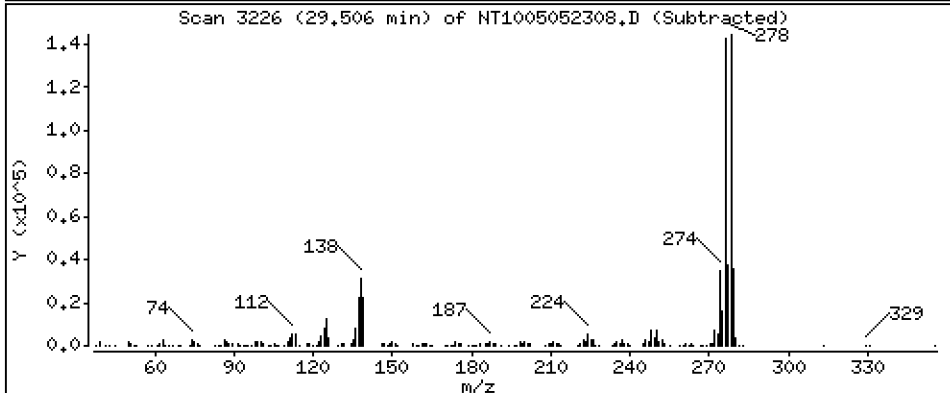
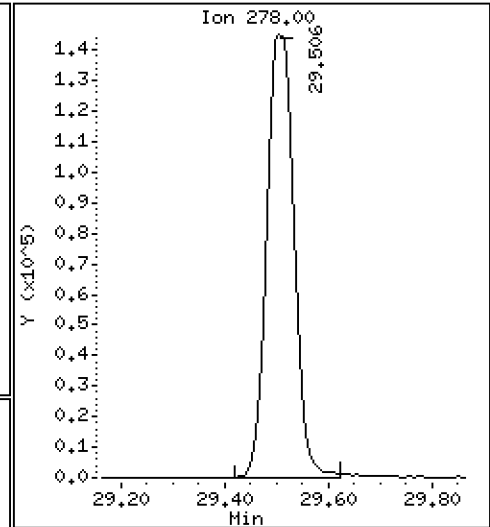
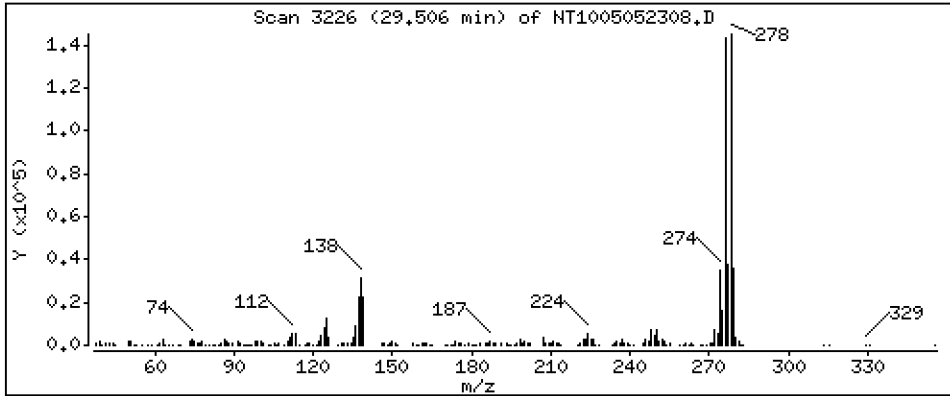
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,710 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

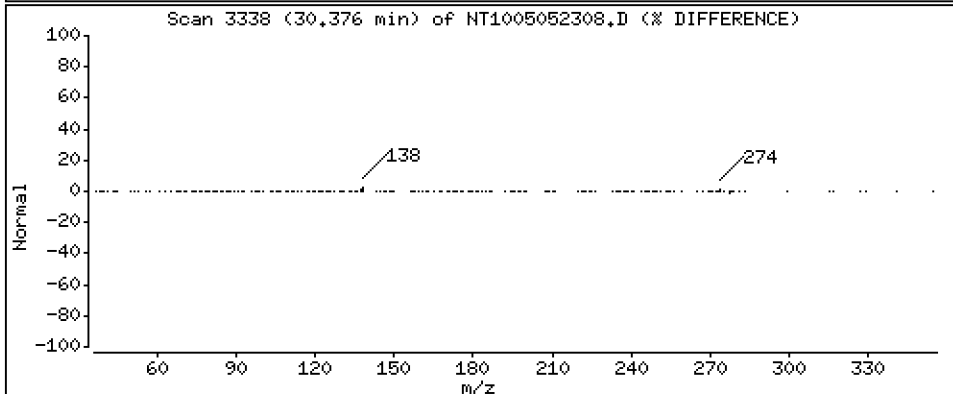
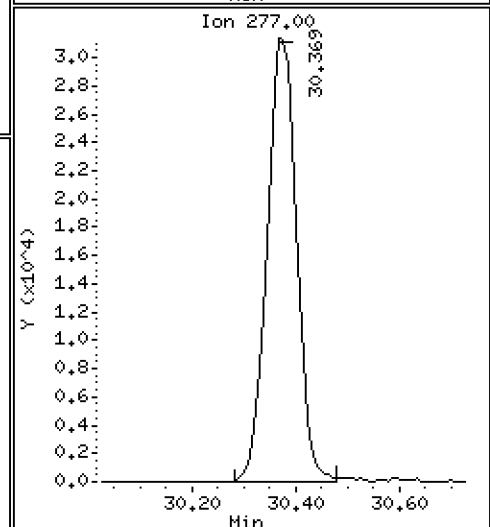
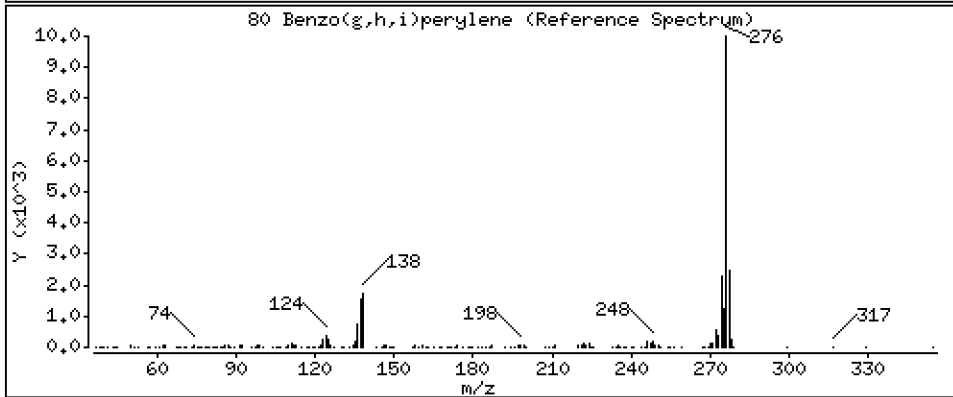
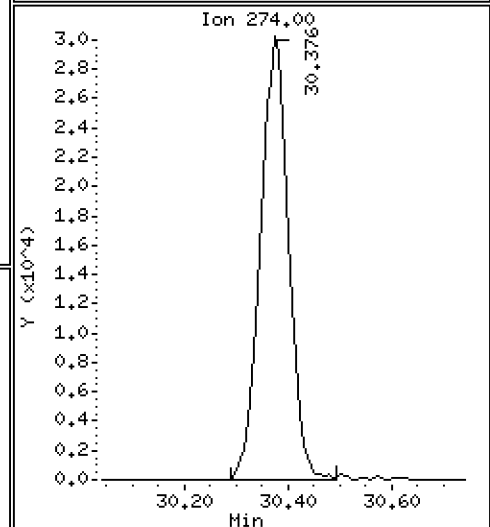
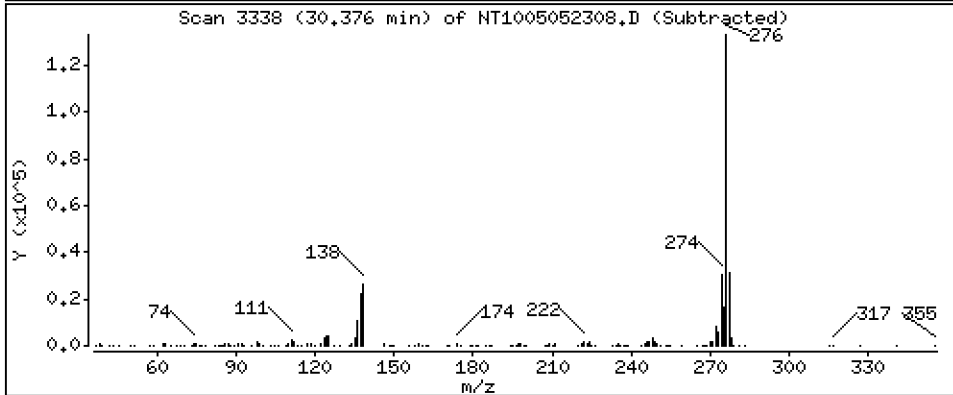
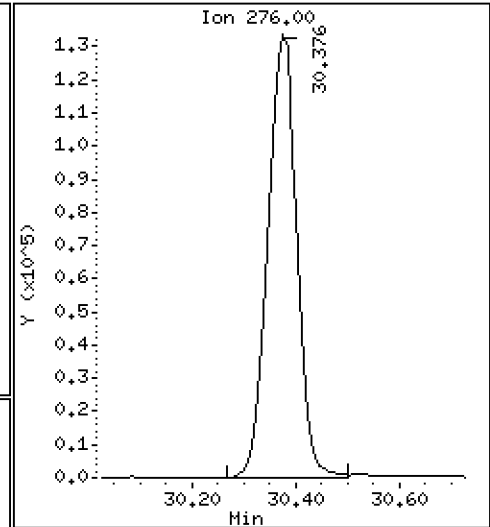
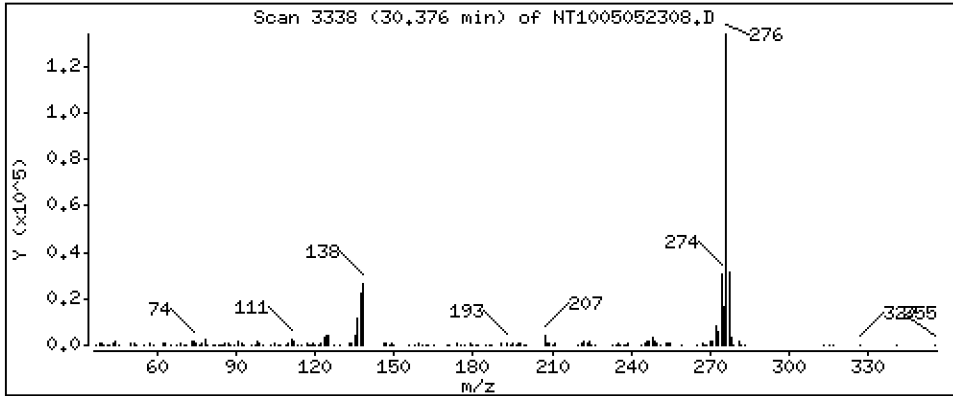
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 3,803 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

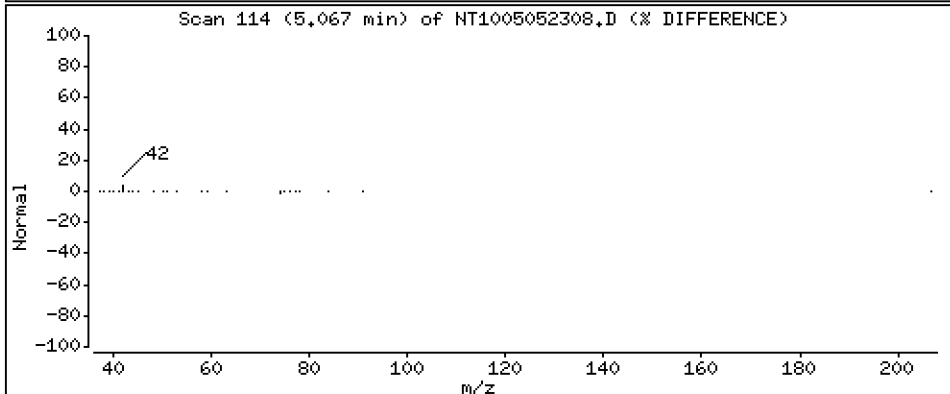
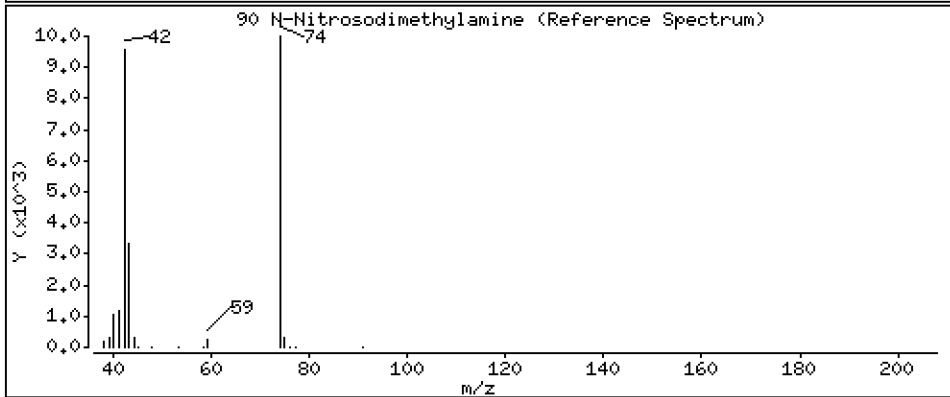
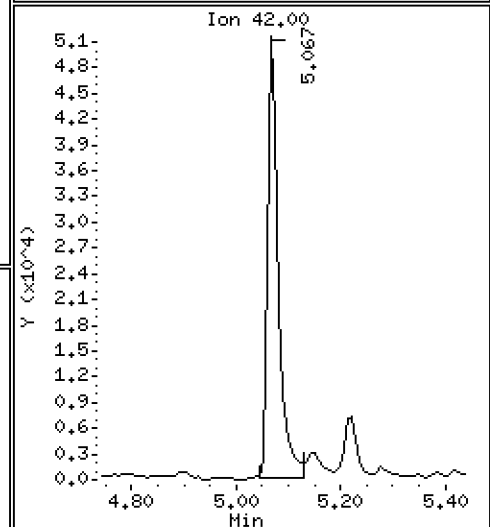
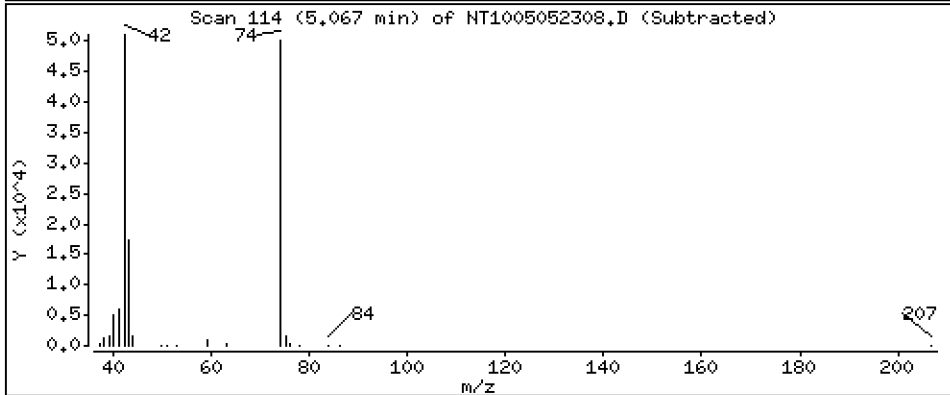
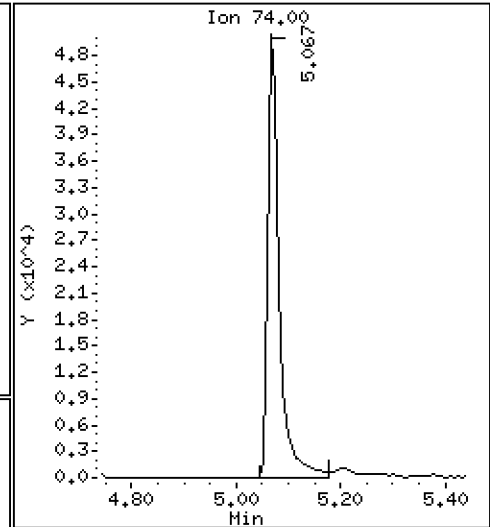
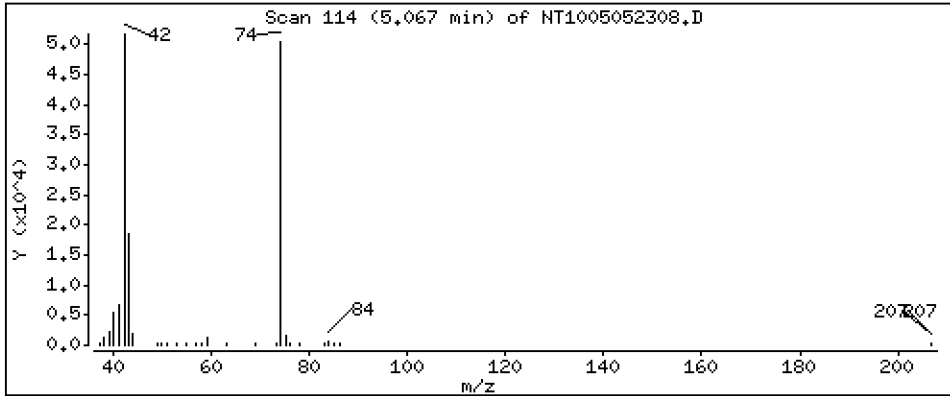
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 2,992 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

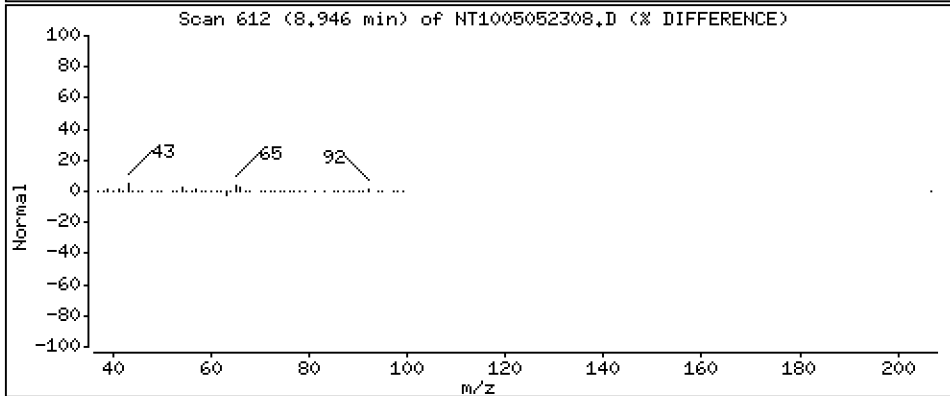
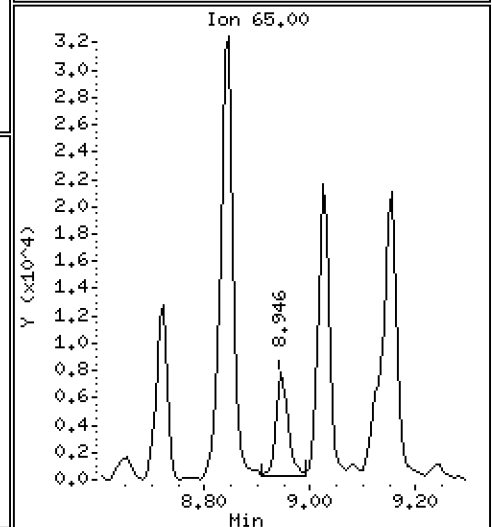
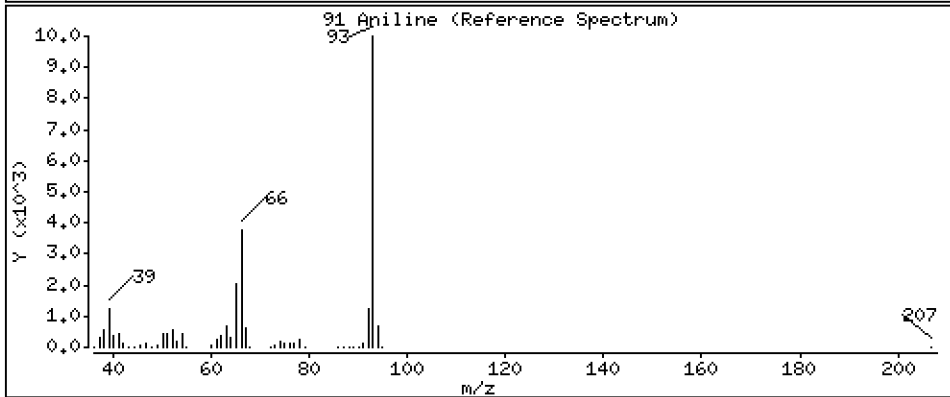
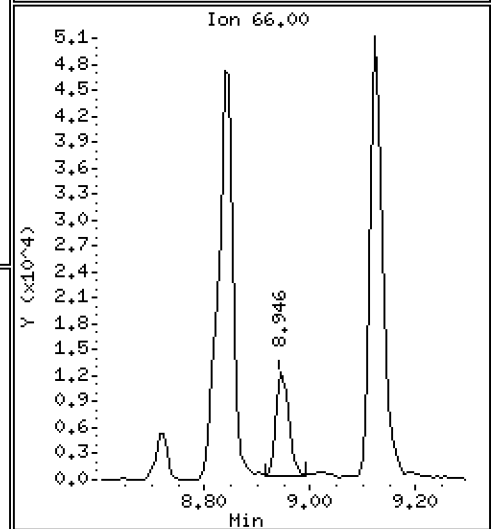
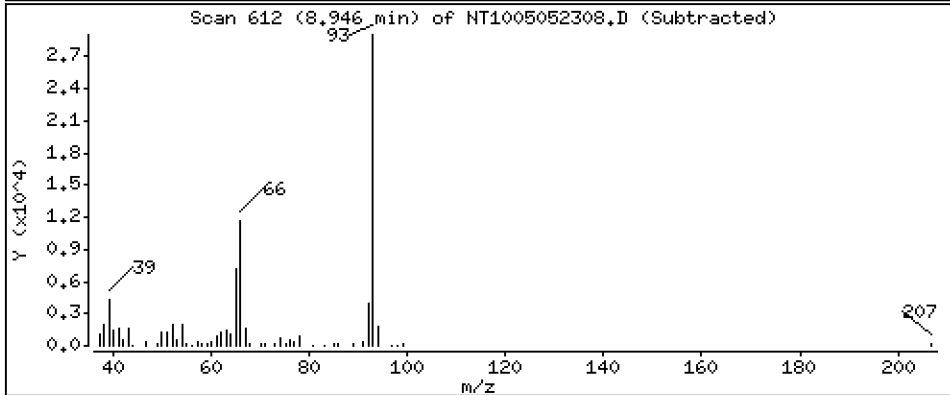
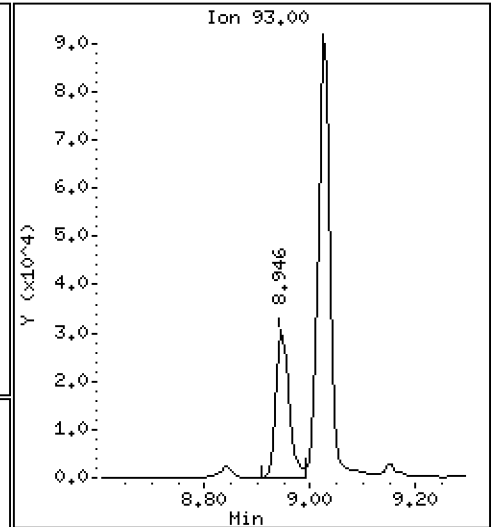
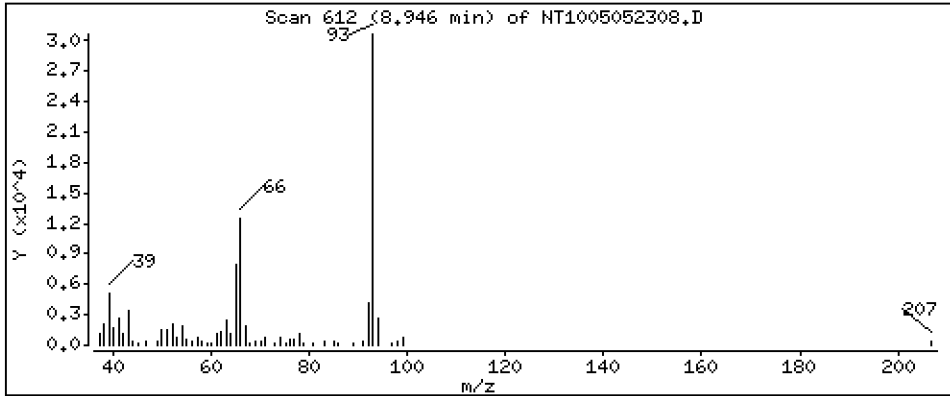
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,9742 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

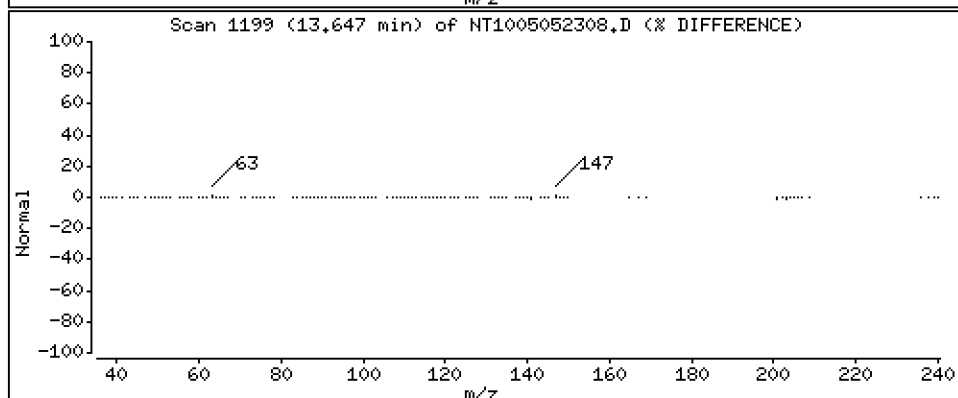
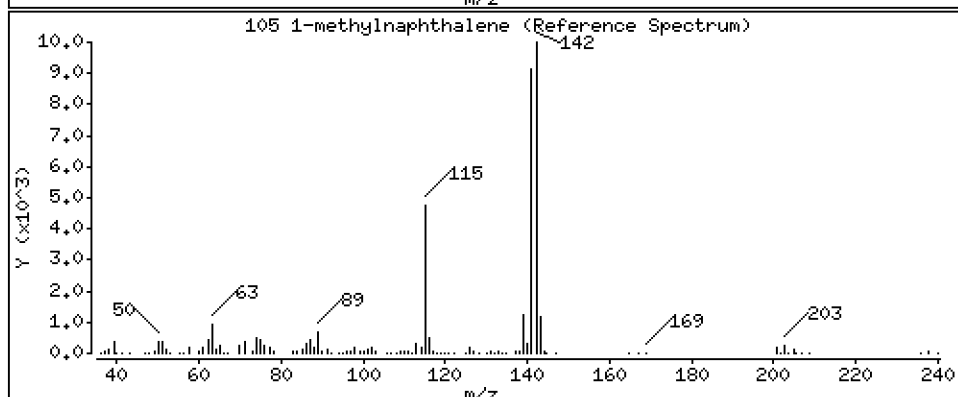
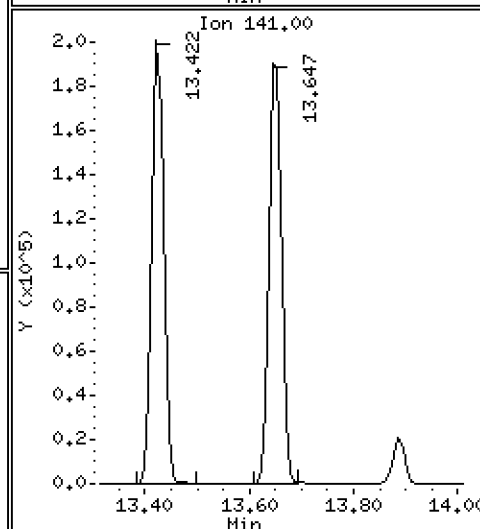
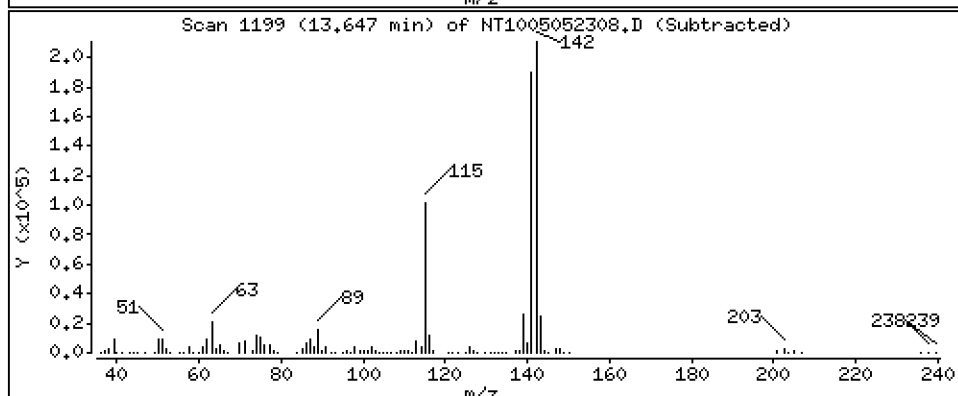
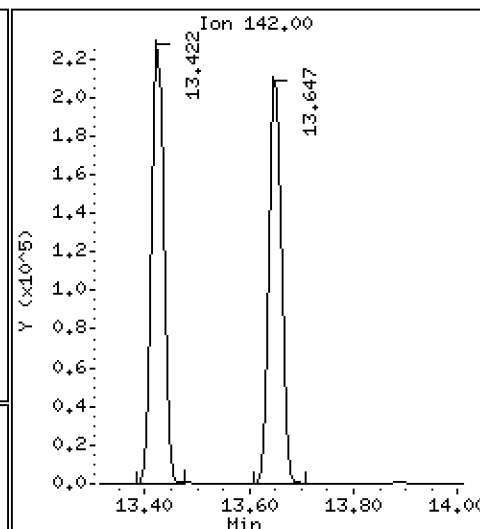
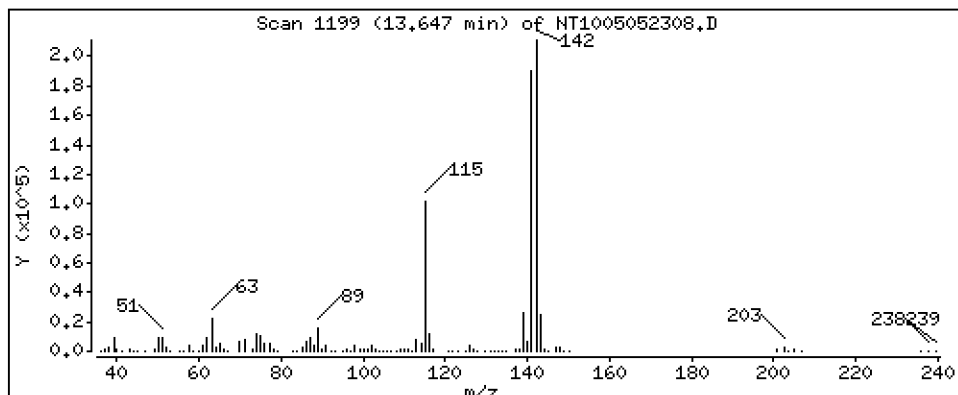
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 3,147 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

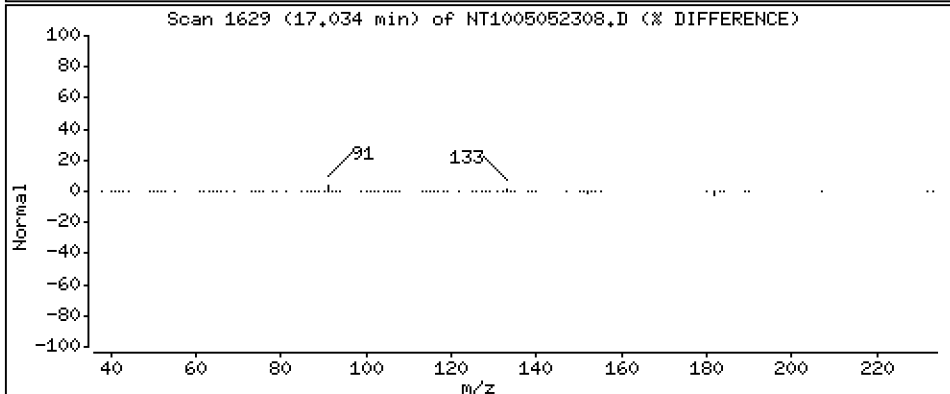
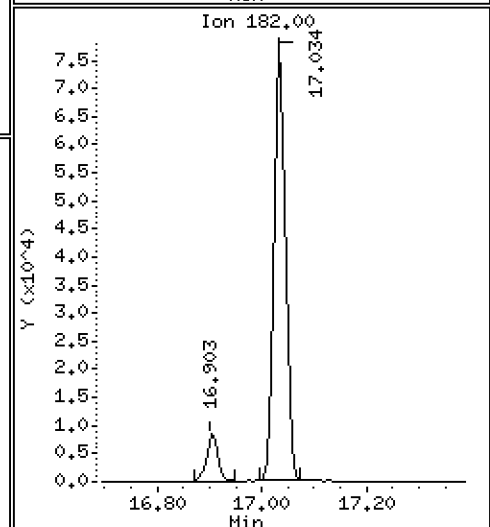
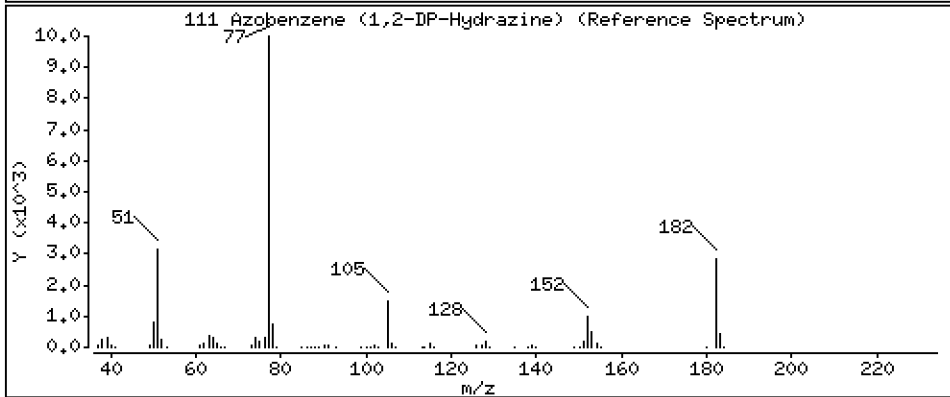
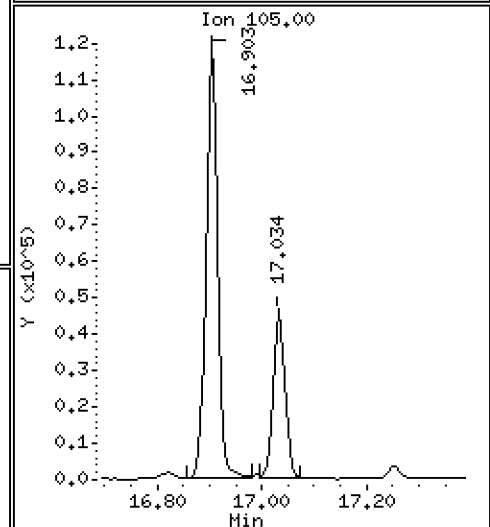
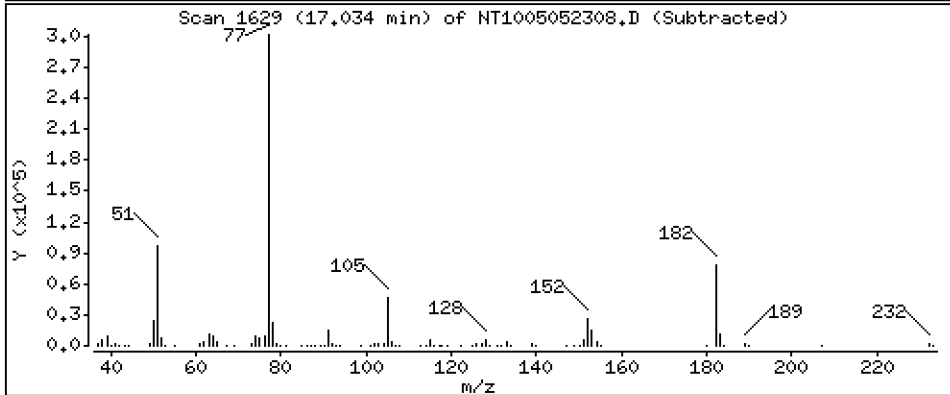
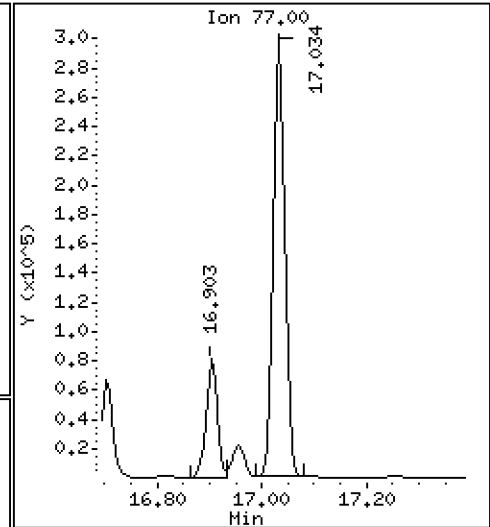
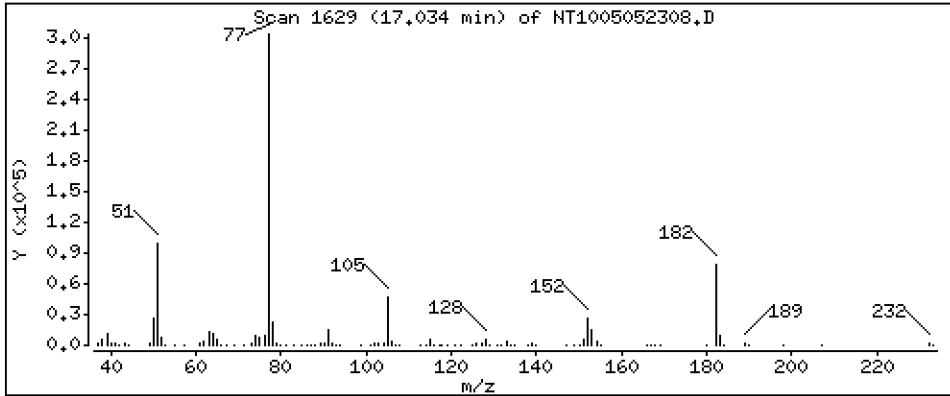
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 3,588 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

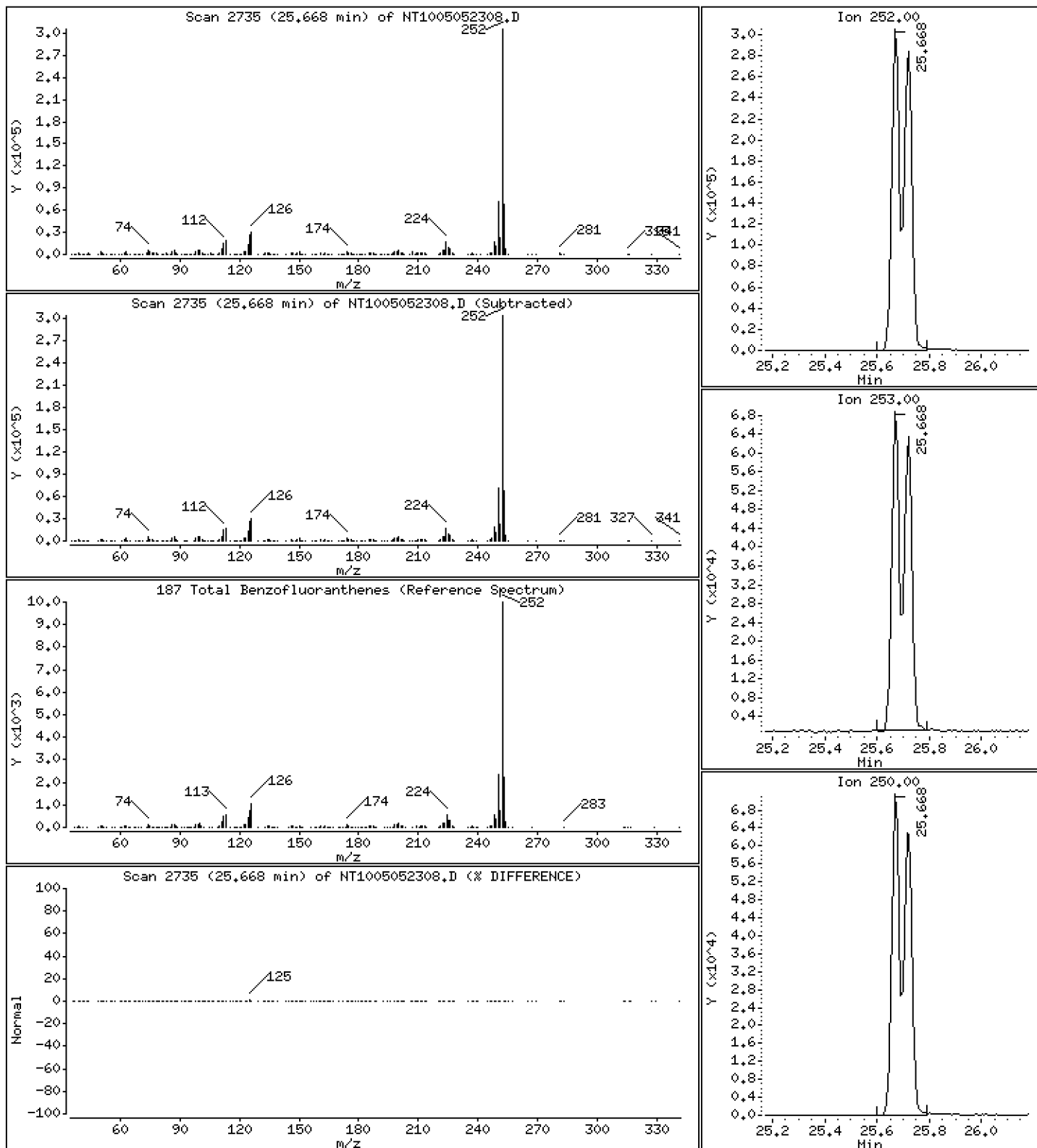
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 7,338 ug/mL



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS1

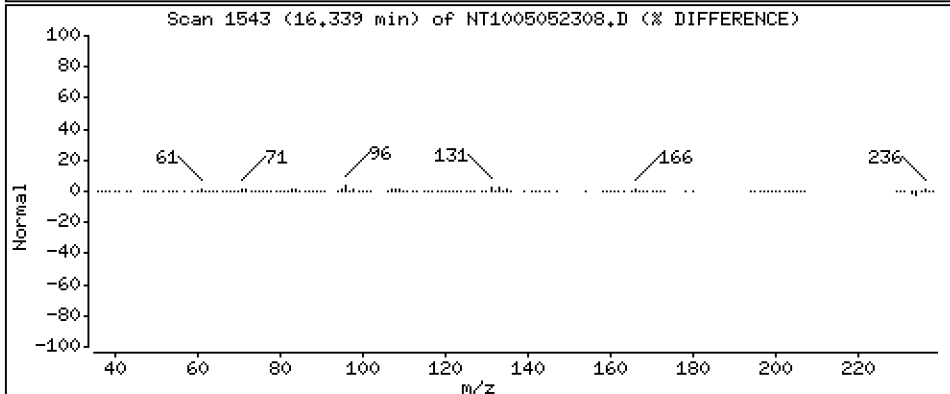
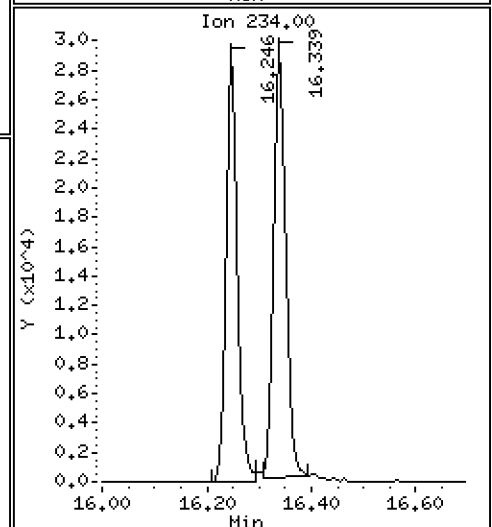
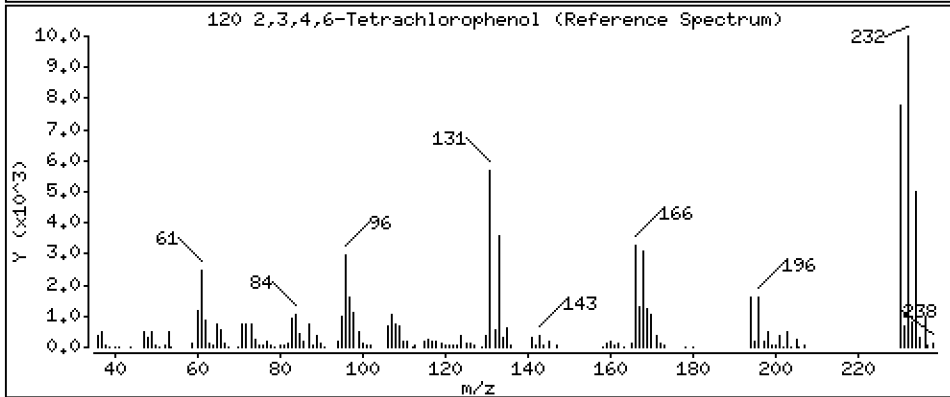
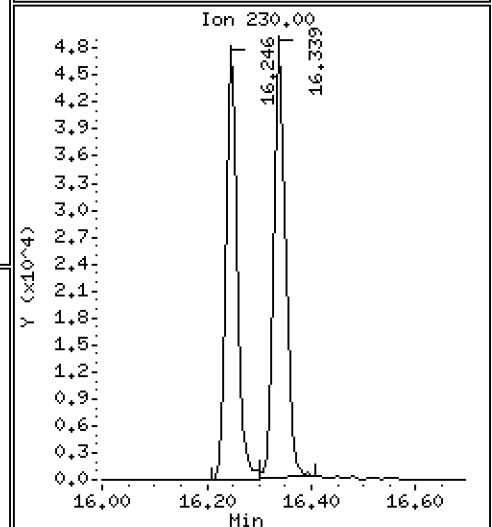
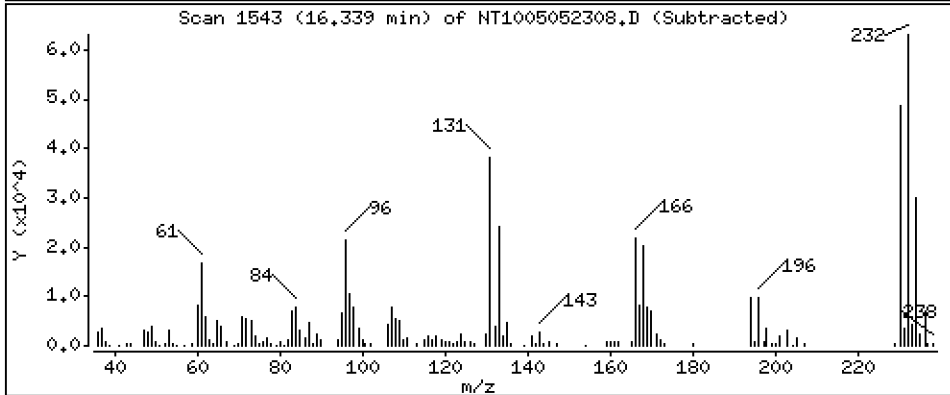
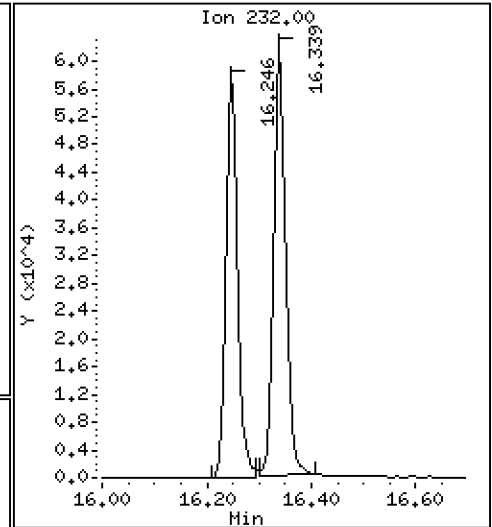
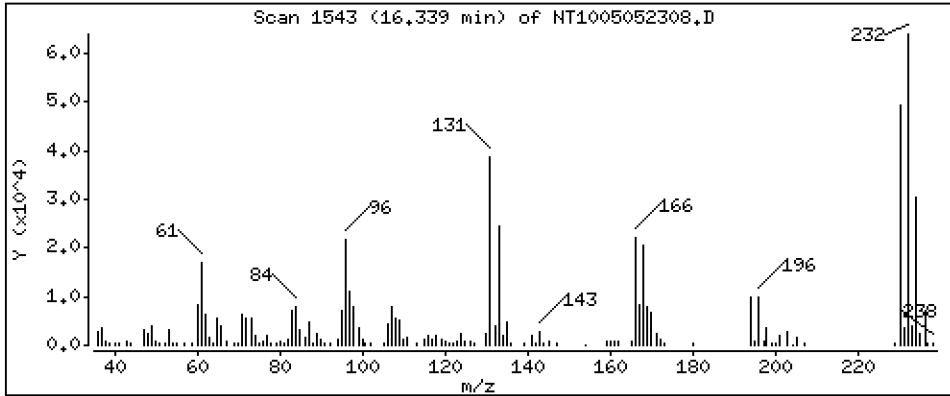
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 2,293 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052308.D
 Lab Smp Id: BLD0329-BS1
 Inj Date : 05-MAY-2023 15:18
 Operator : VTS
 Smp Info : BLD0329-BS1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.238	7.253	(1.000)	177921	3.63829	3.638
\$ 2 Phenol-d5	99		8.821	8.830	(1.000)	223185	3.78549	3.785
3 Phenol	94		8.845	8.853	(1.000)	145780	2.31251	2.313
\$ 5 2-Chlorophenol-d4	132		9.123	9.139	(1.000)	250298	4.42995	4.430
4 Bis(2-Chloroethyl)ether	93		9.022	9.038	(1.000)	141601	3.10428	3.104
6 2-Chlorophenol	128		9.154	9.162	(1.000)	148011	2.66269	2.663
7 1,3-Dichlorobenzene	146		9.432	9.440	(1.000)	176284	2.81474	2.815
* 8 1,4-Dichlorobenzene-d4	152		9.494	9.502	(1.000)	161608	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.525	9.533	(1.000)	170865	2.77732	2.777
\$ 10 1,2-Dichlorobenzene-d4	152		9.851	9.867	(1.000)	120692	2.89550	2.895
12 1,2-Dichlorobenzene	146		9.882	9.890	(1.000)	173446	2.90386	2.904
11 Benzyl alcohol	108		9.750	9.766	(1.000)	90903	3.00005	3.000
14 2,2'-oxybis(1-Chloropropane)	121		10.053	10.069	(1.000)	60217	3.49069	3.491
13 2-Methylphenol	108		9.968	9.976	(1.000)	112256	2.42788	2.428
17 Hexachloroethane	117		10.480	10.488	(1.000)	82263	3.09248	3.092
16 N-Nitroso-di-n-propylamine	70		10.309	10.325	(1.000)	111491	3.04440	3.044
15 4-Methylphenol	108		10.239	10.240	(1.000)	147441	2.65630	2.656
\$ 18 Nitrobenzene-d5	82		10.589	10.604	(0.883)	209068	3.35097	3.351
19 Nitrobenzene	77		10.627	10.636	(0.886)	194715	3.22933	3.229
20 Isophorone	82		11.070	11.078	(0.923)	358627	4.99606	4.996
21 2-Nitrophenol	139		11.257	11.266	(0.939)	84596	2.64164	2.642
22 2,4-Dimethylphenol	107		11.282	11.300	(0.941)	241111	4.09502	4.095
23 Bis(2-Chloroethoxy)methane	93		11.486	11.503	(0.958)	184334	4.01721	4.017
24 Benzoic acid	105		11.427	11.486	(0.953)	179724	4.40217	4.402
25 2,4-Dichlorophenol	162		11.707	11.716	(0.976)	407720	8.81471	8.815
26 1,2,4-Trichlorobenzene	180		11.898	11.906	(0.992)	195302	2.94797	2.948
* 27 Naphthalene-d8	136		11.991	11.999	(1.000)	558307	4.00000	
28 Naphthalene	128		12.029	12.037	(1.003)	478691	3.07314	3.073
29 4-Chloroaniline	127		12.153	12.161	(1.014)	205100	3.57823	3.578
30 Hexachlorobutadiene	225		12.385	12.393	(1.033)	110604	3.02730	3.027
31 4-Chloro-3-methylphenol	107		13.089	13.105	(1.092)	473943	9.40201	9.402
32 2-Methylnaphthalene	142		13.422	13.437	(1.119)	349381	2.99995	3.000
33 Hexachlorocyclopentadiene	237		13.886	13.902	(0.889)	199258	5.00056	5.001

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		14.041	14.049	(0.899)	333825	8.50464	8.505	
35 2,4,5-Trichlorophenol	196		14.110	14.118	(0.903)	367854	8.59398	8.594	
§ 36 2-Fluorobiphenyl	172		14.203	14.211	(0.909)	439915	3.17104	3.171	
37 2-Chloronaphthalene	162		14.420	14.436	(0.923)	341701	3.12736	3.127	
38 2-Nitroaniline	65		14.683	14.691	(0.940)	311153	9.80574	9.806	
39 Dimethylphthalate	163		15.101	15.109	(0.967)	445254	3.62400	3.624	
40 Acenaphthylene	152		15.302	15.310	(0.980)	509497	2.98736	2.987	
41 2,6-Dinitrotoluene	165		15.248	15.256	(0.976)	264419	9.53483	9.535	
* 42 Acenaphthene-d10	164		15.620	15.628	(1.000)	320442	4.00000		
43 3-Nitroaniline	138		15.534	15.543	(0.995)	215763	7.90386	7.904	
44 Acenaphthene	153		15.681	15.689	(1.004)	345529	3.18543	3.185	
45 2,4-Dinitrophenol	184		15.743	15.759	(1.008)	258692	11.8608	11.86	
46 Dibenzofuran	168		16.006	16.014	(1.025)	505126	3.19384	3.194	
47 4-Nitrophenol	109		15.836	15.844	(1.014)	202705	7.90616	7.906	
48 2,4-Dinitrotoluene	165		16.060	16.068	(1.028)	355844	8.90835	8.908	
50 Diethylphthalate	149		16.563	16.571	(1.060)	506018	3.96669	3.967	
49 Fluorene	166		16.725	16.733	(1.071)	412971	3.16524	3.165	
51 4-Chlorophenyl-phenylether	204		16.702	16.710	(1.069)	217363	3.34565	3.346	
52 4-Nitroaniline	138		16.817	16.825	(1.077)	214836	8.00833	8.008	
53 4,6-Dinitro-2-methylphenol	198		16.902	16.918	(0.905)	400463	17.4685	17.47	
54 N-Nitrosodiphenylamine	169		16.956	16.964	(0.908)	233861	3.10580	3.106	
§ 55 2,4,6-Tribromophenol	330		17.265	17.265	(1.105)	77299	4.90129	4.901	
56 4-Bromophenyl-phenylether	248		17.720	17.728	(0.949)	130722	3.67750	3.678	
57 Hexachlorobenzene	284		18.044	18.052	(0.966)	116810	3.27395	3.274	
58 Pentachlorophenol	266		18.393	18.401	(0.985)	197225	7.82011	7.820	
* 59 Phenanthrene-d10	188		18.671	18.679	(1.000)	569811	4.00000		
60 Phenanthrene	178		18.718	18.726	(1.002)	570033	3.40938	3.409	
61 Anthracene	178		18.810	18.818	(1.007)	456191	2.95265	2.953	
62 Carbazole	167		19.135	19.136	(1.025)	496381	3.62949	3.629	
63 Di-n-butylphthalate	149		19.901	19.902	(1.066)	831754	3.99046	3.990	
64 Fluoranthene	202		21.085	21.085	(0.890)	740417	3.54161	3.542	
65 Pyrene	202		21.503	21.511	(0.908)	736906	3.52851	3.529	
§ 66 Terphenyl-d14	244		21.774	21.782	(0.919)	623609	3.77553	3.776	
67 Butylbenzylphthalate	149		22.687	22.695	(0.958)	347023	3.67079	3.671	
68 Benzo(a)anthracene	228		23.655	23.663	(0.999)	657313	3.54590	3.546	
* 69 Chrysene-d12	240		23.686	23.694	(1.000)	468254	4.00000		
70 3,3'-Dichlorobenzidine	252		23.609	23.609	(0.997)	258332	4.51565	4.516	
71 Chrysene	228		23.733	23.741	(1.002)	588605	3.54763	3.548	
72 bis(2-Ethylhexyl)phthalate	149		23.702	23.702	(0.958)	487795	4.08248	4.082	
* 134 Di-n-octylphthalate-d4	153		24.731	24.739	(1.000)	829477	4.00000		
73 Di-n-octylphthalate	149		24.739	24.747	(1.000)	871247	3.98127	3.981	
74 Benzo(b)fluoranthene	252		25.668	25.676	(0.968)	606417	3.61254	3.613	
75 Benzo(k)fluoranthene	252		25.722	25.730	(0.970)	627778	3.76876	3.769	
76 Benzo(a)pyrene	252		26.404	26.404	(0.995)	490930	3.49403	3.494	
* 77 Perylene-d12	264		26.527	26.528	(1.000)	408634	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		29.498	29.498	(1.112)	634705	3.76026	3.760	
79 Dibenzo(a,h)anthracene	278		29.506	29.514	(1.112)	524390	3.70952	3.710	
80 Benzo(g,h,i)perylene	276		30.376	30.376	(1.145)	511685	3.80324	3.803	
90 N-Nitrosodimethylamine	74		5.067	5.090	(1.000)	79037	2.99223	2.992	
91 Aniline	93		8.945	8.953	(1.000)	50618	0.97424	0.9742	
93 Benzidine	184		Compound Not Detected.						
103 Pyridine	79		Compound Not Detected.						
105 1-methylnaphthalene	142		13.646	13.662	(1.138)	335983	3.14670	3.147	
111 Azobenzene (1,2-DP-Hydrazine)	77		17.033	17.041	(1.091)	447096	3.58750	3.588	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.668	25.676	(0.968)	1185732	7.33820	7.338
120 2,3,4,6-Tetrachlorophenol	232	16.338	16.346	(1.046)	95895	2.29311	2.293

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052308.D Calibration Time: 11:37
 Lab Smp Id: BLD0329-BS1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	161608	-9.95
27 Naphthalene-d8	621628	310814	1243256	558307	-10.19
42 Acenaphthene-d10	353112	176556	706224	320442	-9.25
59 Phenanthrene-d10	694933	347467	1389866	569811	-18.00
69 Chrysene-d12	553967	276984	1107934	468254	-15.47
134 Di-n-octylphthala	895601	447801	1791202	829477	-7.38
77 Perylene-d12	482573	241287	965146	408634	-15.32

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.09
27 Naphthalene-d8	12.00	11.50	12.50	11.99	-0.07
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.69	23.19	24.19	23.69	-0.03
134 Di-n-octylphthala	24.74	24.24	25.24	24.73	-0.03
77 Perylene-d12	26.53	26.03	27.03	26.53	-0.00

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

REVIEW SUMMARY FOR FILE - NT1005052308.D

Lab ID: BLD0329-BS1
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 15:18

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.060	-0.0596	2,2'-oxybis(1-Chloropropane)

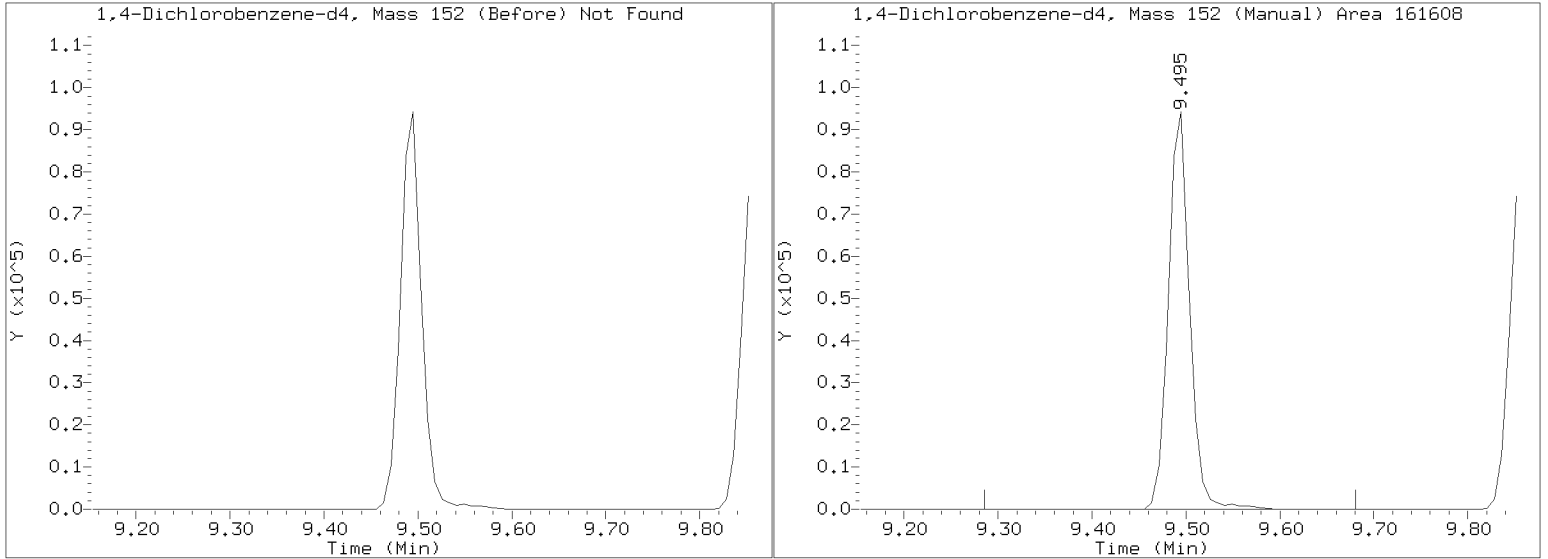
RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052308.D
Injection Date: 05-MAY-2023 15:18
Lab ID:BLD0329-BS1 Client ID:
Report Date: 05/08/2023 10:14



APPROVED
By Deenay Dunmore at 10:39 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230505.1\NT1005052309.D

Date: 05-May-2023 15:57

Client ID:

Sample Info: BLD0329-BSM

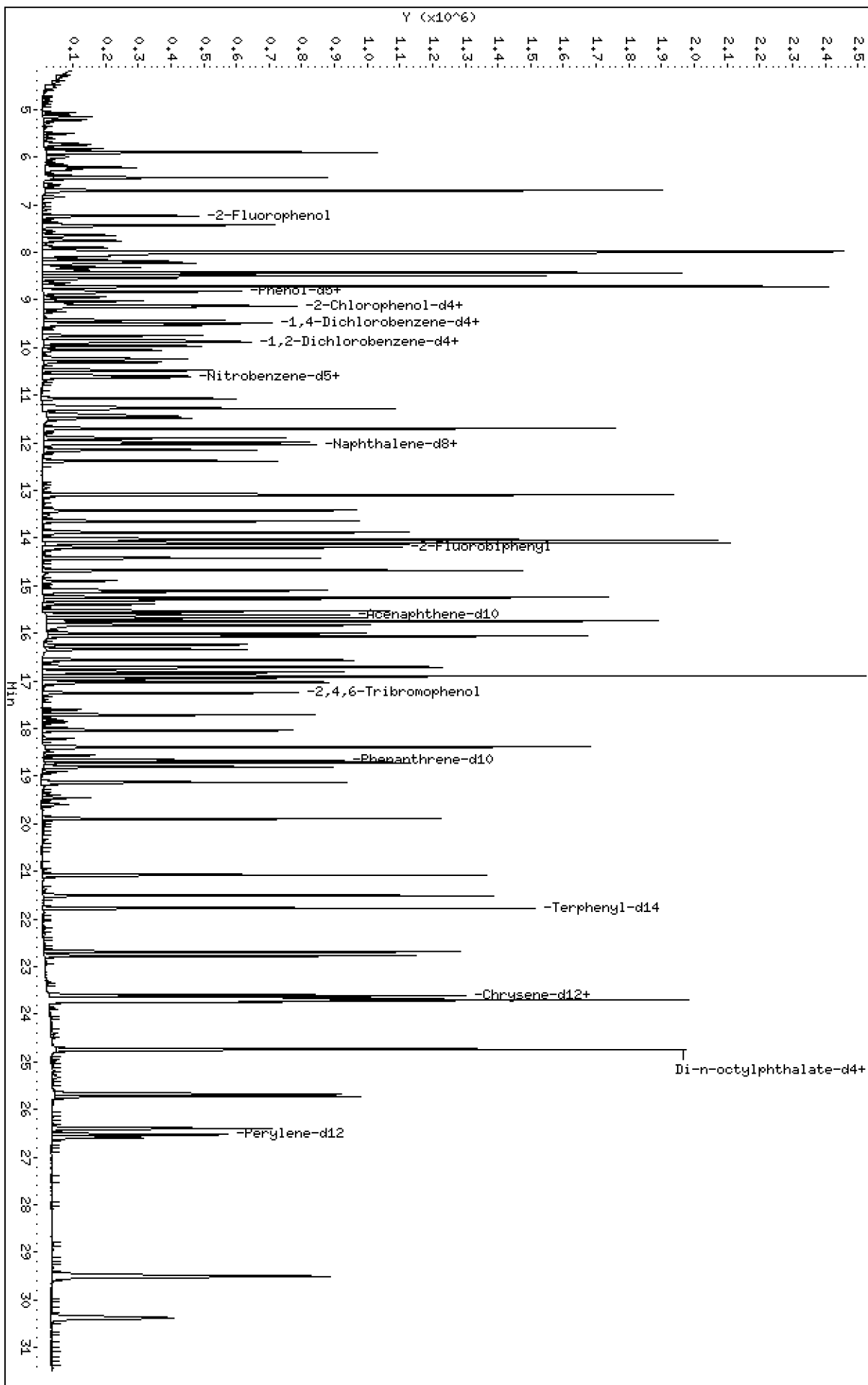
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

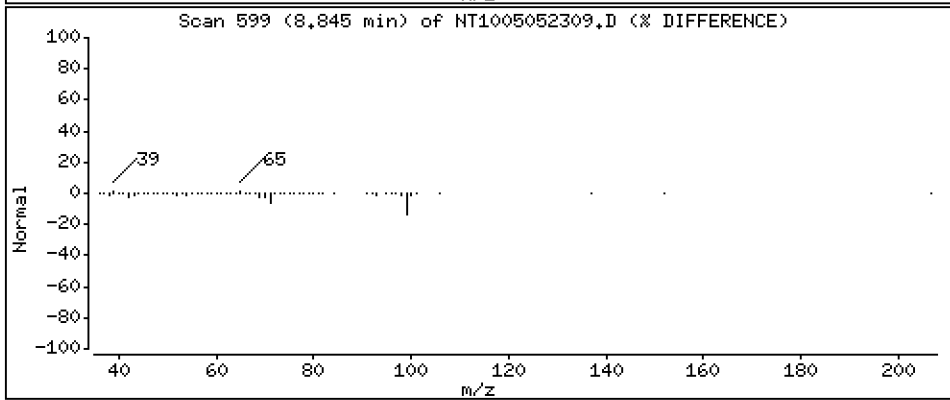
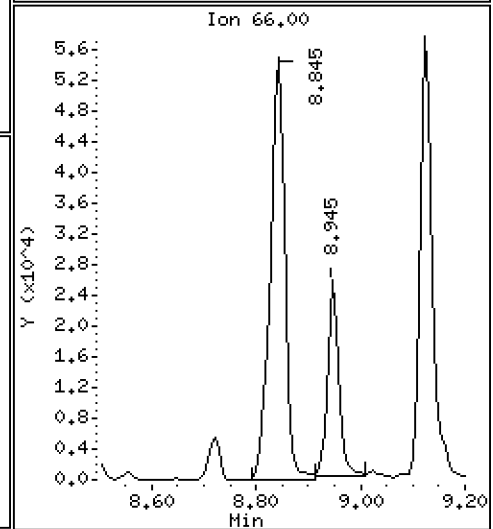
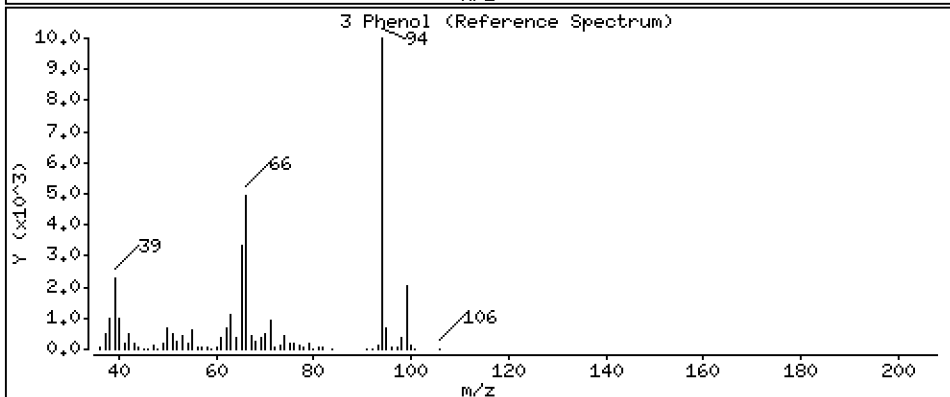
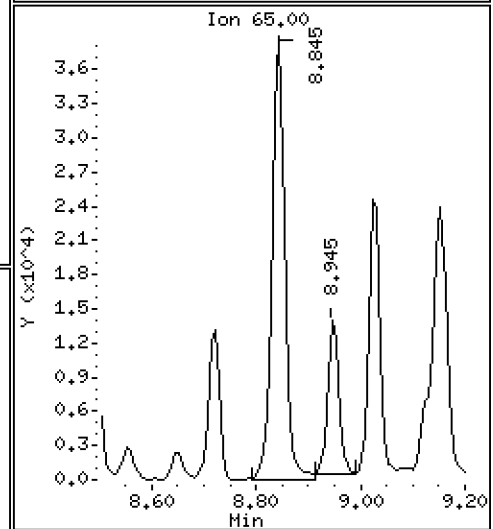
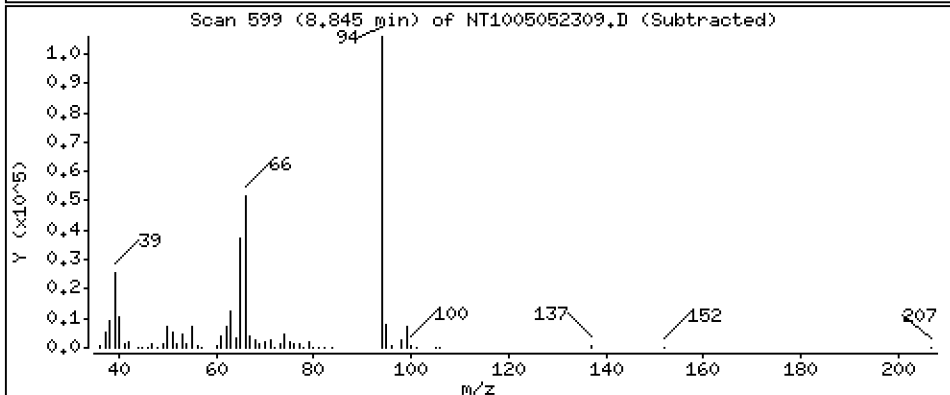
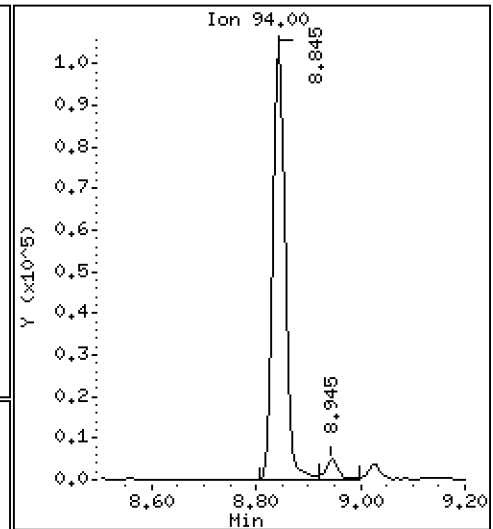
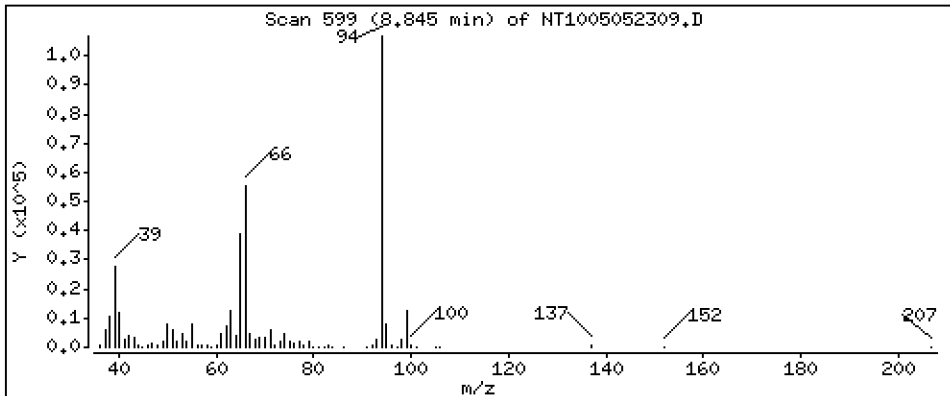
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 2,617 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

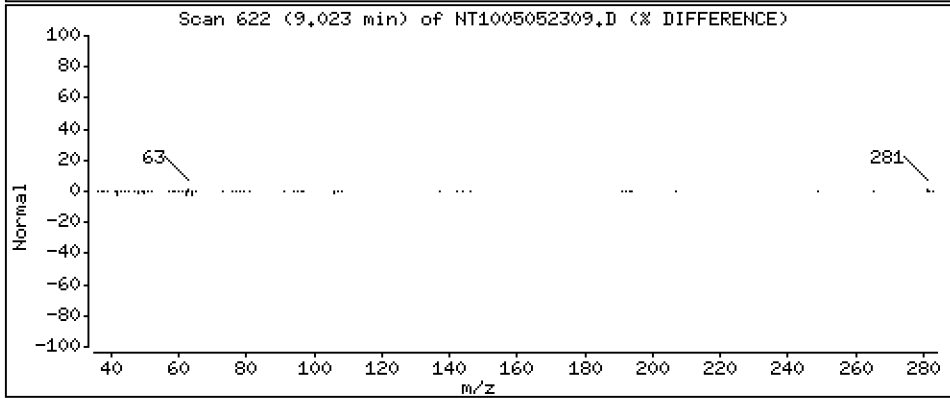
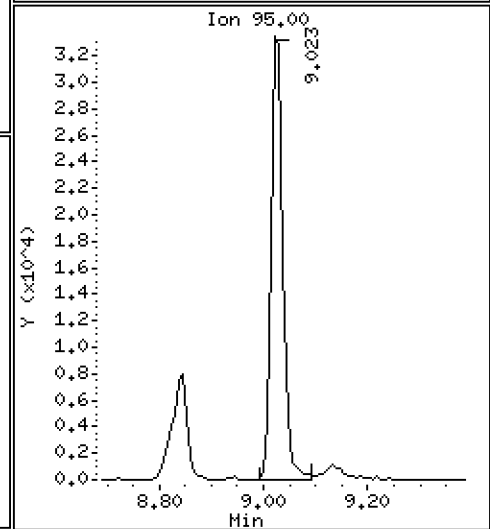
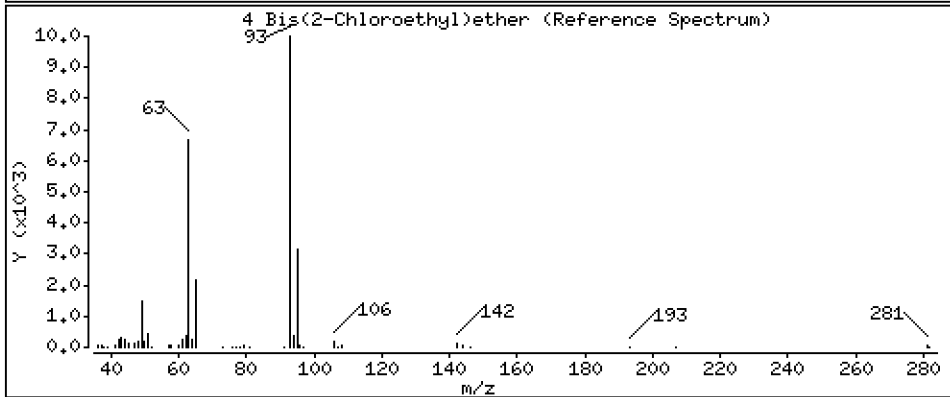
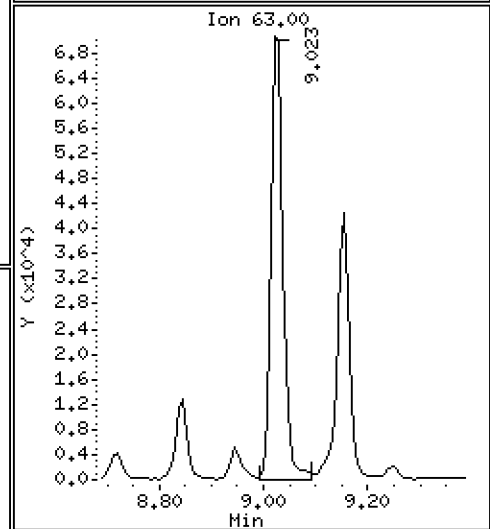
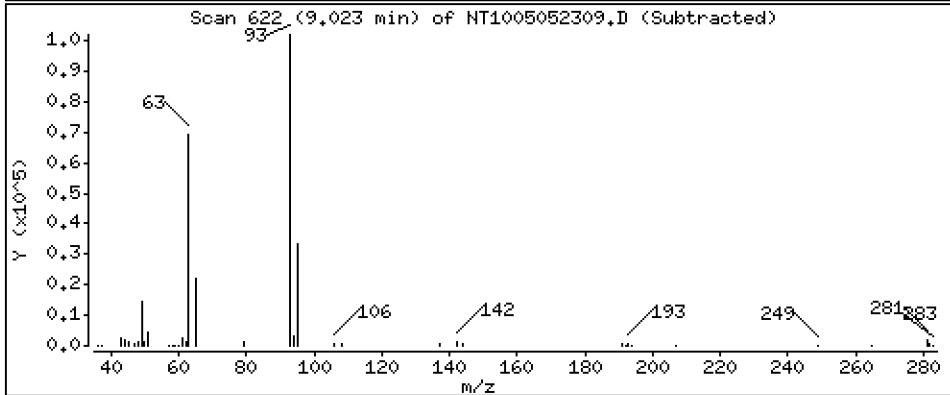
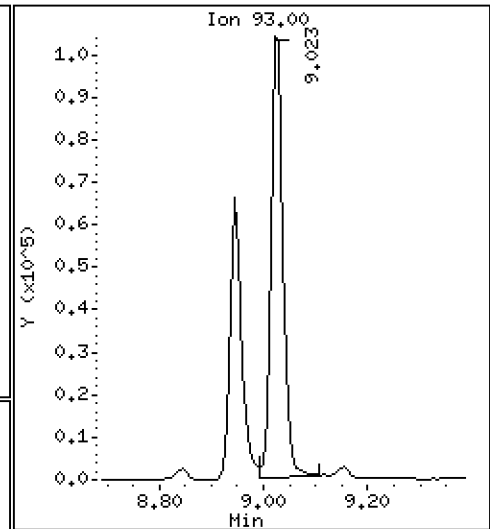
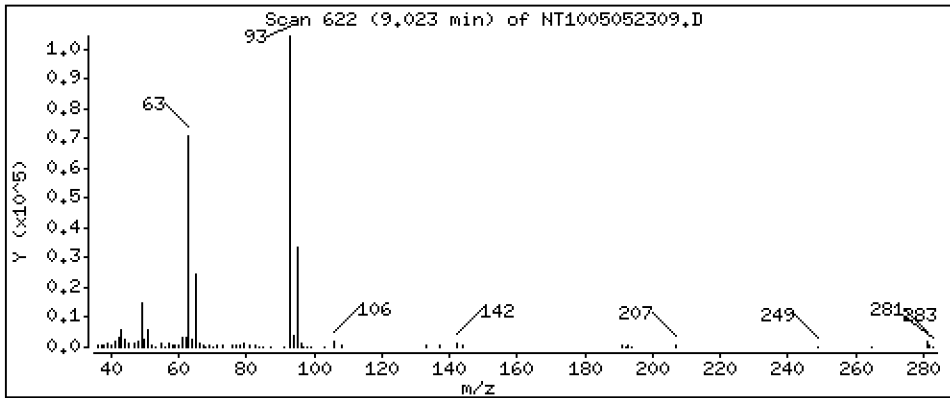
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 3,727 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

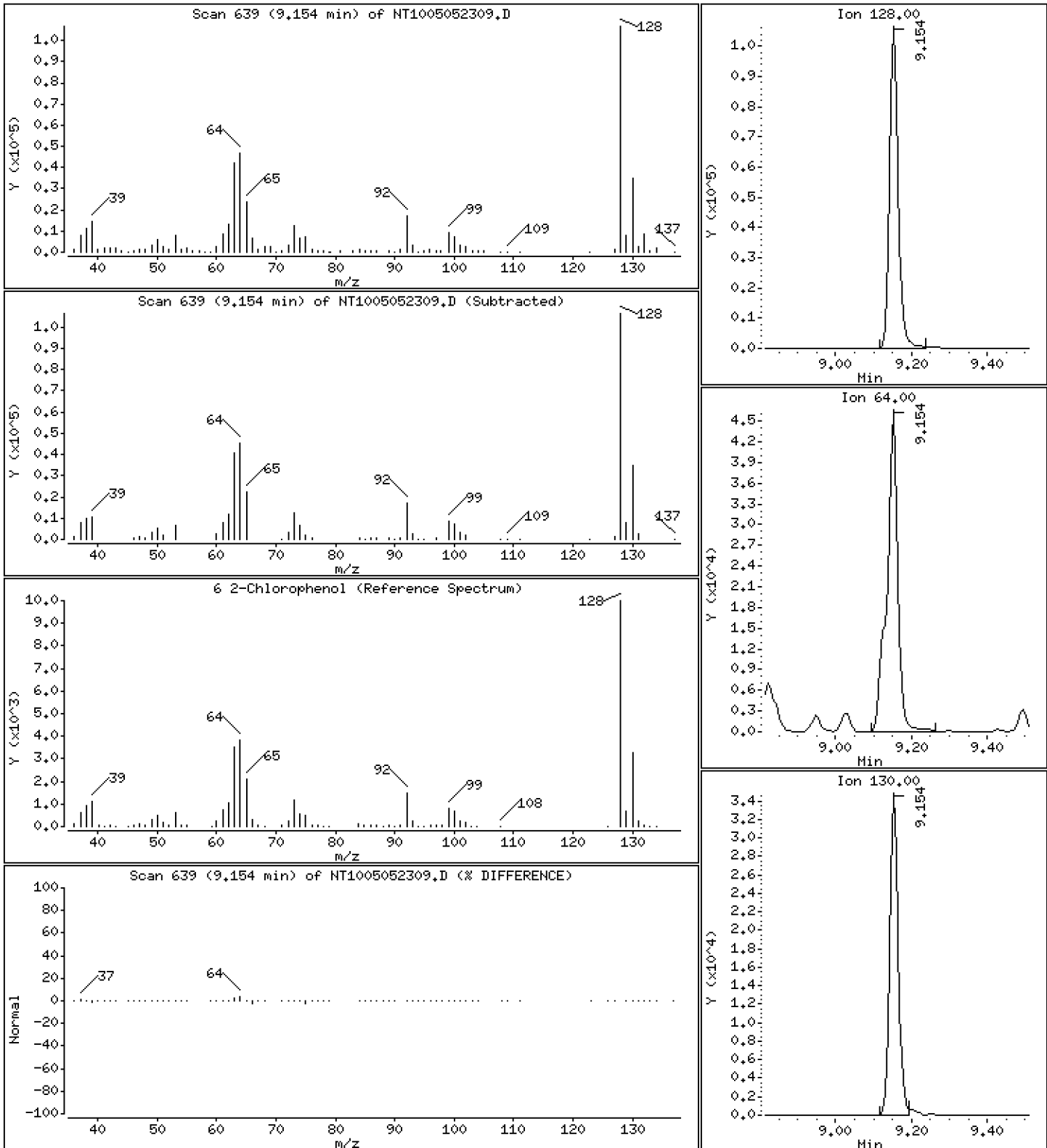
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 3,131 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

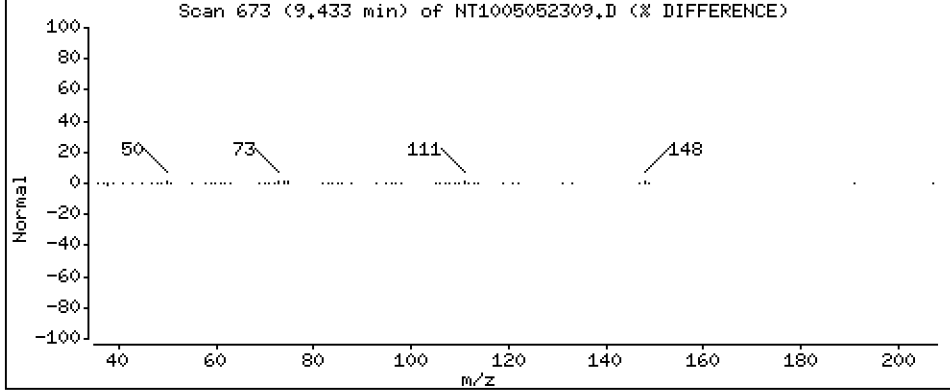
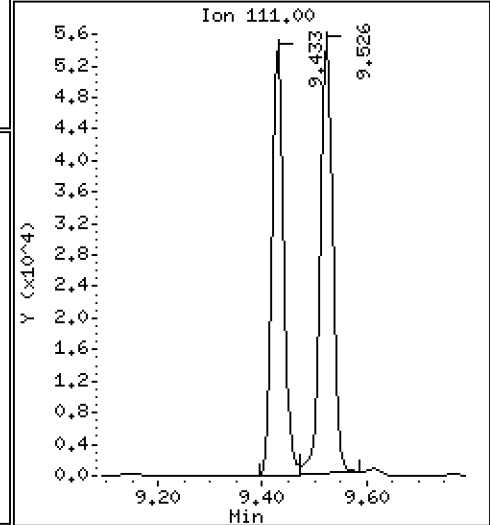
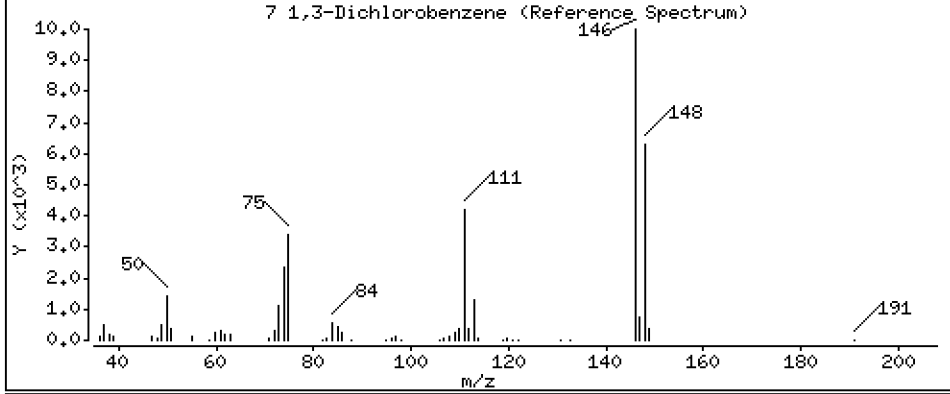
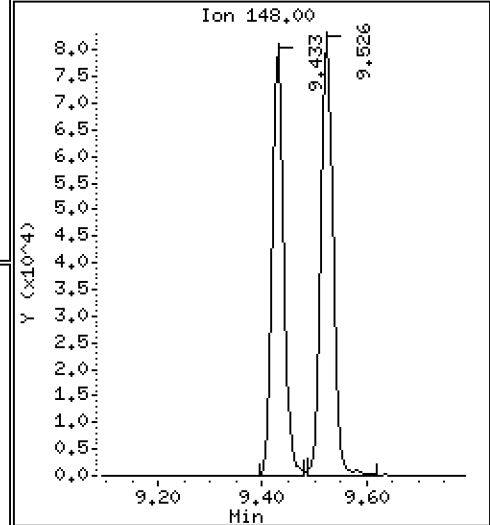
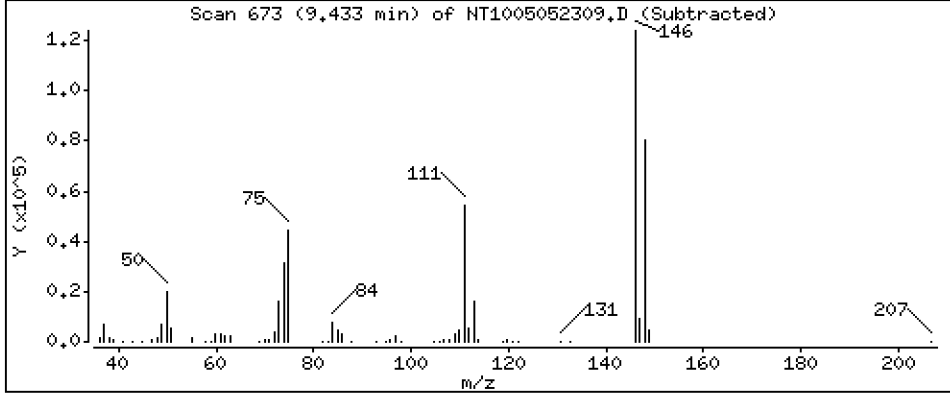
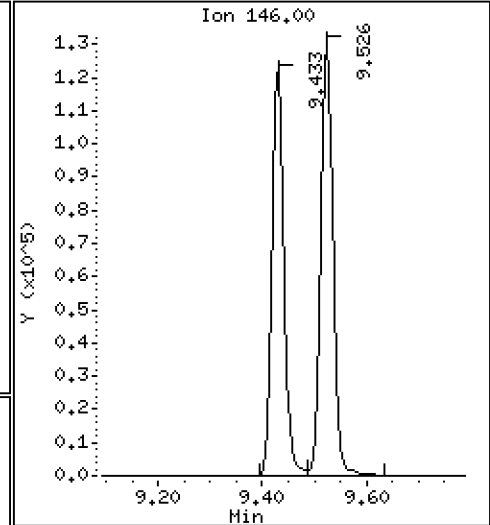
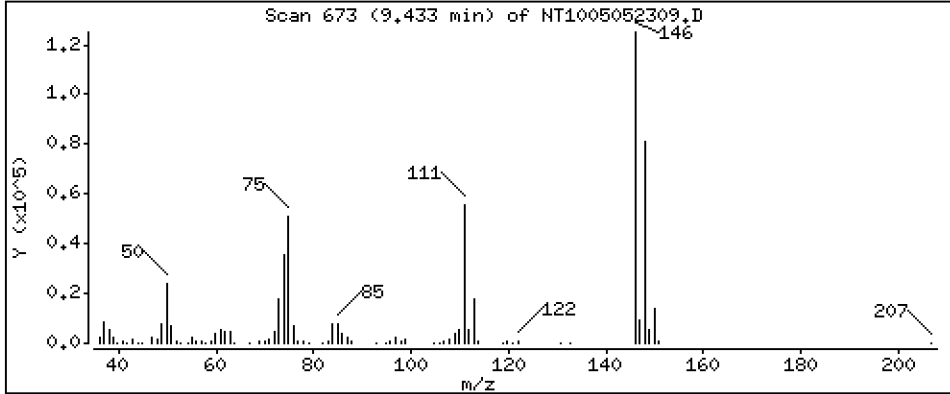
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 3,285 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

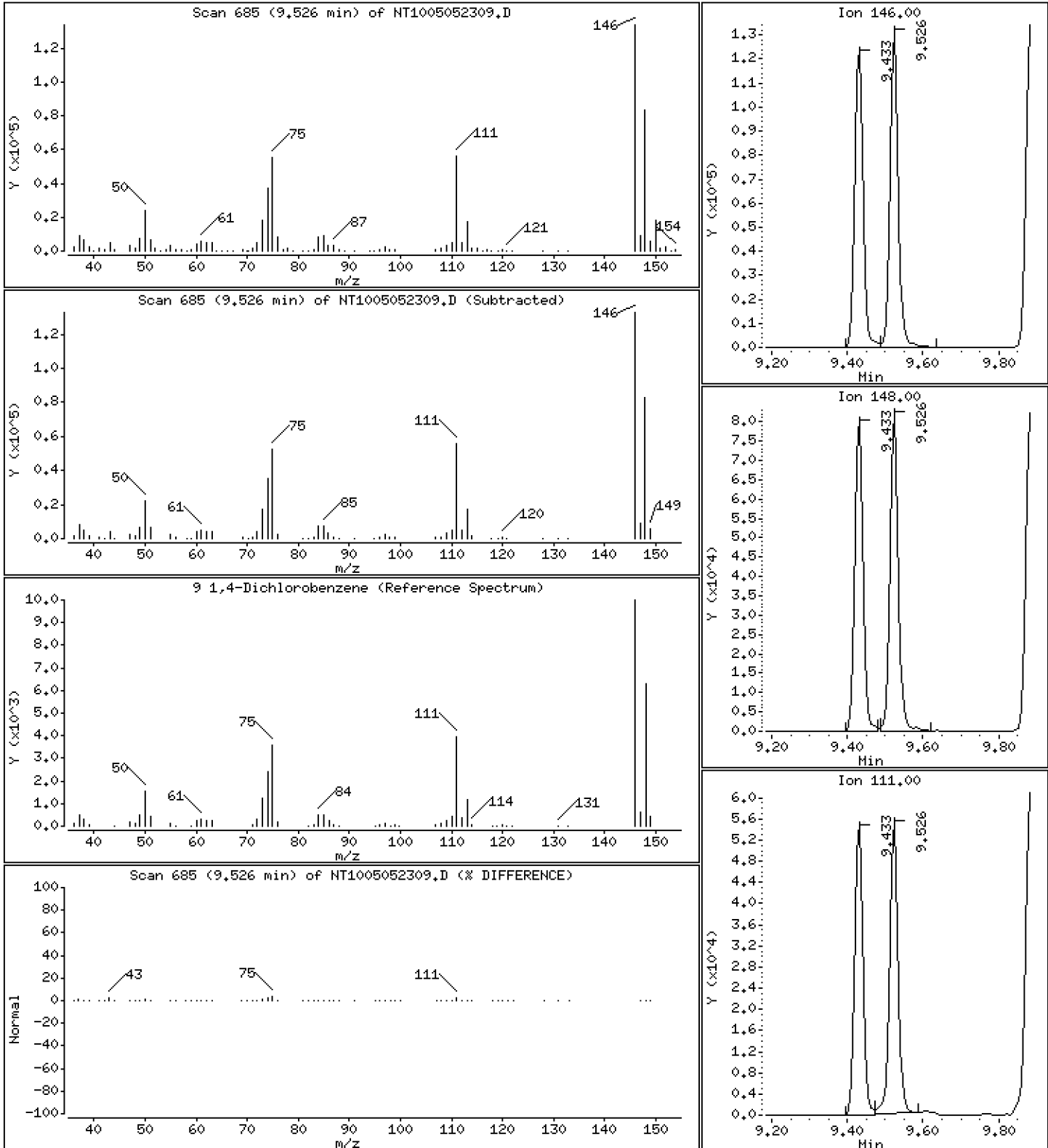
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 3,341 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

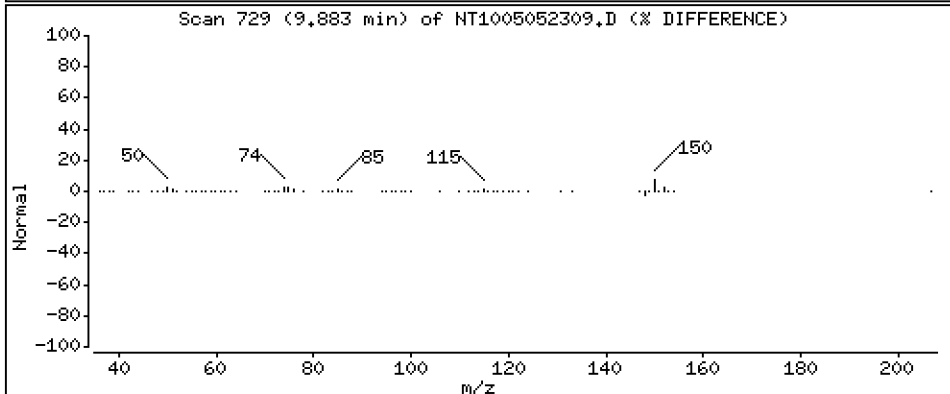
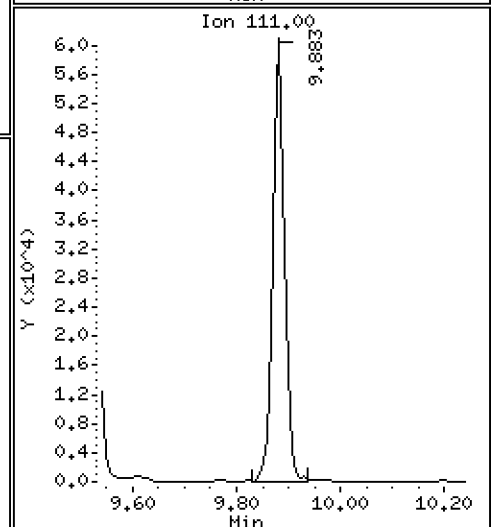
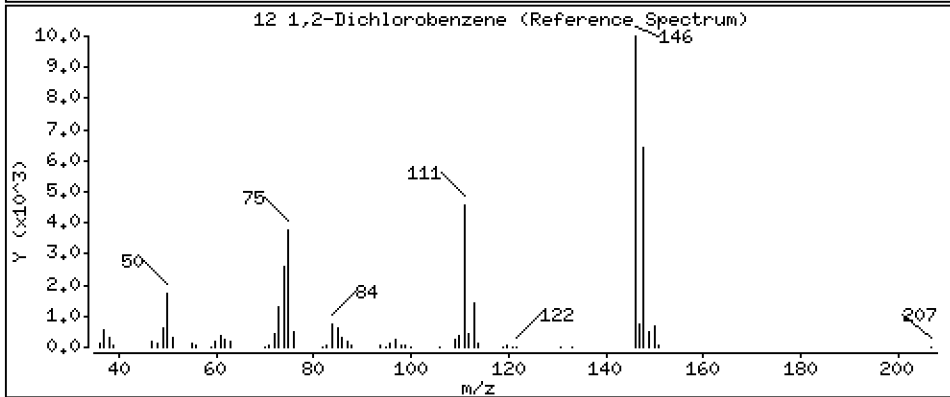
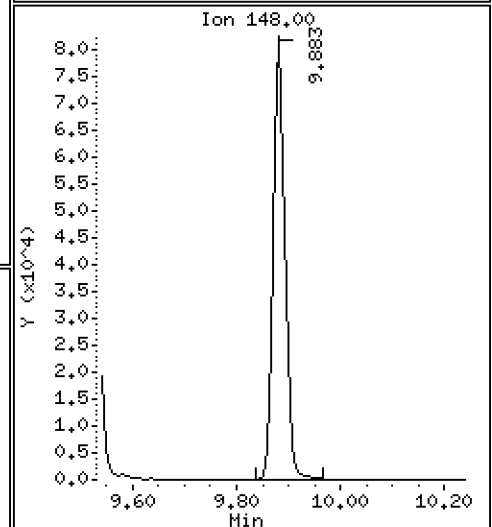
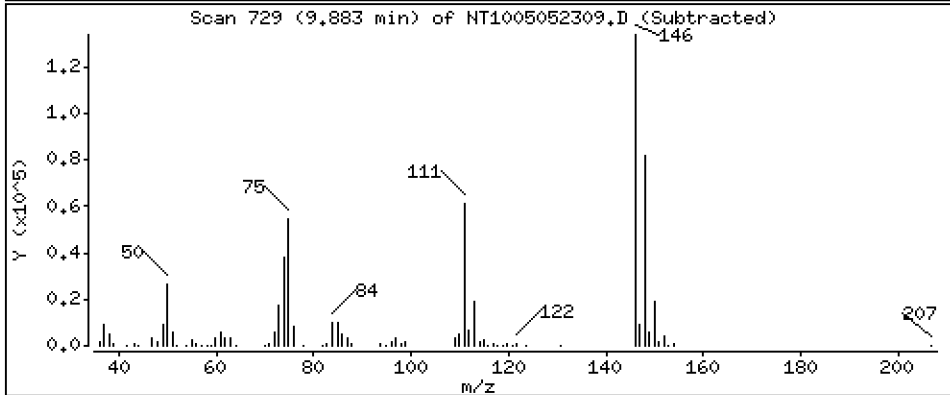
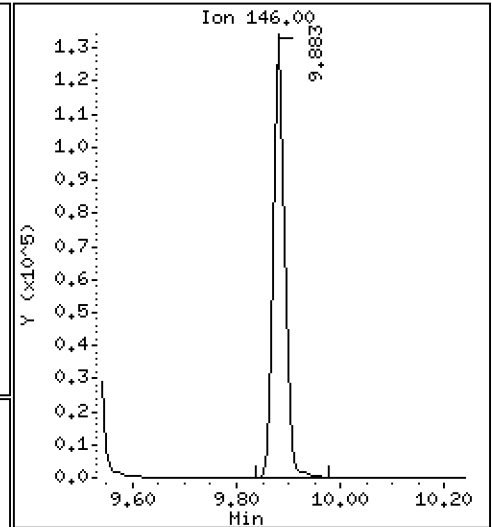
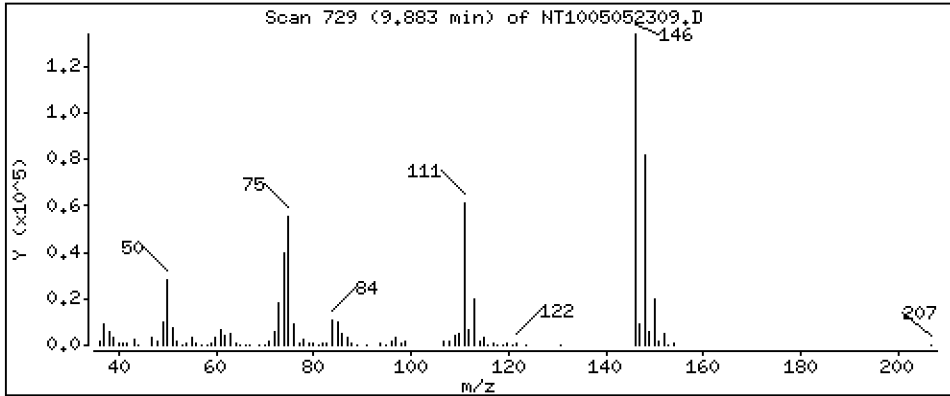
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 3,402 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

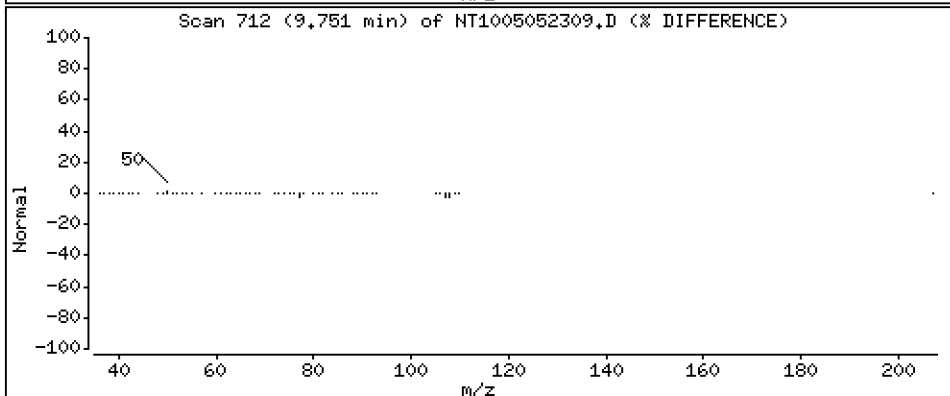
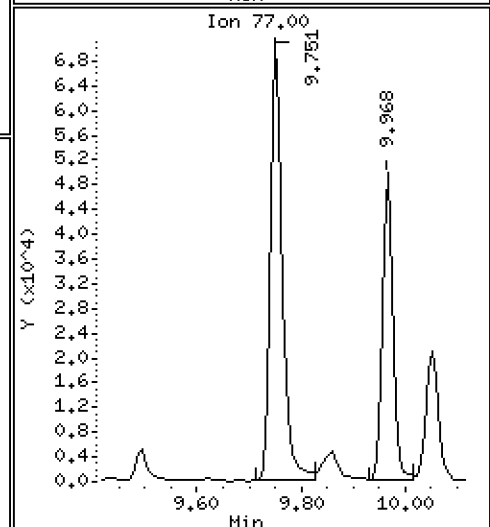
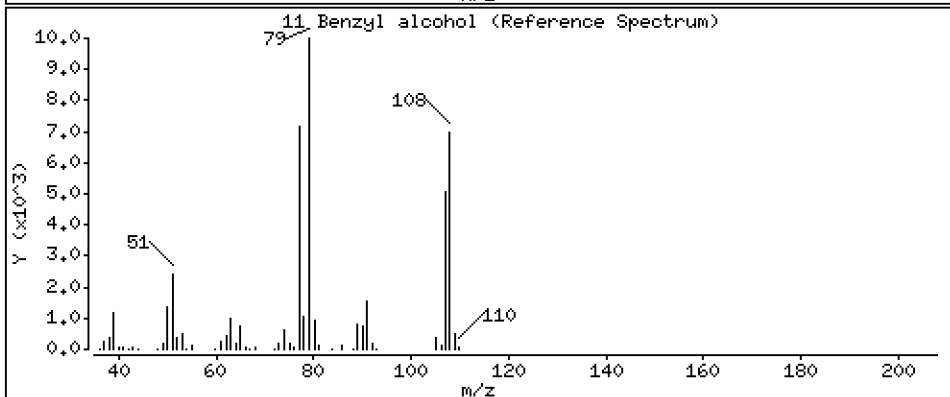
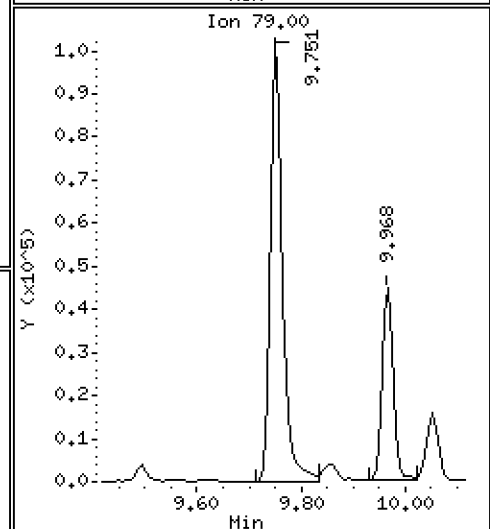
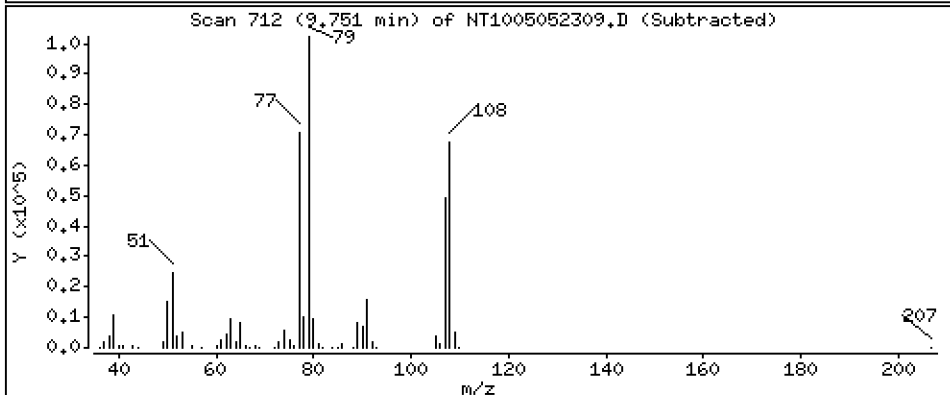
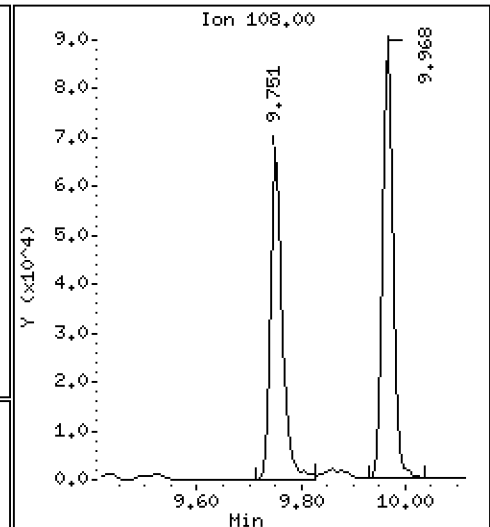
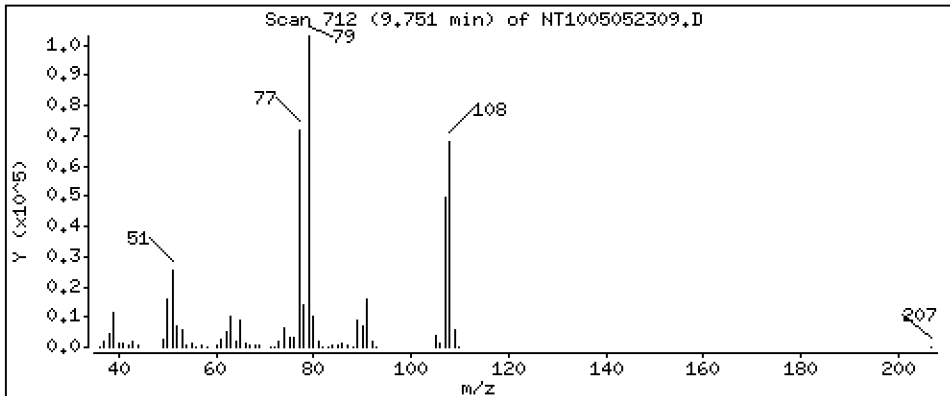
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 3.615 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

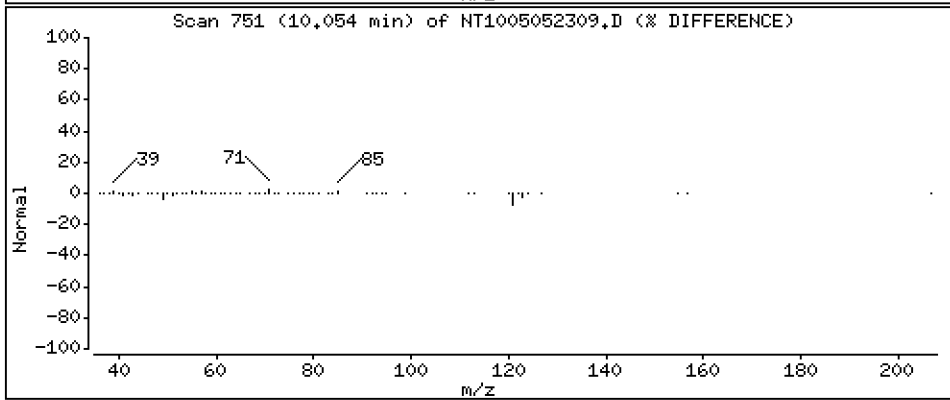
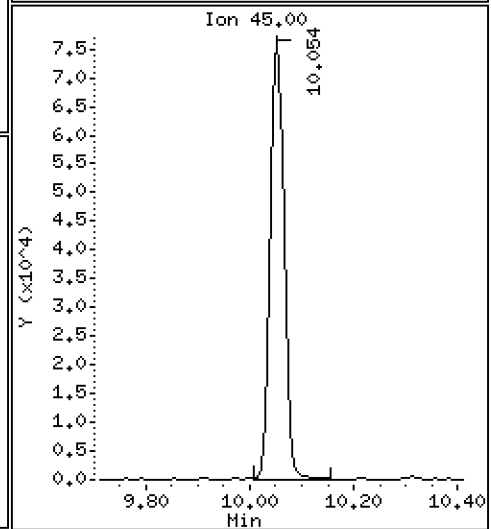
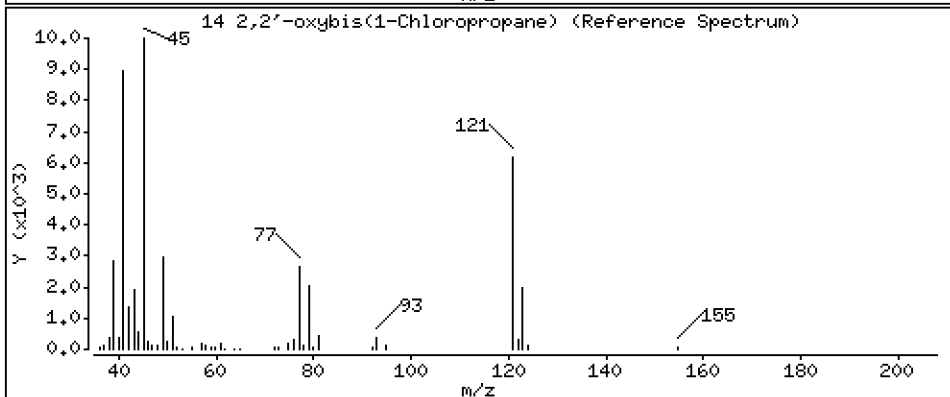
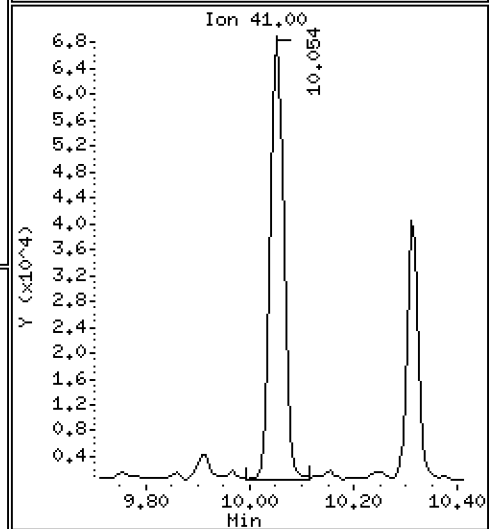
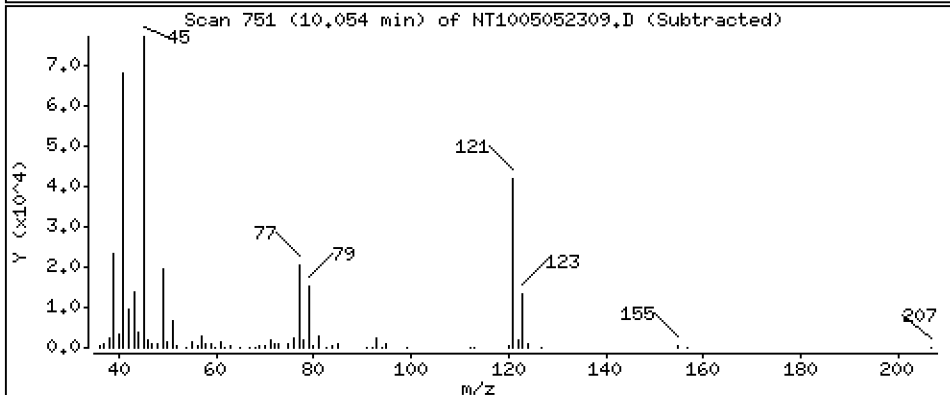
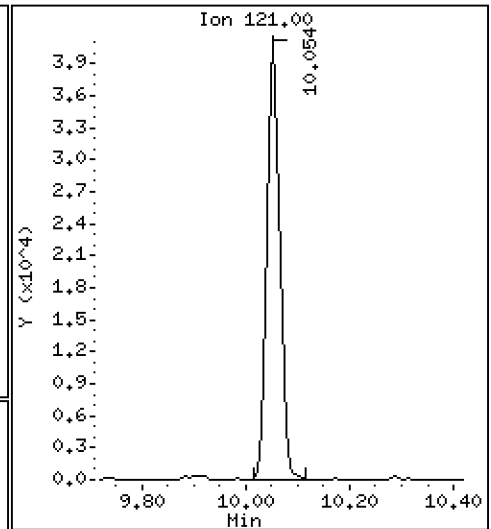
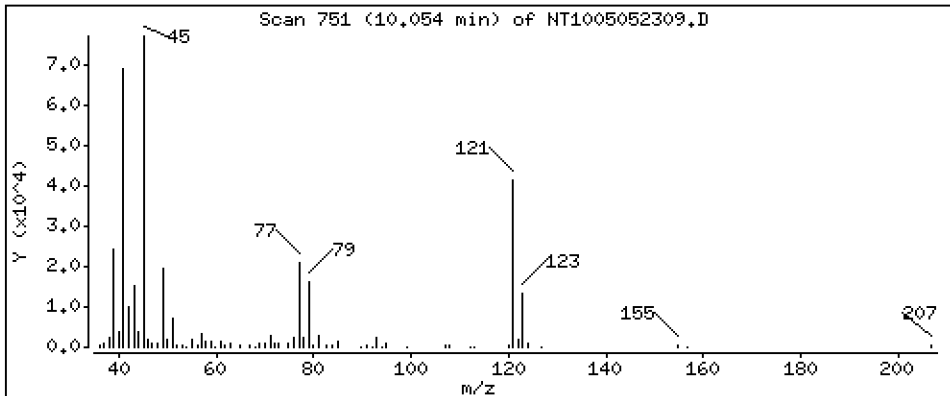
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,078 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

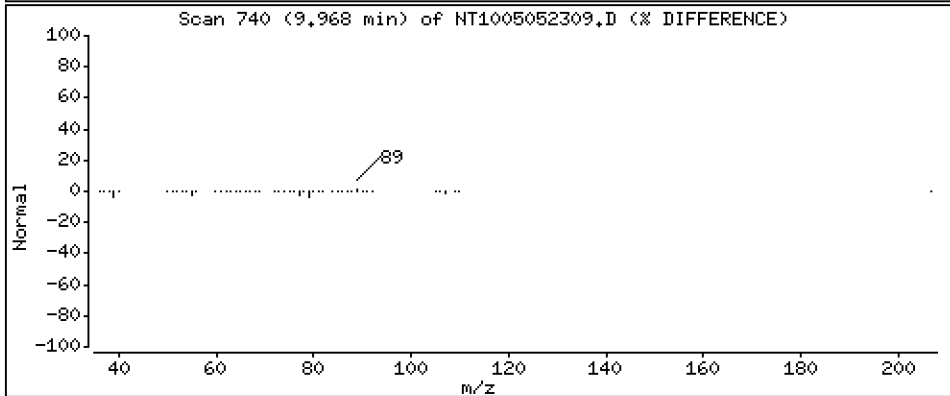
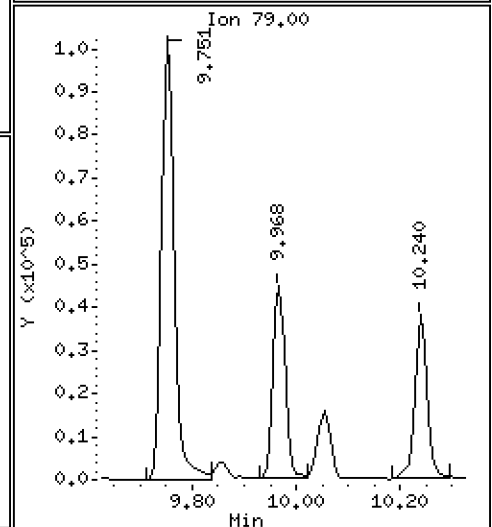
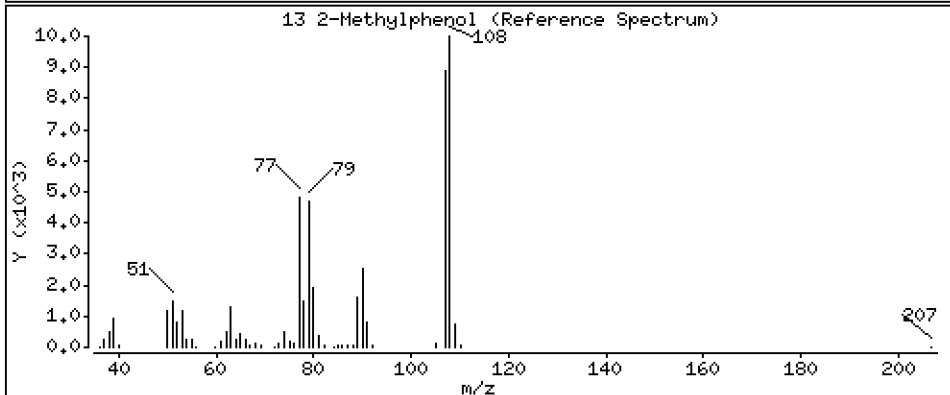
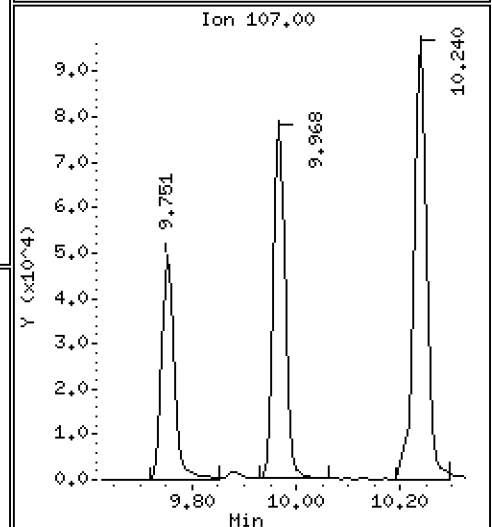
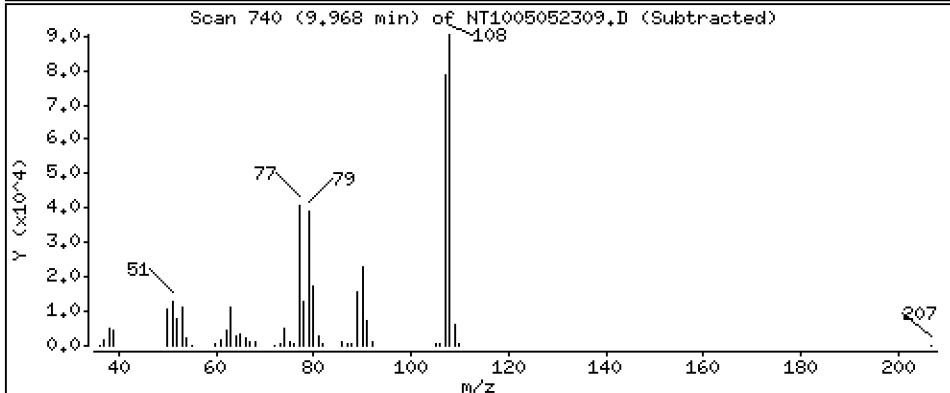
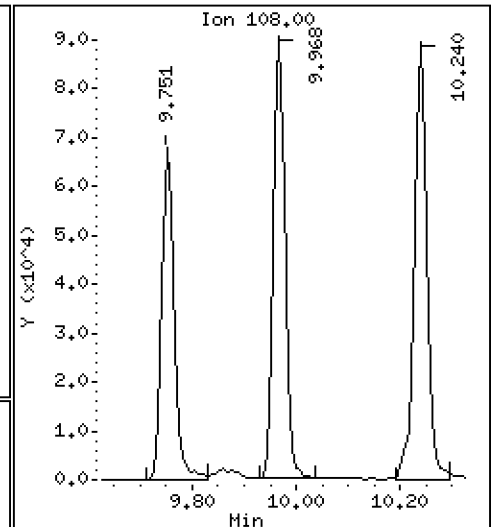
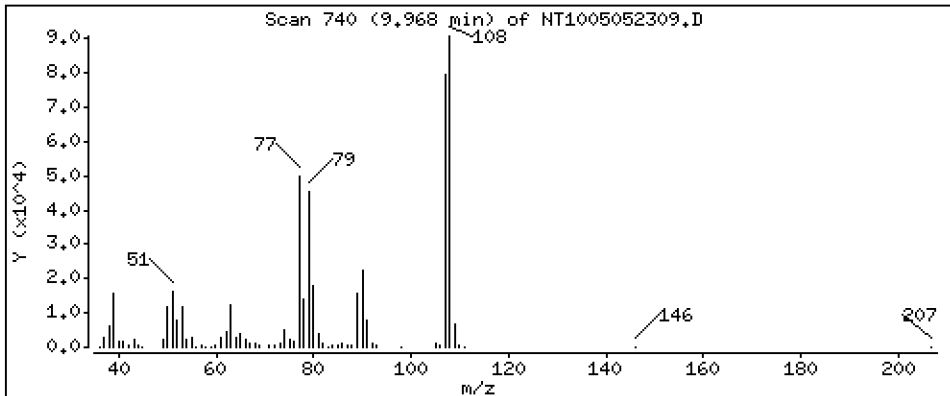
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 2,923 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

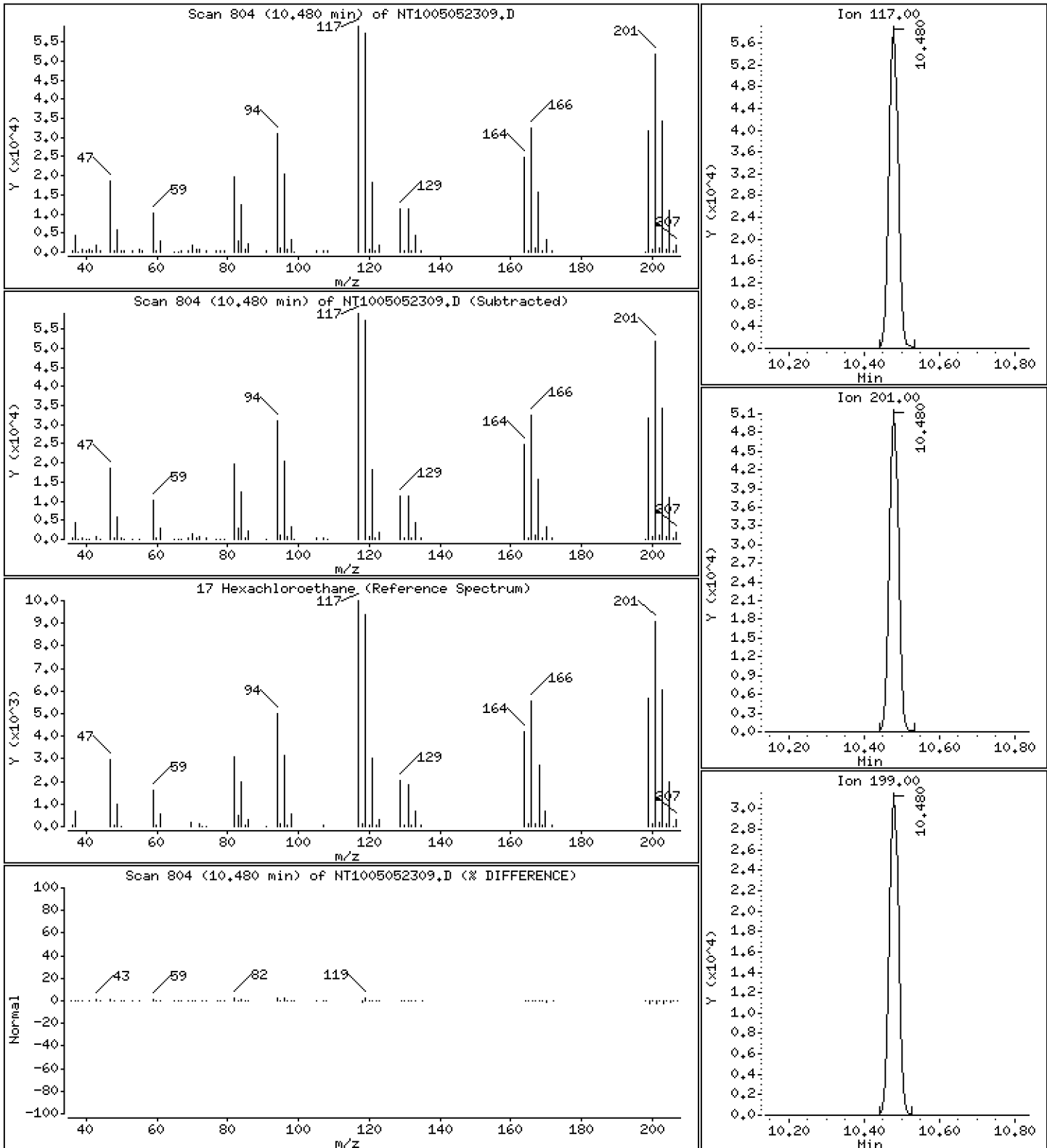
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 3,649 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

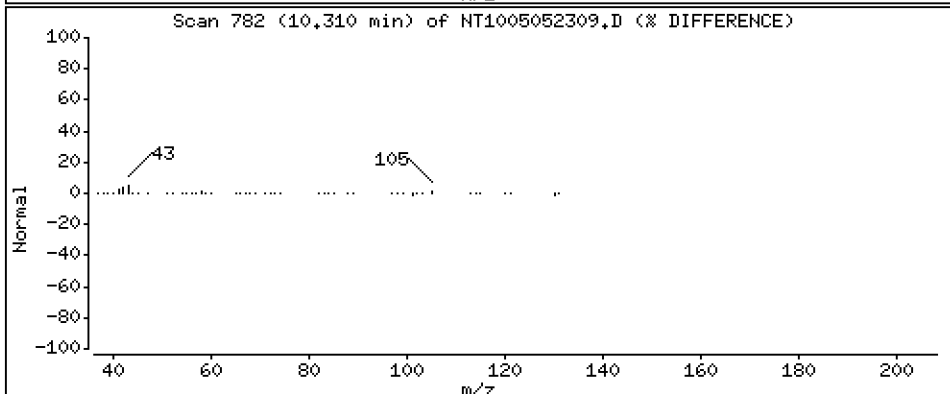
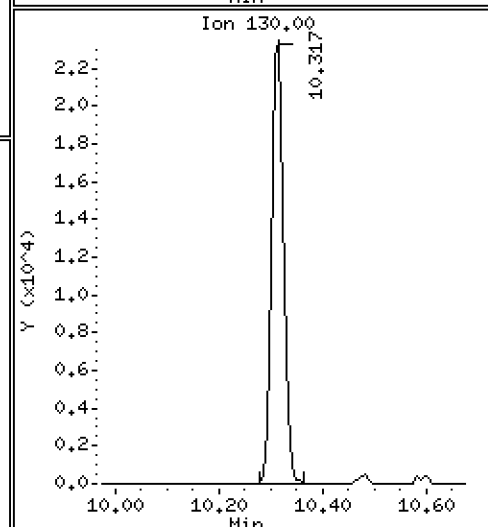
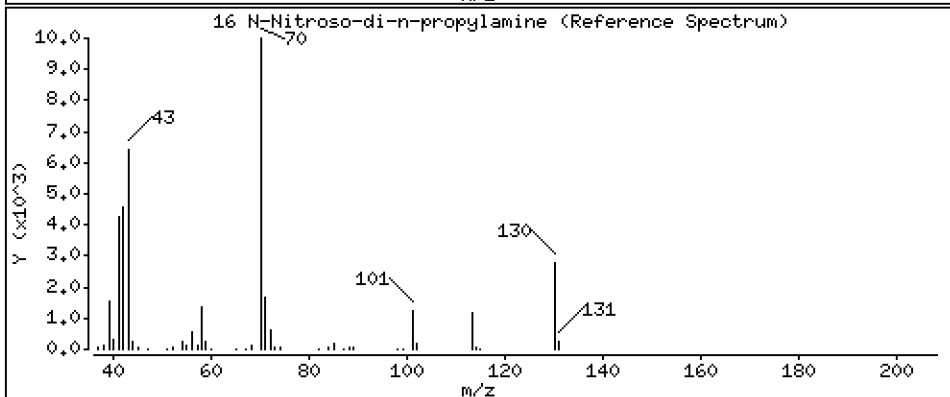
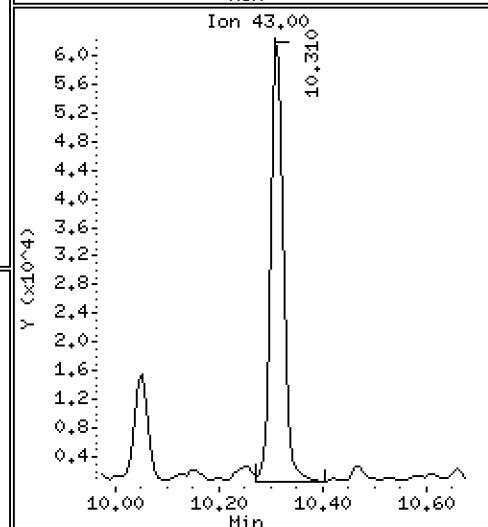
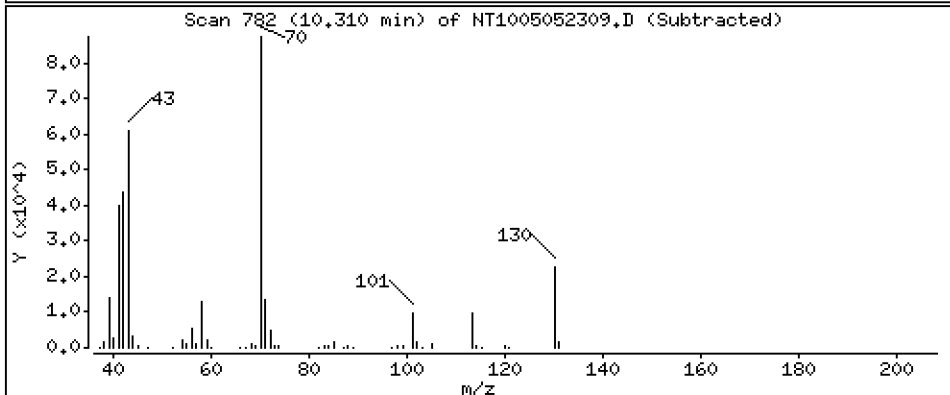
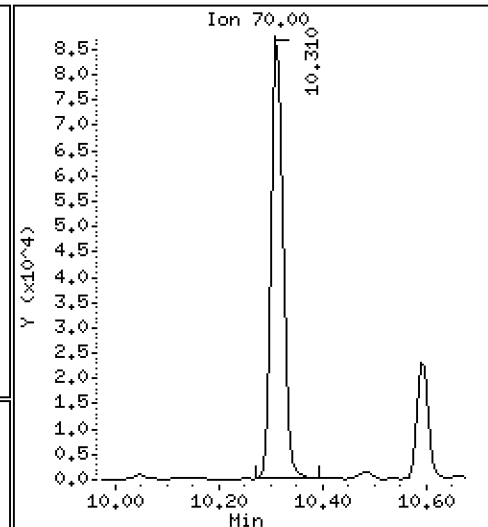
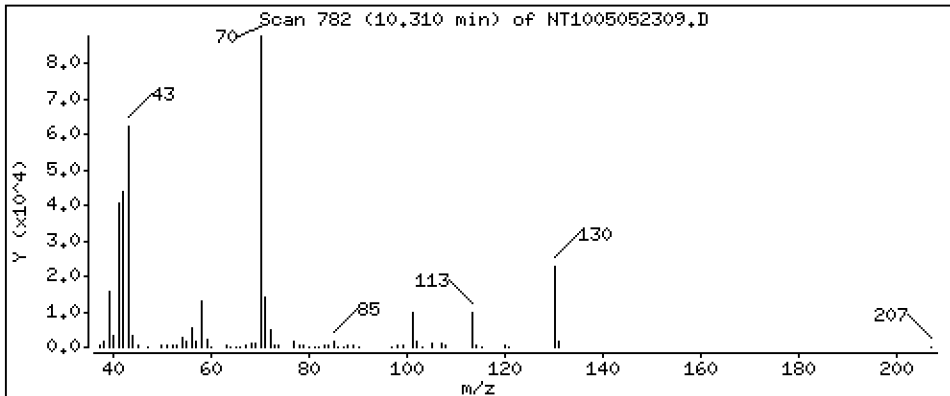
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 3,717 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

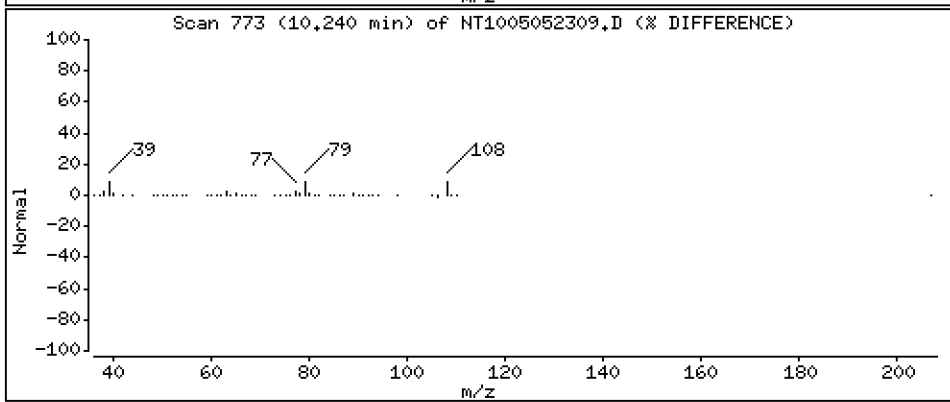
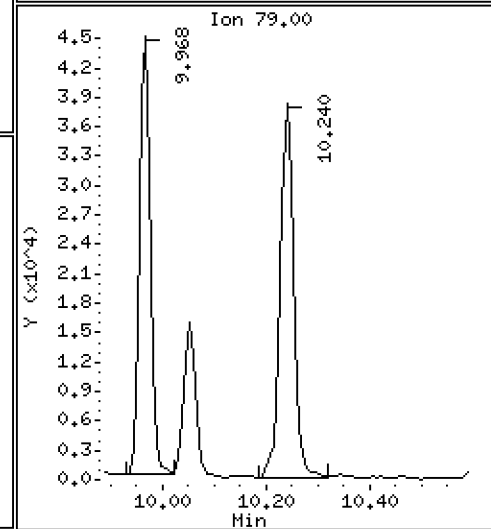
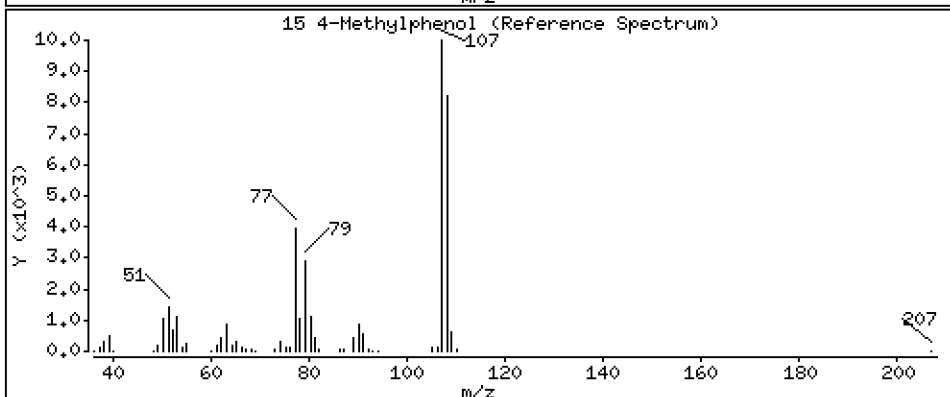
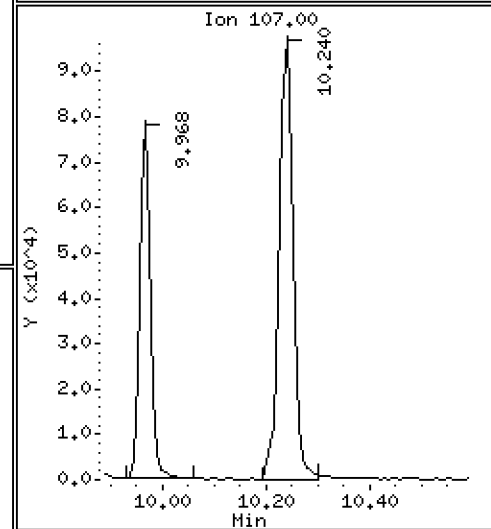
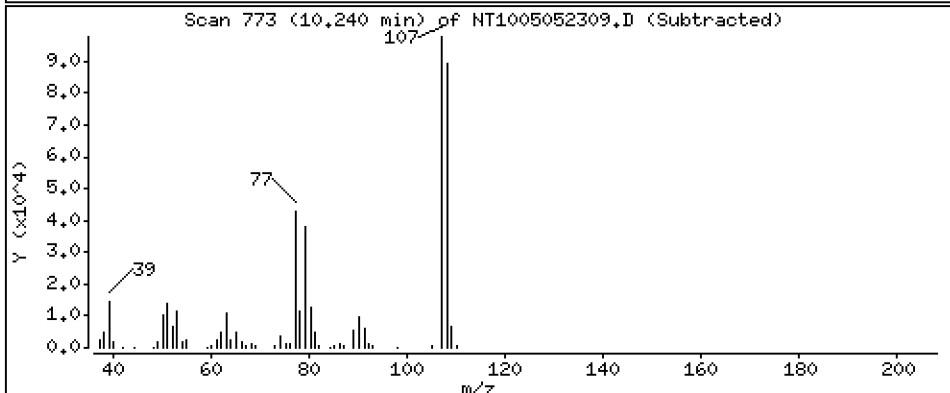
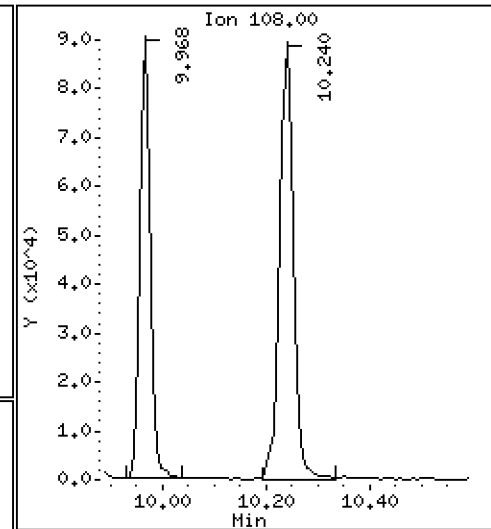
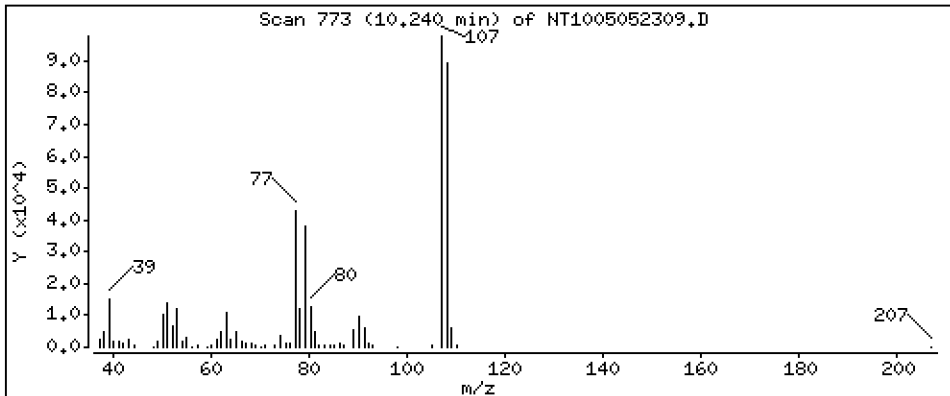
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,142 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

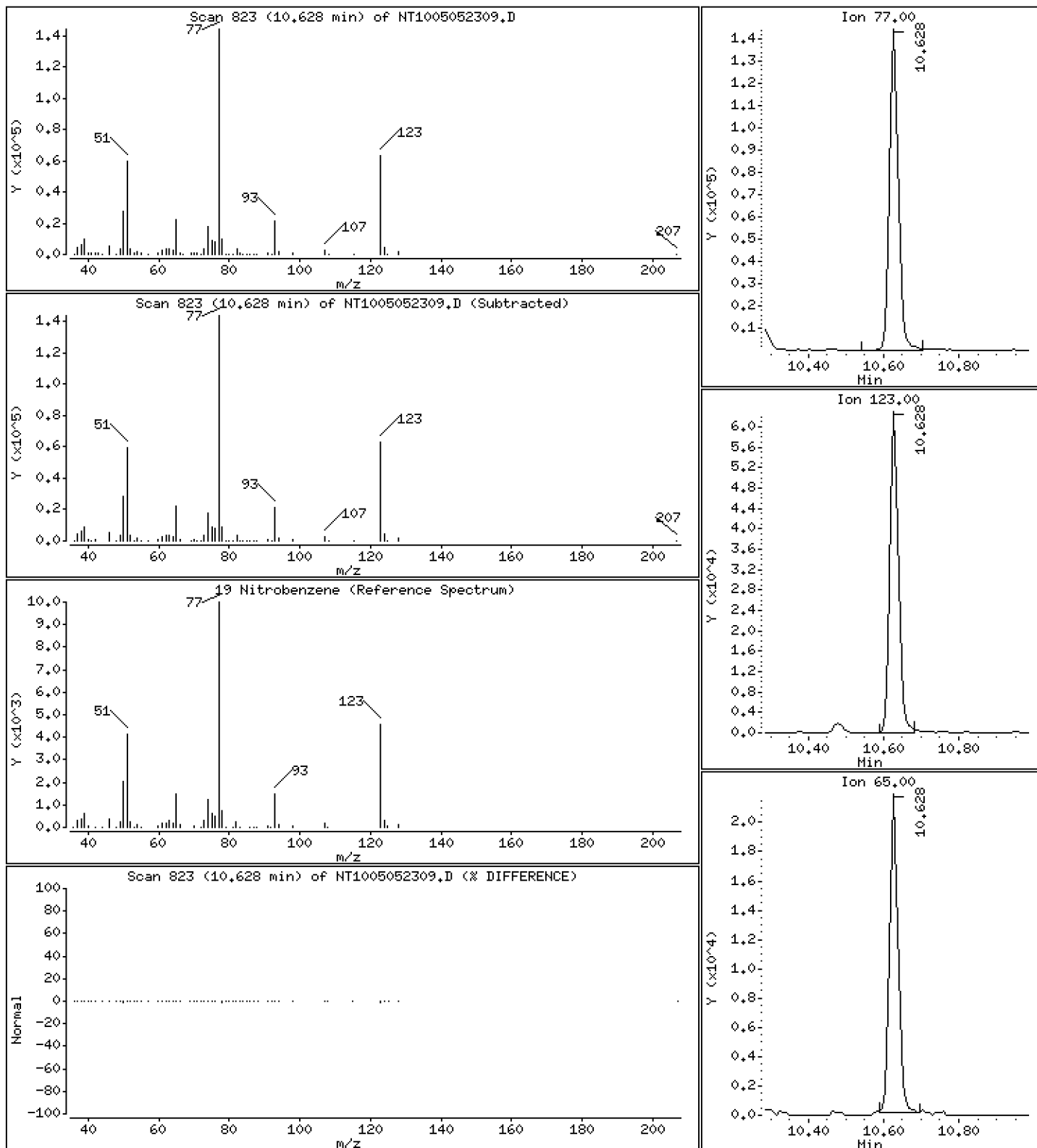
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 3,624 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

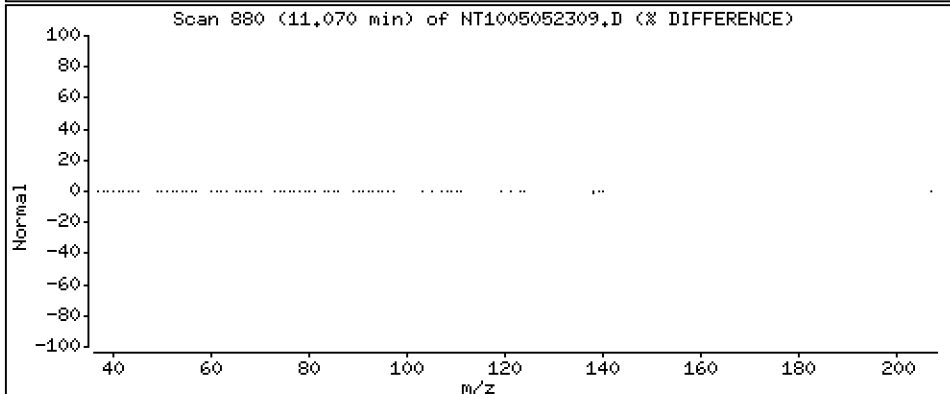
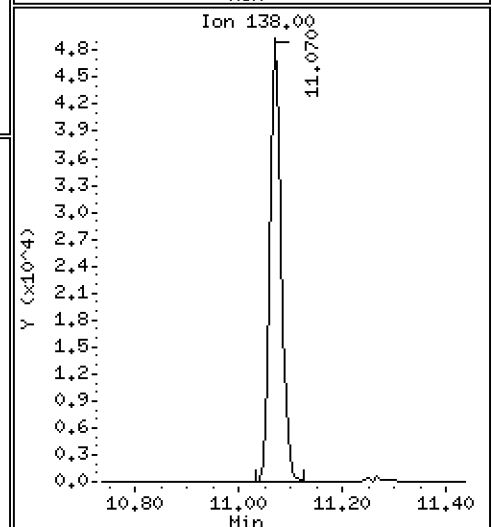
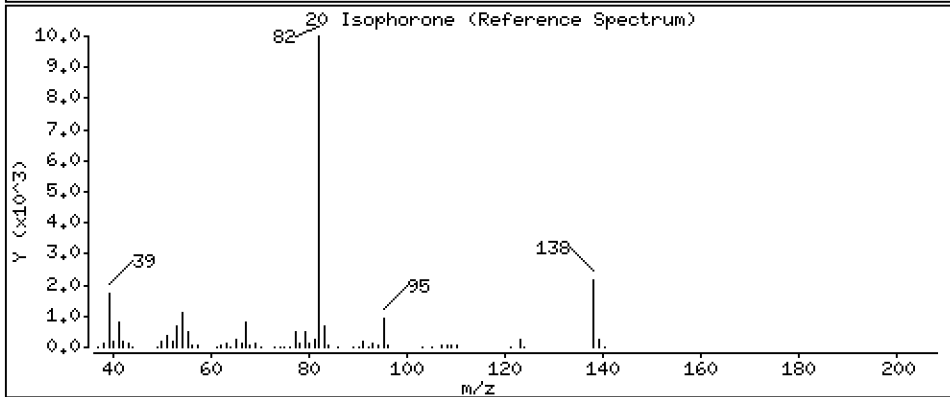
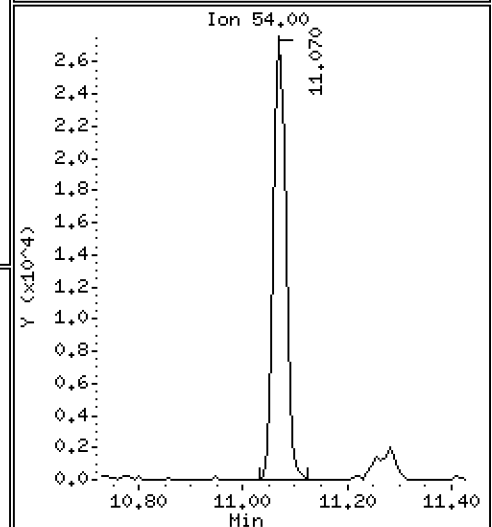
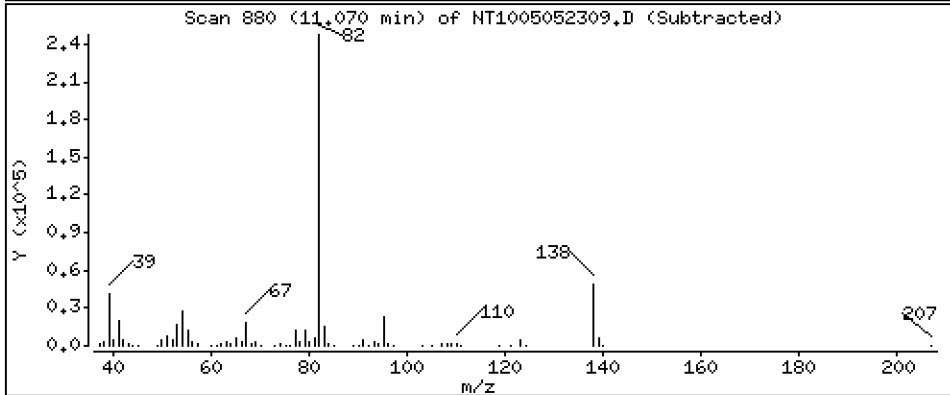
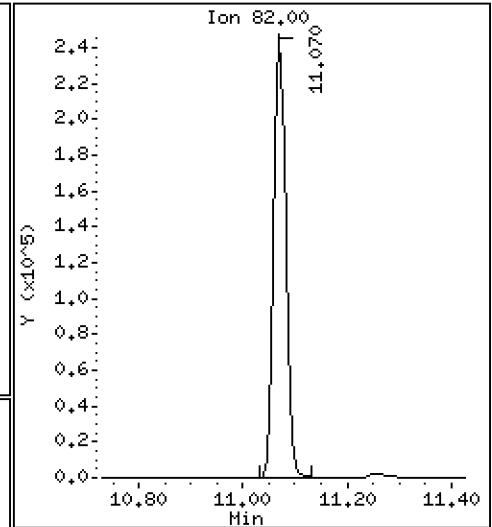
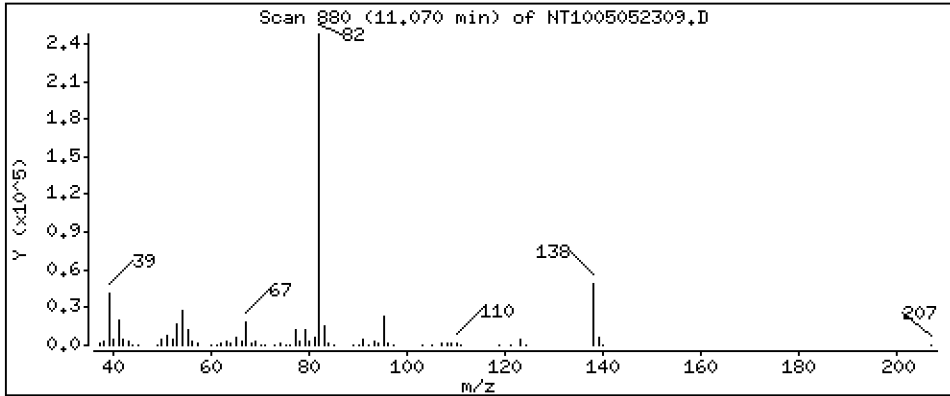
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 4,972 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

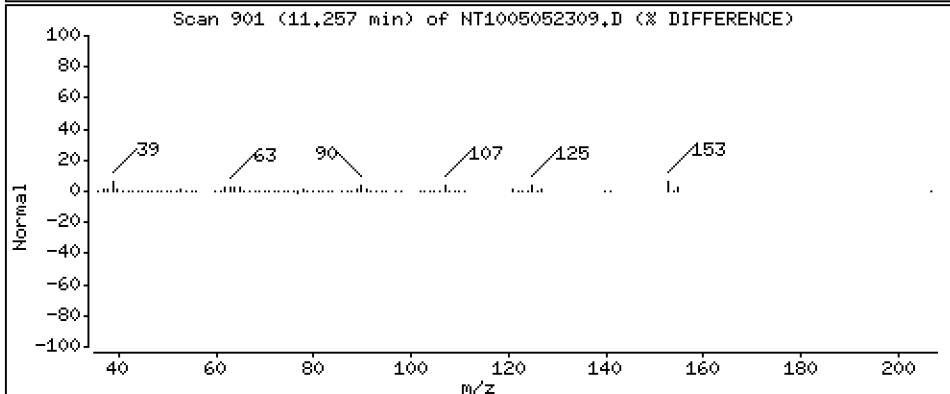
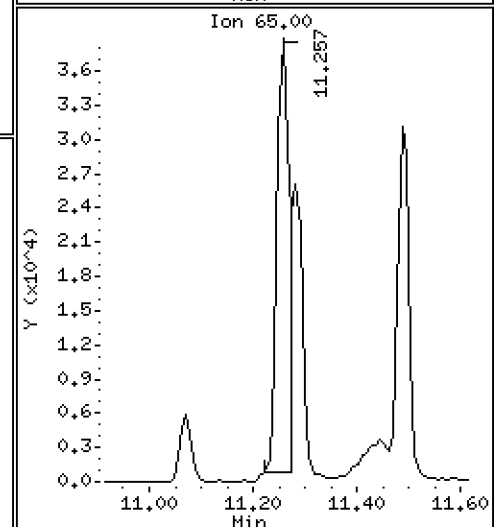
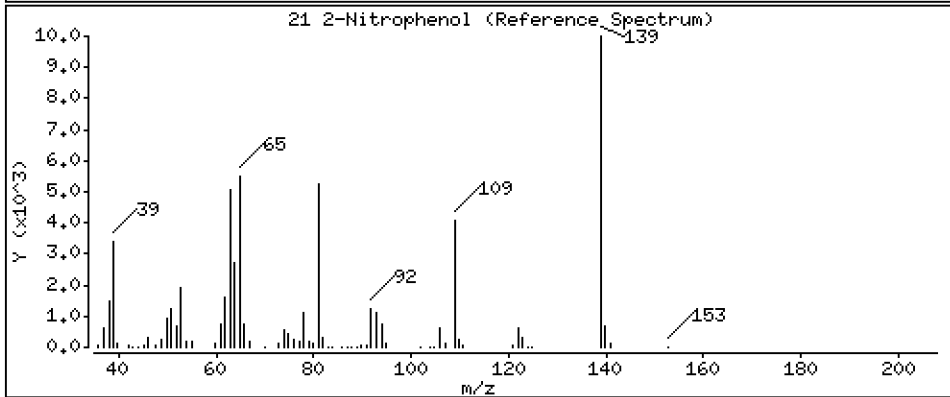
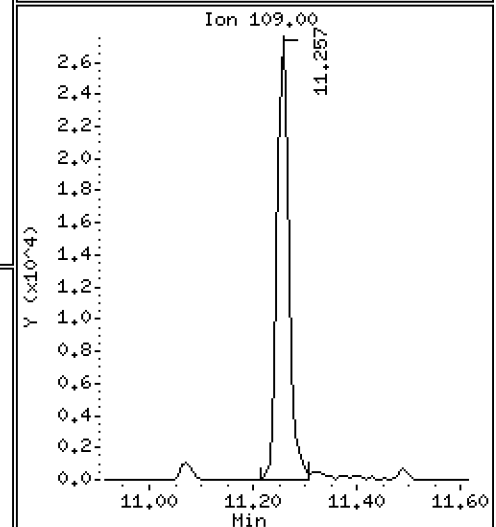
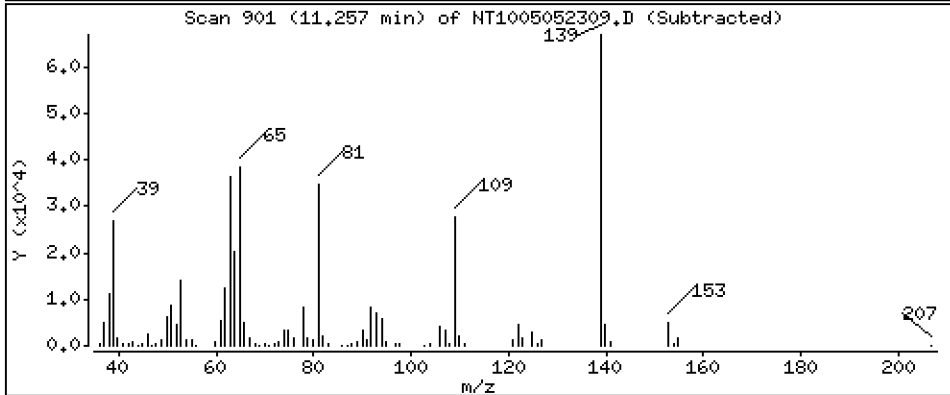
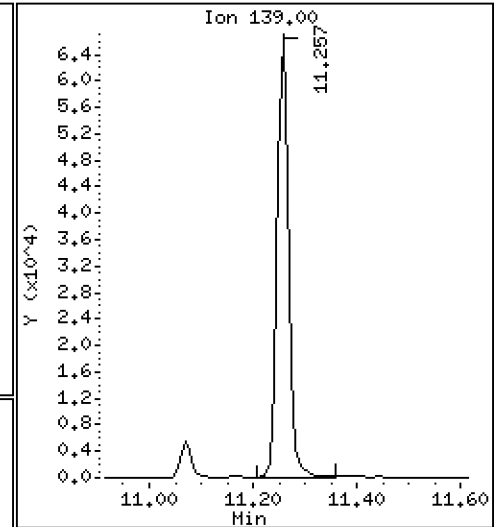
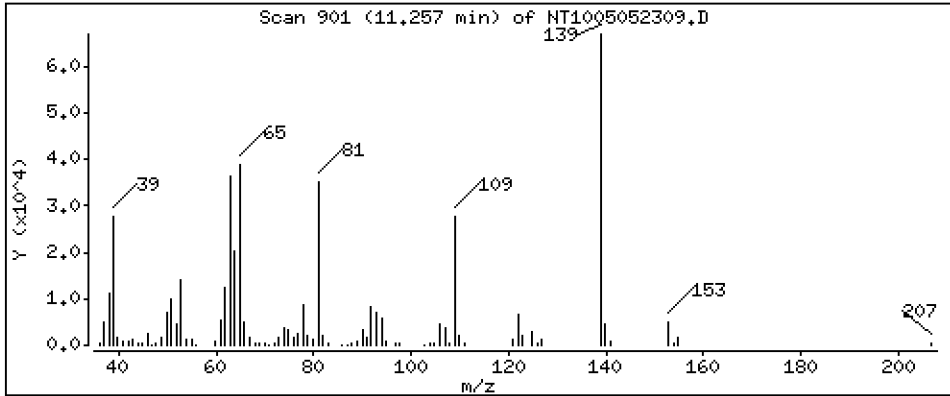
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 3,059 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

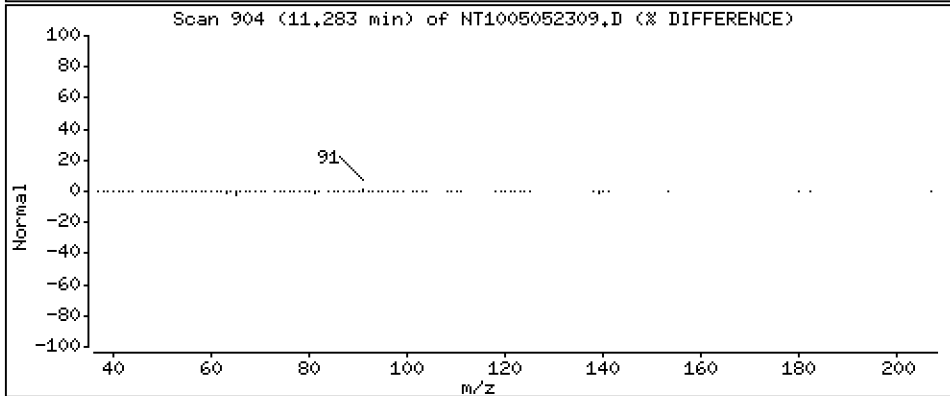
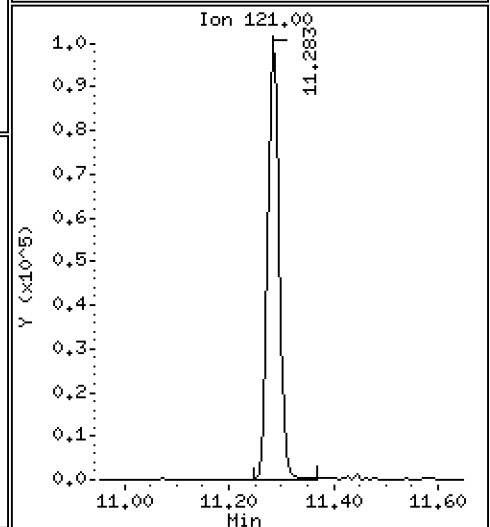
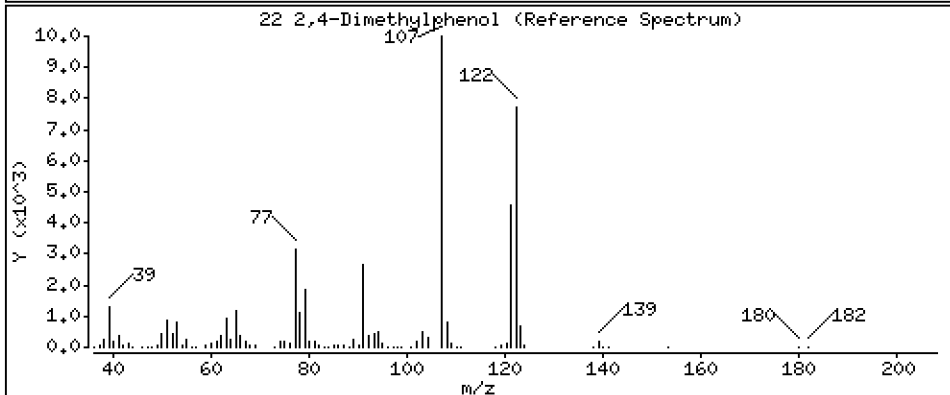
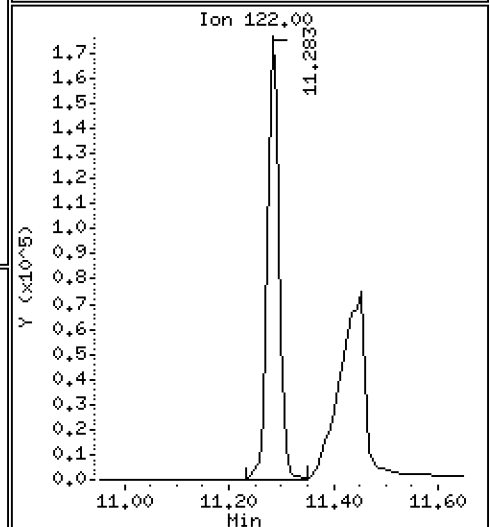
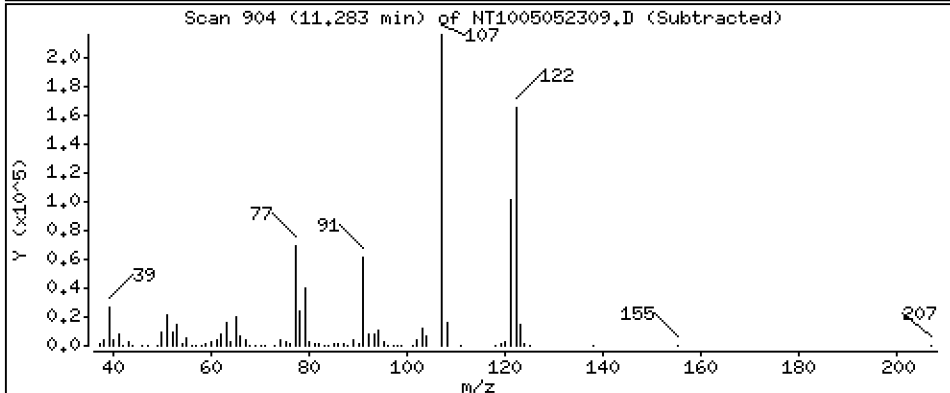
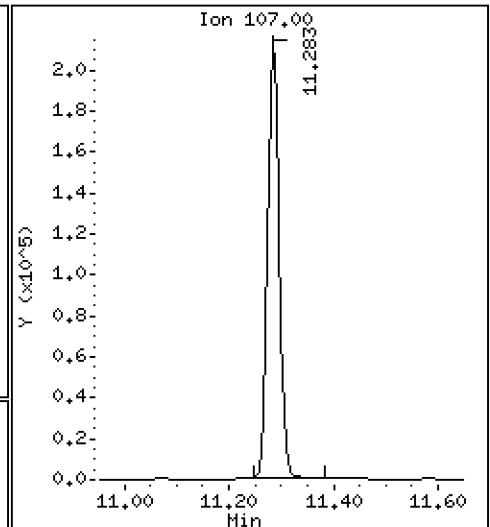
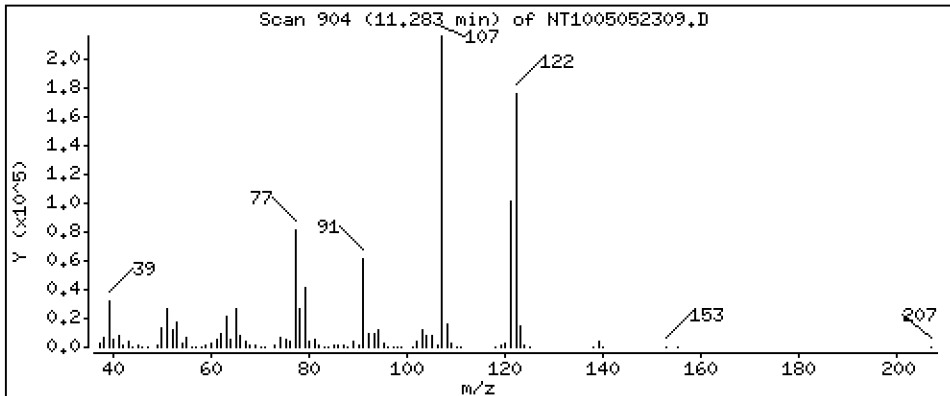
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 5,281 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

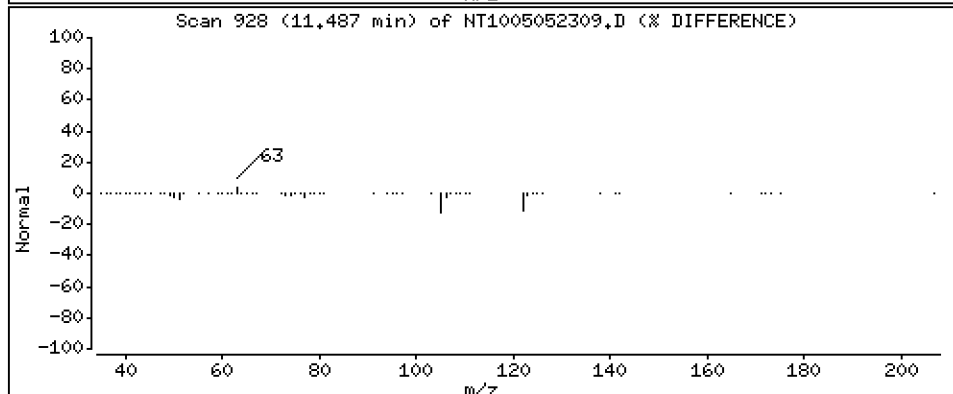
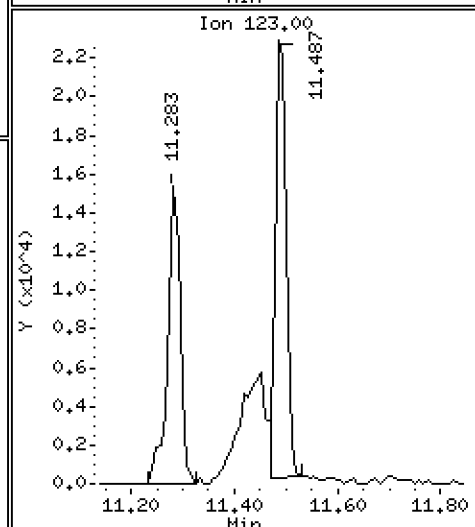
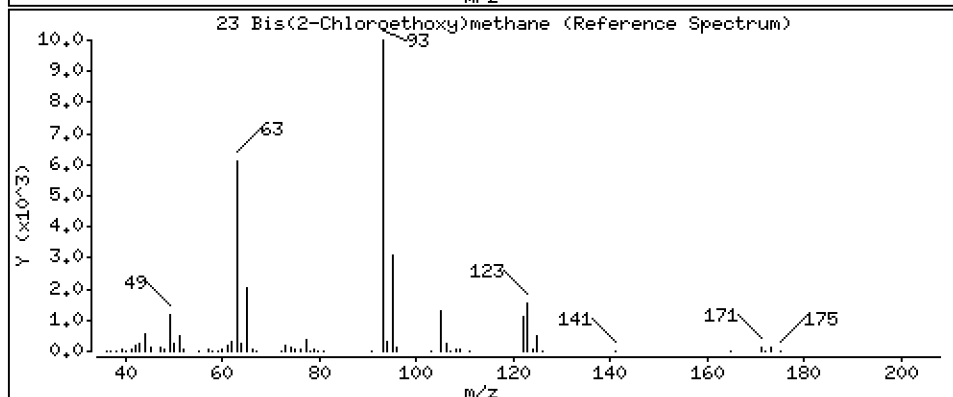
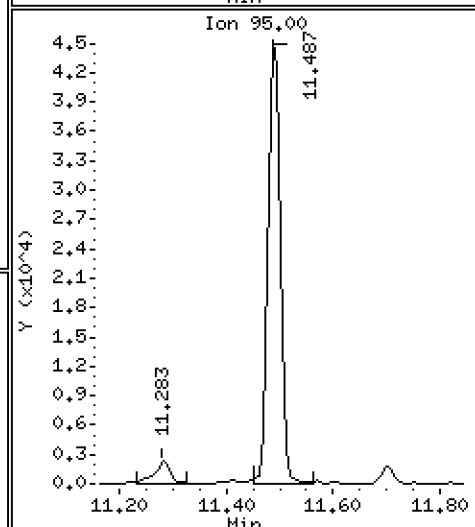
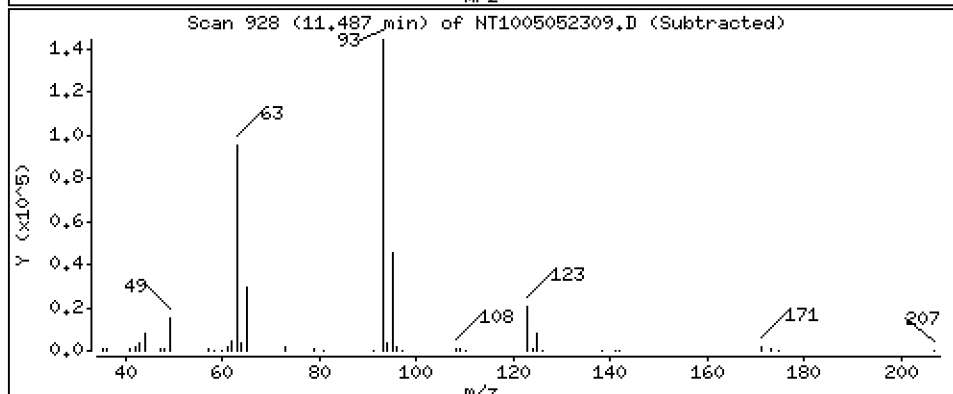
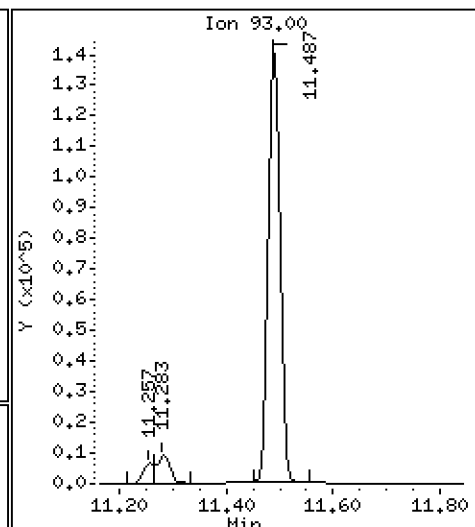
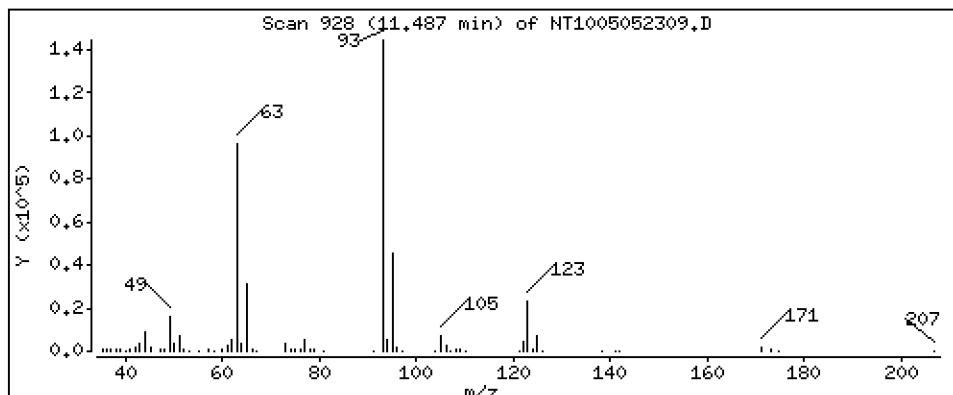
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 4,366 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

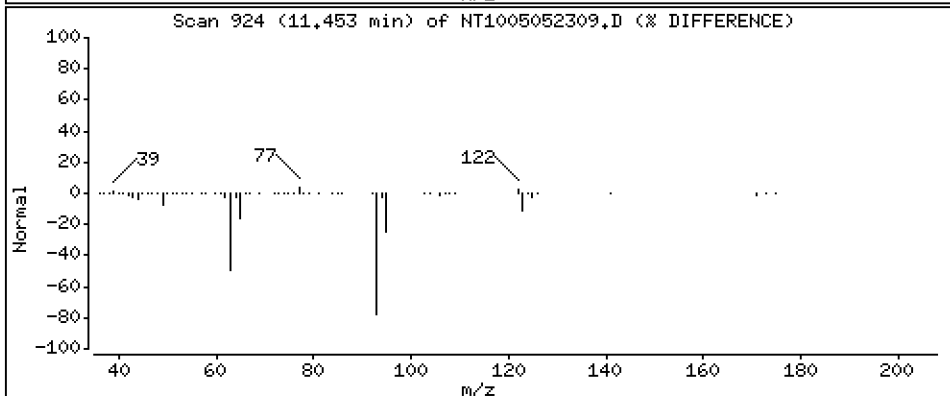
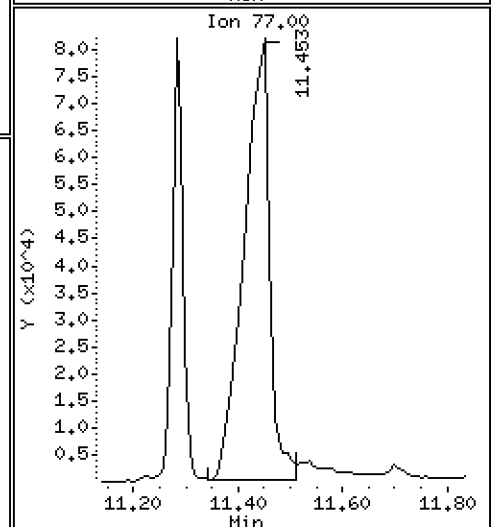
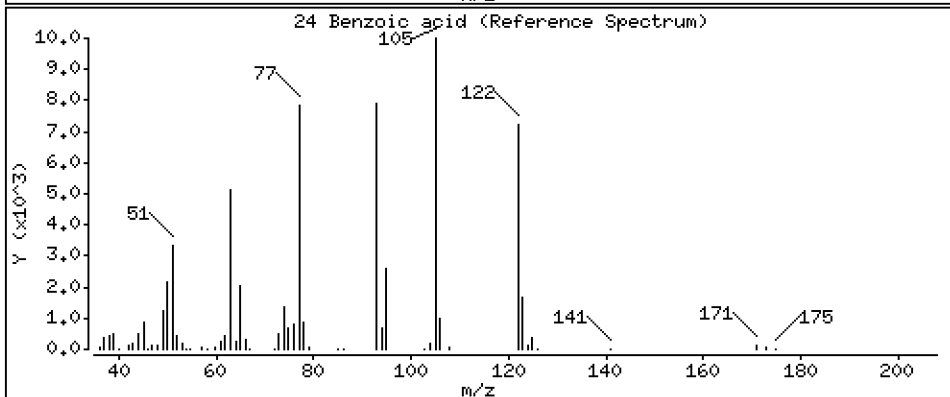
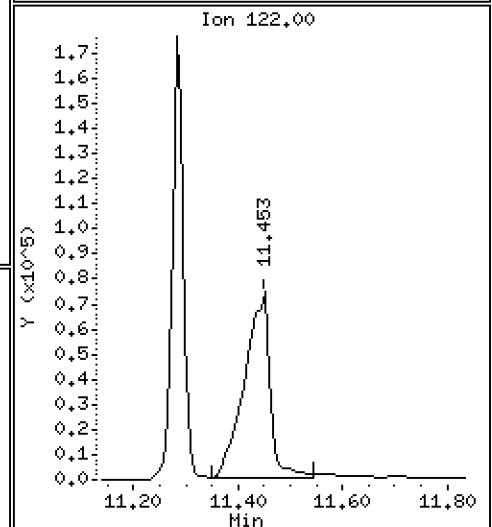
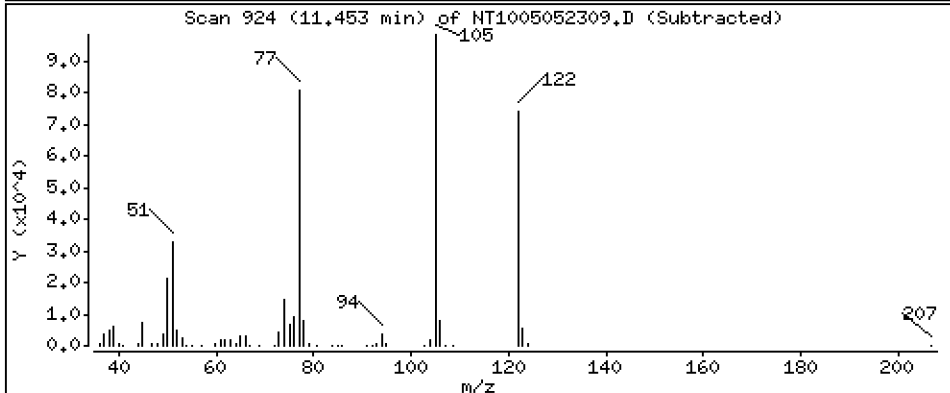
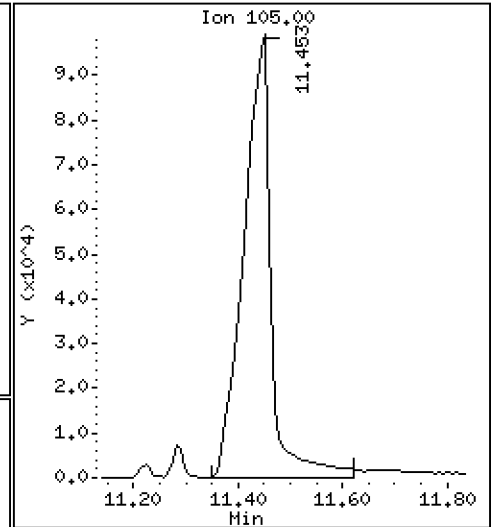
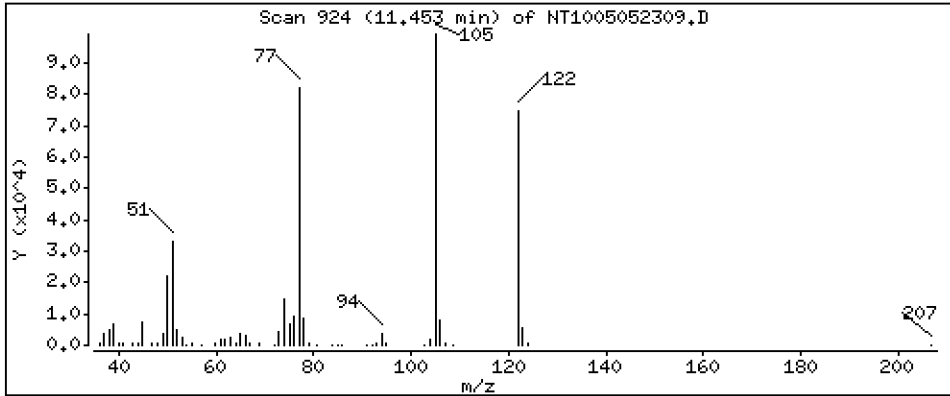
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 8,487 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

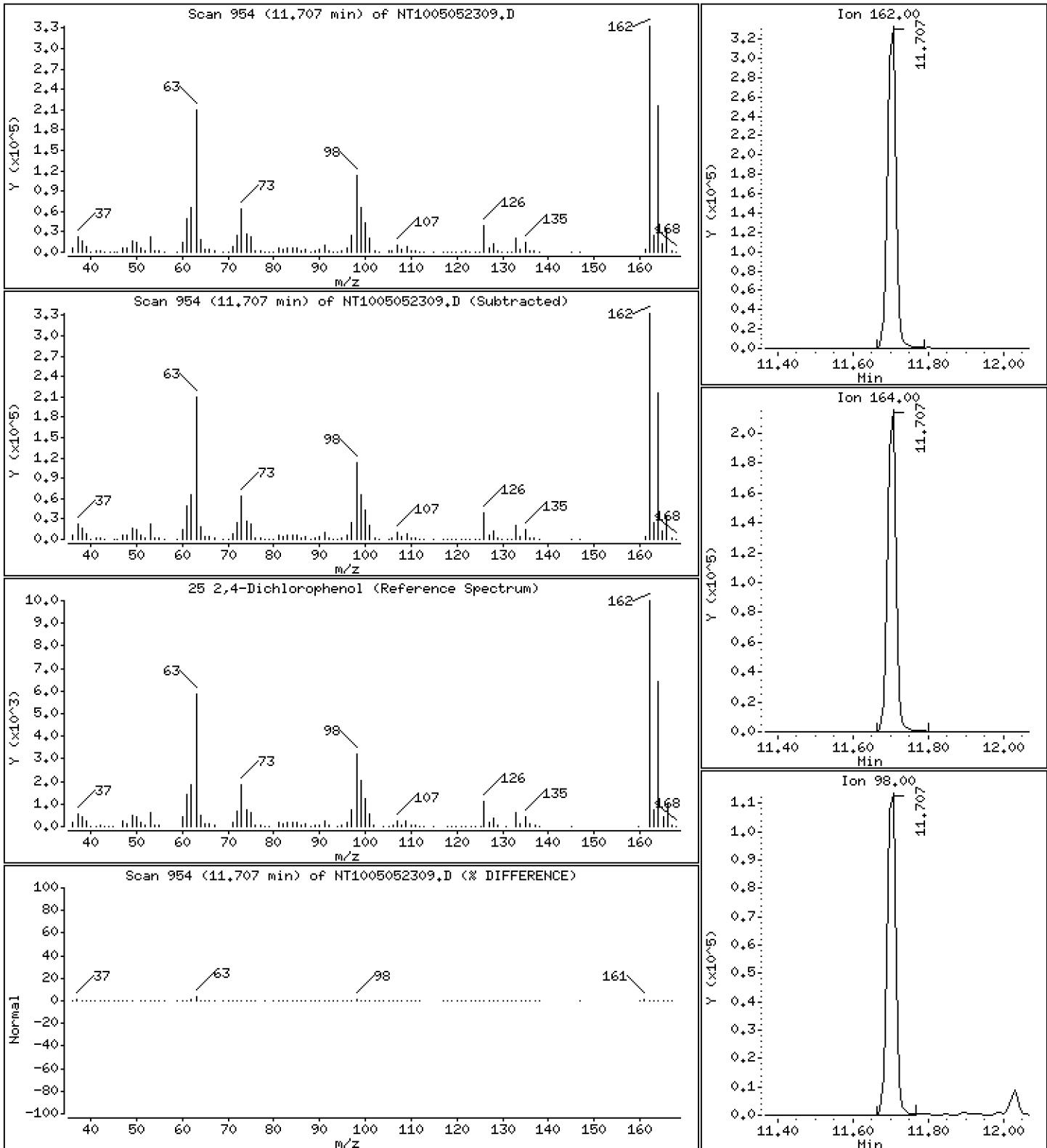
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 10,60 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

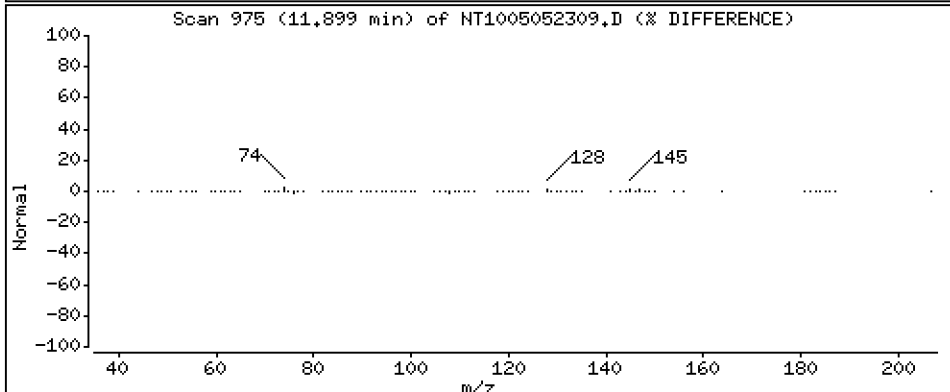
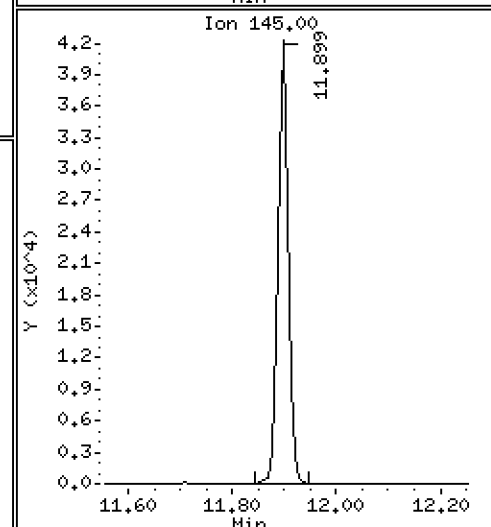
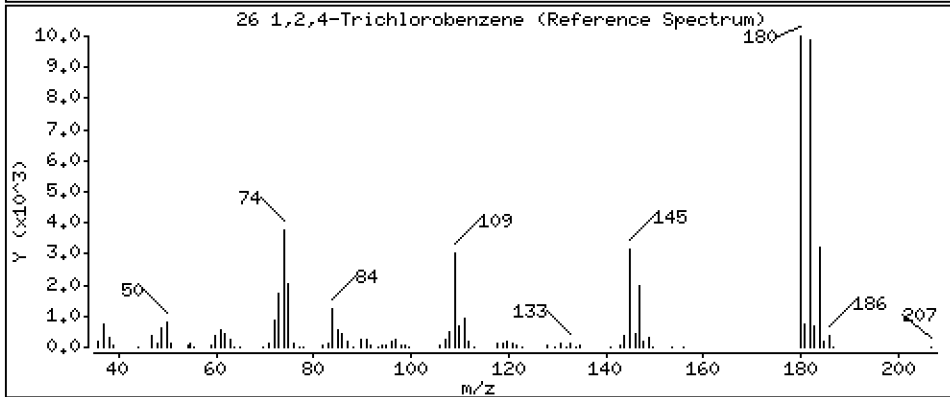
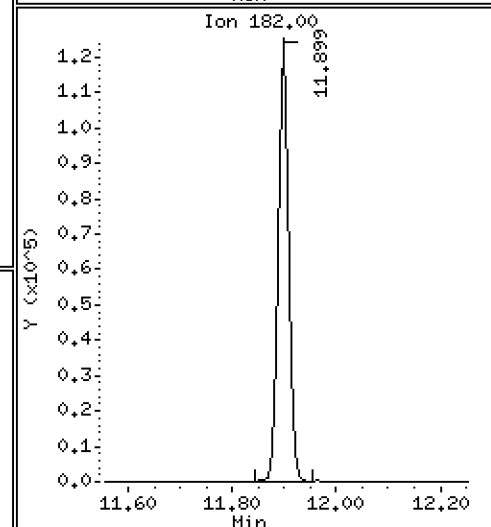
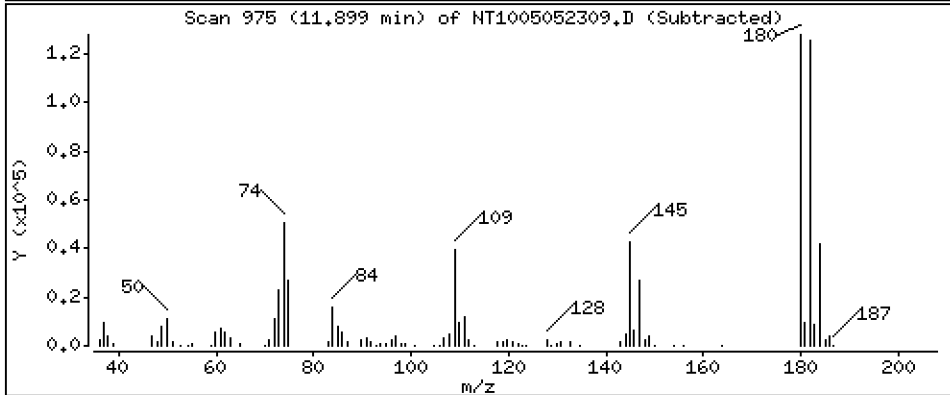
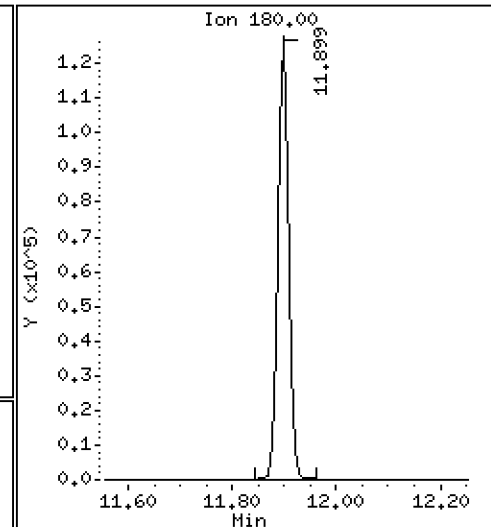
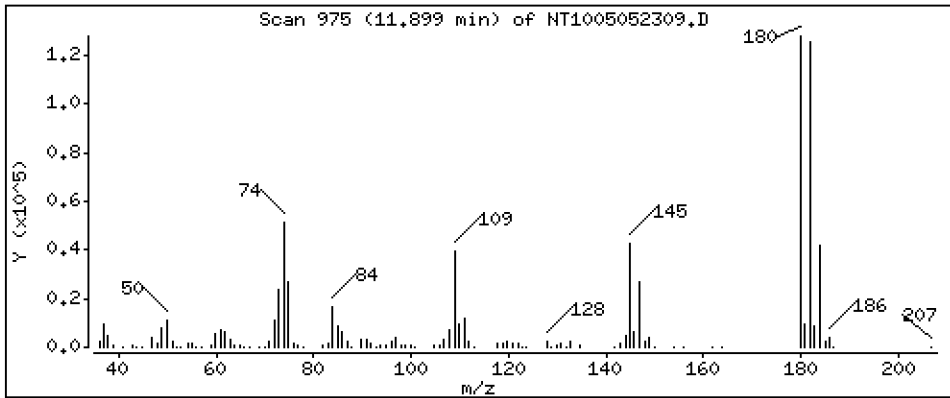
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,184 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

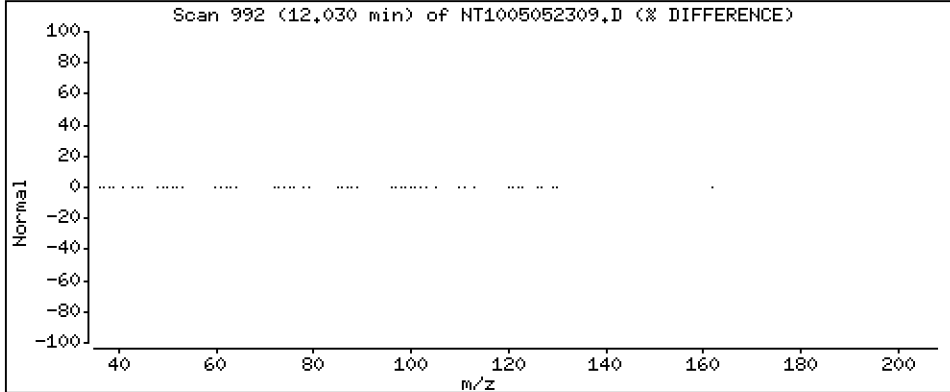
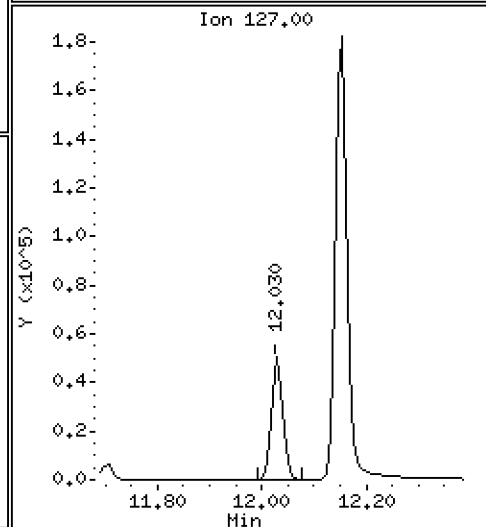
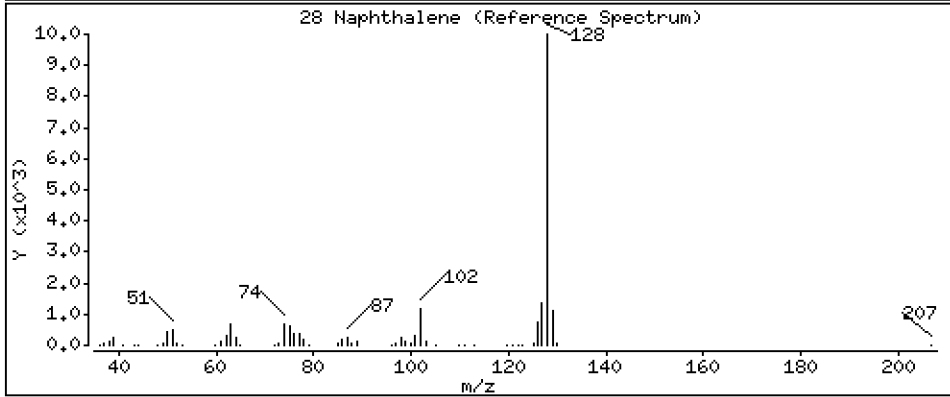
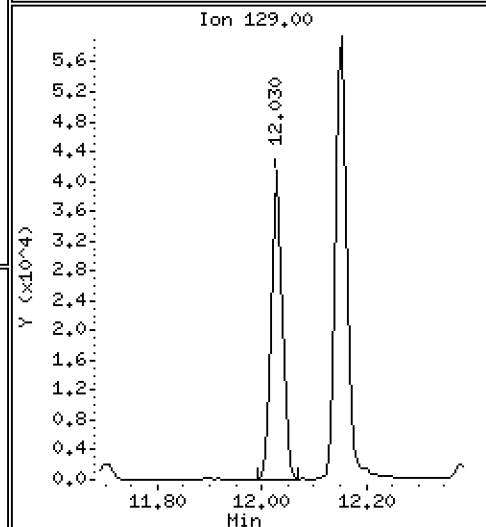
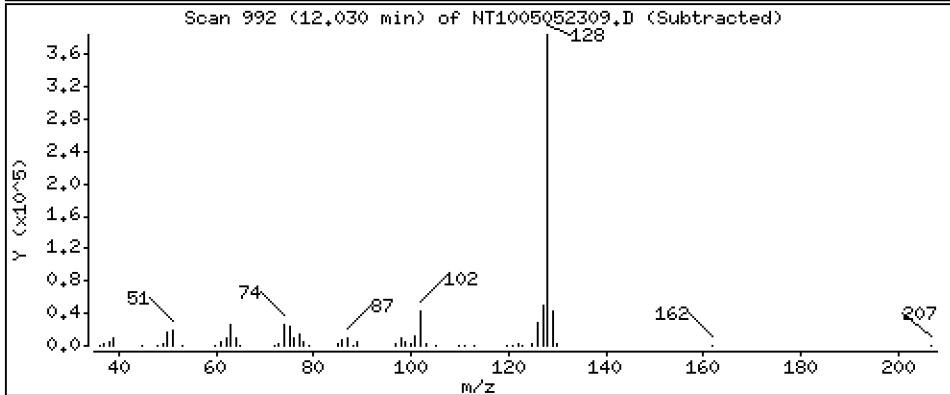
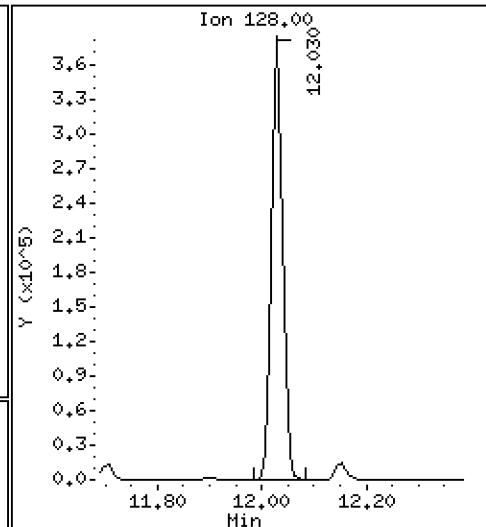
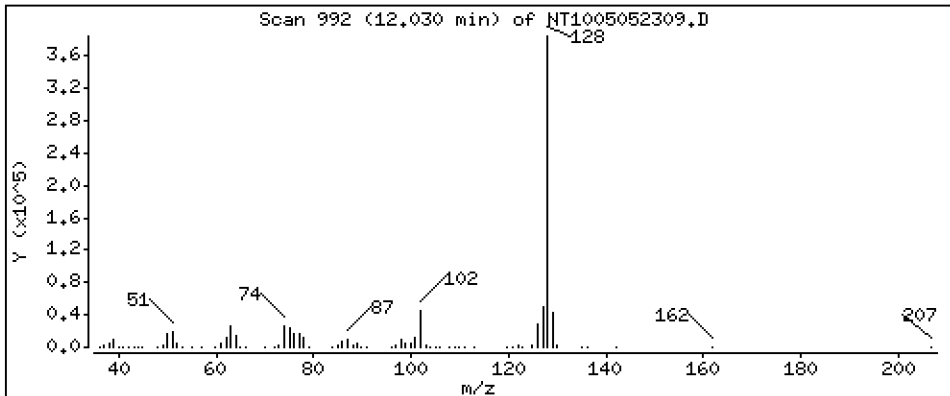
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 3,391 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

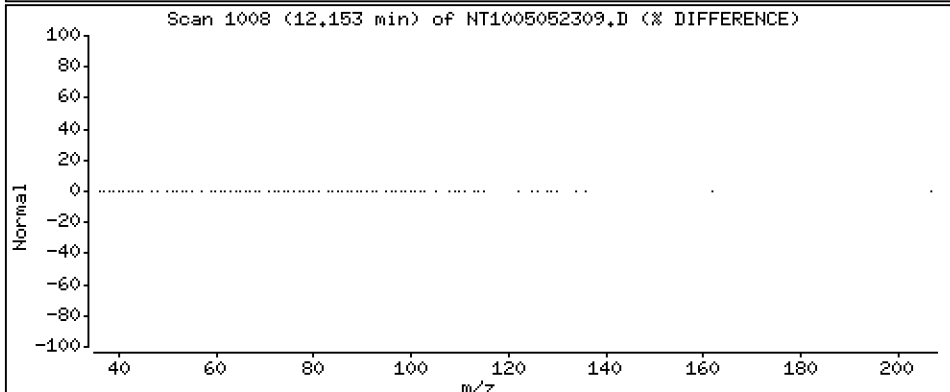
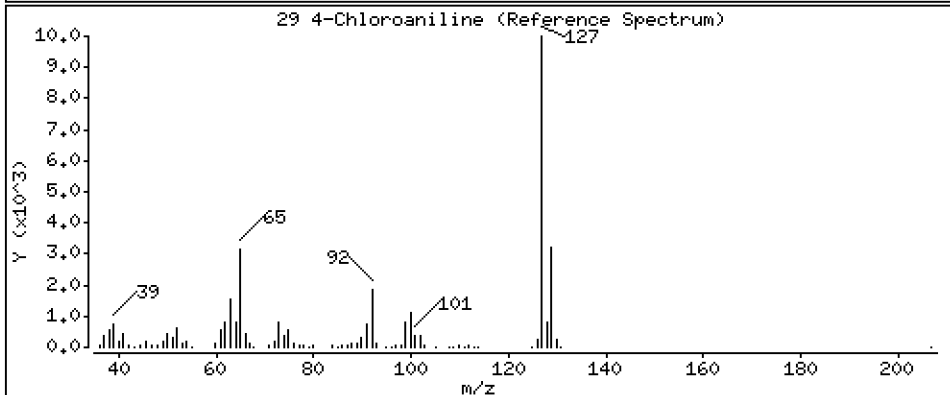
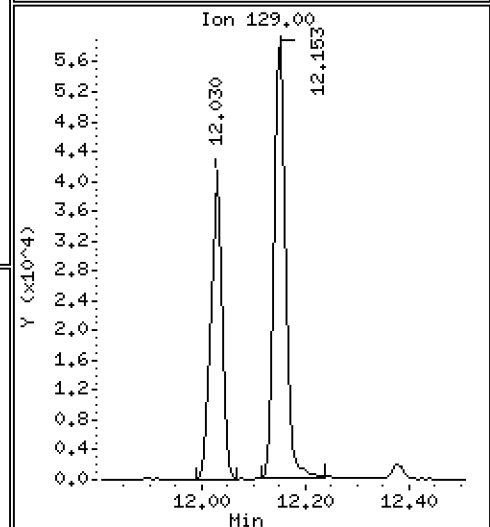
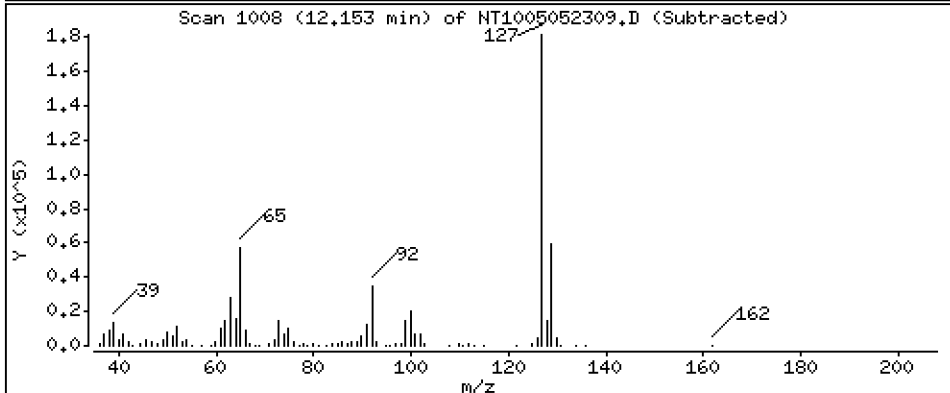
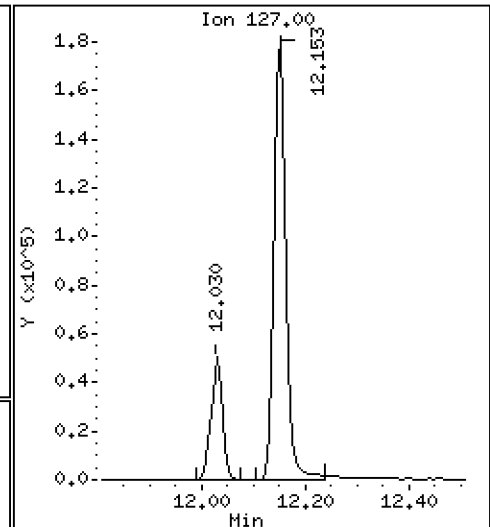
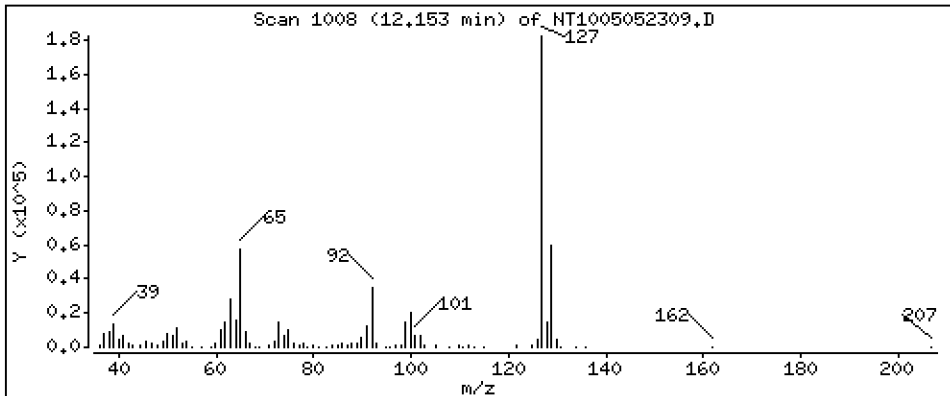
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 4,983 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

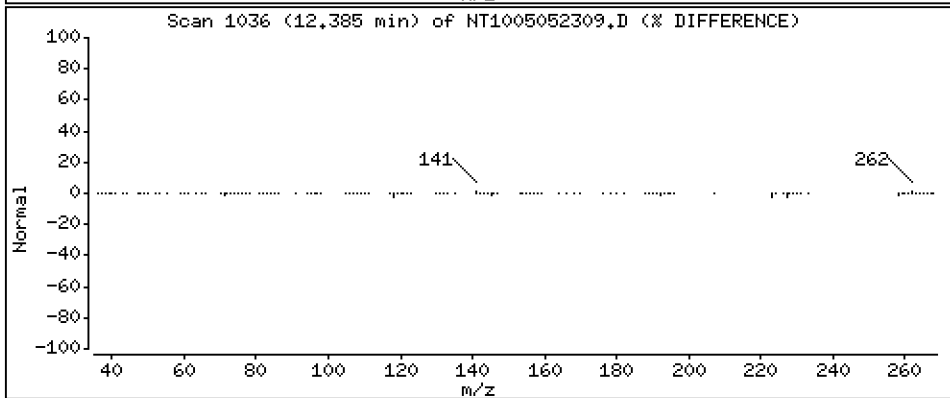
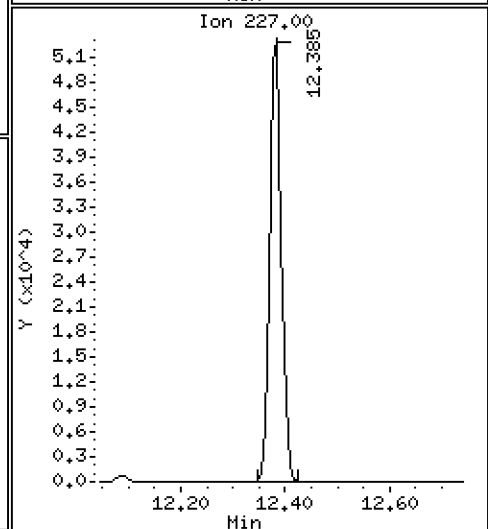
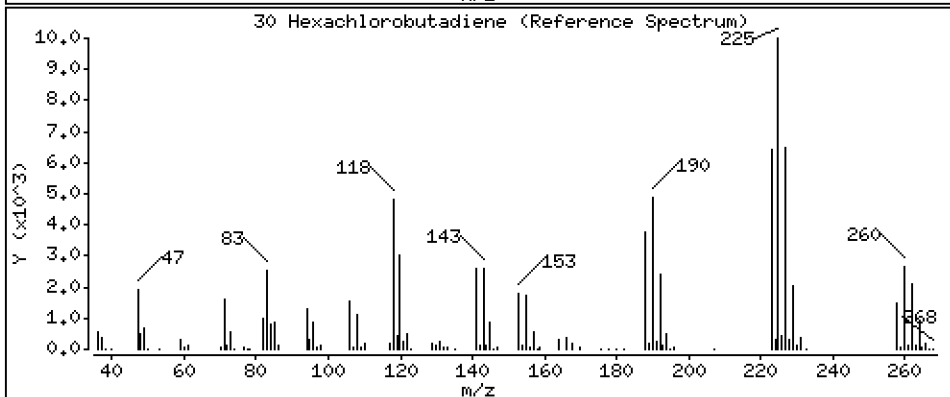
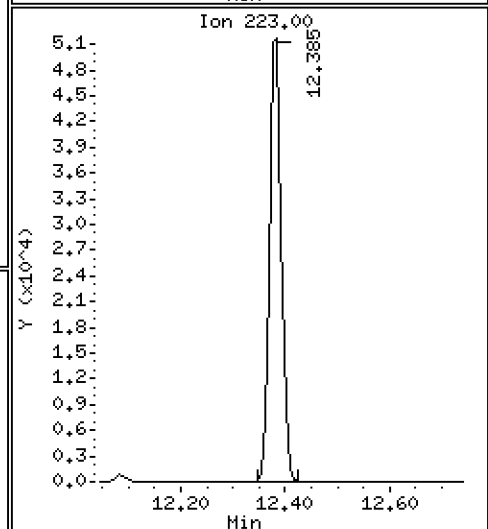
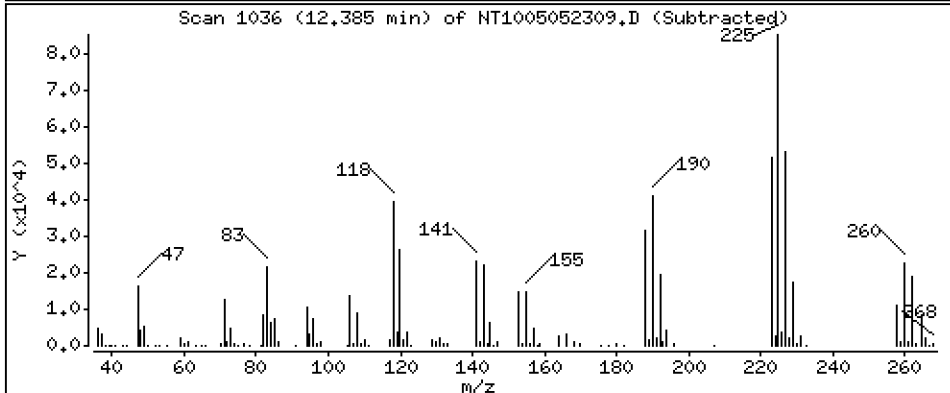
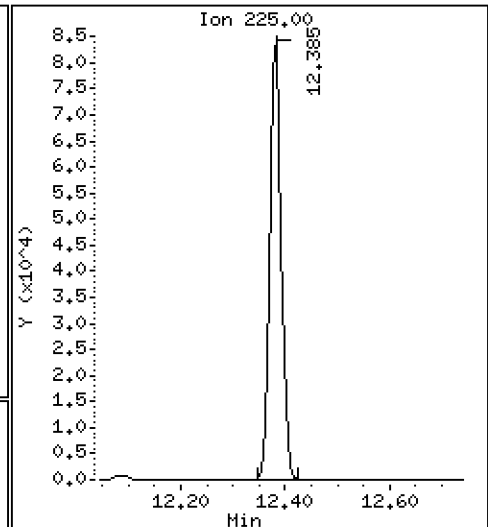
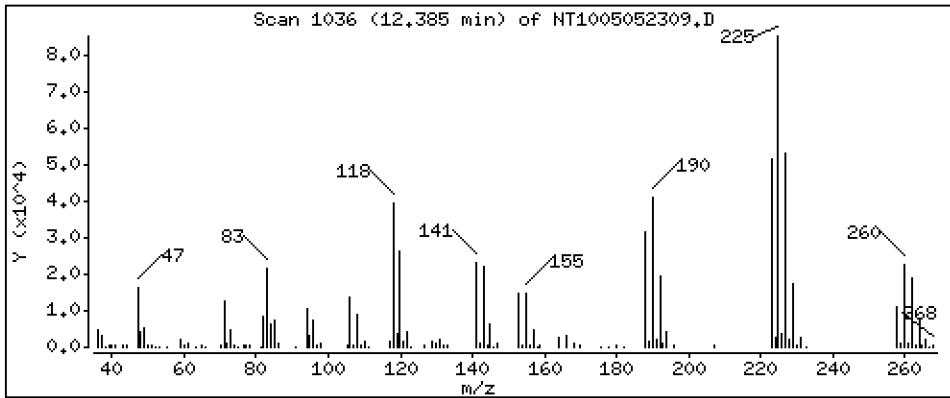
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,313 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

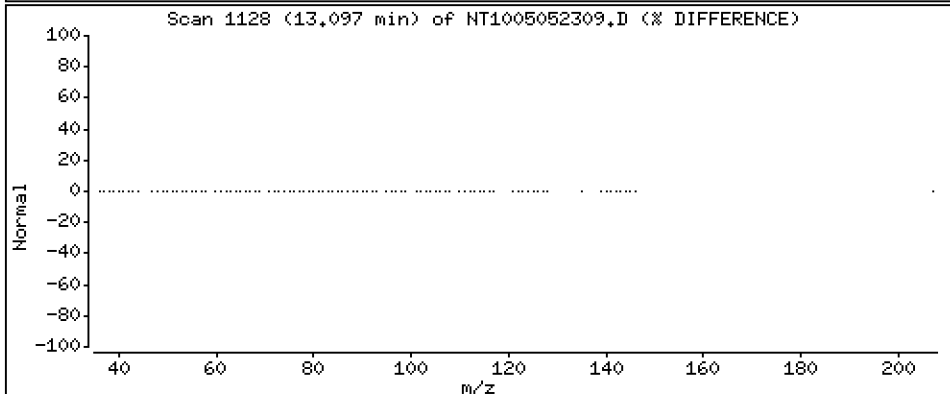
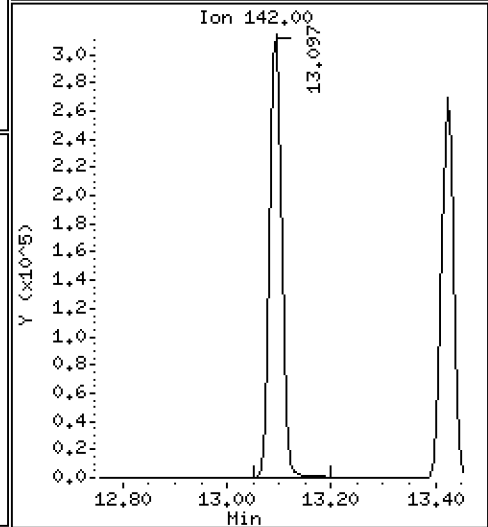
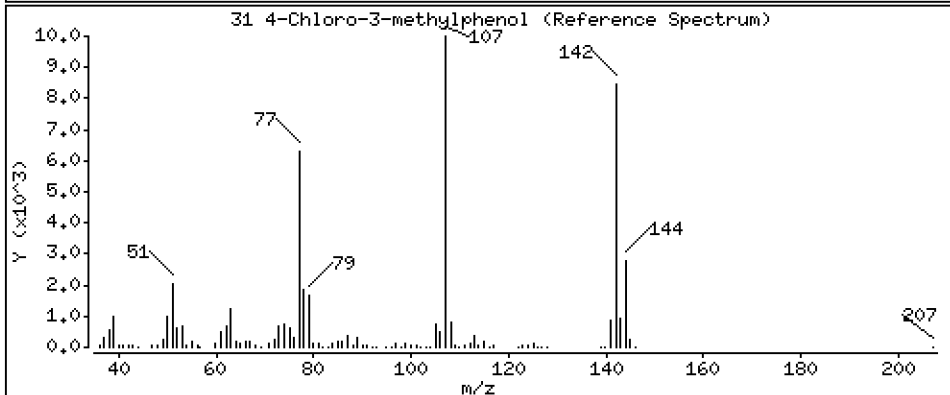
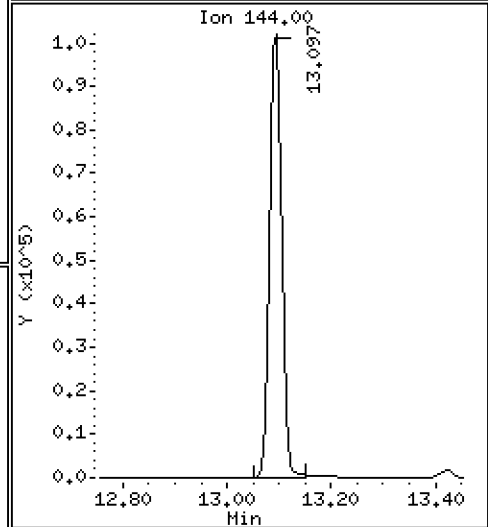
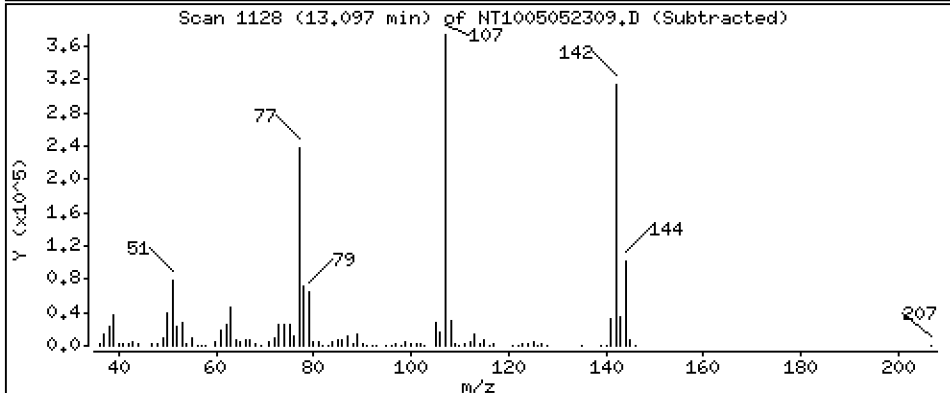
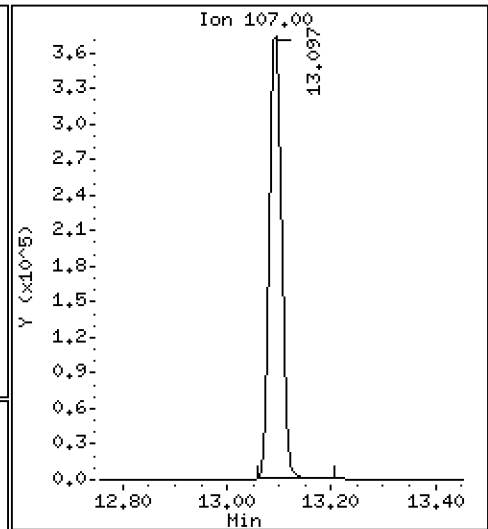
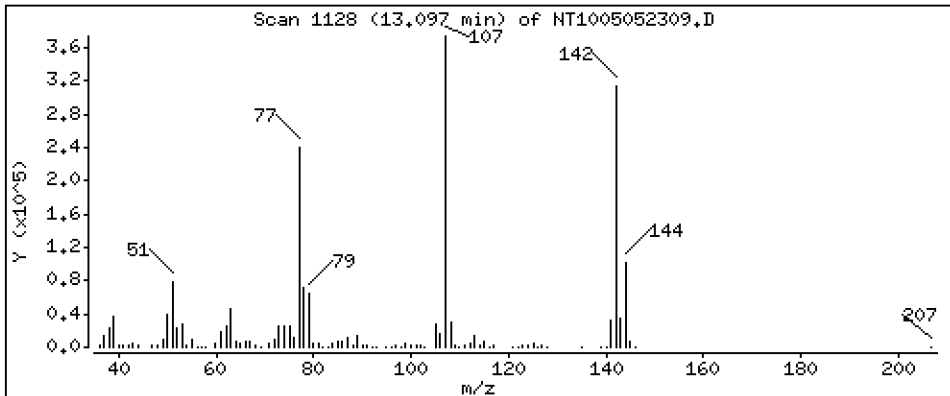
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 11,05 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

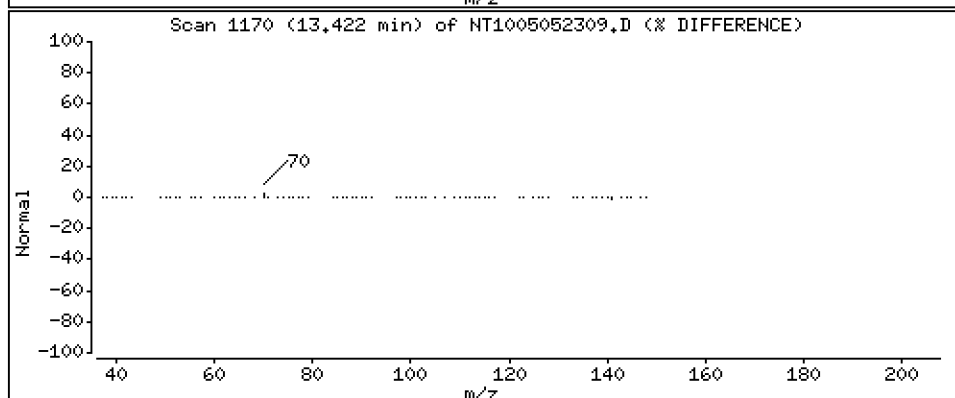
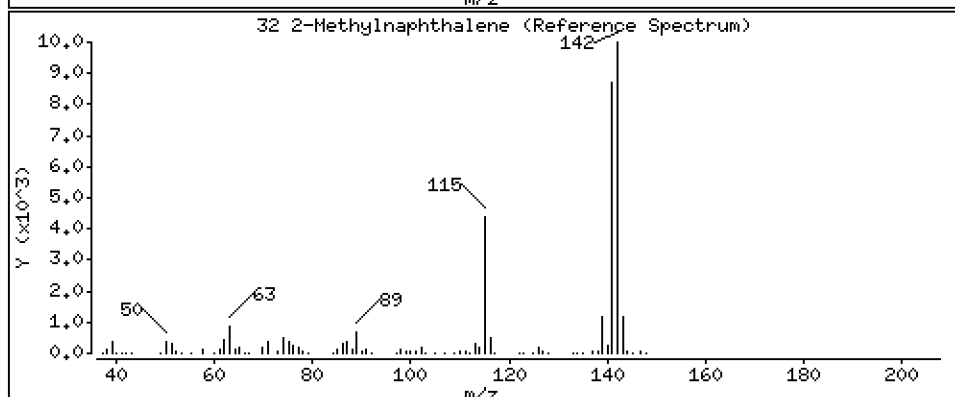
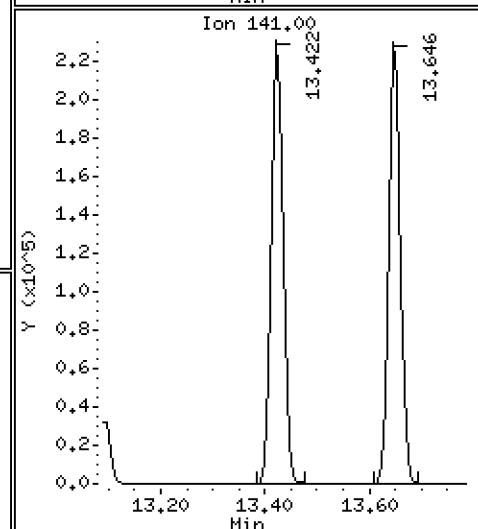
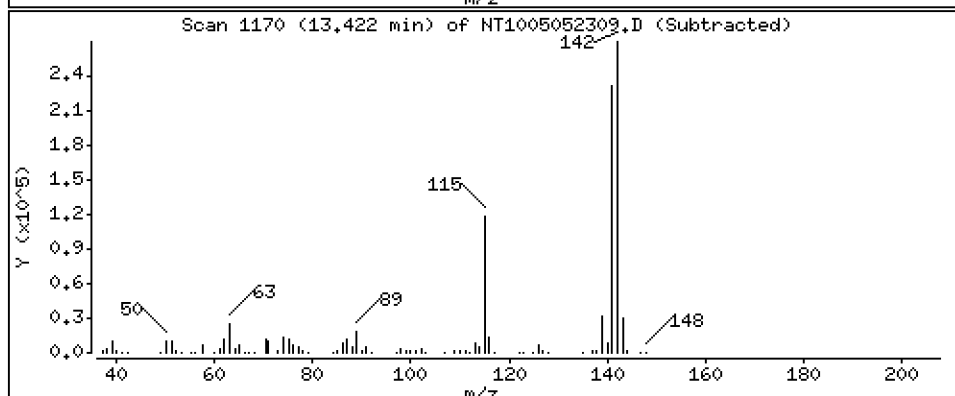
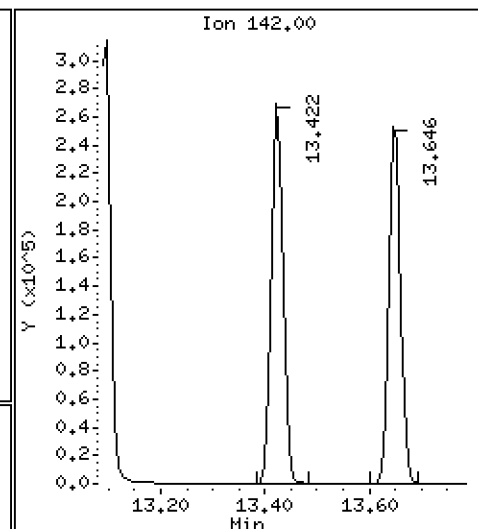
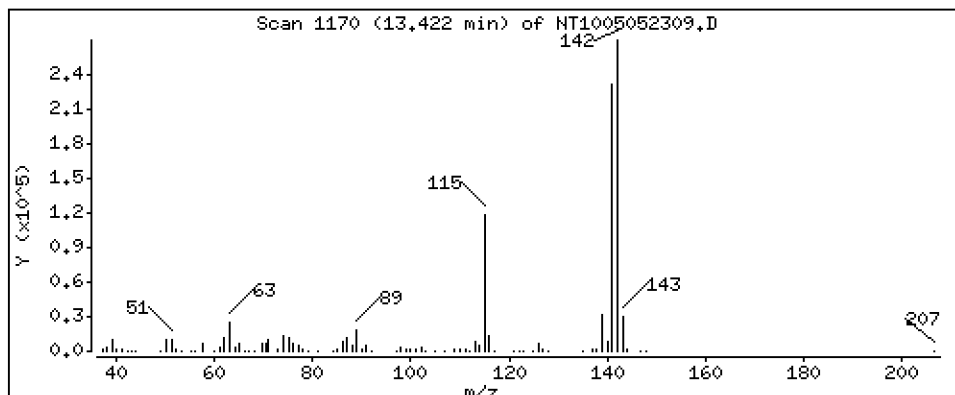
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 3,338 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

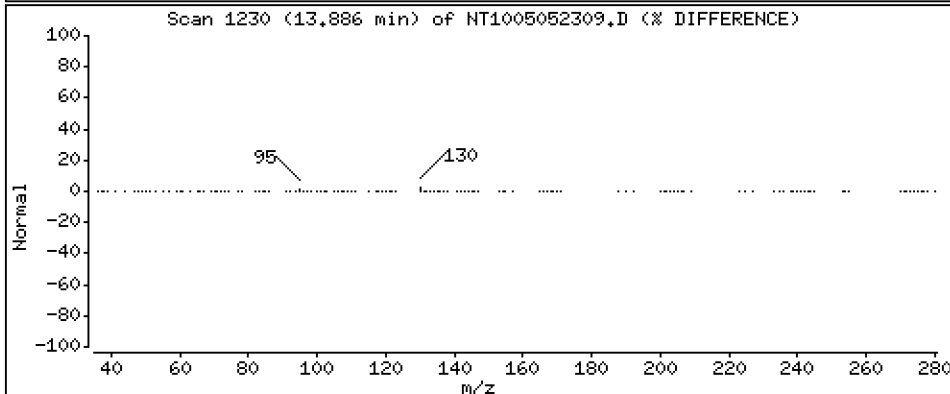
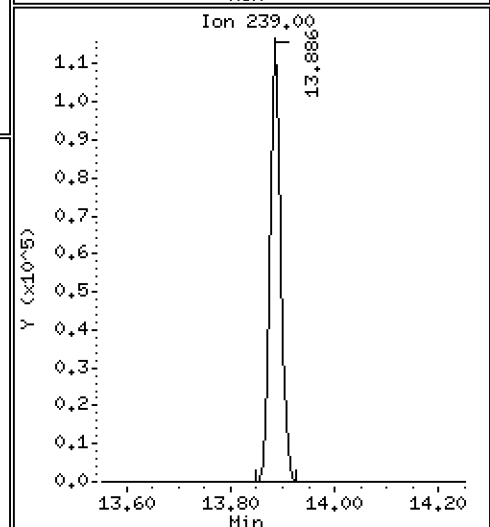
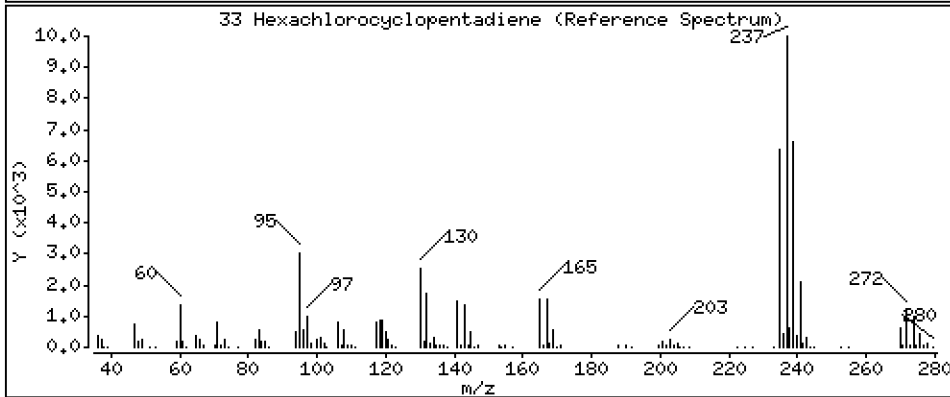
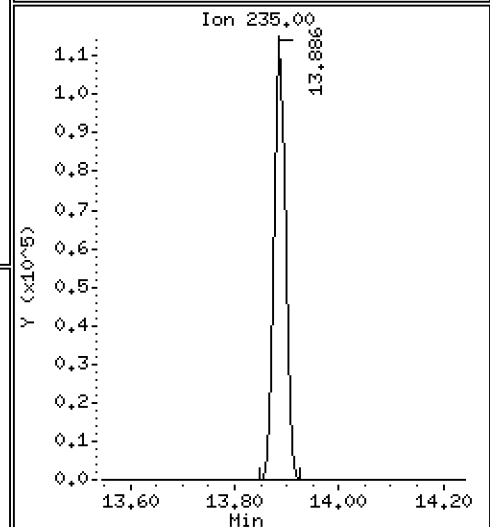
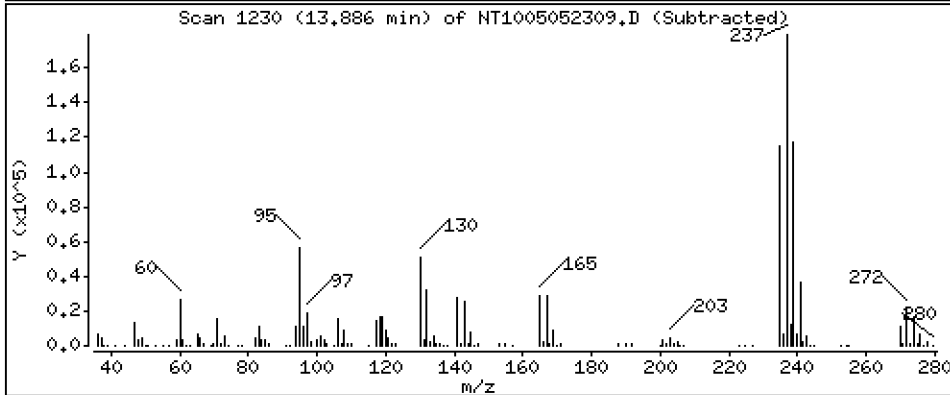
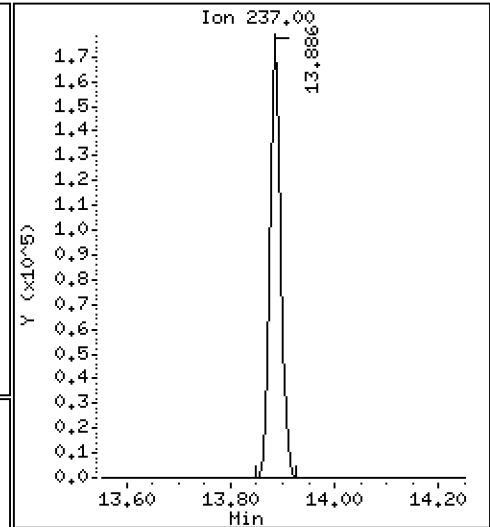
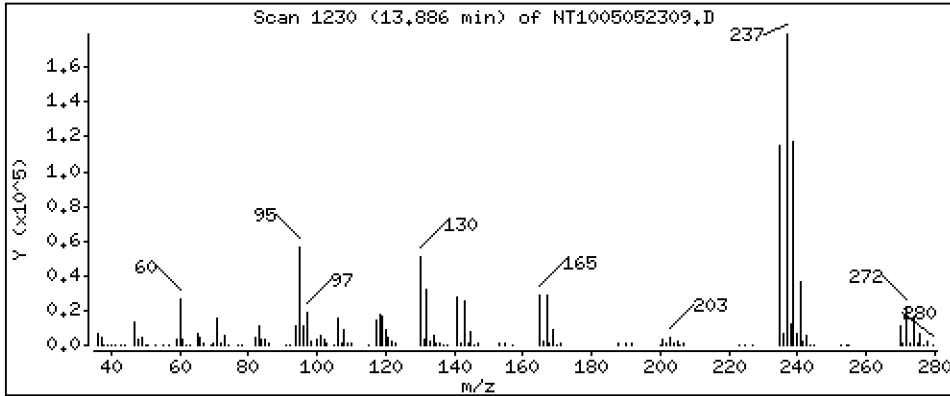
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 6,329 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

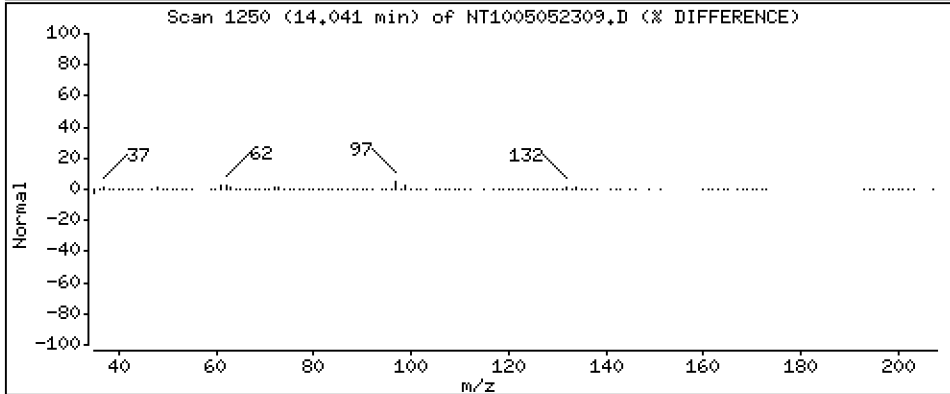
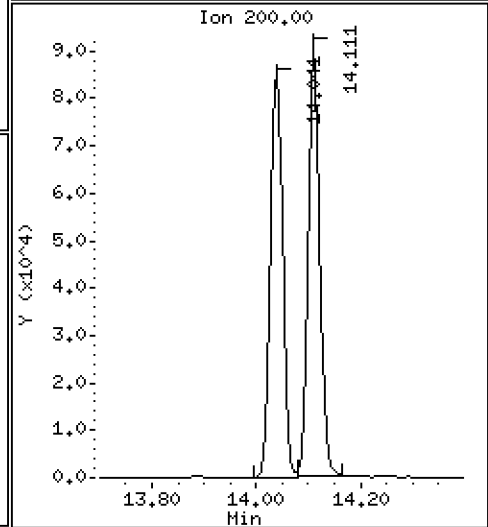
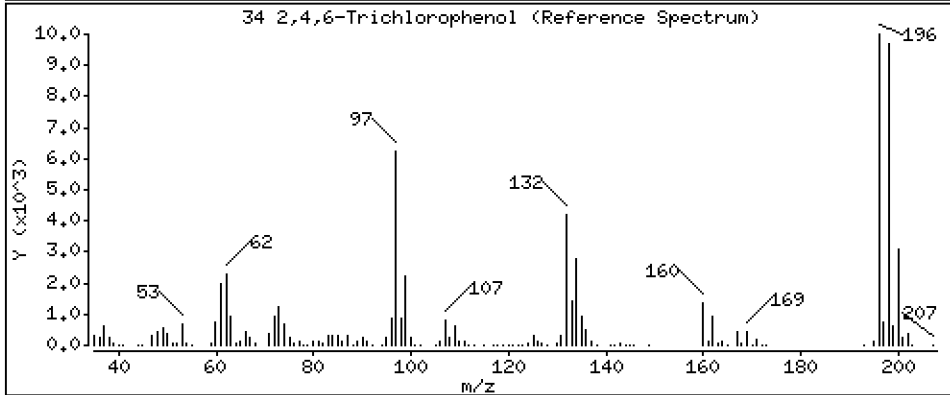
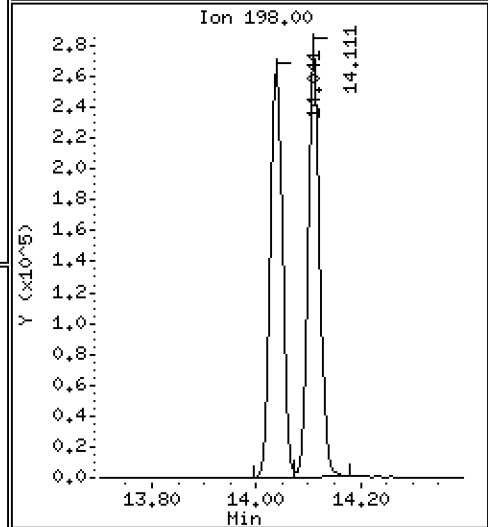
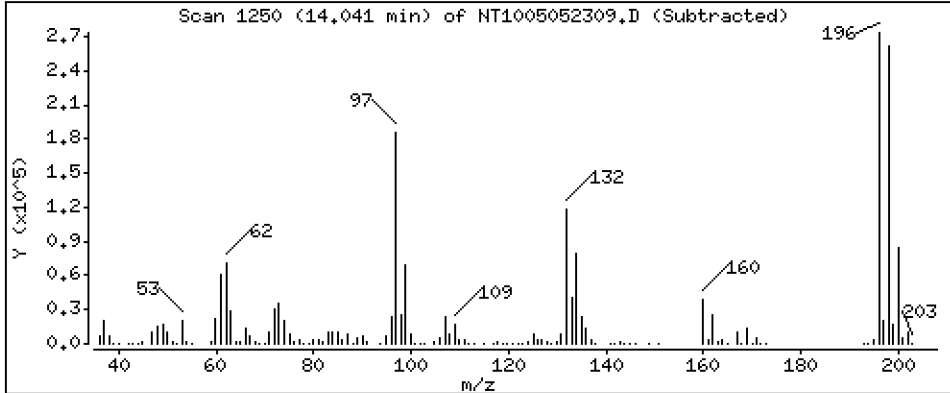
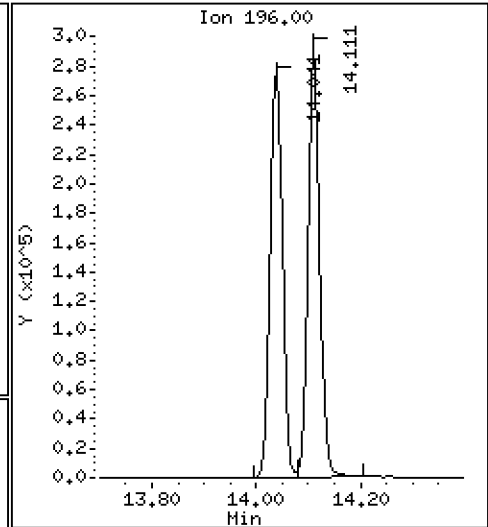
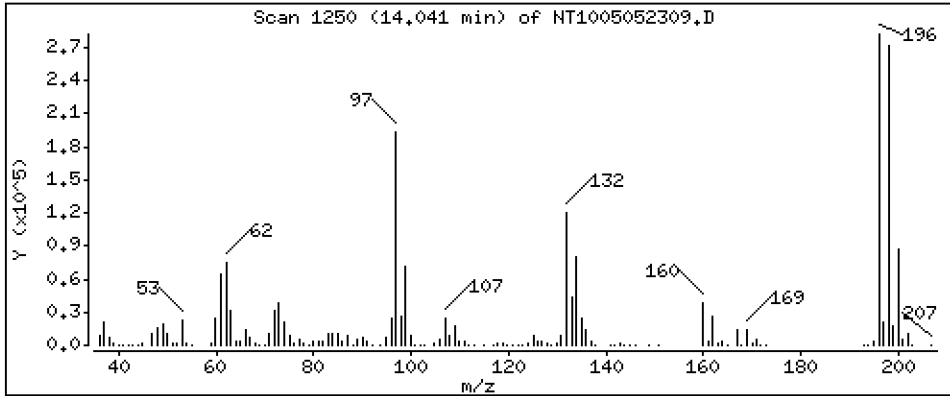
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 10,79 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

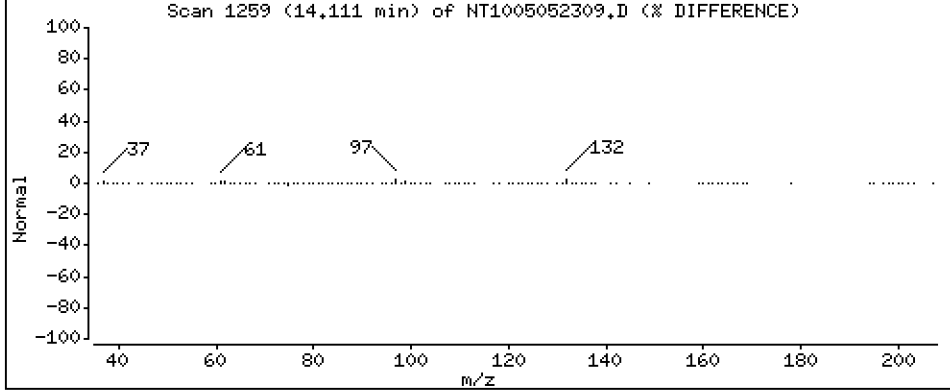
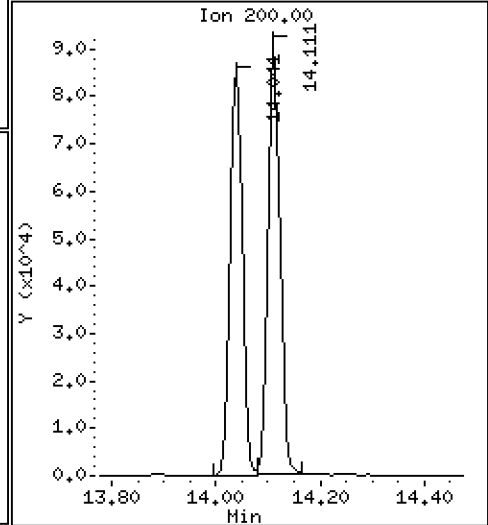
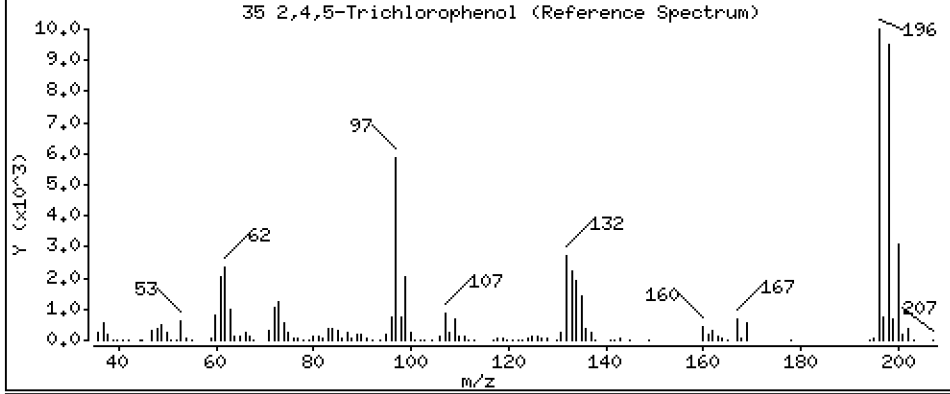
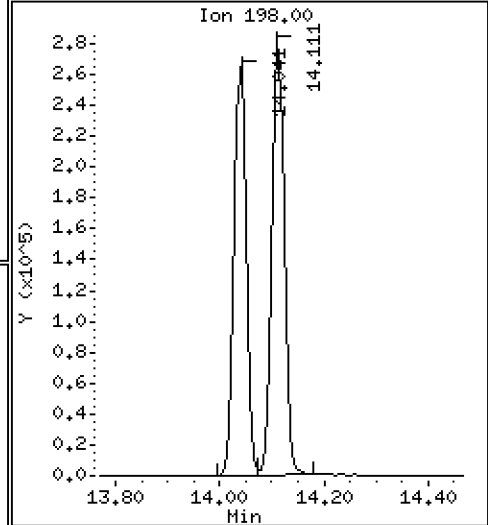
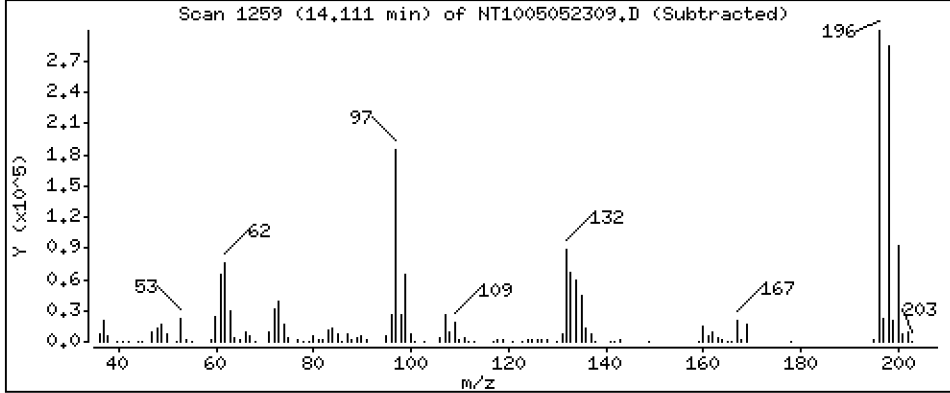
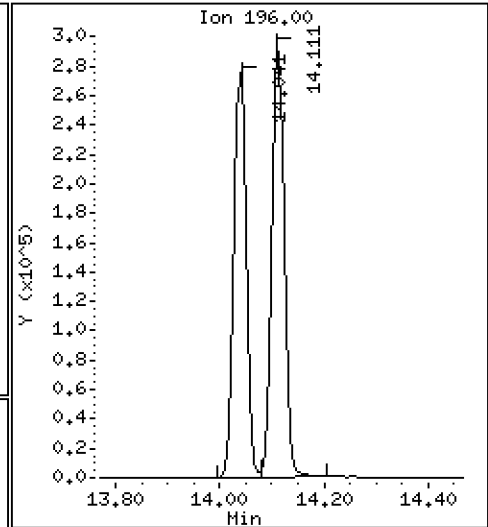
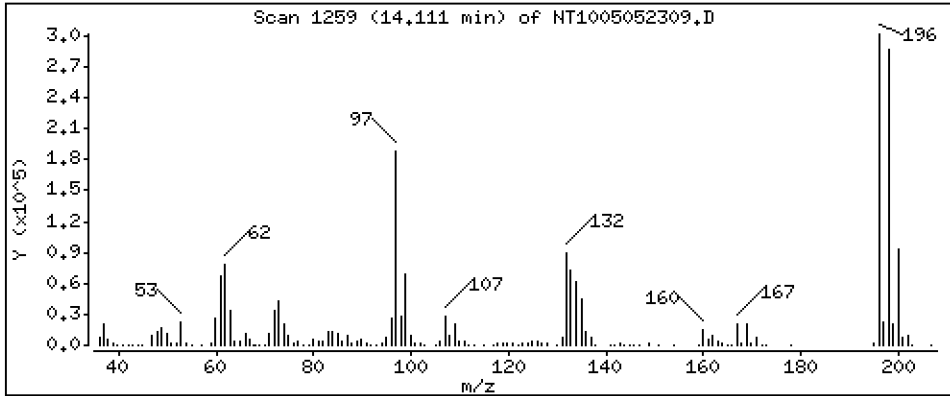
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 10,41 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

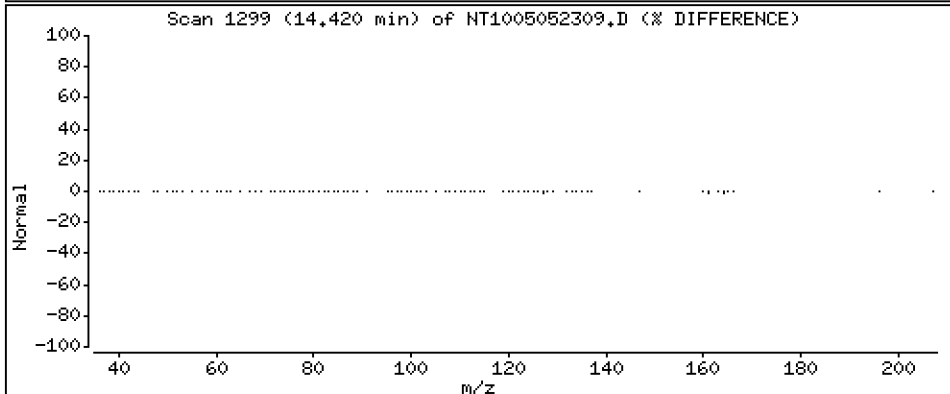
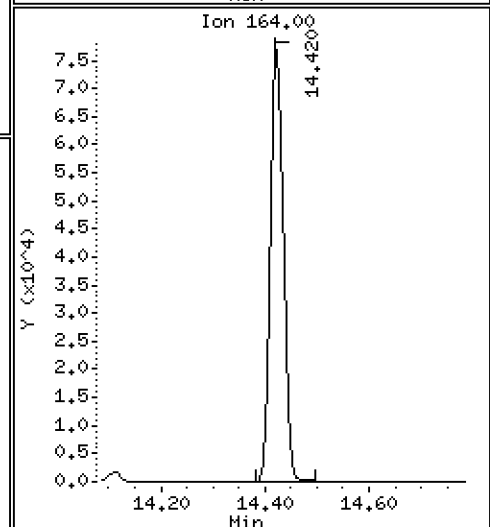
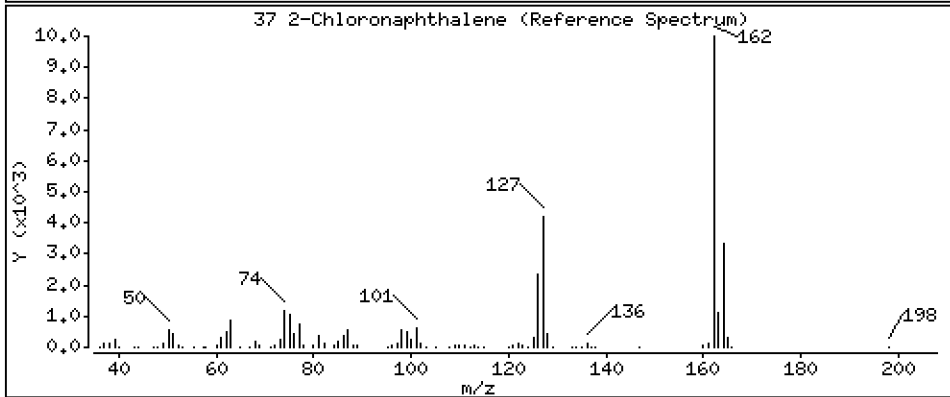
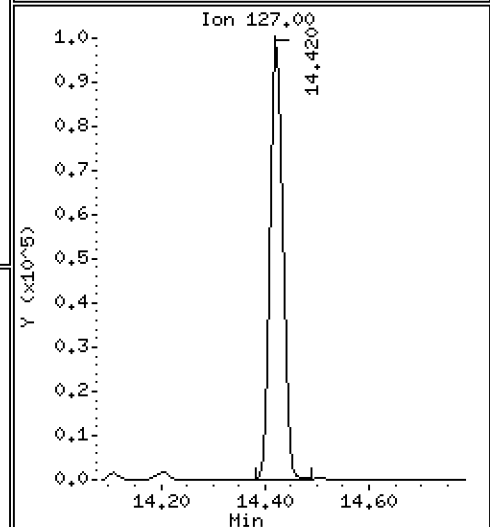
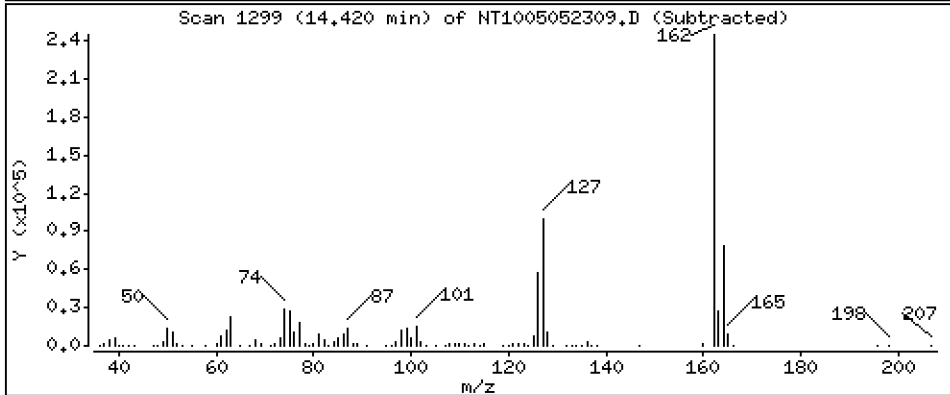
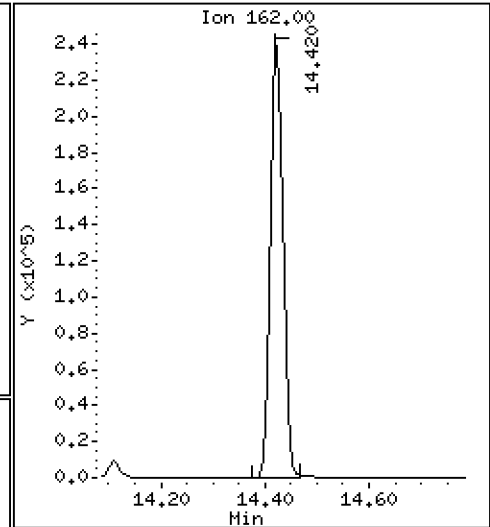
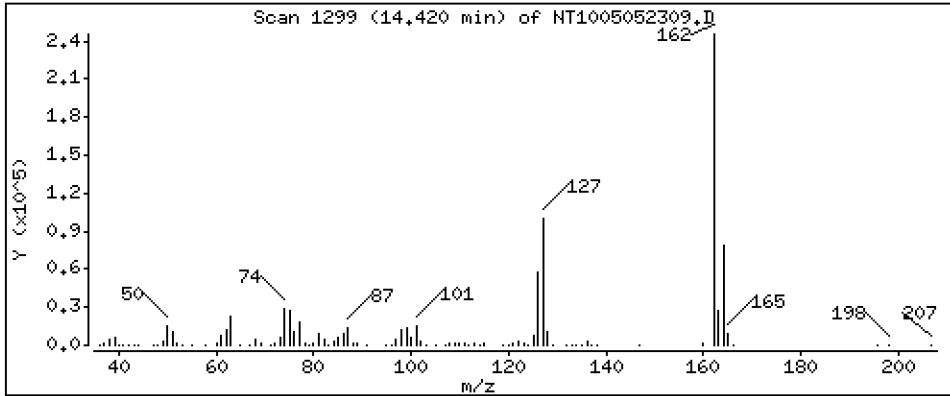
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 3,503 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

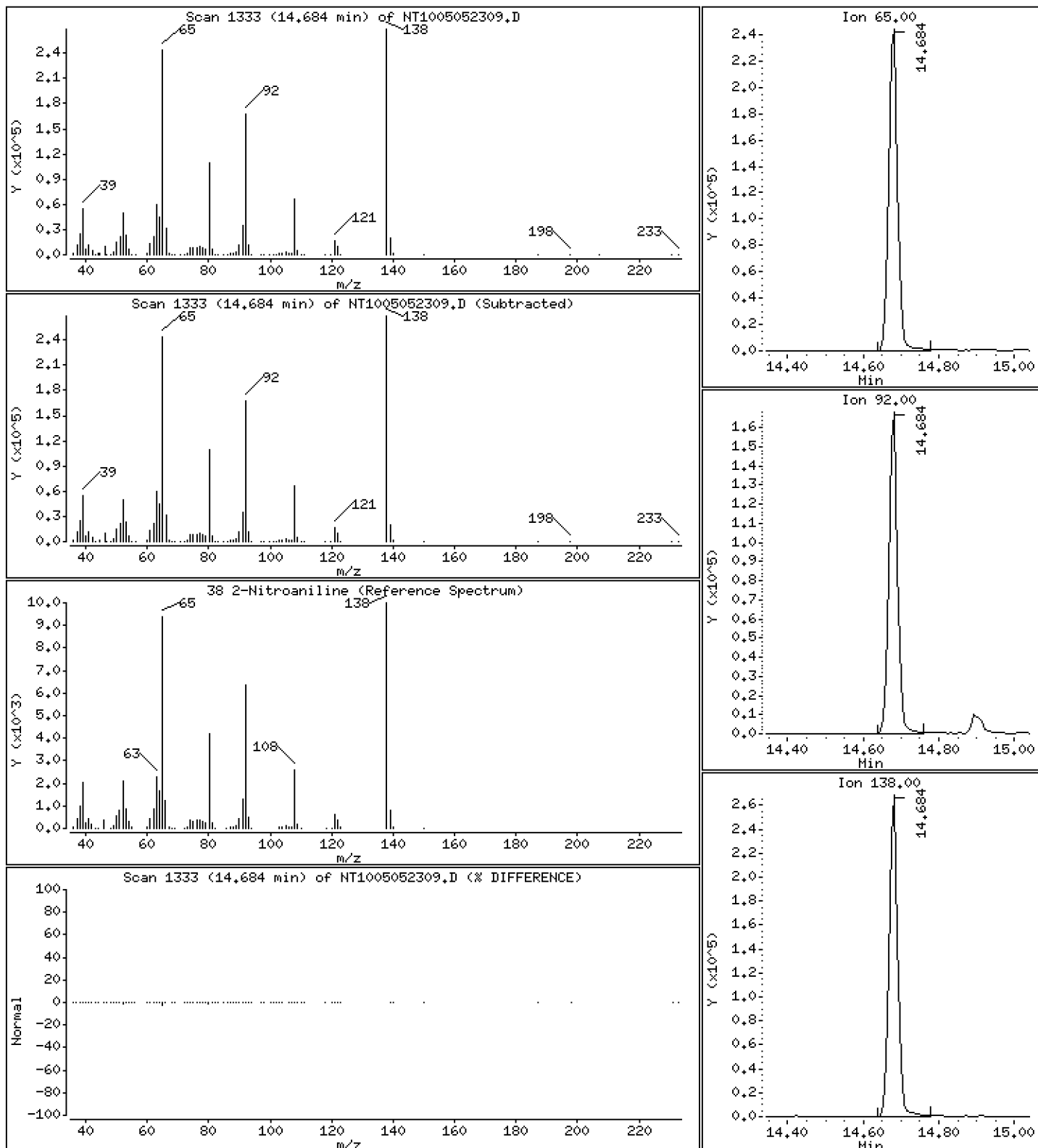
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 12,21 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

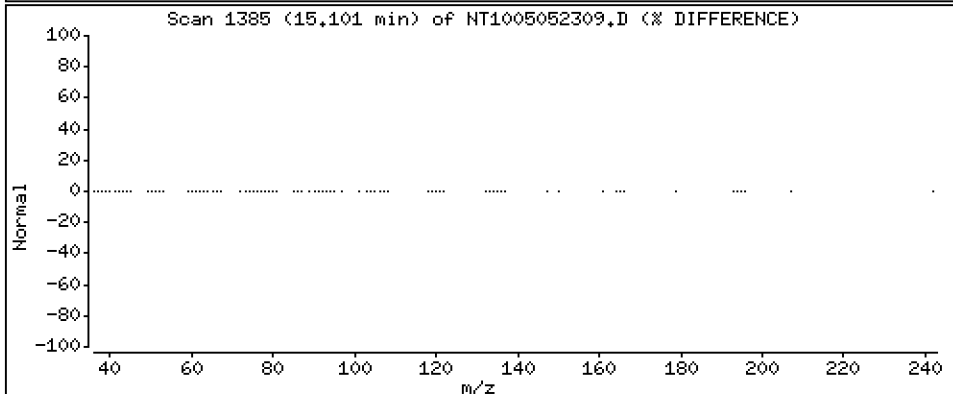
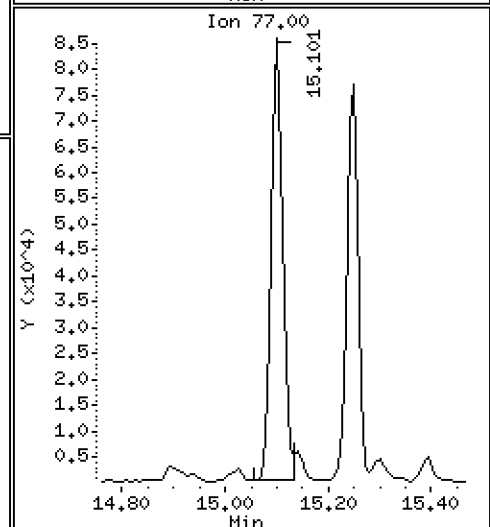
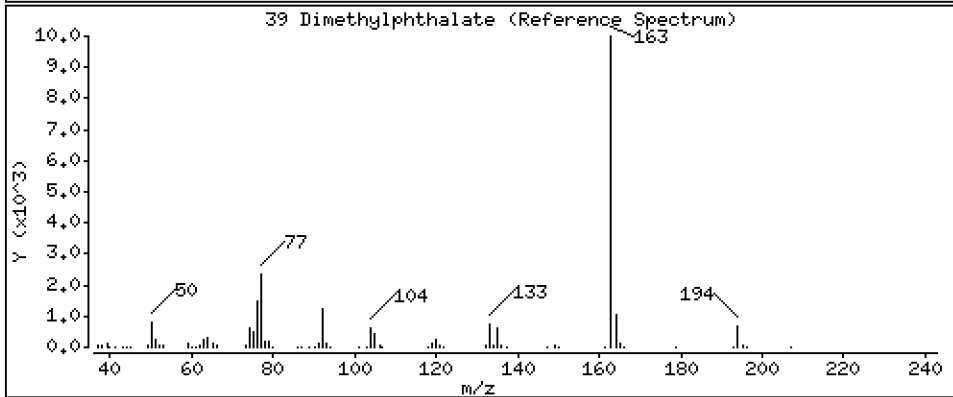
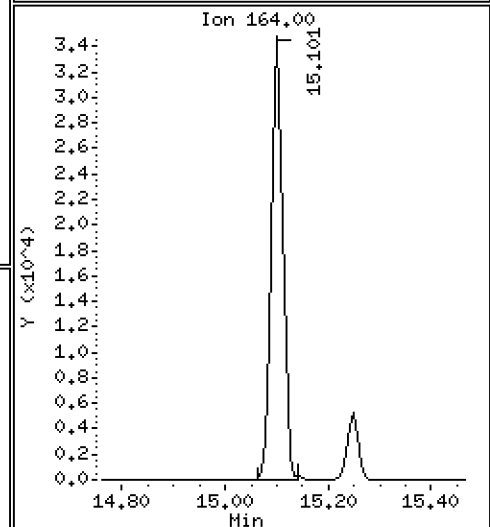
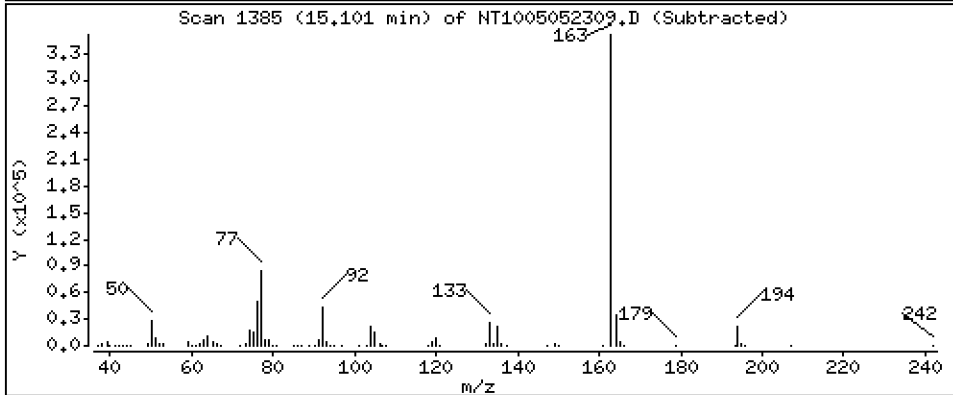
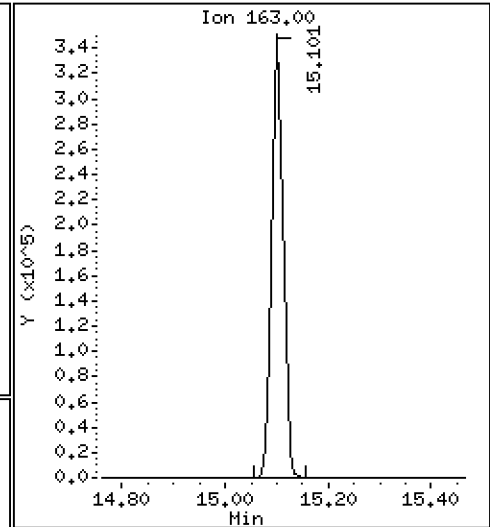
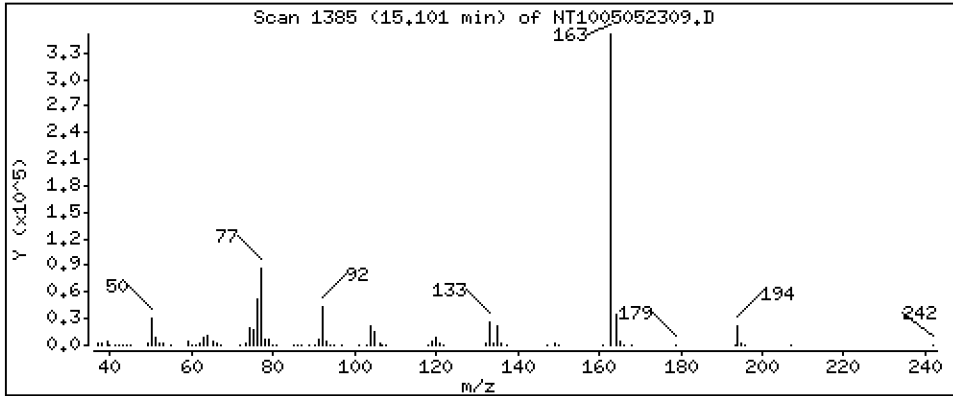
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,143 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

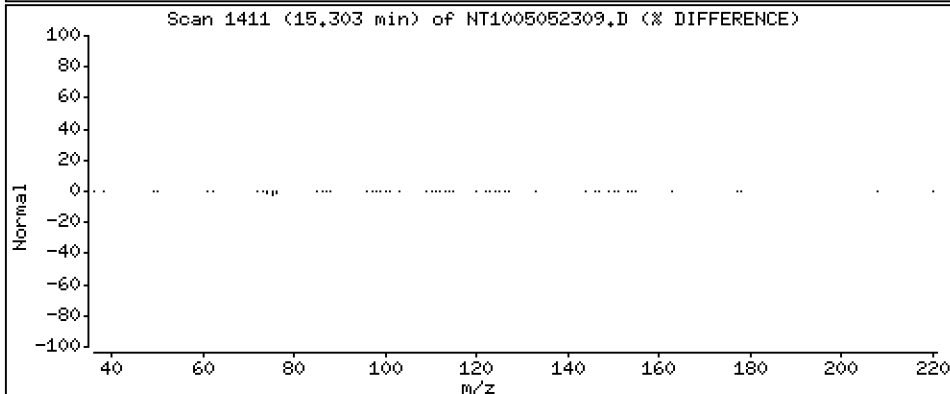
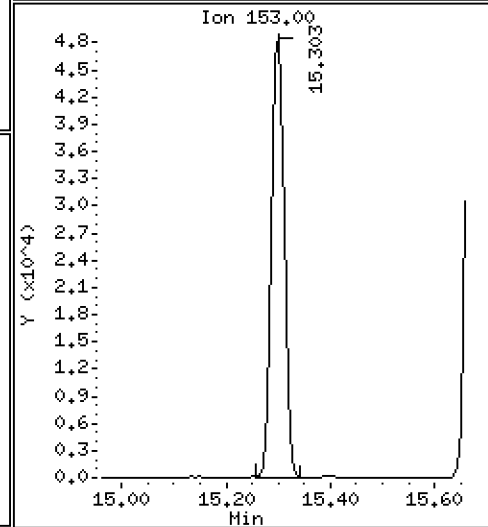
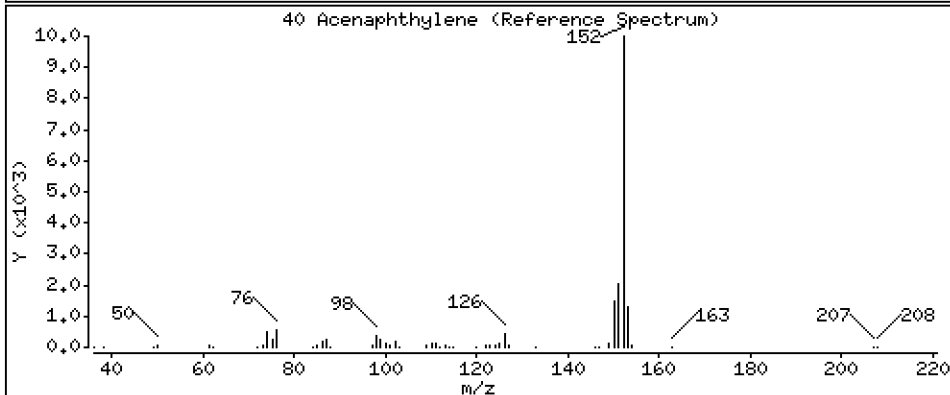
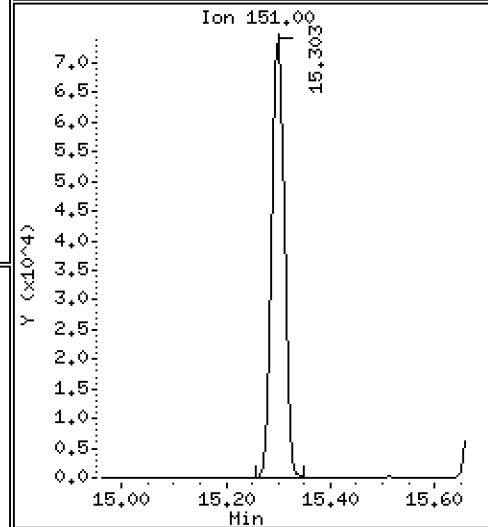
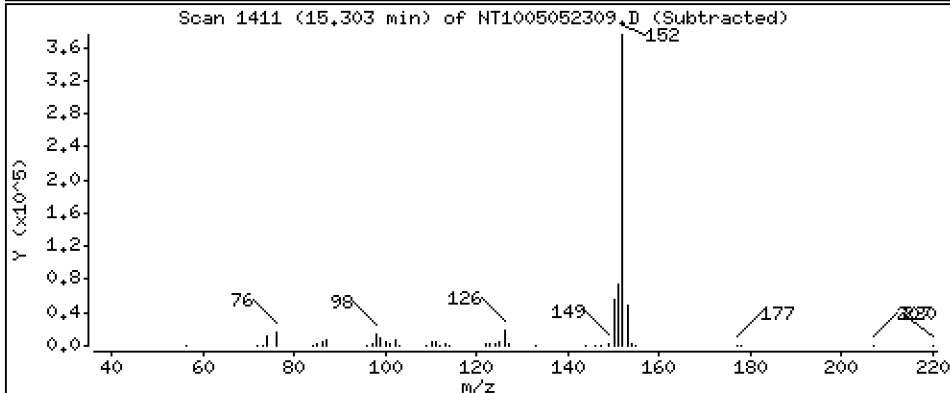
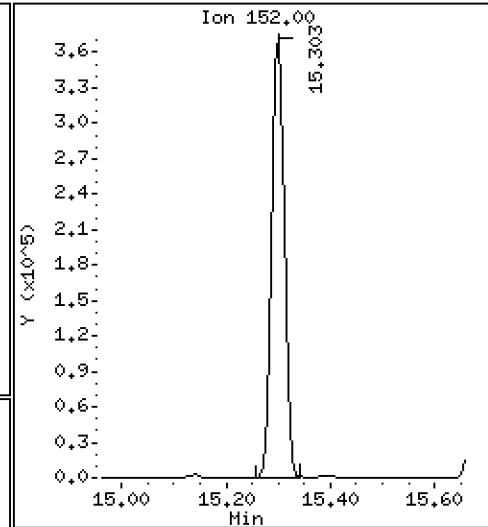
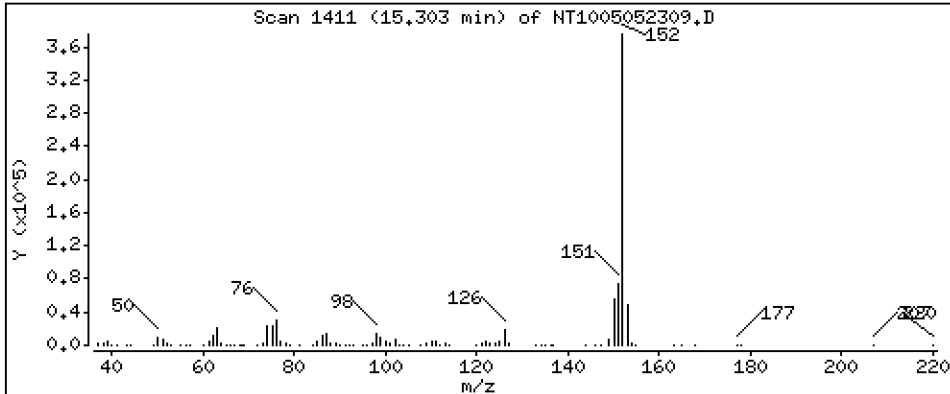
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 3,436 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

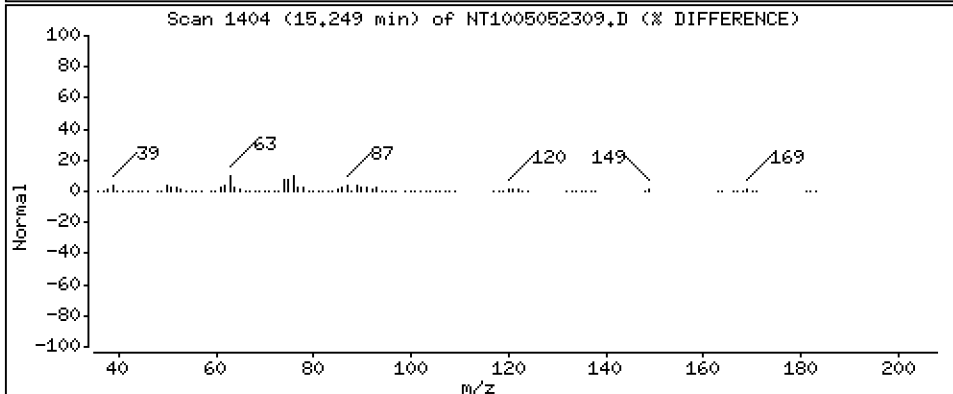
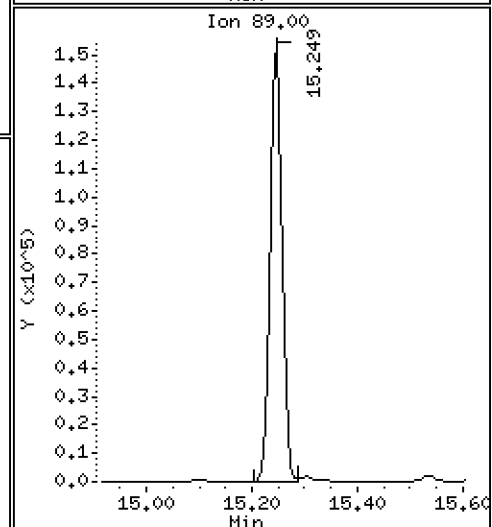
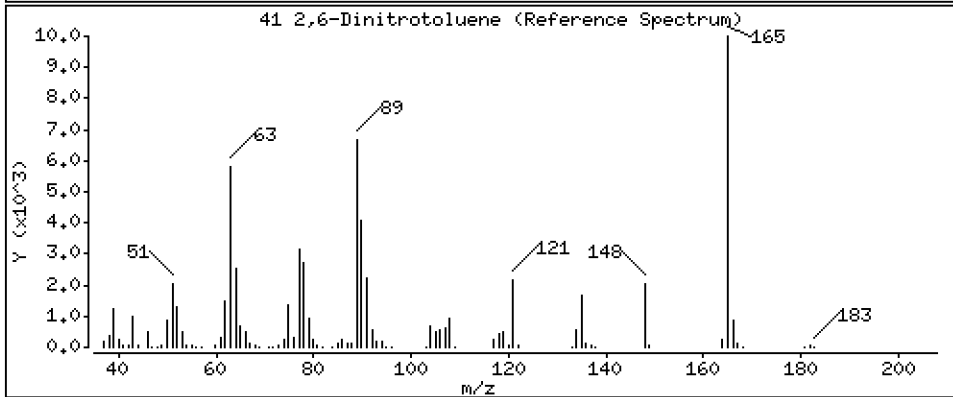
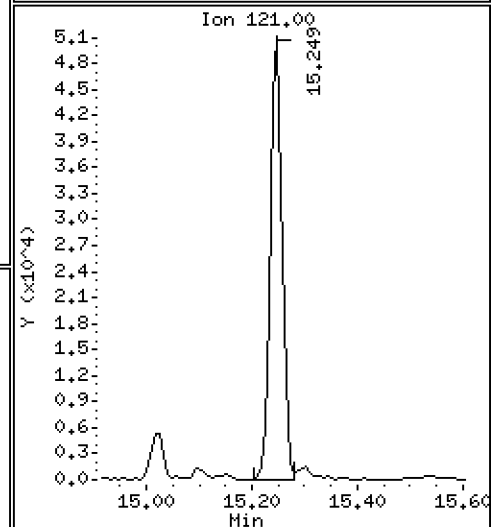
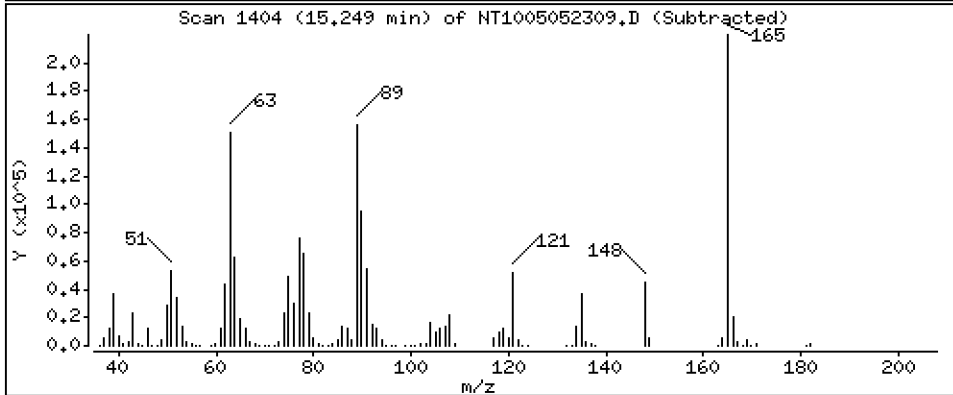
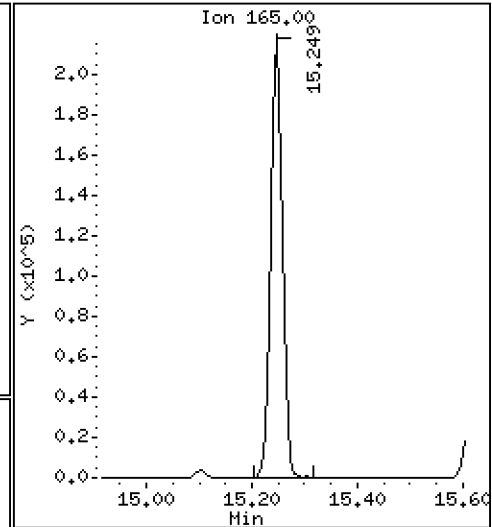
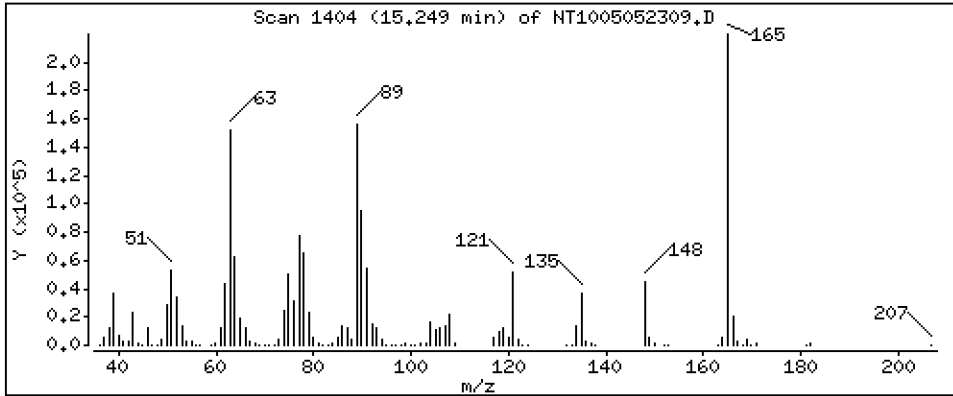
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 11,76 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

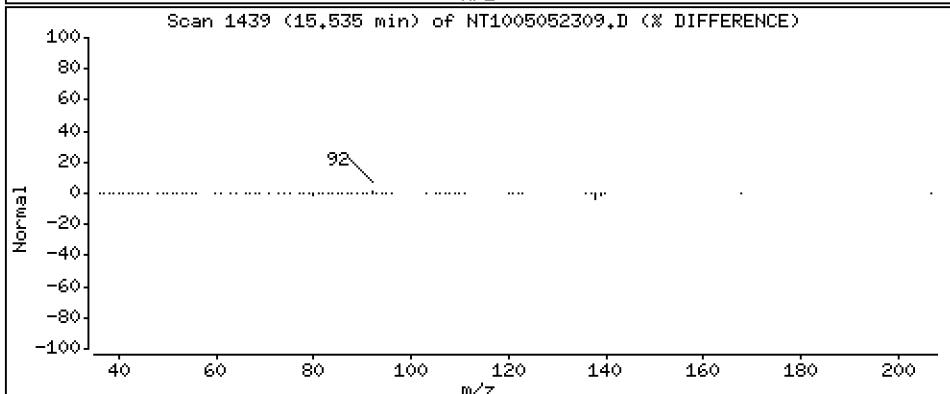
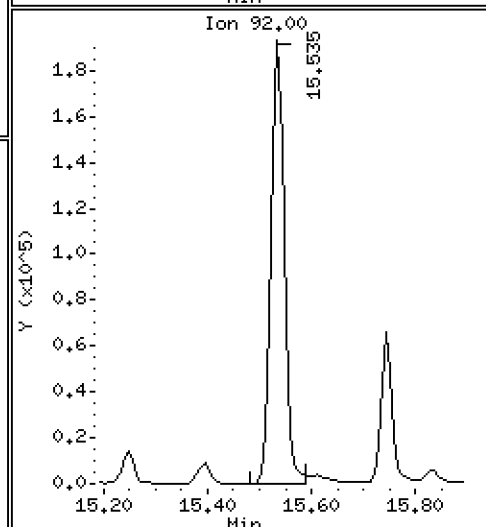
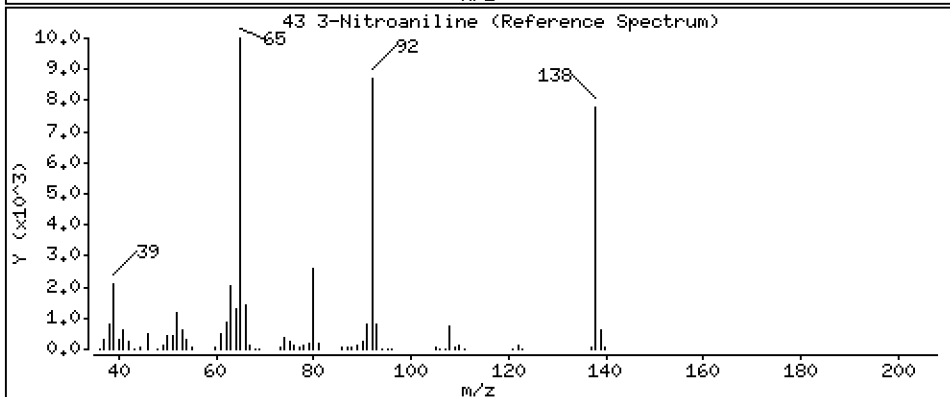
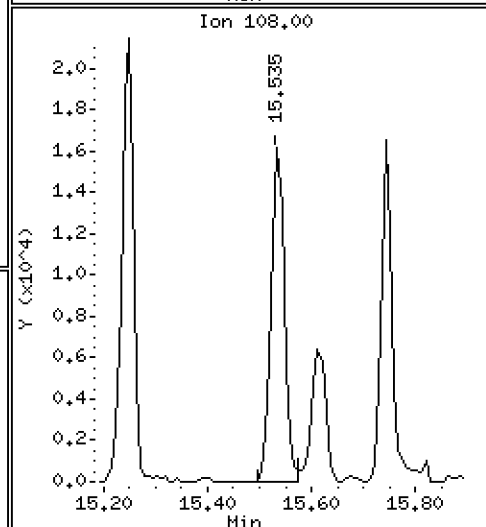
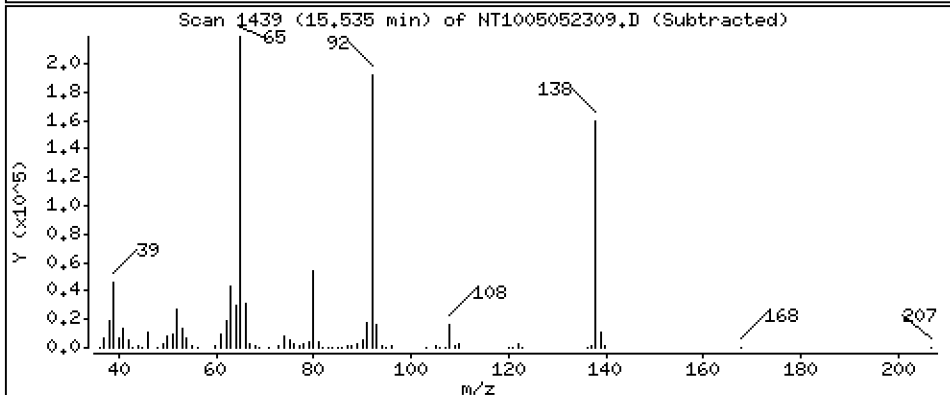
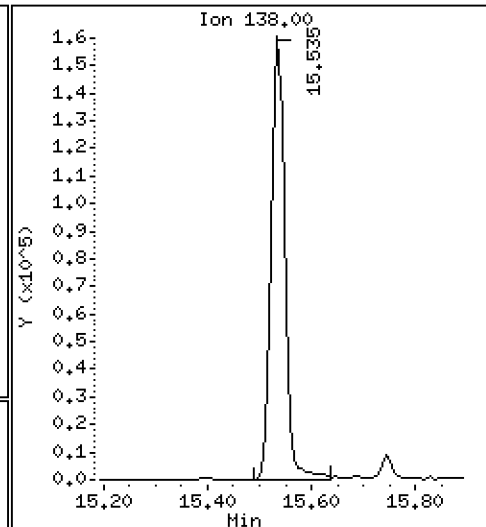
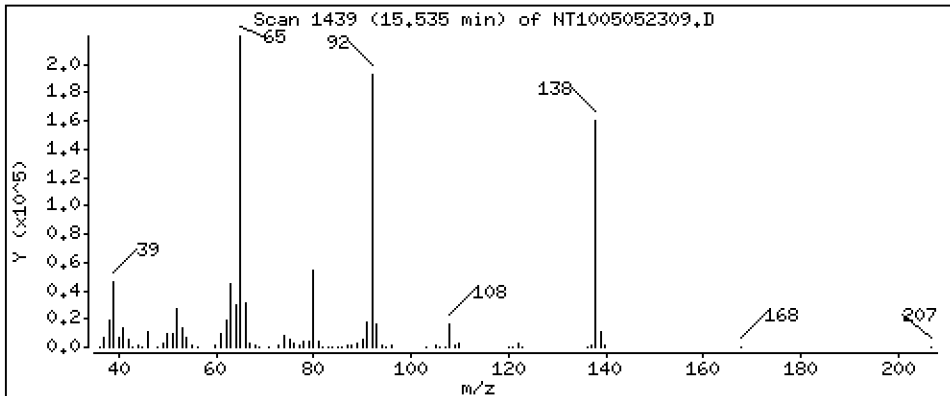
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 9,955 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

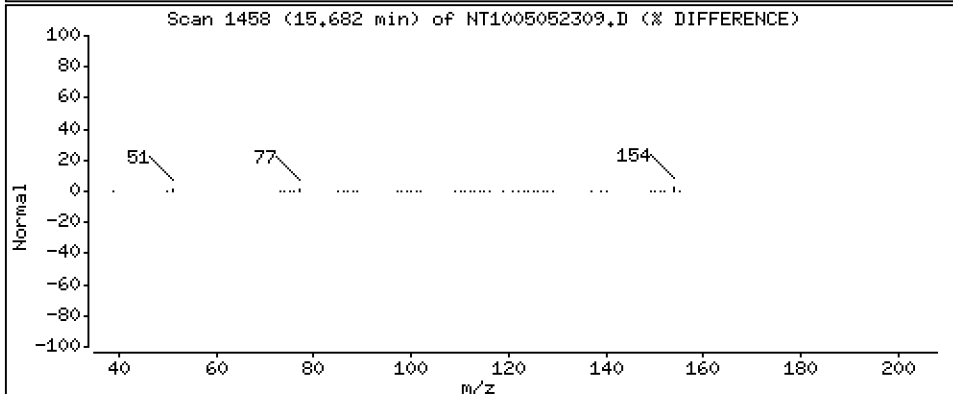
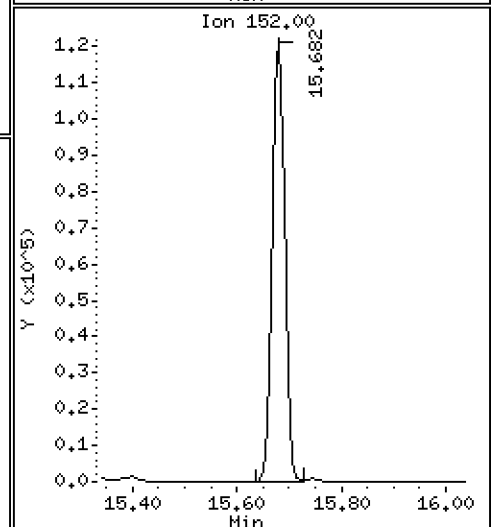
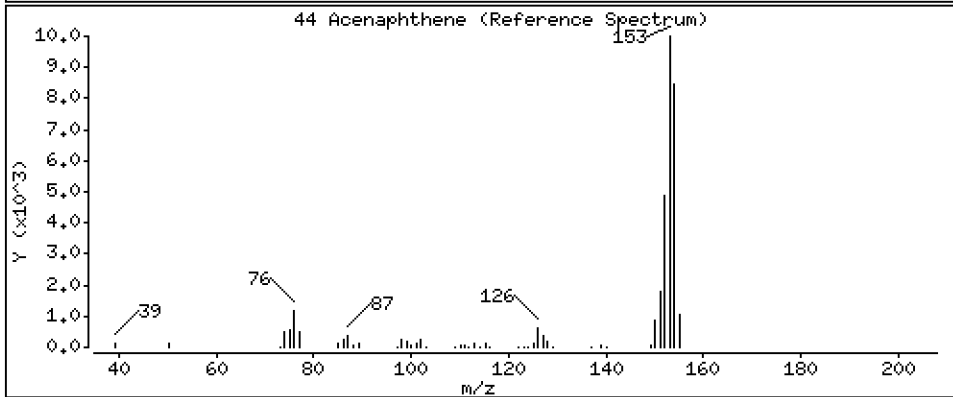
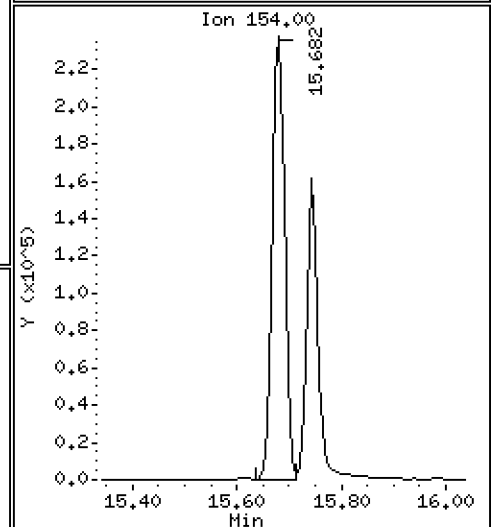
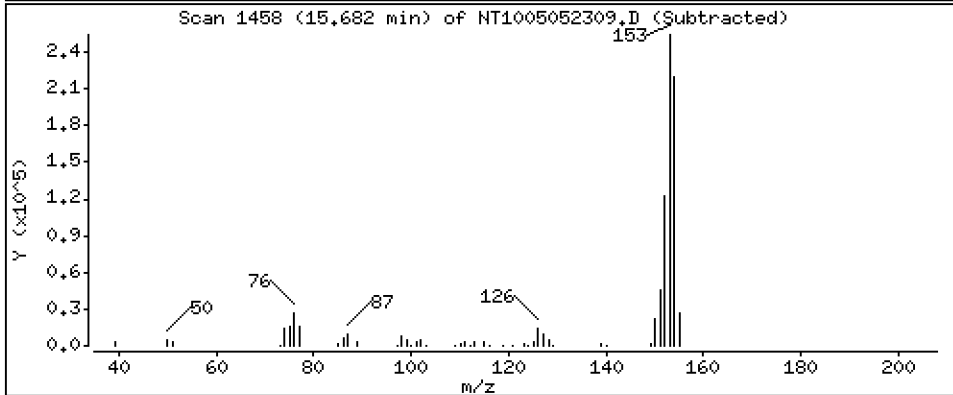
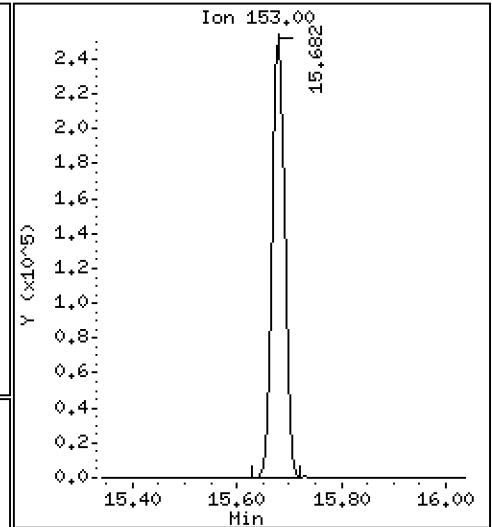
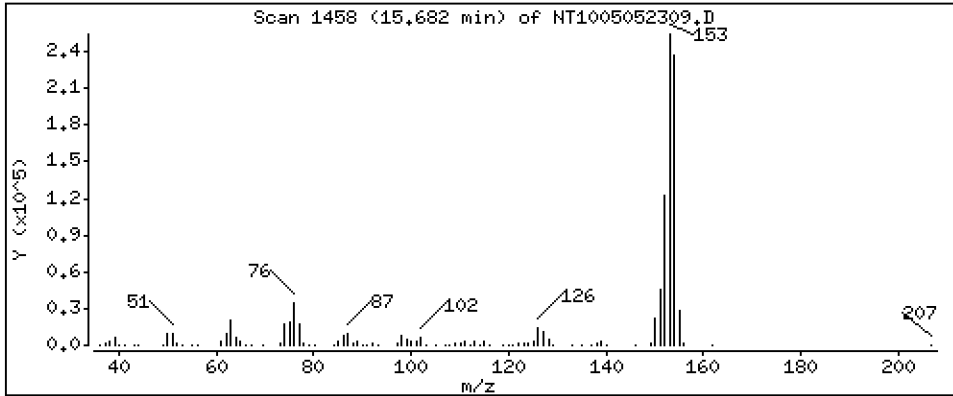
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 3,601 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

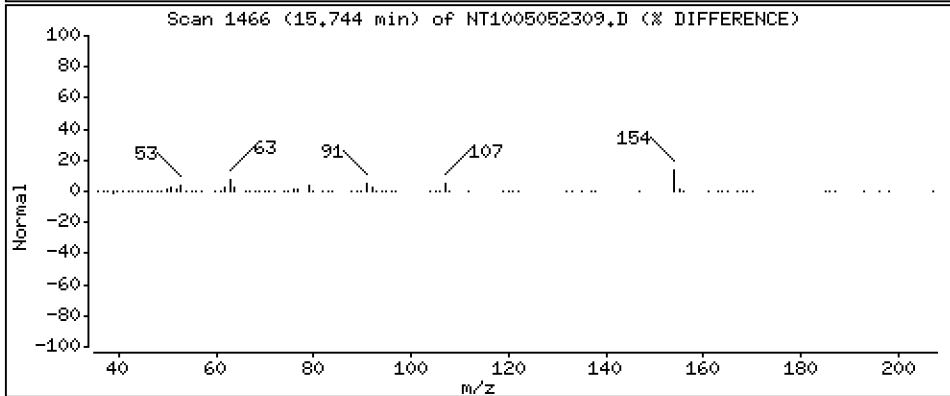
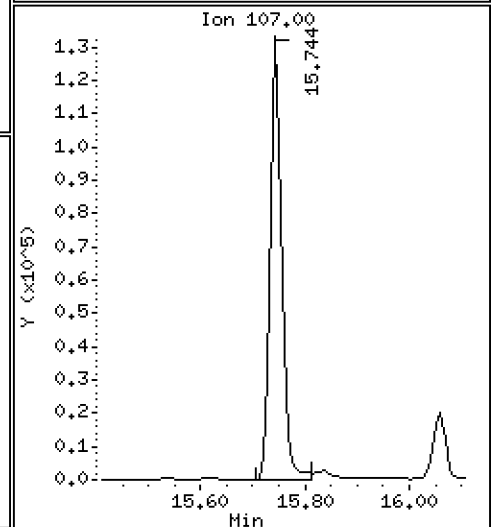
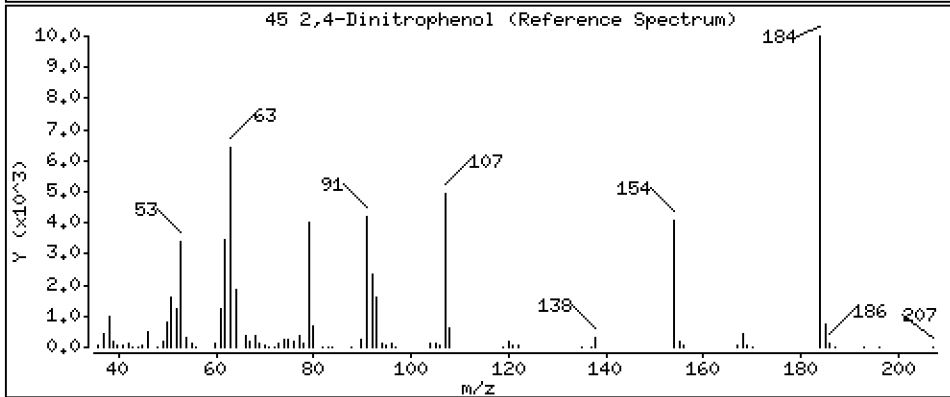
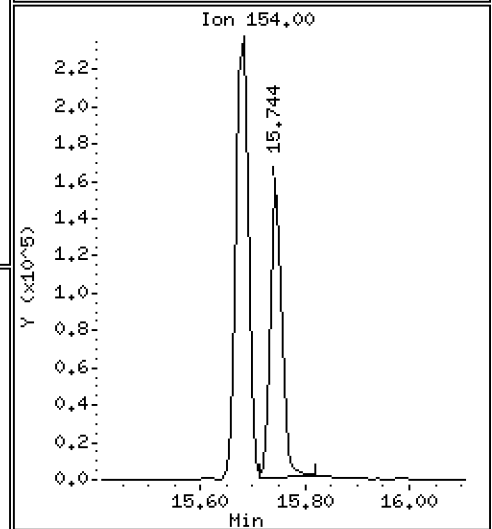
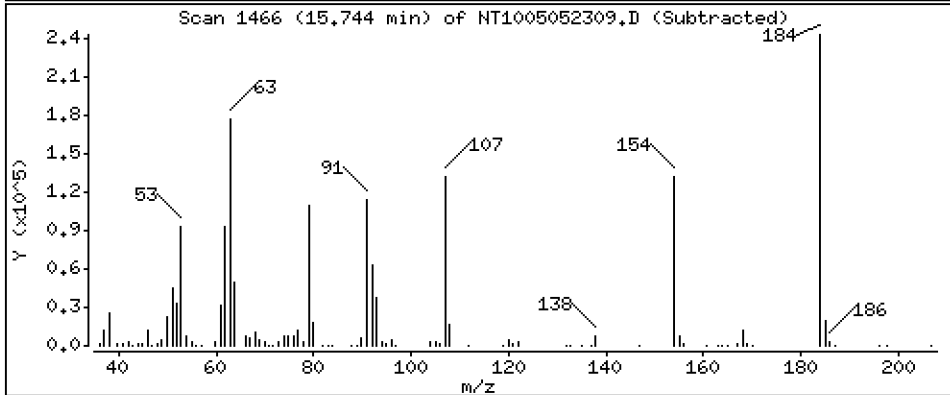
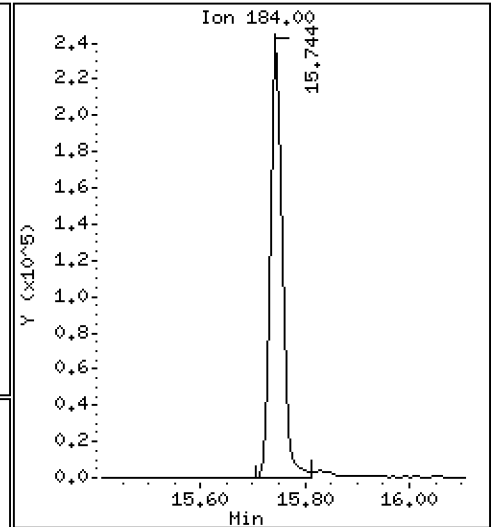
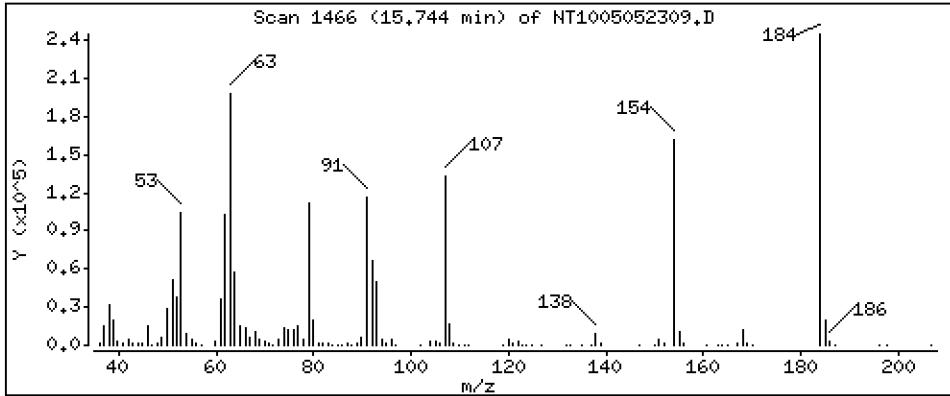
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 16,52 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

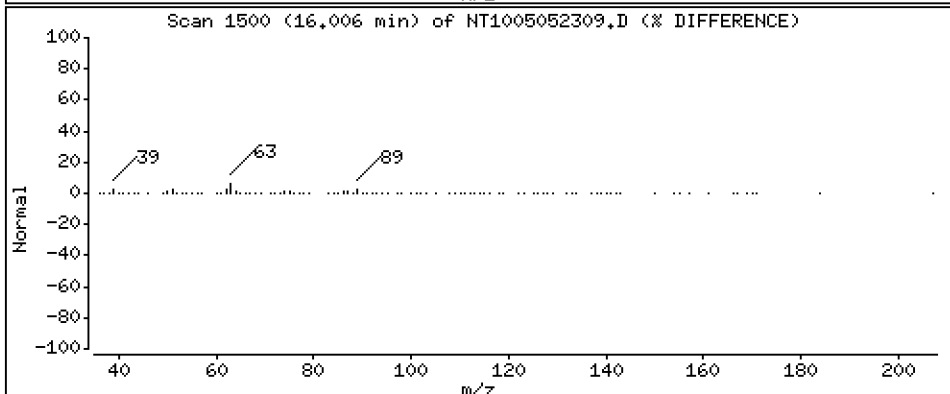
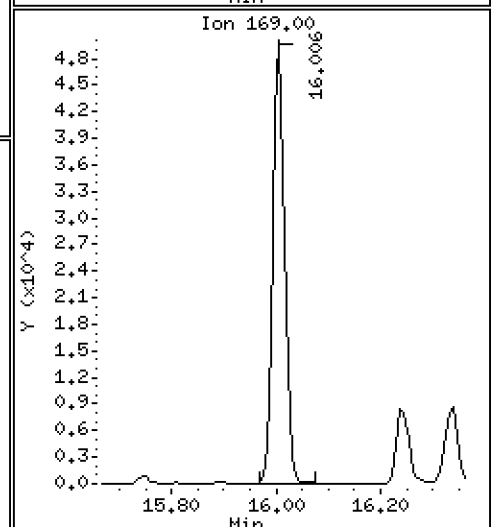
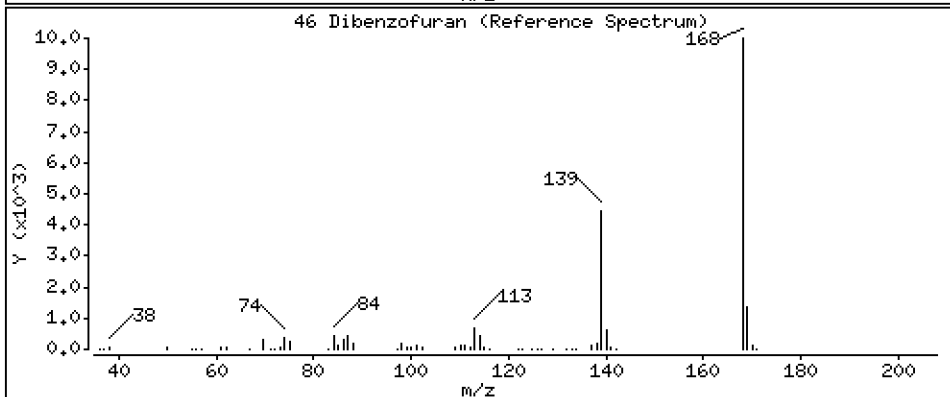
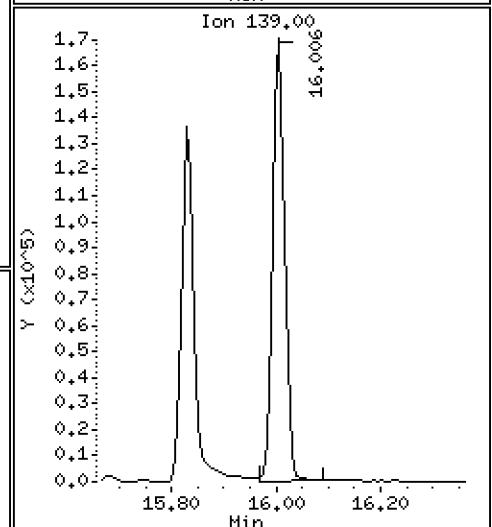
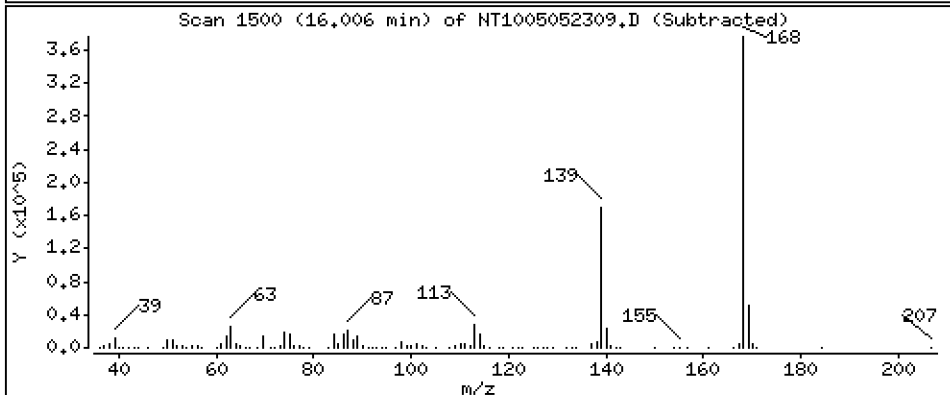
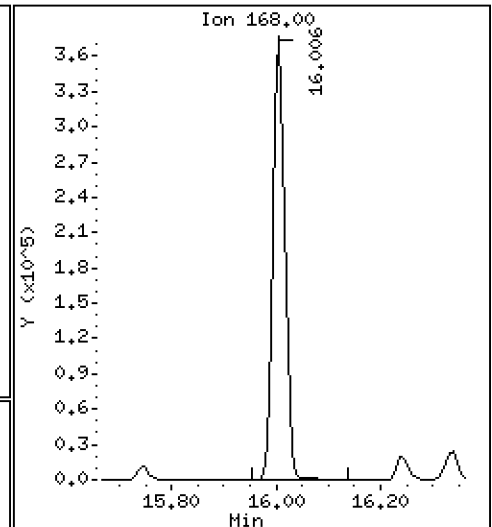
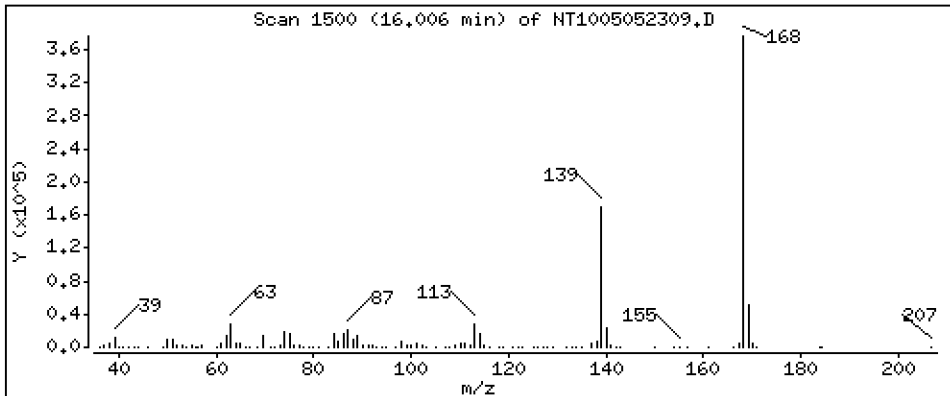
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 3,649 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

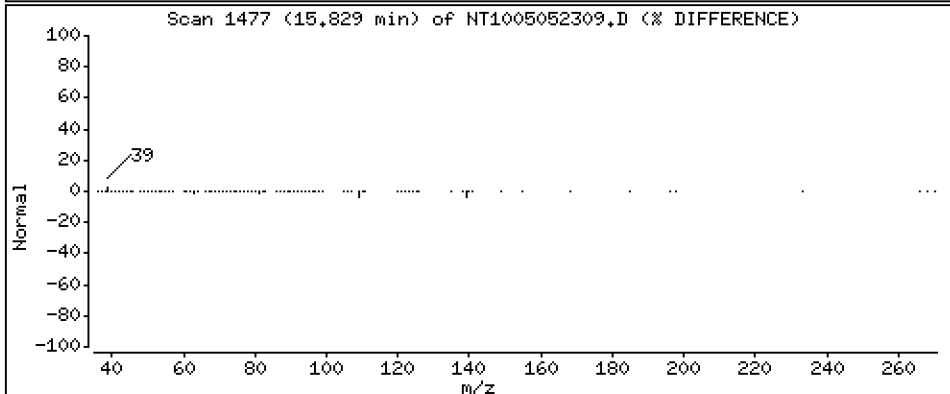
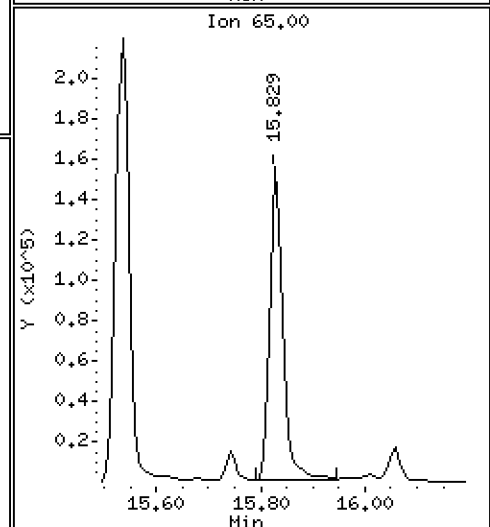
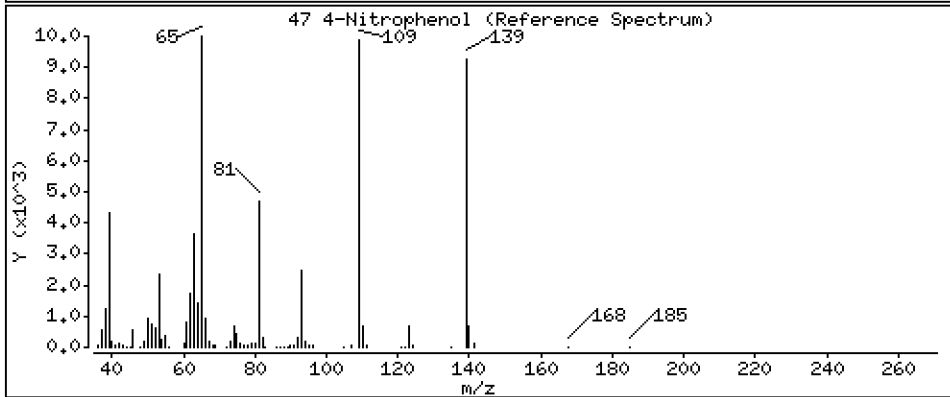
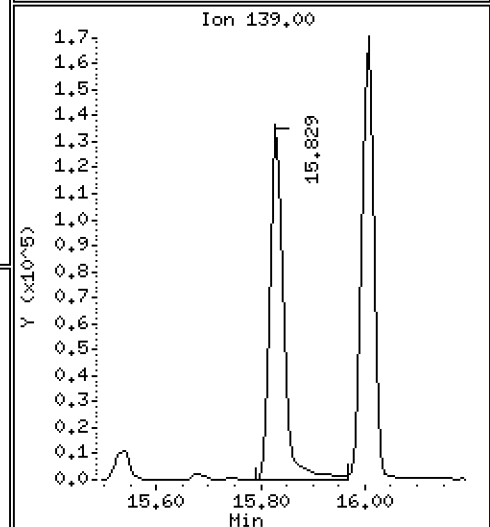
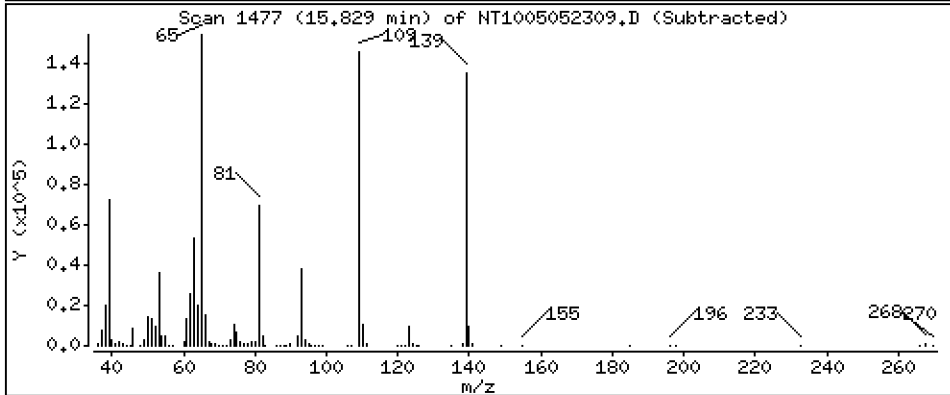
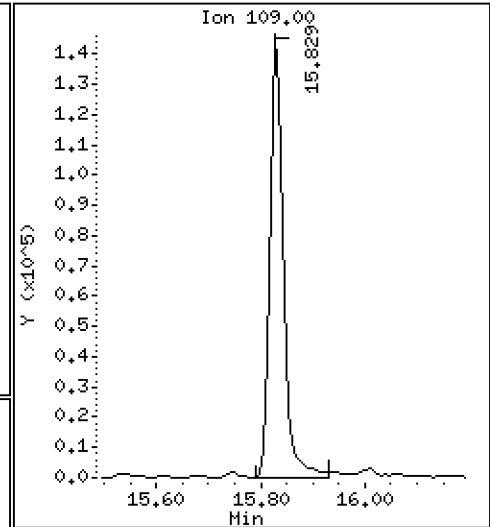
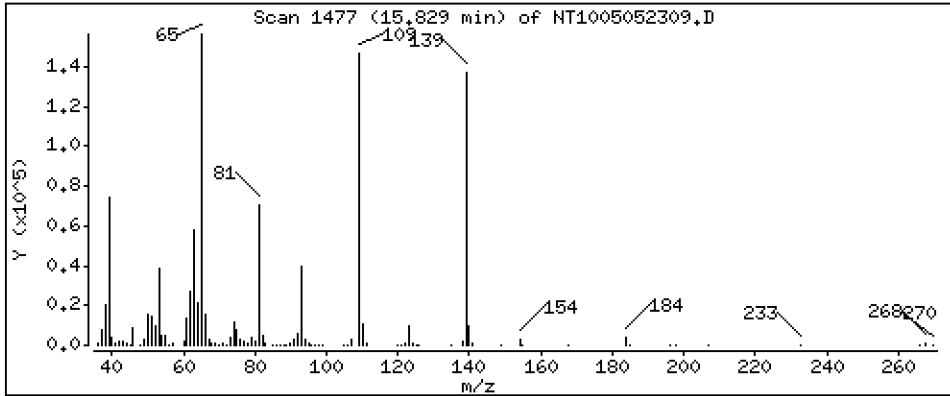
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 9,579 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

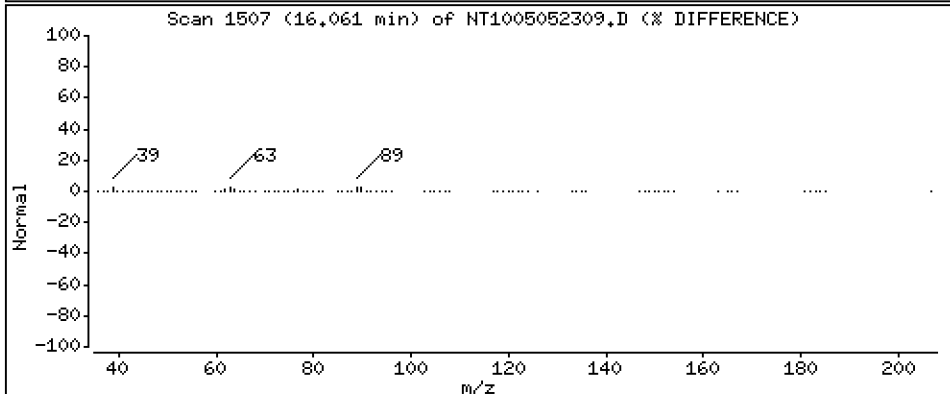
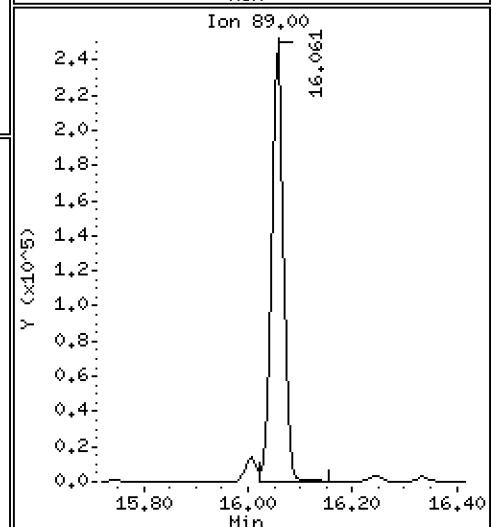
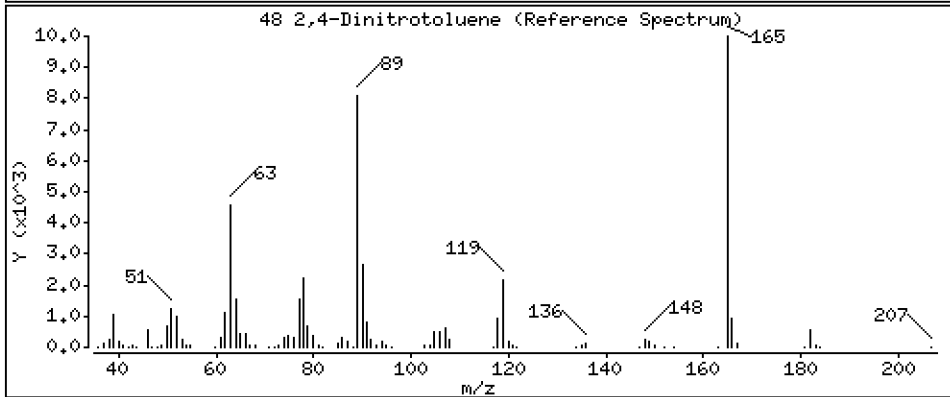
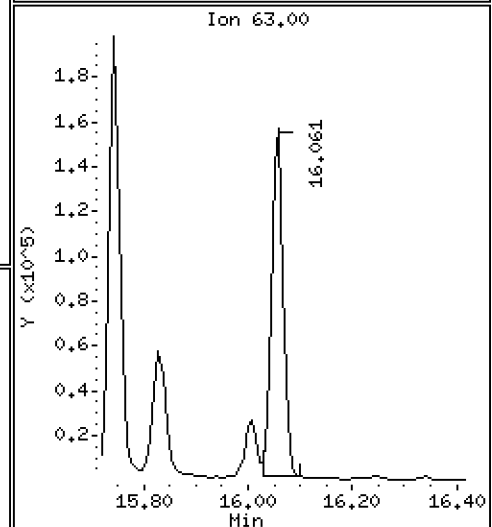
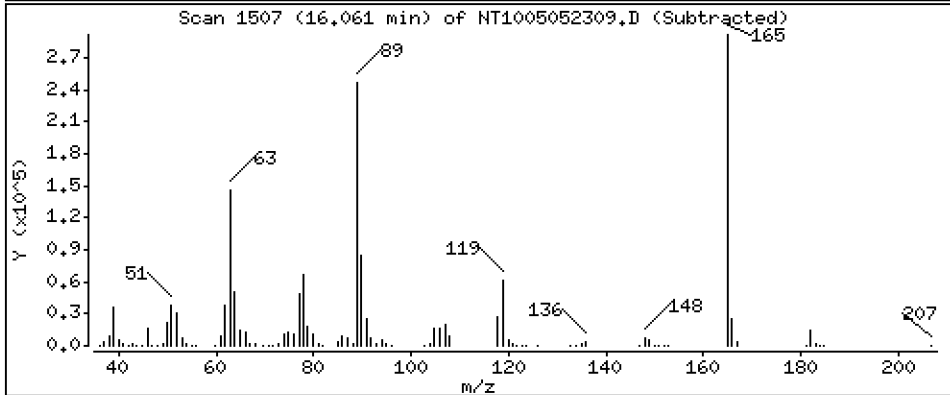
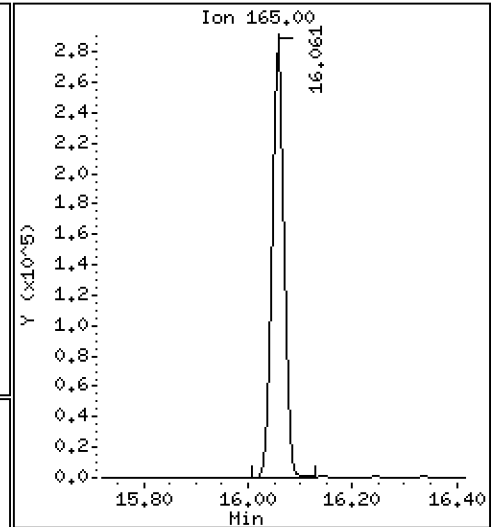
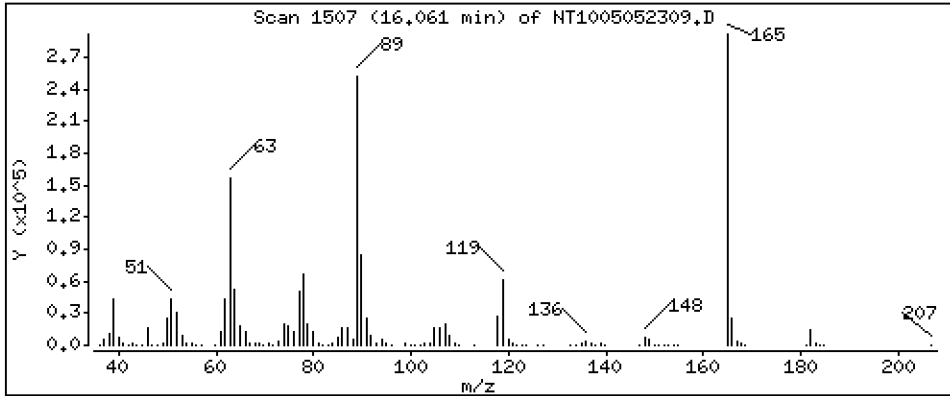
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 11.04 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

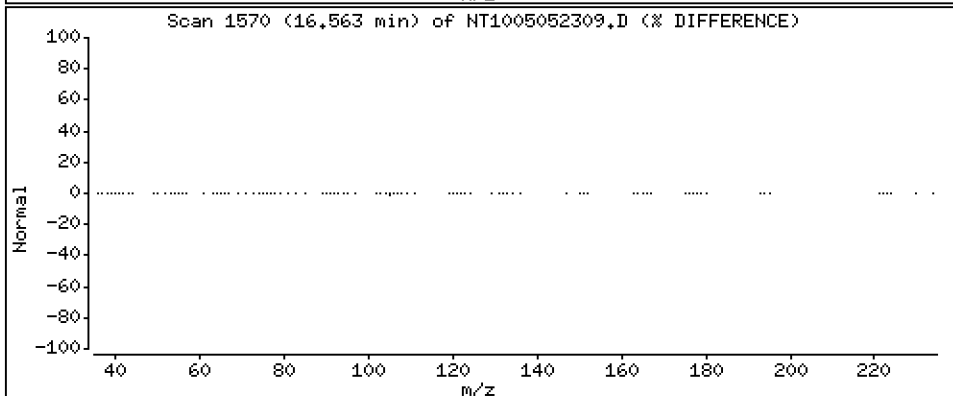
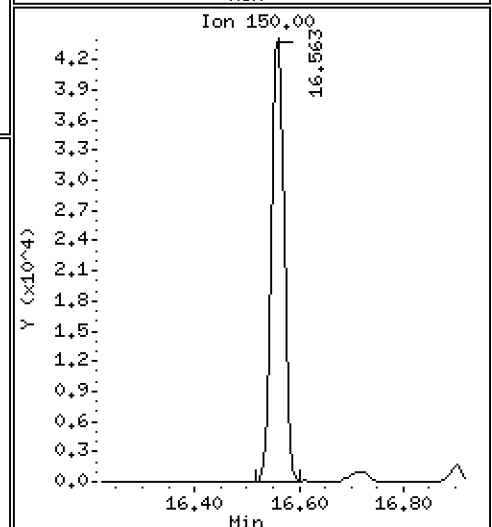
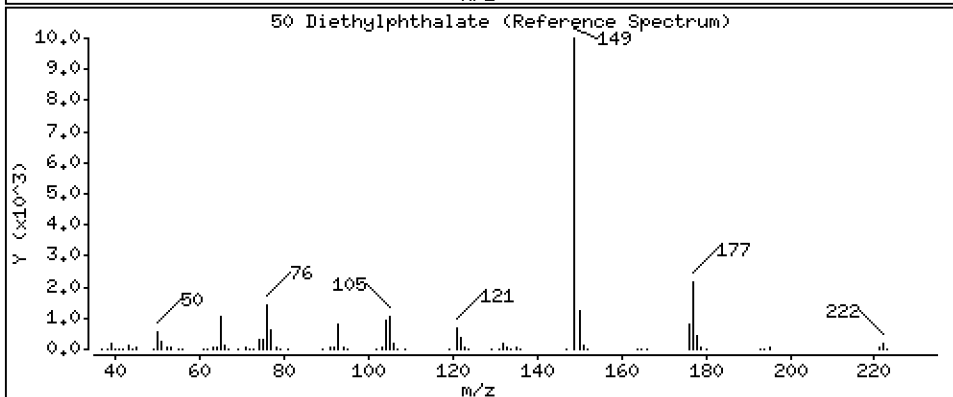
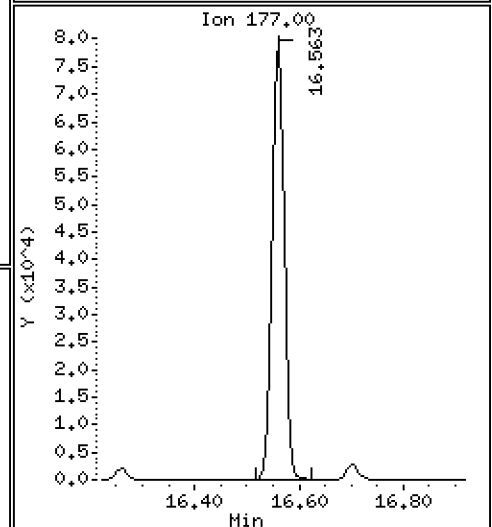
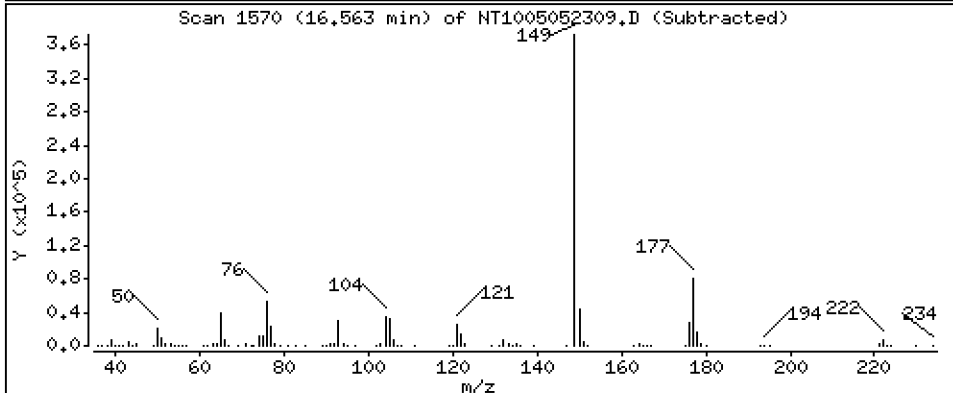
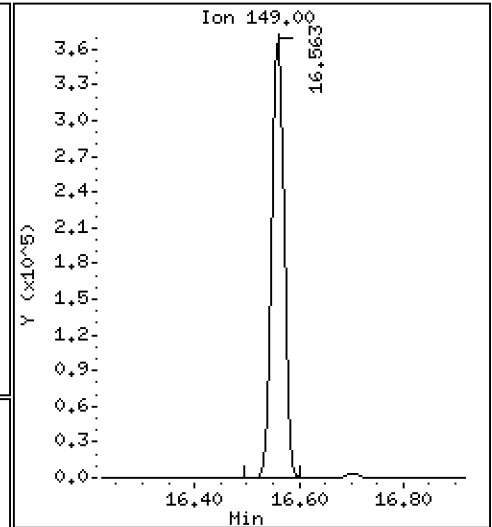
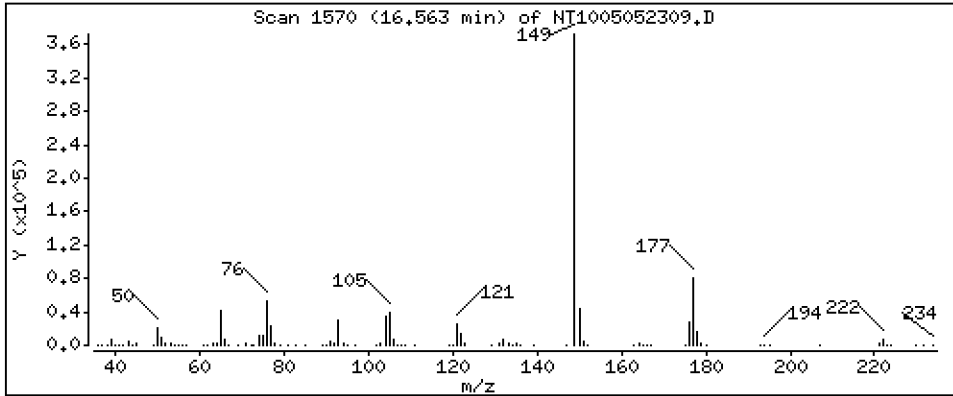
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,173 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

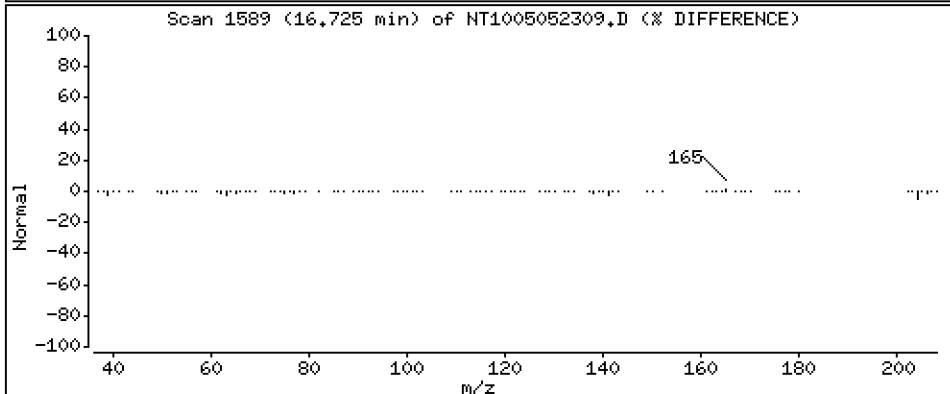
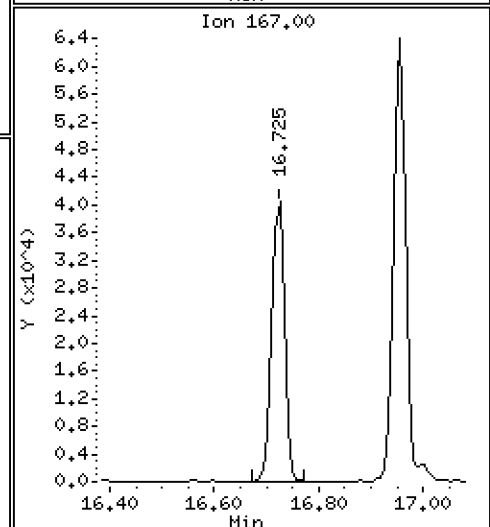
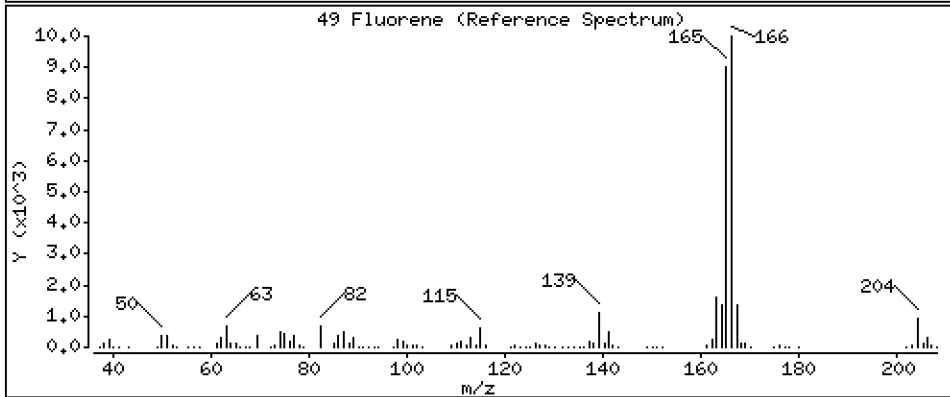
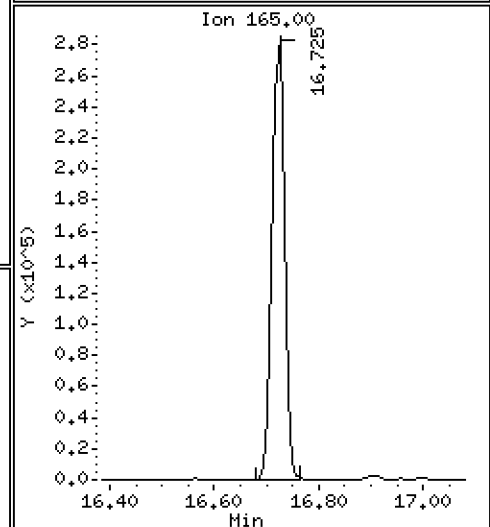
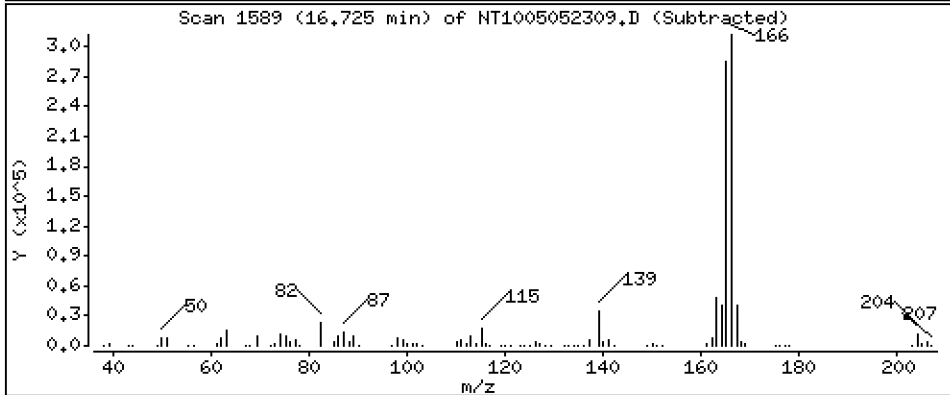
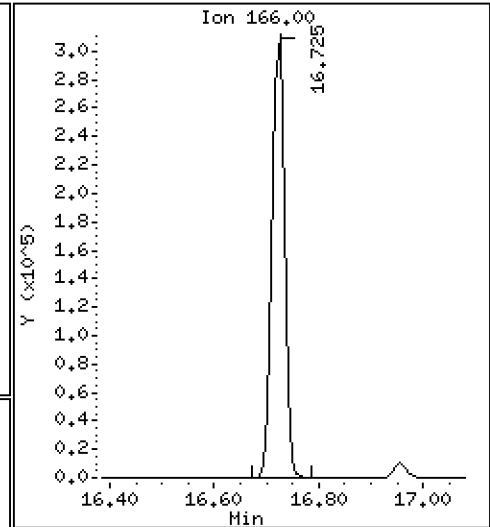
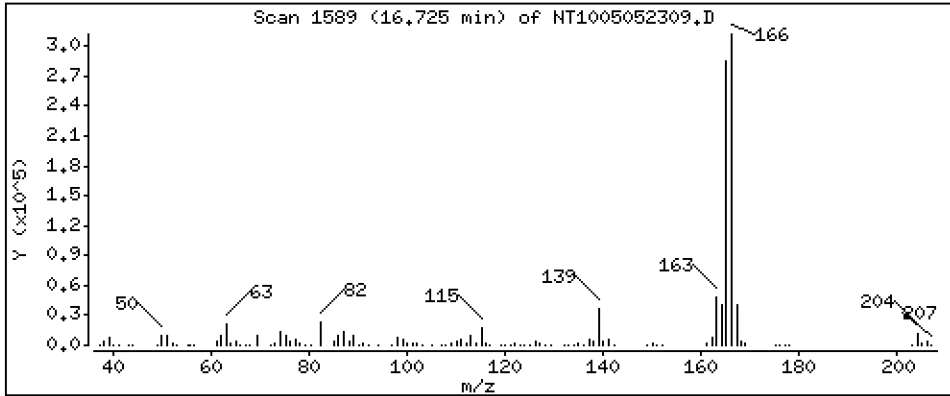
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,668 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

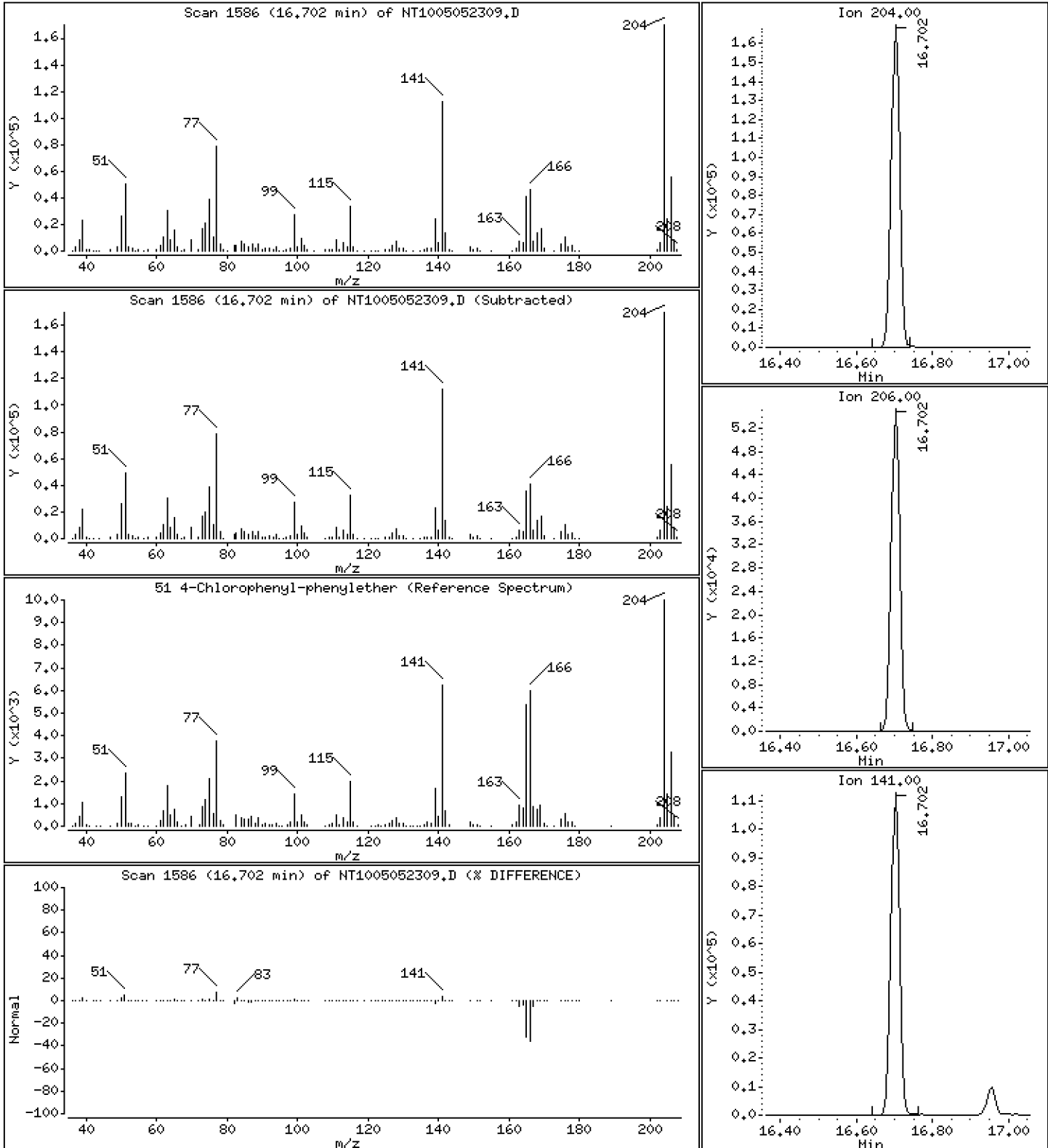
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,462 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

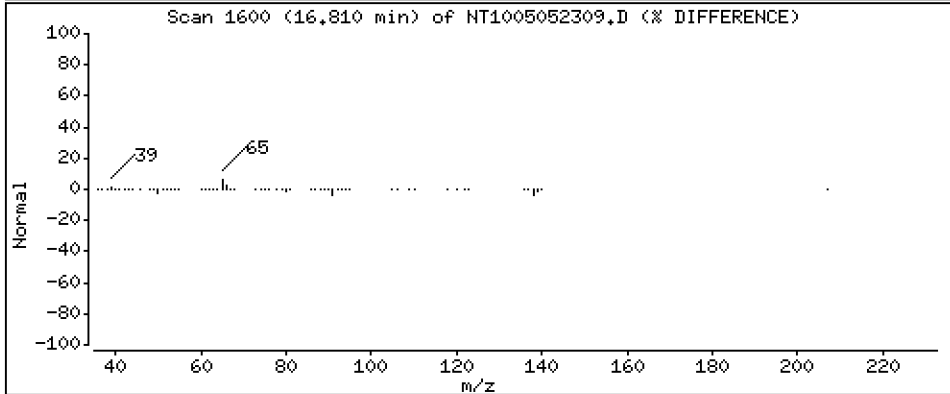
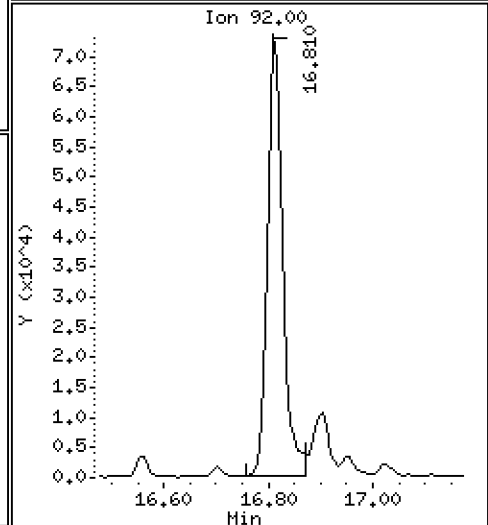
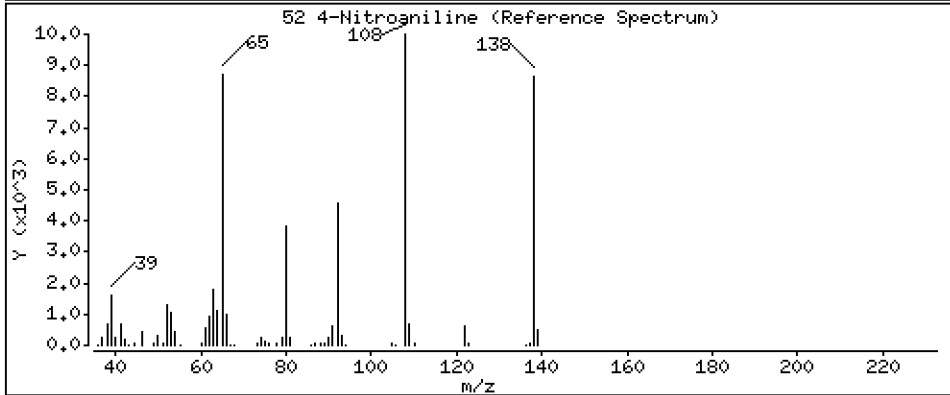
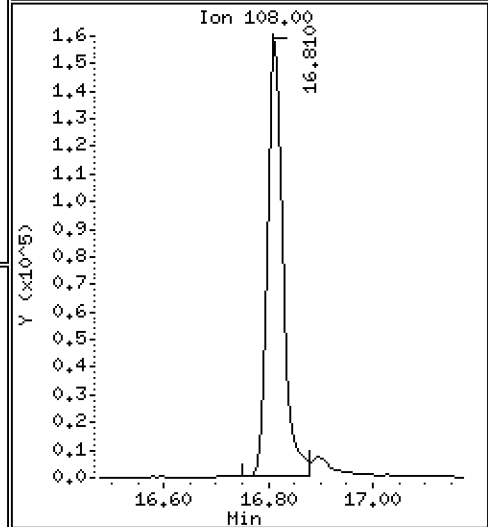
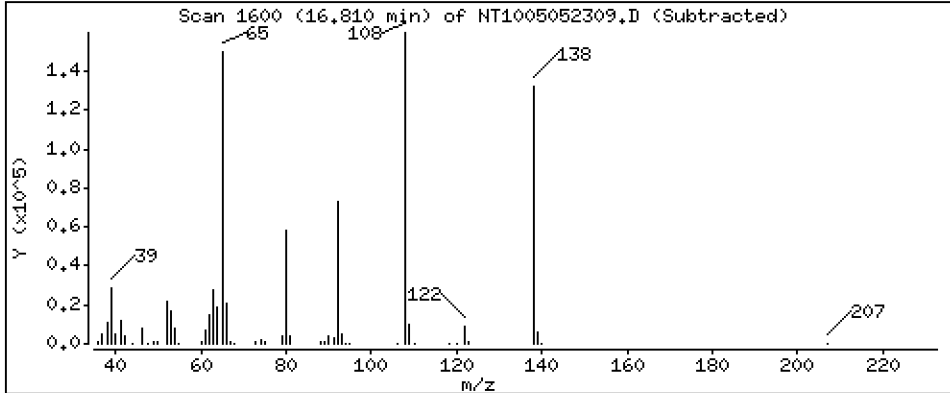
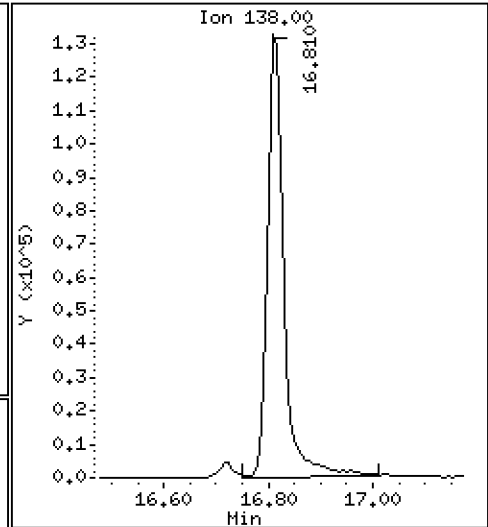
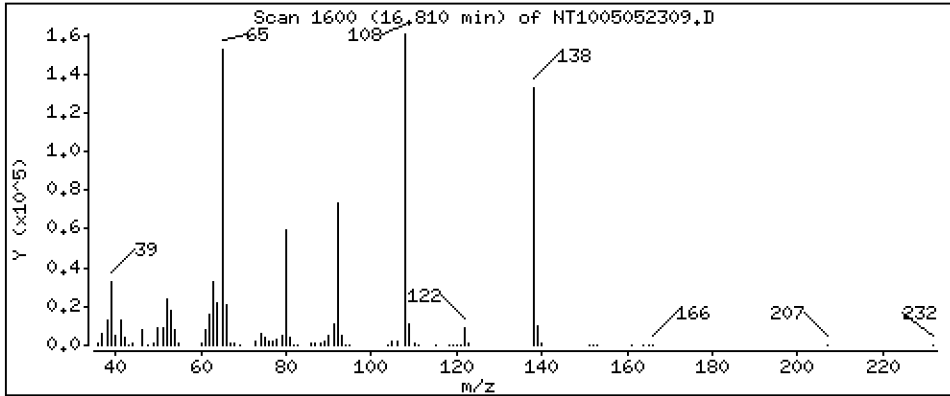
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 10,12 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

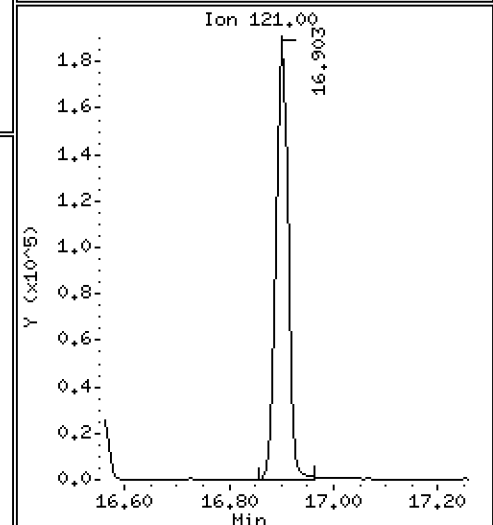
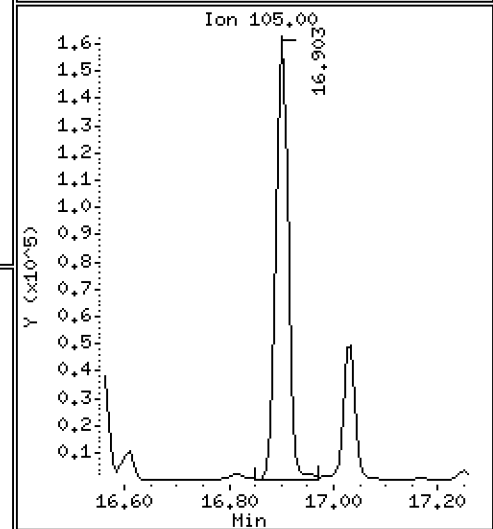
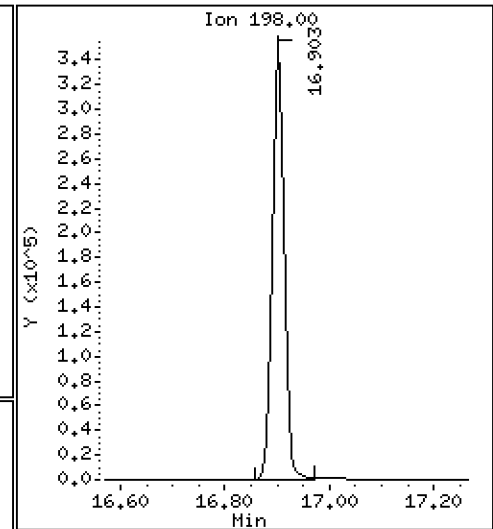
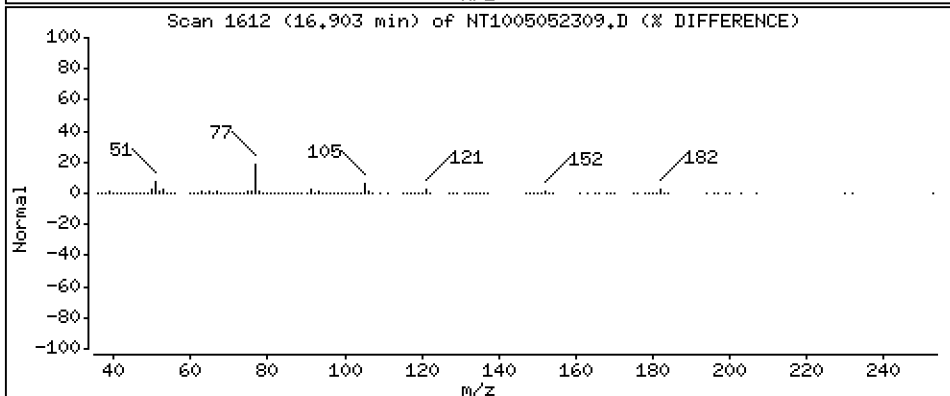
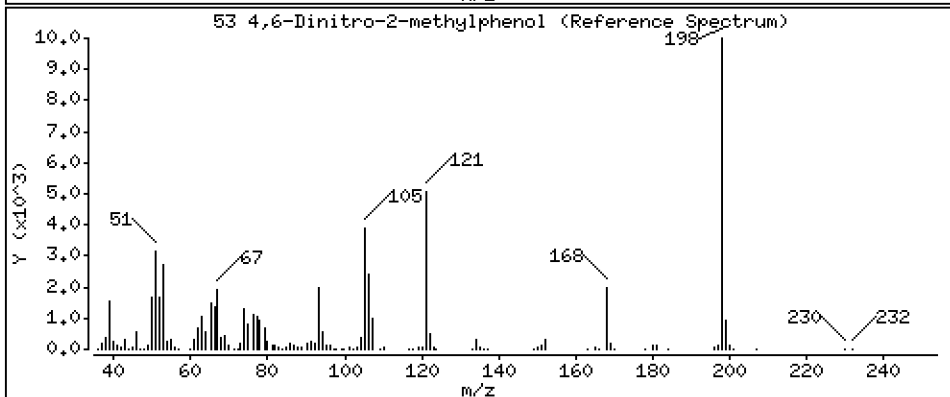
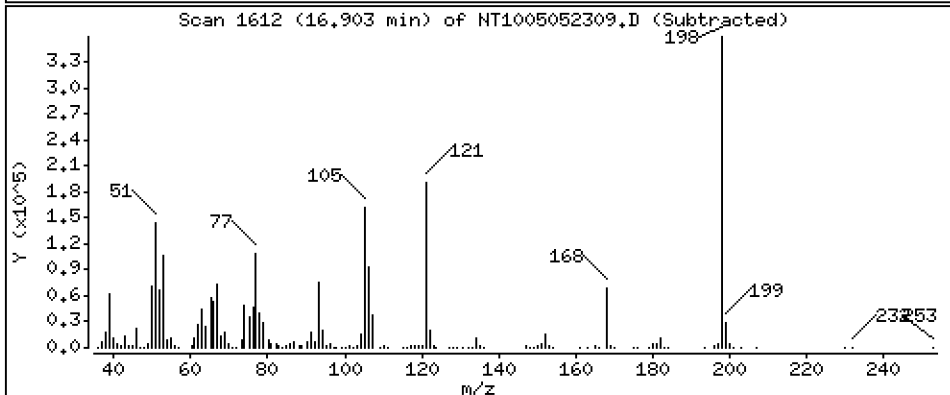
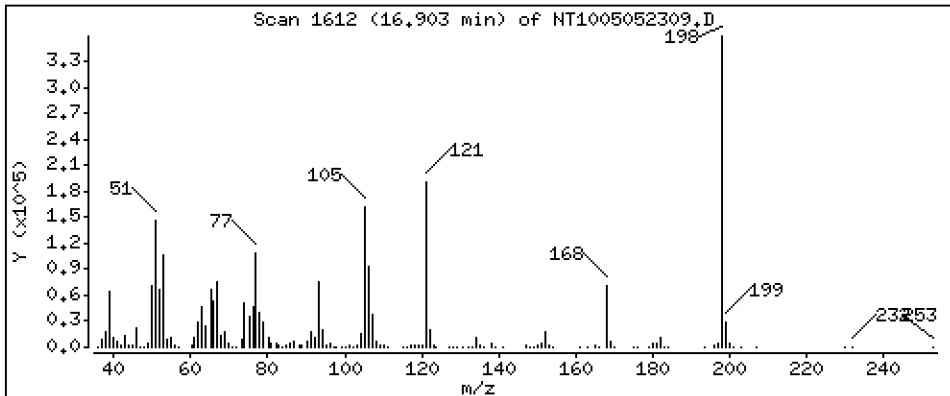
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 22,53 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

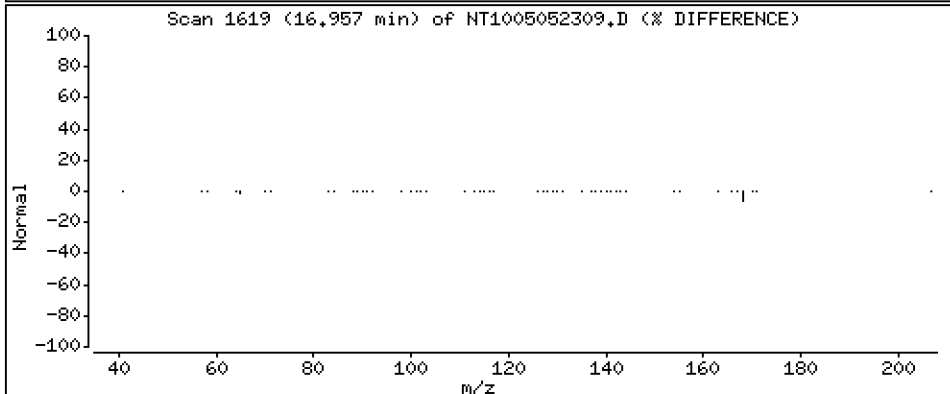
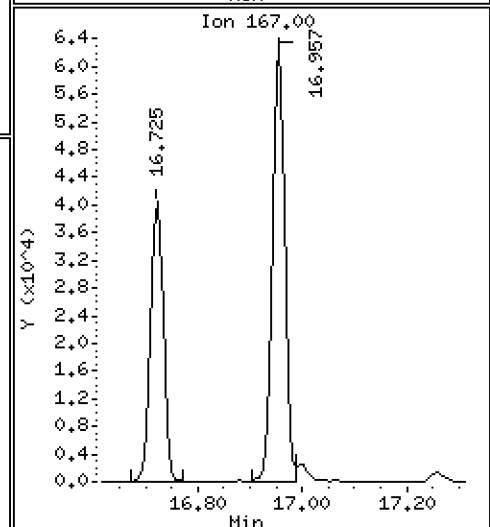
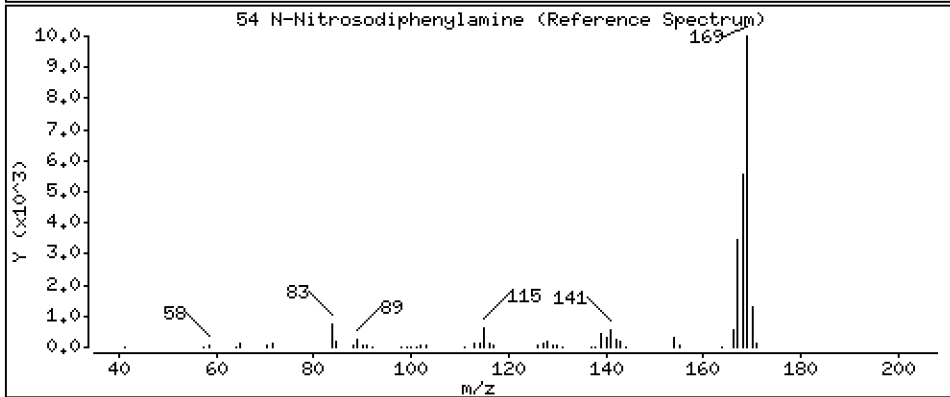
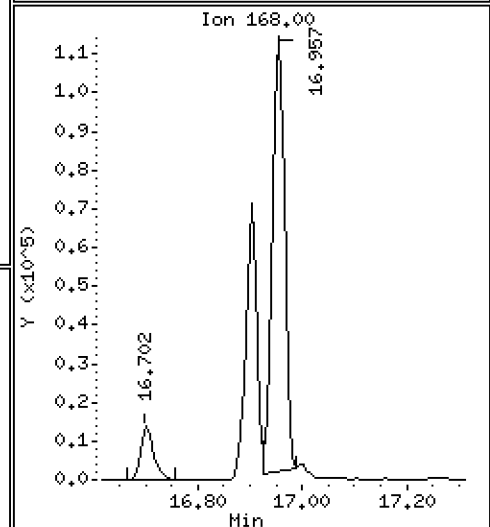
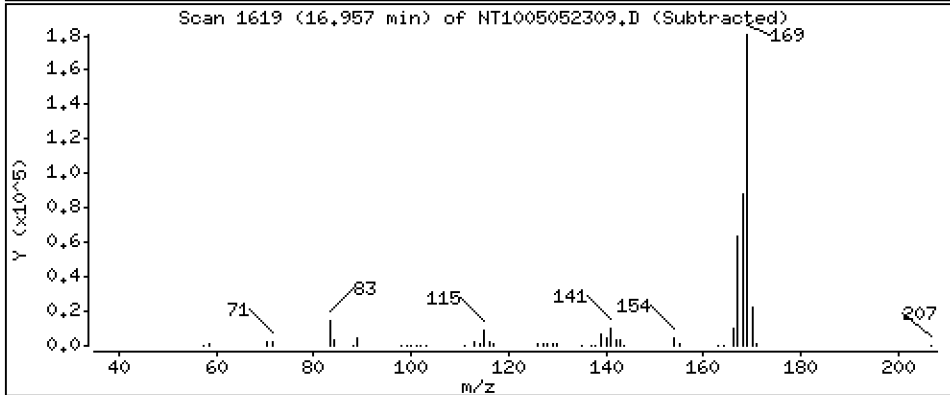
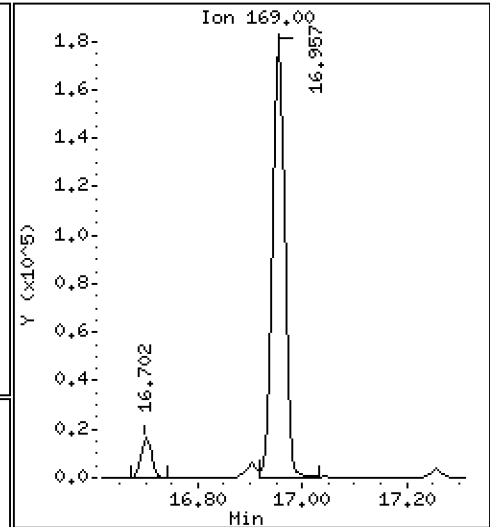
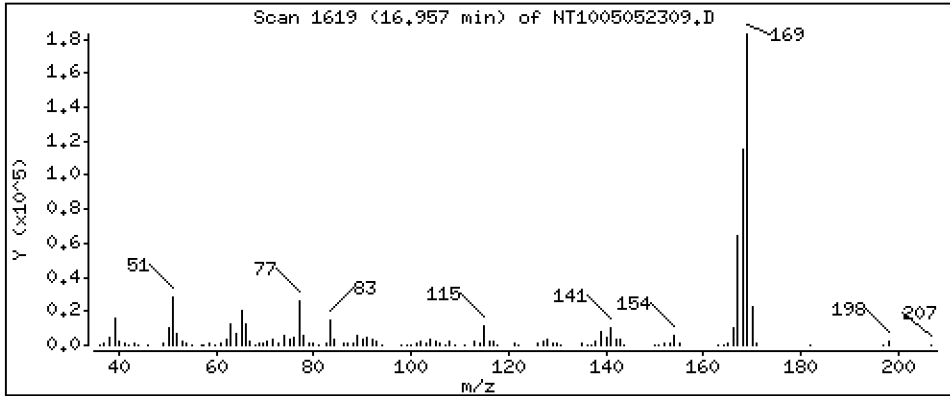
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 3,552 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

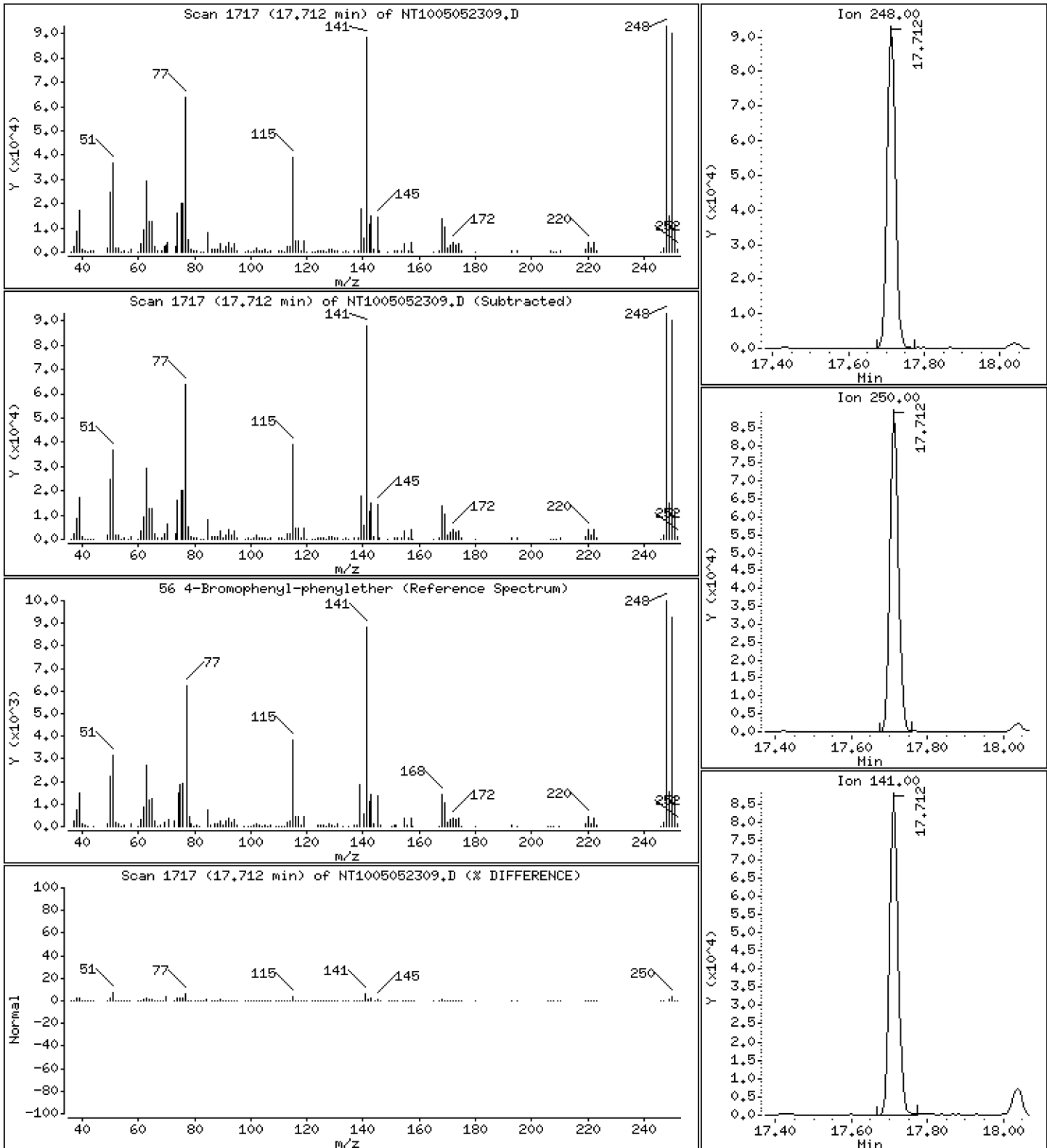
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,038 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

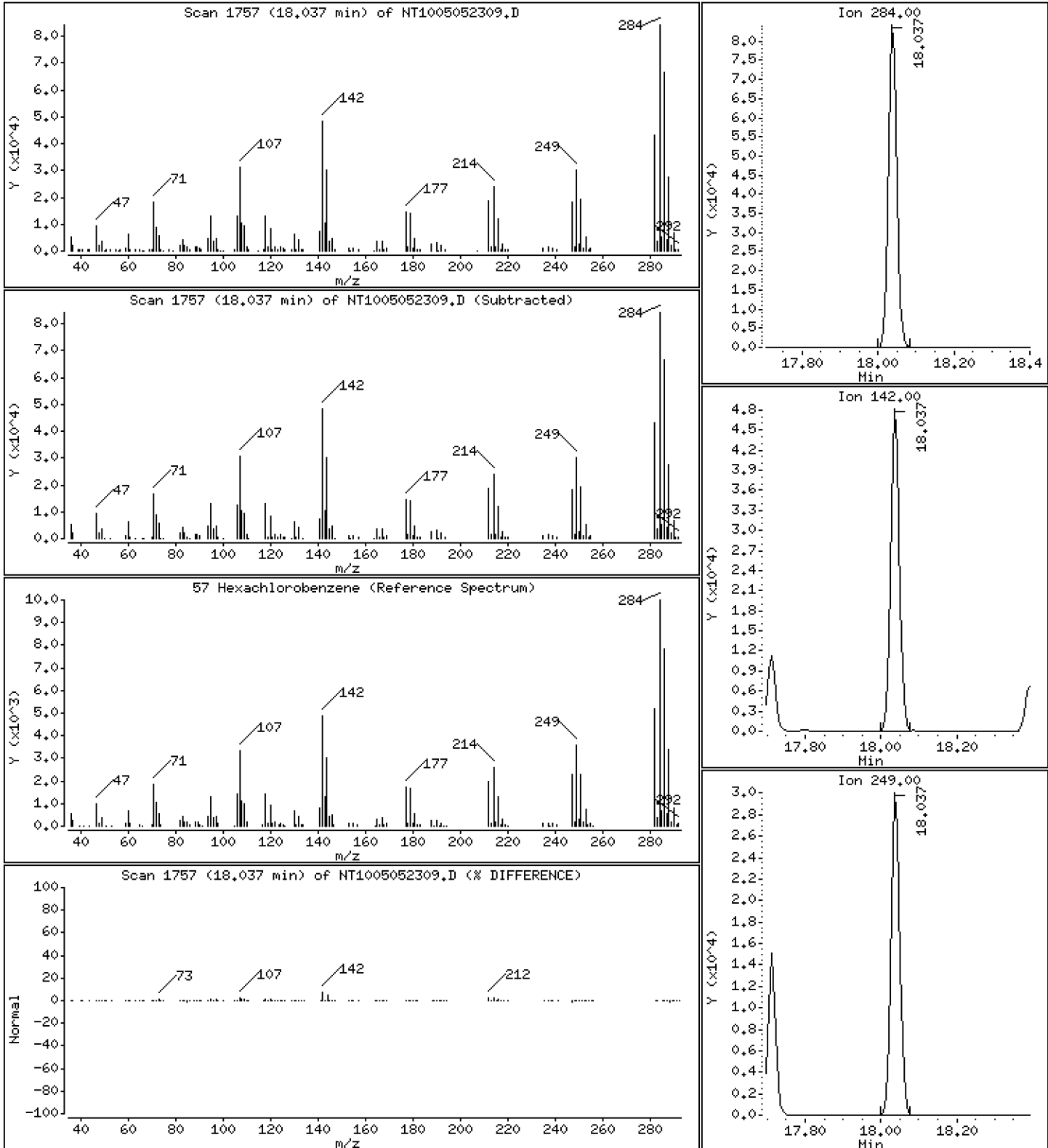
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 3,662 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

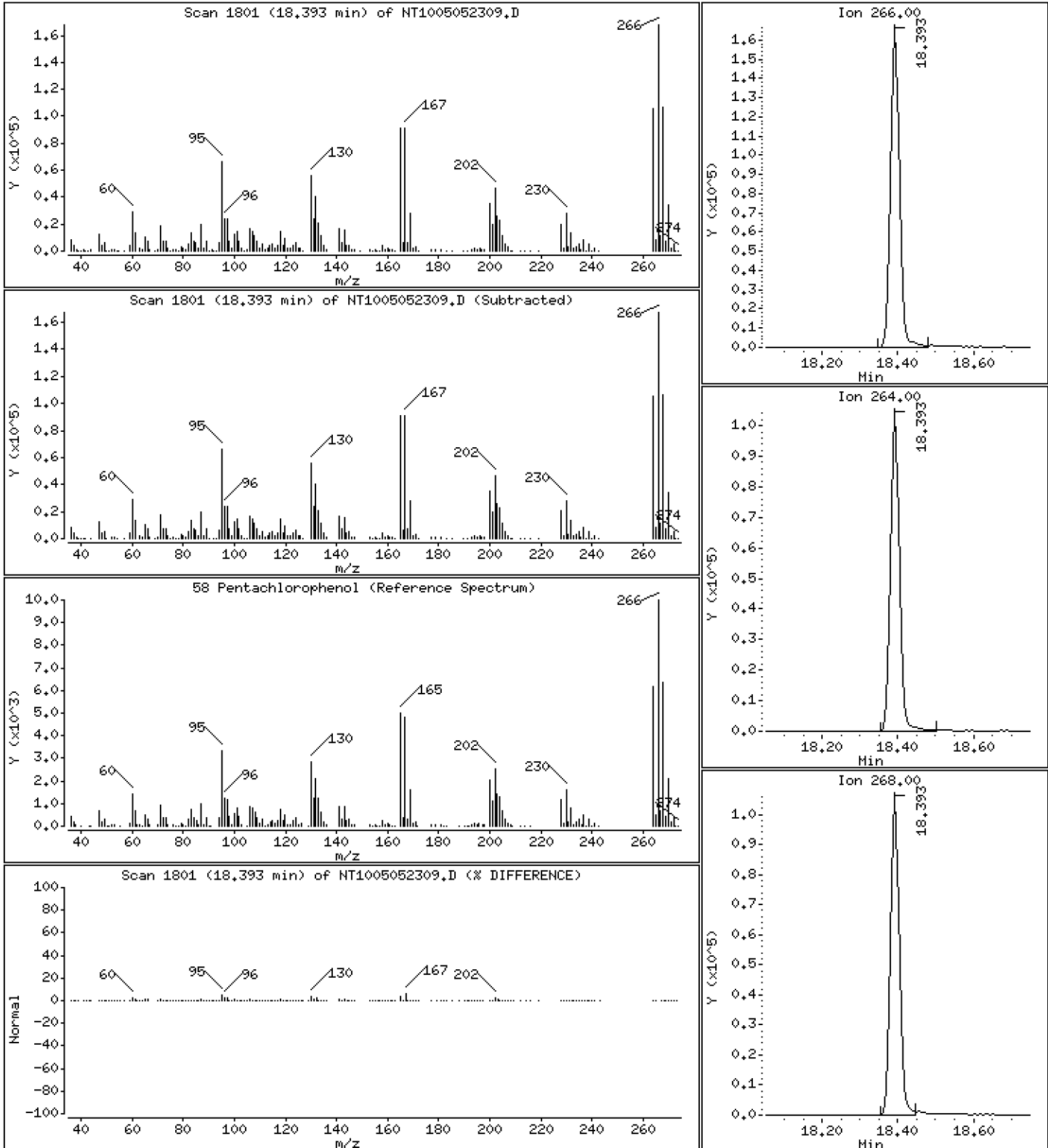
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 9,662 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

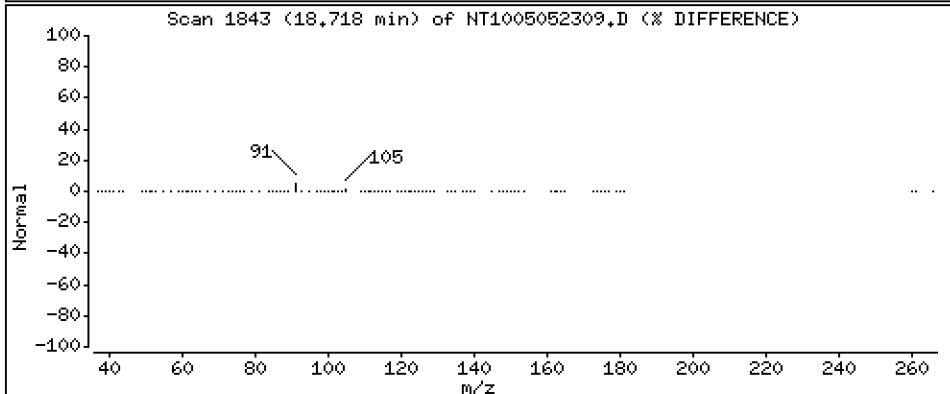
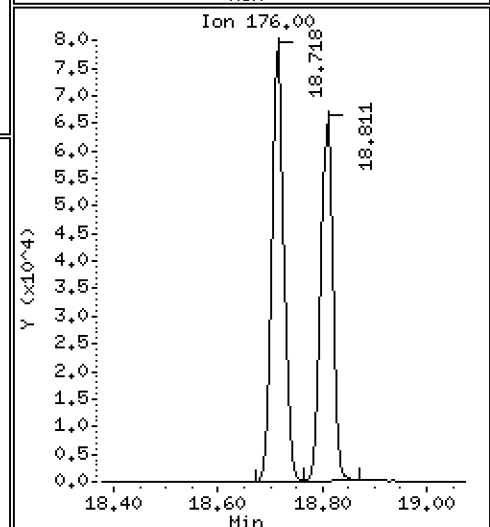
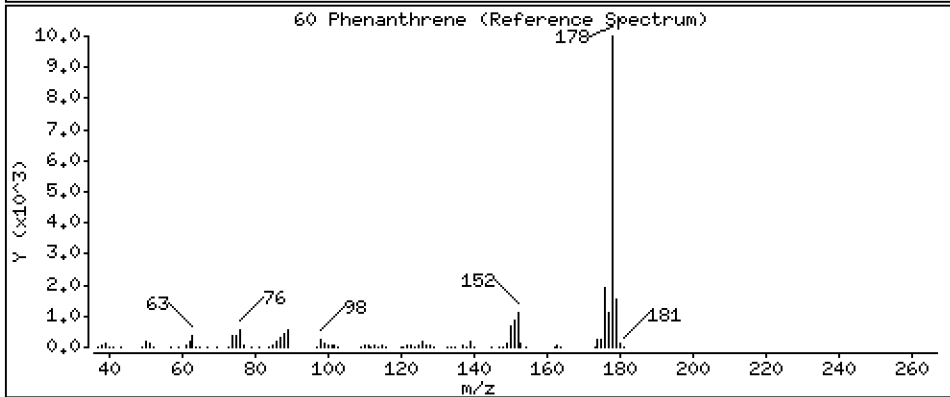
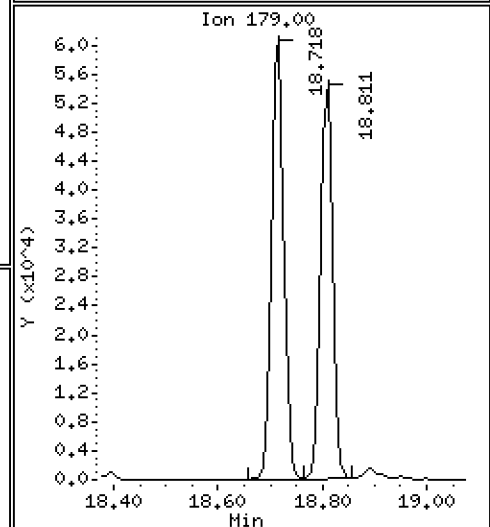
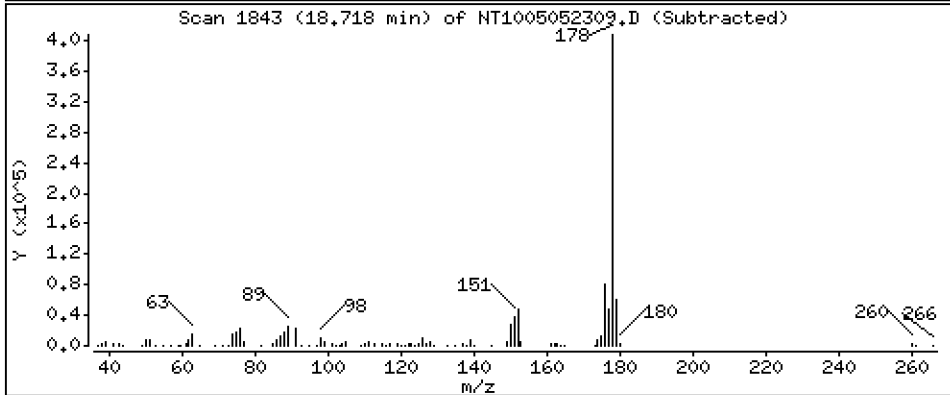
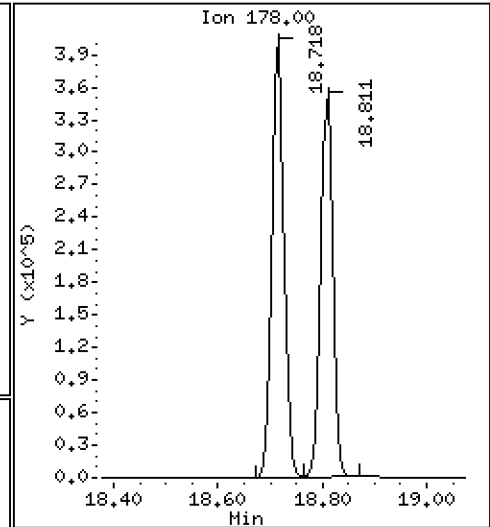
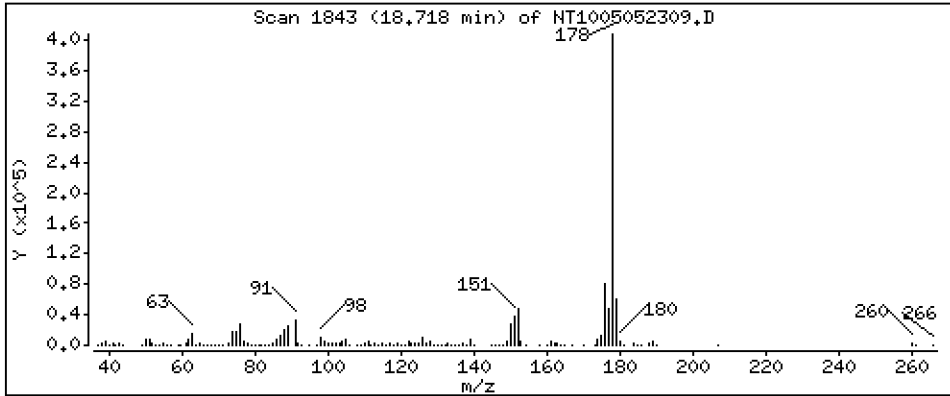
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 3,698 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

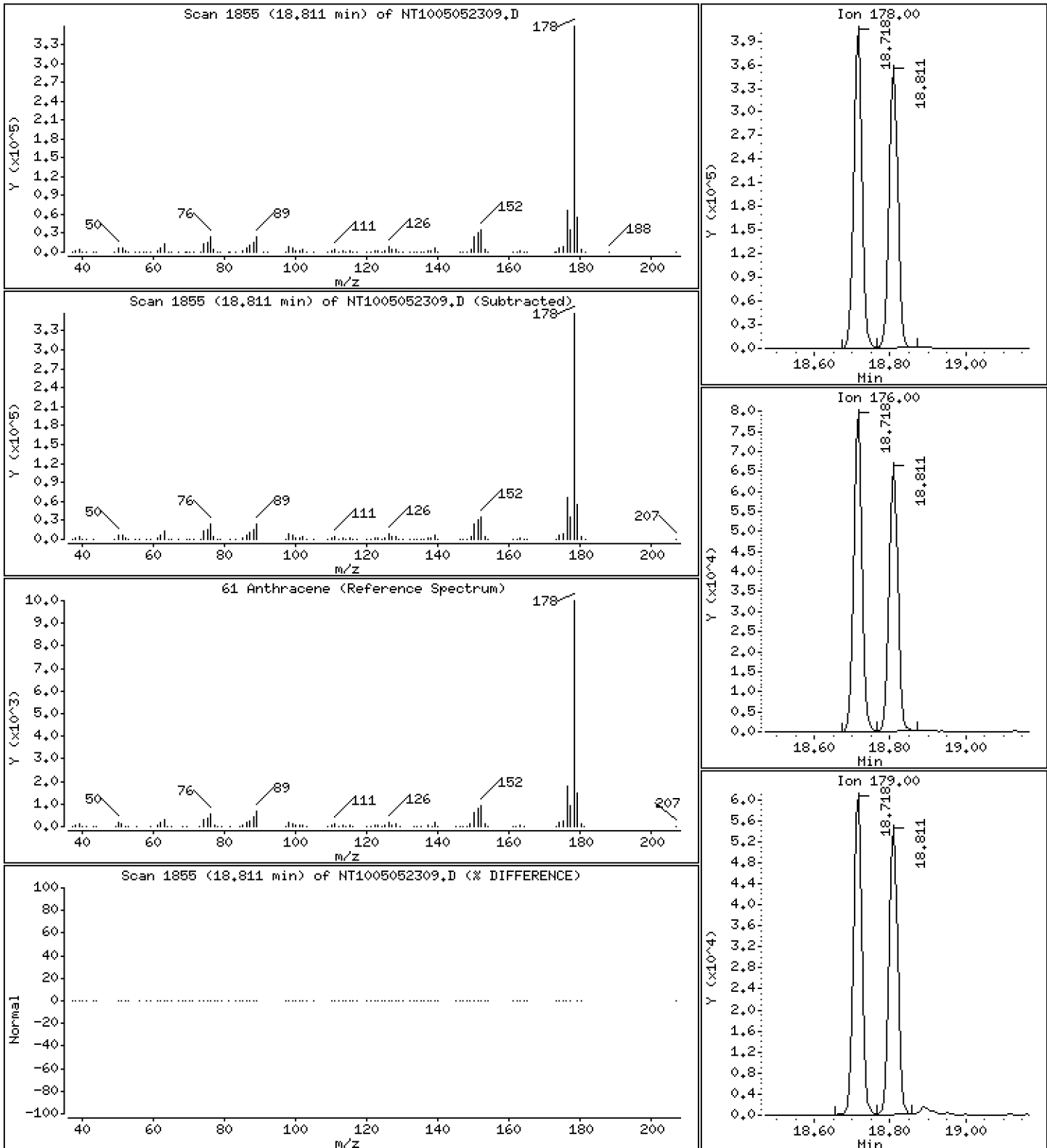
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,345 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

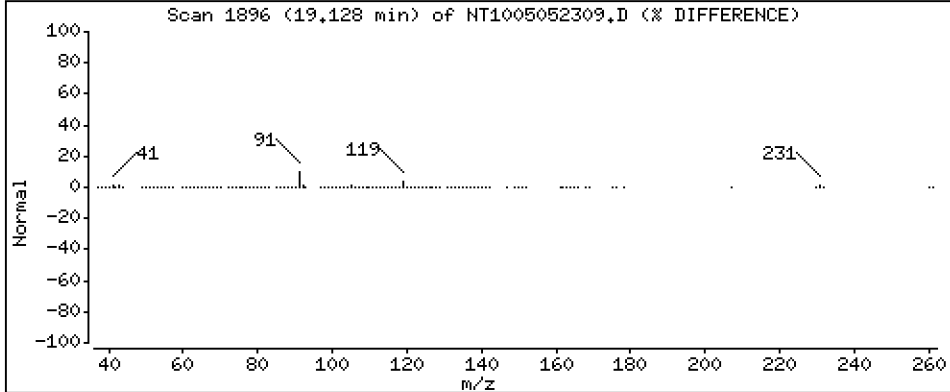
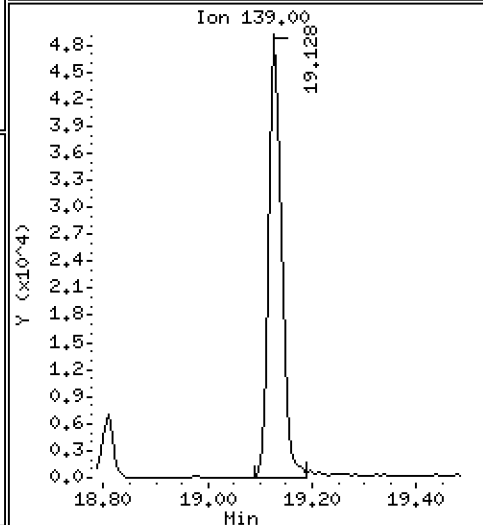
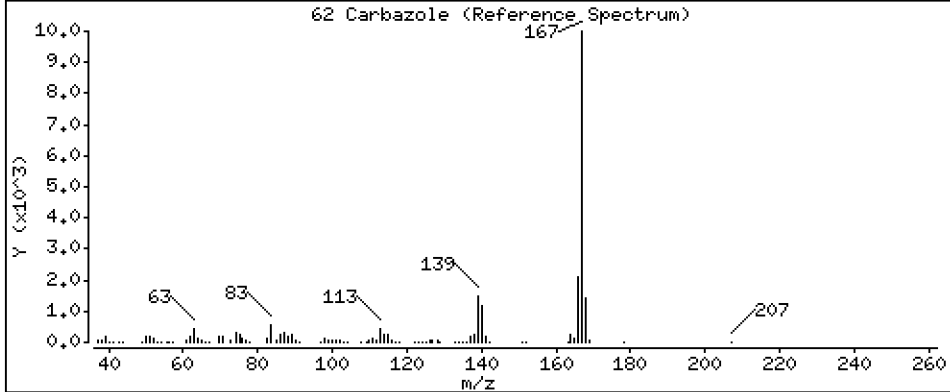
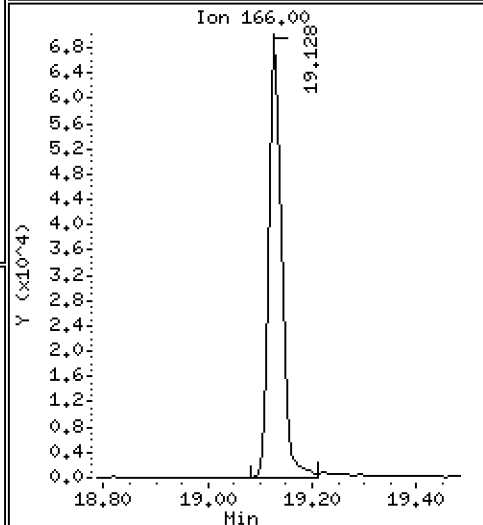
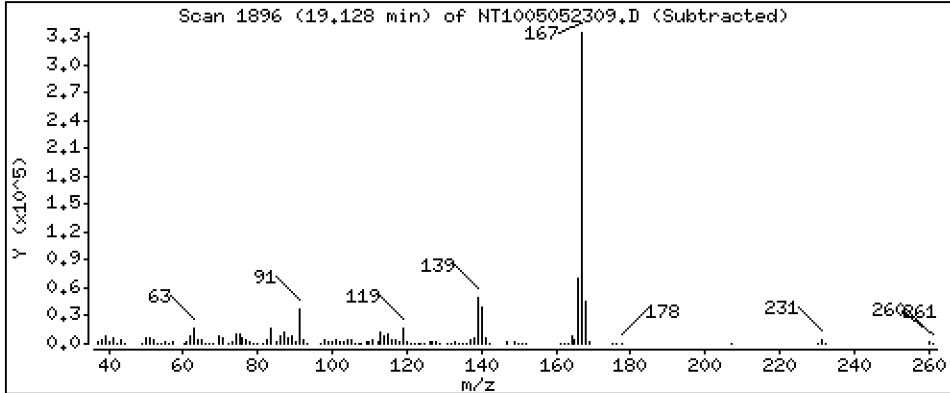
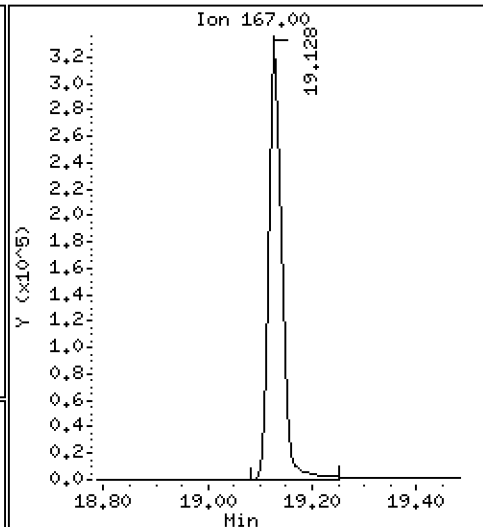
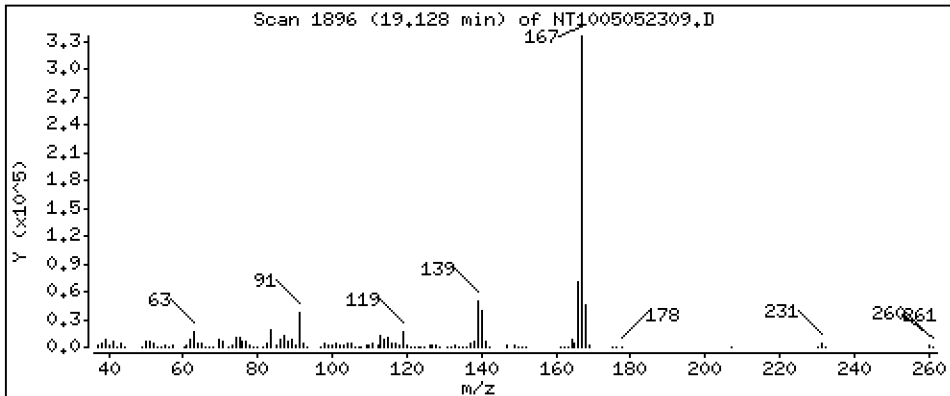
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 3,947 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

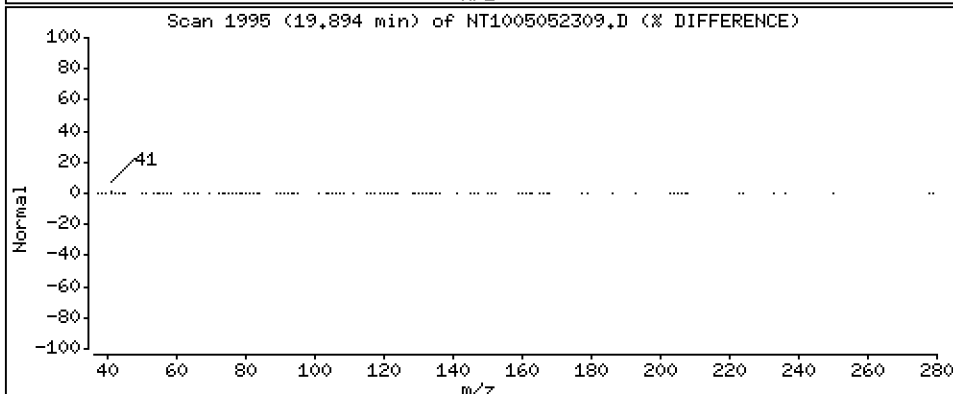
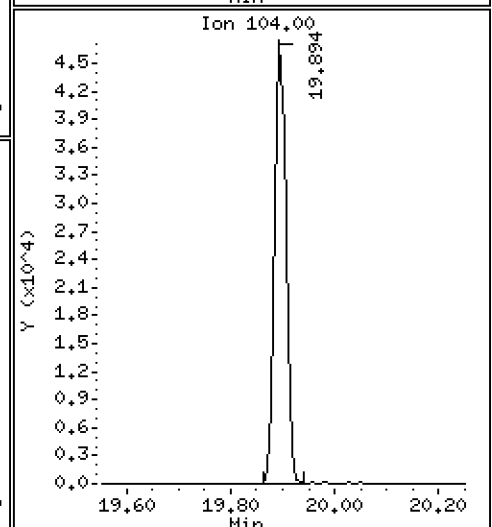
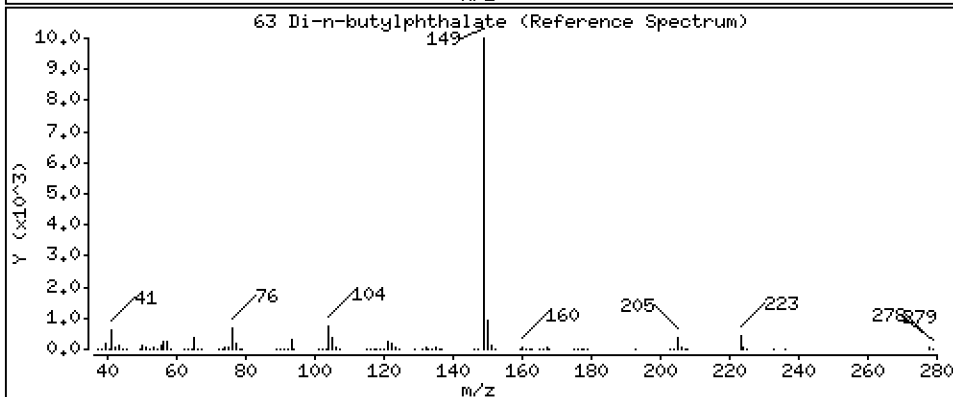
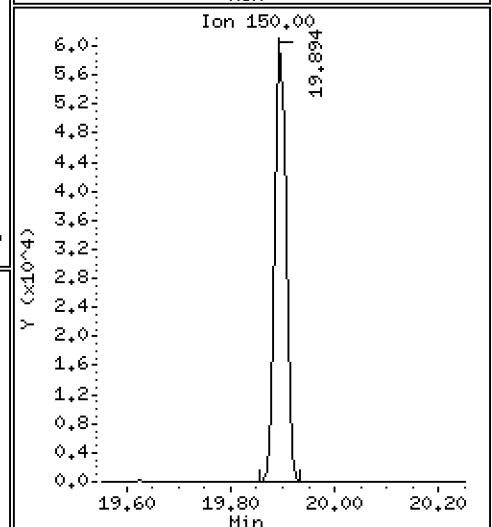
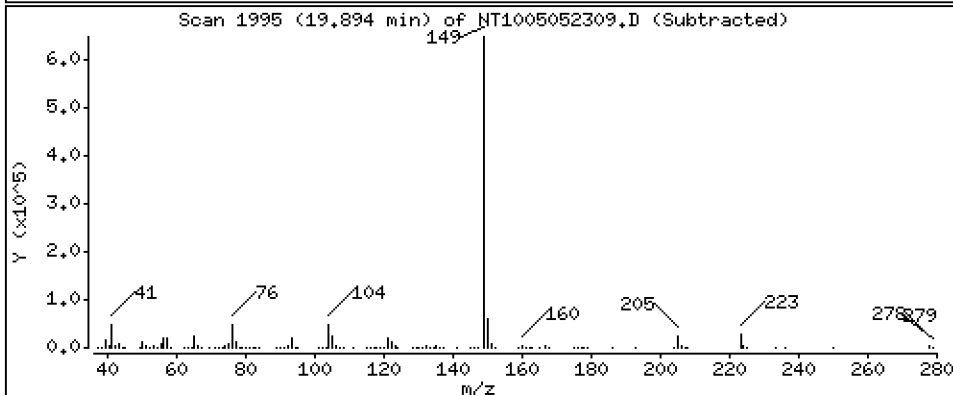
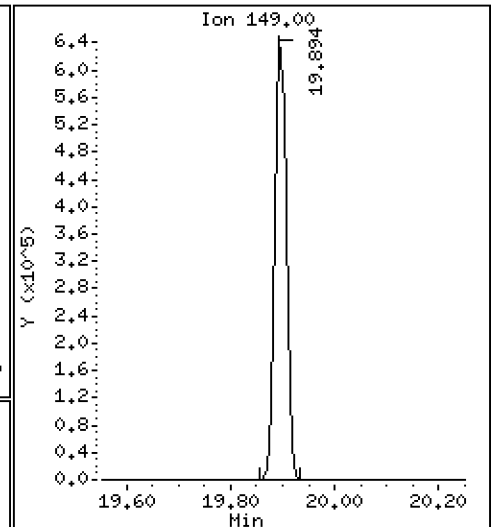
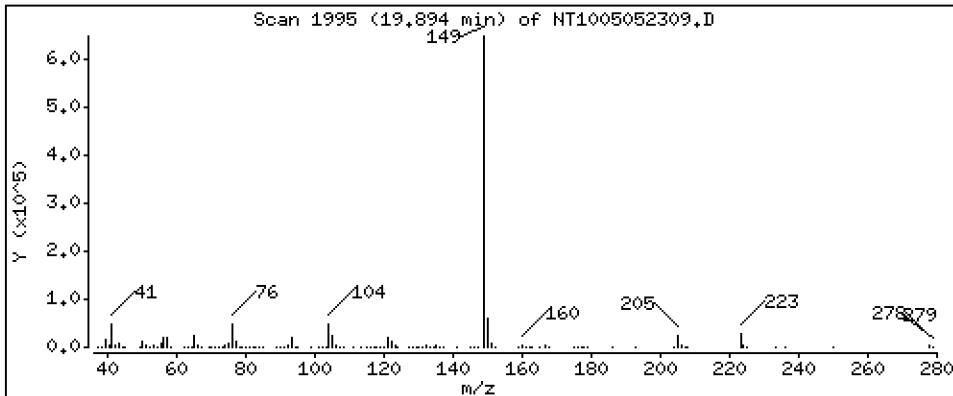
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,253 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

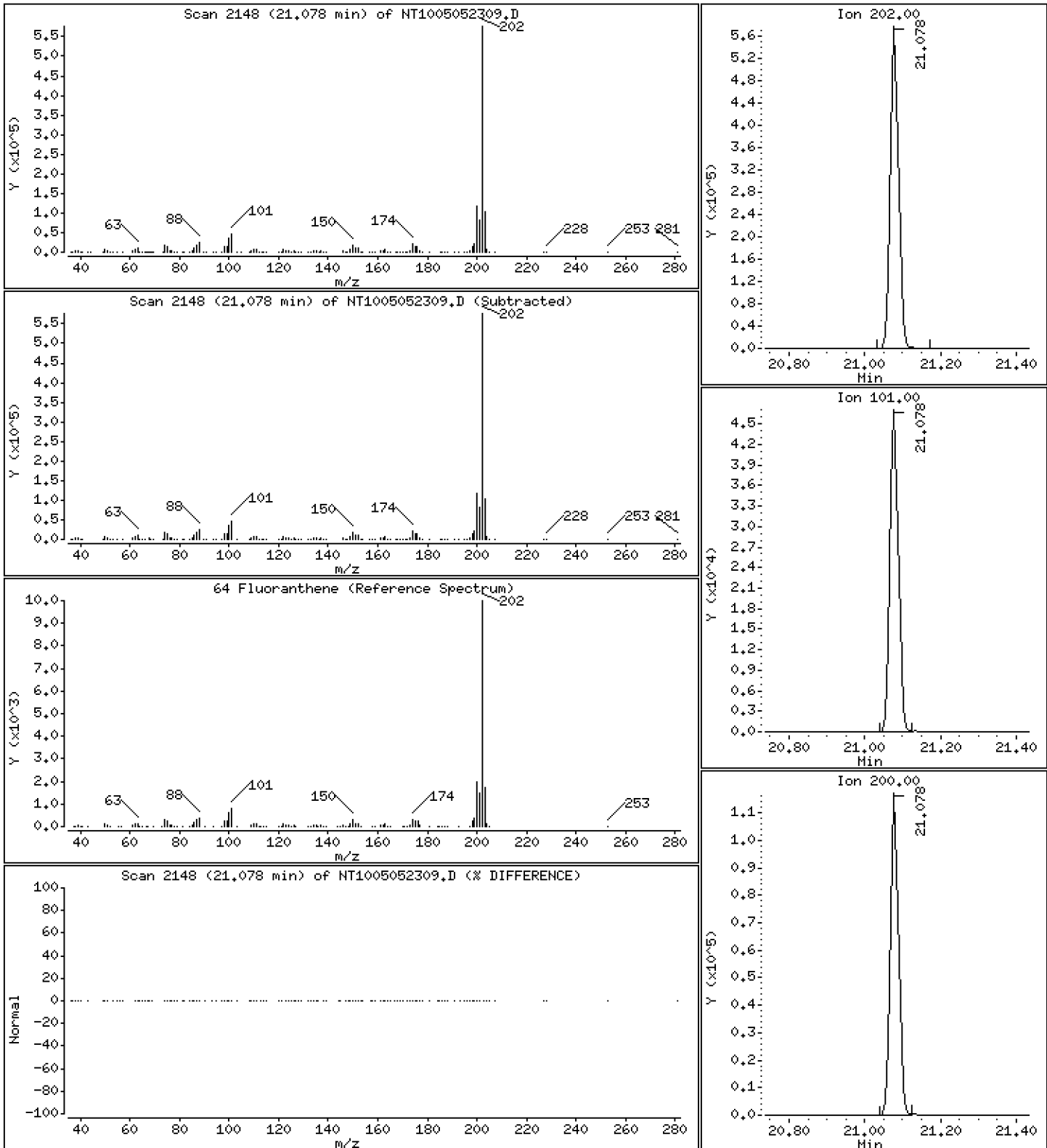
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 3,875 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

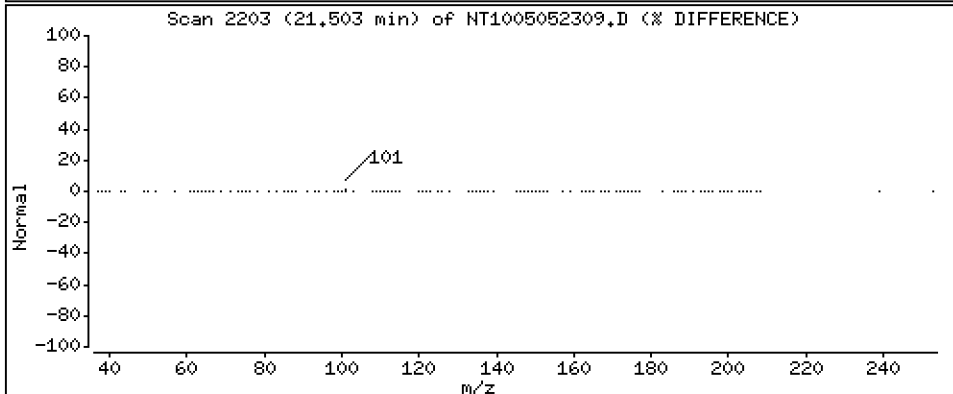
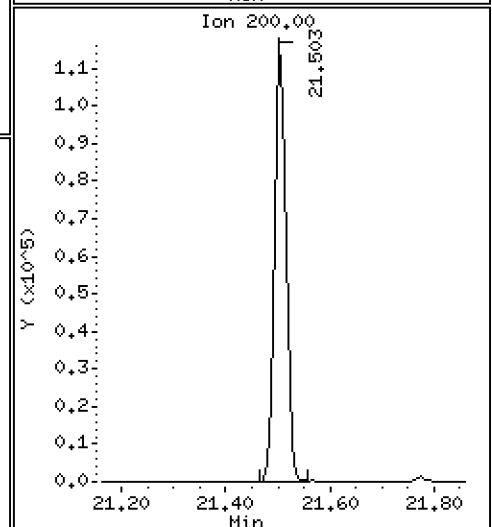
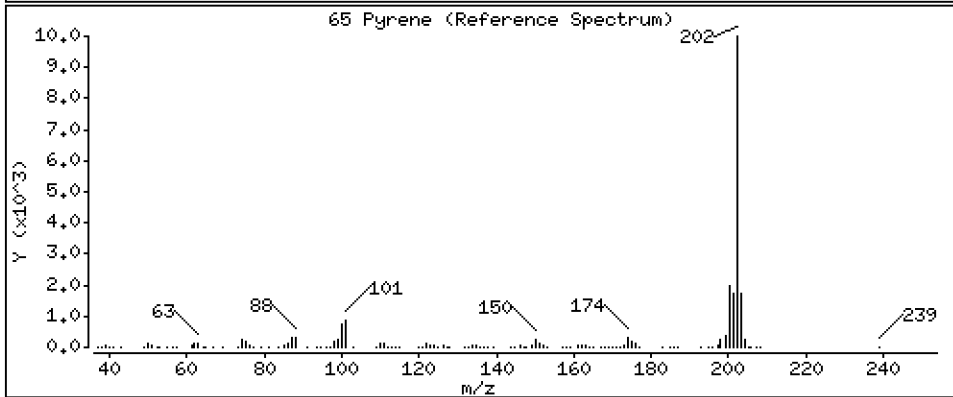
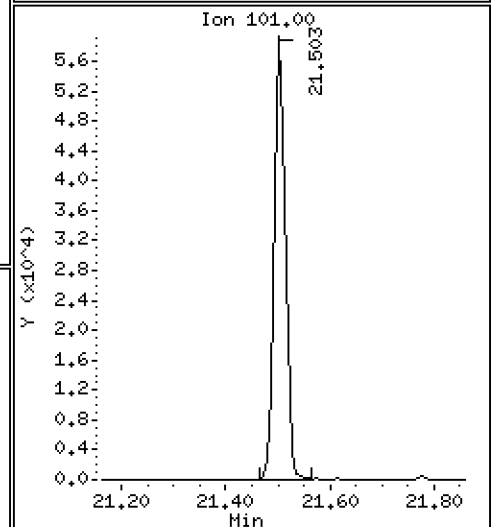
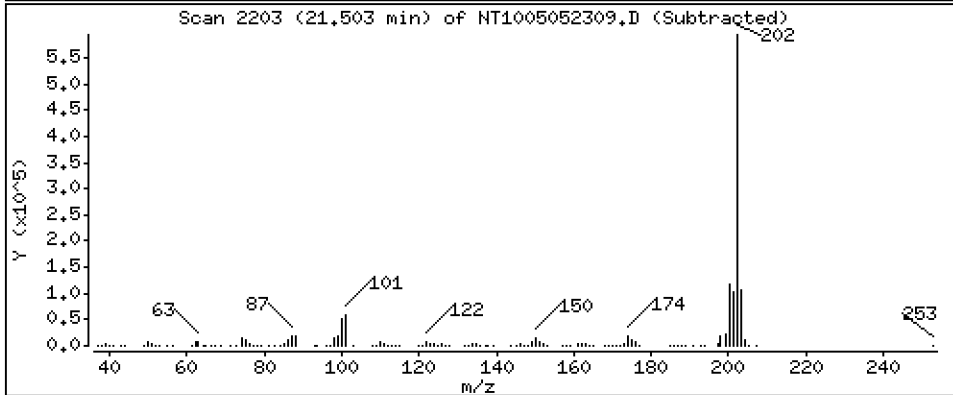
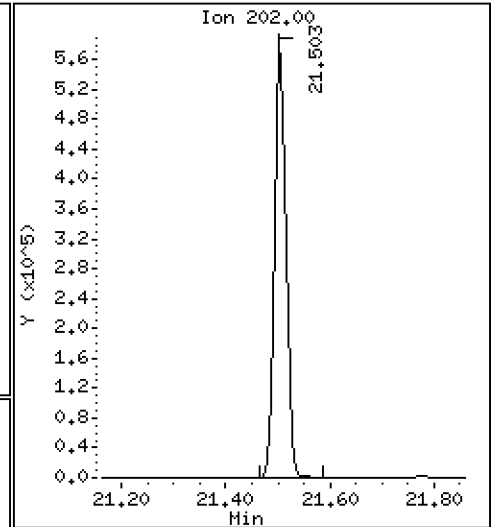
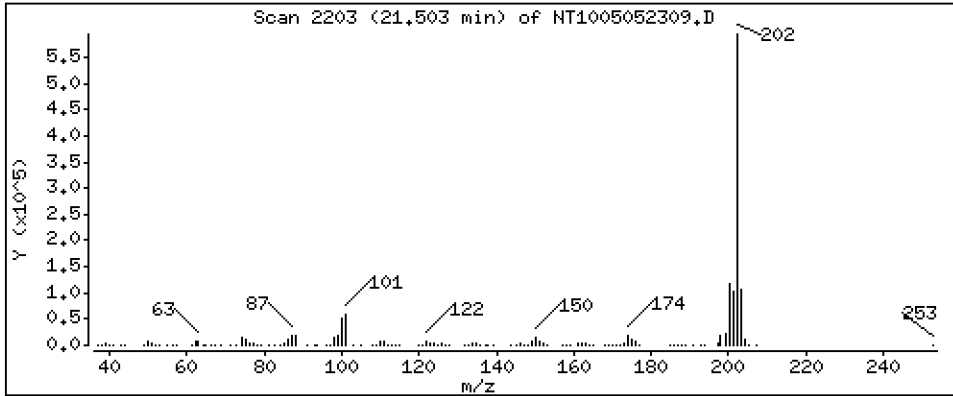
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 3,883 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

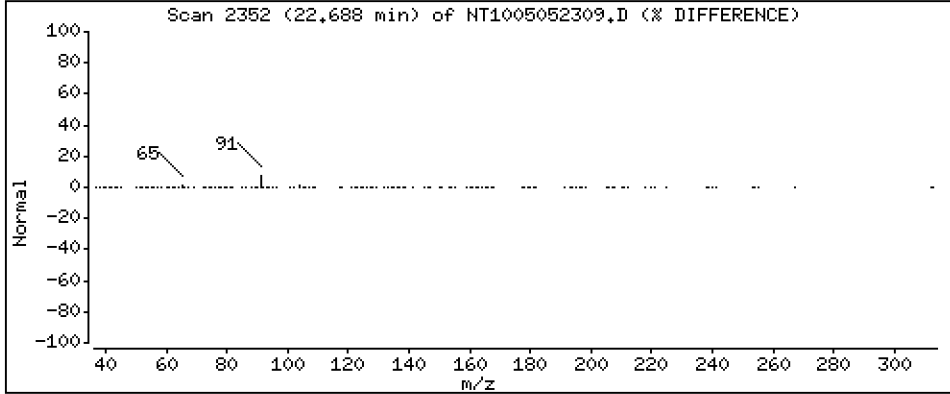
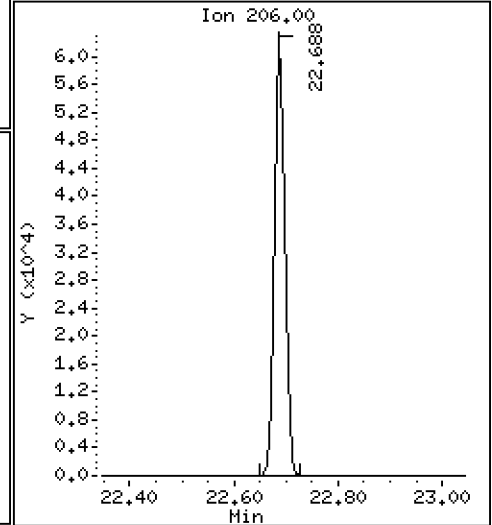
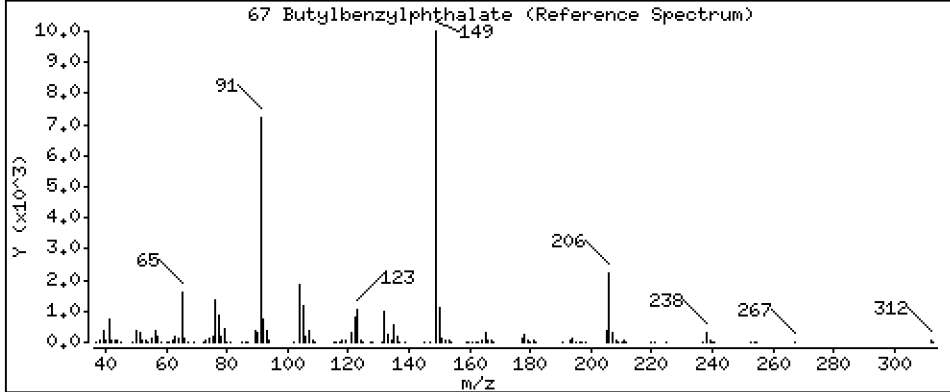
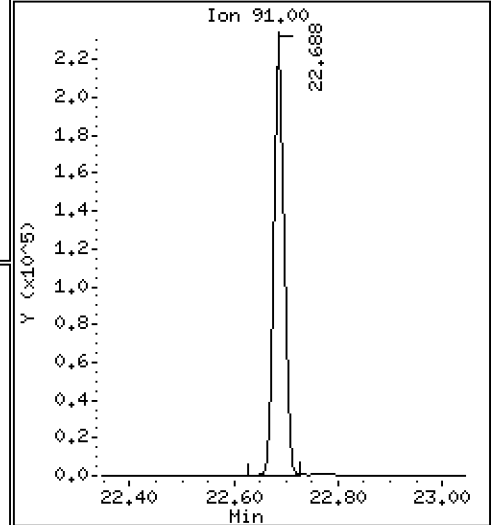
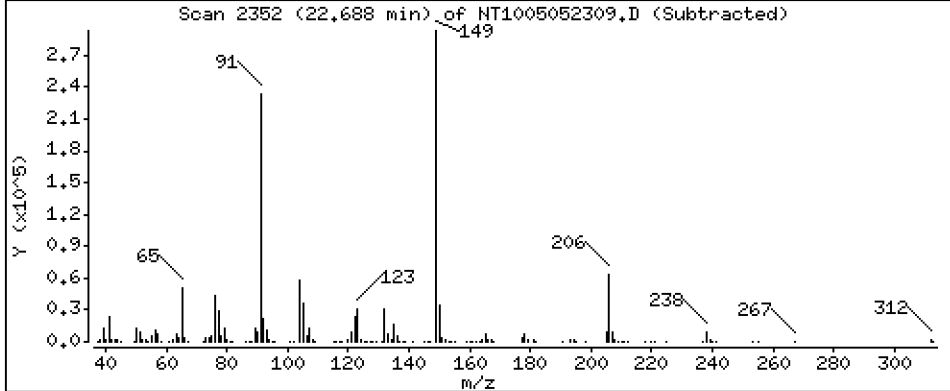
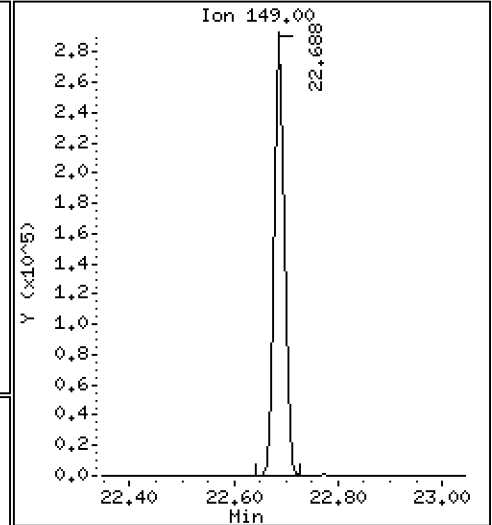
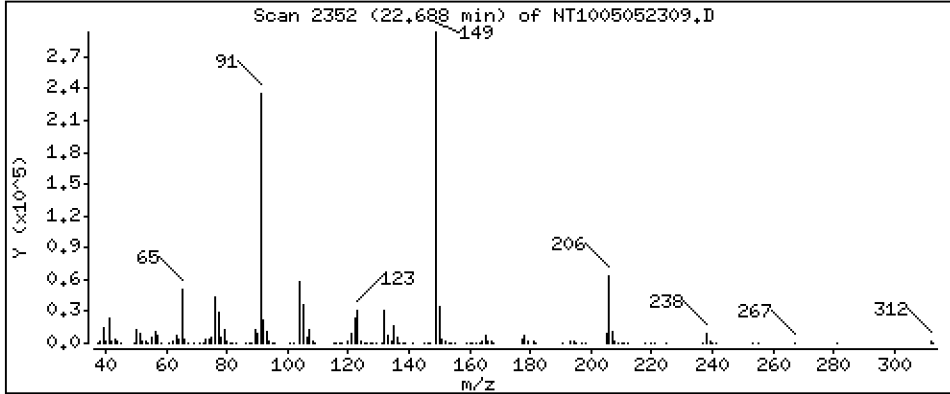
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 3,925 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

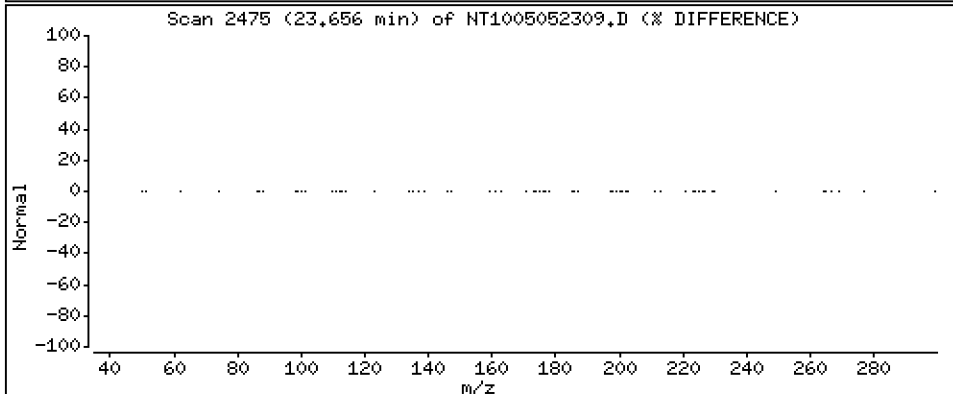
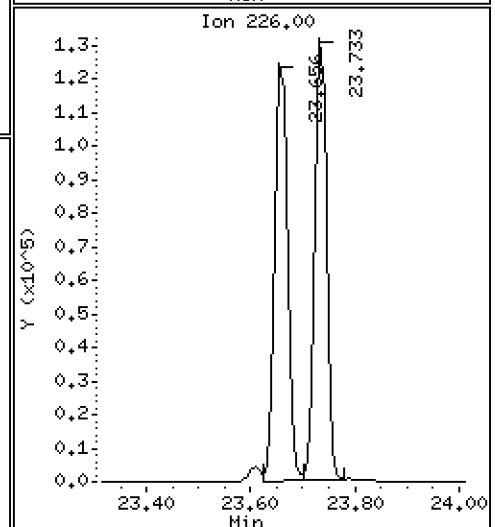
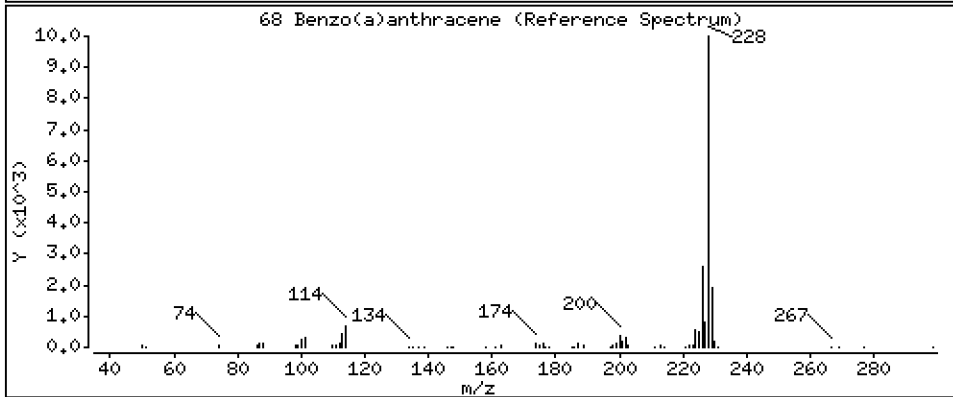
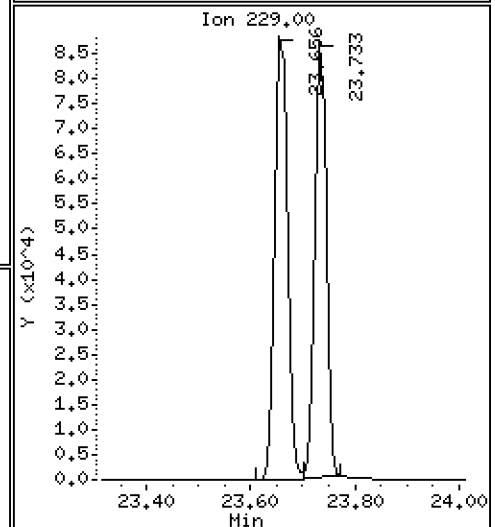
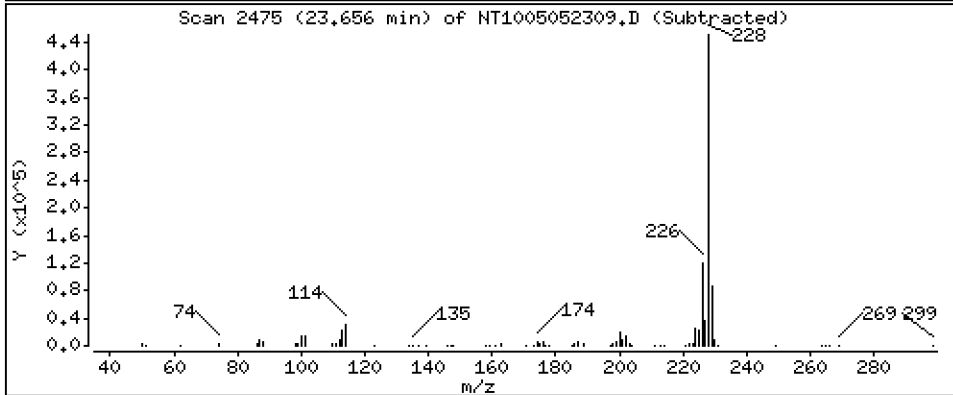
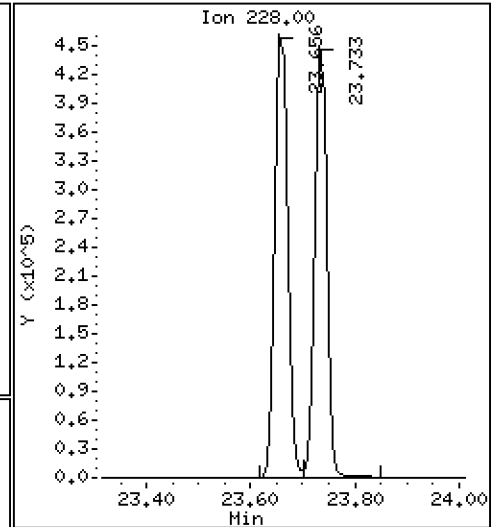
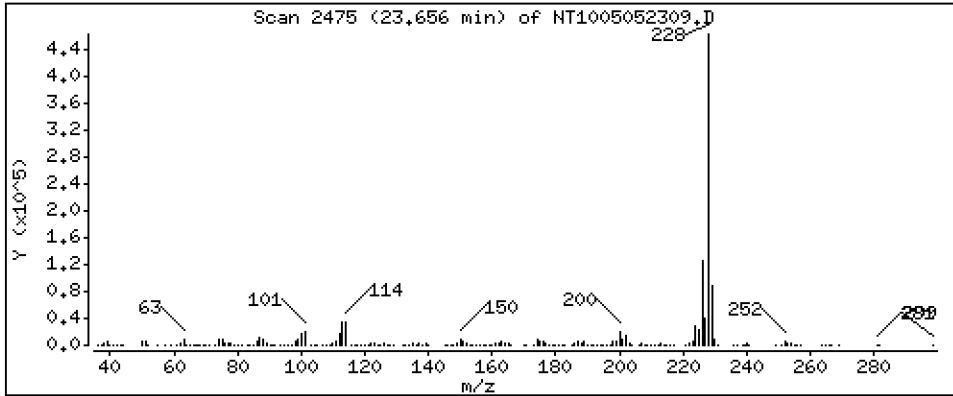
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 3,885 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

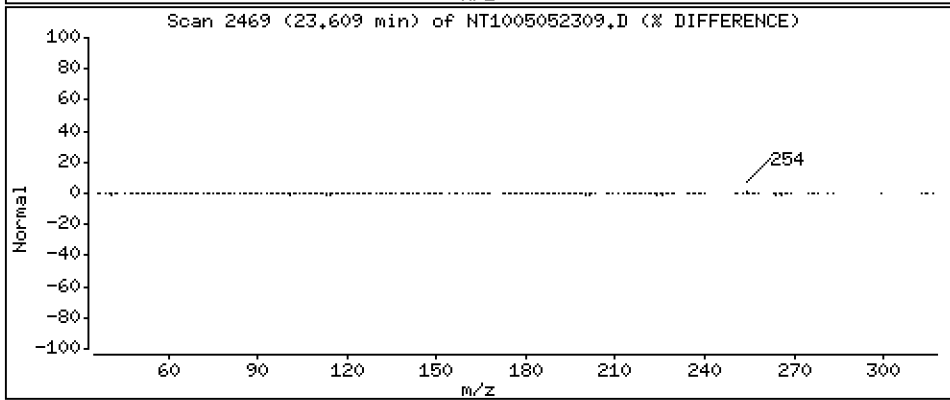
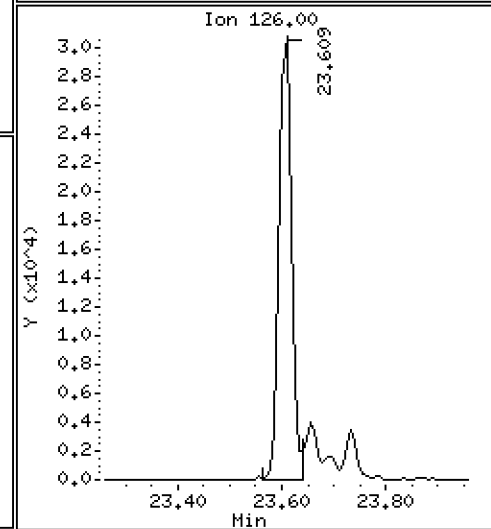
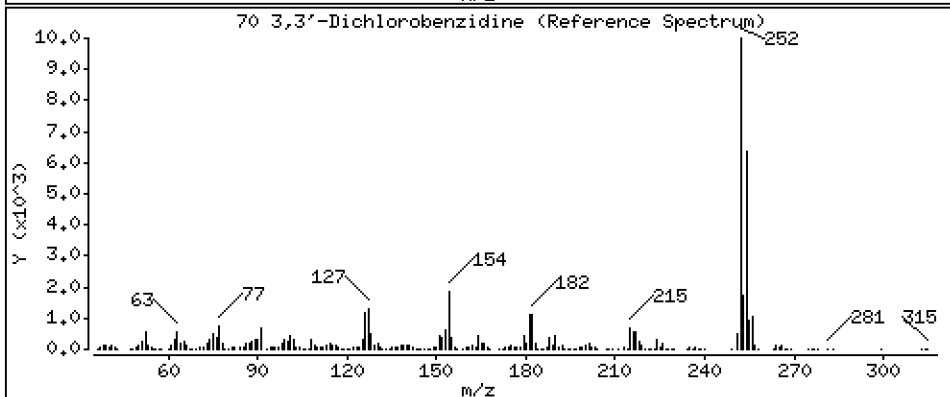
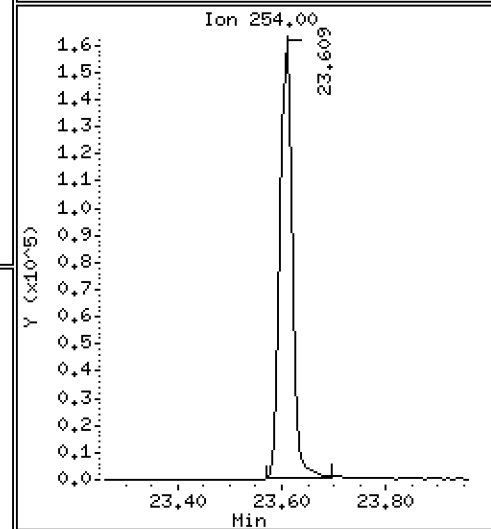
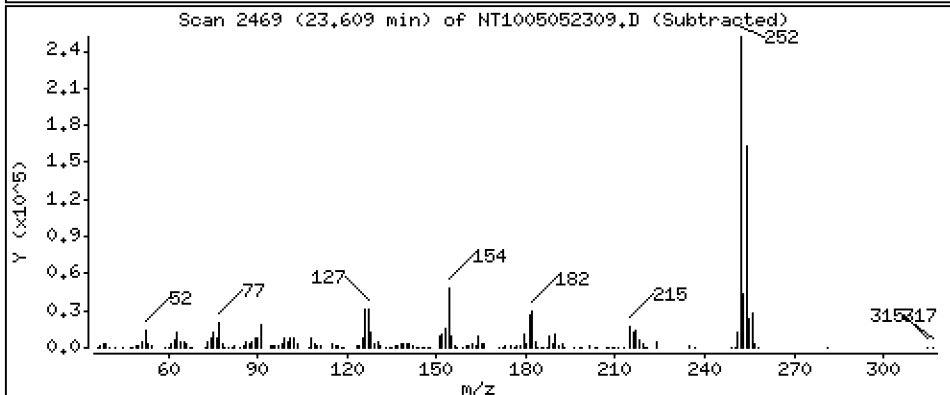
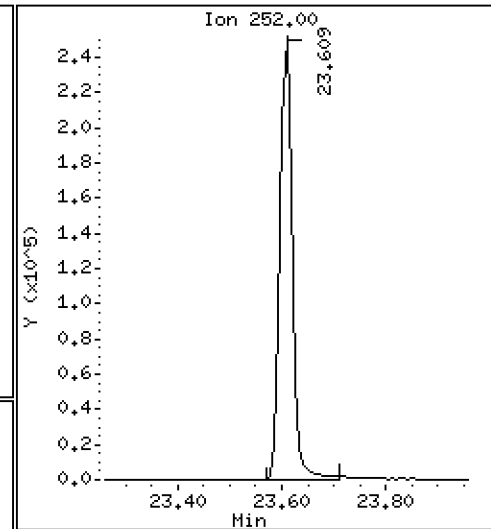
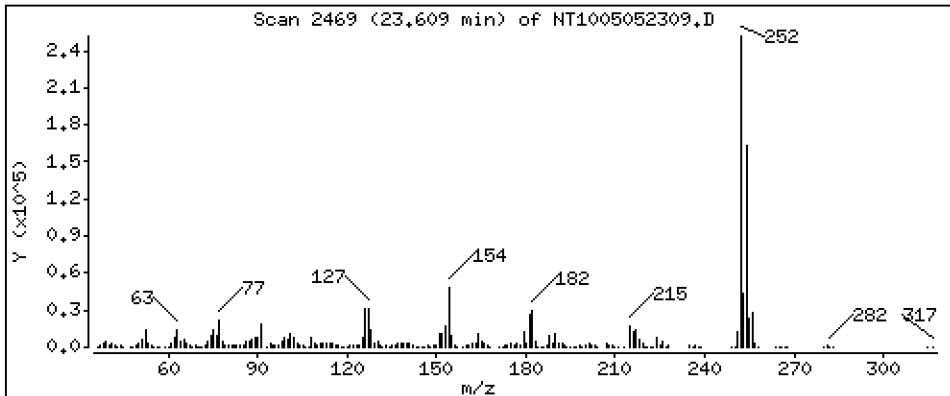
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 6,517 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

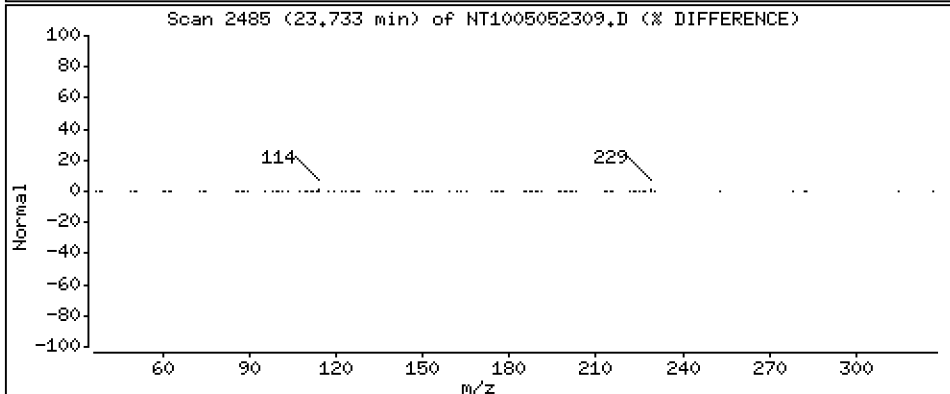
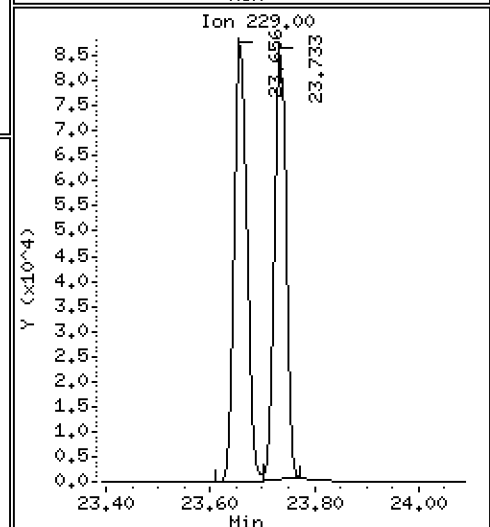
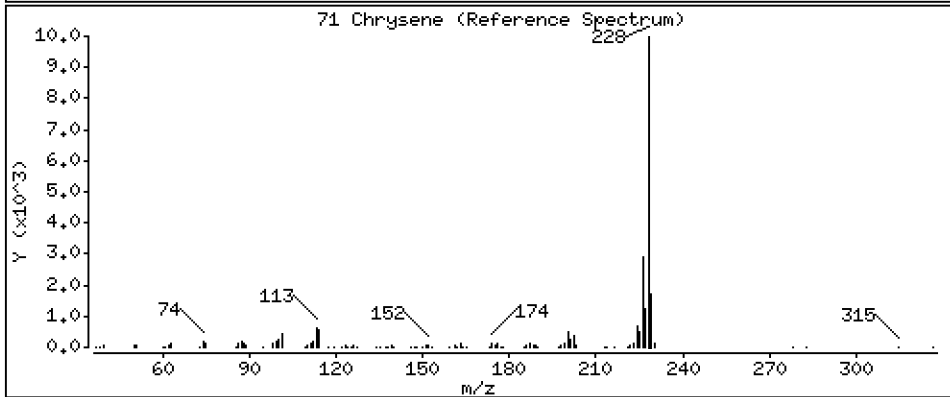
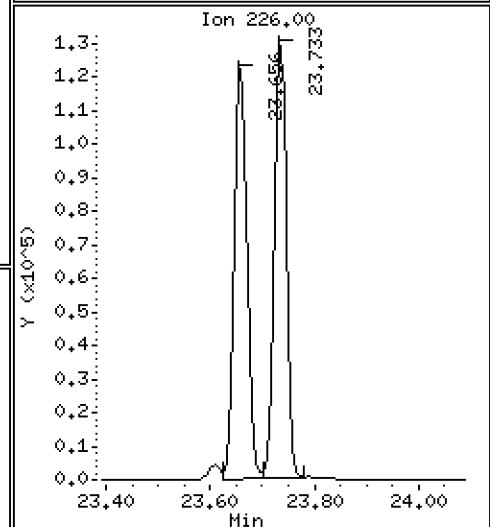
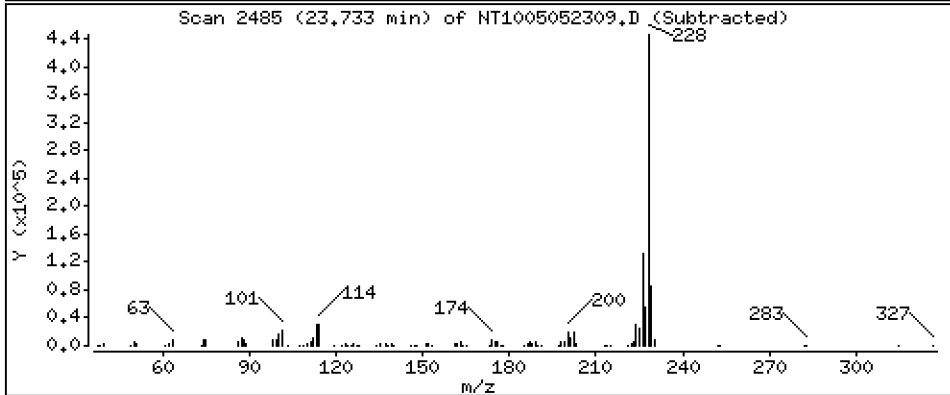
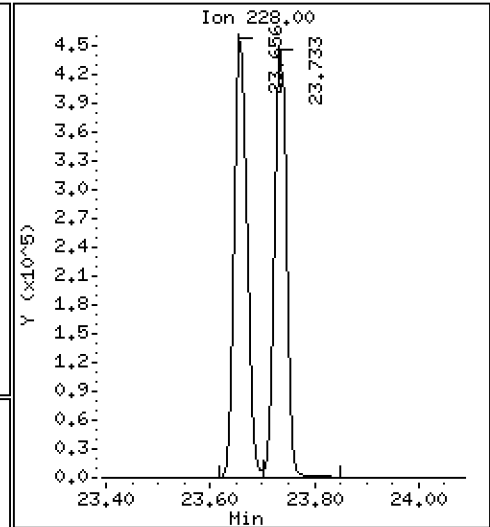
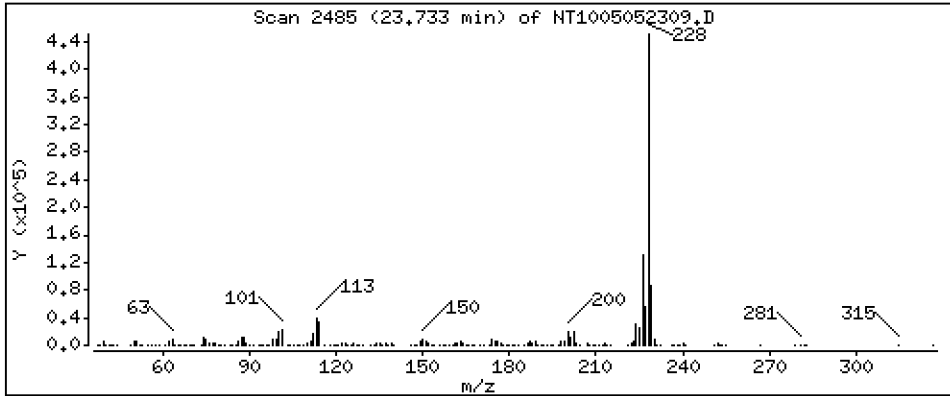
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 3,863 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

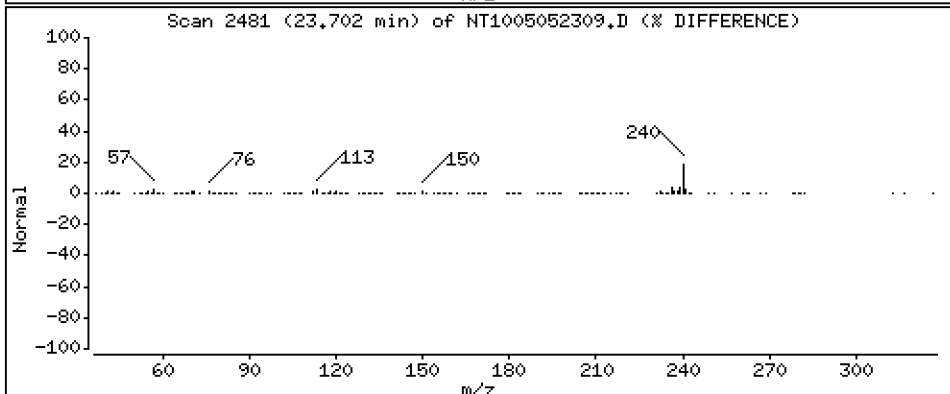
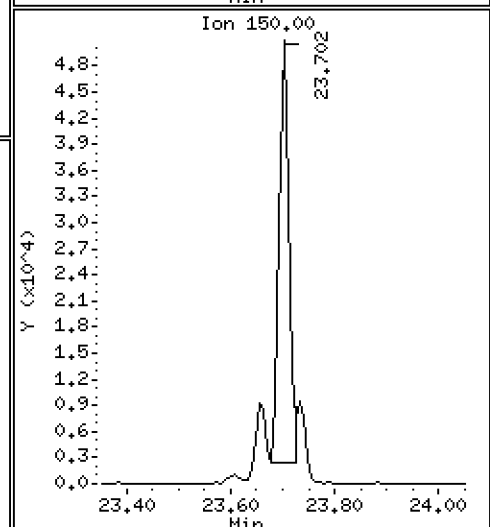
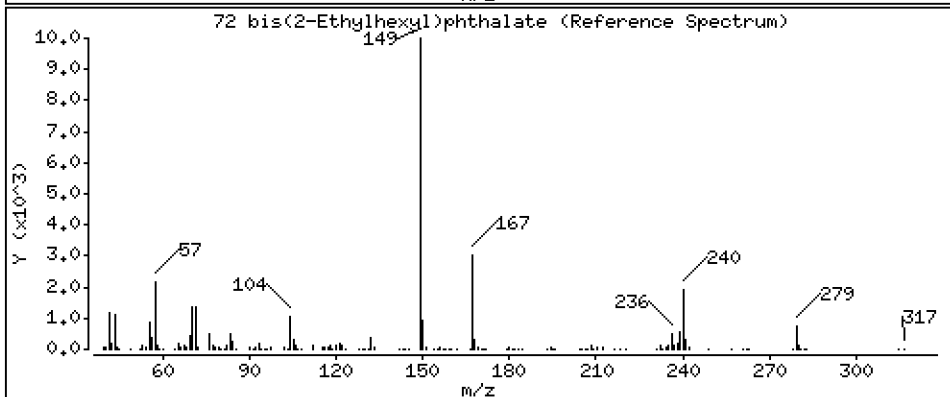
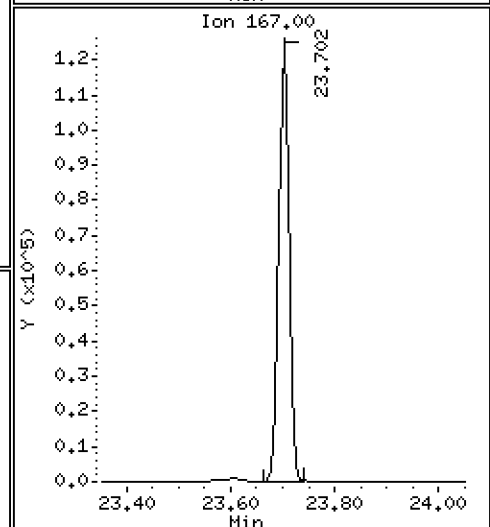
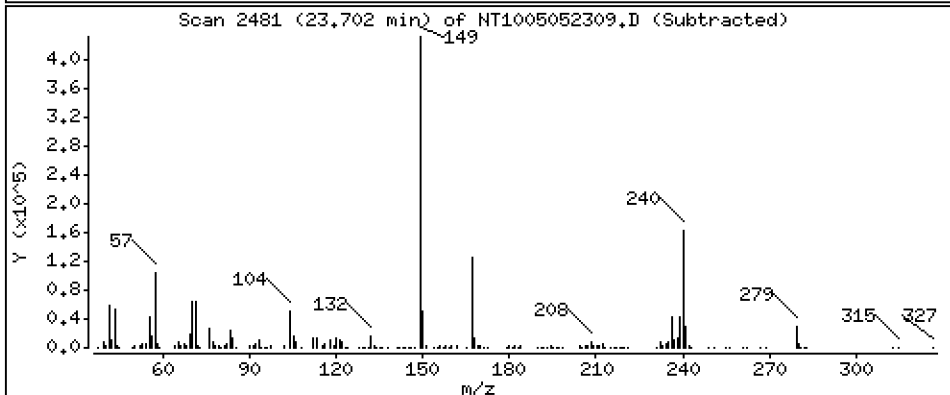
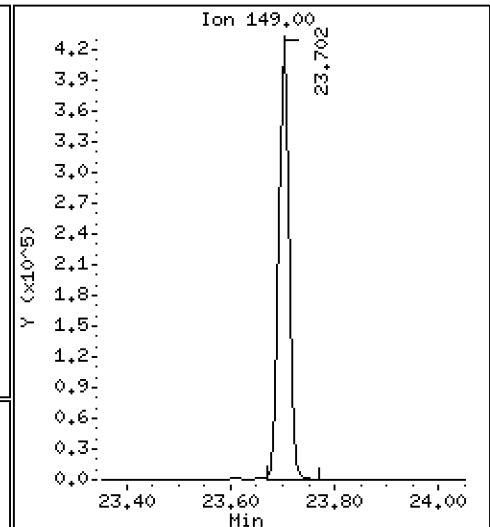
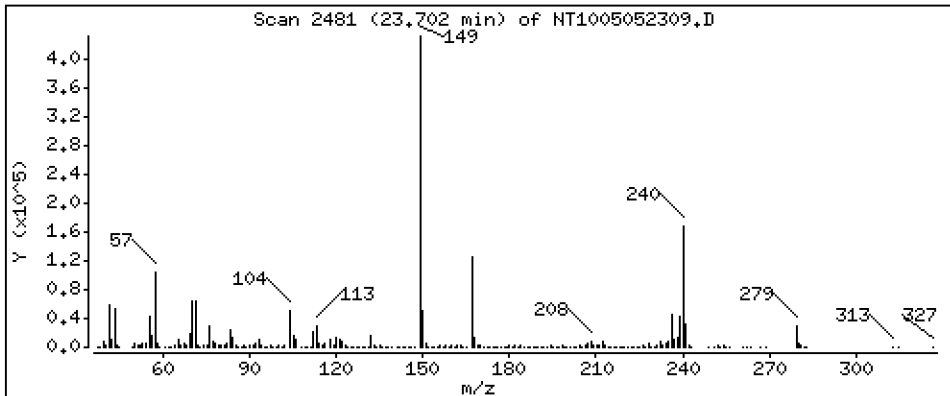
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,479 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

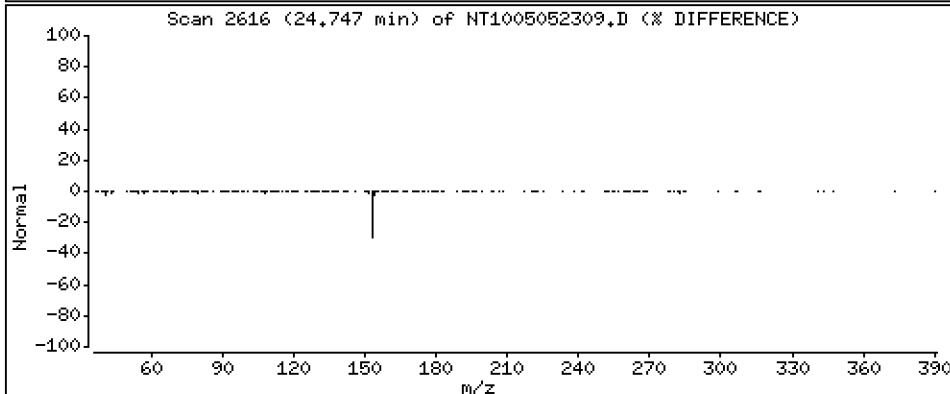
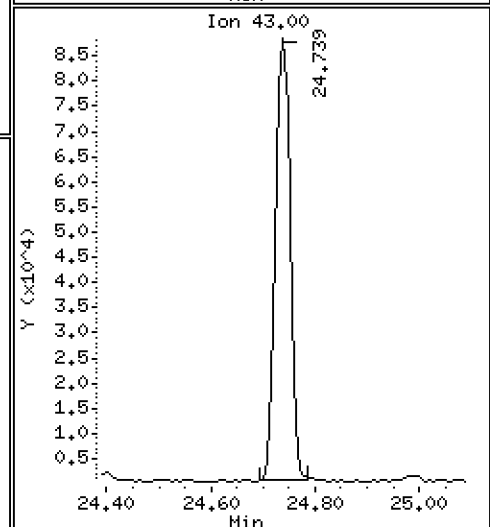
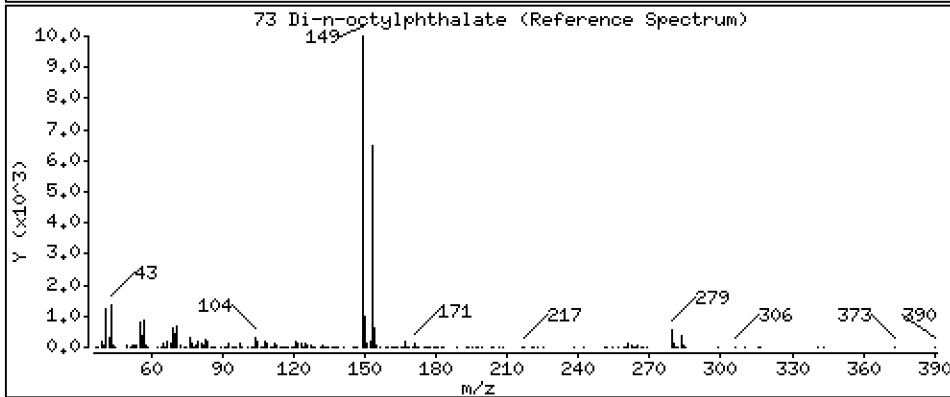
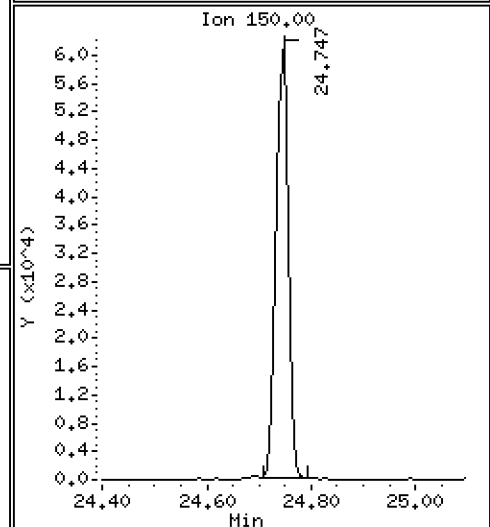
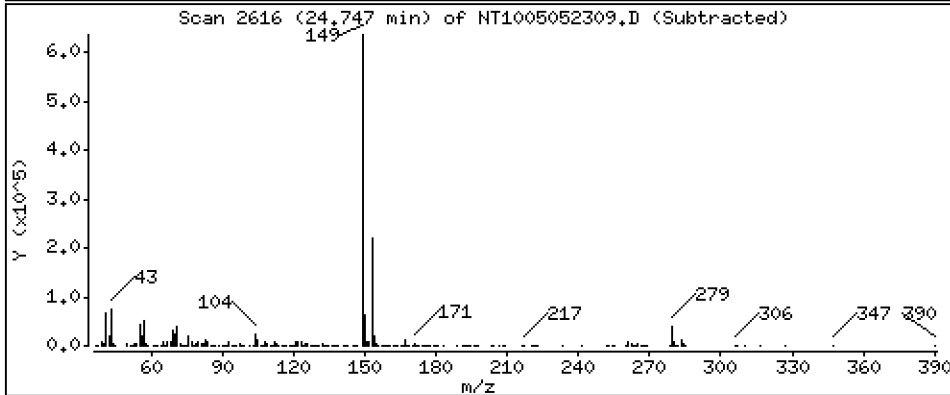
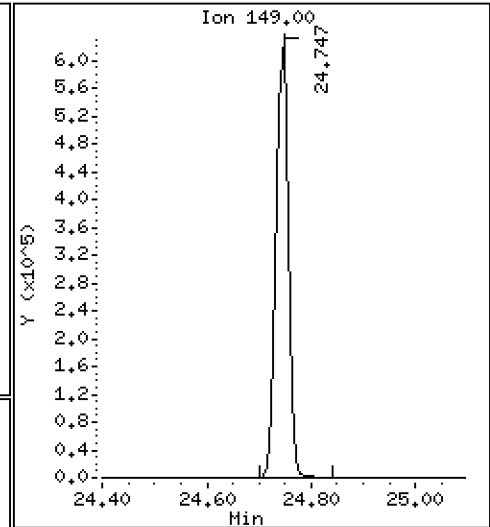
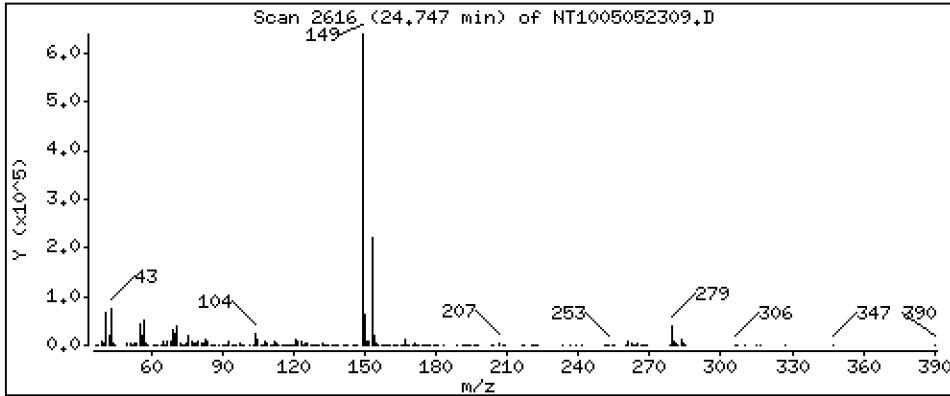
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,355 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

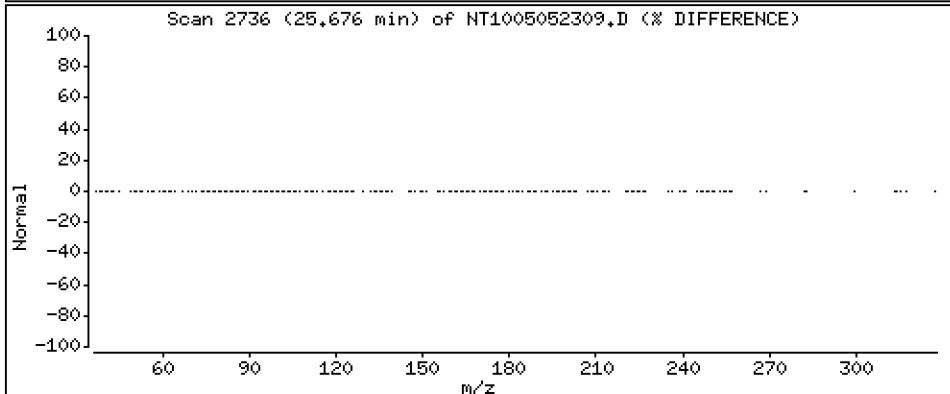
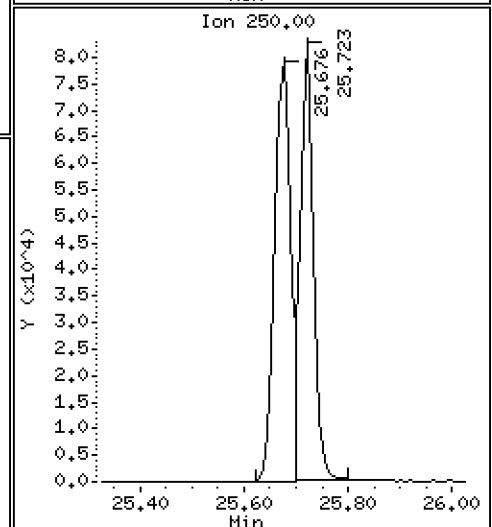
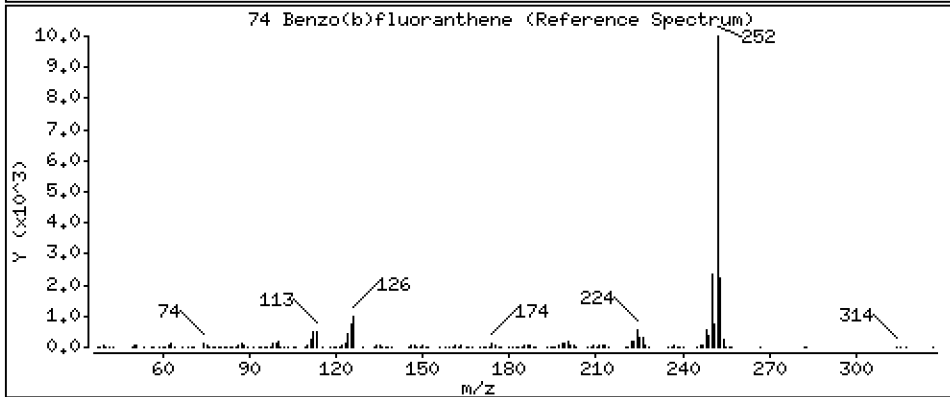
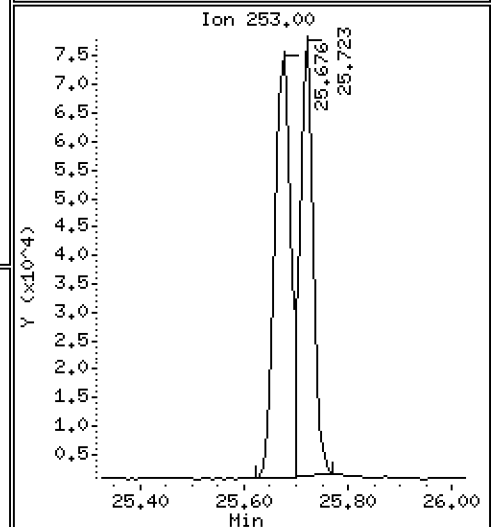
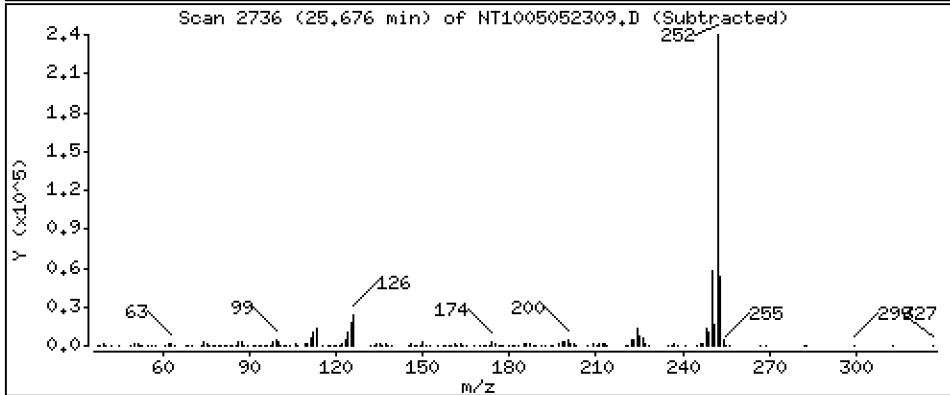
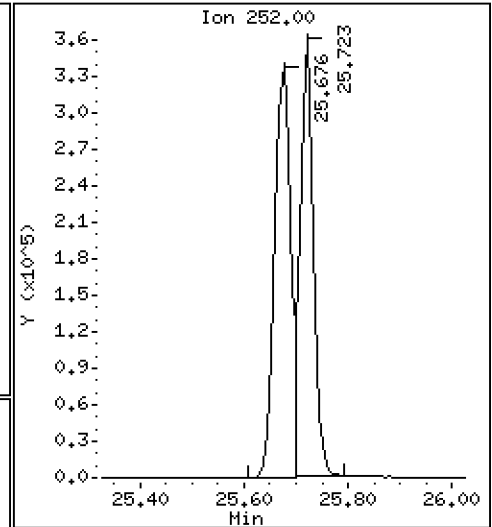
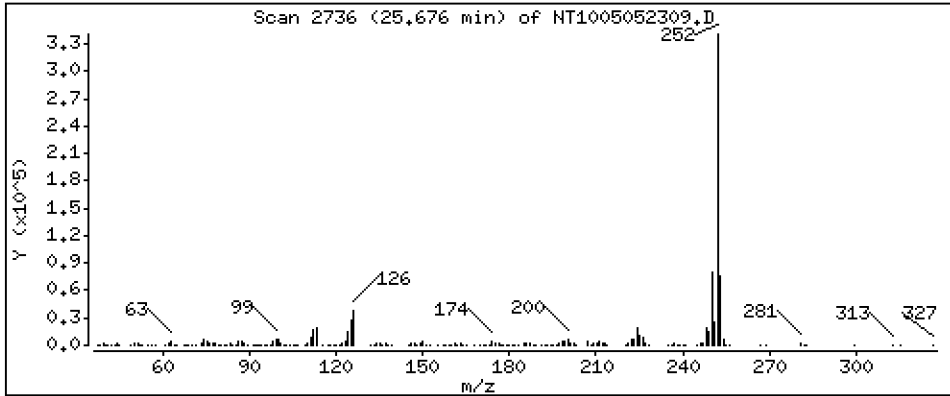
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,207 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

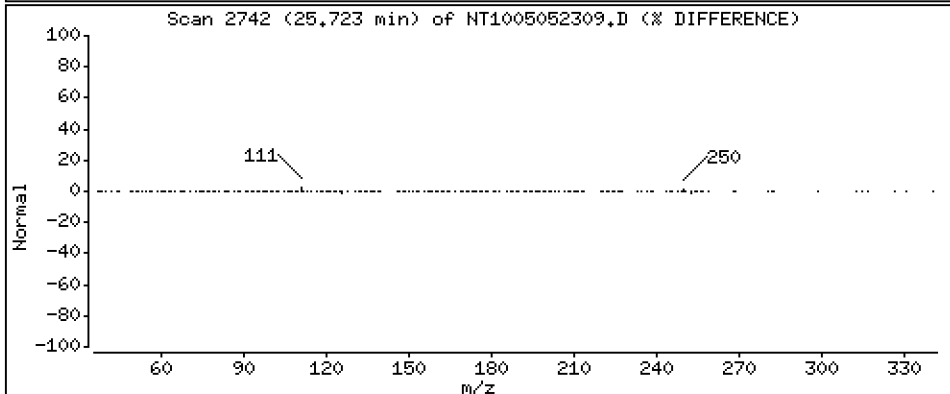
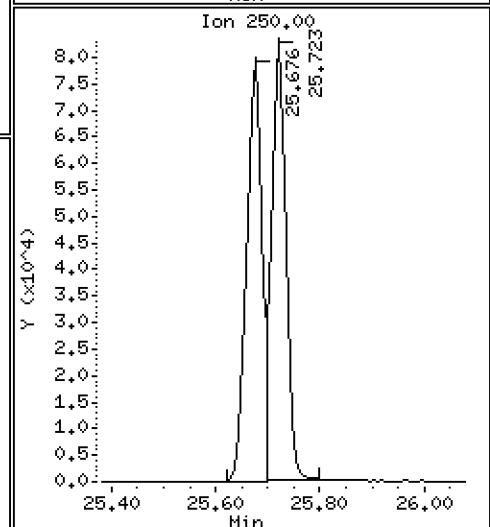
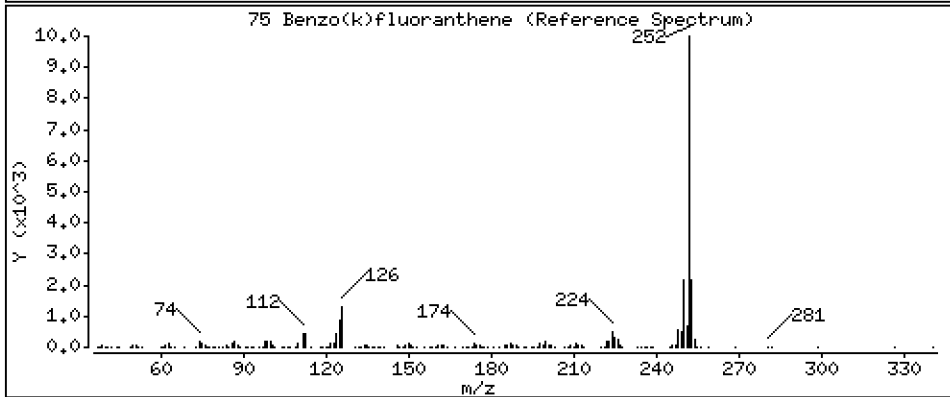
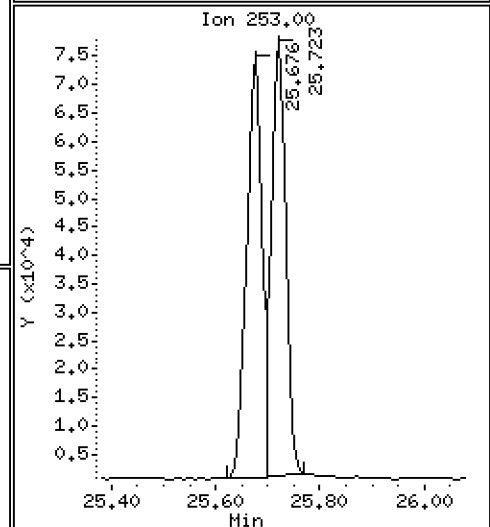
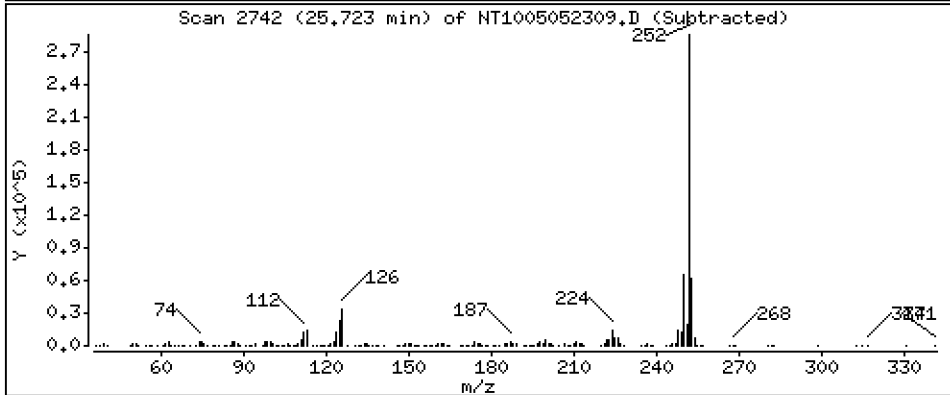
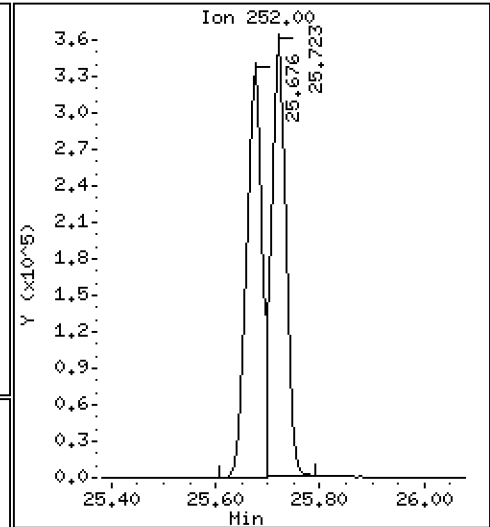
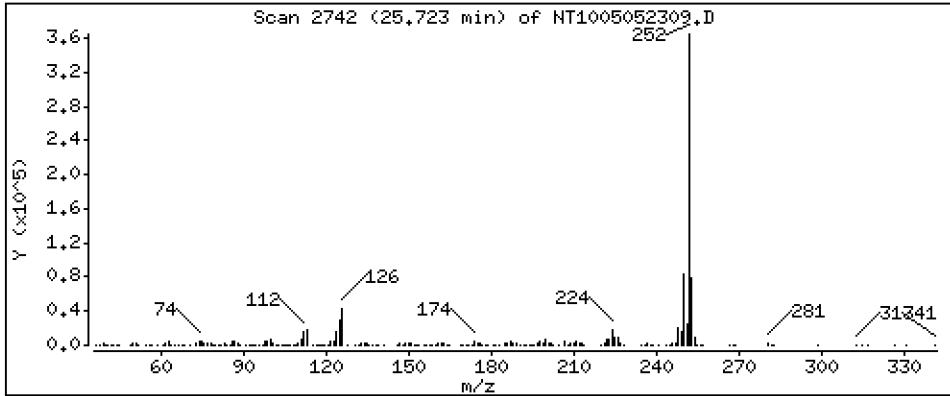
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 3,952 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

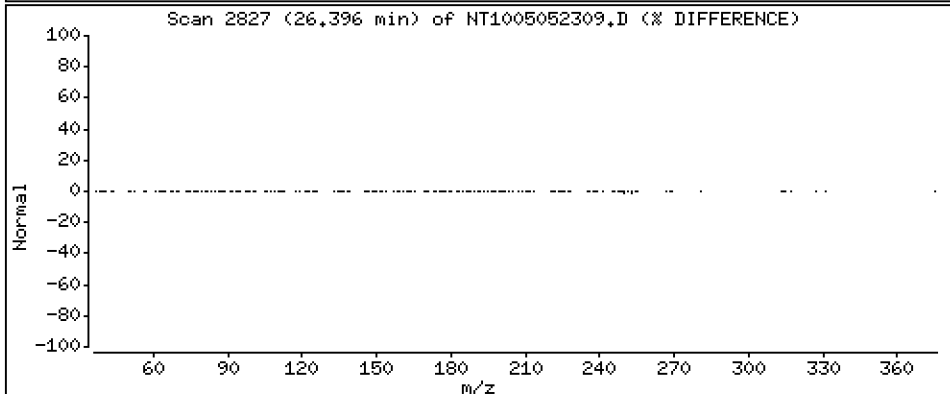
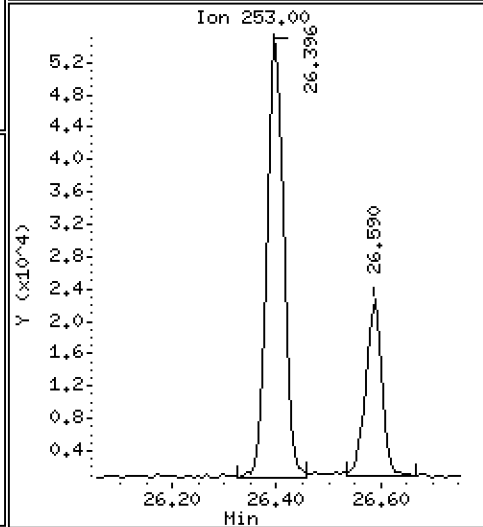
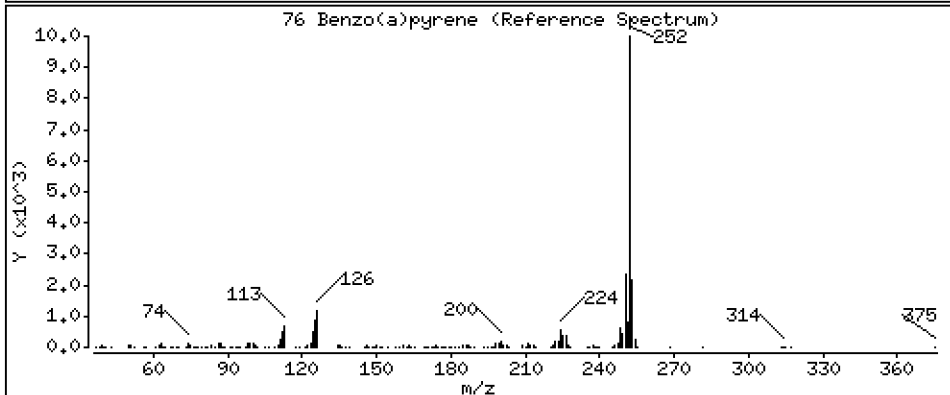
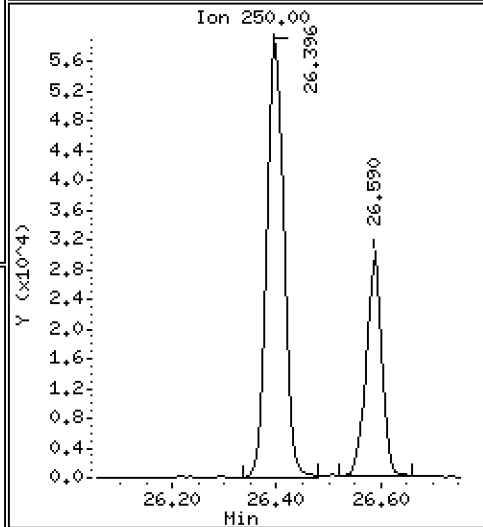
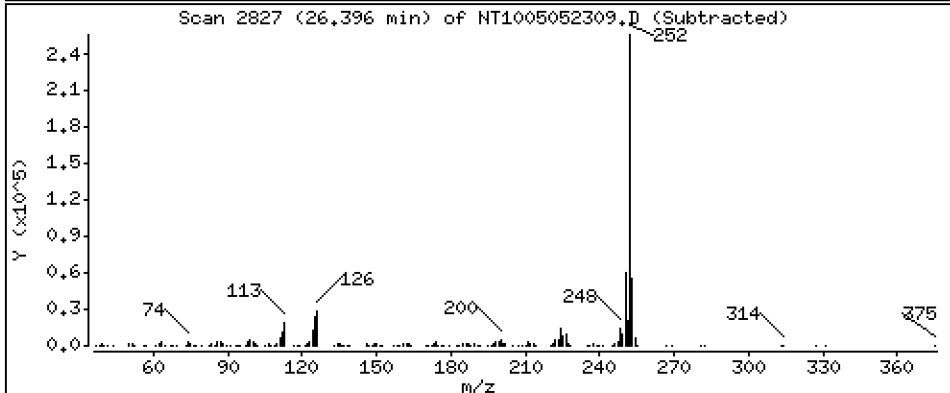
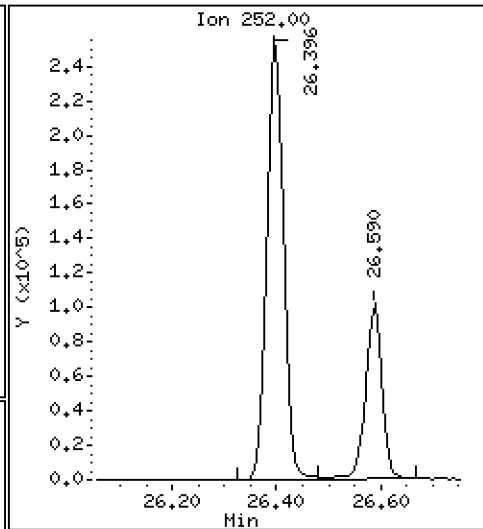
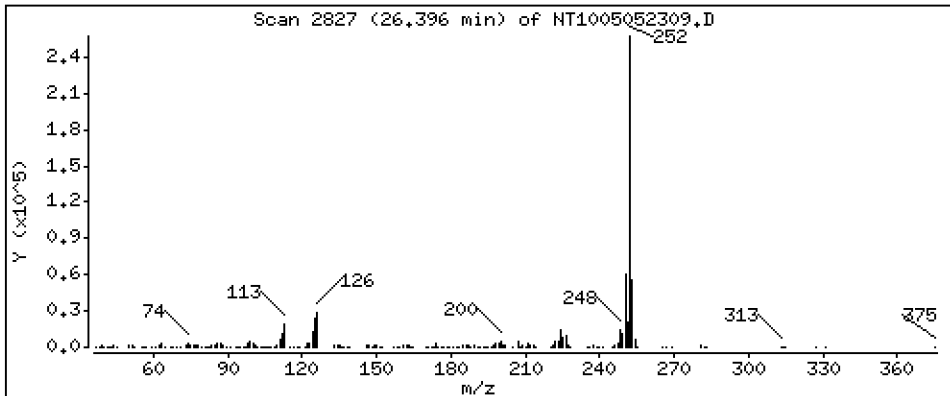
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 3,869 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

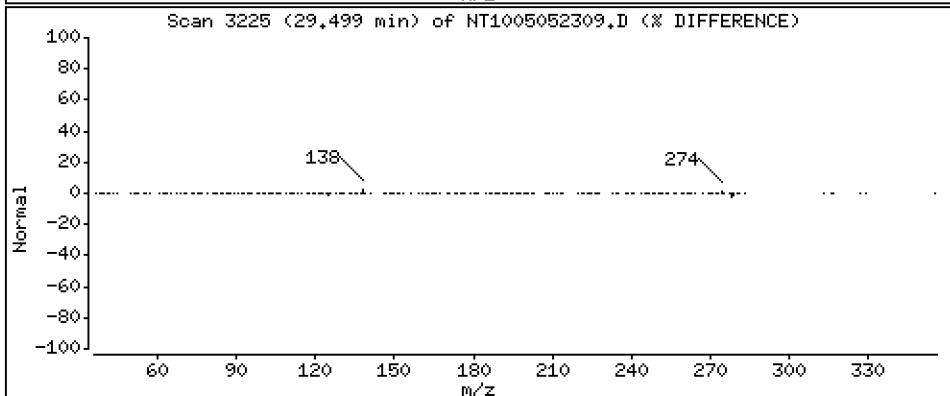
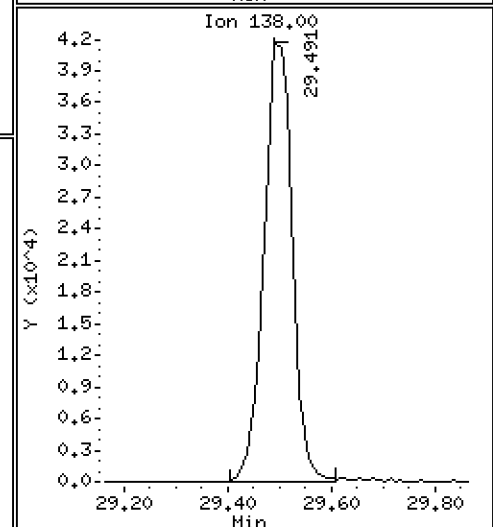
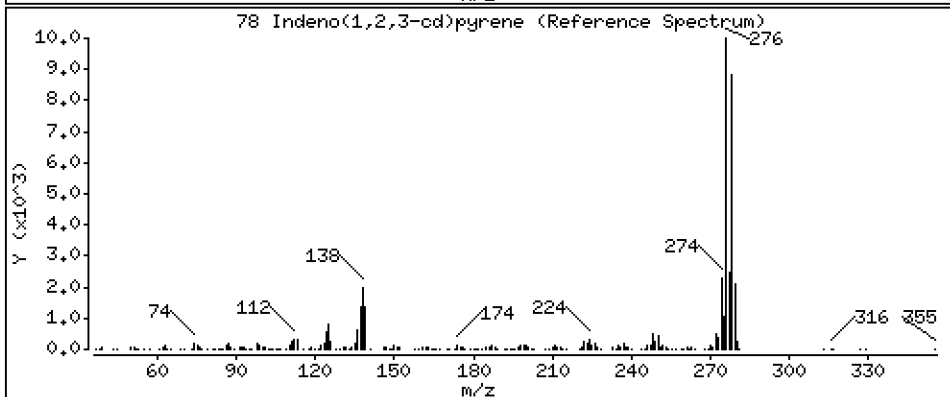
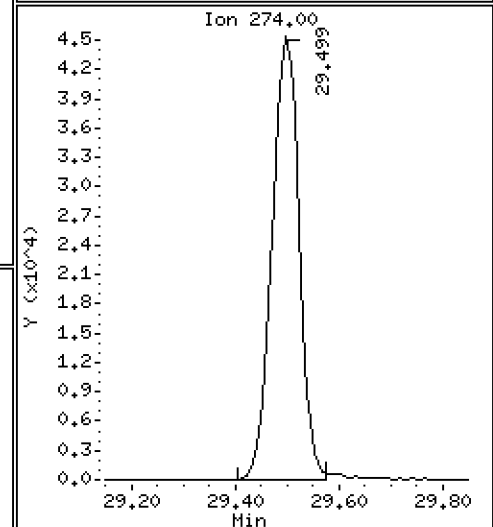
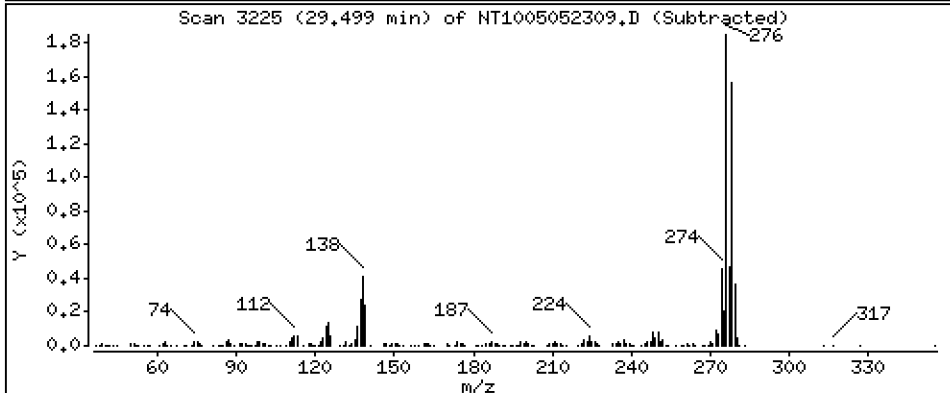
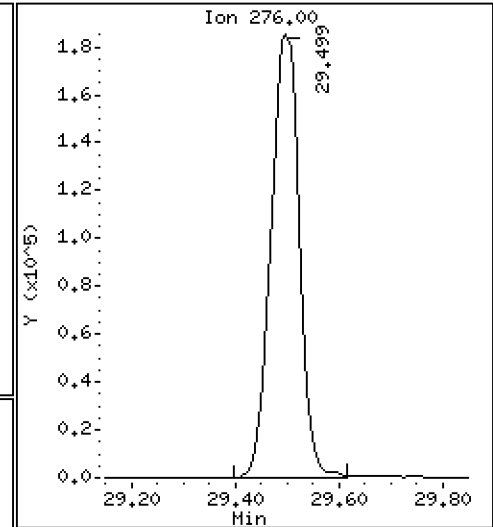
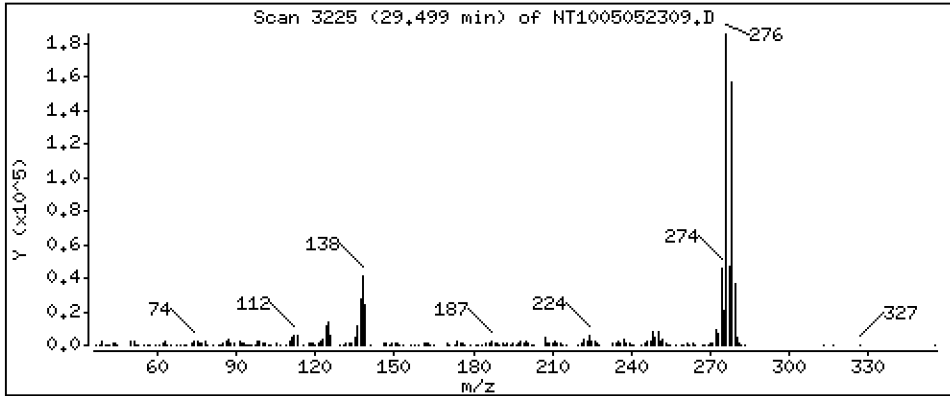
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,057 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

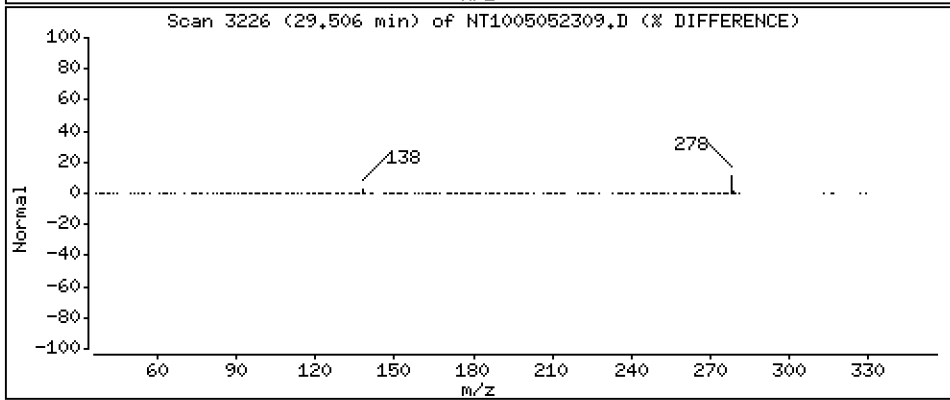
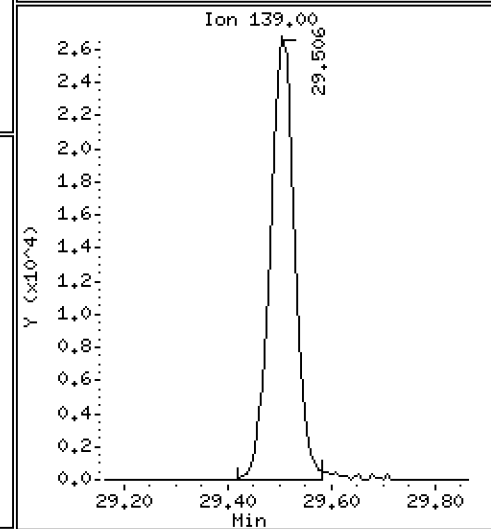
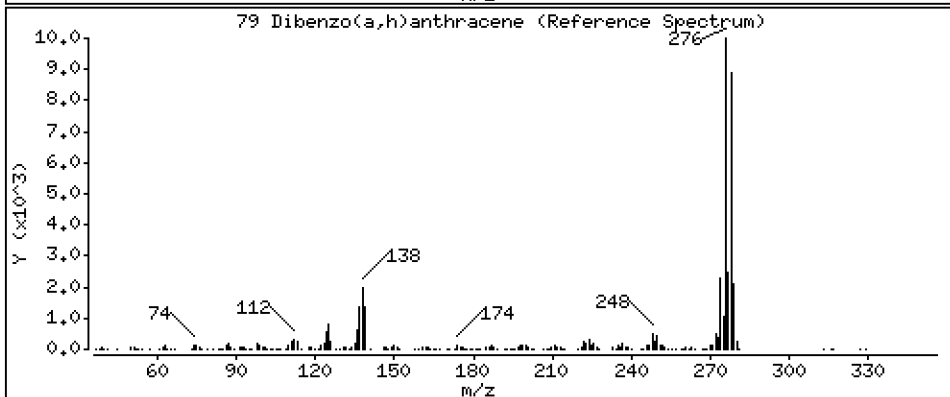
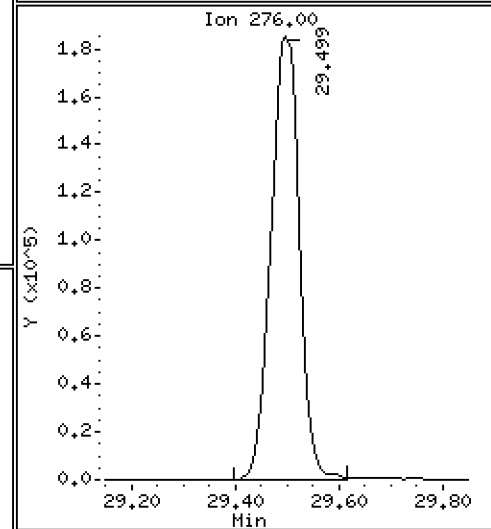
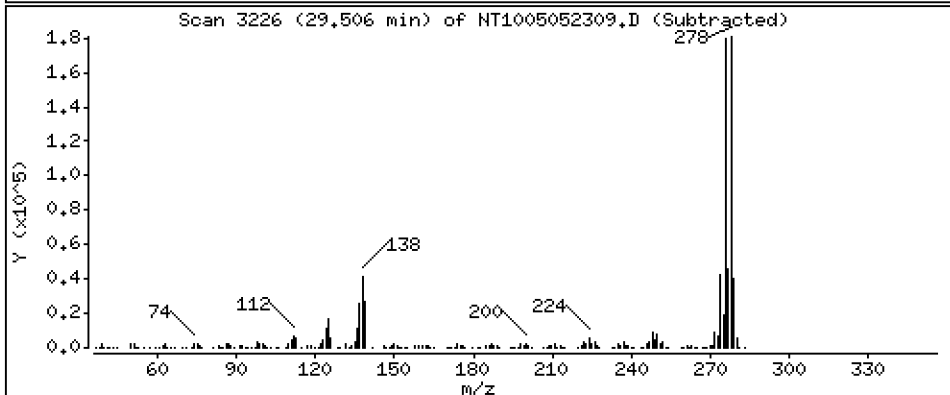
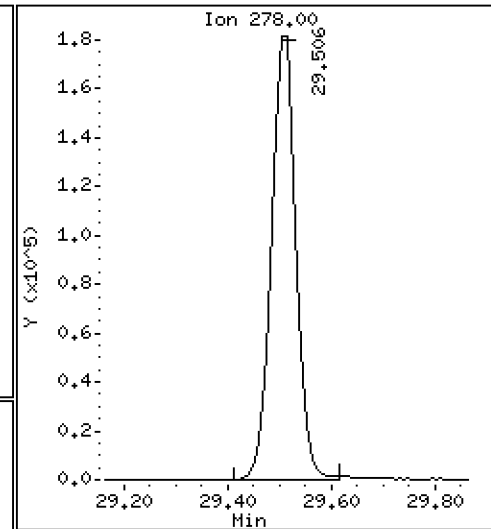
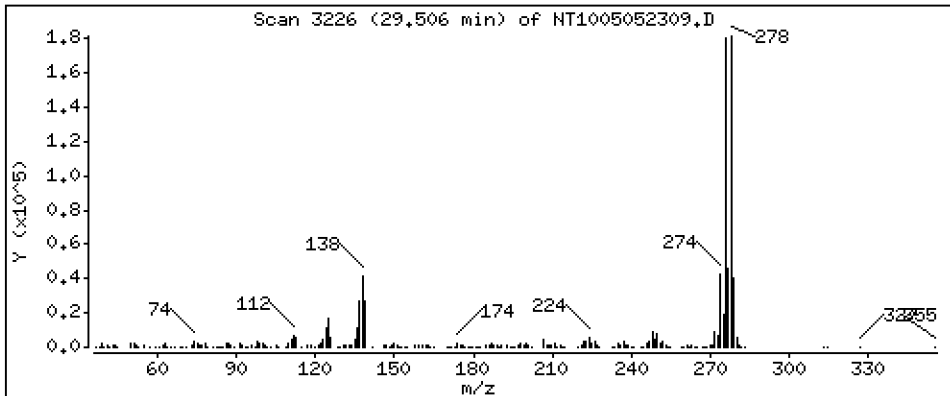
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,039 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

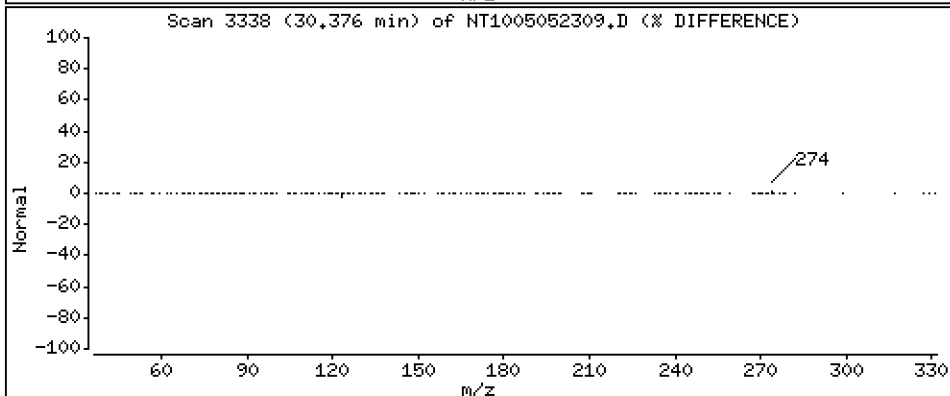
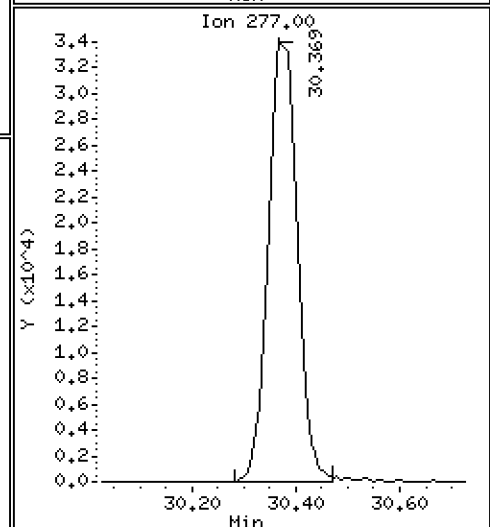
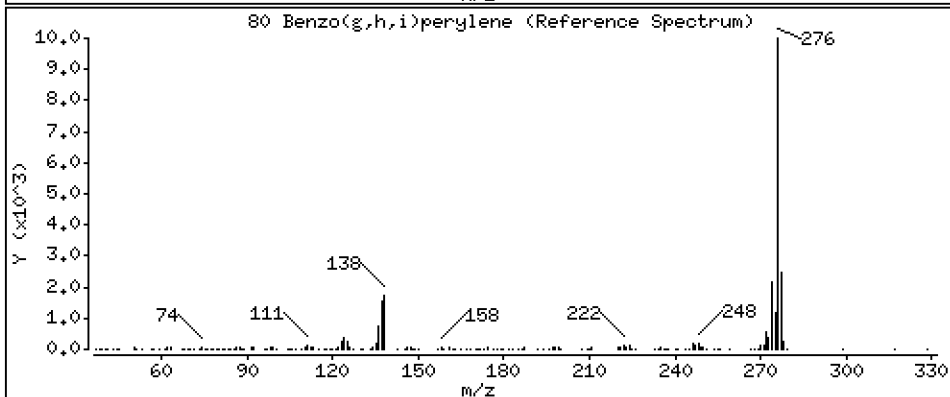
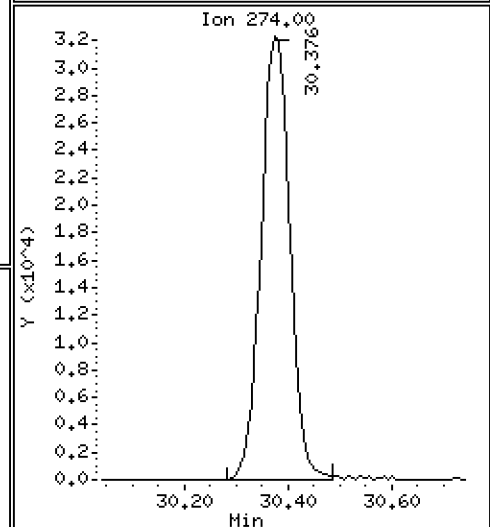
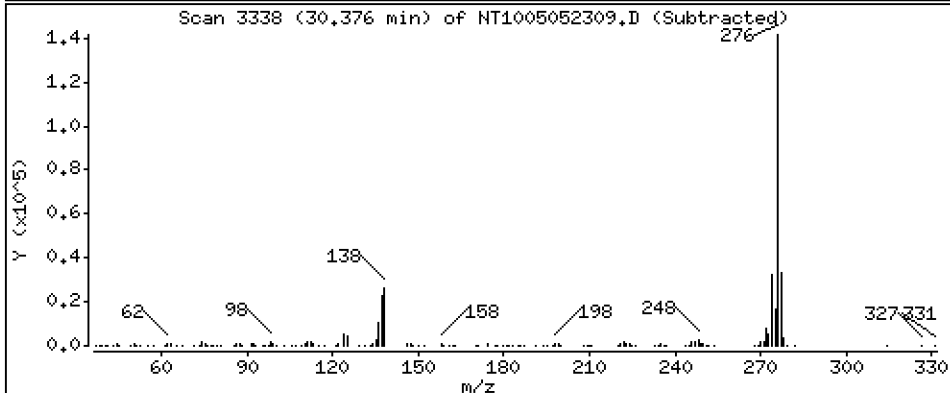
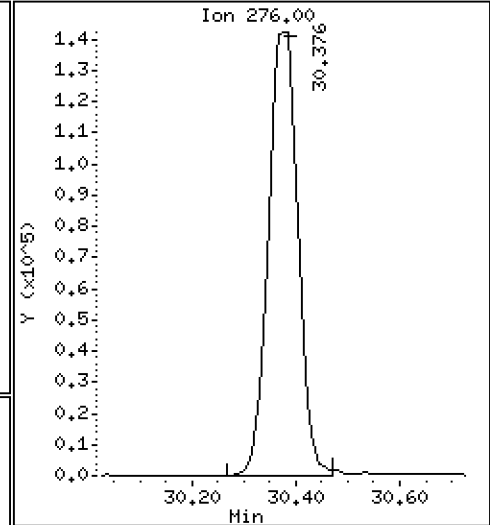
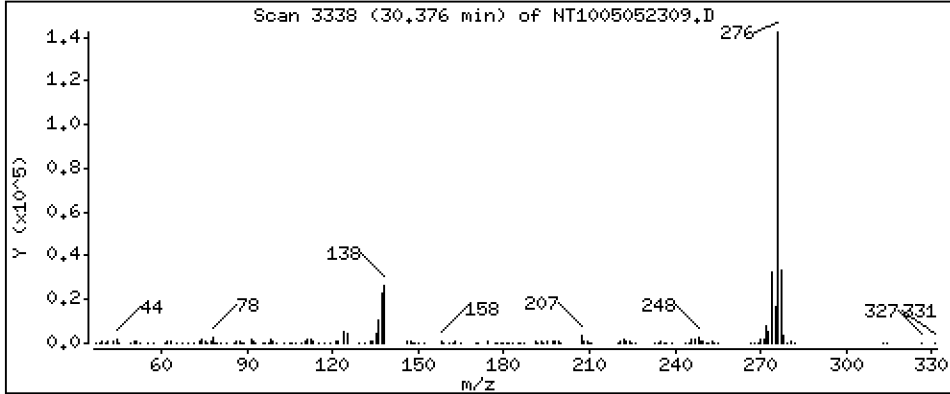
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,082 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

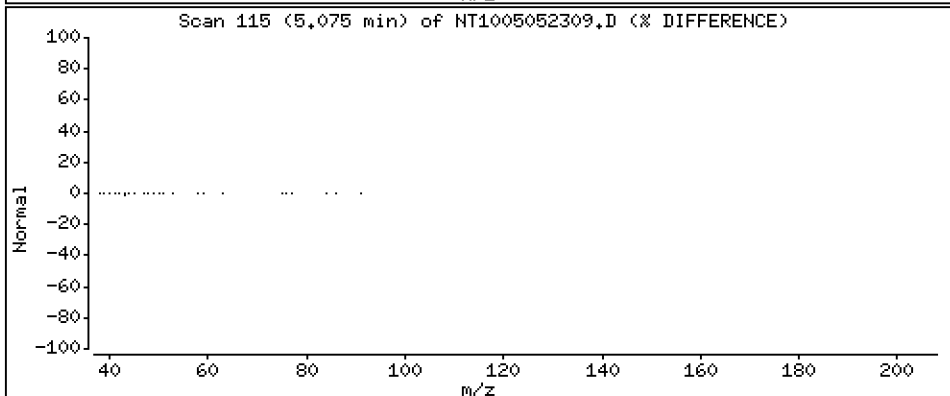
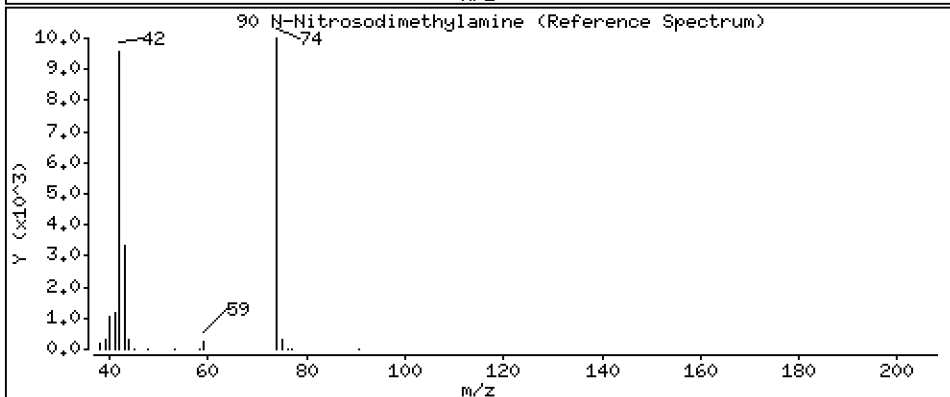
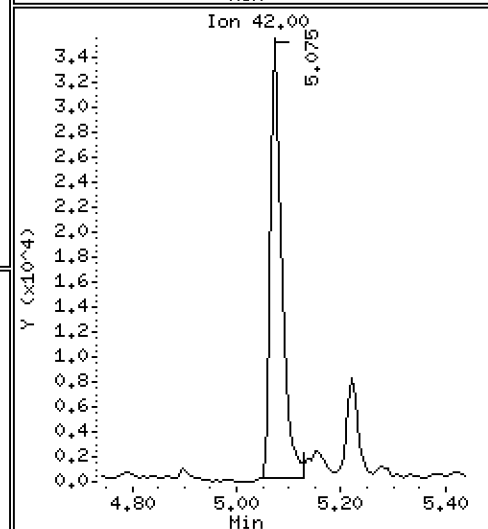
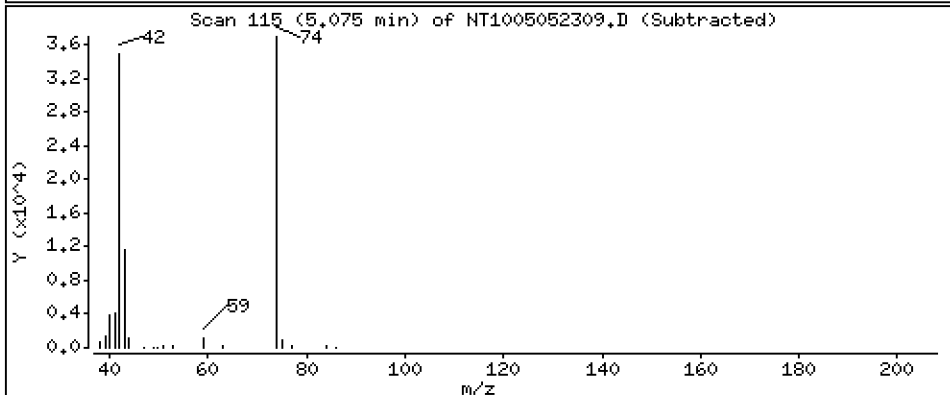
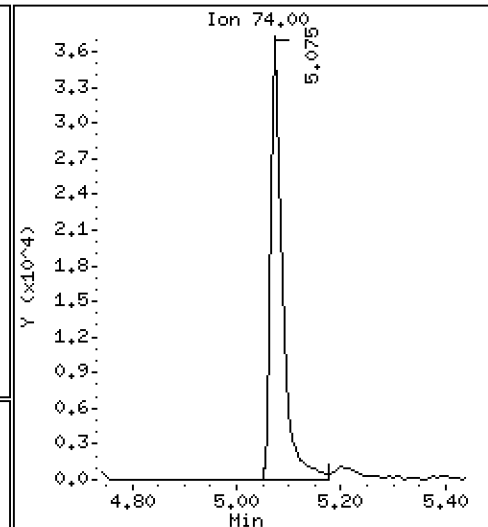
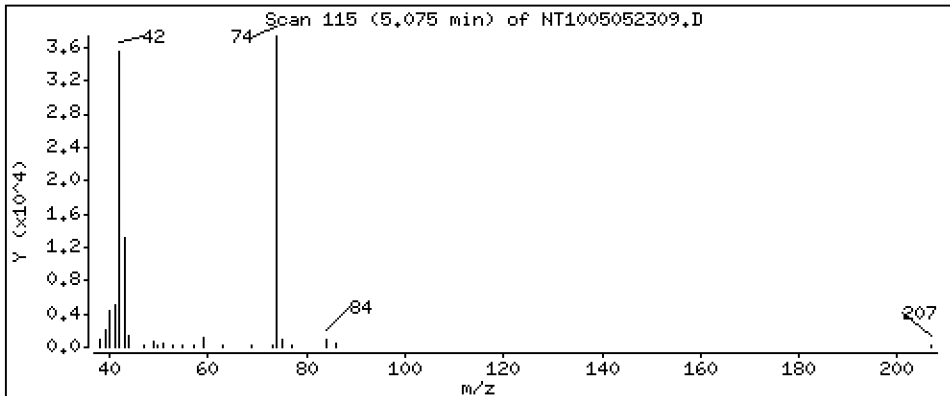
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 2,188 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

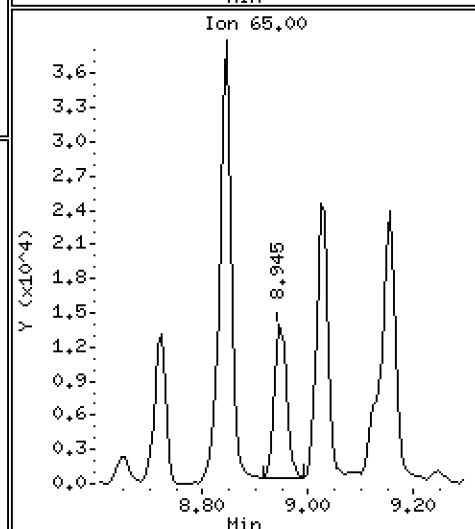
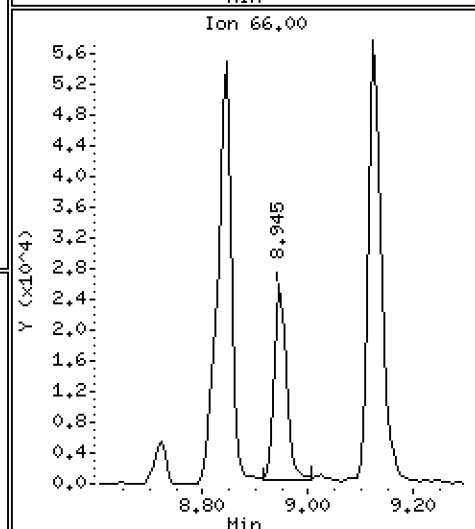
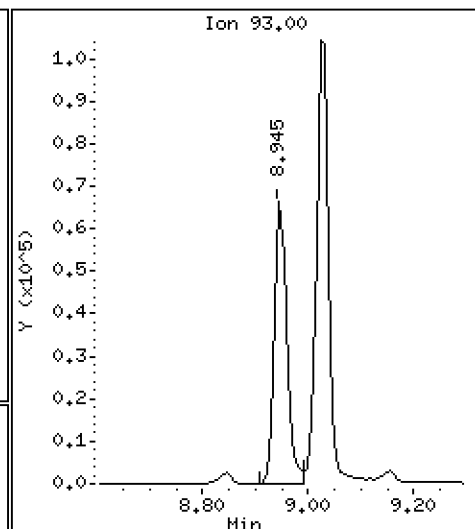
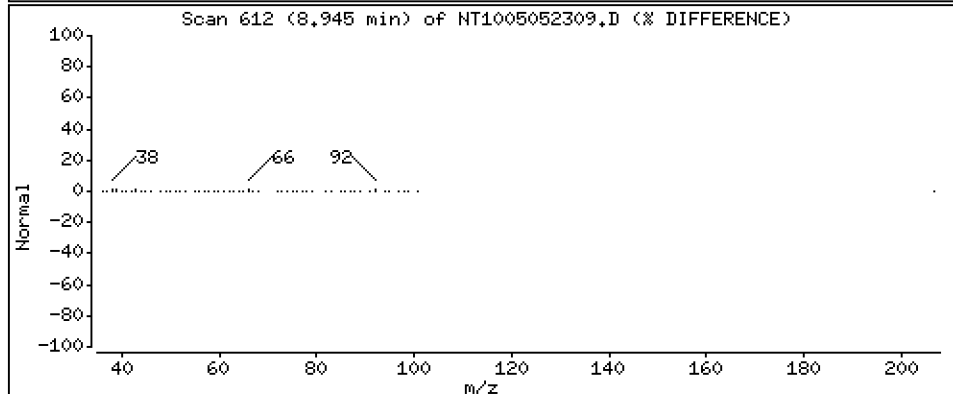
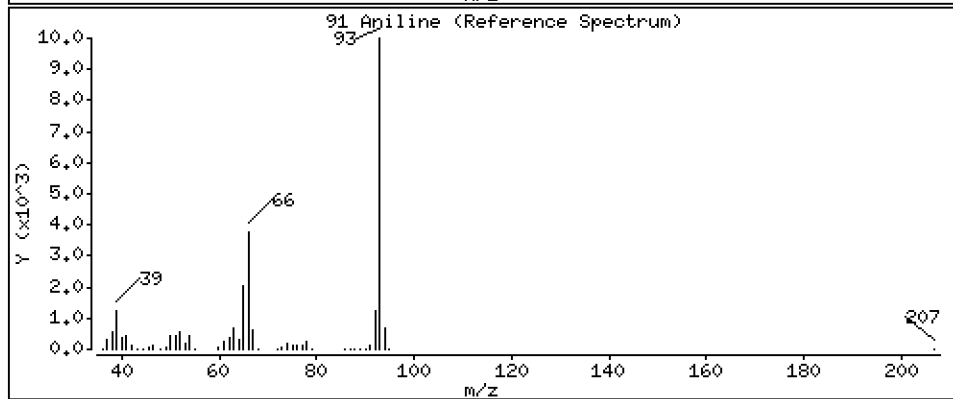
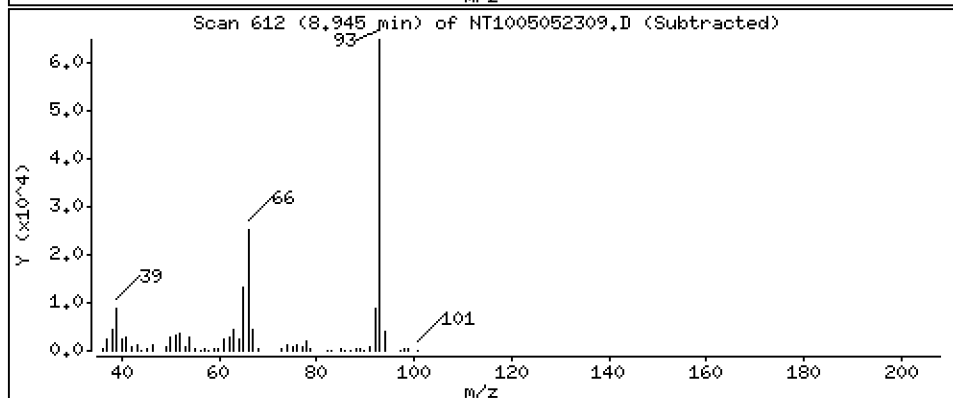
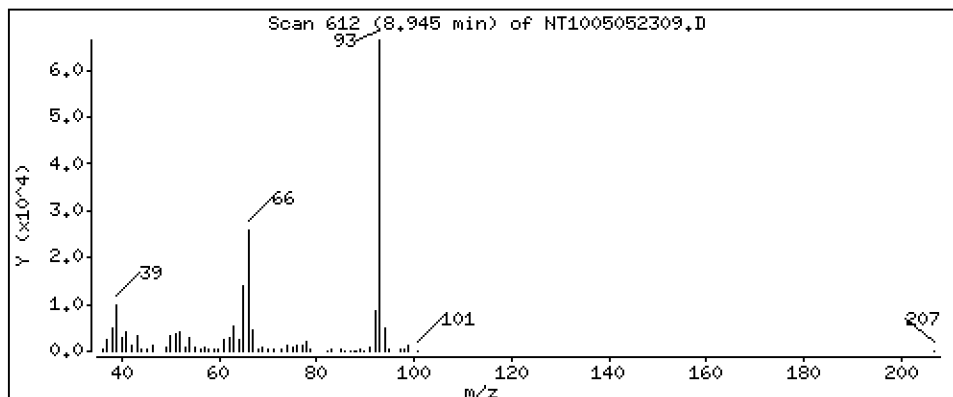
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 2,037 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

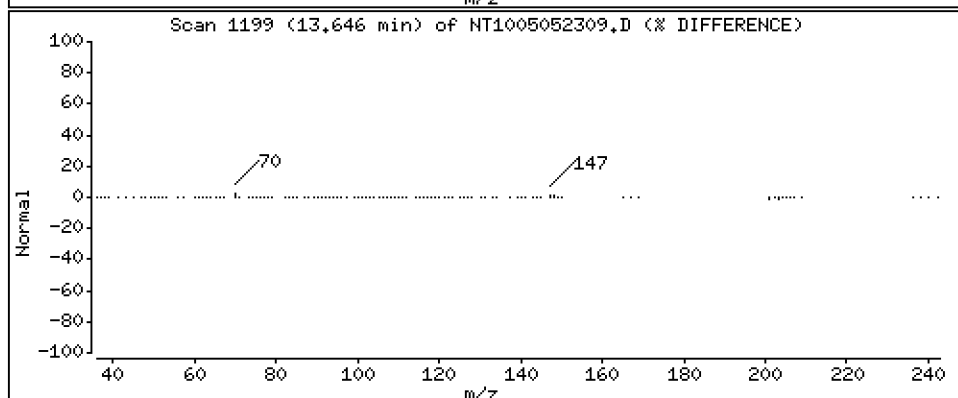
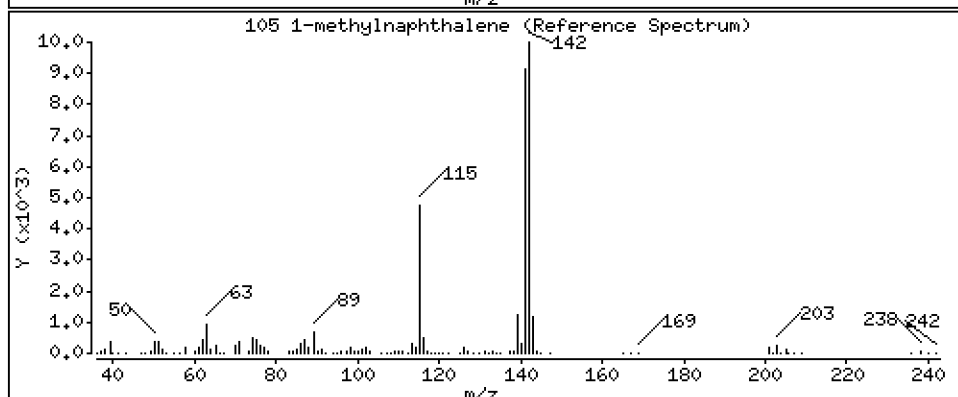
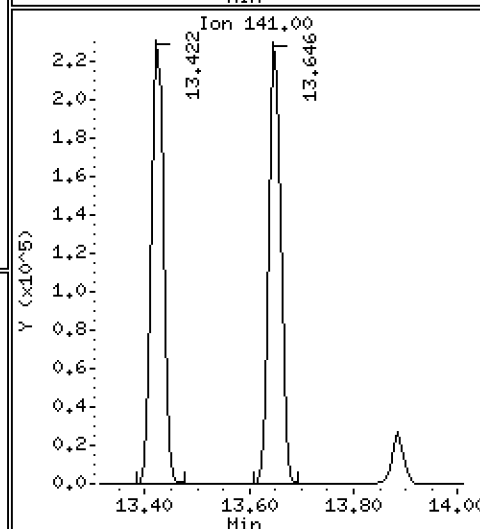
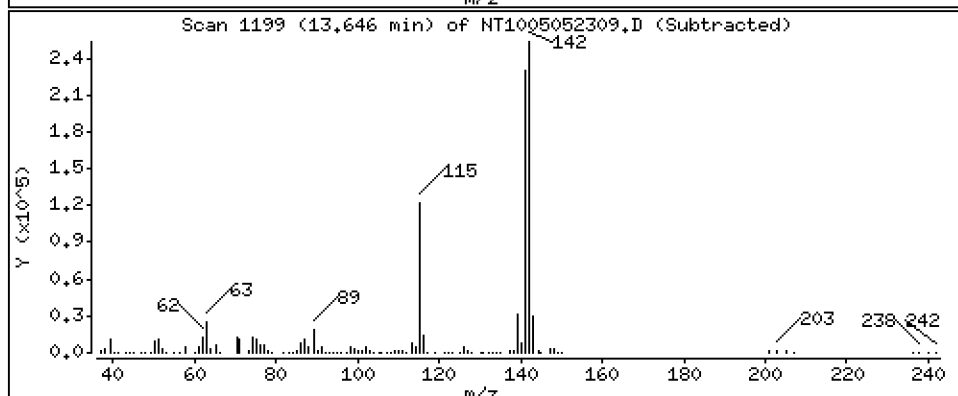
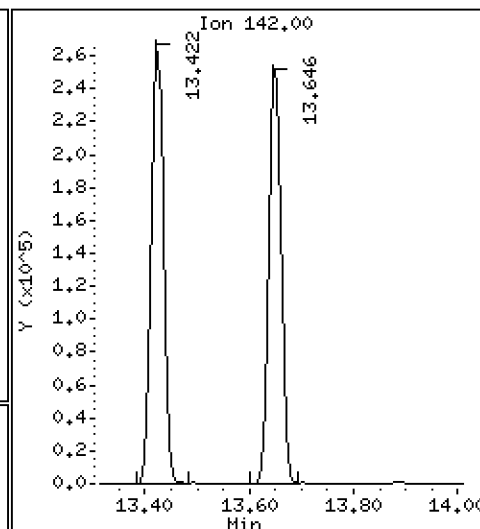
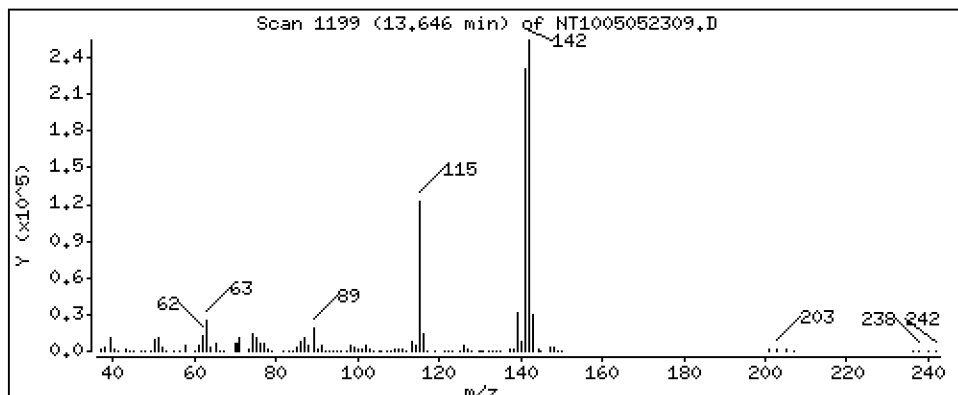
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 3,556 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

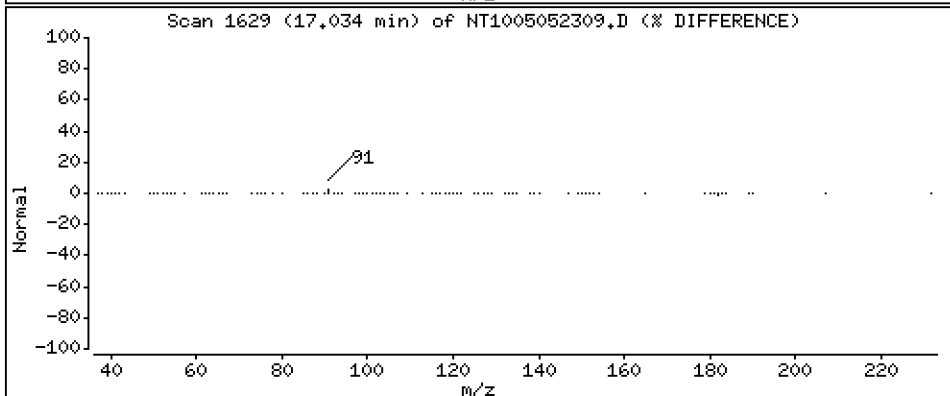
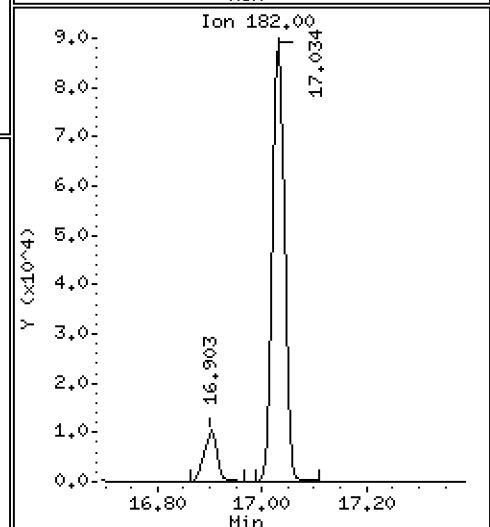
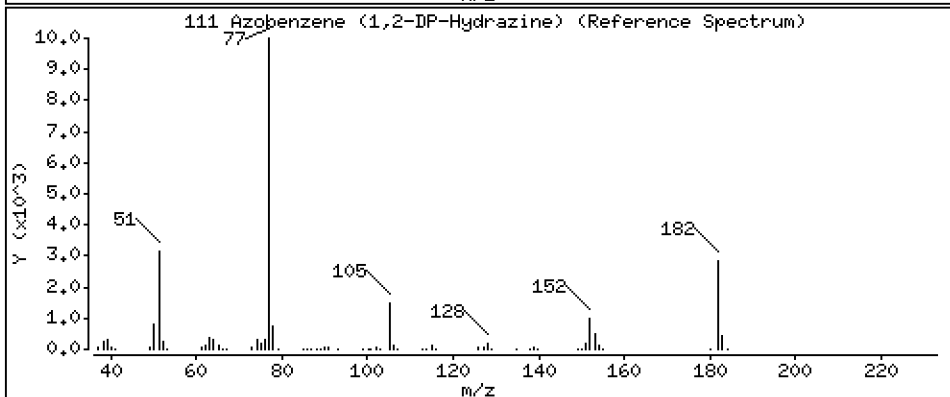
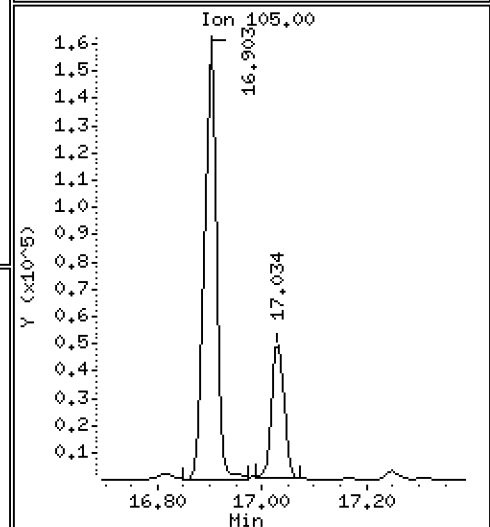
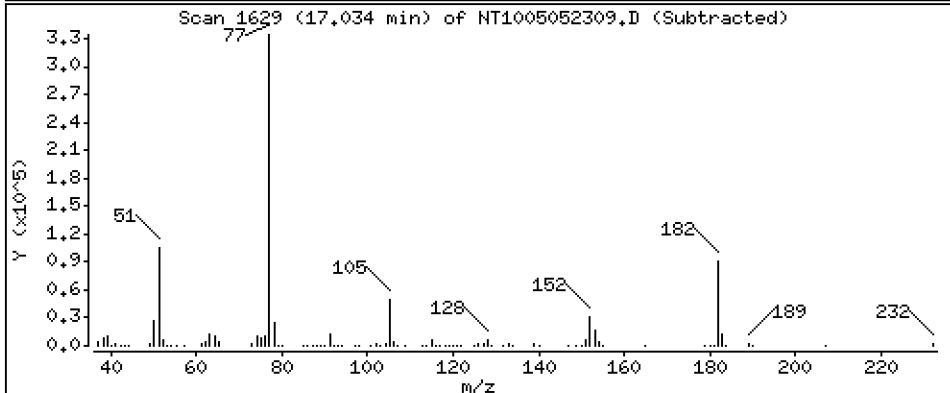
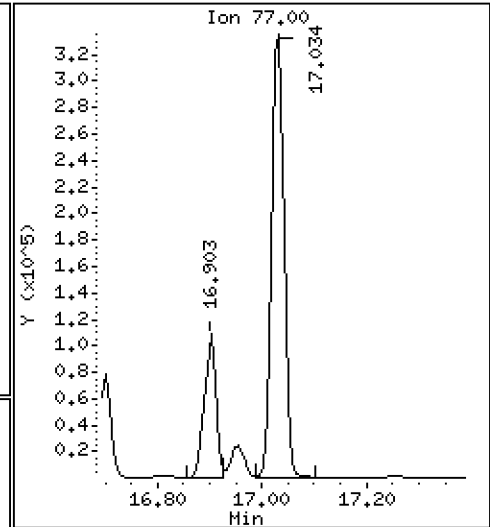
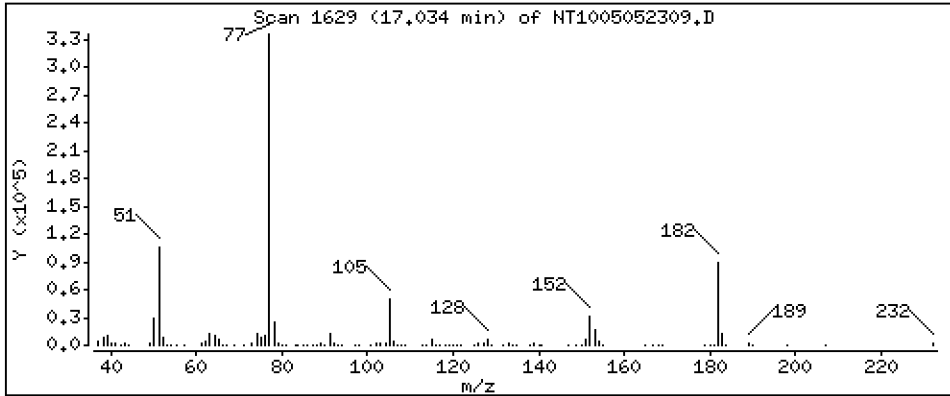
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,108 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

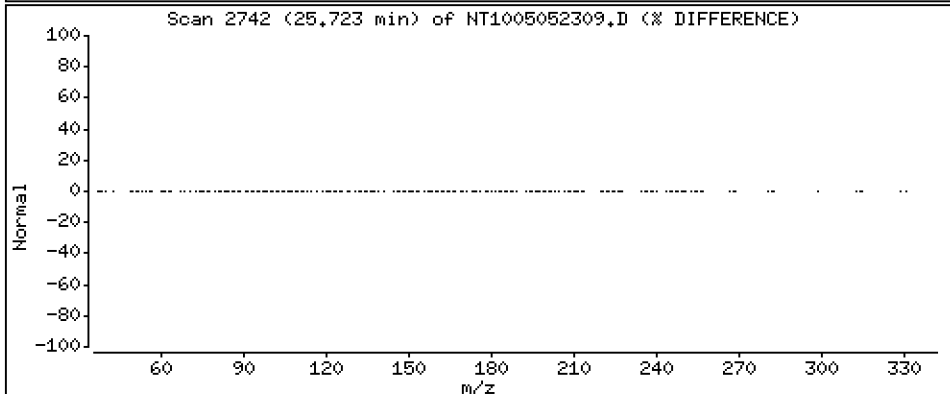
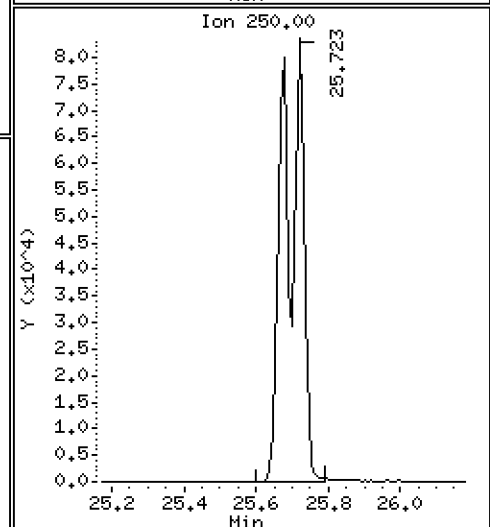
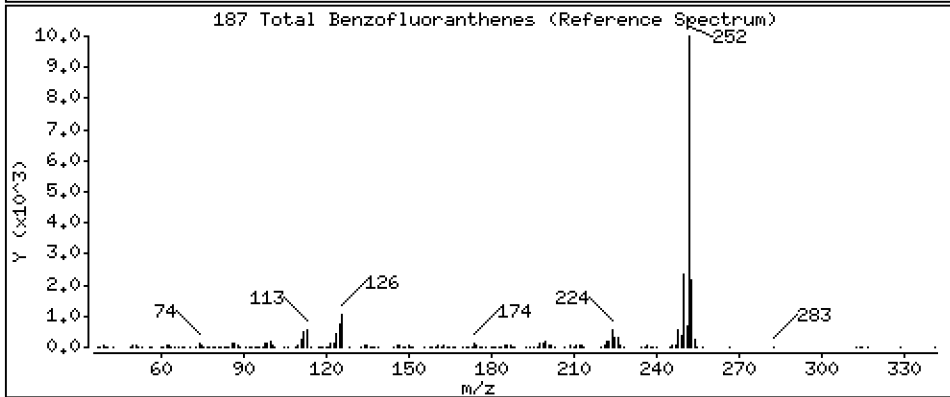
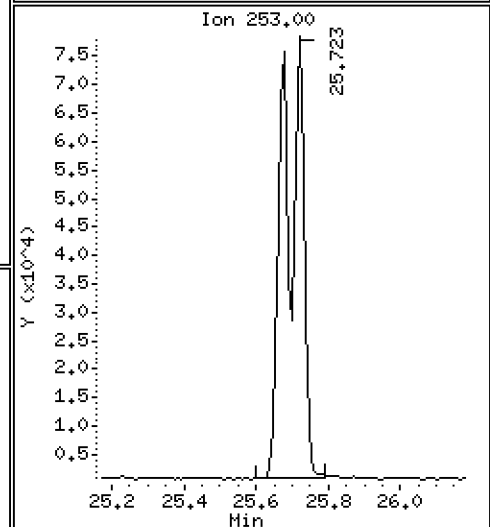
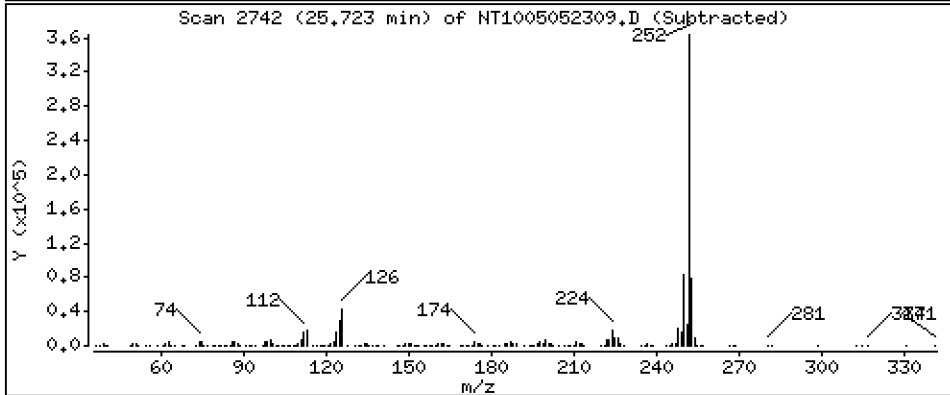
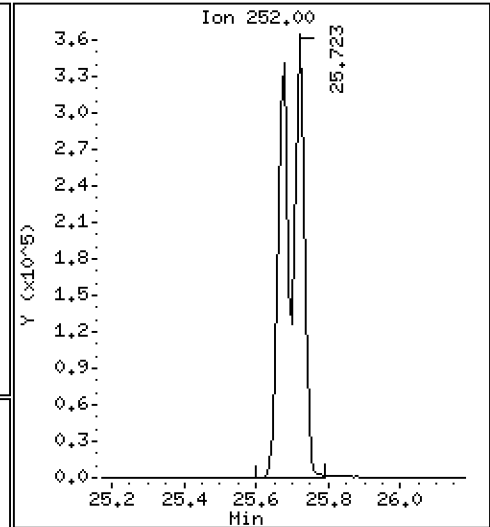
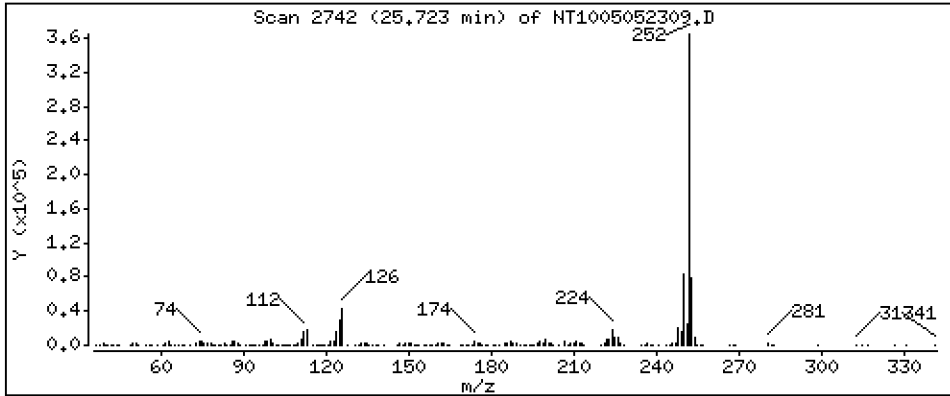
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,151 ug/mL



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD1

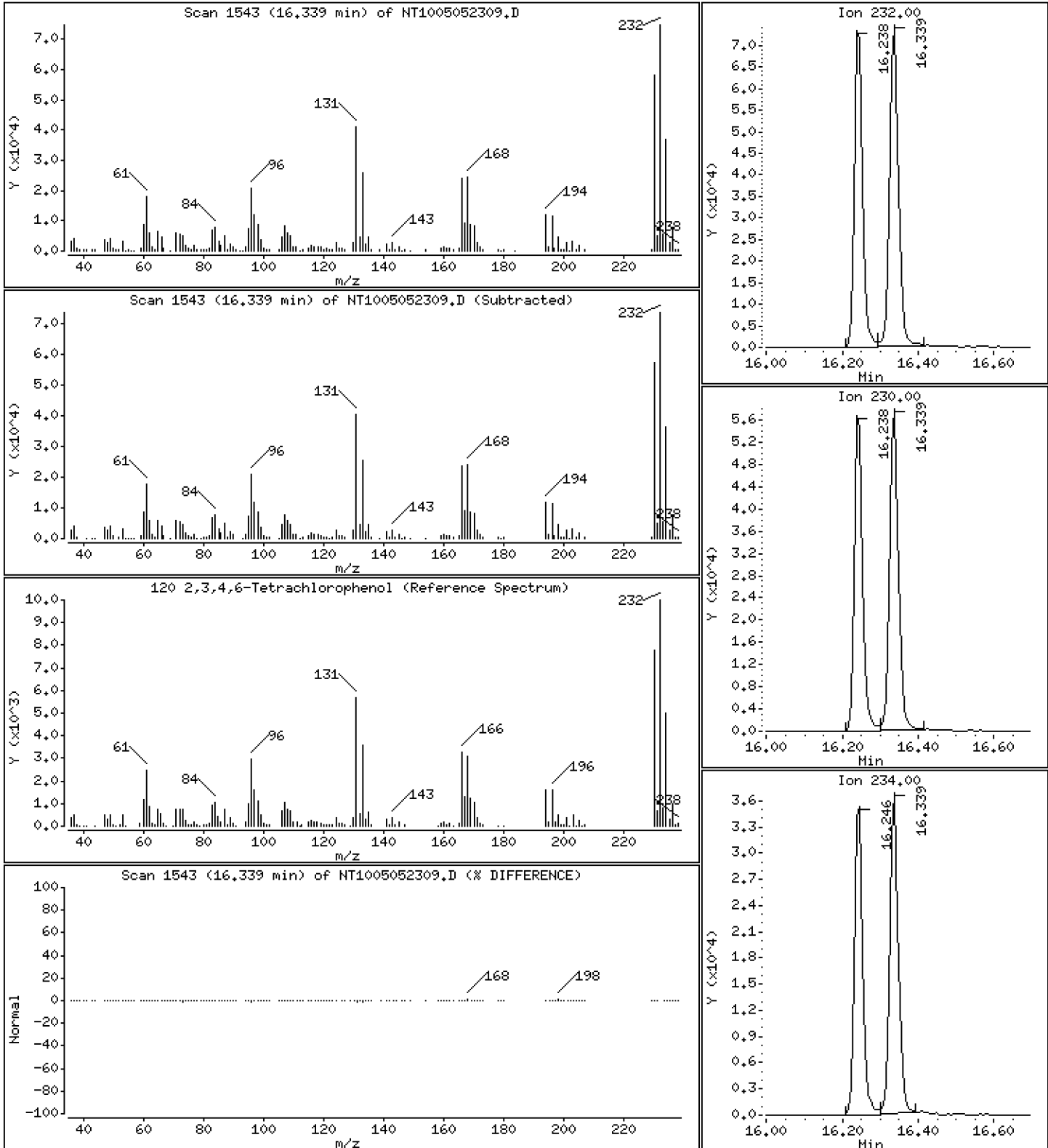
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 2,757 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052309.D
 Lab Smp Id: BLD0329-BSD1
 Inj Date : 05-MAY-2023 15:57
 Operator : VTS
 Smp Info : BLD0329-BSD1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.238	7.253	(1.000)	183437	3.82105	3.821
\$ 2 Phenol-d5	99		8.821	8.830	(1.000)	248082	4.28625	4.286
3 Phenol	94		8.845	8.853	(1.000)	161949	2.61692	2.617
\$ 5 2-Chlorophenol-d4	132		9.123	9.139	(1.000)	287418	5.18180	5.182
4 Bis(2-Chloroethyl)ether	93		9.022	9.038	(1.000)	166902	3.72719	3.727
6 2-Chlorophenol	128		9.154	9.162	(1.000)	170875	3.13135	3.131
7 1,3-Dichlorobenzene	146		9.432	9.440	(1.000)	201969	3.28500	3.285
* 8 1,4-Dichlorobenzene-d4	152		9.494	9.502	(1.000)	158649	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.525	9.533	(1.000)	201792	3.34120	3.341
\$ 10 1,2-Dichlorobenzene-d4	152		9.859	9.867	(1.000)	138214	3.37771	3.378
12 1,2-Dichlorobenzene	146		9.882	9.890	(1.000)	199460	3.40167	3.402
11 Benzyl alcohol	108		9.750	9.766	(1.000)	107541	3.61534	3.615
14 2,2'-oxybis(1-Chloropropane)	121		10.053	10.069	(1.000)	69065	4.07826	4.078
13 2-Methylphenol	108		9.968	9.976	(1.000)	132679	2.92311	2.923
17 Hexachloroethane	117		10.480	10.488	(1.000)	95297	3.64928	3.649
16 N-Nitroso-di-n-propylamine	70		10.309	10.325	(1.000)	133616	3.71660	3.717
15 4-Methylphenol	108		10.239	10.240	(1.000)	171207	3.14200	3.142
\$ 18 Nitrobenzene-d5	82		10.589	10.604	(0.883)	242111	3.68995	3.690
19 Nitrobenzene	77		10.627	10.636	(0.886)	229817	3.62425	3.624
20 Isophorone	82		11.070	11.078	(0.923)	375359	4.97227	4.972
21 2-Nitrophenol	139		11.257	11.266	(0.939)	103006	3.05945	3.059
22 2,4-Dimethylphenol	107		11.282	11.300	(0.941)	327022	5.28128	5.281
23 Bis(2-Chloroethoxy)methane	93		11.486	11.503	(0.958)	210699	4.36621	4.366
24 Benzoic acid	105		11.452	11.486	(0.955)	365294	8.48682	8.487
25 2,4-Dichlorophenol	162		11.707	11.716	(0.976)	515603	10.5995	10.60
26 1,2,4-Trichlorobenzene	180		11.898	11.906	(0.992)	221826	3.18385	3.184
* 27 Naphthalene-d8	136		11.991	11.999	(1.000)	587151	4.00000	
28 Naphthalene	128		12.029	12.037	(1.003)	555532	3.39124	3.391
29 4-Chloroaniline	127		12.153	12.161	(1.014)	300395	4.98332	4.983
30 Hexachlorobutadiene	225		12.385	12.393	(1.033)	127299	3.31309	3.313
31 4-Chloro-3-methylphenol	107		13.097	13.105	(1.092)	585976	11.0535	11.05
32 2-Methylnaphthalene	142		13.422	13.437	(1.119)	408810	3.33779	3.338
33 Hexachlorocyclopentadiene	237		13.886	13.902	(0.889)	257945	6.32894	6.329

Compounds	QUANT SIG			CONCENTRATIONS			
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	14.041	14.049	(0.899)	433243	10.7912	10.79
35 2,4,5-Trichlorophenol	196	14.110	14.118	(0.904)	455774	10.4105	10.41
§ 36 2-Fluorobiphenyl	172	14.203	14.211	(0.910)	506810	3.57174	3.572
37 2-Chloronaphthalene	162	14.420	14.436	(0.924)	391509	3.50328	3.503
38 2-Nitroaniline	65	14.683	14.691	(0.941)	396129	12.2052	12.21
39 Dimethylphthalate	163	15.101	15.109	(0.967)	520588	4.14263	4.143
40 Acenaphthylene	152	15.302	15.310	(0.980)	599371	3.43591	3.436
41 2,6-Dinitrotoluene	165	15.248	15.256	(0.977)	333531	11.7587	11.76
* 42 Acenaphthene-d10	164	15.612	15.628	(1.000)	327754	4.00000	
43 3-Nitroaniline	138	15.534	15.543	(0.995)	277961	9.95515	9.955
44 Acenaphthene	153	15.681	15.689	(1.004)	399535	3.60114	3.601
45 2,4-Dinitrophenol	184	15.743	15.759	(1.008)	372370	16.5153	16.52
46 Dibenzofuran	168	16.006	16.014	(1.025)	590251	3.64882	3.649
47 4-Nitrophenol	109	15.828	15.844	(1.014)	251654	9.57939	9.579
48 2,4-Dinitrotoluene	165	16.060	16.068	(1.029)	452238	11.0383	11.04
50 Diethylphthalate	149	16.563	16.571	(1.061)	674948	5.17290	5.173
49 Fluorene	166	16.725	16.733	(1.071)	489521	3.66826	3.668
51 4-Chlorophenyl-phenylether	204	16.702	16.710	(1.070)	296510	4.46206	4.462
52 4-Nitroaniline	138	16.810	16.825	(1.077)	278571	10.1205	10.12
53 4,6-Dinitro-2-methylphenol	198	16.902	16.918	(0.906)	542045	22.5254	22.53
54 N-Nitrosodiphenylamine	169	16.956	16.964	(0.909)	277976	3.55226	3.552
§ 55 2,4,6-Tribromophenol	330	17.257	17.265	(1.105)	91414	5.64226	5.642
56 4-Bromophenyl-phenylether	248	17.712	17.728	(0.949)	149164	4.03785	4.038
57 Hexachlorobenzene	284	18.036	18.052	(0.966)	135768	3.66161	3.662
58 Pentachlorophenol	266	18.393	18.401	(0.985)	255711	9.66167	9.662
* 59 Phenanthrene-d10	188	18.663	18.679	(1.000)	592173	4.00000	
60 Phenanthrene	178	18.717	18.726	(1.003)	642595	3.69824	3.698
61 Anthracene	178	18.810	18.818	(1.008)	537143	3.34531	3.345
62 Carbazole	167	19.128	19.136	(1.025)	560983	3.94695	3.947
63 Di-n-butylphthalate	149	19.893	19.902	(1.066)	922482	4.25304	4.253
64 Fluoranthene	202	21.077	21.085	(0.890)	845983	3.87490	3.875
65 Pyrene	202	21.503	21.511	(0.908)	846840	3.88289	3.883
§ 66 Terphenyl-d14	244	21.774	21.782	(0.919)	711053	4.12233	4.122
67 Butylbenzylphthalate	149	22.687	22.695	(0.958)	386592	3.92541	3.925
68 Benzo(a)anthracene	228	23.655	23.663	(0.998)	752103	3.88514	3.885
* 69 Chrysene-d12	240	23.694	23.694	(1.000)	488998	4.00000	
70 3,3'-Dichlorobenzidine	252	23.609	23.609	(0.996)	392418	6.51713	6.517
71 Chrysene	228	23.733	23.741	(1.002)	669320	3.86298	3.863
72 bis(2-Ethylhexyl)phthalate	149	23.702	23.702	(0.958)	543171	4.47883	4.479
* 134 Di-n-octylphthalate-d4	153	24.731	24.739	(1.000)	841904	4.00000	
73 Di-n-octylphthalate	149	24.747	24.747	(1.001)	967268	4.35481	4.355
74 Benzo(b)fluoranthene	252	25.676	25.676	(0.968)	722456	4.20724	4.207
75 Benzo(k)fluoranthene	252	25.722	25.730	(0.970)	673407	3.95198	3.952
76 Benzo(a)pyrene	252	26.396	26.404	(0.995)	556121	3.86920	3.869
* 77 Perylene-d12	264	26.527	26.528	(1.000)	418013	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.498	29.498	(1.112)	700485	4.05686	4.057
79 Dibenzo(a,h)anthracene	278	29.506	29.514	(1.112)	584143	4.03950	4.039
80 Benzo(g,h,i)perylene	276	30.376	30.376	(1.145)	561818	4.08217	4.082
90 N-Nitrosodimethylamine	74	5.074	5.090	(1.000)	56727	2.18766	2.188
91 Aniline	93	8.945	8.953	(1.000)	103880	2.03667	2.037
93 Benzidine	184	Compound Not Detected.					
103 Pyridine	79	Compound Not Detected.					
105 1-methylnaphthalene	142	13.646	13.662	(1.138)	399296	3.55595	3.556
111 Azobenzene (1,2-DP-Hydrazine)	77	17.033	17.041	(1.091)	523687	4.10832	4.108

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.722	25.676	(0.970)	1347248	8.15071	8.151
120 2,3,4,6-Tetrachlorophenol	232	16.338	16.346	(1.047)	118288	2.75655	2.757

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052309.D Calibration Time: 11:37
 Lab Smp Id: BLD0329-BSD1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	158649	-11.60
27 Naphthalene-d8	621628	310814	1243256	587151	-5.55
42 Acenaphthene-d10	353112	176556	706224	327754	-7.18
59 Phenanthrene-d10	694933	347467	1389866	592173	-14.79
69 Chrysene-d12	553967	276984	1107934	488998	-11.73
134 Di-n-octylphthala	895601	447801	1791202	841904	-6.00
77 Perylene-d12	482573	241287	965146	418013	-13.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.09
27 Naphthalene-d8	12.00	11.50	12.50	11.99	-0.07
42 Acenaphthene-d10	15.63	15.13	16.13	15.61	-0.10
59 Phenanthrene-d10	18.68	18.18	19.18	18.66	-0.09
69 Chrysene-d12	23.69	23.19	24.19	23.69	-0.00
134 Di-n-octylphthala	24.74	24.24	25.24	24.73	-0.03
77 Perylene-d12	26.53	26.03	27.03	26.53	-0.00

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

REVIEW SUMMARY FOR FILE - NT1005052309.D

Lab ID: BLD0329-BSD1
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 15:57

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.060	-0.0596	2,2'-oxybis(1-Chloropropane)

RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

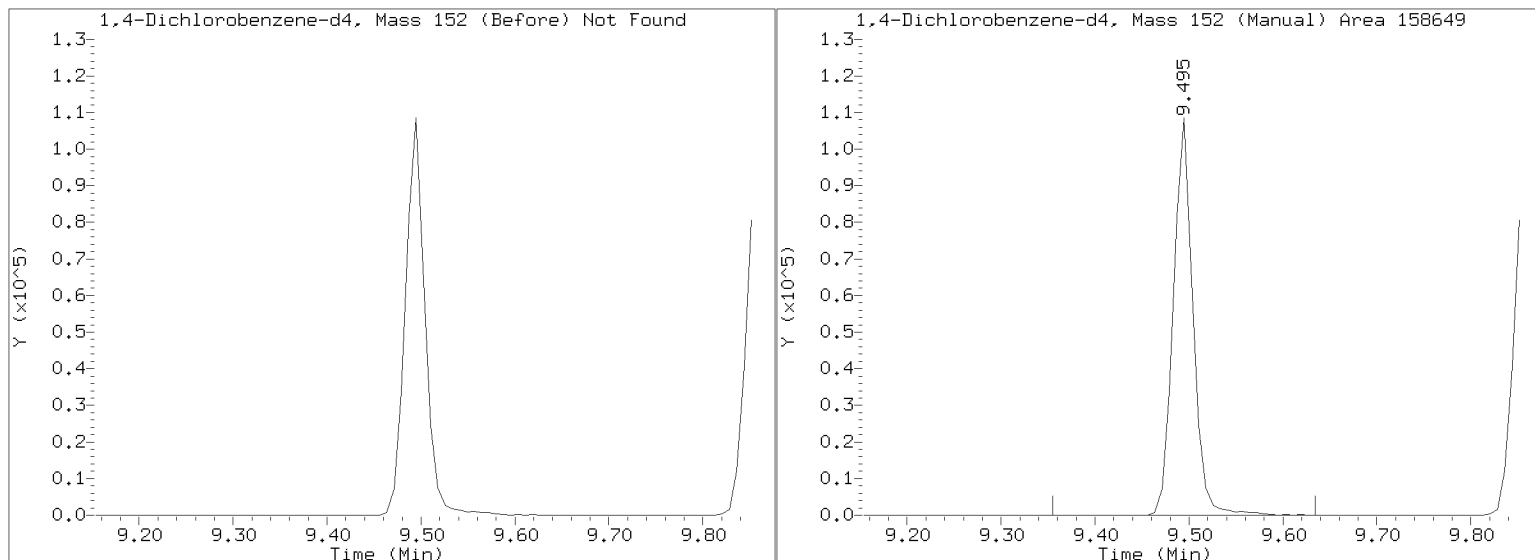
Quant Ion Manual Peak Adjustment Report

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Injection Date: 05-MAY-2023 15:57

Lab ID:BLD0329-BSD1 Client ID:

Report Date: 05/08/2023 10:15



APPROVED

By Deenay Dunmore at 10:39 am, May 08, 2023



MS / MS DUPLICATE RECOVERY
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/05/23 18:32</u>
Batch:	<u>BLD0329</u>	Laboratory ID:	<u>BLD0329-MS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>22.57 g / 1 mL</u>	Source Sample:	<u>LDW23-SS1803</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Phenol	500	109		331		44.3	34 - 120
4-Methylphenol	500	76.8		366		57.9	29 - 120
Naphthalene	500	21.7		337		63.1	43 - 120
2-Methylnaphthalene	500	16.4	J	325		61.7	43 - 120
Acenaphthylene	500	14.2	J	353		67.7	42 - 120
Dimethylphthalate	500	7.2	J	376		73.8	43 - 120
Acenaphthene	500	15.9	J	356		68.0	45 - 120
Dibenzofuran	500	20.3		368		69.6	43 - 120
Fluorene	500	23.7		367		68.6	45 - 120
Phenanthrene	500	92.0		433		68.1	49 - 120
Anthracene	500	60.4		361		60.1	45 - 120
Fluoranthene	500	258		543		57.1	53 - 145
Pyrene	500	235		513		55.7	52 - 134
Butylbenzylphthalate	500	20.8		385		72.8	45 - 132
Benzo(a)anthracene	500	135		455		64.0	49 - 120
Chrysene	500	233		526		58.5	47 - 120
bis(2-Ethylhexyl)phthalate	500	196		563		73.3	34 - 130
Benzo(a)fluoranthene, Total	1000	377		1050		66.9	30 - 160
Benzo(a)pyrene	500	136		468		66.5	42 - 120
Indeno(1,2,3-cd)pyrene	500	68.9		394		64.9	42 - 163
Dibenzo(a,h)anthracene	500	24.3		359		66.9	30 - 133
Benzo(g,h,i)perylene	500	87.0		396		61.7	46 - 148

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Analyzed: 05/05/23 19:11

Batch: BLD0329

Laboratory ID: BLD0329-MSD1

Preparation: EPA 3546 (Microwave)

Sequence Name: Matrix Spike Dup

Initial/Final: 22.57 g / 1 mL

Source Sample: LDW23-SS1803

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Phenol	500	292		36.5	12.5	30	34 - 120
4-Methylphenol	500	354		55.4	3.52	30	29 - 120
Naphthalene	500	356		66.8	5.40	30	43 - 120
2-Methylnaphthalene	500	351		66.9	7.60	30	43 - 120
Acenaphthylene	500	363		69.9	2.98	30	42 - 120
Dimethylphthalate	500	404		79.4	7.13	30	43 - 120
Acenaphthene	500	375		71.9	5.29	30	45 - 120
Dibenzofuran	500	385		73.0	4.56	30	43 - 120
Fluorene	500	394		74.1	7.22	30	45 - 120
Phenanthrene	500	464		74.3	6.92	30	49 - 120
Anthracene	500	378		63.4	4.48	30	45 - 120
Fluoranthene	500	589		66.2	8.04	30	53 - 145
Pyrene	500	552		63.4	7.24	30	52 - 134
Butylbenzylphthalate	500	421		80.0	9.01	30	45 - 132
Benzo(a)anthracene	500	496		72.3	8.64	30	49 - 120
Chrysene	500	609		75.1	14.6	30	47 - 120
bis(2-Ethylhexyl)phthalate	500	610		82.6	8.00	30	34 - 130
Benzo(a)fluoranthene, Total	1000	1090		71.5	4.35	30	30 - 160
Benzo(a)pyrene	500	493		71.5	5.20	30	42 - 120
Indeno(1,2,3-cd)pyrene	500	408		67.8	3.63	30	42 - 163
Dibenzo(a,h)anthracene	500	372		69.6	3.77	30	30 - 133
Benzo(g,h,i)perylene	500	410		64.7	3.69	30	46 - 148

* Values outside of QC limits

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Date: 05-May-2023 18:32

Client ID:

Sample Info: BLD0329-HS1

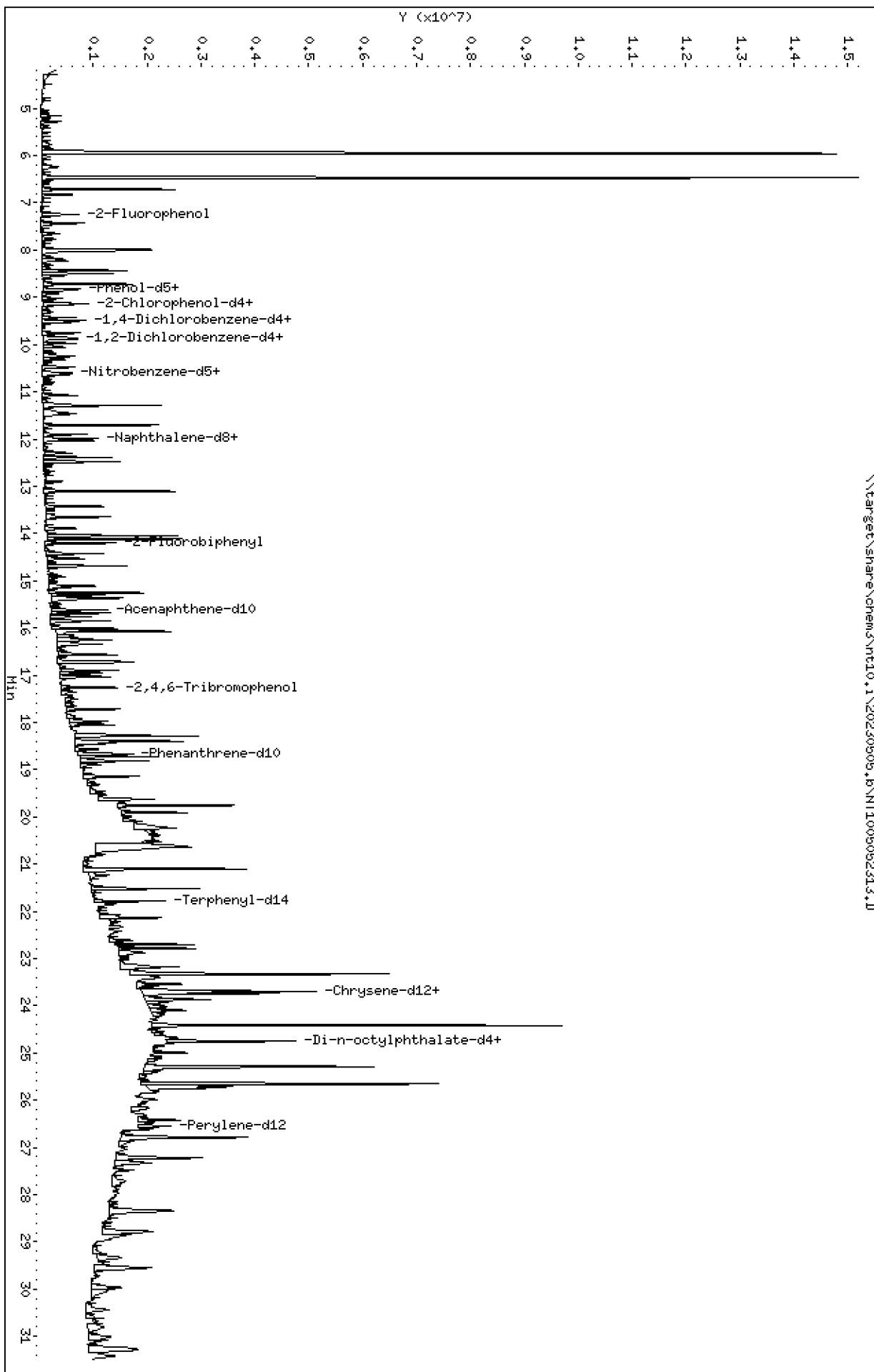
Page 1

Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

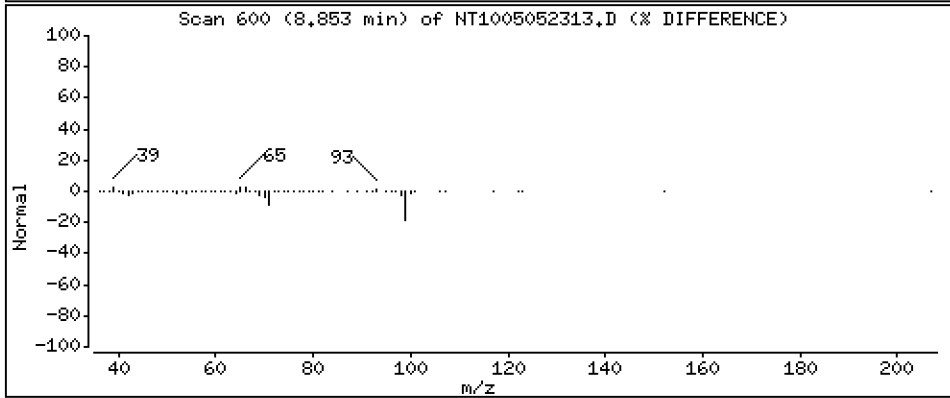
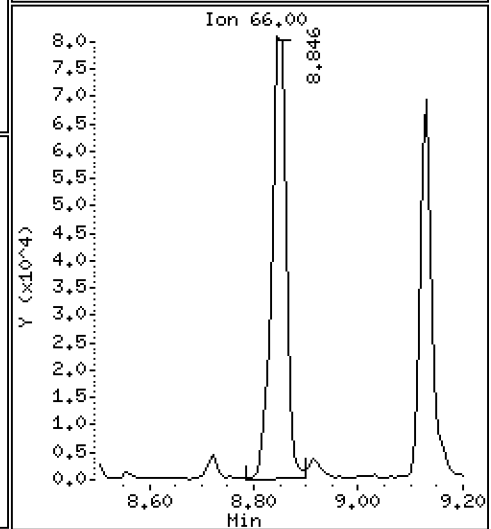
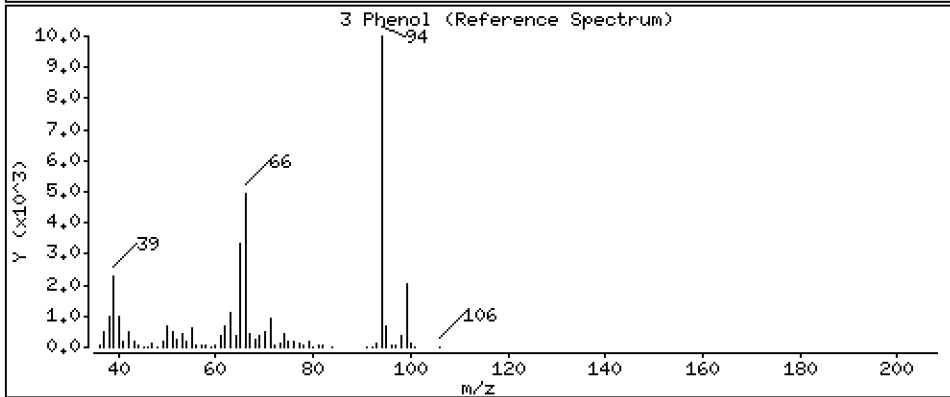
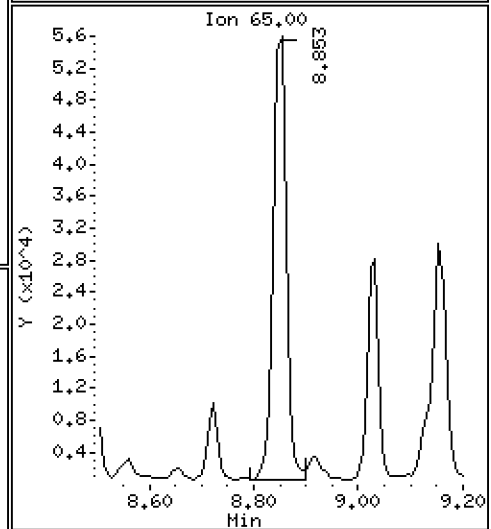
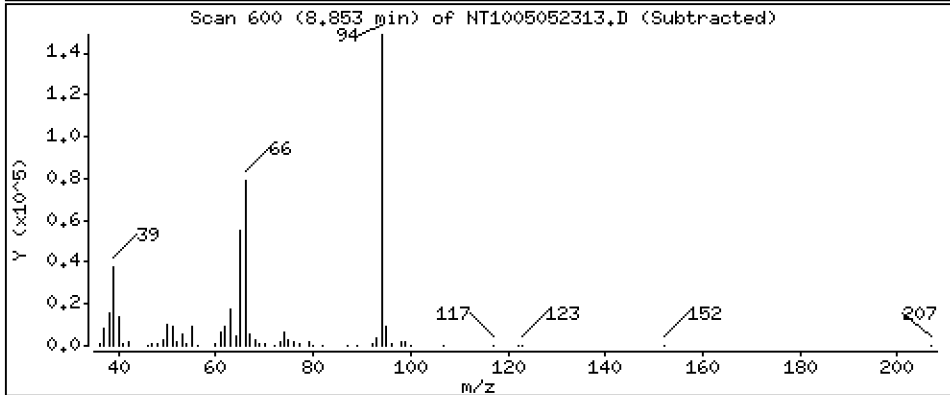
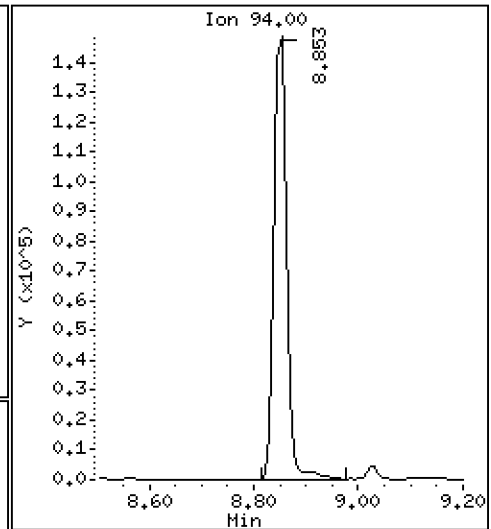
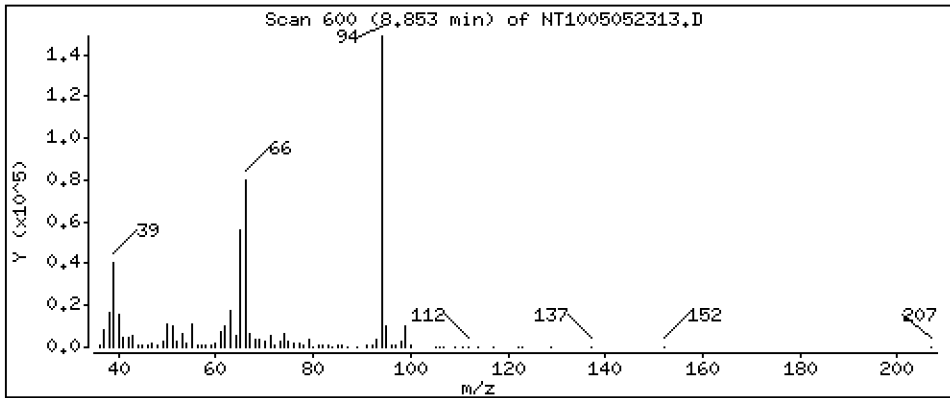
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,309 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

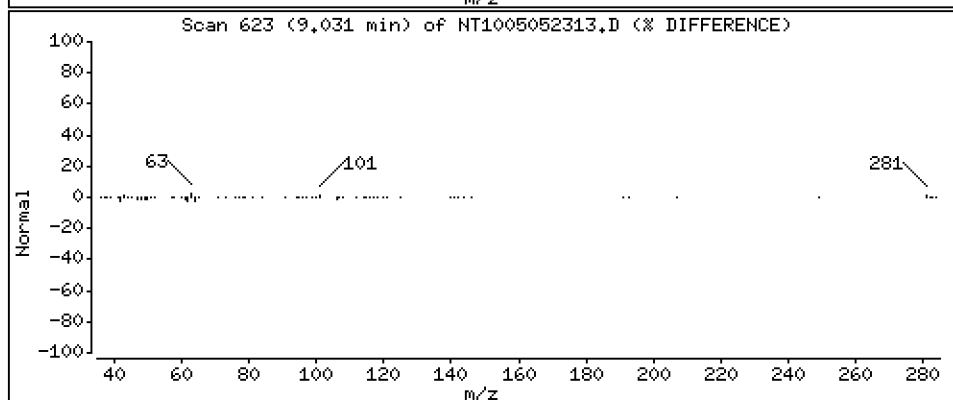
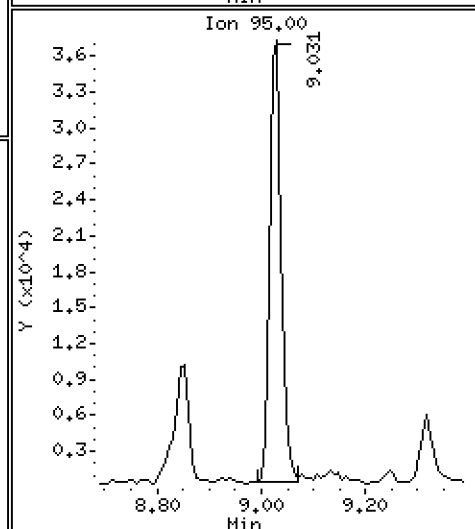
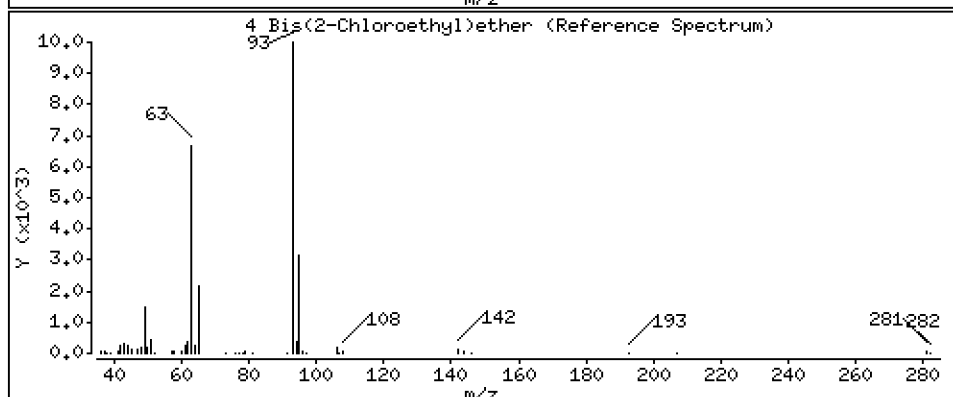
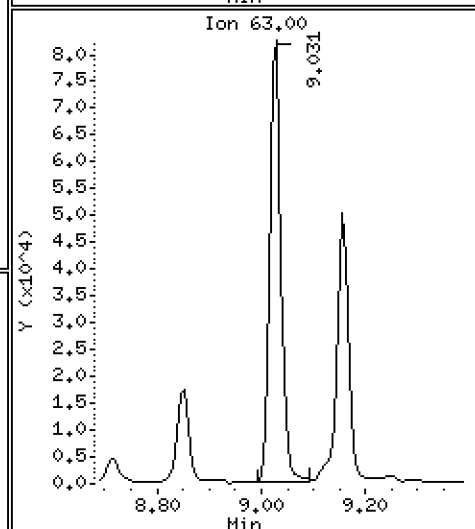
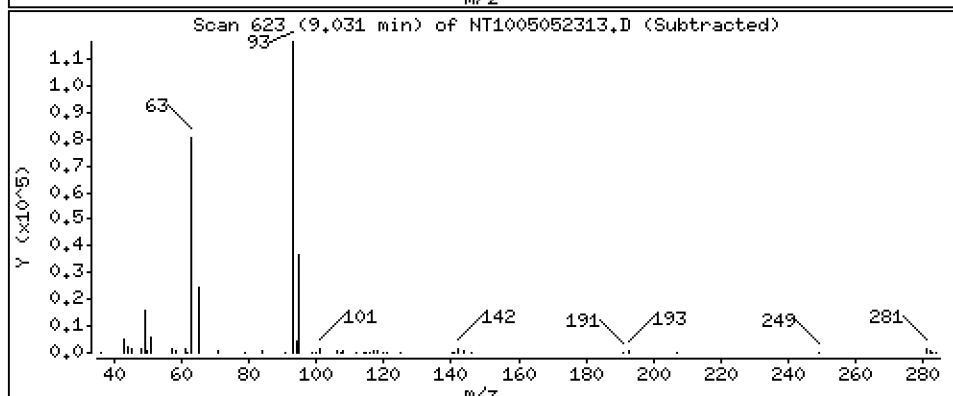
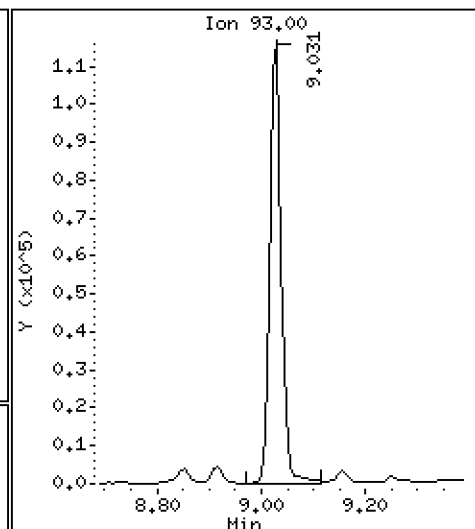
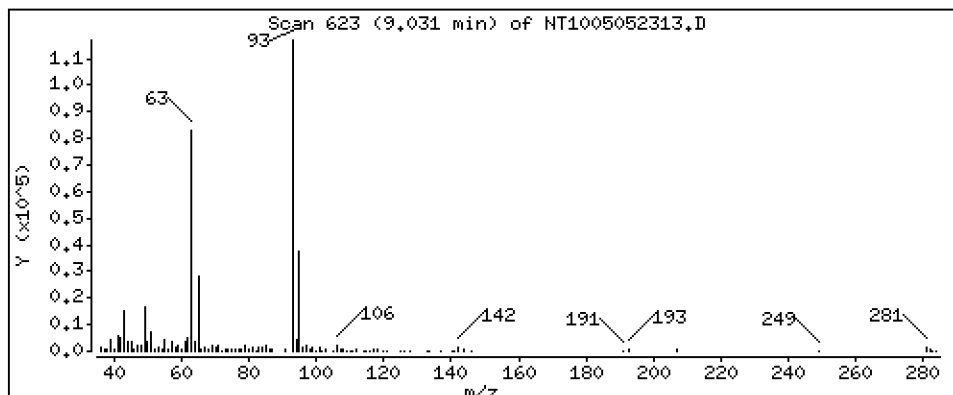
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 3,364 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

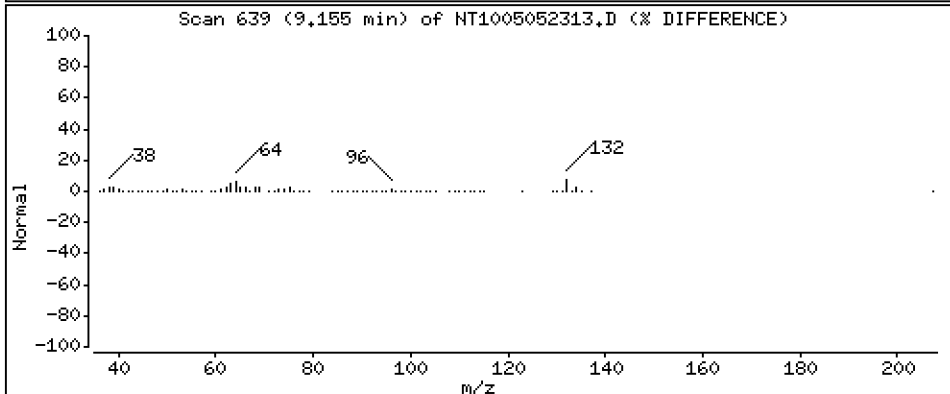
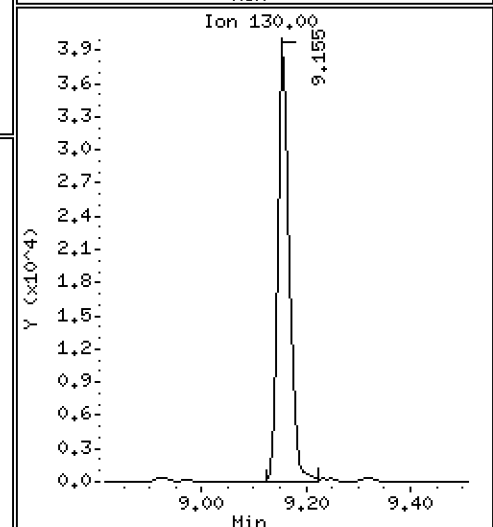
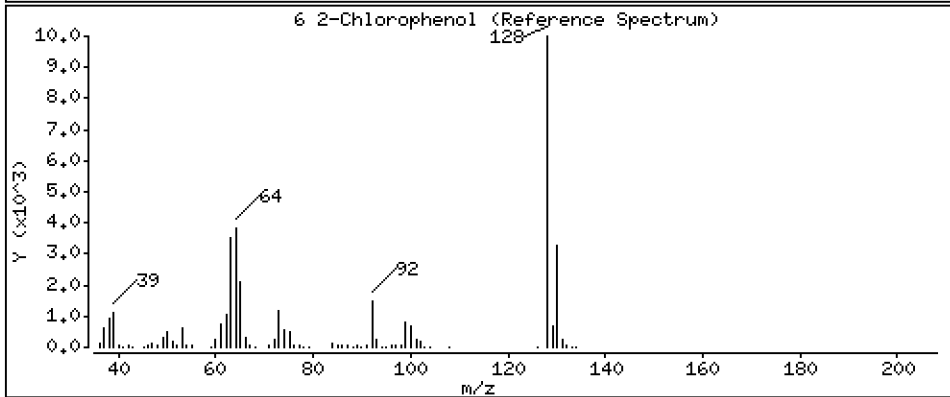
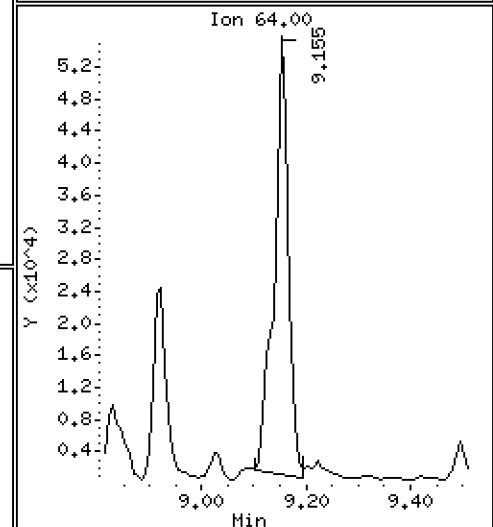
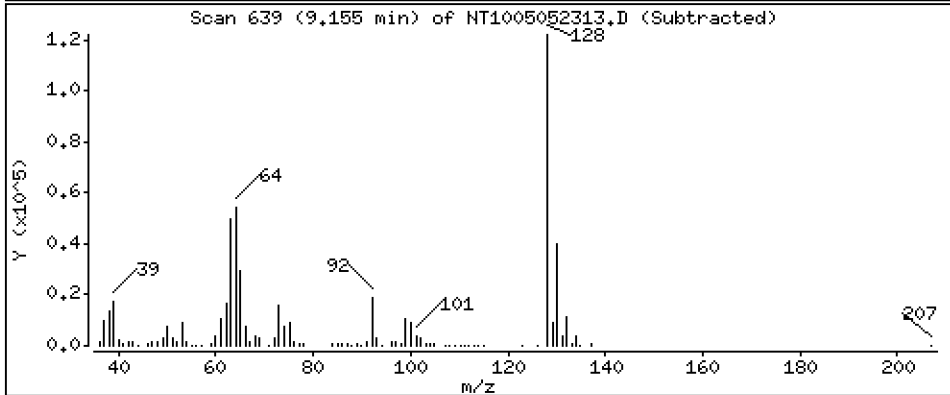
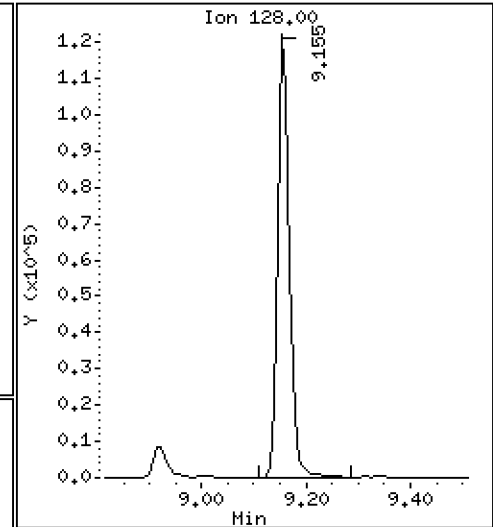
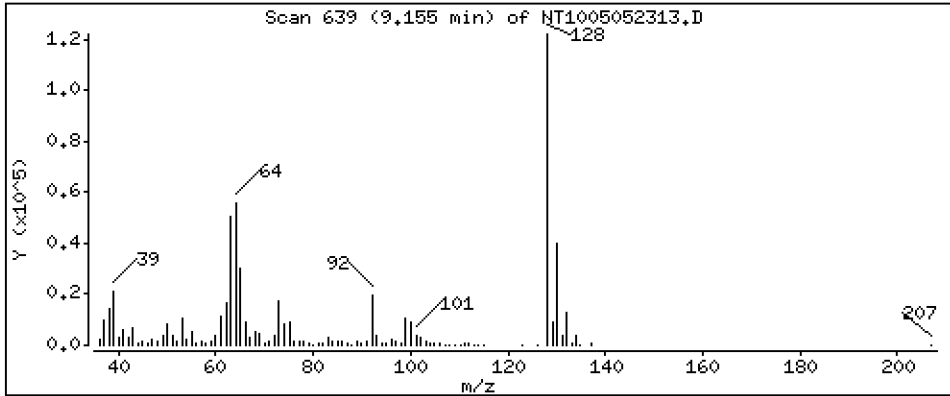
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 2,981 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

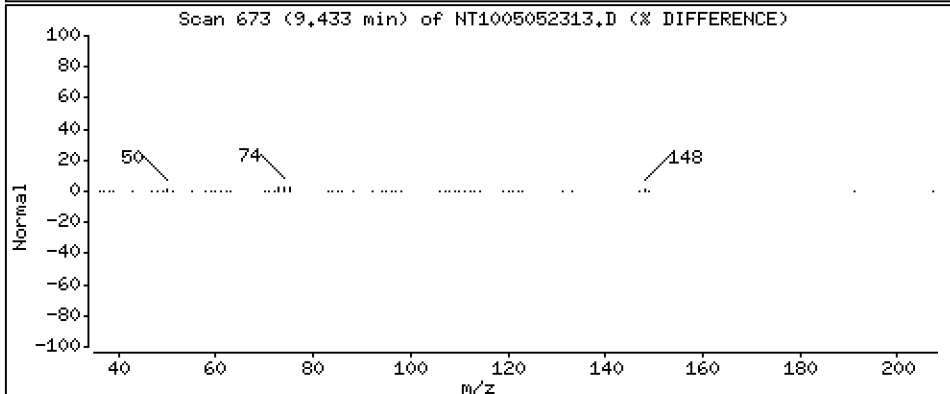
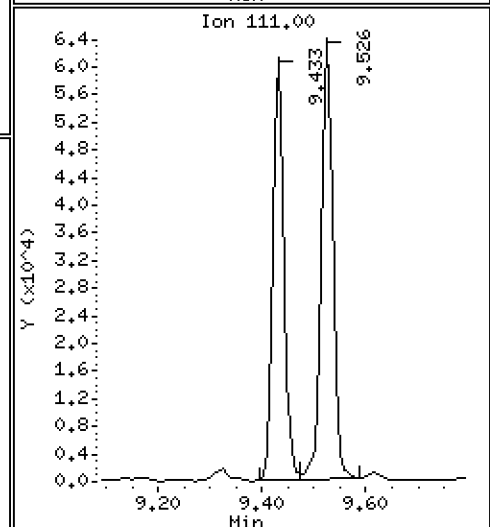
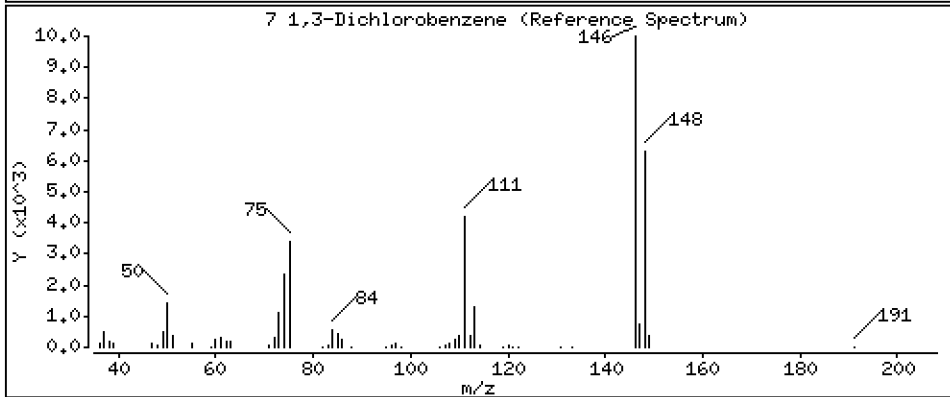
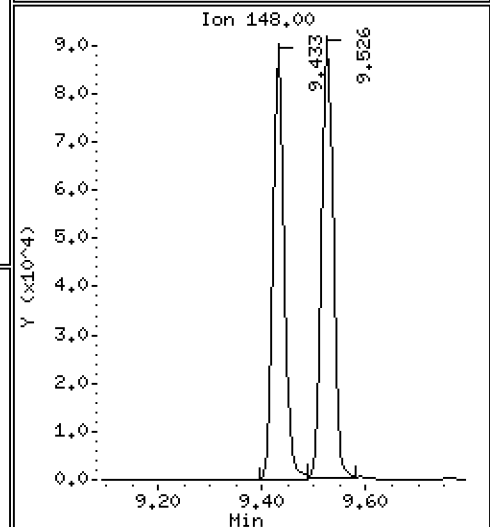
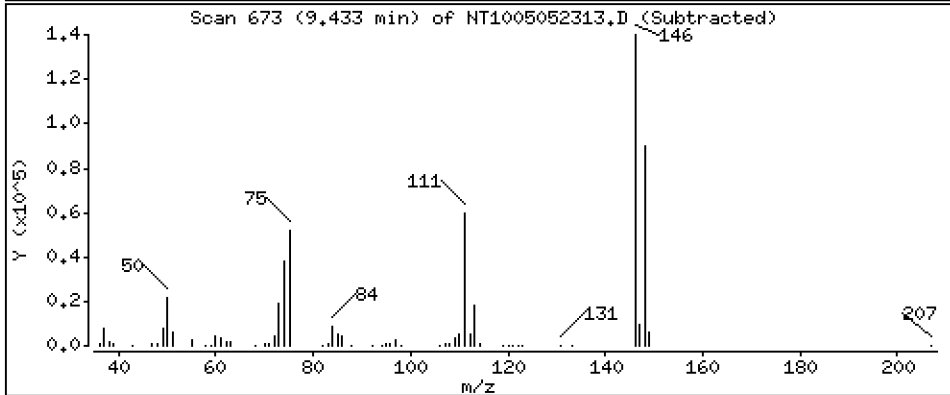
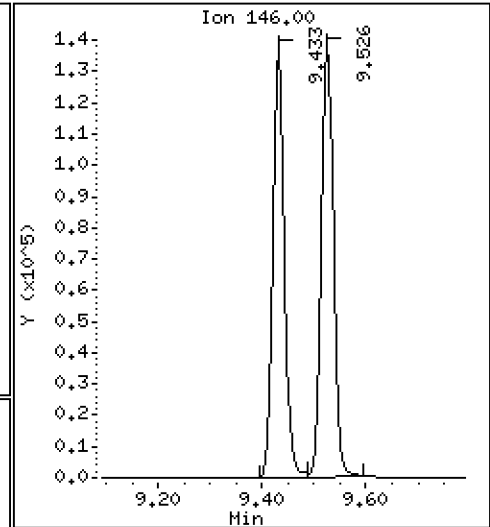
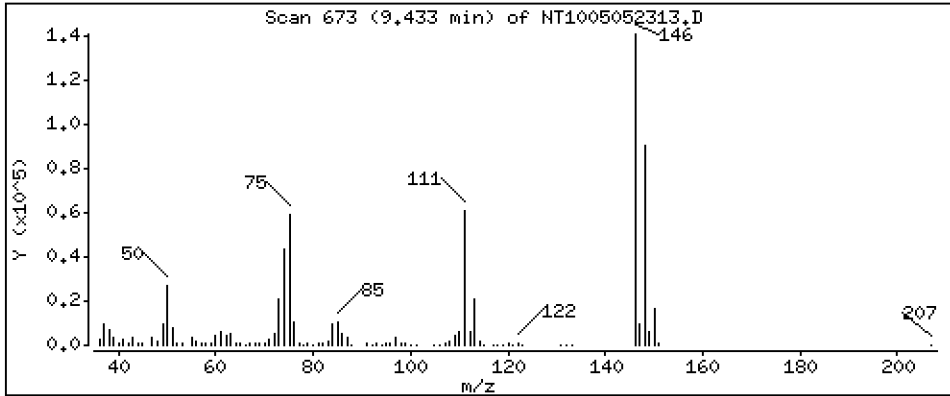
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 2,998 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

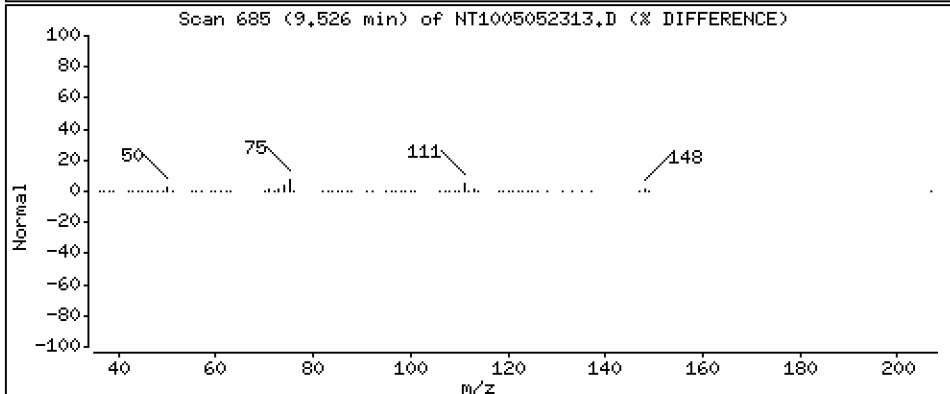
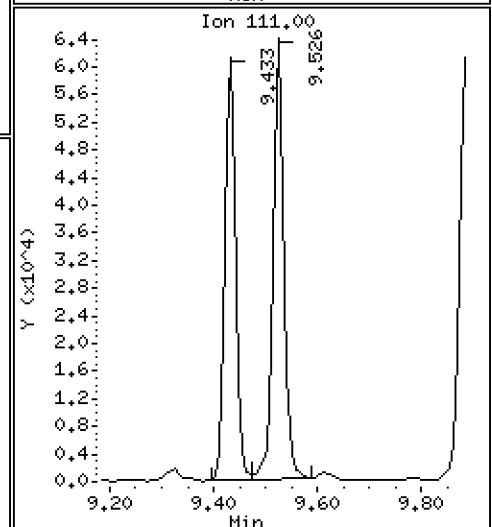
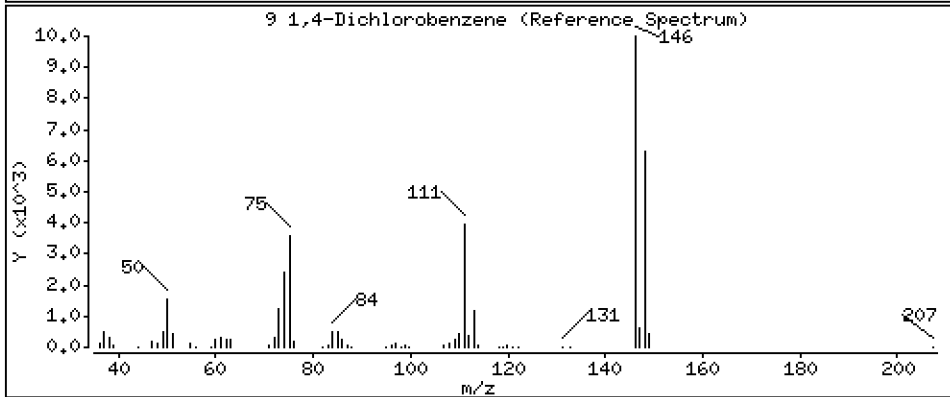
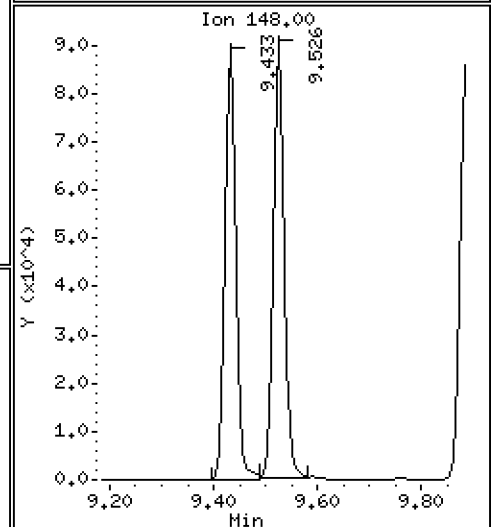
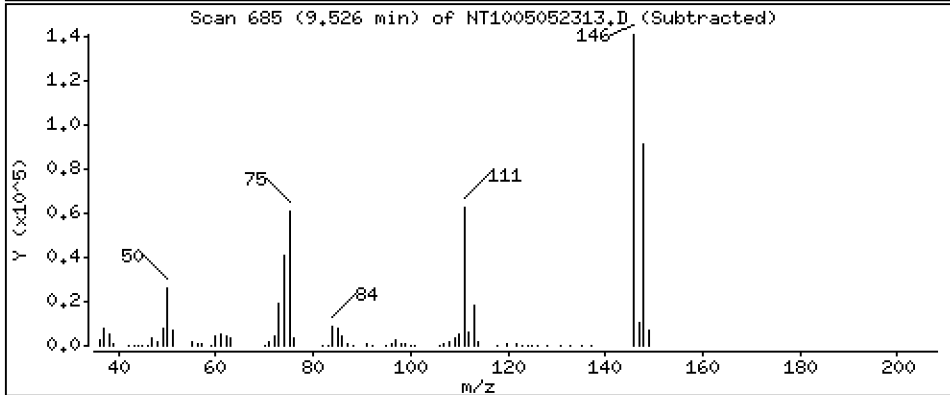
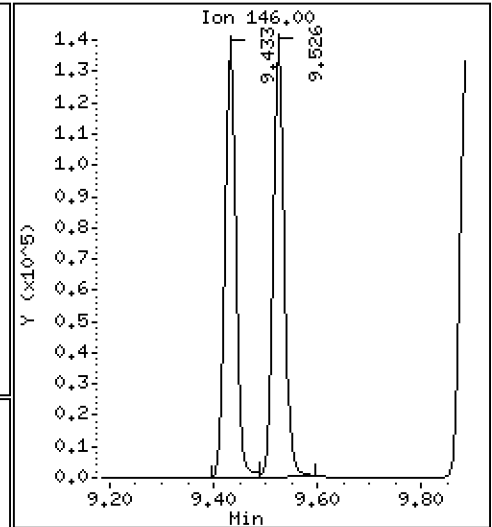
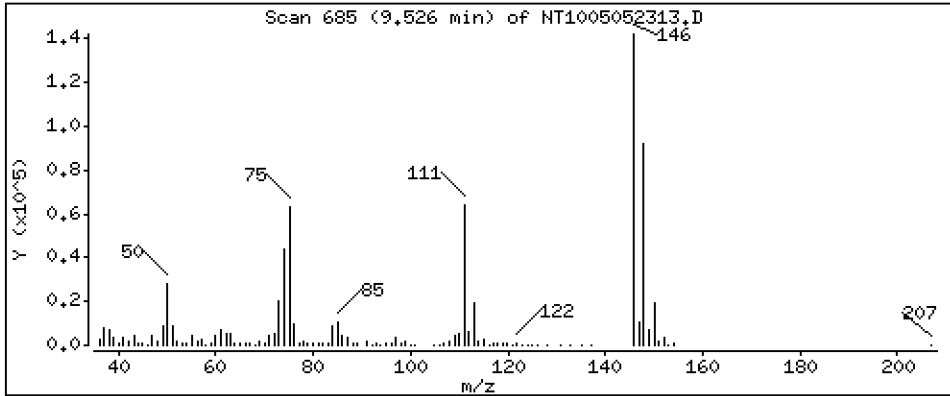
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 2,986 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

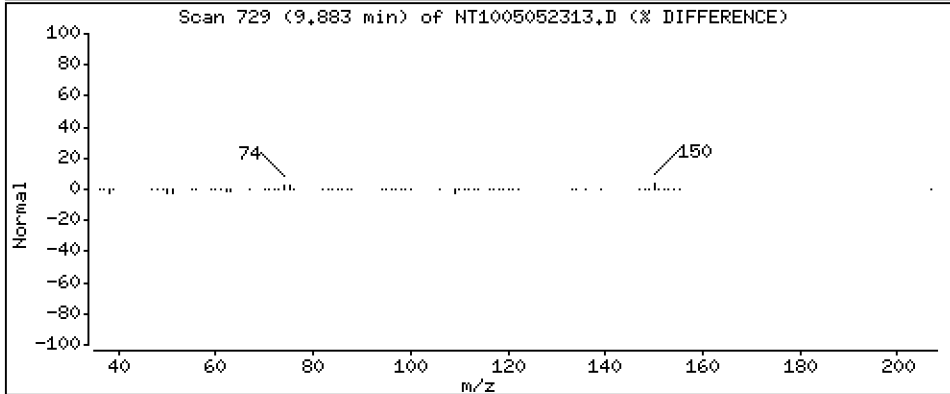
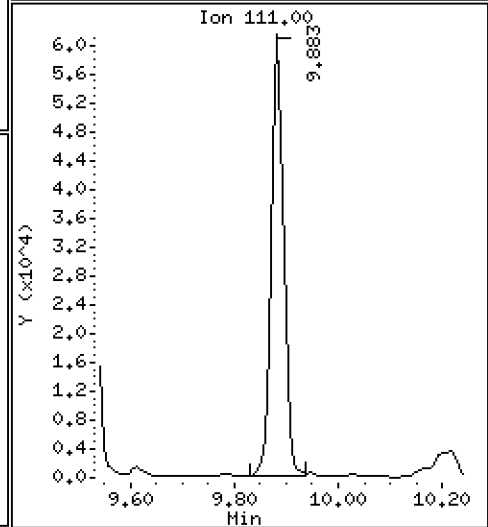
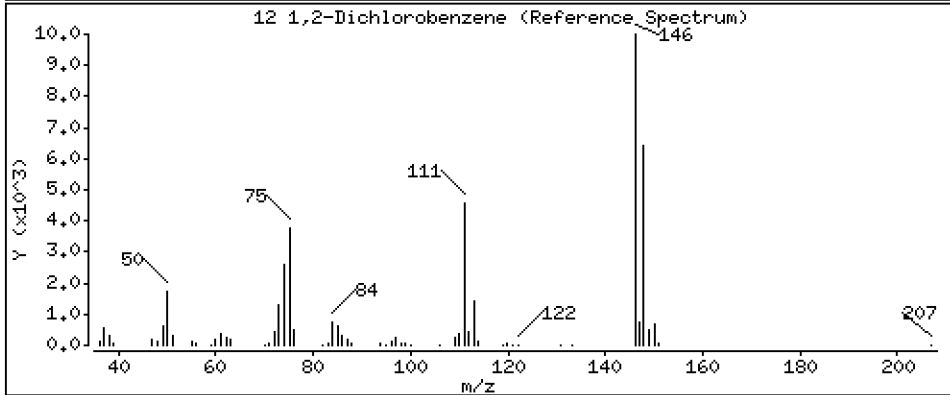
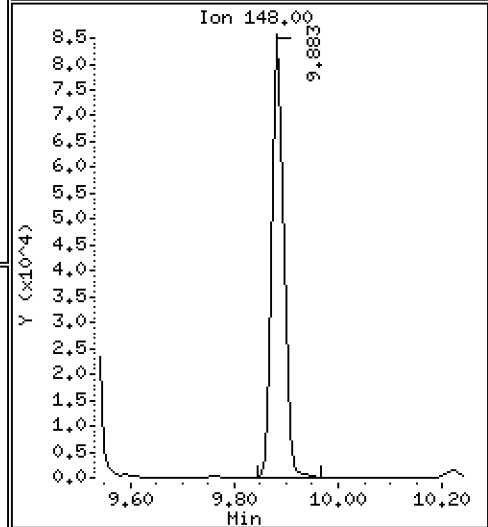
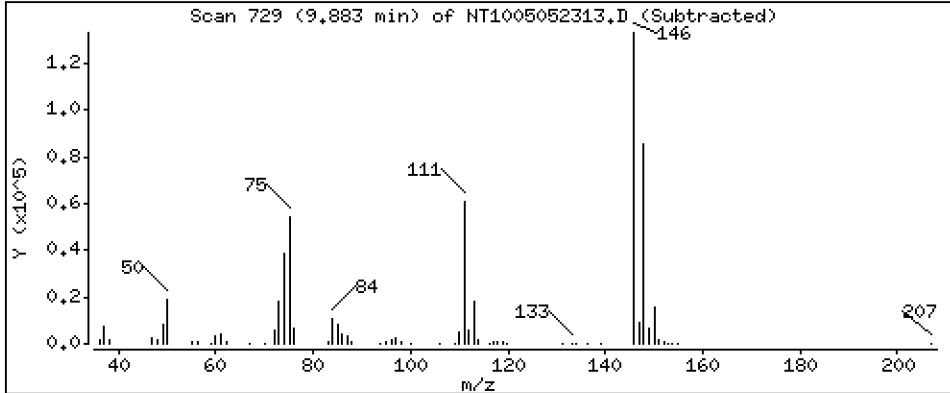
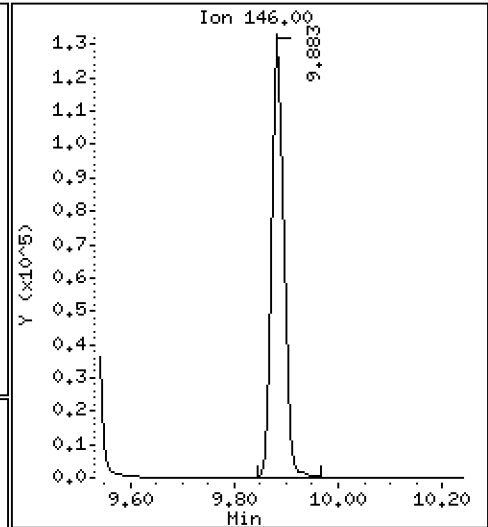
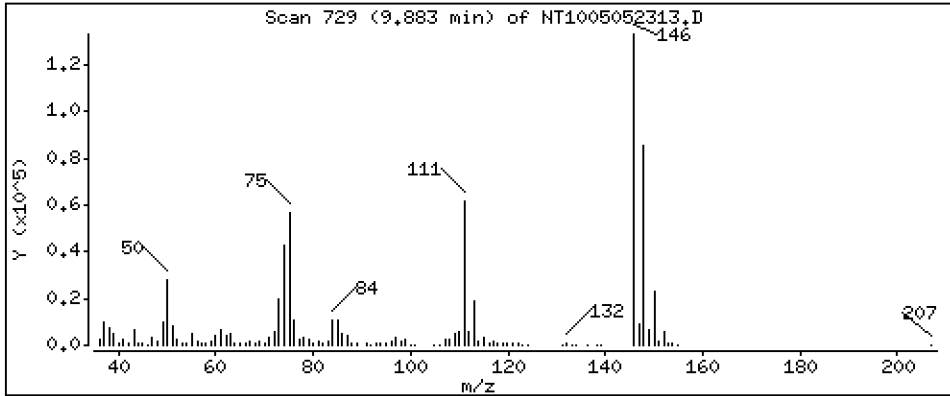
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 3,045 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

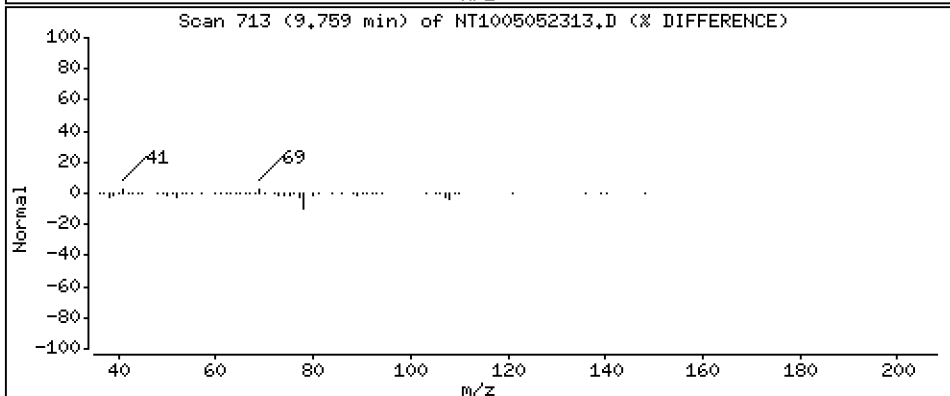
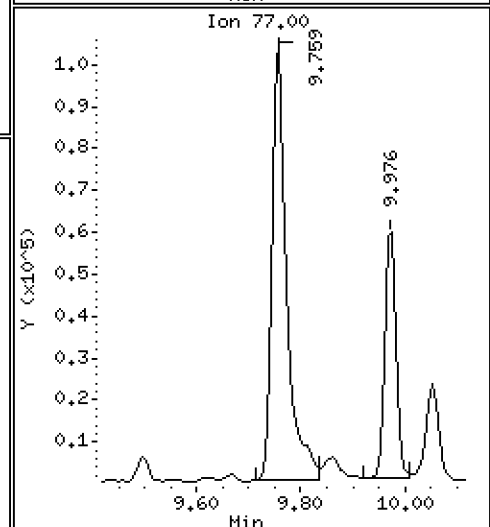
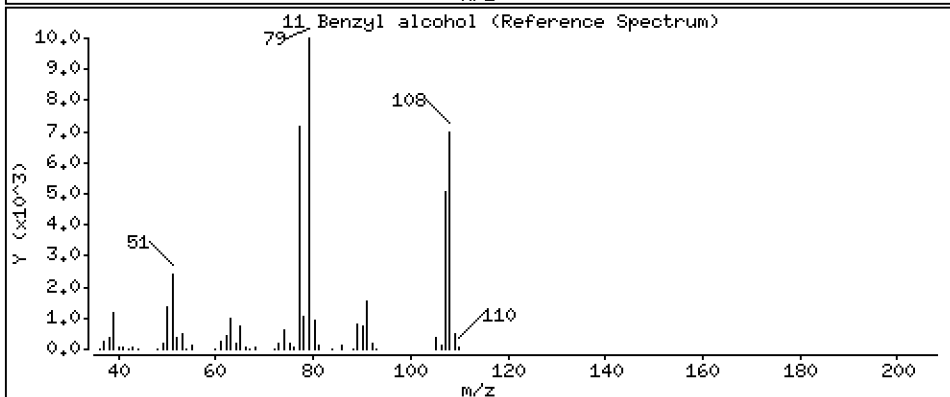
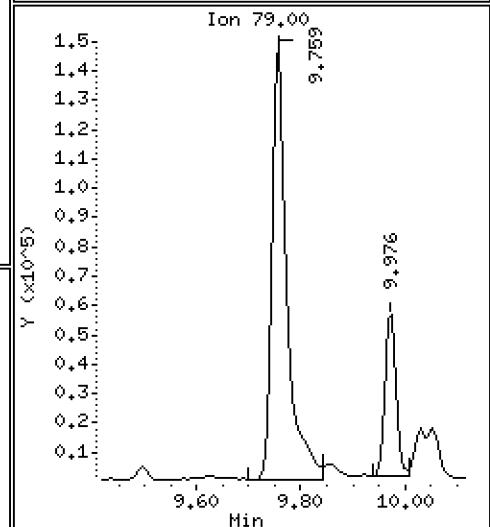
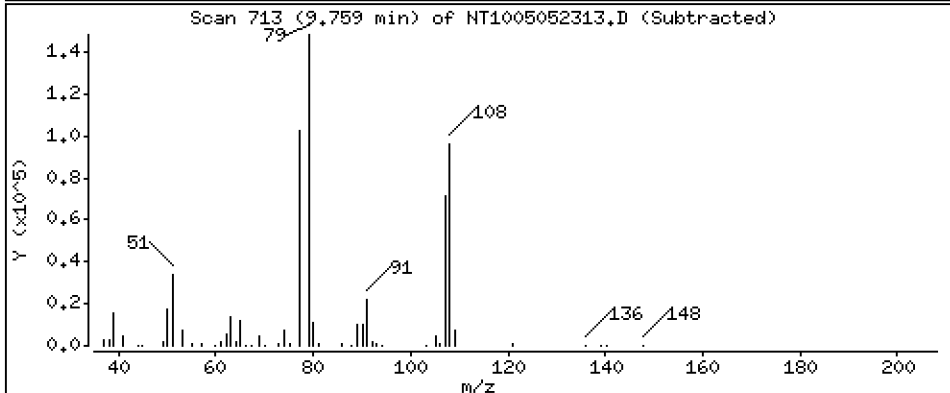
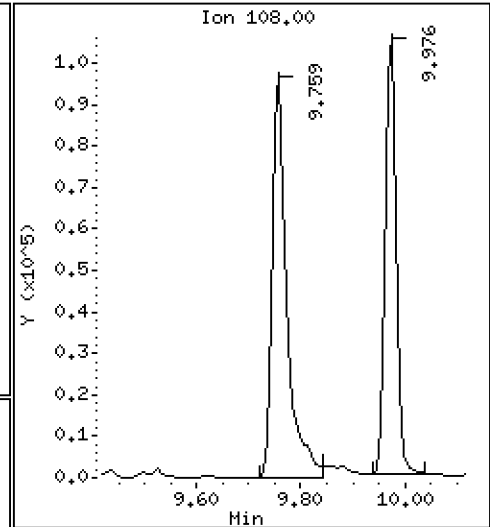
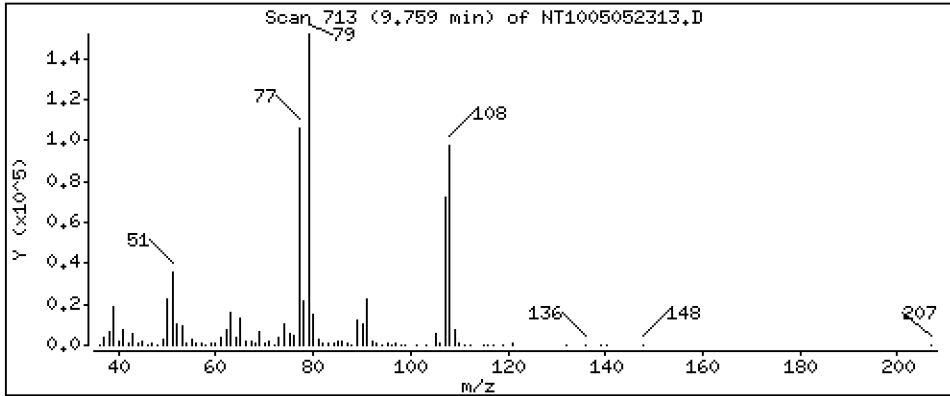
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.386 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

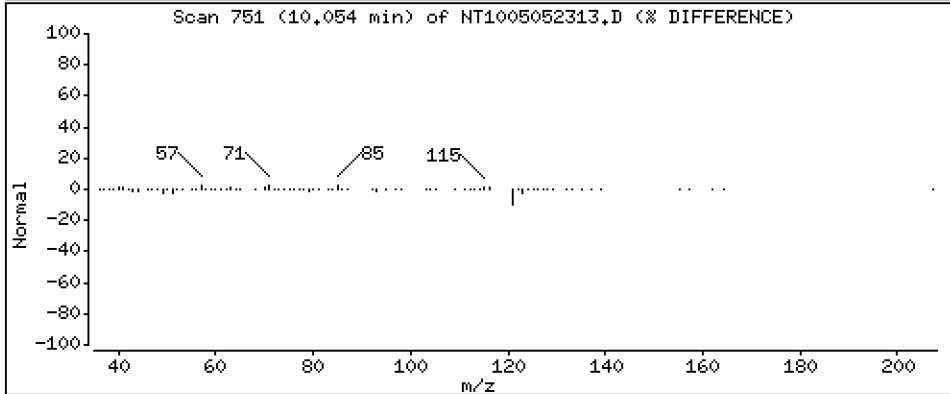
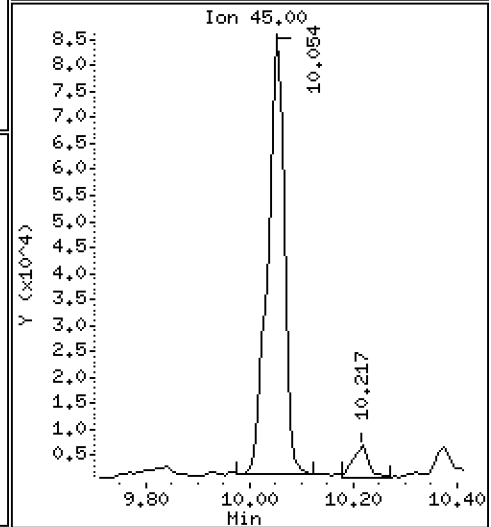
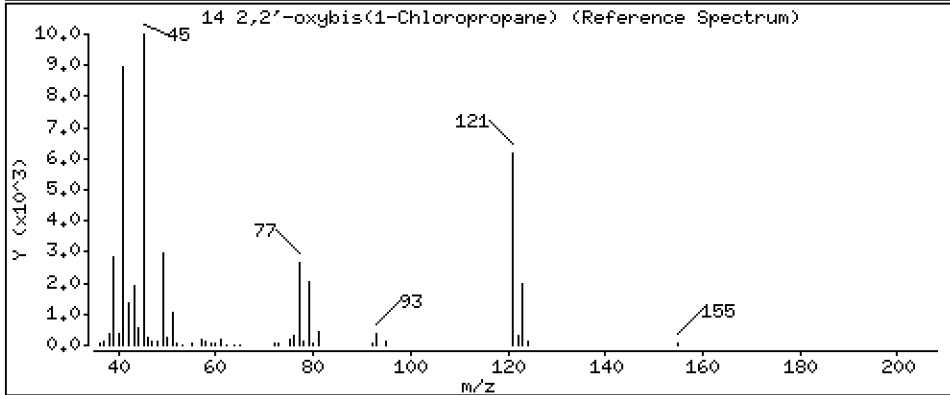
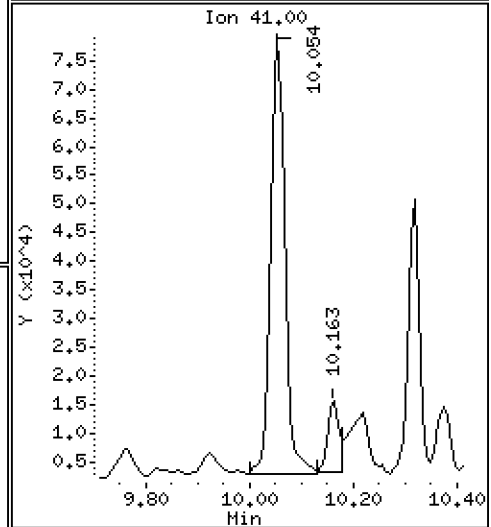
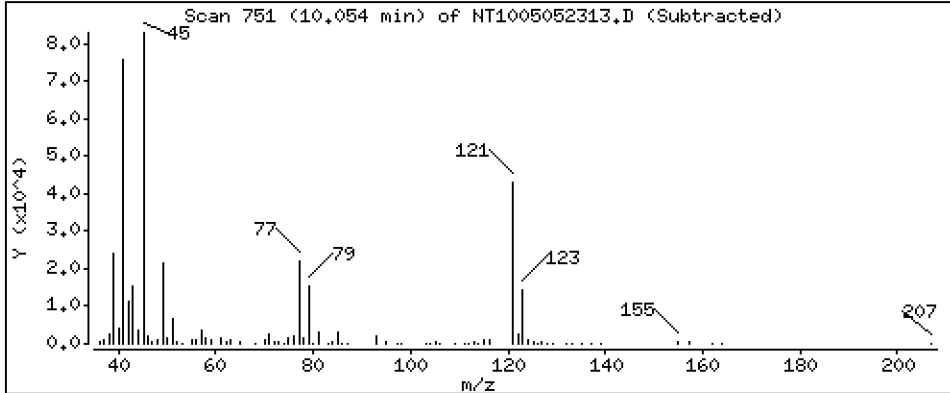
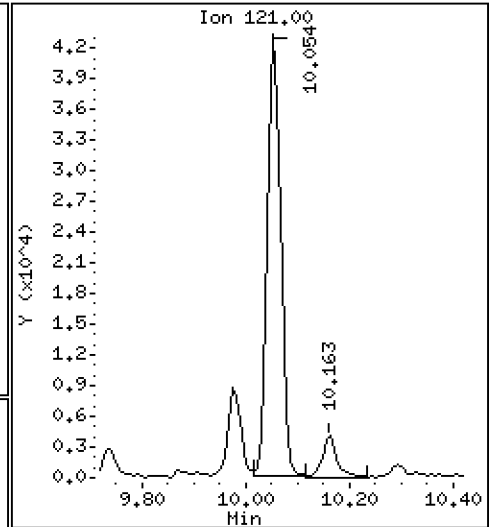
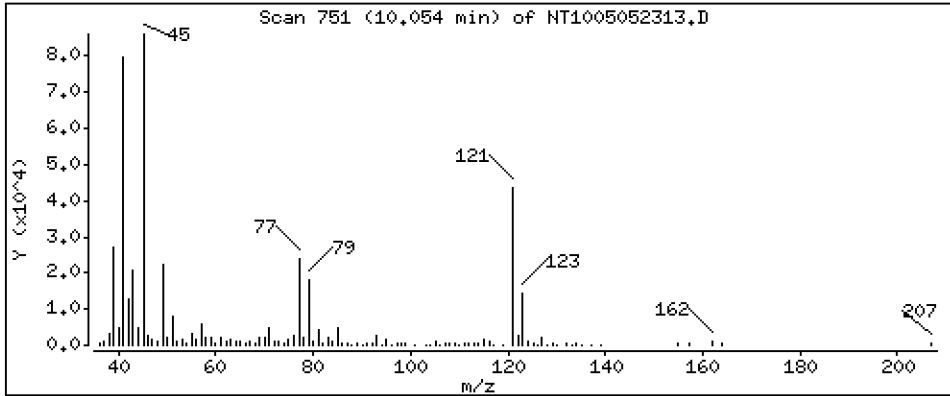
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 3,791 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

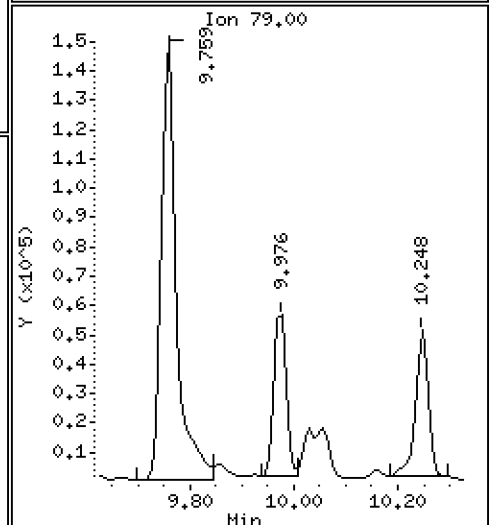
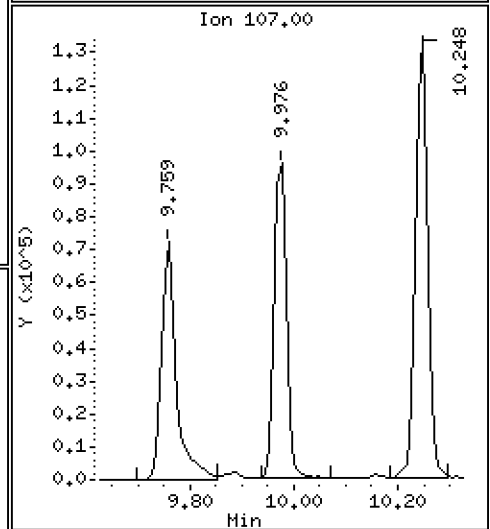
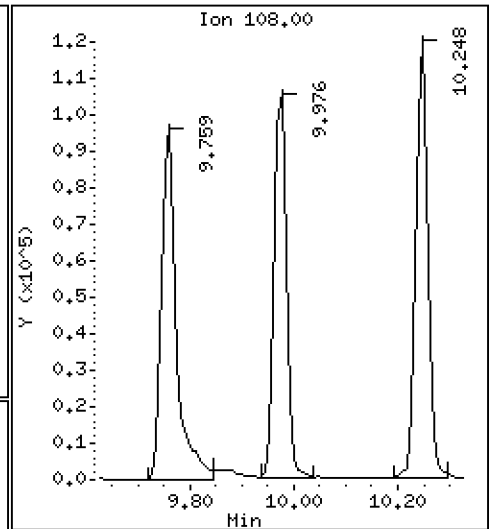
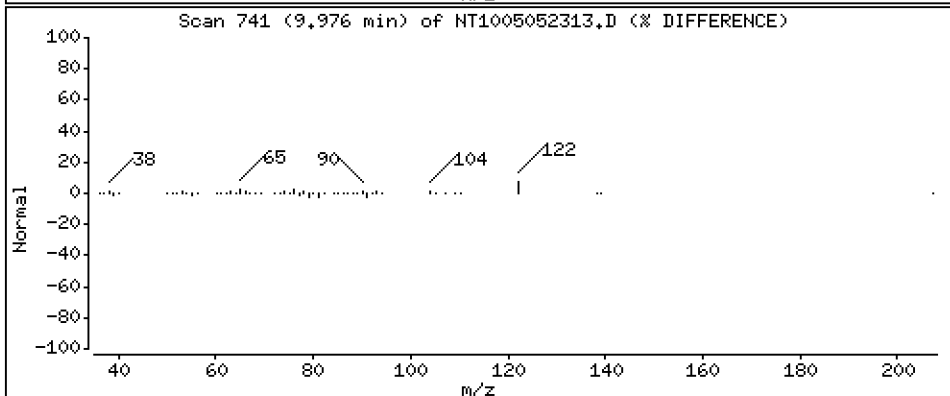
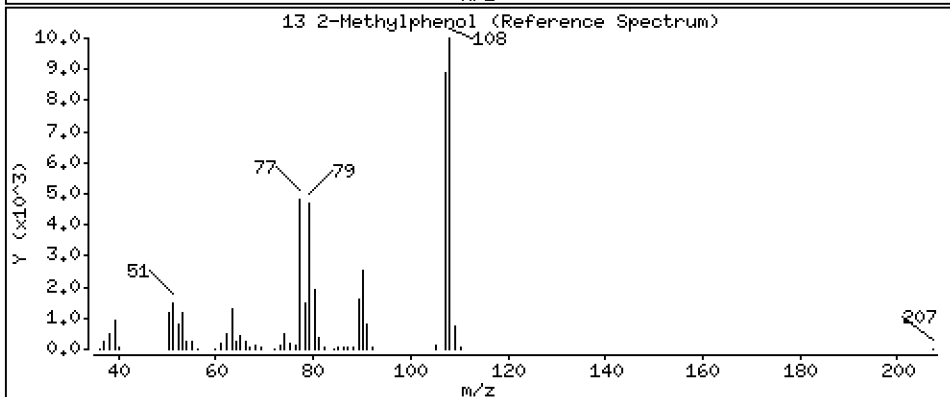
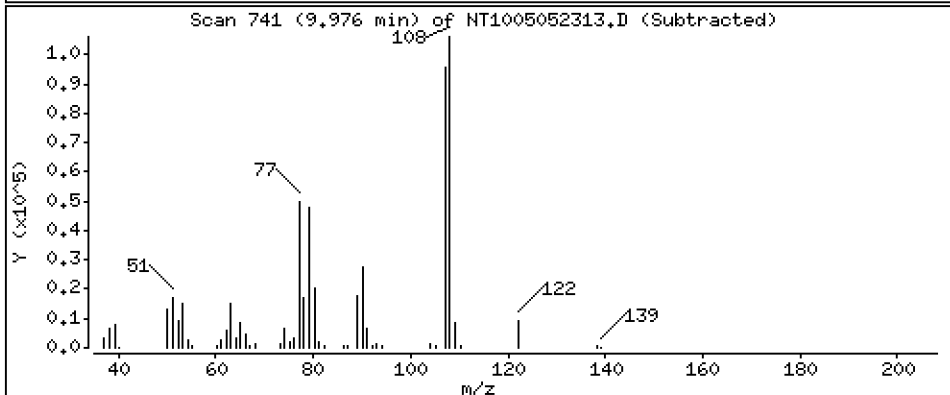
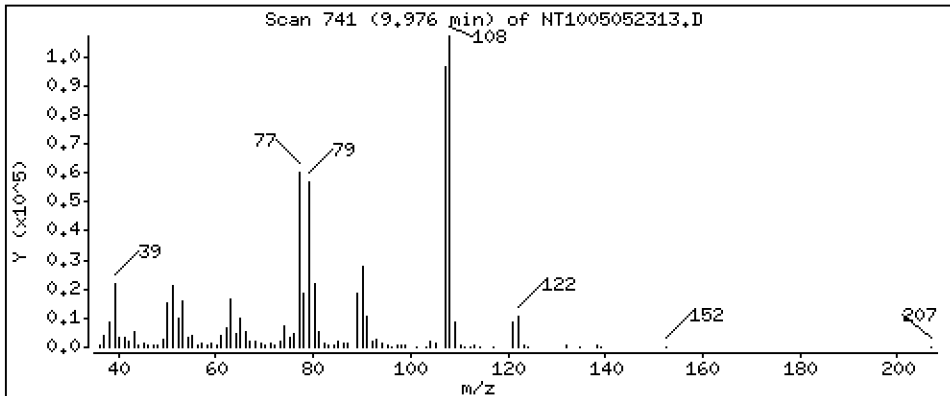
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3.099 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

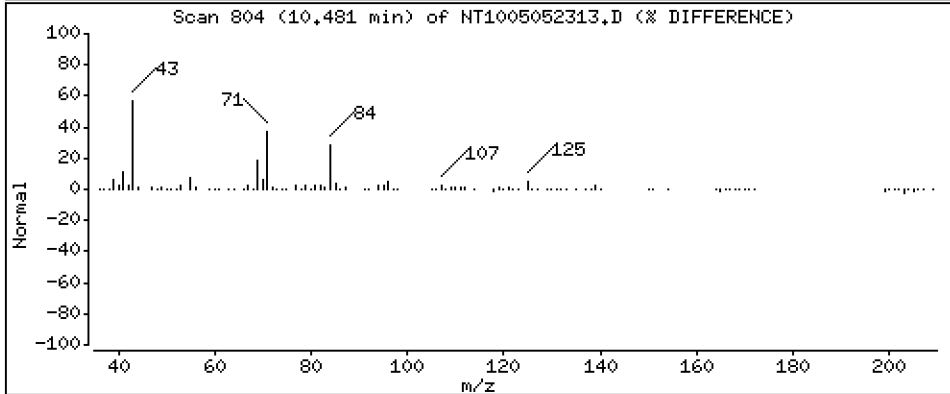
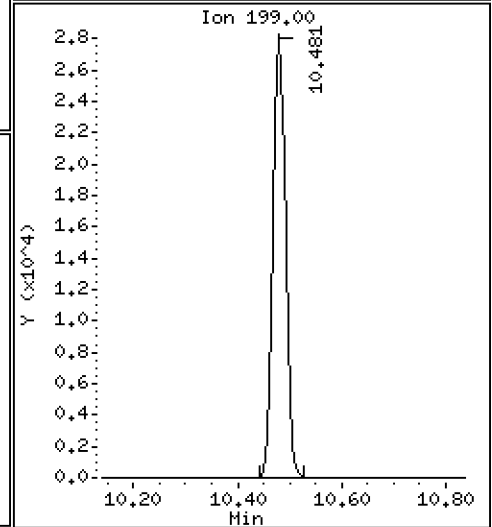
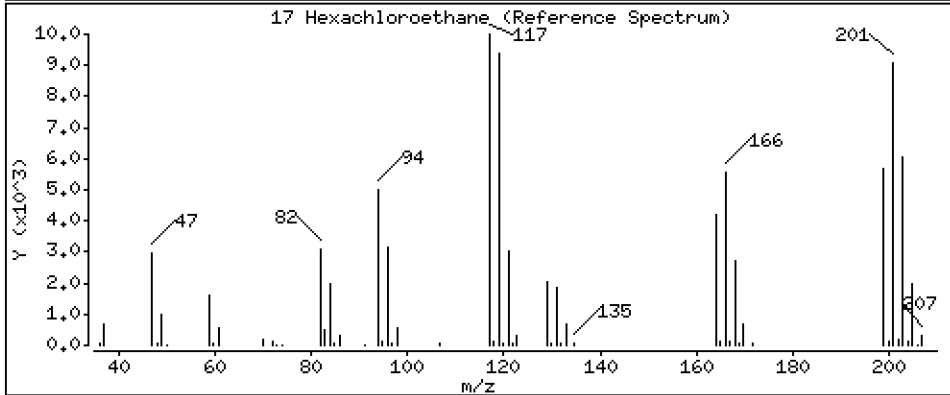
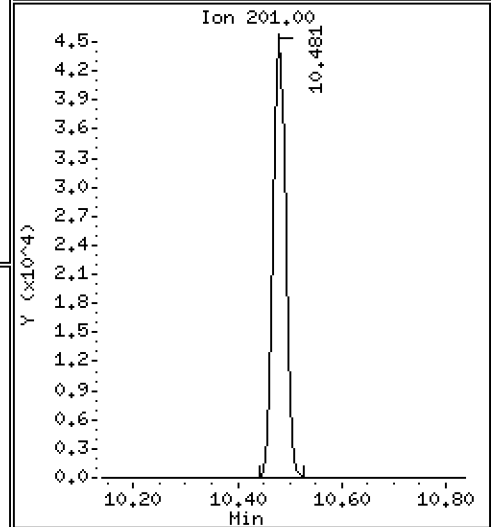
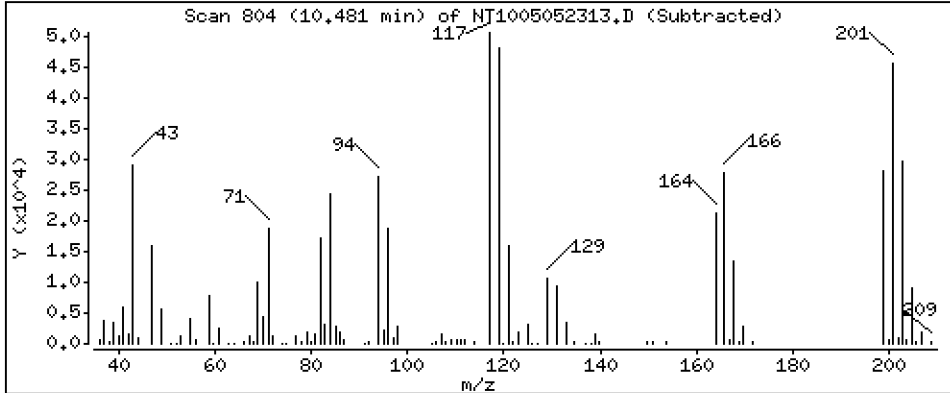
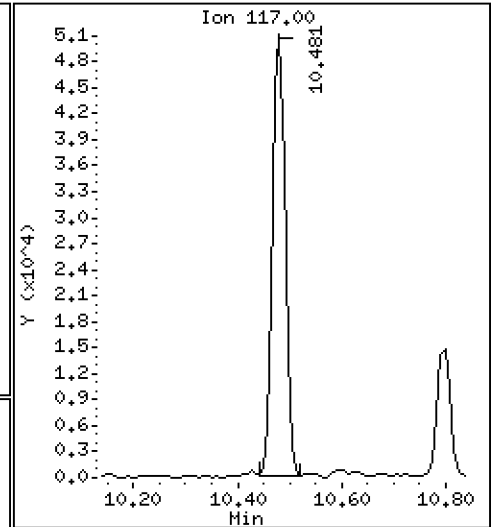
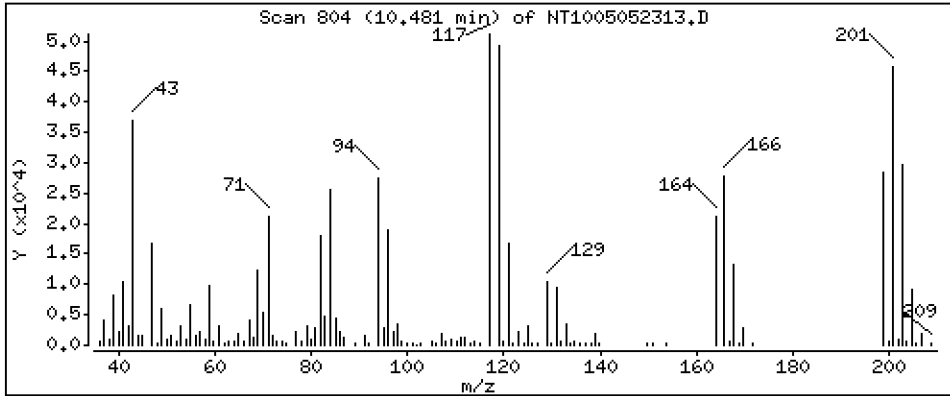
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 2,693 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

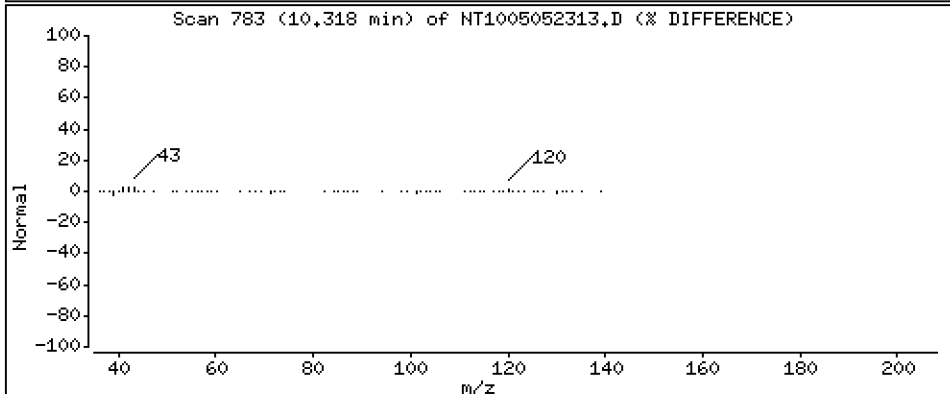
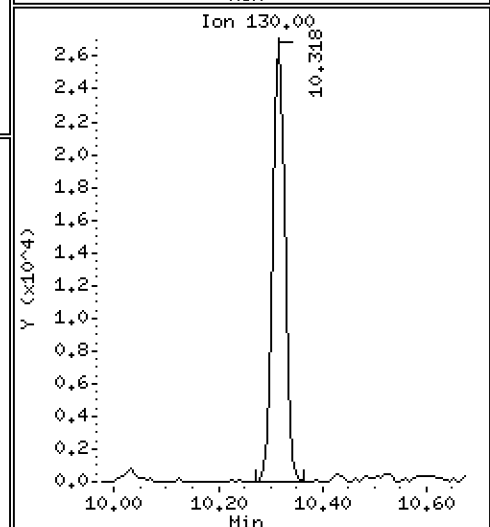
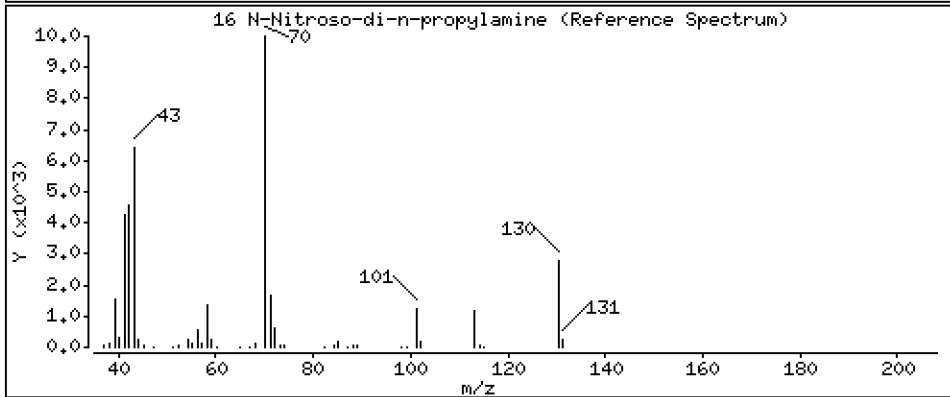
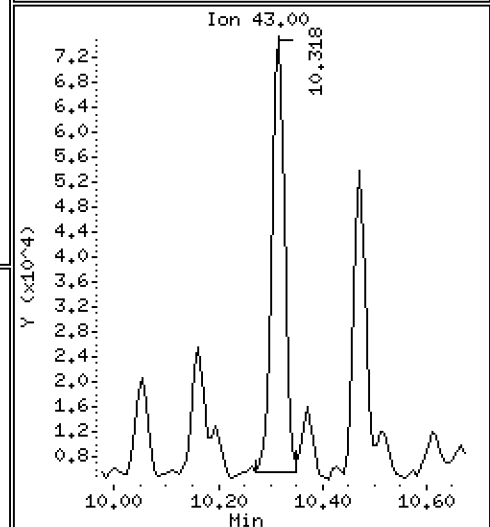
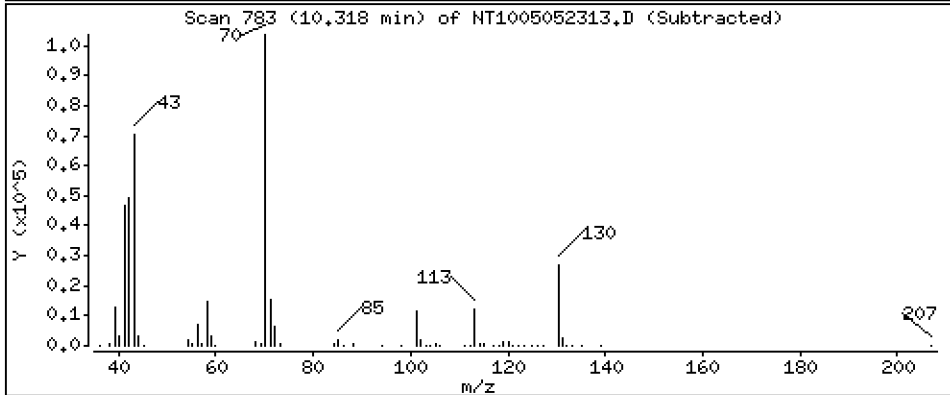
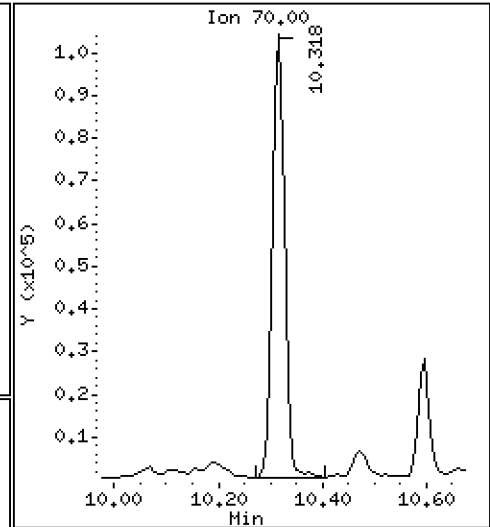
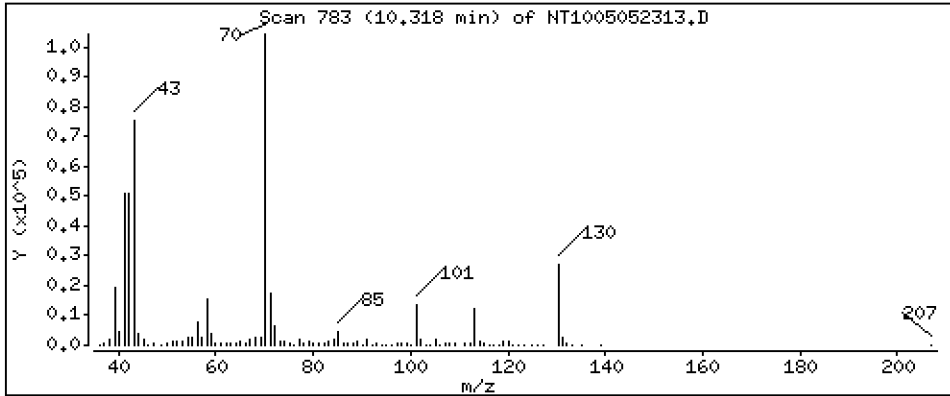
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 3,815 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

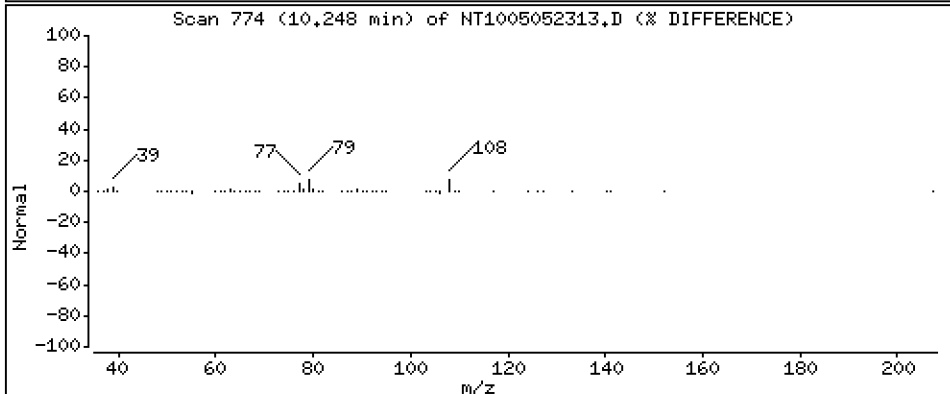
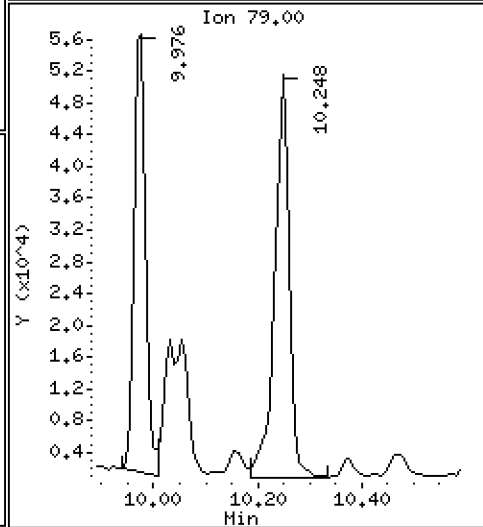
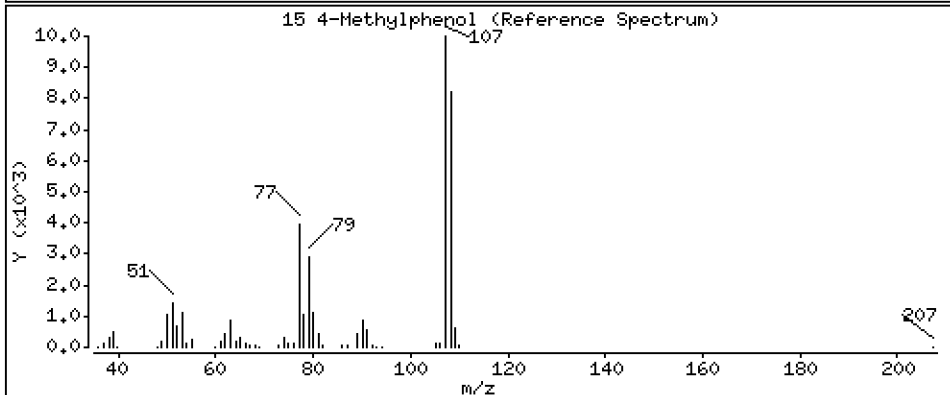
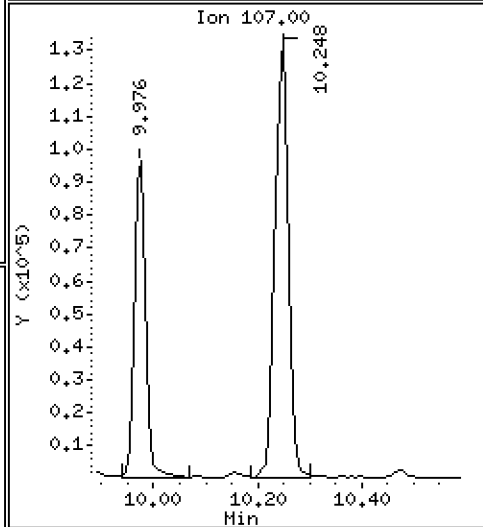
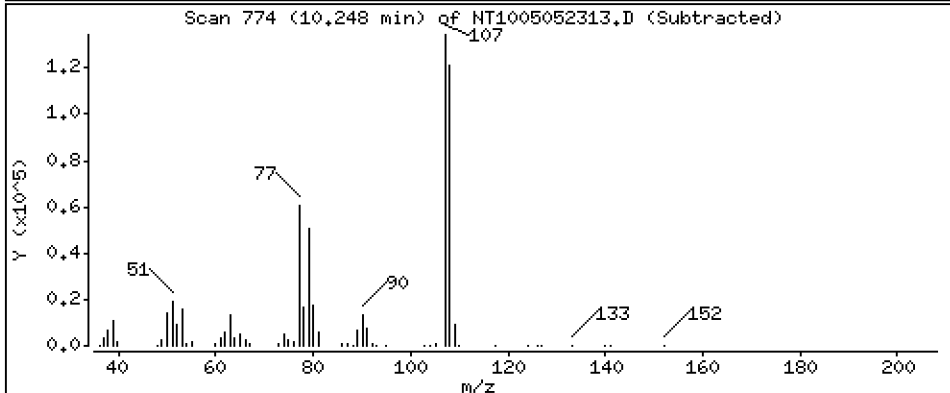
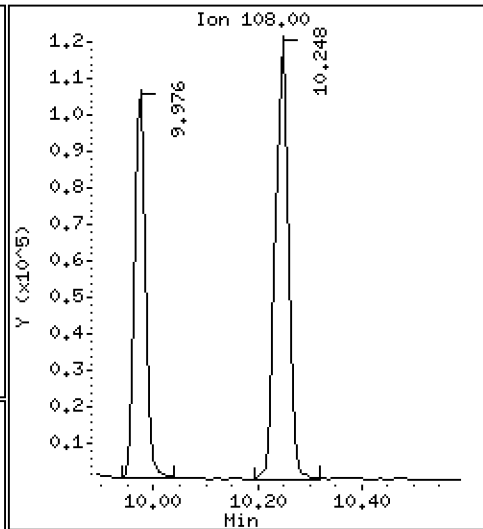
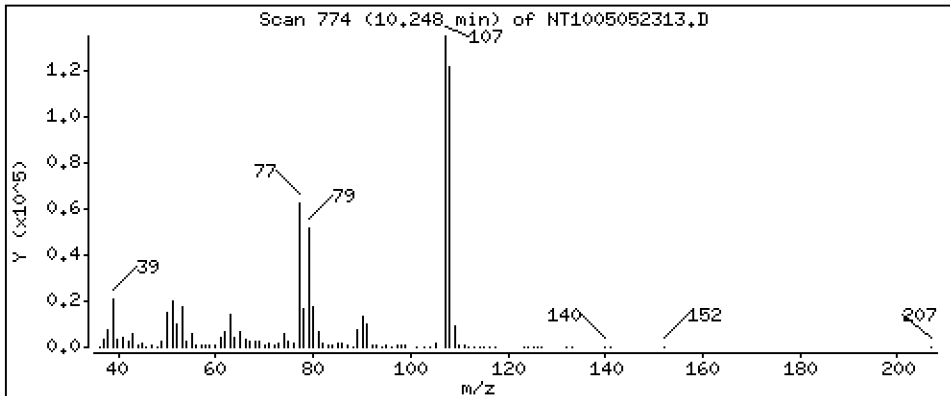
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,663 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

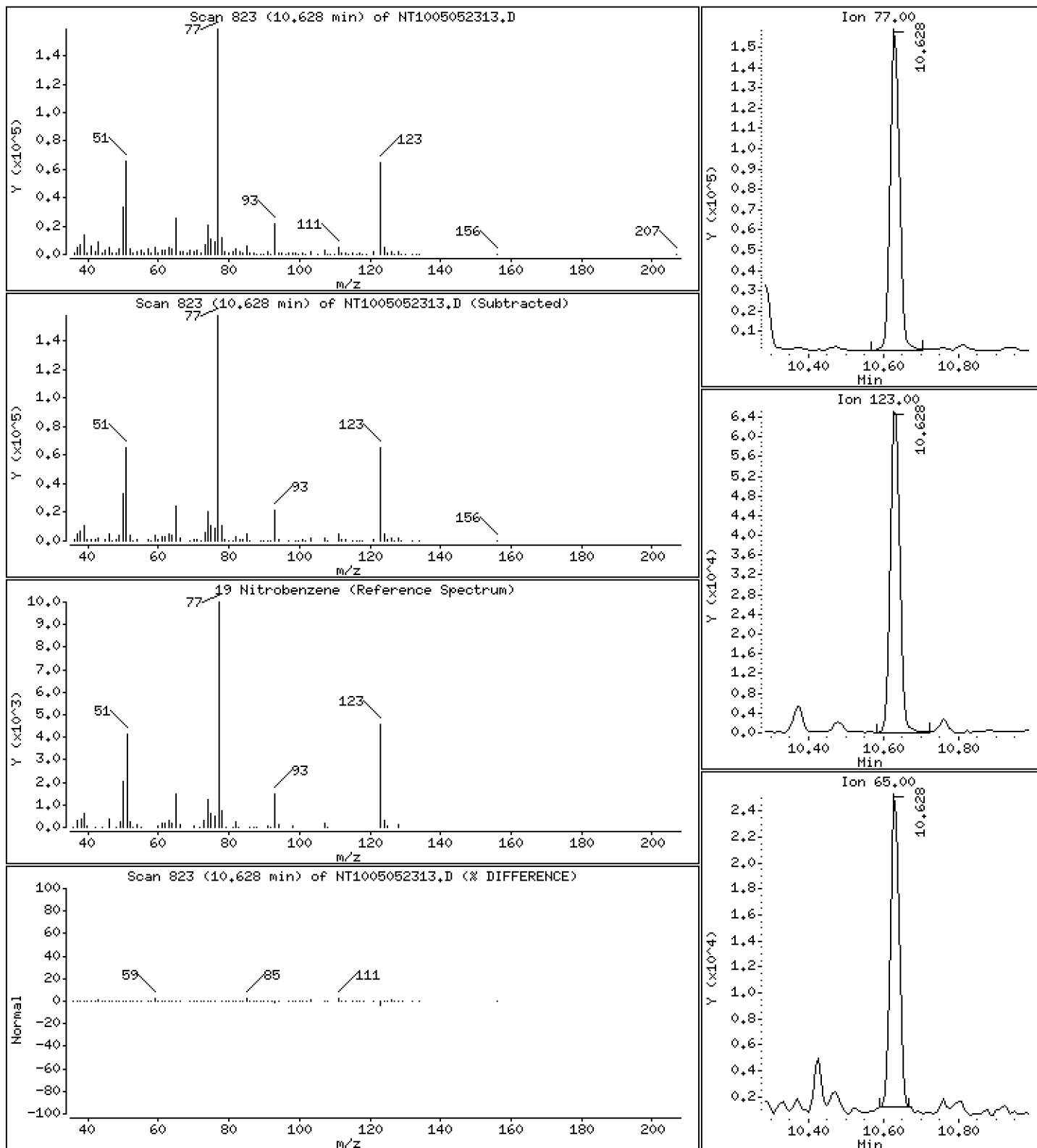
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 3,402 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

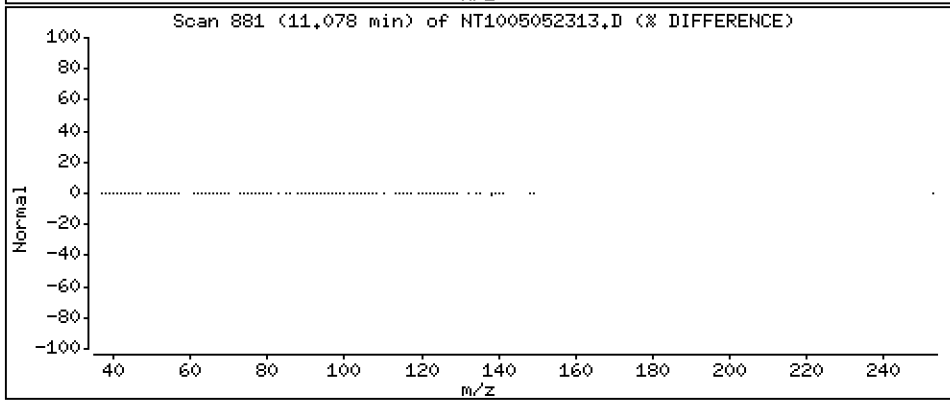
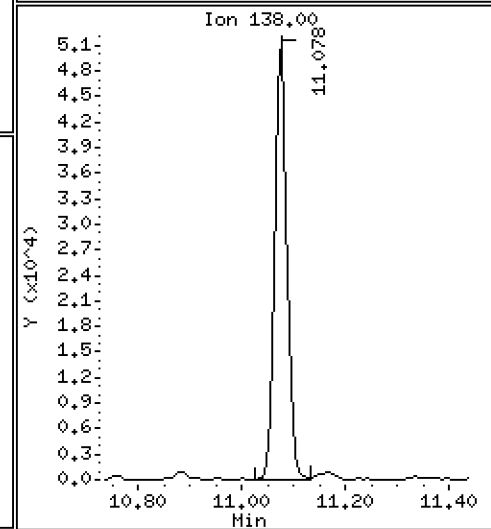
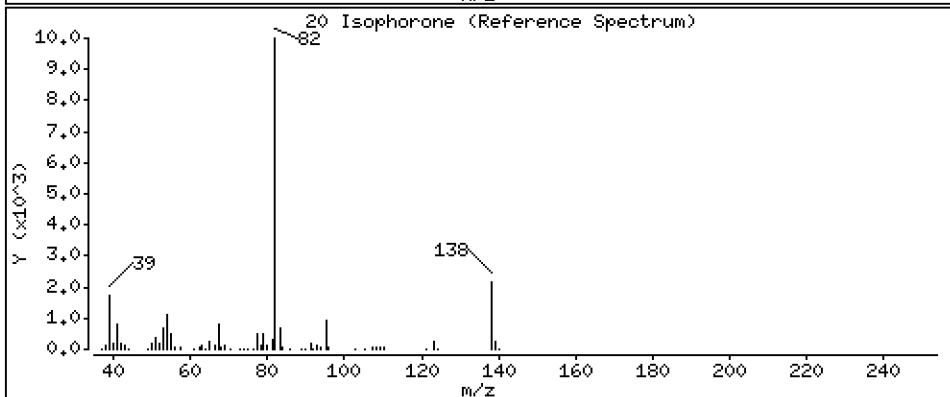
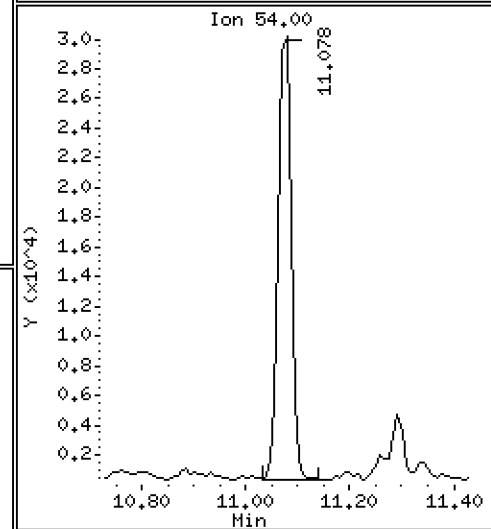
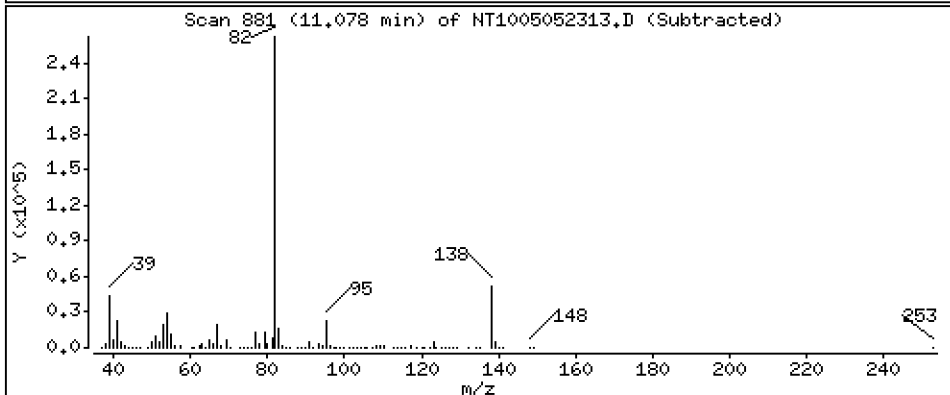
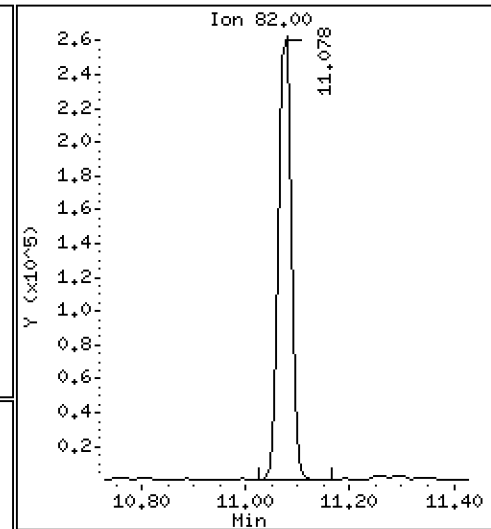
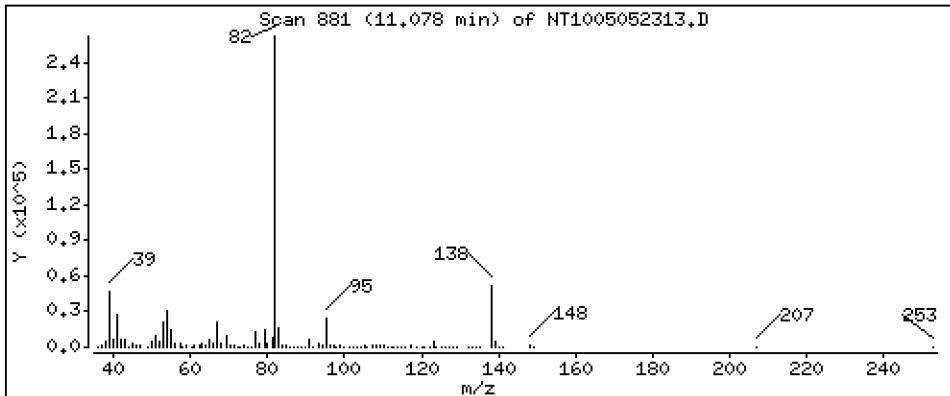
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 5,284 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

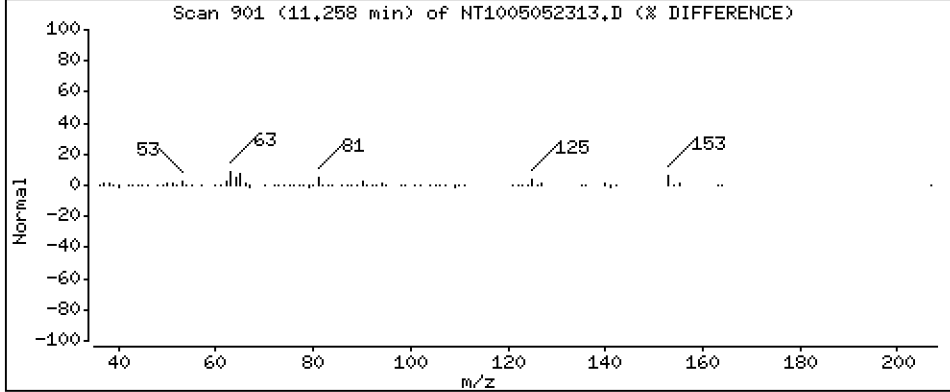
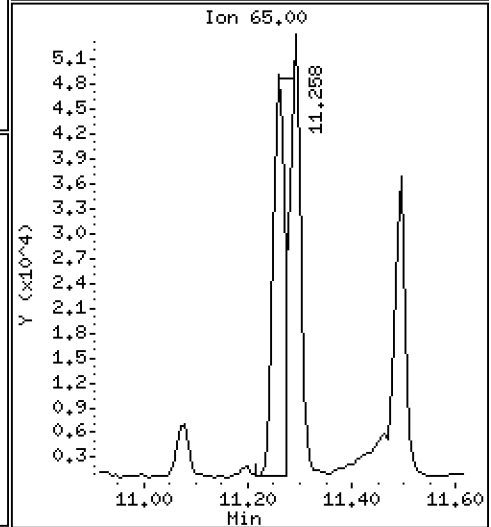
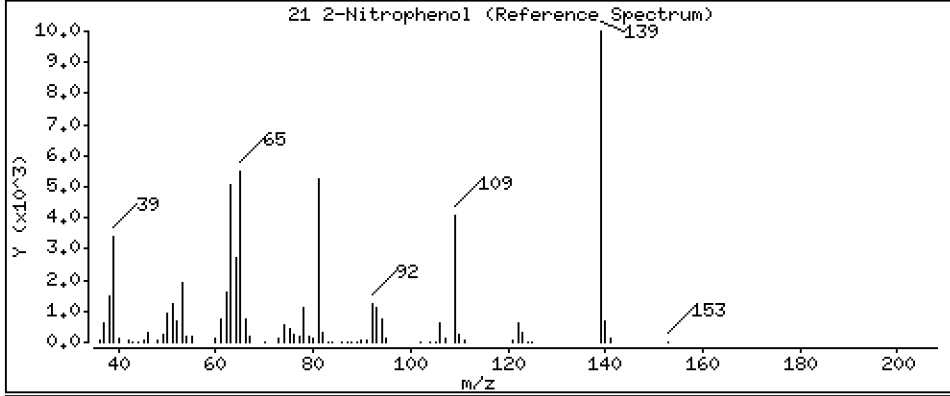
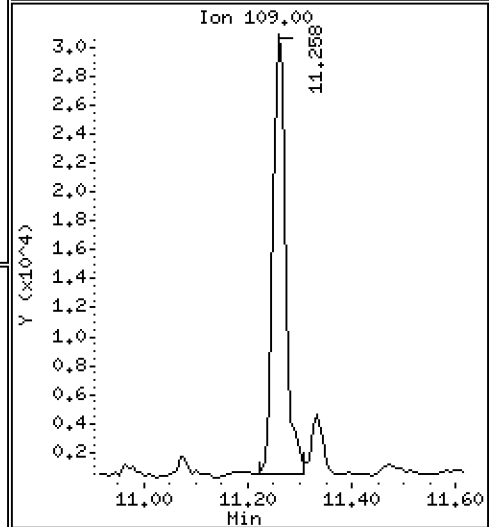
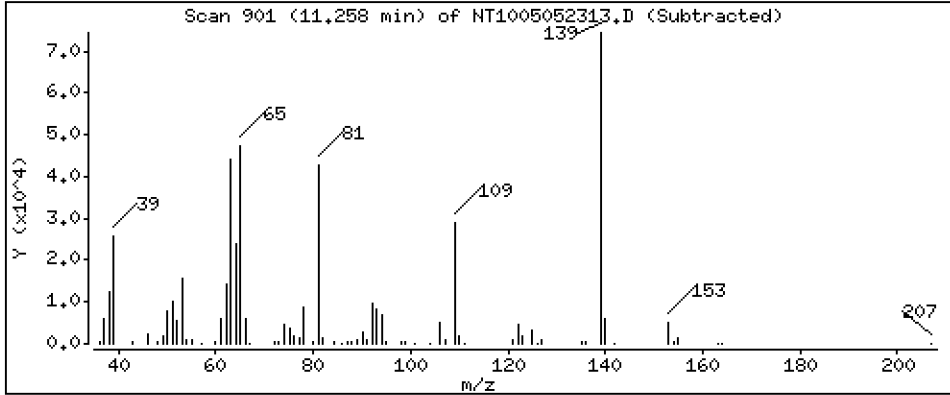
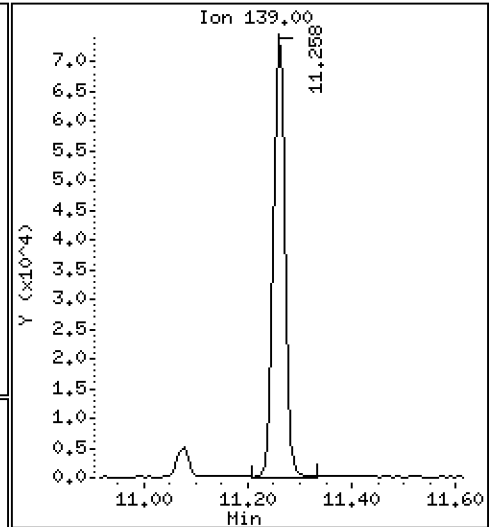
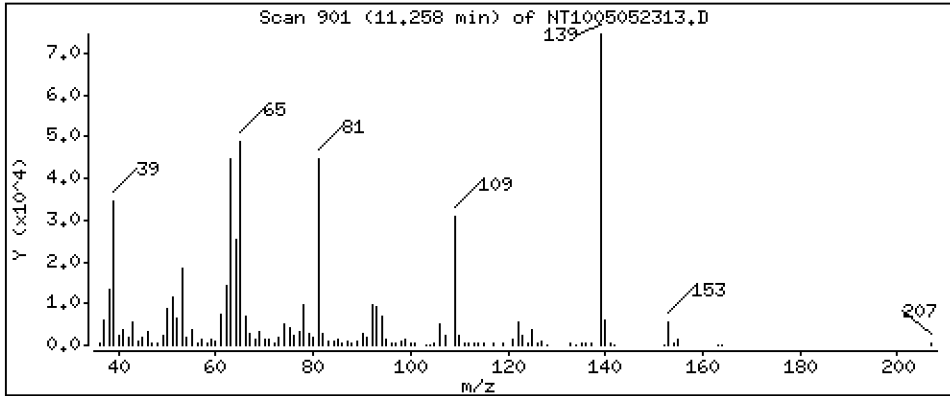
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 2,932 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

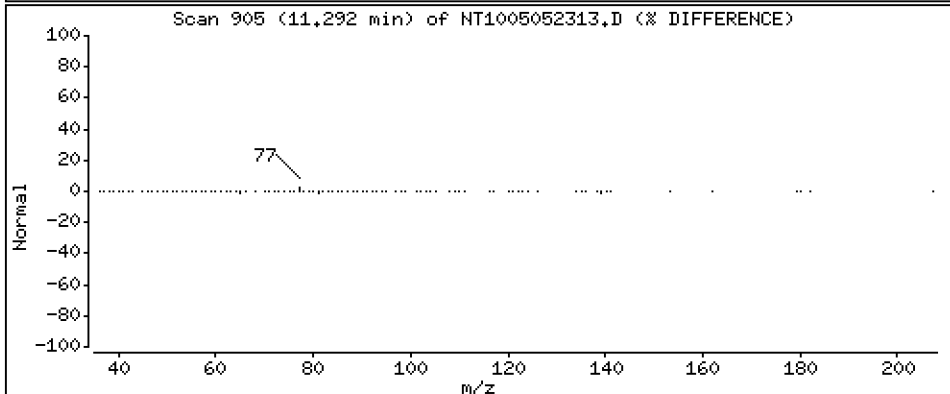
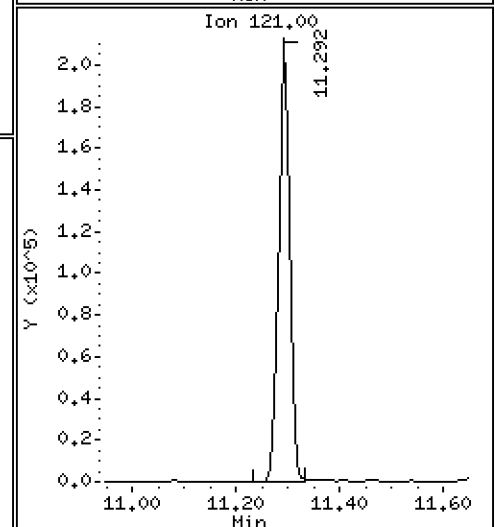
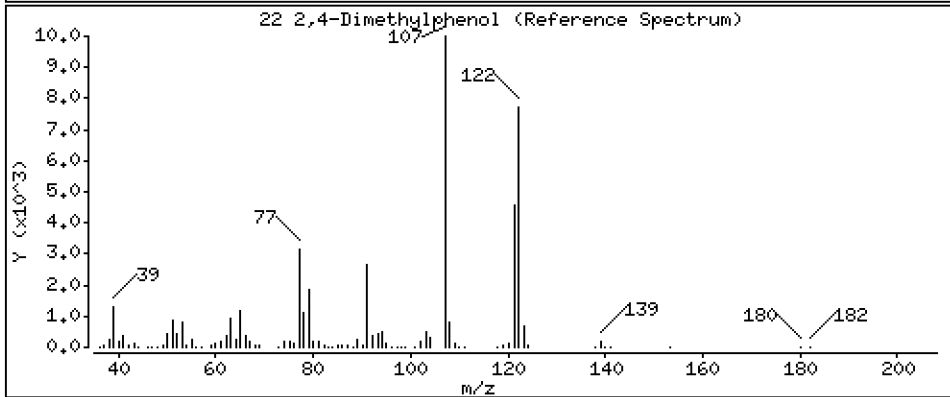
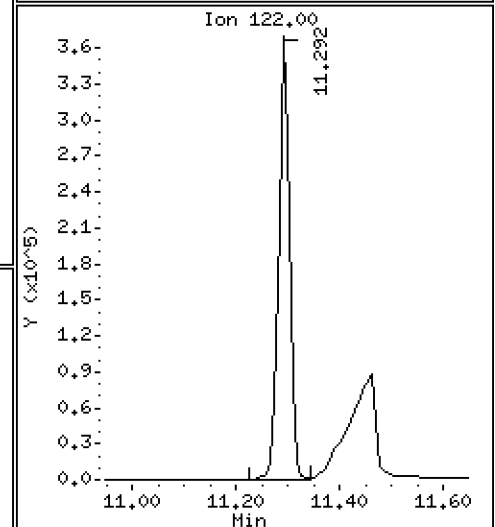
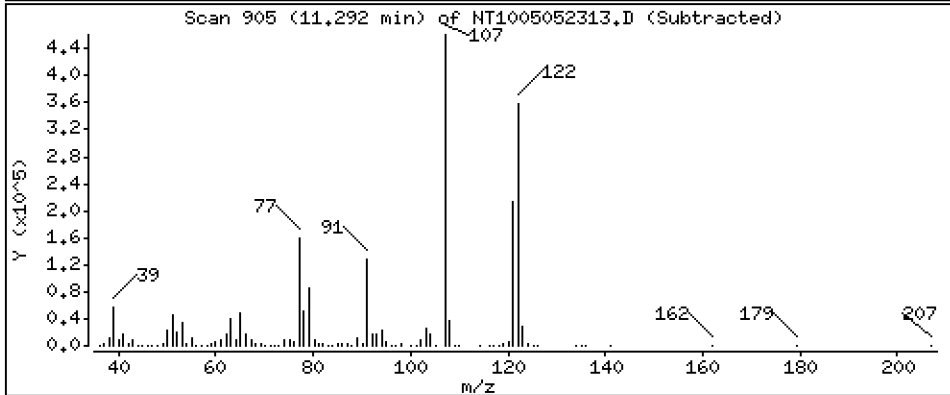
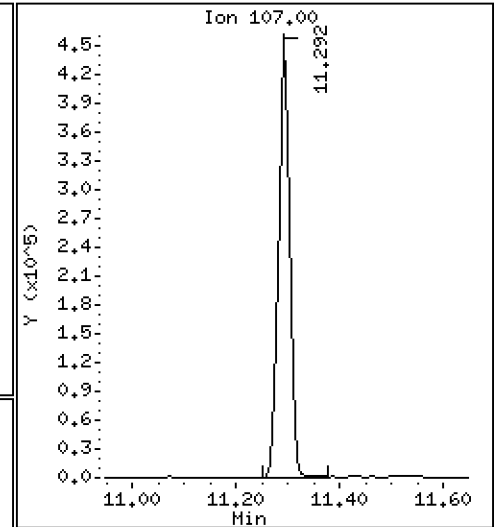
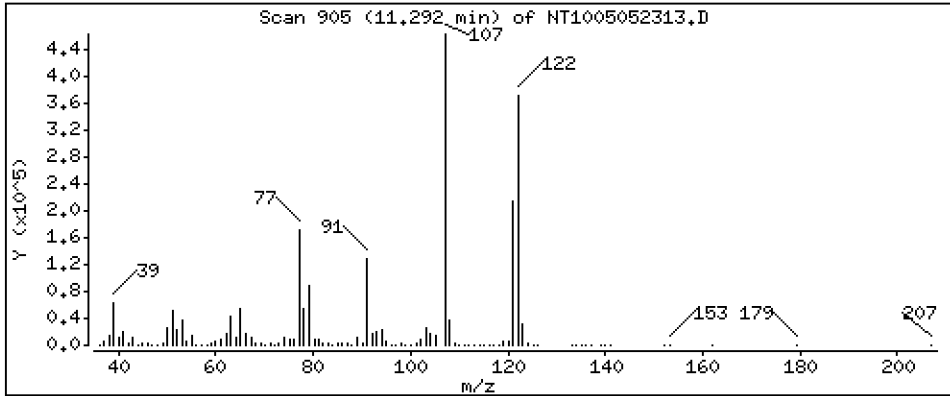
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 9,045 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

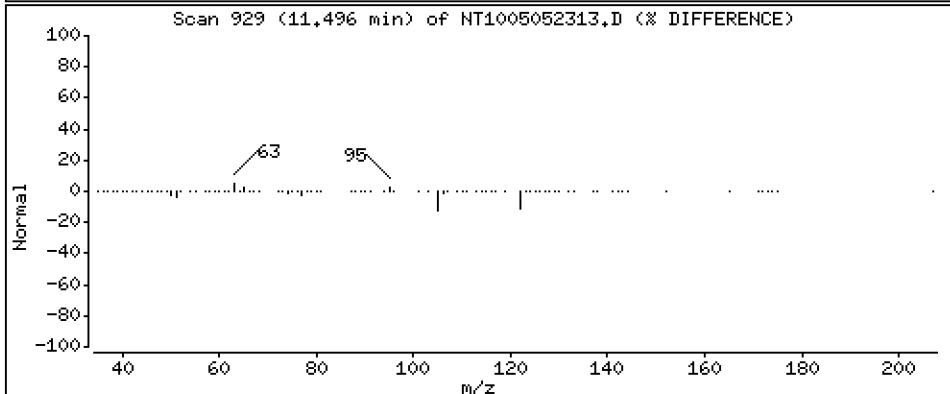
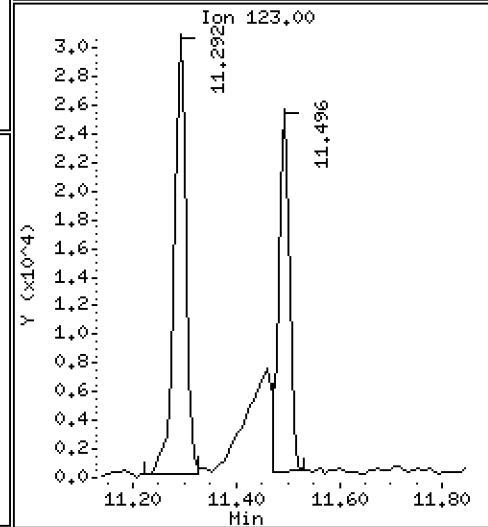
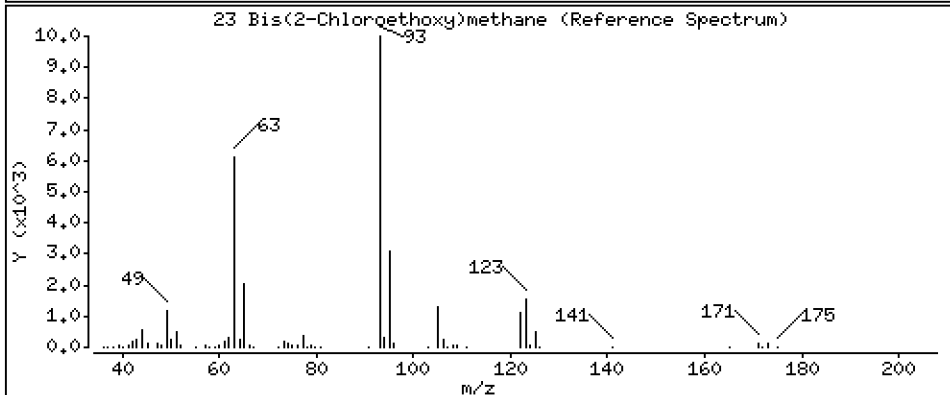
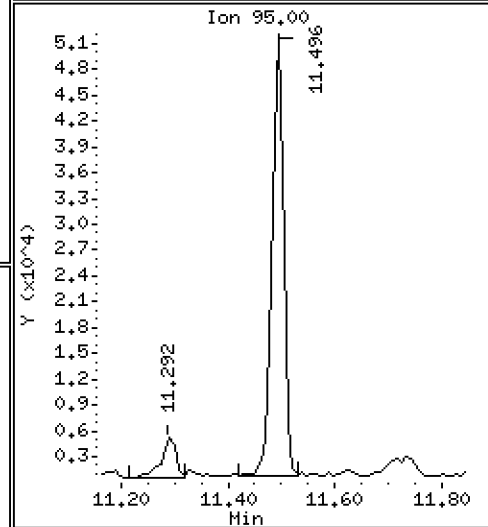
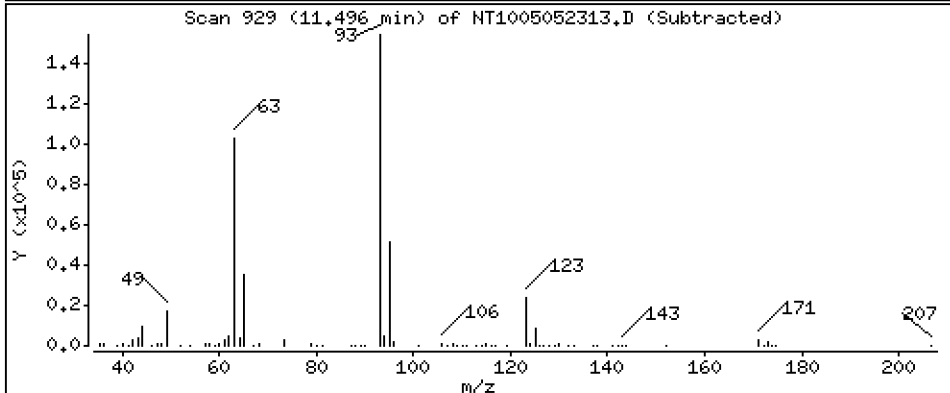
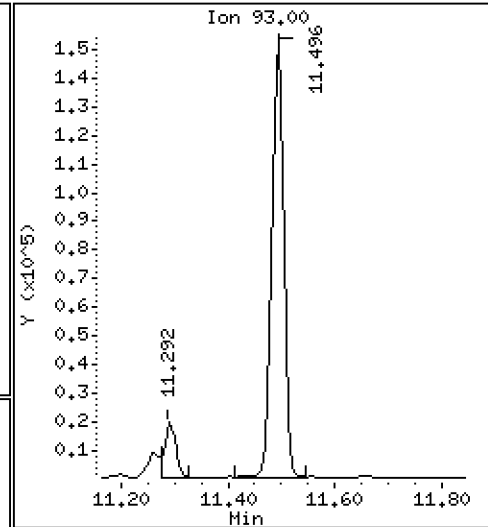
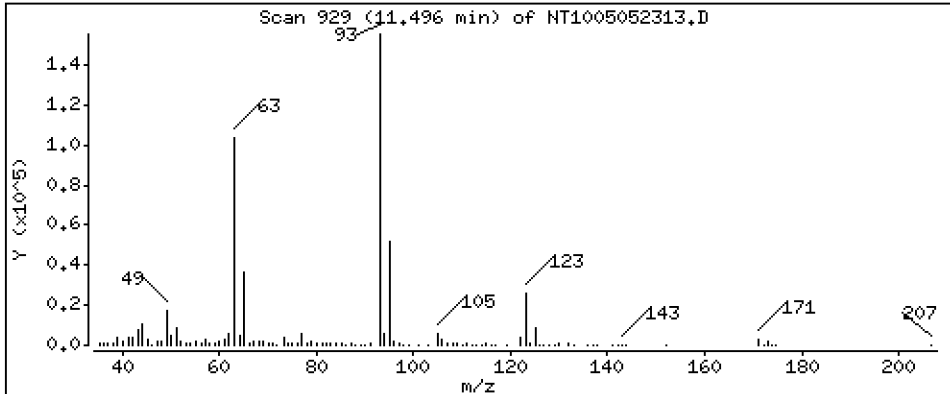
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

23 Bis(2-Chloroethoxy)methane

Concentration: 3.931 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

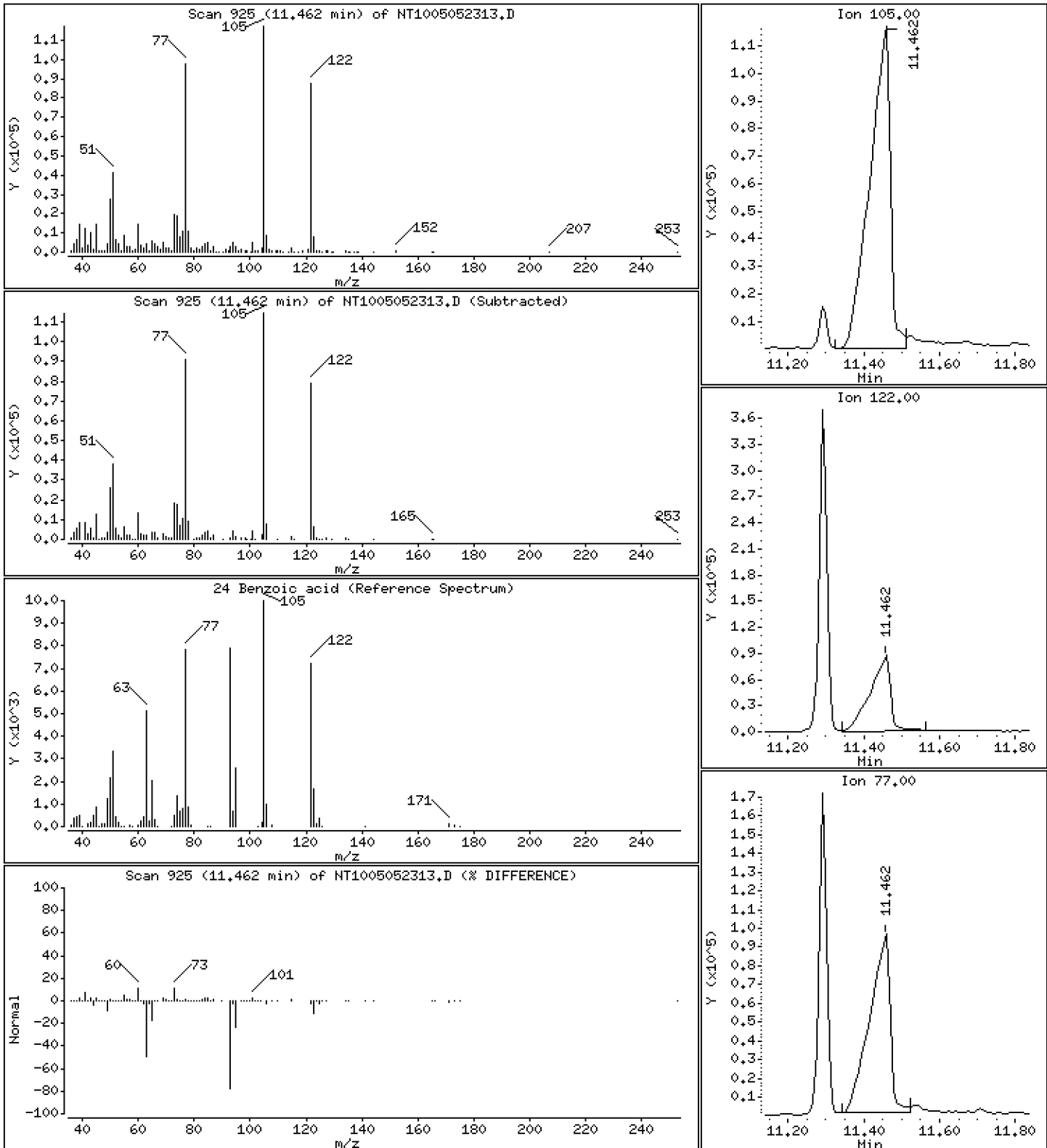
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 8,407 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

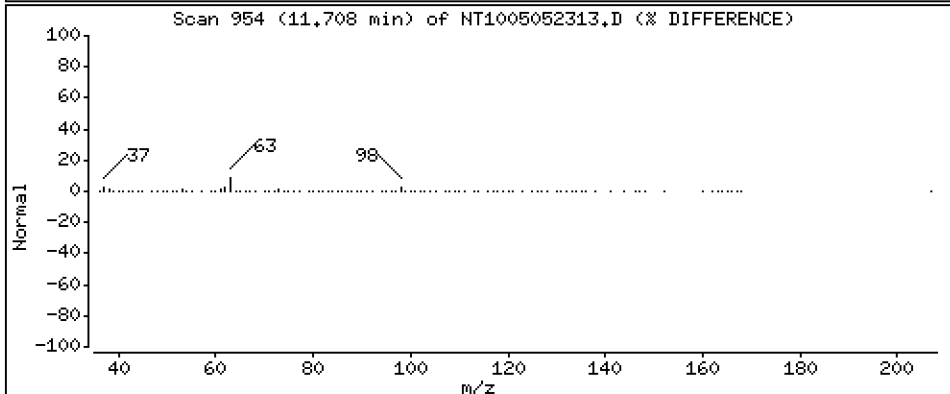
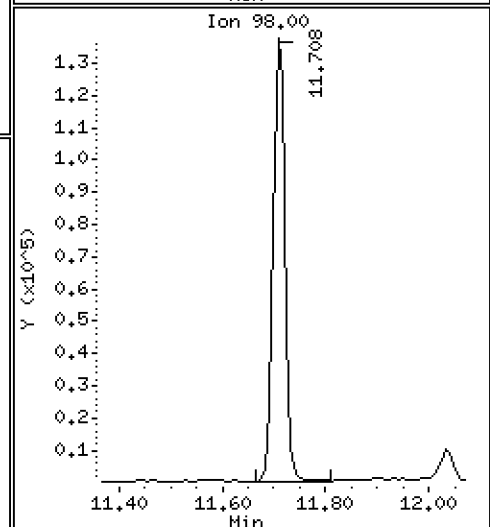
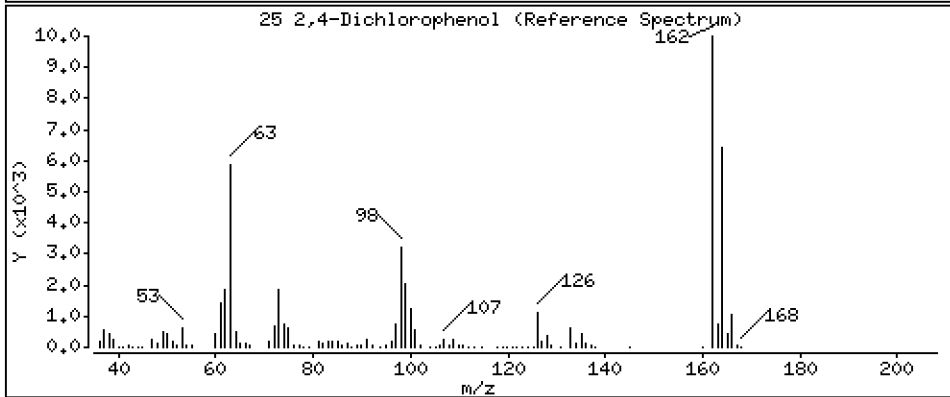
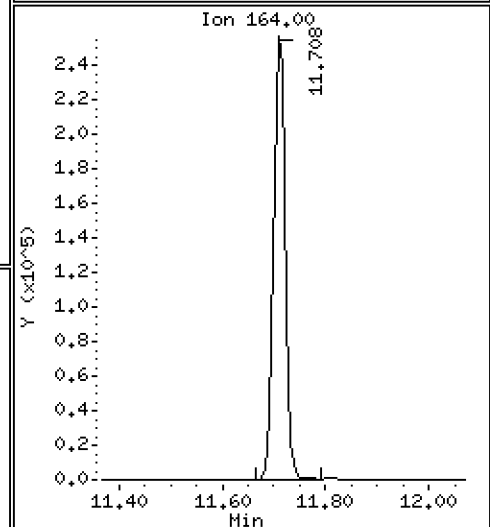
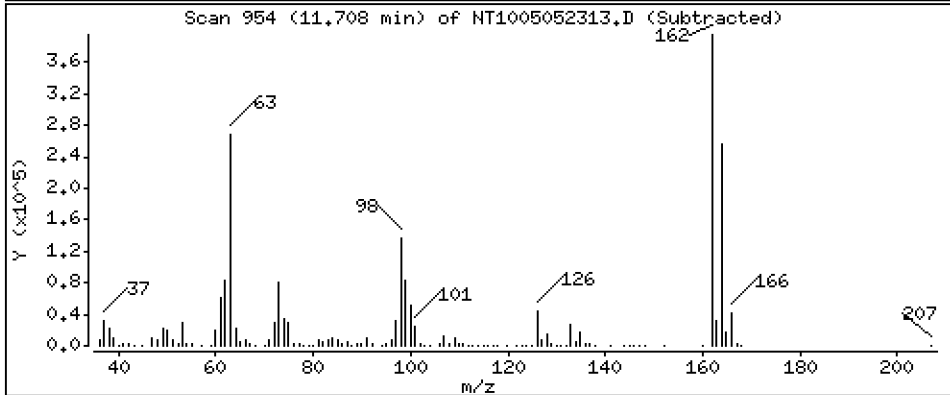
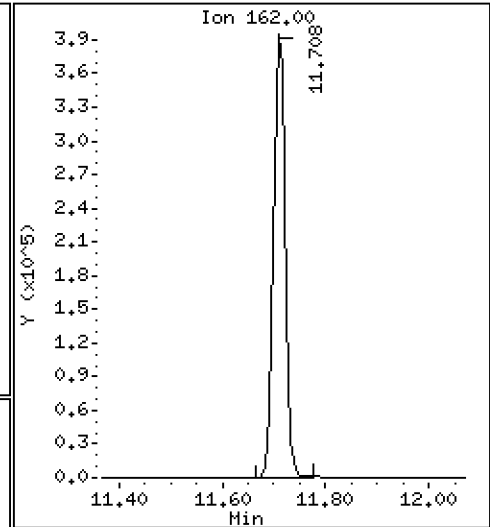
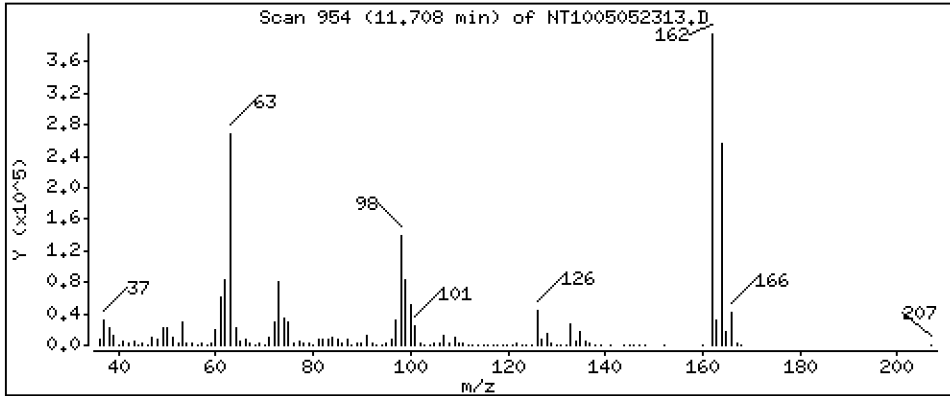
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 10,76 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

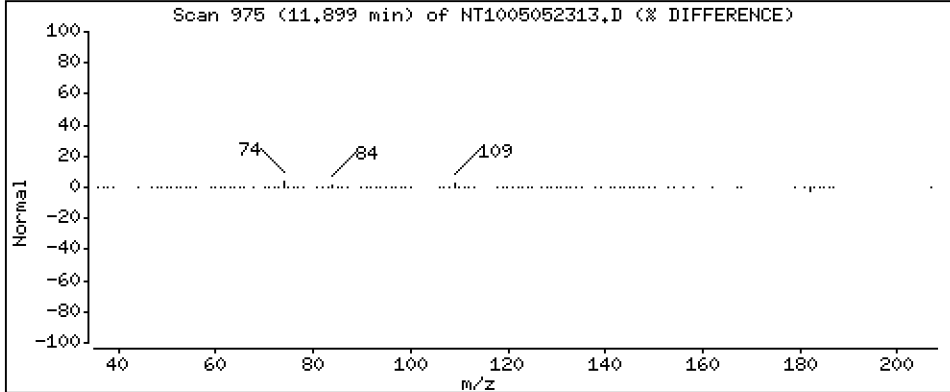
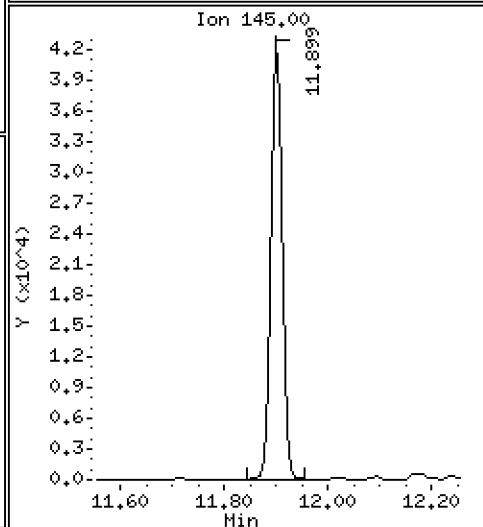
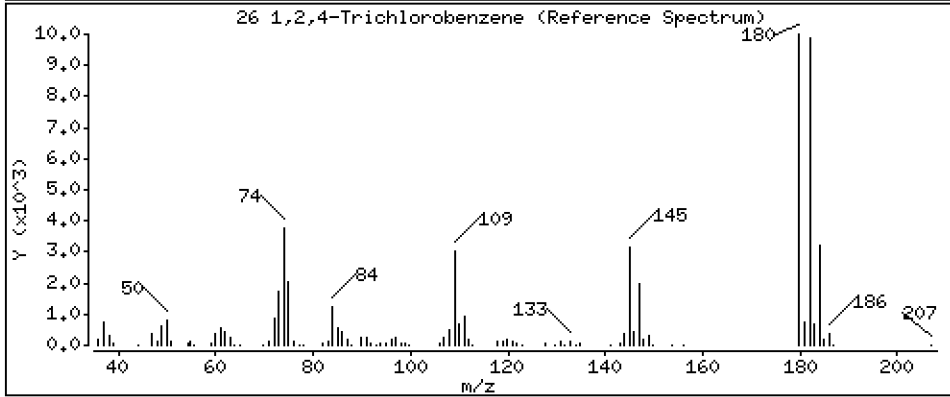
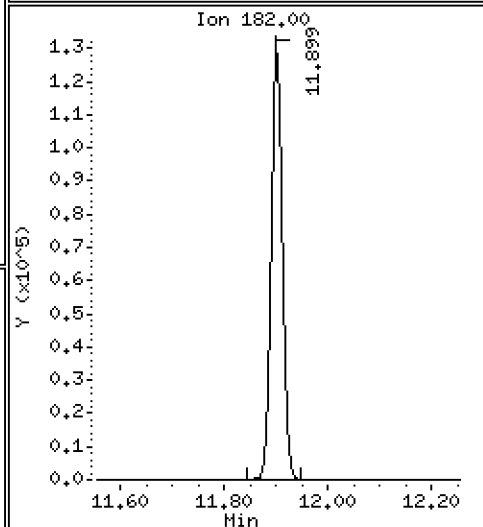
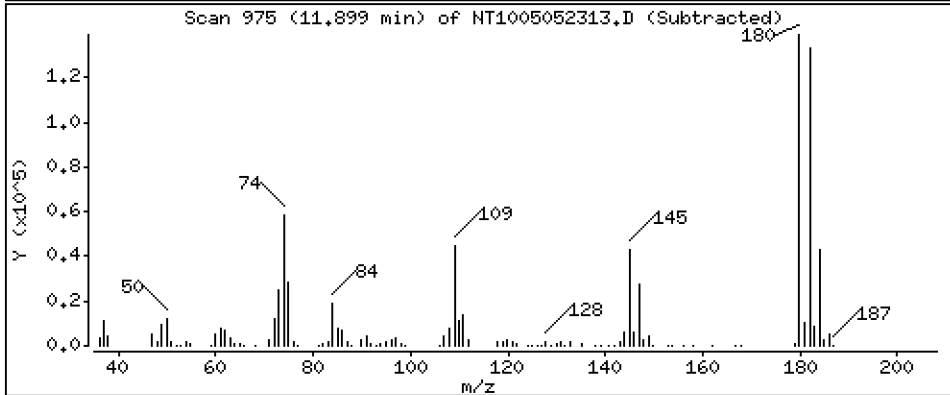
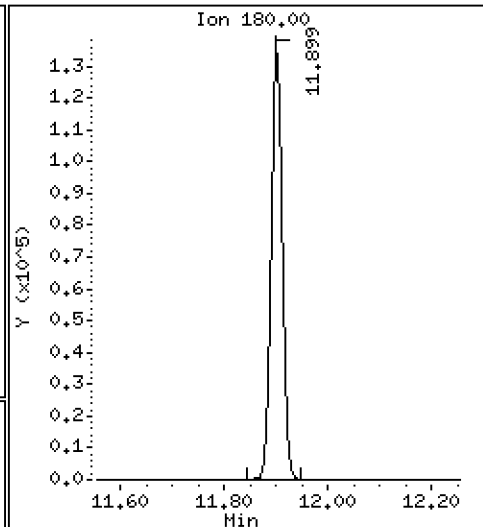
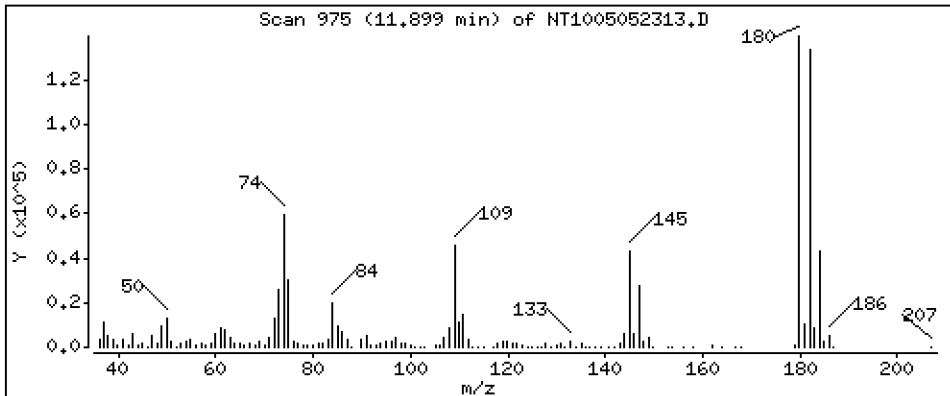
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,028 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

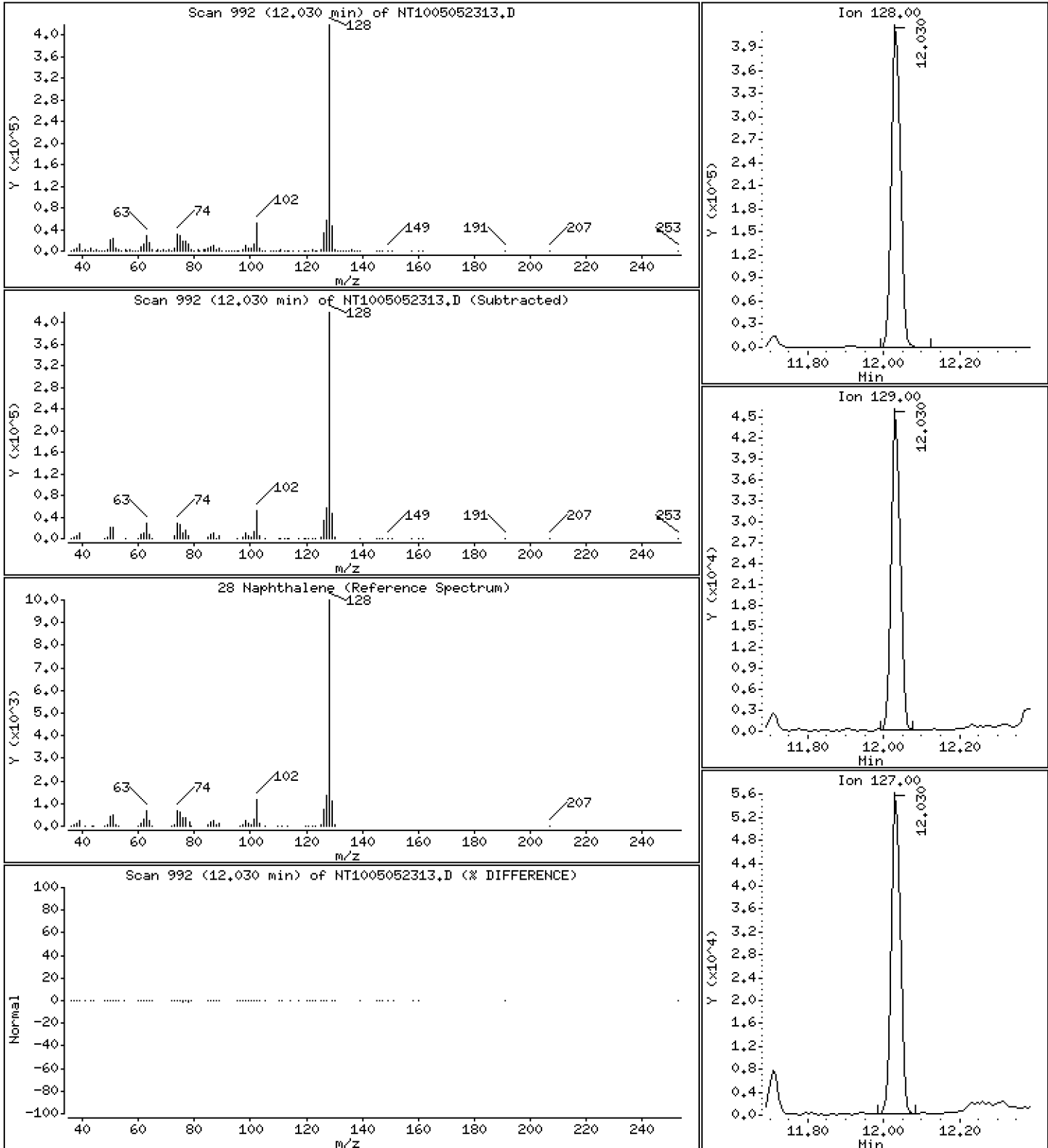
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 3,371 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

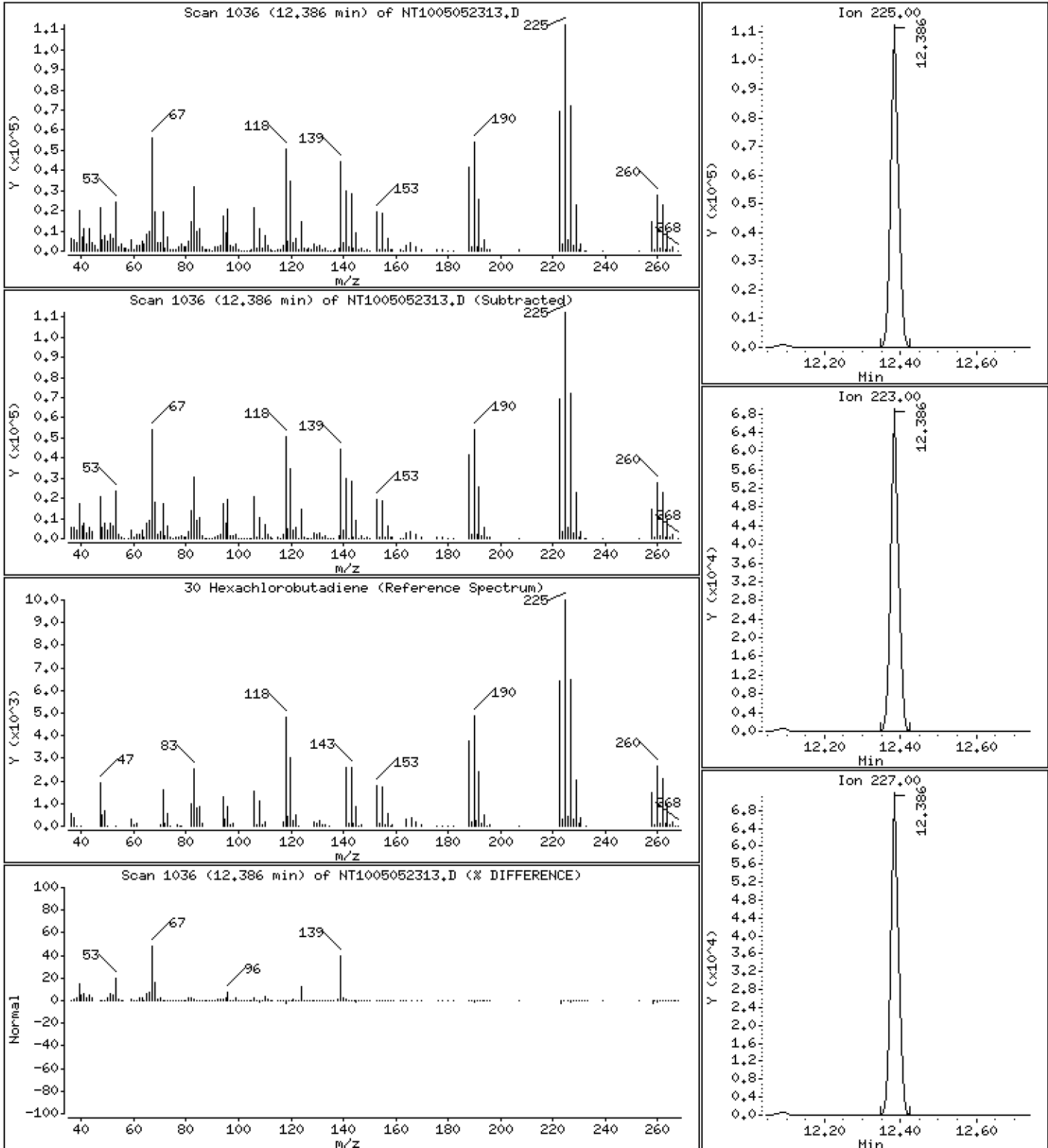
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,314 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

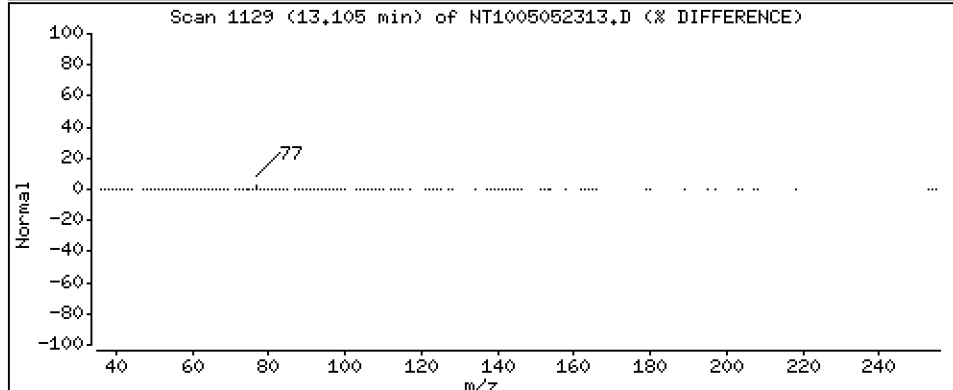
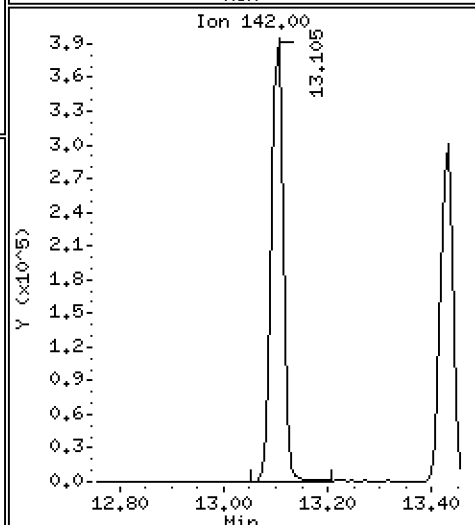
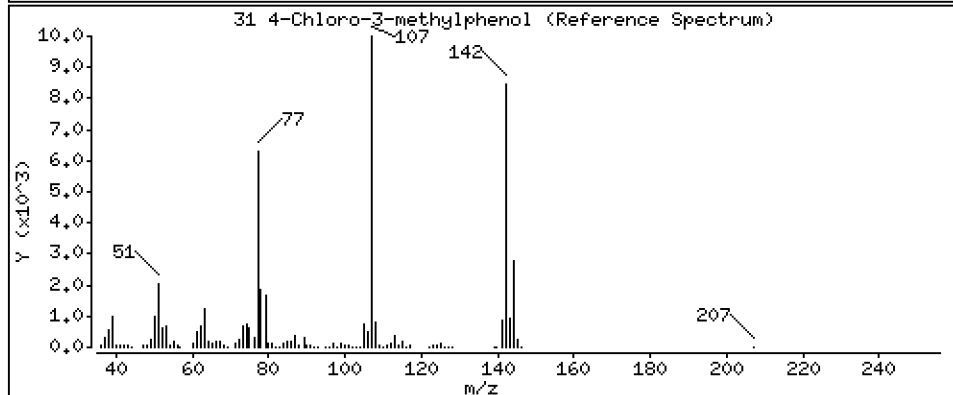
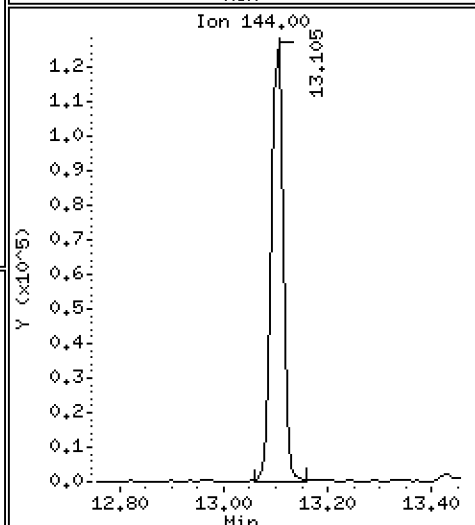
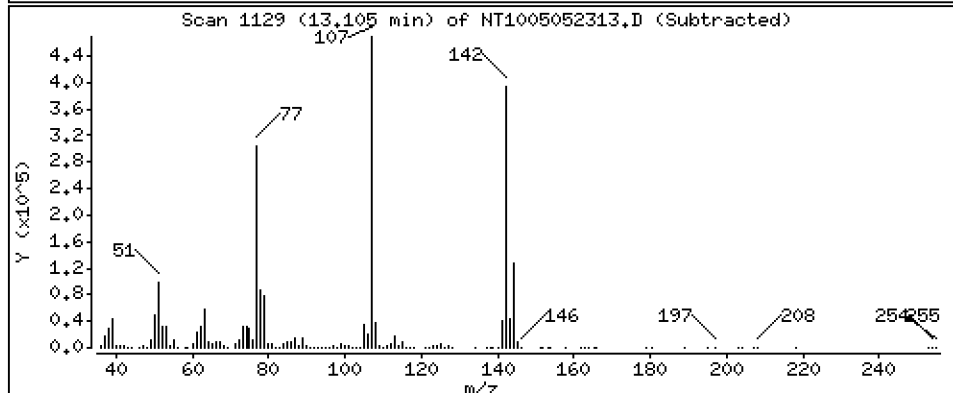
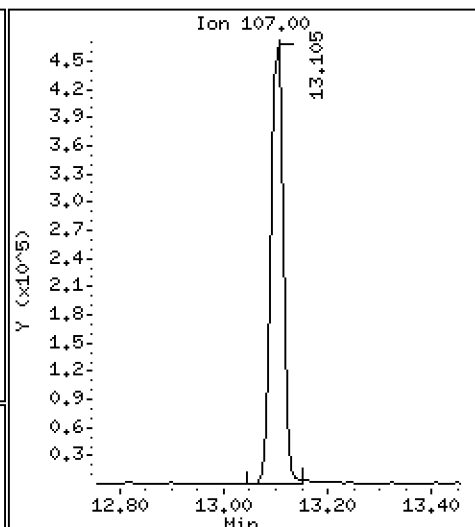
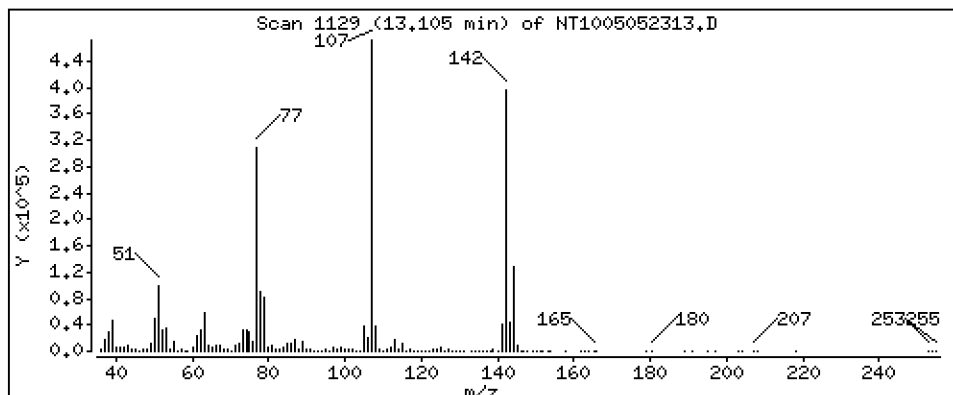
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 11,34 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

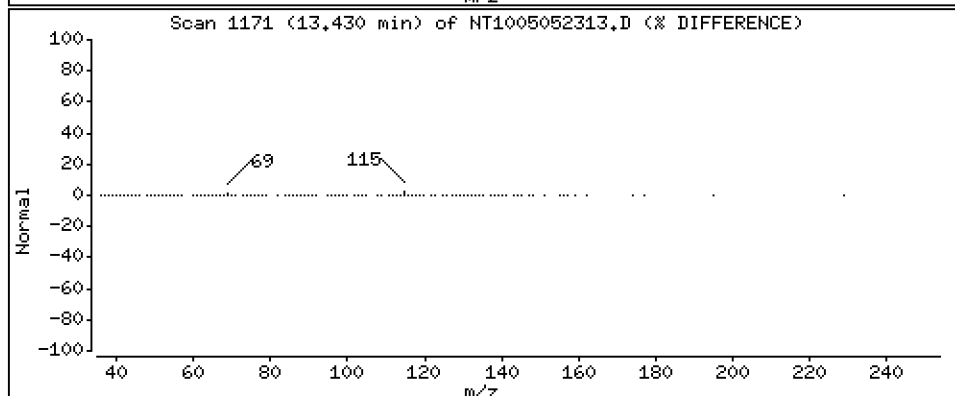
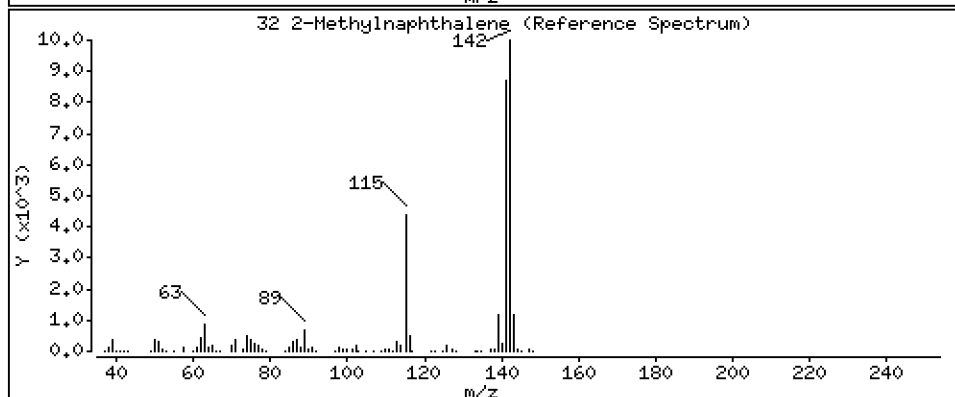
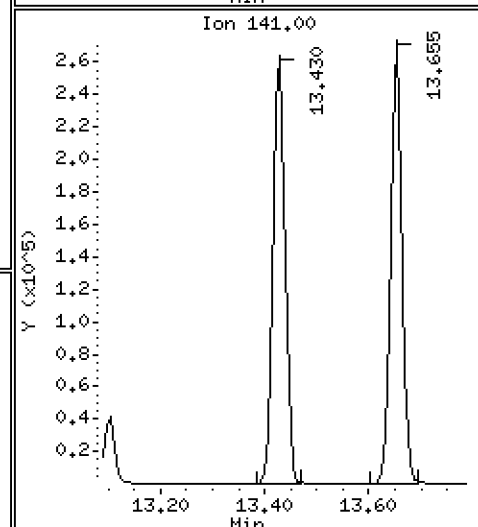
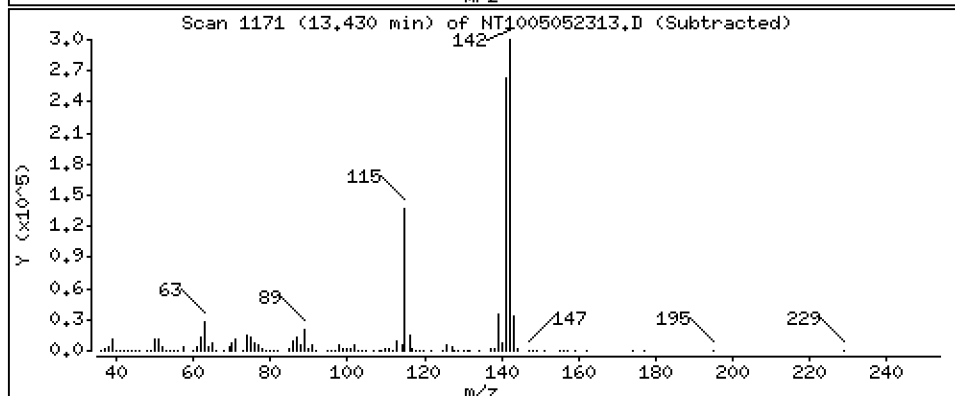
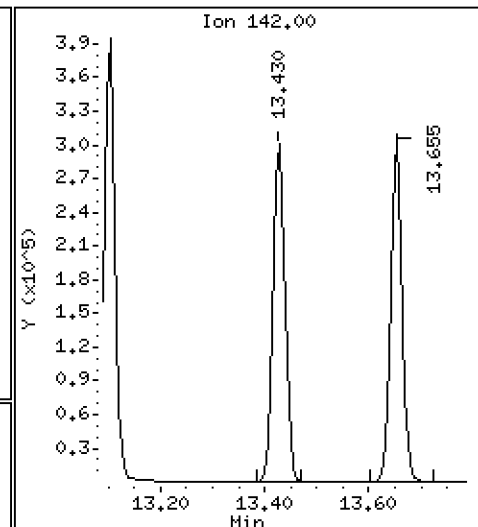
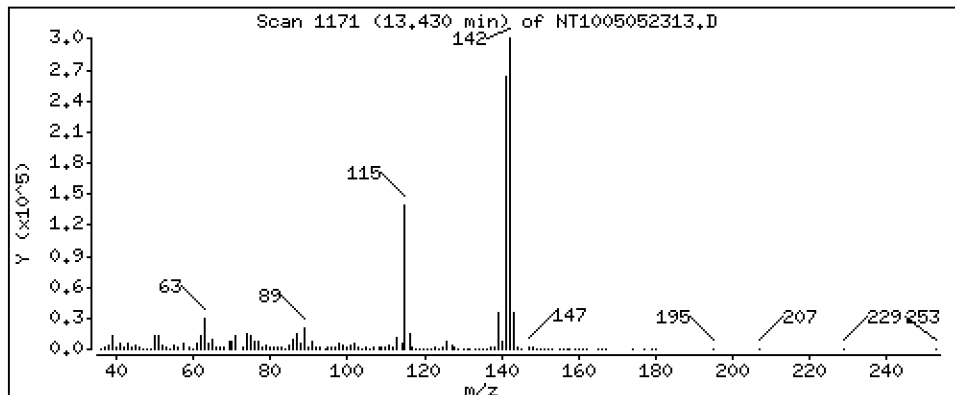
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 3,252 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

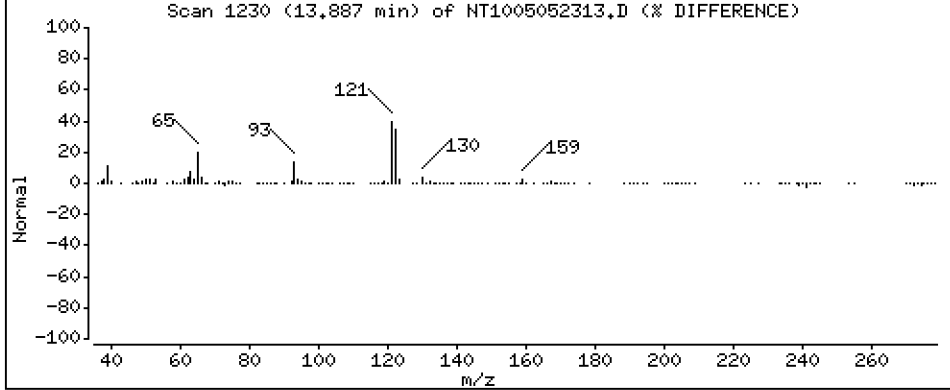
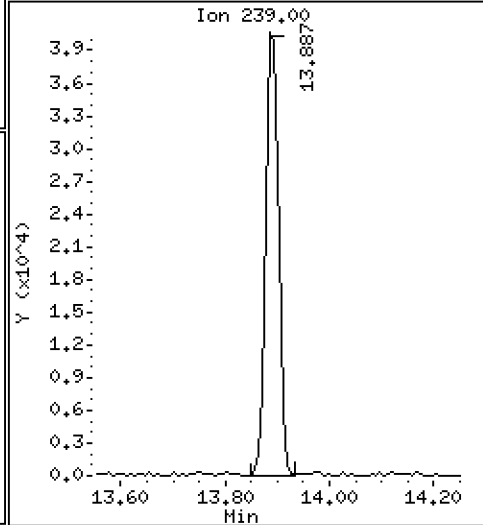
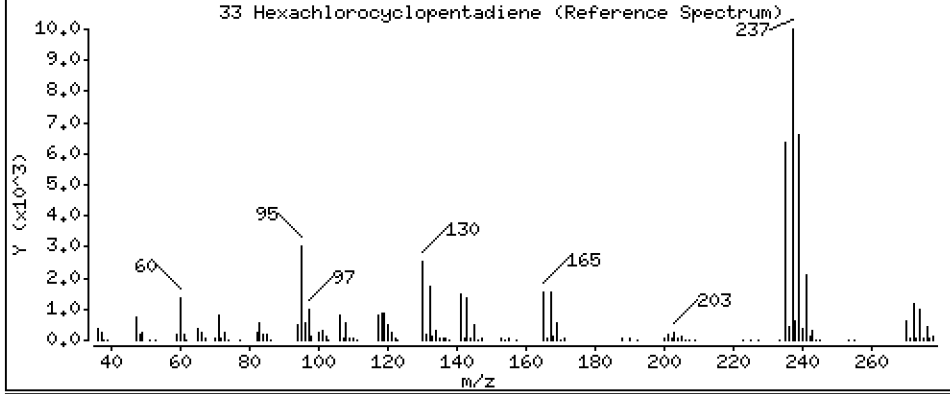
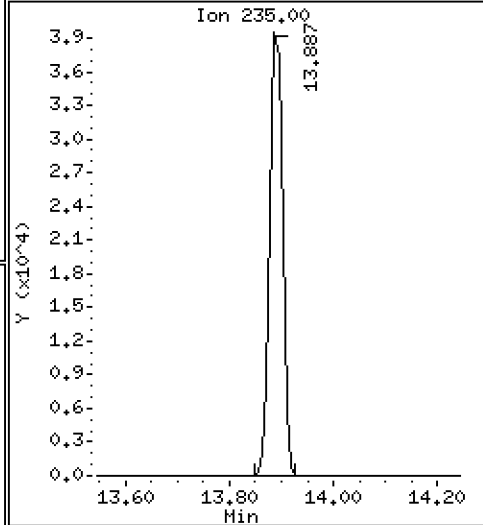
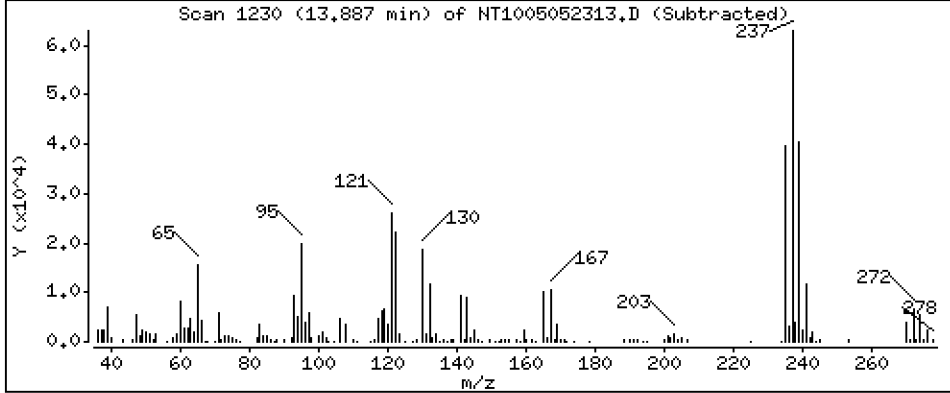
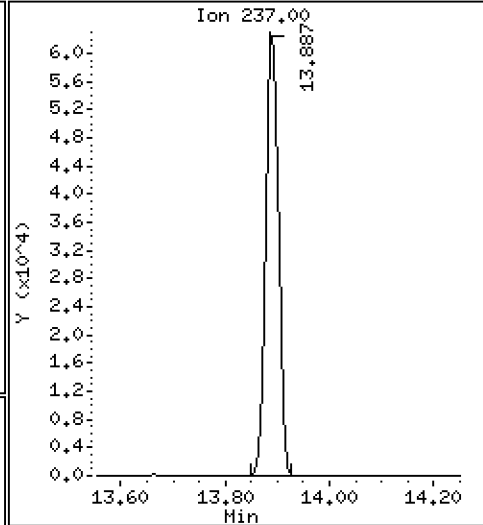
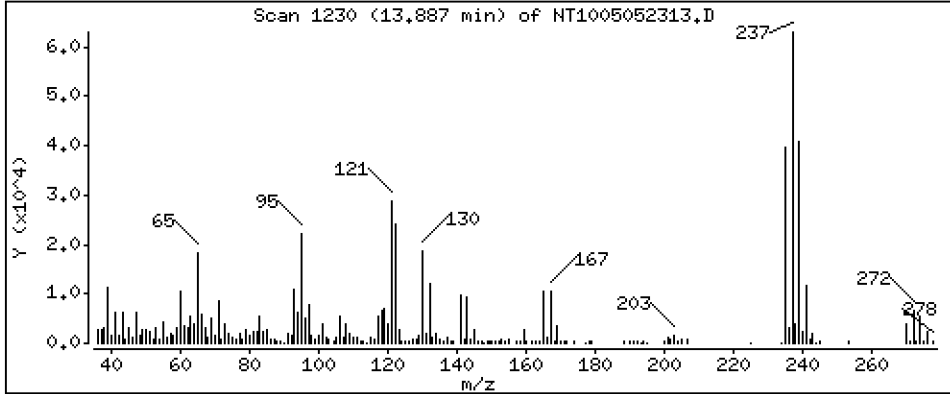
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 2,107 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

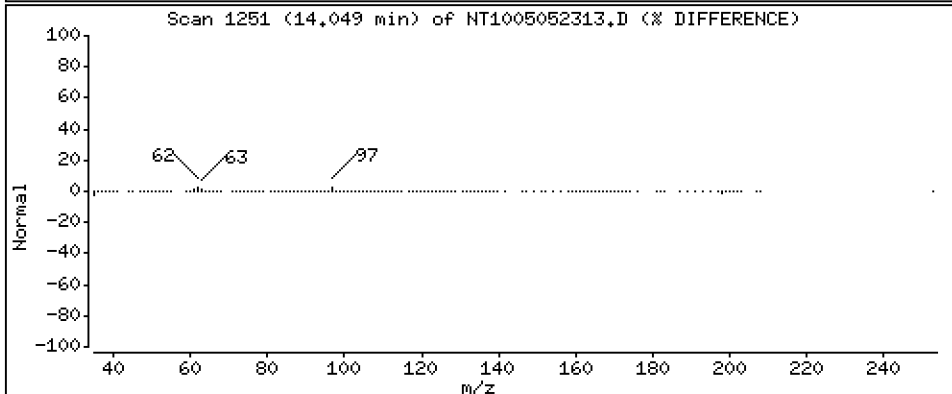
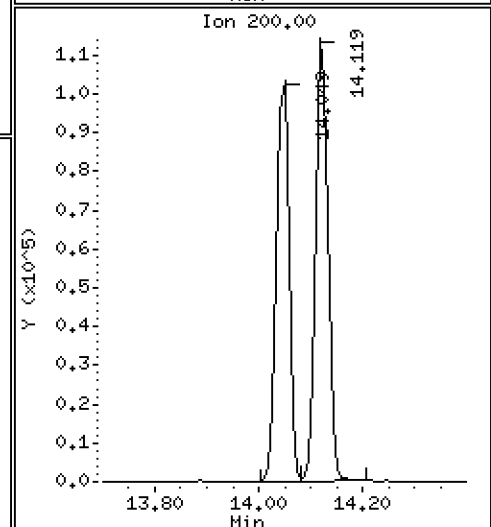
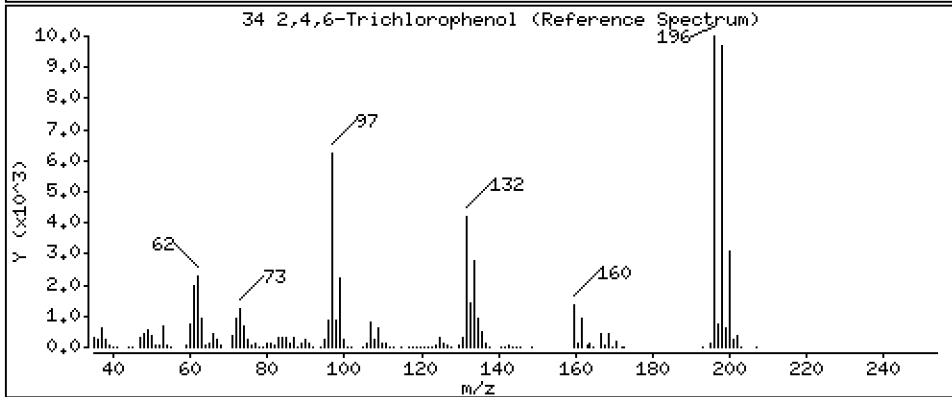
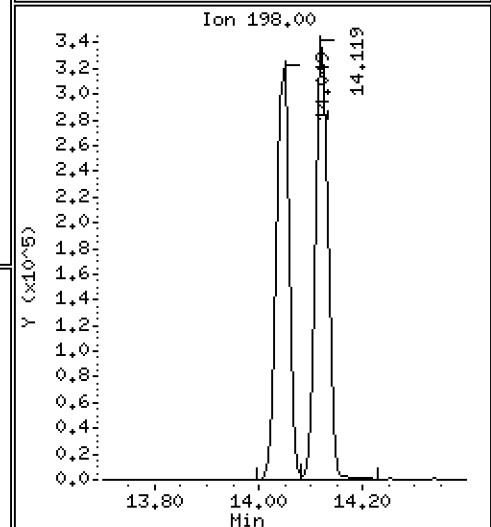
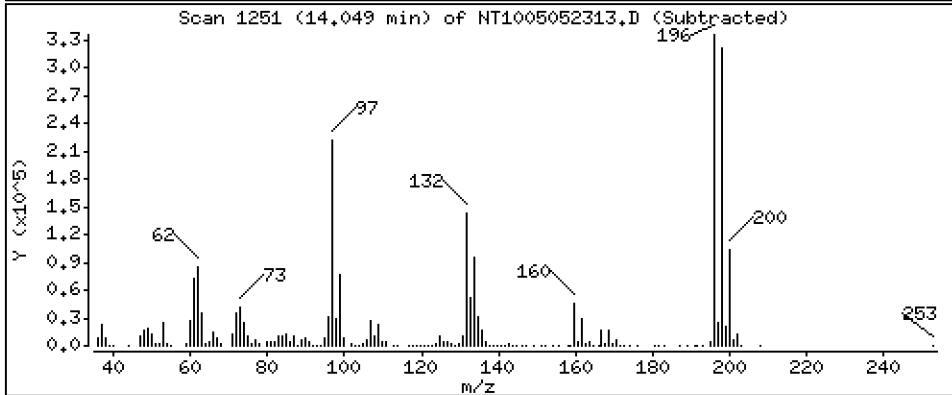
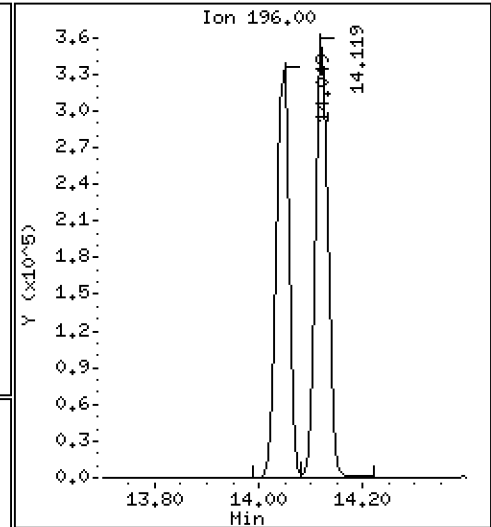
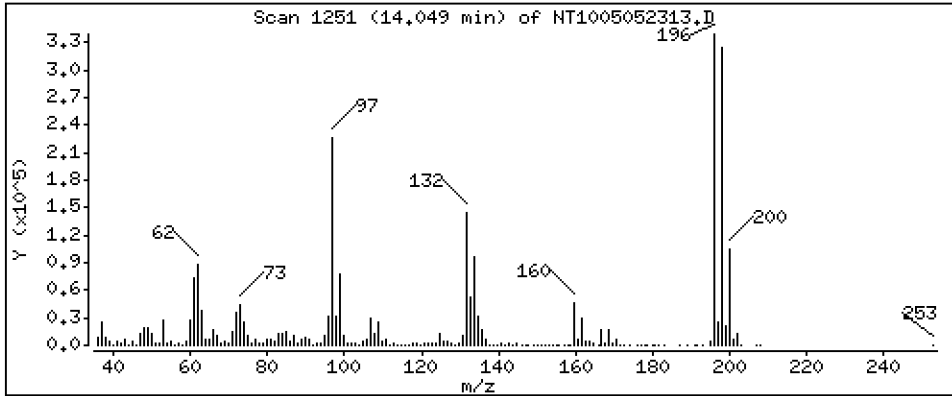
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 11,34 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

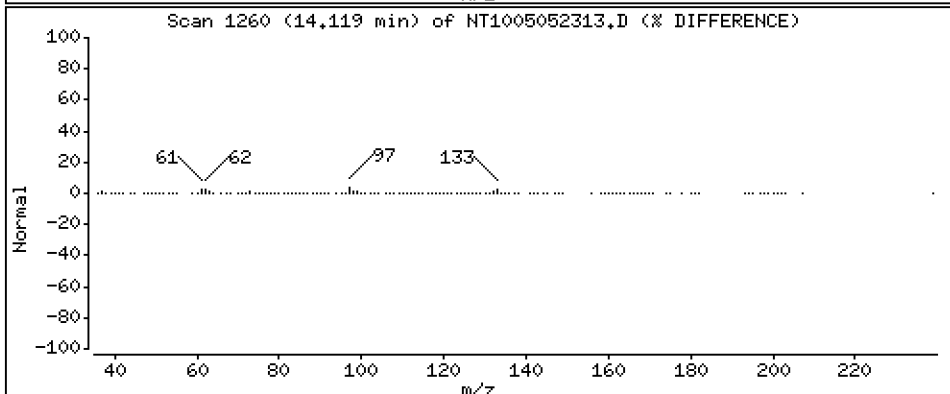
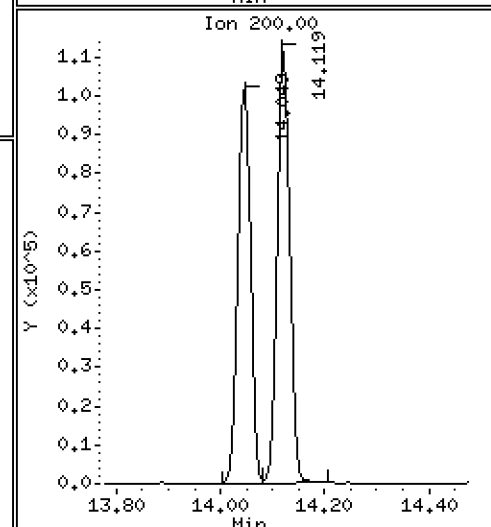
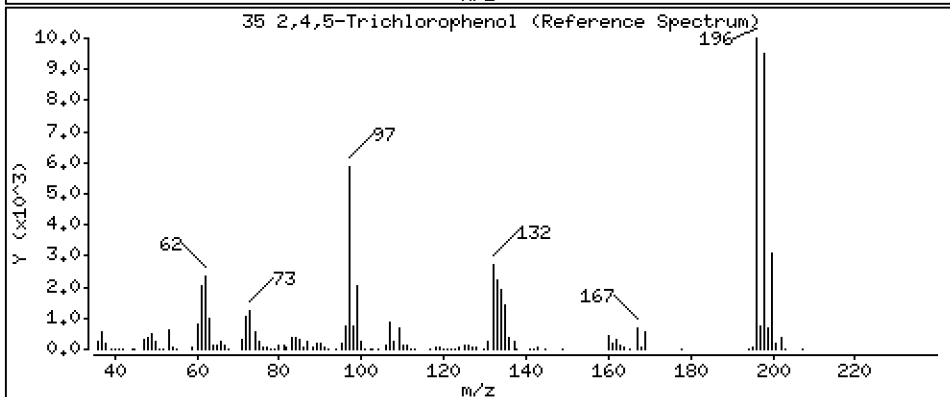
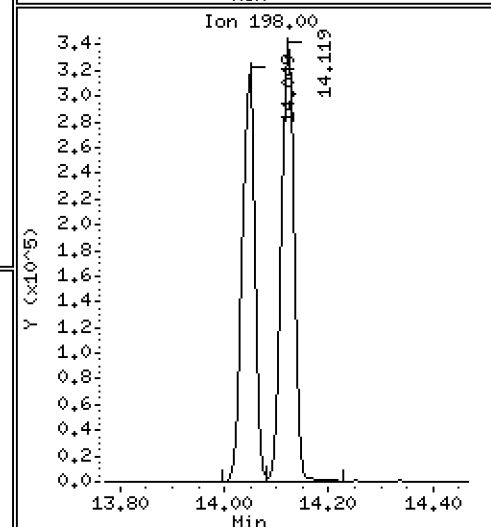
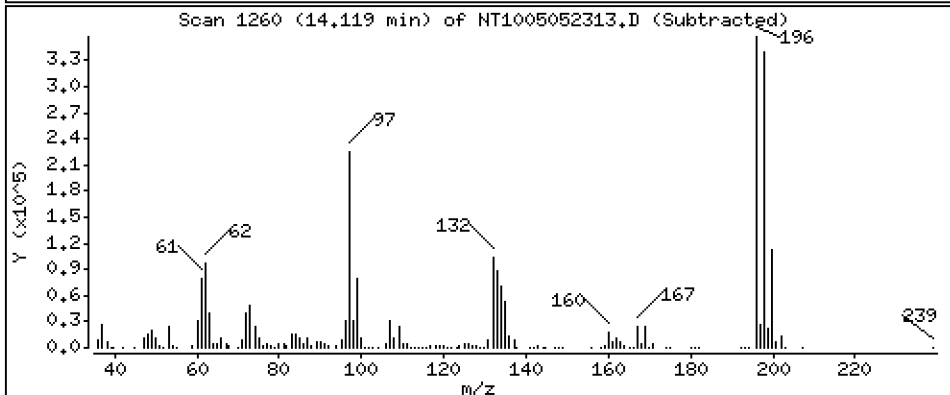
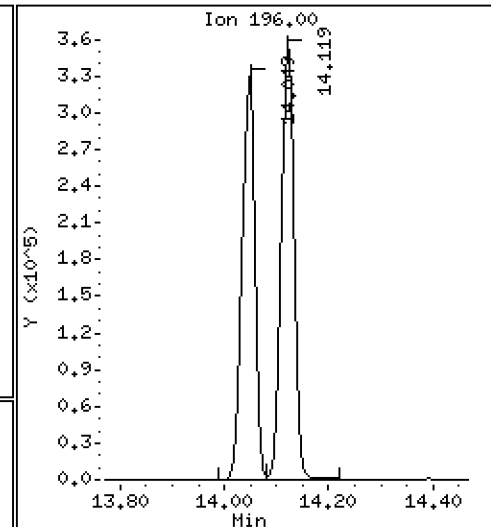
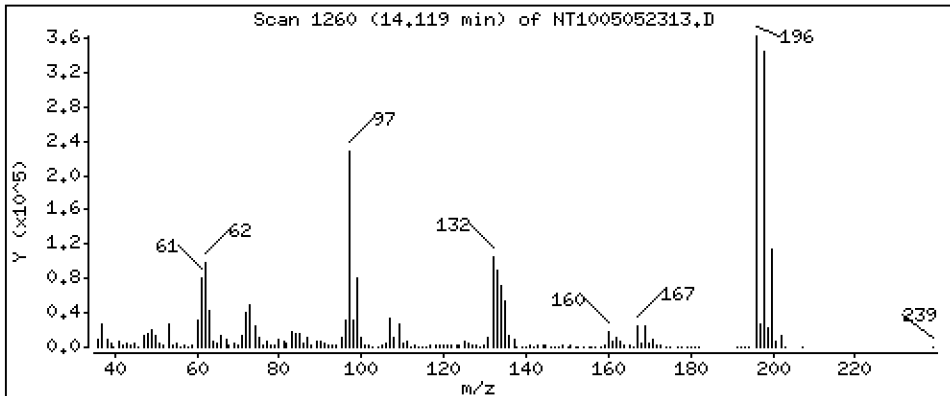
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 11,11 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

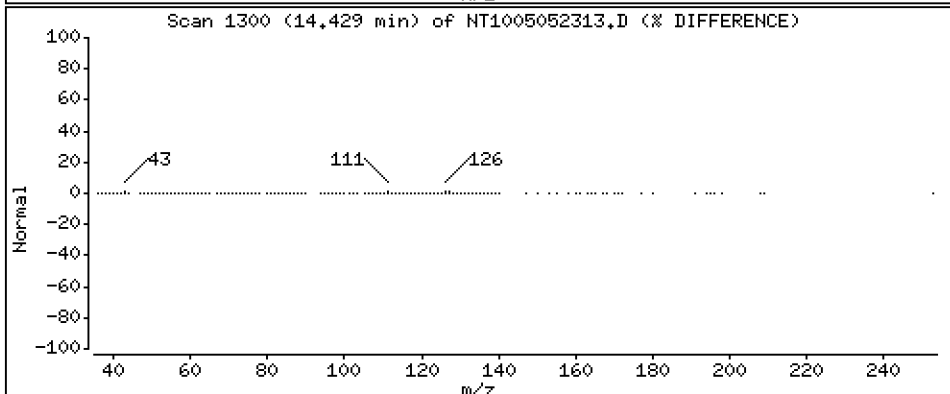
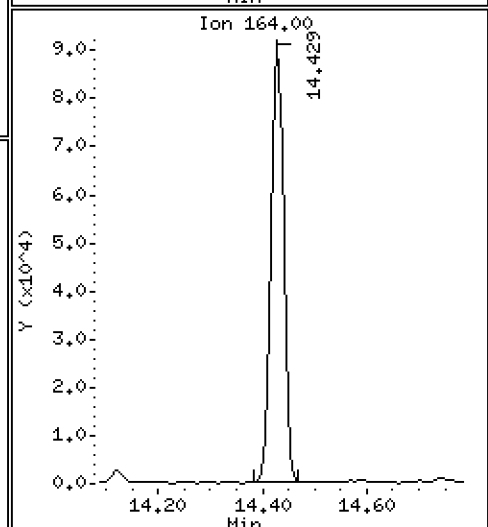
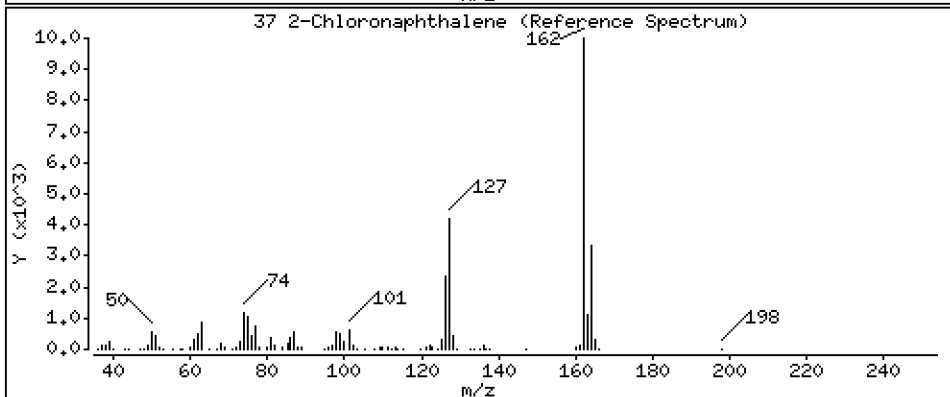
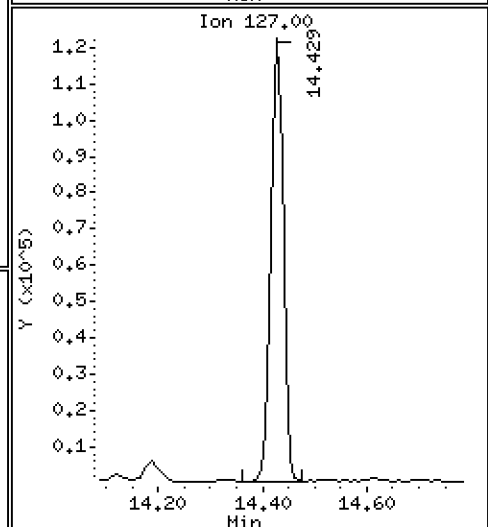
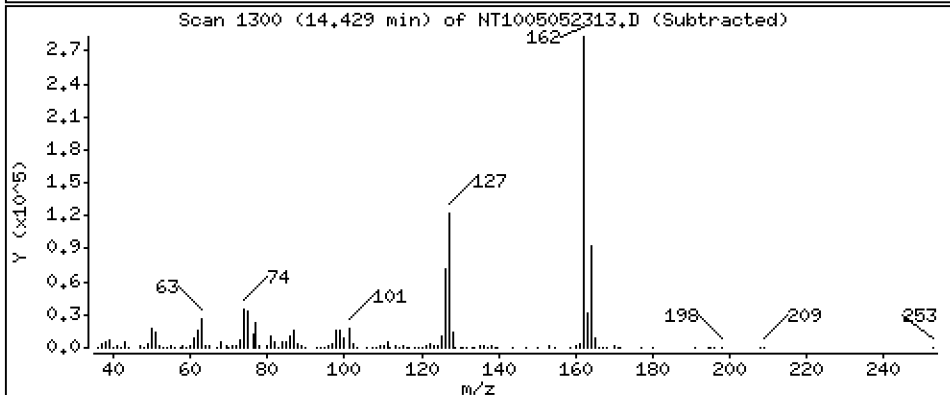
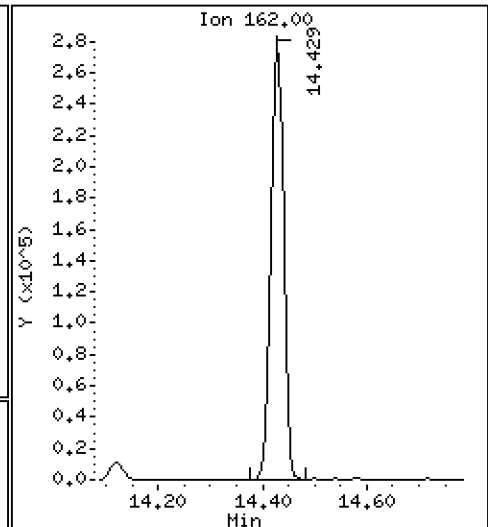
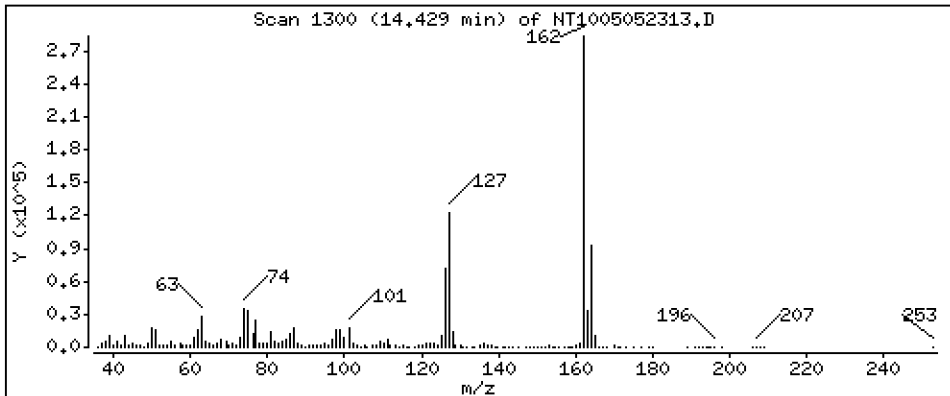
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 3,372 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

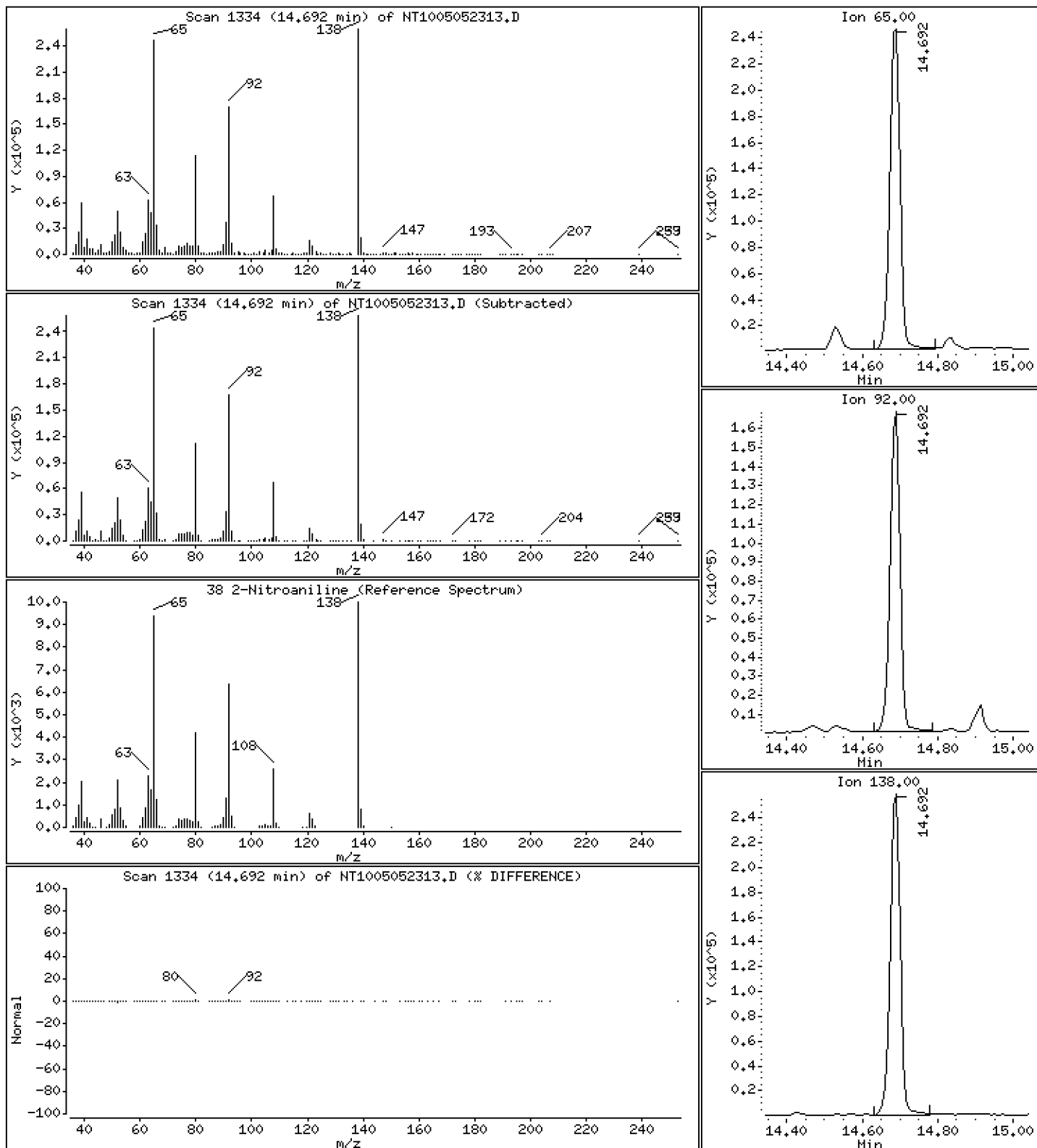
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 11,48 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

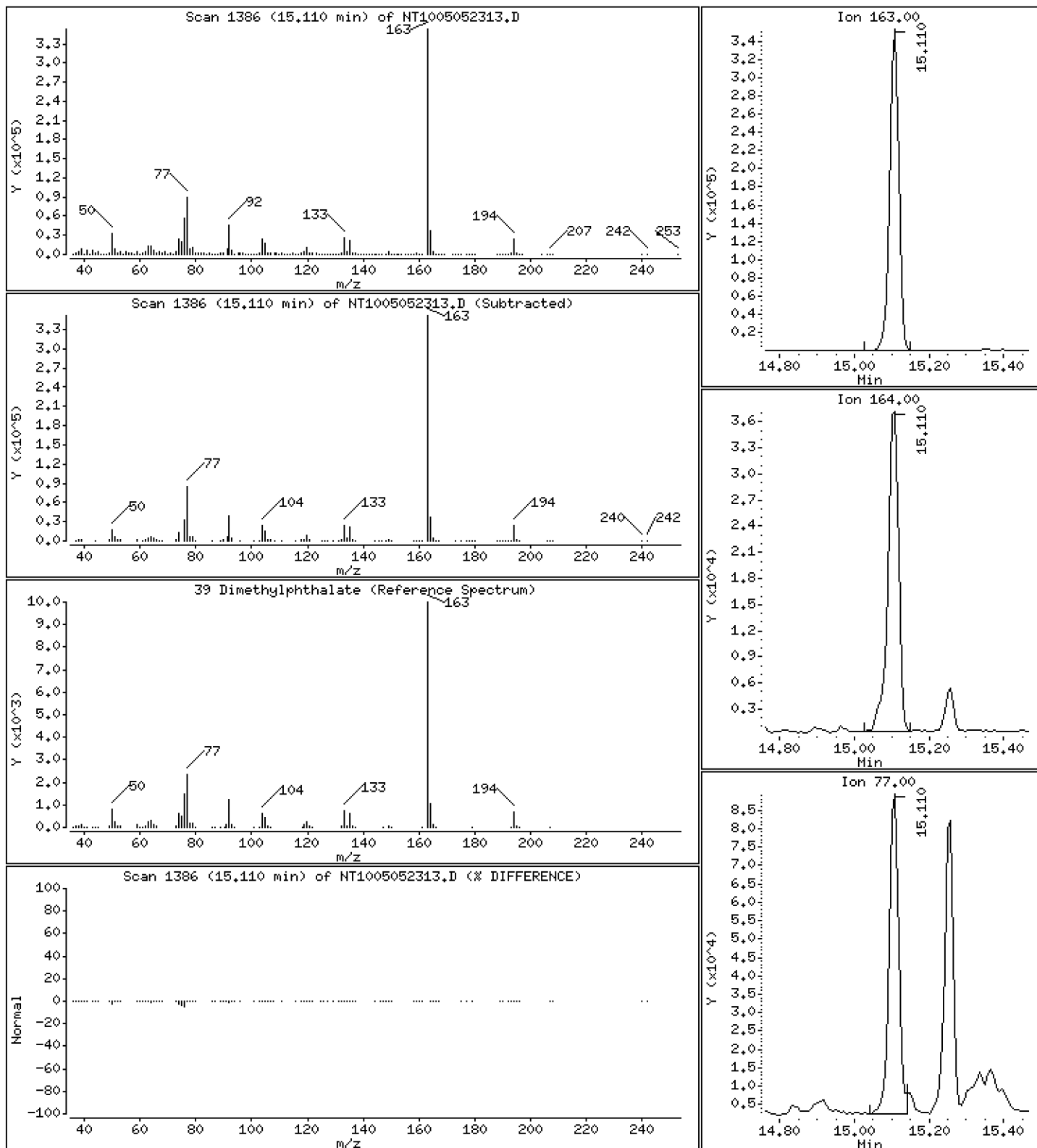
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 3,764 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

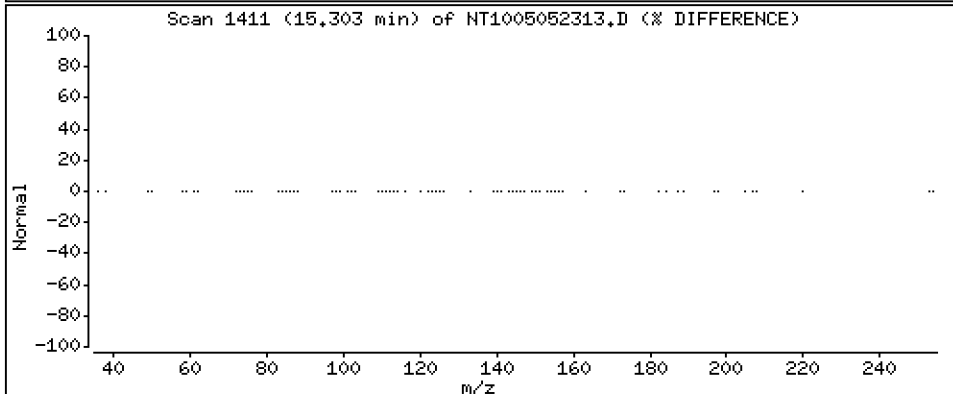
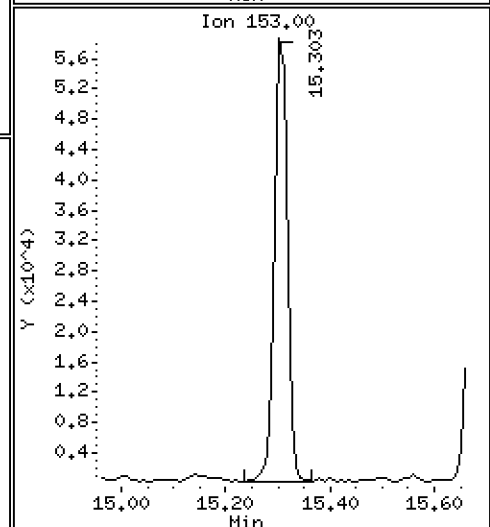
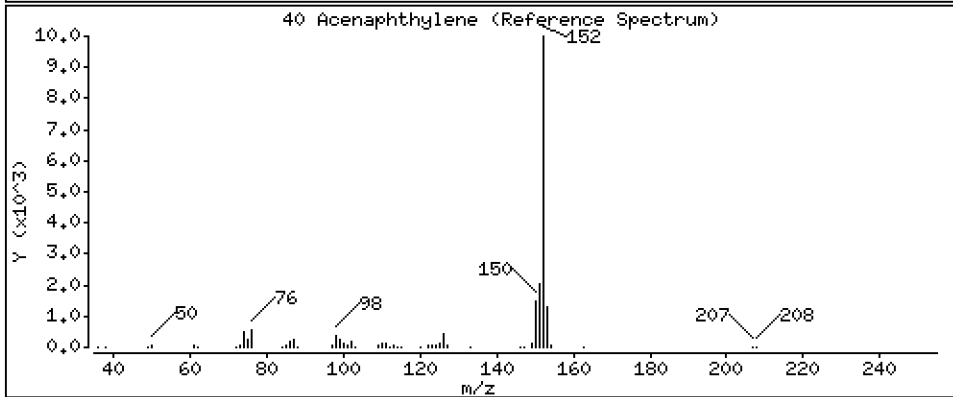
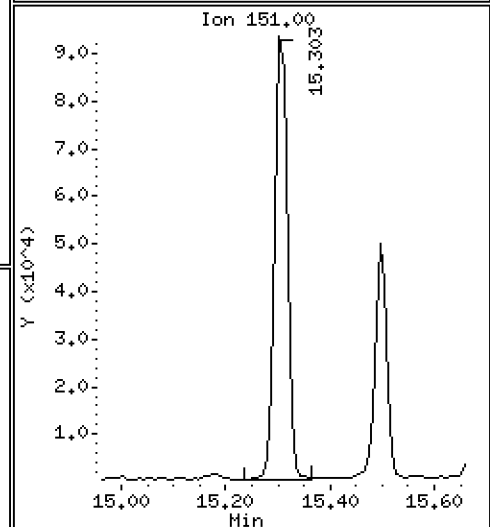
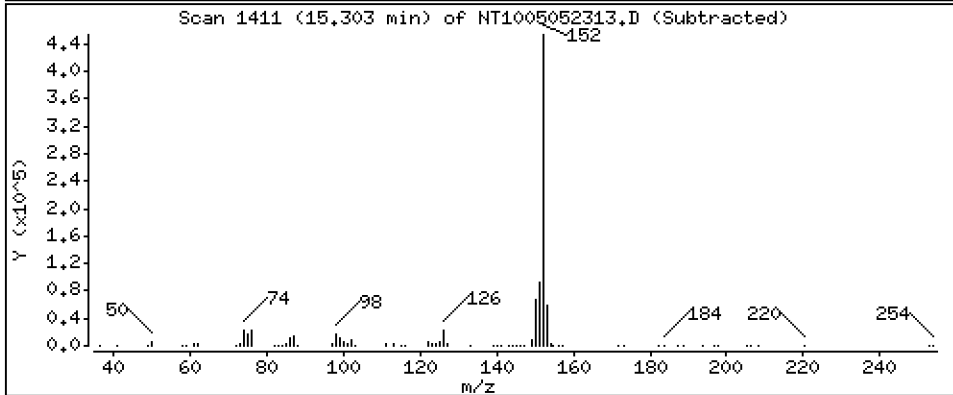
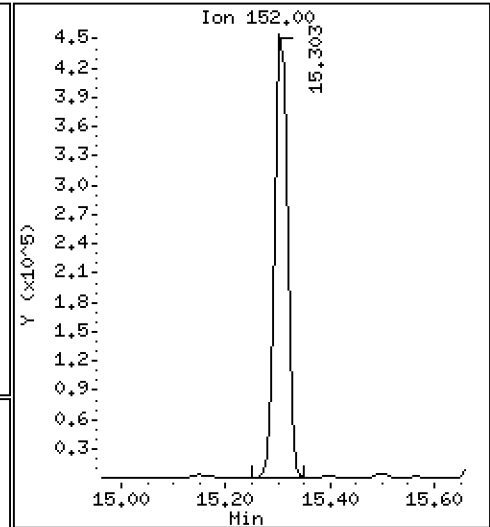
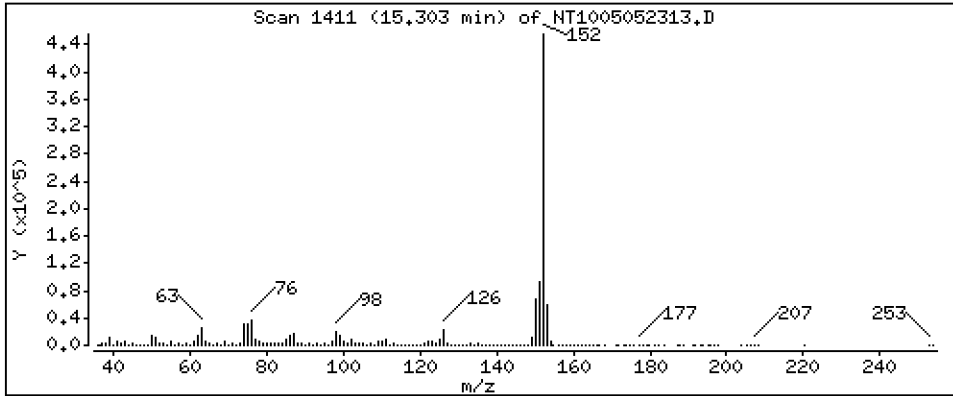
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 3,528 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

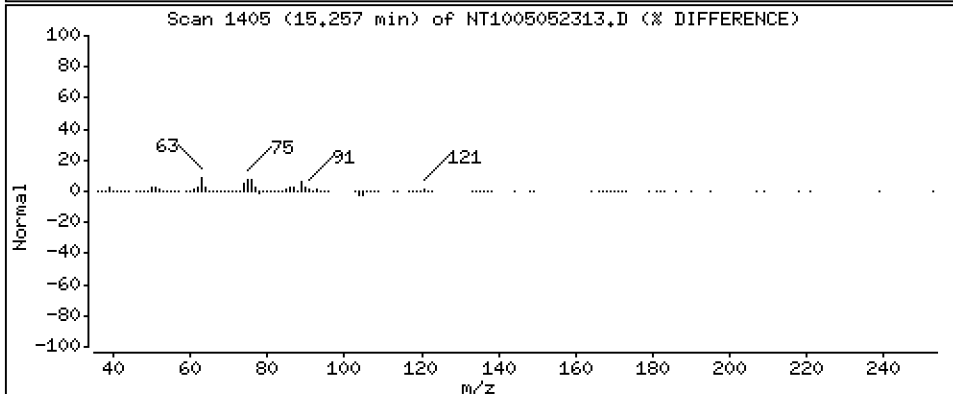
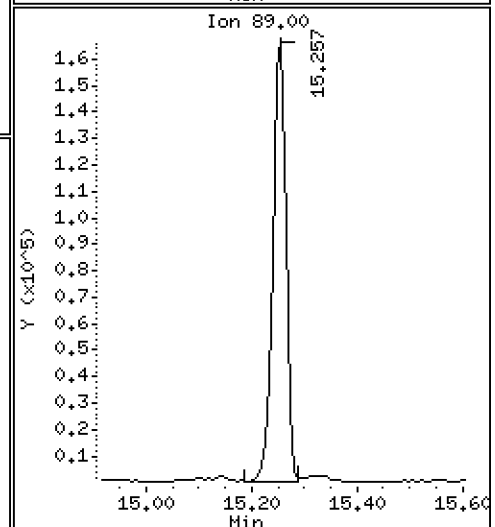
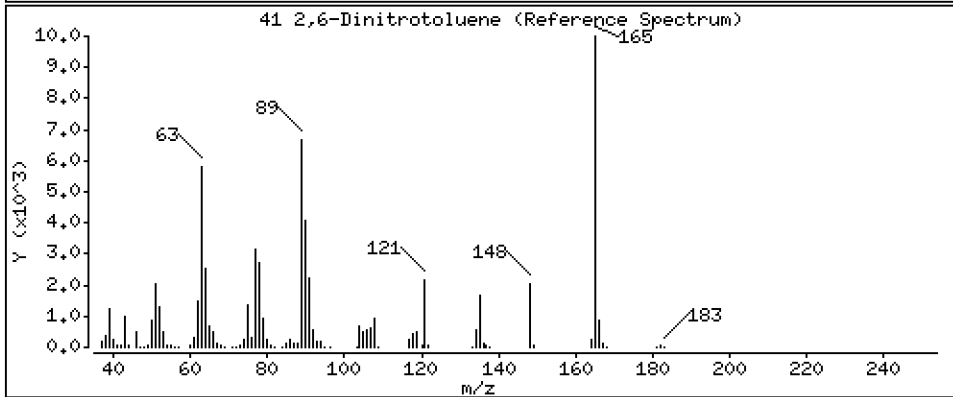
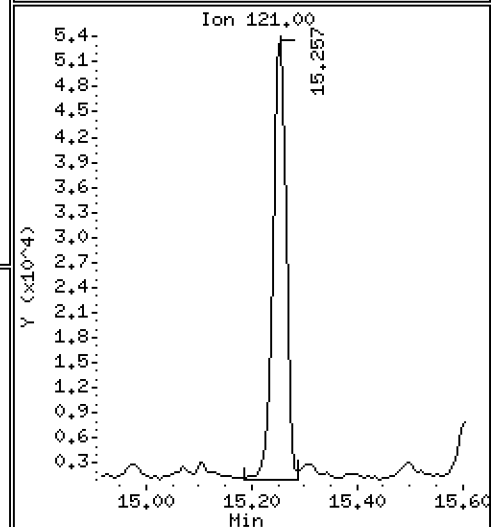
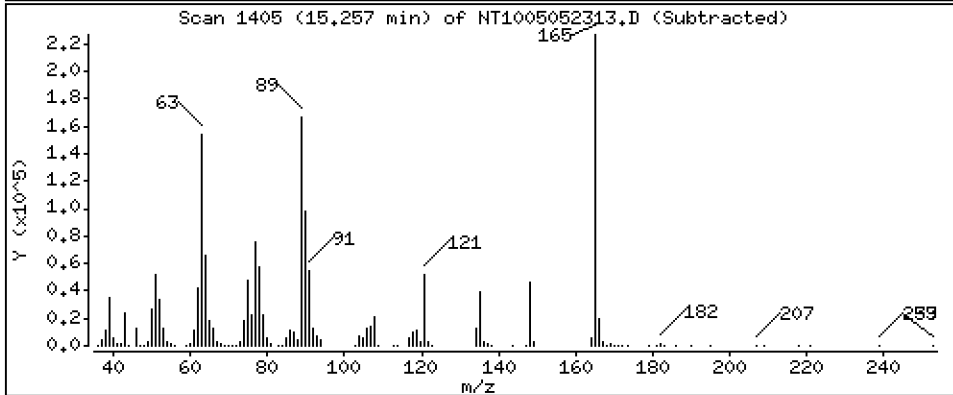
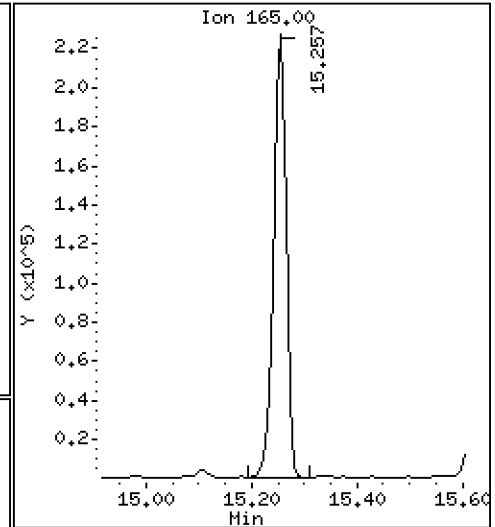
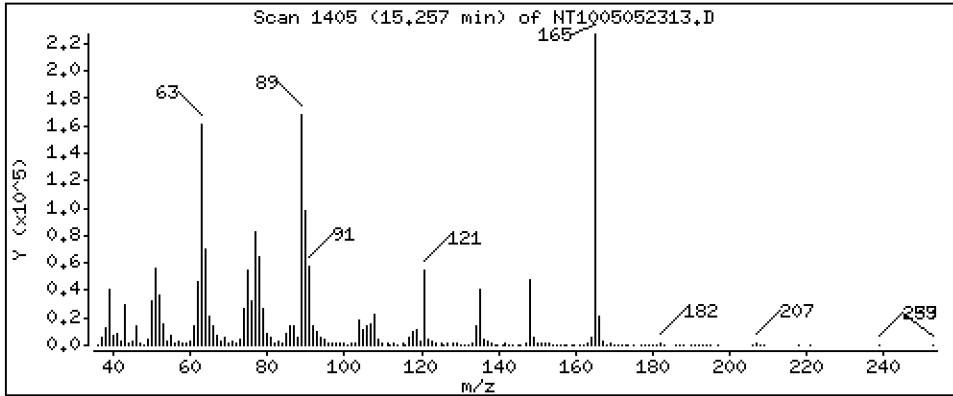
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 10.64 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

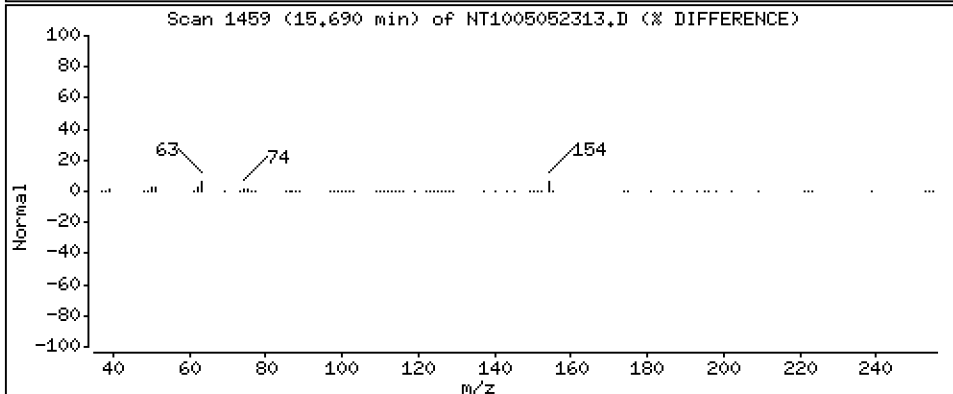
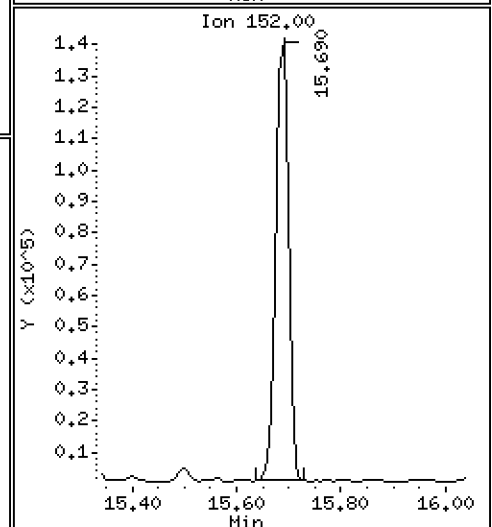
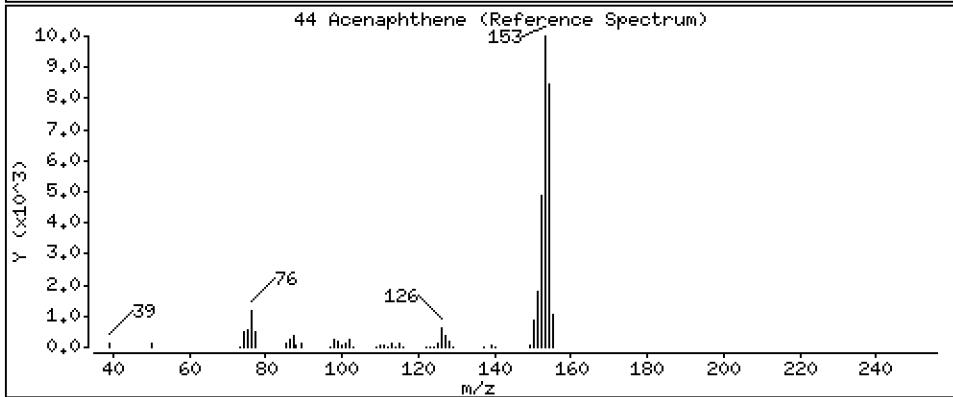
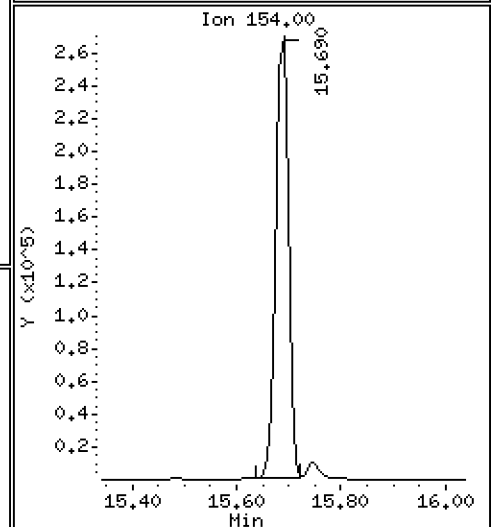
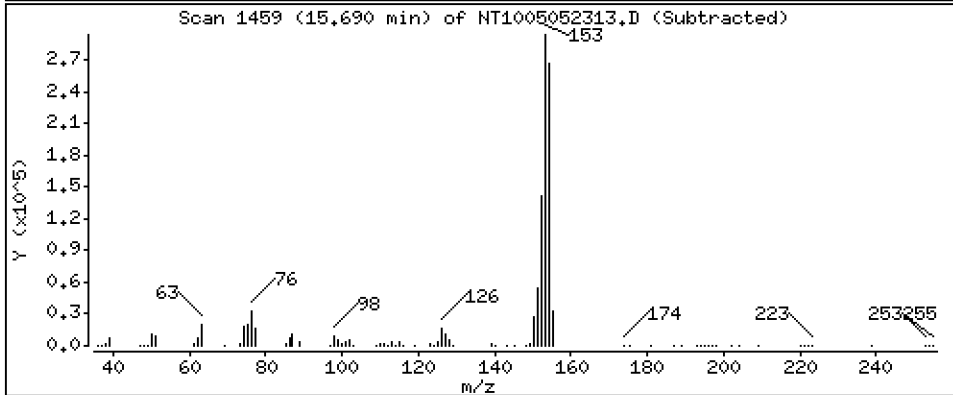
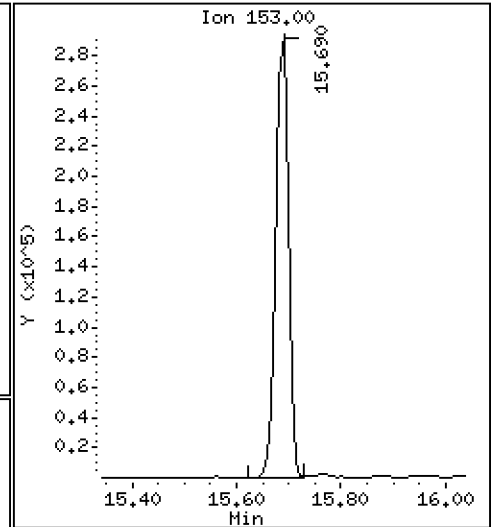
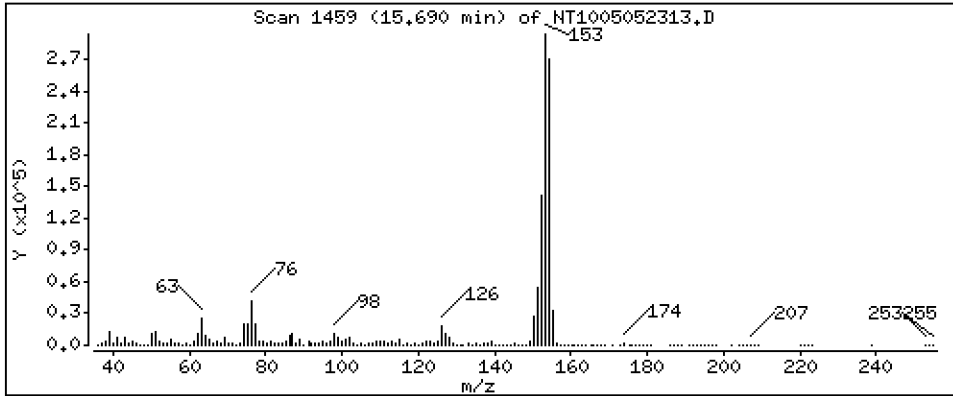
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 3,558 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

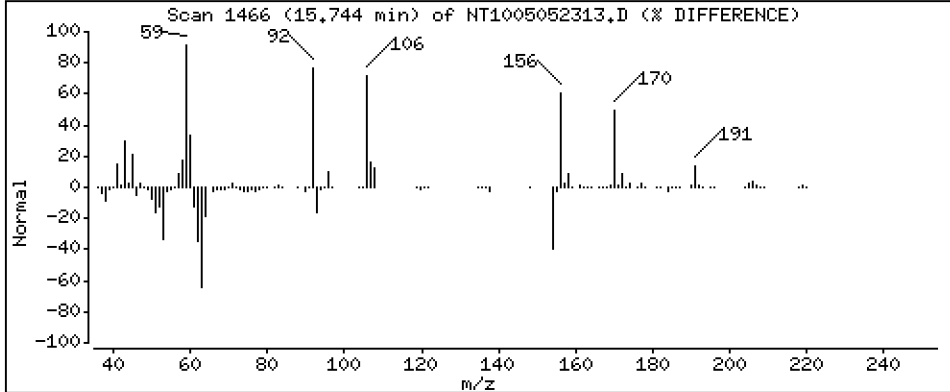
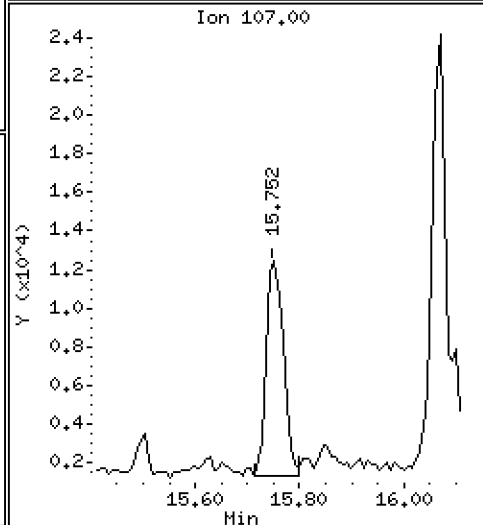
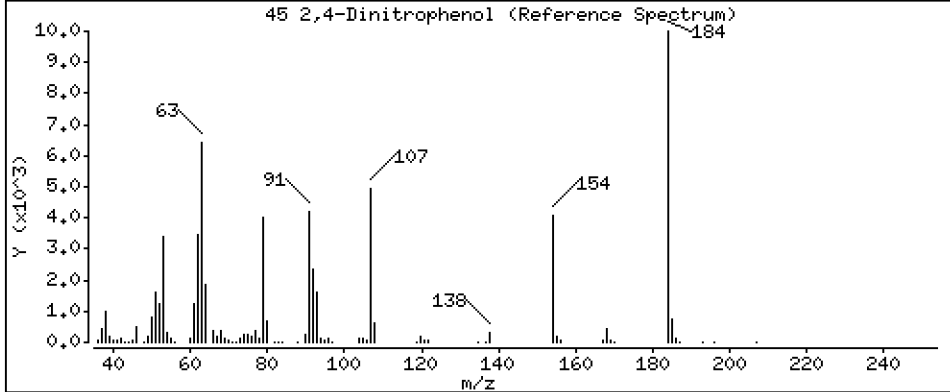
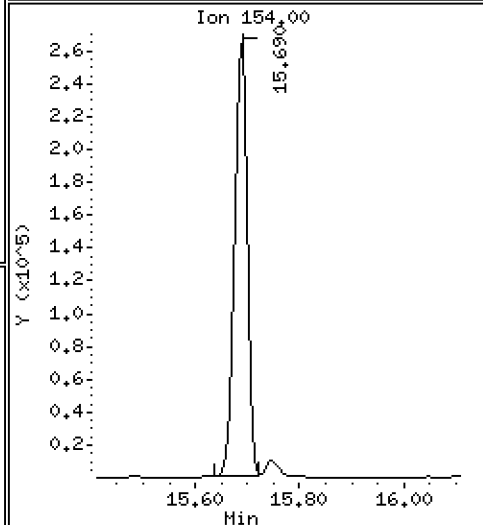
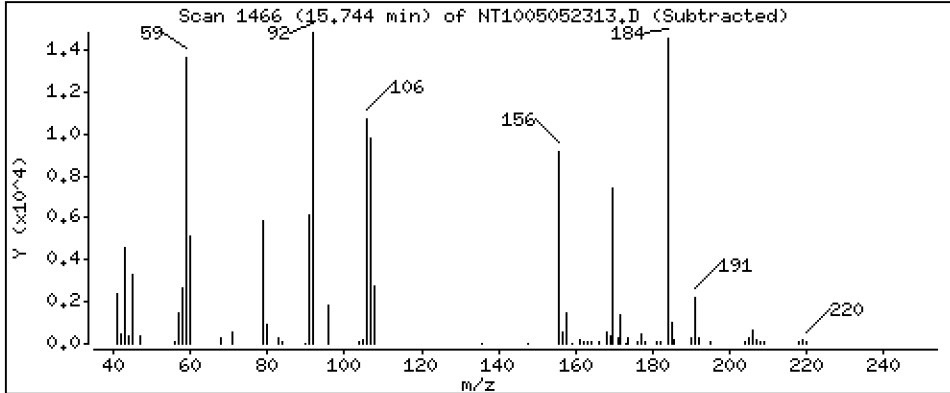
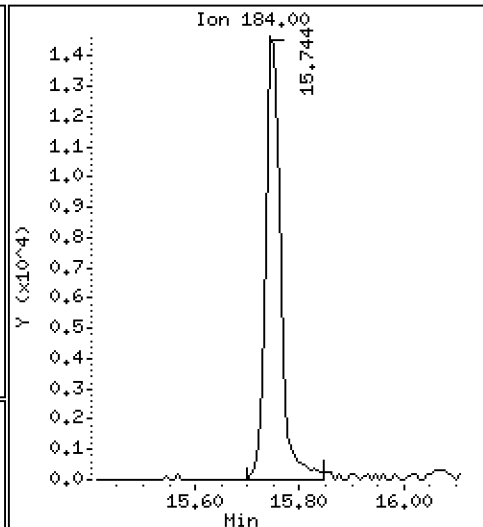
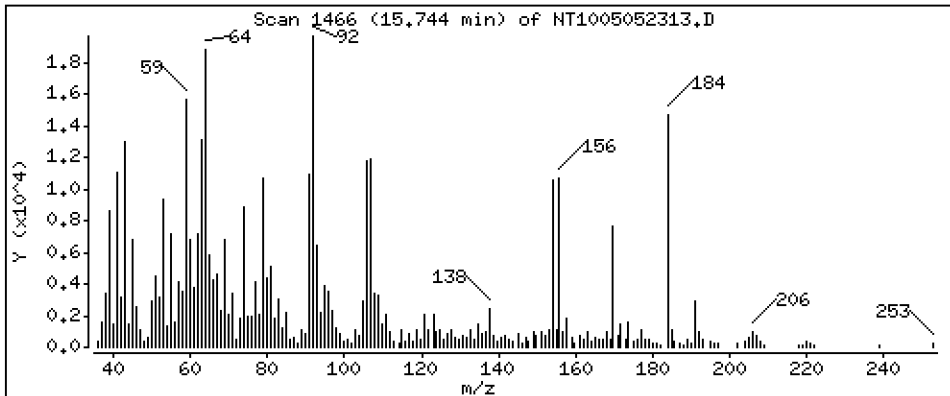
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 1,099 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

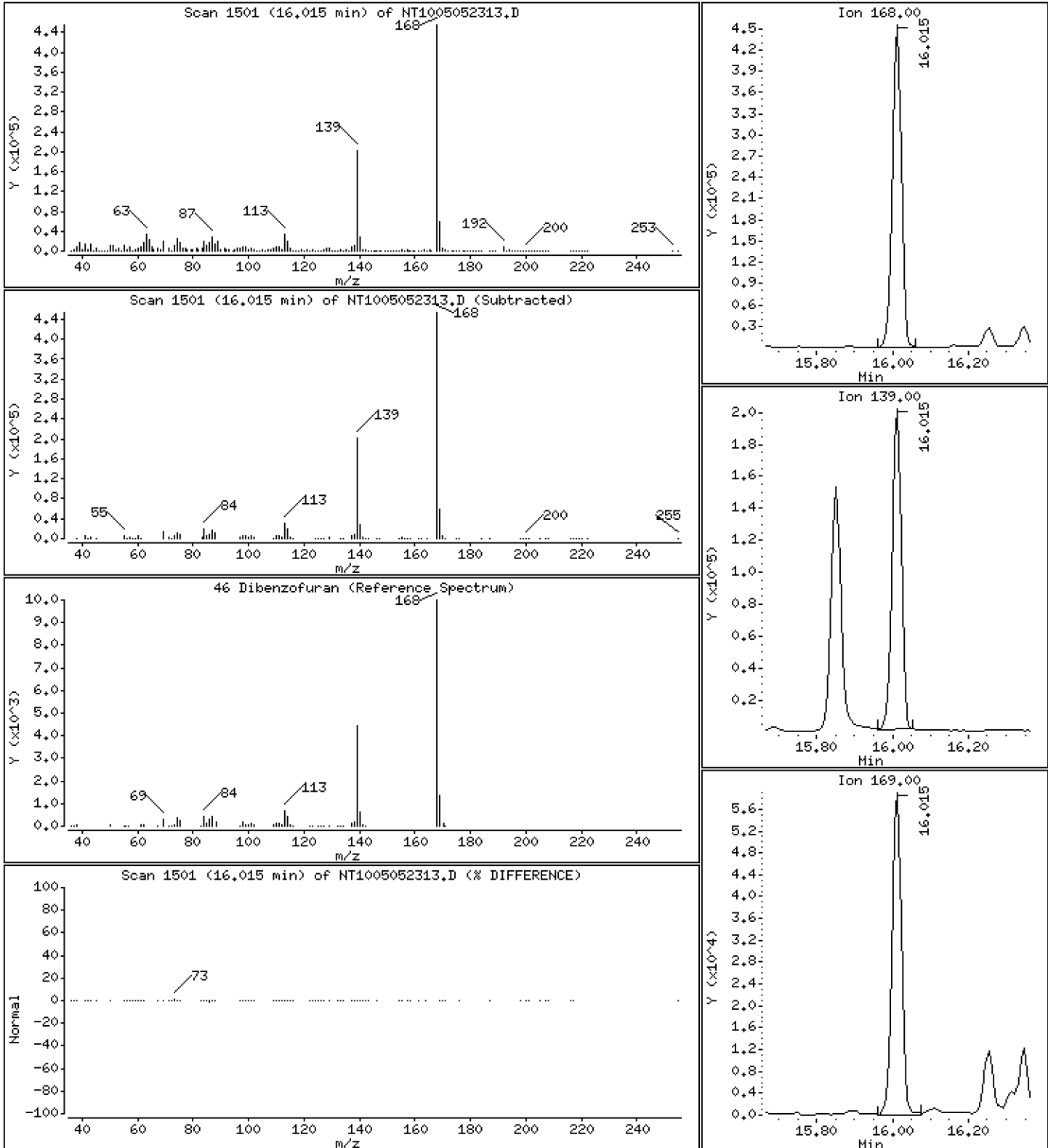
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 3,681 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

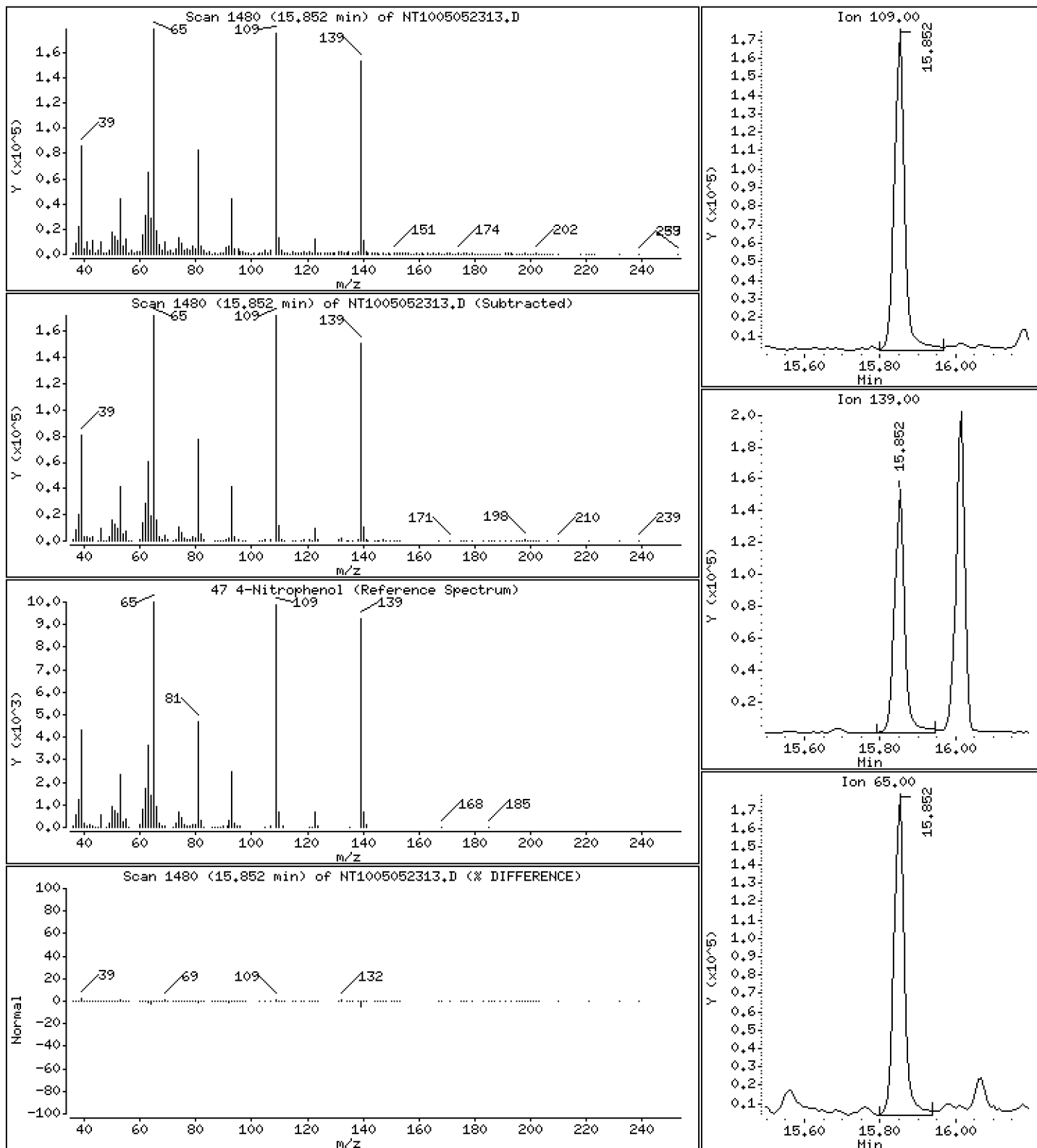
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 9,999 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

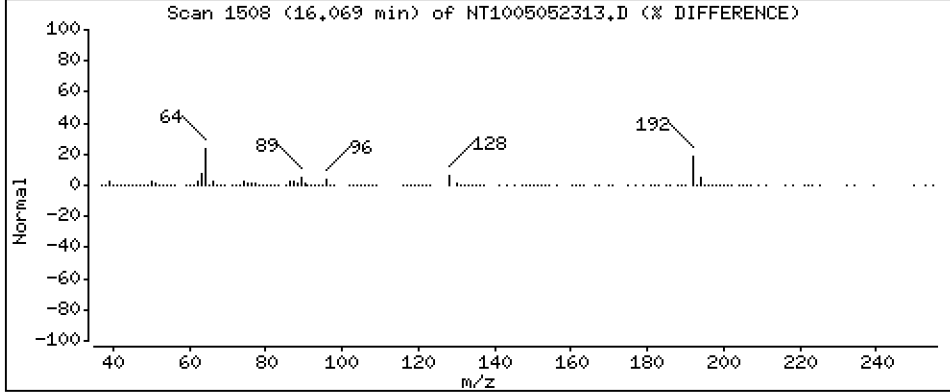
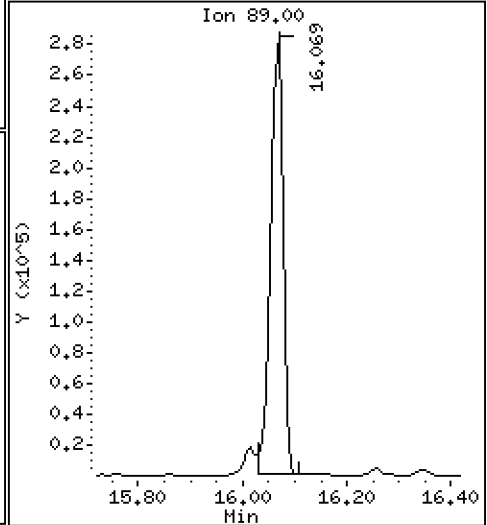
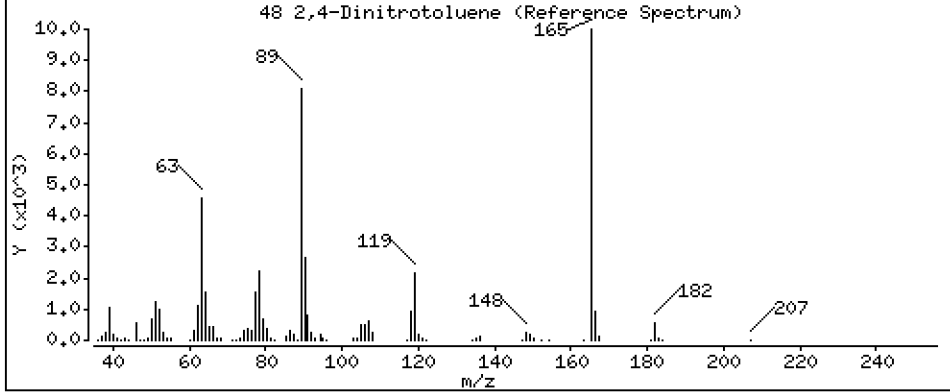
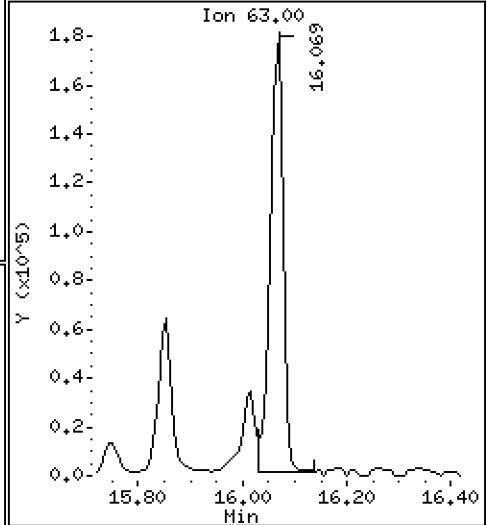
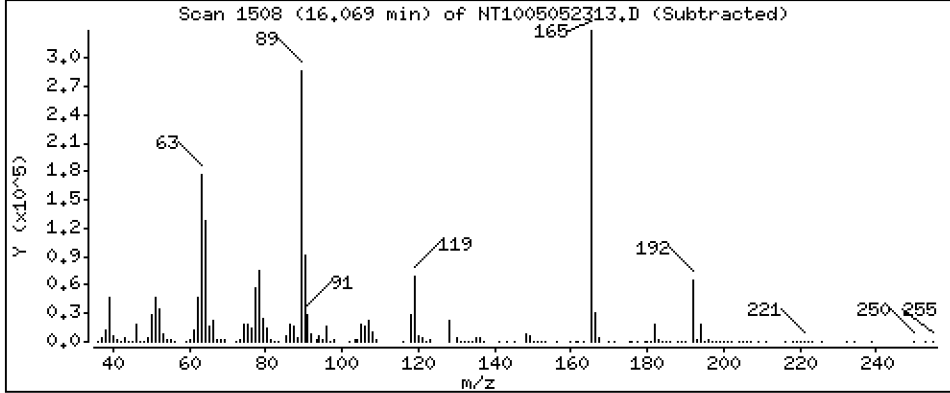
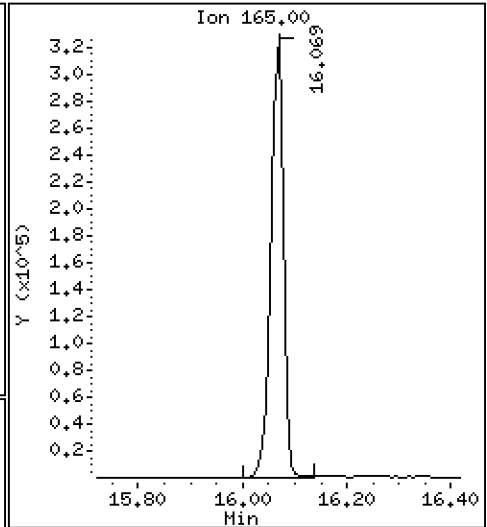
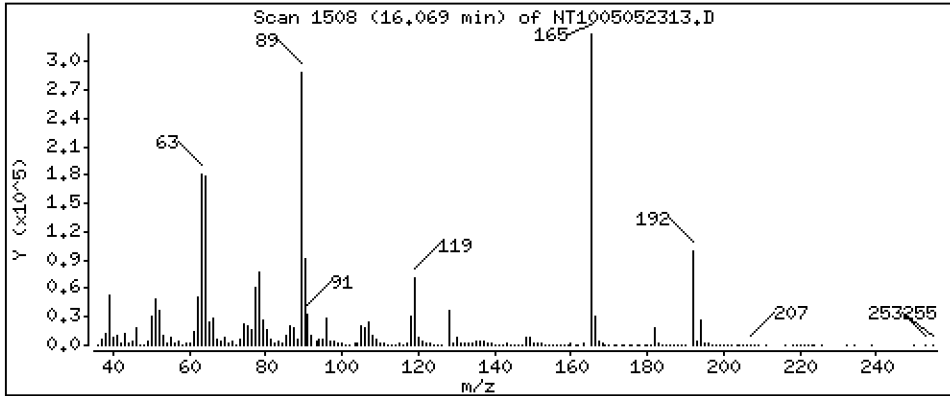
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 10,48 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

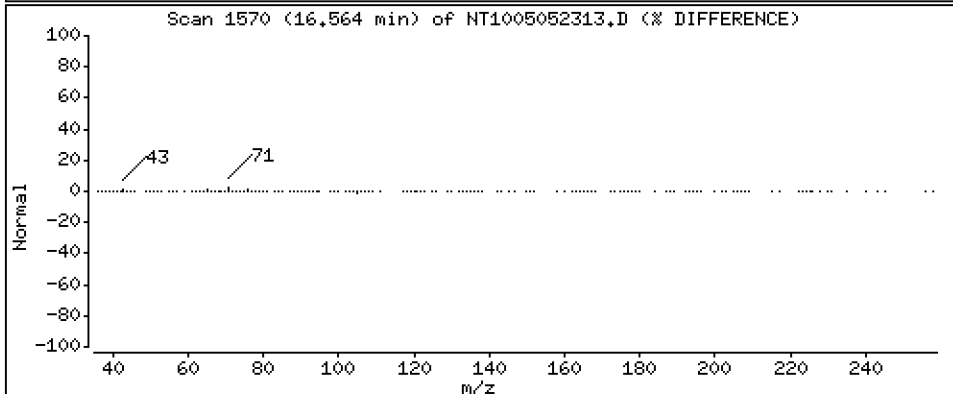
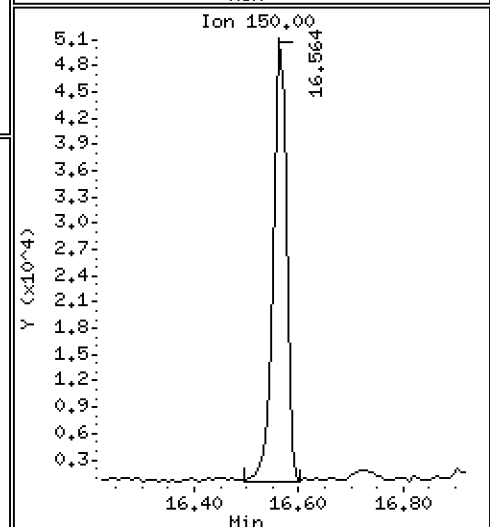
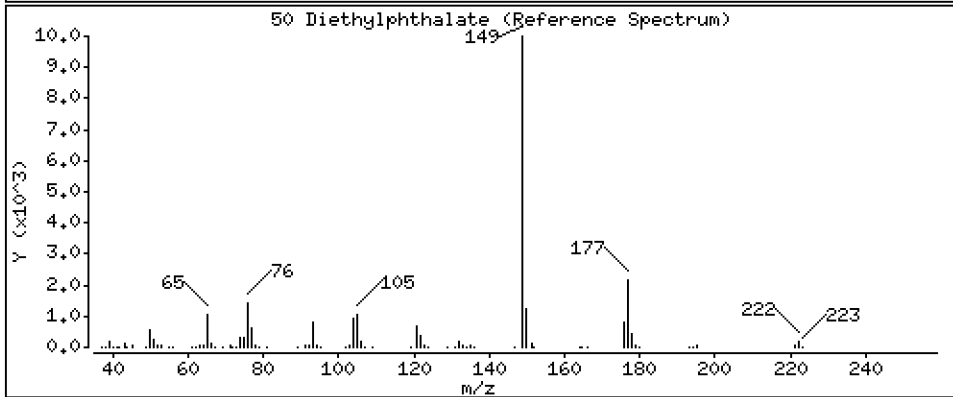
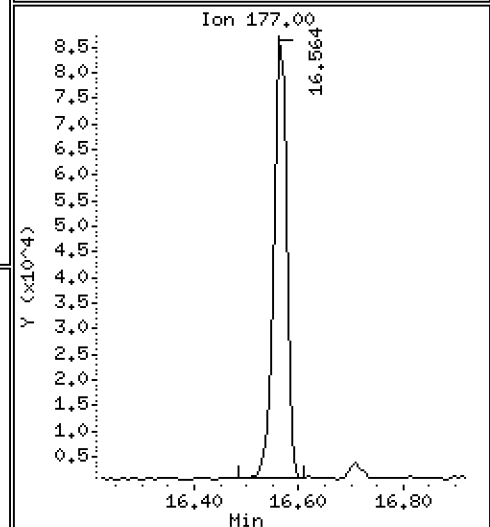
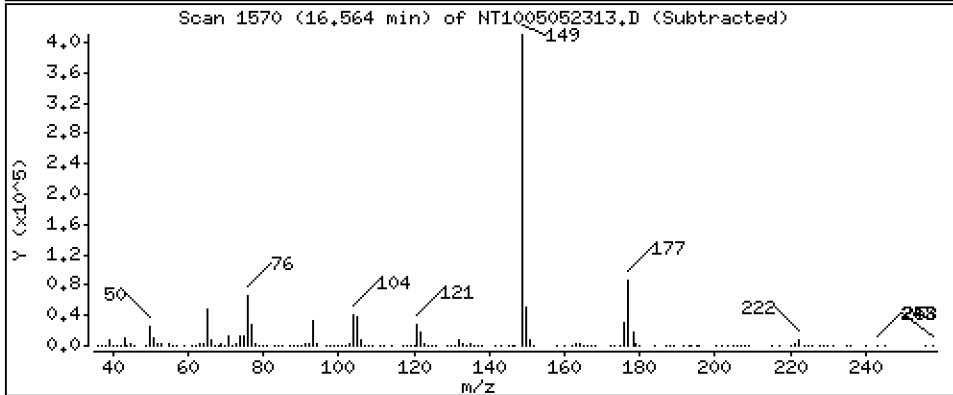
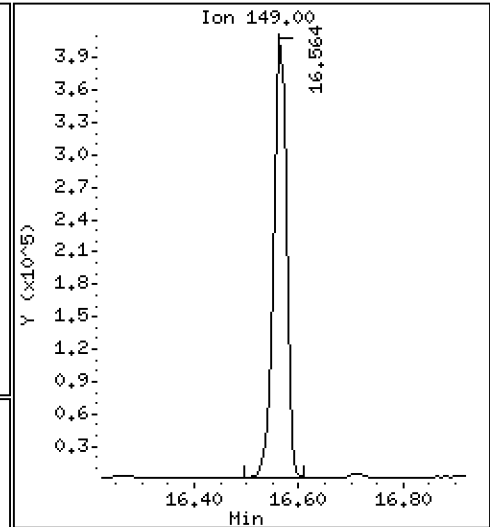
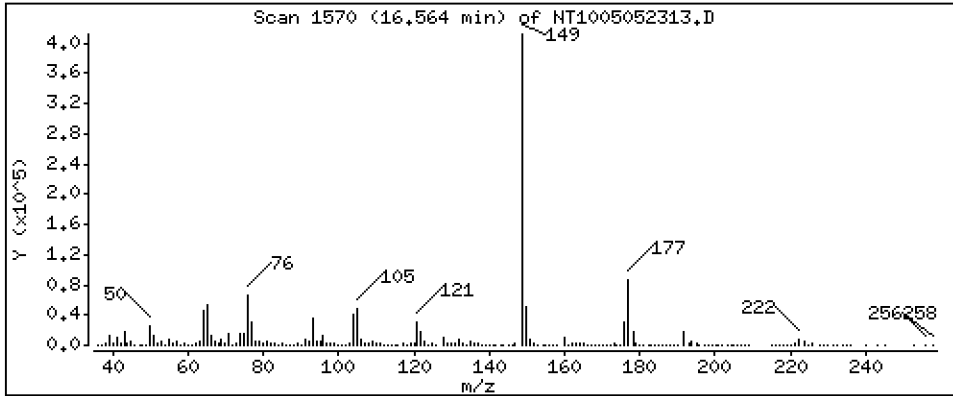
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,900 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

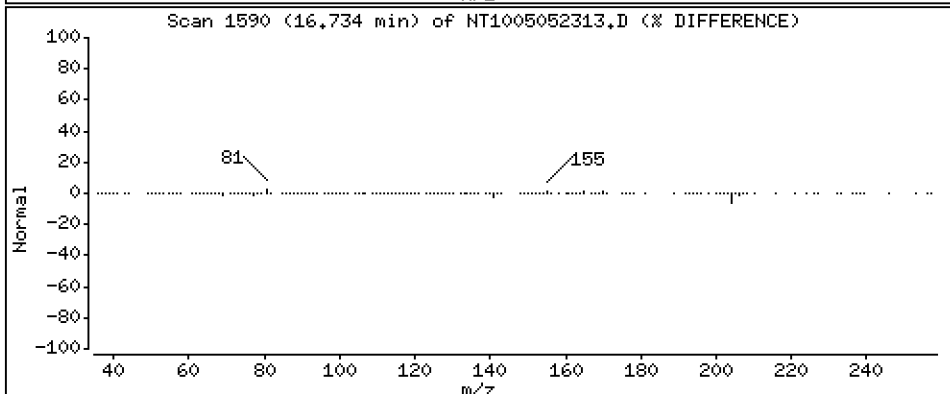
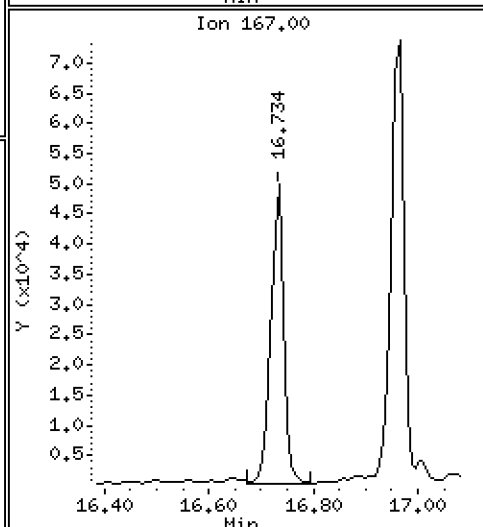
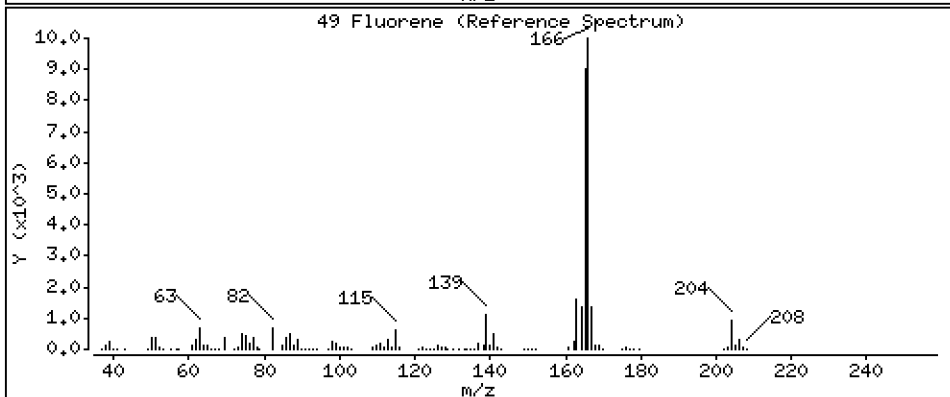
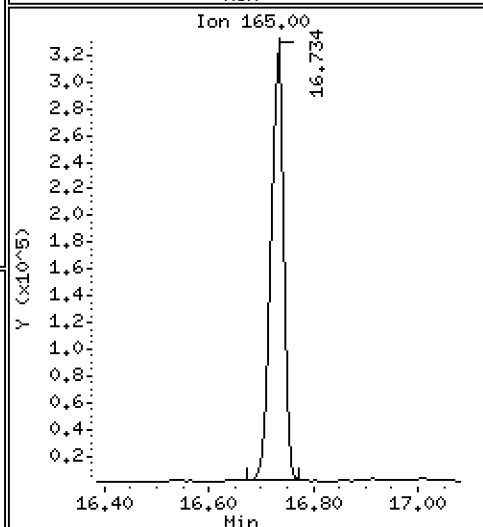
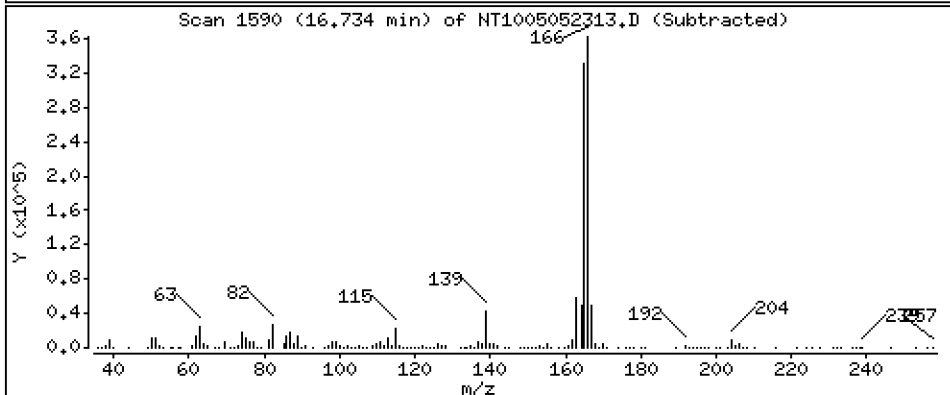
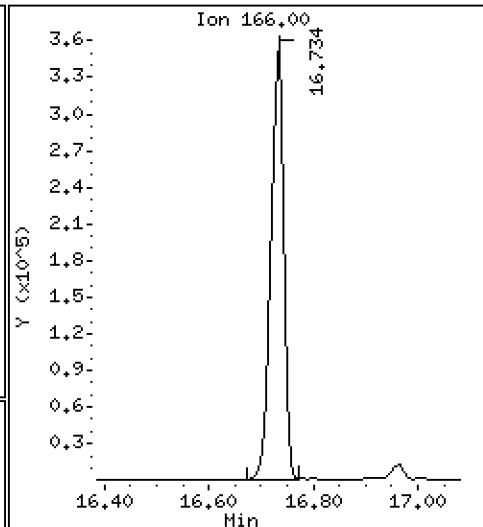
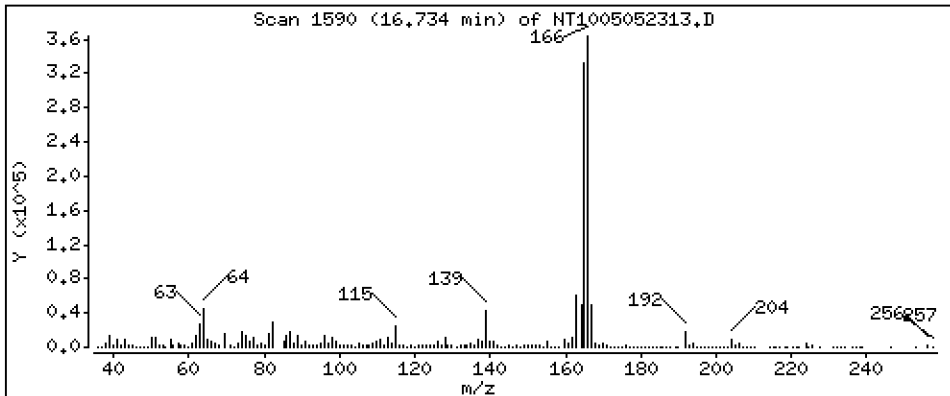
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,667 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

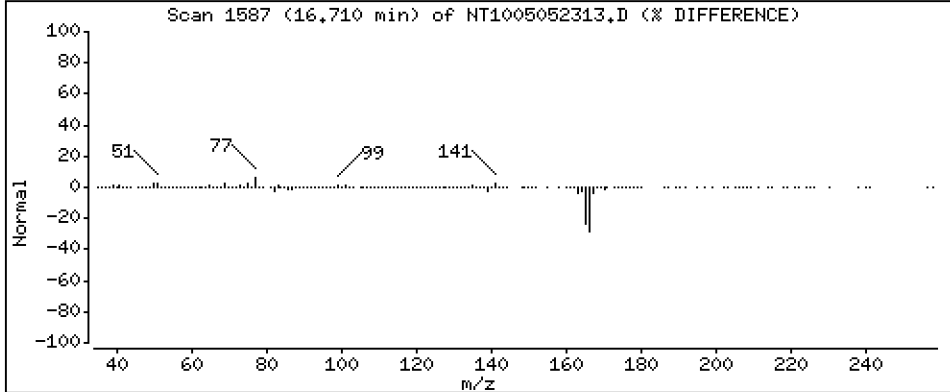
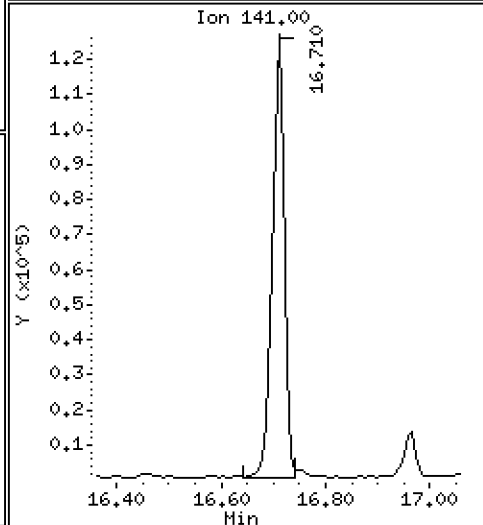
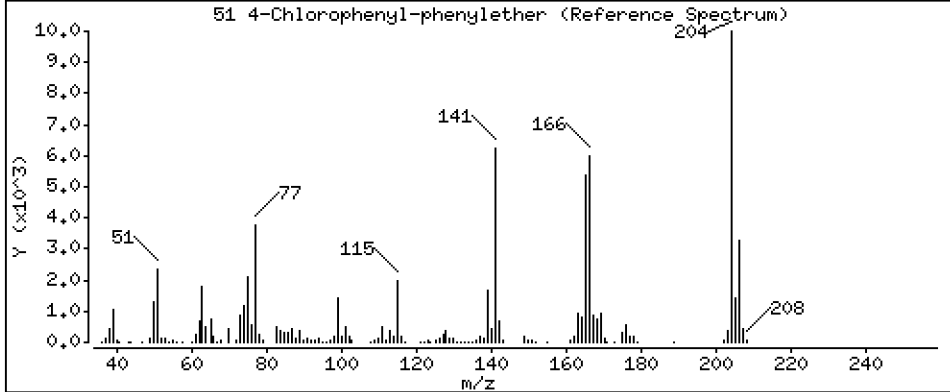
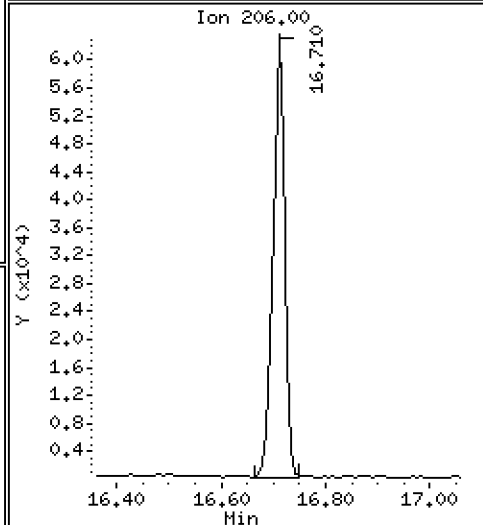
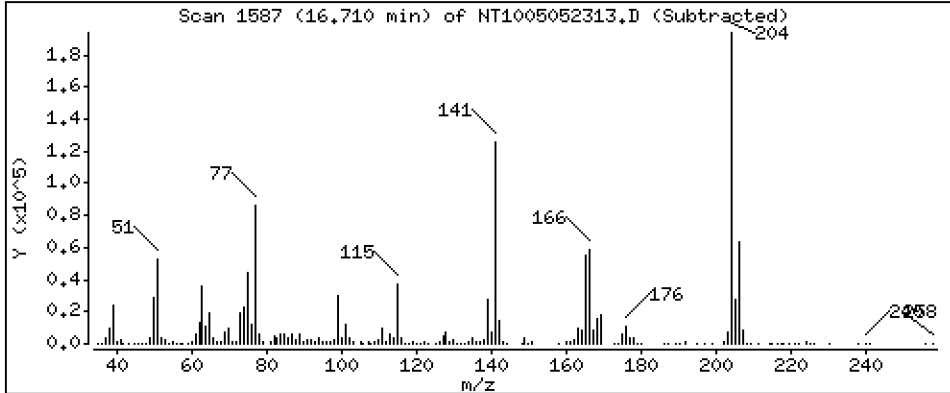
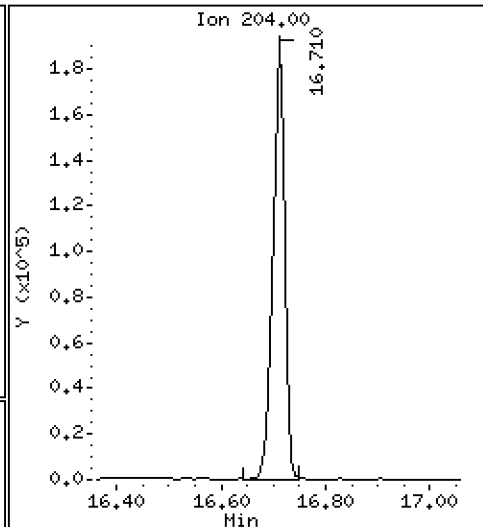
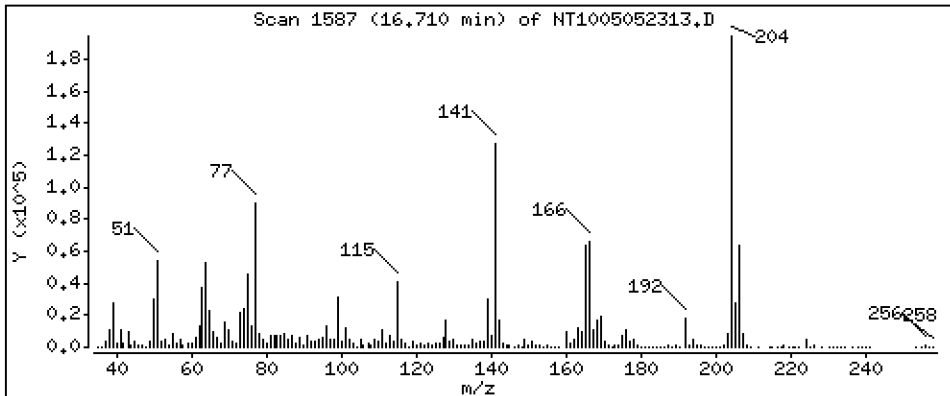
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,290 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

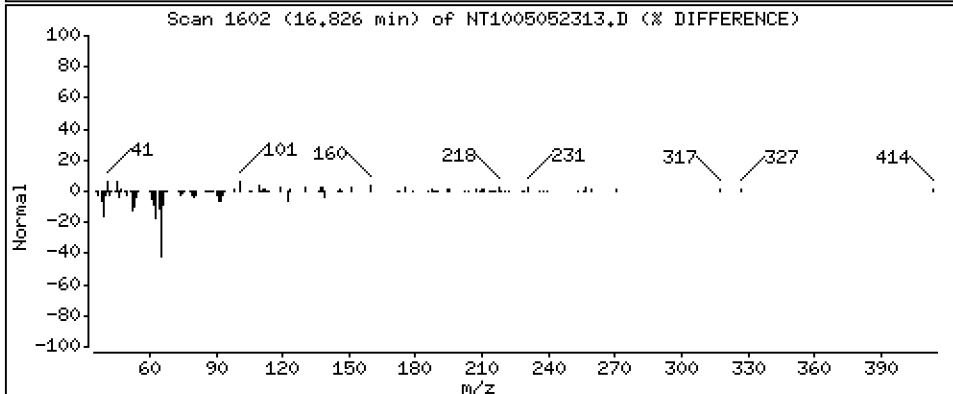
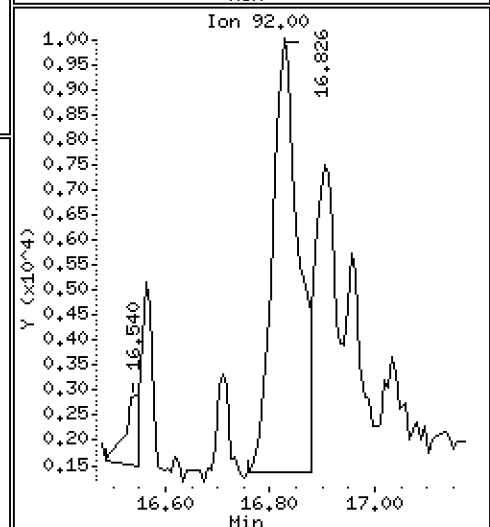
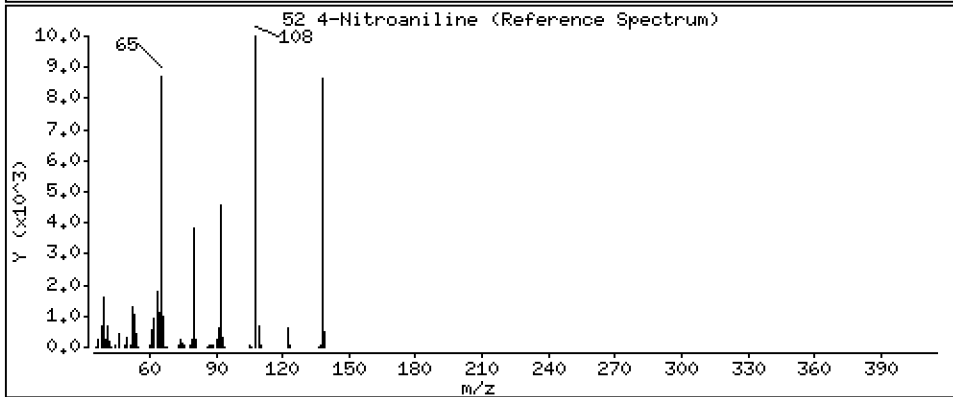
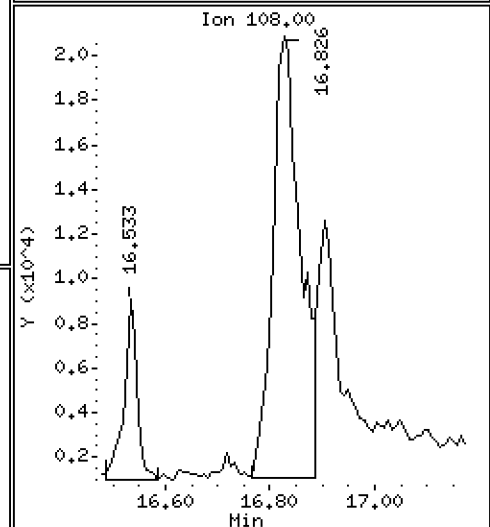
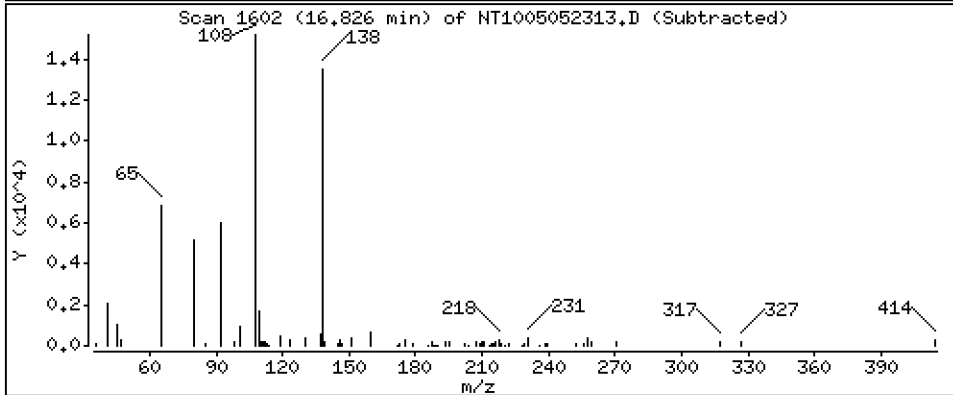
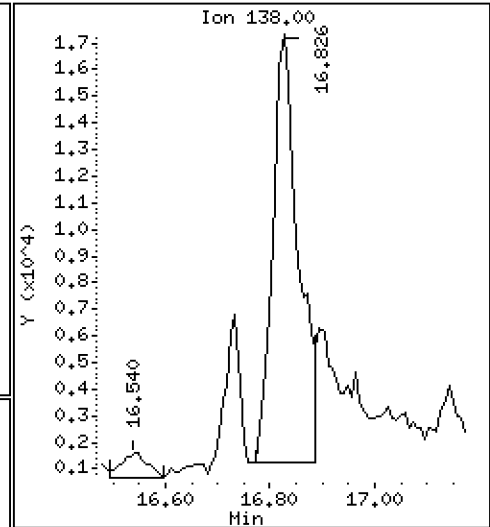
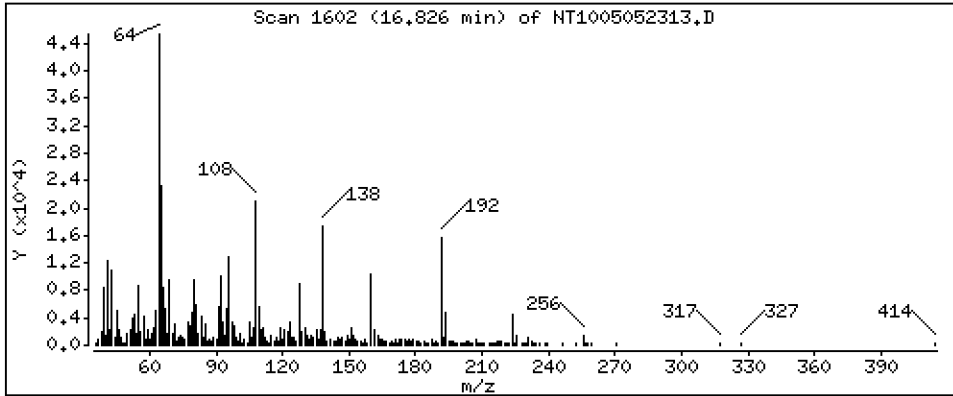
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 1,690 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

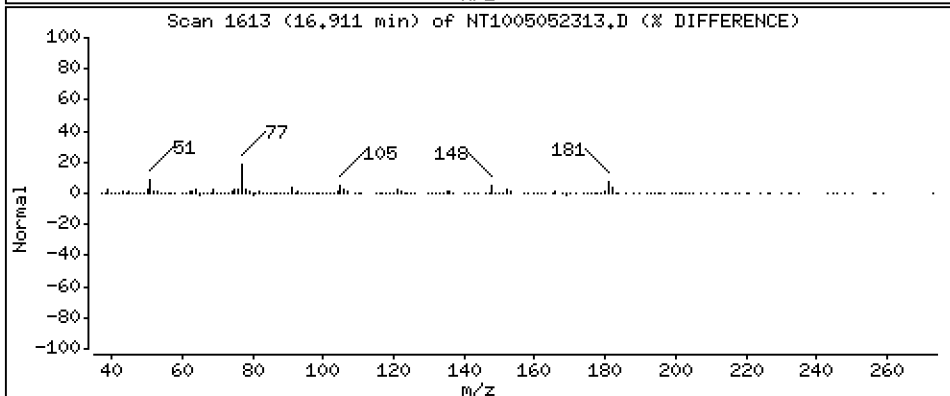
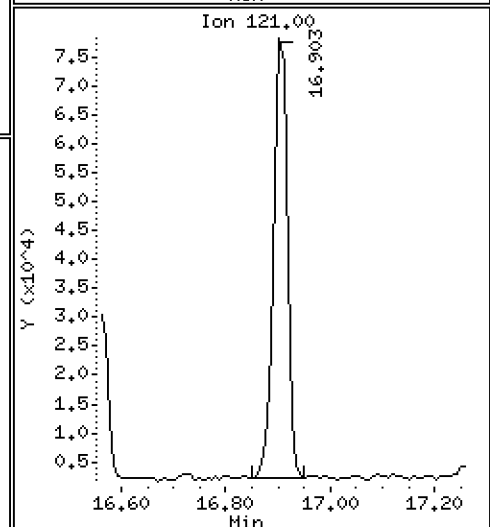
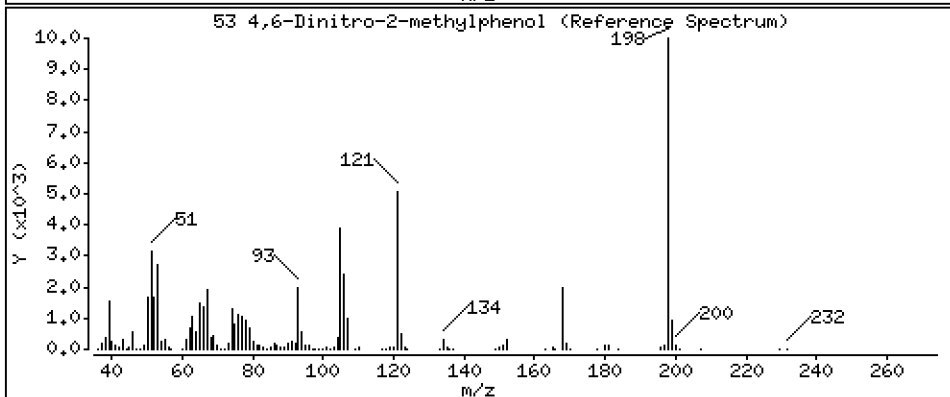
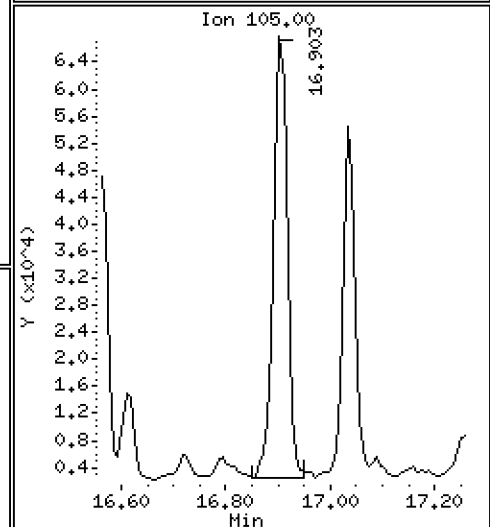
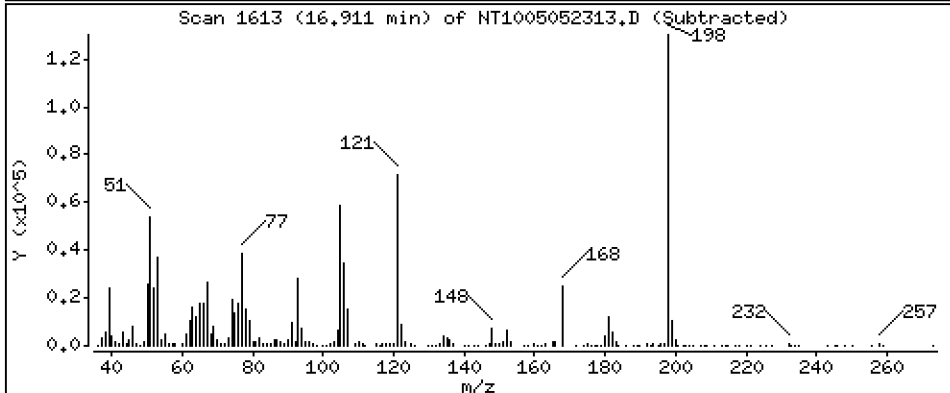
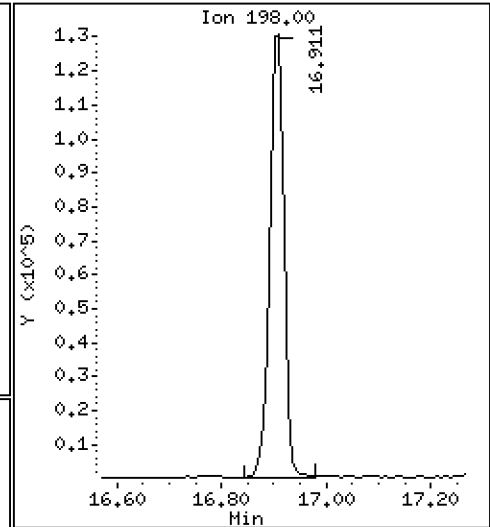
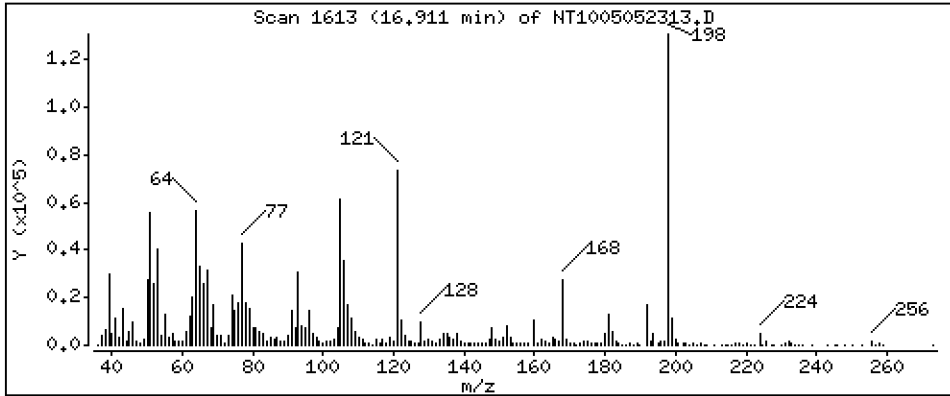
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 8,806 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

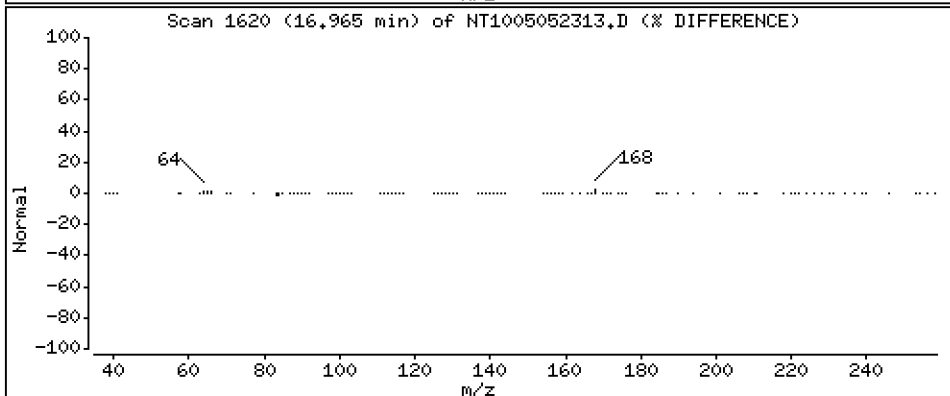
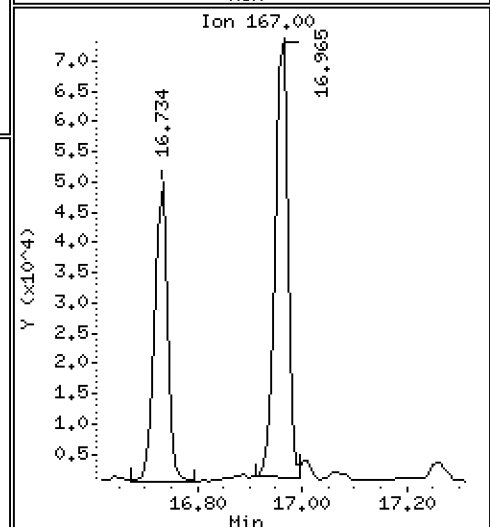
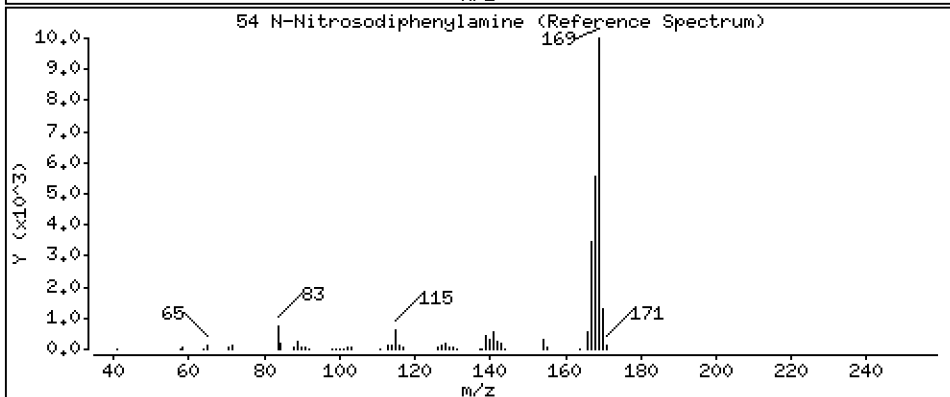
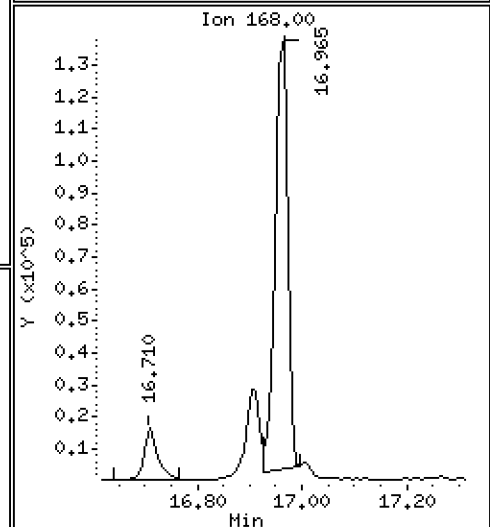
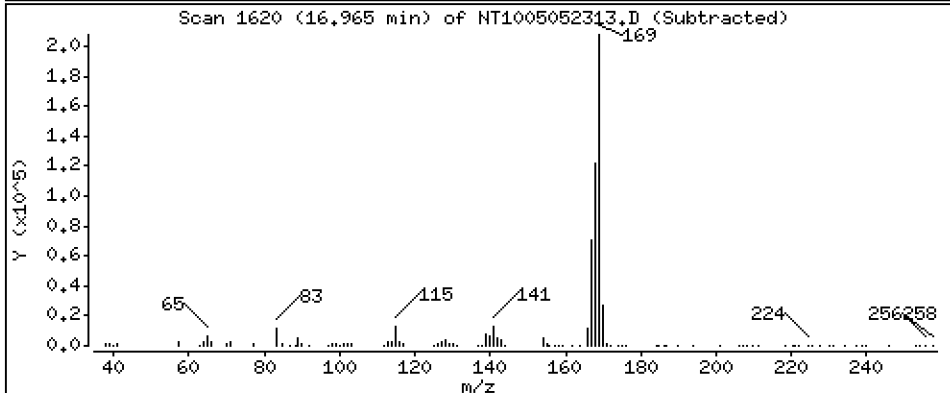
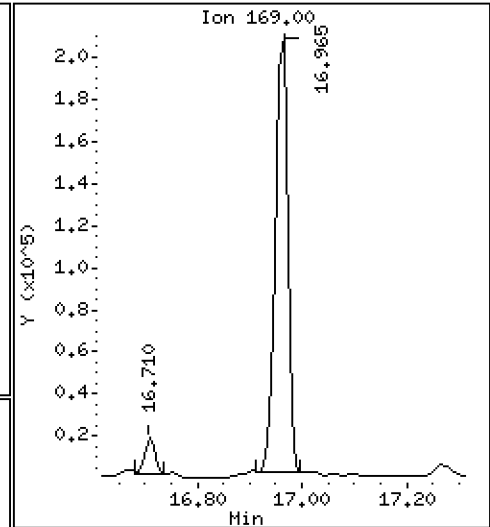
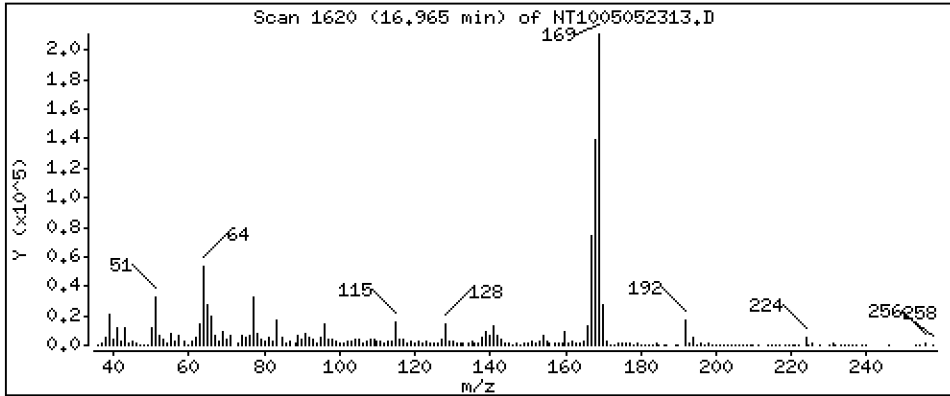
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 3,560 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

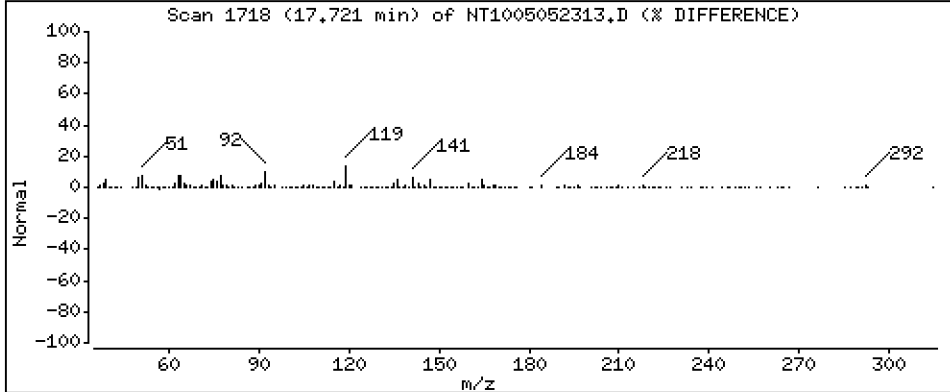
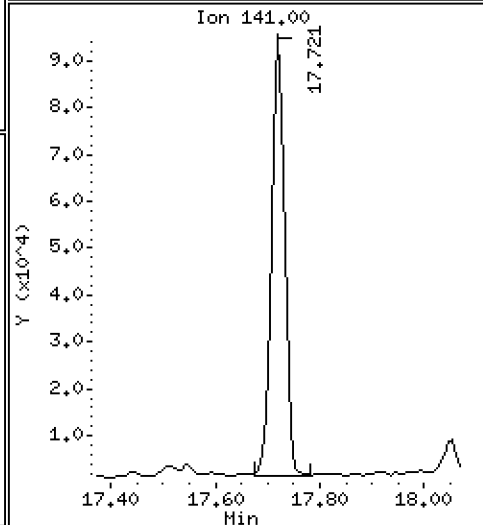
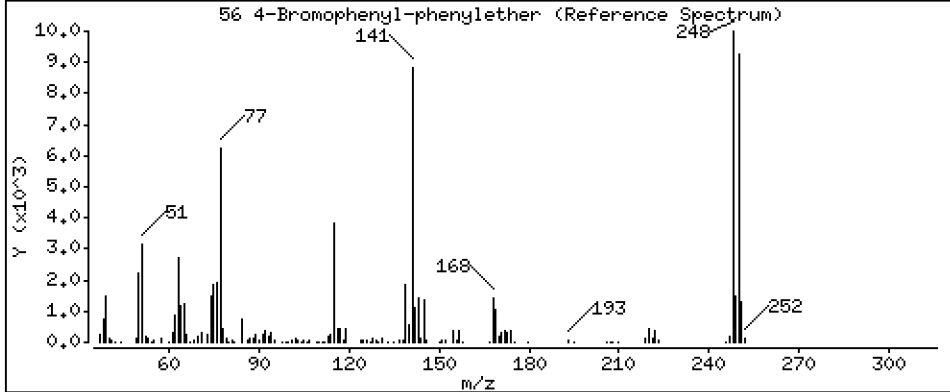
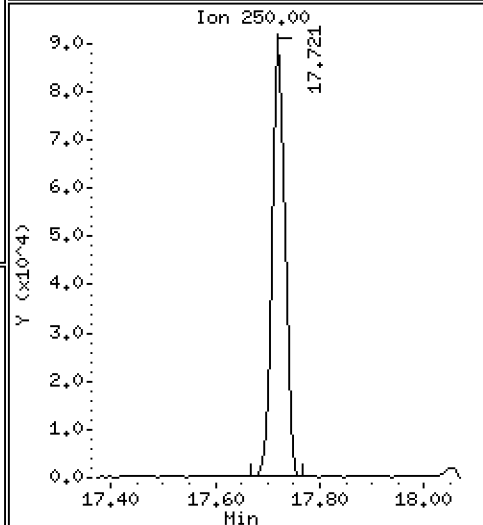
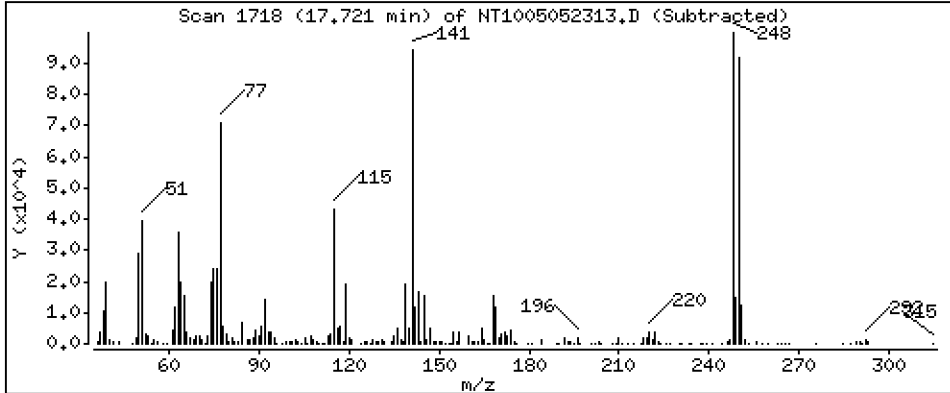
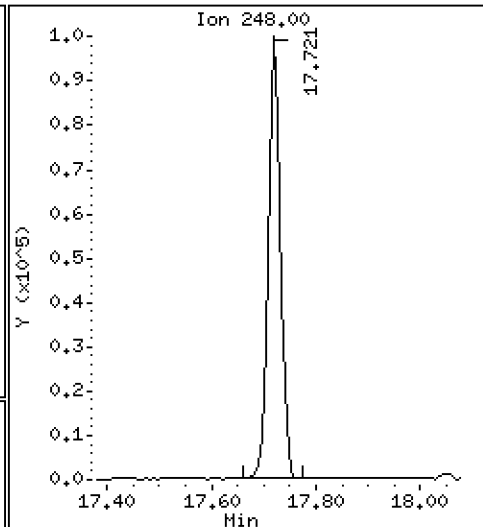
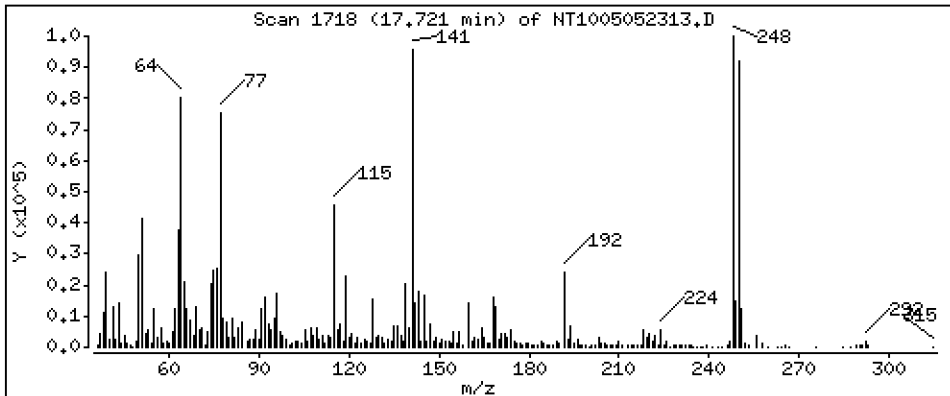
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 3,787 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

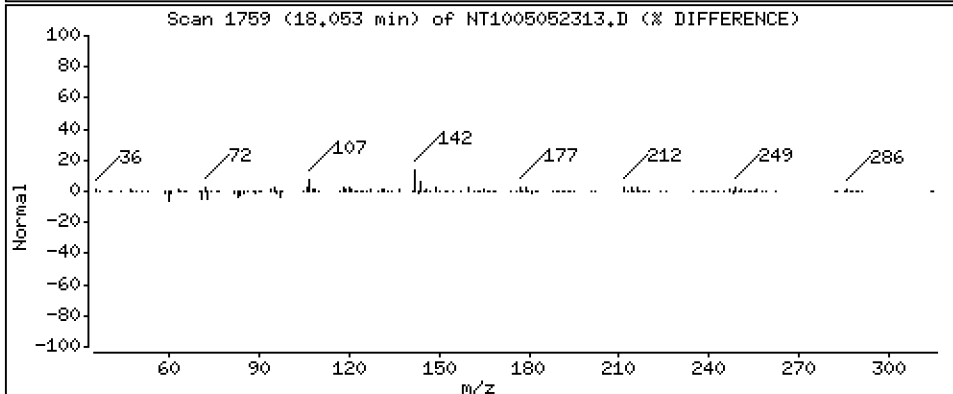
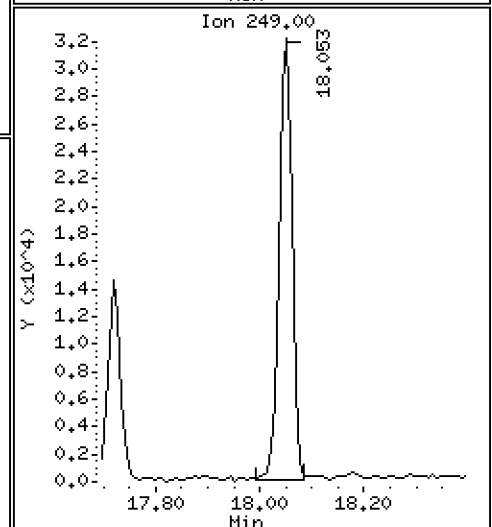
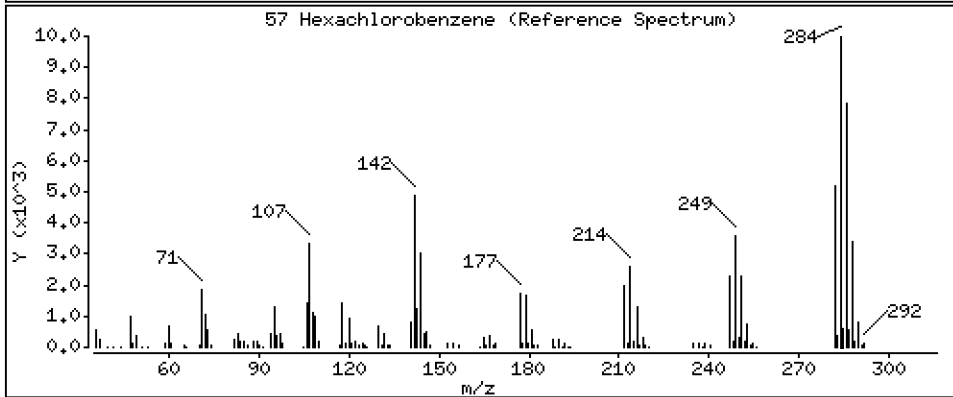
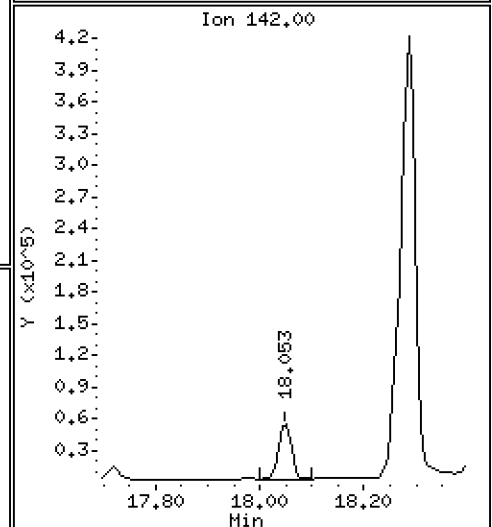
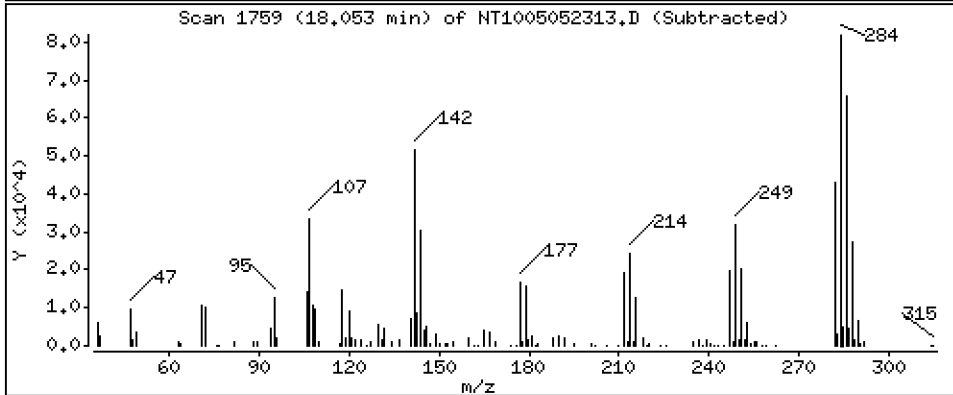
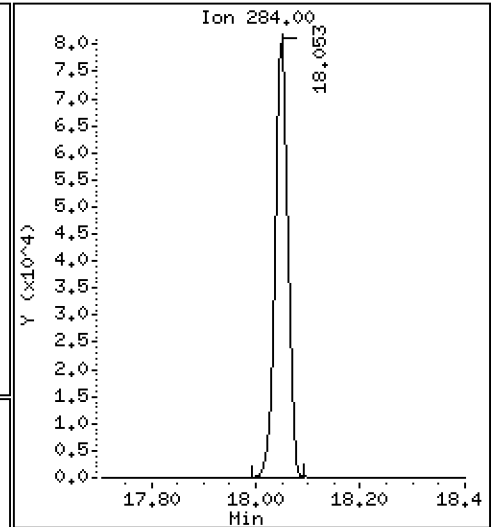
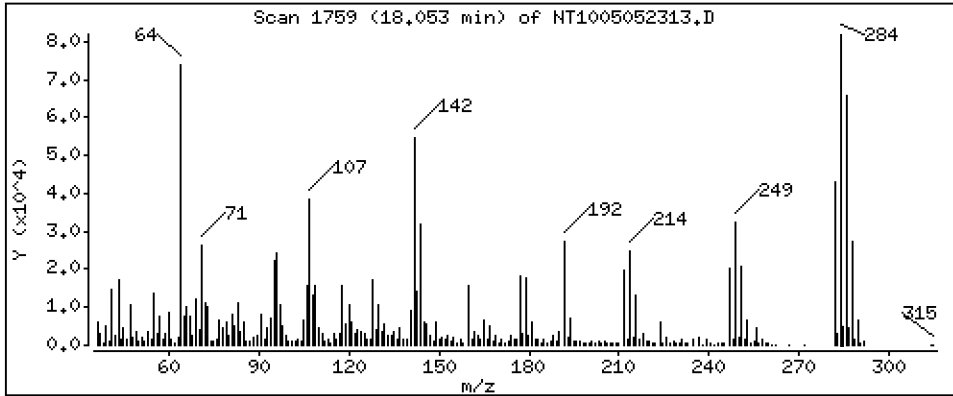
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 3,190 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

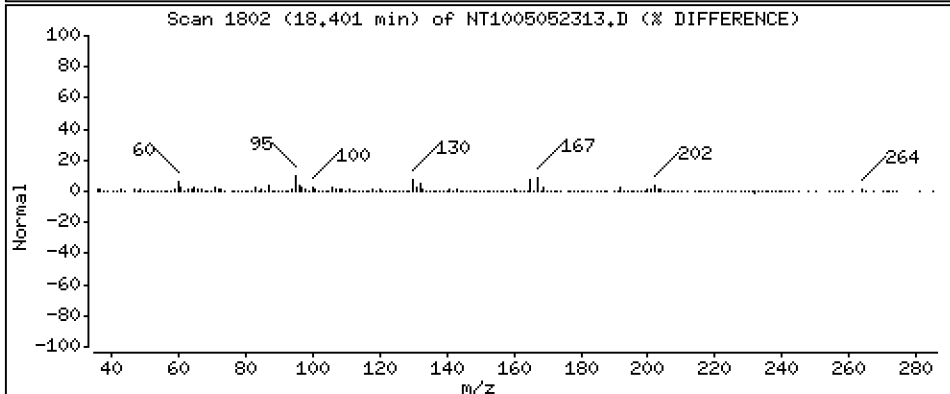
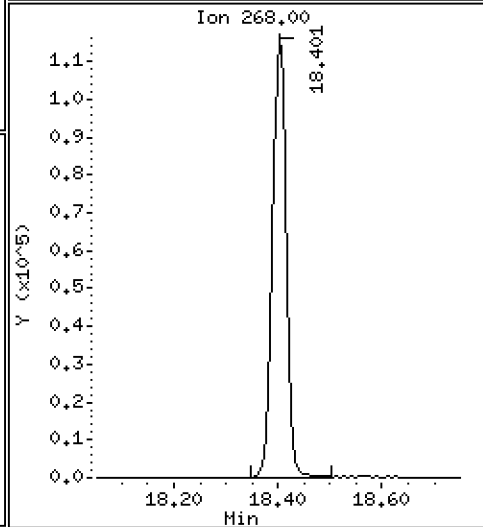
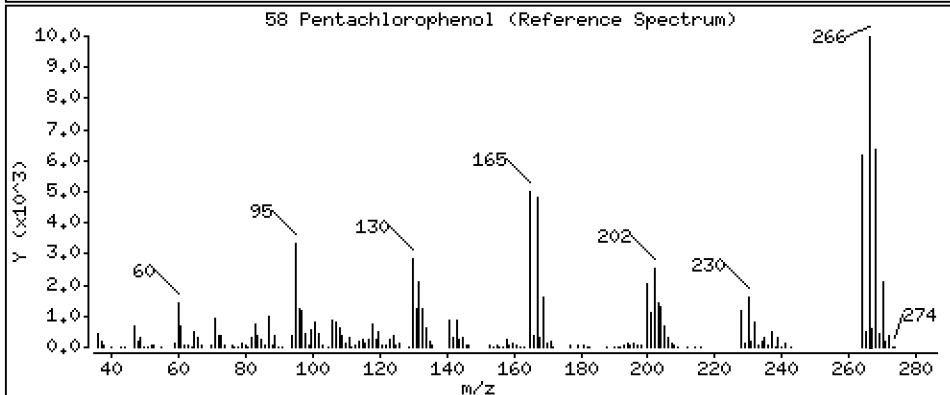
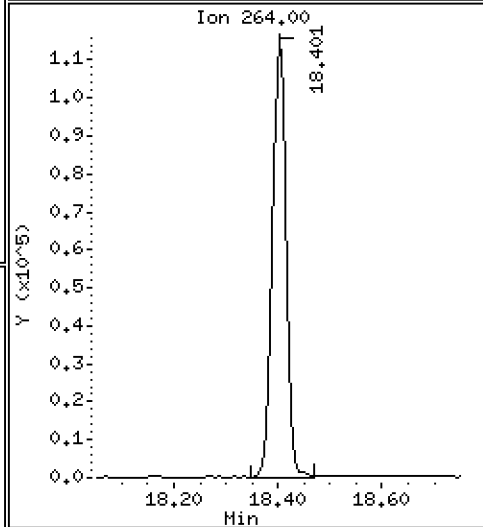
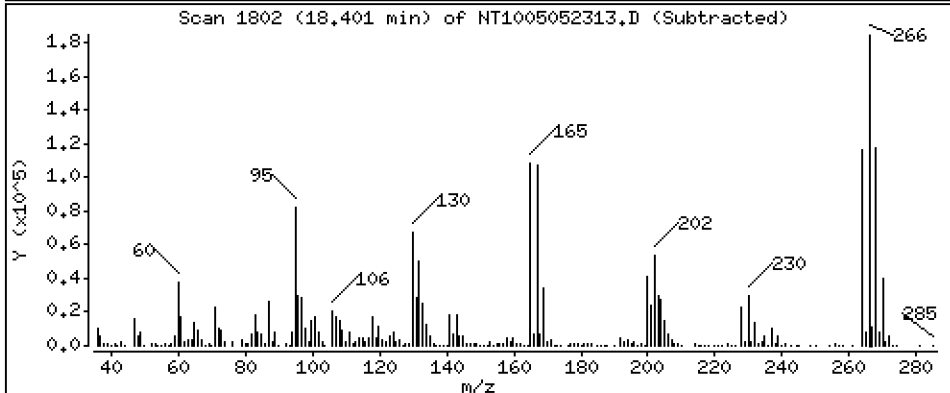
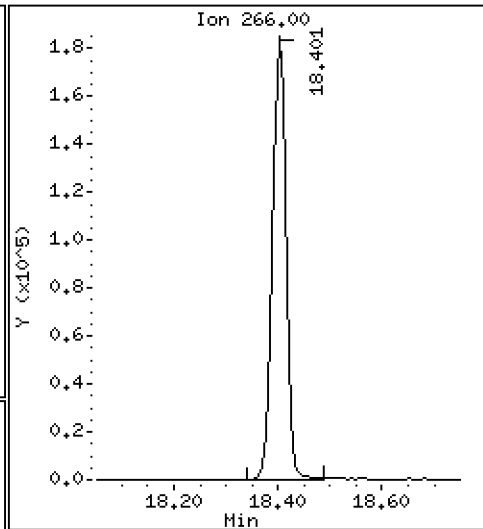
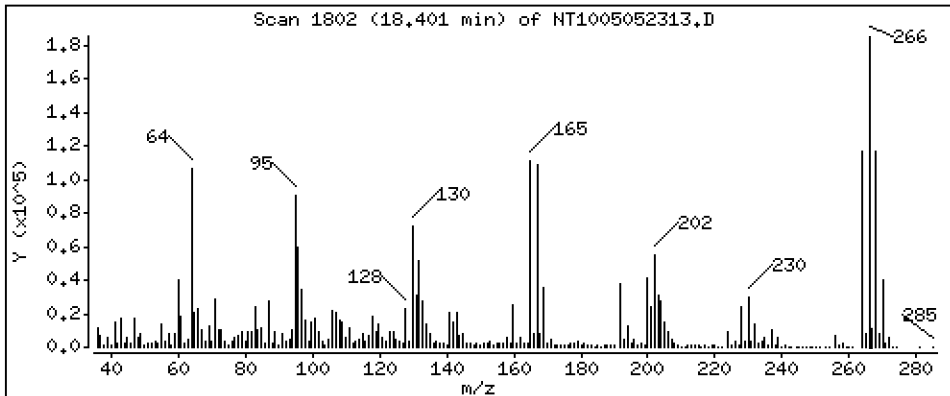
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 10,29 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

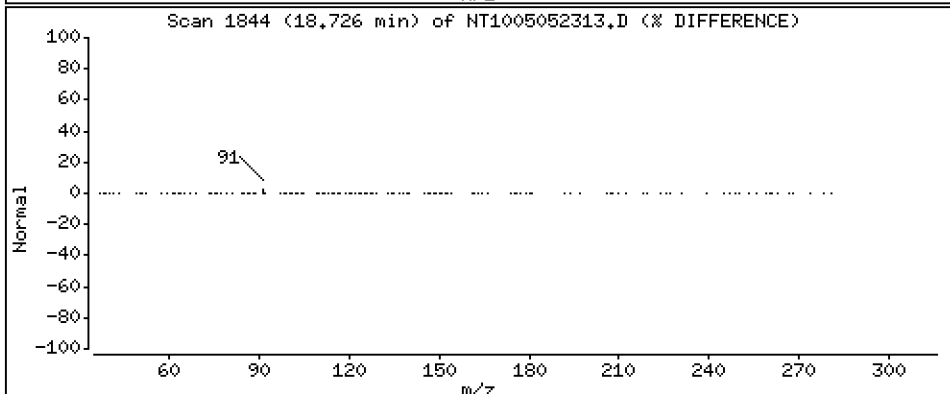
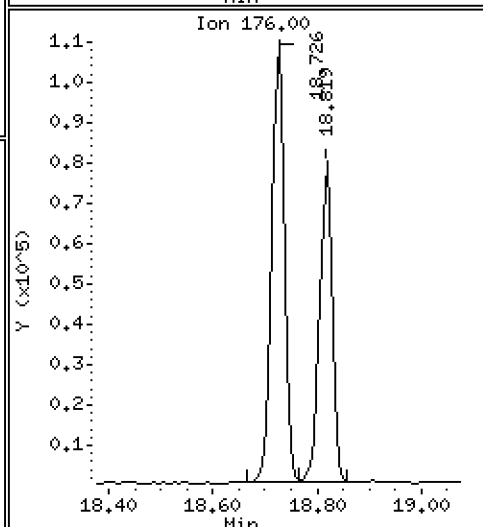
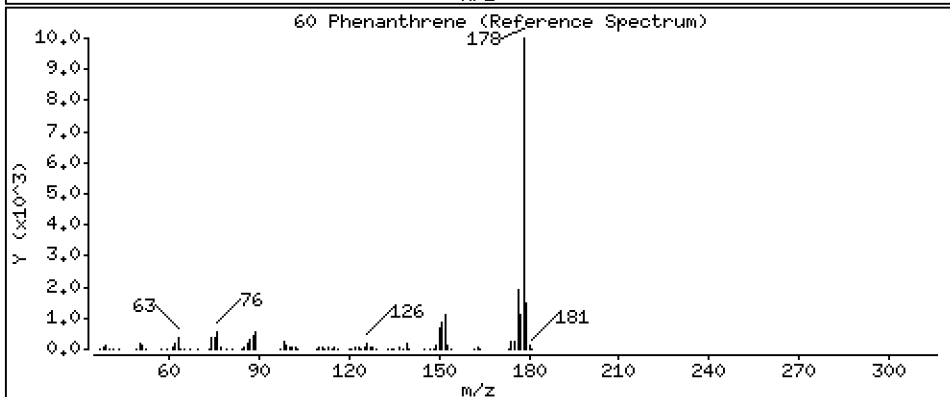
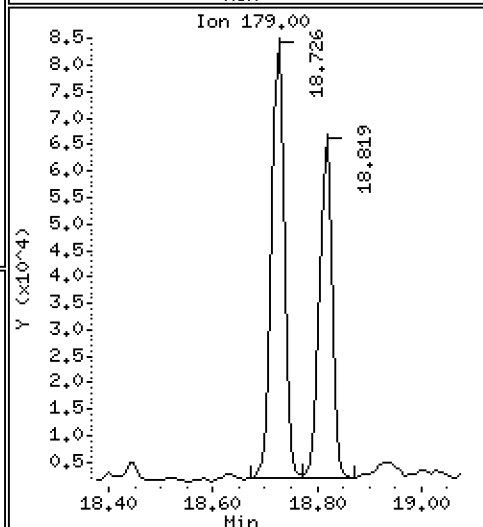
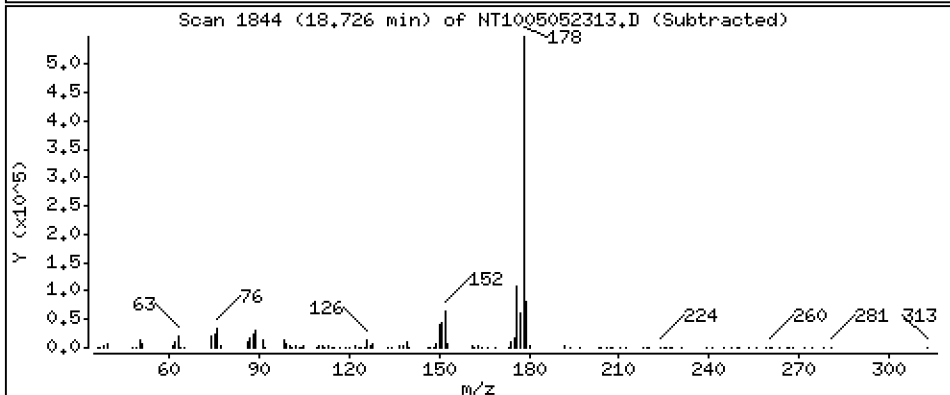
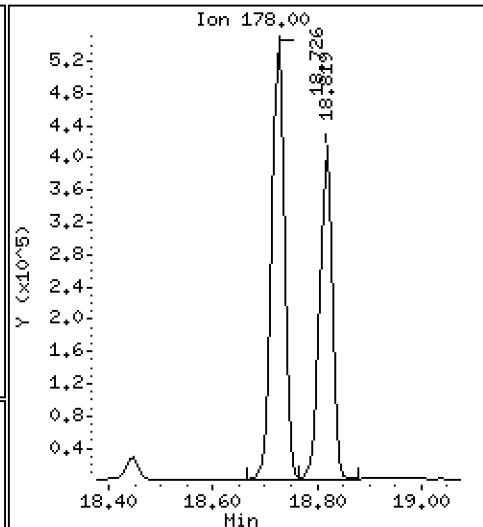
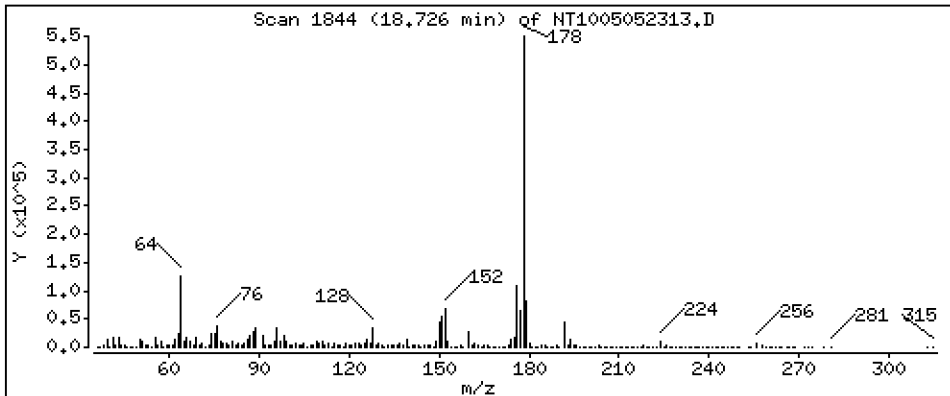
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,327 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

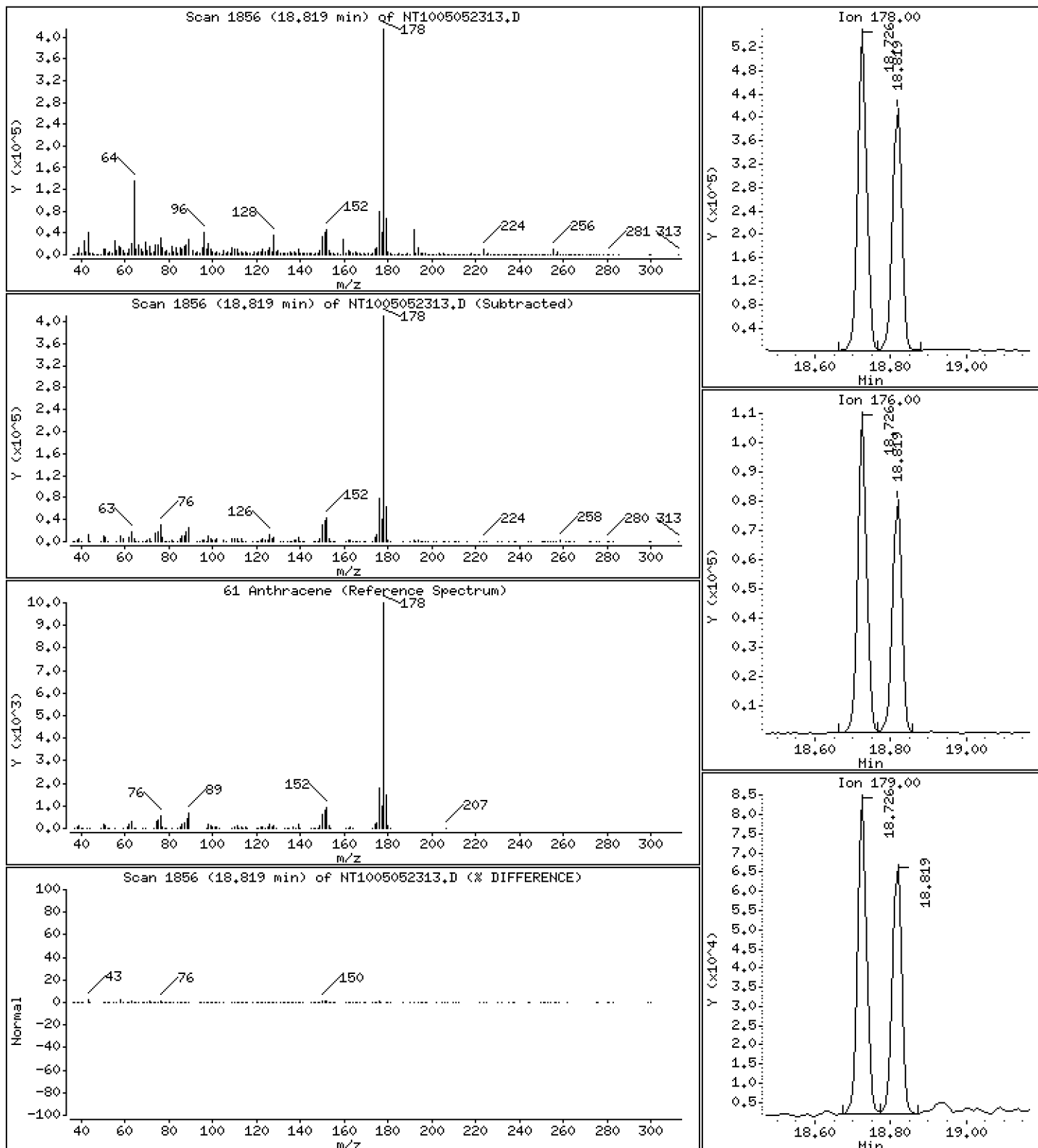
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,610 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

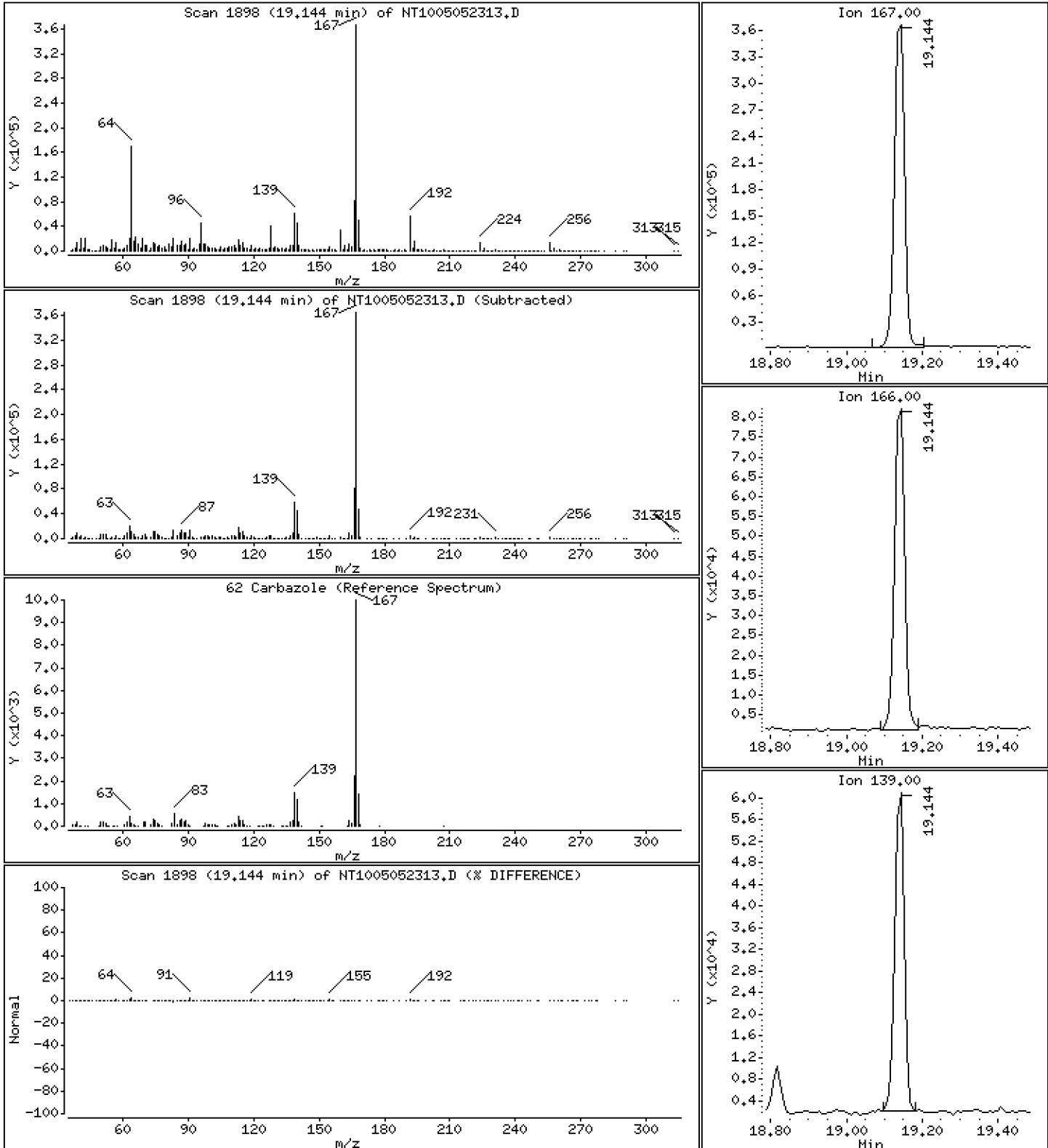
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 3,877 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

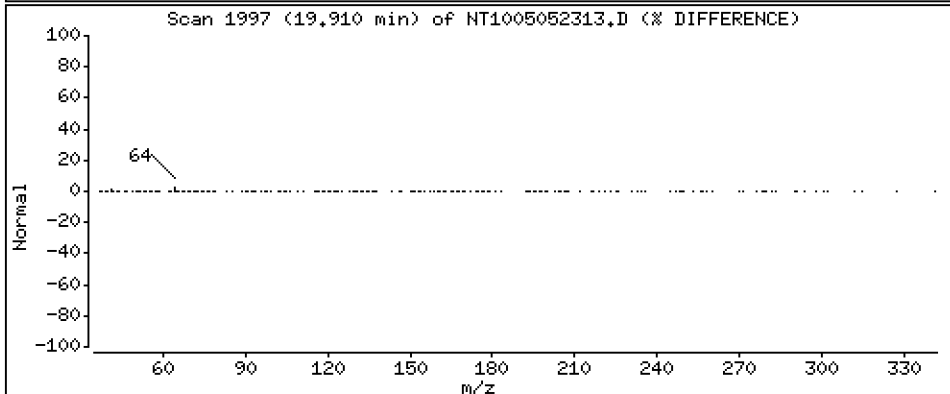
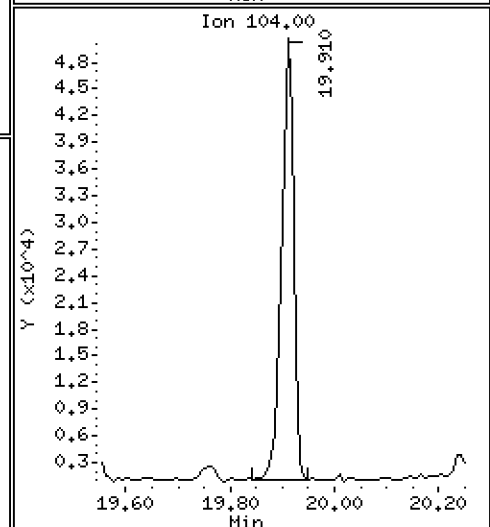
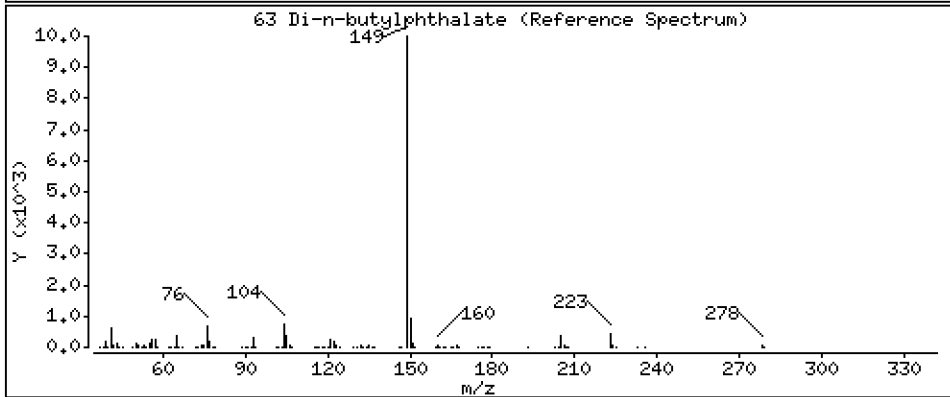
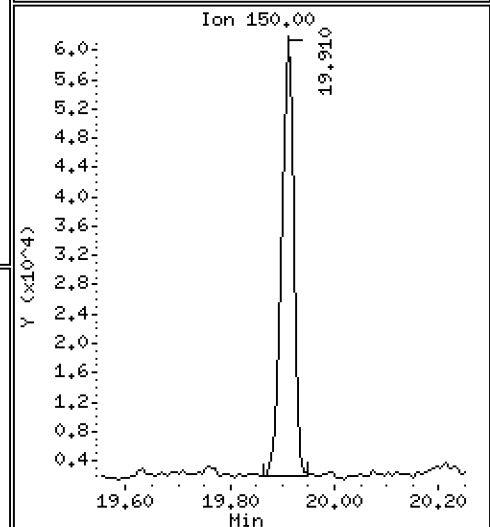
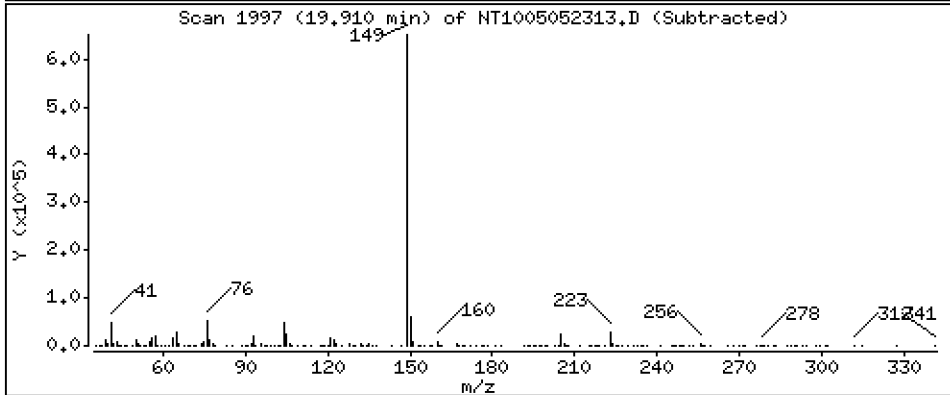
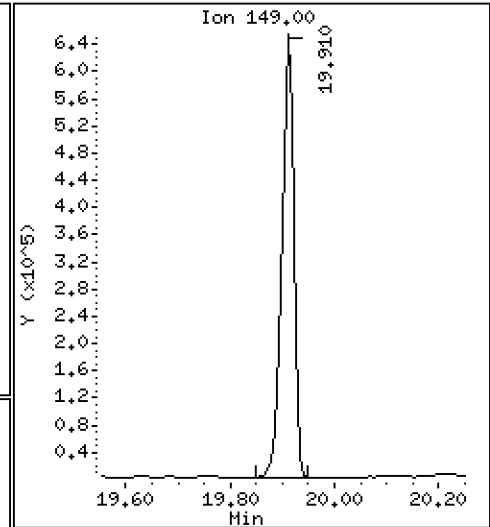
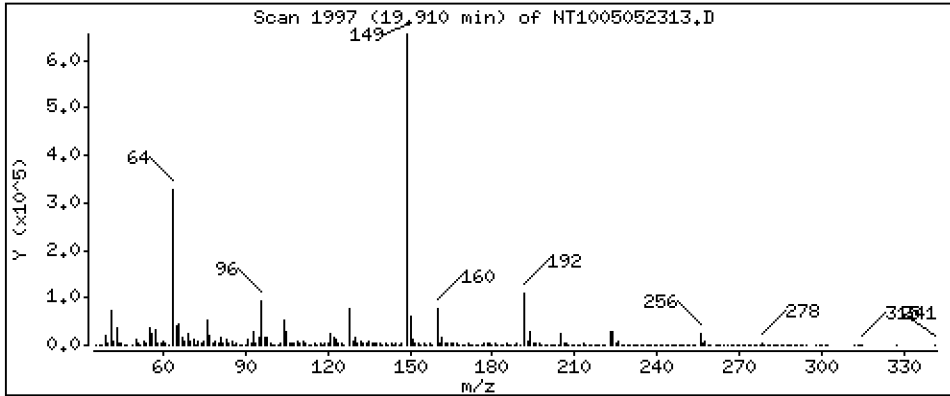
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,045 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

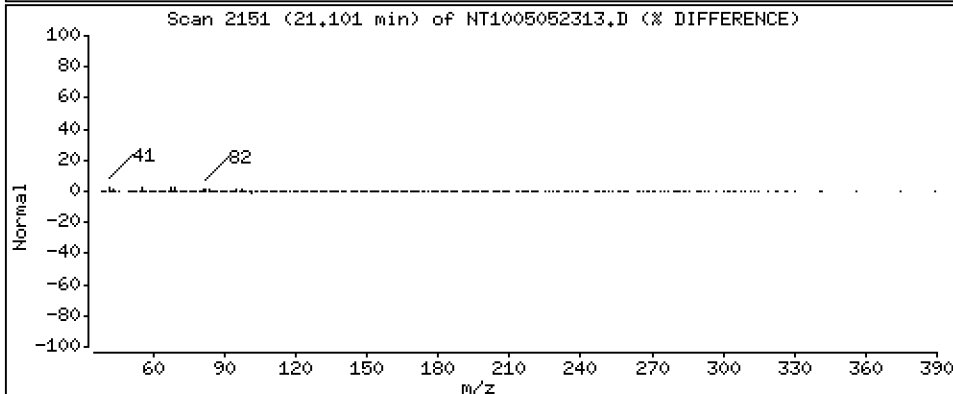
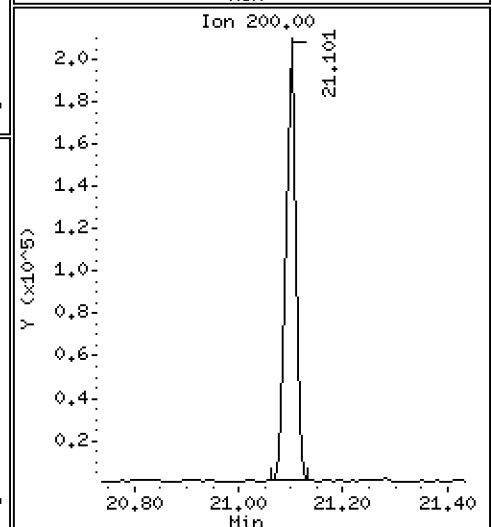
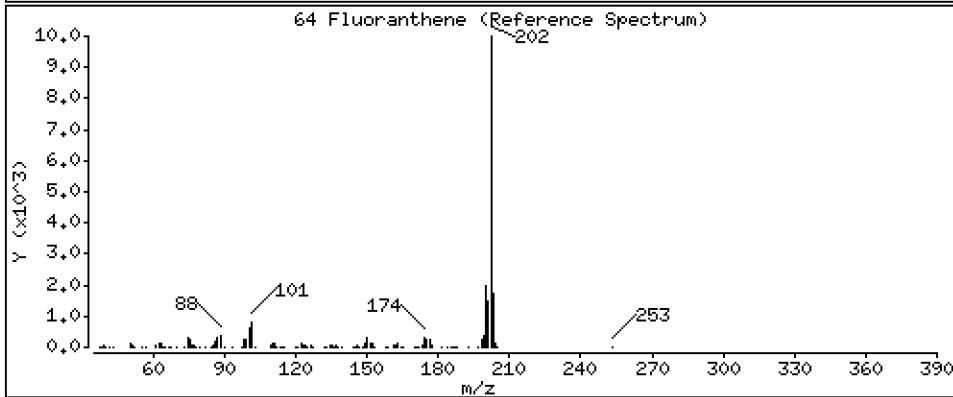
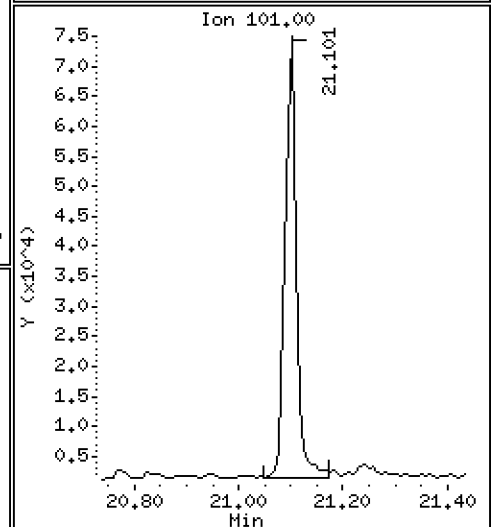
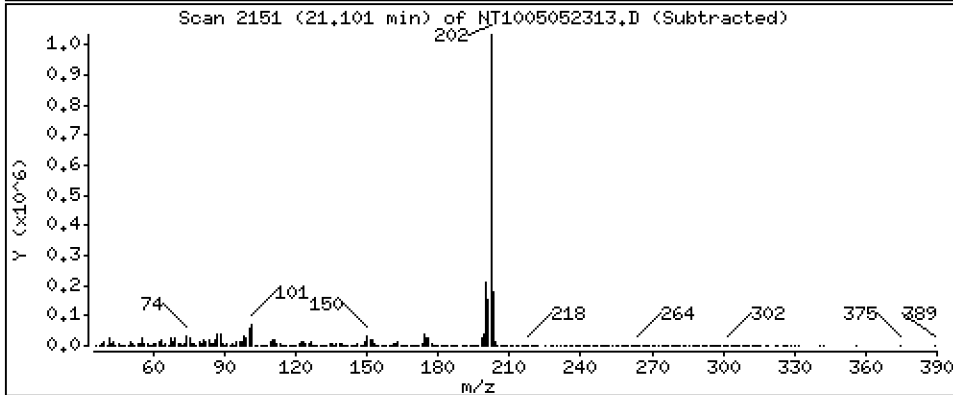
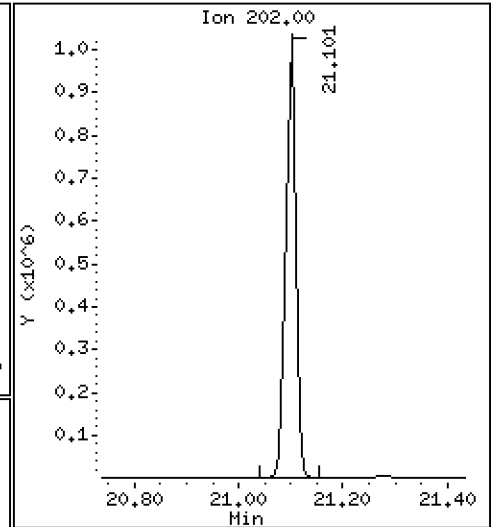
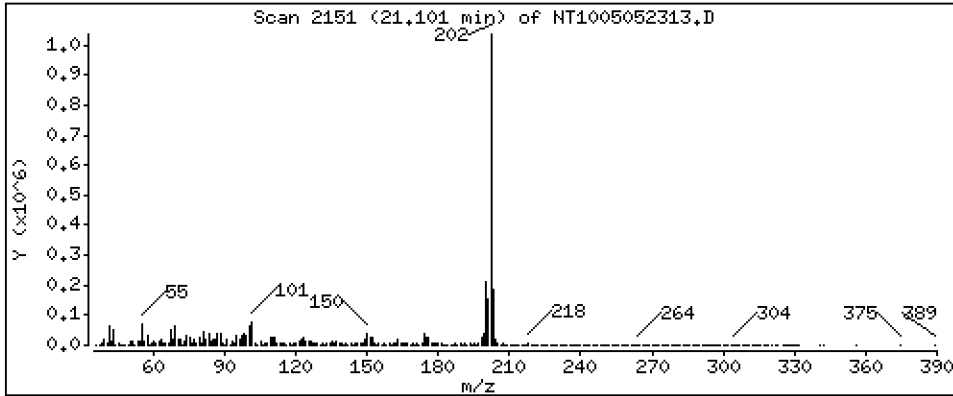
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 5,431 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

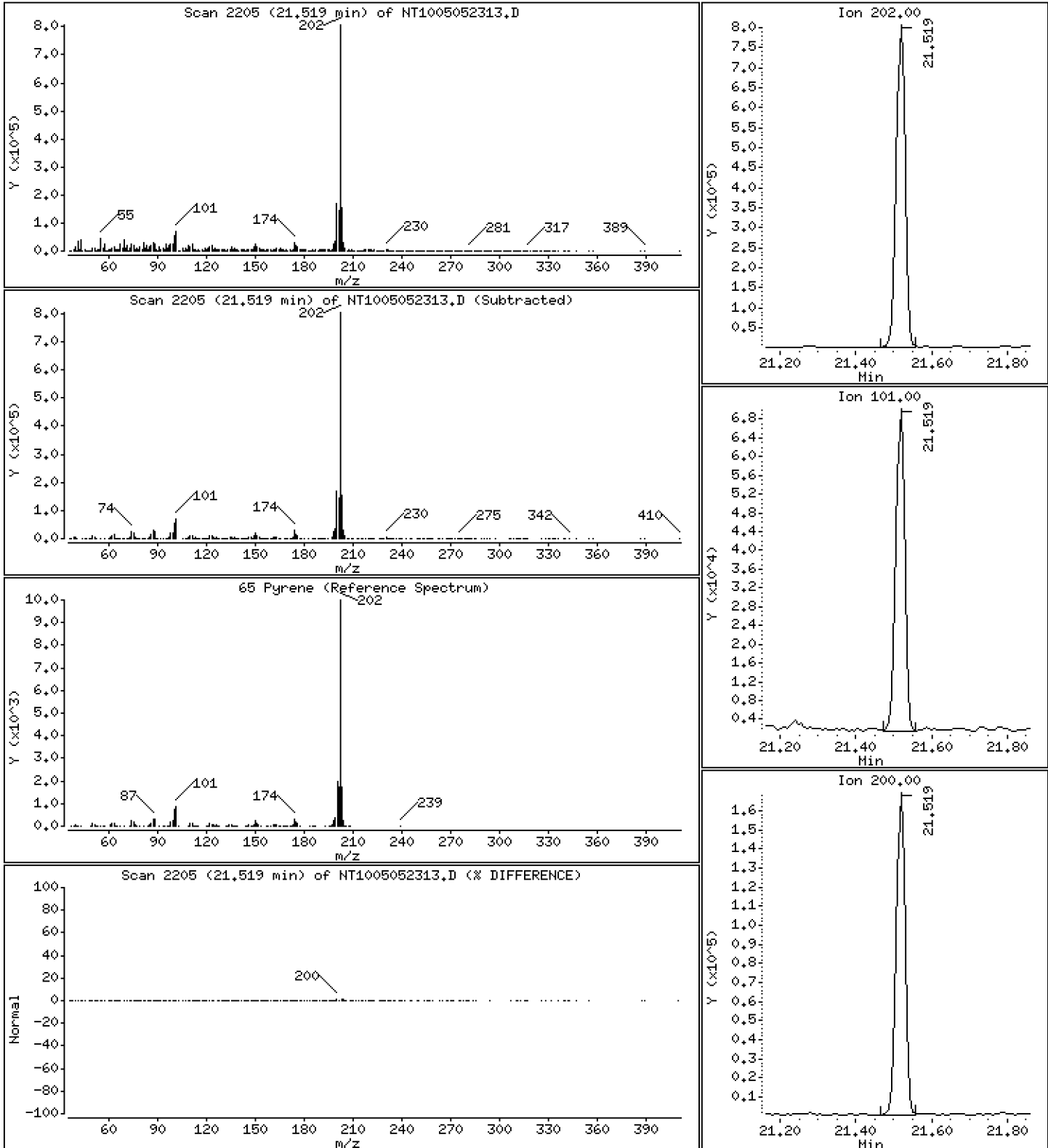
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 5,135 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

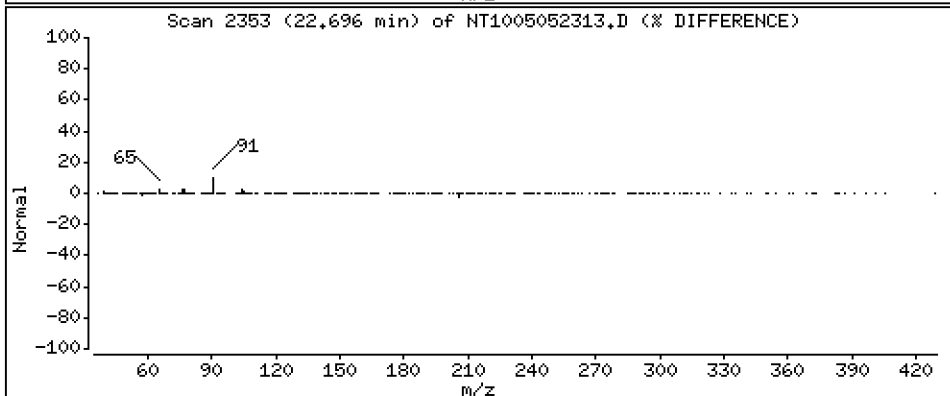
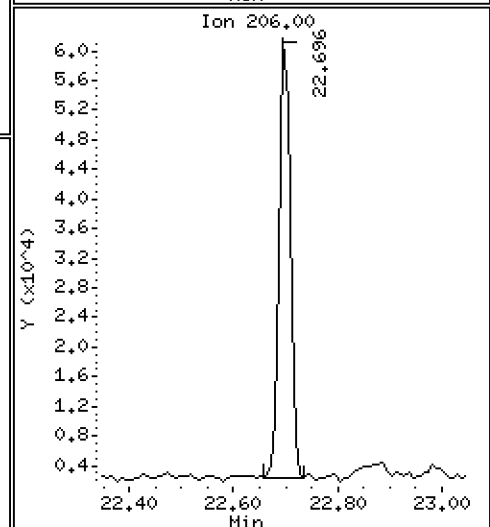
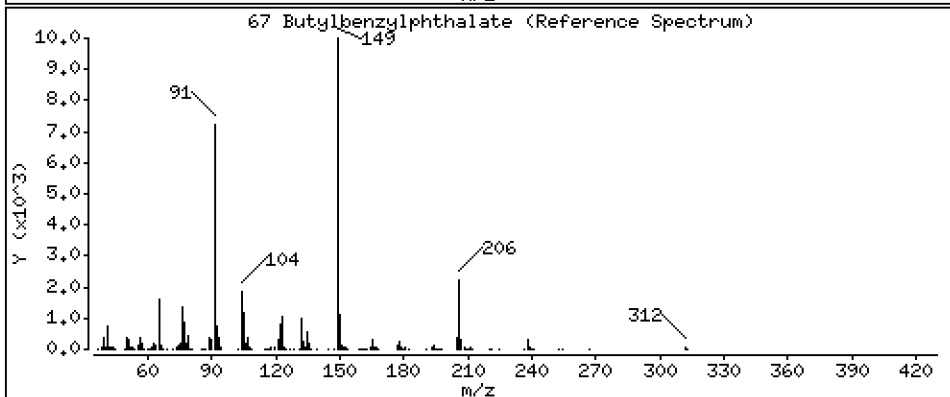
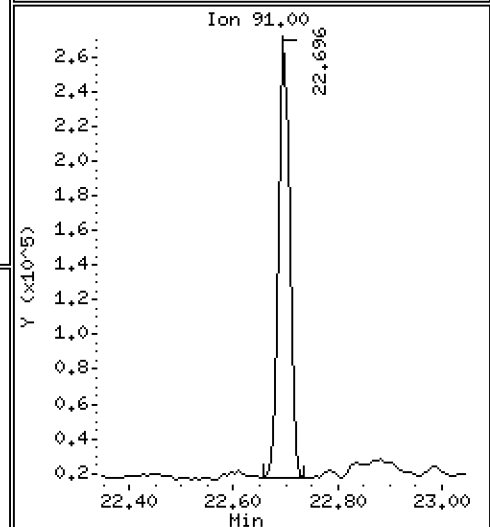
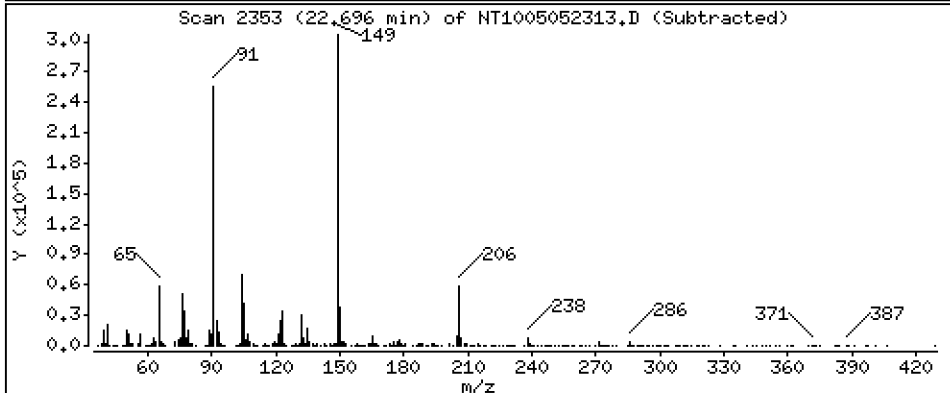
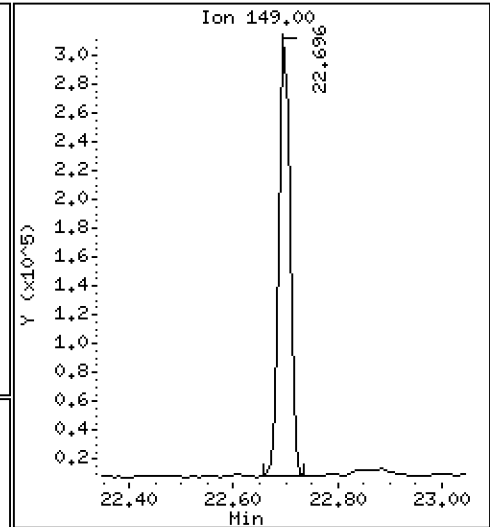
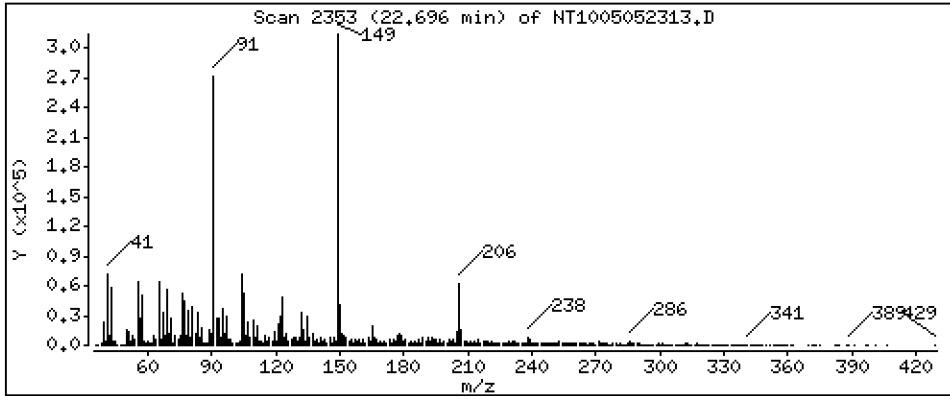
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 3,847 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

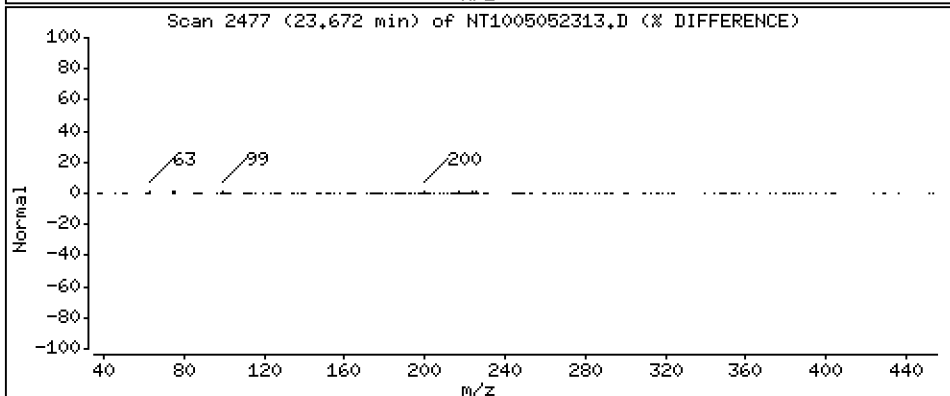
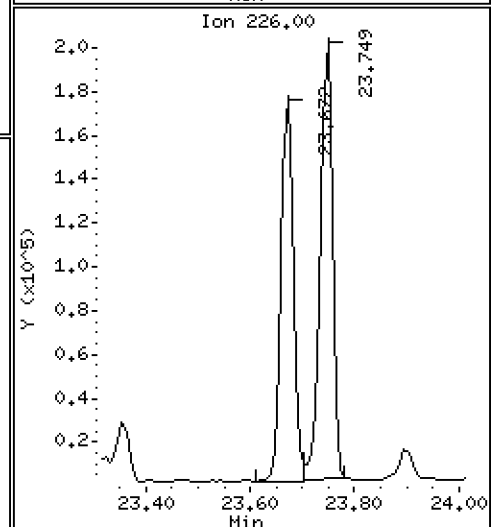
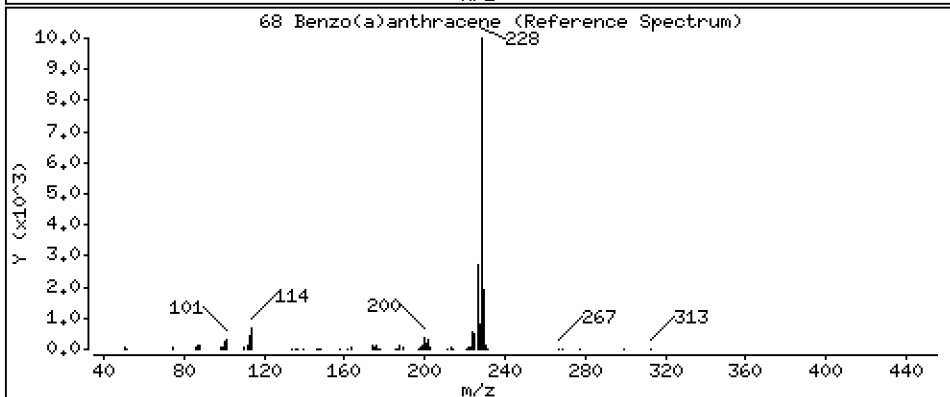
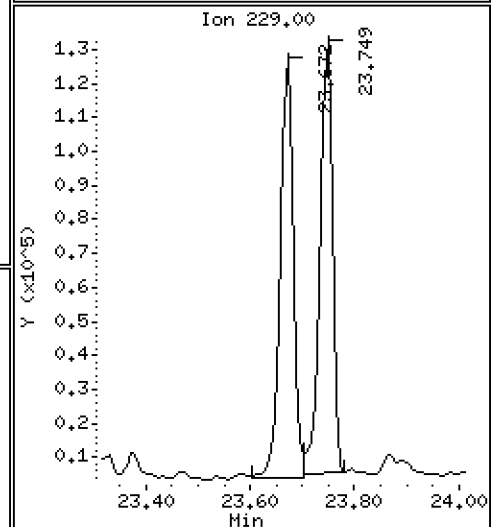
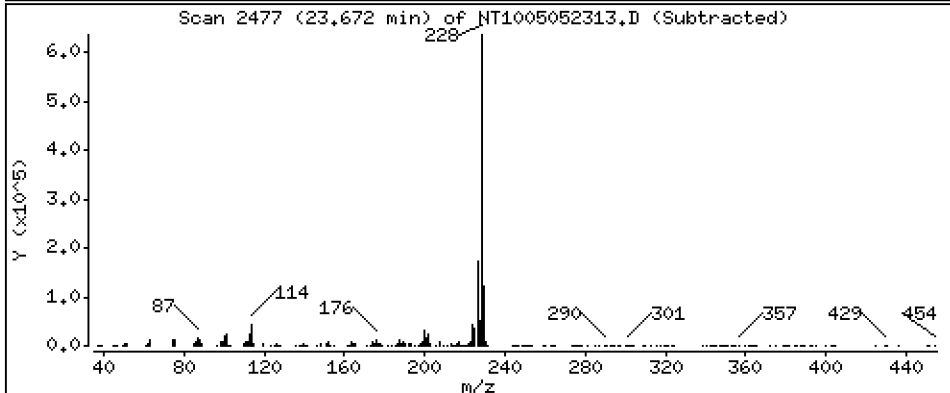
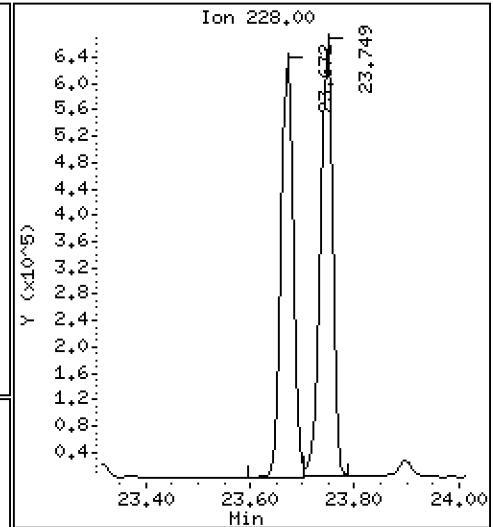
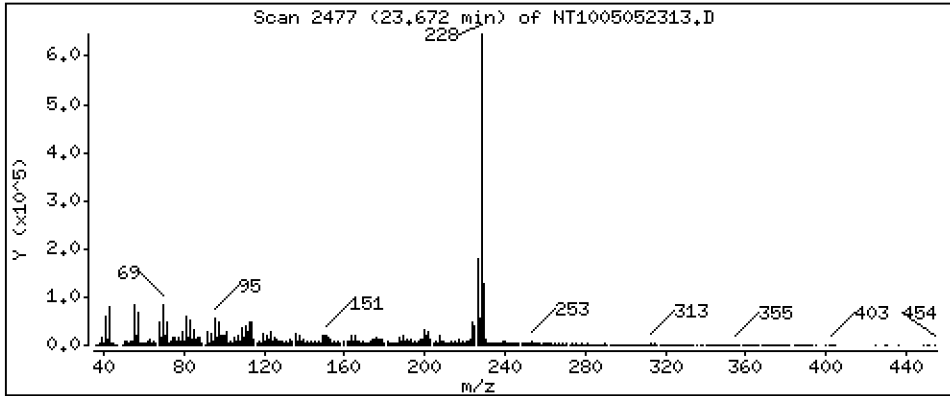
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,552 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

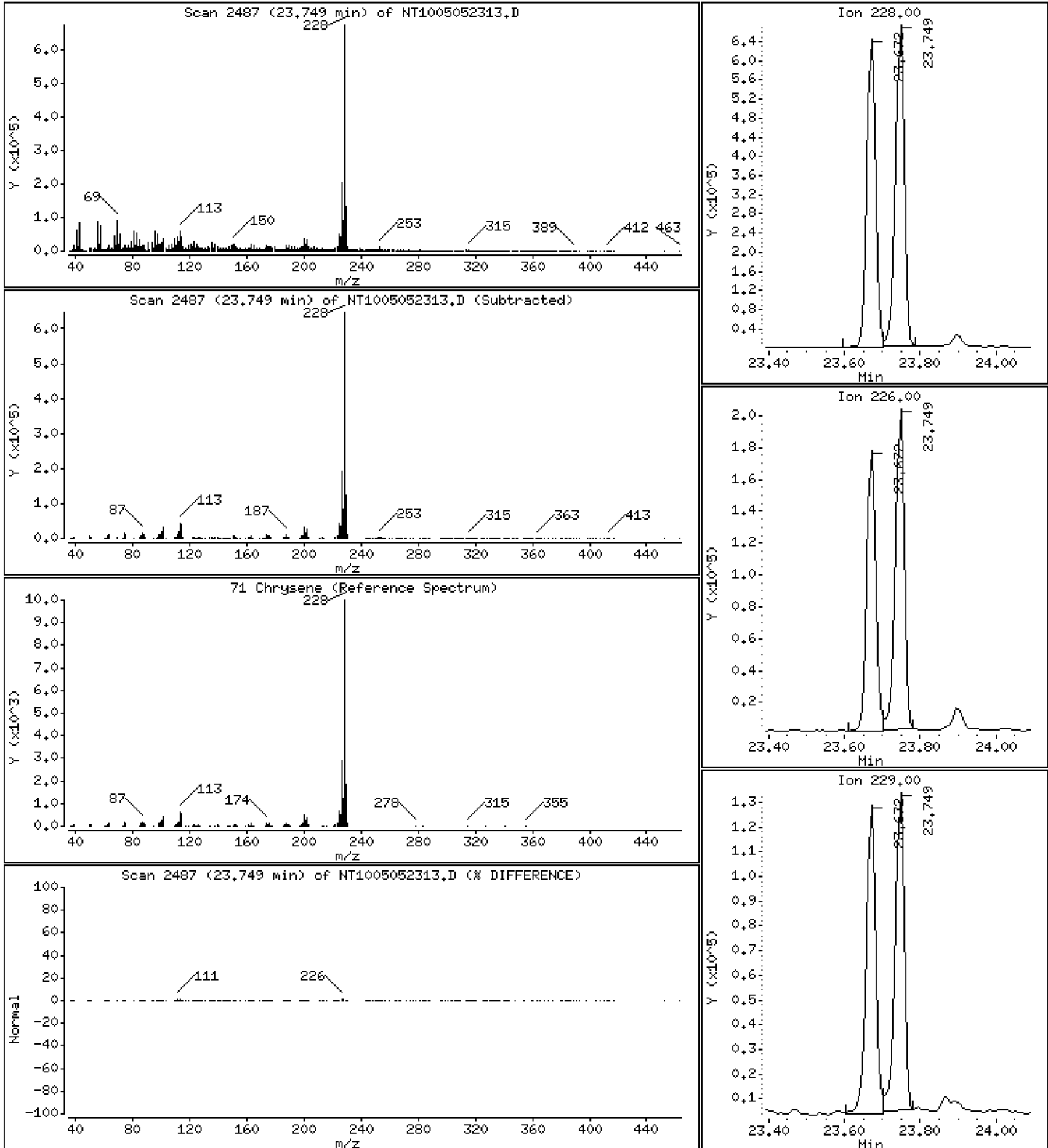
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 5,256 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

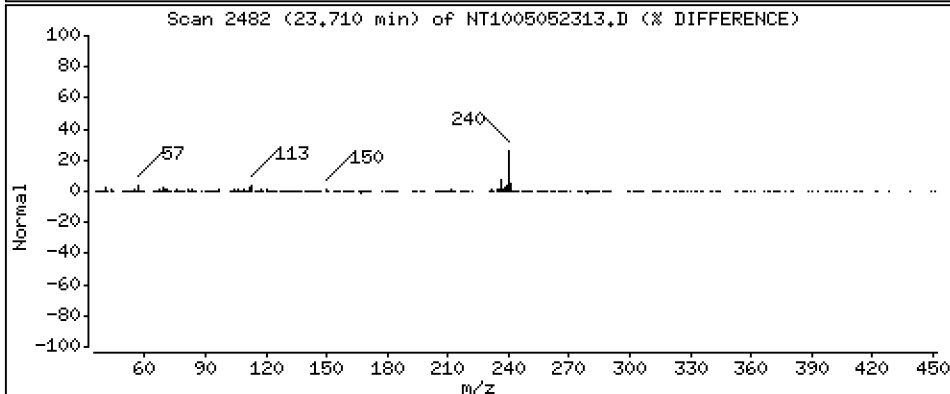
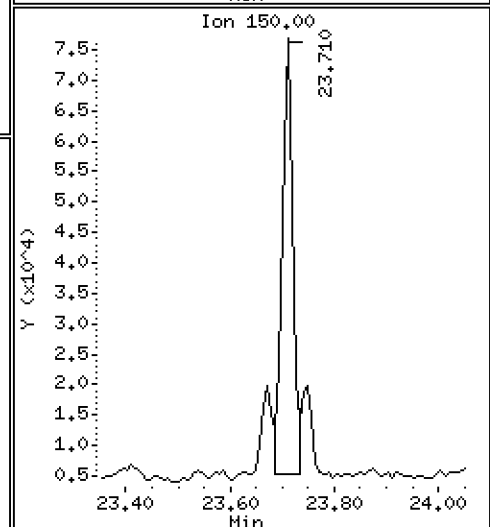
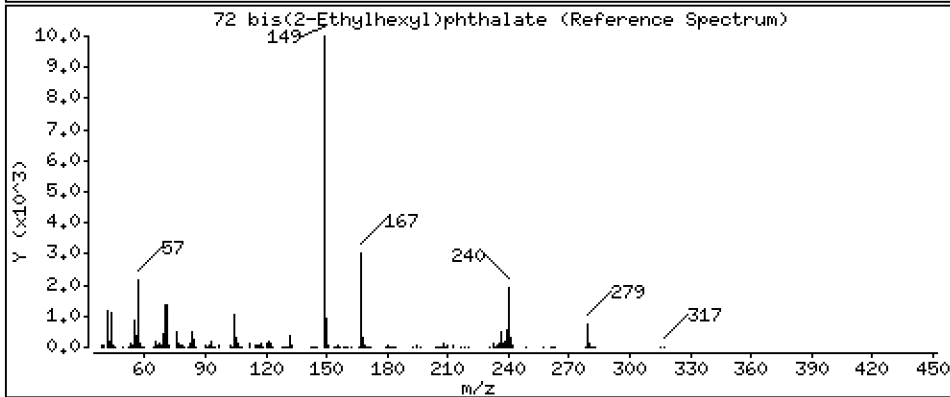
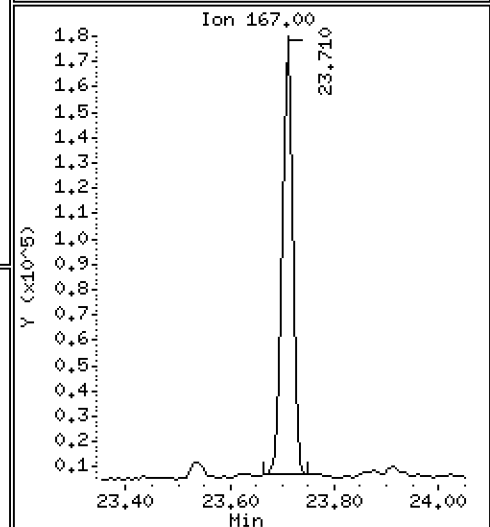
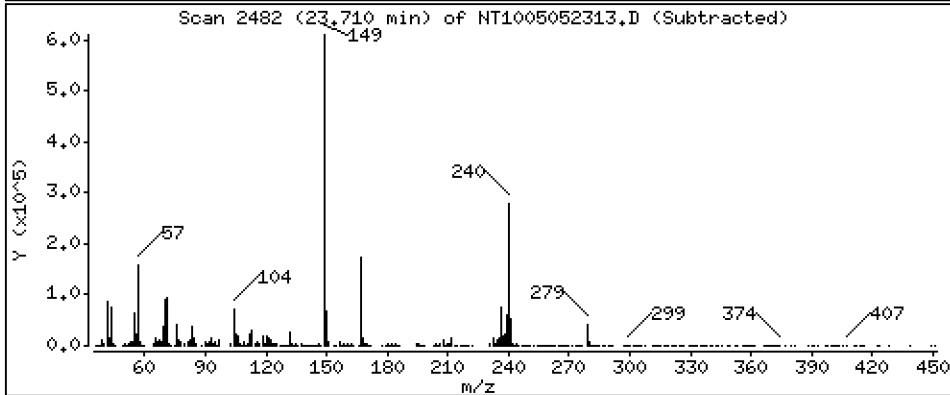
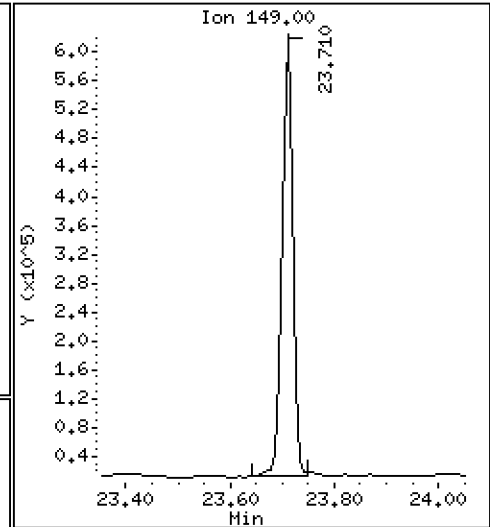
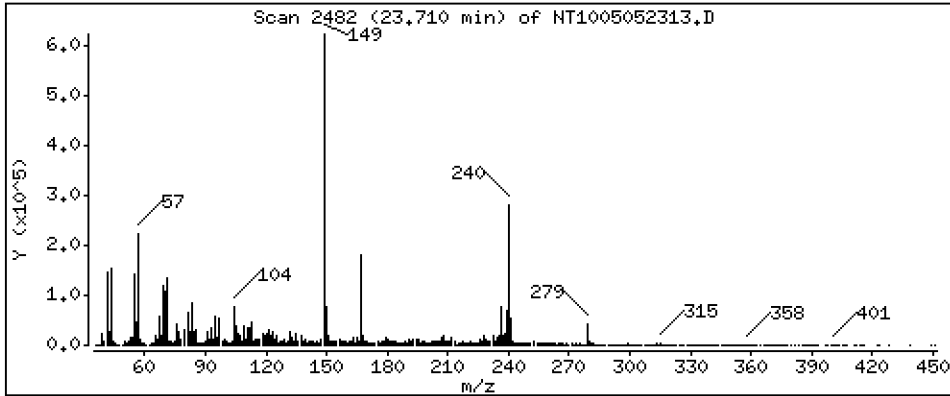
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 5,627 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

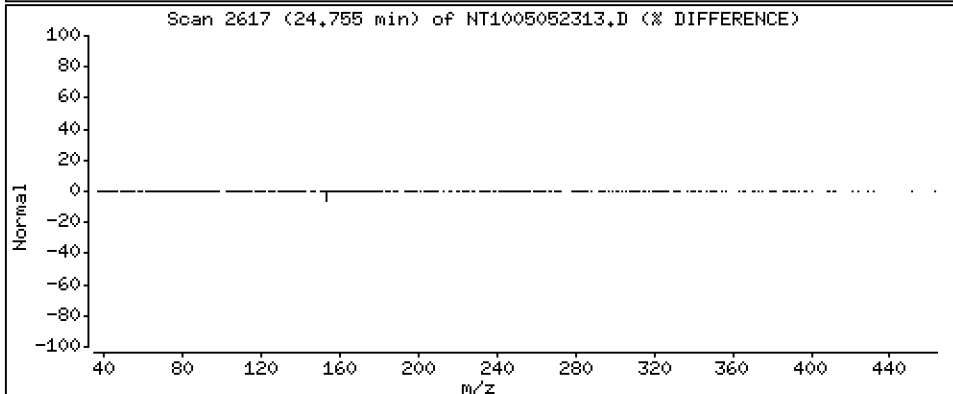
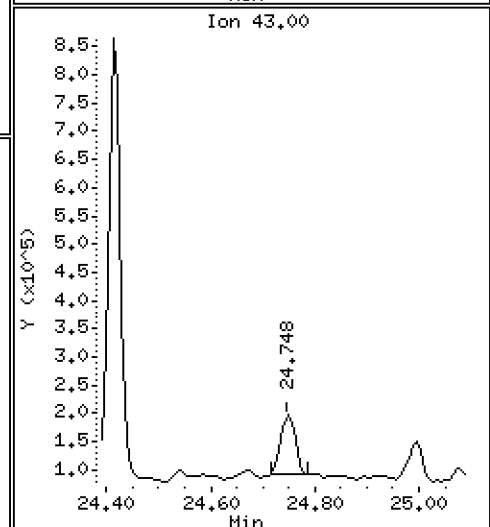
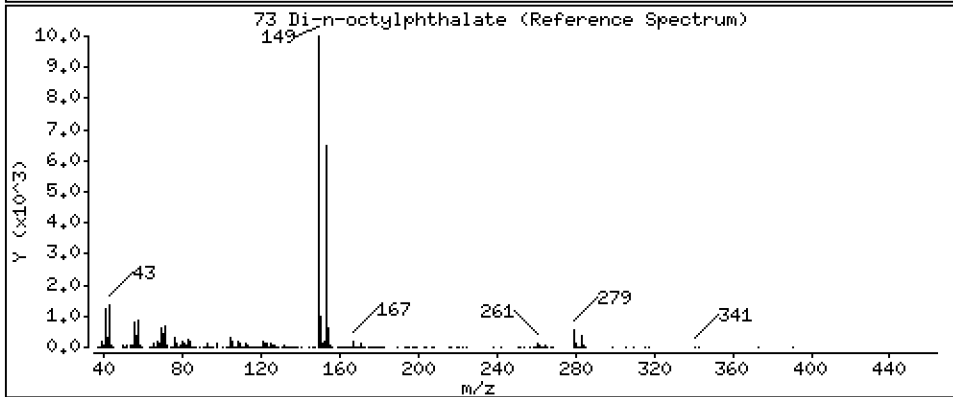
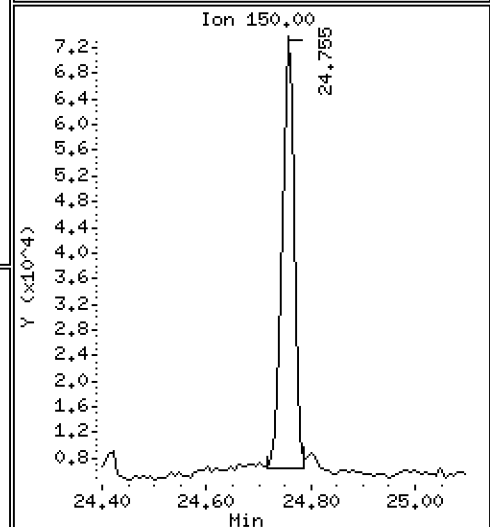
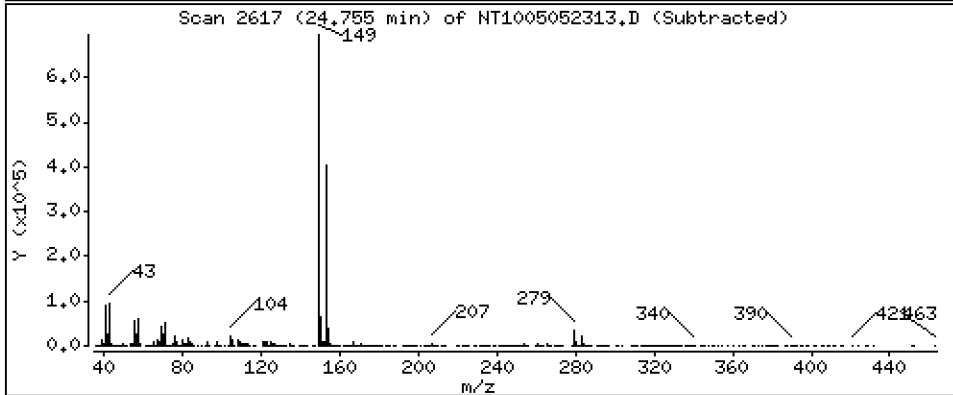
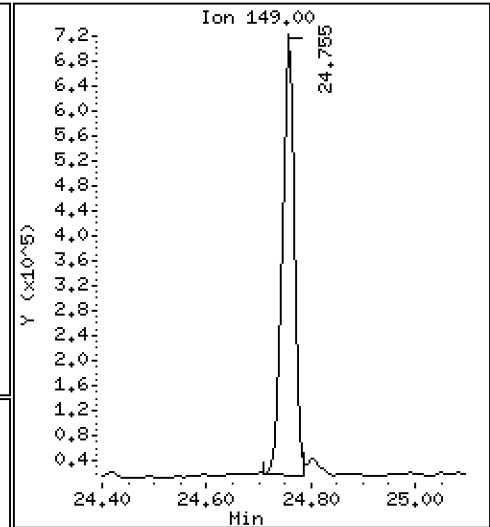
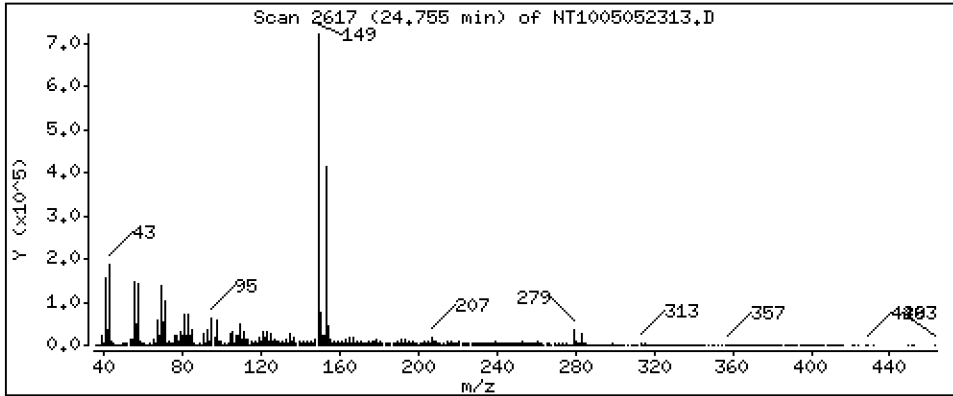
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 3,961 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

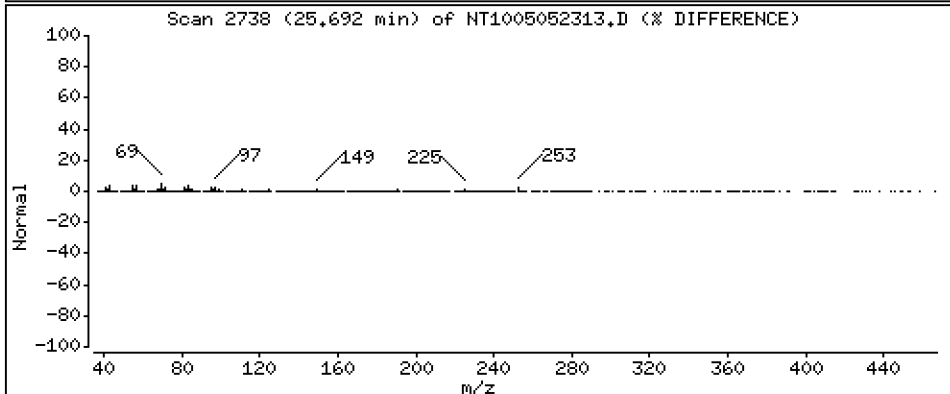
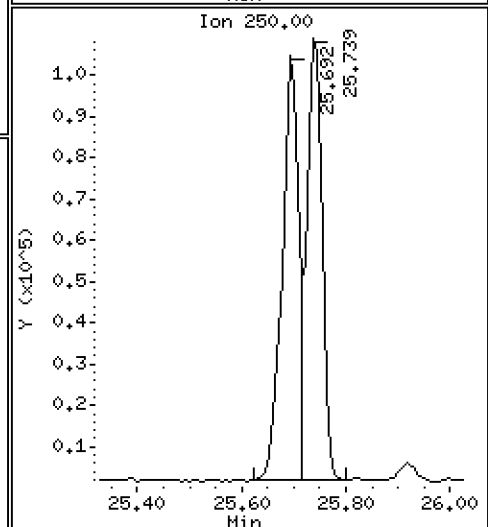
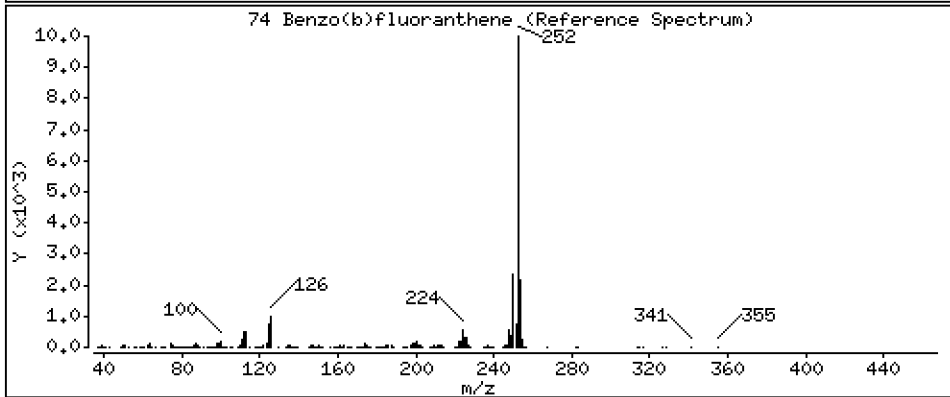
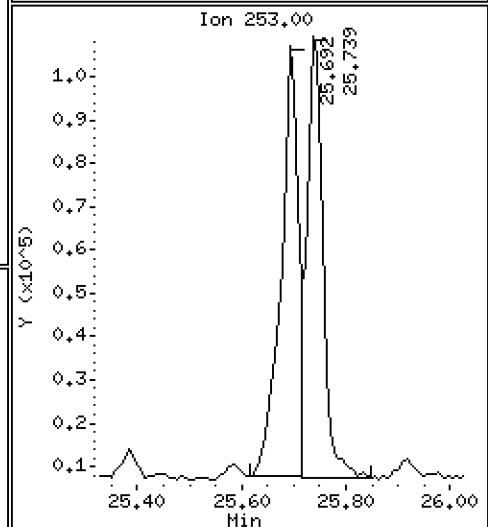
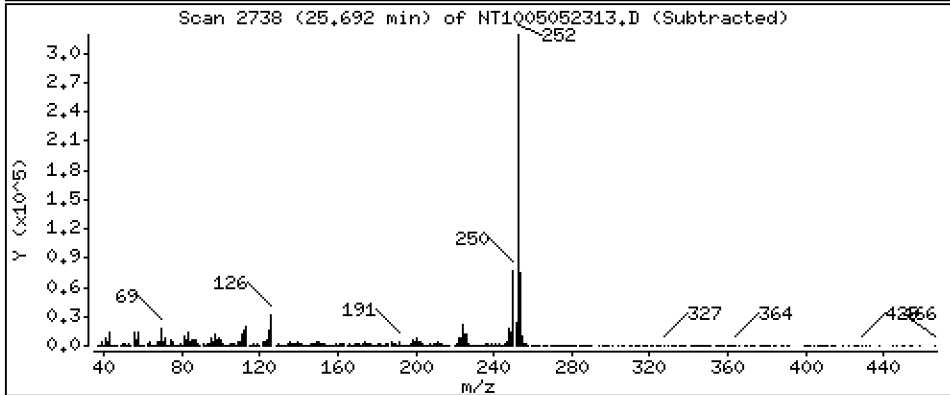
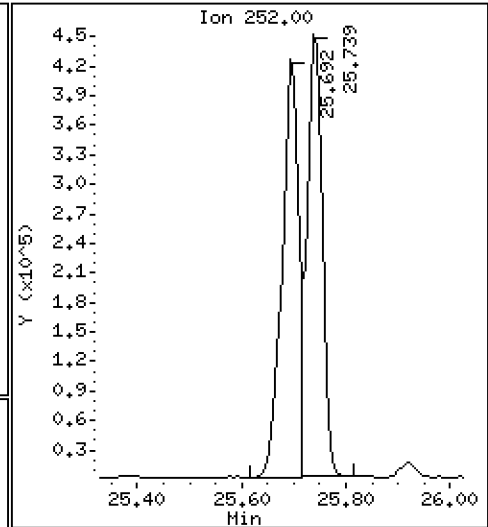
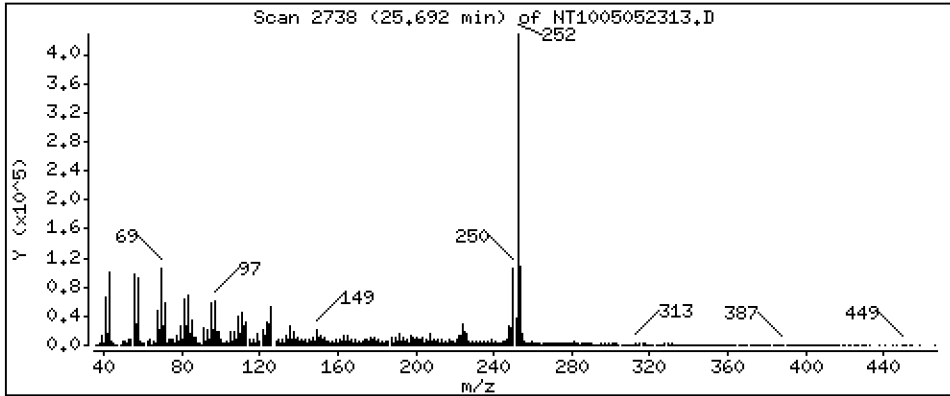
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 5,341 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

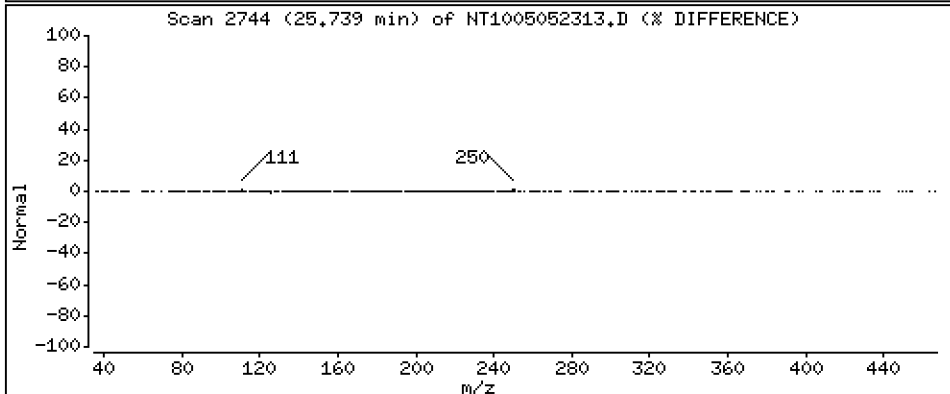
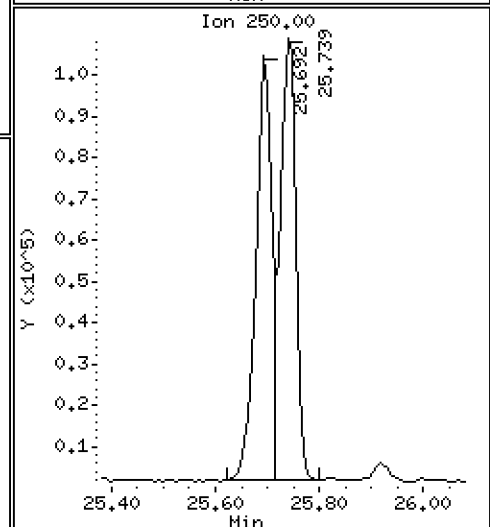
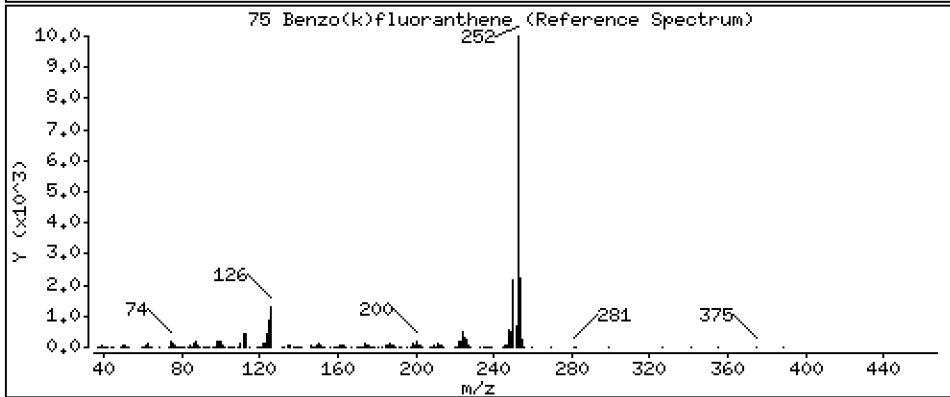
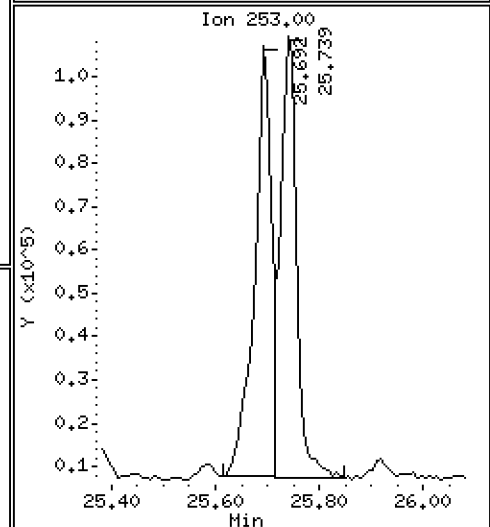
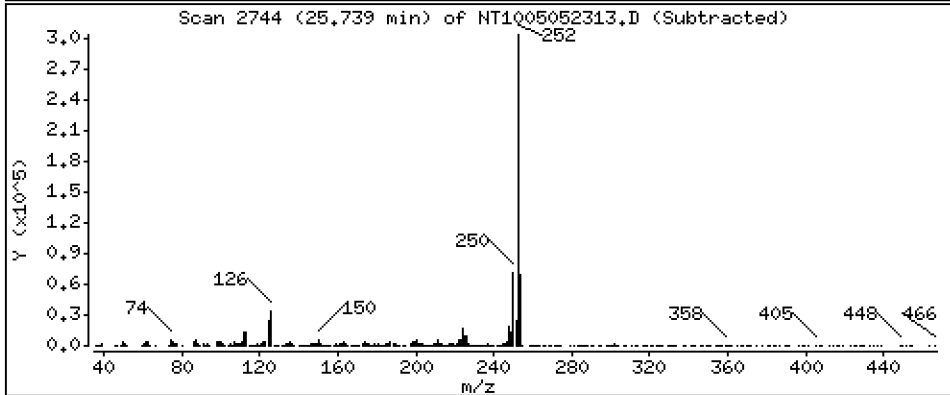
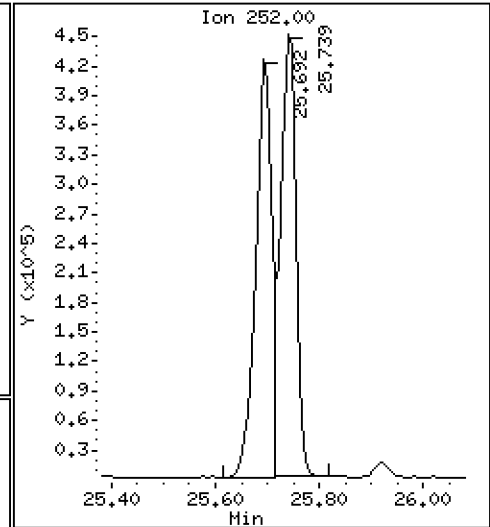
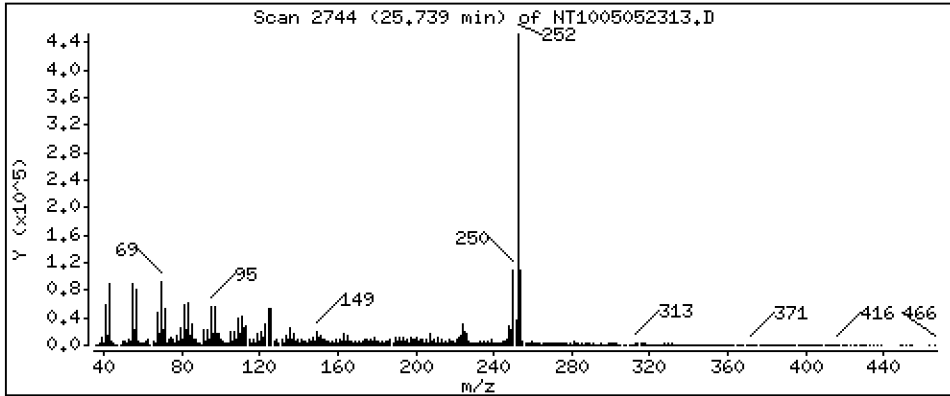
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 5,255 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

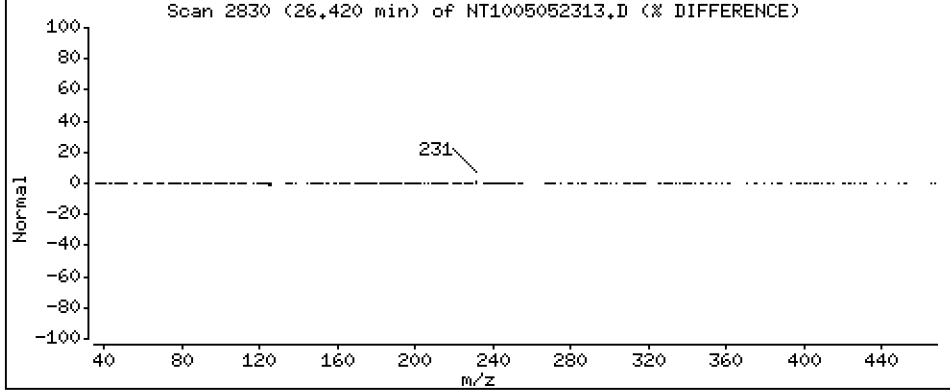
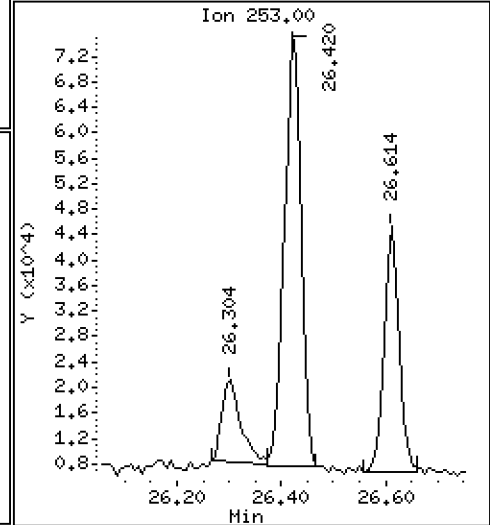
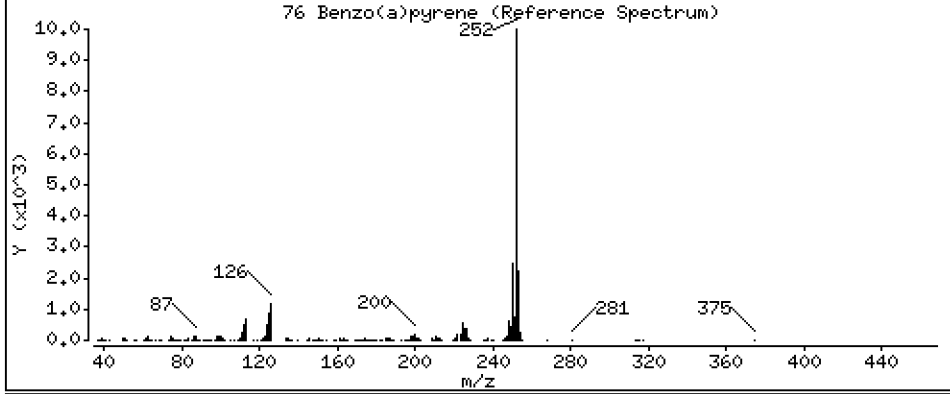
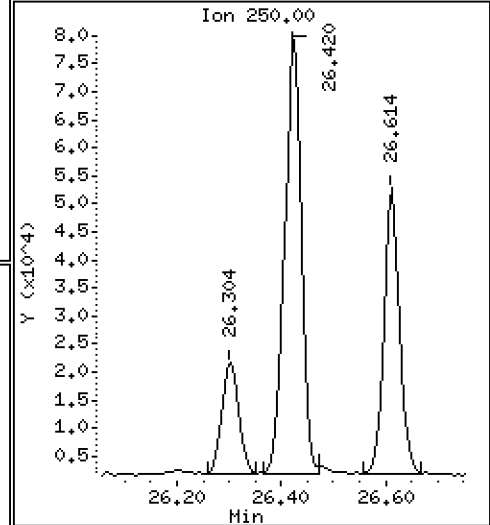
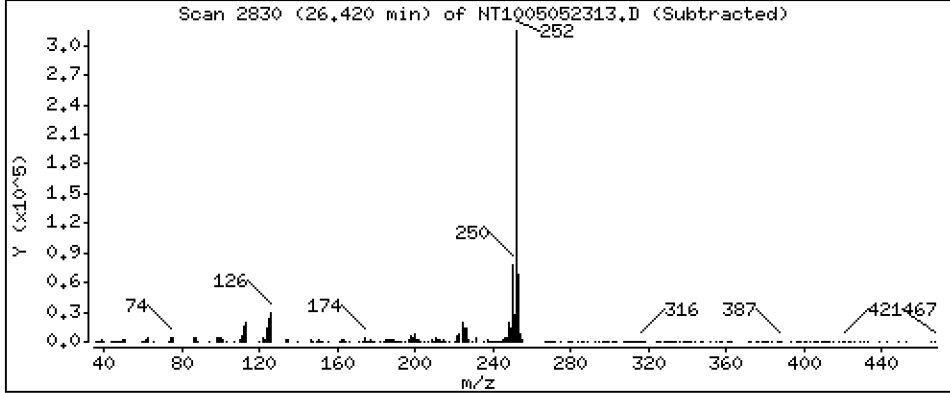
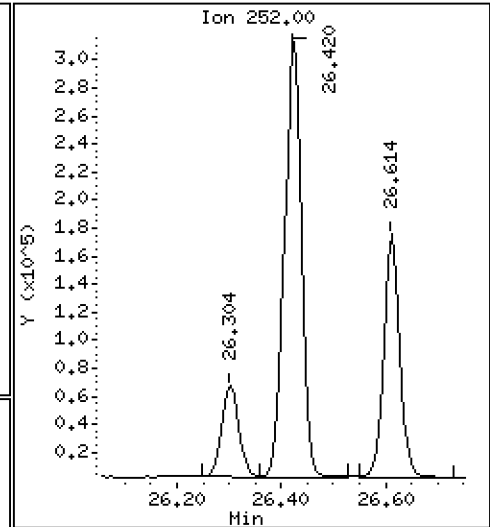
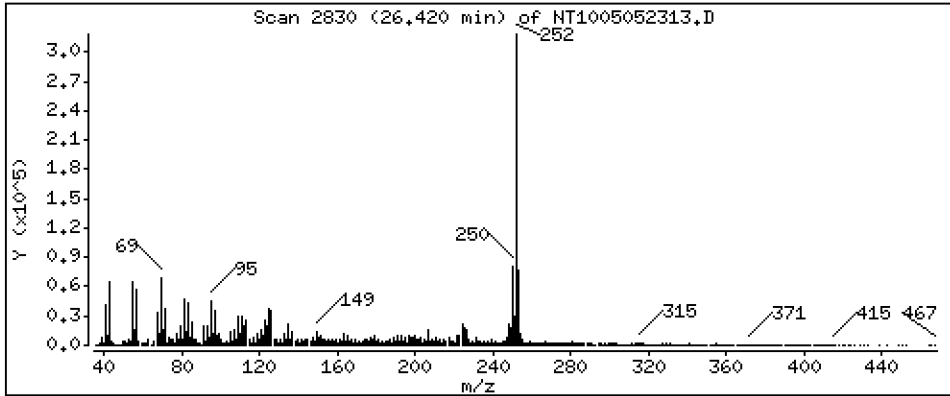
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,683 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

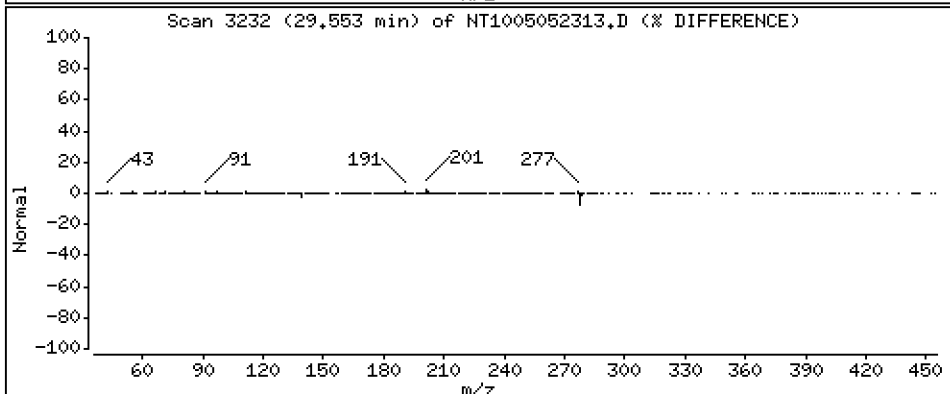
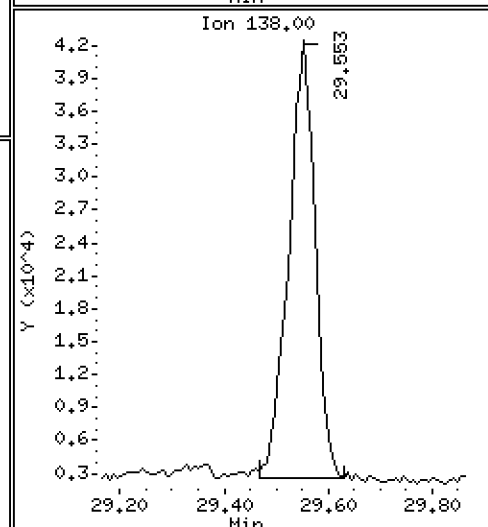
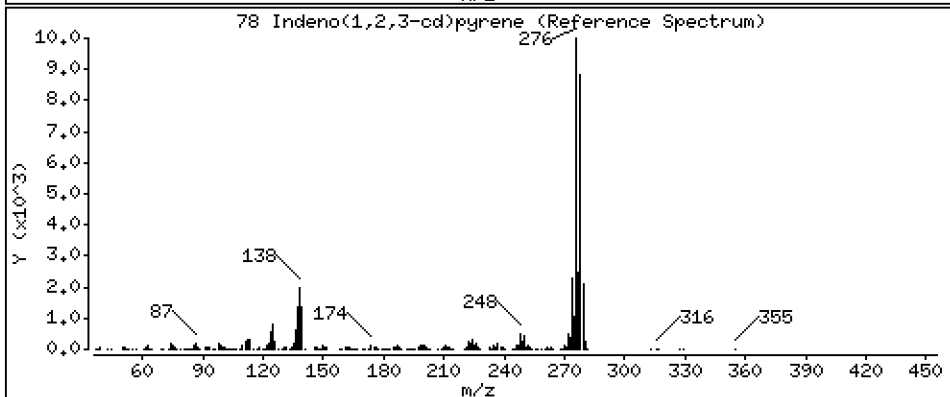
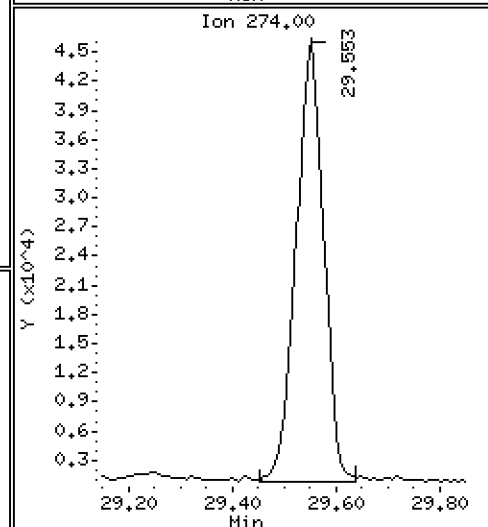
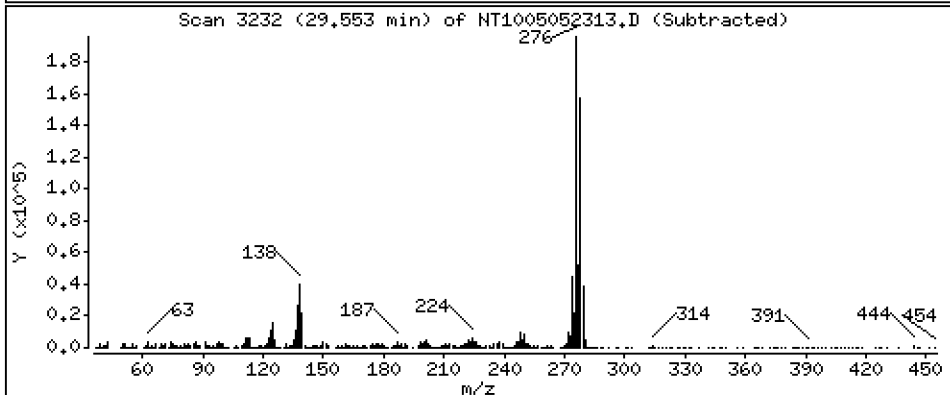
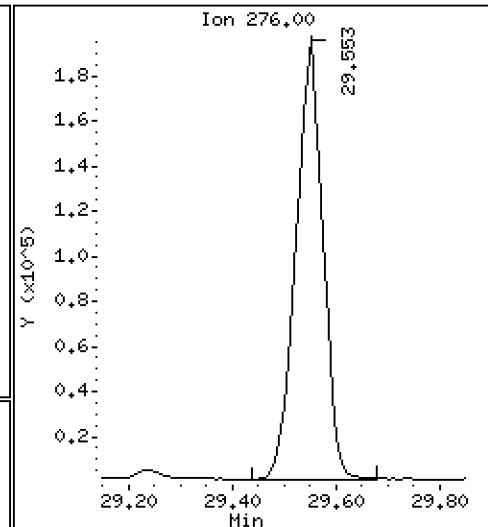
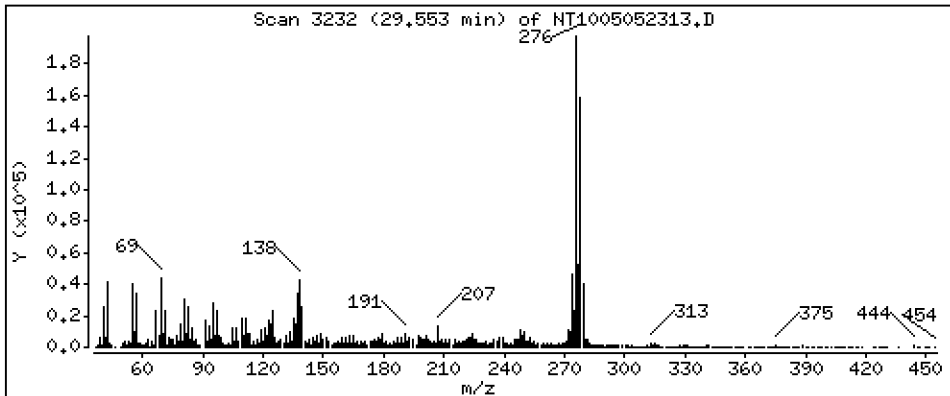
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 3,936 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

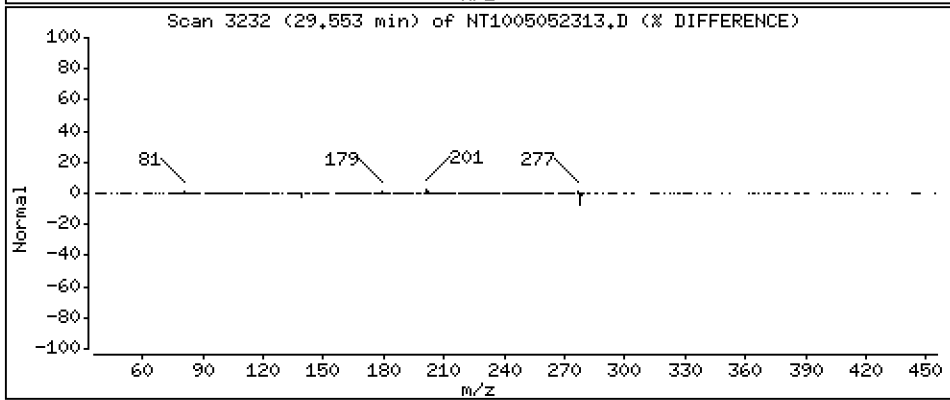
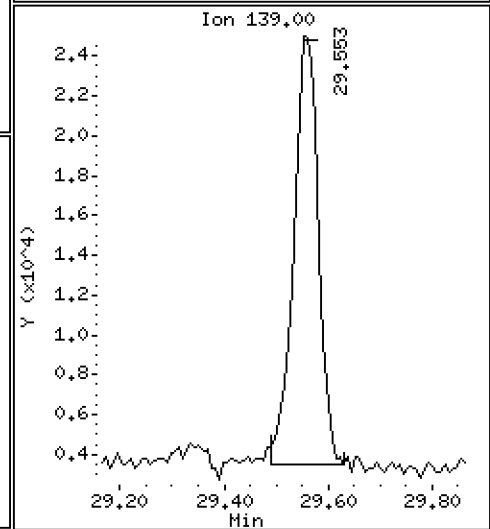
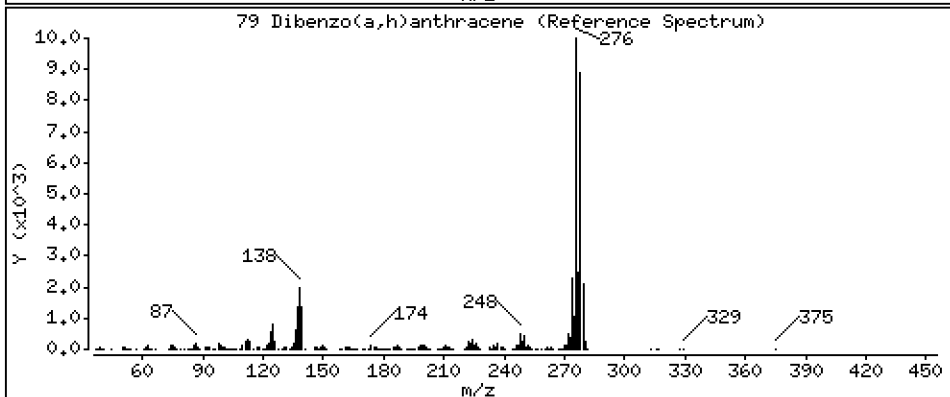
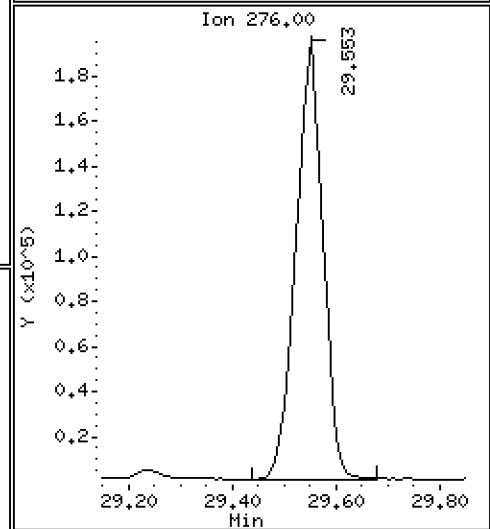
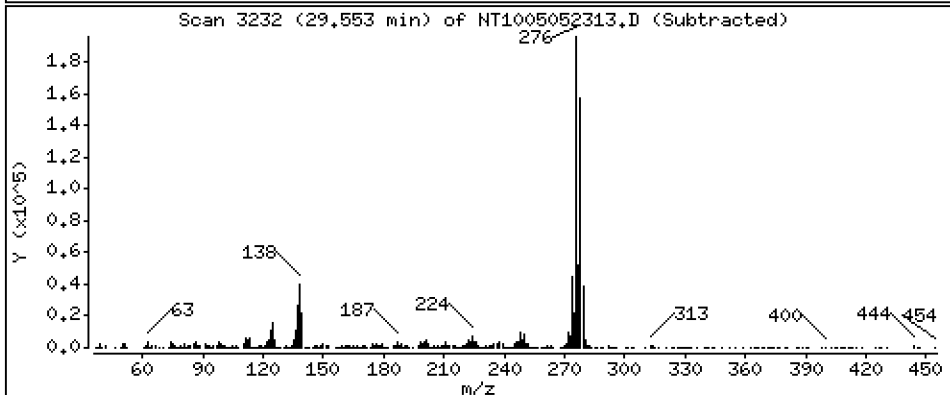
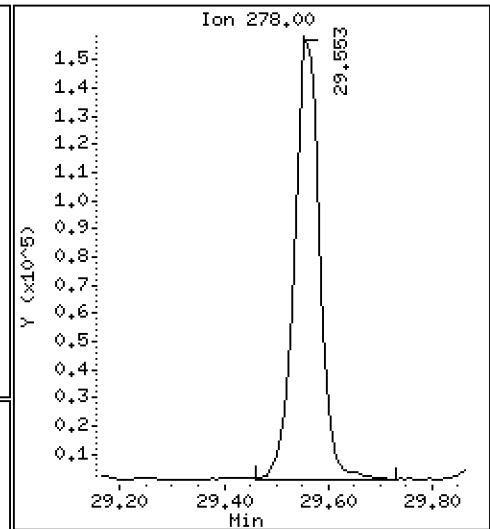
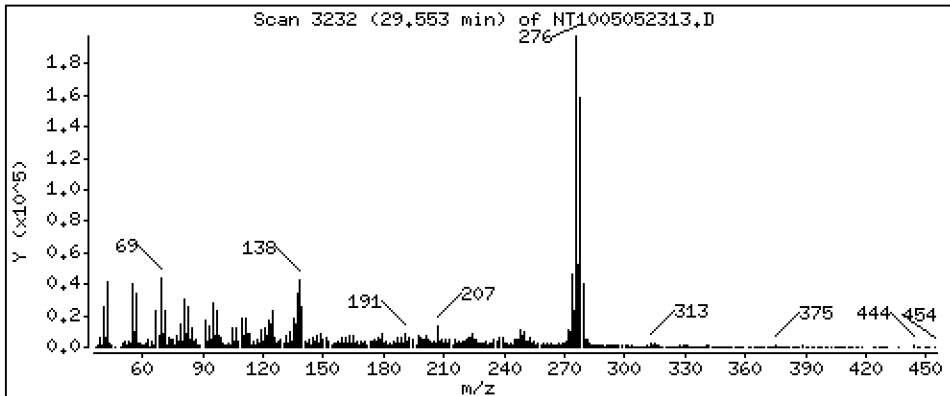
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,587 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

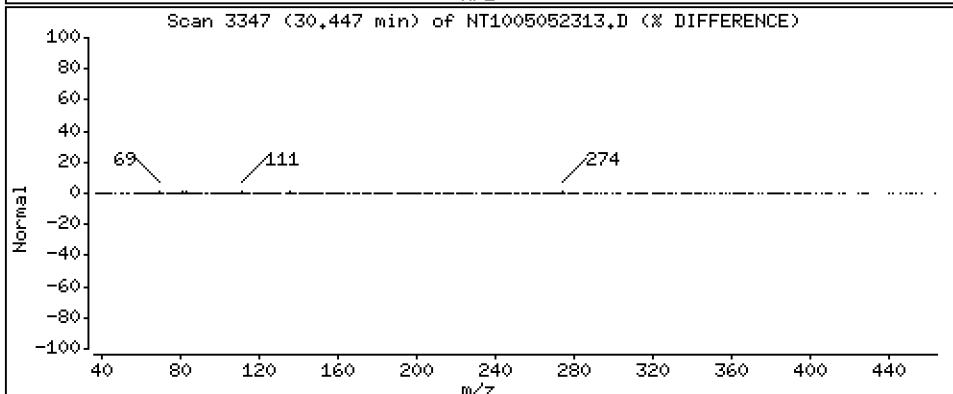
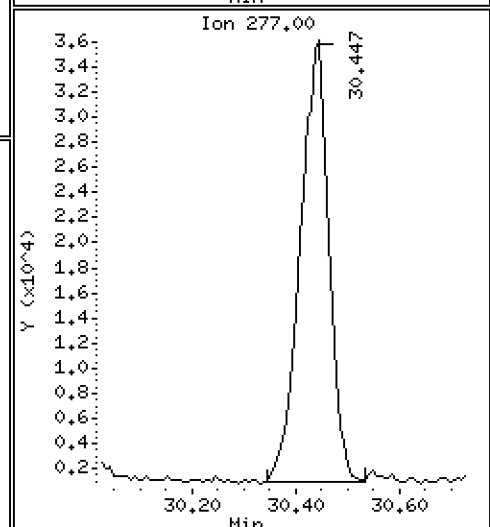
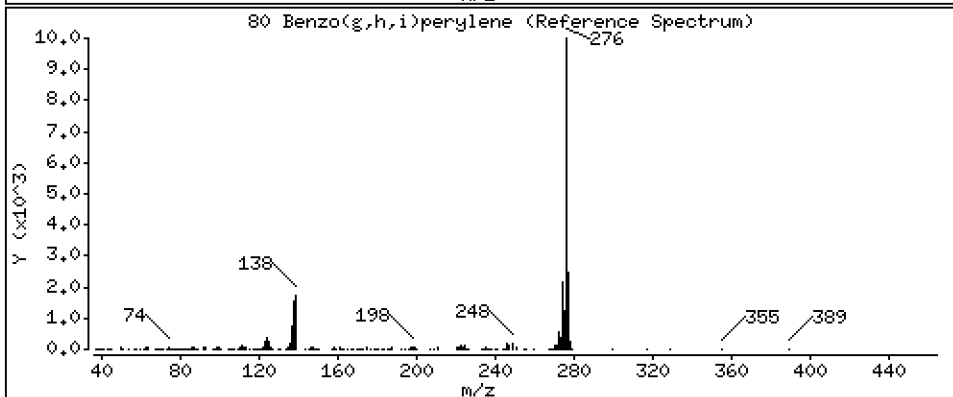
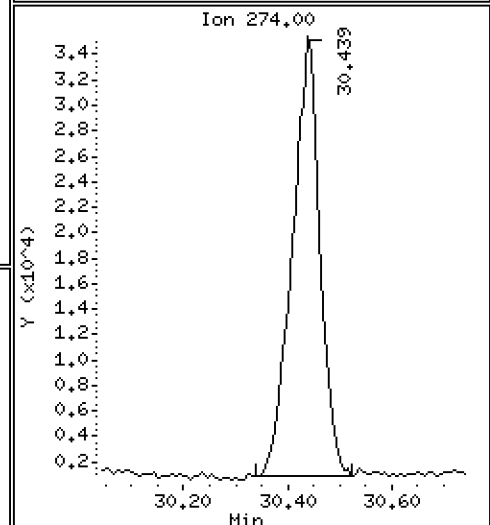
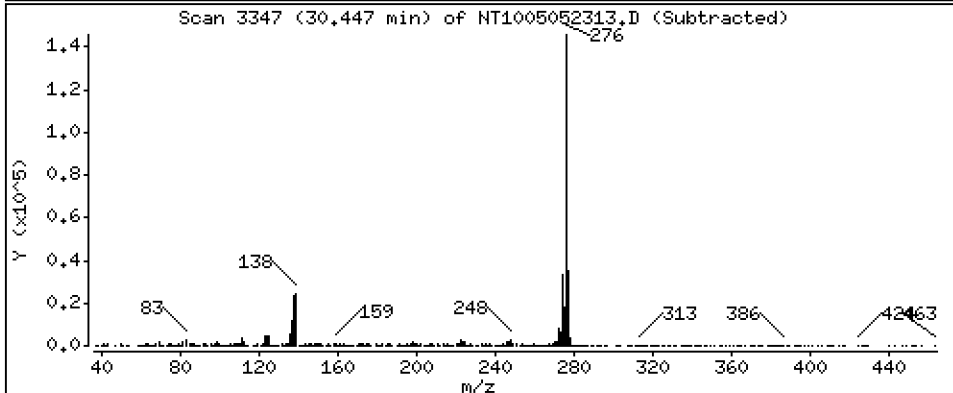
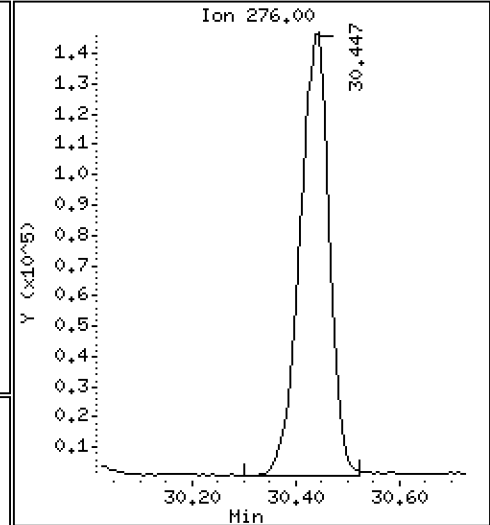
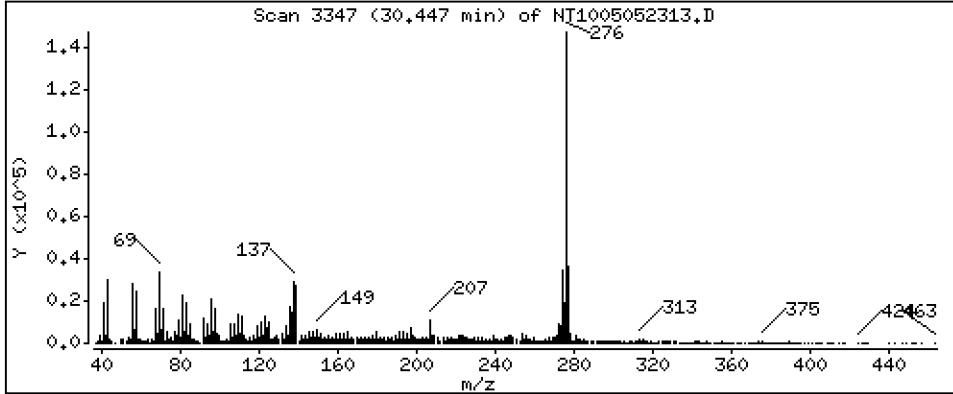
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 3,956 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

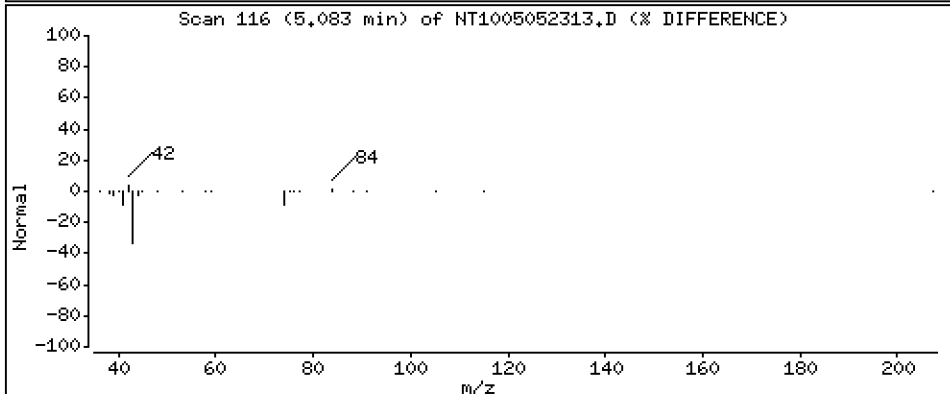
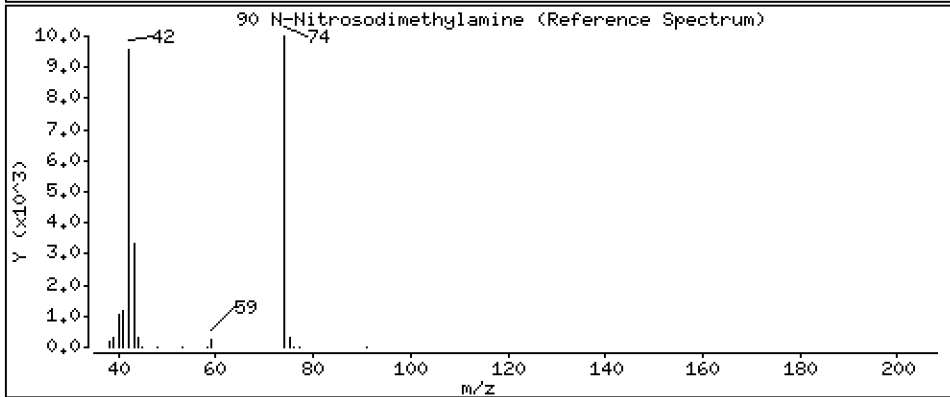
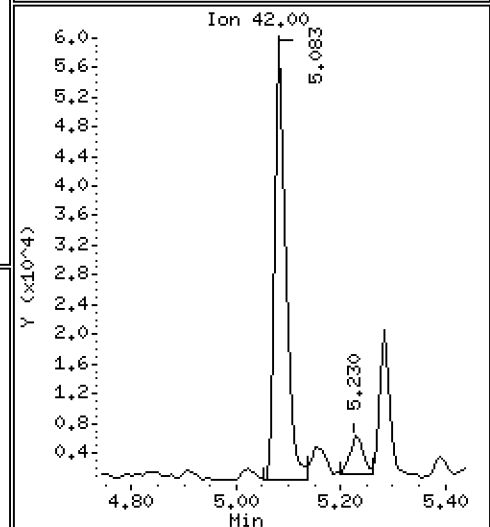
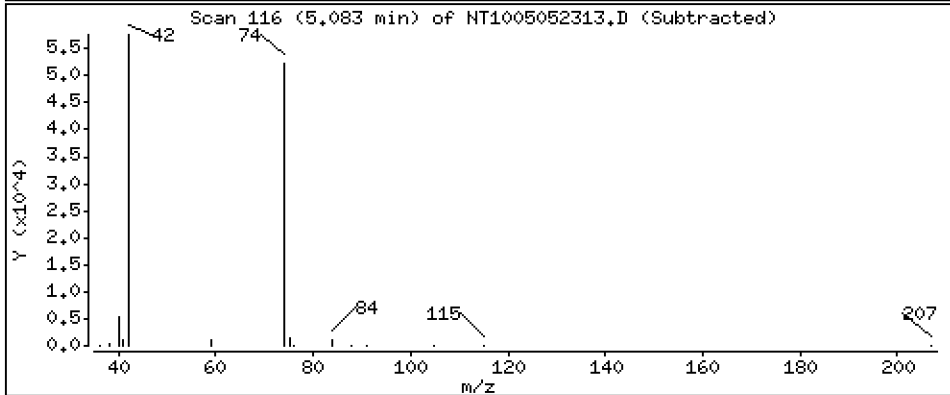
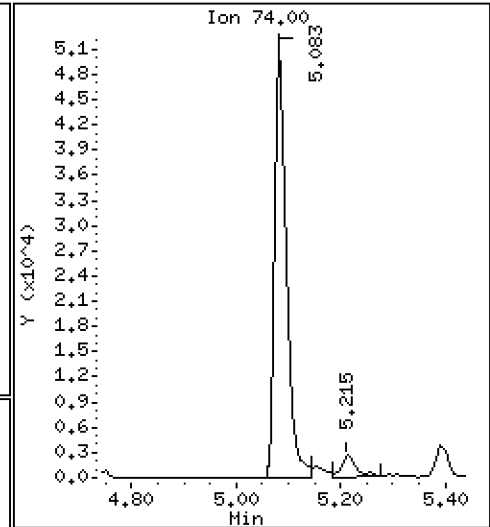
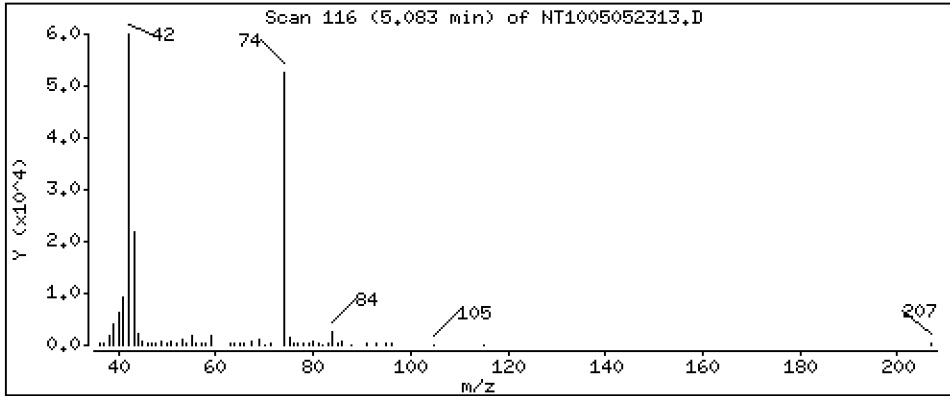
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 2,583 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

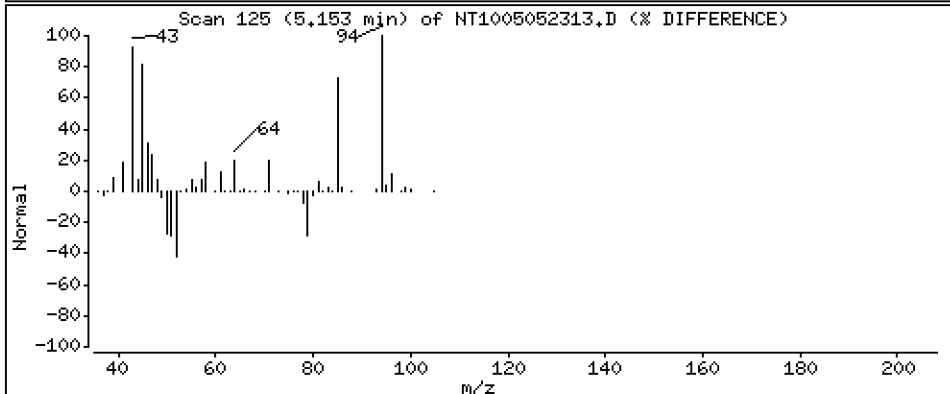
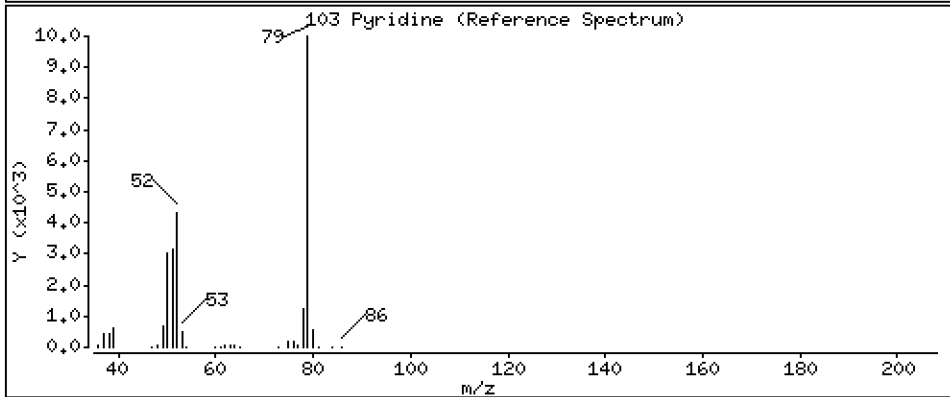
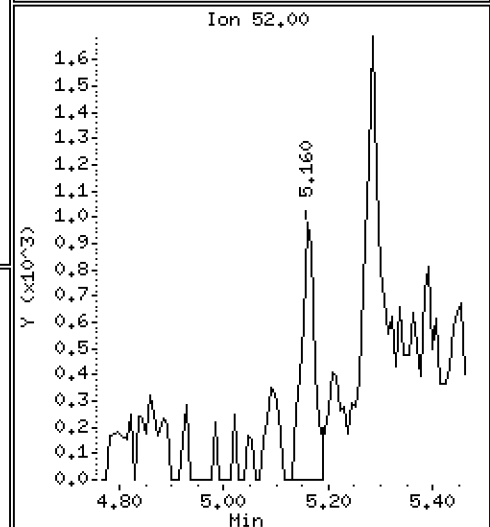
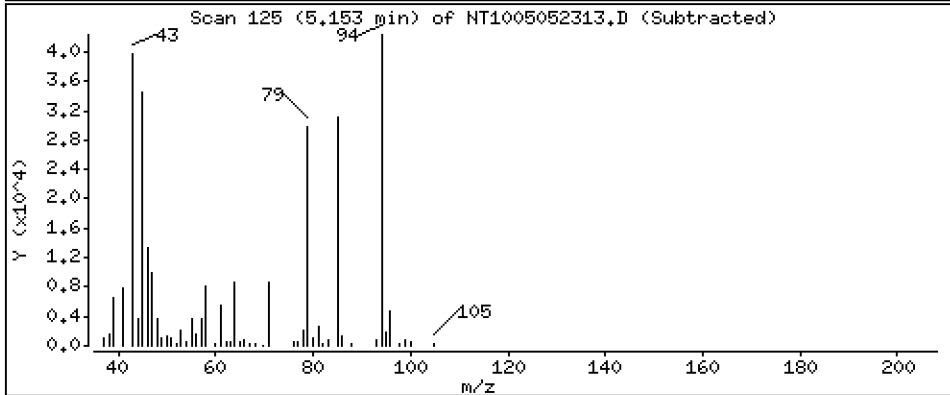
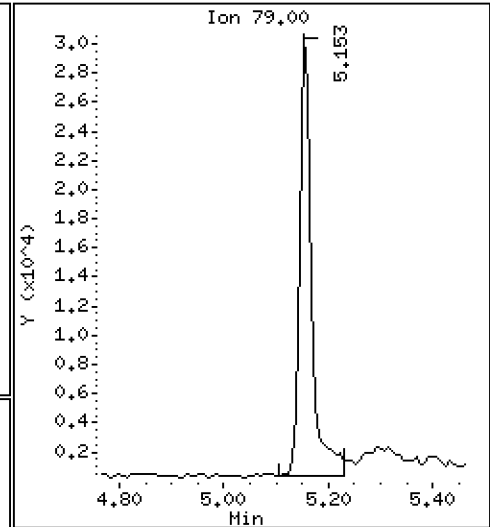
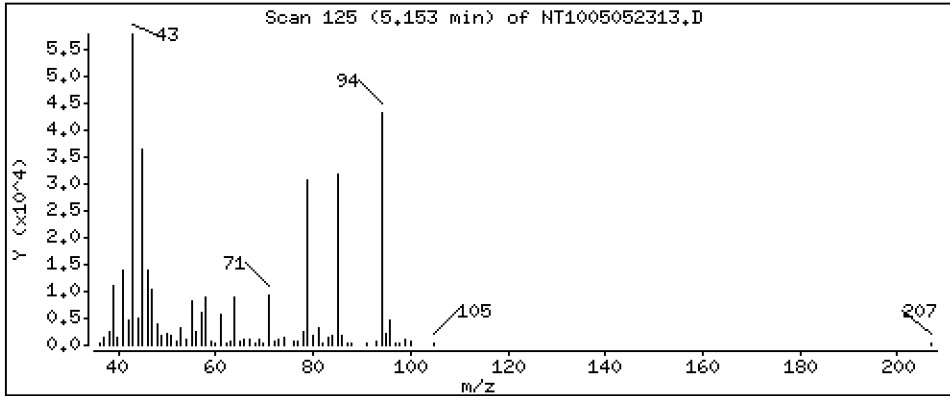
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 1,047 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

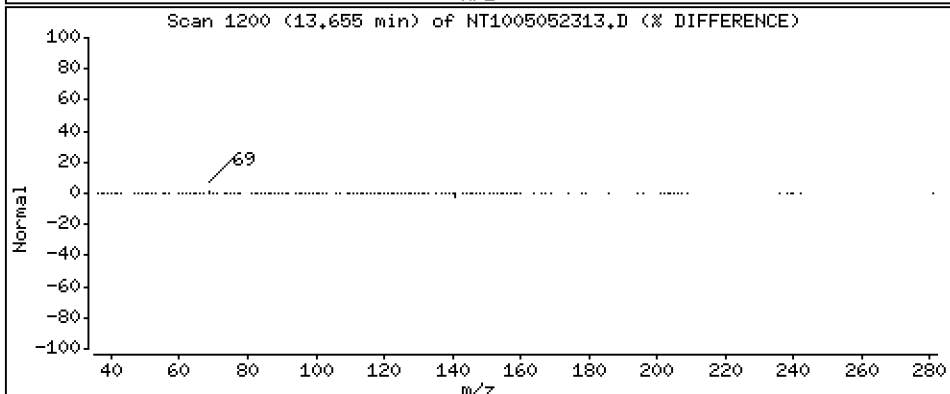
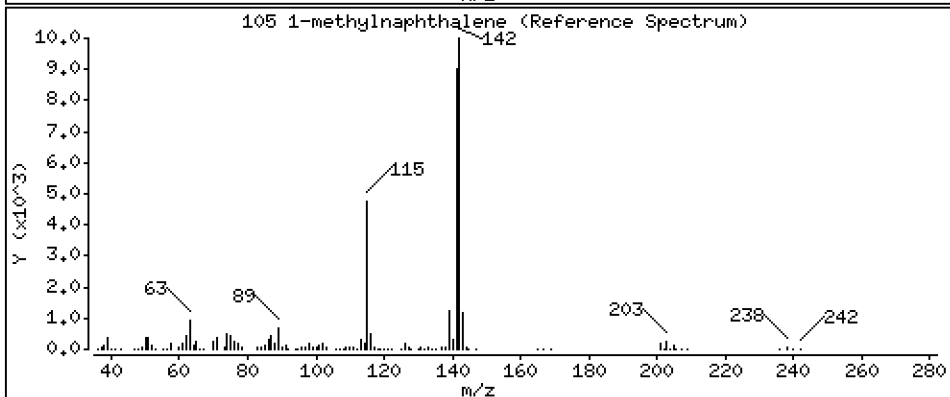
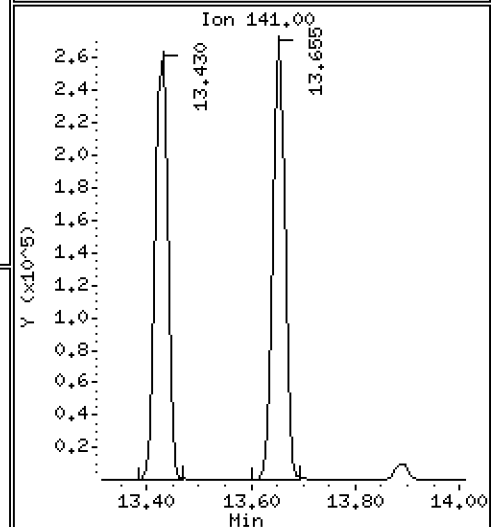
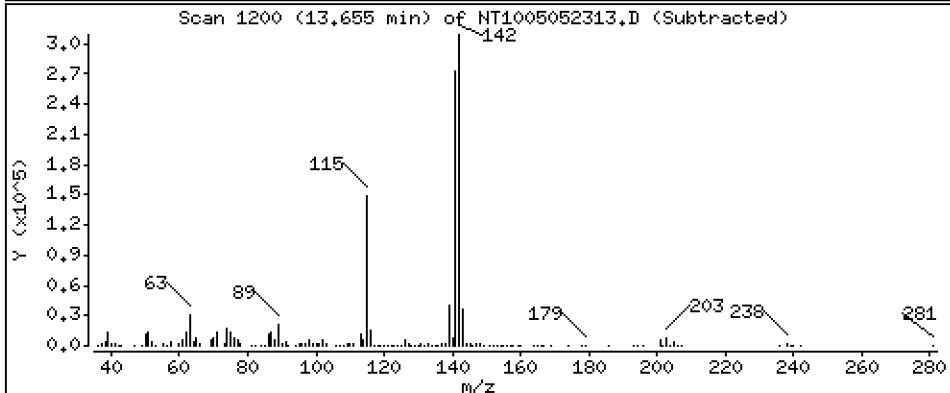
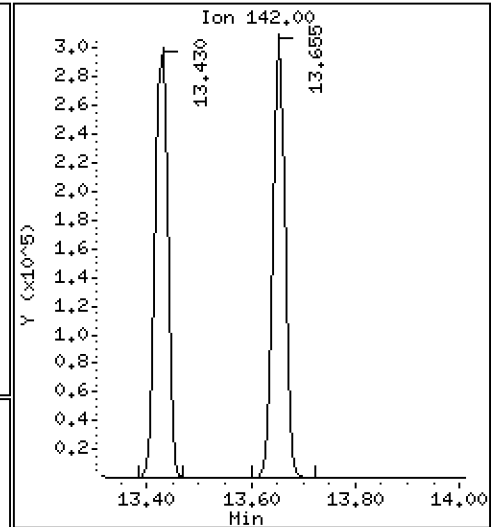
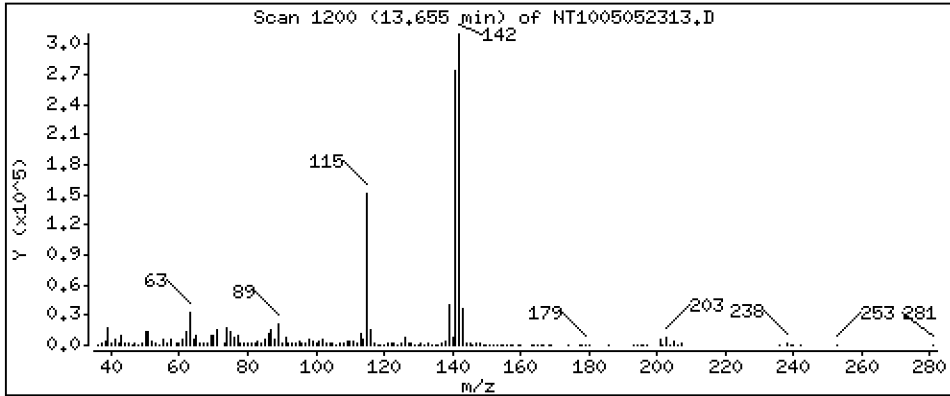
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 3,447 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

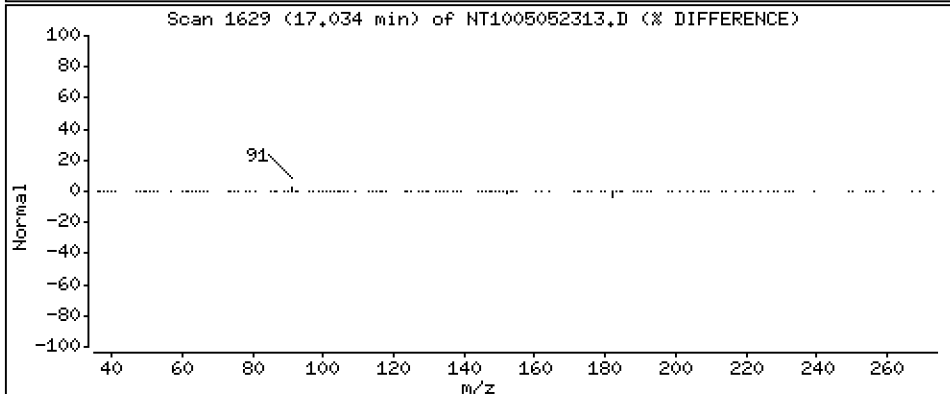
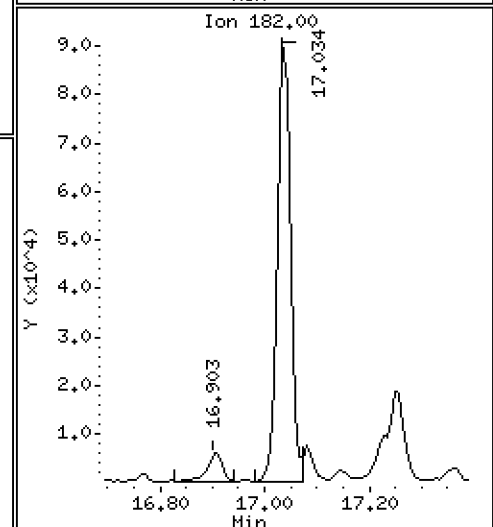
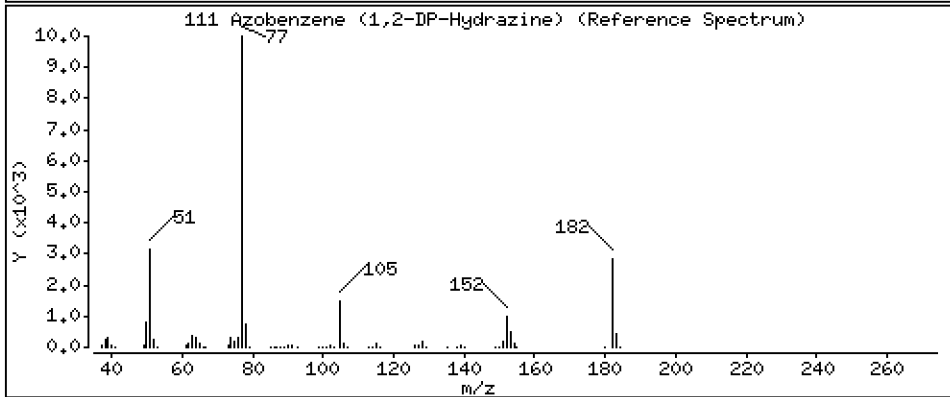
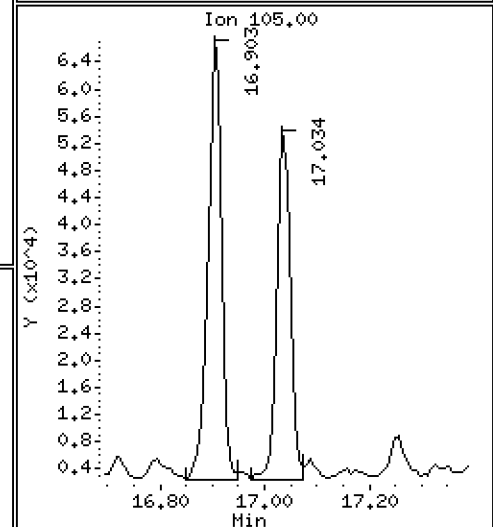
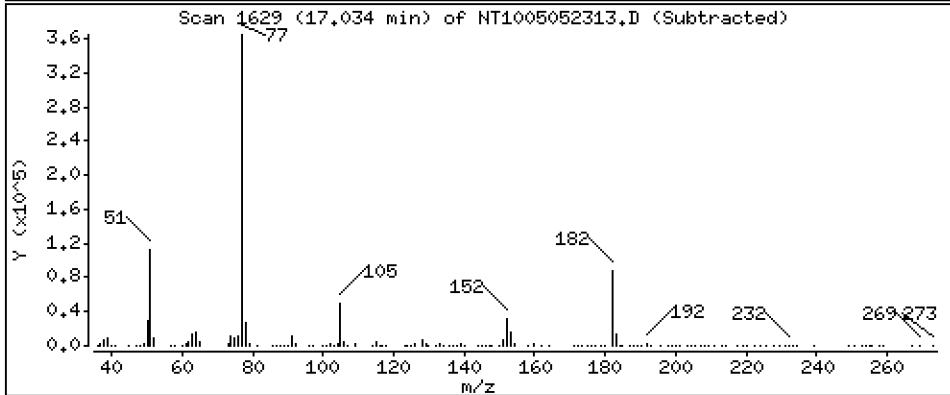
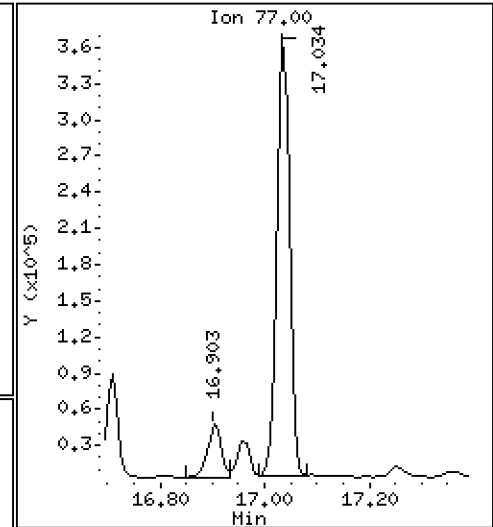
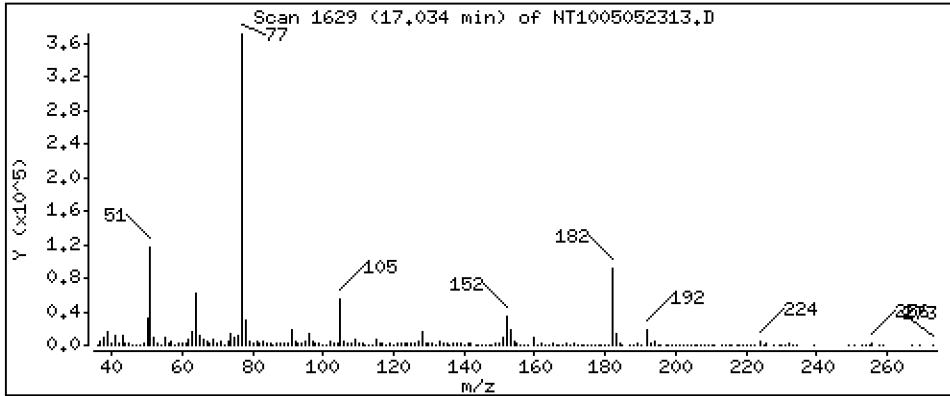
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 3,796 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

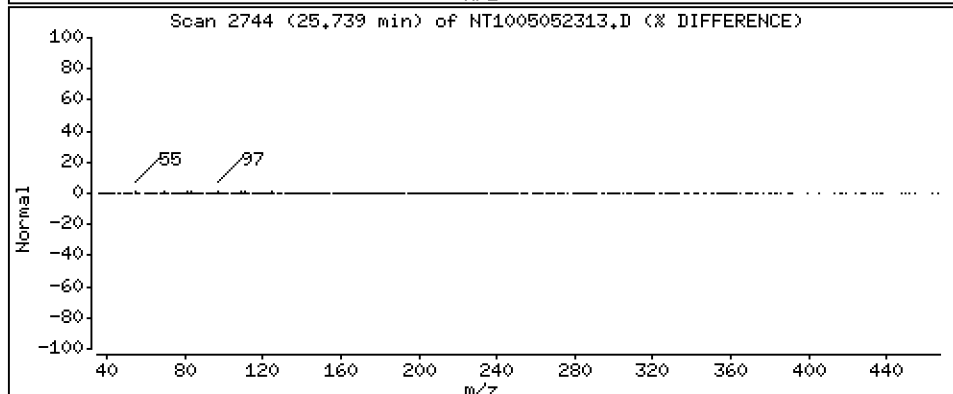
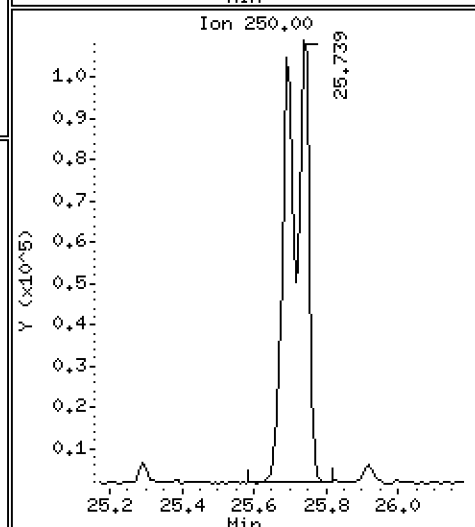
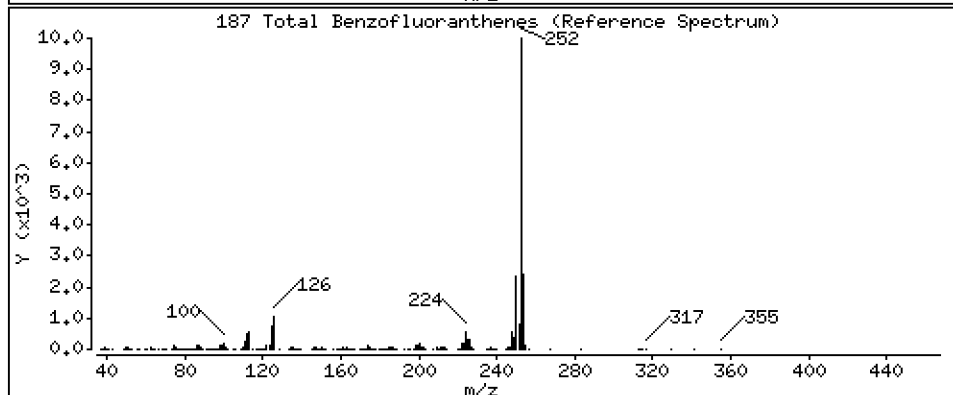
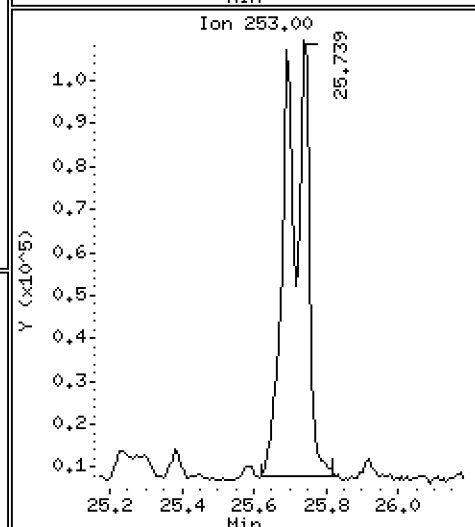
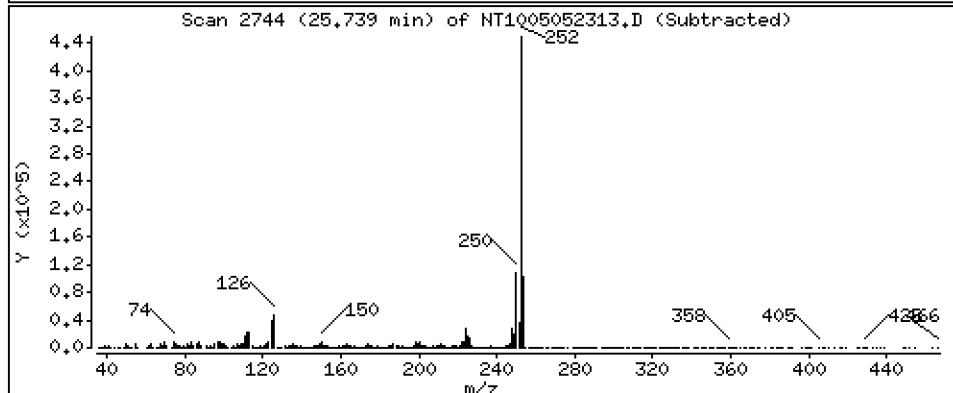
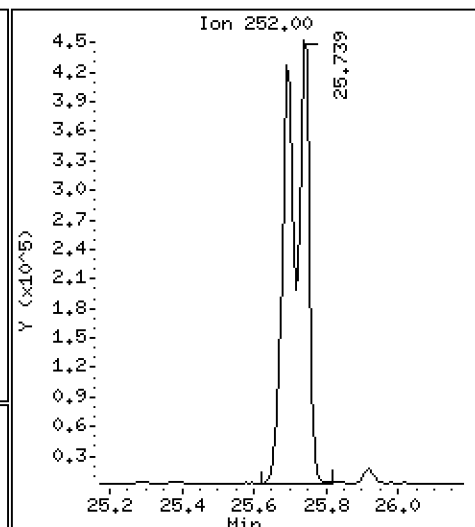
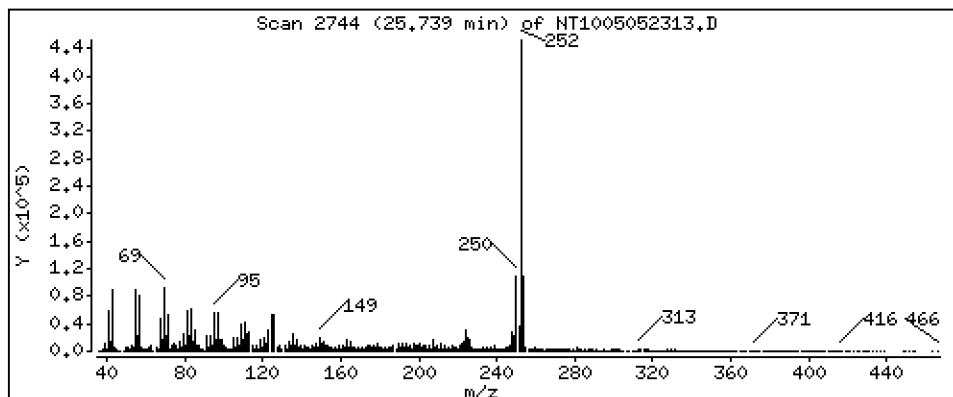
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 10,46 ug/mL



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS1

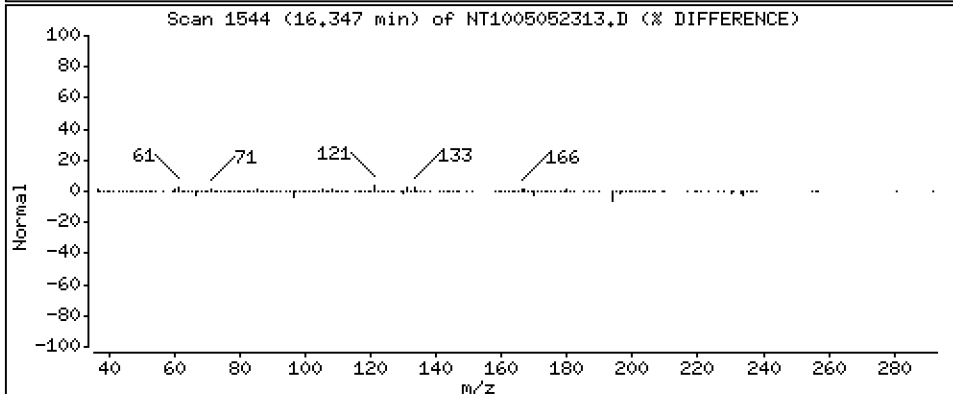
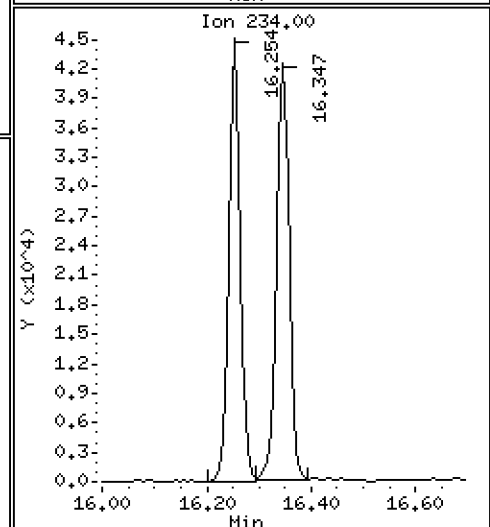
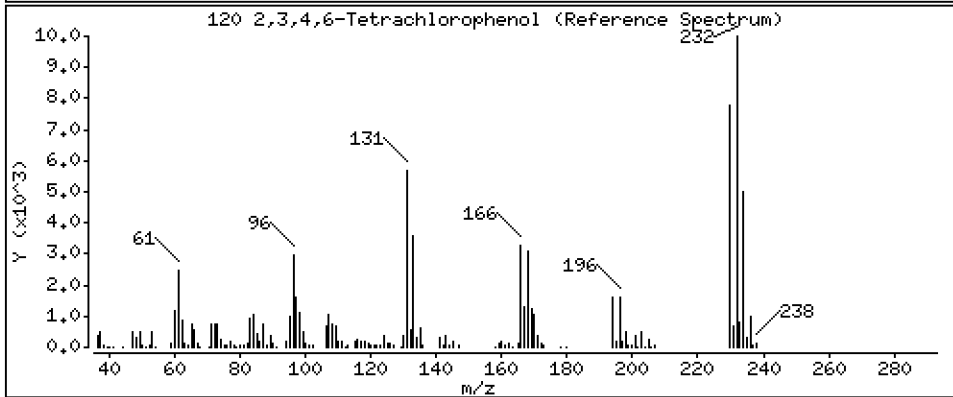
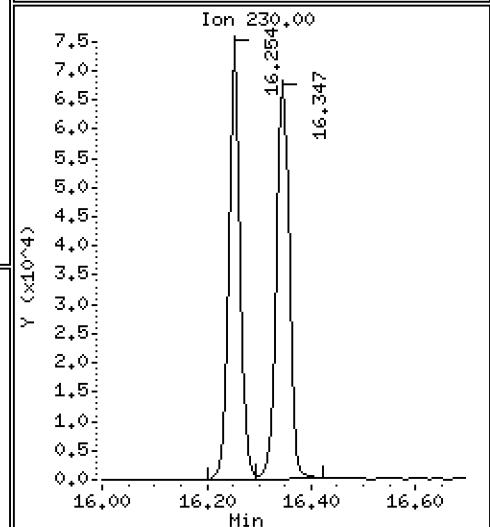
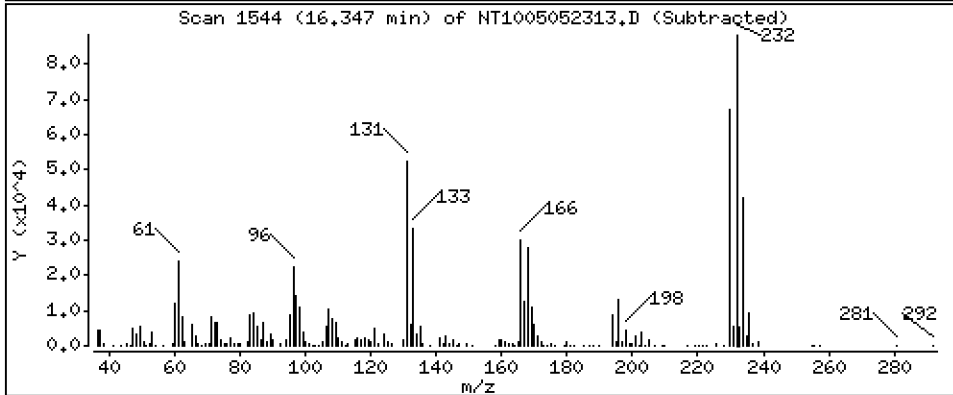
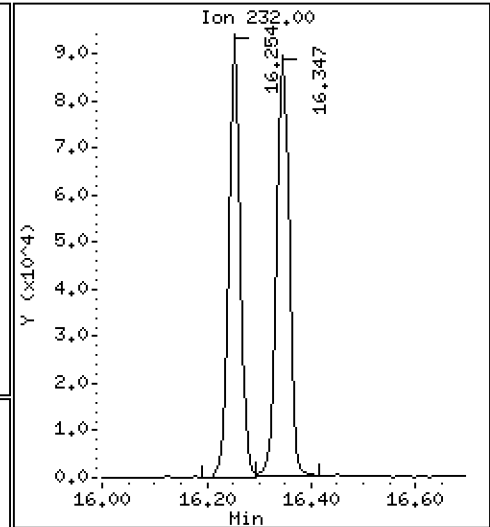
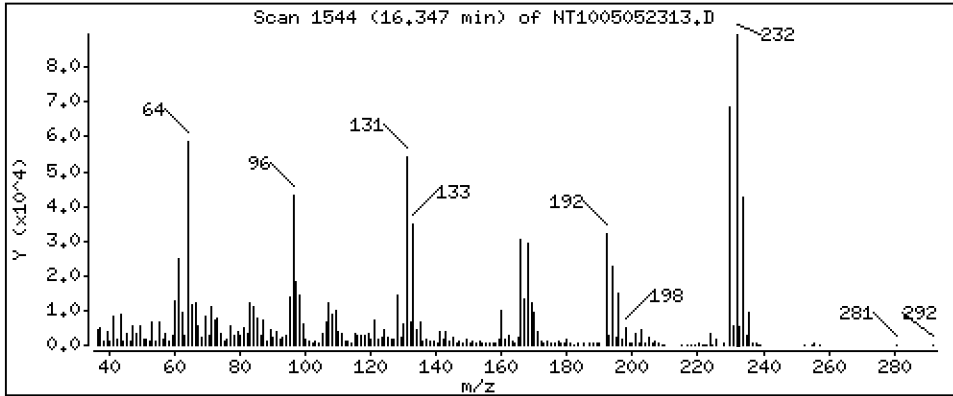
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 2,800 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052313.D
 Lab Smp Id: BLD0329-MS1
 Inj Date : 05-MAY-2023 18:32
 Operator : VTS
 Smp Info : BLD0329-MS1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.246	7.253	(1.000)	200996	3.58479	3.585
\$ 2 Phenol-d5	99		8.830	8.830	(1.000)	285281	4.22023	4.220
3 Phenol	94		8.853	8.853	(1.000)	239184	3.30921	3.309
\$ 5 2-Chlorophenol-d4	132		9.131	9.139	(1.000)	314793	4.85929	4.859
4 Bis(2-Chloroethyl)ether	93		9.030	9.038	(1.000)	175915	3.36360	3.364
6 2-Chlorophenol	128		9.154	9.162	(1.000)	189994	2.98108	2.981
7 1,3-Dichlorobenzene	146		9.433	9.440	(1.000)	215260	2.99775	2.998
* 8 1,4-Dichlorobenzene-d4	152		9.495	9.502	(1.000)	185292	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.526	9.533	(1.000)	210632	2.98609	2.986
\$ 10 1,2-Dichlorobenzene-d4	152		9.859	9.867	(1.000)	141325	2.95713	2.957
12 1,2-Dichlorobenzene	146		9.883	9.890	(1.000)	208512	3.04472	3.045
11 Benzyl alcohol	108		9.758	9.766	(1.000)	187129	5.38638	5.386
14 2,2'-oxybis(1-Chloropropane)	121		10.054	10.069	(1.000)	74976	3.79071	3.791
13 2-Methylphenol	108		9.976	9.976	(1.000)	164291	3.09911	3.099
17 Hexachloroethane	117		10.480	10.488	(1.000)	82147	2.69340	2.693
16 N-Nitroso-di-n-propylamine	70		10.317	10.325	(1.000)	160180	3.81485	3.815
15 4-Methylphenol	108		10.248	10.240	(1.000)	233105	3.66283	3.663
\$ 18 Nitrobenzene-d5	82		10.597	10.604	(0.884)	267944	3.39977	3.400
19 Nitrobenzene	77		10.628	10.636	(0.886)	259106	3.40184	3.402
20 Isophorone	82		11.078	11.078	(0.924)	479156	5.28426	5.284
21 2-Nitrophenol	139		11.257	11.266	(0.939)	118586	2.93206	2.932
22 2,4-Dimethylphenol	107		11.291	11.300	(0.942)	672755	9.04520	9.045
23 Bis(2-Chloroethoxy)methane	93		11.495	11.503	(0.959)	227836	3.93065	3.931
24 Benzoic acid	105		11.461	11.486	(0.956)	434643	8.40729	8.407
25 2,4-Dichlorophenol	162		11.707	11.716	(0.976)	628783	10.7614	10.76
26 1,2,4-Trichlorobenzene	180		11.899	11.906	(0.992)	253399	3.02792	3.028
* 27 Naphthalene-d8	136		11.991	11.999	(1.000)	705262	4.00000	
28 Naphthalene	128		12.030	12.037	(1.003)	663242	3.37071	3.371
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		12.385	12.393	(1.033)	152962	3.31429	3.314
31 4-Chloro-3-methylphenol	107		13.105	13.105	(1.093)	721900	11.3369	11.34
32 2-Methylnaphthalene	142		13.430	13.437	(1.120)	478355	3.25153	3.252
33 Hexachlorocyclopentadiene	237		13.886	13.902	(0.889)	102030	2.10700	2.107

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		14.049	14.049	(0.899)	540840	11.3381	11.34	
35 2,4,5-Trichlorophenol	196		14.119	14.118	(0.904)	578009	11.1119	11.11	
§ 36 2-Fluorobiphenyl	172		14.204	14.211	(0.909)	556231	3.29931	3.299	
37 2-Chloronaphthalene	162		14.428	14.436	(0.924)	447713	3.37183	3.372	
38 2-Nitroaniline	65		14.691	14.691	(0.941)	442615	11.4780	11.48	
39 Dimethylphthalate	163		15.109	15.109	(0.967)	562023	3.76417	3.764	
40 Acenaphthylene	152		15.303	15.310	(0.980)	731204	3.52792	3.528	
41 2,6-Dinitrotoluene	165		15.256	15.256	(0.977)	358574	10.6398	10.64	
* 42 Acenaphthene-d10	164		15.620	15.628	(1.000)	389417	4.00000		
43 3-Nitroaniline	138		Compound Not Detected.						
44 Acenaphthene	153		15.690	15.689	(1.004)	469021	3.55804	3.558	
45 2,4-Dinitrophenol	184		15.744	15.759	(1.008)	28447	1.09863	1.099	
46 Dibenzofuran	168		16.014	16.014	(1.025)	707547	3.68132	3.681	
47 4-Nitrophenol	109		15.852	15.844	(1.015)	312234	9.99894	9.999	
48 2,4-Dinitrotoluene	165		16.068	16.068	(1.029)	509599	10.4765	10.48	
50 Diethylphthalate	149		16.563	16.571	(1.060)	759682	4.90037	4.900	
49 Fluorene	166		16.733	16.733	(1.071)	581351	3.66657	3.667	
51 4-Chlorophenyl-phenylether	204		16.710	16.710	(1.070)	338699	4.28986	4.290	
52 4-Nitroaniline	138		16.826	16.825	(1.077)	54578	1.68971	1.690	
53 4,6-Dinitro-2-methylphenol	198		16.910	16.918	(0.905)	239299	8.80594	8.806	
54 N-Nitrosodiphenylamine	169		16.964	16.964	(0.908)	323027	3.56006	3.560	
§ 55 2,4,6-Tribromophenol	330		17.265	17.265	(1.105)	105861	5.50384	5.504	
56 4-Bromophenyl-phenylether	248		17.720	17.728	(0.949)	162197	3.78661	3.787	
57 Hexachlorobenzene	284		18.052	18.052	(0.966)	137150	3.19001	3.190	
58 Pentachlorophenol	266		18.401	18.401	(0.985)	316888	10.2909	10.29	
* 59 Phenanthrene-d10	188		18.679	18.679	(1.000)	686638	4.00000		
60 Phenanthrene	178		18.726	18.726	(1.002)	871803	4.32710	4.327	
61 Anthracene	178		18.819	18.818	(1.007)	672170	3.61033	3.610	
62 Carbazole	167		19.144	19.136	(1.025)	638983	3.87724	3.877	
63 Di-n-butylphthalate	149		19.909	19.902	(1.066)	1016154	4.04458	4.045	
64 Fluoranthene	202		21.101	21.085	(0.890)	1319929	5.43101	5.431	
65 Pyrene	202		21.519	21.511	(0.908)	1246667	5.13494	5.135	
§ 66 Terphenyl-d14	244		21.782	21.782	(0.919)	572777	2.98303	2.983	
67 Butylbenzylphthalate	149		22.695	22.695	(0.958)	422063	3.84694	3.847	
68 Benzo(a)anthracene	228		23.671	23.663	(0.999)	980861	4.55164	4.552	
* 69 Chrysene-d12	240		23.702	23.694	(1.000)	544347	4.00000		
70 3,3'-Dichlorobenzidine	252		Compound Not Detected.						
71 Chrysene	228		23.749	23.741	(1.002)	1013721	5.25580	5.256	
72 bis(2-Ethylhexyl)phthalate	149		23.710	23.702	(0.958)	855693	5.62708	5.627	
* 134 Di-n-octylphthalate-d4	153		24.747	24.739	(1.000)	1055664	4.00000		
73 Di-n-octylphthalate	149		24.755	24.747	(1.000)	1103213	3.96113	3.961	
74 Benzo(b)fluoranthene	252		25.692	25.676	(0.968)	963574	5.34078	5.341	
75 Benzo(k)fluoranthene	252		25.738	25.730	(0.969)	940879	5.25539	5.255	
76 Benzo(a)pyrene	252		26.419	26.404	(0.995)	707259	4.68344	4.683	
* 77 Perylene-d12	264		26.551	26.528	(1.000)	439193	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		29.553	29.498	(1.113)	713964	3.93551	3.936	
79 Dibenzo(a,h)anthracene	278		29.553	29.514	(1.113)	544972	3.58688	3.587	
80 Benzo(g,h,i)perylene	276		30.446	30.376	(1.147)	571978	3.95558	3.956	
90 N-Nitrosodimethylamine	74		5.083	5.090	(1.000)	78219	2.58275	2.583	
91 Aniline	93		Compound Not Detected.						
93 Benzidine	184		Compound Not Detected.						
103 Pyridine	79		5.152	5.114	(1.000)	50013	1.04727	1.047	
105 1-methylnaphthalene	142		13.654	13.662	(1.139)	464857	3.44651	3.447	
111 Azobenzene (1,2-DP-Hydrazine)	77		17.034	17.041	(1.091)	574879	3.79579	3.796	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.738	25.676	(0.969)	1816184	10.4578	10.46
120 2,3,4,6-Tetrachlorophenol	232	16.347	16.346	(1.047)	142789	2.79976	2.800

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052313.D Calibration Time: 11:37
 Lab Smp Id: BLD0329-MS1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	185292	3.25
27 Naphthalene-d8	621628	310814	1243256	705262	13.45
42 Acenaphthene-d10	353112	176556	706224	389417	10.28
59 Phenanthrene-d10	694933	347467	1389866	686638	-1.19
69 Chrysene-d12	553967	276984	1107934	544347	-1.74
134 Di-n-octylphthala	895601	447801	1791202	1055664	17.87
77 Perylene-d12	482573	241287	965146	439193	-8.99

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.50	-0.08
27 Naphthalene-d8	12.00	11.50	12.50	11.99	-0.06
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.69	23.19	24.19	23.70	0.03
134 Di-n-octylphthala	24.74	24.24	25.24	24.75	0.03
77 Perylene-d12	26.53	26.03	27.03	26.55	0.09

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

REVIEW SUMMARY FOR FILE - NT1005052313.D

Lab ID: BLD0329-MS1
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 18:32

RT	CO-ELUTION COMPOUNDS
29.553	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
29.553	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.060	-0.0596	2,2'-oxybis(1-Chloropropane)

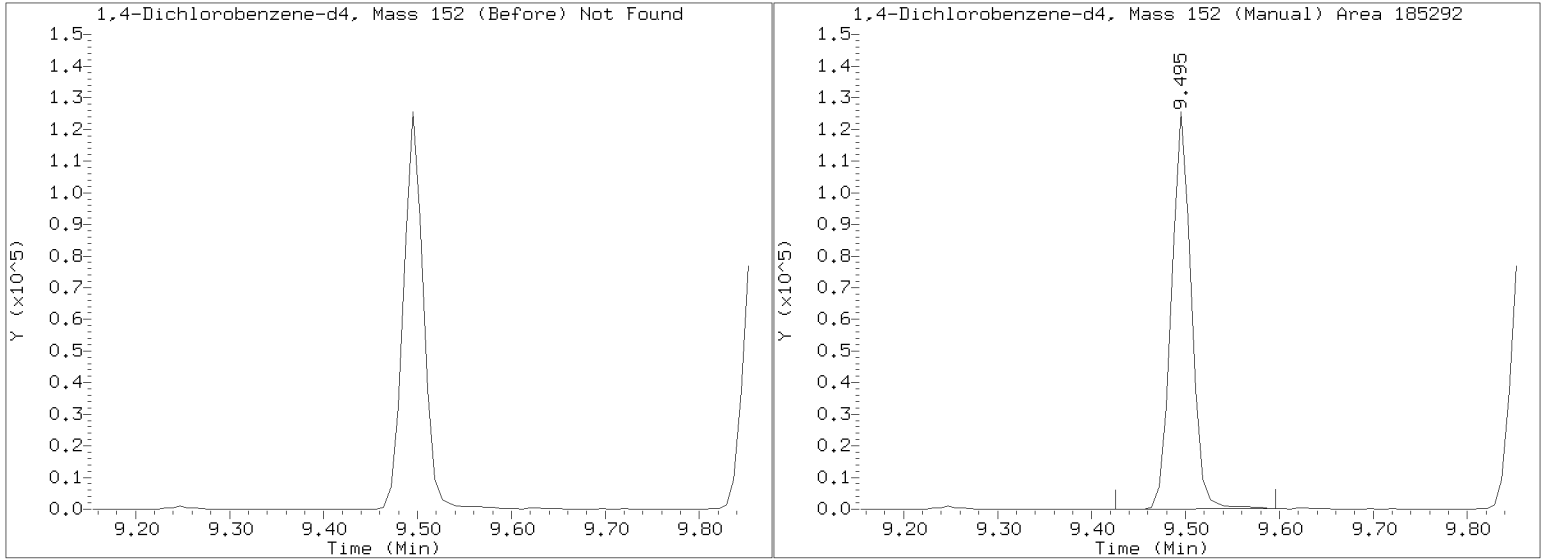
RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052313.D
Injection Date: 05-MAY-2023 18:32
Lab ID:BLD0329-MS1 Client ID:
Report Date: 05/08/2023 10:16



APPROVED

By Deenay Dunmore at 10:39 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230505.6\NT1005052314.D

Date: 05-May-2023 19:11

Client ID:

Sample Info: BLD0329-HSD1

Page 1

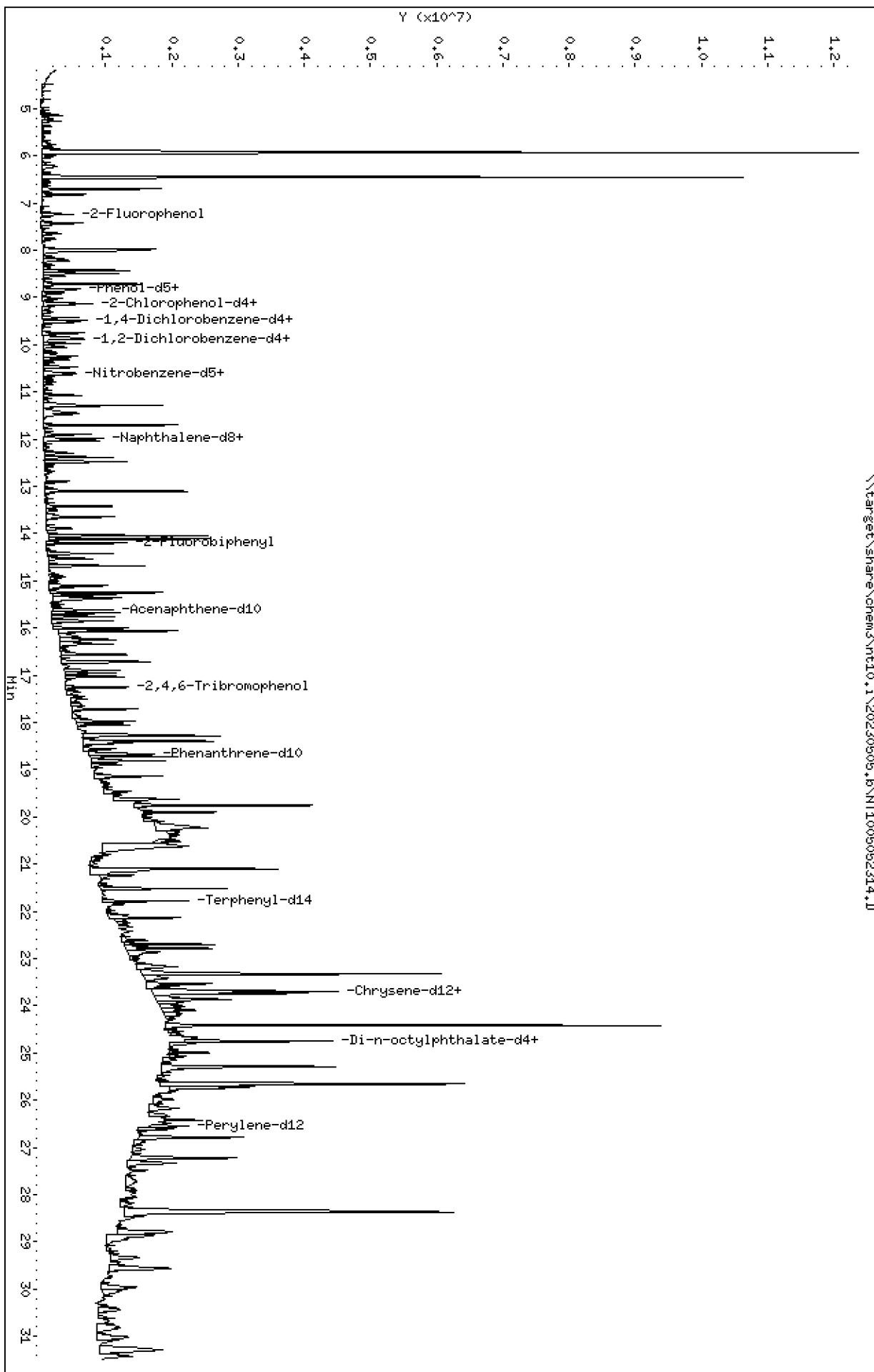
Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Column phase: ZB-5msi

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Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

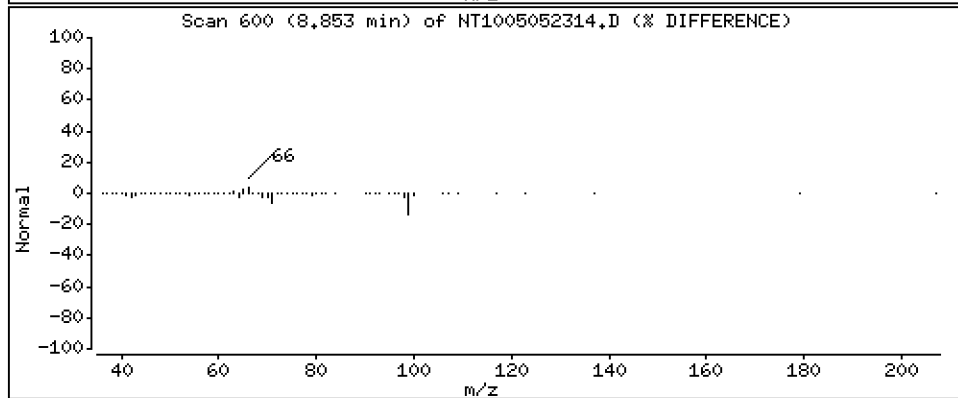
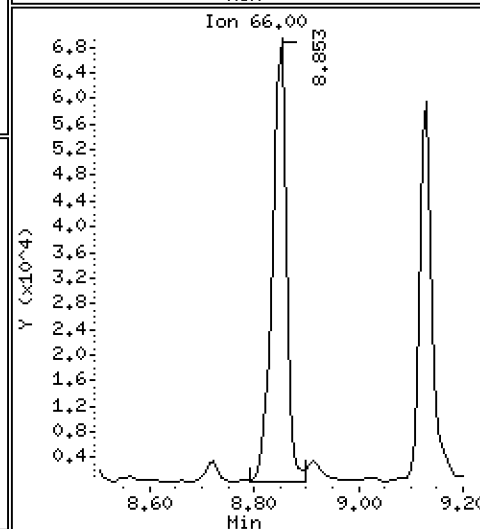
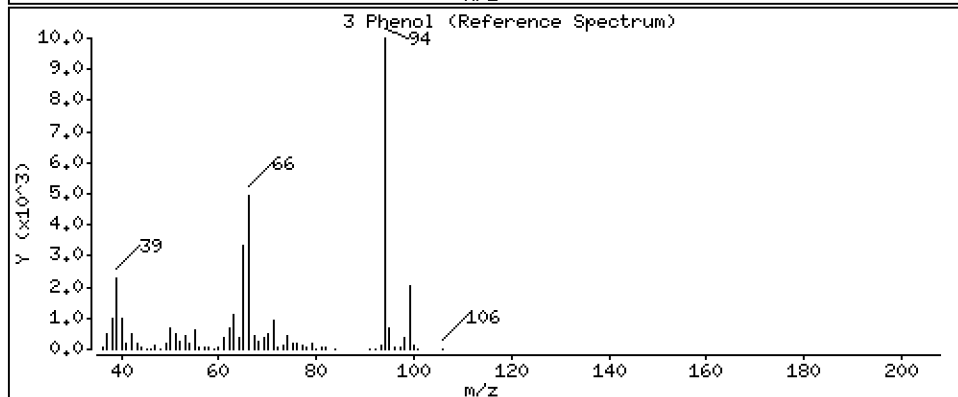
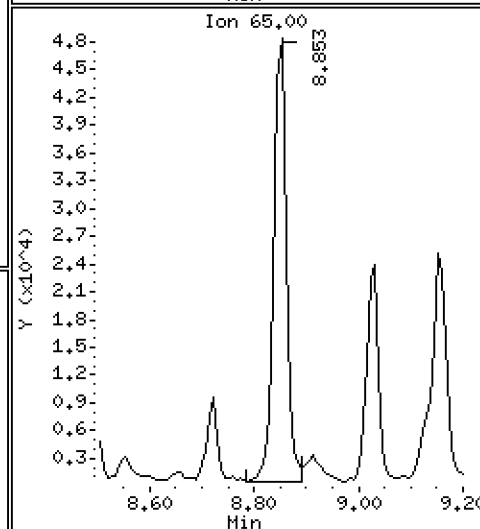
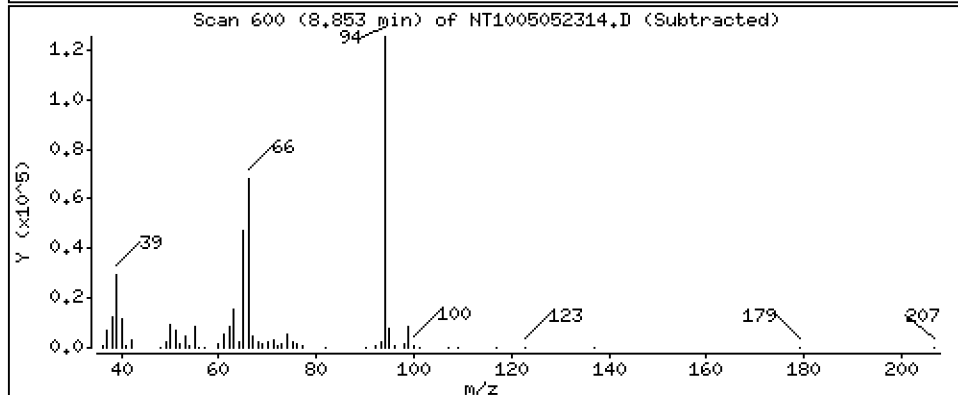
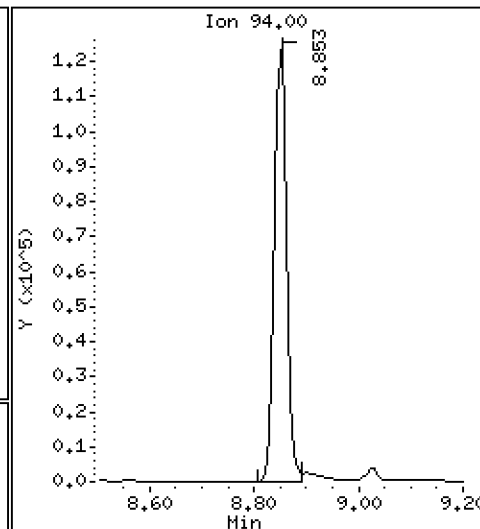
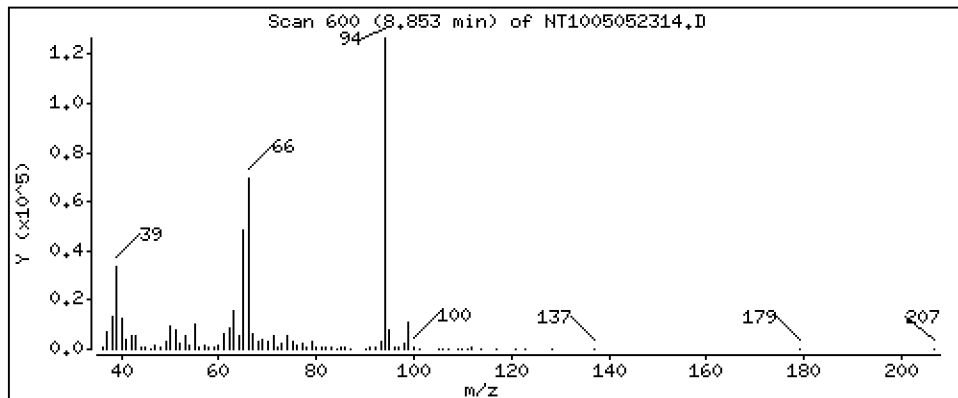
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 2,920 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

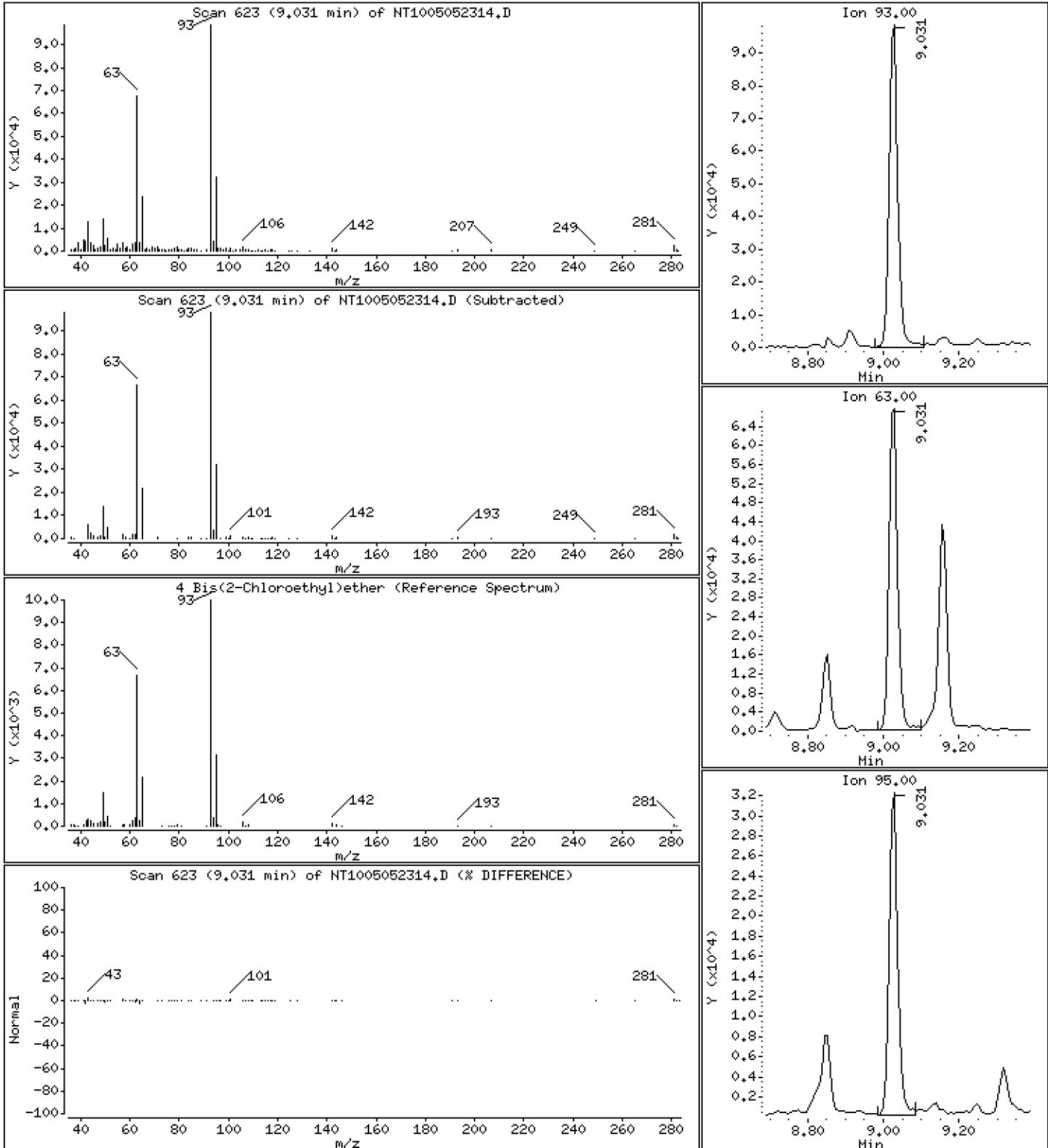
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 3,245 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

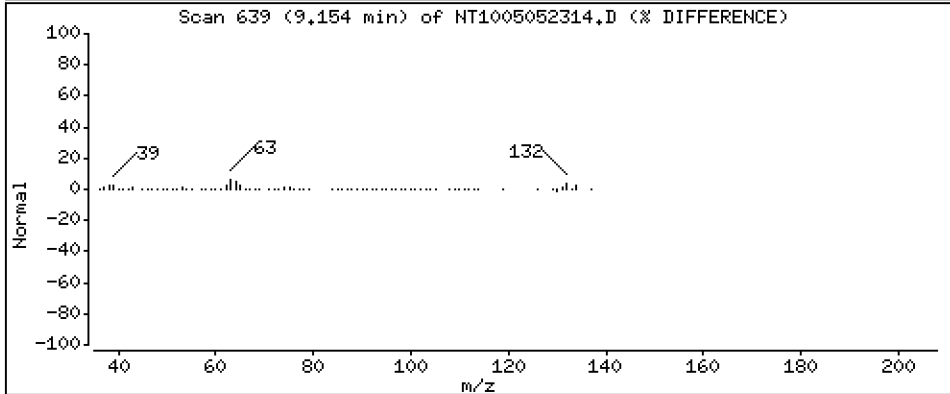
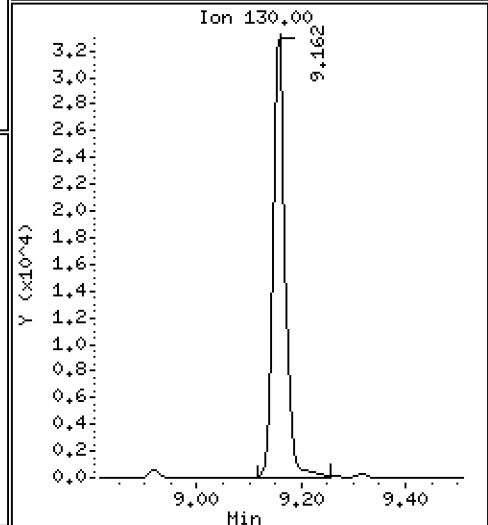
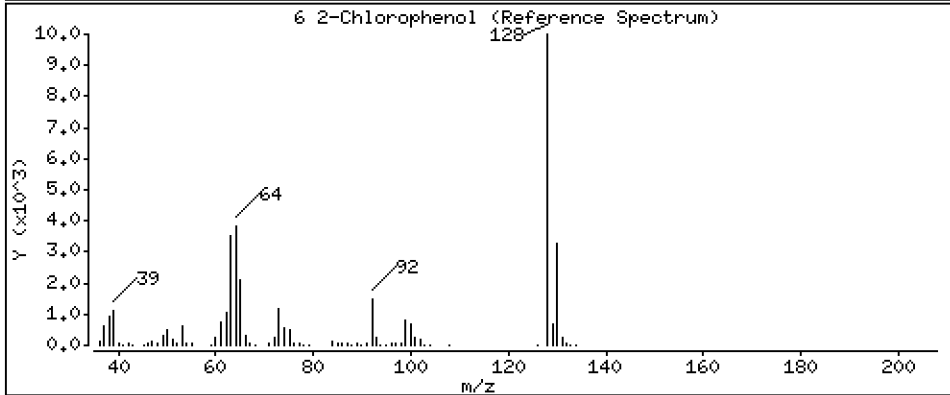
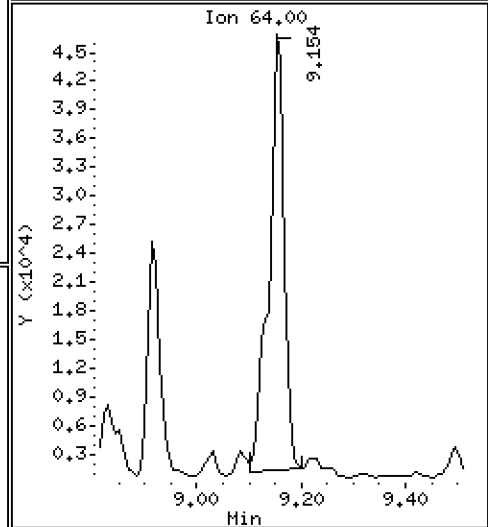
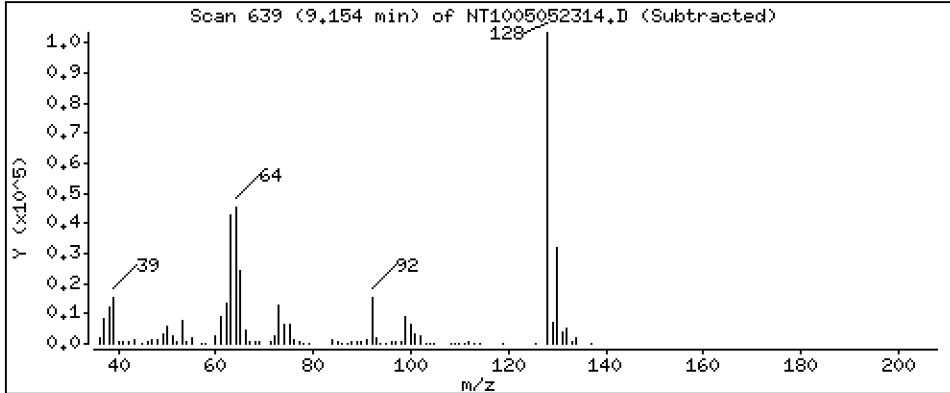
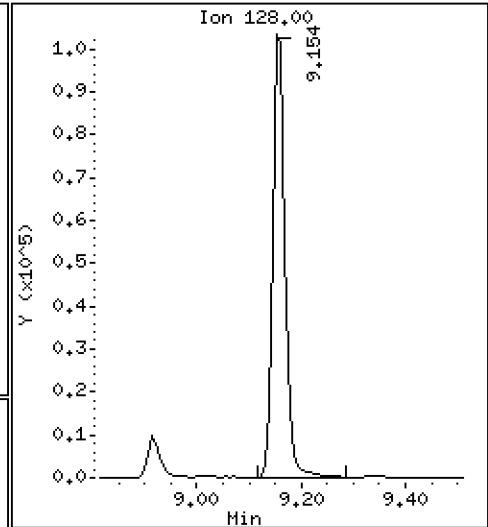
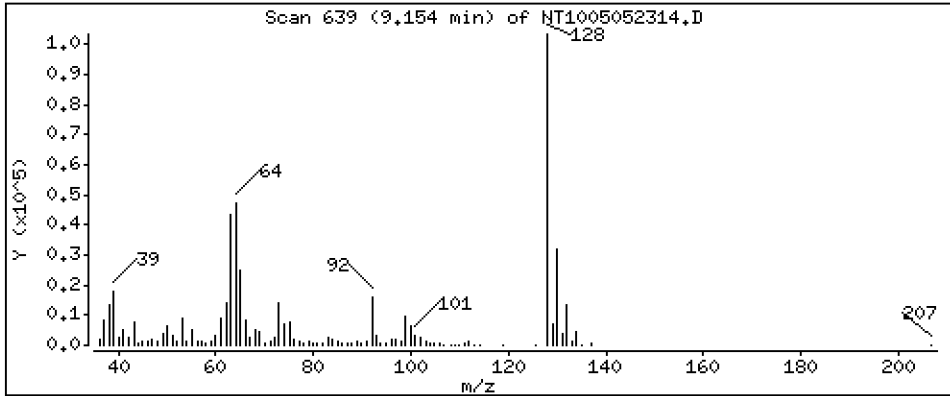
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 2,919 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

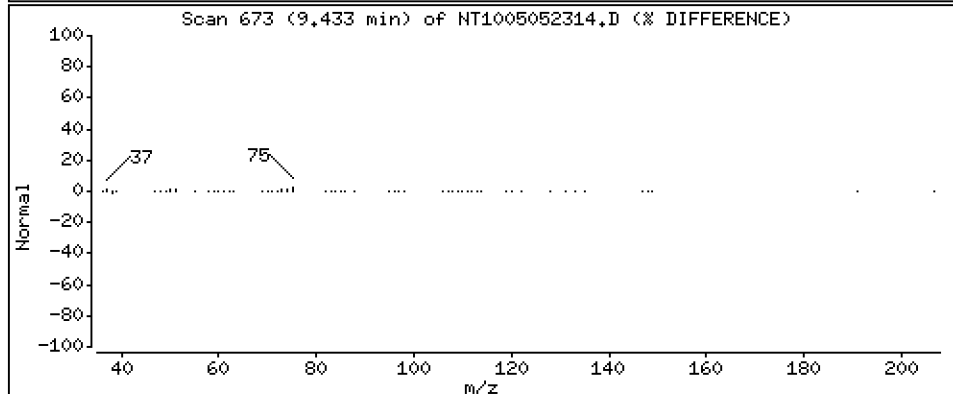
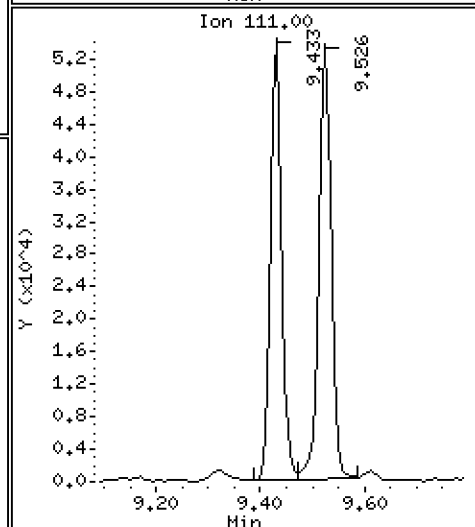
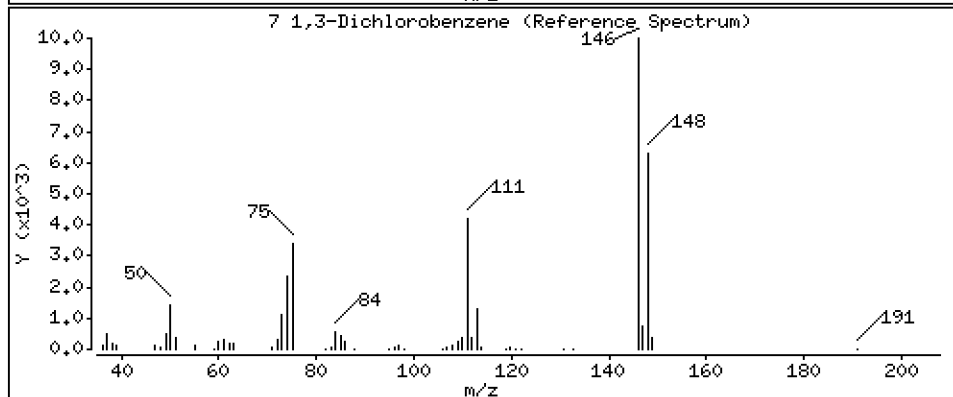
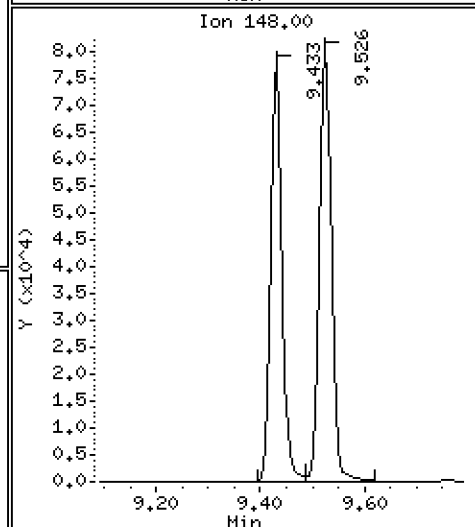
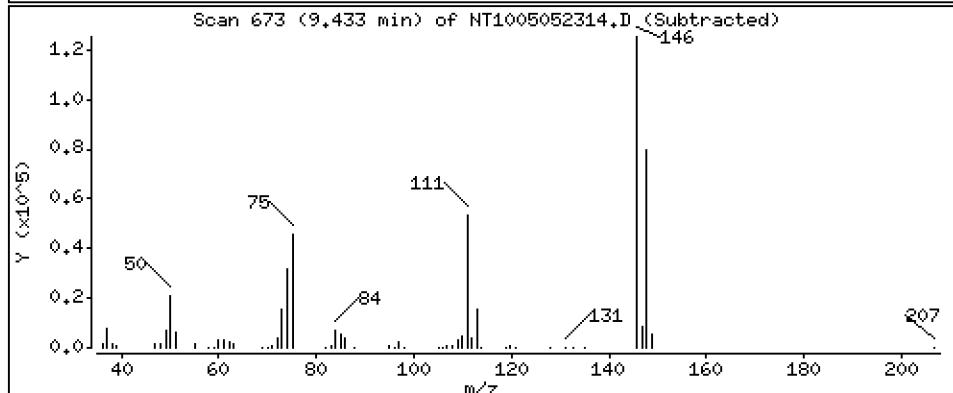
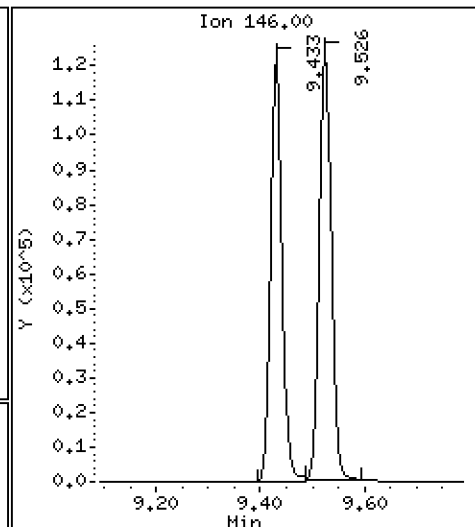
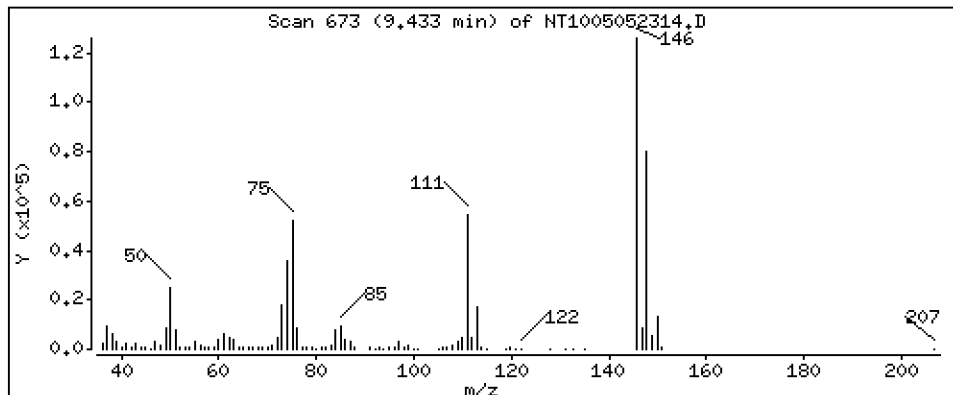
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 2,928 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

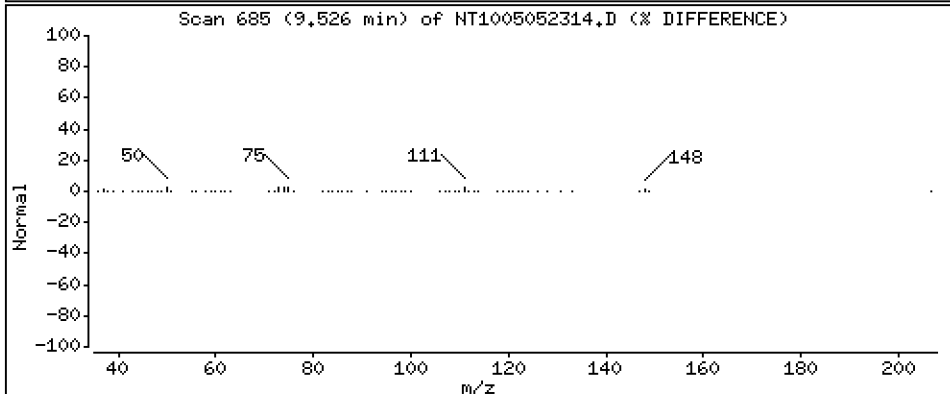
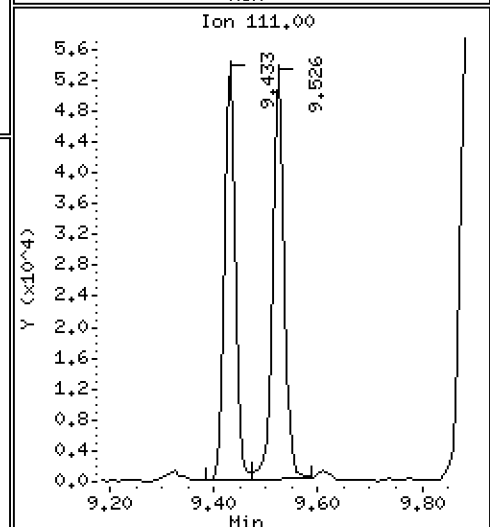
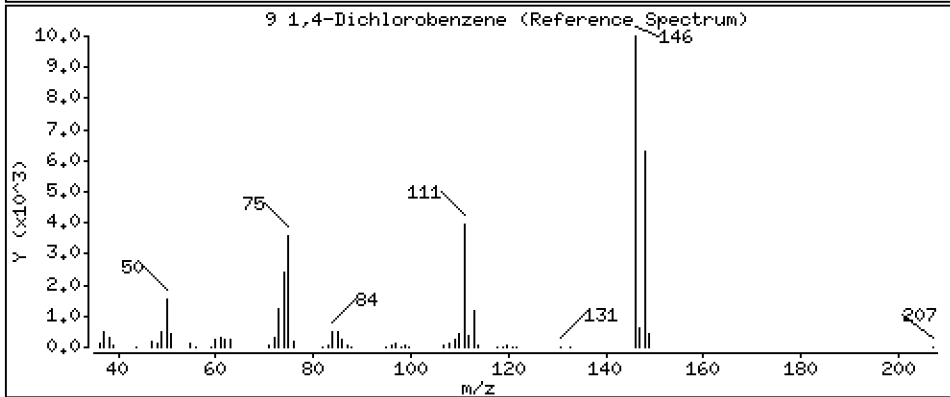
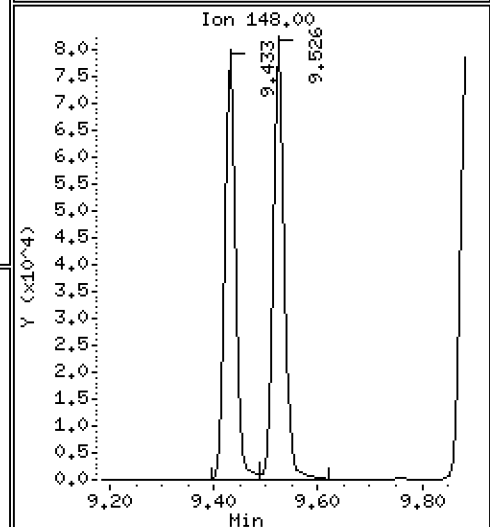
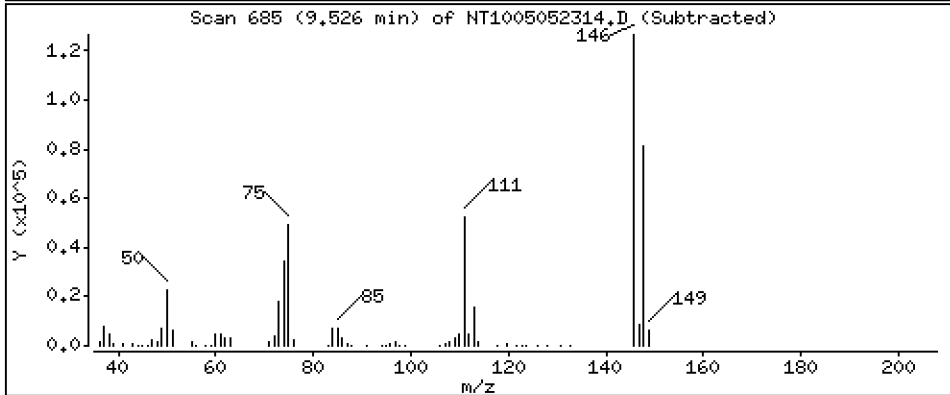
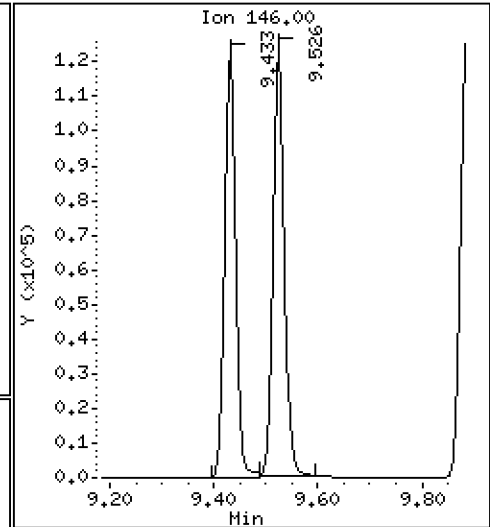
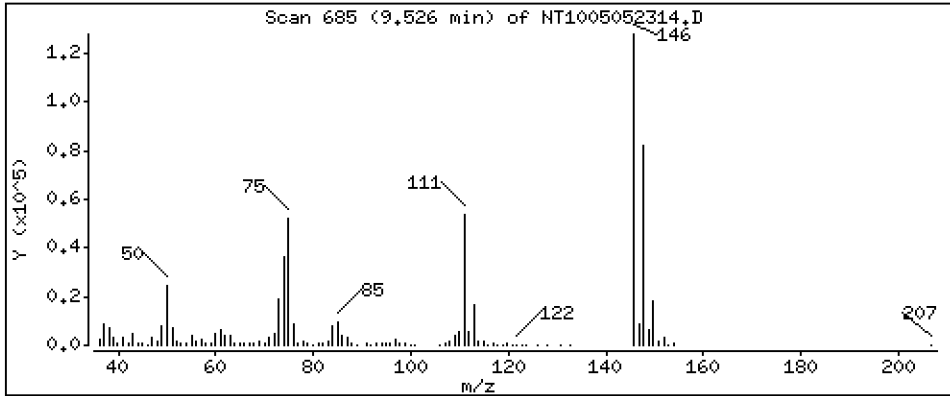
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 2,926 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

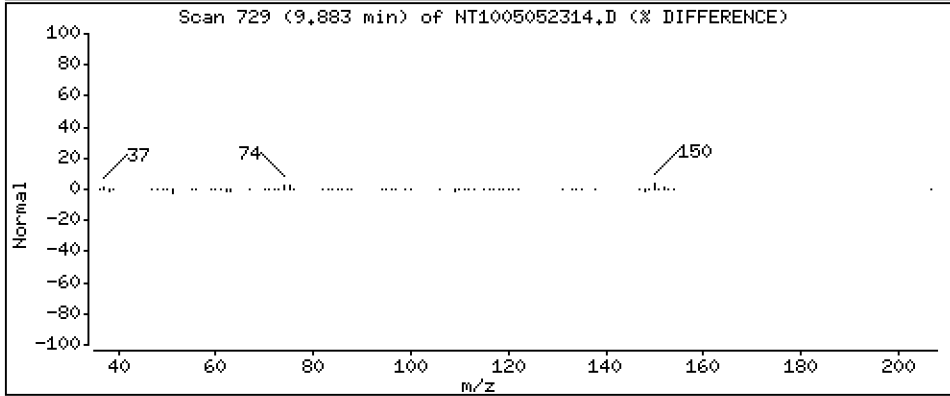
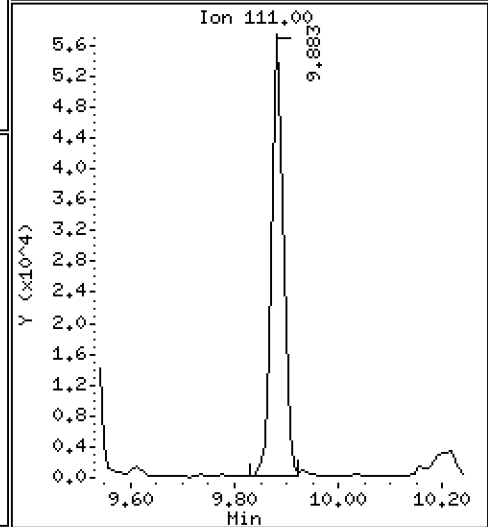
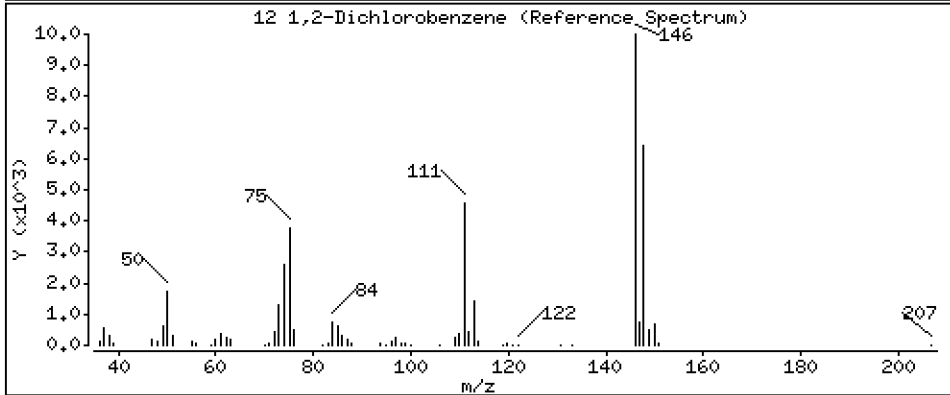
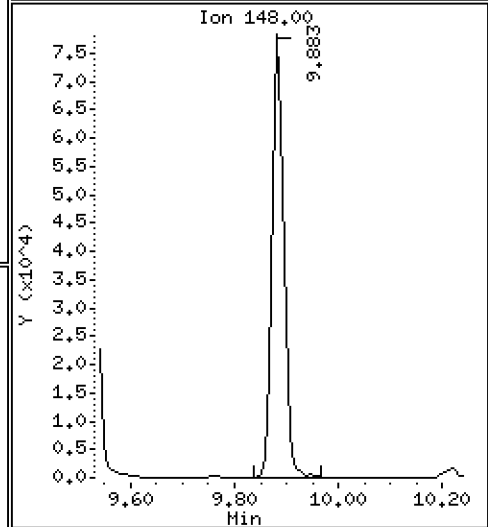
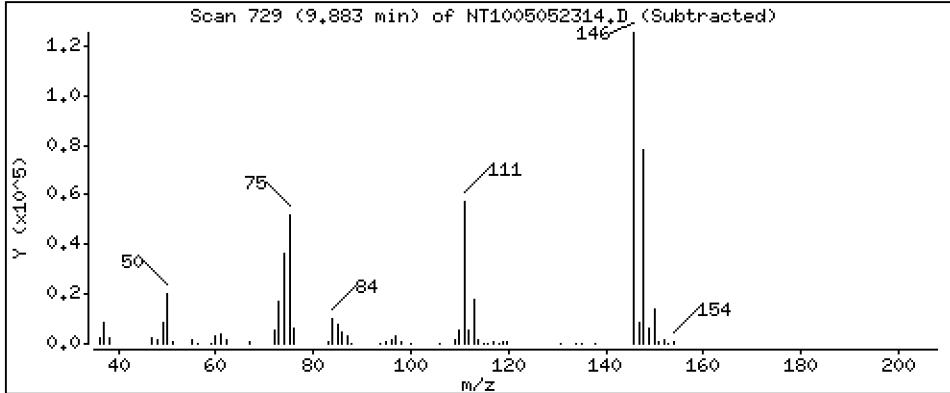
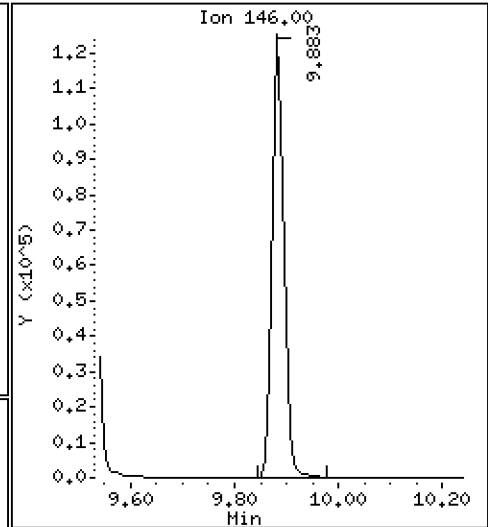
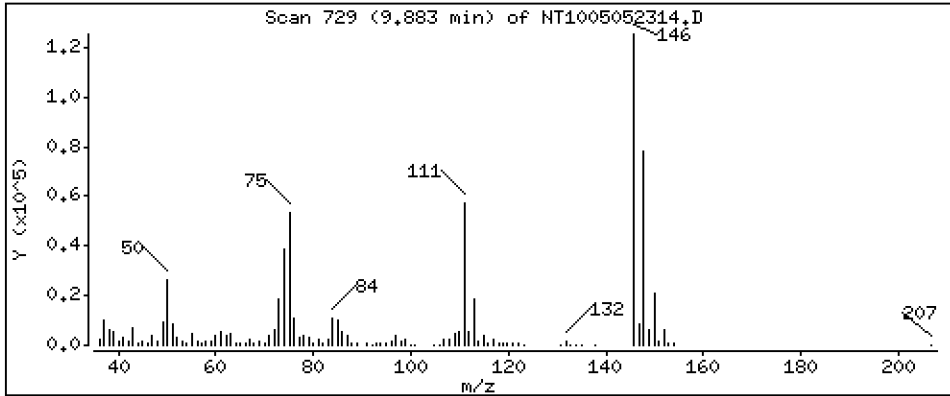
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 3,062 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

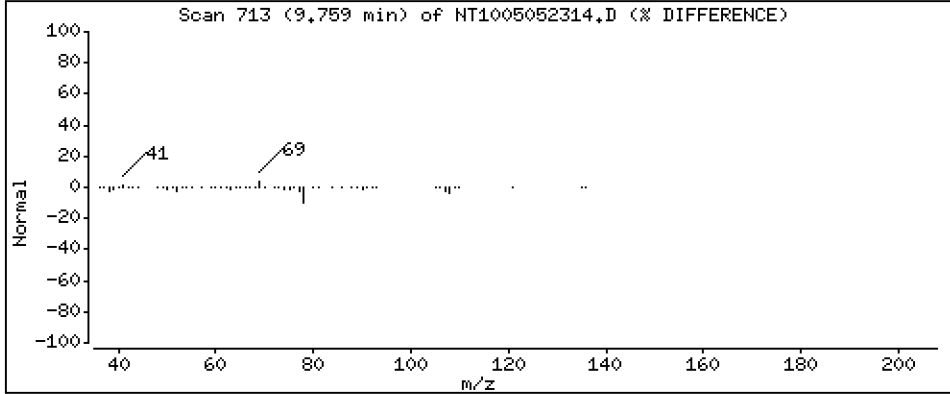
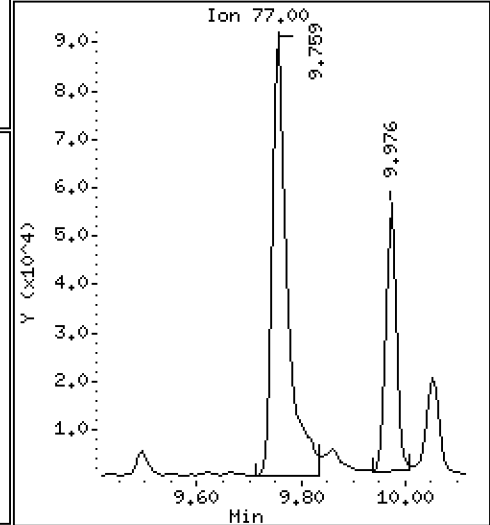
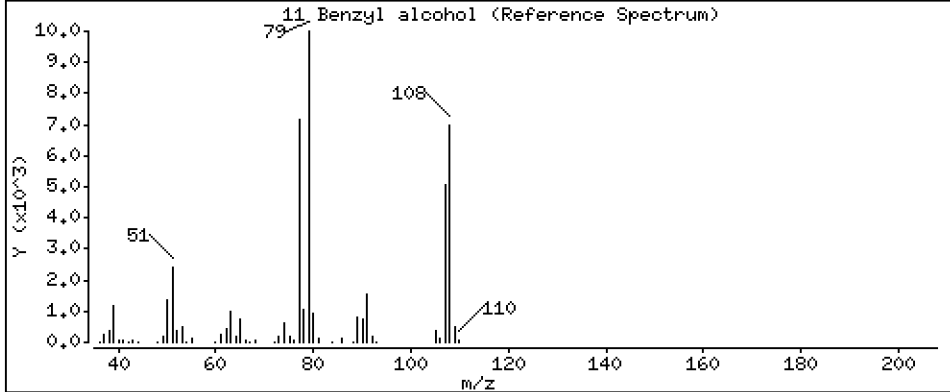
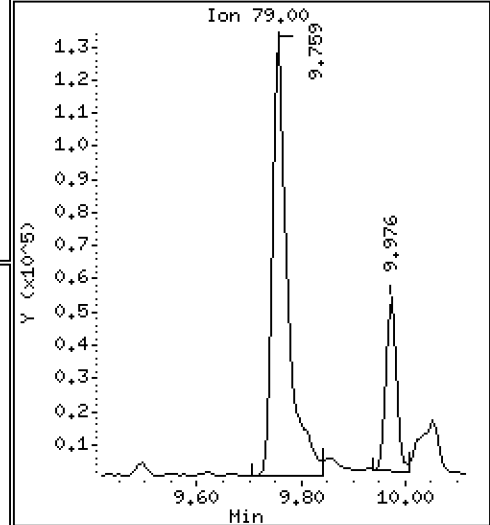
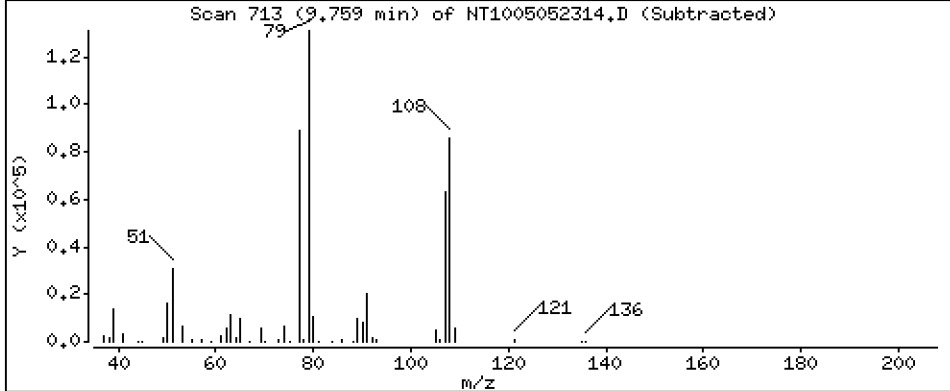
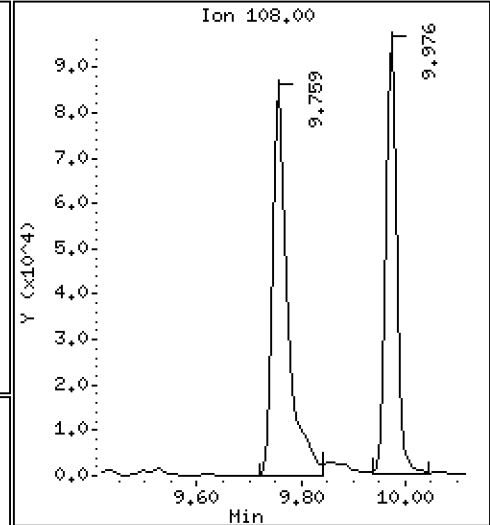
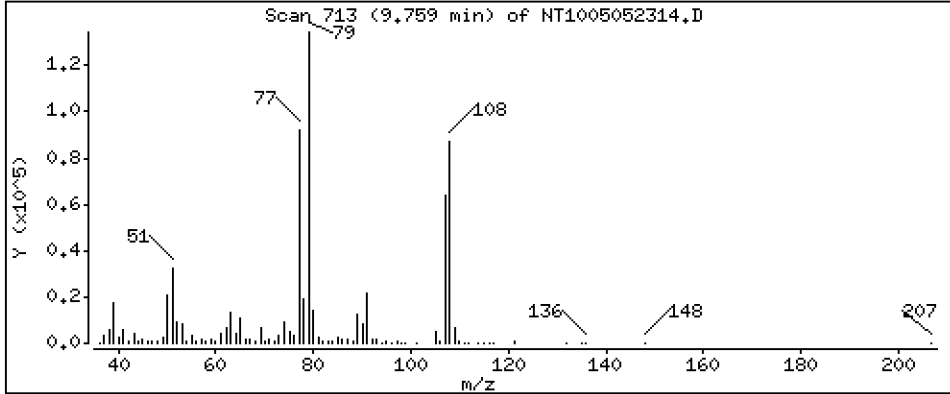
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.435 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

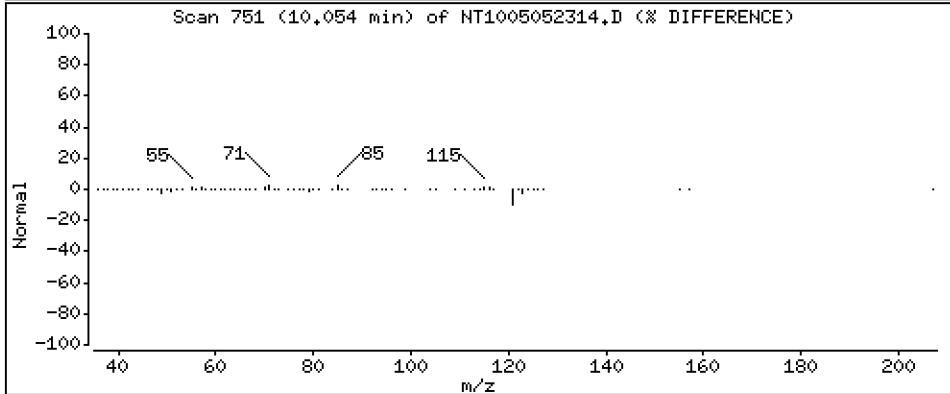
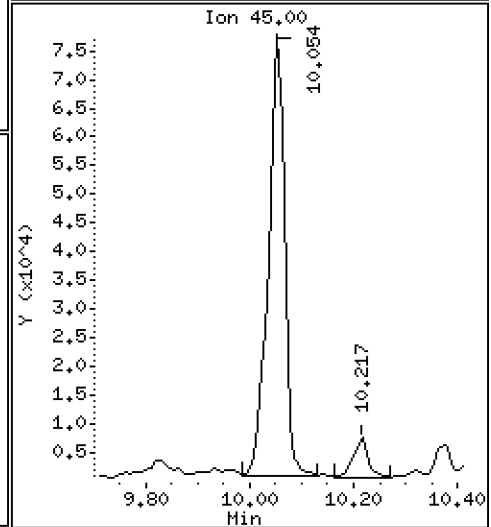
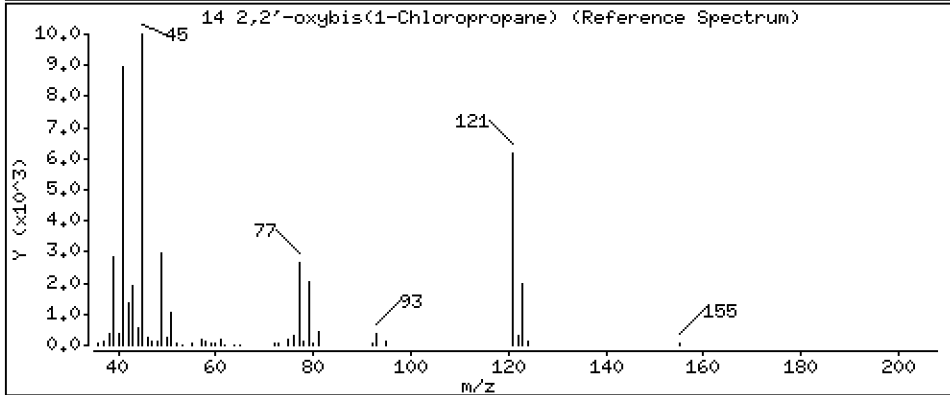
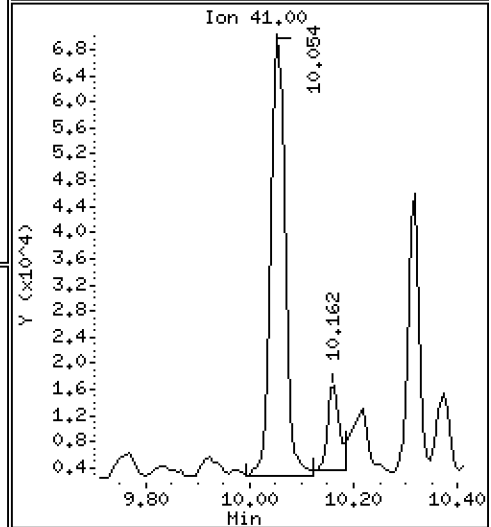
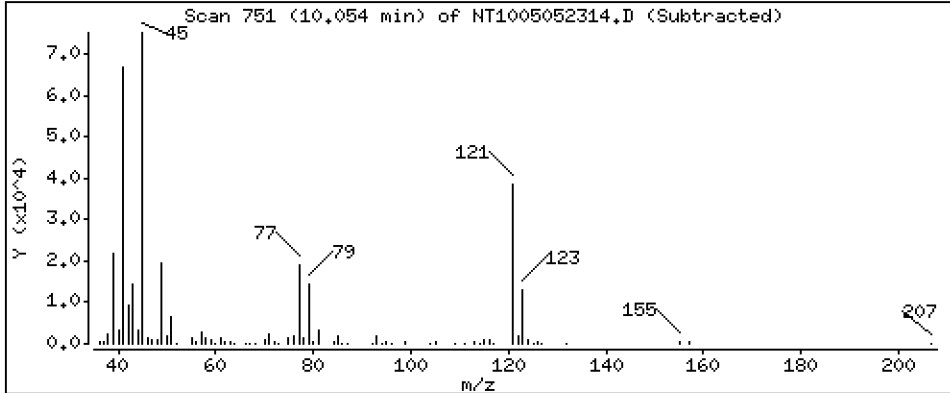
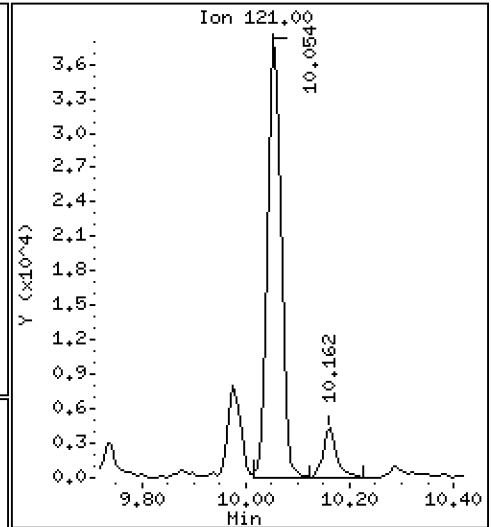
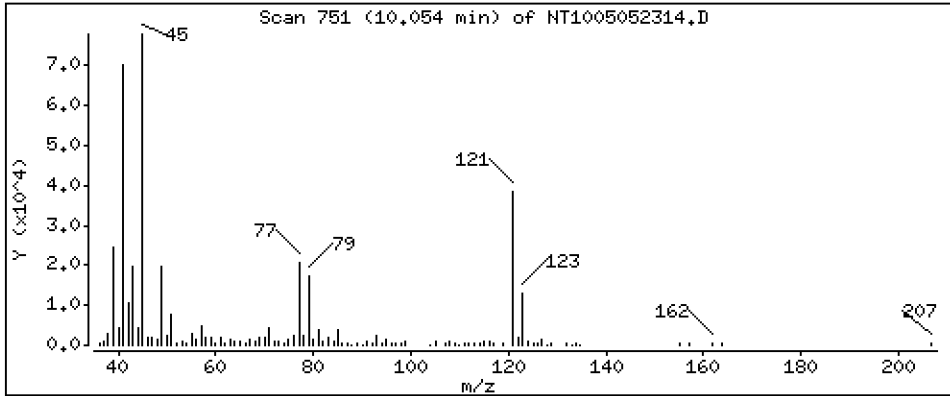
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 3,777 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

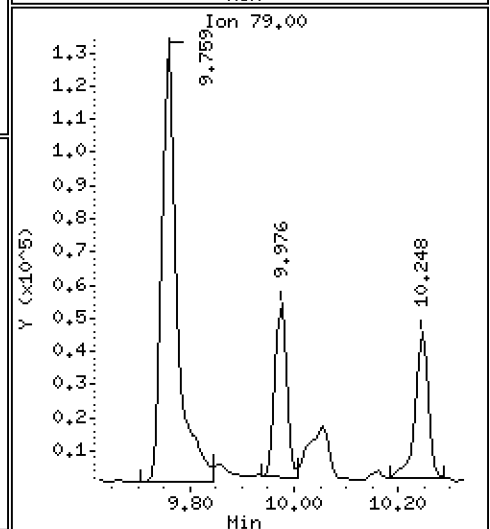
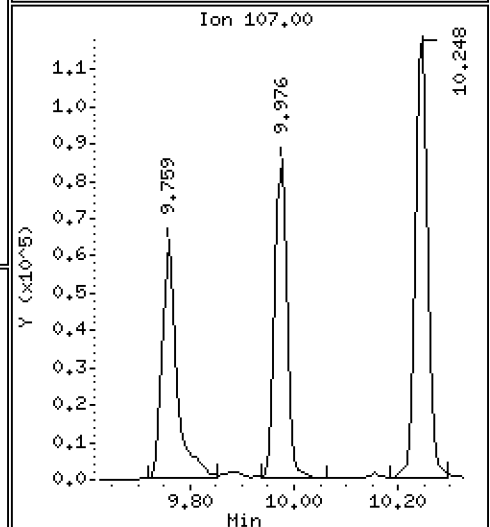
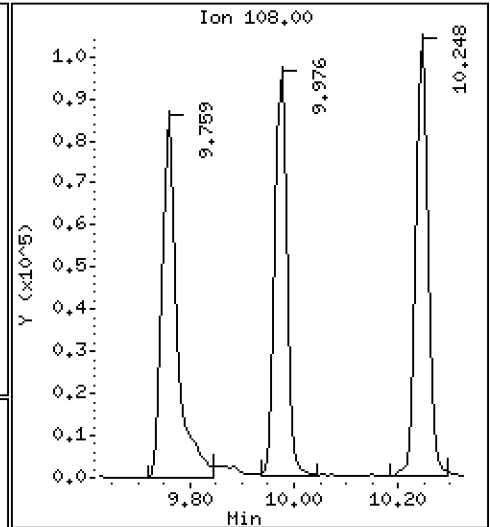
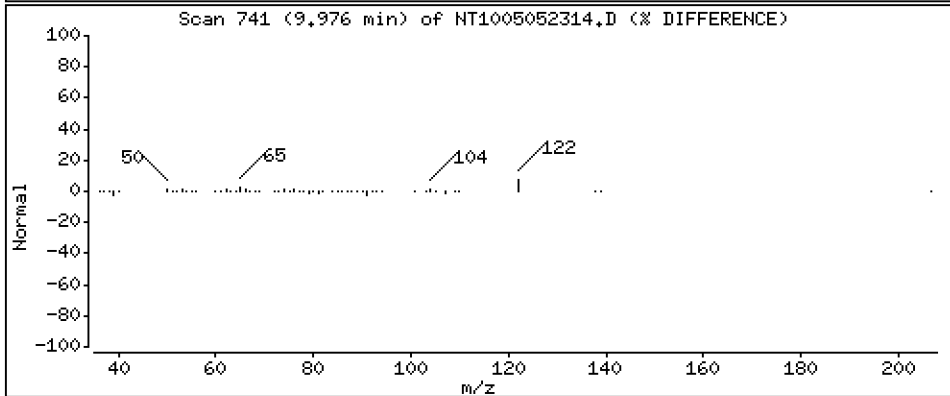
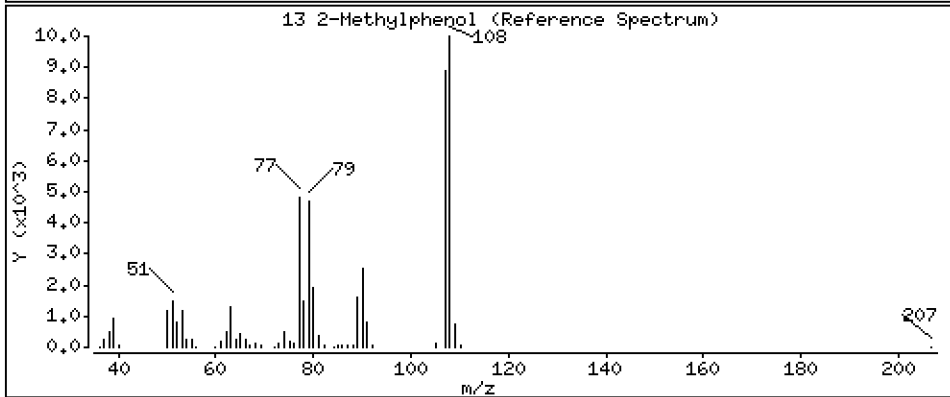
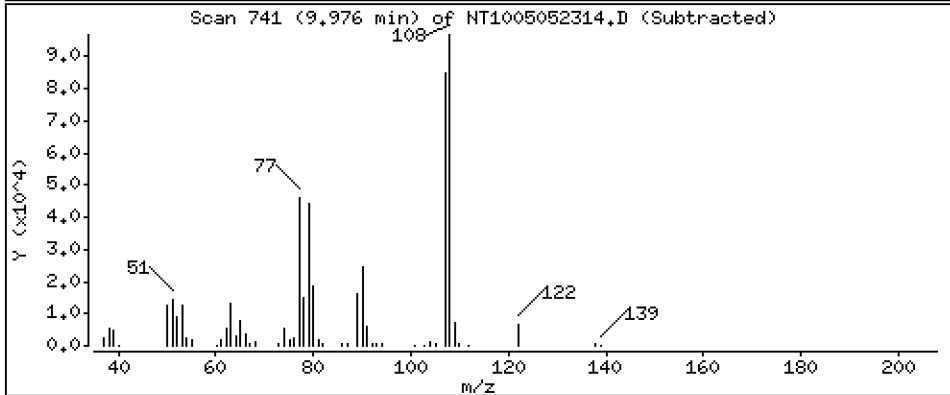
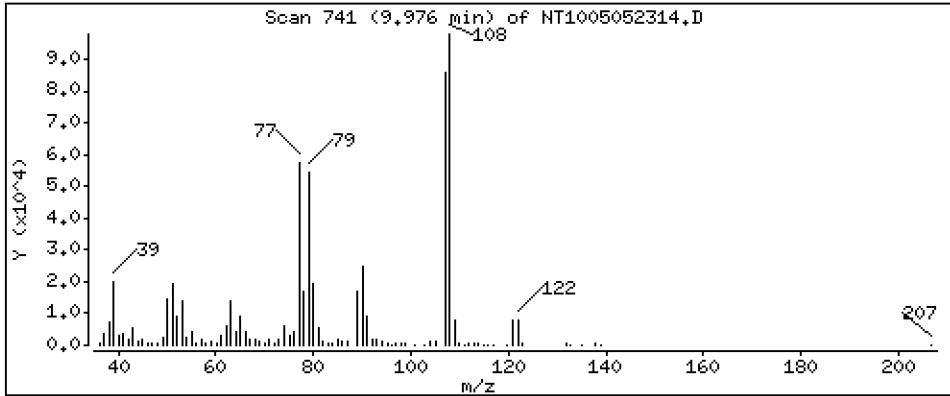
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3.088 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

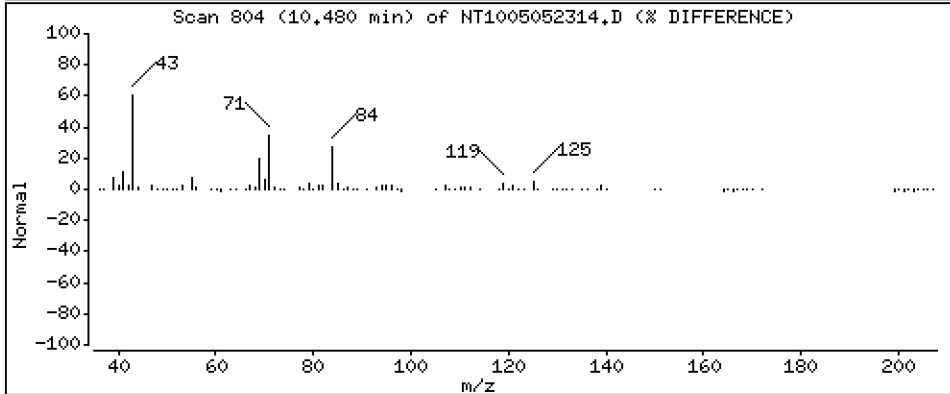
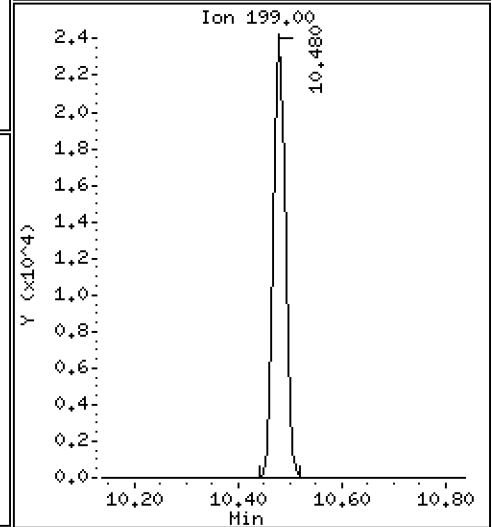
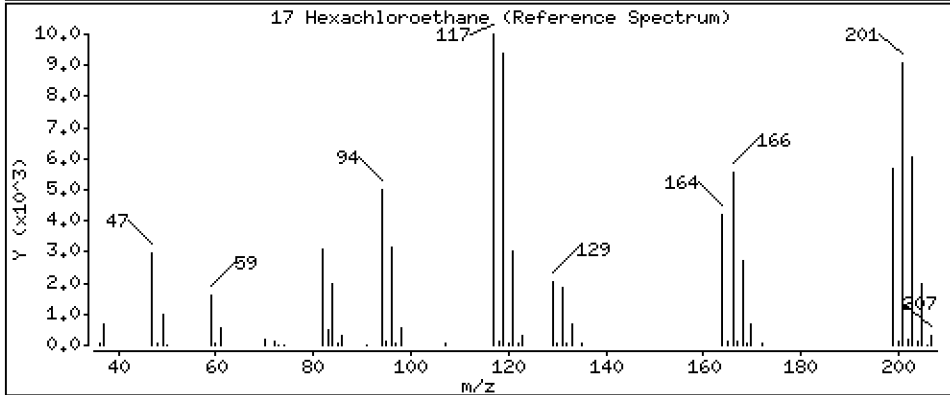
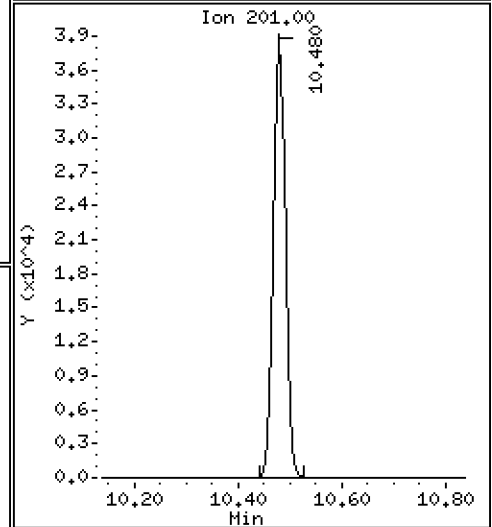
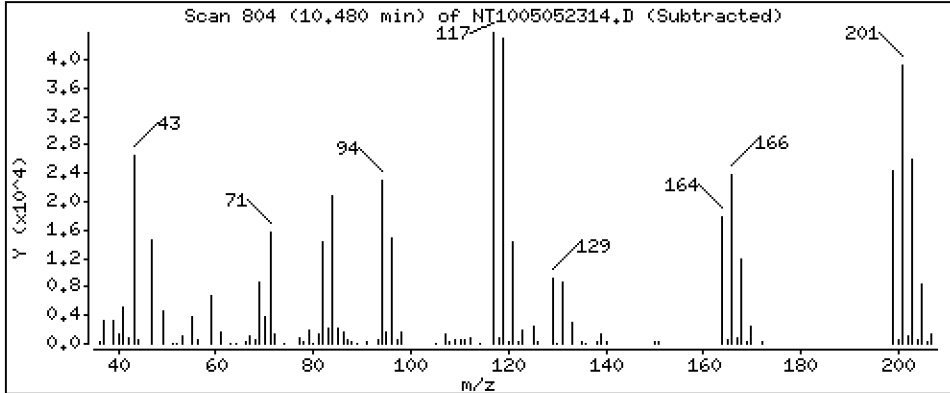
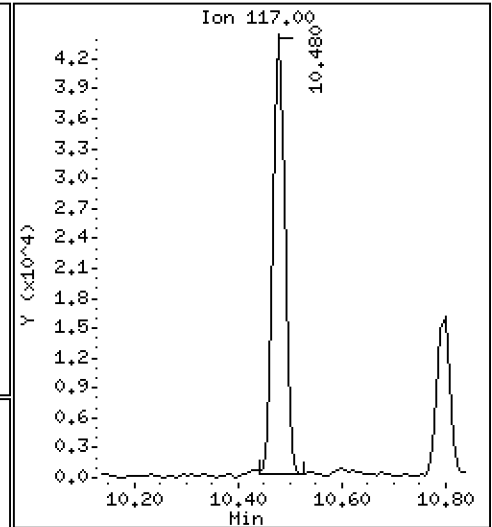
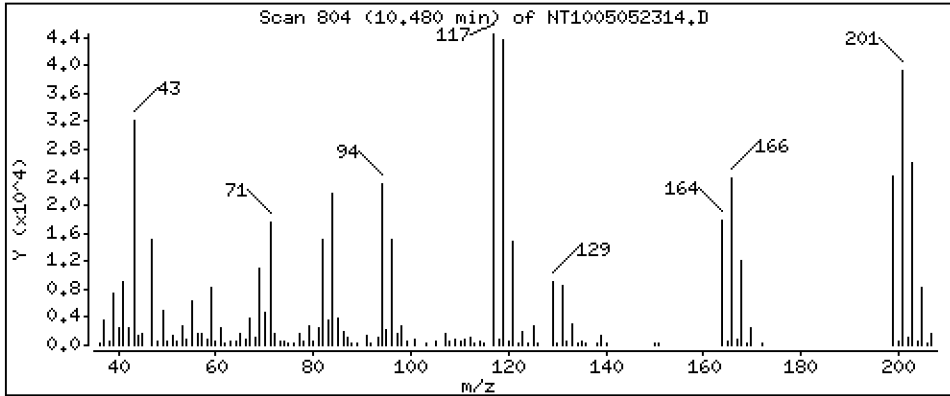
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 2,426 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

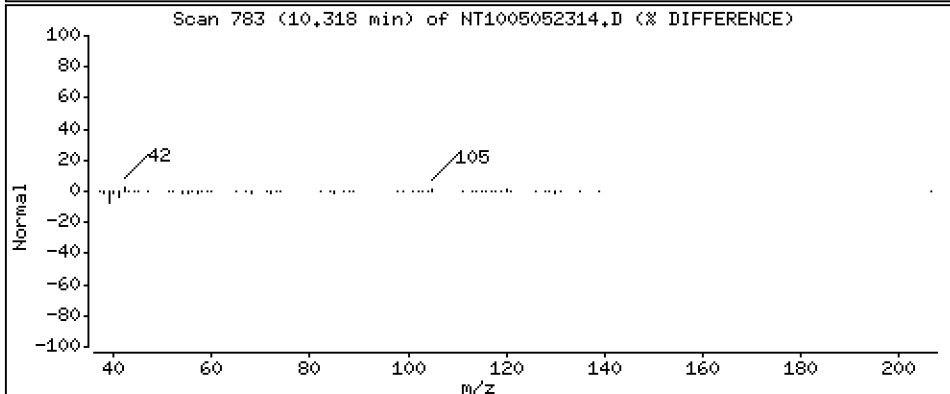
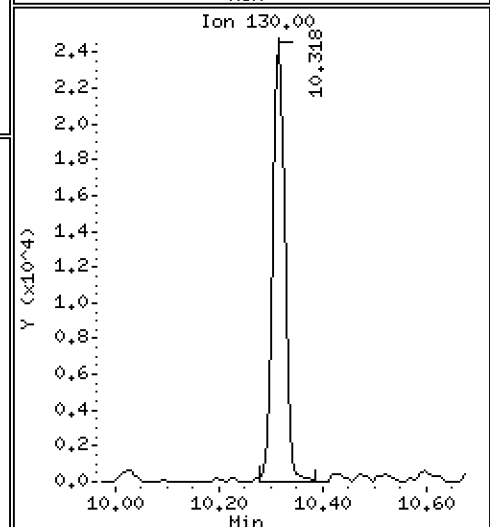
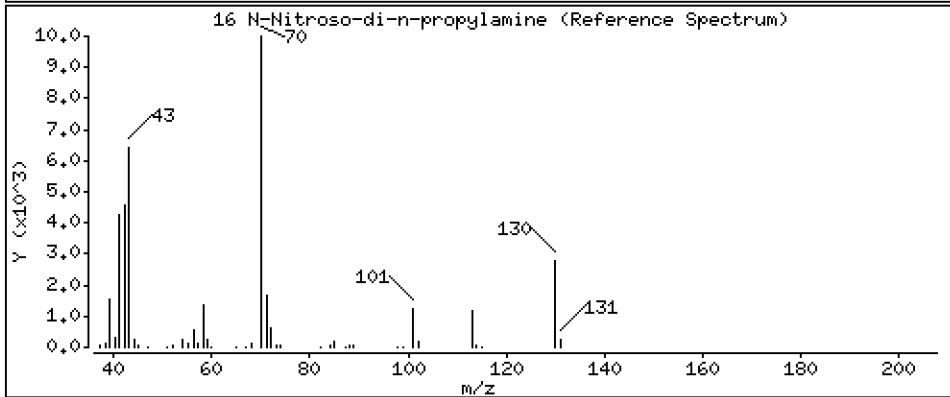
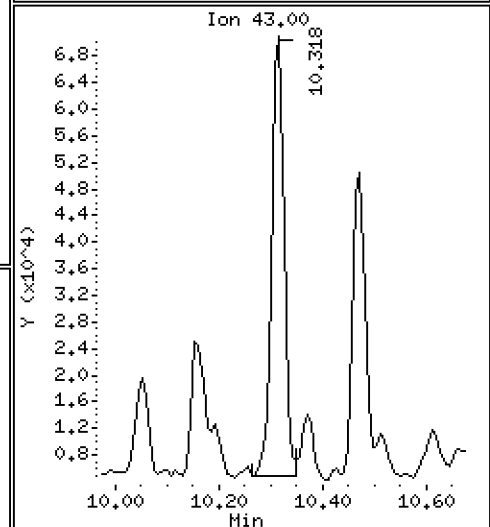
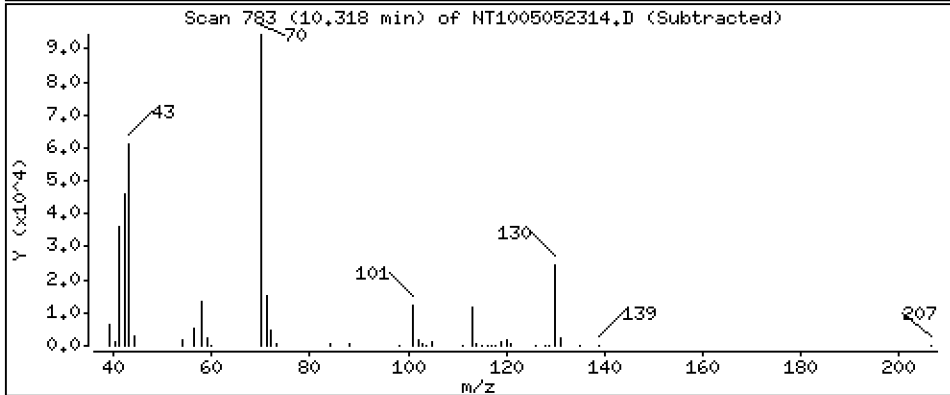
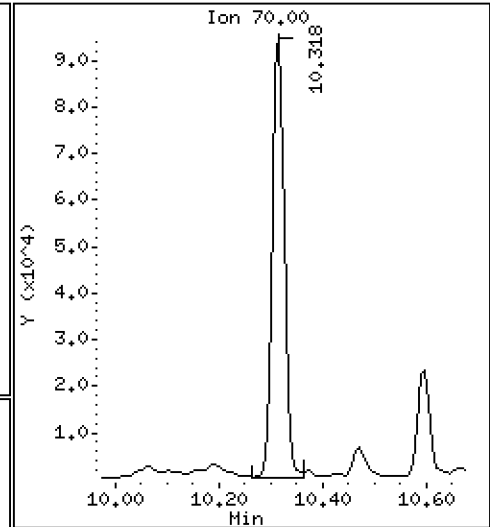
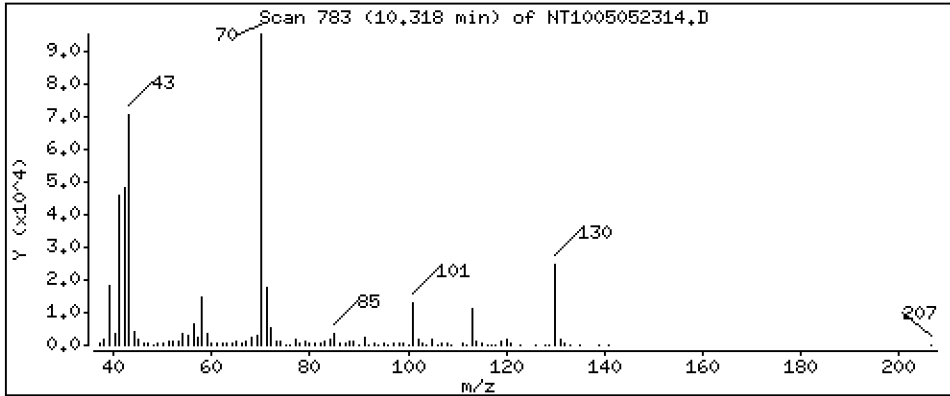
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 3,797 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

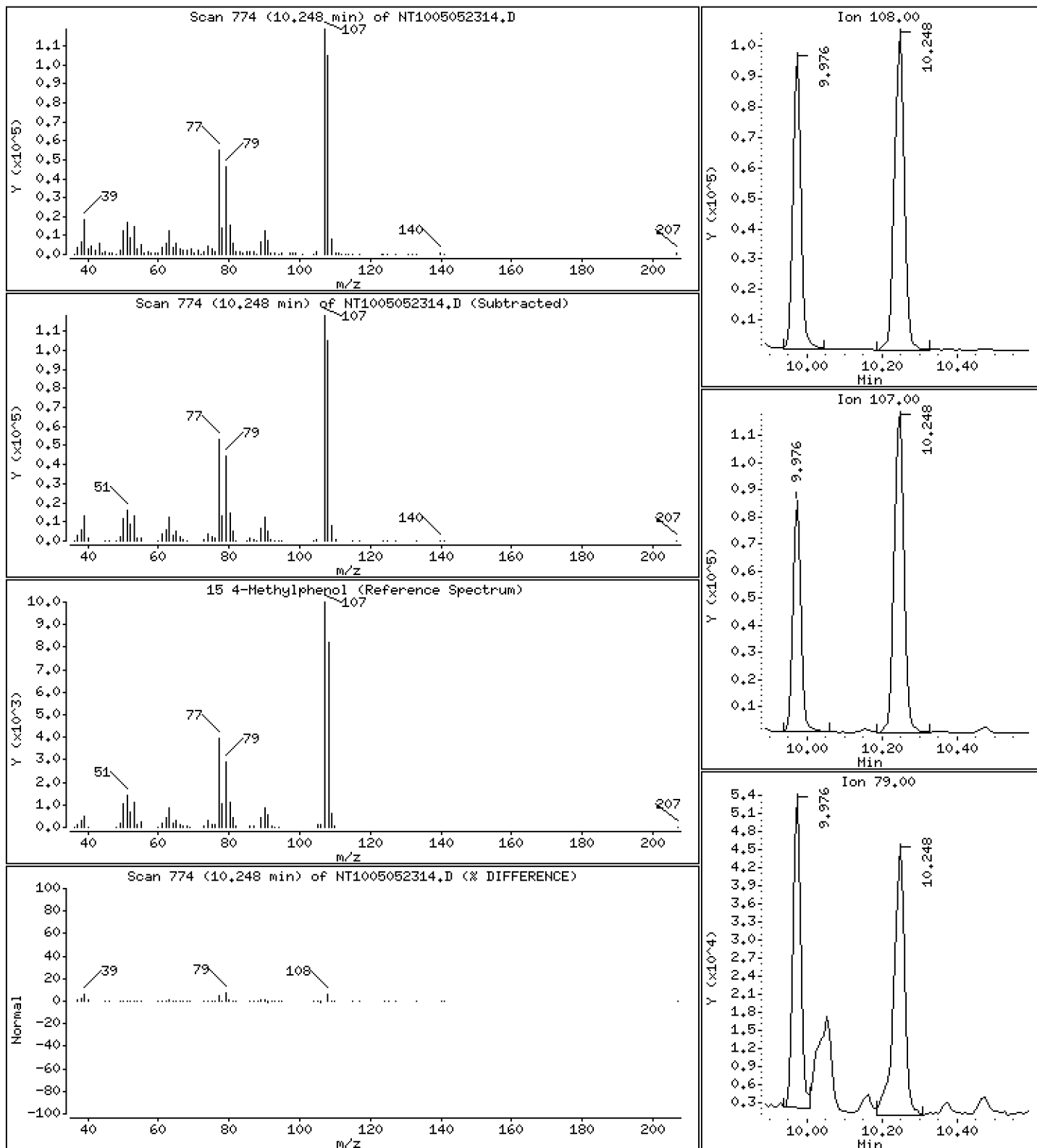
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,536 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

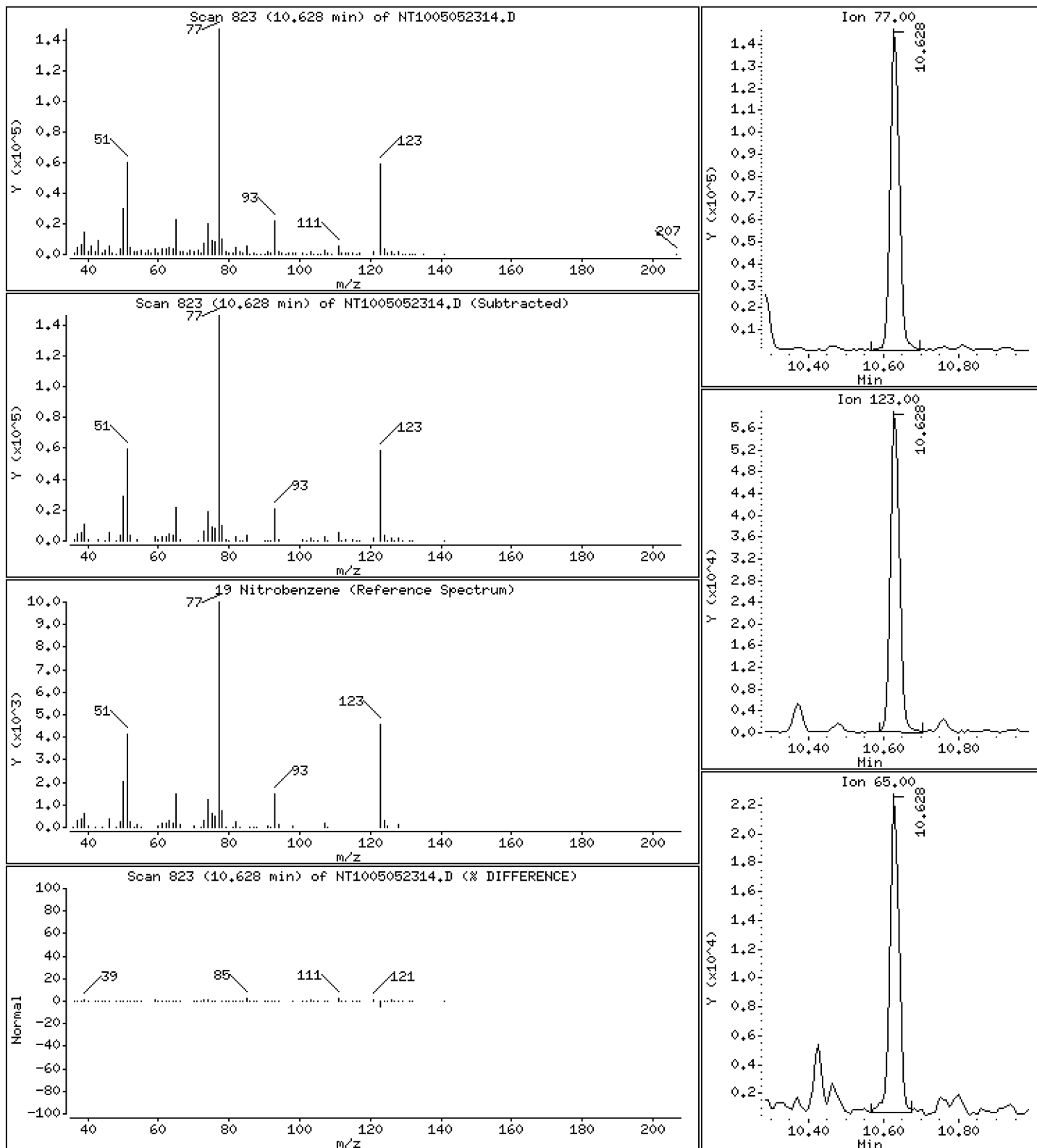
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 3,573 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

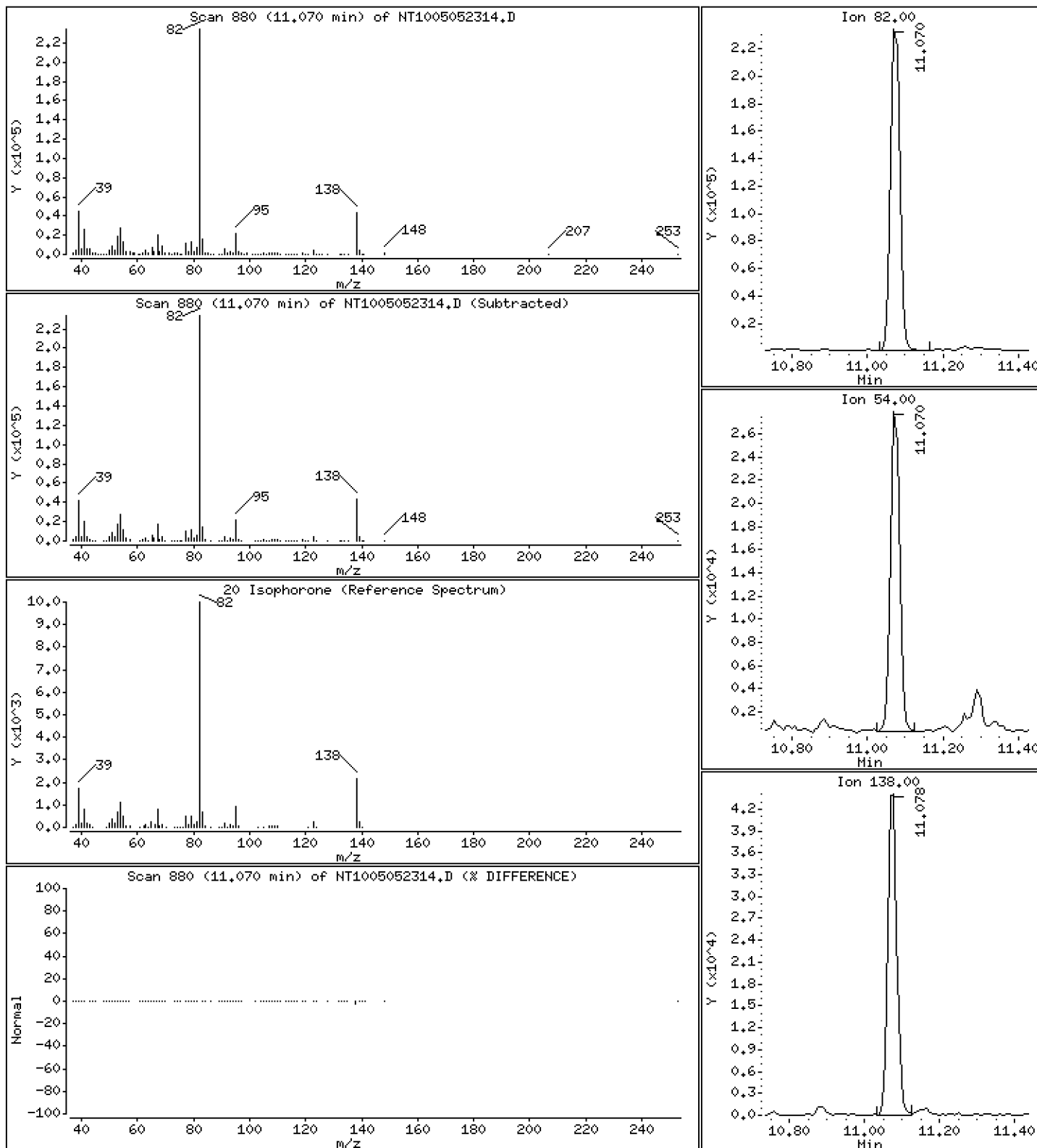
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 5,587 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

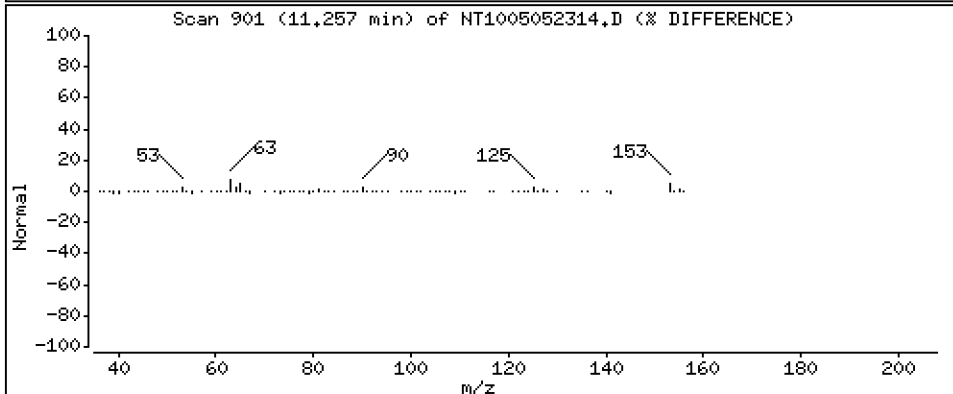
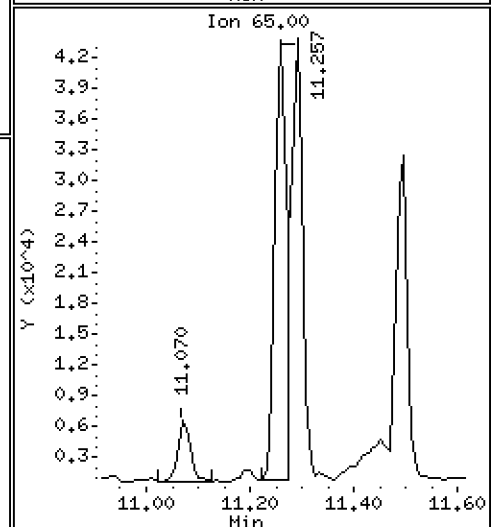
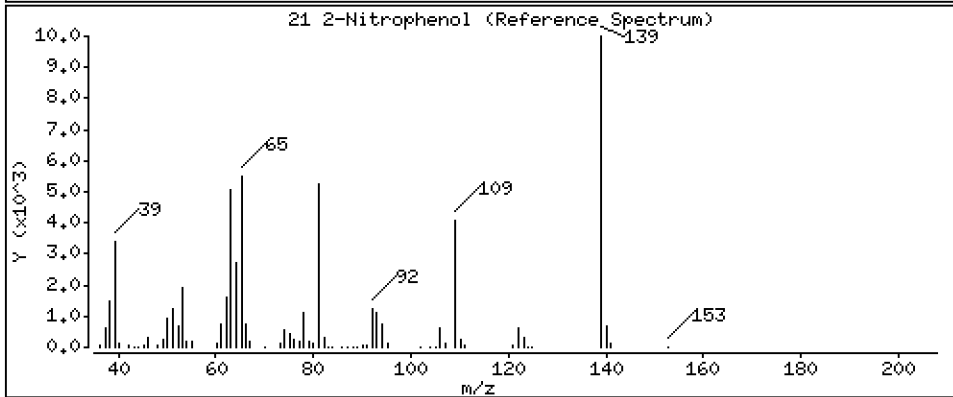
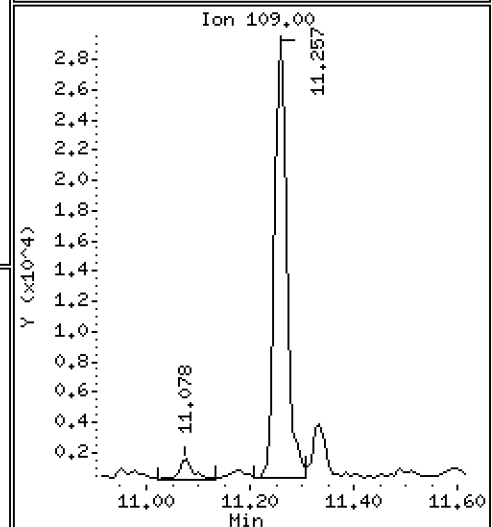
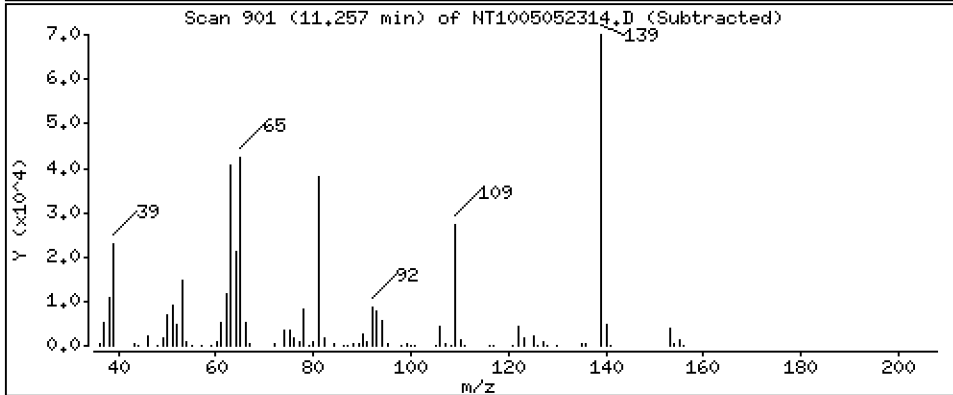
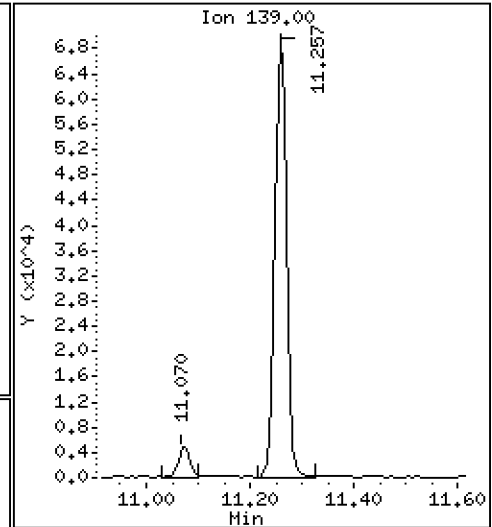
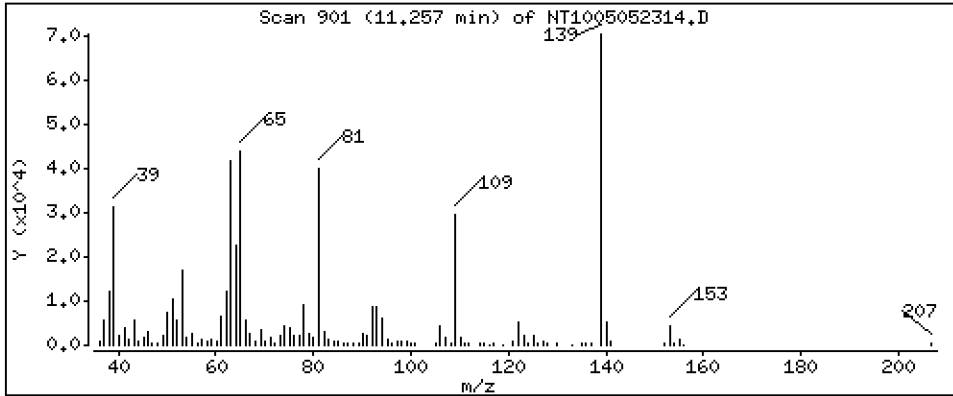
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

21 2-Nitrophenol

Concentration: 3,187 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

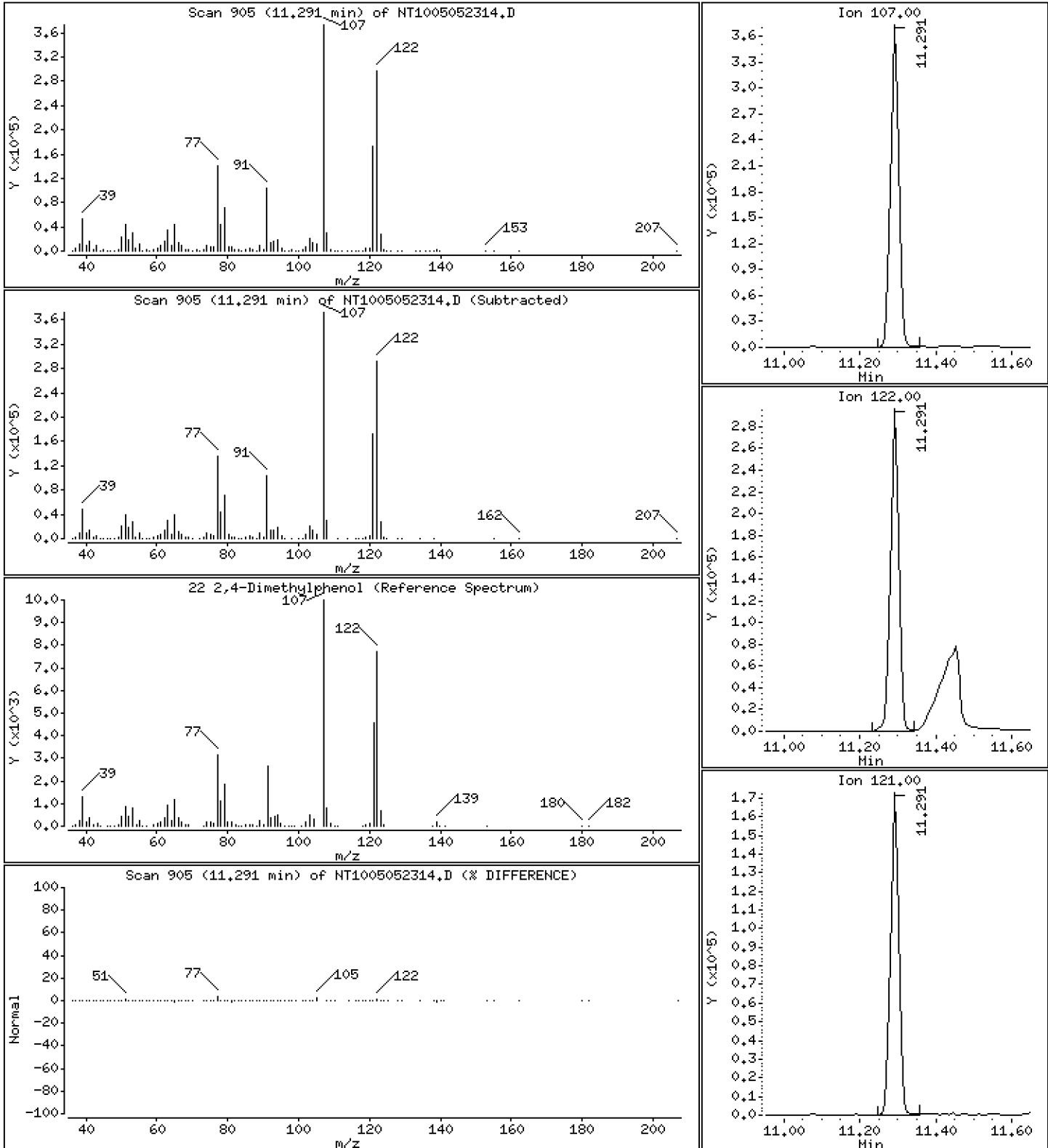
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 8,740 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

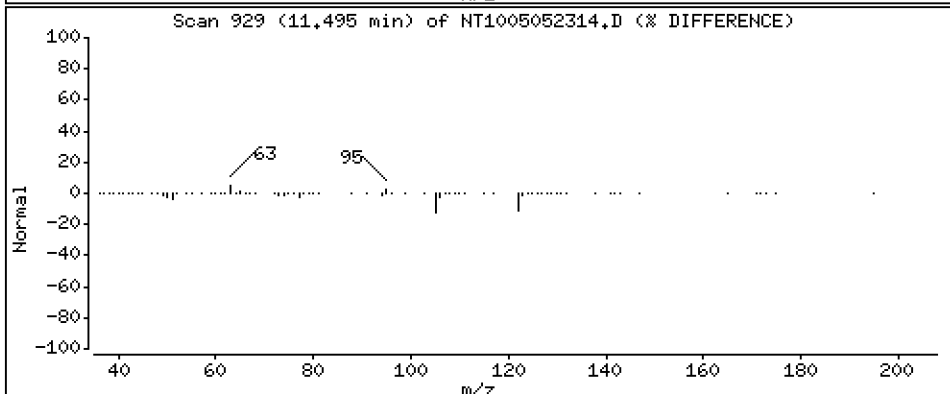
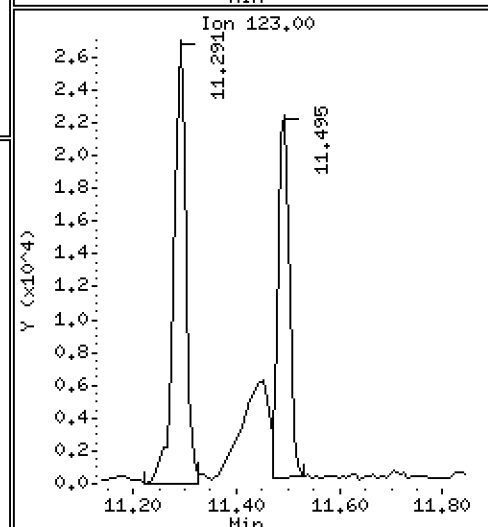
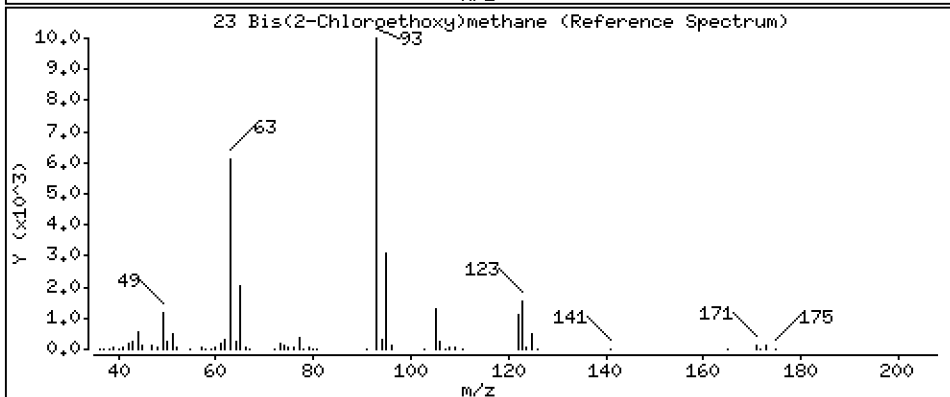
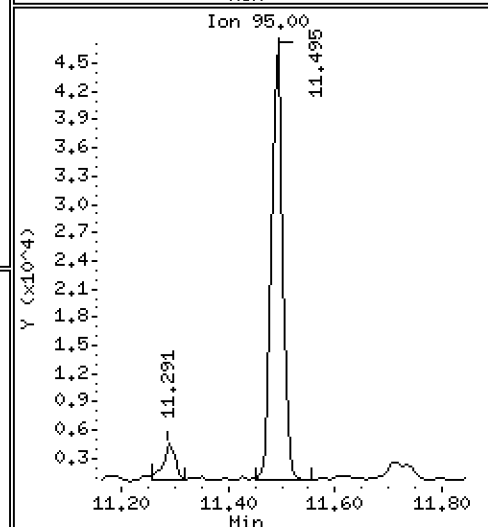
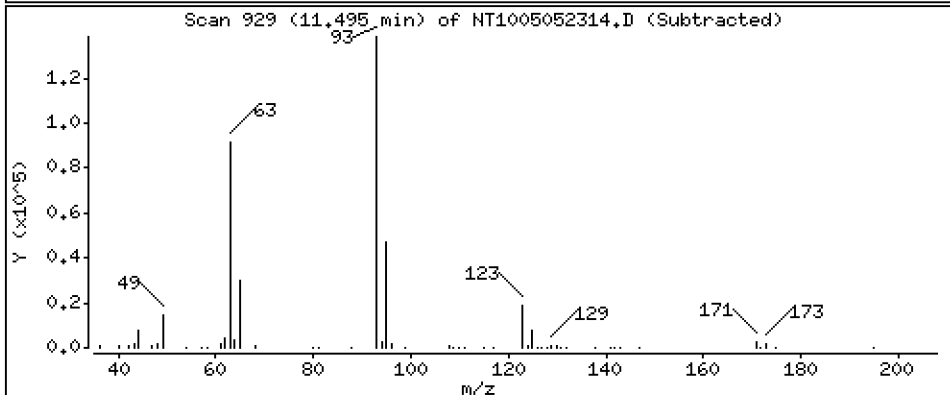
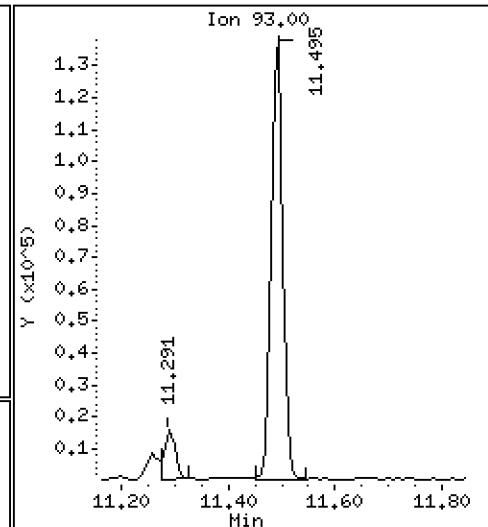
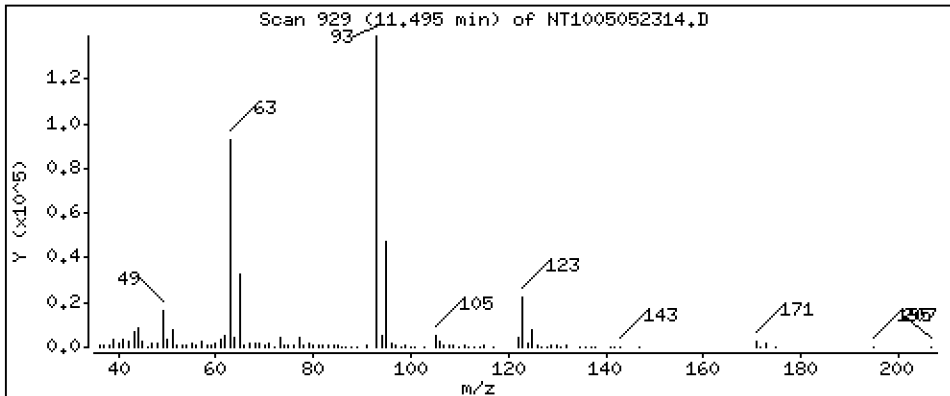
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 4,213 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

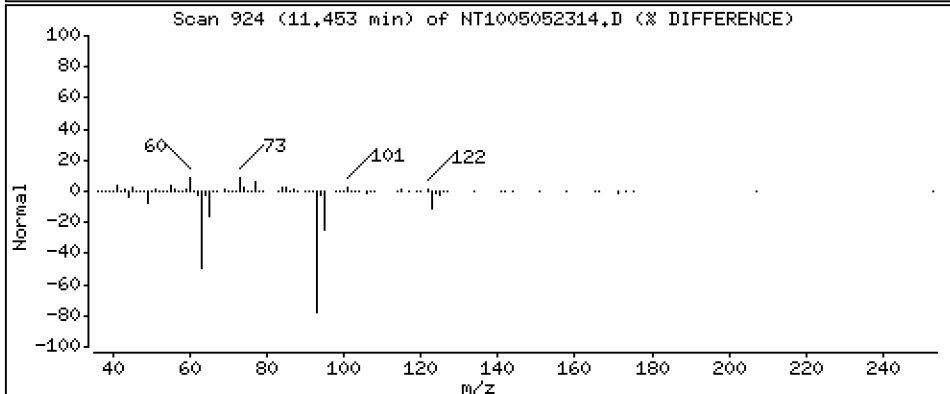
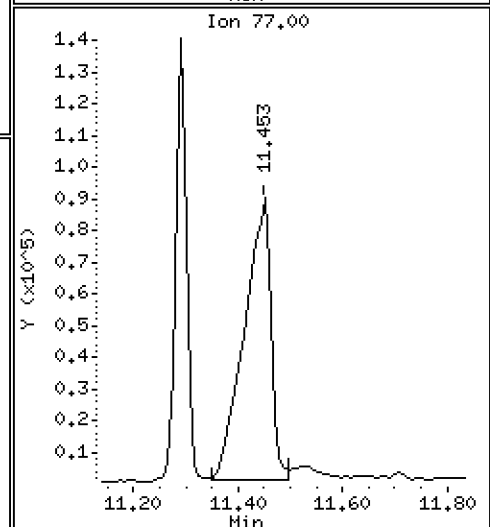
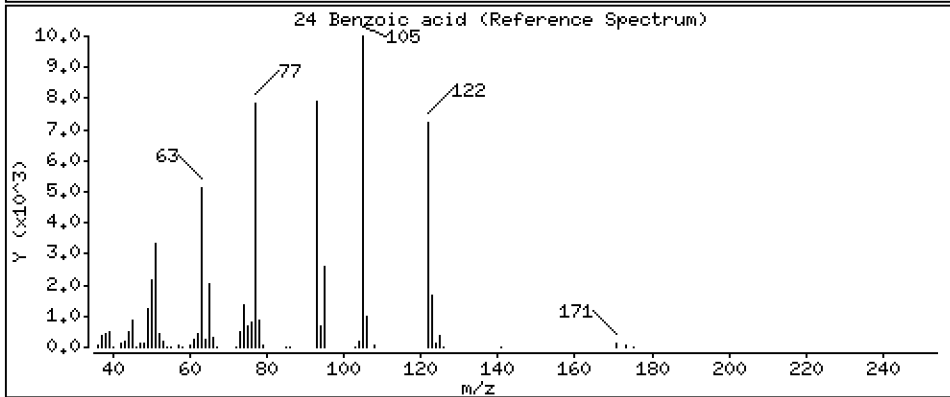
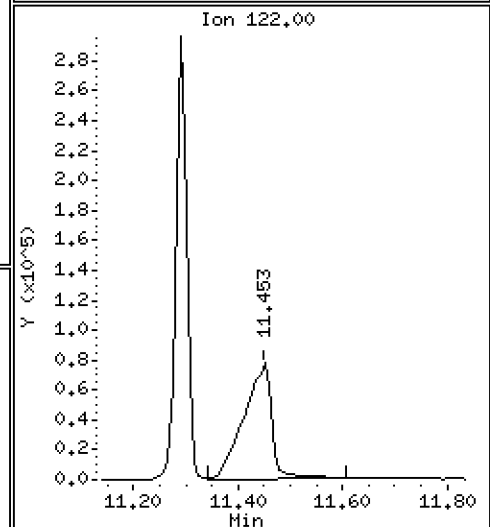
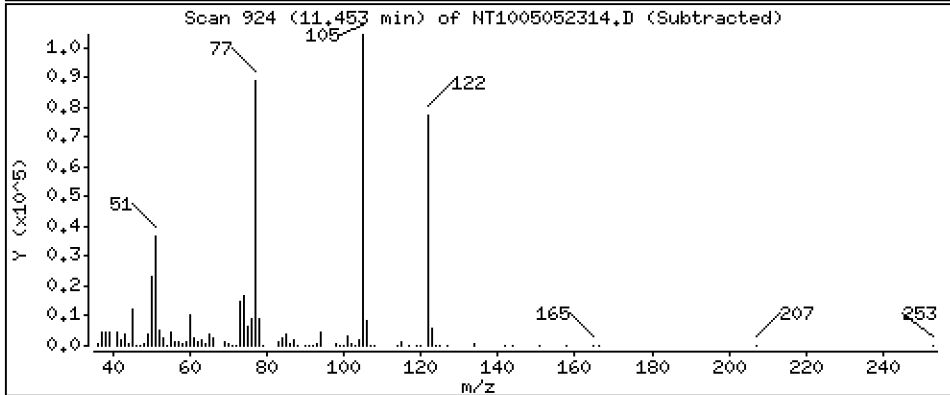
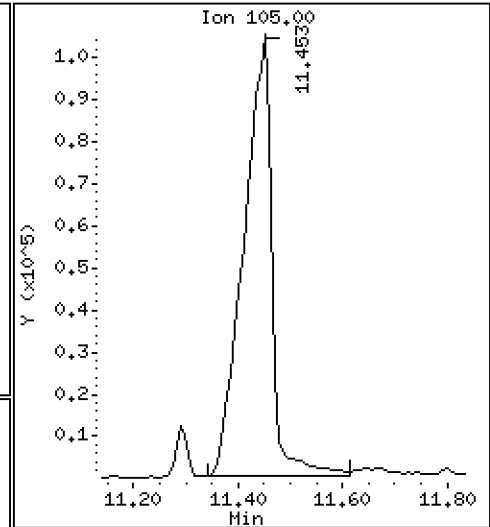
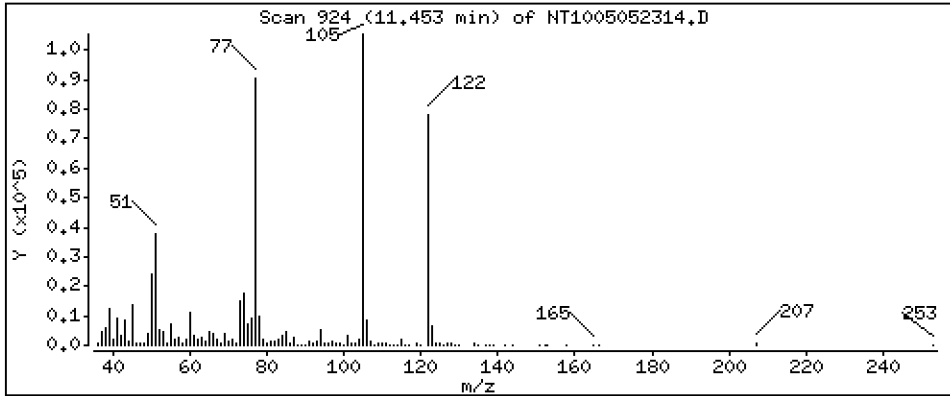
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 8,949 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

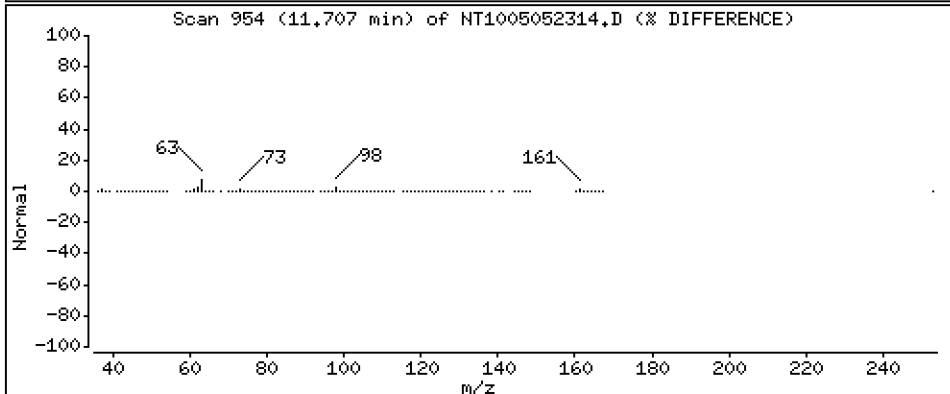
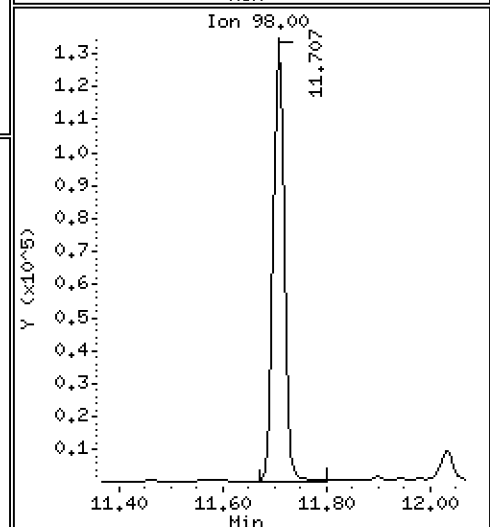
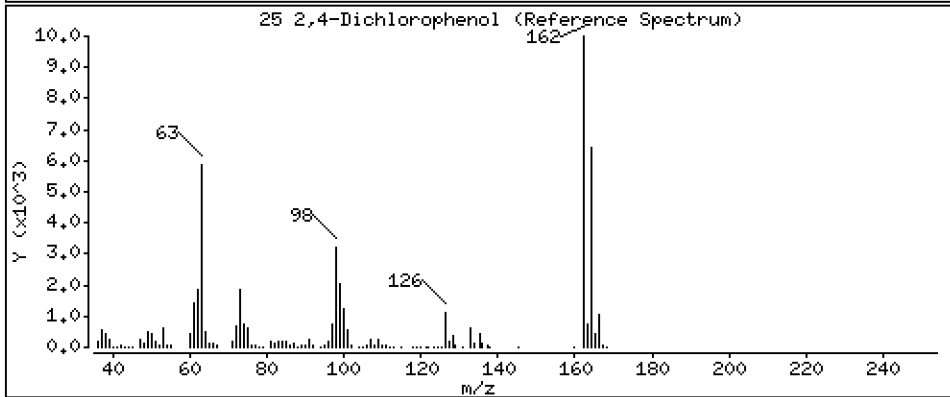
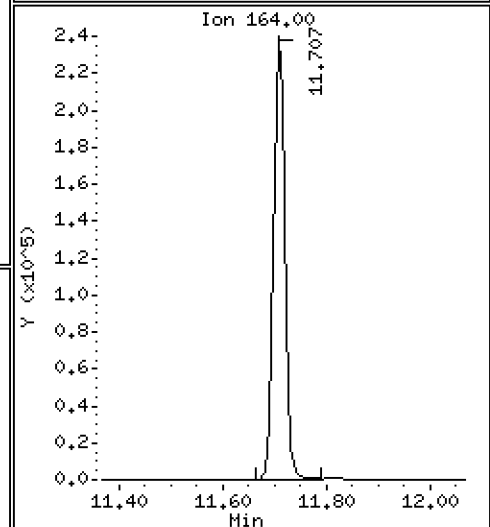
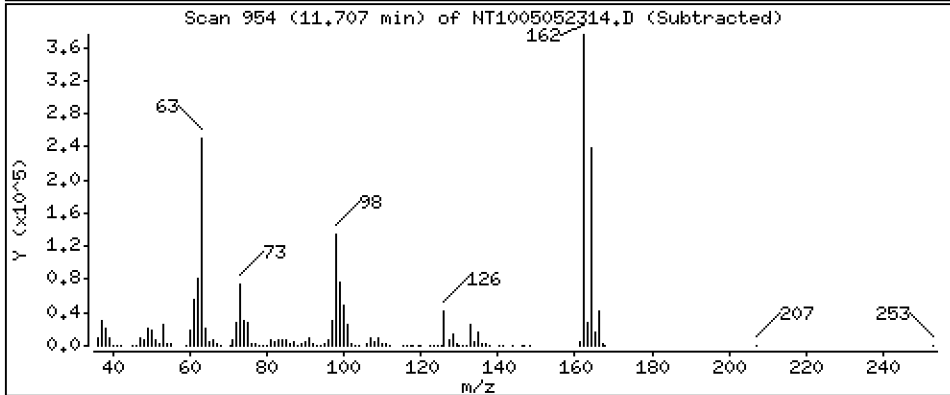
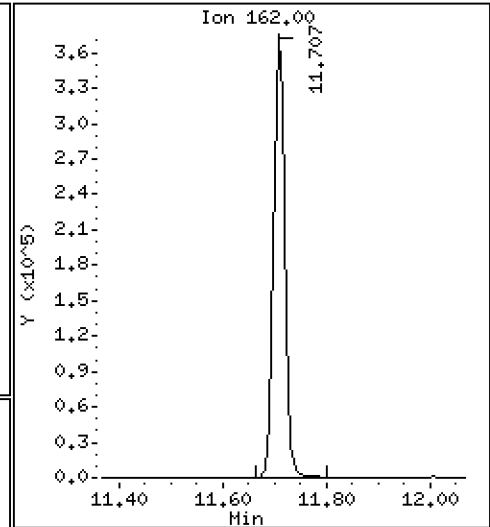
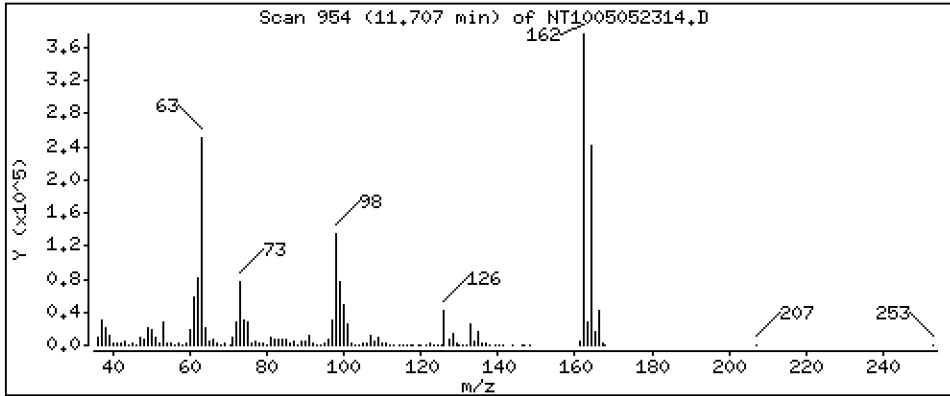
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 11,36 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

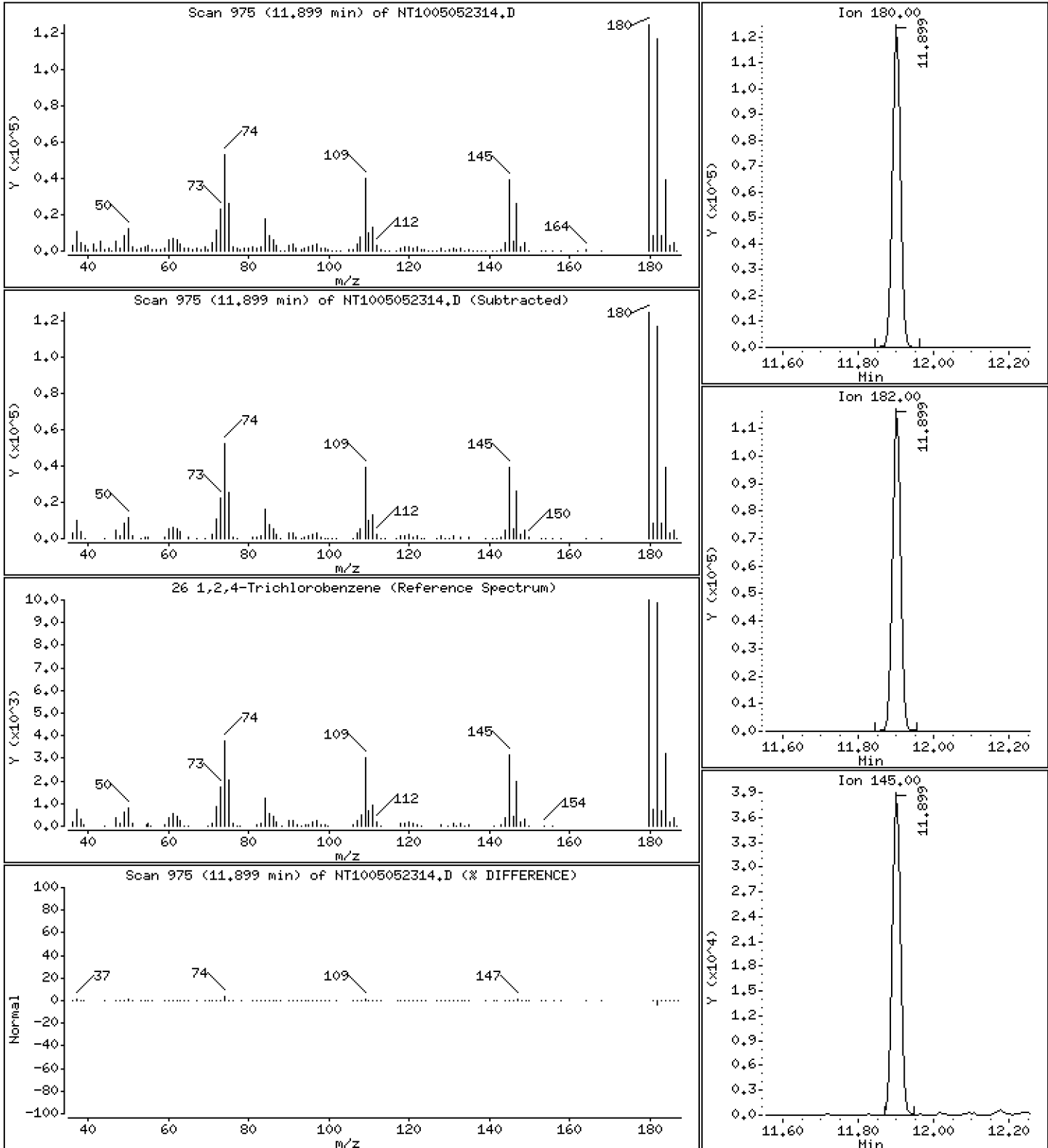
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,120 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

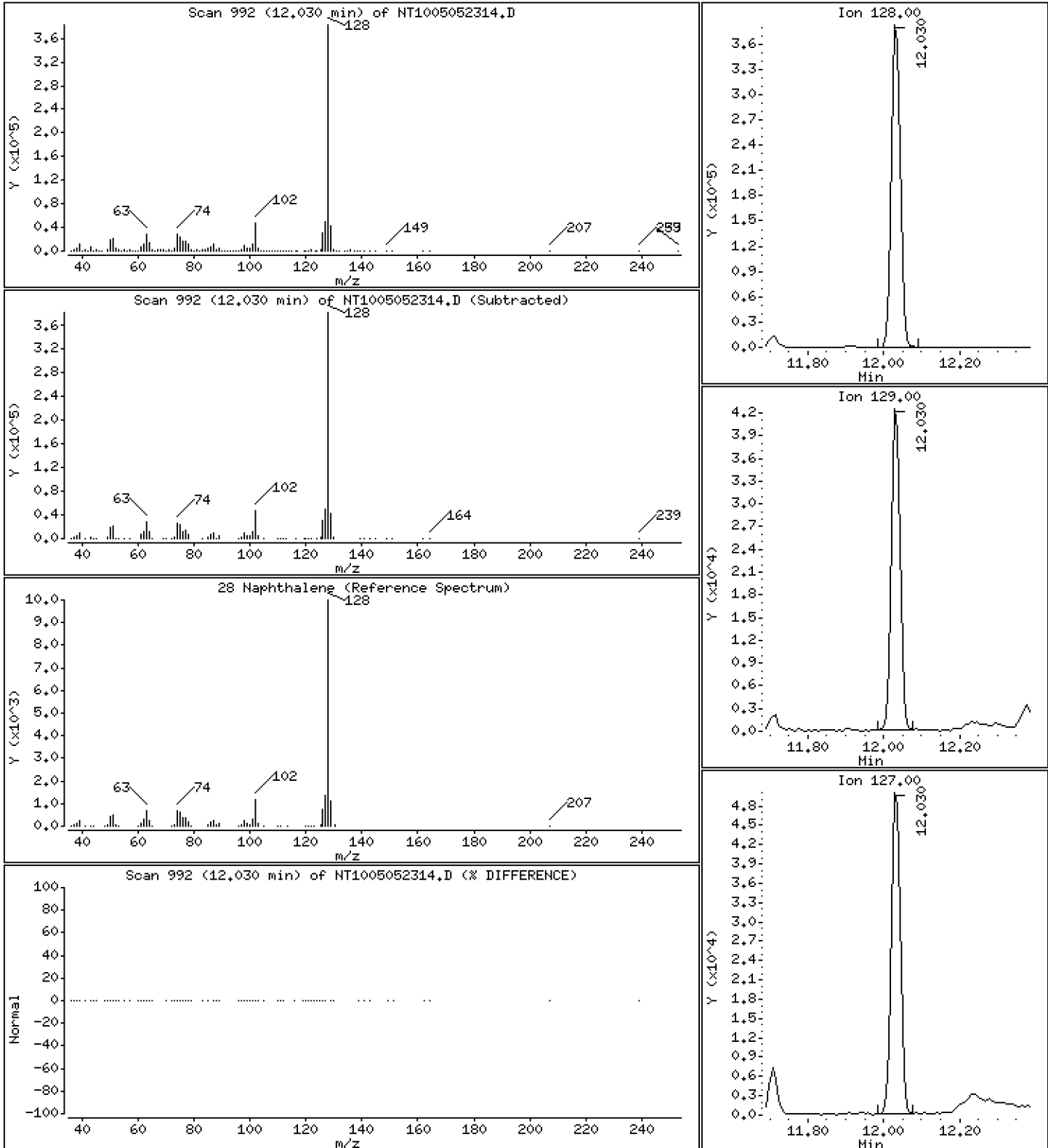
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 3,558 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

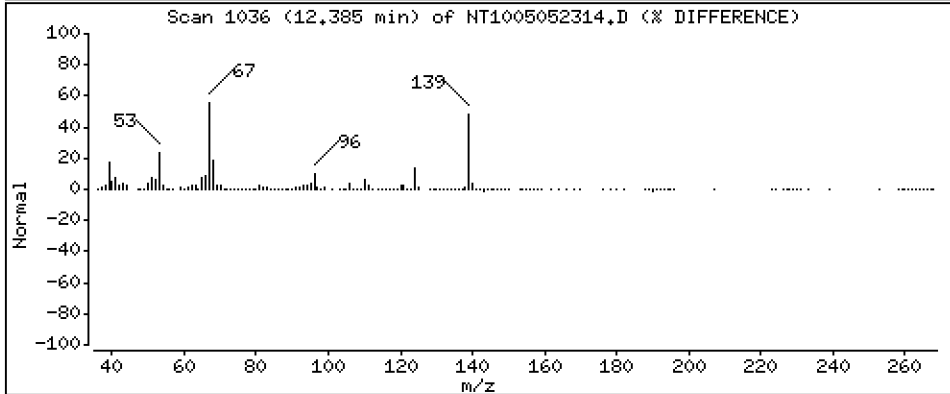
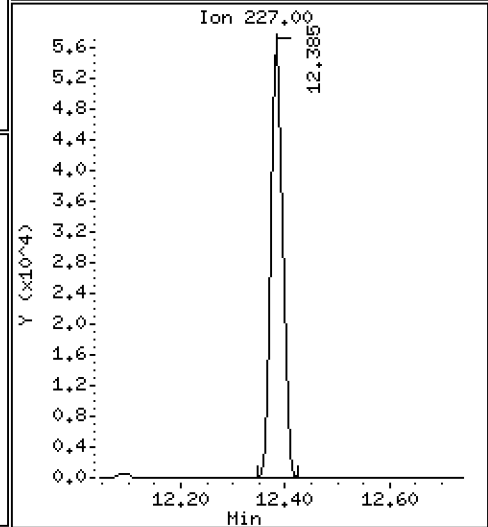
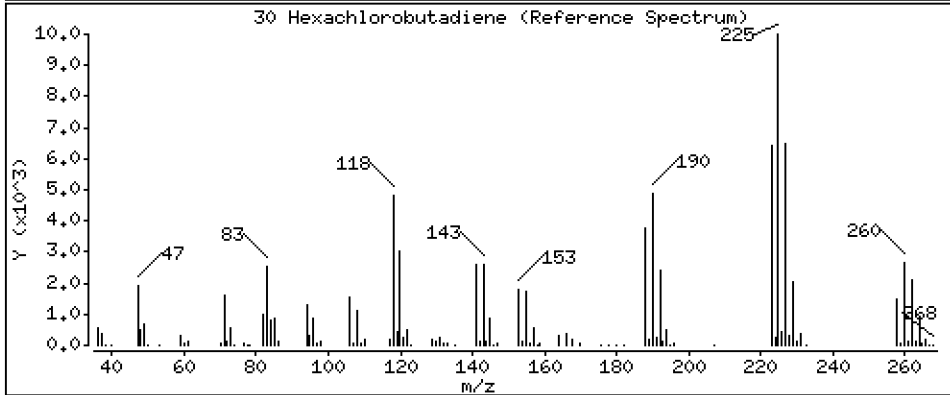
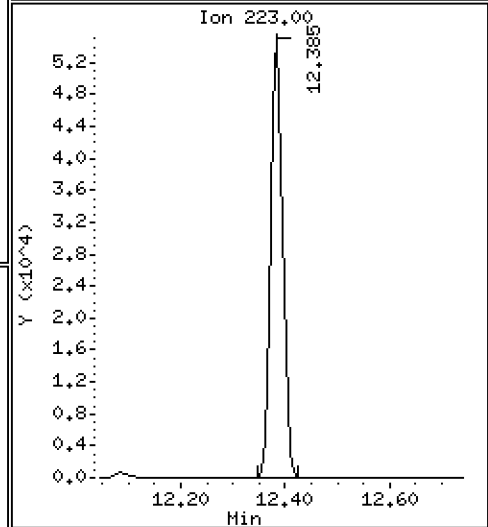
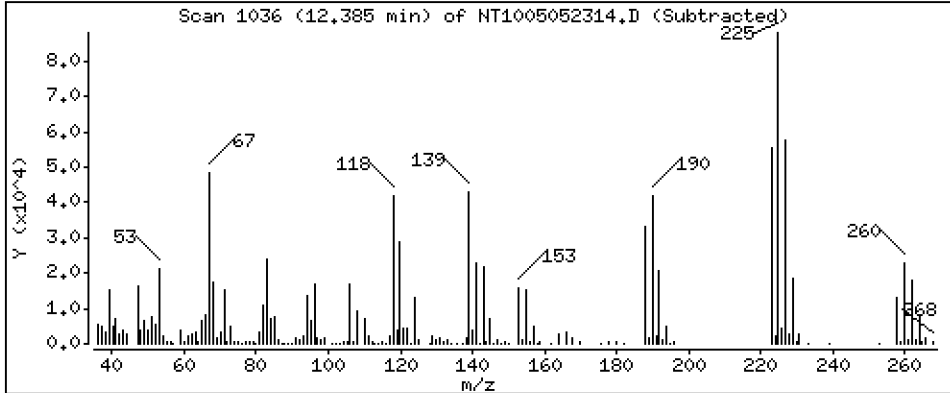
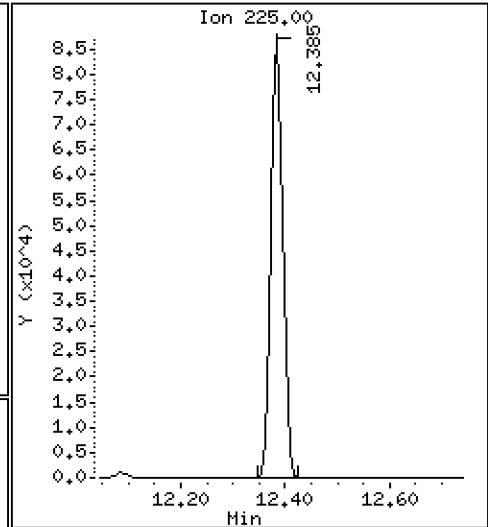
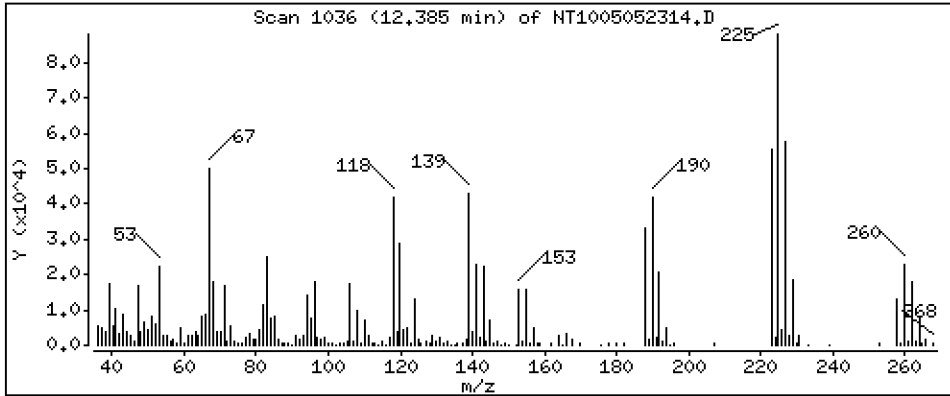
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,430 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

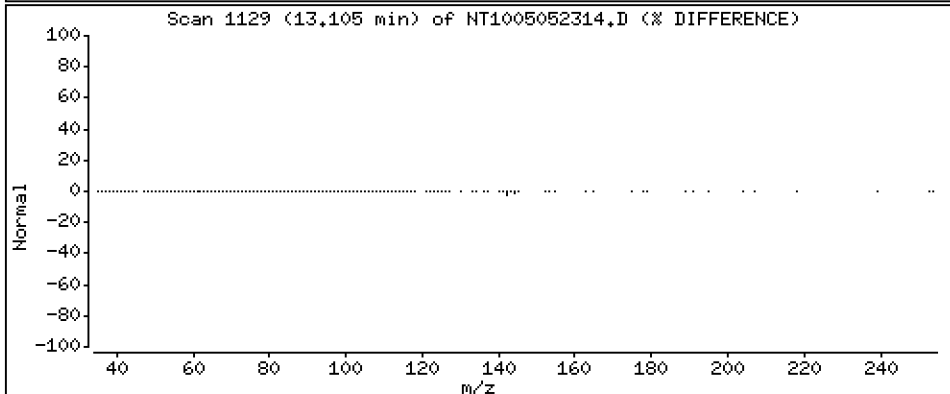
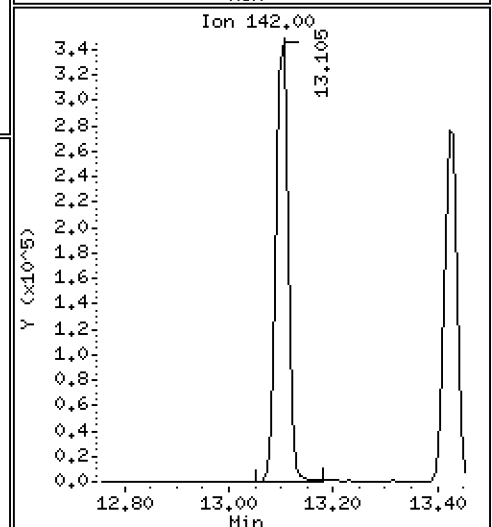
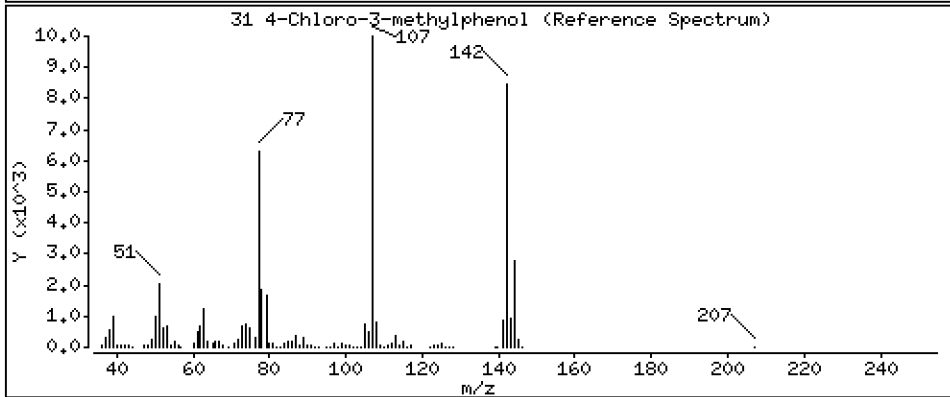
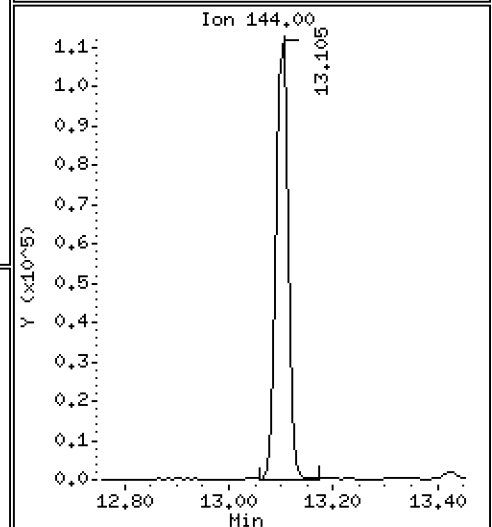
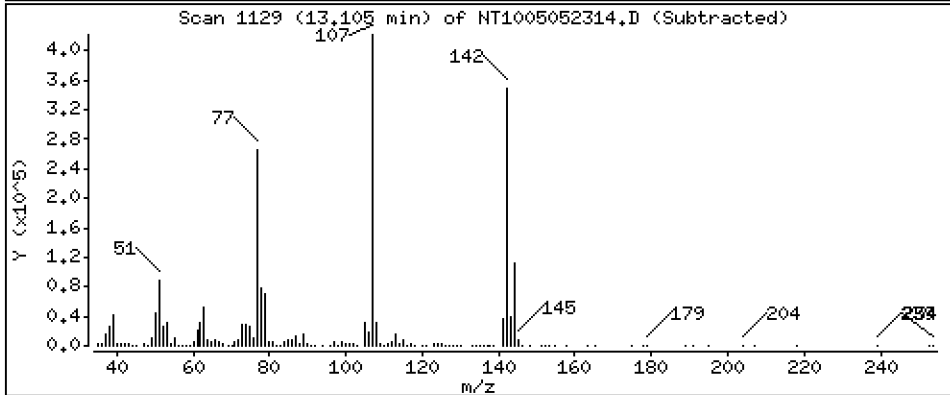
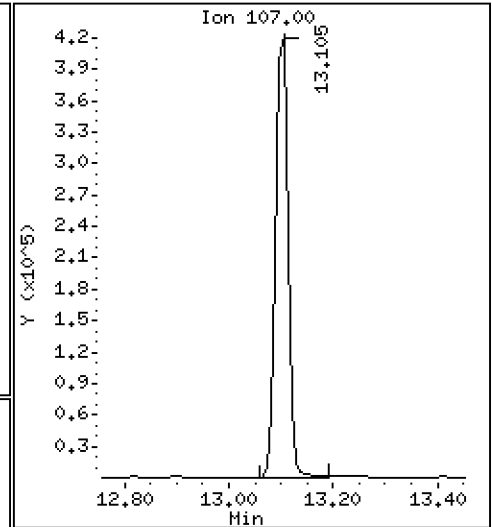
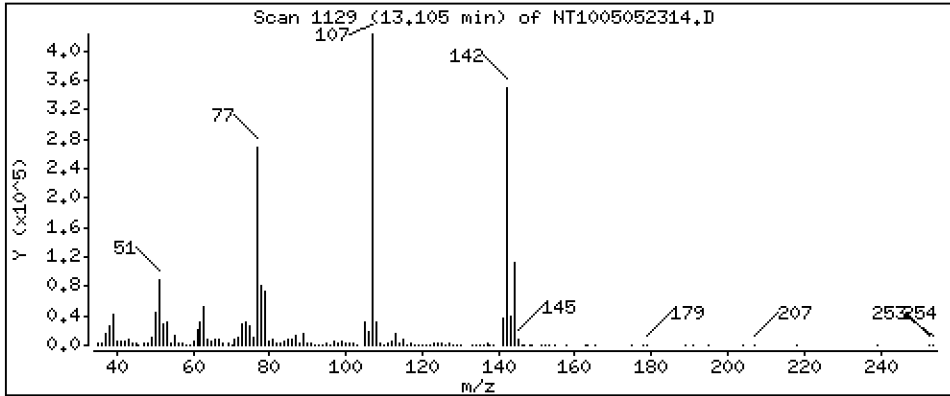
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 11,93 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

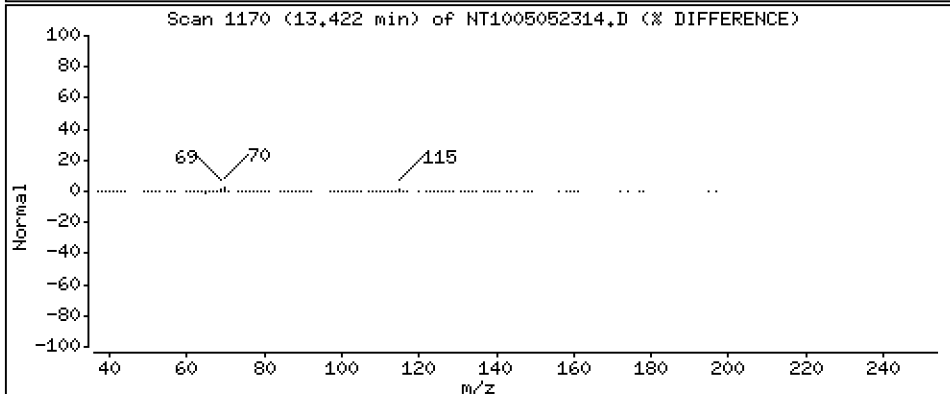
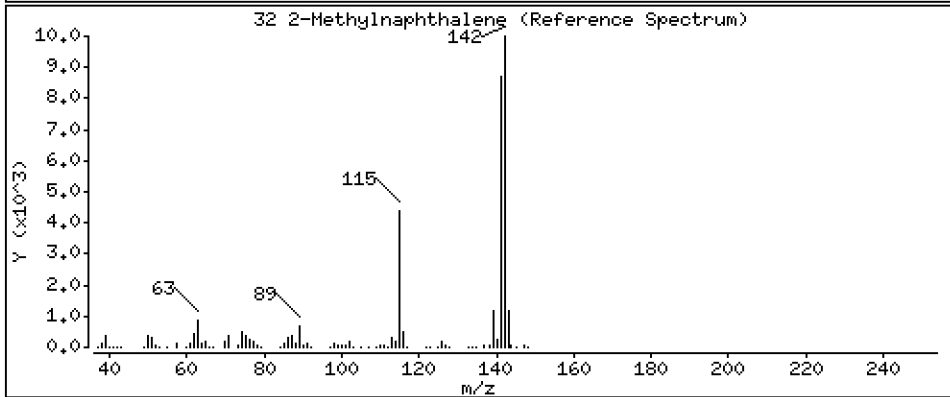
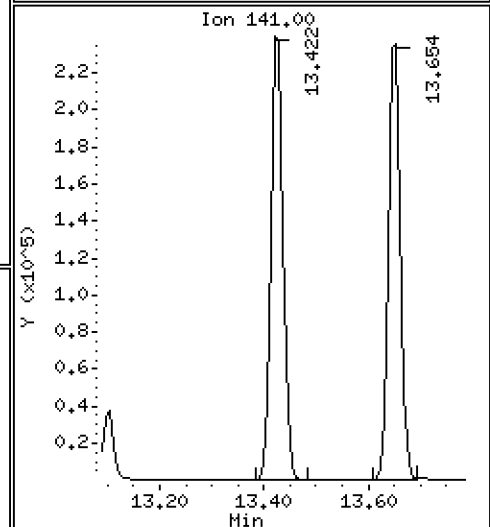
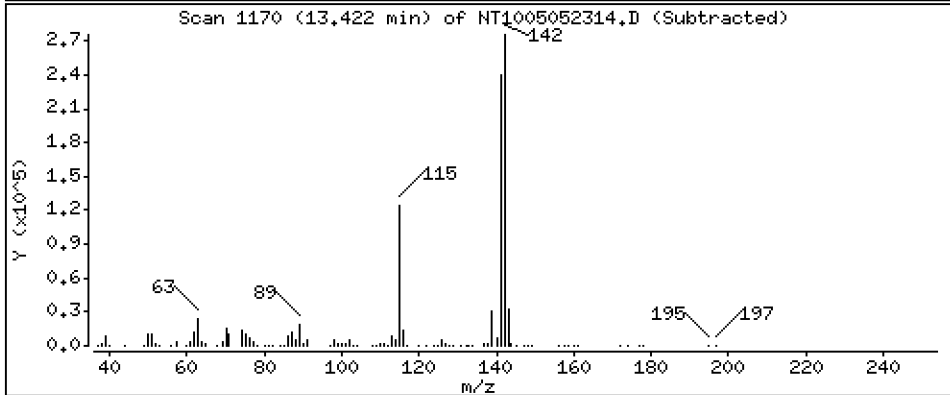
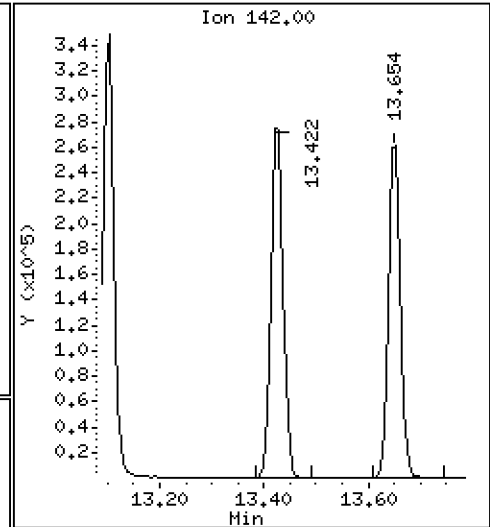
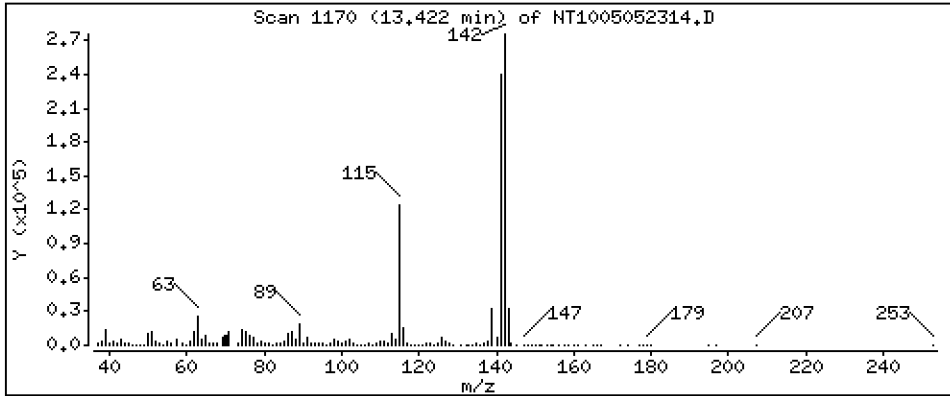
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 3,508 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

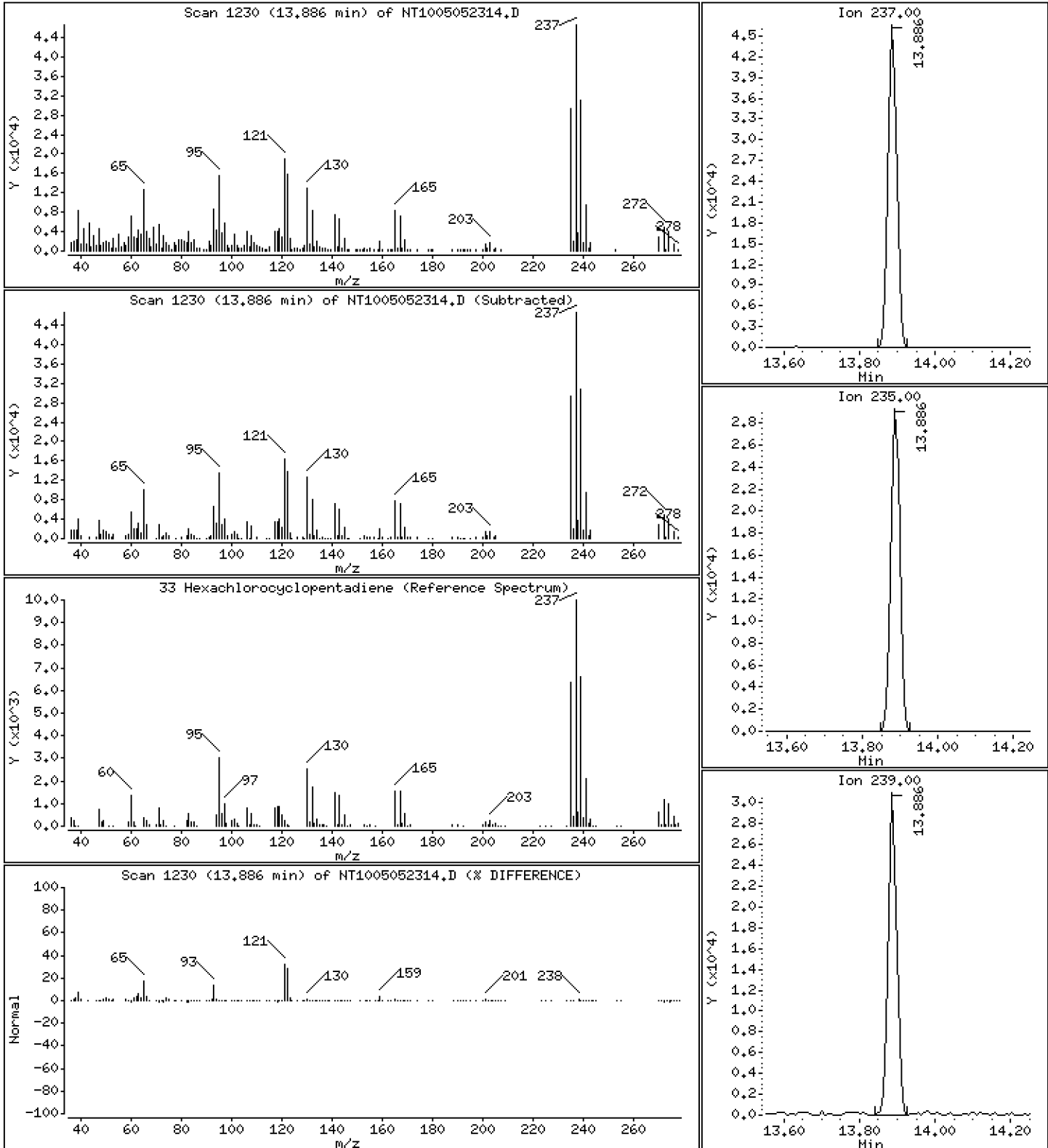
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 1,744 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

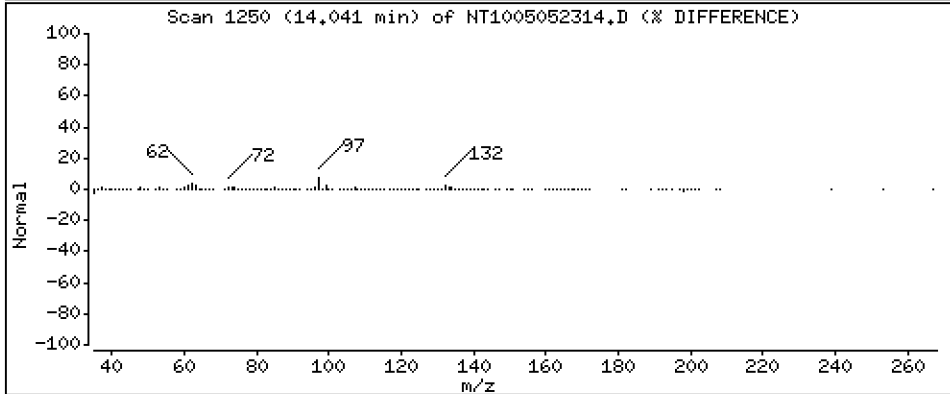
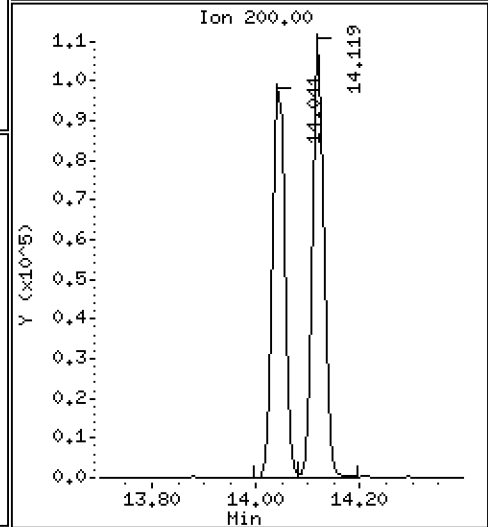
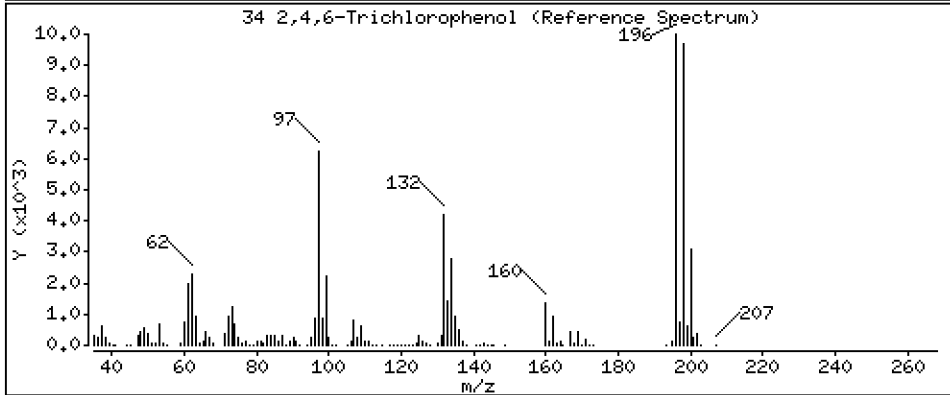
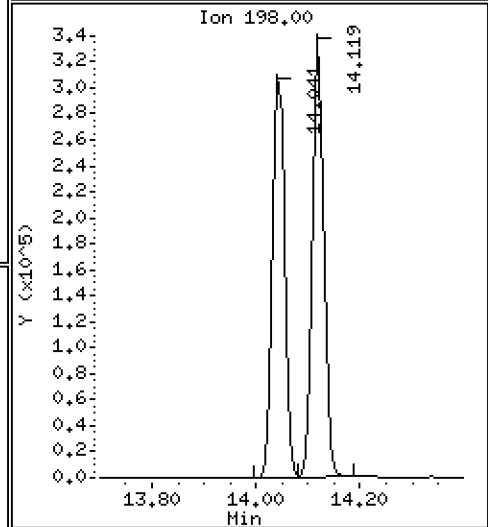
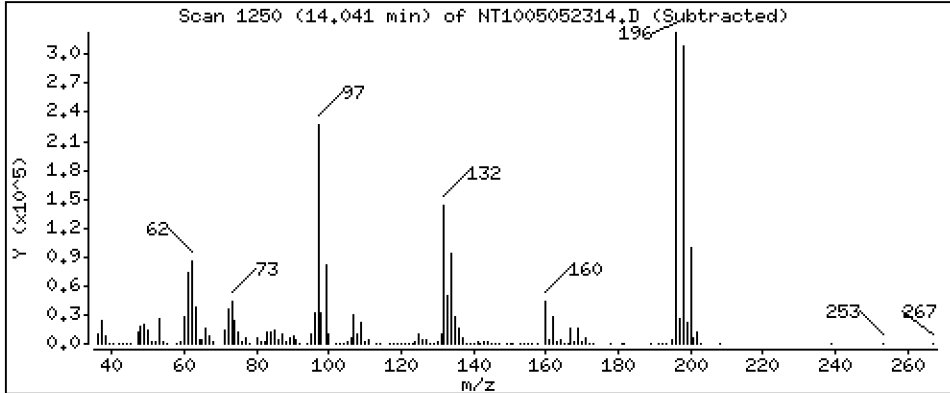
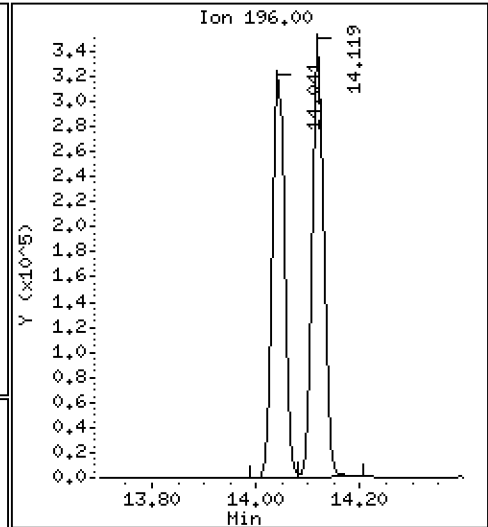
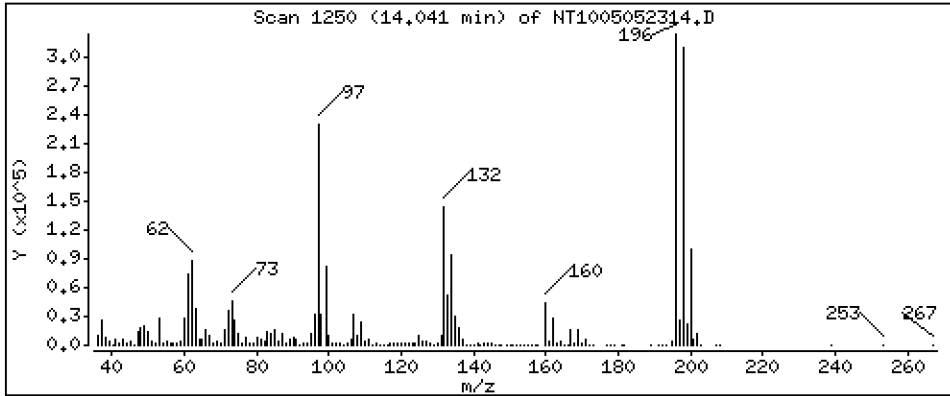
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 11,87 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

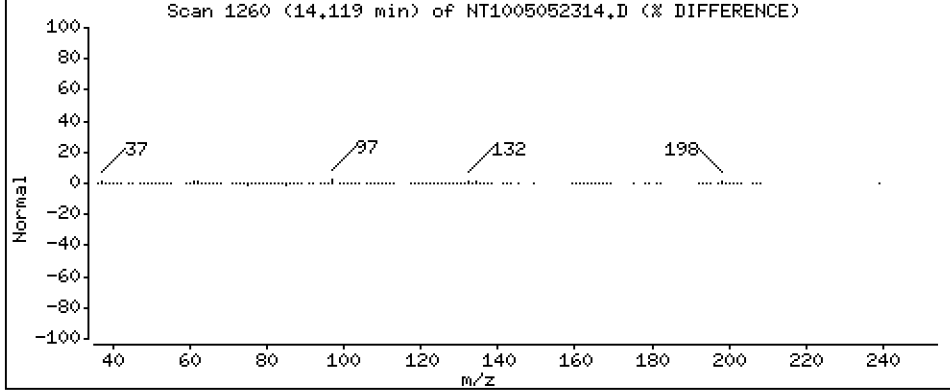
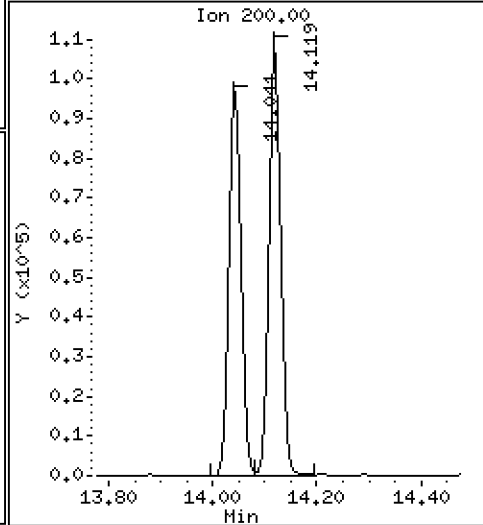
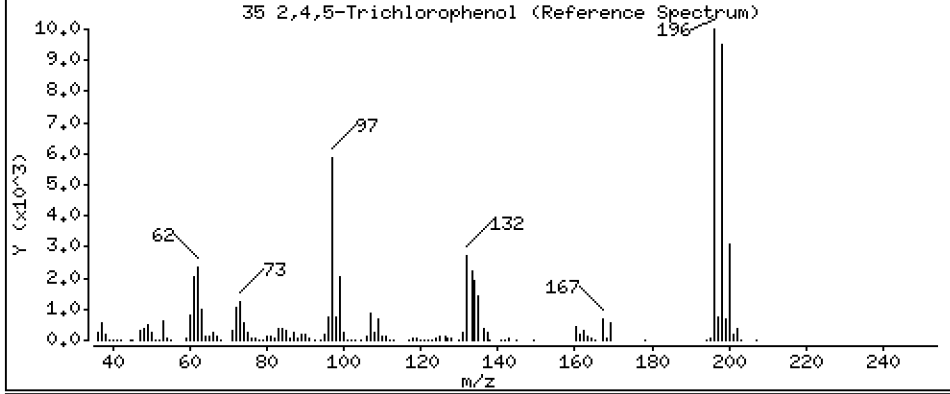
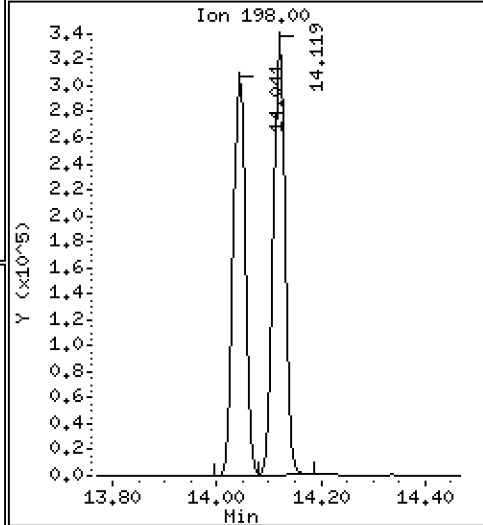
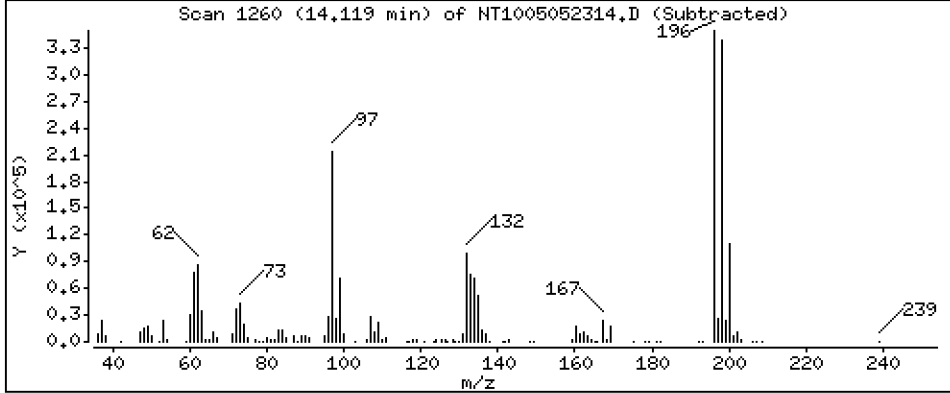
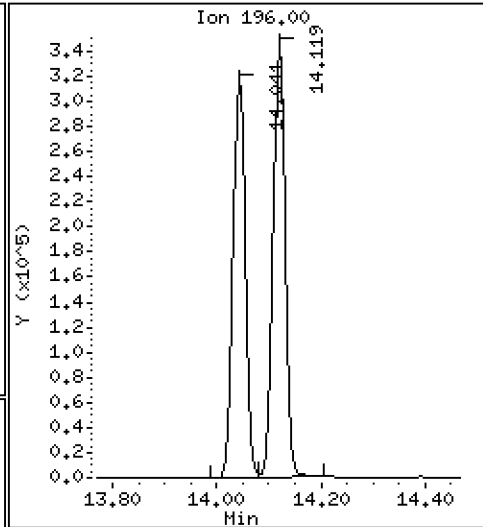
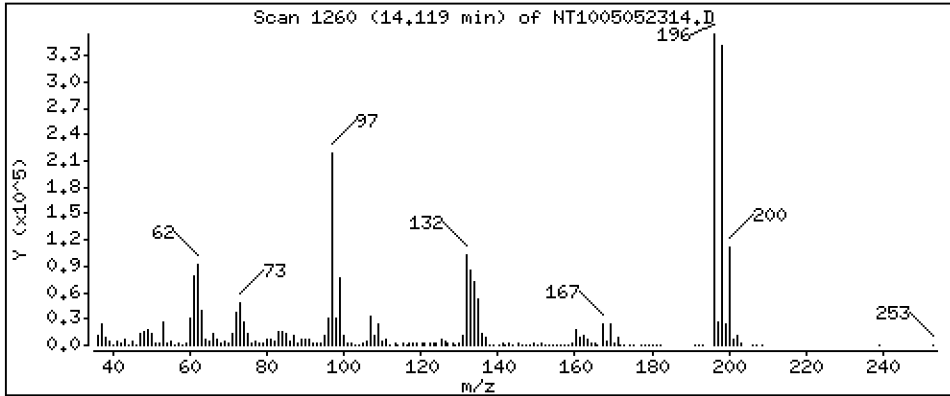
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

35 2,4,5-Trichlorophenol

Concentration: 11,57 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

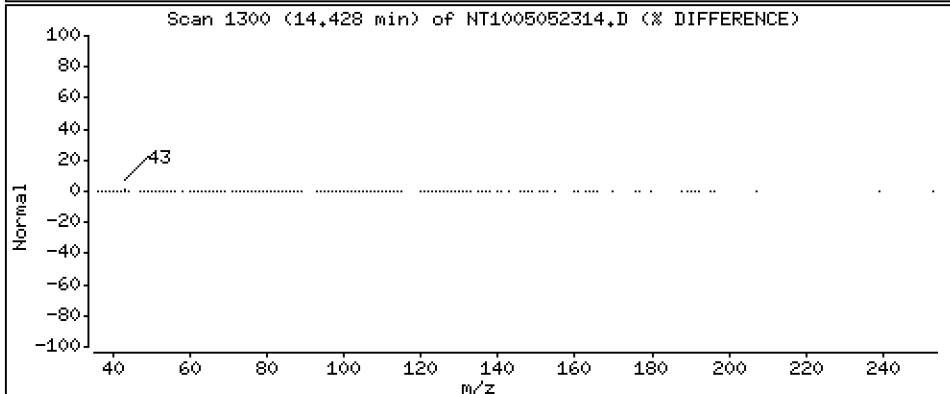
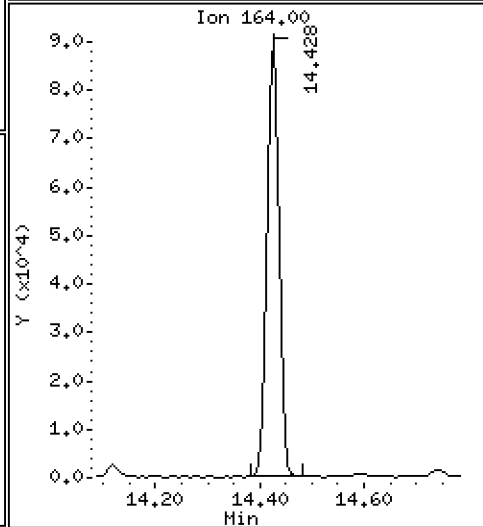
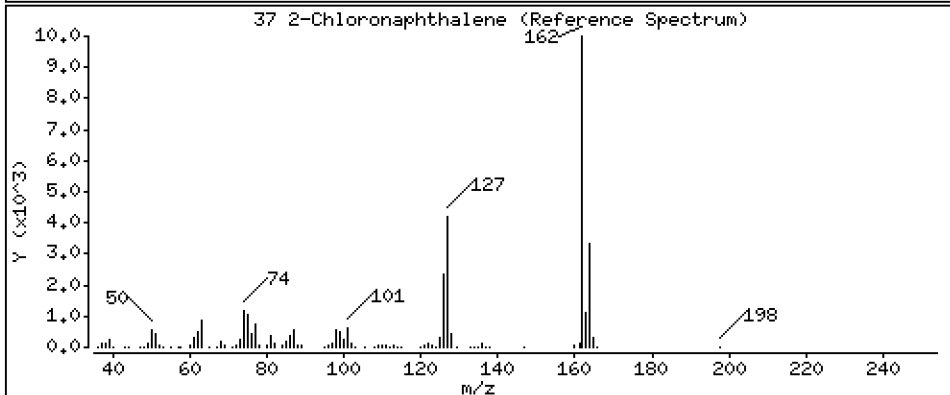
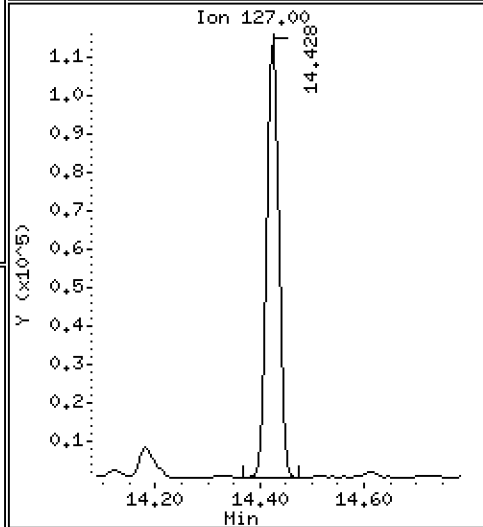
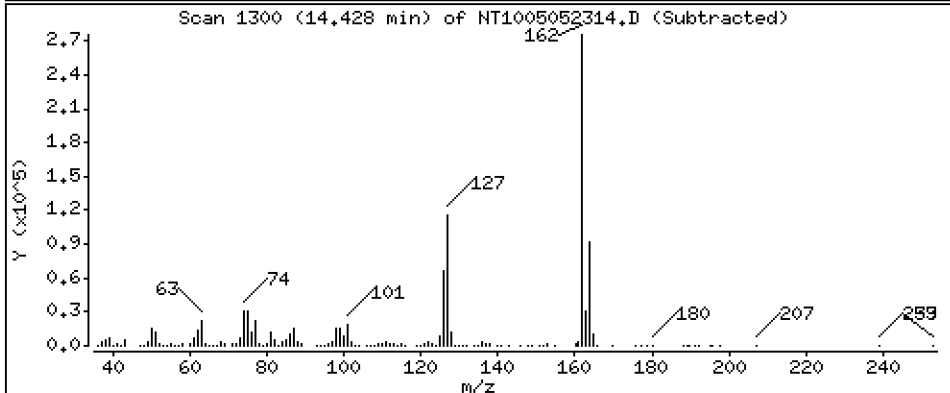
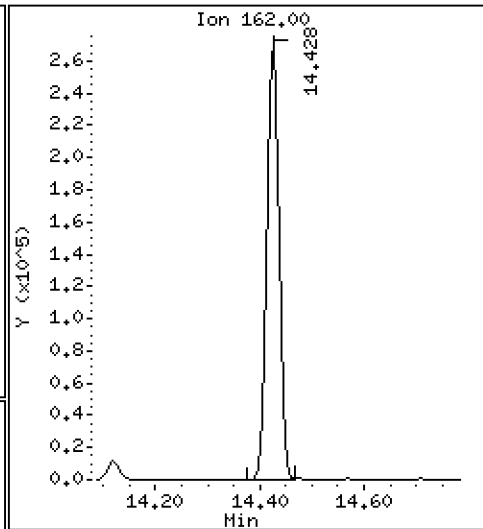
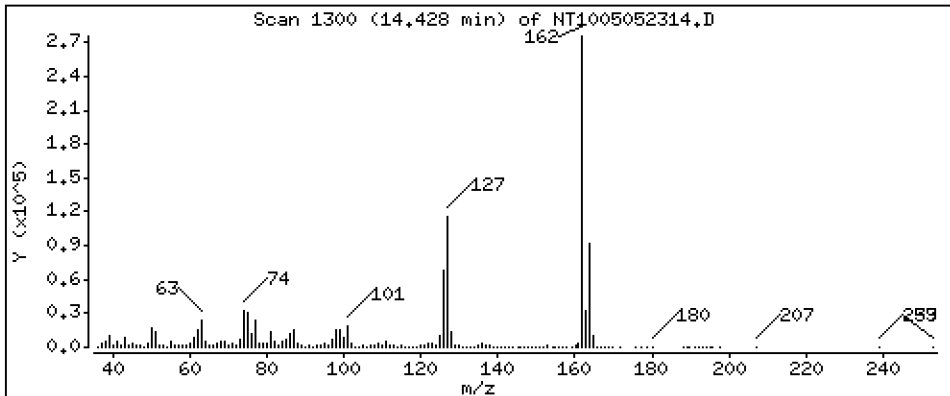
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 3,608 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

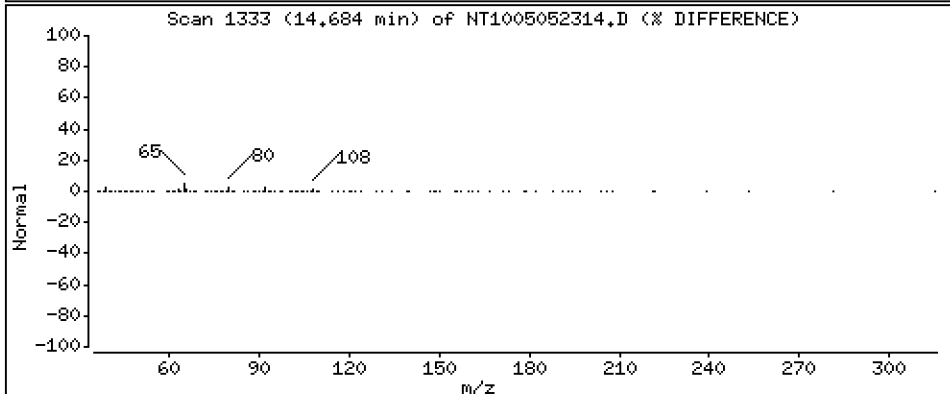
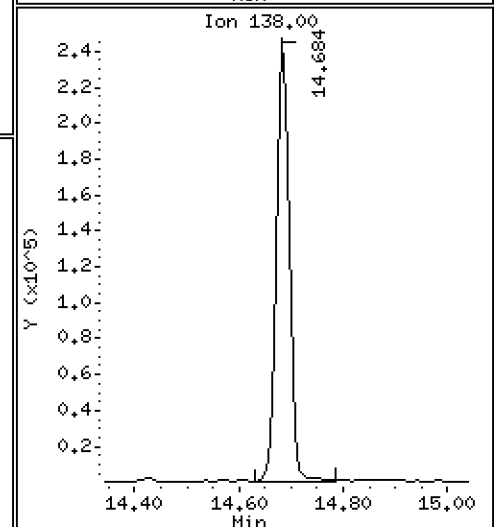
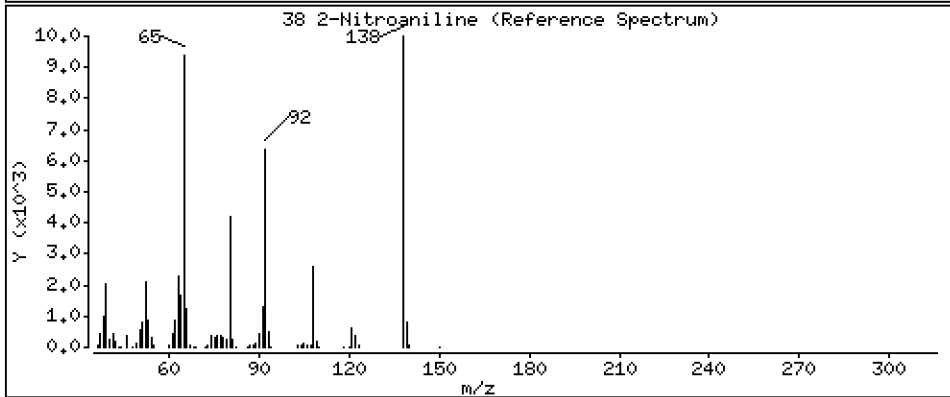
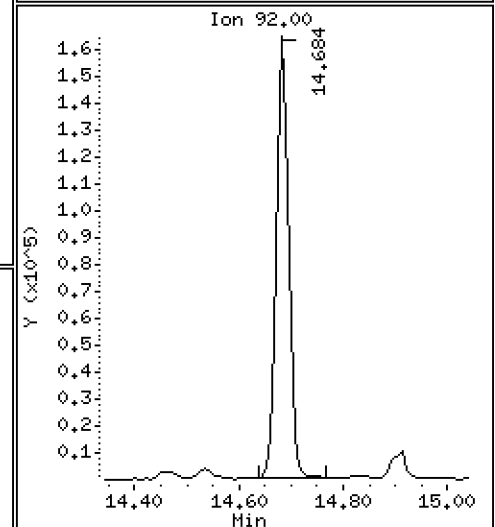
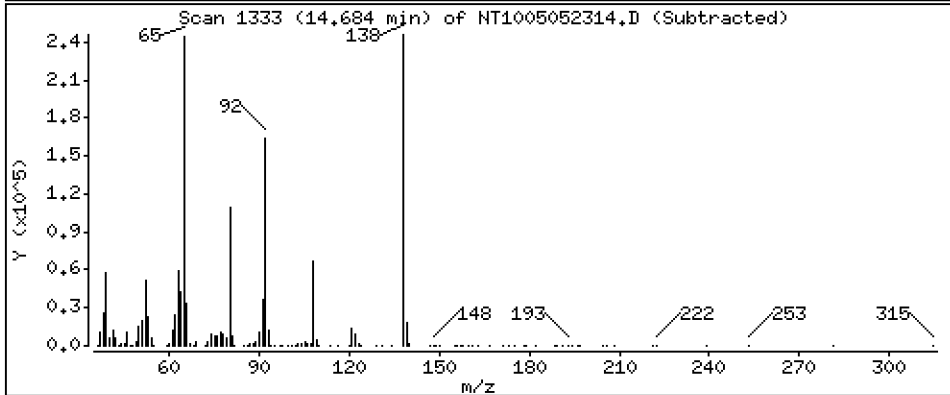
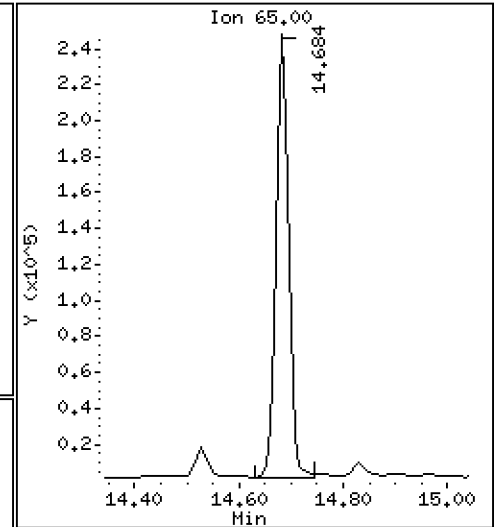
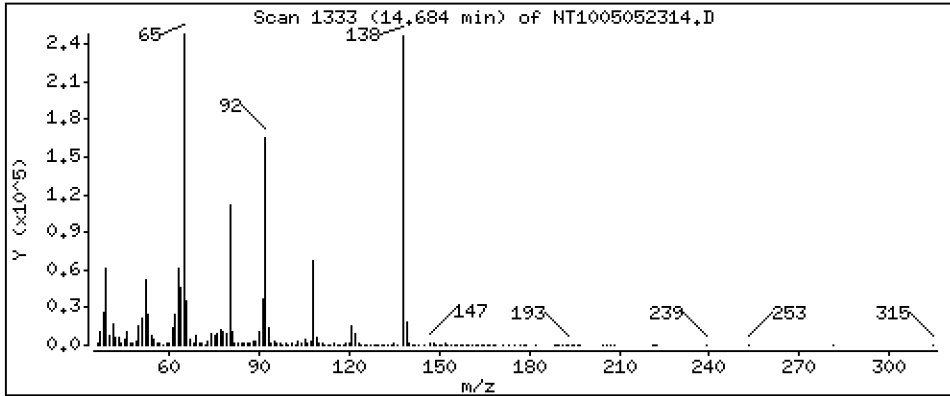
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 11,92 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

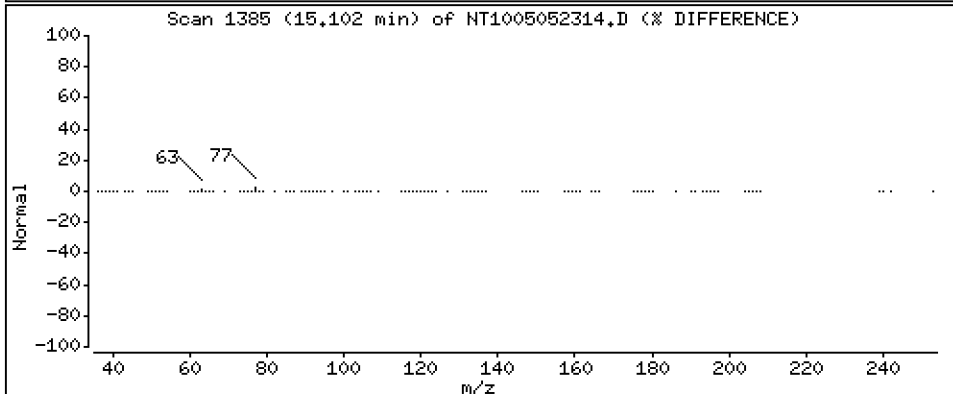
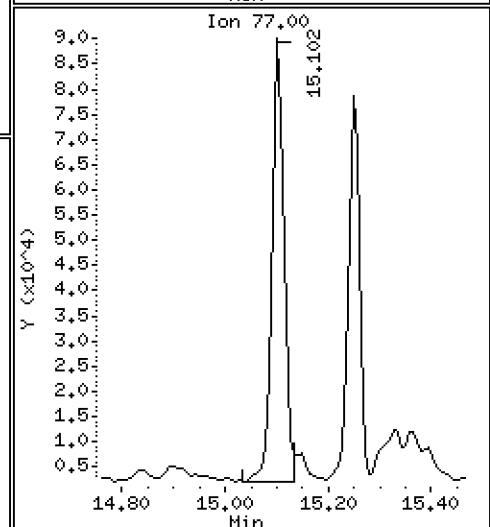
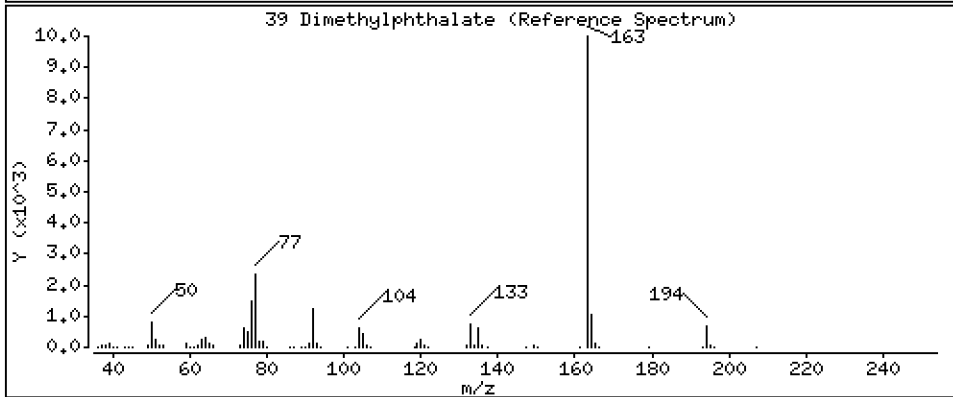
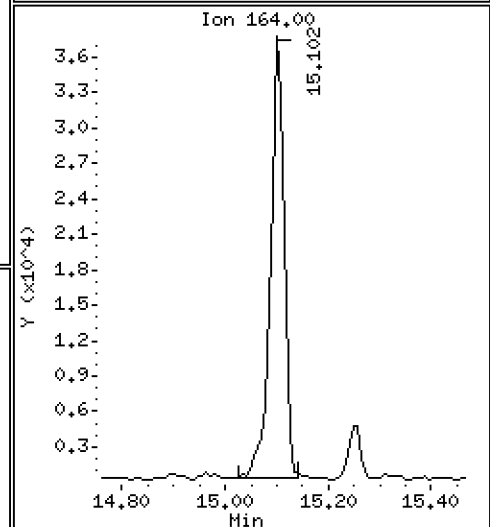
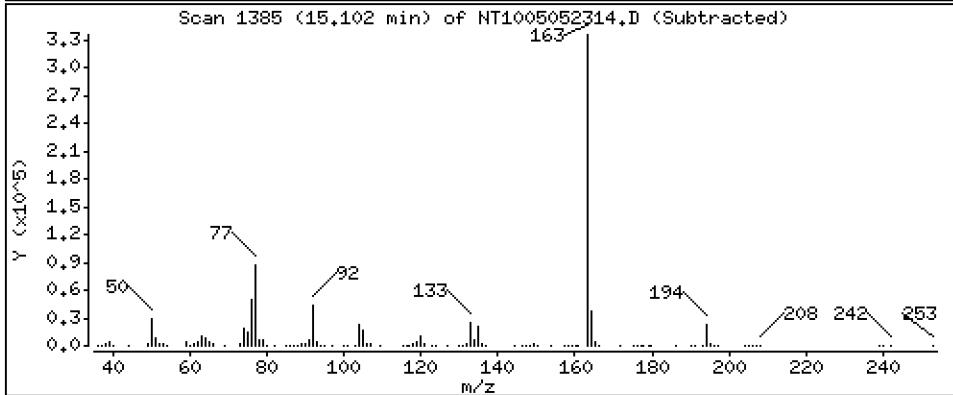
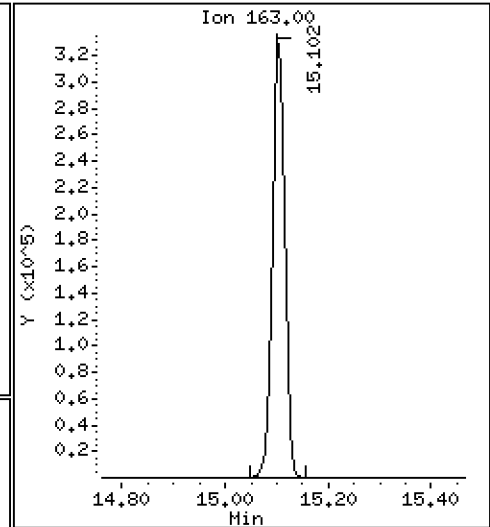
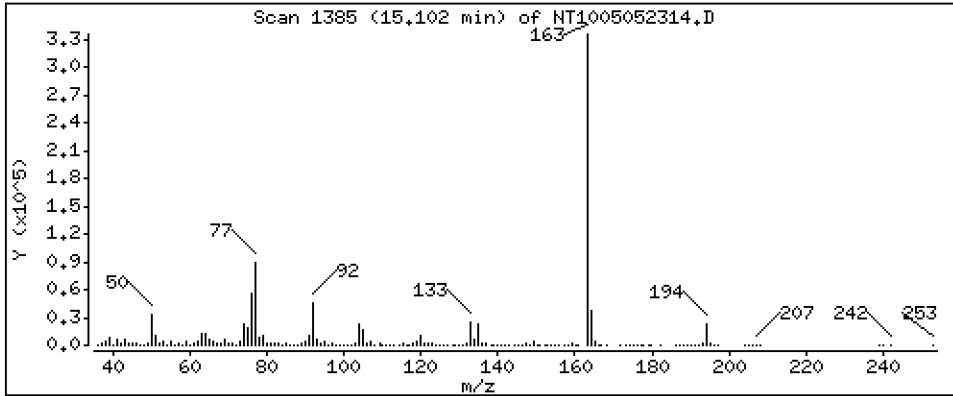
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,043 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

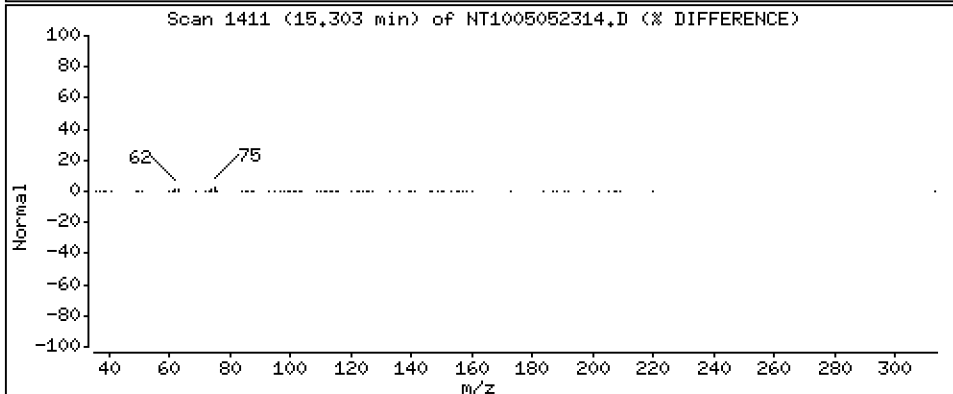
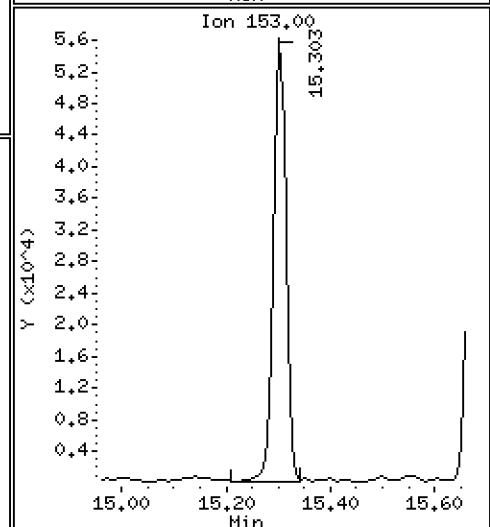
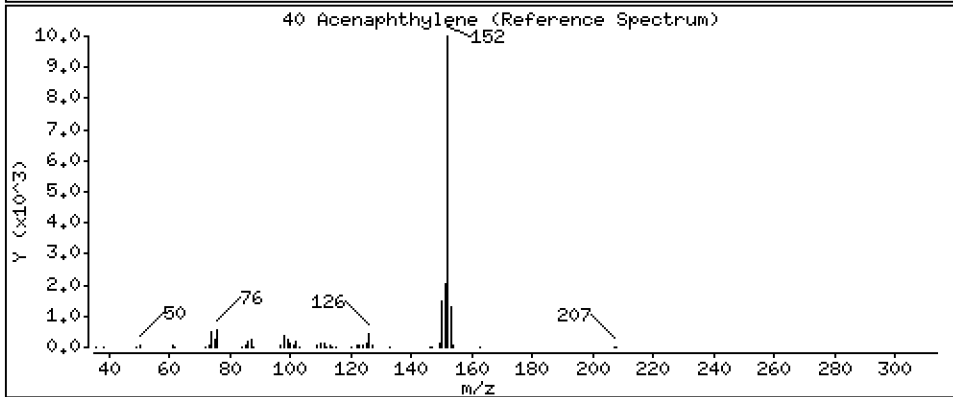
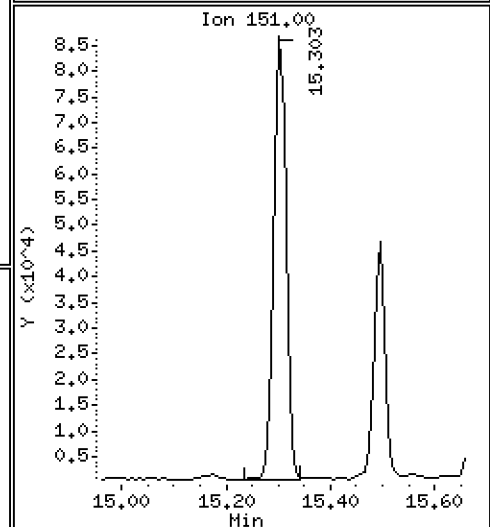
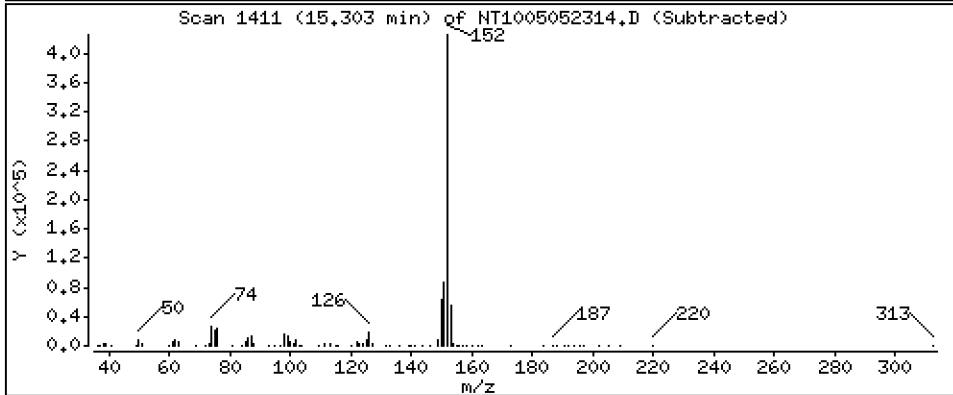
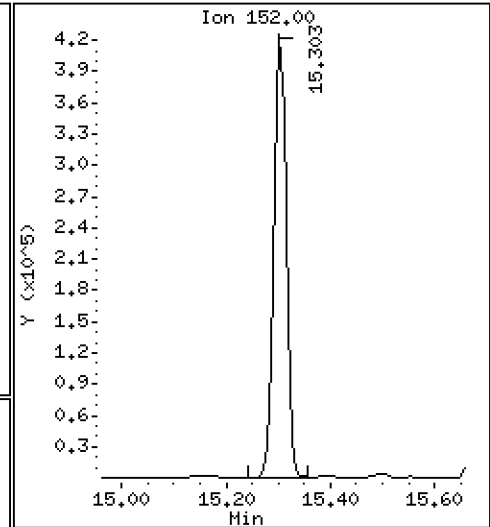
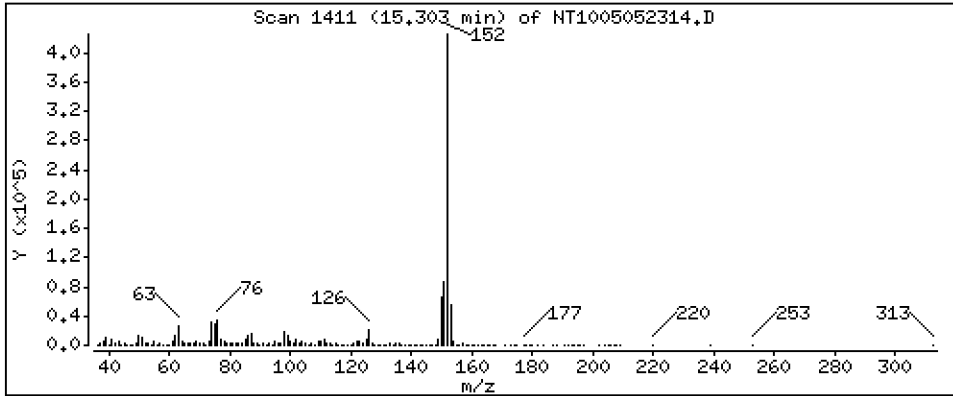
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 3,635 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

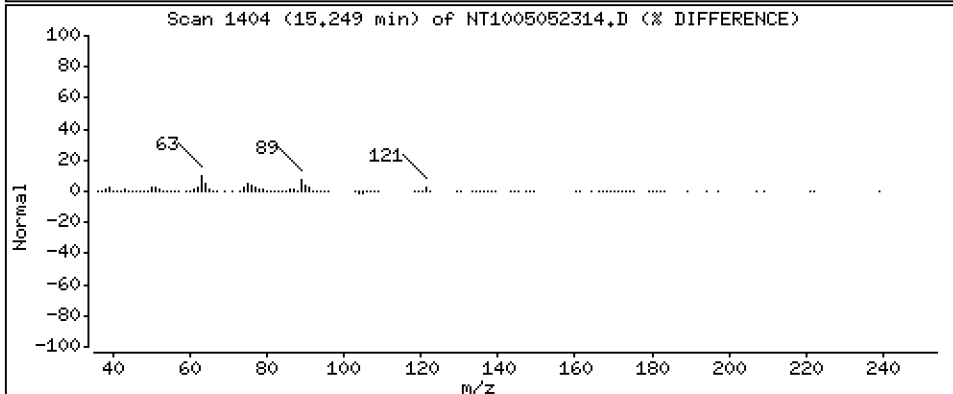
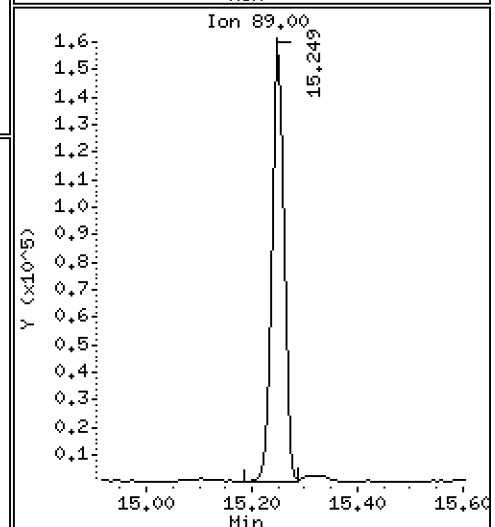
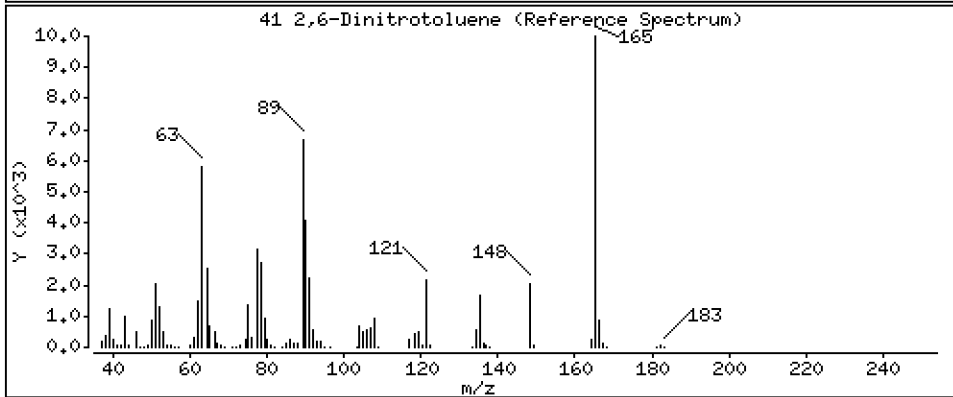
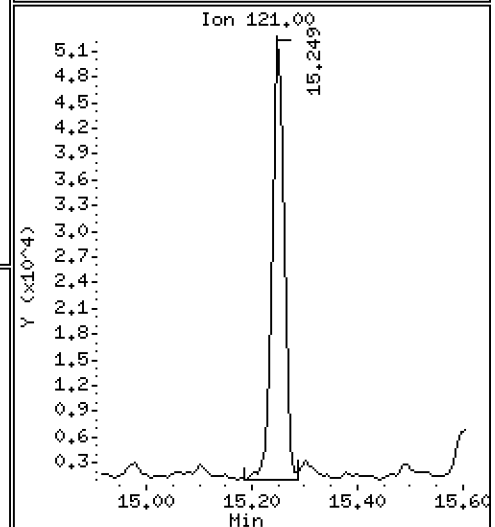
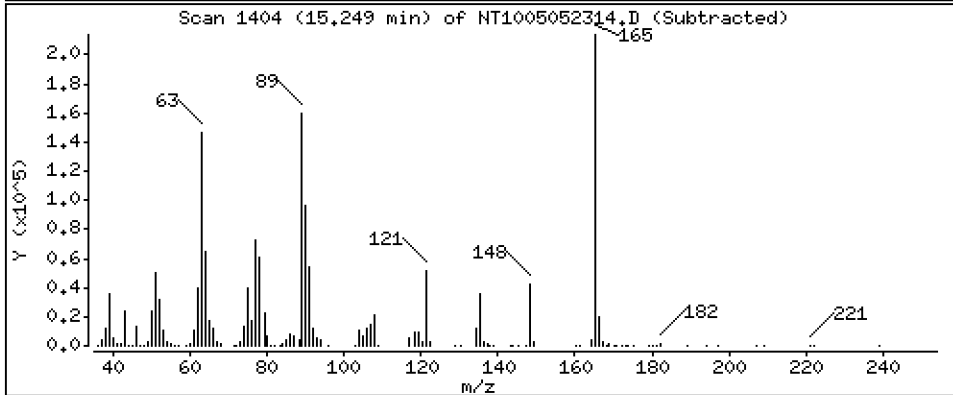
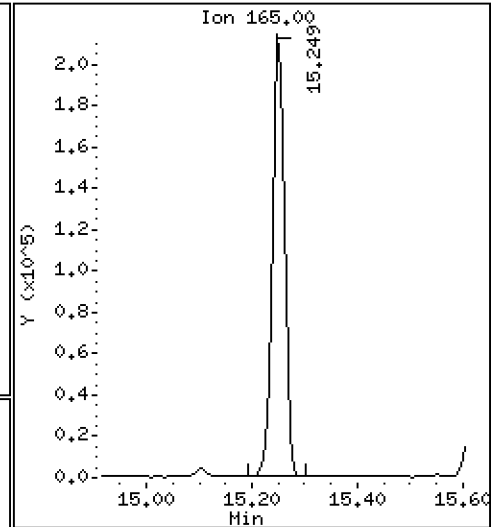
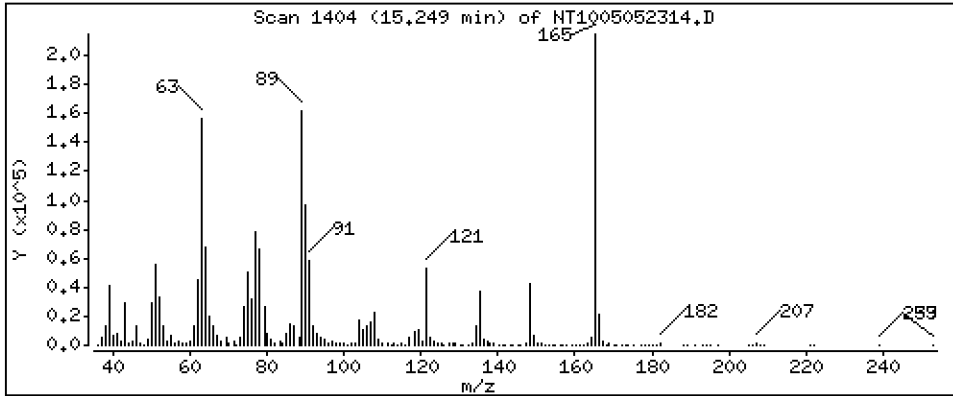
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 11,24 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

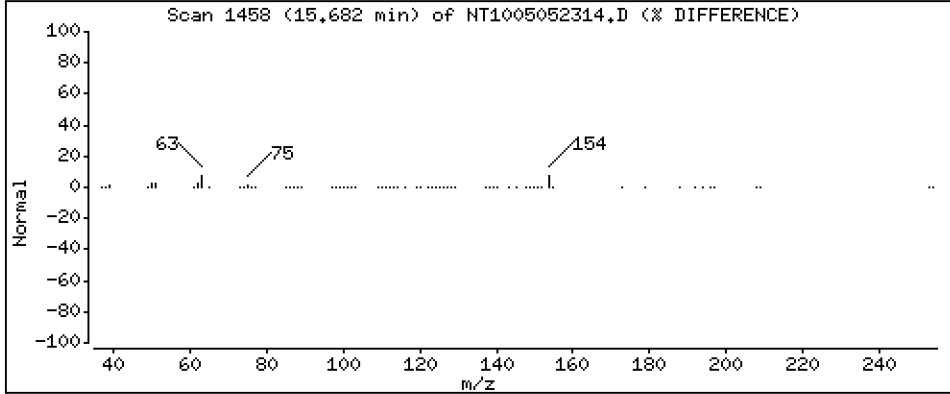
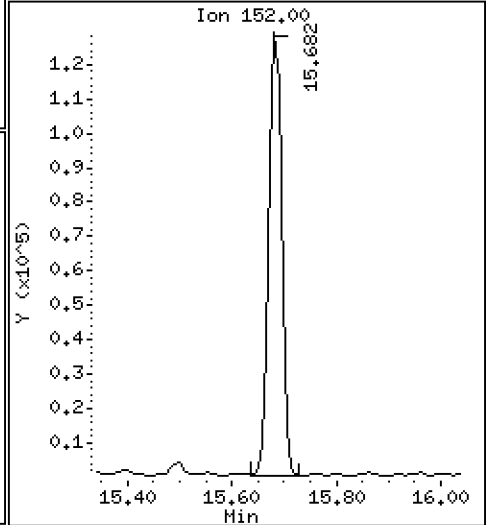
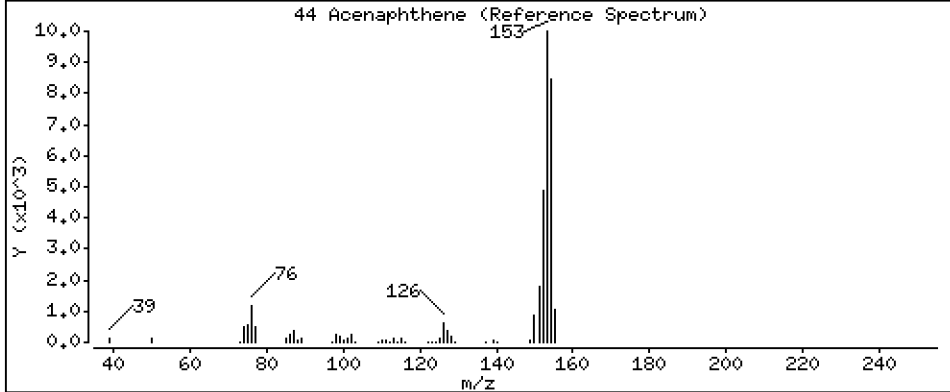
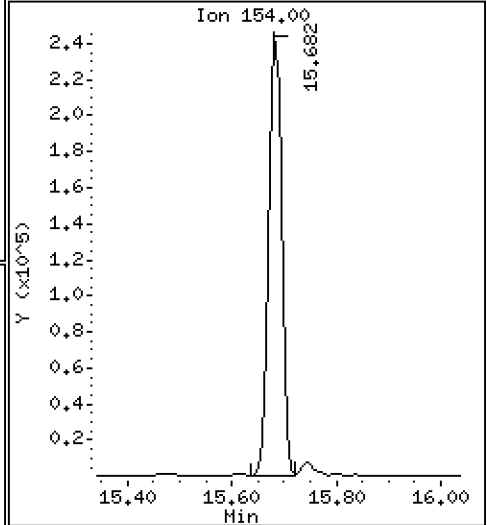
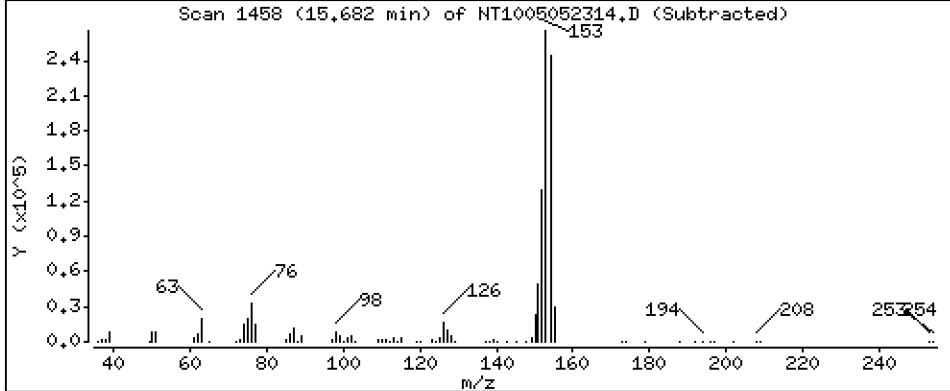
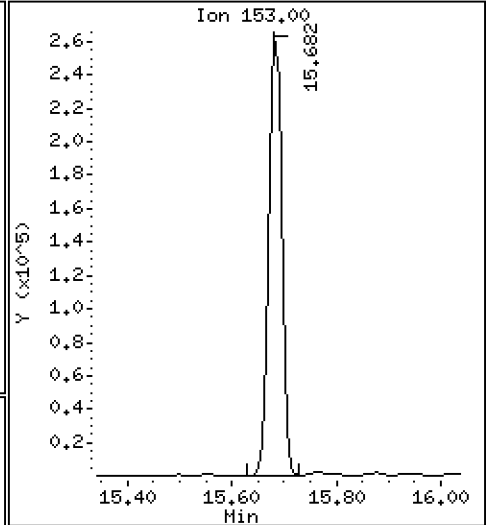
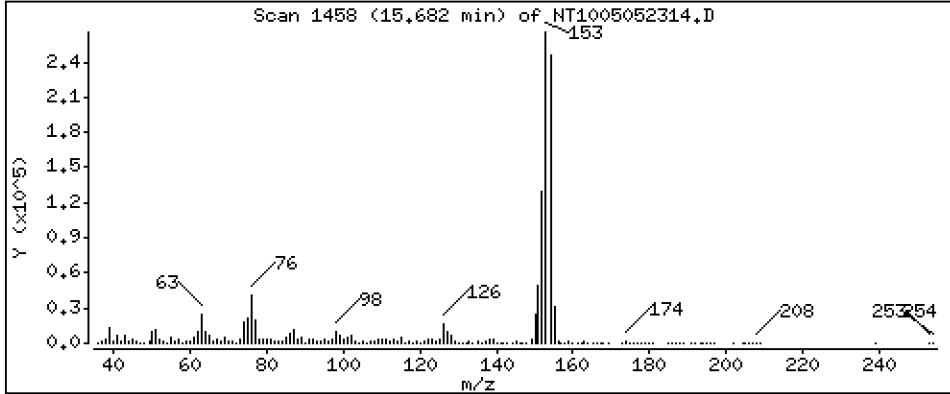
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 3,751 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

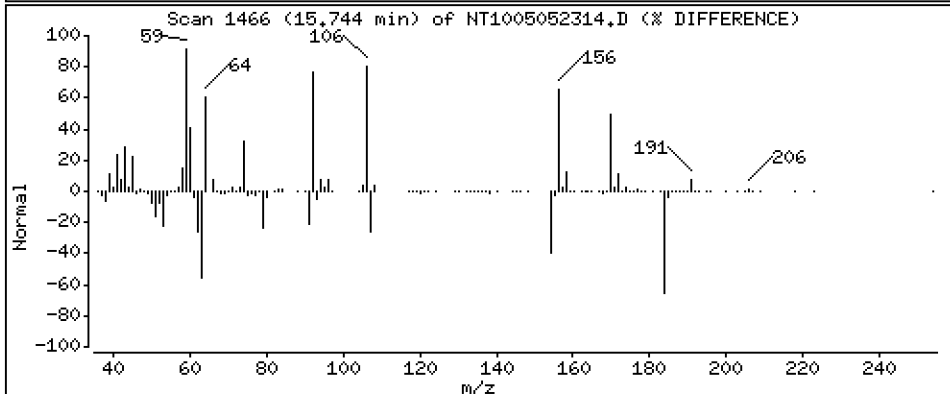
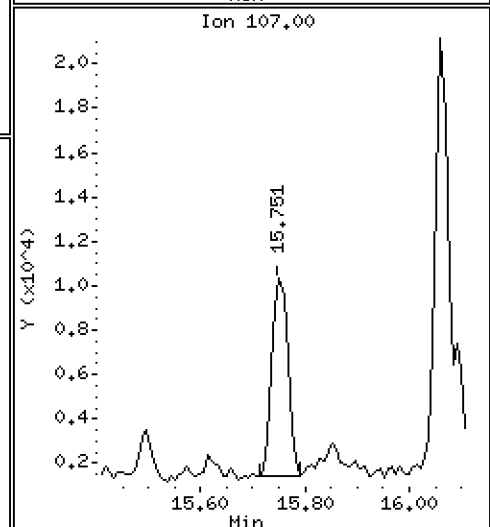
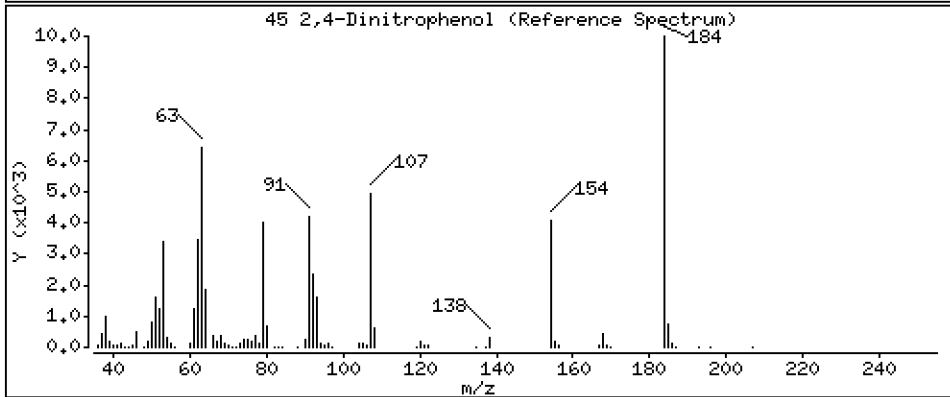
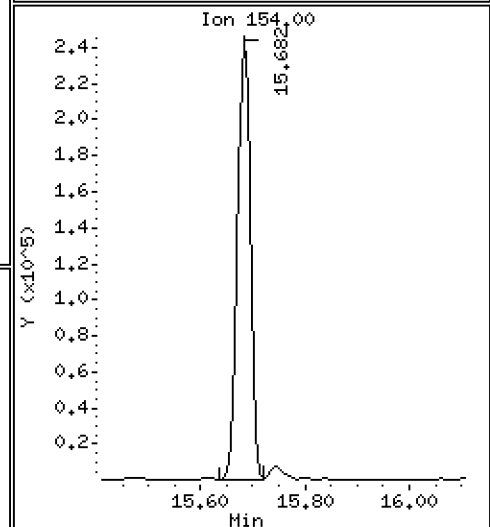
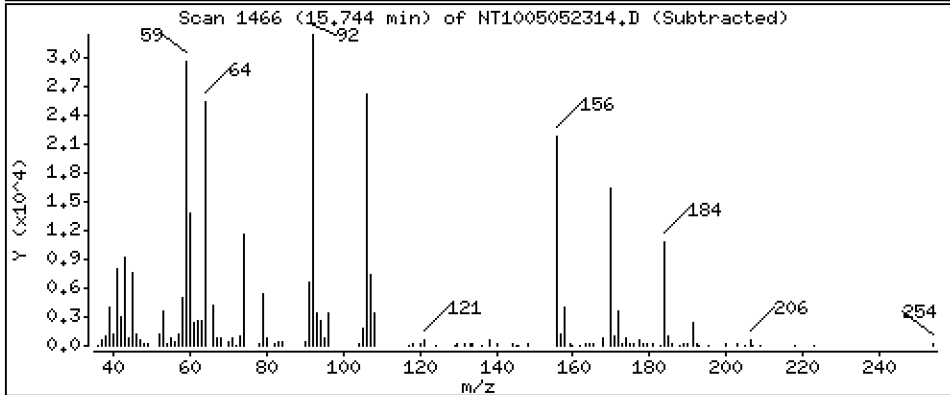
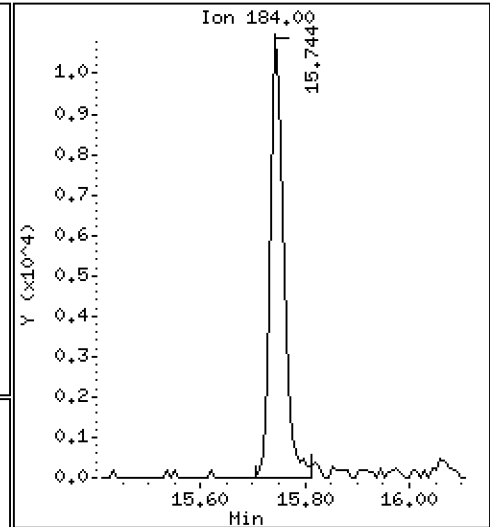
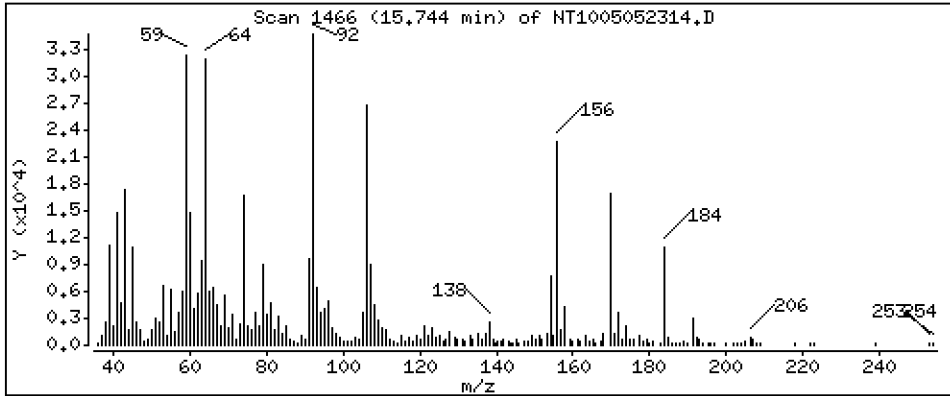
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,8519 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

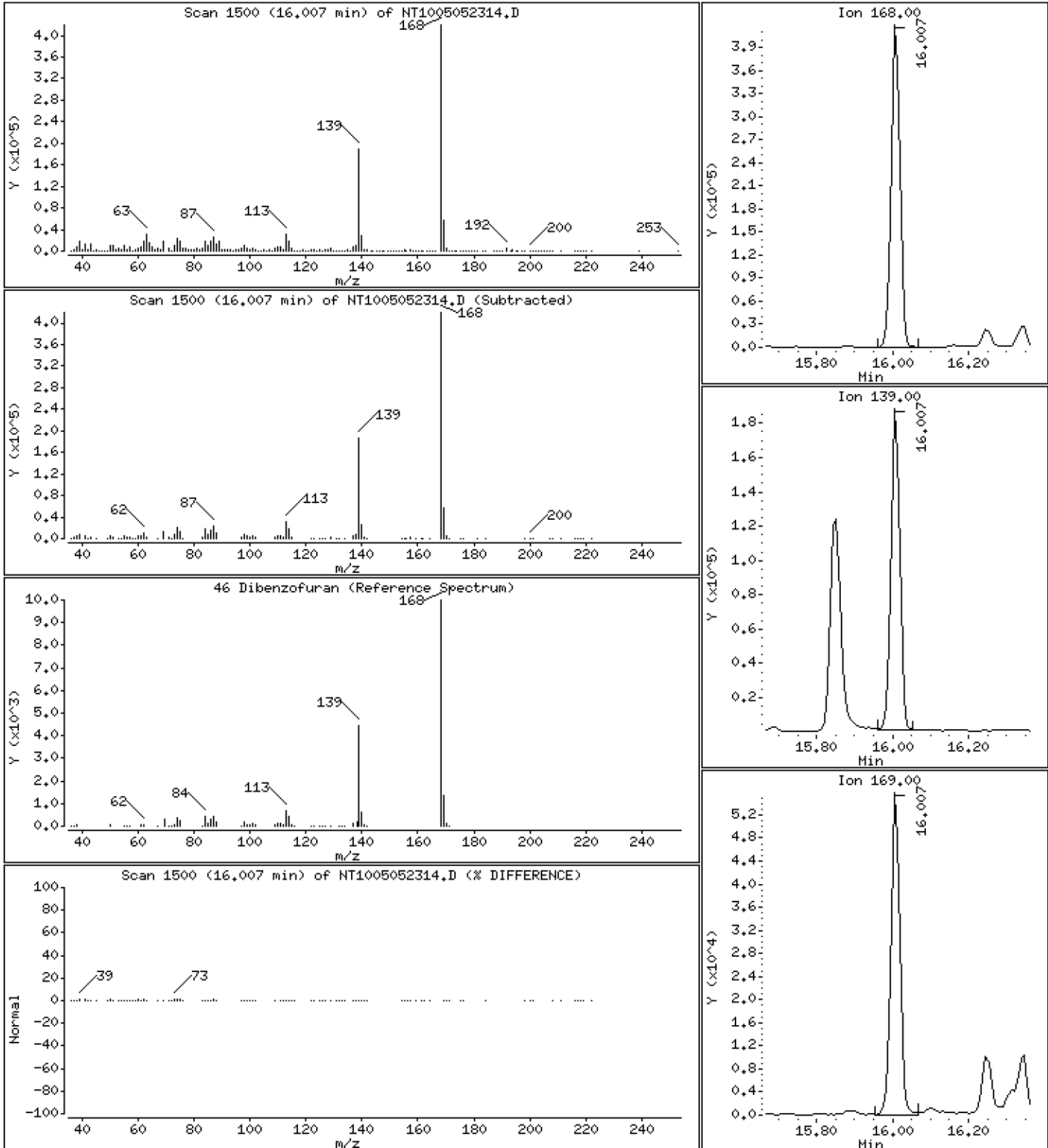
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 3,853 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

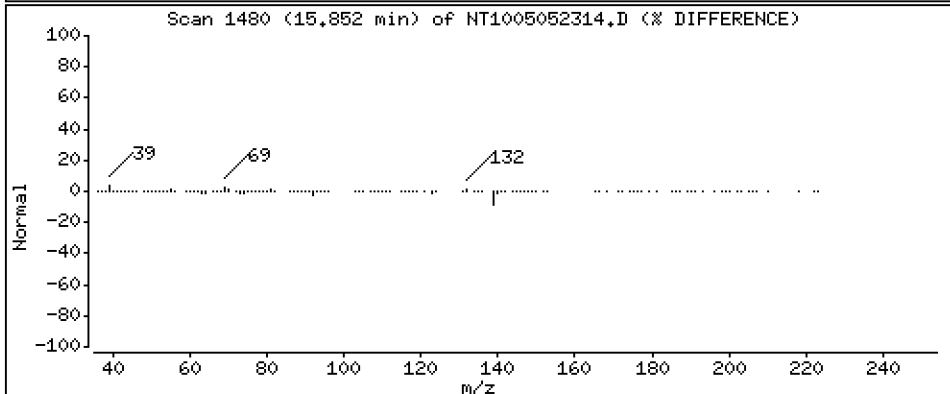
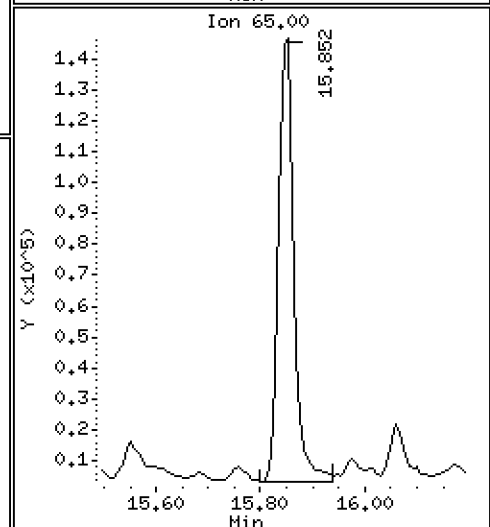
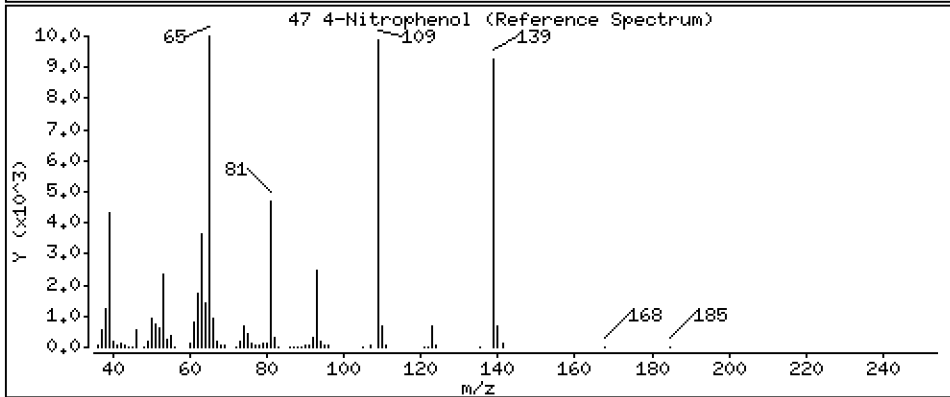
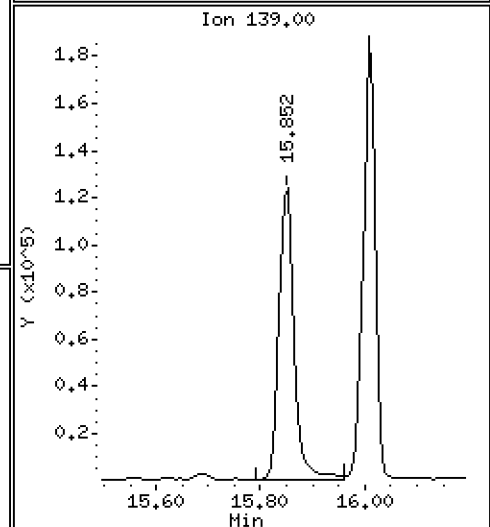
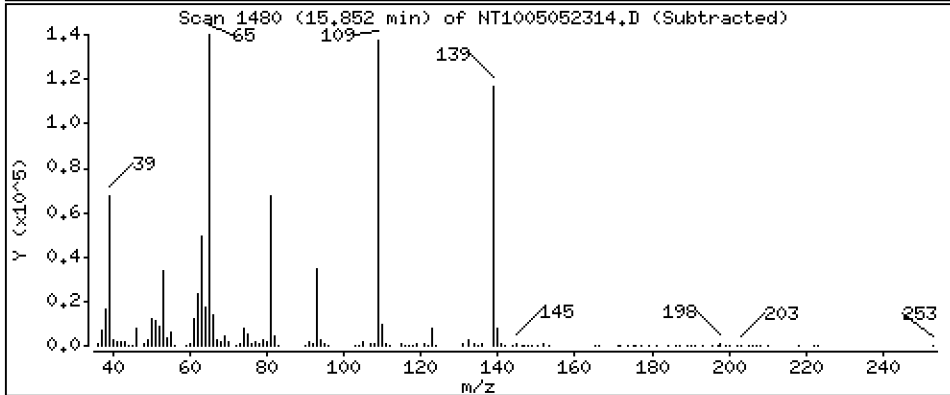
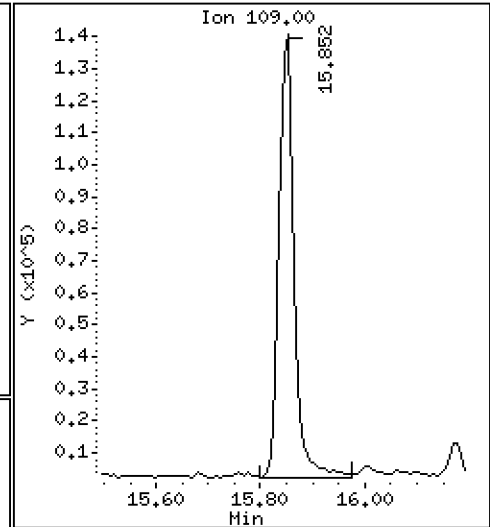
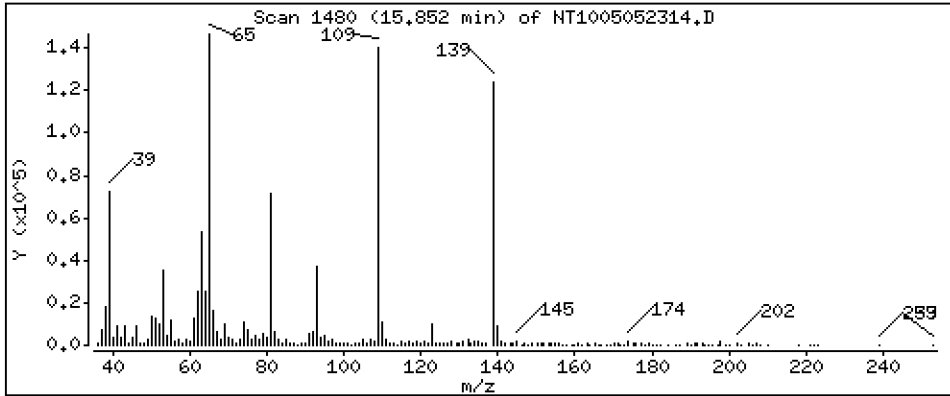
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 9,908 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

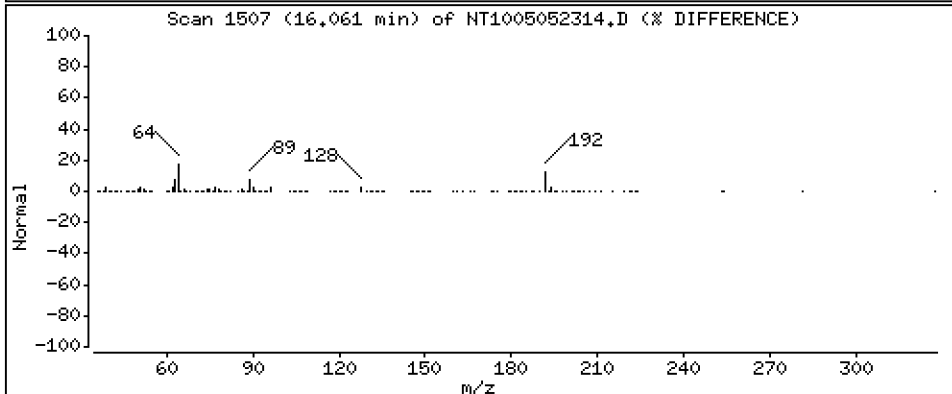
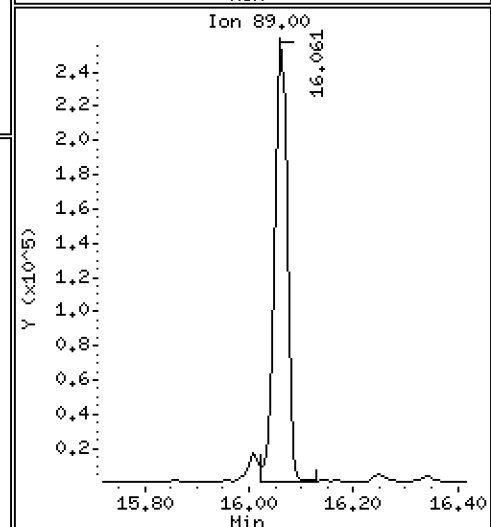
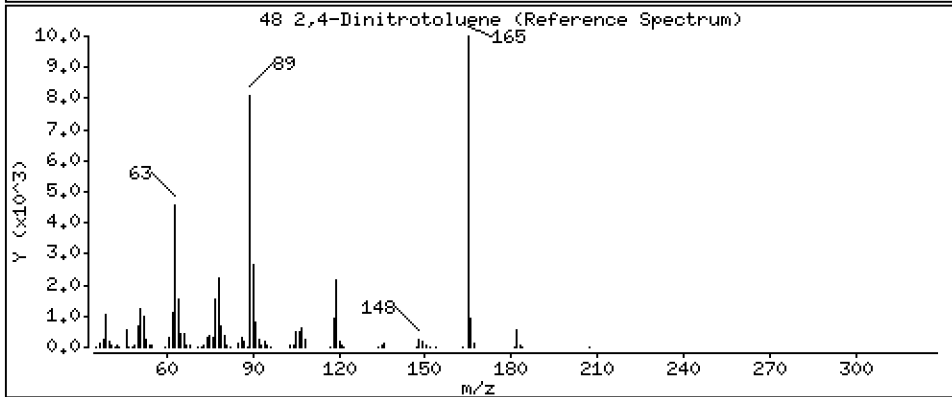
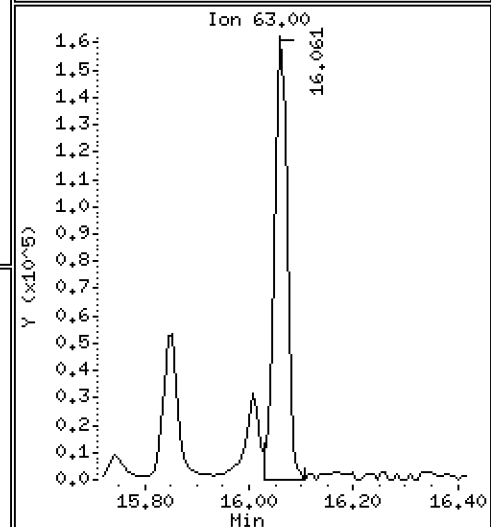
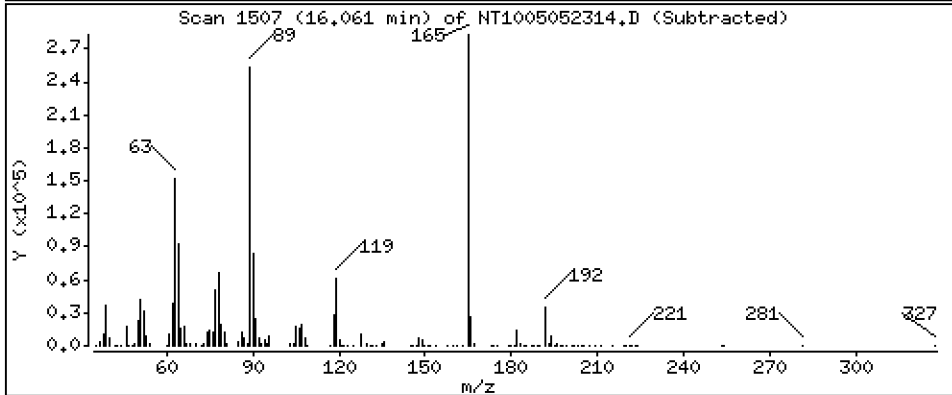
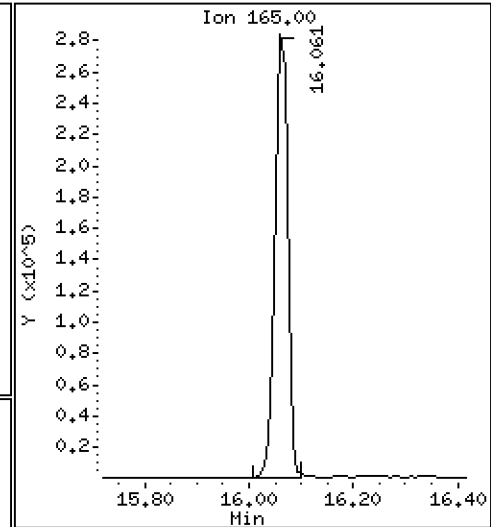
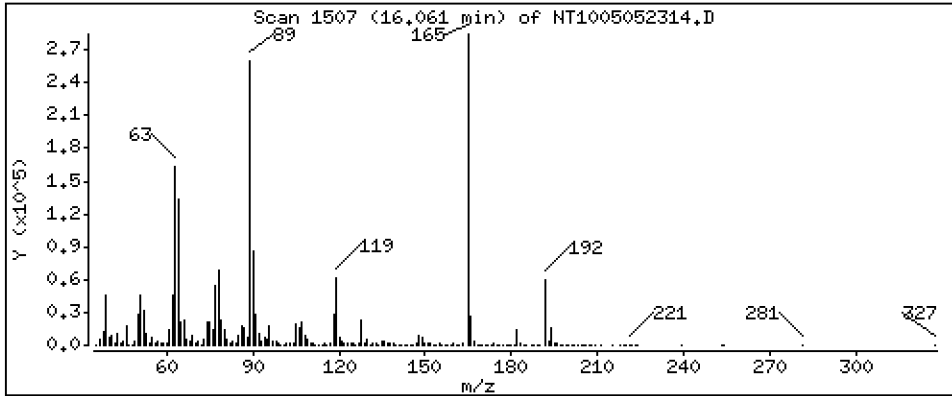
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 10,75 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

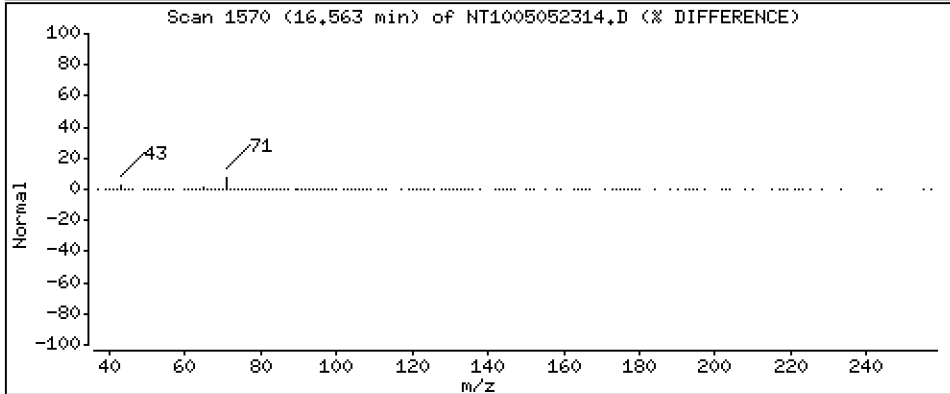
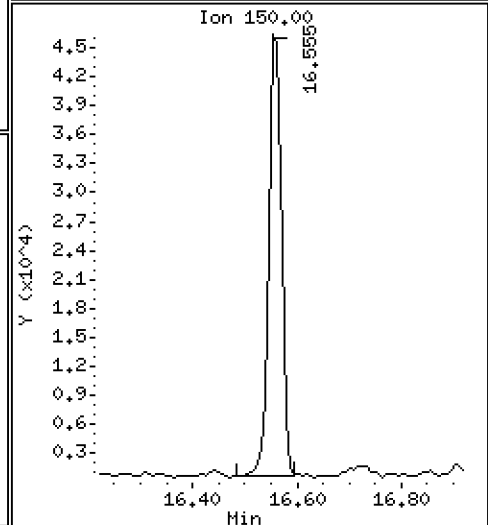
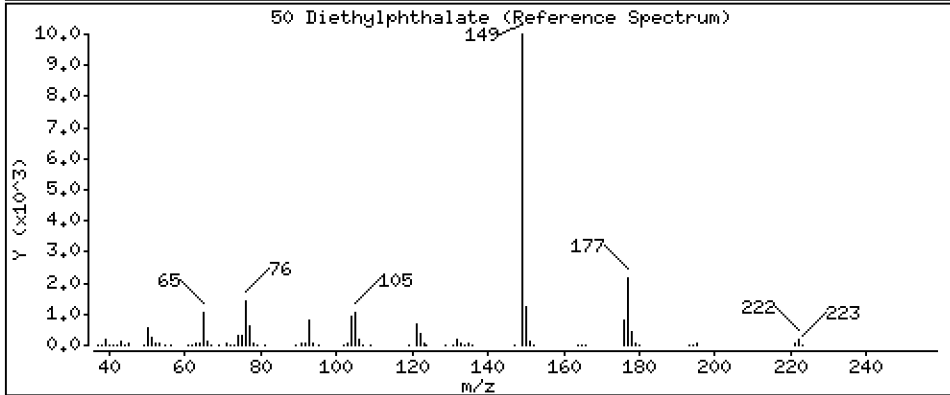
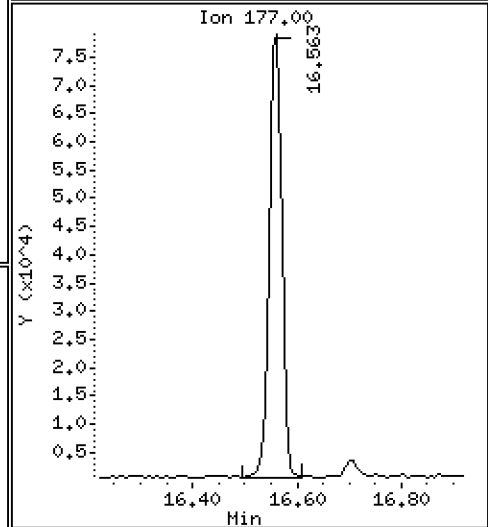
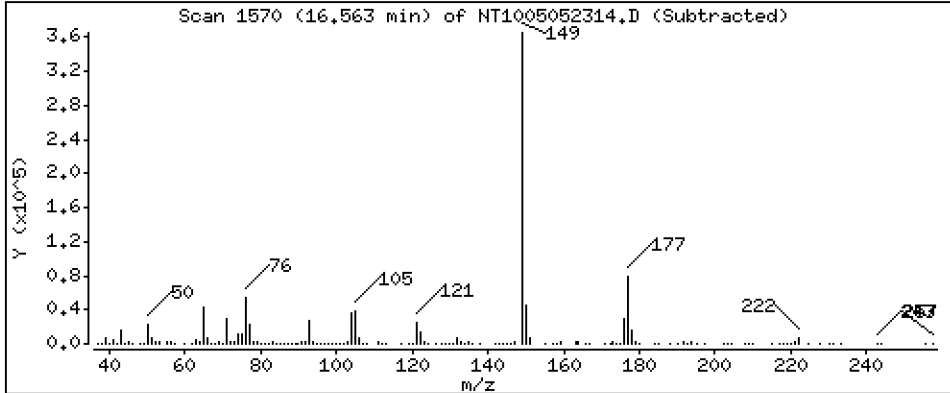
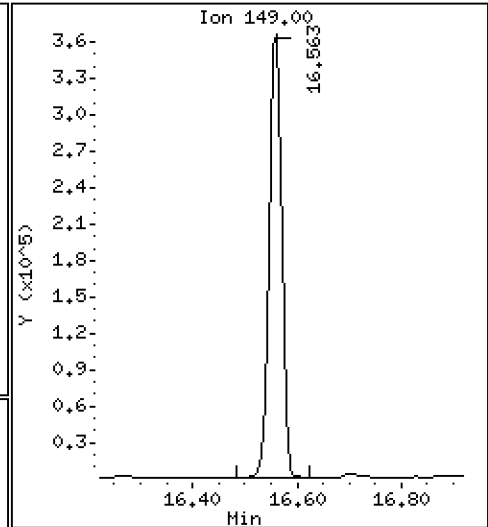
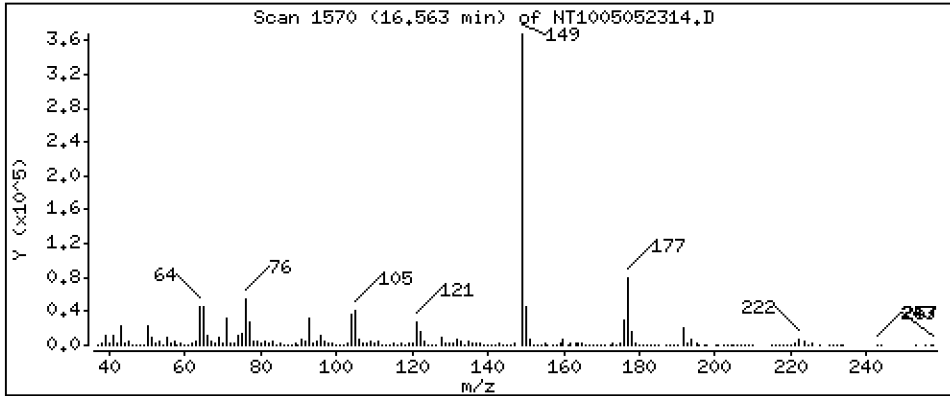
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,841 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

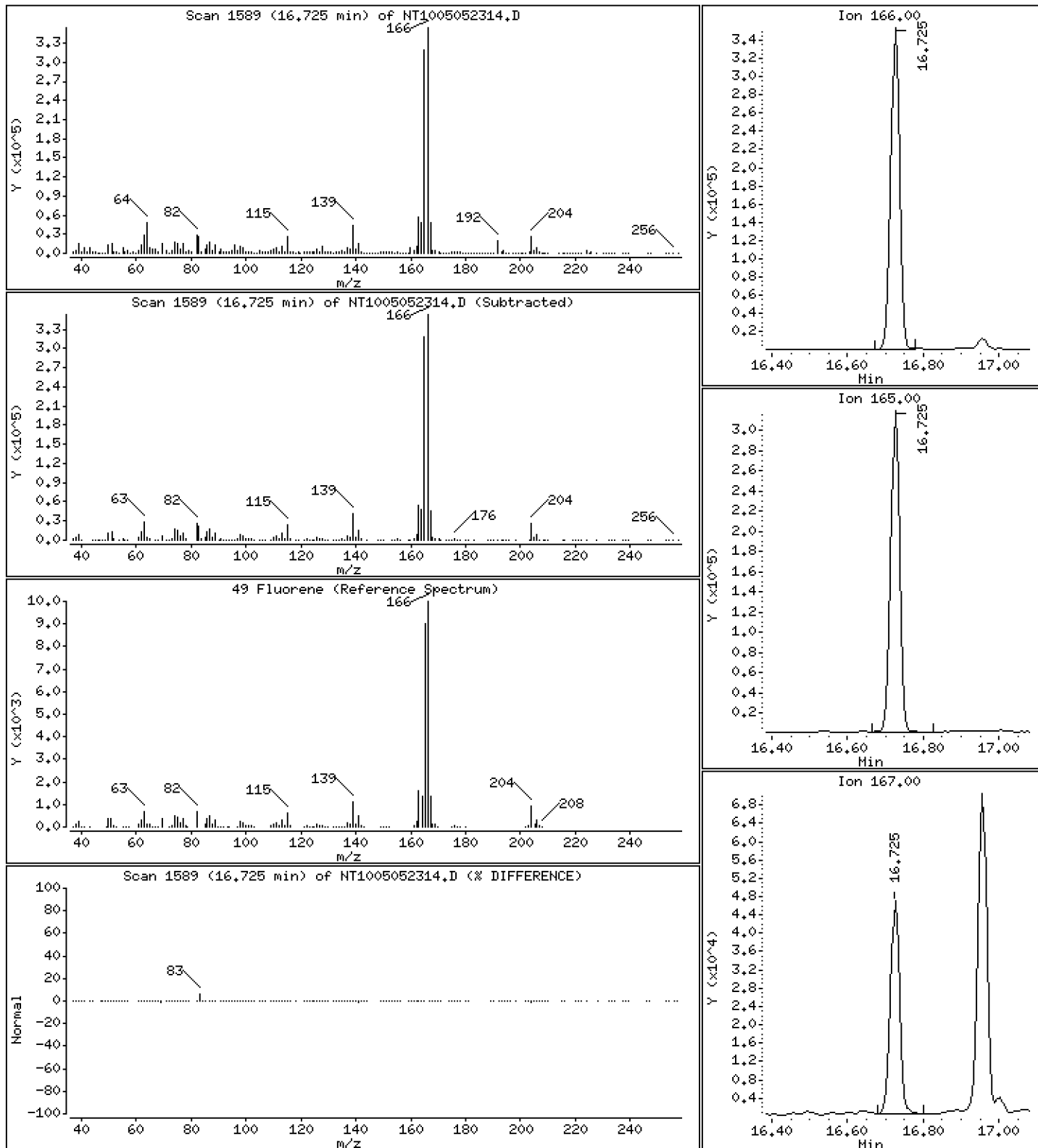
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,941 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

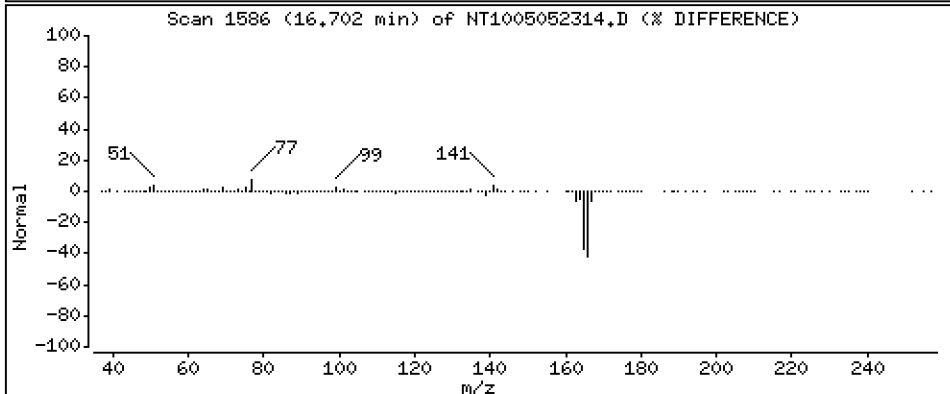
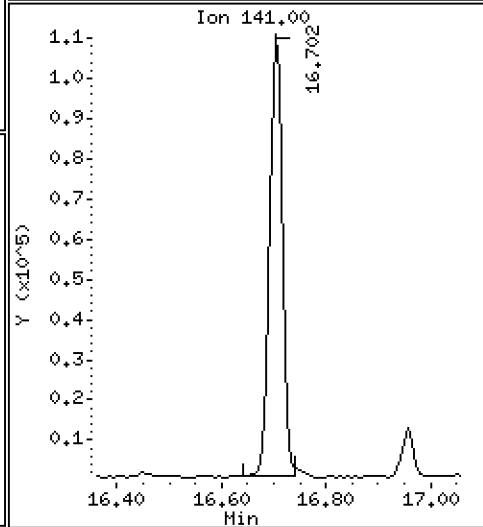
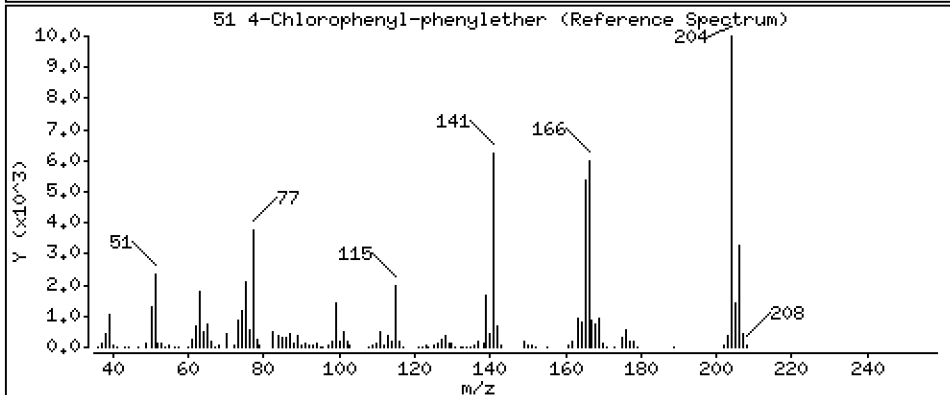
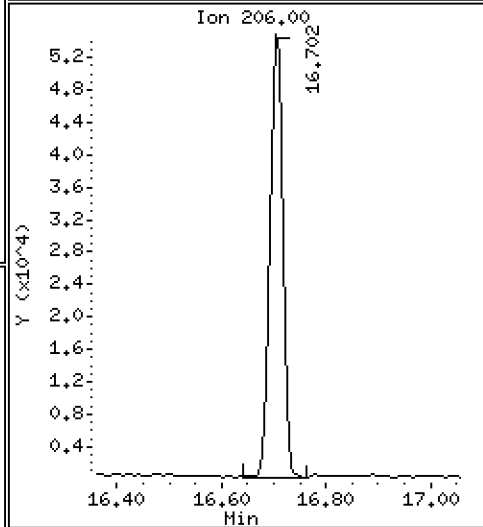
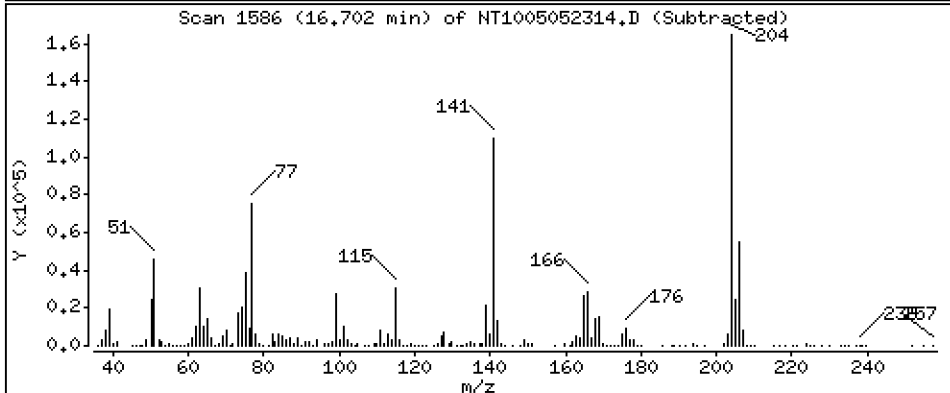
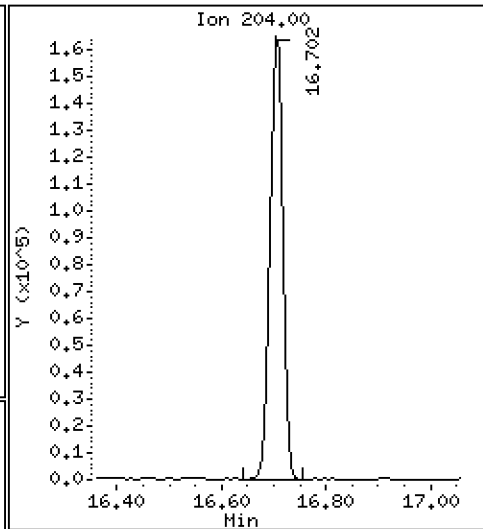
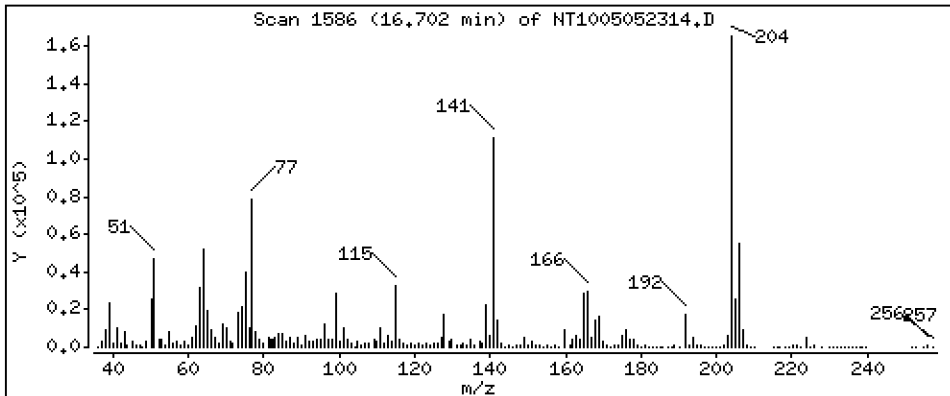
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,490 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

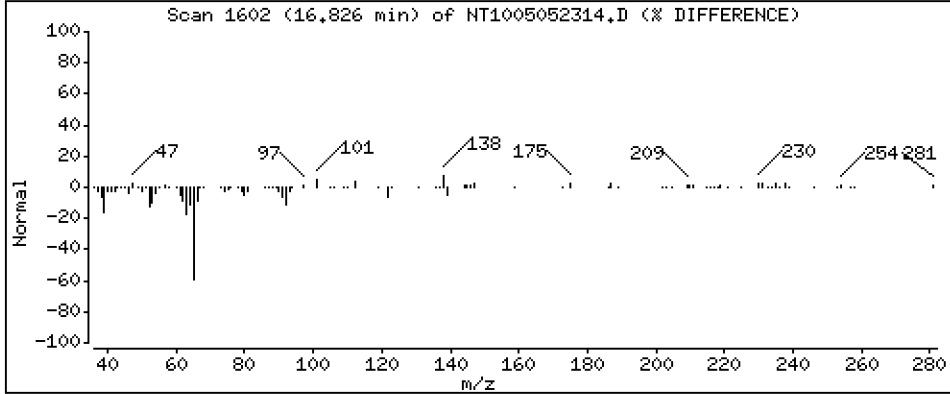
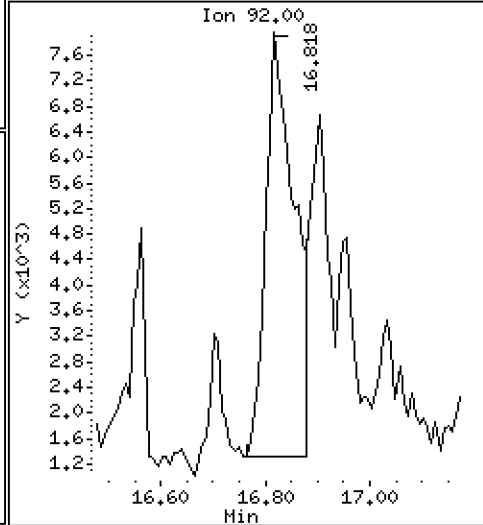
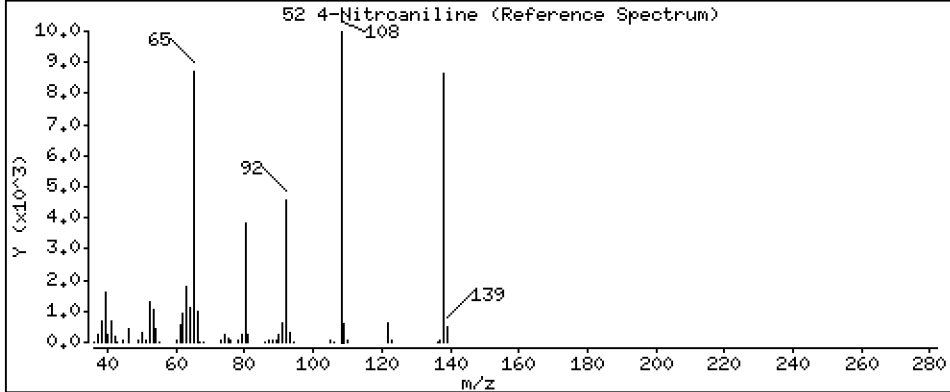
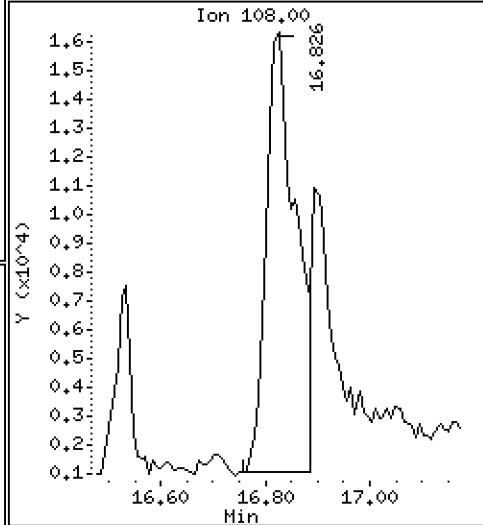
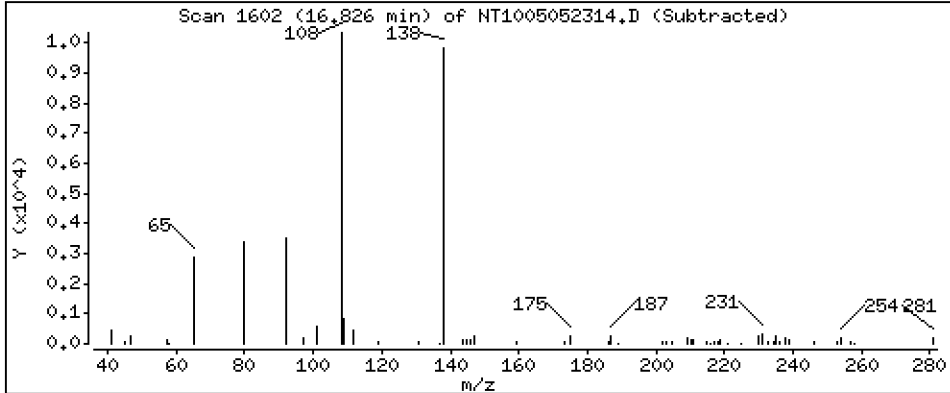
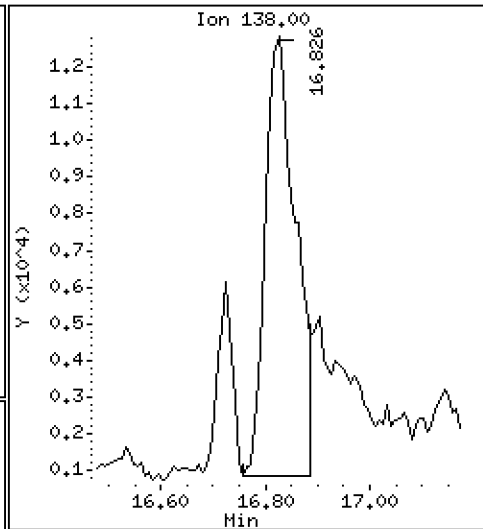
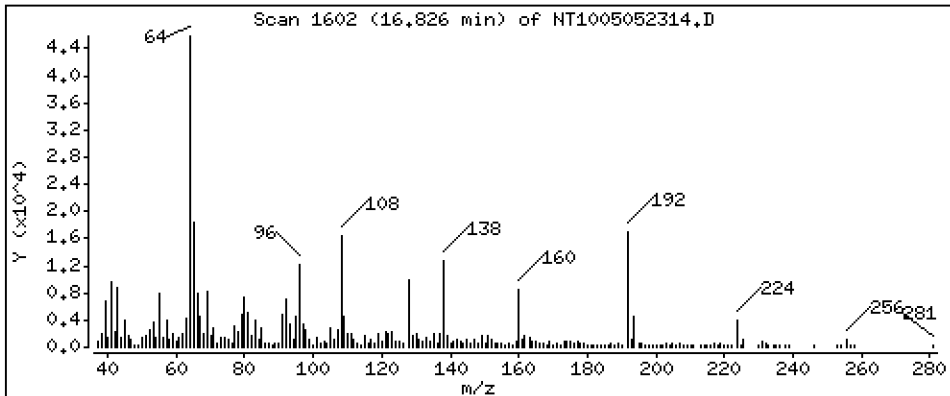
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 1.729 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

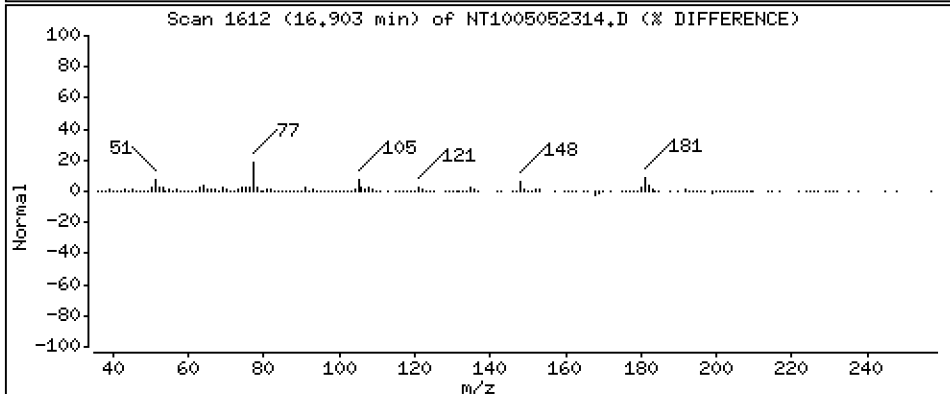
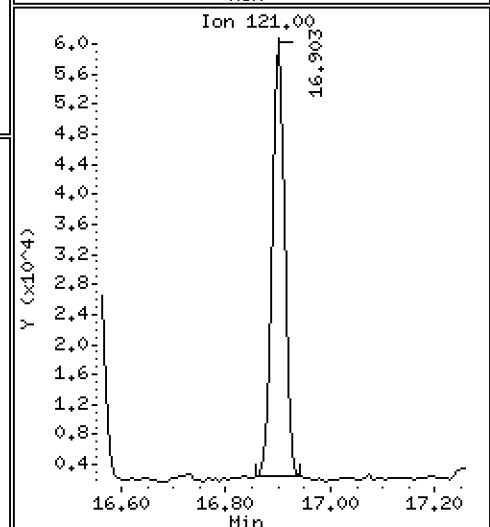
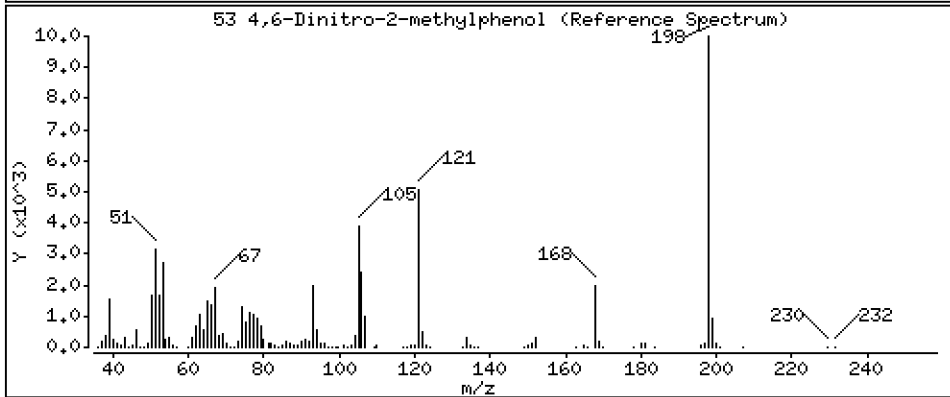
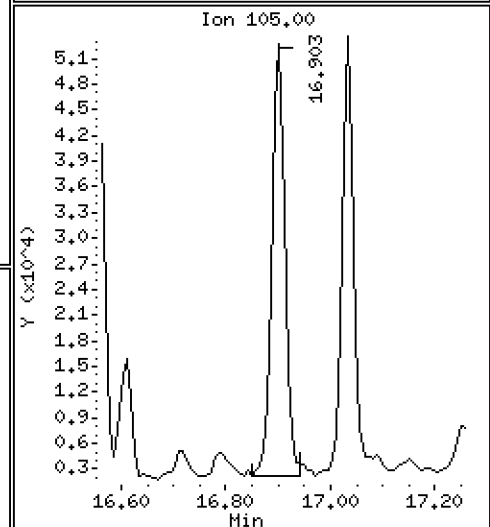
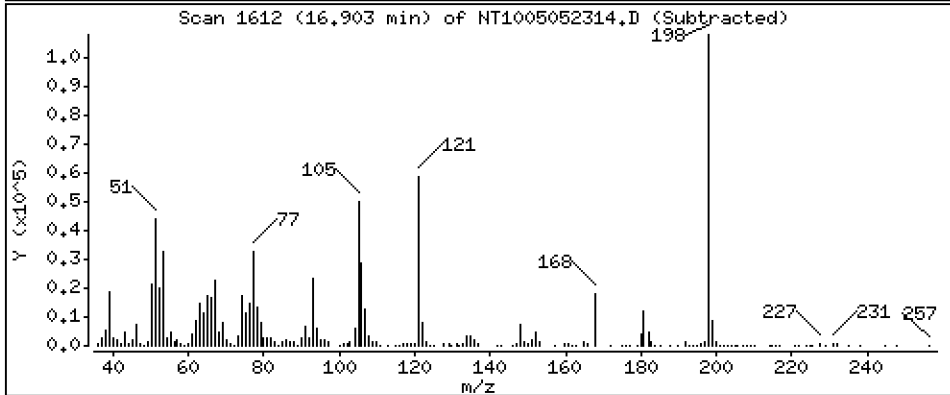
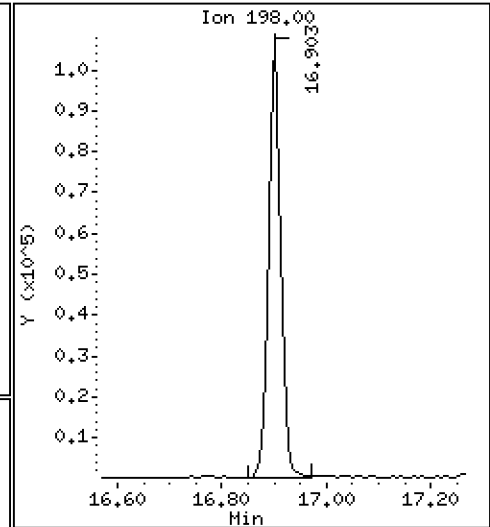
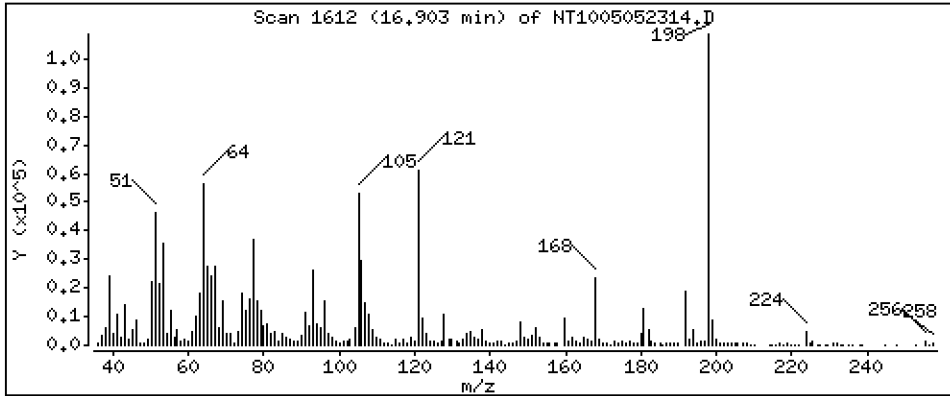
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 7,106 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

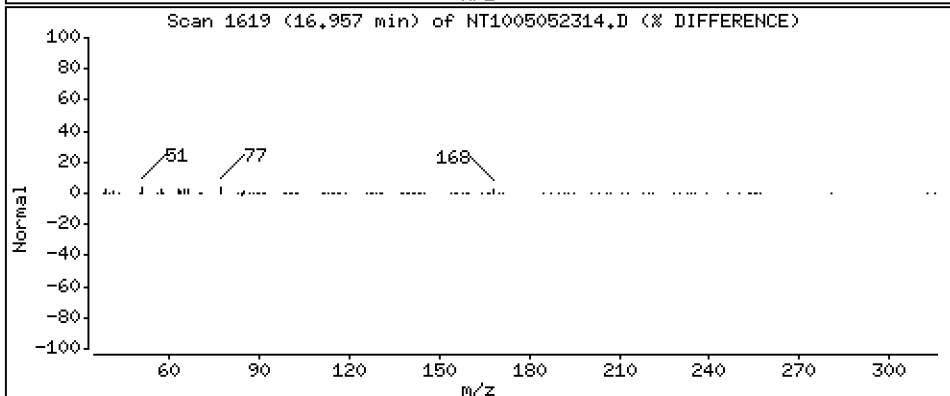
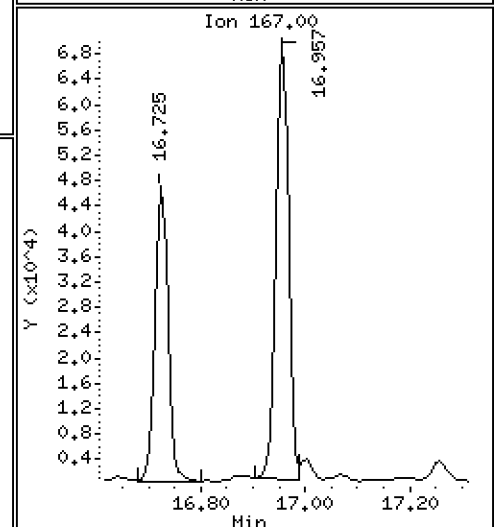
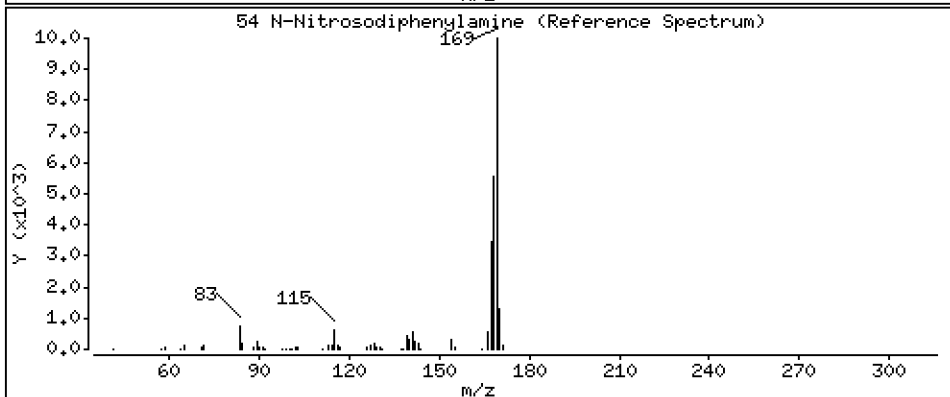
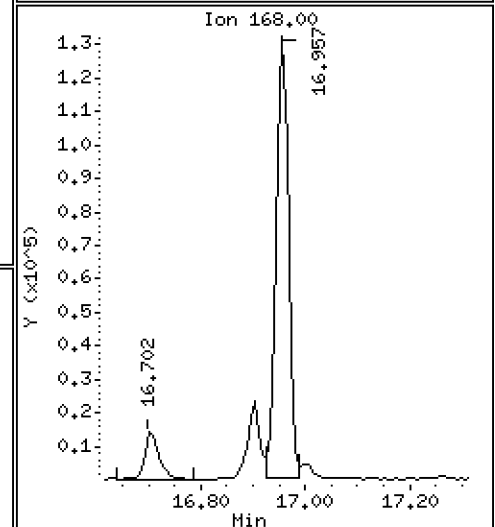
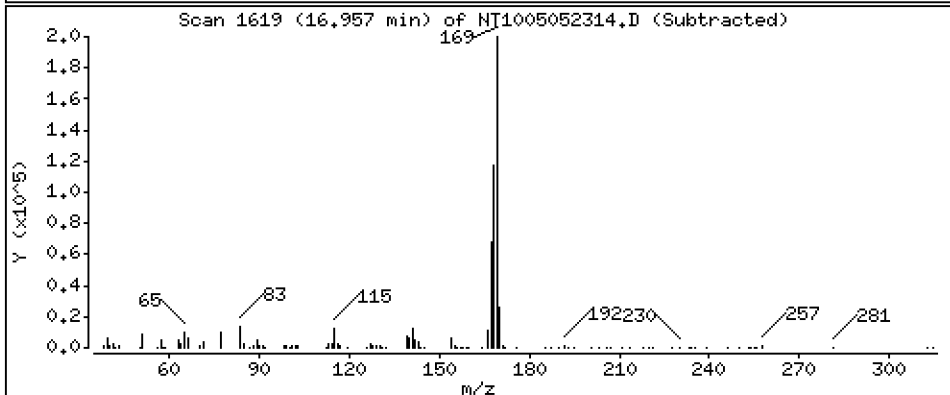
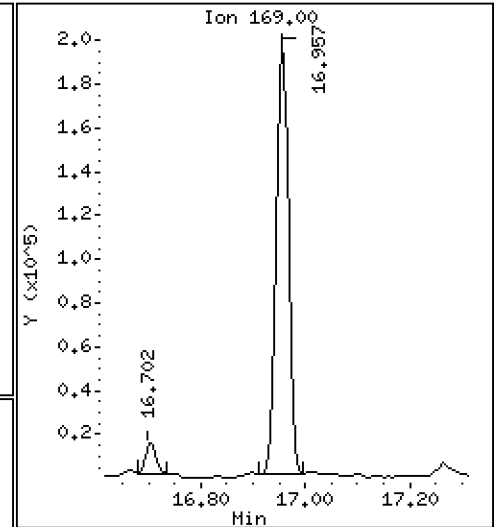
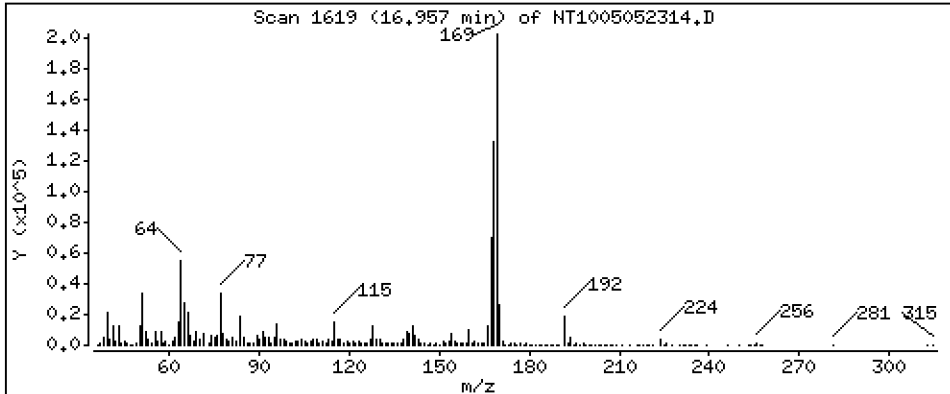
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 3,816 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

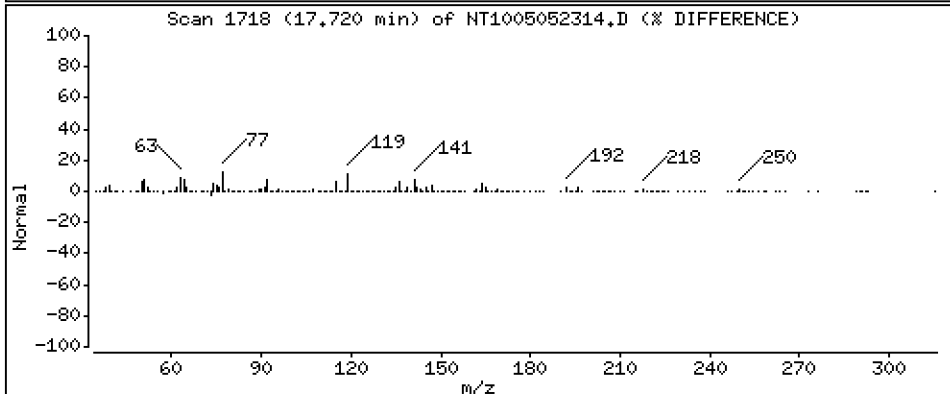
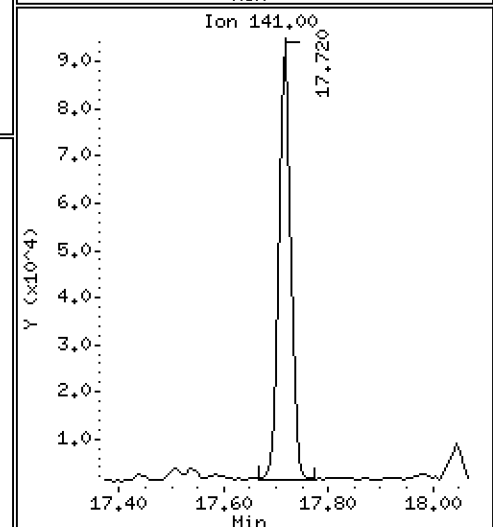
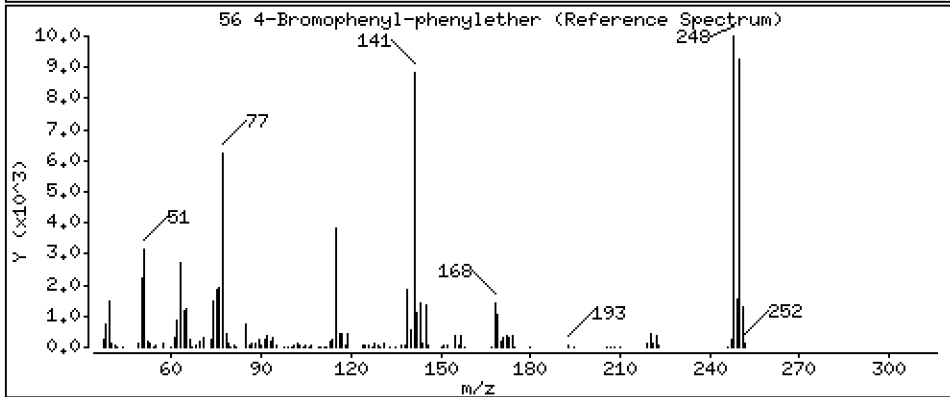
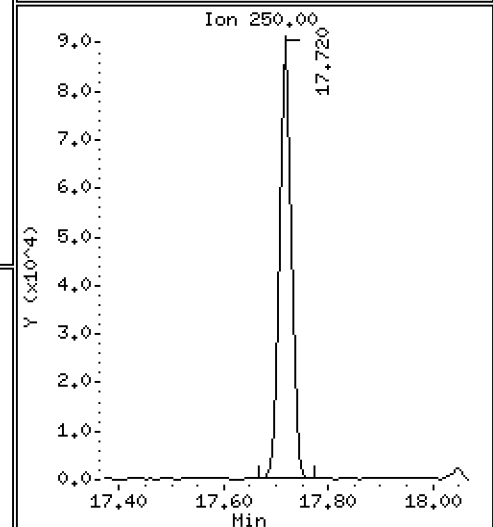
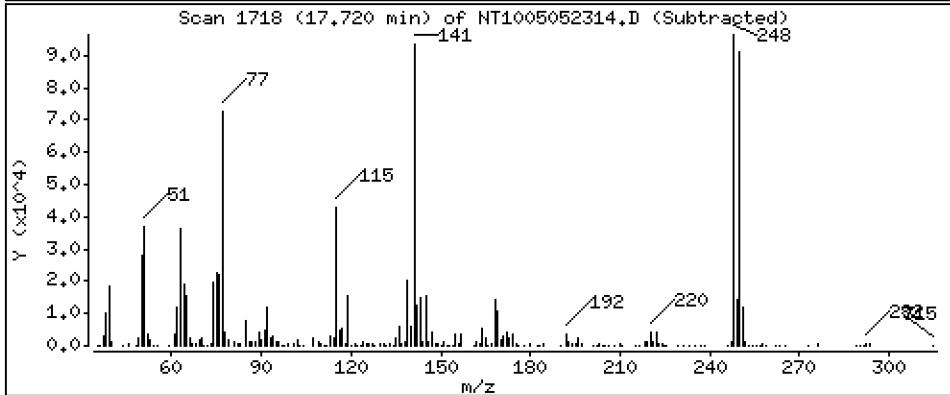
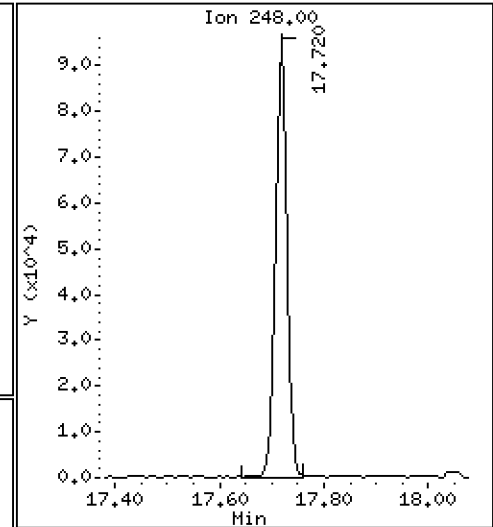
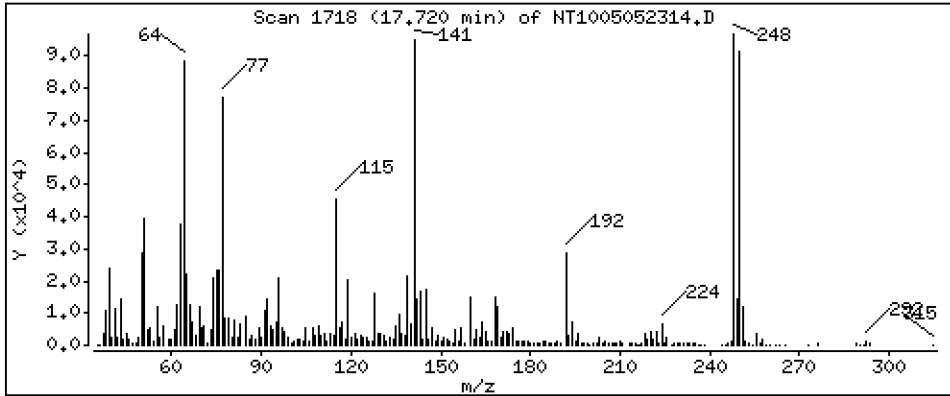
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 3,977 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

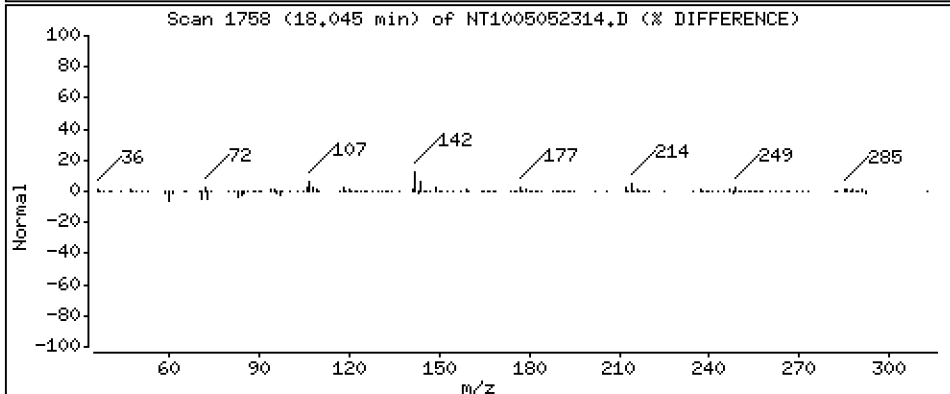
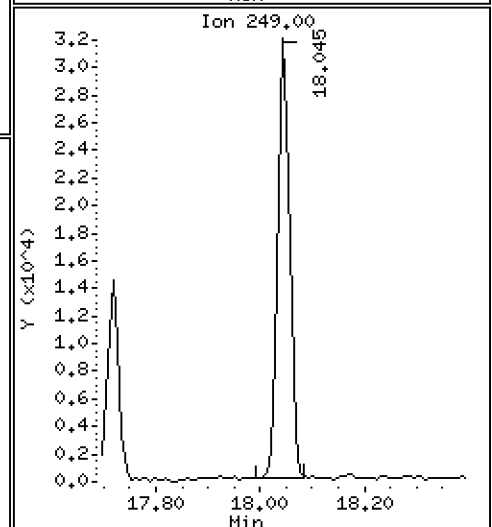
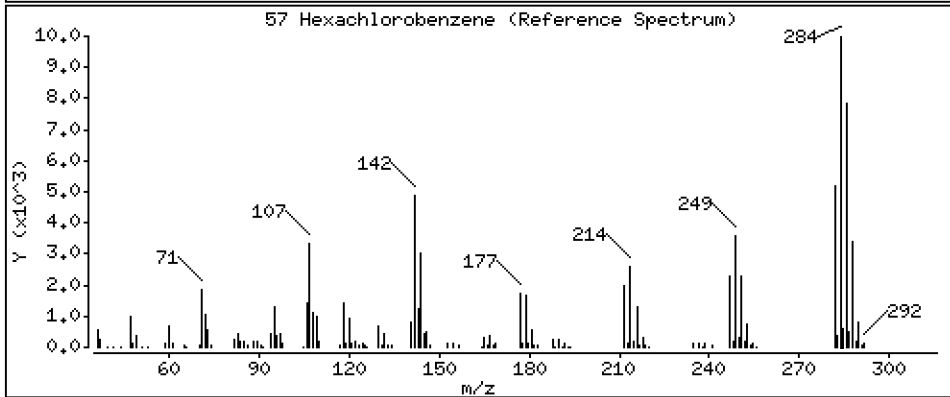
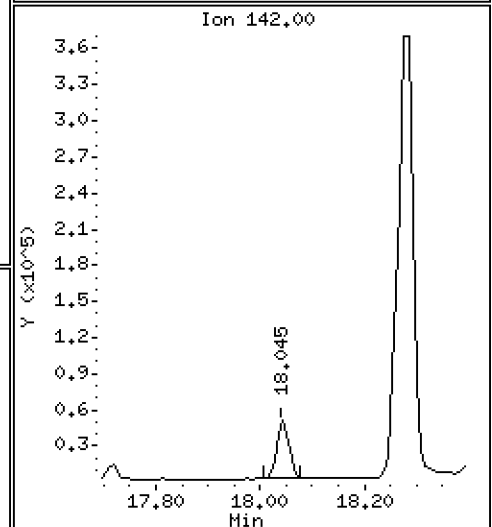
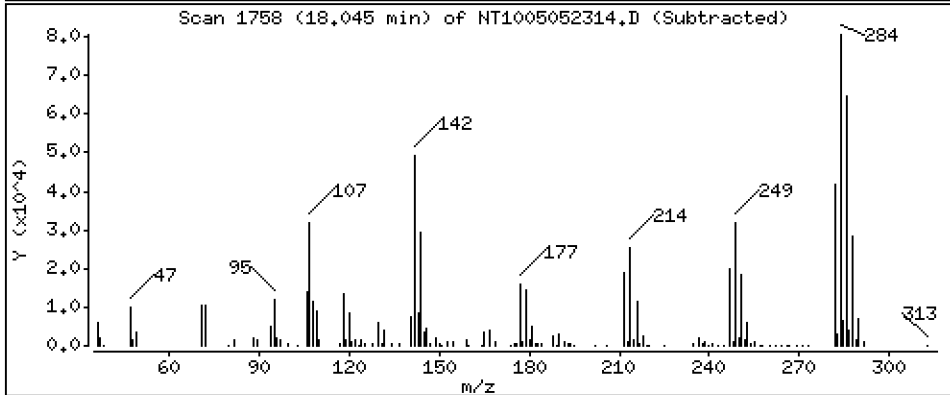
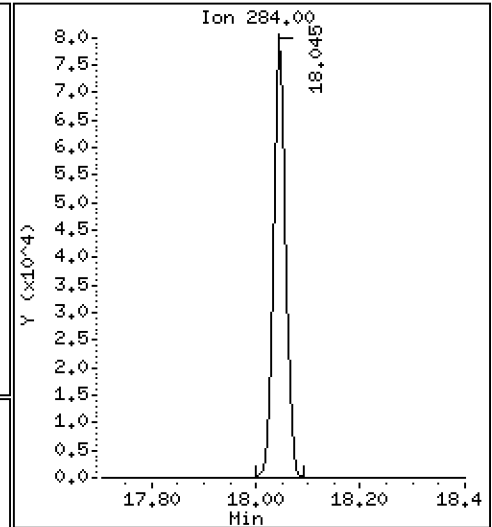
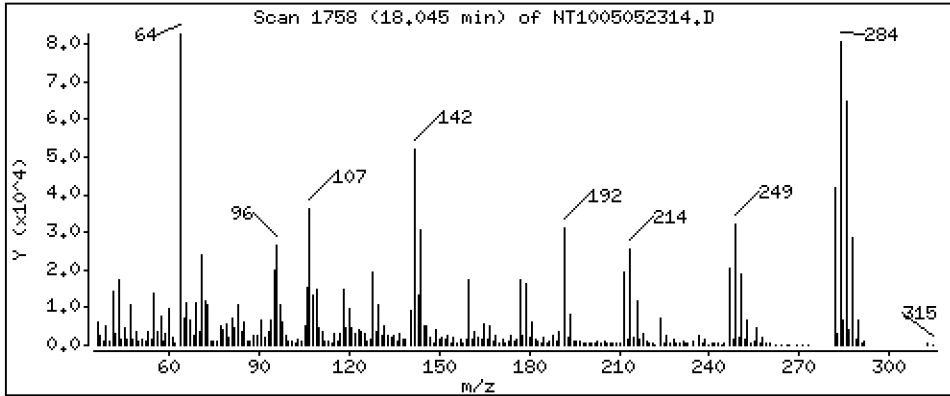
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 3,459 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

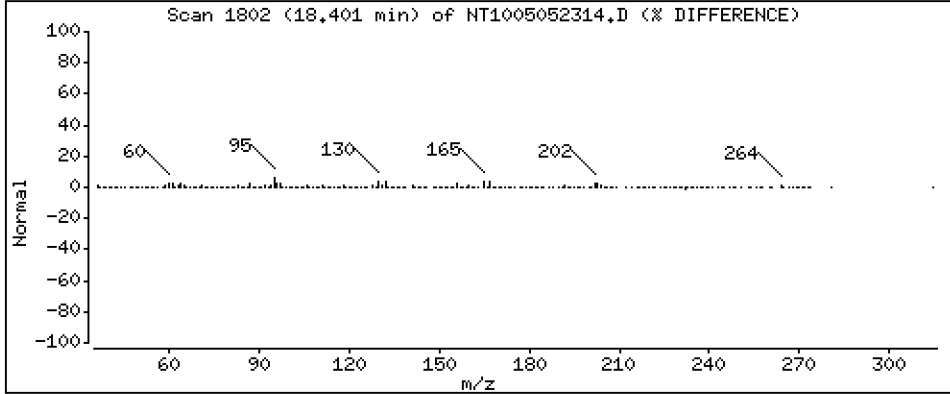
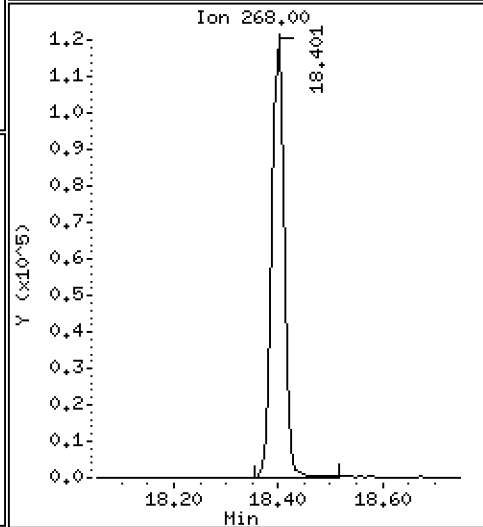
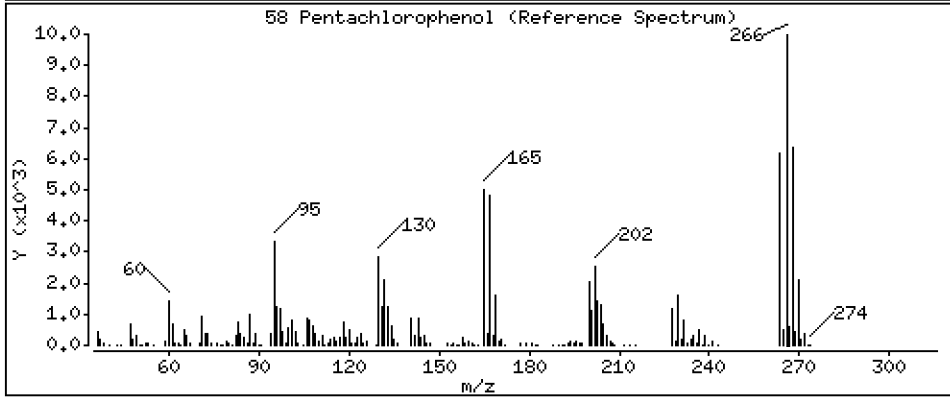
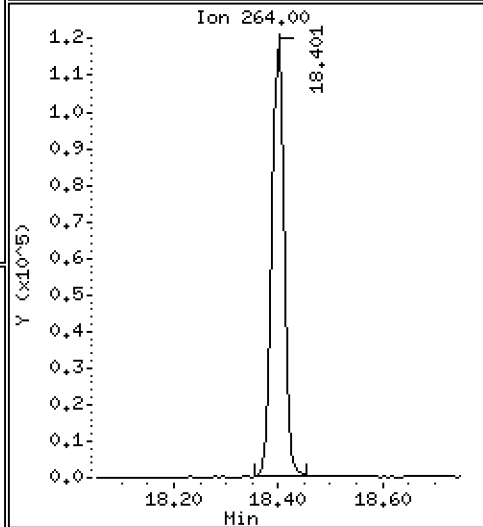
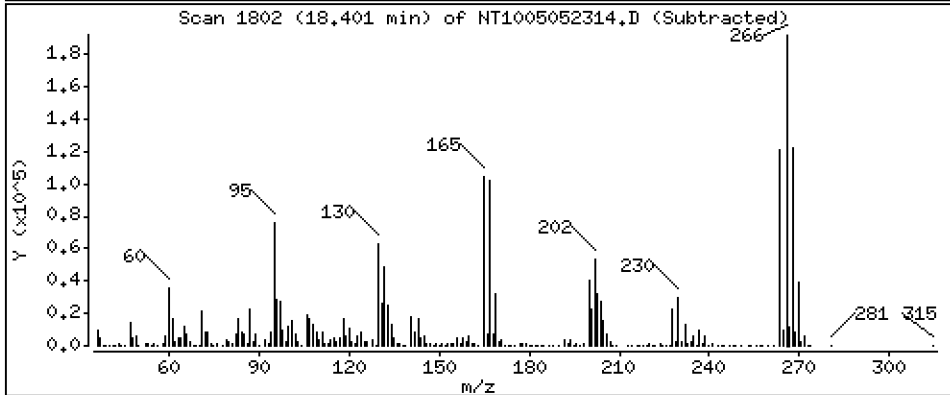
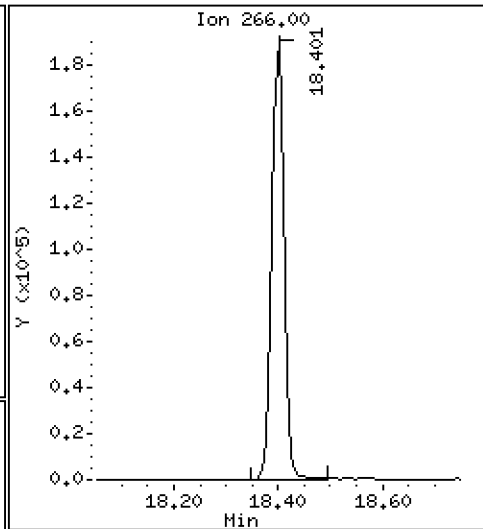
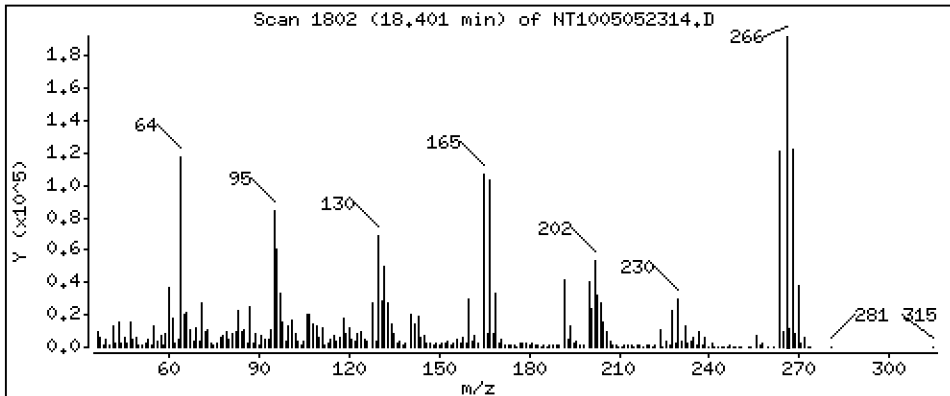
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 10,92 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

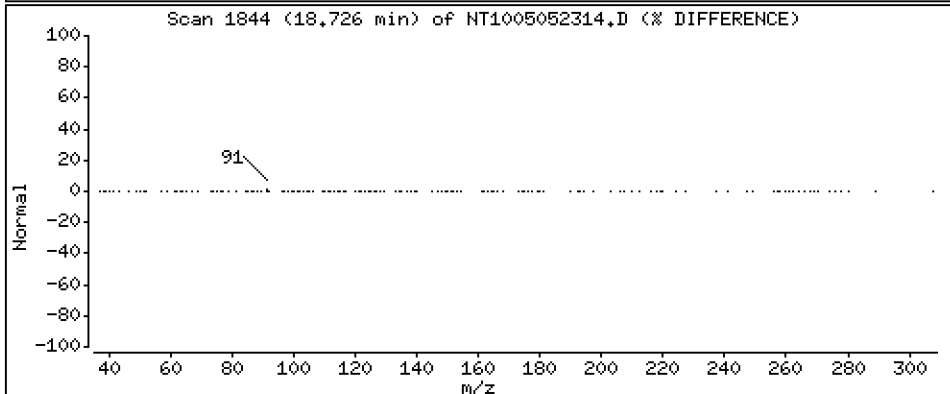
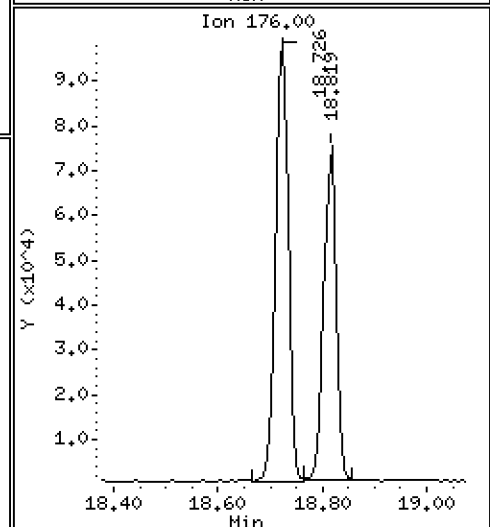
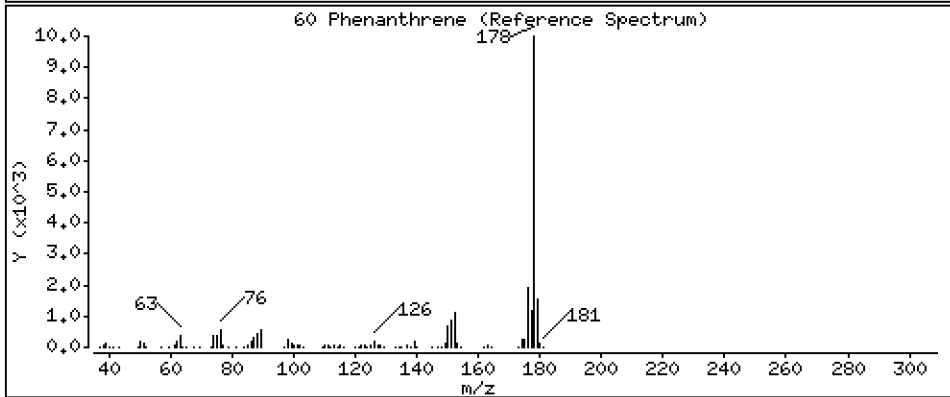
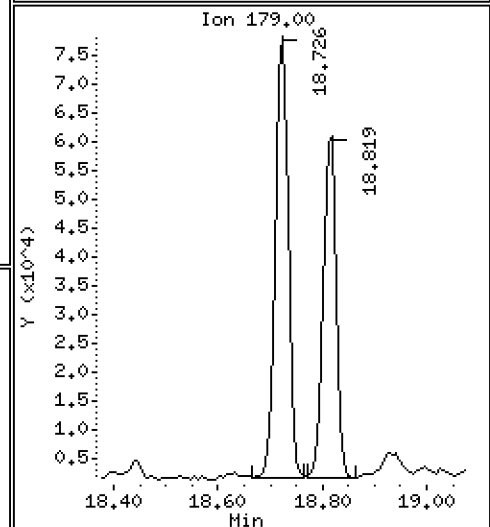
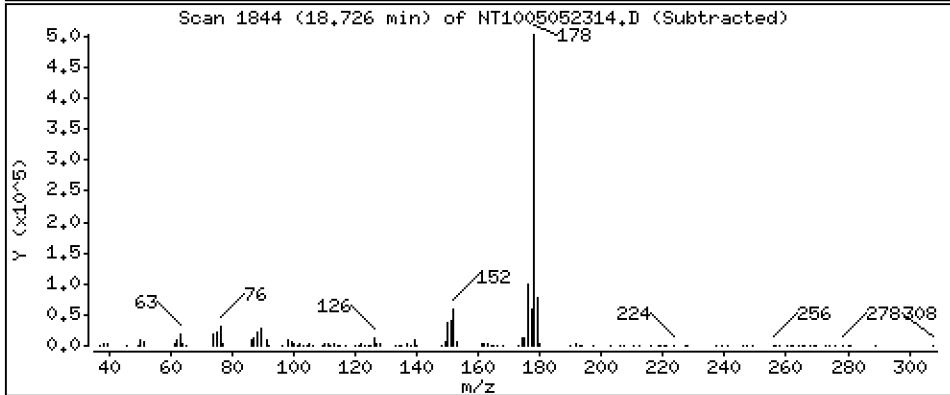
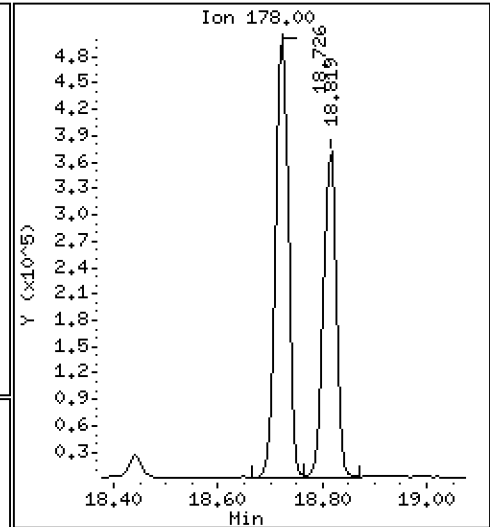
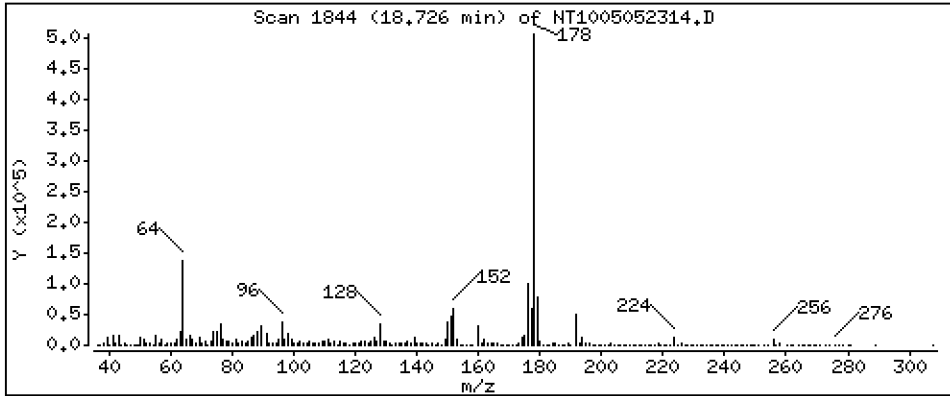
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,637 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

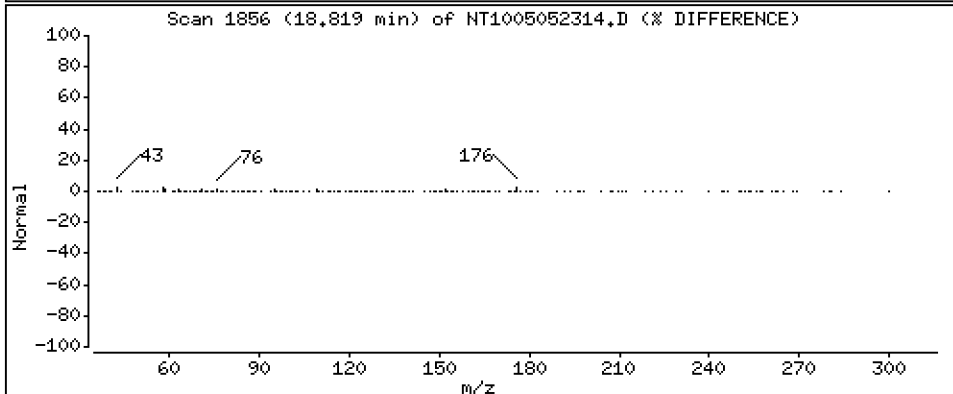
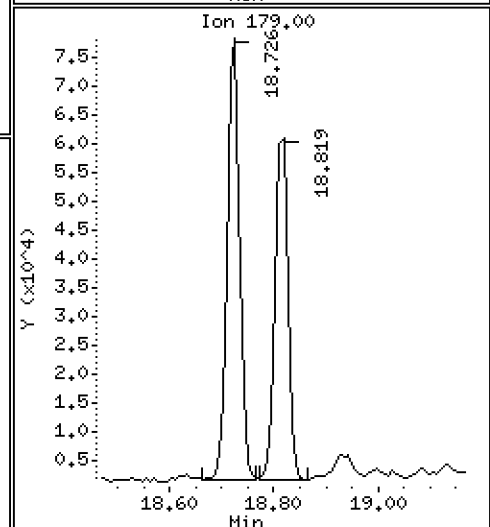
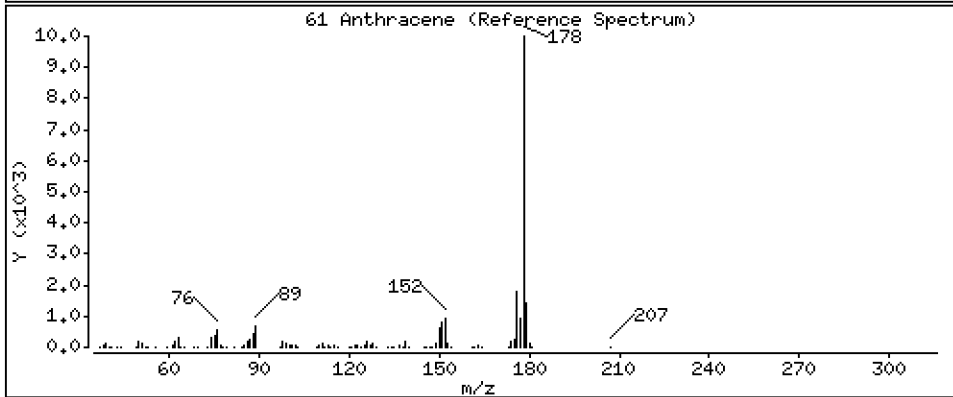
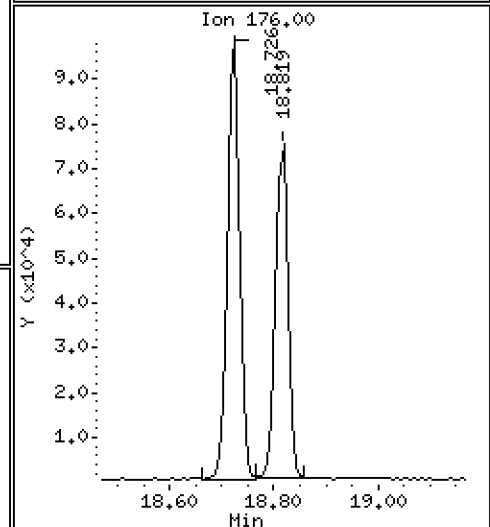
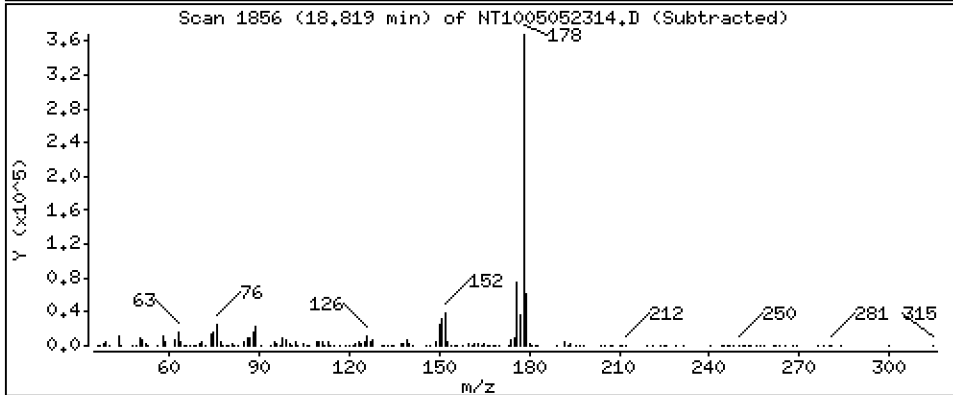
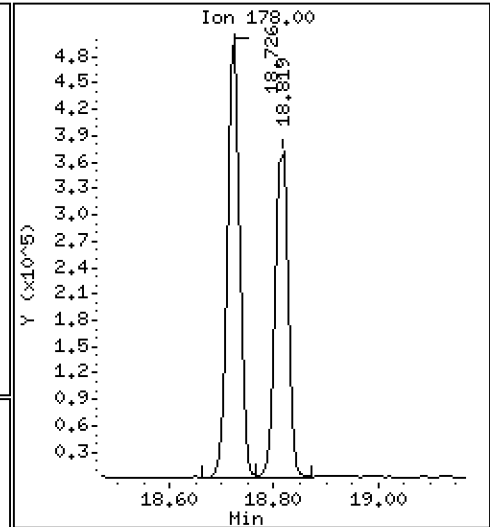
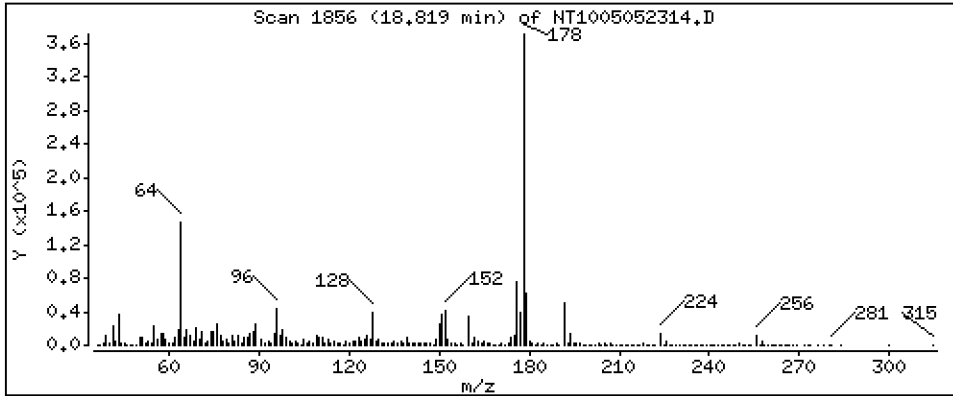
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,776 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

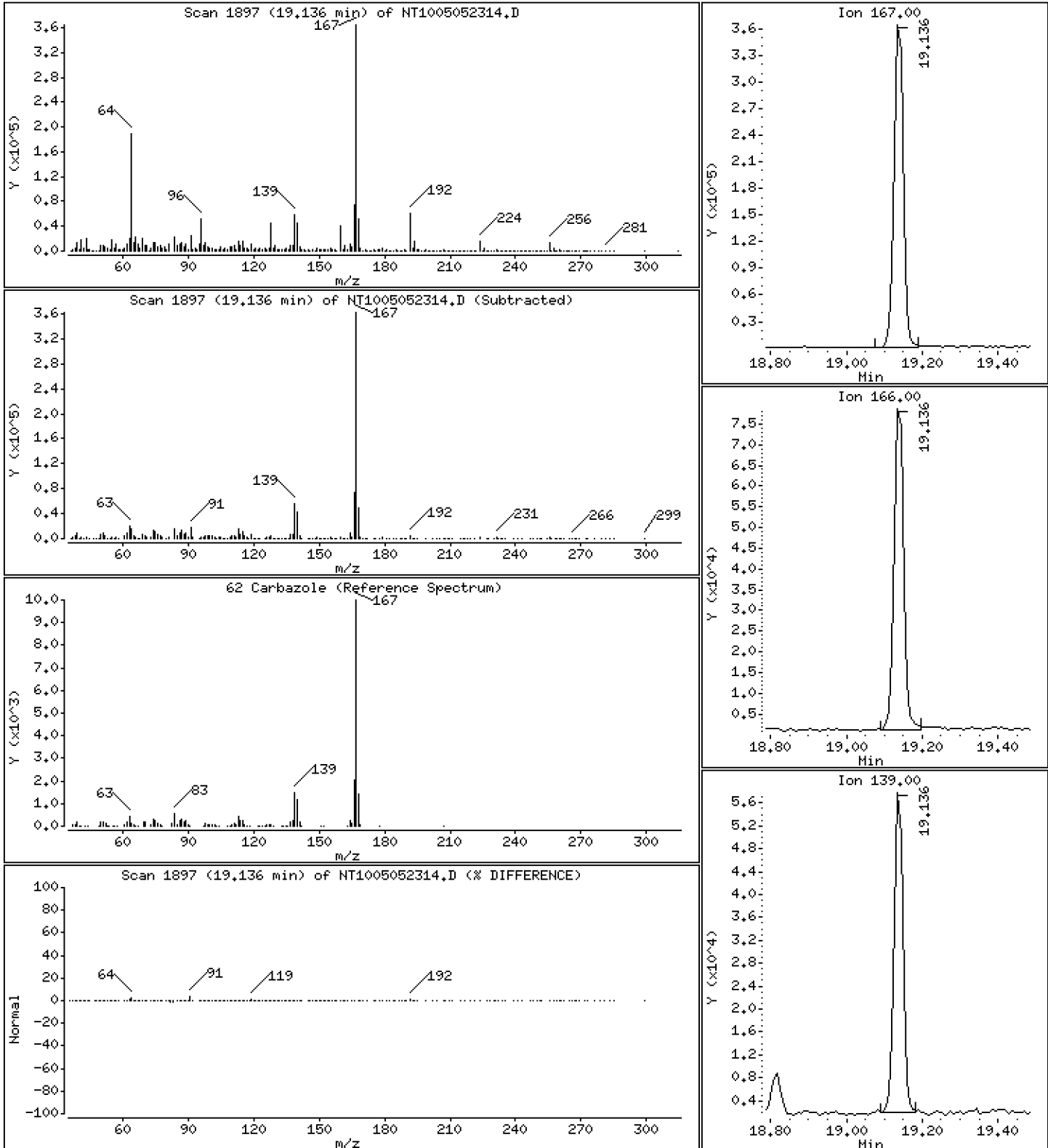
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 4,063 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

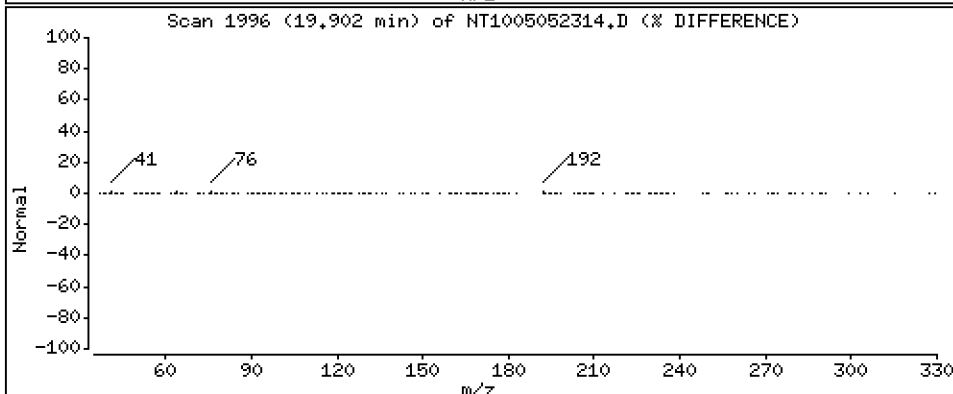
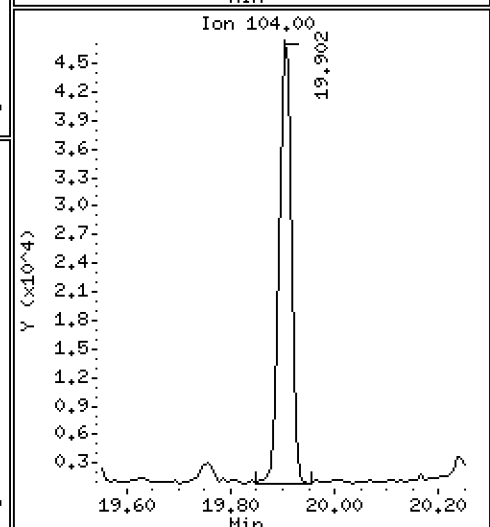
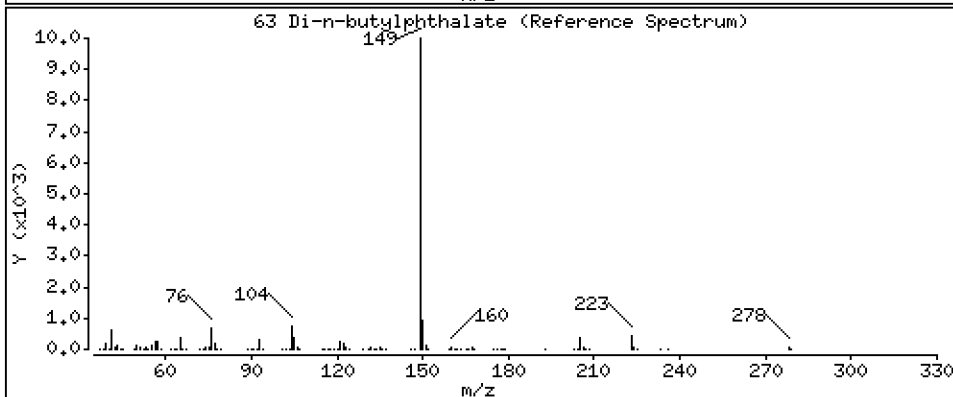
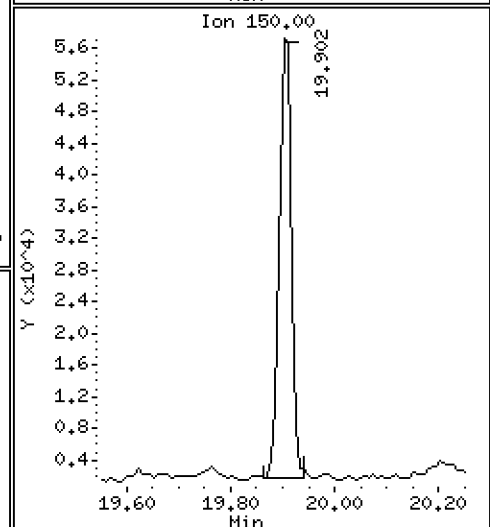
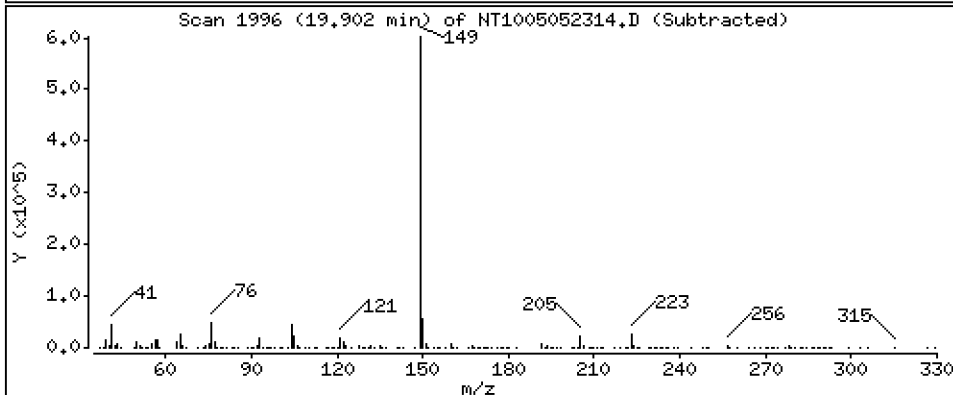
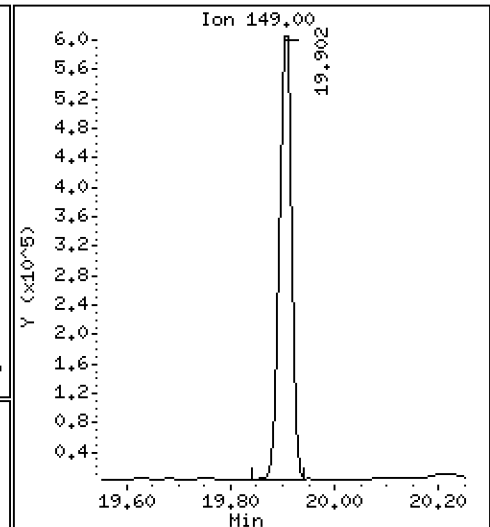
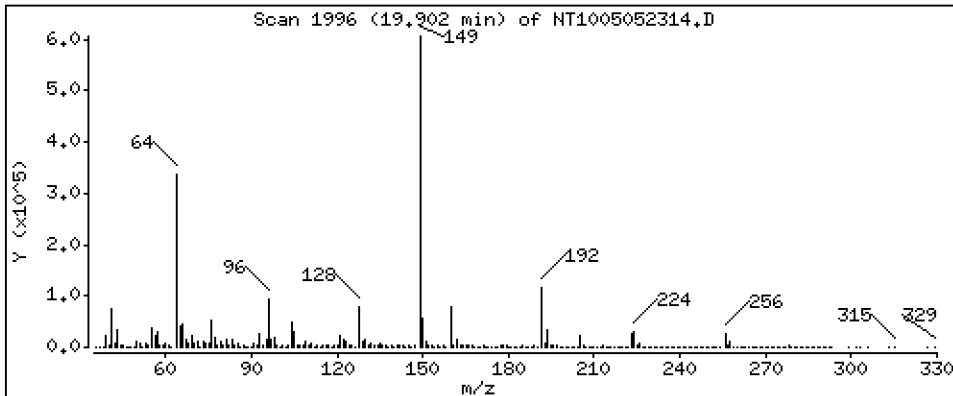
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,283 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

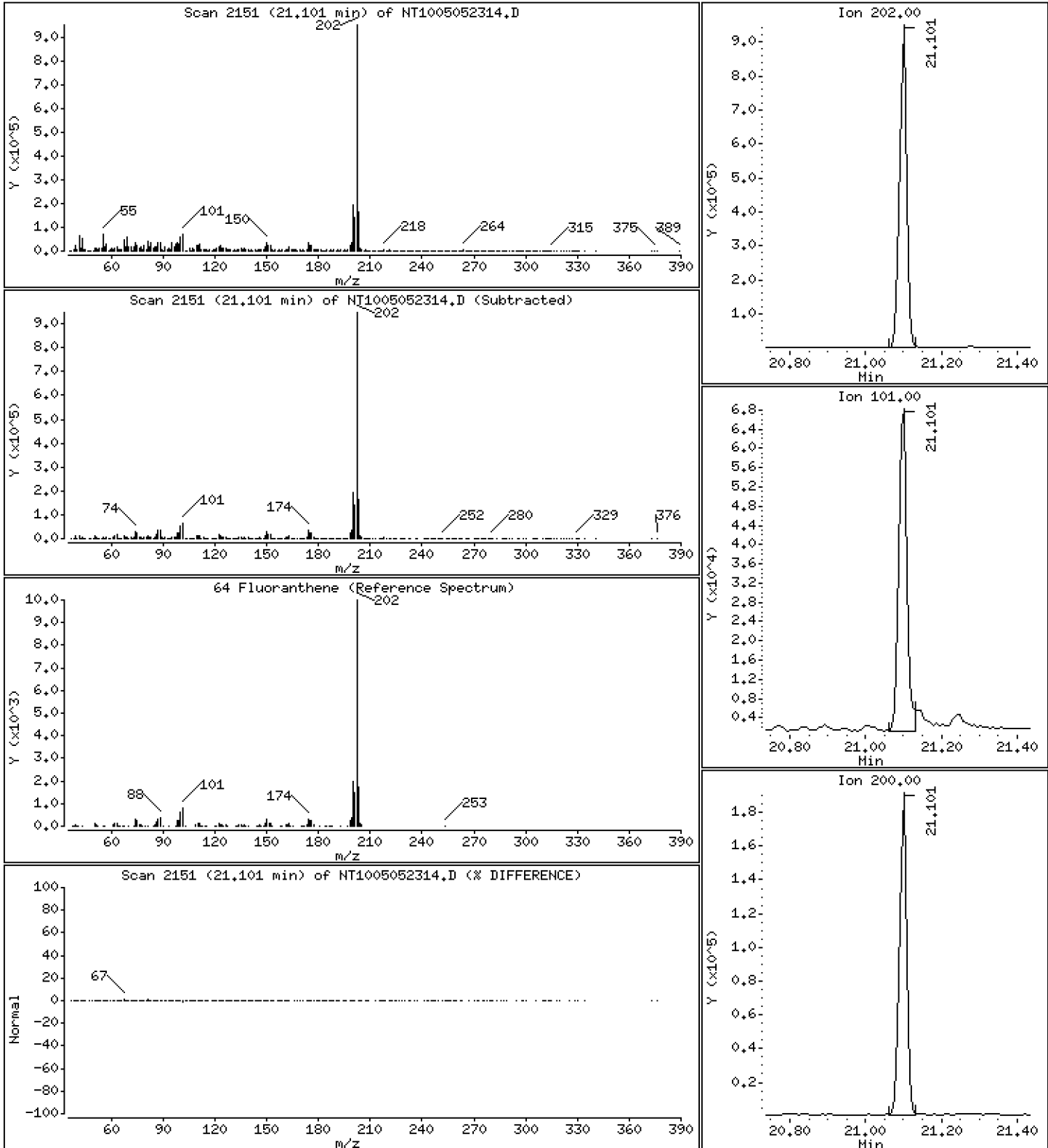
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 5,886 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

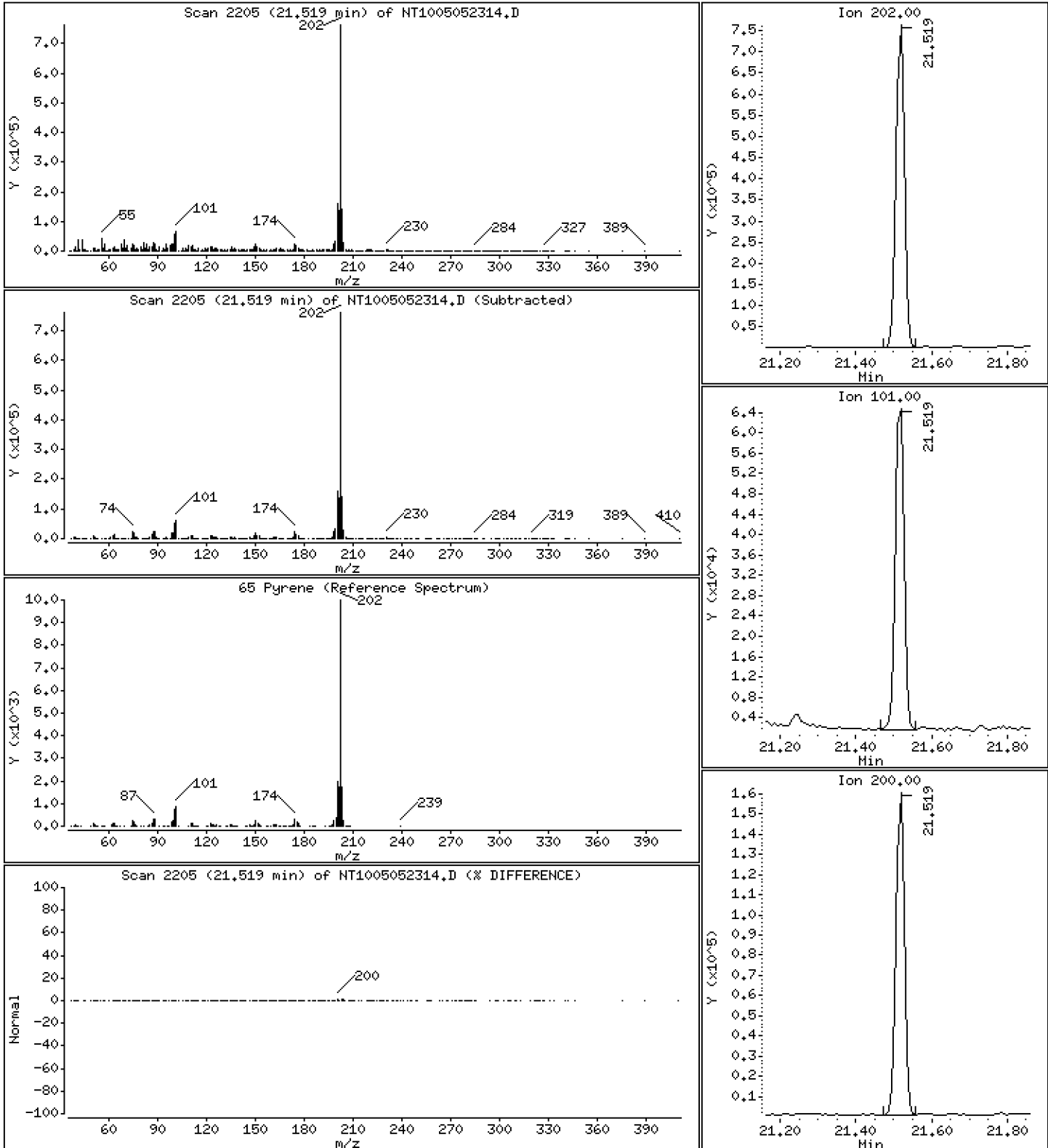
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 5,520 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

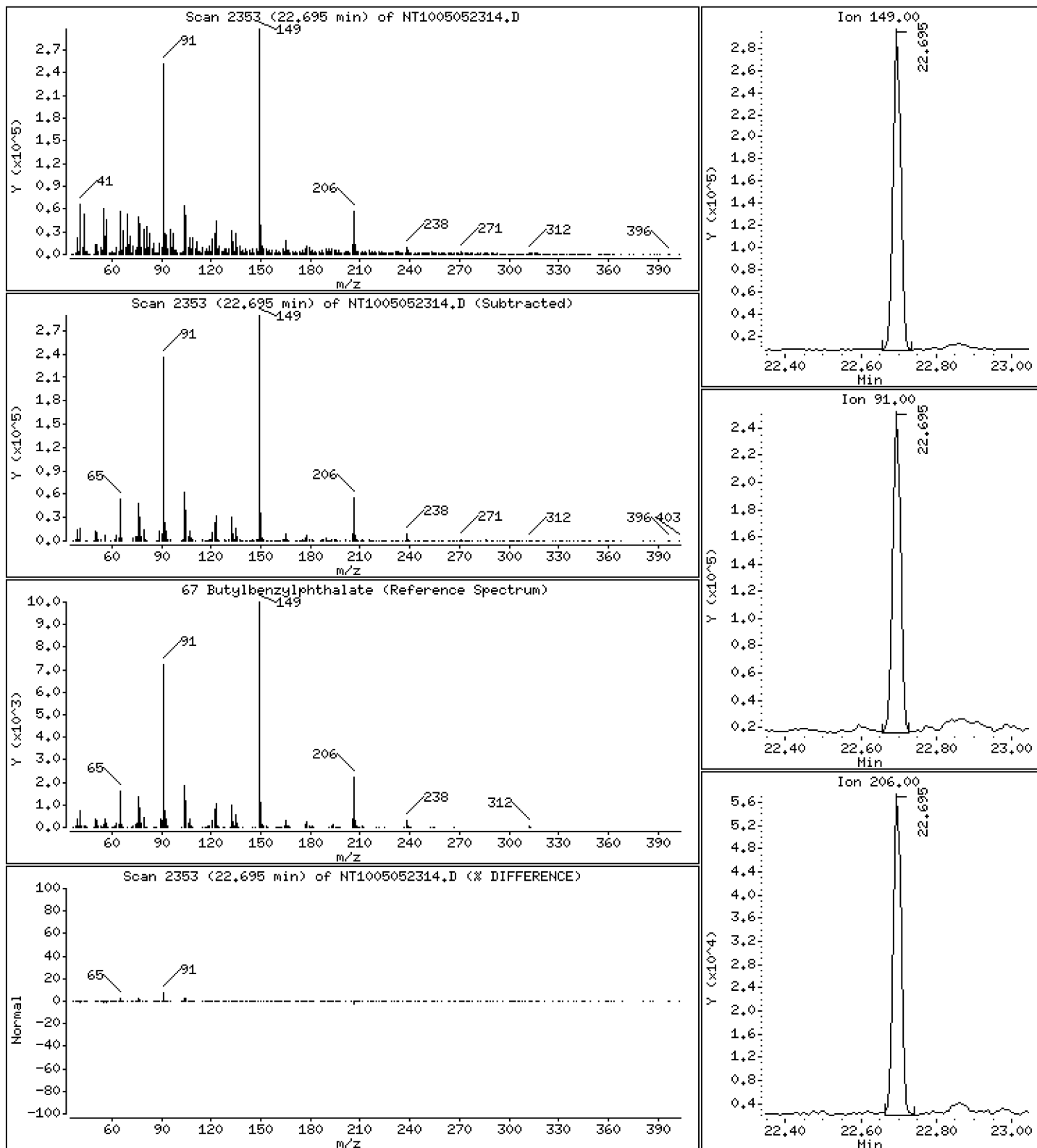
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,210 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

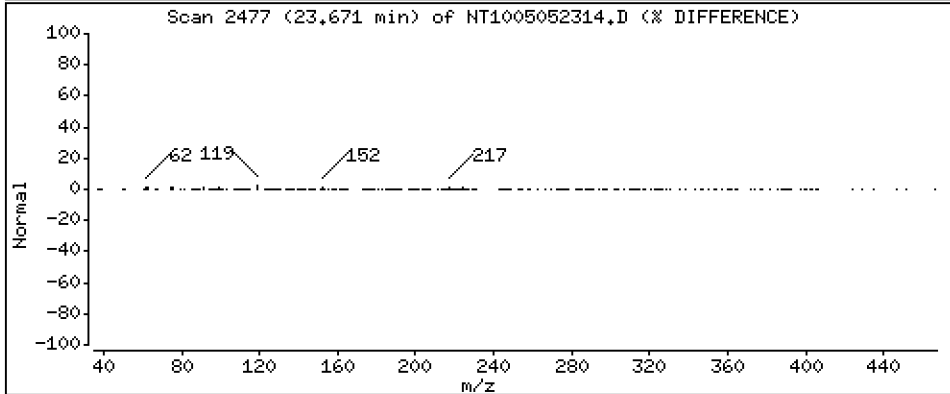
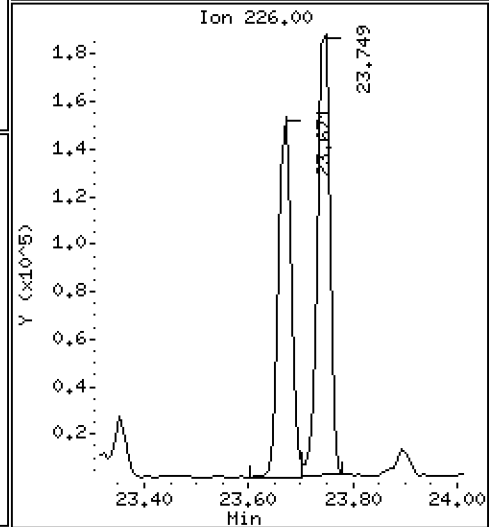
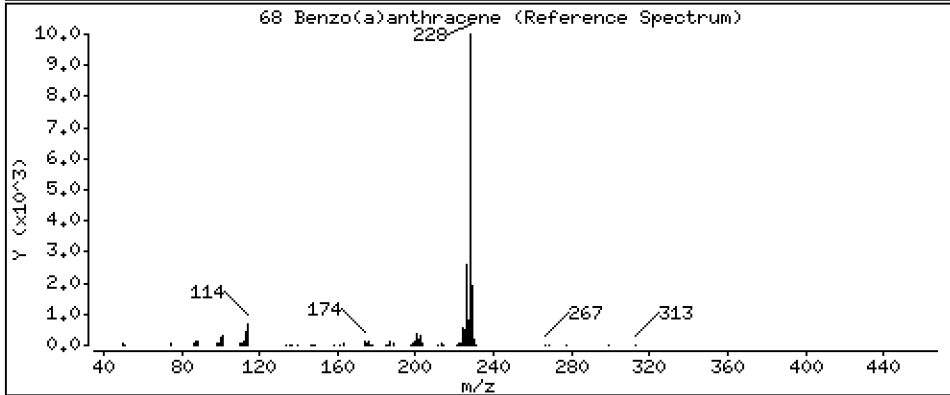
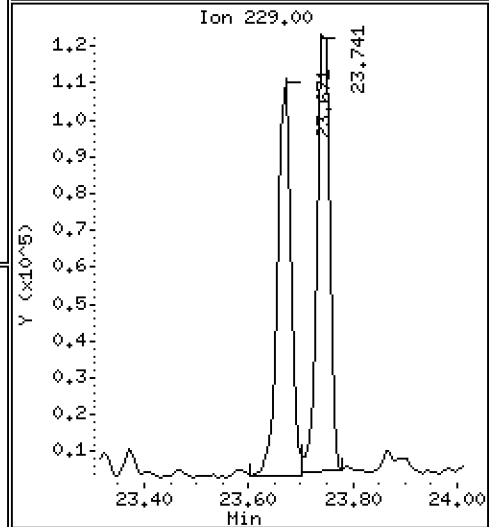
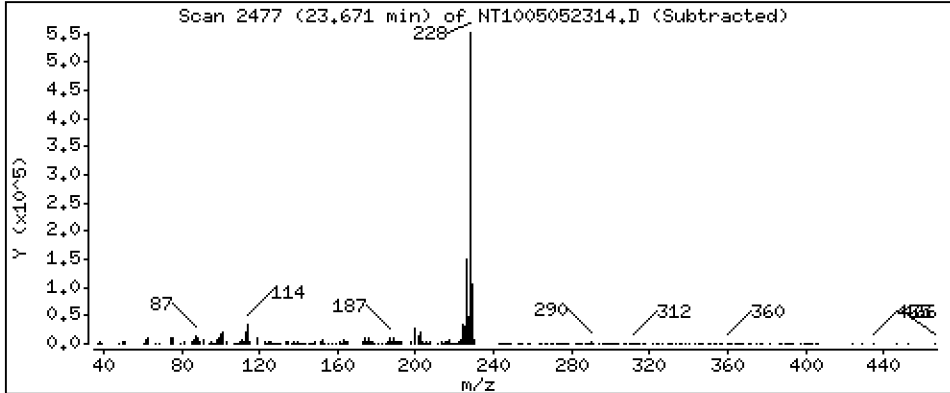
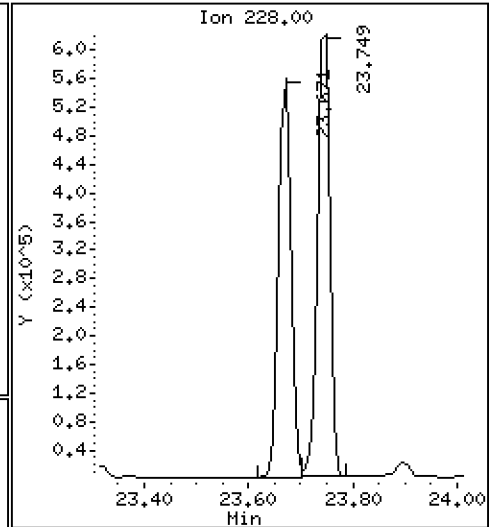
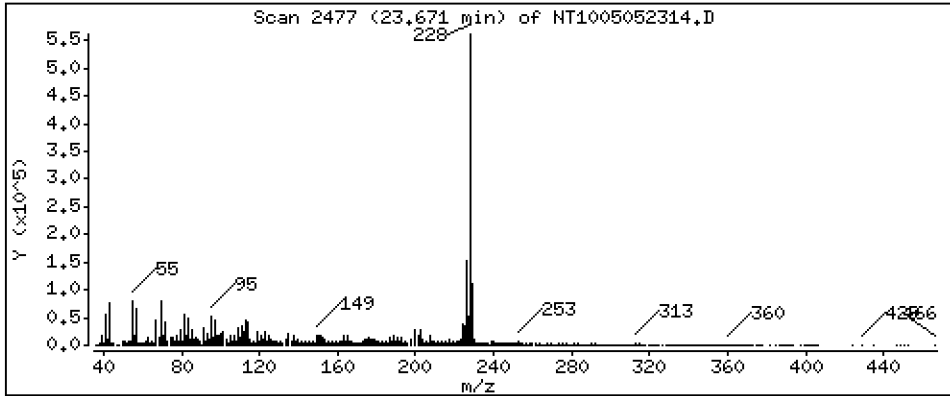
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,963 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

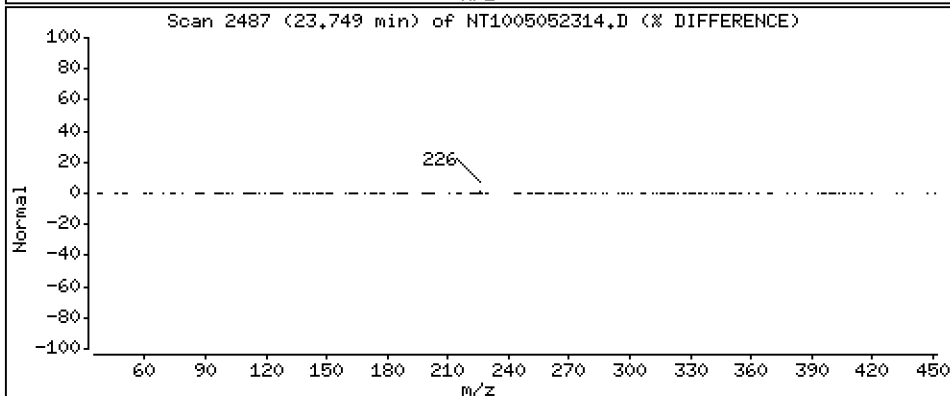
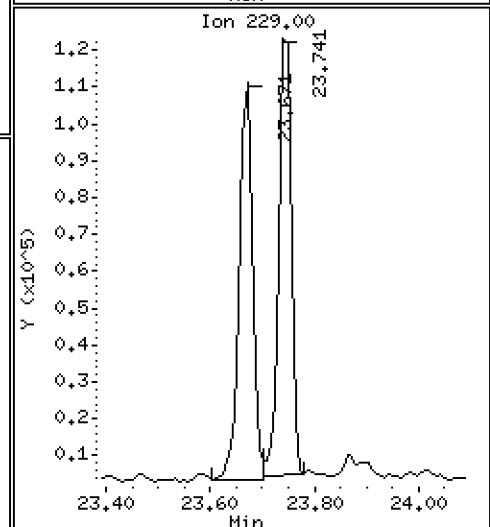
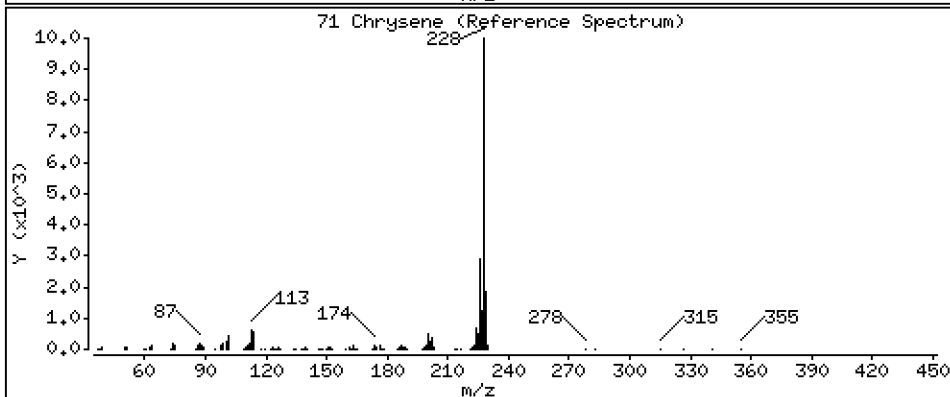
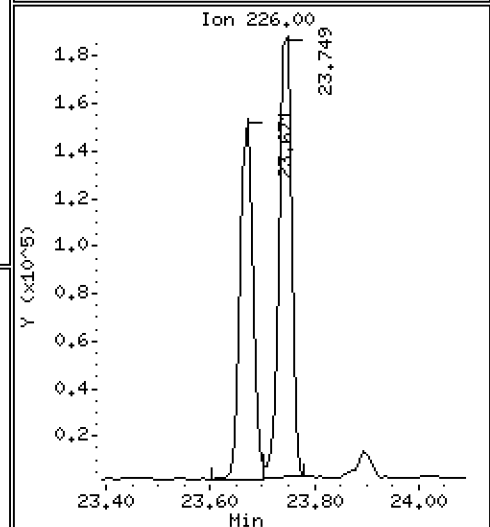
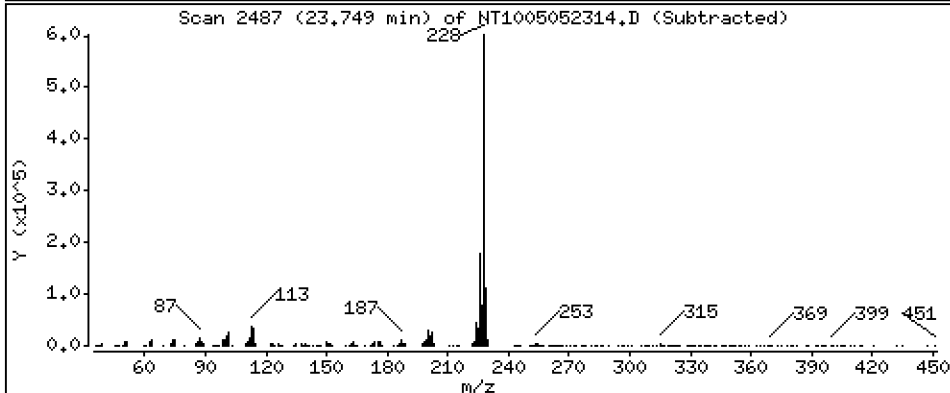
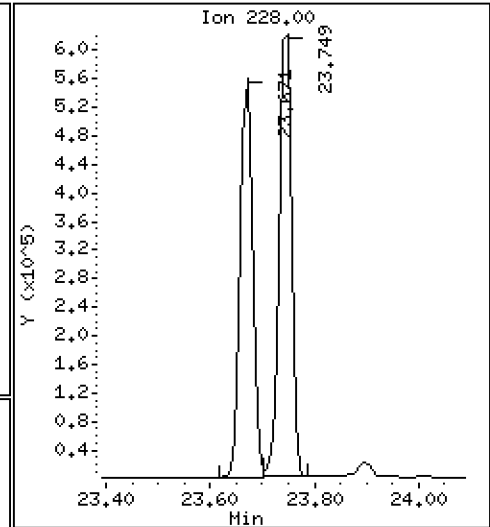
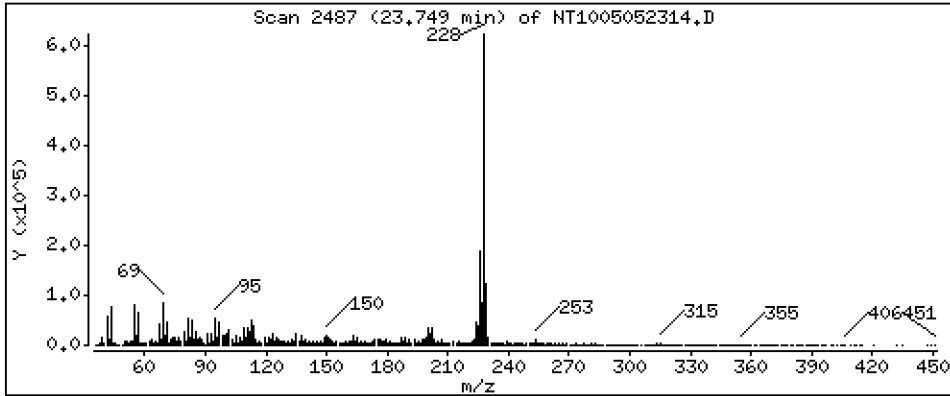
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 6,086 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

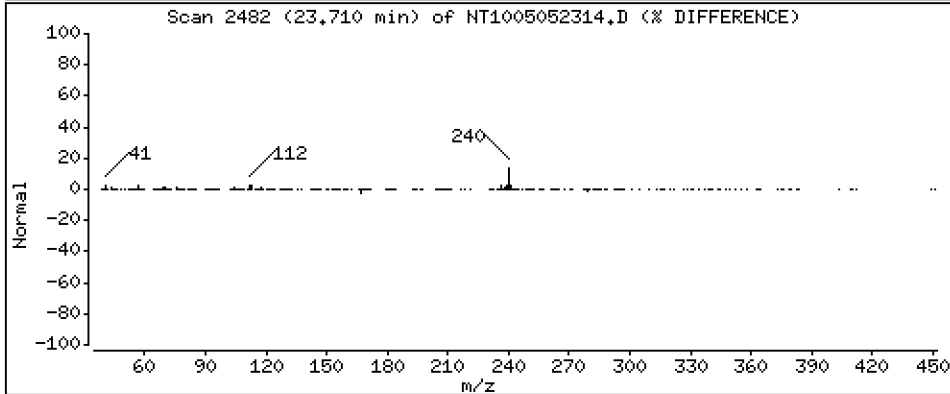
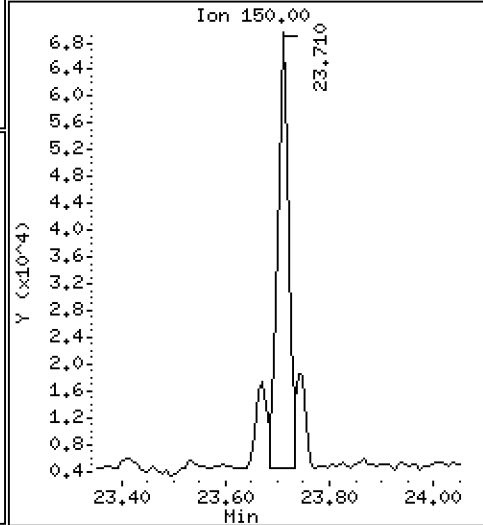
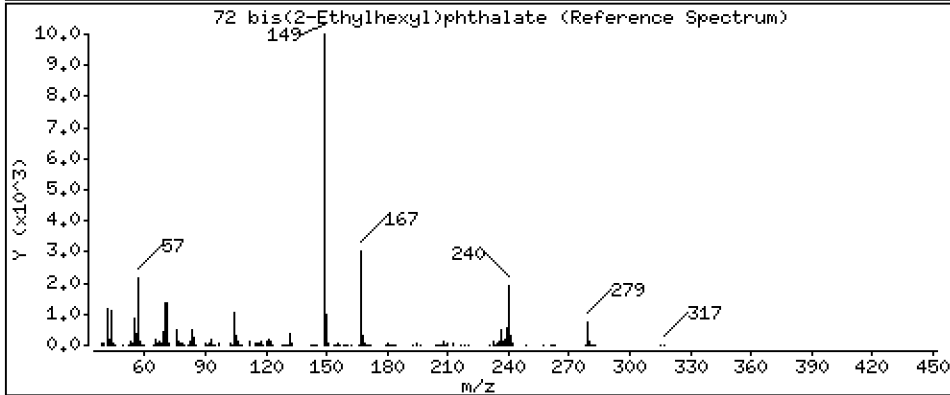
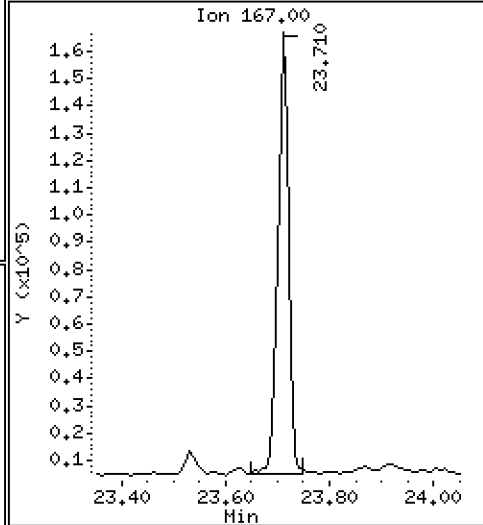
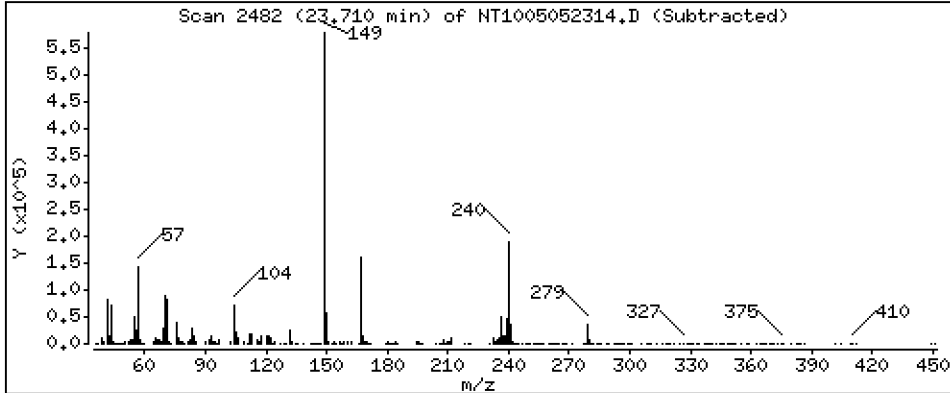
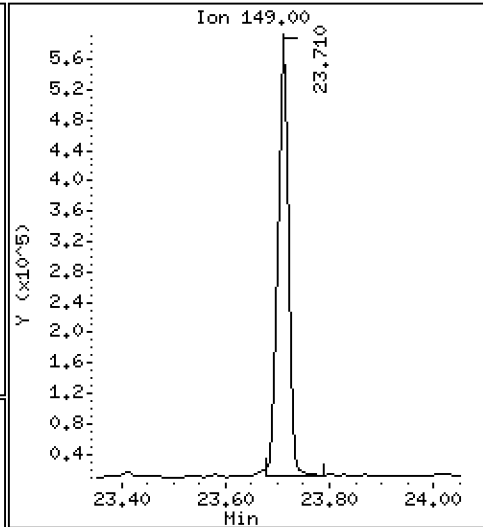
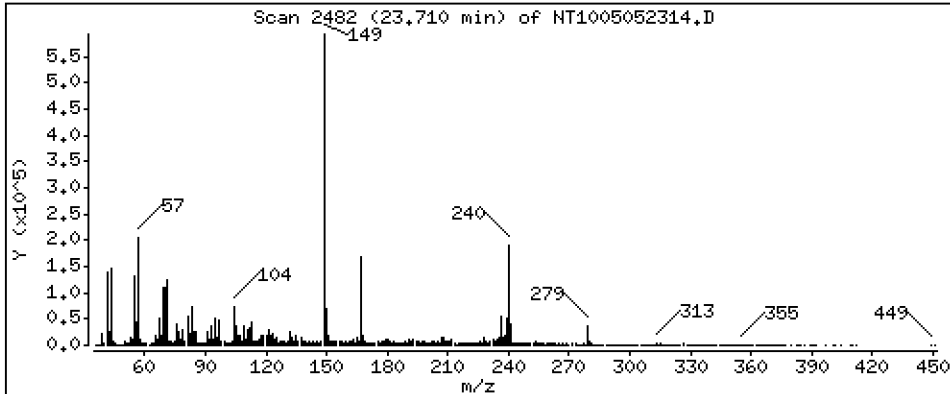
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 6,096 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

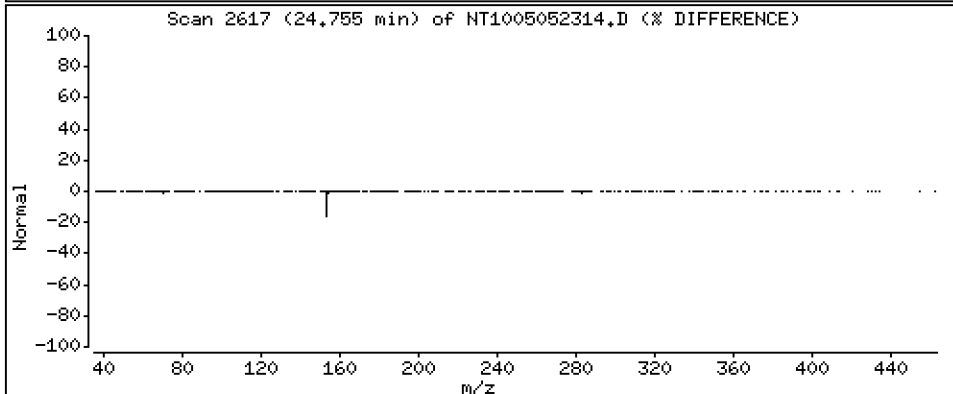
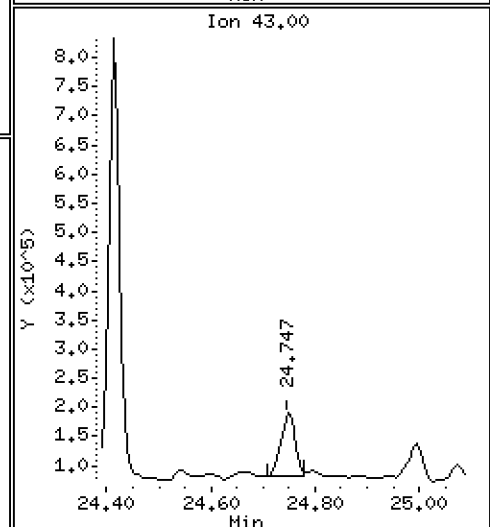
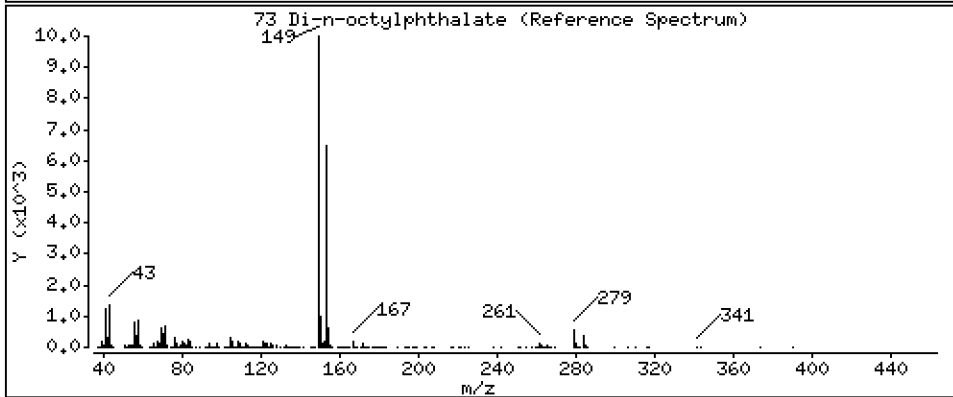
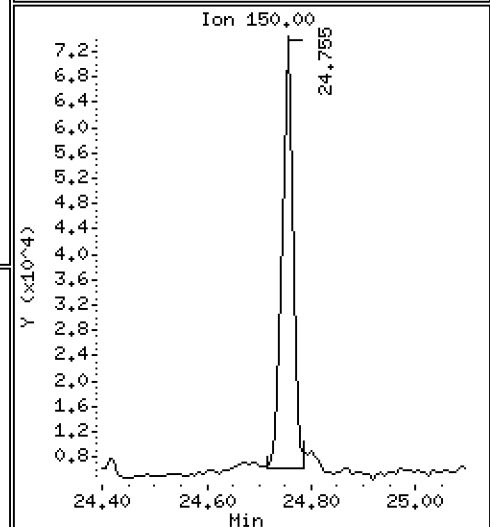
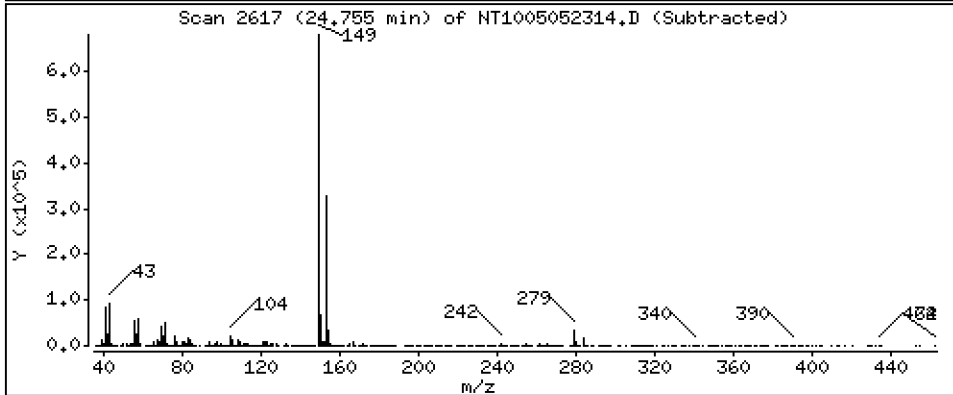
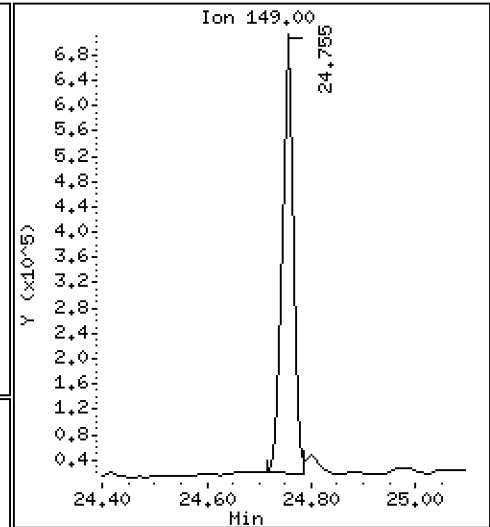
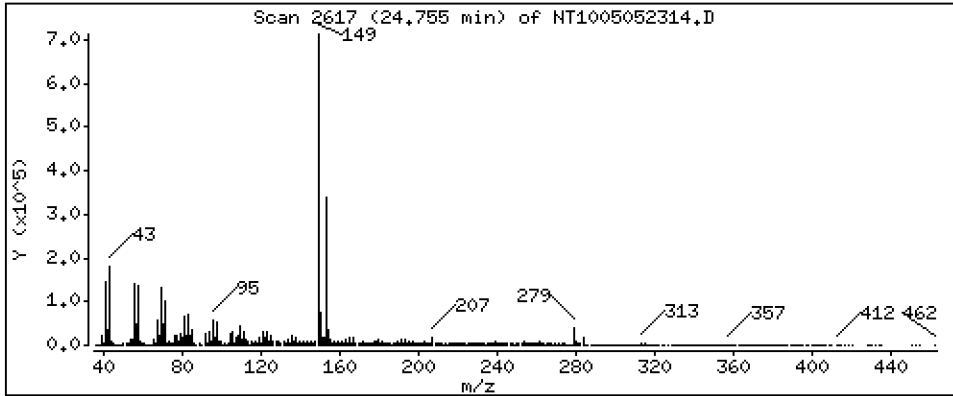
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,176 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

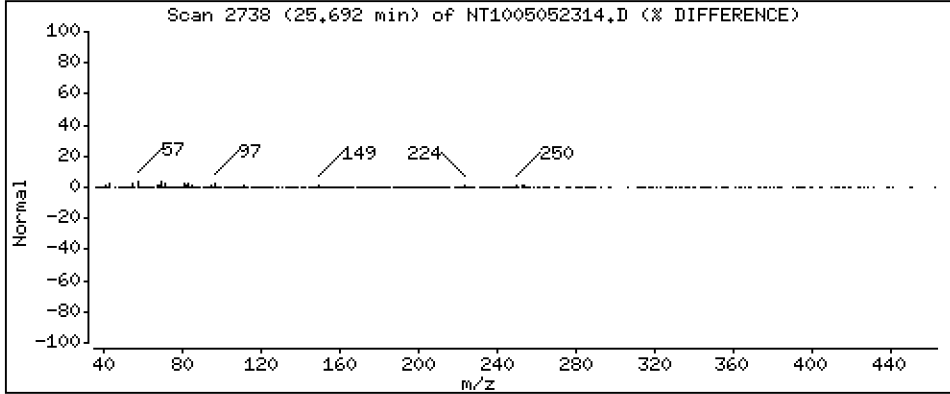
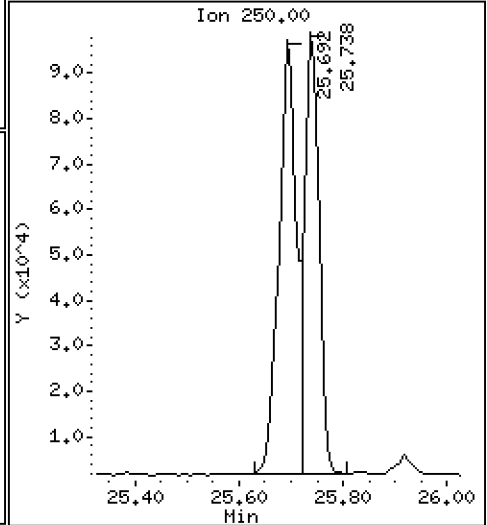
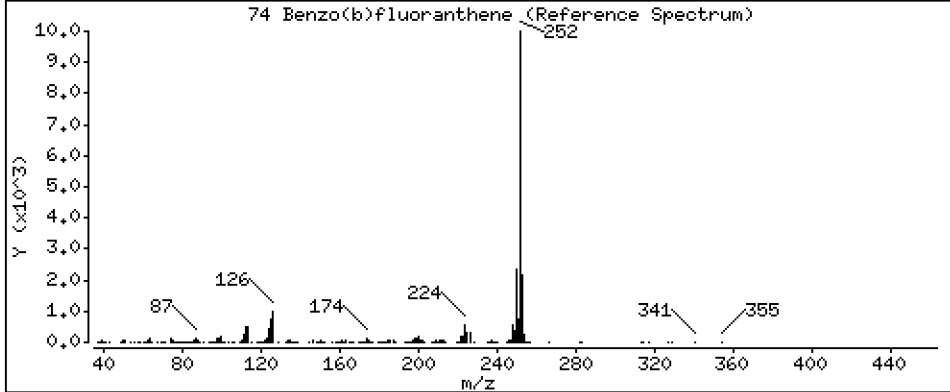
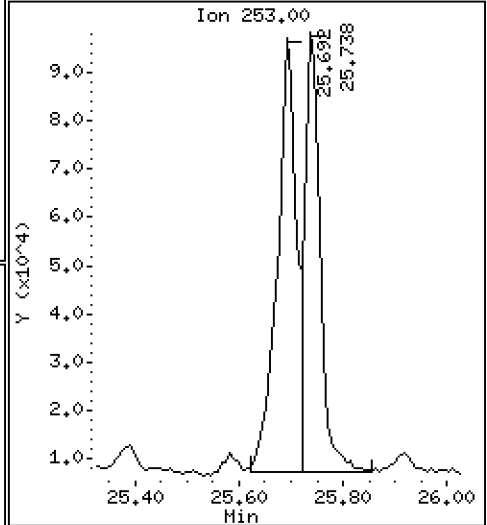
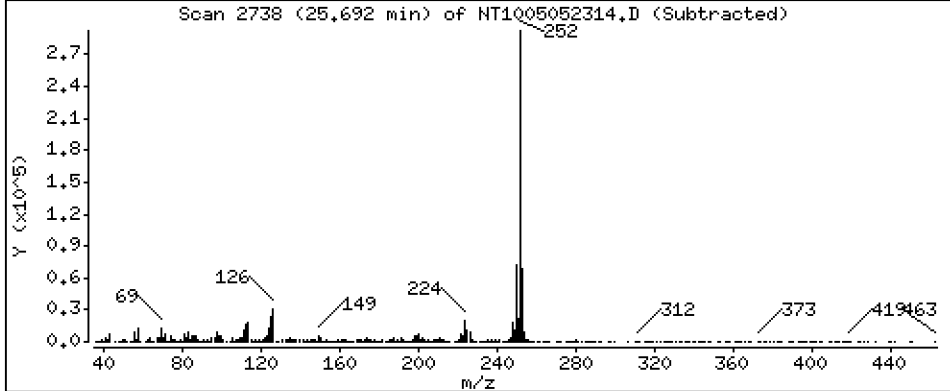
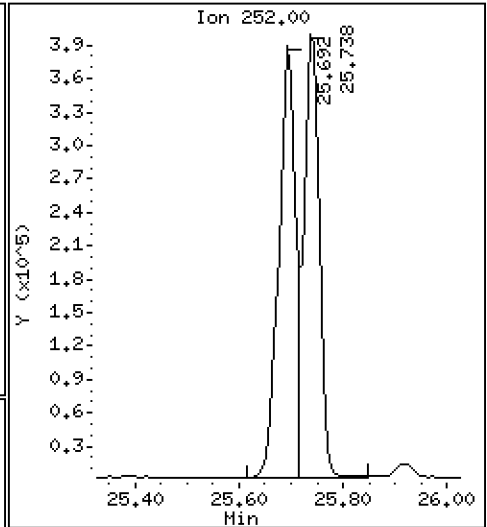
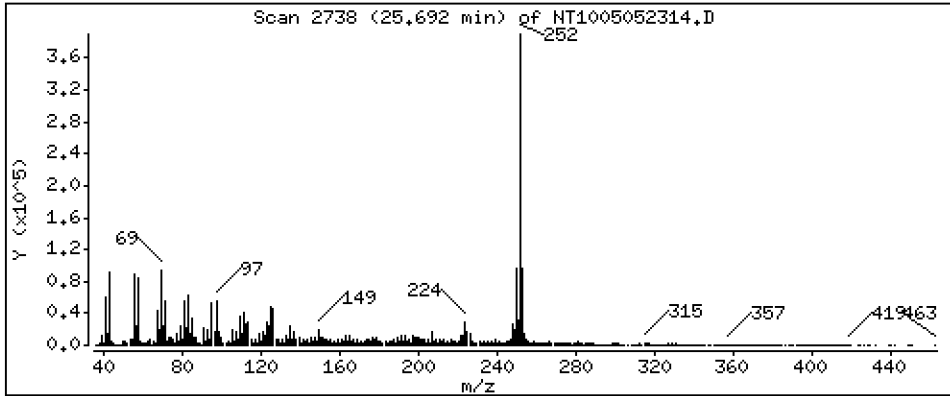
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 5,677 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

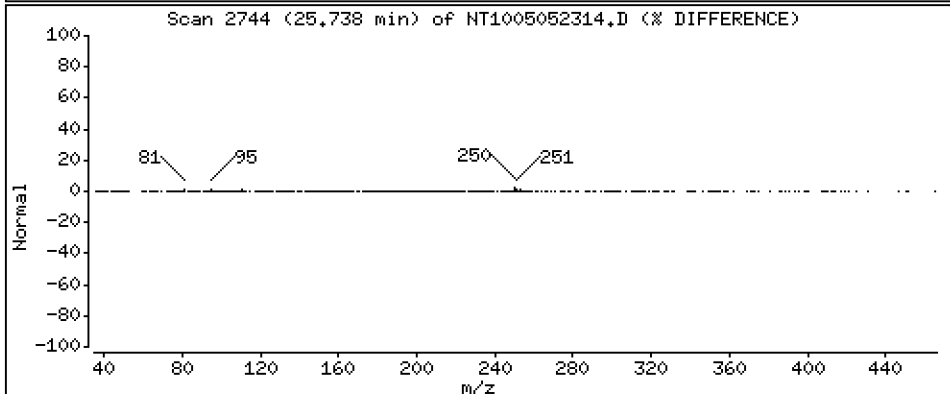
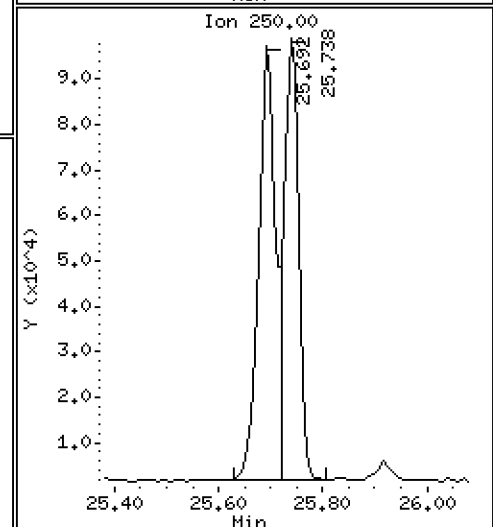
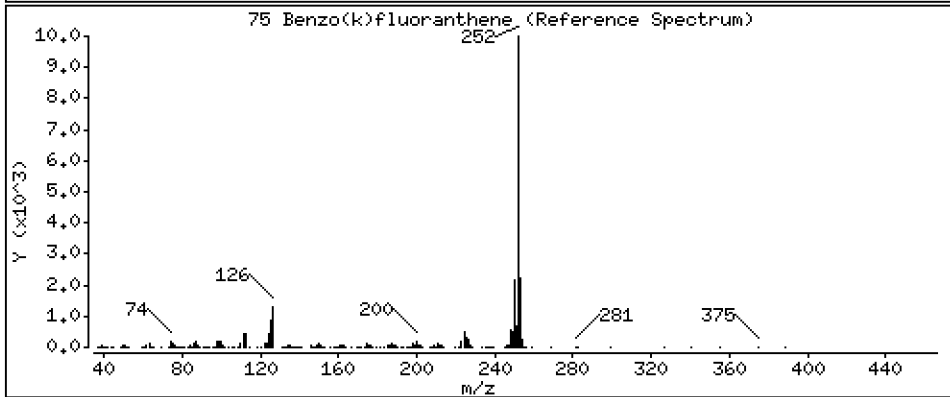
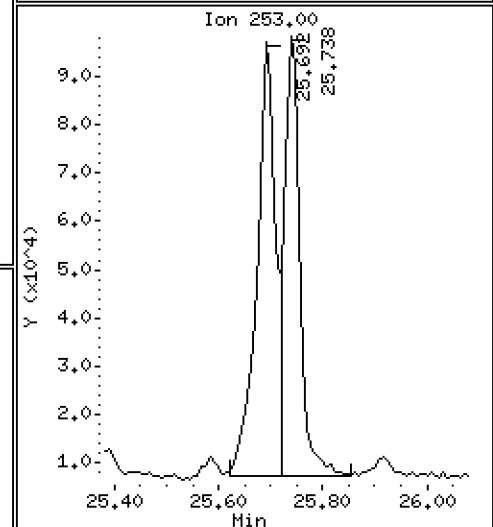
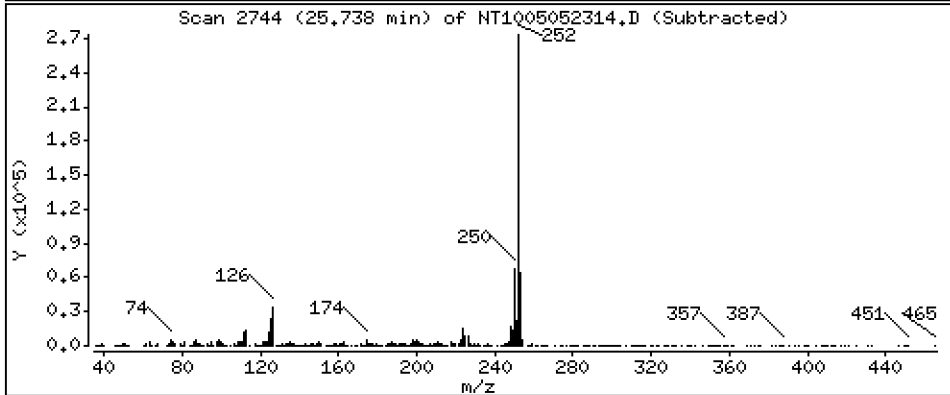
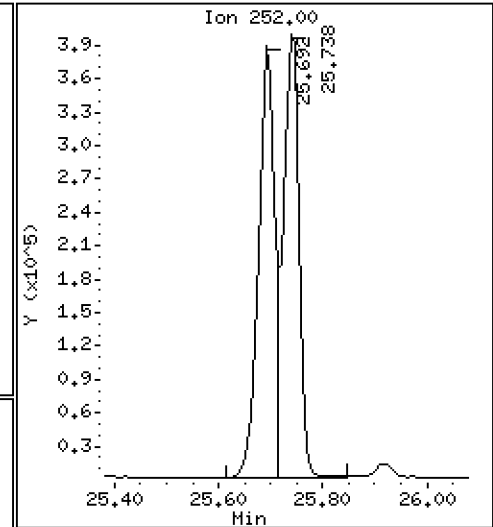
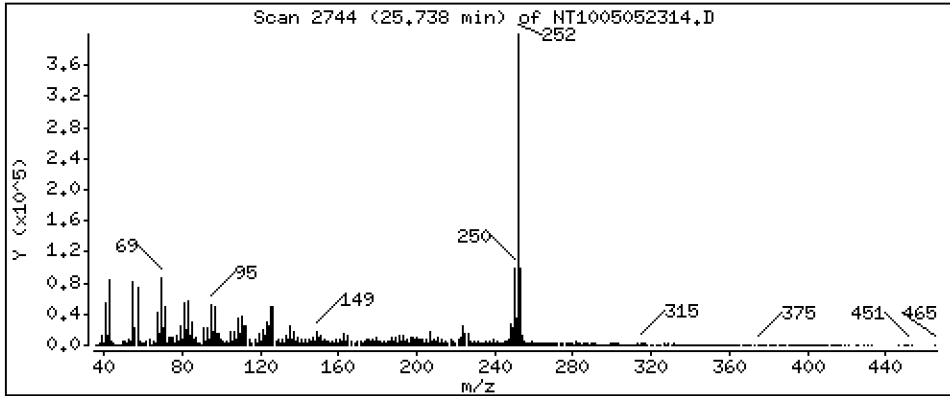
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 5,495 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

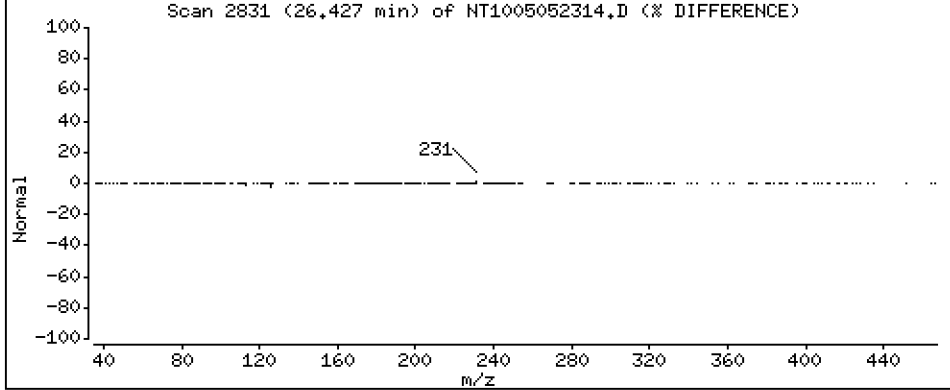
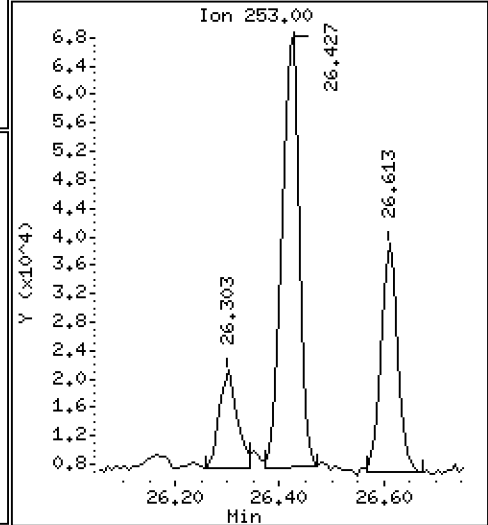
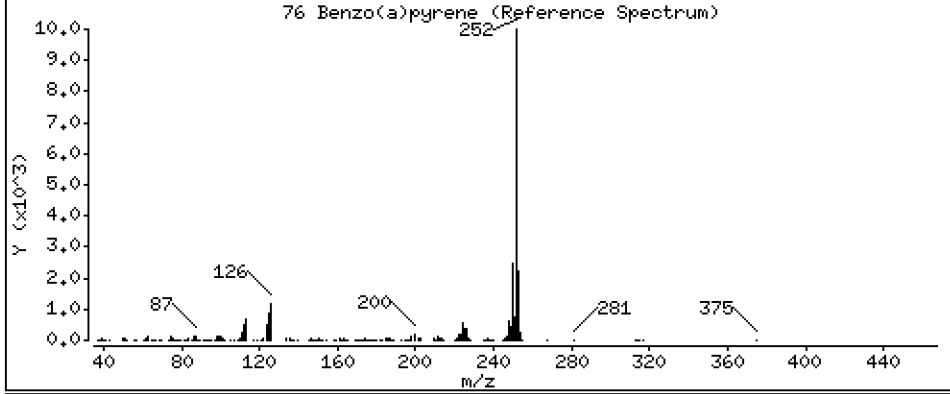
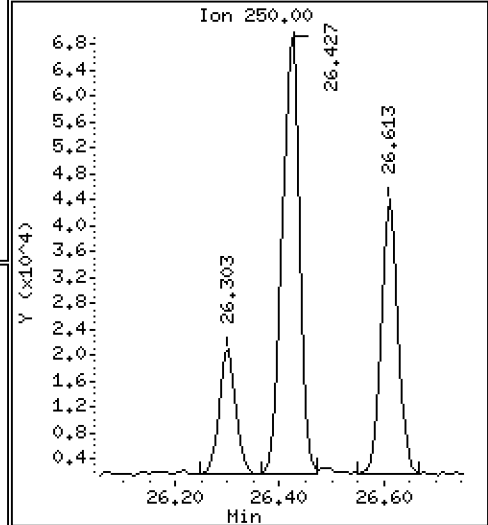
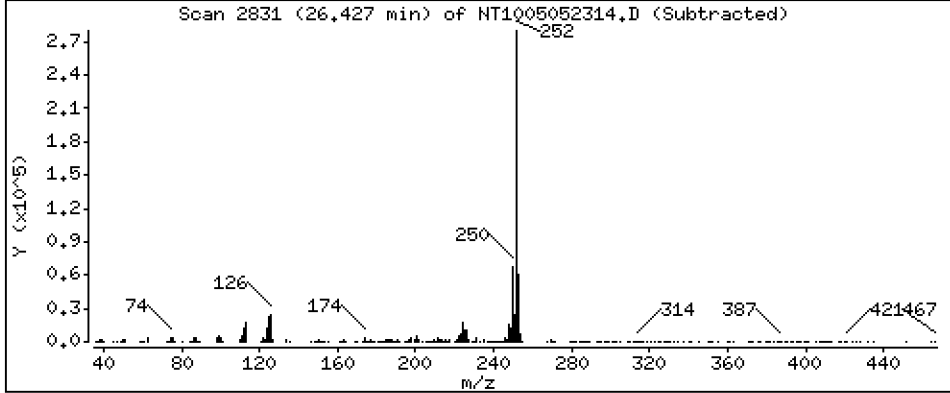
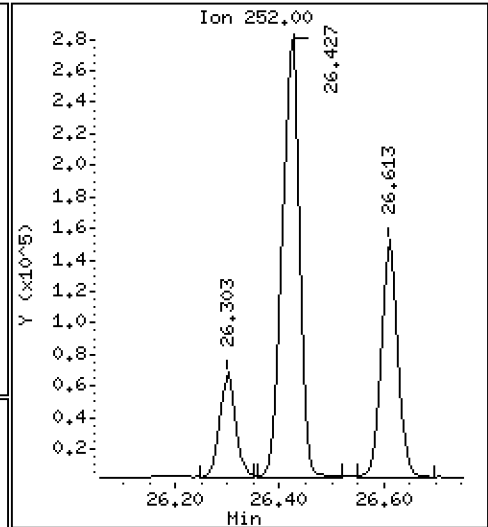
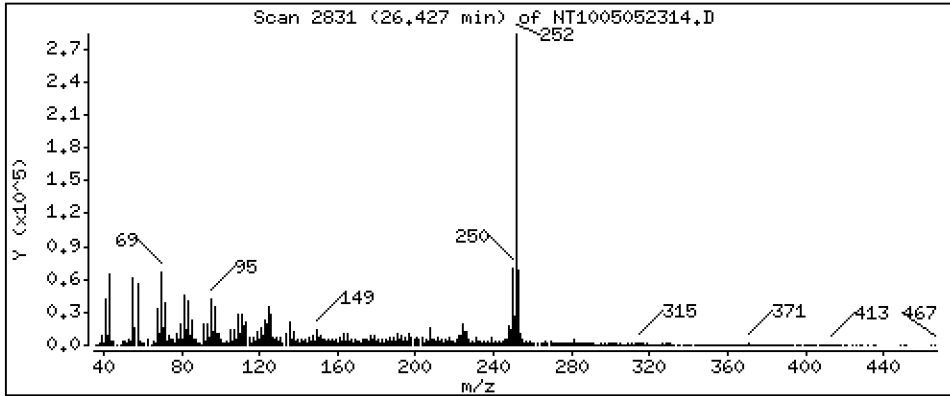
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,933 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

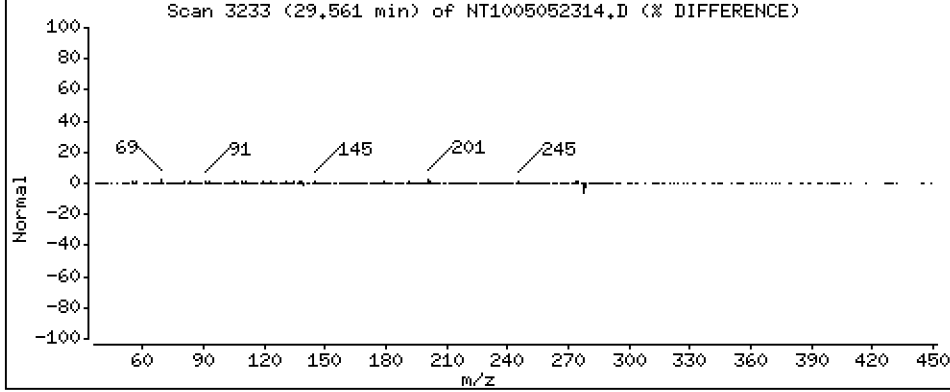
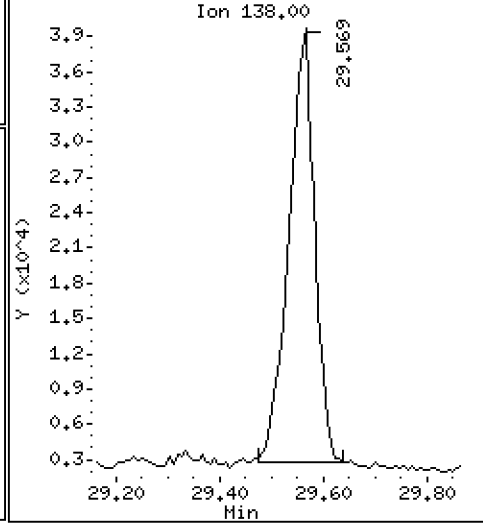
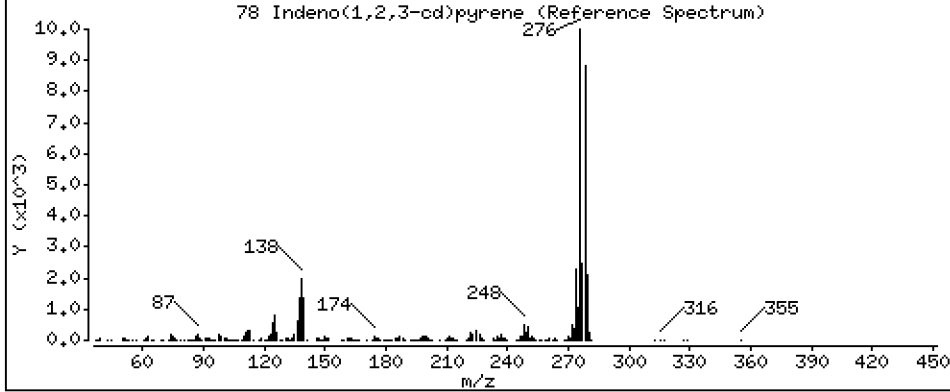
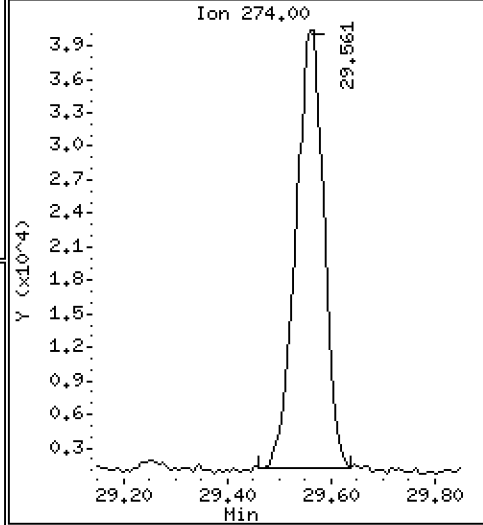
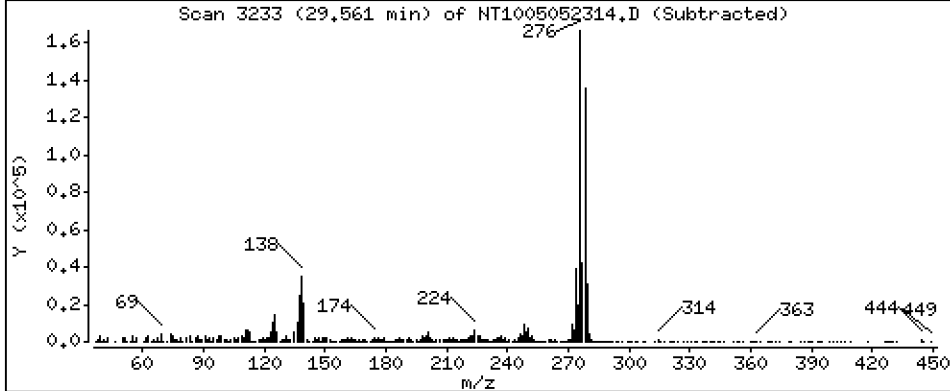
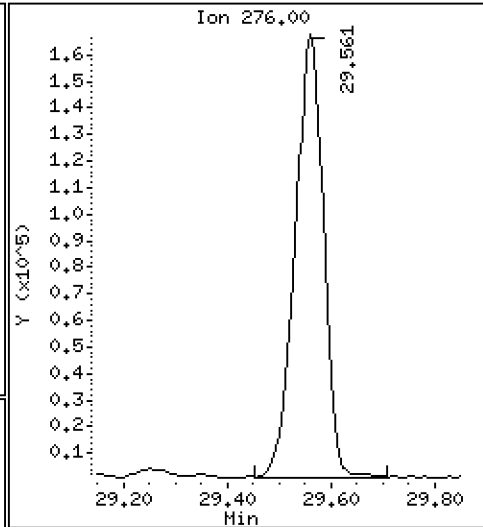
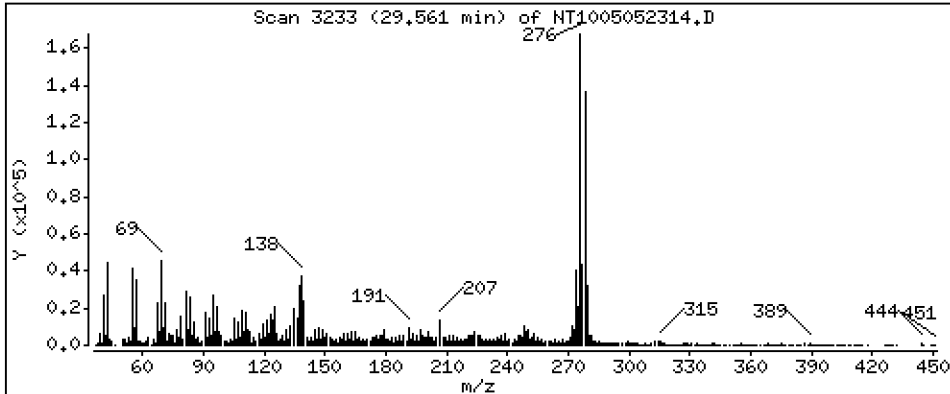
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,081 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

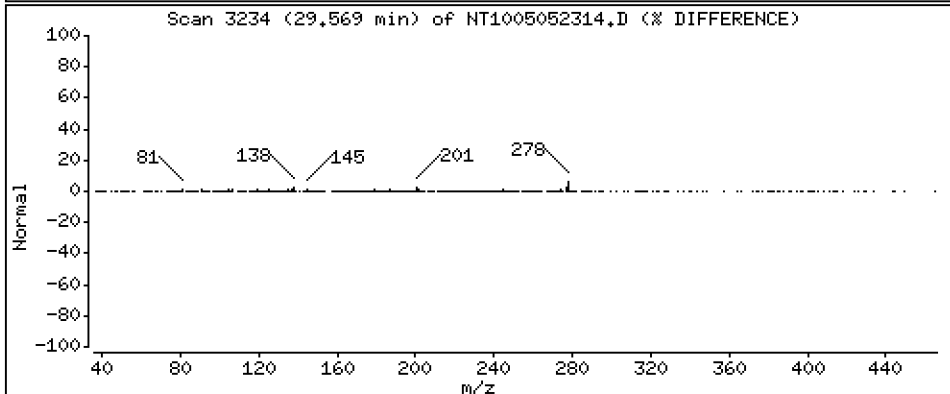
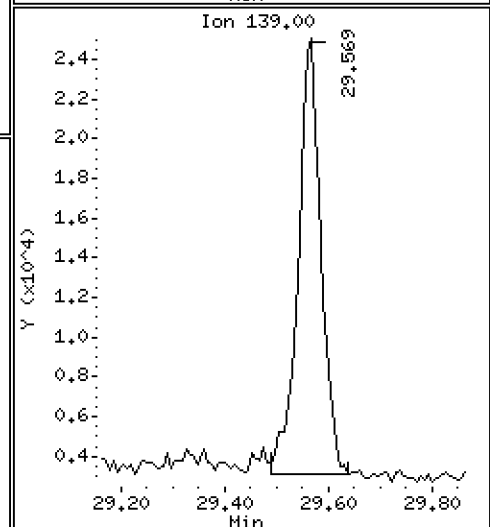
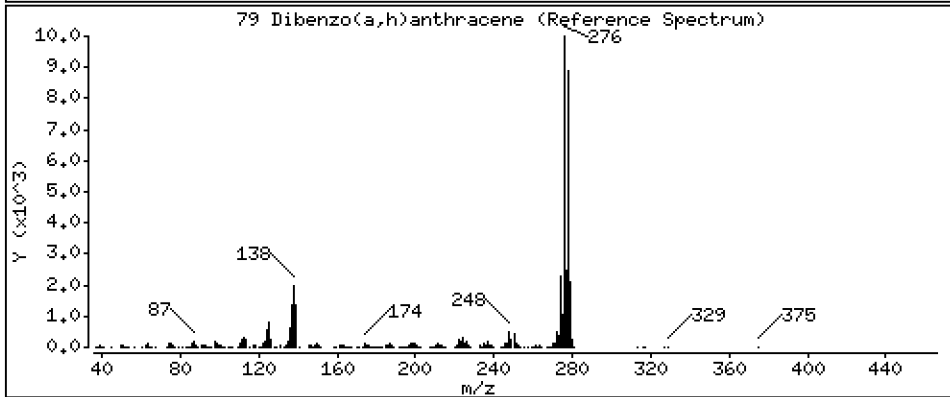
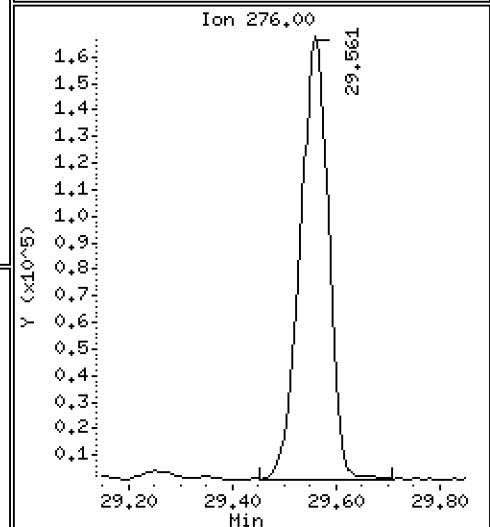
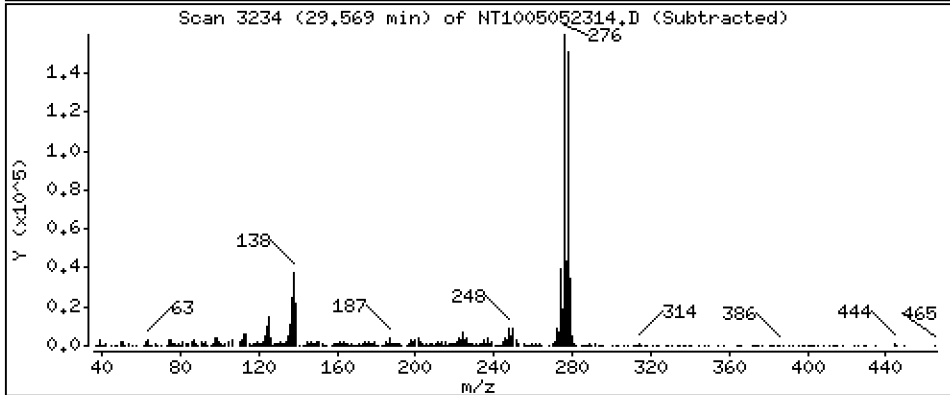
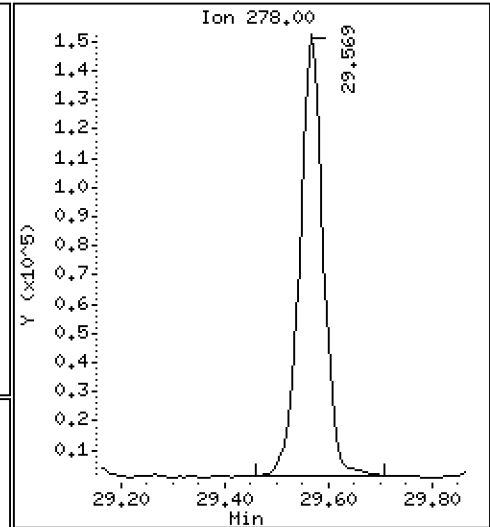
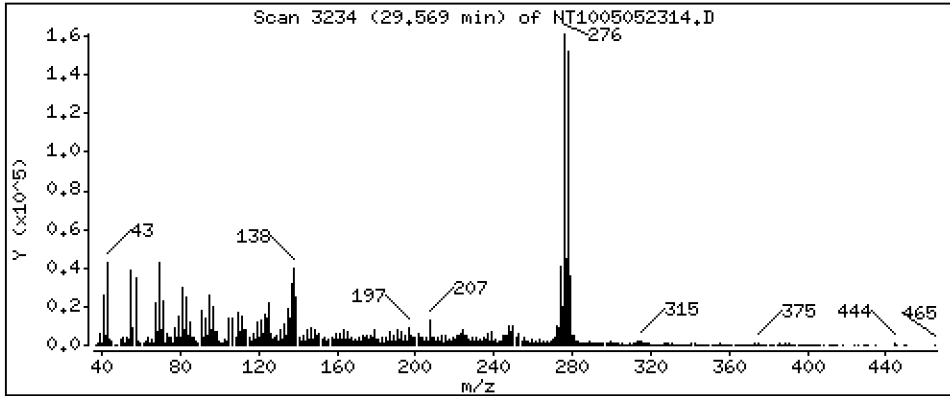
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,725 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

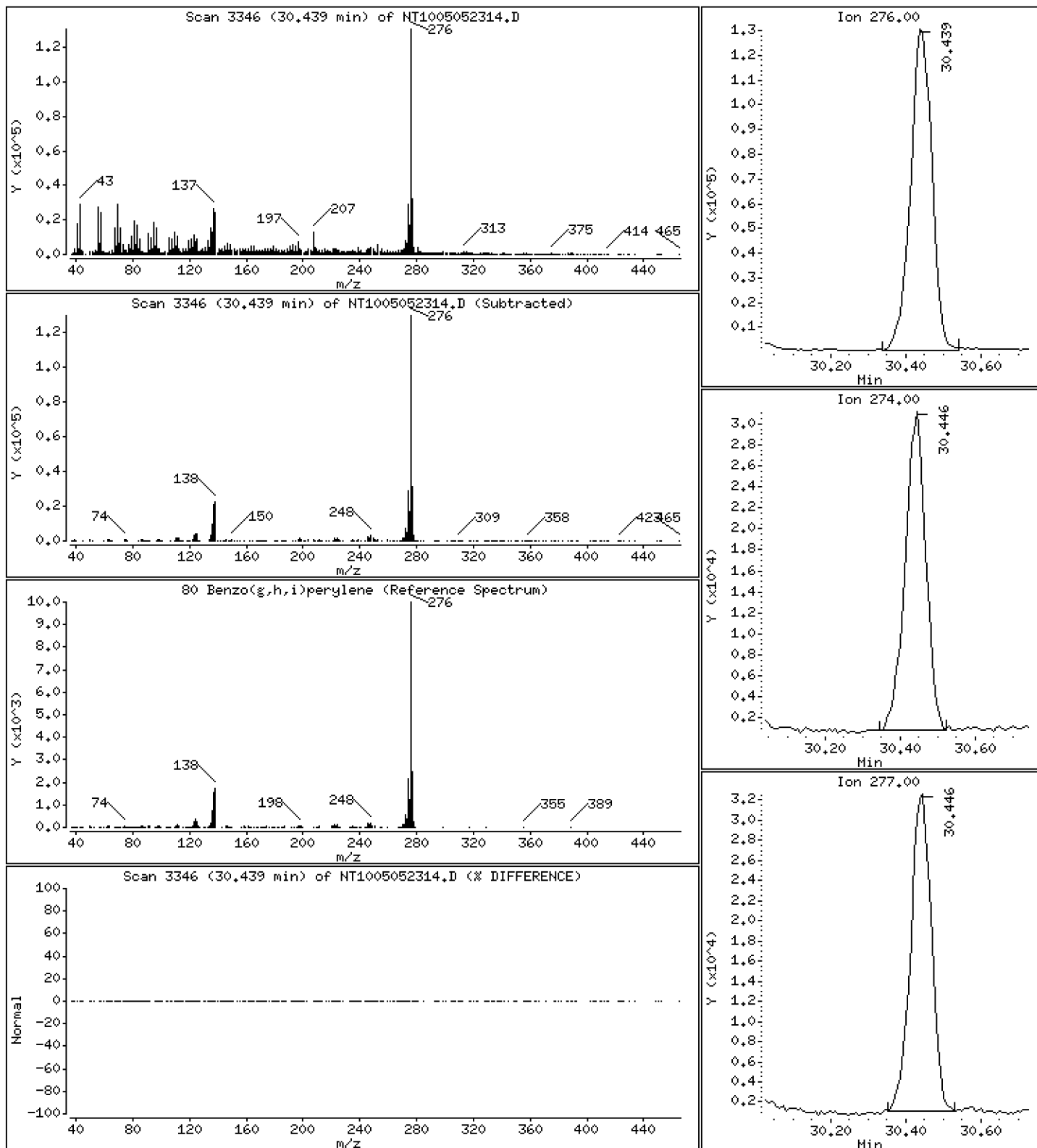
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,104 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

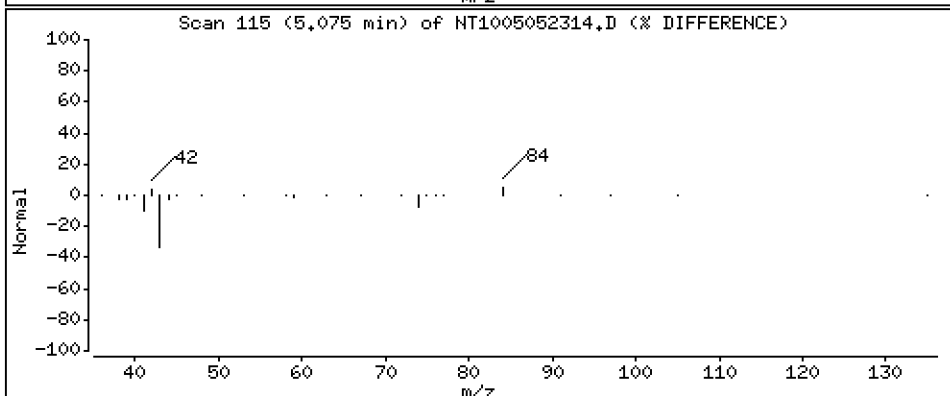
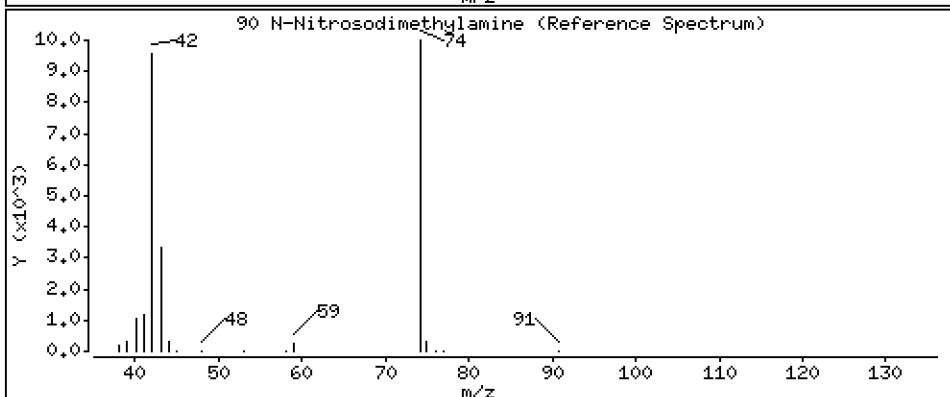
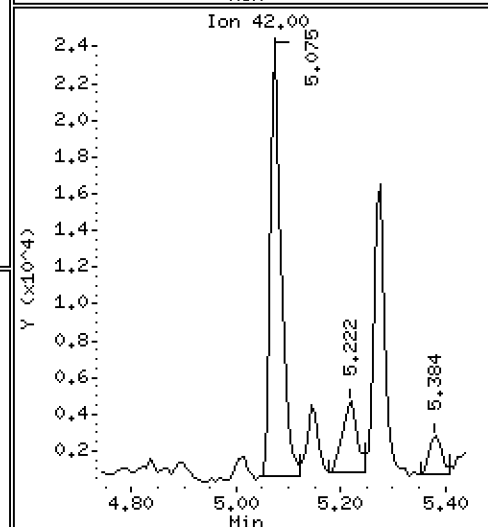
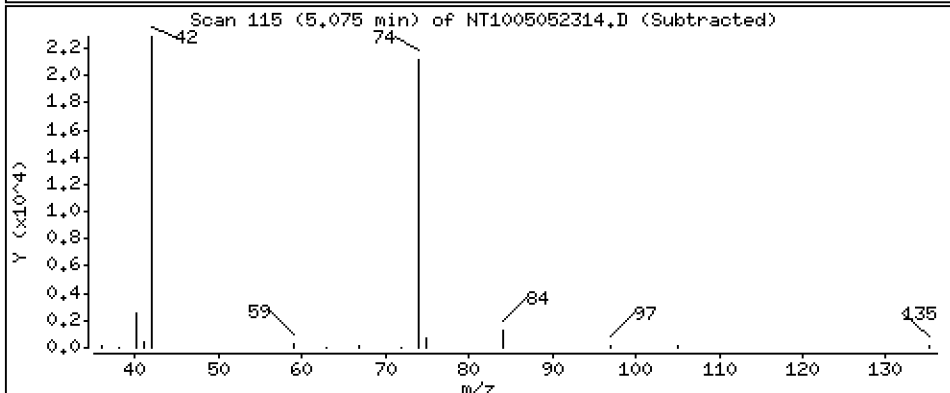
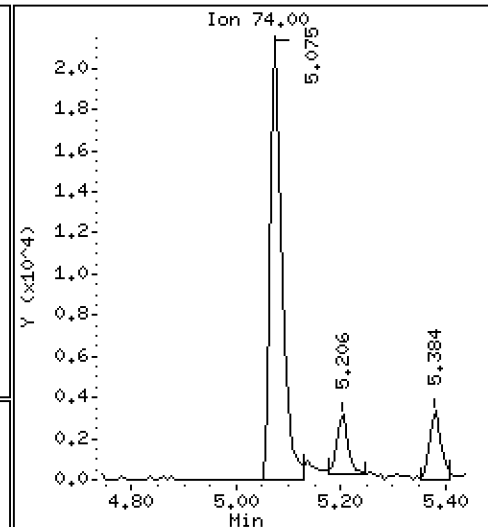
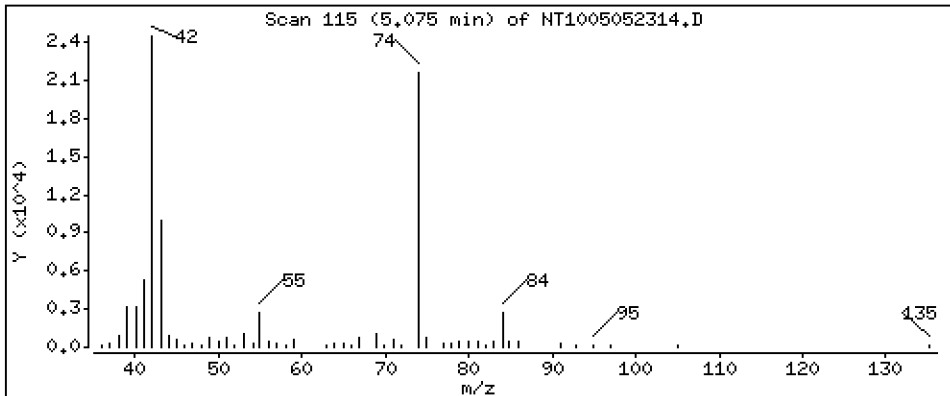
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 1.194 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

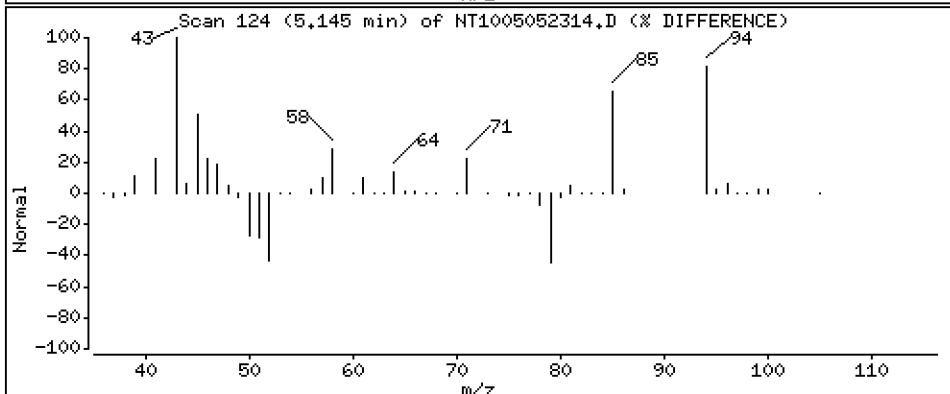
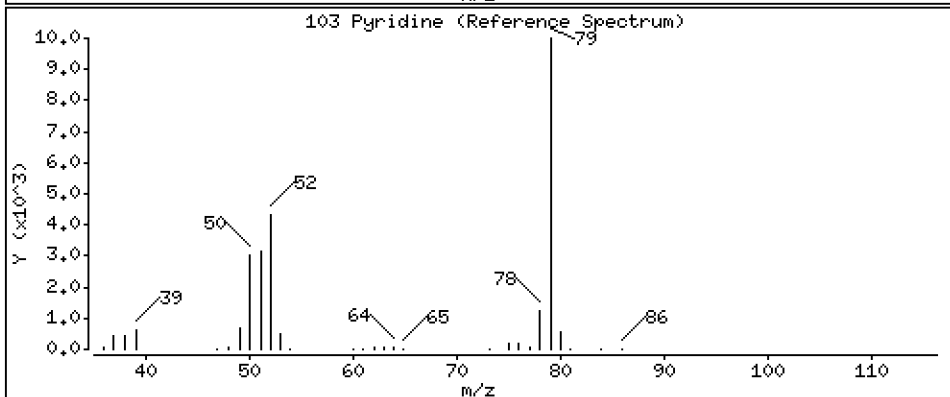
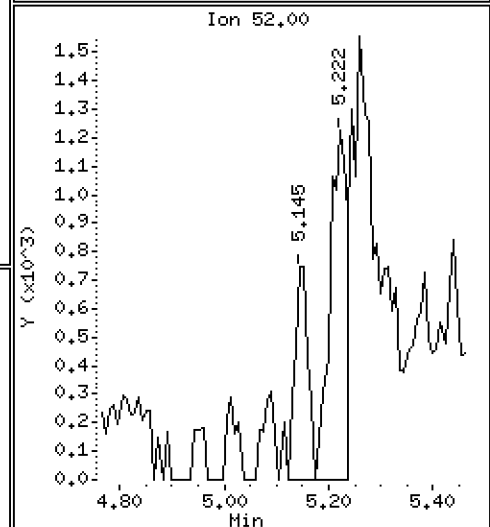
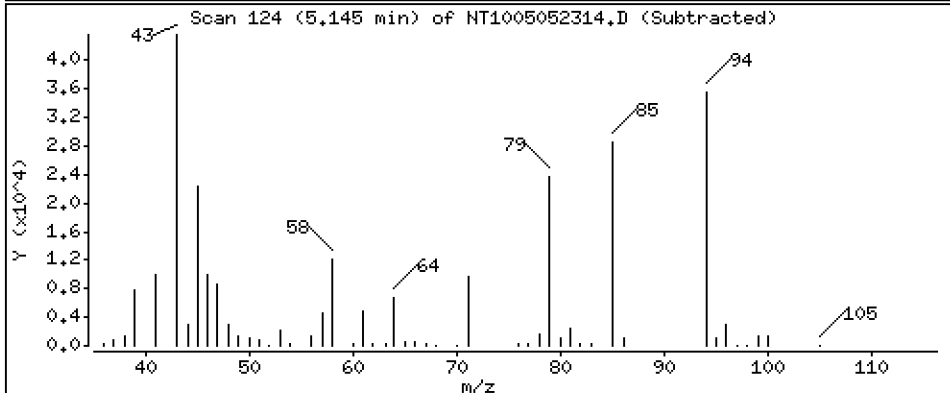
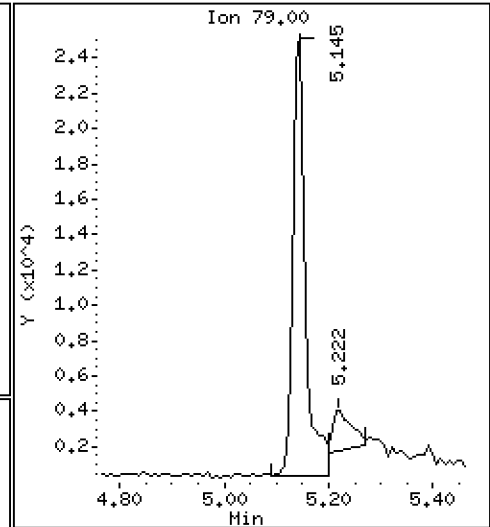
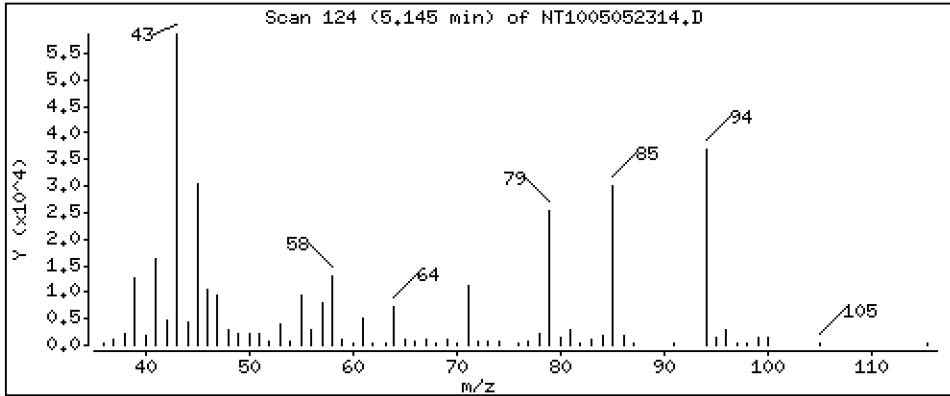
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 1,002 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

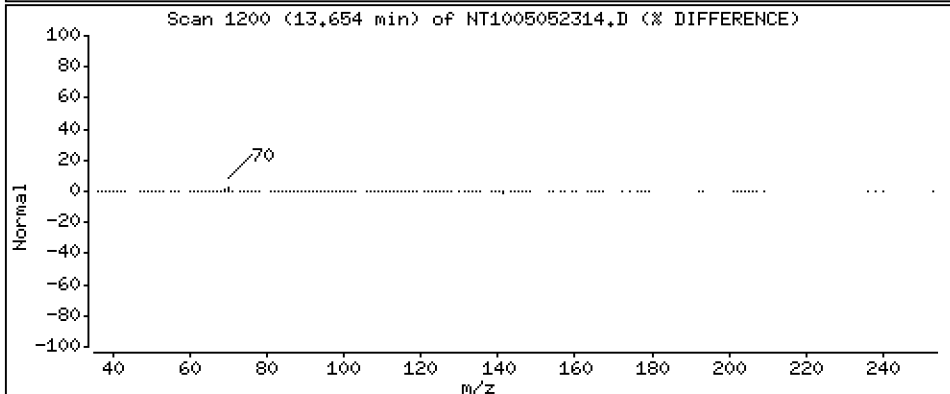
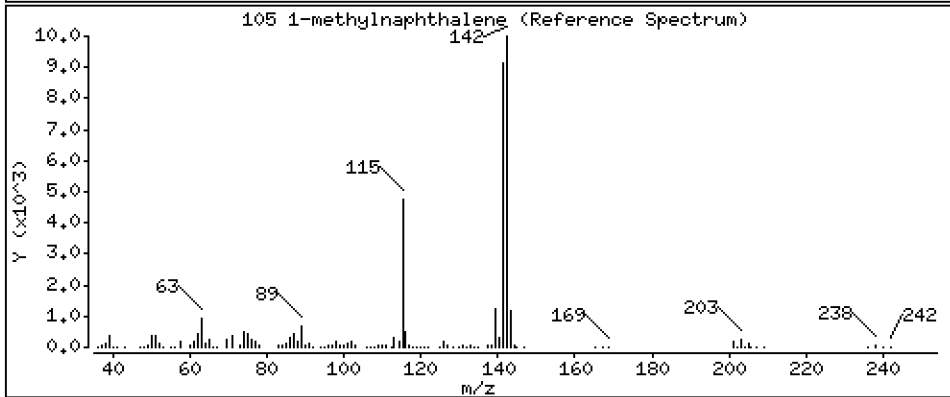
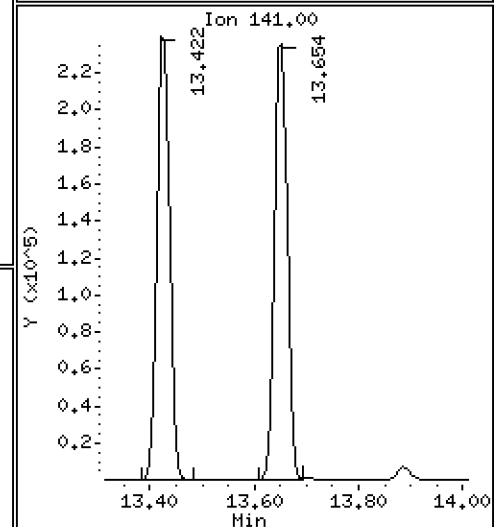
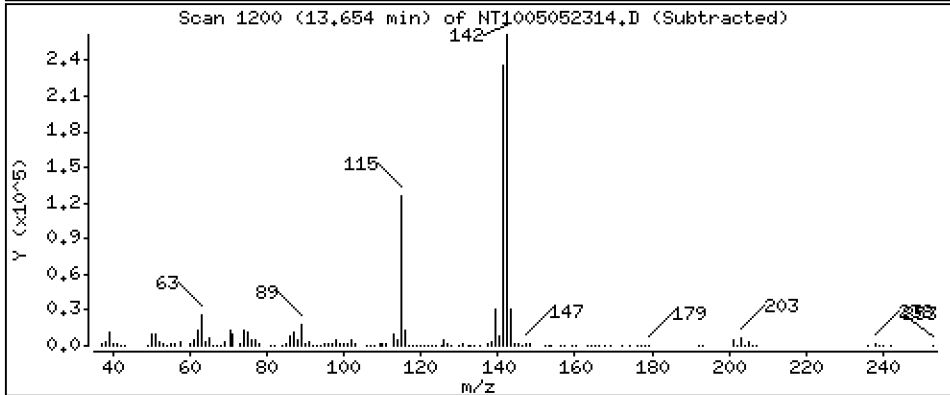
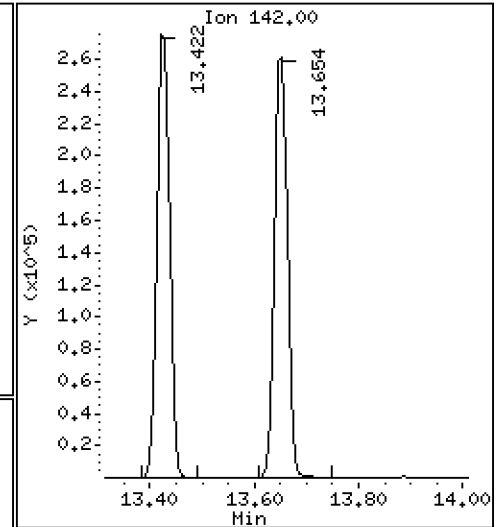
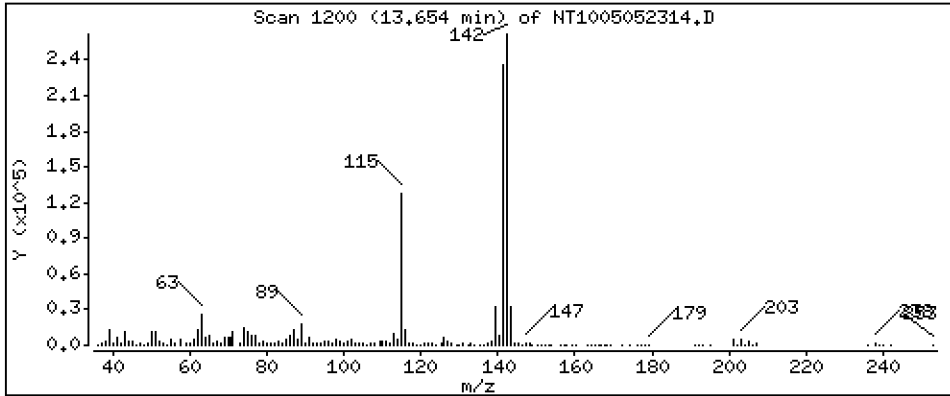
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 3,701 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

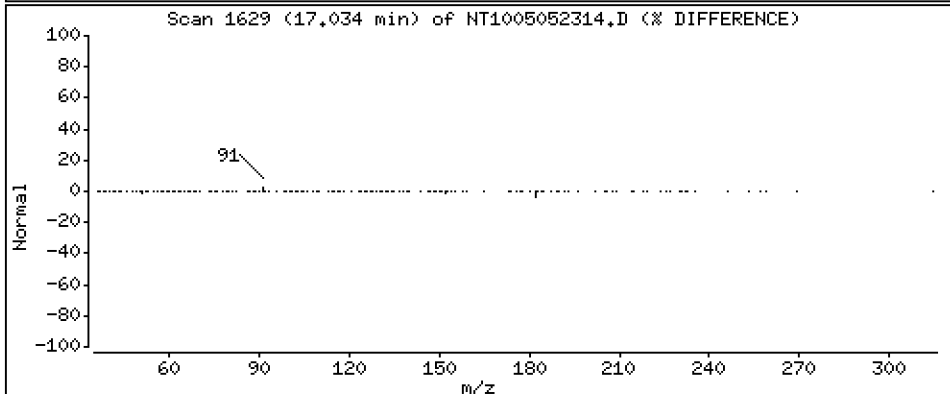
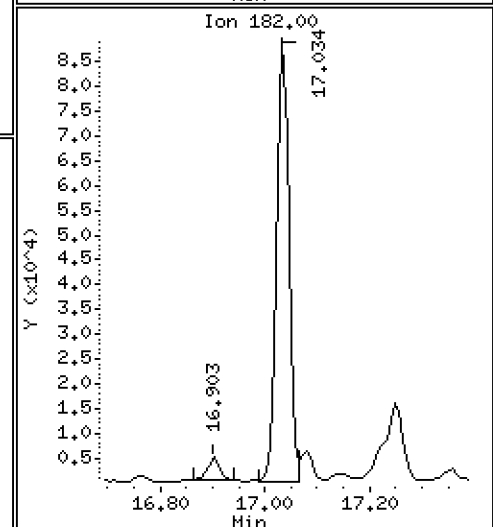
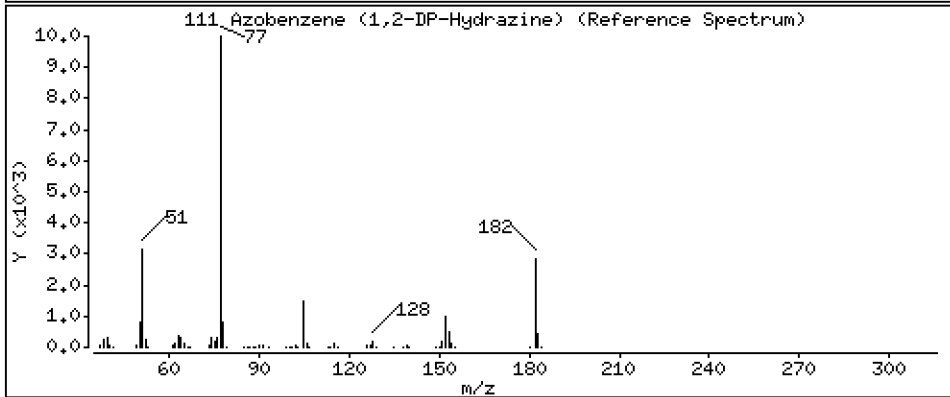
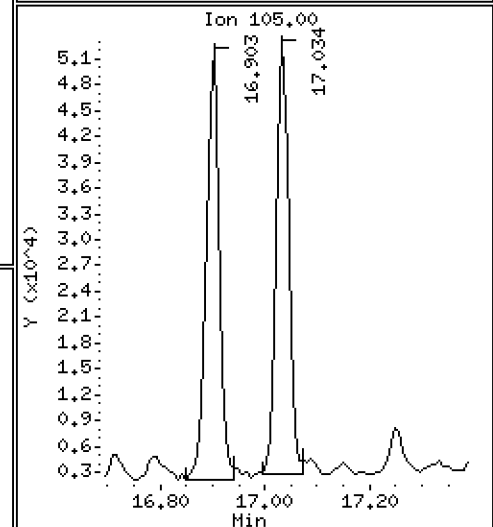
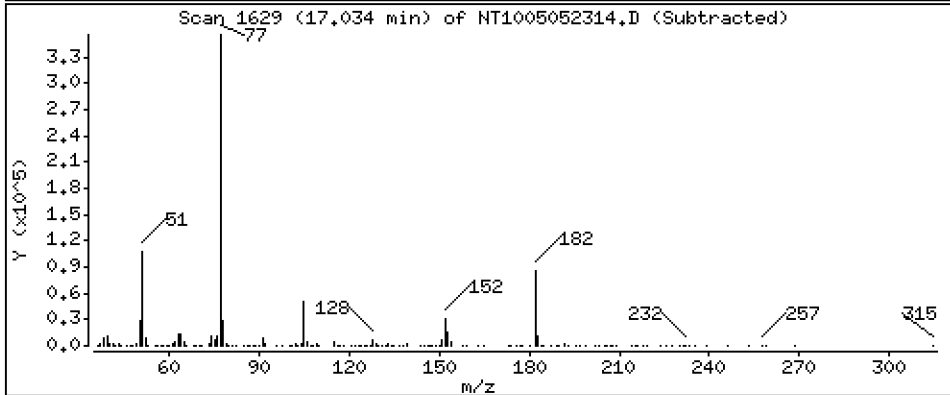
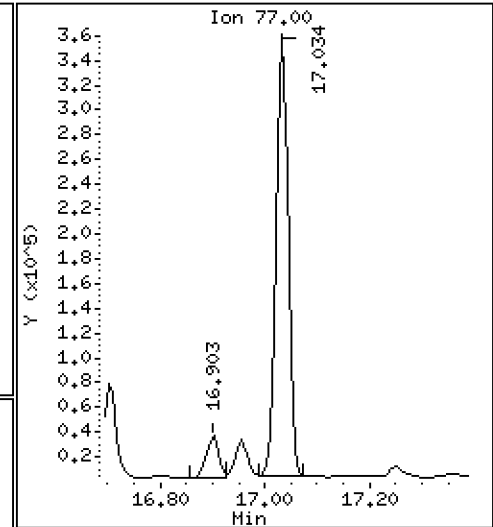
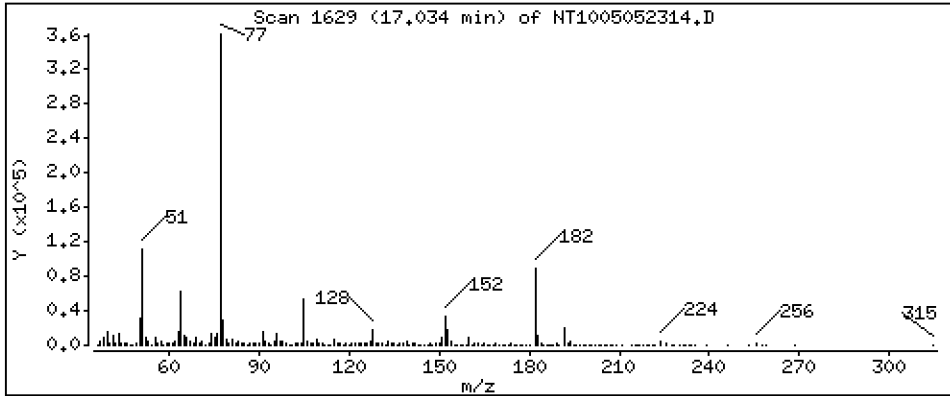
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,040 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

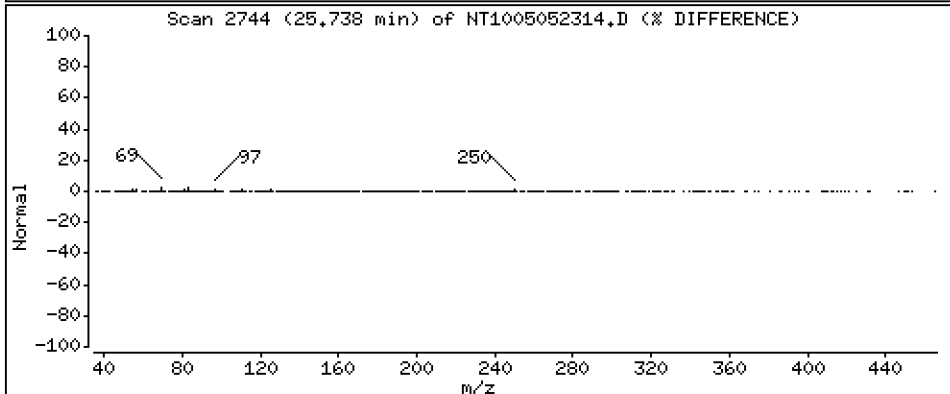
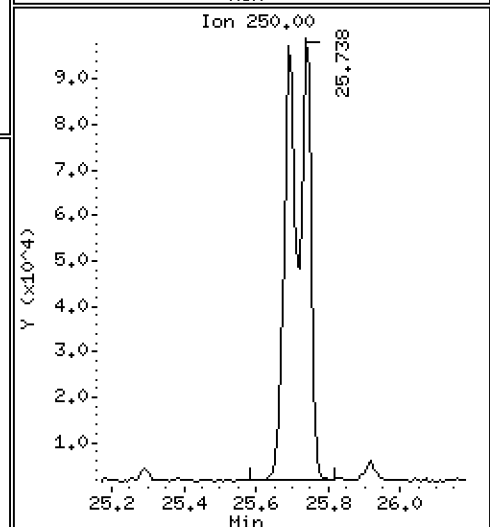
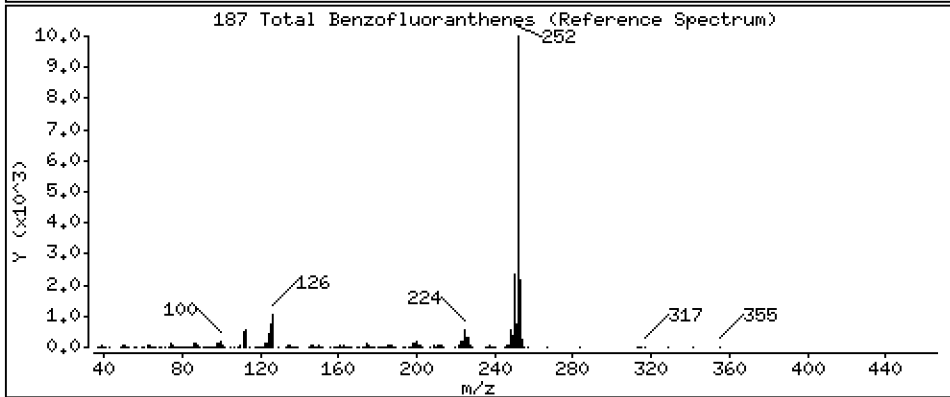
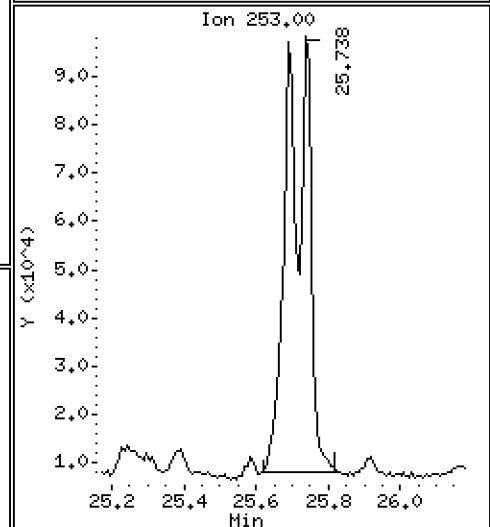
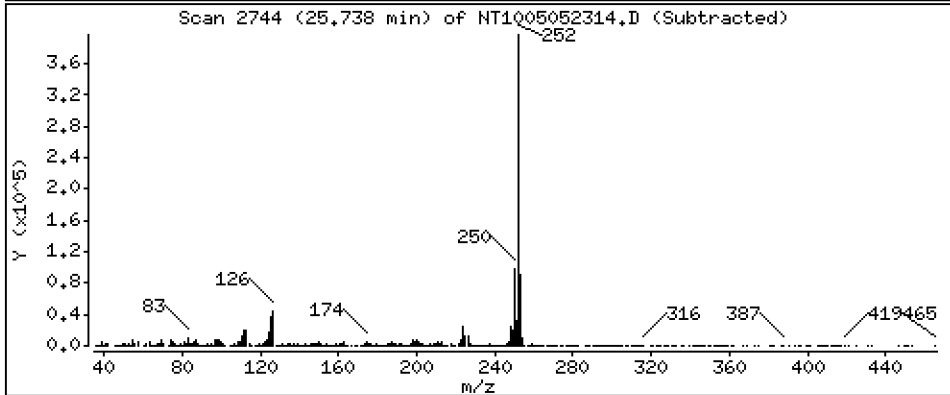
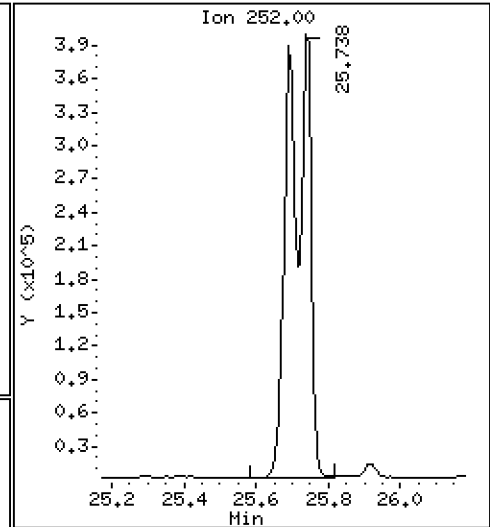
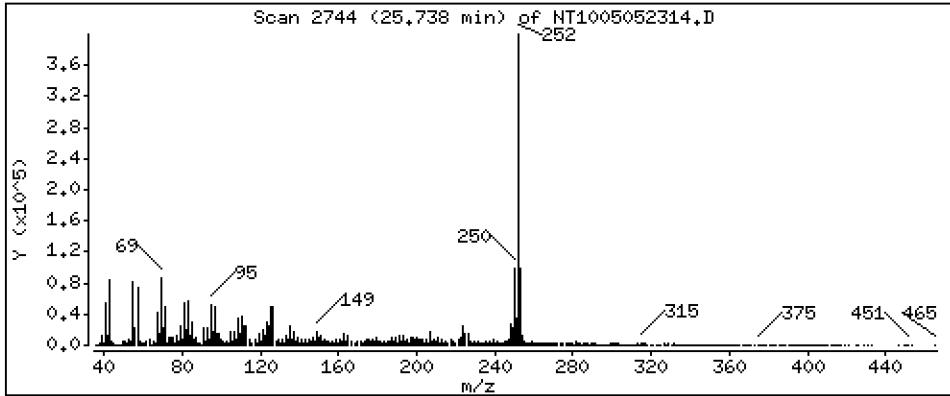
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 10,92 ug/mL



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD1

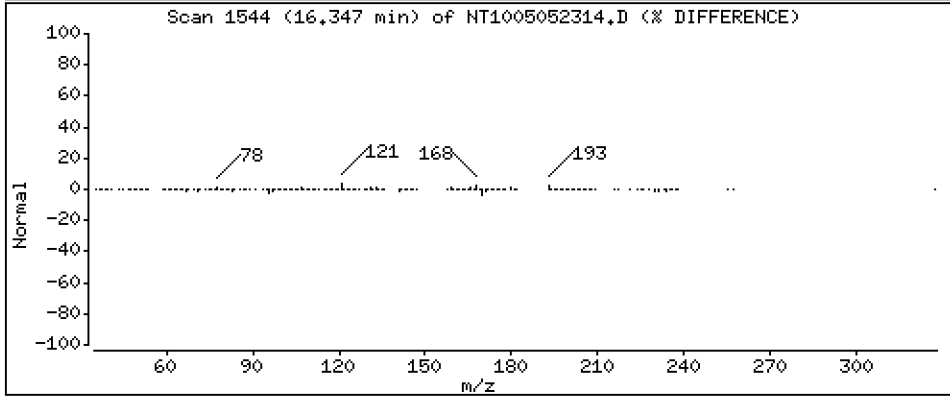
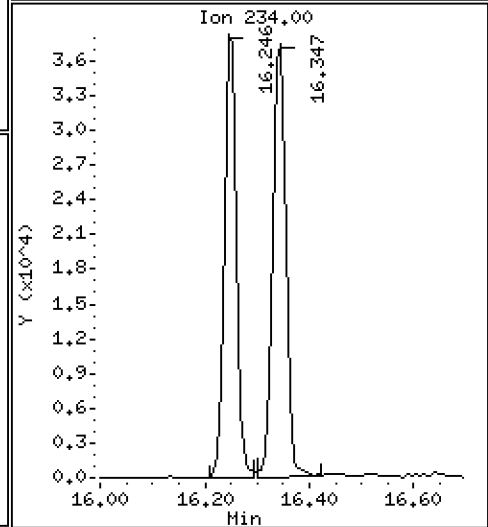
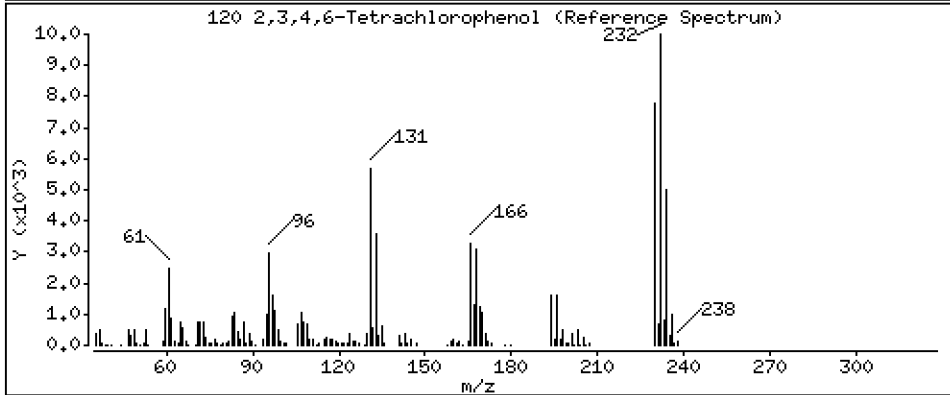
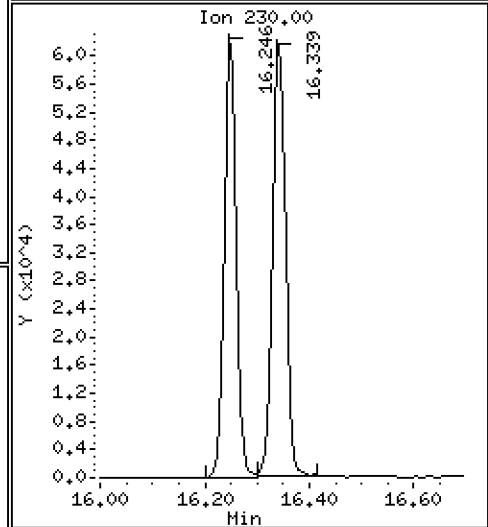
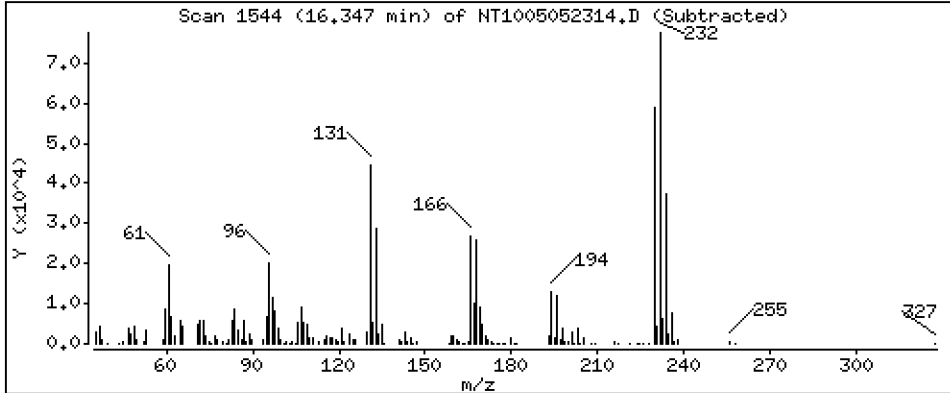
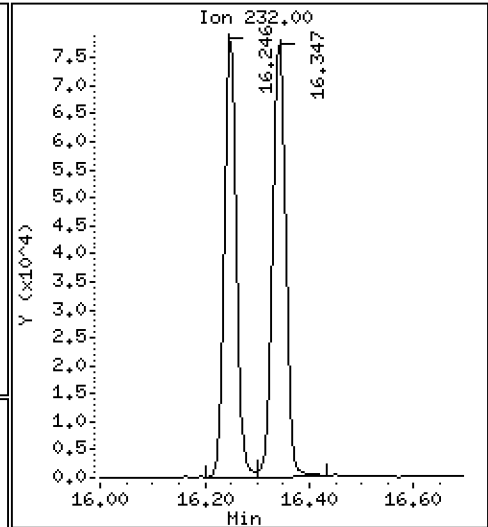
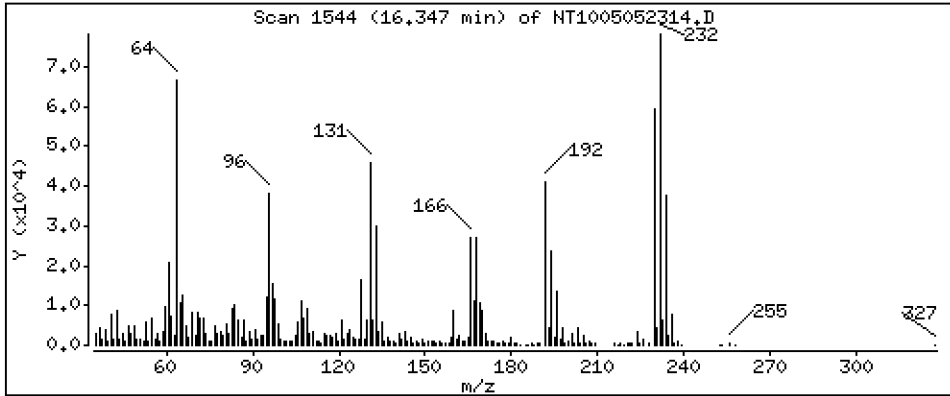
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 2,921 ug/mL



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052314.D
 Lab Smp Id: BLD0329-MSD1
 Inj Date : 05-MAY-2023 19:11
 Operator : VTS
 Smp Info : BLD0329-MSD1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.245	7.253	(1.000)	156690	3.08232	3.082
\$ 2 Phenol-d5	99		8.829	8.830	(1.000)	236140	3.85295	3.853
3 Phenol	94		8.852	8.853	(1.000)	191343	2.91988	2.920
\$ 5 2-Chlorophenol-d4	132		9.130	9.139	(1.000)	282993	4.81818	4.818
4 Bis(2-Chloroethyl)ether	93		9.030	9.038	(1.000)	153862	3.24484	3.245
6 2-Chlorophenol	128		9.154	9.162	(1.000)	168666	2.91891	2.919
7 1,3-Dichlorobenzene	146		9.432	9.440	(1.000)	190614	2.92784	2.928
* 8 1,4-Dichlorobenzene-d4	152		9.494	9.502	(1.000)	167995	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.525	9.533	(1.000)	187102	2.92562	2.926
\$ 10 1,2-Dichlorobenzene-d4	152		9.859	9.867	(1.000)	128133	2.95714	2.957
12 1,2-Dichlorobenzene	146		9.882	9.890	(1.000)	190125	3.06208	3.062
11 Benzyl alcohol	108		9.758	9.766	(1.000)	171184	5.43475	5.435
14 2,2'-oxybis(1-Chloropropane)	121		10.053	10.069	(1.000)	67731	3.77699	3.777
13 2-Methylphenol	108		9.975	9.976	(1.000)	148399	3.08756	3.088
17 Hexachloroethane	117		10.480	10.488	(1.000)	67081	2.42588	2.426
16 N-Nitroso-di-n-propylamine	70		10.317	10.325	(1.000)	144561	3.79735	3.797
15 4-Methylphenol	108		10.247	10.240	(1.000)	204026	3.53599	3.536
\$ 18 Nitrobenzene-d5	82		10.596	10.604	(0.884)	240115	3.54149	3.541
19 Nitrobenzene	77		10.627	10.636	(0.886)	234088	3.57254	3.573
20 Isophorone	82		11.070	11.078	(0.923)	435842	5.58725	5.587
21 2-Nitrophenol	139		11.257	11.266	(0.939)	110868	3.18705	3.187
22 2,4-Dimethylphenol	107		11.291	11.300	(0.942)	559240	8.74020	8.740
23 Bis(2-Chloroethoxy)methane	93		11.495	11.503	(0.959)	210068	4.21273	4.213
24 Benzoic acid	105		11.452	11.486	(0.955)	398153	8.94935	8.949
25 2,4-Dichlorophenol	162		11.707	11.716	(0.976)	571031	11.3603	11.36
26 1,2,4-Trichlorobenzene	180		11.898	11.906	(0.992)	224616	3.11991	3.120
* 27 Naphthalene-d8	136		11.991	11.999	(1.000)	606720	4.00000	
28 Naphthalene	128		12.029	12.037	(1.003)	602218	3.55767	3.558
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		12.385	12.393	(1.033)	136174	3.42976	3.430
31 4-Chloro-3-methylphenol	107		13.104	13.105	(1.093)	653732	11.9338	11.93
32 2-Methylnaphthalene	142		13.422	13.437	(1.119)	444034	3.50845	3.508
33 Hexachlorocyclopentadiene	237		13.886	13.902	(0.889)	73508	1.74410	1.744

Compounds	QUANT		SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
34 2,4,6-Trichlorophenol	196	14.041	14.049	(0.899)	492668	11.8665	11.87	
35 2,4,5-Trichlorophenol	196	14.118	14.118	(0.904)	523742	11.5683	11.57	
§ 36 2-Fluorobiphenyl	172	14.203	14.211	(0.909)	527082	3.59207	3.592	
37 2-Chloronaphthalene	162	14.428	14.436	(0.924)	416985	3.60815	3.608	
38 2-Nitroaniline	65	14.683	14.691	(0.940)	400002	11.9179	11.92	
39 Dimethylphthalate	163	15.101	15.109	(0.967)	525351	4.04262	4.043	
40 Acenaphthylene	152	15.302	15.310	(0.980)	655697	3.63481	3.635	
41 2,6-Dinitrotoluene	165	15.248	15.256	(0.976)	329734	11.2413	11.24	
* 42 Acenaphthene-d10	164	15.620	15.628	(1.000)	338935	4.00000		
43 3-Nitroaniline	138	Compound Not Detected.						
44 Acenaphthene	153	15.681	15.689	(1.004)	430402	3.75138	3.751	
45 2,4-Dinitrophenol	184	15.743	15.759	(1.008)	19188	0.85186	0.8519	
46 Dibenzofuran	168	16.006	16.014	(1.025)	644538	3.85297	3.853	
47 4-Nitrophenol	109	15.851	15.844	(1.015)	269257	9.90790	9.908	
48 2,4-Dinitrotoluene	165	16.060	16.068	(1.028)	455302	10.7505	10.75	
50 Diethylphthalate	149	16.563	16.571	(1.060)	653208	4.84113	4.841	
49 Fluorene	166	16.725	16.733	(1.071)	543912	3.94138	3.941	
51 4-Chlorophenyl-phenylether	204	16.702	16.710	(1.069)	308524	4.48969	4.490	
52 4-Nitroaniline	138	16.825	16.825	(1.077)	48609	1.72896	1.729	
53 4,6-Dinitro-2-methylphenol	198	16.902	16.918	(0.905)	167291	7.10556	7.106	
54 N-Nitrosodiphenylamine	169	16.956	16.964	(0.908)	300926	3.81601	3.816	
§ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	97021	5.78585	5.786	
56 4-Bromophenyl-phenylether	248	17.720	17.728	(0.949)	148045	3.97678	3.977	
57 Hexachlorobenzene	284	18.044	18.052	(0.966)	129258	3.45927	3.459	
58 Pentachlorophenol	266	18.400	18.401	(0.985)	293289	10.9215	10.92	
* 59 Phenanthrene-d10	188	18.671	18.679	(1.000)	596756	4.00000		
60 Phenanthrene	178	18.725	18.726	(1.003)	811961	4.63708	4.637	
61 Anthracene	178	18.818	18.818	(1.008)	610934	3.77566	3.776	
62 Carbazole	167	19.135	19.136	(1.025)	582014	4.06348	4.063	
63 Di-n-butylphthalate	149	19.901	19.902	(1.066)	936412	4.28346	4.283	
64 Fluoranthene	202	21.100	21.085	(0.890)	1173232	5.88577	5.886	
65 Pyrene	202	21.518	21.511	(0.908)	1099260	5.52045	5.520	
§ 66 Terphenyl-d14	244	21.781	21.782	(0.919)	534221	3.39220	3.392	
67 Butylbenzylphthalate	149	22.695	22.695	(0.958)	377515	4.20976	4.210	
68 Benzo(a)anthracene	228	23.671	23.663	(0.999)	877168	4.96287	4.963	
* 69 Chrysene-d12	240	23.702	23.694	(1.000)	446464	4.00000		
70 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
71 Chrysene	228	23.748	23.741	(1.002)	962806	6.08623	6.086	
72 bis(2-Ethylhexyl)phthalate	149	23.709	23.702	(0.958)	797013	6.09576	6.096	
* 134 Di-n-octylphthalate-d4	153	24.747	24.739	(1.000)	907671	4.00000		
73 Di-n-octylphthalate	149	24.754	24.747	(1.000)	1000045	4.17615	4.176	
74 Benzo(b)fluoranthene	252	25.691	25.676	(0.968)	881037	5.67723	5.677	
75 Benzo(k)fluoranthene	252	25.738	25.730	(0.969)	846166	5.49476	5.495	
76 Benzo(a)pyrene	252	26.427	26.404	(0.995)	640821	4.93339	4.933	
* 77 Perylene-d12	264	26.551	26.528	(1.000)	377775	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.560	29.498	(1.113)	636818	4.08096	4.081	
79 Dibenzo(a,h)anthracene	278	29.568	29.514	(1.114)	486756	3.72457	3.725	
80 Benzo(g,h,i)perylene	276	30.438	30.376	(1.146)	510506	4.10443	4.104	
90 N-Nitrosodimethylamine	74	5.075	5.090	(1.000)	32777	1.19371	1.194	
91 Aniline	93	Compound Not Detected.						
93 Benzidine	184	Compound Not Detected.						
103 Pyridine	79	5.144	5.114	(1.000)	43385	1.00202	1.002	
105 1-methylnaphthalene	142	13.654	13.662	(1.139)	429470	3.70131	3.701	
111 Azobenzene (1,2-DP-Hydrazine)	77	17.033	17.041	(1.091)	532491	4.03958	4.040	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.738	25.676	(0.969)	1631628	10.9226	10.92
120 2,3,4,6-Tetrachlorophenol	232	16.346	16.346	(1.047)	129768	2.92094	2.921

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052314.D Calibration Time: 11:37
 Lab Smp Id: BLD0329-MSD1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	167995	-6.39
27 Naphthalene-d8	621628	310814	1243256	606720	-2.40
42 Acenaphthene-d10	353112	176556	706224	338935	-4.01
59 Phenanthrene-d10	694933	347467	1389866	596756	-14.13
69 Chrysene-d12	553967	276984	1107934	446464	-19.41
134 Di-n-octylphthala	895601	447801	1791202	907671	1.35
77 Perylene-d12	482573	241287	965146	377775	-21.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.09
27 Naphthalene-d8	12.00	11.50	12.50	11.99	-0.07
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.69	23.19	24.19	23.70	0.03
134 Di-n-octylphthala	24.74	24.24	25.24	24.75	0.03
77 Perylene-d12	26.53	26.03	27.03	26.55	0.09

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

REVIEW SUMMARY FOR FILE - NT1005052314.D

Lab ID: BLD0329-MSD1
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 19:11

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.060	-0.0596	2,2'-oxybis(1-Chloropropane)

RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

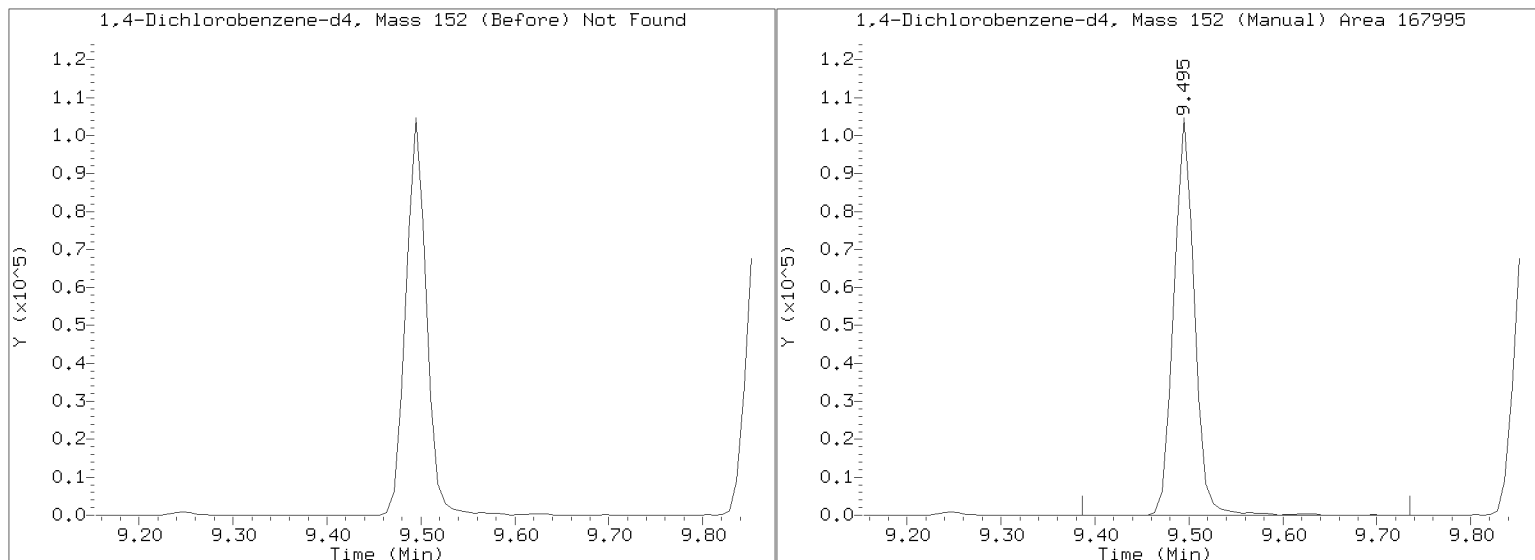
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052314.D

Injection Date: 05-MAY-2023 19:11

Lab ID:BLD0329-MSD1 Client ID:

Report Date: 05/08/2023 10:16



APPROVED

By Deenay Dunmore at 10:39 am, May 08, 2023



STANDARD REFERENCE MATERIAL RECOVERY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLD0329-SRM1

Batch: BLD0329

Initial/Final: 1 g / 1 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 05/05/2023 16:36

Standard ID: K003477

Expires: 01/31/2024

Standard Lot#: CRM 143 (LRAC8918)

Description: CRM 143 BNAs - Sandy Loam

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Phenol	2660.0	1880	43.9	200		70.8	26 - 174
4-Methylphenol	6617.0	5770	73.9	200		87.2	40 - 160
Naphthalene	4458.0	3420	42.4	200		76.7	25 - 175
Acenaphthylene	1948.0	1440	62.4	200		73.7	37 - 167
Dimethylphthalate	4537.0	4180	43.9	200		92.1	41 - 159
Acenaphthene	5489.0	4720	52.2	200		86.0	41 - 159
Dibenzofuran	6130.0	5440	141	200		88.8	45 - 155
Fluorene	3724.0	3190	146	200		85.7	44 - 156
Phenanthrene	5052.0	4260	87.2	200		84.3	46 - 154
Anthracene	2866.0	2050	71.9	200		71.5	42 - 158
Fluoranthene	2497.0	2180	60.9	200		87.3	39 - 161
Pyrene	2964.0	2740	56.8	200		92.3	38 - 162
Butylbenzylphthalate	3511.0	2990	94.1	200		85.2	36 - 164
Benzo(a)anthracene	5751.0	5190	59.6	200		90.3	49 - 151
Chrysene	1477.0	1200	60.6	200		81.3	45 - 155
bis(2-Ethylhexyl)phthalate	2905.0	2280	54.6	500		78.6	26 - 174
Benzofluoranthenes, Total	6534.0	4350	100	400		66.5	40 - 160
Benzo(a)pyrene	5902.0	4290	42.3	200		72.7	43 - 157
Indeno(1,2,3-cd)pyrene	3914.0	3410	147	200		87.1	22 - 178
Dibenzo(a,h)anthracene	3420.0	3000	172	200		87.7	37 - 163
Benzo(g,h,i)perylene	1380.0	1260	136	200		91.6	35 - 165

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.6\NT1005052310.D

Date: 05-May-2023 16:36

Client ID:

Sample Info: BLD0329-SRM1

Page 1

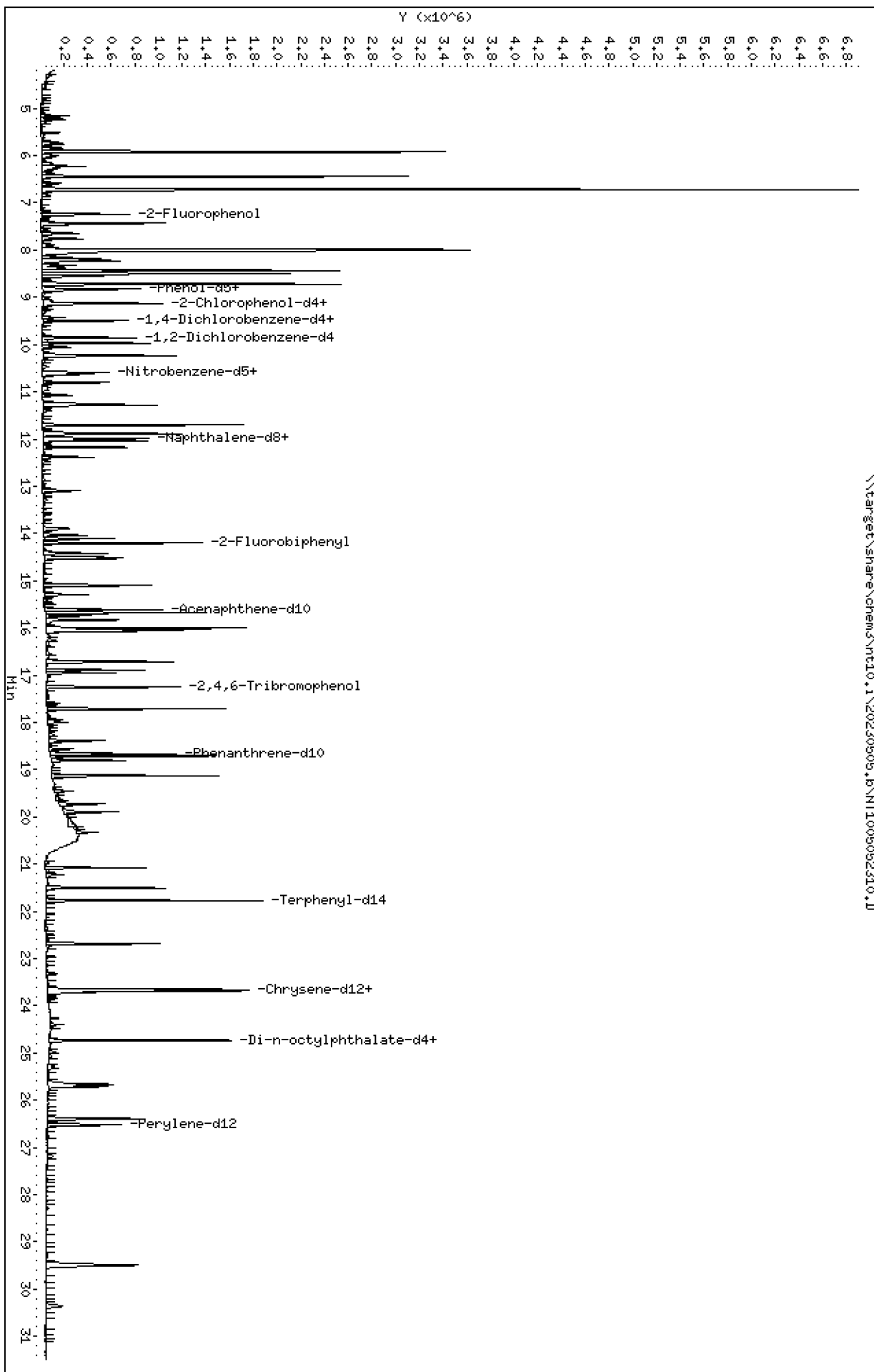
Instrument: nt10.1

Operator: YZ

Column diameter: 0.25

Column phase: ZB-5msi

\\target\share\chem3\nt10.1\20230505.6\NT1005052310.D



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

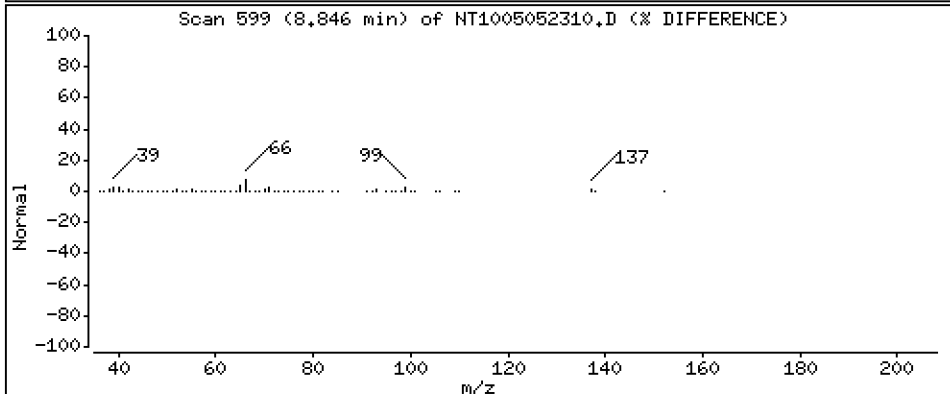
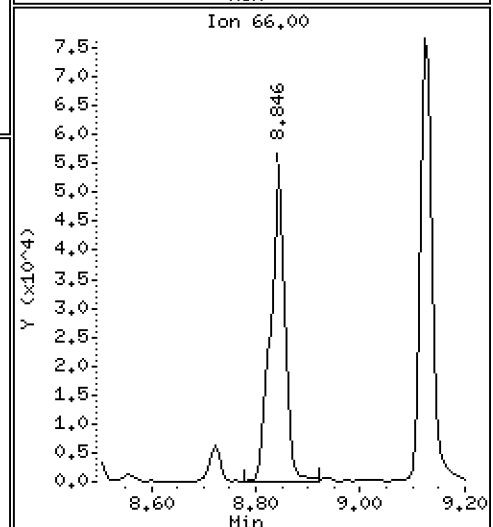
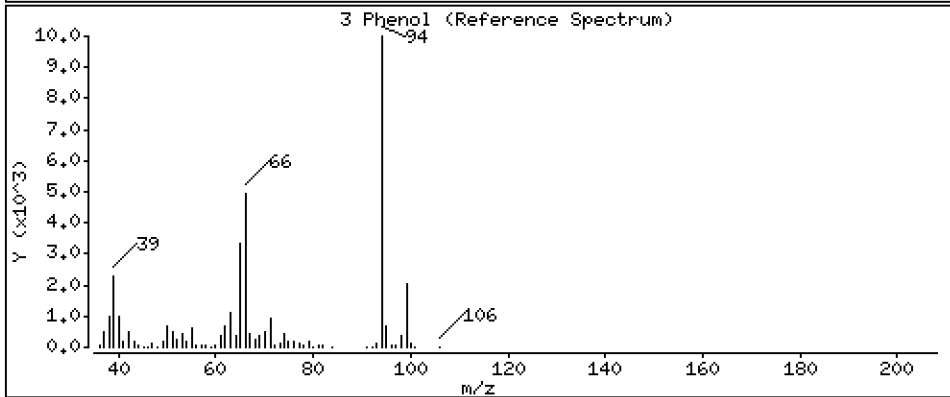
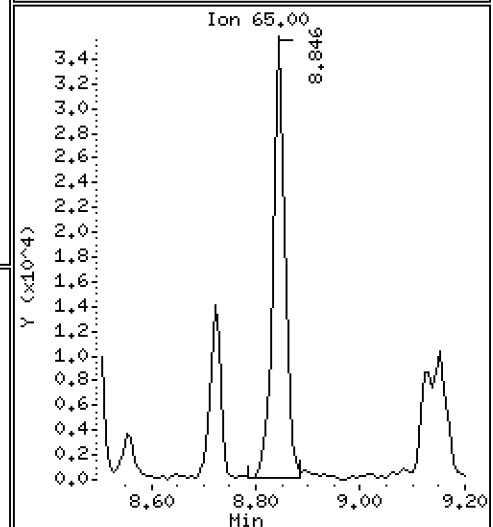
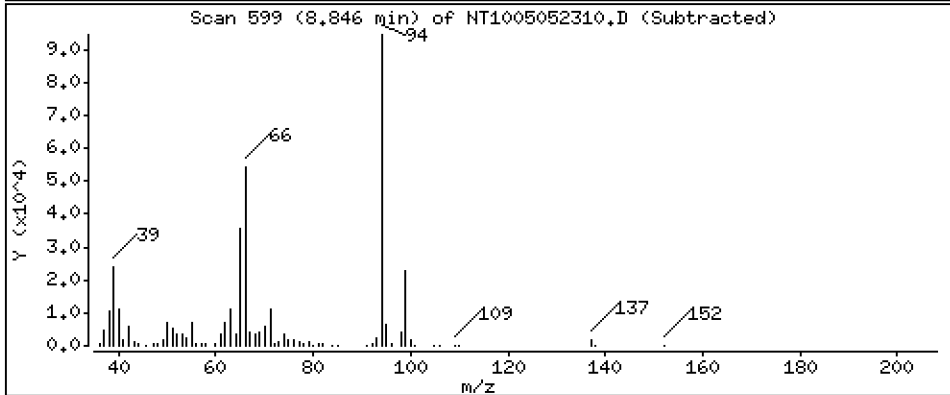
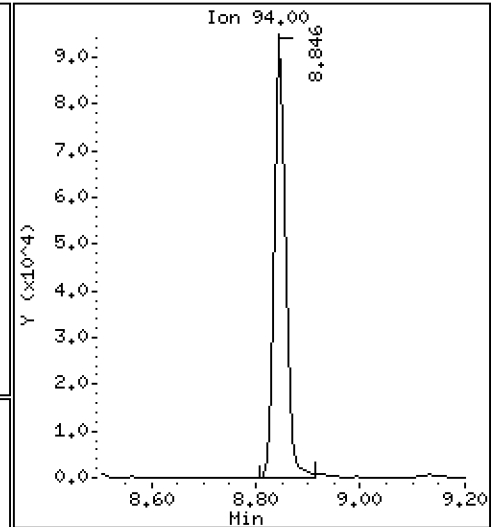
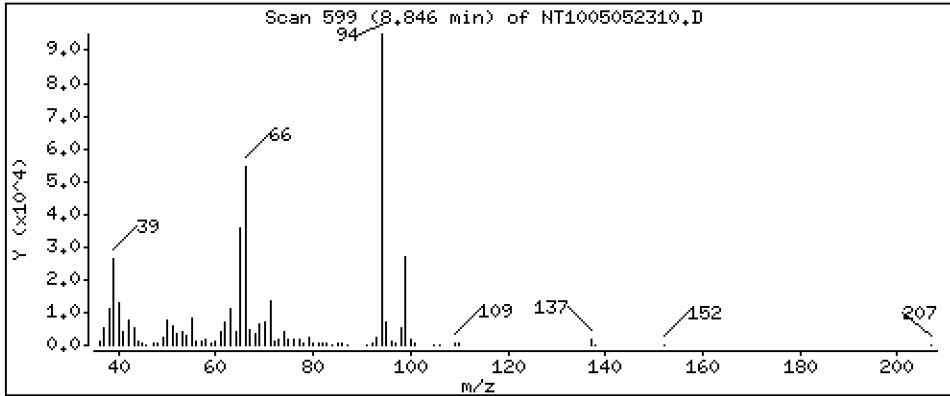
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 1,882 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

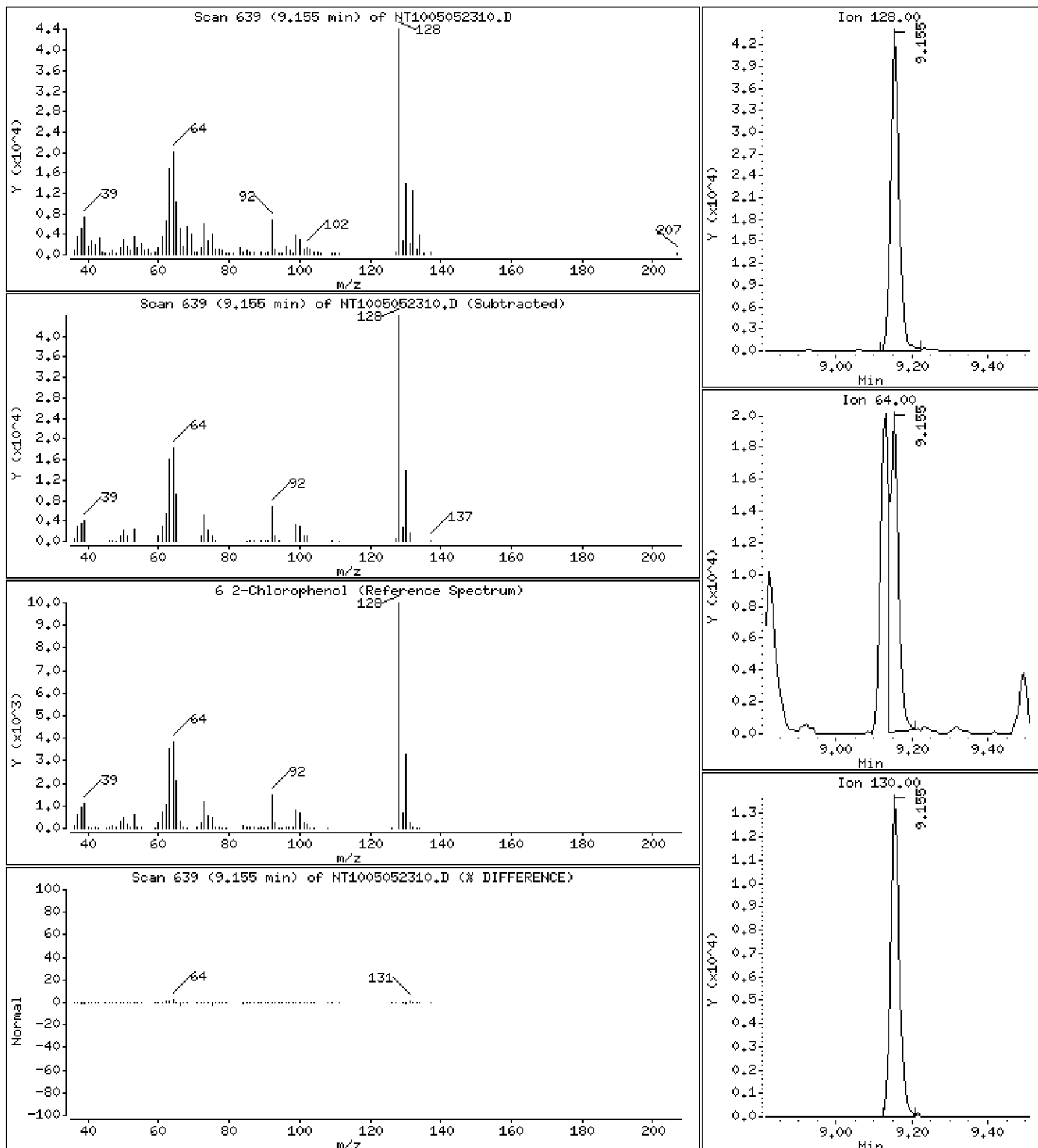
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 1.038 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

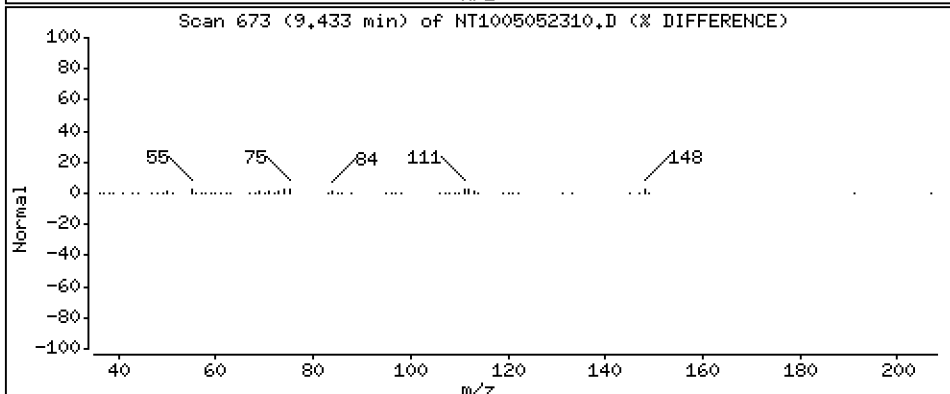
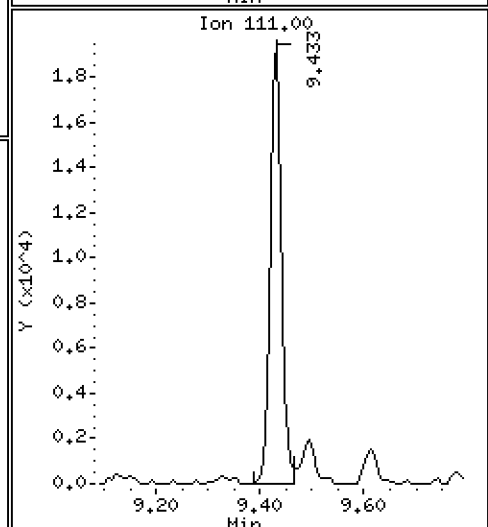
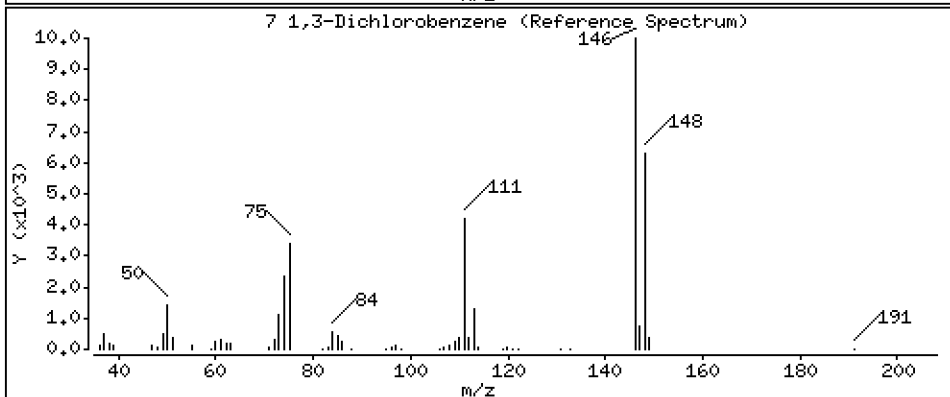
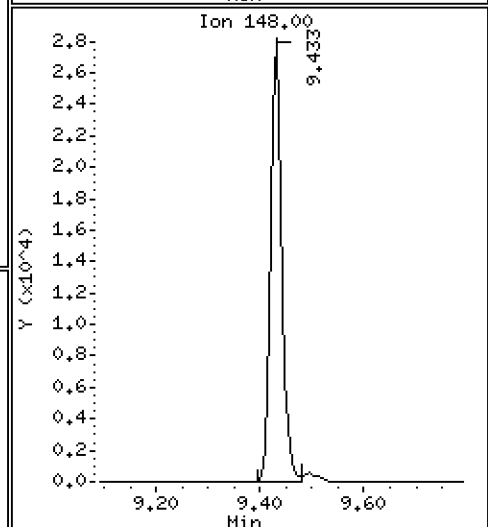
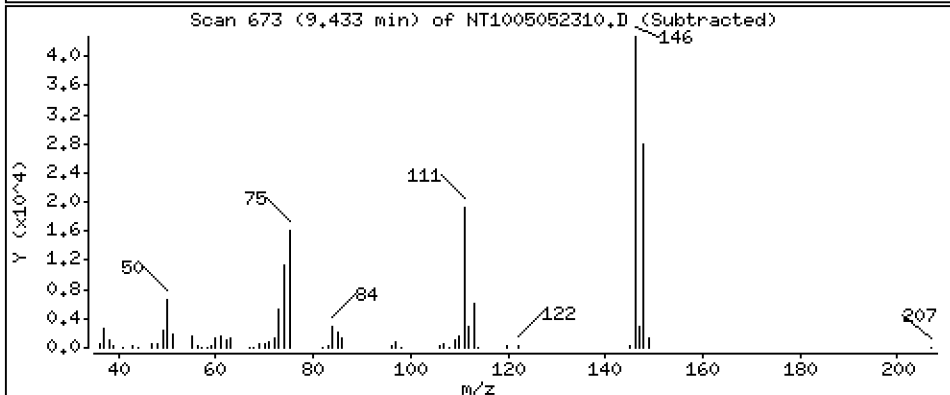
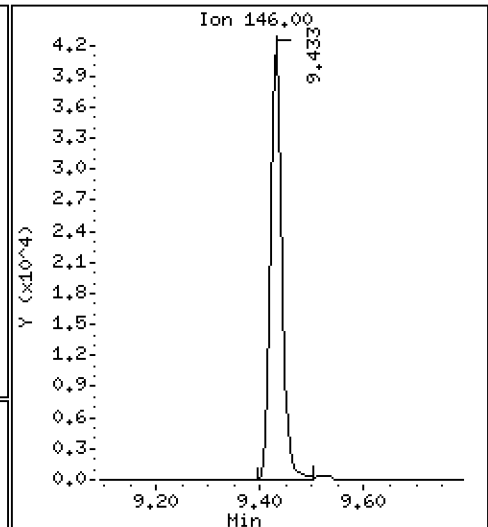
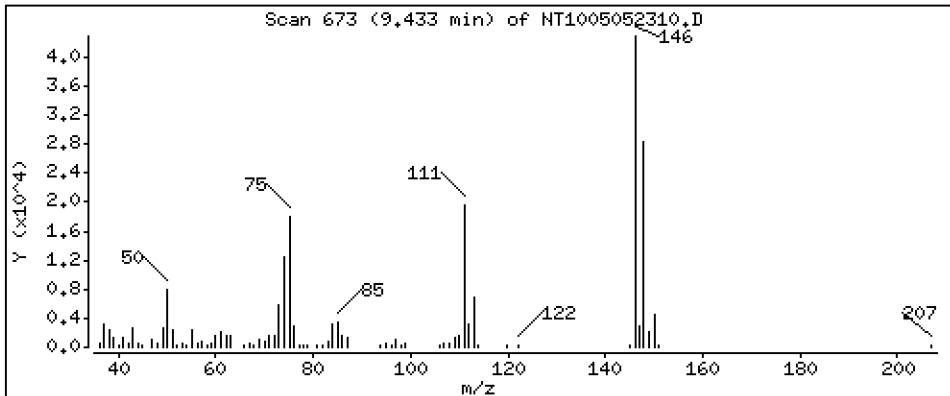
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,9107 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

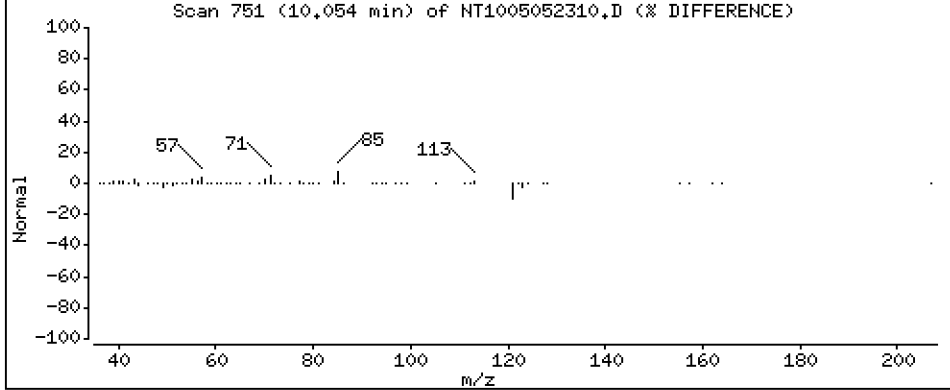
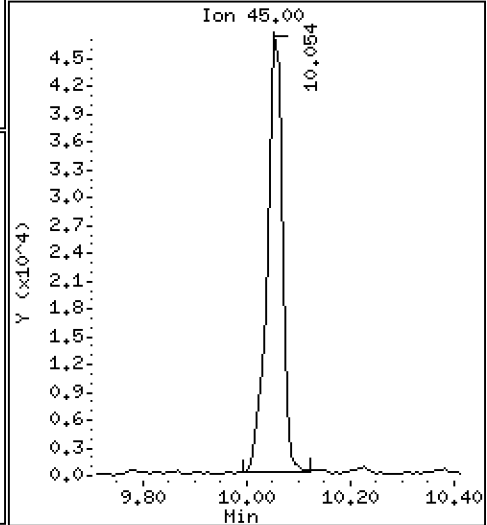
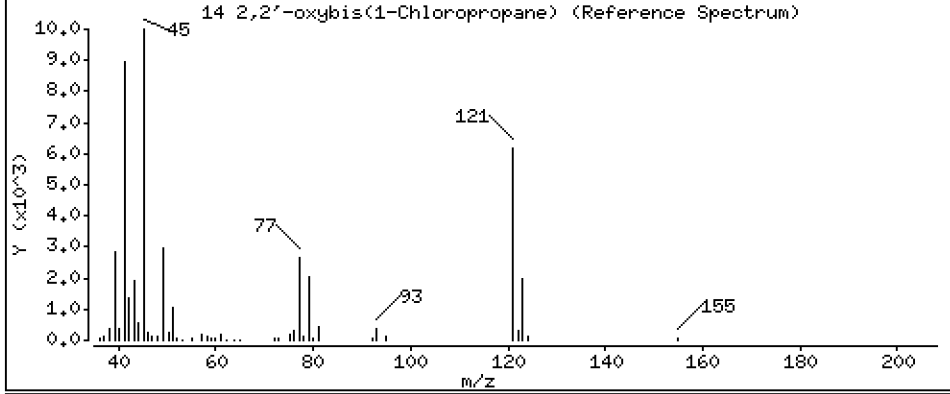
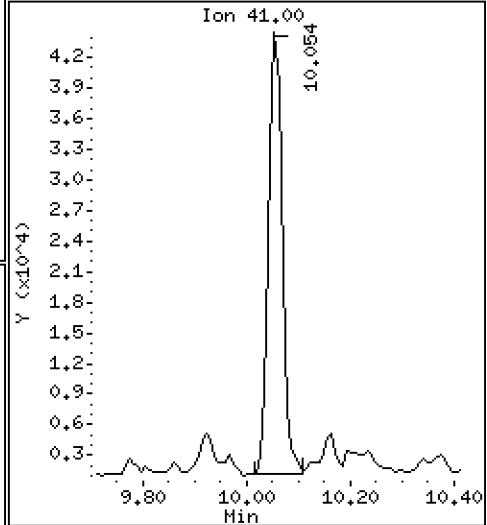
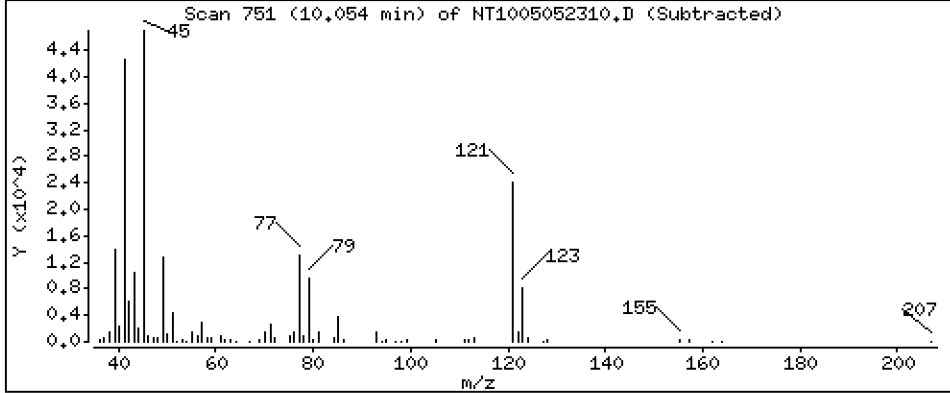
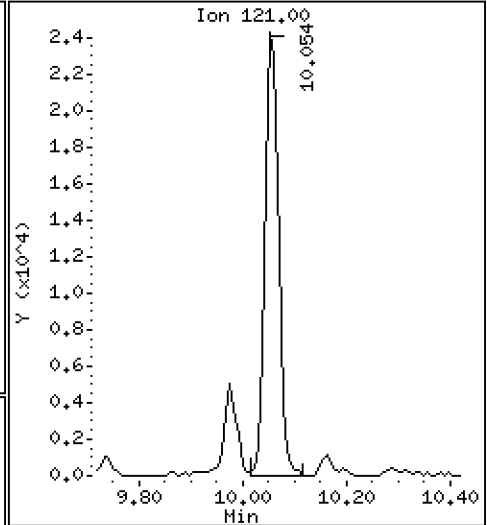
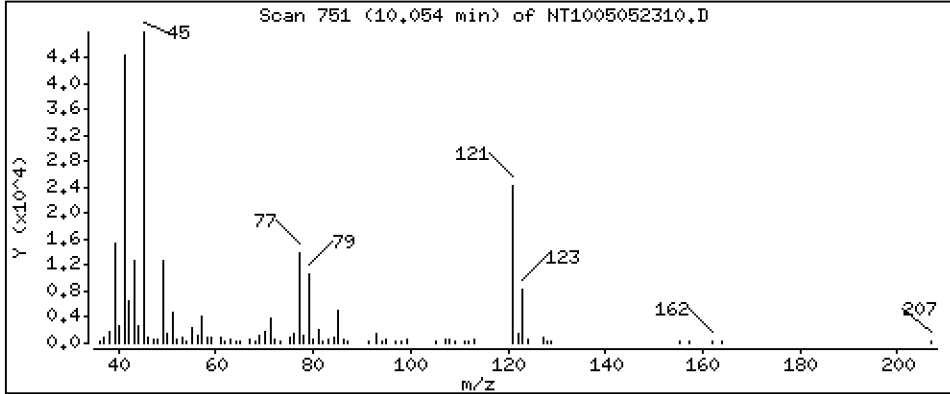
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 2,114 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

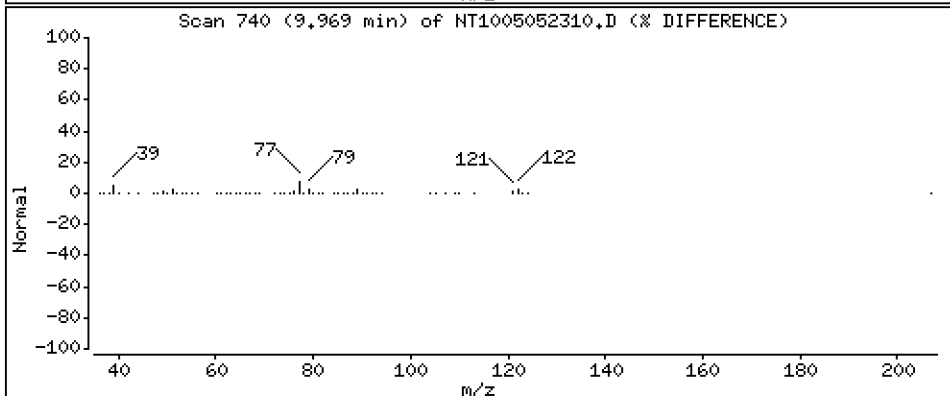
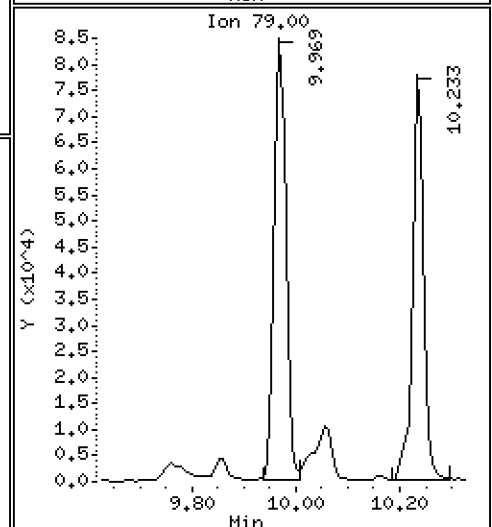
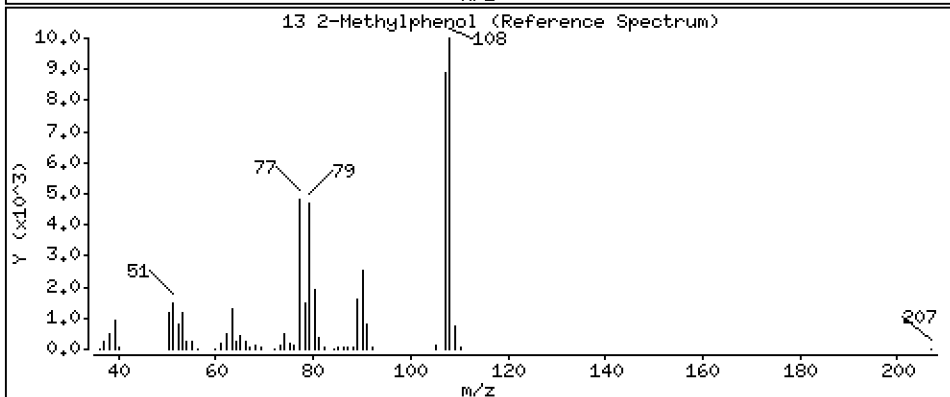
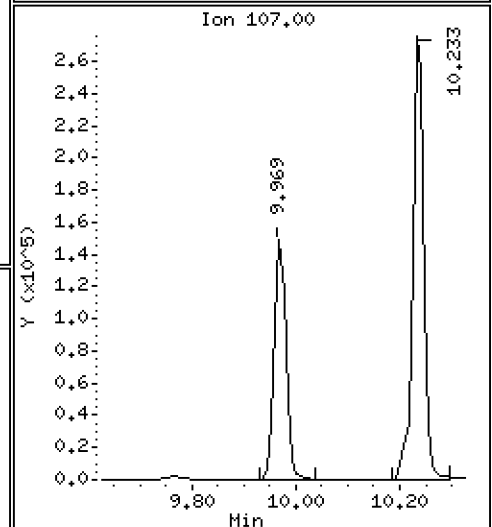
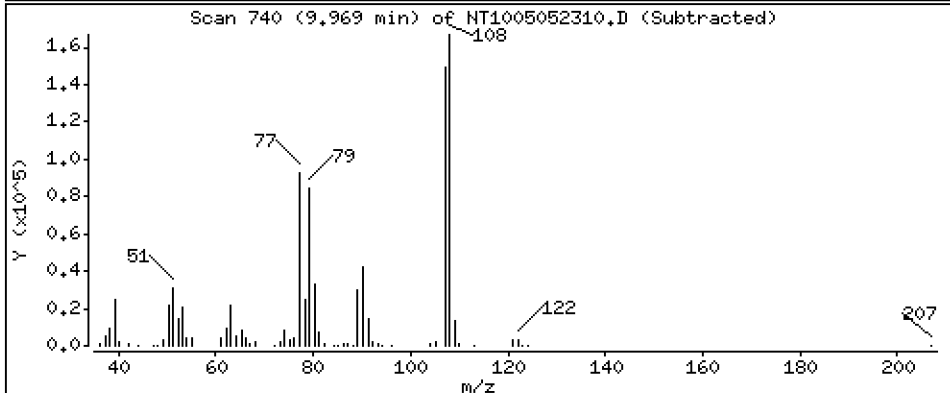
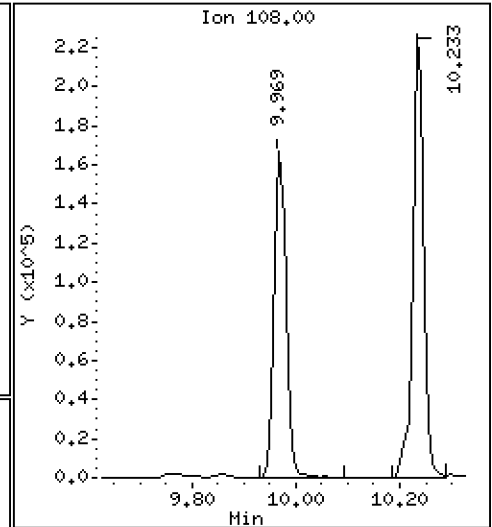
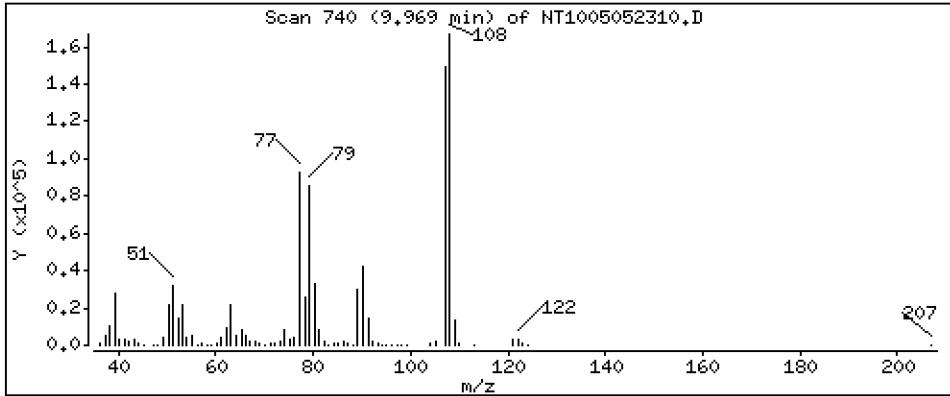
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.676 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

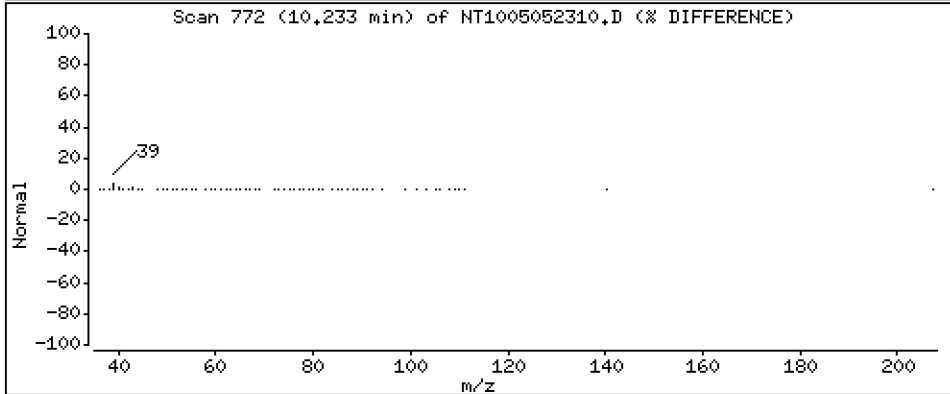
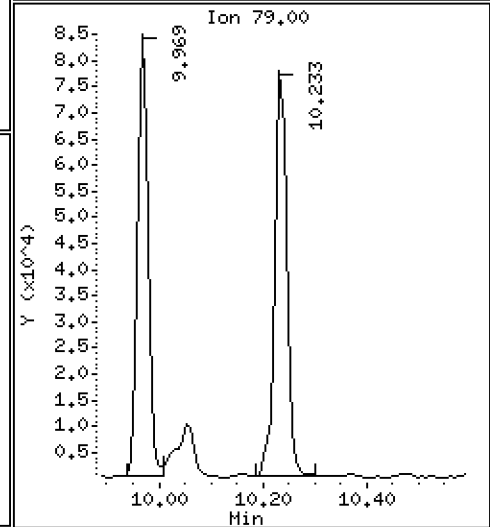
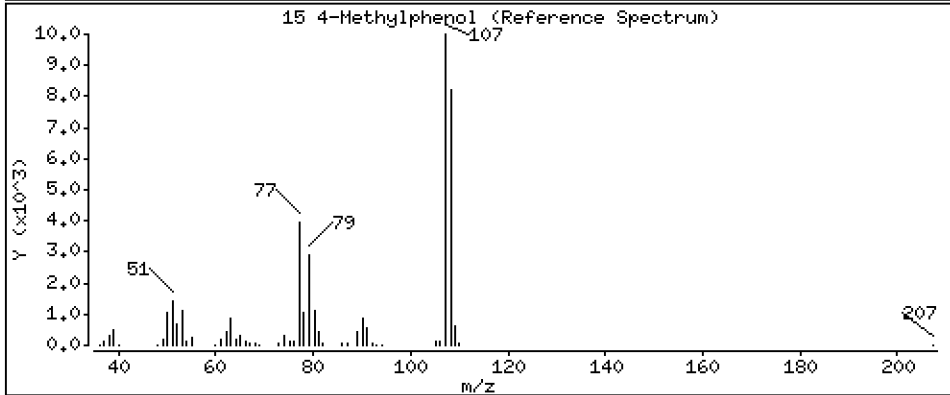
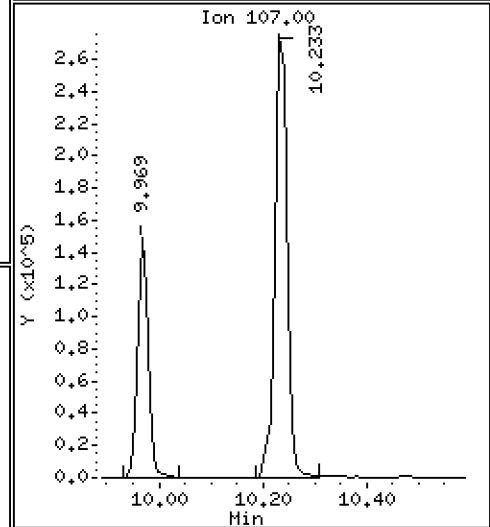
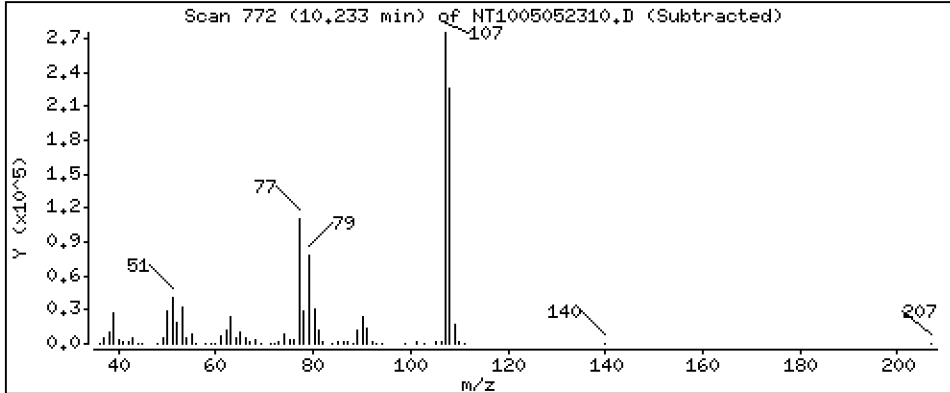
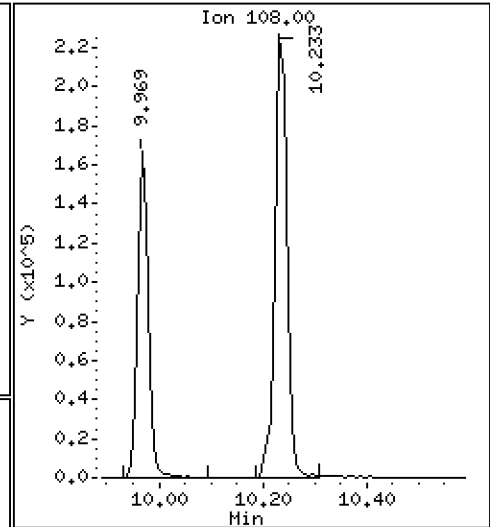
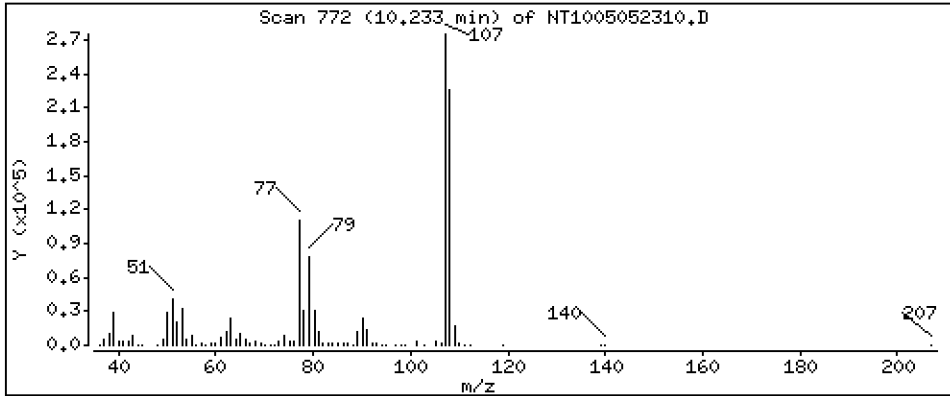
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 5.768 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

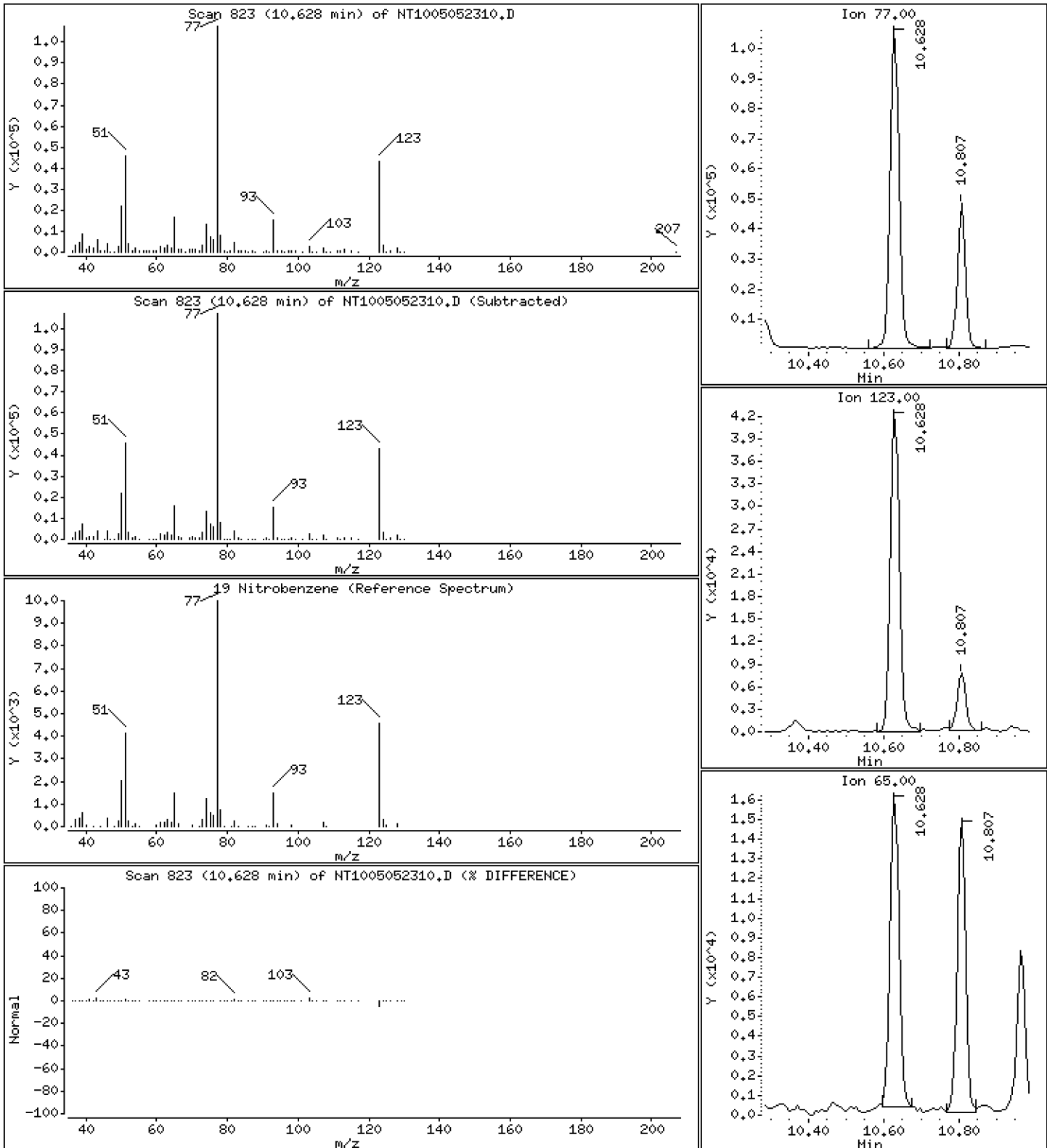
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 2,384 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

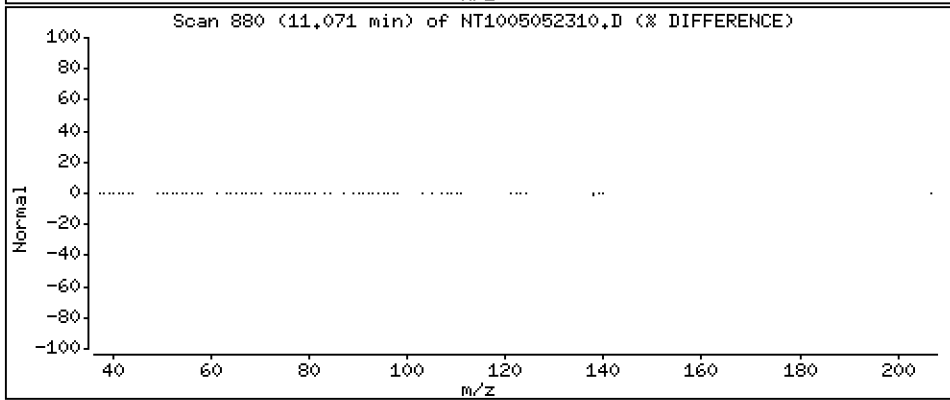
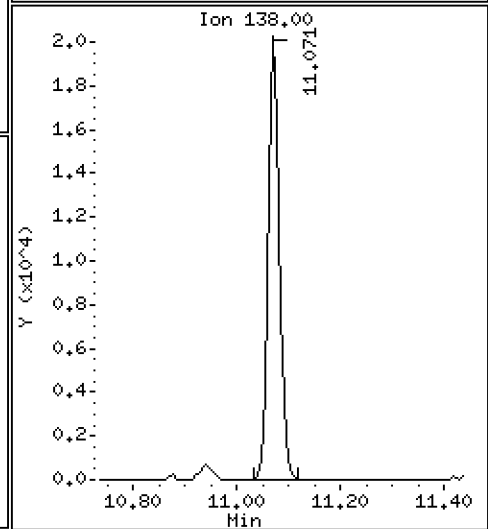
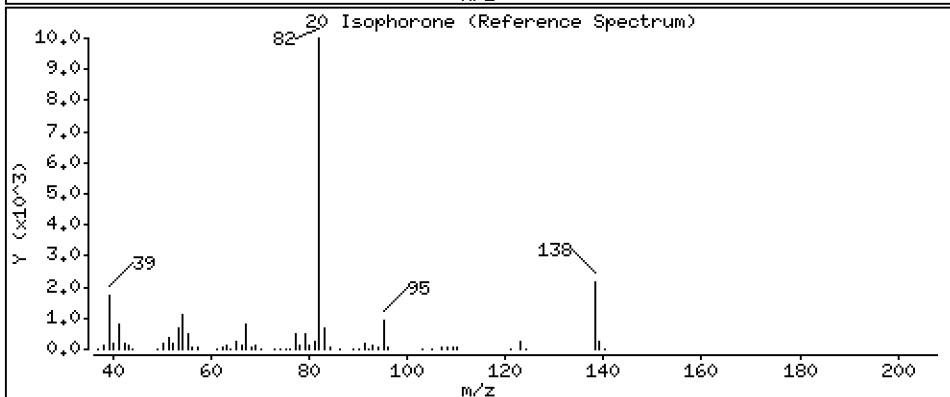
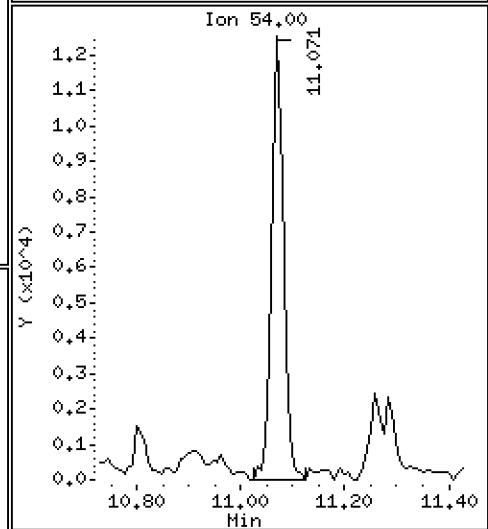
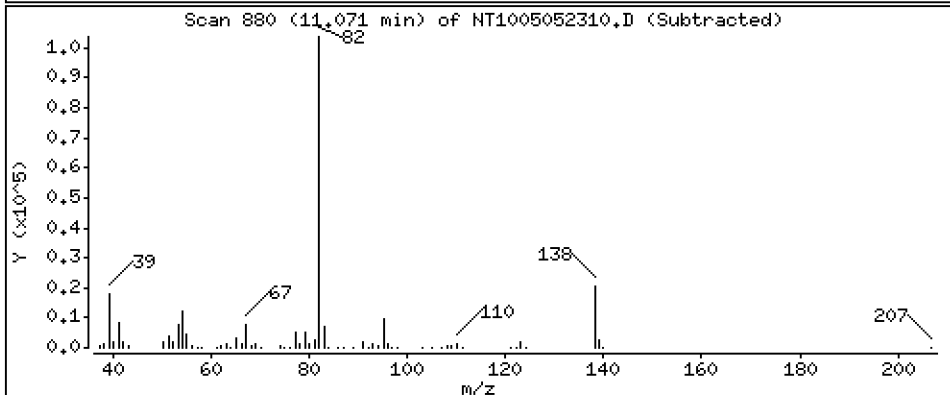
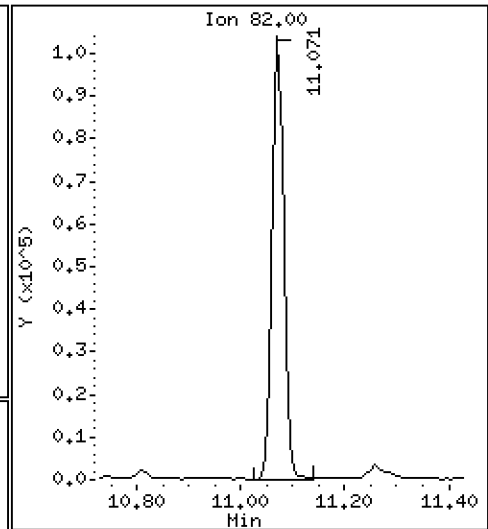
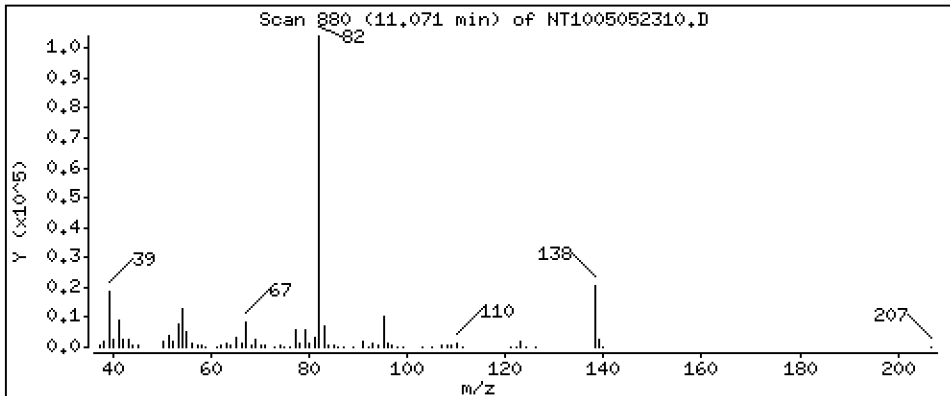
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 1.834 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

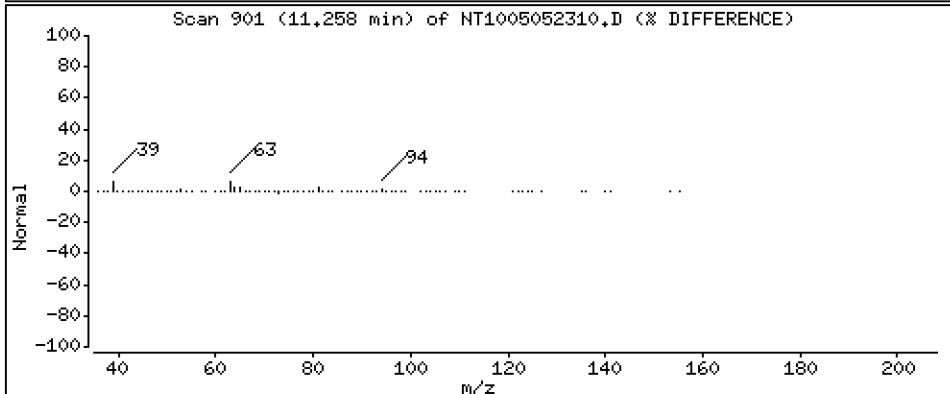
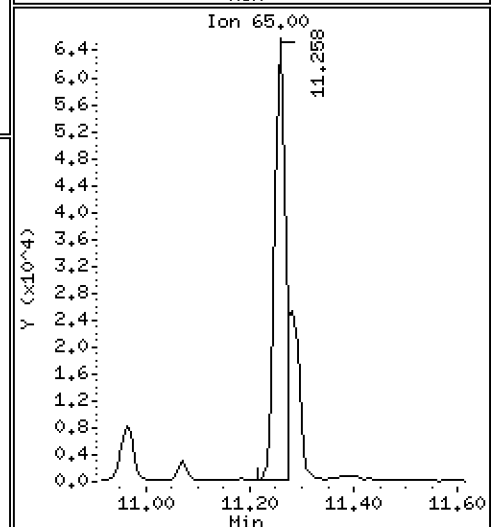
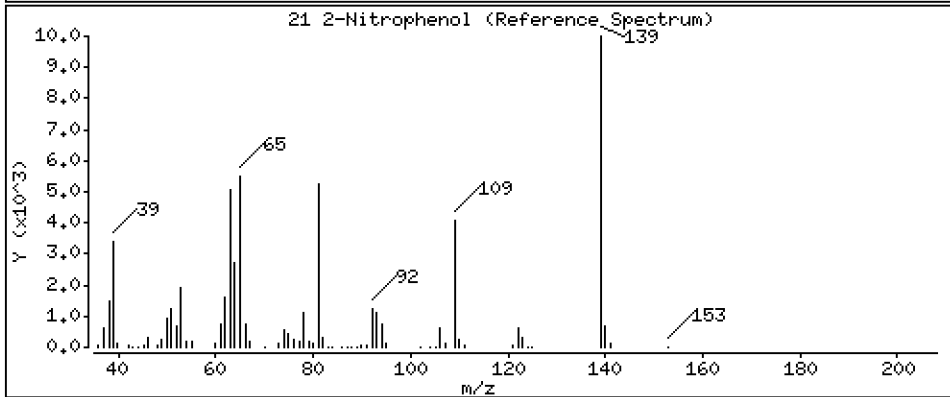
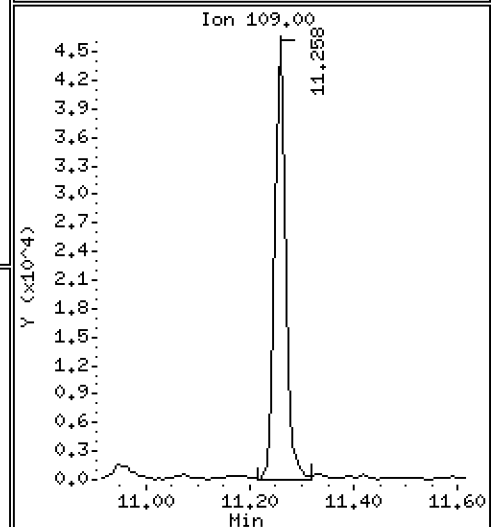
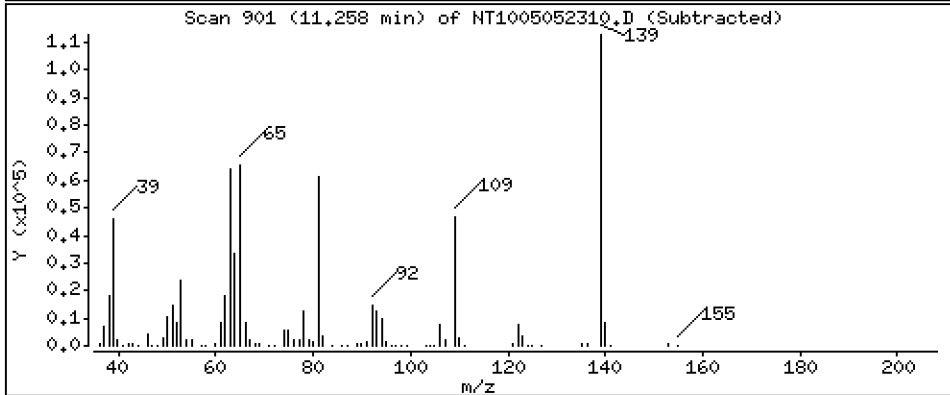
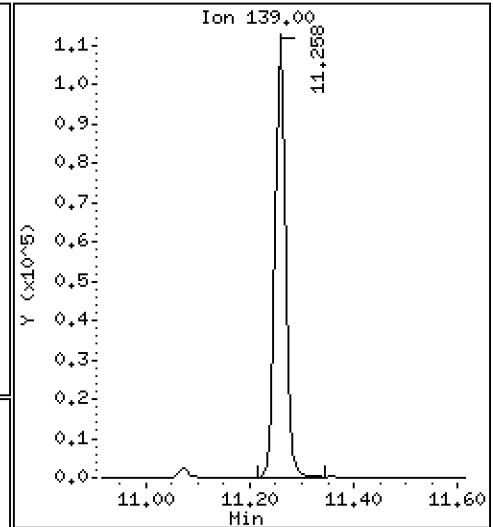
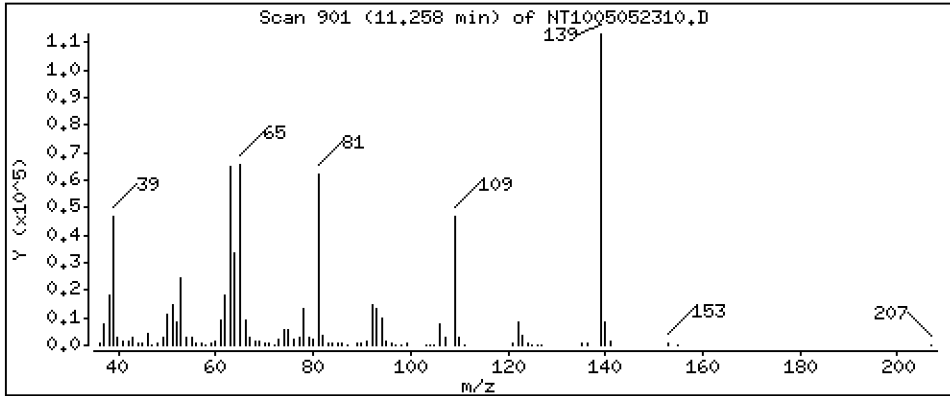
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

21 2-Nitrophenol

Concentration: 4.335 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

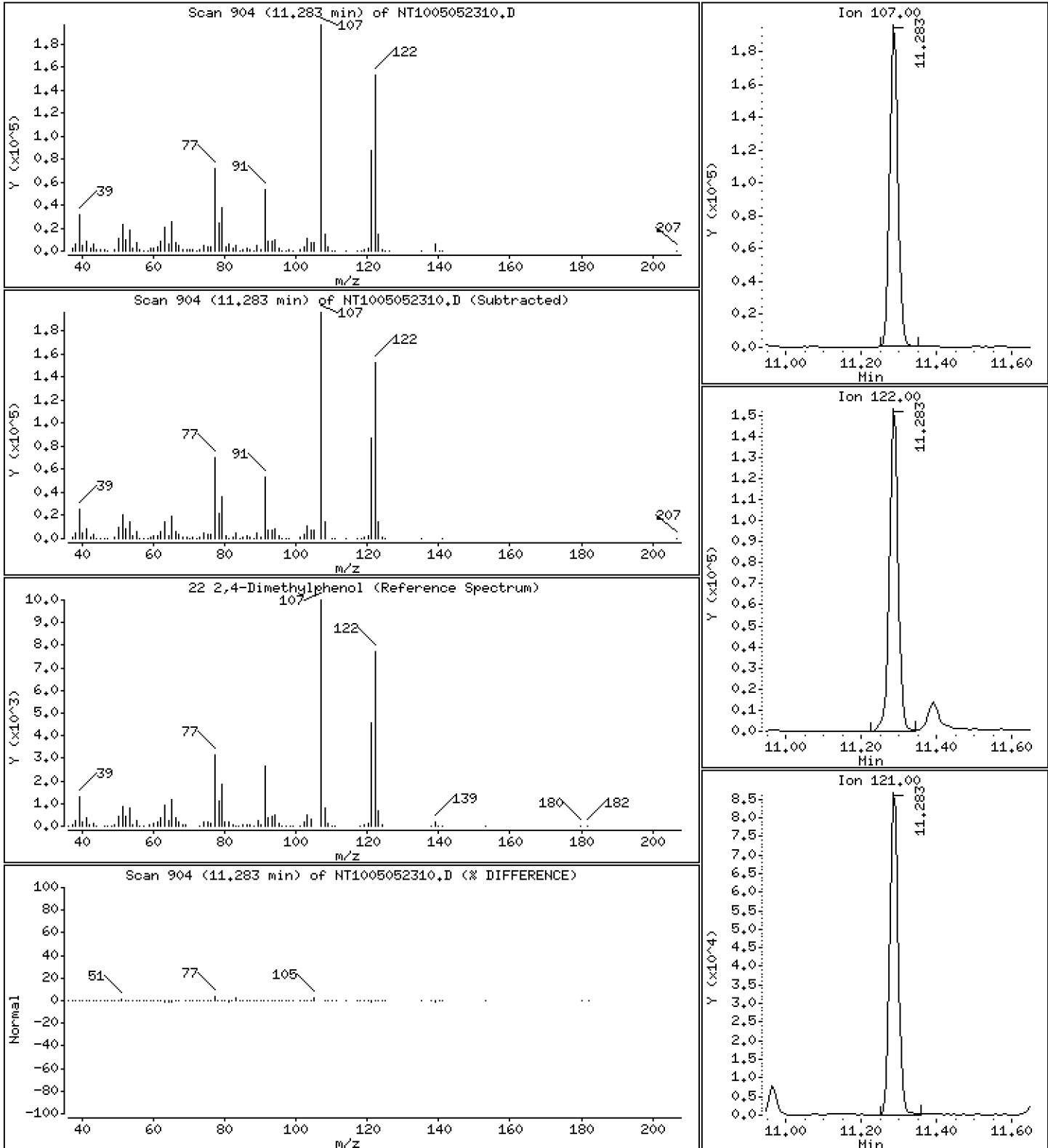
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 4,323 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

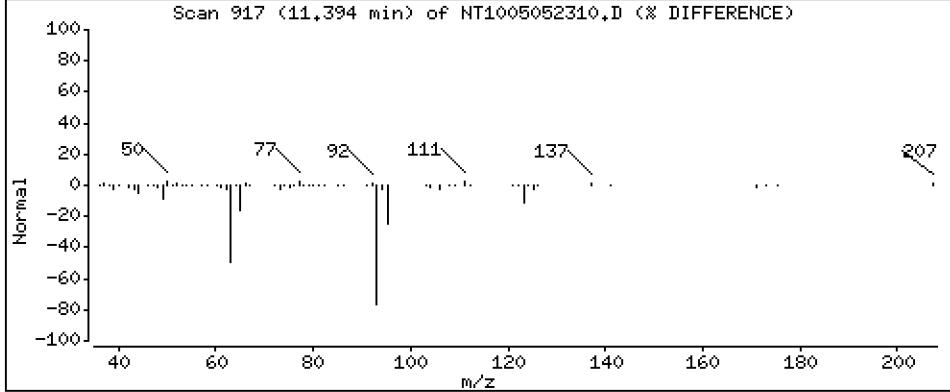
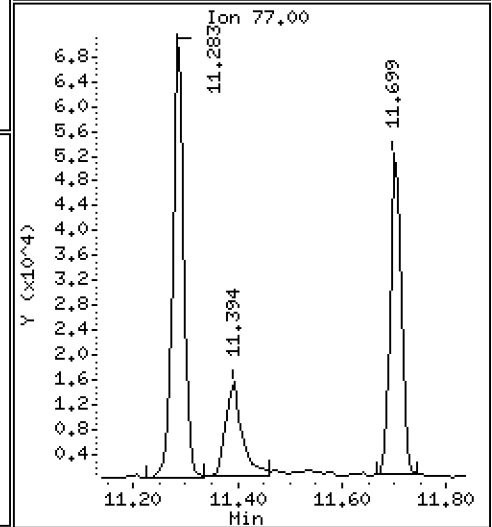
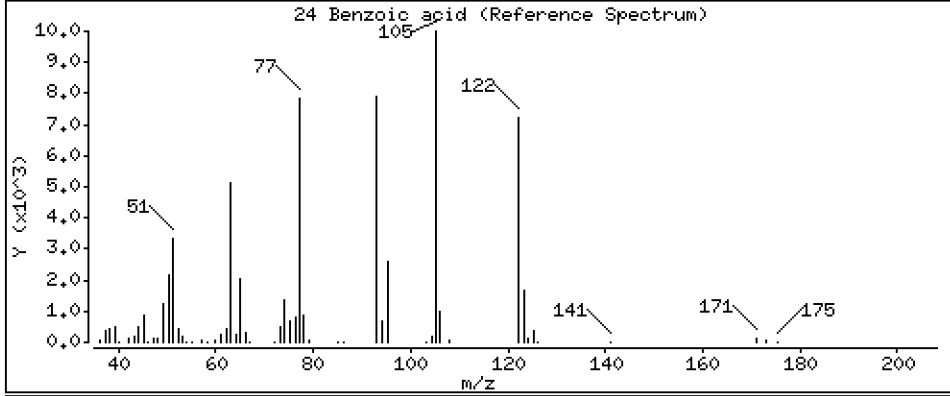
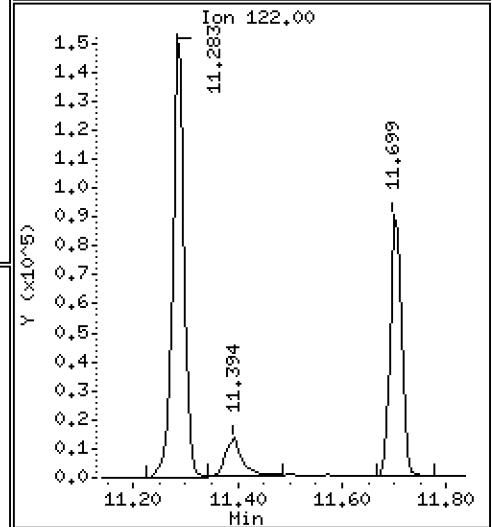
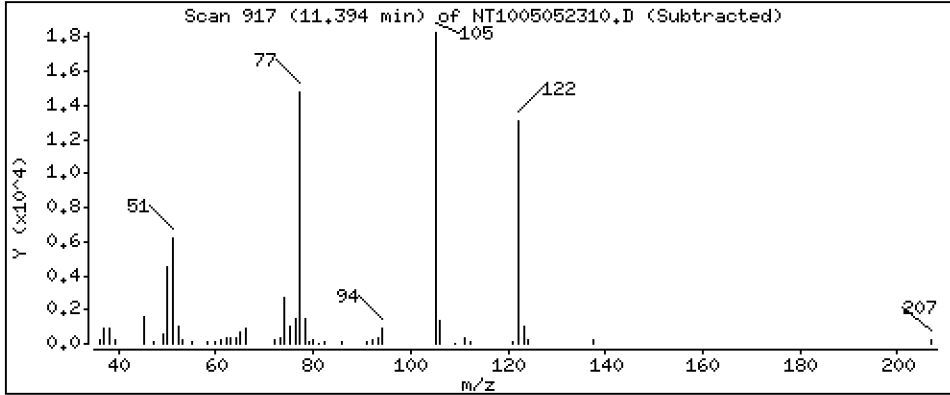
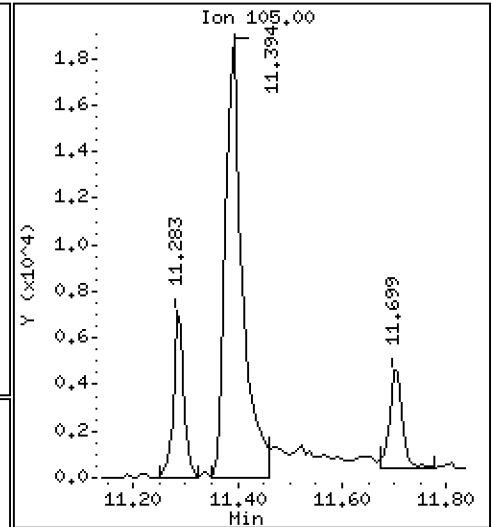
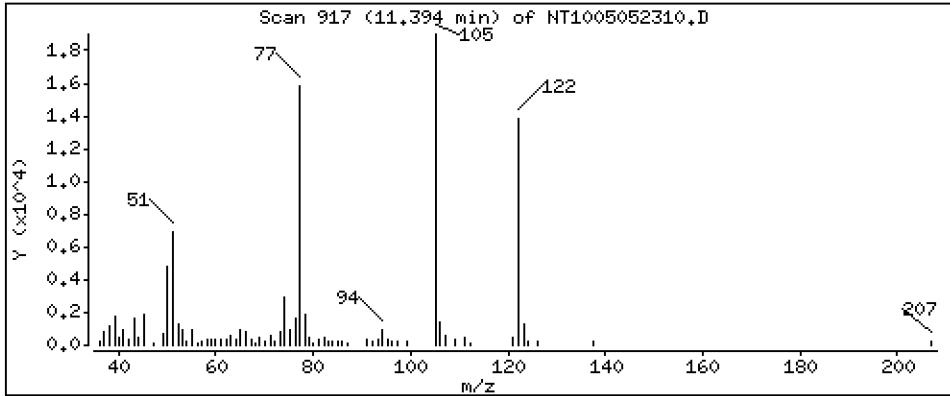
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.9285 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

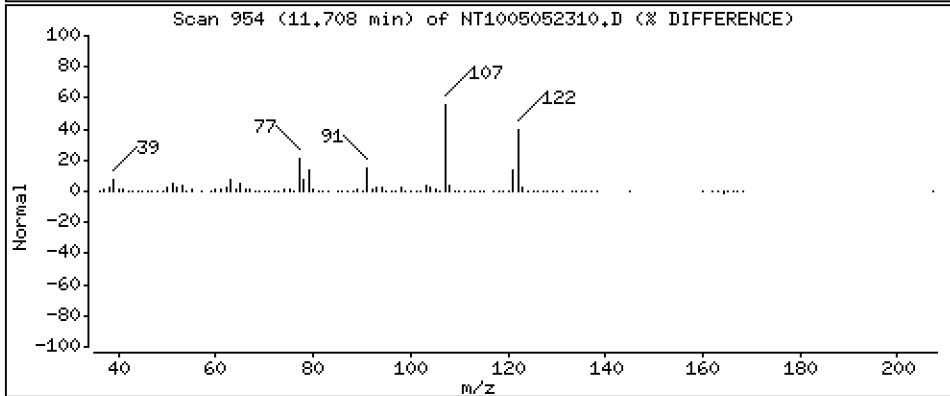
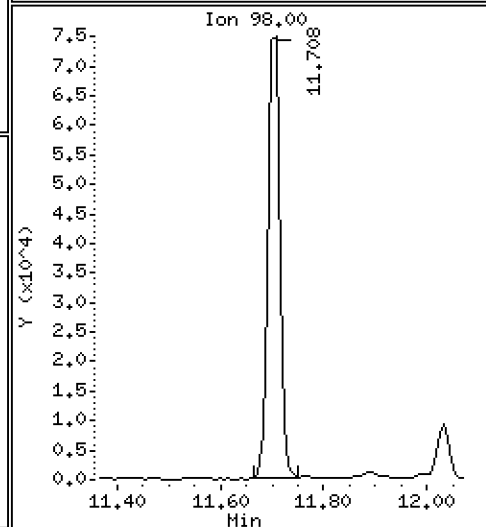
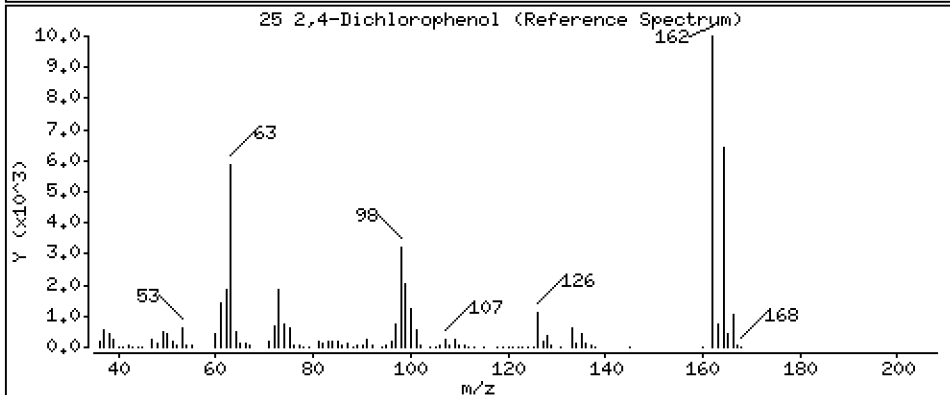
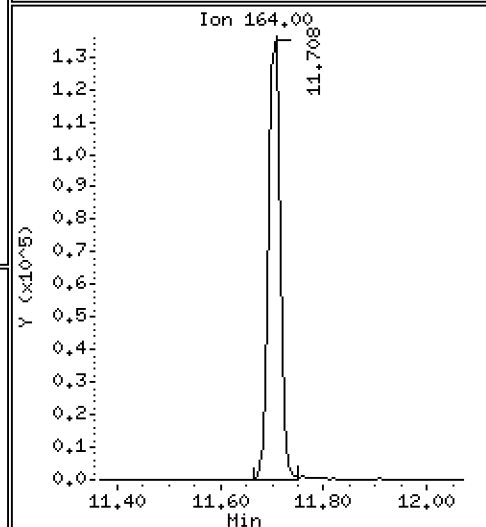
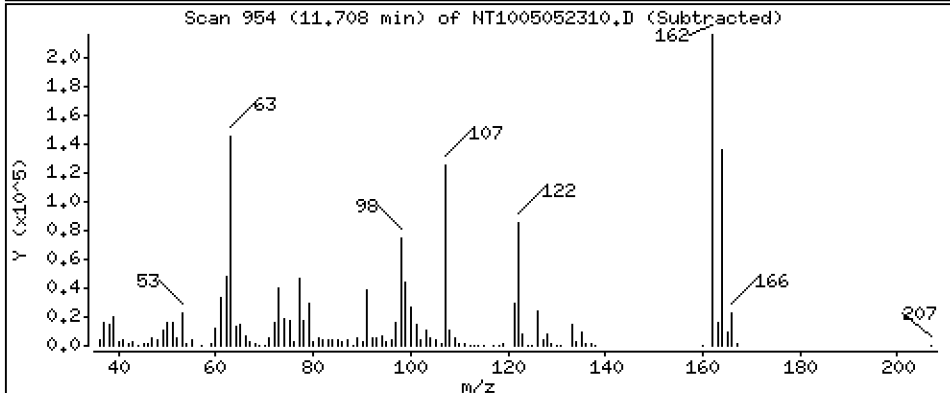
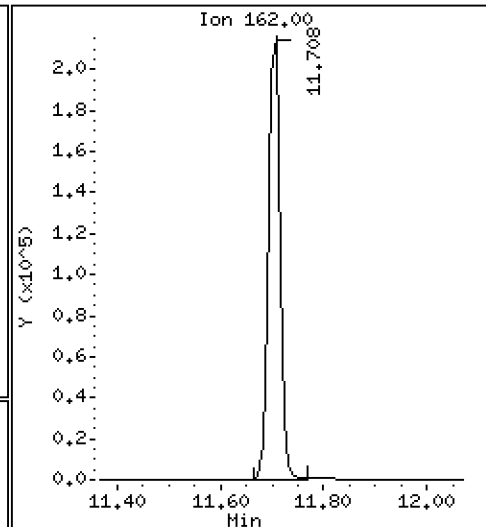
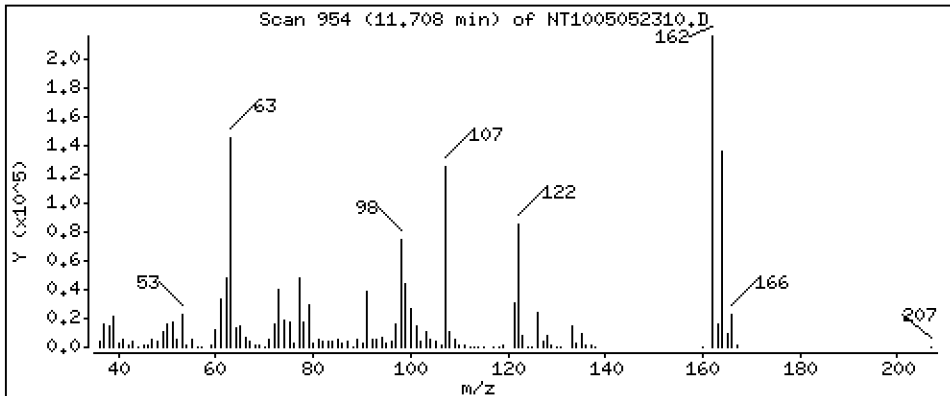
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 6,304 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

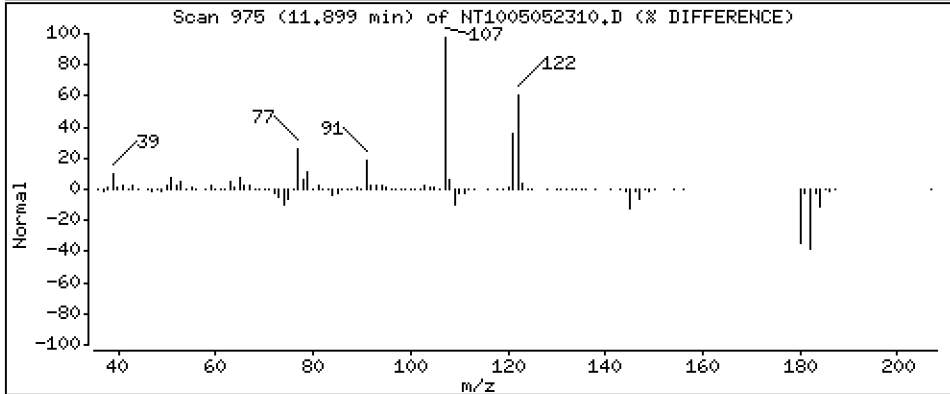
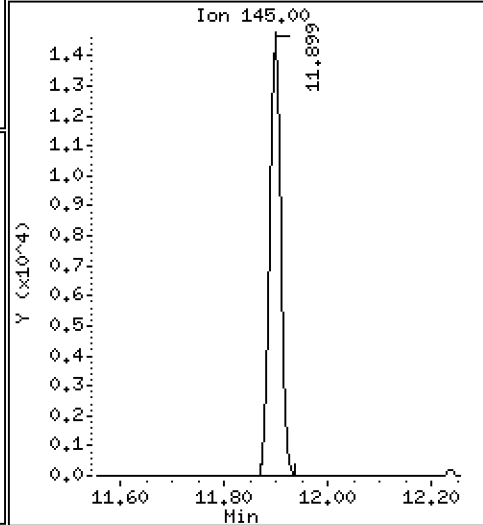
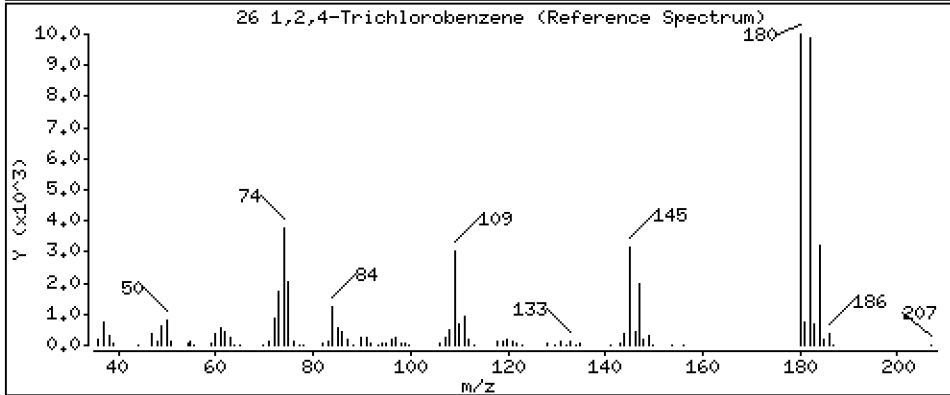
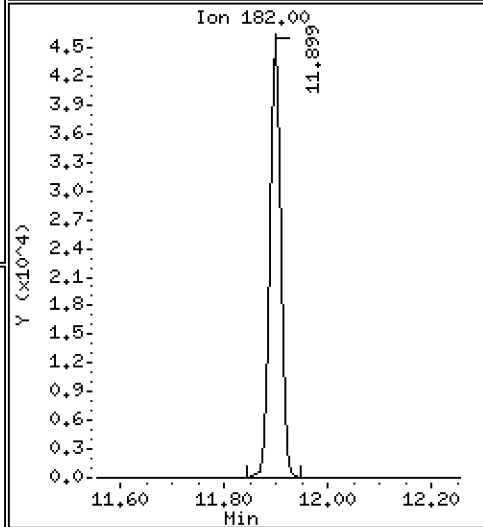
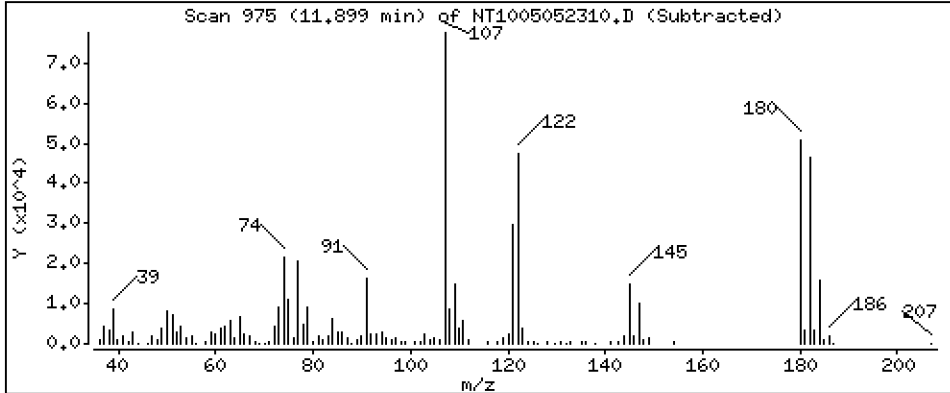
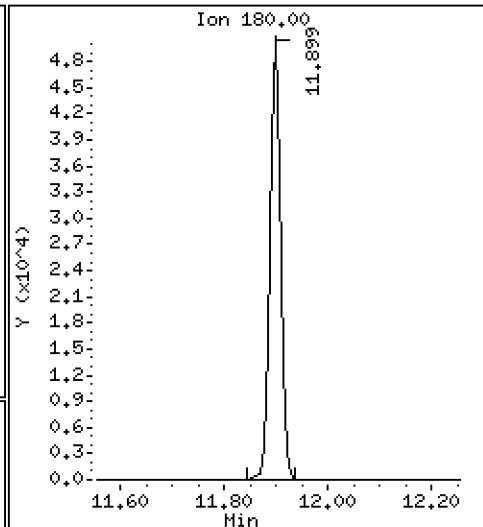
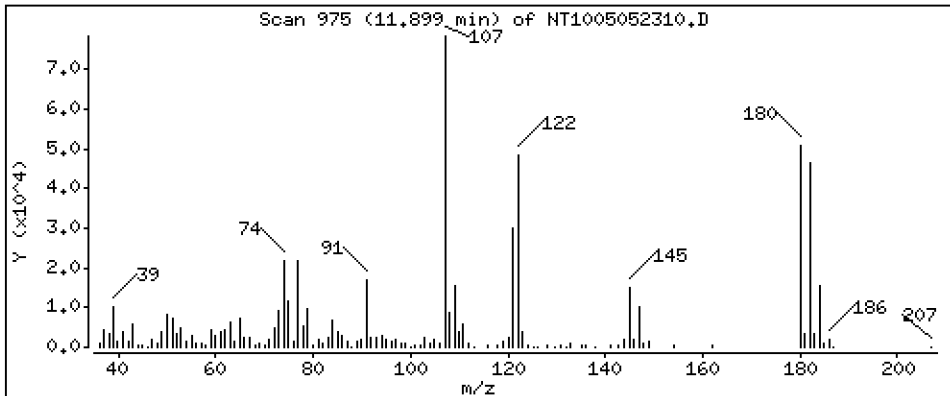
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 1,200 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

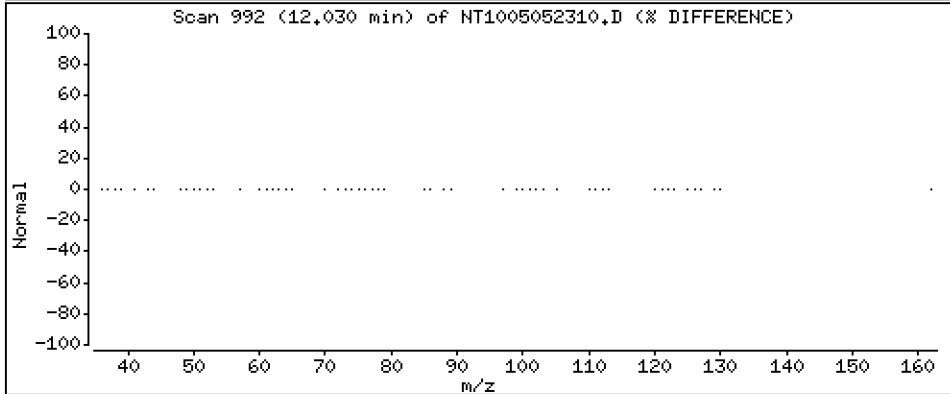
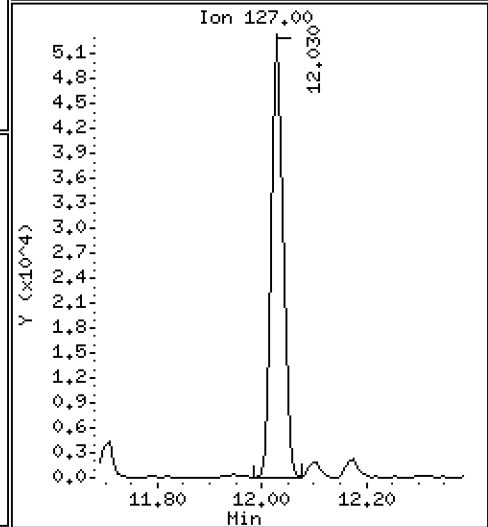
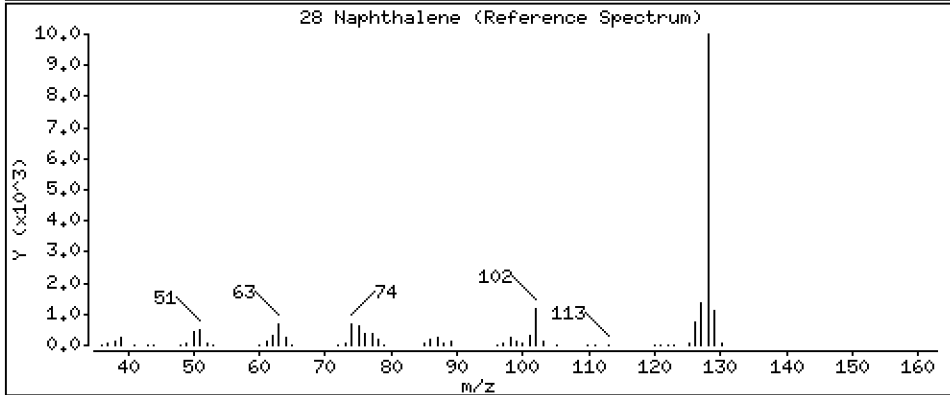
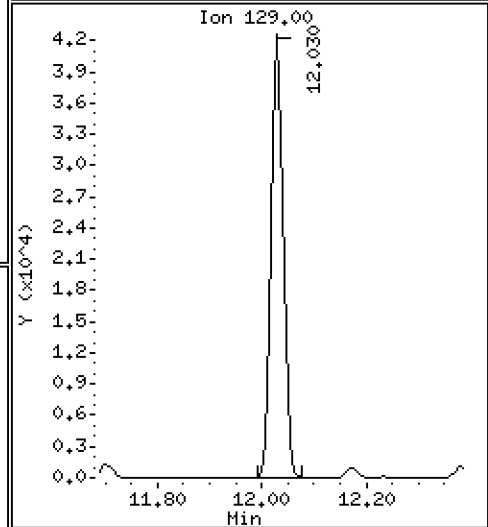
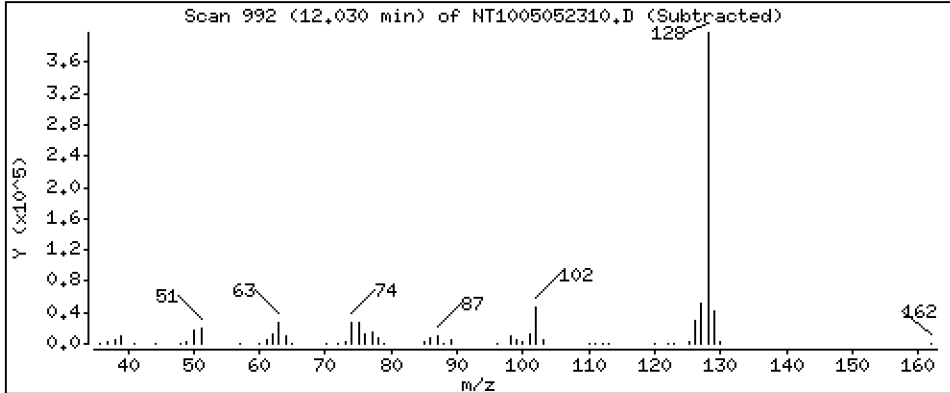
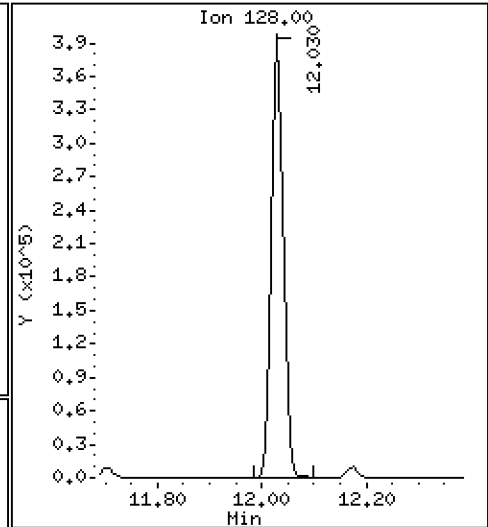
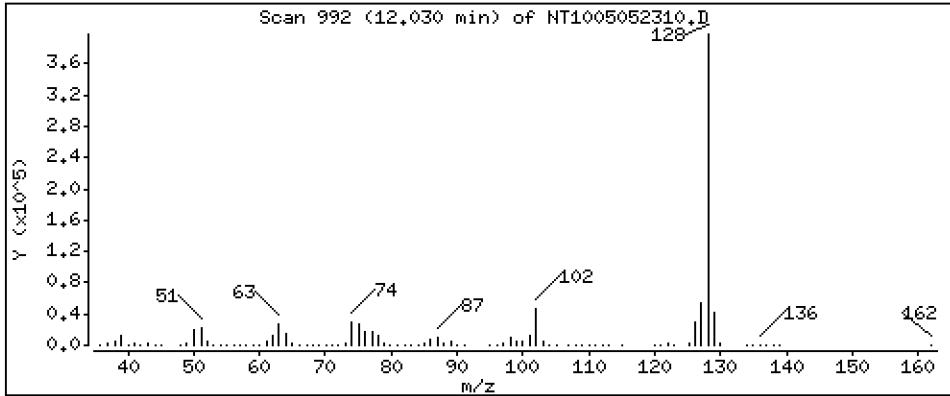
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 3,417 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

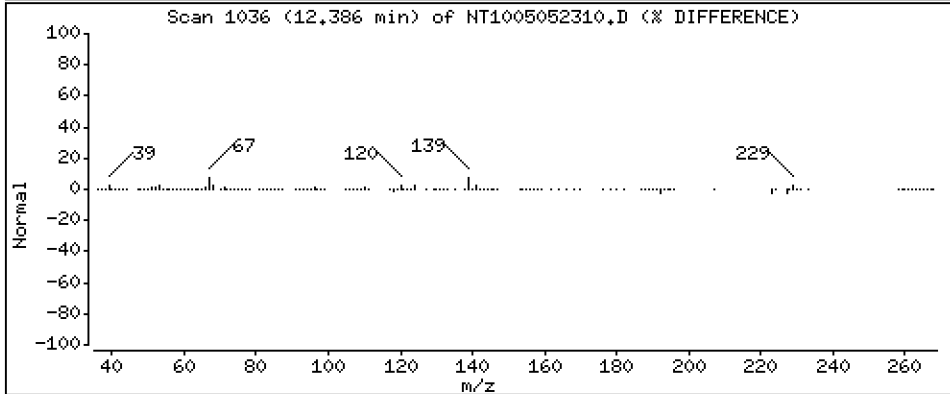
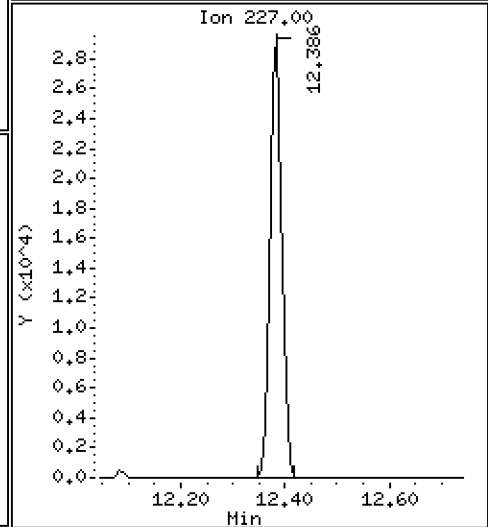
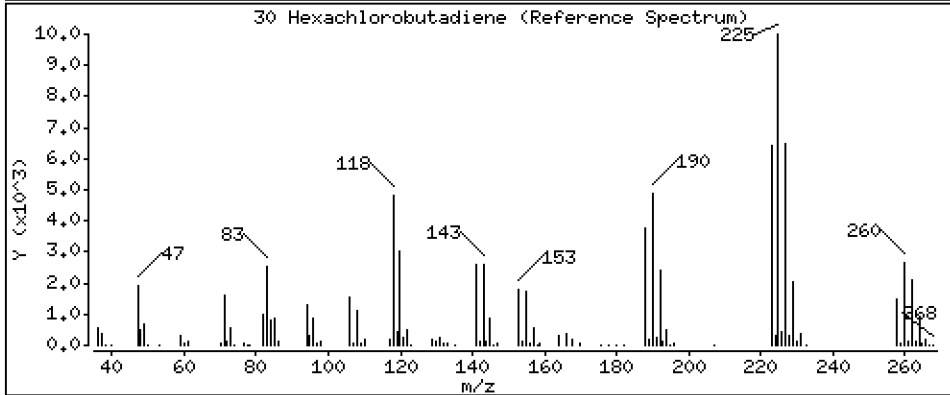
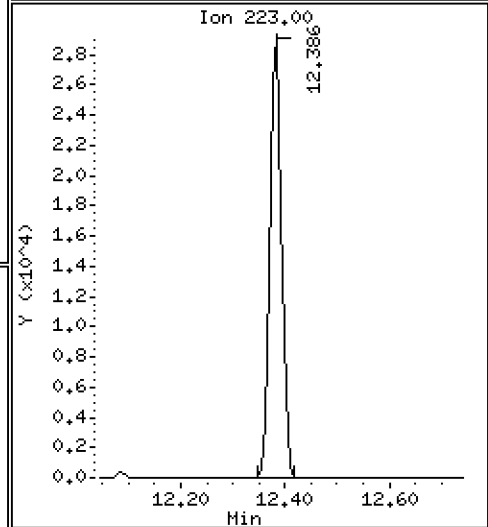
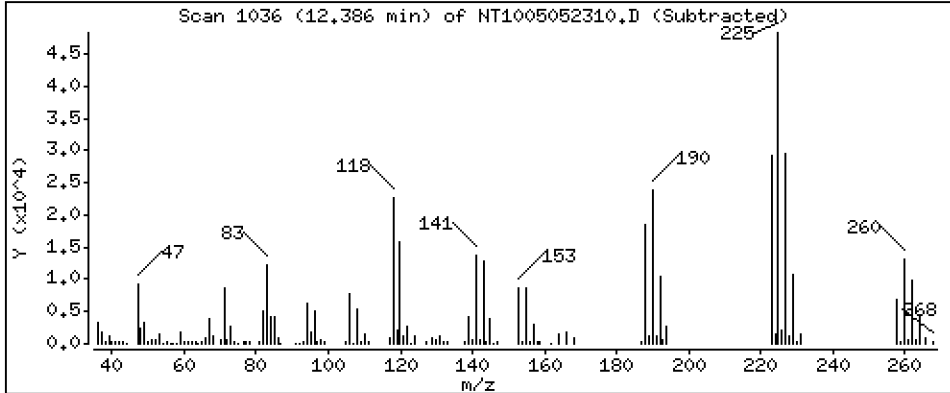
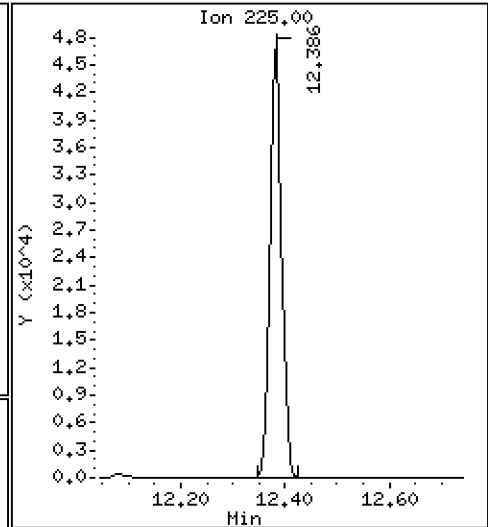
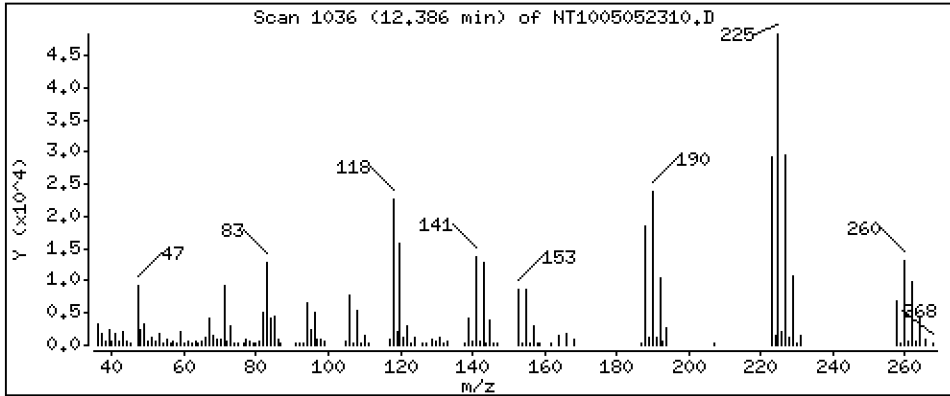
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 1,717 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

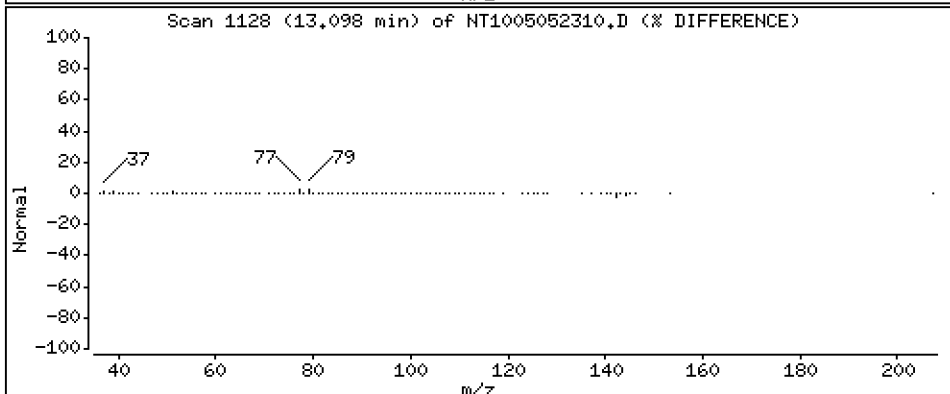
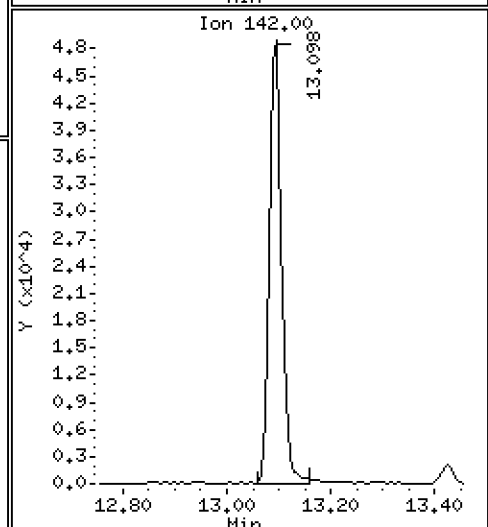
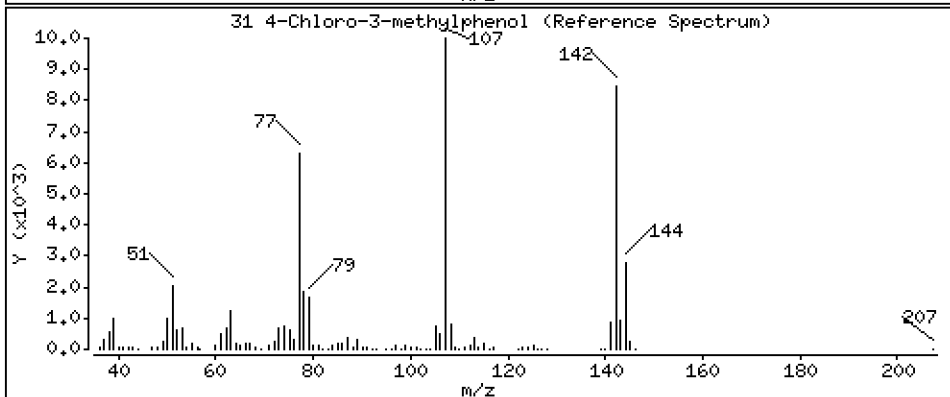
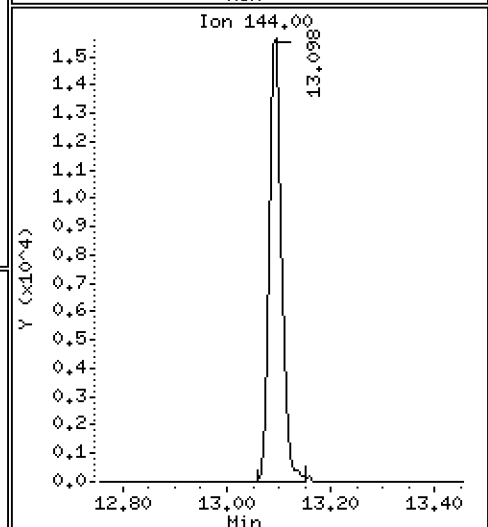
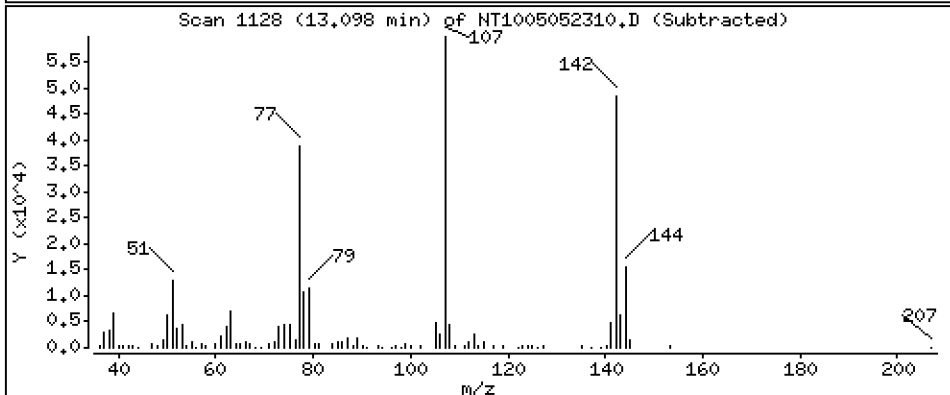
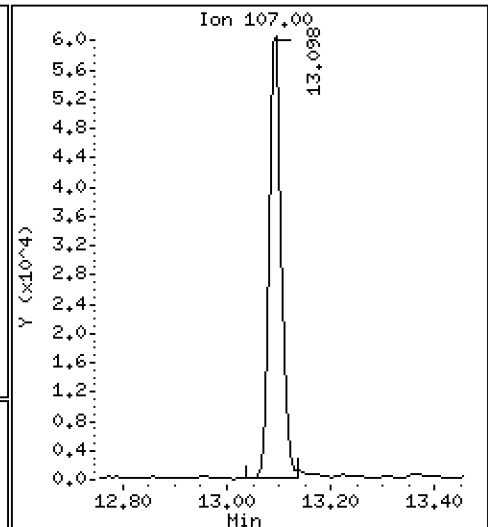
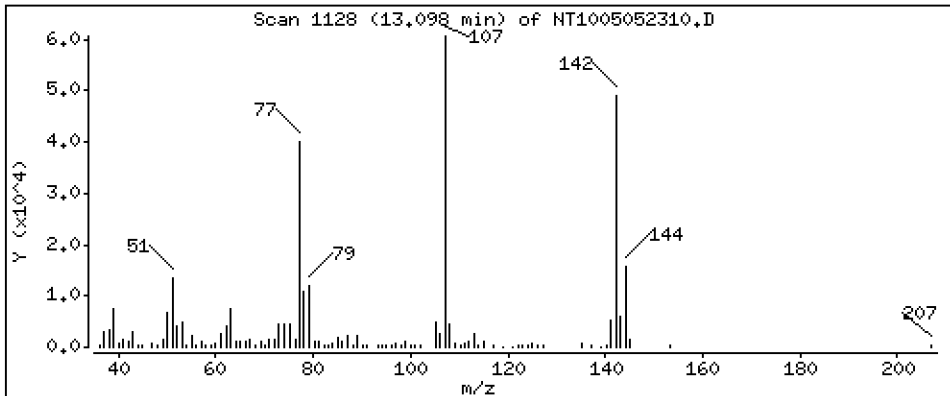
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 1,686 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

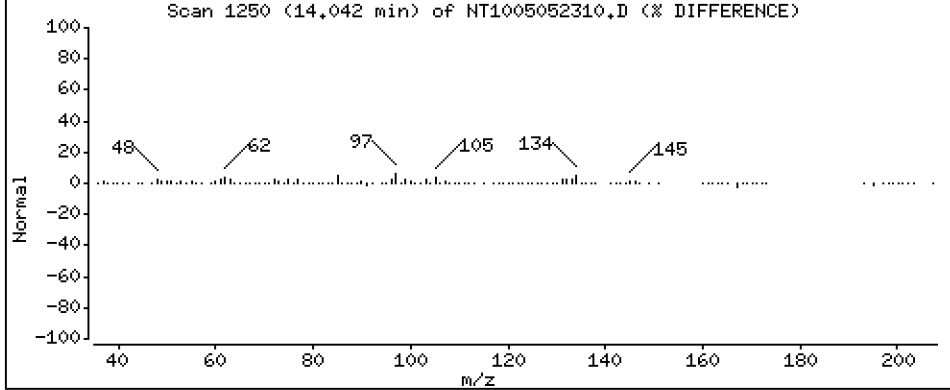
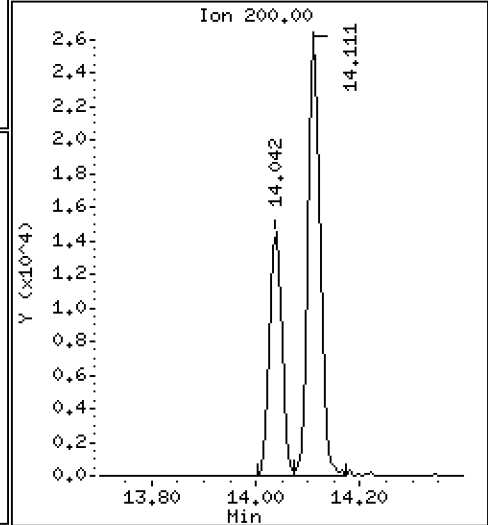
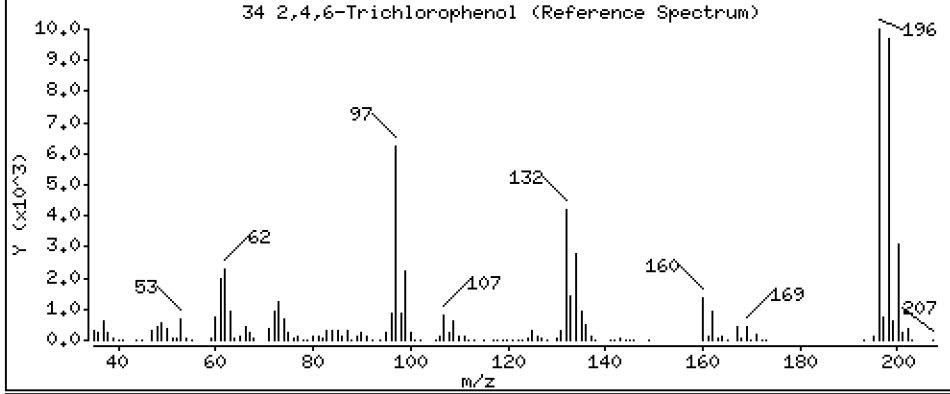
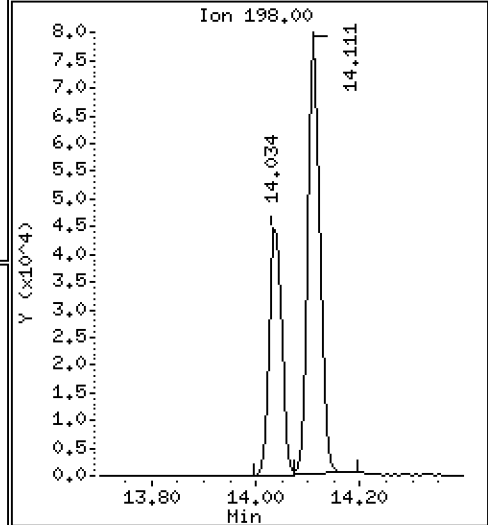
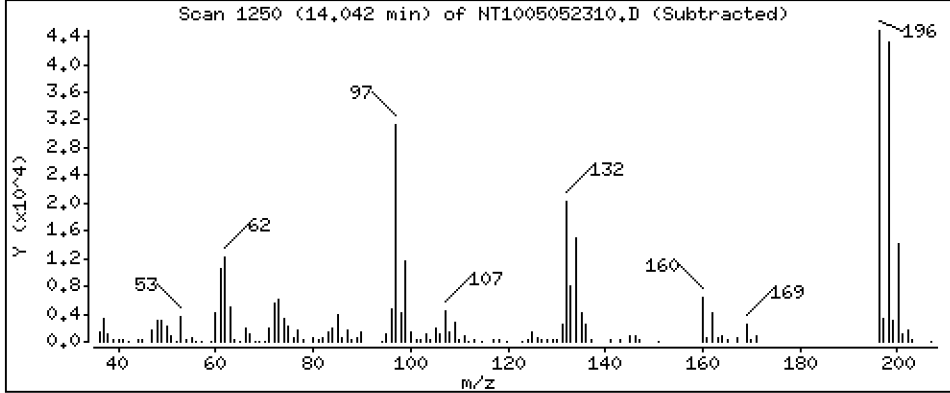
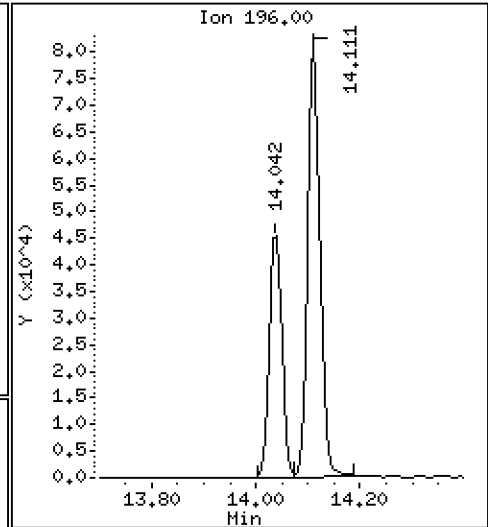
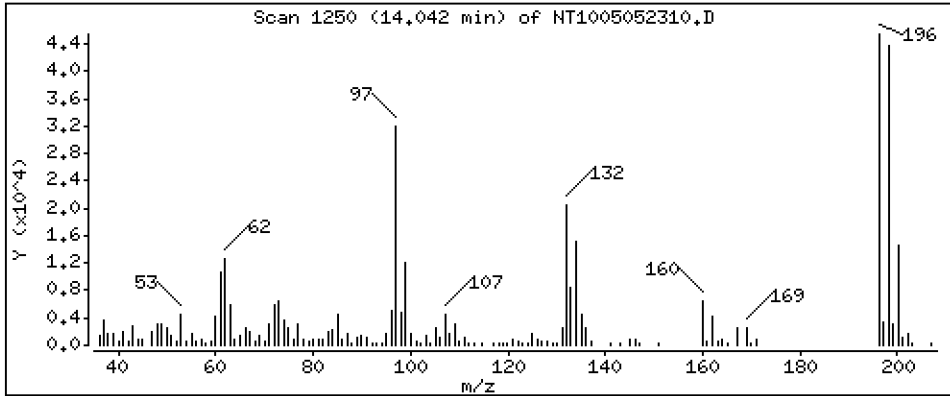
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 1,684 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

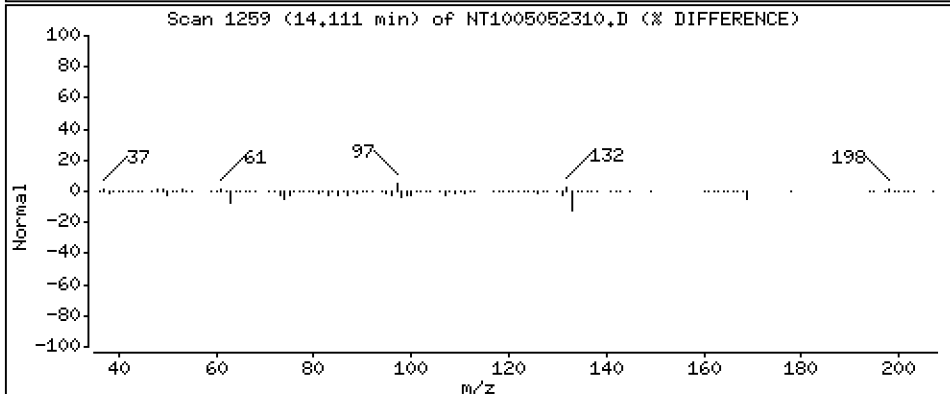
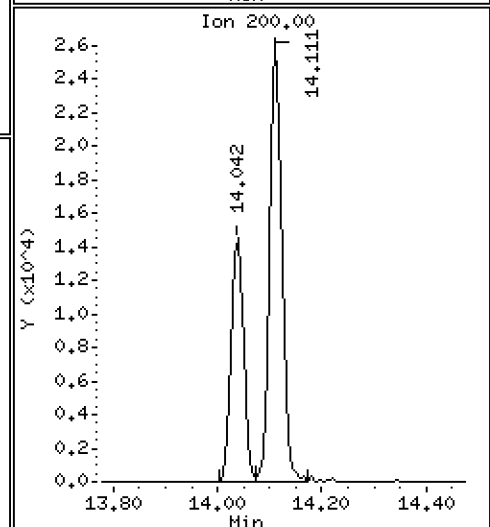
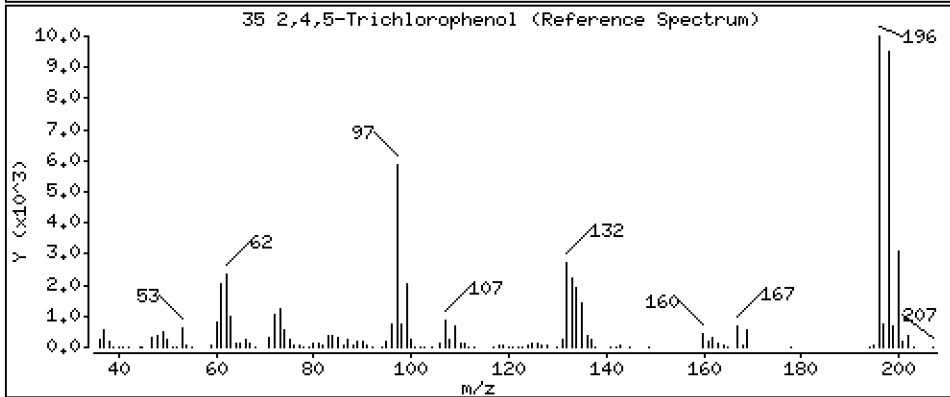
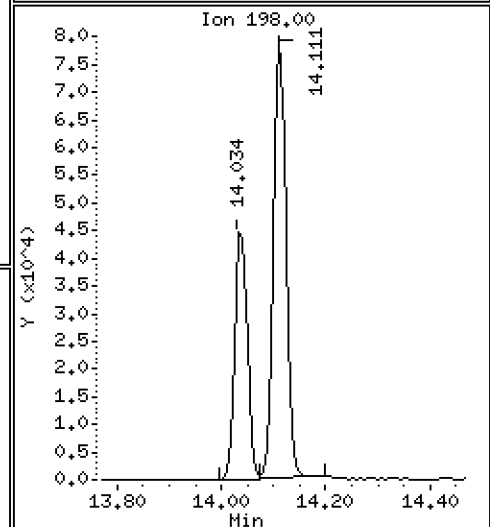
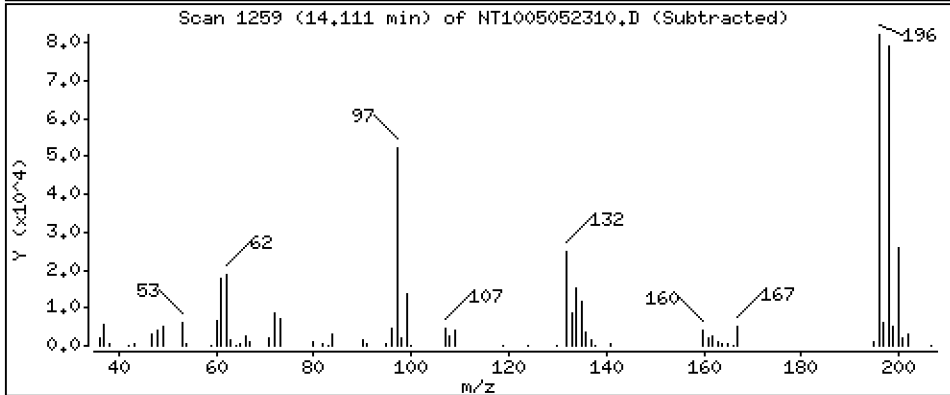
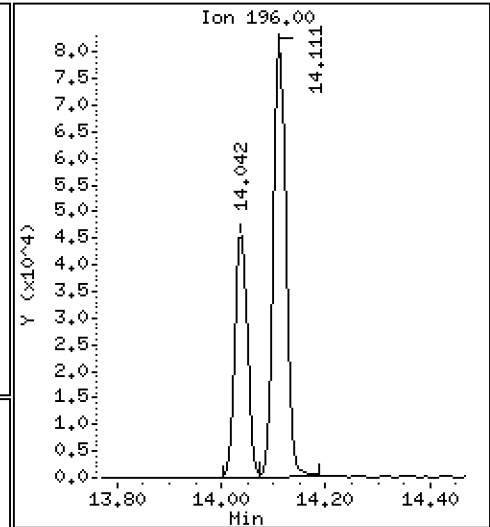
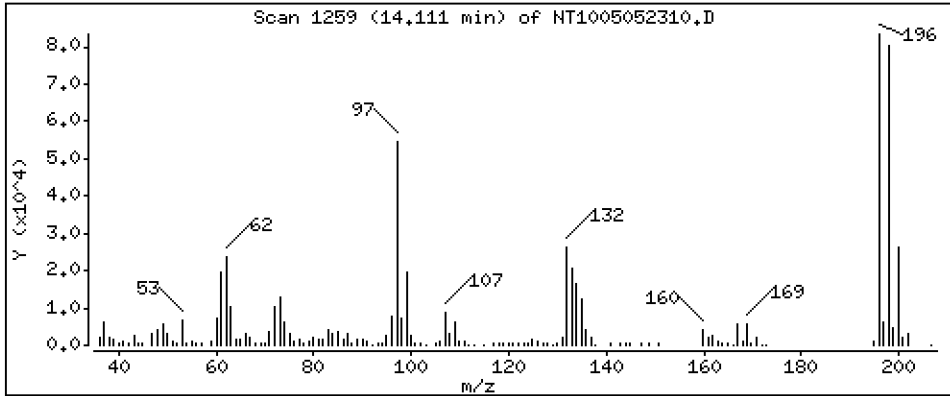
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 2,725 ug/mL



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Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

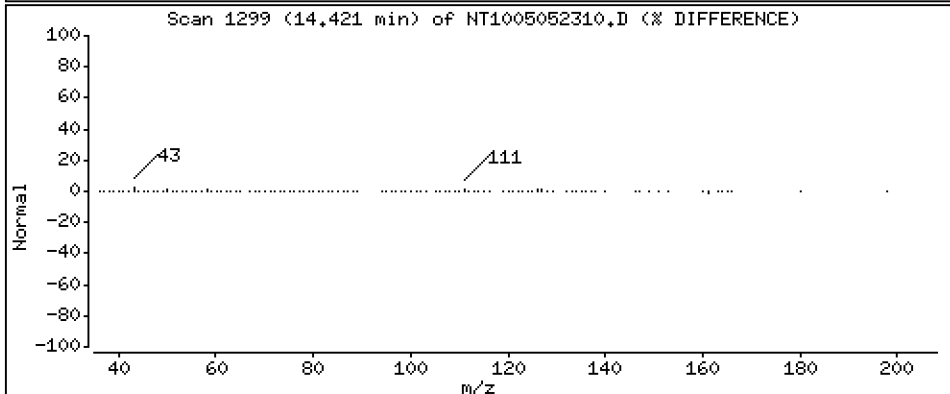
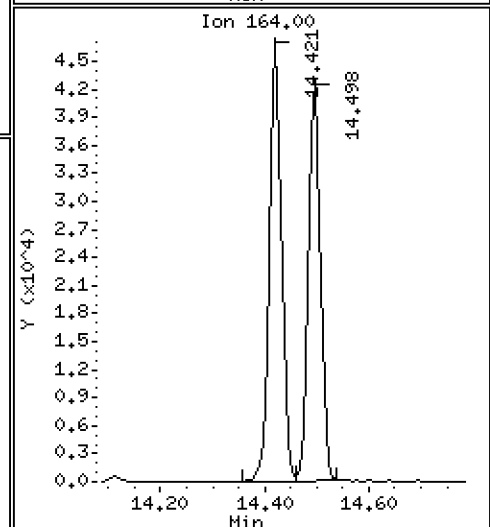
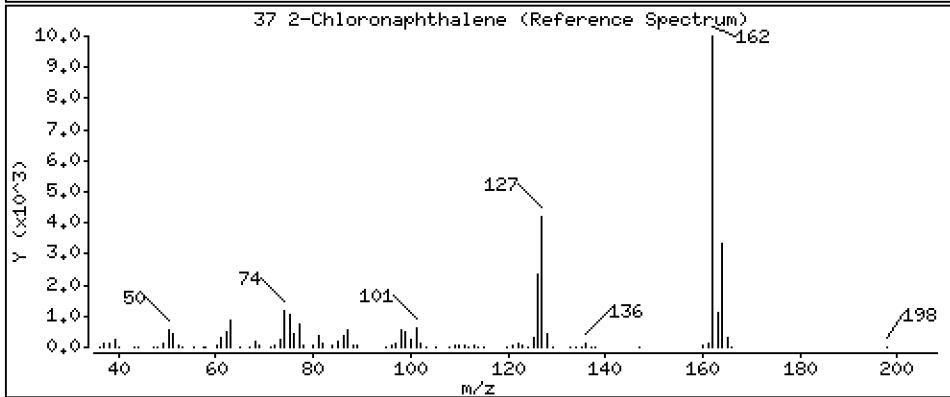
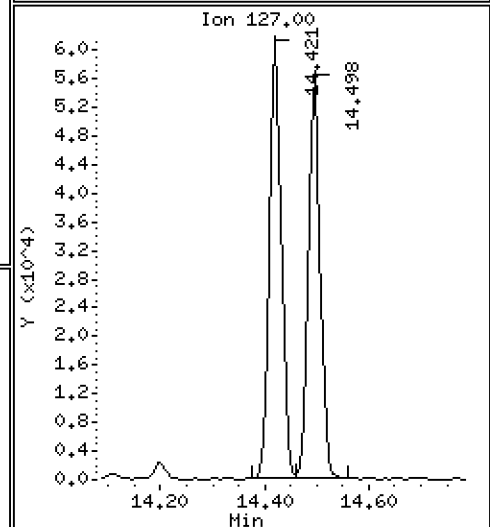
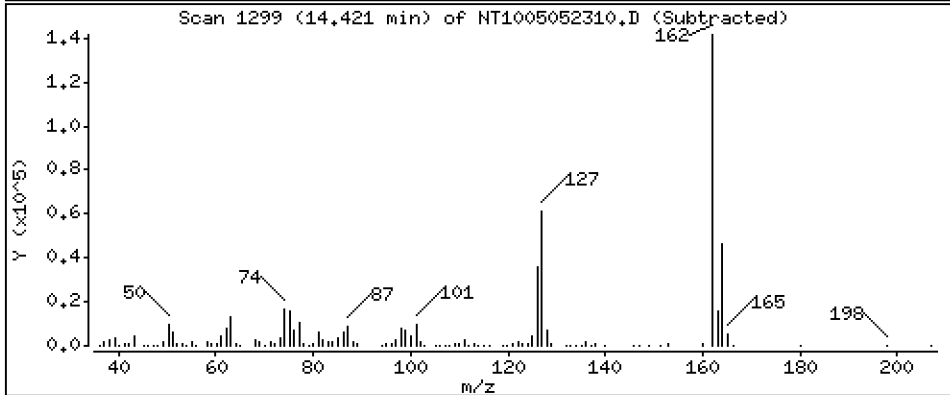
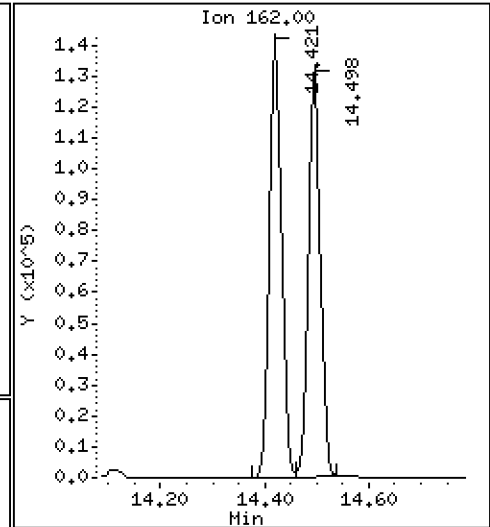
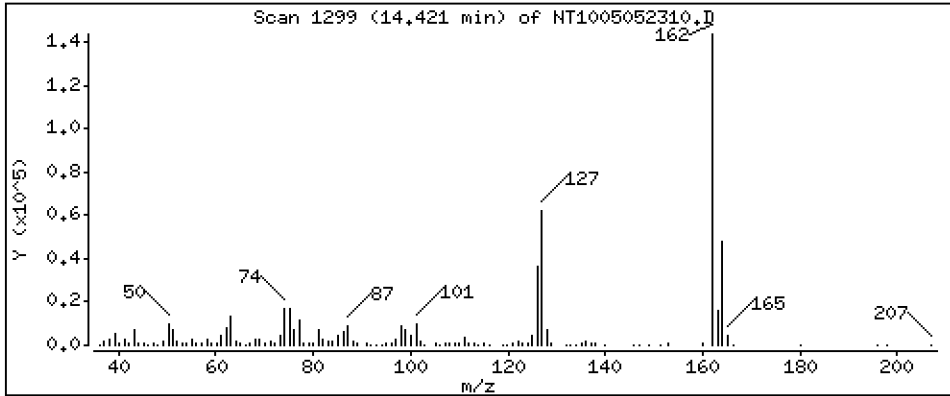
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 1.842 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

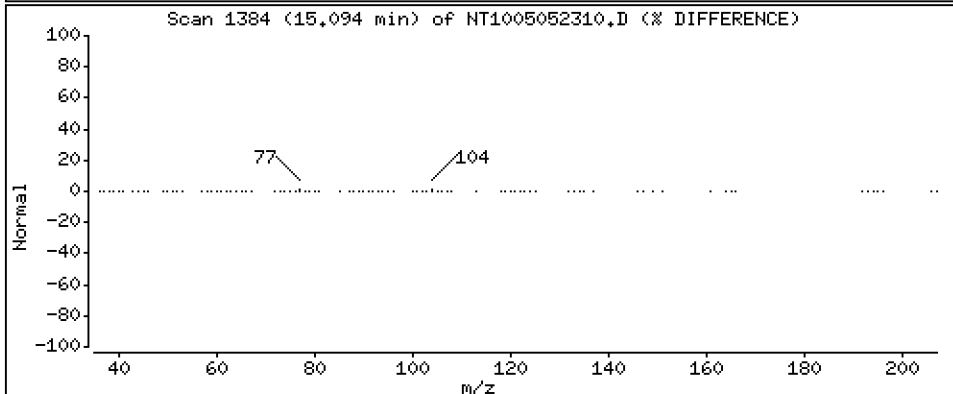
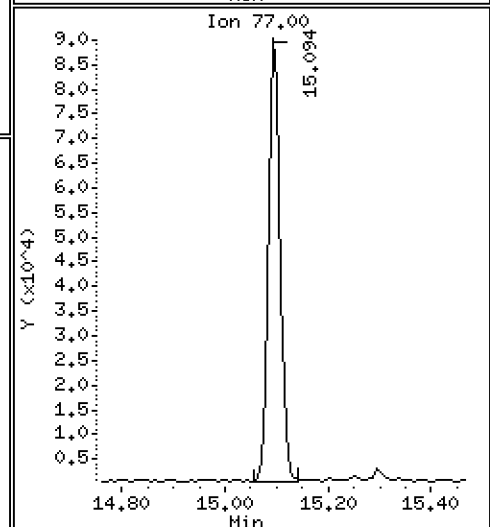
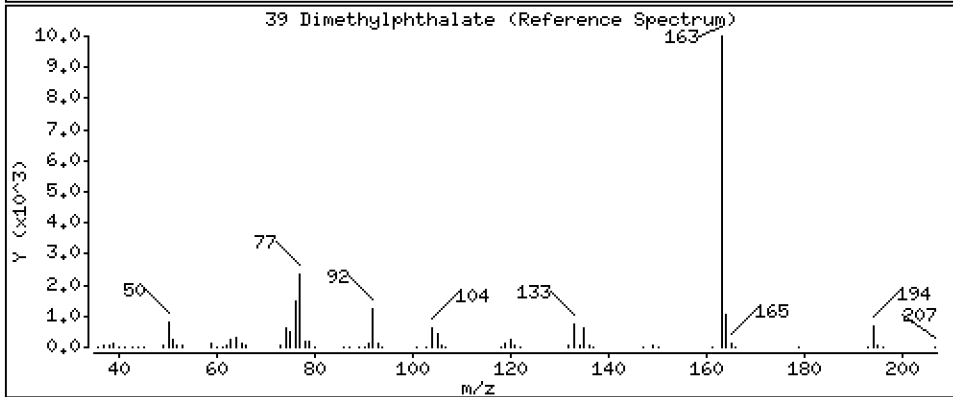
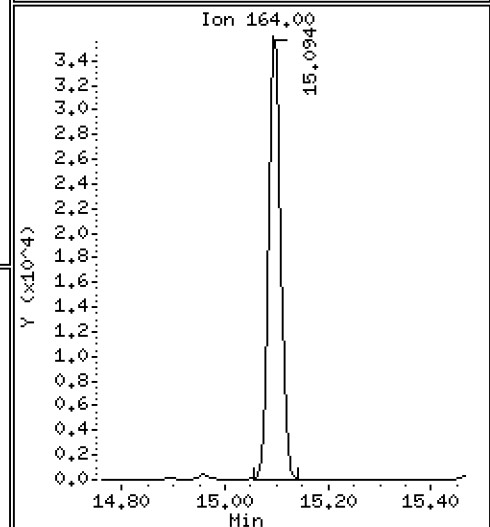
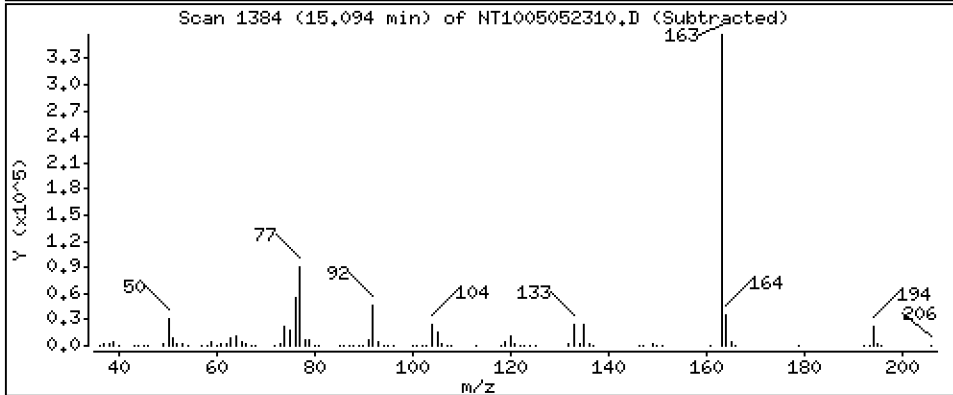
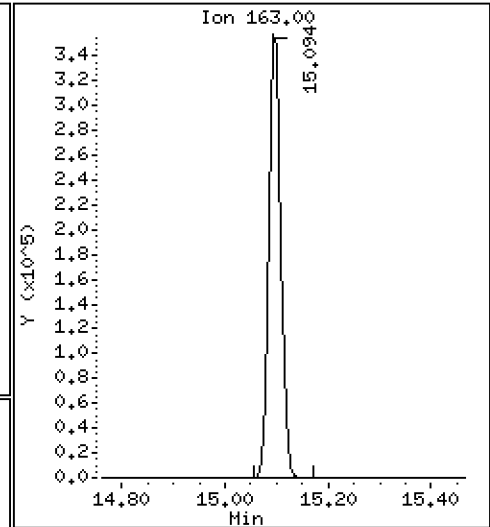
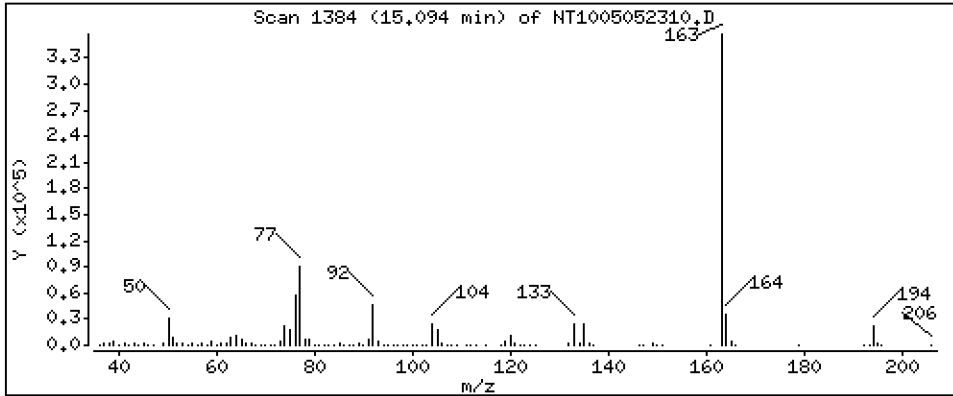
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,177 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

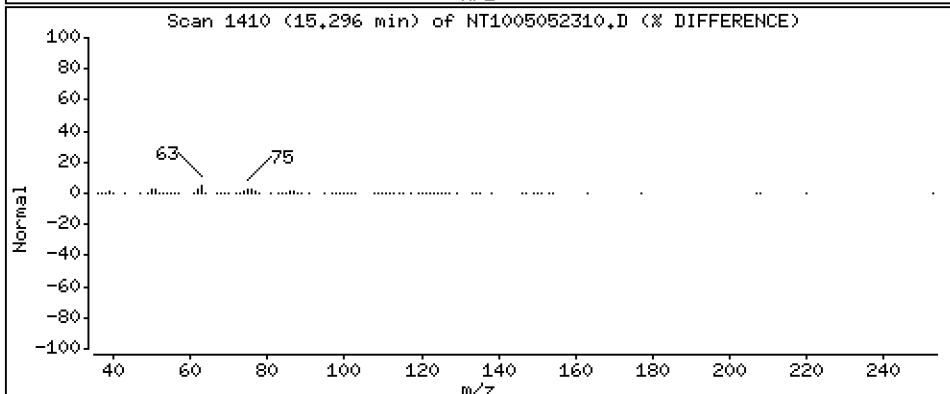
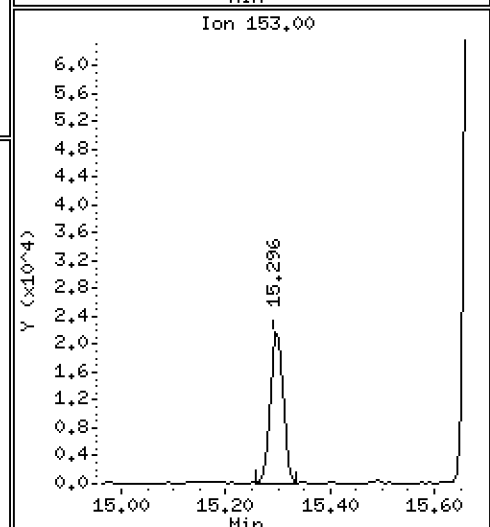
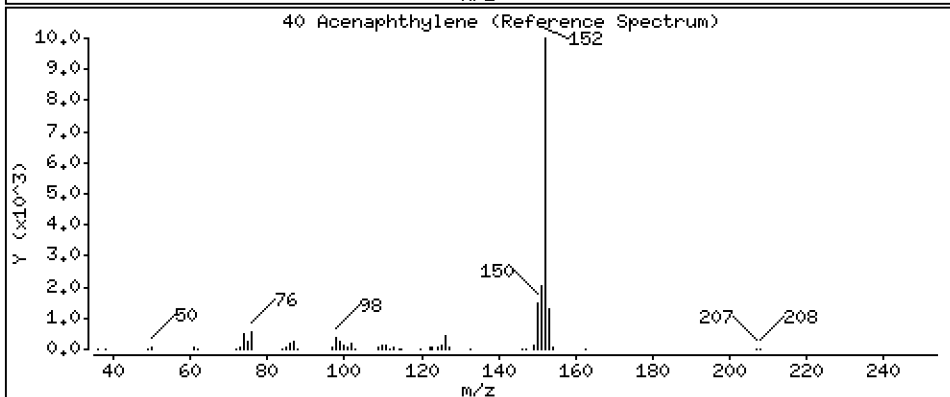
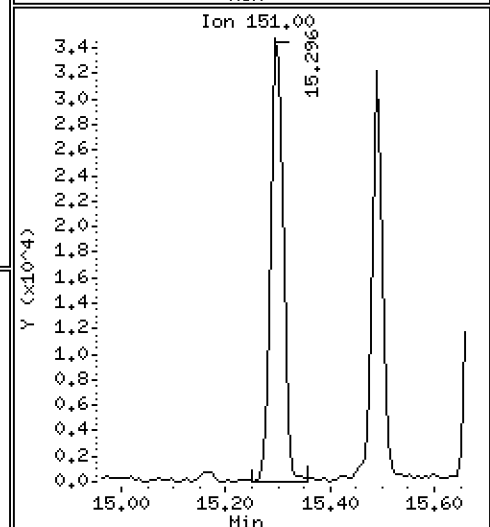
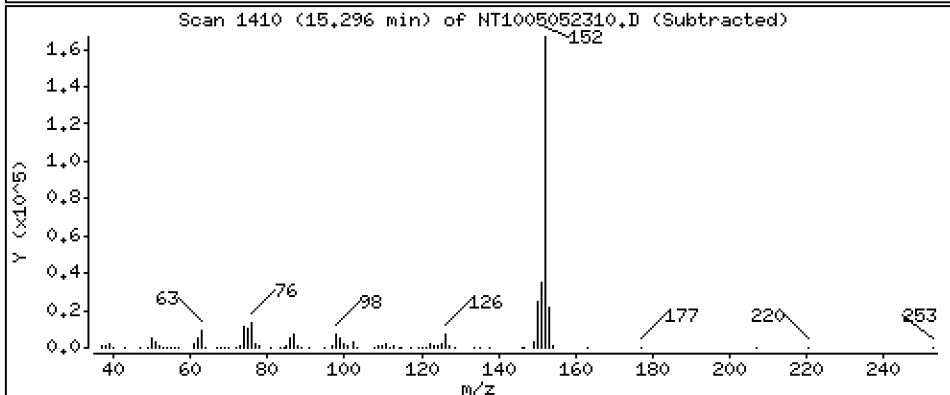
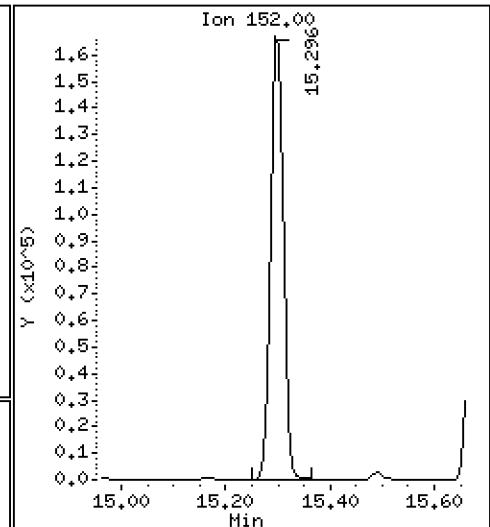
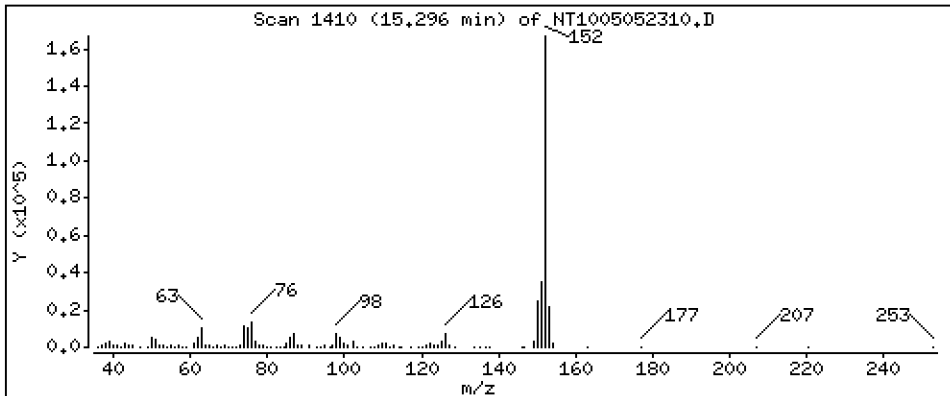
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 1,436 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

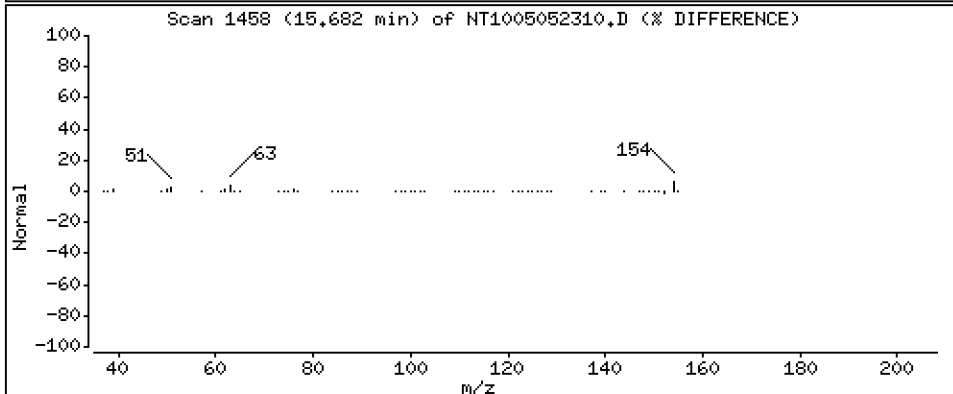
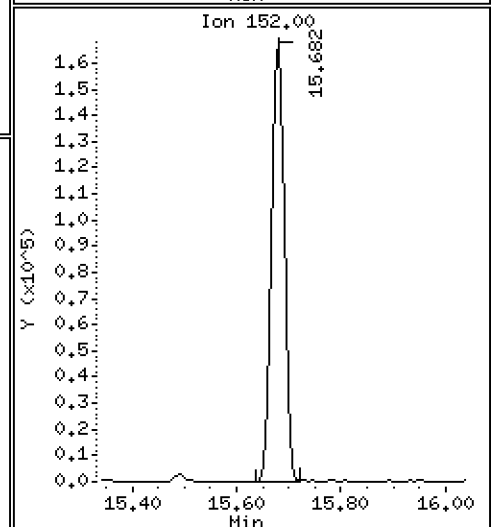
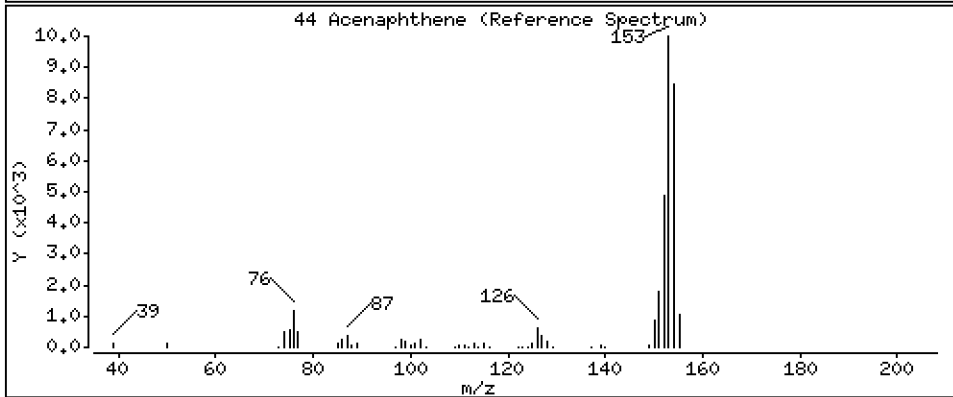
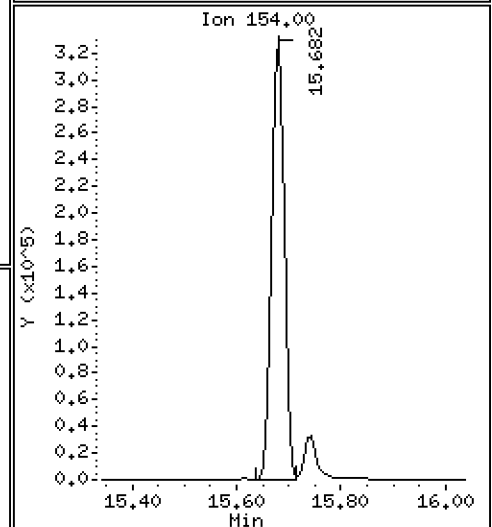
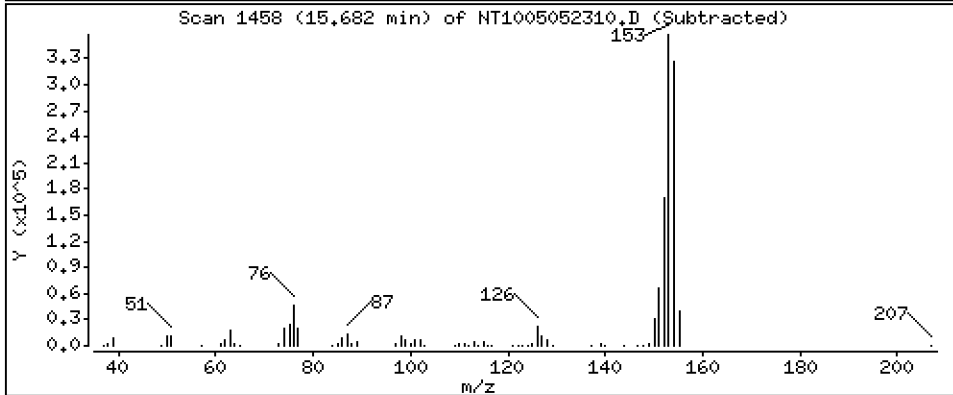
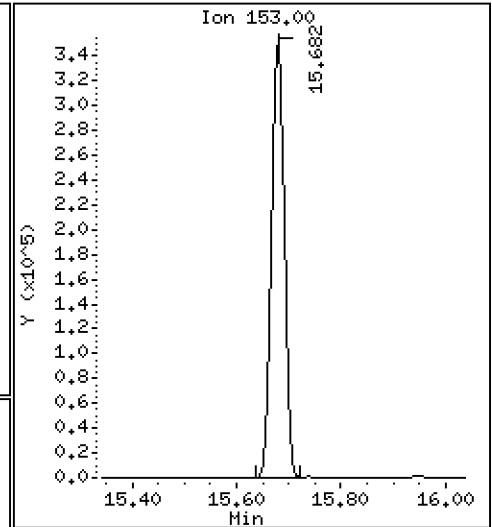
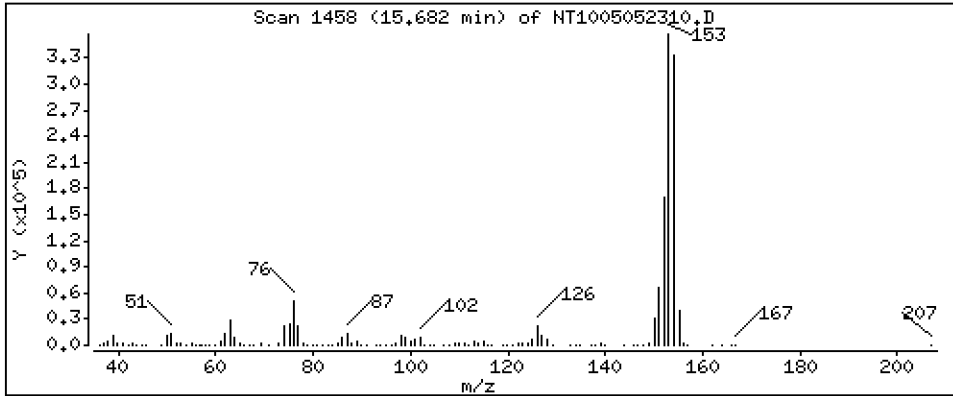
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,718 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

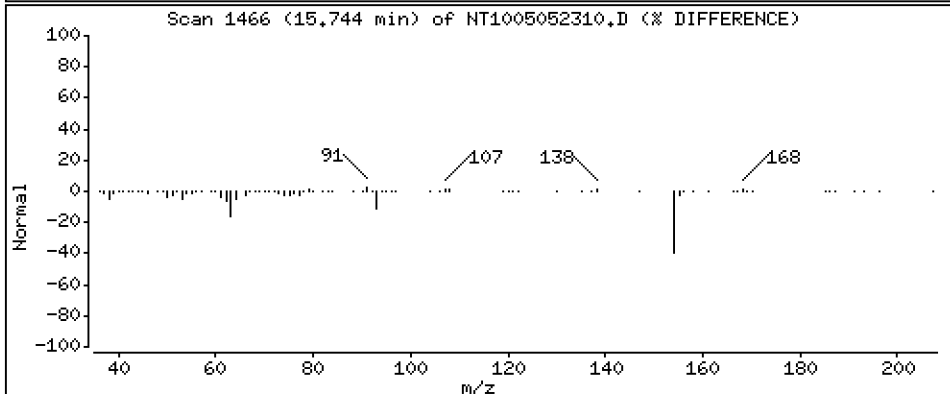
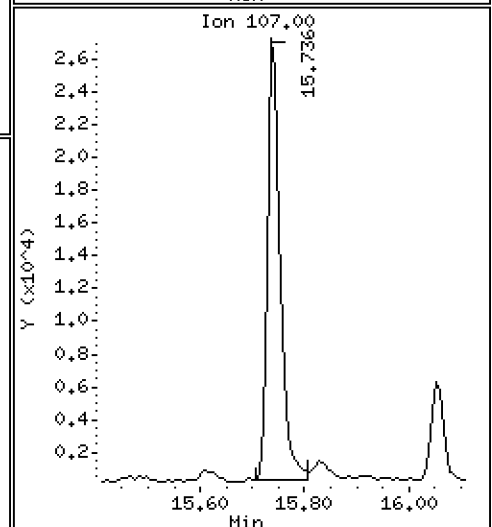
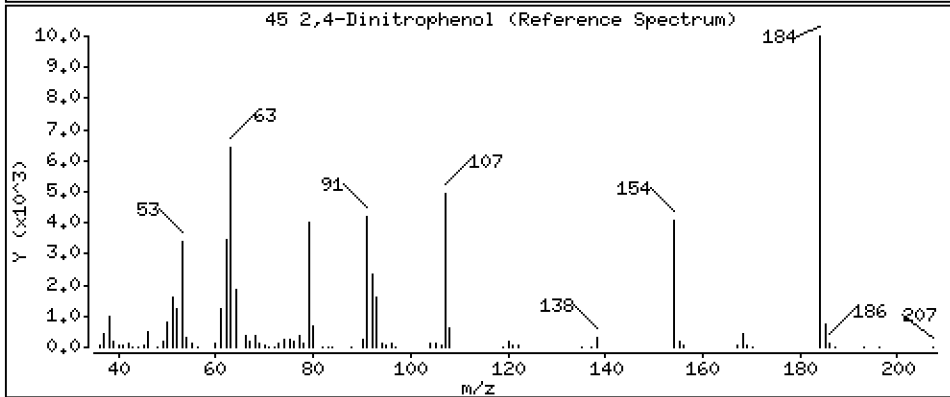
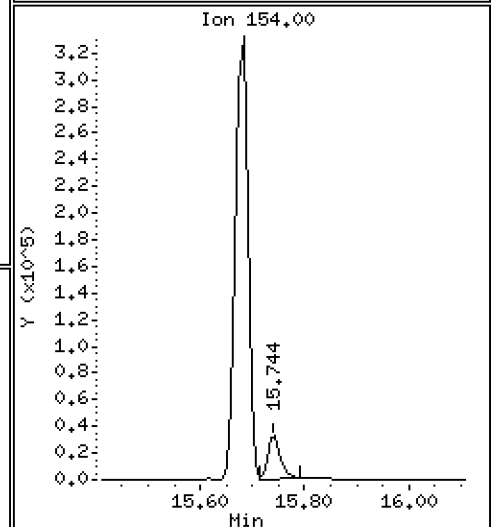
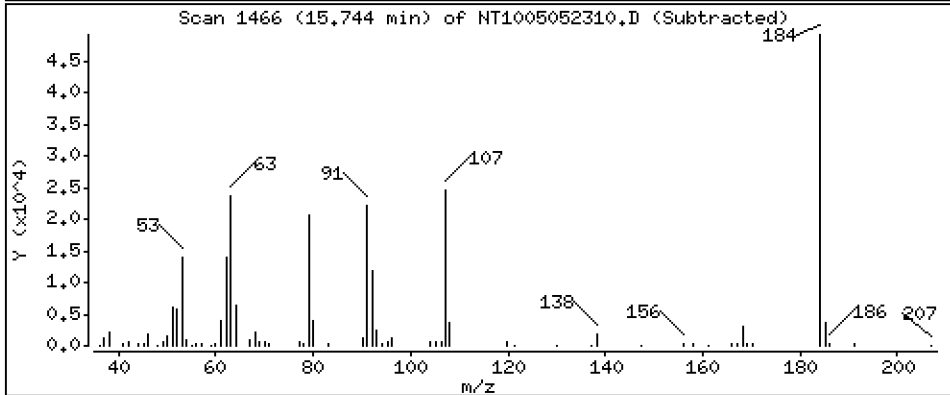
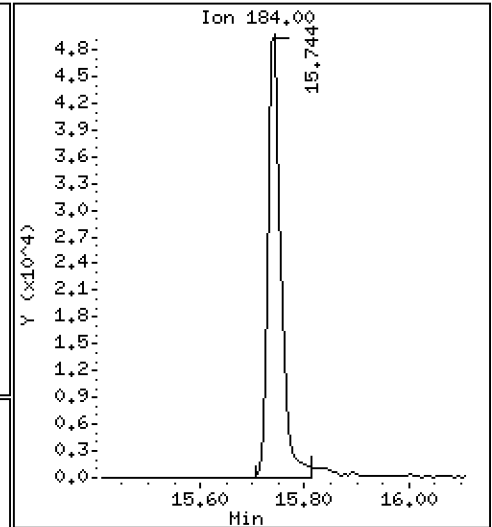
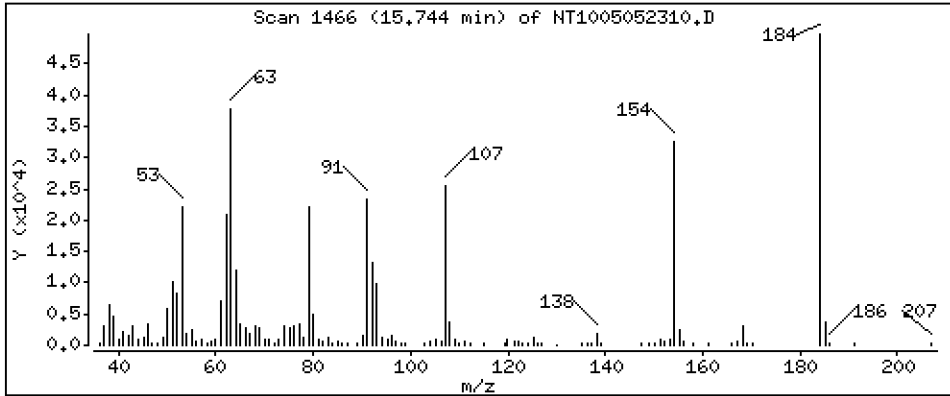
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 3,592 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

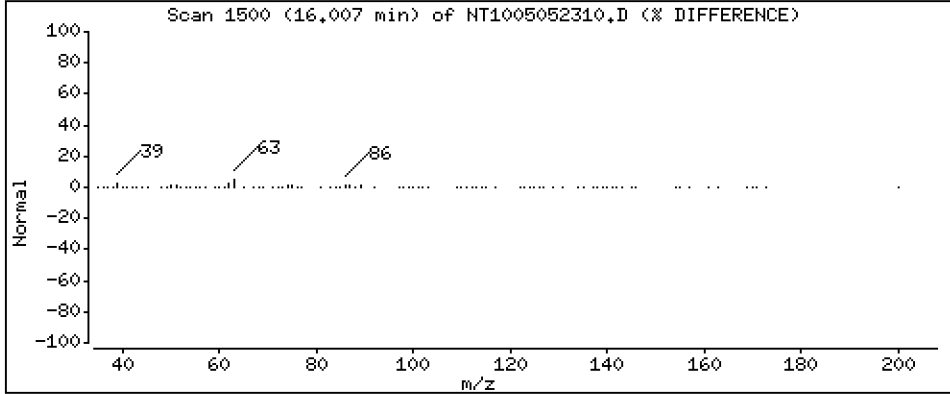
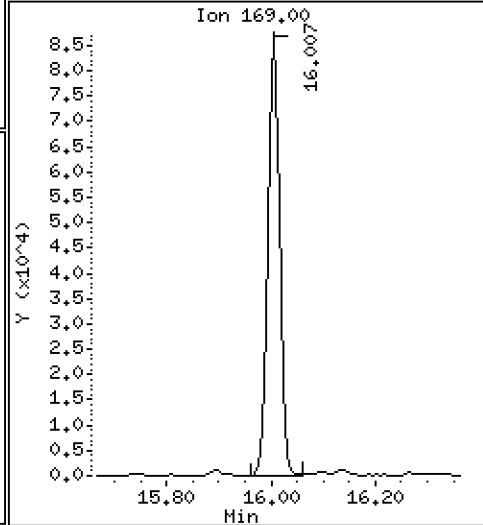
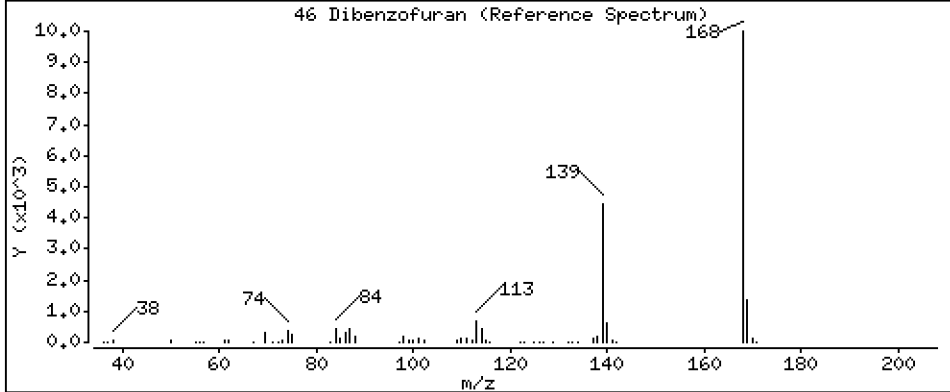
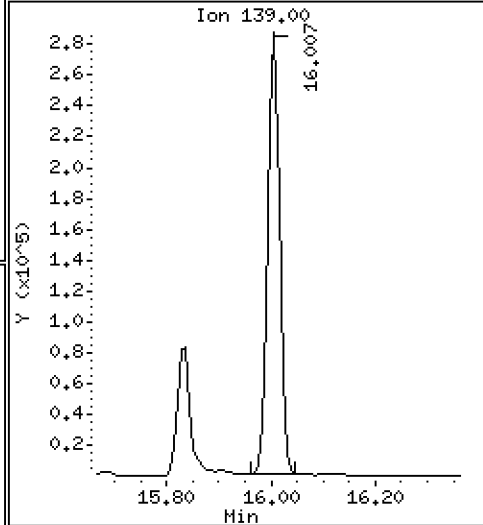
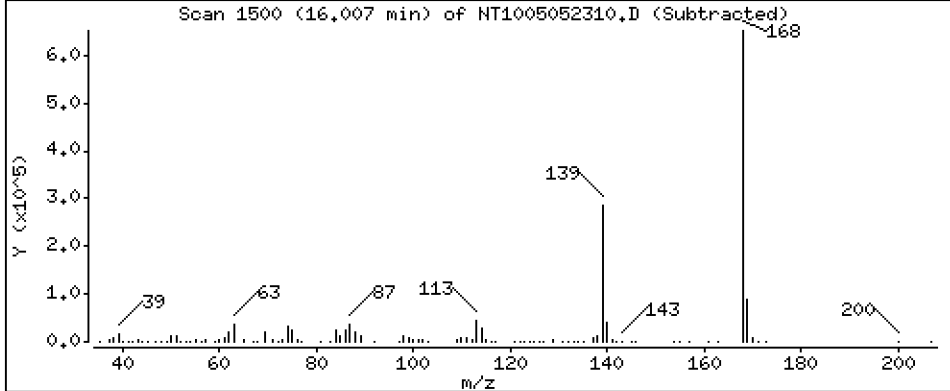
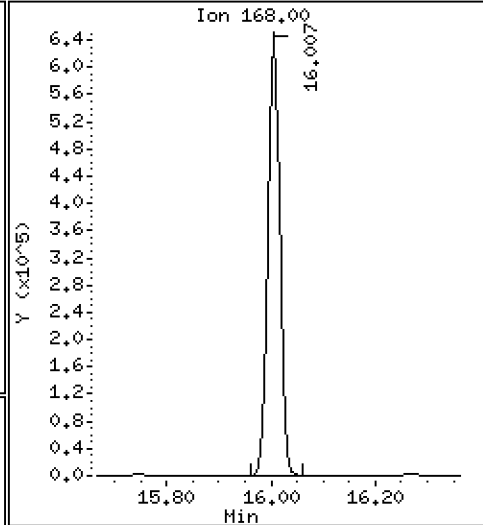
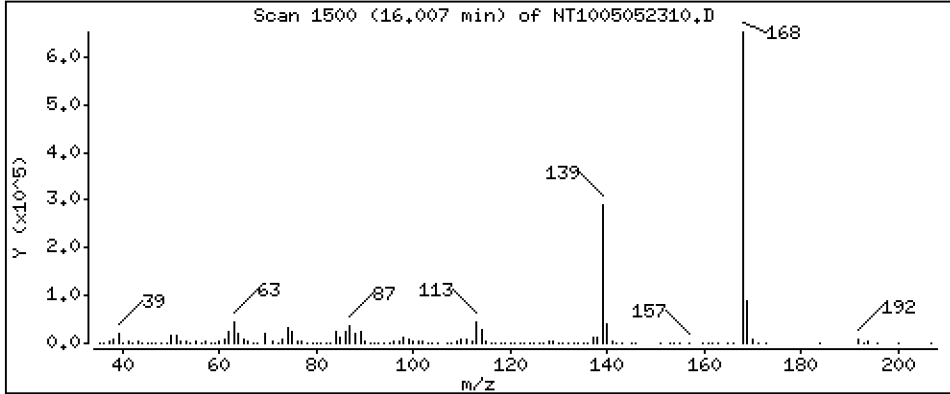
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 5,444 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

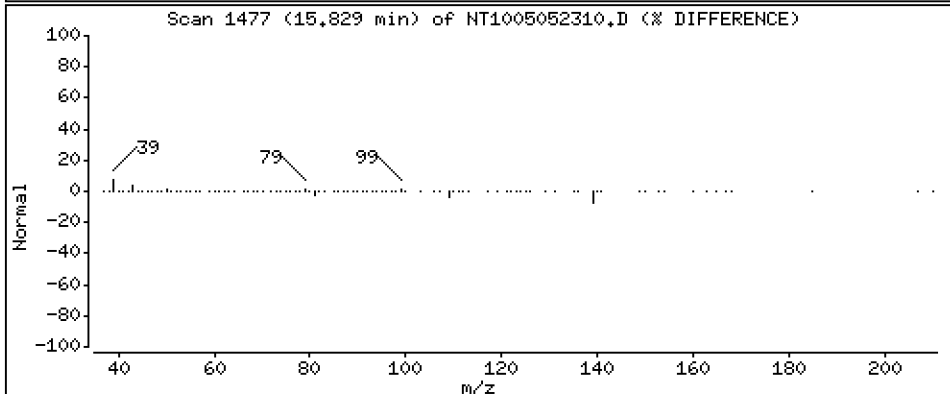
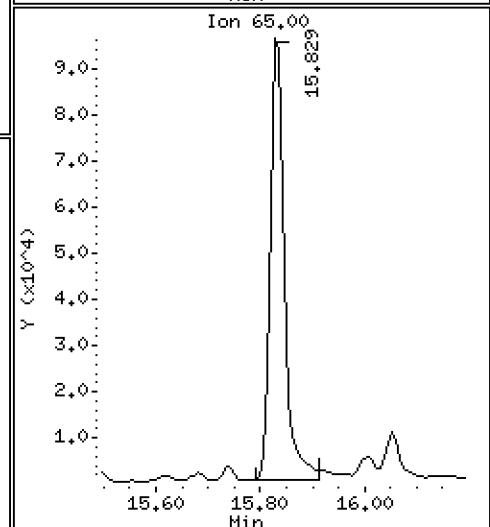
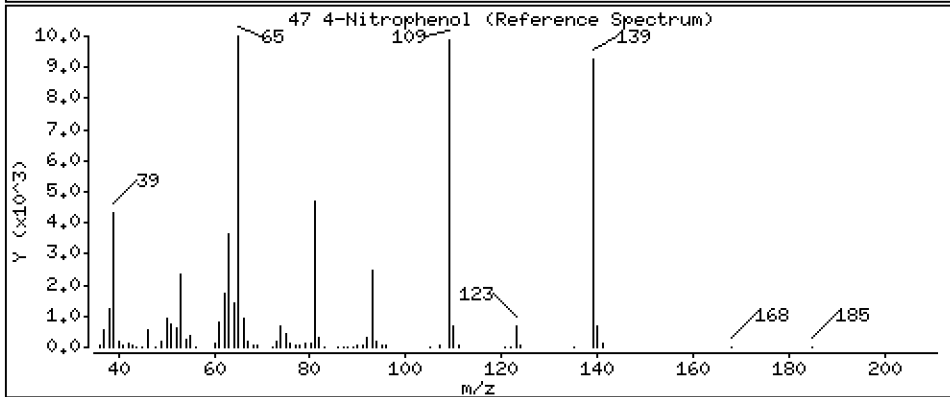
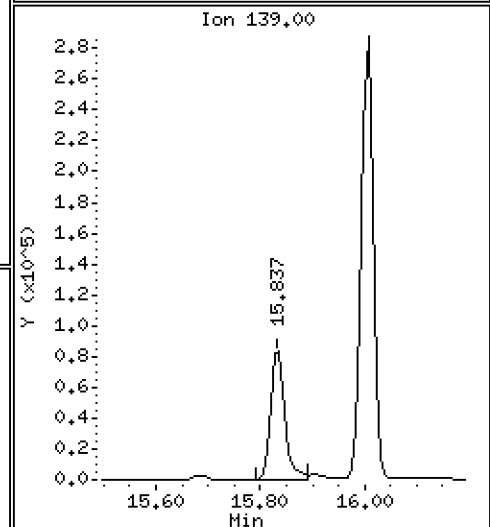
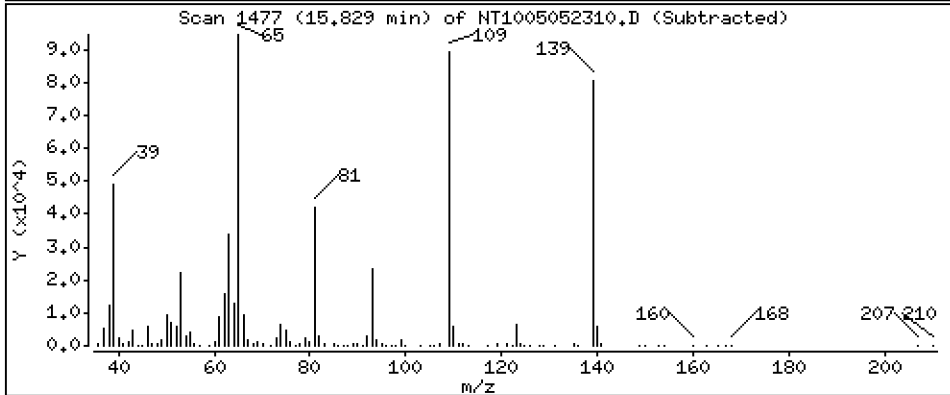
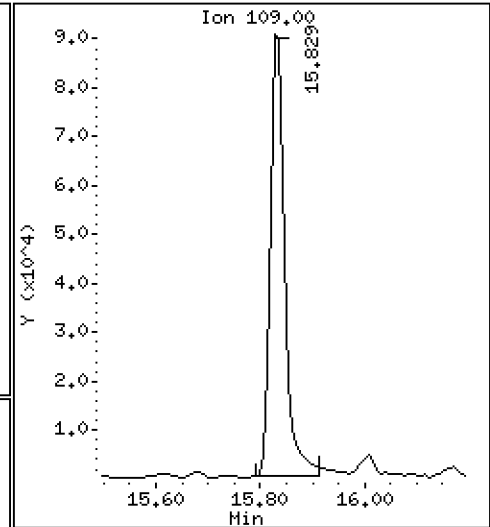
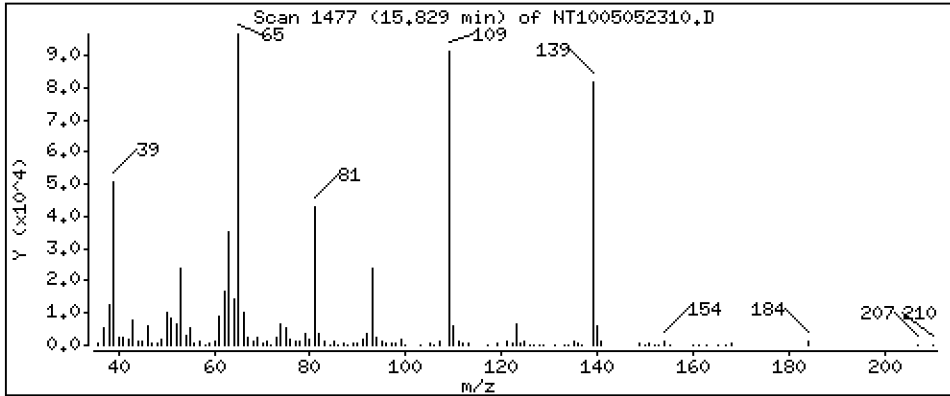
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 5,891 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

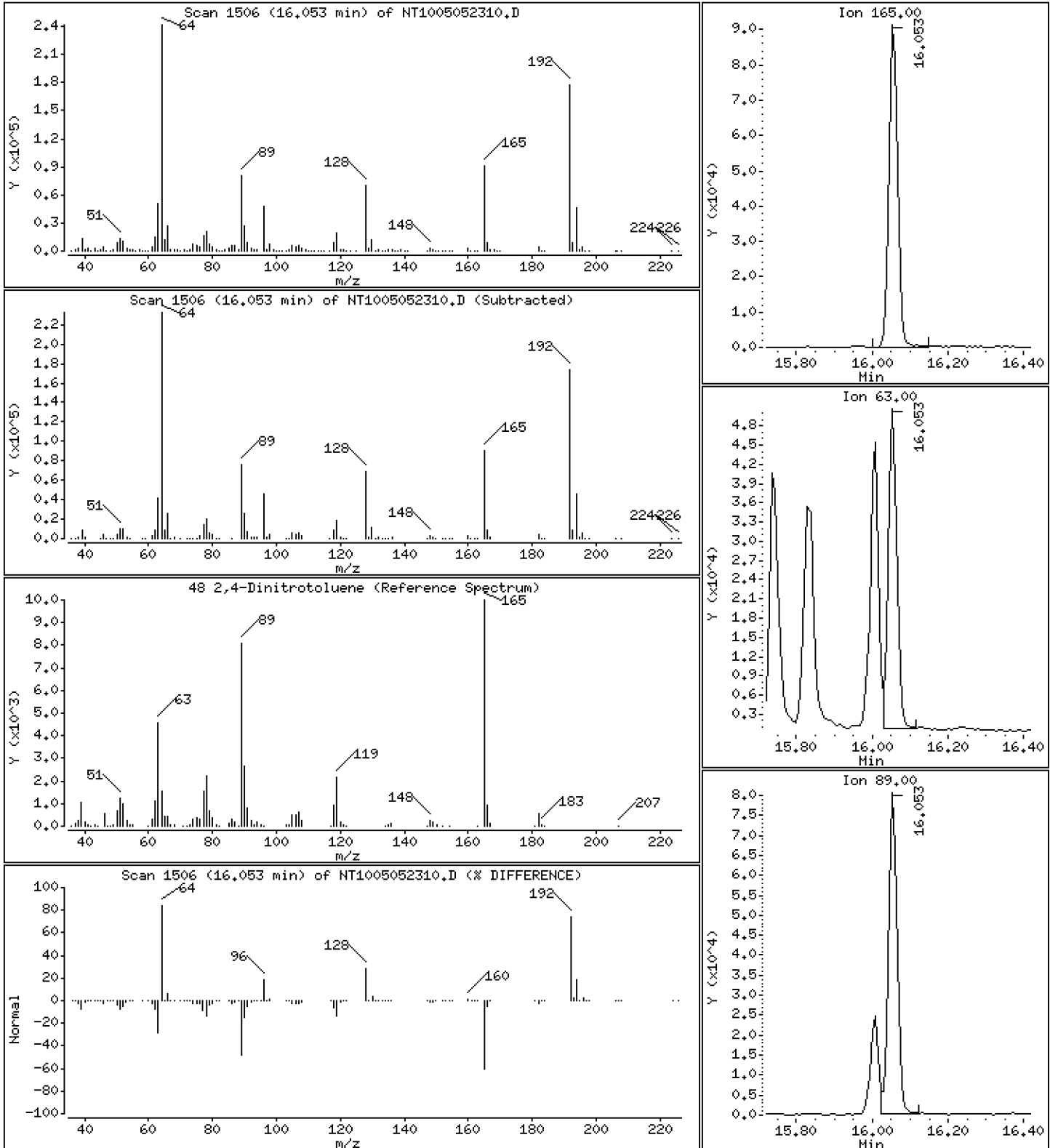
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 3,200 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

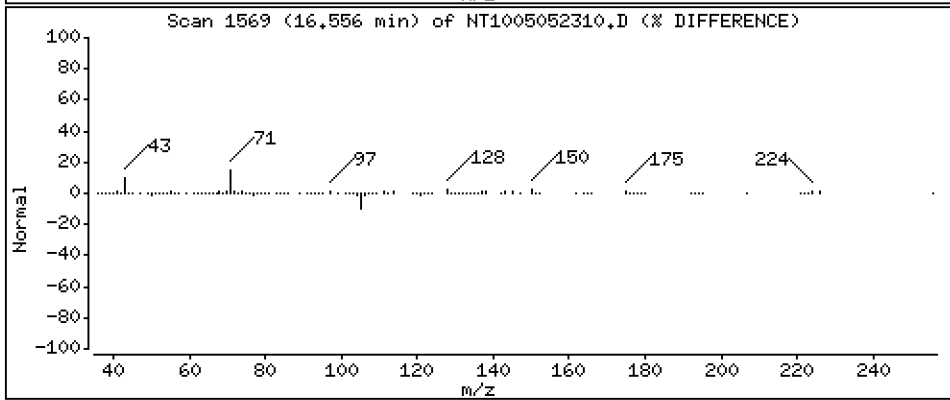
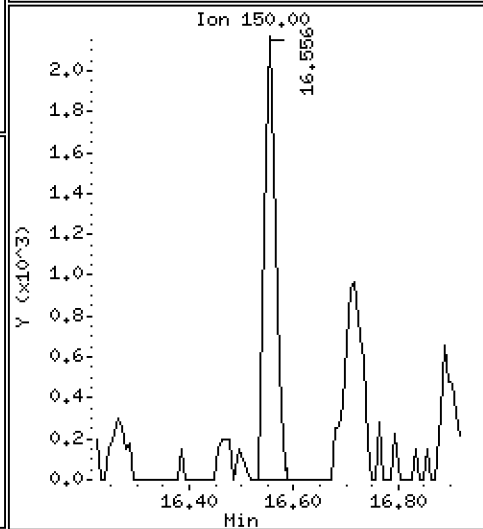
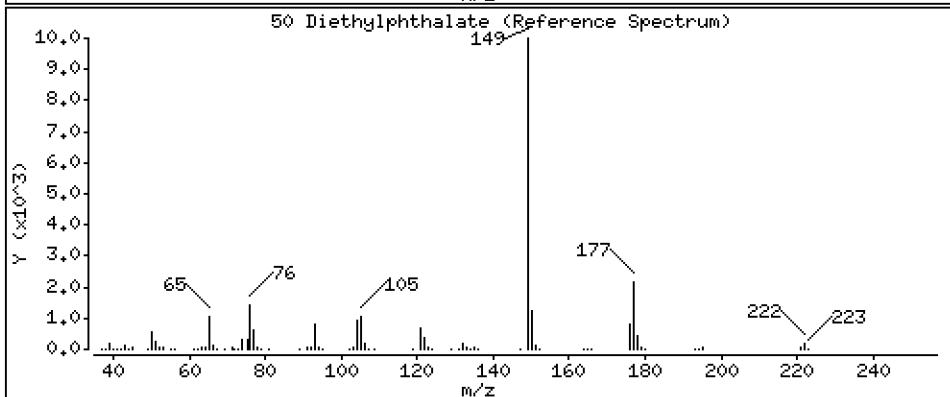
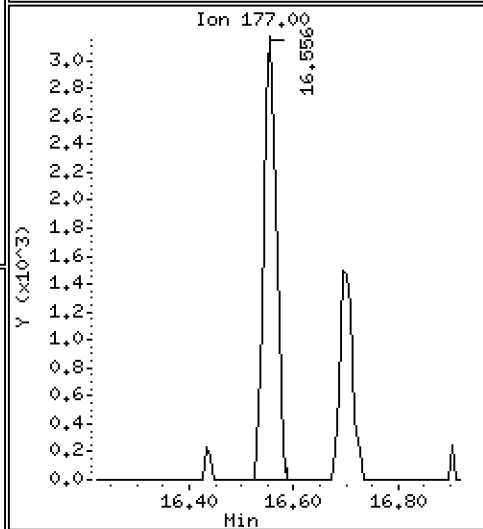
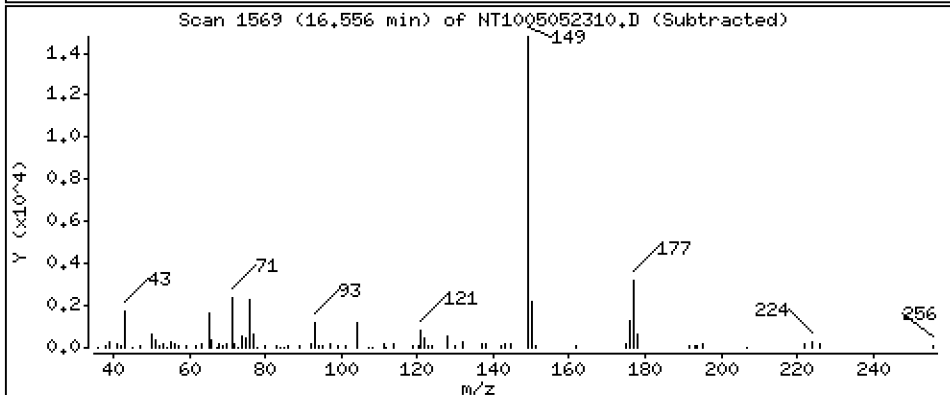
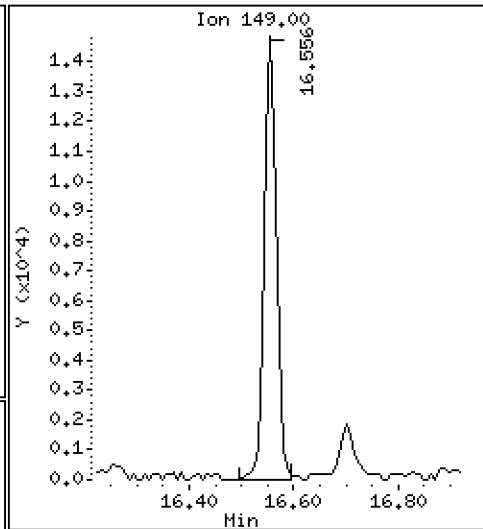
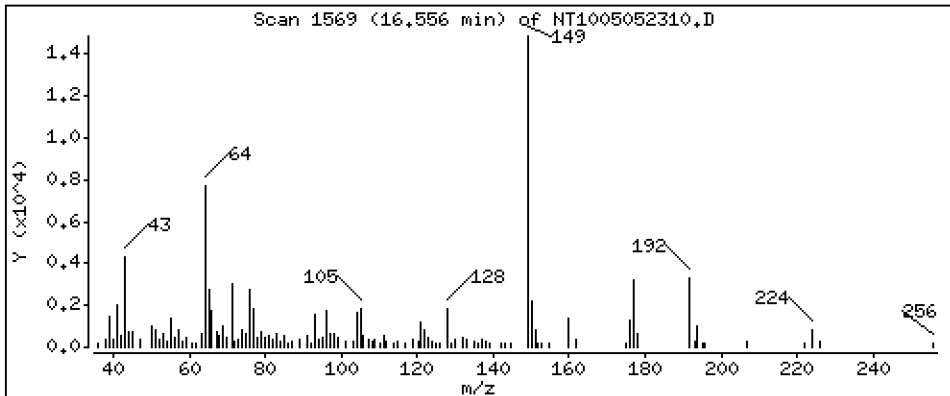
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1954 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

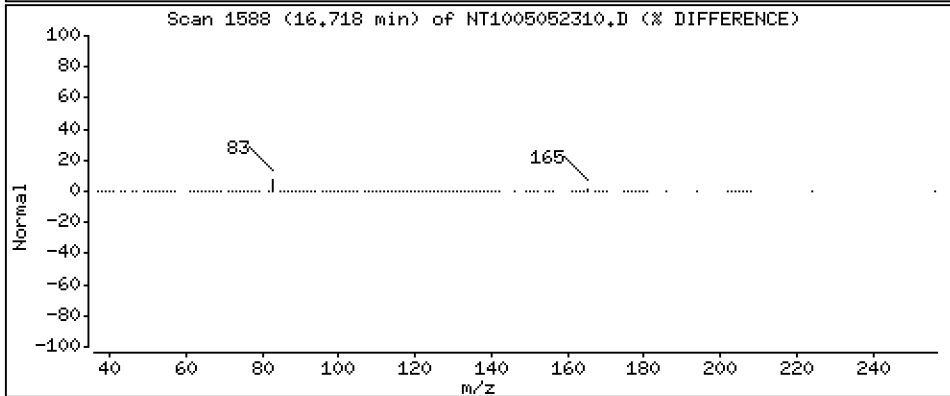
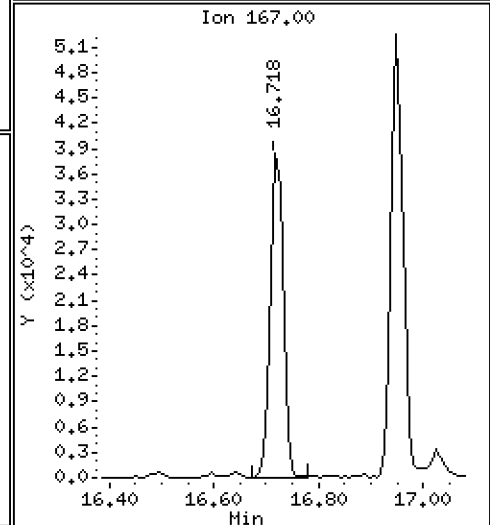
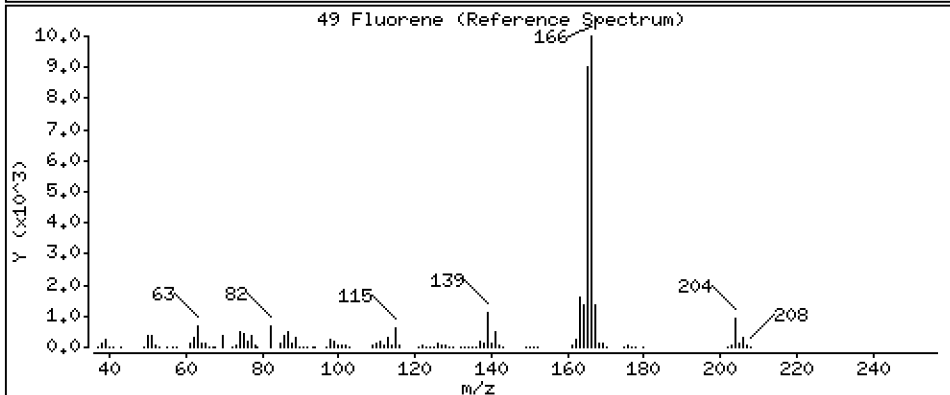
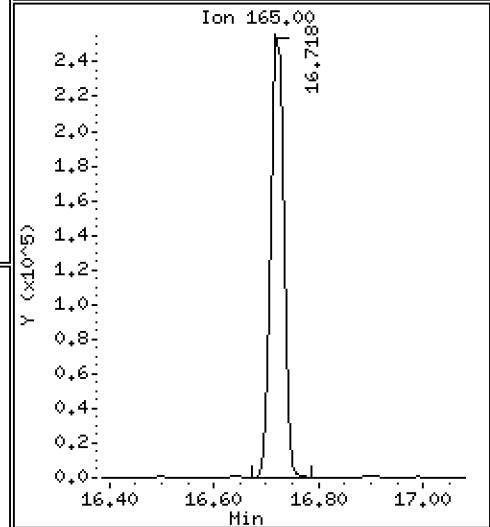
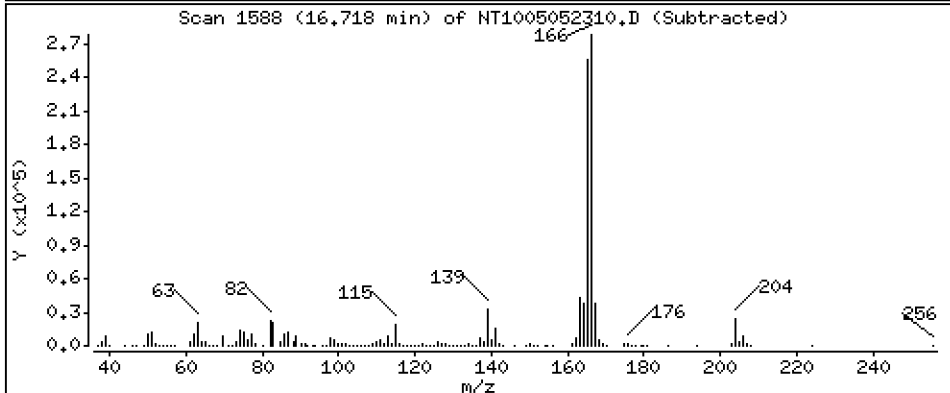
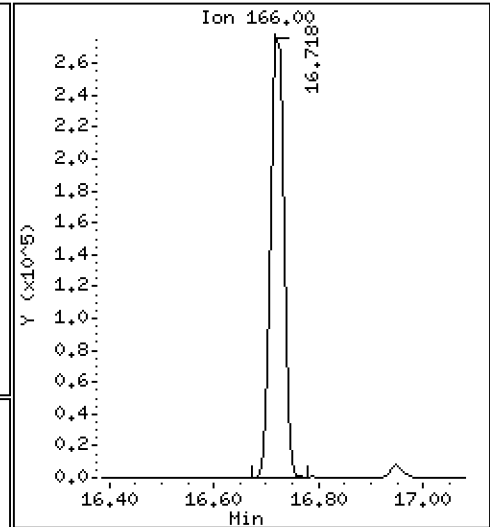
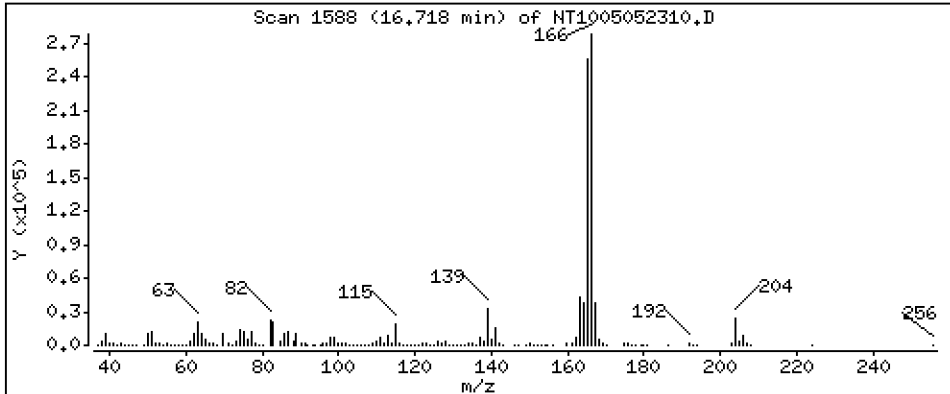
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,190 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

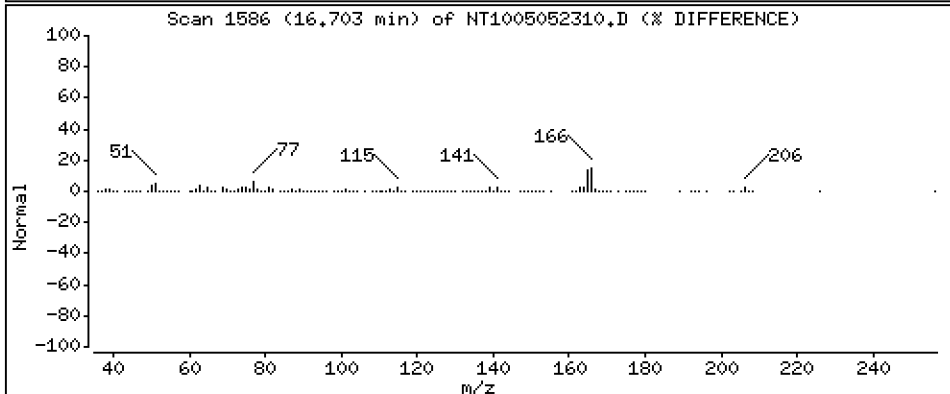
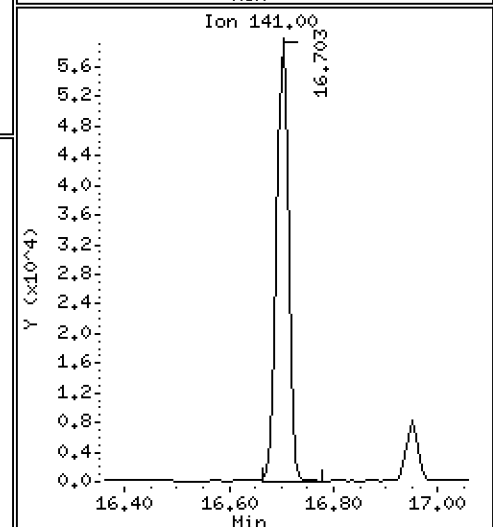
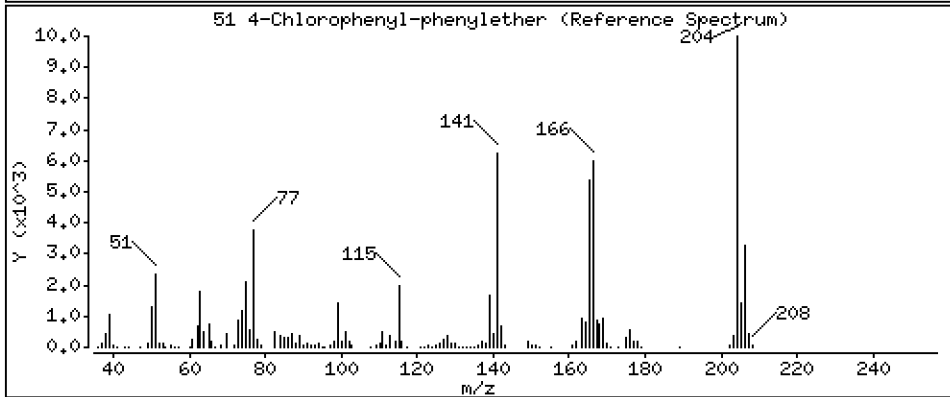
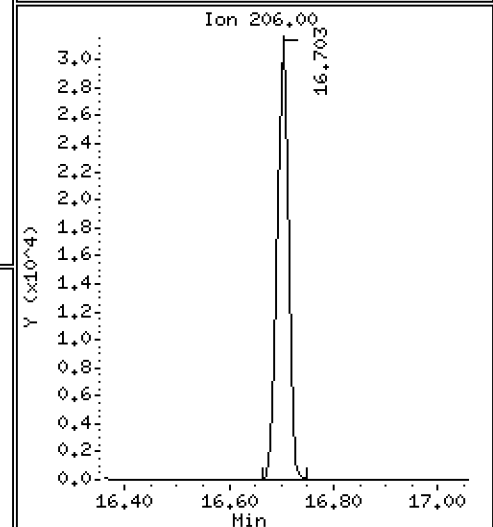
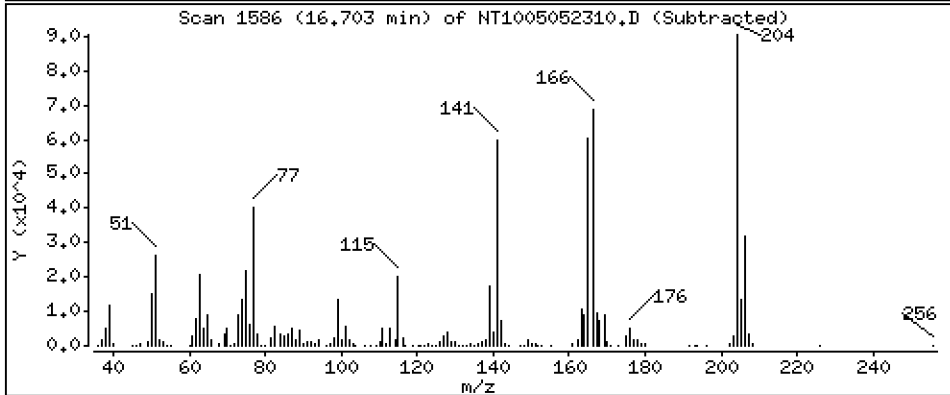
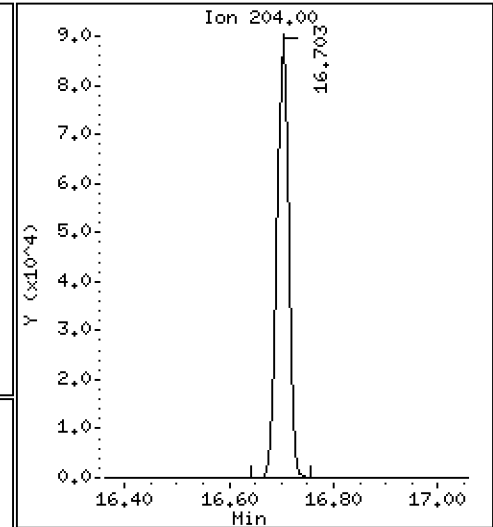
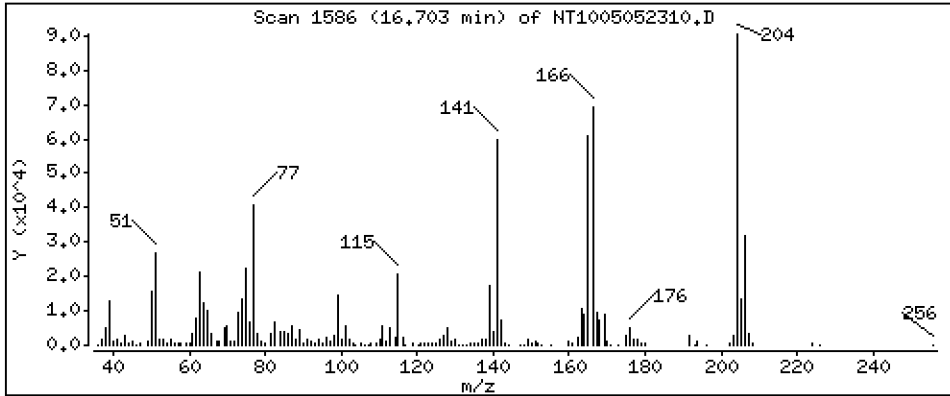
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 2,089 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

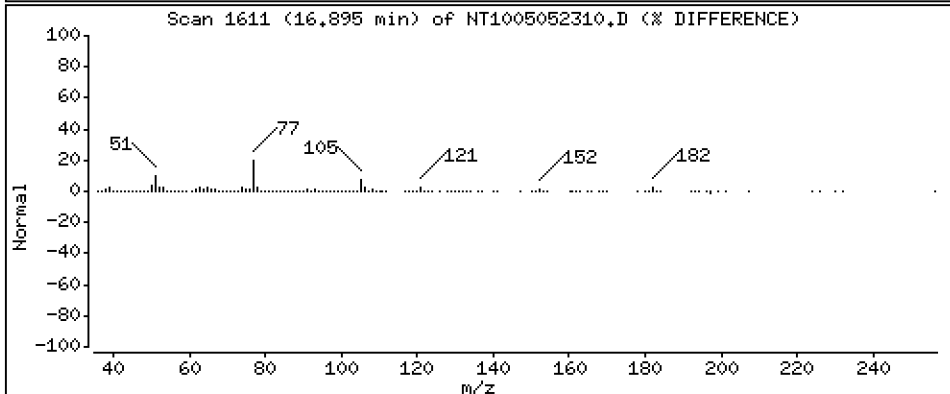
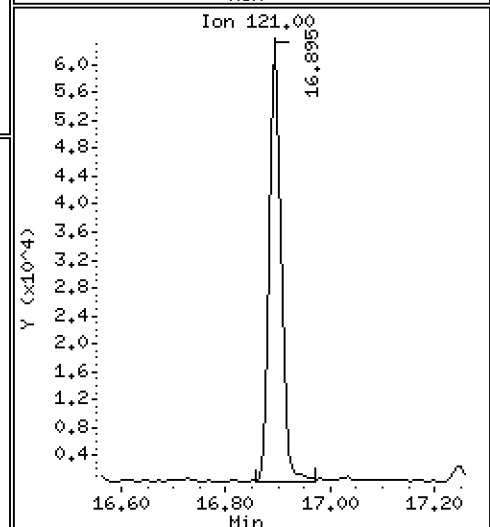
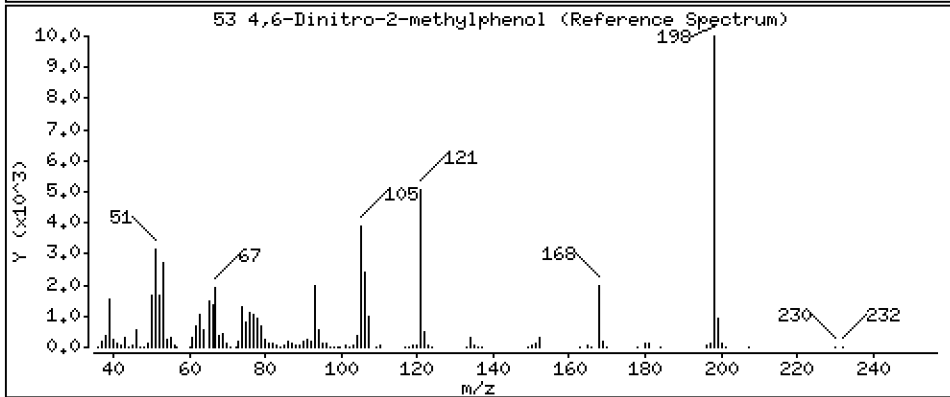
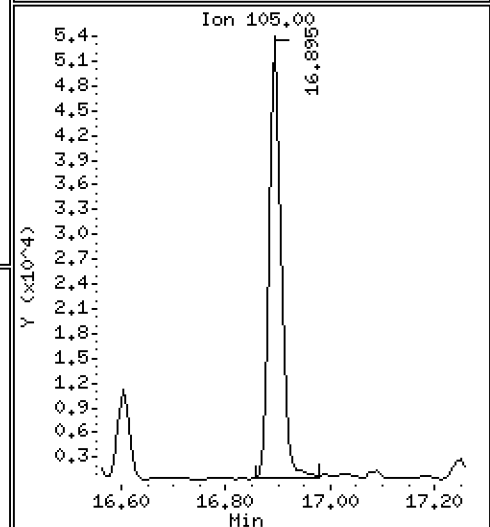
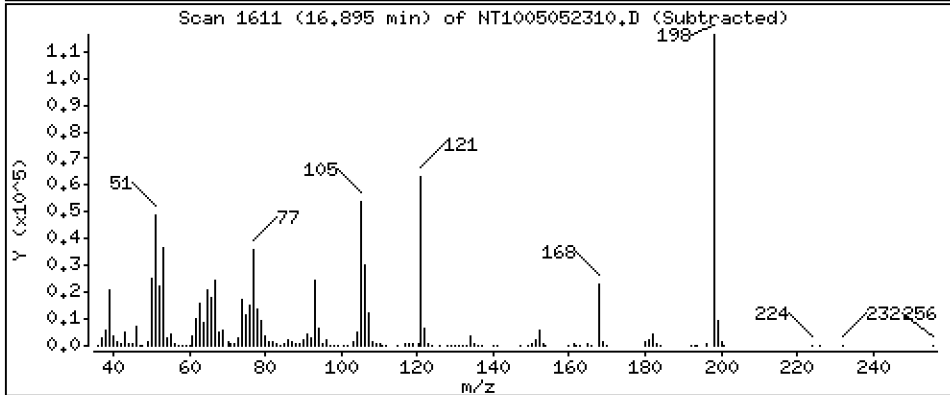
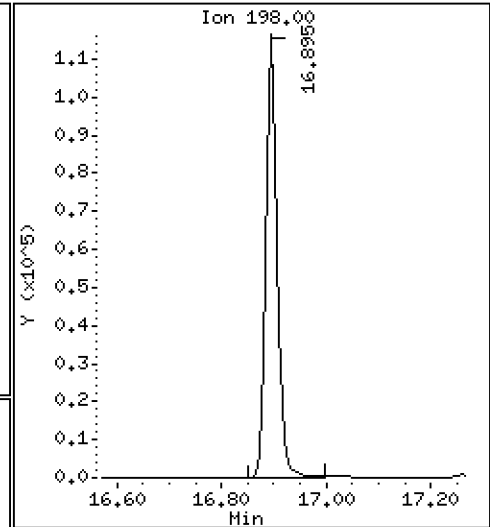
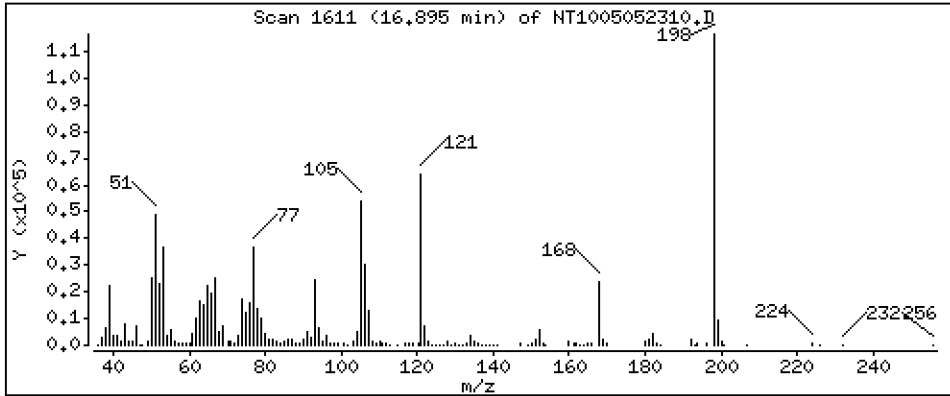
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 6,613 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

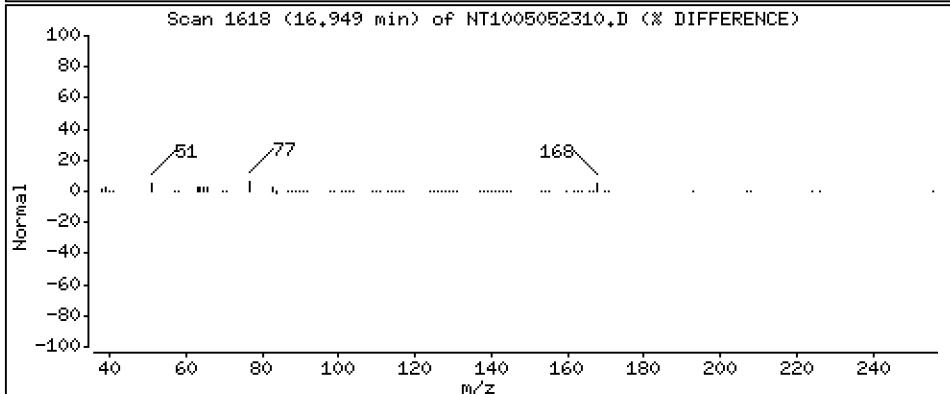
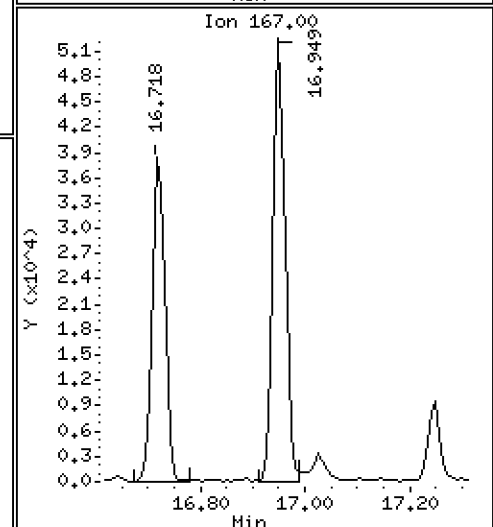
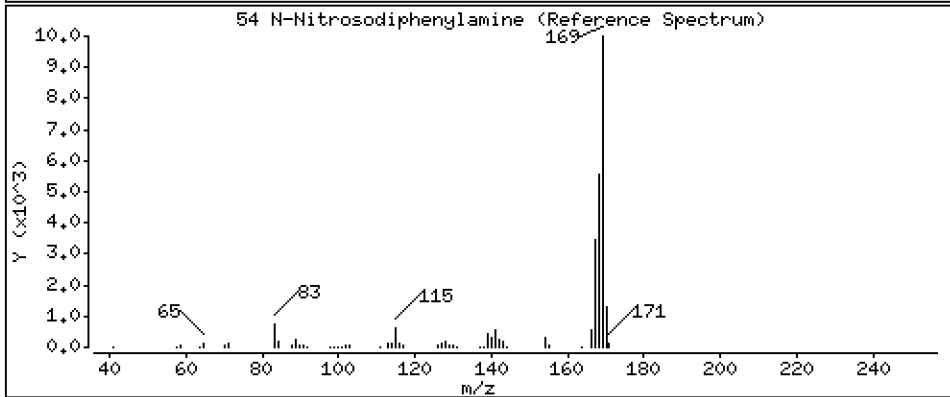
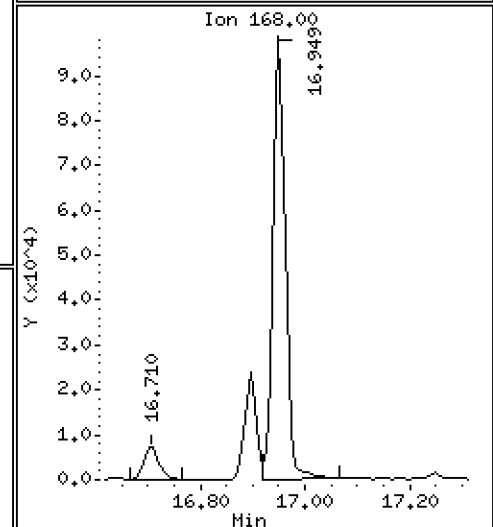
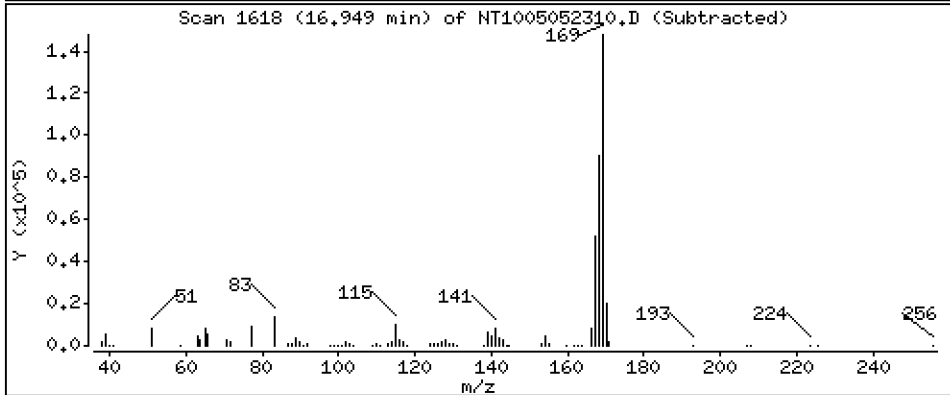
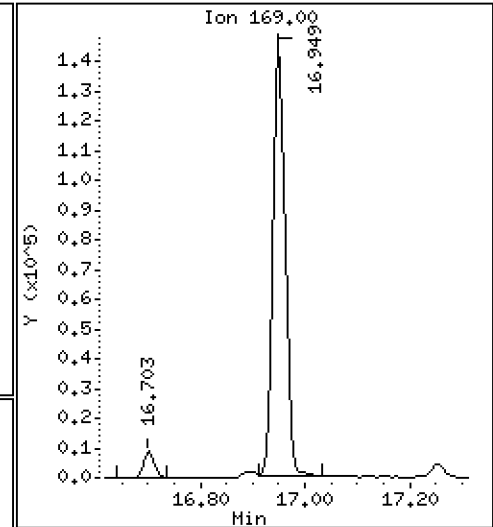
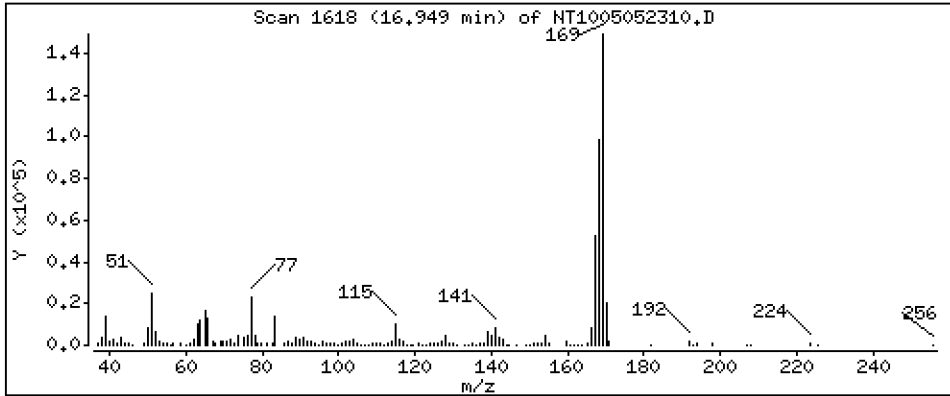
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 2,558 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

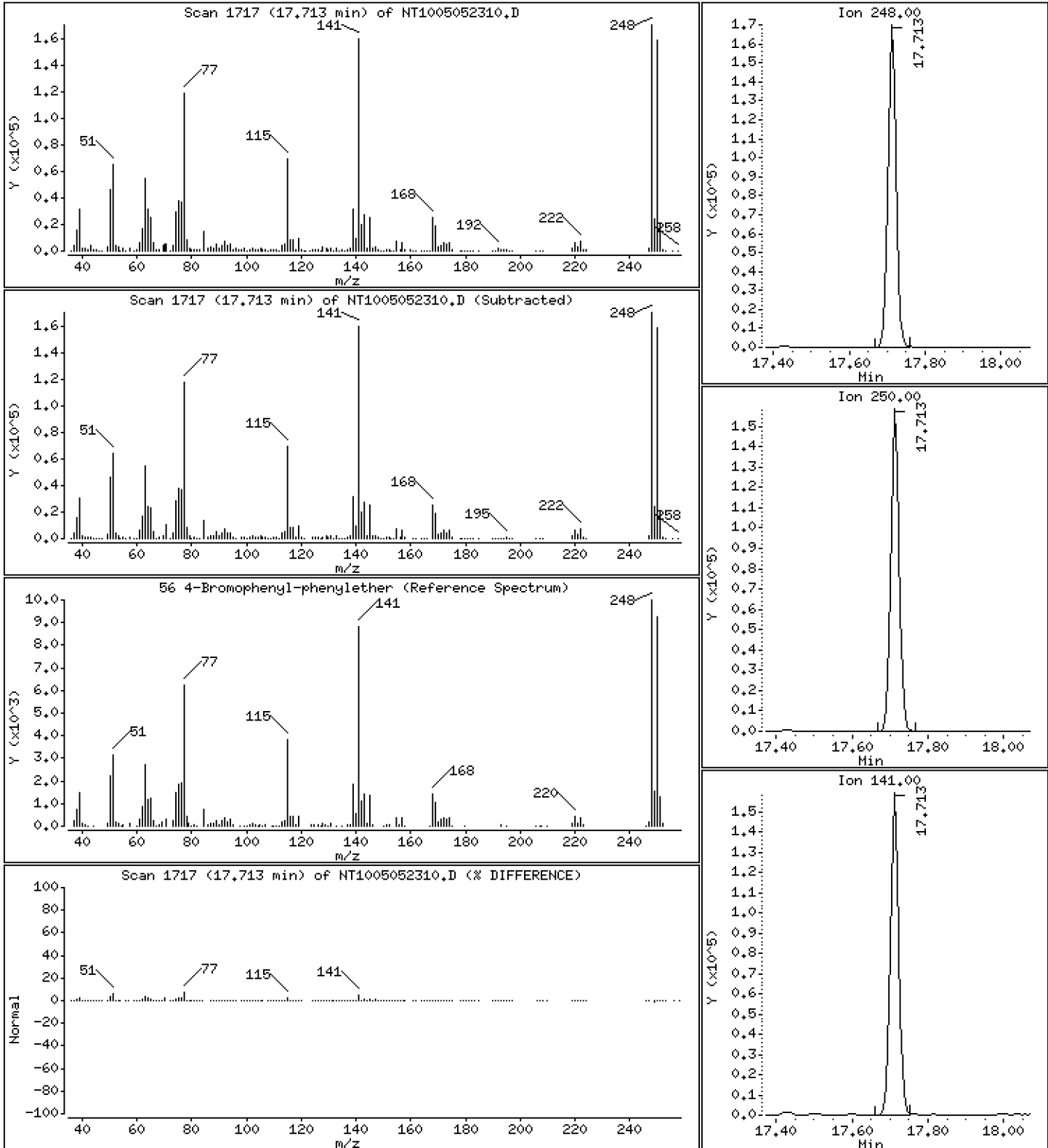
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 6,187 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

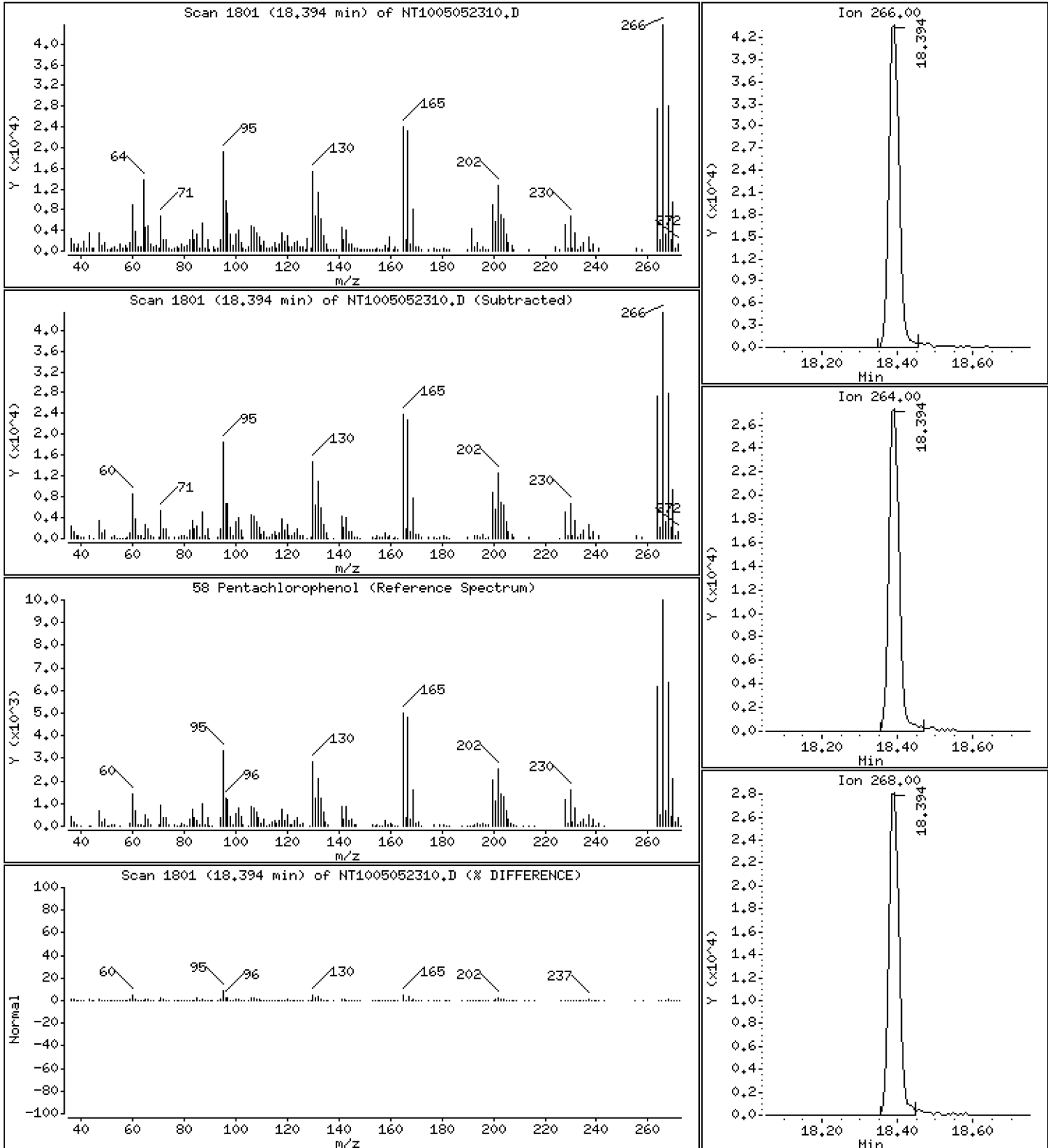
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 2,710 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

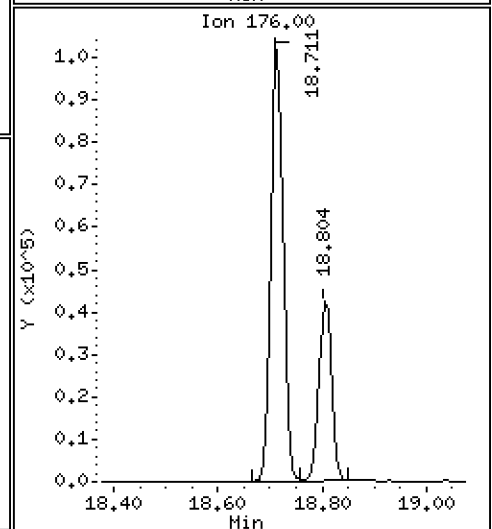
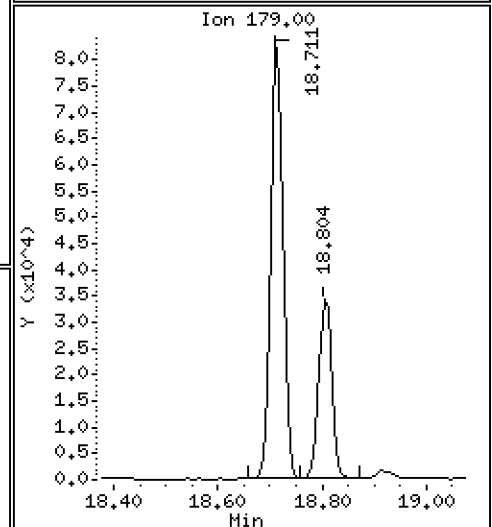
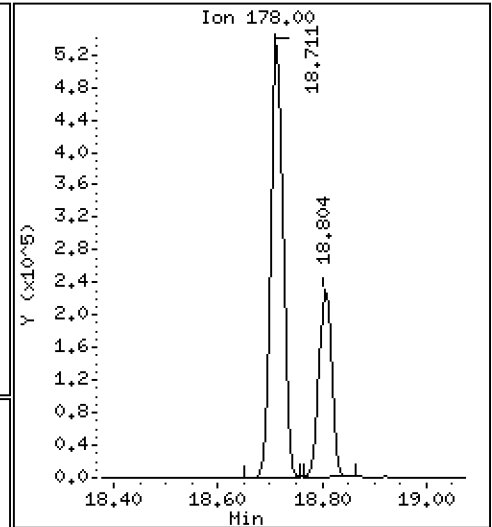
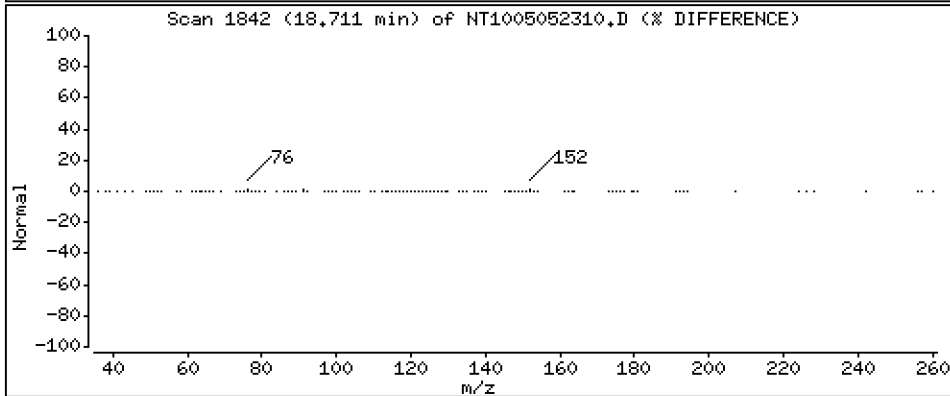
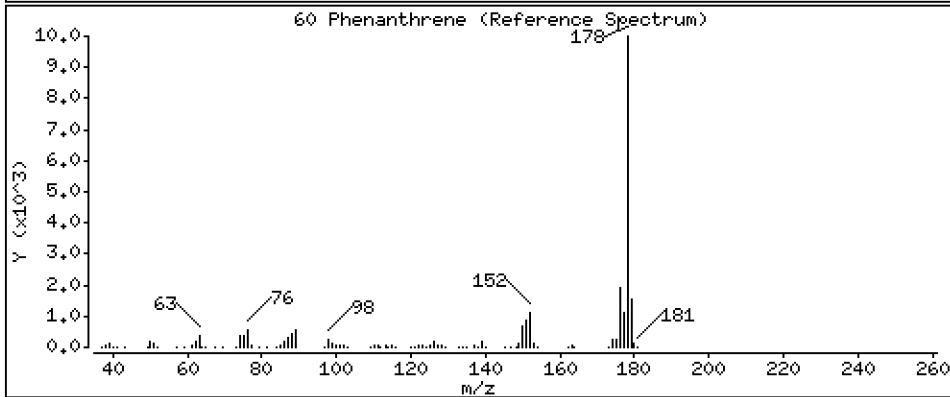
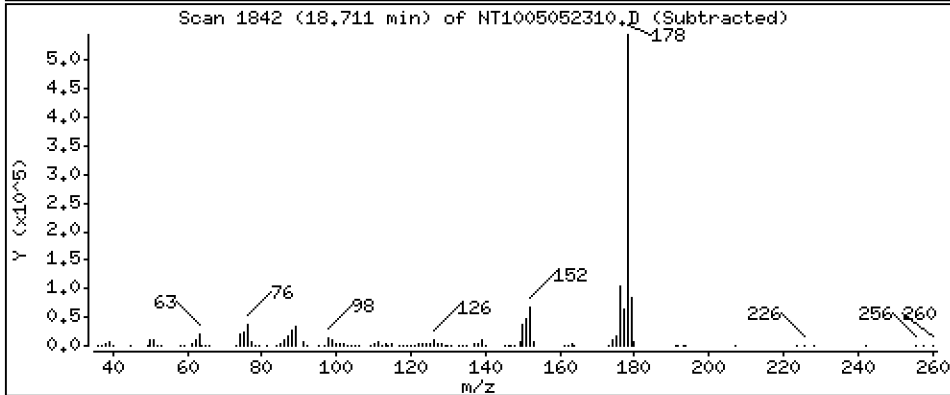
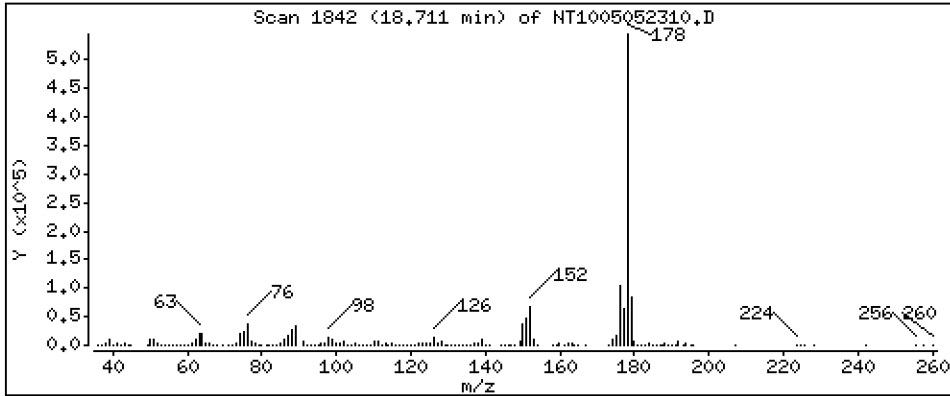
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

60 Phenanthrene

Concentration: 4.259 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

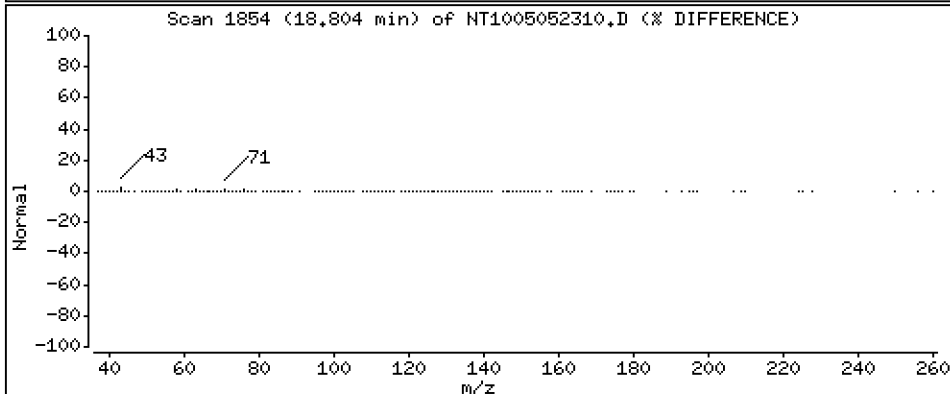
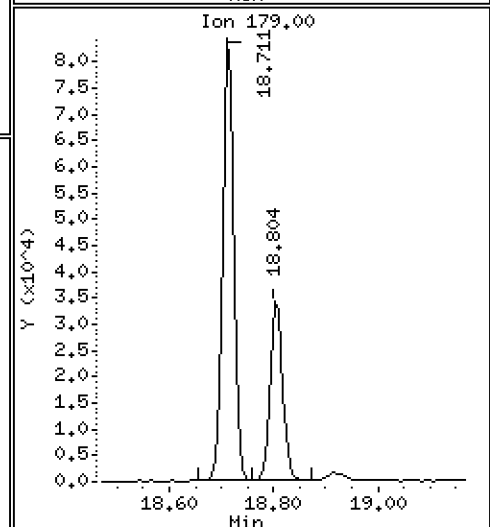
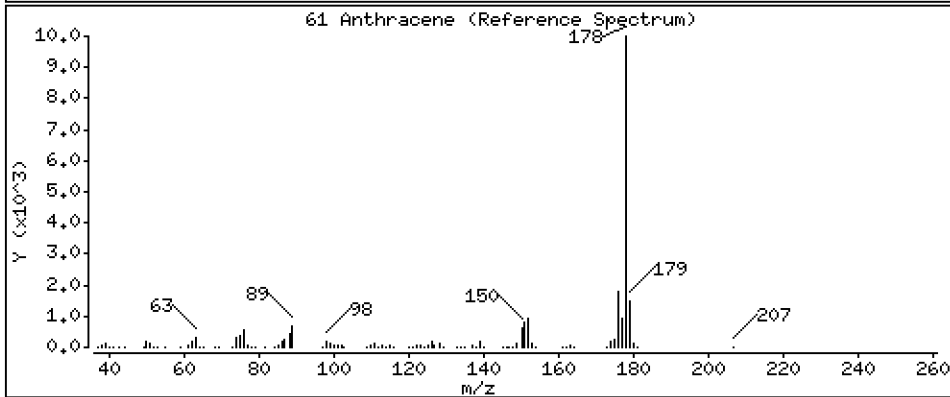
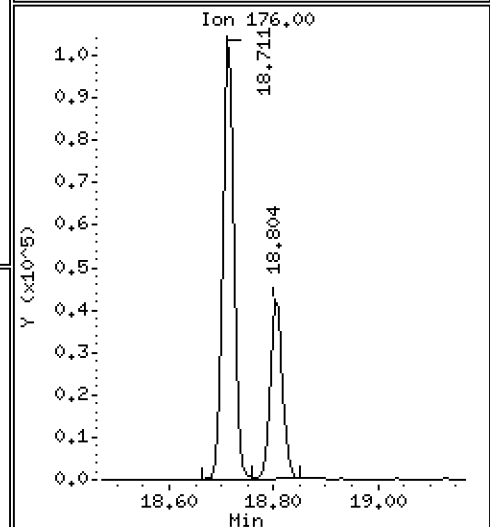
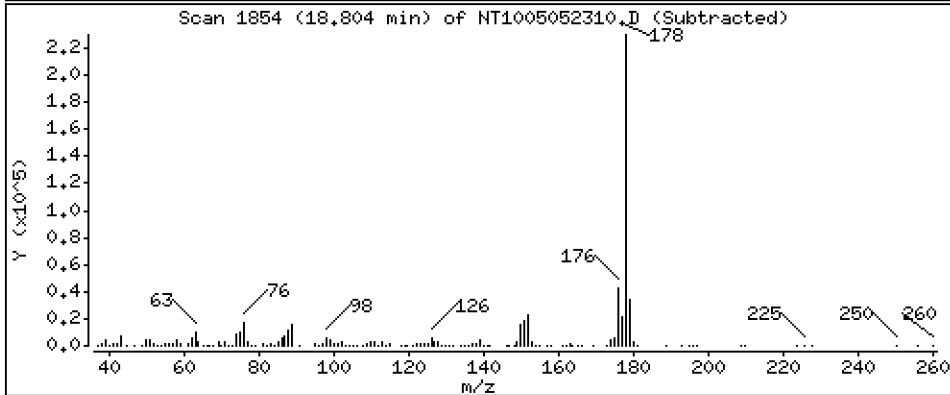
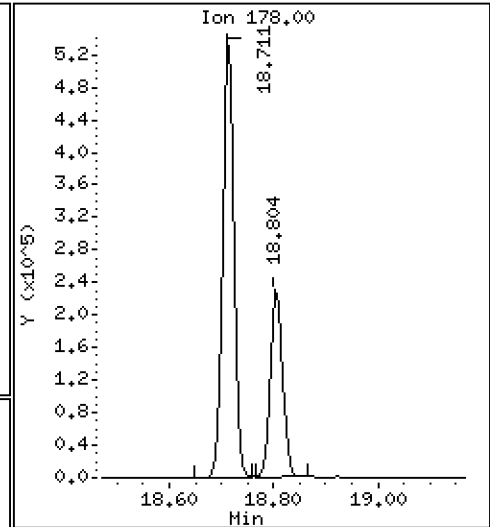
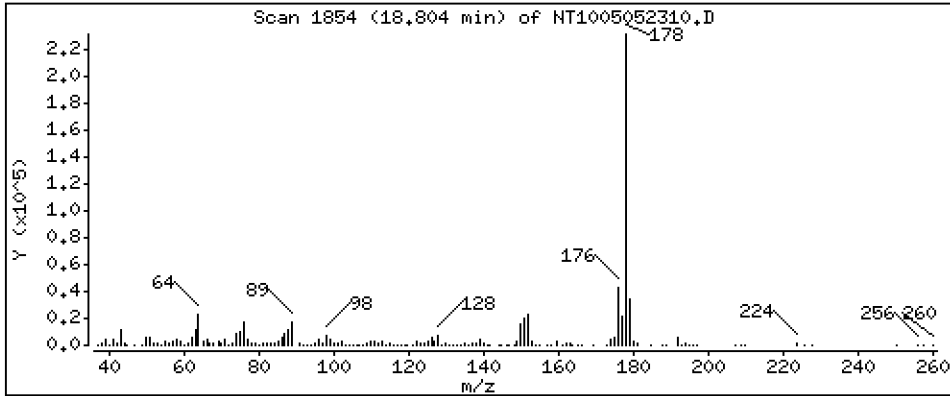
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 2,049 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

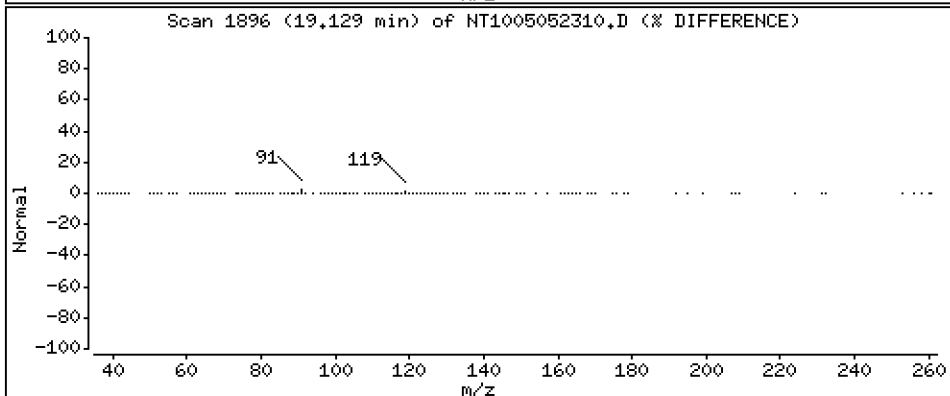
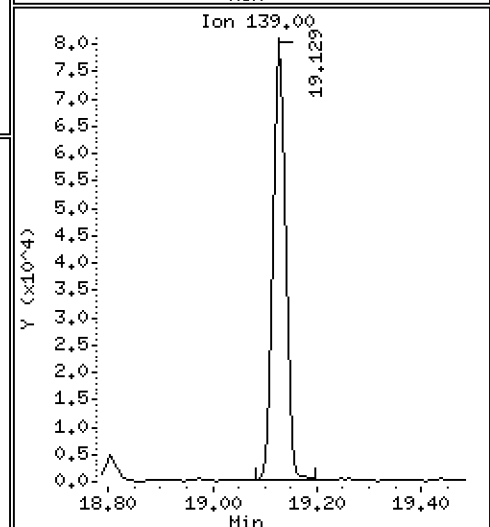
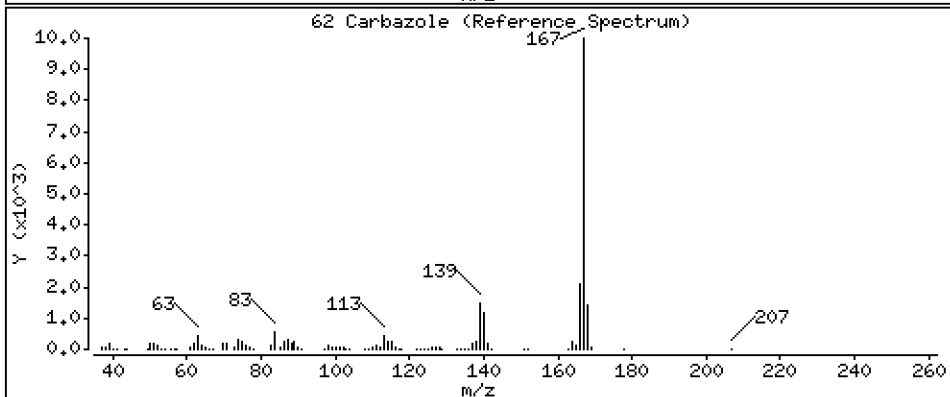
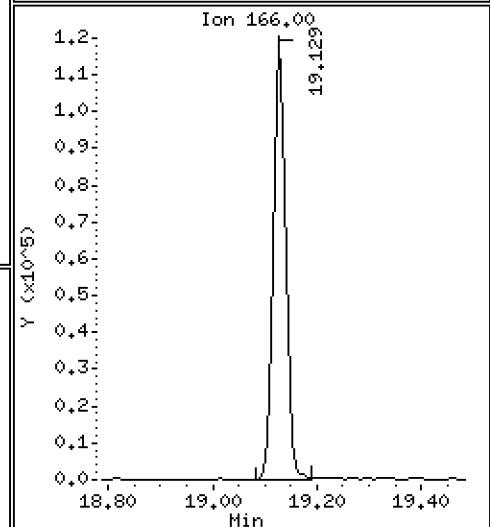
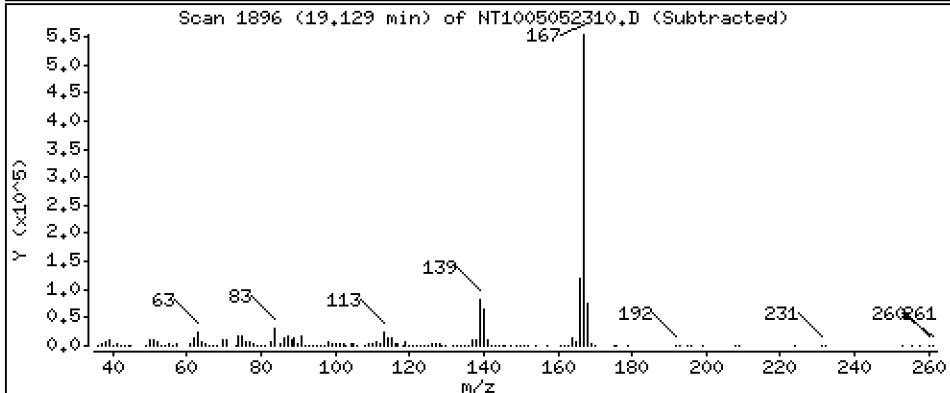
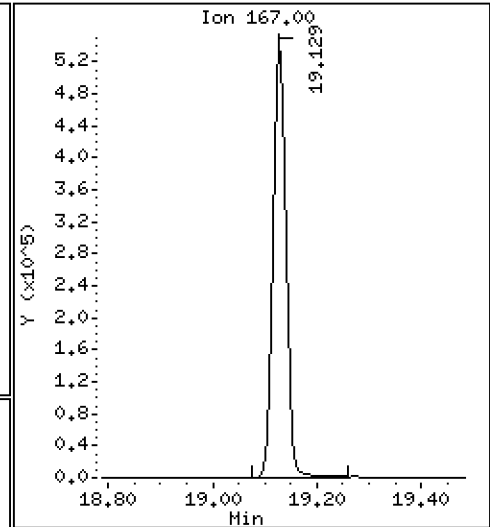
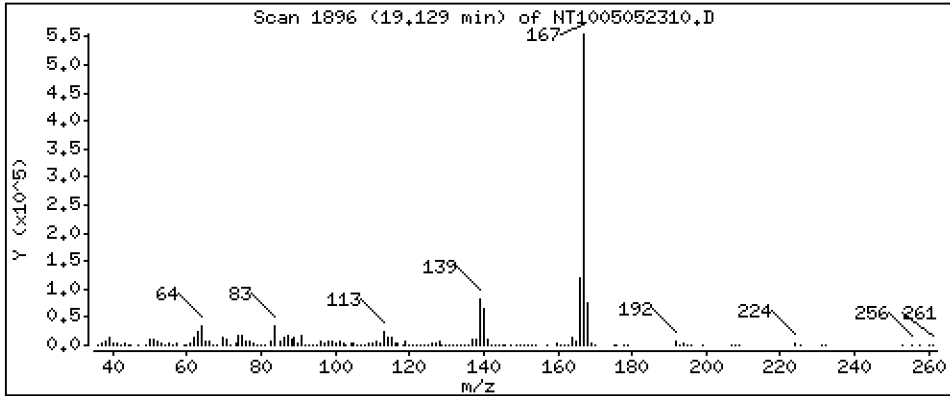
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 5,661 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

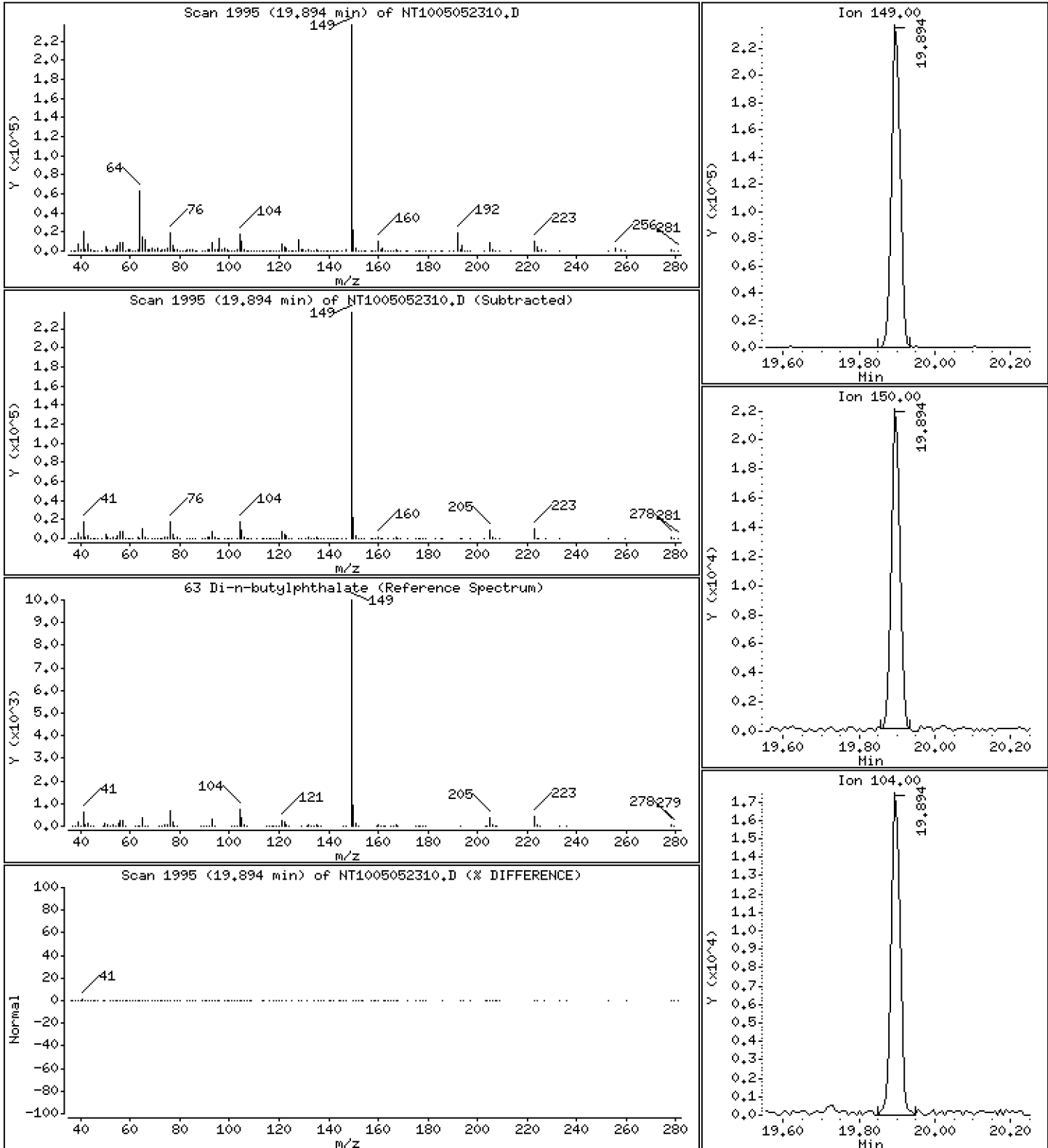
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 1.478 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

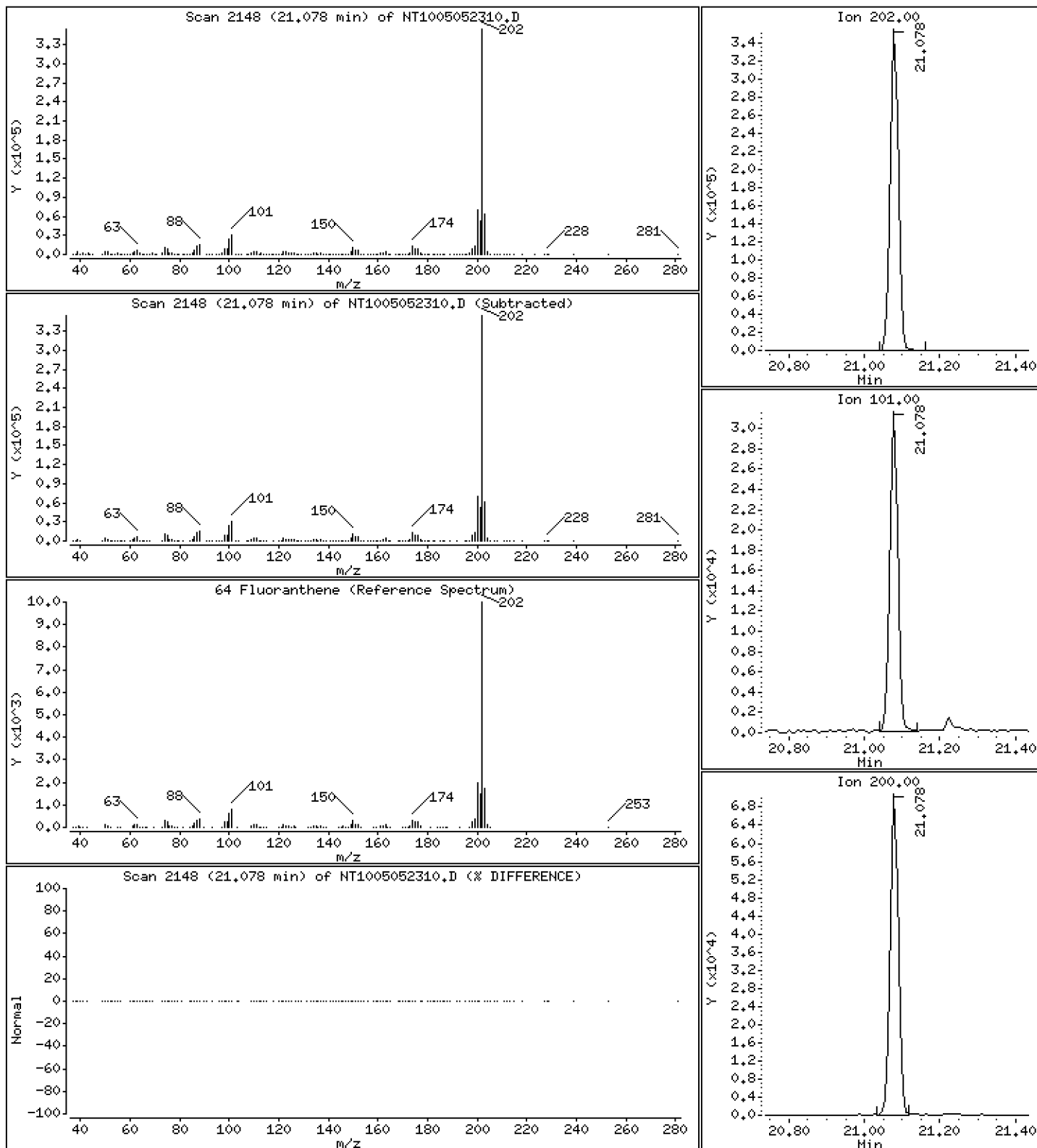
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 2,181 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

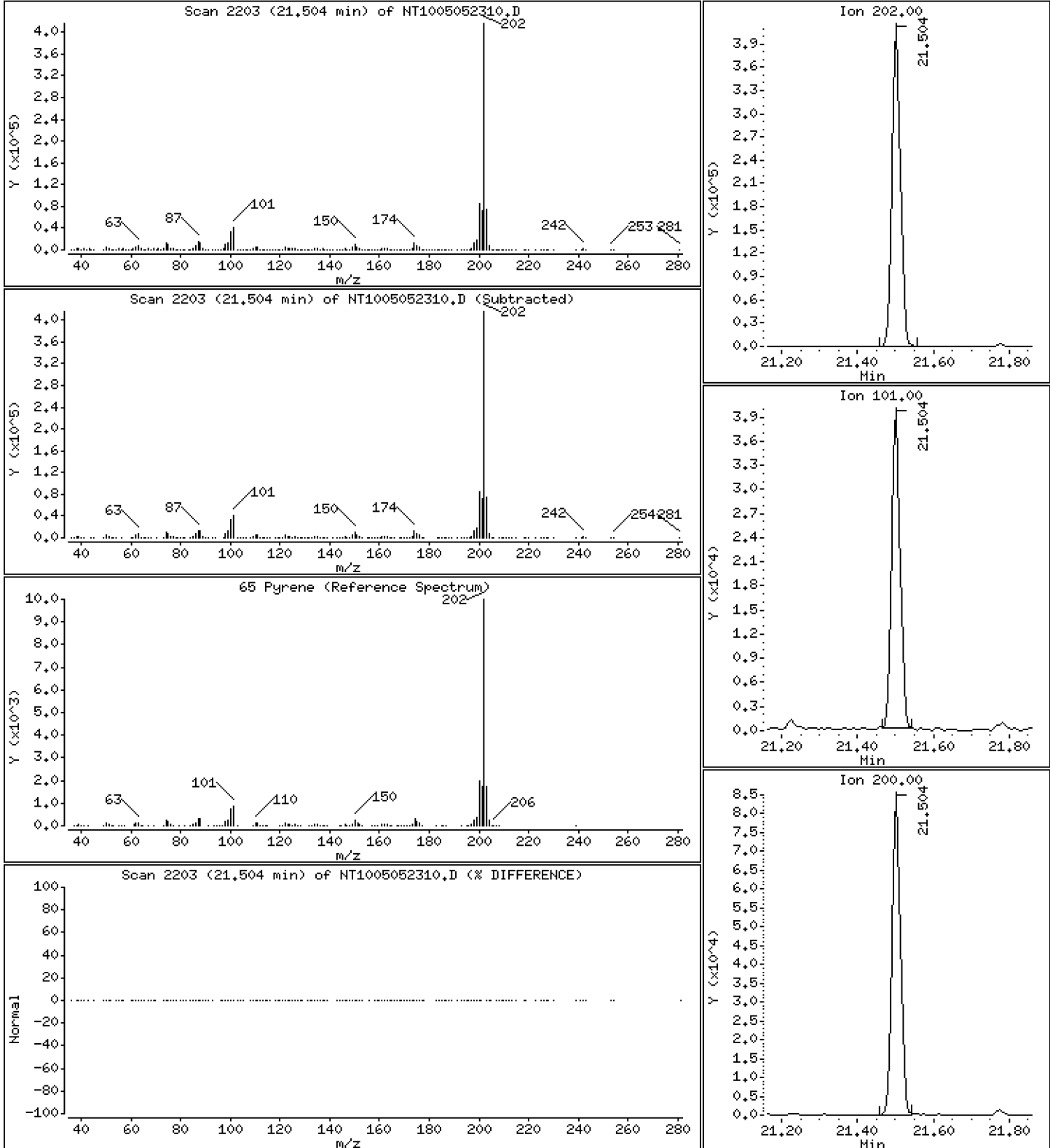
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 2,737 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

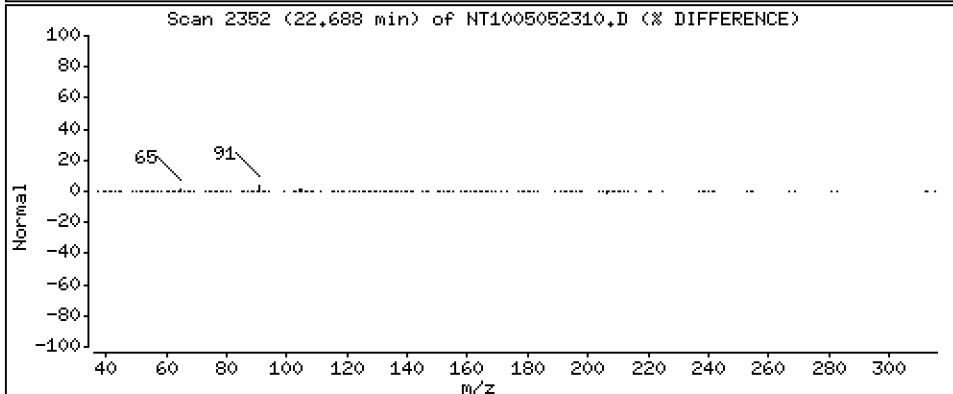
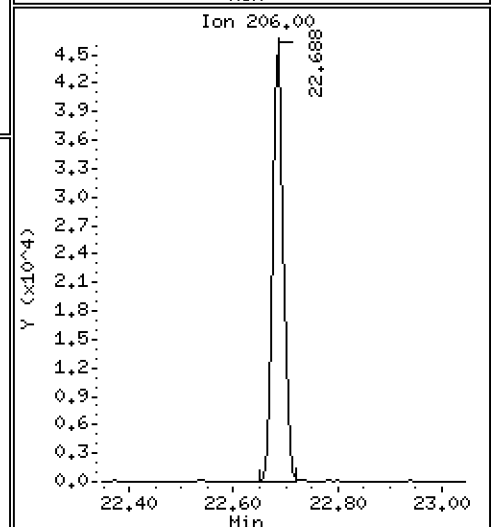
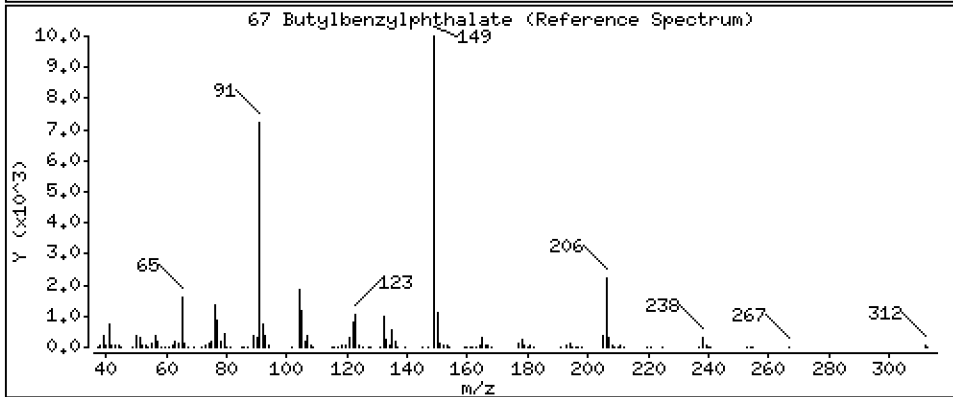
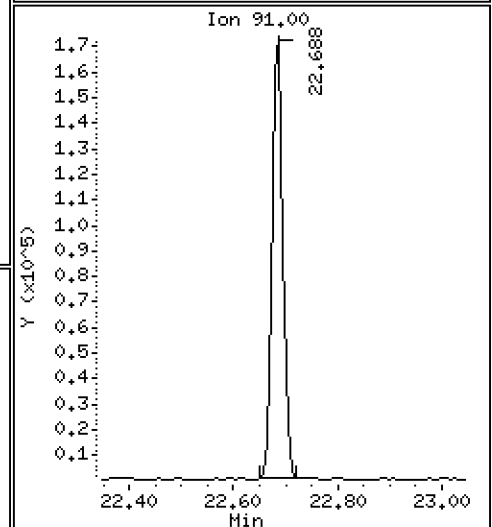
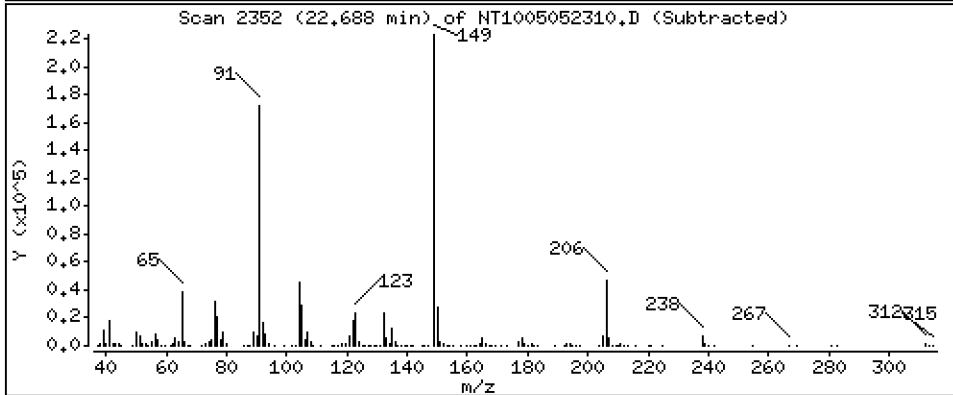
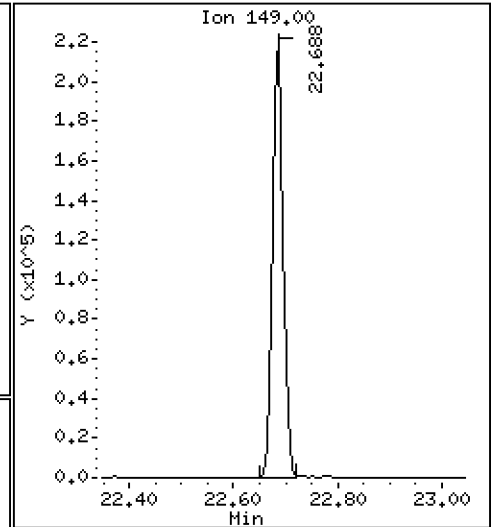
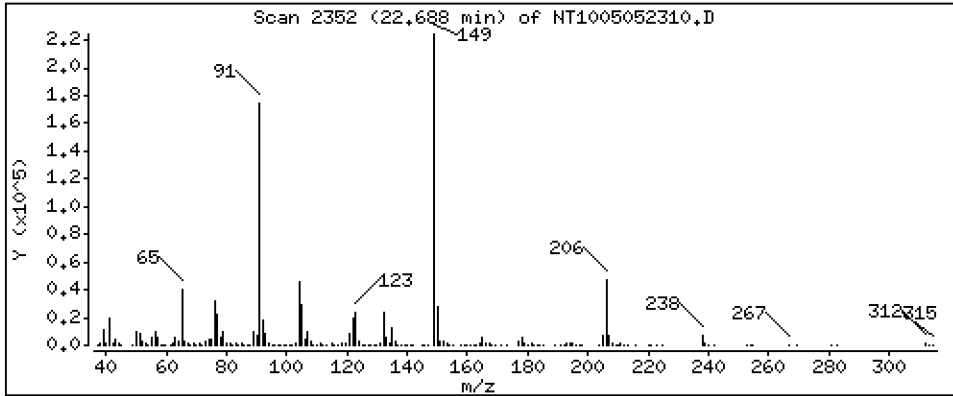
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 2,991 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

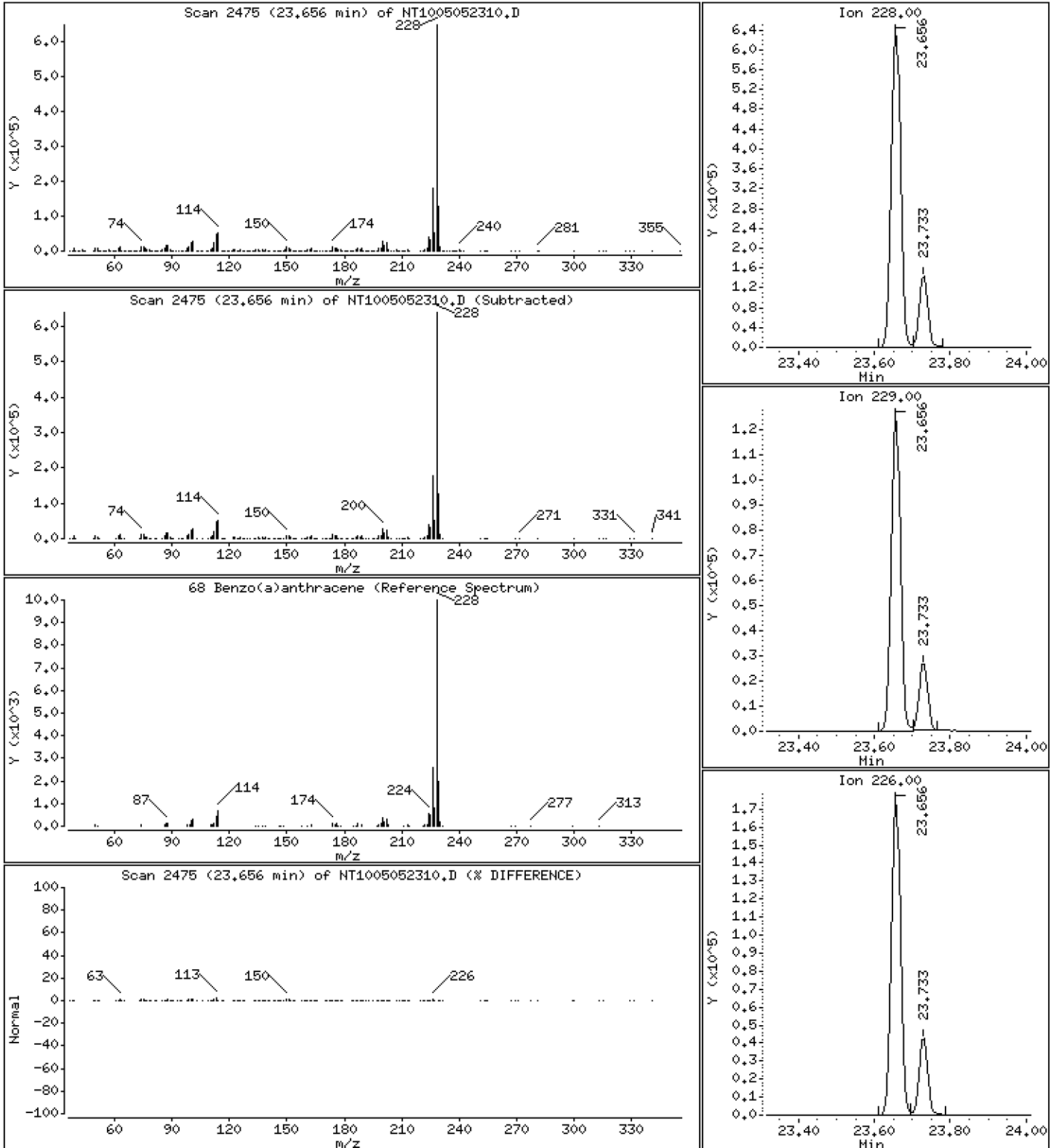
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 5,192 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

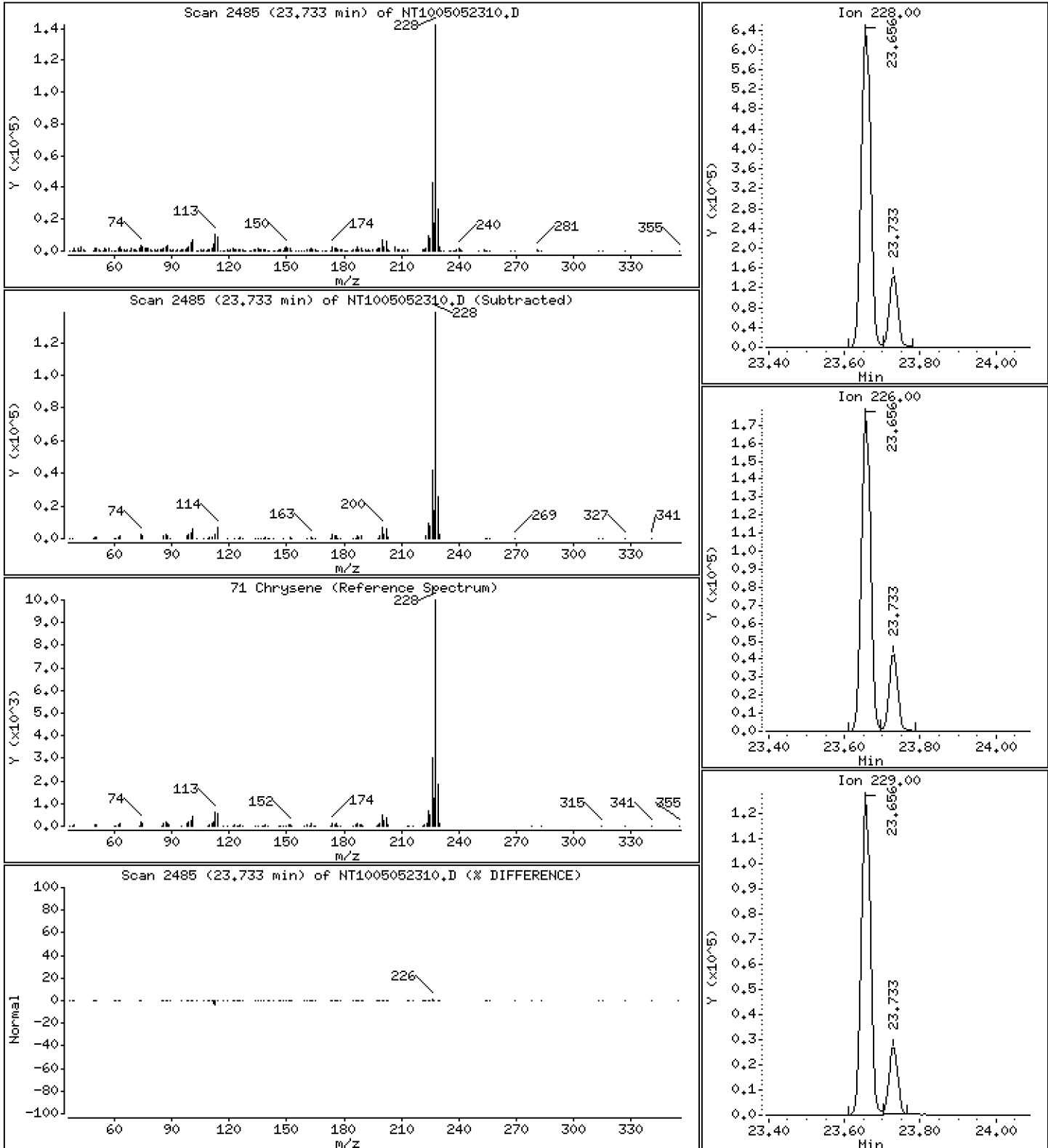
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 1,201 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

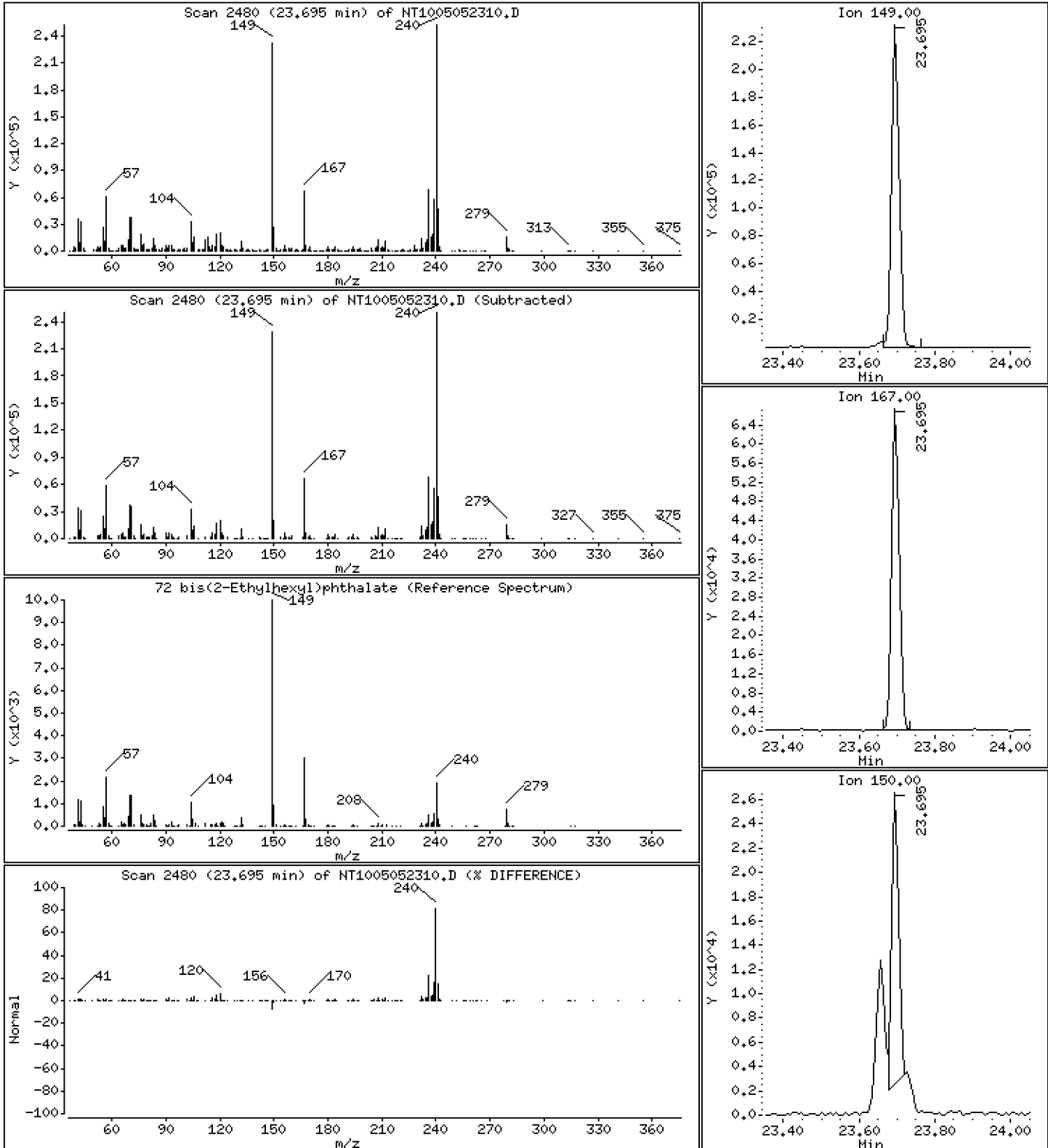
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 2,283 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

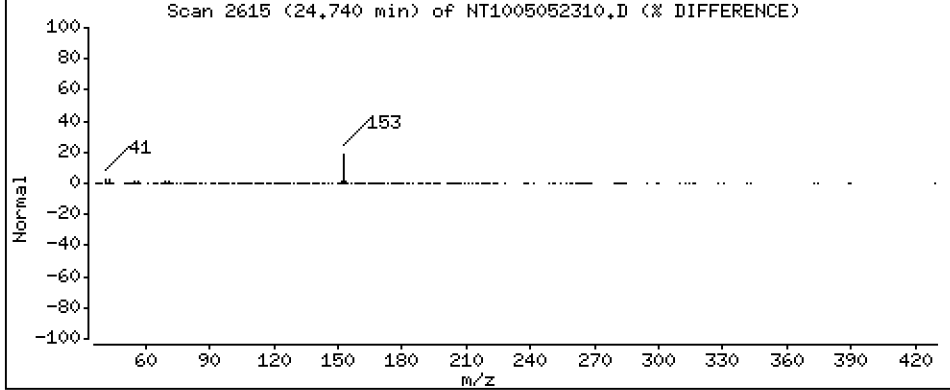
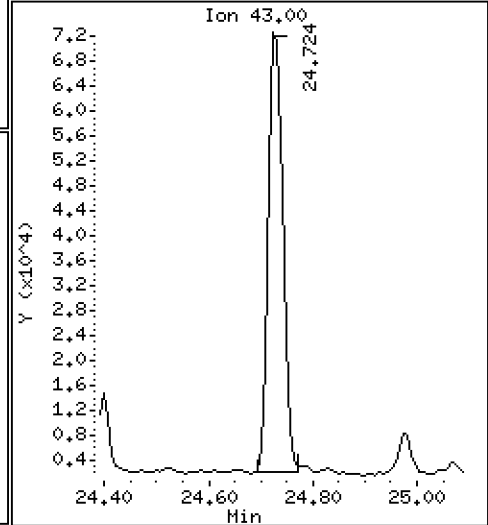
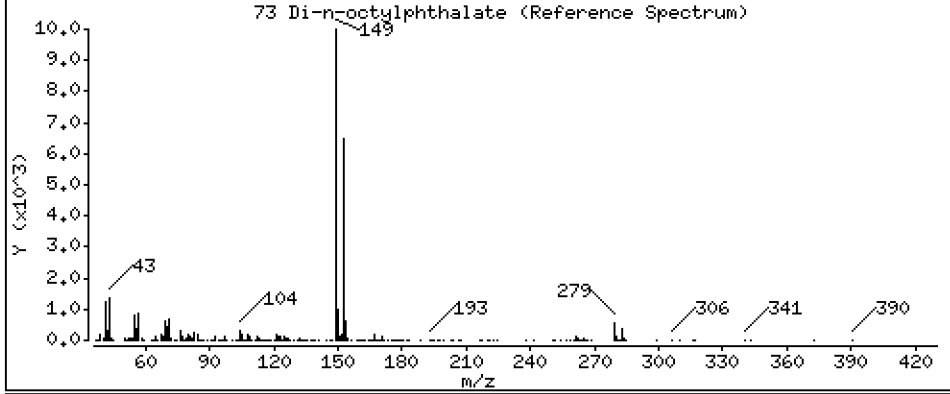
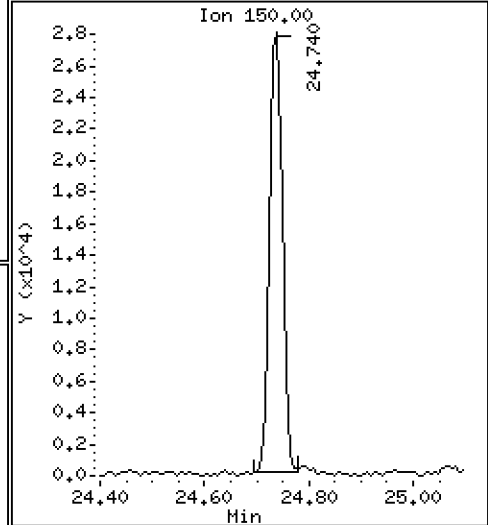
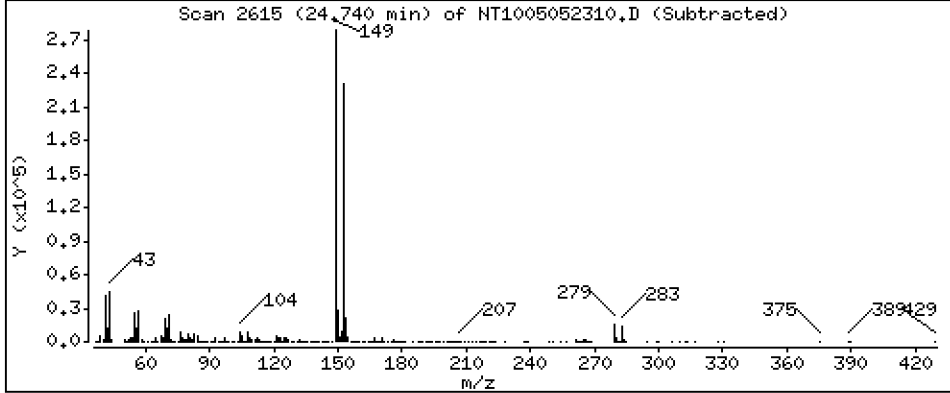
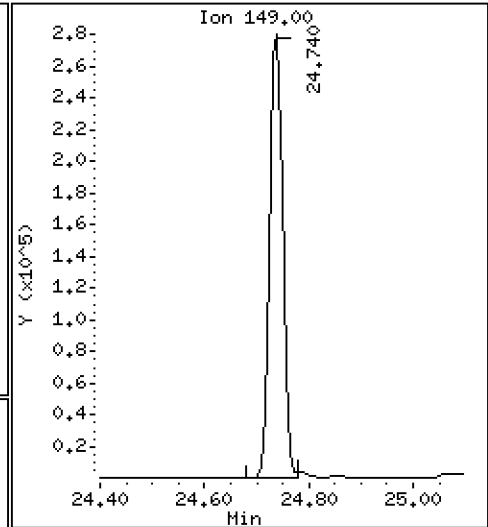
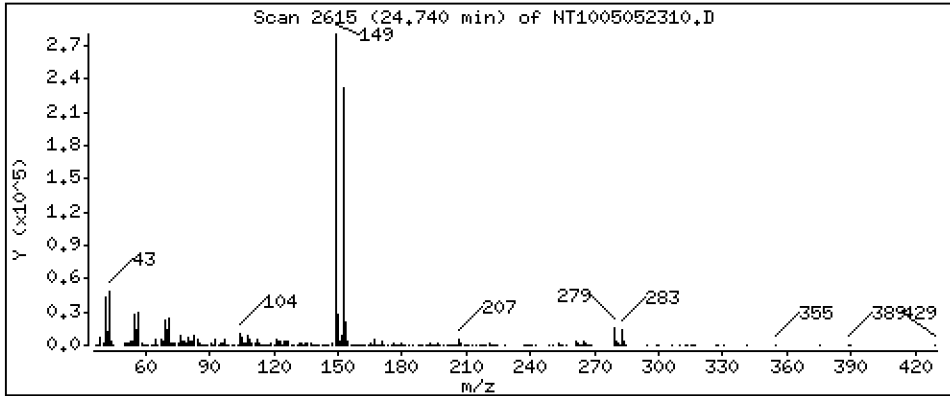
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 1,883 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

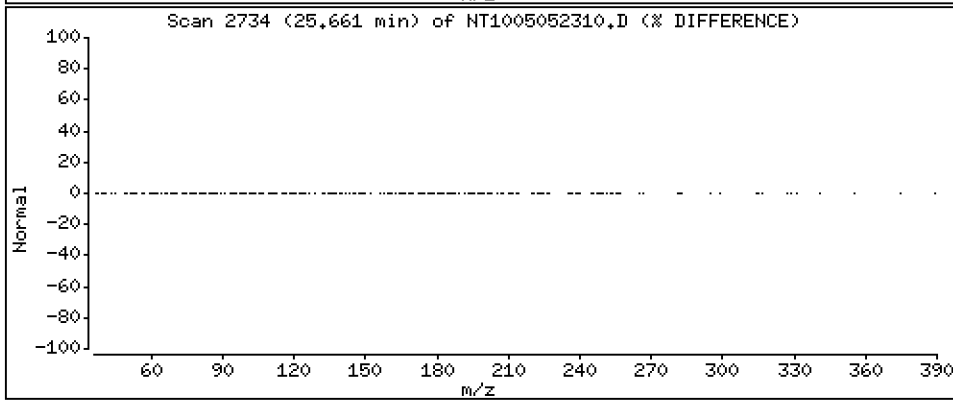
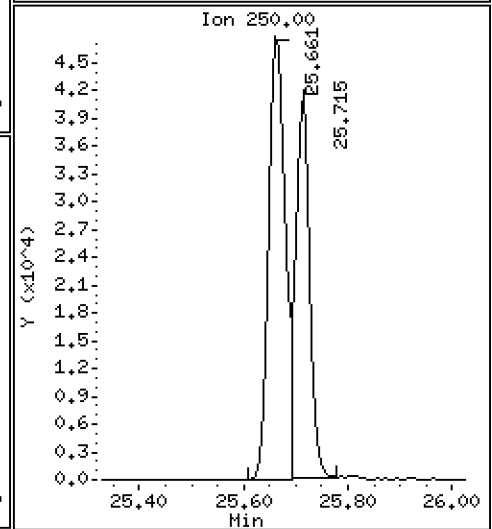
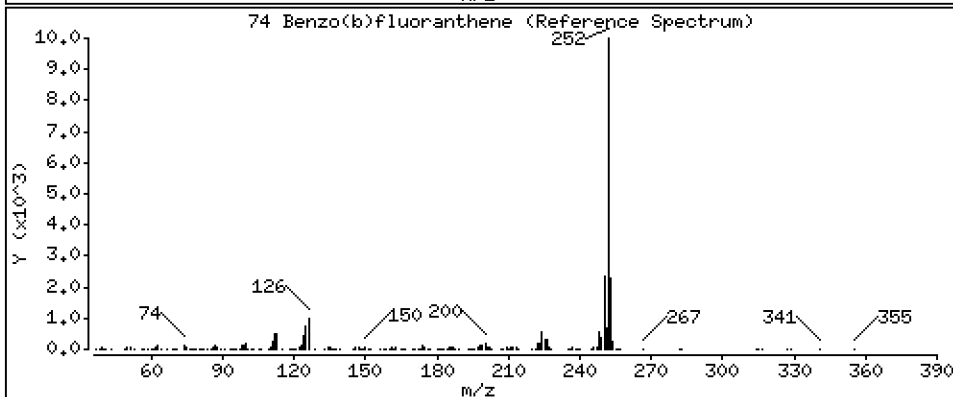
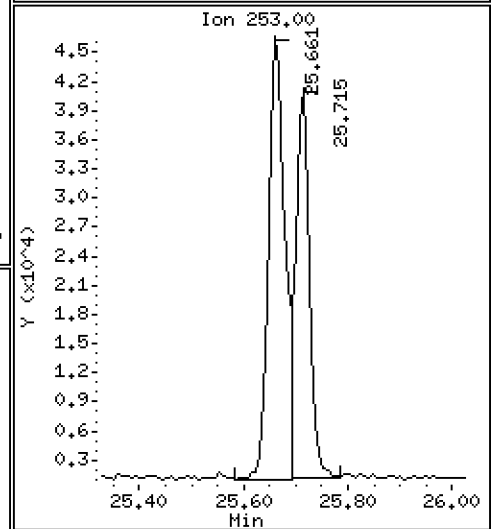
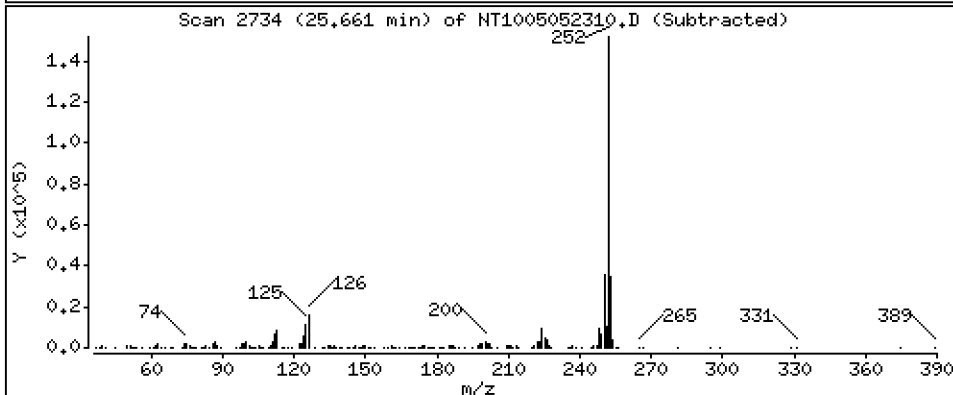
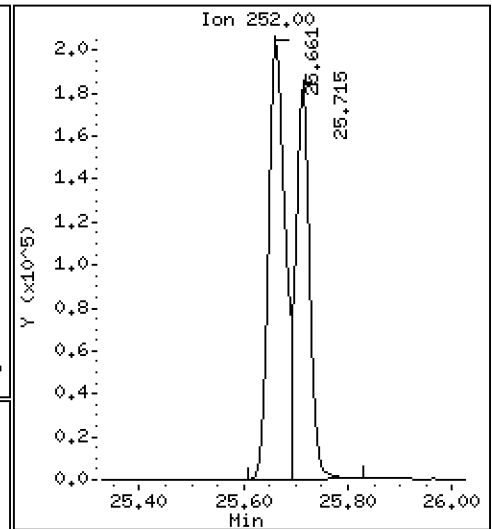
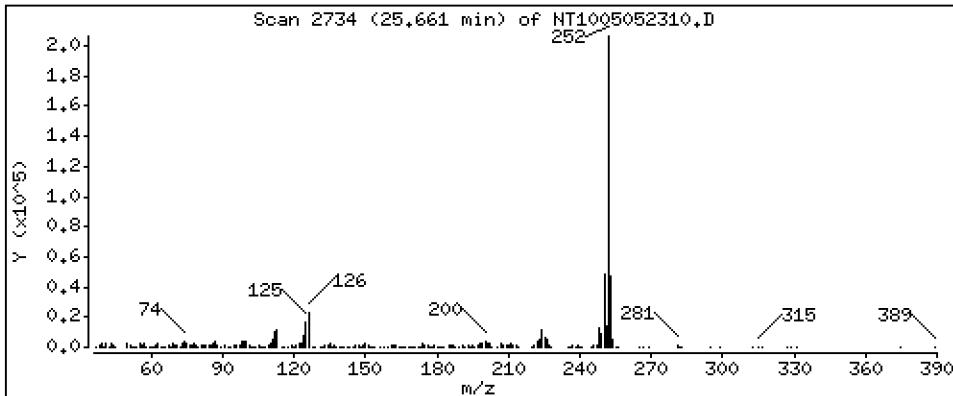
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 2,434 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

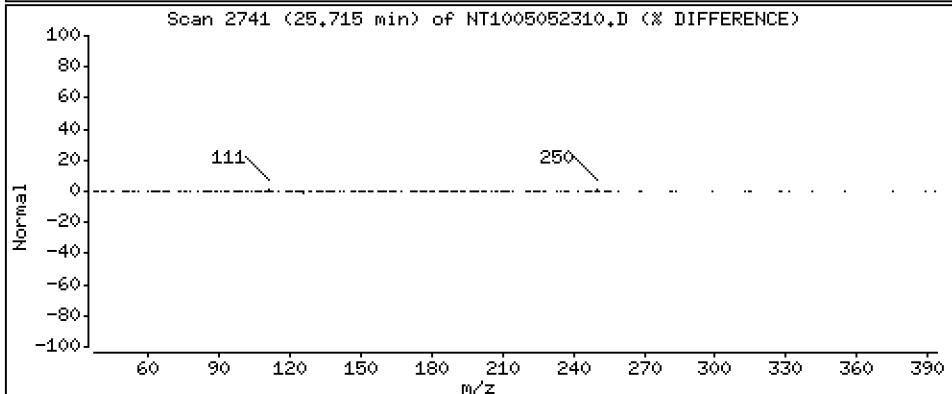
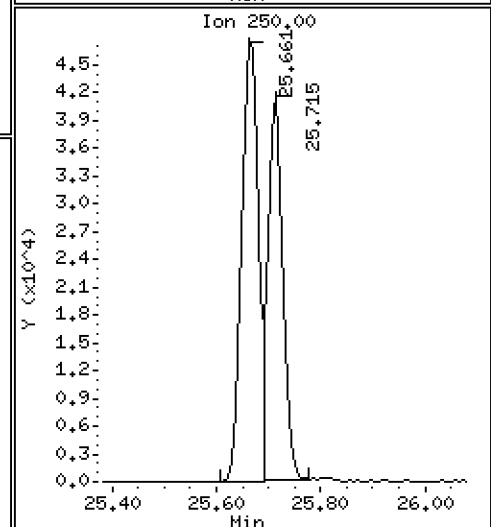
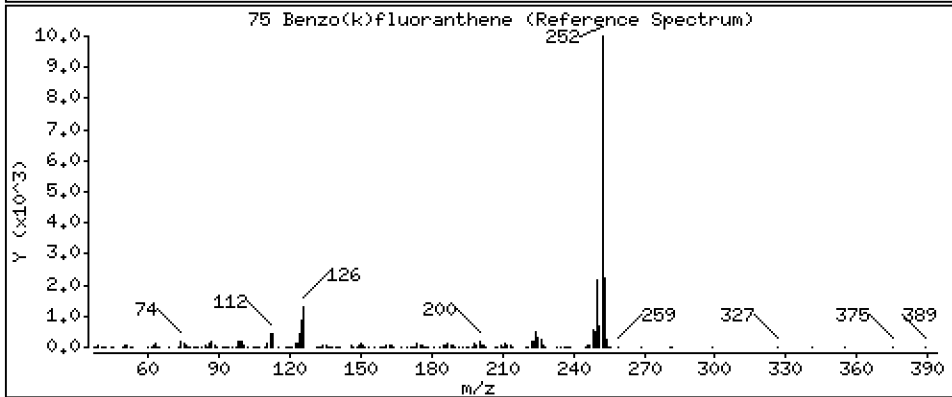
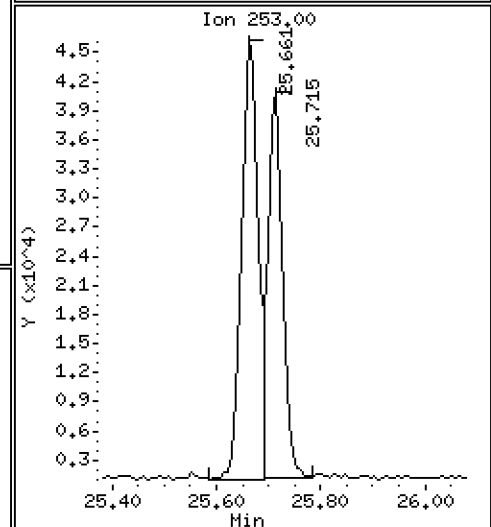
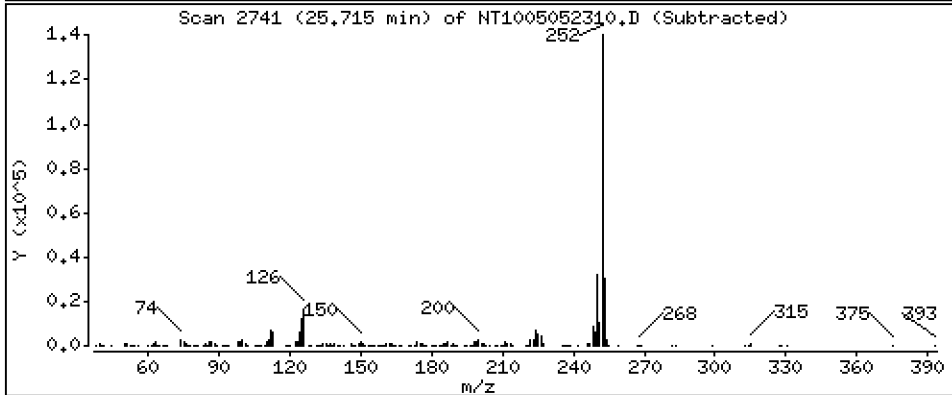
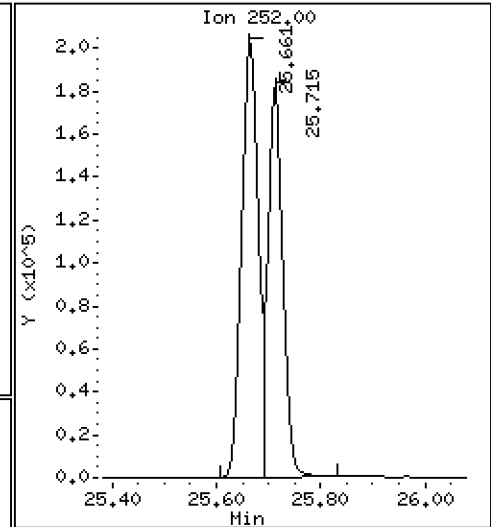
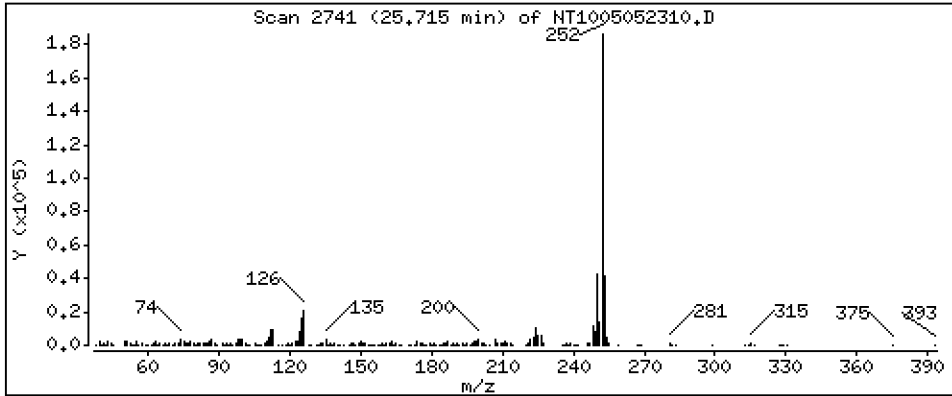
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 1,935 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

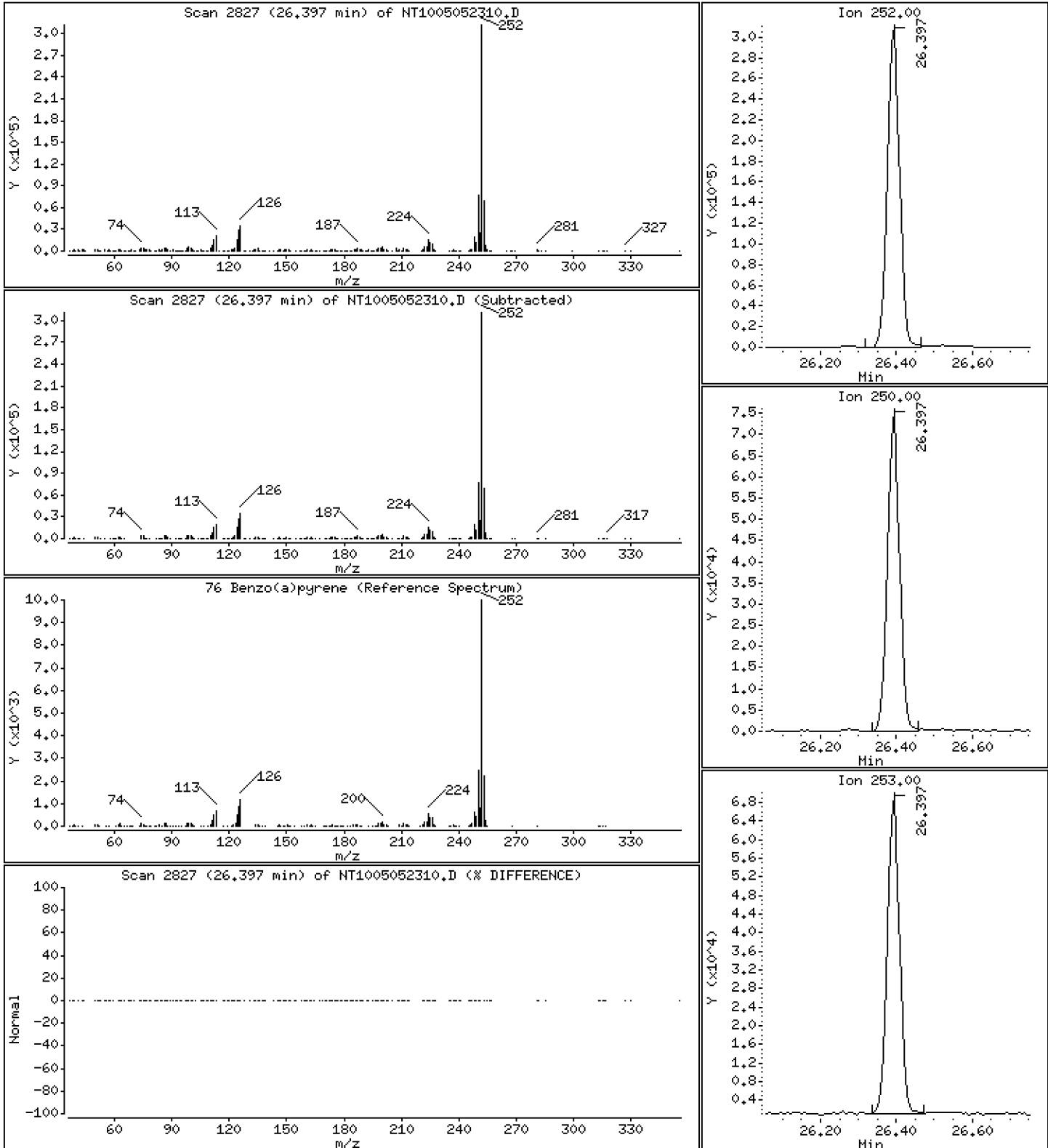
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,288 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

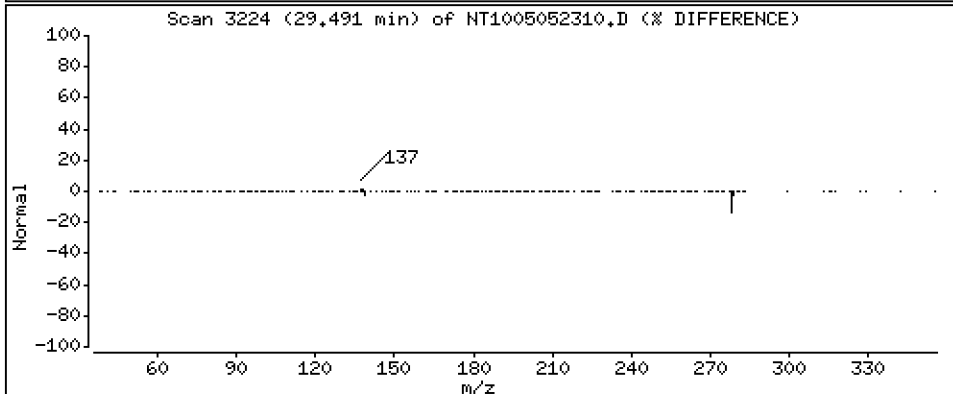
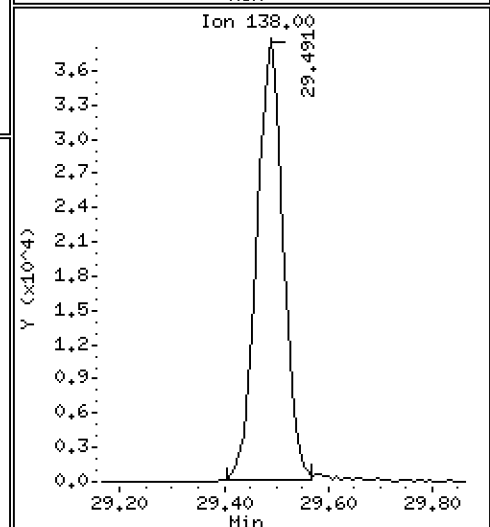
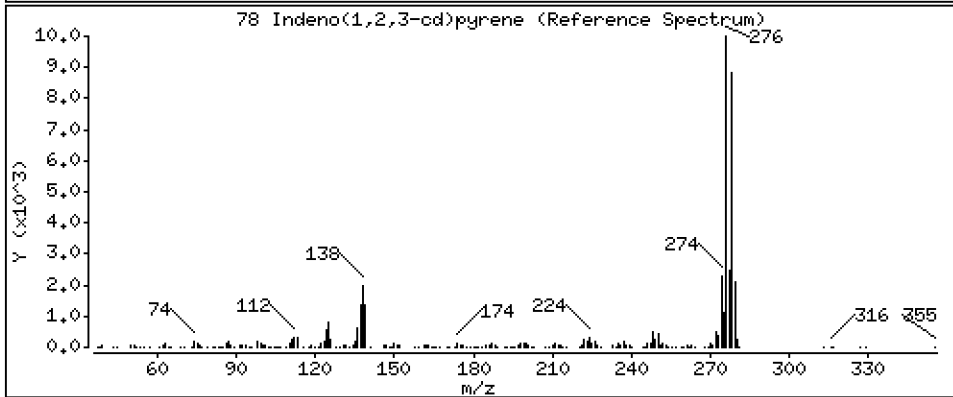
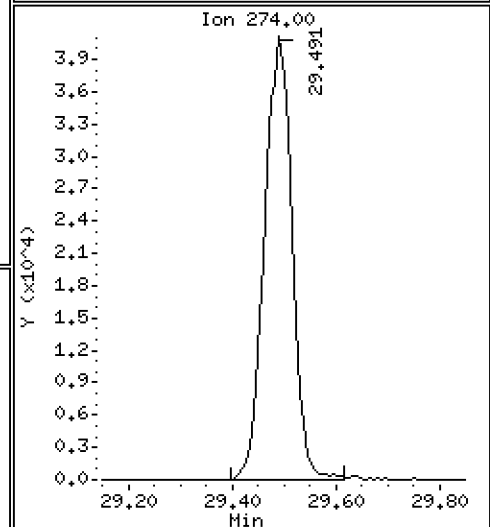
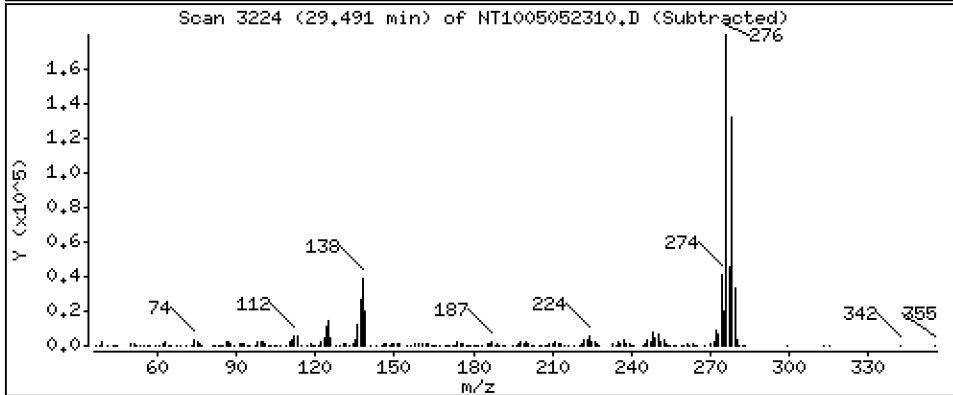
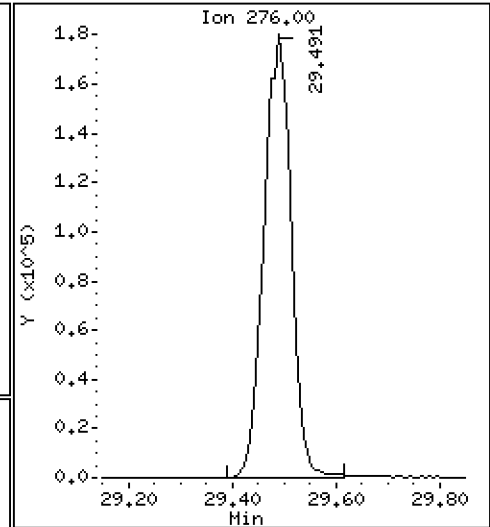
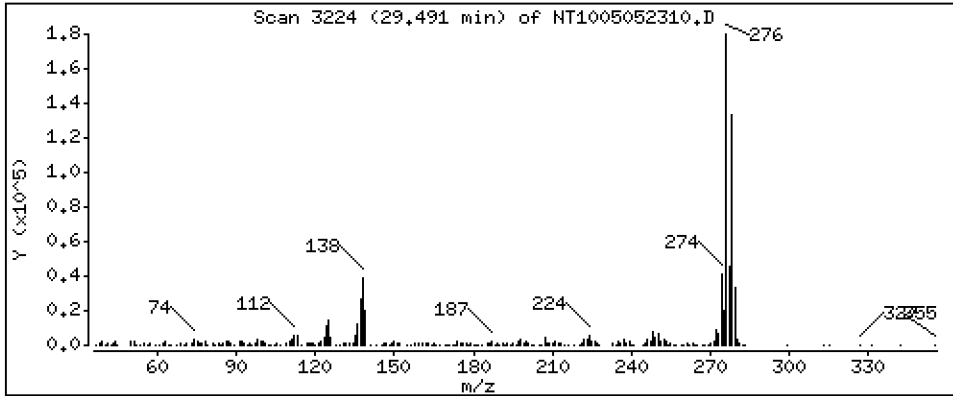
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 3,410 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

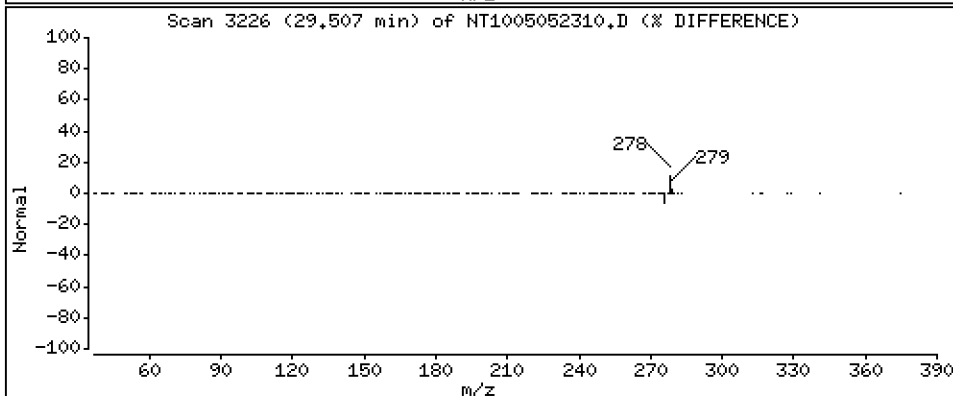
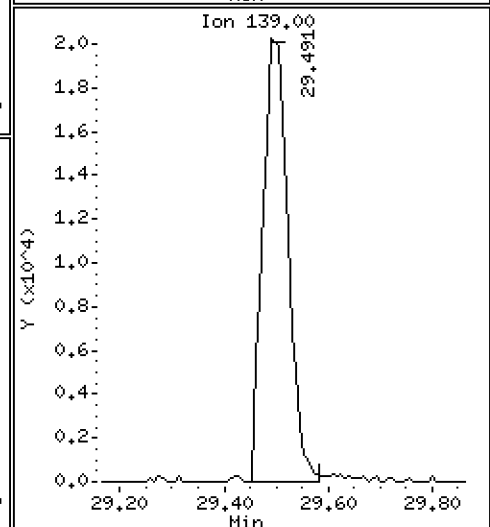
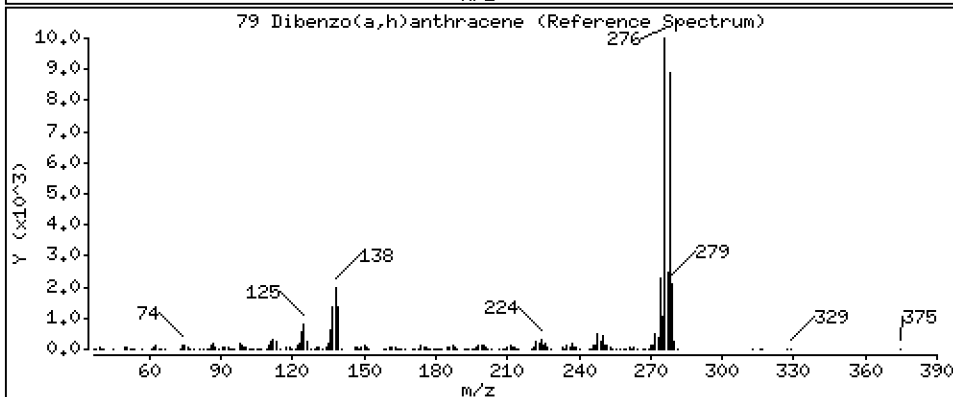
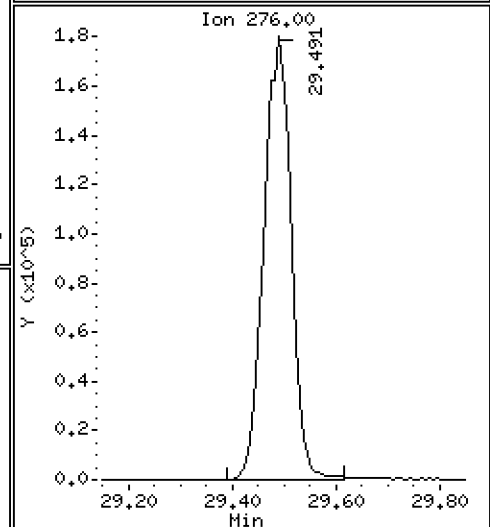
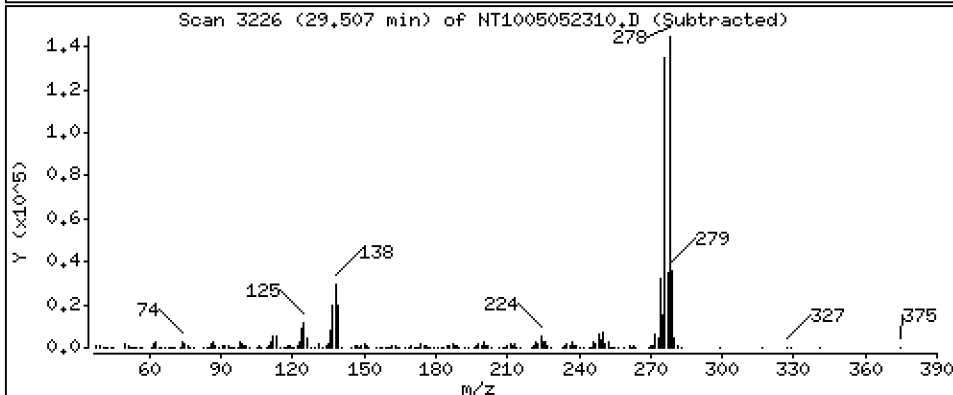
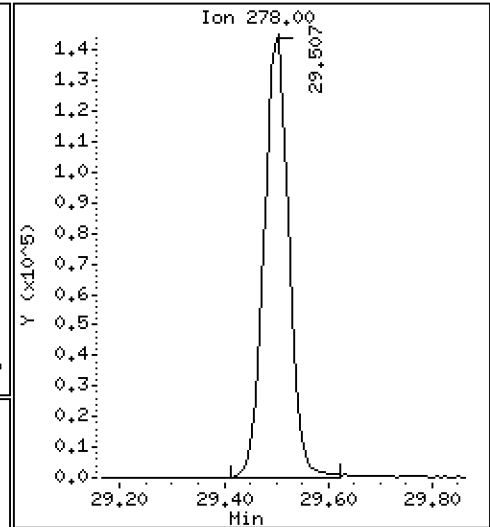
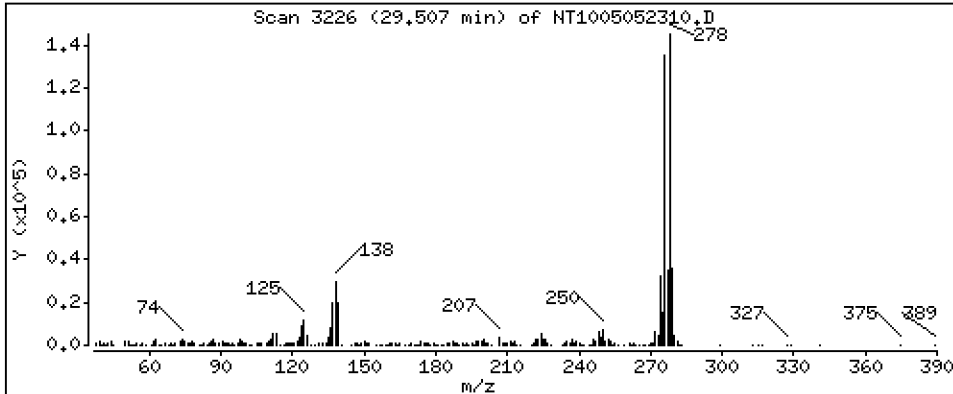
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,000 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

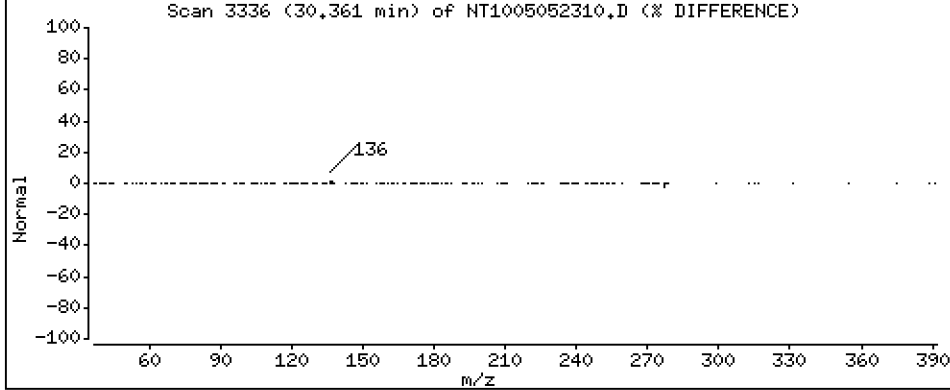
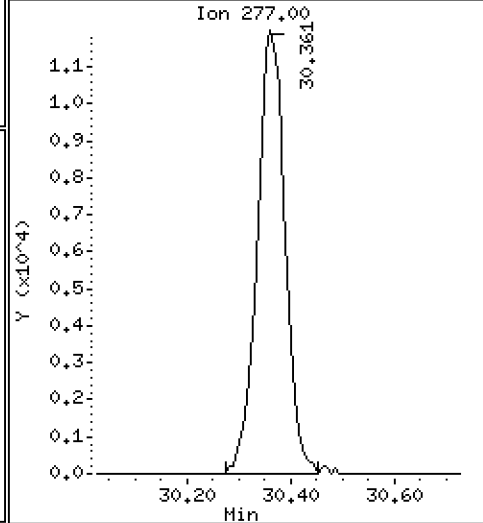
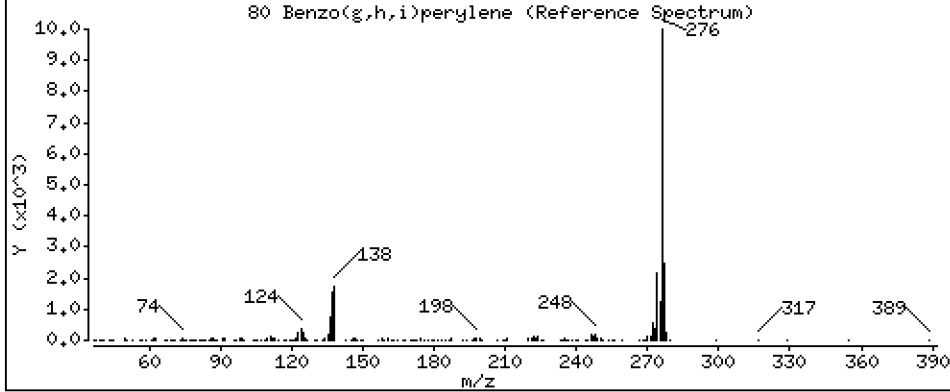
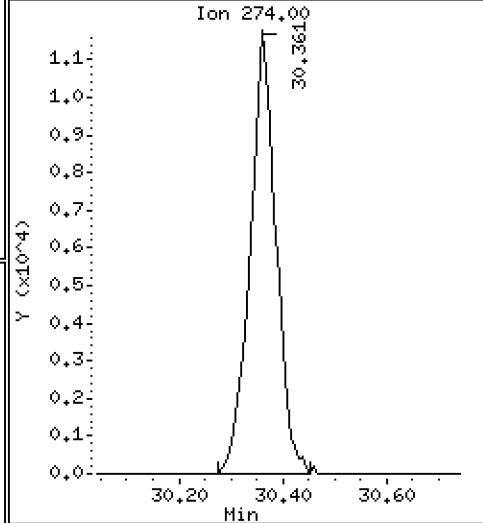
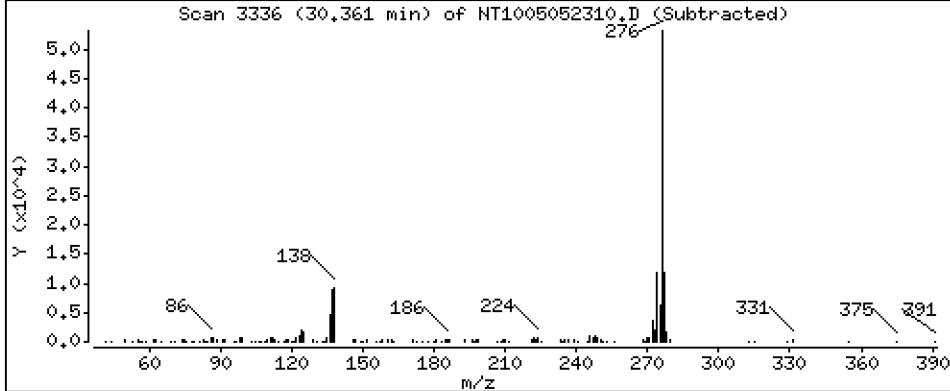
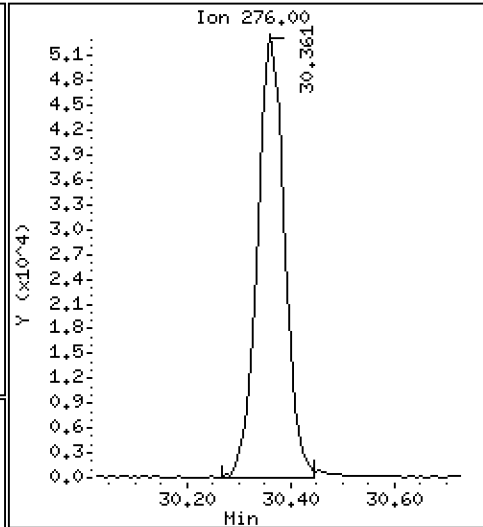
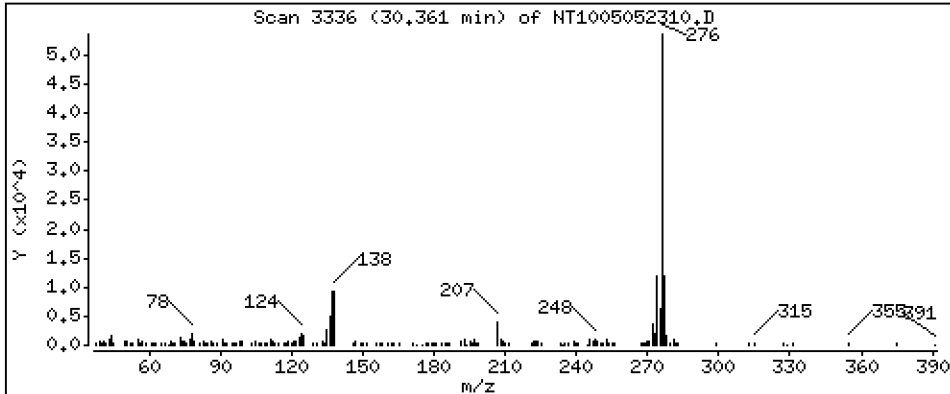
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 1,264 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

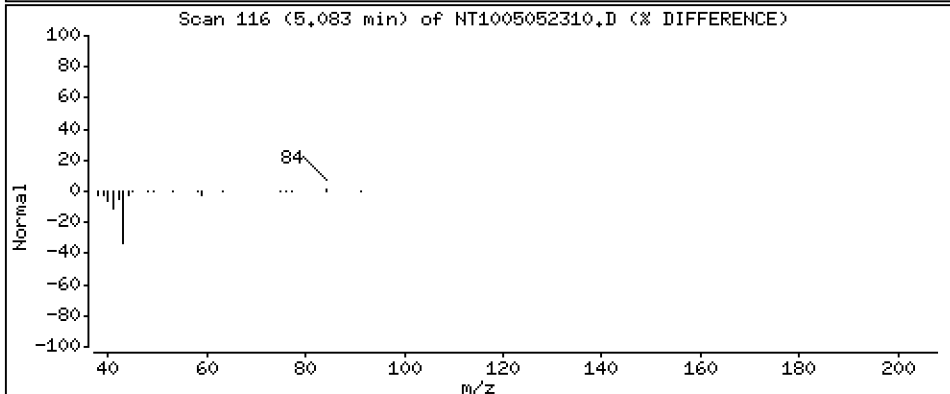
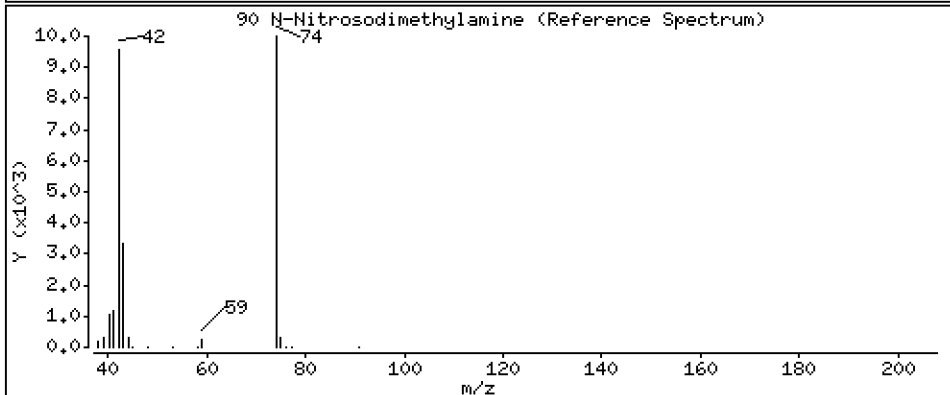
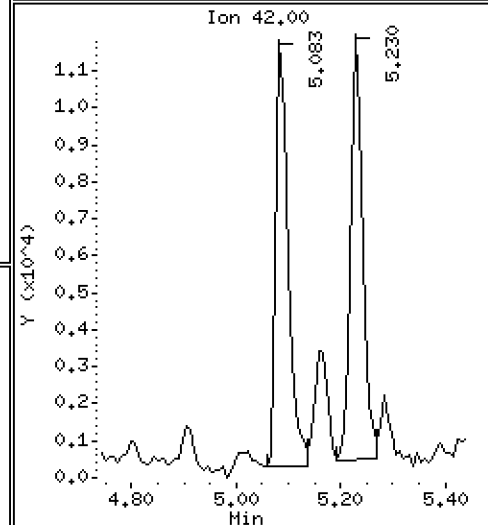
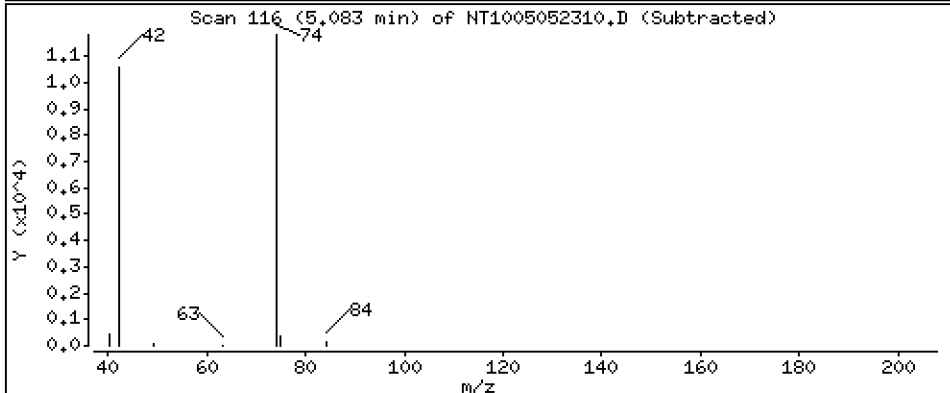
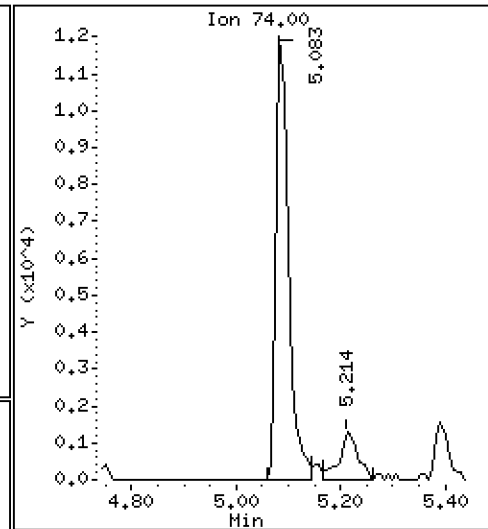
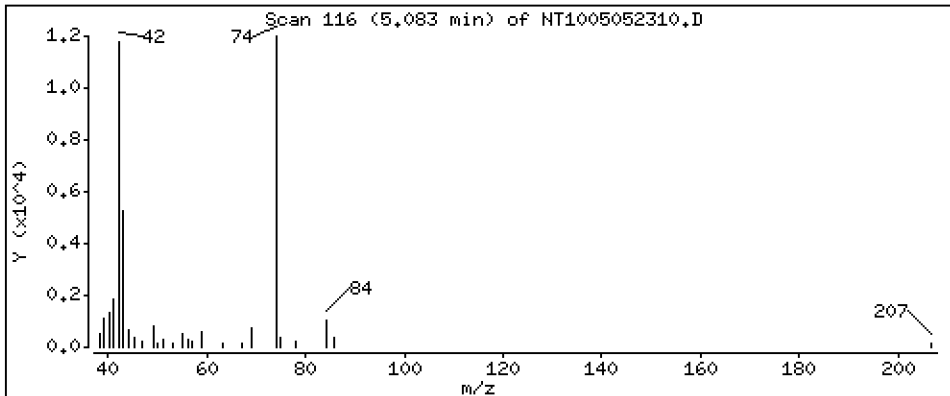
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.6205 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

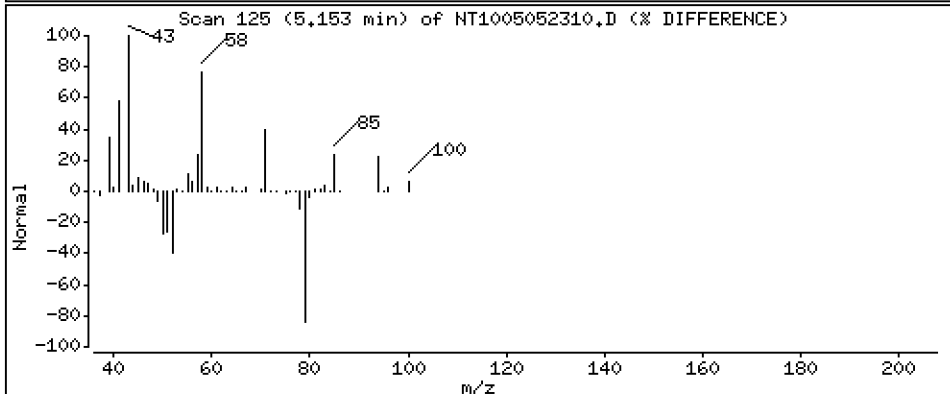
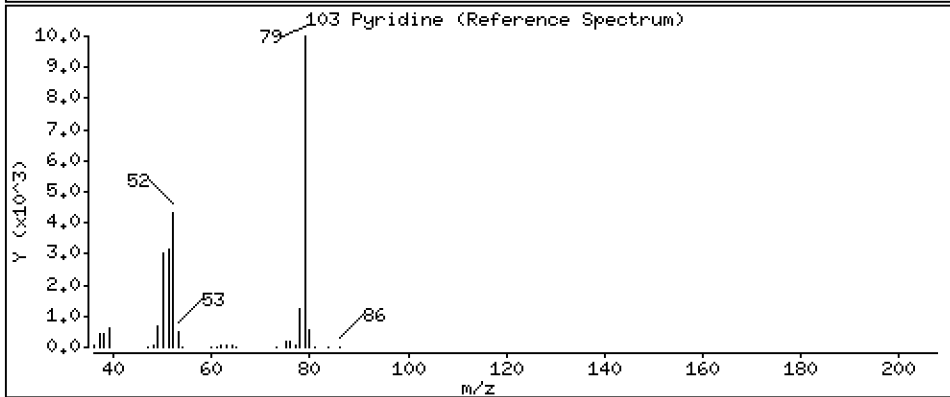
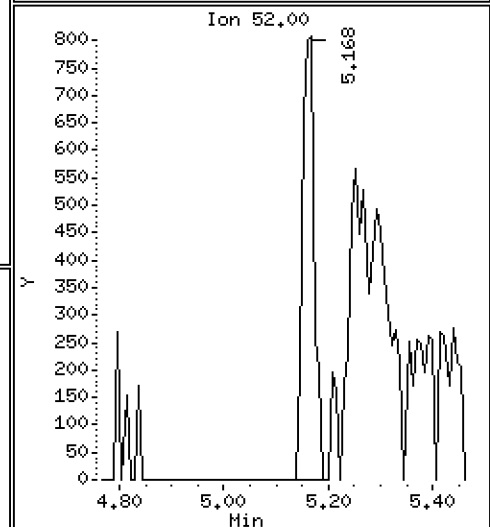
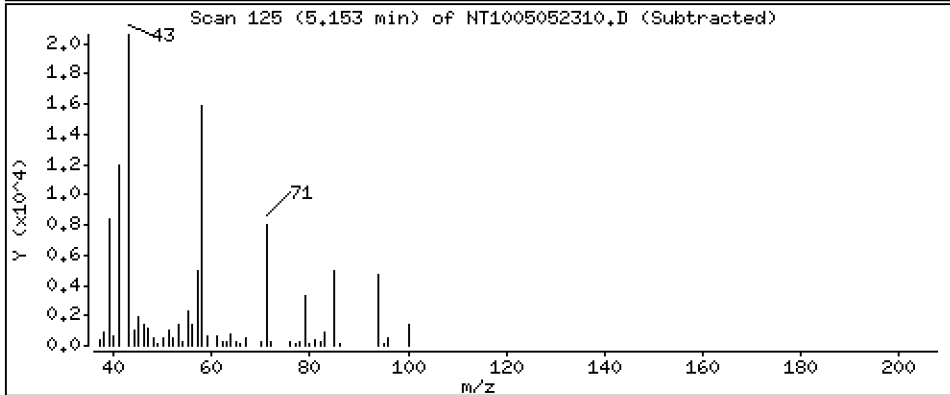
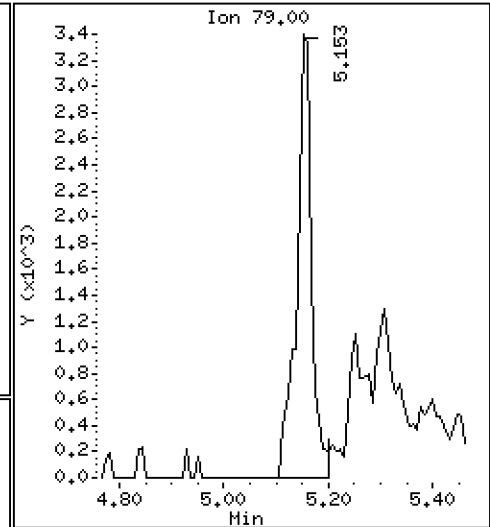
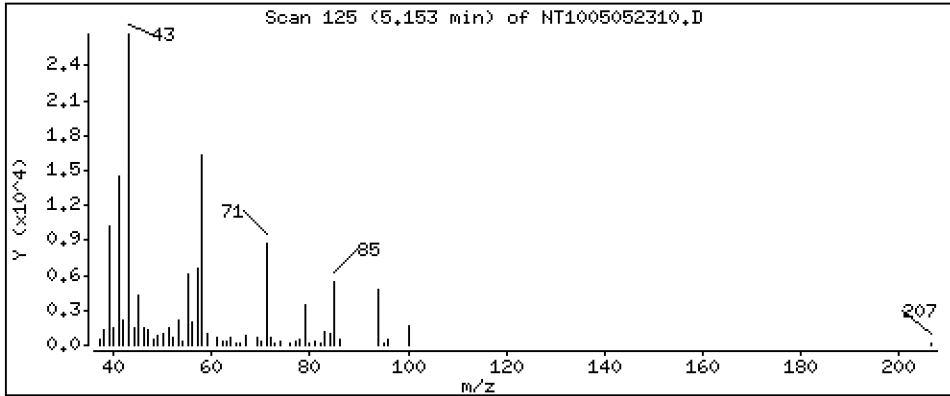
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,1433 ug/mL



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM1

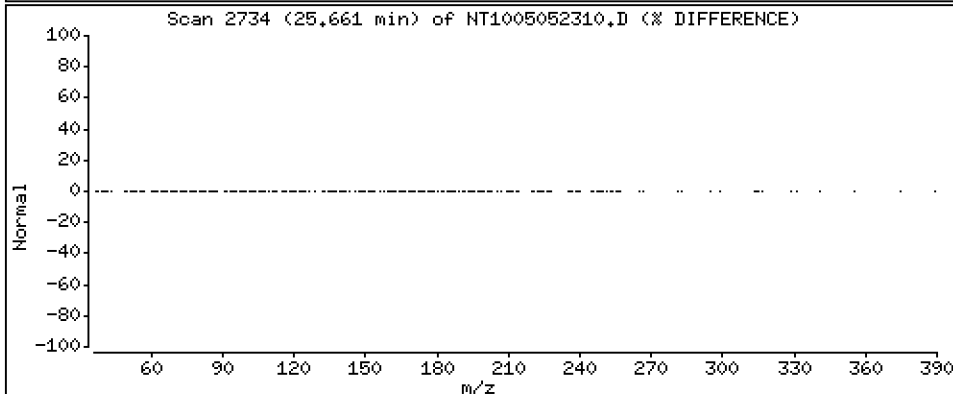
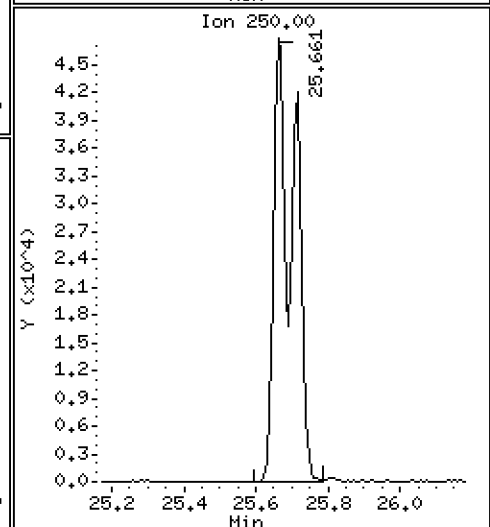
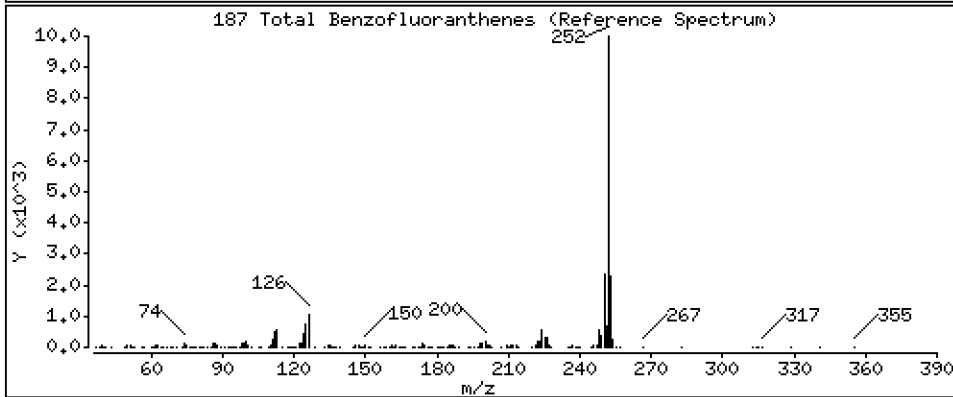
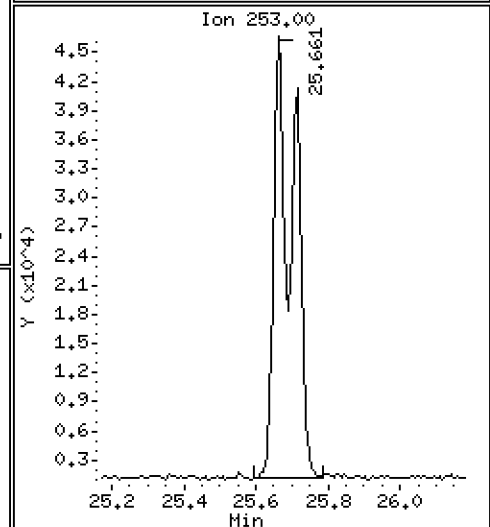
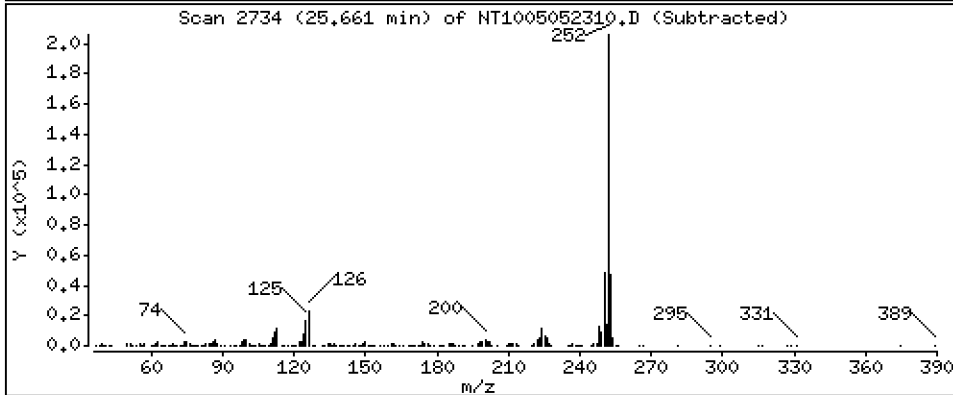
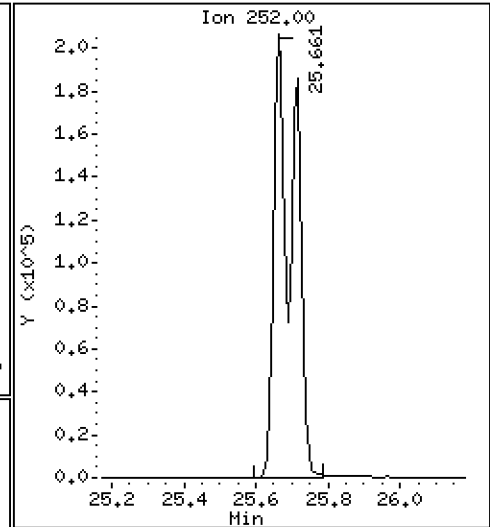
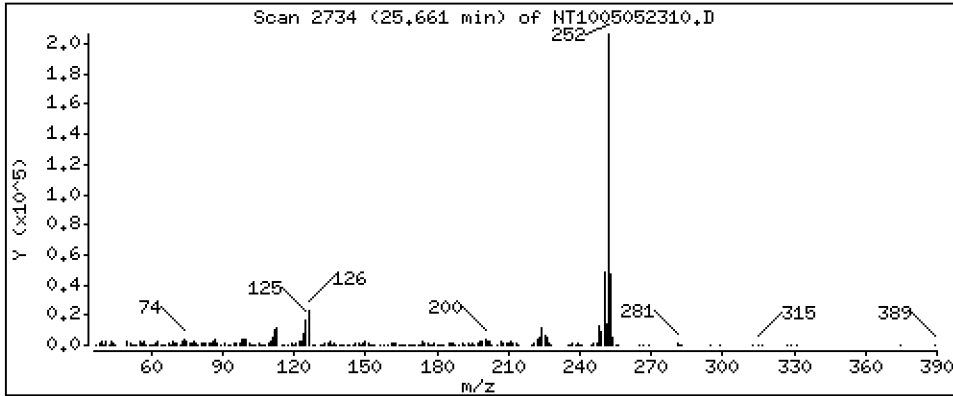
Operator: YZ

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 4,346 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052310.D
 Lab Smp Id: BLD0329-SRM1
 Inj Date : 05-MAY-2023 16:36
 Operator : YZ
 Smp Info : BLD0329-SRM1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.246	7.253	(1.000)	296424	5.20281	5.203
\$ 2 Phenol-d5	99		8.822	8.830	(1.000)	365005	5.31386	5.314
3 Phenol	94		8.845	8.853	(1.000)	138259	1.88250	1.882
\$ 5 2-Chlorophenol-d4	132		9.123	9.139	(1.000)	391586	5.94870	5.949
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		9.154	9.162	(1.000)	67196	1.03759	1.038
7 1,3-Dichlorobenzene	146		9.433	9.440	(1.000)	66447	0.91066	0.9107
* 8 1,4-Dichlorobenzene-d4	152		9.495	9.502	(1.000)	188282	4.00000	(M)
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.859	9.867	(1.000)	181760	3.74281	3.743
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	121		10.054	10.069	(1.000)	42495	2.11438	2.114
13 2-Methylphenol	108		9.968	9.976	(1.000)	251866	4.67564	4.676
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.232	10.240	(1.000)	372991	5.76781	5.768
\$ 18 Nitrobenzene-d5	82		10.589	10.604	(0.883)	311706	4.34332	4.343
19 Nitrobenzene	77		10.628	10.636	(0.886)	165315	2.38352	2.384
20 Isophorone	82		11.070	11.078	(0.923)	151452	1.83423	1.834
21 2-Nitrophenol	139		11.257	11.266	(0.939)	159485	4.33488	4.335
22 2,4-Dimethylphenol	107		11.283	11.300	(0.941)	292790	4.32304	4.323
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.393	11.486	(0.950)	43514	0.92853	0.9285
25 2,4-Dichlorophenol	162		11.707	11.716	(0.976)	335404	6.30388	6.304
26 1,2,4-Trichlorobenzene	180		11.898	11.906	(0.992)	91419	1.19963	1.200
* 27 Naphthalene-d8	136		11.991	11.999	(1.000)	642213	4.00000	
28 Naphthalene	128		12.030	12.037	(1.003)	612323	3.41744	3.417
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		12.385	12.393	(1.033)	72175	1.71738	1.717
31 4-Chloro-3-methylphenol	107		13.097	13.105	(1.092)	97737	1.68557	1.686
32 2-Methylnaphthalene	142		Compound Not Detected.					
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		14.041	14.049	(0.899)	73665	1.68375	1.684	
35 2,4,5-Trichlorophenol	196		14.111	14.118	(0.904)	130010	2.72505	2.725	
§ 36 2-Fluorobiphenyl	172		14.204	14.211	(0.910)	648684	4.19514	4.195	
37 2-Chloronaphthalene	162		14.420	14.436	(0.924)	224359	1.84227	1.842	
38 2-Nitroaniline	65		Compound Not Detected.						
39 Dimethylphthalate	163		15.094	15.109	(0.967)	572050	4.17728	4.177	
40 Acenaphthylene	152		15.295	15.310	(0.980)	273030	1.43627	1.436	
41 2,6-Dinitrotoluene	165		Compound Not Detected.						
* 42 Acenaphthene-d10	164		15.612	15.628	(1.000)	357166	4.00000		
43 3-Nitroaniline	138		Compound Not Detected.						
44 Acenaphthene	153		15.682	15.689	(1.004)	570404	4.71787	4.718	
45 2,4-Dinitrophenol	184		15.744	15.759	(1.008)	85746	3.59159	3.592	
46 Dibenzofuran	168		16.006	16.014	(1.025)	959736	5.44434	5.444	
47 4-Nitrophenol	109		15.829	15.844	(1.014)	167991	5.89097	5.891	
48 2,4-Dinitrotoluene	165		16.053	16.068	(1.028)	141420	3.19970	3.200	
50 Diethylphthalate	149		16.555	16.571	(1.060)	27784	0.19541	0.1954	
49 Fluorene	166		16.718	16.733	(1.071)	463873	3.18981	3.190	
51 4-Chlorophenyl-phenylether	204		16.702	16.710	(1.070)	151254	2.08872	2.089	
52 4-Nitroaniline	138		Compound Not Detected.						
53 4,6-Dinitro-2-methylphenol	198		16.895	16.918	(0.905)	176378	6.61316	6.613	
54 N-Nitrosodiphenylamine	169		16.949	16.964	(0.908)	228722	2.55803	2.558	
§ 55 2,4,6-Tribromophenol	330		17.257	17.265	(1.105)	122359	6.87906	6.879	
56 4-Bromophenyl-phenylether	248		17.712	17.728	(0.949)	261163	6.18725	6.187	
57 Hexachlorobenzene	284		Compound Not Detected.						
58 Pentachlorophenol	266		18.393	18.401	(0.985)	79097	2.70963	2.710	
* 59 Phenanthrene-d10	188		18.664	18.679	(1.000)	676627	4.00000		
60 Phenanthrene	178		18.710	18.726	(1.002)	845590	4.25909	4.259	
61 Anthracene	178		18.803	18.818	(1.007)	375925	2.04903	2.049	
62 Carbazole	167		19.128	19.136	(1.025)	919321	5.66081	5.661	
63 Di-n-butylphthalate	149		19.894	19.902	(1.066)	361418	1.47825	1.478	
64 Fluoranthene	202		21.078	21.085	(0.890)	493803	2.18094	2.181	
65 Pyrene	202		21.503	21.511	(0.908)	619028	2.73688	2.737	
§ 66 Terphenyl-d14	244		21.774	21.782	(0.919)	831479	4.64819	4.648	
67 Butylbenzylphthalate	149		22.688	22.695	(0.958)	308236	2.99084	2.991	
68 Benzo(a)anthracene	228		23.656	23.663	(0.999)	1042309	5.19180	5.192	
* 69 Chrysene-d12	240		23.687	23.694	(1.000)	507125	4.00000		
70 3,3'-Dichlorobenzidine	252		Compound Not Detected.						
71 Chrysene	228		23.733	23.741	(1.002)	215750	1.20069	1.201	
72 bis(2-Ethylhexyl)phthalate	149		23.694	23.702	(0.958)	308356	2.28335	2.283	
* 134 Di-n-octylphthalate-d4	153		24.724	24.739	(1.000)	937500	4.00000		
73 Di-n-octylphthalate	149		24.739	24.747	(1.001)	465677	1.88278	1.883	
74 Benzo(b)fluoranthene	252		25.661	25.676	(0.968)	464594	2.43408	2.434	
75 Benzo(k)fluoranthene	252		25.715	25.730	(0.970)	366472	1.93487	1.935	
76 Benzo(a)pyrene	252		26.396	26.404	(0.995)	685028	4.28781	4.288	
* 77 Perylene-d12	264		26.520	26.528	(1.000)	464638	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		29.491	29.498	(1.112)	654430	3.40980	3.410	
79 Dibenzo(a,h)anthracene	278		29.506	29.514	(1.113)	482152	2.99963	3.000	
80 Benzo(g,h,i)perylene	276		30.361	30.376	(1.145)	193290	1.26351	1.264	
90 N-Nitrosodimethylamine	74		5.083	5.090	(1.000)	19095	0.62049	0.6205	
91 Aniline	93		Compound Not Detected.						
93 Benzidine	184		Compound Not Detected.						
103 Pyridine	79		5.152	5.114	(1.000)	6955	0.14332	0.1433	
105 1-methylnaphthalene	142		Compound Not Detected.						
111 Azobenzene (1,2-DP-Hydrazine)	77		Compound Not Detected.						

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.661	25.676	(0.968)	798412	4.34560	4.346

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052310.D Calibration Time: 11:37
 Lab Smp Id: BLD0329-SRM1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: YZ
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	188282	4.91
27 Naphthalene-d8	621628	310814	1243256	642213	3.31
42 Acenaphthene-d10	353112	176556	706224	357166	1.15
59 Phenanthrene-d10	694933	347467	1389866	676627	-2.63
69 Chrysene-d12	553967	276984	1107934	507125	-8.46
134 Di-n-octylphthala	895601	447801	1791202	937500	4.68
77 Perylene-d12	482573	241287	965146	464638	-3.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.50	-0.08
27 Naphthalene-d8	12.00	11.50	12.50	11.99	-0.06
42 Acenaphthene-d10	15.63	15.13	16.13	15.61	-0.10
59 Phenanthrene-d10	18.68	18.18	19.18	18.66	-0.08
69 Chrysene-d12	23.69	23.19	24.19	23.69	-0.03
134 Di-n-octylphthala	24.74	24.24	25.24	24.72	-0.06
77 Perylene-d12	26.53	26.03	27.03	26.52	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005052310.D

Lab ID: BLD0329-SRM1
 nt10.i, 20230505.b\ABN.m, 05-MAY-2023 16:36

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.060	-0.0596	2,2'-oxybis(1-Chloropropane)
0.886	1.000	-0.1137	4-Methylphenol
0.923	0.886	0.0368	Nitrobenzene
0.939	0.923	0.0155	Isophorone
0.976	0.959	0.0176	Bis(2-Chloroethoxy)methane
0.992	0.976	0.0159	2,4-Dichlorophenol
1.003	0.992	0.0110	1,2,4-Trichlorobenzene
0.950	1.000	-0.0499	Naphthalene-d8
1.033	0.957	0.0755	Benzoic acid
1.092	1.014	0.0787	4-Chloroaniline
0.899	1.120	-0.2205	2-Methylnaphthalene
0.904	0.890	0.0143	Hexachlorocyclopentadiene
0.924	0.899	0.0247	2,4,6-Trichlorophenol
0.980	0.924	0.0560	2-Chloronaphthalene
0.967	0.940	0.0267	2-Nitroaniline
1.004	0.967	0.0376	Dimethylphthalate
1.008	1.000	0.0084	Acenaphthene-d10
1.025	1.004	0.0213	Acenaphthene
1.014	0.995	0.0193	3-Nitroaniline
1.028	1.008	0.0198	2,4-Dinitrophenol
1.071	1.025	0.0461	Dibenzofuran
1.070	1.014	0.0560	4-Nitrophenol
1.060	1.028	0.0322	2,4-Dinitrotoluene
0.905	1.069	-0.1640	4-Chlorophenyl-phenylether
0.908	1.060	-0.1522	Diethylphthalate
0.949	1.077	-0.1276	4-Nitroaniline
0.985	0.908	0.0773	N-Nitrosodiphenylamine
1.002	0.949	0.0534	4-Bromophenyl-phenylether
1.007	0.966	0.0410	Hexachlorobenzene
1.025	0.985	0.0398	Pentachlorophenol
1.066	1.000	0.0659	Phenanthrene-d10
0.890	1.002	-0.1126	Phenanthrene
0.908	1.007	-0.0996	Anthracene
0.958	1.024	-0.0666	Carbazole
0.999	1.065	-0.0667	Di-n-butylphthalate
1.002	0.908	0.0941	Pyrene
0.968	1.000	-0.0324	Chrysene-d12
0.970	0.996	-0.0268	3,3'-Dichlorobenzidine
0.995	1.002	-0.0066	Chrysene
1.112	0.958	0.1539	bis(2-Ethylhexyl)phthalate
1.113	1.000	0.1123	Di-n-octylphthalate
1.145	0.968	0.1769	Benzo(b)fluoranthene

1.000	0.970	0.0301	Benzo(k)fluoranthene
1.000	1.112	-0.1120	Indeno(1,2,3-cd)pyrene
0.968	1.000	-0.0324	N-Nitrosodimethylamine
1.000	0.899	0.1007	Benzidine
1.000	1.139	-0.1386	1-methylnaphthalene
1.000	1.090	-0.0904	Azobenzene (1,2-DP-Hydrazine)
1.000	1.046	-0.0460	2,3,4,6-Tetrachlorophenol
1.000	0.968	0.0321	Total Benzofluoranthenes
0.883	1.000	-0.1169	1,2-Dichlorobenzene-d4
0.910	0.884	0.0260	Nitrobenzene-d5
1.105	0.909	0.1960	2-Fluorobiphenyl
0.919	1.105	-0.1855	2,4,6-Tribromophenol
0.000	0.919	-0.9193	Terphenyl-d14

RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, PSDDA.sub = 0.1000

Exception: Phenol 0.5000
 Exception: 2-Fluorophenol (Surr) 0.0000
 Exception: Phenol-d5 (Surr) 0.0000
 Exception: 2-Chlorophenol-d4 (Surr) 0.0000
 Exception: 1,2-Dichlorobenzene-d4 (Surr) 0.0000
 Exception: Nitrobenzene-d5 (Surr) 0.0000
 Exception: 2-Fluorobiphenyl (Surr) 0.0000
 Exception: 2,4,6-Tribromophenol (Surr) 0.0000
 Exception: Terphenyl-d14 (Surr) 0.0000

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

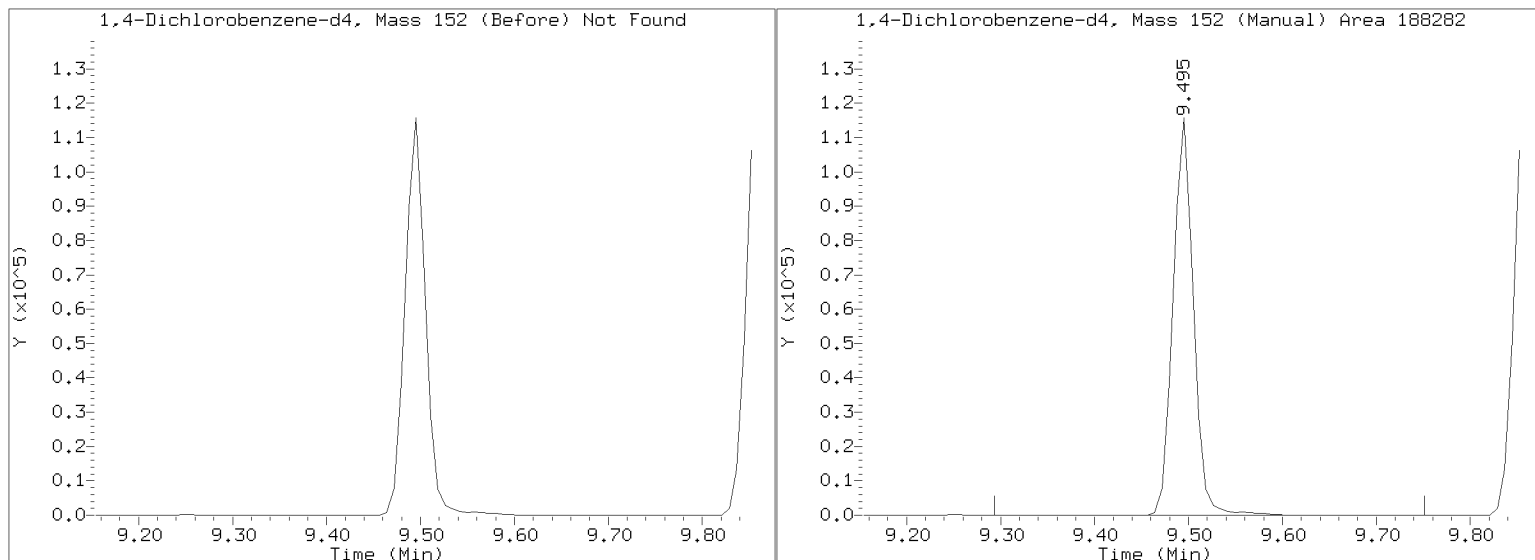
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052310.D

Injection Date: 05-MAY-2023 16:36

Lab ID:BLD0329-SRM1 Client ID:

Report Date: 05/08/2023 10:15



APPROVED

By Deenay Dunmore at 10:38 am, May 08, 2023



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E**

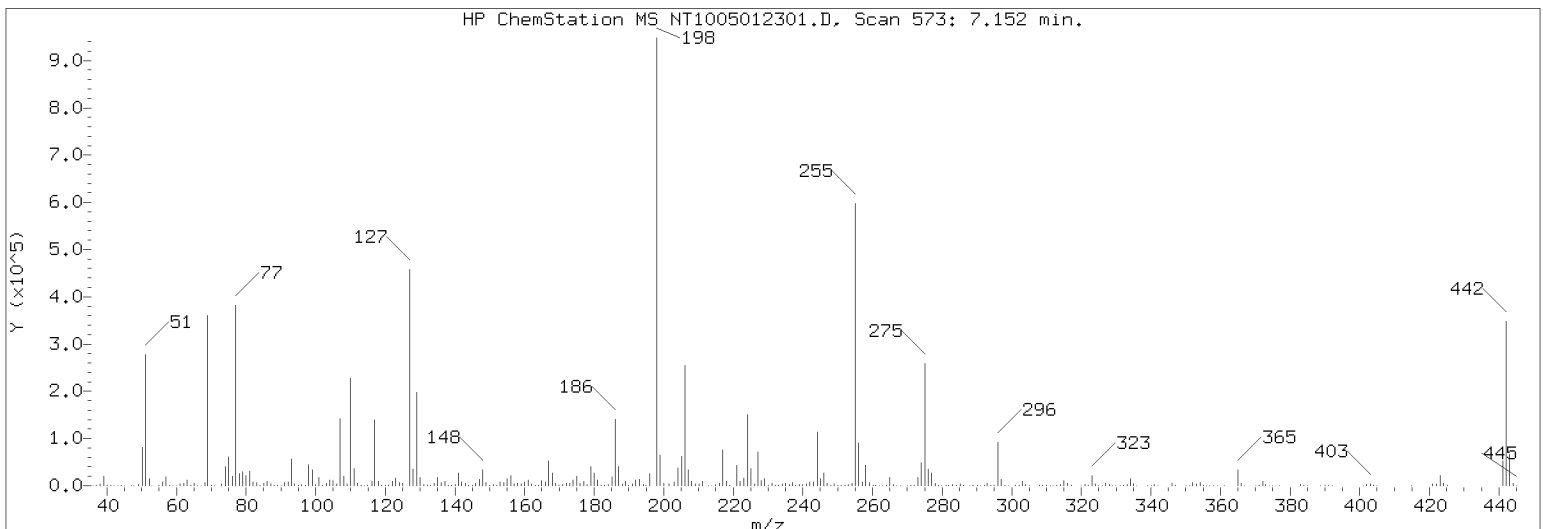
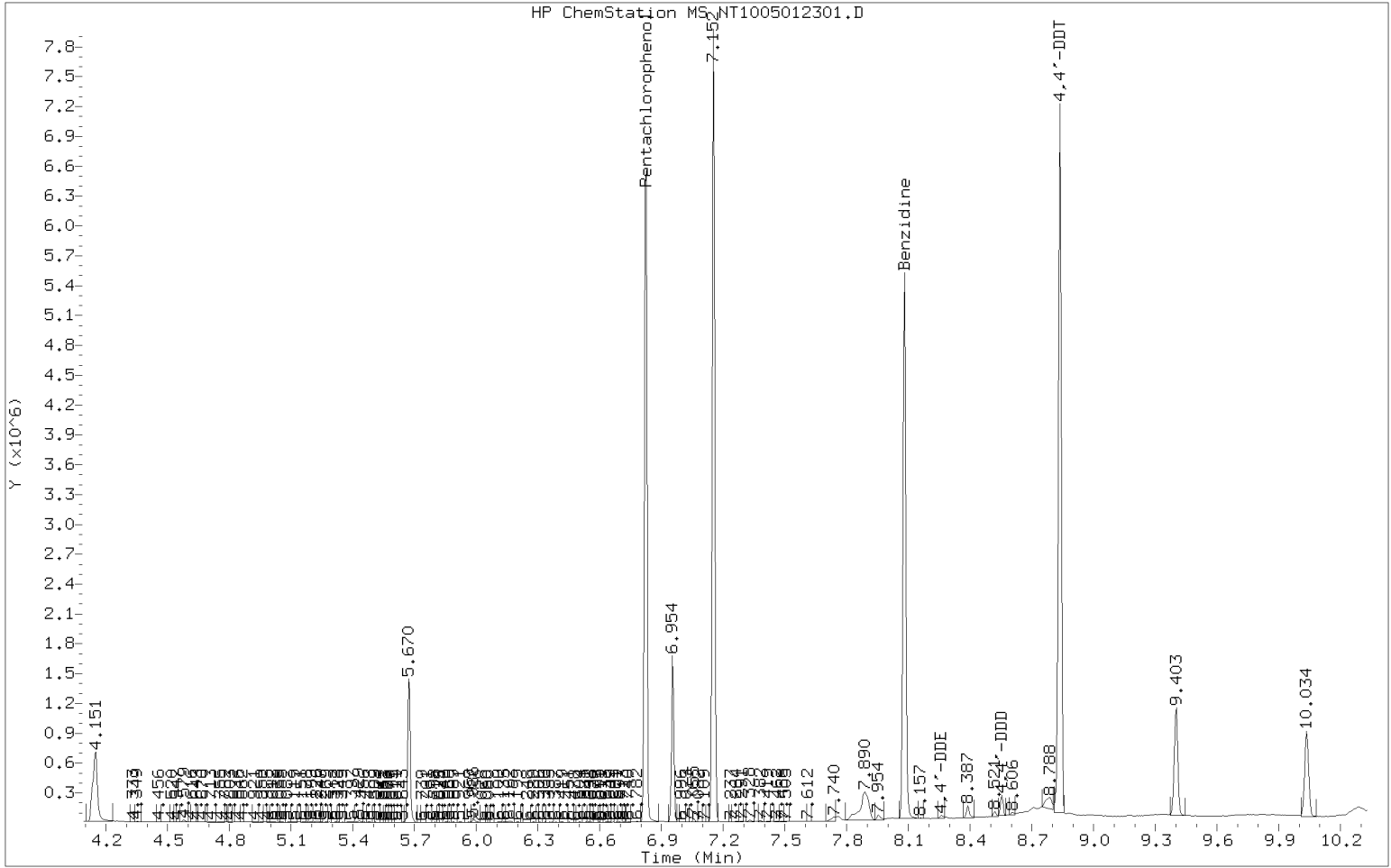
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1005012301.D</u>	Injection Date:	<u>05/01/23</u>
Instrument ID:	<u>NT10</u>	Injection Time:	<u>14:35</u>
Sequence:	<u>SLE0036</u>	Lab Sample ID:	<u>SLE0036-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	1.96	PASS
69	Less than 100% of 198	36.9	PASS
70	Less than 2% of 69	0.547	PASS
197	Less than 2% of 198	0.109	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.93	PASS
365	1 - 100% of 198	4.09	PASS
441	Less than 150% of 443	80.2	PASS
442	1 - 200% of 198	47.5	PASS
443	15 - 24% of 442	18.5	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

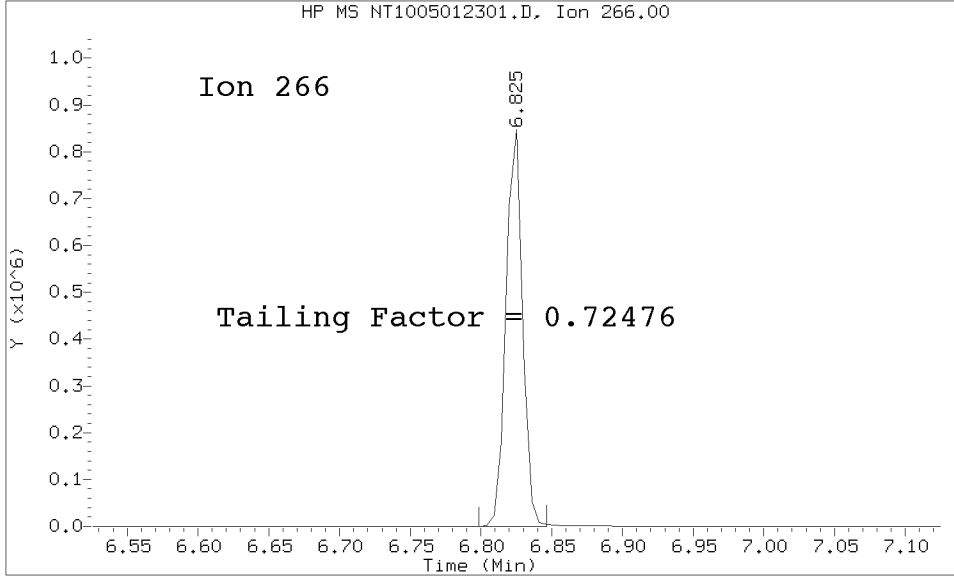
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLE0036-TUN1	NT1005012301.D	05/01/2023	14:35
Cal Standard	SLE0036-CAL7	NT1005012302.D	05/01/2023	14:52
Cal Standard	SLE0036-CAL6	NT1005012303.D	05/01/2023	15:31
Cal Standard	SLE0036-CAL5	NT1005012304.D	05/01/2023	16:10
Cal Standard	SLE0036-CAL4	NT1005012305.D	05/01/2023	16:49
Cal Standard	SLE0036-CAL3	NT1005012306.D	05/01/2023	17:28
Cal Standard	SLE0036-CAL2	NT1005012307.D	05/01/2023	18:07
Cal Standard	SLE0036-CAL1	NT1005012308.D	05/01/2023	18:46
Secondary Cal Check	SLE0036-SCV1	NT1005012311.D	05/01/2023	20:43
Initial Cal Blank	SLE0036-ICB1	NT1005012312.D	05/01/2023	21:22

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230501.b/NT1005012301.D/NT1005012301.D
Method Used: \20230501.b\DFTPP8270E.m Inst: nt10
Injection Date: 01-MAY-2023 14:35 Operator: JGR
Sample Info: SLE0036-TUN1 SLE0036-TUN1
Report Date: 05/10/2023 09:43



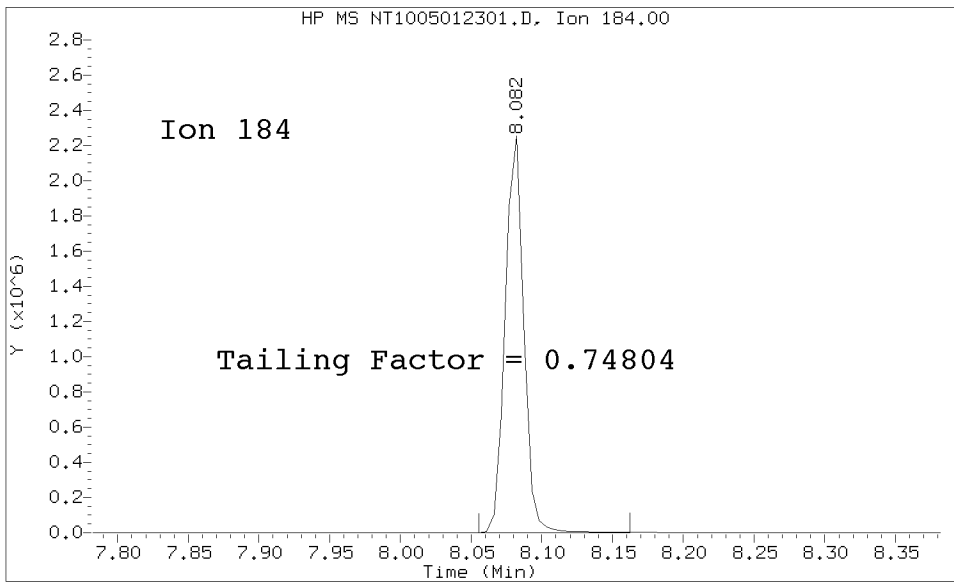
Datafile Analyzed: /20230501.b/NT1005012301.D/NT1005012301.D
Method Used: \20230501.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 01-MAY-2023 14:35 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 05/10/2023 09:43



Pentachlorophenol

=====
Exp. RT = 6.825
Found RT = 6.825

Tail Factor = 0.725 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 8.082
Found RT = 8.082

Tail Factor = 0.748 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.7247596	2.000	PASS
Benzidine	0.7480403	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1164719			N/A
4,4-DDE	2926	0.3	20.0	PASS
4,4-DDD	33911	2.8	20.0	PASS
4,4-DDD + DDE	36837	3.1	20.0	PASS

Tuning Sample, nt10.i/20230501.b/NT1005012301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.72 (1.96)
69	Mass 69 relative abundance	36.88
70	Less than 2.00% of mass 69	0.20 (0.55)
197	Less than 2.00% of mass 198	0.11
199	5.00 - 9.00% of mass 198	6.93
365	1.00 - 100.00% of mass 198	4.09
441	Less than 150.00% of mass 443	7.03 (80.18)
442	Less than 200.00% of mass 198	47.49
443	15.00 - 24.00% of mass 442	8.77 (18.47)

Data File: NT1005012301.D
 Spectrum: Avg. Scans 572-574 (7.15), Background Scan 568
 Location of Maximum: 198.00
 Number of points: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	266	125.00	4346	212.00	234	301.00	794
37.00	1062	127.00	328512	213.00	499	302.00	1186
38.00	3056	128.00	24936	214.00	141	303.00	6845
39.00	14282	129.00	141504	215.00	2444	304.00	2076
40.00	661	130.00	12474	216.00	4556	305.00	403
41.00	397	131.00	2350	217.00	56176	308.00	947
42.00	221	132.00	1148	218.00	7190	309.00	634
43.00	80	133.00	478	219.00	698	310.00	860
44.00	92	134.00	4546	221.00	32104	311.00	269
45.00	530	135.00	11767	222.00	7235	312.00	310
47.00	208	136.00	4896	223.00	12138	313.00	707
48.00	116	137.00	6769	224.00	109928	314.00	2821
49.00	1662	138.00	1154	225.00	27736	315.00	8040
50.00	56312	139.00	780	226.00	3167	316.00	3993
51.00	192128	140.00	1727	227.00	54120	317.00	727
52.00	10009	141.00	19408	228.00	7820	319.00	76
53.00	358	142.00	5867	229.00	10633	320.00	151
55.00	1147	143.00	4287	230.00	1375	321.00	1907
56.00	6312	144.00	1130	231.00	3934	322.00	960
57.00	13026	145.00	910	232.00	656	323.00	17032
58.00	607	146.00	3437	233.00	991	324.00	3069
59.00	29	147.00	9663	234.00	3296	325.00	361
60.00	264	148.00	25112	235.00	3662	326.00	468
61.00	2852	149.00	5052	236.00	2488	327.00	4017
62.00	3614	150.00	1356	237.00	4890	328.00	1906
63.00	9148	151.00	2266	238.00	672	329.00	512
64.00	1235	152.00	1579	239.00	2237	330.00	120
65.00	4193	153.00	5832	240.00	1719	331.00	144
66.00	314	154.00	4463	241.00	2944	332.00	1493
67.00	446	155.00	10445	242.00	6490	333.00	1743
68.00	4951	156.00	15957	243.00	6227	334.00	11676
69.00	253056	157.00	2760	244.00	84584	335.00	2870
70.00	1385	158.00	3689	245.00	11413	336.00	350
71.00	272	159.00	2681	246.00	20384	339.00	198
73.00	2332	160.00	5980	247.00	4089	340.00	264
74.00	27976	161.00	9017	248.00	961	341.00	2132
75.00	42480	162.00	2681	249.00	2961	342.00	576
76.00	14168	163.00	992	250.00	651	346.00	4092
77.00	268224	164.00	986	251.00	842	347.00	762
78.00	18296	165.00	7696	252.00	860	350.00	110
79.00	21328	166.00	5725	253.00	2012	351.00	381
80.00	15604	167.00	38888	254.00	2343	352.00	5467
81.00	22424	168.00	19968	255.00	444992	353.00	3275
82.00	5265	169.00	3411	256.00	66248	354.00	5320
83.00	4677	170.00	1231	257.00	5829	355.00	1023
84.00	283	171.00	1591	258.00	33176	356.00	112
85.00	3741	172.00	3396	259.00	5397	357.00	124
86.00	6850	173.00	4390	260.00	852	358.00	174
87.00	2927	174.00	8520	261.00	736	359.00	318

88.00	1120	175.00	14893	262.00	111	361.00	131
89.00	591	176.00	3790	263.00	324	365.00	28088
90.00	101	177.00	7147	264.00	910	366.00	3777
91.00	5081	178.00	2450	265.00	12966	367.00	231
92.00	6151	179.00	29704	266.00	1919	370.00	495
93.00	40032	180.00	19936	267.00	184	371.00	1202
94.00	2667	181.00	8798	268.00	259	372.00	8009
95.00	587	182.00	1417	269.00	62	373.00	2002
96.00	1638	183.00	747	270.00	543	374.00	191
97.00	812	184.00	2226	271.00	976	375.00	50
98.00	31360	185.00	13981	272.00	1325	377.00	228
99.00	23592	186.00	102448	273.00	13189	383.00	2046
100.00	1856	187.00	29664	274.00	36512	384.00	449
101.00	12405	188.00	3546	275.00	194176	385.00	208
102.00	722	189.00	7144	276.00	25528	389.00	145
103.00	4260	190.00	1294	277.00	20736	390.00	1030
104.00	8414	191.00	3257	278.00	3713	391.00	705
105.00	7720	192.00	9275	279.00	791	392.00	459
106.00	2783	193.00	10621	280.00	54	395.00	59
107.00	100768	194.00	2025	281.00	351	401.00	403
108.00	14716	195.00	942	282.00	427	402.00	2822
109.00	3117	196.00	18840	283.00	2267	403.00	4000
110.00	161152	197.00	746	284.00	1368	404.00	1422
111.00	26016	198.00	686208	285.00	3442	405.00	290
112.00	3385	199.00	47528	286.00	615	410.00	95
113.00	1238	200.00	3588	288.00	189	415.00	166
114.00	319	201.00	2743	289.00	808	421.00	2808
115.00	590	202.00	87	290.00	702	422.00	2710
116.00	6423	203.00	5944	291.00	490	423.00	19704
117.00	102240	204.00	28184	292.00	872	424.00	5181
118.00	7245	205.00	46720	293.00	4158	425.00	574
119.00	721	206.00	185280	294.00	948	441.00	48248
120.00	1273	207.00	24280	295.00	1174	442.00	325888
121.00	749	208.00	7426	296.00	70416	443.00	60176
122.00	7214	209.00	2446	297.00	10070	444.00	5503
123.00	11141	210.00	3305	298.00	690	445.00	283
124.00	5150	211.00	7375	299.00	220		



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00012	Instrument:	NT10
Calibration Date:	05/01/2023	Column (1):	ZB-5MSi

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	20	1.544332										
4-Methylphenol	20	1.404755										
Naphthalene	20	1.114214										
2-Methylnaphthalene	20	0.8860766										
Acenaphthylene	20	2.197999										
Dimethylphthalate	20	1.519507										
Acenaphthene	20	1.421913										
Dibenzofuran	20	2.082414										
Fluorene	20	1.764046										
Phenanthrene	20	1.260229										
Anthracene	20	1.210607										
Fluoranthene	20	1.816985										
Pyrene	20	1.779819										
Butylbenzylphthalate	20	0.7073368										
Benzo(a)anthracene	20	1.520797										
Chrysene	20	1.315253										
bis(2-Ethylhexyl)phthalate	20	0.6188747										
Benzo(a)fluoranthene, Total	40	1.873597										
Benzo(a)pyrene	20	1.651313										
Indeno(1,2,3-cd)pyrene	20	1.976351										
Dibenzo(a,h)anthracene	20	1.696989										
Benzo(g,h,i)perylene	20	1.457201										
2-Fluorophenol	30	1.233384										
Phenol-d5	30	1.557175										
2-Chlorophenol-d4	30	1.468477										
1,2-Dichlorobenzene-d4	20	1.065312										
Nitrobenzene-d5	20	0.4404493										
2-Fluorobiphenyl	20	1.801284										



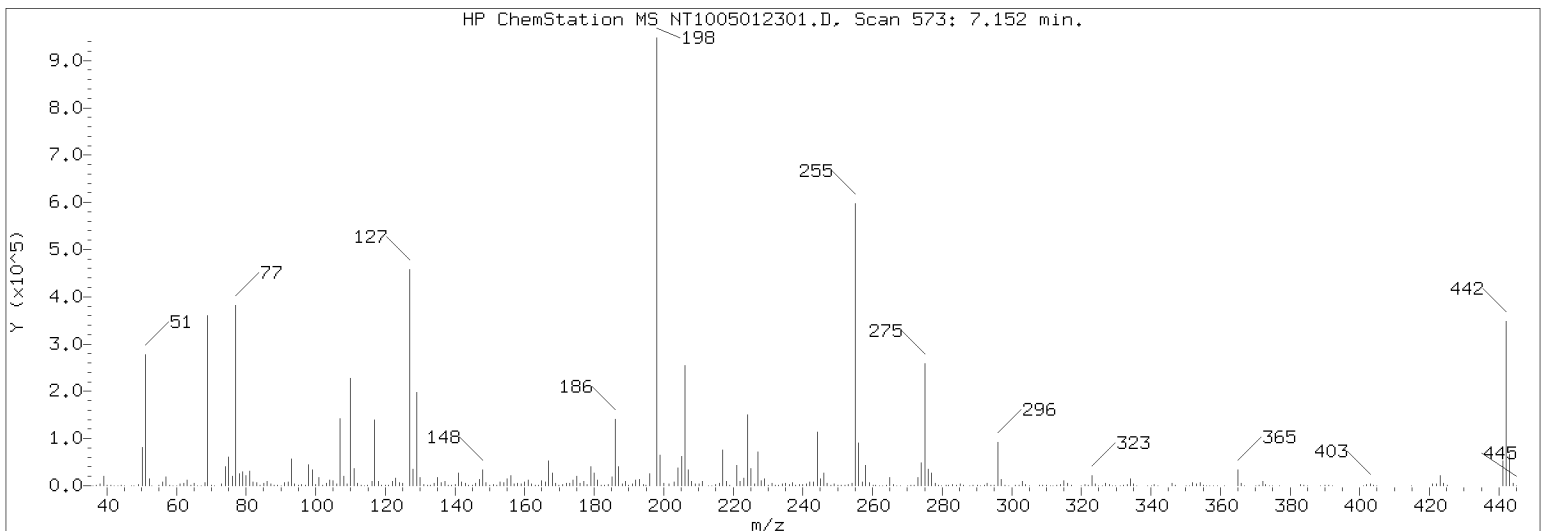
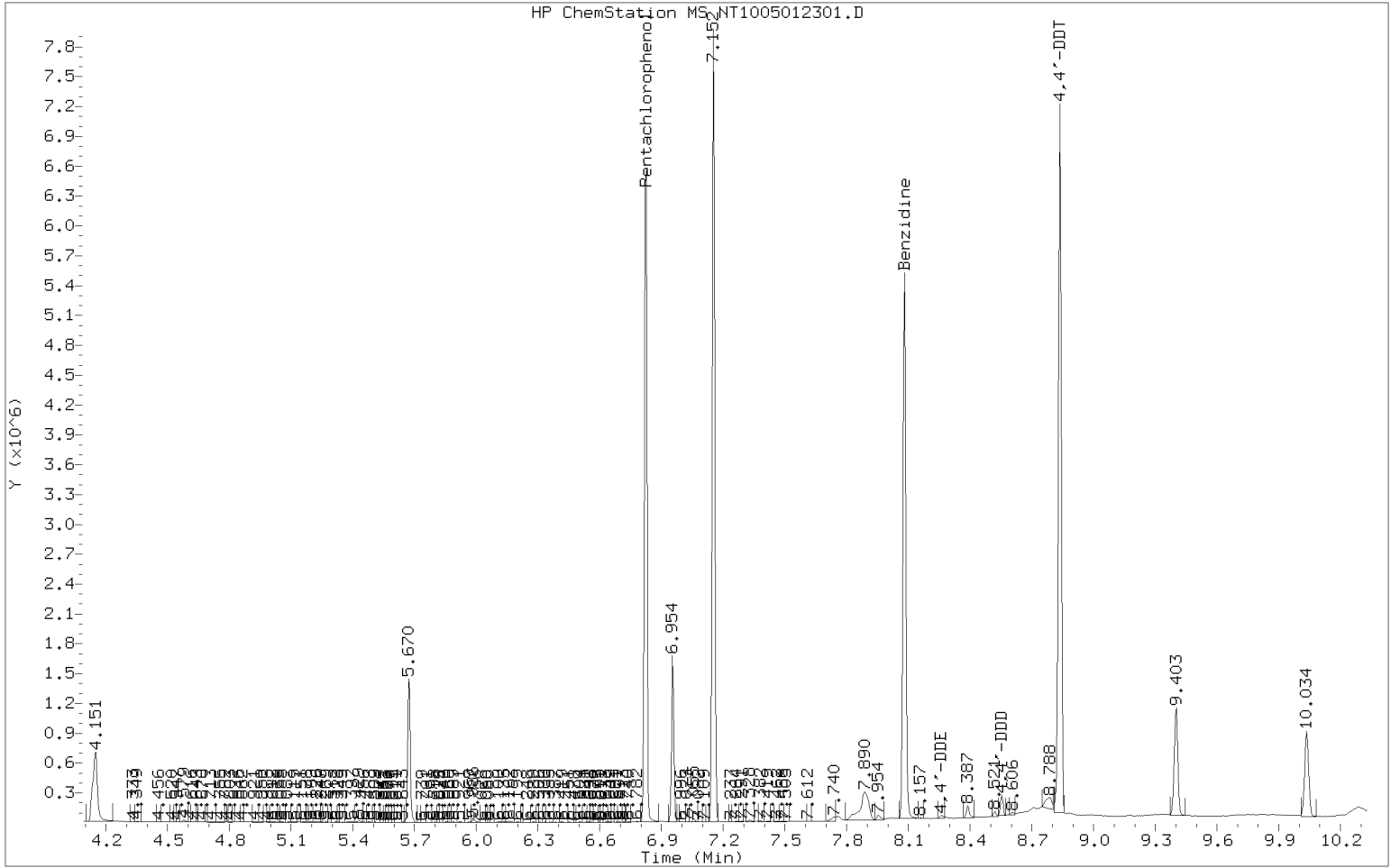
INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00012	Instrument:	NT10
Calibration Date:	05/01/2023	Column (1):	ZB-5MSi

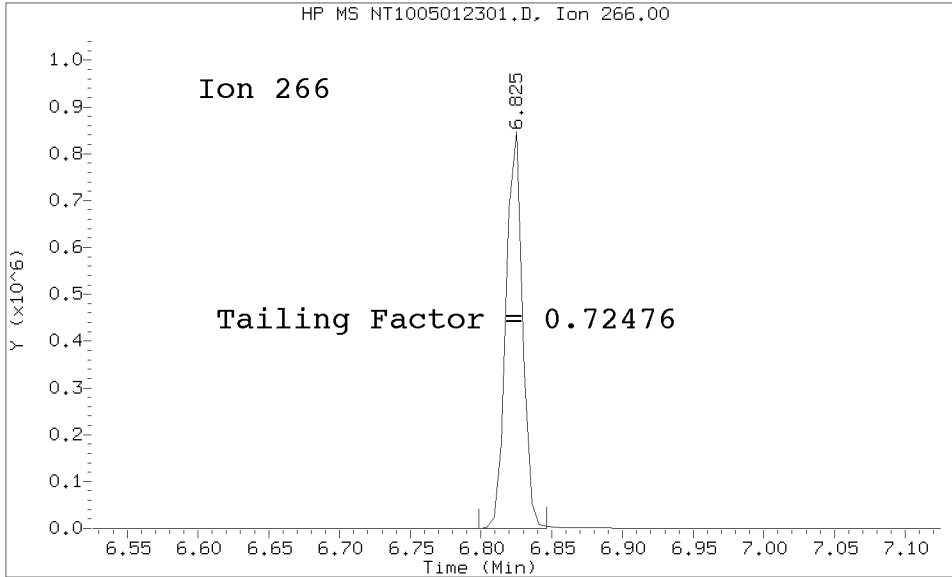
COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Phenol	1.560309	3.5			RSD (15)	
4-Methylphenol	1.373847	4.5			RSD (15)	
Naphthalene	1.11599	1.7			RSD (15)	
2-Methylnaphthalene	0.8343963	4.5			RSD (15)	
Acenaphthylene	2.128949	3.3			RSD (15)	
Dimethylphthalate	1.533664	2.5			RSD (15)	
Acenaphthene	1.354025	3.3			RSD (15)	
Dibenzofuran	1.974225	4.1			RSD (15)	
Fluorene	1.628635	4.8			RSD (15)	
Phenanthrene	1.17369	3.8			RSD (15)	
Anthracene	1.084587	7.9			RSD (15)	
Fluoranthene	1.785888	9.5			RSD (15)	
Pyrene	1.784019	6.7			RSD (15)	
Butylbenzylphthalate	0.6671669	17.5		0.9991	QCOD (0.99)	
Benzo(a)anthracene	1.583521	2.4			RSD (15)	
Chrysene	1.417307	4.3			RSD (15)	
bis(2-Ethylhexyl)phthalate	0.5761948	10.2			RSD (15)	
Benzo(a)fluoranthene, Total	1.581694	9.9			RSD (15)	
Benzo(a)pyrene	1.375365	11.1			RSD (15)	
Indeno(1,2,3-cd)pyrene	1.652264	10.5			RSD (15)	
Dibenzo(a,h)anthracene	1.383763	11.2			RSD (15)	
Benzo(g,h,i)perylene	1.316965	6.0			RSD (15)	
2-Fluorophenol	1.210394	5.6			RSD (15)	
Phenol-d5	1.459284	8.2			RSD (15)	
2-Chlorophenol-d4	1.398479	7.1			RSD (15)	
1,2-Dichlorobenzene-d4	1.031697	4.5			RSD (15)	
Nitrobenzene-d5	0.4469969	4.8			RSD (15)	
2-Fluorobiphenyl	1.731717	2.6			RSD (15)	
2,4,6-Tribromophenol	0.1786492	22.8		0.9994	QCOD (0.99)	
p-Terphenyl-d14	1.410953	4.1			RSD (15)	

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230501.b/NT1005012301.D/NT1005012301.D
 Method Used: \20230501.b\DFTPP8270E.m Inst: nt10
 Injection Date: 01-MAY-2023 14:35 Operator: JGR
 Sample Info: SLE0036-TUN1 SLE0036-TUN1
 Report Date: 05/10/2023 13:02



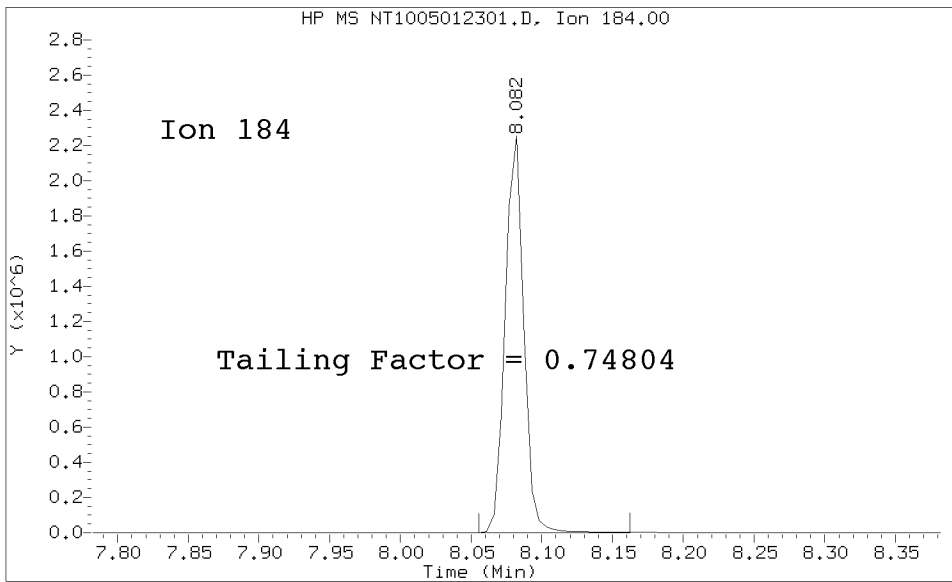
Datafile Analyzed: /20230501.b/NT1005012301.D/NT1005012301.D
Method Used: \20230501.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 01-MAY-2023 14:35 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 05/10/2023 13:02



Pentachlorophenol

=====
Exp. RT = 6.825
Found RT = 6.825

Tail Factor = 0.725 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 8.082
Found RT = 8.082

Tail Factor = 0.748 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.7247596	2.000	PASS
Benzidine	0.7480403	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1164719			N/A
4,4-DDE	2926	0.3	20.0	PASS
4,4-DDD	33911	2.8	20.0	PASS
4,4-DDD + DDE	36837	3.1	20.0	PASS

Tuning Sample, nt10.i/20230501.b/NT1005012301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.72 (1.96)
69	Mass 69 relative abundance	36.88
70	Less than 2.00% of mass 69	0.20 (0.55)
197	Less than 2.00% of mass 198	0.11
199	5.00 - 9.00% of mass 198	6.93
365	1.00 - 100.00% of mass 198	4.09
441	Less than 150.00% of mass 443	7.03 (80.18)
442	Less than 200.00% of mass 198	47.49
443	15.00 - 24.00% of mass 442	8.77 (18.47)

Data File: NT1005012301.D
 Spectrum: Avg. Scans 572-574 (7.15), Background Scan 568
 Location of Maximum: 198.00
 Number of points: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	266	125.00	4346	212.00	234	301.00	794
37.00	1062	127.00	328512	213.00	499	302.00	1186
38.00	3056	128.00	24936	214.00	141	303.00	6845
39.00	14282	129.00	141504	215.00	2444	304.00	2076
40.00	661	130.00	12474	216.00	4556	305.00	403
41.00	397	131.00	2350	217.00	56176	308.00	947
42.00	221	132.00	1148	218.00	7190	309.00	634
43.00	80	133.00	478	219.00	698	310.00	860
44.00	92	134.00	4546	221.00	32104	311.00	269
45.00	530	135.00	11767	222.00	7235	312.00	310
47.00	208	136.00	4896	223.00	12138	313.00	707
48.00	116	137.00	6769	224.00	109928	314.00	2821
49.00	1662	138.00	1154	225.00	27736	315.00	8040
50.00	56312	139.00	780	226.00	3167	316.00	3993
51.00	192128	140.00	1727	227.00	54120	317.00	727
52.00	10009	141.00	19408	228.00	7820	319.00	76
53.00	358	142.00	5867	229.00	10633	320.00	151
55.00	1147	143.00	4287	230.00	1375	321.00	1907
56.00	6312	144.00	1130	231.00	3934	322.00	960
57.00	13026	145.00	910	232.00	656	323.00	17032
58.00	607	146.00	3437	233.00	991	324.00	3069
59.00	29	147.00	9663	234.00	3296	325.00	361
60.00	264	148.00	25112	235.00	3662	326.00	468
61.00	2852	149.00	5052	236.00	2488	327.00	4017
62.00	3614	150.00	1356	237.00	4890	328.00	1906
63.00	9148	151.00	2266	238.00	672	329.00	512
64.00	1235	152.00	1579	239.00	2237	330.00	120
65.00	4193	153.00	5832	240.00	1719	331.00	144
66.00	314	154.00	4463	241.00	2944	332.00	1493
67.00	446	155.00	10445	242.00	6490	333.00	1743
68.00	4951	156.00	15957	243.00	6227	334.00	11676
69.00	253056	157.00	2760	244.00	84584	335.00	2870
70.00	1385	158.00	3689	245.00	11413	336.00	350
71.00	272	159.00	2681	246.00	20384	339.00	198
73.00	2332	160.00	5980	247.00	4089	340.00	264
74.00	27976	161.00	9017	248.00	961	341.00	2132
75.00	42480	162.00	2681	249.00	2961	342.00	576
76.00	14168	163.00	992	250.00	651	346.00	4092
77.00	268224	164.00	986	251.00	842	347.00	762
78.00	18296	165.00	7696	252.00	860	350.00	110
79.00	21328	166.00	5725	253.00	2012	351.00	381
80.00	15604	167.00	38888	254.00	2343	352.00	5467
81.00	22424	168.00	19968	255.00	444992	353.00	3275
82.00	5265	169.00	3411	256.00	66248	354.00	5320
83.00	4677	170.00	1231	257.00	5829	355.00	1023
84.00	283	171.00	1591	258.00	33176	356.00	112
85.00	3741	172.00	3396	259.00	5397	357.00	124
86.00	6850	173.00	4390	260.00	852	358.00	174
87.00	2927	174.00	8520	261.00	736	359.00	318

88.00	1120	175.00	14893	262.00	111	361.00	131
89.00	591	176.00	3790	263.00	324	365.00	28088
90.00	101	177.00	7147	264.00	910	366.00	3777
91.00	5081	178.00	2450	265.00	12966	367.00	231
92.00	6151	179.00	29704	266.00	1919	370.00	495
93.00	40032	180.00	19936	267.00	184	371.00	1202
94.00	2667	181.00	8798	268.00	259	372.00	8009
95.00	587	182.00	1417	269.00	62	373.00	2002
96.00	1638	183.00	747	270.00	543	374.00	191
97.00	812	184.00	2226	271.00	976	375.00	50
98.00	31360	185.00	13981	272.00	1325	377.00	228
99.00	23592	186.00	102448	273.00	13189	383.00	2046
100.00	1856	187.00	29664	274.00	36512	384.00	449
101.00	12405	188.00	3546	275.00	194176	385.00	208
102.00	722	189.00	7144	276.00	25528	389.00	145
103.00	4260	190.00	1294	277.00	20736	390.00	1030
104.00	8414	191.00	3257	278.00	3713	391.00	705
105.00	7720	192.00	9275	279.00	791	392.00	459
106.00	2783	193.00	10621	280.00	54	395.00	59
107.00	100768	194.00	2025	281.00	351	401.00	403
108.00	14716	195.00	942	282.00	427	402.00	2822
109.00	3117	196.00	18840	283.00	2267	403.00	4000
110.00	161152	197.00	746	284.00	1368	404.00	1422
111.00	26016	198.00	686208	285.00	3442	405.00	290
112.00	3385	199.00	47528	286.00	615	410.00	95
113.00	1238	200.00	3588	288.00	189	415.00	166
114.00	319	201.00	2743	289.00	808	421.00	2808
115.00	590	202.00	87	290.00	702	422.00	2710
116.00	6423	203.00	5944	291.00	490	423.00	19704
117.00	102240	204.00	28184	292.00	872	424.00	5181
118.00	7245	205.00	46720	293.00	4158	425.00	574
119.00	721	206.00	185280	294.00	948	441.00	48248
120.00	1273	207.00	24280	295.00	1174	442.00	325888
121.00	749	208.00	7426	296.00	70416	443.00	60176
122.00	7214	209.00	2446	297.00	10070	444.00	5503
123.00	11141	210.00	3305	298.00	690	445.00	283
124.00	5150	211.00	7375	299.00	220		



ANALYSIS SEQUENCE

SLE0036

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GE00012 GCMS Column ID: L004747
MS EM Level: 1400 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0036-TUN1	MS Tune	QC		1	L002618		05/01/2023 14:35	NT1005012301.D	JGR	
SLE0036-CAL1	0.2 ppm ABN	QC		2	K011105	K010831	05/01/2023 18:46	NT1005012308.D	VTS	
SLE0036-CAL2	0.5 ppm ABN	QC		3	K011106	K010831	05/01/2023 18:07	NT1005012307.D	VTS	
SLE0036-CAL3	1 ppm ABN	QC		4	K011107	K010831	05/01/2023 17:28	NT1005012306.D	VTS	
SLE0036-CAL4	2.5 ppm ABN	QC		5	K011108	K010831	05/01/2023 16:49	NT1005012305.D	VTS	
SLE0036-CAL5	5 ppm ABN	QC		6	K011109	K010831	05/01/2023 16:10	NT1005012304.D	VTS	
SLE0036-CAL6	10 ppm ABN	QC		7	K011110	K010831	05/01/2023 15:31	NT1005012303.D	VTS	
SLE0036-CAL7	20 ppm ABN	QC		8	K011111	K010831	05/01/2023 14:52	NT1005012302.D	VTS	
SLE0036-SCV1	SCV 5.0	QC		9	K010066	K010831	05/01/2023 20:43	NT1005012311.D	VTS	
SLE0036-ICB1	Initial Cal Blank	QC		10	K005156	K010831	05/01/2023 21:22	NT1005012312.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230501.b

Time	Filename	LabID	ClientId	DF															
1	1435	NT1005012301.D	SLE0036-TUN1	1	|	NO ISTDS FOUND													
2	1452	NT1005012302.D	SLE0036-CAL7	1	|	9.50	146674	12.00	540672	15.63	301804	18.69	570862	23.71	491034	26.55	317394	24.75	805047
3	1531	NT1005012303.D	SLE0036-CAL6	1	|	9.49	143173	11.99	527883	15.62	301848	18.68	570788	23.70	422654	26.55	329659	24.75	727542
4	1610	NT1005012304.D	SLE0036-CAL5	1	|	9.49	144303	11.99	493698	15.62	279210	18.68	521463	23.70	369911	26.55	311339	24.75	626668
5	1649	NT1005012305.D	SLE0036-CAL4	1	|	9.49	139256	11.99	479621	15.62	272839	18.68	522698	23.70	378327	26.55	328795	24.75	602724
6	1728	NT1005012306.D	SLE0036-CAL3	1	|	9.49	162166	11.99	539712	15.62	305754	18.68	569677	23.69	438621	26.54	394959	24.74	688022
7	1807	NT1005012307.D	SLE0036-CAL2	1	|	9.49	147126	11.98	495631	15.62	278249	18.68	508190	23.69	394033	26.53	365729	24.73	603762
8	1846	NT1005012308.D	SLE0036-CAL1	1	|	9.49	159331	11.98	560494	15.61	302504	18.67	560701	23.69	440035	26.52	398434	24.72	654162
9	2043	NT1005012311.D	SLE0036-SCV1	1	|	9.49	128837	11.99	469135	15.62	260867	18.67	479585	23.69	366214	26.54	326407	24.74	633915
10	2122	NT1005012312.D	SLE0036-ICB1	1	|	9.49	149952	11.98	548897	15.62	293264	18.67	524738	23.69	405166	26.54	379142	24.74	599674

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230501.b

ARI Job No.: SEQ- Method: DFTPP8270E.m Instrument: nt10.i Date: 01-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1435	NT1005012301.D	SEQ-TUN1		1	NO MANUAL INTEGRATION
1452	NT1005012302.D	SEQ-CAL7		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane), Benzoic acid,
1531	NT1005012303.D	SEQ-CAL6		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1610	NT1005012304.D	SEQ-CAL5		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1649	NT1005012305.D	SEQ-CAL4		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1728	NT1005012306.D	SEQ-CAL3		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1807	NT1005012307.D	SEQ-CAL2		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1846	NT1005012308.D	SEQ-CAL1		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane), Dibenzo(a,h)anthracene,
1925	NT1005012309.D	SEQ-SIM2		1	NO MANUAL INTEGRATION
2004	NT1005012310.D	SEQ-SIM1		1	NO MANUAL INTEGRATION
2043	NT1005012311.D	SEQ-SCV1		1	1,4-Dichlorobenzene-d4,
2122	NT1005012312.D	SEQ-ICB1		1	1,4-Dichlorobenzene-d4,

Security Status Report

Date: 03-May-2023 14:10

NT1005012301.D	Data Locked	deenayd, 03-
NT1005012302.D	Data Locked	deenayd, 03-
NT1005012303.D	Data Locked	deenayd, 03-
NT1005012304.D	Data Locked	deenayd, 03-
NT1005012305.D	Data Locked	deenayd, 03-
NT1005012306.D	Data Locked	deenayd, 03-
NT1005012307.D	Data Locked	deenayd, 03-
NT1005012308.D	Data Locked	deenayd, 03-
NT1005012309.D	Data Locked	deenayd, 03-
NT1005012310.D	Data Locked	deenayd, 03-
NT1005012311.D	Data Locked	deenayd, 03-
NT1005012312.D	Data Locked	deenayd, 03-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

Calibration File Names:

Level 1: \\target\share\chem3\nt10.i\20230501.b\NT1005012308.D
 Level 2: \\target\share\chem3\nt10.i\20230501.b\NT1005012307.D
 Level 3: \\target\share\chem3\nt10.i\20230501.b\NT1005012306.D
 Level 4: \\target\share\chem3\nt10.i\20230501.b\NT1005012305.D
 Level 5: \\target\share\chem3\nt10.i\20230501.b\NT1005012304.D
 Level 6: \\target\share\chem3\nt10.i\20230501.b\NT1005012303.D
 Level 7: \\target\share\chem3\nt10.i\20230501.b\NT1005012302.D

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
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 Last Edit : 03-May-2023 14:03 deenayd

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

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

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000
120 2,3,4,6-Tetrachlorophenol	4346	12669	32485	82028	177328	428988					
	917902						QUAD	0.000e+000	1.94569	-0.10036	0.99962
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
111 Azobenzene (1,2-DP-Hydrazine)	1.50094	1.52321	1.55454	1.59588	1.56073	1.60986					
	1.54457						AVRG		1.55568		2.45512
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

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

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
106 Guaiacol	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
105 1-methylnaphthalene	0.73396|	0.74018|	0.75250|	0.77022|	0.74902|	0.80481|					
	0.80415|						|AVRG|		|0.76498|		|3.82480|
151 1,2,4,5-Tetrachlorobenzene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
152 Benzo(e)pyrene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|
153 Chlorpyrifos	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|
154 Diazinon	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
155 Kelthane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000

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

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
3 Phenol	1.54709	1.52827	1.51975	1.60245	1.51603	1.66425					
	1.54433						AVRG		1.56031		3.47517
4 Bis(2-Chloroethyl)ether	1.20767	1.14411	1.15284	1.13222	1.06223	1.15877					
	1.04531						AVRG		1.12902		5.02937

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
6 2-Chlorophenol	1.34487| 1.40742|	1.33170|	1.34063|	1.37973|	1.33679|	1.48978|	|	|	|	|	|
							|AVRG|	|	1.37585|	|	4.16121|
7 1,3-Dichlorobenzene	1.59994| 1.55083|	1.52533|	1.49617|	1.54393|	1.49687|	1.63792|	|	|	|	|	|
							|AVRG|	|	1.55014|	|	3.39221|
9 1,4-Dichlorobenzene	1.58224| 1.54471|	1.50940|	1.48164|	1.48067|	1.45523|	1.60525|	|	|	|	|	|
							|AVRG|	|	1.52273|	|	3.69792|
11 Benzyl alcohol	0.64871| 0.82184|	0.64484|	0.72706|	0.75860|	0.77627|	0.87251|	|	|	|	|	|
							|AVRG|	|	0.74998|	|	11.25890|
12 1,2-Dichlorobenzene	1.52538| 1.50375|	1.42664|	1.41650|	1.46620|	1.41254|	1.59766|	|	|	|	|	|
							|AVRG|	|	1.47838|	|	4.62652|
13 2-Methylphenol	1.07299| 1.17559|	1.12312|	1.10507|	1.16189|	1.11802|	1.25416|	|	|	|	|	|
							|AVRG|	|	1.14440|	|	5.18466|
14 2,2'-oxybis(1-Chloropropane)	0.48390 0.40318	0.43690	0.39189	0.41476	0.38975	0.46845					
							AVRG		0.42698		8.75842

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
15 4-Methylphenol	1.34588	1.33921	1.32129	1.33472	1.37087	1.50022					
	1.40475						AVRG		1.37385		4.52720
16 N-Nitroso-di-n-propylamine	0.85031	0.88996	0.88988	0.93985	0.88898	0.97781					
	0.90823						AVRG		0.90643		4.55206
17 Hexachloroethane	0.62649	0.61825	0.63959	0.66268	0.65616	0.72145					
	0.68423						AVRG		0.65841		5.42335
19 Nitrobenzene	0.41538	0.44030	0.44563	0.45255	0.42672	0.43656					
	0.40679						AVRG		0.43199		3.82384
20 Isophorone	0.42595	0.46925	0.50316	0.52244	0.57933	0.53876					
	0.56109						AVRG		0.51428		10.36299
21 2-Nitrophenol	3761	10446	26205	61872	135168	310157					
	610580						QUAD	0.000e+000	4.35003	0.05591	0.99947
22 2,4-Dimethylphenol	++++	0.42002	0.41275	0.42238	0.41623	0.43485					
	0.42481						AVRG		0.42184		1.82411

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
23 Bis(2-Chloroethoxy)methane	0.31979| 0.31798|	0.34369|	0.33072|	0.33150|	0.32061|	0.33698|	|	|	|	|	|
							|AVRG|	|	0.32875|	|	2.95128|
24 Benzoic acid	++++| 3309159|	39492|	119940|	311612|	678934|	1642196|	|	|	|	|	|
							|QUAD|	0.000e+000|	3.42791|	-0.02831|	0.99901|
25 2,4-Dichlorophenol	0.27779| 0.36507|	0.30549|	0.32582|	0.33793|	0.33658|	0.37106|	|	|	|	|	|
							|AVRG|	|	0.33139|	|	9.81888|
26 1,2,4-Trichlorobenzene	0.47465| 0.46866|	0.48292|	0.47857|	0.47461|	0.45786|	0.48526|	|	|	|	|	|
							|AVRG|	|	0.47465|	|	1.95048|
28 Naphthalene	1.12690| 1.11421|	1.11485|	1.12188|	1.10077|	1.08655|	1.14677|	|	|	|	|	|
							|AVRG|	|	1.11599|	|	1.71736|
29 4-Chloroaniline	0.35223| 0.46367|	0.37831|	0.39494|	0.40909|	0.41030|	0.46610|	|	|	|	|	|
							|AVRG|	|	0.41066|	|	10.23266|
30 Hexachlorobutadiene	0.26123 0.25960	0.26442	0.26268	0.26245	0.25231	0.26961					
							AVRG		0.26176		1.99905

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
31 4-Chloro-3-methylphenol	+++++ 0.39926	0.31753	0.34259	0.35190	0.36013	0.39551					
							|AVRG|		0.36115		8.72665
32 2-Methylnaphthalene	0.79012 0.88608	0.81785	0.80593	0.83300	0.82352	0.88427					
							|AVRG|		0.83440		4.46348
33 Hexachlorocyclopentadiene	+++++ 0.58558	0.41189	0.44548	0.48333	0.49712	0.56102					
							|AVRG|		0.49740		13.34415
34 2,4,6-Trichlorophenol	+++++ 0.57499	0.39122	0.44816	0.48072	0.49681	0.54794					
							|AVRG|		0.48997		13.60616
35 2,4,5-Trichlorophenol	+++++ 0.62570	0.43607	0.48447	0.52371	0.53992	0.59598					
							|AVRG|		0.53431		13.08343
37 2-Chloronaphthalene	1.30140 1.42238	1.36557	1.36230	1.35215	1.34141	1.40202					
							|AVRG|		1.36389		2.90632
38 2-Nitroaniline	+++++ 0.41649	0.33780	0.37441	0.41731	0.40439	0.42619					
							AVRG		0.39610		8.53115

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
39 Dimethylphthalate	1.46570 1.51951	1.50783	1.55012	1.56811	1.54640	1.57798					
							AVRG		1.53366		2.53523
40 Acenaphthylene	2.00348 2.19800	2.07518	2.13037	2.14658	2.14807	2.20097					
							AVRG		2.12895		3.28064
41 2,6-Dinitrotoluene	++++ 0.37649	0.29486	0.32382	0.34665	0.35397	0.38124					
							AVRG		0.34617		9.44293
43 3-Nitroaniline	++++ 0.38488	0.29047	0.31917	0.33219	0.33779	0.38006					
							AVRG		0.34076		10.63640
44 Acenaphthene	1.31251 1.42191	1.33219	1.33161	1.33698	1.32636	1.41662					
							AVRG		1.35402		3.34199
45 2,4-Dinitrophenol	++++ 2018441	14366	49007	143085	348285	931559					
							QUAD	0.000e+000	3.76849	-0.11827	0.99811
46 Dibenzofuran	1.87898 2.08241	1.89804	1.93698	1.98853	1.95590	2.07873					
							AVRG		1.97423		4.10613

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	20.0000										
	Level 7										
47 4-Nitrophenol	+++++	14696	39582	100625	215878	501336					
	998518						QUAD	0.000e+000	3.15042	-0.04085	0.99963
48 2,4-Dinitrotoluene	9342	26851	66923	161624	332505	782047					
	1567355						QUAD	0.000e+000	2.02844	-0.02063	0.99967
49 Fluorene	1.58286	1.57082	1.58798	1.60145	1.57799	1.71530					
	1.76405						AVRG		1.62863		4.77204
50 Diethylphthalate	1.41175	1.49345	1.55297	1.58953	1.56519	1.62760					
	1.90619						AVRG		1.59238		9.74336
51 4-Chlorophenyl-phenylether	0.78492	0.76173	0.77812	0.80144	0.80327	0.85954					
	0.88792						AVRG		0.81099		5.65348
52 4-Nitroaniline	+++++	18011	40151	88491	225829	533420					
	1059767						QUAD	0.000e+000	3.02140	-0.05244	0.99879
53 4,6-Dinitro-2-methylphenol	+++++	24240	68698	180156	397119	997636					
	2135578						QUAD	0.000e+000	6.41817	-0.29065	0.99925

ARI Labs, Inc.

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 Last Edit : 03-May-2023 14:03 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
54 N-Nitrosodiphenylamine	0.50665	0.52278	0.54641	0.51536	0.52014	0.52990					
	0.55884						AVRG		0.52858		3.45093
56 4-Bromophenyl-phenylether	0.23021	0.23898	0.24210	0.24375	0.24766	0.27064					
	0.27338						AVRG		0.24953		6.52586
57 Hexachlorobenzene	0.25208	0.24314	0.24855	0.24408	0.24938	0.25438					
	0.26160						AVRG		0.25046		2.53236
58 Pentachlorophenol	++++	13163	38553	95167	218051	563878					
	1284710						QUAD	0.000e+000	5.86950	-0.63894	0.99907
60 Phenanthrene	1.14642	1.15906	1.15410	1.13442	1.15228	1.20932					
	1.26023						AVRG		1.17369		3.82617
61 Anthracene	0.95184	1.02218	1.07669	1.06681	1.10191	1.16207					
	1.21061						AVRG		1.08459		7.90261
62 Carbazole	0.87045	0.97756	1.00200	0.92359	0.87053	0.98340					
	1.09291						AVRG		0.96006		8.24933

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2		
	20.0000											
	Level 7											
63 Di-n-butylphthalate	27766 4565321	71030	175110	437568	920604	2208223		QUAD	0.000e+000	0.69674	-0.00911	0.99966
64 Fluoranthene	1.51724 1.81698	1.64362	1.73268	1.85199	1.91941	2.01929		AVRG		1.78589		9.50493
65 Pyrene	1.61105 1.77982	1.67669	1.74930	1.81992	1.91024	1.94111		AVRG		1.78402		6.65429
67 Butylbenzylphthalate	10403 1736632	27273	71706	169922	360782	827854		QUAD	0.000e+000	1.19314	0.06093	0.99947
68 Benzo(a)anthracene	1.57656 1.52080	1.55932	1.59017	1.58473	1.63927	1.61381		AVRG		1.58352		2.39623
70 3,3'-Dichlorobenzidine	++++ 5247678	74000	170399	326864	595388	1833732		QUAD	0.000e+000	2.08146	-0.06379	0.99737
71 Chrysene	1.46266 1.31525	1.51149	1.41922	1.41566	1.40099	1.39588		AVRG		1.41731		4.27952

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
72 bis(2-Ethylhexyl)phthalate	0.46548 0.61887	0.53948	0.55999	0.61419	0.61315	0.62220					
							AVRG		0.57619		10.17291
73 Di-n-octylphthalate	1.11076 1.01768	1.08053	1.06530	1.03963	1.02801	1.04516					
							AVRG		1.05530		3.07585
74 Benzo(b)fluoranthene	1.40169 1.99934	1.43280	1.57119	1.60593	1.65887	1.83243					
							AVRG		1.64318		12.95904
75 Benzo(k)fluoranthene	1.50685 1.88241	1.60893	1.51616	1.53451	1.66870	1.69628					
							AVRG		1.63055		8.20104
187 Total Benzofluoranthenes	1.43293 1.87360	1.46792	1.48946	1.51395	1.60342	1.69058					
							AVRG		1.58169		9.85235
76 Benzo(a)pyrene	1.22178 1.65131	1.24219	1.30017	1.32077	1.40459	1.48675					
							AVRG		1.37537		11.08117
78 Indeno(1,2,3-cd)pyrene	1.47784 1.97635	1.52929	1.54704	1.58956	1.67153	1.77425					
							AVRG		1.65226		10.50730

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
79 Dibenzo(a,h)anthracene	1.31655| 1.69699|	1.24173|	1.29108|	1.30585|	1.36789|	1.46624|	|	|	|	|	|
							|AVRG|	|	|1.38376|	|	|11.21556|
80 Benzo(g,h,i)perylene	1.26937| 1.45720|	1.24026|	1.25633|	1.28219|	1.32631|	1.38709|	|	|	|	|	|
							|AVRG|	|	|1.31697|	|	|6.01928|
90 N-Nitrosodimethylamine	0.64275| 0.66202|	0.63410|	0.63476|	0.66046|	0.62423|	0.71815|	|	|	|	|	|
							|AVRG|	|	|0.65378|	|	|4.83713|
91 Aniline	1.26404| 1.31197|	1.24049|	1.21817|	1.29444|	1.25249|	1.42027|	|	|	|	|	|
							|AVRG|	|	|1.28598|	|	|5.22129|
92 1,2-Diphenylhydrazine	+++++| +++++|	+++++|	+++++|	+++++|	+++++|	+++++|	|	|	|	|	|
							|AVRG|	|	|0.000e+000|	|	|0.000e+000|
93 Benzidine	+++++| 4129583|	61320|	142247|	272765|	530664|	1583457|	|	|	|	|	|
							QUAD	0.000e+000	1.57061	-0.04589	0.99755
96 p-Cymene	+++++ +++++	+++++	+++++	+++++	+++++	+++++					
							AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
97 Caffeine	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
98 Retene	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
99 Perylene	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
100 3-beta-Coprostanol	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
101 Cholesterol	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
102 beta-Sitosterol	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
103 Pyridine	0.96654	1.00243	1.03459	1.05659	0.94727	1.10903					
	1.10003						AVRG		1.03093		6.07107

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
189 N-Nitrosomethylethylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
\$ 1 2-Fluorophenol	1.13650|	1.15525|	1.18137|	1.24607|	1.18572|	1.33446|					
	1.23338|						|AVRG|	|1.21039|			|5.55691|
\$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
\$ 2 Phenol-d5	1.31349|	1.35101|	1.39687|	1.49855|	1.44676|	1.65114|					
	1.55717|						|AVRG|	|1.45928|			|8.15461|
\$ 5 2-Chlorophenol-d4	1.32069|	1.30421|	1.32440|	1.42408|	1.37122|	1.57628|					
	1.46848|						|AVRG|	|1.39848|			|7.05075|
\$ 10 1,2-Dichlorobenzene-d4	1.02742	1.01323	0.98566	1.03213	0.98319	1.11494					
	1.06531						AVRG	1.03170			4.49300

ARI Labs, Inc.

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 Last Edit : 03-May-2023 14:03 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
\$ 18 Nitrobenzene-d5	0.40682|	0.43694|	0.46881|	0.46109|	0.45148|	0.46339|					
	0.44045|						|AVRG|		0.44700|		4.76457|
\$ 36 2-Fluorobiphenyl	1.74662|	1.69572|	1.71650|	1.69561|	1.68590|	1.78039|					
	1.80128|						|AVRG|		1.73172|		2.62113|
\$ 55 2,4,6-Tribromophenol	2793|	7502|	18231|	45436|	100361|	244125|					
	542414|						|QUAD|	0.000e+000|	5.22131|	-0.58763|	0.99964|
\$ 66 Terphenyl-d14	1.31967|	1.36969|	1.39867|	1.41822|	1.48115|	1.48168|					
	1.40758|						|AVRG|		1.41095|		4.11036|
\$ 85 p-Cresol-d4	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|						|AVRG|		0.000e+000|		0.000e+000|
\$ 86 Anthracene-d10	++++|	++++|	++++|	++++|	++++|	++++|					
	++++						AVRG		0.000e+000		0.000e+000
\$ 87 Fluoranthene-d10	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

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

ARI Labs, Inc.

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Last Edit : 03-May-2023 14:03 deenayd

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09
FILENAME:	NT1005012302	NT1005012303	NT1005012304	NT1005012305	NT1005012306	NT1005012307	NT1005012308	NT1005012311	NT1005012312
INJ. DATE:	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023
INJ. TIME:	14:52	15:31	16:10	16:49	17:28	18:07	18:46	20:43	21:22

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 2-Fluorophenol	7.238	7.238	7.230	7.231	7.238	7.231	7.231	+++++	7.231	7.238	4.238-10.238	7.234	0.004
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.785	15.785-21.785	+++++	+++++
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.645	5.645-11.645	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.455	14.455-20.455	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.696	17.696-23.696	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.219	16.219-22.219	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.949	19.949-25.949	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.196	16.196-22.196	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.503	17.503-23.503	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.827	4.827-10.827	+++++	+++++
168 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.842	12.842-18.842	+++++	+++++
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.383	13.383-19.383	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
§ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.445	0.000-5.445	+++++	+++++
* 134 Di-n-octylphthalate-d4	24.748	24.747	24.747	24.748	24.740	24.732	24.724	24.740	24.740	24.748	21.748-27.748	24.741	0.008
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.571	12.571-18.571	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.447	8.447-14.447	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

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Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
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Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.252	7.252-13.252	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	16.355	16.347	16.347	16.347	16.347	16.347	16.339	16.339	+++++	16.355	13.355-19.355	16.346	0.005
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.963	15.963-21.963	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.215	18.215-24.215	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.761	13.761-19.761	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.747	15.747-21.747	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.923	13.923-19.923	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.341	11.341-17.341	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.085	11.085-17.085	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	17.057	17.049	17.041	17.042	17.034	17.034	17.034	17.034	+++++	17.057	14.057-20.057	17.041	0.009
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.140	14.140-20.140	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.070	12.070-18.070	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.232	12.232-18.232	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.374	13.374-19.374	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.120	10.120-16.120	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.096	11.096-17.096	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.096	11.096-17.096	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.735	8.735-14.735	+++++	+++++

ARI Labs, Inc.
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Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.243	6.243-12.243	+++++	+++++
105 1-methylnaphthalene	13.662	13.654	13.654	13.655	13.654	13.655	13.647	13.647	+++++	13.662	10.662-16.662	13.654	0.005
151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.642	24.642-30.642	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.953	22.953-28.953	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.750	24.750-30.750	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.464	23.464-29.464	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.099	24.099-30.099	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.513	21.513-27.513	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.132	22.132-28.132	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.528	16.528-22.528	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
\$ 2 Phenol-d5	8.830	8.822	8.822	8.815	8.814	8.815	8.815	+++++	8.814	8.830	5.830-11.830	8.818	0.006
3 Phenol	8.853	8.845	8.837	8.838	8.838	8.838	8.838	8.838	+++++	8.853	5.853-11.853	8.841	0.006
4 Bis(2-Chloroethyl)ethe	9.039	9.031	9.023	9.023	9.023	9.023	9.023	9.023	+++++	9.039	6.039-12.039	9.026	0.006
\$ 5 2-Chlorophenol-d4	9.131	9.123	9.123	9.124	9.123	9.116	9.123	+++++	9.123	9.131	6.131-12.131	9.123	0.004

ARI Labs, Inc.
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Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV	
6 2-Chlorophenol	9.162	9.154	9.154	9.147	9.147	9.147	9.147	9.147	9.147	++++	9.162	6.162-12.162	9.150	0.006
7 1,3-Dichlorobenzene	9.433	9.433	9.433	9.425	9.433	9.425	9.425	9.425	9.425	++++	9.433	6.433-12.433	9.429	0.004
* 8 1,4-Dichlorobenzene-d4	9.495	9.495	9.495	9.487	9.495	9.487	9.487	9.487	9.487	9.495	6.495-12.495	9.491	0.004	
9 1,4-Dichlorobenzene	9.526	9.526	9.526	9.526	9.526	9.518	9.518	9.518	9.518	++++	9.526	6.526-12.526	9.523	0.004
\$ 10 1,2-Dichlorobenzene-d4	9.860	9.860	9.852	9.852	9.852	9.852	9.852	9.852	9.852	++++	9.860	6.860-12.860	9.854	0.004
11 Benzyl alcohol	9.759	9.751	9.751	9.751	9.751	9.751	9.751	9.751	9.751	++++	9.759	6.759-12.759	9.752	0.003
12 1,2-Dichlorobenzene	9.883	9.883	9.883	9.883	9.883	9.875	9.875	9.875	9.875	++++	9.883	6.883-12.883	9.880	0.004
13 2-Methylphenol	9.976	9.968	9.968	9.961	9.961	9.961	9.961	9.961	9.961	++++	9.976	6.976-12.976	9.965	0.006
14 2,2'-oxybis(1-Chloropr	10.062	10.054	10.054	10.054	10.054	10.046	10.046	10.054	10.054	++++	10.062	7.062-13.062	10.053	0.005
15 4-Methylphenol	10.248	10.240	10.232	10.232	10.232	10.225	10.232	10.233	10.233	++++	10.248	7.248-13.248	10.234	0.007
16 N-Nitroso-di-n-propyla	10.333	10.318	10.317	10.310	10.310	10.310	10.310	10.310	10.310	++++	10.333	7.333-13.333	10.315	0.008
17 Hexachloroethane	10.481	10.481	10.480	10.481	10.481	10.473	10.473	10.473	10.473	++++	10.481	7.481-13.481	10.478	0.004
\$ 18 Nitrobenzene-d5	10.605	10.597	10.597	10.589	10.589	10.589	10.589	10.589	10.589	++++	10.605	7.605-13.605	10.593	0.006
19 Nitrobenzene	10.636	10.636	10.628	10.628	10.628	10.628	10.628	10.628	10.628	++++	10.636	7.636-13.636	10.630	0.004
20 Isophorone	11.094	11.078	11.070	11.071	11.070	11.071	11.063	11.071	11.071	++++	11.094	8.094-14.094	11.073	0.009
21 2-Nitrophenol	11.266	11.258	11.257	11.258	11.258	11.258	11.249	11.258	11.258	++++	11.266	8.266-14.266	11.258	0.005
22 2,4-Dimethylphenol	11.300	11.292	11.283	11.283	11.283	11.283	11.283	11.283	11.283	++++	11.300	8.300-14.300	11.286	0.006
23 Bis(2-Chloroethoxy)met	11.504	11.495	11.495	11.487	11.487	11.487	11.487	11.487	11.487	++++	11.504	8.504-14.504	11.491	0.006
24 Benzoic acid	11.631	11.555	11.487	11.436	11.402	11.377	11.360	11.428	11.428	++++	11.631	8.631-14.631	11.459	0.093
25 2,4-Dichlorophenol	11.716	11.707	11.707	11.708	11.699	11.699	11.699	11.699	11.699	++++	11.716	8.716-14.716	11.704	0.006
26 1,2,4-Trichlorobenzene	11.907	11.899	11.899	11.899	11.899	11.899	11.899	11.899	11.899	++++	11.907	8.907-14.907	11.900	0.003
* 27 Naphthalene-d8	11.999	11.991	11.991	11.992	11.991	11.984	11.984	11.992	11.984	11.999	8.999-14.999	11.990	0.005	
28 Naphthalene	12.038	12.038	12.030	12.030	12.030	12.030	12.022	12.030	12.030	++++	12.038	9.038-15.038	12.031	0.005
29 4-Chloroaniline	12.161	12.153	12.153	12.154	12.153	12.146	12.146	12.146	12.146	++++	12.161	9.161-15.161	12.152	0.005

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Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
30 Hexachlorobutadiene	12.385	12.385	12.385	12.385	12.385	12.385	12.378	12.385	++++	12.385	9.385-15.385	12.384	0.003
31 4-Chloro-3-methylpheno	13.105	13.097	13.097	13.097	13.097	13.090	13.090	13.090	++++	13.105	10.105-16.105	13.095	0.005
32 2-Methylnaphthalene	13.438	13.430	13.430	13.430	13.430	13.430	13.422	13.423	++++	13.438	10.438-16.438	13.429	0.005
33 Hexachlorocyclopentadi	13.895	13.894	13.894	13.895	13.894	13.895	13.887	13.887	++++	13.895	10.895-16.895	13.892	0.004
34 2,4,6-Trichlorophenol	14.057	14.049	14.049	14.042	14.041	14.042	14.041	14.042	++++	14.057	11.057-17.057	14.045	0.006
35 2,4,5-Trichlorophenol	14.127	14.119	14.119	14.119	14.111	14.111	14.111	14.111	++++	14.127	11.127-17.127	14.116	0.006
36 2-Fluorobiphenyl	14.212	14.212	14.211	14.212	14.204	14.204	14.204	14.204	14.204	14.212	11.212-17.212	14.207	0.004
37 2-Chloronaphthalene	14.436	14.436	14.428	14.429	14.428	14.428	14.421	14.429	++++	14.436	11.436-17.436	14.429	0.005
38 2-Nitroaniline	14.699	14.691	14.684	14.684	14.684	14.684	14.676	14.676	++++	14.699	11.699-17.699	14.685	0.008
39 Dimethylphthalate	15.125	15.117	15.109	15.110	15.109	15.102	15.102	15.102	++++	15.125	12.125-18.125	15.110	0.008
40 Acenaphthylene	15.319	15.311	15.311	15.311	15.303	15.303	15.303	15.303	++++	15.319	12.319-18.319	15.308	0.006
41 2,6-Dinitrotoluene	15.272	15.264	15.256	15.257	15.249	15.249	15.249	15.249	++++	15.272	12.272-18.272	15.256	0.009
42 Acenaphthene-d10	15.628	15.620	15.620	15.620	15.620	15.620	15.613	15.620	15.620	15.628	12.628-18.628	15.620	0.004
43 3-Nitroaniline	15.566	15.551	15.543	15.543	15.535	15.535	15.527	15.535	++++	15.566	12.566-18.566	15.542	0.012
44 Acenaphthene	15.698	15.690	15.690	15.690	15.690	15.682	15.682	15.682	++++	15.698	12.698-18.698	15.688	0.005
45 2,4-Dinitrophenol	15.783	15.759	15.759	15.752	15.752	15.744	15.744	15.744	++++	15.783	12.783-18.783	15.755	0.013
46 Dibenzofuran	16.030	16.022	16.014	16.015	16.014	16.015	16.007	16.007	++++	16.030	13.030-19.030	16.015	0.008
47 4-Nitrophenol	15.868	15.844	15.836	15.837	15.829	15.829	15.829	15.829	++++	15.868	12.868-18.868	15.838	0.013
48 2,4-Dinitrotoluene	16.092	16.076	16.068	16.069	16.061	16.061	16.061	16.061	++++	16.092	13.092-19.092	16.069	0.011
49 Fluorene	16.741	16.741	16.733	16.733	16.733	16.726	16.726	16.733	++++	16.741	13.741-19.741	16.733	0.006
50 Diethylphthalate	16.587	16.579	16.571	16.571	16.563	16.563	16.556	16.564	++++	16.587	13.587-19.587	16.569	0.010
51 4-Chlorophenyl-phenyle	16.718	16.718	16.718	16.710	16.710	16.710	16.702	16.710	++++	16.718	13.718-19.718	16.712	0.005
52 4-Nitroaniline	16.865	16.833	16.826	16.818	16.810	16.811	16.810	16.811	++++	16.865	13.865-19.865	16.823	0.019
53 4,6-Dinitro-2-methylph	16.942	16.926	16.910	16.911	16.903	16.903	16.903	16.903	++++	16.942	13.942-19.942	16.913	0.014

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Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
54 N-Nitrosodiphenylamine	16.980	16.972	16.964	16.965	16.957	16.957	16.957	16.957	++++	16.980	13.980-19.980	16.964	0.009
\$ 55 2,4,6-Tribromophenol	17.281	17.273	17.273	17.273	17.265	17.265	17.265	17.266	17.265	17.281	14.281-20.281	17.270	0.006
56 4-Bromophenyl-phenylet	17.728	17.728	17.728	17.728	17.728	17.720	17.713	17.720	++++	17.728	14.728-20.728	17.724	0.006
57 Hexachlorobenzene	18.060	18.052	18.052	18.053	18.053	18.045	18.045	18.045	++++	18.060	15.060-21.060	18.051	0.005
58 Pentachlorophenol	18.417	18.409	18.409	18.401	18.401	18.401	18.393	18.401	++++	18.417	15.417-21.417	18.404	0.007
* 59 Phenanthrene-d10	18.687	18.679	18.679	18.680	18.680	18.680	18.672	18.672	18.672	18.687	15.687-21.687	18.678	0.005
60 Phenanthrene	18.734	18.734	18.733	18.726	18.726	18.726	18.718	18.718	++++	18.734	15.734-21.734	18.727	0.006
61 Anthracene	18.827	18.826	18.826	18.819	18.819	18.819	18.811	18.819	++++	18.827	15.827-21.827	18.821	0.005
62 Carbazole	19.152	19.144	19.144	19.144	19.144	19.136	19.136	19.136	++++	19.152	16.152-22.152	19.142	0.005
63 Di-n-butylphthalate	19.918	19.910	19.909	19.910	19.910	19.910	19.902	19.902	++++	19.918	16.918-22.918	19.909	0.005
64 Fluoranthene	21.101	21.093	21.093	21.094	21.093	21.086	21.086	21.086	++++	21.101	18.101-24.101	21.092	0.005
65 Pyrene	21.527	21.519	21.519	21.519	21.511	21.511	21.504	21.511	++++	21.527	18.527-24.527	21.515	0.007
\$ 66 Terphenyl-d14	21.790	21.790	21.790	21.790	21.782	21.782	21.774	21.782	21.782	21.790	18.790-24.790	21.785	0.005
67 Butylbenzylphthalate	22.704	22.696	22.703	22.704	22.696	22.696	22.688	22.696	++++	22.704	19.704-25.704	22.698	0.005
68 Benzo(a)anthracene	23.679	23.671	23.671	23.671	23.664	23.656	23.656	23.664	++++	23.679	20.679-26.679	23.667	0.008
* 69 Chrysene-d12	23.710	23.702	23.702	23.702	23.695	23.695	23.687	23.695	23.695	23.710	20.710-26.710	23.698	0.007
70 3,3'-Dichlorobenzidine	23.633	23.625	23.617	23.617	23.617	23.610	23.602	23.617	++++	23.633	20.633-26.633	23.617	0.009
71 Chrysene	23.757	23.749	23.749	23.749	23.741	23.733	23.733	23.741	++++	23.757	20.757-26.757	23.744	0.008
72 bis(2-Ethylhexyl)phtha	23.710	23.710	23.718	23.718	23.710	23.702	23.702	23.710	++++	23.710	20.710-26.710	23.710	0.006
73 Di-n-octylphthalate	24.763	24.755	24.755	24.755	24.747	24.748	24.740	24.748	++++	24.763	21.763-27.763	24.751	0.007
74 Benzo(b)fluoranthene	25.700	25.700	25.692	25.692	25.676	25.669	25.661	25.684	++++	25.700	22.700-28.700	25.684	0.014
75 Benzo(k)fluoranthene	25.754	25.746	25.738	25.738	25.731	25.723	25.715	25.731	++++	25.754	22.754-28.754	25.735	0.012
187 Total Benzofluoranthen	25.754	25.746	25.692	25.692	25.731	25.669	25.661	25.684	++++	25.754	22.754-28.754	25.704	0.035
76 Benzo(a)pyrene	26.435	26.427	26.419	26.420	26.412	26.397	26.389	26.404	++++	26.435	23.435-29.435	26.413	0.016

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 77 Perylene-d12	26.552	26.551	26.551	26.552	26.536	26.528	26.520	26.536	26.536	26.552	23.552-29.552	26.540	0.012
| 78 Indeno(1,2,3-cd)pyrene	29.577	29.545	29.545	29.530	29.514	29.491	29.483	29.515	+++++	29.577	26.577-32.577	29.525	0.031
| 79 Dibenzo(a,h)anthracene	29.584	29.561	29.545	29.546	29.530	29.507	29.491	29.522	+++++	29.584	26.584-32.584	29.536	0.030
| 80 Benzo(g,h,i)perylene	30.462	30.431	30.423	30.416	30.400	30.377	30.353	30.392	+++++	30.462	27.462-33.462	30.407	0.034
|\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
|\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
|\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
|\$ 88 Dibenzo(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
|\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
| 90 N-Nitrosodimethylamine	5.091	5.091	5.075	5.068	5.083	5.075	5.083	5.068	+++++	5.091	2.091-8.091	5.079	0.009
| 91 Aniline	8.954	8.946	8.946	8.938	8.946	8.938	8.938	+++++	+++++	8.954	5.954-11.954	8.944	0.006
| 92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
| 93 Benzidine	21.326	21.318	21.318	21.318	21.318	21.310	21.310	21.310	+++++	21.326	18.326-24.326	21.316	0.005
|\$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
| 96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
| 97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
| 98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.787	15.787-21.787	+++++	+++++
| 99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.361	21.361-27.361	+++++	+++++
| 100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.411	22.411-28.411	+++++	+++++
| 101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.023	23.023-29.023	+++++	+++++
| 102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
| 103 Pyridine	5.099	5.098	5.098	5.099	5.122	5.122	5.145	5.099	+++++	5.099	2.099-8.099	5.110	0.018
| 188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.874	8.874-14.874	+++++	+++++
| 189 N-Nitrosomethylethylam	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.818	2.818-8.818	+++++	+++++

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012302.D

Date: 01-May-2023 14:52

Client ID:

Sample Info: SLE0036-CAL7

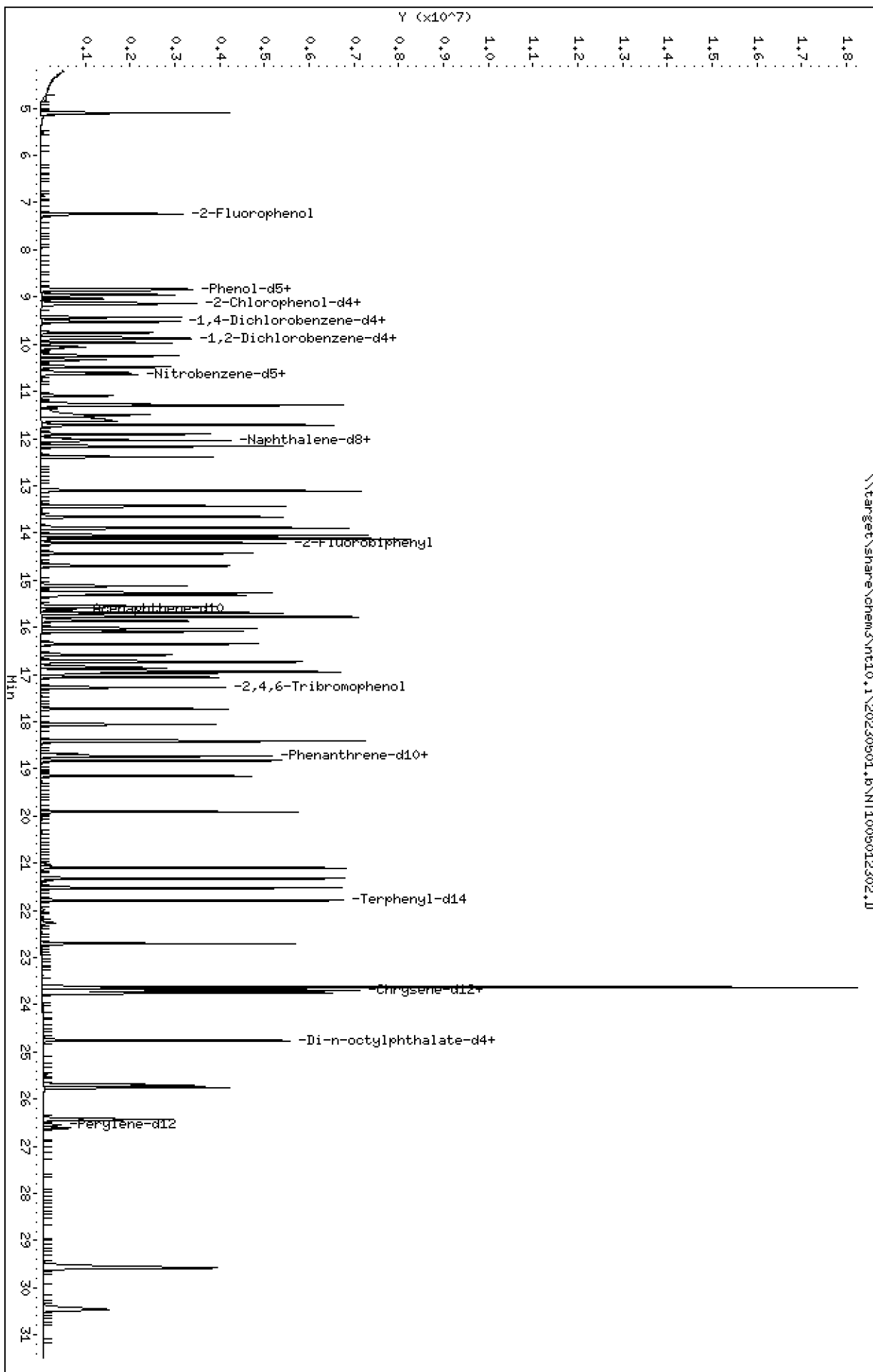
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012302.D
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 Inj Date : 01-MAY-2023 14:52
 Operator : VTS
 Smp Info : SLE0036-CAL7
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 14:52 Cal File: NT1005012302.D
 Als bottle: 2 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.238	7.230	(1.000)	1356790	30.0000	30.57
\$ 2 Phenol-d5	99		8.830	8.814	(1.000)	1712978	30.0000	32.01
3 Phenol	94		8.853	8.837	(1.000)	1132567	20.0000	19.80
\$ 5 2-Chlorophenol-d4	132		9.131	9.123	(1.000)	1615405	30.0000	31.50
4 Bis(2-Chloroethyl)ether	93		9.038	9.023	(1.000)	766599	20.0000	18.52
6 2-Chlorophenol	128		9.162	9.146	(1.000)	1032161	20.0000	20.46
7 1,3-Dichlorobenzene	146		9.432	9.425	(1.000)	1137329	20.0000	20.01
* 8 1,4-Dichlorobenzene-d4	152		9.495	9.487	(1.000)	146674	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.526	9.518	(1.000)	1132842	20.0000	20.29
\$ 10 1,2-Dichlorobenzene-d4	152		9.859	9.851	(1.000)	781268	20.0000	20.65
12 1,2-Dichlorobenzene	146		9.883	9.875	(1.000)	1102805	20.0000	20.34
11 Benzyl alcohol	108		9.758	9.750	(1.000)	602716	20.0000	21.92
14 2,2'-oxybis(1-Chloropropane)	121		10.061	10.046	(1.060)	295678	20.0000	18.89 (M)
13 2-Methylphenol	108		9.976	9.960	(1.000)	862143	20.0000	20.55
17 Hexachloroethane	117		10.480	10.472	(1.000)	501796	20.0000	20.78
16 N-Nitroso-di-n-propylamine	70		10.333	10.309	(1.000)	666067	20.0000	20.04
15 4-Methylphenol	108		10.247	10.232	(1.000)	1030205	20.0000	20.45
\$ 18 Nitrobenzene-d5	82		10.604	10.589	(0.884)	1190693	20.0000	19.71
19 Nitrobenzene	77		10.636	10.628	(0.886)	1099699	20.0000	18.83
20 Isophorone	82		11.093	11.062	(0.925)	1516817	20.0000	21.82
21 2-Nitrophenol	139		11.266	11.249	(0.939)	610580	20.0000	19.94
22 2,4-Dimethylphenol	107		11.300	11.283	(0.942)	2296855	40.0000	40.28
23 Bis(2-Chloroethoxy)methane	93		11.503	11.486	(0.959)	859617	20.0000	19.34
24 Benzoic acid	105		11.631	11.359	(0.969)	3309159	80.0000	79.68 (M)
25 2,4-Dichlorophenol	162		11.716	11.698	(0.976)	1973834	40.0000	44.07
26 1,2,4-Trichlorobenzene	180		11.906	11.898	(0.992)	1266951	20.0000	19.75
* 27 Naphthalene-d8	136		11.999	11.983	(1.000)	540672	4.00000	
28 Naphthalene	128		12.037	12.022	(1.003)	3012121	20.0000	19.97
29 4-Chloroaniline	127		12.161	12.145	(1.014)	2506949	40.0000	45.16
30 Hexachlorobutadiene	225		12.385	12.377	(1.032)	701796	20.0000	19.84
31 4-Chloro-3-methylphenol	107		13.105	13.089	(1.092)	2158694	40.0000	44.22
32 2-Methylnaphthalene	142		13.437	13.422	(1.120)	2395384	20.0000	21.24
33 Hexachlorocyclopentadiene	237		13.894	13.886	(0.889)	1767292	40.0000	47.09
34 2,4,6-Trichlorophenol	196		14.057	14.041	(0.899)	1735348	40.0000	46.94

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	14.126	14.111	(0.904)	1888379	40.0000	46.84
\$ 36 2-Fluorobiphenyl	172	14.211	14.203	(0.909)	2718174	20.0000	20.80
37 2-Chloronaphthalene	162	14.436	14.420	(0.924)	2146393	20.0000	20.86
38 2-Nitroaniline	65	14.699	14.676	(0.941)	1256984	40.0000	42.06
39 Dimethylphthalate	163	15.125	15.101	(0.968)	2292966	20.0000	19.82
40 Acenaphthylene	152	15.318	15.303	(0.980)	3316824	20.0000	20.65
41 2,6-Dinitrotoluene	165	15.272	15.248	(0.977)	1136258	40.0000	43.50
* 42 Acenaphthene-d10	164	15.628	15.612	(1.000)	301804	4.00000	
43 3-Nitroaniline	138	15.566	15.527	(0.996)	1161580	40.0000	45.18
44 Acenaphthene	153	15.697	15.682	(1.004)	2145695	20.0000	21.00
45 2,4-Dinitrophenol	184	15.782	15.743	(1.010)	2018441	80.0000	79.65
46 Dibenzofuran	168	16.030	16.006	(1.026)	3142404	20.0000	21.10
47 4-Nitrophenol	109	15.867	15.828	(1.015)	998518	40.0000	39.90
48 2,4-Dinitrotoluene	165	16.091	16.060	(1.030)	1567355	40.0000	39.91
50 Diethylphthalate	149	16.586	16.555	(1.061)	2876482	20.0000	23.94
49 Fluorene	166	16.741	16.725	(1.071)	2661981	20.0000	21.66
51 4-Chlorophenyl-phenylether	204	16.718	16.702	(1.070)	1339888	20.0000	21.90
52 4-Nitroaniline	138	16.864	16.810	(1.079)	1059767	40.0000	39.85
53 4,6-Dinitro-2-methylphenol	198	16.941	16.902	(0.907)	2135578	80.0000	79.77
54 N-Nitrosodiphenylamine	169	16.980	16.956	(0.909)	1595115	20.0000	21.14
\$ 55 2,4,6-Tribromophenol	330	17.280	17.265	(1.106)	542414	30.0000	29.94
56 4-Bromophenyl-phenylether	248	17.728	17.712	(0.949)	780300	20.0000	21.91
57 Hexachlorobenzene	284	18.060	18.044	(0.966)	746701	20.0000	20.89
58 Pentachlorophenol	266	18.416	18.393	(0.986)	1284710	40.0000	39.89
* 59 Phenanthrene-d10	188	18.687	18.671	(1.000)	570862	4.00000	
60 Phenanthrene	178	18.733	18.718	(1.002)	3597084	20.0000	21.47
61 Anthracene	178	18.826	18.811	(1.007)	3455448	20.0000	22.32
62 Carbazole	167	19.151	19.136	(1.025)	3119493	20.0000	22.77
63 Di-n-butylphthalate	149	19.917	19.901	(1.066)	4565321	20.0000	19.96
64 Fluoranthene	202	21.101	21.085	(0.890)	4461007	20.0000	20.35
65 Pyrene	202	21.526	21.503	(0.908)	4369758	20.0000	19.95
\$ 66 Terphenyl-d14	244	21.789	21.774	(0.919)	3455859	20.0000	19.95
67 Butylbenzylphthalate	149	22.703	22.687	(0.958)	1736632	20.0000	19.93
68 Benzo(a)anthracene	228	23.679	23.655	(0.999)	3733816	20.0000	19.21
* 69 Chrysene-d12	240	23.710	23.686	(1.000)	491034	4.00000	
70 3,3'-Dichlorobenzidine	252	23.632	23.601	(0.997)	5247678	60.0000	59.84
71 Chrysene	228	23.756	23.733	(1.002)	3229170	20.0000	18.56
72 bis(2-Ethylhexyl)phthalate	149	23.710	23.702	(0.958)	2491116	20.0000	21.48
* 134 Di-n-octylphthalate-d4	153	24.747	24.724	(1.000)	805047	4.00000	
73 Di-n-octylphthalate	149	24.763	24.739	(1.001)	4096386	20.0000	19.29
74 Benzo(b)fluoranthene	252	25.699	25.660	(0.968)	3172895	20.0000	24.34
75 Benzo(k)fluoranthene	252	25.753	25.715	(0.970)	2987328	20.0000	23.09
76 Benzo(a)pyrene	252	26.435	26.388	(0.996)	2620584	20.0000	24.01
* 77 Perylene-d12	264	26.551	26.520	(1.000)	317394	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.576	29.483	(1.114)	3136410	20.0000	23.92
79 Dibenzo(a,h)anthracene	278	29.584	29.491	(1.114)	2693071	20.0000	24.53
80 Benzo(g,h,i)perylene	276	30.462	30.353	(1.147)	2312534	20.0000	22.13
90 N-Nitrosodimethylamine	74	5.090	5.083	(1.000)	971017	40.0000	40.50
91 Aniline	93	8.953	8.938	(1.000)	1924317	40.0000	40.81
93 Benzidine	184	21.325	21.310	(0.899)	4129583	40.0000	39.85
103 Pyridine	79	5.098	5.144	(1.000)	1613461	40.0000	42.68
105 1-methylnaphthalene	142	13.662	13.646	(1.139)	2173917	20.0000	21.02
111 Azobenzene (1,2-DP-Hydrazine)	77	17.057	17.034	(1.091)	2330788	20.0000	19.86
187 Total Benzofluoranthenes	252	25.753	25.660	(0.970)	5946684	40.0000	47.38

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		16.354	16.339	(1.046)	917902	20.0000	19.96

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012302.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-CAL7
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	146674	1.64
27 Naphthalene-d8	493698	246849	987396	540672	9.51
42 Acenaphthene-d10	279210	139605	558420	301804	8.09
59 Phenanthrene-d10	521463	260732	1042926	570862	9.47
69 Chrysene-d12	369911	184956	739822	491034	32.74
134 Di-n-octylphthala	626668	313334	1253336	805047	28.46
77 Perylene-d12	311339	155670	622678	317394	1.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.50	0.00
27 Naphthalene-d8	11.99	11.49	12.49	12.00	0.07
42 Acenaphthene-d10	15.62	15.12	16.12	15.63	0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.69	0.04
69 Chrysene-d12	23.70	23.20	24.20	23.71	0.03
134 Di-n-octylphthala	24.75	24.25	25.25	24.75	0.00
77 Perylene-d12	26.55	26.05	27.05	26.55	0.00

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

REVIEW SUMMARY FOR FILE - NT1005012302.D

Lab ID: SLE0036-CAL7
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 14:52

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.969	0.948	0.0214	Benzoic acid

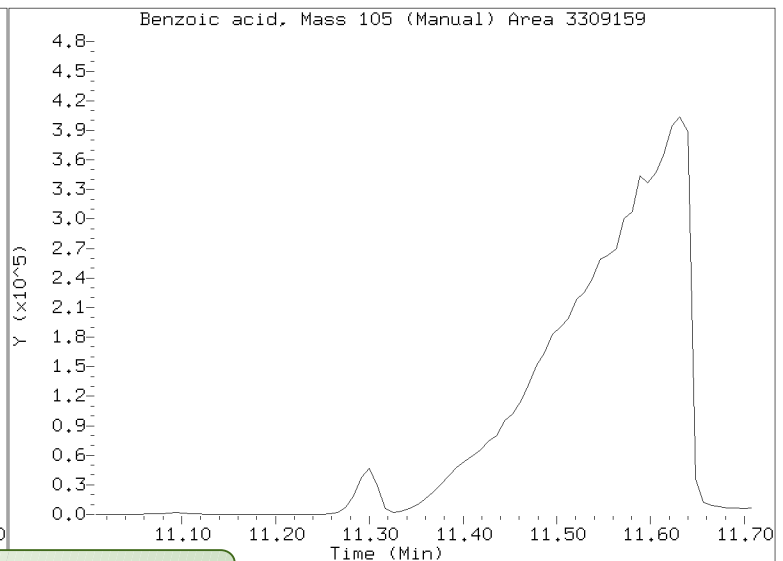
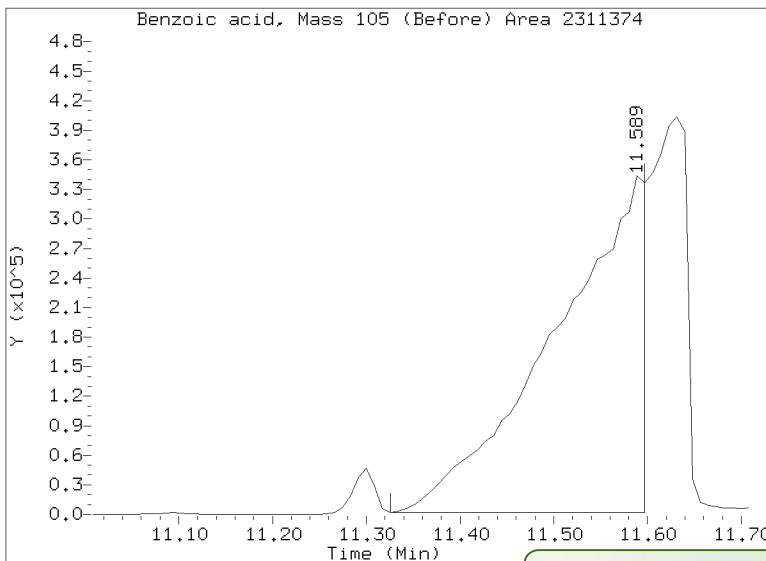
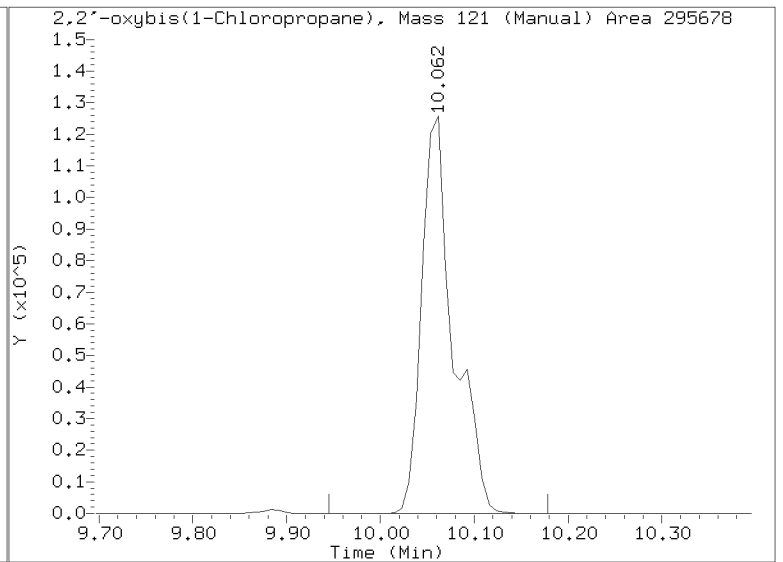
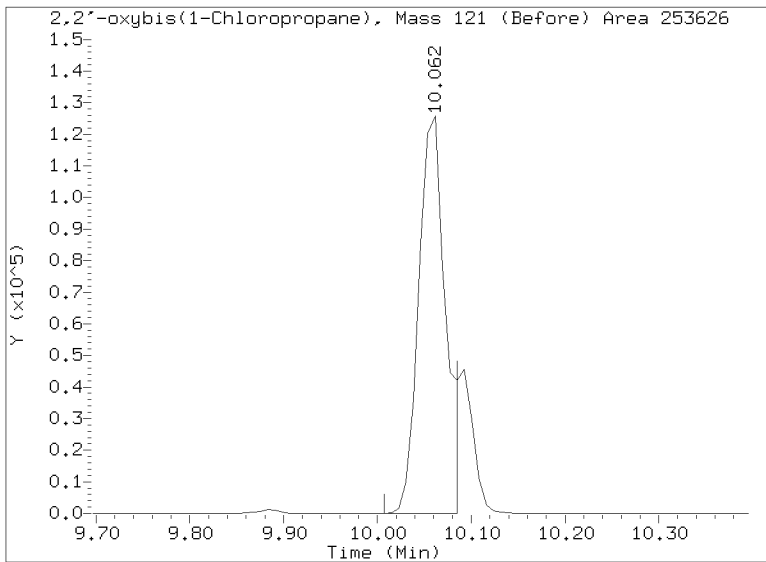
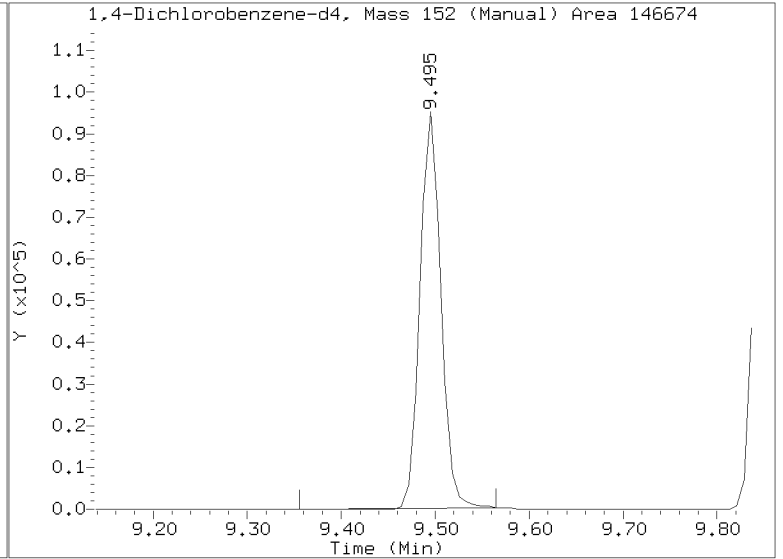
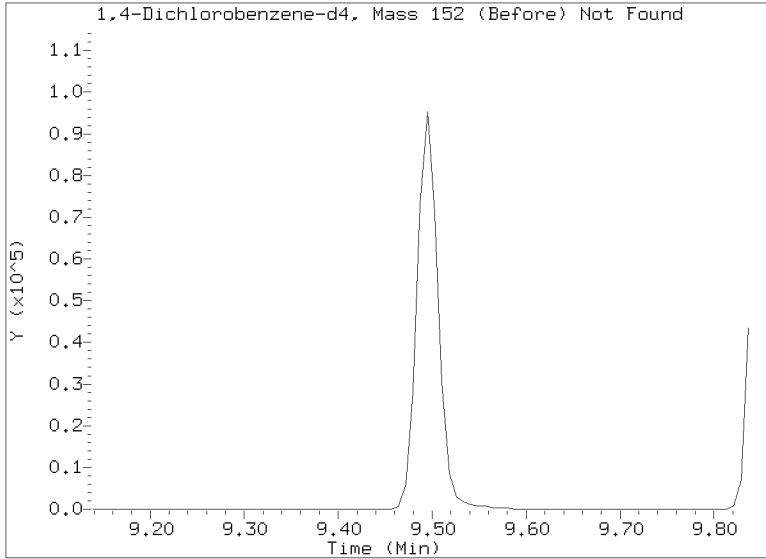
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On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

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Injection Date: 01-MAY-2023 14:52
Lab ID: SLE0036-CAL7 Client ID:
Report Date: 05/08/2023 09:56



APPROVED

By Deenay Dunmore at 10:01 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012303.D

Date: 01-May-2023 15:31

Client ID:

Sample Info: SLE0036-CAL6

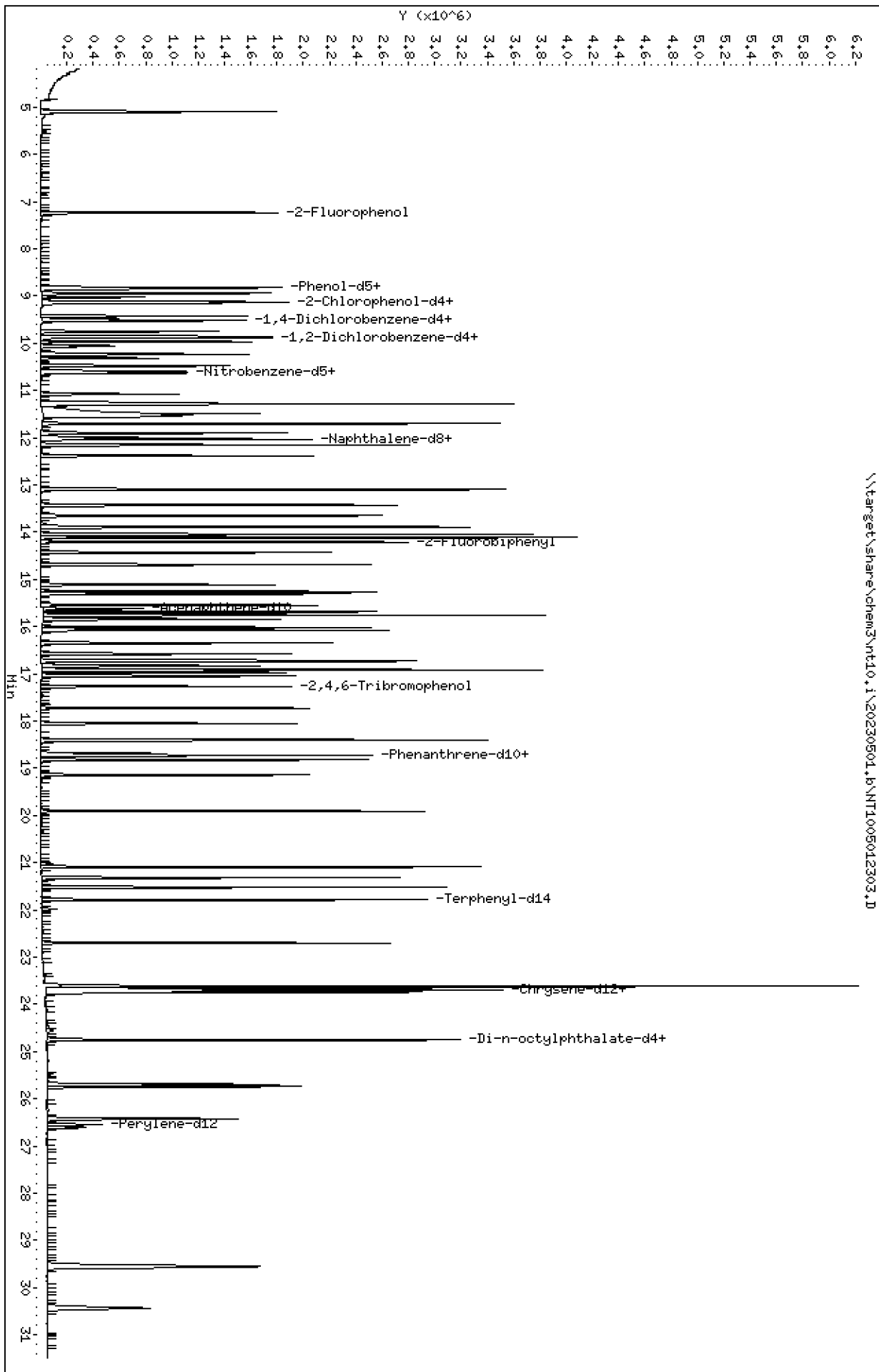
Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Column phase: ZB-5msi

\\target\share\chem3\nt10.1\20230501_b\NT1005012303.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012303.D
 Lab Smp Id: SLE0036-CAL6
 Inj Date : 01-MAY-2023 15:31
 Operator : VTS
 Smp Info : SLE0036-CAL6
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd
 Cal Date : 01-MAY-2023 15:31
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1005012303.D
 Calibration Sample, Level: 6
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112			7.238	7.230	(1.000)	716468	15.0000	16.54
\$ 2 Phenol-d5	99			8.822	8.814	(1.000)	886495	15.0000	16.97
3 Phenol	94			8.845	8.837	(1.000)	595688	10.0000	10.67
\$ 5 2-Chlorophenol-d4	132			9.123	9.123	(1.000)	846301	15.0000	16.91
4 Bis(2-Chloroethyl)ether	93			9.030	9.023	(1.000)	414760	10.0000	10.26
6 2-Chlorophenol	128			9.154	9.146	(1.000)	533240	10.0000	10.83
7 1,3-Dichlorobenzene	146			9.432	9.425	(1.000)	586266	10.0000	10.57
* 8 1,4-Dichlorobenzene-d4	152			9.494	9.487	(1.000)	143173	4.00000	(M)
9 1,4-Dichlorobenzene	146			9.525	9.518	(1.000)	574570	10.0000	10.54
\$ 10 1,2-Dichlorobenzene-d4	152			9.859	9.851	(1.000)	399075	10.0000	10.81
12 1,2-Dichlorobenzene	146			9.882	9.875	(1.000)	571854	10.0000	10.81
11 Benzyl alcohol	108			9.750	9.750	(1.000)	312300	10.0000	11.63
14 2,2'-oxybis(1-Chloropropane)	121			10.053	10.046	(1.059)	167675	10.0000	10.97 (M)
13 2-Methylphenol	108			9.968	9.960	(1.000)	448906	10.0000	10.96
17 Hexachloroethane	117			10.480	10.472	(1.000)	258231	10.0000	10.96
16 N-Nitroso-di-n-propylamine	70			10.317	10.309	(1.000)	349990	10.0000	10.79
15 4-Methylphenol	108			10.240	10.232	(1.000)	536978	10.0000	10.92
\$ 18 Nitrobenzene-d5	82			10.597	10.589	(0.884)	611545	10.0000	10.37
19 Nitrobenzene	77			10.635	10.628	(0.887)	576126	10.0000	10.11
20 Isophorone	82			11.078	11.062	(0.924)	711010	10.0000	10.48
21 2-Nitrophenol	139			11.257	11.249	(0.939)	310157	10.0000	10.30
22 2,4-Dimethylphenol	107			11.291	11.283	(0.942)	1147762	20.0000	20.62
23 Bis(2-Chloroethoxy)methane	93			11.495	11.486	(0.959)	444709	10.0000	10.25
24 Benzoic acid	105			11.554	11.359	(0.964)	1642196	40.0000	41.56
25 2,4-Dichlorophenol	162			11.707	11.698	(0.976)	979376	20.0000	22.39
26 1,2,4-Trichlorobenzene	180			11.898	11.898	(0.992)	640400	10.0000	10.22
* 27 Naphthalene-d8	136			11.991	11.983	(1.000)	527883	4.00000	
28 Naphthalene	128			12.037	12.022	(1.004)	1513403	10.0000	10.28
29 4-Chloroaniline	127			12.153	12.145	(1.014)	1230229	20.0000	22.70
30 Hexachlorobutadiene	225			12.385	12.377	(1.033)	355809	10.0000	10.30
31 4-Chloro-3-methylphenol	107			13.097	13.089	(1.092)	1043912	20.0000	21.90
32 2-Methylnaphthalene	142			13.429	13.422	(1.120)	1166977	10.0000	10.60
33 Hexachlorocyclopentadiene	237			13.894	13.886	(0.890)	846710	20.0000	22.56
34 2,4,6-Trichlorophenol	196			14.049	14.041	(0.899)	826979	20.0000	22.37

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	14.118	14.111	(0.904)	899480	20.0000	22.31
\$ 36 2-Fluorobiphenyl	172	14.211	14.203	(0.910)	1343519	10.0000	10.28
37 2-Chloronaphthalene	162	14.436	14.420	(0.924)	1057992	10.0000	10.28
38 2-Nitroaniline	65	14.691	14.676	(0.941)	643227	20.0000	21.52
39 Dimethylphthalate	163	15.117	15.101	(0.968)	1190778	10.0000	10.29
40 Acenaphthylene	152	15.310	15.303	(0.980)	1660899	10.0000	10.34
41 2,6-Dinitrotoluene	165	15.264	15.248	(0.977)	575381	20.0000	22.03
* 42 Acenaphthene-d10	164	15.620	15.612	(1.000)	301848	4.00000	
43 3-Nitroaniline	138	15.550	15.527	(0.996)	573602	20.0000	22.31
44 Acenaphthene	153	15.689	15.682	(1.004)	1069011	10.0000	10.46
45 2,4-Dinitrophenol	184	15.759	15.743	(1.009)	931559	40.0000	42.02
46 Dibenzofuran	168	16.022	16.006	(1.026)	1568652	10.0000	10.53
47 4-Nitrophenol	109	15.844	15.828	(1.014)	501336	20.0000	20.48
48 2,4-Dinitrotoluene	165	16.076	16.060	(1.029)	782047	20.0000	20.47
50 Diethylphthalate	149	16.578	16.555	(1.061)	1228219	10.0000	10.22
49 Fluorene	166	16.740	16.725	(1.072)	1294399	10.0000	10.53
51 4-Chlorophenyl-phenylether	204	16.717	16.702	(1.070)	648628	10.0000	10.60
52 4-Nitroaniline	138	16.833	16.810	(1.078)	533420	20.0000	20.70
53 4,6-Dinitro-2-methylphenol	198	16.926	16.902	(0.906)	997636	40.0000	41.32
54 N-Nitrosodiphenylamine	169	16.972	16.956	(0.909)	756150	10.0000	10.02
\$ 55 2,4,6-Tribromophenol	330	17.272	17.265	(1.106)	244125	15.0000	15.35
56 4-Bromophenyl-phenylether	248	17.727	17.712	(0.949)	386201	10.0000	10.85
57 Hexachlorobenzene	284	18.052	18.044	(0.966)	362996	10.0000	10.16
58 Pentachlorophenol	266	18.408	18.393	(0.986)	563878	20.0000	20.70
* 59 Phenanthrene-d10	188	18.679	18.671	(1.000)	570788	4.00000	
60 Phenanthrene	178	18.733	18.718	(1.003)	1725660	10.0000	10.30
61 Anthracene	178	18.826	18.811	(1.008)	1658240	10.0000	10.71
62 Carbazole	167	19.143	19.136	(1.025)	1403288	10.0000	10.24
63 Di-n-butylphthalate	149	19.909	19.901	(1.066)	2208223	10.0000	10.24
64 Fluoranthene	202	21.093	21.085	(0.890)	2133657	10.0000	11.31
65 Pyrene	202	21.518	21.503	(0.908)	2051047	10.0000	10.88
\$ 66 Terphenyl-d14	244	21.789	21.774	(0.919)	1565596	10.0000	10.50
67 Butylbenzylphthalate	149	22.695	22.687	(0.958)	827854	10.0000	10.28
68 Benzo(a)anthracene	228	23.671	23.655	(0.999)	1705203	10.0000	10.19
* 69 Chrysene-d12	240	23.702	23.686	(1.000)	422654	4.00000	
70 3,3'-Dichlorobenzidine	252	23.624	23.601	(0.997)	1833732	30.0000	31.32
71 Chrysene	228	23.748	23.733	(1.002)	1474931	10.0000	9.849
72 bis(2-Ethylhexyl)phthalate	149	23.709	23.702	(0.958)	1131685	10.0000	10.80
* 134 Di-n-octylphthalate-d4	153	24.747	24.724	(1.000)	727542	4.00000	
73 Di-n-octylphthalate	149	24.755	24.739	(1.000)	1900999	10.0000	9.904
74 Benzo(b)fluoranthene	252	25.699	25.660	(0.968)	1510192	10.0000	11.15
75 Benzo(k)fluoranthene	252	25.746	25.715	(0.970)	1397987	10.0000	10.40
76 Benzo(a)pyrene	252	26.427	26.388	(0.995)	1225298	10.0000	10.81
* 77 Perylene-d12	264	26.551	26.520	(1.000)	329659	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.545	29.483	(1.113)	1462247	10.0000	10.74
79 Dibenzo(a,h)anthracene	278	29.560	29.491	(1.113)	1208402	10.0000	10.60
80 Benzo(g,h,i)perylene	276	30.430	30.353	(1.146)	1143163	10.0000	10.53
90 N-Nitrosodimethylamine	74	5.090	5.083	(1.000)	514100	20.0000	21.97
91 Aniline	93	8.945	8.938	(1.000)	1016719	20.0000	22.09
93 Benzidine	184	21.317	21.310	(0.899)	1583457	20.0000	20.96
103 Pyridine	79	5.098	5.144	(1.000)	793917	20.0000	21.52
105 1-methylnaphthalene	142	13.654	13.646	(1.139)	1062118	10.0000	10.52
111 Azobenzene (1,2-DP-Hydrazine)	77	17.049	17.034	(1.091)	1214831	10.0000	10.35
187 Total Benzofluoranthenes	252	25.746	25.660	(0.970)	2786568	20.0000	21.38

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====		====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		16.346	16.339	(1.047)	428988	10.0000	10.25

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012303.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-CAL6
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	143173	-0.78
27 Naphthalene-d8	493698	246849	987396	527883	6.92
42 Acenaphthene-d10	279210	139605	558420	301848	8.11
59 Phenanthrene-d10	521463	260732	1042926	570788	9.46
69 Chrysene-d12	369911	184956	739822	422654	14.26
134 Di-n-octylphthala	626668	313334	1253336	727542	16.10
77 Perylene-d12	311339	155670	622678	329659	5.88

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	0.00
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
134 Di-n-octylphthala	24.75	24.25	25.25	24.75	0.00
77 Perylene-d12	26.55	26.05	27.05	26.55	0.00

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

REVIEW SUMMARY FOR FILE - NT1005012303.D

Lab ID: SLE0036-CAL6
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 15:31

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.964	0.948	0.0157	Benzoic acid

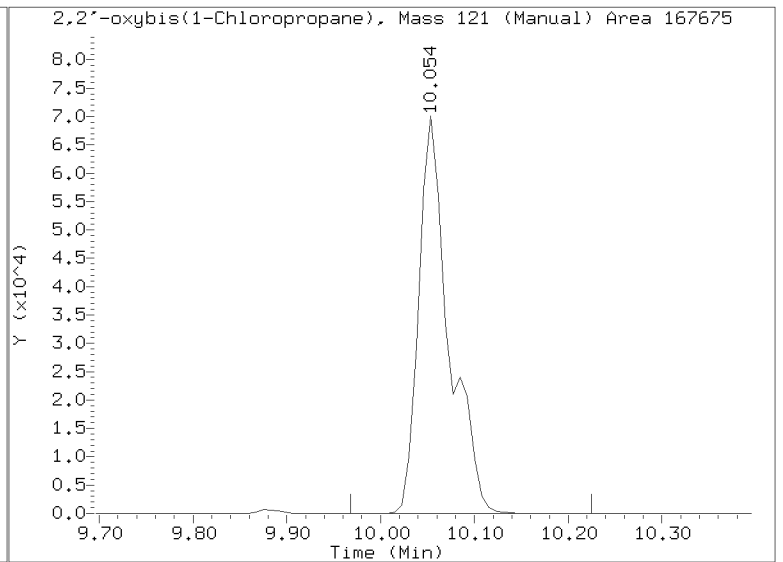
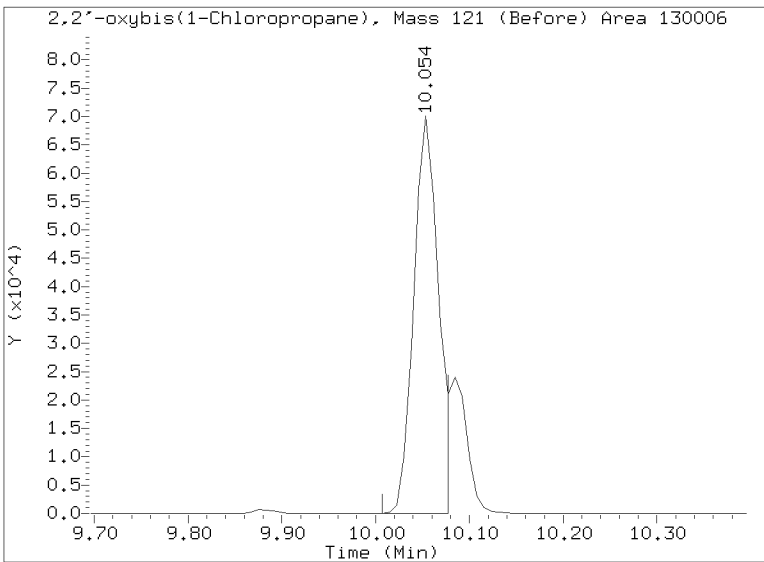
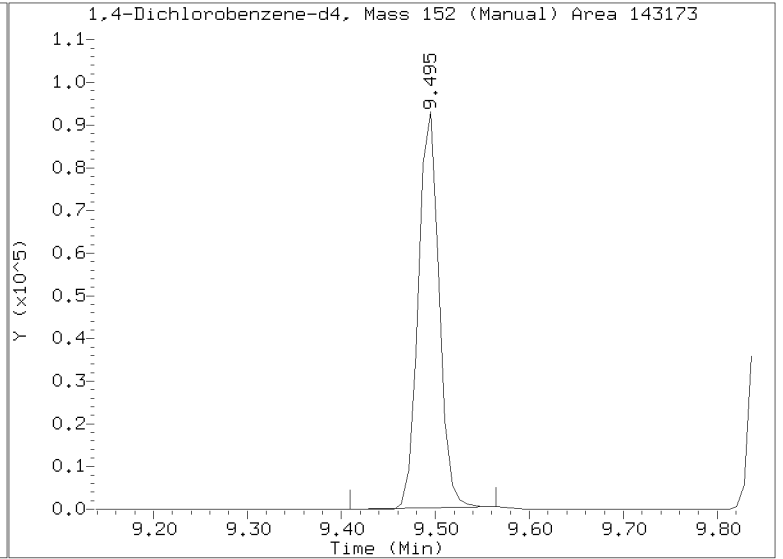
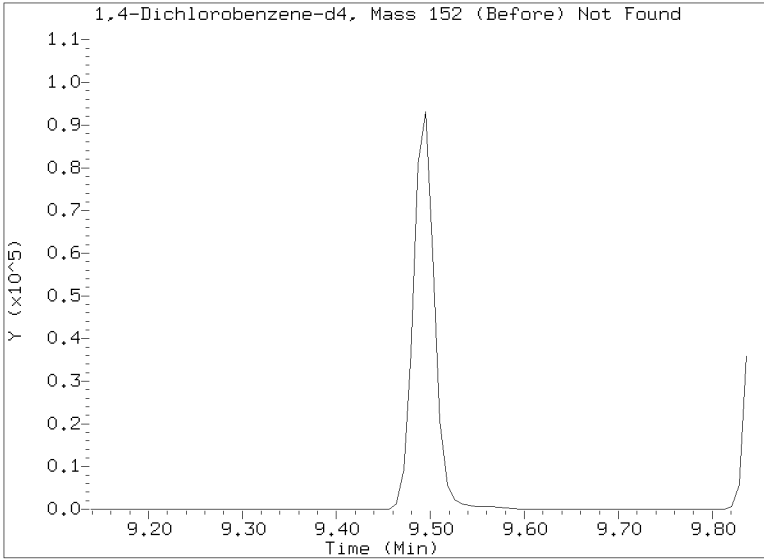
RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012303.D
Injection Date: 01-MAY-2023 15:31
Lab ID: SLE0036-CAL6 Client ID:
Report Date: 05/08/2023 09:57



APPROVED

By Deenay Dunmore at 10:02 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012304.D

Date: 01-May-2023 16:10

Client ID:

Sample Info: SLE0036-CALS

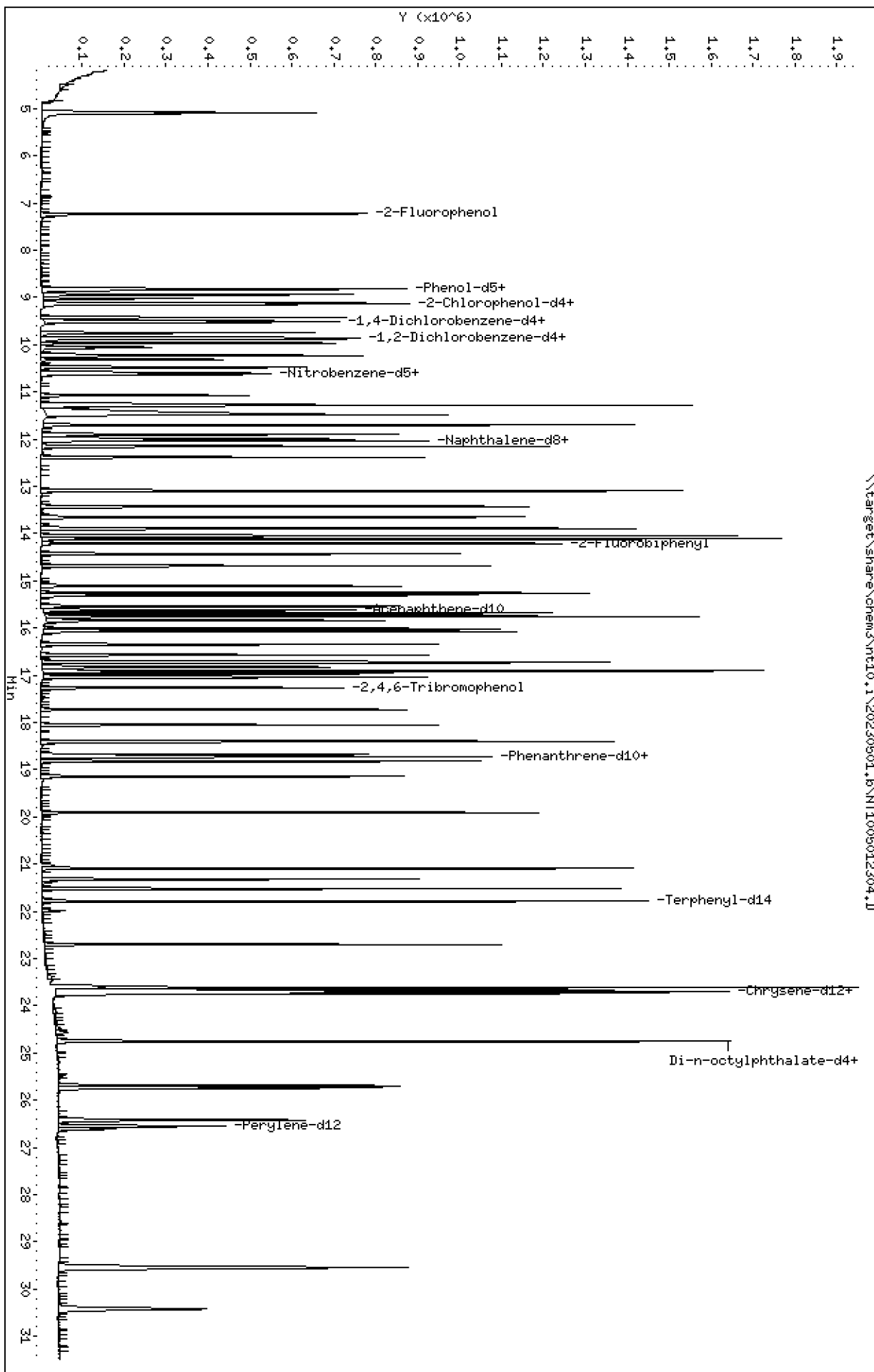
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501_b\NT1005012304.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012304.D
 Lab Smp Id: SLE0036-CAL5
 Inj Date : 01-MAY-2023 16:10
 Operator : VTS
 Smp Info : SLE0036-CAL5
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd
 Cal Date : 01-MAY-2023 16:10
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1005012304.D
 Calibration Sample, Level: 5
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.230	7.230	(1.000)	320818	7.50000	7.347
\$ 2 Phenol-d5	99		8.821	8.814	(1.000)	391447	7.50000	7.436
3 Phenol	94		8.837	8.837	(1.000)	273459	5.00000	4.858
\$ 5 2-Chlorophenol-d4	132		9.123	9.123	(1.000)	371009	7.50000	7.354
4 Bis(2-Chloroethyl)ether	93		9.022	9.023	(1.000)	191603	5.00000	4.704
6 2-Chlorophenol	128		9.154	9.146	(1.000)	241128	5.00000	4.858
7 1,3-Dichlorobenzene	146		9.432	9.425	(1.000)	270004	5.00000	4.828
* 8 1,4-Dichlorobenzene-d4	152		9.494	9.487	(1.000)	144303	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.525	9.518	(1.000)	262493	5.00000	4.778
\$ 10 1,2-Dichlorobenzene-d4	152		9.851	9.851	(1.000)	177347	5.00000	4.765
12 1,2-Dichlorobenzene	146		9.882	9.875	(1.000)	254792	5.00000	4.777
11 Benzyl alcohol	108		9.750	9.750	(1.000)	140022	5.00000	5.175
14 2,2'-oxybis(1-Chloropropane)	121		10.053	10.046	(1.059)	70303	5.00000	4.564 (M)
13 2-Methylphenol	108		9.968	9.960	(1.000)	201667	5.00000	4.885
17 Hexachloroethane	117		10.480	10.472	(1.000)	118357	5.00000	4.983
16 N-Nitroso-di-n-propylamine	70		10.317	10.309	(1.000)	160354	5.00000	4.904
15 4-Methylphenol	108		10.232	10.232	(1.000)	247275	5.00000	4.989
\$ 18 Nitrobenzene-d5	82		10.596	10.589	(0.884)	278619	5.00000	5.050
19 Nitrobenzene	77		10.627	10.628	(0.886)	263341	5.00000	4.939
20 Isophorone	82		11.070	11.062	(0.923)	357517	5.00000	5.632
21 2-Nitrophenol	139		11.257	11.249	(0.939)	135168	5.00000	4.781
22 2,4-Dimethylphenol	107		11.282	11.283	(0.941)	513724	10.00000	9.867
23 Bis(2-Chloroethoxy)methane	93		11.495	11.486	(0.959)	197856	5.00000	4.876
24 Benzoic acid	105		11.486	11.359	(0.958)	678934	20.00000	18.64
25 2,4-Dichlorophenol	162		11.707	11.698	(0.976)	415427	10.00000	10.16
26 1,2,4-Trichlorobenzene	180		11.898	11.898	(0.992)	282554	5.00000	4.823
* 27 Naphthalene-d8	136		11.991	11.983	(1.000)	493698	4.00000	
28 Naphthalene	128		12.029	12.022	(1.003)	670537	5.00000	4.868
29 4-Chloroaniline	127		12.153	12.145	(1.014)	506411	10.00000	9.991
30 Hexachlorobutadiene	225		12.385	12.377	(1.033)	155707	5.00000	4.820
31 4-Chloro-3-methylphenol	107		13.097	13.089	(1.092)	444489	10.00000	9.972
32 2-Methylnaphthalene	142		13.429	13.422	(1.120)	508214	5.00000	4.935
33 Hexachlorocyclopentadiene	237		13.894	13.886	(0.890)	347002	10.00000	9.994
34 2,4,6-Trichlorophenol	196		14.048	14.041	(0.899)	346788	10.00000	10.14

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	14.118	14.111	(0.904)	376877	10.0000	10.11
\$ 36 2-Fluorobiphenyl	172	14.211	14.203	(0.910)	588399	5.00000	4.868
37 2-Chloronaphthalene	162	14.428	14.420	(0.924)	468169	5.00000	4.918
38 2-Nitroaniline	65	14.683	14.676	(0.940)	282277	10.0000	10.21
39 Dimethylphthalate	163	15.109	15.101	(0.967)	539712	5.00000	5.042
40 Acenaphthylene	152	15.310	15.303	(0.980)	749704	5.00000	5.045
41 2,6-Dinitrotoluene	165	15.256	15.248	(0.977)	247080	10.0000	10.23
* 42 Acenaphthene-d10	164	15.619	15.612	(1.000)	279210	4.00000	
43 3-Nitroaniline	138	15.542	15.527	(0.995)	235788	10.0000	9.913
44 Acenaphthene	153	15.689	15.682	(1.004)	462915	5.00000	4.898
45 2,4-Dinitrophenol	184	15.759	15.743	(1.009)	348285	20.0000	18.07
46 Dibenzofuran	168	16.014	16.006	(1.025)	682634	5.00000	4.954
47 4-Nitrophenol	109	15.836	15.828	(1.014)	215878	10.0000	9.646
48 2,4-Dinitrotoluene	165	16.068	16.060	(1.029)	332505	10.0000	9.545
50 Diethylphthalate	149	16.570	16.555	(1.061)	546271	5.00000	4.915
49 Fluorene	166	16.733	16.725	(1.071)	550738	5.00000	4.845
51 4-Chlorophenyl-phenylether	204	16.717	16.702	(1.070)	280352	5.00000	4.952
52 4-Nitroaniline	138	16.825	16.810	(1.077)	225829	10.0000	9.638
53 4,6-Dinitro-2-methylphenol	198	16.910	16.902	(0.905)	397119	20.0000	18.88
54 N-Nitrosodiphenylamine	169	16.964	16.956	(0.908)	339039	5.00000	4.920
\$ 55 2,4,6-Tribromophenol	330	17.272	17.265	(1.106)	100361	7.50000	7.203
56 4-Bromophenyl-phenylether	248	17.727	17.712	(0.949)	161429	5.00000	4.962
57 Hexachlorobenzene	284	18.052	18.044	(0.966)	162556	5.00000	4.979
58 Pentachlorophenol	266	18.408	18.393	(0.986)	218051	10.0000	9.371
* 59 Phenanthrene-d10	188	18.679	18.671	(1.000)	521463	4.00000	
60 Phenanthrene	178	18.733	18.718	(1.003)	751088	5.00000	4.909
61 Anthracene	178	18.826	18.811	(1.008)	718254	5.00000	5.080
62 Carbazole	167	19.143	19.136	(1.025)	567437	5.00000	4.534
63 Di-n-butylphthalate	149	19.909	19.901	(1.066)	920604	5.00000	4.807
64 Fluoranthene	202	21.093	21.085	(0.890)	887512	5.00000	5.374
65 Pyrene	202	21.518	21.503	(0.908)	883274	5.00000	5.354
\$ 66 Terphenyl-d14	244	21.789	21.774	(0.919)	684868	5.00000	5.249
67 Butylbenzylphthalate	149	22.703	22.687	(0.958)	360782	5.00000	4.887
68 Benzo(a)anthracene	228	23.671	23.655	(0.999)	757979	5.00000	5.176
* 69 Chrysene-d12	240	23.702	23.686	(1.000)	369911	4.00000	
70 3,3'-Dichlorobenzidine	252	23.616	23.601	(0.996)	595388	15.0000	12.74
71 Chrysene	228	23.748	23.733	(1.002)	647803	5.00000	4.942
72 bis(2-Ethylhexyl)phthalate	149	23.717	23.702	(0.958)	480301	5.00000	5.321
* 134 Di-n-octylphthalate-d4	153	24.747	24.724	(1.000)	626668	4.00000	
73 Di-n-octylphthalate	149	24.754	24.739	(1.000)	805274	5.00000	4.871
74 Benzo(b)fluoranthene	252	25.691	25.660	(0.968)	645589	5.00000	5.048
75 Benzo(k)fluoranthene	252	25.738	25.715	(0.969)	649415	5.00000	5.117
76 Benzo(a)pyrene	252	26.419	26.388	(0.995)	546631	5.00000	5.106
* 77 Perylene-d12	264	26.551	26.520	(1.000)	311339	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.545	29.483	(1.113)	650515	5.00000	5.058
79 Dibenzo(a,h)anthracene	278	29.545	29.491	(1.113)	532348	5.00000	4.943
80 Benzo(g,h,i)perylene	276	30.422	30.353	(1.146)	516165	5.00000	5.035
90 N-Nitrosodimethylamine	74	5.075	5.083	(1.000)	225196	10.0000	9.548
91 Aniline	93	8.945	8.938	(1.000)	451845	10.0000	9.740
93 Benzidine	184	21.317	21.310	(0.899)	530664	10.0000	8.635
103 Pyridine	79	5.098	5.144	(1.000)	341735	10.0000	9.189
105 1-methylnaphthalene	142	13.654	13.646	(1.139)	462239	5.00000	4.896
111 Azobenzene (1,2-DP-Hydrazine)	77	17.041	17.034	(1.091)	544713	5.00000	5.016
187 Total Benzofluoranthenes	252	25.691	25.660	(0.968)	1248017	10.0000	10.14

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====		====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		16.346	16.339	(1.047)	177328	5.00000	4.781

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012304.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-CAL5
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	144303	0.00
27 Naphthalene-d8	493698	246849	987396	493698	0.00
42 Acenaphthene-d10	279210	139605	558420	279210	0.00
59 Phenanthrene-d10	521463	260732	1042926	521463	0.00
69 Chrysene-d12	369911	184956	739822	369911	0.00
134 Di-n-octylphthala	626668	313334	1253336	626668	0.00
77 Perylene-d12	311339	155670	622678	311339	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	0.00
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
134 Di-n-octylphthala	24.75	24.25	25.25	24.75	0.00
77 Perylene-d12	26.55	26.05	27.05	26.55	0.00

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

REVIEW SUMMARY FOR FILE - NT1005012304.D

Lab ID: SLE0036-CAL5
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 16:10

RT	CO-ELUTION COMPOUNDS
29.545	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
29.545	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.958	0.948	0.0100	Benzoic acid

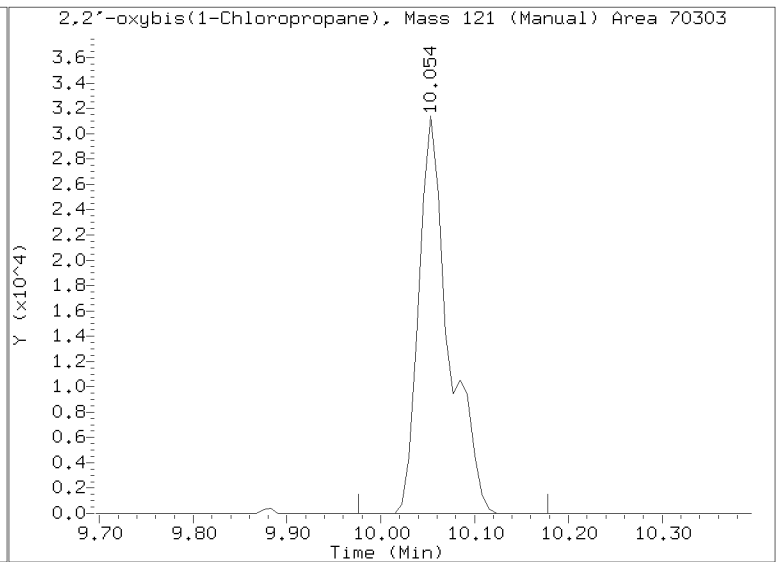
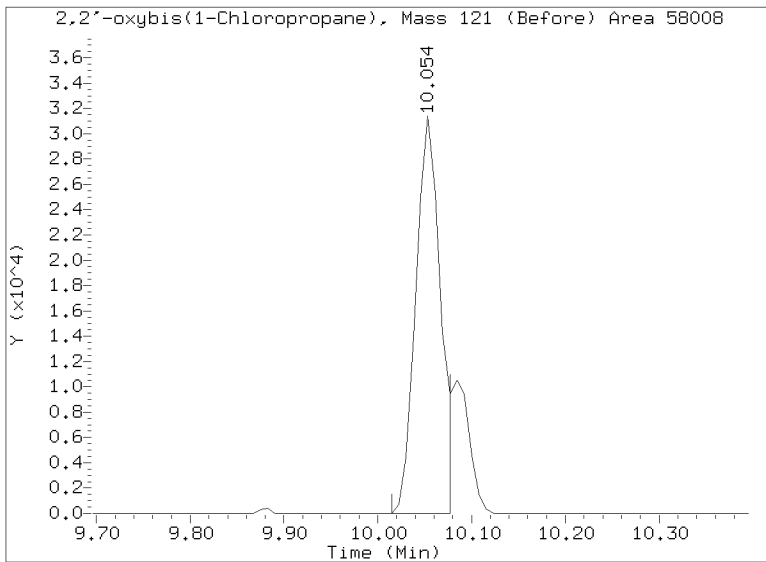
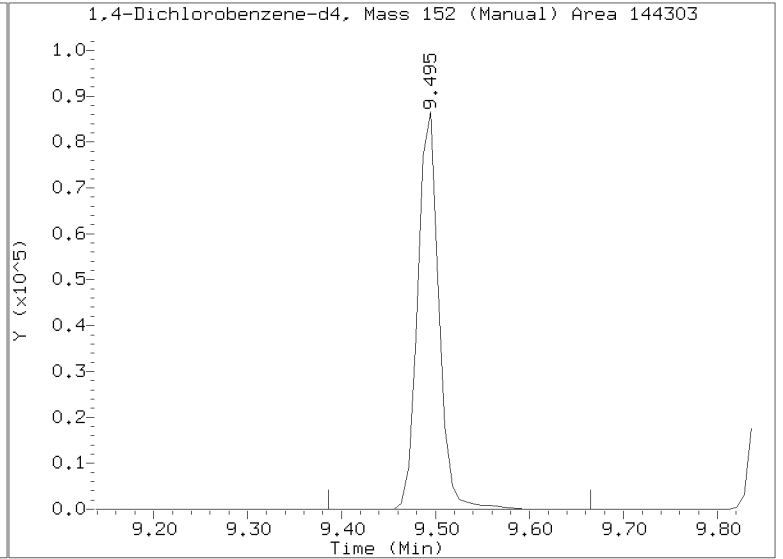
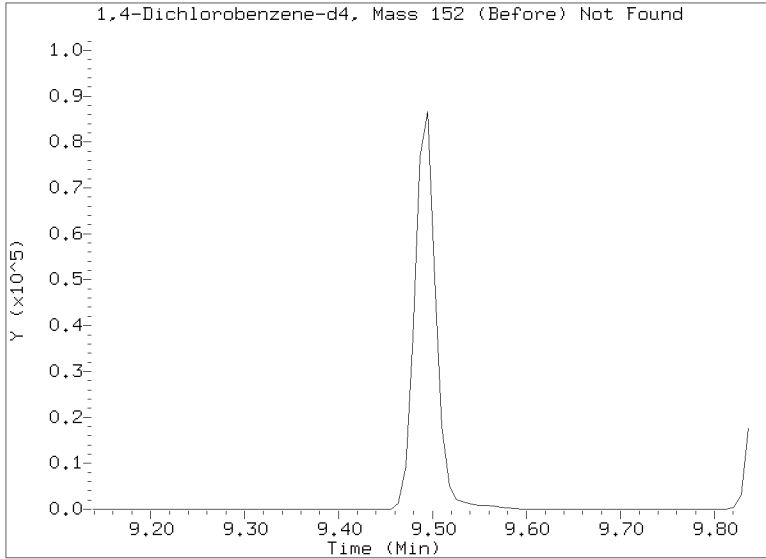
RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012304.D
Injection Date: 01-MAY-2023 16:10
Lab ID: SLE0036-CAL5 Client ID:
Report Date: 05/08/2023 09:57



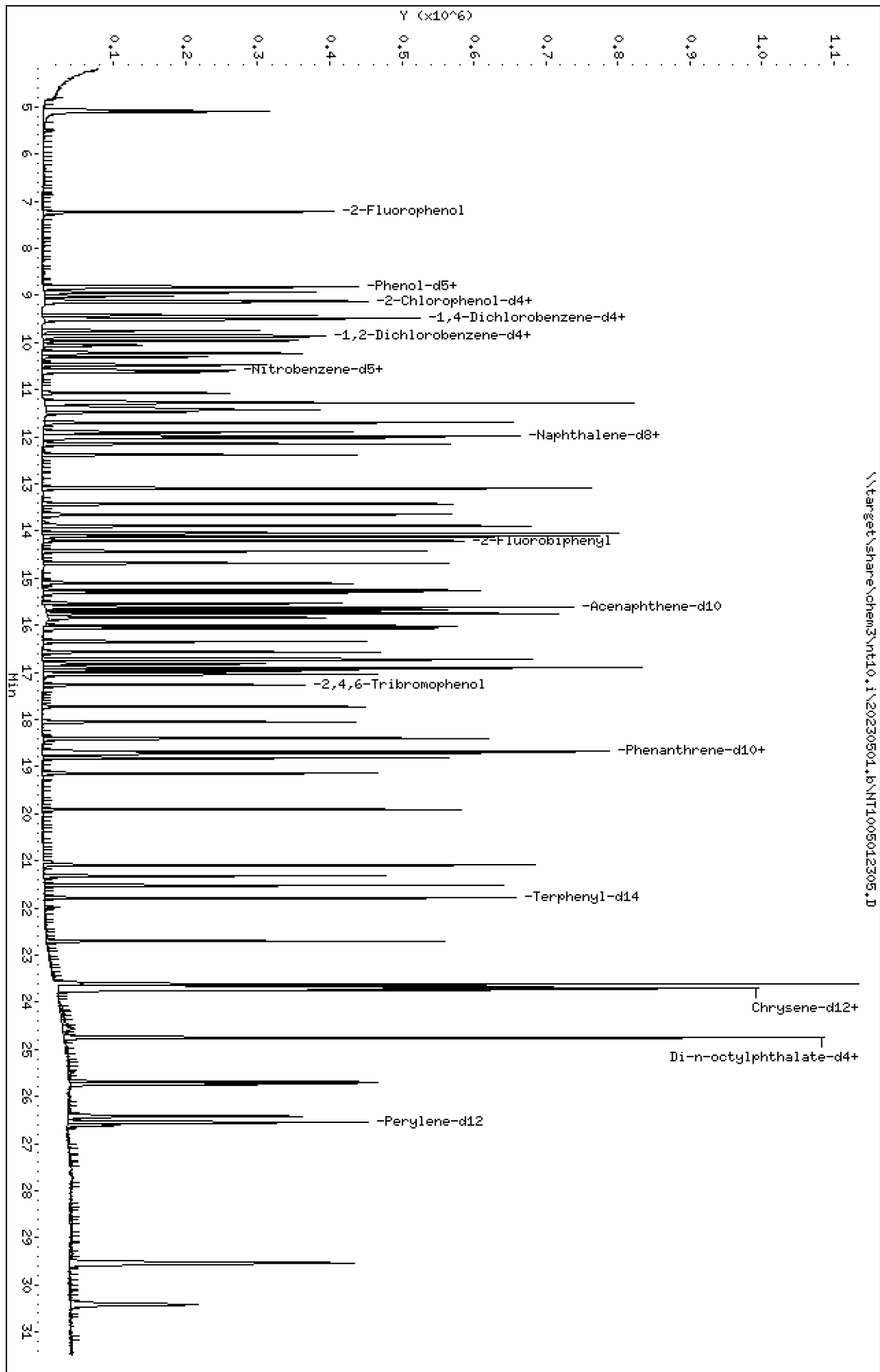
APPROVED

By Deenay Dunmore at 10:01 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012305.D
Date: 01-May-2023 16:49
Client ID:
Sample Info: SLE0036-CAL4
Column phase: ZB-5msi

Instrument: nt10.1
Operator: VTS
Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501_b\NT1005012305.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012305.D
 Lab Smp Id: SLE0036-CAL4
 Inj Date : 01-MAY-2023 16:49
 Operator : VTS
 Smp Info : SLE0036-CAL4
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd
 Cal Date : 01-MAY-2023 16:49
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1005012305.D
 Calibration Sample, Level: 4
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112			7.230	7.230	(1.000)	162677	3.75000	3.861
\$ 2 Phenol-d5	99			8.814	8.814	(1.000)	195639	3.75000	3.851
3 Phenol	94			8.837	8.837	(1.000)	139469	2.50000	2.568
\$ 5 2-Chlorophenol-d4	132			9.123	9.123	(1.000)	185917	3.75000	3.819
4 Bis(2-Chloroethyl)ether	93			9.023	9.023	(1.000)	98543	2.50000	2.507
6 2-Chlorophenol	128			9.146	9.146	(1.000)	120085	2.50000	2.507
7 1,3-Dichlorobenzene	146			9.425	9.425	(1.000)	134376	2.50000	2.490
* 8 1,4-Dichlorobenzene-d4	152			9.487	9.487	(1.000)	139256	4.00000	(M)
9 1,4-Dichlorobenzene	146			9.526	9.518	(1.000)	128870	2.50000	2.431
\$ 10 1,2-Dichlorobenzene-d4	152			9.852	9.851	(1.000)	89831	2.50000	2.501
12 1,2-Dichlorobenzene	146			9.883	9.875	(1.000)	127611	2.50000	2.479
11 Benzyl alcohol	108			9.751	9.750	(1.000)	66025	2.50000	2.529
14 2,2'-oxybis(1-Chloropropane)	121			10.053	10.046	(1.060)	36099	2.50000	2.428 (M)
13 2-Methylphenol	108			9.960	9.960	(1.000)	101125	2.50000	2.538
17 Hexachloroethane	117			10.480	10.472	(1.000)	57676	2.50000	2.516
16 N-Nitroso-di-n-propylamine	70			10.310	10.309	(1.000)	81800	2.50000	2.592
15 4-Methylphenol	108			10.232	10.232	(1.000)	116167	2.50000	2.429
\$ 18 Nitrobenzene-d5	82			10.589	10.589	(0.883)	138218	2.50000	2.579
19 Nitrobenzene	77			10.628	10.628	(0.886)	135658	2.50000	2.619
20 Isophorone	82			11.070	11.062	(0.923)	156609	2.50000	2.540
21 2-Nitrophenol	139			11.257	11.249	(0.939)	61872	2.50000	2.248
22 2,4-Dimethylphenol	107			11.283	11.283	(0.941)	253228	5.00000	5.006
23 Bis(2-Chloroethoxy)methane	93			11.486	11.486	(0.958)	99370	2.50000	2.521
24 Benzoic acid	105			11.435	11.359	(0.954)	311612	10.0000	8.861
25 2,4-Dichlorophenol	162			11.707	11.698	(0.976)	202599	5.00000	5.099
26 1,2,4-Trichlorobenzene	180			11.898	11.898	(0.992)	142270	2.50000	2.500
* 27 Naphthalene-d8	136			11.991	11.983	(1.000)	479621	4.00000	
28 Naphthalene	128			12.030	12.022	(1.003)	329969	2.50000	2.466
29 4-Chloroaniline	127			12.153	12.145	(1.014)	245258	5.00000	4.981
30 Hexachlorobutadiene	225			12.385	12.377	(1.033)	78674	2.50000	2.507
31 4-Chloro-3-methylphenol	107			13.097	13.089	(1.092)	210974	5.00000	4.872
32 2-Methylnaphthalene	142			13.430	13.422	(1.120)	249702	2.50000	2.496
33 Hexachlorocyclopentadiene	237			13.894	13.886	(0.890)	164839	5.00000	4.859
34 2,4,6-Trichlorophenol	196			14.041	14.041	(0.899)	163950	5.00000	4.906

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	14.118	14.111	(0.904)	178612	5.00000	4.901
\$ 36 2-Fluorobiphenyl	172	14.211	14.203	(0.910)	289142	2.50000	2.448
37 2-Chloronaphthalene	162	14.428	14.420	(0.924)	230574	2.50000	2.478
38 2-Nitroaniline	65	14.683	14.676	(0.940)	142323	5.00000	5.268
39 Dimethylphthalate	163	15.109	15.101	(0.967)	267401	2.50000	2.556
40 Acenaphthylene	152	15.310	15.303	(0.980)	366044	2.50000	2.521
41 2,6-Dinitrotoluene	165	15.256	15.248	(0.977)	118225	5.00000	5.007
* 42 Acenaphthene-d10	164	15.620	15.612	(1.000)	272839	4.00000	
43 3-Nitroaniline	138	15.543	15.527	(0.995)	113292	5.00000	4.874
44 Acenaphthene	153	15.689	15.682	(1.004)	227987	2.50000	2.469
45 2,4-Dinitrophenol	184	15.751	15.743	(1.008)	143085	10.00000	7.775
46 Dibenzofuran	168	16.014	16.006	(1.025)	339092	2.50000	2.518
47 4-Nitrophenol	109	15.836	15.828	(1.014)	100625	5.00000	4.625
48 2,4-Dinitrotoluene	165	16.068	16.060	(1.029)	161624	5.00000	4.777
50 Diethylphthalate	149	16.571	16.555	(1.061)	271054	2.50000	2.496
49 Fluorene	166	16.733	16.725	(1.071)	273086	2.50000	2.458
51 4-Chlorophenyl-phenylether	204	16.710	16.702	(1.070)	136665	2.50000	2.471
52 4-Nitroaniline	138	16.818	16.810	(1.077)	88491	5.00000	3.898
53 4,6-Dinitro-2-methylphenol	198	16.910	16.902	(0.905)	180156	10.00000	8.710
54 N-Nitrosodiphenylamine	169	16.964	16.956	(0.908)	168360	2.50000	2.437
\$ 55 2,4,6-Tribromophenol	330	17.273	17.265	(1.106)	45436	3.75000	3.413
56 4-Bromophenyl-phenylether	248	17.728	17.712	(0.949)	79629	2.50000	2.442
57 Hexachlorobenzene	284	18.052	18.044	(0.966)	79737	2.50000	2.436
58 Pentachlorophenol	266	18.401	18.393	(0.985)	95167	5.00000	4.190
* 59 Phenanthrene-d10	188	18.679	18.671	(1.000)	522698	4.00000	
60 Phenanthrene	178	18.726	18.718	(1.002)	370600	2.50000	2.416
61 Anthracene	178	18.818	18.811	(1.007)	348512	2.50000	2.459
62 Carbazole	167	19.143	19.136	(1.025)	301723	2.50000	2.405
63 Di-n-butylphthalate	149	19.909	19.901	(1.066)	437568	2.50000	2.308
64 Fluoranthene	202	21.093	21.085	(0.890)	437912	2.50000	2.593
65 Pyrene	202	21.519	21.503	(0.908)	430327	2.50000	2.550
\$ 66 Terphenyl-d14	244	21.789	21.774	(0.919)	335344	2.50000	2.513
67 Butylbenzylphthalate	149	22.703	22.687	(0.958)	169922	2.50000	2.193
68 Benzo(a)anthracene	228	23.671	23.655	(0.999)	374717	2.50000	2.502
* 69 Chrysene-d12	240	23.702	23.686	(1.000)	378327	4.00000	
70 3,3'-Dichlorobenzidine	252	23.617	23.601	(0.996)	326864	7.50000	7.003
71 Chrysene	228	23.748	23.733	(1.002)	334740	2.50000	2.497
72 bis(2-Ethylhexyl)phthalate	149	23.717	23.702	(0.958)	231367	2.50000	2.665
* 134 Di-n-octylphthalate-d4	153	24.747	24.724	(1.000)	602724	4.00000	
73 Di-n-octylphthalate	149	24.755	24.739	(1.000)	391633	2.50000	2.463
74 Benzo(b)fluoranthene	252	25.692	25.660	(0.968)	330014	2.50000	2.443
75 Benzo(k)fluoranthene	252	25.738	25.715	(0.969)	315336	2.50000	2.353
76 Benzo(a)pyrene	252	26.419	26.388	(0.995)	271414	2.50000	2.401
* 77 Perylene-d12	264	26.551	26.520	(1.000)	328795	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.530	29.483	(1.112)	326649	2.50000	2.405
79 Dibenzo(a,h)anthracene	278	29.545	29.491	(1.113)	268349	2.50000	2.359
80 Benzo(g,h,i)perylene	276	30.415	30.353	(1.146)	263487	2.50000	2.434
90 N-Nitrosodimethylamine	74	5.067	5.083	(1.000)	114967	5.00000	5.051
91 Aniline	93	8.938	8.938	(1.000)	225323	5.00000	5.033
93 Benzidine	184	21.317	21.310	(0.899)	272765	5.00000	4.434
103 Pyridine	79	5.098	5.144	(1.000)	183921	5.00000	5.124
105 1-methylnaphthalene	142	13.654	13.646	(1.139)	230884	2.50000	2.517
111 Azobenzene (1,2-DP-Hydrazine)	77	17.041	17.034	(1.091)	272137	2.50000	2.565
187 Total Benzofluoranthenes	252	25.692	25.660	(0.968)	622226	5.00000	4.786

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		16.346	16.339	(1.047)	82028	2.50000	2.304

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012305.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-CAL4
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	139256	-3.50
27 Naphthalene-d8	493698	246849	987396	479621	-2.85
42 Acenaphthene-d10	279210	139605	558420	272839	-2.28
59 Phenanthrene-d10	521463	260732	1042926	522698	0.24
69 Chrysene-d12	369911	184956	739822	378327	2.28
134 Di-n-octylphthala	626668	313334	1253336	602724	-3.82
77 Perylene-d12	311339	155670	622678	328795	5.61

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
134 Di-n-octylphthala	24.75	24.25	25.25	24.75	0.00
77 Perylene-d12	26.55	26.05	27.05	26.55	0.00

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

REVIEW SUMMARY FOR FILE - NT1005012305.D

Lab ID: SLE0036-CAL4
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 16:49

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.954	0.948	0.0058	Benzoic acid

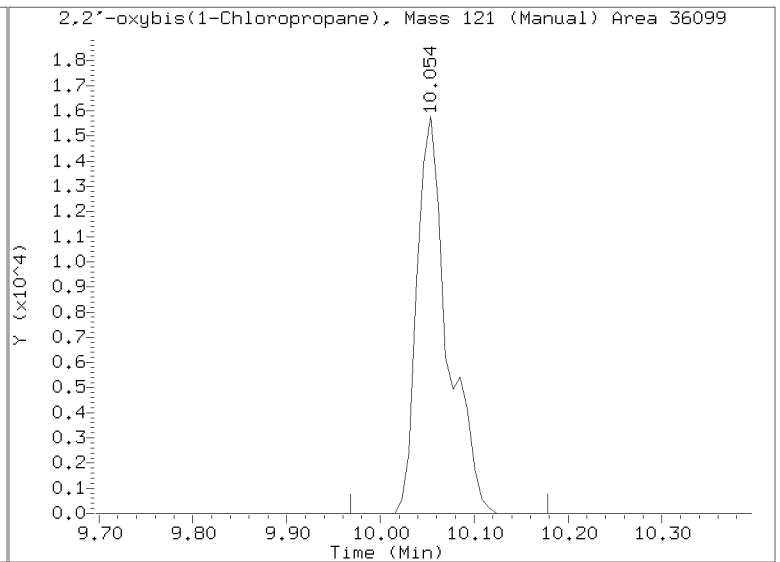
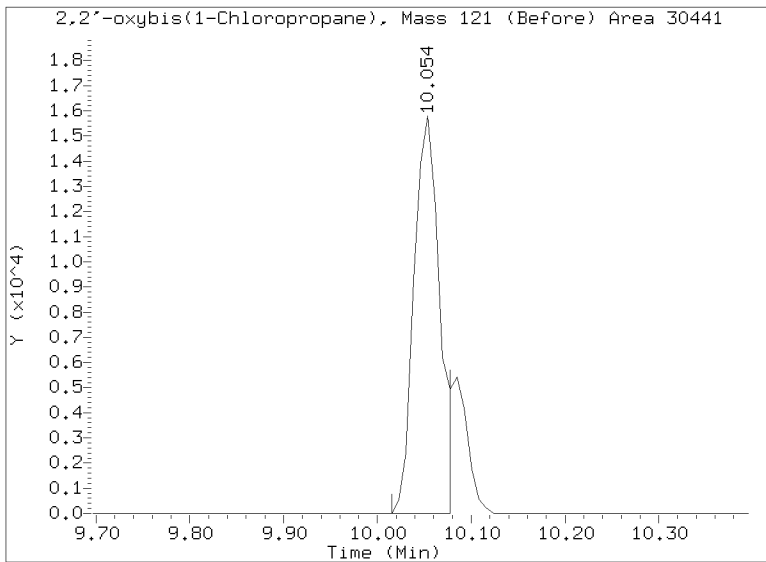
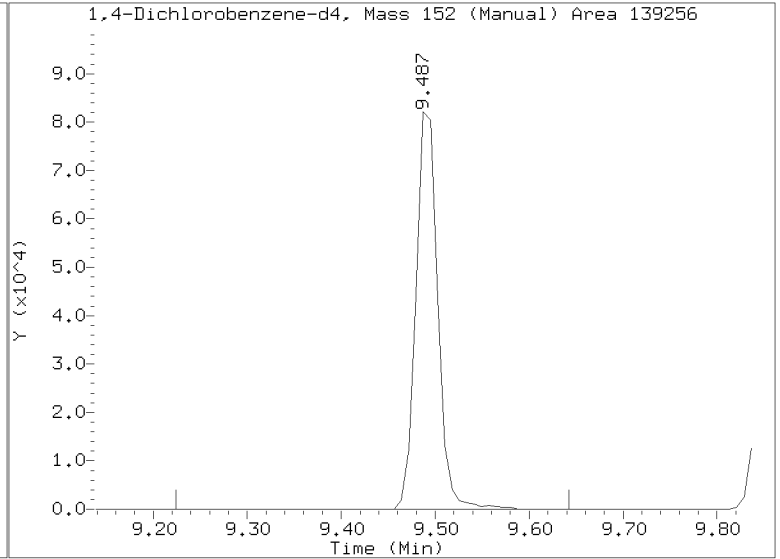
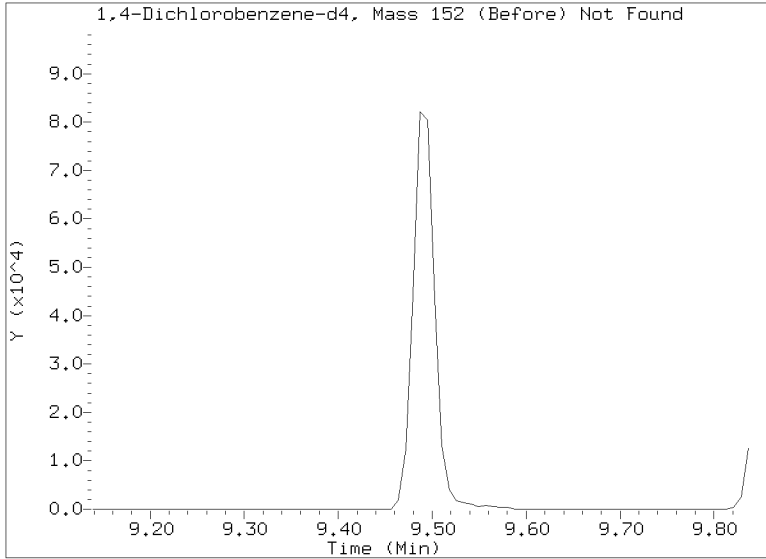
RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012305.D
Injection Date: 01-MAY-2023 16:49
Lab ID: SLE0036-CAL4 Client ID:
Report Date: 05/08/2023 09:57



APPROVED
By Deenay Dunmore at 10:02 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012306.D

Date: 01-May-2023 17:28

Client ID:

Sample Info: SLE0036-CAL3

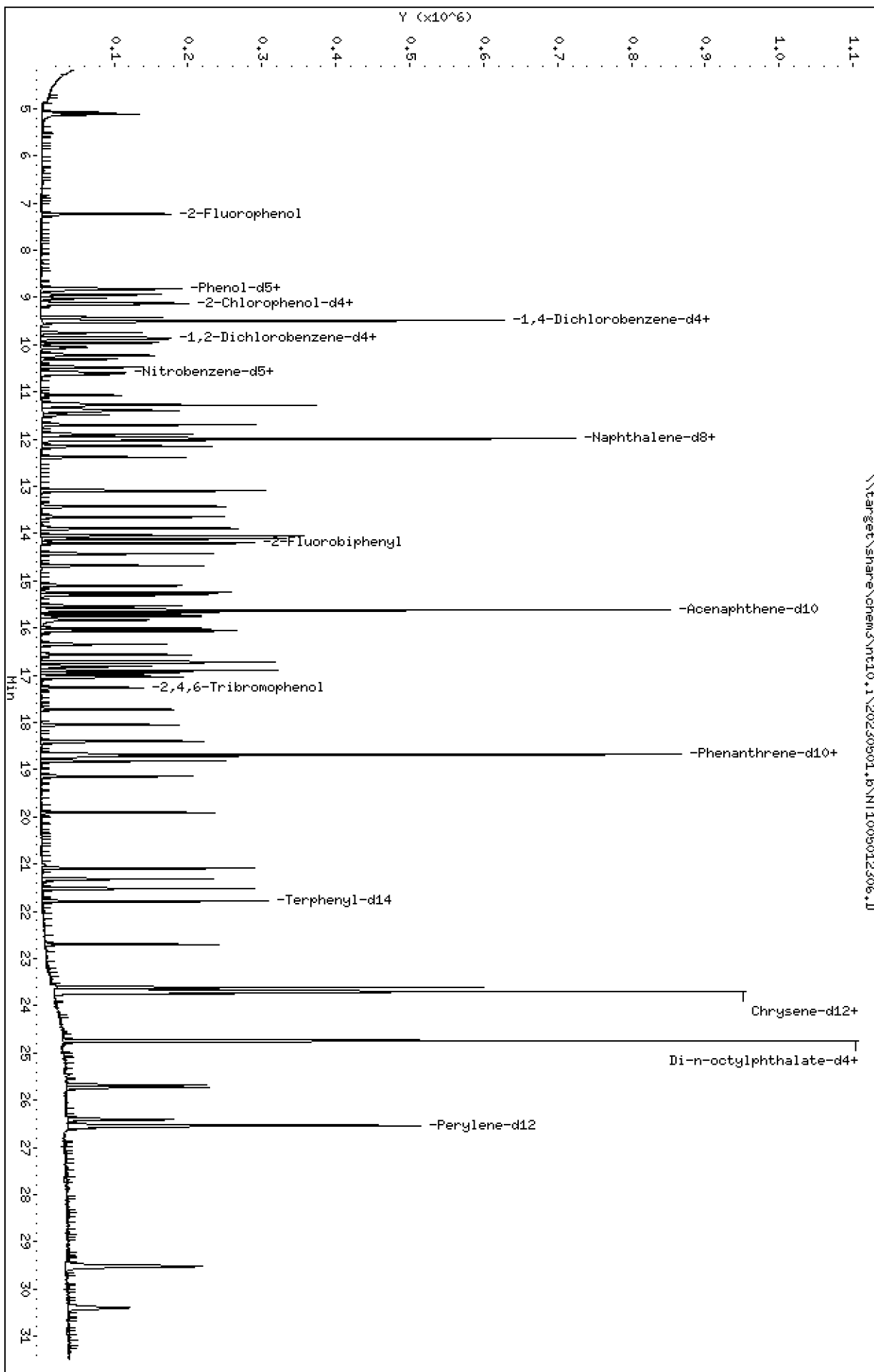
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501_b\NT1005012306.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012306.D
 Lab Smp Id: SLE0036-CAL3
 Inj Date : 01-MAY-2023 17:28
 Operator : VTS
 Smp Info : SLE0036-CAL3
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd
 Cal Date : 01-MAY-2023 17:28
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1005012306.D
 Calibration Sample, Level: 3
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112			7.238	7.230	(1.000)	71842	1.50000	1.464
\$ 2 Phenol-d5	99			8.814	8.814	(1.000)	84947	1.50000	1.436
3 Phenol	94			8.837	8.837	(1.000)	61613	1.00000	0.9740
\$ 5 2-Chlorophenol-d4	132			9.123	9.123	(1.000)	80540	1.50000	1.421
4 Bis(2-Chloroethyl)ether	93			9.022	9.023	(1.000)	46738	1.00000	1.021
6 2-Chlorophenol	128			9.146	9.146	(1.000)	54351	1.00000	0.9744
7 1,3-Dichlorobenzene	146			9.432	9.425	(1.000)	60657	1.00000	0.9652
* 8 1,4-Dichlorobenzene-d4	152			9.494	9.487	(1.000)	162166	4.00000	(M)
9 1,4-Dichlorobenzene	146			9.525	9.518	(1.000)	60068	1.00000	0.9730
\$ 10 1,2-Dichlorobenzene-d4	152			9.851	9.851	(1.000)	39960	1.00000	0.9554
12 1,2-Dichlorobenzene	146			9.882	9.875	(1.000)	57427	1.00000	0.9581
11 Benzyl alcohol	108			9.750	9.750	(1.000)	29476	1.00000	0.9694
14 2,2'-oxybis(1-Chloropropane)	121			10.053	10.046	(1.059)	15888	1.00000	0.9178 (M)
13 2-Methylphenol	108			9.960	9.960	(1.000)	44801	1.00000	0.9656
17 Hexachloroethane	117			10.480	10.472	(1.000)	25930	1.00000	0.9714
16 N-Nitroso-di-n-propylamine	70			10.309	10.309	(1.000)	36077	1.00000	0.9817
15 4-Methylphenol	108			10.232	10.232	(1.000)	53567	1.00000	0.9617
\$ 18 Nitrobenzene-d5	82			10.589	10.589	(0.883)	63255	1.00000	1.049
19 Nitrobenzene	77			10.628	10.628	(0.886)	60128	1.00000	1.032
20 Isophorone	82			11.070	11.062	(0.923)	67891	1.00000	0.9784
21 2-Nitrophenol	139			11.257	11.249	(0.939)	26205	1.00000	0.8454
22 2,4-Dimethylphenol	107			11.283	11.283	(0.941)	111382	2.00000	1.957
23 Bis(2-Chloroethoxy)methane	93			11.486	11.486	(0.958)	44623	1.00000	1.006
24 Benzoic acid	105			11.401	11.359	(0.951)	119940	4.00000	3.042
25 2,4-Dichlorophenol	162			11.698	11.698	(0.976)	87924	2.00000	1.966
26 1,2,4-Trichlorobenzene	180			11.898	11.898	(0.992)	64572	1.00000	1.008
* 27 Naphthalene-d8	136			11.991	11.983	(1.000)	539712	4.00000	
28 Naphthalene	128			12.029	12.022	(1.003)	151373	1.00000	1.005
29 4-Chloroaniline	127			12.153	12.145	(1.014)	106578	2.00000	1.923
30 Hexachlorobutadiene	225			12.385	12.377	(1.033)	35443	1.00000	1.004
31 4-Chloro-3-methylphenol	107			13.097	13.089	(1.092)	92449	2.00000	1.897
32 2-Methylnaphthalene	142			13.430	13.422	(1.120)	108743	1.00000	0.9659
33 Hexachlorocyclopentadiene	237			13.894	13.886	(0.890)	68104	2.00000	1.791
34 2,4,6-Trichlorophenol	196			14.041	14.041	(0.899)	68513	2.00000	1.829

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	14.111	14.111	(0.903)	74064	2.00000	1.813
\$ 36 2-Fluorobiphenyl	172	14.203	14.203	(0.909)	131207	1.00000	0.9912
37 2-Chloronaphthalene	162	14.428	14.420	(0.924)	104132	1.00000	0.9988
38 2-Nitroaniline	65	14.683	14.676	(0.940)	57239	2.00000	1.890
39 Dimethylphthalate	163	15.109	15.101	(0.967)	118489	1.00000	1.011
40 Acenaphthylene	152	15.303	15.303	(0.980)	162842	1.00000	1.001
41 2,6-Dinitrotoluene	165	15.248	15.248	(0.976)	49504	2.00000	1.871
* 42 Acenaphthene-d10	164	15.620	15.612	(1.000)	305754	4.00000	
43 3-Nitroaniline	138	15.535	15.527	(0.995)	48793	2.00000	1.873
44 Acenaphthene	153	15.689	15.682	(1.004)	101786	1.00000	0.9834
45 2,4-Dinitrophenol	184	15.751	15.743	(1.008)	49007	4.00000	2.404
46 Dibenzofuran	168	16.014	16.006	(1.025)	148060	1.00000	0.9811
47 4-Nitrophenol	109	15.828	15.828	(1.013)	39582	2.00000	1.629
48 2,4-Dinitrotoluene	165	16.060	16.060	(1.028)	66923	2.00000	1.772
50 Diethylphthalate	149	16.563	16.555	(1.060)	118707	1.00000	0.9753
49 Fluorene	166	16.733	16.725	(1.071)	121383	1.00000	0.9750
51 4-Chlorophenyl-phenylether	204	16.710	16.702	(1.070)	59478	1.00000	0.9595
52 4-Nitroaniline	138	16.810	16.810	(1.076)	40151	2.00000	1.583
53 4,6-Dinitro-2-methylphenol	198	16.902	16.902	(0.905)	68698	4.00000	3.079
54 N-Nitrosodiphenylamine	169	16.956	16.956	(0.908)	77820	1.00000	1.034
\$ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	18231	1.50000	1.237
56 4-Bromophenyl-phenylether	248	17.727	17.712	(0.949)	34480	1.00000	0.9702
57 Hexachlorobenzene	284	18.052	18.044	(0.966)	35398	1.00000	0.9924
58 Pentachlorophenol	266	18.400	18.393	(0.985)	38553	2.00000	1.577
* 59 Phenanthrene-d10	188	18.679	18.671	(1.000)	569677	4.00000	
60 Phenanthrene	178	18.725	18.718	(1.002)	164366	1.00000	0.9833
61 Anthracene	178	18.818	18.811	(1.007)	153341	1.00000	0.9927
62 Carbazole	167	19.143	19.136	(1.025)	142704	1.00000	1.044
63 Di-n-butylphthalate	149	19.909	19.901	(1.066)	175110	1.00000	0.8532
64 Fluoranthene	202	21.093	21.085	(0.890)	189997	1.00000	0.9702
65 Pyrene	202	21.511	21.503	(0.908)	191820	1.00000	0.9805
\$ 66 Terphenyl-d14	244	21.782	21.774	(0.919)	153372	1.00000	0.9913
67 Butylbenzylphthalate	149	22.695	22.687	(0.958)	71706	1.00000	0.7867
68 Benzo(a)anthracene	228	23.663	23.655	(0.999)	174370	1.00000	1.004
* 69 Chrysene-d12	240	23.694	23.686	(1.000)	438621	4.00000	
70 3,3'-Dichlorobenzidine	252	23.617	23.601	(0.997)	170399	3.00000	3.196
71 Chrysene	228	23.741	23.733	(1.002)	155625	1.00000	1.001
72 bis(2-Ethylhexyl)phthalate	149	23.710	23.702	(0.958)	96321	1.00000	0.9719
* 134 Di-n-octylphthalate-d4	153	24.739	24.724	(1.000)	688022	4.00000	
73 Di-n-octylphthalate	149	24.747	24.739	(1.000)	183238	1.00000	1.009
74 Benzo(b)fluoranthene	252	25.676	25.660	(0.968)	155139	1.00000	0.9562
75 Benzo(k)fluoranthene	252	25.730	25.715	(0.970)	149705	1.00000	0.9298
76 Benzo(a)pyrene	252	26.411	26.388	(0.995)	128378	1.00000	0.9453
* 77 Perylene-d12	264	26.535	26.520	(1.000)	394959	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.514	29.483	(1.112)	152754	1.00000	0.9363
79 Dibenzo(a,h)anthracene	278	29.529	29.491	(1.113)	127481	1.00000	0.9330
80 Benzo(g,h,i)perylene	276	30.399	30.353	(1.146)	124050	1.00000	0.9540
90 N-Nitrosodimethylamine	74	5.082	5.083	(1.000)	51468	2.00000	1.942
91 Aniline	93	8.945	8.938	(1.000)	98773	2.00000	1.895
93 Benzidine	184	21.317	21.310	(0.900)	142247	2.00000	2.018
103 Pyridine	79	5.121	5.144	(1.000)	83888	2.00000	2.007
105 1-methylnaphthalene	142	13.654	13.646	(1.139)	101533	1.00000	0.9837
111 Azobenzene (1,2-DP-Hydrazine)	77	17.033	17.034	(1.091)	118827	1.00000	0.9993
187 Total Benzofluoranthenes	252	25.730	25.660	(0.970)	294137	2.00000	1.883

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		16.346	16.339	(1.047)	32485	1.00000	0.8224

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012306.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-CAL3
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	162166	12.38
27 Naphthalene-d8	493698	246849	987396	539712	9.32
42 Acenaphthene-d10	279210	139605	558420	305754	9.51
59 Phenanthrene-d10	521463	260732	1042926	569677	9.25
69 Chrysene-d12	369911	184956	739822	438621	18.57
134 Di-n-octylphthala	626668	313334	1253336	688022	9.79
77 Perylene-d12	311339	155670	622678	394959	26.86

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	0.00
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
134 Di-n-octylphthala	24.75	24.25	25.25	24.74	-0.03
77 Perylene-d12	26.55	26.05	27.05	26.54	-0.06

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

REVIEW SUMMARY FOR FILE - NT1005012306.D

Lab ID: SLE0036-CAL3
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 17:28

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

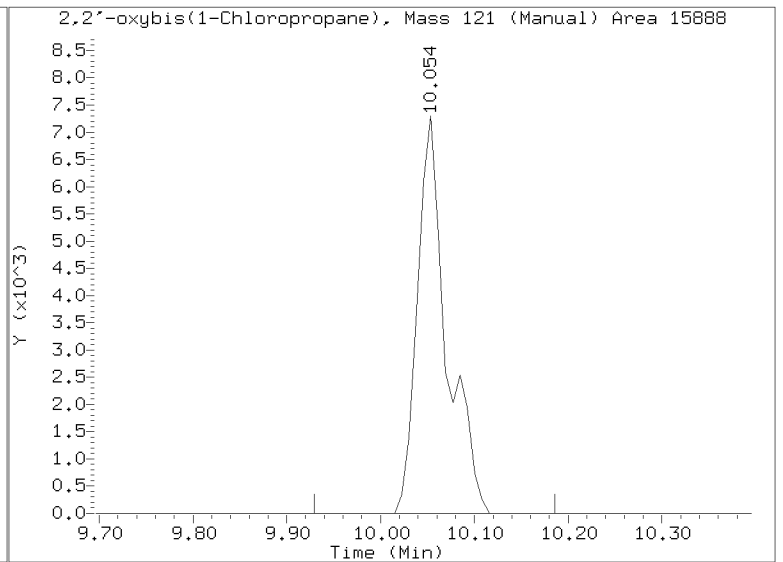
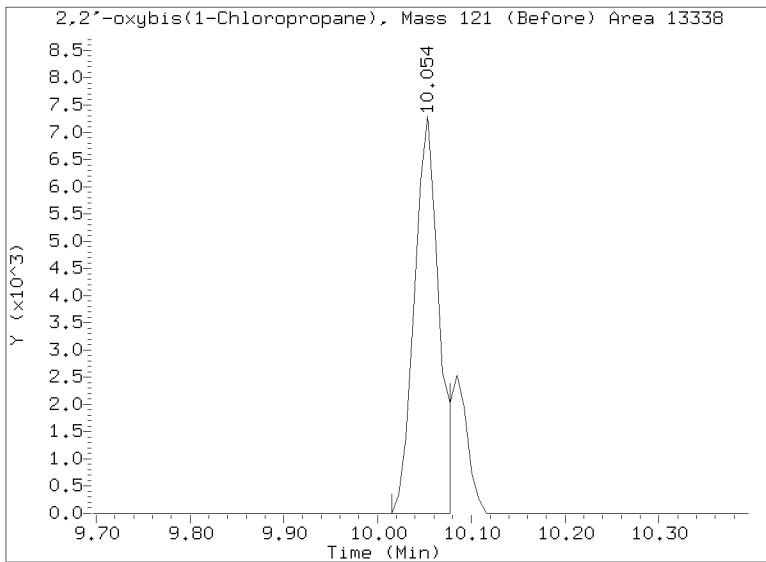
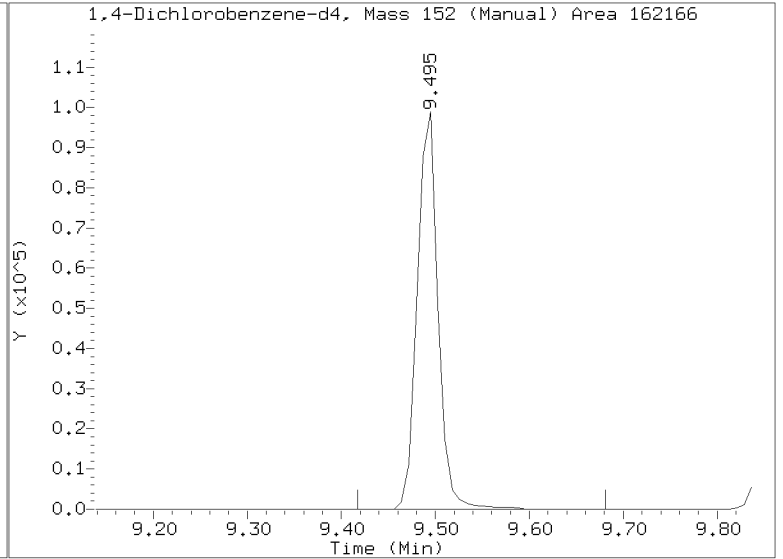
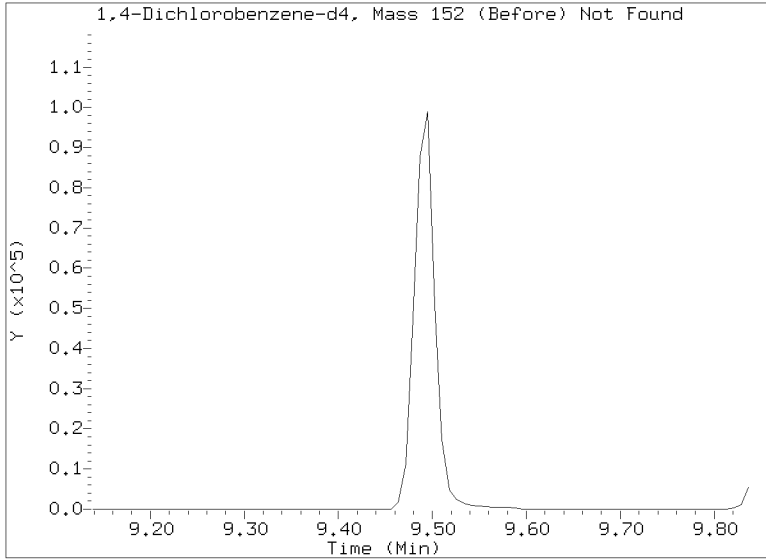
RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012306.D
Injection Date: 01-MAY-2023 17:28
Lab ID: SLE0036-CAL3 Client ID:
Report Date: 05/08/2023 09:57



APPROVED
By Deenay Dunmore at 10:02 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012307.D

Date: 01-May-2023 18:07

Client ID:

Sample Info: SLE0036-CAL2

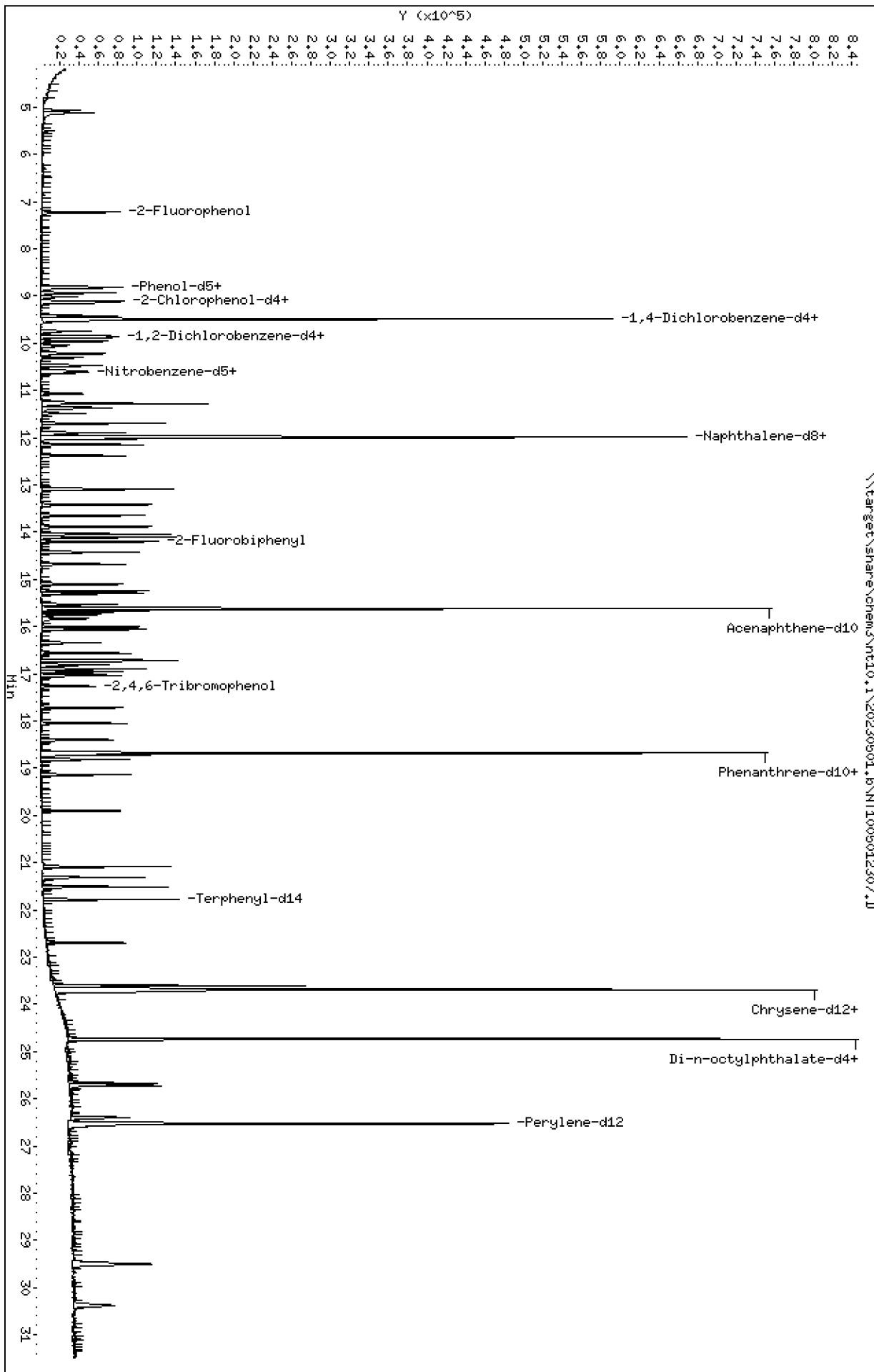
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012307.D
 Lab Smp Id: SLE0036-CAL2
 Inj Date : 01-MAY-2023 18:07
 Operator : VTS
 Smp Info : SLE0036-CAL2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd
 Cal Date : 01-MAY-2023 18:07
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1005012307.D
 Calibration Sample, Level: 2
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112			7.230	7.230	(1.000)	31869	0.75000	0.7158
\$ 2 Phenol-d5	99			8.814	8.814	(1.000)	37269	0.75000	0.6943
3 Phenol	94			8.837	8.837	(1.000)	28106	0.50000	0.4897
\$ 5 2-Chlorophenol-d4	132			9.115	9.123	(1.000)	35978	0.75000	0.6994
4 Bis(2-Chloroethyl)ether	93			9.023	9.023	(1.000)	21041	0.50000	0.5067
6 2-Chlorophenol	128			9.146	9.146	(1.000)	24491	0.50000	0.4840
7 1,3-Dichlorobenzene	146			9.425	9.425	(1.000)	28052	0.50000	0.4920
* 8 1,4-Dichlorobenzene-d4	152			9.487	9.487	(1.000)	147126	4.00000	(M)
9 1,4-Dichlorobenzene	146			9.518	9.518	(1.000)	27759	0.50000	0.4956
\$ 10 1,2-Dichlorobenzene-d4	152			9.852	9.851	(1.000)	18634	0.50000	0.4910
12 1,2-Dichlorobenzene	146			9.875	9.875	(1.000)	26237	0.50000	0.4825
11 Benzyl alcohol	108			9.751	9.750	(1.000)	11859	0.50000	0.4299
14 2,2'-oxybis(1-Chloropropane)	121			10.046	10.046	(1.059)	8035	0.50000	0.5116 (M)
13 2-Methylphenol	108			9.960	9.960	(1.000)	20655	0.50000	0.4907
17 Hexachloroethane	117			10.473	10.472	(1.000)	11370	0.50000	0.4695
16 N-Nitroso-di-n-propylamine	70			10.310	10.309	(1.000)	16367	0.50000	0.4909
15 4-Methylphenol	108			10.224	10.232	(1.000)	24629	0.50000	0.4874
\$ 18 Nitrobenzene-d5	82			10.589	10.589	(0.884)	27070	0.50000	0.4887
19 Nitrobenzene	77			10.628	10.628	(0.887)	27278	0.50000	0.5096
20 Isophorone	82			11.070	11.062	(0.924)	29072	0.50000	0.4562
21 2-Nitrophenol	139			11.257	11.249	(0.939)	10446	0.50000	0.3668
22 2,4-Dimethylphenol	107			11.283	11.283	(0.942)	52044	1.00000	0.9957
23 Bis(2-Chloroethoxy)methane	93			11.486	11.486	(0.959)	21293	0.50000	0.5227
24 Benzoic acid	105			11.376	11.359	(0.949)	39492	2.00000	1.092
25 2,4-Dichlorophenol	162			11.699	11.698	(0.976)	37852	1.00000	0.9218
26 1,2,4-Trichlorobenzene	180			11.898	11.898	(0.993)	29919	0.50000	0.5087
* 27 Naphthalene-d8	136			11.983	11.983	(1.000)	495631	4.00000	
28 Naphthalene	128			12.030	12.022	(1.004)	69069	0.50000	0.4995
29 4-Chloroaniline	127			12.145	12.145	(1.014)	46875	1.00000	0.9212
30 Hexachlorobutadiene	225			12.385	12.377	(1.034)	16382	0.50000	0.5051
31 4-Chloro-3-methylphenol	107			13.089	13.089	(1.092)	39345	1.00000	0.8792
32 2-Methylnaphthalene	142			13.430	13.422	(1.121)	50669	0.50000	0.4901
33 Hexachlorocyclopentadiene	237			13.894	13.886	(0.890)	28652	1.00000	0.8281
34 2,4,6-Trichlorophenol	196			14.041	14.041	(0.899)	27214	1.00000	0.7984

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	14.111	14.111	(0.903)	30334	1.00000	0.8161
\$ 36 2-Fluorobiphenyl	172	14.204	14.203	(0.909)	58979	0.50000	0.4896
37 2-Chloronaphthalene	162	14.428	14.420	(0.924)	47496	0.50000	0.5006
38 2-Nitroaniline	65	14.683	14.676	(0.940)	23498	1.00000	0.8528
39 Dimethylphthalate	163	15.101	15.101	(0.967)	52444	0.50000	0.4916
40 Acenaphthylene	152	15.303	15.303	(0.980)	72177	0.50000	0.4874
41 2,6-Dinitrotoluene	165	15.248	15.248	(0.976)	20511	1.00000	0.8518
* 42 Acenaphthene-d10	164	15.620	15.612	(1.000)	278249	4.00000	
43 3-Nitroaniline	138	15.535	15.527	(0.995)	20206	1.00000	0.8524
44 Acenaphthene	153	15.682	15.682	(1.004)	46335	0.50000	0.4919
45 2,4-Dinitrophenol	184	15.744	15.743	(1.008)	14366	2.00000	0.7770
46 Dibenzofuran	168	16.014	16.006	(1.025)	66016	0.50000	0.4807
47 4-Nitrophenol	109	15.829	15.828	(1.013)	14696	1.00000	0.6651
48 2,4-Dinitrotoluene	165	16.060	16.060	(1.028)	26851	1.00000	0.7822
50 Diethylphthalate	149	16.563	16.555	(1.060)	51944	0.50000	0.4689
49 Fluorene	166	16.725	16.725	(1.071)	54635	0.50000	0.4823
51 4-Chlorophenyl-phenylether	204	16.710	16.702	(1.070)	26494	0.50000	0.4696
52 4-Nitroaniline	138	16.810	16.810	(1.076)	18011	1.00000	0.7814
53 4,6-Dinitro-2-methylphenol	198	16.903	16.902	(0.905)	24240	2.00000	1.222
54 N-Nitrosodiphenylamine	169	16.957	16.956	(0.908)	33209	0.50000	0.4945
\$ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	7502	0.75000	0.5614
56 4-Bromophenyl-phenylether	248	17.720	17.712	(0.949)	15181	0.50000	0.4789
57 Hexachlorobenzene	284	18.044	18.044	(0.966)	15445	0.50000	0.4854
58 Pentachlorophenol	266	18.401	18.393	(0.985)	13163	1.00000	0.6064
* 59 Phenanthrene-d10	188	18.679	18.671	(1.000)	508190	4.00000	
60 Phenanthrene	178	18.726	18.718	(1.002)	73628	0.50000	0.4938
61 Anthracene	178	18.818	18.811	(1.007)	64933	0.50000	0.4712
62 Carbazole	167	19.136	19.136	(1.024)	62098	0.50000	0.5091
63 Di-n-butylphthalate	149	19.909	19.901	(1.066)	71030	0.50000	0.3888
64 Fluoranthene	202	21.085	21.085	(0.890)	80955	0.50000	0.4602
65 Pyrene	202	21.511	21.503	(0.908)	82584	0.50000	0.4699
\$ 66 Terphenyl-d14	244	21.782	21.774	(0.919)	67463	0.50000	0.4854
67 Butylbenzylphthalate	149	22.695	22.687	(0.958)	27273	0.50000	0.3315
68 Benzo(a)anthracene	228	23.655	23.655	(0.998)	76803	0.50000	0.4924
* 69 Chrysene-d12	240	23.694	23.686	(1.000)	394033	4.00000	
70 3,3'-Dichlorobenzidine	252	23.609	23.601	(0.996)	74000	1.50000	1.555
71 Chrysene	228	23.733	23.733	(1.002)	74447	0.50000	0.5332
72 bis(2-Ethylhexyl)phthalate	149	23.702	23.702	(0.958)	40715	0.50000	0.4681
* 134 Di-n-octylphthalate-d4	153	24.732	24.724	(1.000)	603762	4.00000	
73 Di-n-octylphthalate	149	24.747	24.739	(1.001)	81548	0.50000	0.5120
74 Benzo(b)fluoranthene	252	25.668	25.660	(0.968)	65502	0.50000	0.4360
75 Benzo(k)fluoranthene	252	25.722	25.715	(0.970)	73554	0.50000	0.4934
76 Benzo(a)pyrene	252	26.396	26.388	(0.995)	56788	0.50000	0.4516
* 77 Perylene-d12	264	26.528	26.520	(1.000)	365729	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.491	29.483	(1.112)	69913	0.50000	0.4628
79 Dibenzo(a,h)anthracene	278	29.506	29.491	(1.112)	56767	0.50000	0.4487
80 Benzo(g,h,i)perylene	276	30.376	30.353	(1.145)	56700	0.50000	0.4709
90 N-Nitrosodimethylamine	74	5.075	5.083	(1.000)	23323	1.00000	0.9699
91 Aniline	93	8.938	8.938	(1.000)	45627	1.00000	0.9646
93 Benzidine	184	21.310	21.310	(0.899)	61320	1.00000	0.9732
103 Pyridine	79	5.121	5.144	(1.000)	36871	1.00000	0.9724
105 1-methylnaphthalene	142	13.654	13.646	(1.139)	45857	0.50000	0.4838
111 Azobenzene (1,2-DP-Hydrazine)	77	17.034	17.034	(1.091)	52979	0.50000	0.4896
187 Total Benzofluoranthenes	252	25.668	25.660	(0.968)	134215	1.00000	0.9281

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====		====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		16.346	16.339	(1.047)	12669	0.50000	0.3535

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012307.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-CAL2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	147126	1.96
27 Naphthalene-d8	493698	246849	987396	495631	0.39
42 Acenaphthene-d10	279210	139605	558420	278249	-0.34
59 Phenanthrene-d10	521463	260732	1042926	508190	-2.55
69 Chrysene-d12	369911	184956	739822	394033	6.52
134 Di-n-octylphthala	626668	313334	1253336	603762	-3.66
77 Perylene-d12	311339	155670	622678	365729	17.47

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.98	-0.06
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
134 Di-n-octylphthala	24.75	24.25	25.25	24.73	-0.06
77 Perylene-d12	26.55	26.05	27.05	26.53	-0.09

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

REVIEW SUMMARY FOR FILE - NT1005012307.D

Lab ID: SLE0036-CAL2
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 18:07

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

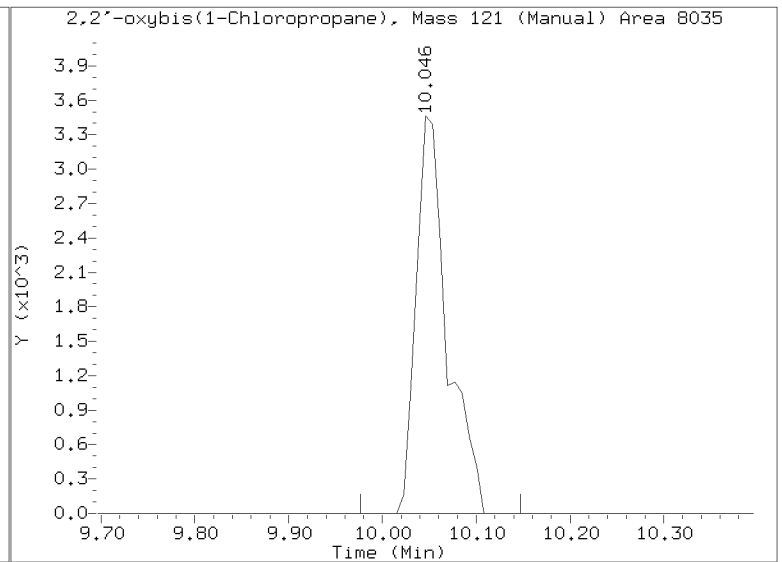
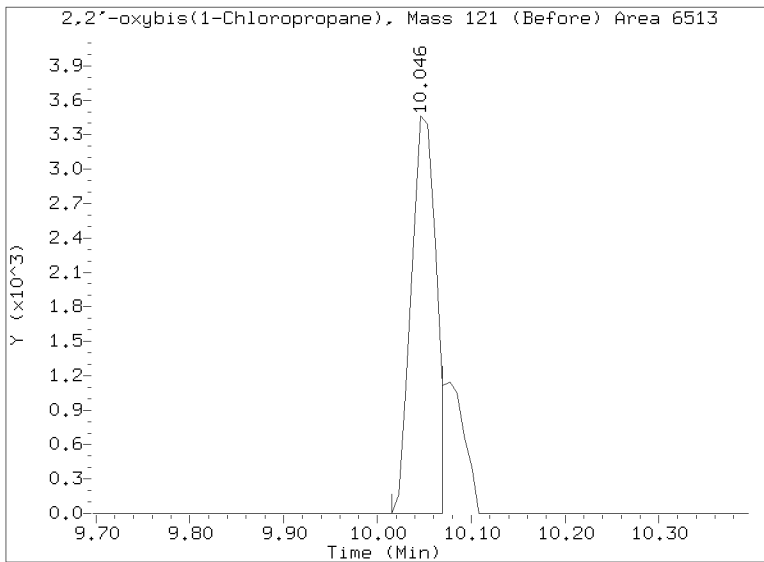
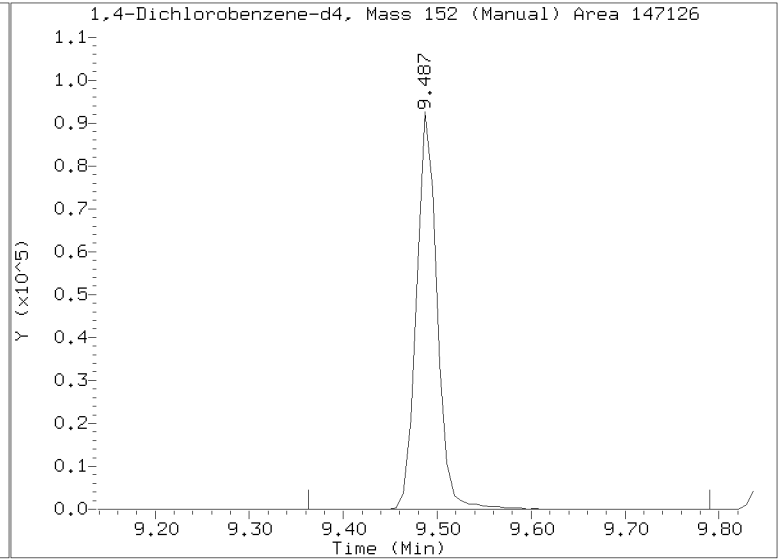
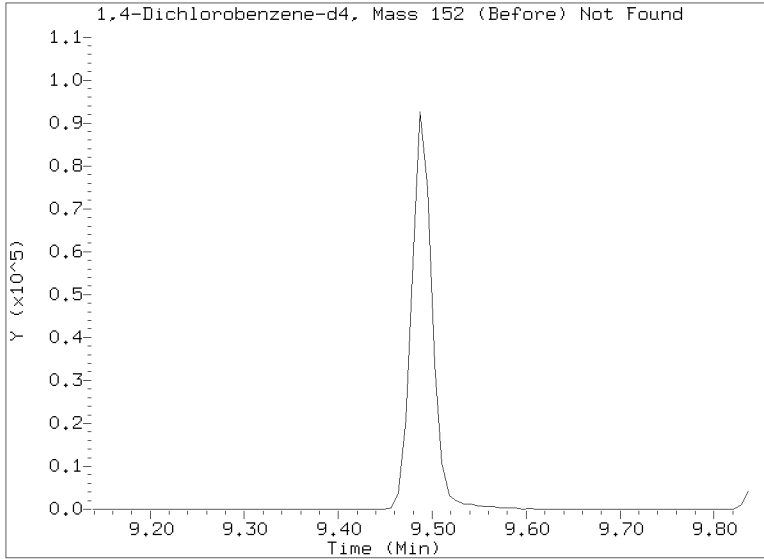
RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012307.D
Injection Date: 01-MAY-2023 18:07
Lab ID: SLE0036-CAL2 Client ID:
Report Date: 05/08/2023 09:57



APPROVED

By Deenay Dunmore at 10:01 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012308.D

Date: 01-May-2023 18:46

Client ID:

Sample Info: SLE0036-CAL1

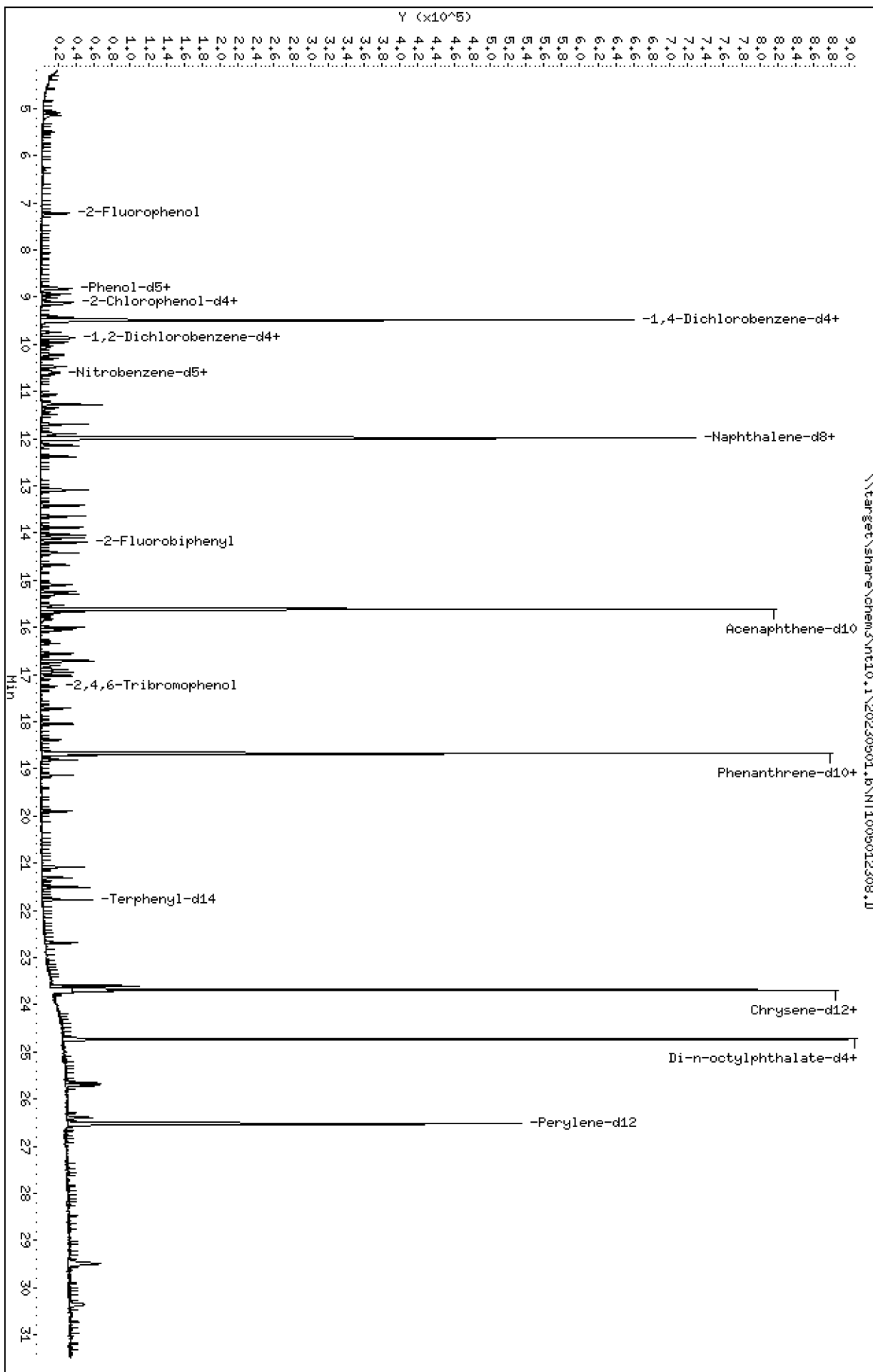
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012308.D
 Lab Smp Id: SLE0036-CAL1
 Inj Date : 01-MAY-2023 18:46
 Operator : VTS
 Smp Info : SLE0036-CAL1
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd
 Cal Date : 01-MAY-2023 18:46
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1005012308.D
 Calibration Sample, Level: 1
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.230	7.230	(1.000)	13581	0.30000	0.2817
\$ 2 Phenol-d5	99		8.814	8.814	(1.000)	15696	0.30000	0.2700
3 Phenol	94		8.837	8.837	(1.000)	12325	0.20000	0.1983
\$ 5 2-Chlorophenol-d4	132		9.123	9.123	(1.000)	15782	0.30000	0.2833
4 Bis(2-Chloroethyl)ether	93		9.023	9.023	(1.000)	9621	0.20000	0.2139
6 2-Chlorophenol	128		9.146	9.146	(1.000)	10714	0.20000	0.1955
7 1,3-Dichlorobenzene	146		9.425	9.425	(1.000)	12746	0.20000	0.2064
* 8 1,4-Dichlorobenzene-d4	152		9.487	9.487	(1.000)	159331	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.518	9.518	(1.000)	12605	0.20000	0.2078
\$ 10 1,2-Dichlorobenzene-d4	152		9.851	9.851	(1.000)	8185	0.20000	0.1992
12 1,2-Dichlorobenzene	146		9.875	9.875	(1.000)	12152	0.20000	0.2064
11 Benzyl alcohol	108		9.750	9.750	(1.000)	5168	0.20000	0.1730
14 2,2'-oxybis(1-Chloropropane)	121		10.046	10.046	(1.059)	3855	0.20000	0.2267 (M)
13 2-Methylphenol	108		9.960	9.960	(1.000)	8548	0.20000	0.1875
17 Hexachloroethane	117		10.472	10.472	(1.000)	4991	0.20000	0.1903
16 N-Nitroso-di-n-propylamine	70		10.309	10.309	(1.000)	6774	0.20000	0.1876
15 4-Methylphenol	108		10.232	10.232	(1.000)	10722	0.20000	0.1959
\$ 18 Nitrobenzene-d5	82		10.589	10.589	(0.884)	11401	0.20000	0.1820
19 Nitrobenzene	77		10.628	10.628	(0.887)	11641	0.20000	0.1923
20 Isophorone	82		11.062	11.062	(0.923)	11937	0.20000	0.1656
21 2-Nitrophenol	139		11.249	11.249	(0.939)	3761	0.20000	0.1168
22 2,4-Dimethylphenol	107		11.283	11.283	(0.942)	21223	0.40000	0.3590
23 Bis(2-Chloroethoxy)methane	93		11.486	11.486	(0.959)	8962	0.20000	0.1945
24 Benzoic acid	105		11.359	11.359	(0.948)	8995	0.80000	0.2200
25 2,4-Dichlorophenol	162		11.698	11.698	(0.976)	15570	0.40000	0.3353
26 1,2,4-Trichlorobenzene	180		11.898	11.898	(0.993)	13302	0.20000	0.2000
* 27 Naphthalene-d8	136		11.983	11.983	(1.000)	560494	4.00000	
28 Naphthalene	128		12.022	12.022	(1.003)	31581	0.20000	0.2020
29 4-Chloroaniline	127		12.145	12.145	(1.014)	19742	0.40000	0.3431
30 Hexachlorobutadiene	225		12.377	12.377	(1.033)	7321	0.20000	0.1996
31 4-Chloro-3-methylphenol	107		13.089	13.089	(1.092)	16148	0.40000	0.3191
32 2-Methylnaphthalene	142		13.422	13.422	(1.120)	22143	0.20000	0.1894
33 Hexachlorocyclopentadiene	237		13.886	13.886	(0.889)	11979	0.40000	0.3185
34 2,4,6-Trichlorophenol	196		14.041	14.041	(0.899)	10615	0.40000	0.2865

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	14.111	14.111	(0.904)	10875	0.40000	0.2691
\$ 36 2-Fluorobiphenyl	172	14.203	14.203	(0.910)	26418	0.20000	0.2017
37 2-Chloronaphthalene	162	14.420	14.420	(0.924)	19684	0.20000	0.1908
38 2-Nitroaniline	65	14.676	14.676	(0.940)	9065	0.40000	0.3026
39 Dimethylphthalate	163	15.101	15.101	(0.967)	22169	0.20000	0.1911
40 Acenaphthylene	152	15.303	15.303	(0.980)	30303	0.20000	0.1882
41 2,6-Dinitrotoluene	165	15.248	15.248	(0.977)	8063	0.40000	0.3080
* 42 Acenaphthene-d10	164	15.612	15.612	(1.000)	302504	4.00000	
43 3-Nitroaniline	138	15.527	15.527	(0.995)	7452	0.40000	0.2892
44 Acenaphthene	153	15.682	15.682	(1.004)	19852	0.20000	0.1939
45 2,4-Dinitrophenol	184	15.743	15.743	(1.008)	3555	0.80000	0.1771
46 Dibenzofuran	168	16.006	16.006	(1.025)	28420	0.20000	0.1904
47 4-Nitrophenol	109	15.828	15.828	(1.014)	4388	0.40000	0.1828
48 2,4-Dinitrotoluene	165	16.060	16.060	(1.029)	9342	0.40000	0.2505
50 Diethylphthalate	149	16.555	16.555	(1.060)	21353	0.20000	0.1773
49 Fluorene	166	16.725	16.725	(1.071)	23941	0.20000	0.1944
51 4-Chlorophenyl-phenylether	204	16.702	16.702	(1.070)	11872	0.20000	0.1936
52 4-Nitroaniline	138	16.810	16.810	(1.077)	6663	0.40000	0.2661
53 4,6-Dinitro-2-methylphenol	198	16.902	16.902	(0.905)	7131	0.80000	0.3263
54 N-Nitrosodiphenylamine	169	16.956	16.956	(0.908)	14204	0.20000	0.1917
\$ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.106)	2793	0.30000	0.1926
56 4-Bromophenyl-phenylether	248	17.712	17.712	(0.949)	6454	0.20000	0.1845
57 Hexachlorobenzene	284	18.044	18.044	(0.966)	7067	0.20000	0.2013
58 Pentachlorophenol	266	18.393	18.393	(0.985)	4575	0.40000	0.1914
* 59 Phenanthrene-d10	188	18.671	18.671	(1.000)	560701	4.00000	
60 Phenanthrene	178	18.718	18.718	(1.002)	32140	0.20000	0.1954
61 Anthracene	178	18.811	18.811	(1.007)	26685	0.20000	0.1755
62 Carbazole	167	19.136	19.136	(1.025)	24403	0.20000	0.1813
63 Di-n-butylphthalate	149	19.901	19.901	(1.066)	27766	0.20000	0.1379
64 Fluoranthene	202	21.085	21.085	(0.890)	33382	0.20000	0.1699
65 Pyrene	202	21.503	21.503	(0.908)	35446	0.20000	0.1806
\$ 66 Terphenyl-d14	244	21.774	21.774	(0.919)	29035	0.20000	0.1871
67 Butylbenzylphthalate	149	22.687	22.687	(0.958)	10403	0.20000	0.1130
68 Benzo(a)anthracene	228	23.655	23.655	(0.999)	34687	0.20000	0.1991
* 69 Chrysene-d12	240	23.686	23.686	(1.000)	440035	4.00000	
70 3,3'-Dichlorobenzidine	252	23.601	23.601	(0.996)	29961	0.60000	0.5657
71 Chrysene	228	23.733	23.733	(1.002)	32181	0.20000	0.2064
72 bis(2-Ethylhexyl)phthalate	149	23.702	23.702	(0.959)	15225	0.20000	0.1616
* 134 Di-n-octylphthalate-d4	153	24.724	24.724	(1.000)	654162	4.00000	
73 Di-n-octylphthalate	149	24.739	24.739	(1.001)	36331	0.20000	0.2105
74 Benzo(b)fluoranthene	252	25.660	25.660	(0.968)	27924	0.20000	0.1706
75 Benzo(k)fluoranthene	252	25.715	25.715	(0.970)	30019	0.20000	0.1848
76 Benzo(a)pyrene	252	26.388	26.388	(0.995)	24340	0.20000	0.1777
* 77 Perylene-d12	264	26.520	26.520	(1.000)	398434	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.483	29.483	(1.112)	29441	0.20000	0.1789
79 Dibenzo(a,h)anthracene	278	29.491	29.491	(1.112)	26228	0.20000	0.1903 (M)
80 Benzo(g,h,i)perylene	276	30.353	30.353	(1.145)	25288	0.20000	0.1928
90 N-Nitrosodimethylamine	74	5.083	5.083	(1.000)	10241	0.40000	0.3933
91 Aniline	93	8.938	8.938	(1.000)	20140	0.40000	0.3932
93 Benzidine	184	21.310	21.310	(0.900)	23798	0.40000	0.3392
103 Pyridine	79	5.144	5.144	(1.000)	15400	0.40000	0.3750
105 1-methylnaphthalene	142	13.646	13.646	(1.139)	20569	0.20000	0.1919
111 Azobenzene (1,2-DP-Hydrazine)	77	17.034	17.034	(1.091)	22702	0.20000	0.1930
187 Total Benzofluoranthenes	252	25.660	25.660	(0.968)	57093	0.40000	0.3624

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		16.339	16.339	(1.047)	4346	0.20000	0.1117

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012308.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-CAL1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	159331	10.41
27 Naphthalene-d8	493698	246849	987396	560494	13.53
42 Acenaphthene-d10	279210	139605	558420	302504	8.34
59 Phenanthrene-d10	521463	260732	1042926	560701	7.52
69 Chrysene-d12	369911	184956	739822	440035	18.96
134 Di-n-octylphthala	626668	313334	1253336	654162	4.39
77 Perylene-d12	311339	155670	622678	398434	27.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.98	-0.06
42 Acenaphthene-d10	15.62	15.12	16.12	15.61	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.06
134 Di-n-octylphthala	24.75	24.25	25.25	24.72	-0.09
77 Perylene-d12	26.55	26.05	27.05	26.52	-0.12

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

REVIEW SUMMARY FOR FILE - NT1005012308.D

Lab ID: SLE0036-CAL1
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 18:46

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

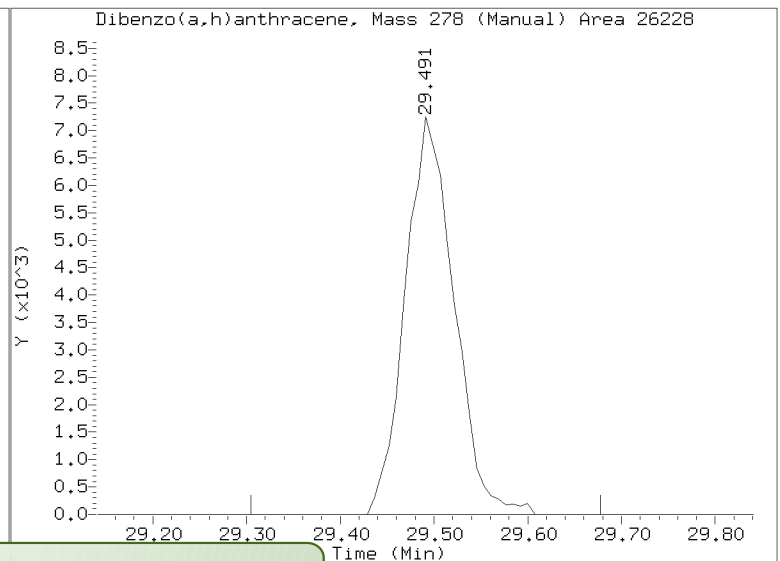
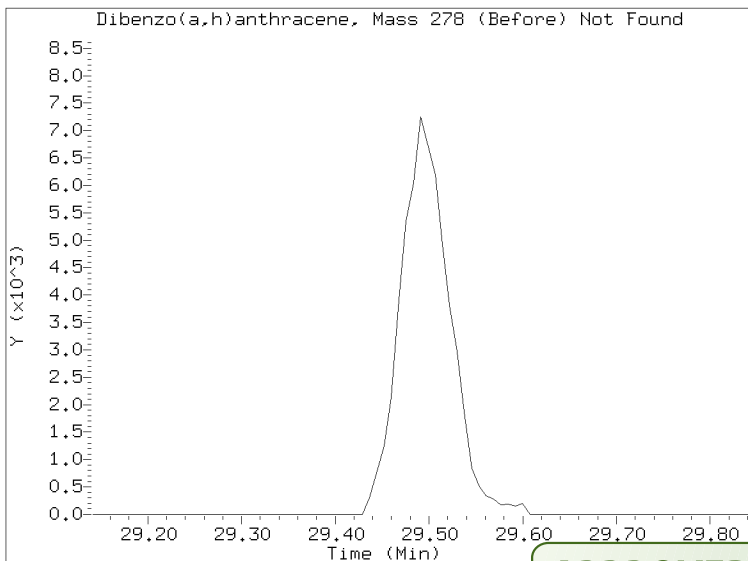
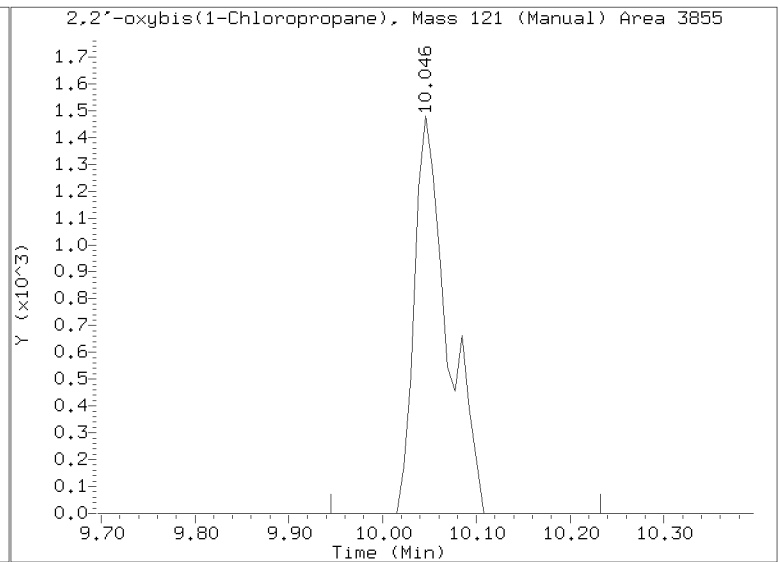
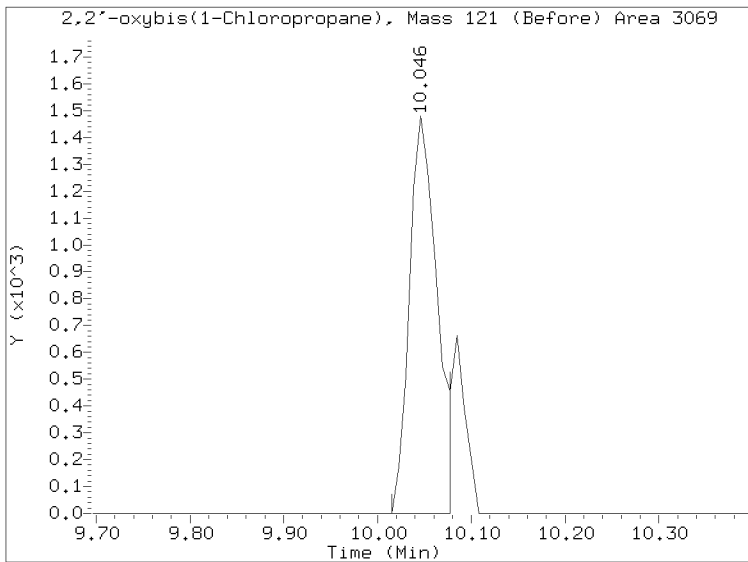
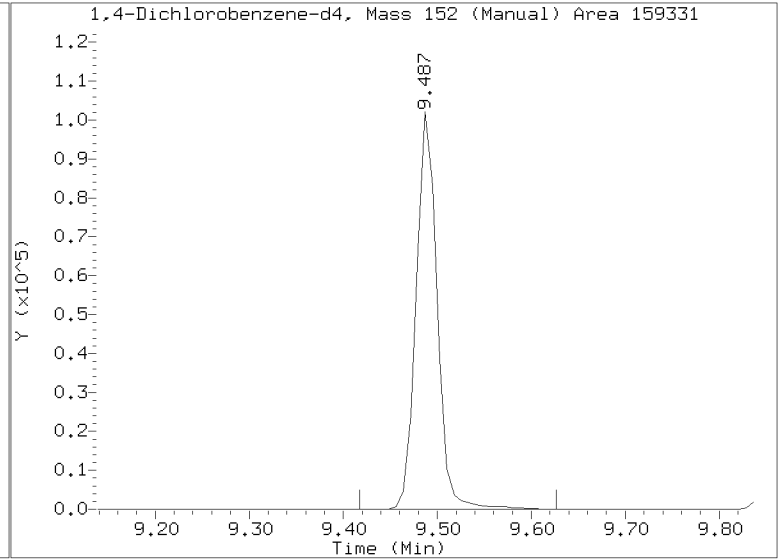
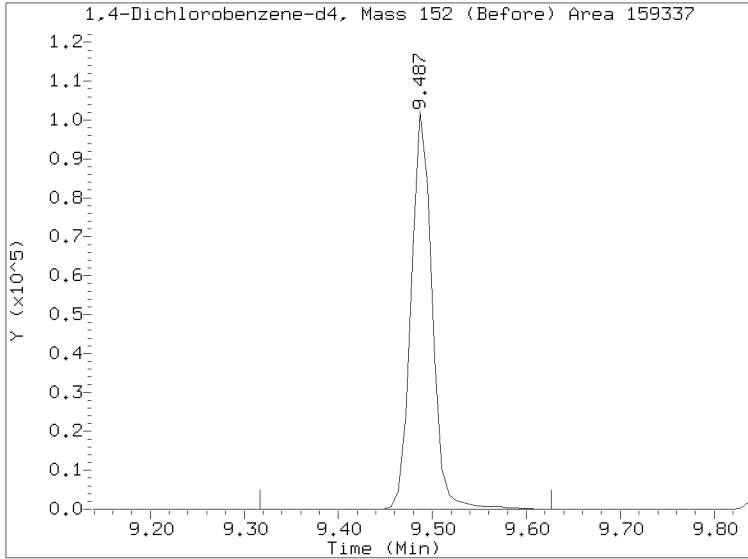
RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012308.D
Injection Date: 01-MAY-2023 18:46
Lab ID: SLE0036-CAL1 Client ID:
Report Date: 05/08/2023 09:57



APPROVED

By Deenay Dunmore at 10:01 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230501.b\NT1005012309.D

Date: 01-May-2023 19:25

Client ID:

Sample Info: SEQ-SIH2

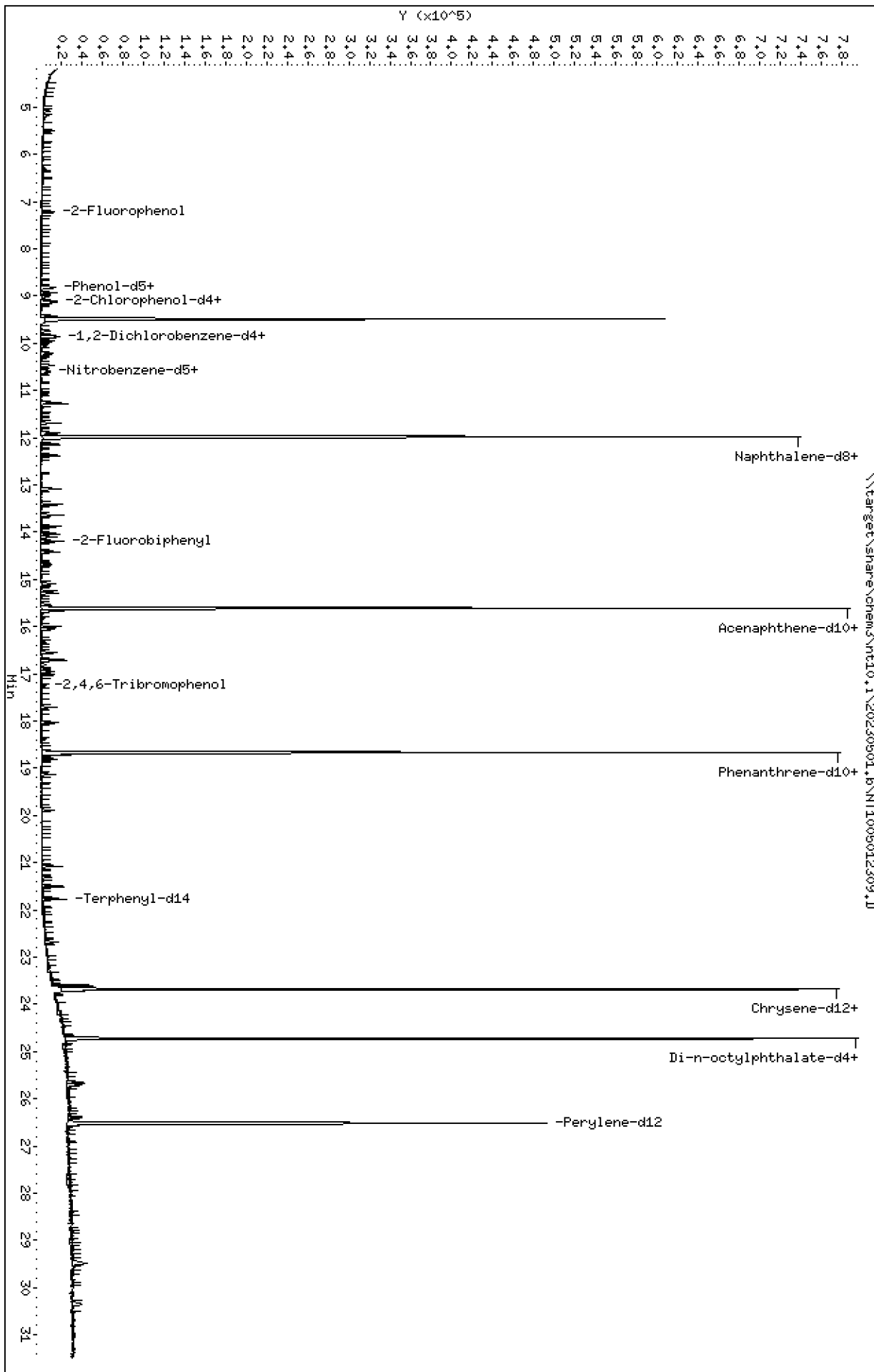
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

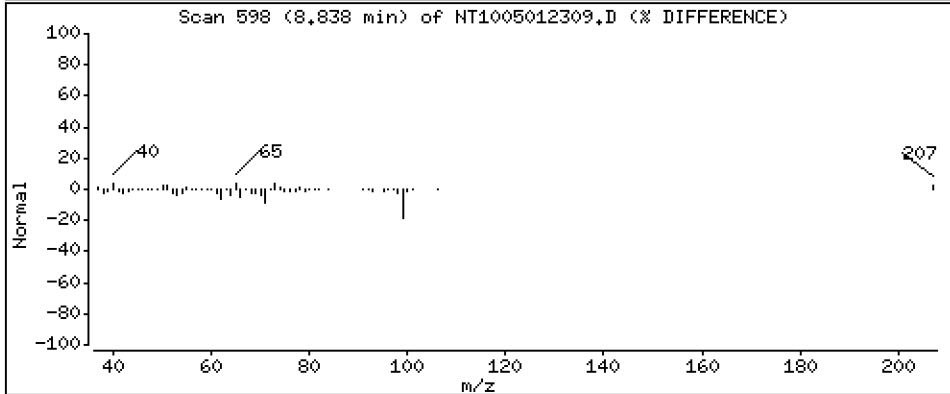
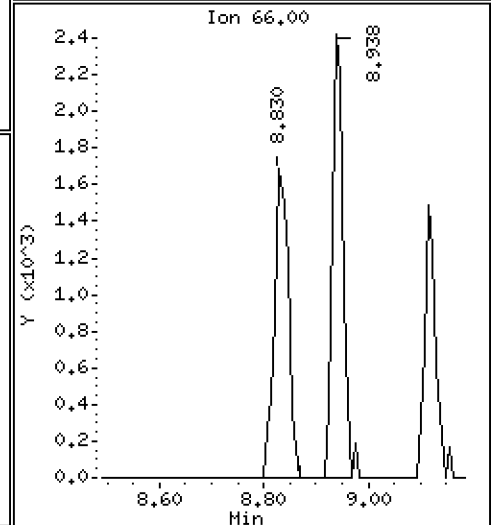
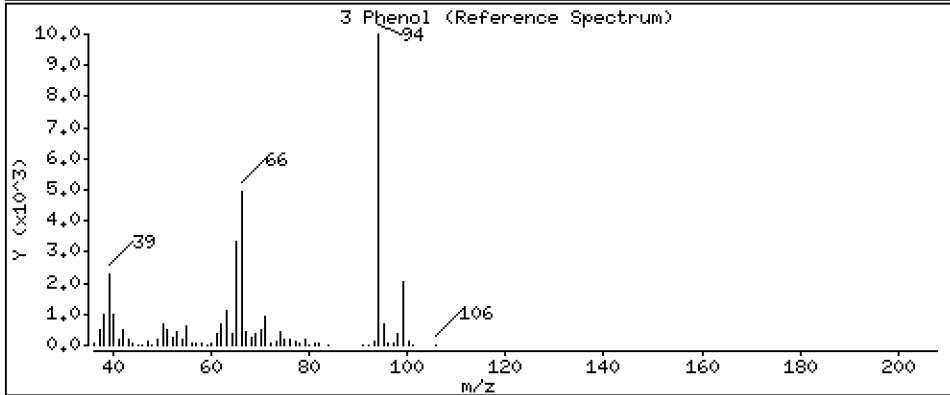
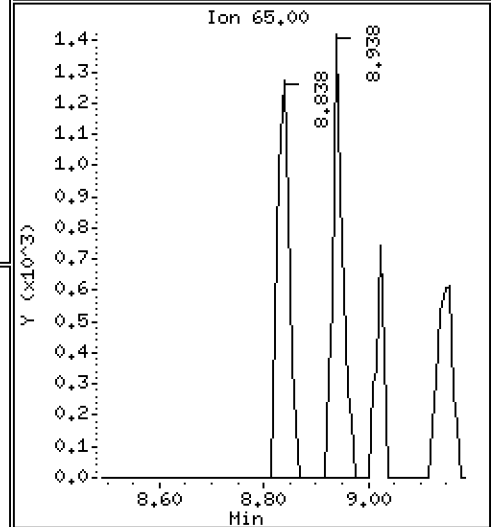
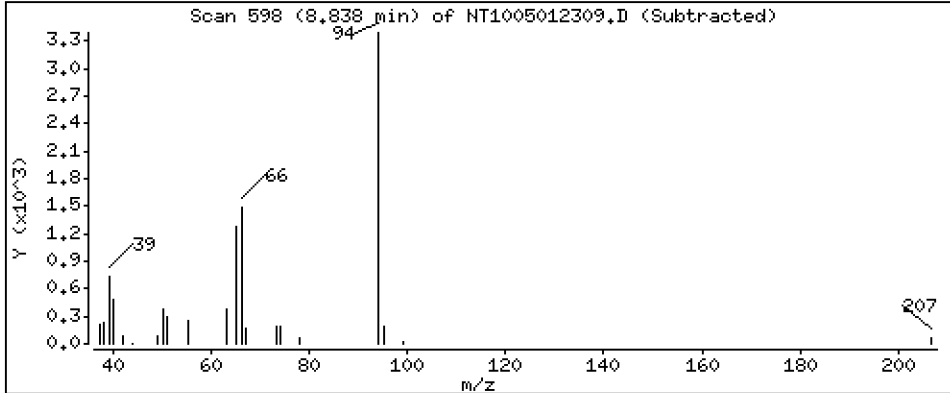
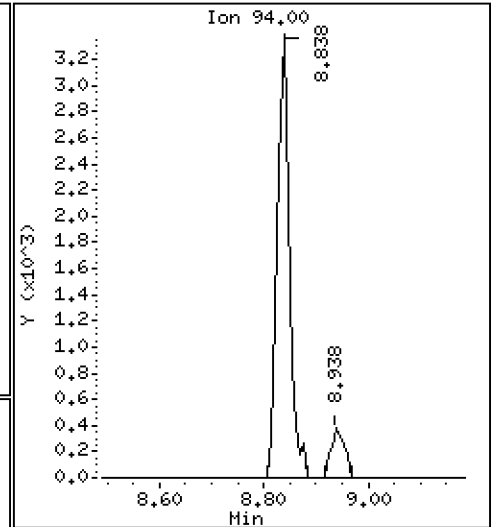
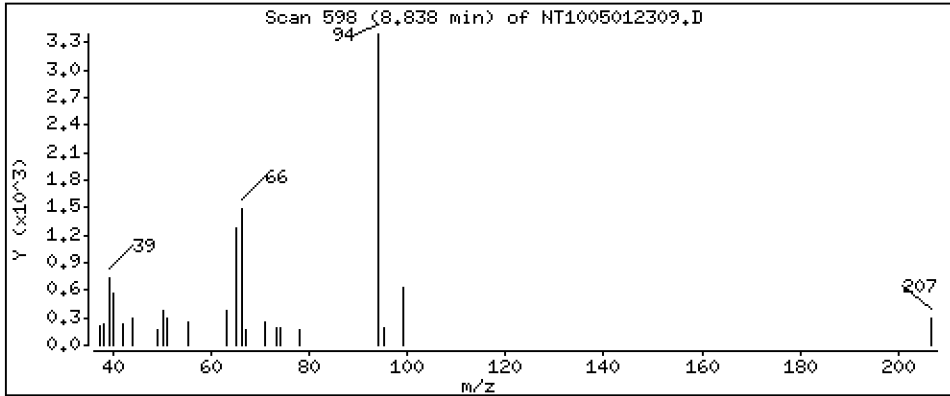
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

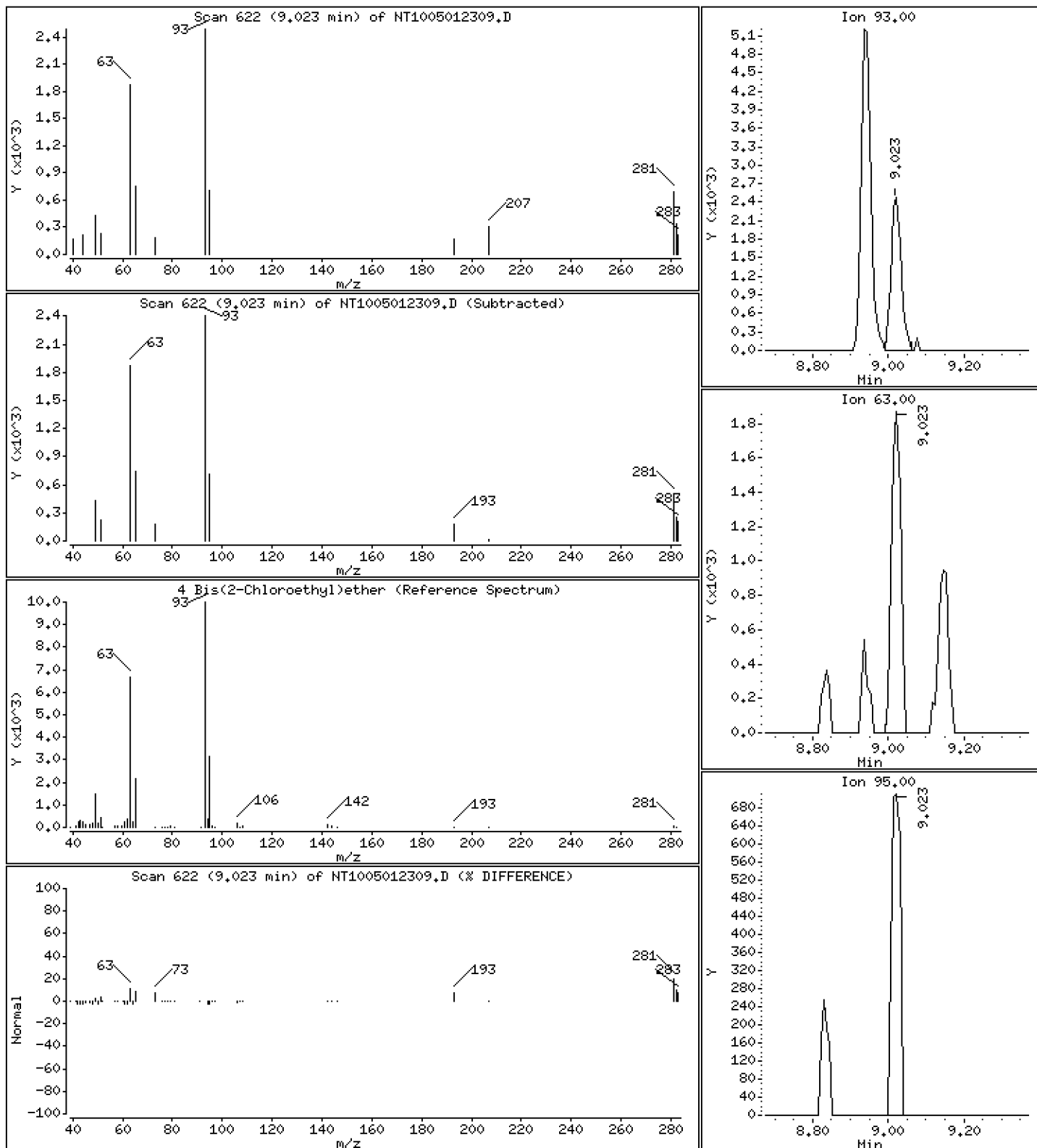
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

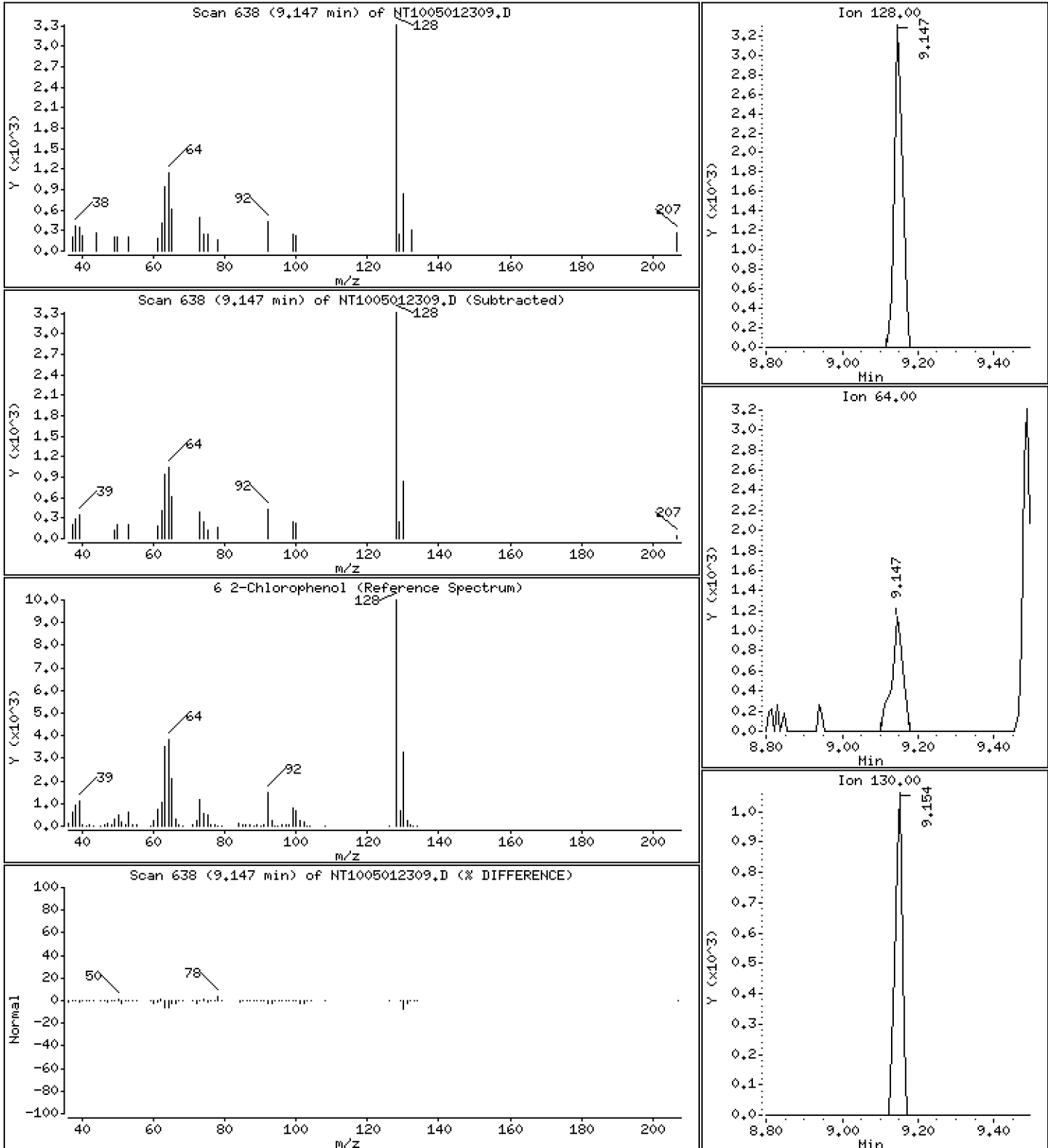
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

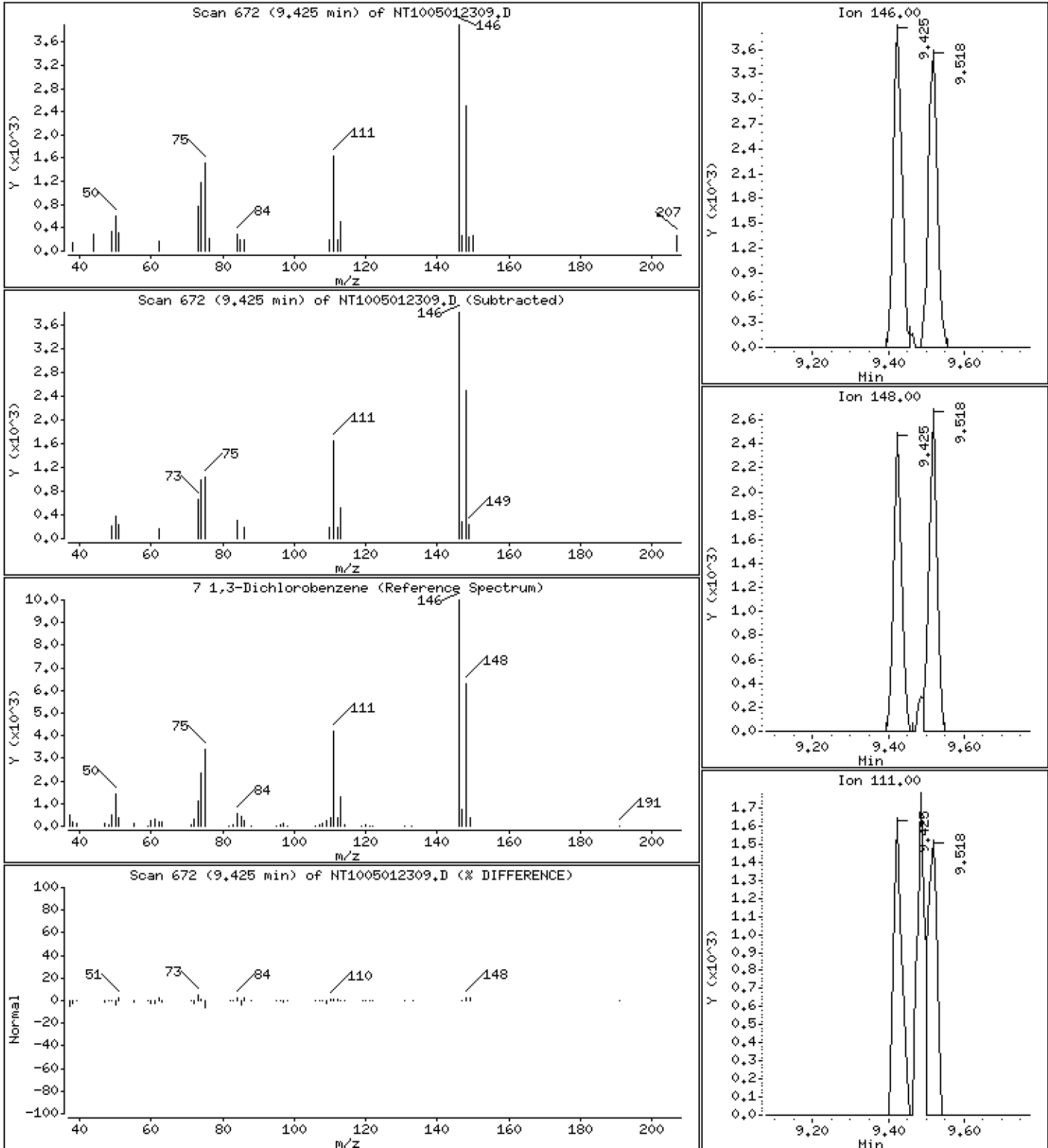
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

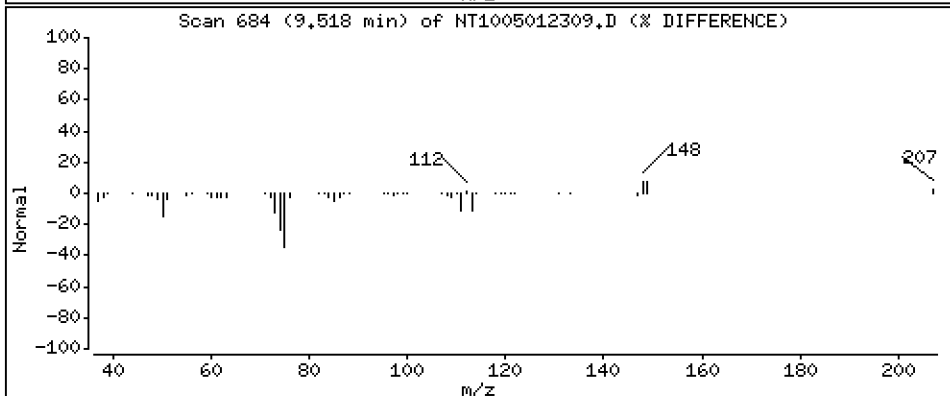
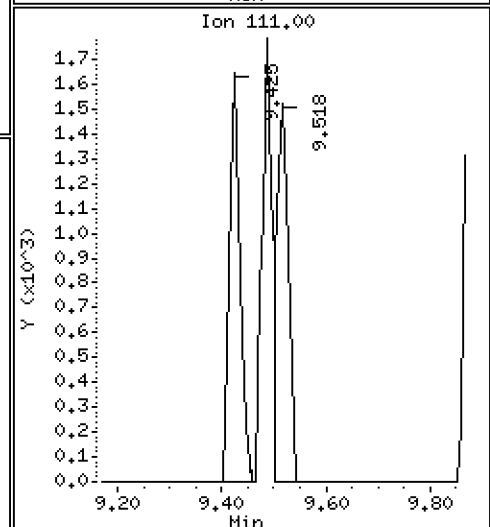
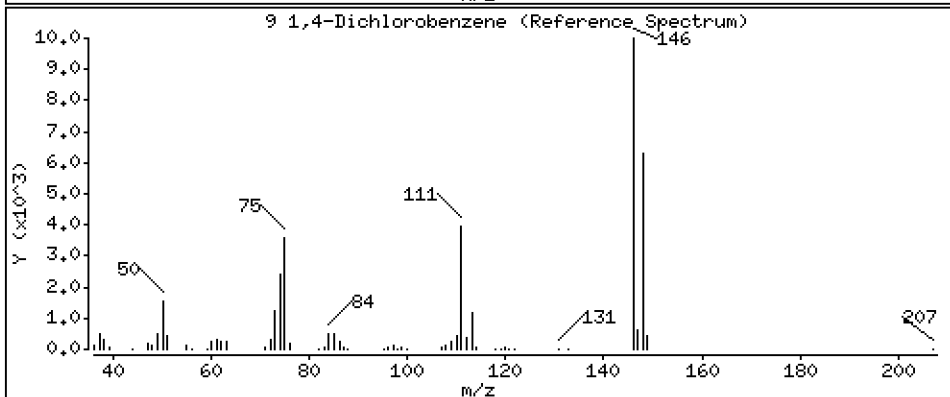
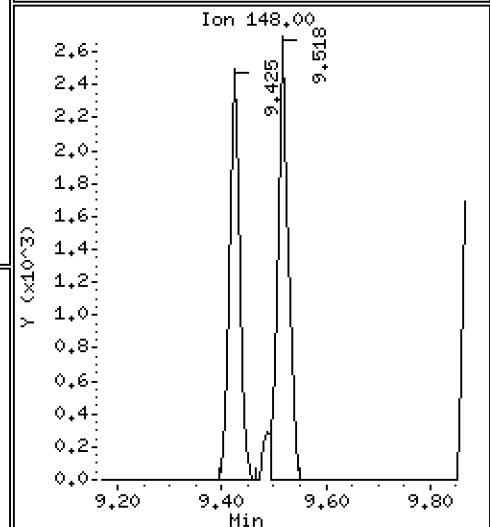
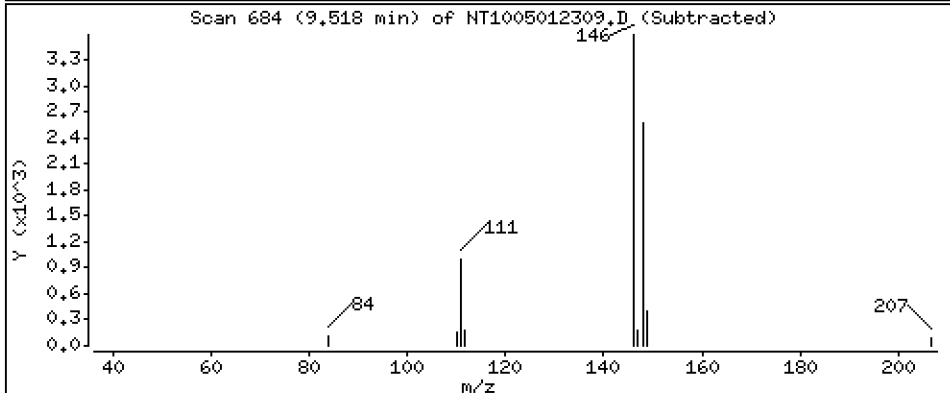
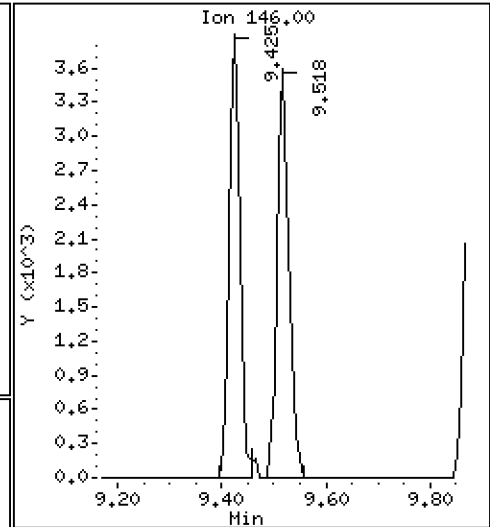
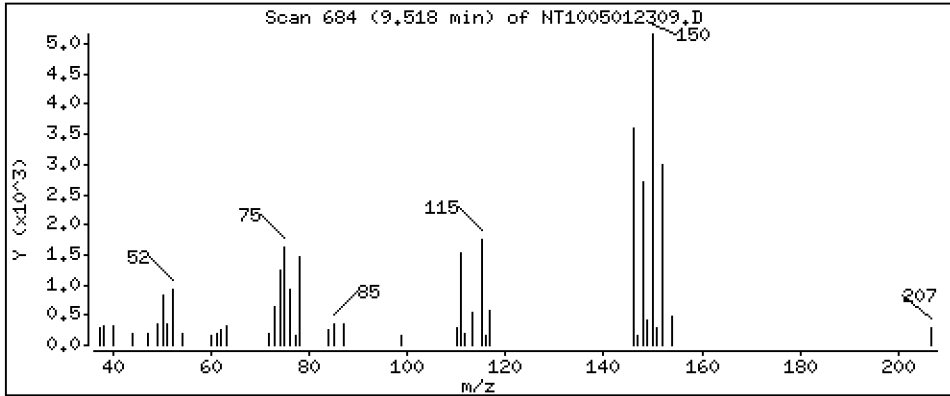
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

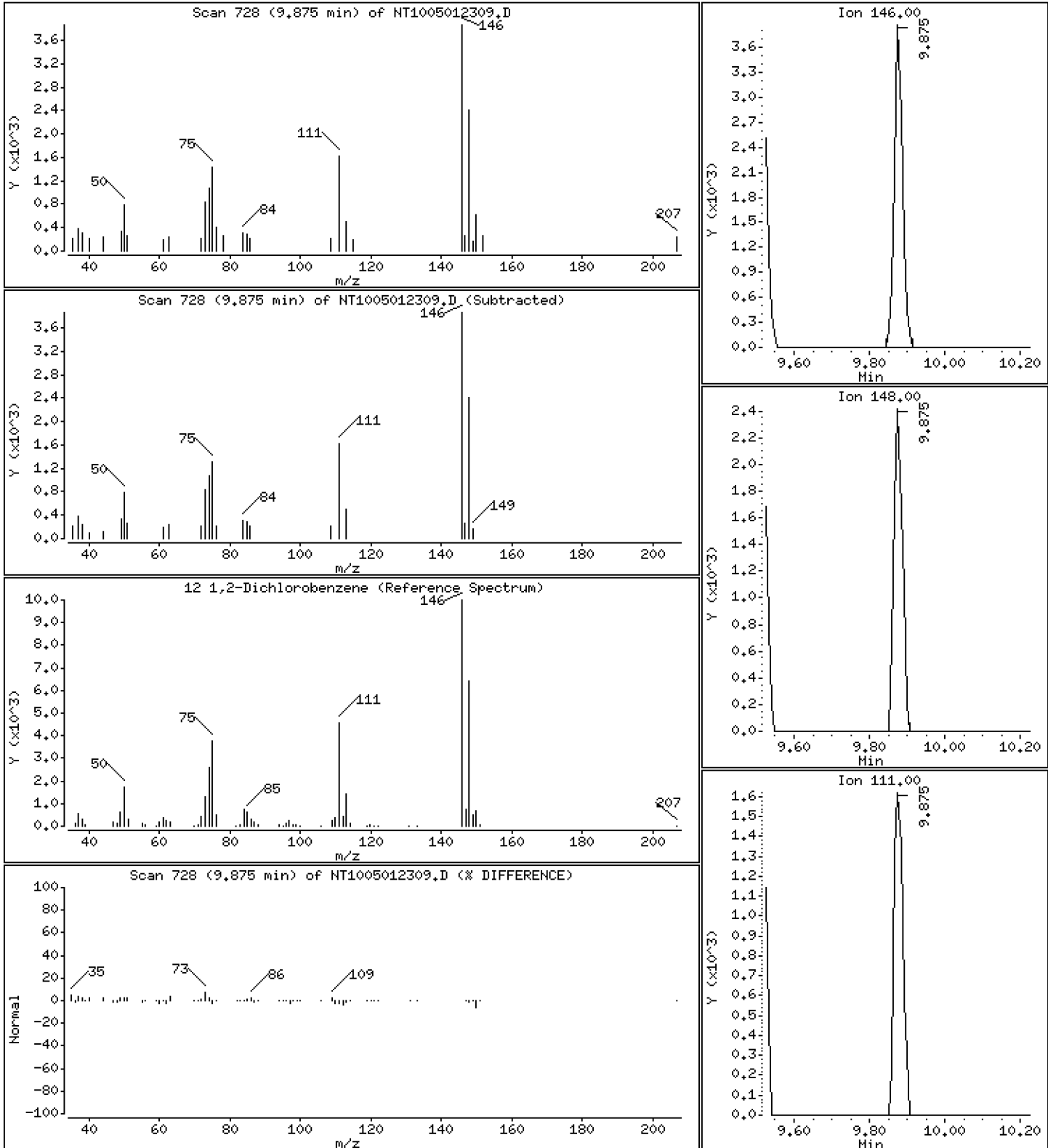
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

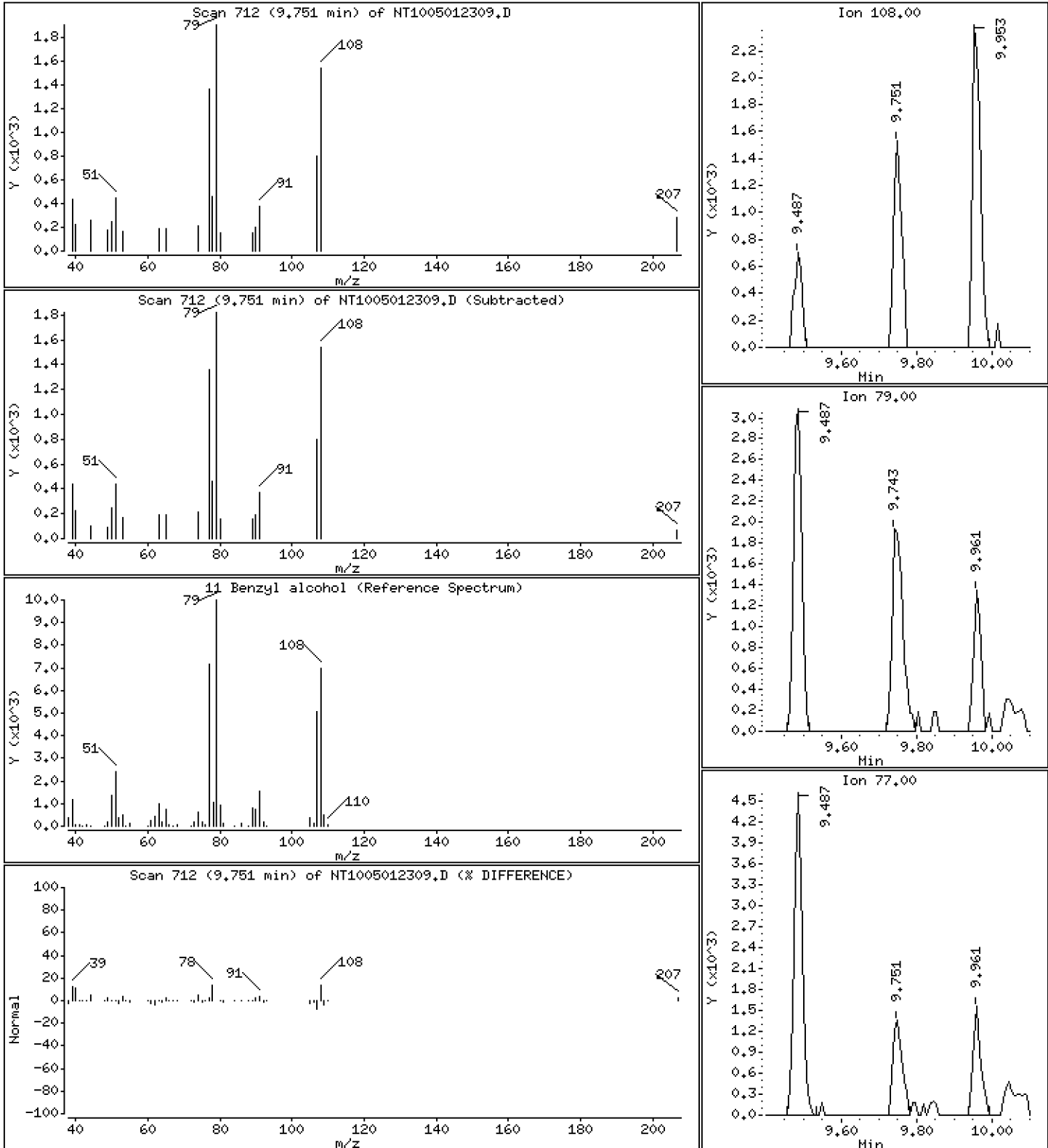
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

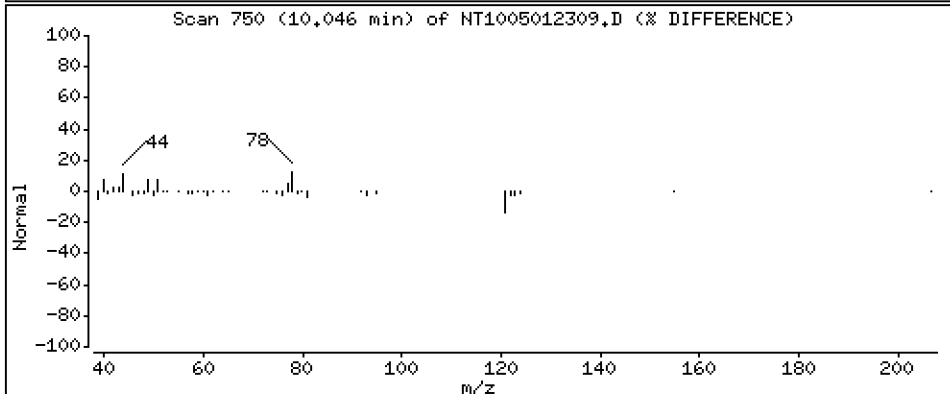
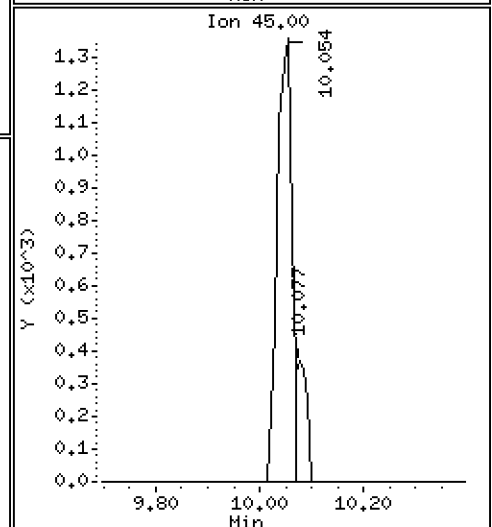
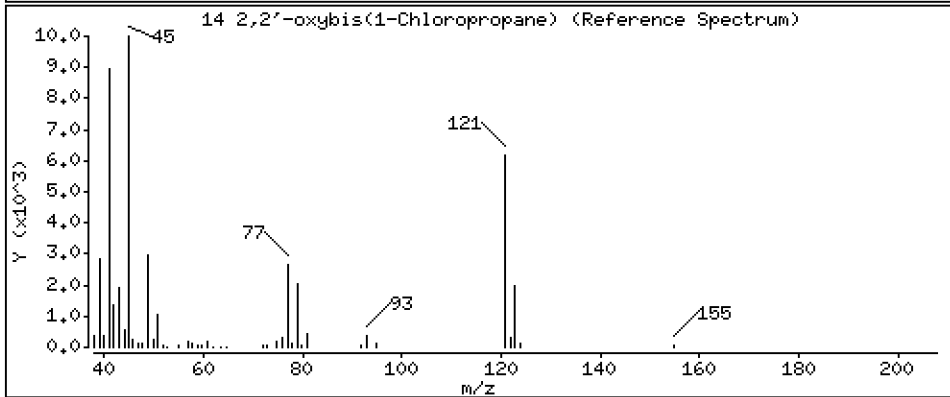
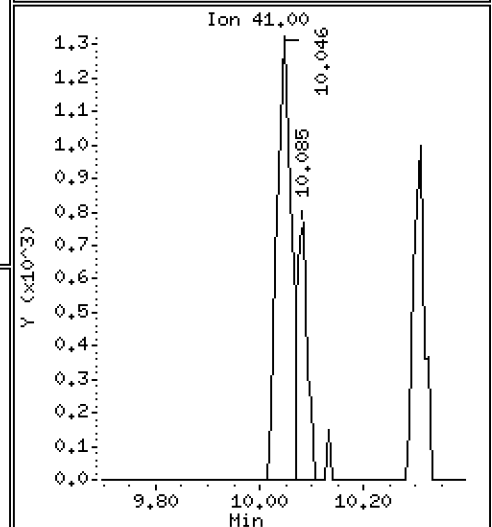
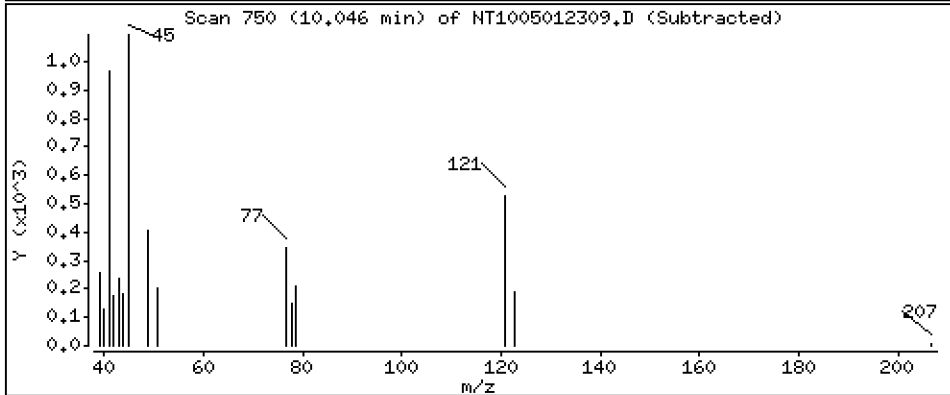
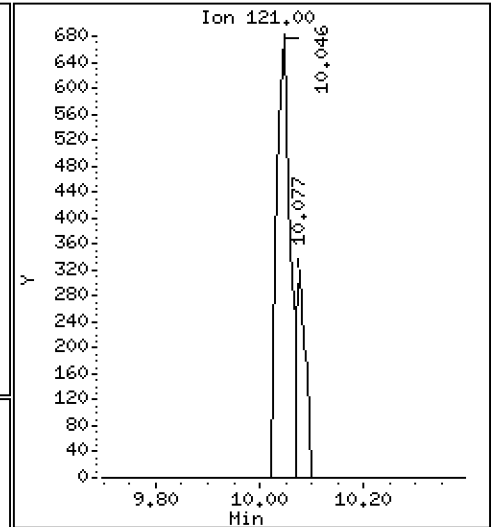
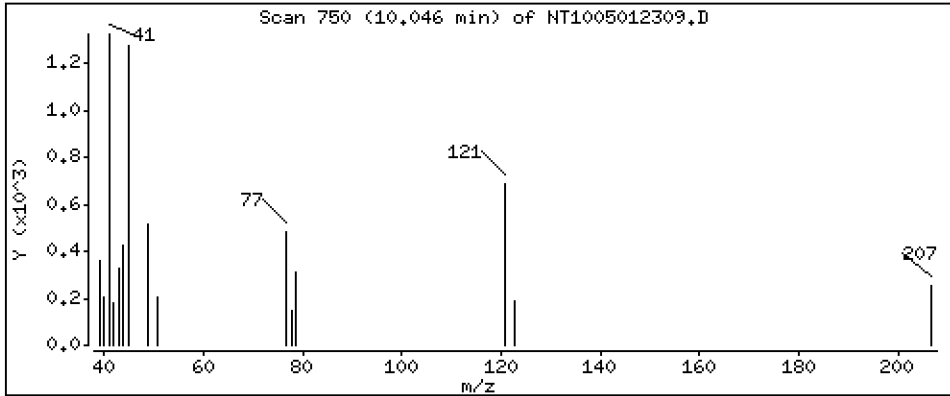
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

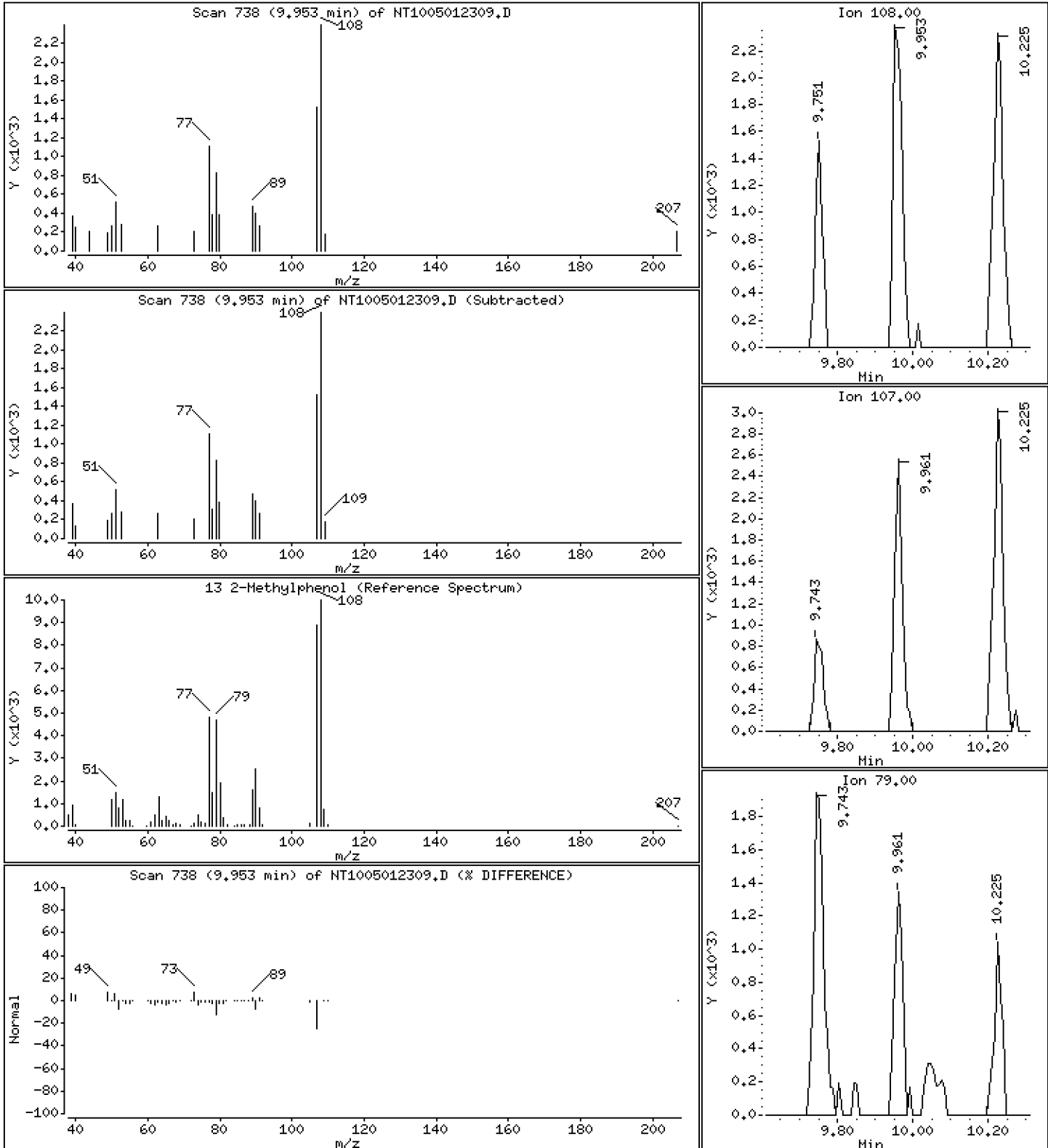
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

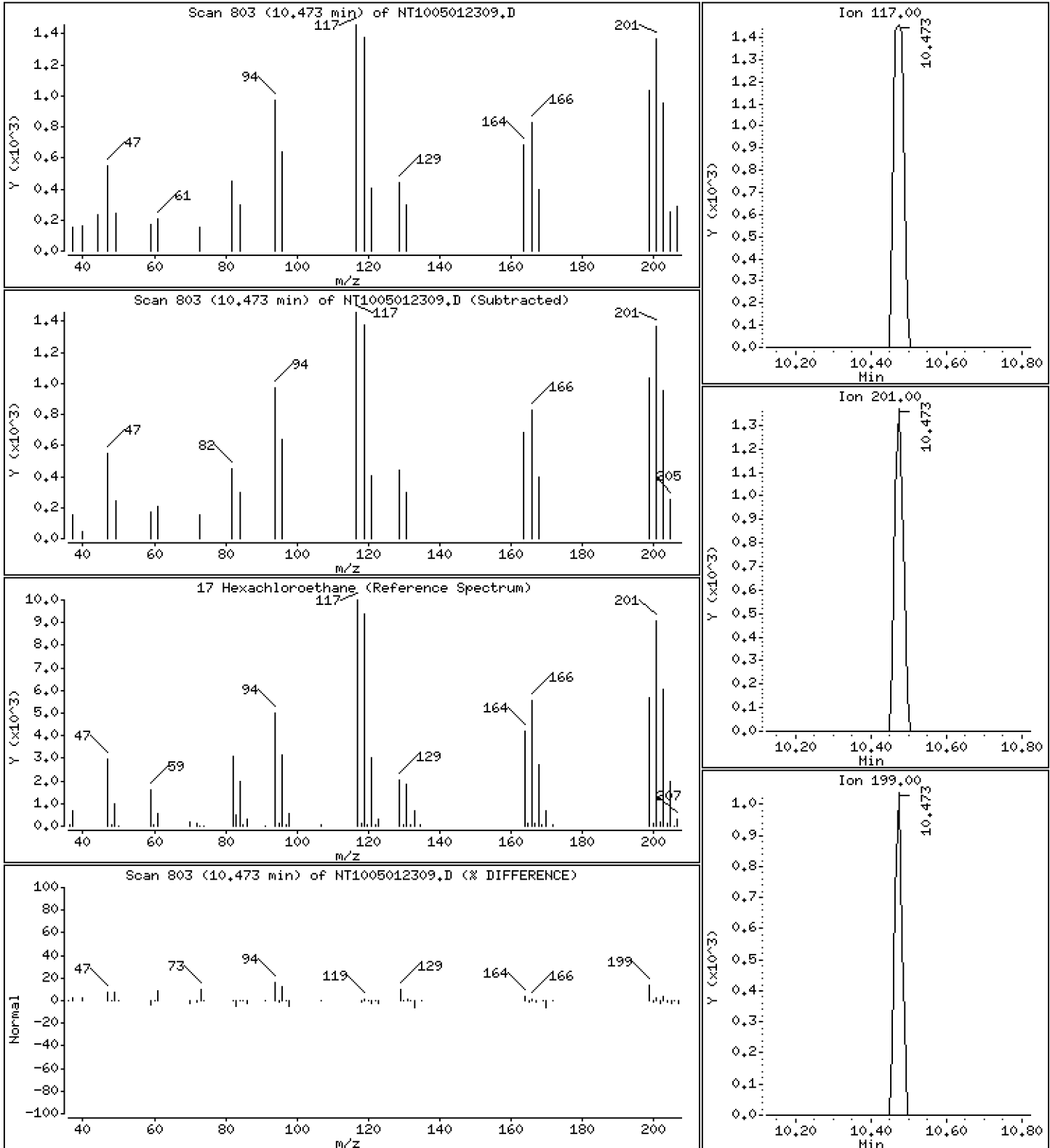
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

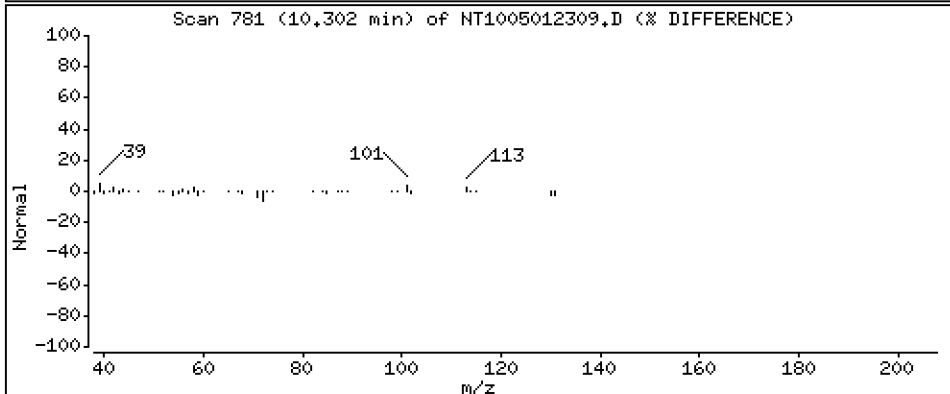
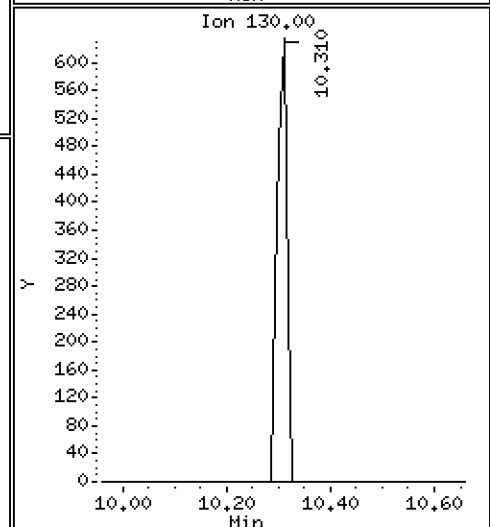
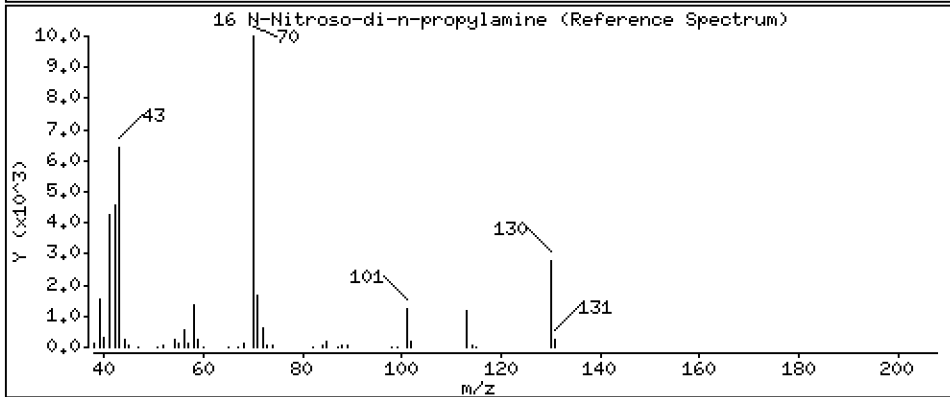
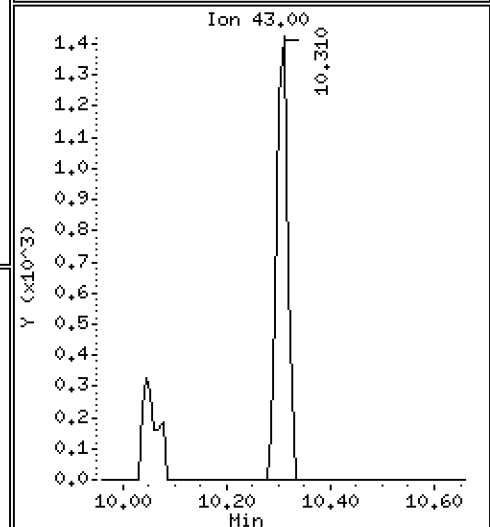
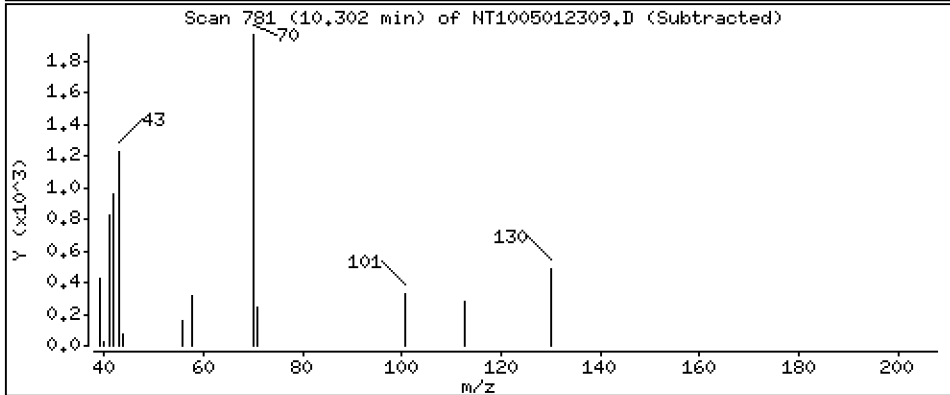
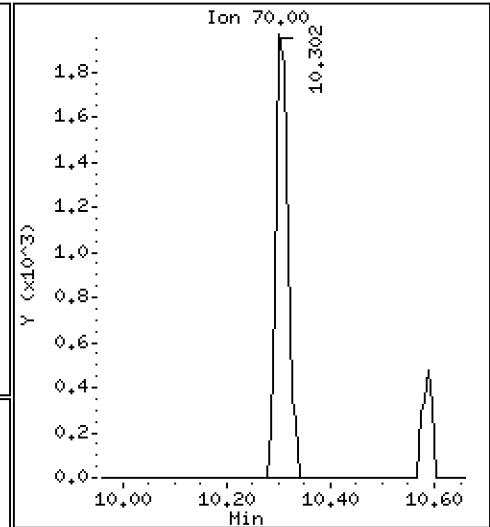
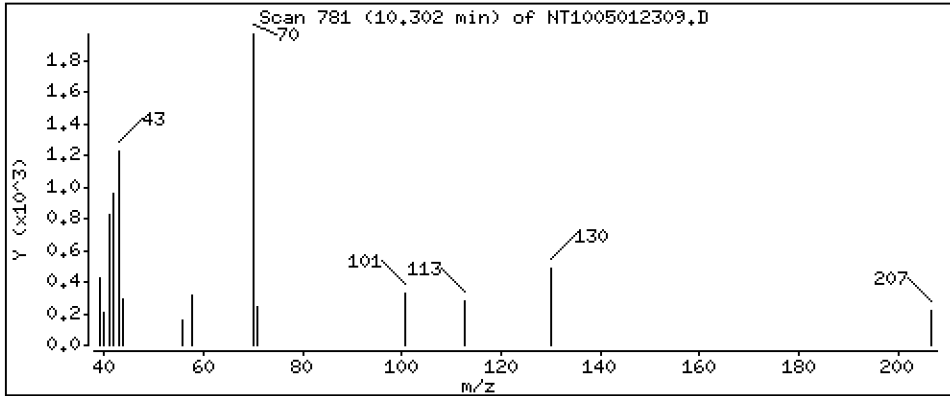
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

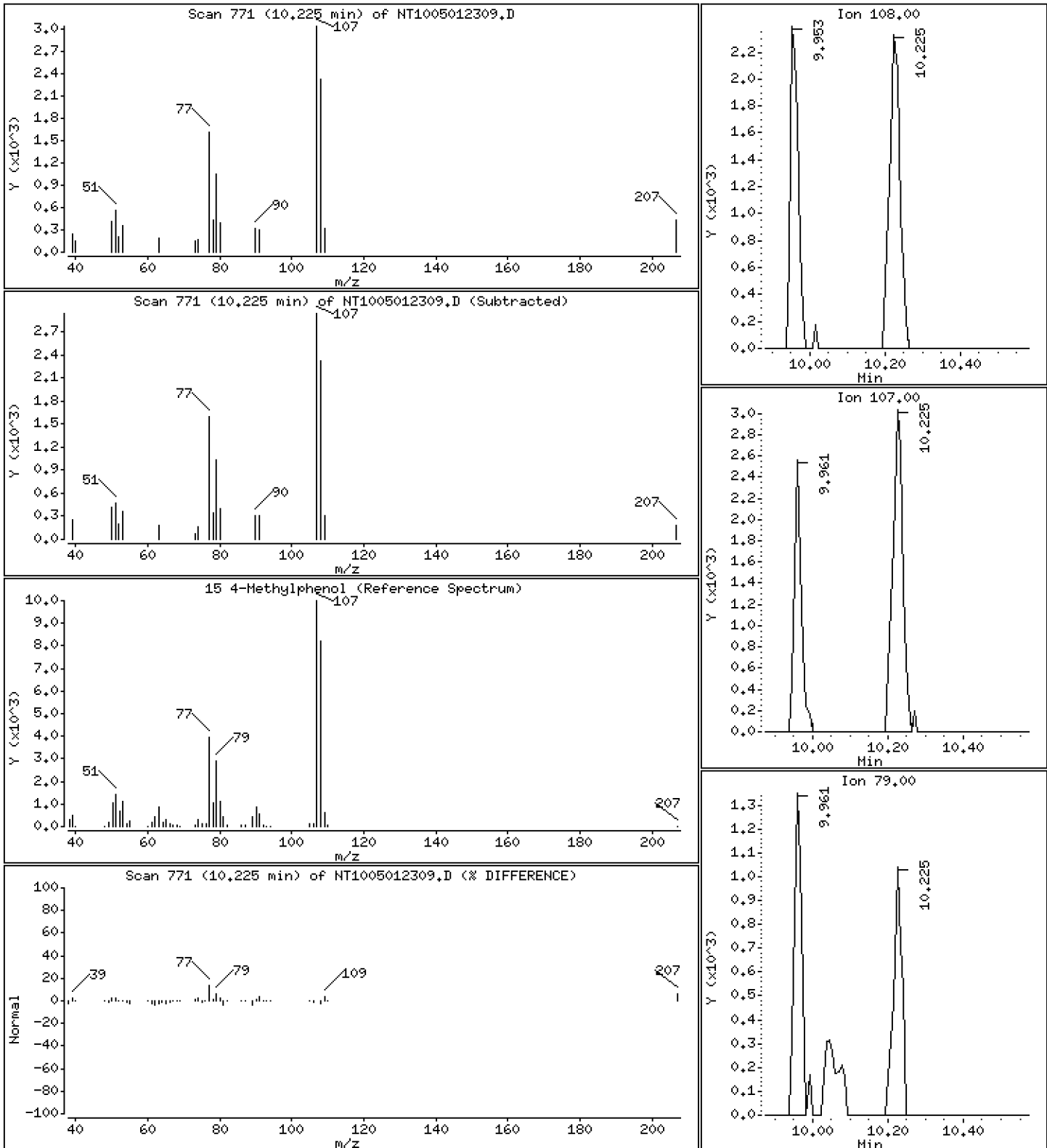
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

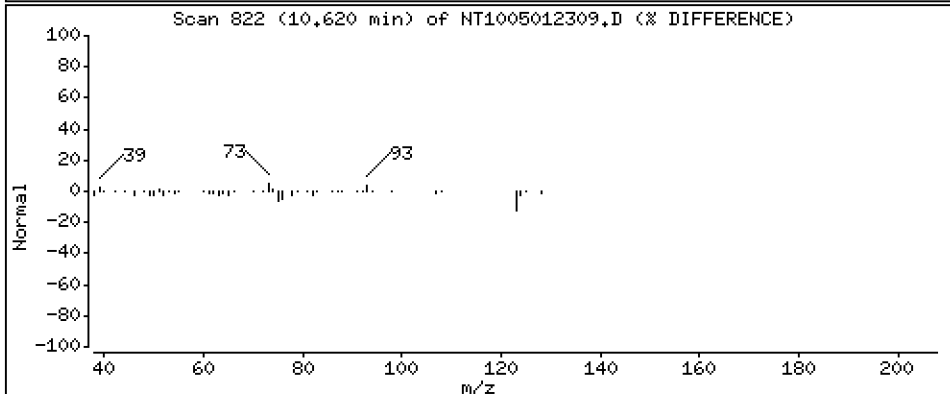
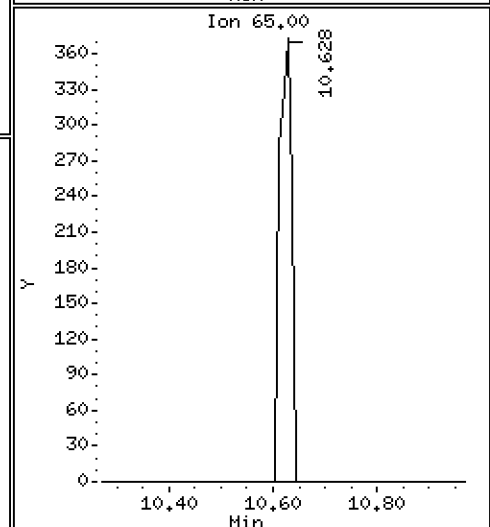
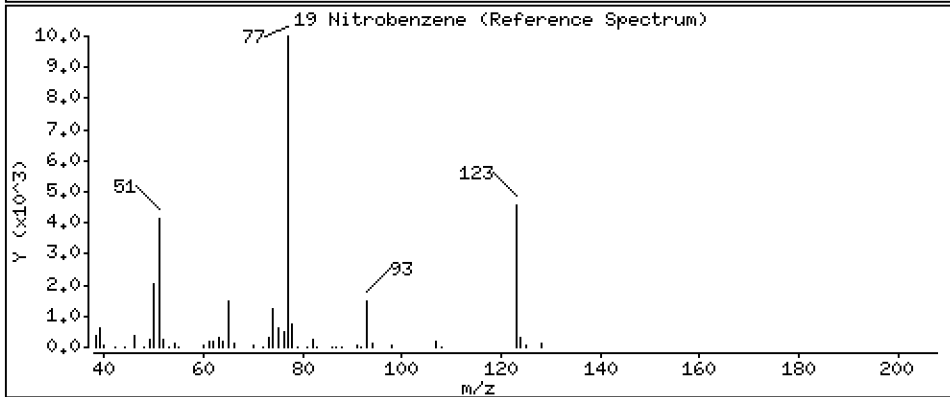
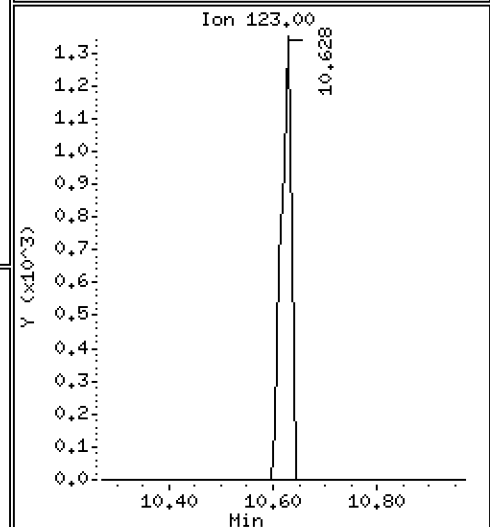
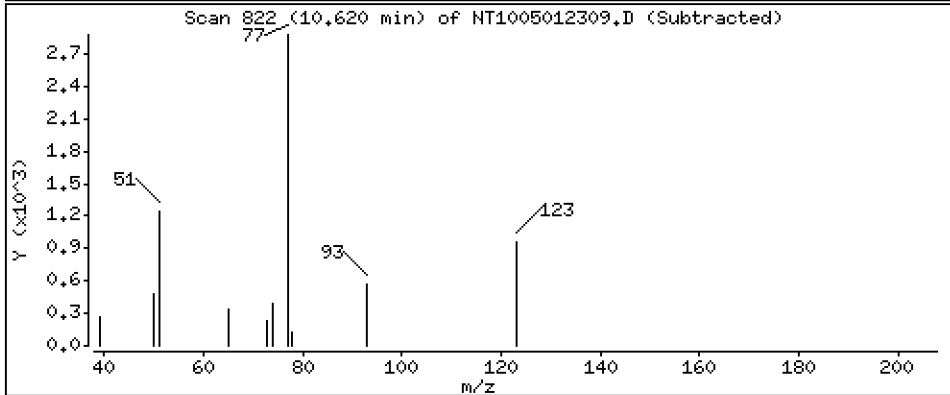
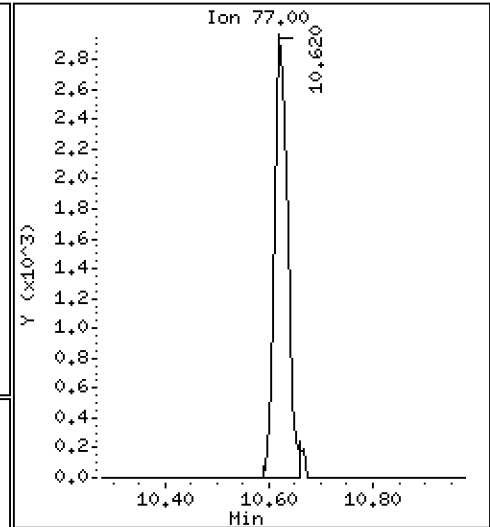
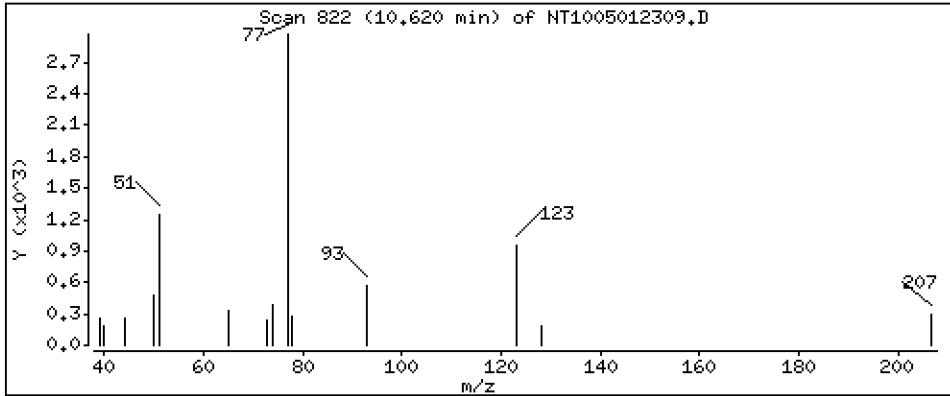
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,09110 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

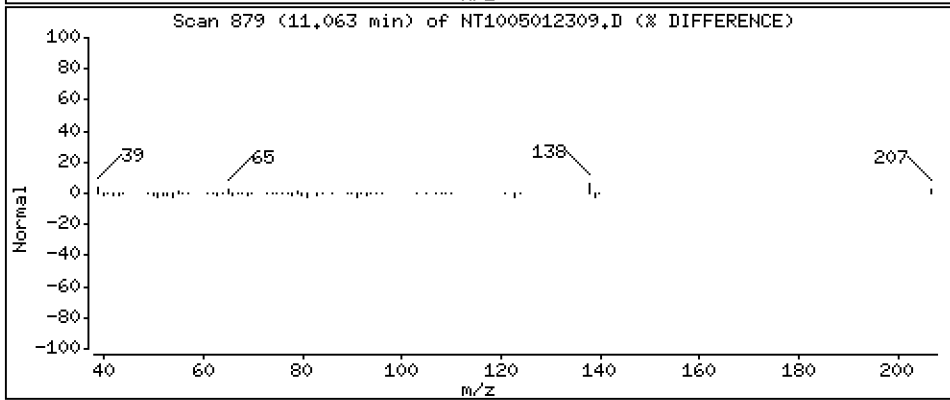
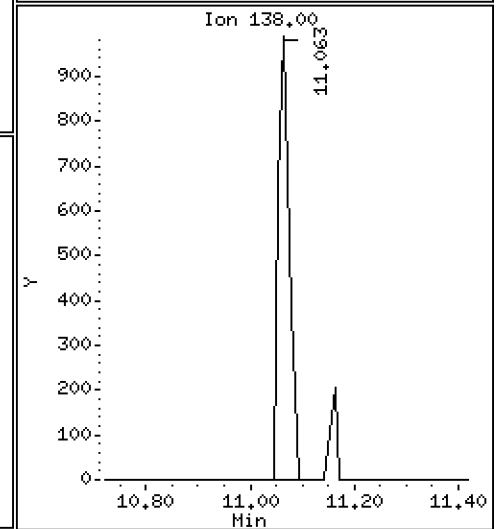
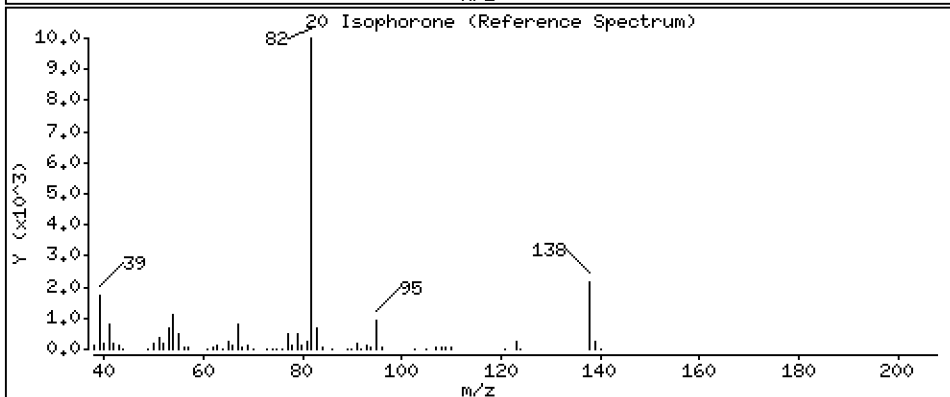
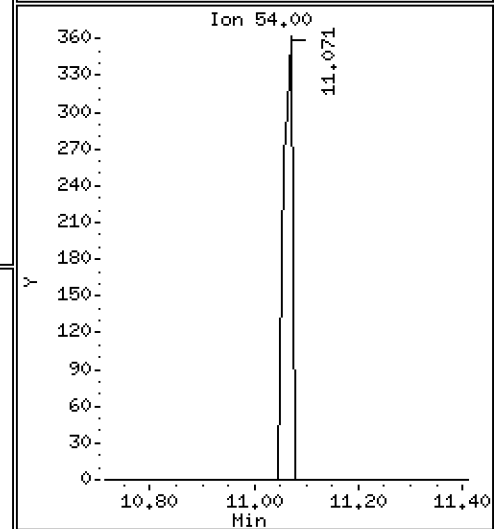
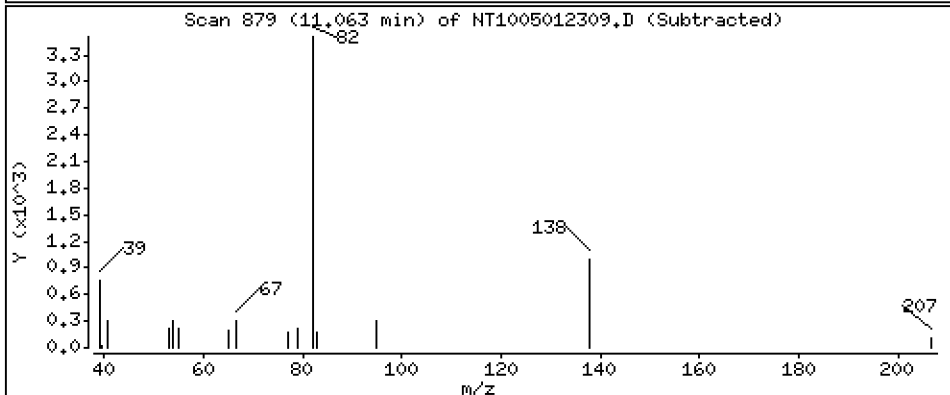
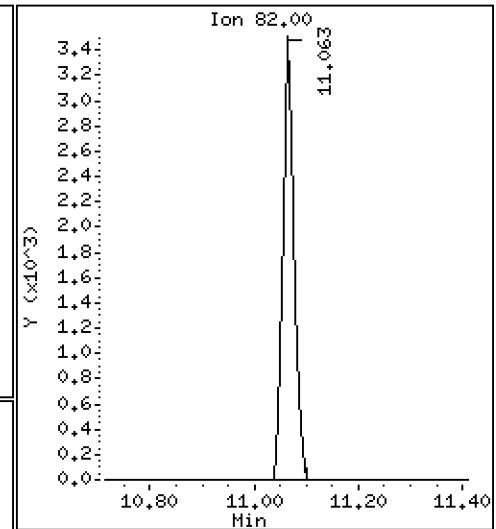
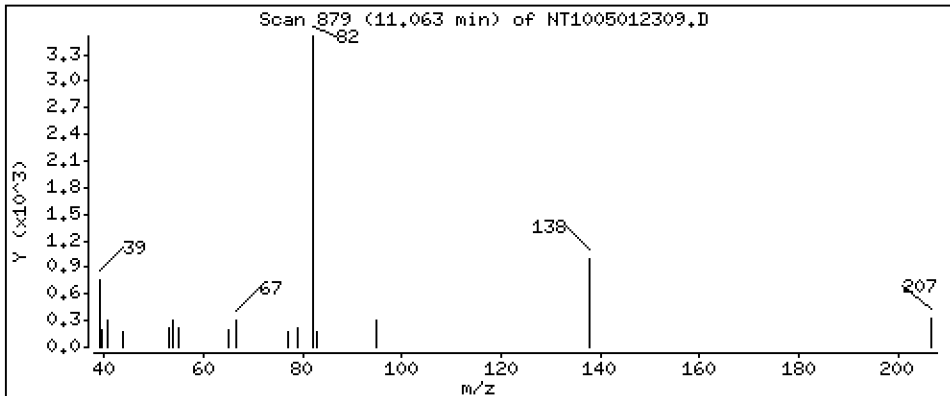
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,07755 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

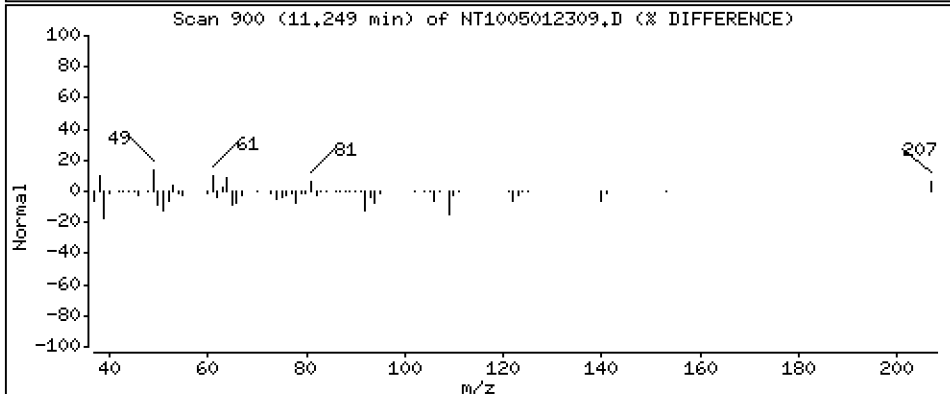
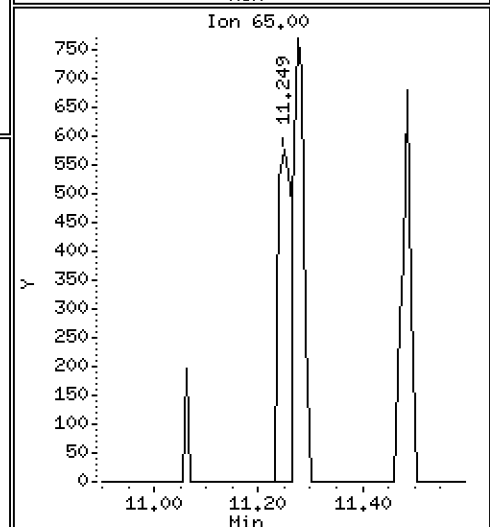
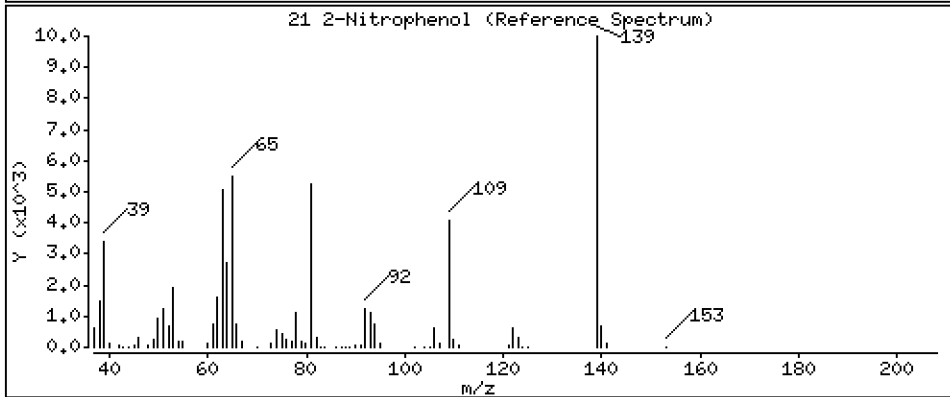
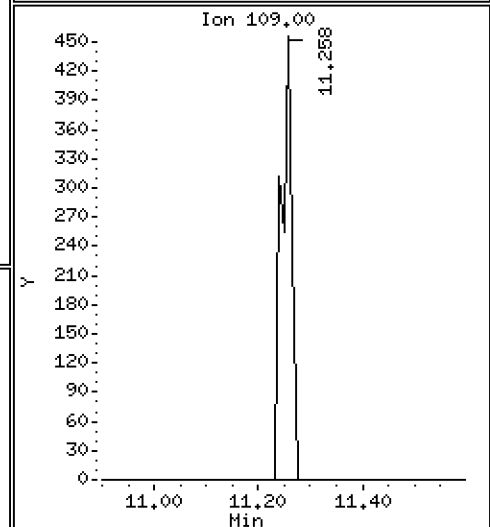
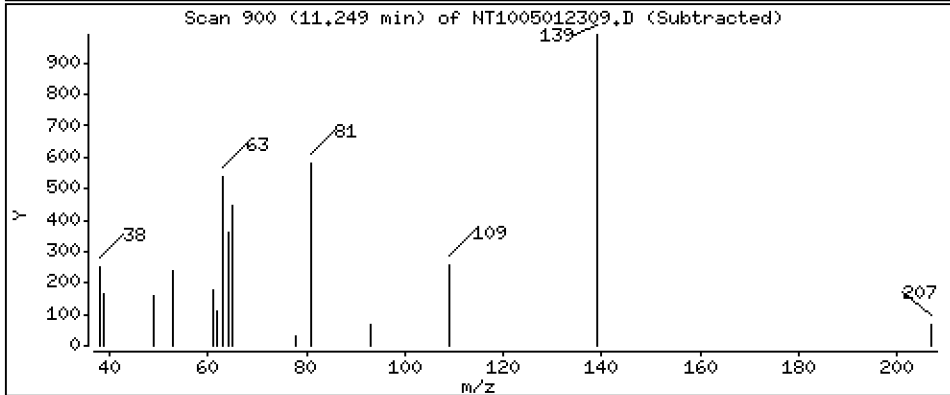
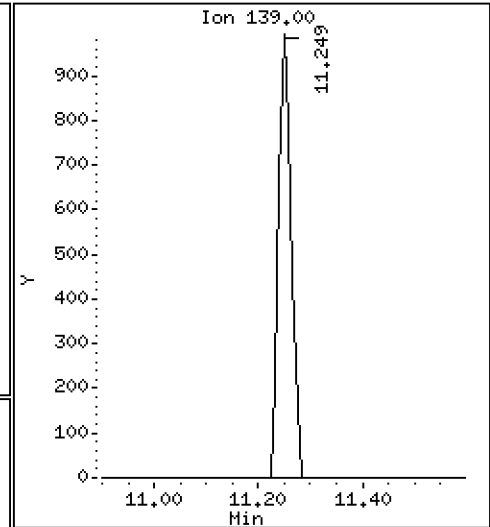
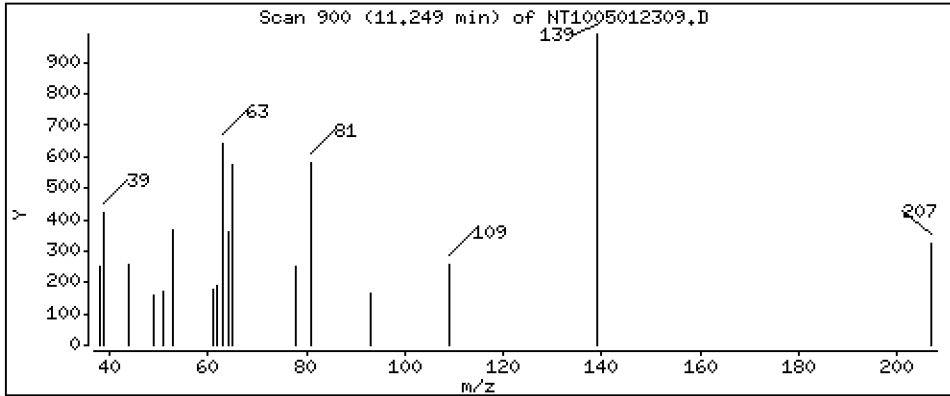
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,05621 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

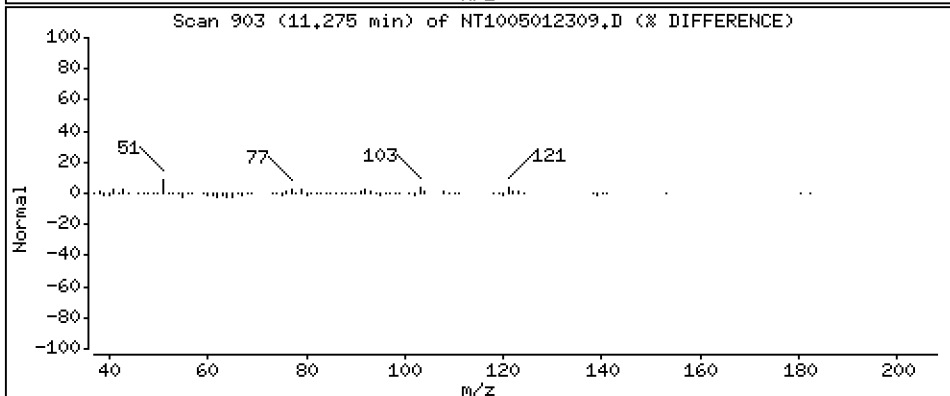
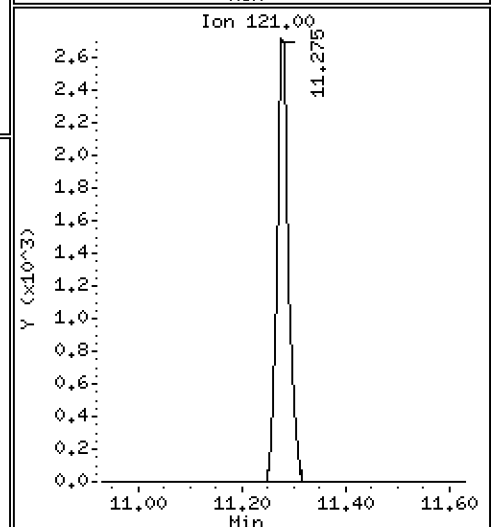
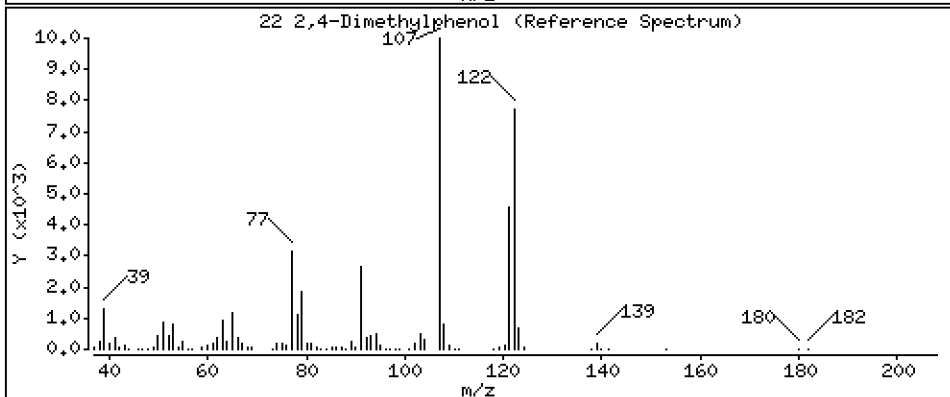
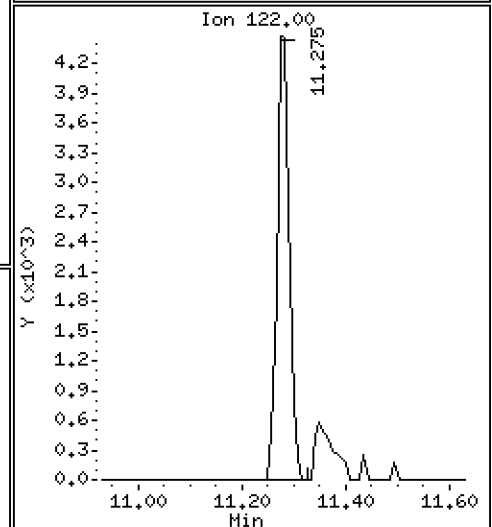
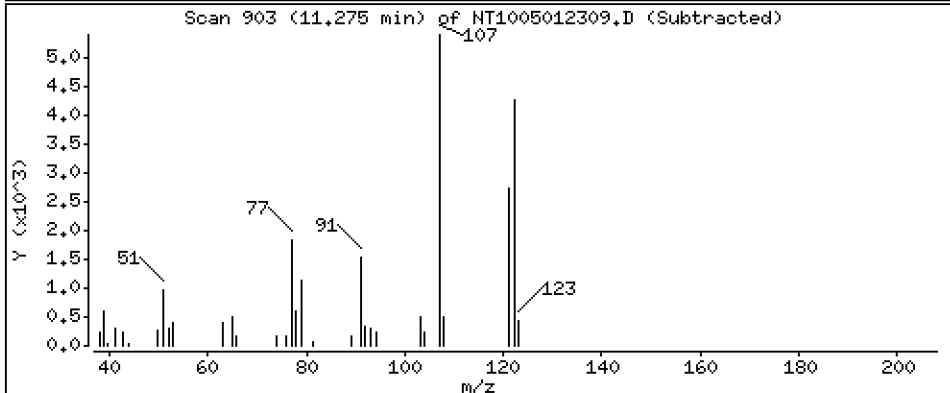
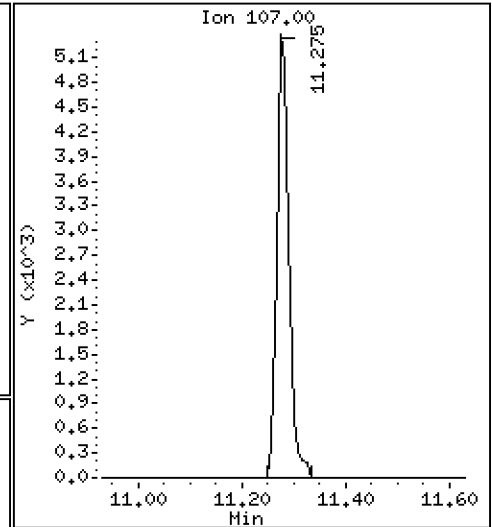
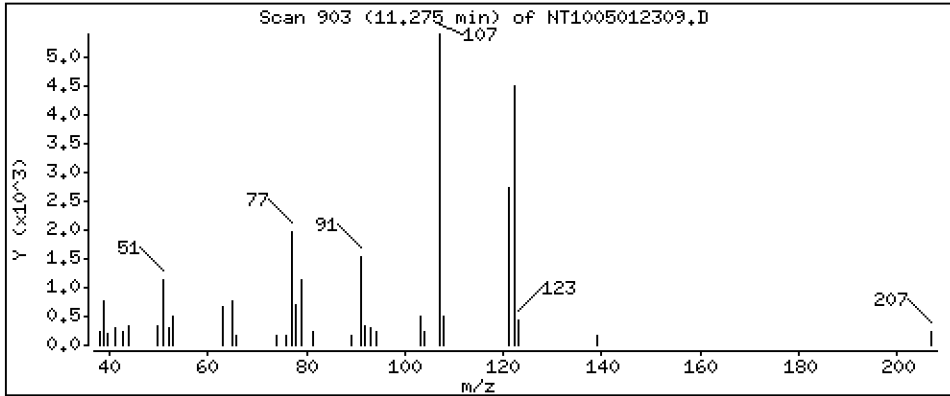
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.1661 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

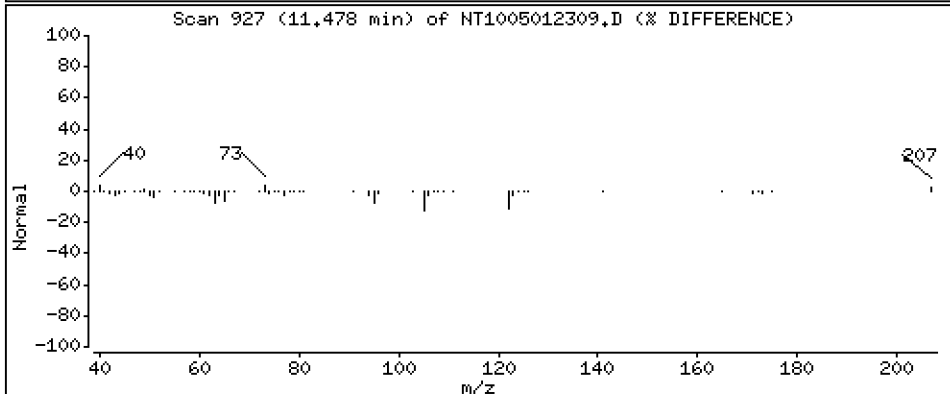
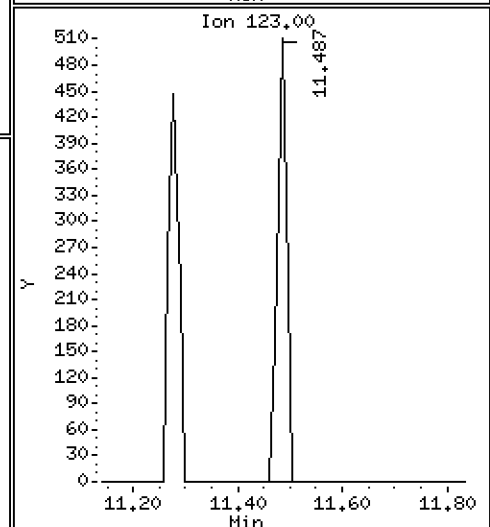
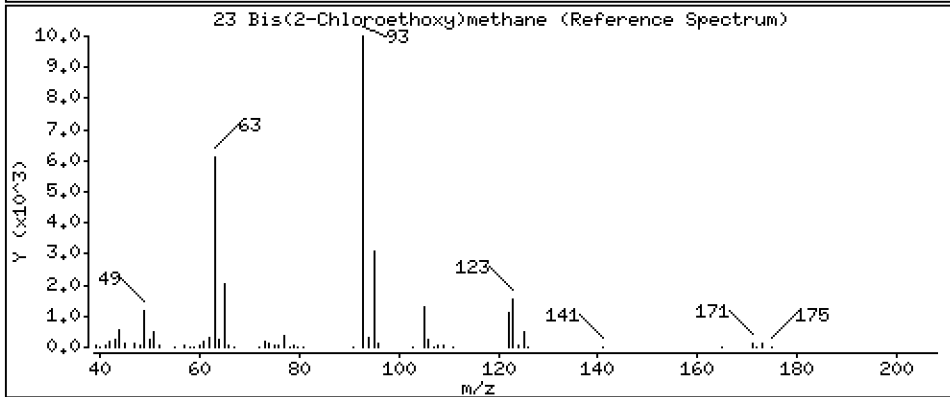
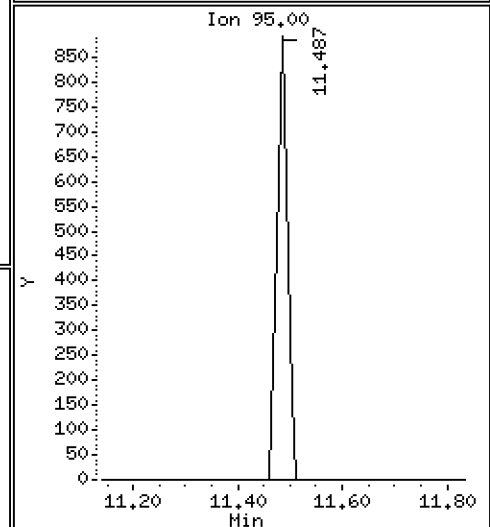
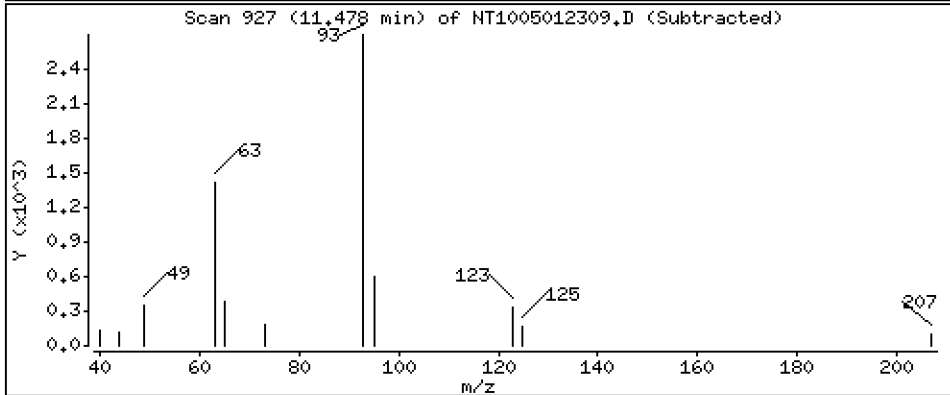
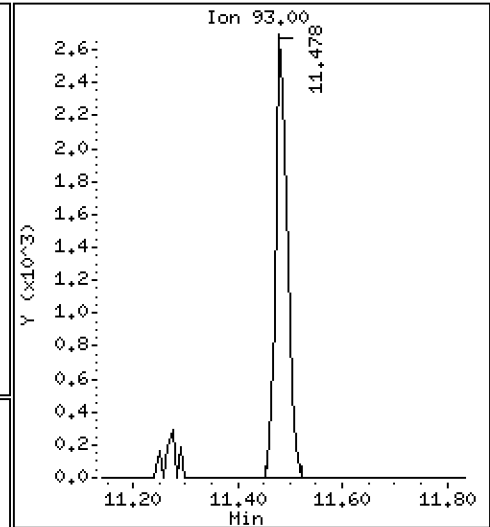
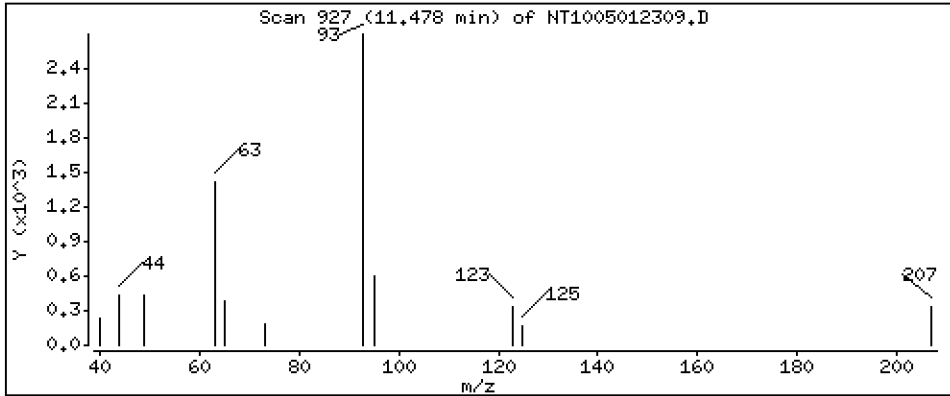
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

23 Bis(2-Chloroethoxy)methane

Concentration: 0.09938 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

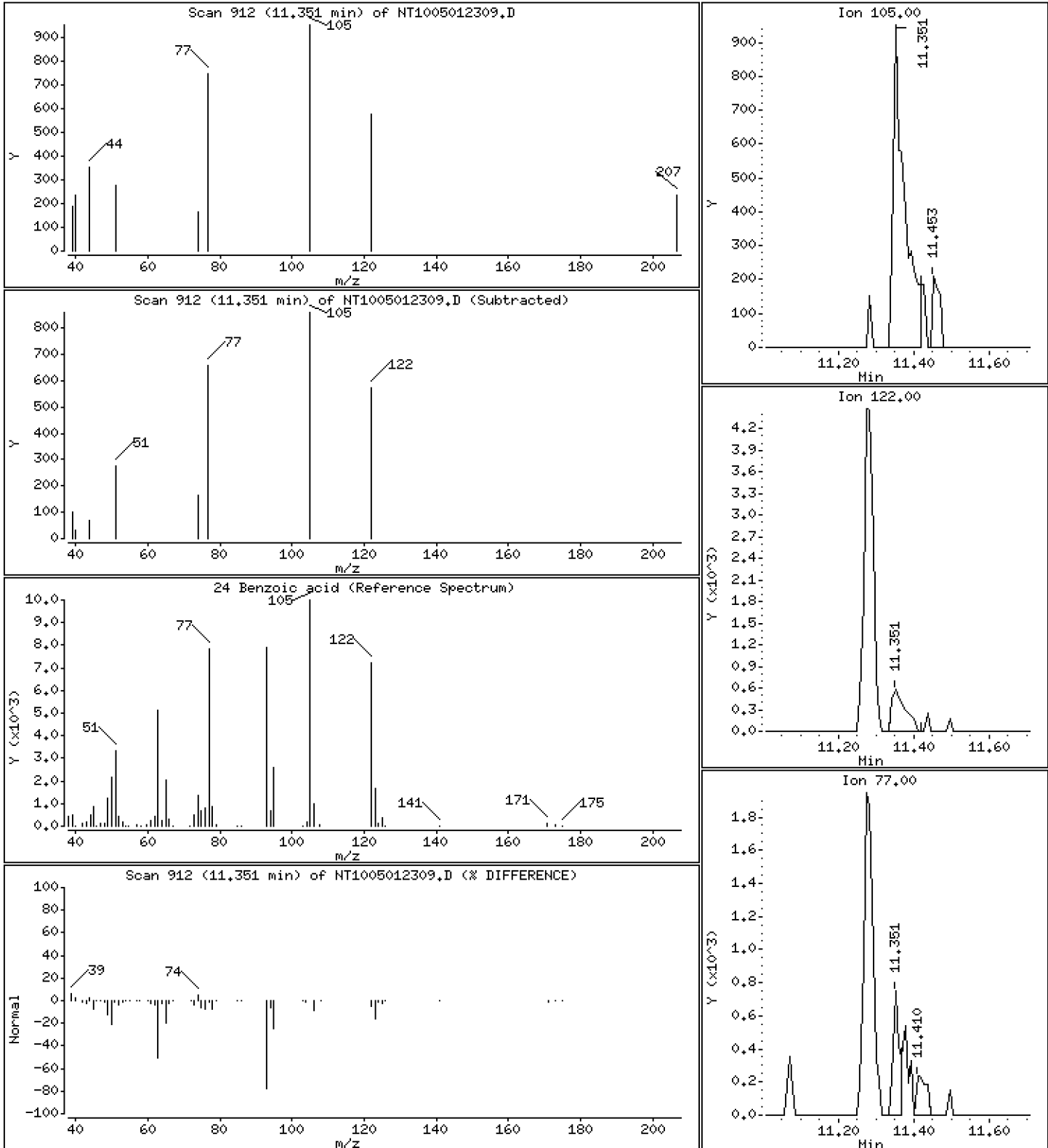
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.05332 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

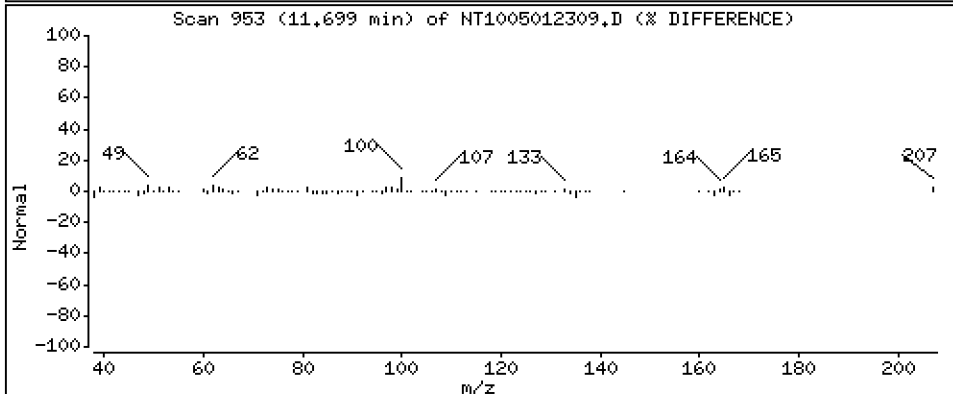
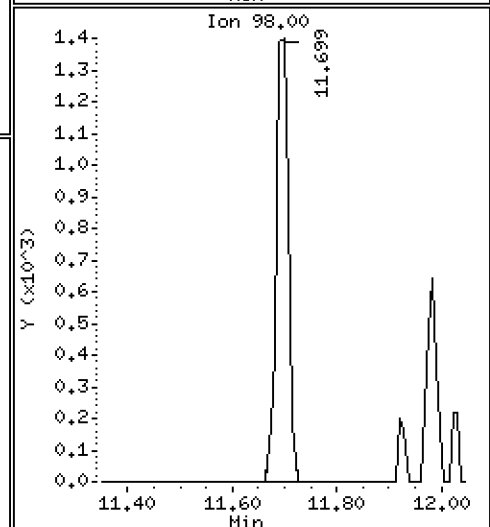
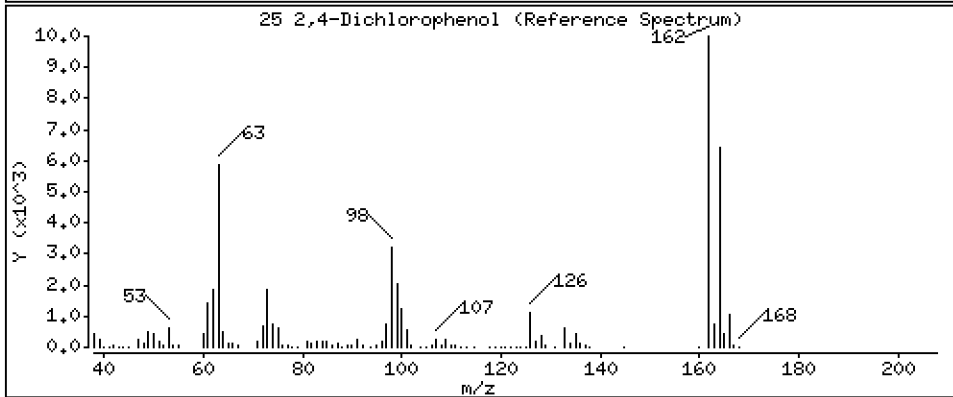
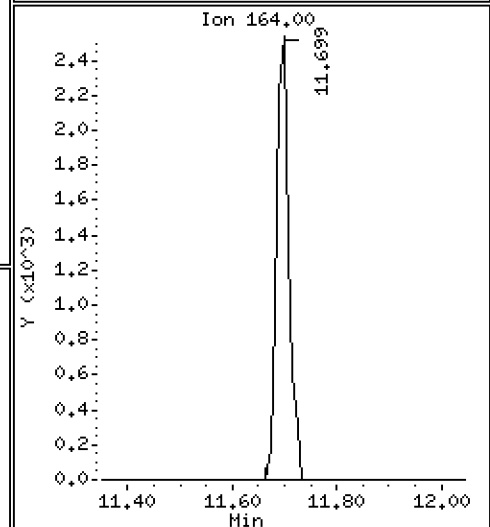
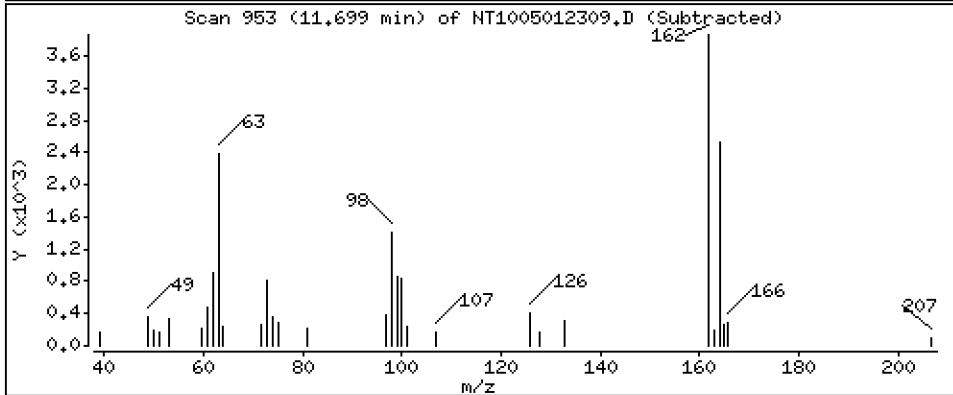
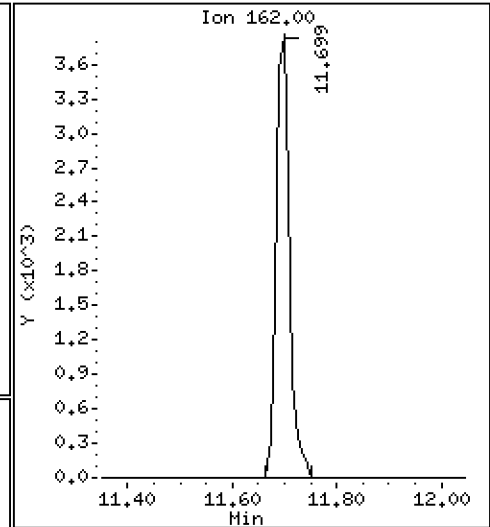
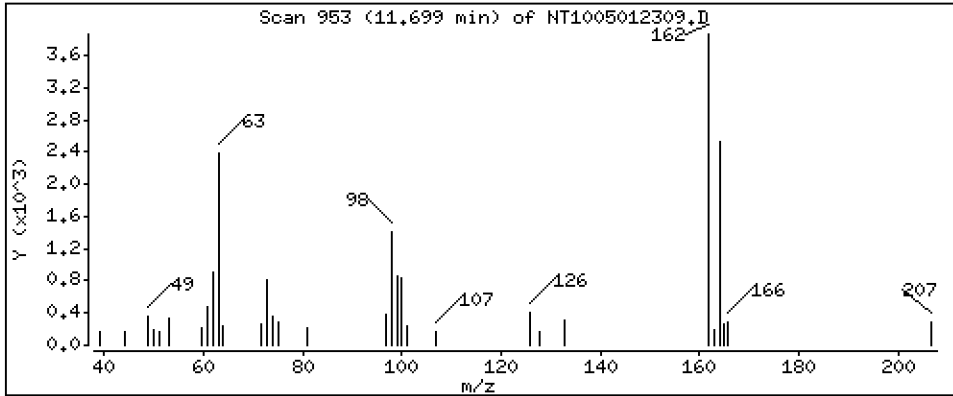
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

25 2,4-Dichlorophenol

Concentration: 0.1603 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

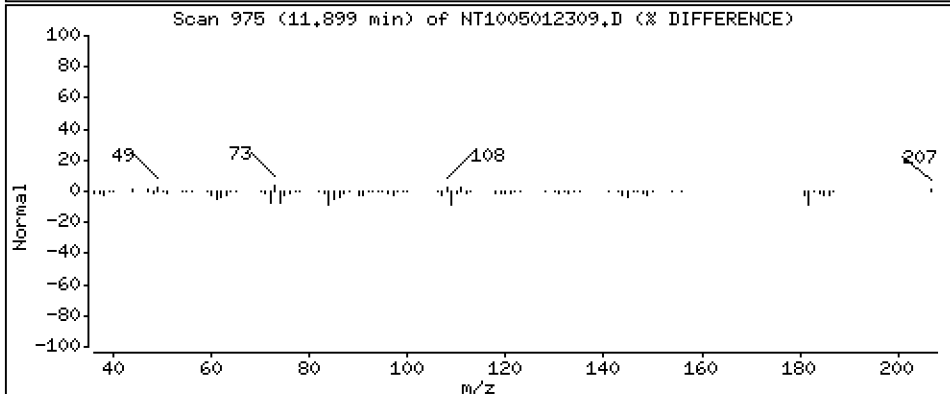
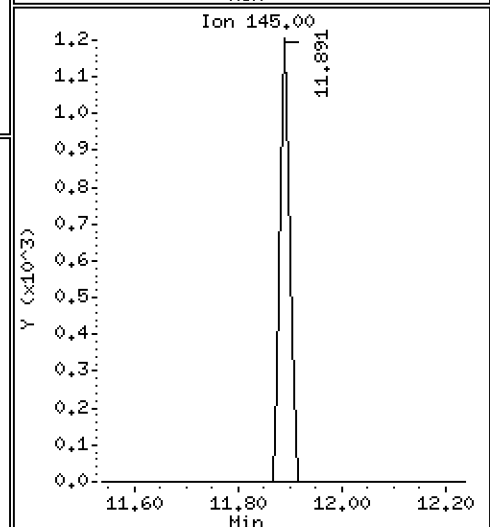
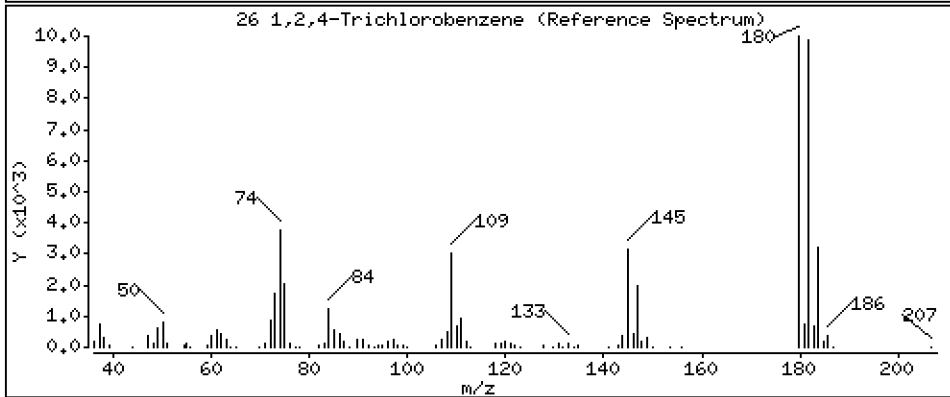
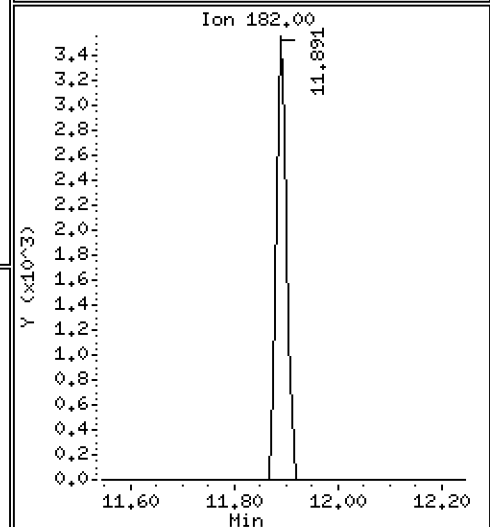
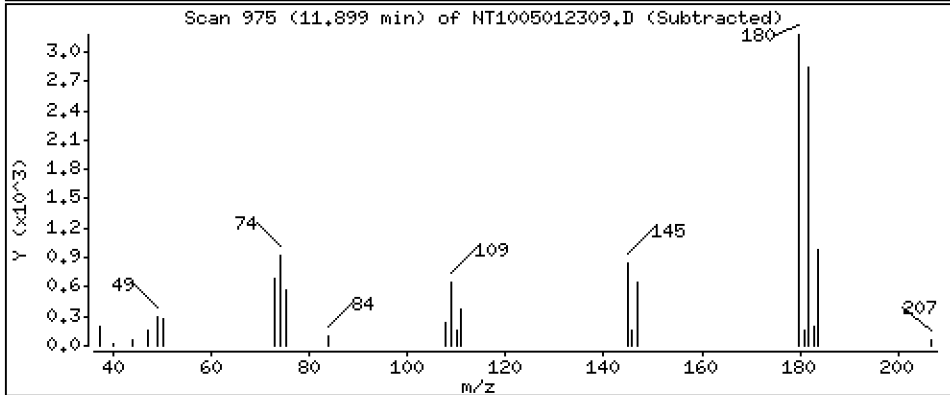
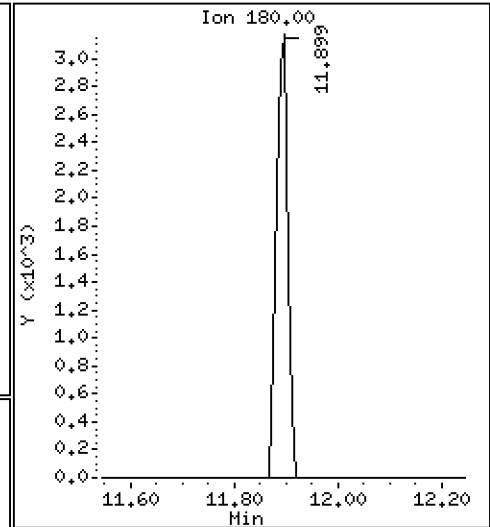
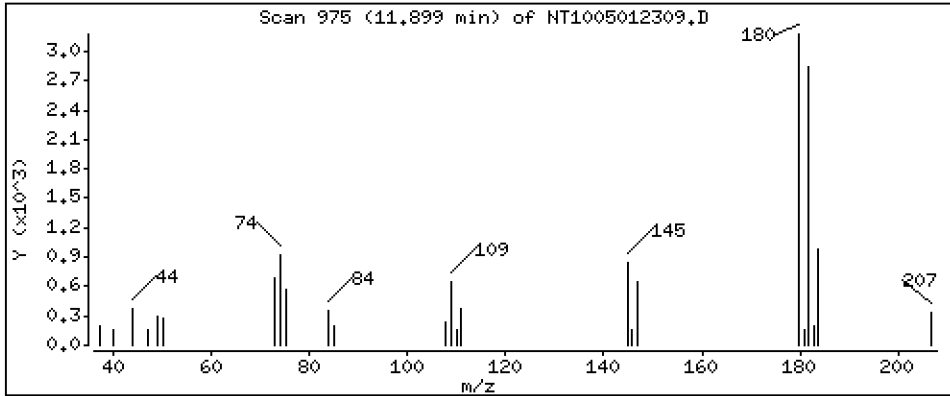
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.08376 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

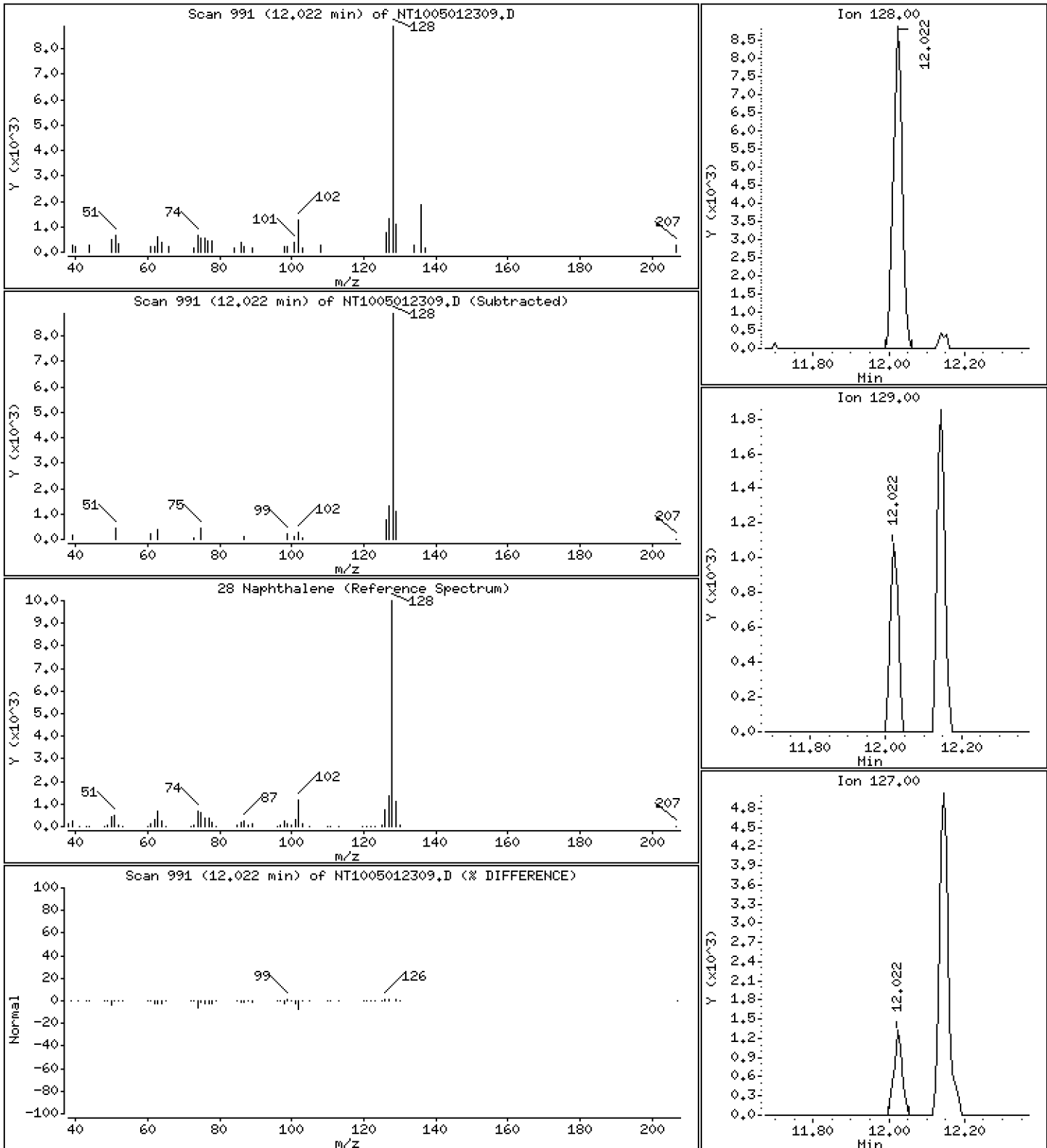
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,09813 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

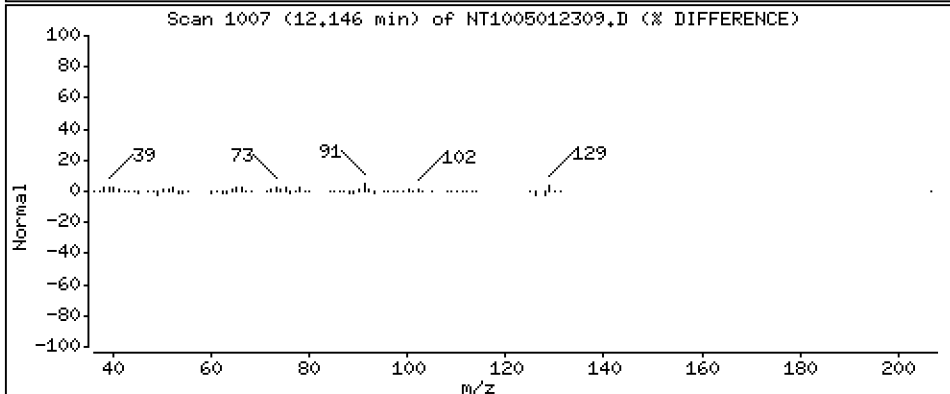
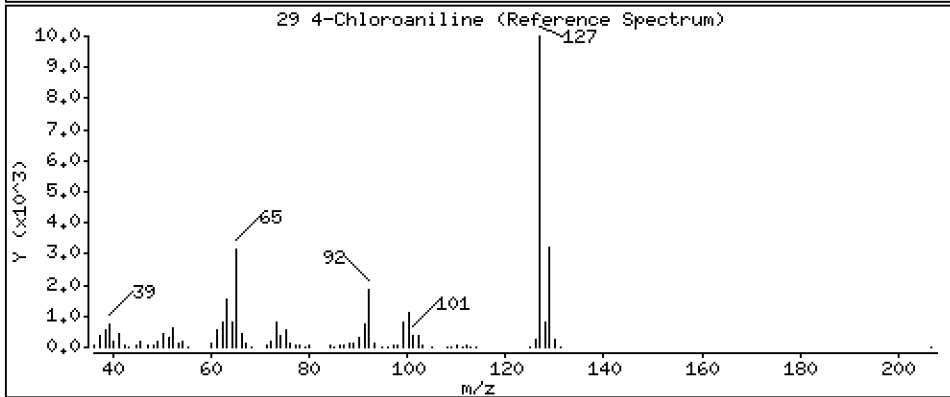
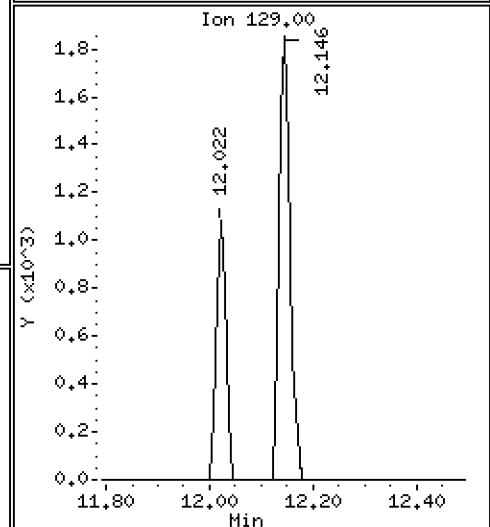
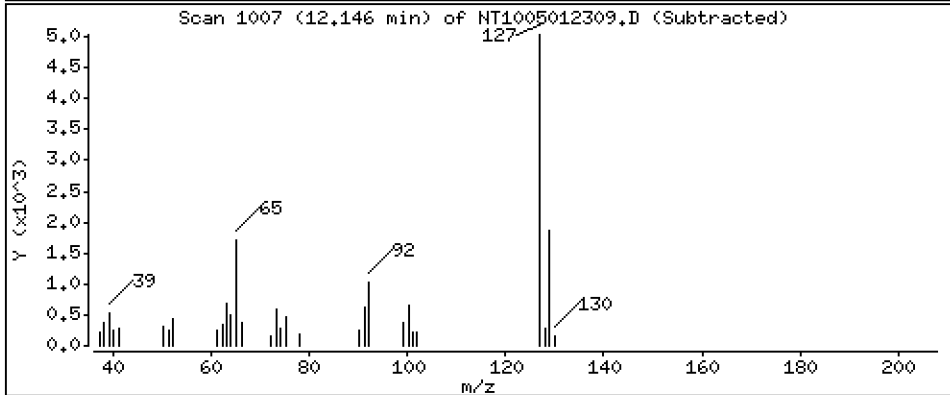
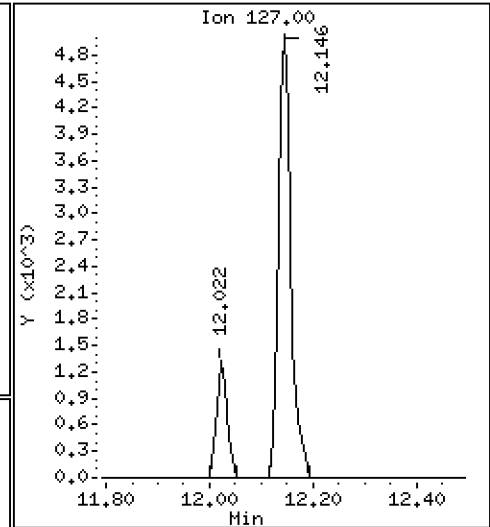
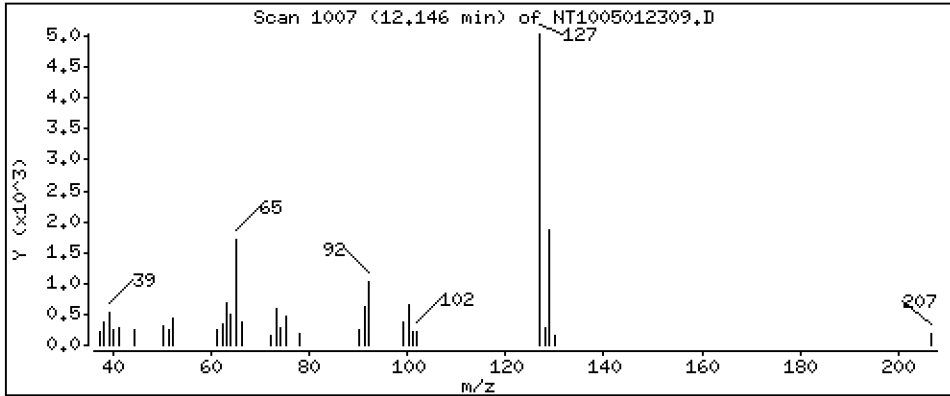
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,1614 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

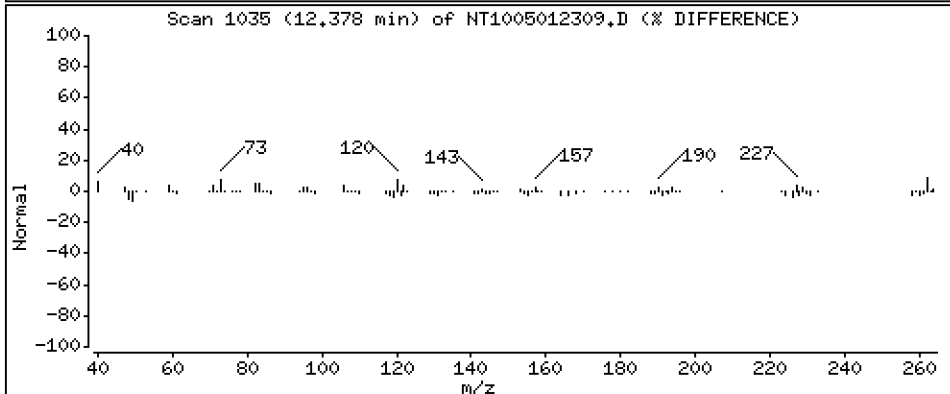
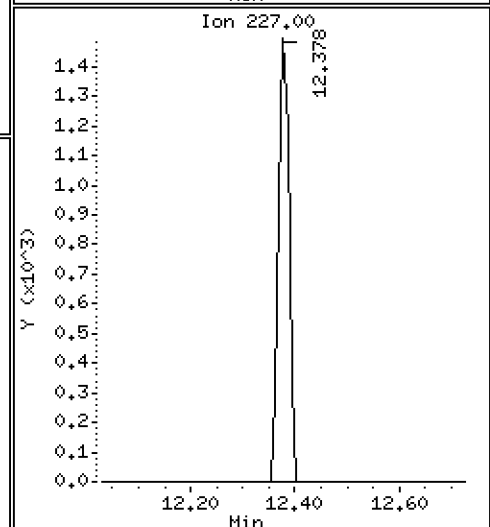
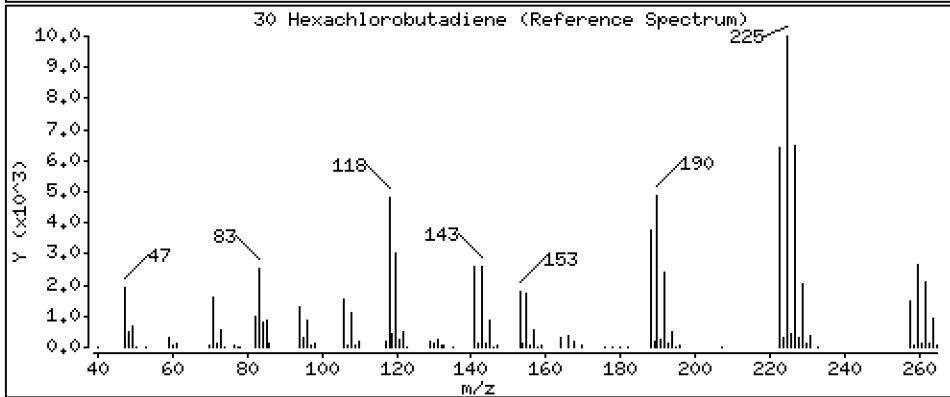
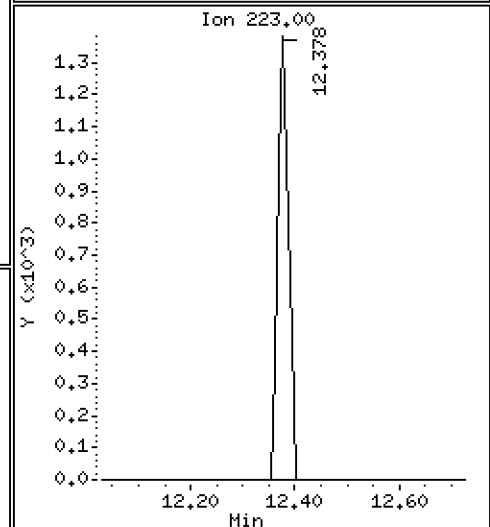
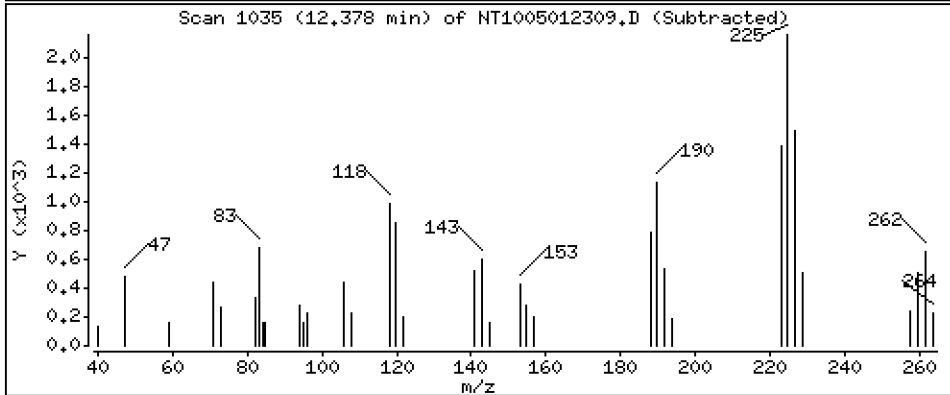
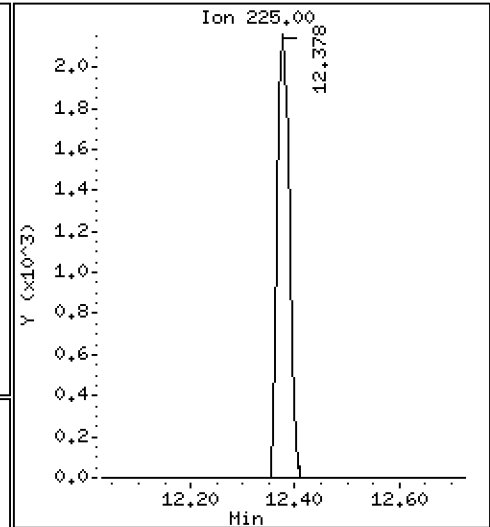
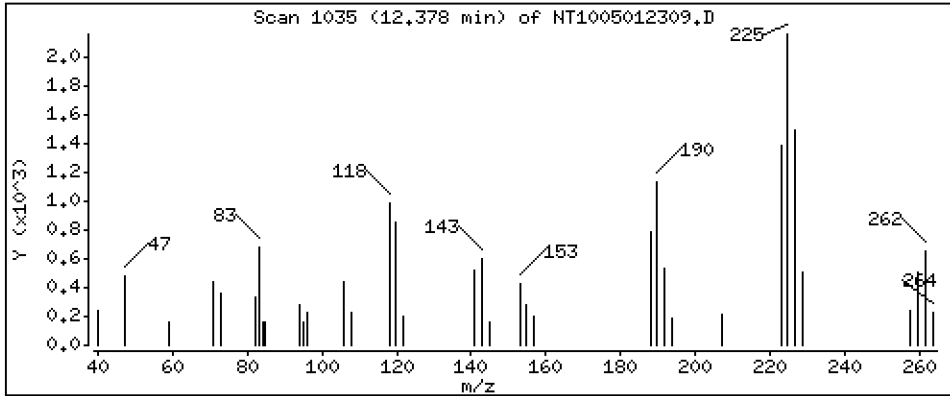
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,09745 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

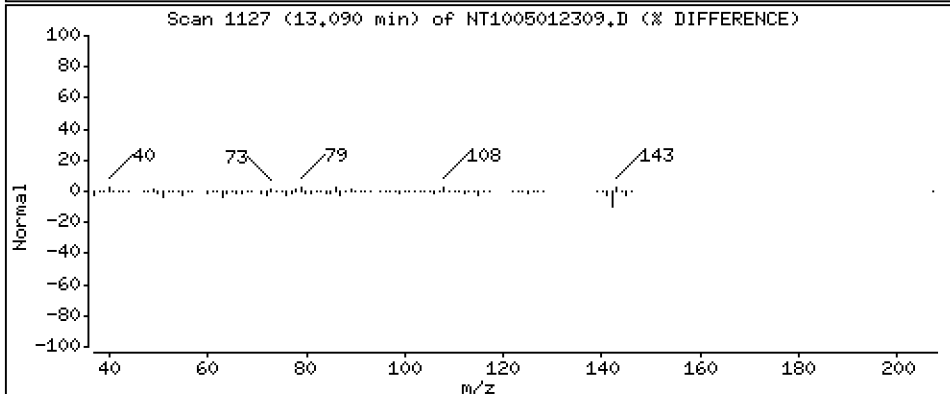
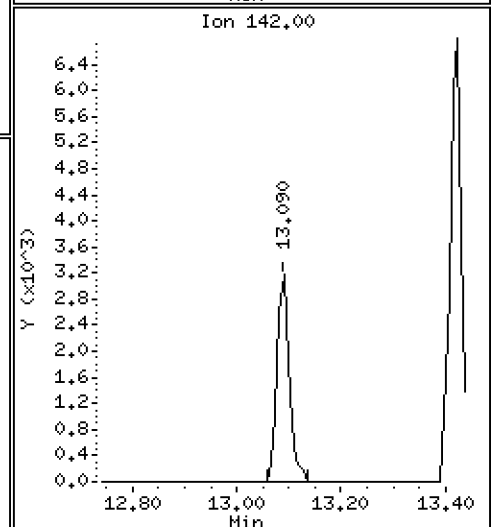
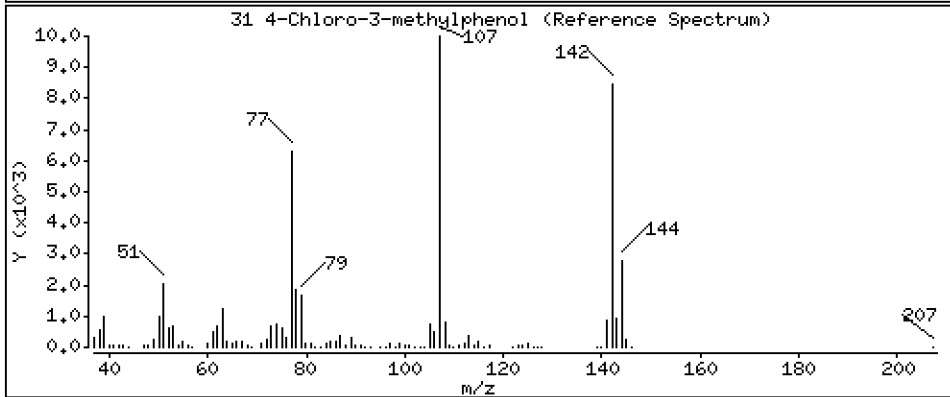
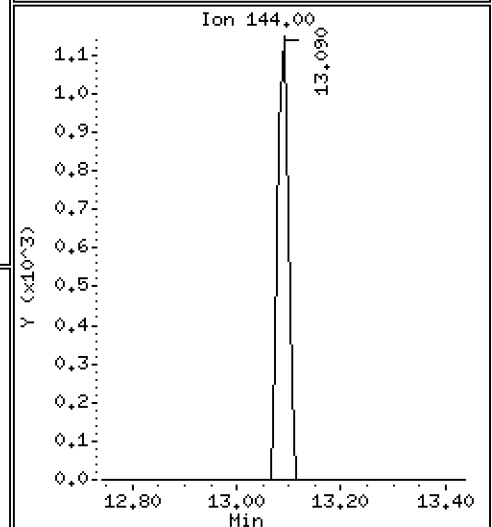
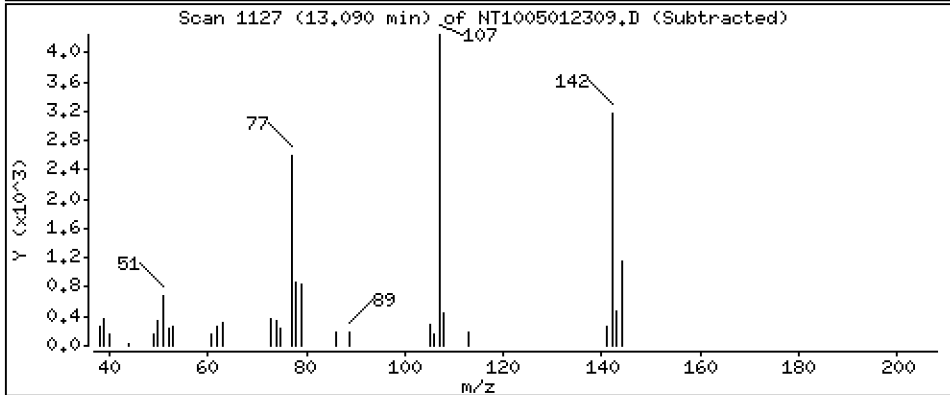
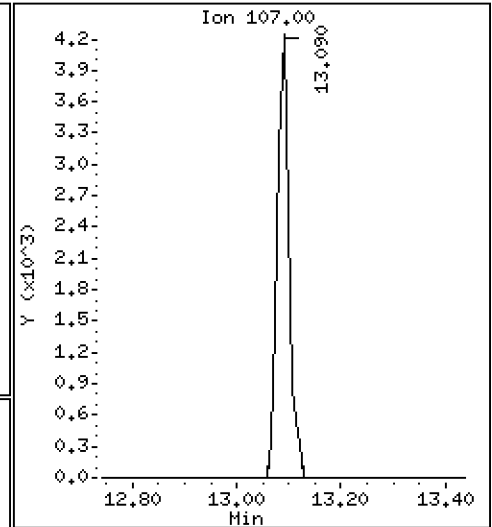
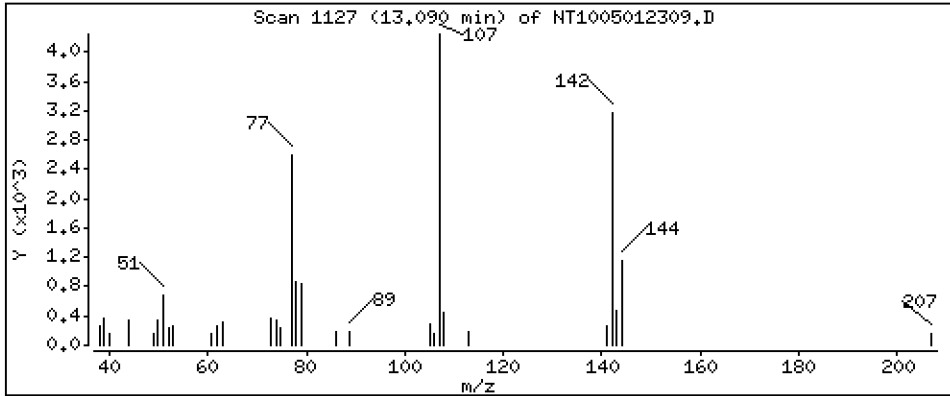
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,1346 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

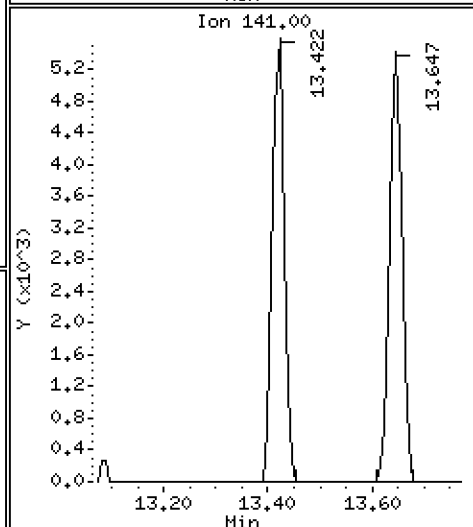
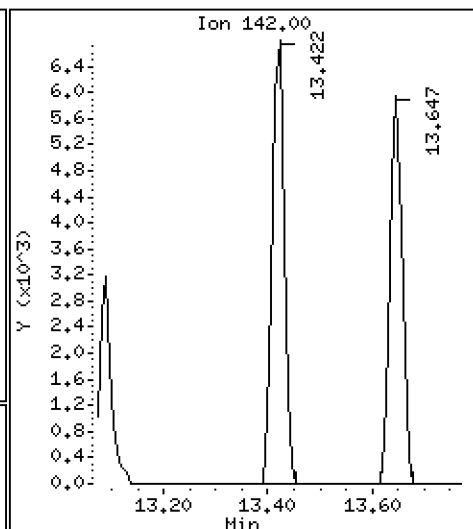
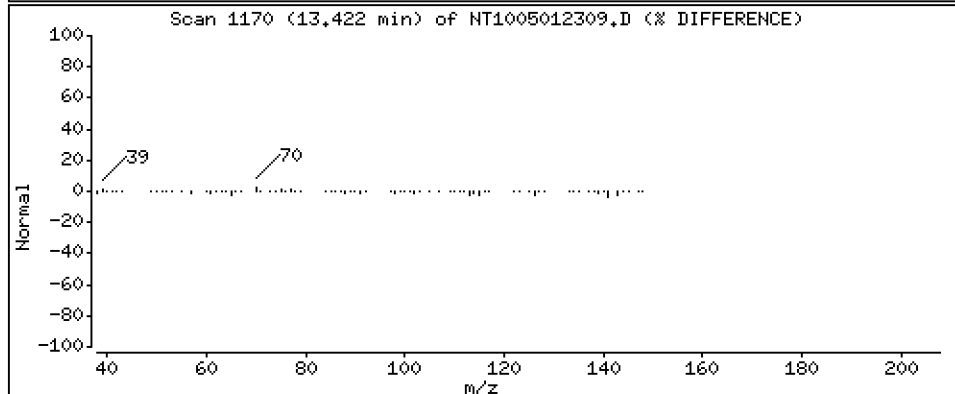
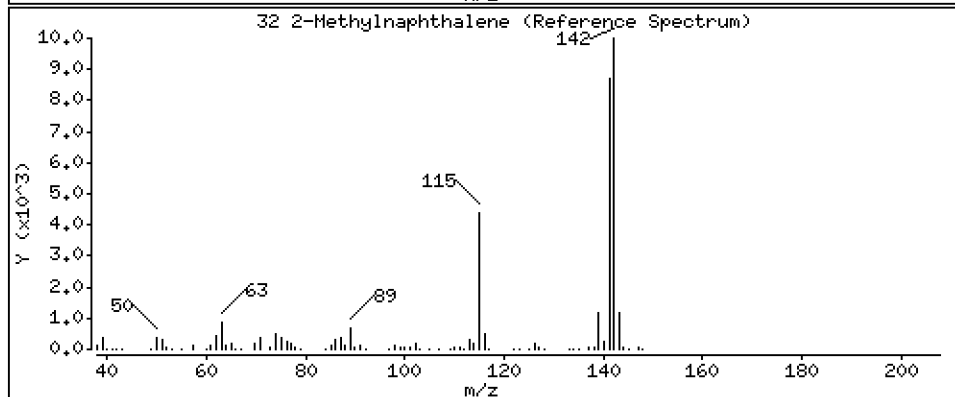
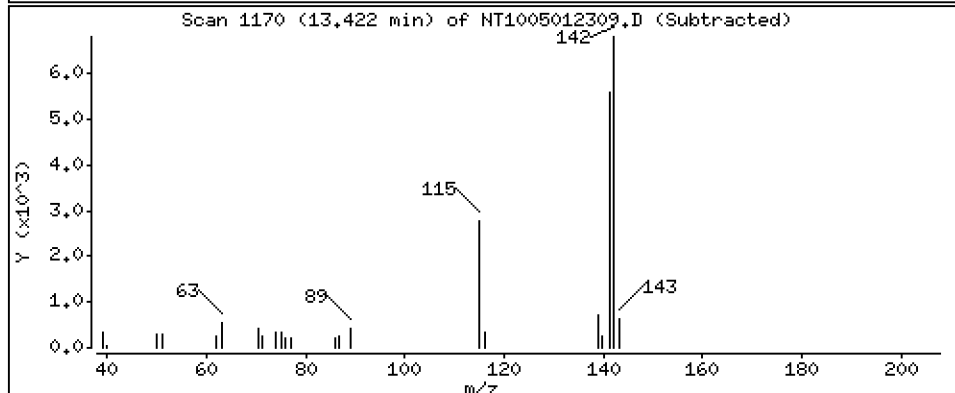
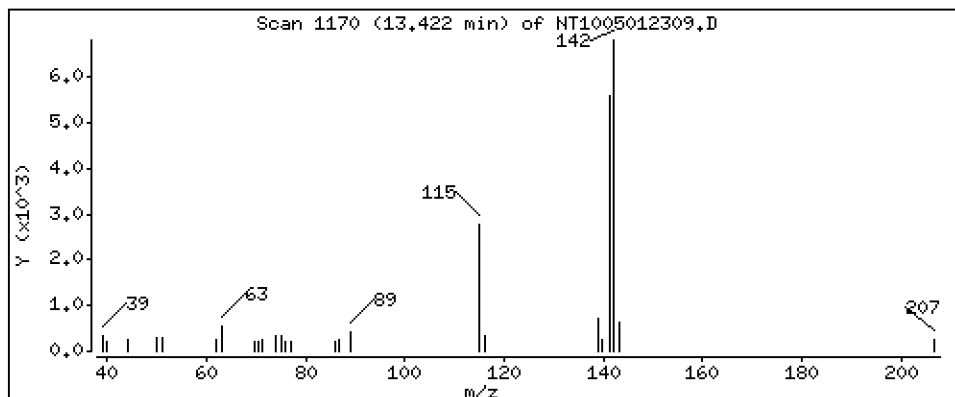
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,09585 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

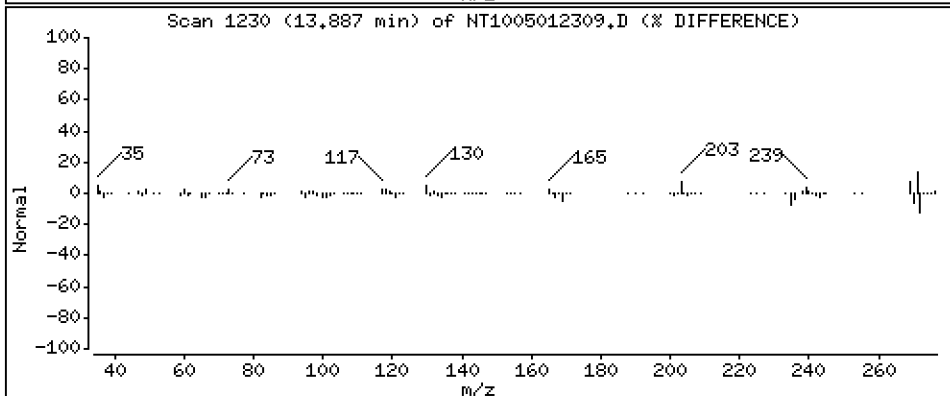
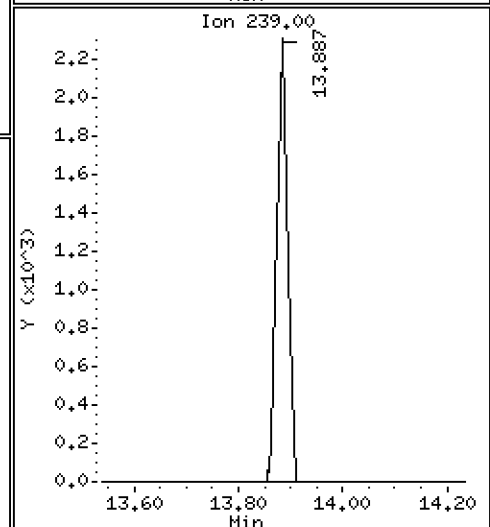
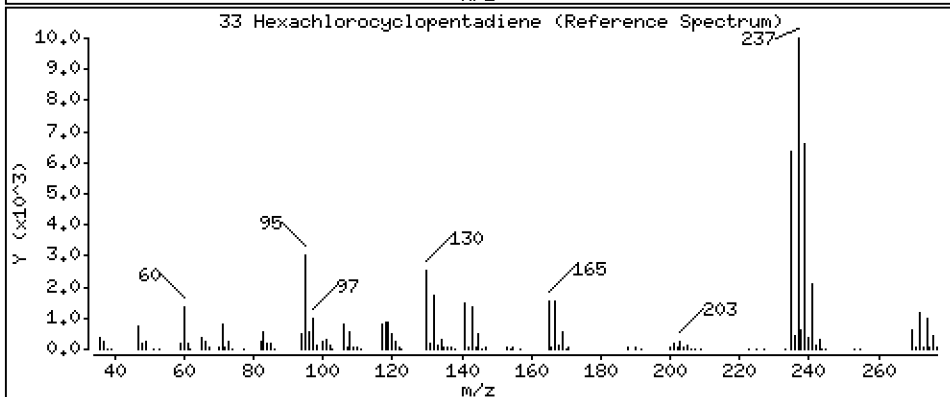
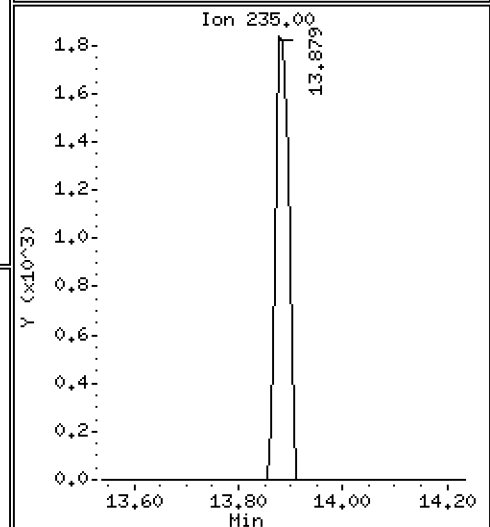
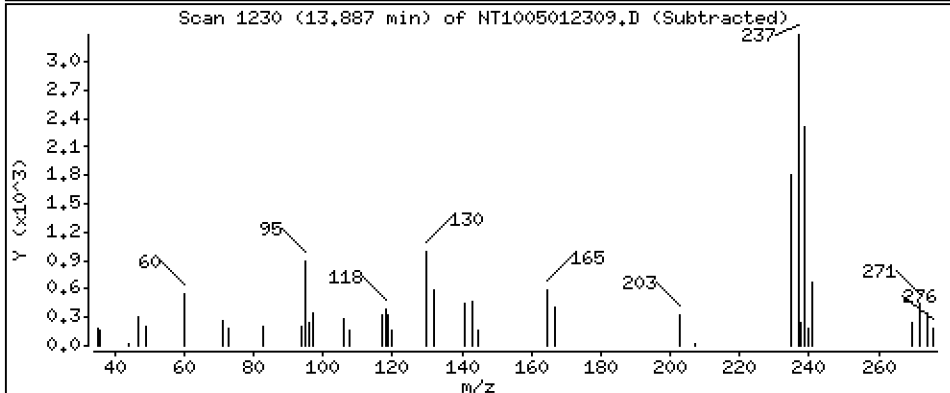
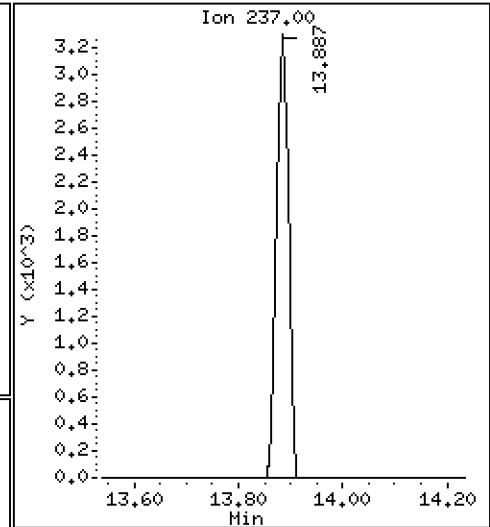
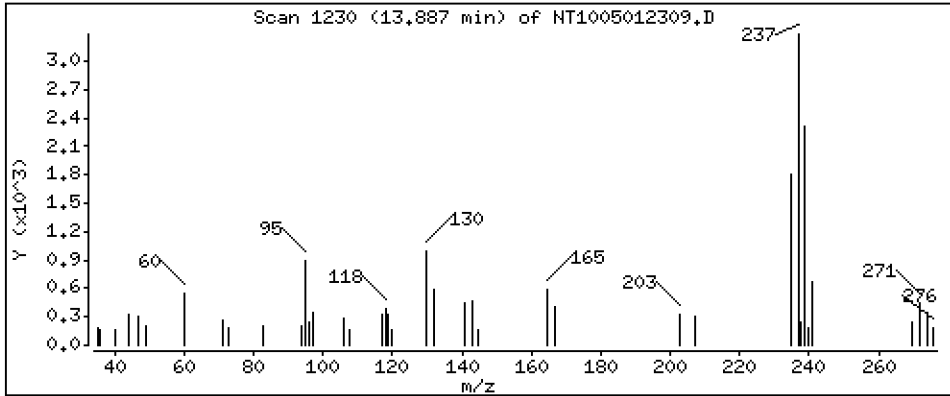
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 0.1437 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

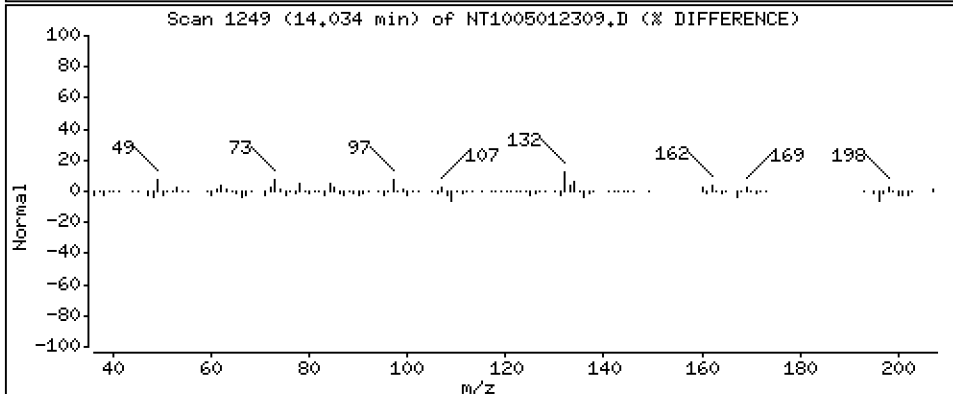
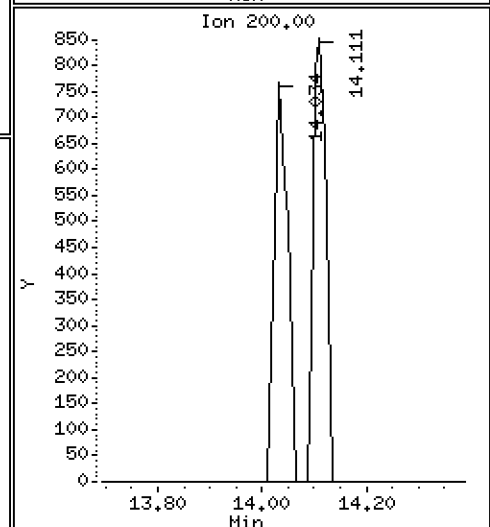
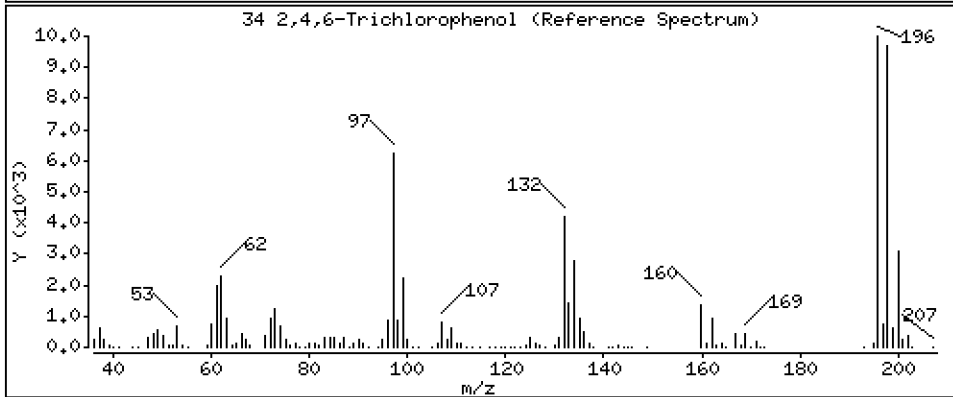
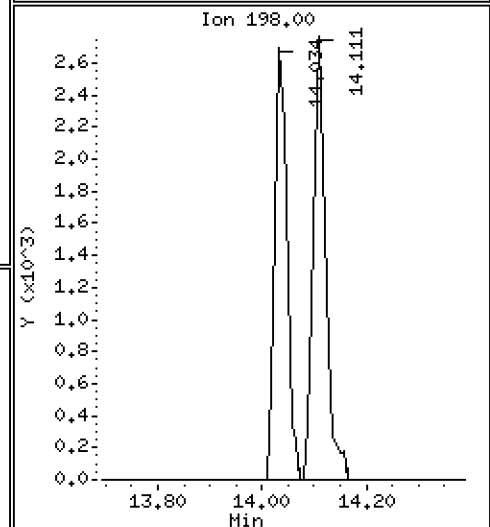
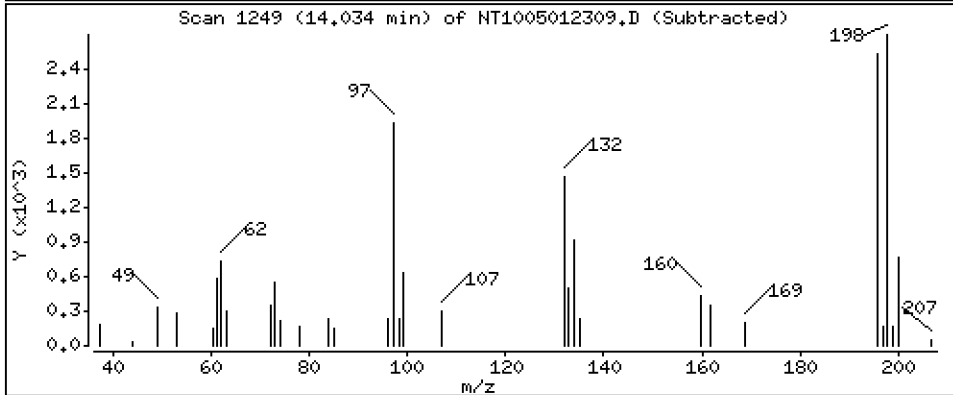
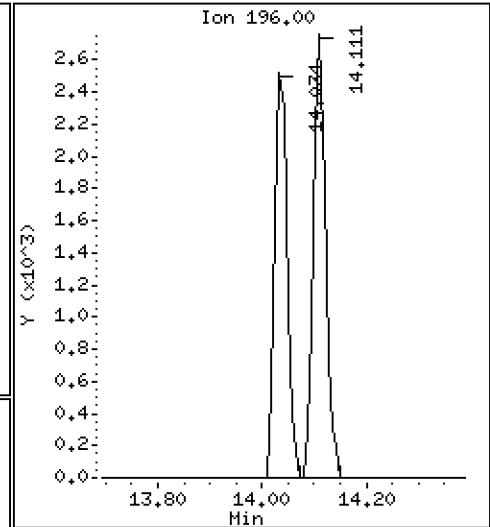
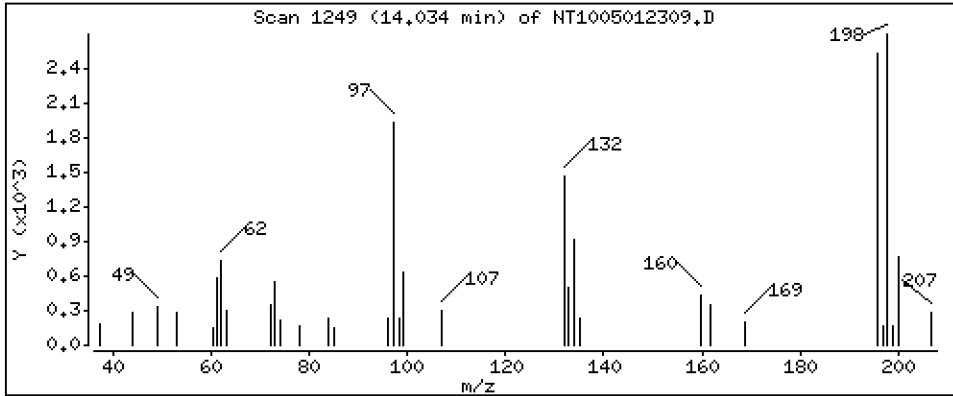
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 0,1167 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

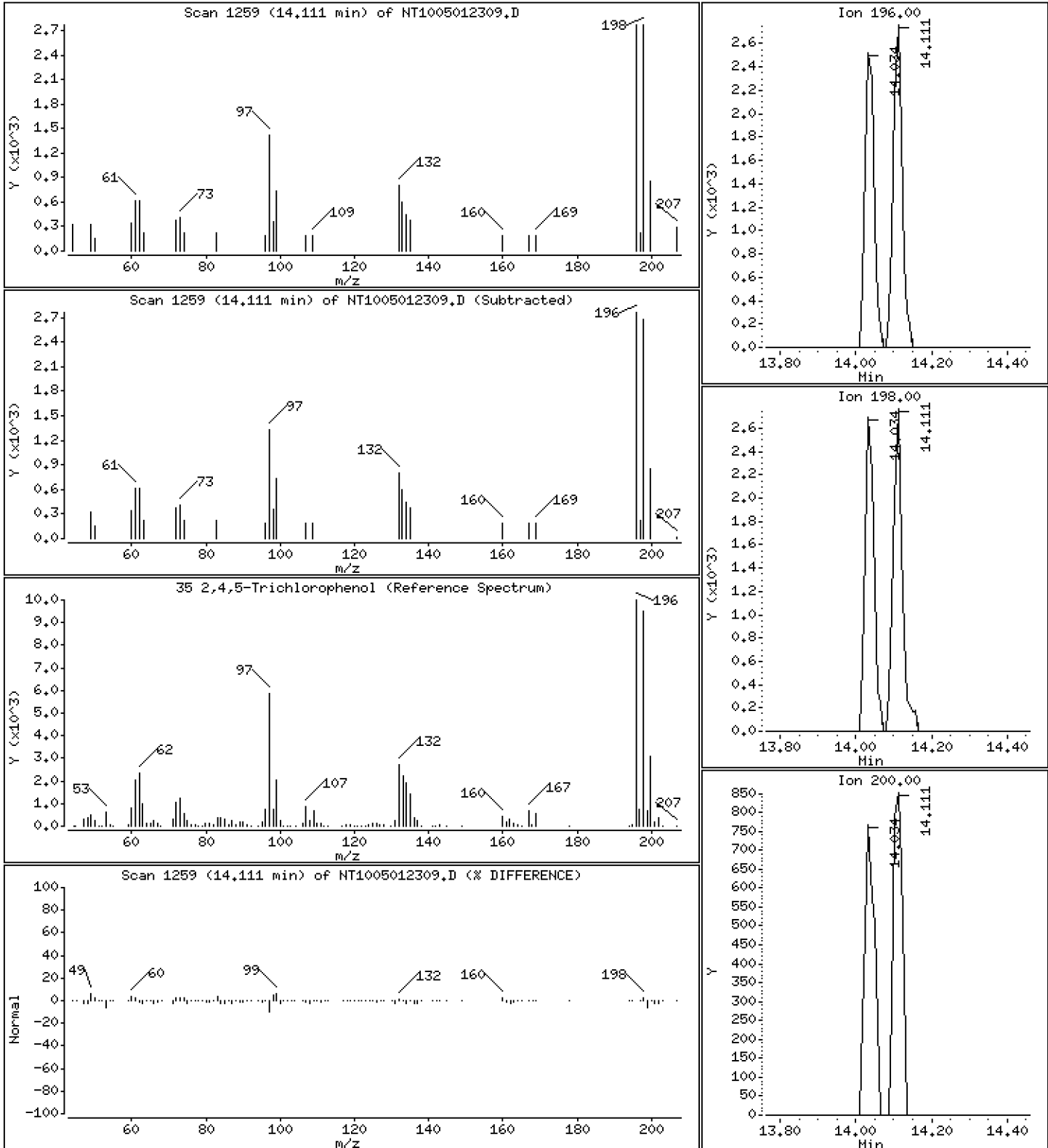
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

35 2,4,5-Trichlorophenol

Concentration: 0.1145 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

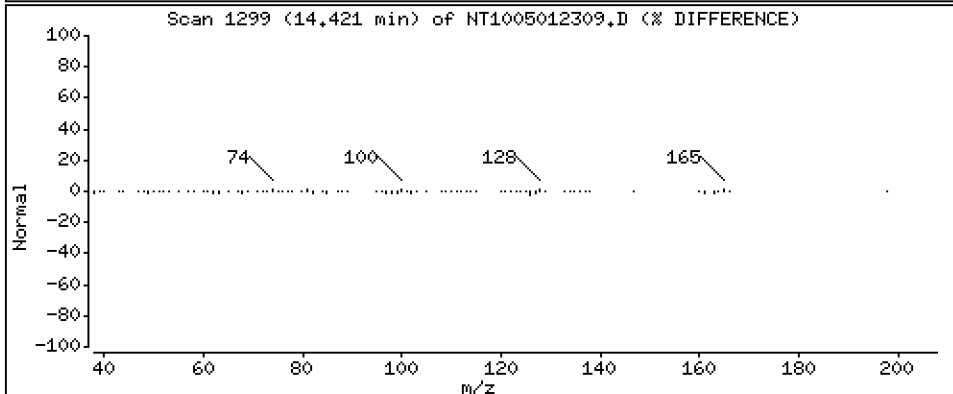
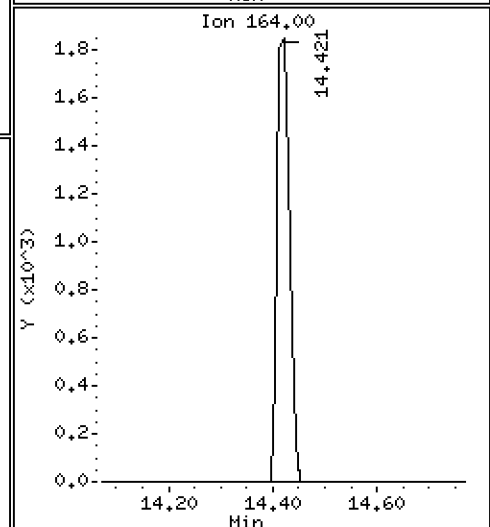
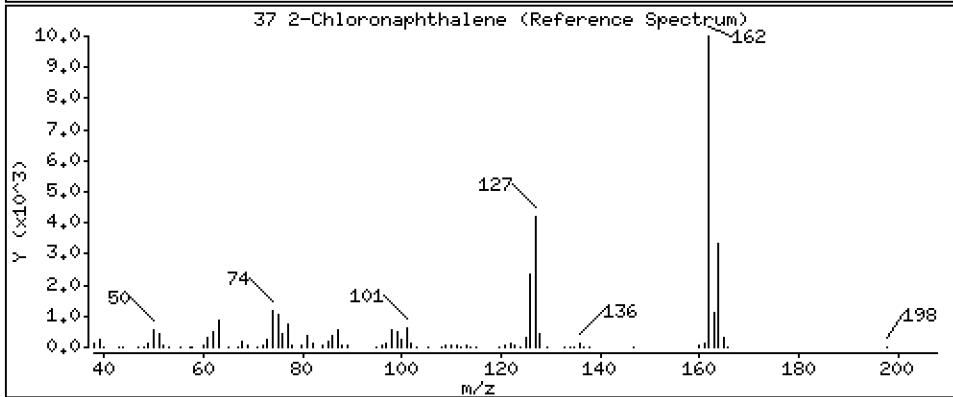
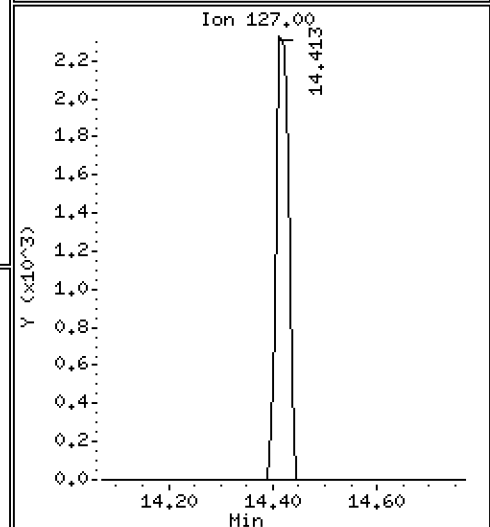
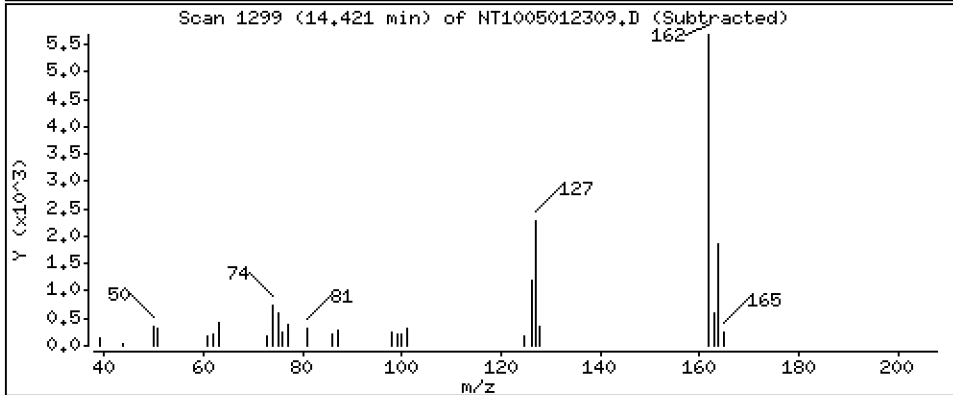
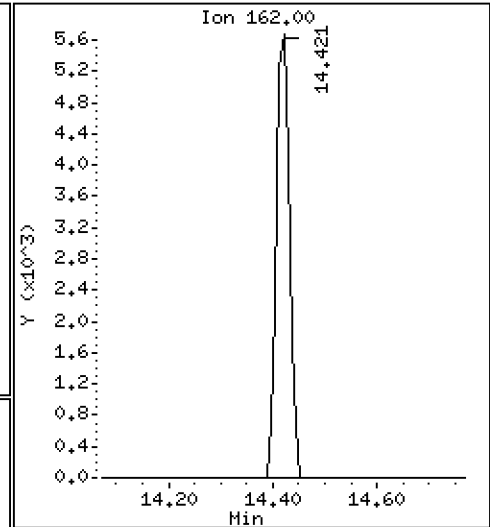
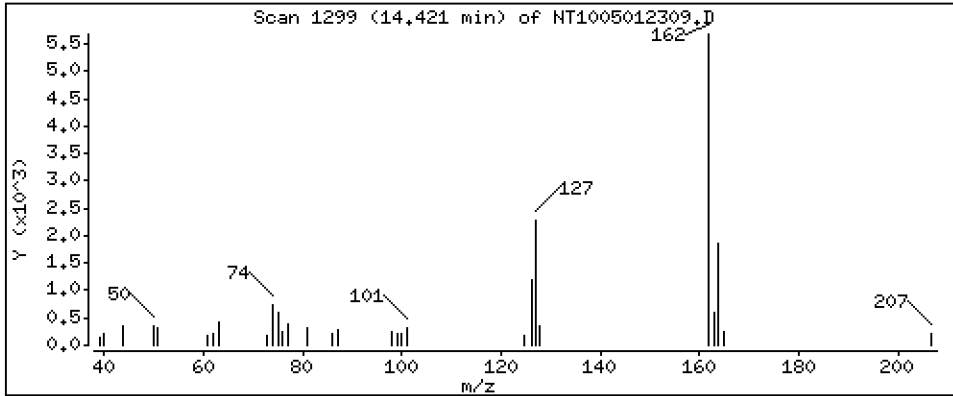
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,09901 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

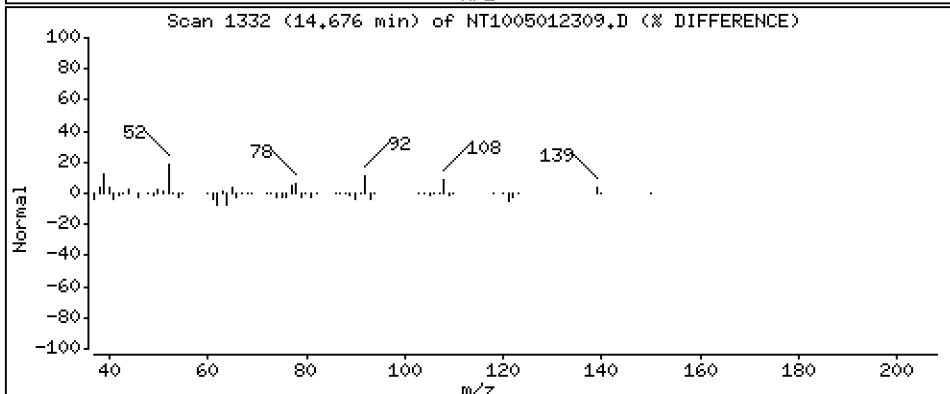
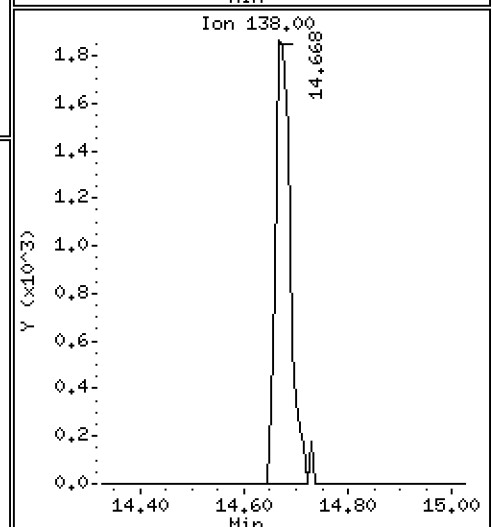
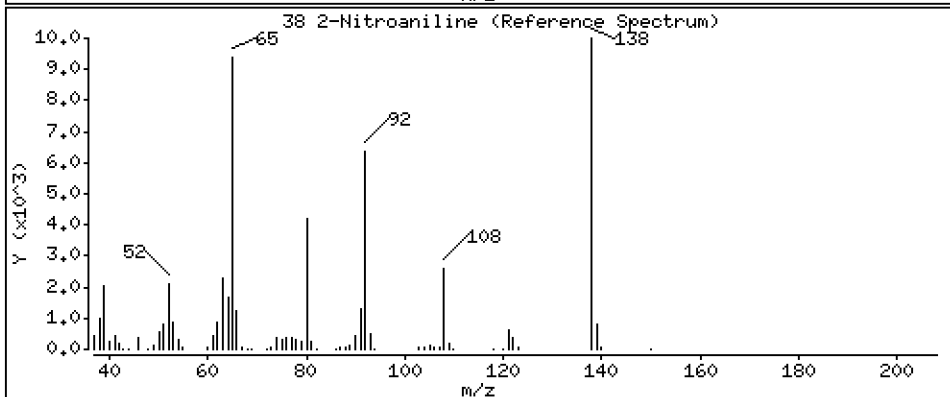
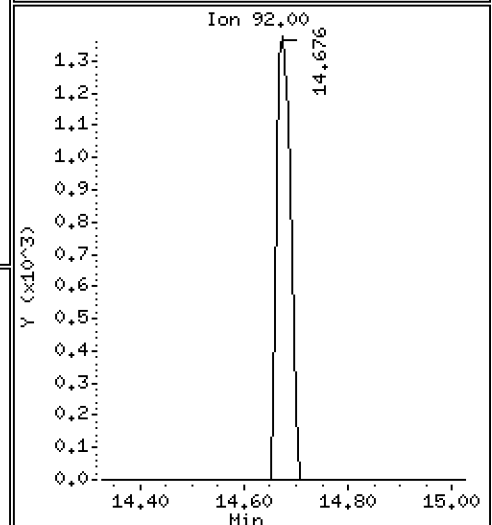
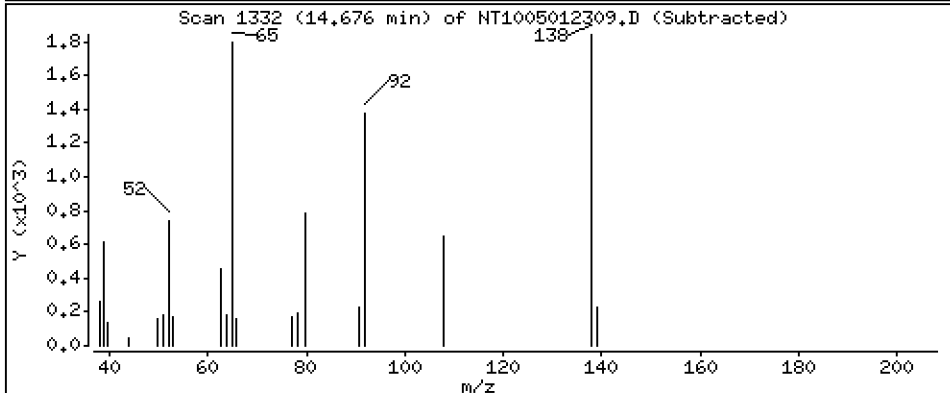
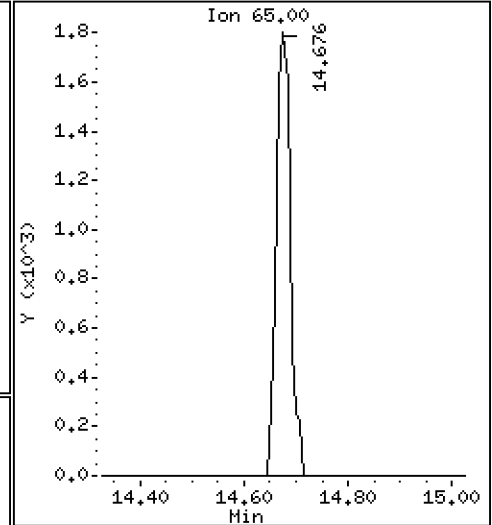
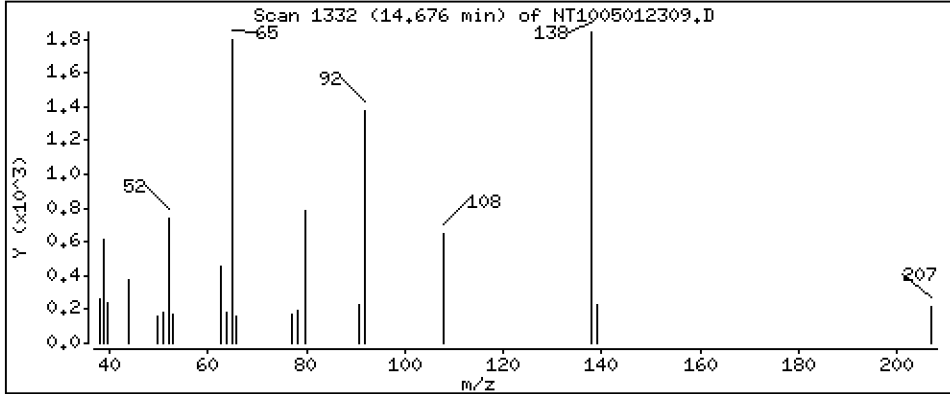
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 0,1172 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

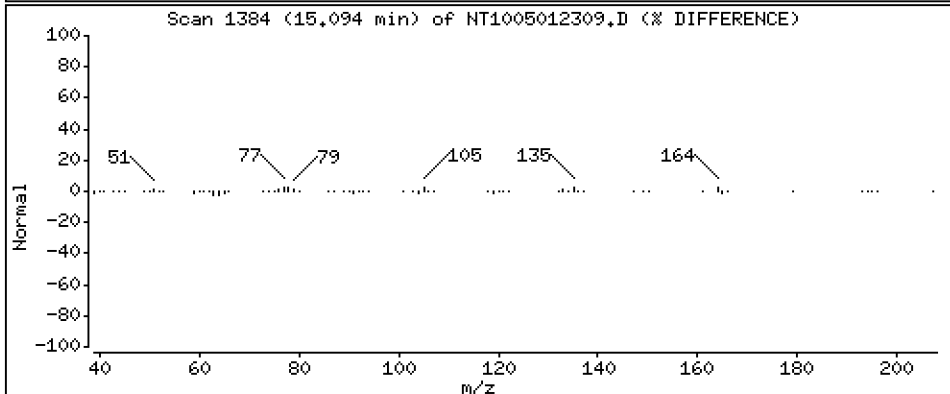
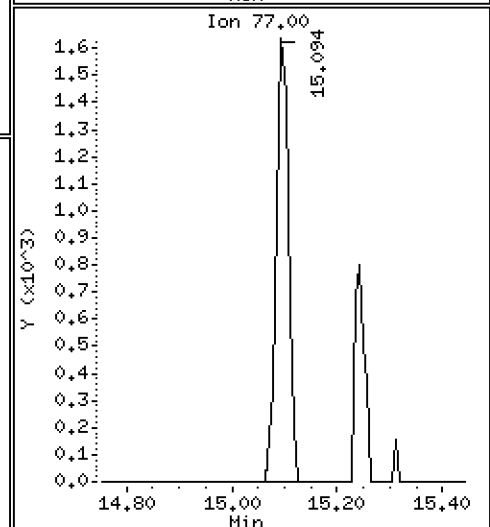
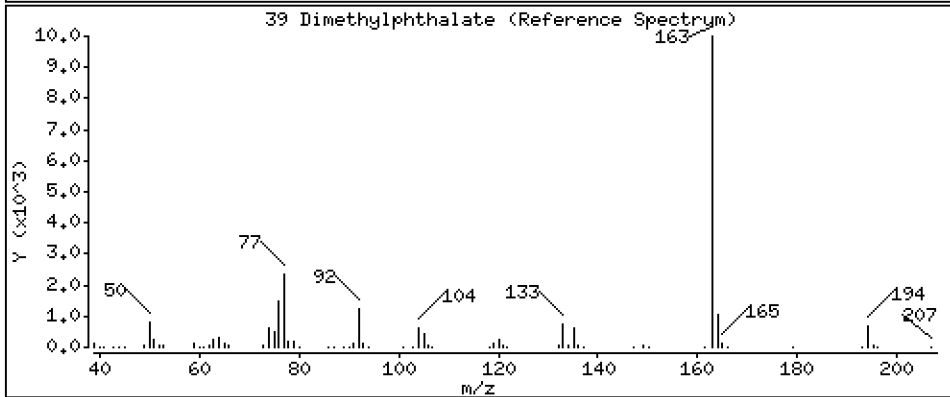
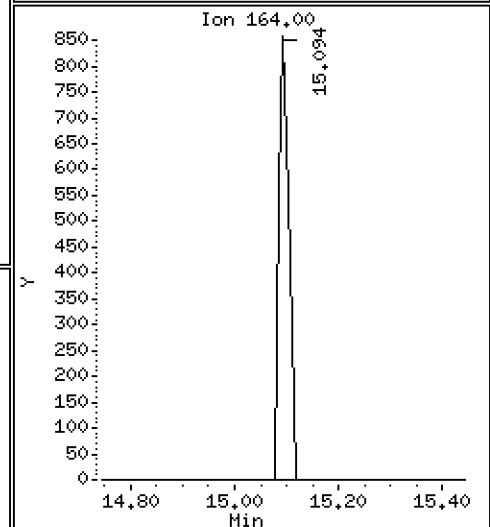
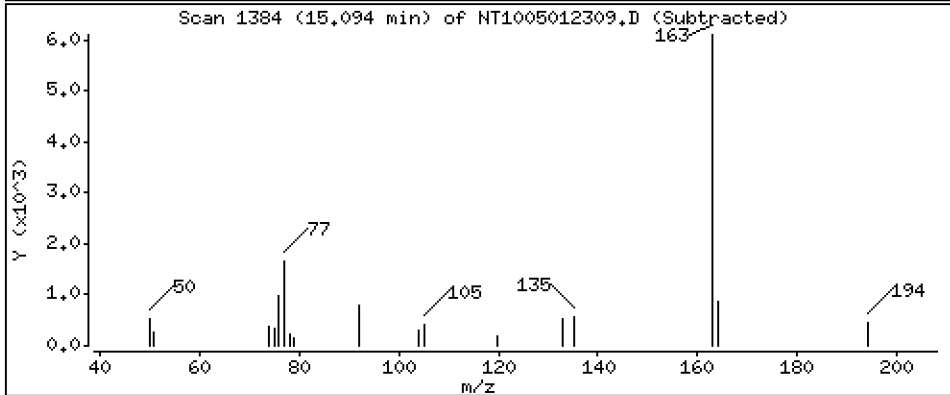
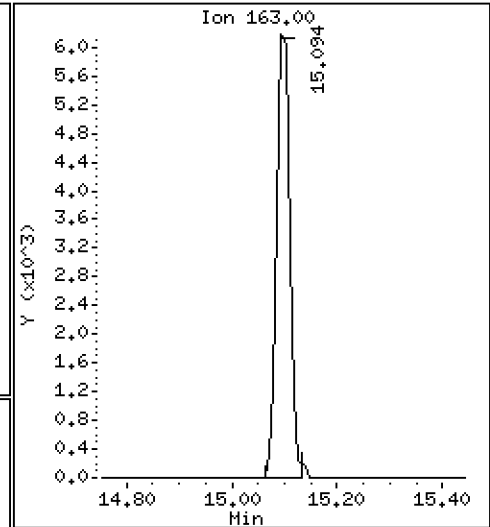
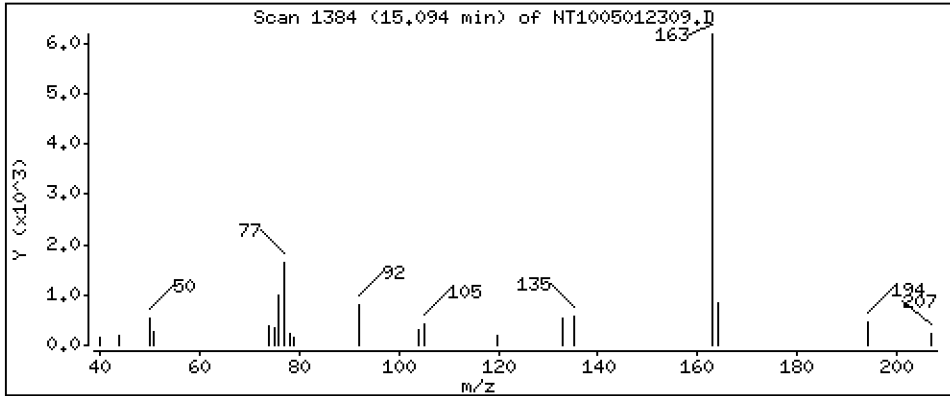
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.09644 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

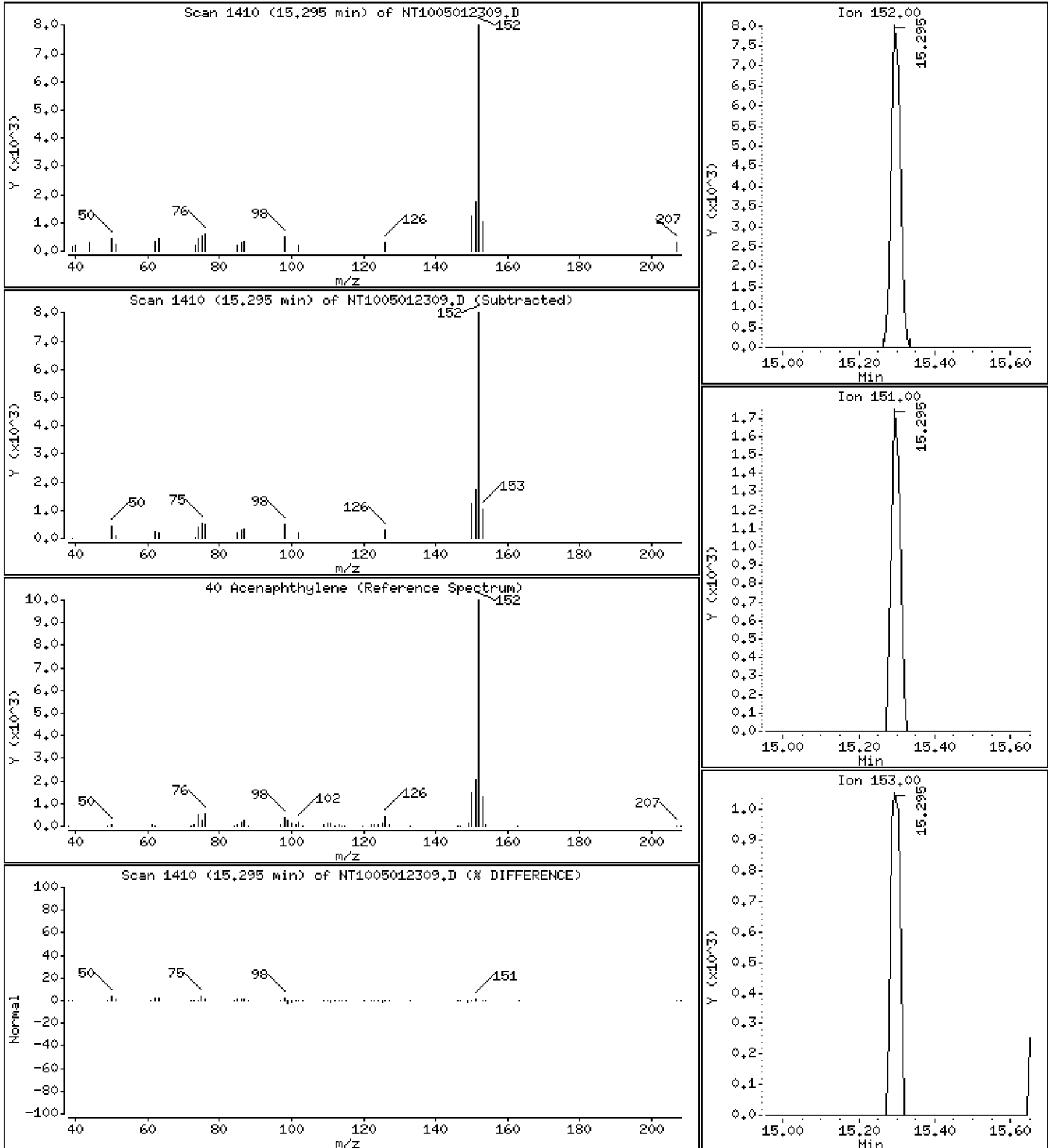
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,08549 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

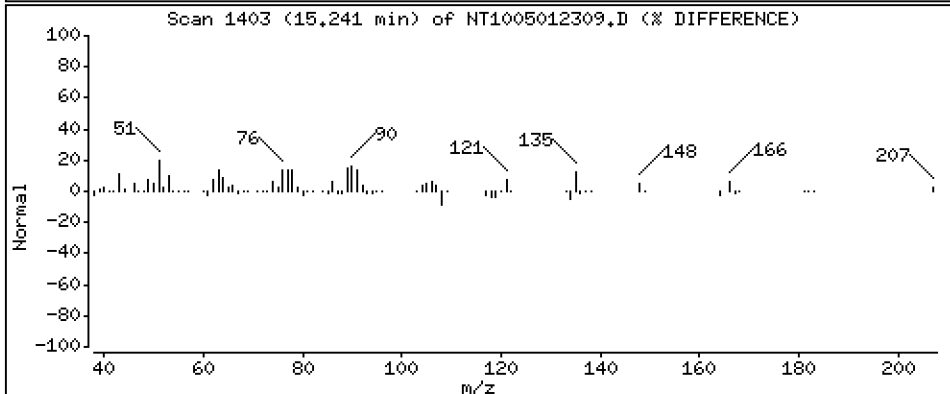
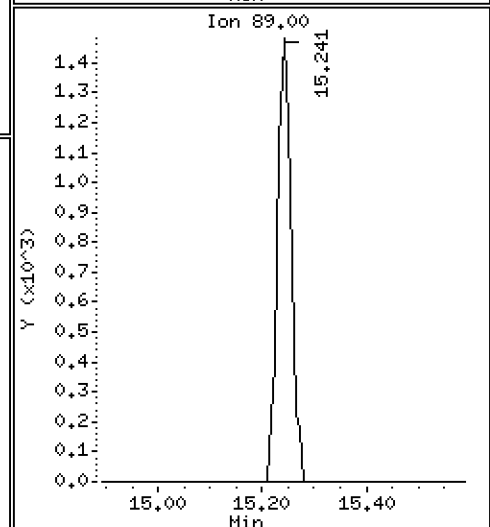
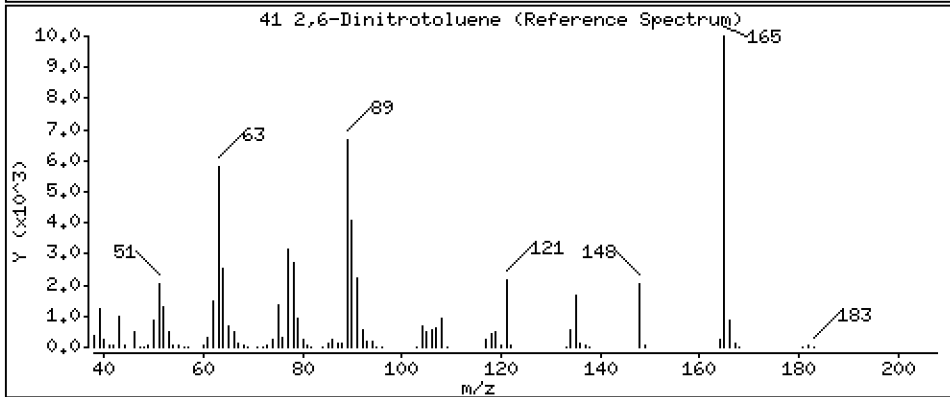
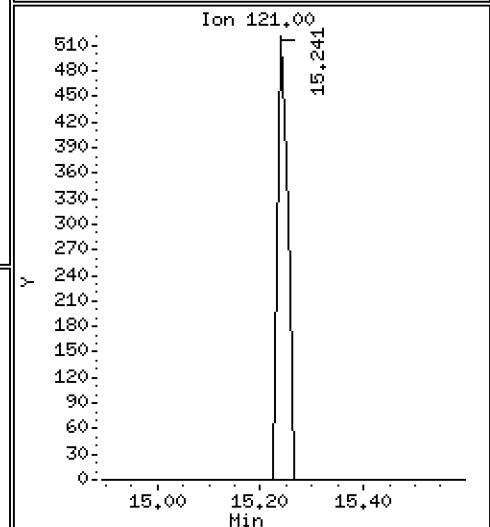
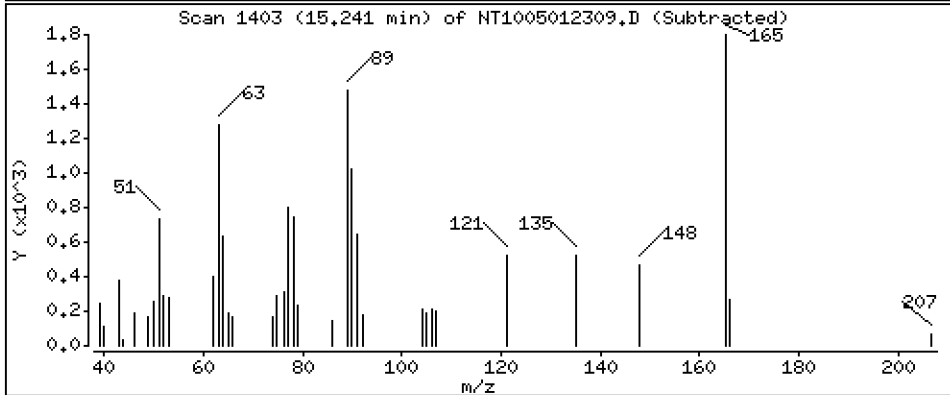
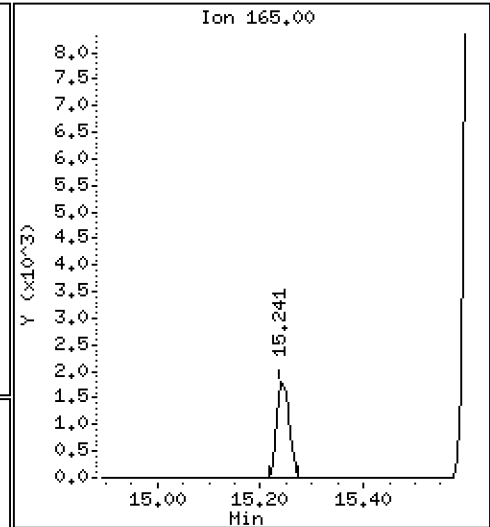
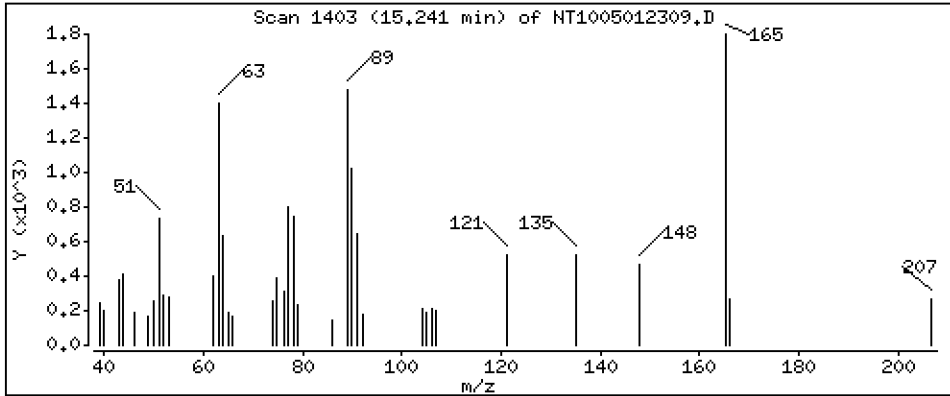
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 0.1163 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

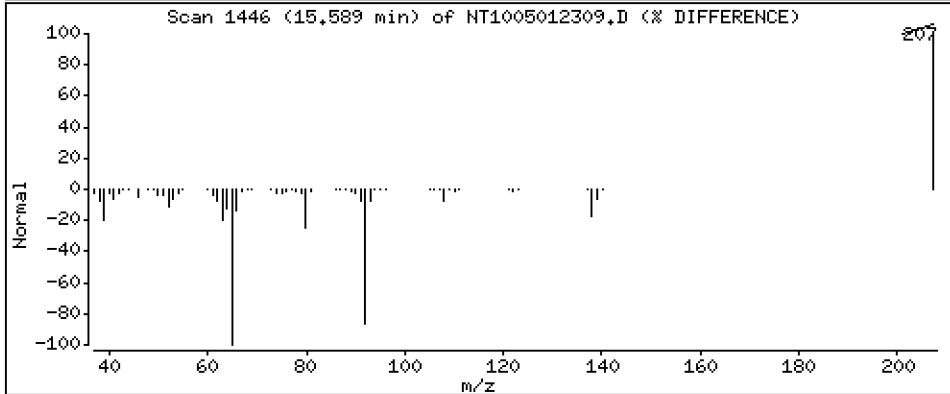
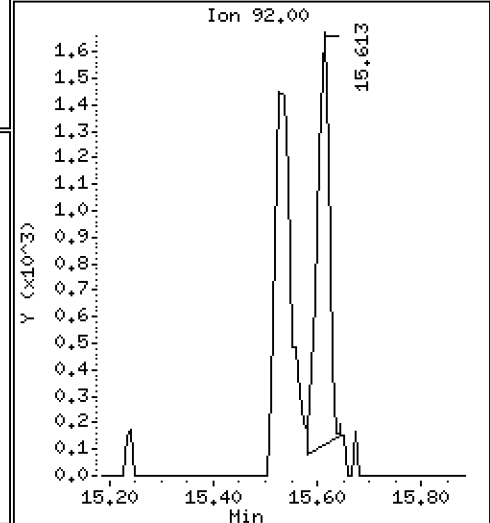
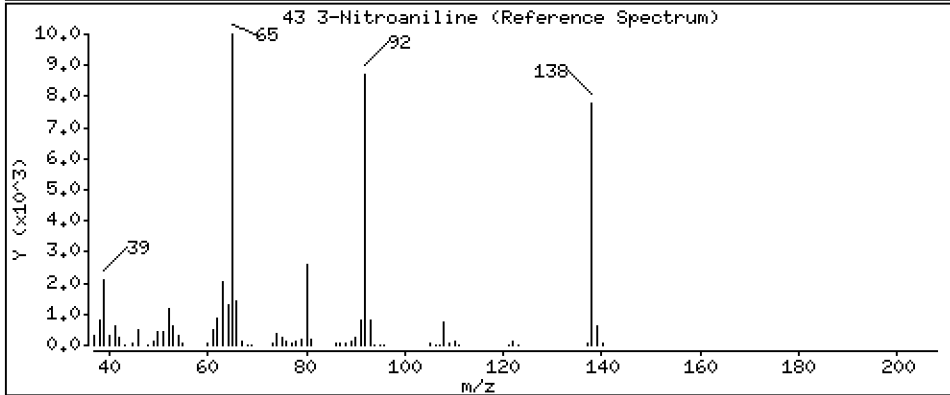
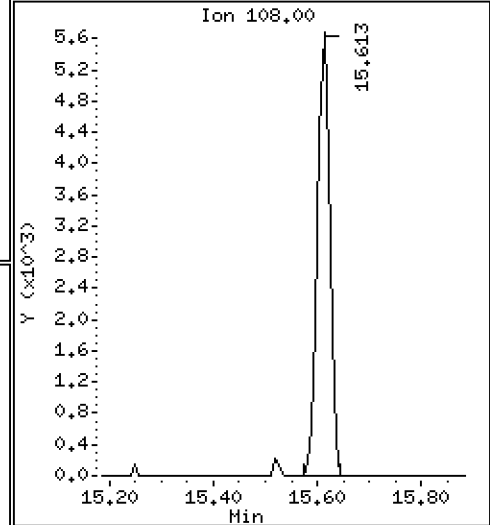
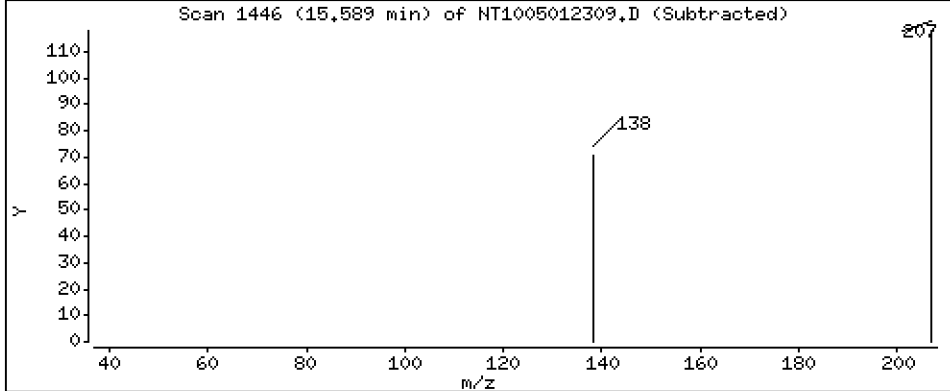
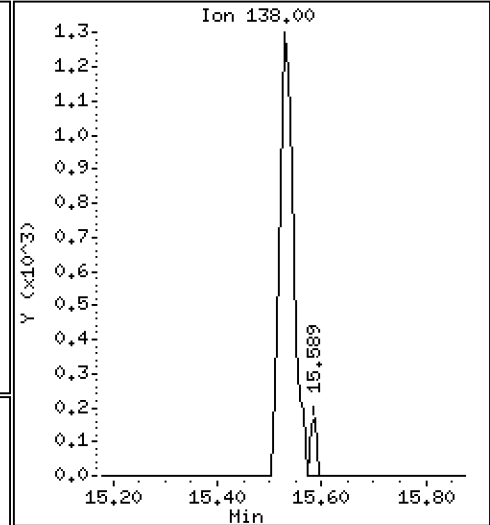
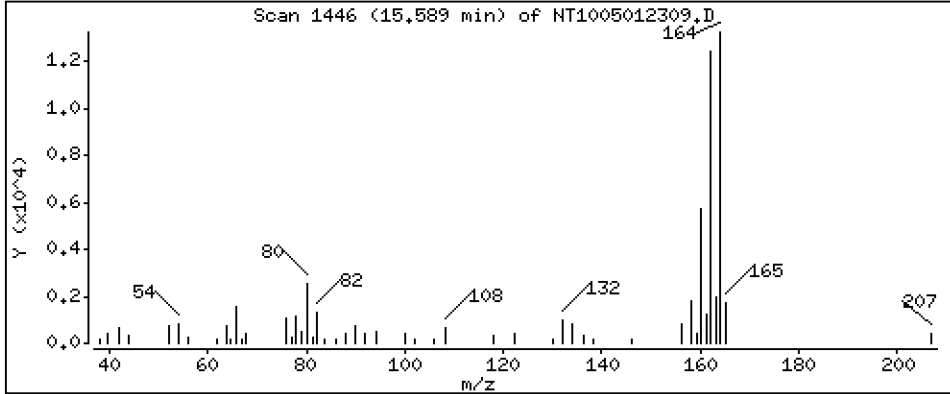
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

43 3-Nitroaniline

Concentration: 0.006275 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

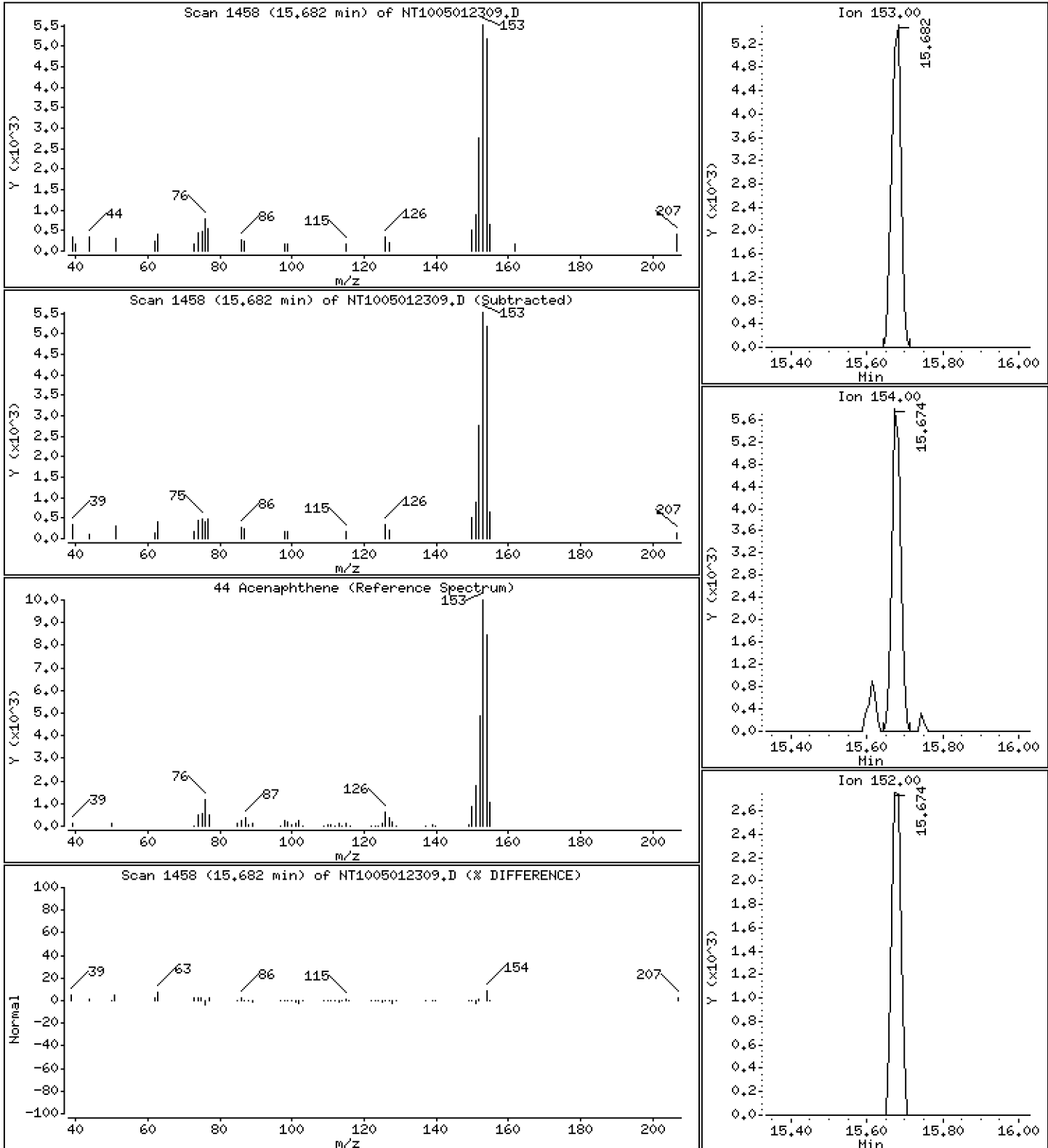
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,09453 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

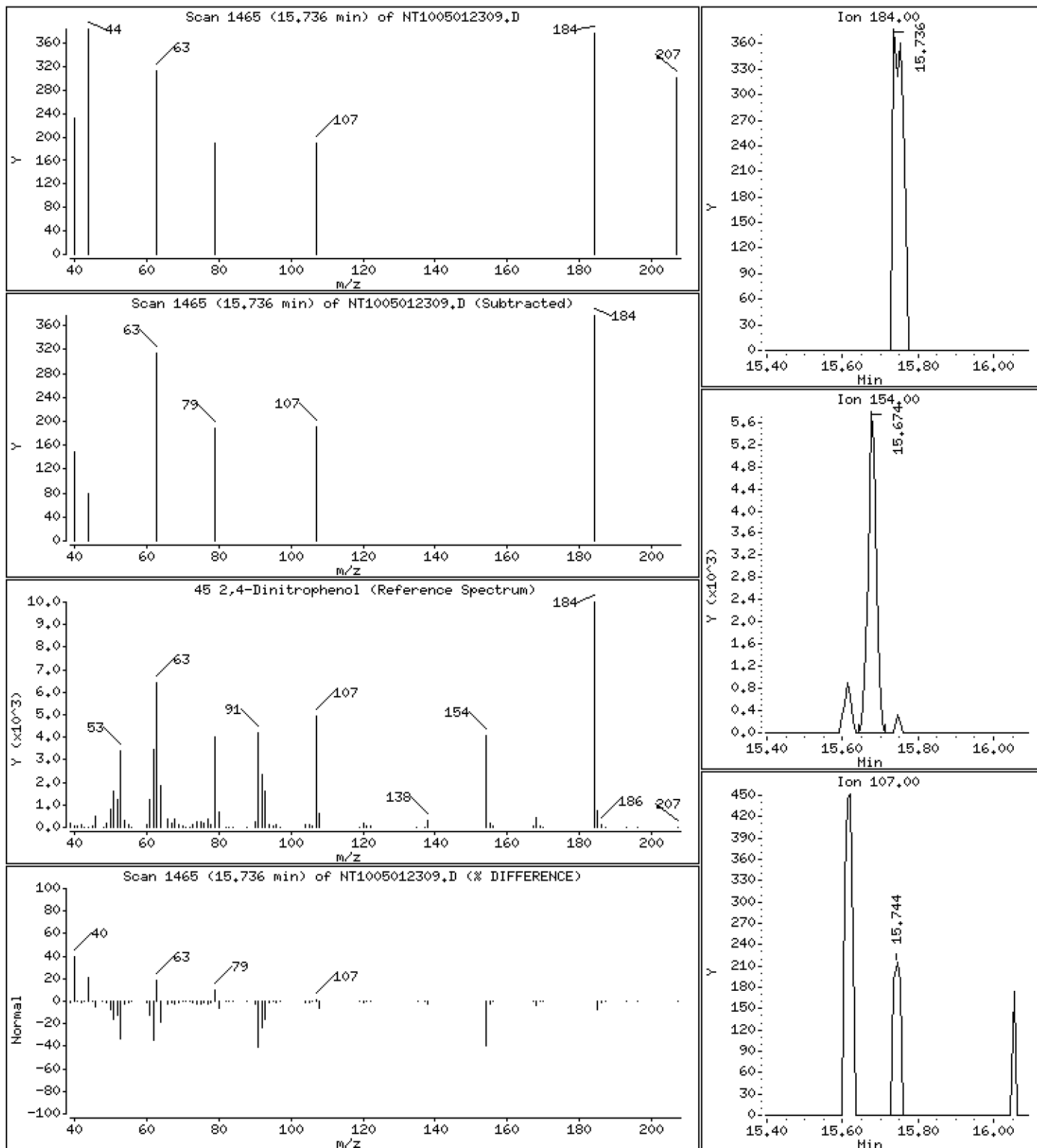
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,03758 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

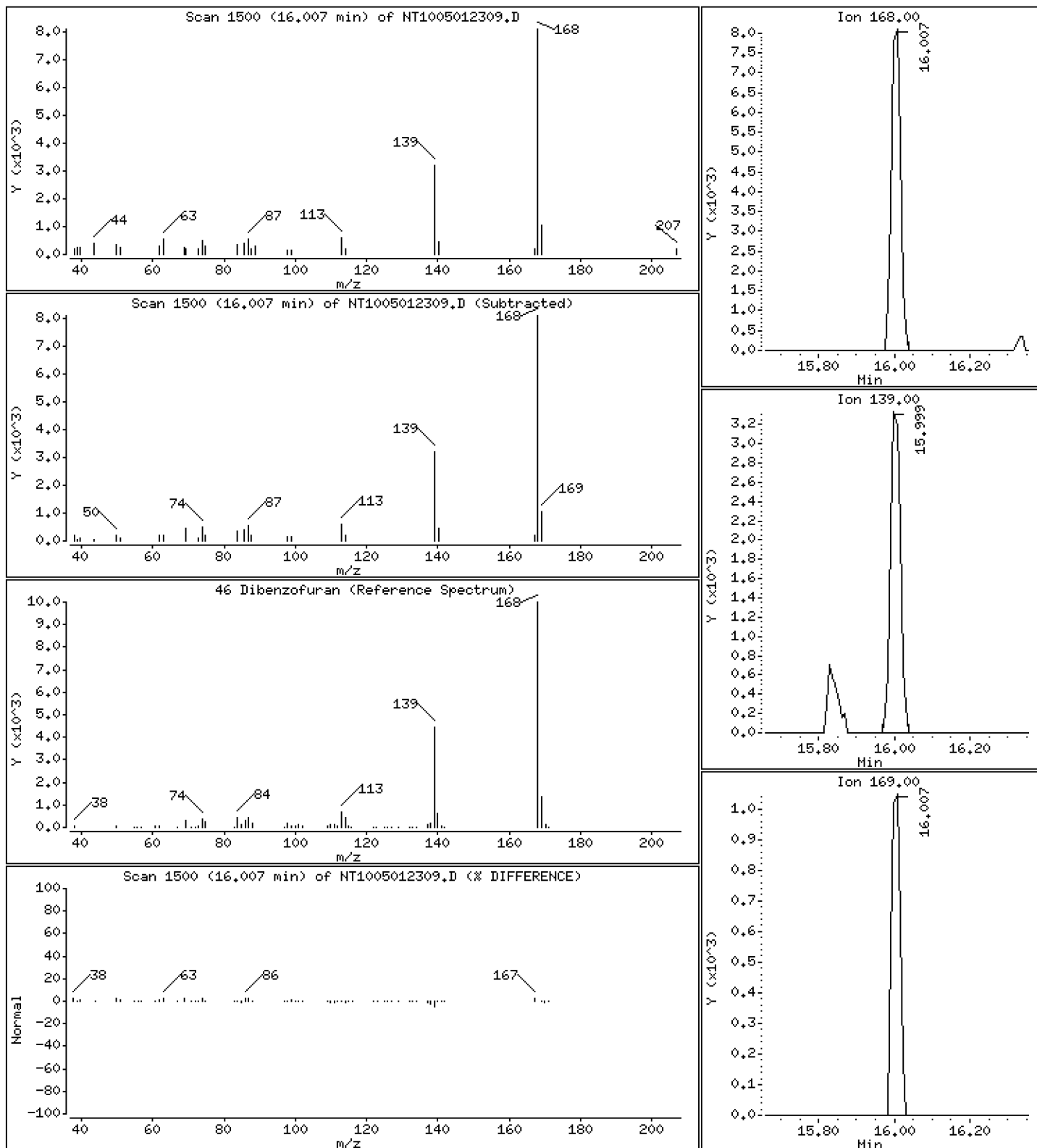
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

46 Dibenzofuran

Concentration: 0.09386 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

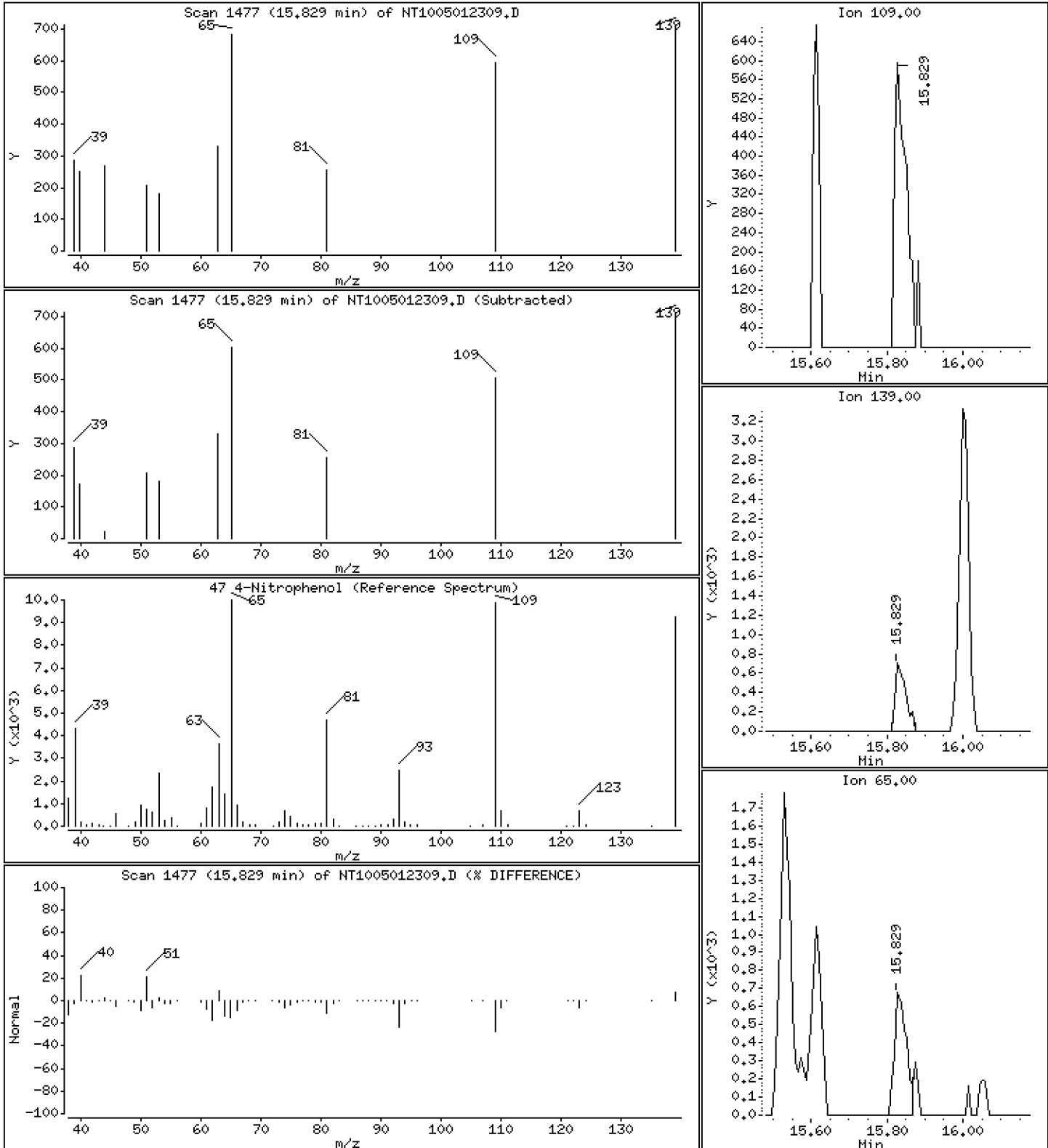
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

47 4-Nitrophenol

Concentration: 0.05456 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

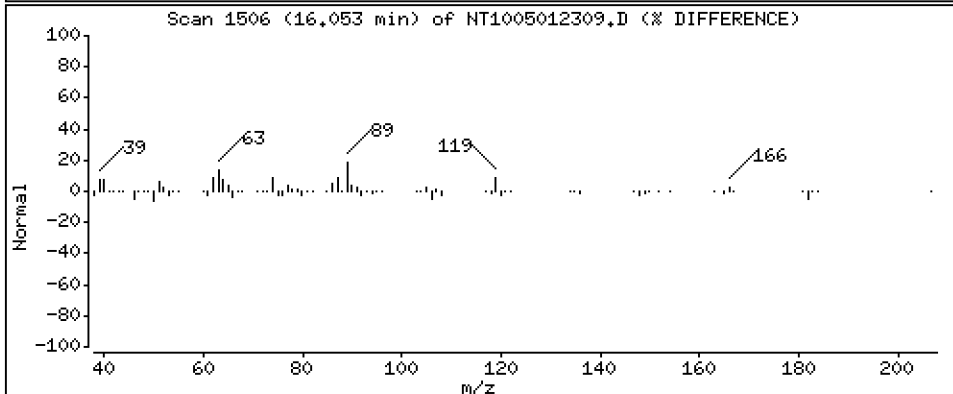
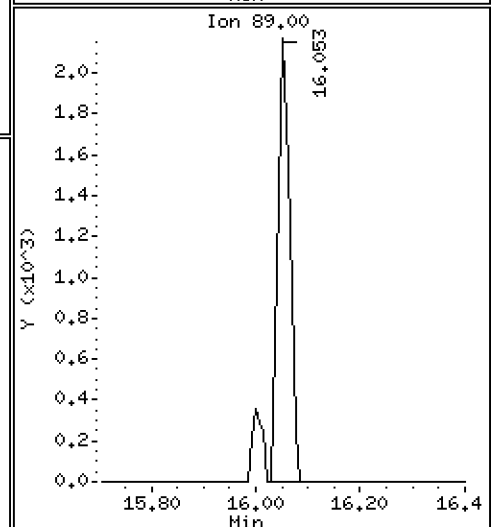
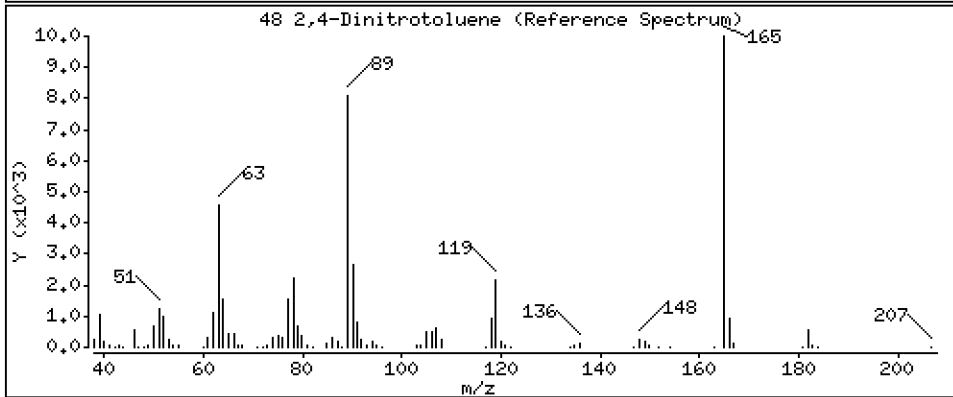
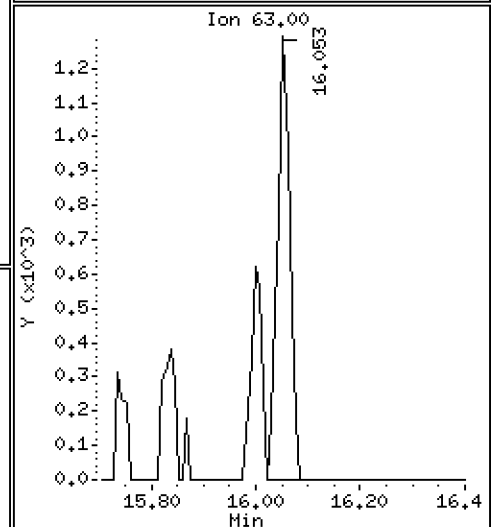
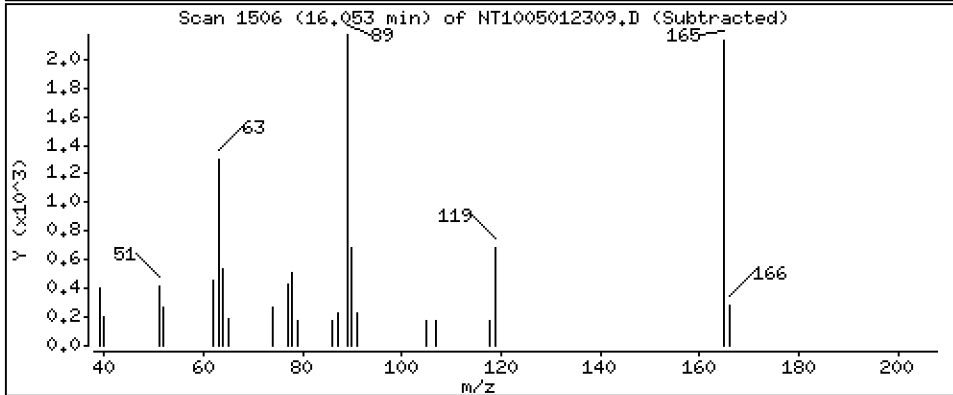
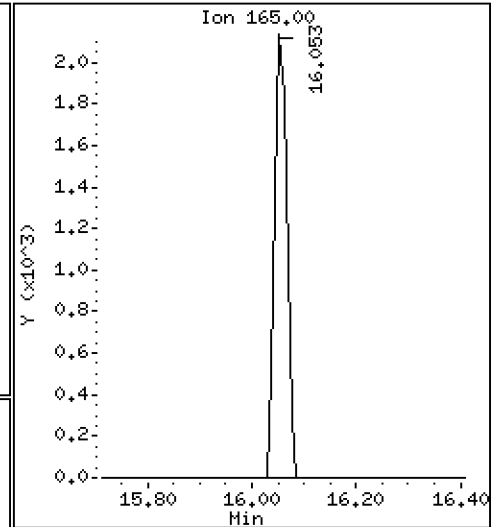
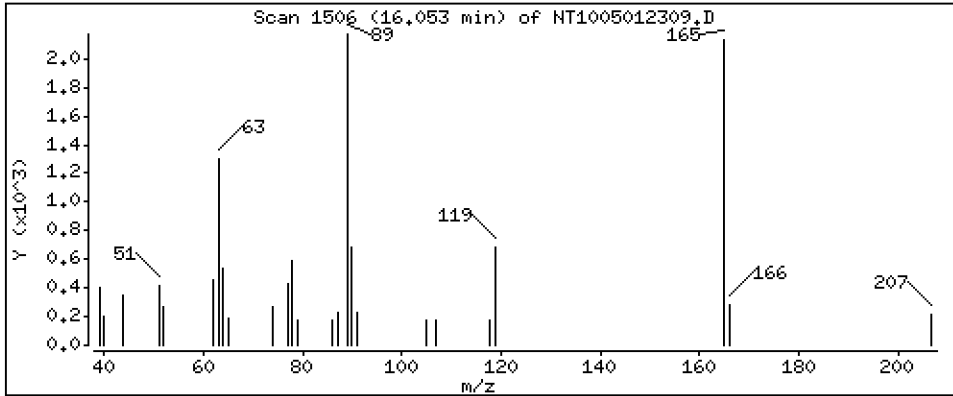
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 0,09660 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

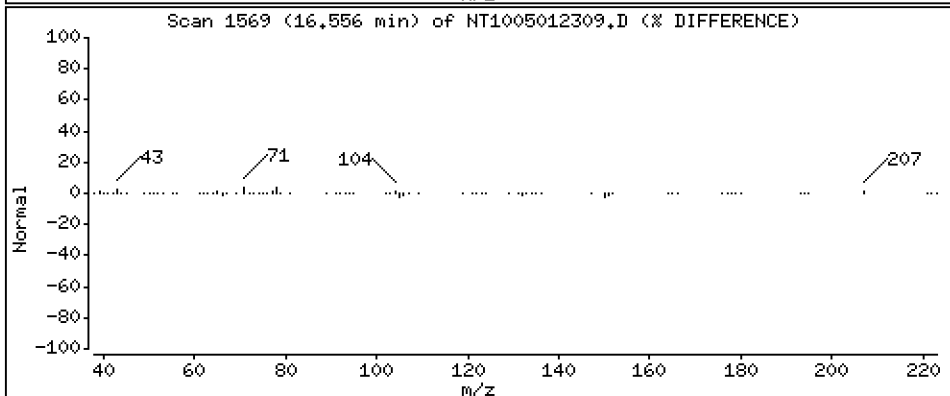
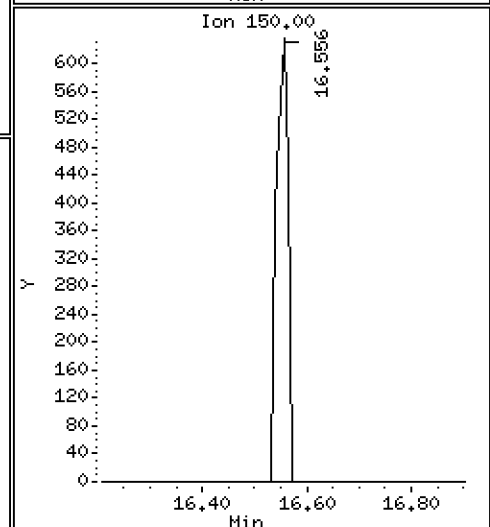
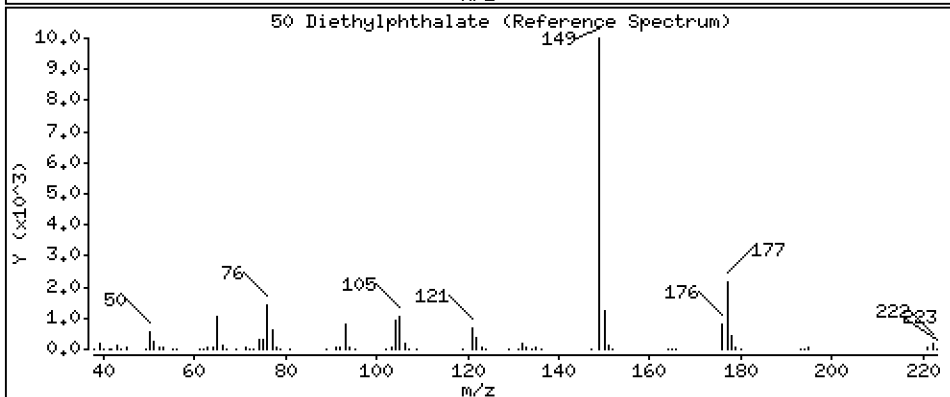
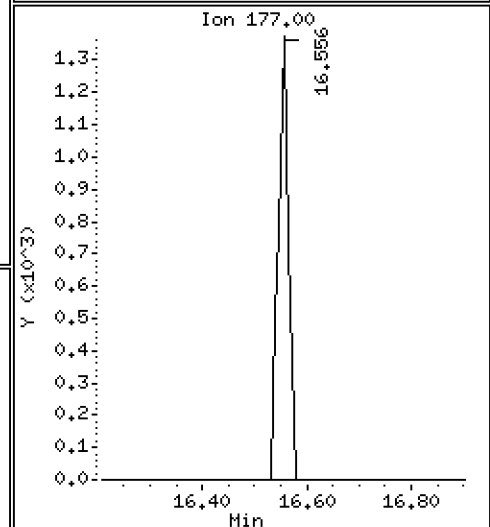
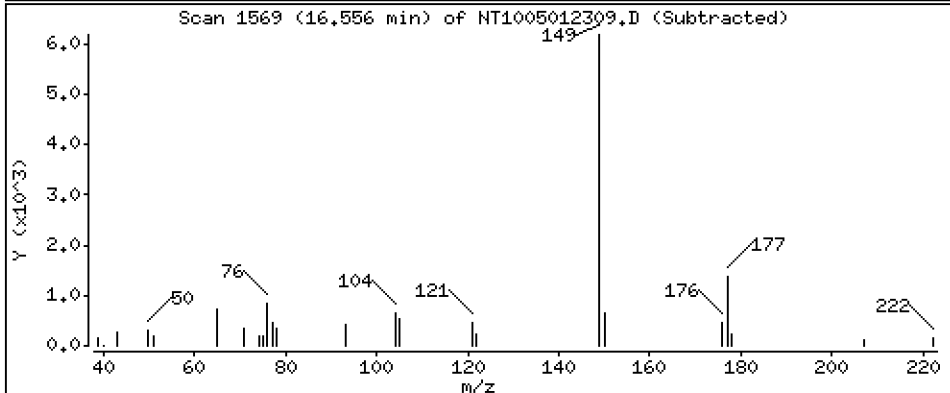
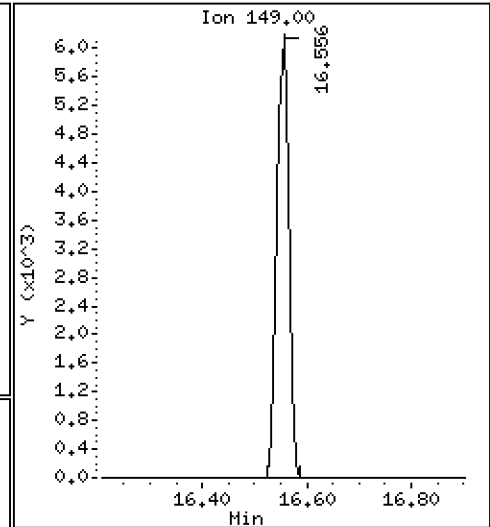
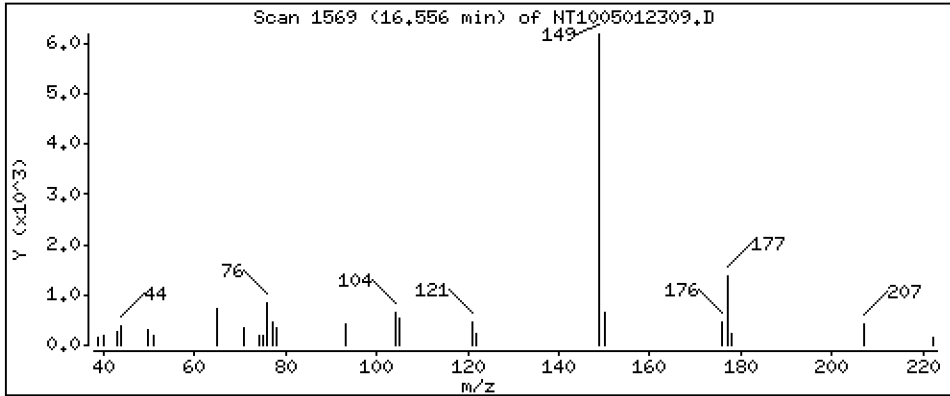
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.08361 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

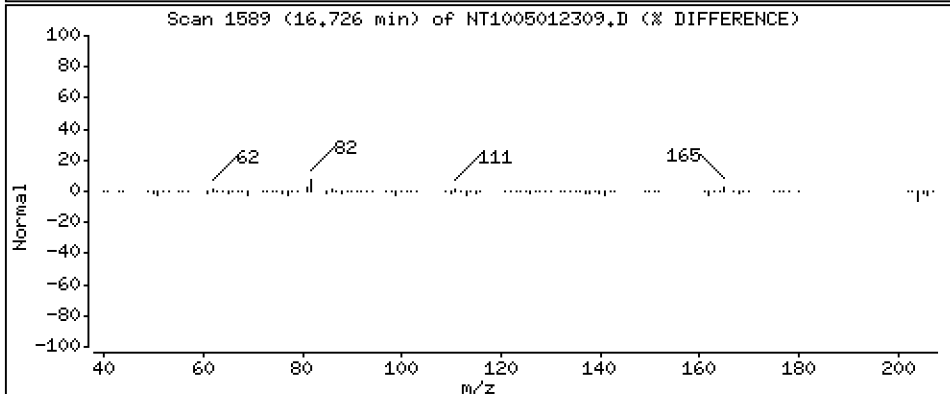
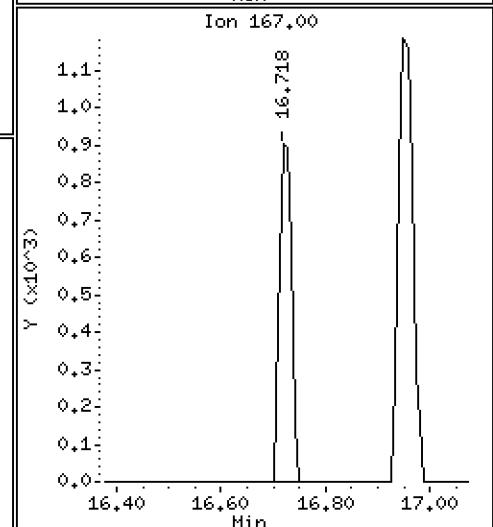
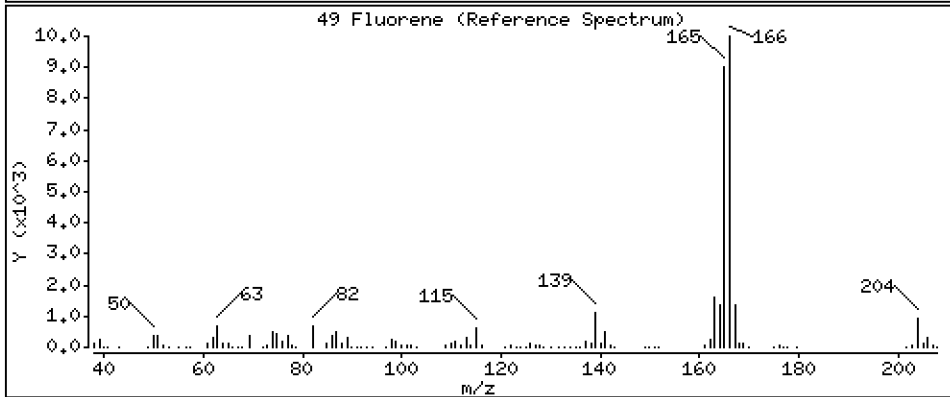
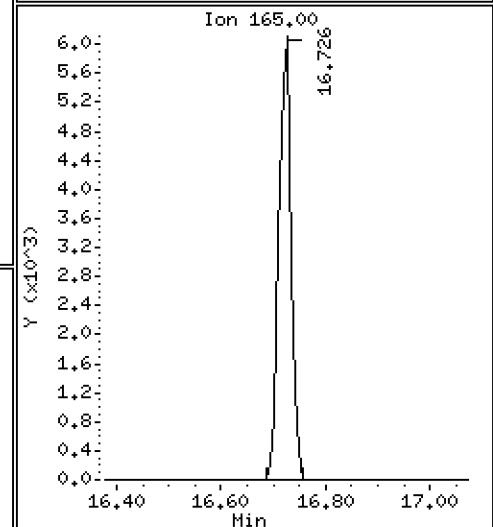
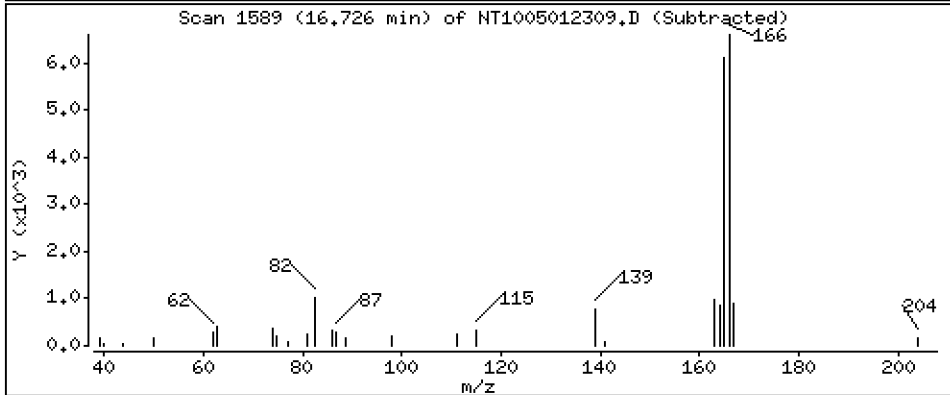
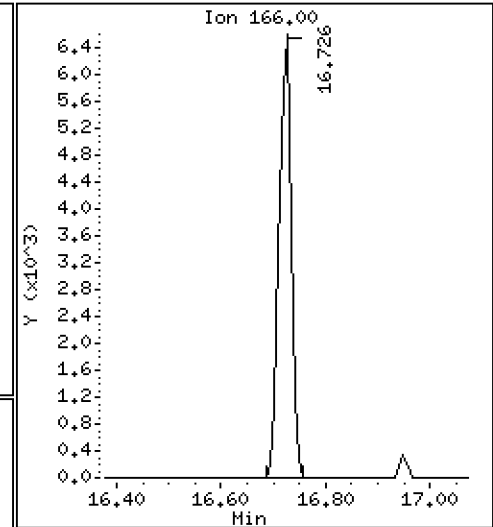
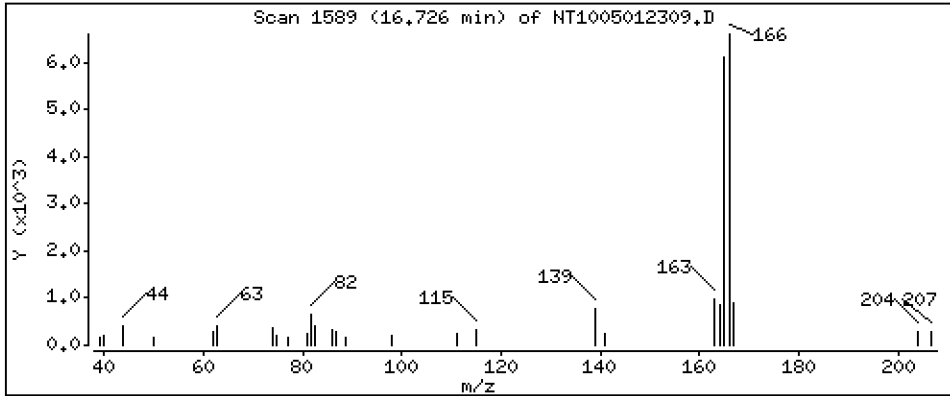
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.09047 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

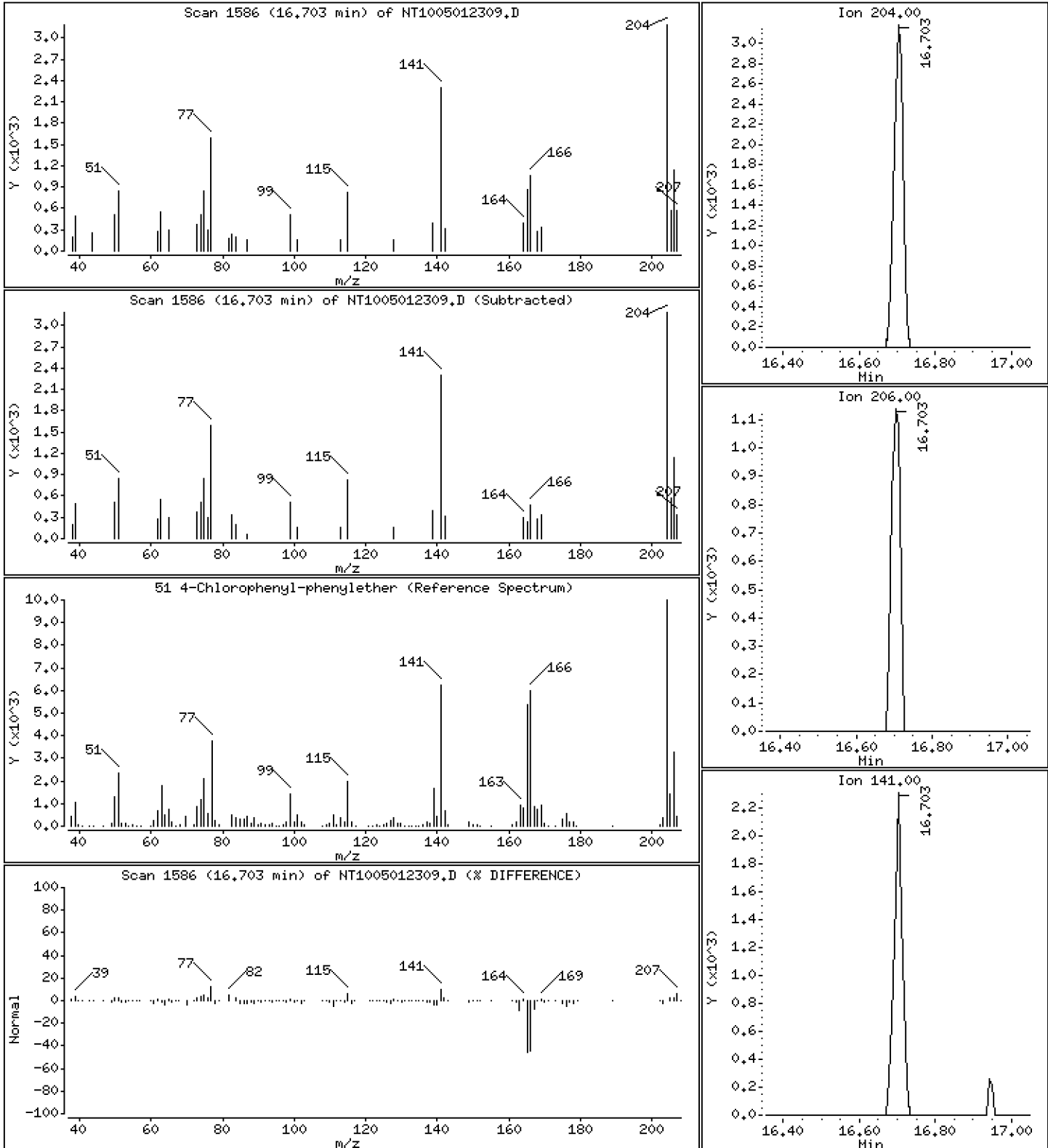
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 0.09236 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

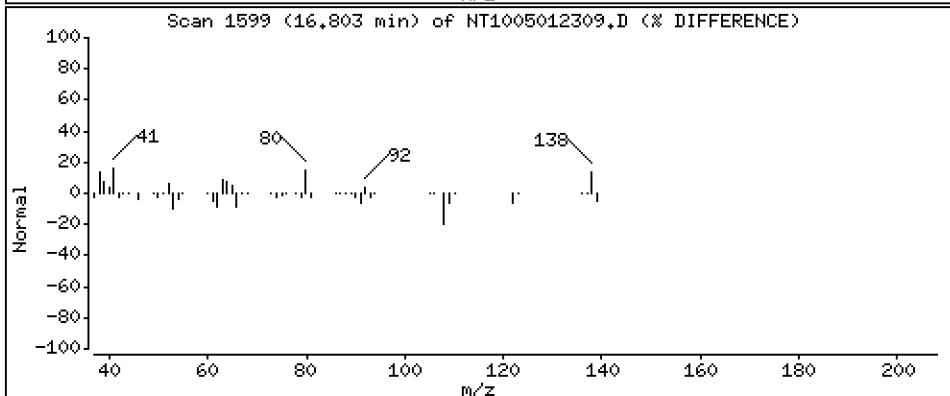
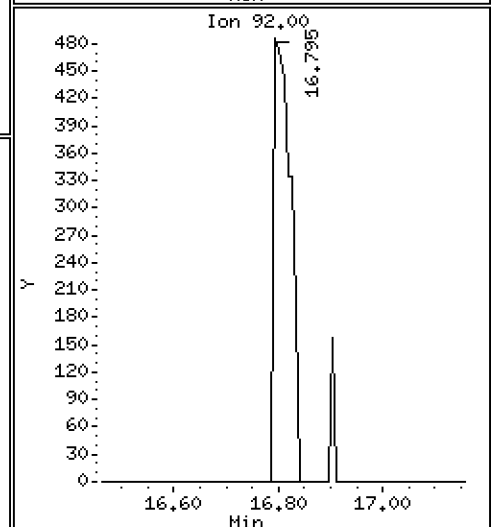
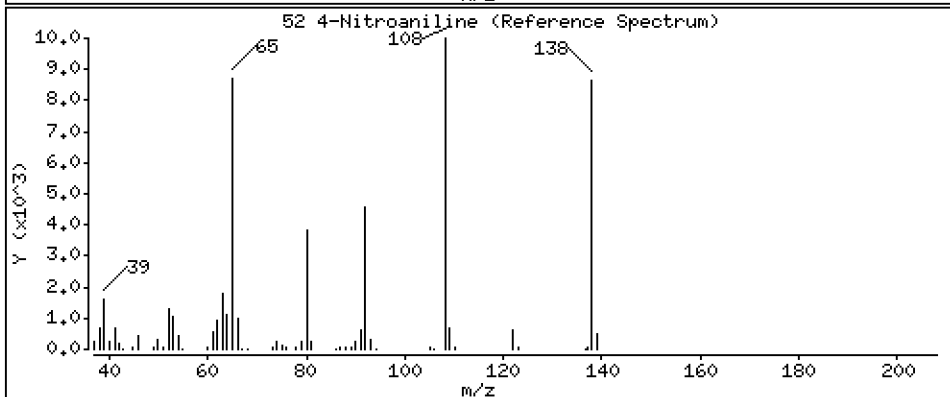
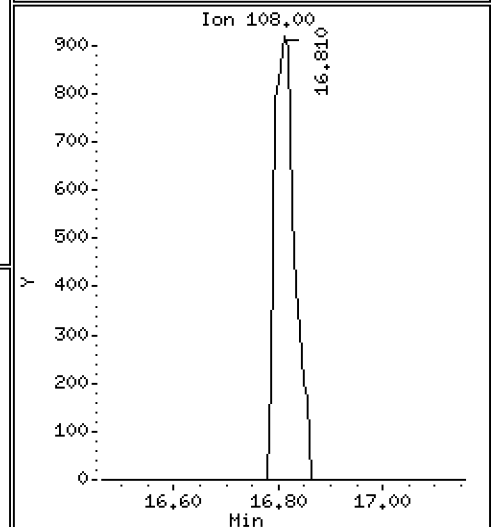
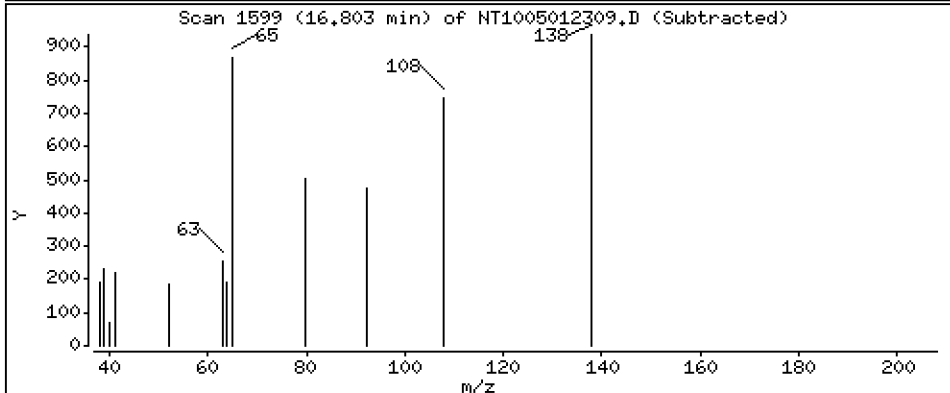
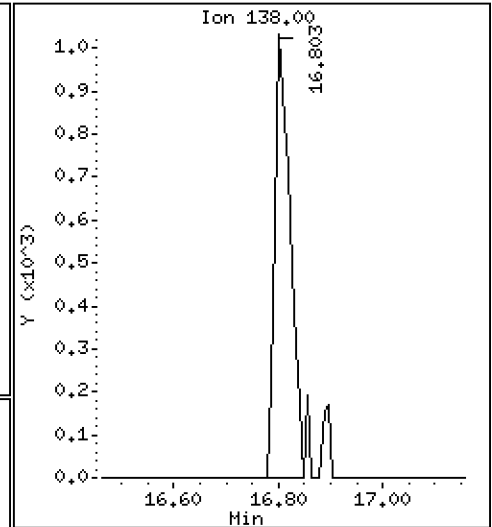
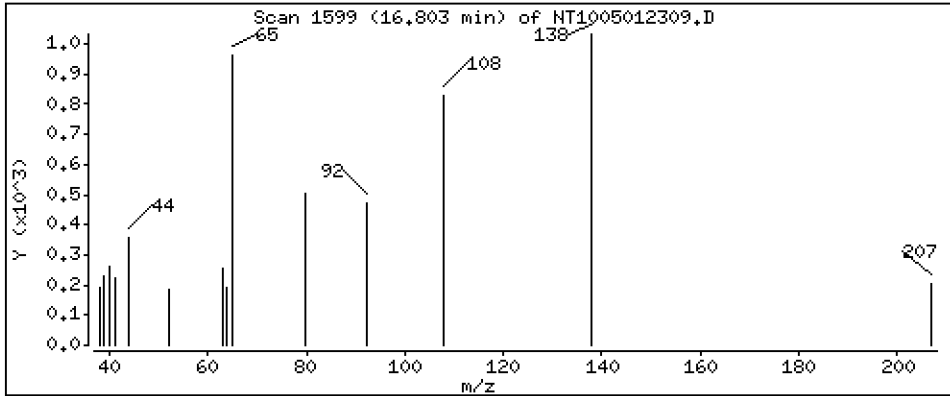
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,08740 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

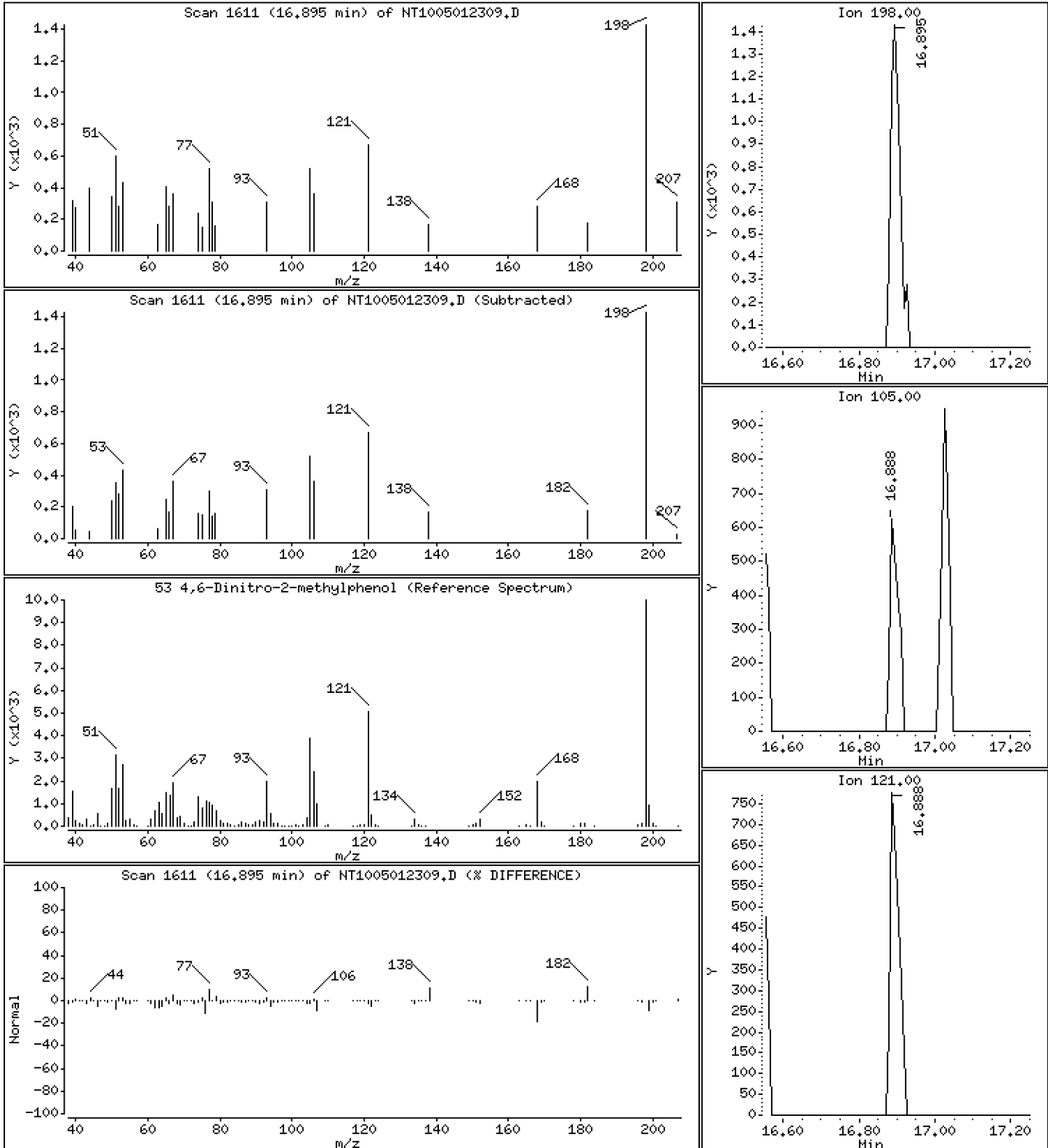
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 0,1185 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

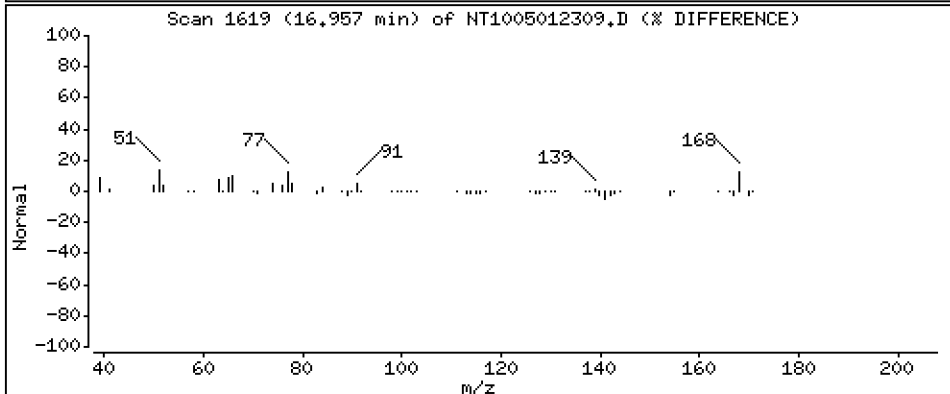
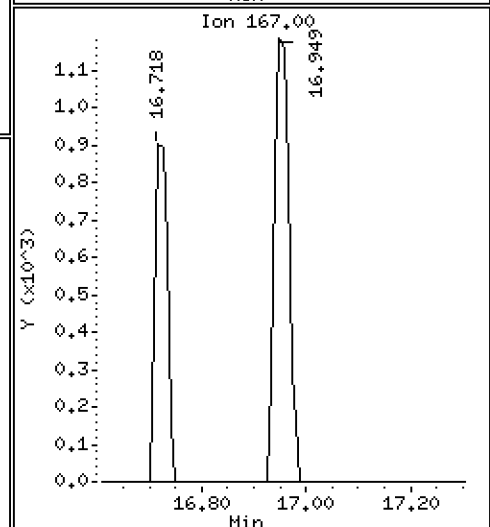
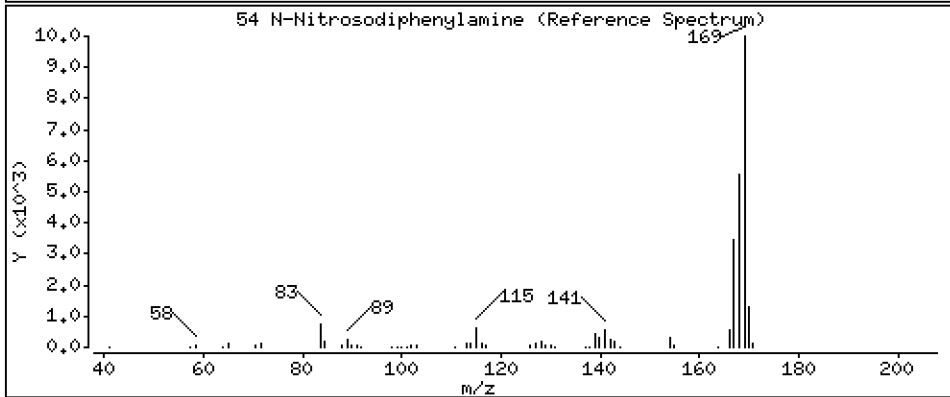
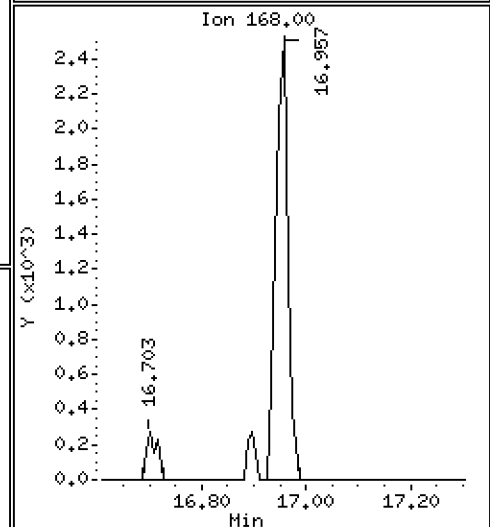
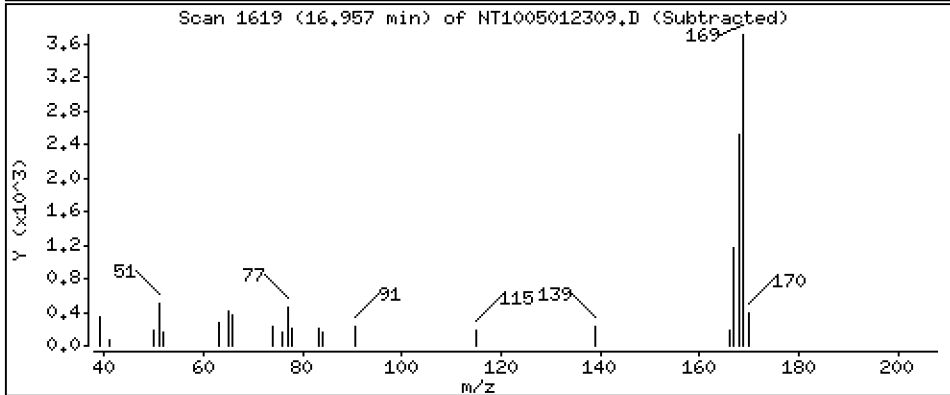
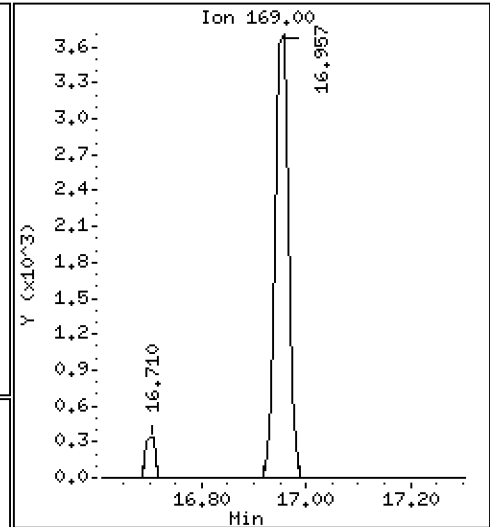
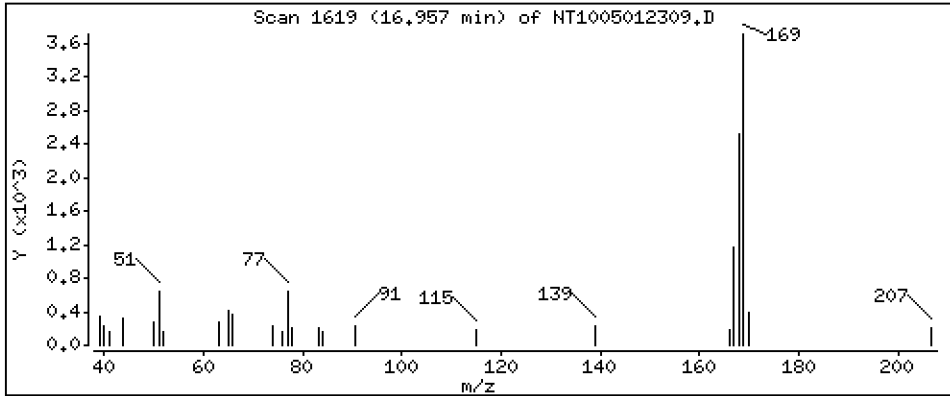
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.09363 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

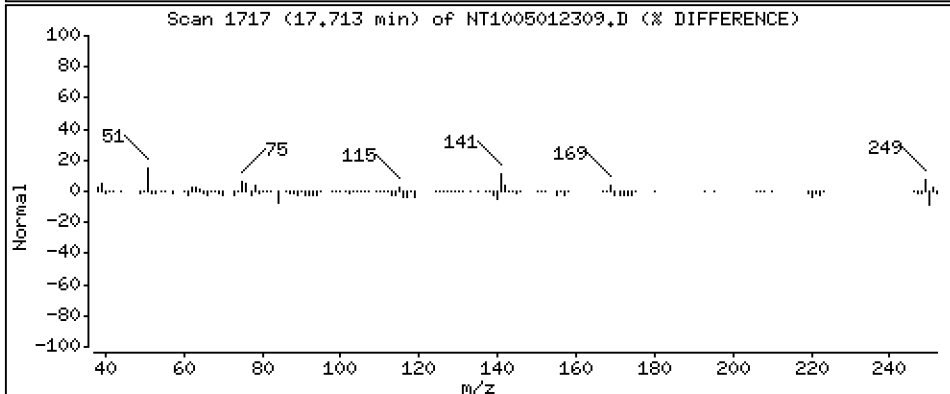
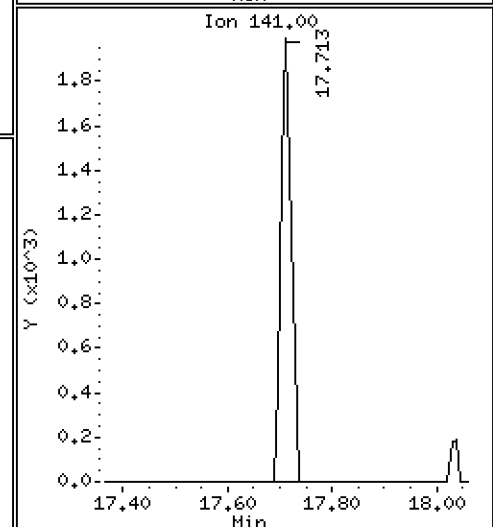
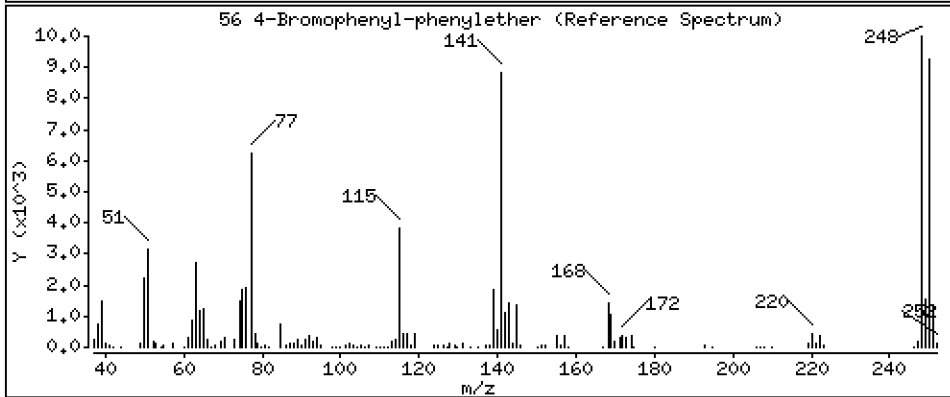
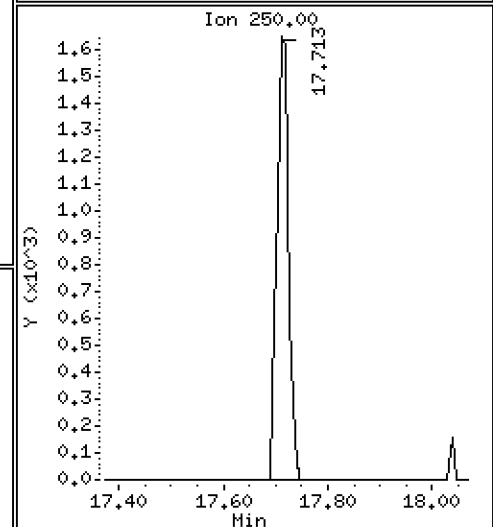
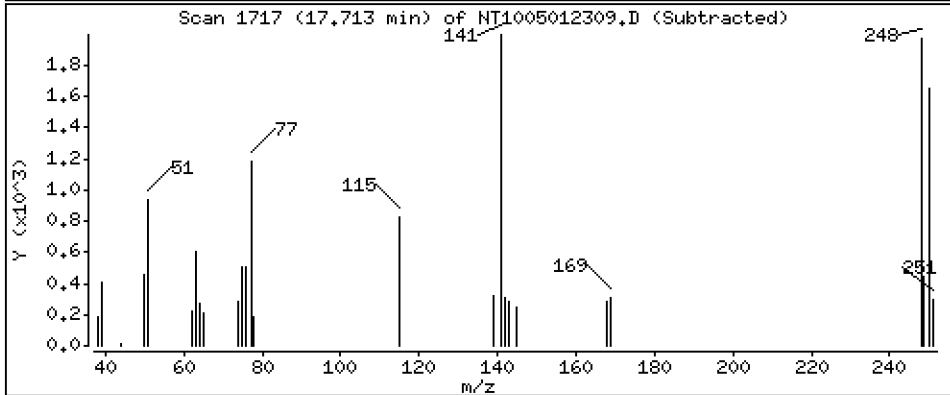
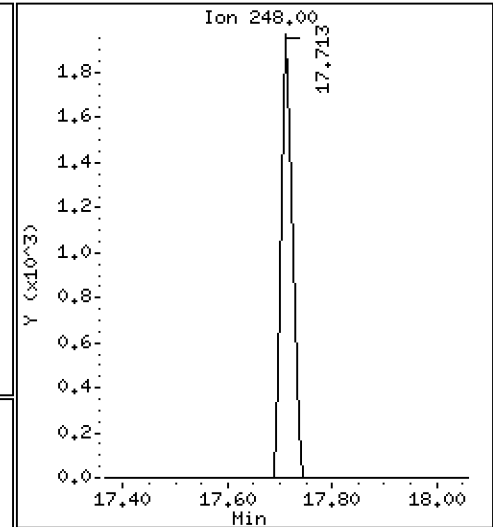
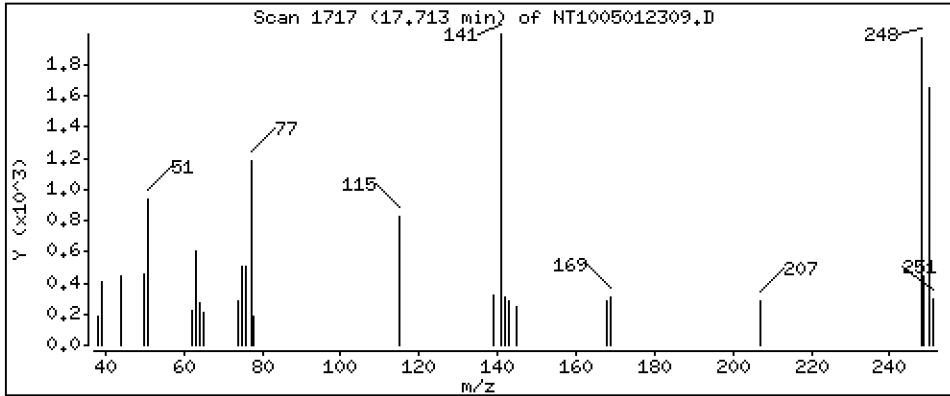
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

56 4-Bromophenyl-phenylether

Concentration: 0.09161 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

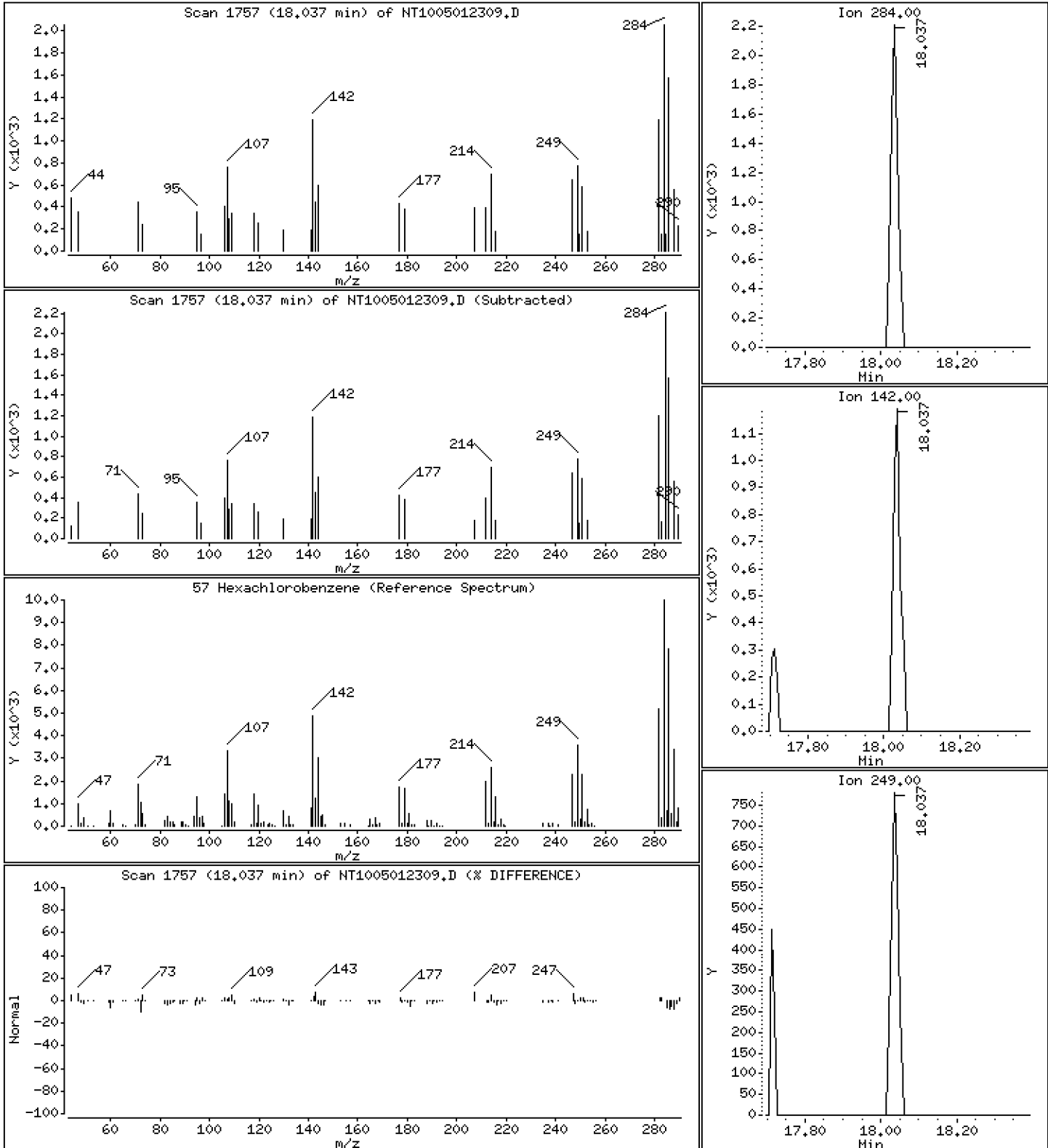
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,09472 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

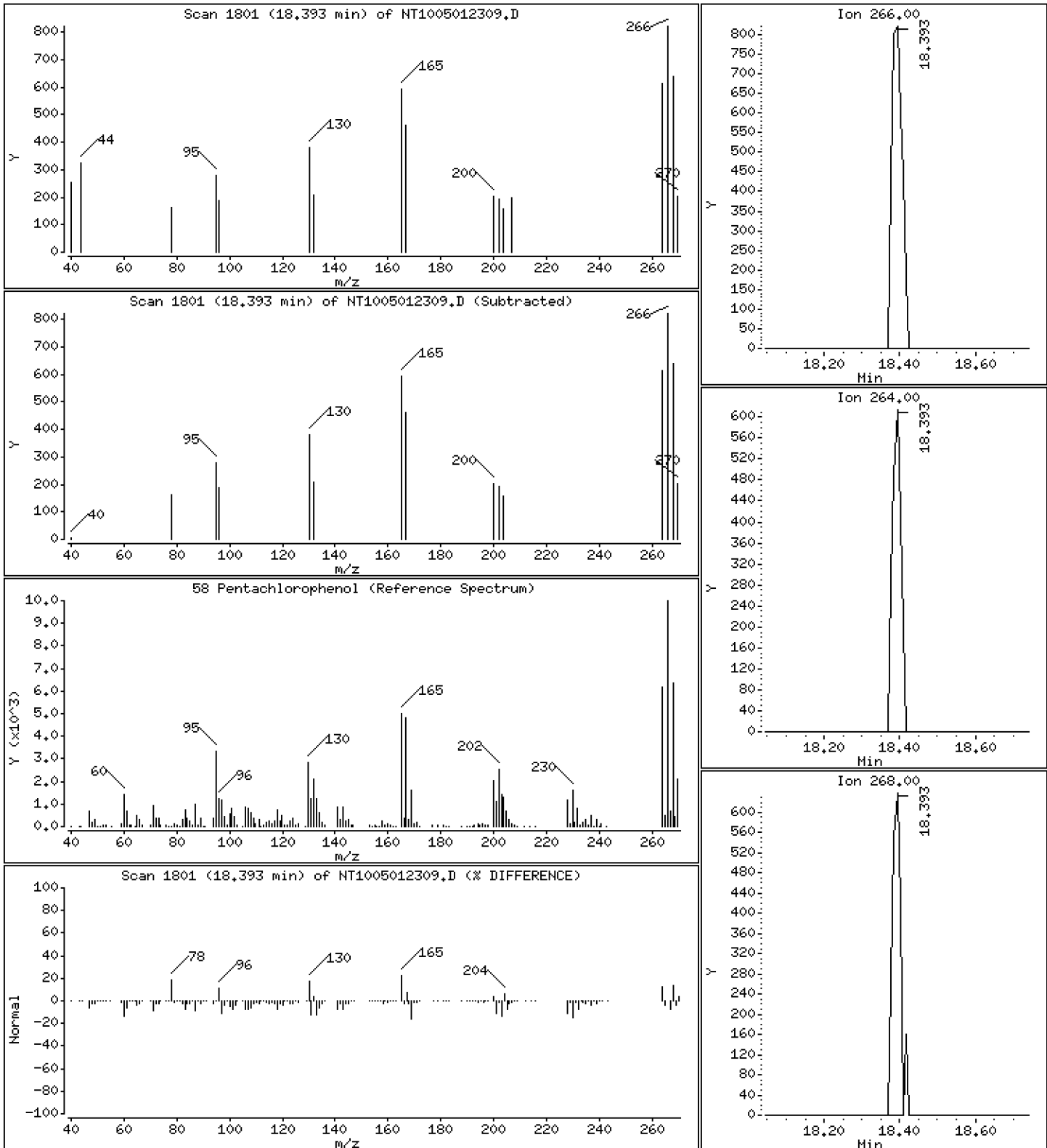
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,07130 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

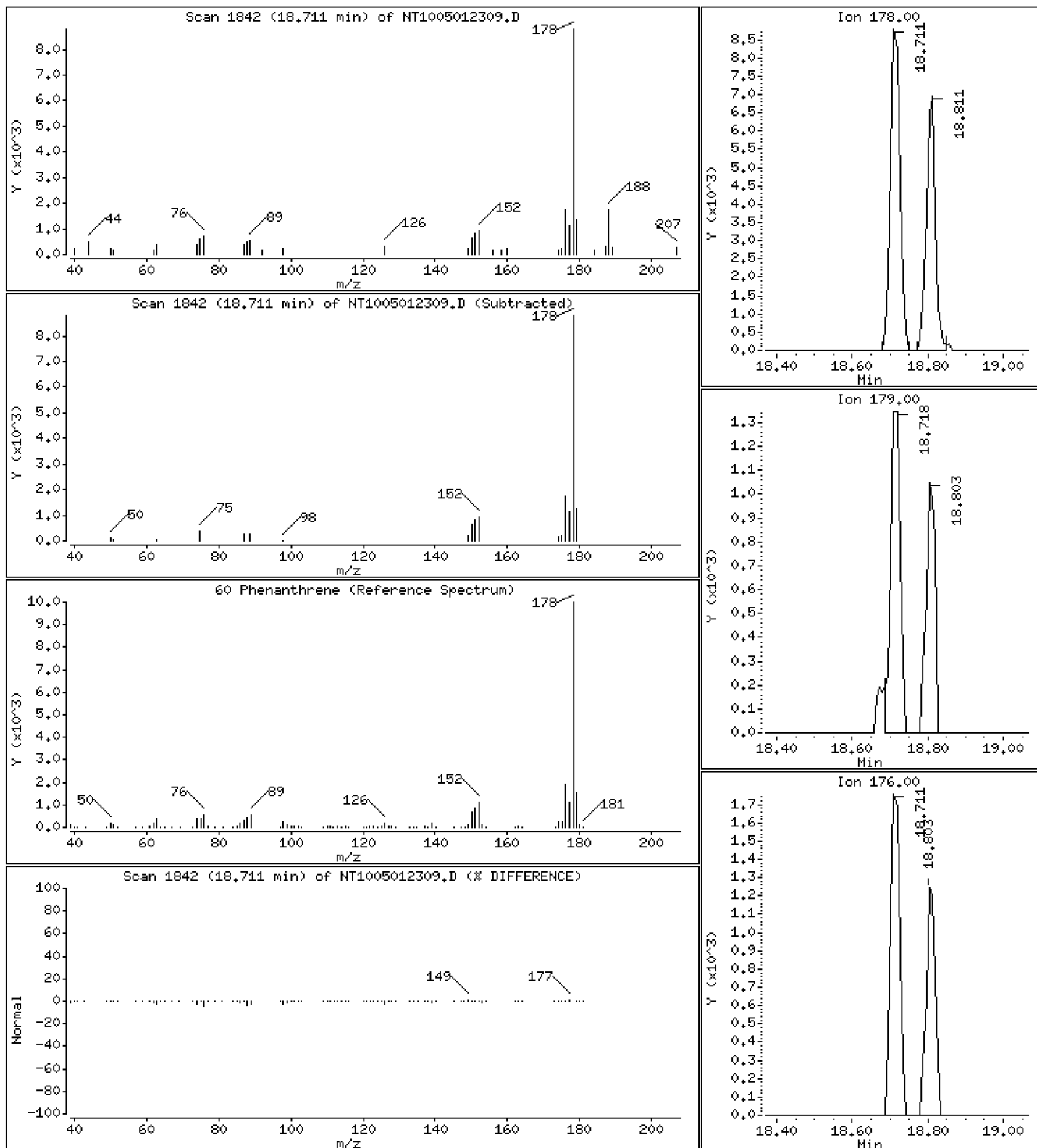
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

60 Phenanthrene

Concentration: 0.1001 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

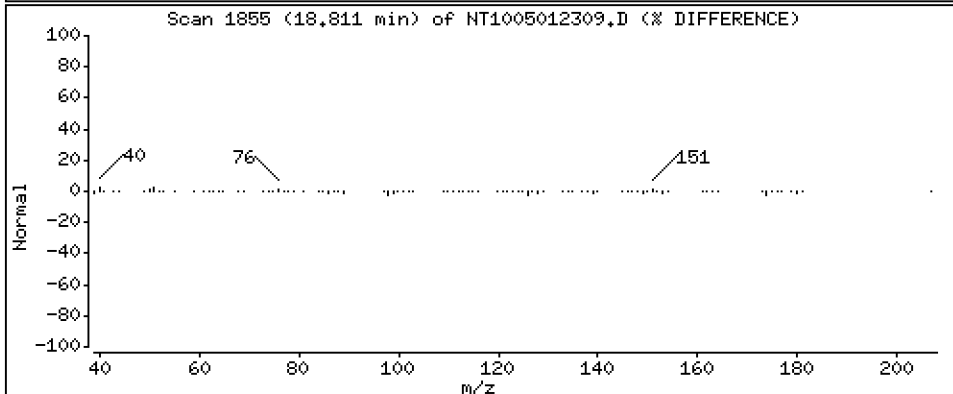
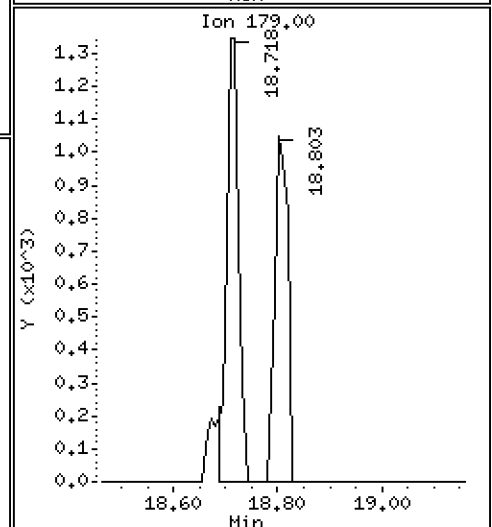
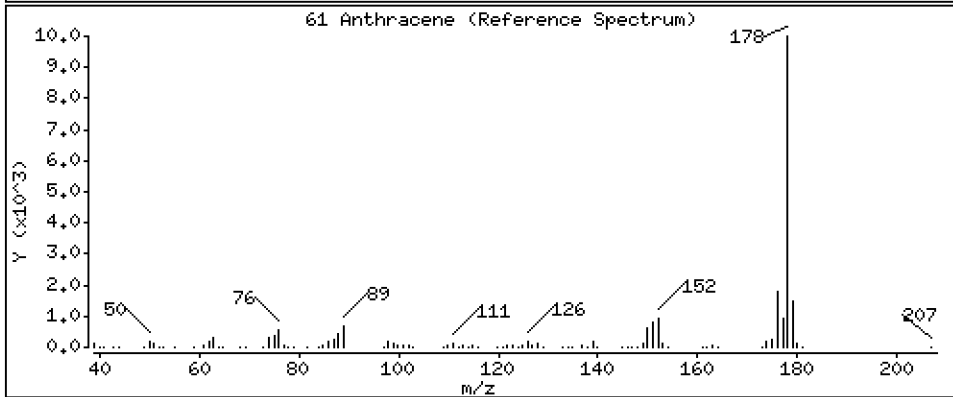
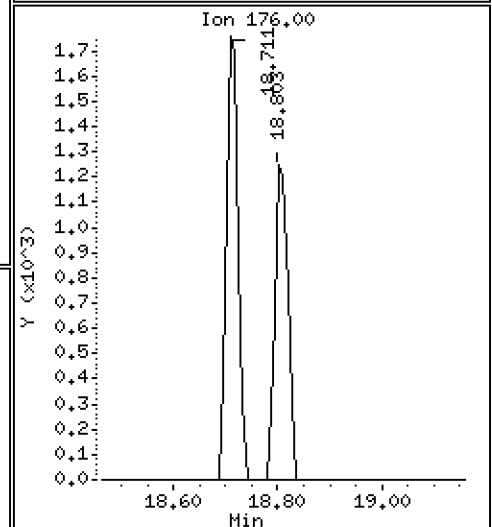
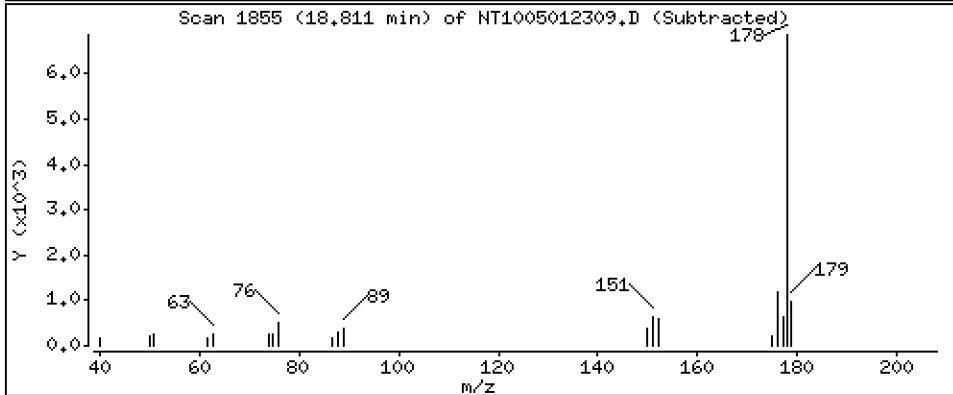
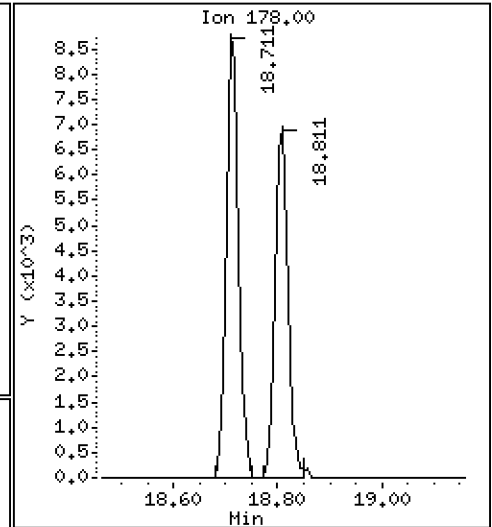
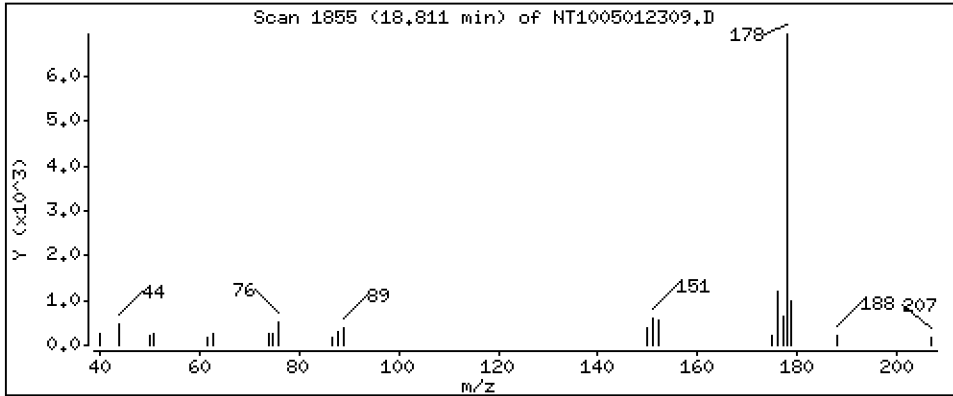
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

61 Anthracene

Concentration: 0.08440 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

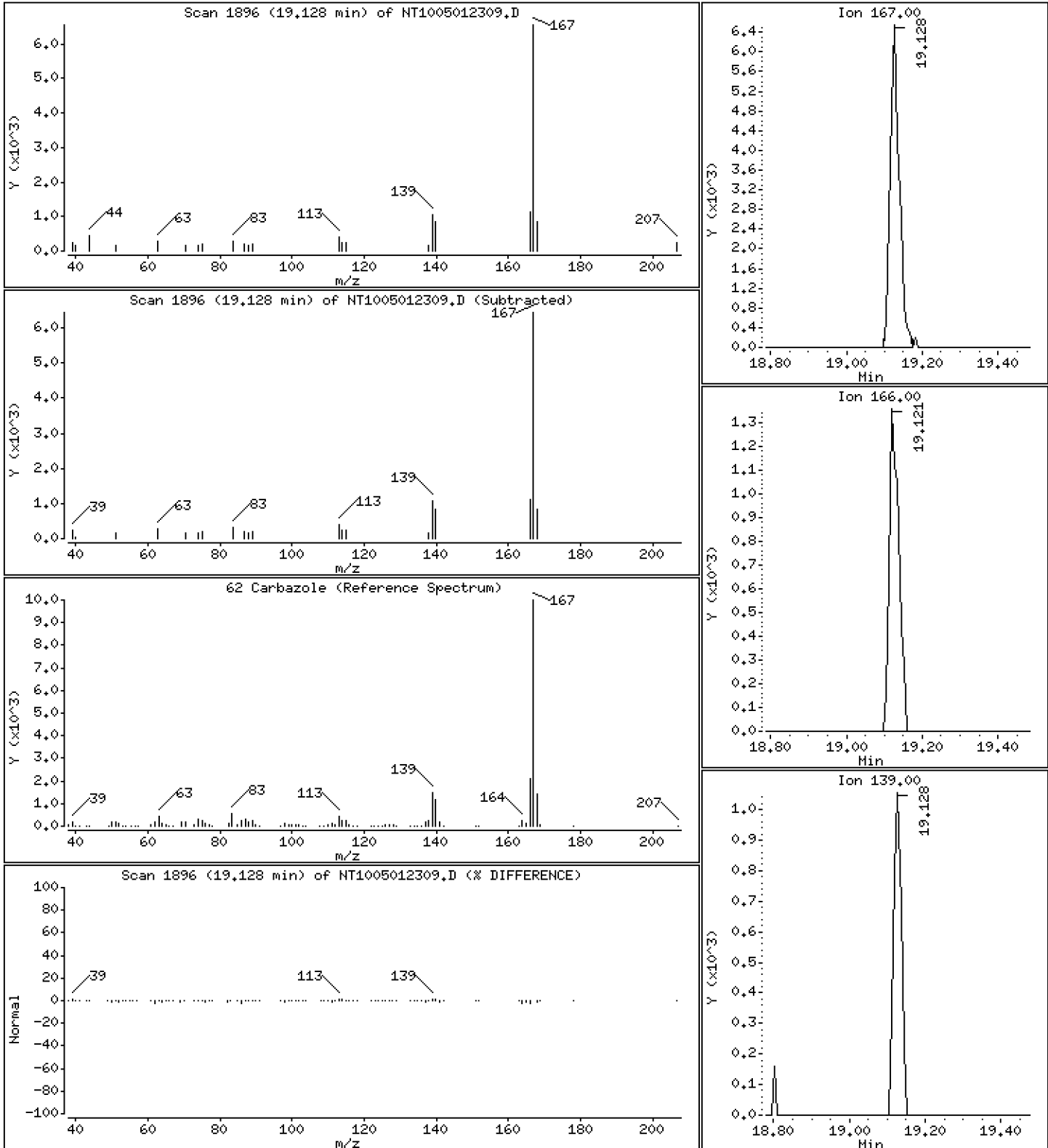
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 0.08894 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

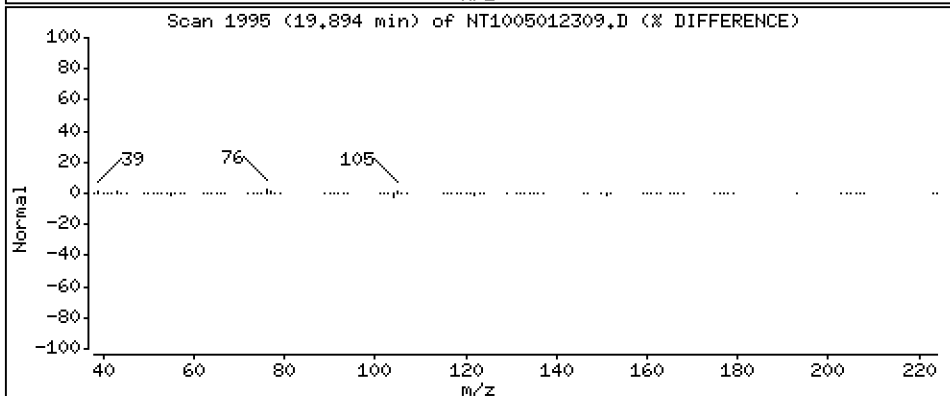
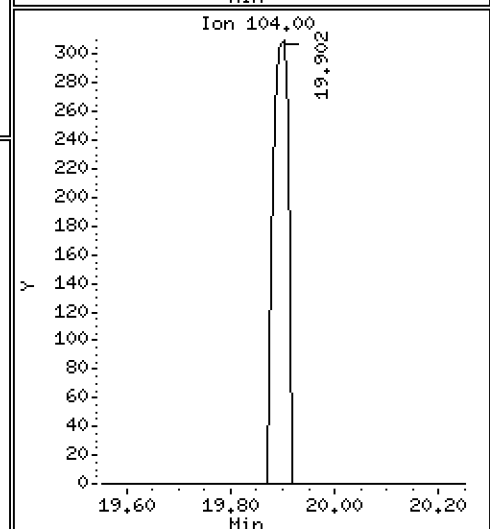
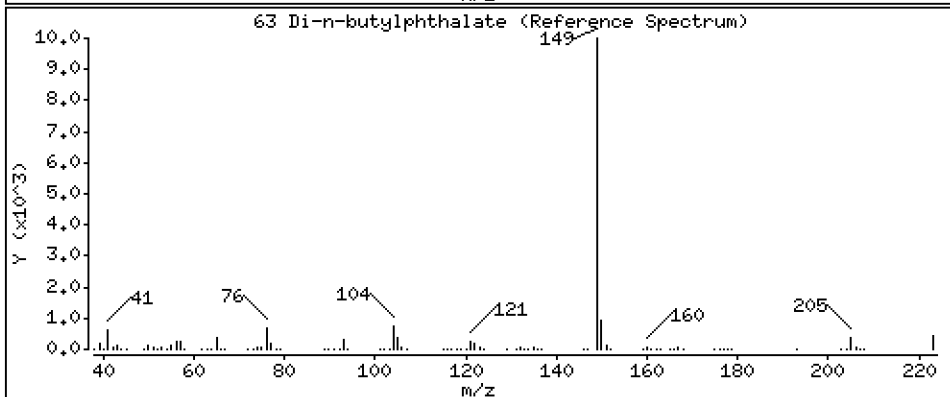
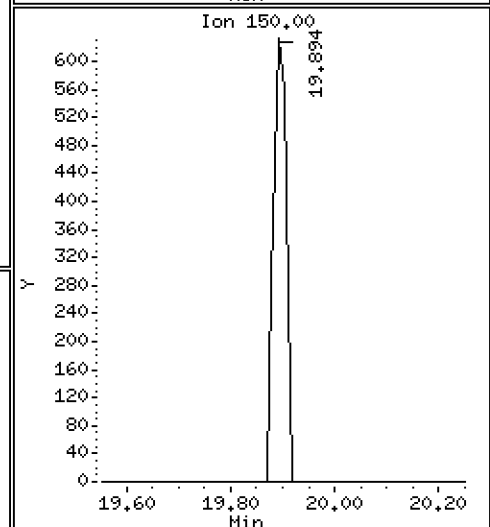
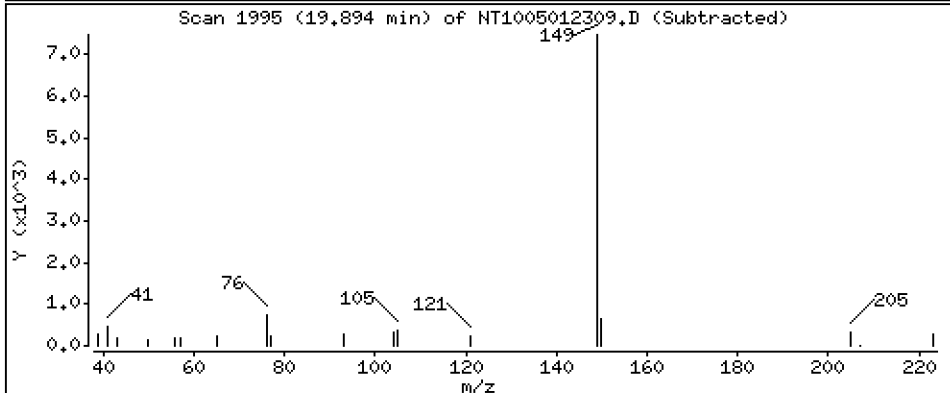
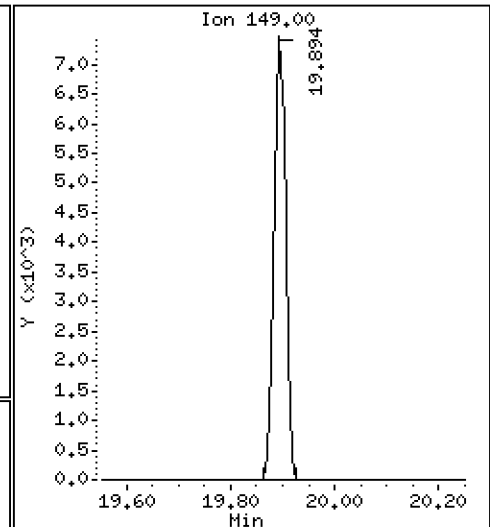
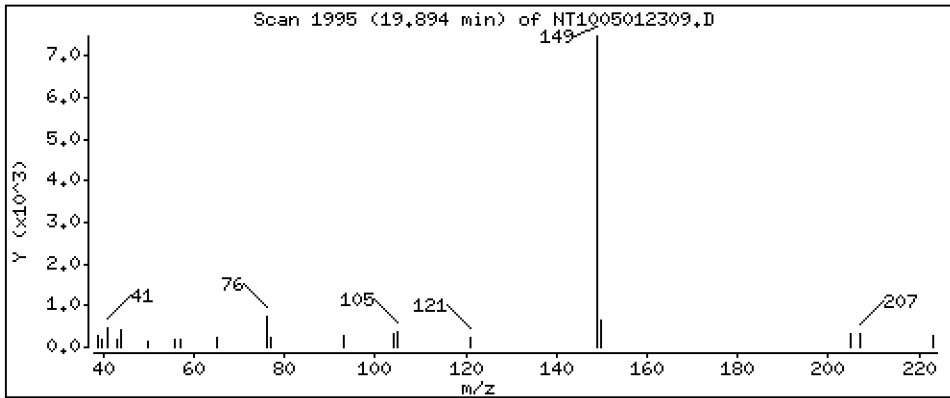
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,06031 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

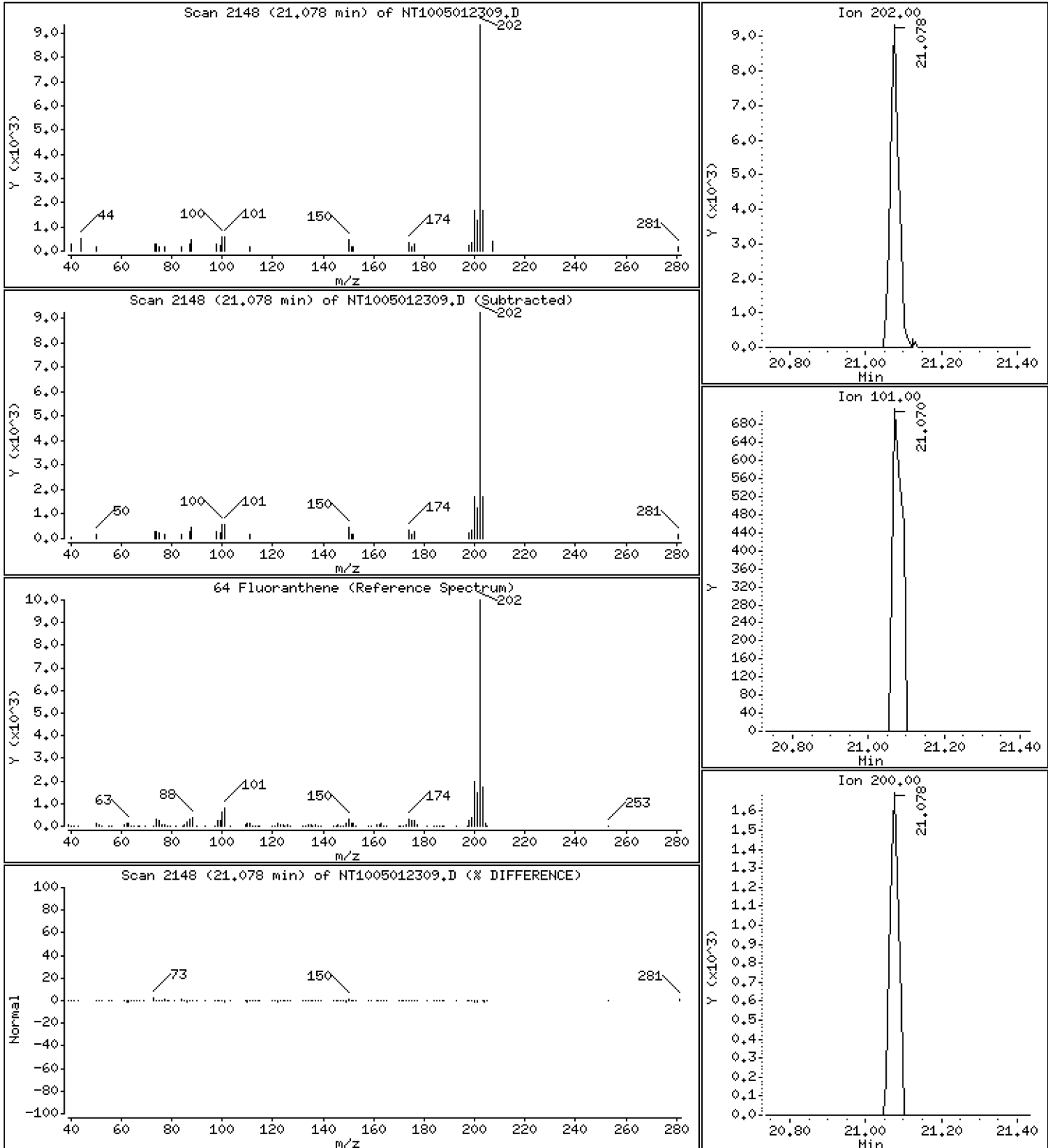
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,07954 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

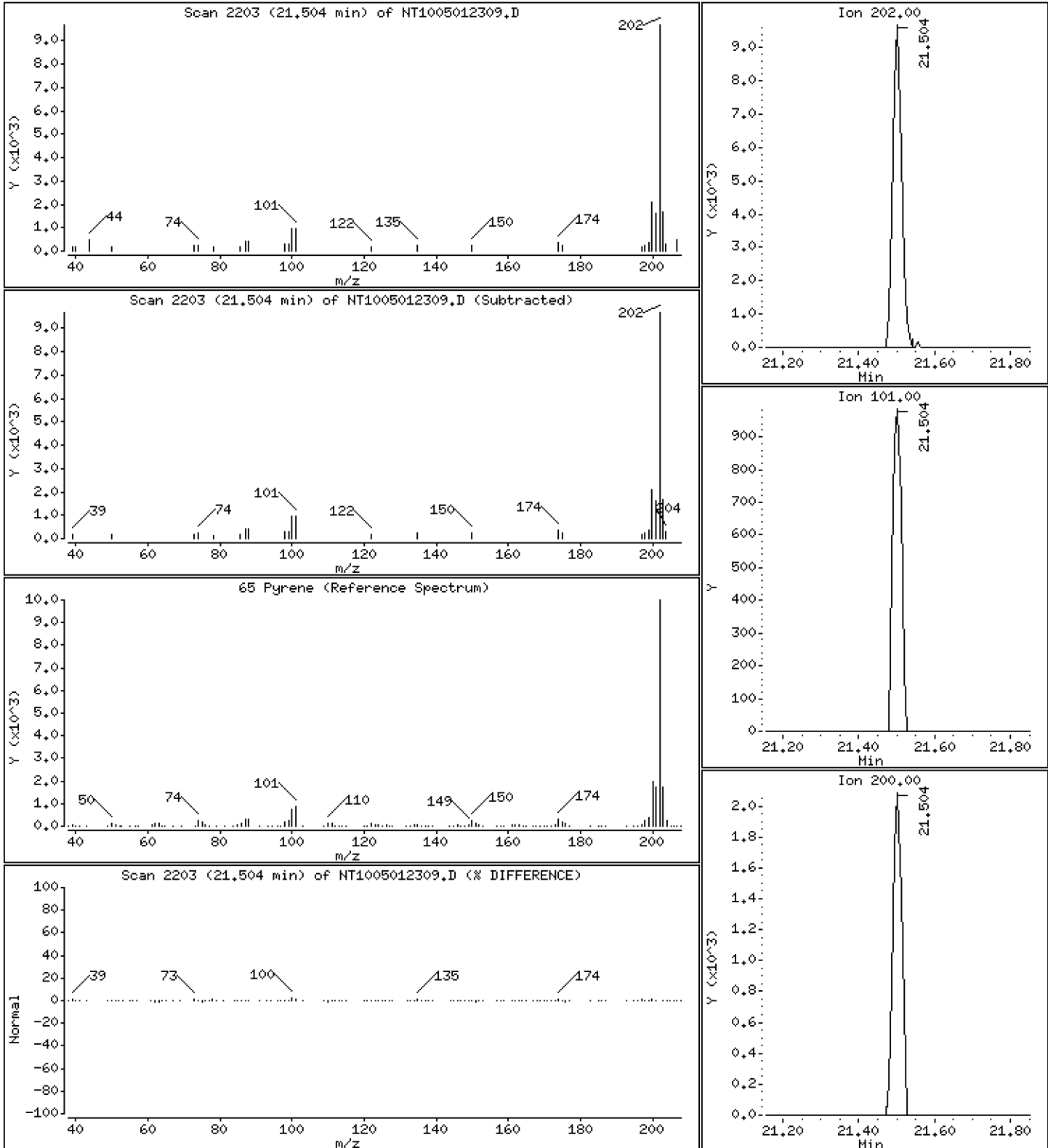
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

65 Pyrene

Concentration: 0.08353 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

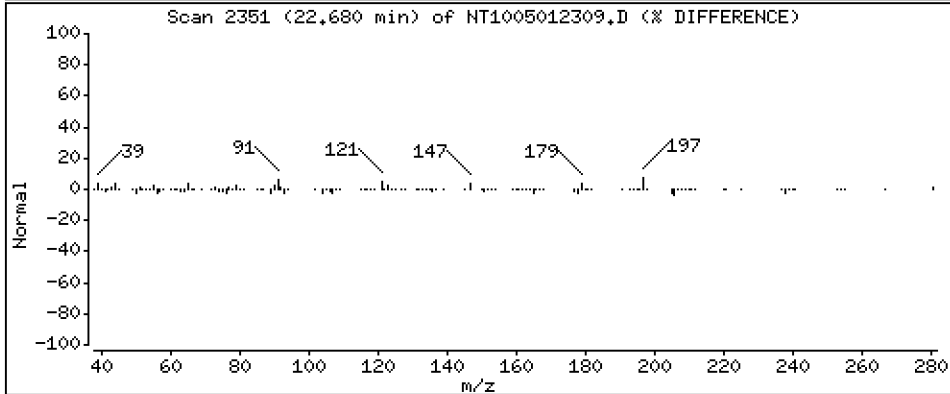
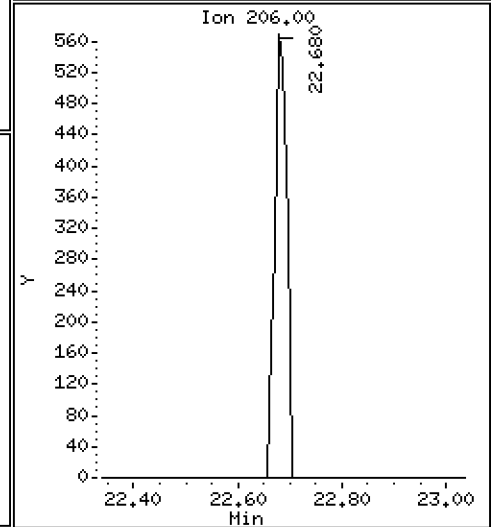
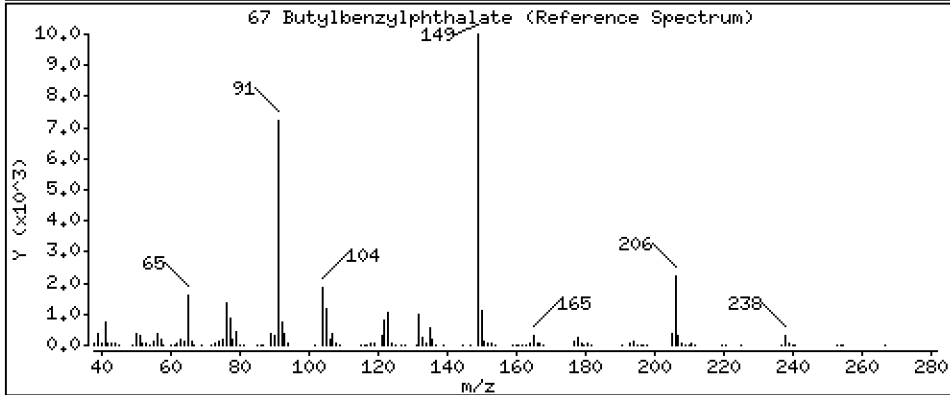
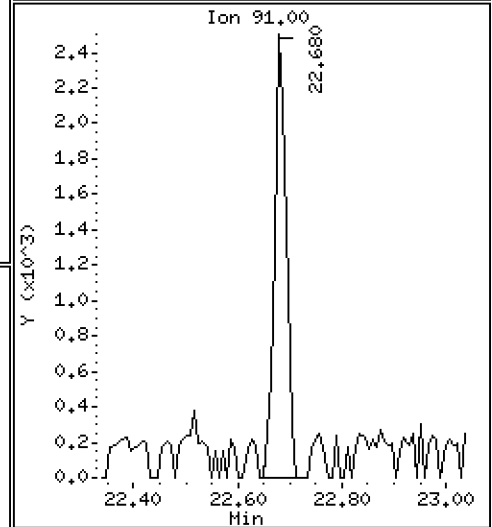
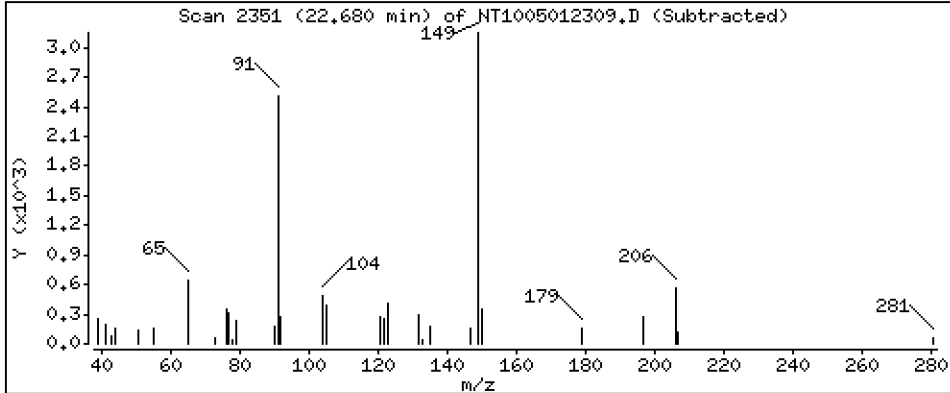
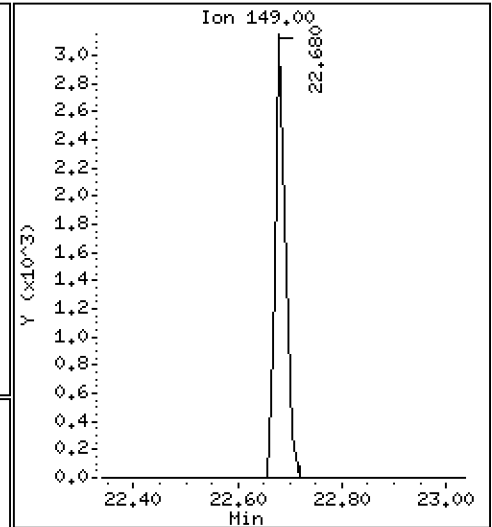
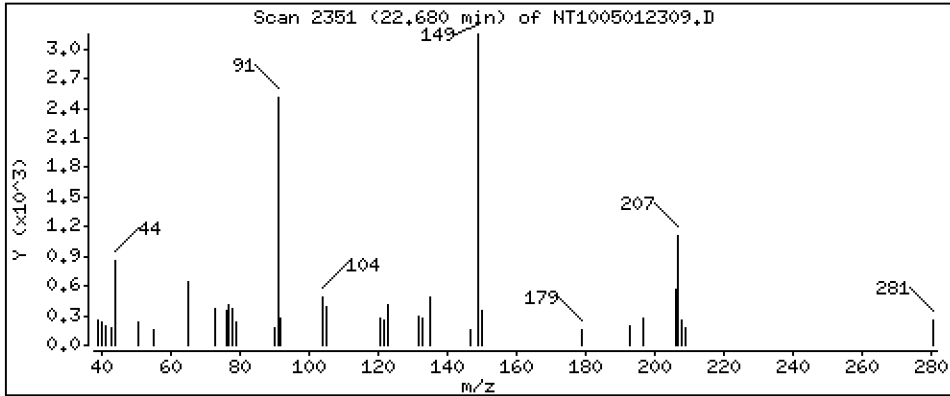
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.04963 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

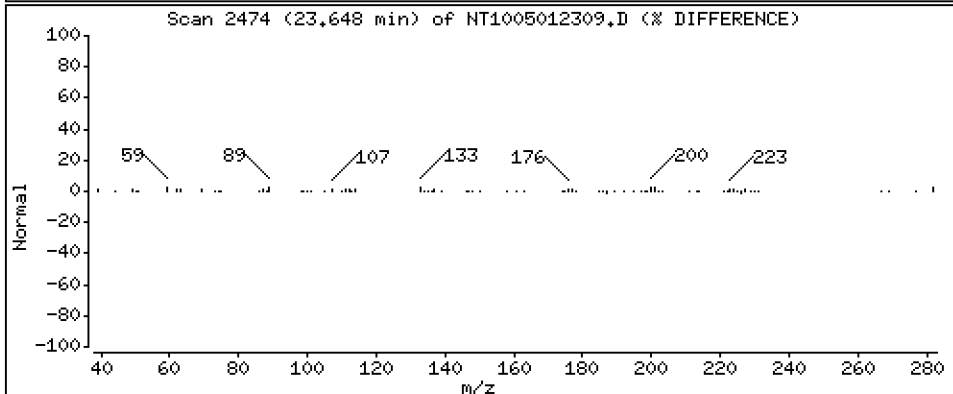
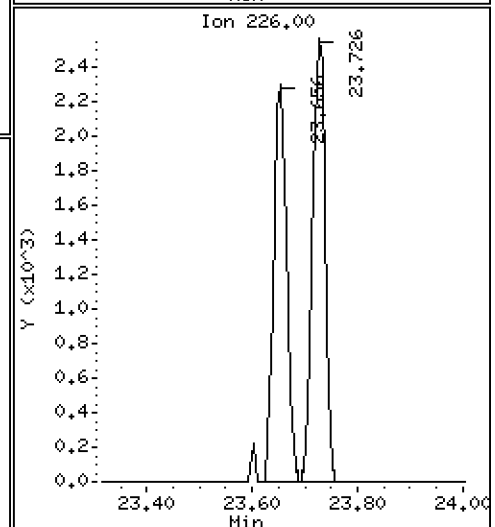
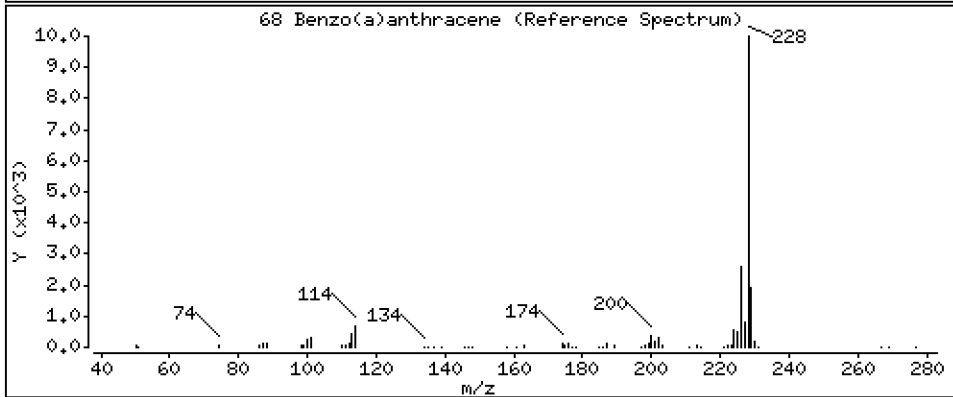
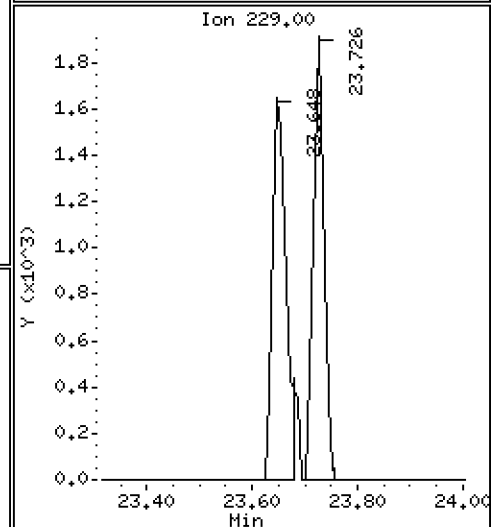
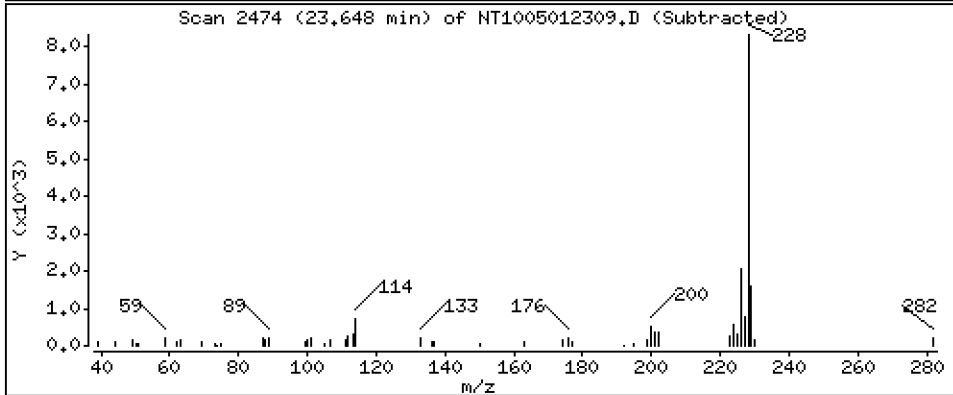
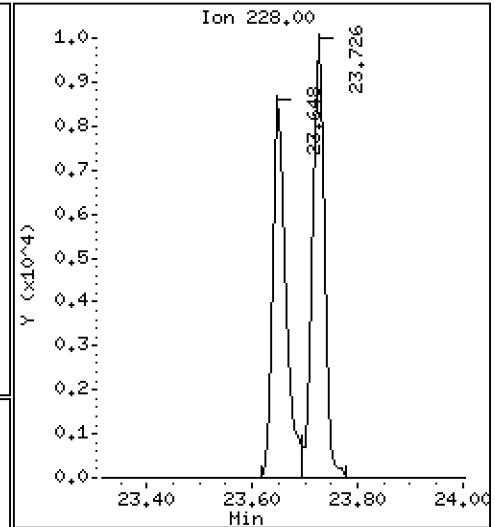
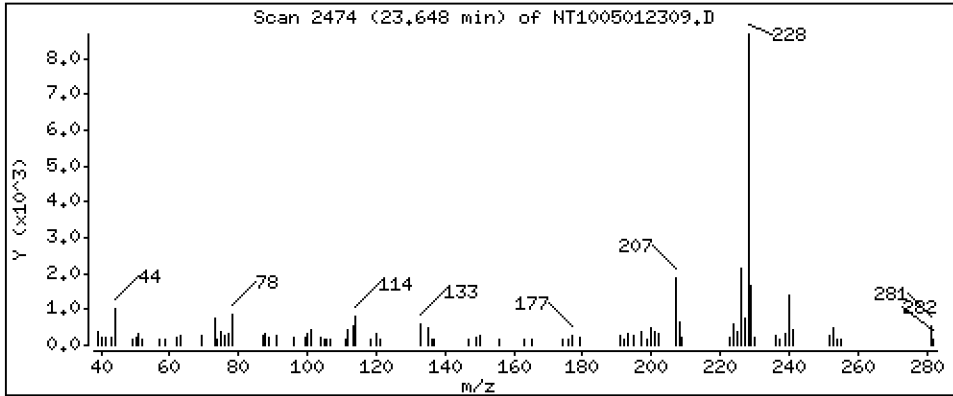
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,09301 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

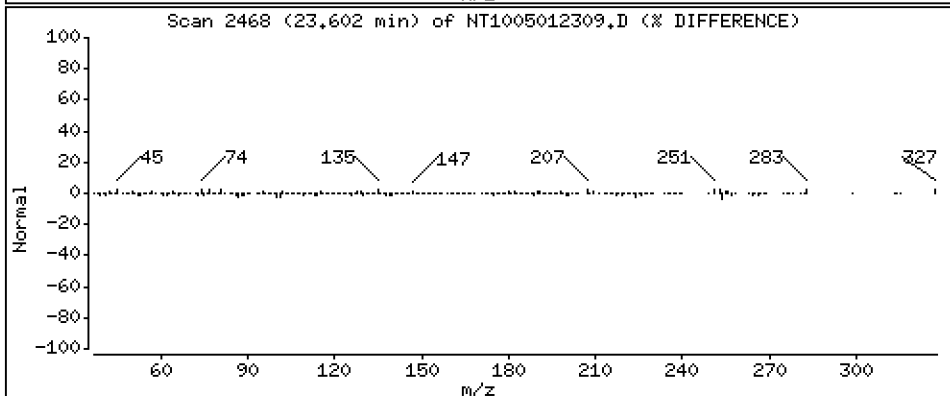
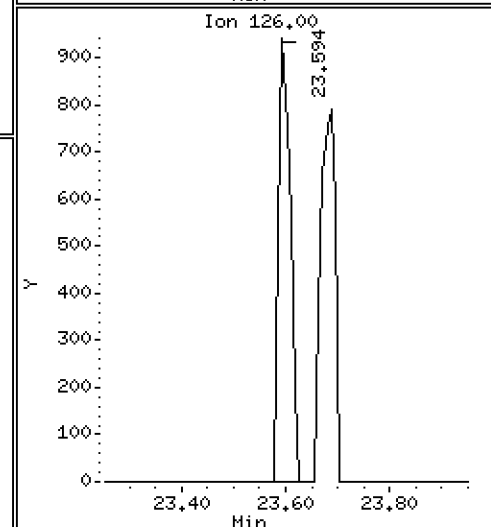
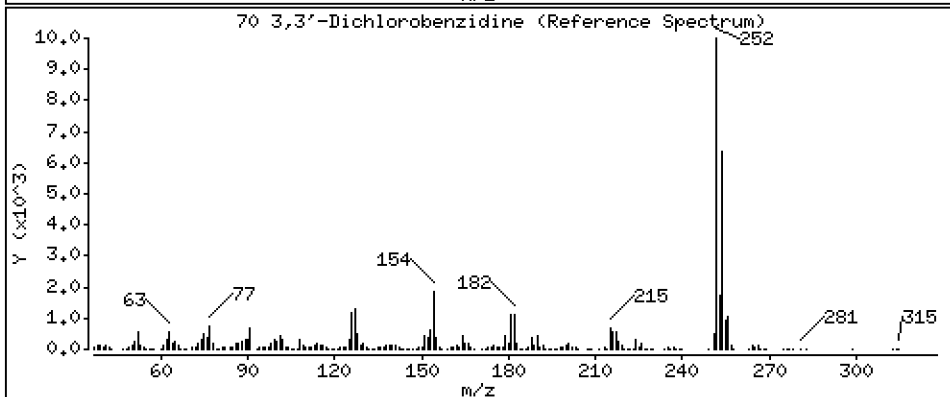
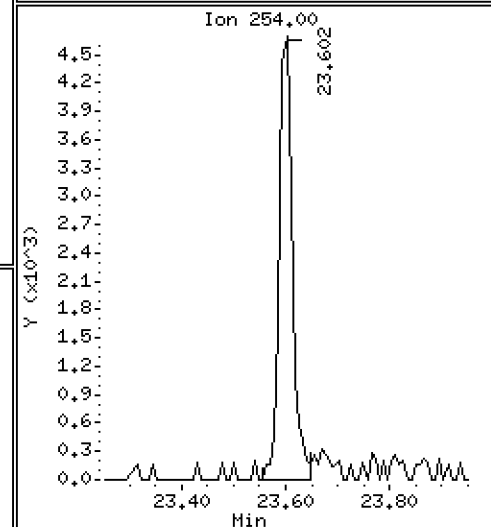
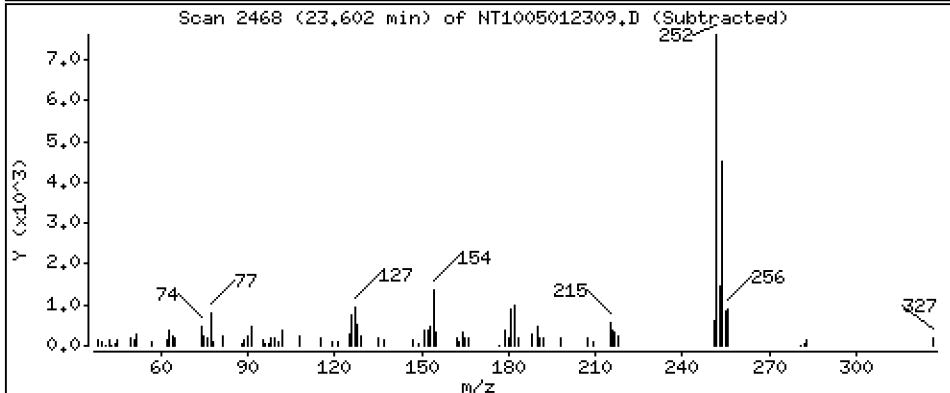
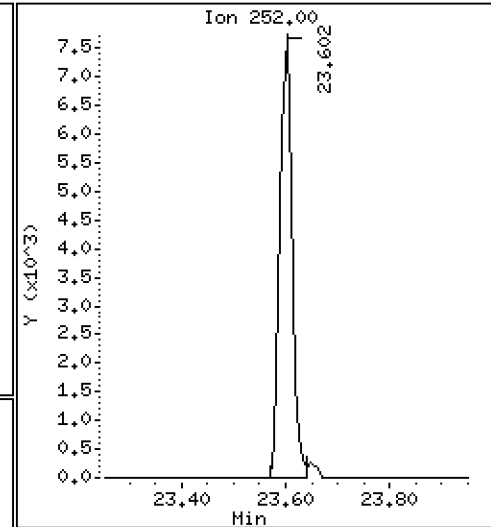
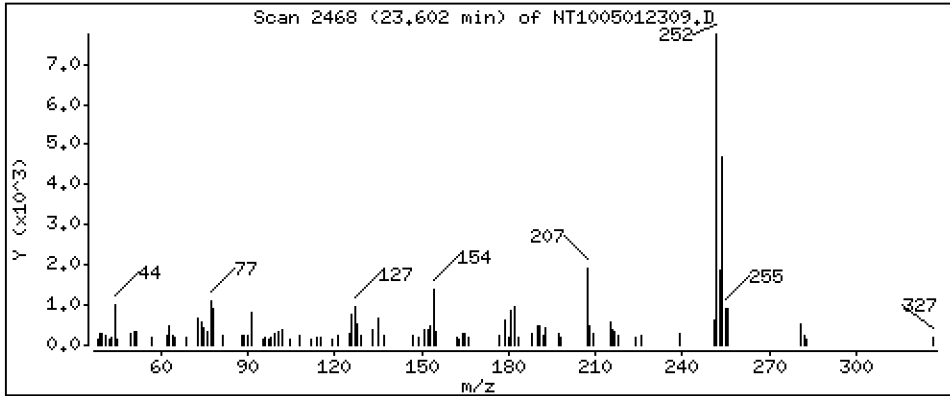
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 0,2472 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

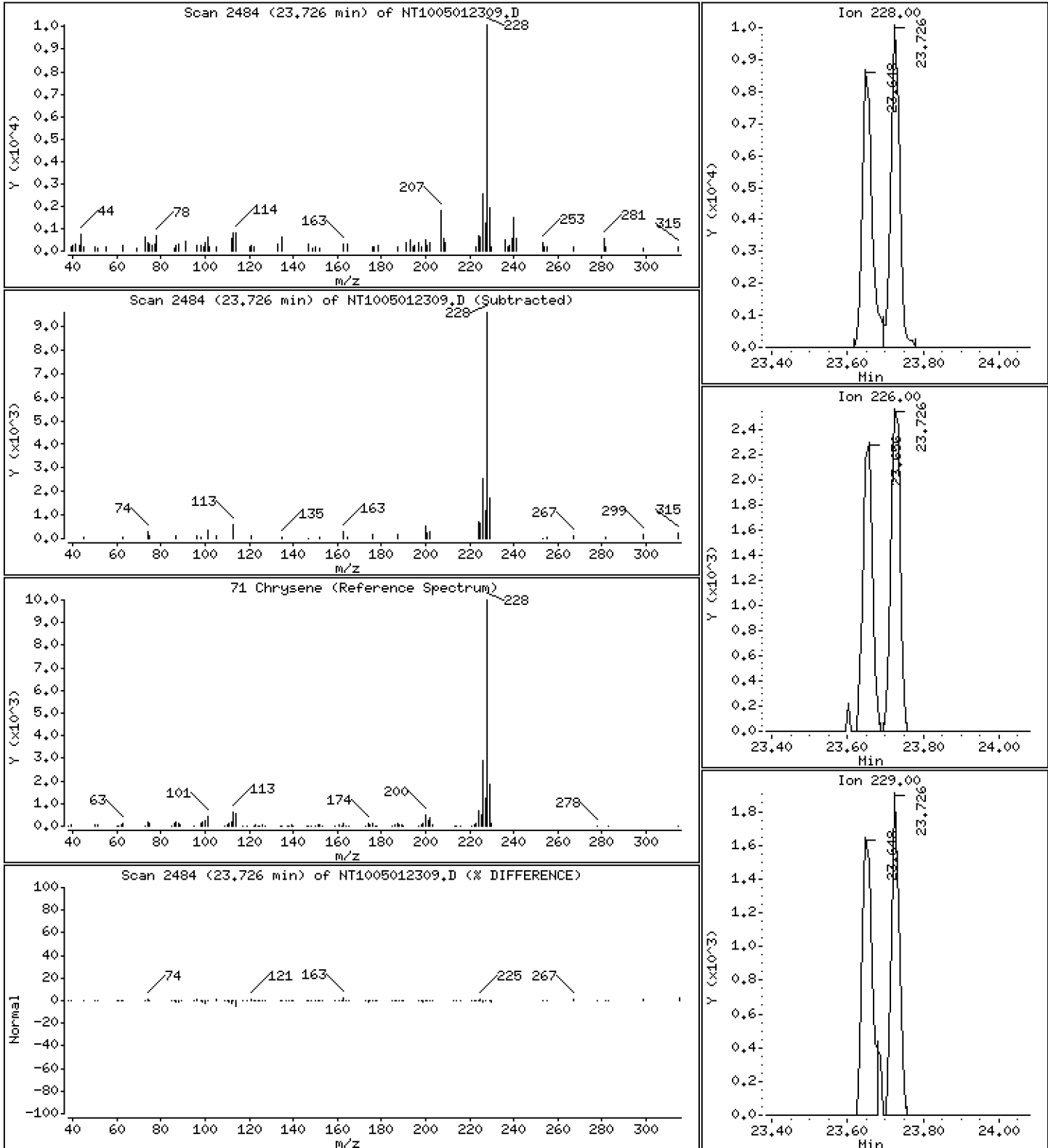
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,1071 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

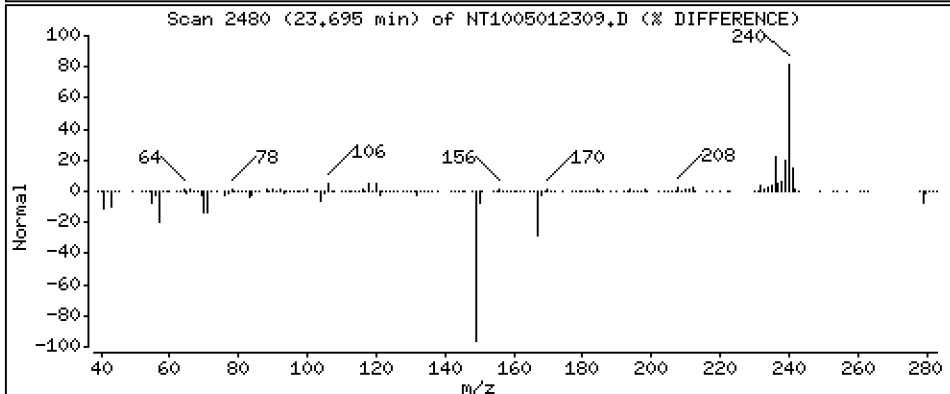
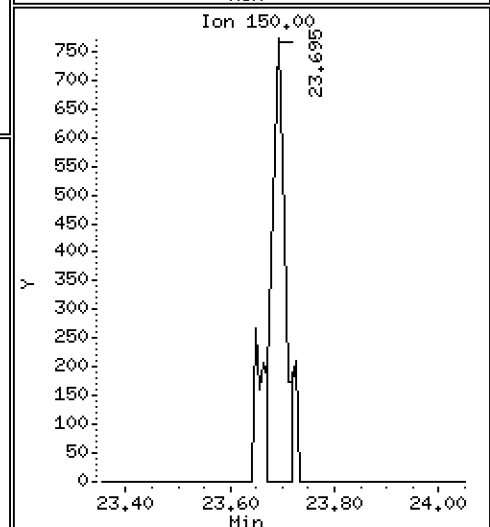
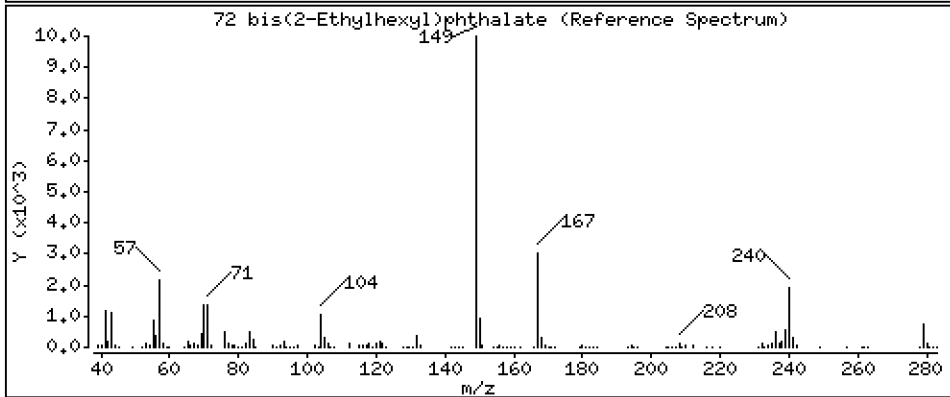
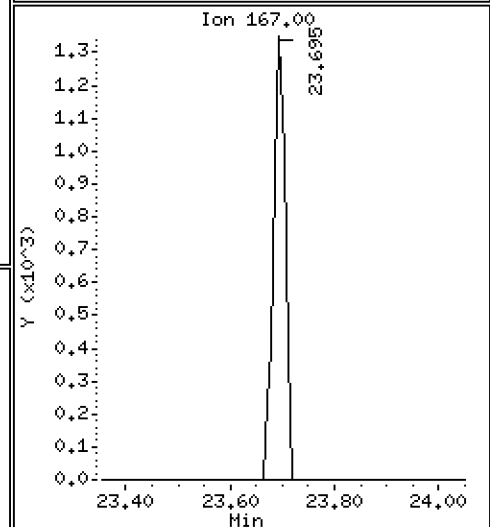
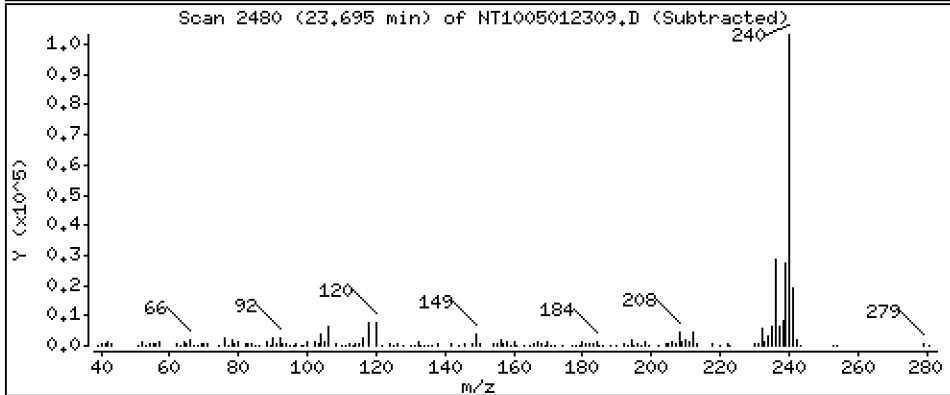
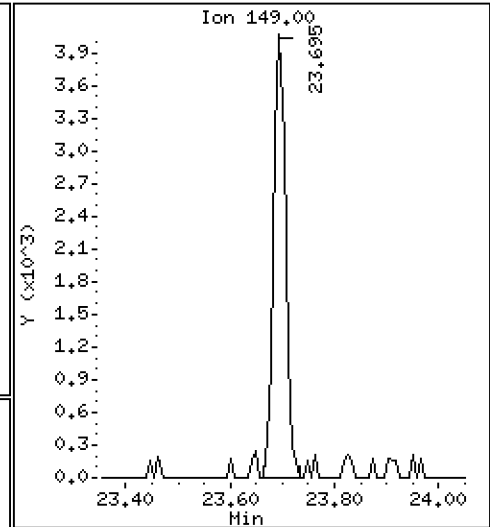
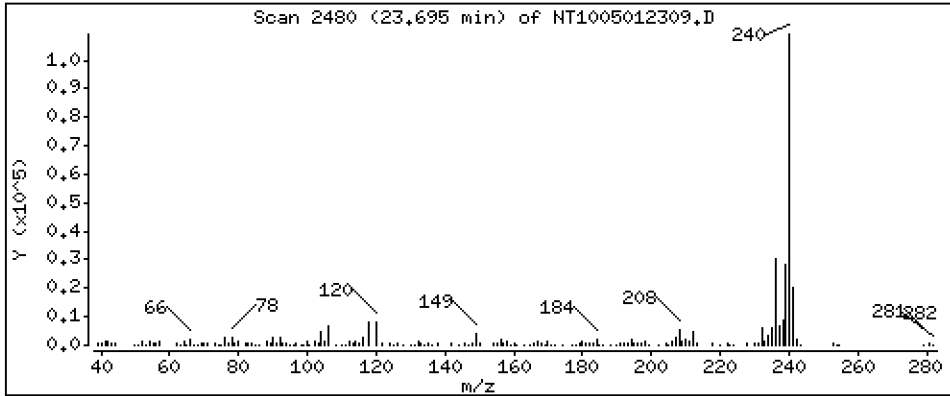
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,07357 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

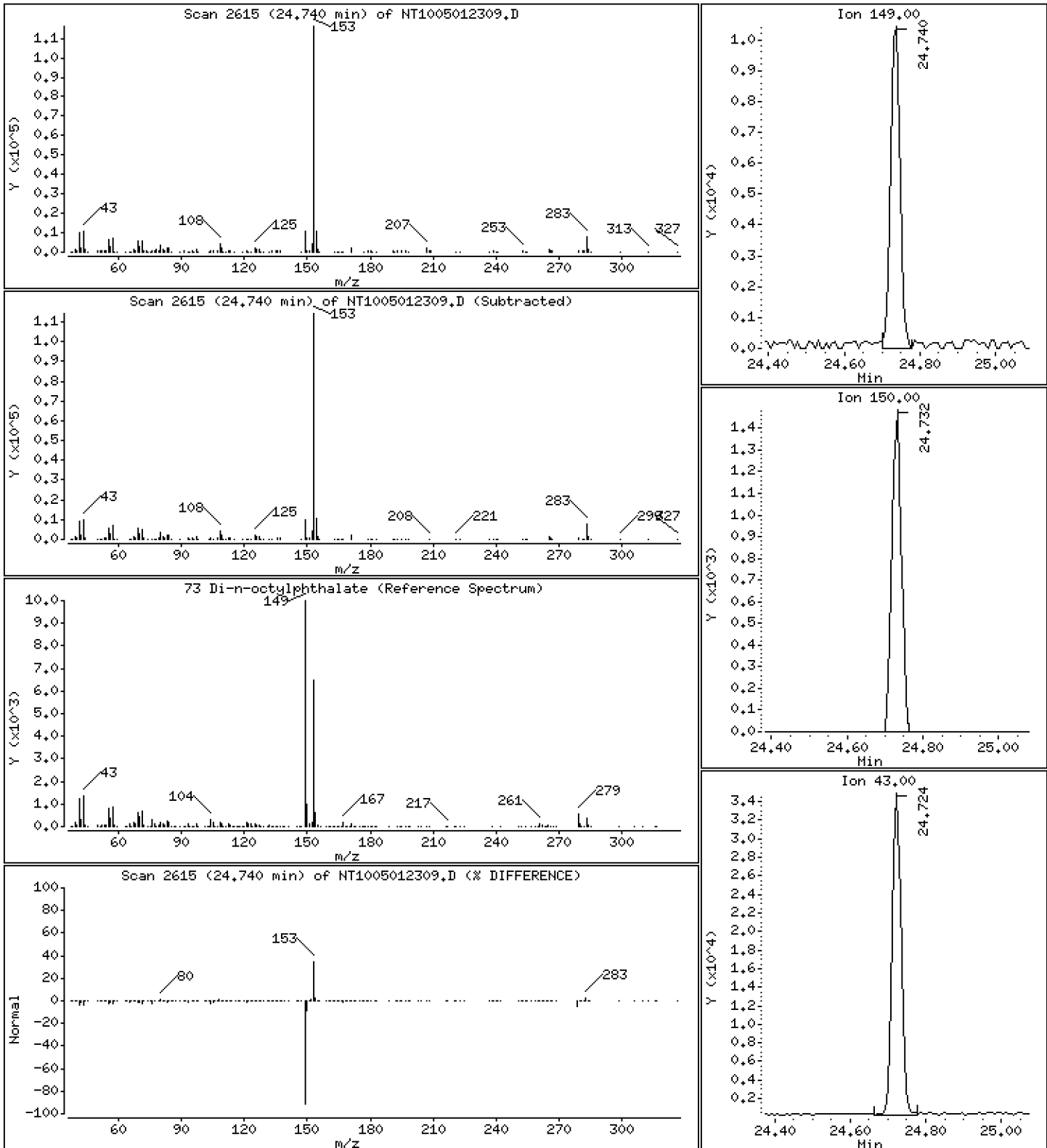
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,1138 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

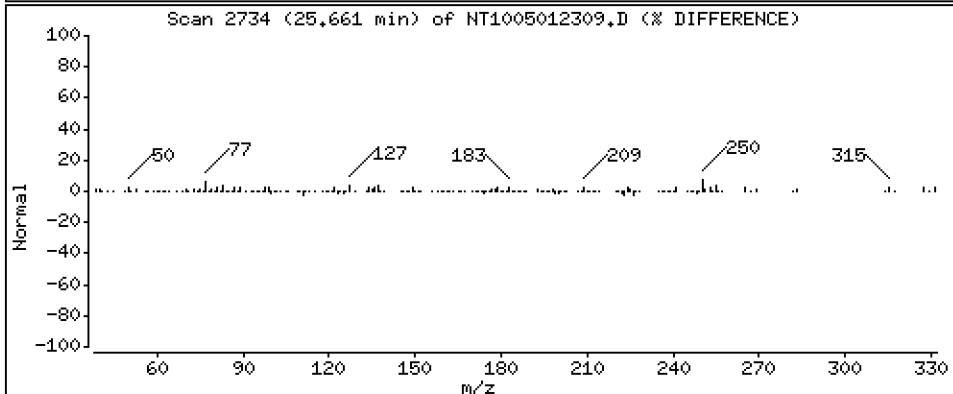
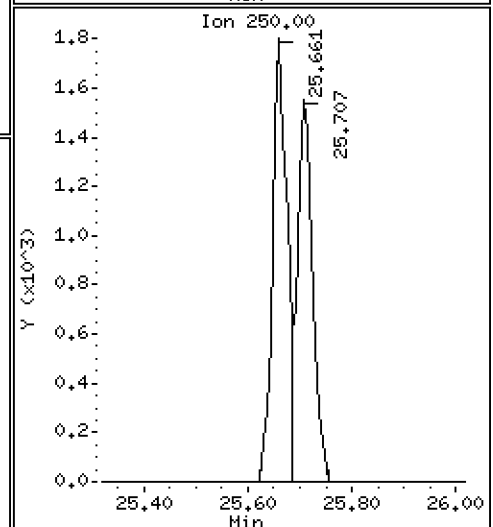
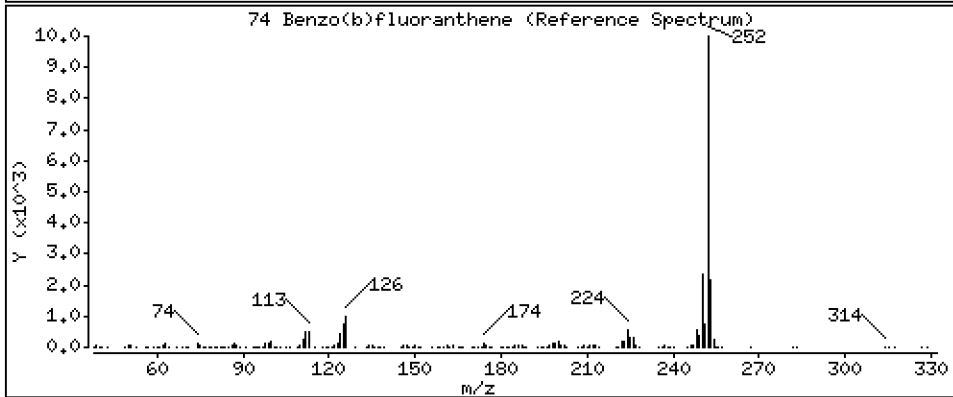
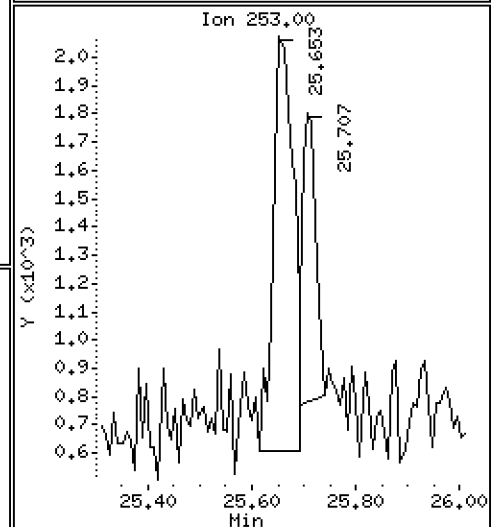
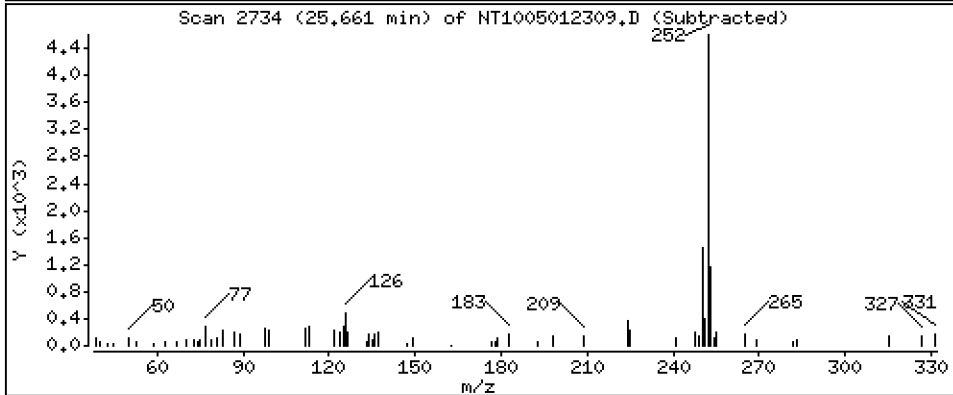
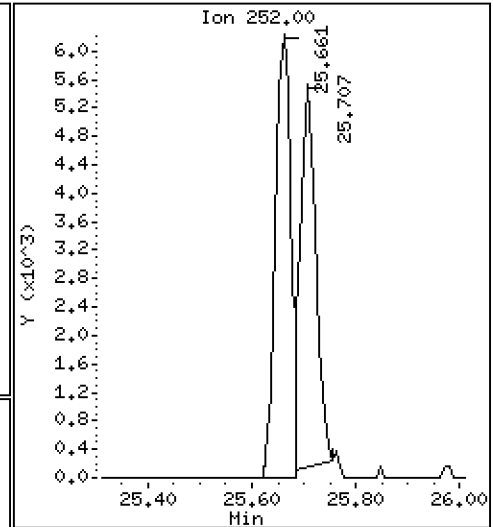
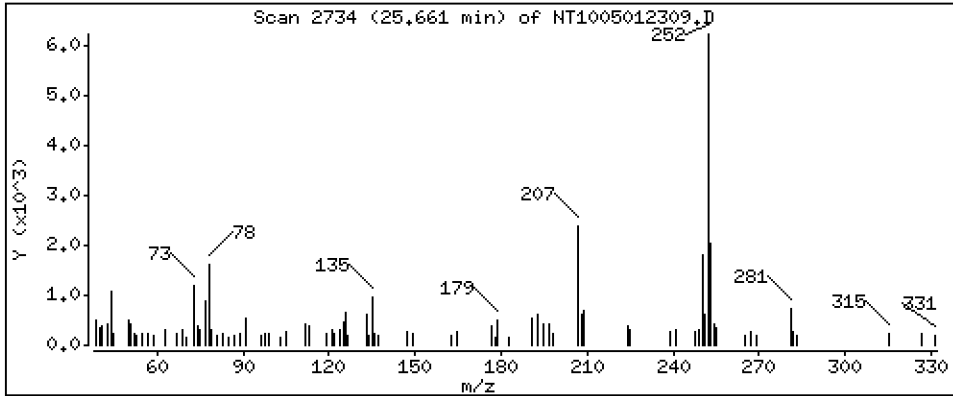
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,08534 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

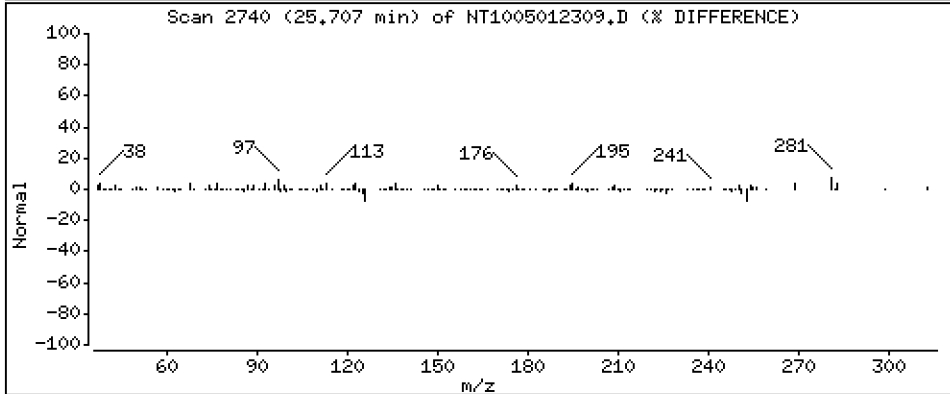
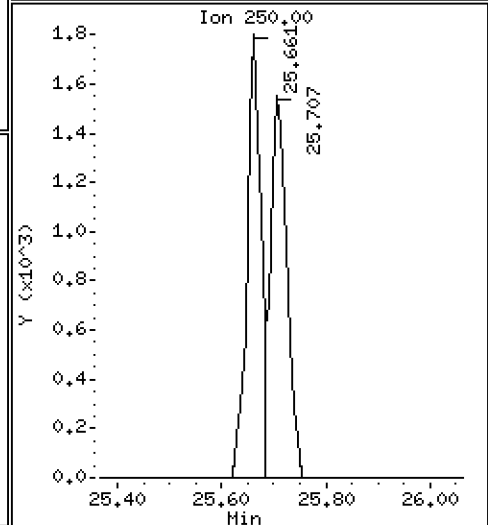
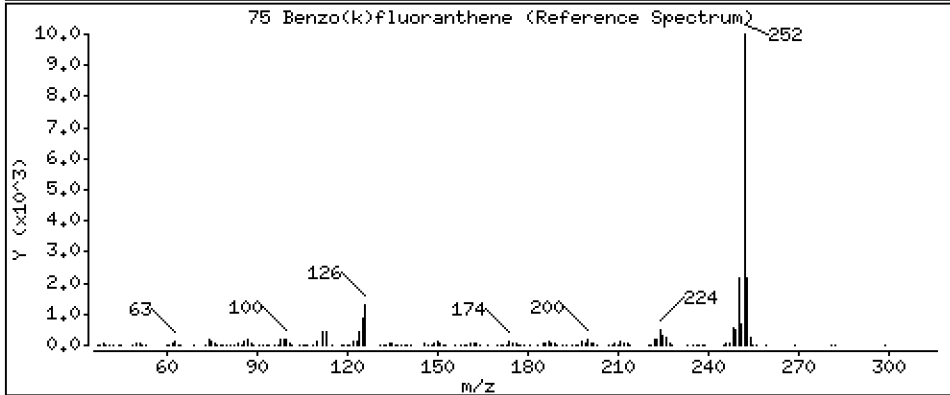
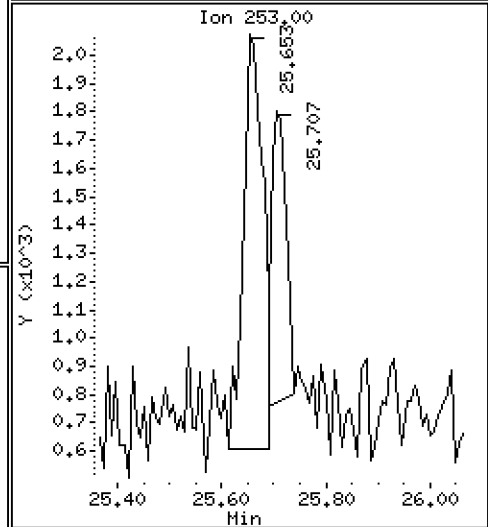
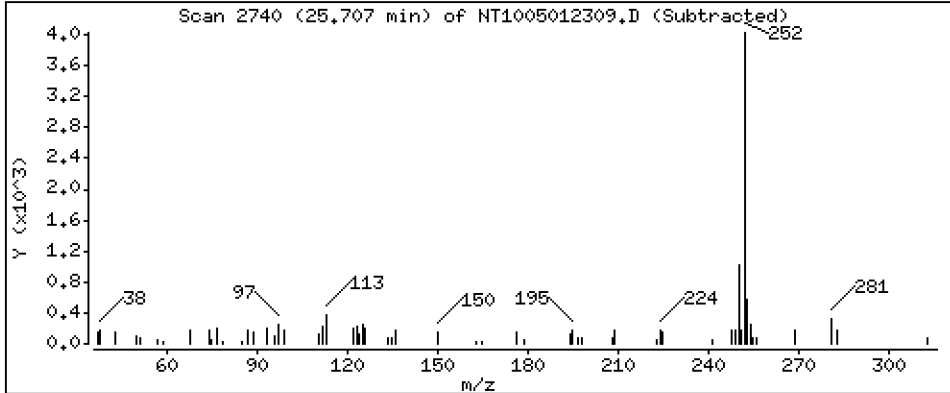
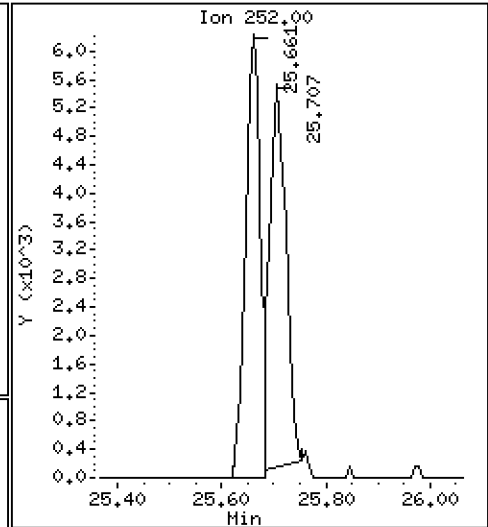
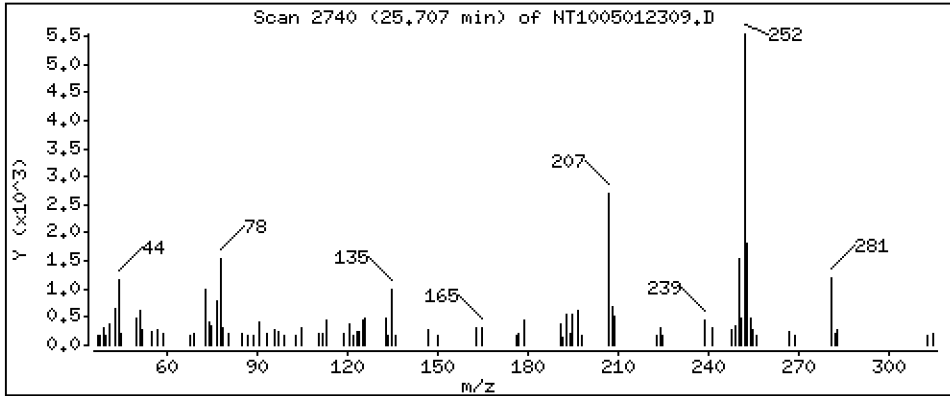
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,07983 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

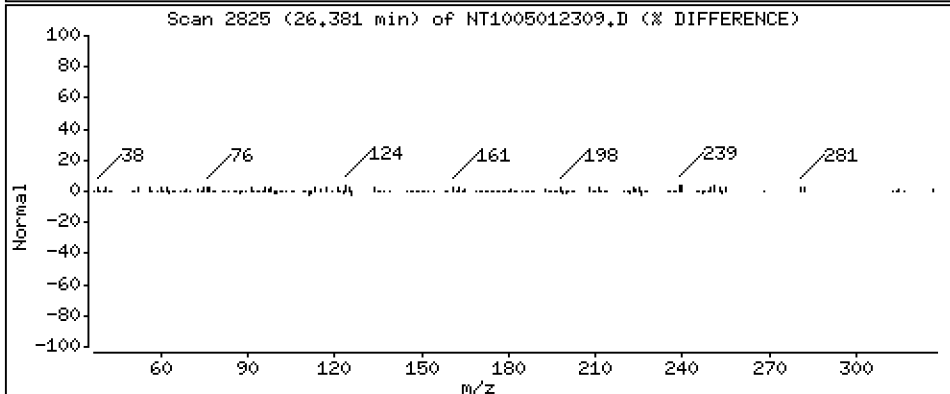
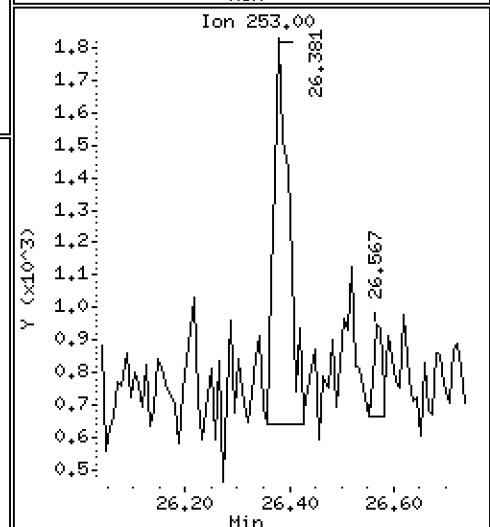
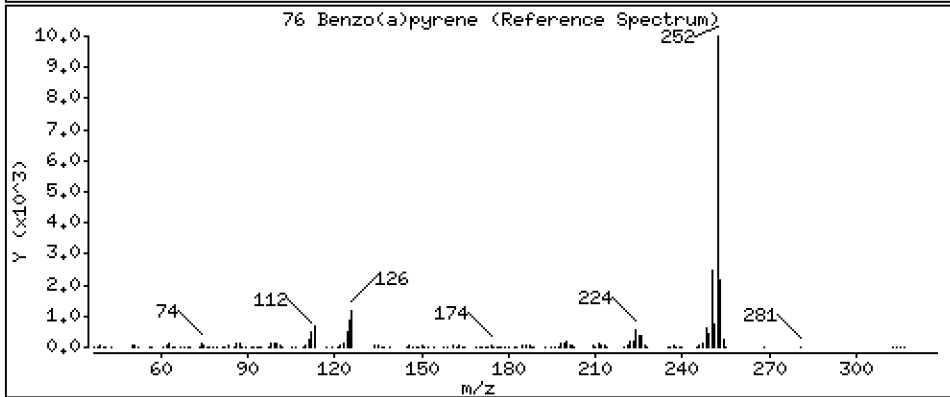
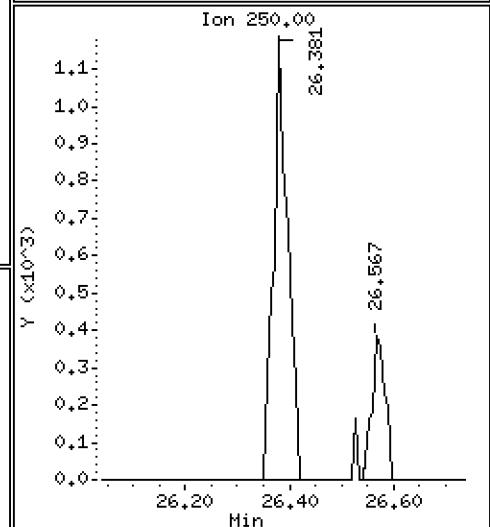
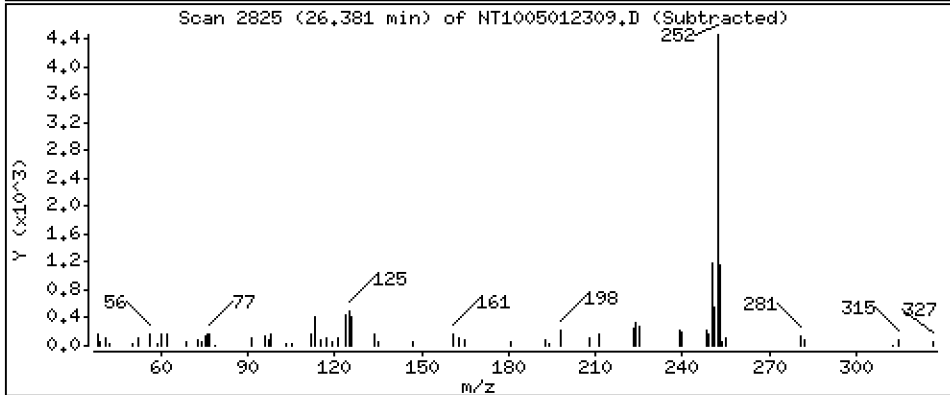
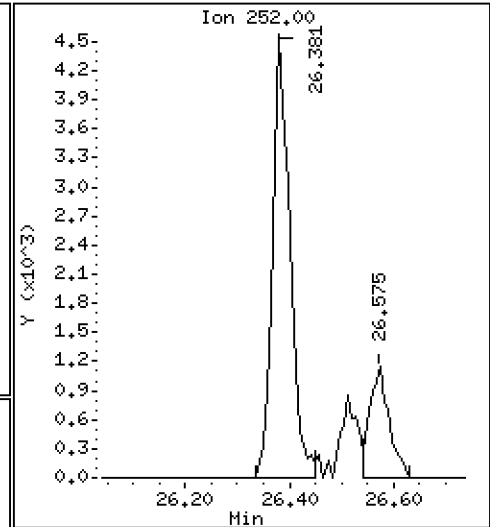
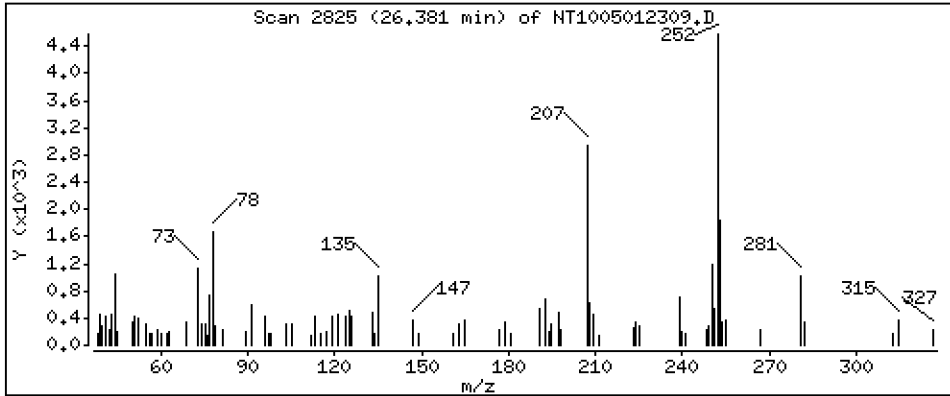
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,08309 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

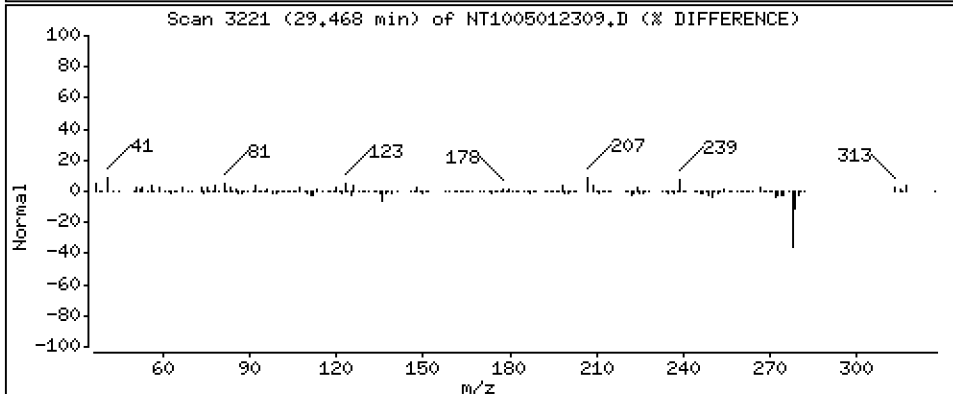
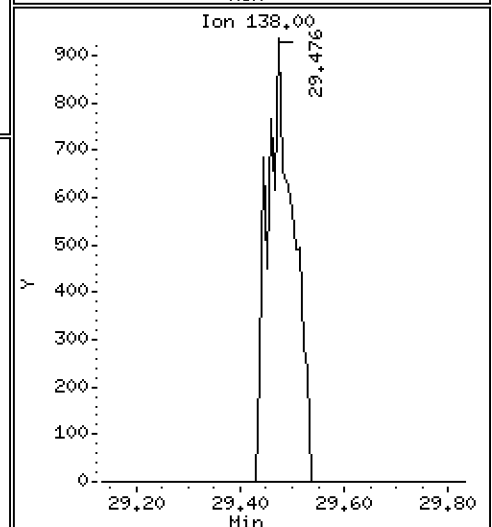
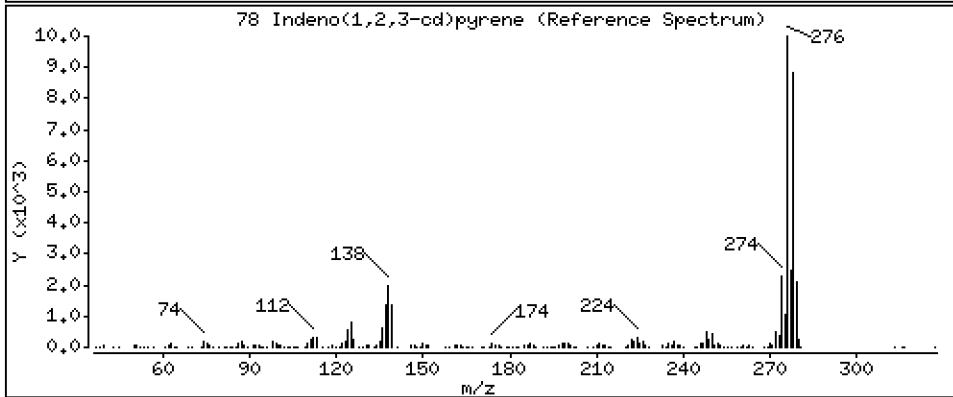
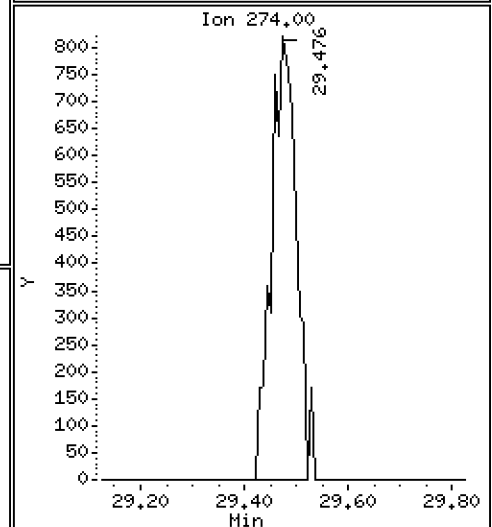
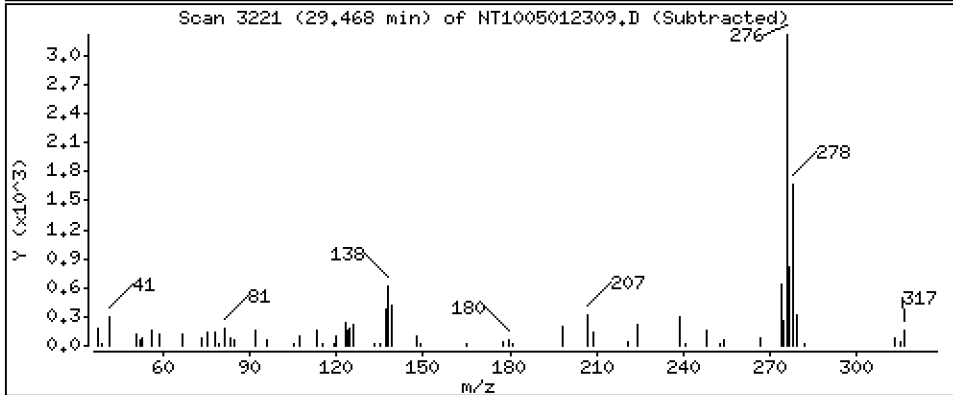
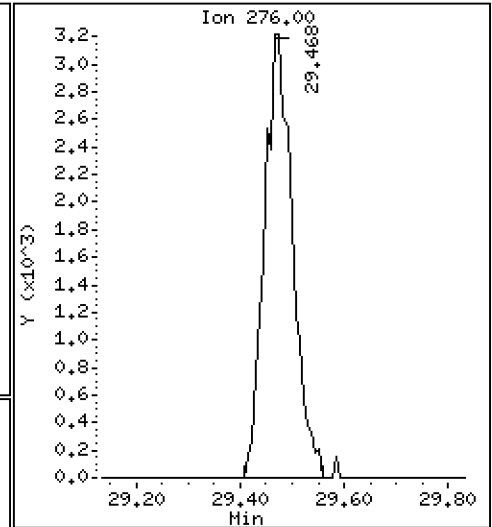
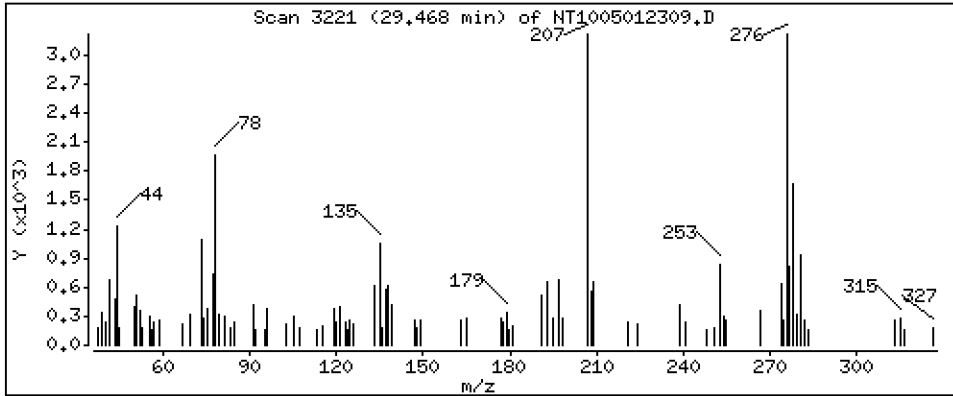
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

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

Concentration: 0.08101 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

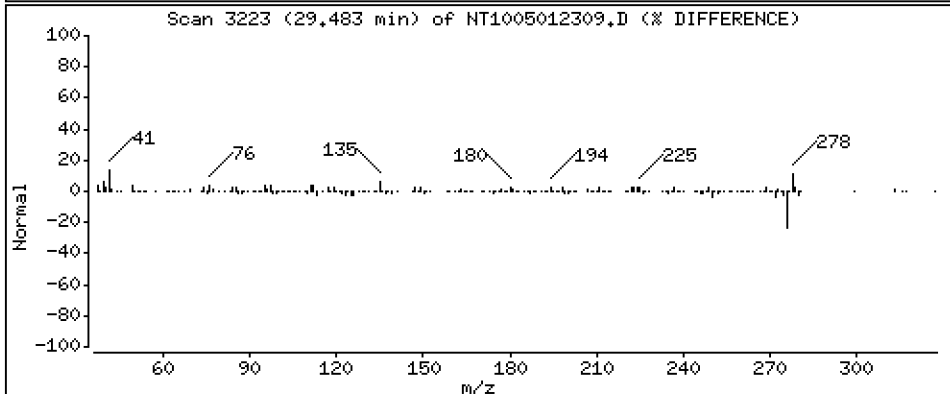
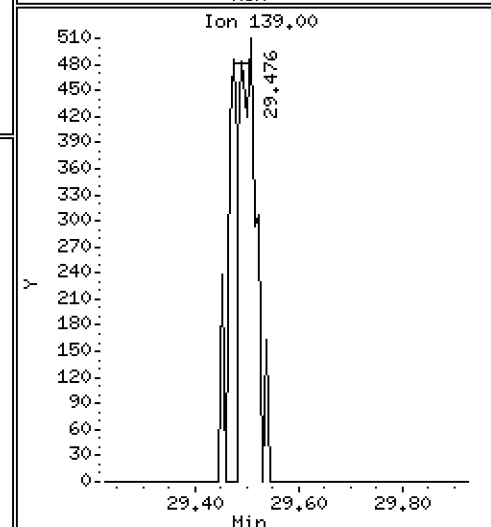
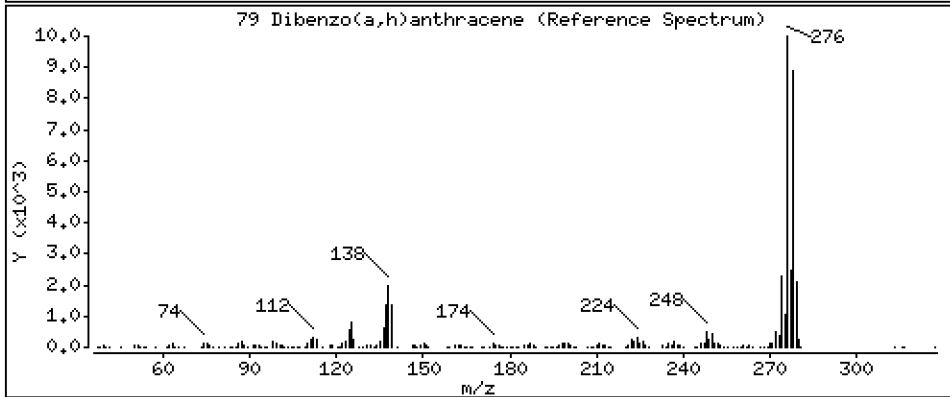
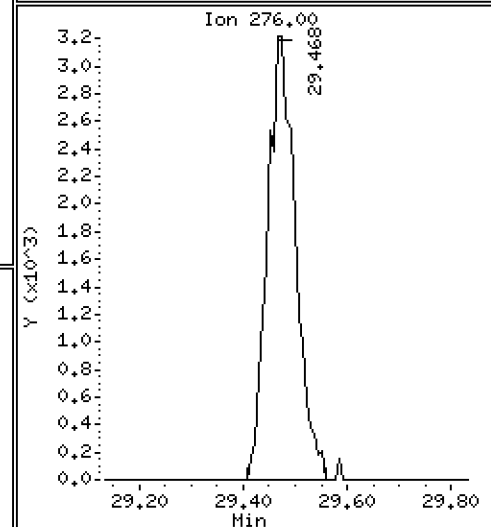
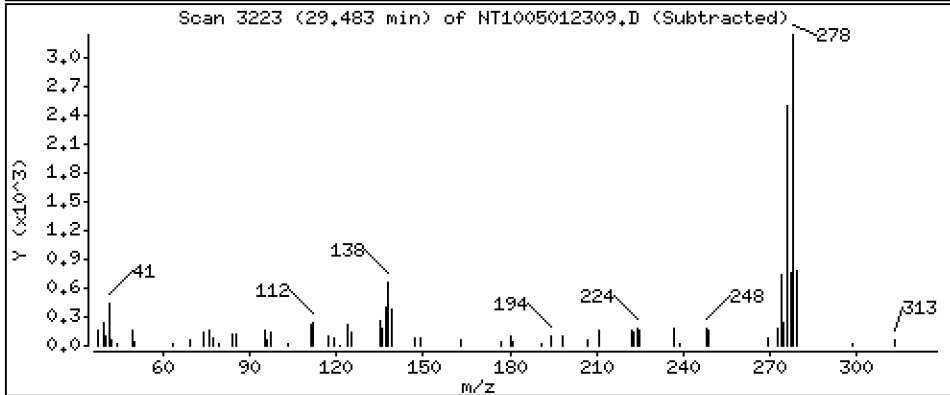
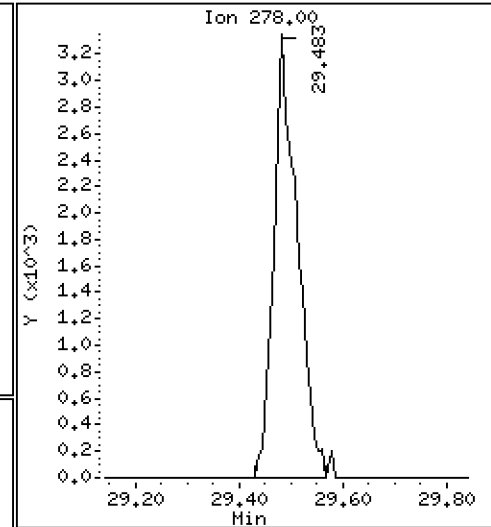
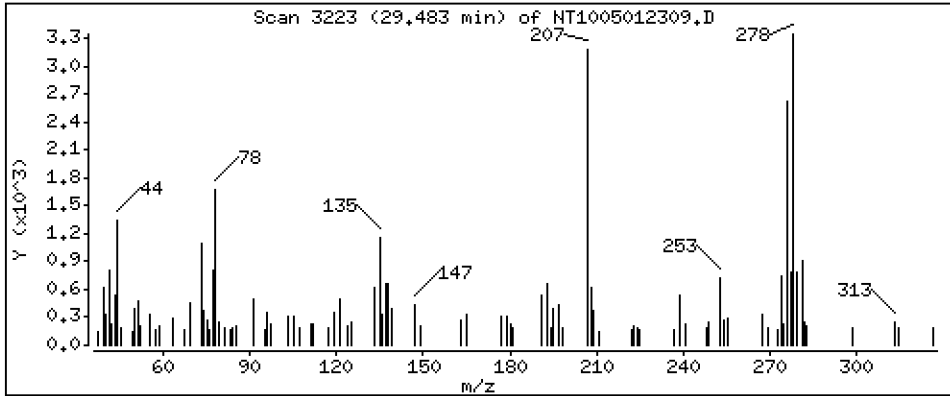
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,08353 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

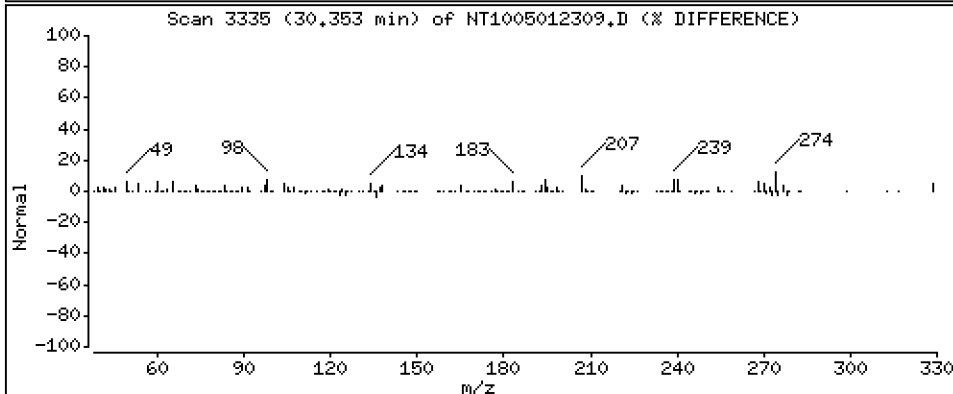
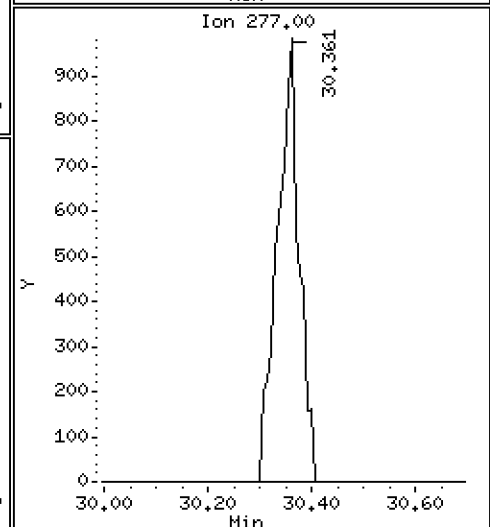
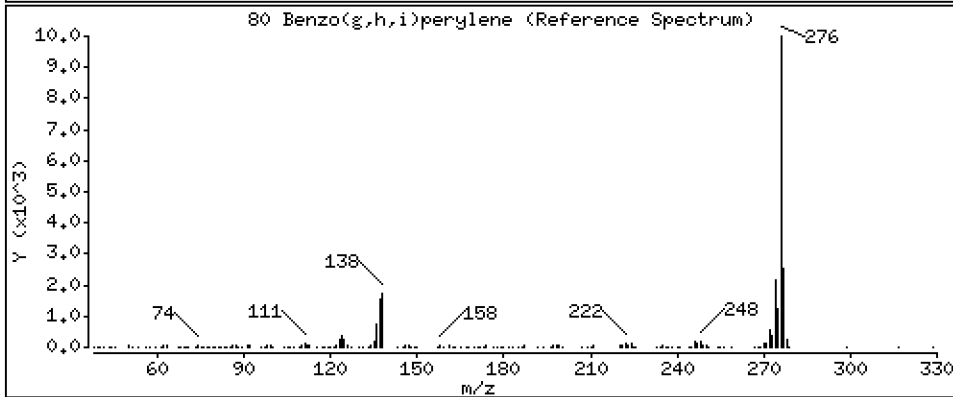
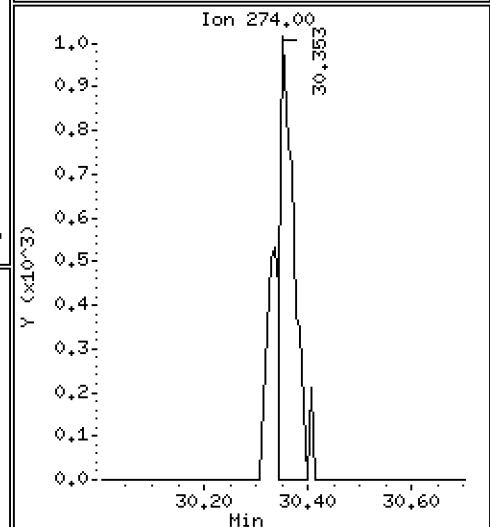
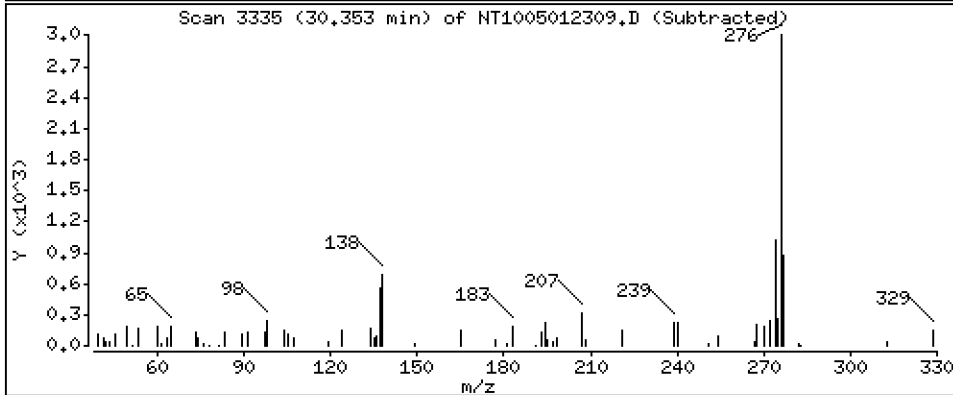
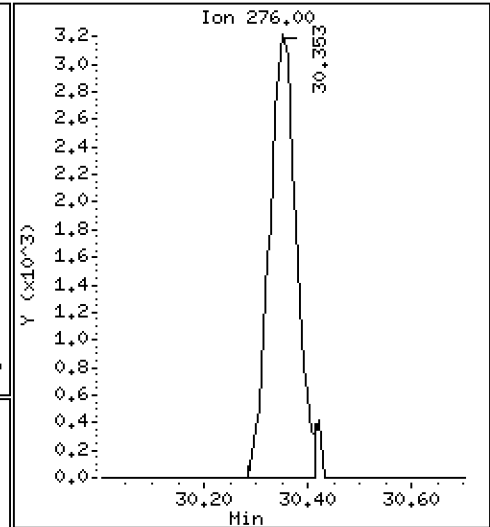
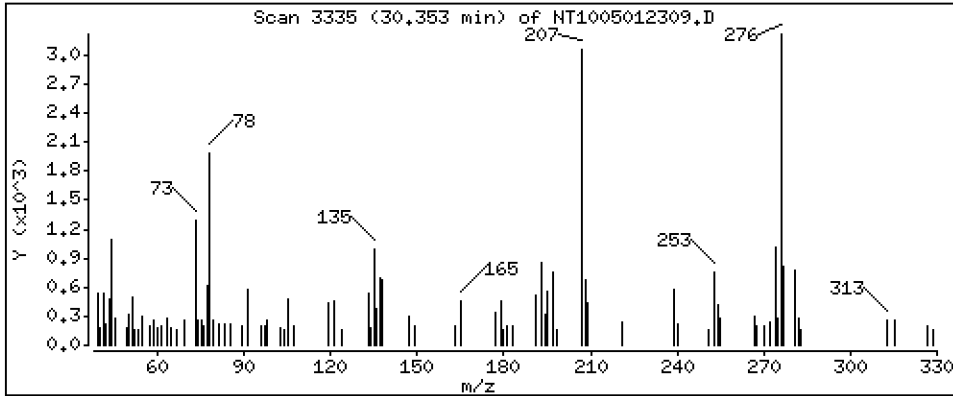
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,09644 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

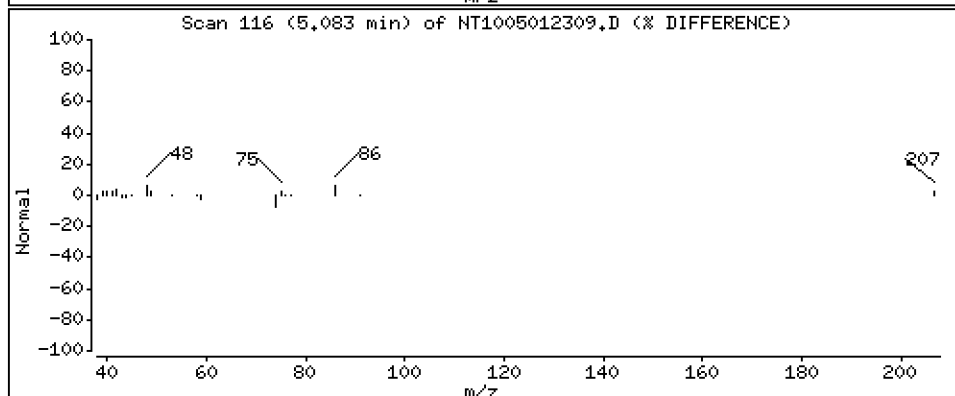
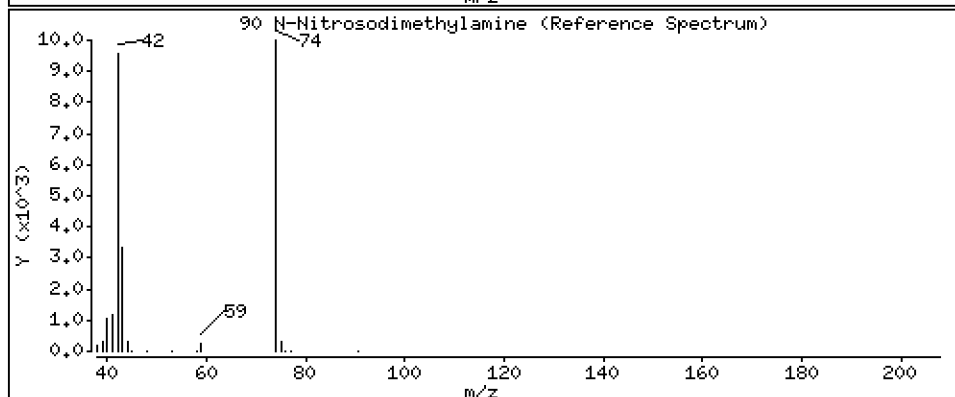
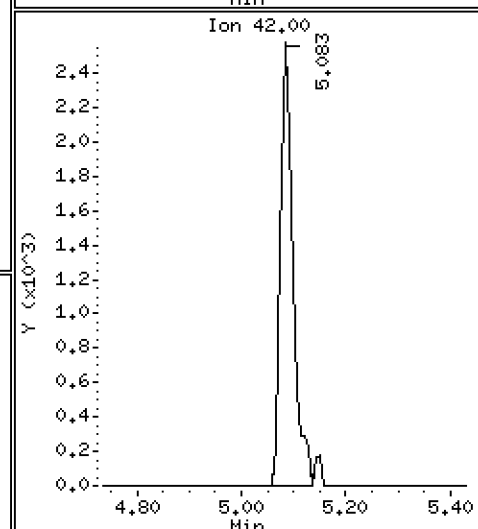
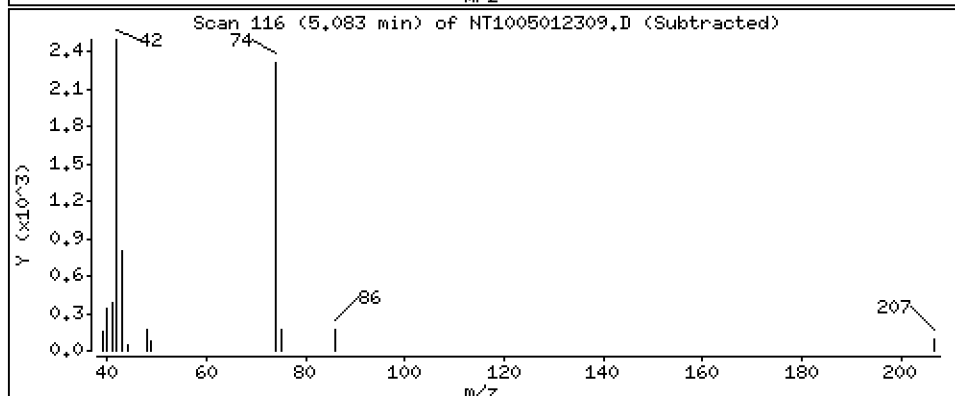
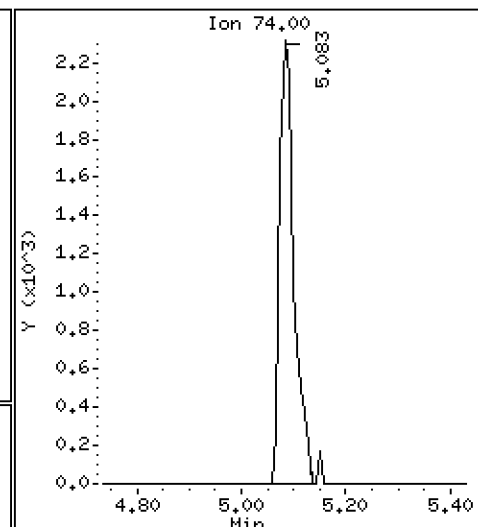
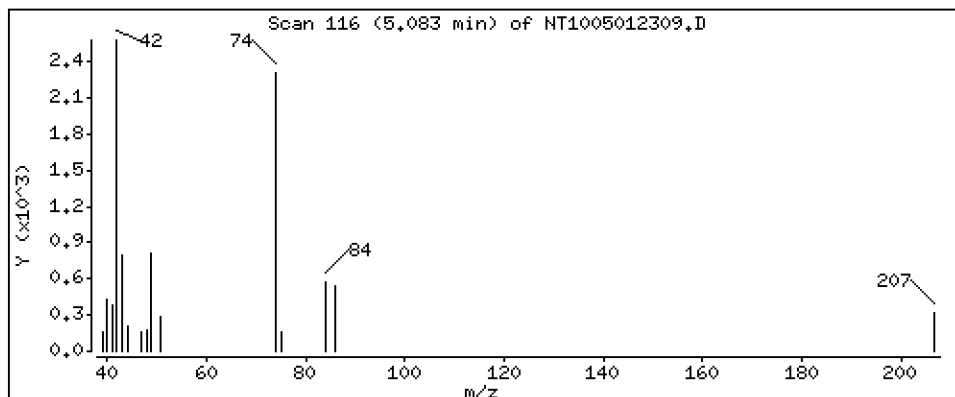
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

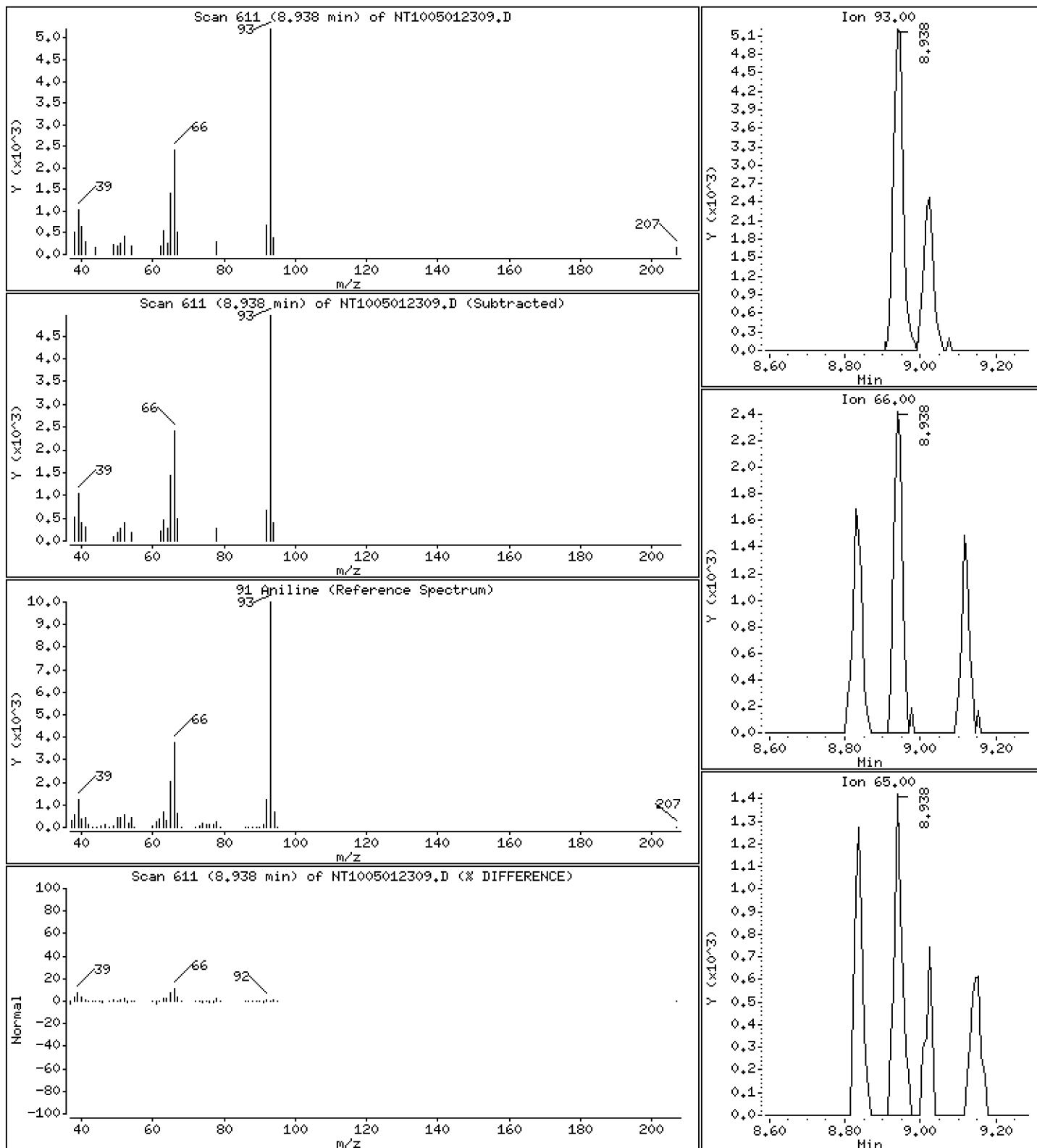
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

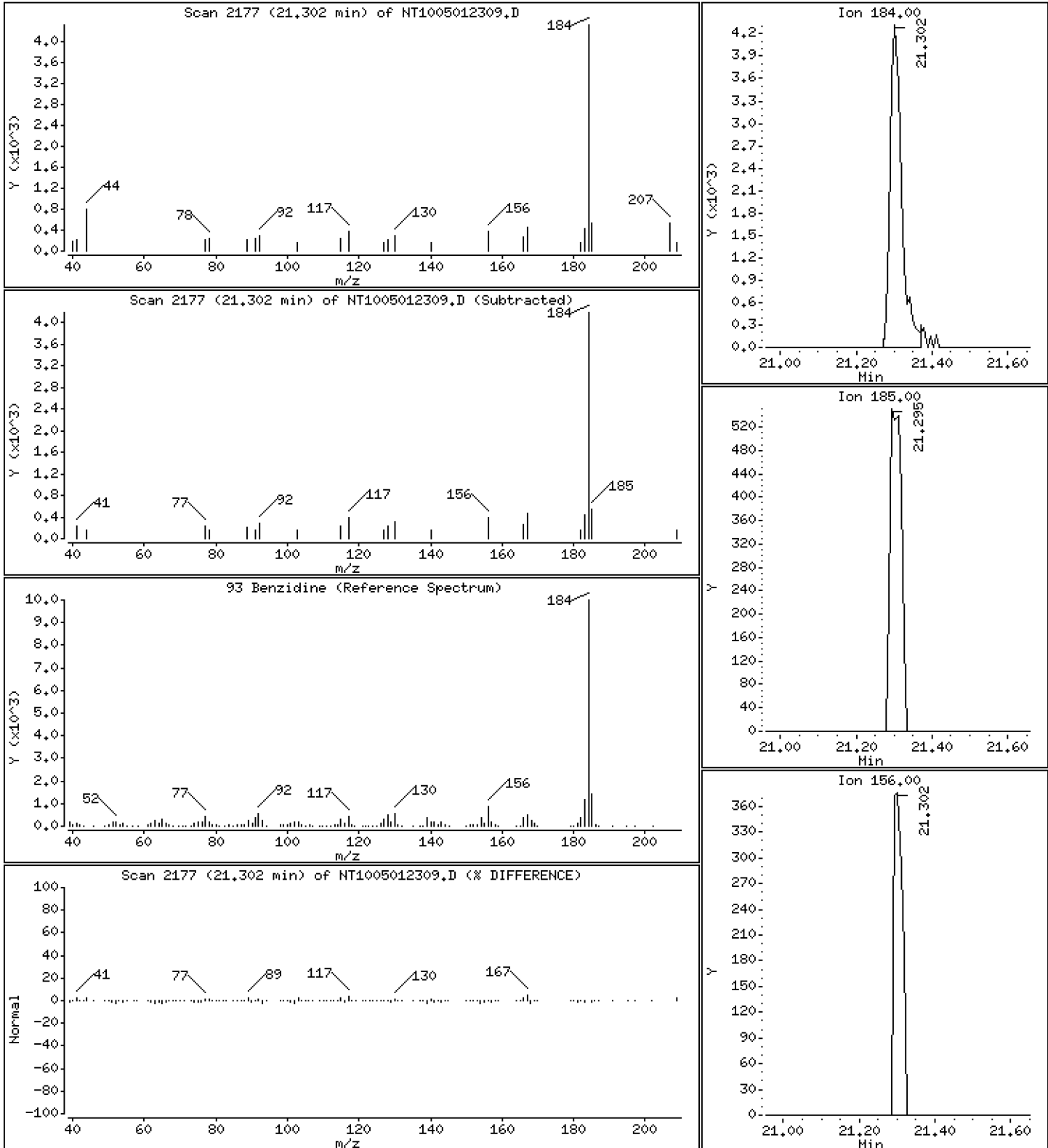
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 0,1382 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

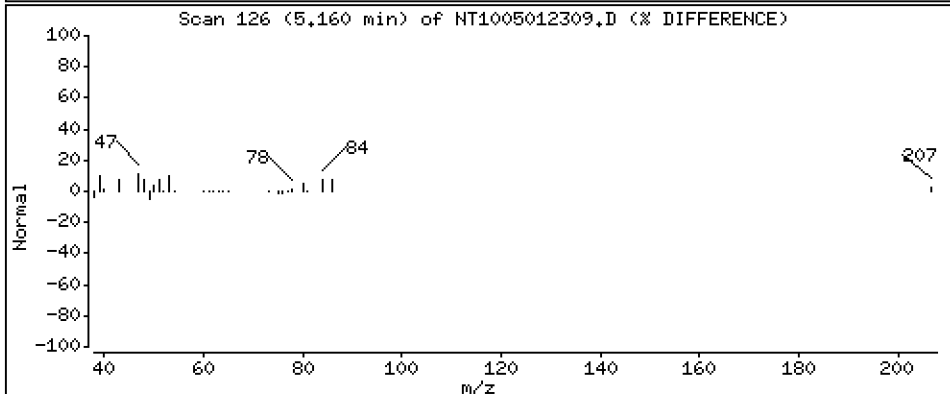
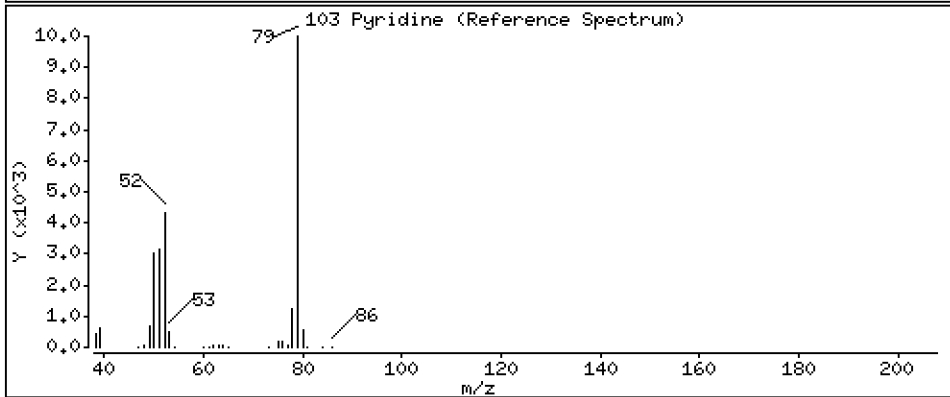
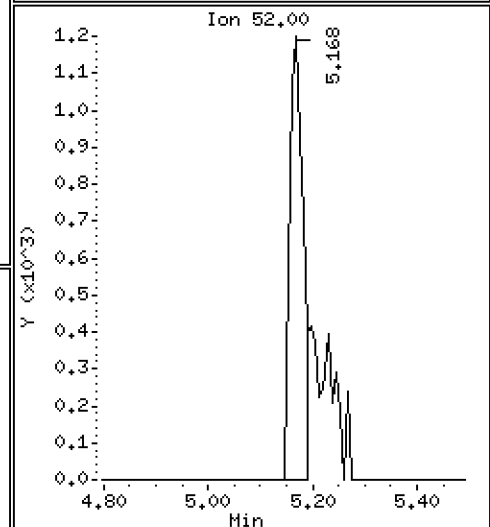
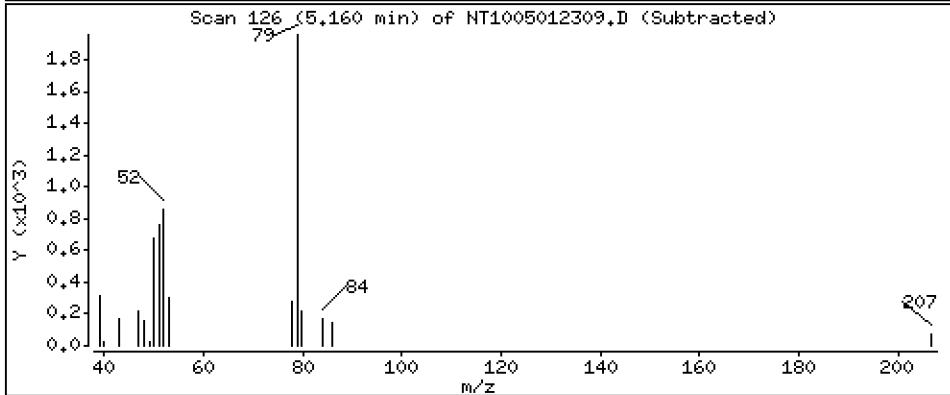
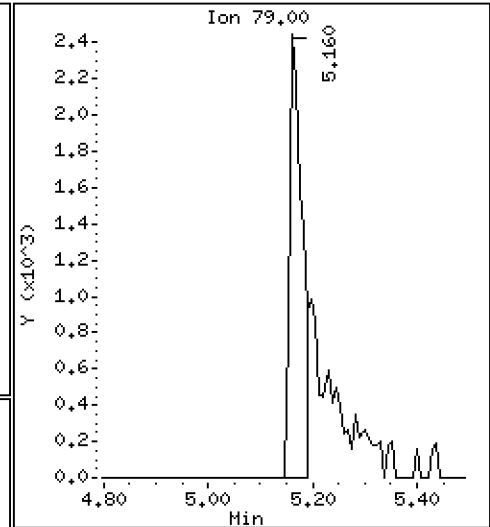
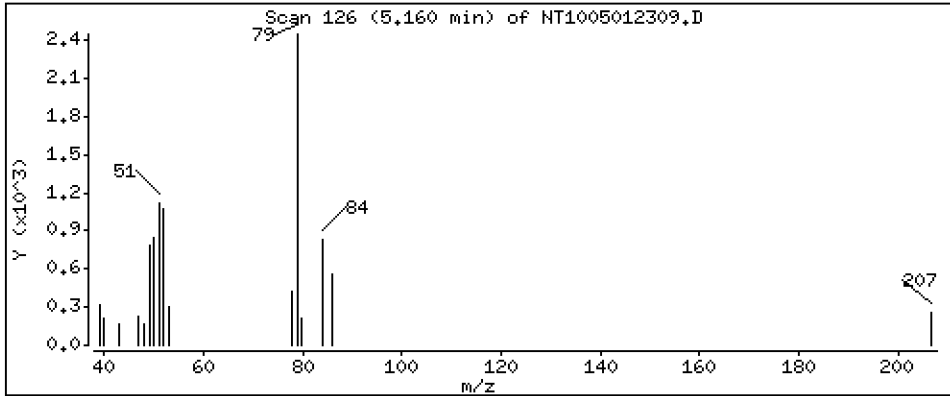
Sample Info: SEQ-SIM2

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

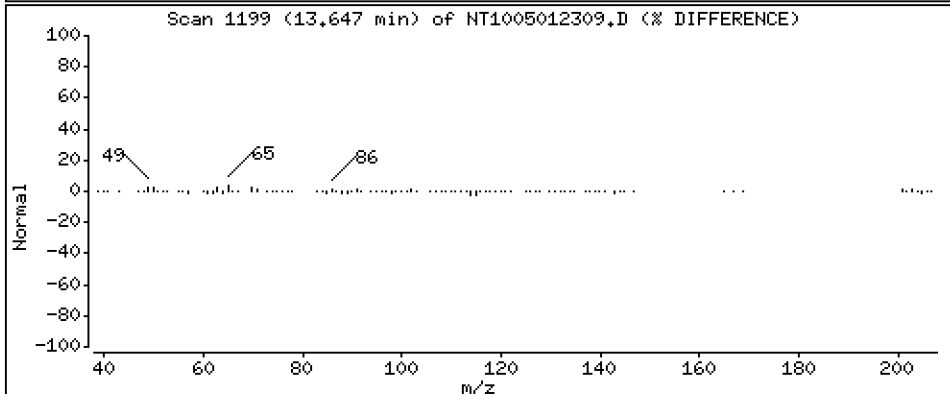
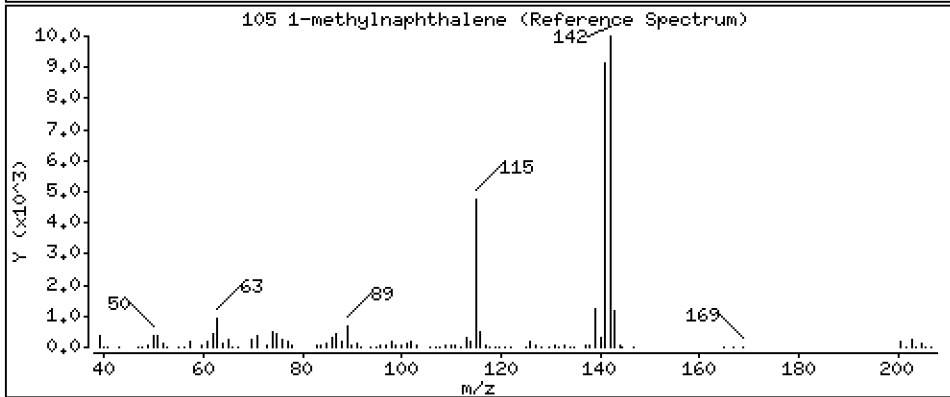
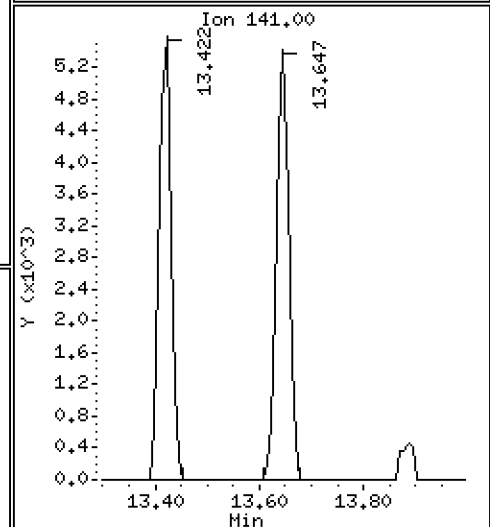
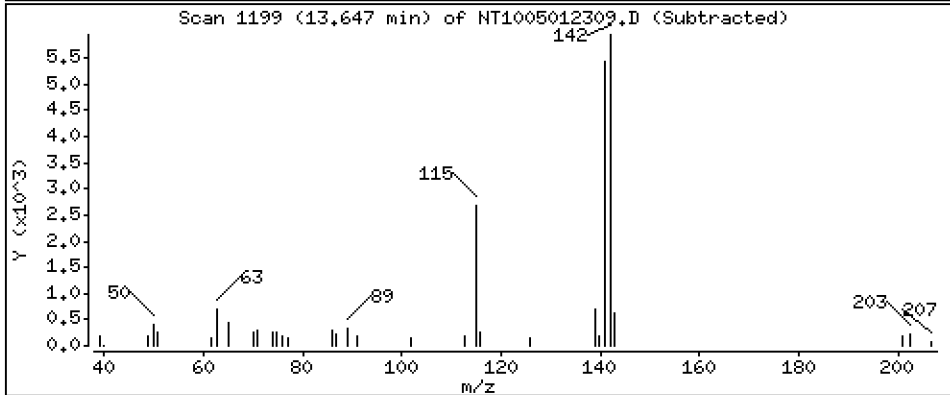
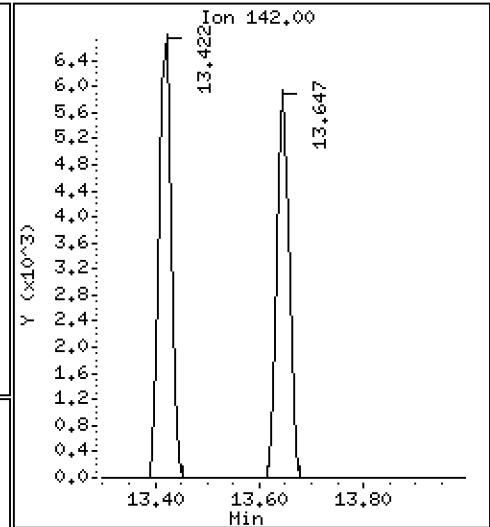
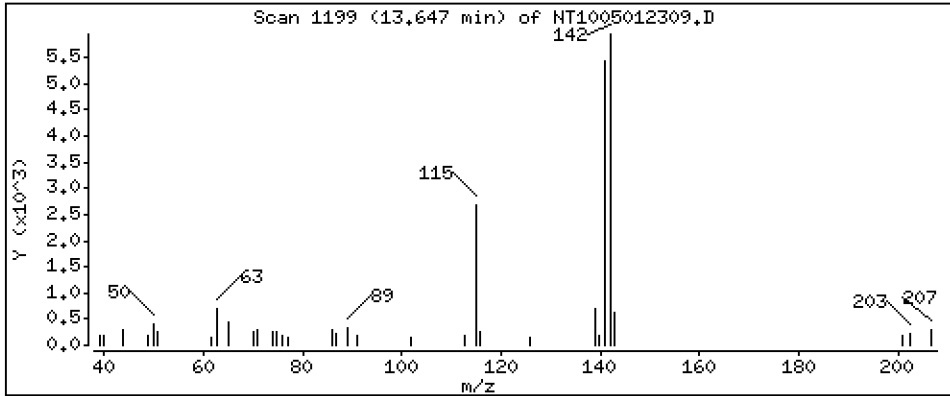
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,09347 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

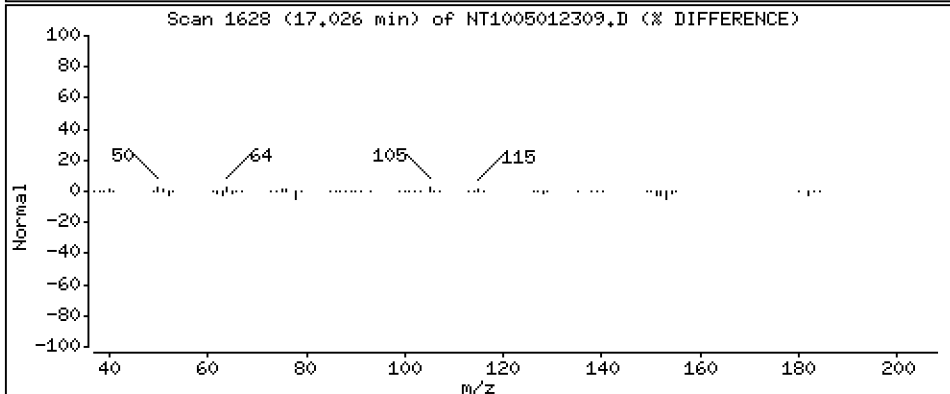
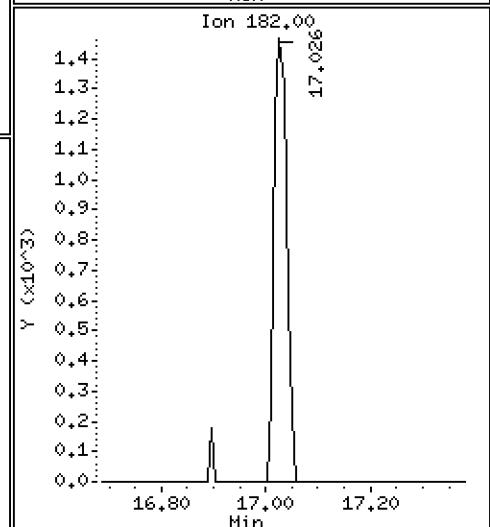
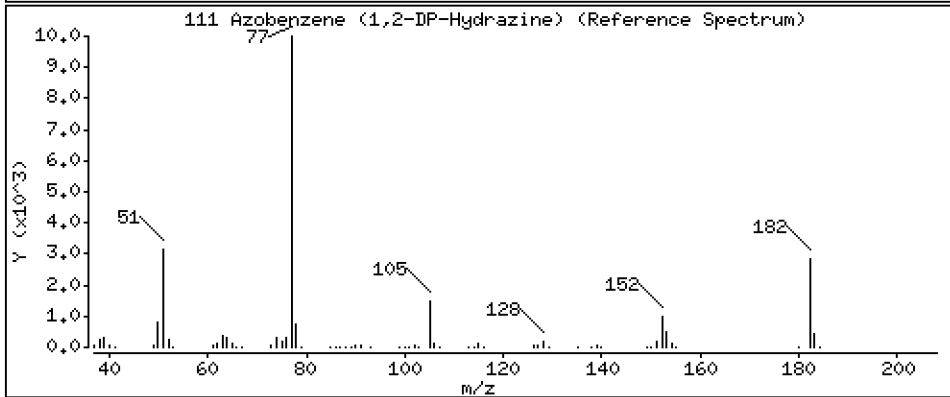
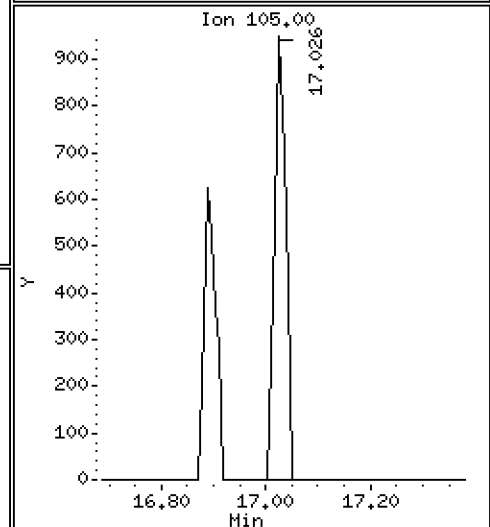
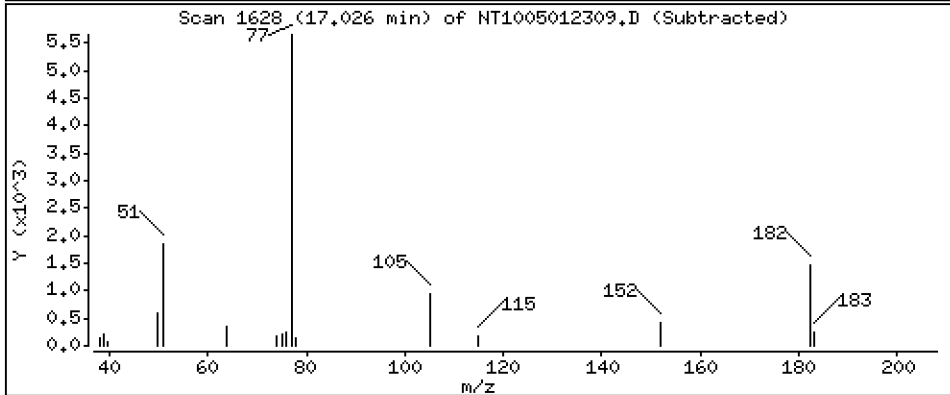
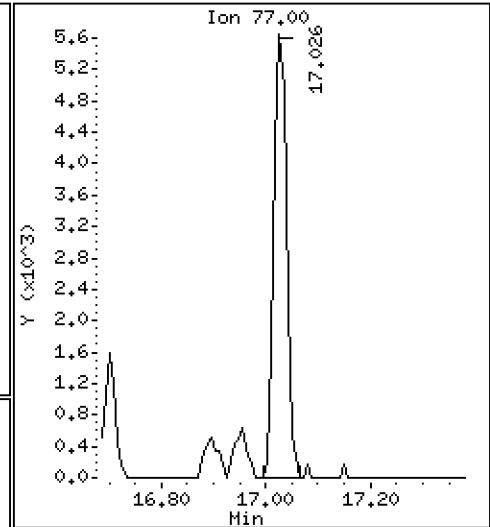
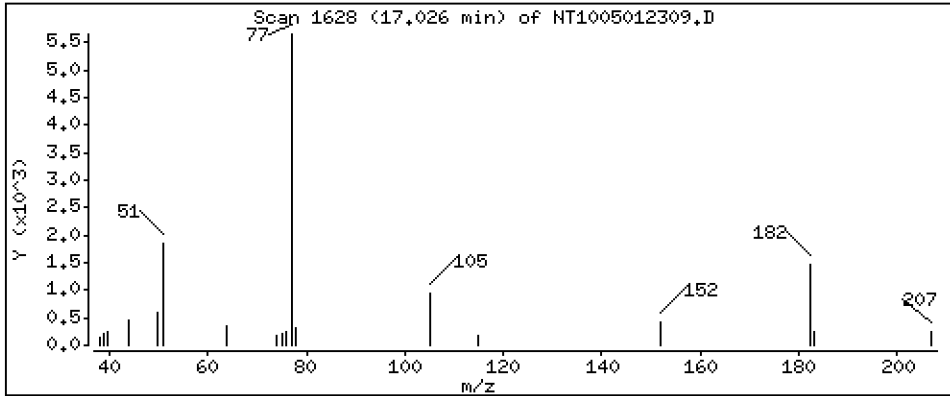
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.08399 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

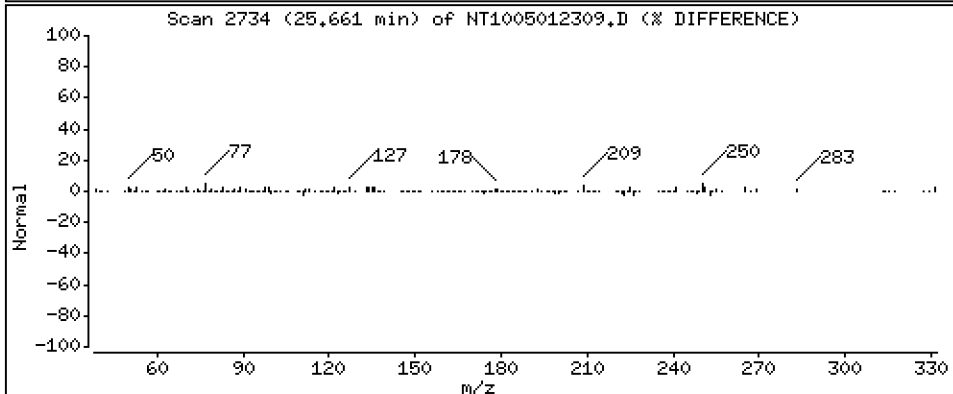
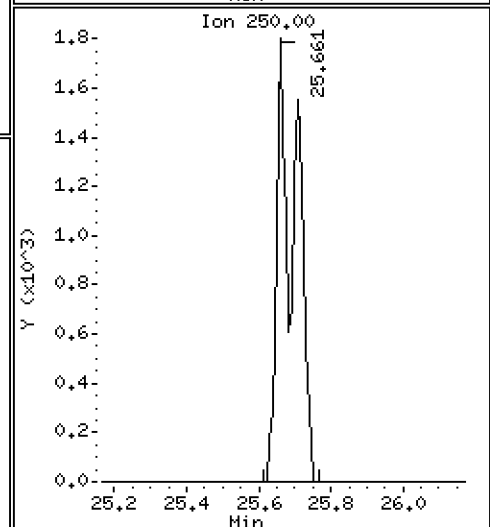
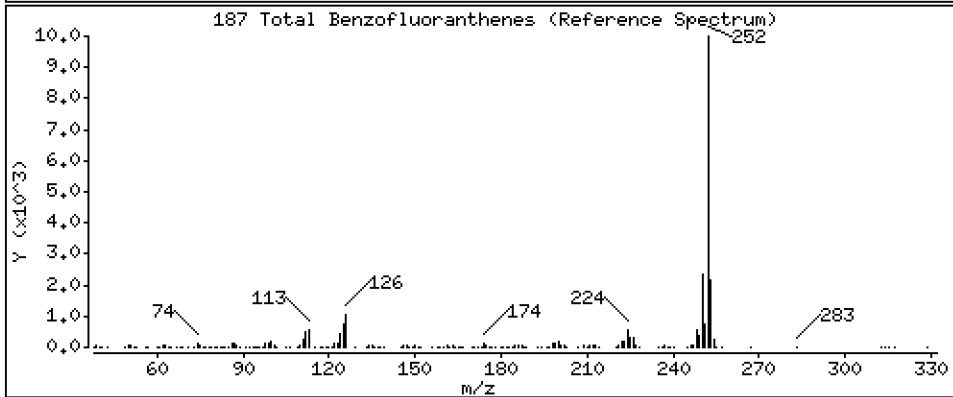
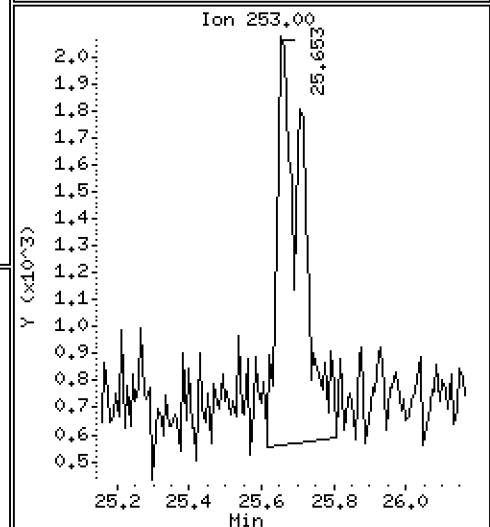
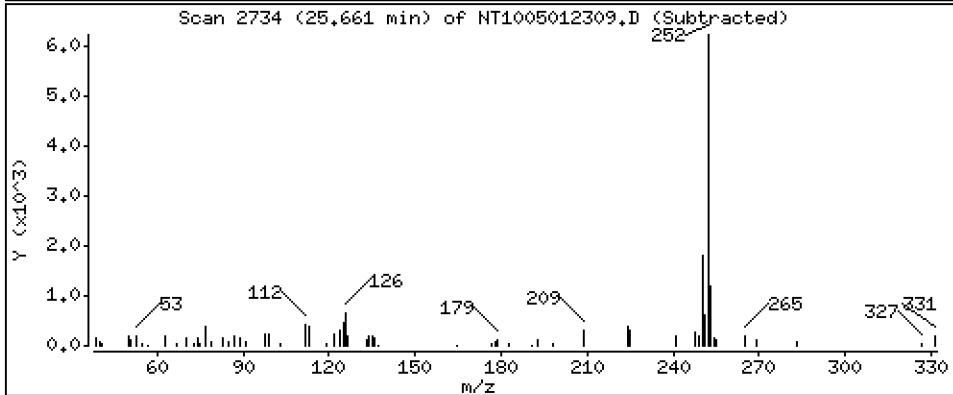
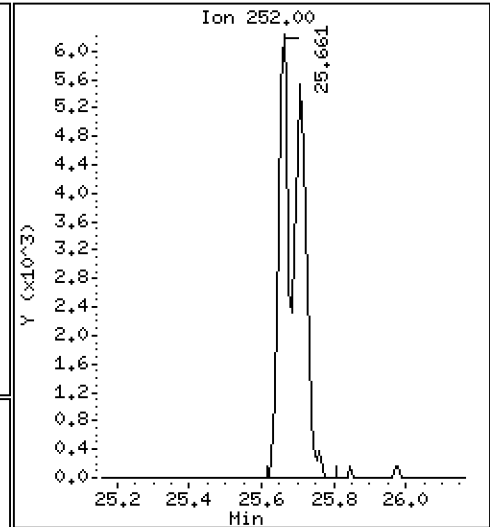
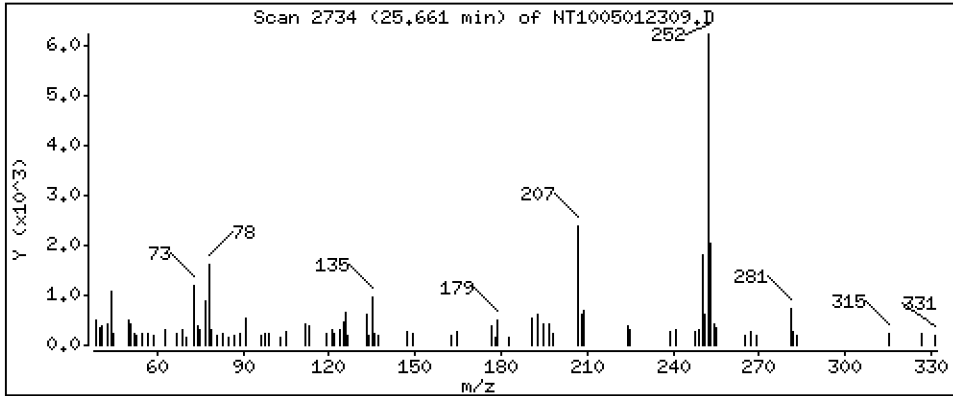
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

187 Total Benzofluoranthenes

Concentration: 0.1712 ug/mL



Date : 01-MAY-2023 19:25

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM2

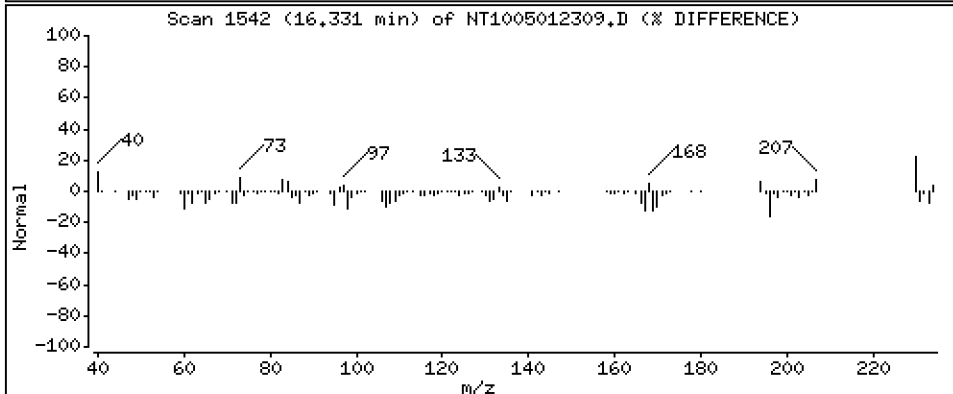
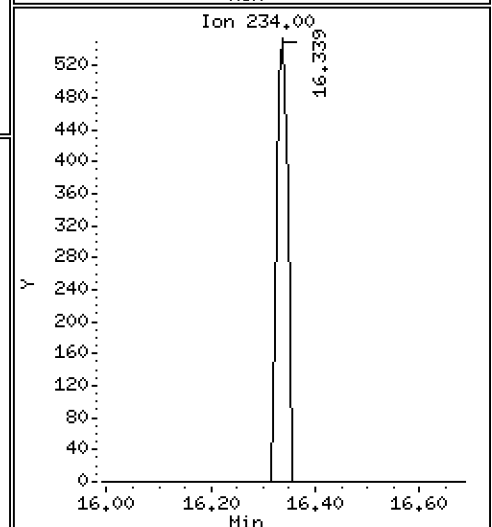
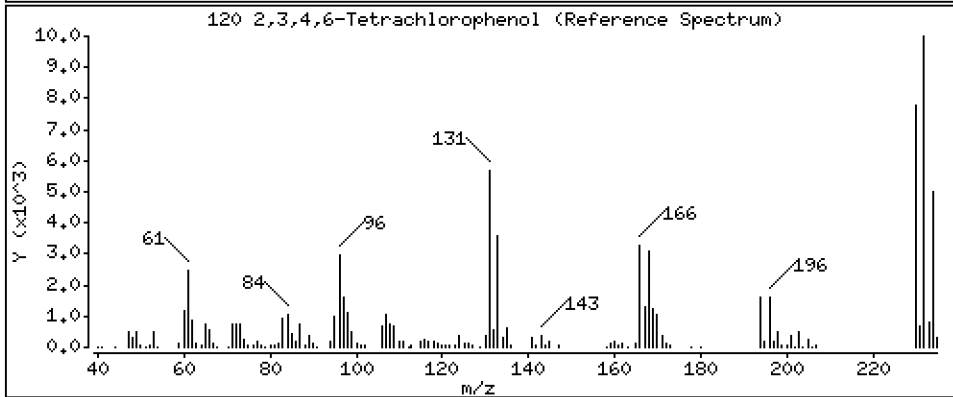
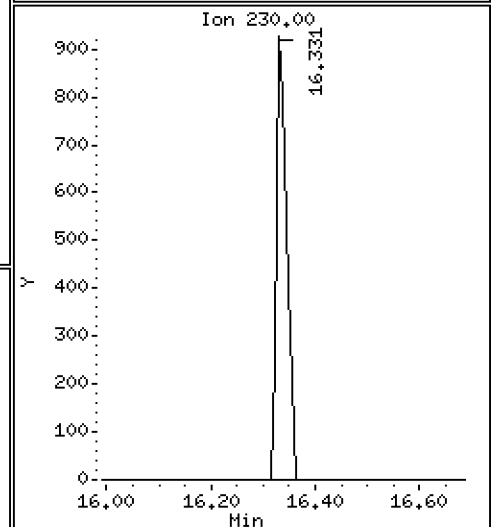
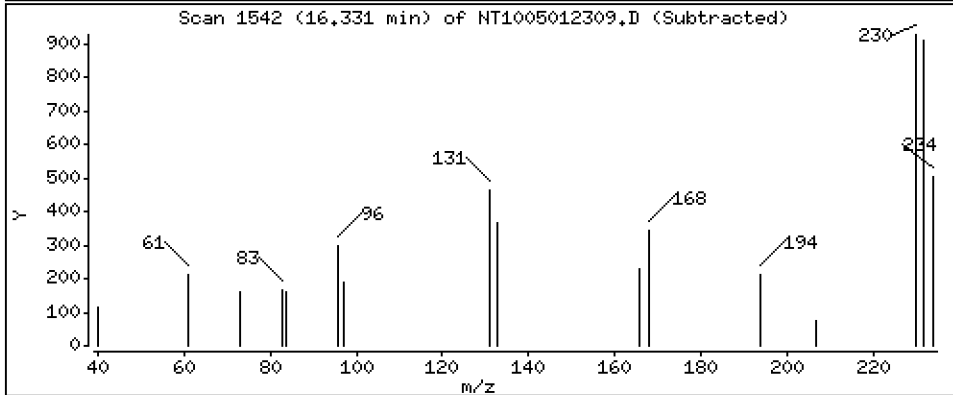
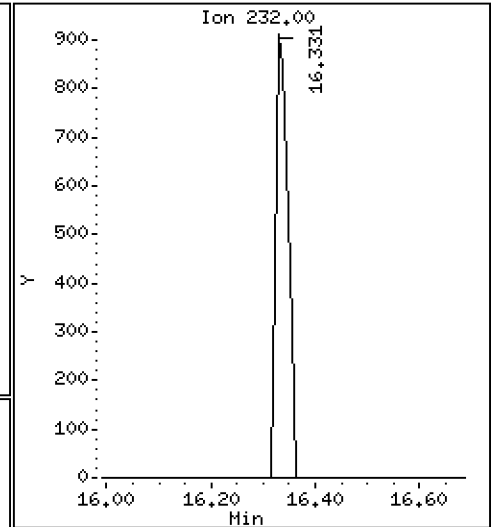
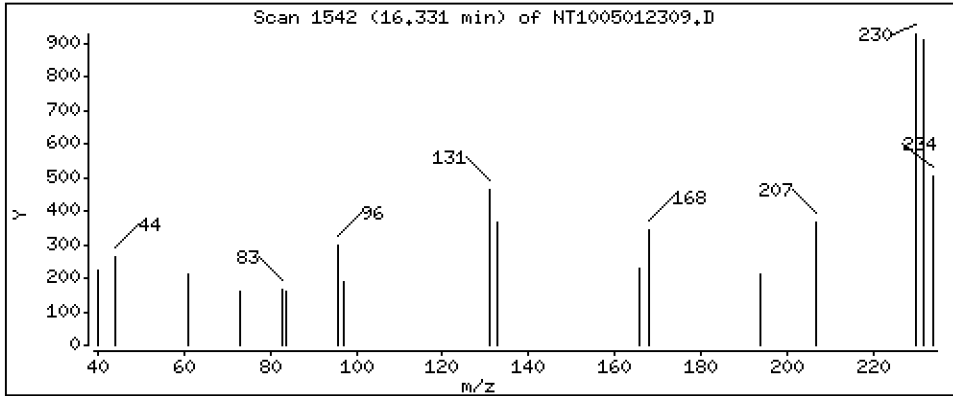
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,03916 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012309.D
 Lab Smp Id: SEQ-SIM2
 Inj Date : 01-MAY-2023 19:25
 Operator : VTS
 Smp Info : SEQ-SIM2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
\$ 1 2-Fluorophenol	112		7.230	7.230	(1.000)	5669			
\$ 2 Phenol-d5	99		8.814	8.814	(1.000)	6956			
3 Phenol	94		8.837	8.837	(1.000)	5153			
\$ 5 2-Chlorophenol-d4	132		9.115	9.123	(1.000)	6810			
4 Bis(2-Chloroethyl)ether	93		9.023	9.023	(1.000)	4359			
6 2-Chlorophenol	128		9.146	9.146	(1.000)	4744			
7 1,3-Dichlorobenzene	146		9.425	9.425	(1.000)	5941			
* 8 1,4-Dichlorobenzene-d4	152		Compound Not Detected.						
9 1,4-Dichlorobenzene	146		9.518	9.518	(1.000)	5506			
\$ 10 1,2-Dichlorobenzene-d4	152		9.851	9.851	(1.000)	4085			
12 1,2-Dichlorobenzene	146		9.875	9.875	(1.000)	5388			
11 Benzyl alcohol	108		9.751	9.750	(1.000)	2136			
14 2,2'-oxybis(1-Chloropropane)	121		10.046	10.046	(1.000)	1192			
13 2-Methylphenol	108		9.952	9.960	(1.000)	3704			
17 Hexachloroethane	117		10.472	10.472	(1.000)	2683			
16 N-Nitroso-di-n-propylamine	70		10.302	10.309	(1.000)	2996			
15 4-Methylphenol	108		10.224	10.232	(1.000)	4617			
\$ 18 Nitrobenzene-d5	82		10.589	10.589	(0.884)	4989	0.08672	0.08672	
19 Nitrobenzene	77		10.620	10.628	(0.886)	5065	0.09110	0.09110	
20 Isophorone	82		11.062	11.062	(0.923)	5133	0.07755	0.07755	
21 2-Nitrophenol	139		11.249	11.249	(0.939)	1663	0.05621	0.05621	
22 2,4-Dimethylphenol	107		11.274	11.283	(0.941)	9018	0.16610	0.1661	
23 Bis(2-Chloroethoxy)methane	93		11.478	11.486	(0.958)	4205	0.09938	0.09938	
24 Benzoic acid	105		11.351	11.359	(0.947)	2002	0.05332	0.05332	
25 2,4-Dichlorophenol	162		11.698	11.698	(0.976)	6836	0.16028	0.1603	
26 1,2,4-Trichlorobenzene	180		11.898	11.898	(0.993)	5117	0.08376	0.08376	
* 27 Naphthalene-d8	136		11.983	11.983	(1.000)	514816	4.00000		
28 Naphthalene	128		12.022	12.022	(1.003)	14095	0.09813	0.09813	
29 4-Chloroaniline	127		12.145	12.145	(1.014)	8533	0.16145	0.1614	
30 Hexachlorobutadiene	225		12.377	12.377	(1.033)	3283	0.09745	0.09745	
31 4-Chloro-3-methylphenol	107		13.089	13.089	(1.092)	6255	0.13457	0.1346	
32 2-Methylnaphthalene	142		13.422	13.422	(1.120)	10293	0.09585	0.09585	
33 Hexachlorocyclopentadiene	237		13.886	13.886	(0.889)	4980	0.14367	0.1437	
34 2,4,6-Trichlorophenol	196		14.033	14.041	(0.899)	3984	0.11668	0.1167	

Compounds	QUANT		SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
35 2,4,5-Trichlorophenol	196	14.111	14.111	(0.904)	4263	0.11449	0.1145	
\$ 36 2-Fluorobiphenyl	172	14.196	14.203	(0.909)	11437	0.09477	0.09477	
37 2-Chloronaphthalene	162	14.420	14.420	(0.924)	9411	0.09901	0.09901	
38 2-Nitroaniline	65	14.676	14.676	(0.940)	3235	0.11720	0.1172	
39 Dimethylphthalate	163	15.094	15.101	(0.967)	10307	0.09644	0.09644	
40 Acenaphthylene	152	15.295	15.303	(0.980)	12684	0.08549	0.08549	
41 2,6-Dinitrotoluene	165	15.241	15.248	(0.976)	2805	0.11627	0.1163	
* 42 Acenaphthene-d10	164	15.612	15.612	(1.000)	278751	4.00000		
43 3-Nitroaniline	138	15.589	15.527	(0.999)	149	0.00627	0.006275	
44 Acenaphthene	153	15.682	15.682	(1.004)	8920	0.09453	0.09453	
45 2,4-Dinitrophenol	184	15.736	15.743	(1.008)	695	0.03758	0.03758	
46 Dibenzofuran	168	16.006	16.006	(1.025)	12913	0.09386	0.09386	
47 4-Nitrophenol	109	15.828	15.828	(1.014)	1207	0.05456	0.05456	
48 2,4-Dinitrotoluene	165	16.053	16.060	(1.028)	3319	0.09660	0.09660	
50 Diethylphthalate	149	16.555	16.555	(1.060)	9278	0.08361	0.08361	
49 Fluorene	166	16.725	16.725	(1.071)	10268	0.09047	0.09047	
51 4-Chlorophenyl-phenylether	204	16.702	16.702	(1.070)	5220	0.09236	0.09236	
52 4-Nitroaniline	138	16.802	16.810	(1.076)	2016	0.08740	0.08740	
53 4,6-Dinitro-2-methylphenol	198	16.895	16.902	(0.905)	2305	0.11855	0.1185	
54 N-Nitrosodiphenylamine	169	16.956	16.956	(0.909)	6175	0.09363	0.09363	
\$ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.106)	1111	0.08320	0.08320	
56 4-Bromophenyl-phenylether	248	17.712	17.712	(0.949)	2852	0.09161	0.09161	
57 Hexachlorobenzene	284	18.037	18.044	(0.966)	2960	0.09472	0.09472	
58 Pentachlorophenol	266	18.393	18.393	(0.985)	1516	0.07130	0.07130	
* 59 Phenanthrene-d10	188	18.664	18.671	(1.000)	499058	4.00000		
60 Phenanthrene	178	18.710	18.718	(1.002)	14654	0.10007	0.1001	
61 Anthracene	178	18.811	18.811	(1.008)	11421	0.08440	0.08440	
62 Carbazole	167	19.128	19.136	(1.025)	10653	0.08894	0.08894	
63 Di-n-butylphthalate	149	19.894	19.901	(1.066)	10802	0.06031	0.06031	
64 Fluoranthene	202	21.078	21.085	(0.890)	14165	0.07954	0.07954	
65 Pyrene	202	21.503	21.503	(0.908)	14859	0.08353	0.08353	
\$ 66 Terphenyl-d14	244	21.774	21.774	(0.920)	12280	0.08728	0.08728	
67 Butylbenzylphthalate	149	22.680	22.687	(0.958)	4146	0.04963	0.04963	
68 Benzo(a)anthracene	228	23.648	23.655	(0.999)	14687	0.09301	0.09301	
* 69 Chrysene-d12	240	23.679	23.686	(1.000)	398872	4.00000		
70 3,3'-Dichlorobenzidine	252	23.601	23.601	(0.997)	11852	0.24717	0.2472	
71 Chrysene	228	23.725	23.733	(1.002)	15140	0.10712	0.1071	
72 bis(2-Ethylhexyl)phthalate	149	23.694	23.702	(0.958)	6133	0.07357	0.07357	
* 134 Di-n-octylphthalate-d4	153	24.724	24.724	(1.000)	578745	4.00000		
73 Di-n-octylphthalate	149	24.739	24.739	(1.001)	17382	0.11384	0.1138	
74 Benzo(b)fluoranthene	252	25.661	25.660	(0.968)	12756	0.08534	0.08534	
75 Benzo(k)fluoranthene	252	25.707	25.715	(0.969)	11841	0.07983	0.07983	
76 Benzo(a)pyrene	252	26.381	26.388	(0.995)	10396	0.08309	0.08309	
* 77 Perylene-d12	264	26.520	26.520	(1.000)	363873	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.467	29.483	(1.111)	12176	0.08101	0.08101	
79 Dibenzo(a,h)anthracene	278	29.483	29.491	(1.112)	10515	0.08353	0.08353	
80 Benzo(g,h,i)perylene	276	30.353	30.353	(1.145)	11554	0.09644	0.09644	
90 N-Nitrosodimethylamine	74	5.083	5.083	(1.000)	4269			
91 Aniline	93	8.938	8.938	(1.000)	8903			
93 Benzidine	184	21.302	21.310	(0.900)	8783	0.13825	0.1382	
103 Pyridine	79	5.160	5.144	(1.000)	4313			
105 1-methylnaphthalene	142	13.646	13.646	(1.139)	9203	0.09347	0.09347	
111 Azobenzene (1,2-DP-Hydrazine)	77	17.026	17.034	(1.091)	9105	0.08399	0.08399	
187 Total Benzofluoranthenes	252	25.661	25.660	(0.968)	24636	0.17122	0.1712	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	
120 2,3,4,6-Tetrachlorophenol	232	16.331	16.339	(1.046)	1403	0.03916	0.03916

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012309.D Calibration Time: 16:10
 Lab Smp Id: SEQ-SIM2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	0	-100.00 <-
27 Naphthalene-d8	493698	246849	987396	514816	4.28
42 Acenaphthene-d10	279210	139605	558420	278751	-0.16
59 Phenanthrene-d10	521463	260732	1042926	499058	-4.30
69 Chrysene-d12	369911	184956	739822	398872	7.83
134 Di-n-octylphthala	626668	313334	1253336	578745	-7.65
77 Perylene-d12	311339	155670	622678	363873	16.87

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	0.00	-100.00 <-
27 Naphthalene-d8	11.99	11.49	12.49	11.98	-0.06
42 Acenaphthene-d10	15.62	15.12	16.12	15.61	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.66	-0.08
69 Chrysene-d12	23.70	23.20	24.20	23.68	-0.10
134 Di-n-octylphthala	24.75	24.25	25.25	24.72	-0.09
77 Perylene-d12	26.55	26.05	27.05	26.52	-0.12

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

REVIEW SUMMARY FOR FILE - NT1005012309.D

Lab ID: SEQ-SIM2
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 19:25

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.059	-0.0589	2,2'-oxybis(1-Chloropropane)

RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012310.D

Date: 01-May-2023 20:04

Client ID:

Sample Info: SEQ-SIM1

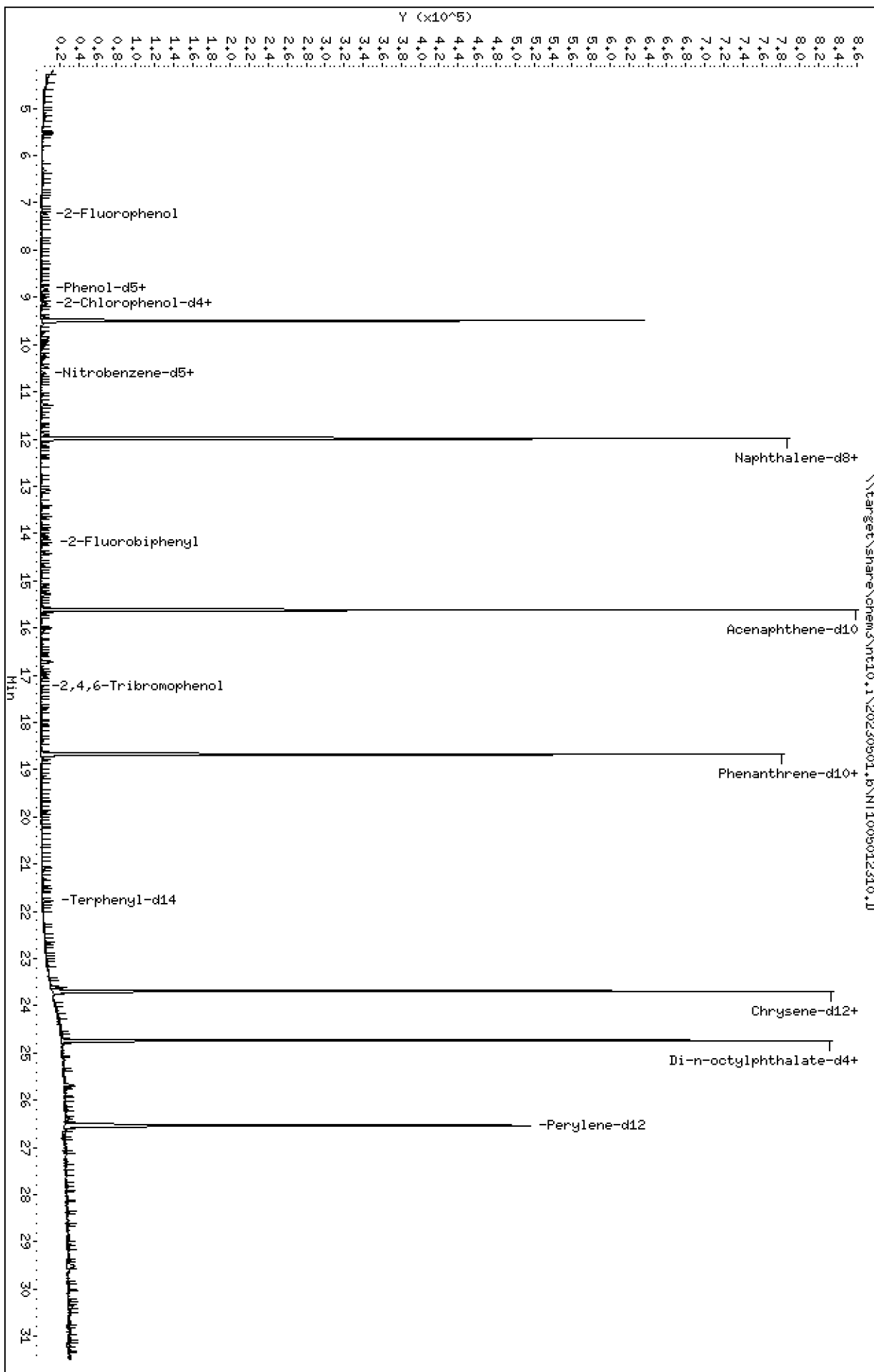
Column phase: ZB-Smsi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

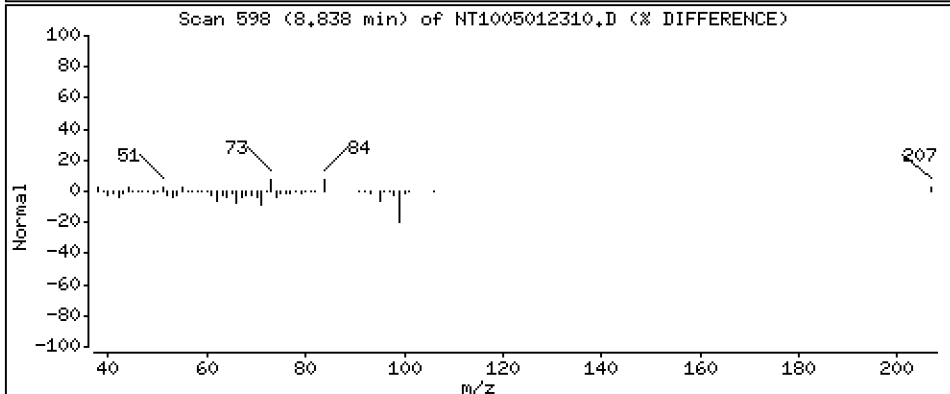
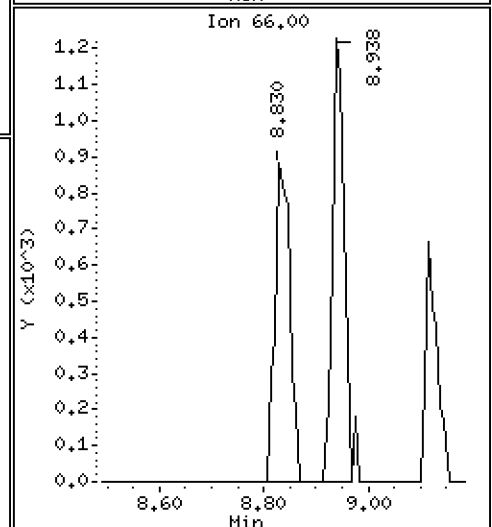
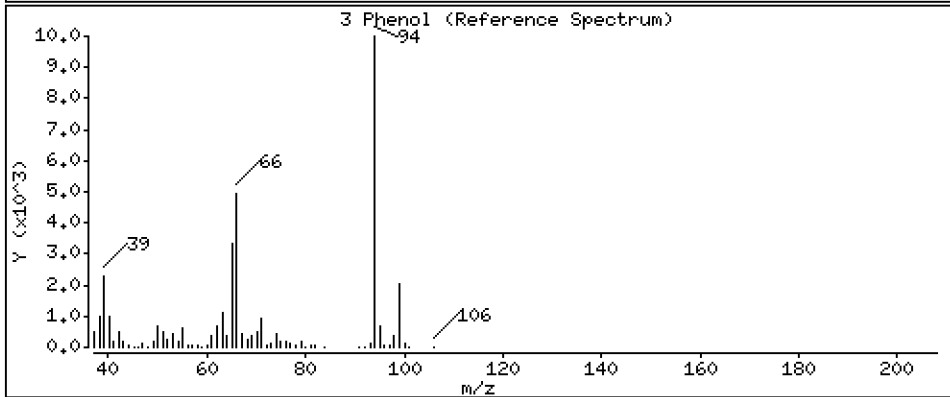
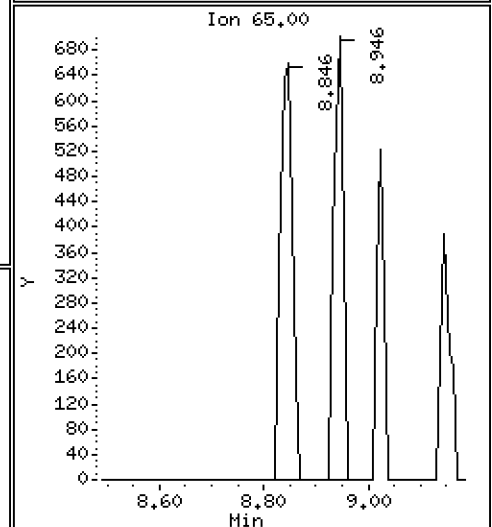
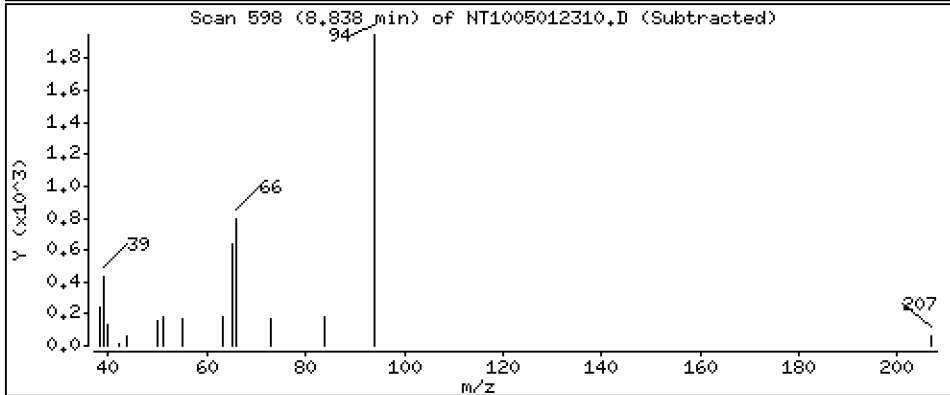
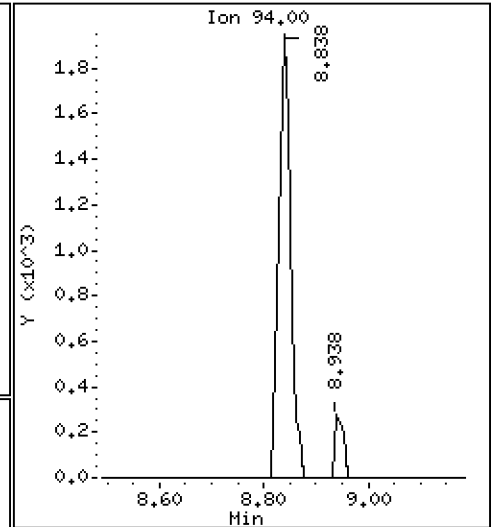
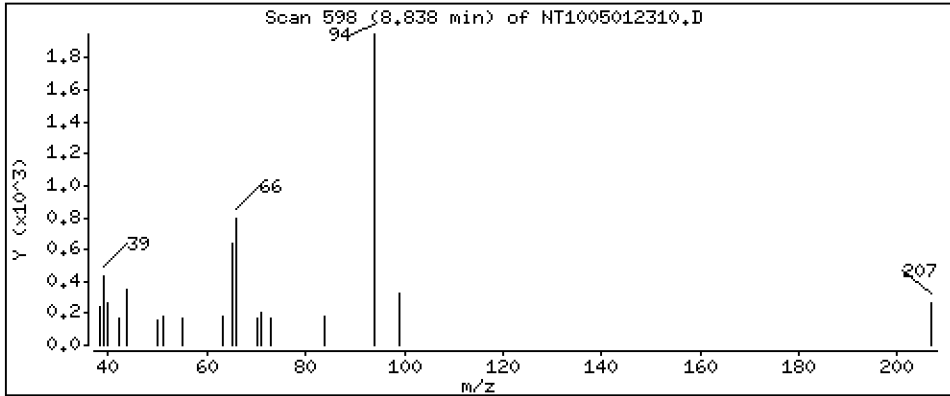
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

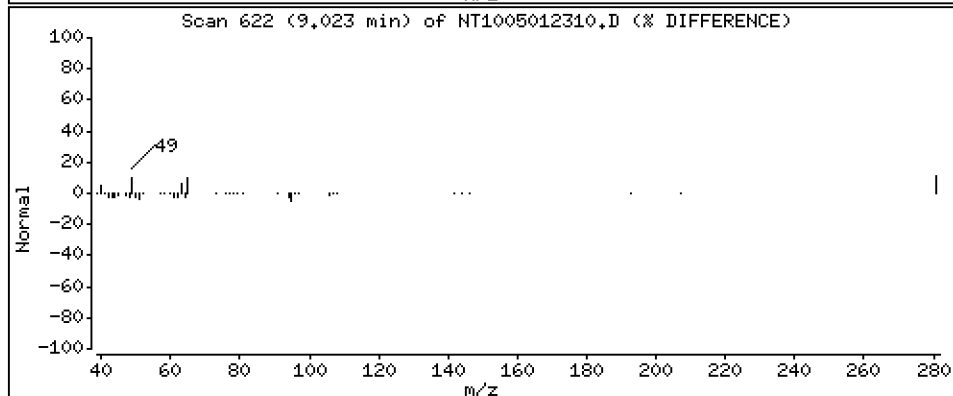
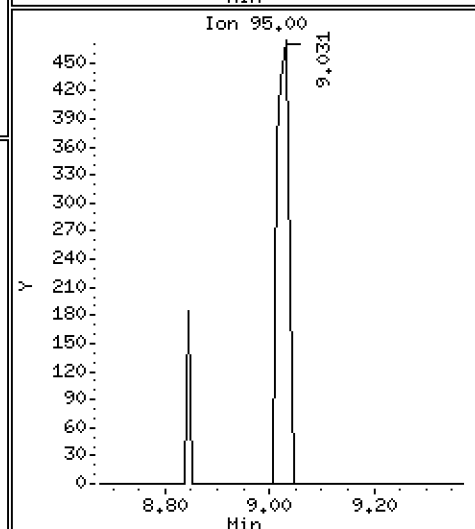
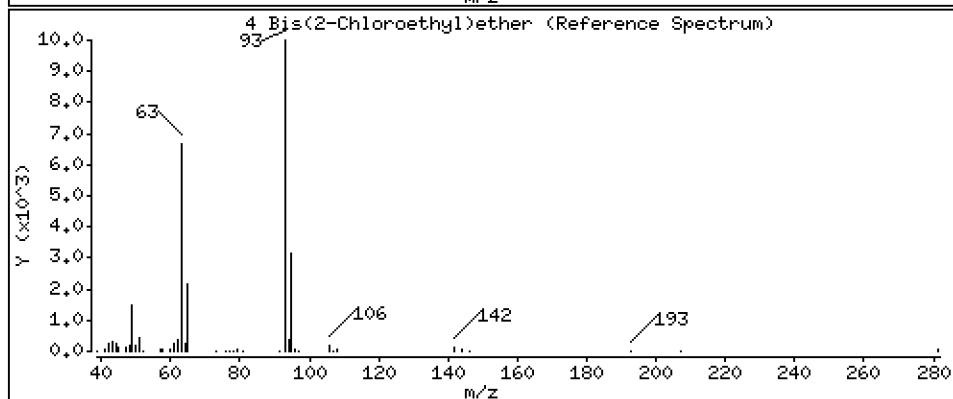
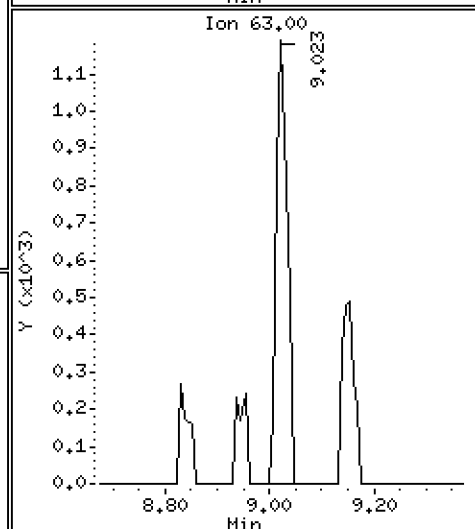
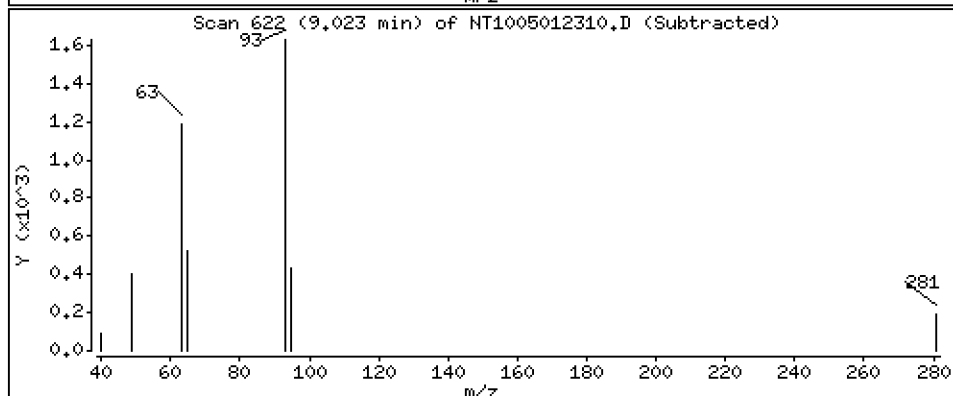
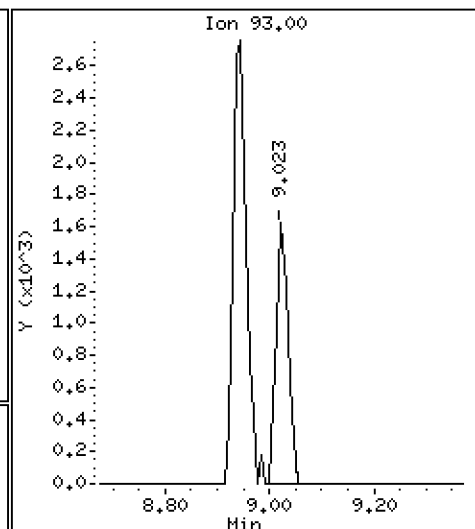
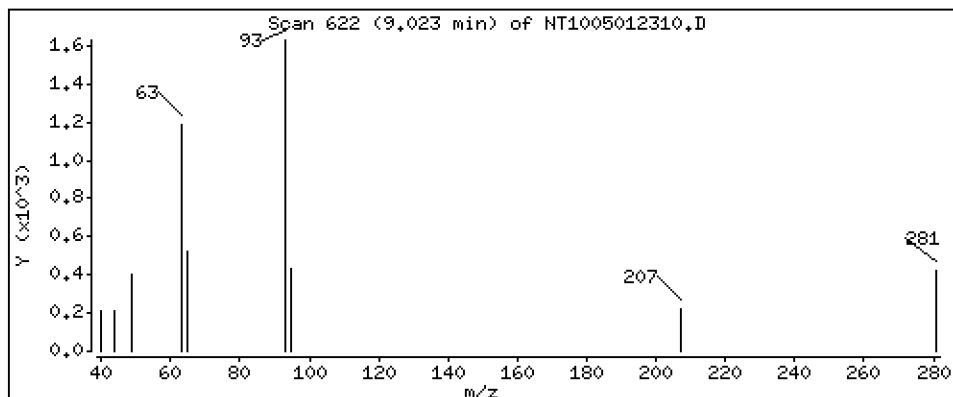
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

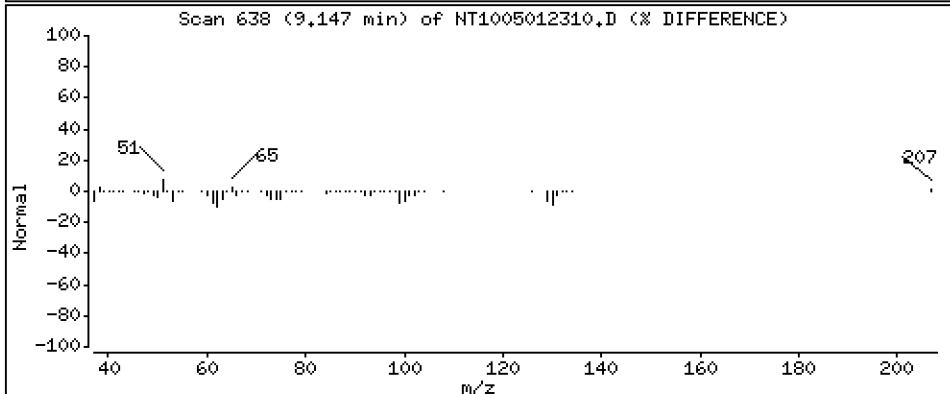
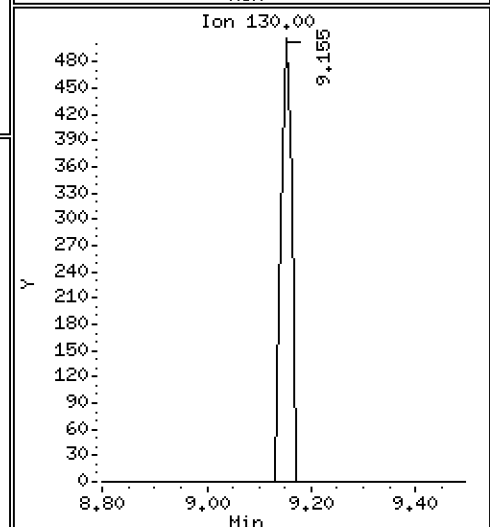
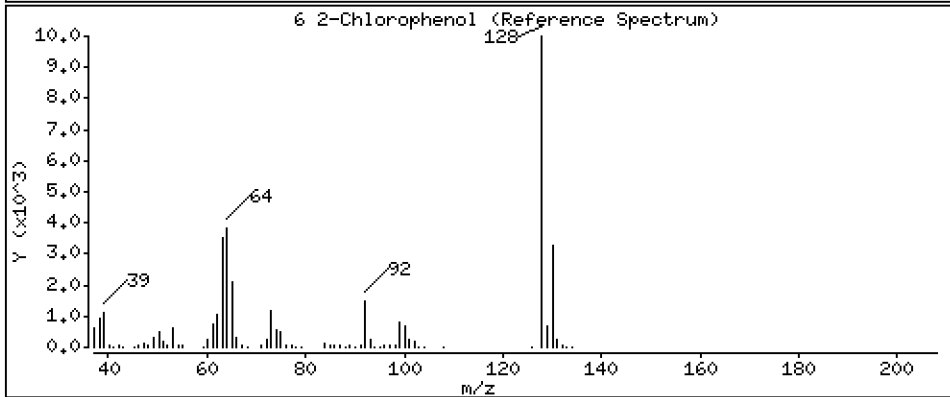
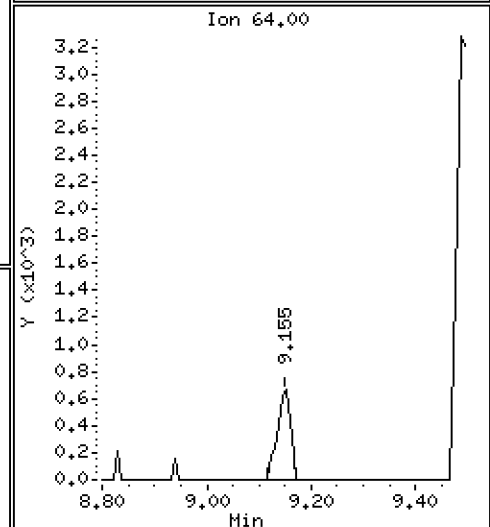
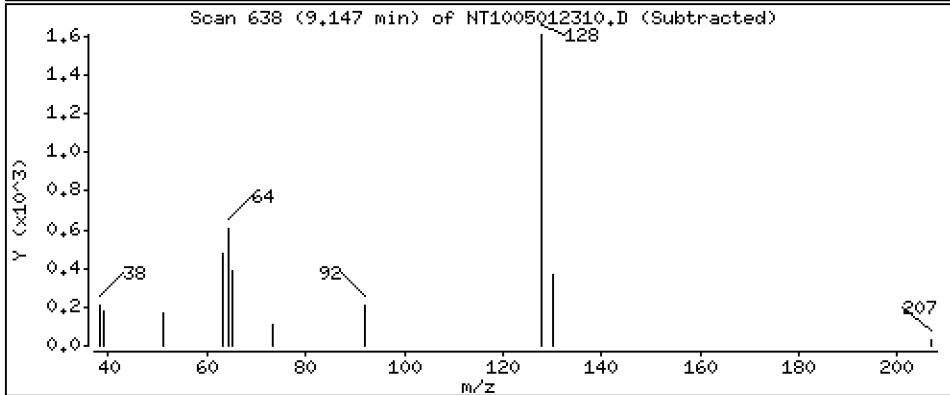
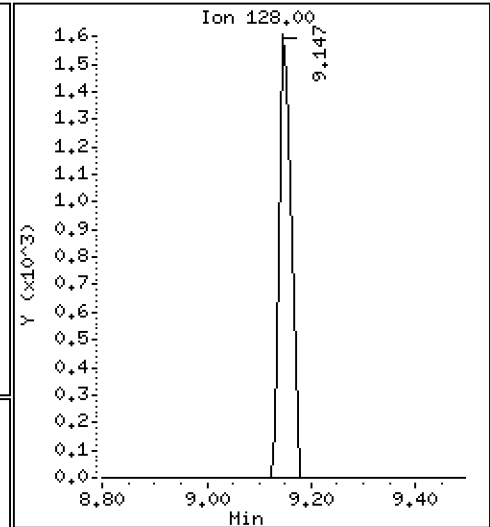
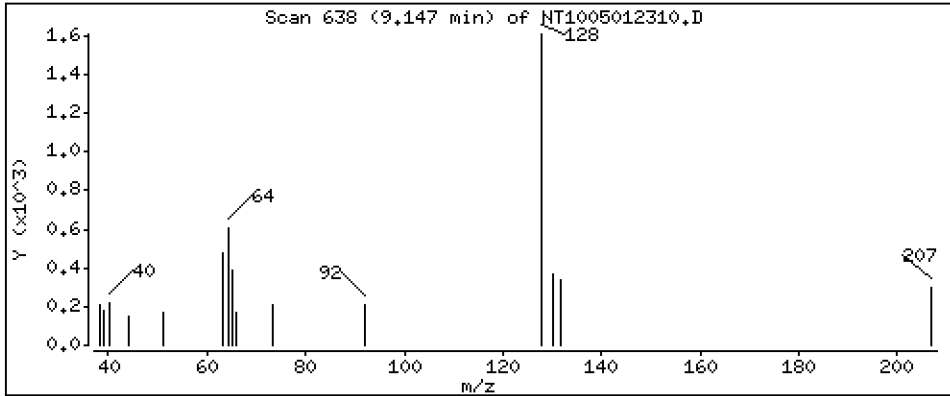
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

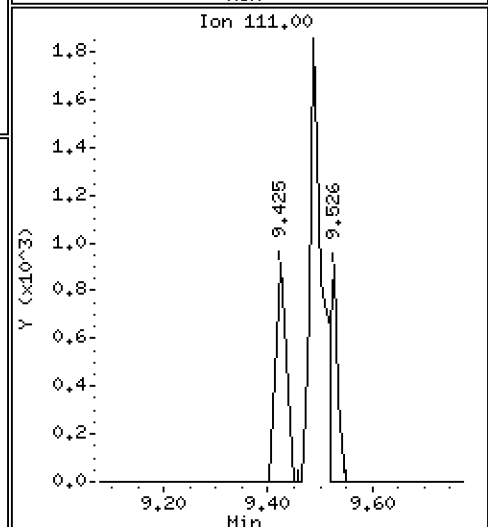
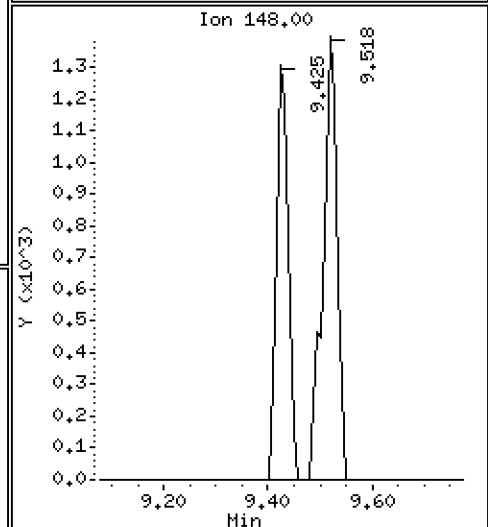
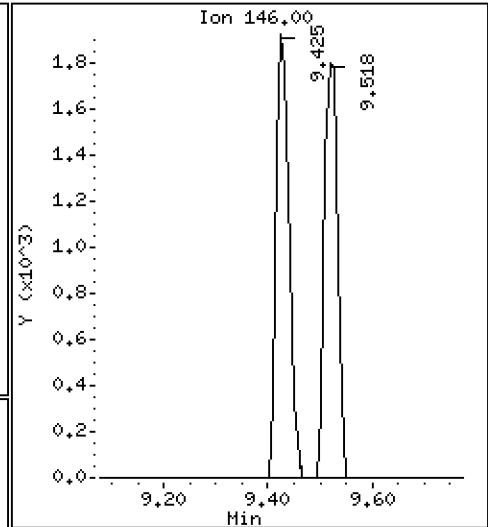
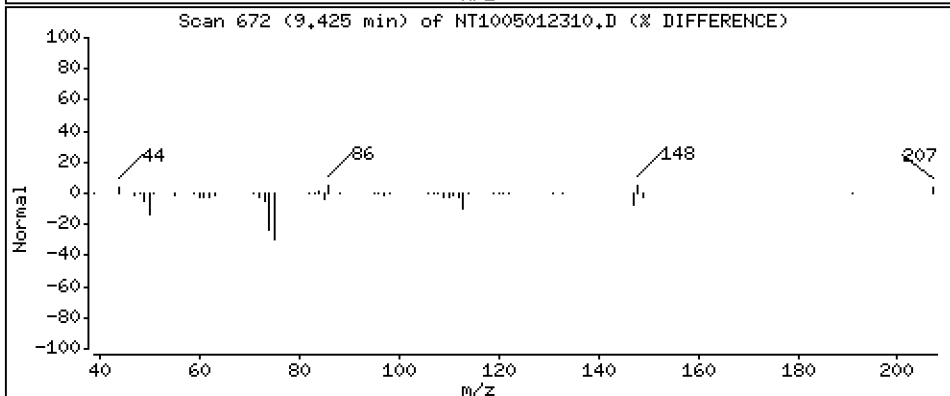
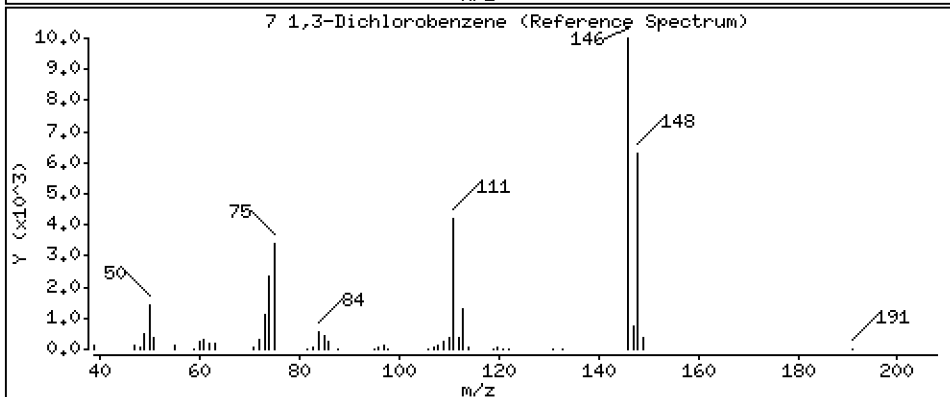
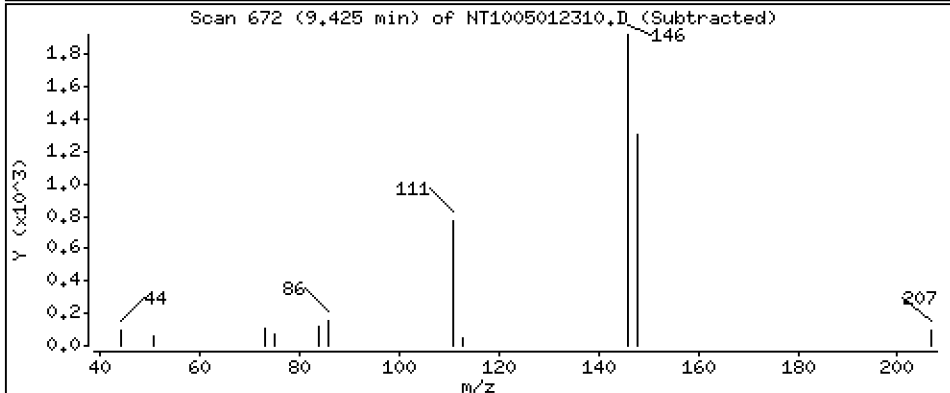
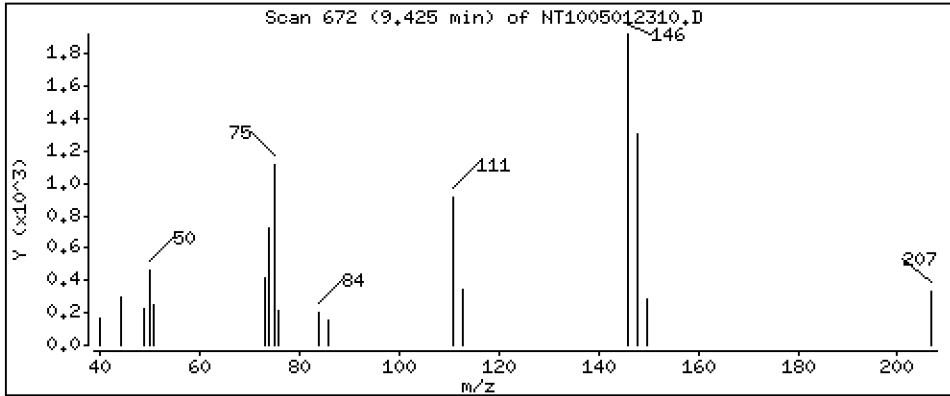
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

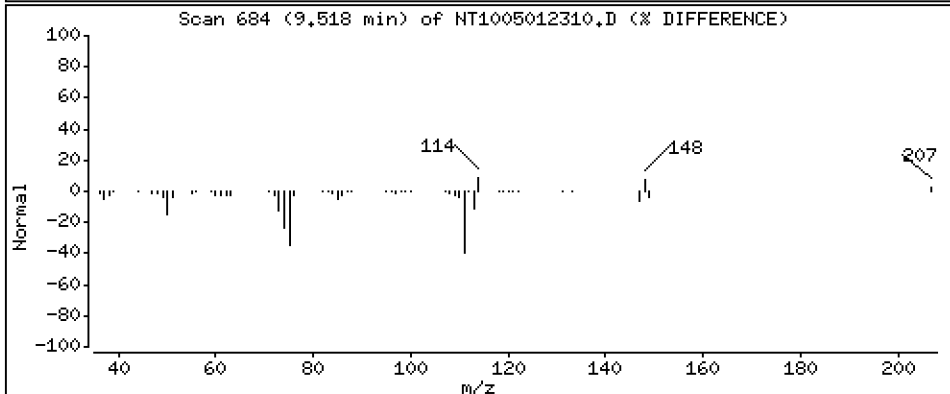
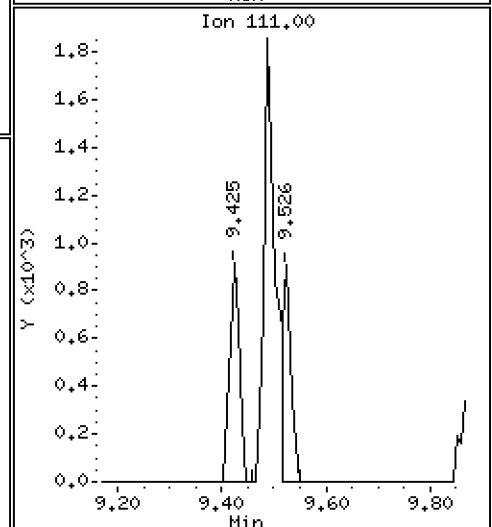
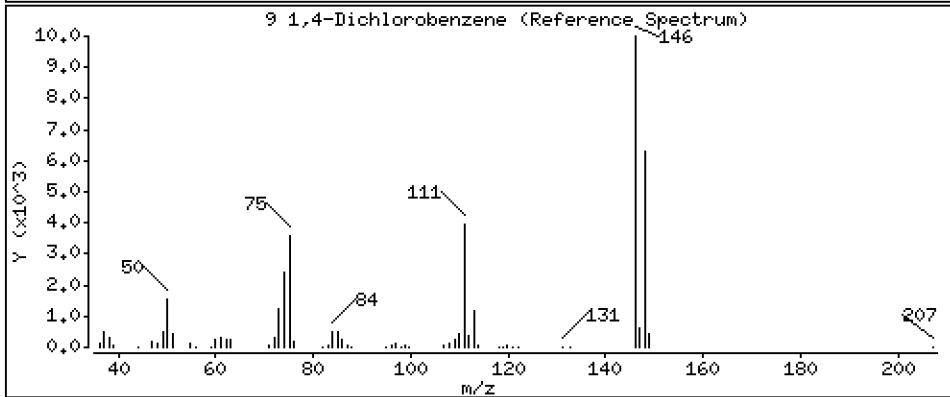
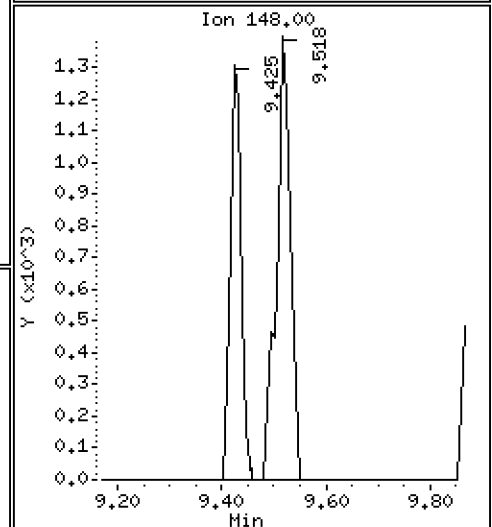
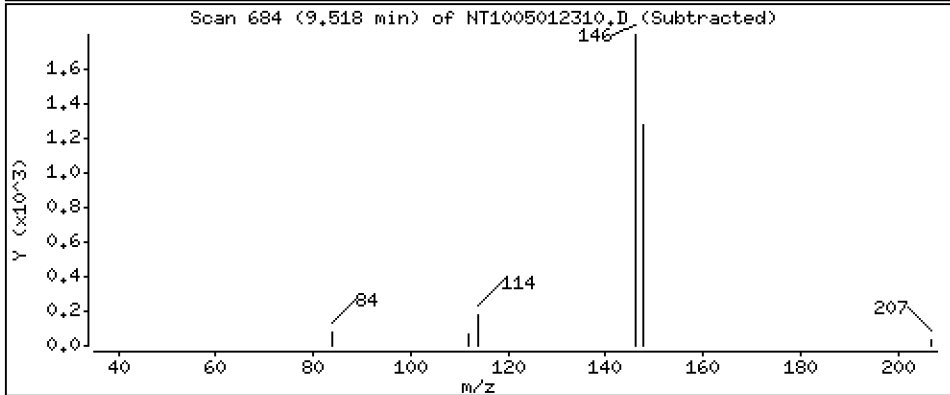
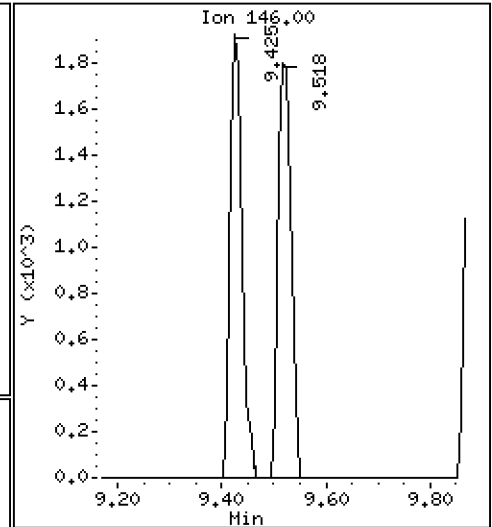
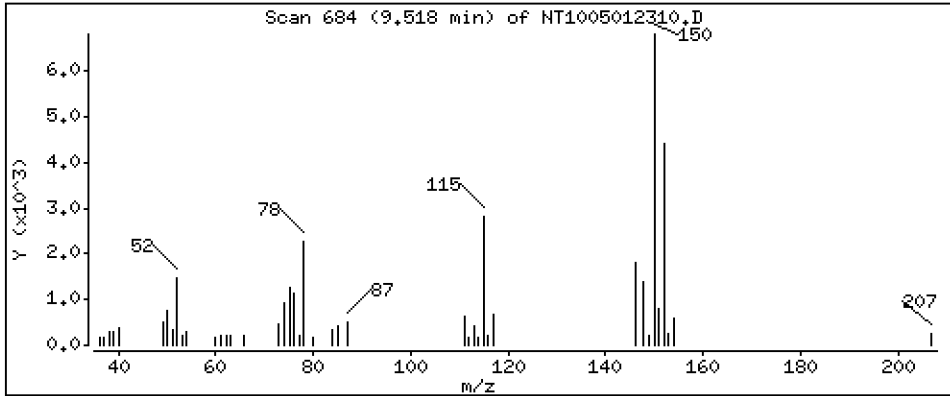
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

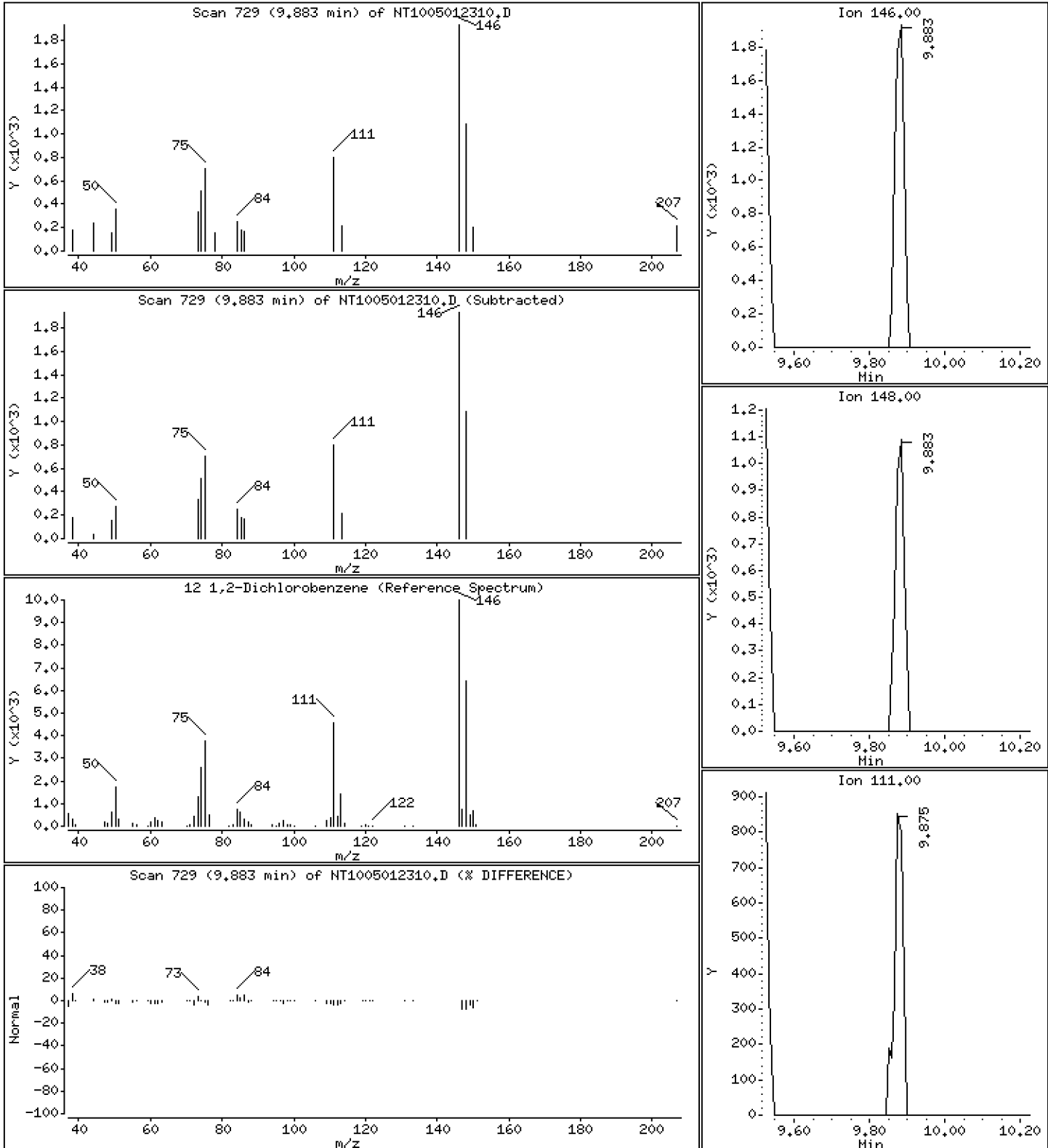
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

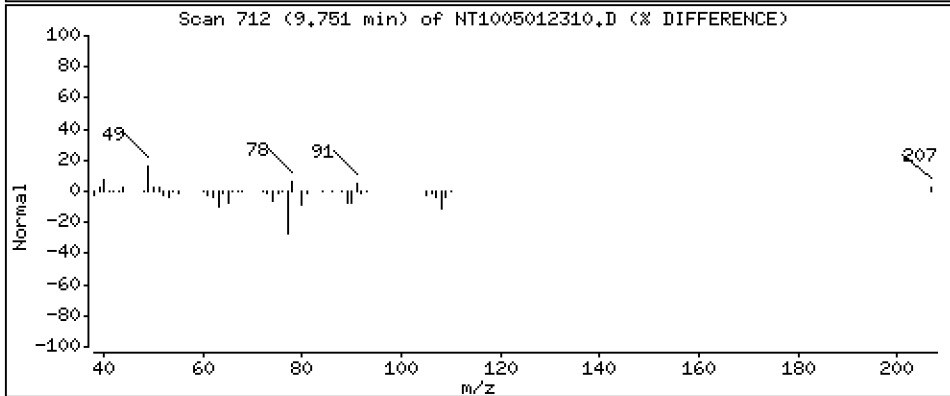
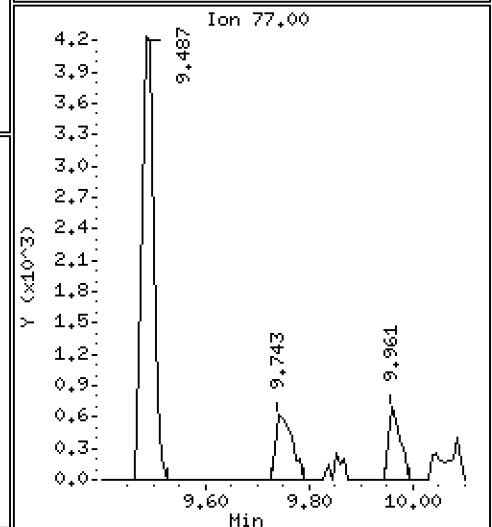
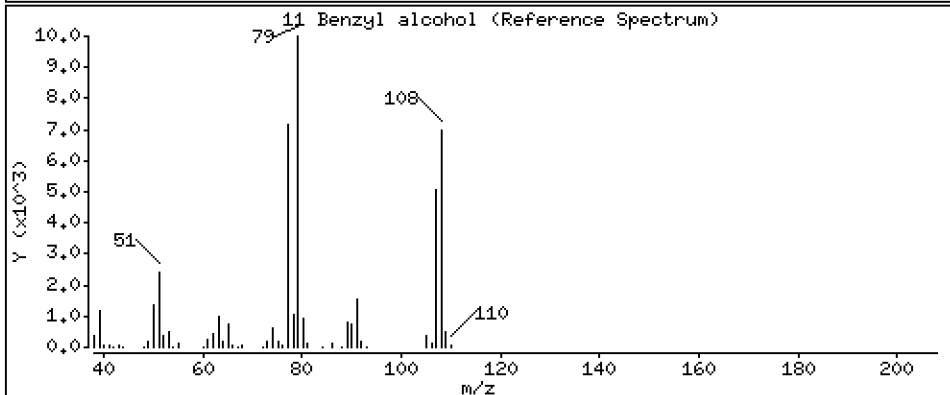
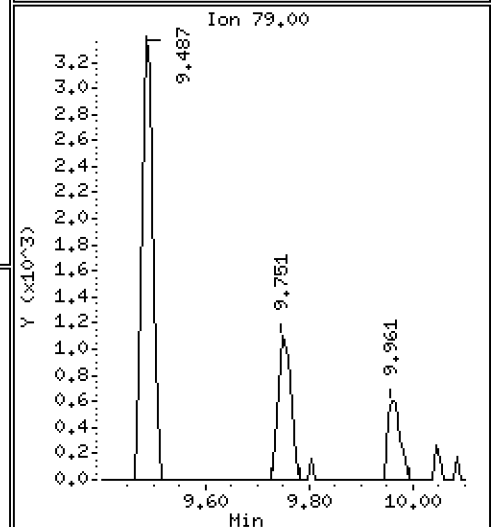
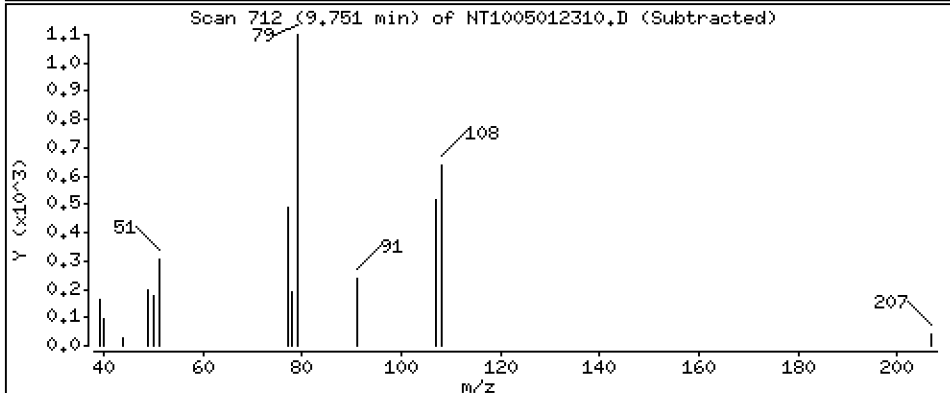
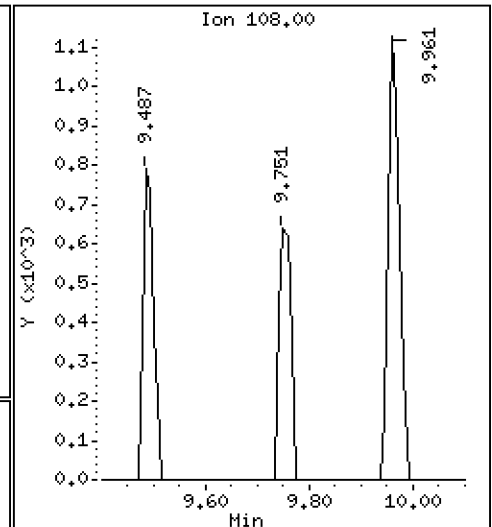
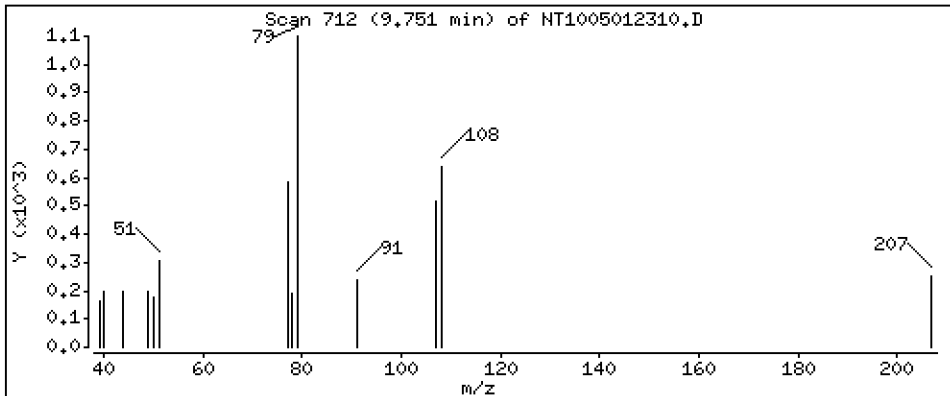
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

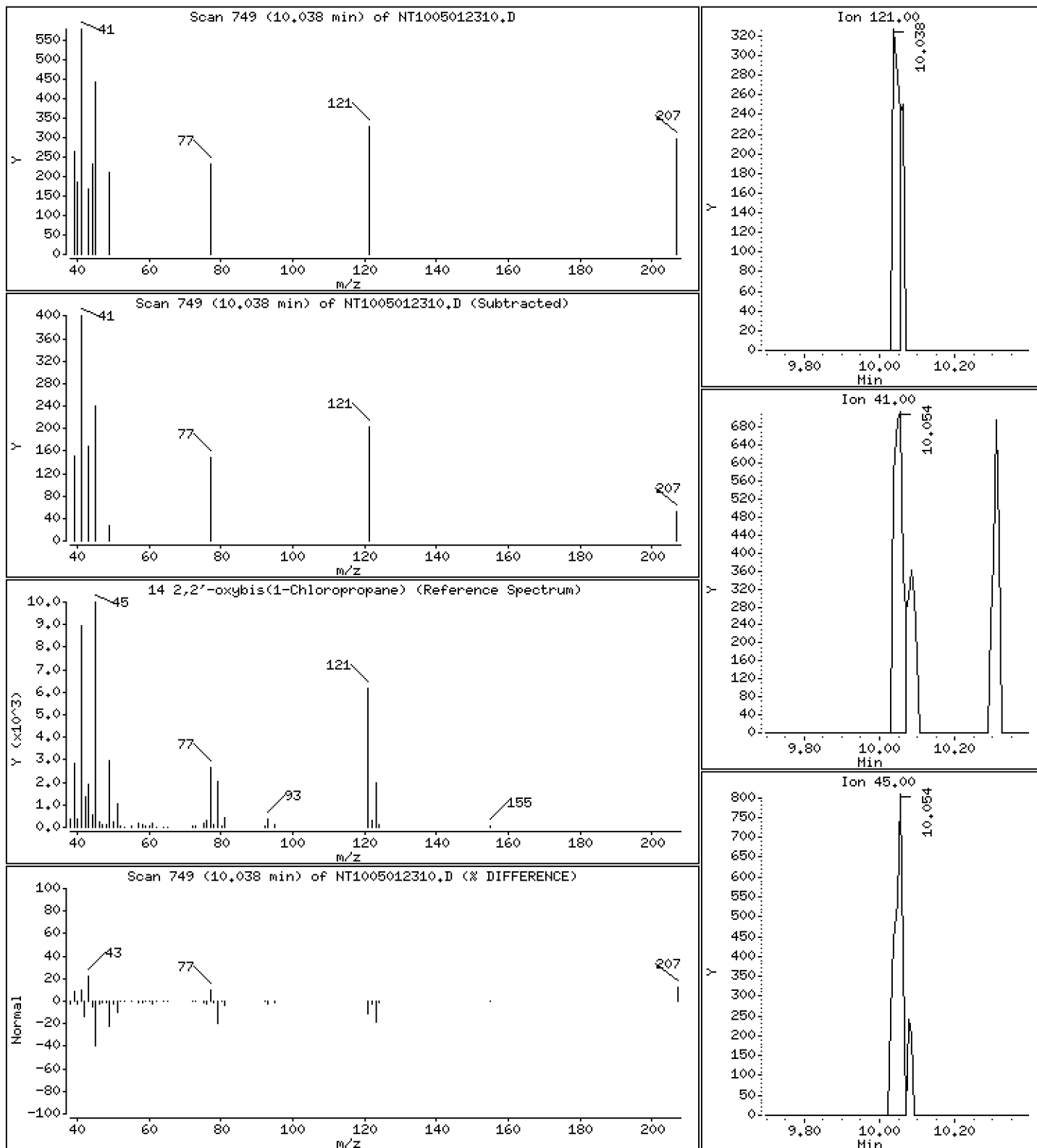
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

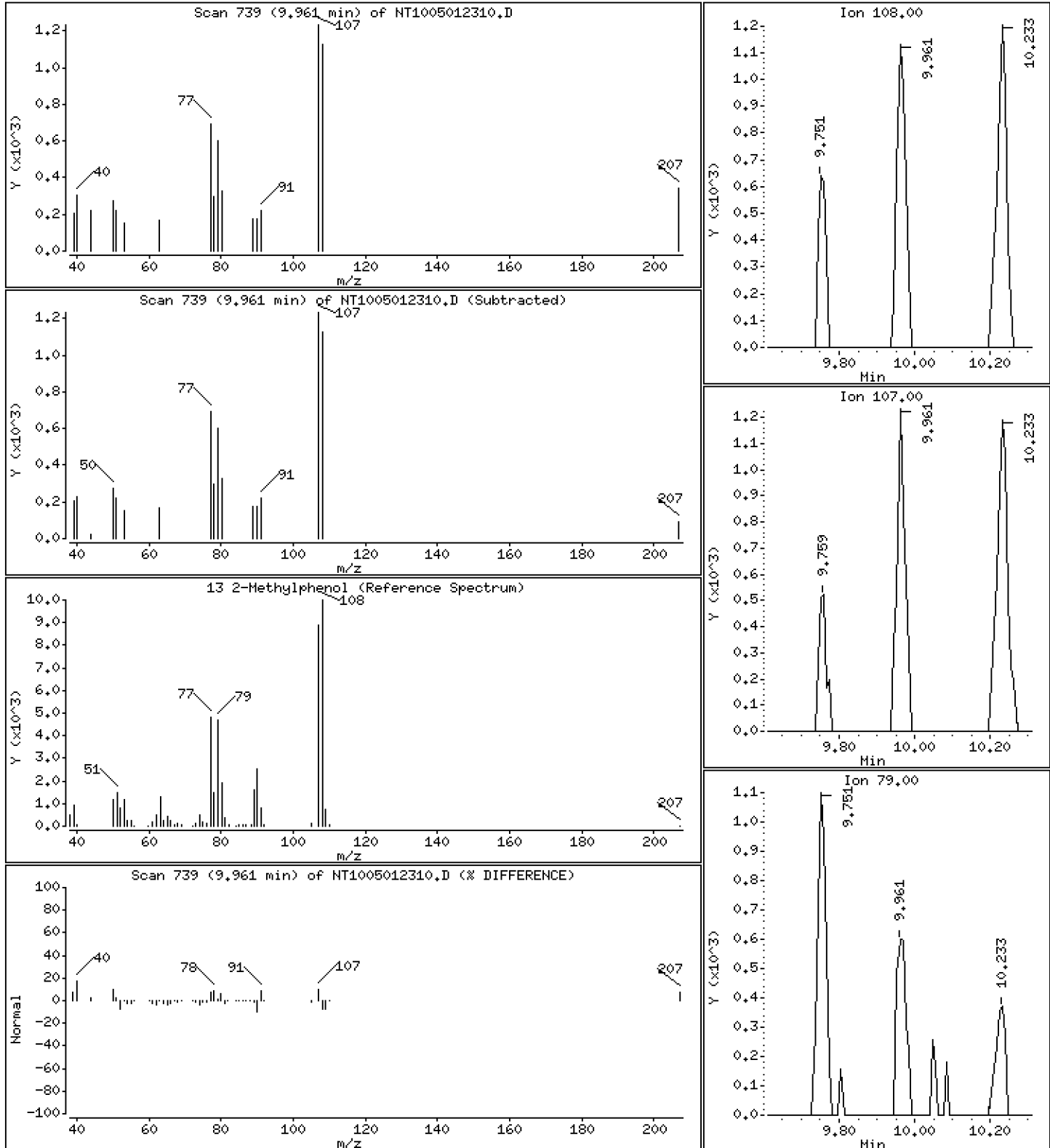
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

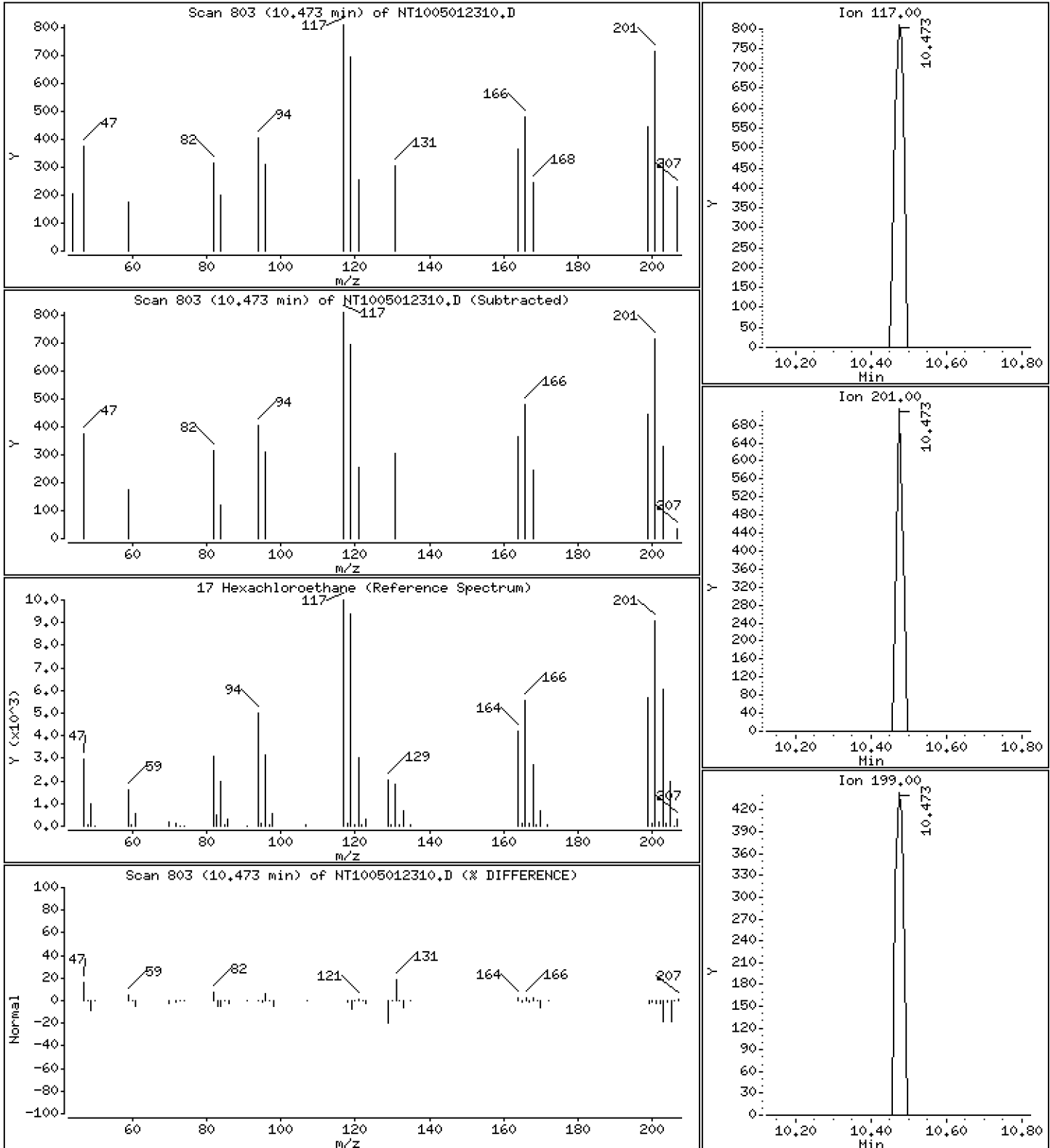
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

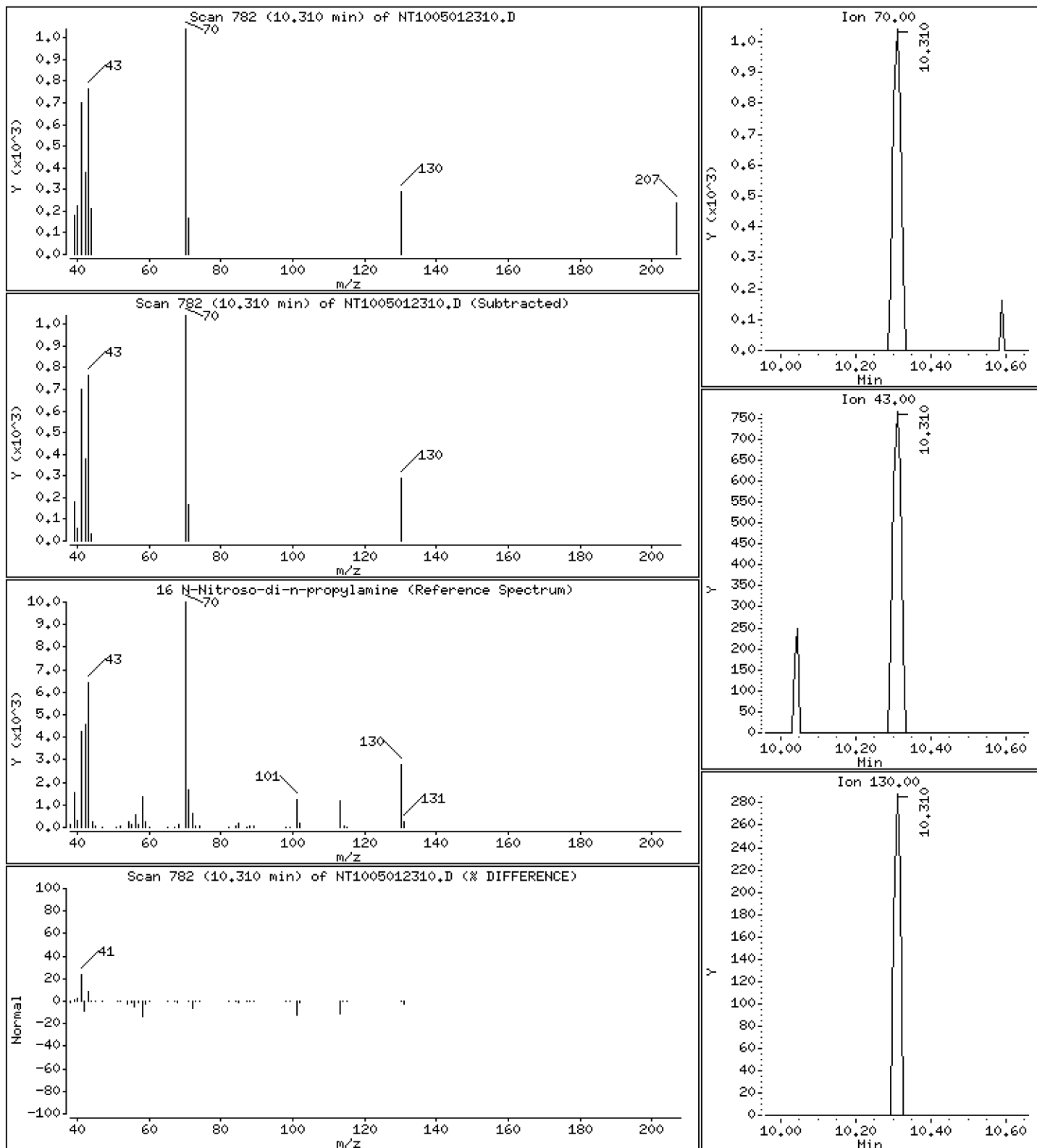
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

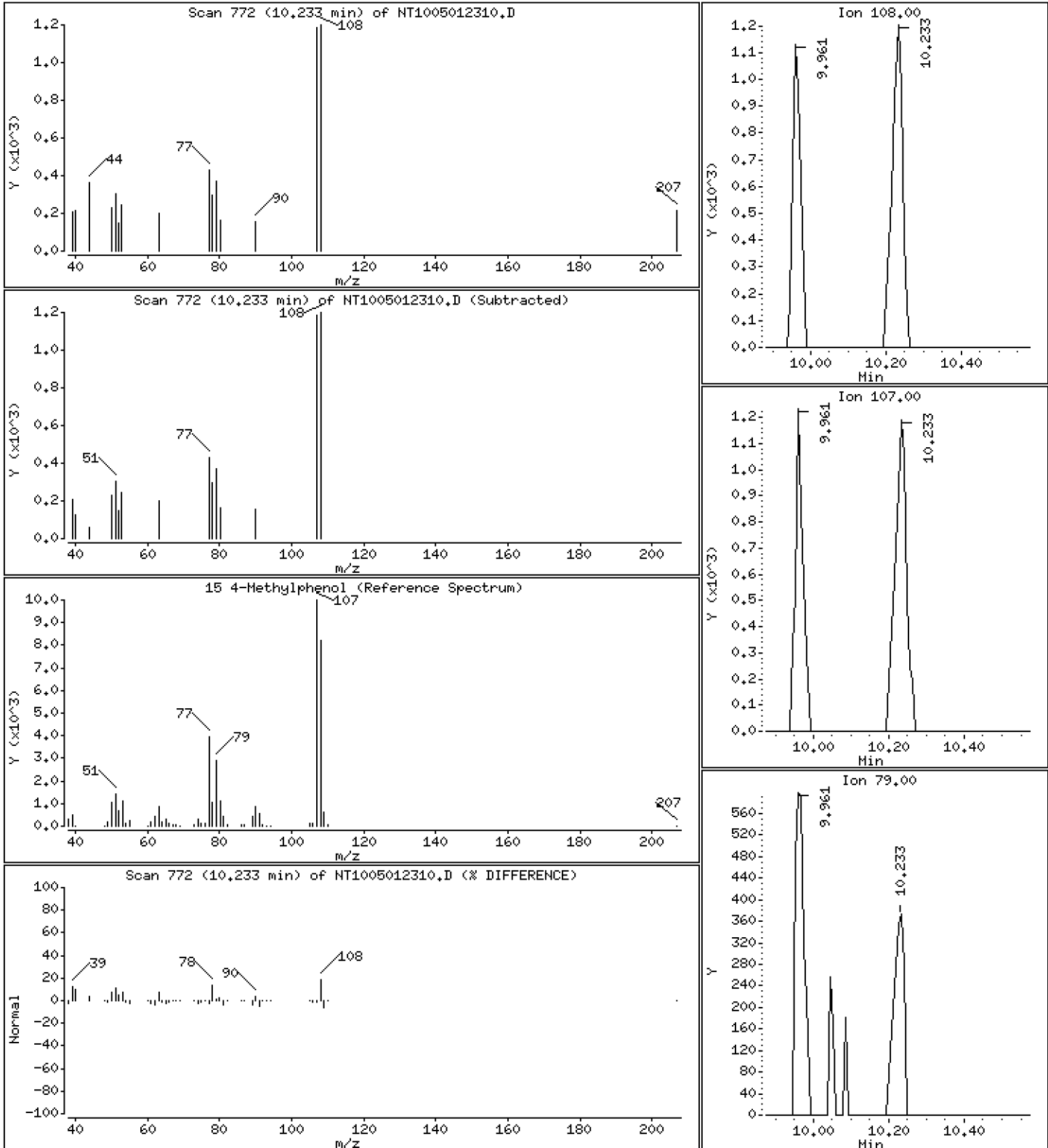
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

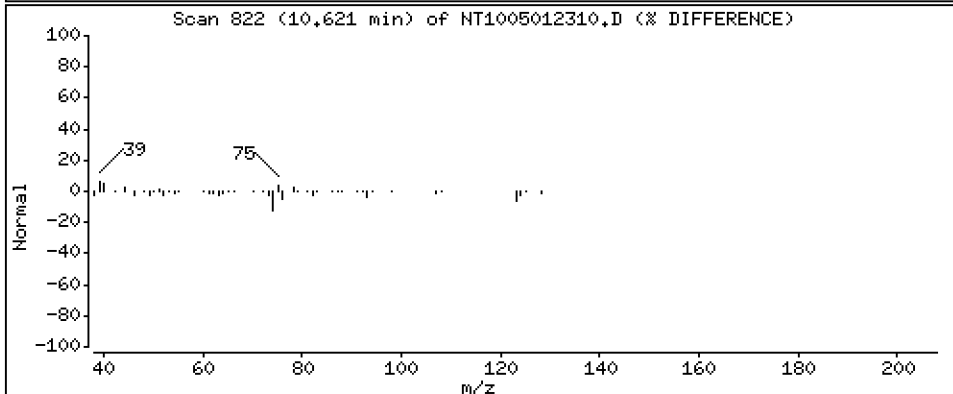
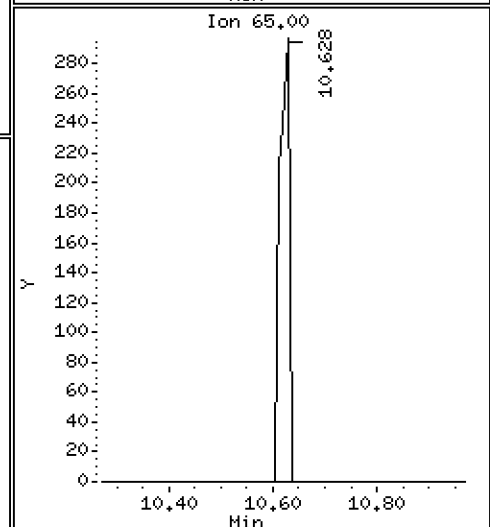
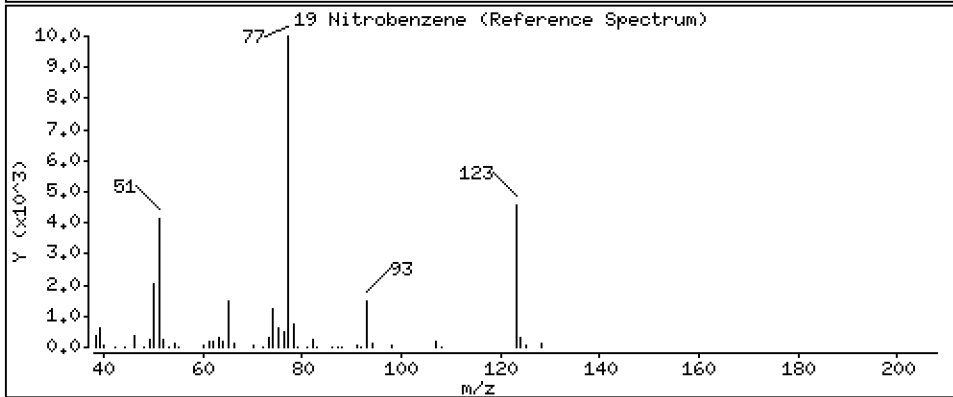
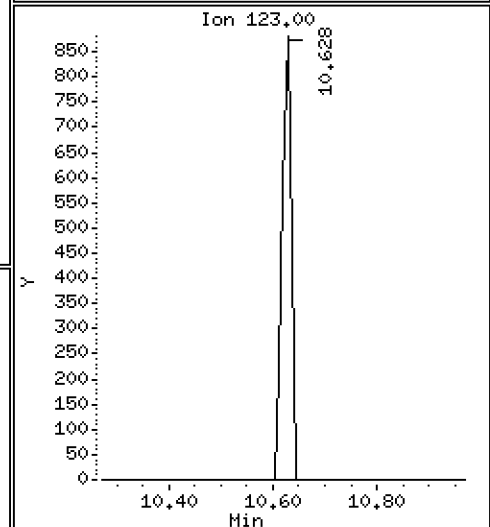
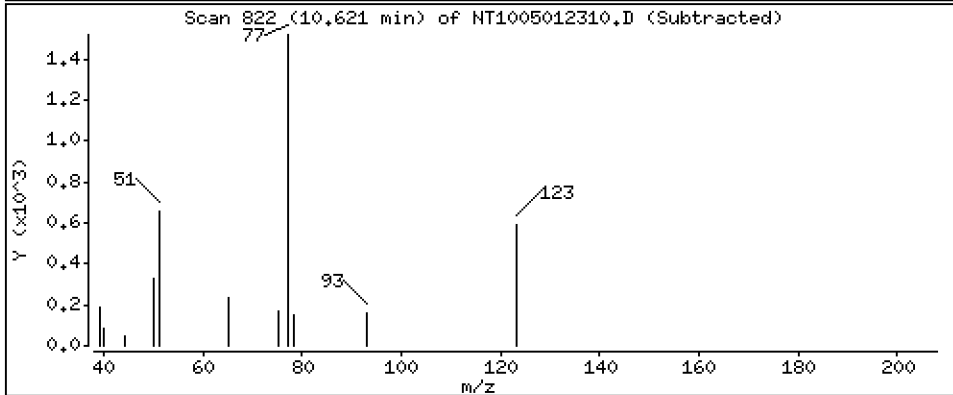
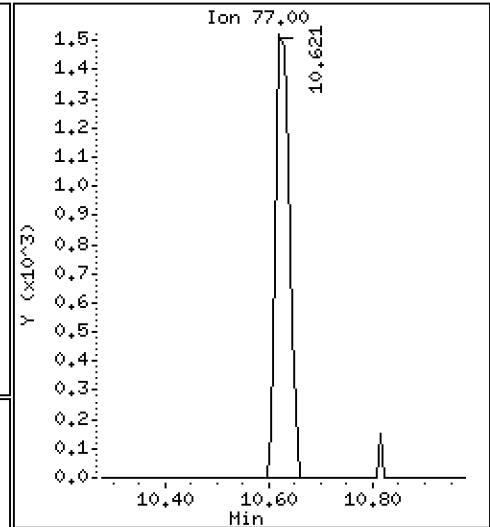
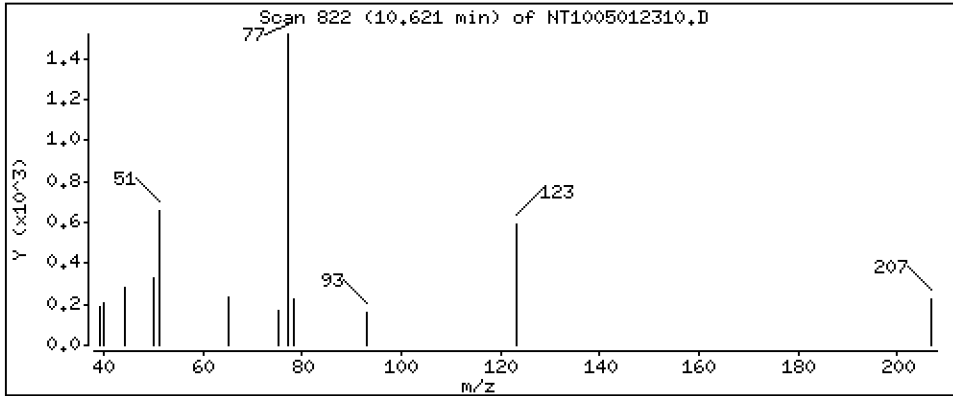
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,04426 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

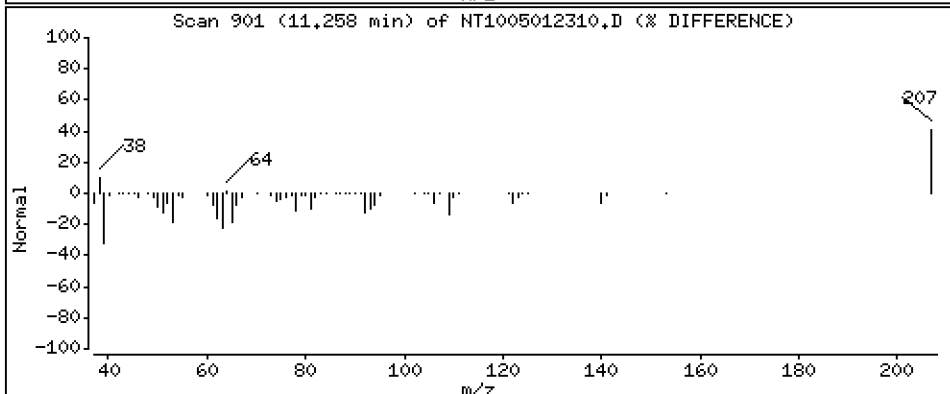
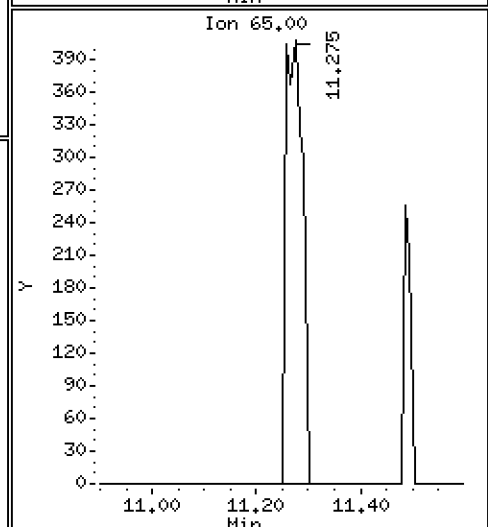
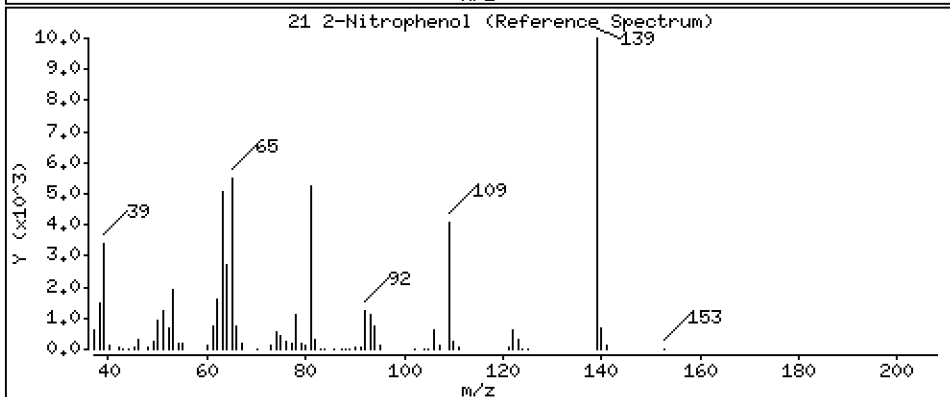
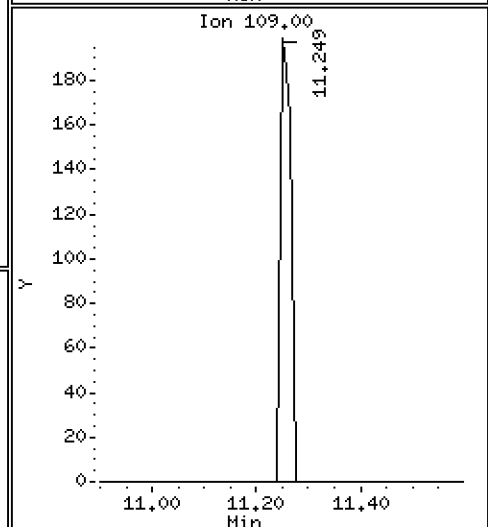
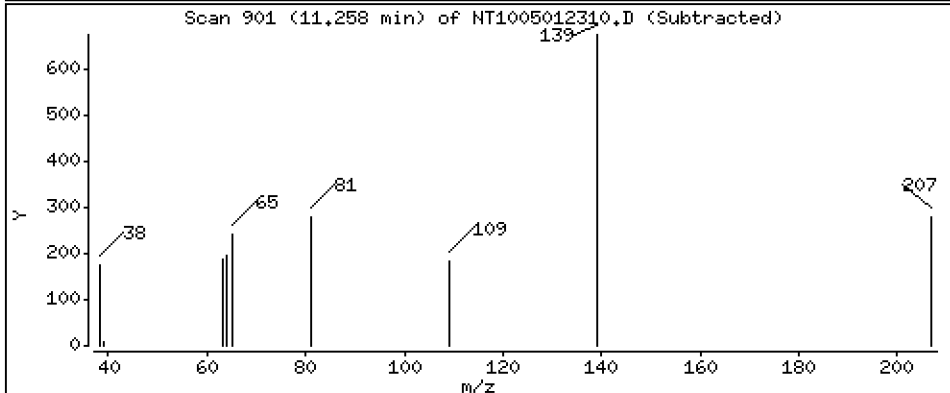
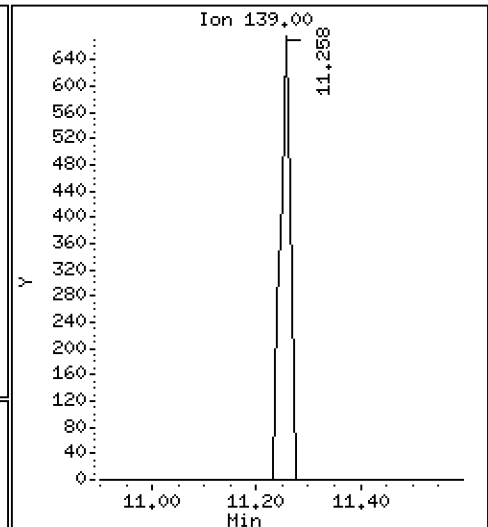
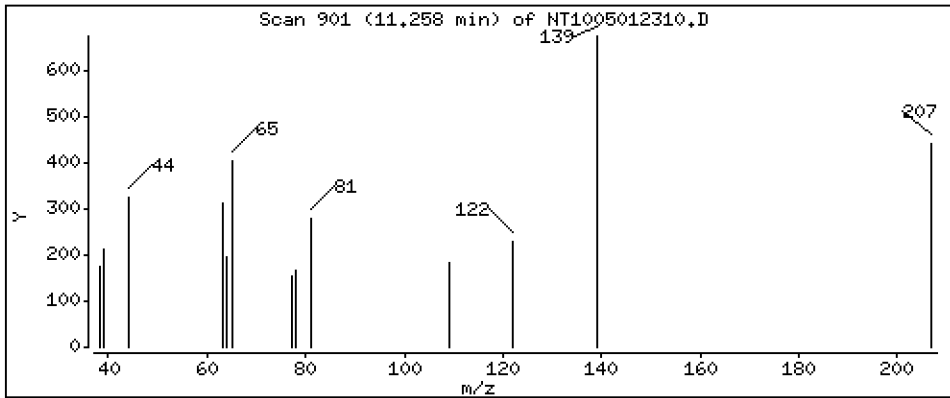
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,02849 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

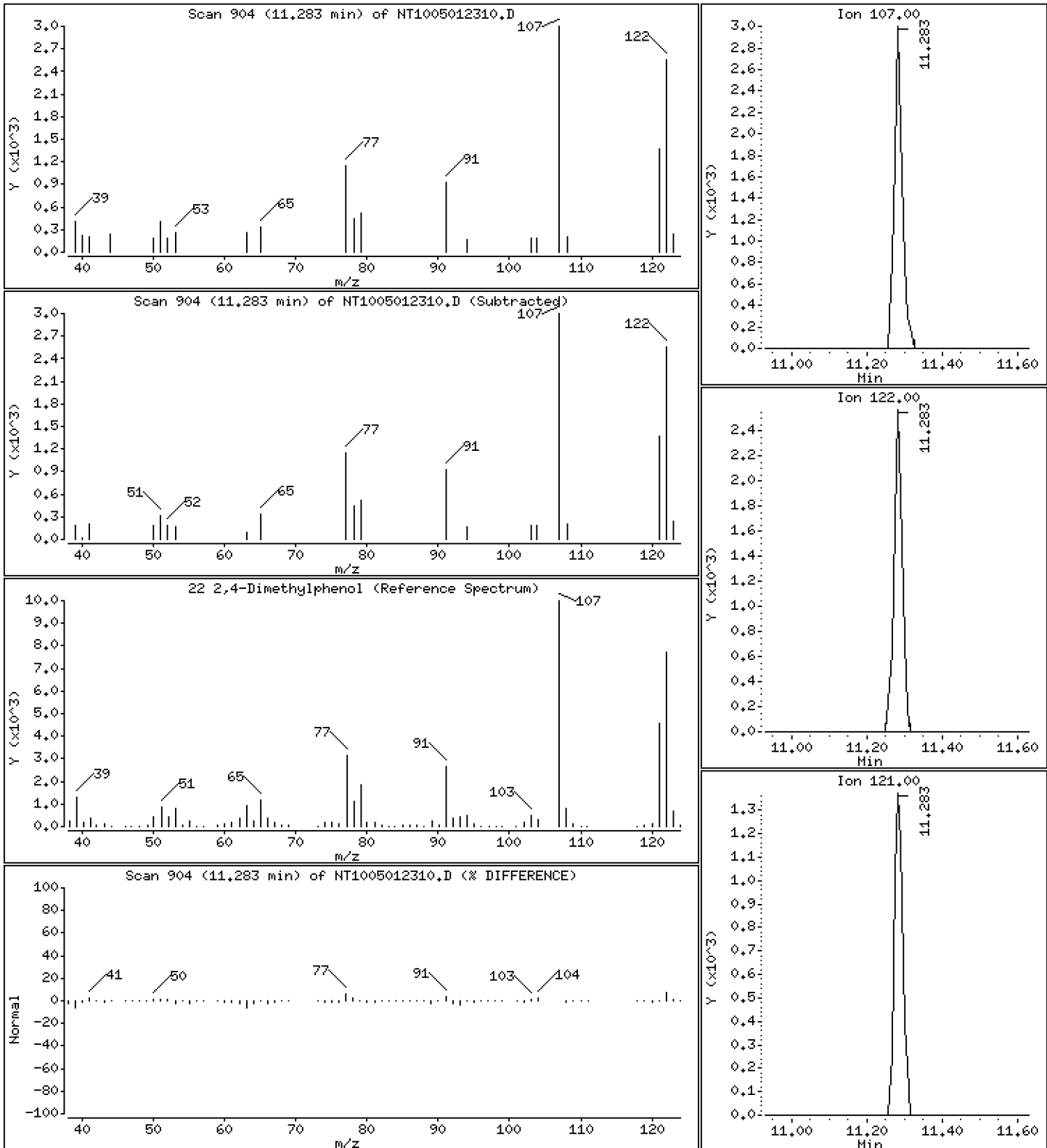
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,07650 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

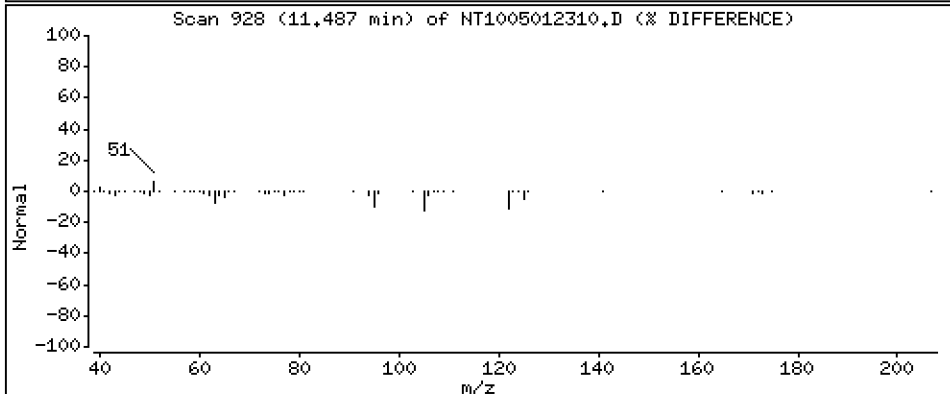
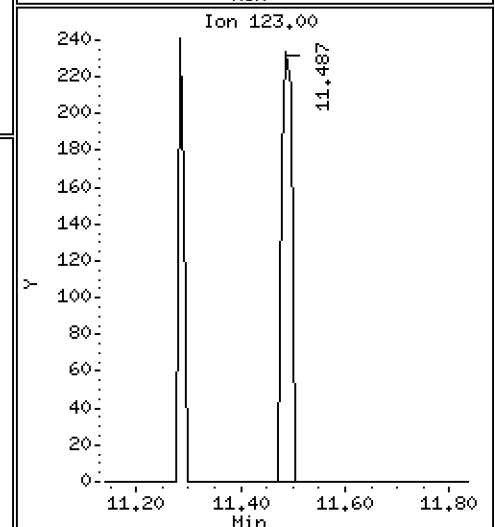
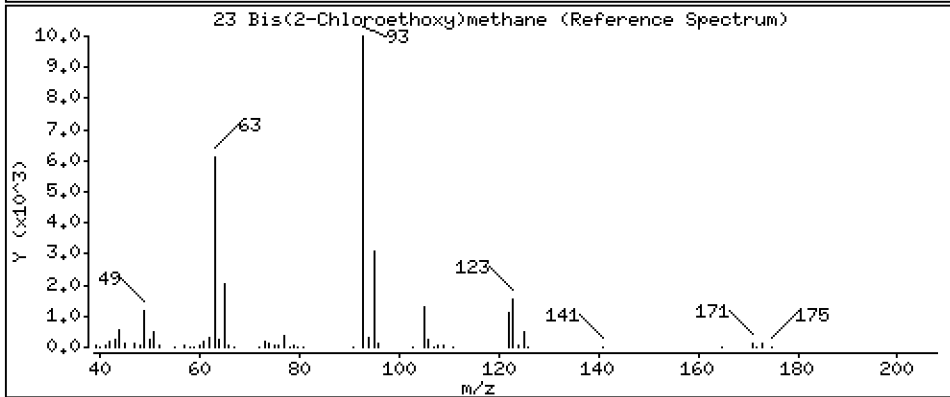
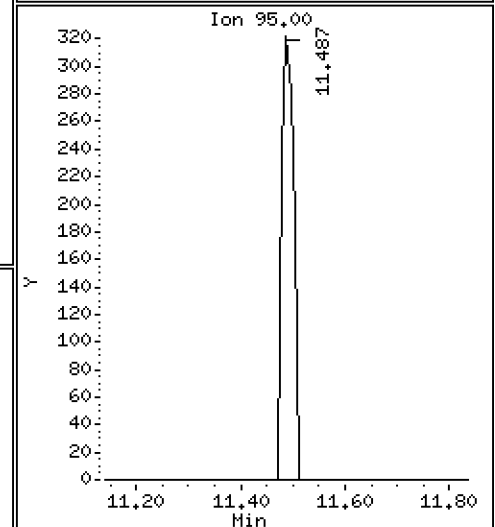
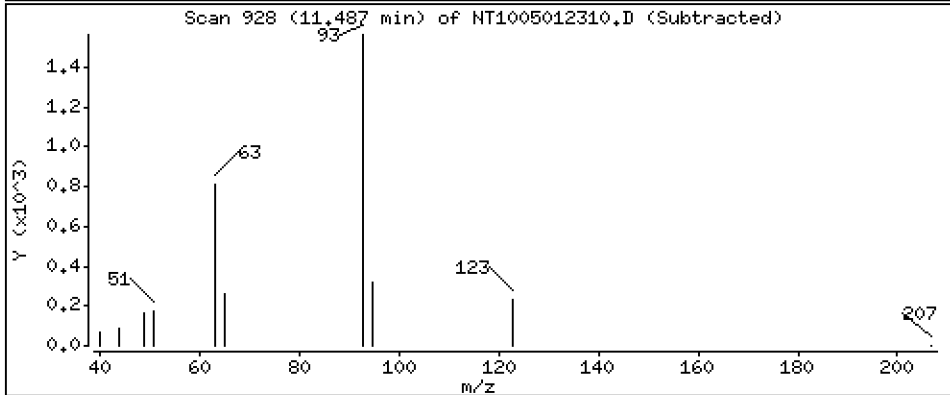
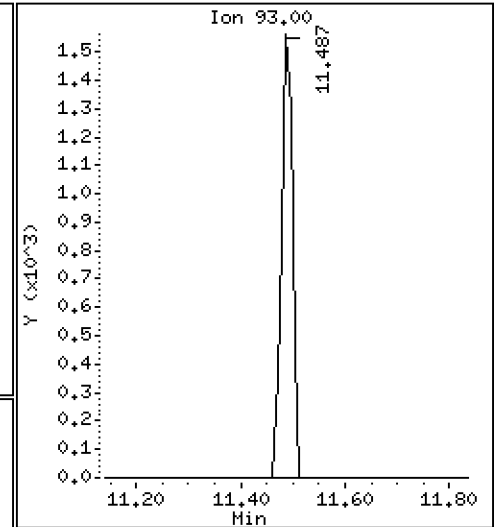
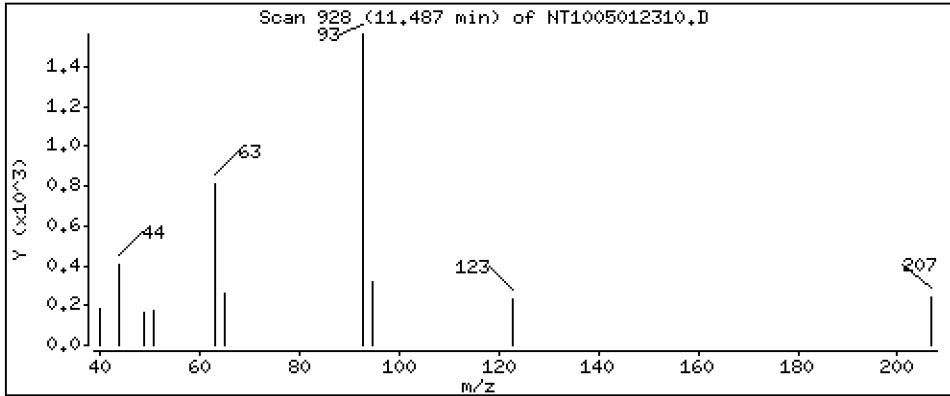
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,04951 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

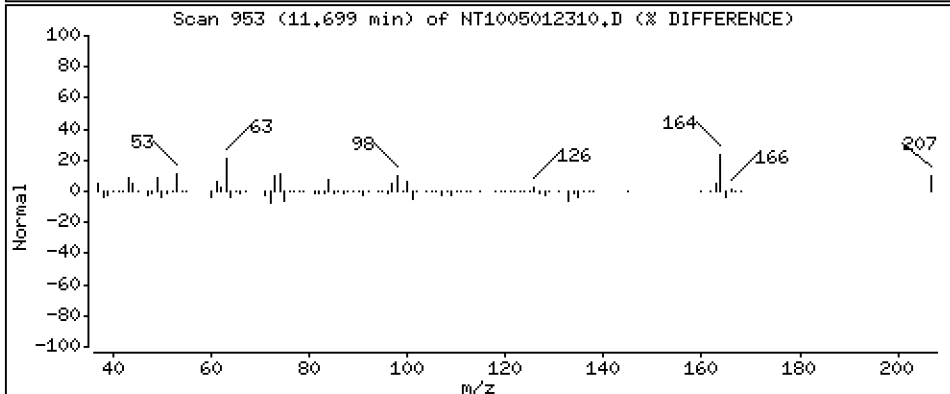
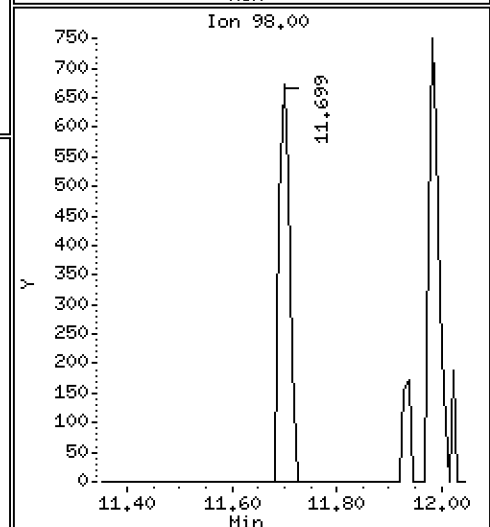
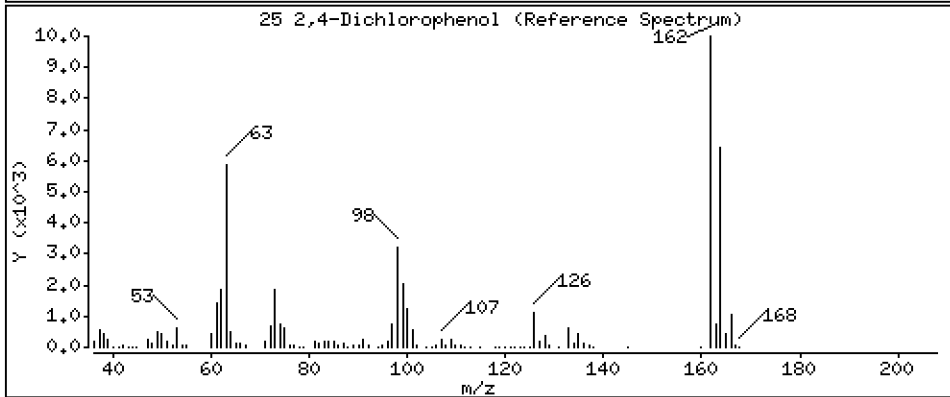
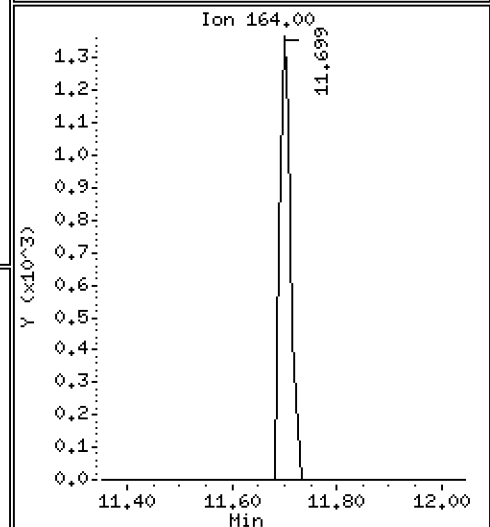
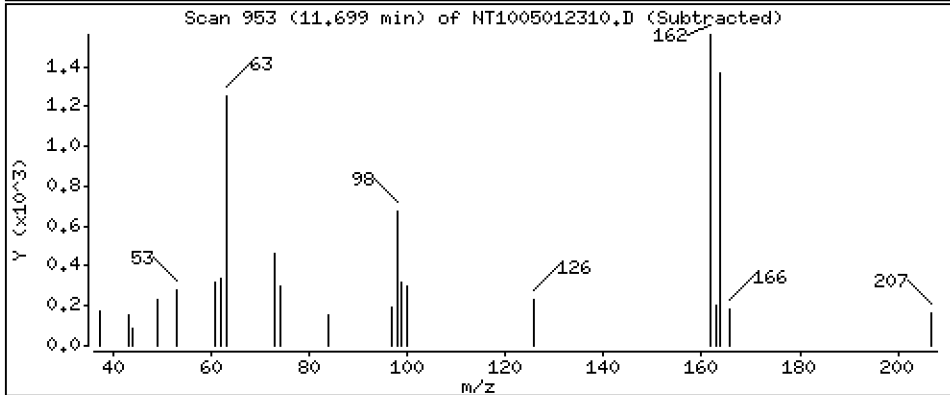
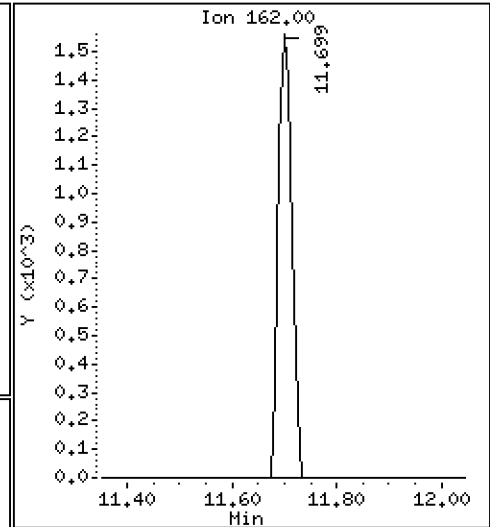
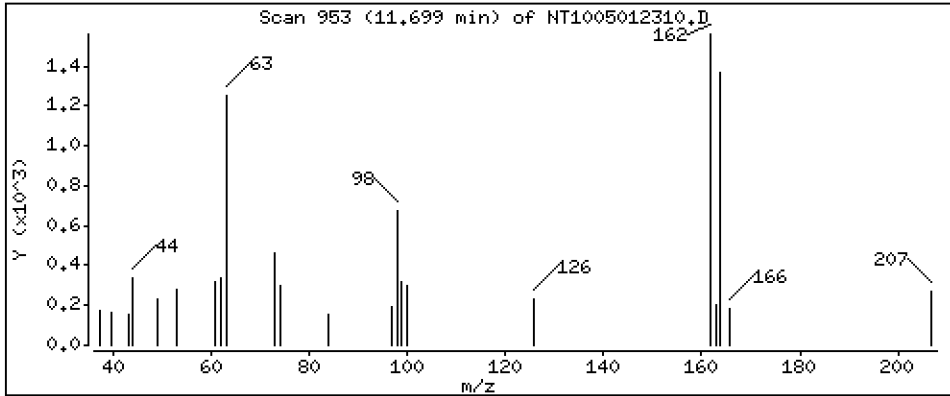
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

25 2,4-Dichlorophenol

Concentration: 0.06069 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

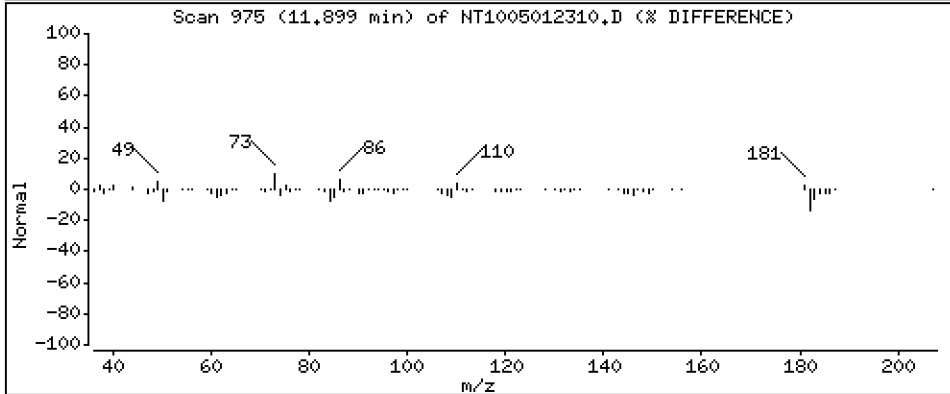
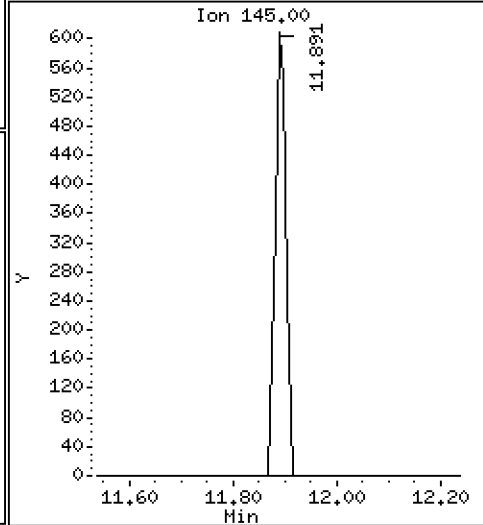
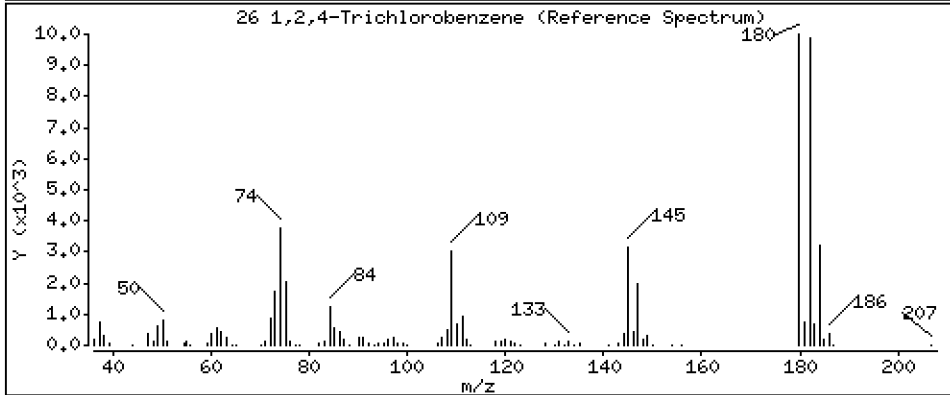
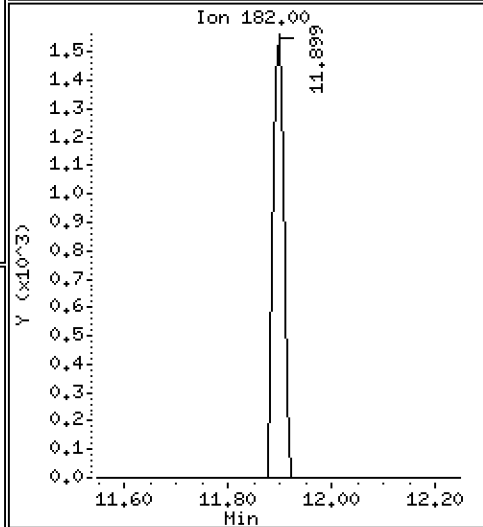
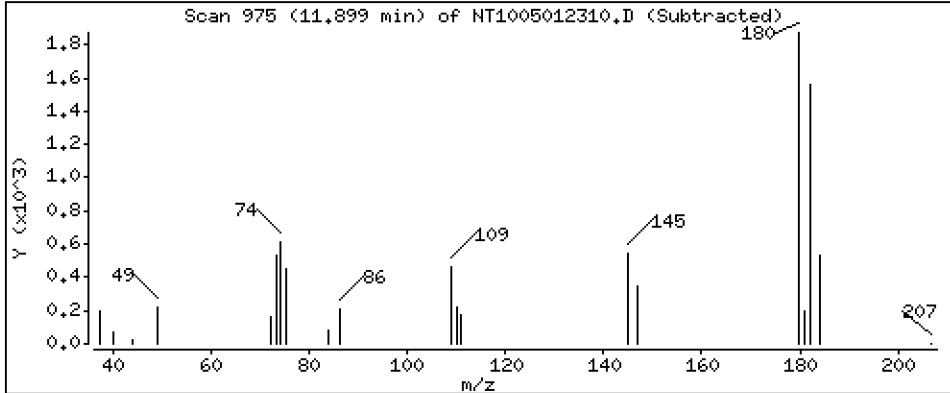
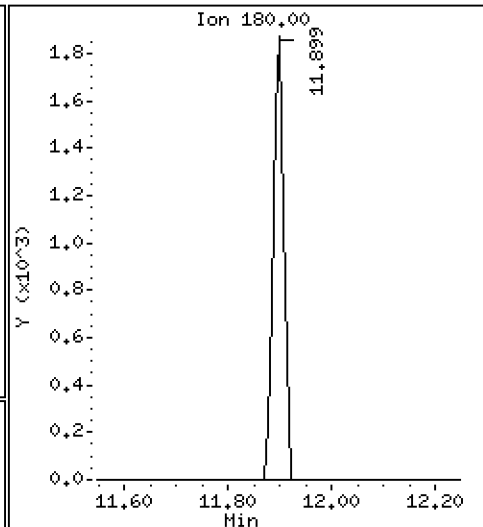
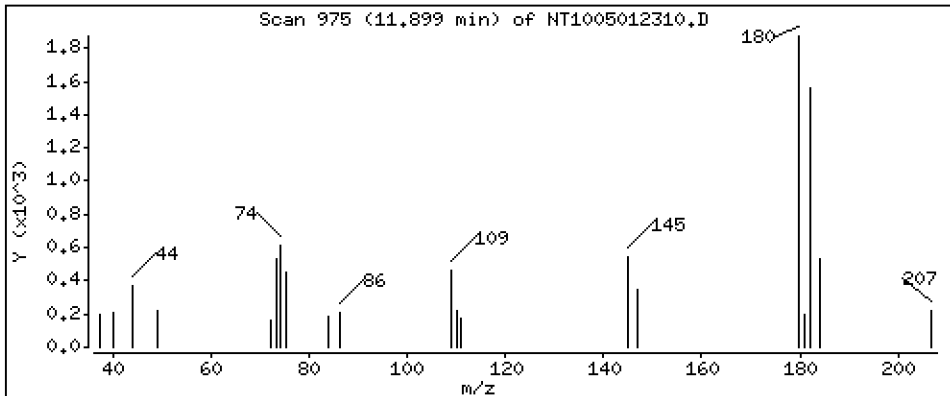
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.04191 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

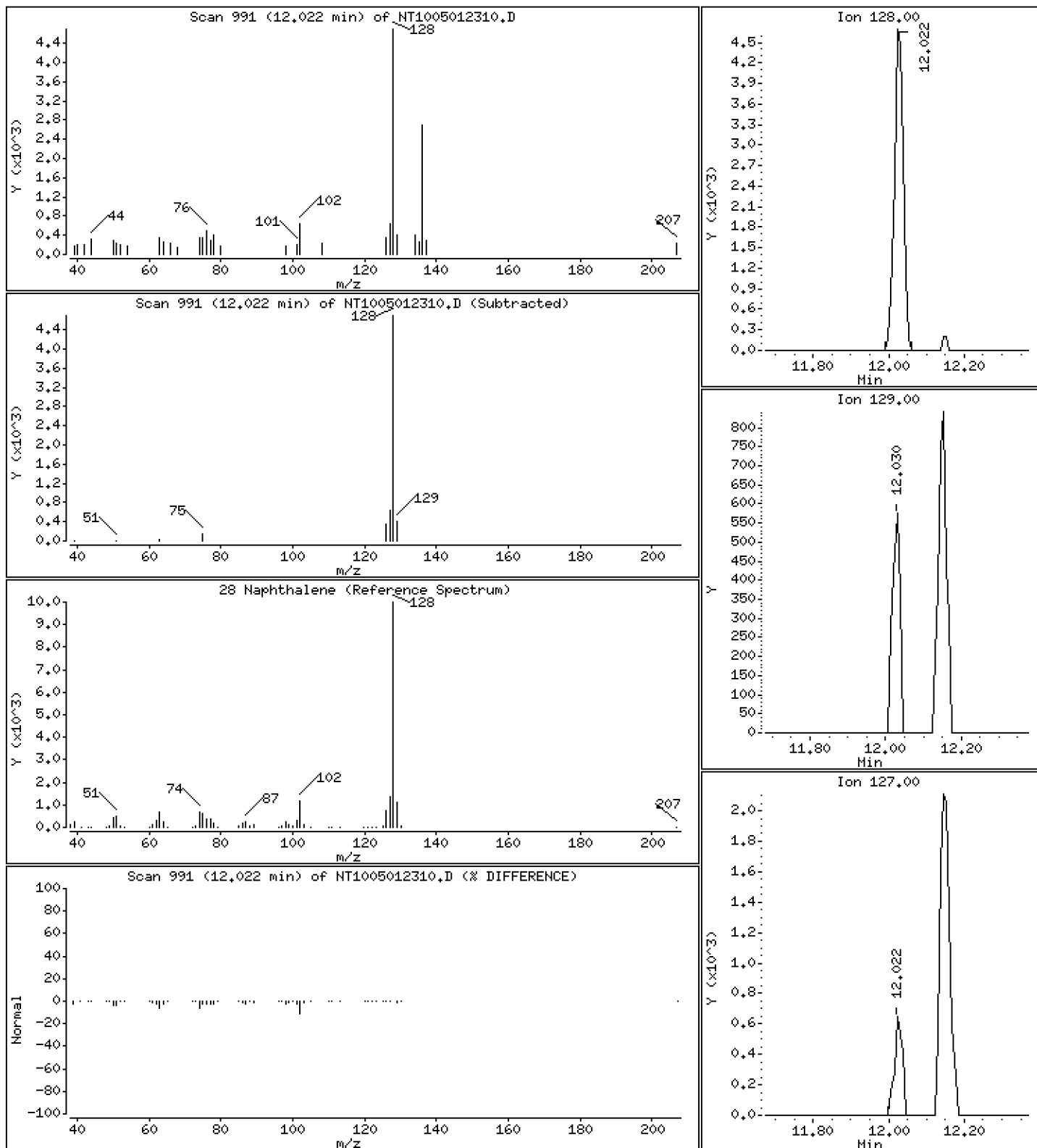
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,04965 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

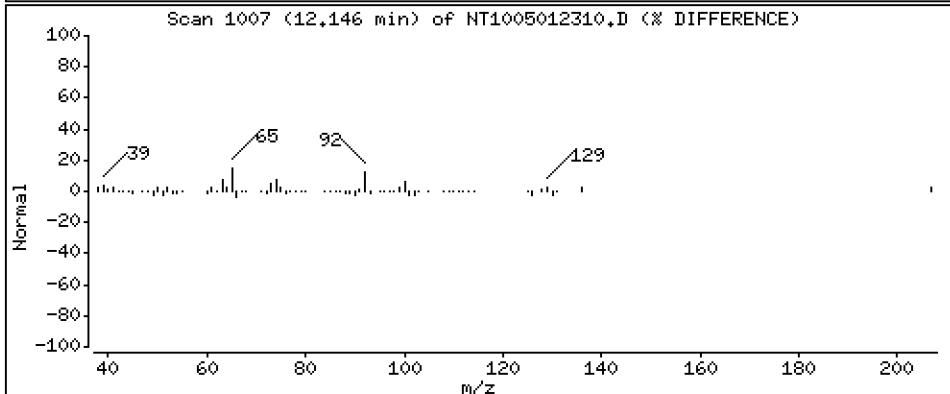
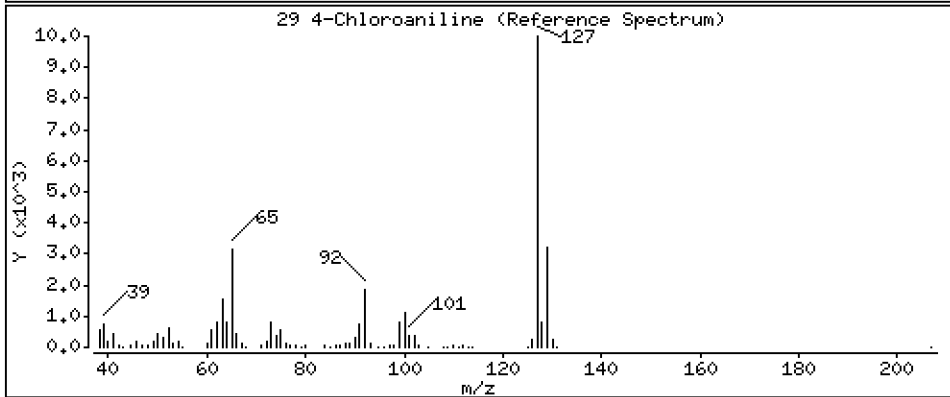
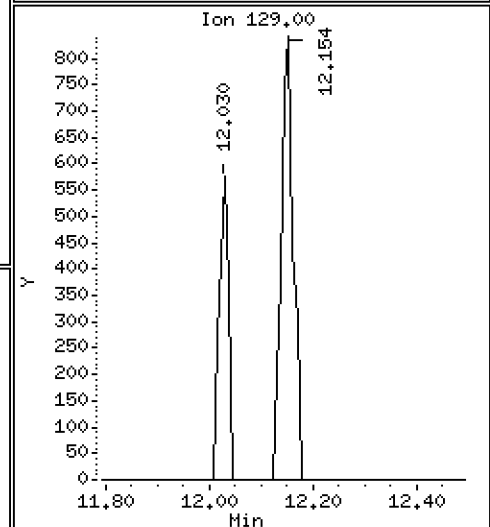
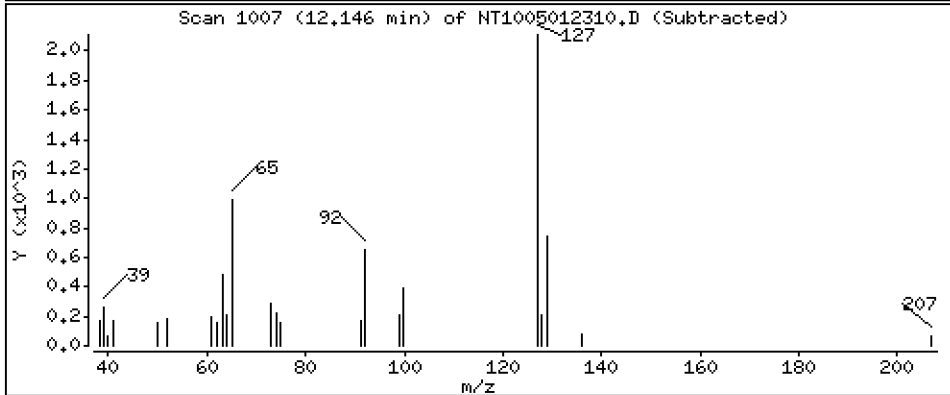
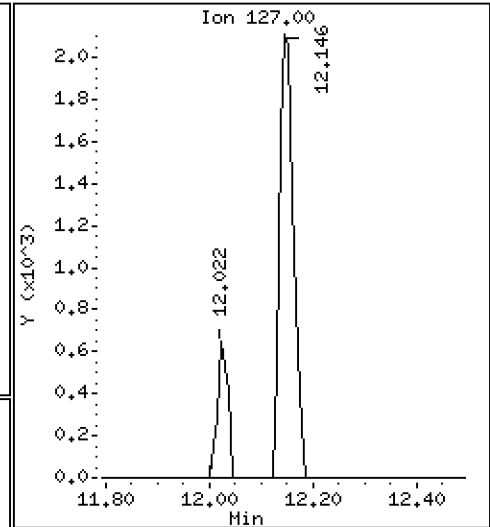
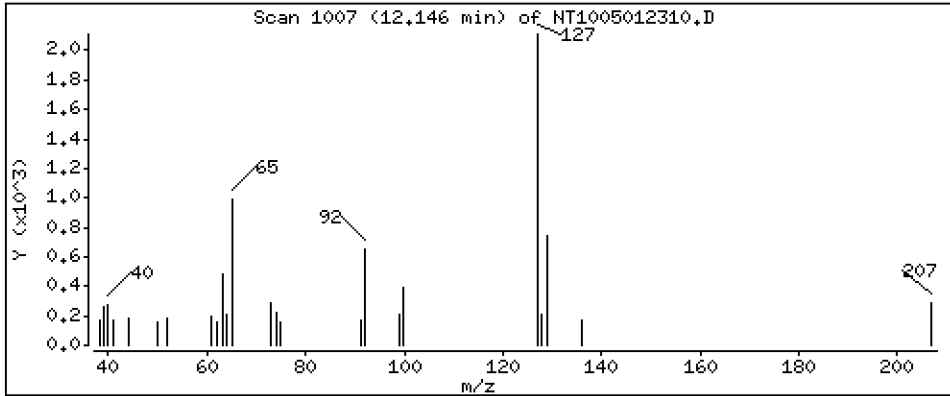
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

29 4-Chloroaniline

Concentration: 0.06826 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

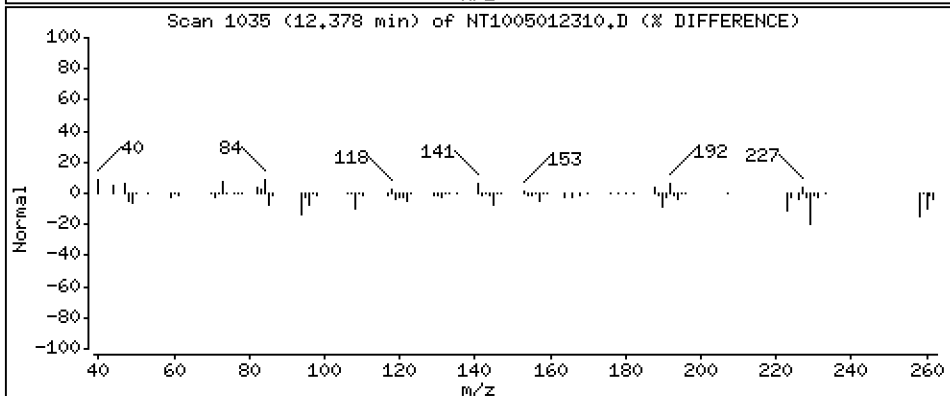
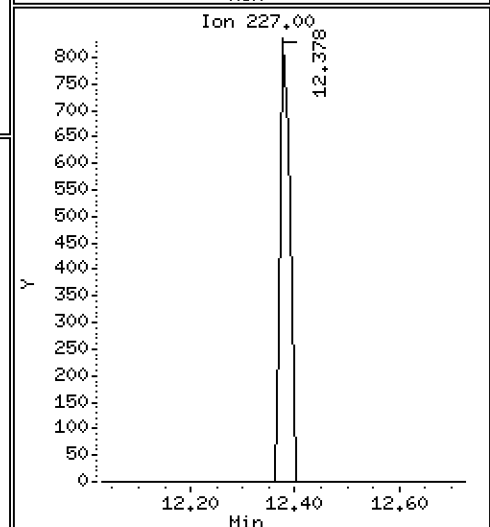
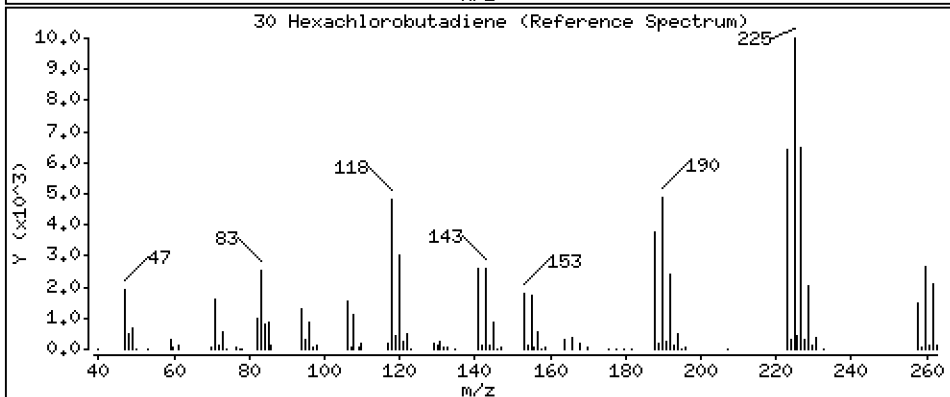
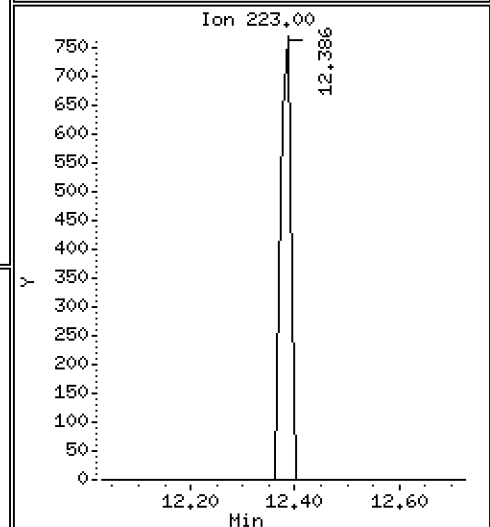
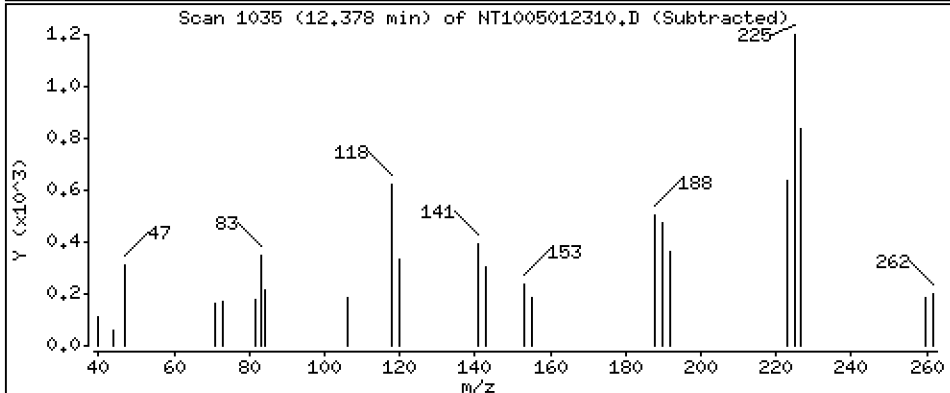
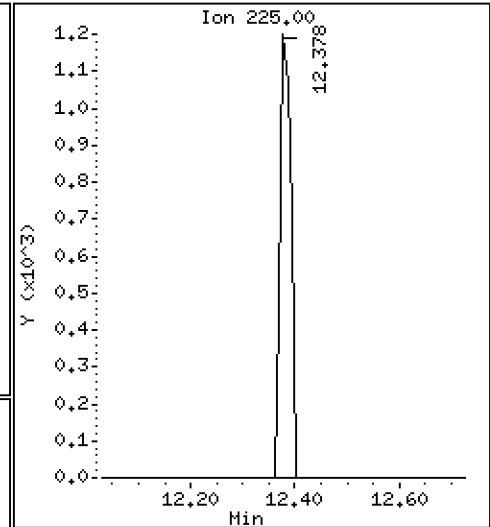
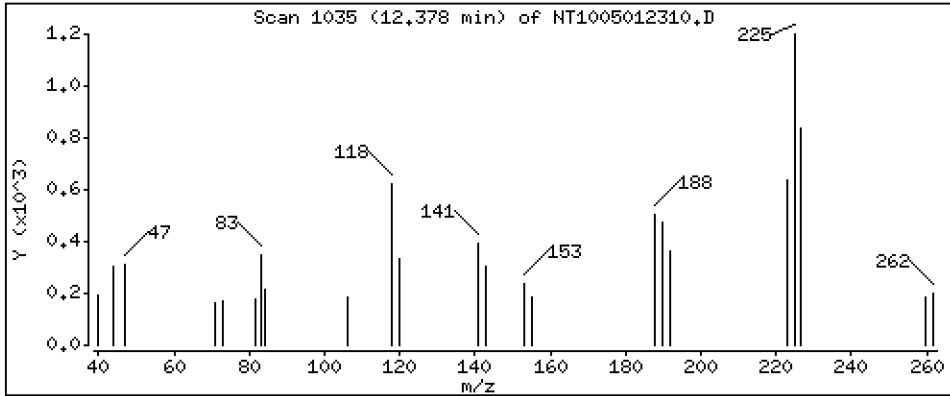
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 0.04326 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

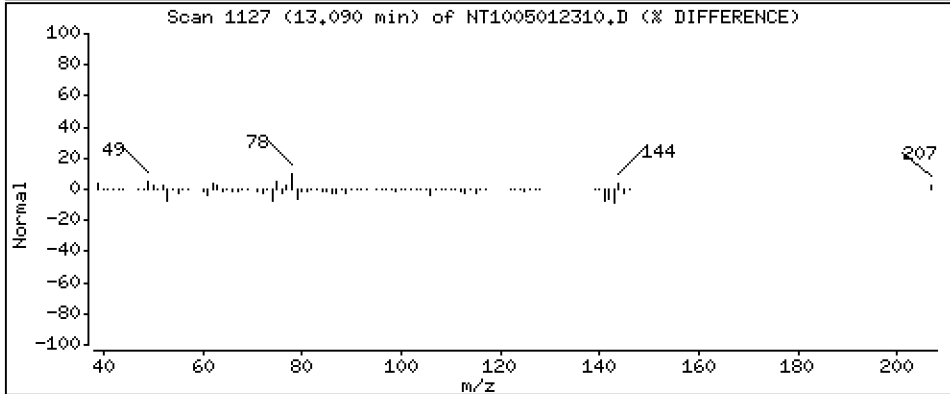
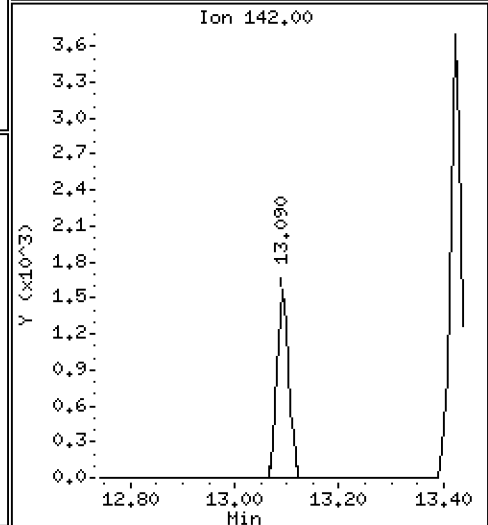
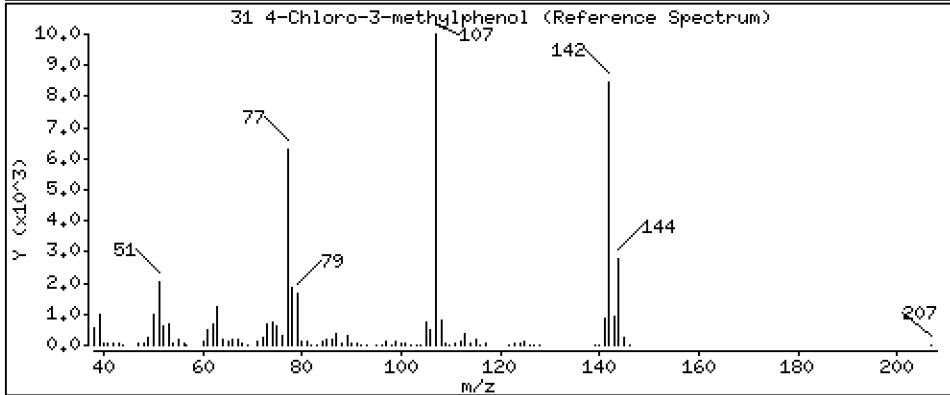
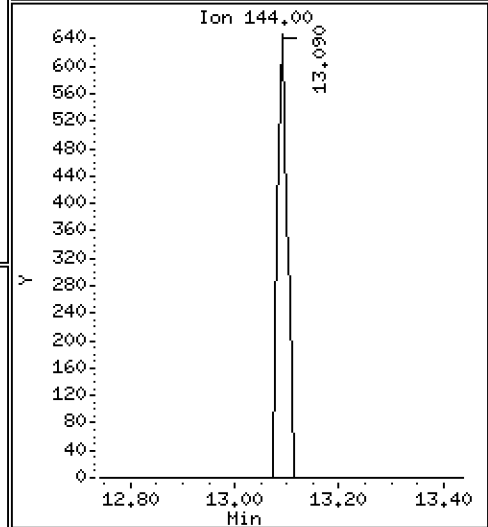
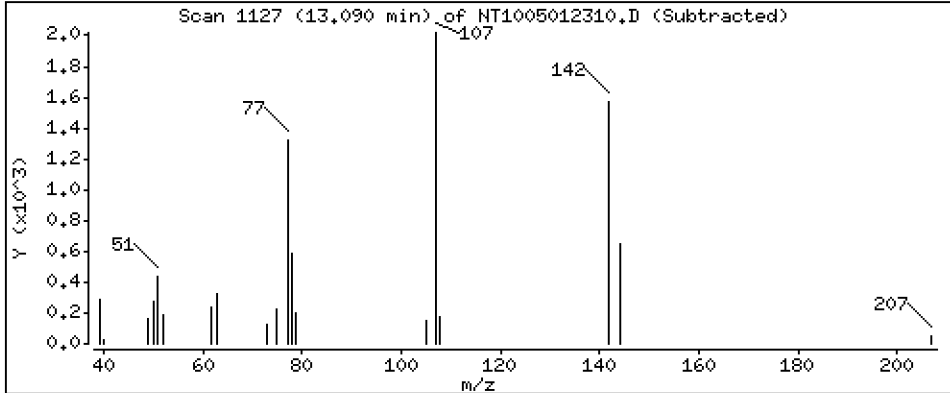
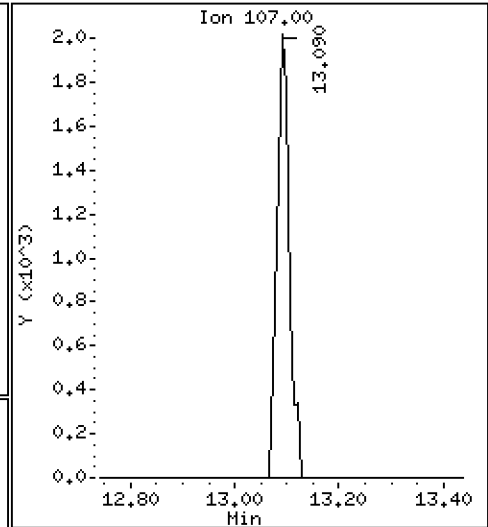
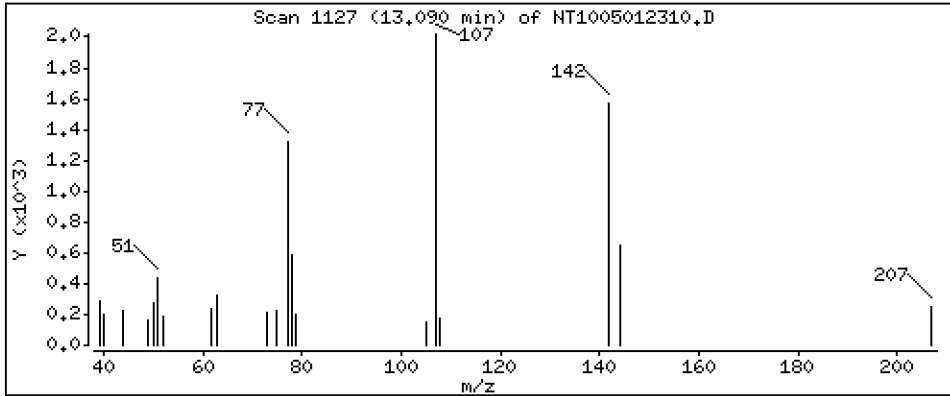
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,06241 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

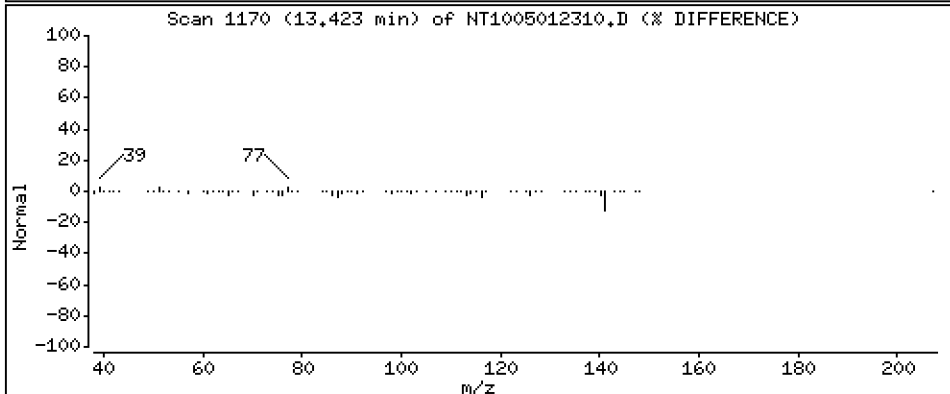
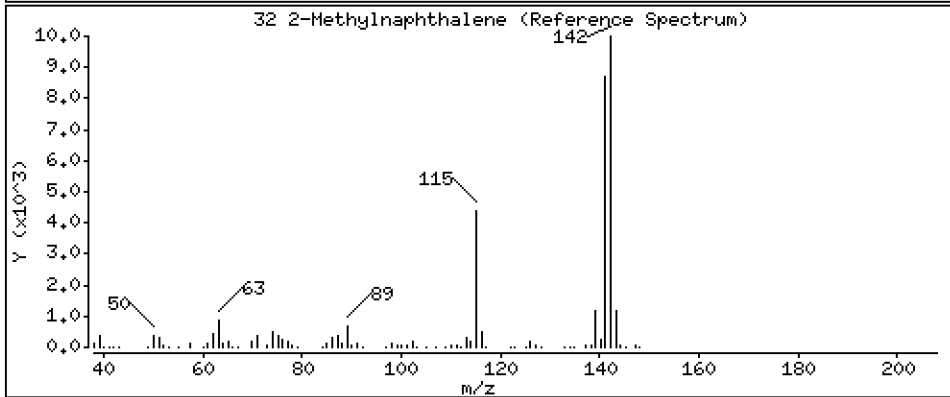
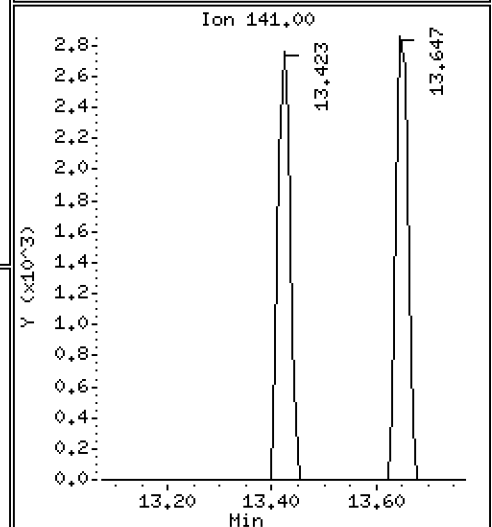
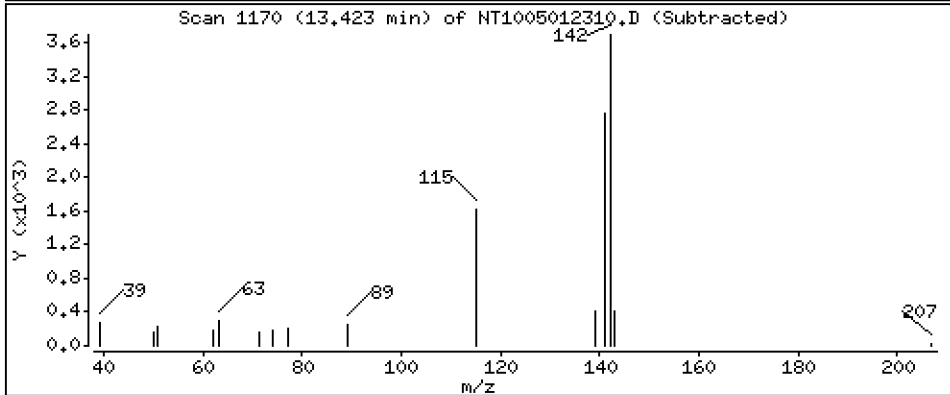
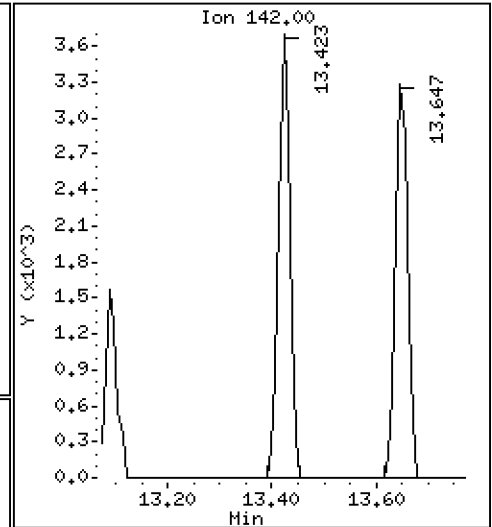
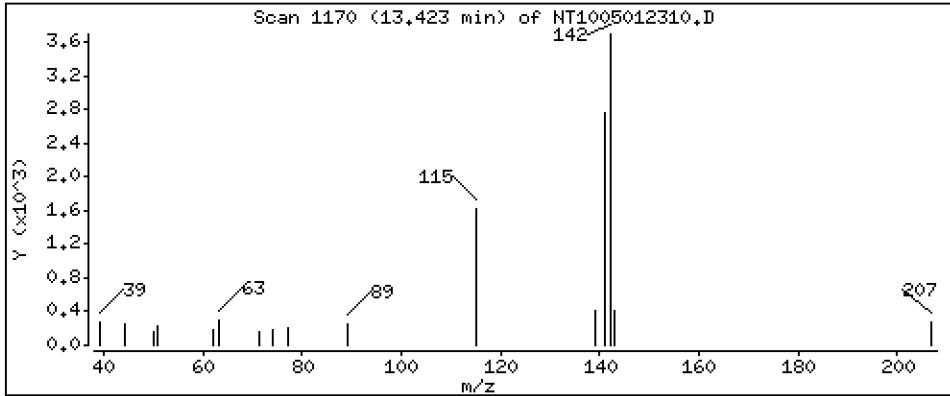
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,04555 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

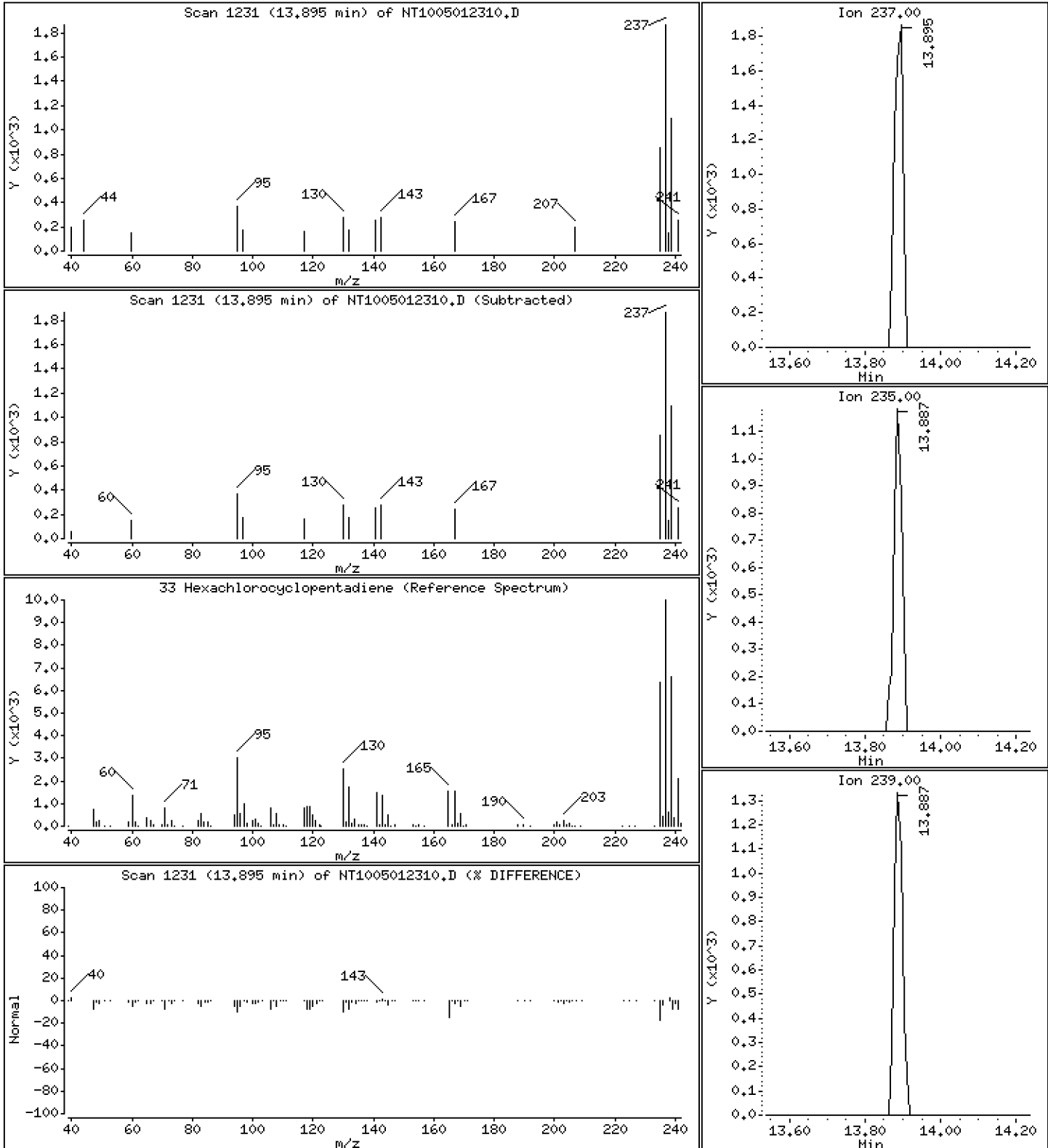
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 0.07556 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

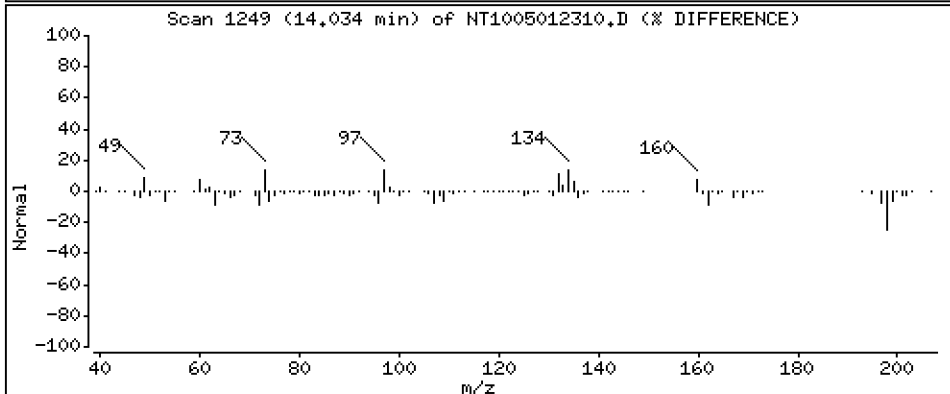
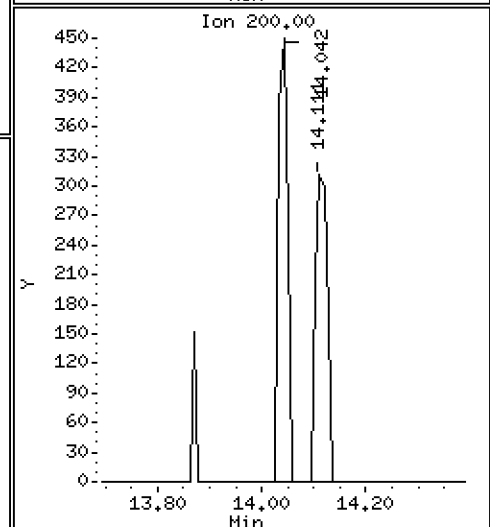
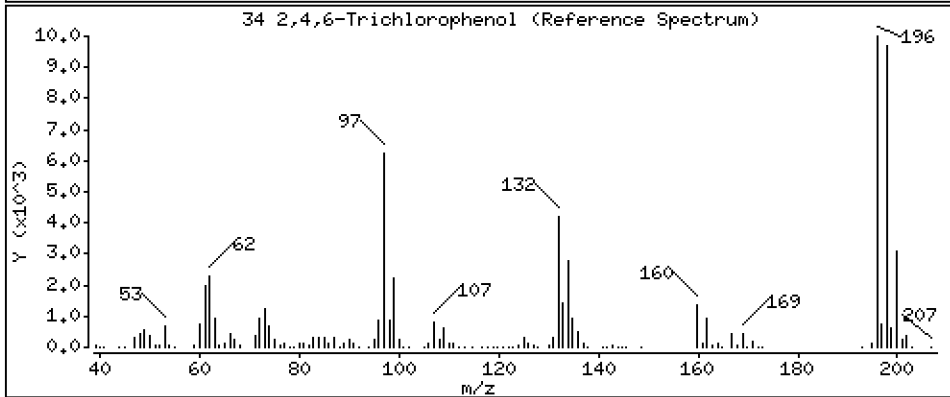
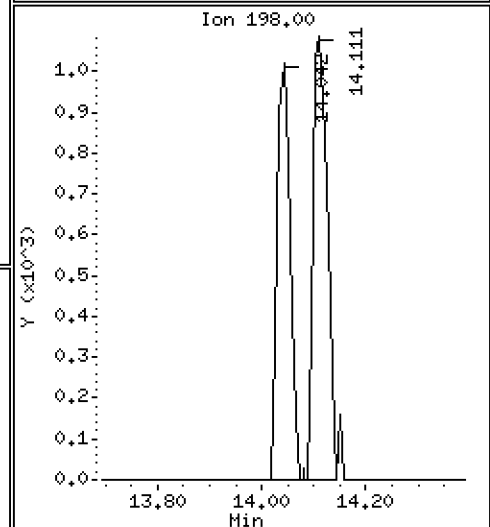
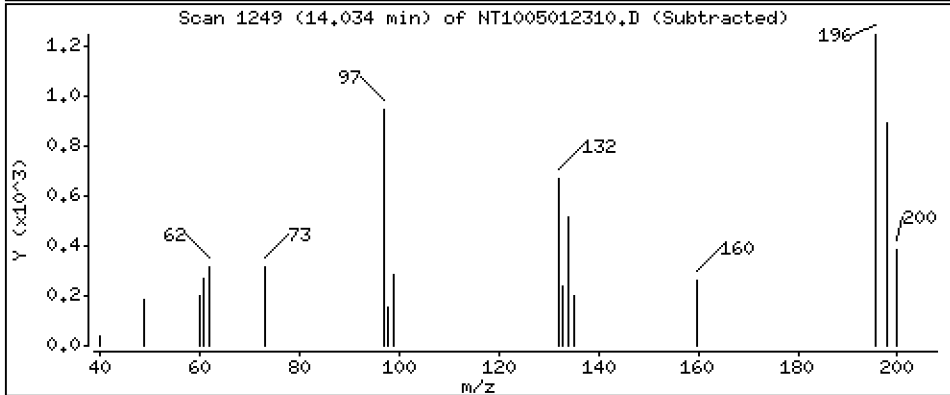
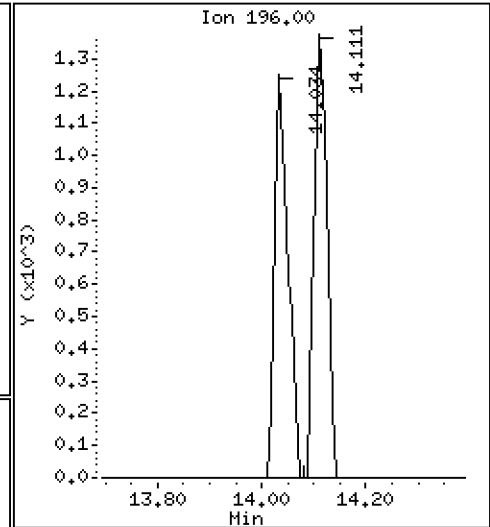
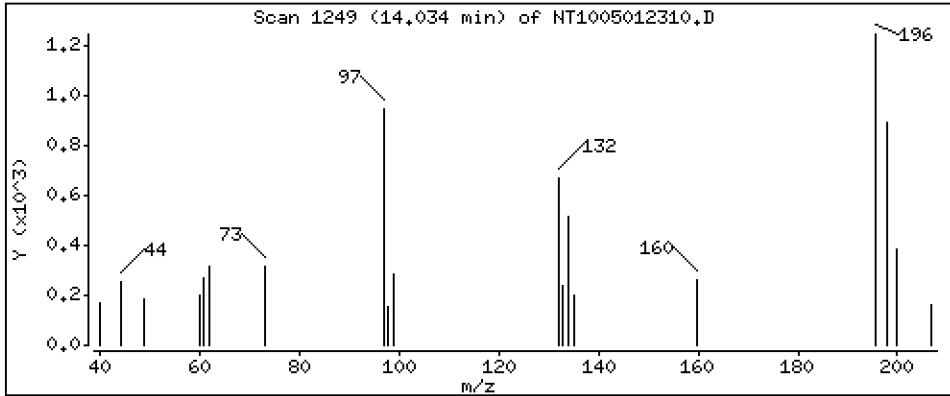
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 0,05856 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

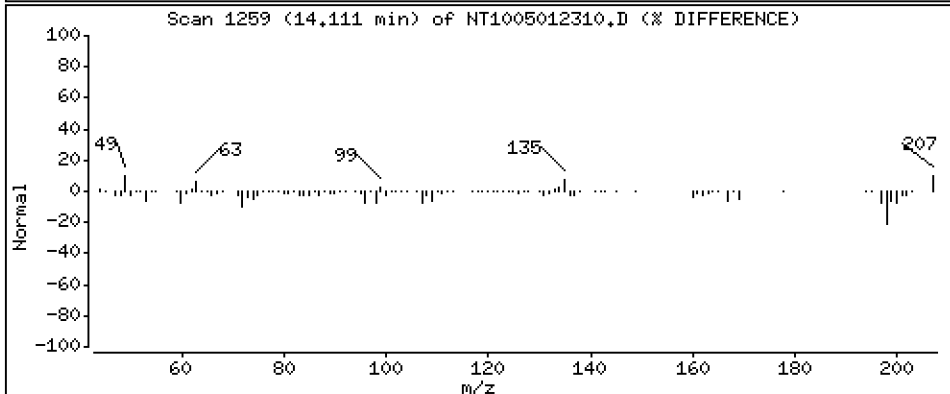
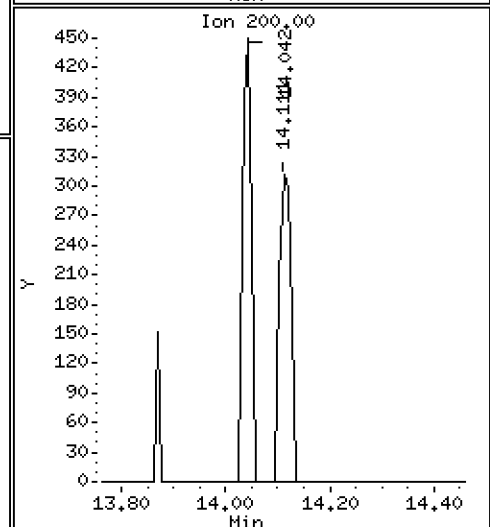
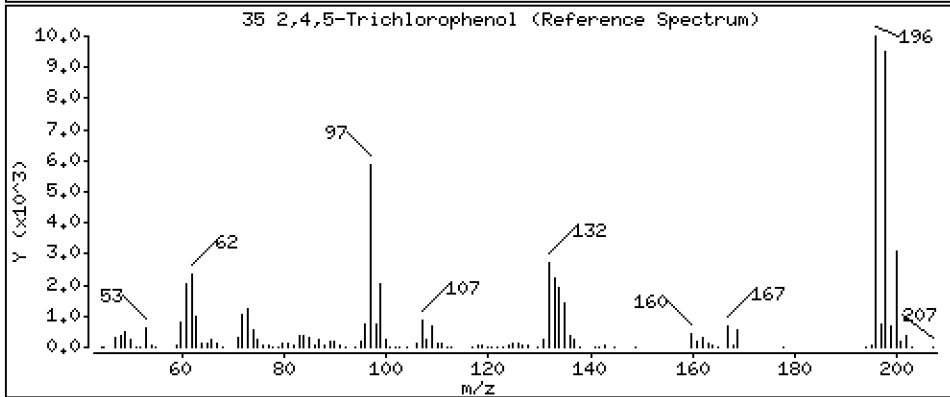
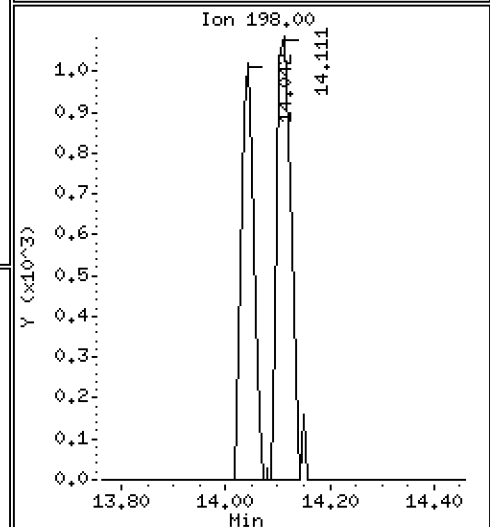
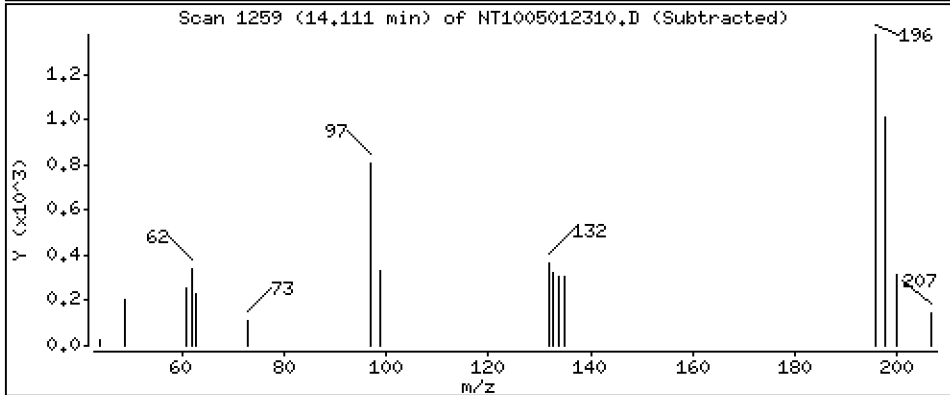
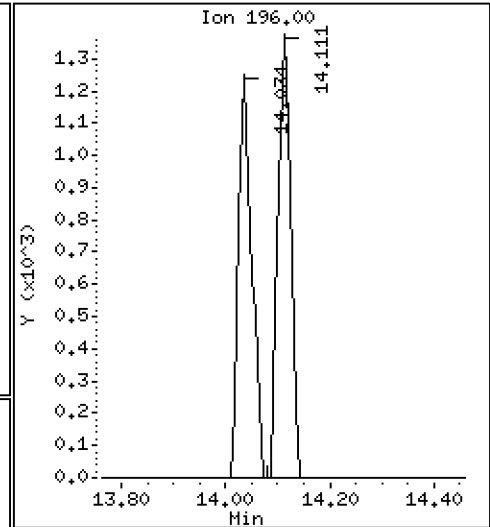
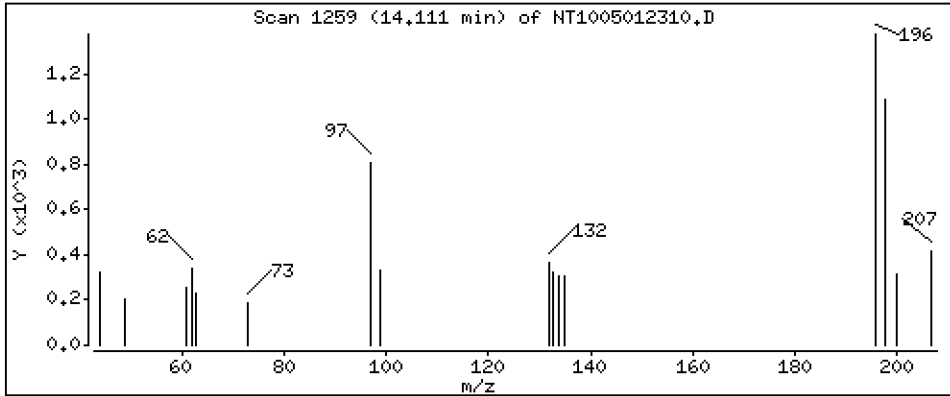
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

35 2,4,5-Trichlorophenol

Concentration: 0.05665 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

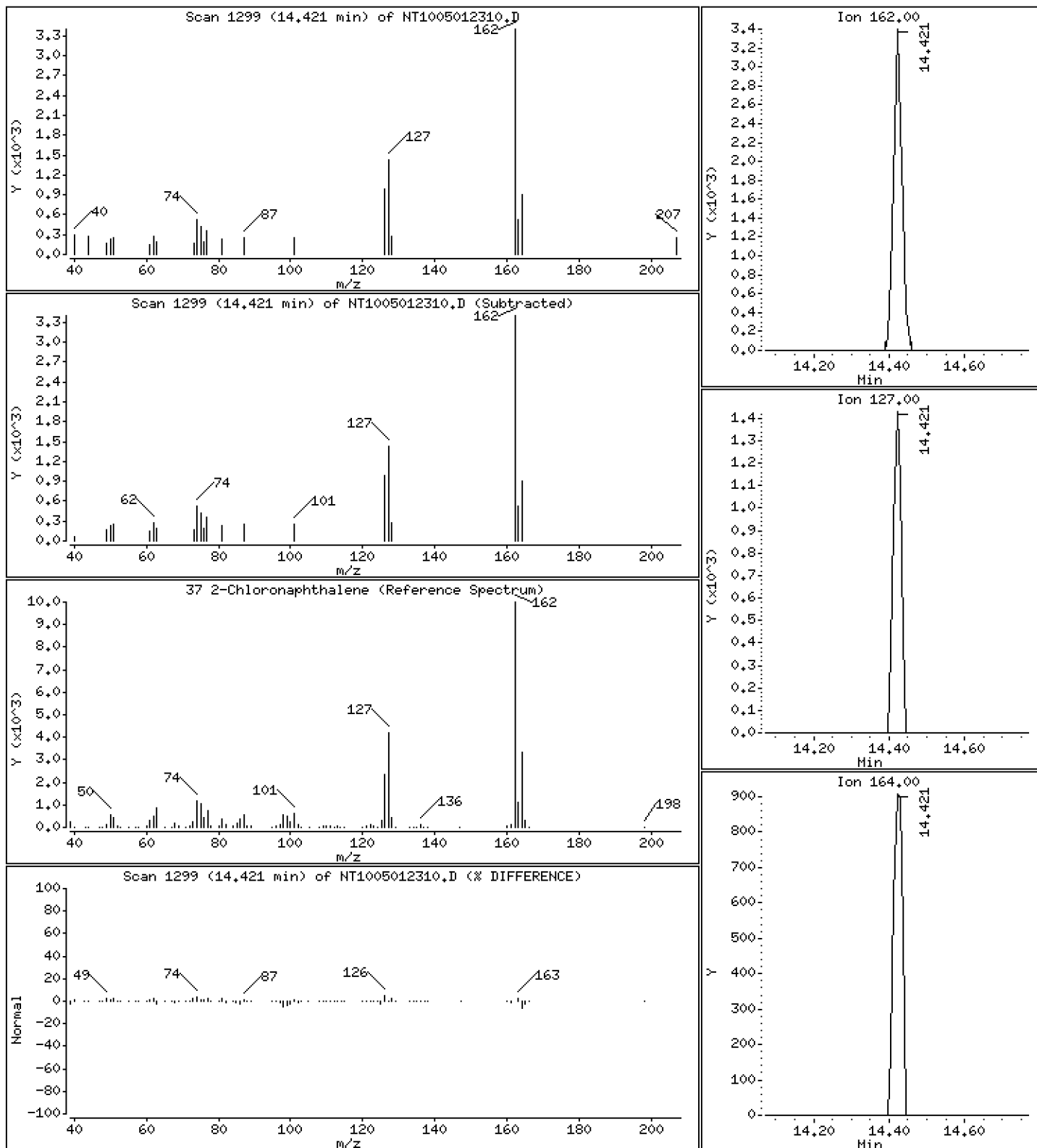
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 0.04959 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

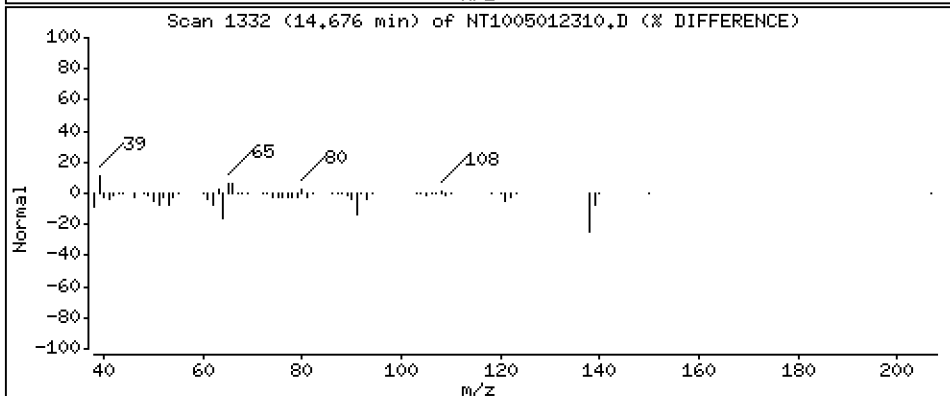
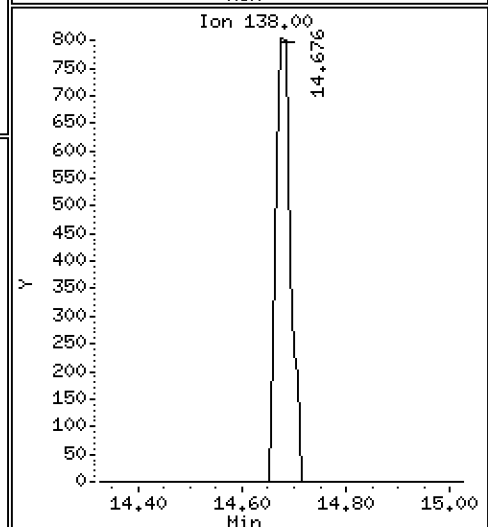
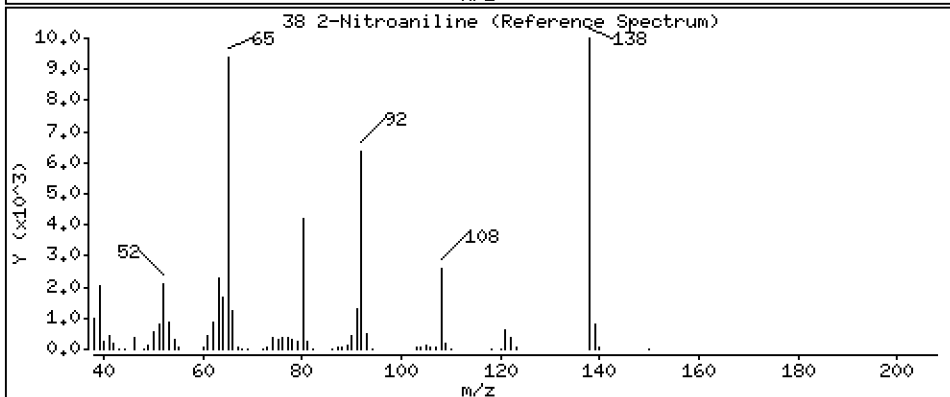
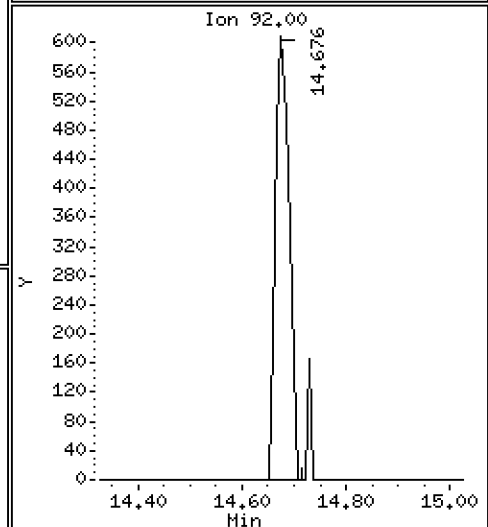
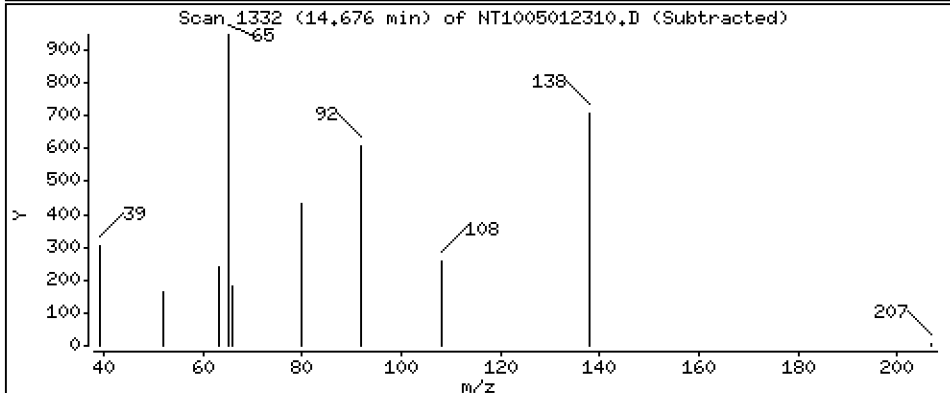
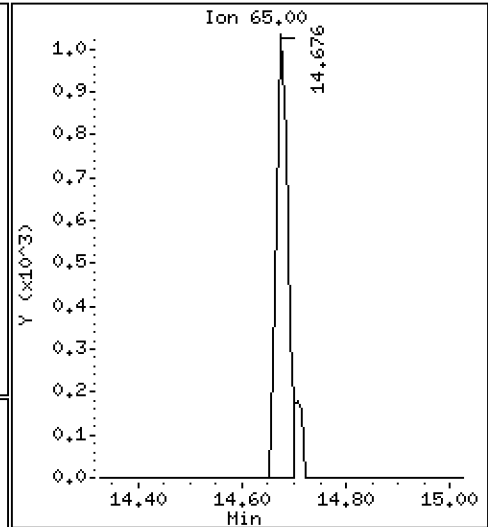
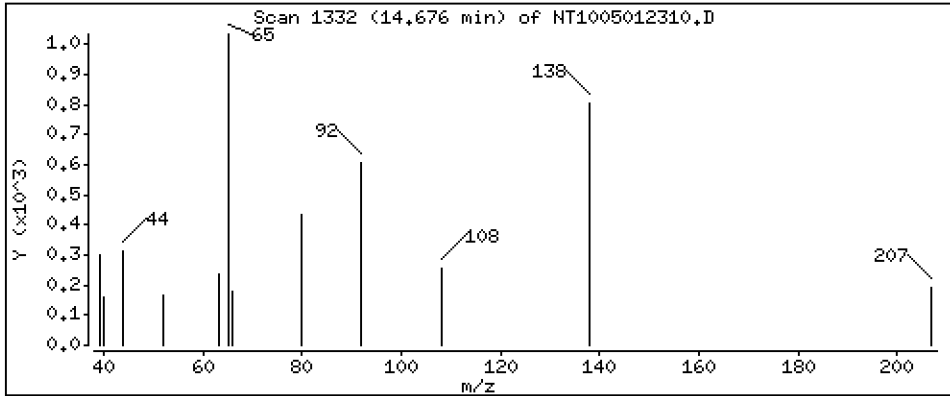
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 0.05129 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

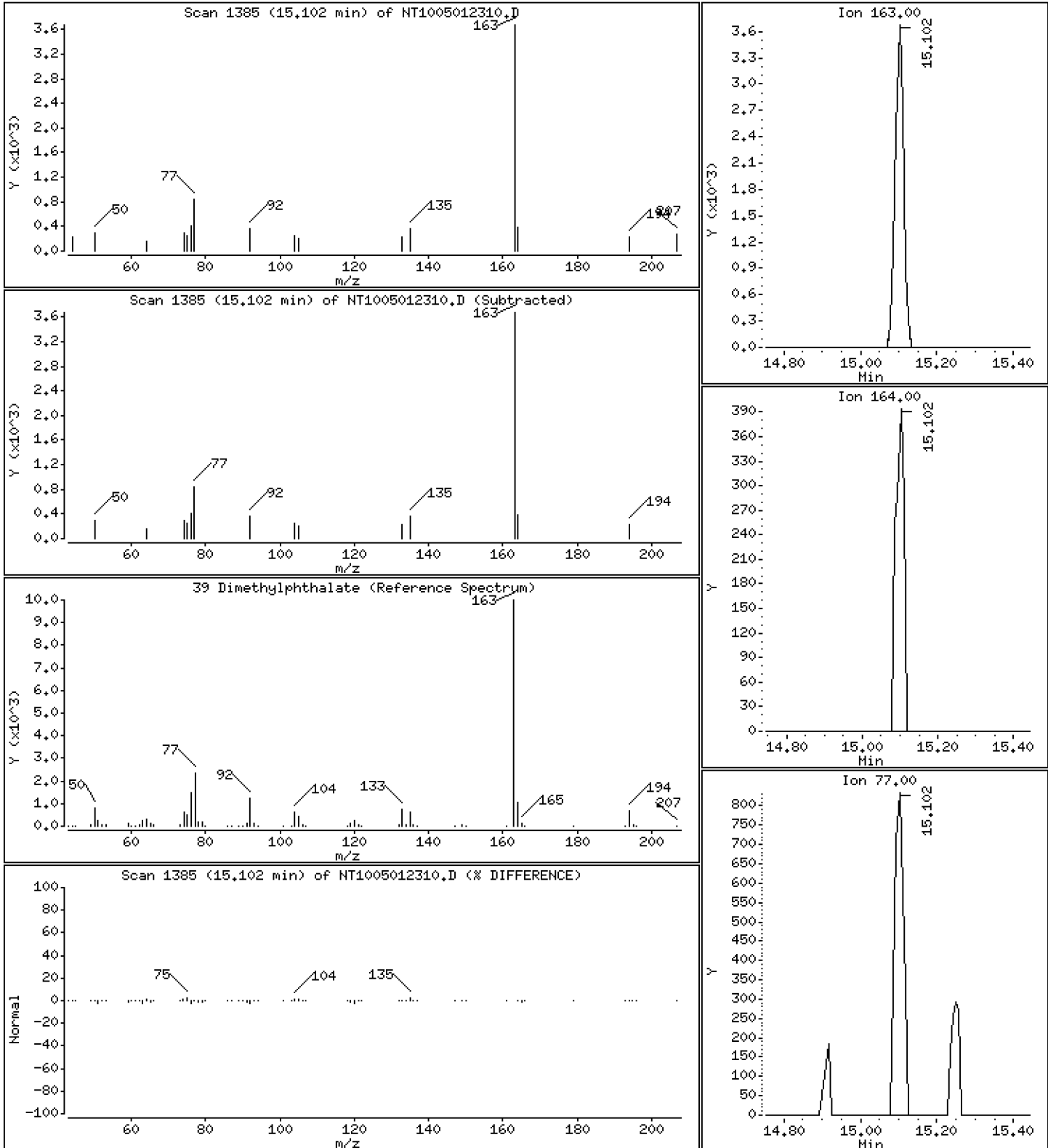
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,04723 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

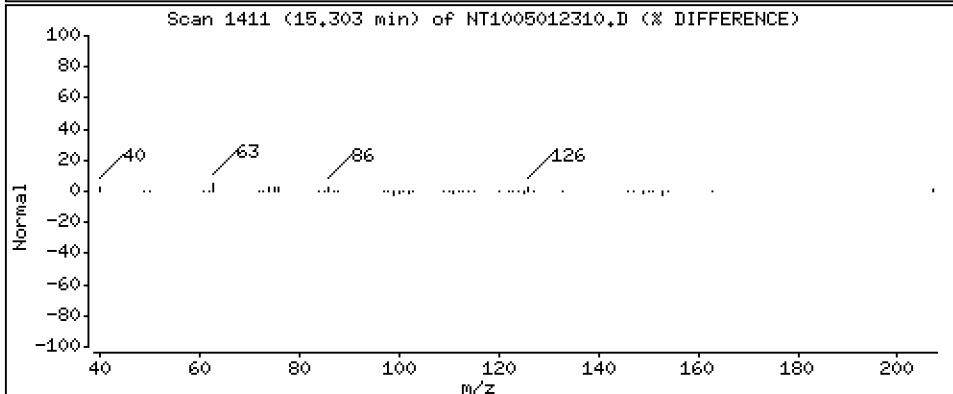
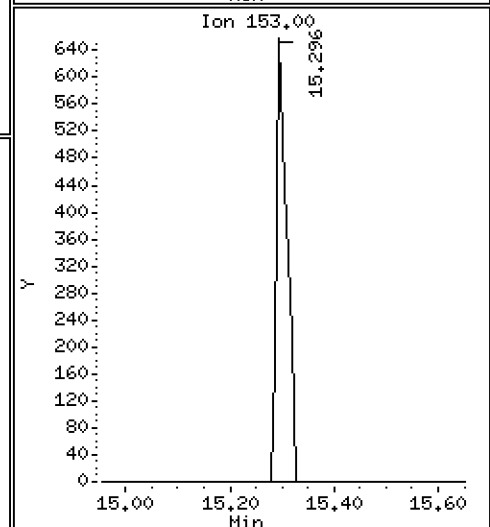
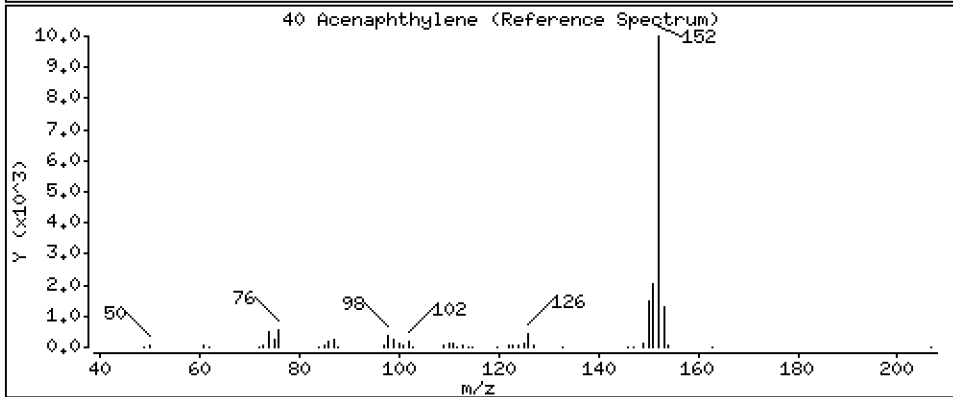
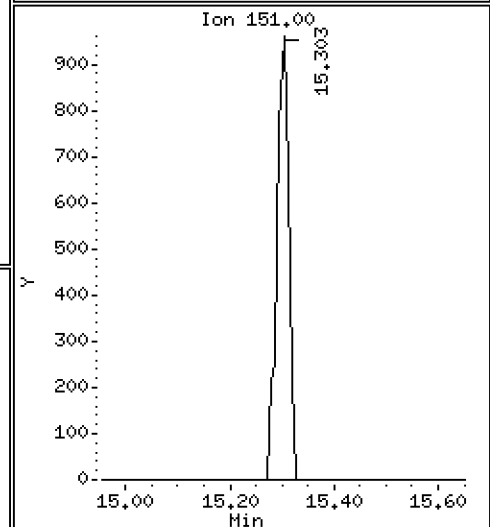
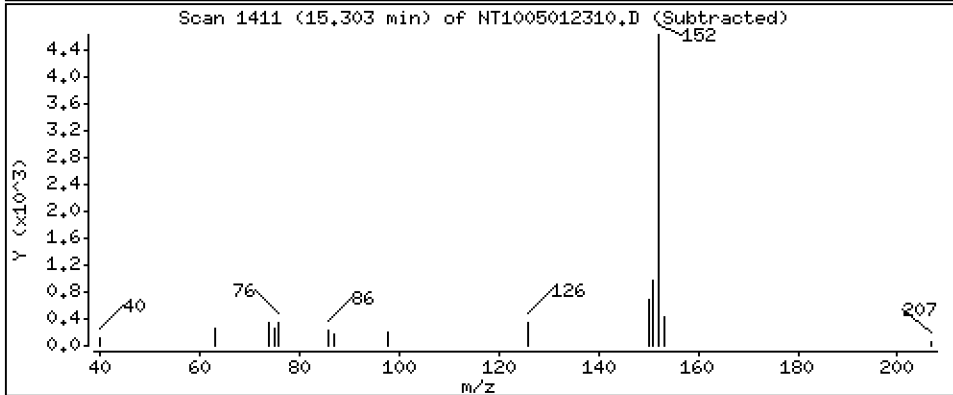
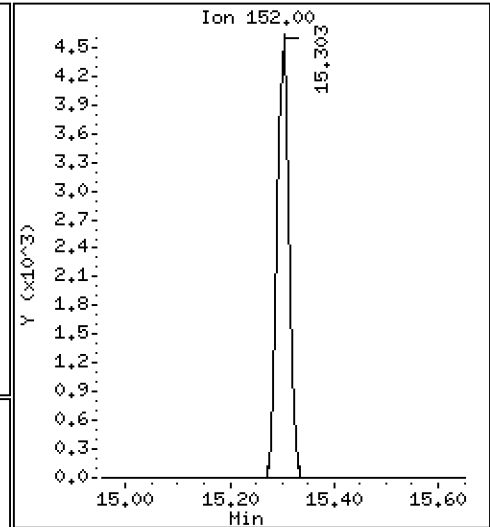
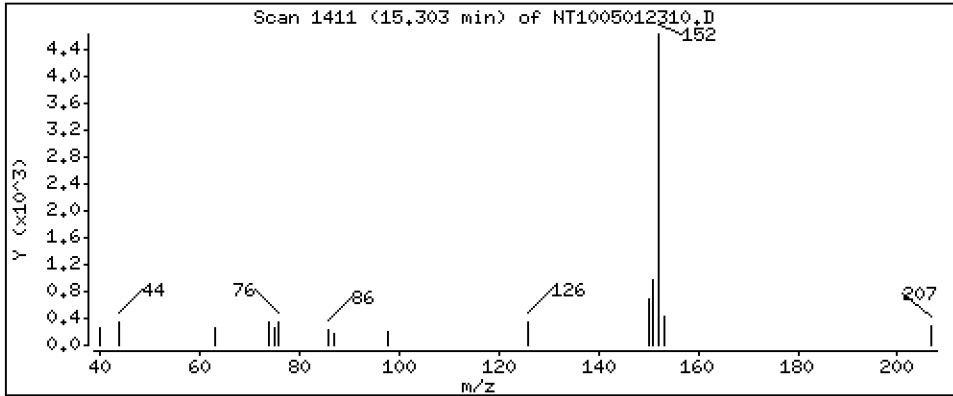
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,04342 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

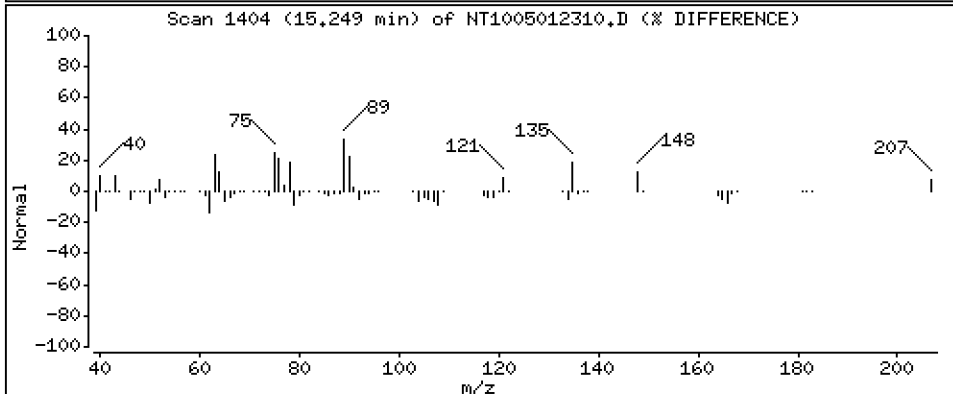
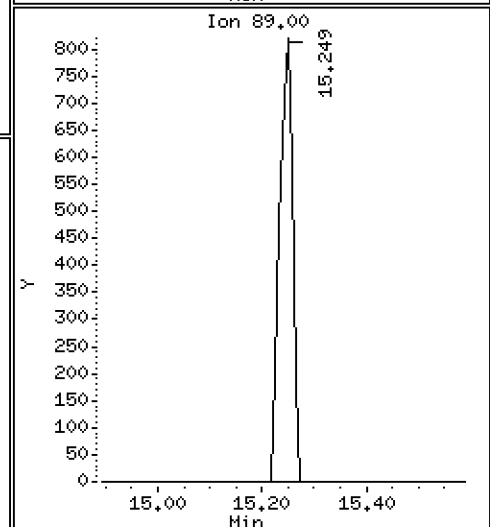
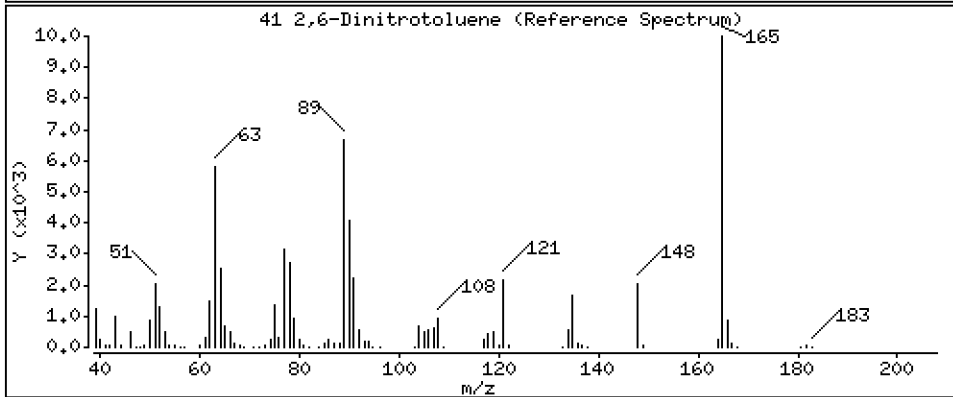
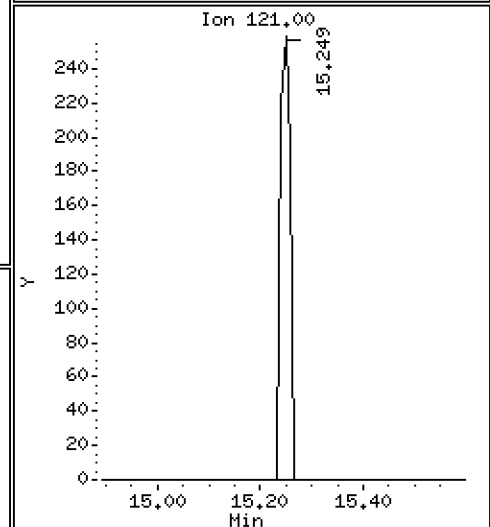
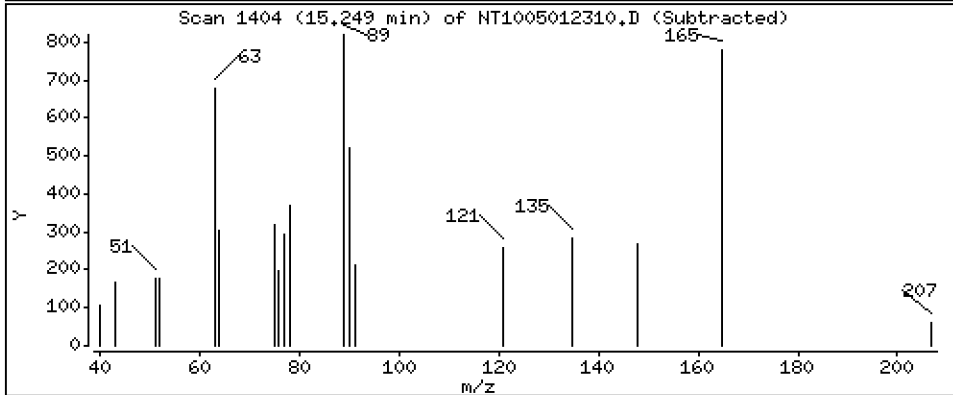
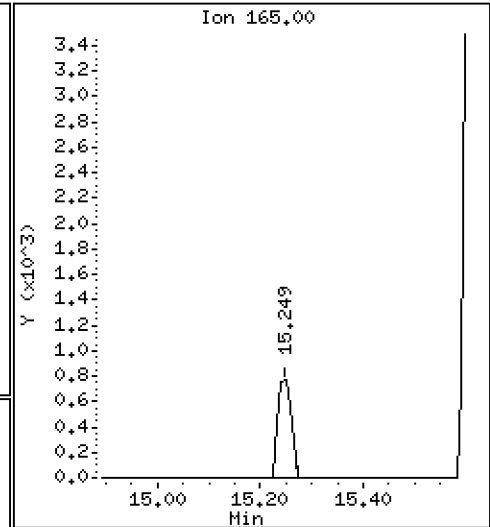
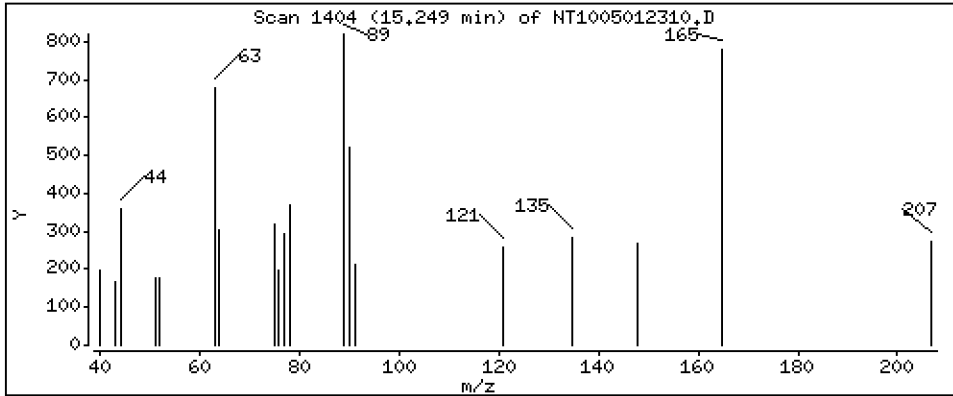
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 0.05099 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

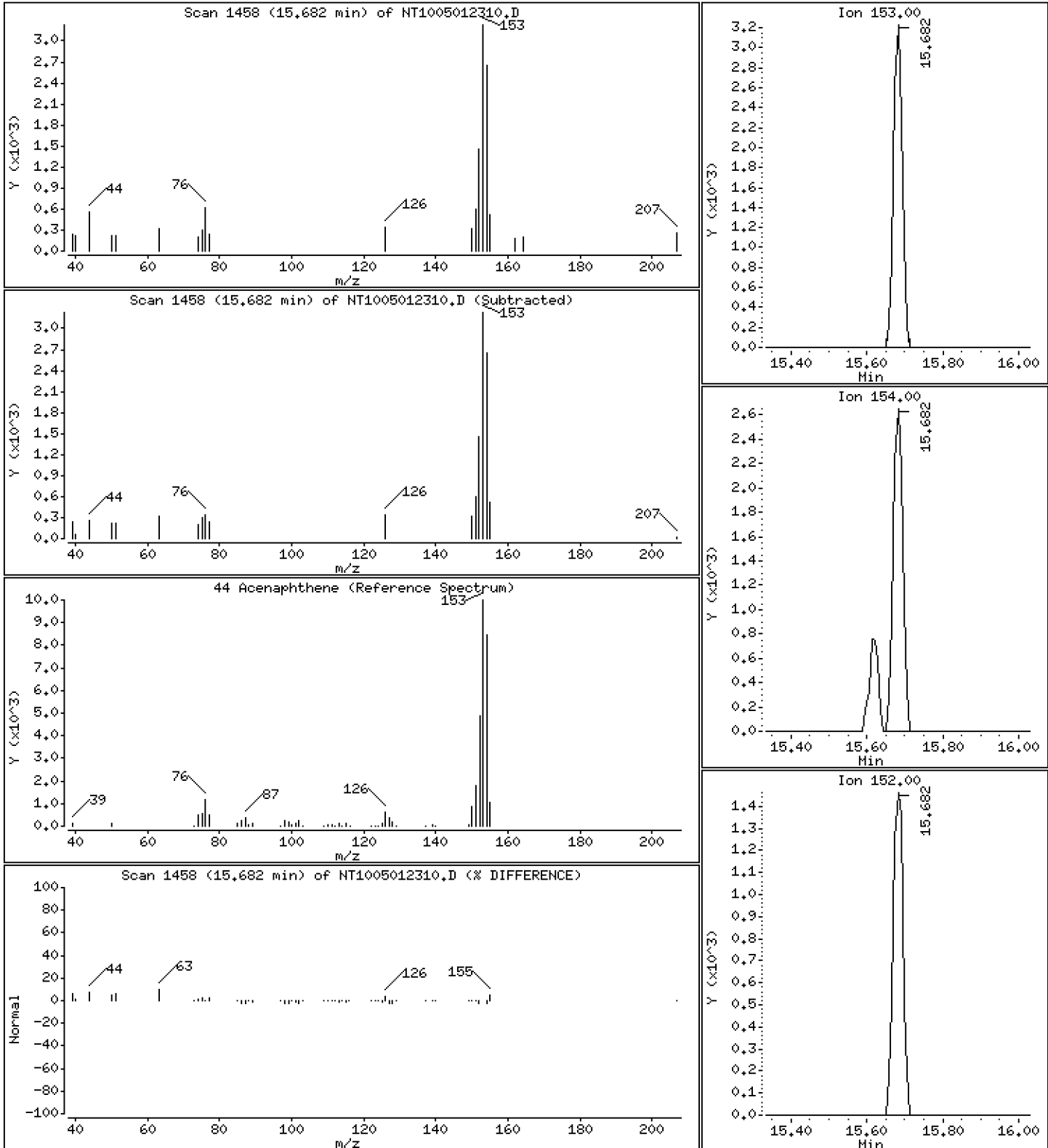
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,04893 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

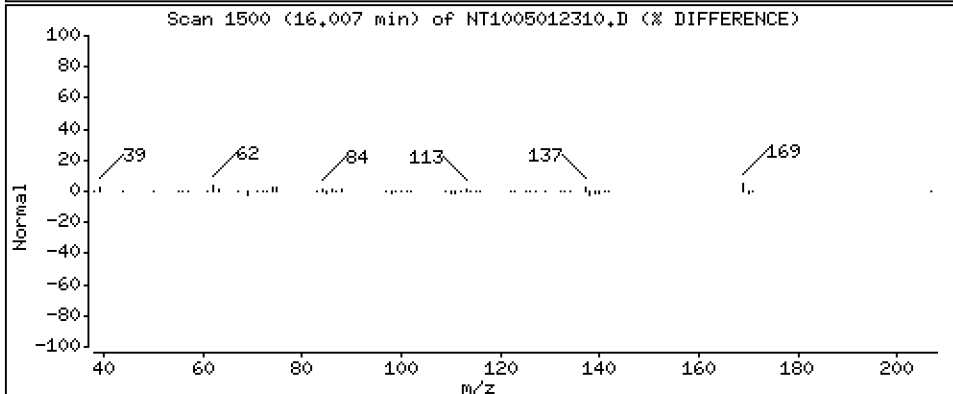
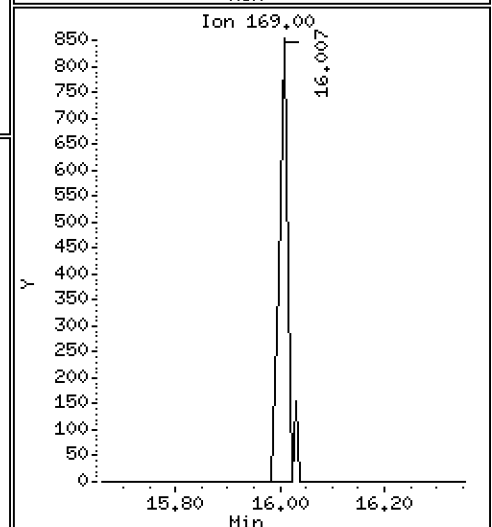
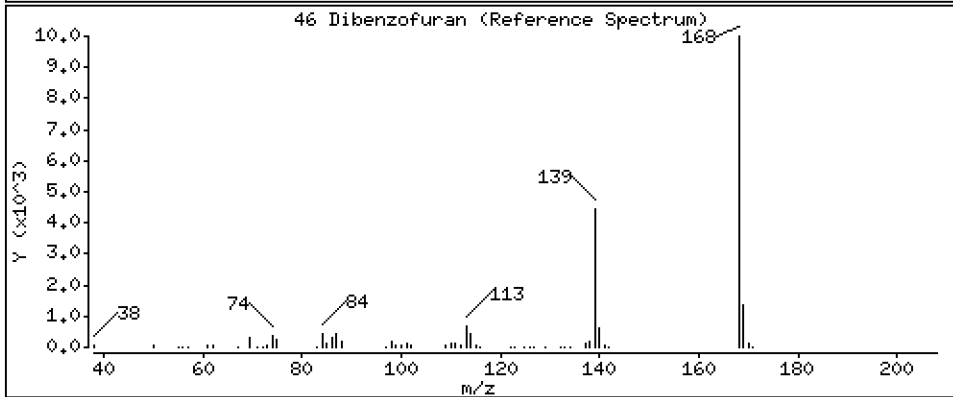
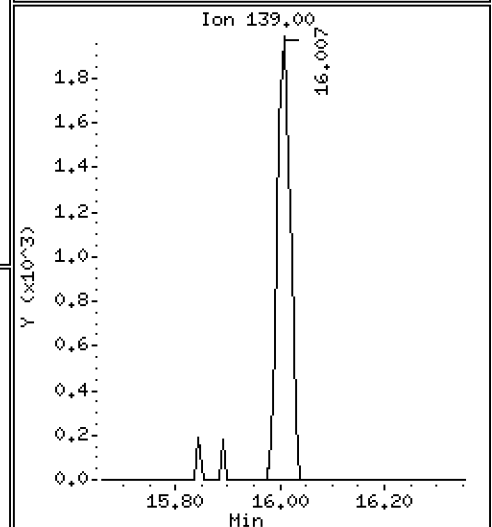
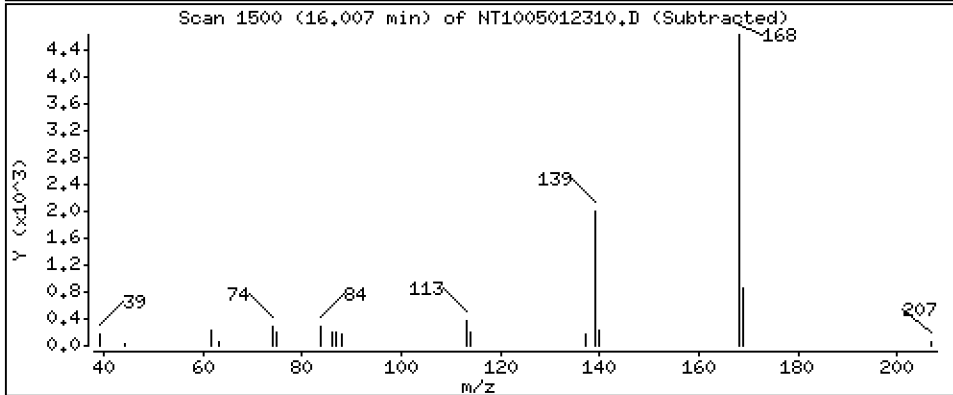
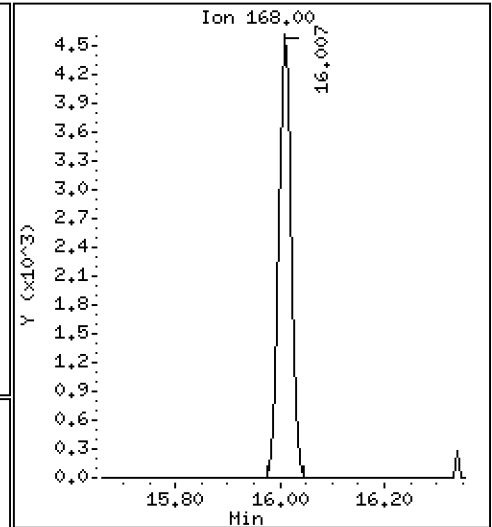
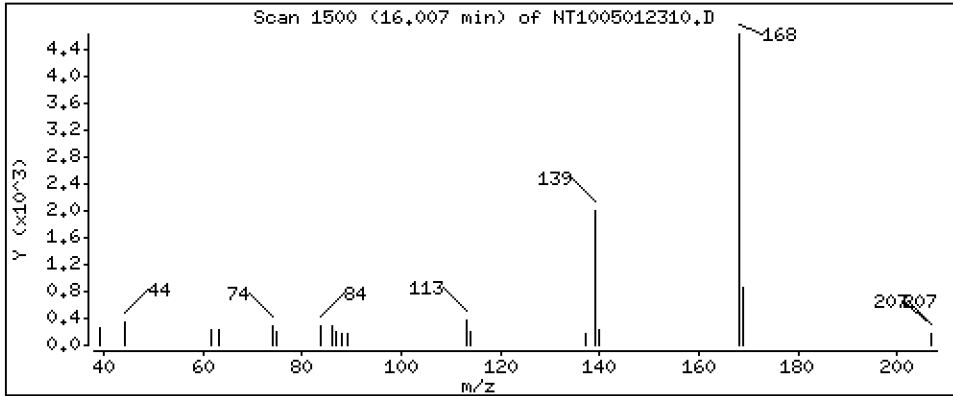
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

46 Dibenzofuran

Concentration: 0.04966 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

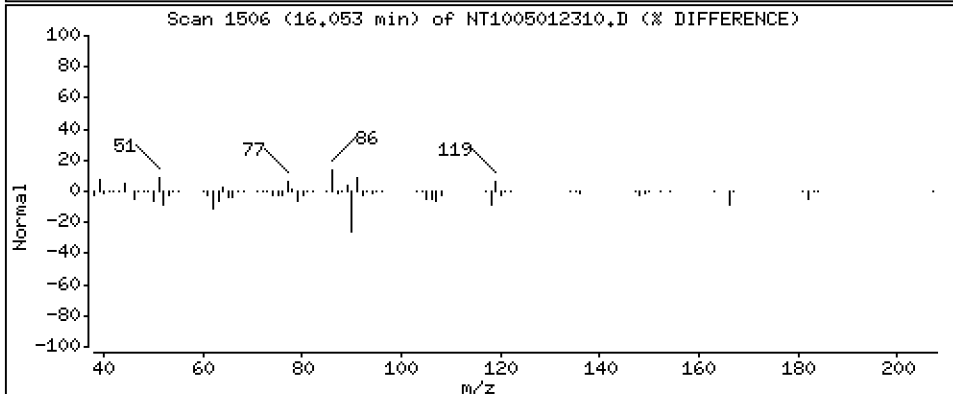
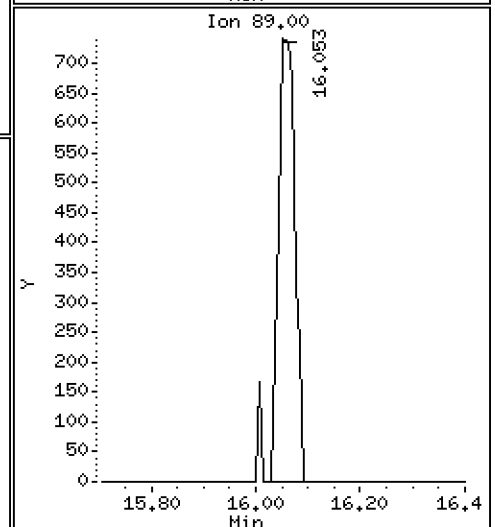
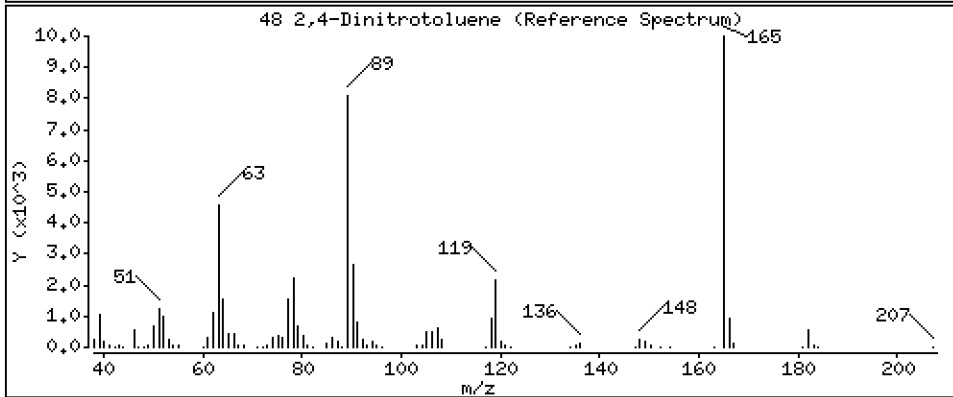
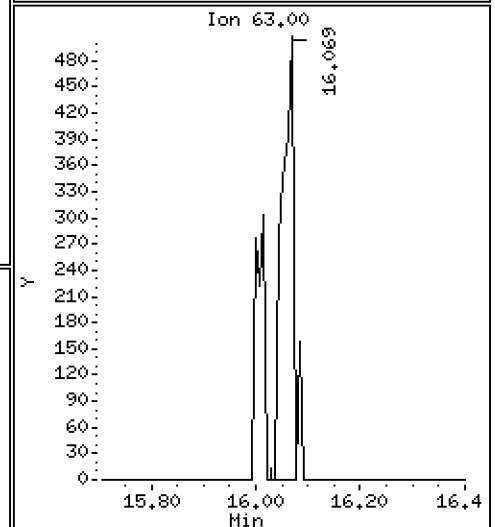
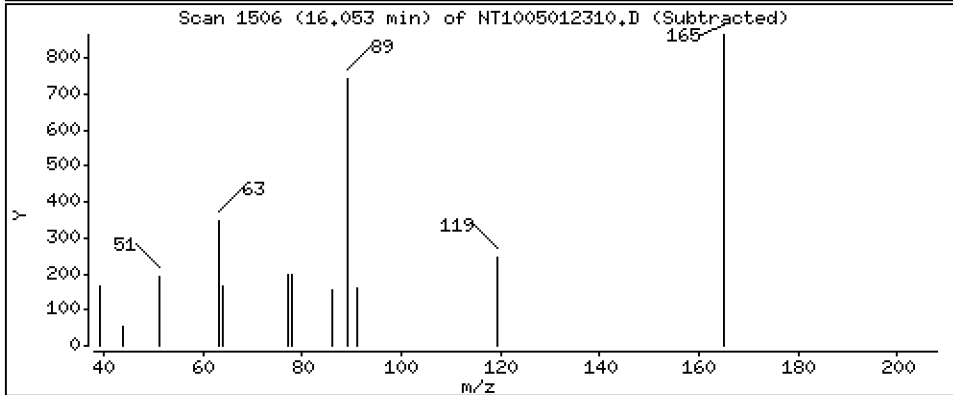
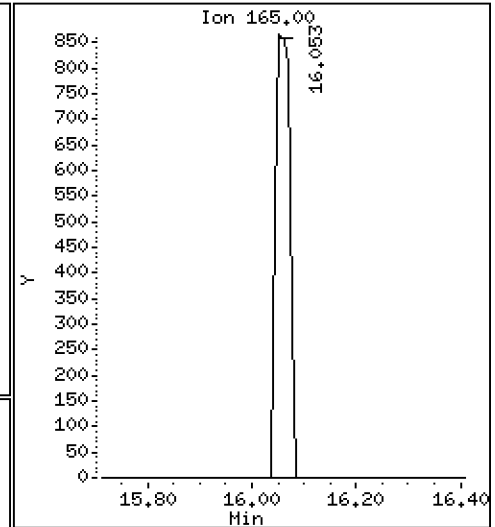
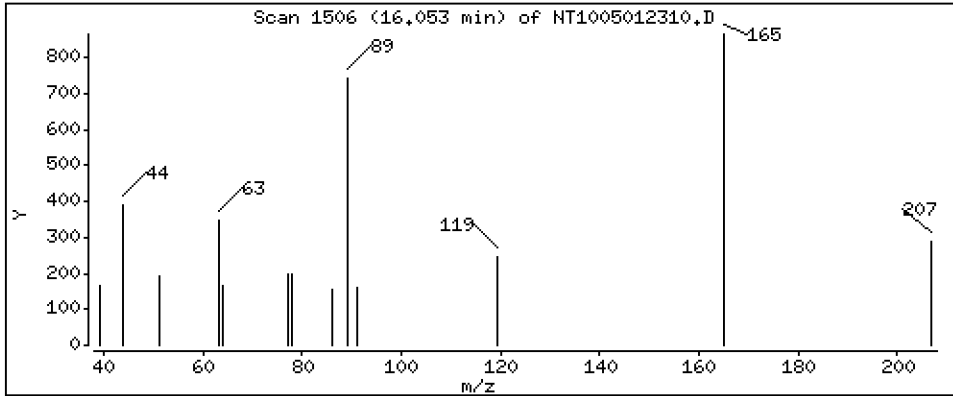
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 0,04297 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

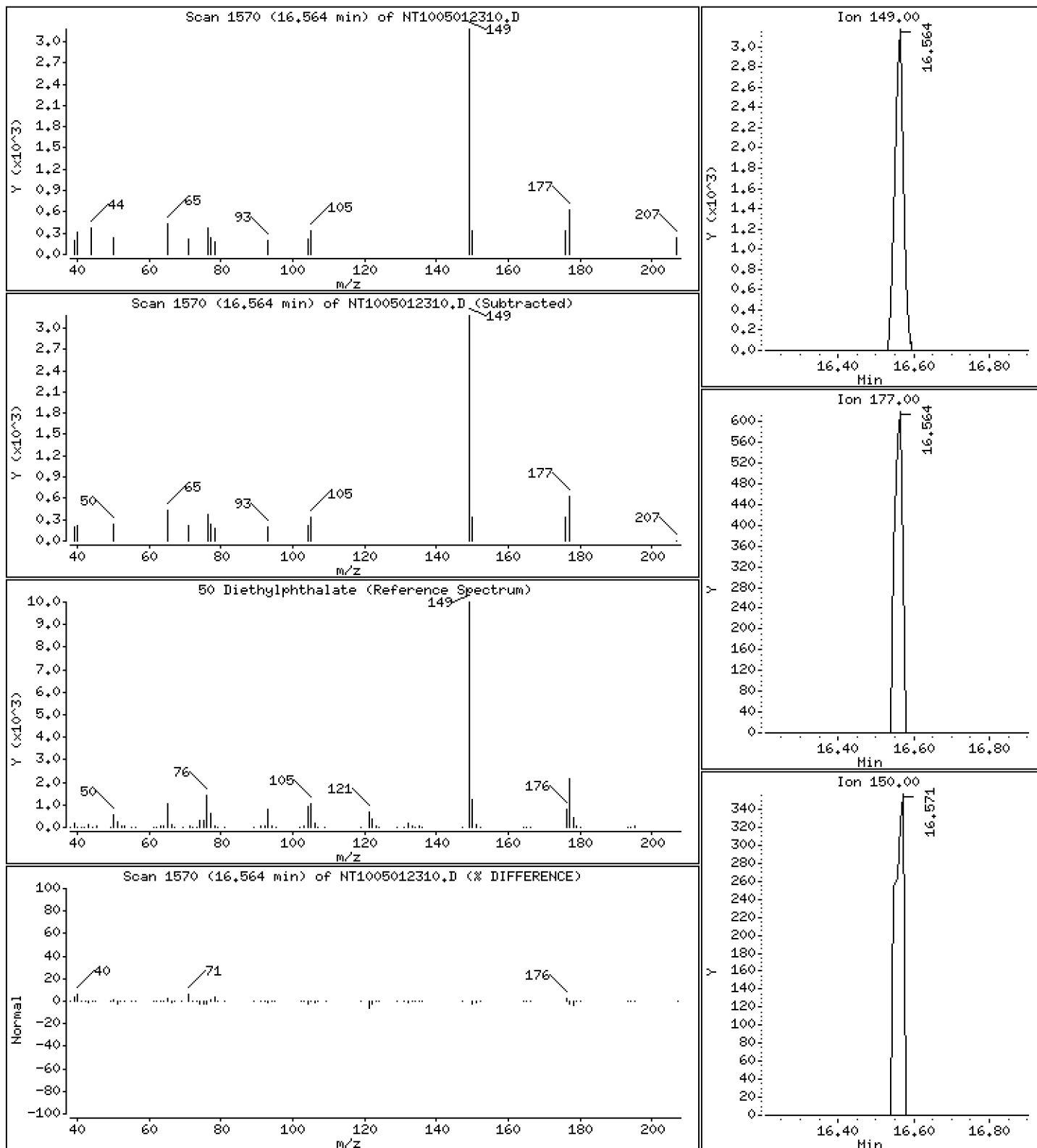
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.04128 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

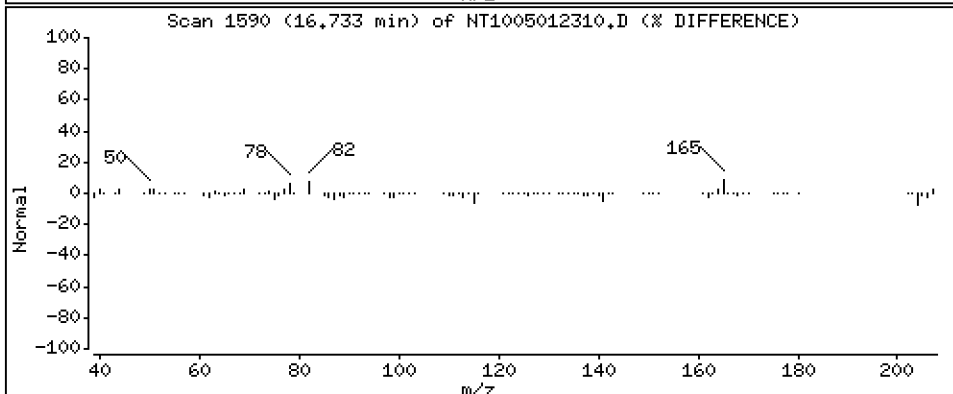
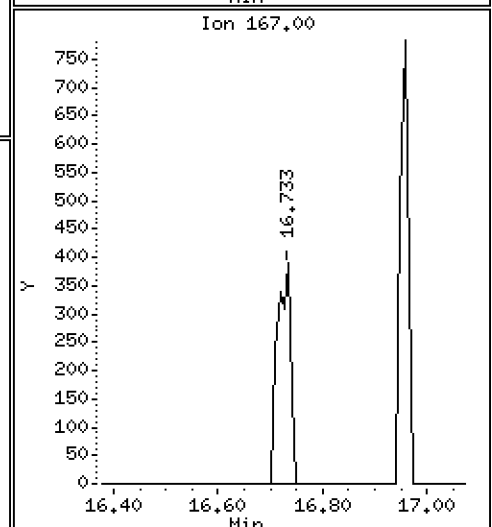
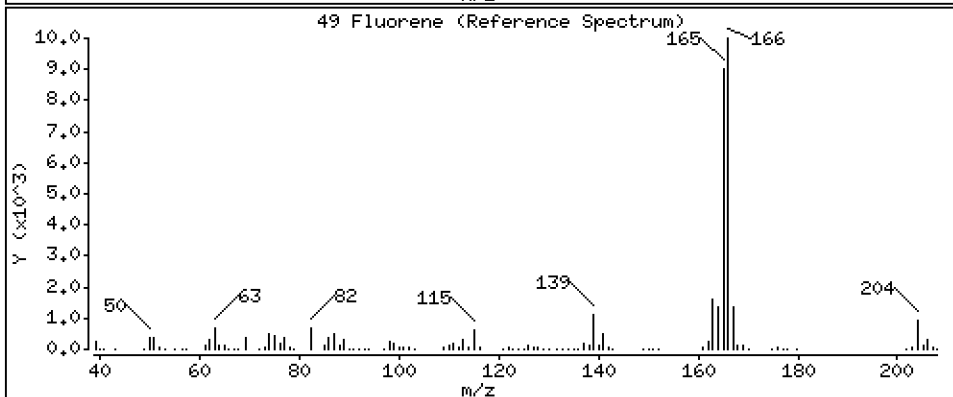
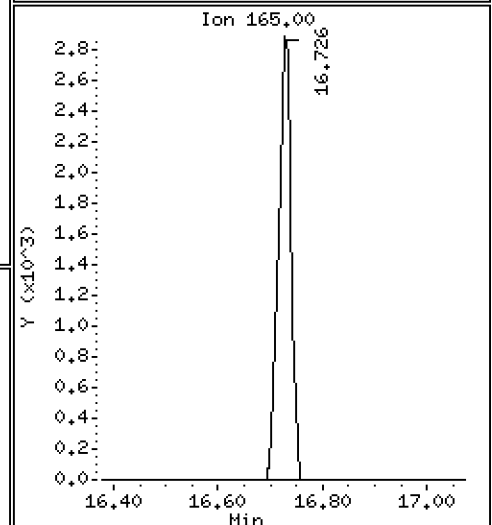
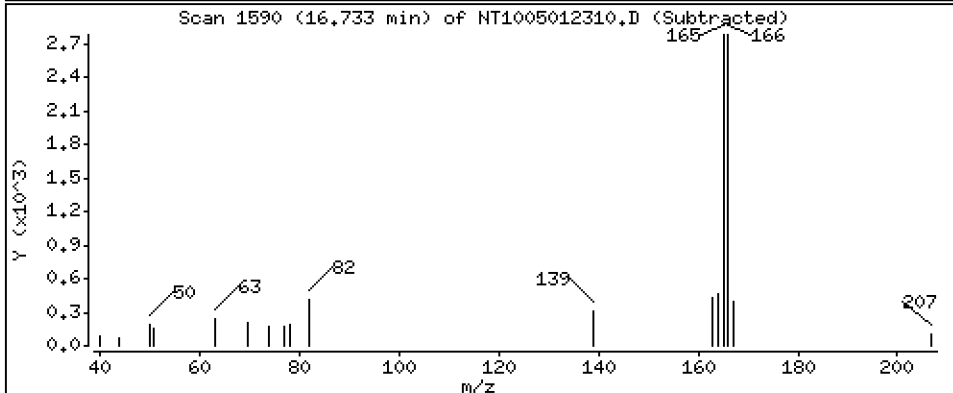
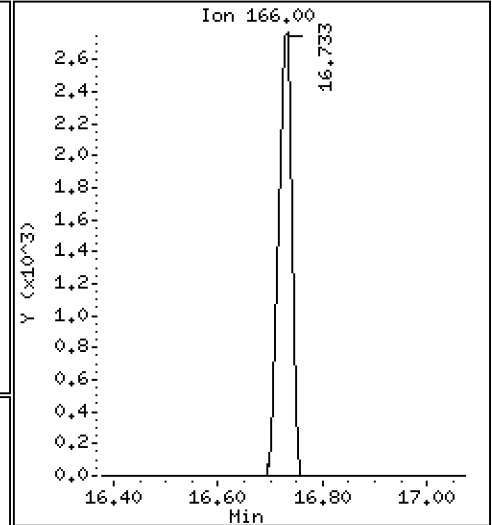
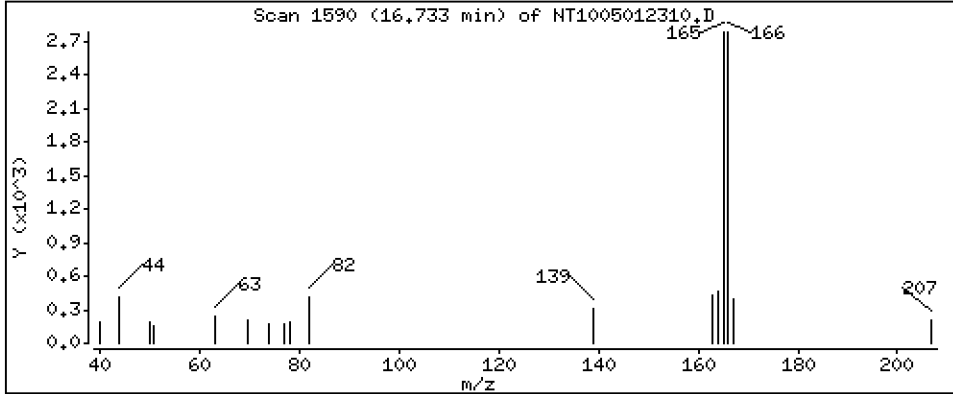
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.04063 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

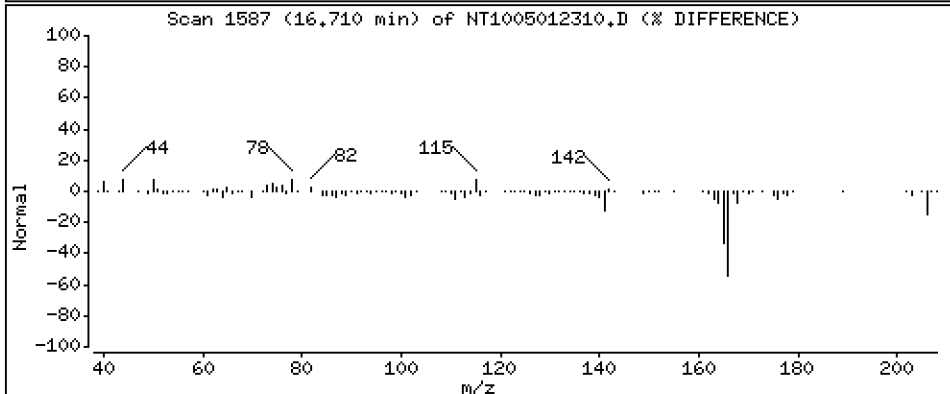
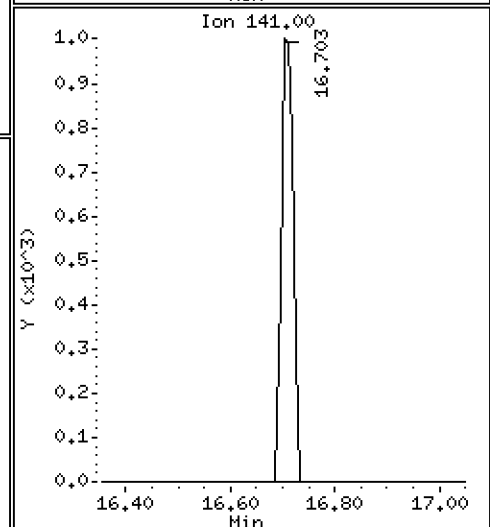
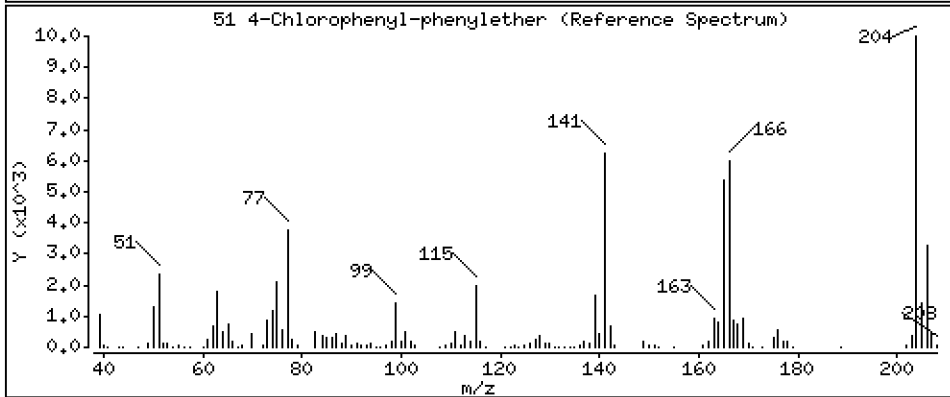
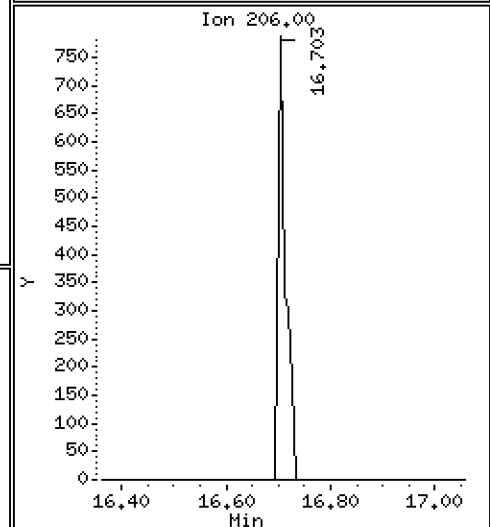
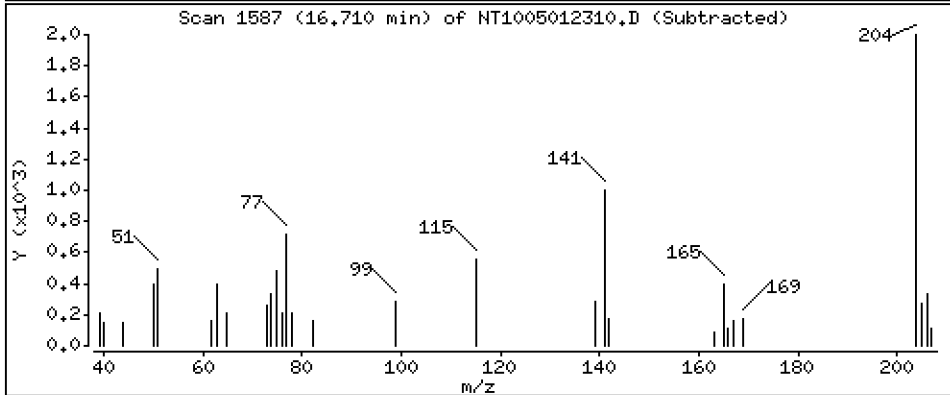
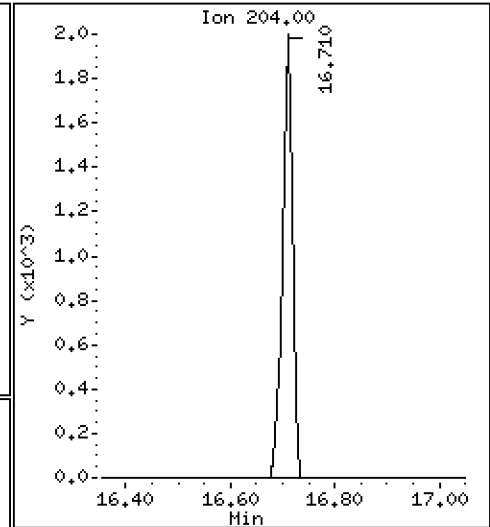
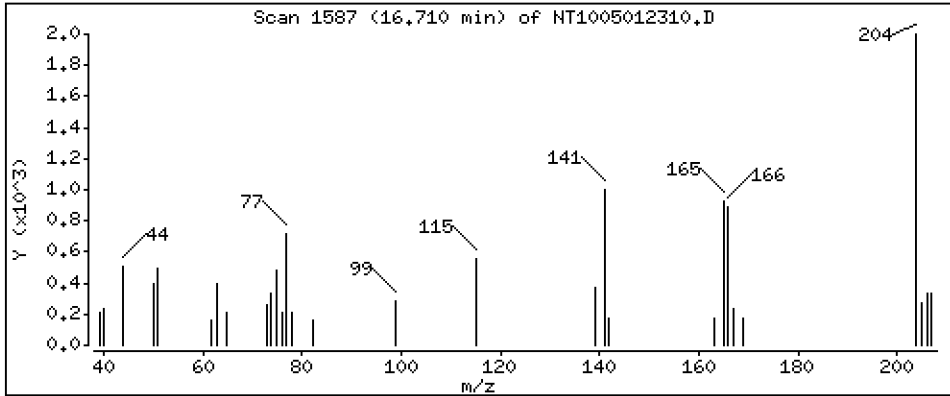
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 0.04519 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

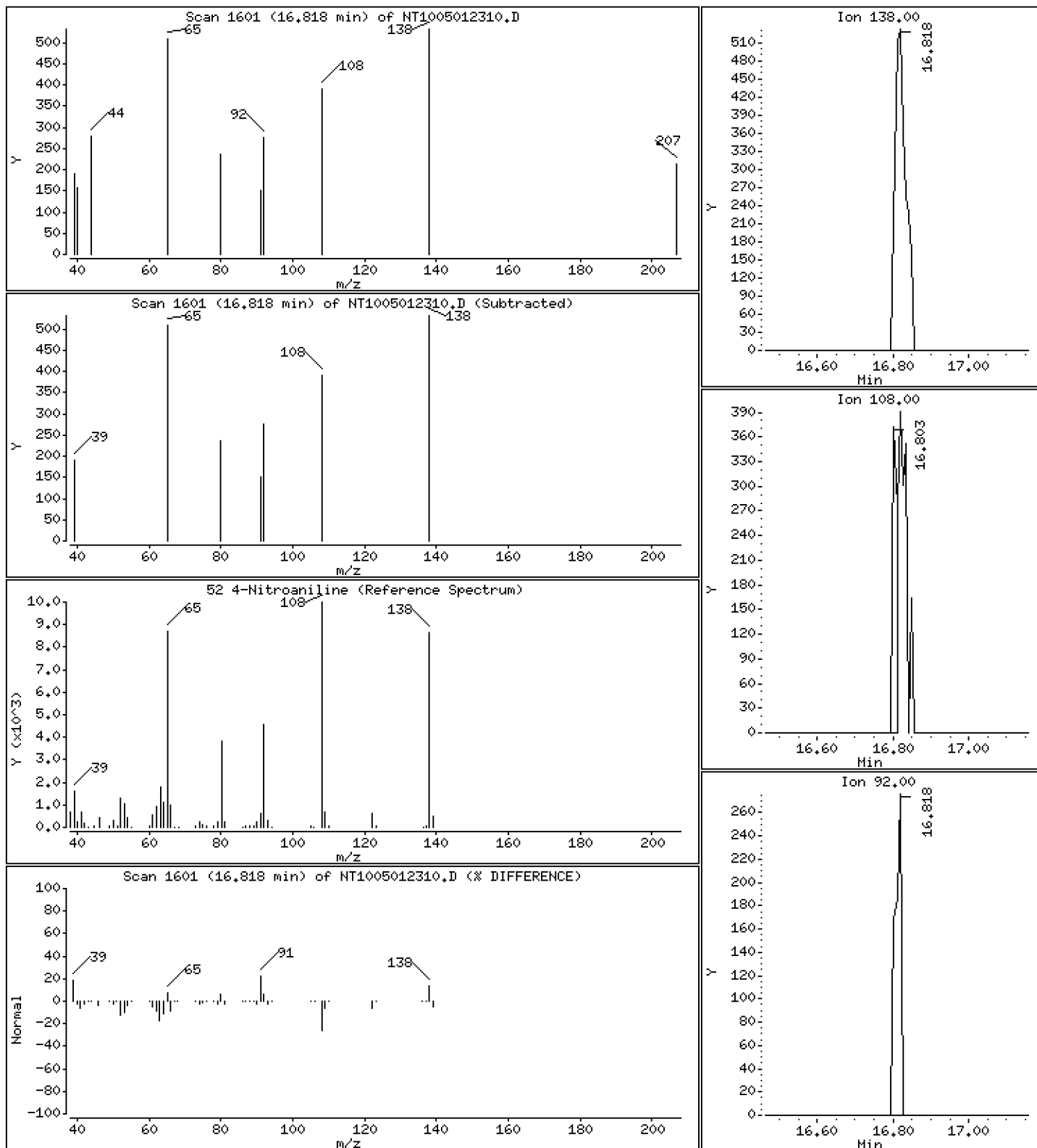
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,04301 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

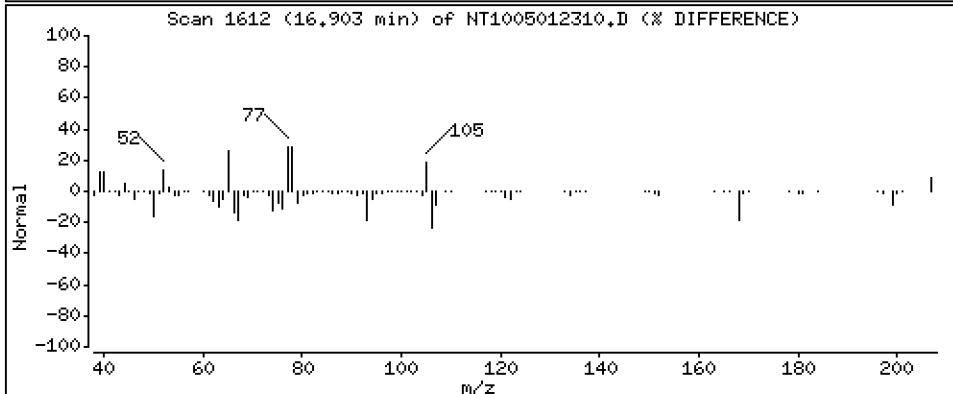
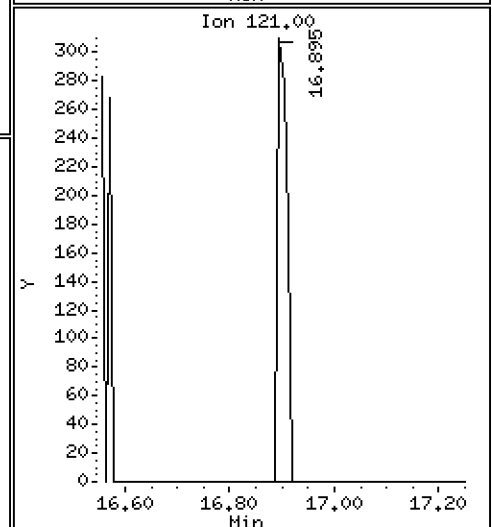
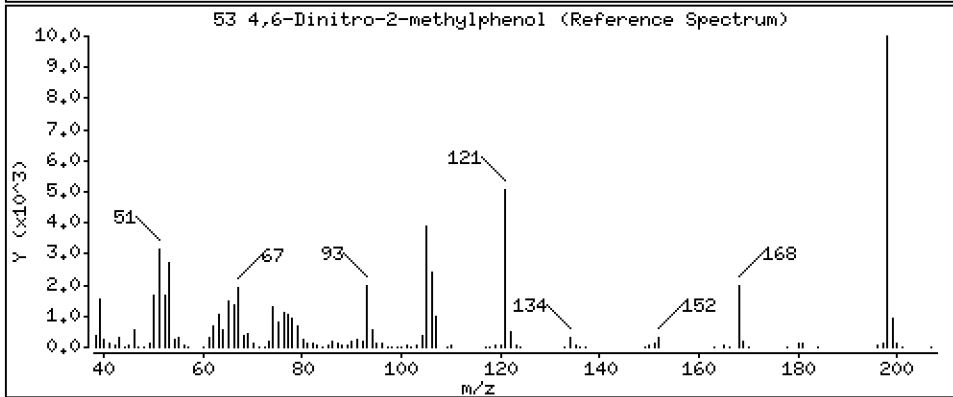
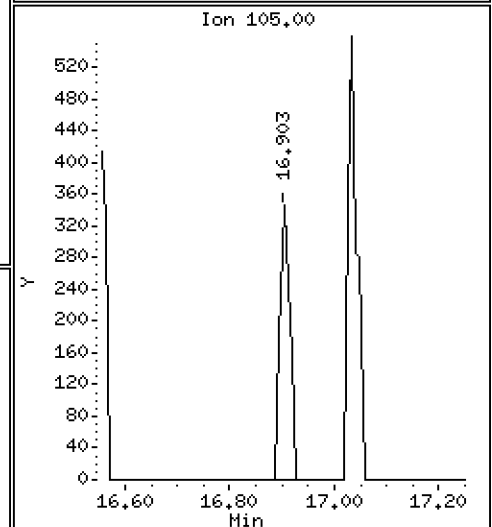
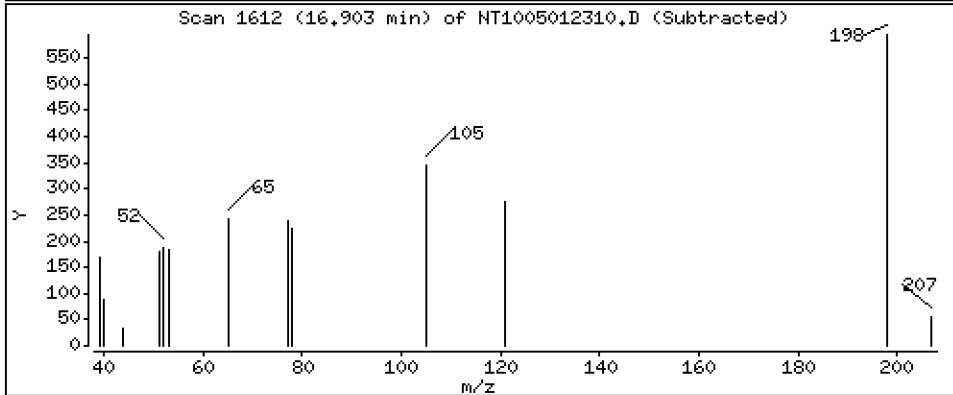
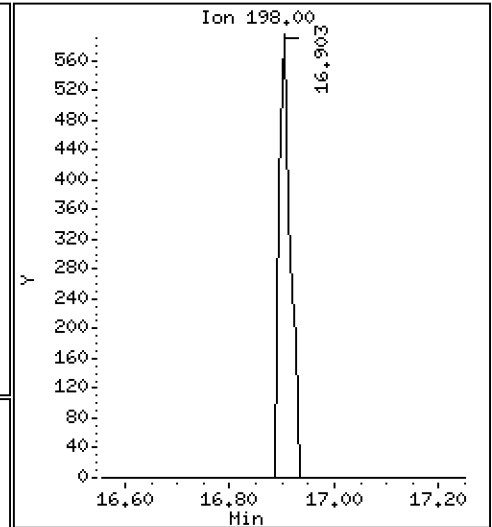
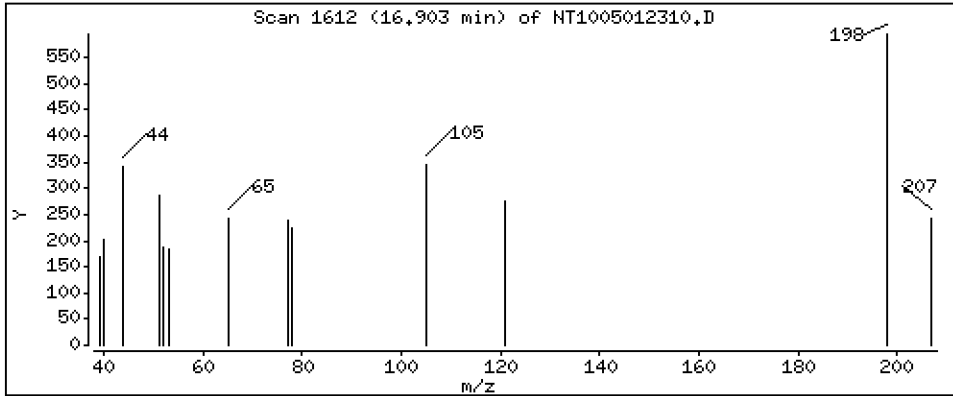
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 0,03962 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

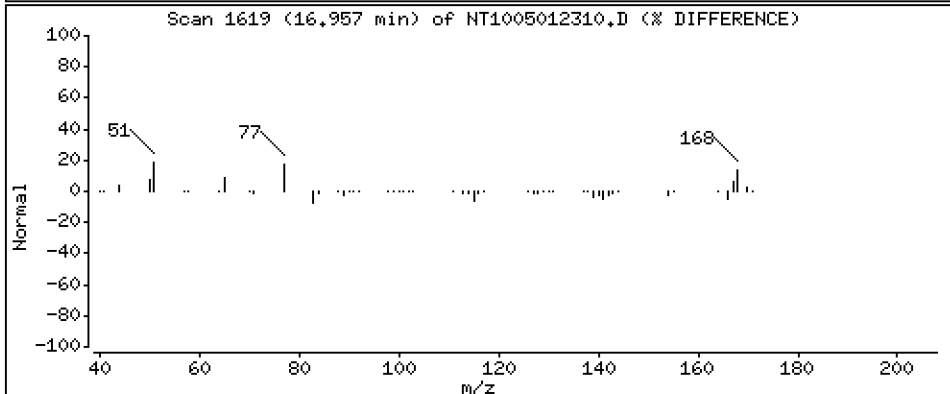
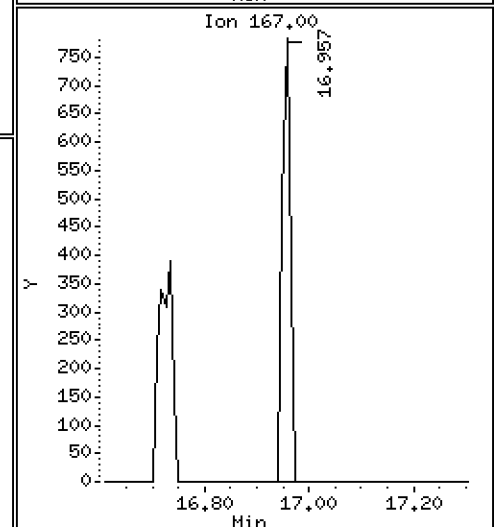
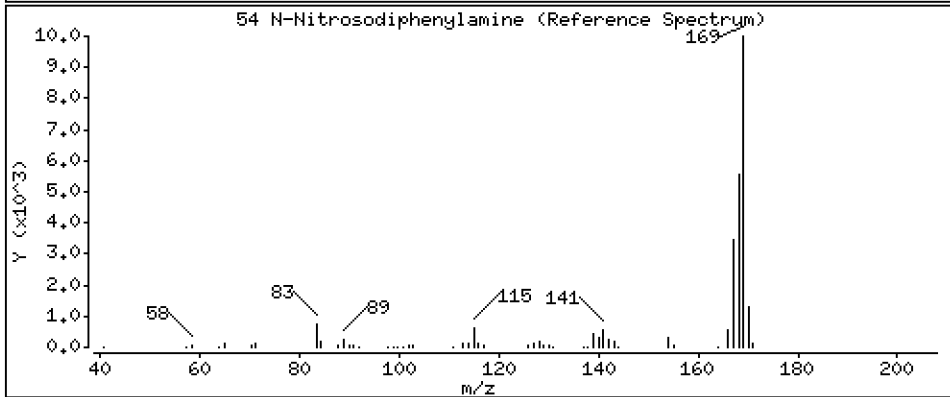
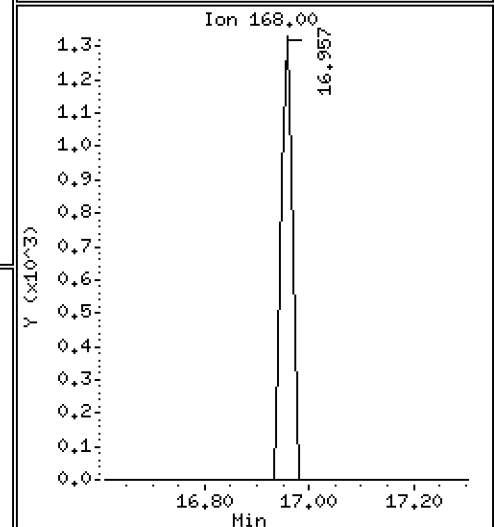
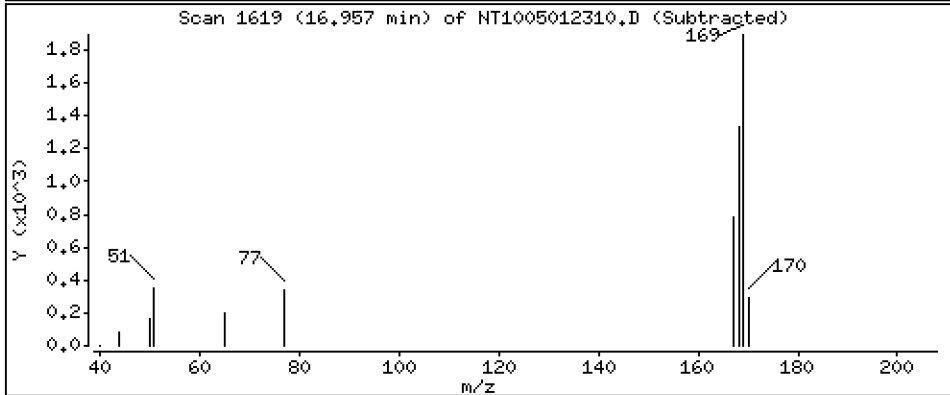
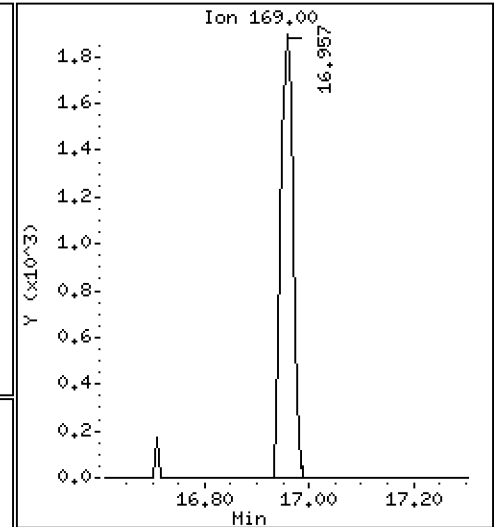
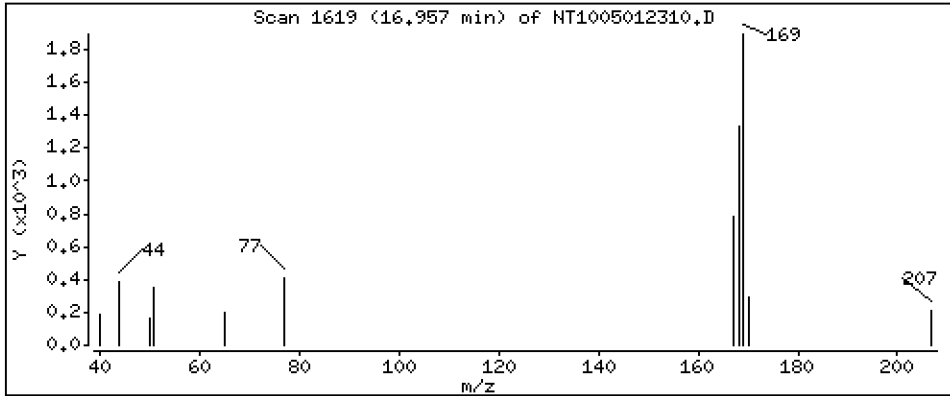
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.04146 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

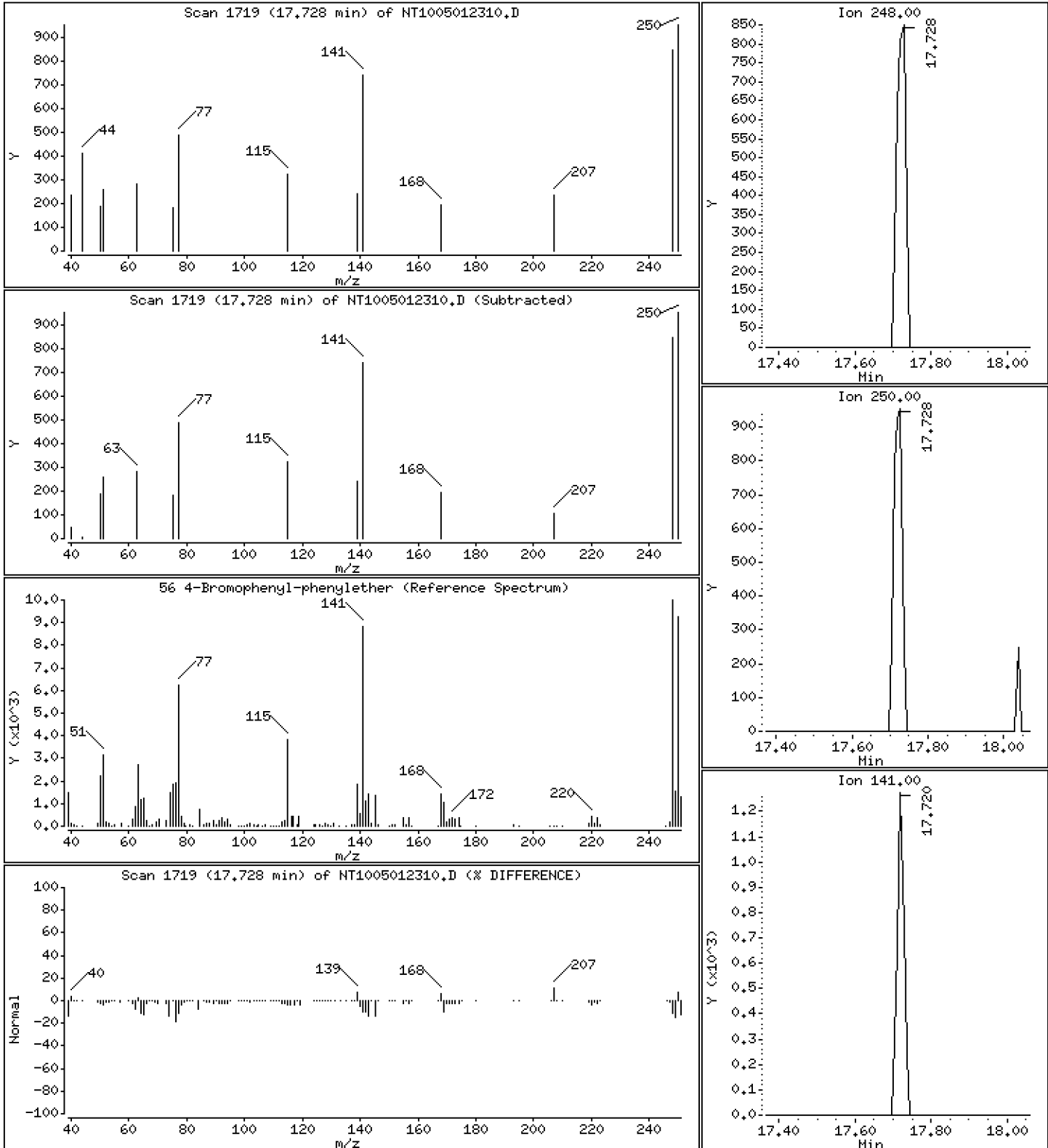
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,04030 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

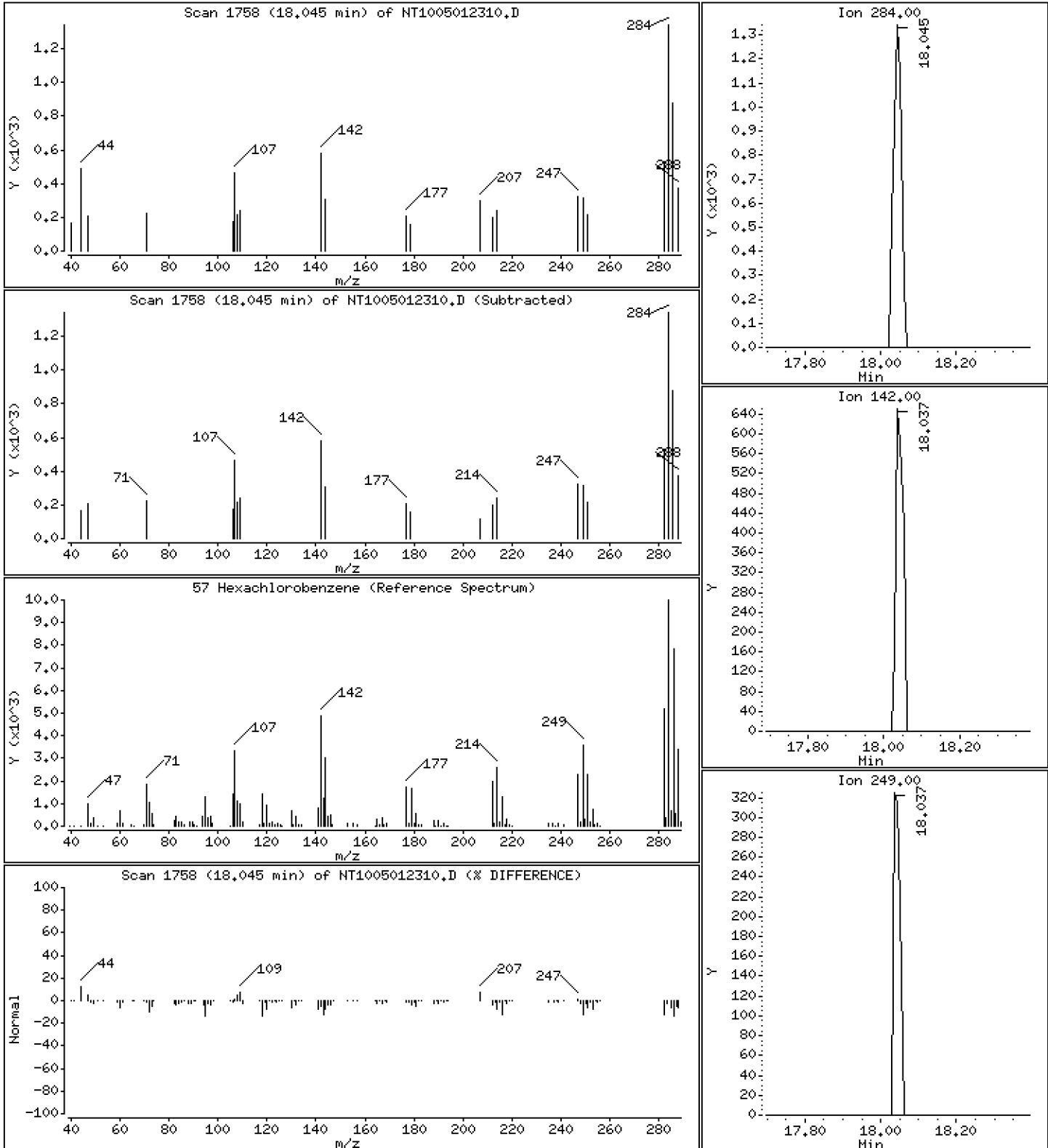
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,05862 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

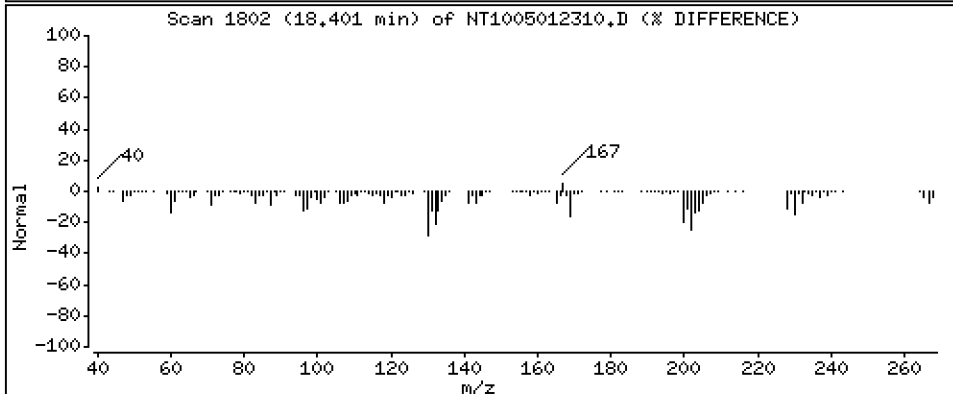
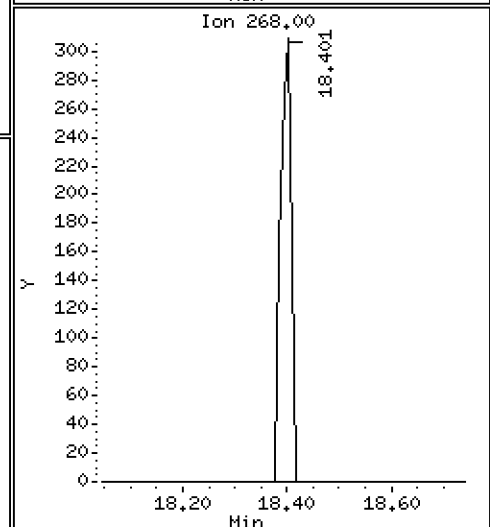
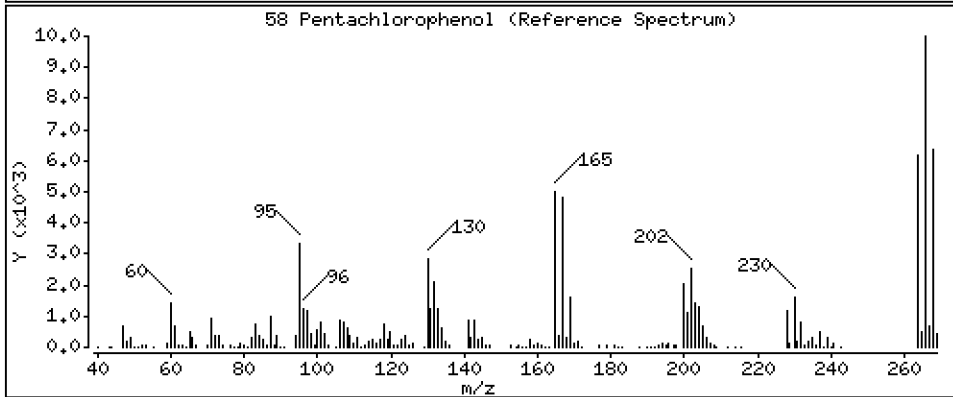
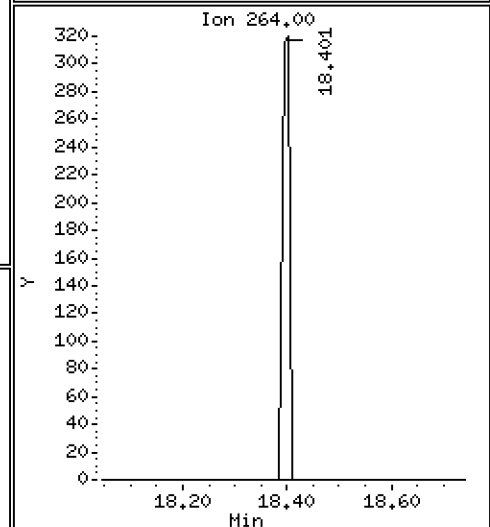
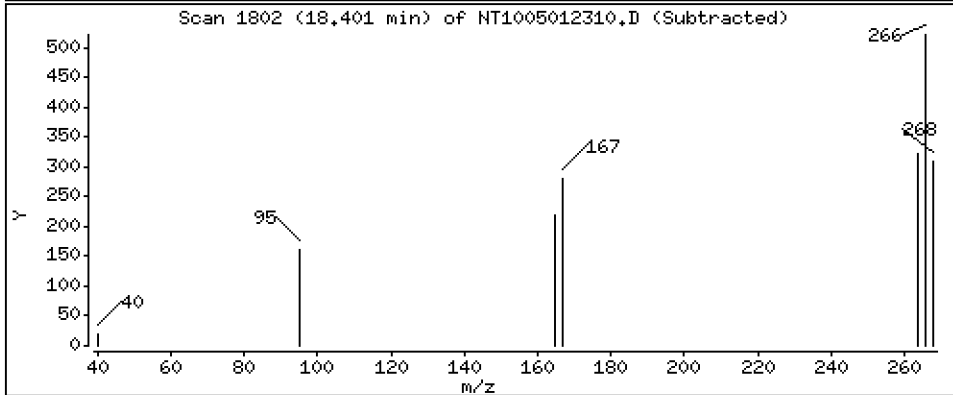
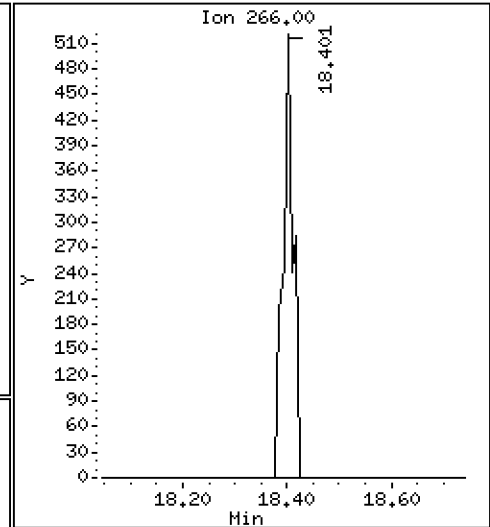
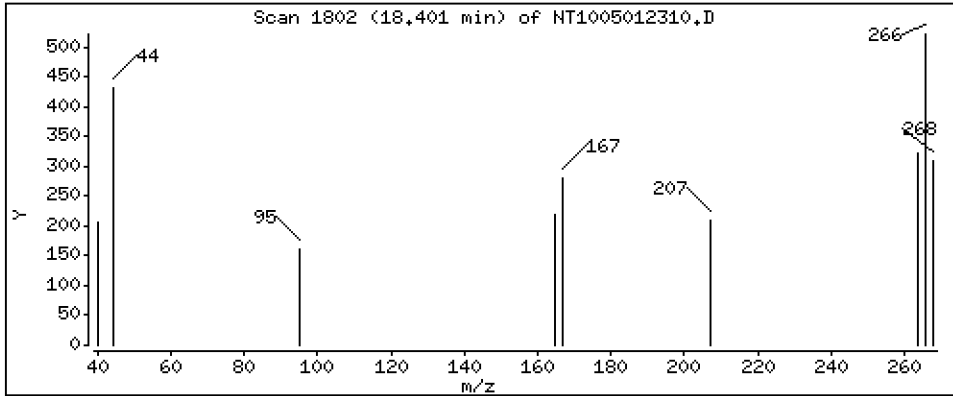
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,03046 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

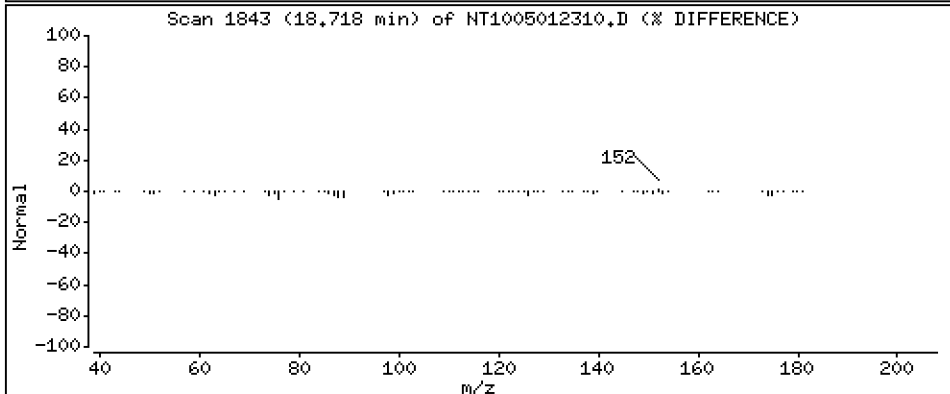
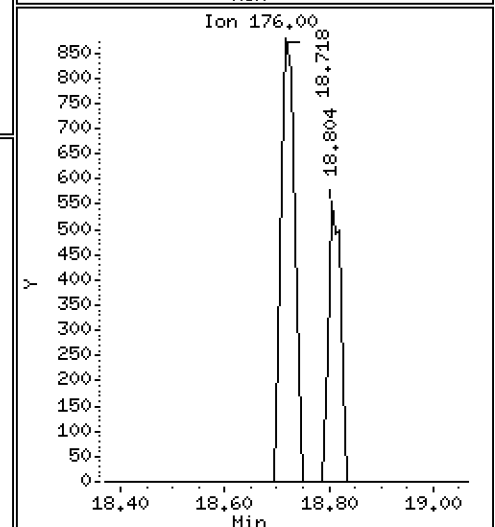
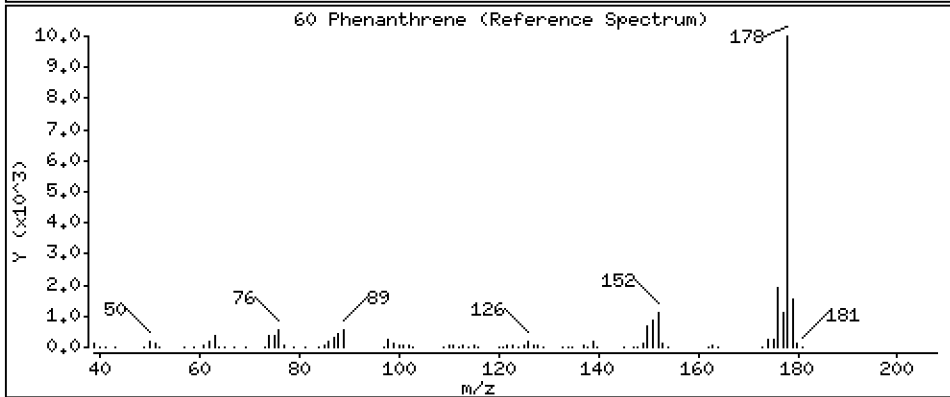
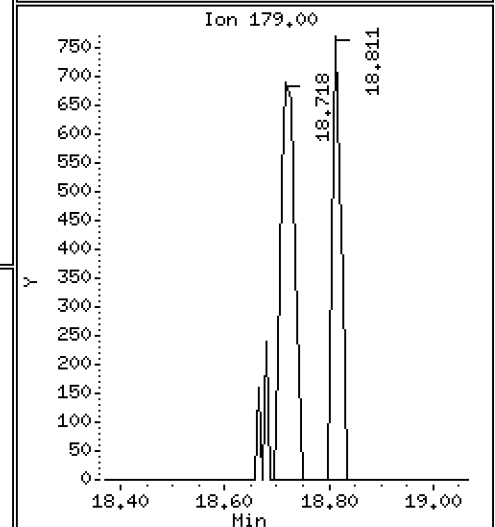
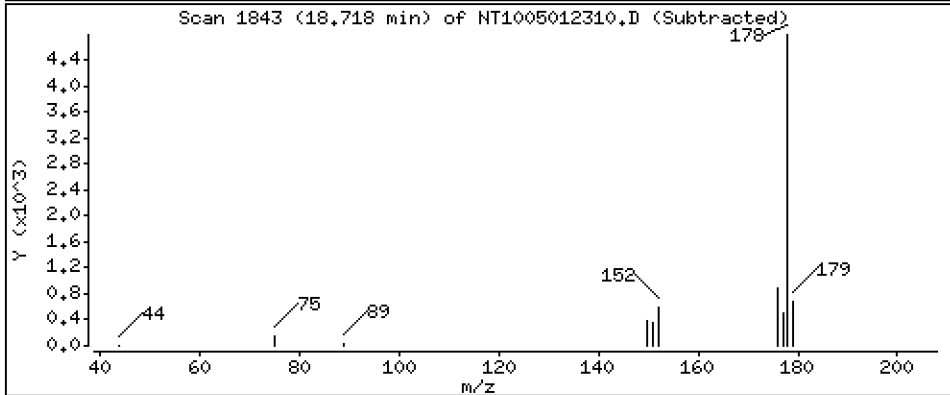
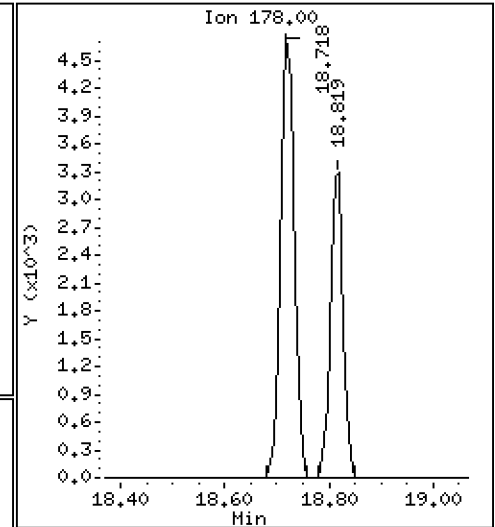
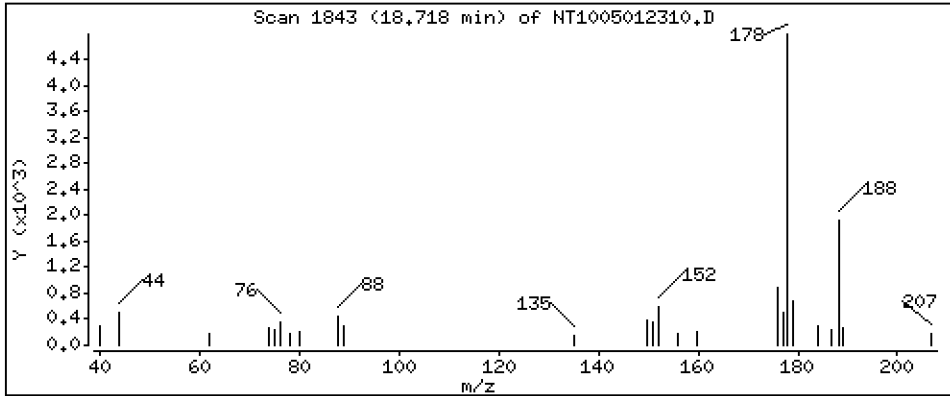
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,05253 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

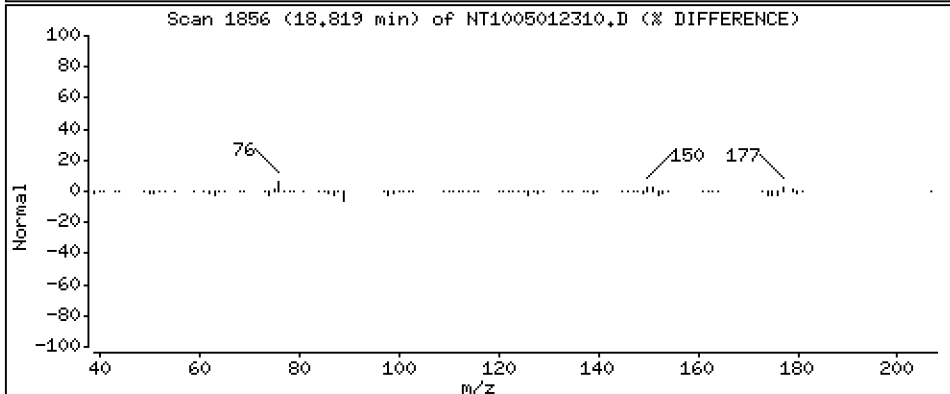
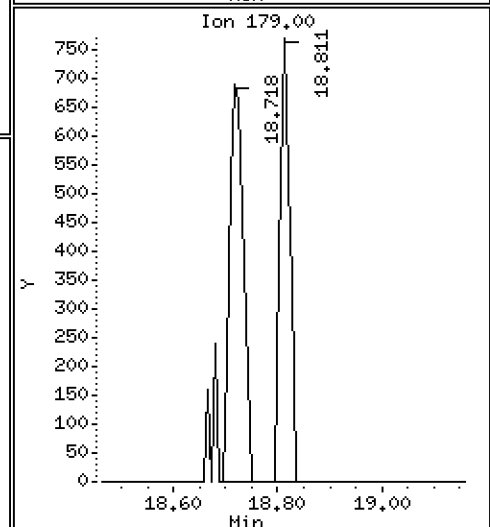
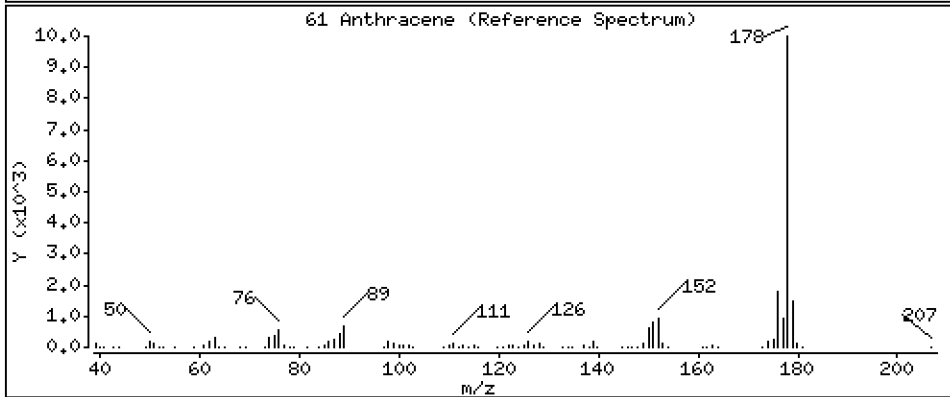
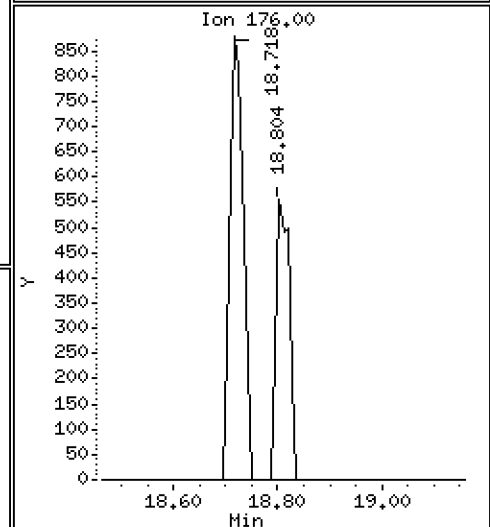
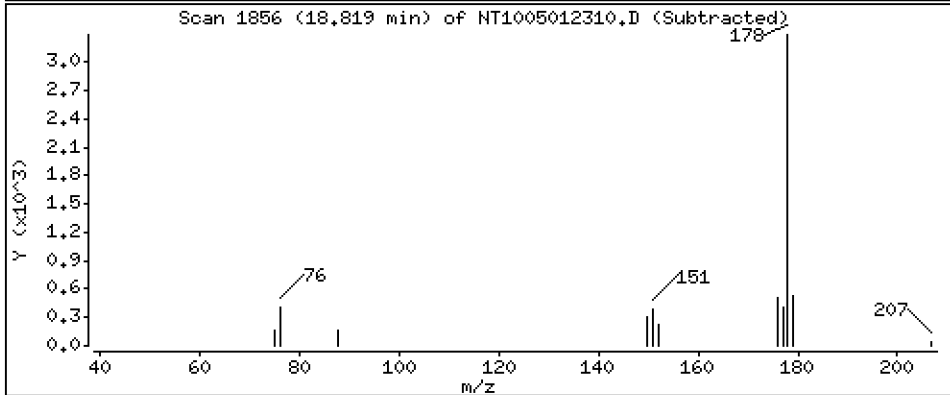
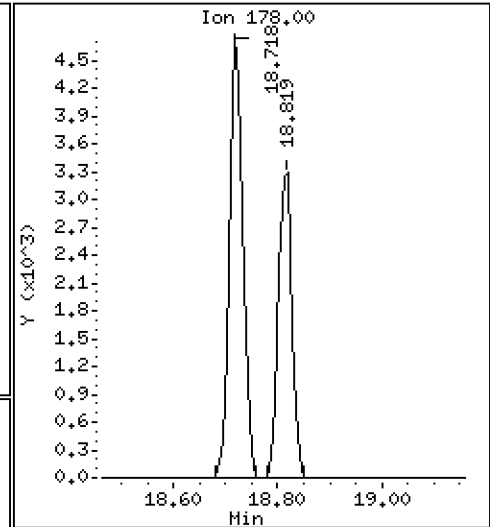
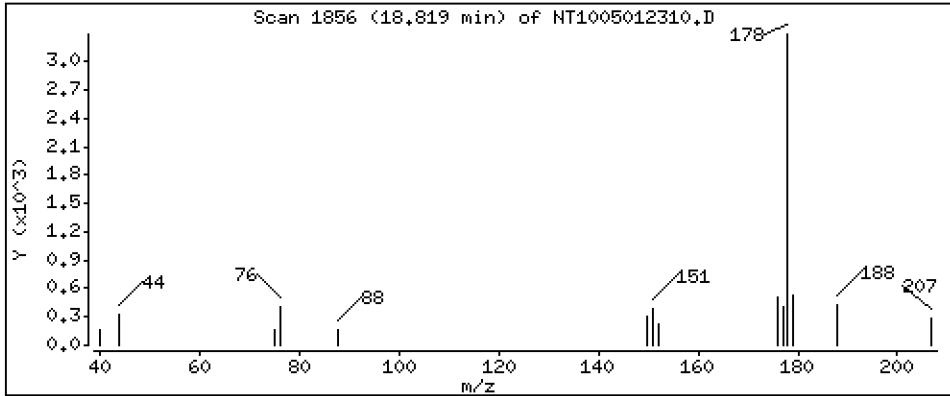
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

61 Anthracene

Concentration: 0.03964 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

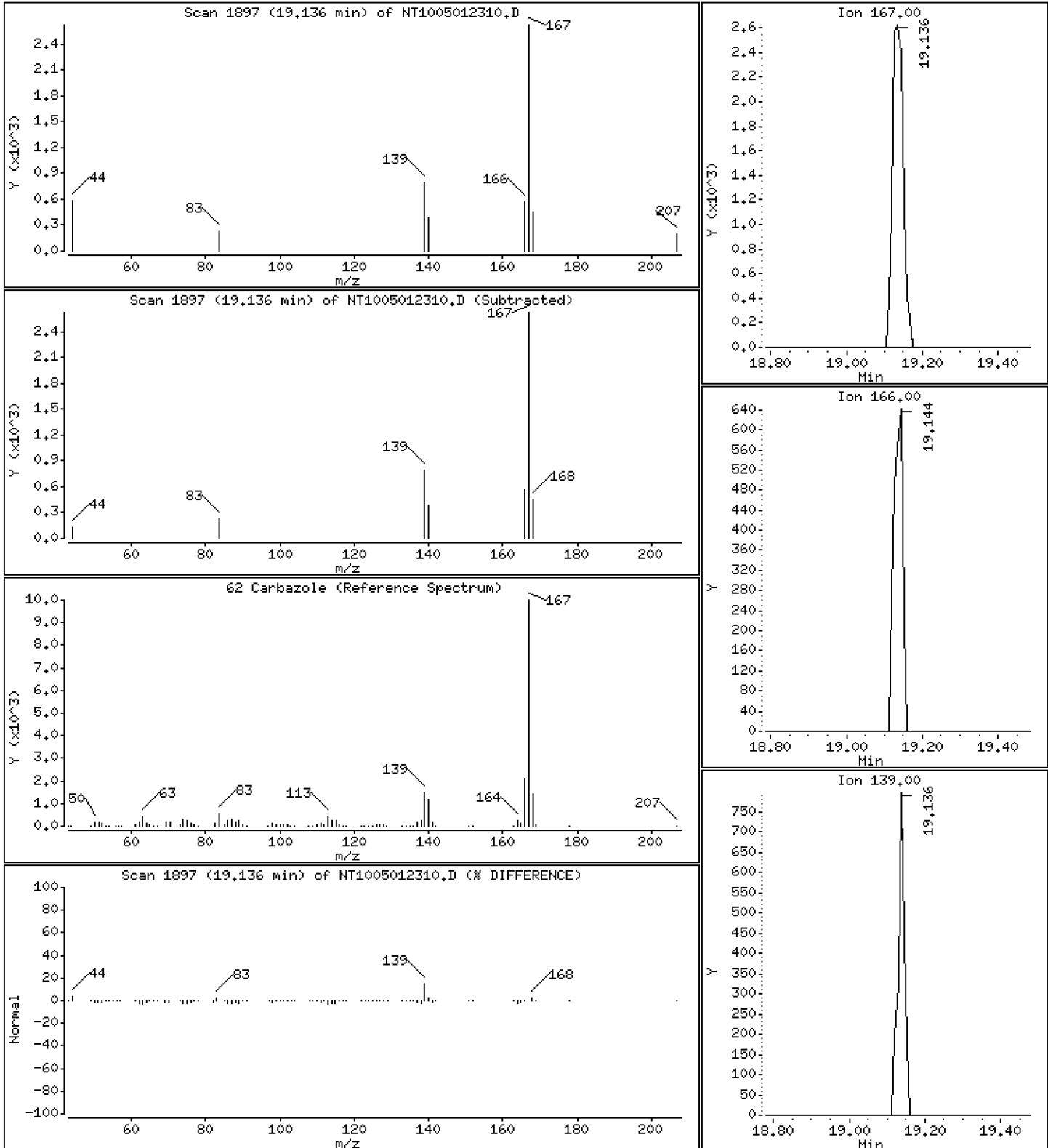
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,03951 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

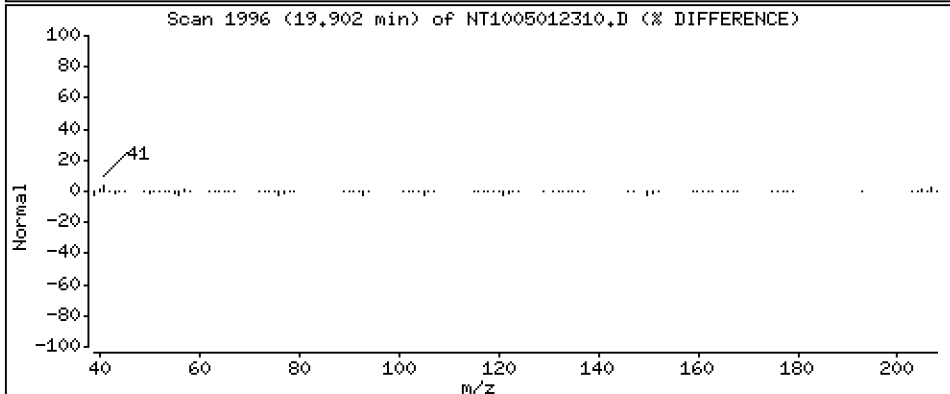
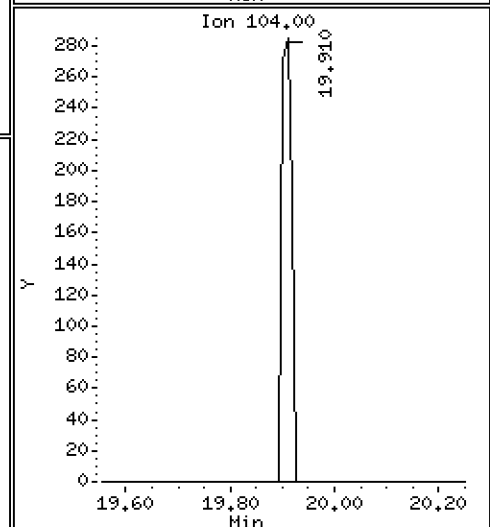
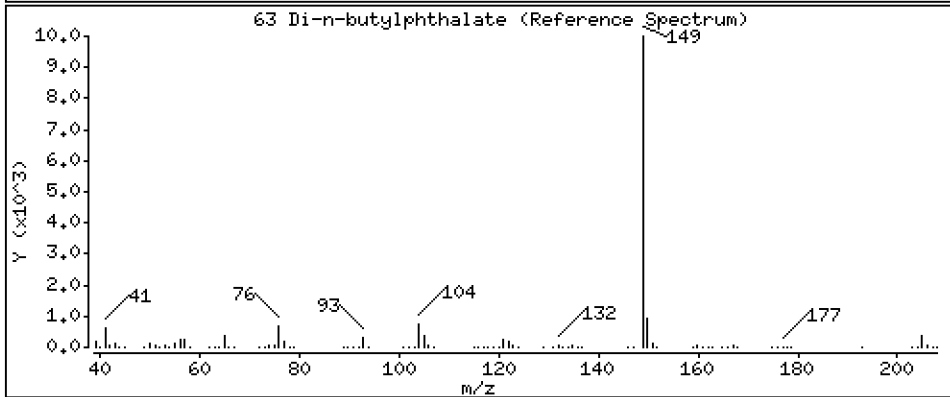
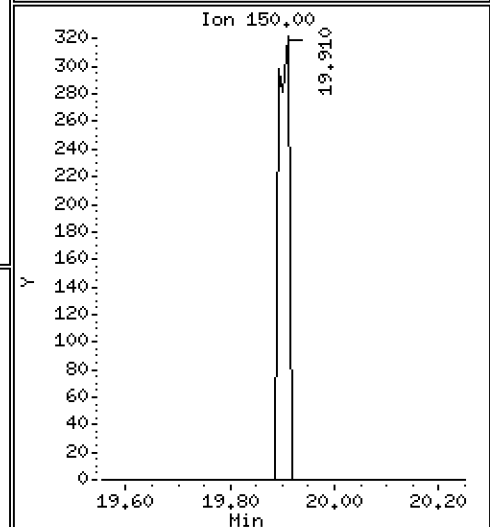
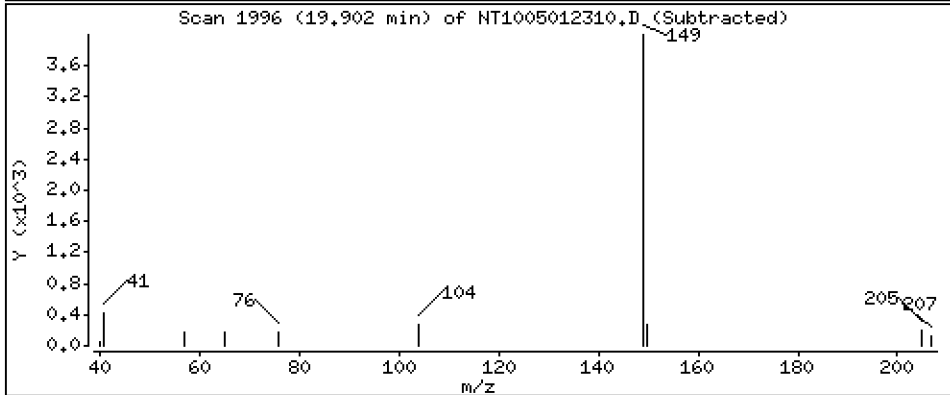
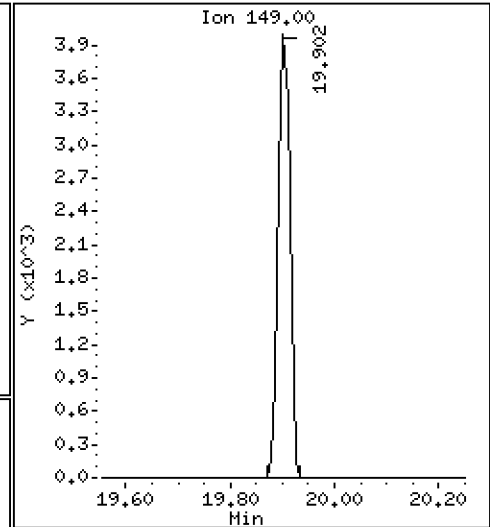
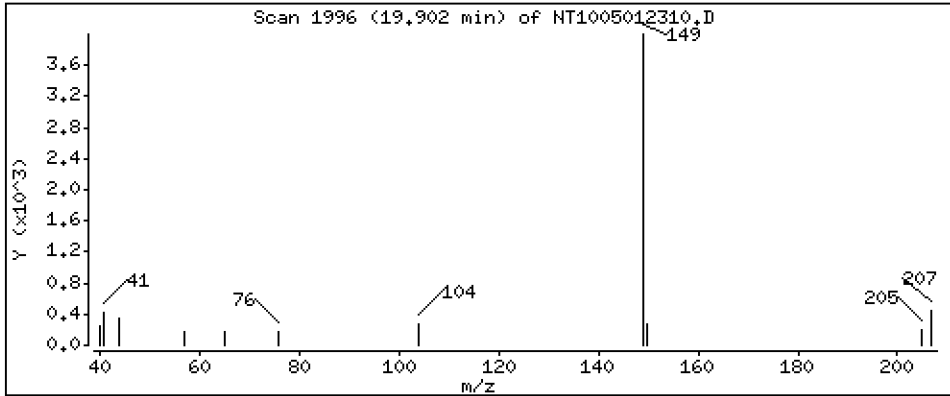
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.03123 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

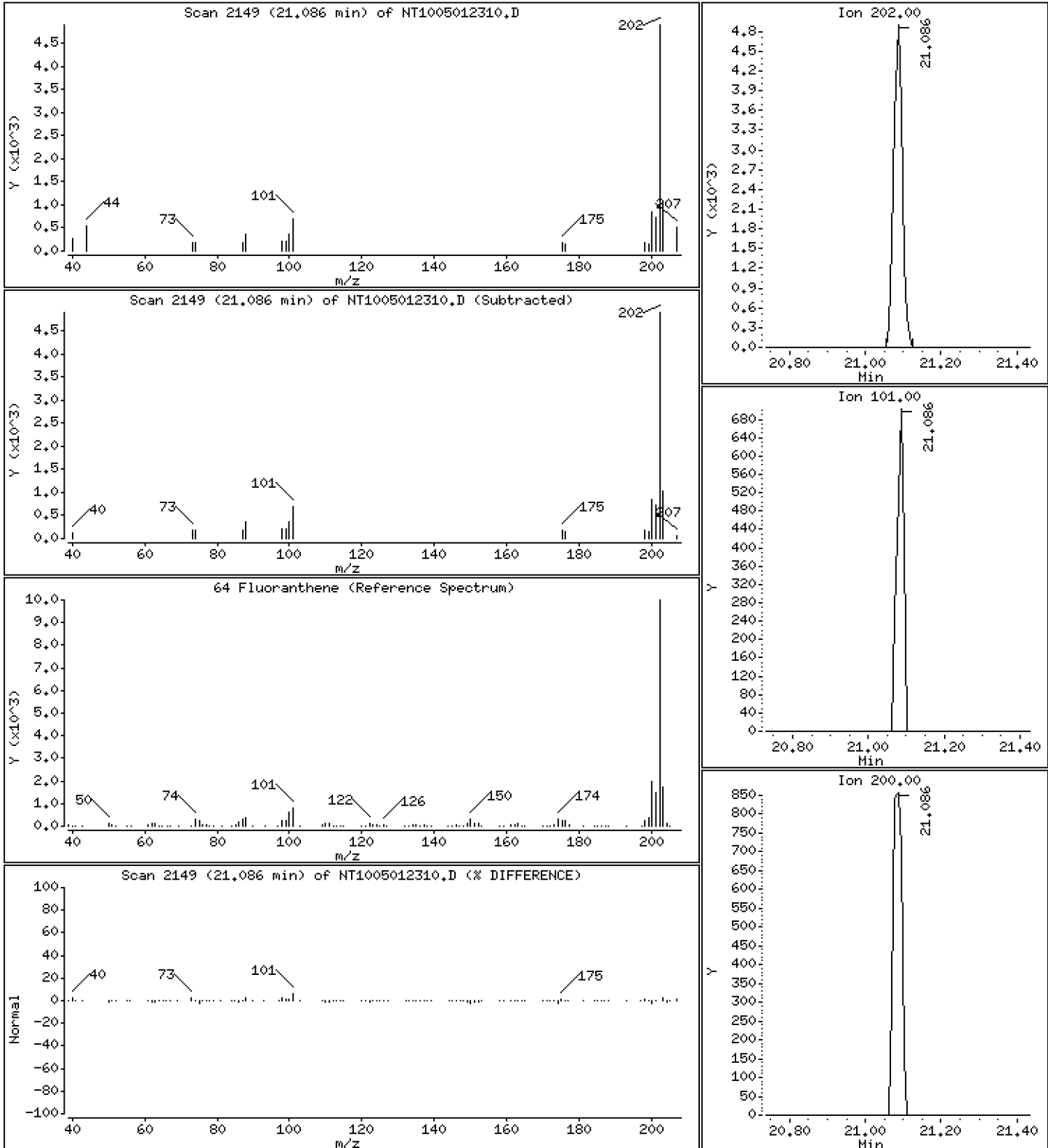
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,03890 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

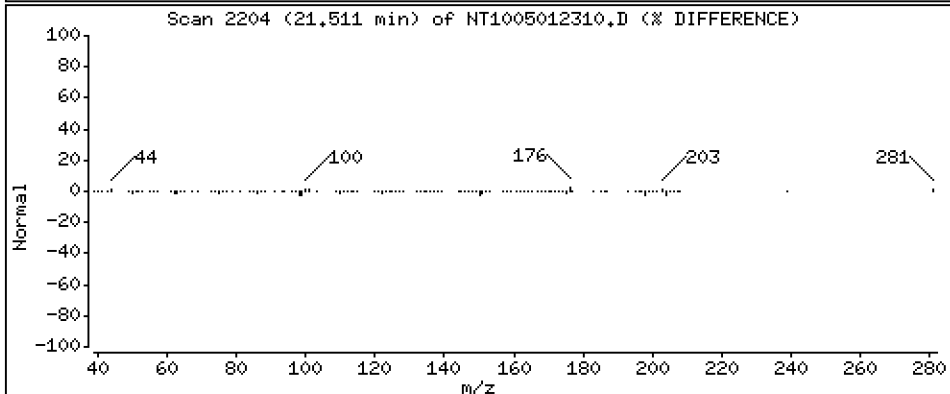
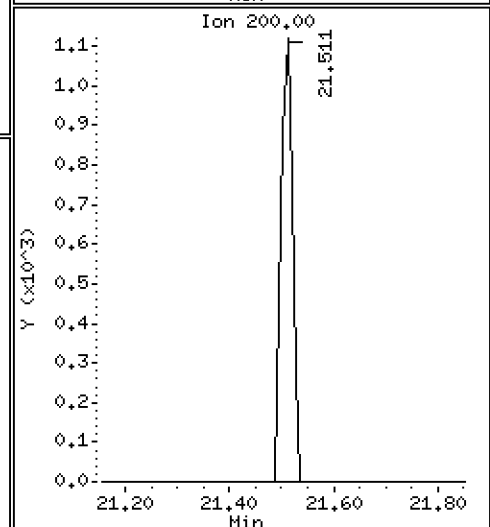
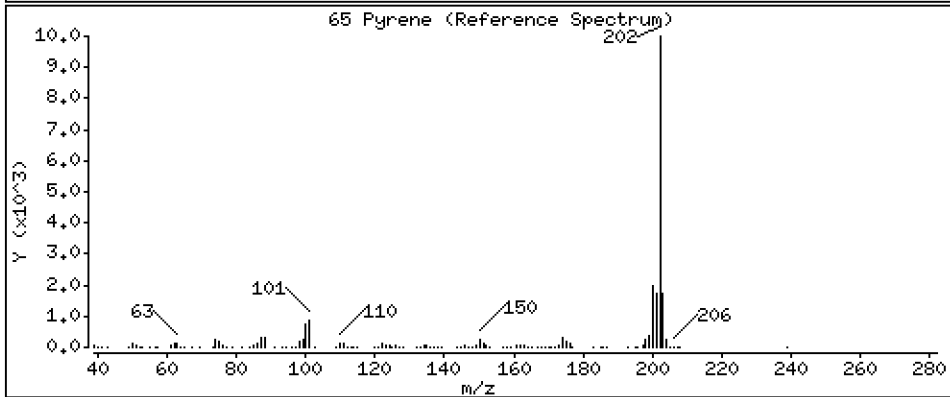
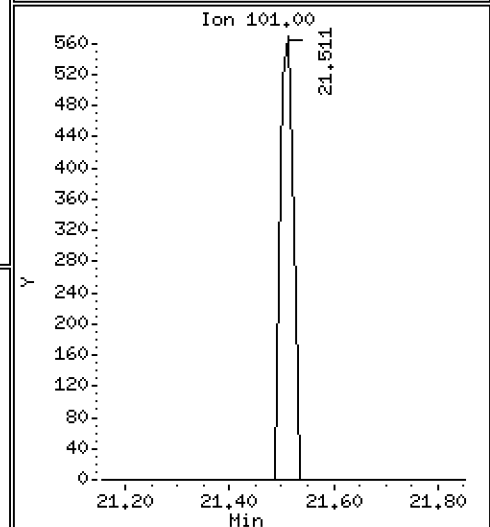
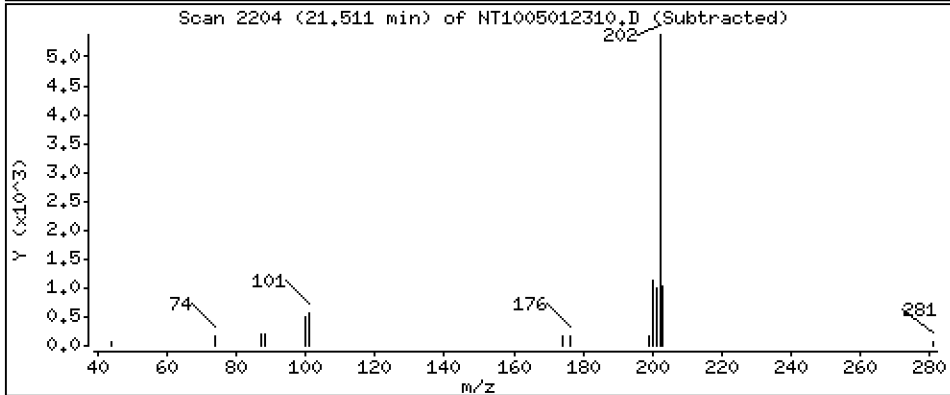
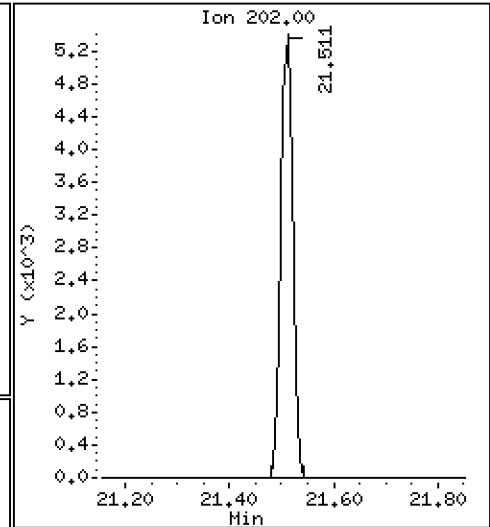
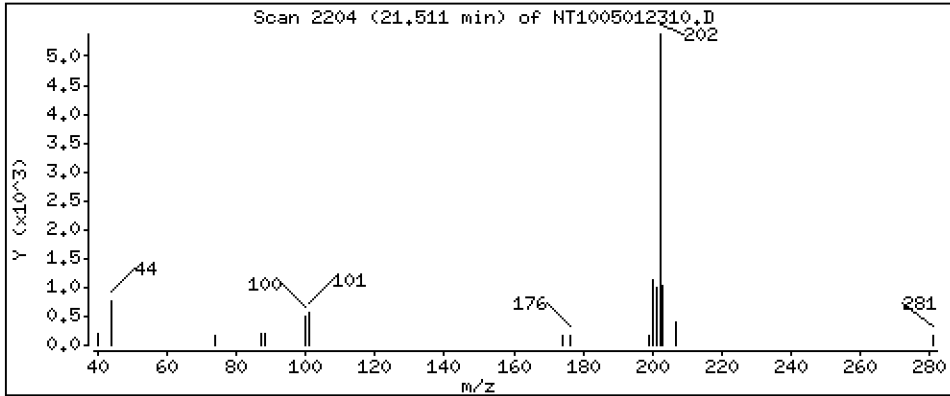
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

65 Pyrene

Concentration: 0.04269 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

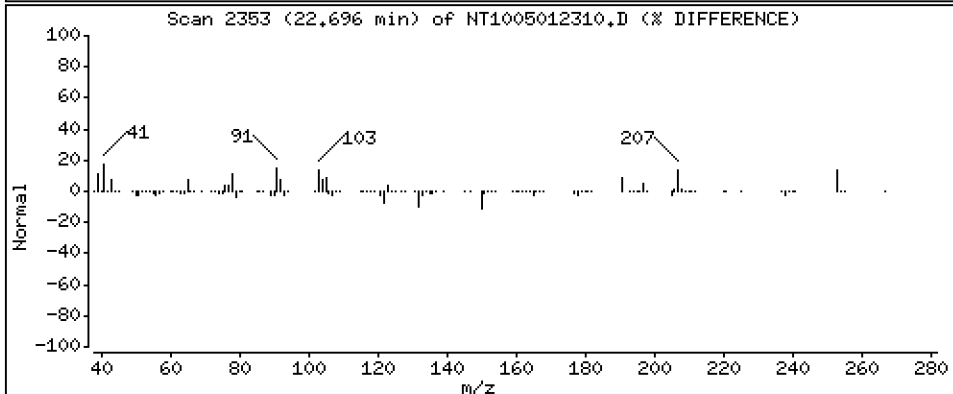
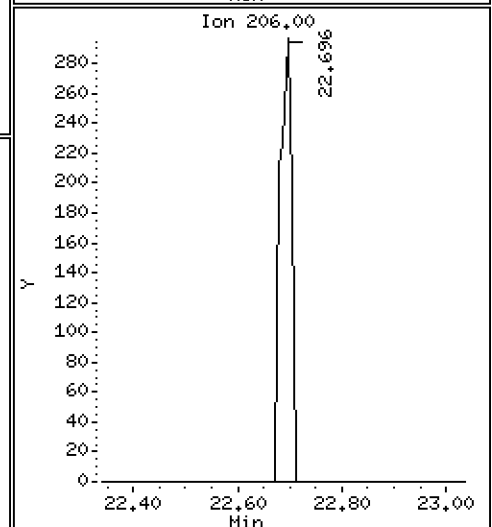
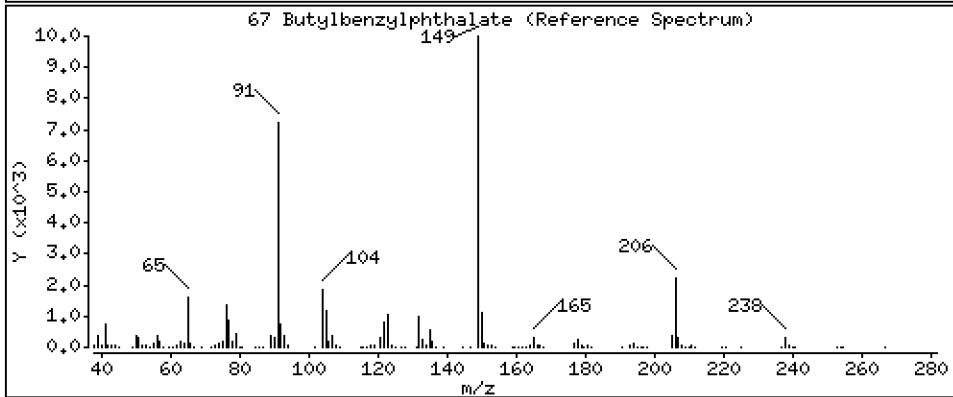
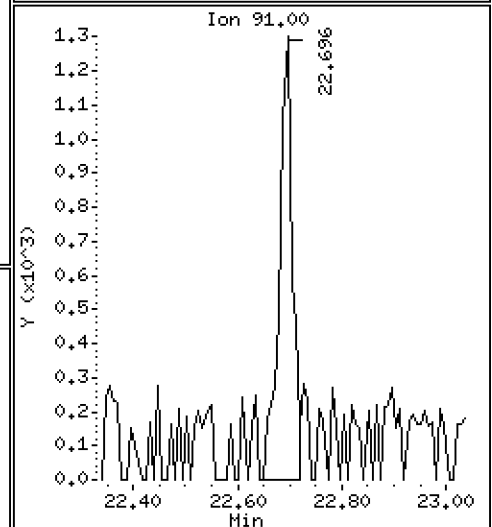
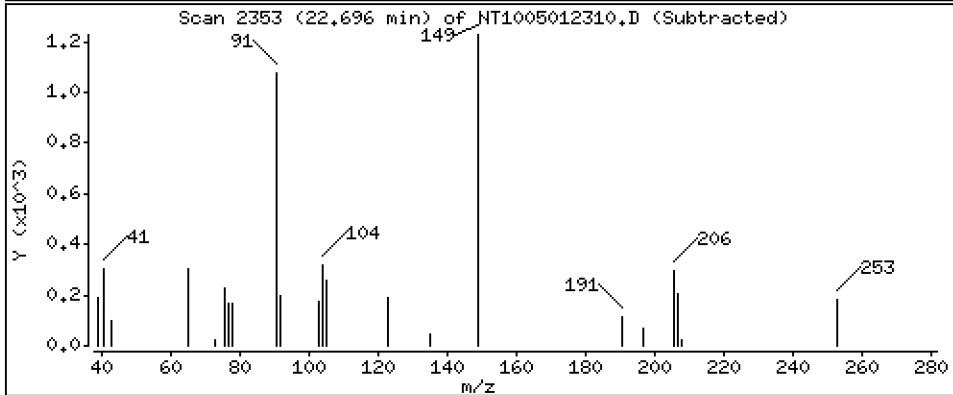
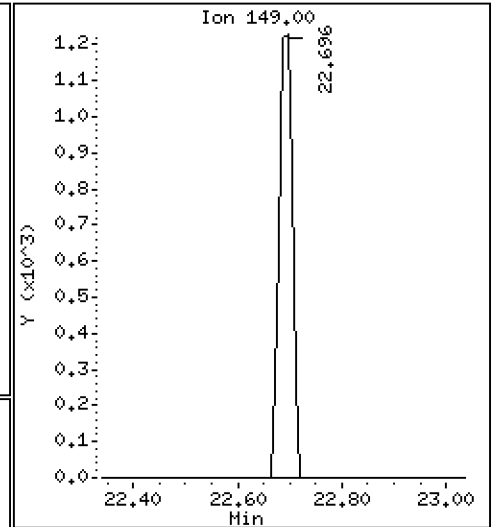
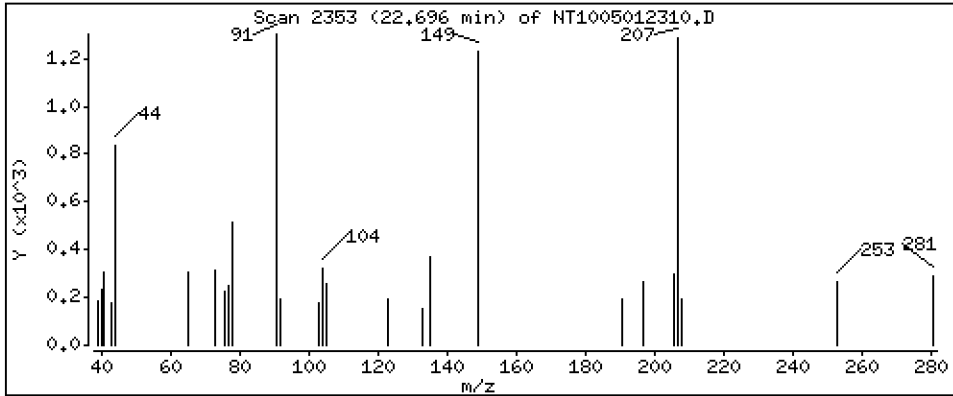
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.02329 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

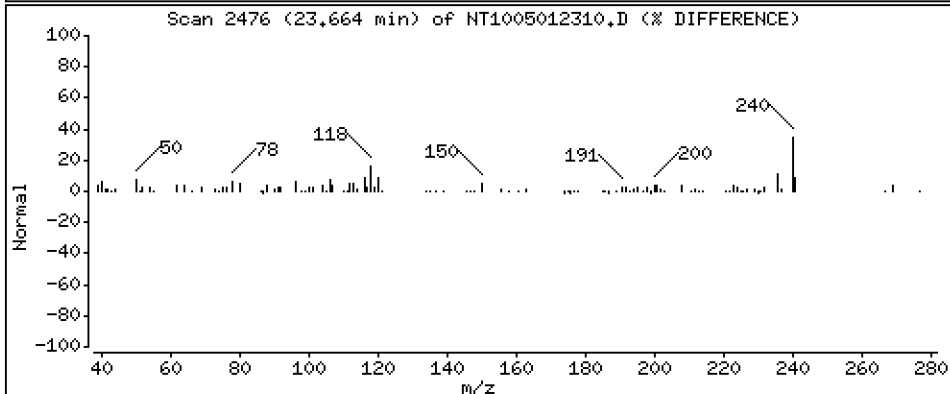
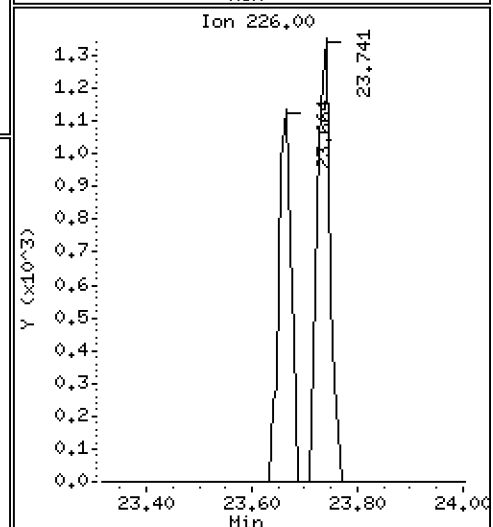
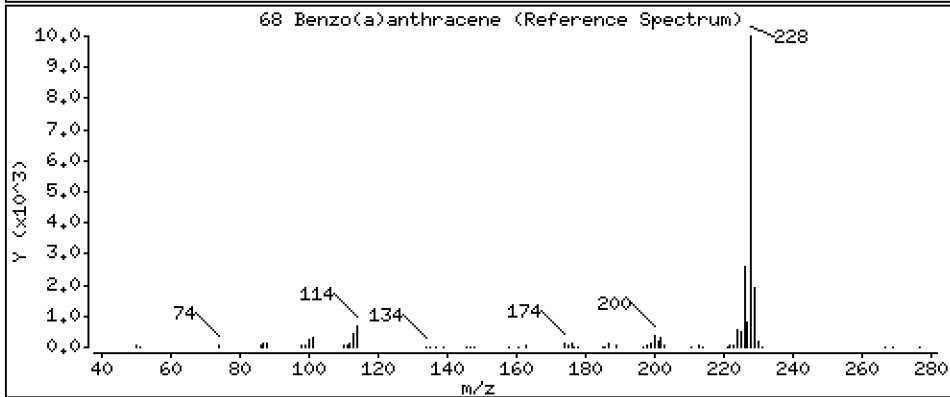
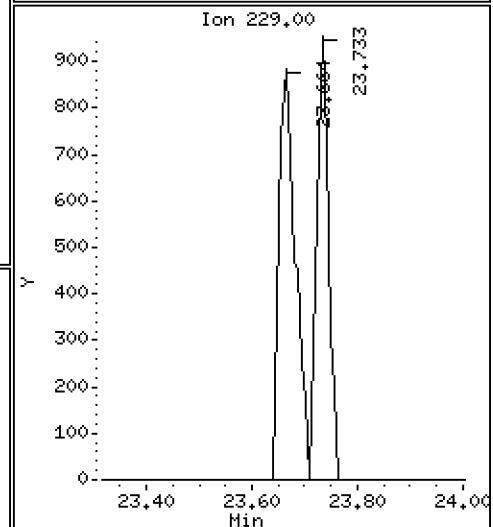
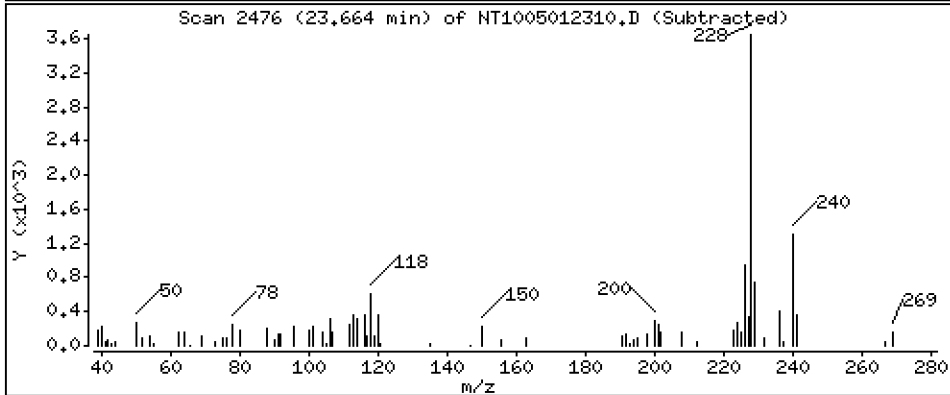
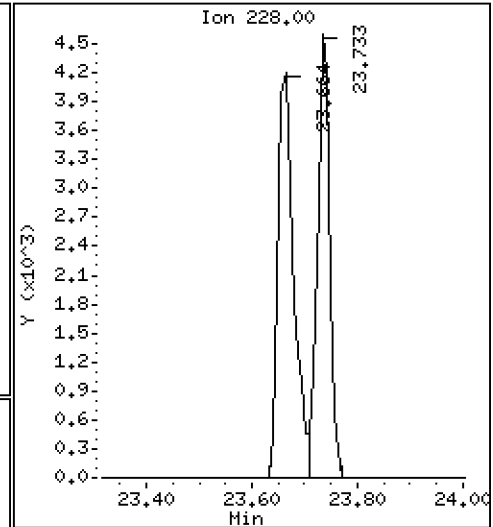
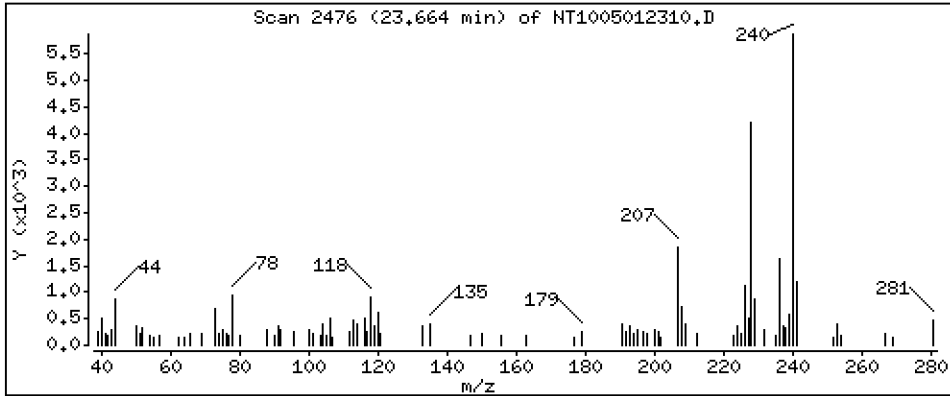
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

68 Benzo(a)anthracene

Concentration: 0.05140 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

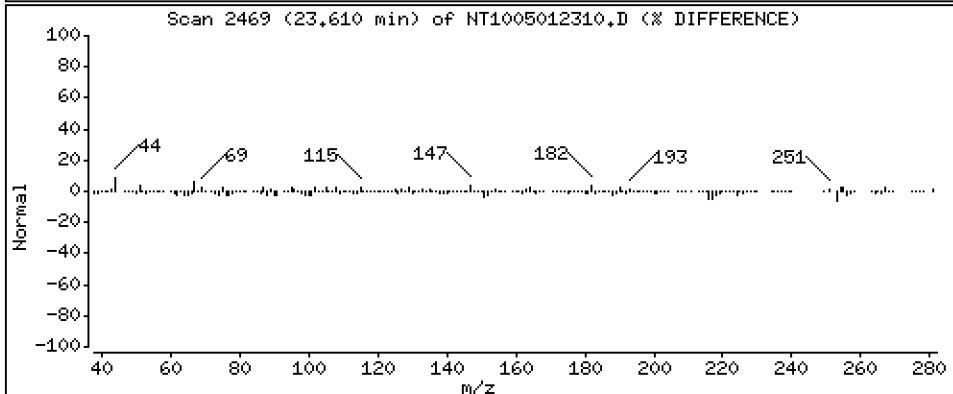
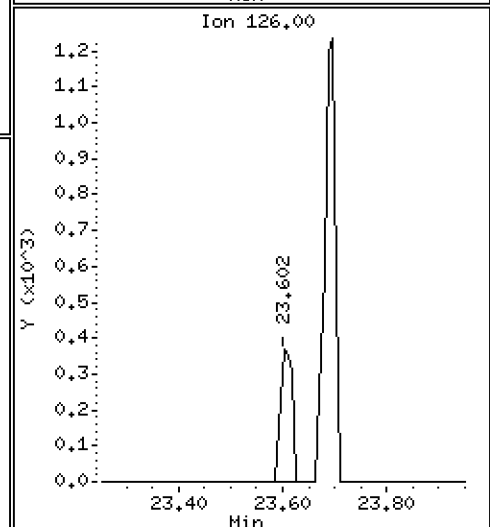
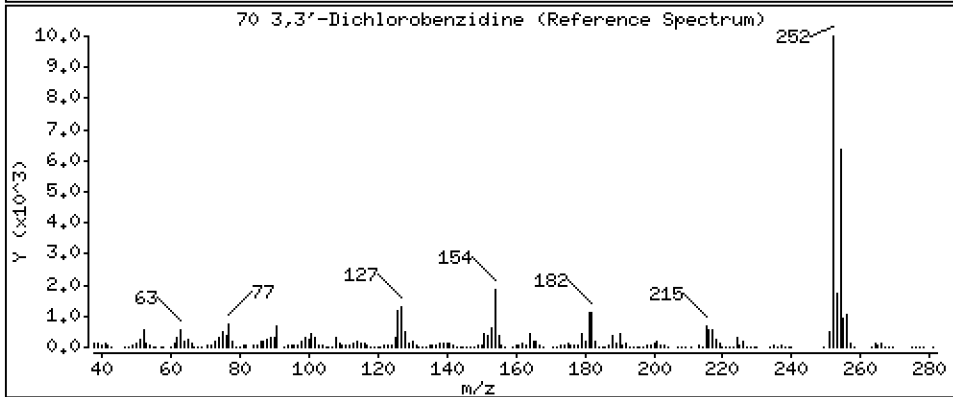
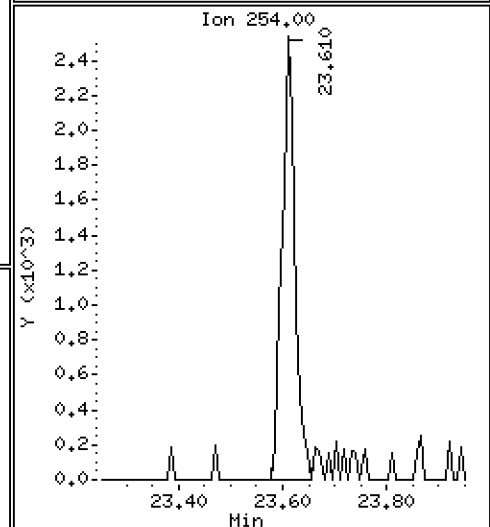
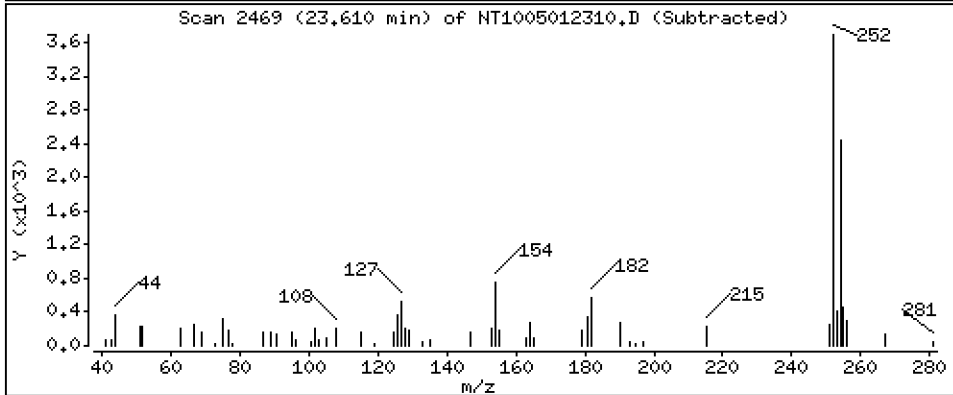
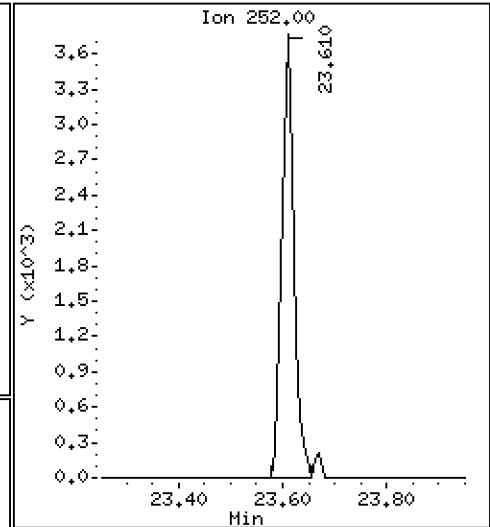
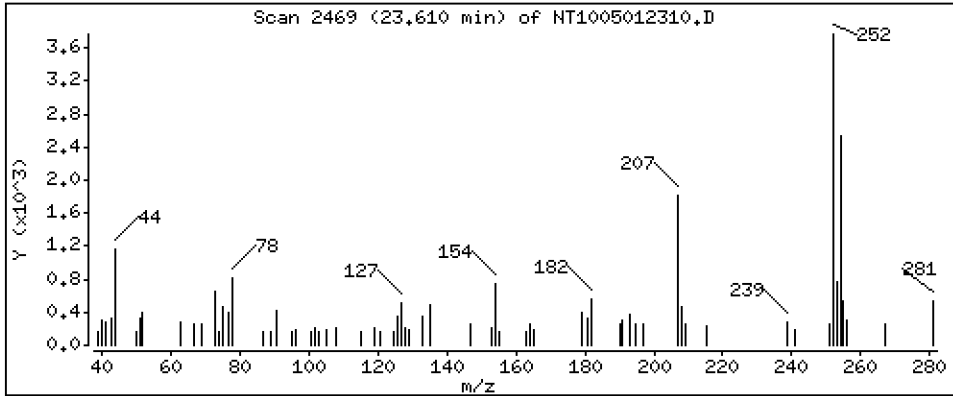
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 0,1168 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

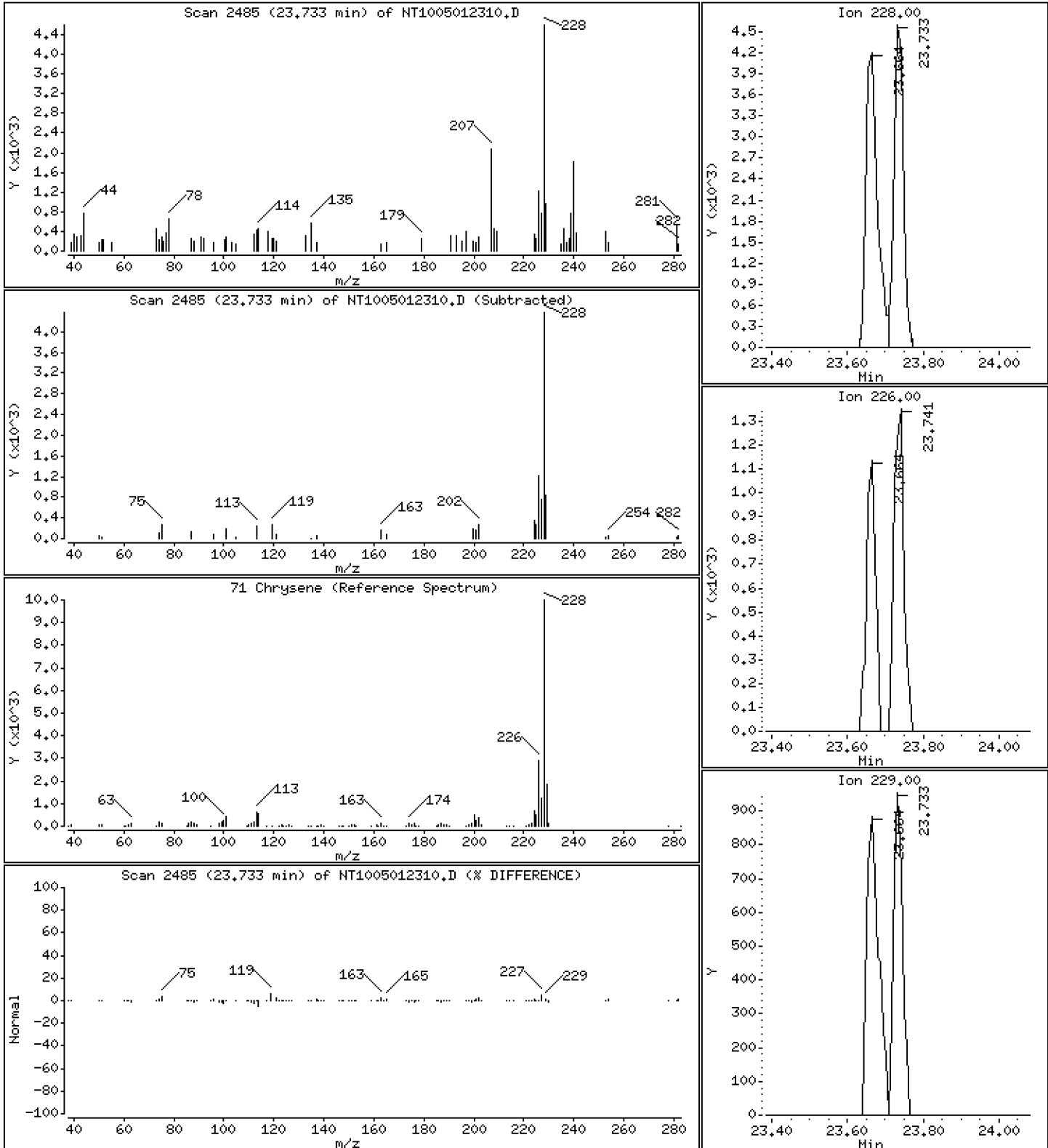
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,04969 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

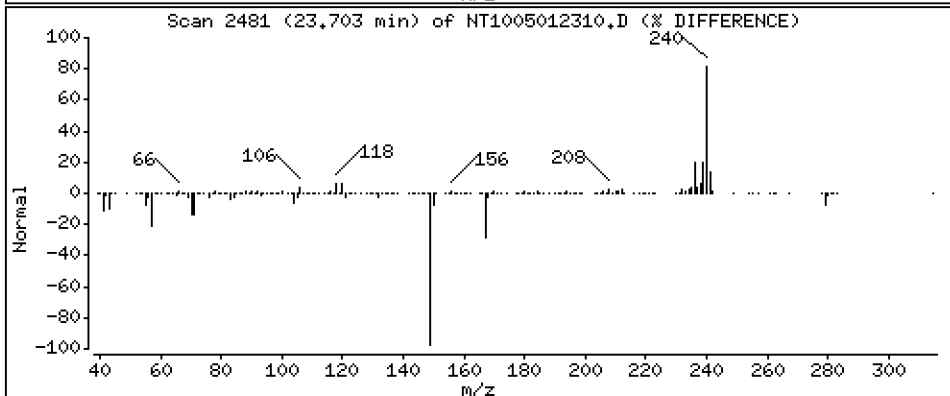
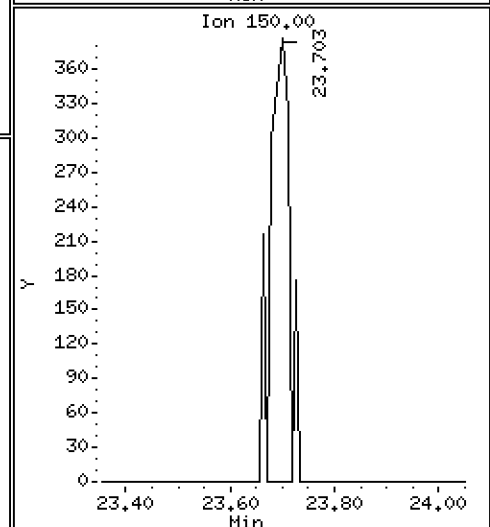
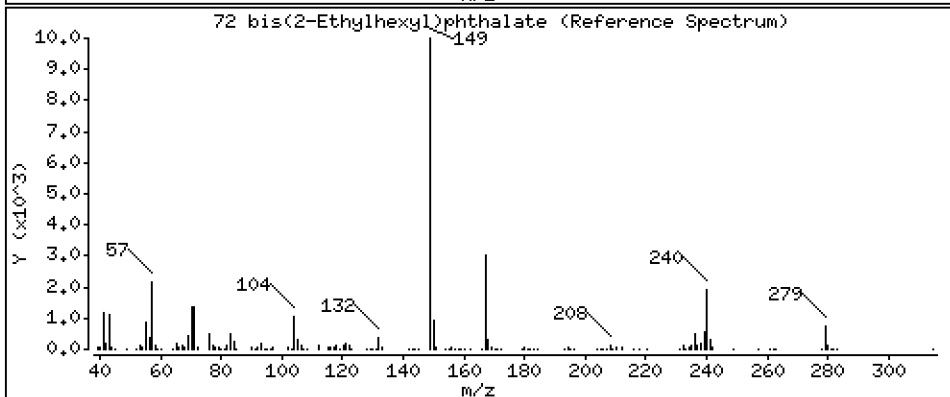
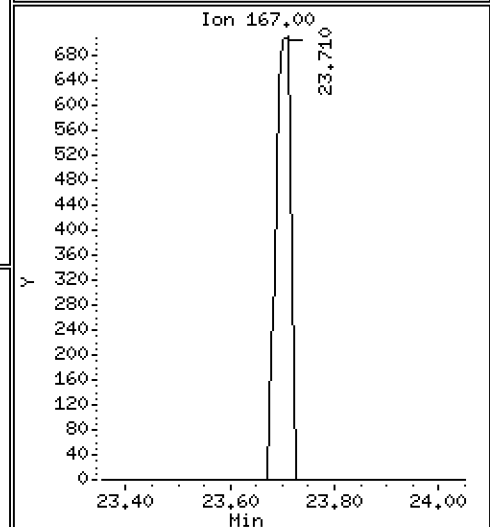
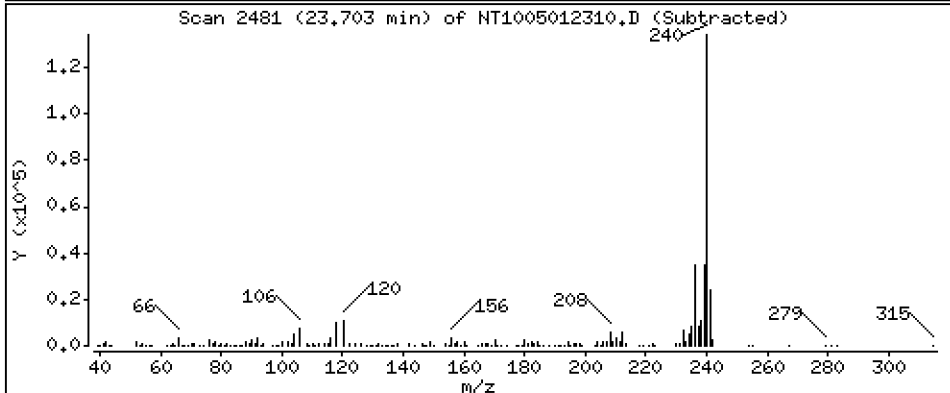
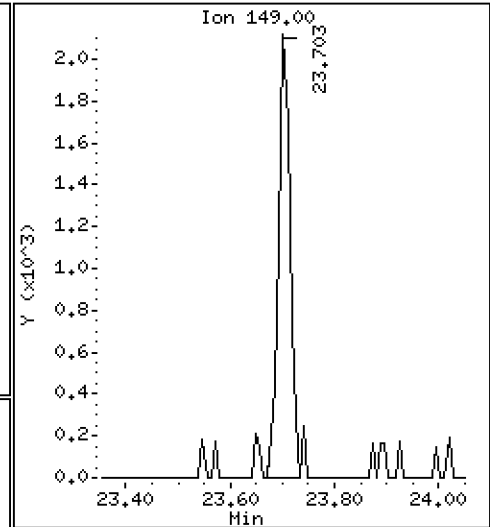
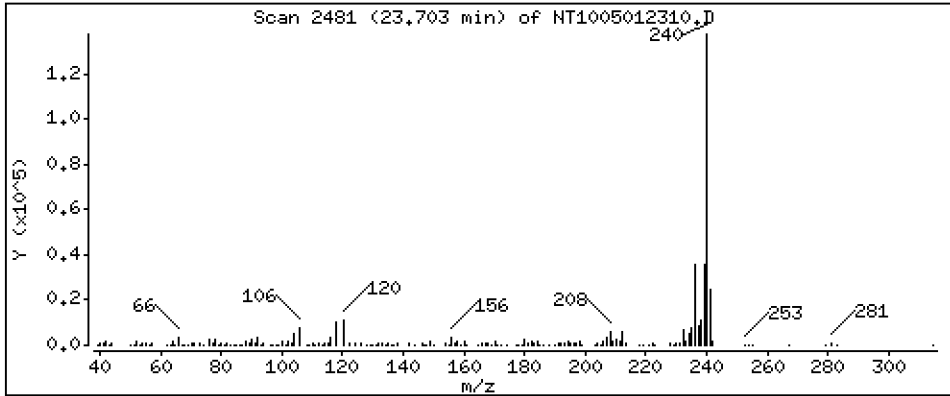
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,03435 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

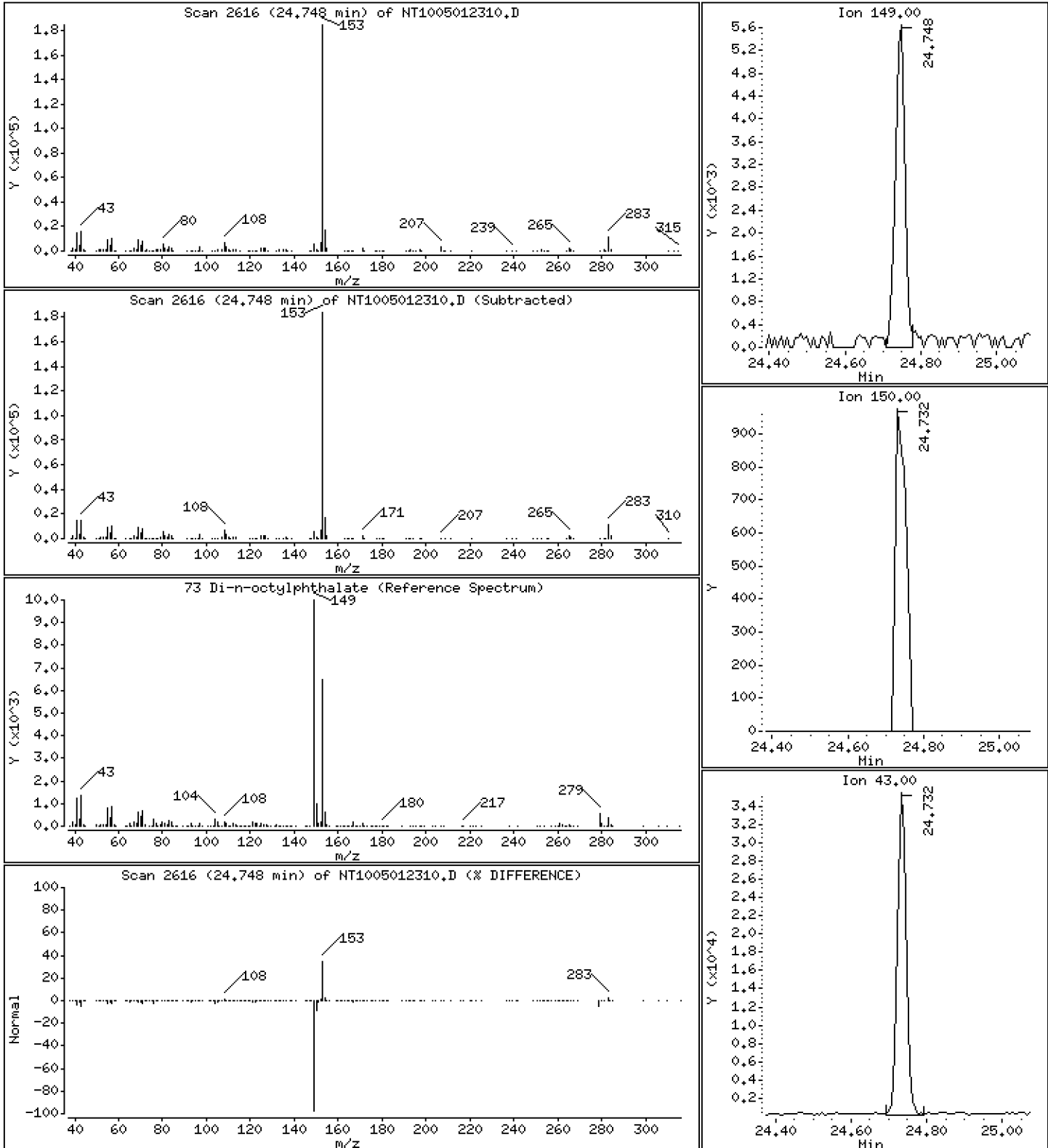
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,05863 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

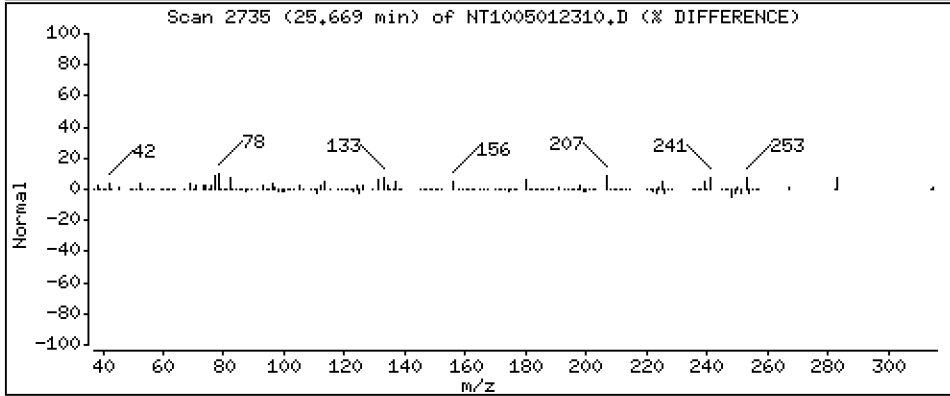
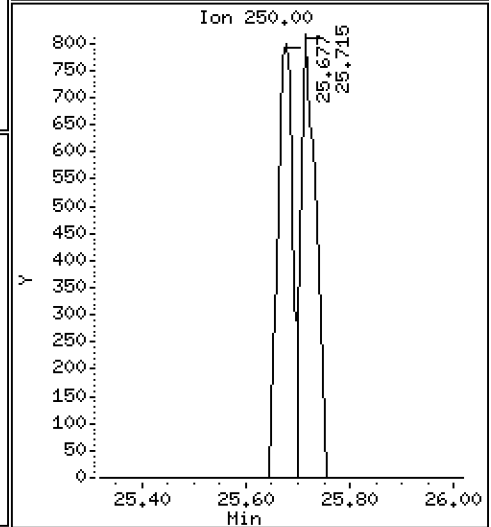
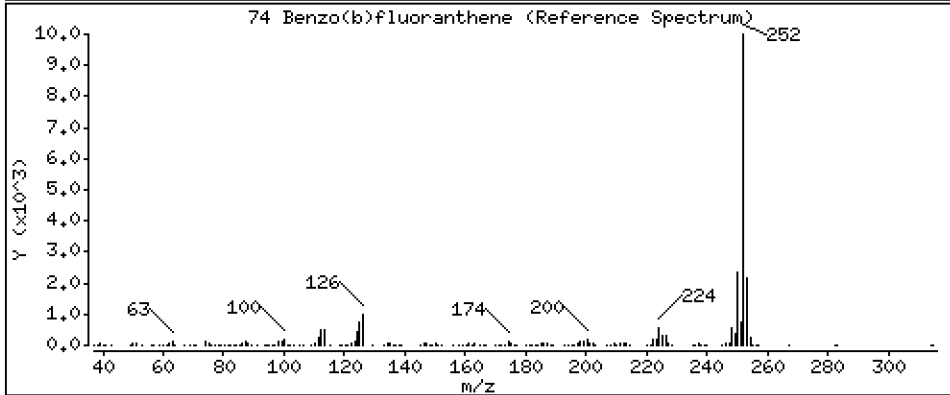
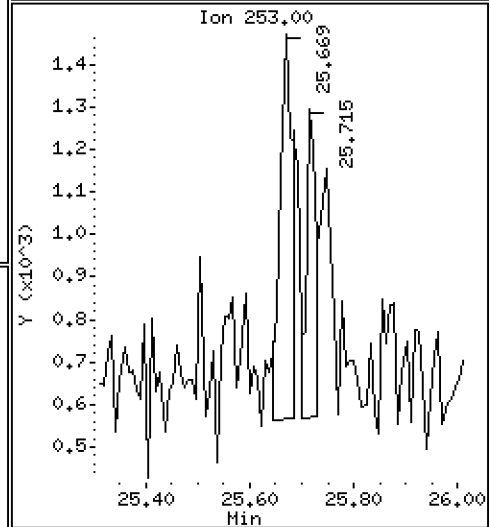
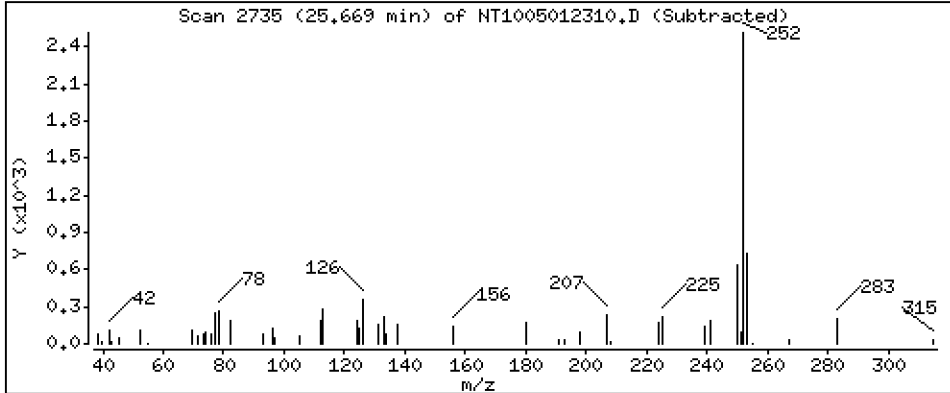
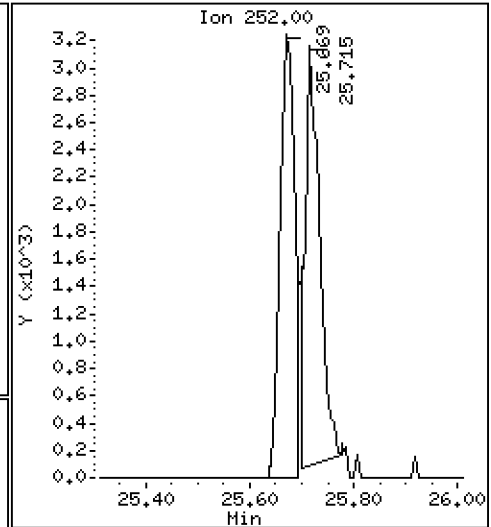
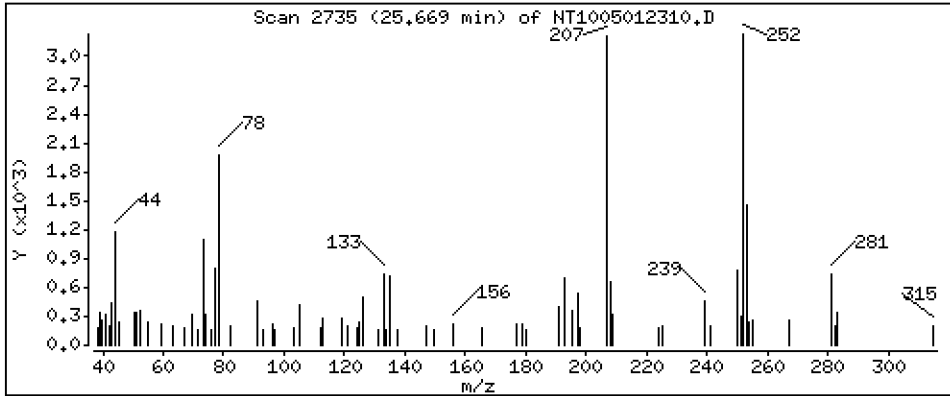
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,03915 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

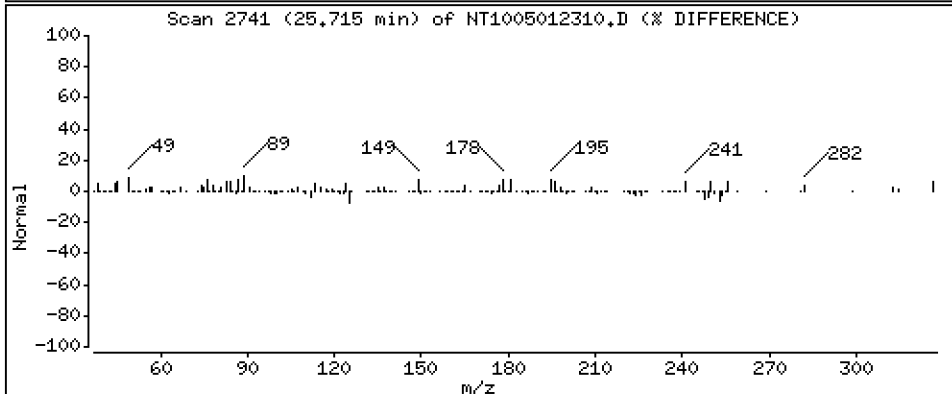
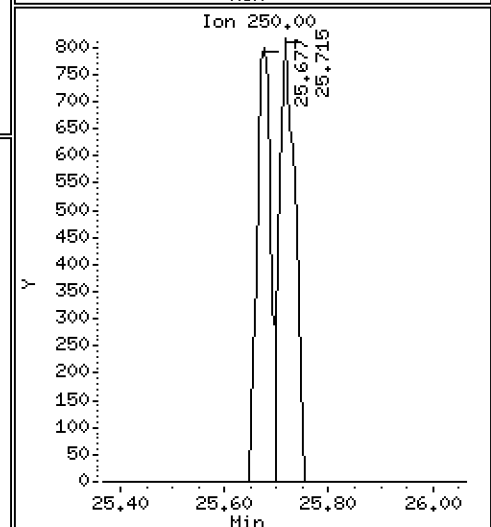
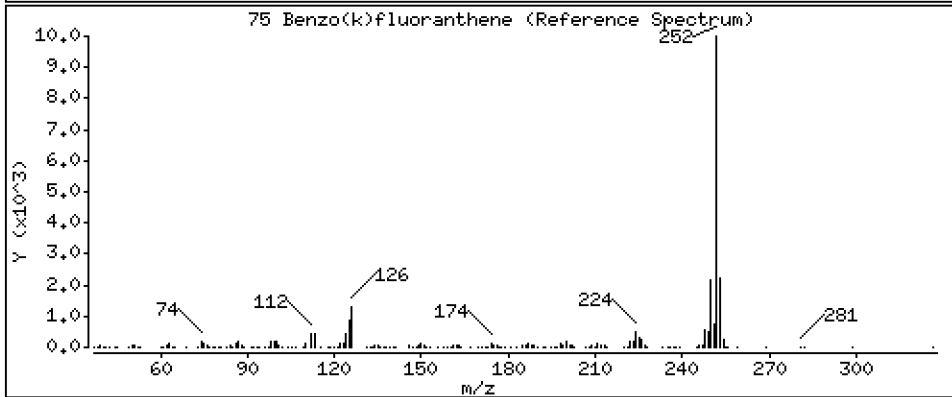
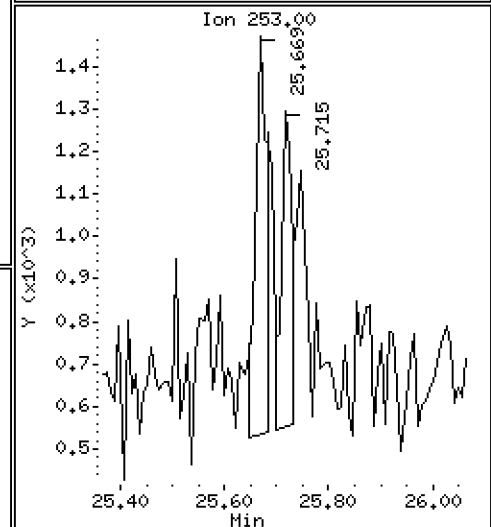
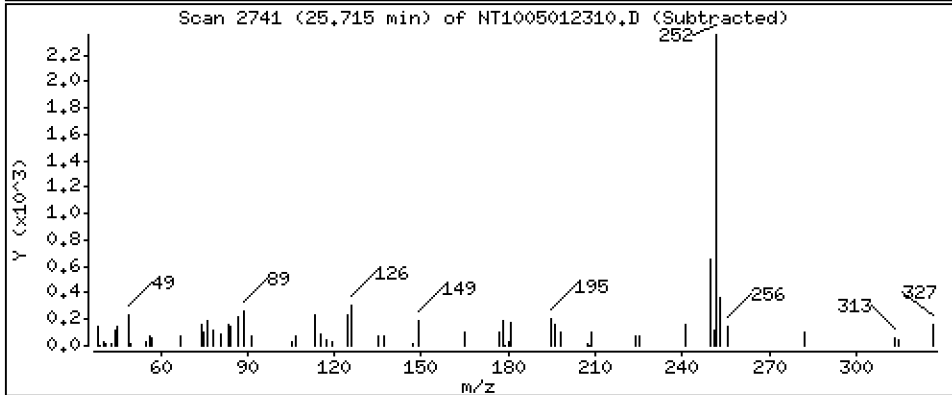
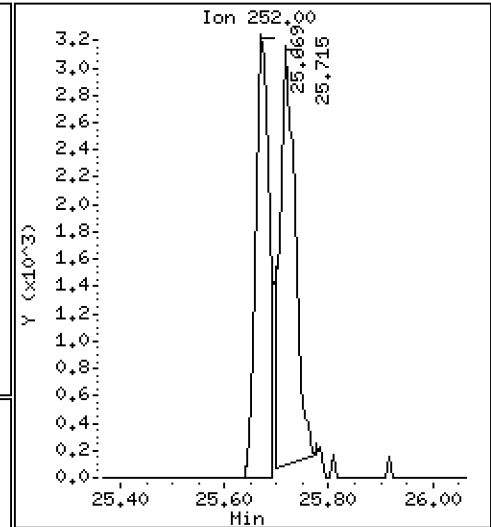
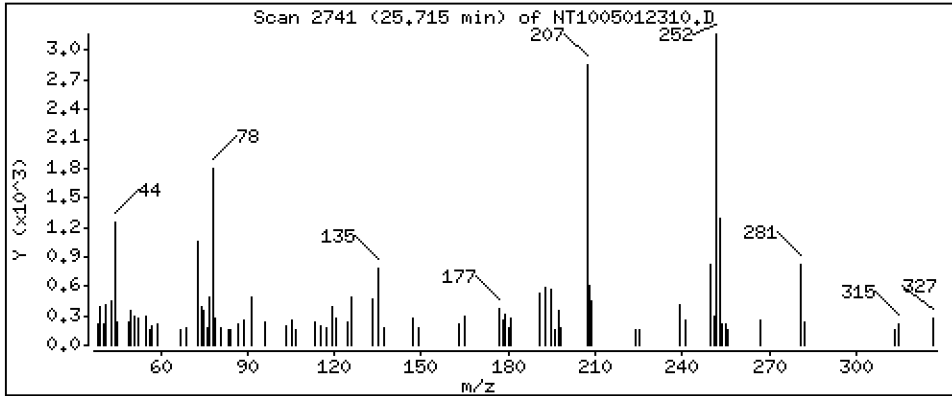
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,03974 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

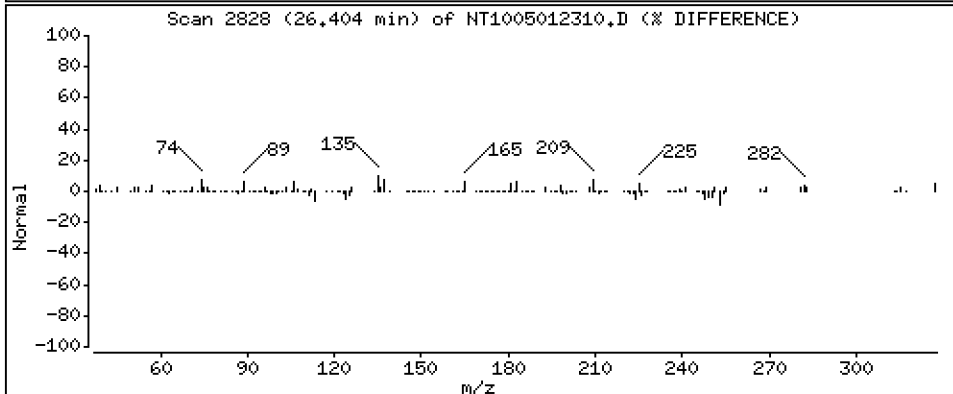
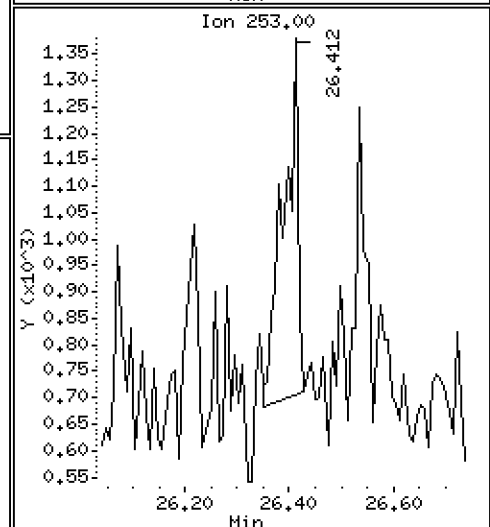
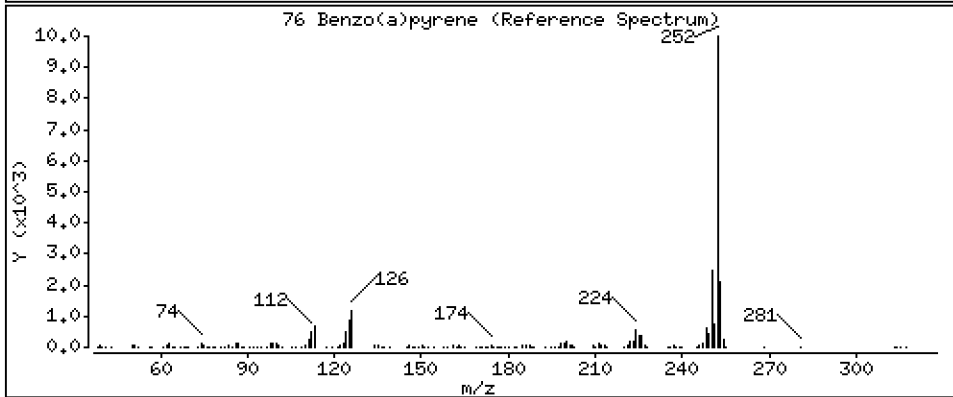
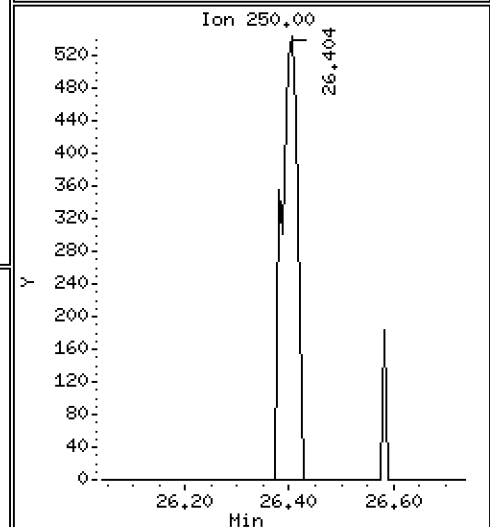
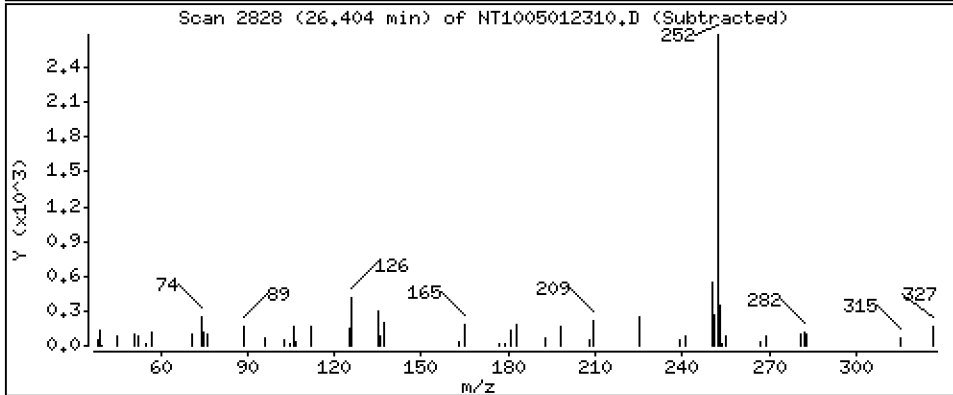
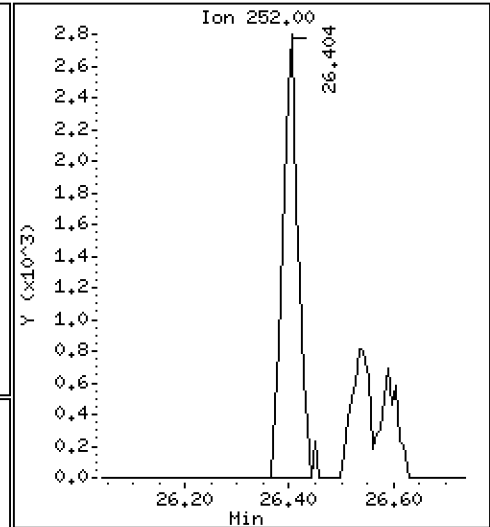
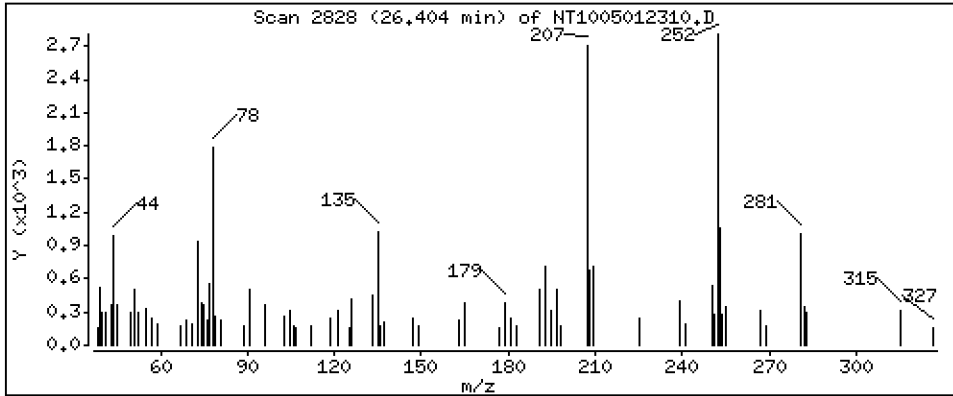
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

76 Benzo(a)pyrene

Concentration: 0.04202 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

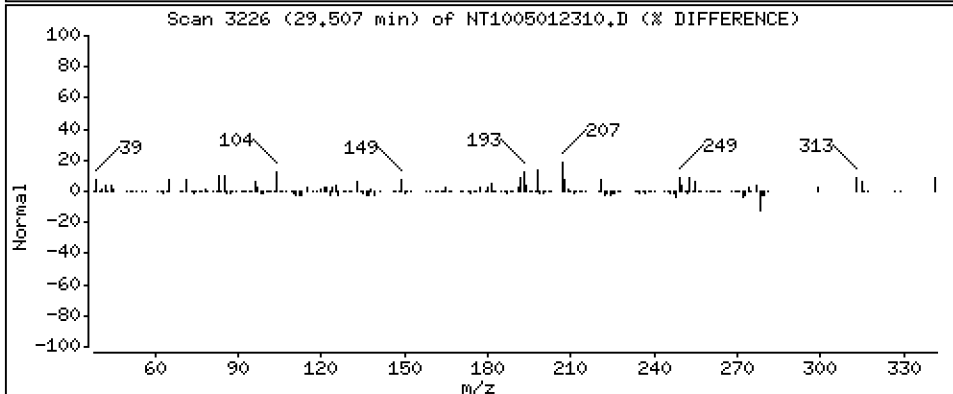
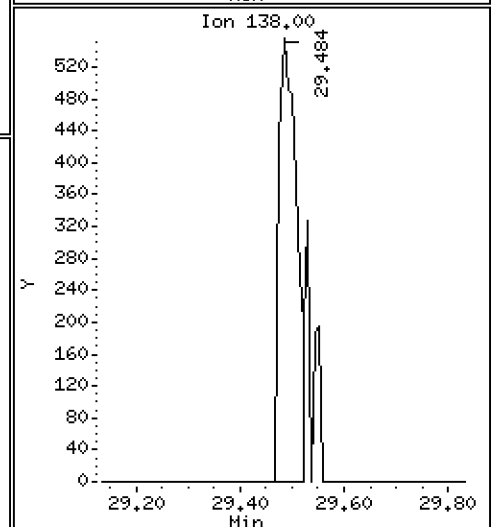
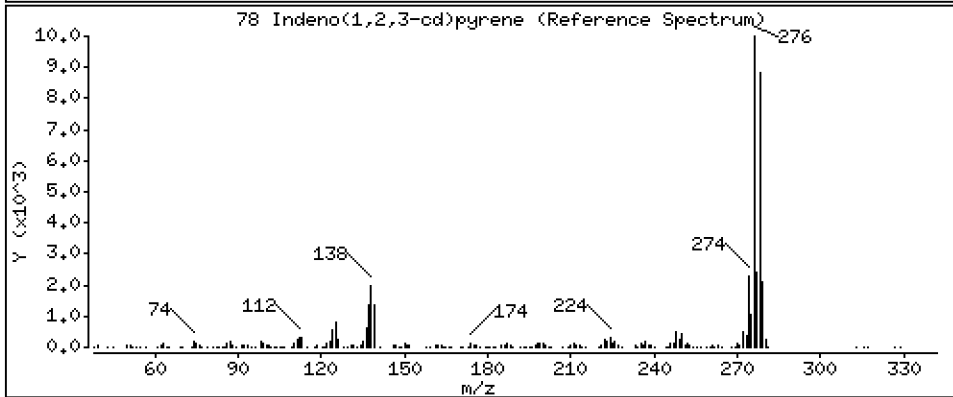
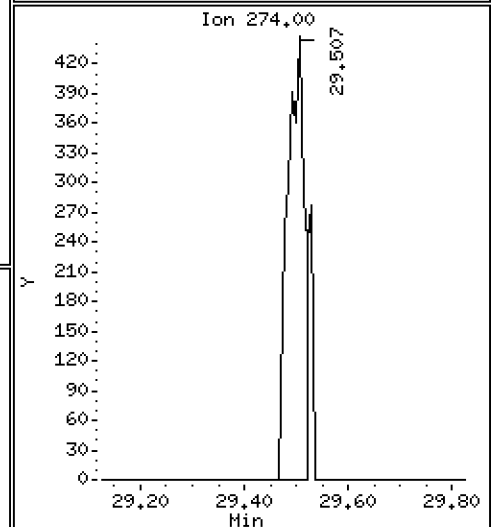
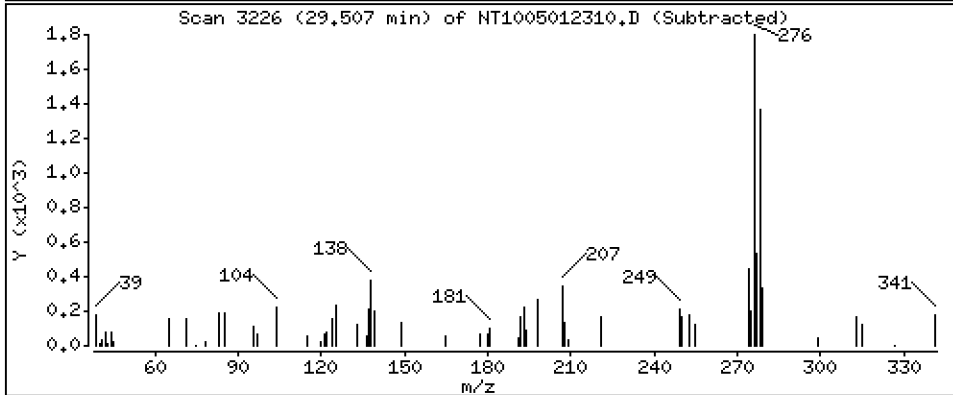
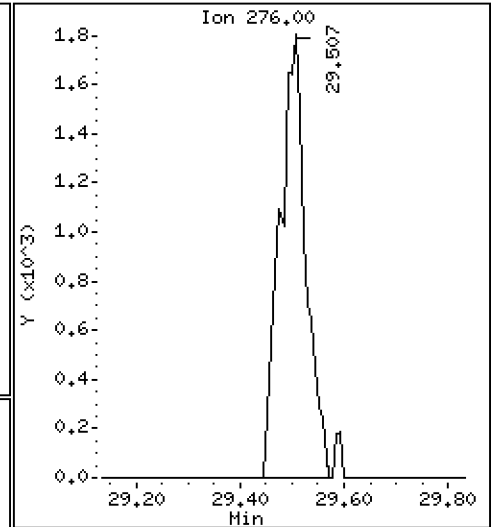
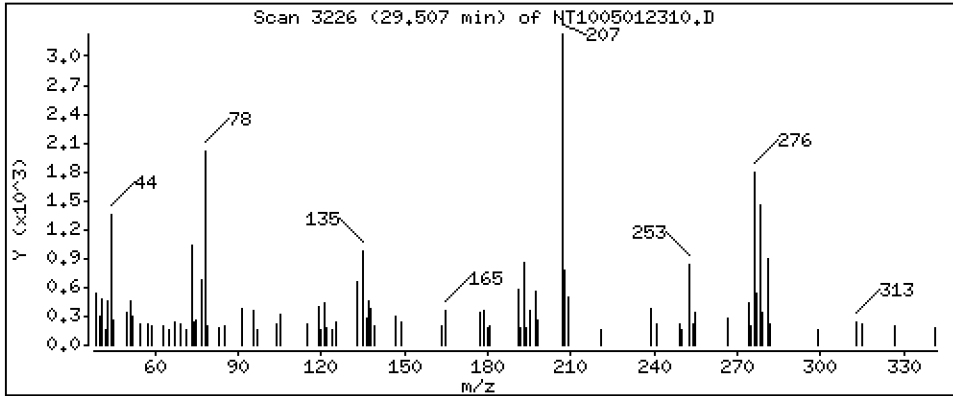
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,03998 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

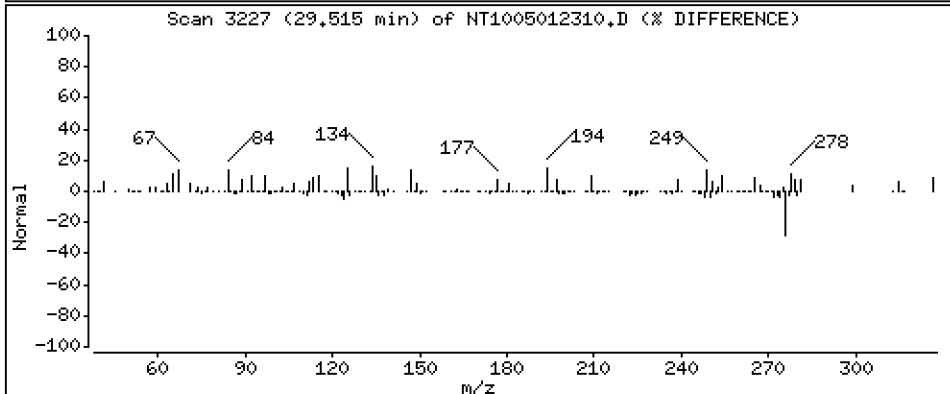
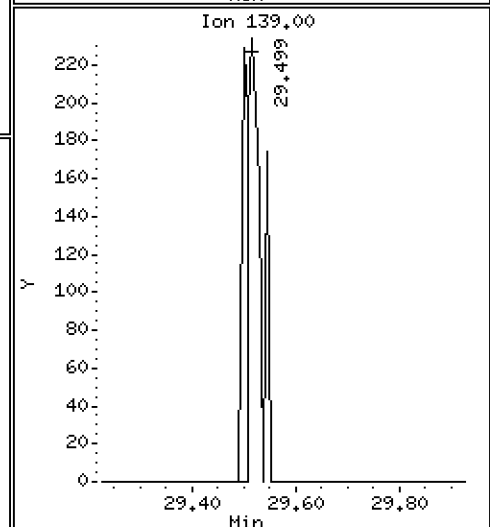
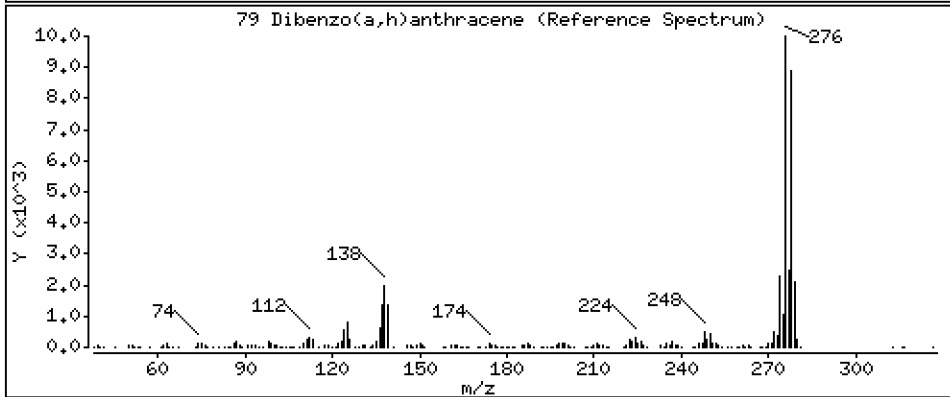
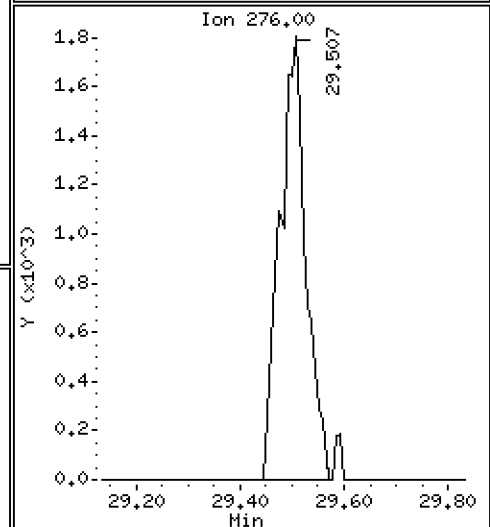
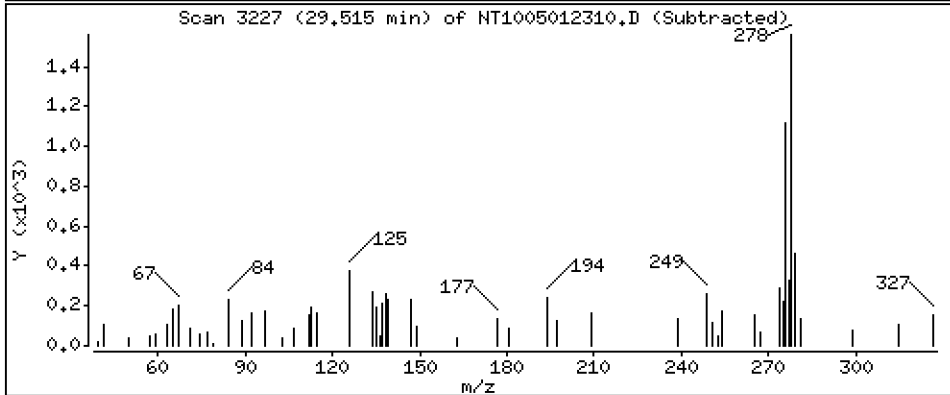
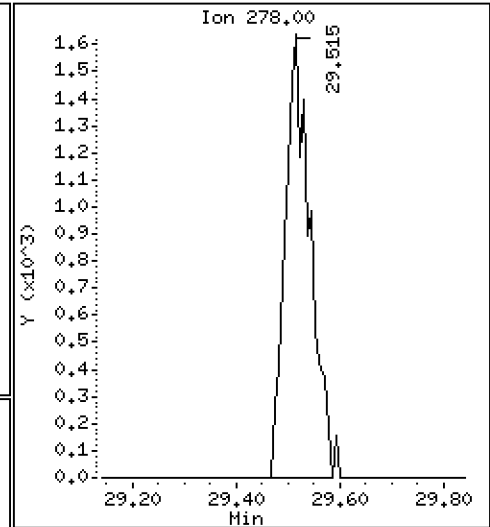
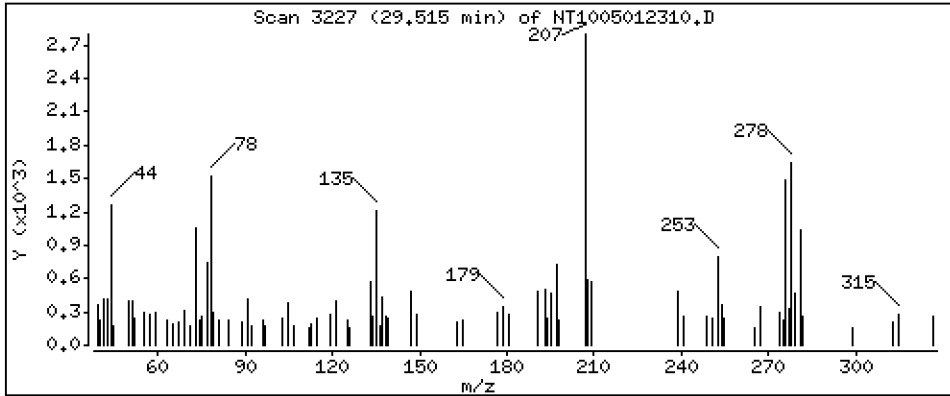
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,04128 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

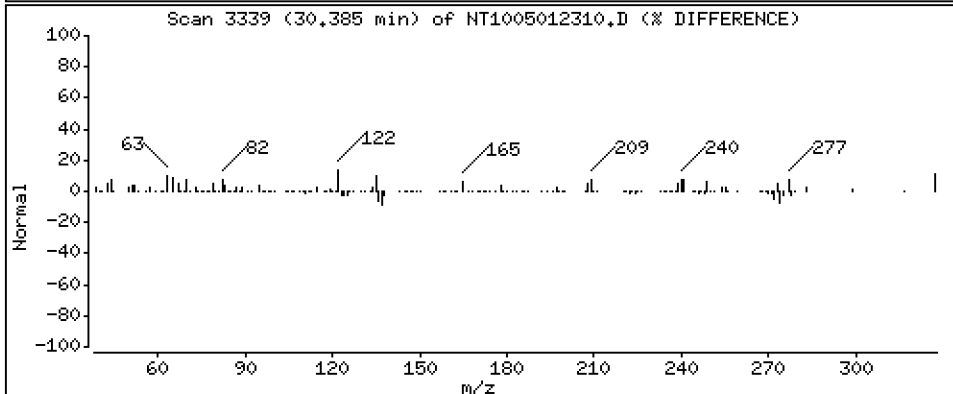
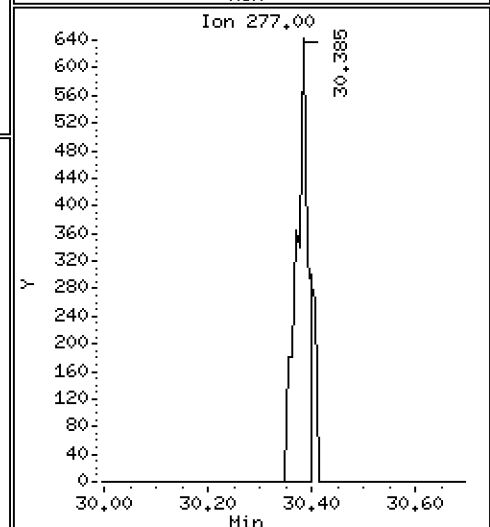
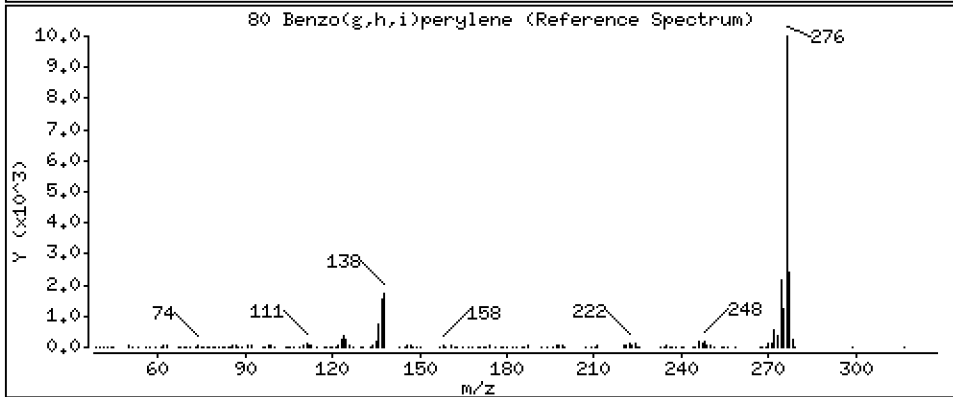
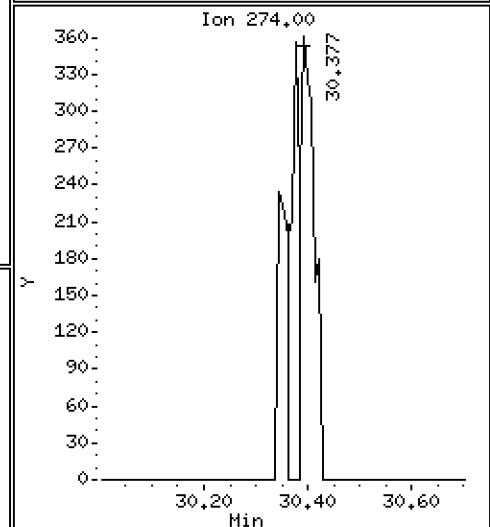
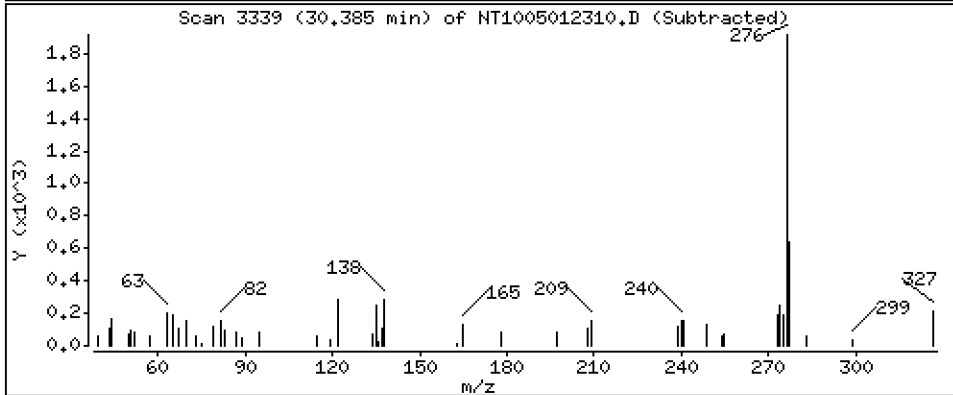
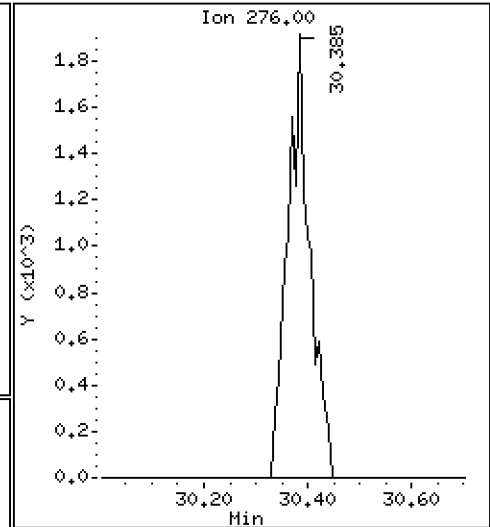
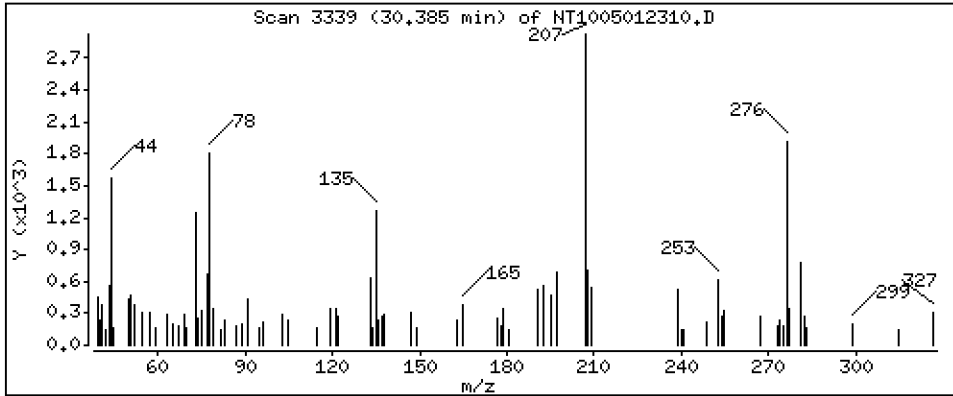
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,04527 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

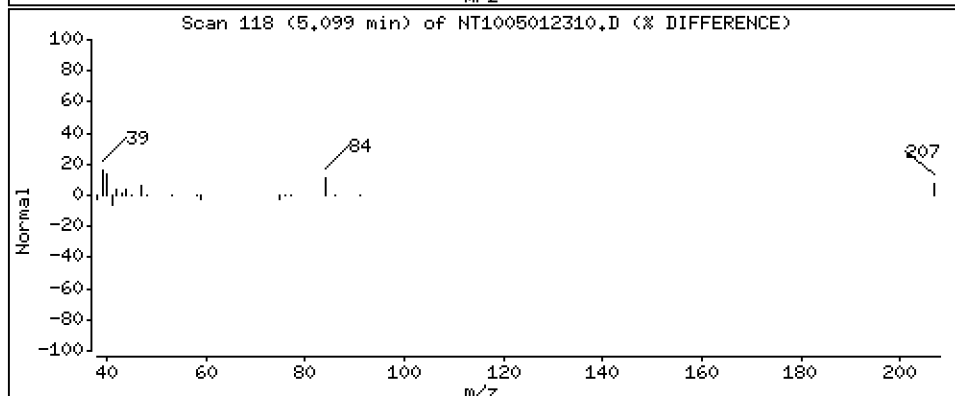
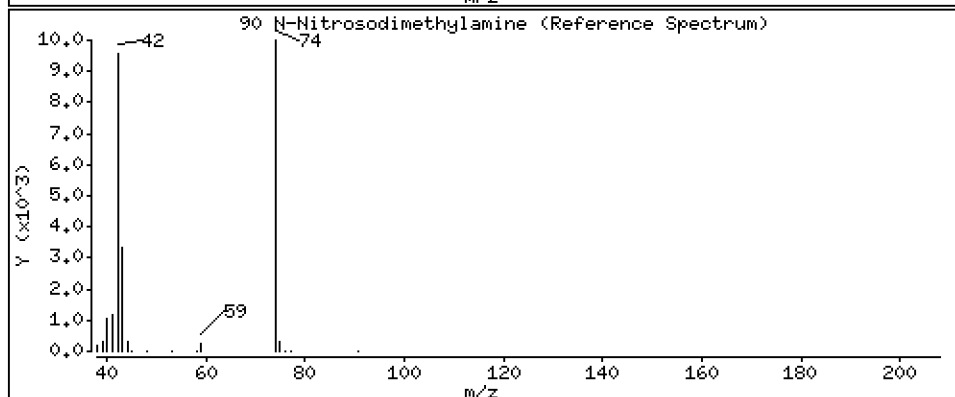
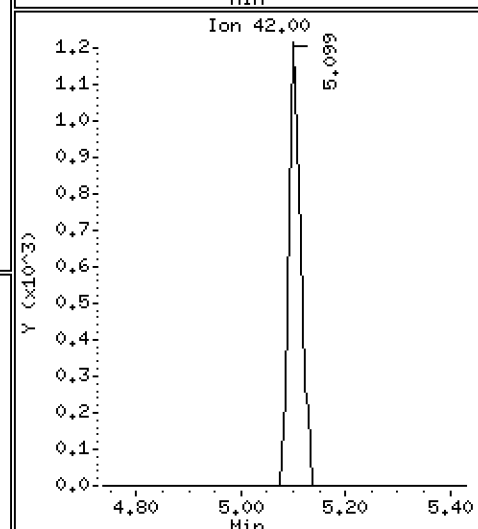
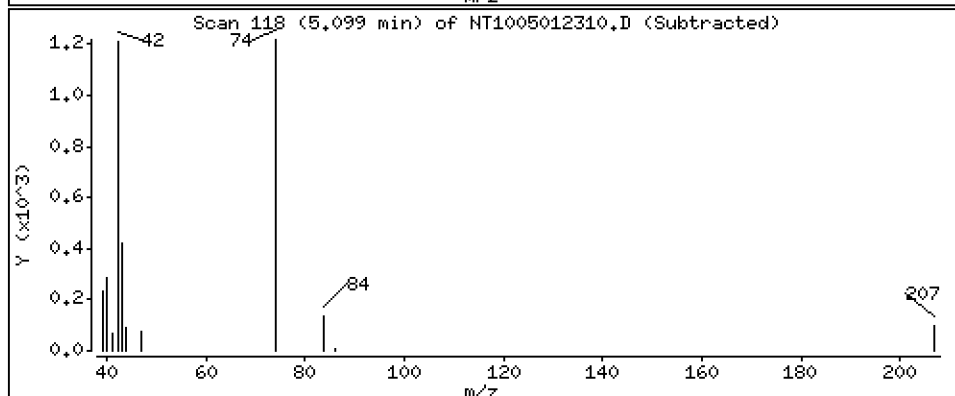
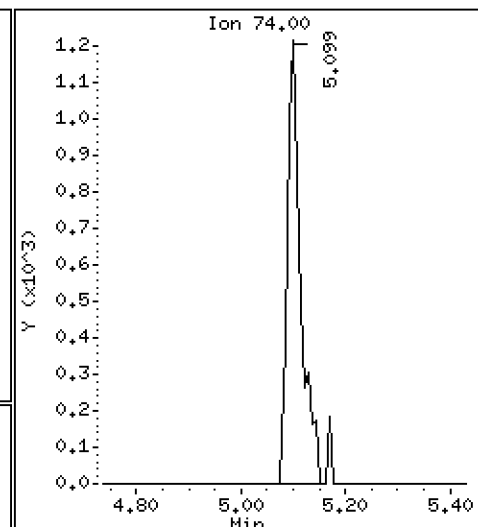
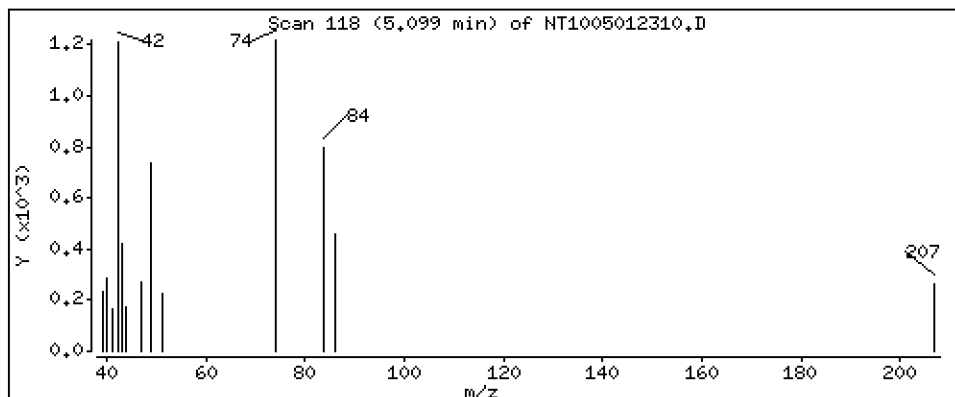
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

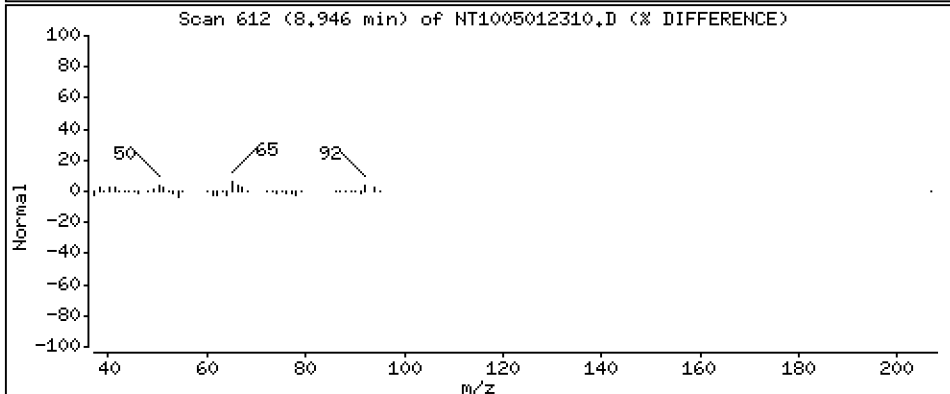
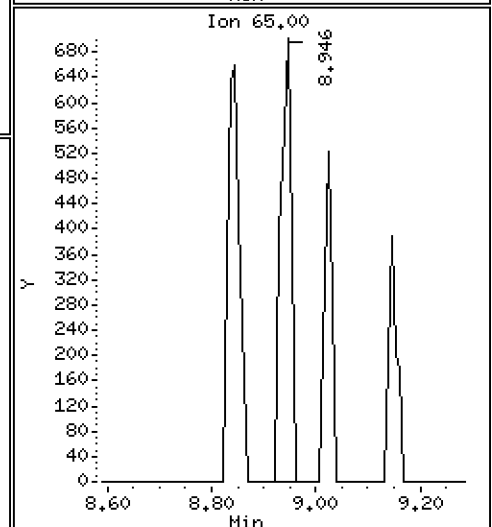
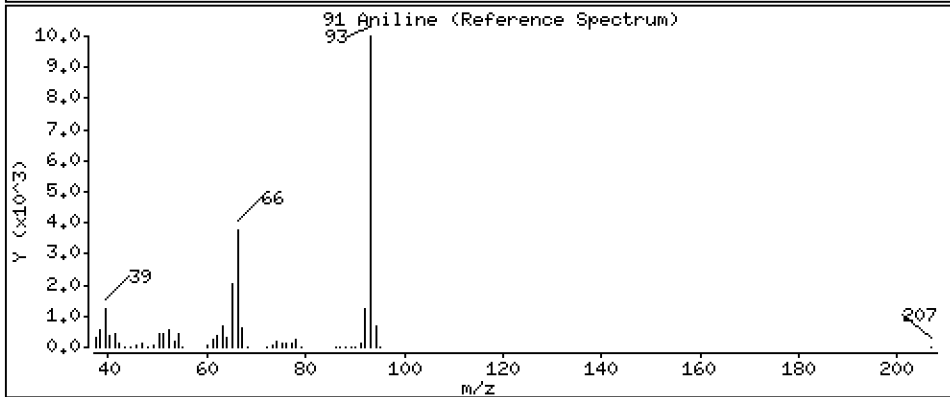
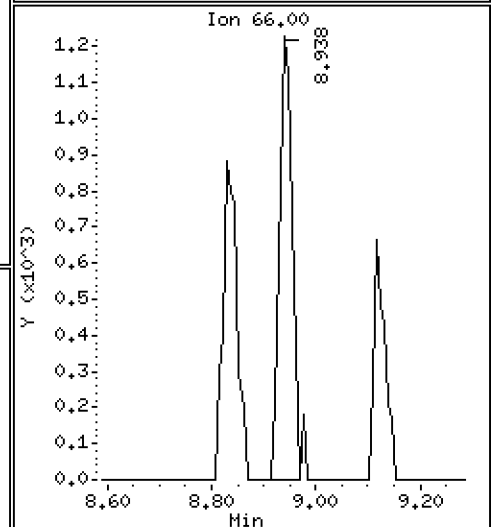
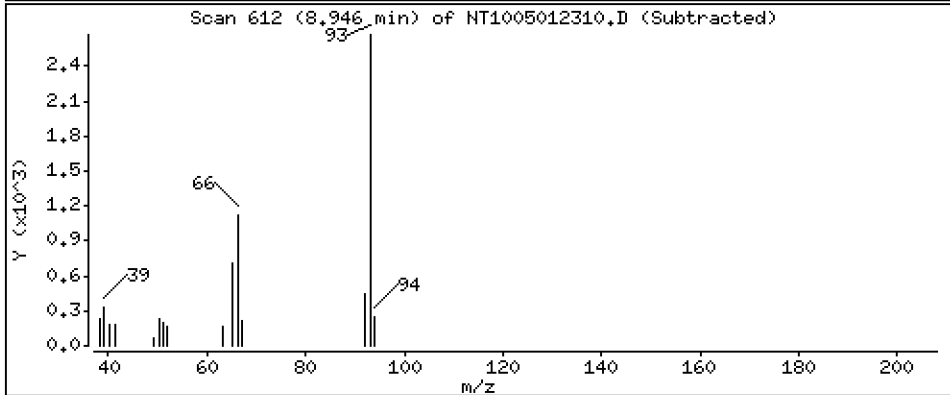
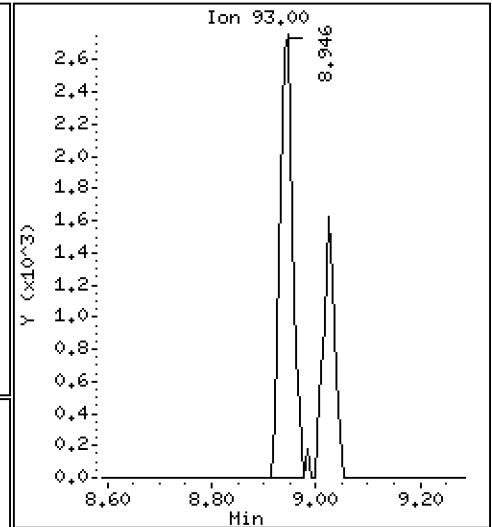
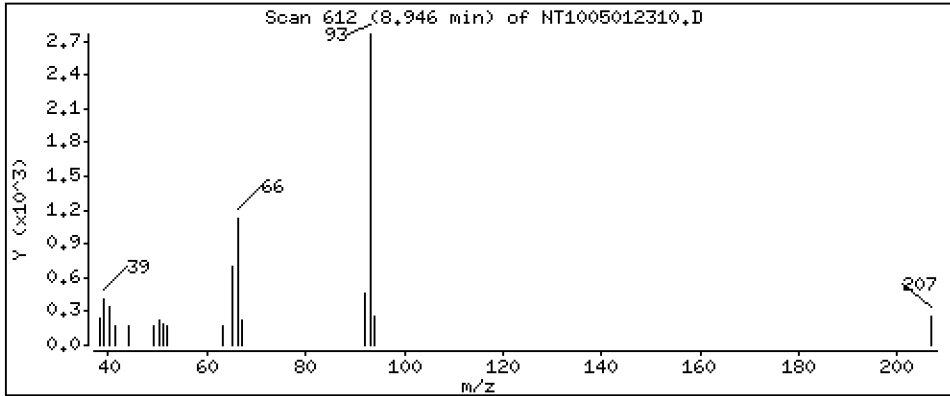
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

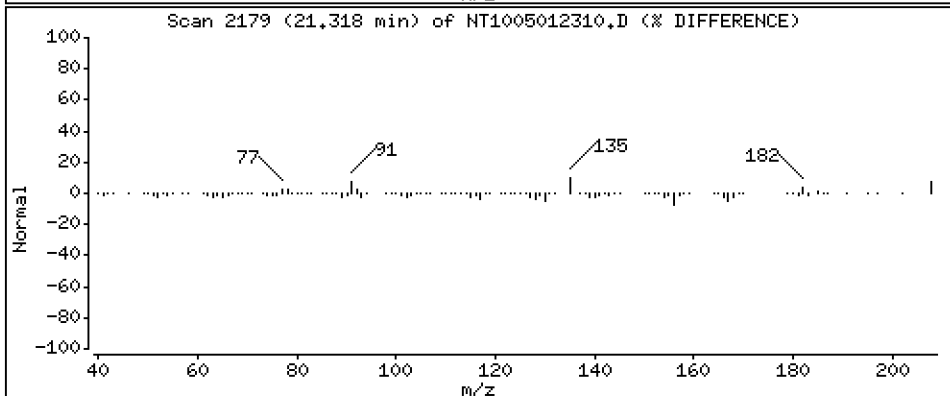
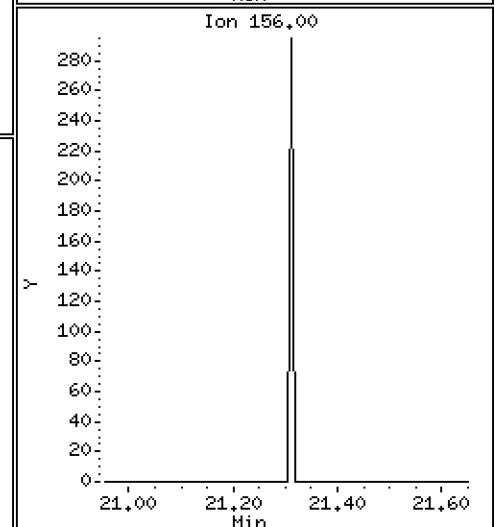
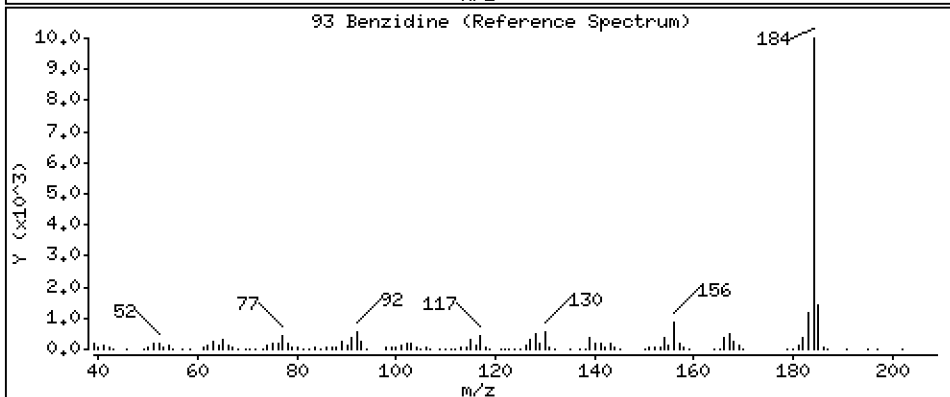
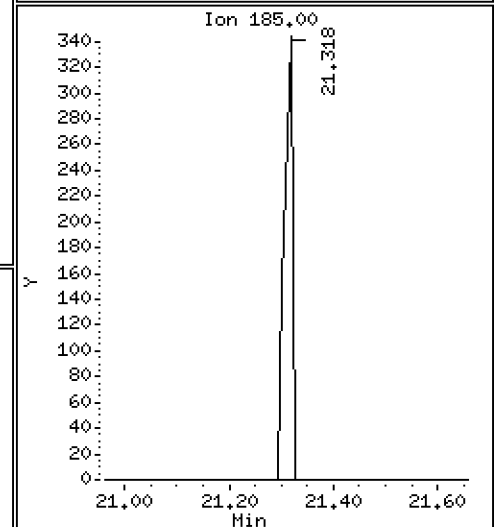
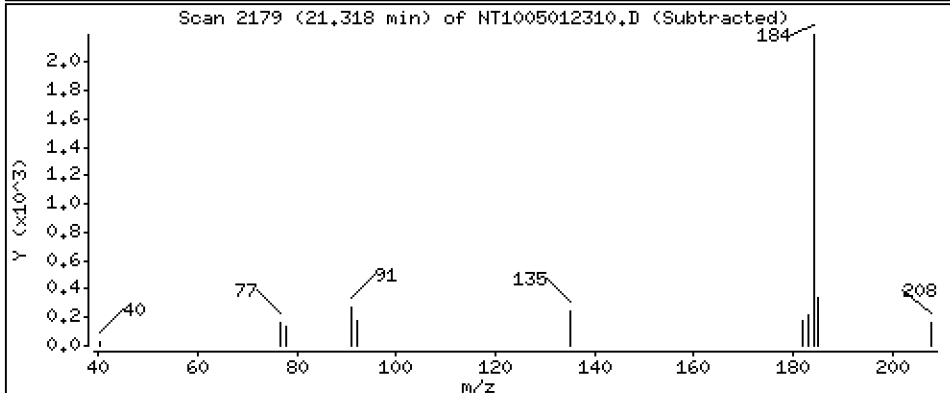
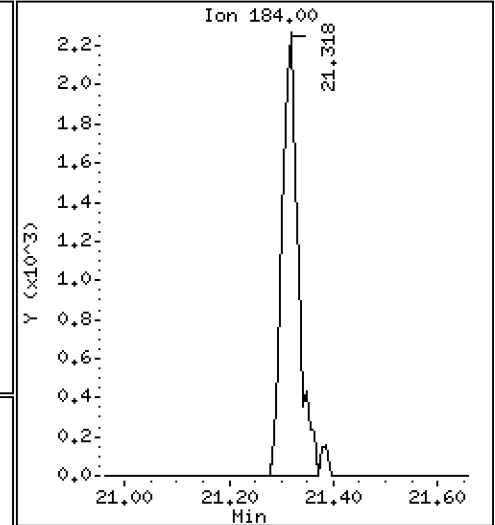
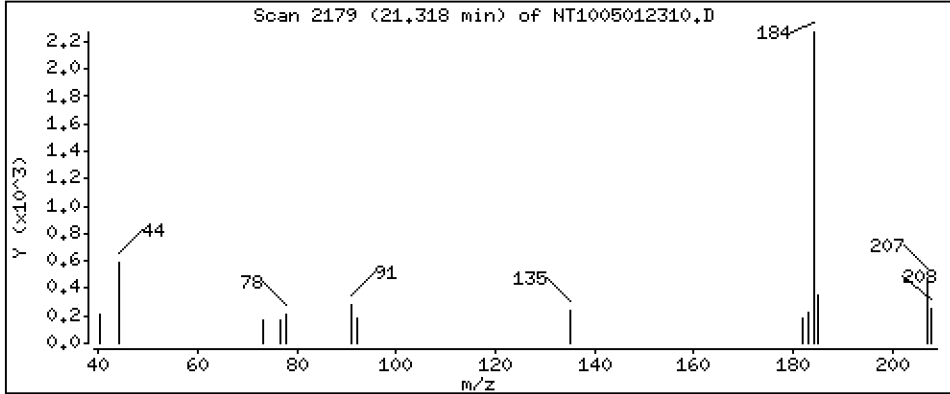
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 0,07026 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

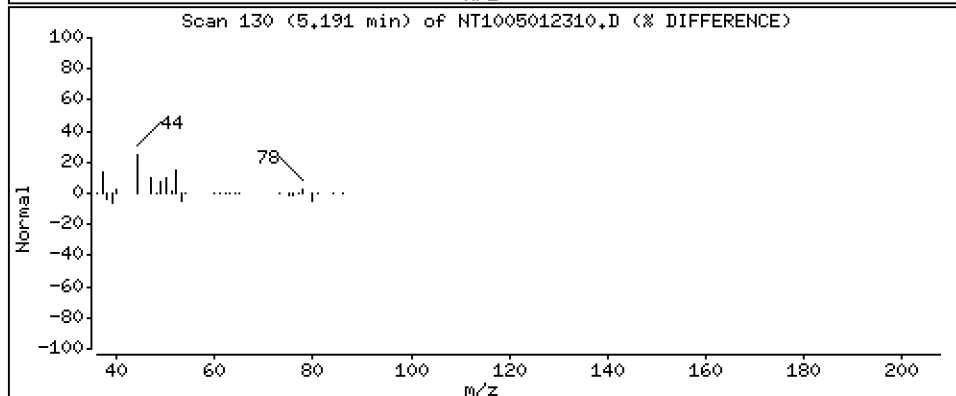
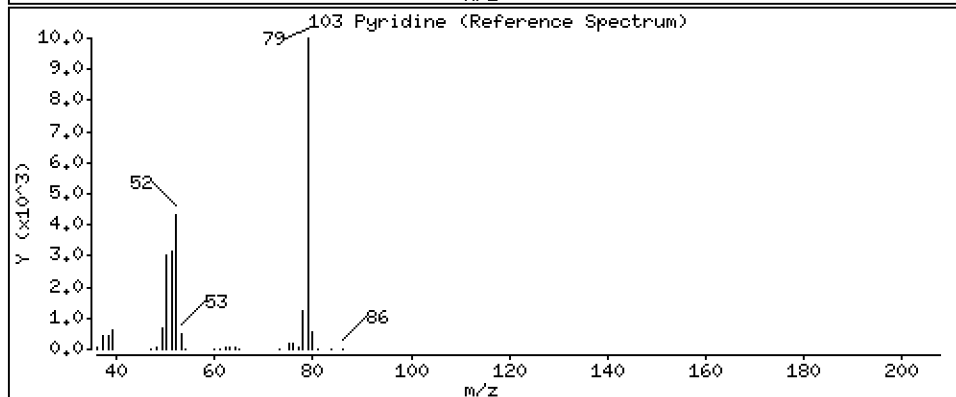
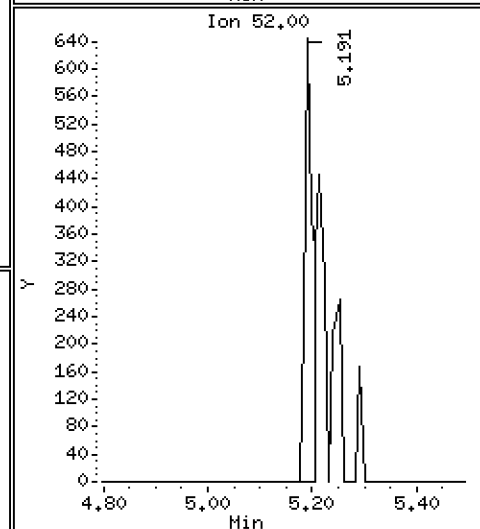
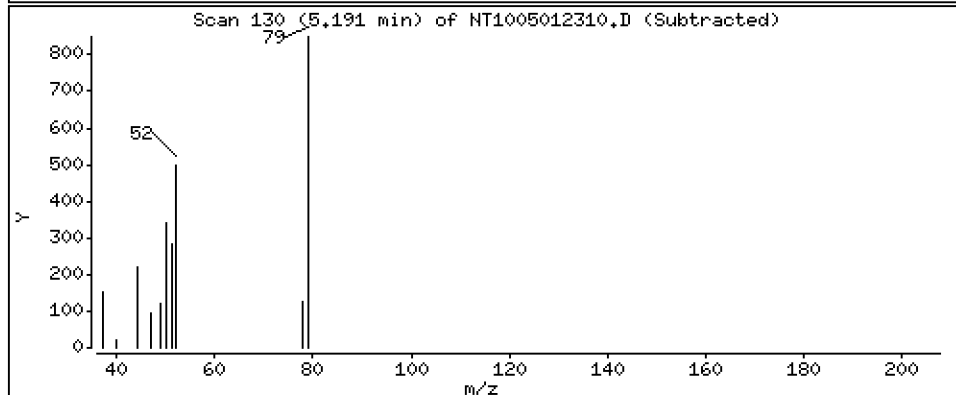
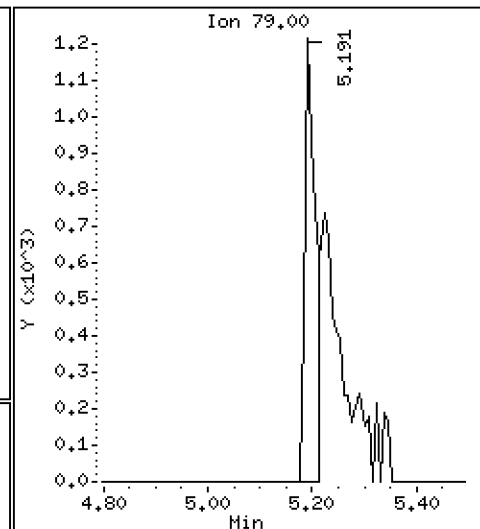
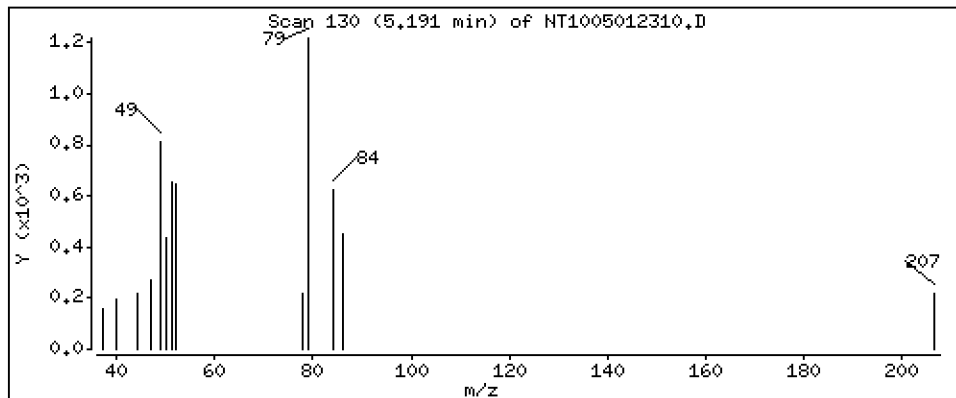
Sample Info: SEQ-SIM1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

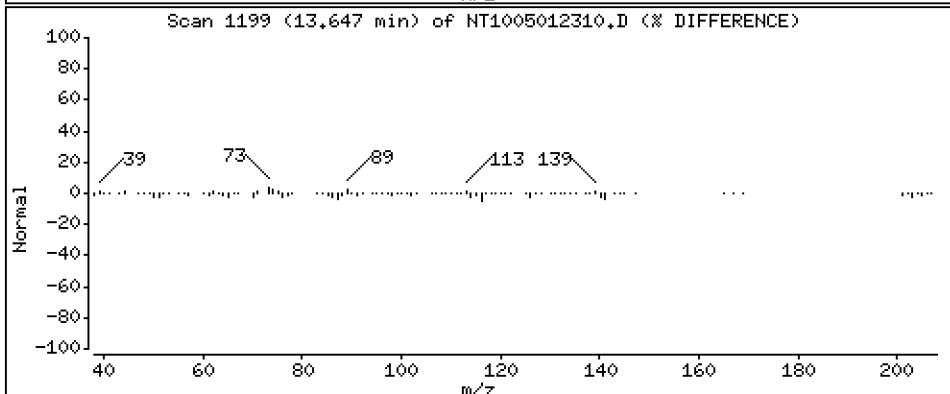
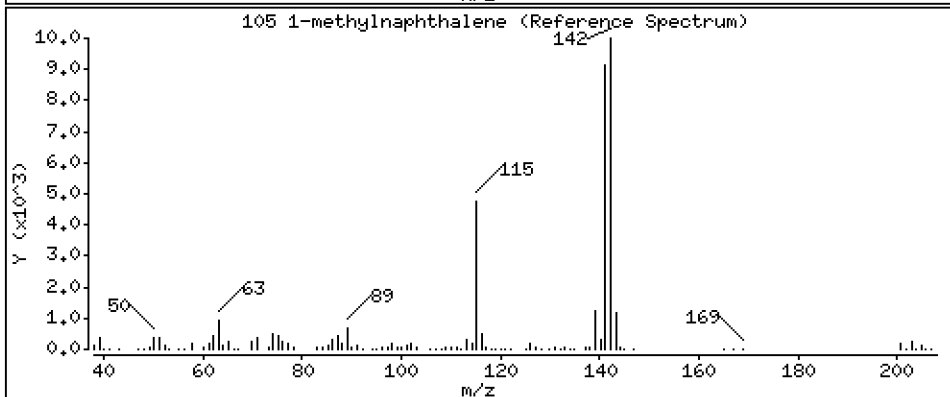
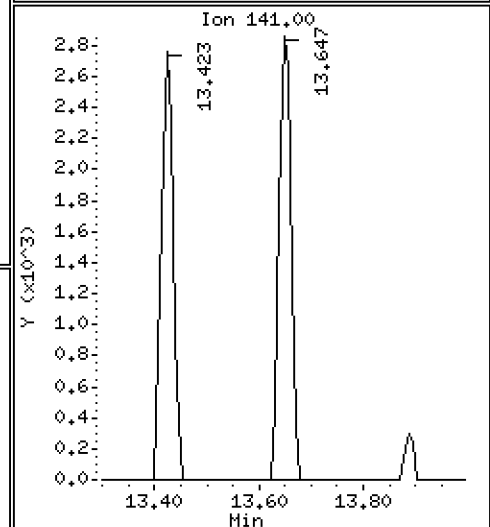
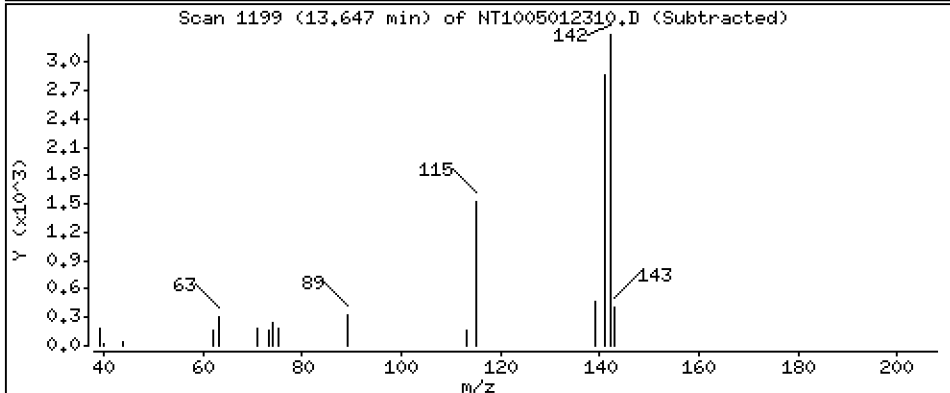
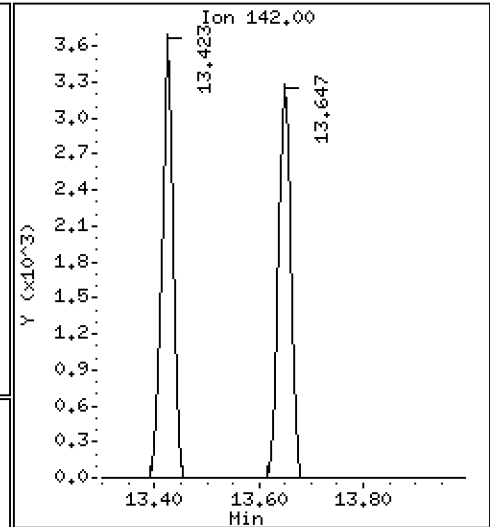
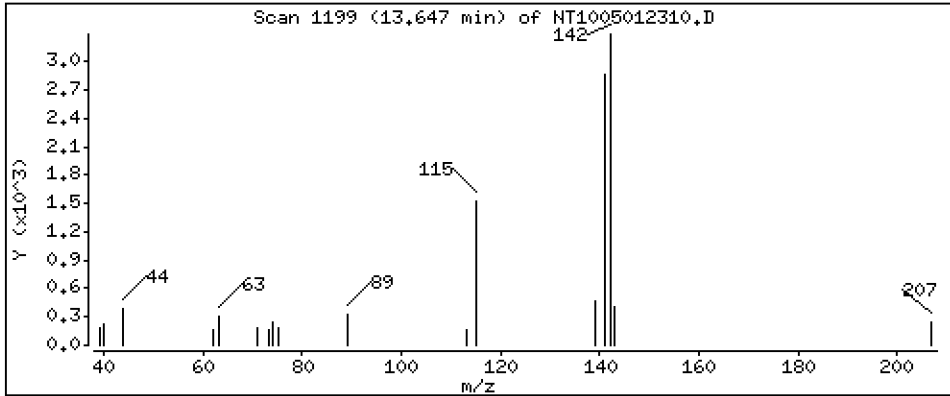
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,04724 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

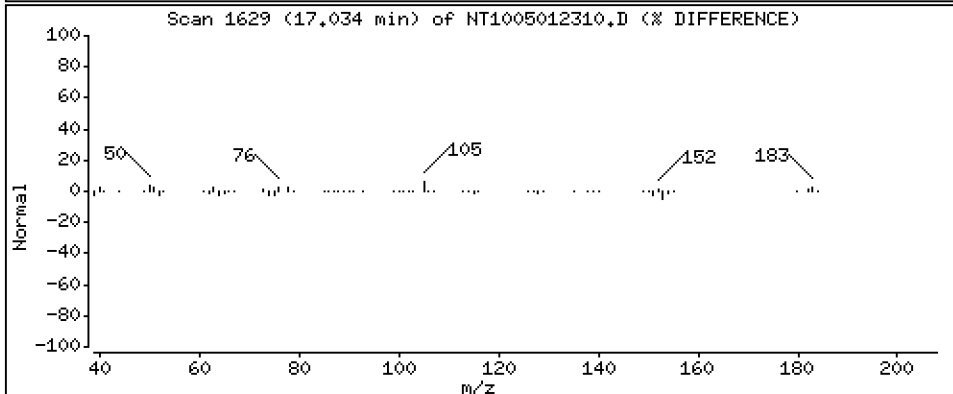
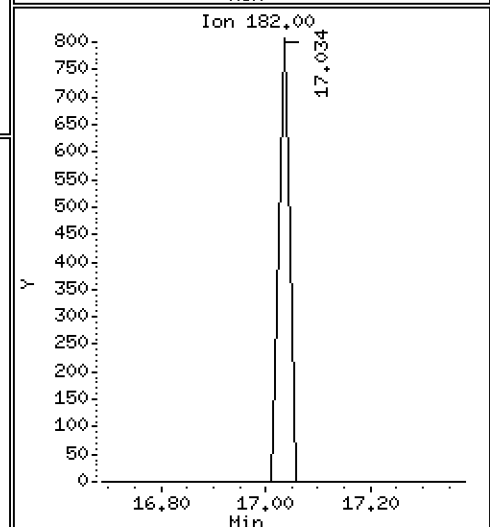
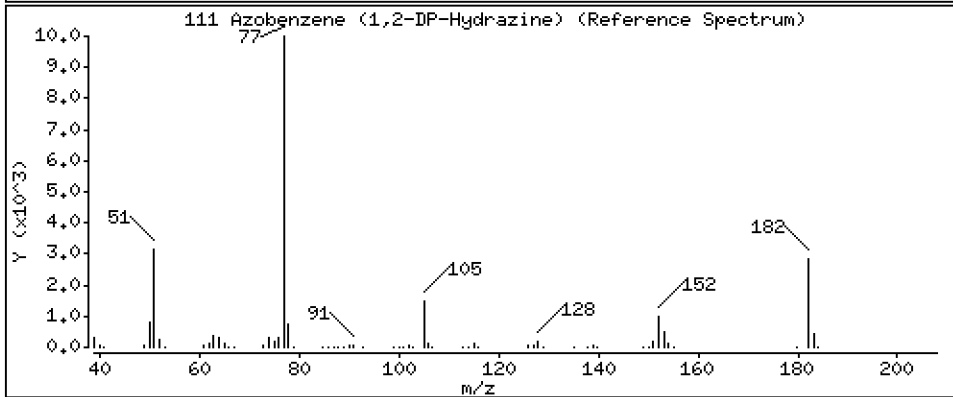
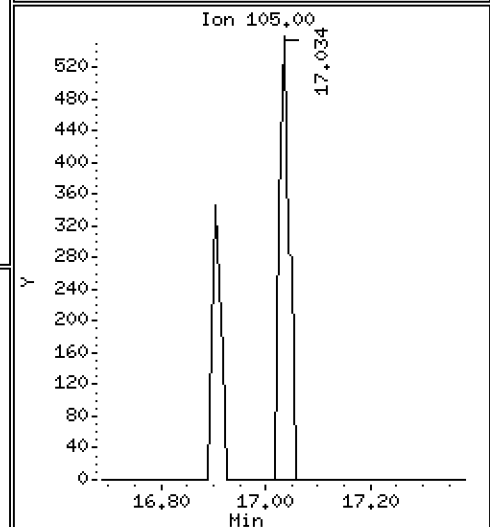
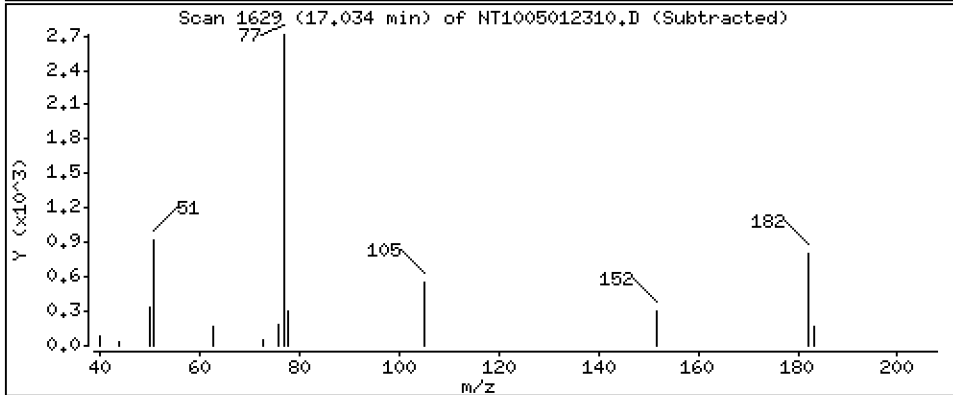
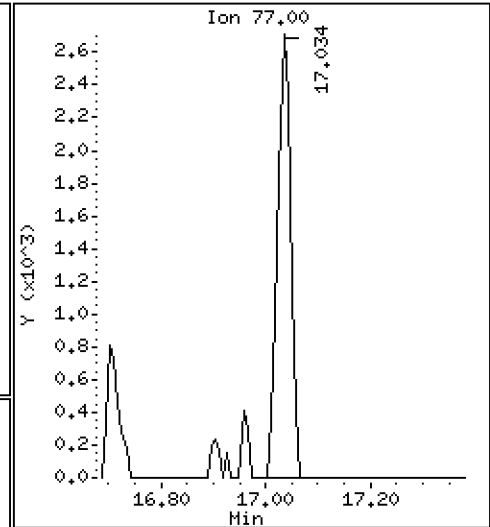
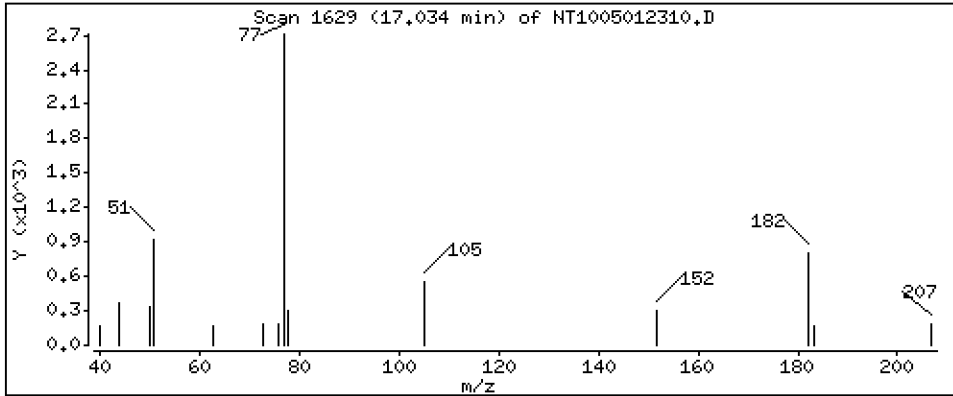
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.03961 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

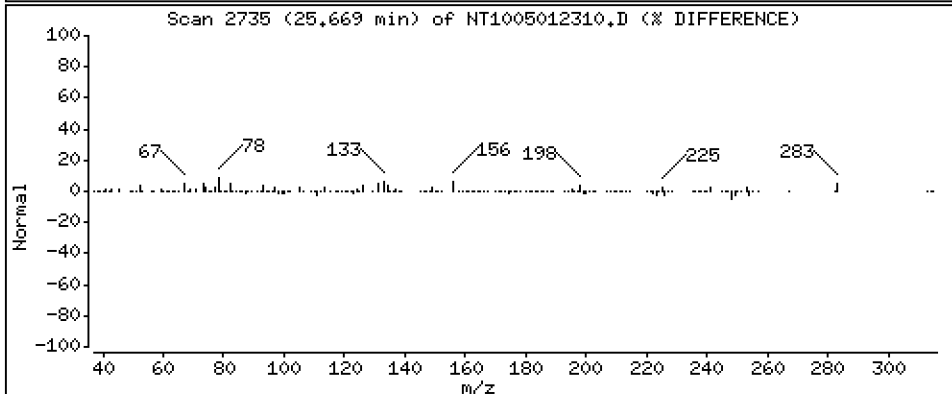
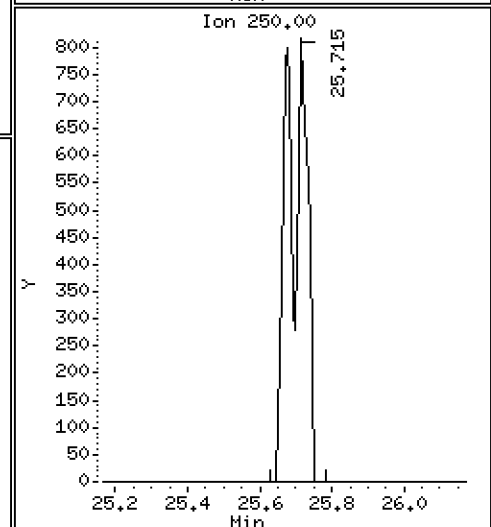
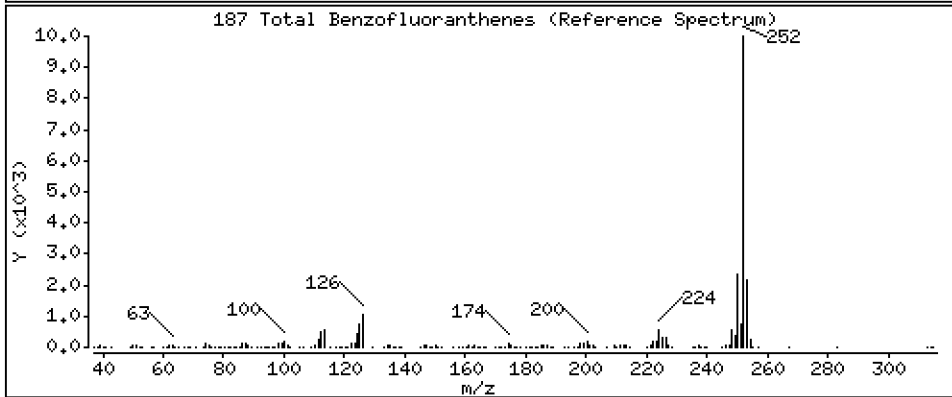
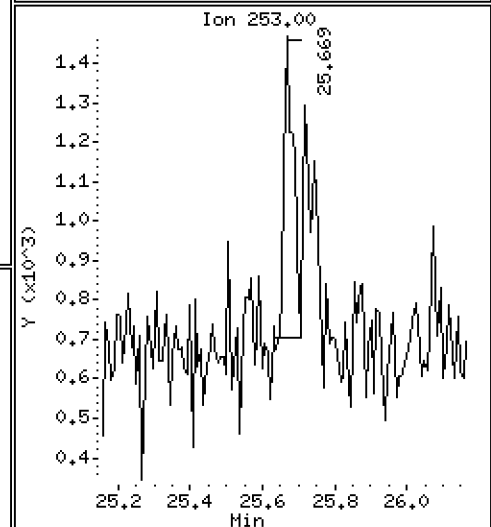
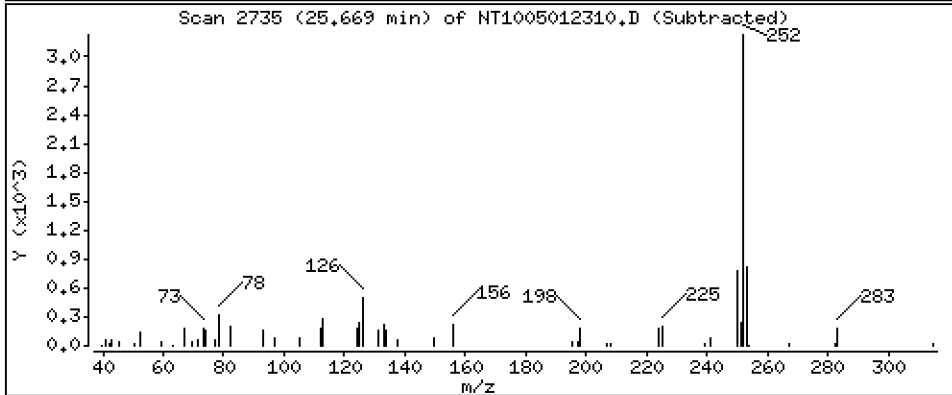
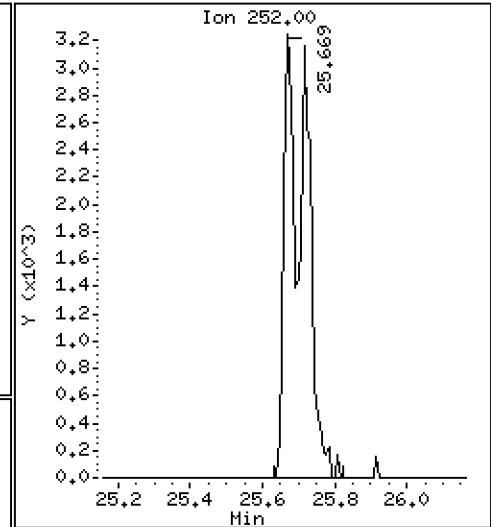
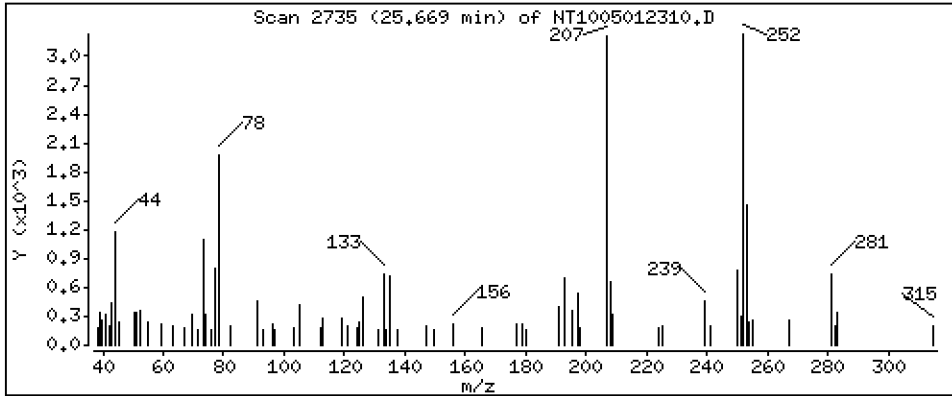
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 0,08697 ug/mL



Date : 01-MAY-2023 20:04

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SIM1

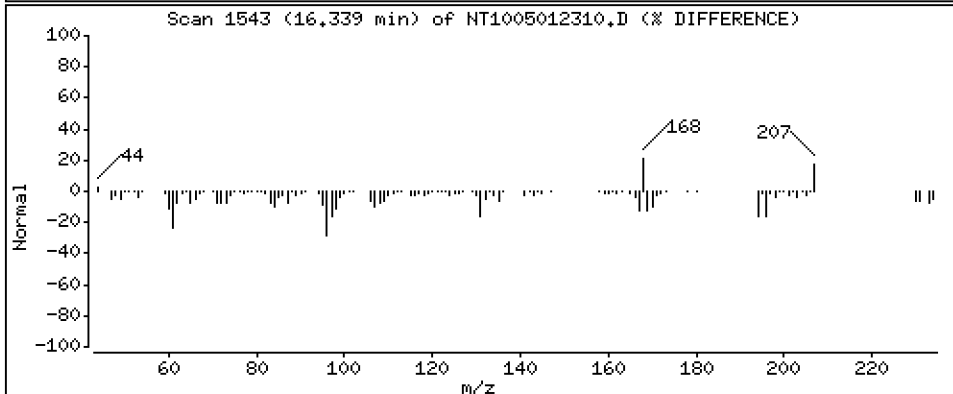
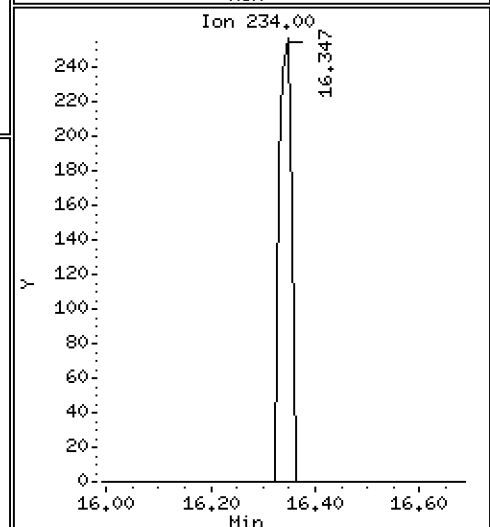
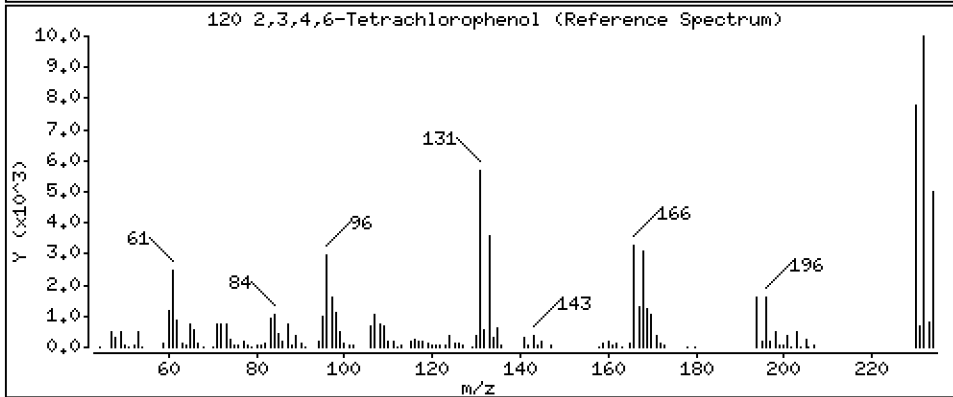
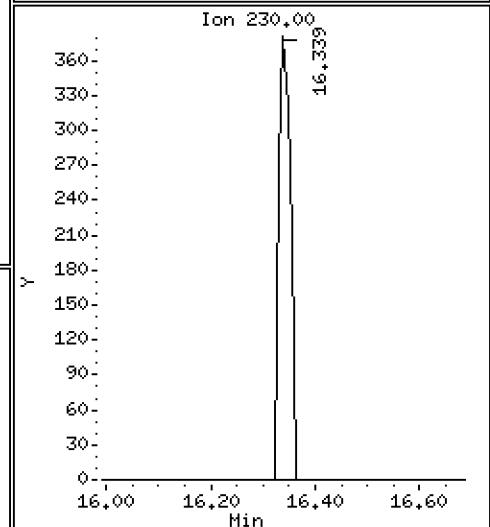
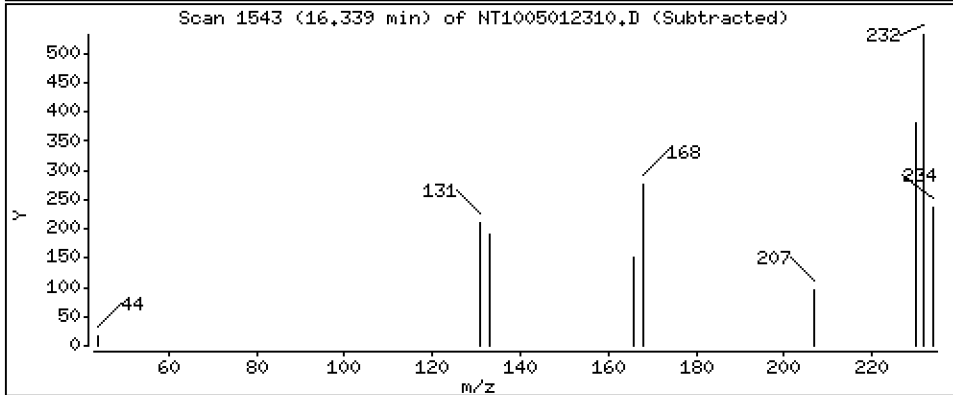
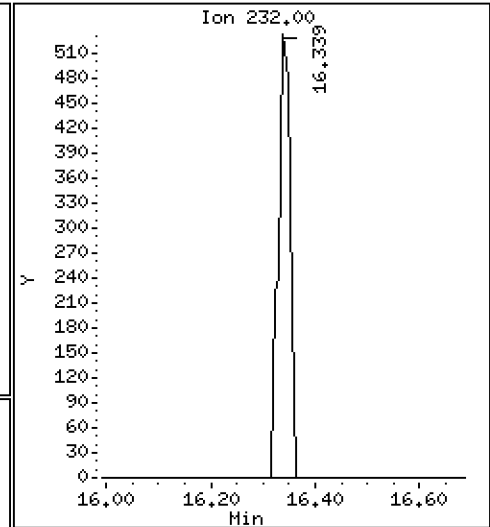
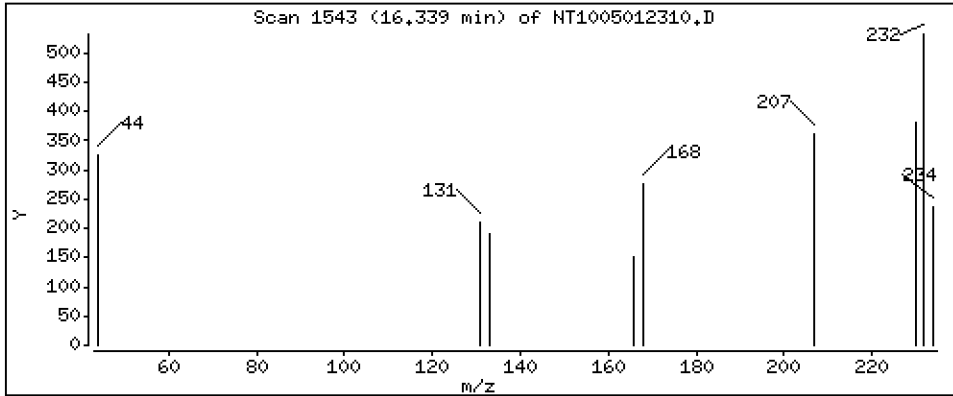
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,02058 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012310.D
 Lab Smp Id: SEQ-SIM1
 Inj Date : 01-MAY-2023 20:04
 Operator : VTS
 Smp Info : SEQ-SIM1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.238	7.230	(1.000)	2860		
\$ 2 Phenol-d5	99		8.814	8.814	(1.000)	3465		
3 Phenol	94		8.837	8.837	(1.000)	2901		
\$ 5 2-Chlorophenol-d4	132		9.123	9.123	(1.000)	3328		
4 Bis(2-Chloroethyl)ether	93		9.023	9.023	(1.000)	2415		
6 2-Chlorophenol	128		9.146	9.146	(1.000)	2453		
7 1,3-Dichlorobenzene	146		9.425	9.425	(1.000)	3210		
* 8 1,4-Dichlorobenzene-d4	152		Compound Not Detected.					
9 1,4-Dichlorobenzene	146		9.518	9.518	(1.000)	3042		
\$ 10 1,2-Dichlorobenzene-d4	152		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		9.883	9.875	(1.000)	3069		
11 Benzyl alcohol	108		9.751	9.750	(1.000)	949		
14 2,2'-oxybis(1-Chloropropane)	121		10.038	10.046	(1.000)	394		
13 2-Methylphenol	108		9.960	9.960	(1.000)	1766		
17 Hexachloroethane	117		10.473	10.472	(1.000)	1316		
16 N-Nitroso-di-n-propylamine	70		10.310	10.309	(1.000)	1444		
15 4-Methylphenol	108		10.232	10.232	(1.000)	2526		
\$ 18 Nitrobenzene-d5	82		10.589	10.589	(0.884)	2697	0.04305	0.04305
19 Nitrobenzene	77		10.620	10.628	(0.886)	2680	0.04426	0.04426
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		11.257	11.249	(0.939)	918	0.02849	0.02849
22 2,4-Dimethylphenol	107		11.283	11.283	(0.942)	4523	0.07650	0.07650
23 Bis(2-Chloroethoxy)methane	93		11.486	11.486	(0.959)	2281	0.04951	0.04951
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		11.699	11.698	(0.976)	2819	0.06069	0.06069
26 1,2,4-Trichlorobenzene	180		11.898	11.898	(0.993)	2788	0.04191	0.04191
* 27 Naphthalene-d8	136		11.983	11.983	(1.000)	560619	4.00000	
28 Naphthalene	128		12.022	12.022	(1.003)	7766	0.04965	0.04965
29 4-Chloroaniline	127		12.146	12.145	(1.014)	3929	0.06826	0.06826
30 Hexachlorobutadiene	225		12.377	12.377	(1.033)	1587	0.04326	0.04326
31 4-Chloro-3-methylphenol	107		13.089	13.089	(1.092)	3159	0.06241	0.06241
32 2-Methylnaphthalene	142		13.422	13.422	(1.120)	5327	0.04555	0.04555
33 Hexachlorocyclopentadiene	237		13.894	13.886	(0.890)	2764	0.07556	0.07556
34 2,4,6-Trichlorophenol	196		14.033	14.041	(0.898)	2110	0.05856	0.05856

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
35 2,4,5-Trichlorophenol	196		14.111	14.111	(0.903)	2226	0.05665	0.05665	
\$ 36 2-Fluorobiphenyl	172		14.204	14.203	(0.909)	6192	0.04862	0.04862	
37 2-Chloronaphthalene	162		14.420	14.420	(0.923)	4974	0.04959	0.04959	
38 2-Nitroaniline	65		14.676	14.676	(0.940)	1494	0.05129	0.05129	
39 Dimethylphthalate	163		15.101	15.101	(0.967)	5327	0.04723	0.04723	
40 Acenaphthylene	152		15.303	15.303	(0.980)	6798	0.04342	0.04342	
41 2,6-Dinitrotoluene	165		15.249	15.248	(0.976)	1298	0.05099	0.05099	
* 42 Acenaphthene-d10	164		15.620	15.612	(1.000)	294152	4.00000		
43 3-Nitroaniline	138		Compound Not Detected.						
44 Acenaphthene	153		15.682	15.682	(1.004)	4872	0.04893	0.04893	
45 2,4-Dinitrophenol	184		Compound Not Detected.						
46 Dibenzofuran	168		16.006	16.006	(1.025)	7210	0.04966	0.04966	
47 4-Nitrophenol	109		Compound Not Detected.						
48 2,4-Dinitrotoluene	165		16.053	16.060	(1.028)	1558	0.04297	0.04297	
50 Diethylphthalate	149		16.563	16.555	(1.060)	4834	0.04128	0.04128	
49 Fluorene	166		16.733	16.725	(1.071)	4866	0.04063	0.04063	
51 4-Chlorophenyl-phenylether	204		16.710	16.702	(1.070)	2695	0.04519	0.04519	
52 4-Nitroaniline	138		16.818	16.810	(1.077)	1047	0.04301	0.04301	
53 4,6-Dinitro-2-methylphenol	198		16.903	16.902	(0.905)	822	0.03962	0.03962	
54 N-Nitrosodiphenylamine	169		16.957	16.956	(0.908)	2918	0.04146	0.04146	
\$ 55 2,4,6-Tribromophenol	330		17.273	17.265	(1.106)	272	0.01931	0.01931	
56 4-Bromophenyl-phenylether	248		17.728	17.712	(0.949)	1339	0.04030	0.04030	
57 Hexachlorobenzene	284		18.045	18.044	(0.966)	1955	0.05862	0.05862	
58 Pentachlorophenol	266		18.401	18.393	(0.985)	691	0.03046	0.03046	
* 59 Phenanthrene-d10	188		18.672	18.671	(1.000)	532621	4.00000		
60 Phenanthrene	178		18.718	18.718	(1.002)	8209	0.05253	0.05253	
61 Anthracene	178		18.819	18.811	(1.008)	5725	0.03964	0.03964	
62 Carbazole	167		19.136	19.136	(1.025)	5051	0.03951	0.03951	
63 Di-n-butylphthalate	149		19.902	19.901	(1.066)	5969	0.03123	0.03123	
64 Fluoranthene	202		21.085	21.085	(0.890)	7356	0.03890	0.03890	
65 Pyrene	202		21.511	21.503	(0.908)	8065	0.04269	0.04269	
\$ 66 Terphenyl-d14	244		21.782	21.774	(0.919)	6499	0.04350	0.04350	
67 Butylbenzylphthalate	149		22.695	22.687	(0.958)	2067	0.02329	0.02329	
68 Benzo(a)anthracene	228		23.663	23.655	(0.999)	8620	0.05140	0.05140	
* 69 Chrysene-d12	240		23.694	23.686	(1.000)	423589	4.00000		
70 3,3'-Dichlorobenzidine	252		23.609	23.601	(0.996)	5947	0.11684	0.11684	
71 Chrysene	228		23.733	23.733	(1.002)	7458	0.04969	0.04969	
72 bis(2-Ethylhexyl)phthalate	149		23.702	23.702	(0.958)	3072	0.03435	0.03435	
* 134 Di-n-octylphthalate-d4	153		24.732	24.724	(1.000)	620933	4.00000		
73 Di-n-octylphthalate	149		24.747	24.739	(1.001)	9605	0.05863	0.05863	
74 Benzo(b)fluoranthene	252		25.668	25.660	(0.967)	6186	0.03915	0.03915	
75 Benzo(k)fluoranthene	252		25.715	25.715	(0.969)	6231	0.03974	0.03974	
76 Benzo(a)pyrene	252		26.404	26.388	(0.995)	5558	0.04202	0.04202	
* 77 Perylene-d12	264		26.536	26.520	(1.000)	384682	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		29.506	29.483	(1.112)	6353	0.03998	0.03998	
79 Dibenzo(a,h)anthracene	278		29.514	29.491	(1.112)	5493	0.04128	0.04128	
80 Benzo(g,h,i)perylene	276		30.384	30.353	(1.145)	5734	0.04527	0.04527	
90 N-Nitrosodimethylamine	74		5.098	5.083	(1.000)	2240			
91 Aniline	93		8.945	8.938	(1.000)	4565			
93 Benzidine	184		21.318	21.310	(0.900)	4739	0.07026	0.07026	
103 Pyridine	79		5.191	5.144	(1.000)	1829			
105 1-methylnaphthalene	142		13.646	13.646	(1.139)	5065	0.04724	0.04724	
111 Azobenzene (1,2-DP-Hydrazine)	77		17.034	17.034	(1.091)	4531	0.03961	0.03961	
187 Total Benzofluoranthenes	252		25.668	25.660	(0.967)	13229	0.08697	0.08697	

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS					(ug/mL)	(ug/mL)	
=====	=====		=====	=====	=====	=====	=====	
120 2,3,4,6-Tetrachlorophenol	232		16.339	16.339	(1.046)	778	0.02058	0.02058

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012310.D Calibration Time: 16:10
 Lab Smp Id: SEQ-SIM1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	0	-100.00 <-
27 Naphthalene-d8	493698	246849	987396	560619	13.56
42 Acenaphthene-d10	279210	139605	558420	294152	5.35
59 Phenanthrene-d10	521463	260732	1042926	532621	2.14
69 Chrysene-d12	369911	184956	739822	423589	14.51
134 Di-n-octylphthala	626668	313334	1253336	620933	-0.92
77 Perylene-d12	311339	155670	622678	384682	23.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	0.00	-100.00 <-
27 Naphthalene-d8	11.99	11.49	12.49	11.98	-0.06
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
134 Di-n-octylphthala	24.75	24.25	25.25	24.73	-0.06
77 Perylene-d12	26.55	26.05	27.05	26.54	-0.06

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

REVIEW SUMMARY FOR FILE - NT1005012310.D

Lab ID: SEQ-SIM1
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 20:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.059	-0.0589	2,2'-oxybis(1-Chloropropane)

RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012311.D

Date: 01-May-2023 20:43

Client ID:

Sample Info: SLE0036-SCV1

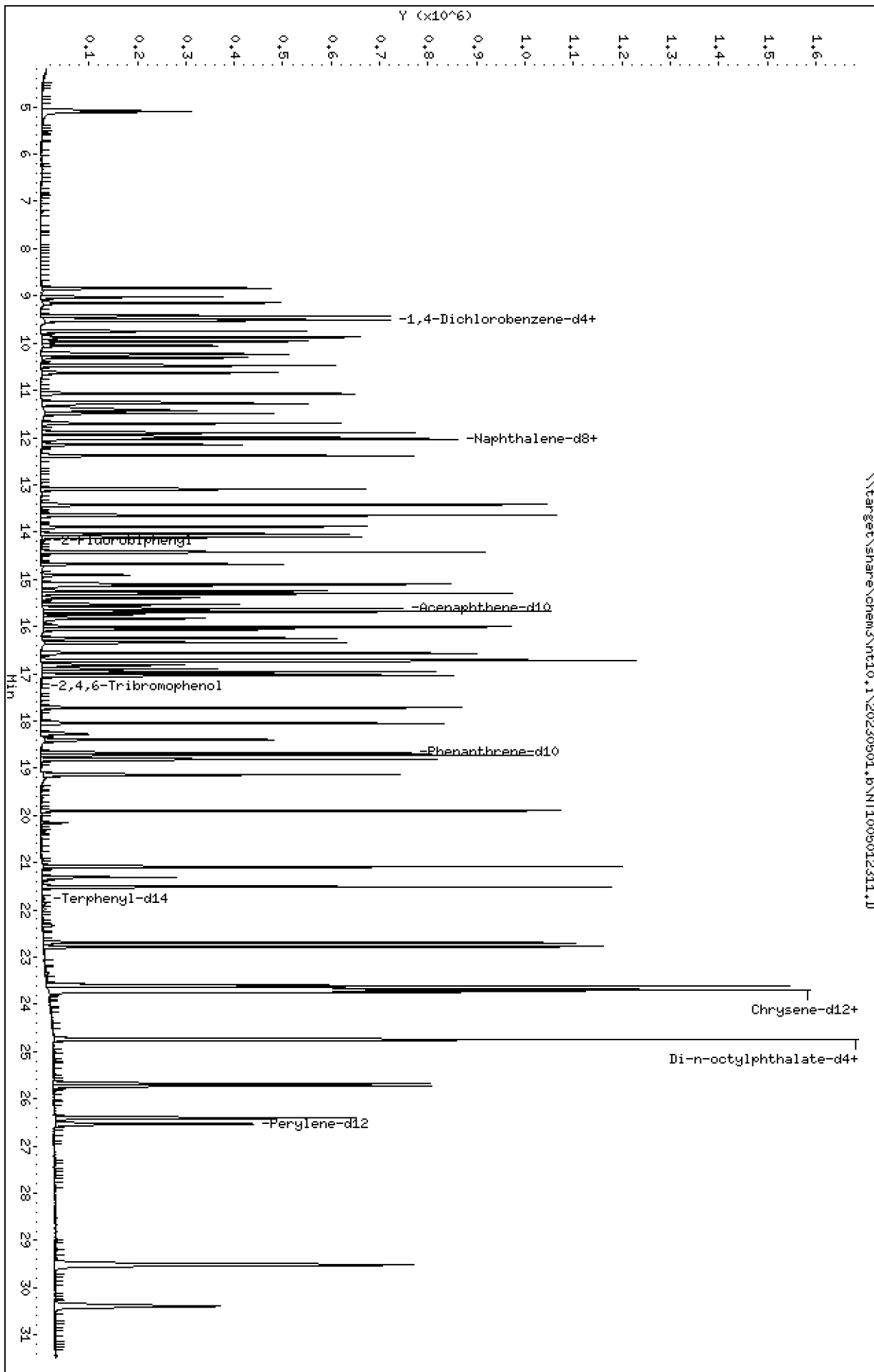
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501_b\NT1005012311.D



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

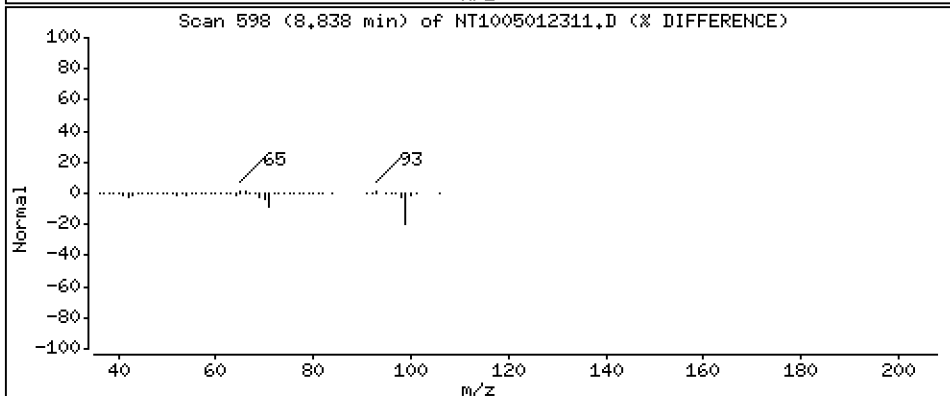
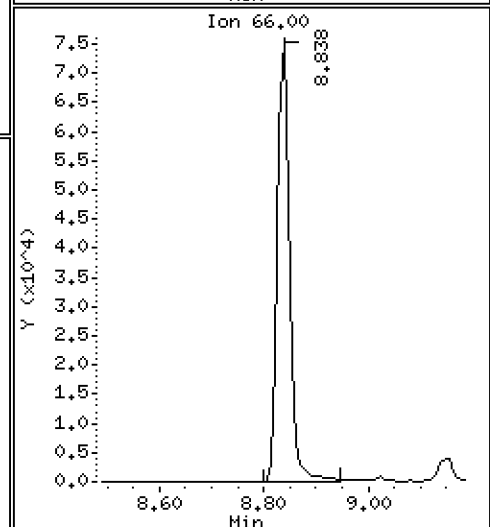
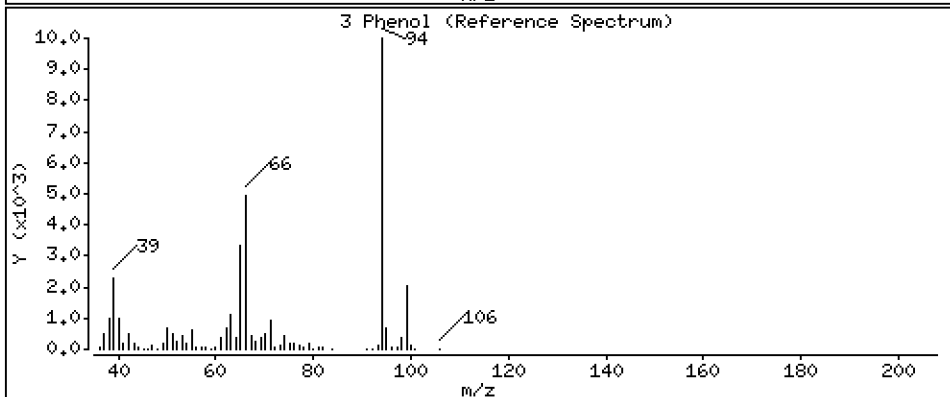
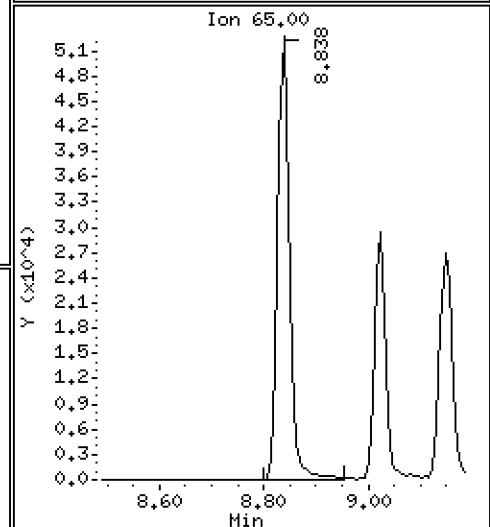
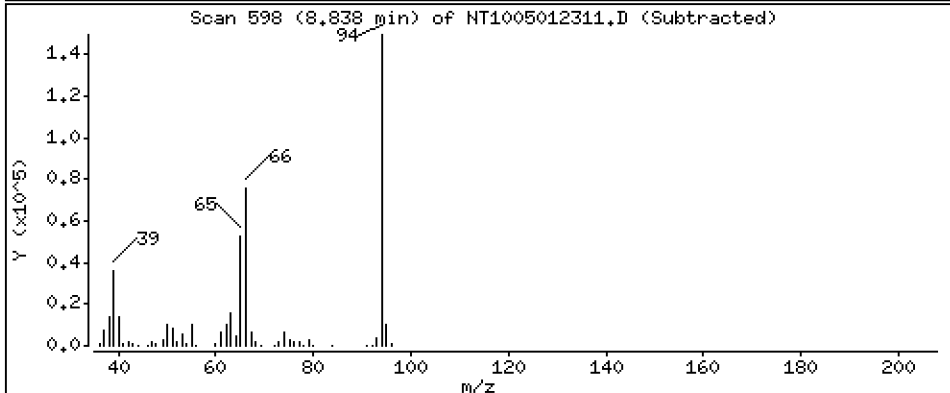
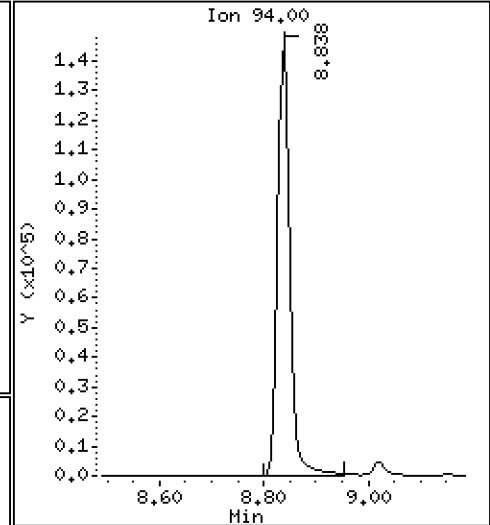
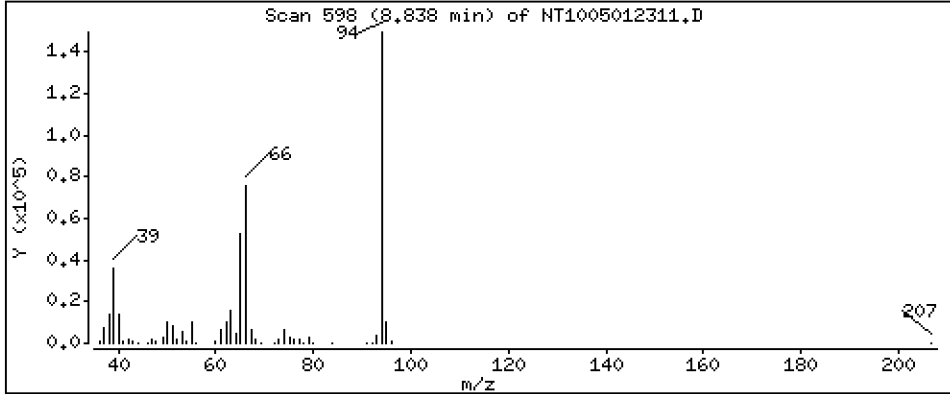
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,483 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

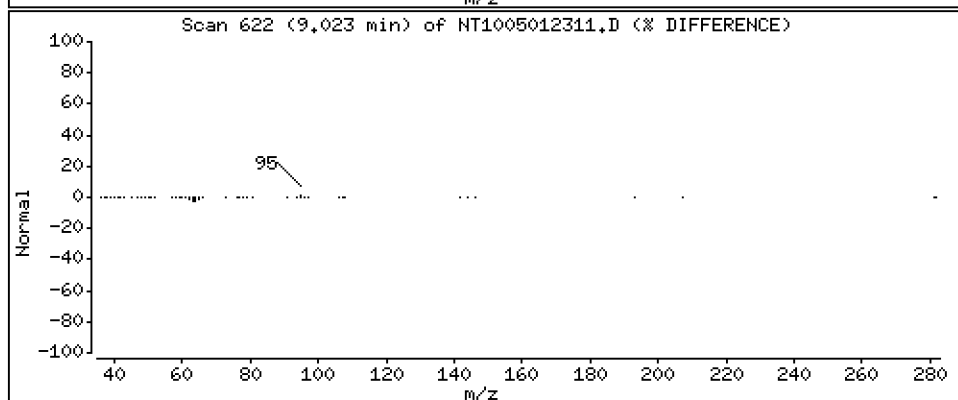
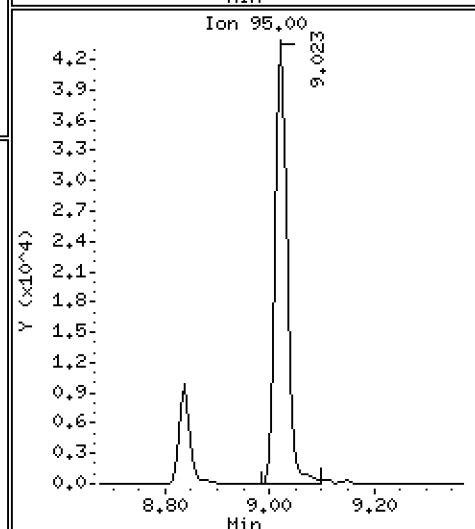
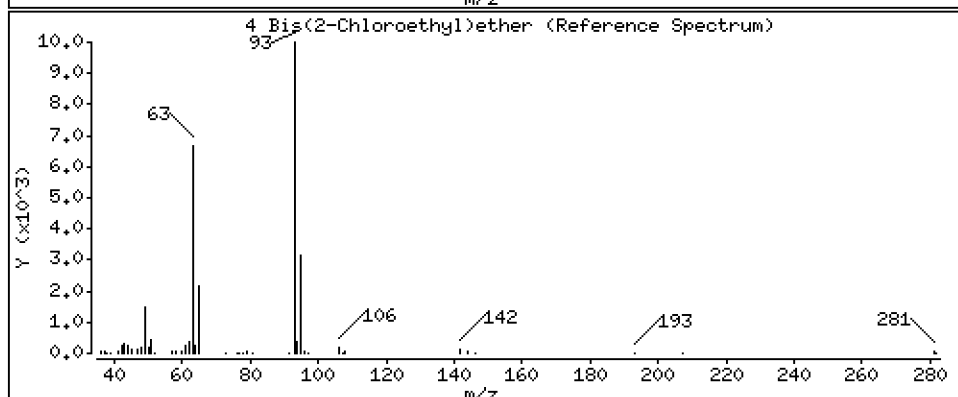
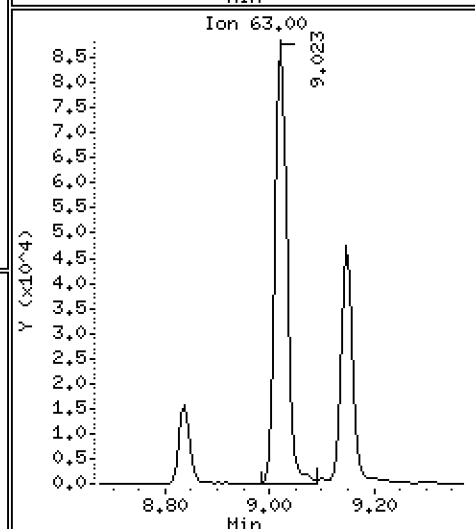
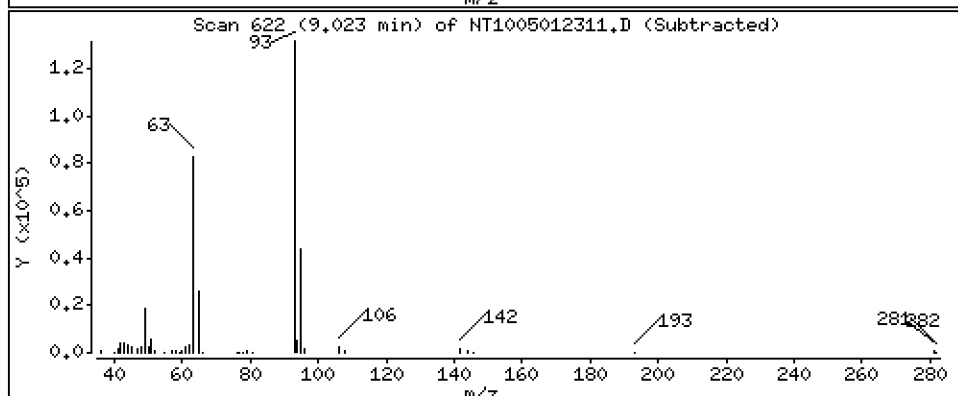
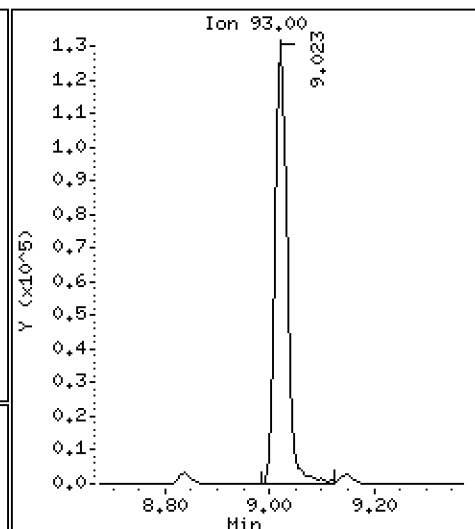
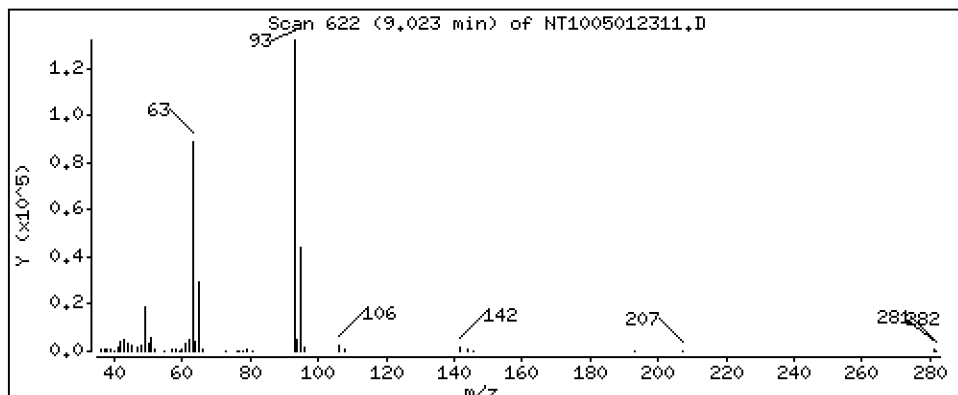
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 5,502 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

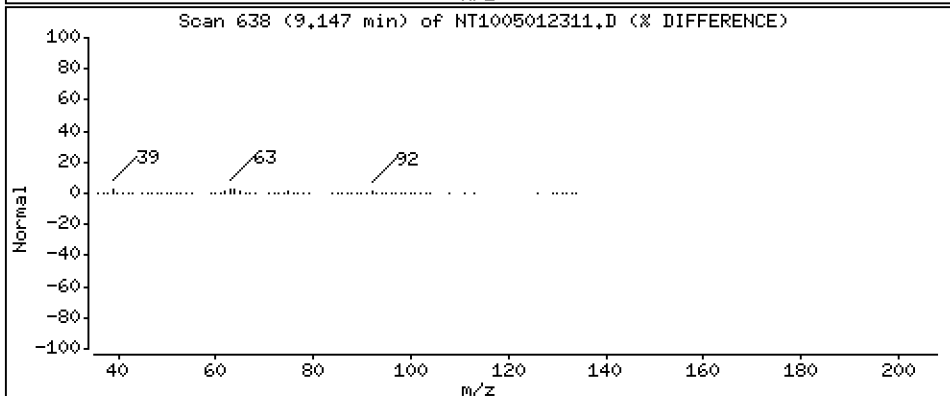
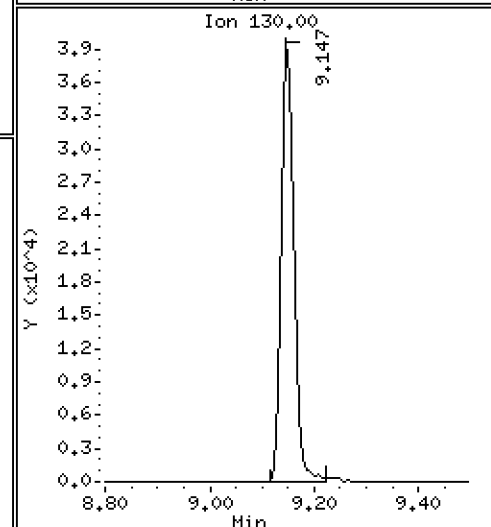
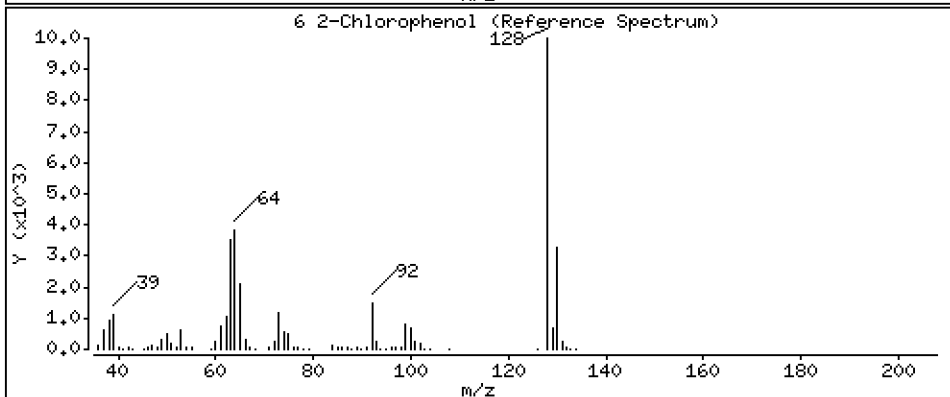
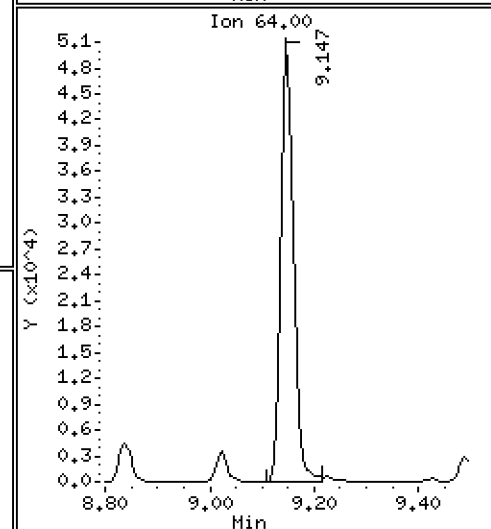
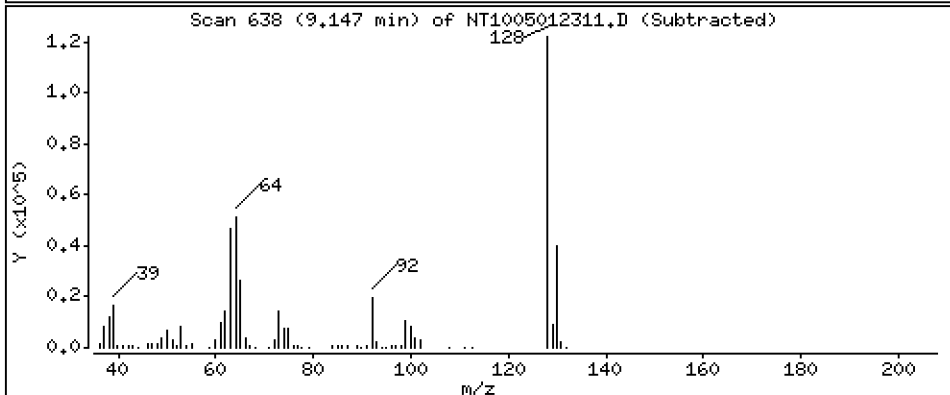
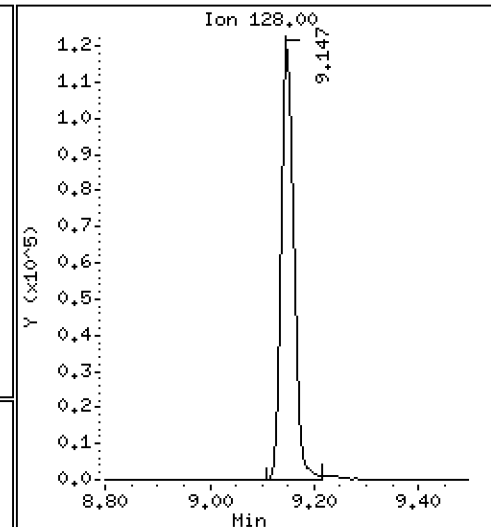
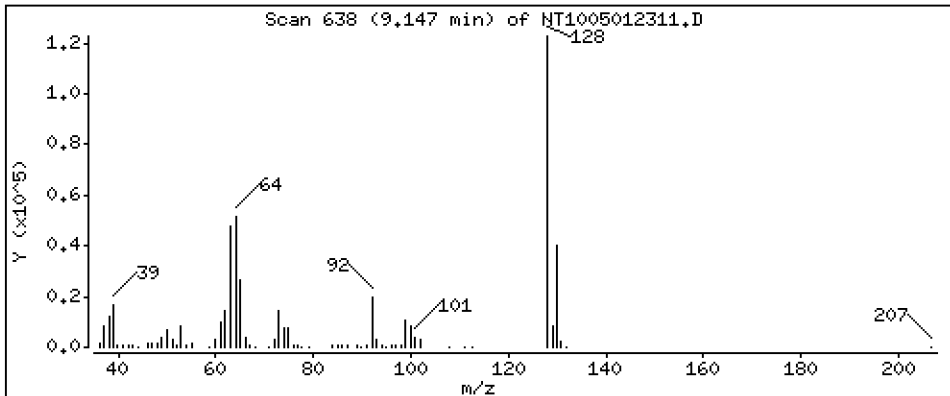
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,456 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

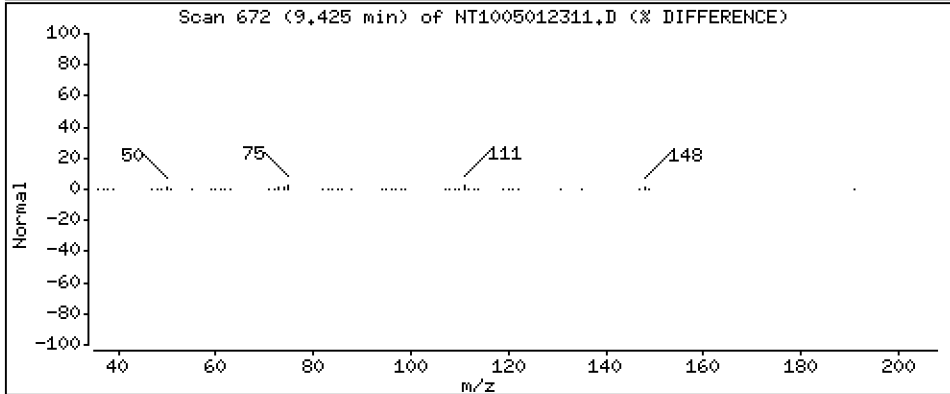
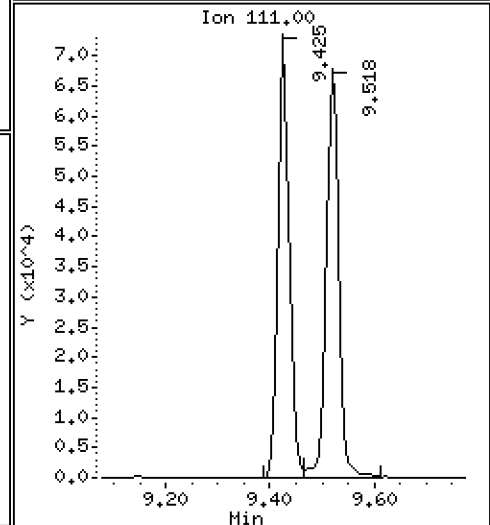
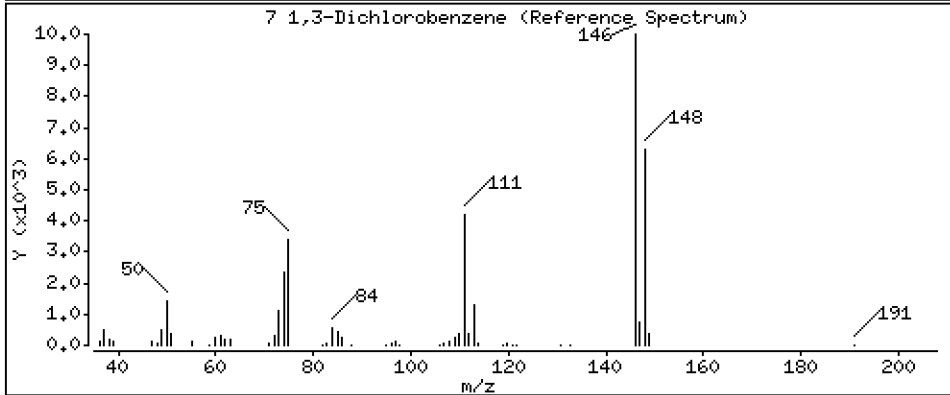
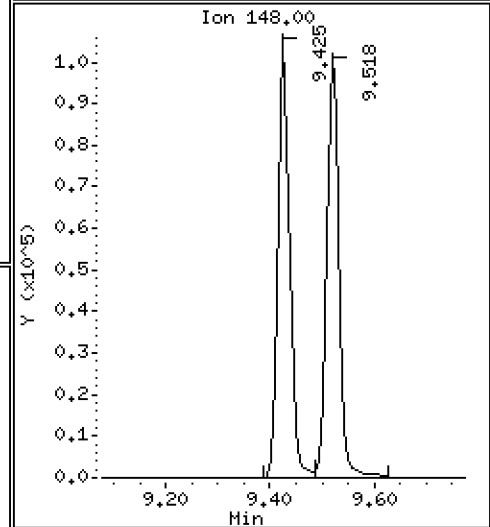
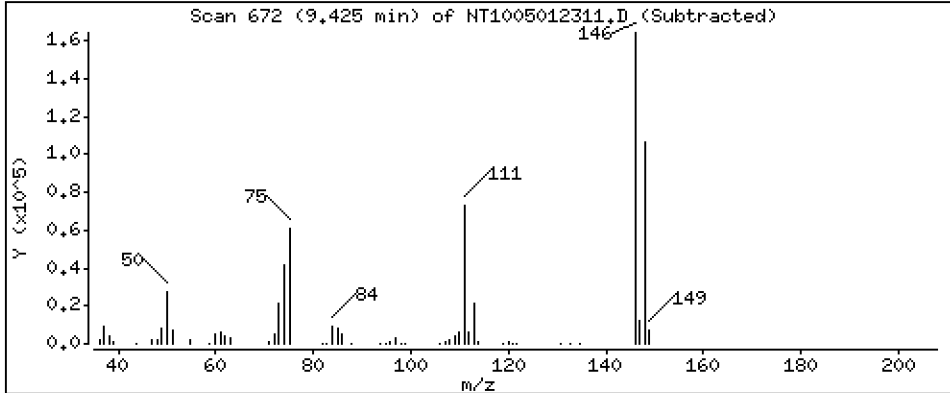
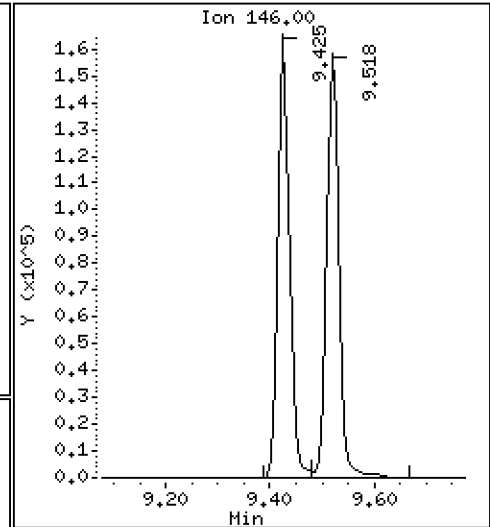
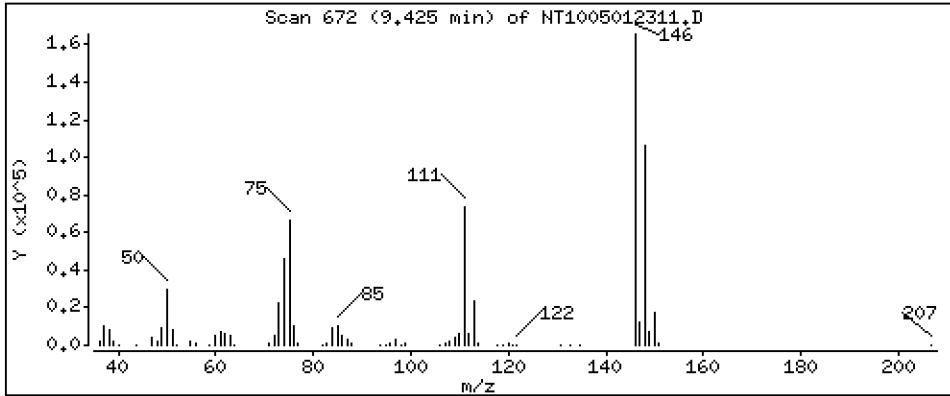
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,939 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

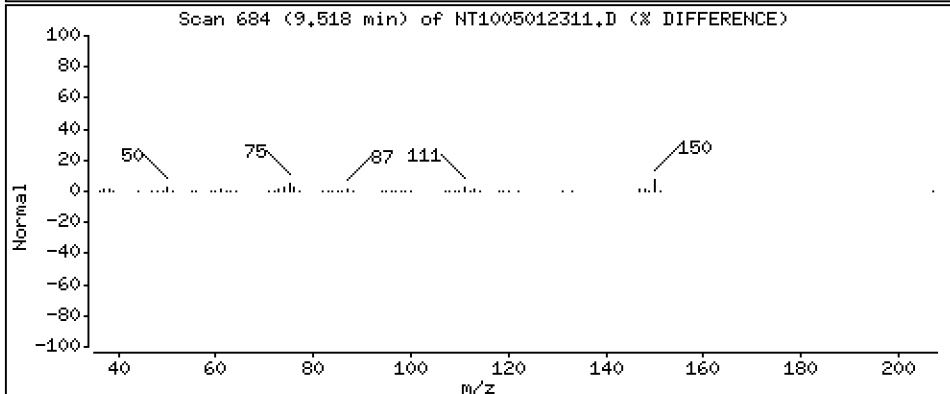
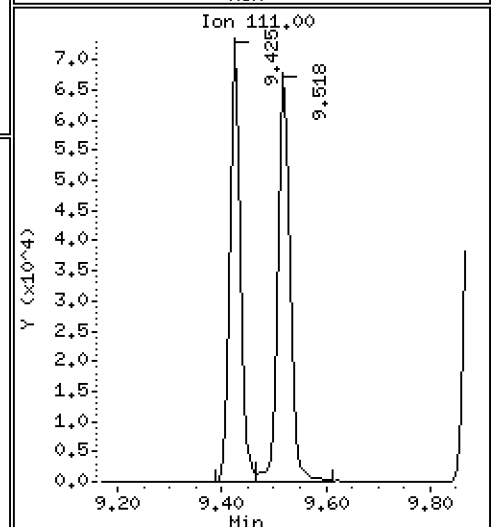
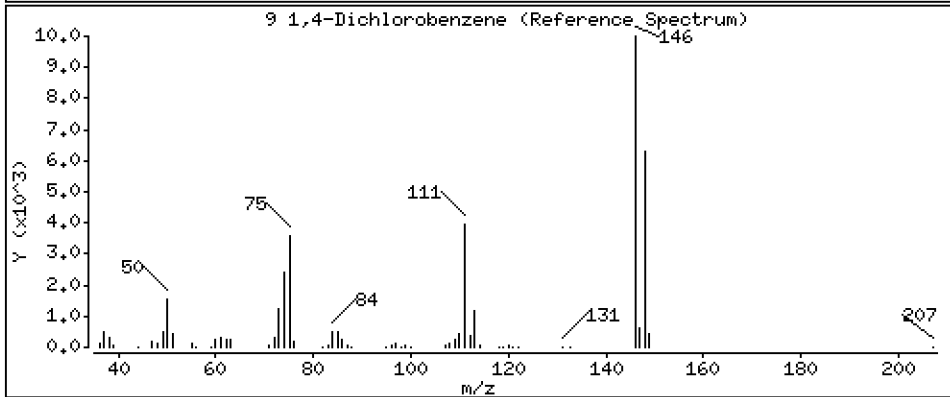
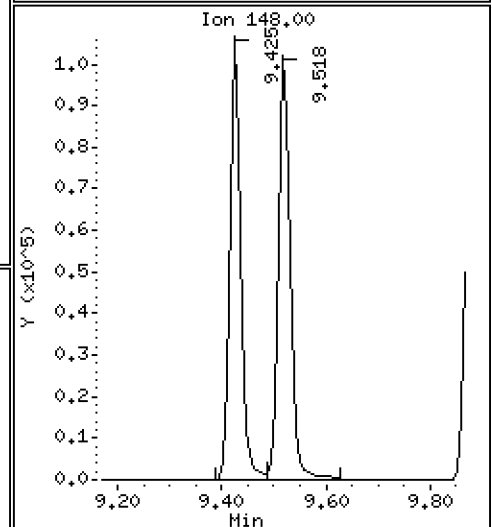
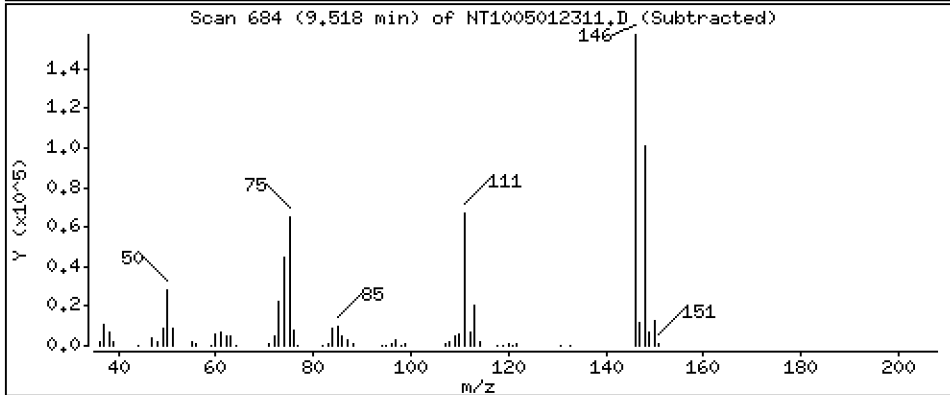
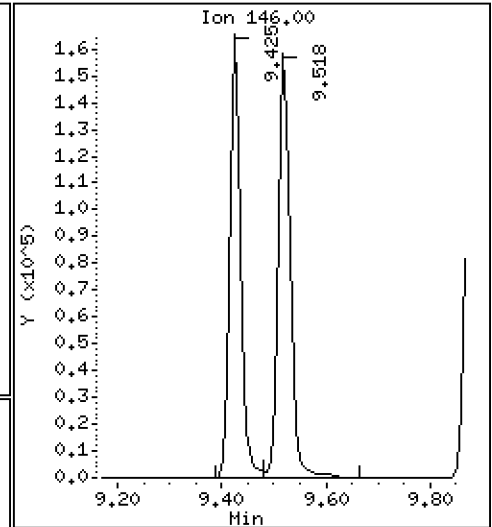
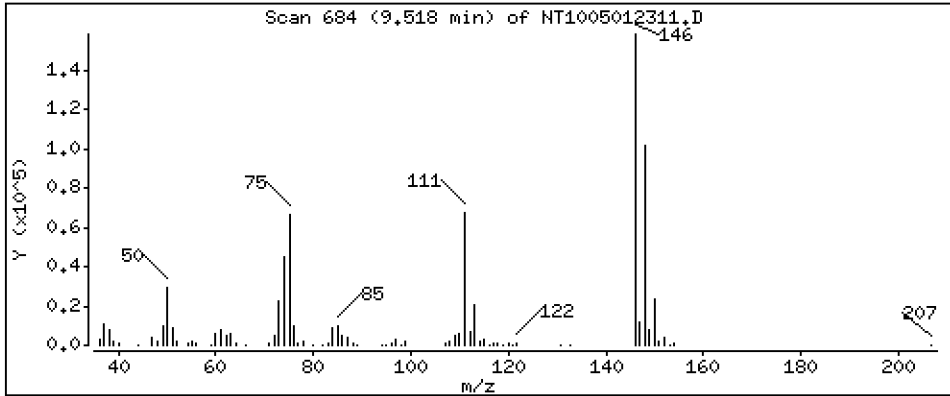
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 5,492 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

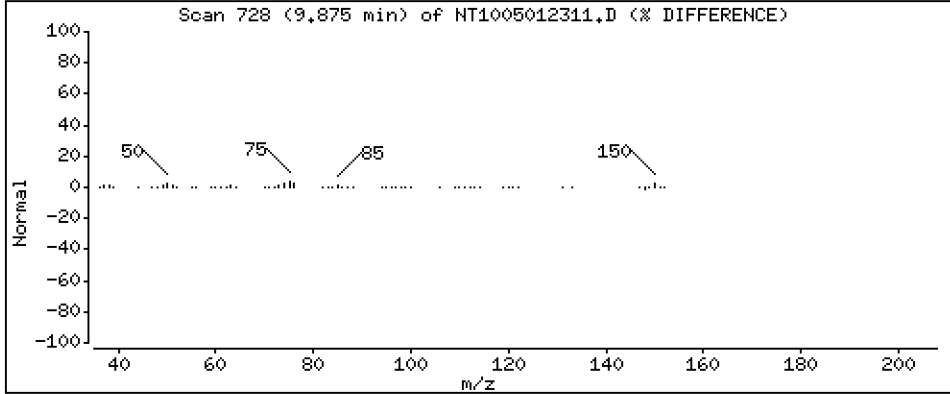
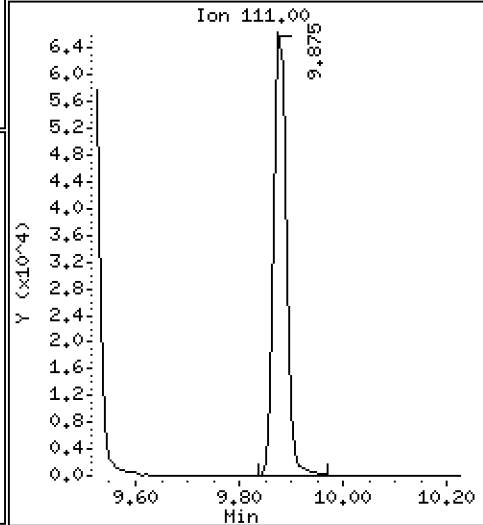
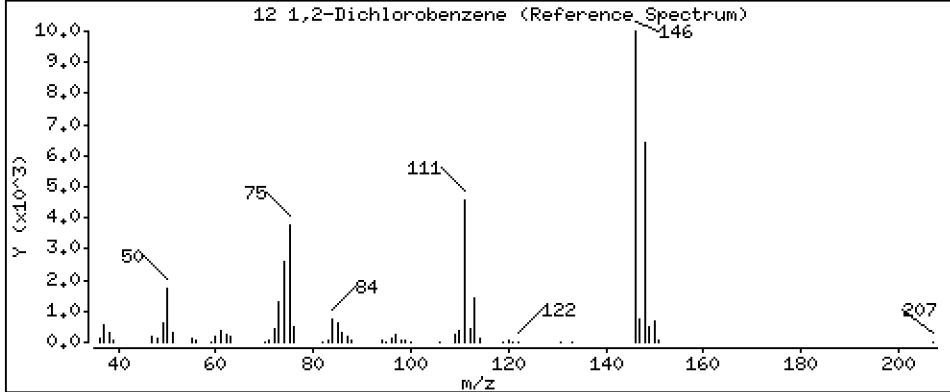
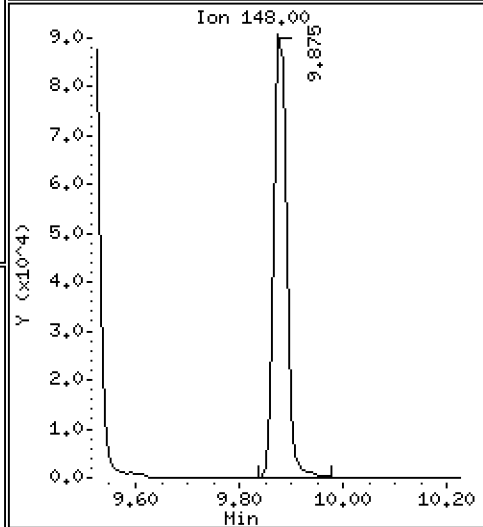
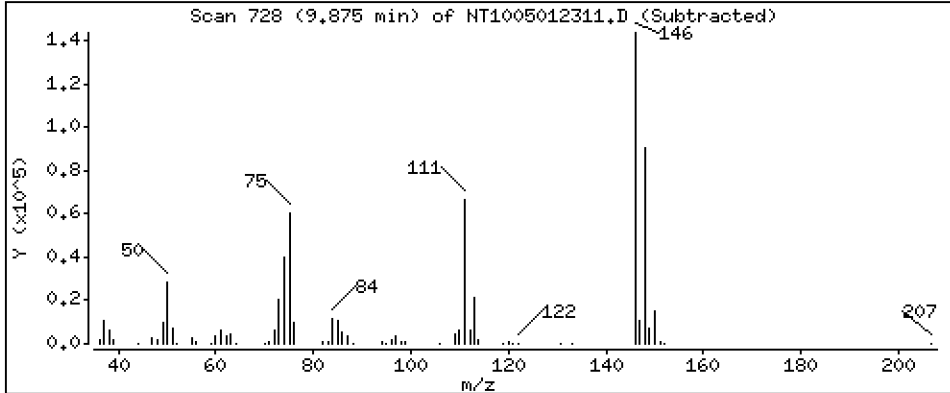
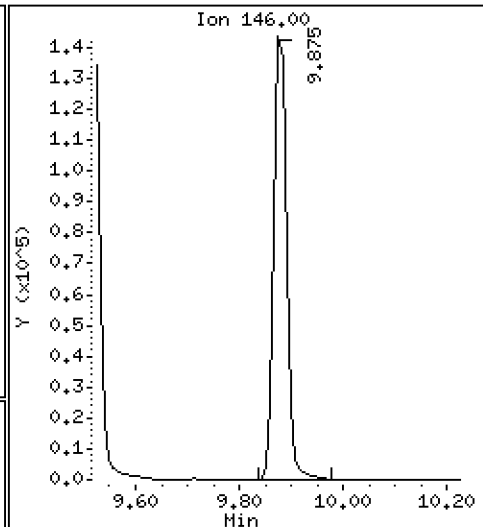
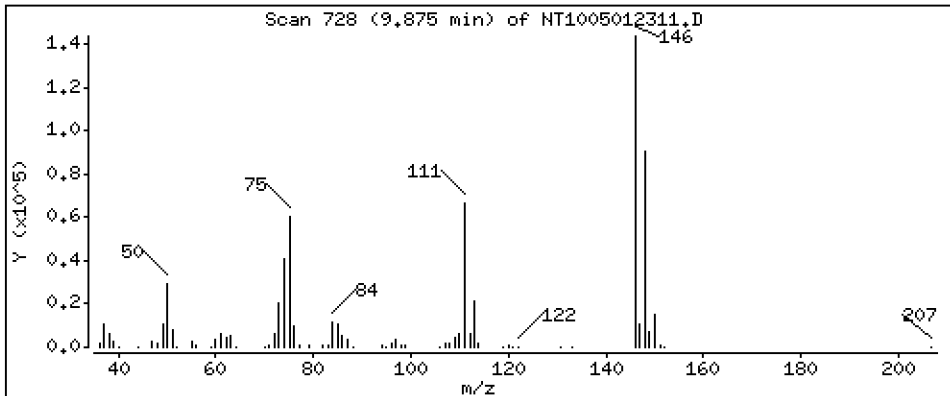
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,938 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

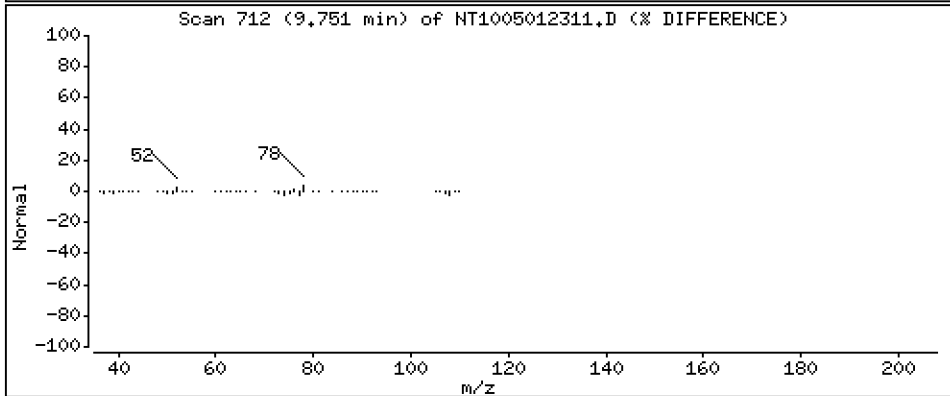
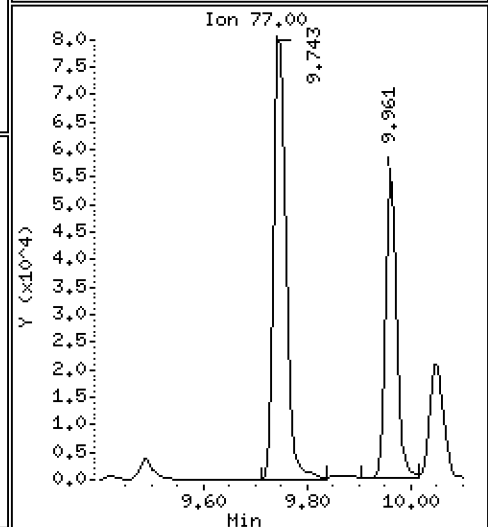
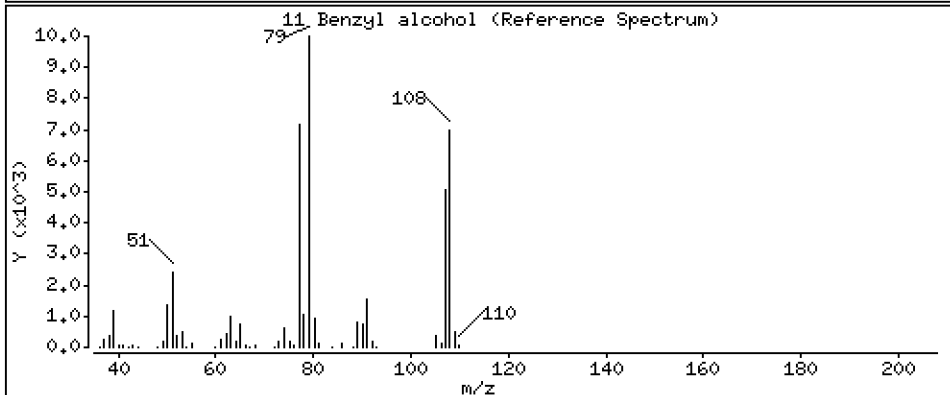
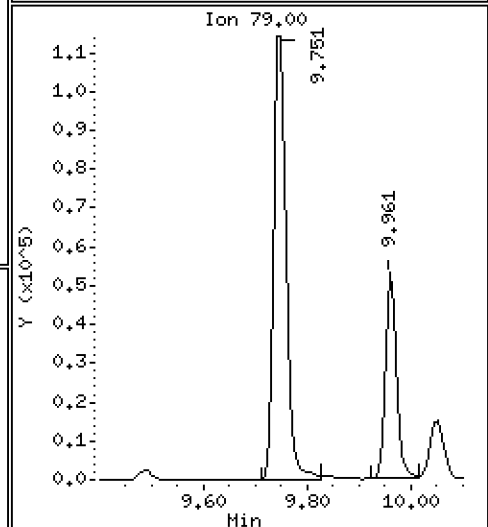
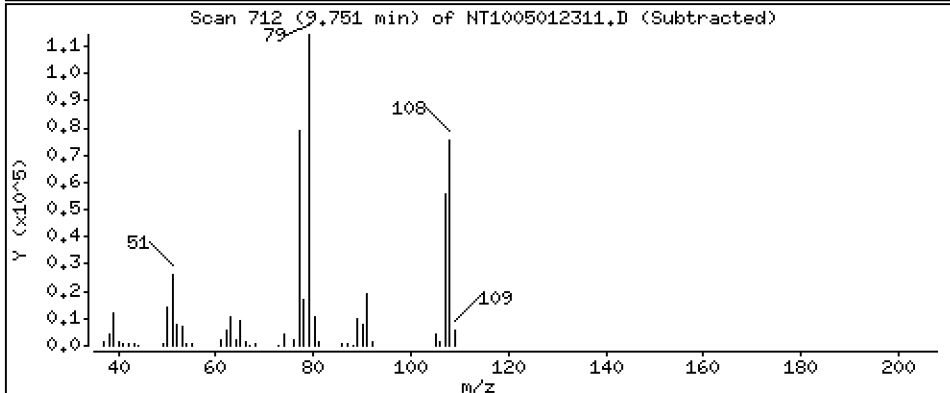
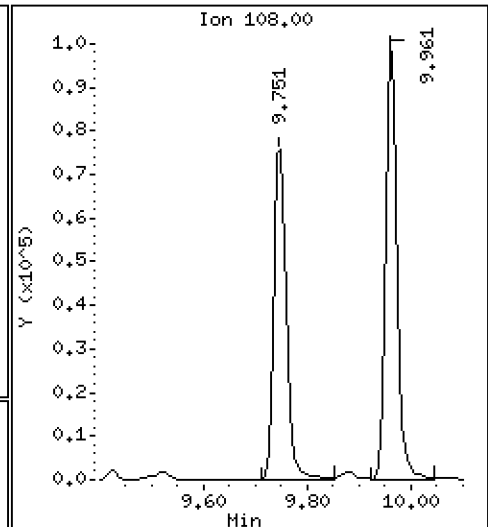
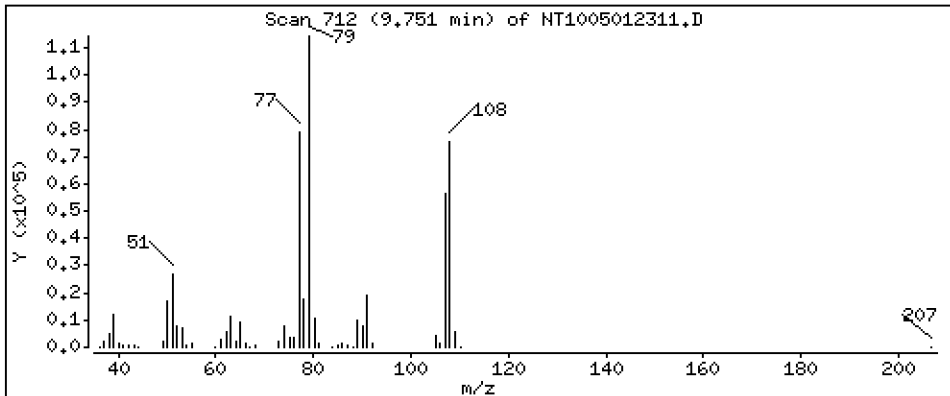
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 5,069 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

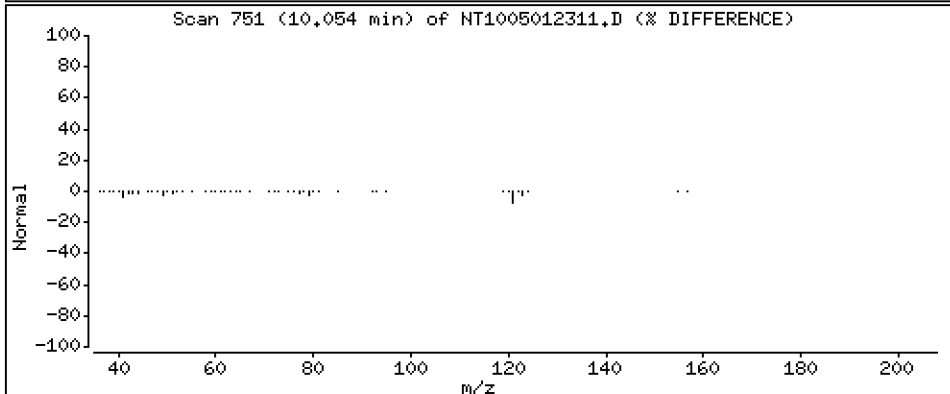
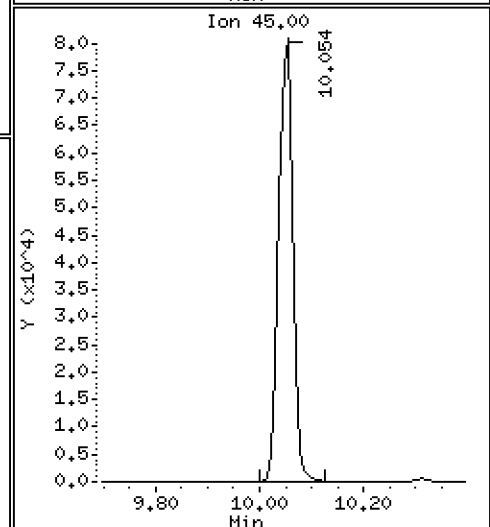
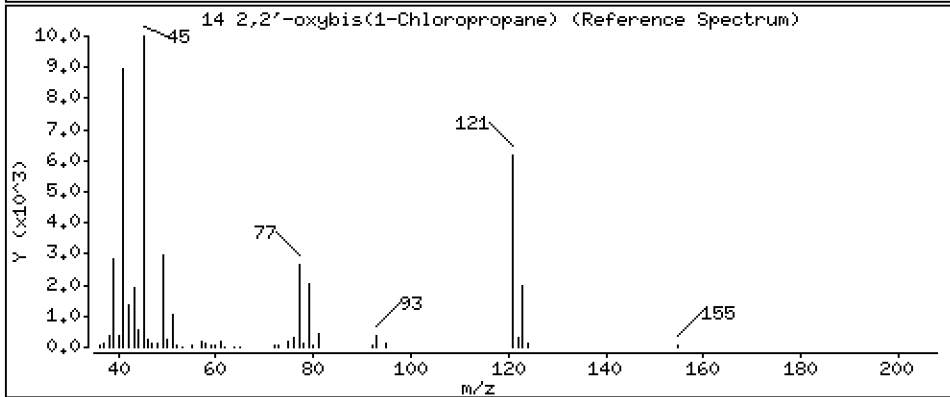
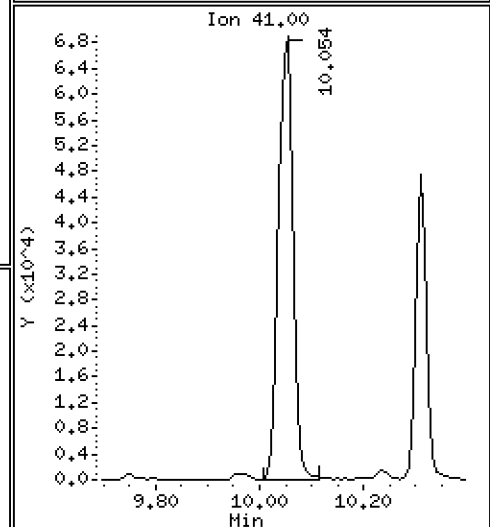
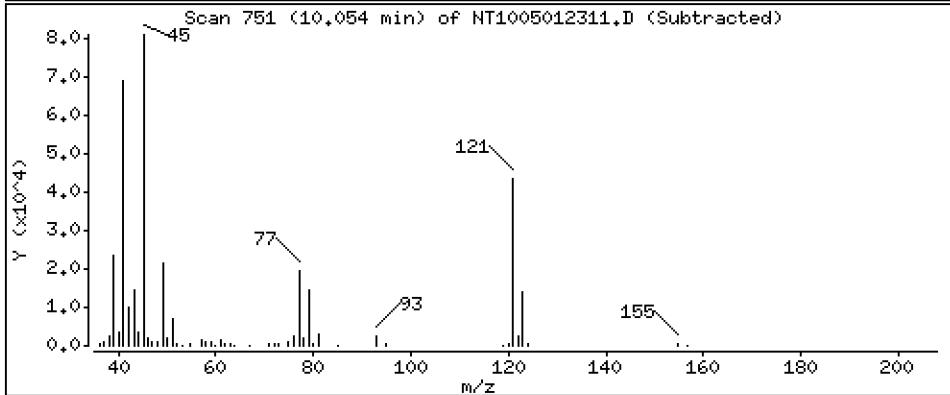
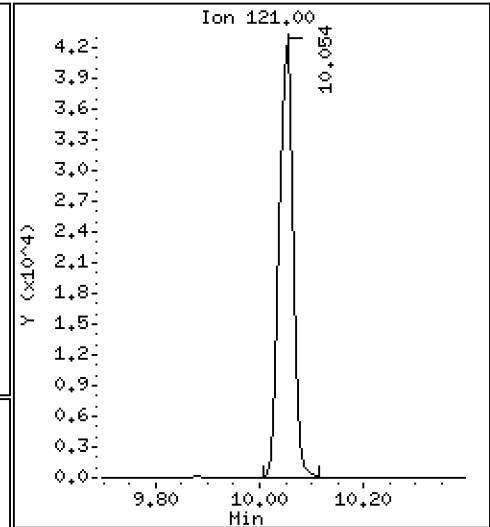
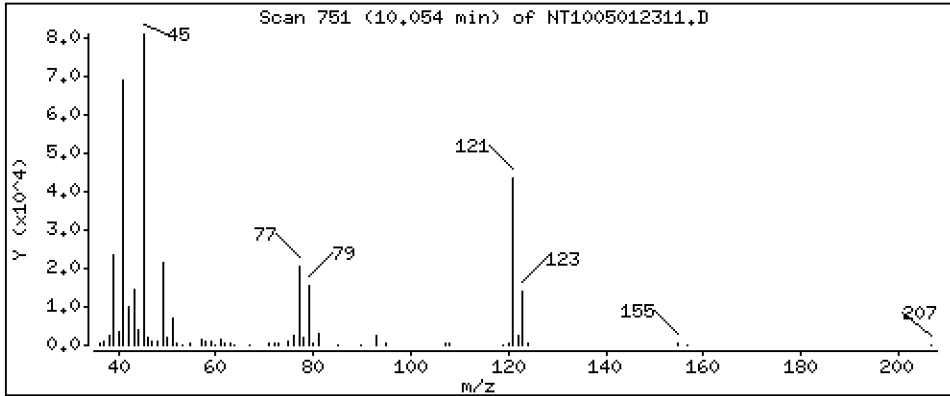
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 5,603 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

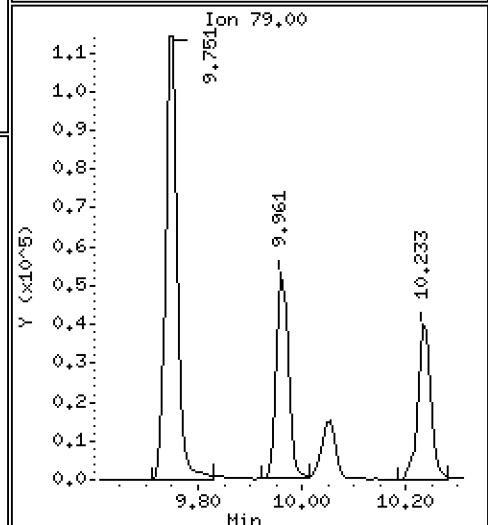
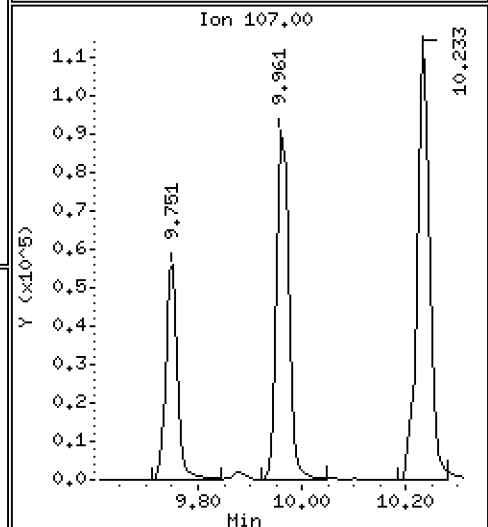
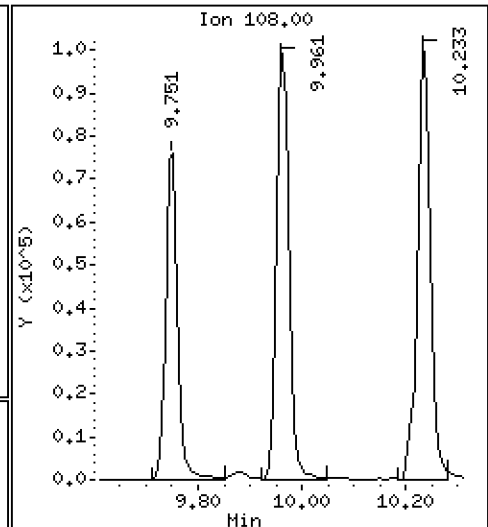
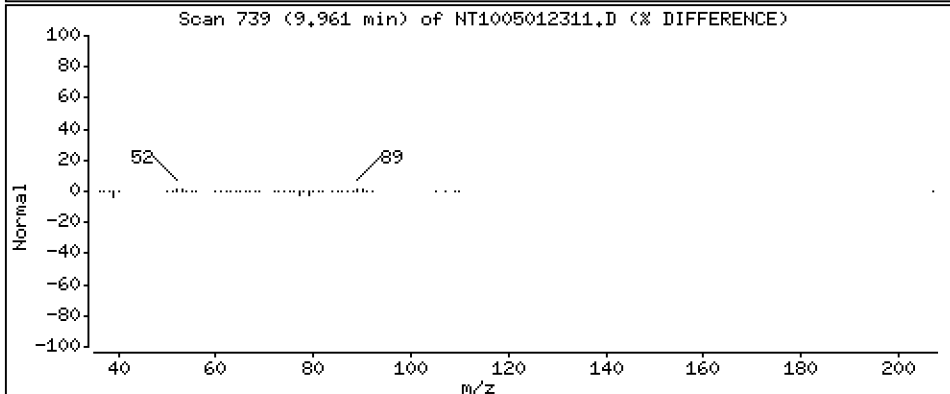
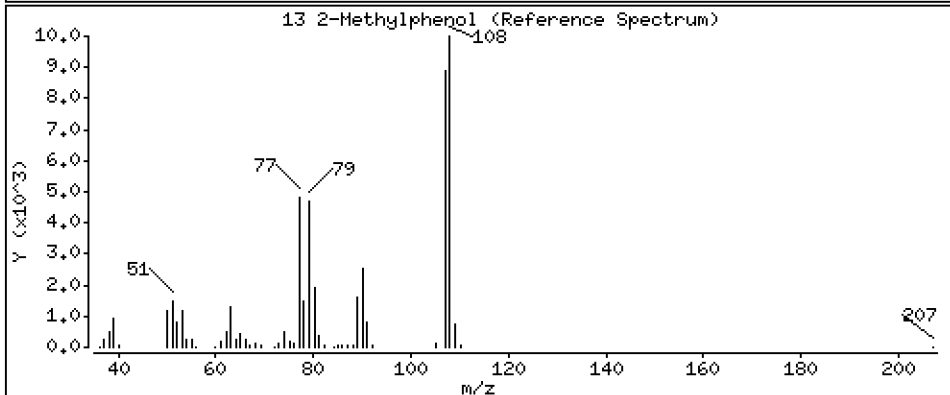
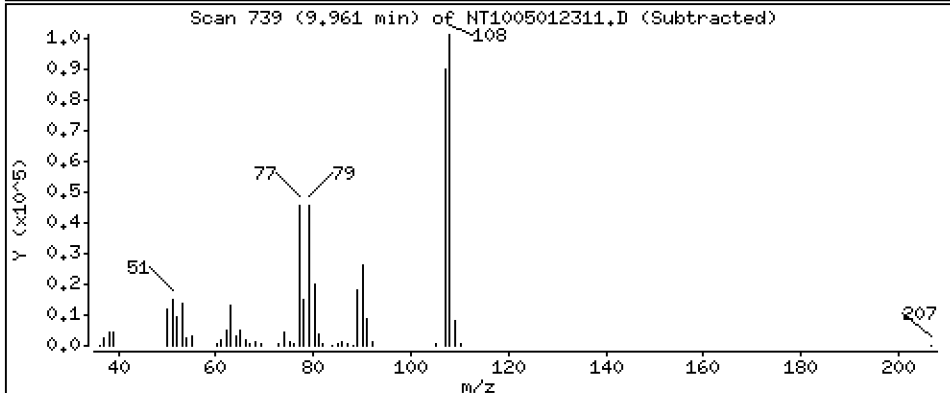
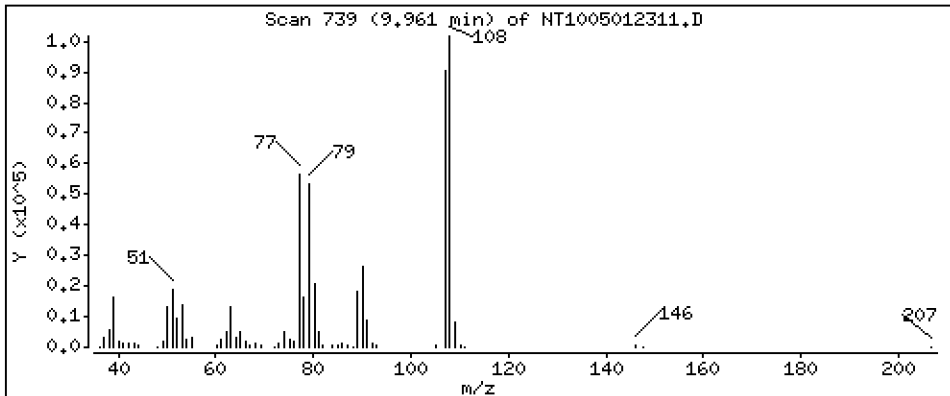
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.232 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

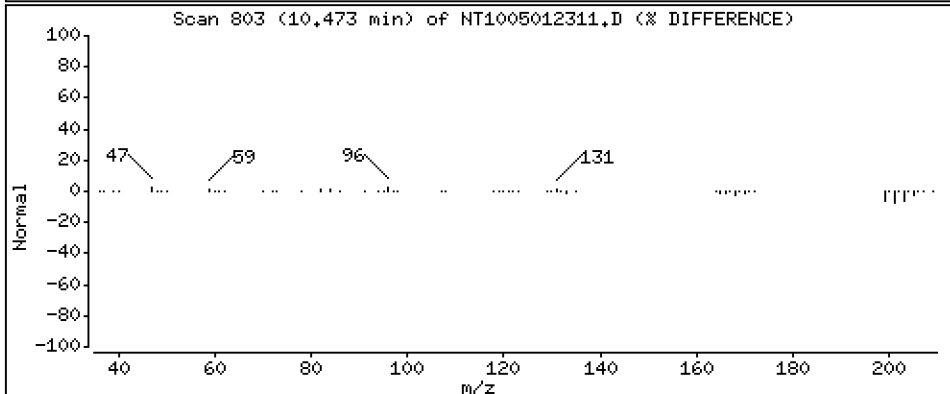
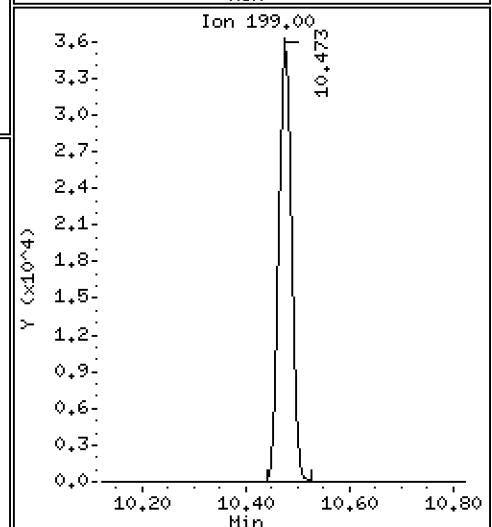
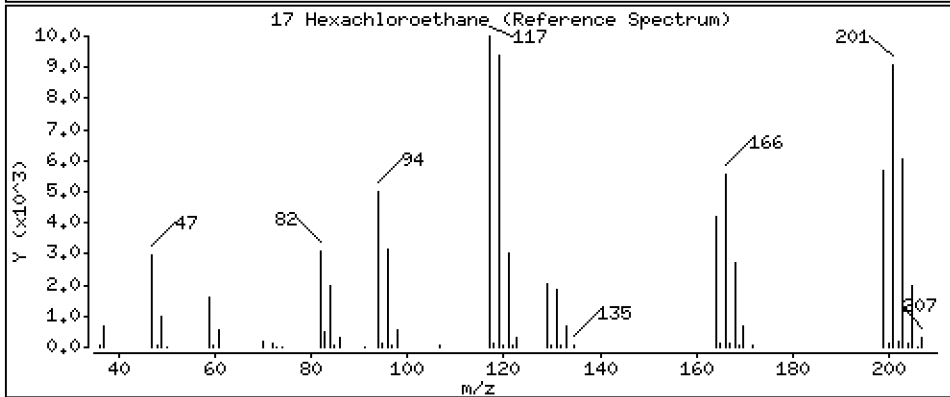
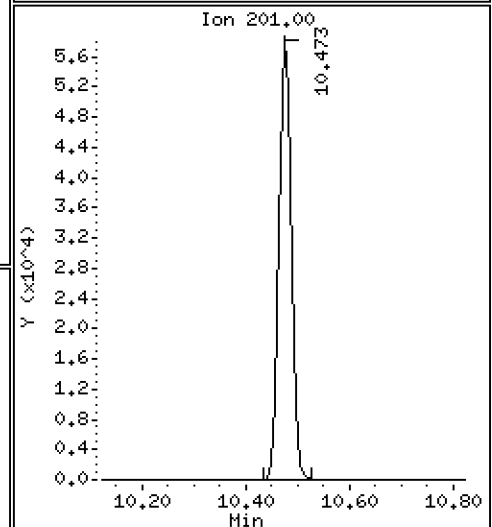
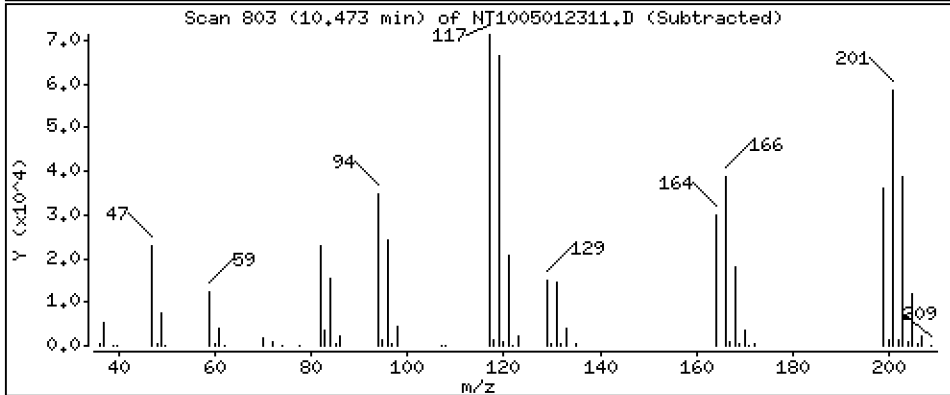
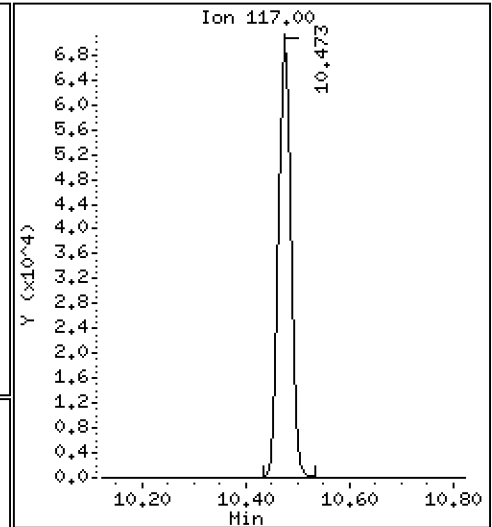
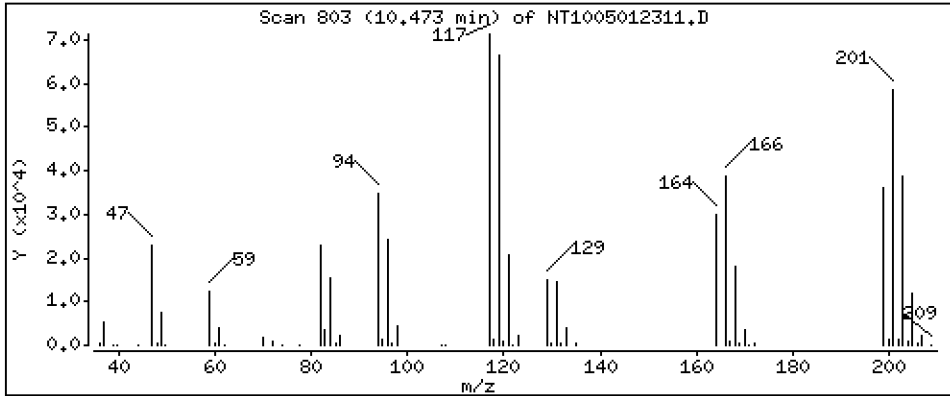
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 5.275 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

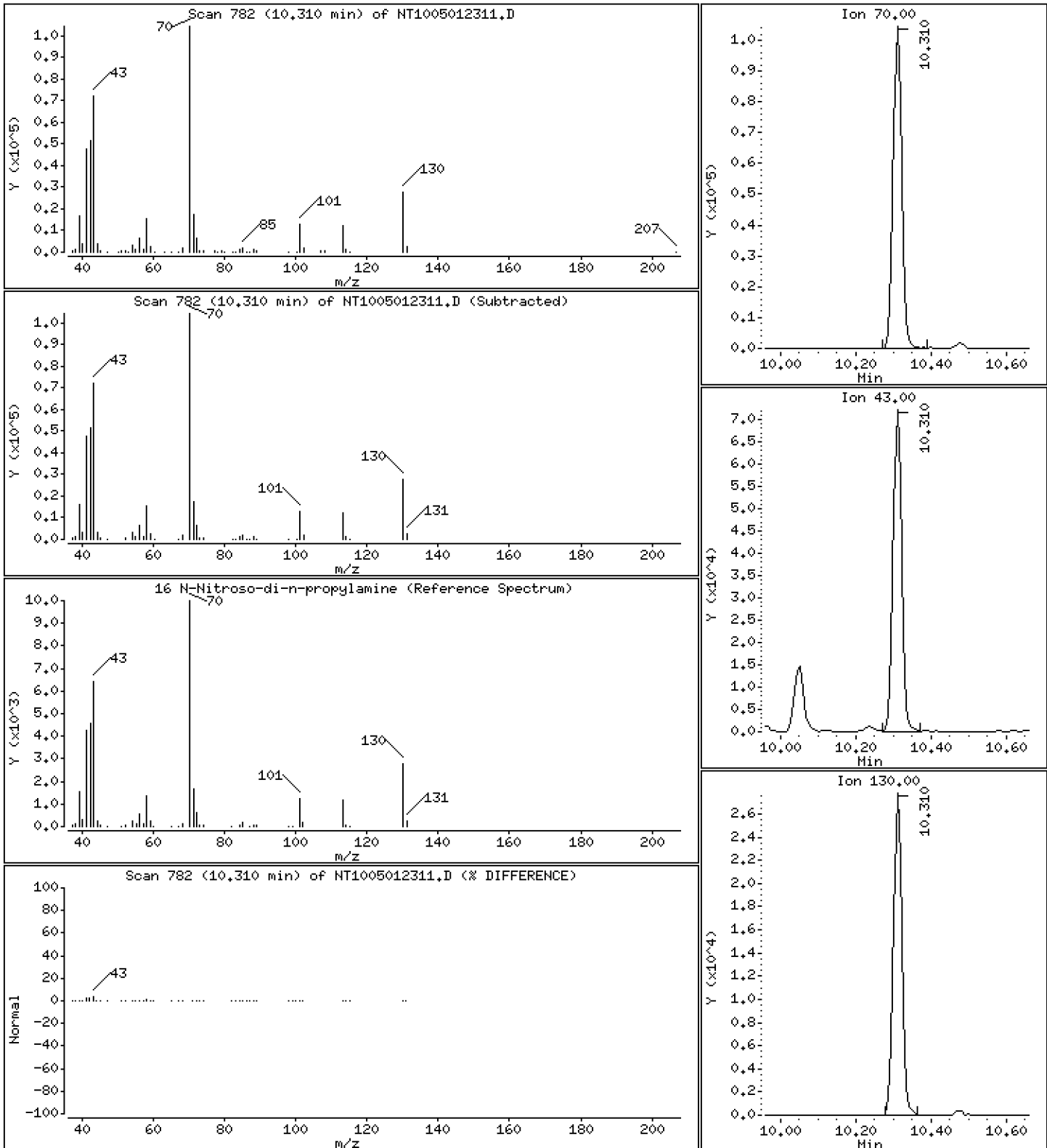
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,386 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

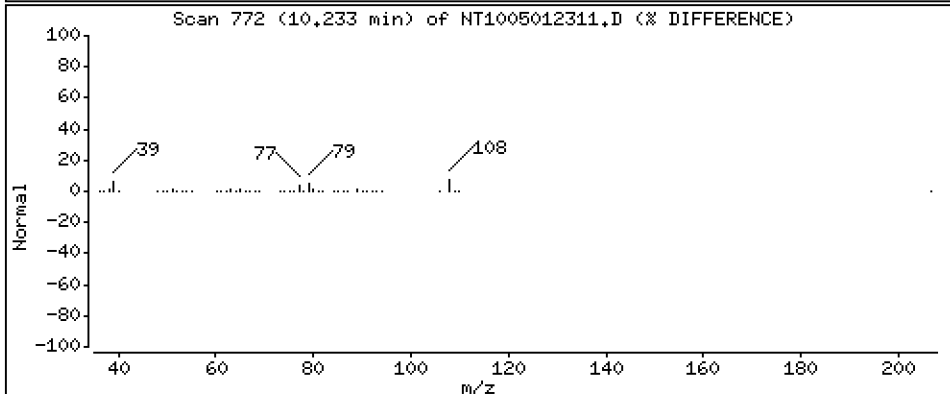
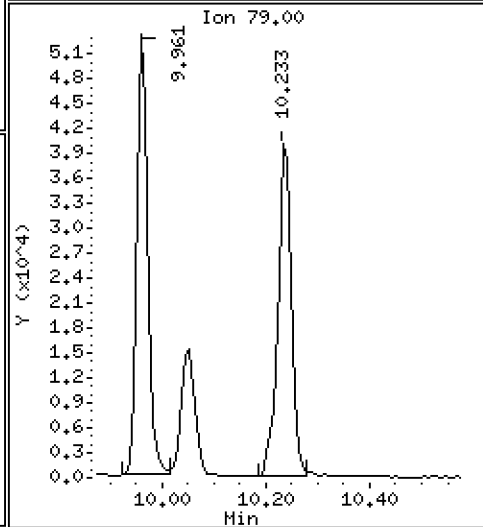
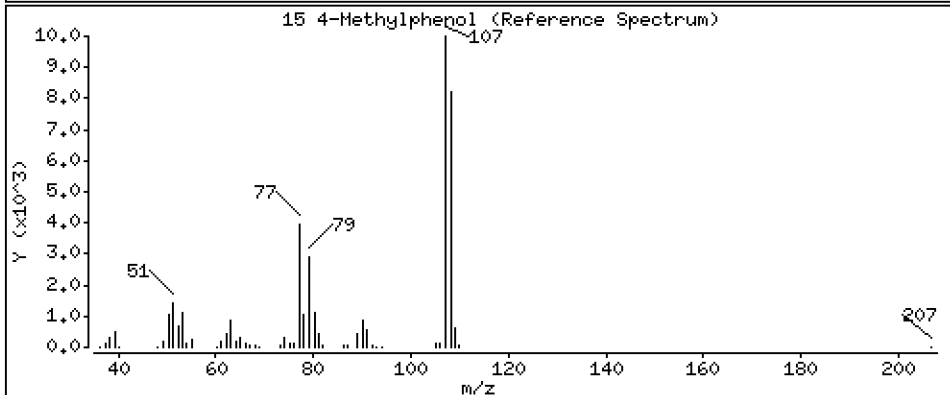
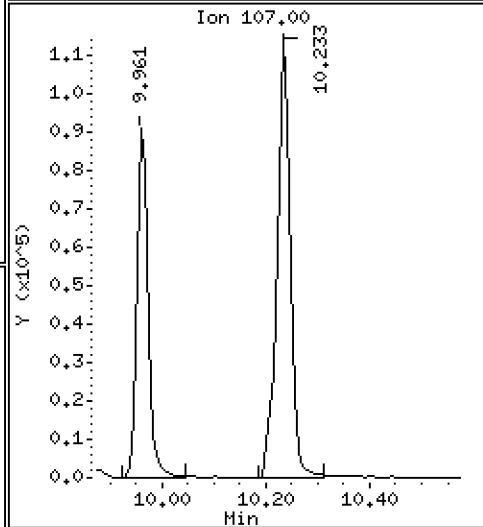
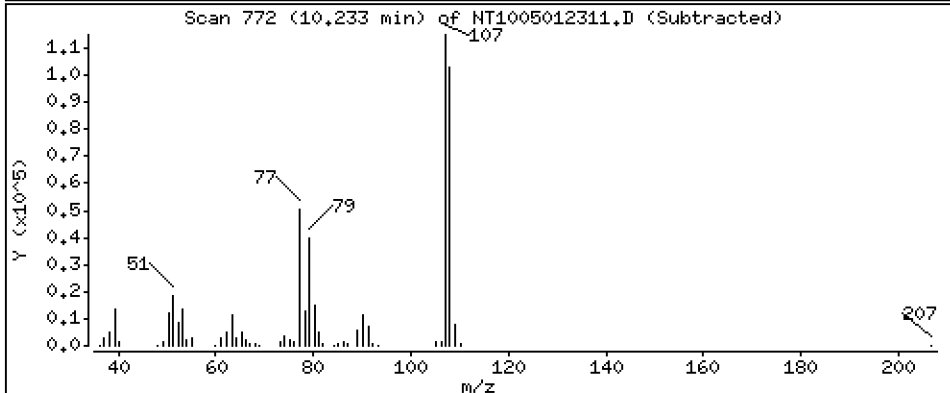
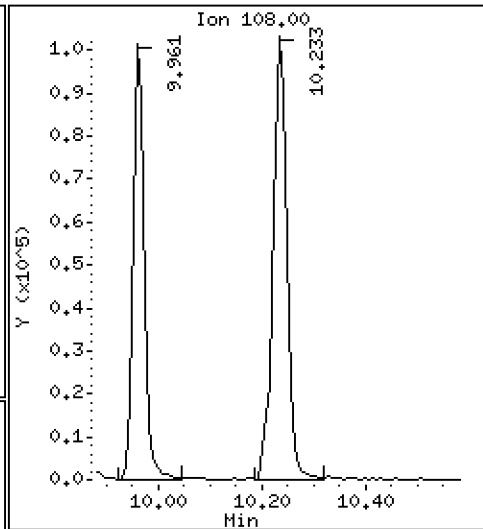
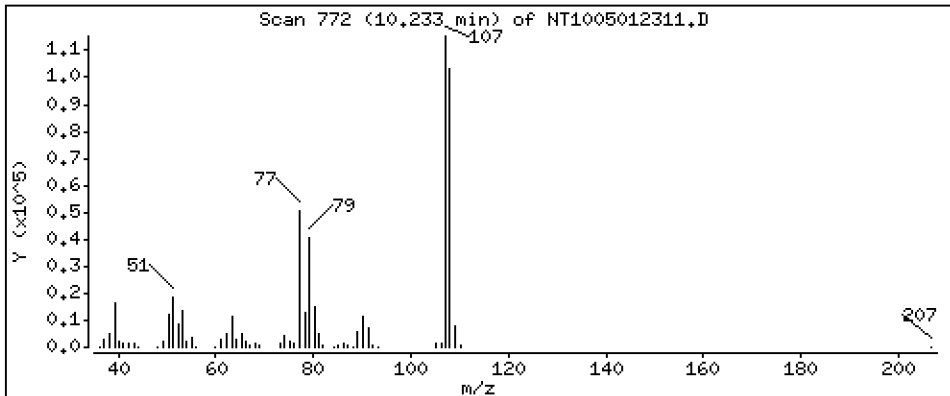
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 4,441 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

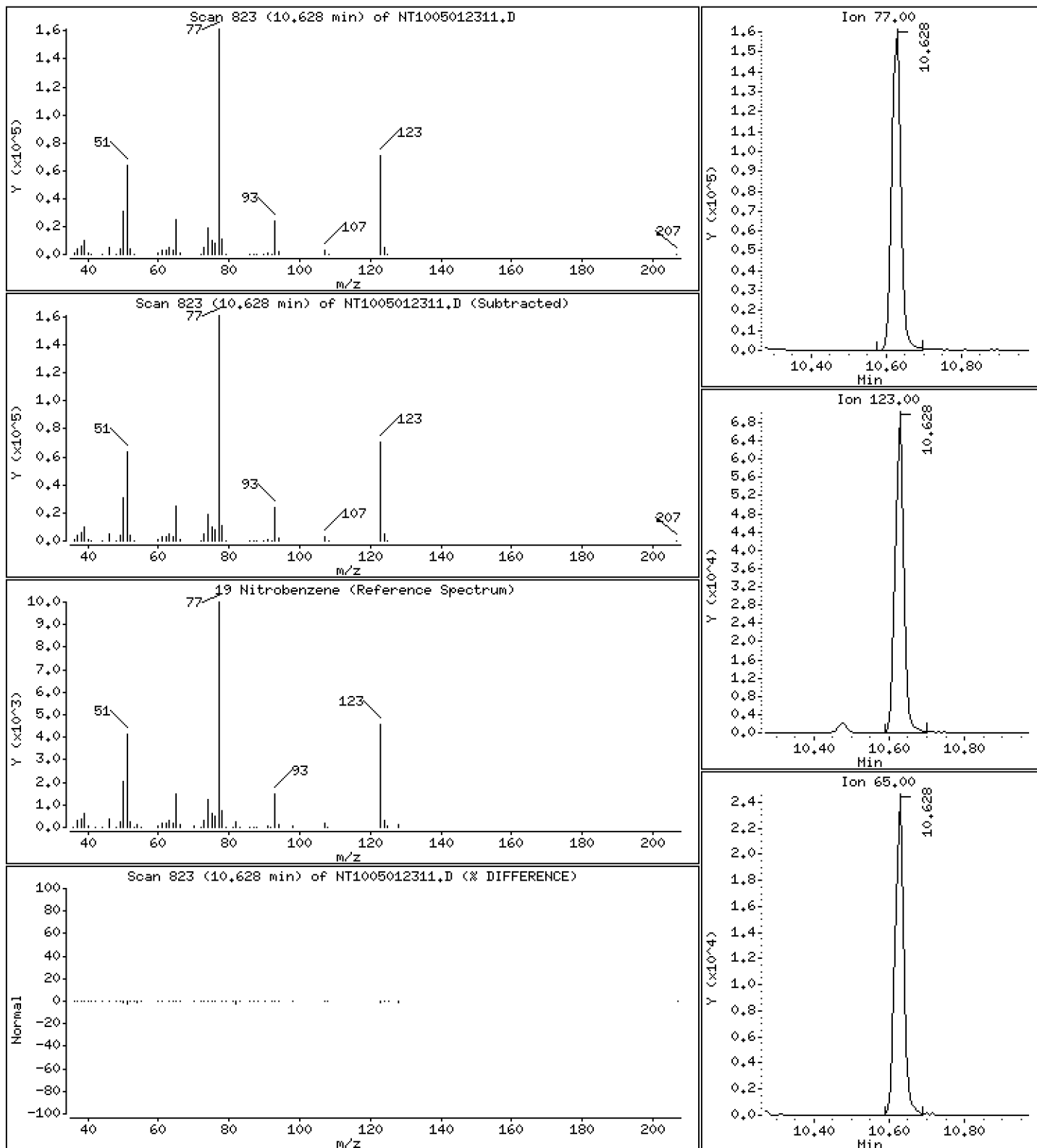
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,970 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

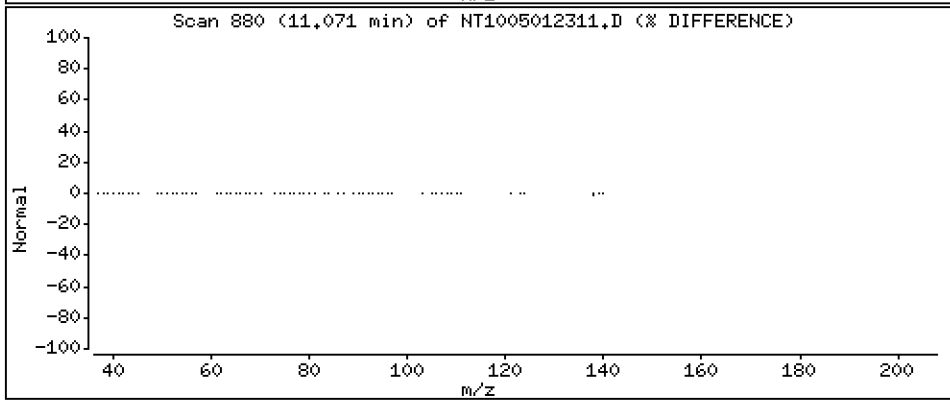
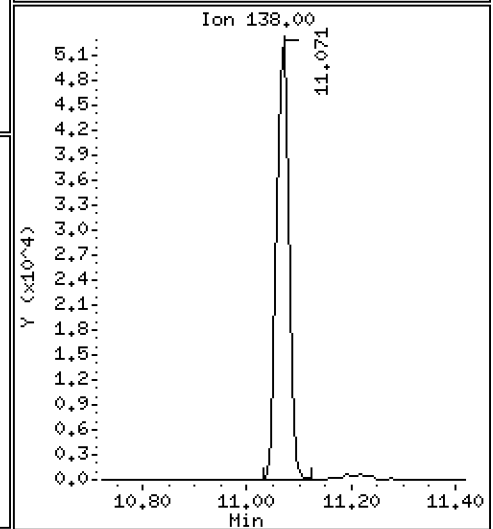
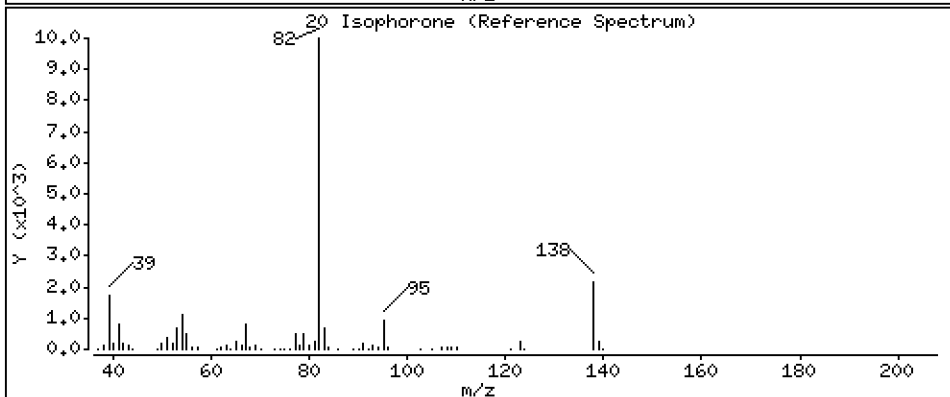
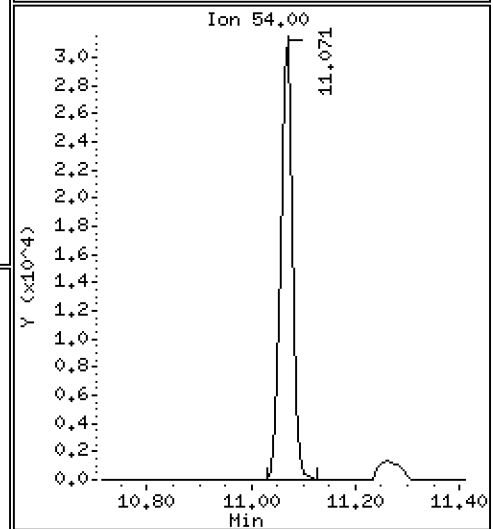
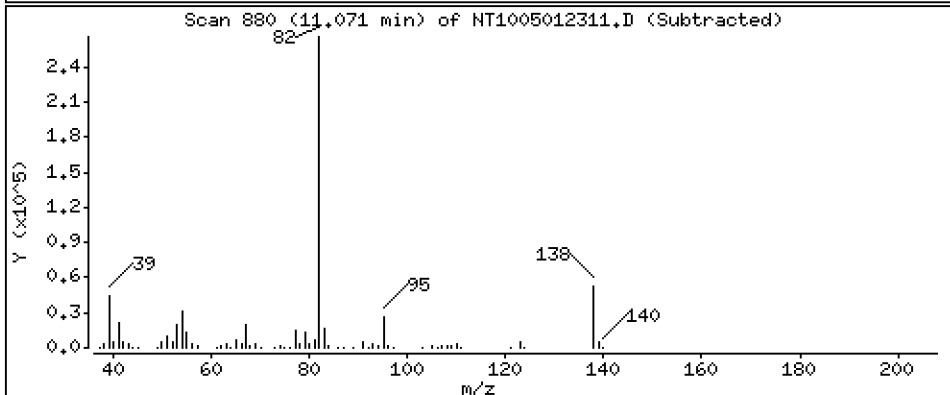
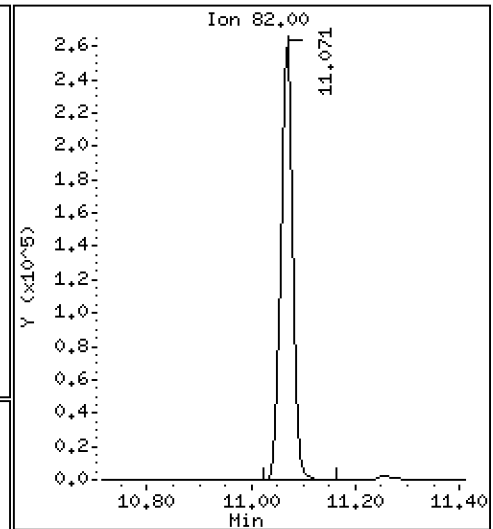
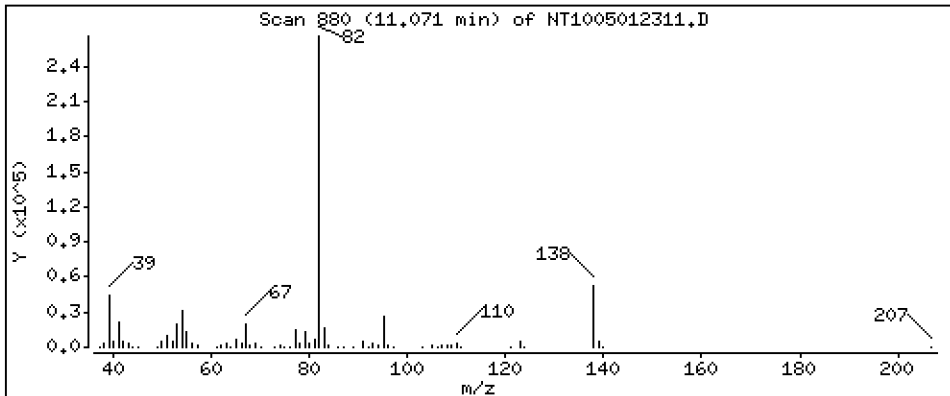
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 7,878 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

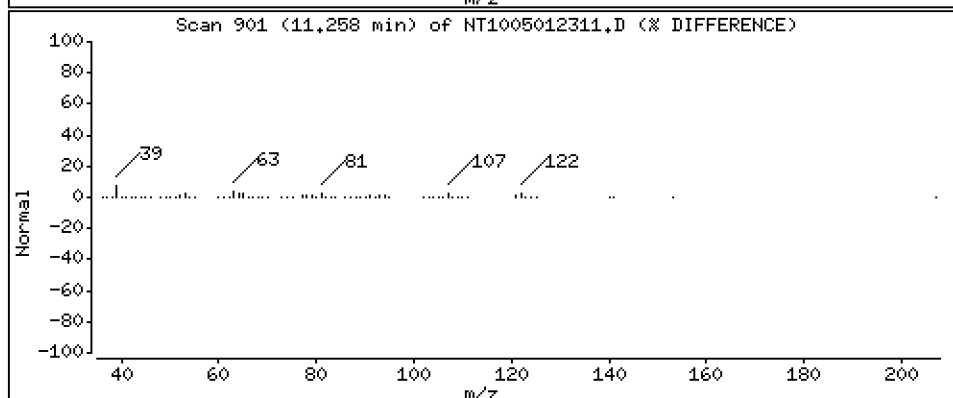
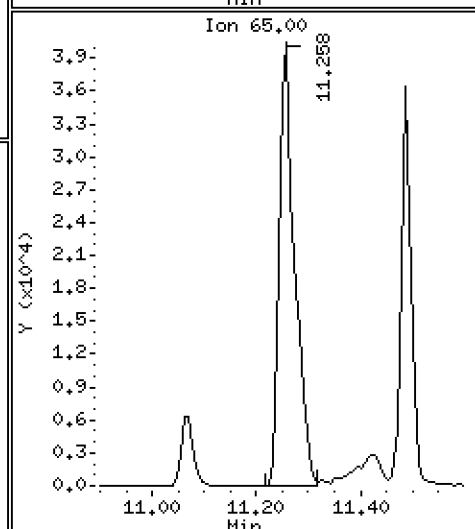
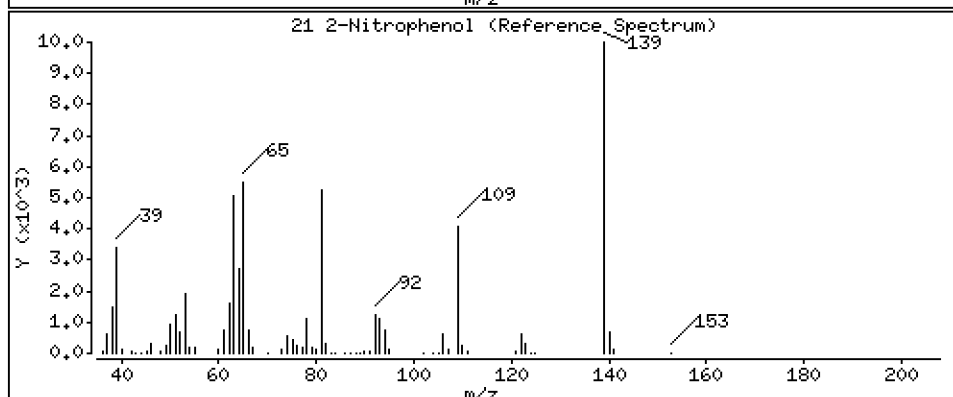
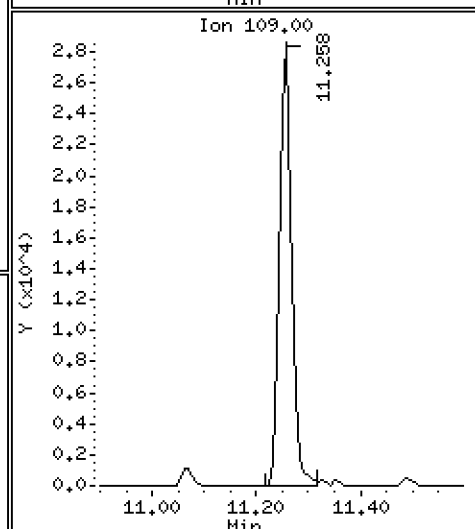
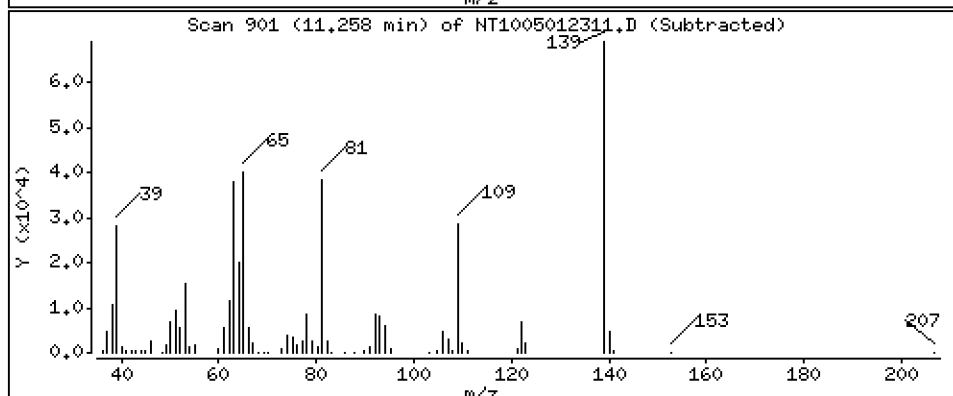
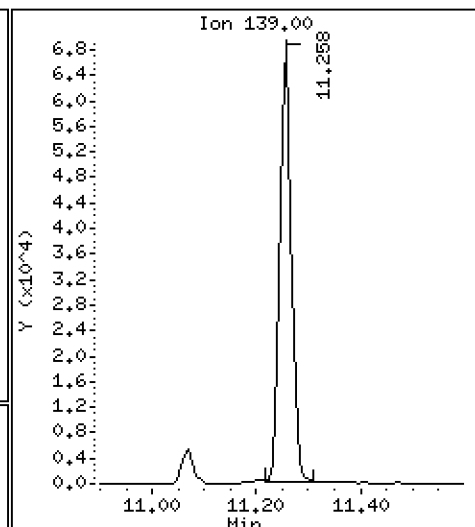
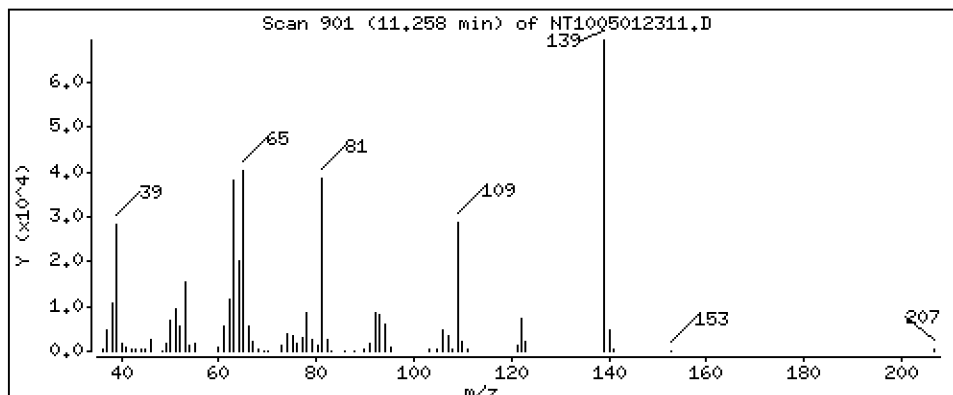
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 3,896 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

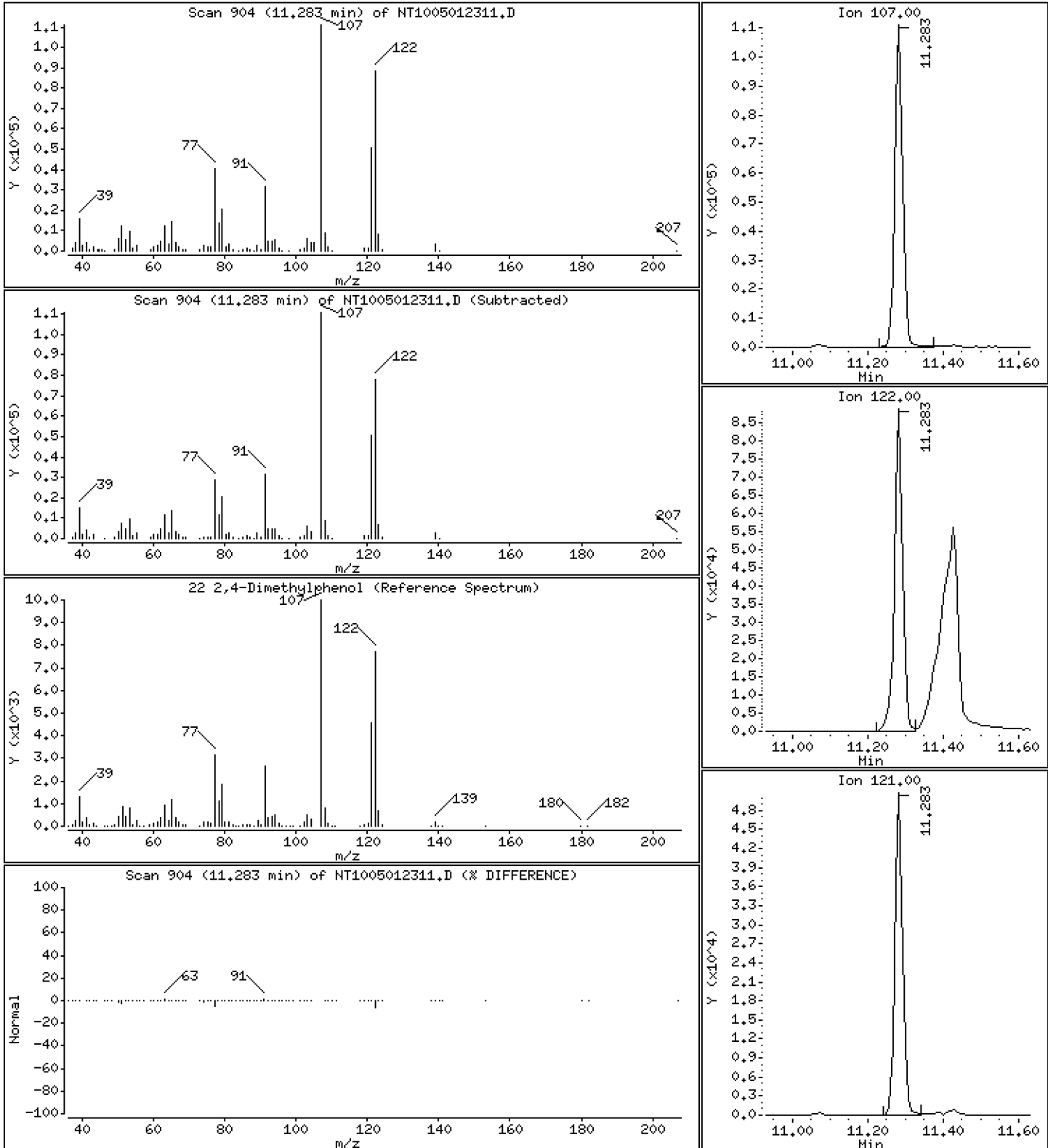
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,424 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

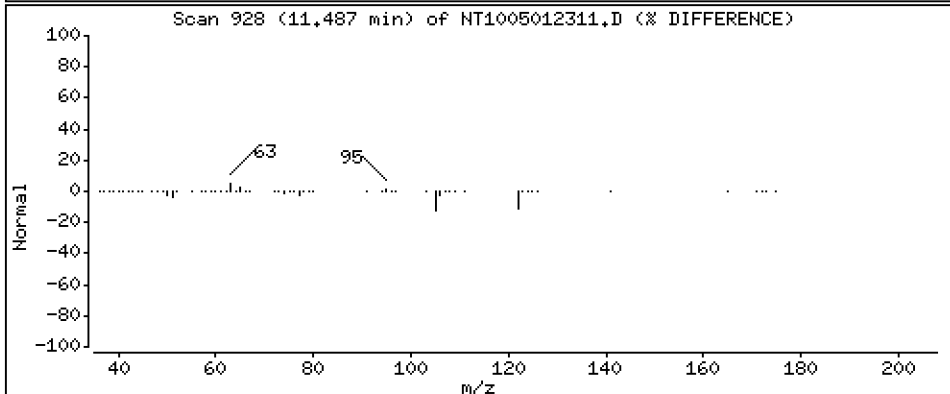
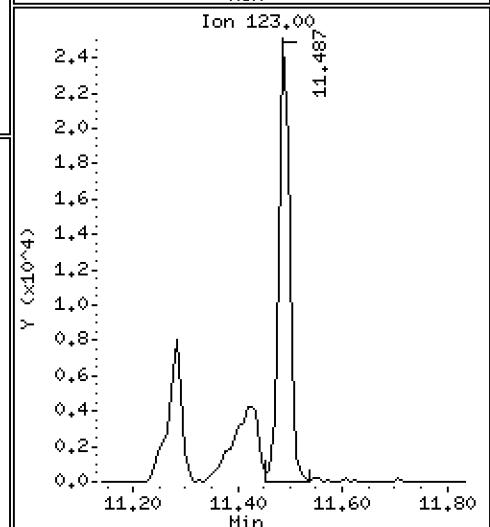
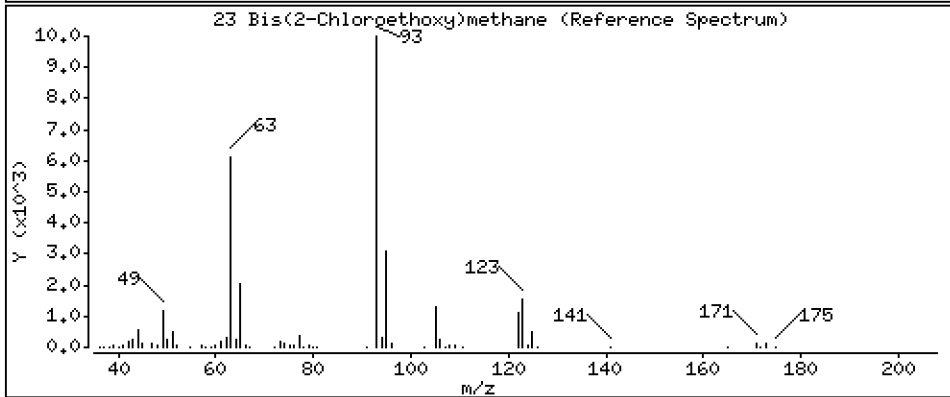
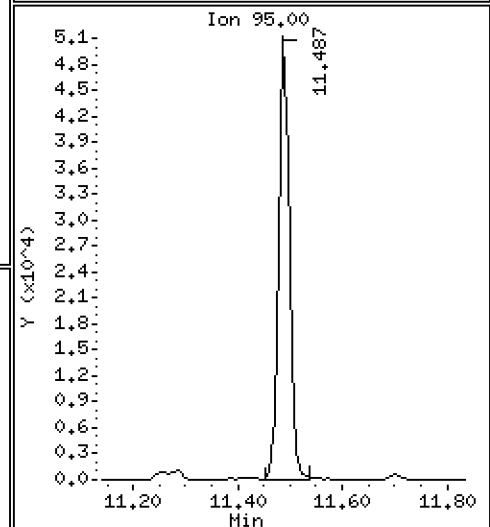
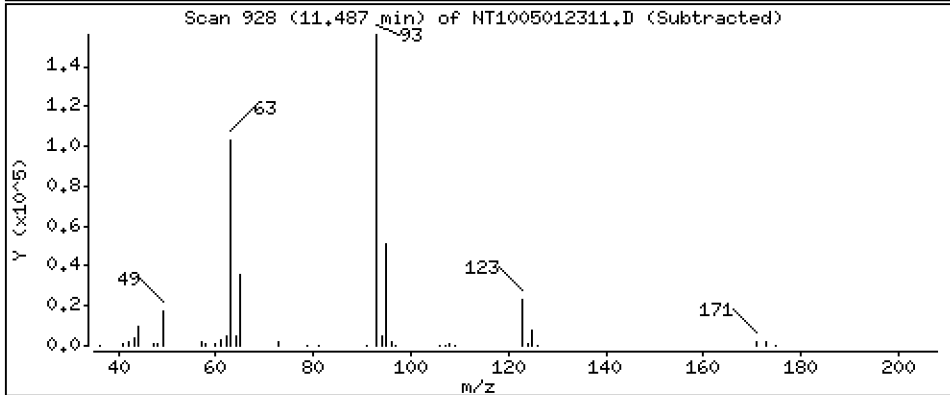
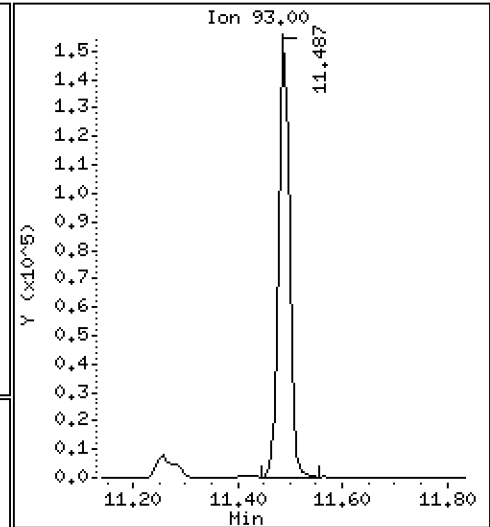
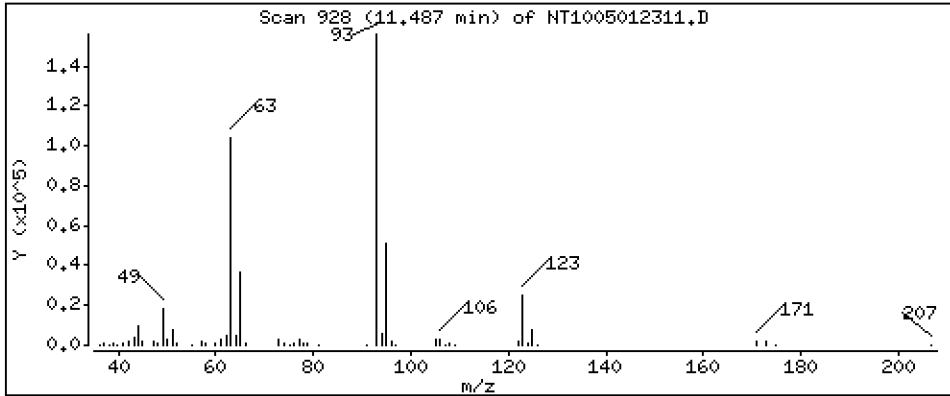
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,736 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

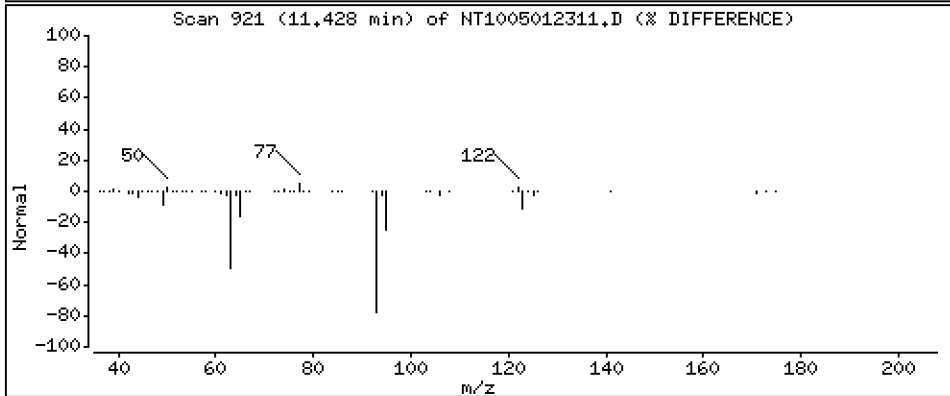
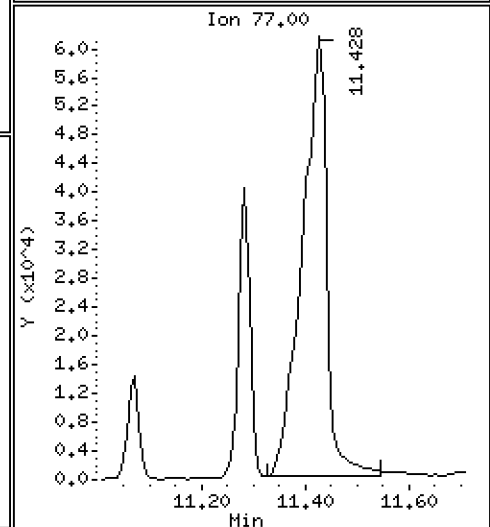
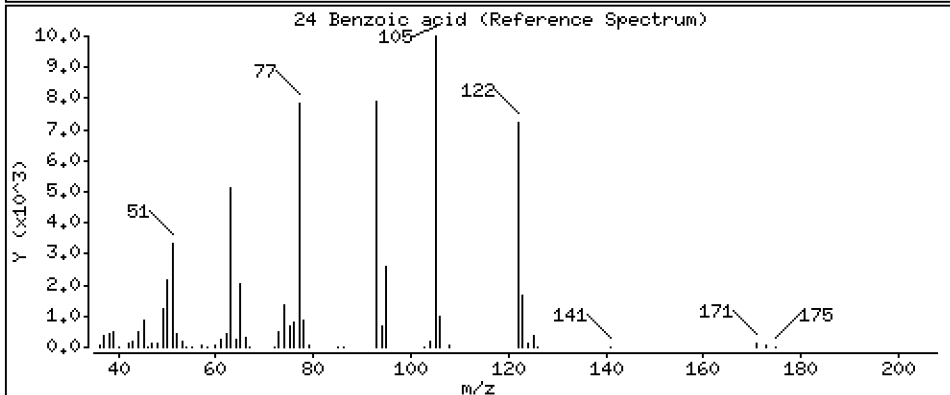
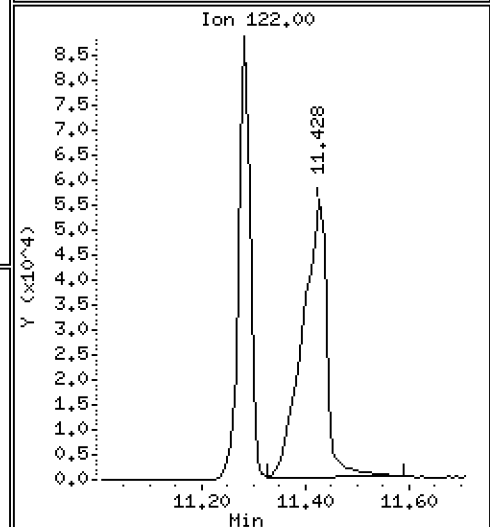
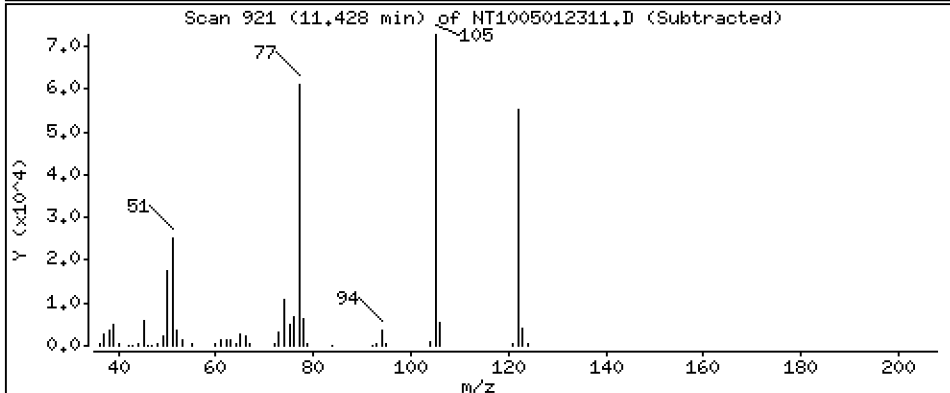
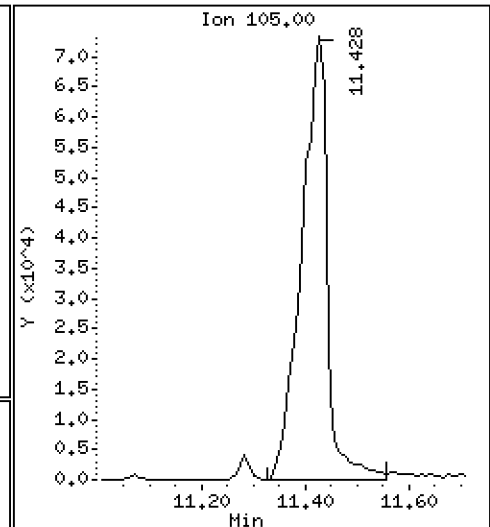
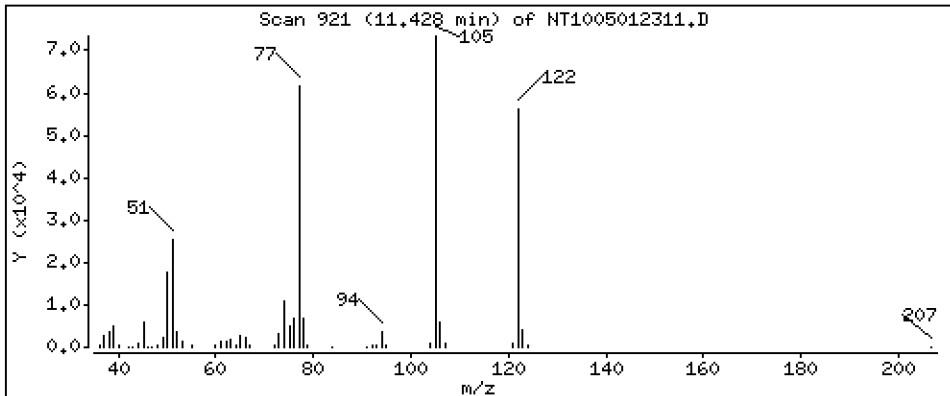
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 7,386 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

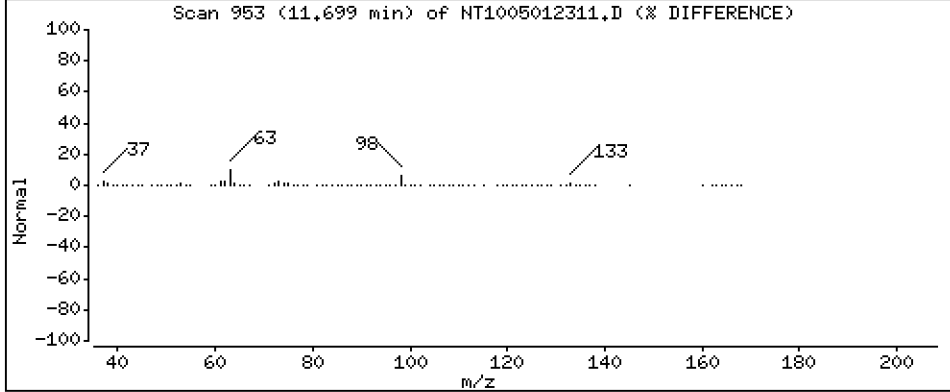
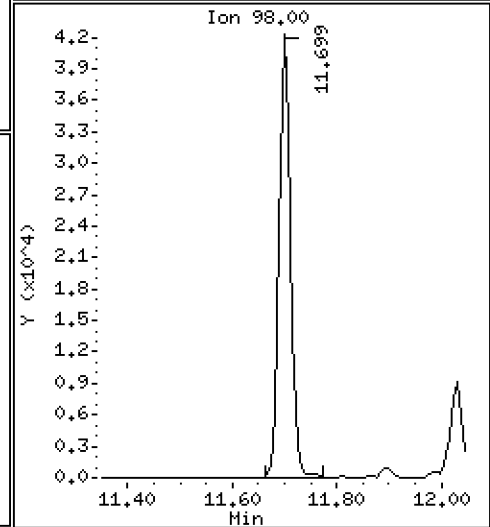
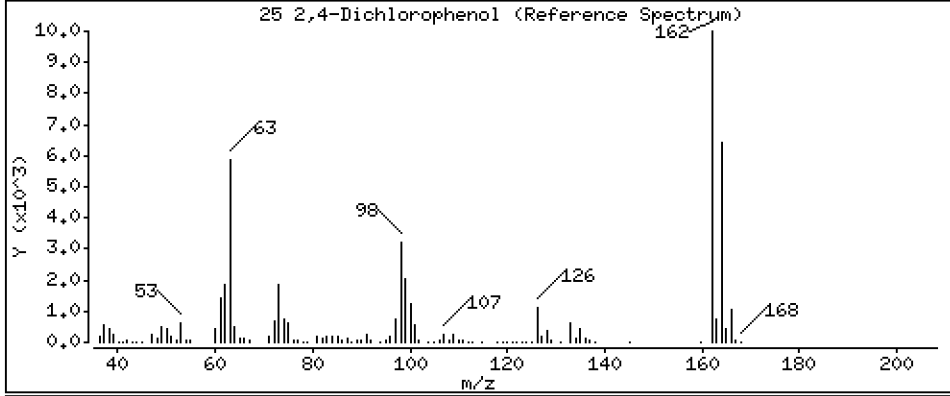
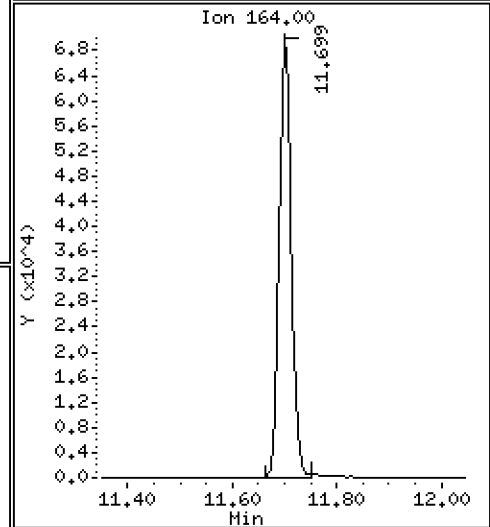
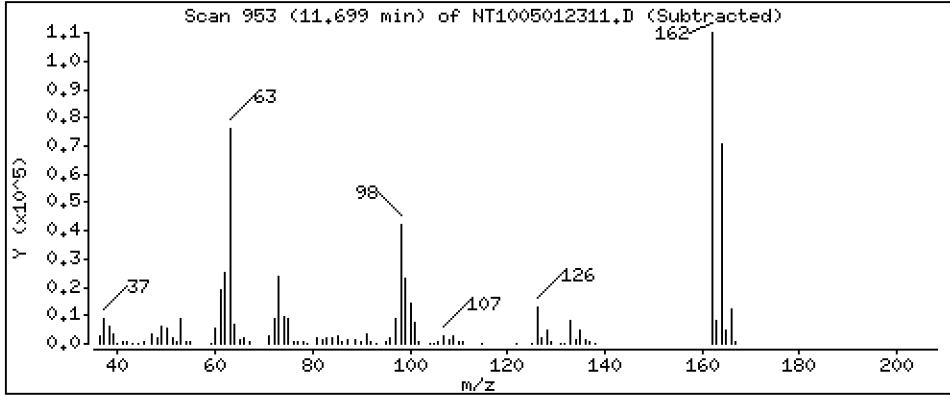
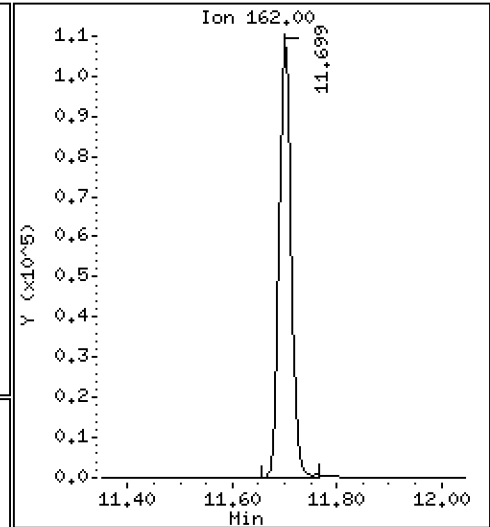
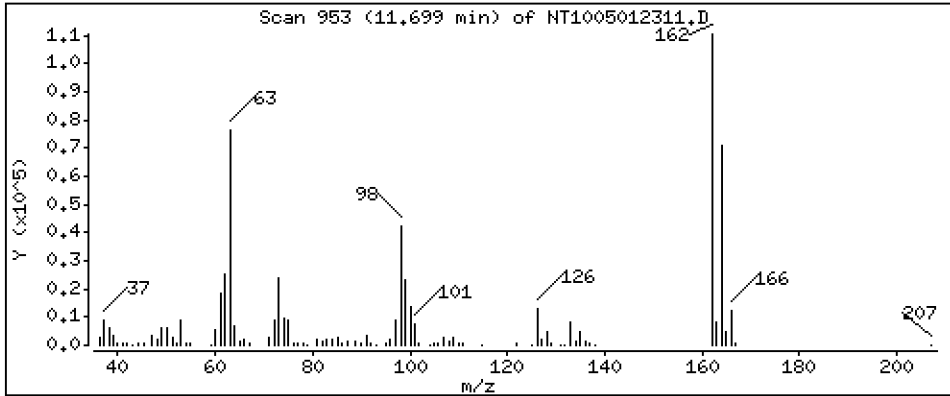
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,480 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

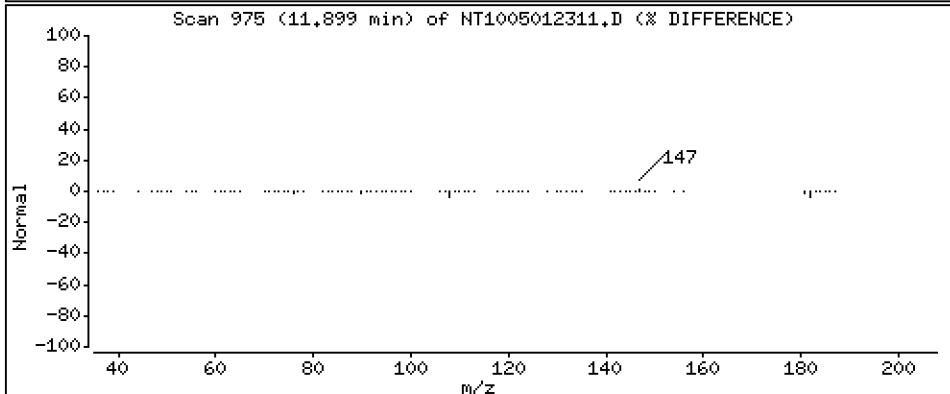
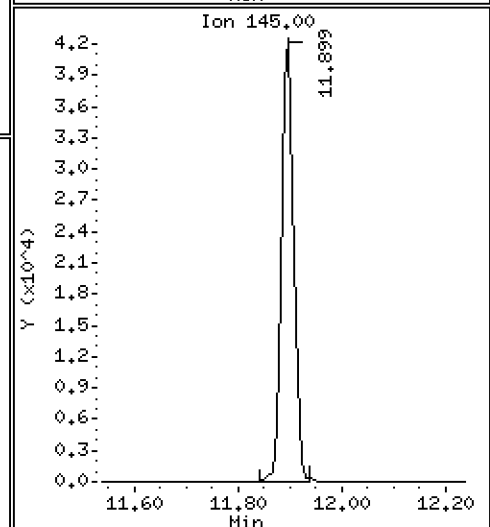
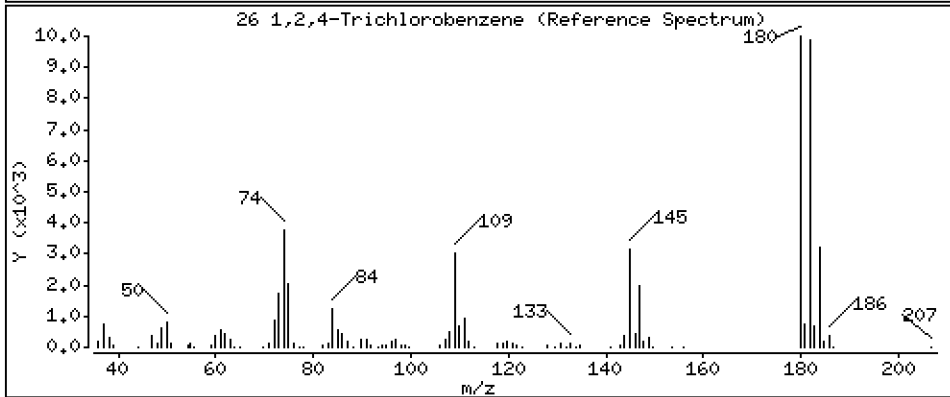
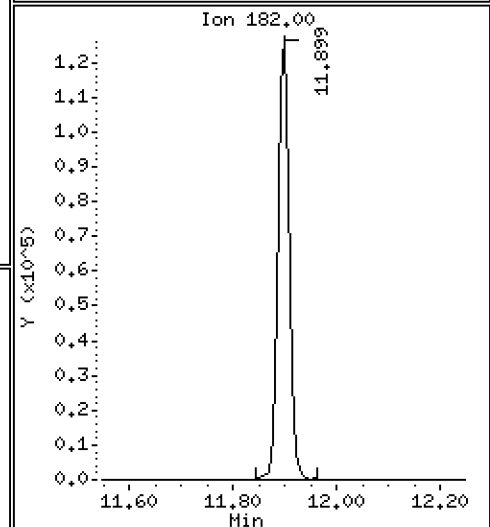
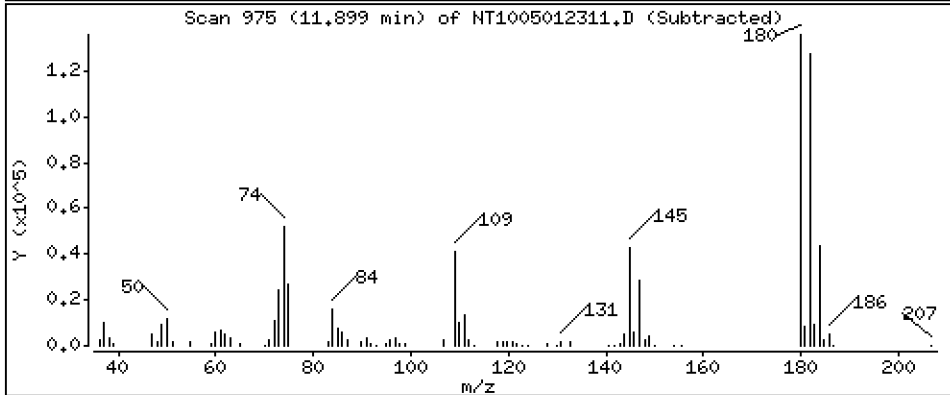
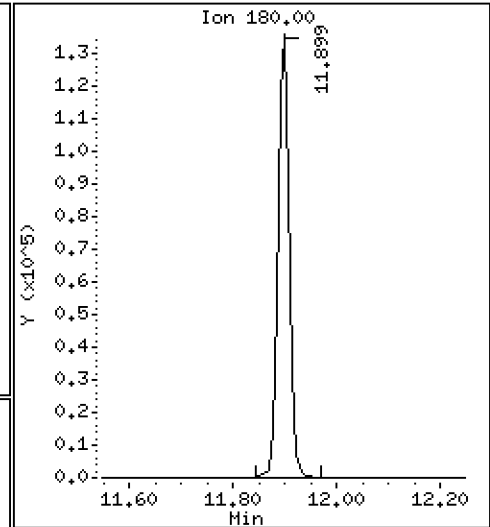
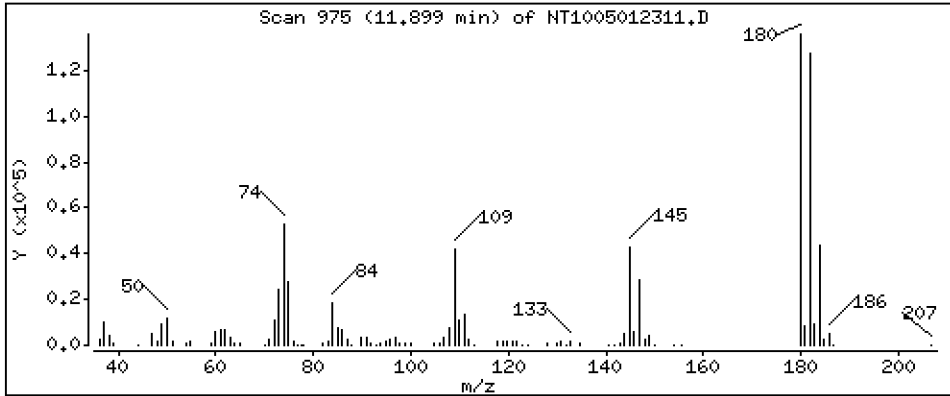
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,378 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

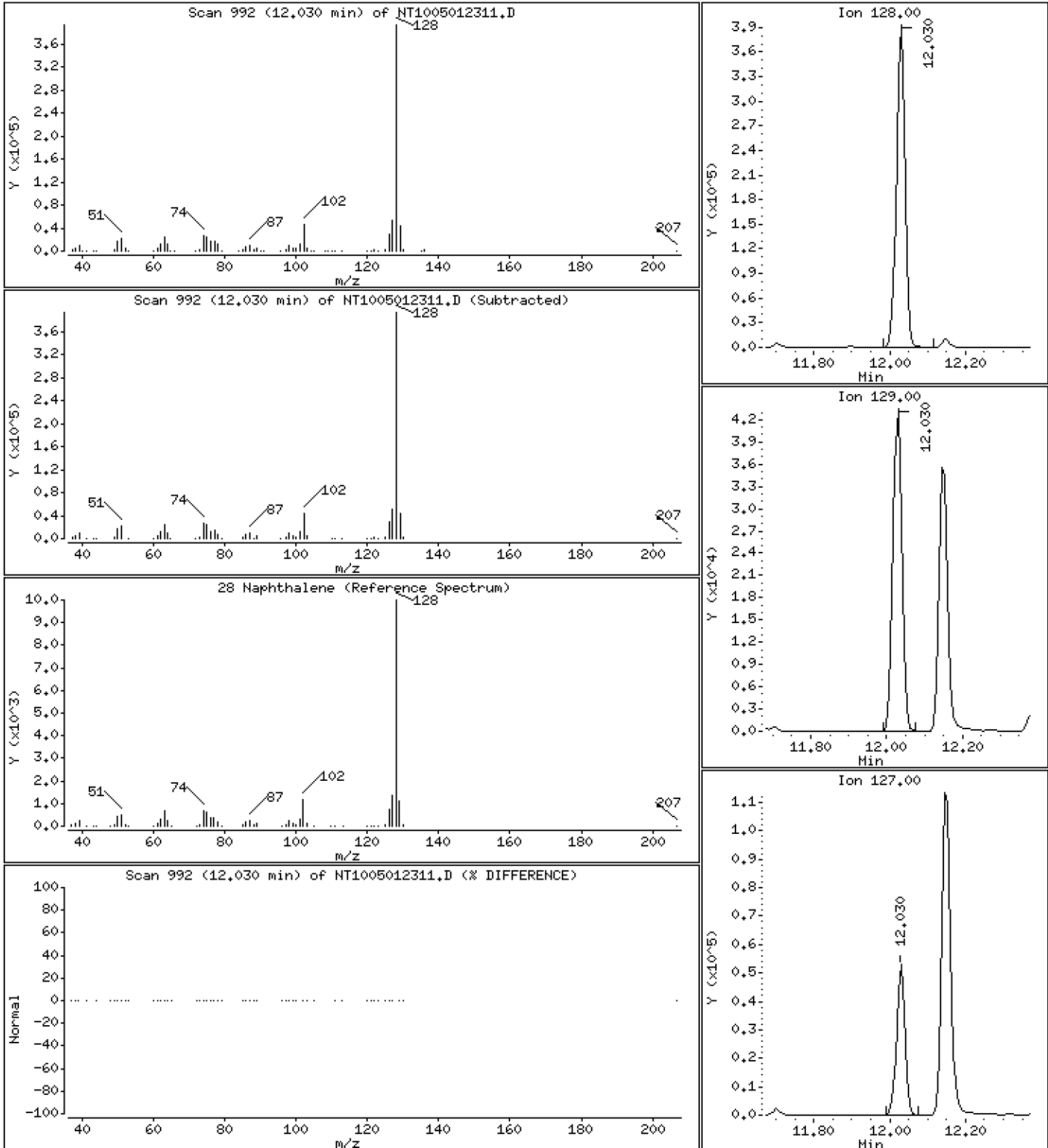
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,742 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

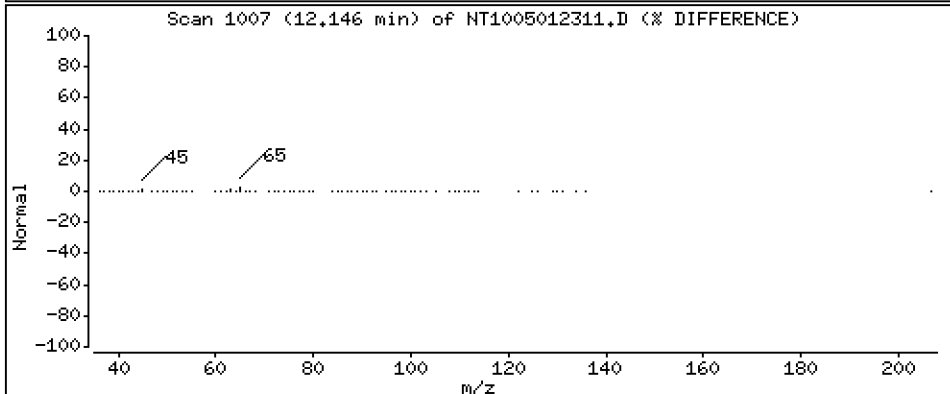
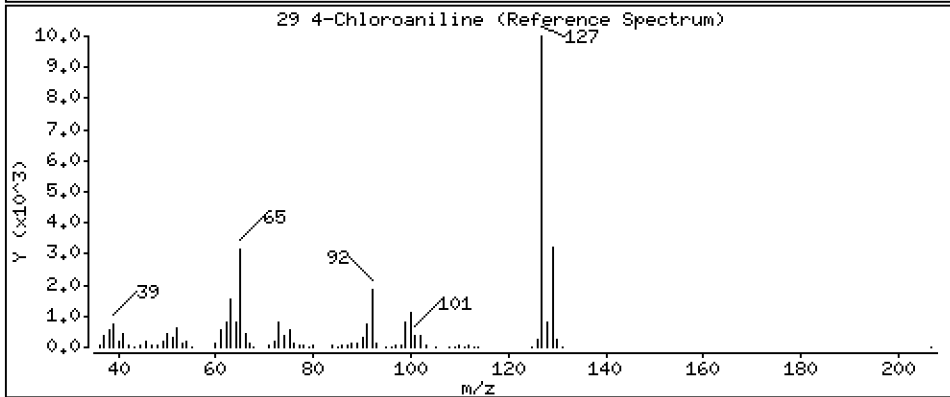
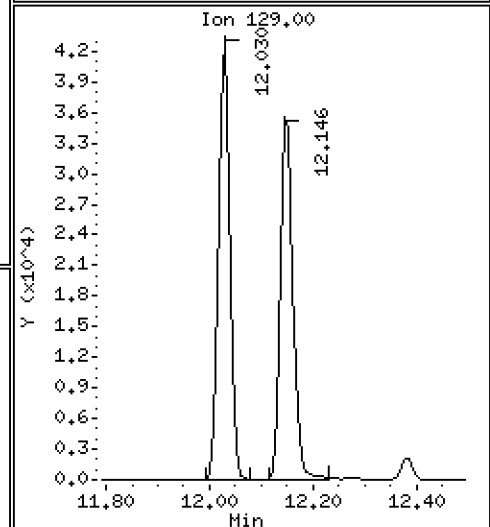
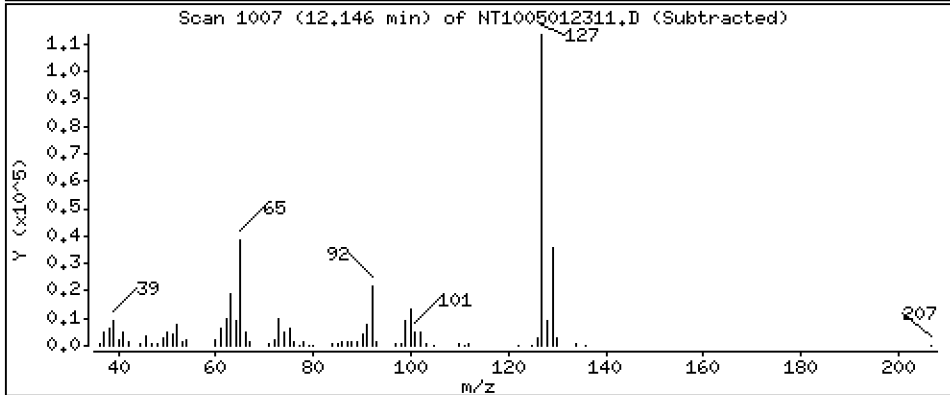
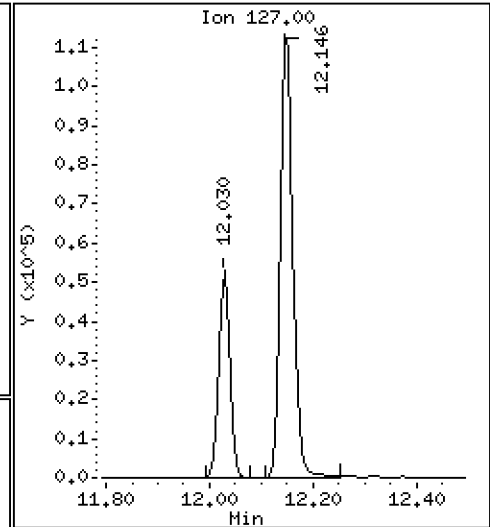
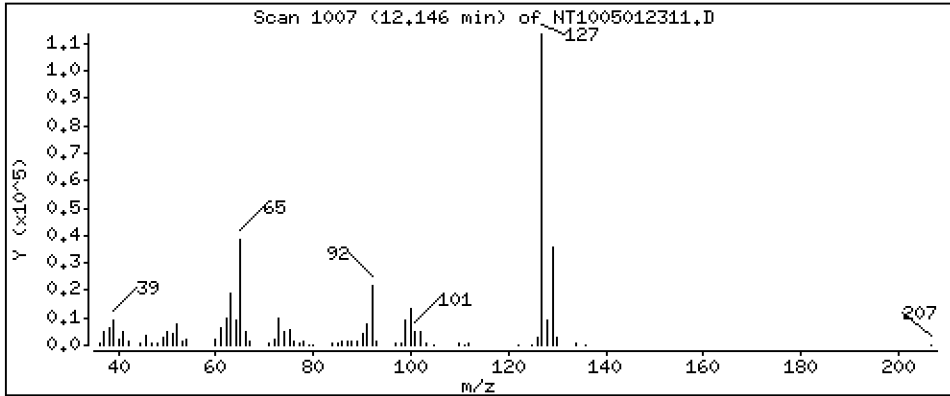
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,956 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

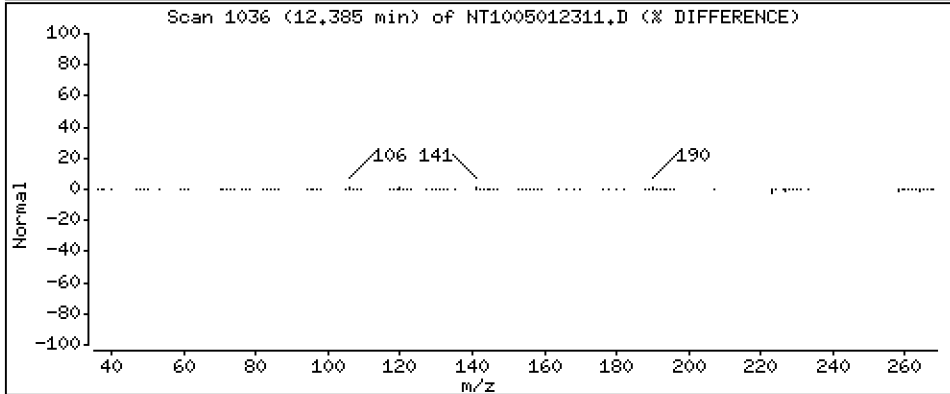
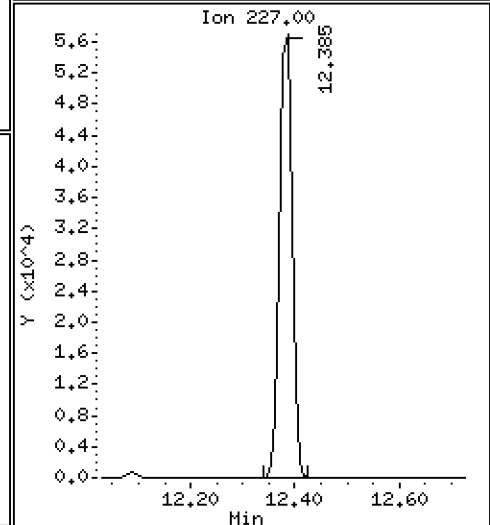
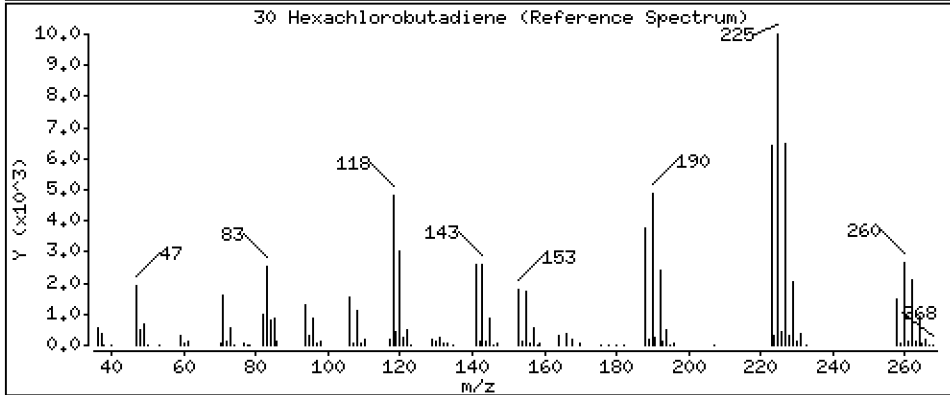
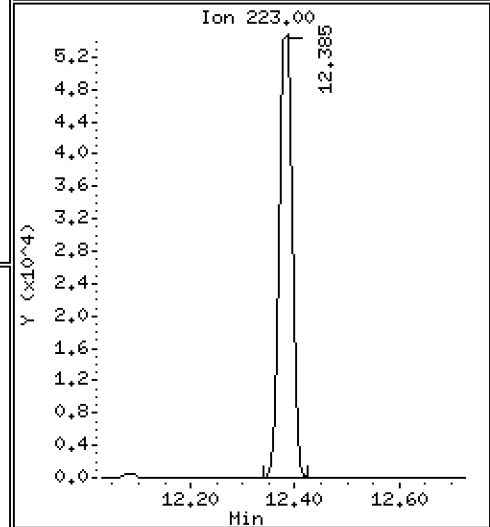
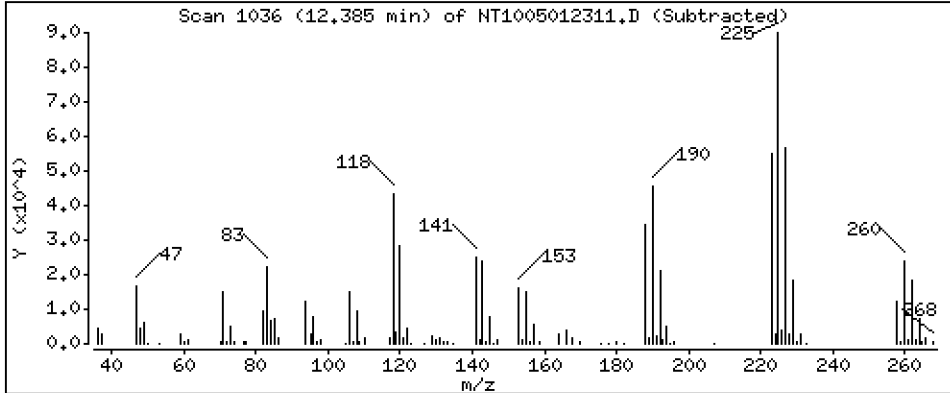
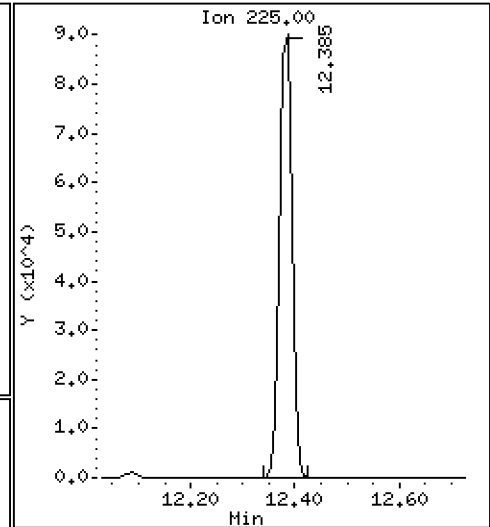
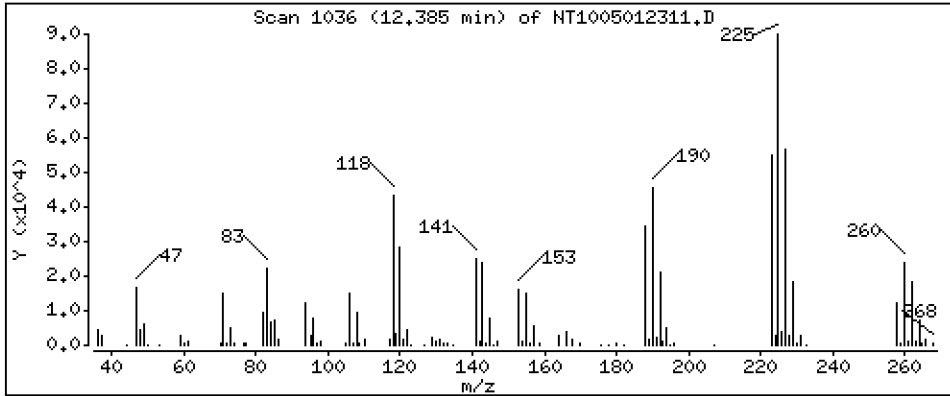
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,626 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

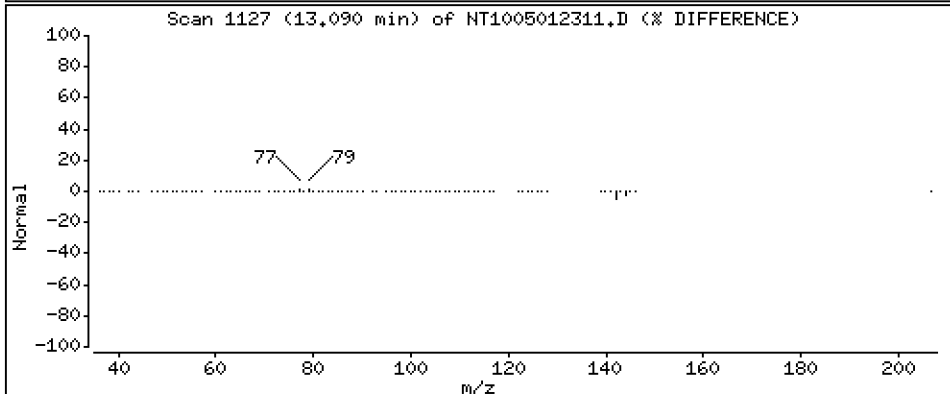
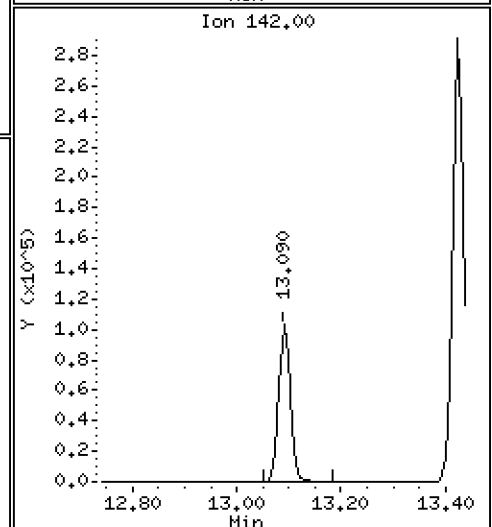
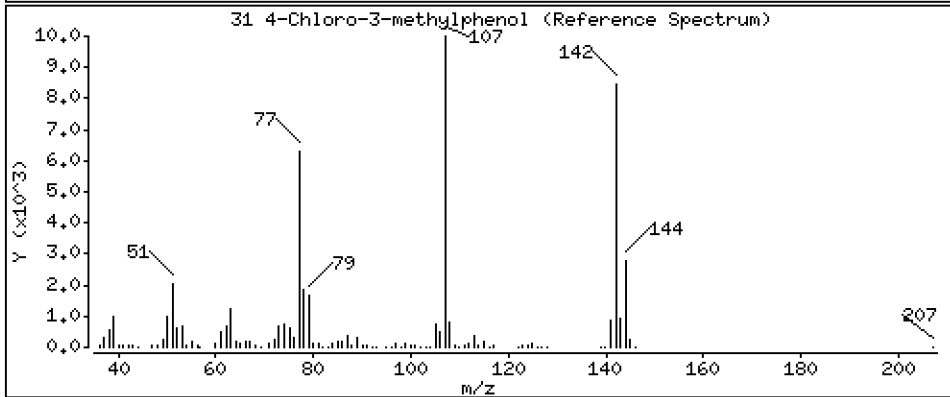
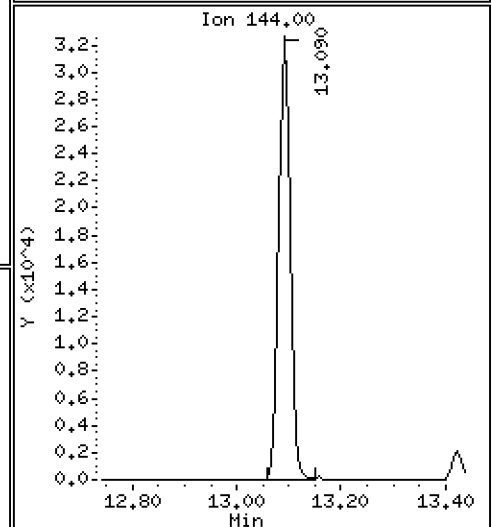
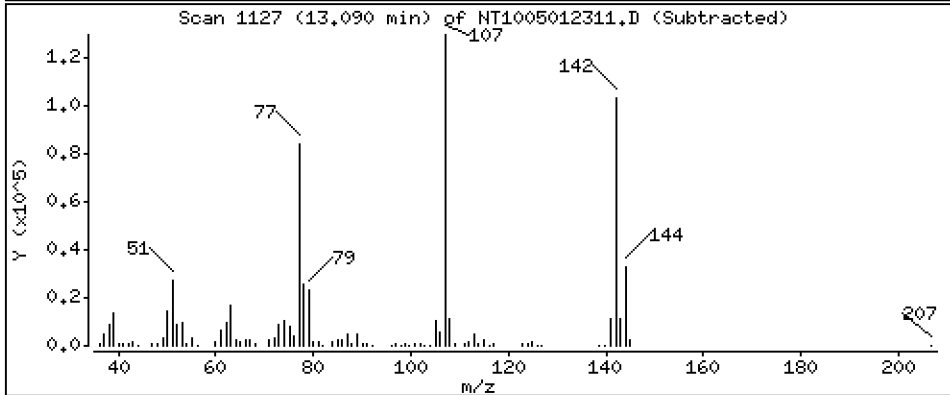
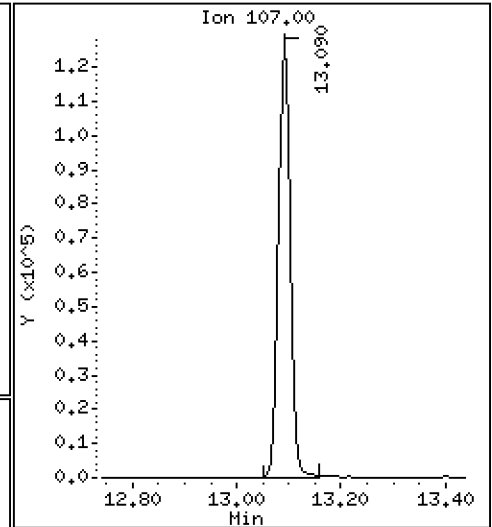
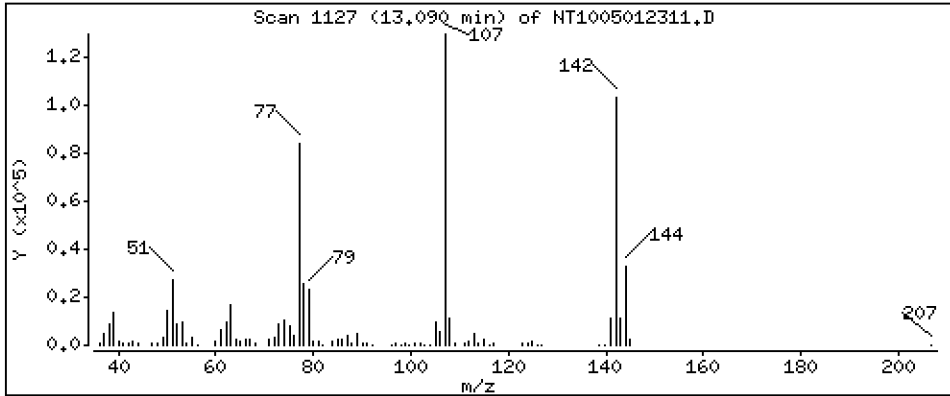
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,460 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

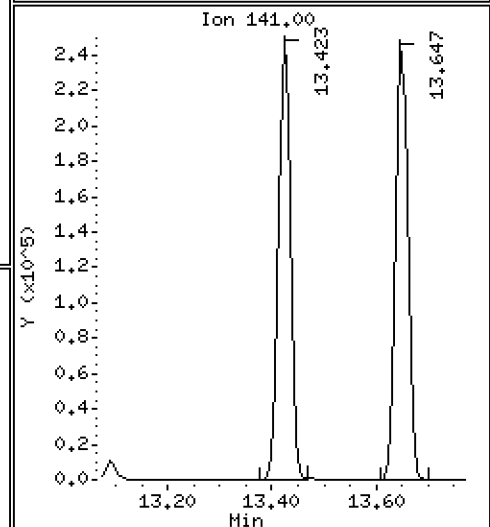
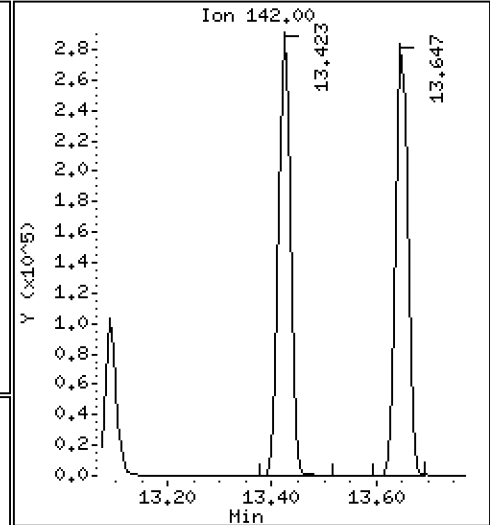
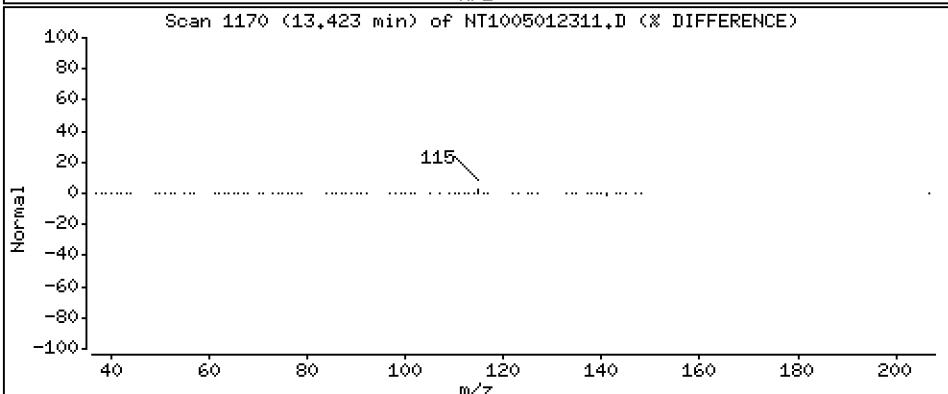
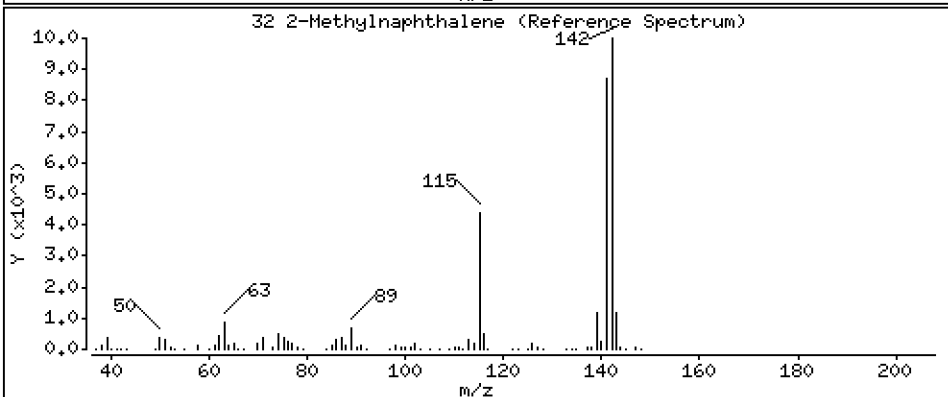
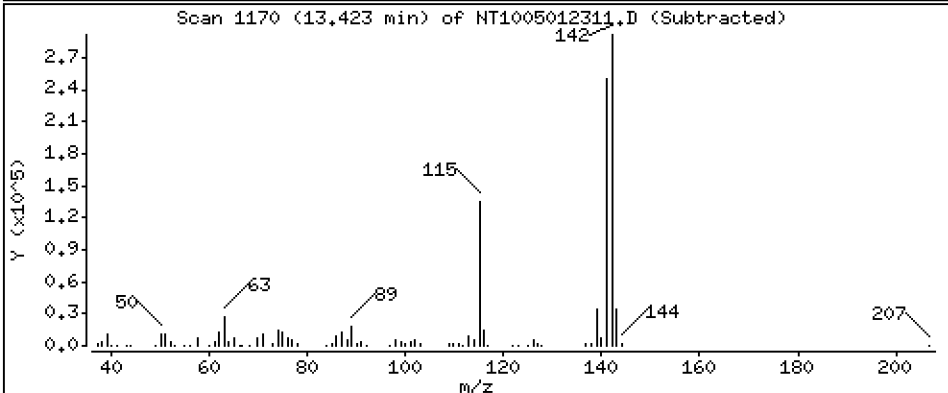
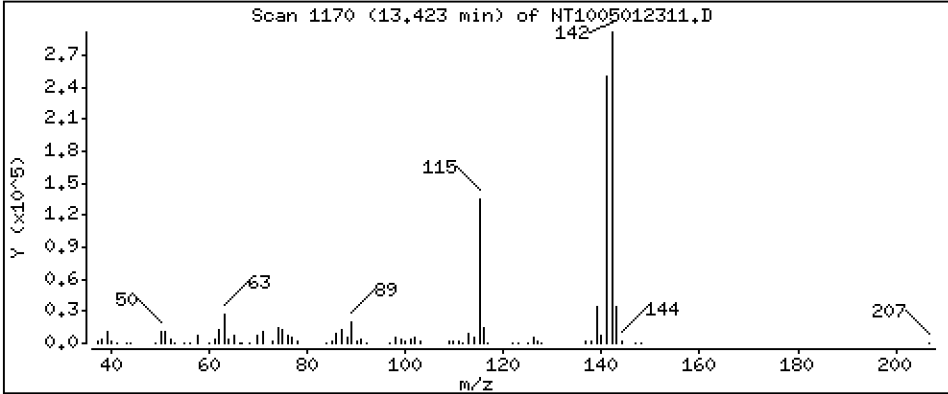
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,513 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

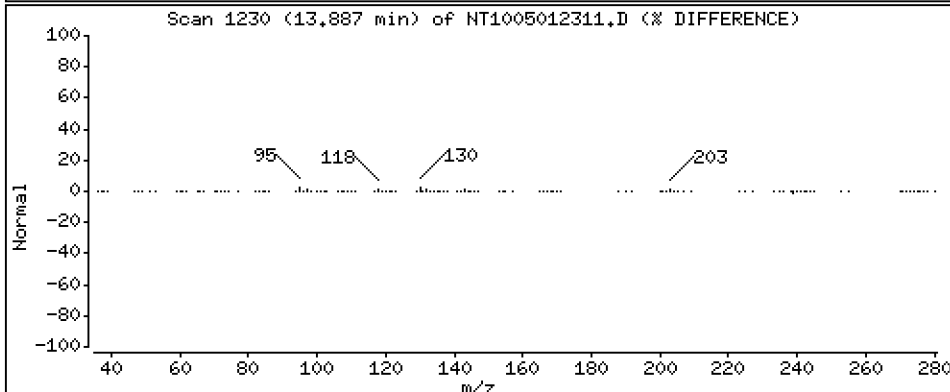
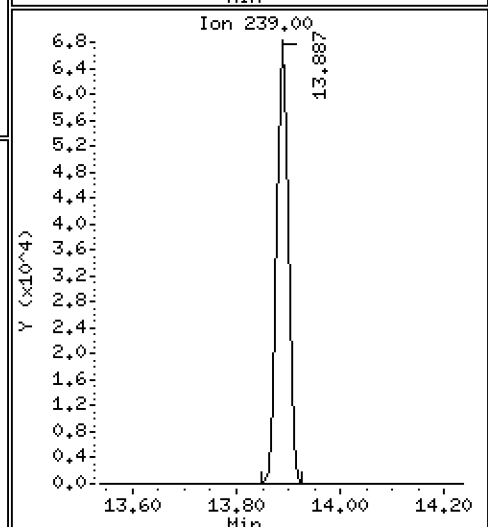
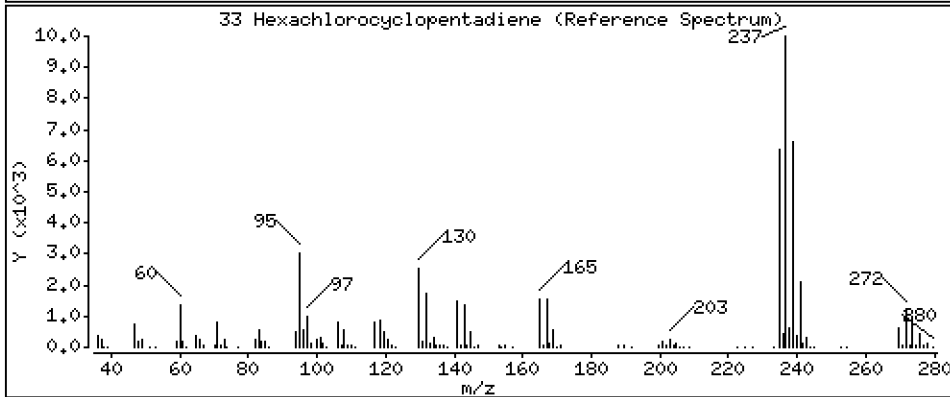
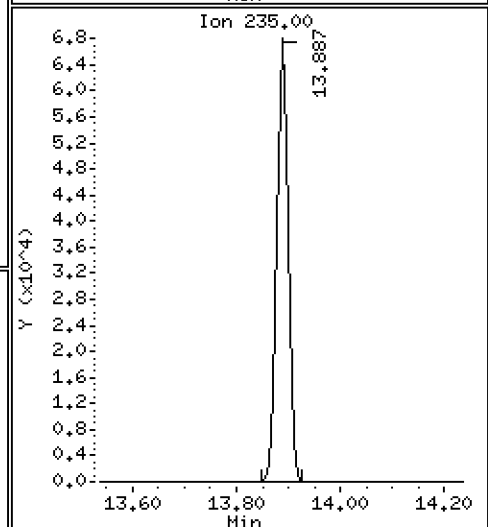
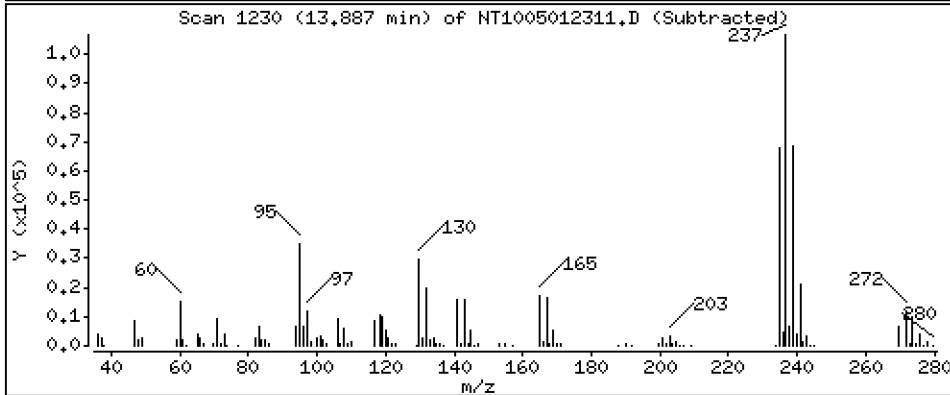
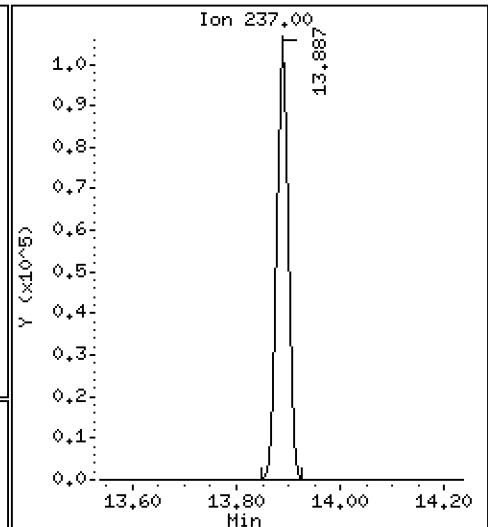
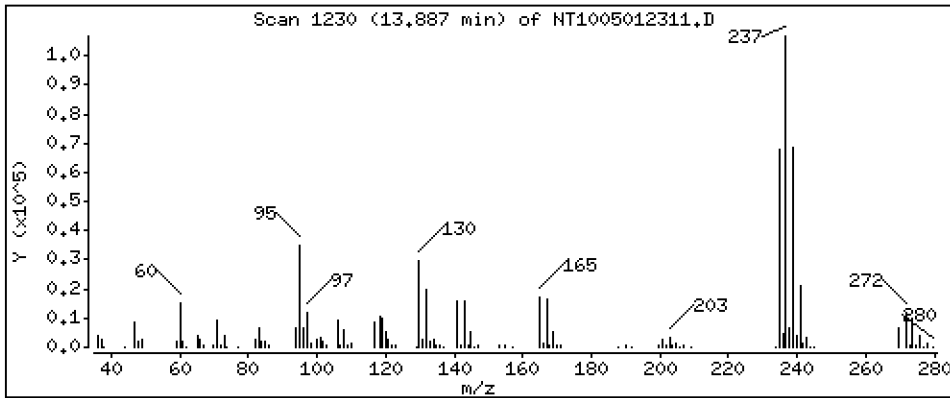
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,673 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

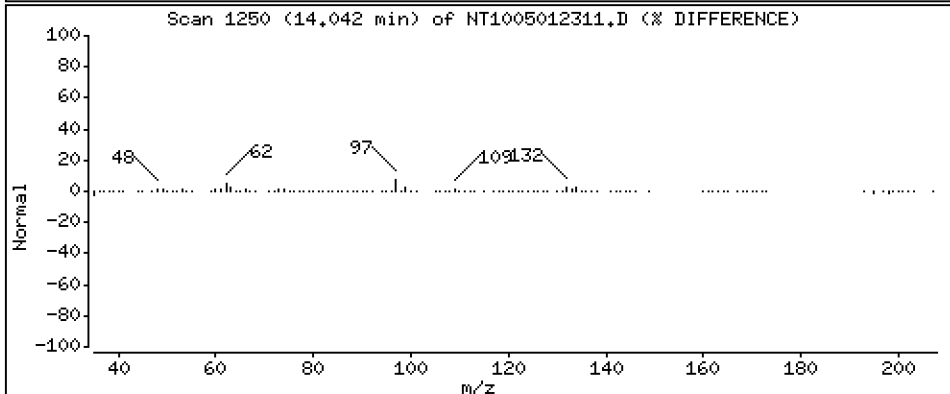
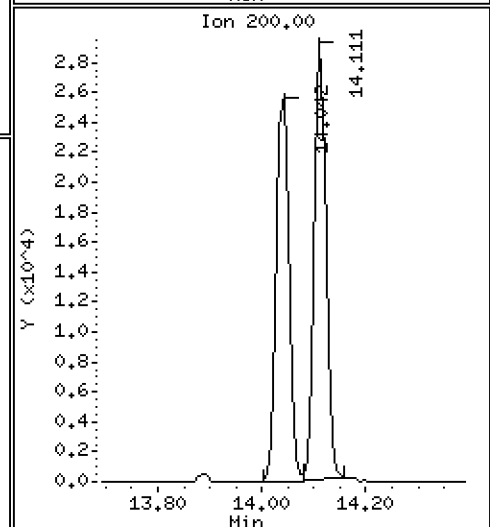
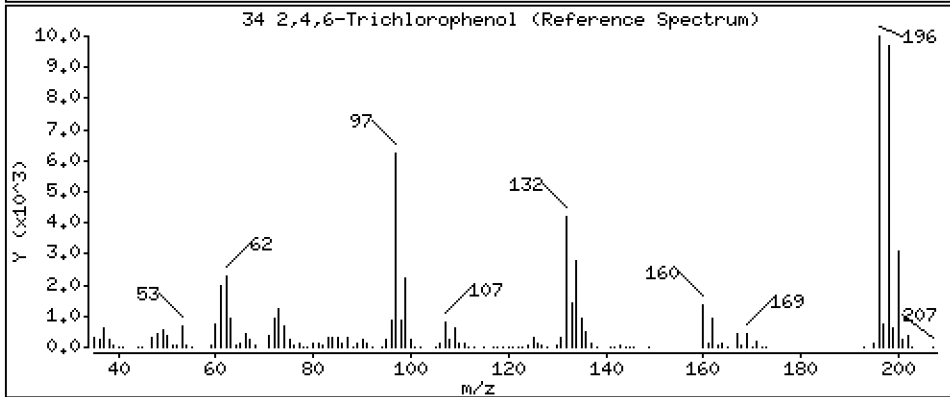
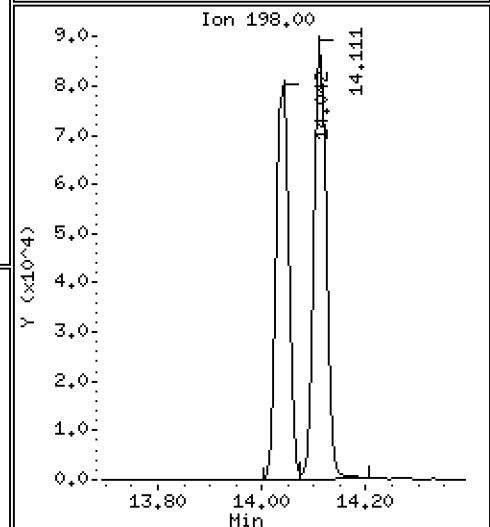
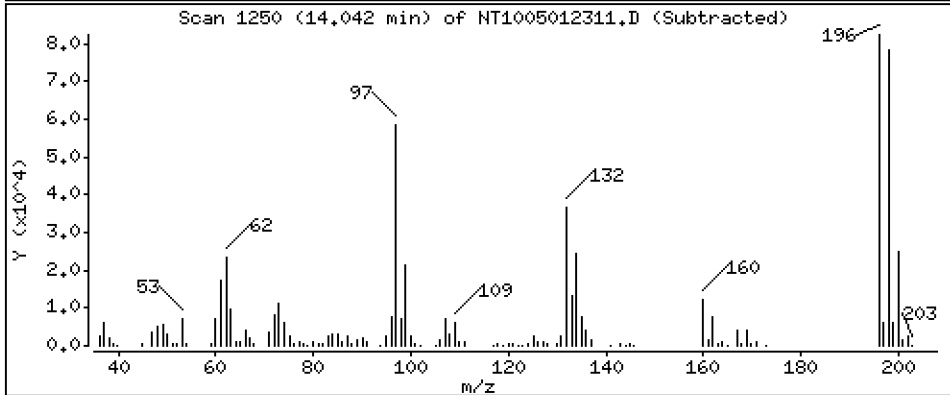
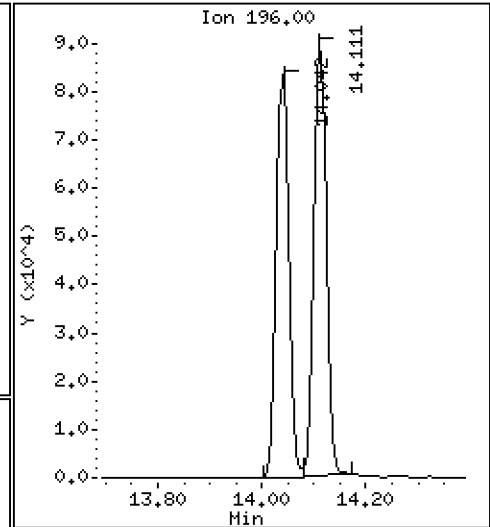
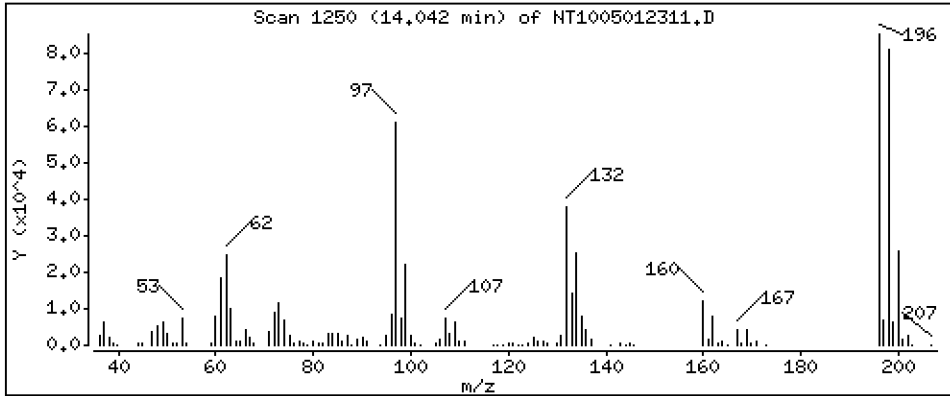
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,212 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

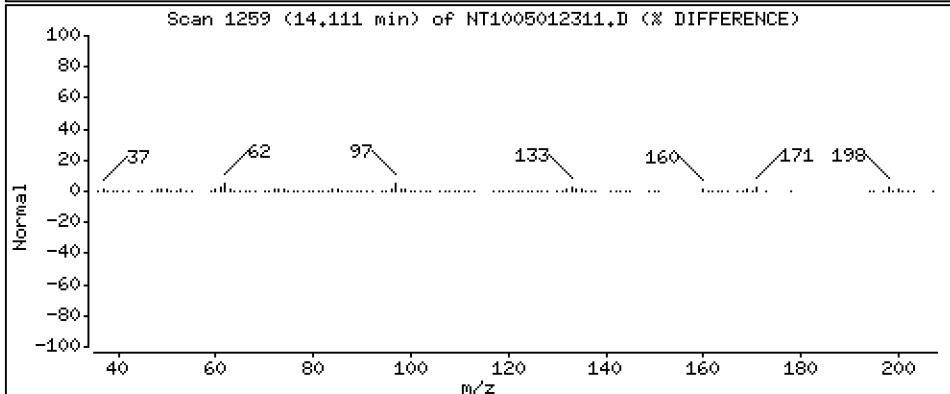
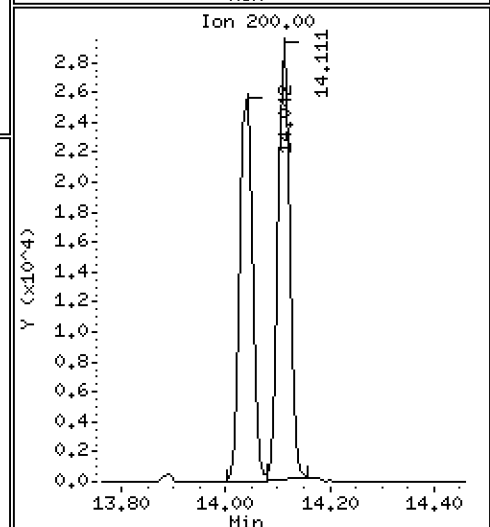
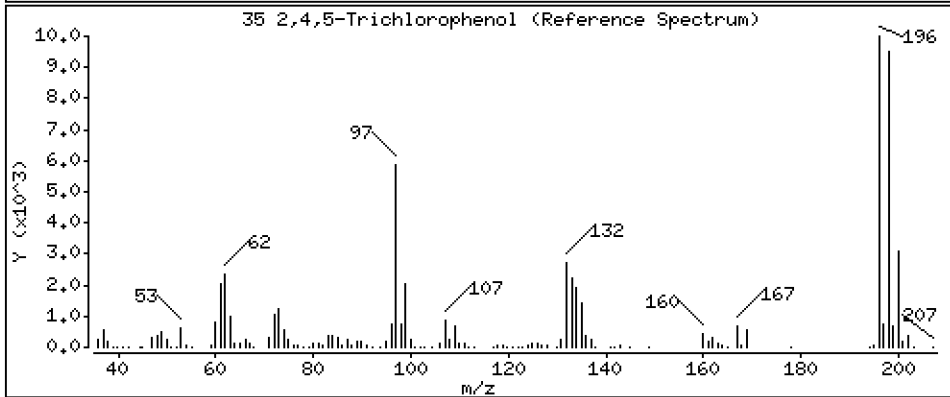
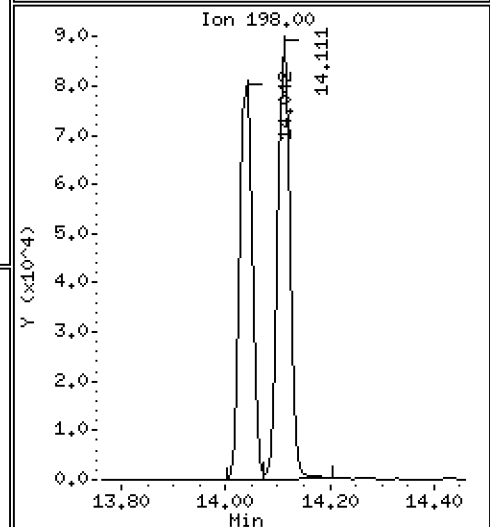
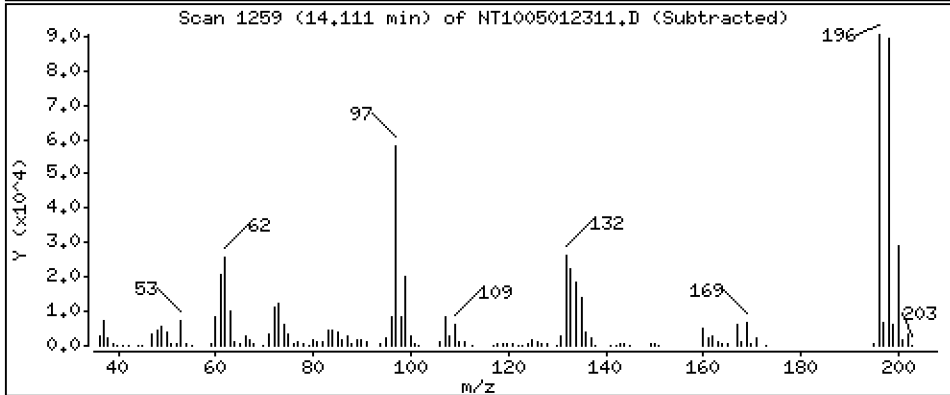
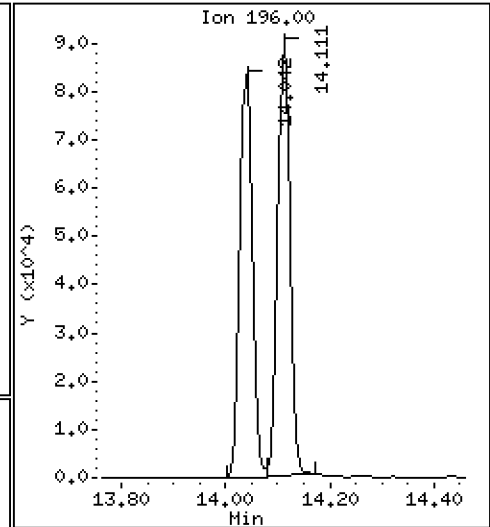
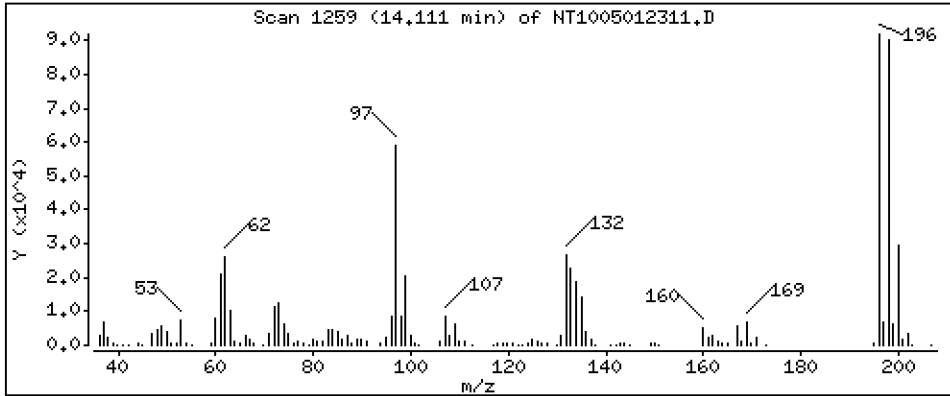
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,029 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

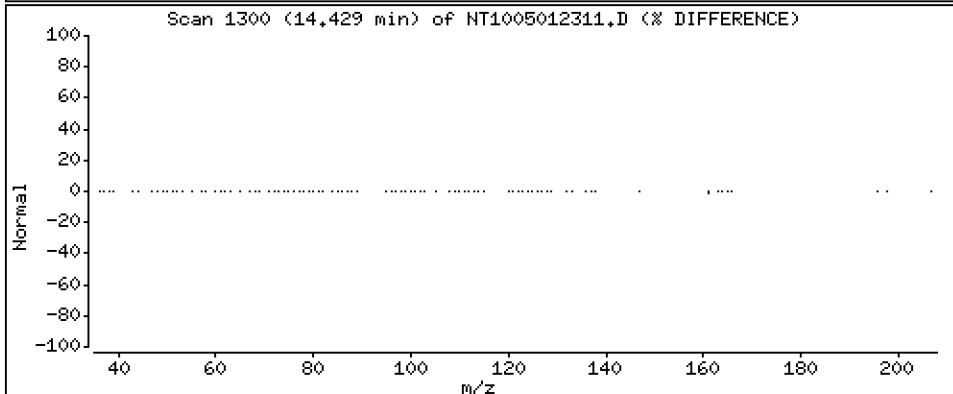
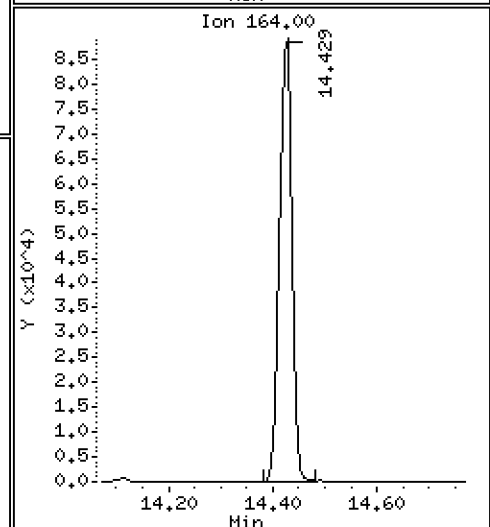
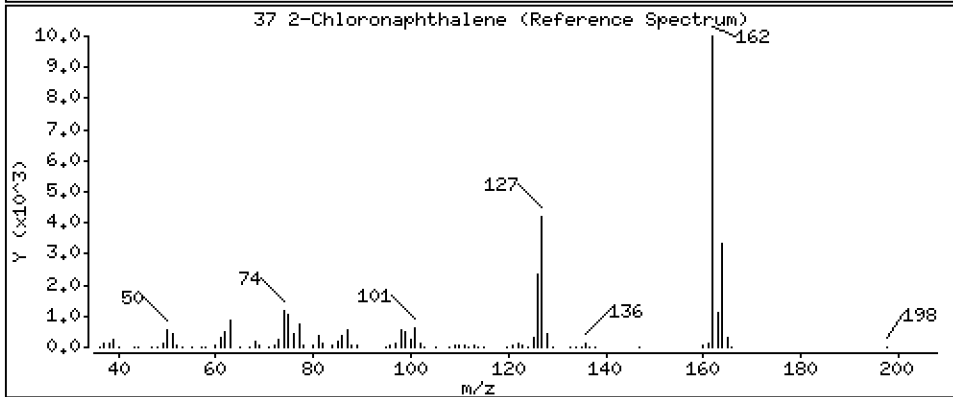
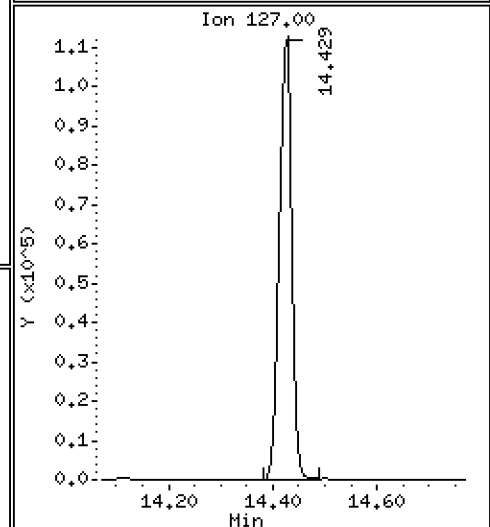
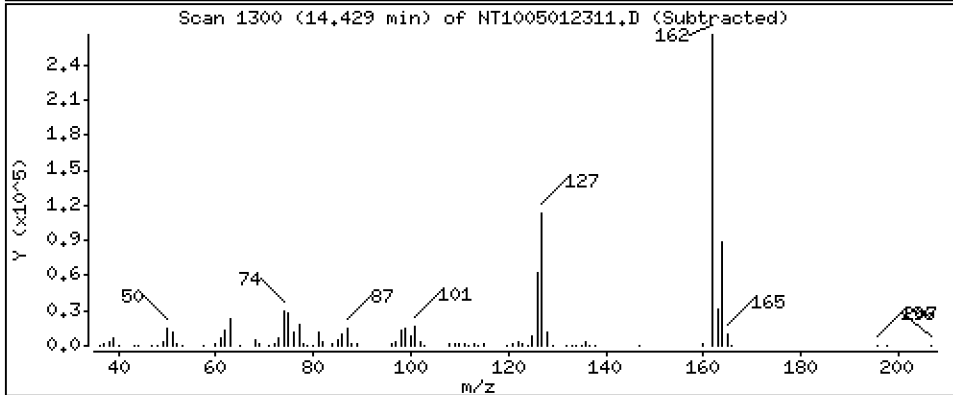
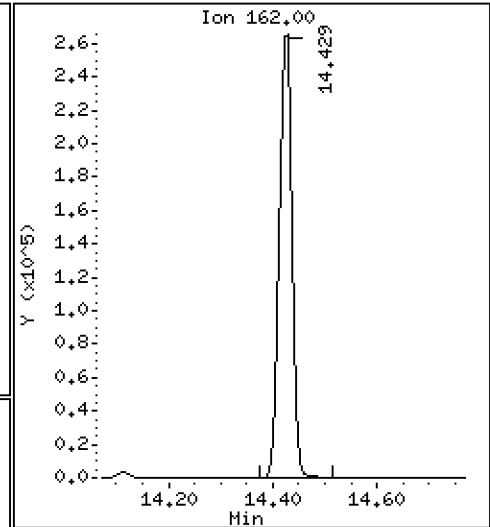
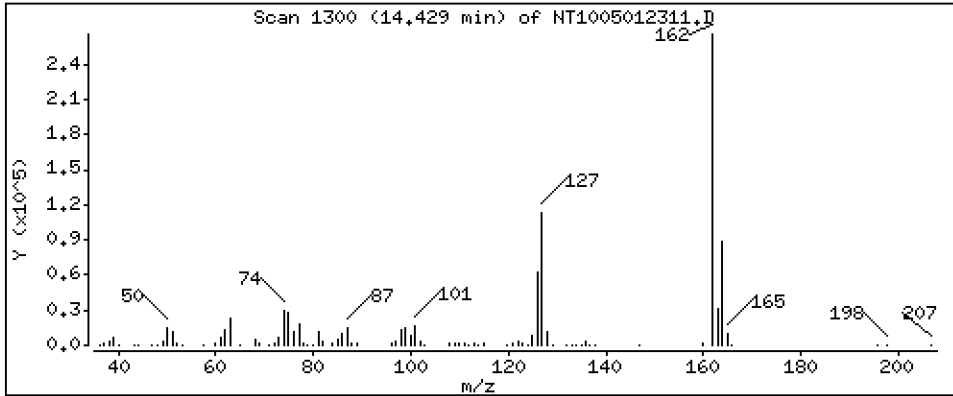
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.830 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

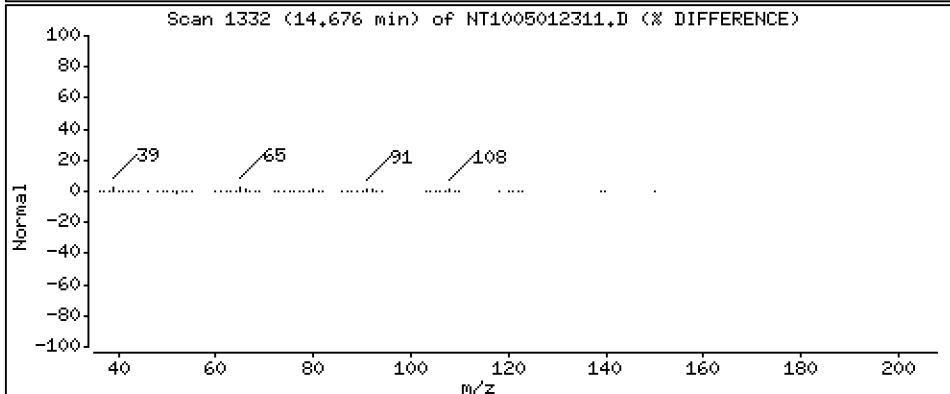
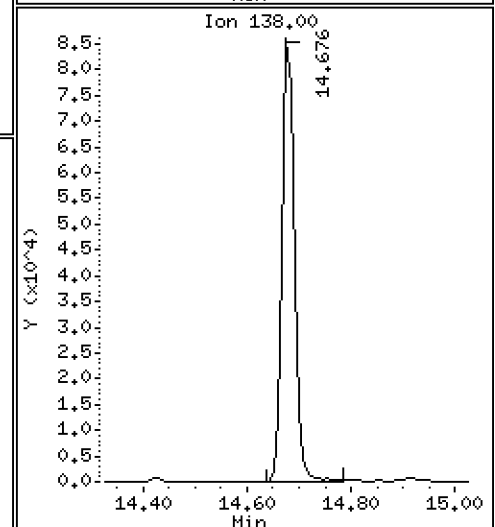
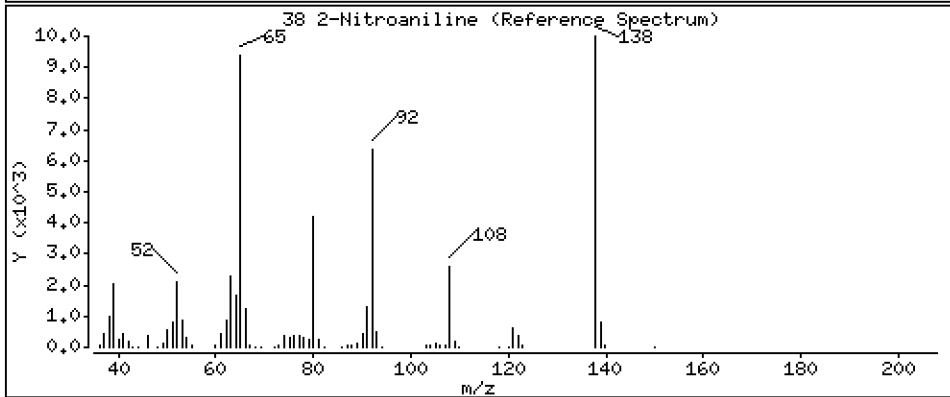
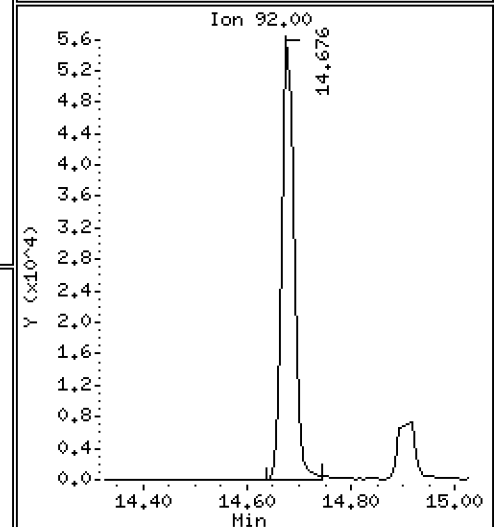
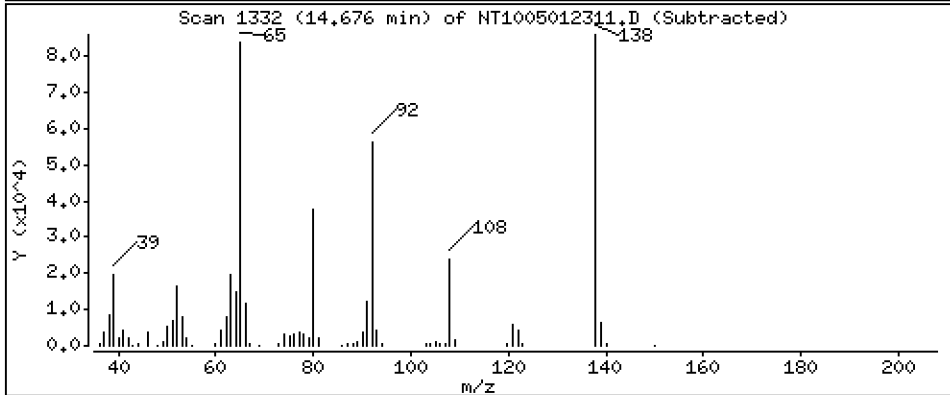
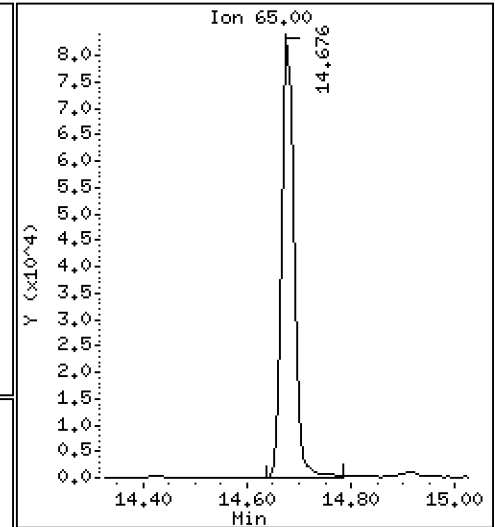
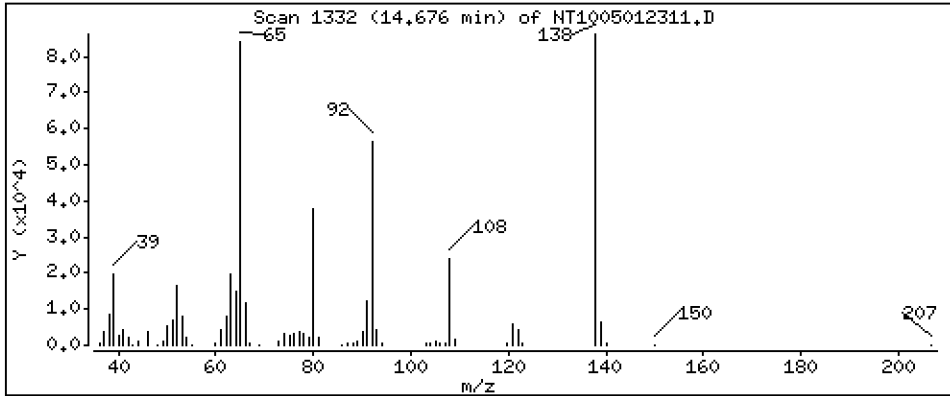
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 5,029 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

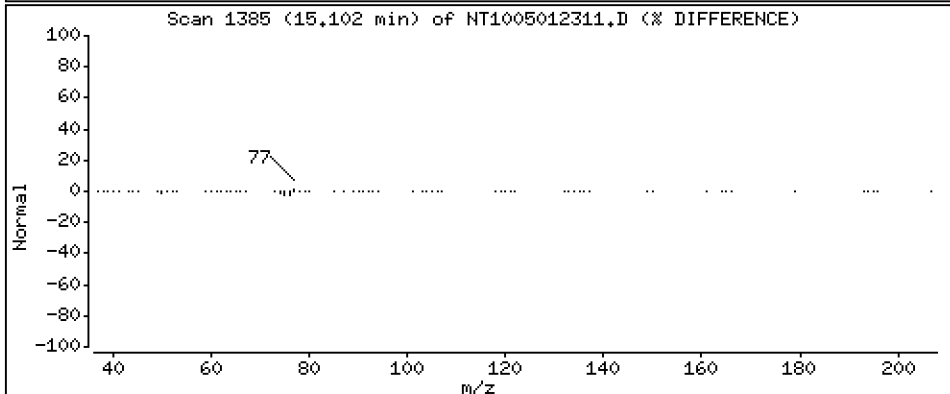
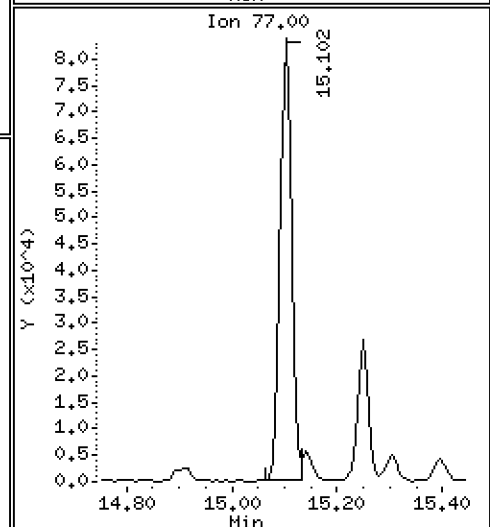
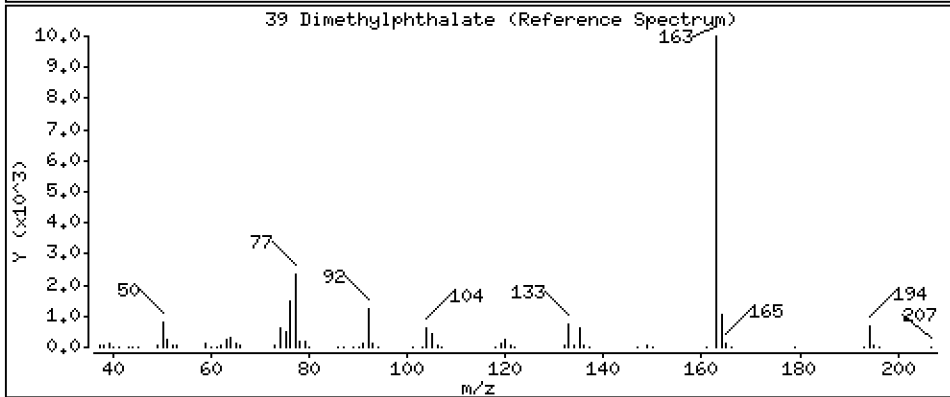
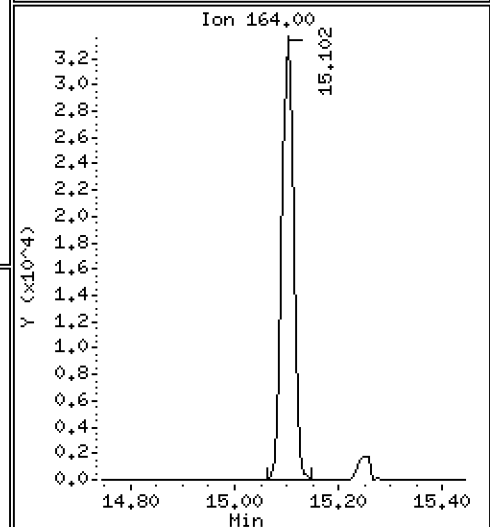
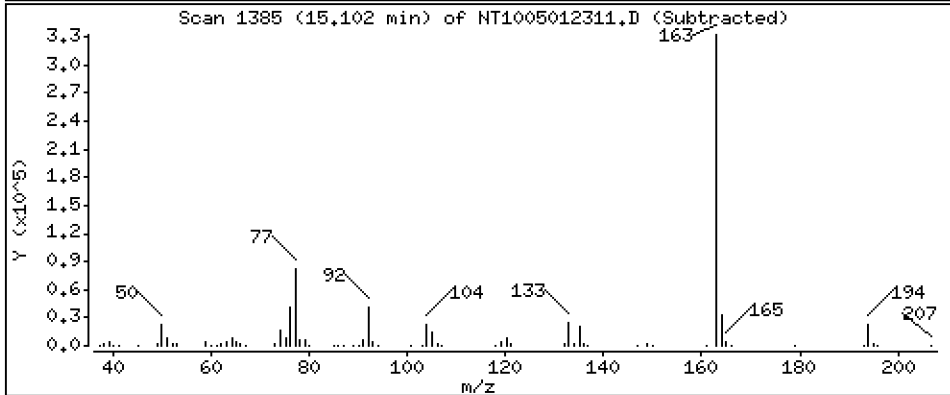
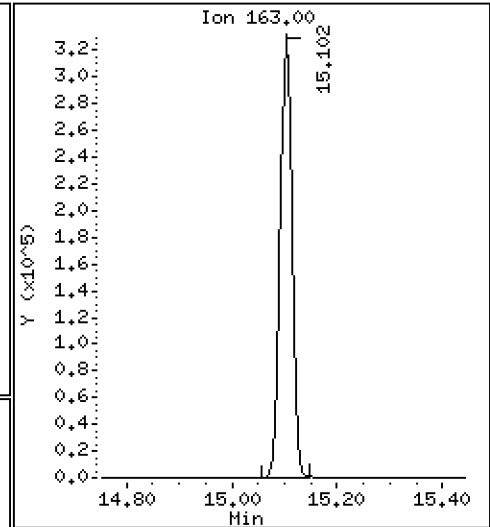
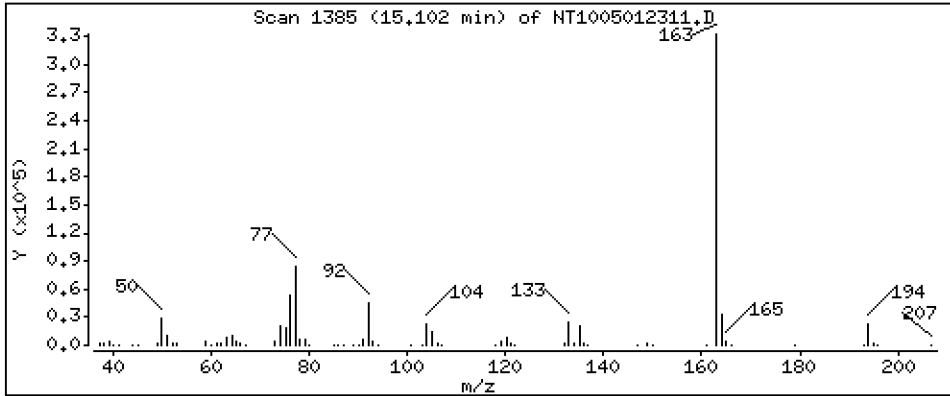
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,908 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

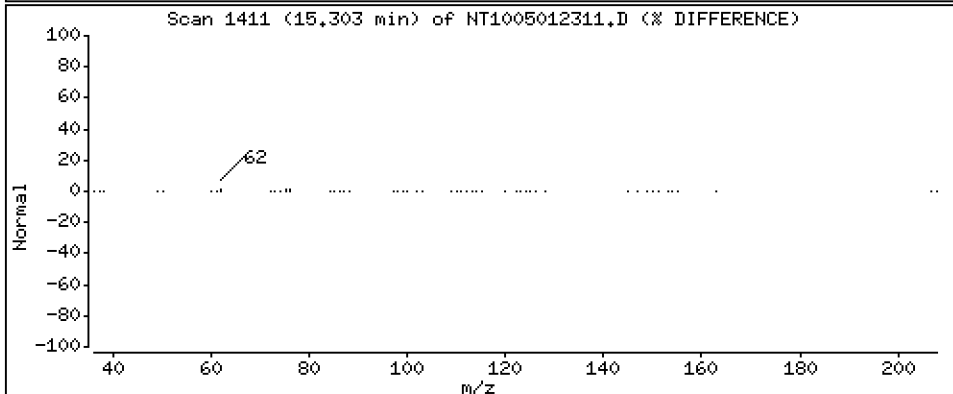
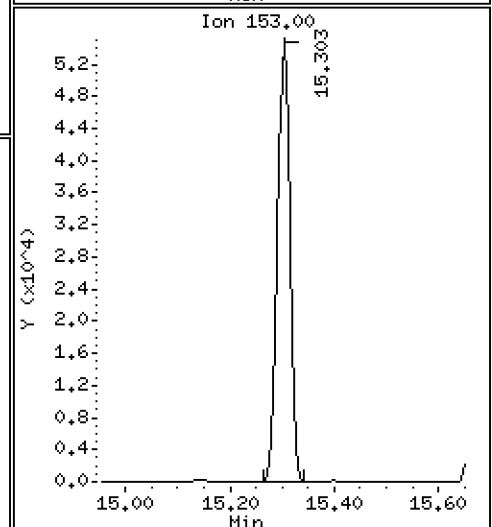
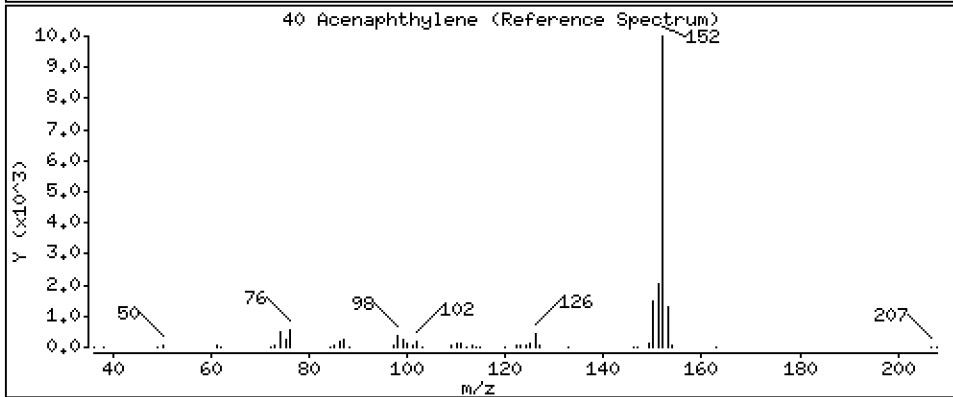
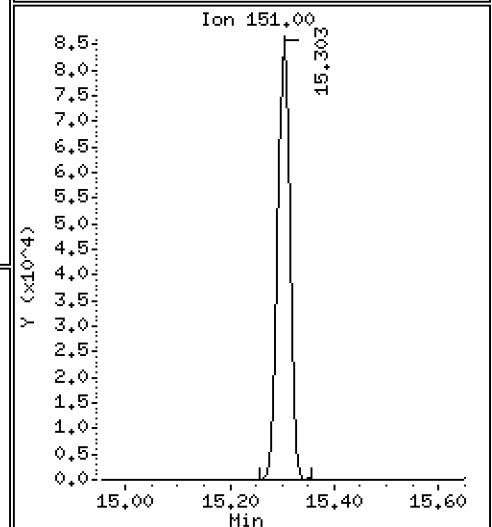
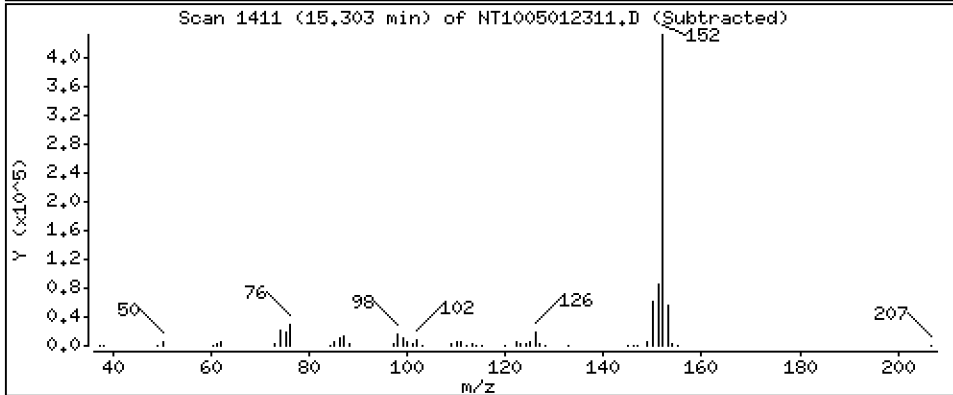
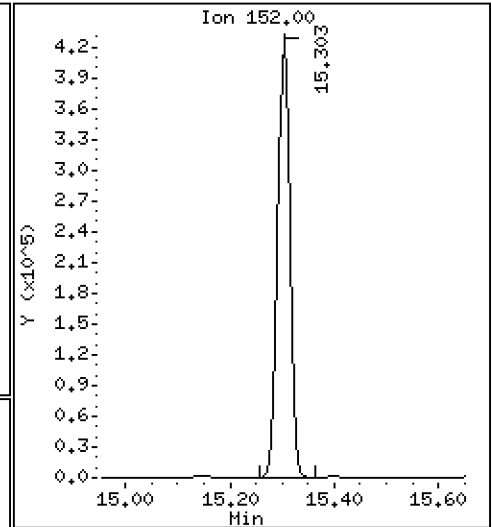
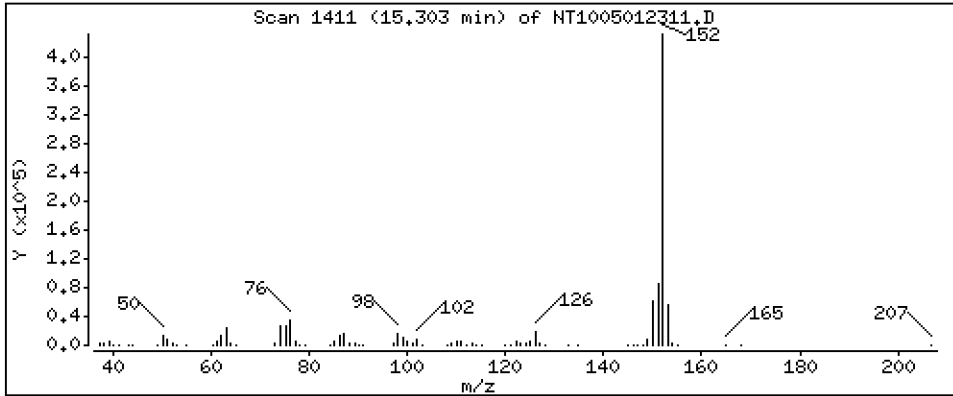
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,776 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

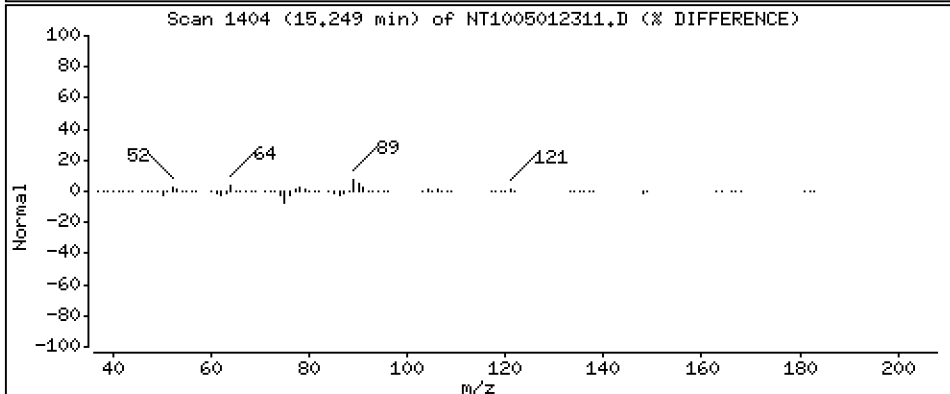
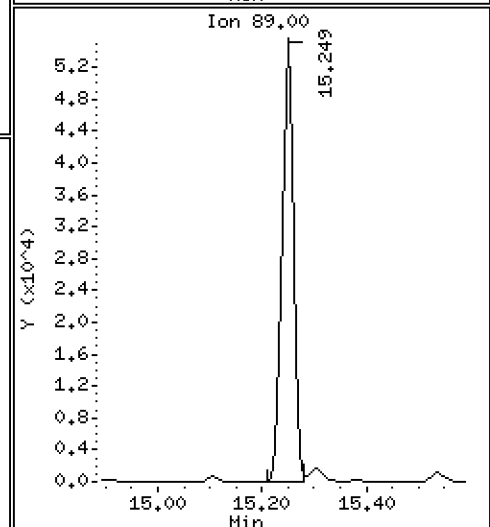
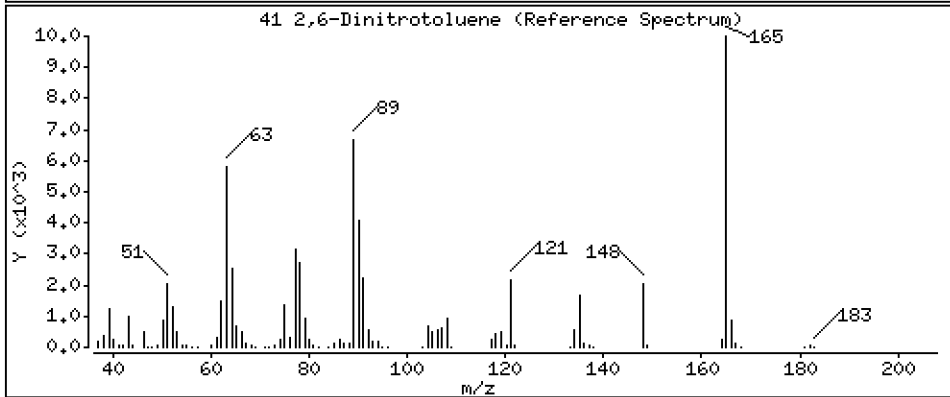
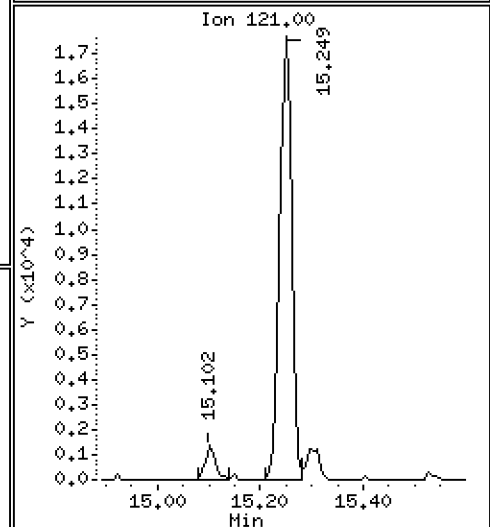
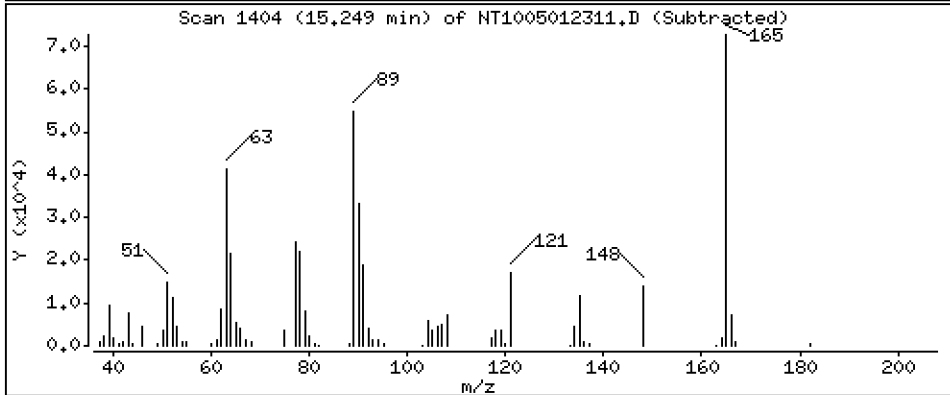
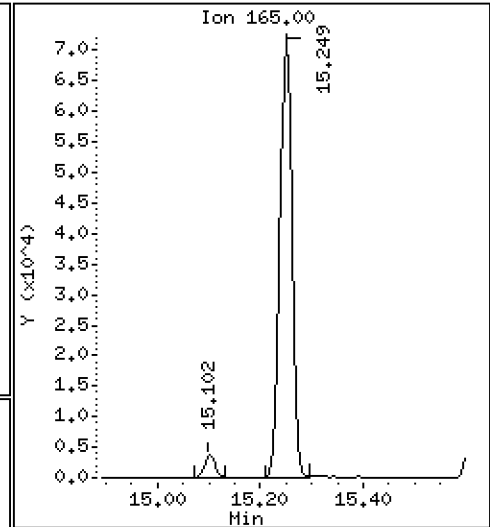
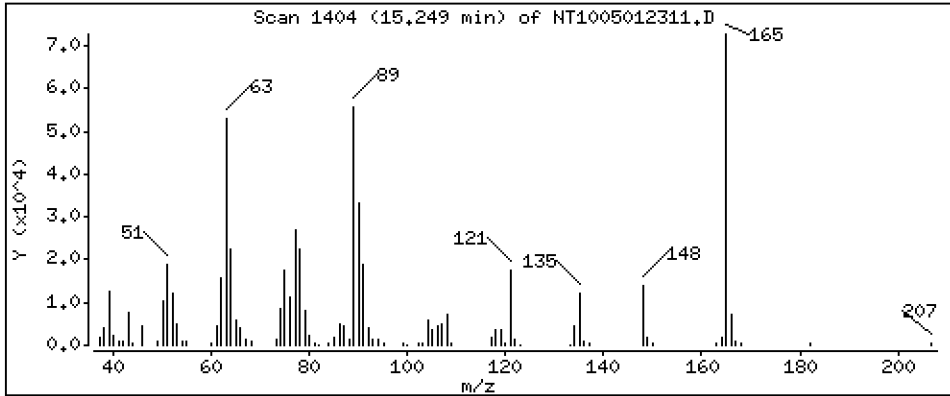
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 4,876 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

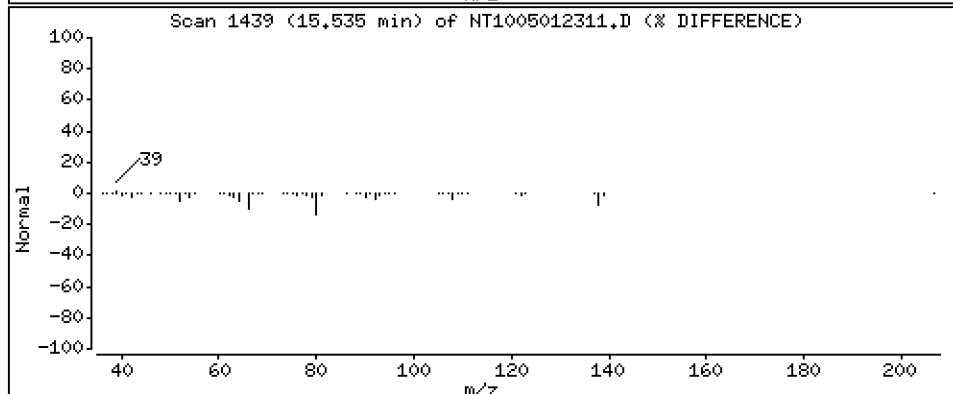
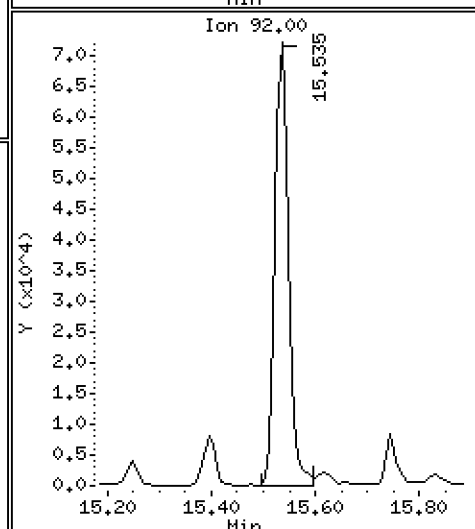
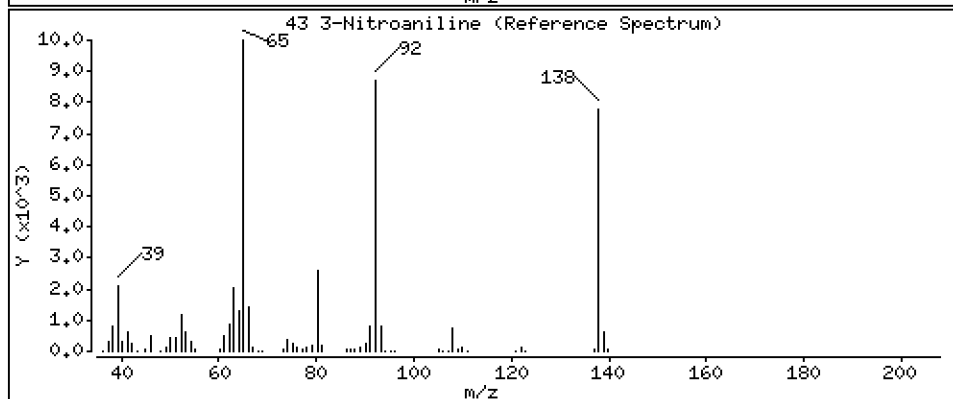
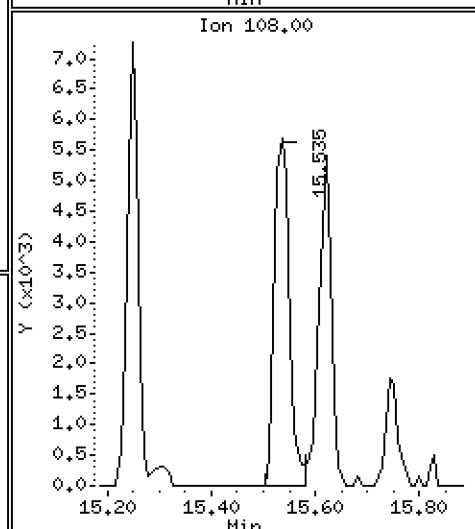
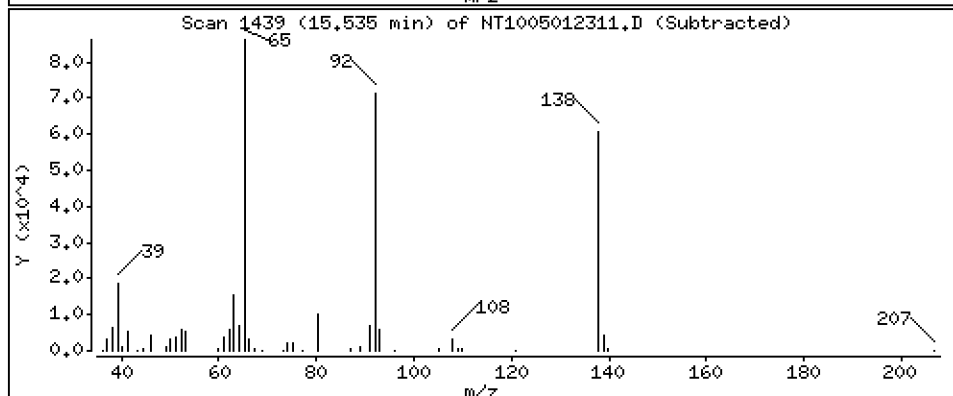
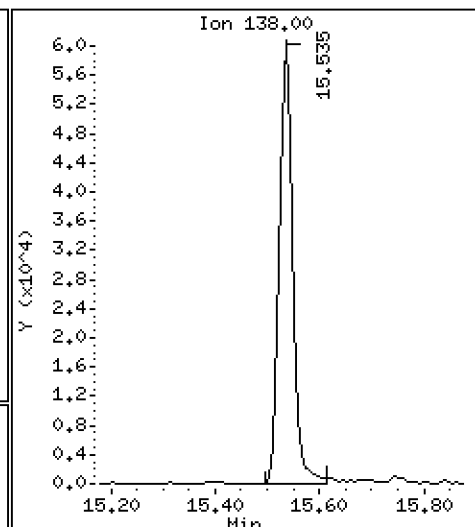
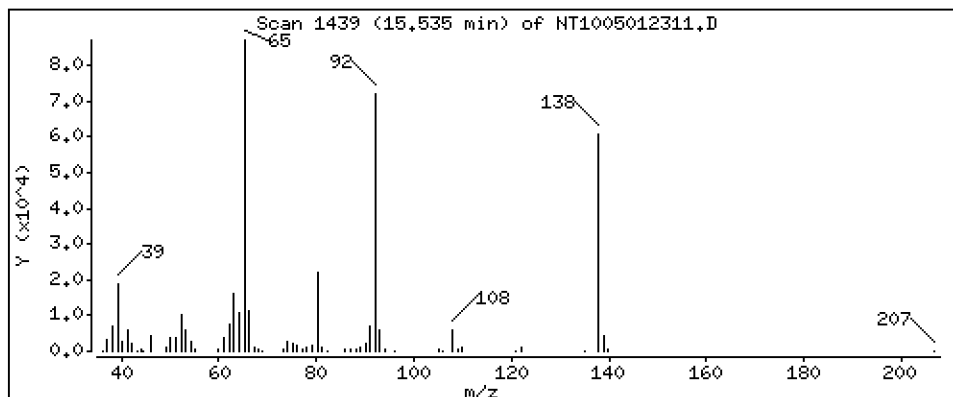
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,776 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

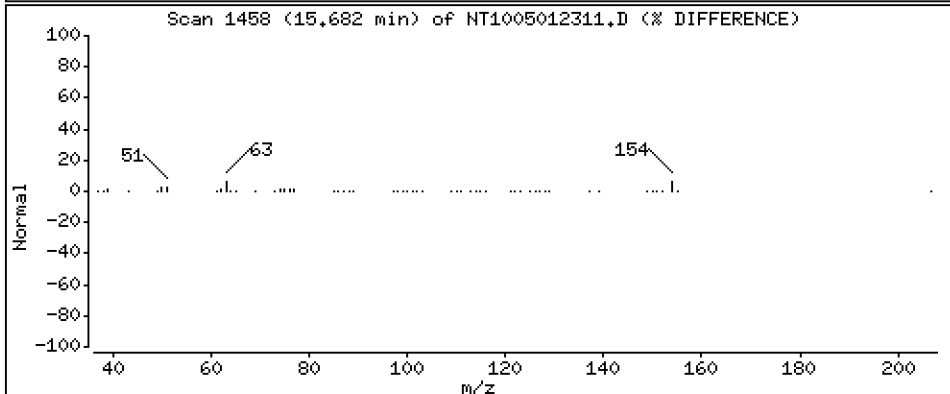
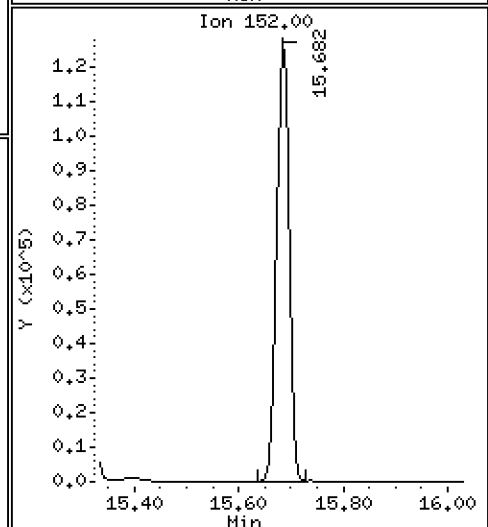
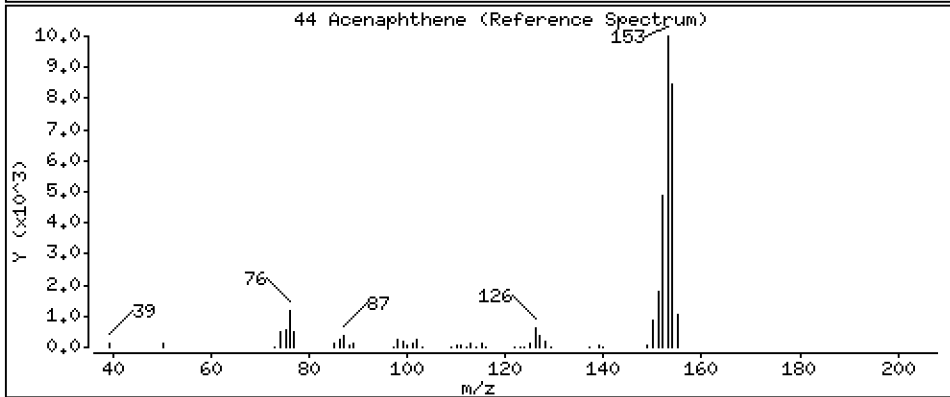
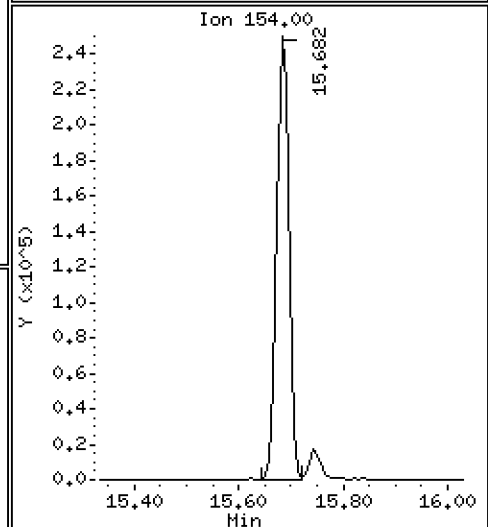
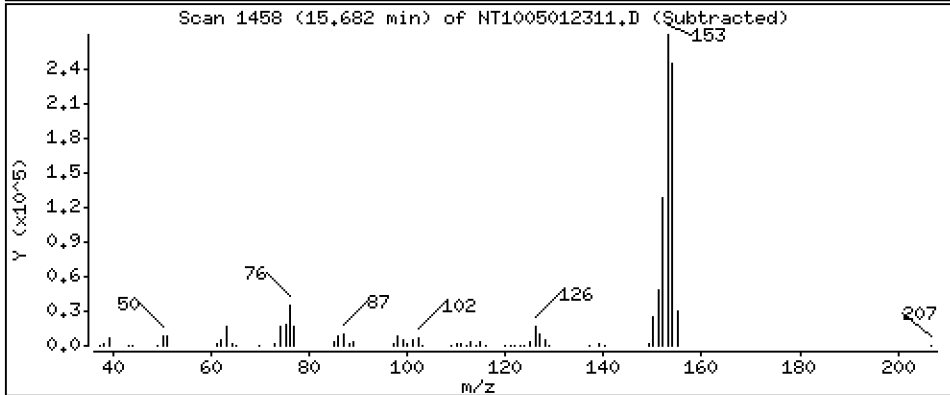
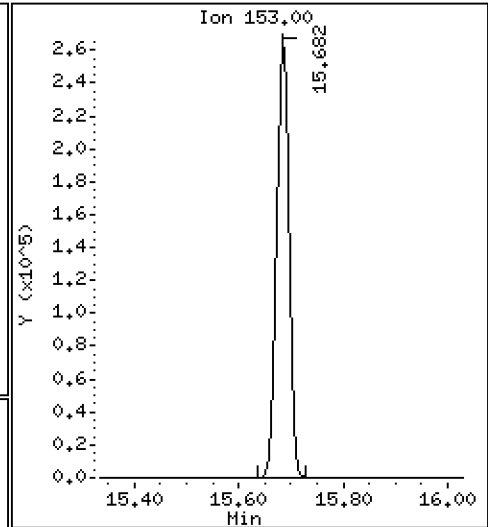
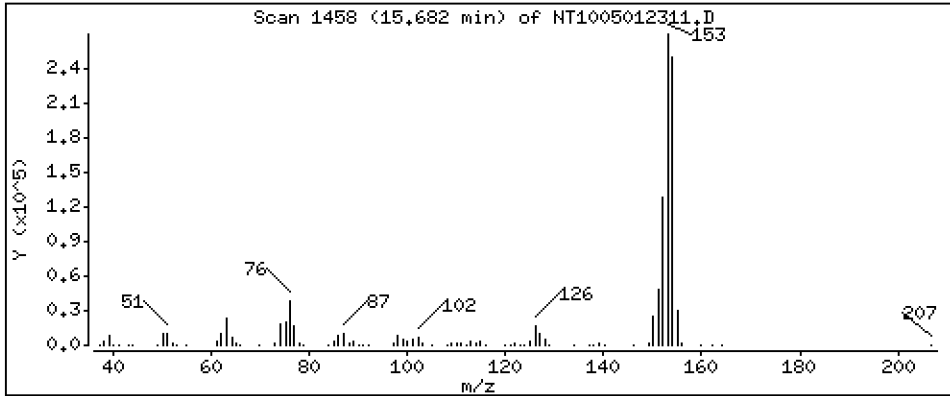
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,716 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

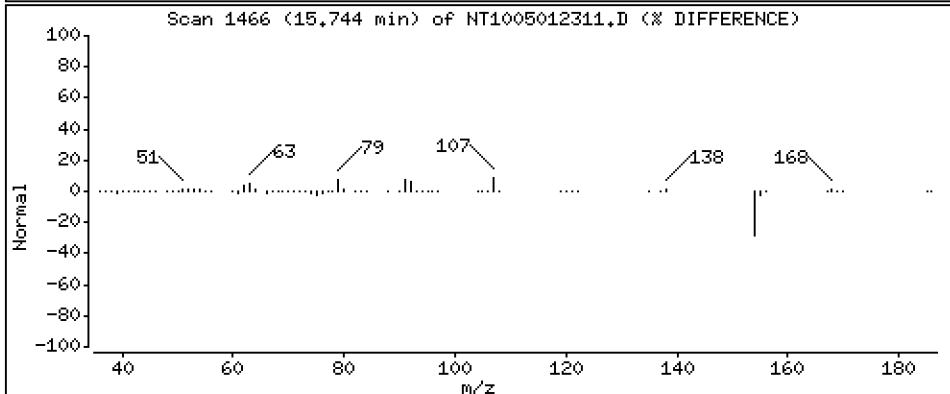
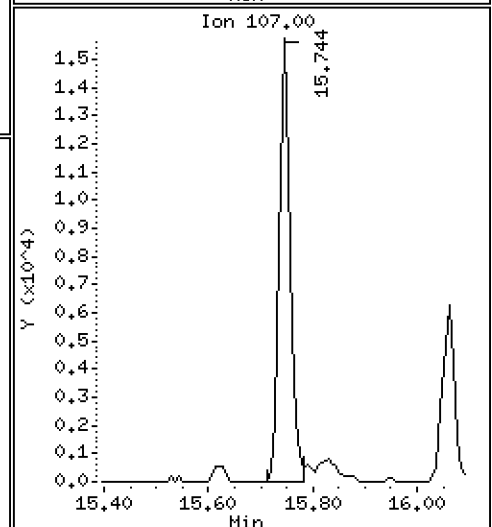
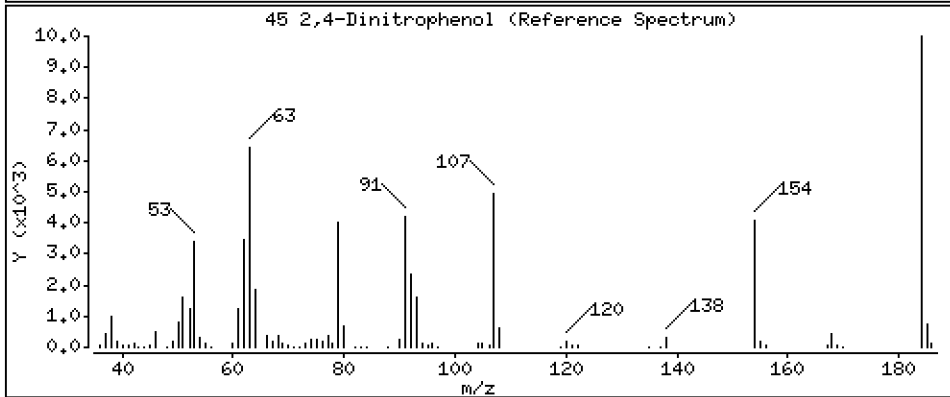
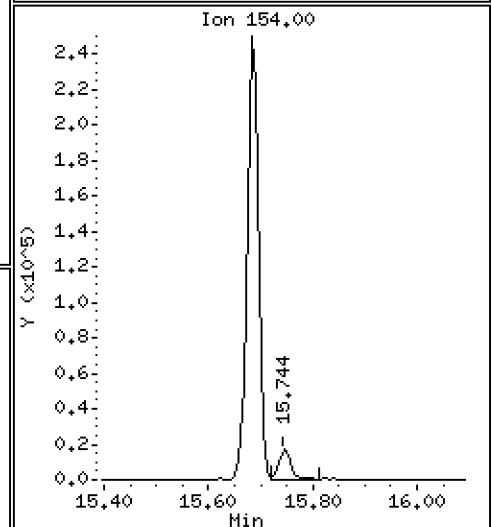
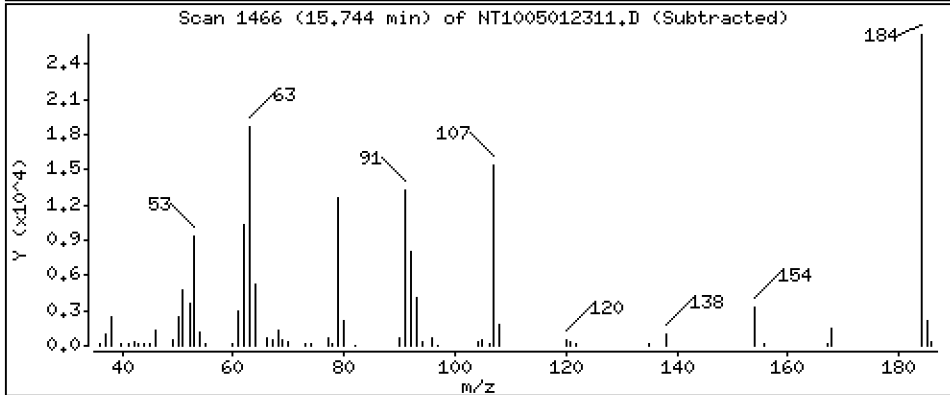
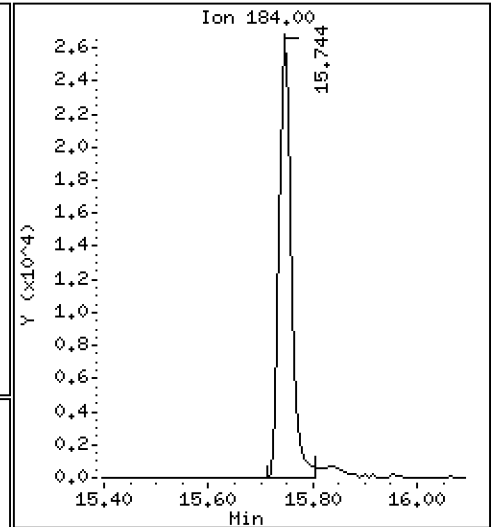
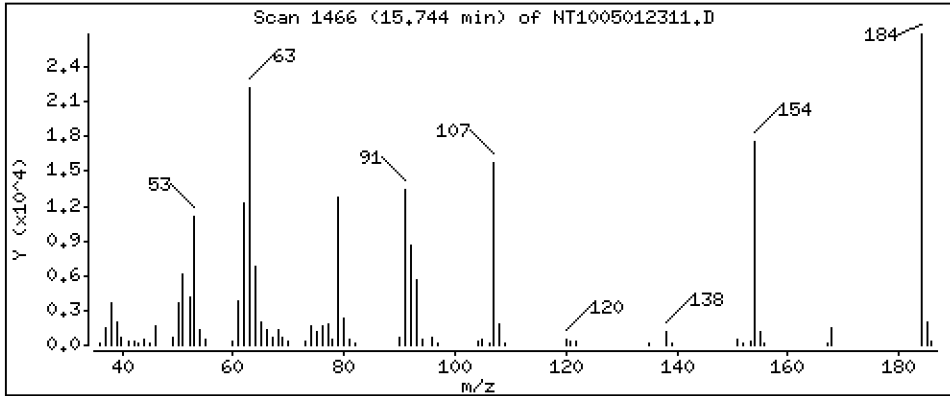
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 2,376 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

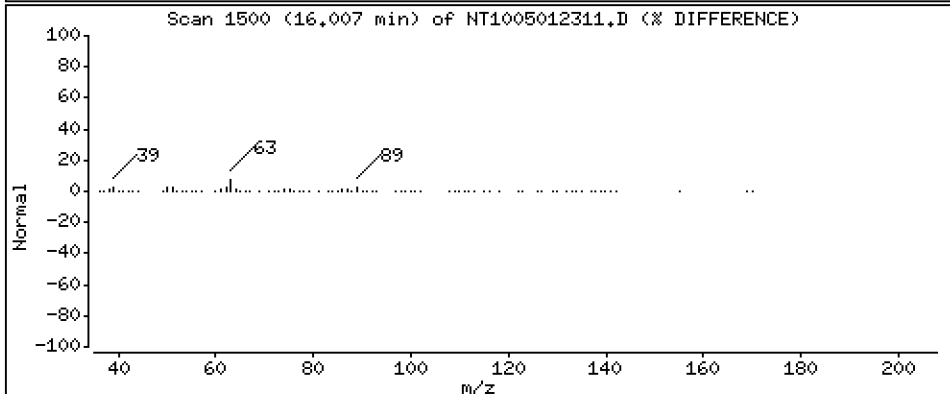
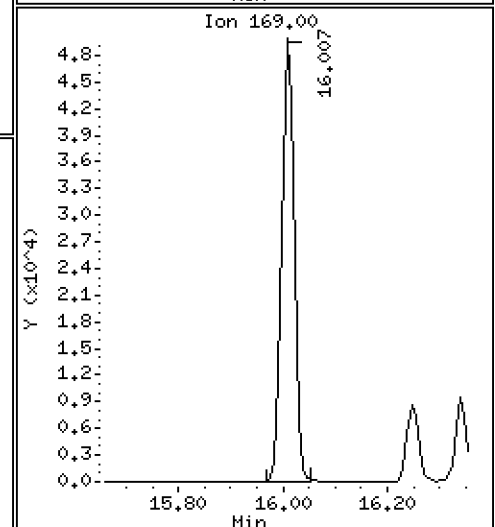
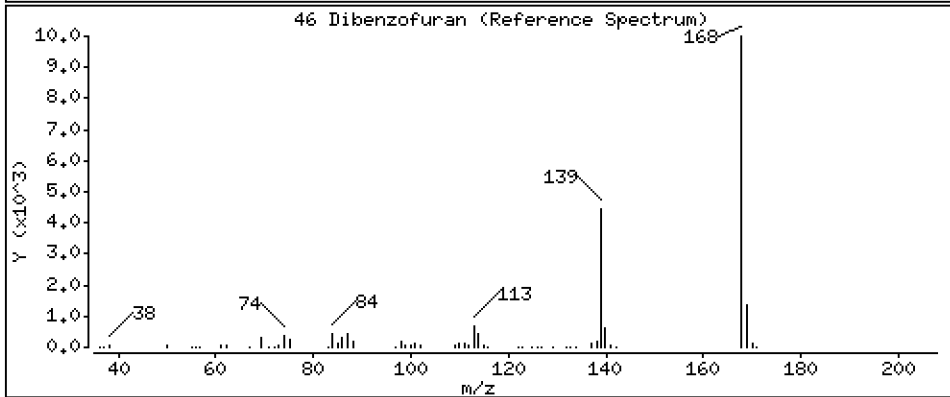
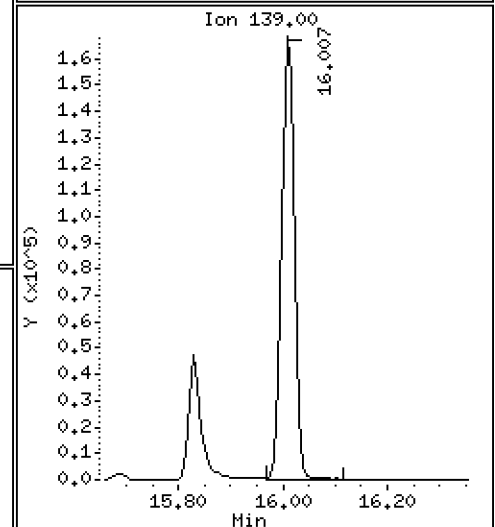
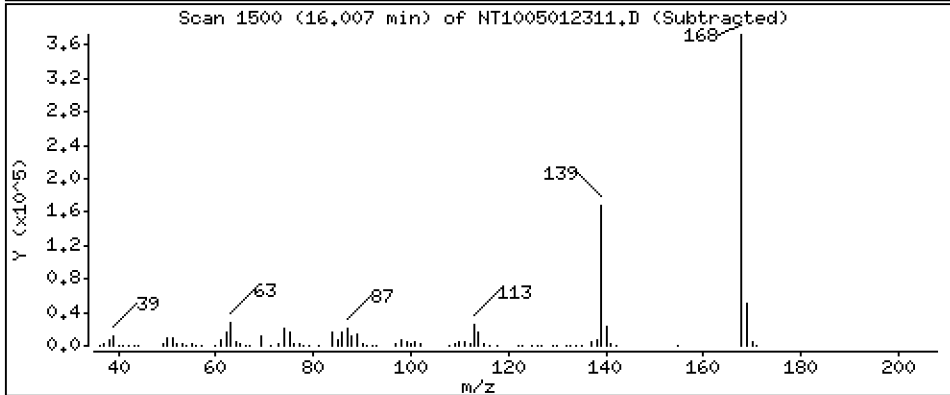
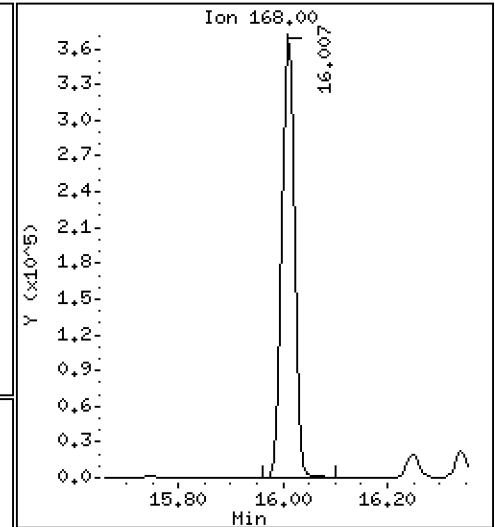
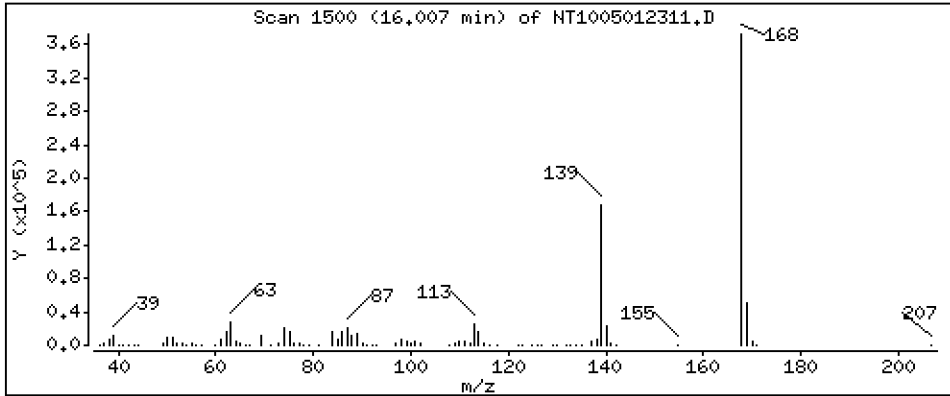
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

46 Dibenzofuran

Concentration: 4.645 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

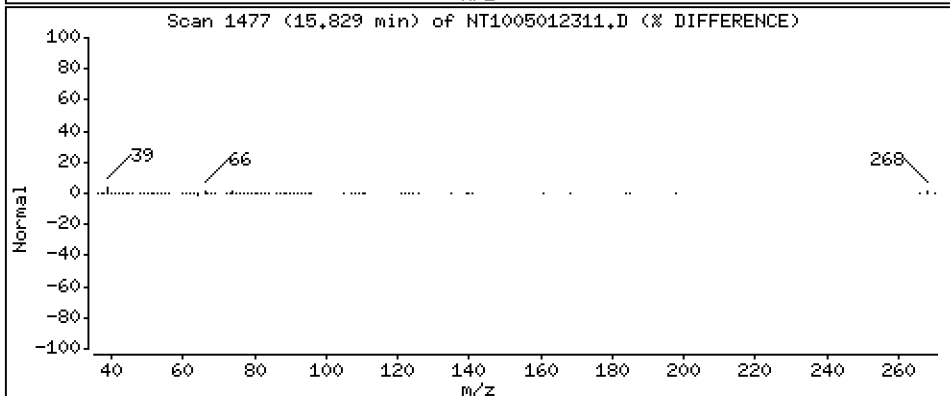
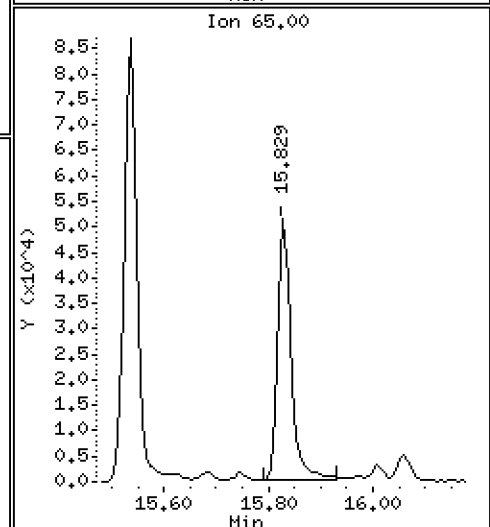
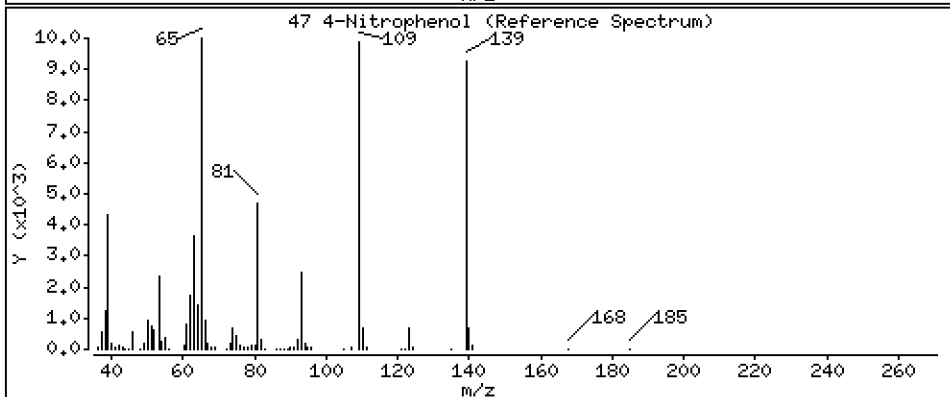
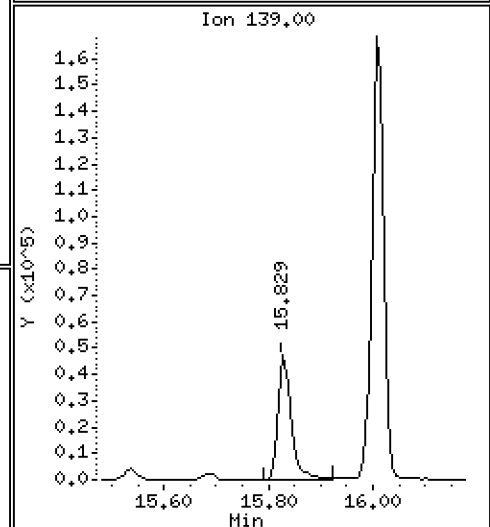
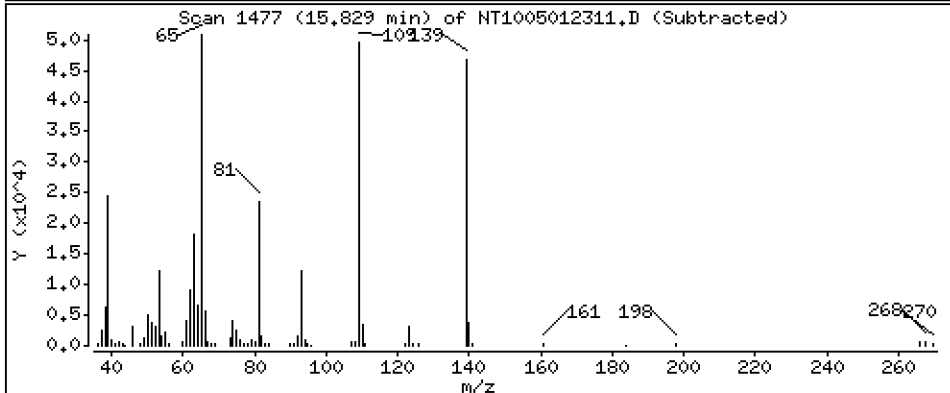
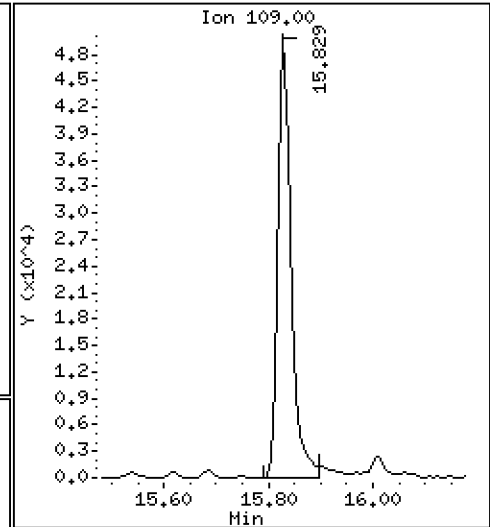
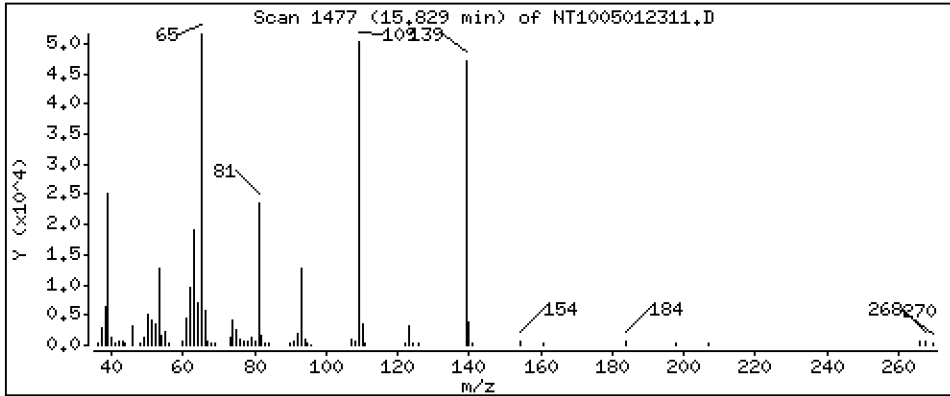
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 3,992 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

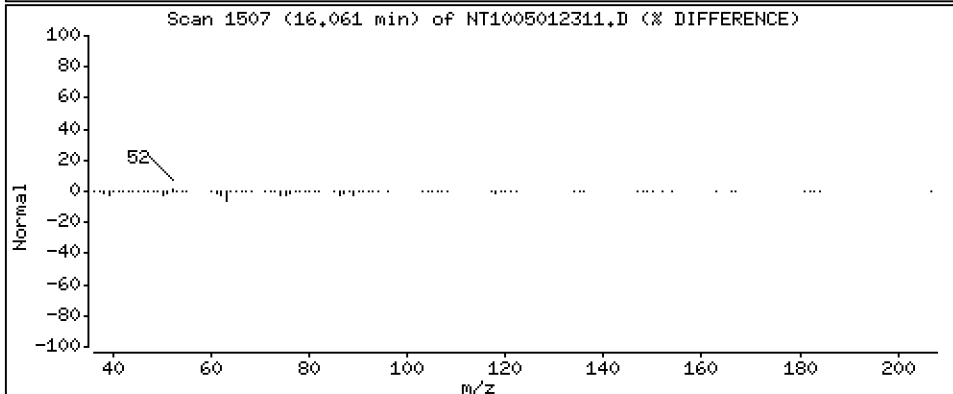
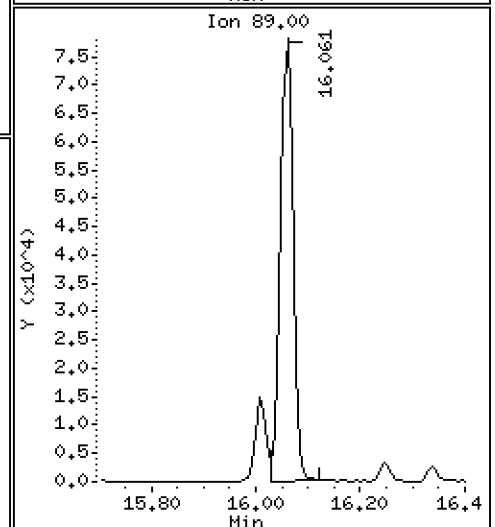
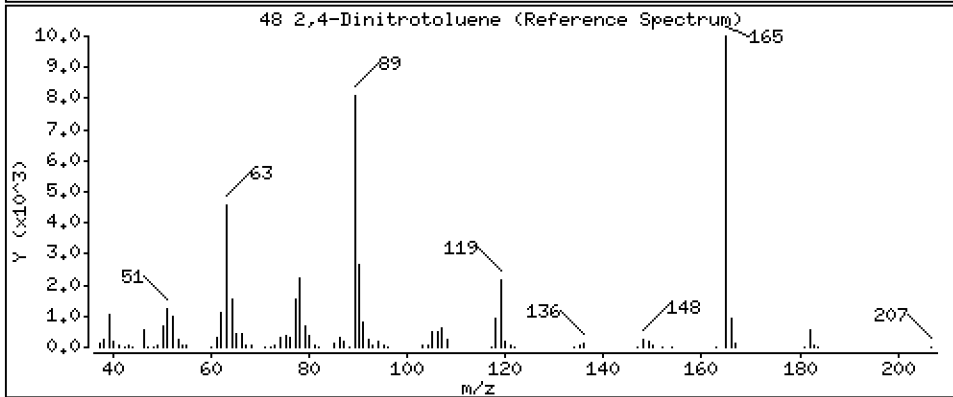
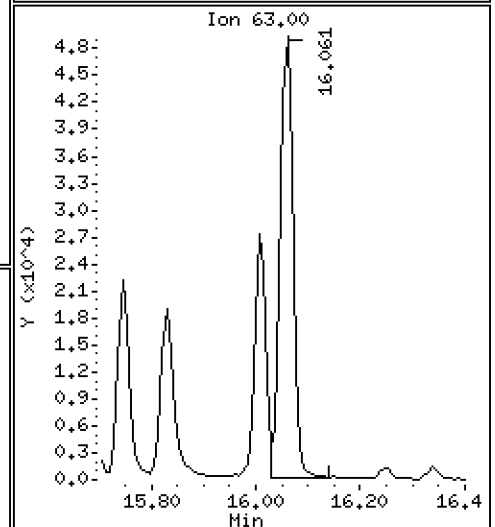
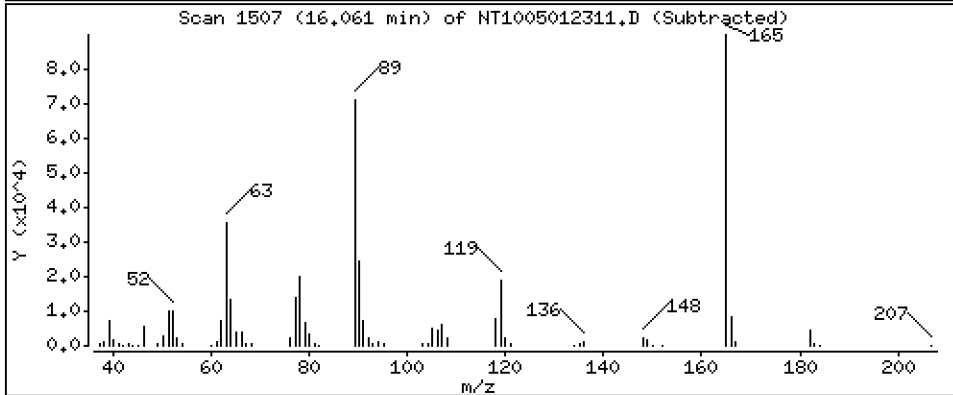
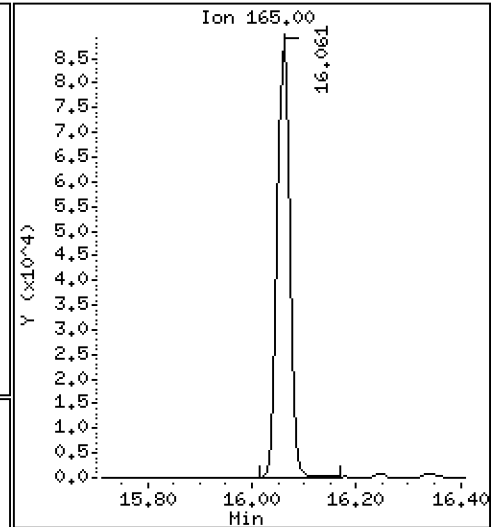
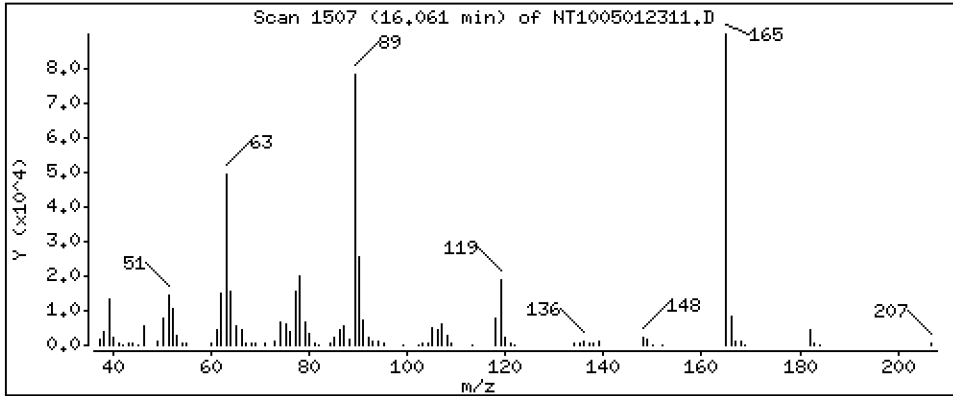
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 4,381 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

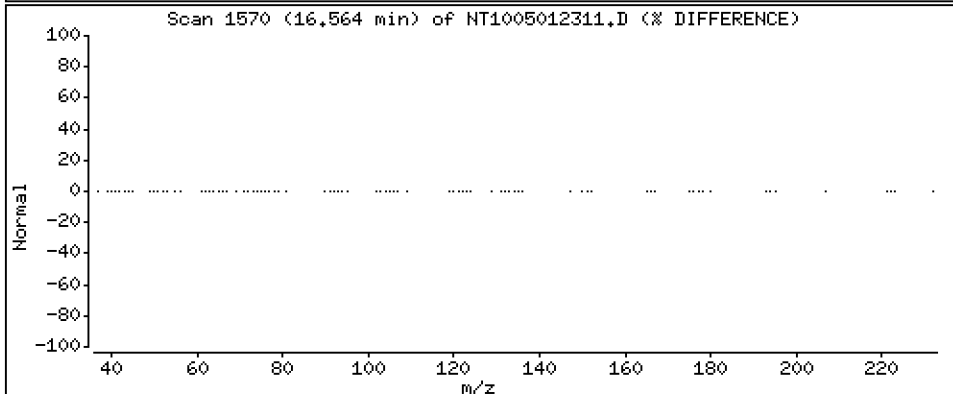
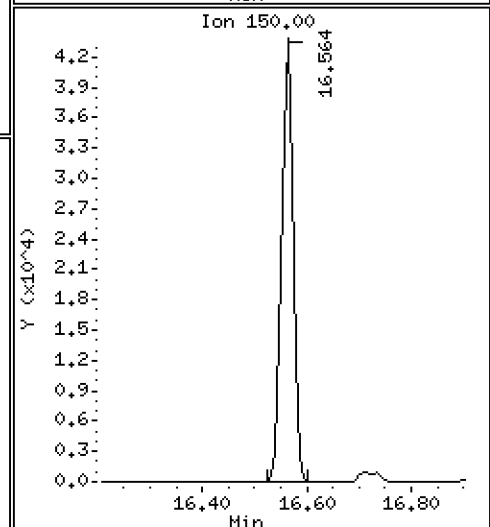
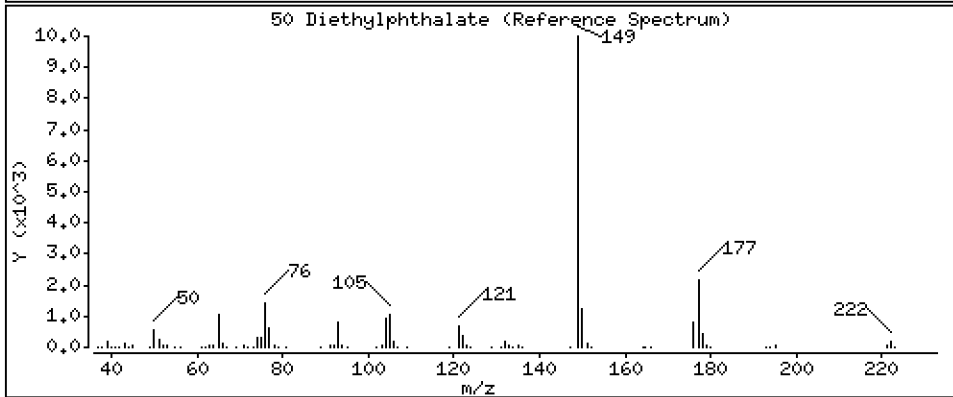
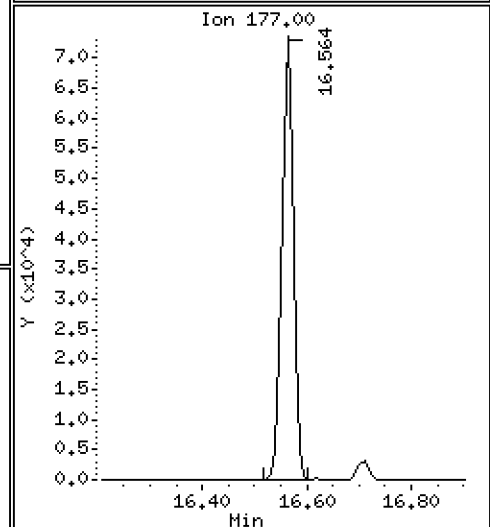
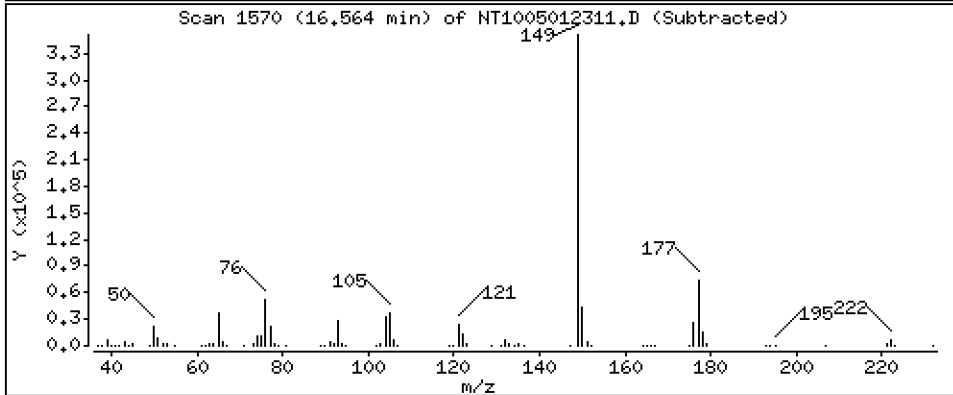
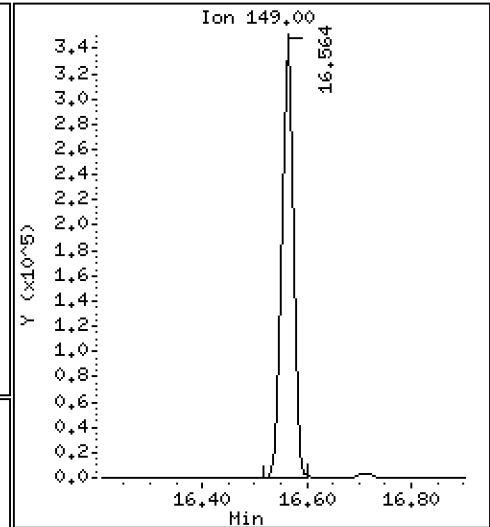
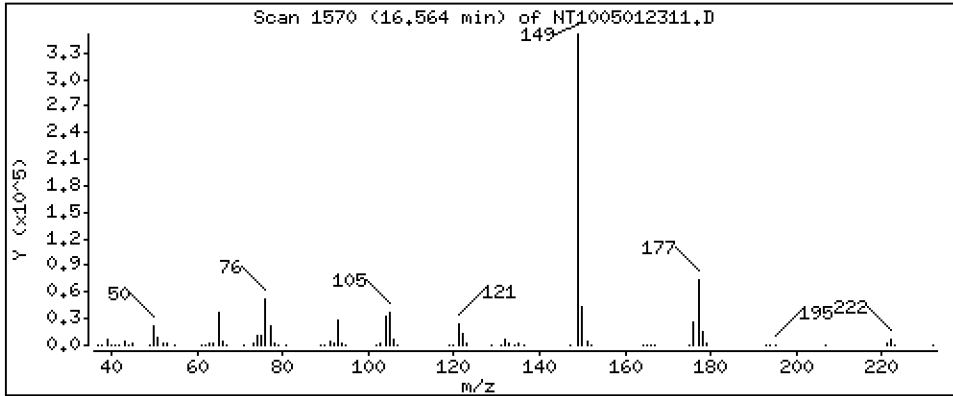
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,055 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

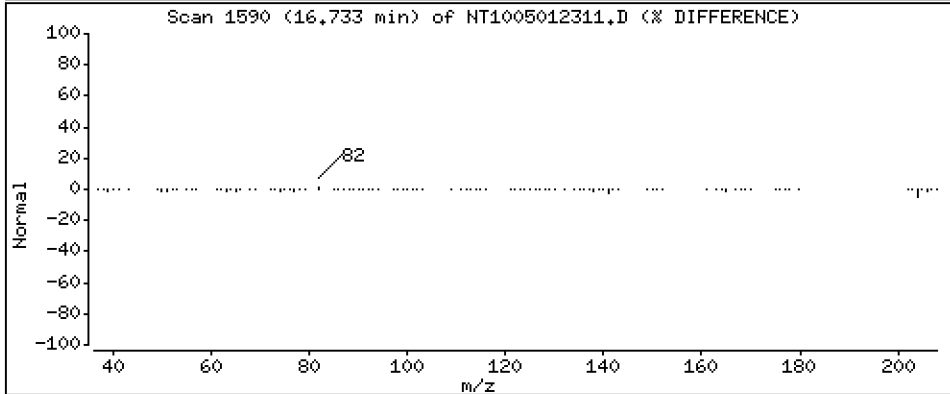
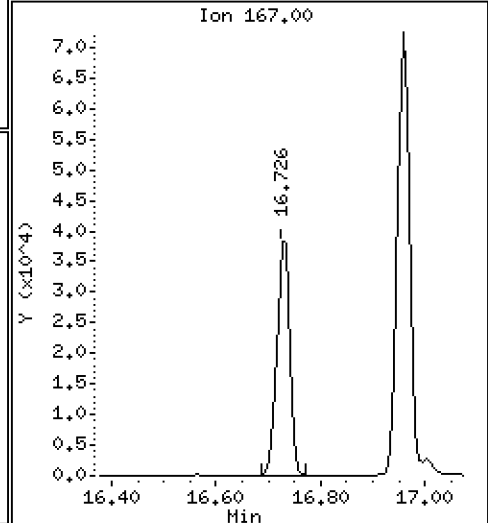
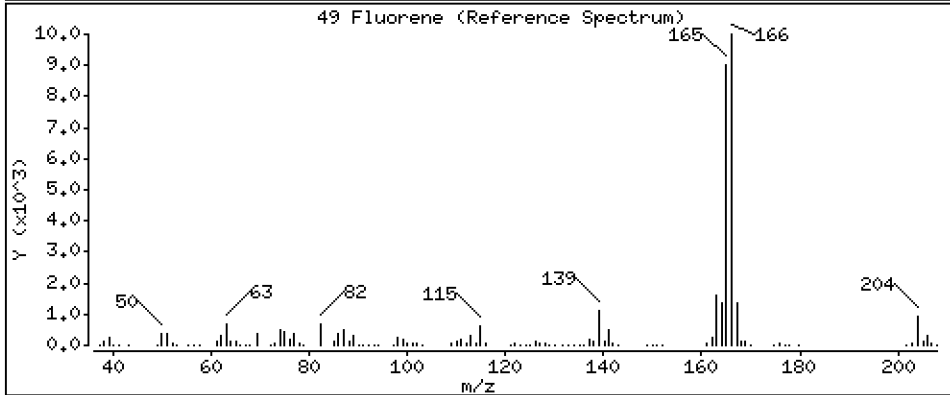
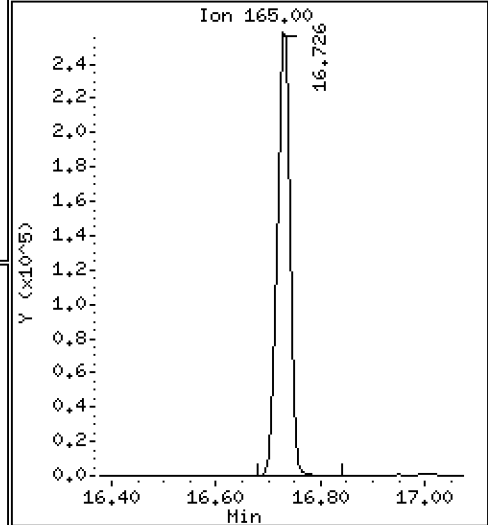
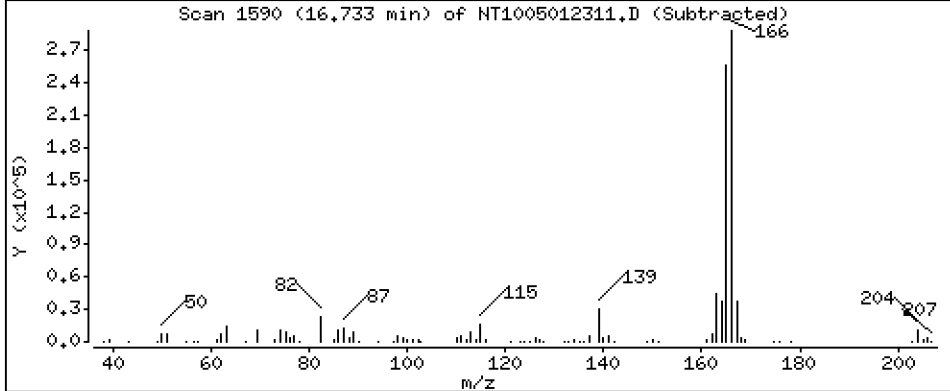
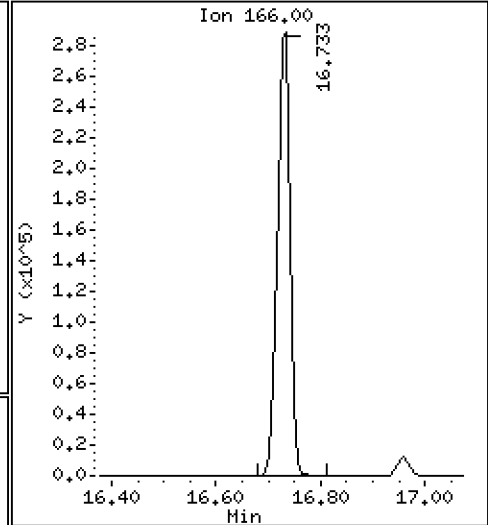
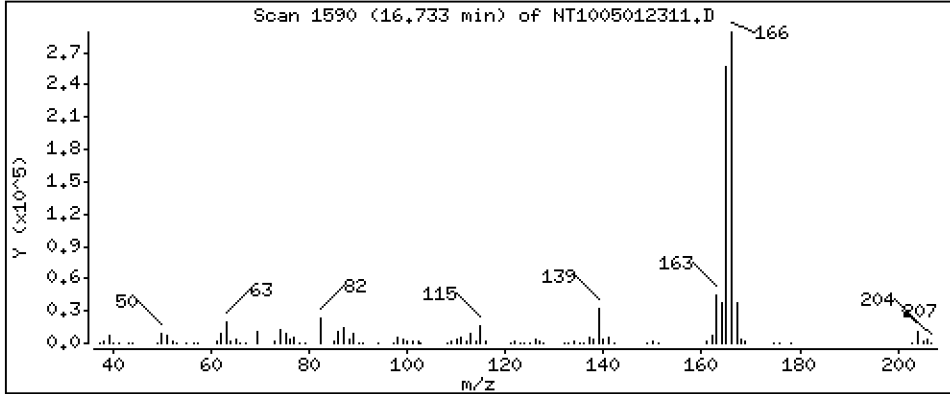
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,559 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

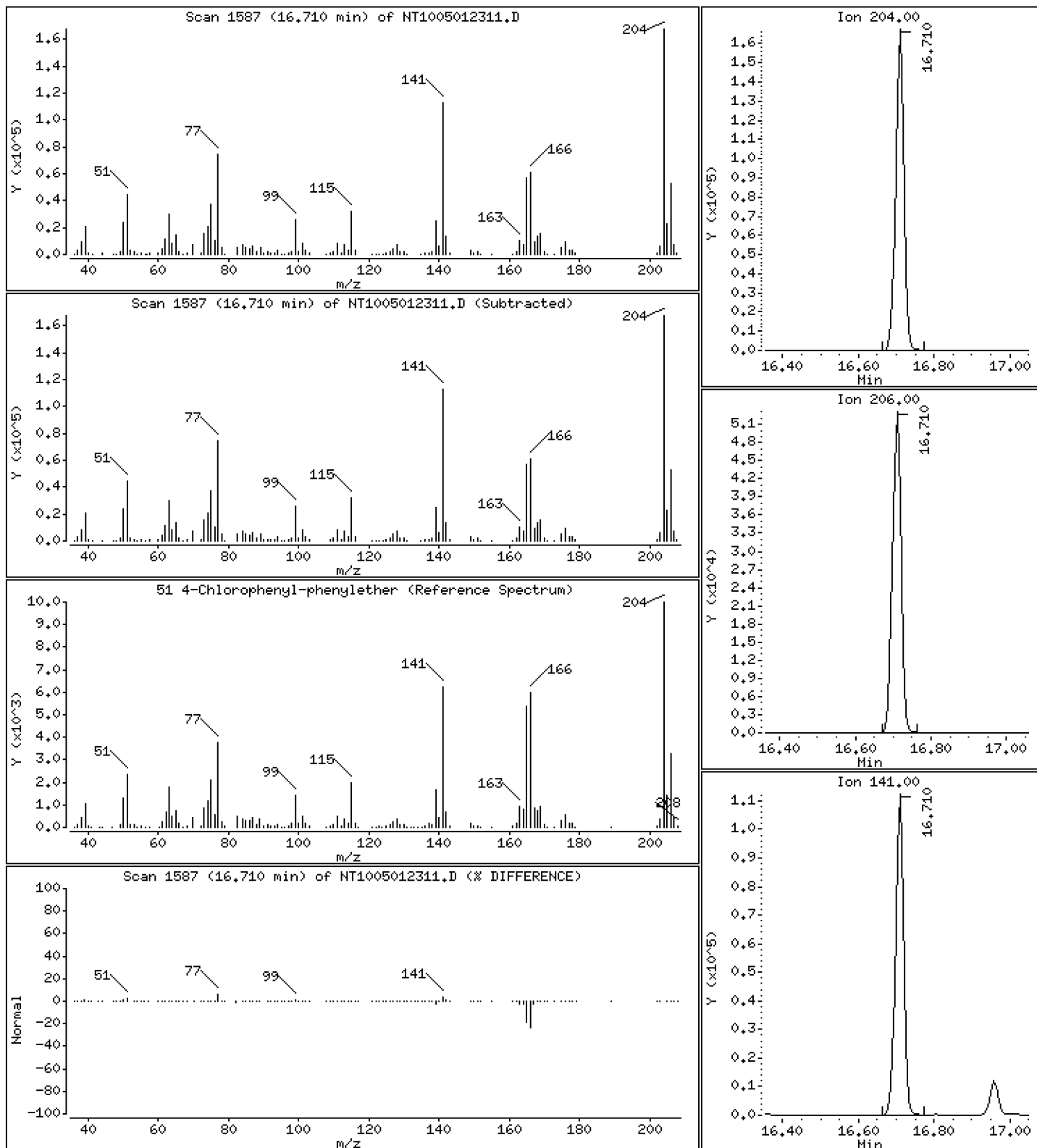
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,797 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

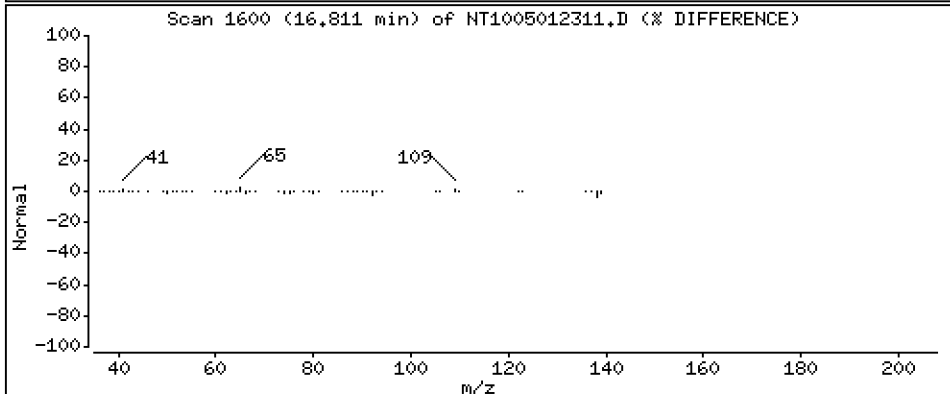
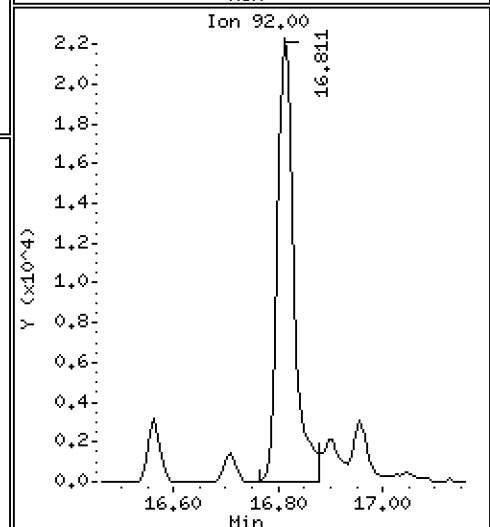
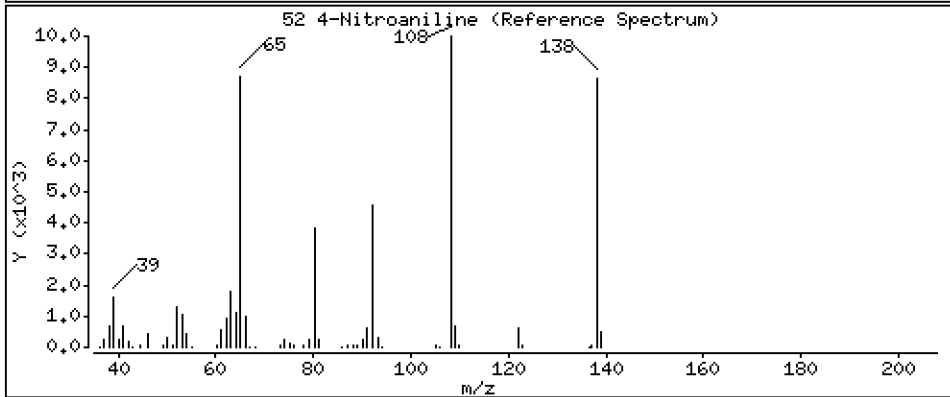
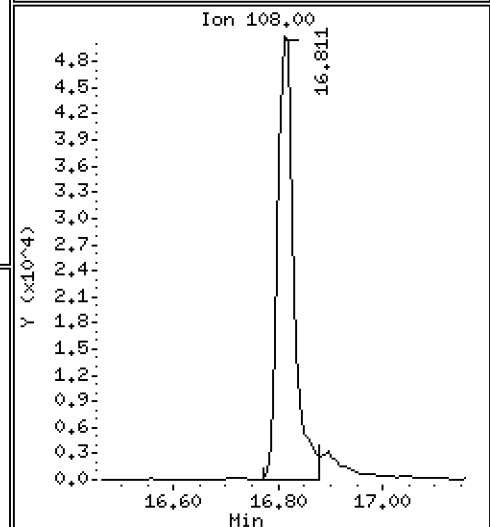
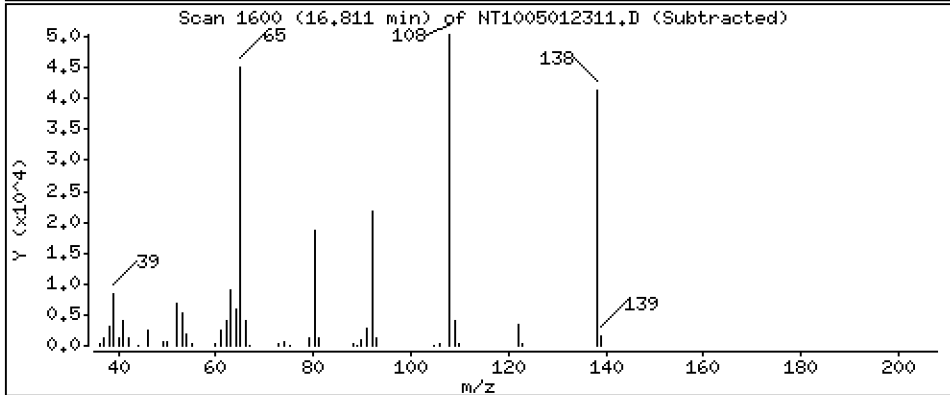
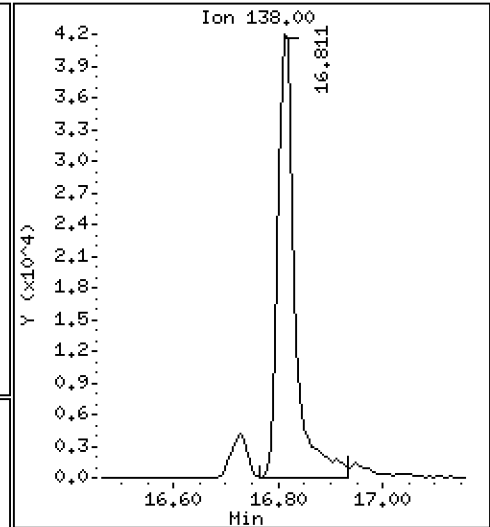
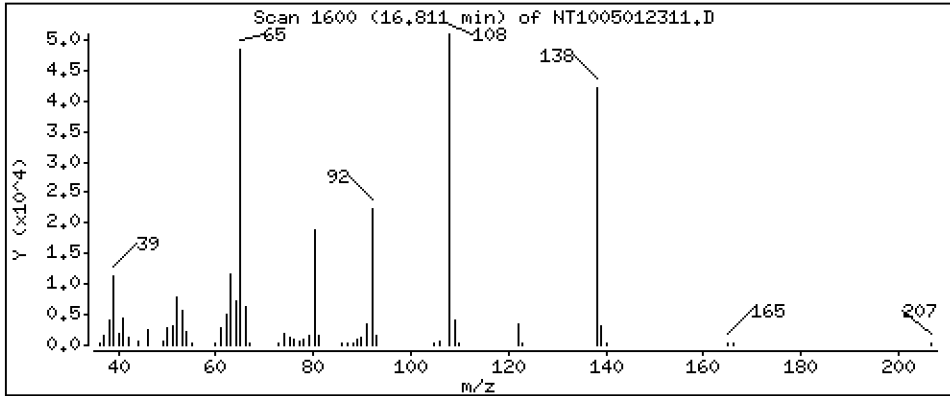
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 4,293 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

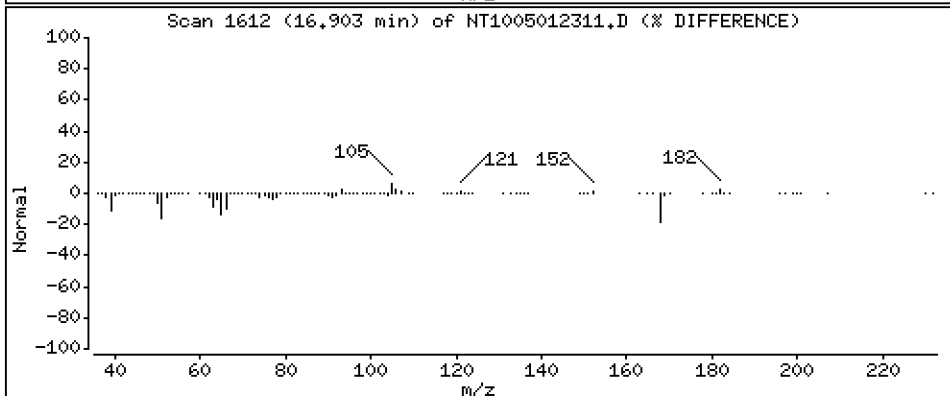
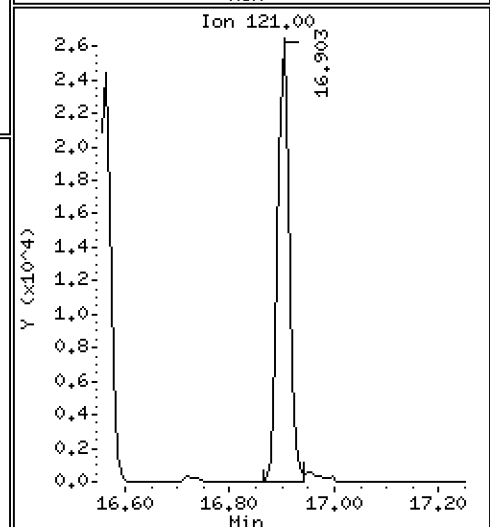
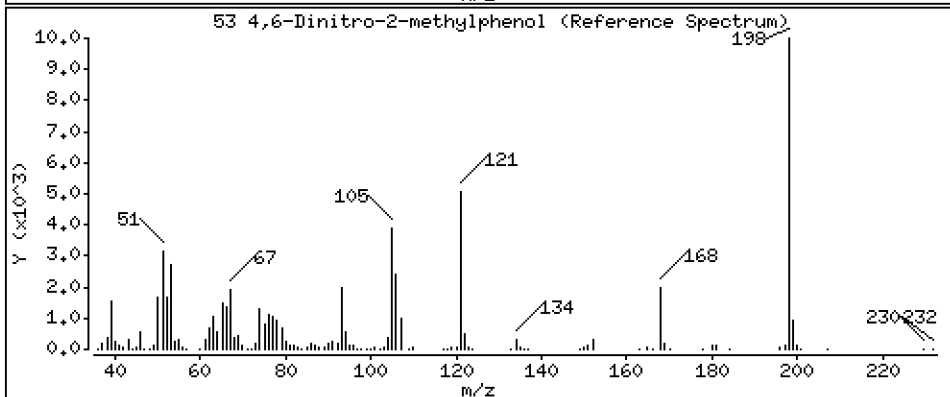
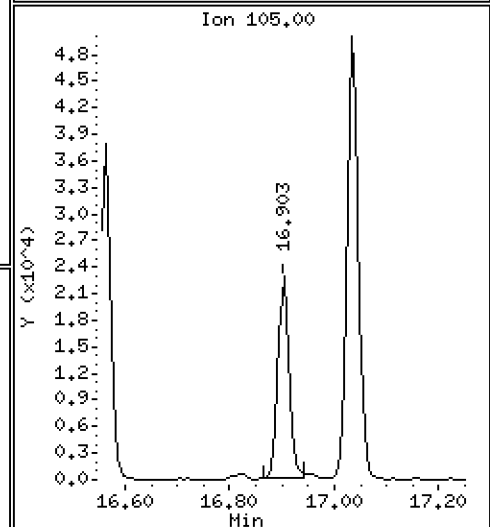
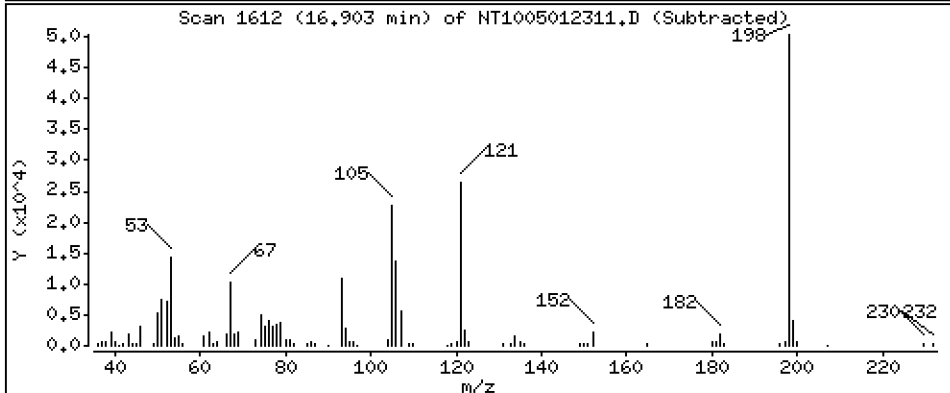
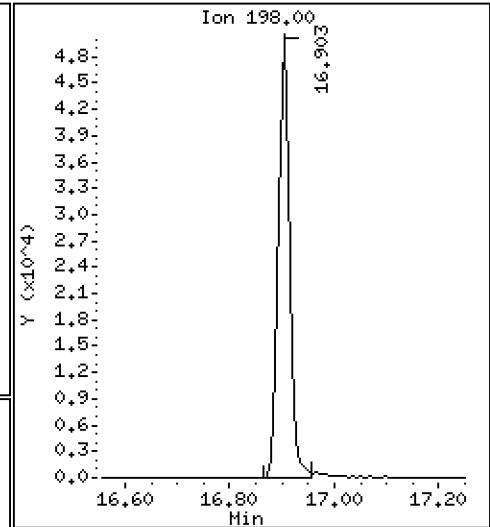
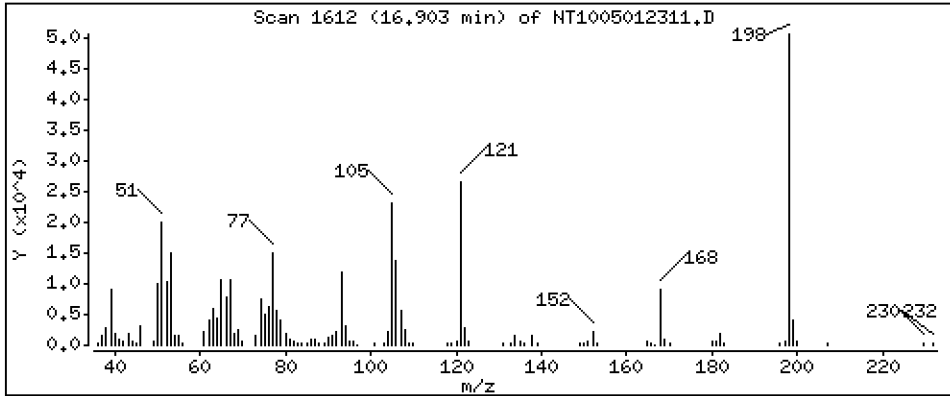
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,760 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

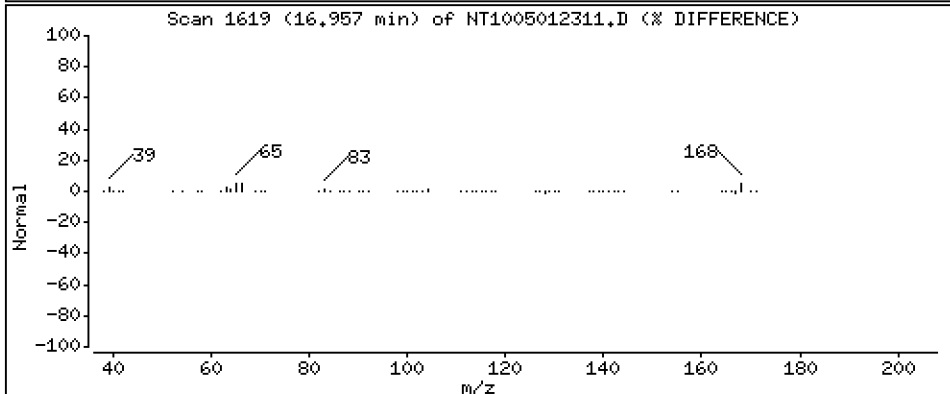
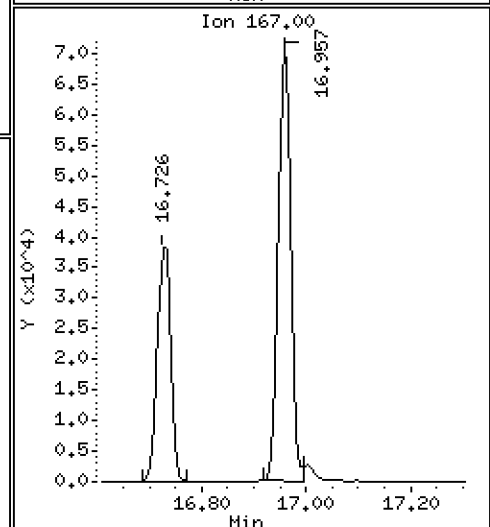
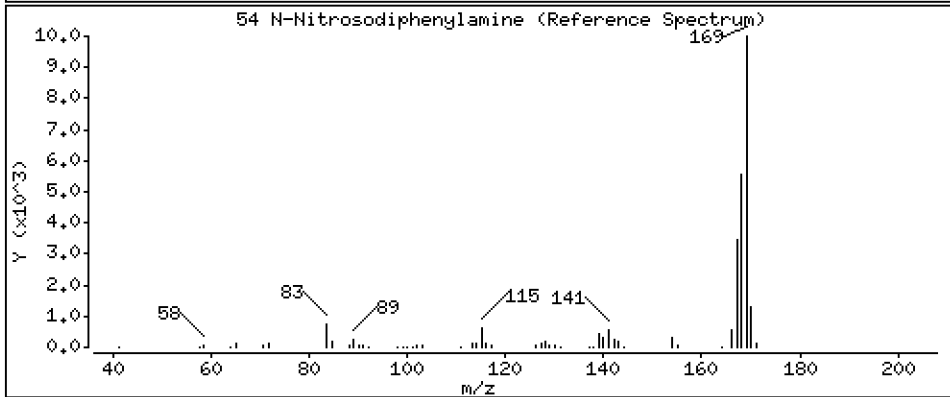
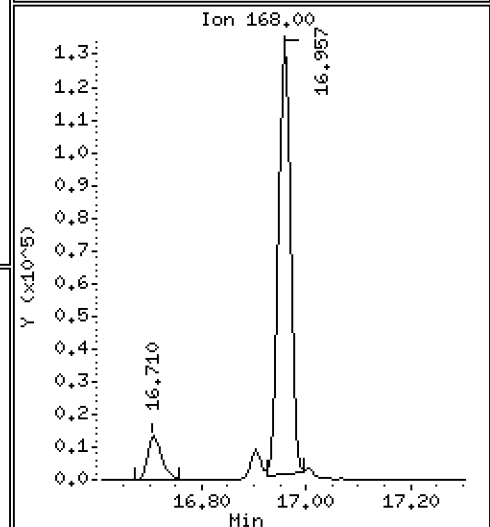
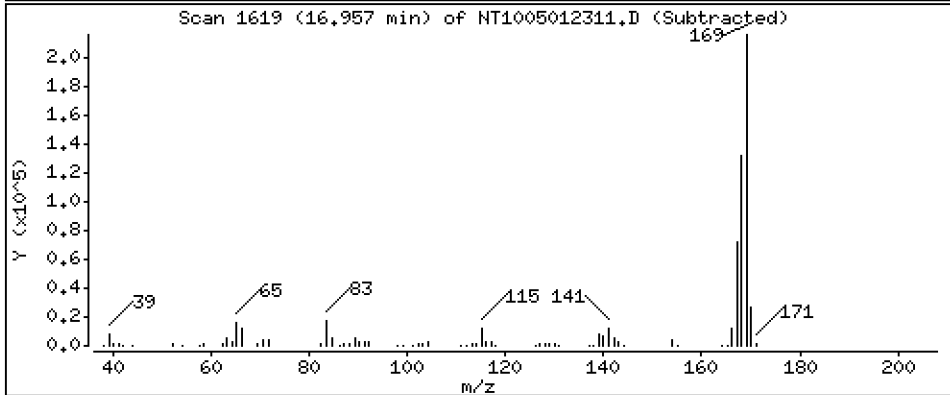
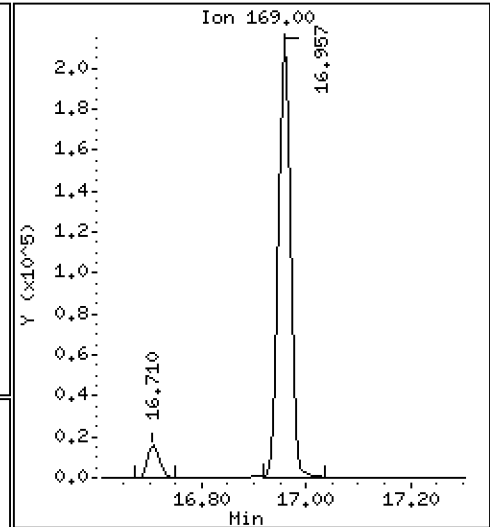
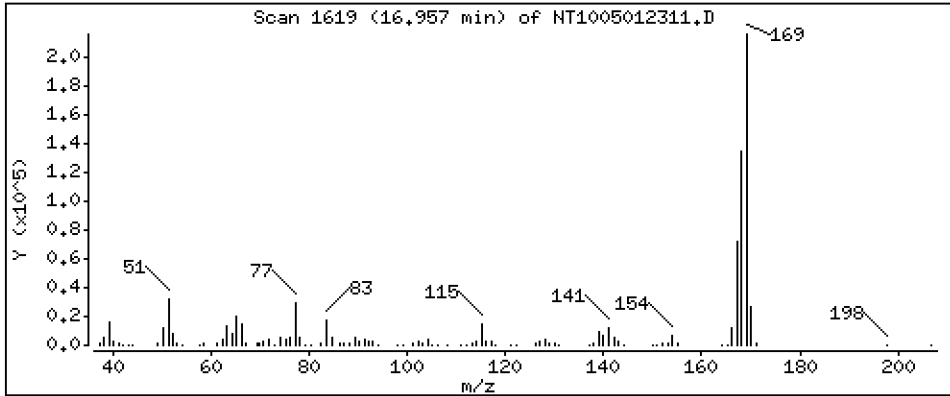
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,125 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

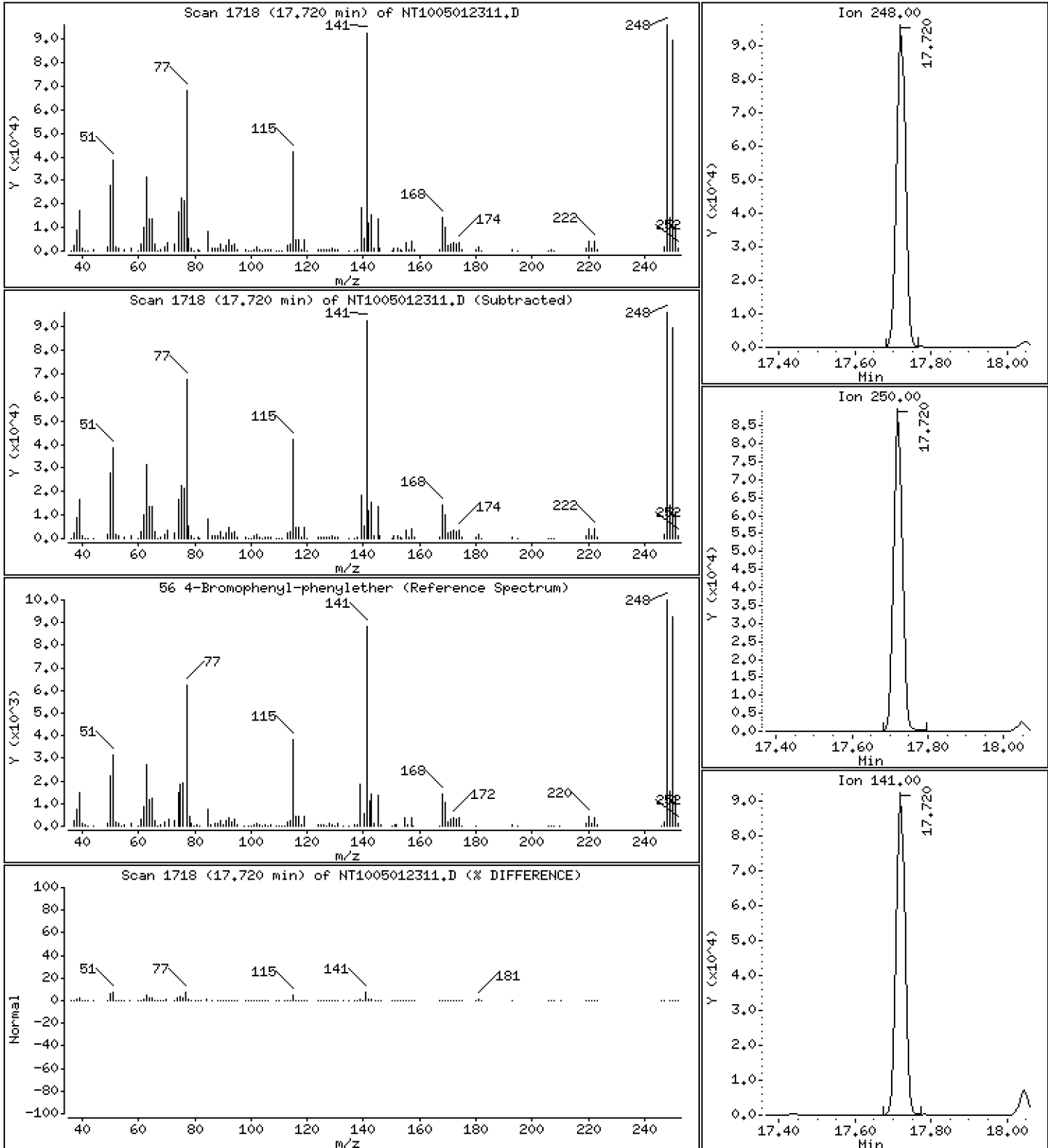
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,942 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

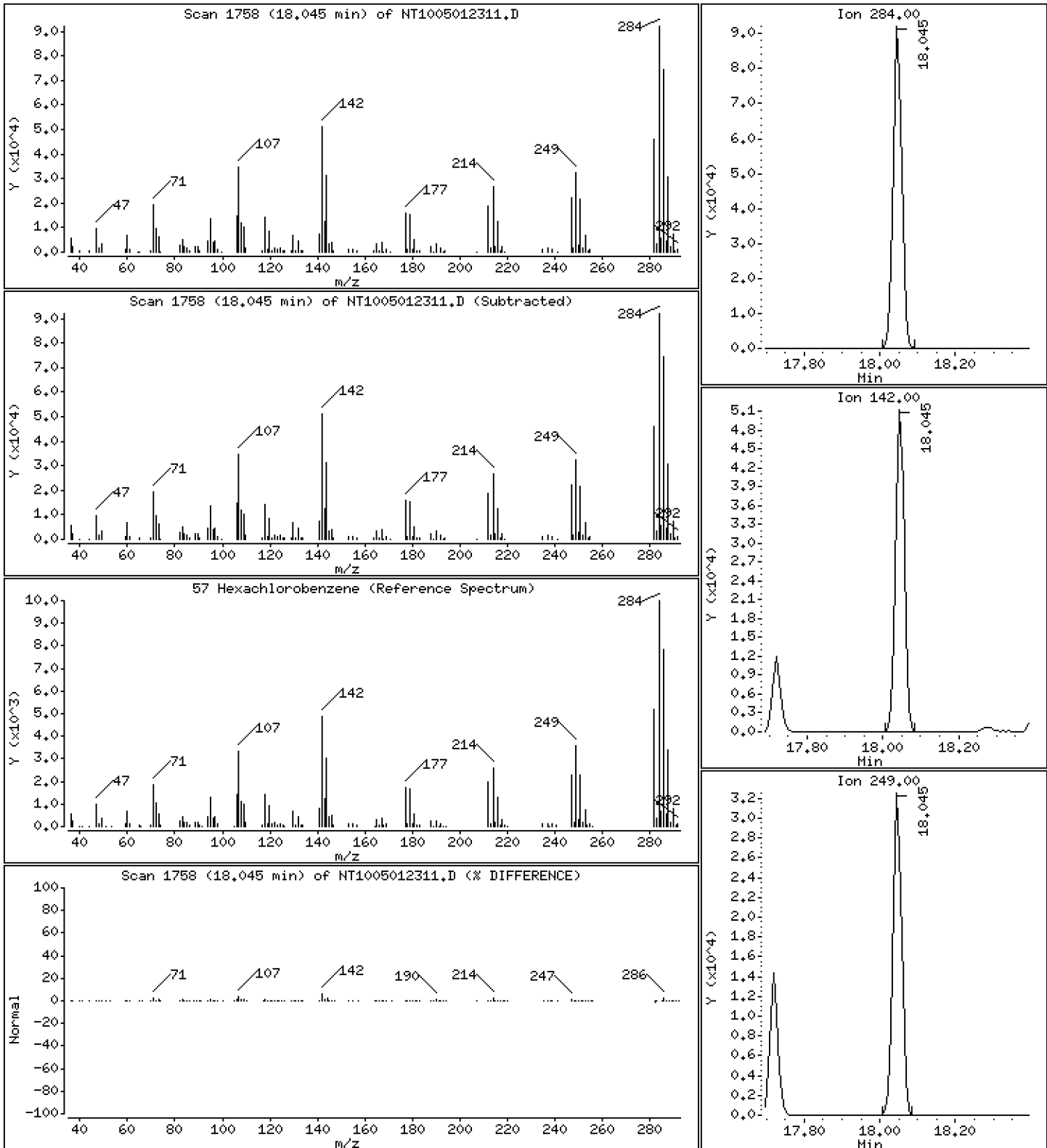
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.689 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

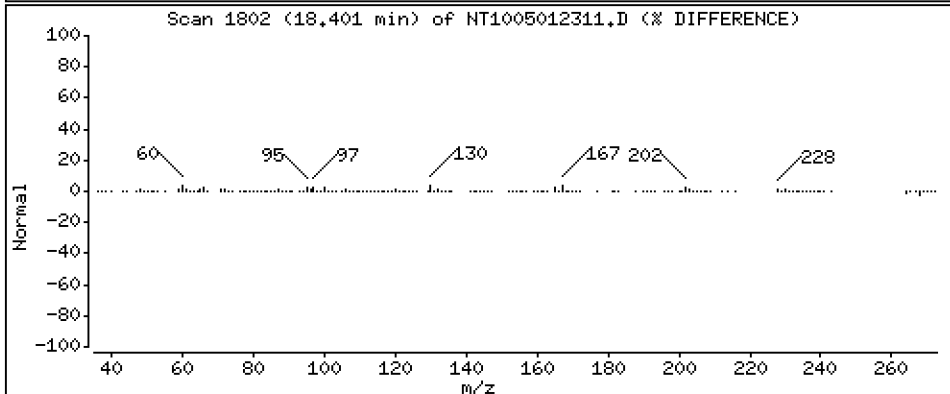
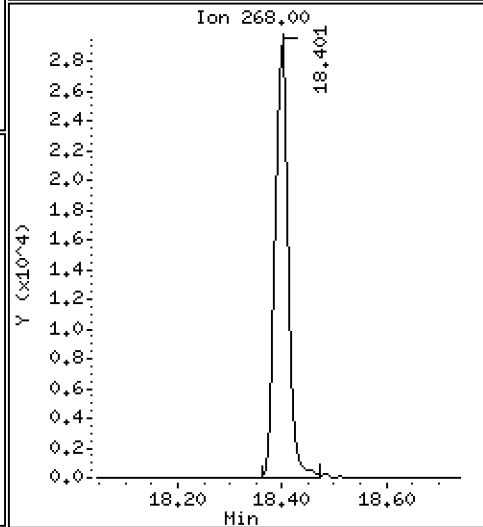
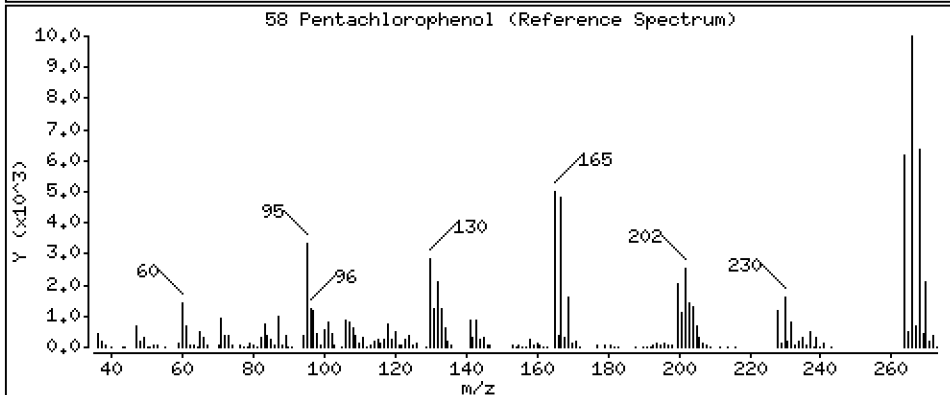
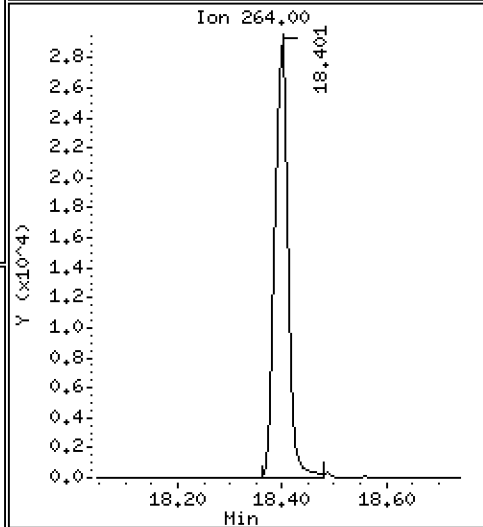
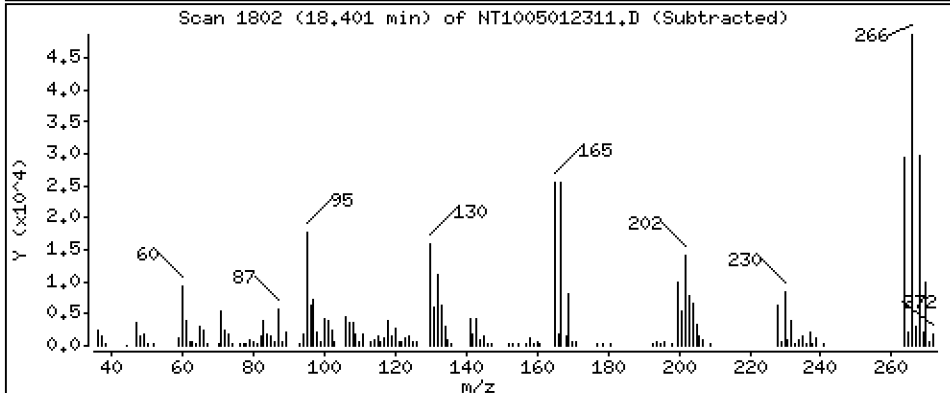
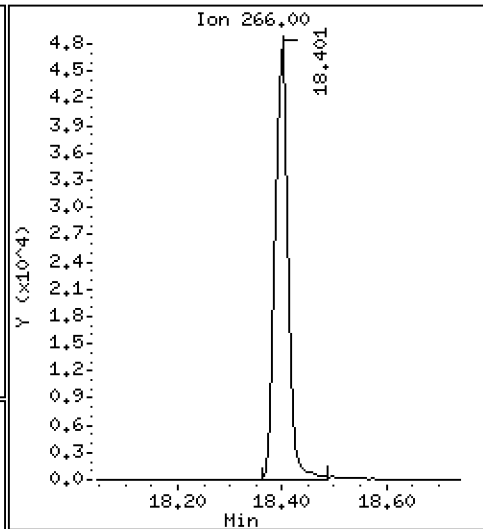
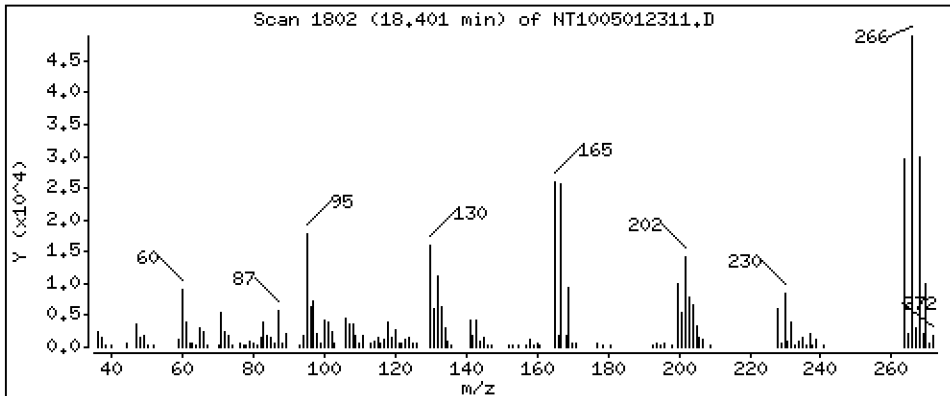
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,866 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

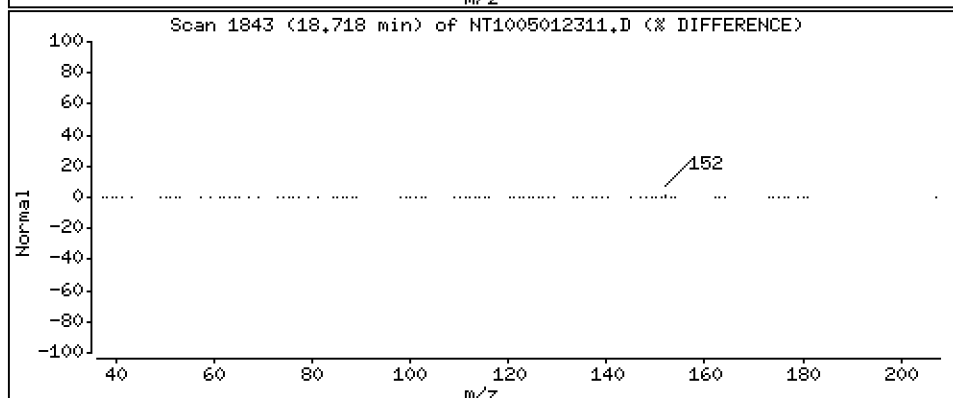
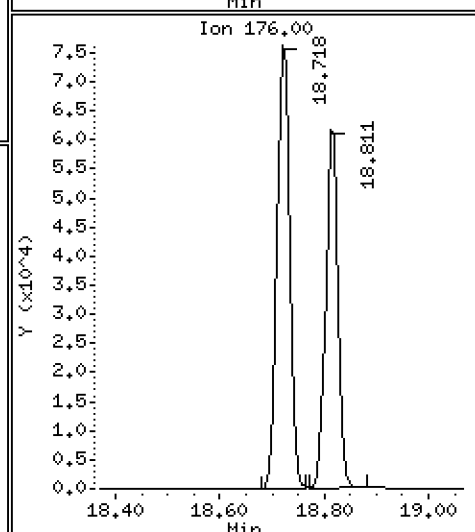
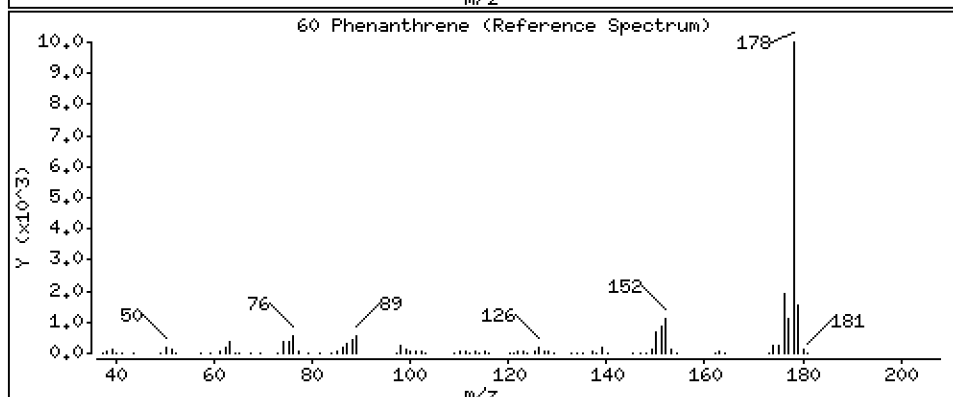
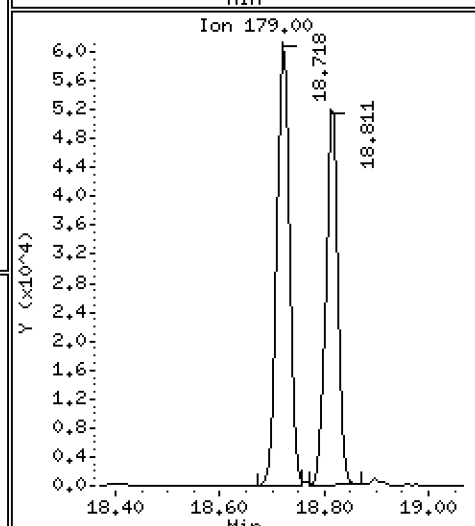
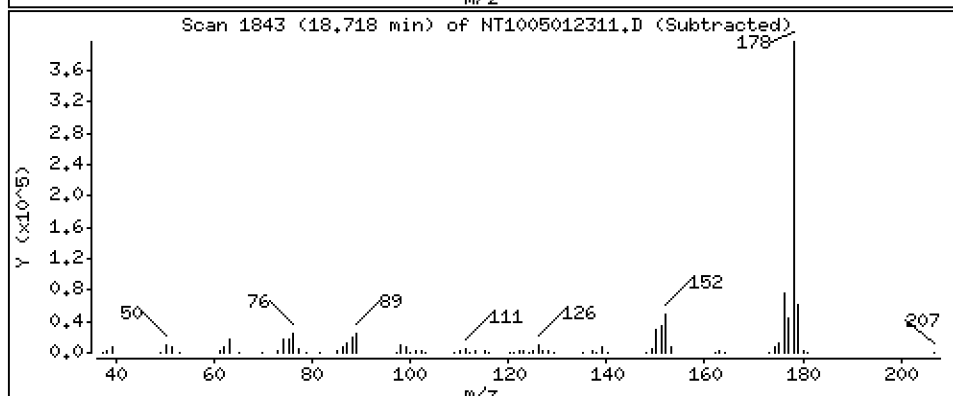
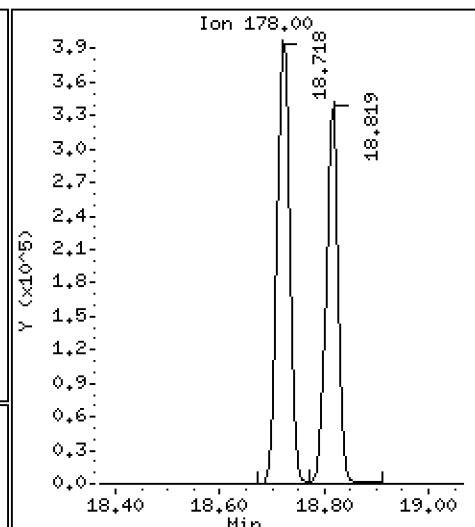
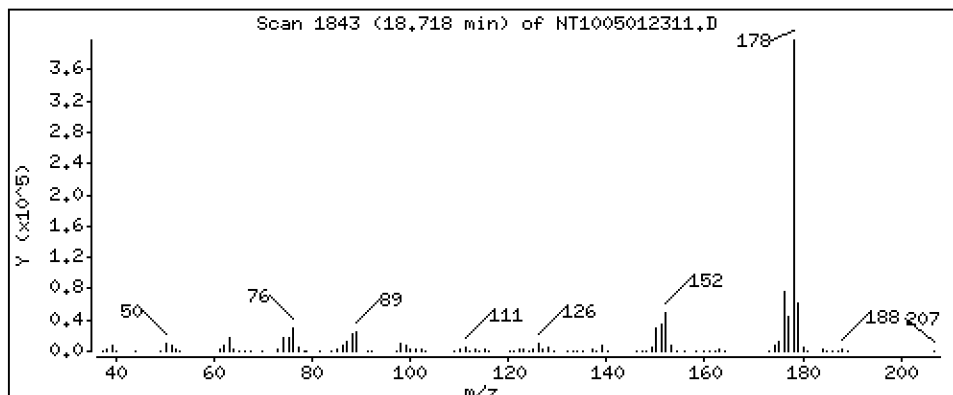
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,586 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

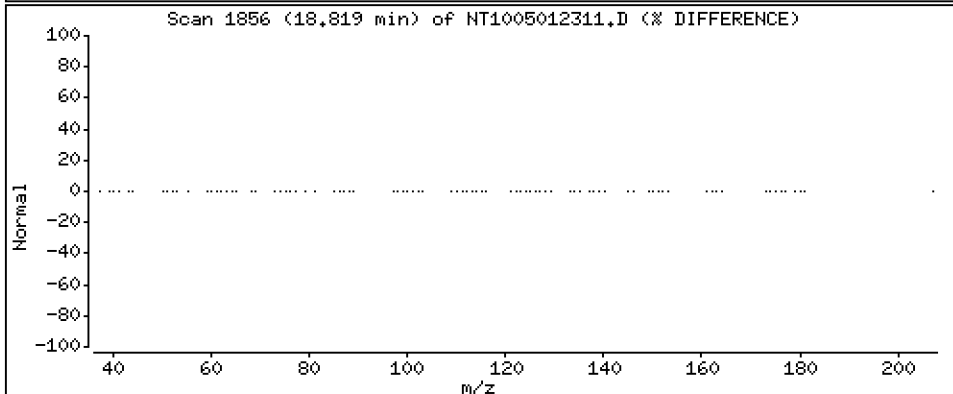
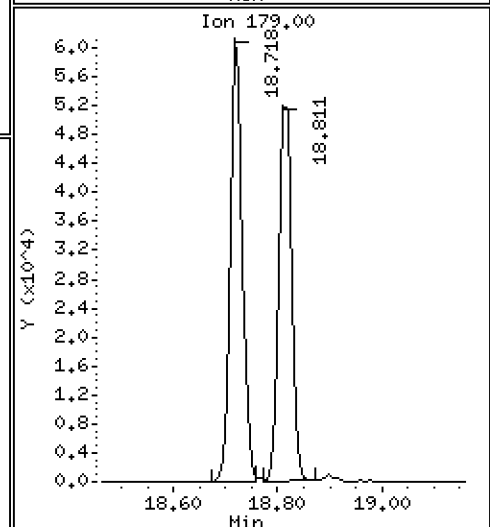
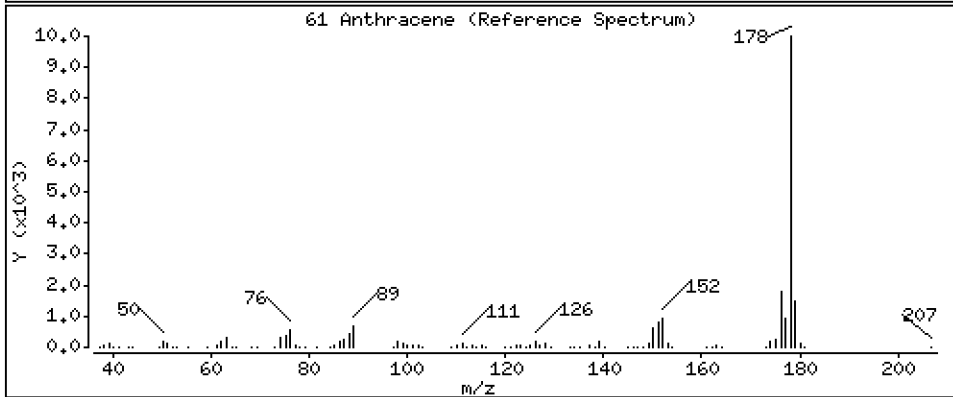
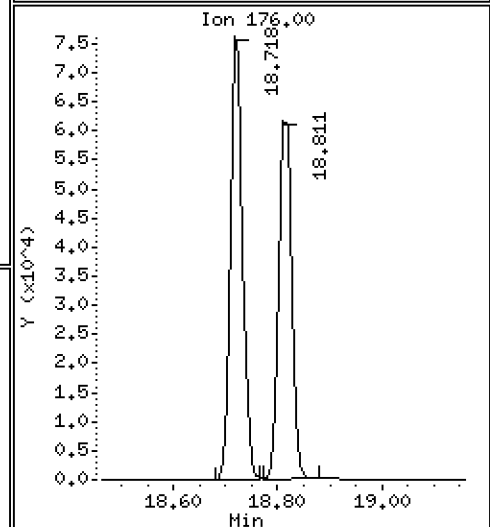
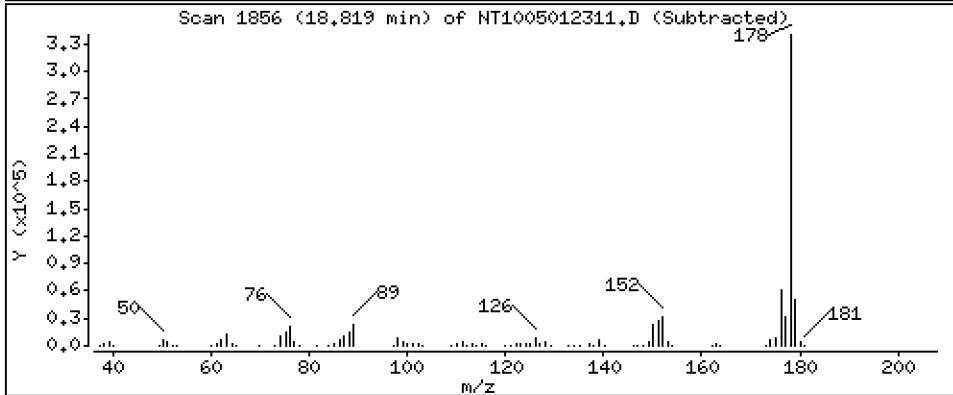
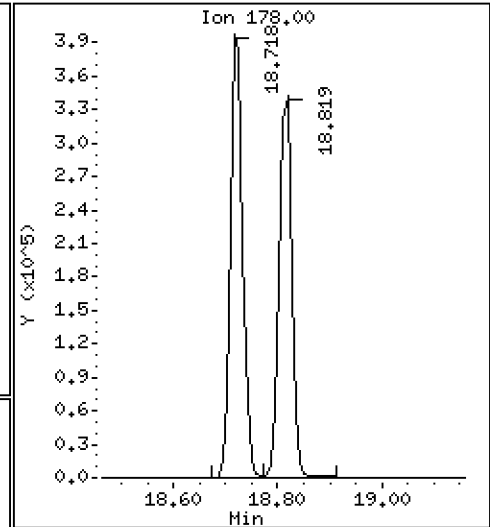
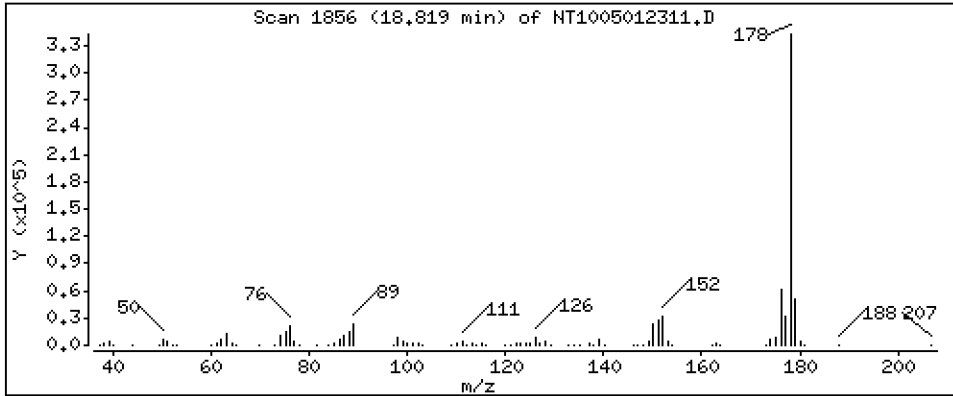
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,169 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

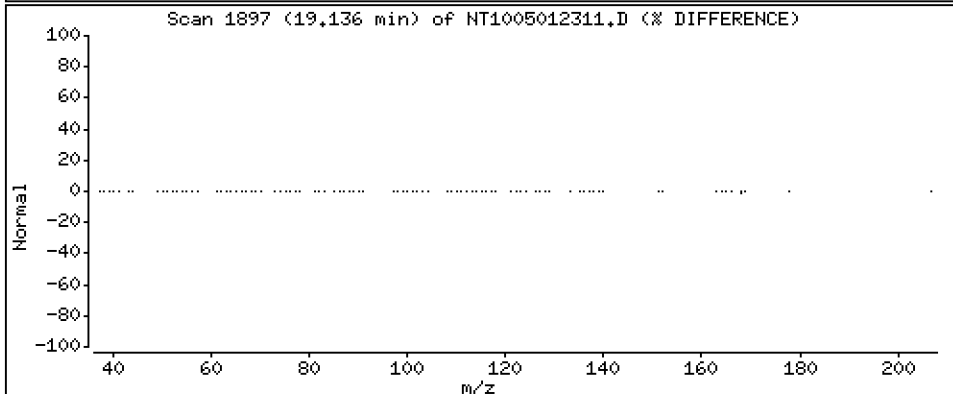
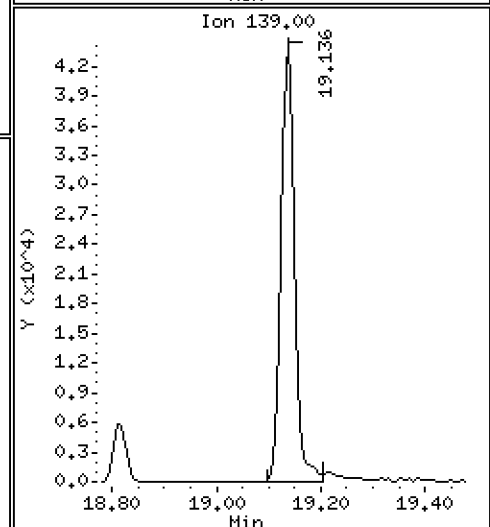
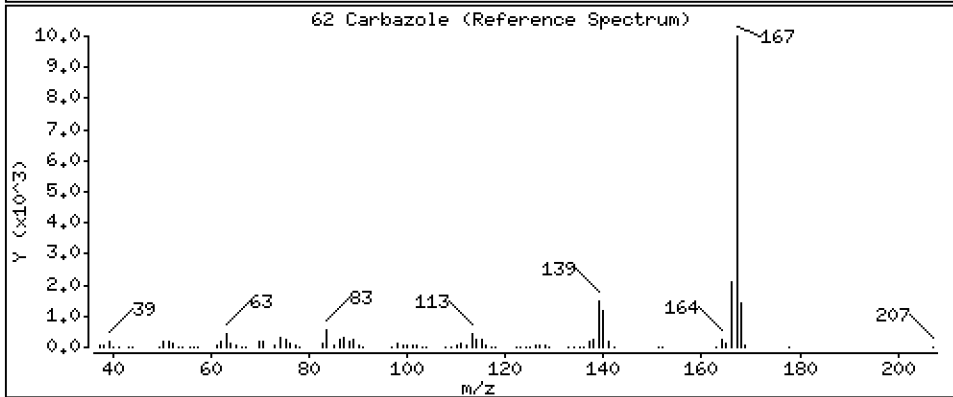
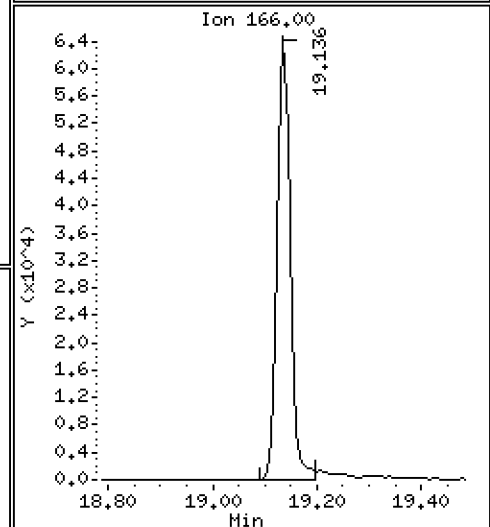
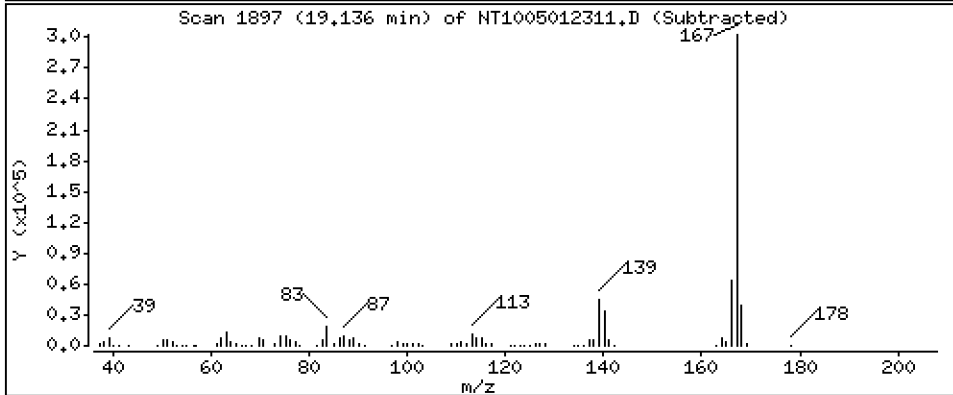
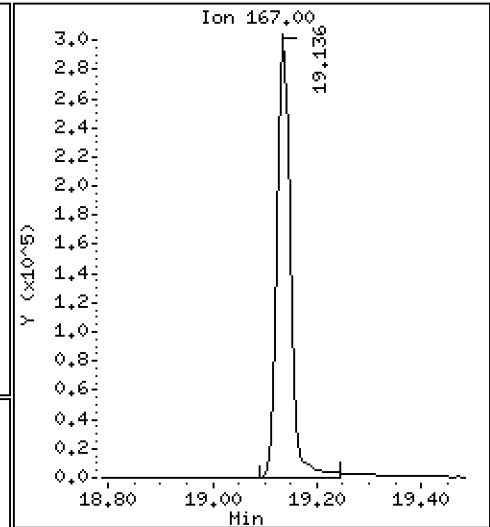
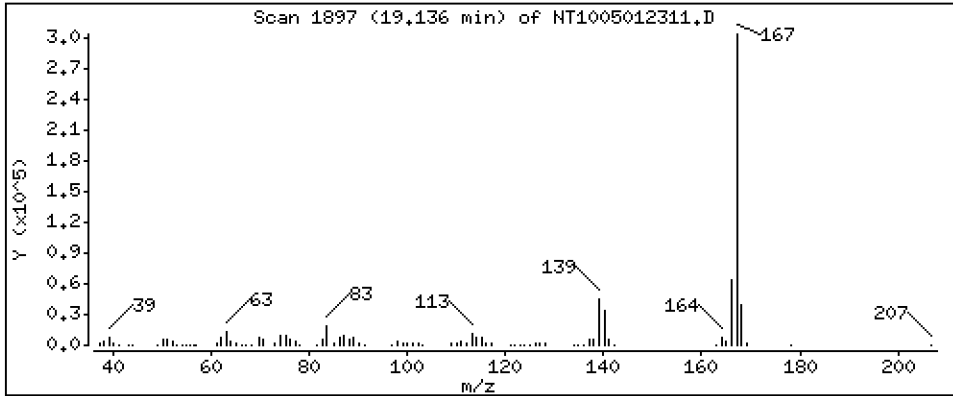
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 4,503 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

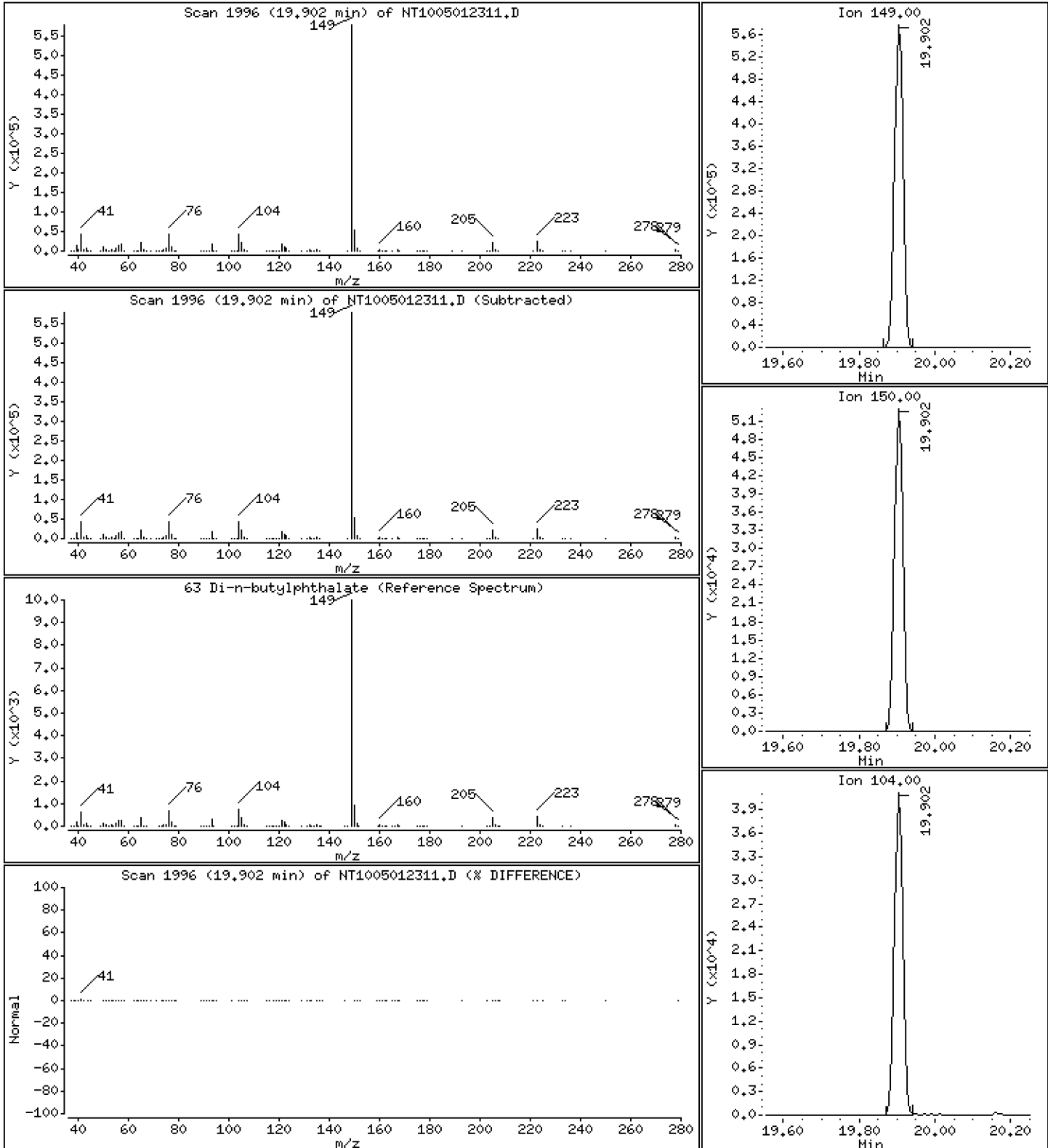
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,895 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

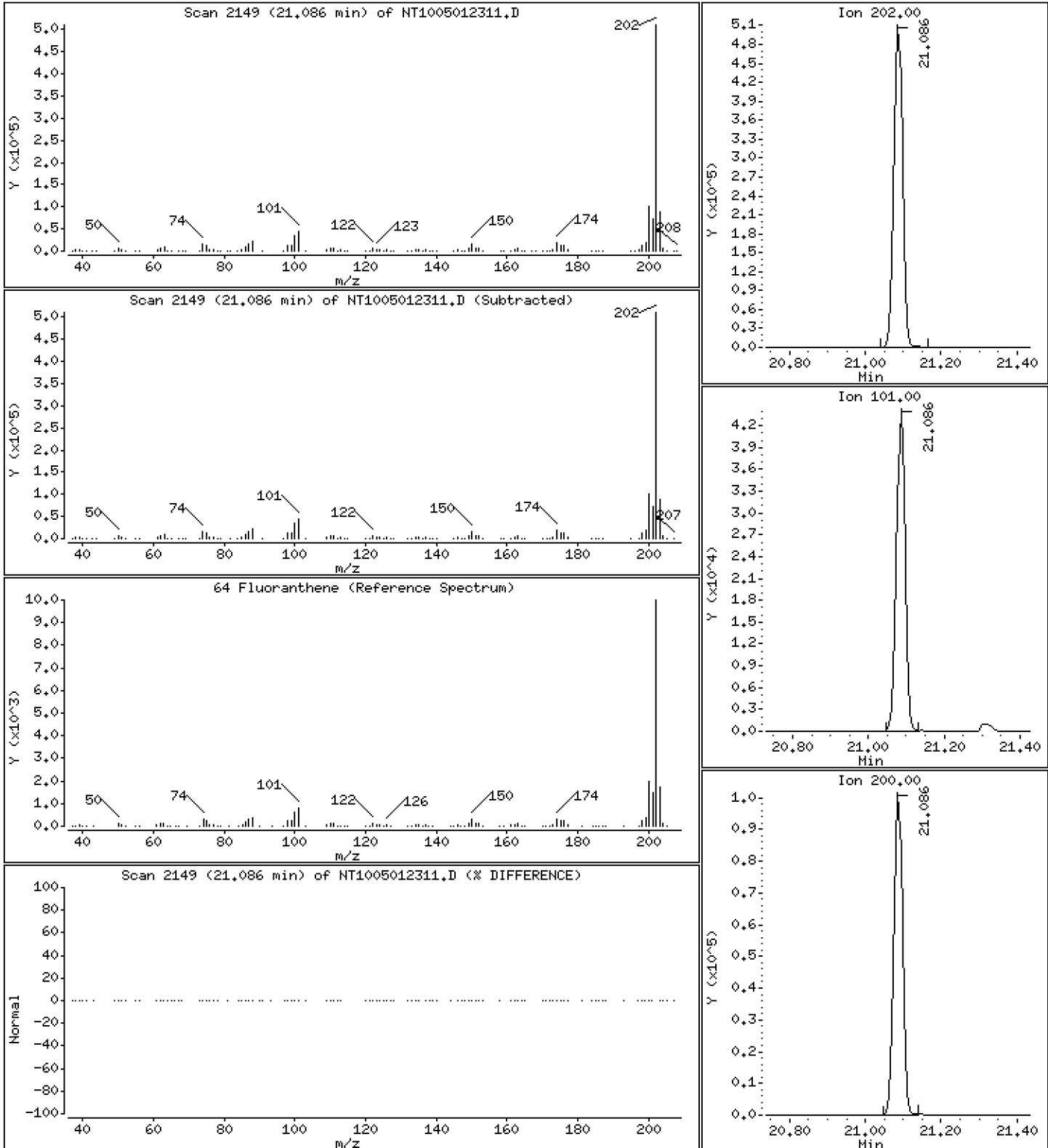
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,738 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

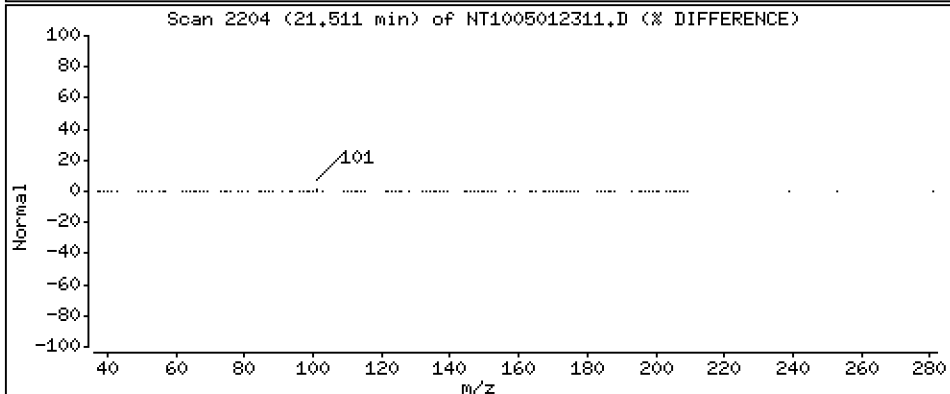
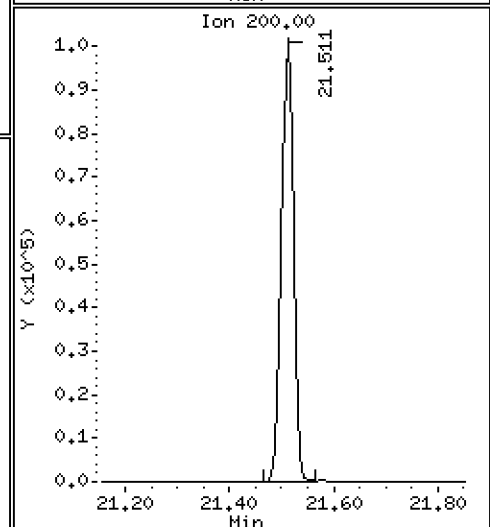
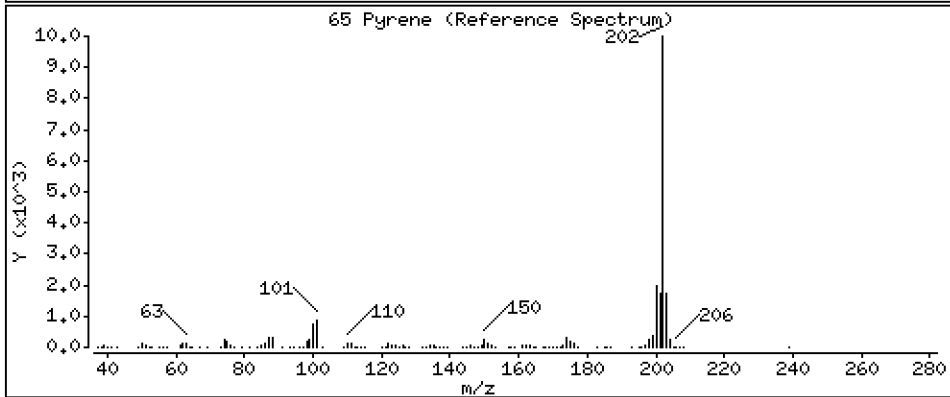
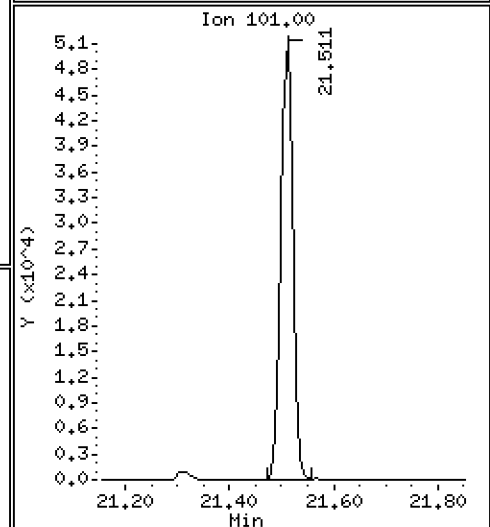
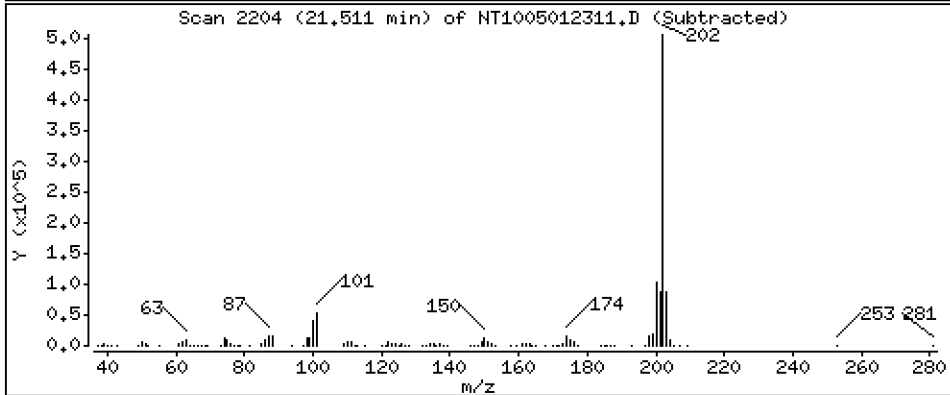
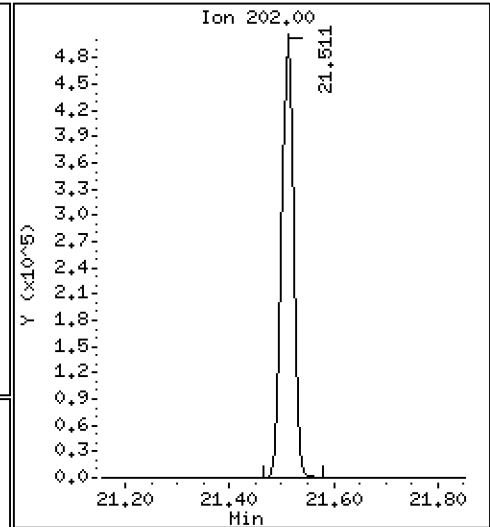
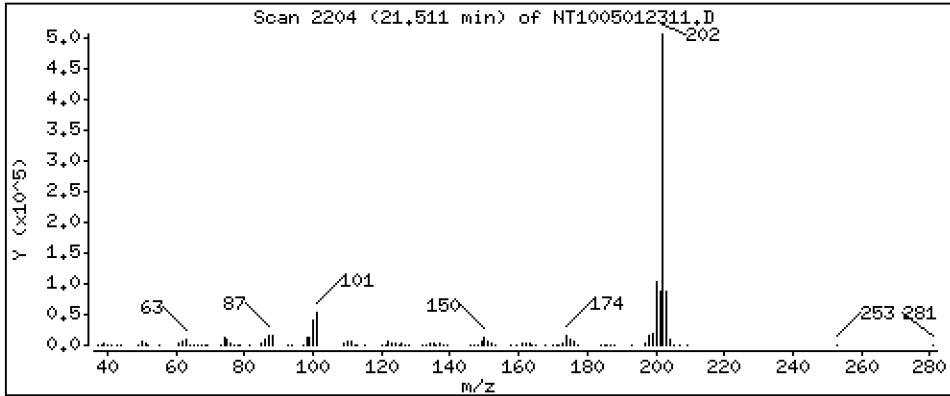
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,635 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

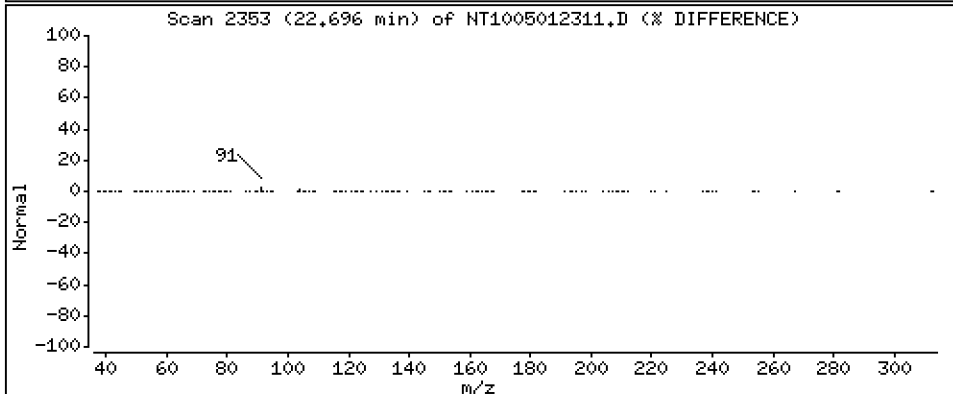
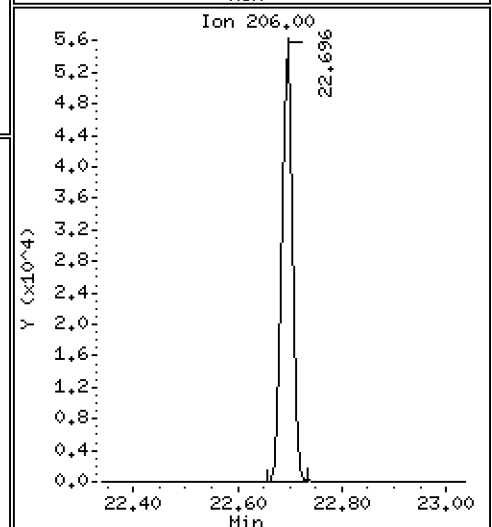
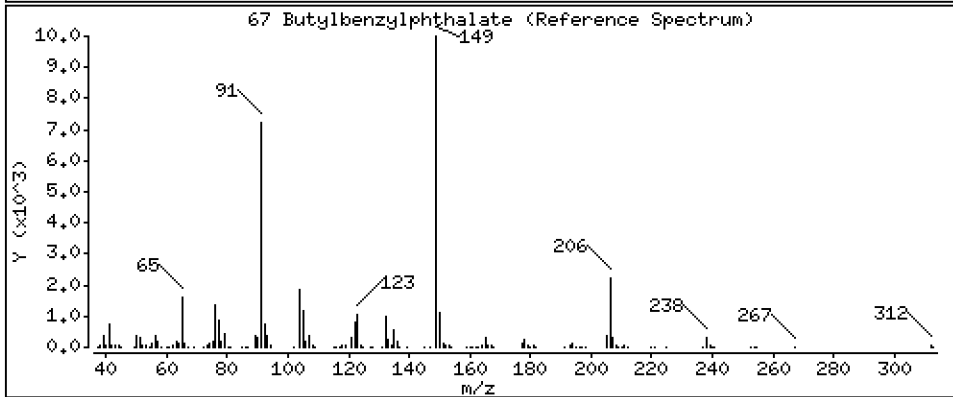
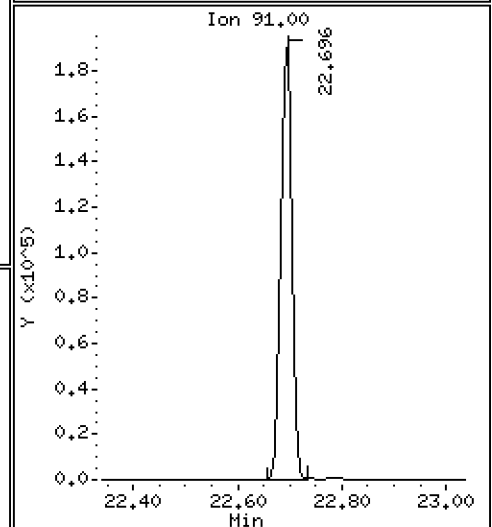
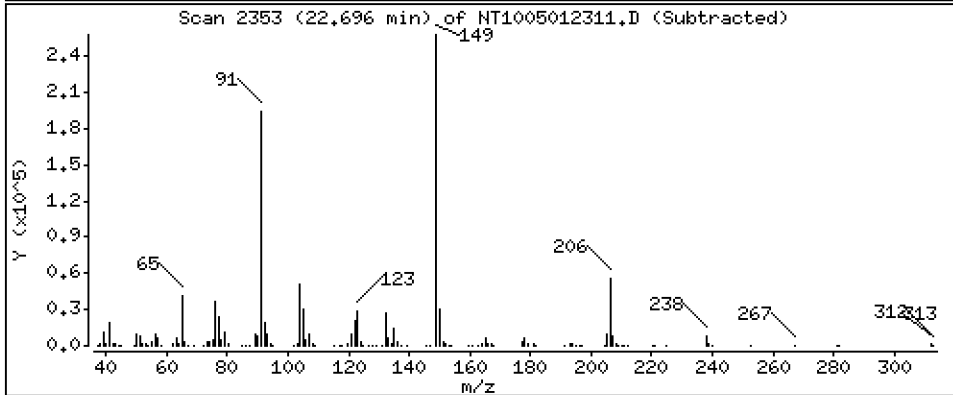
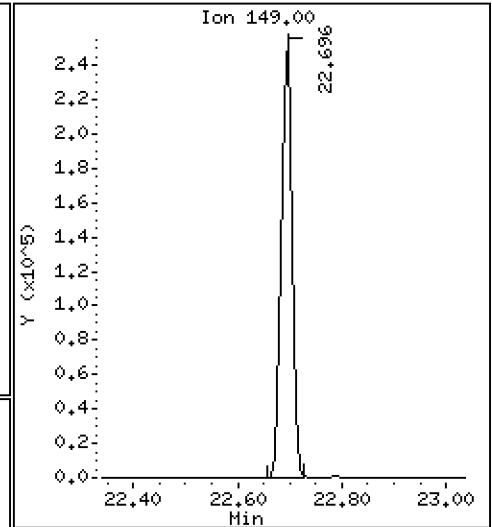
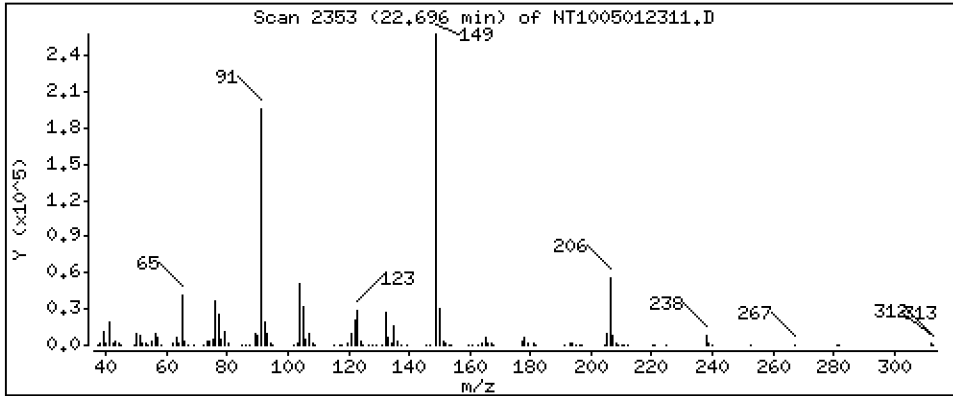
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,778 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

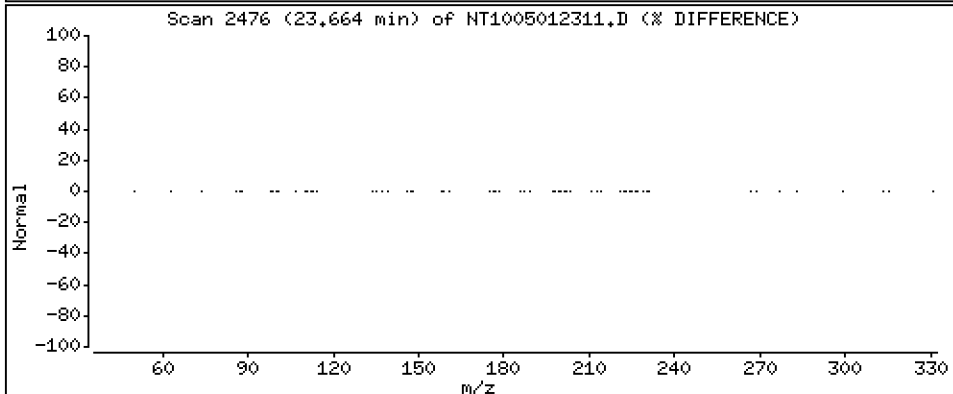
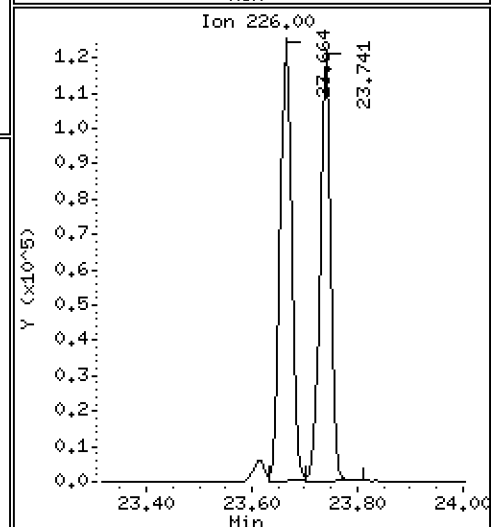
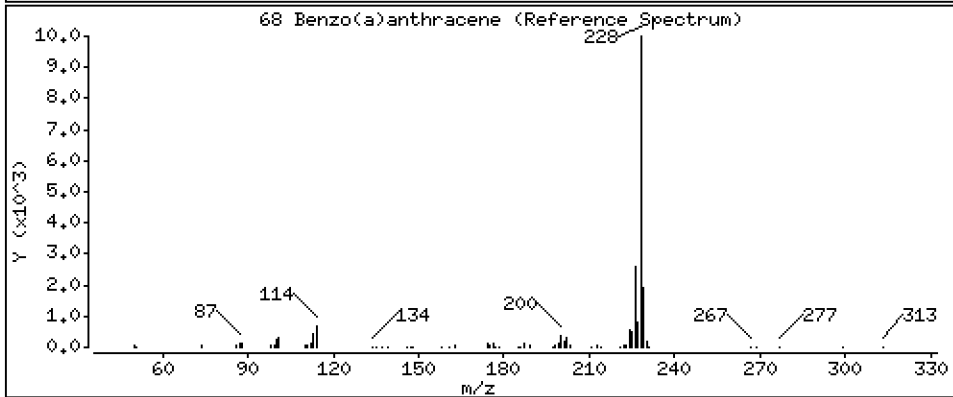
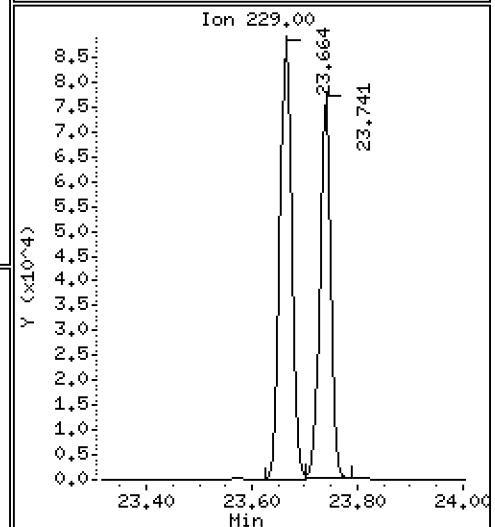
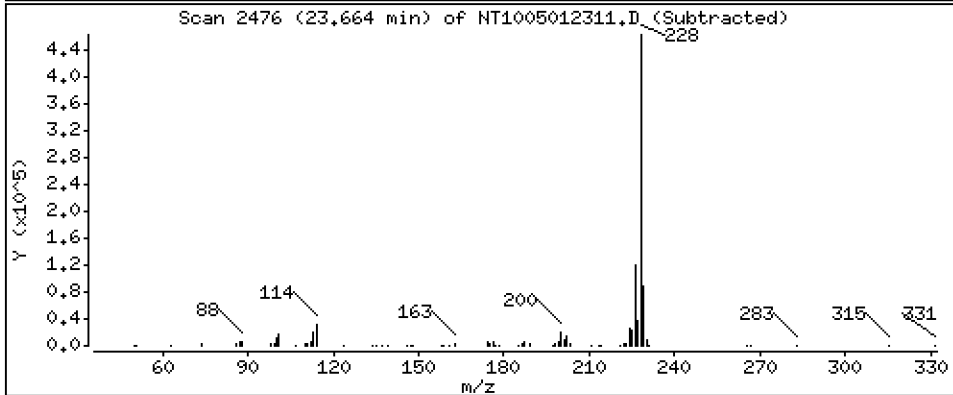
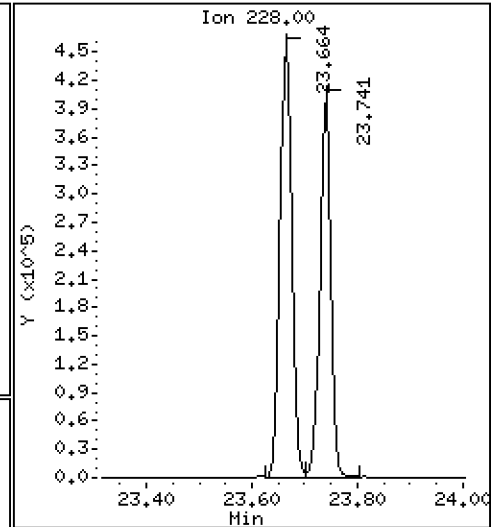
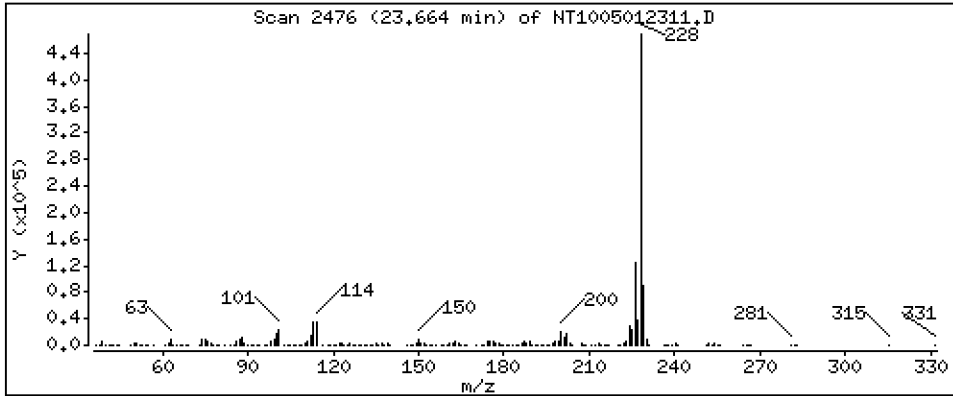
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,717 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

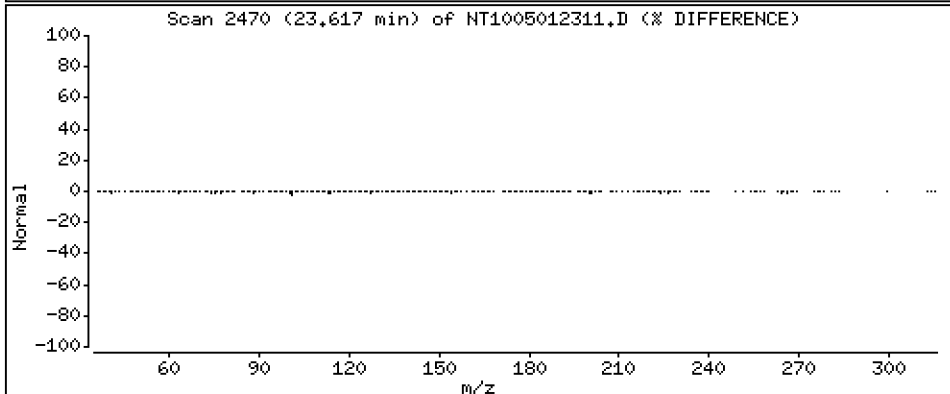
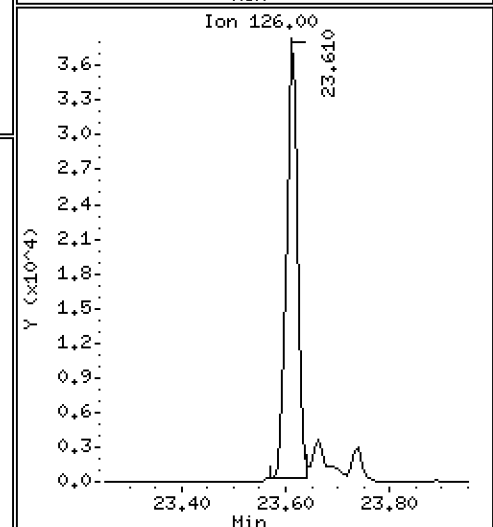
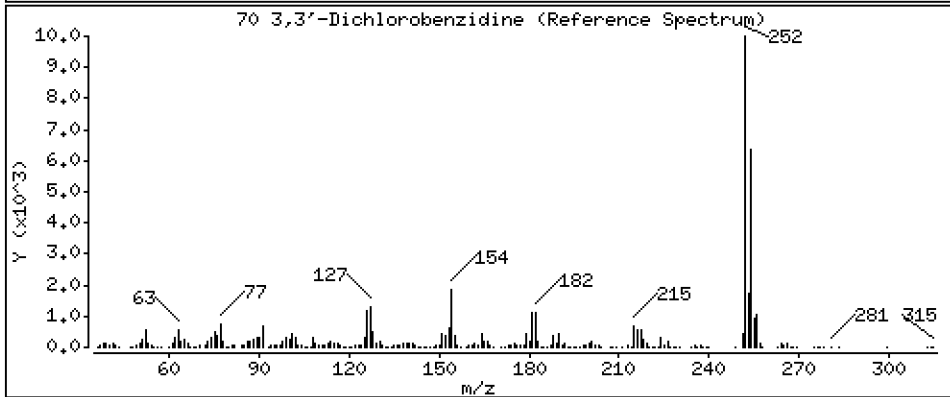
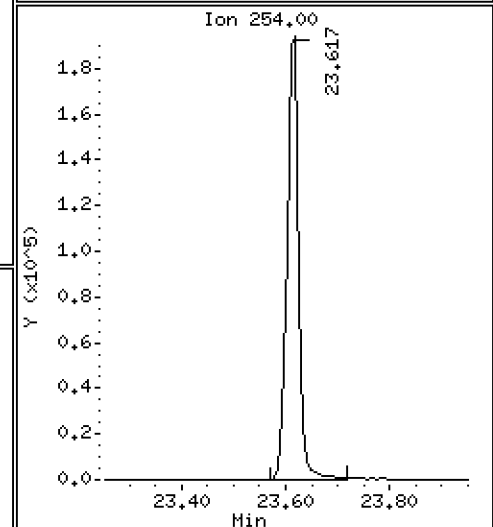
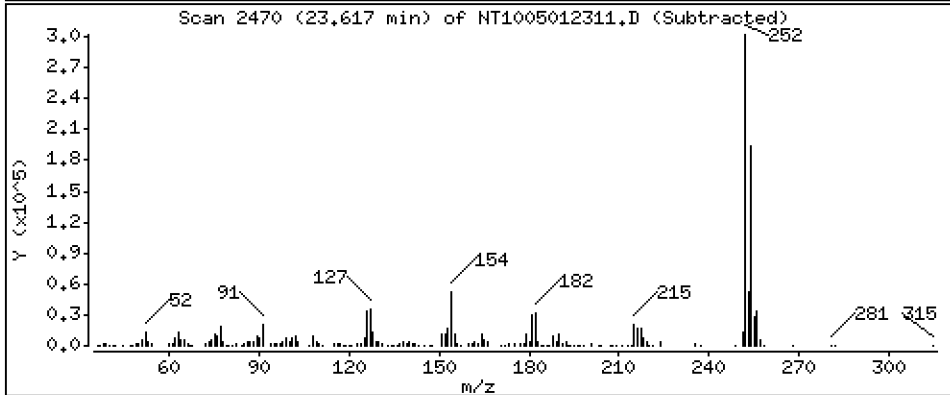
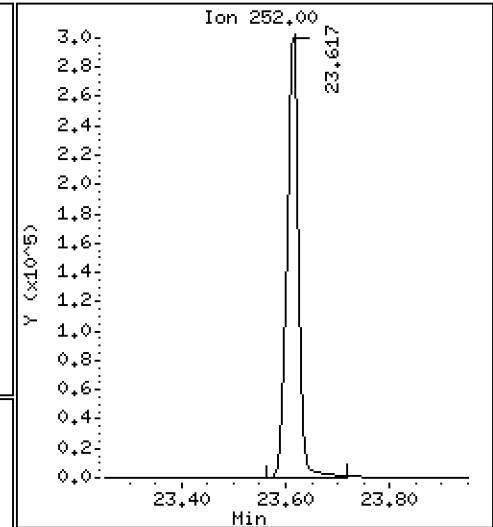
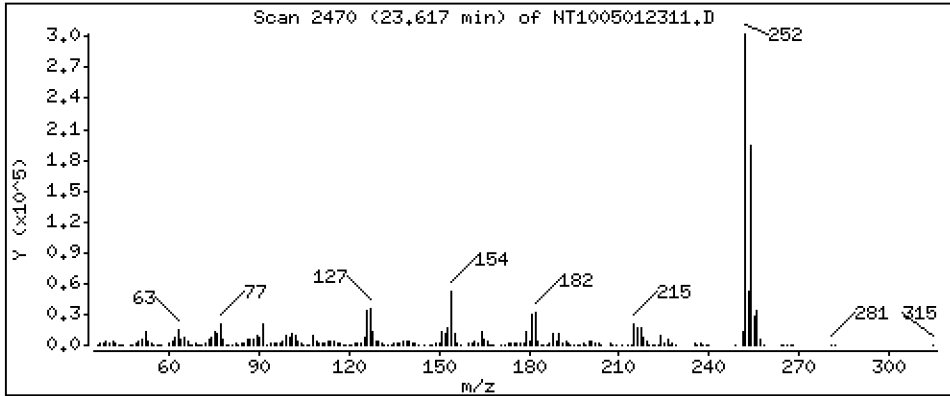
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 10,21 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

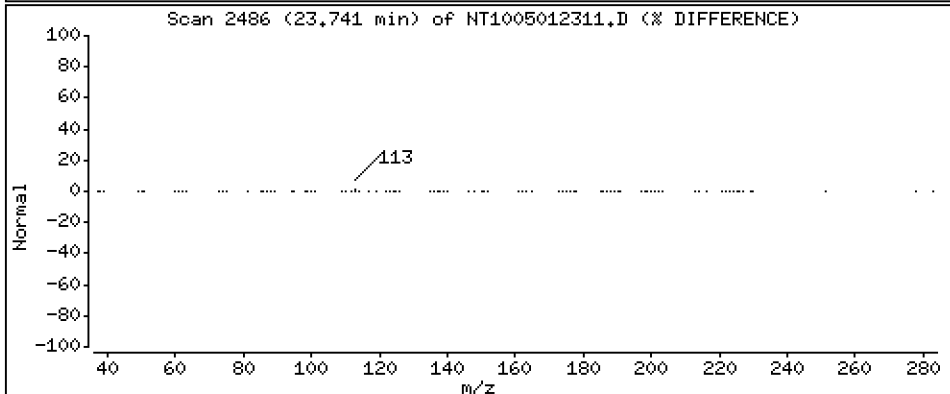
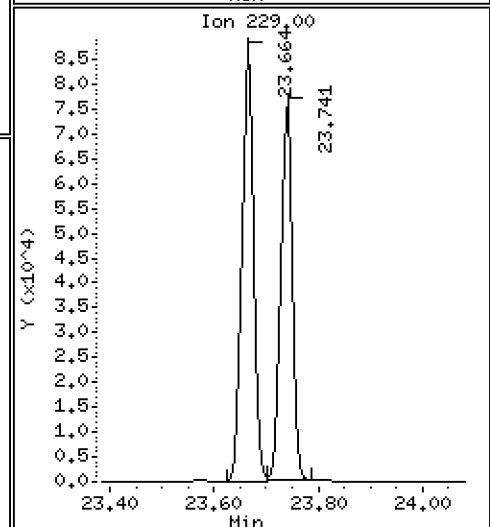
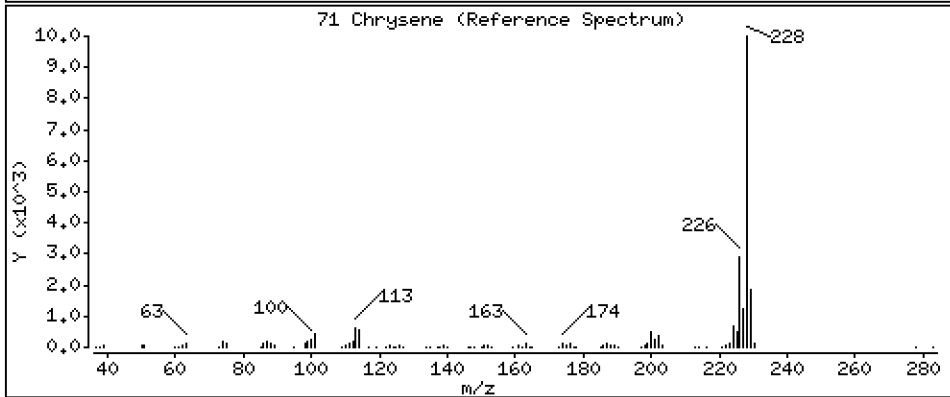
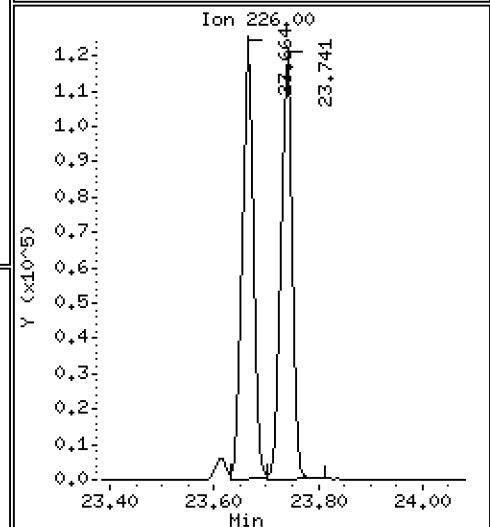
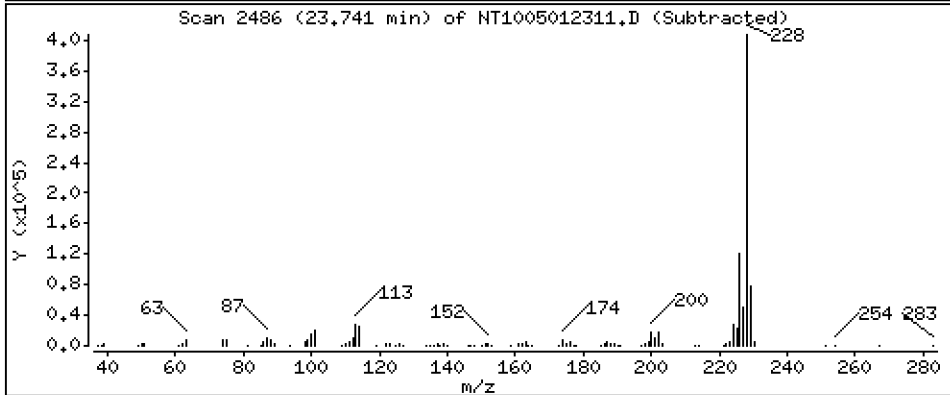
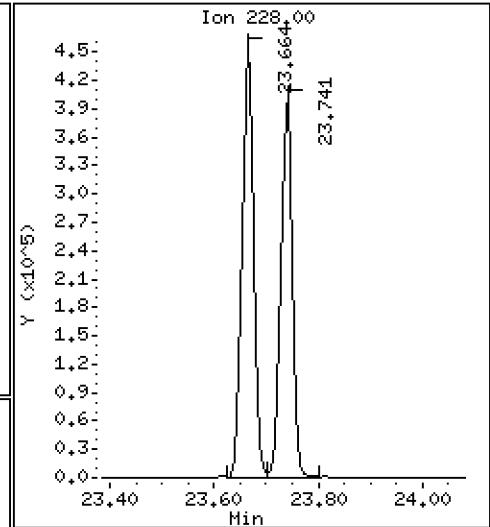
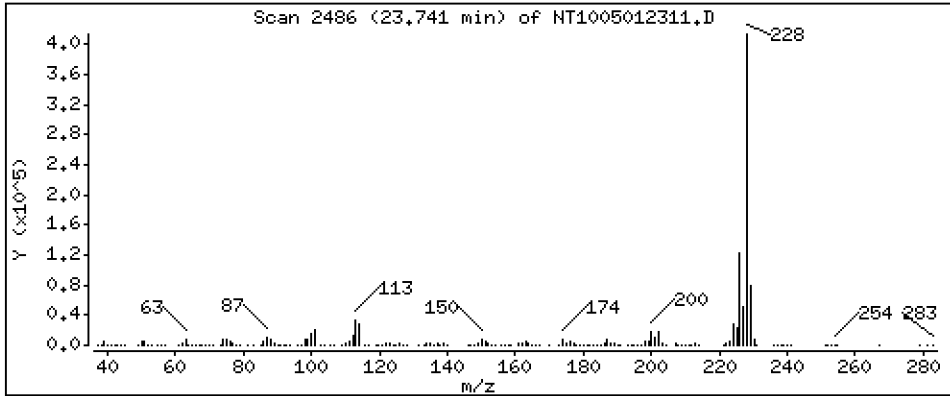
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,540 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

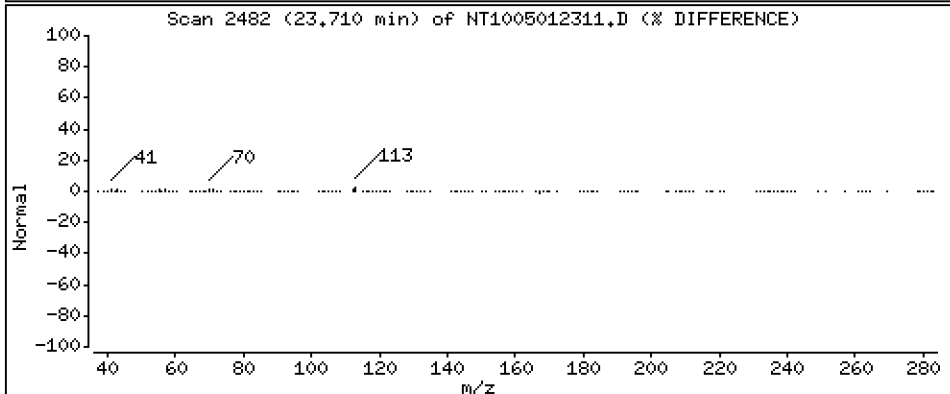
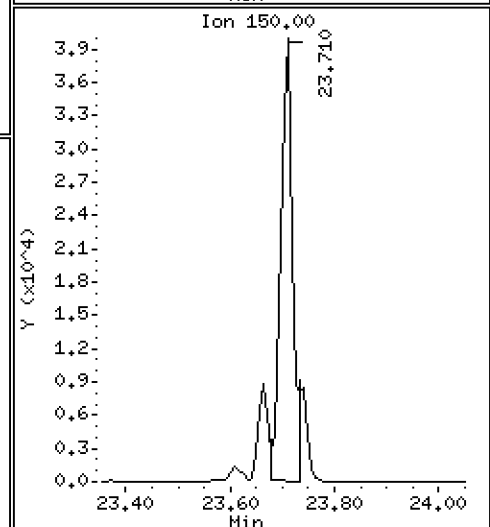
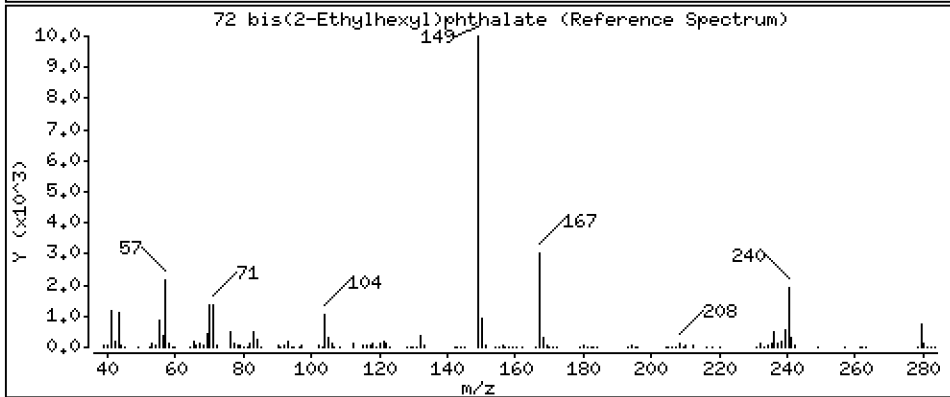
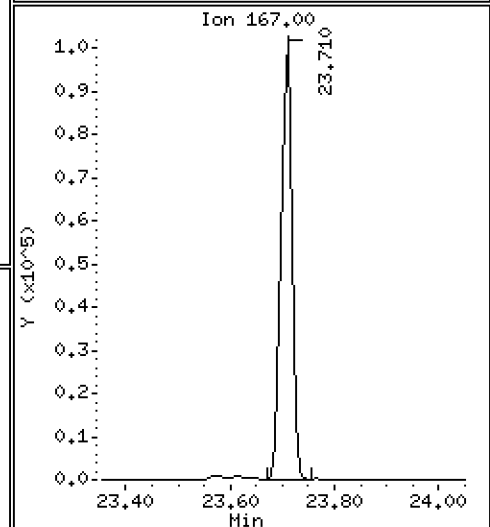
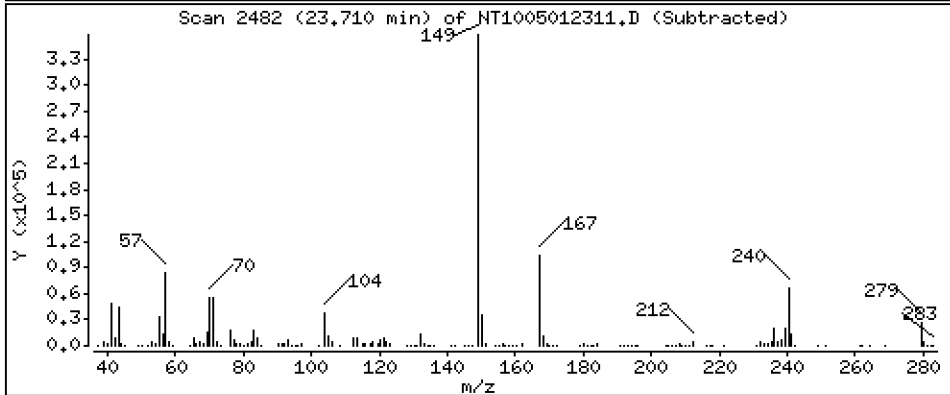
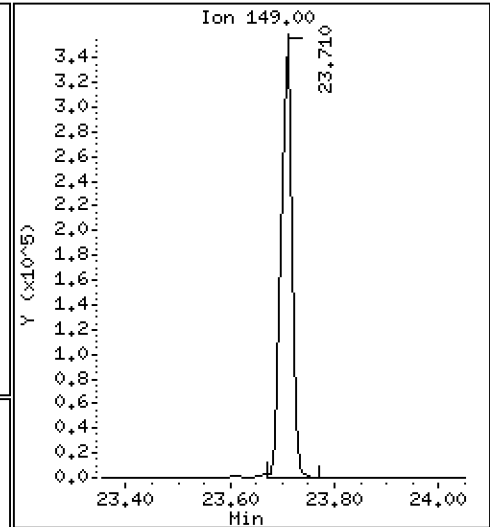
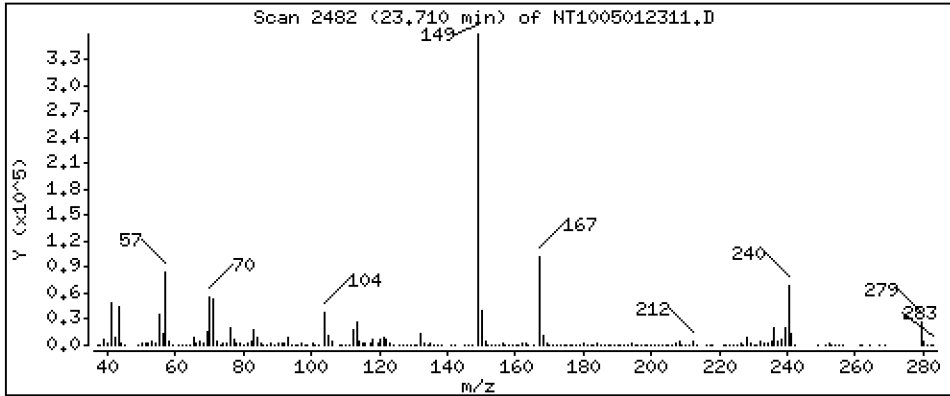
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 5,406 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

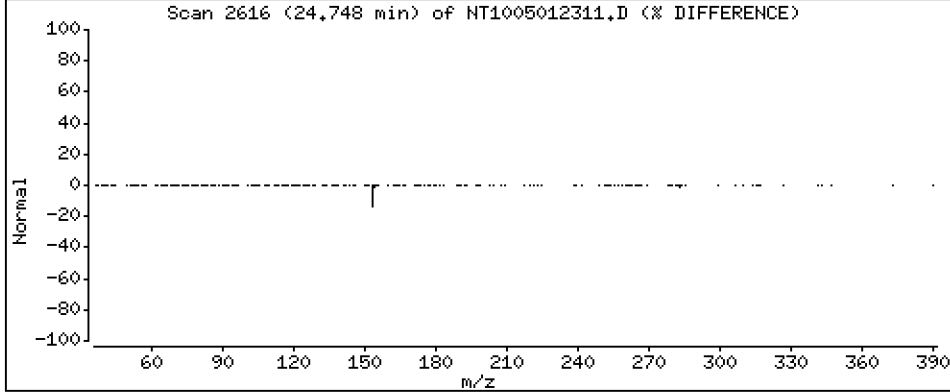
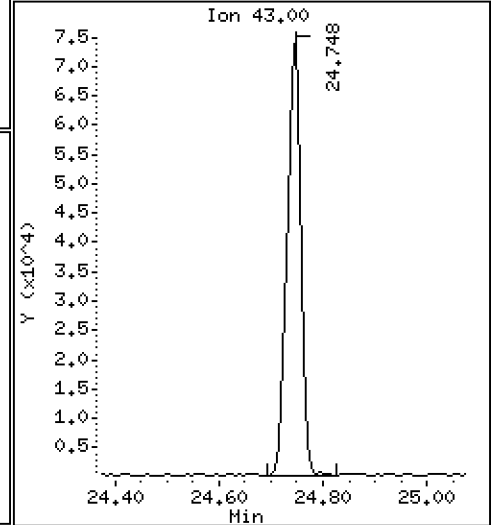
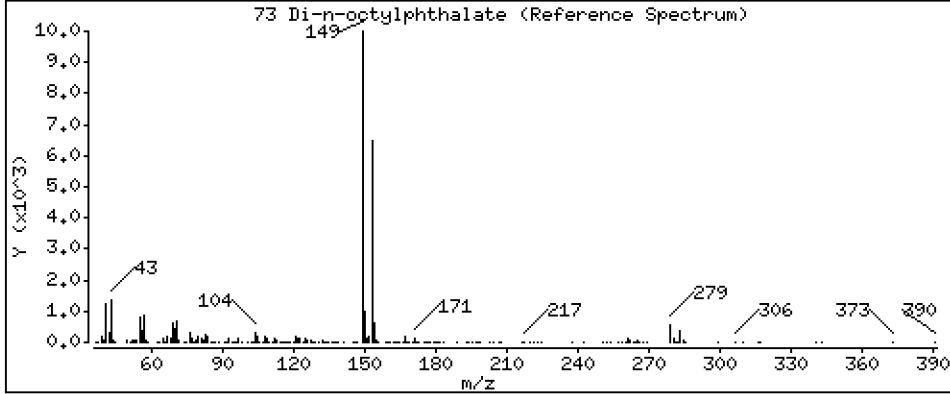
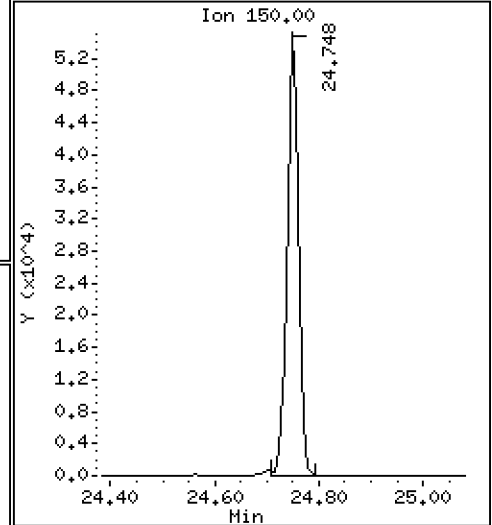
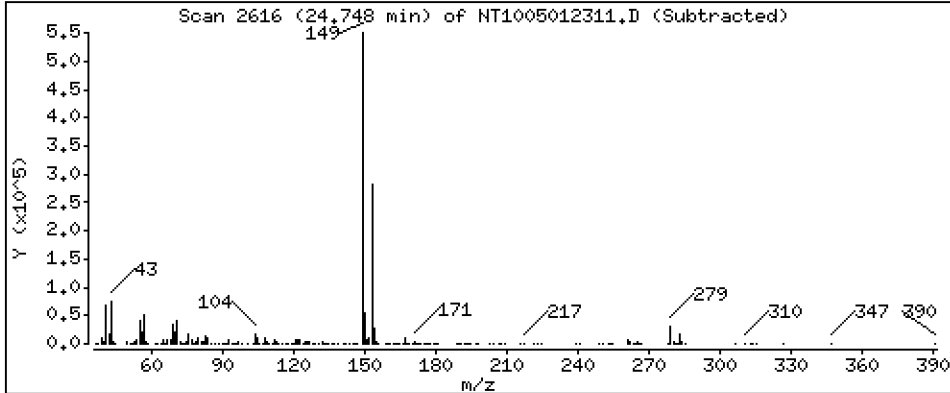
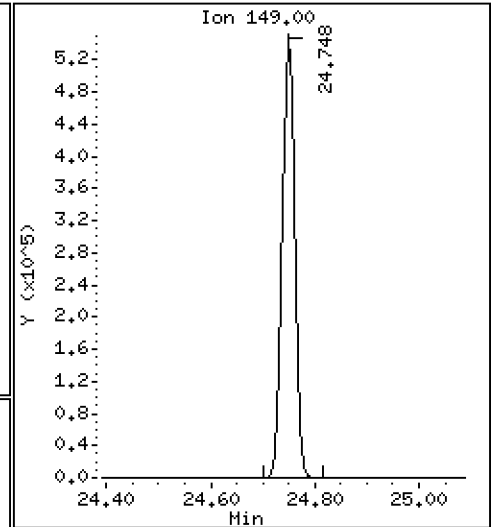
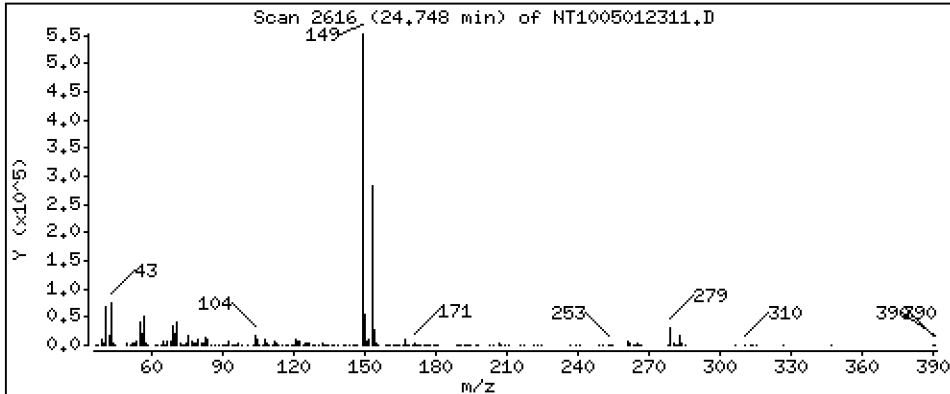
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 5,161 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

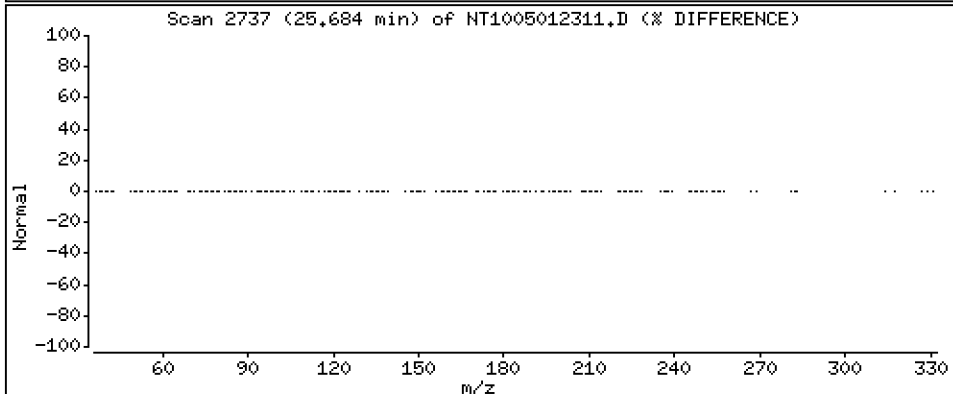
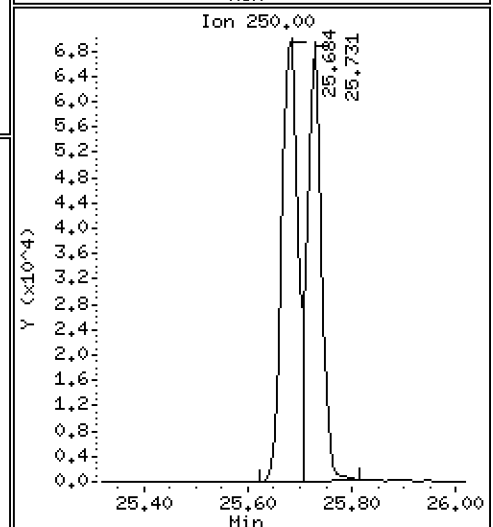
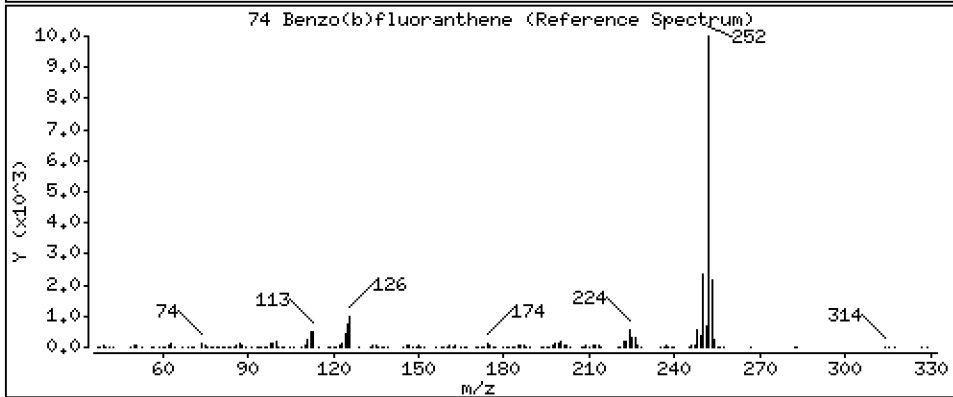
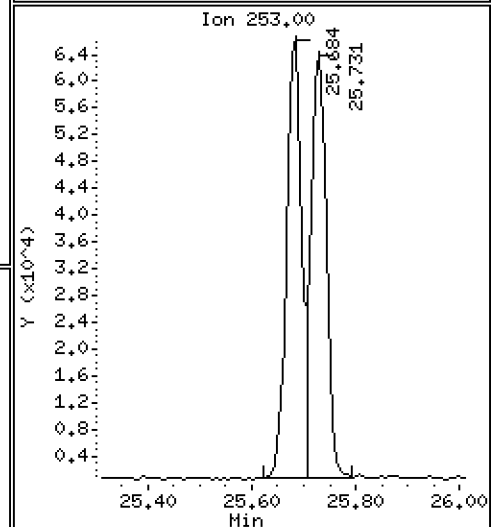
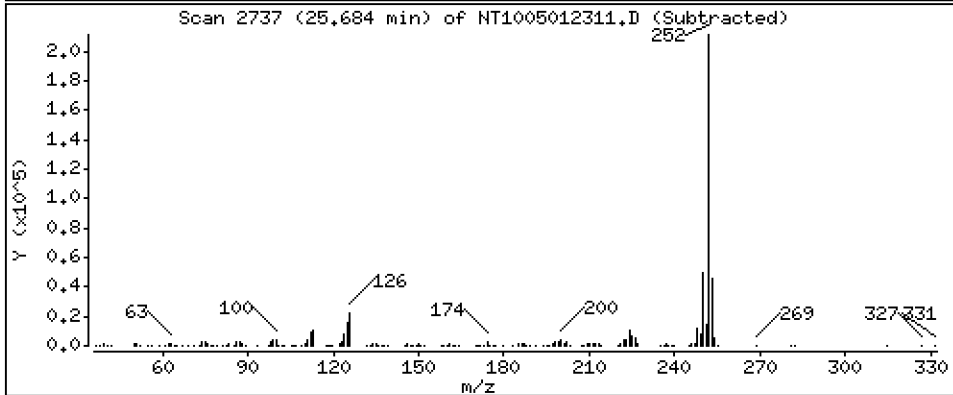
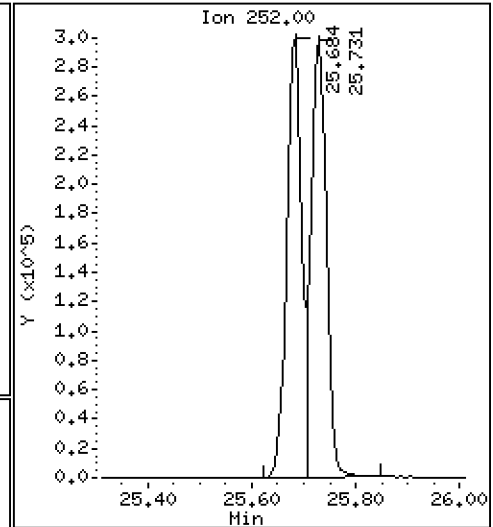
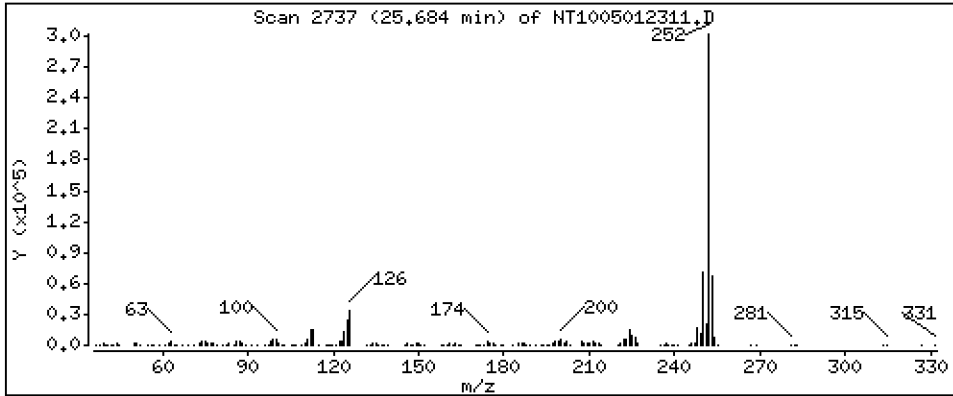
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,785 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

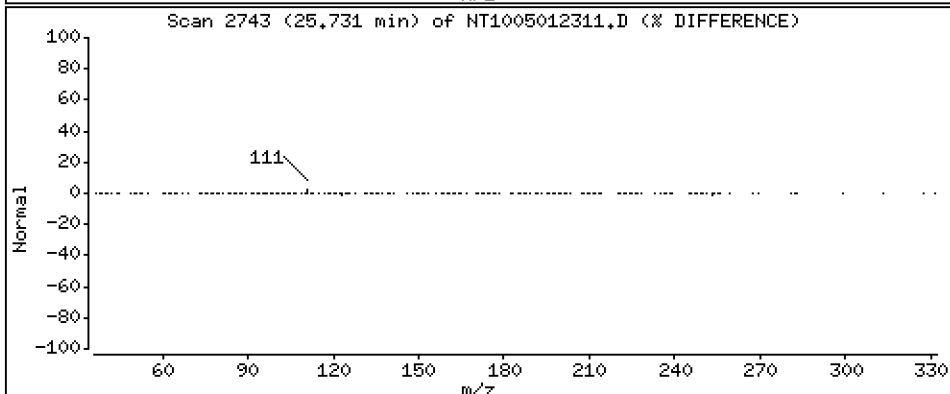
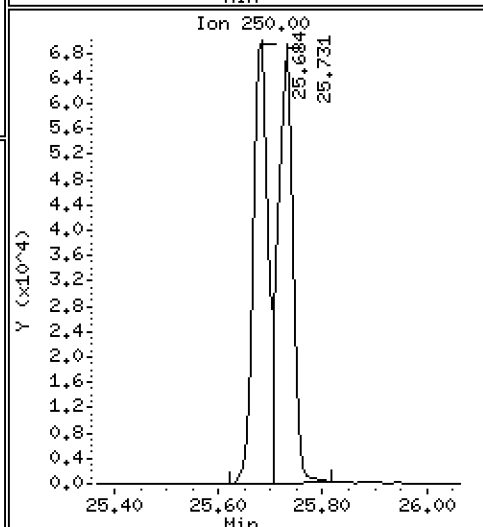
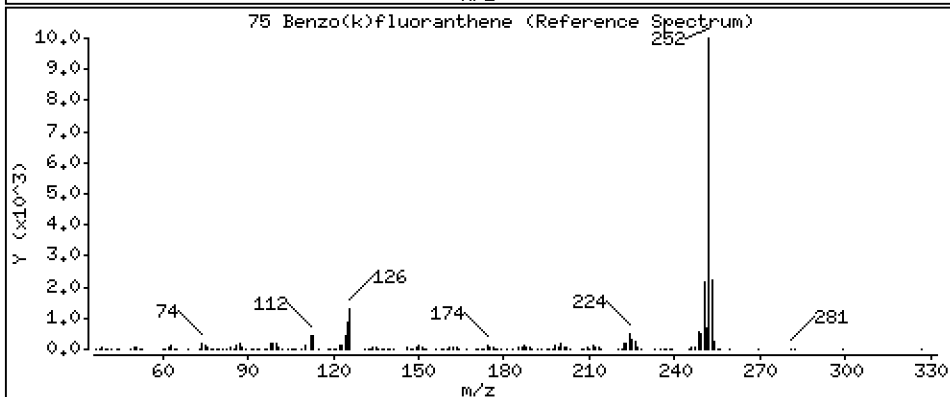
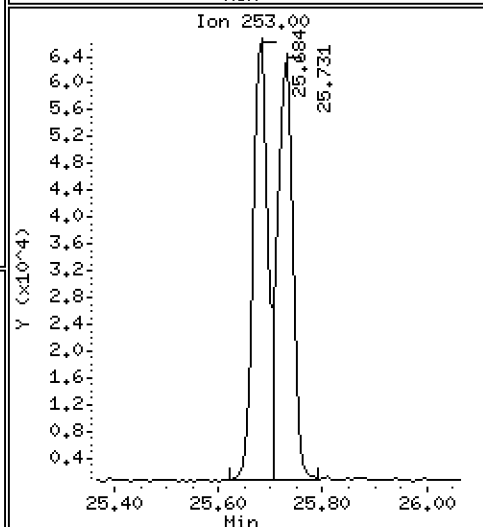
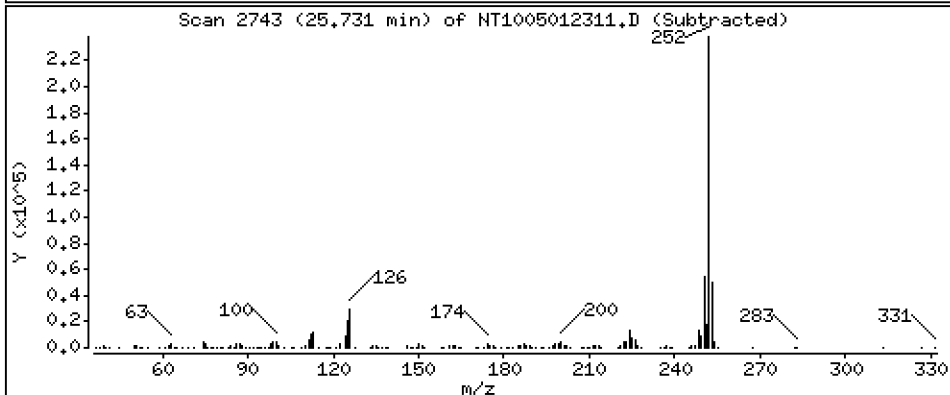
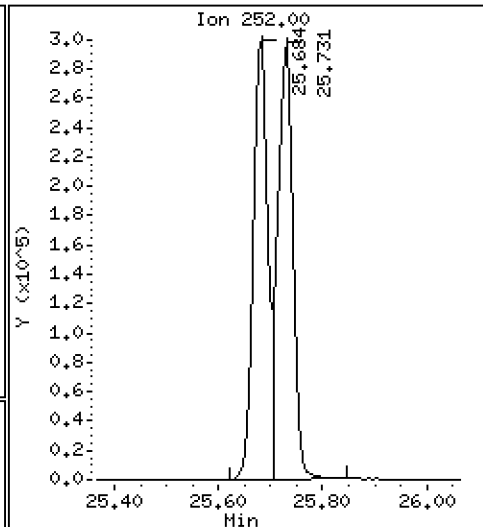
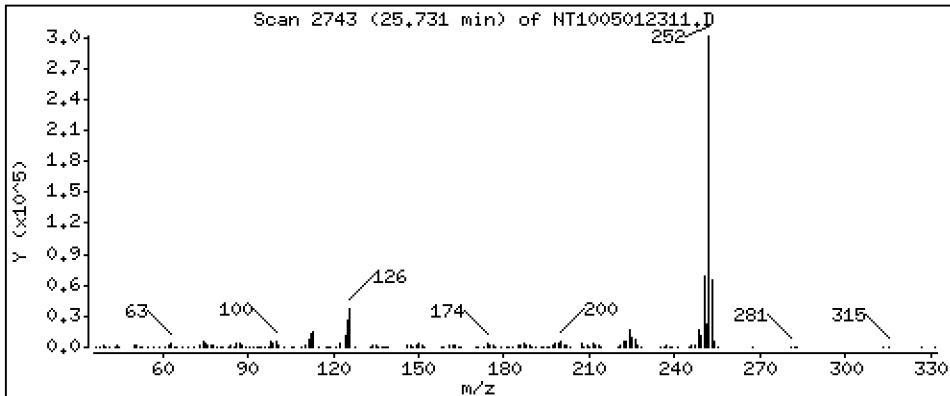
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,457 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

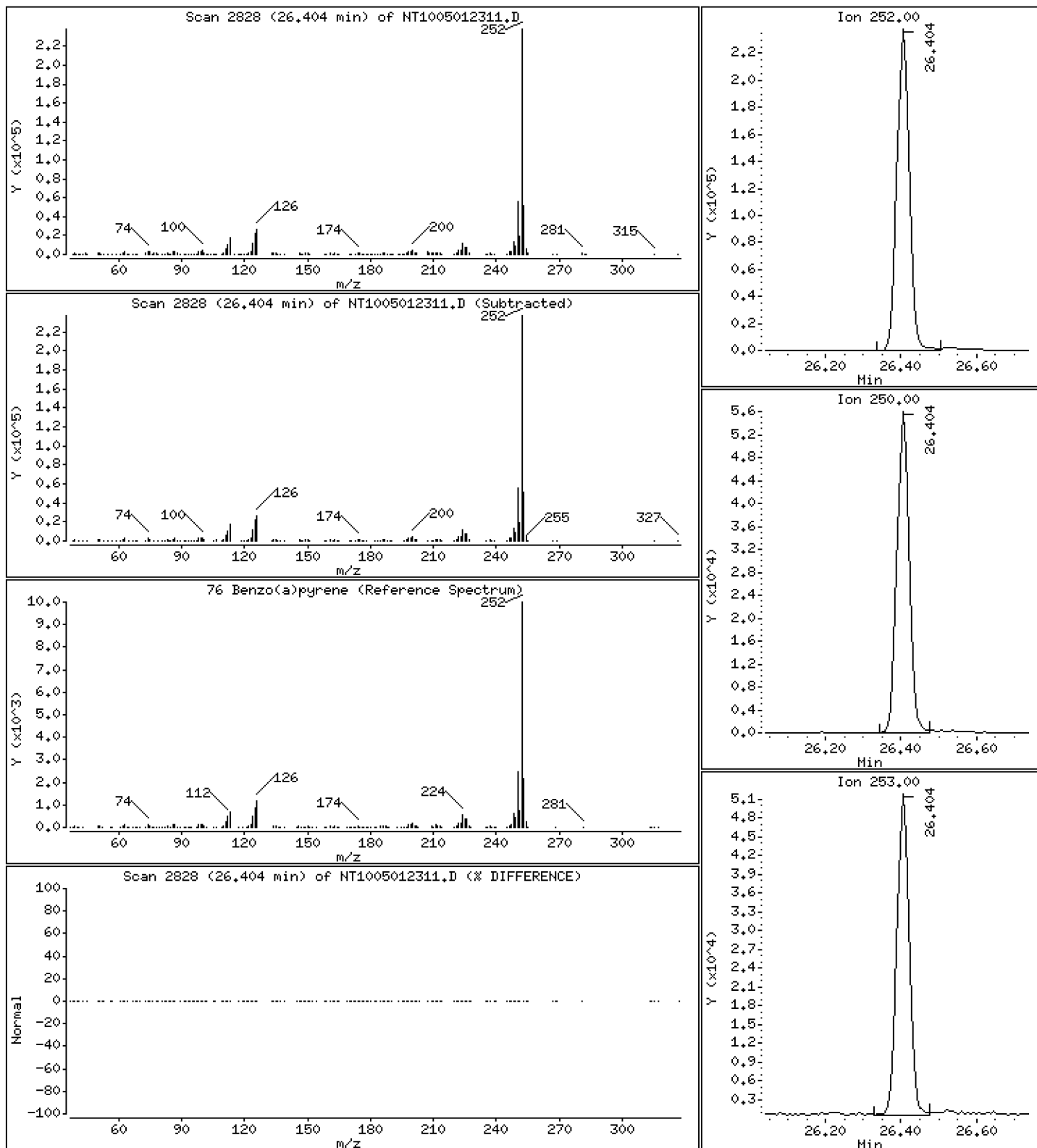
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,787 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

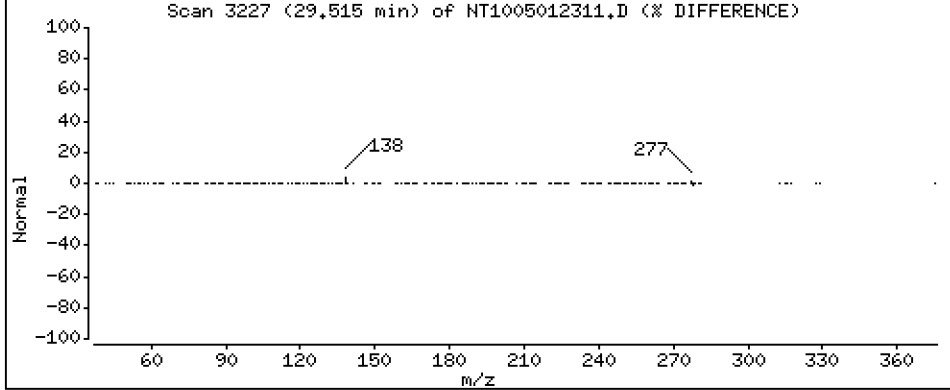
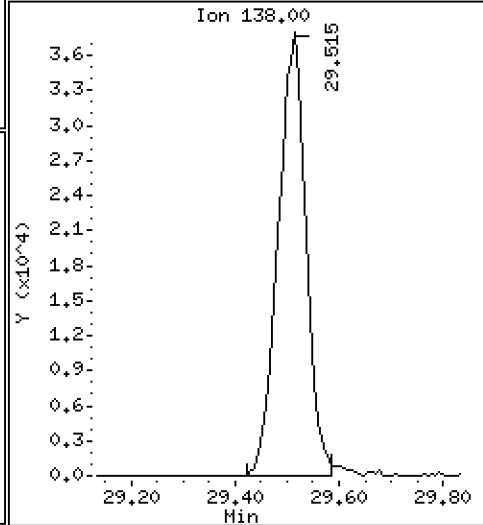
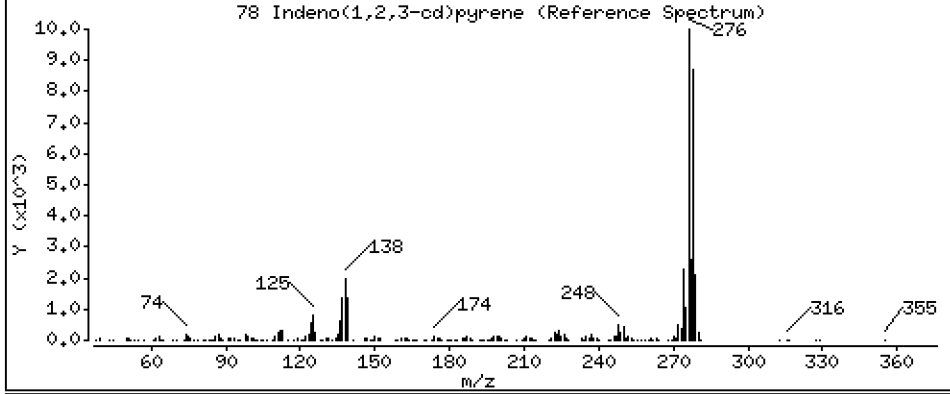
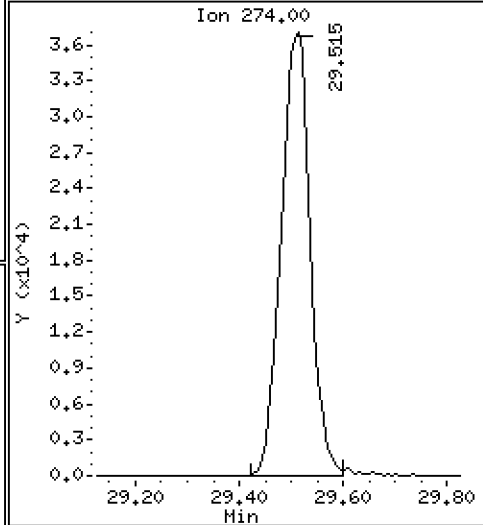
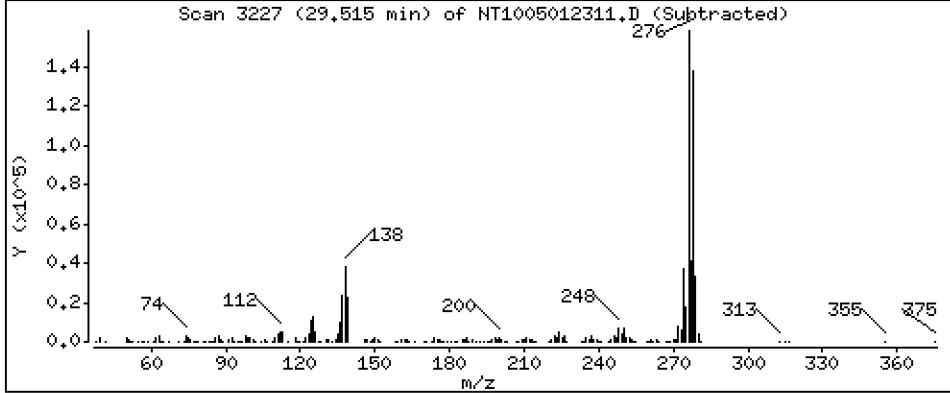
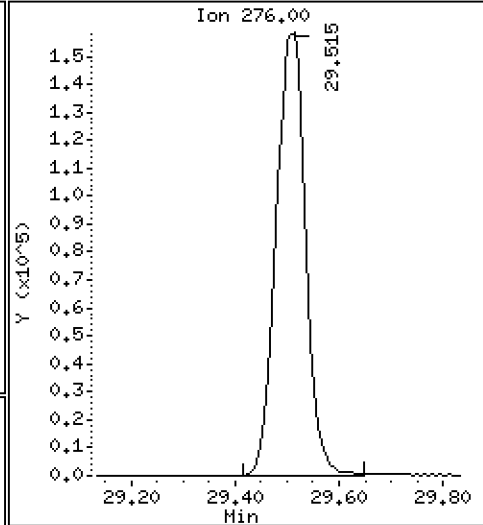
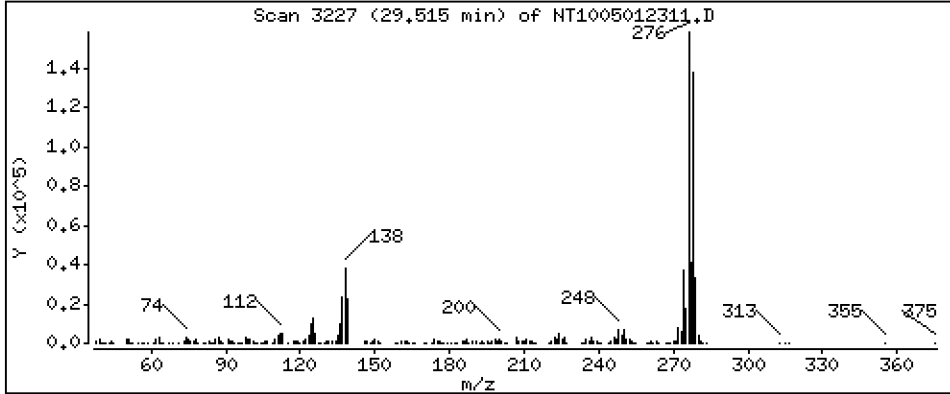
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,677 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

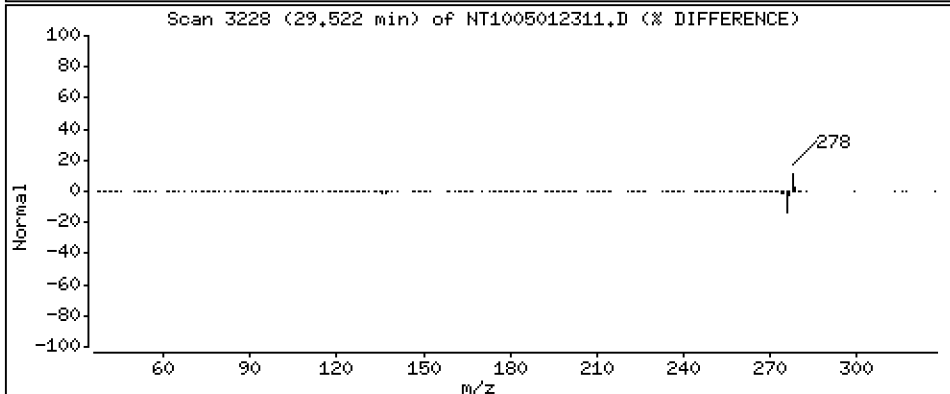
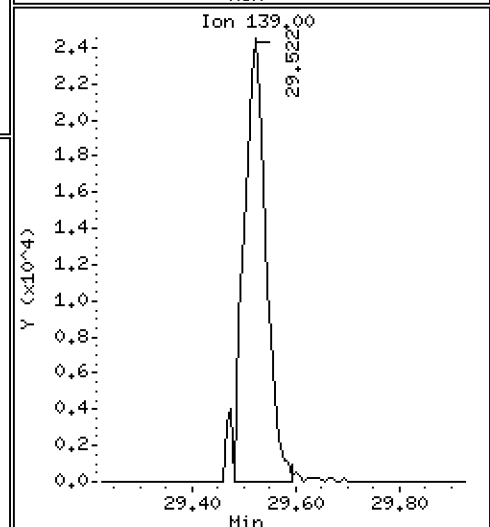
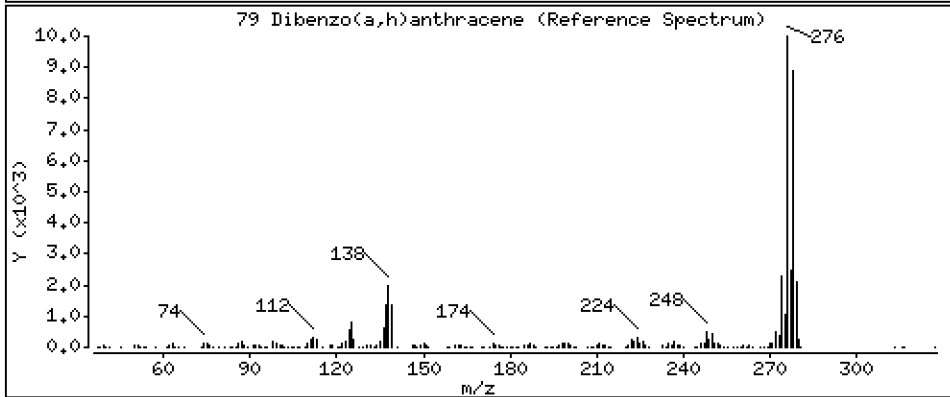
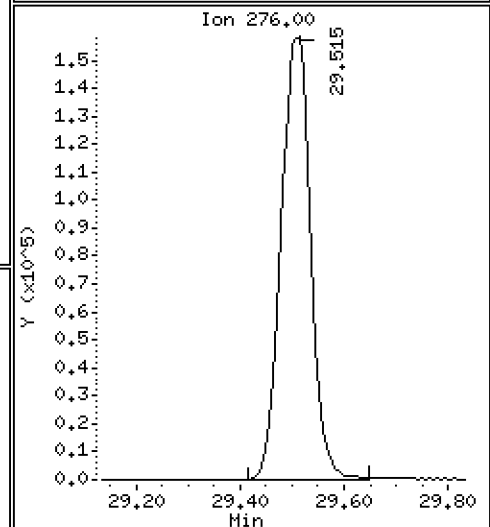
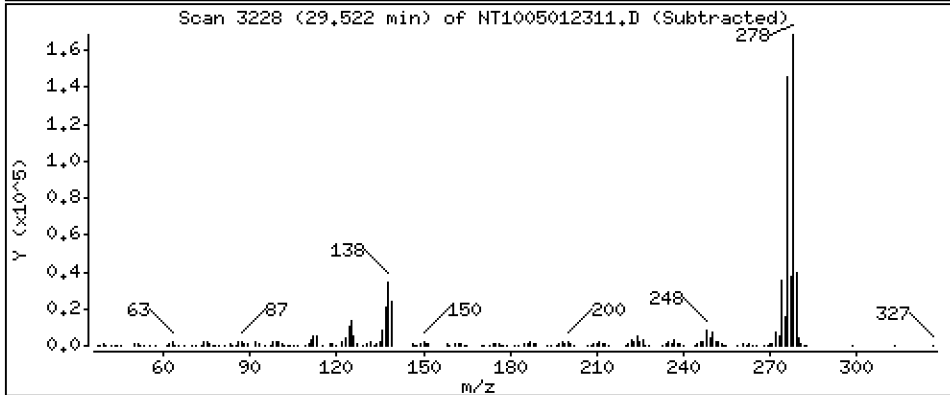
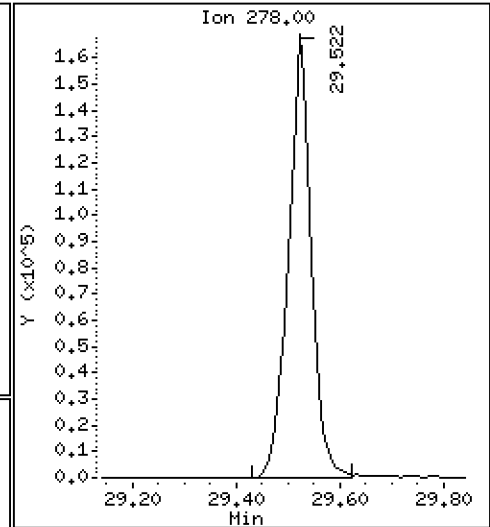
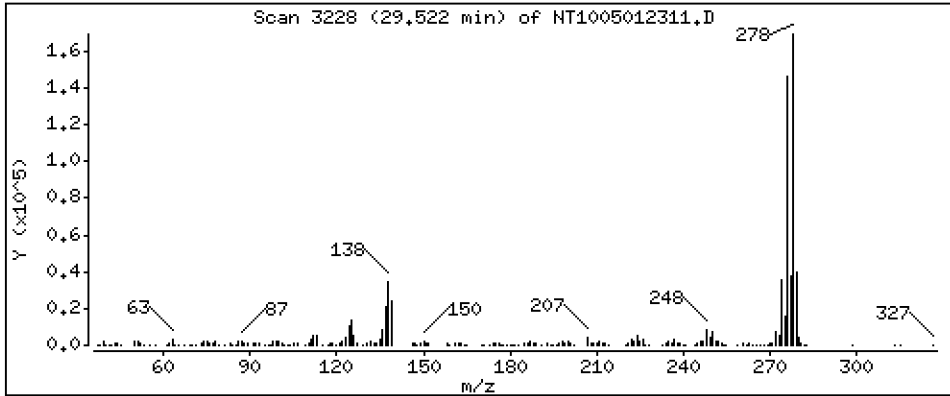
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,649 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

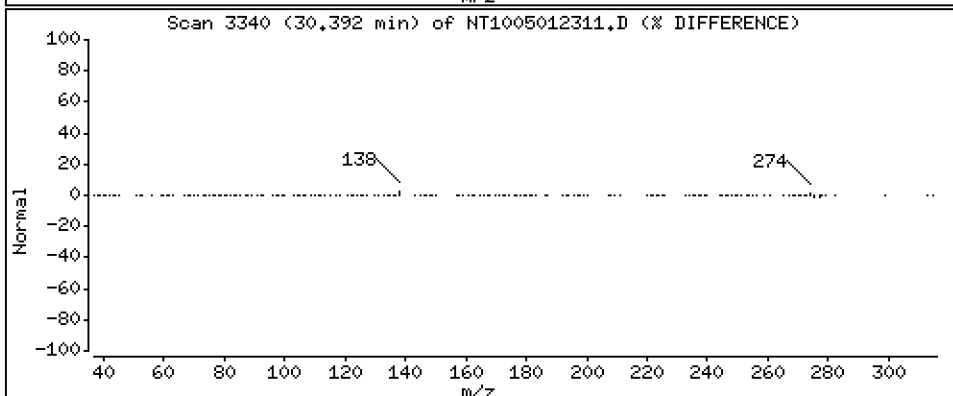
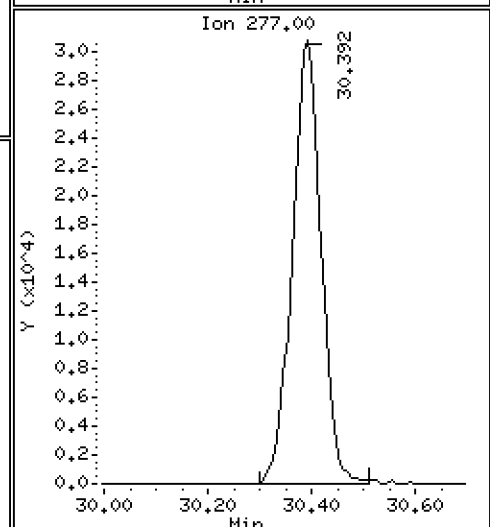
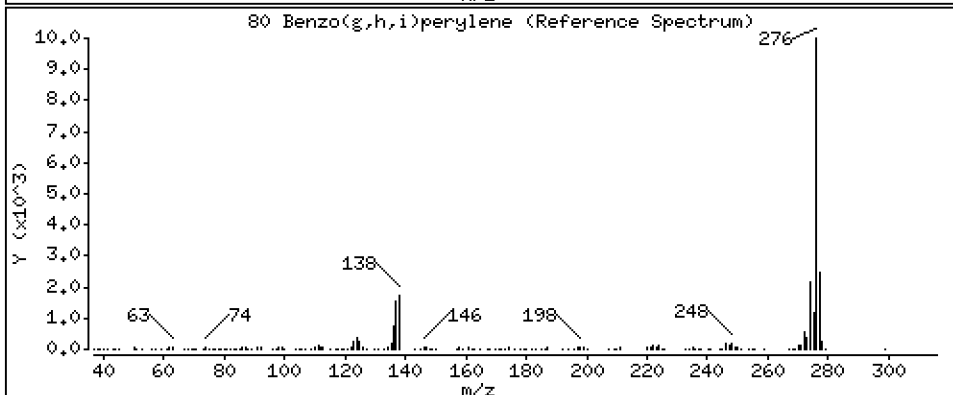
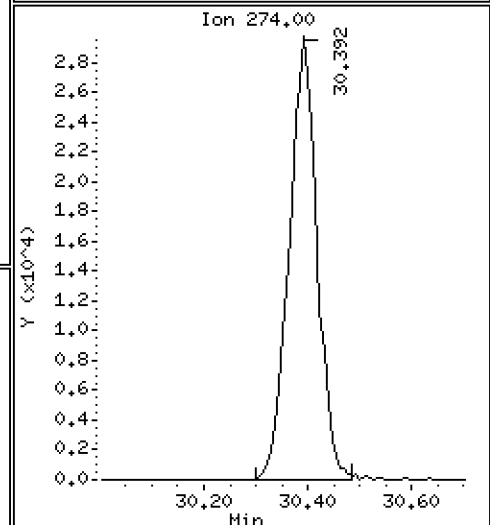
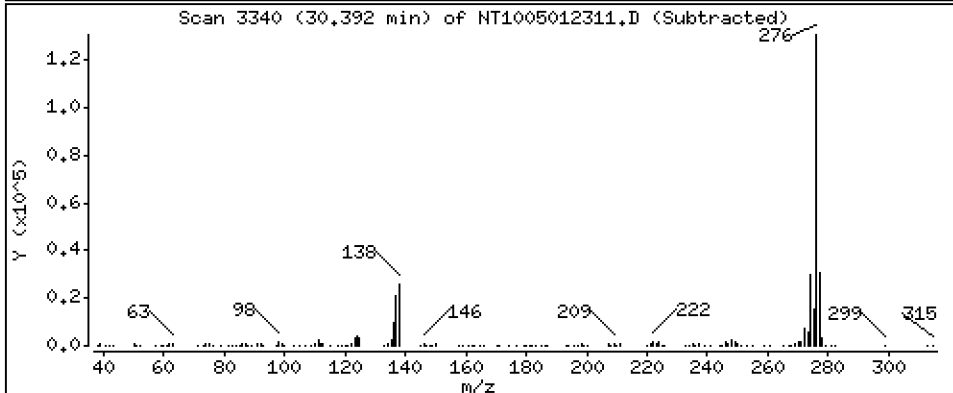
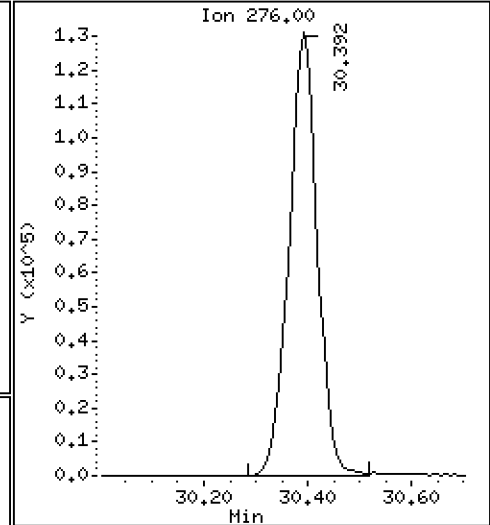
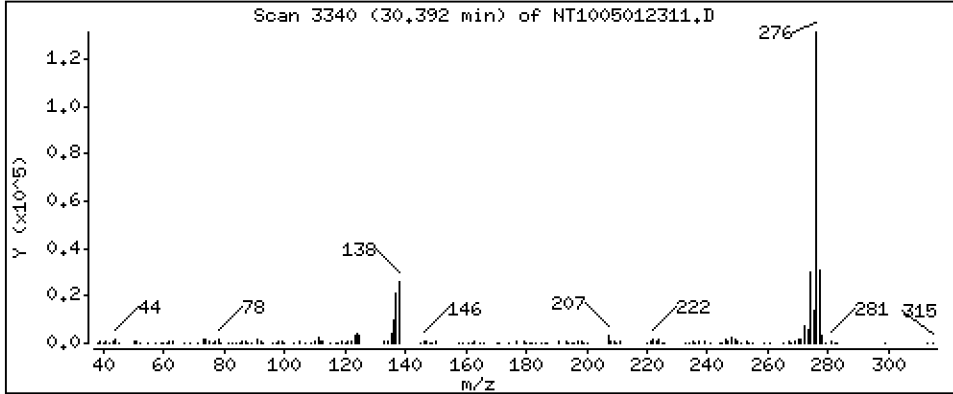
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,659 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

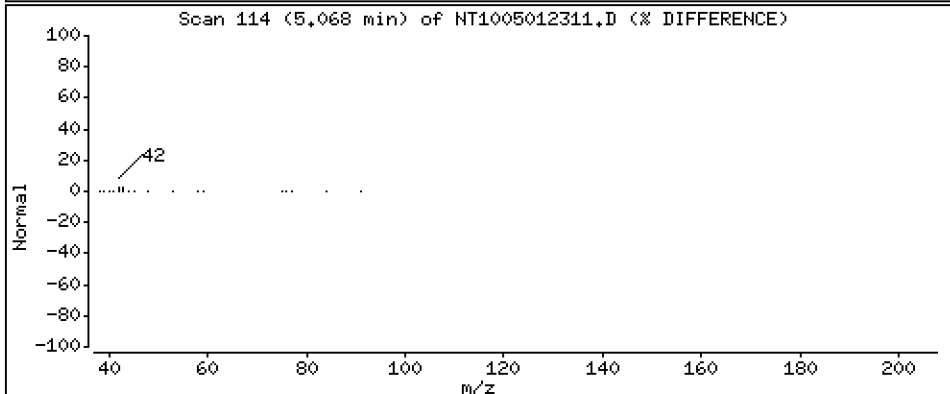
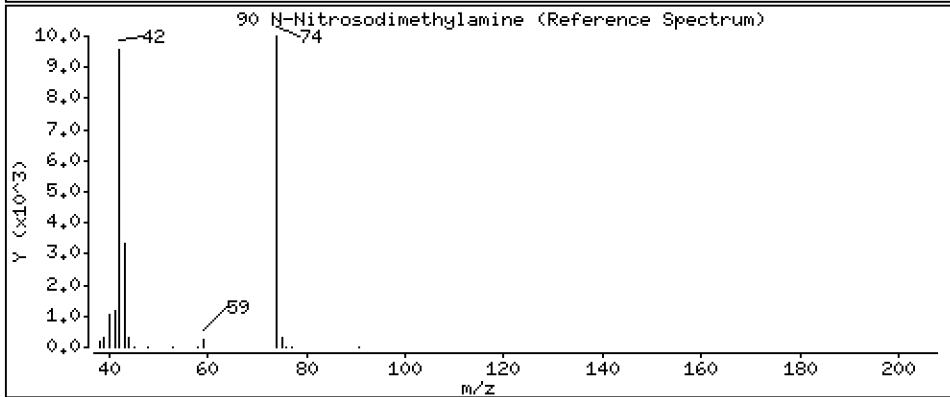
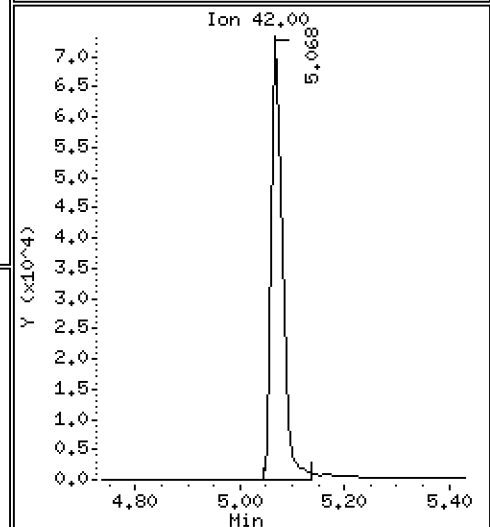
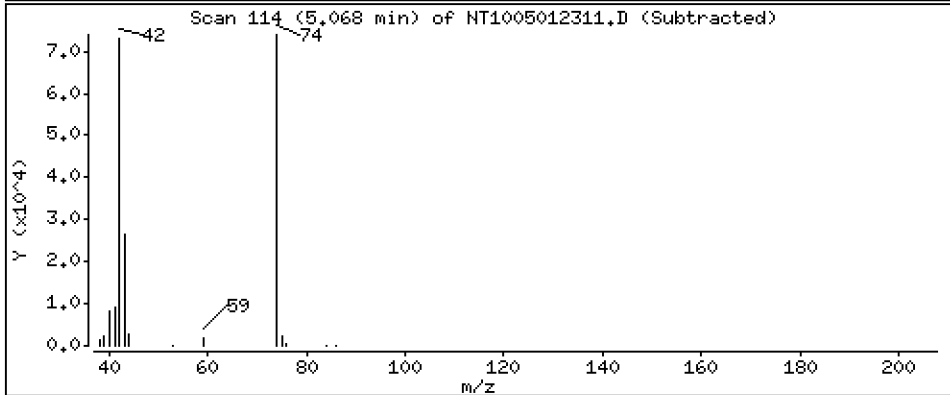
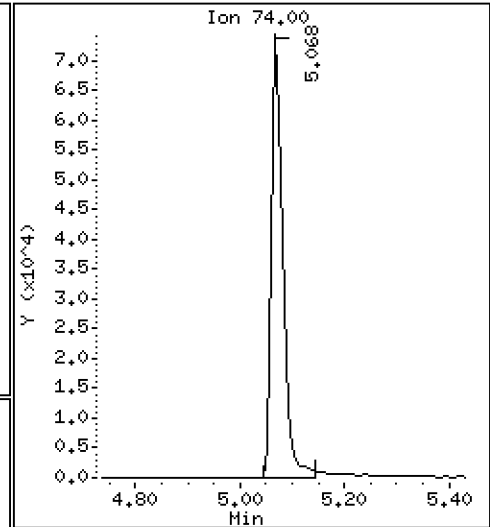
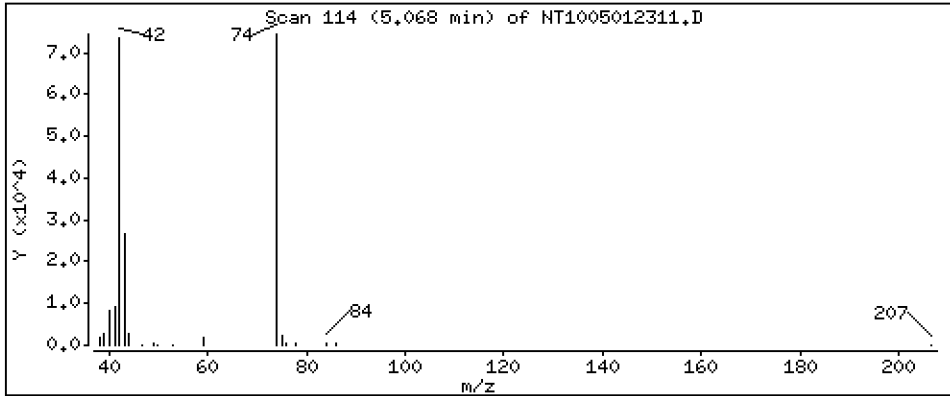
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,190 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

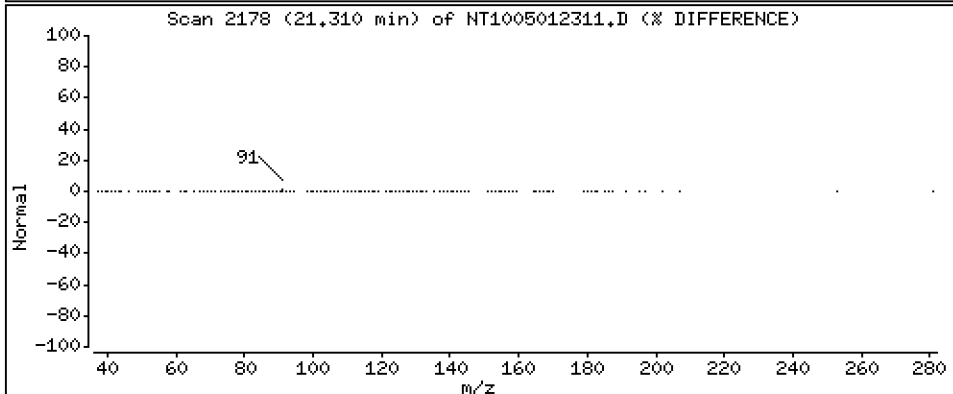
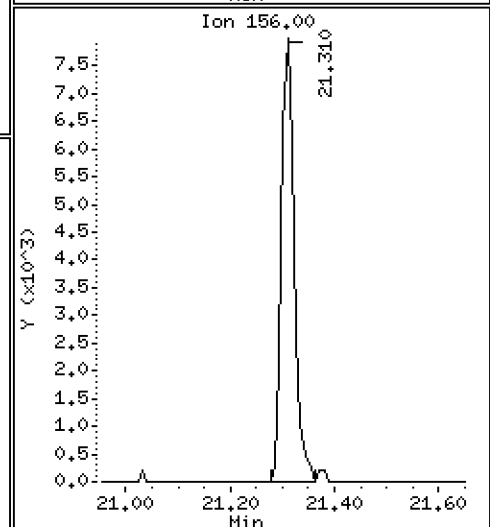
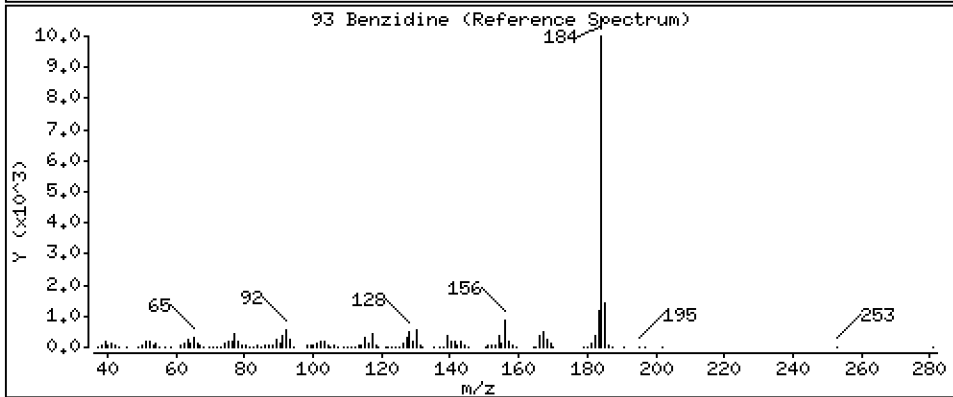
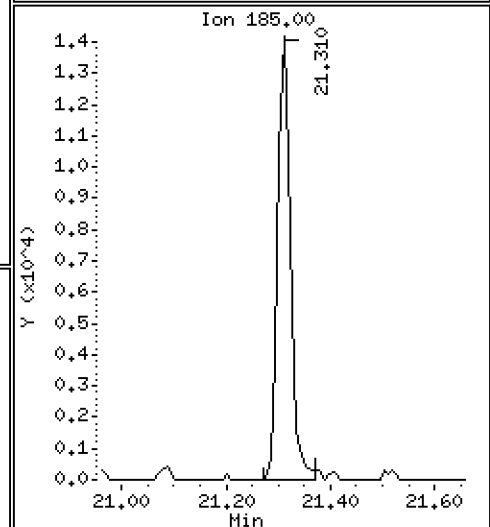
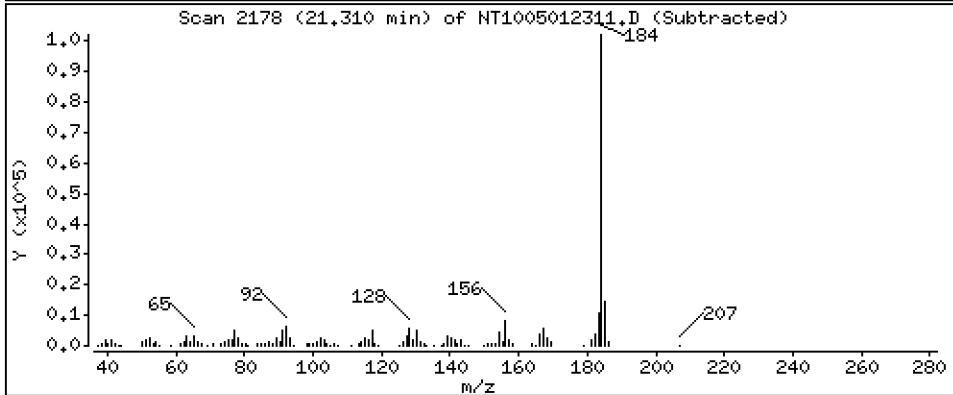
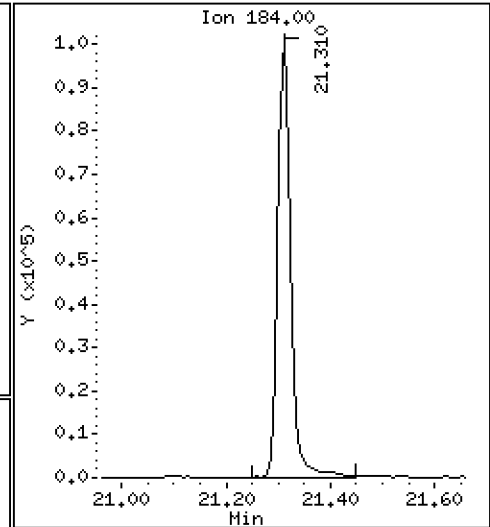
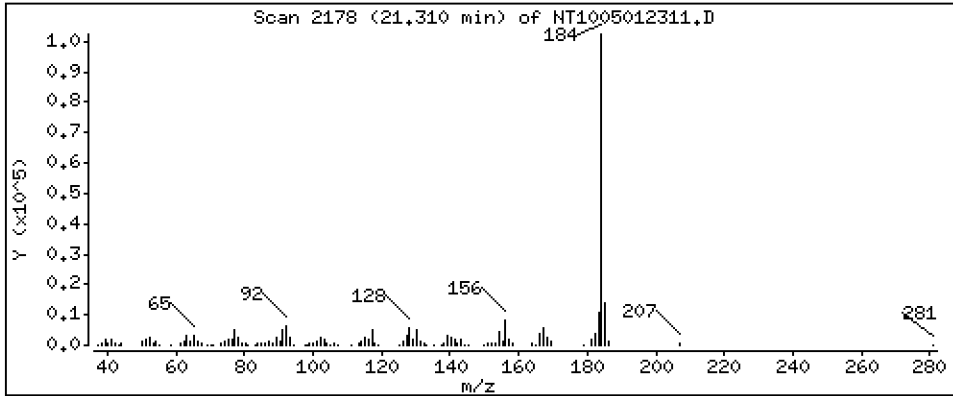
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 2,801 ug/mL

93 Benzidine



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

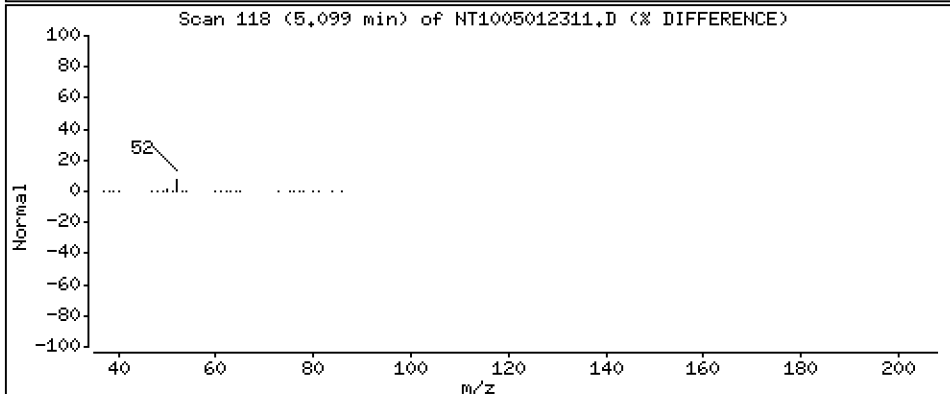
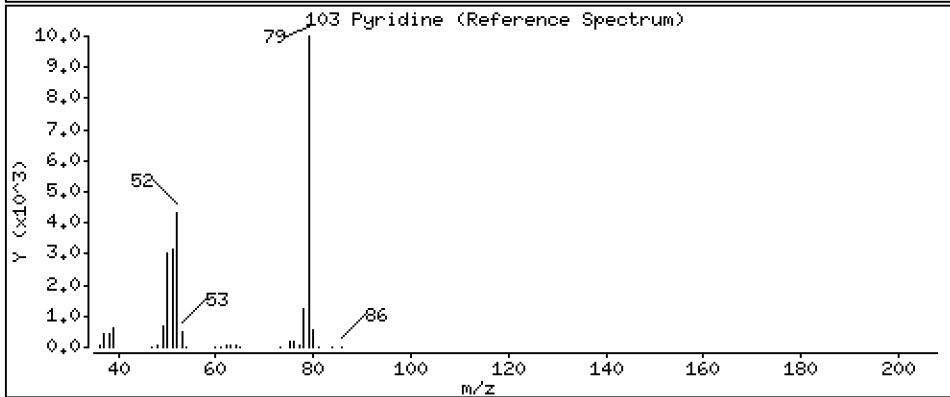
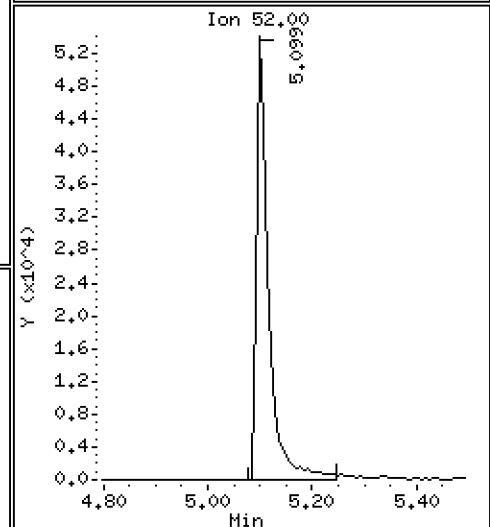
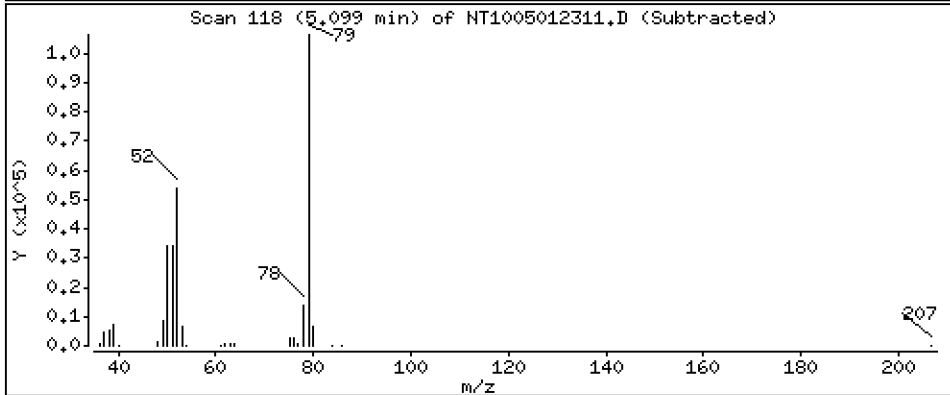
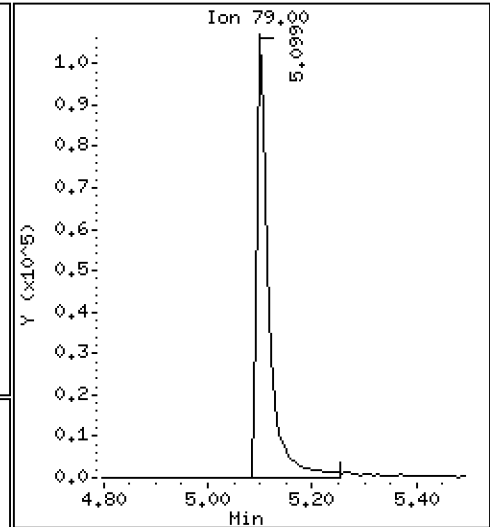
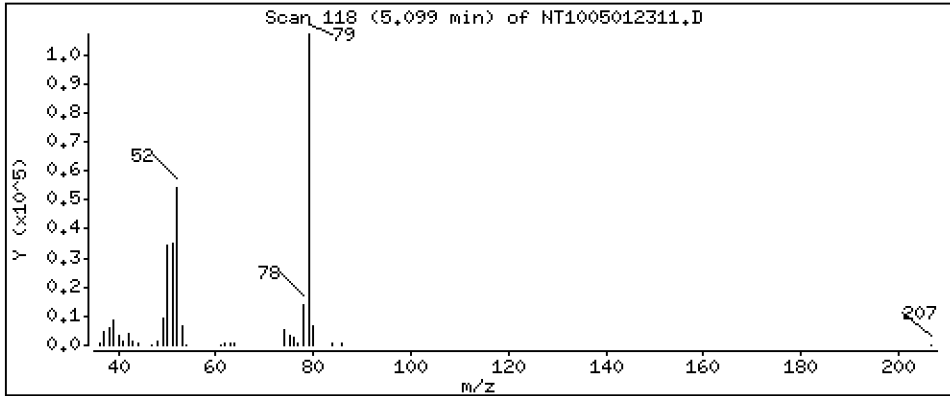
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

103 Pyridine

Concentration: 5.329 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

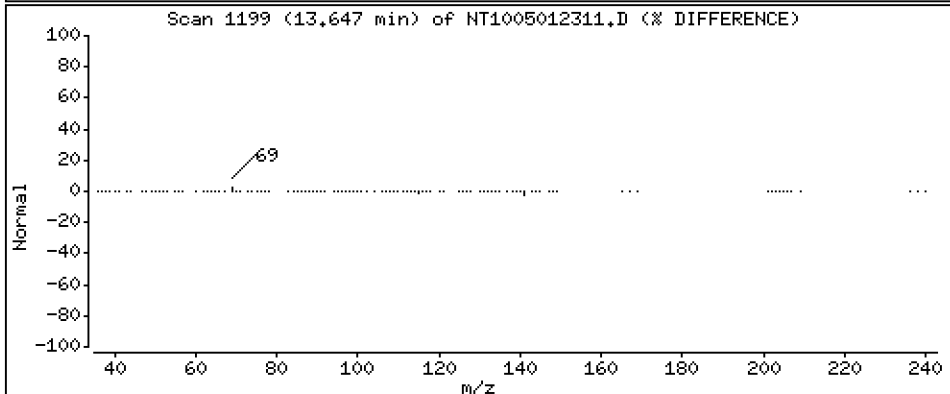
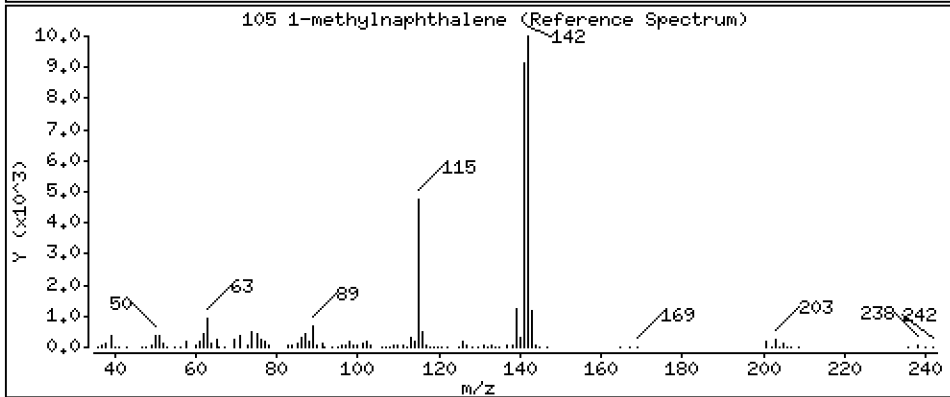
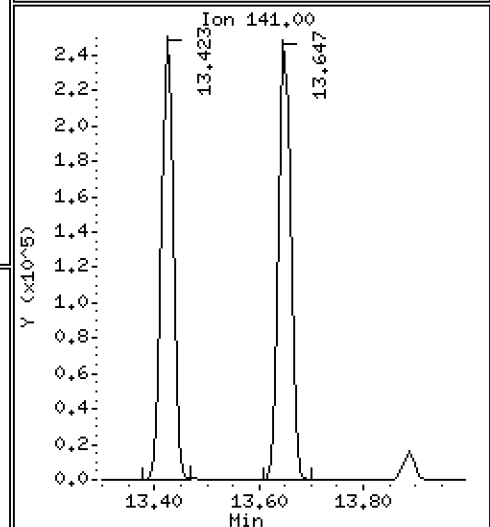
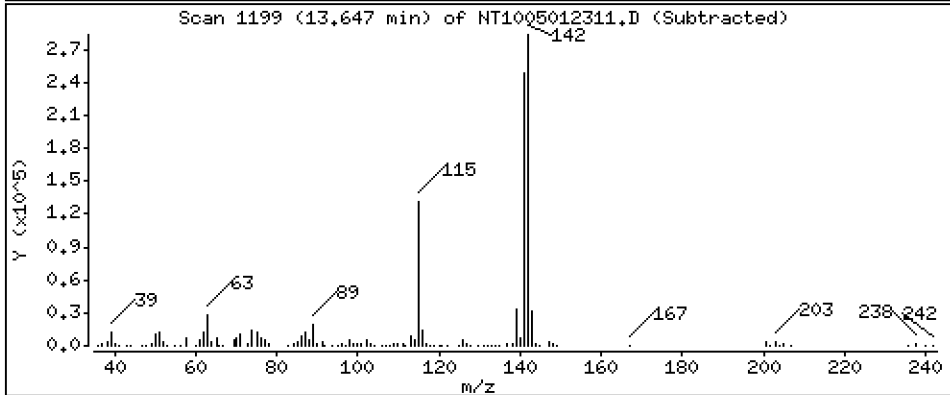
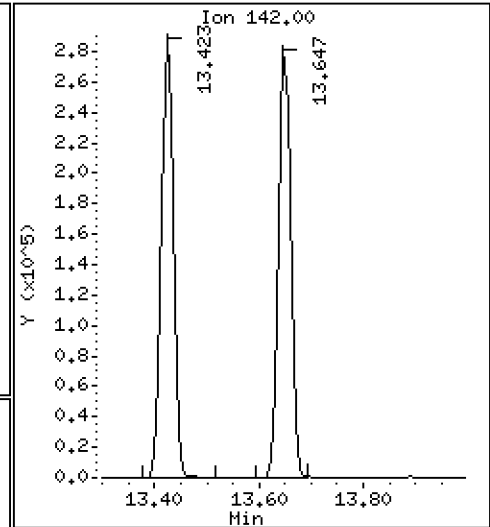
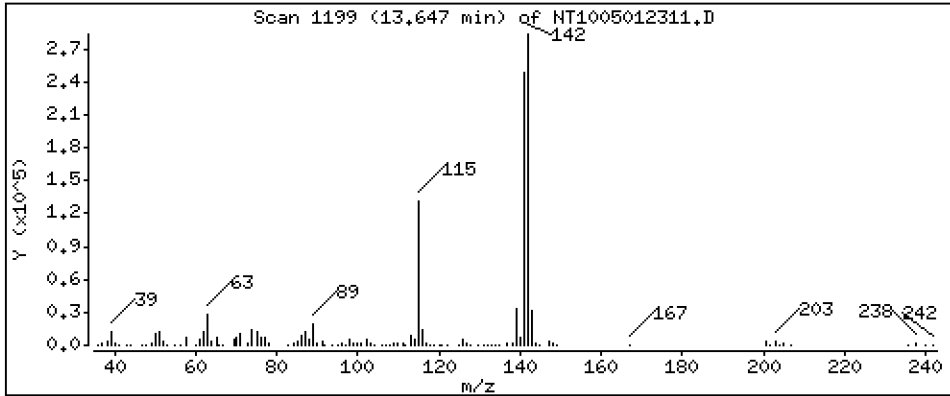
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,835 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

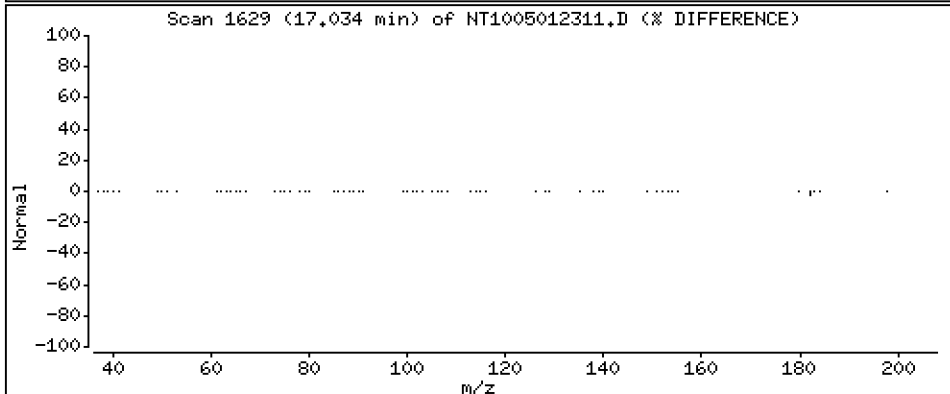
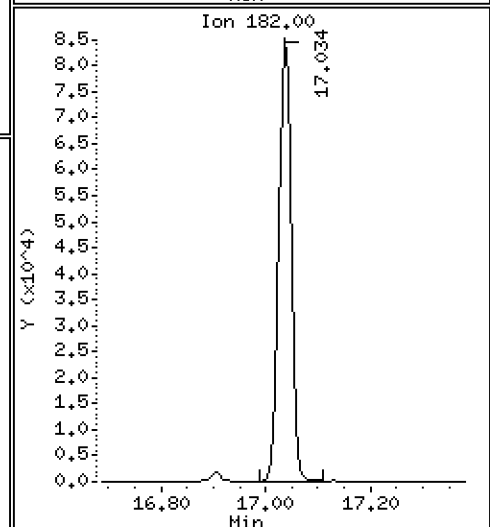
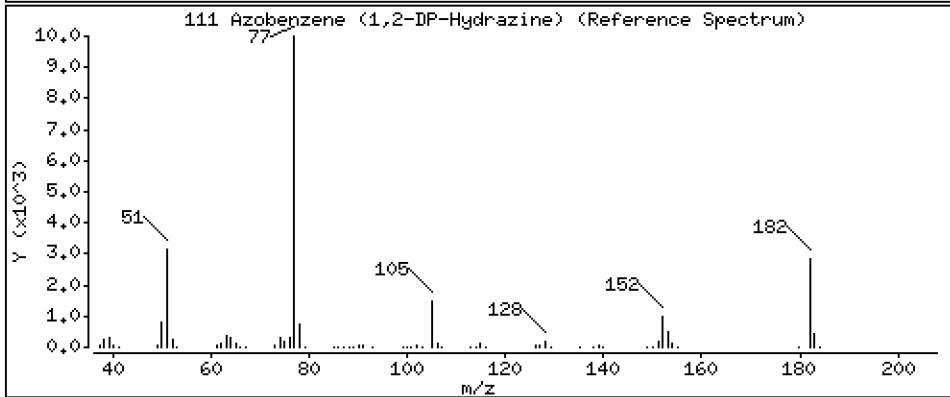
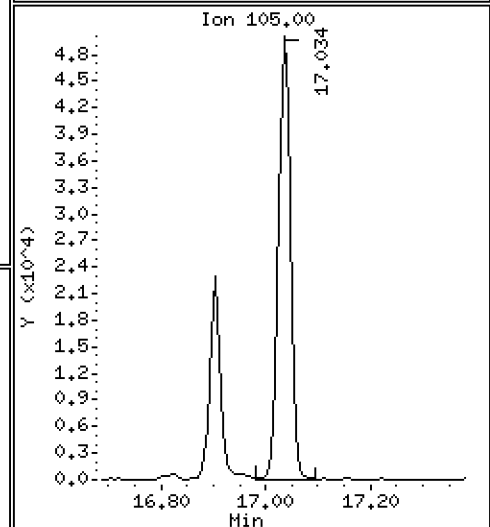
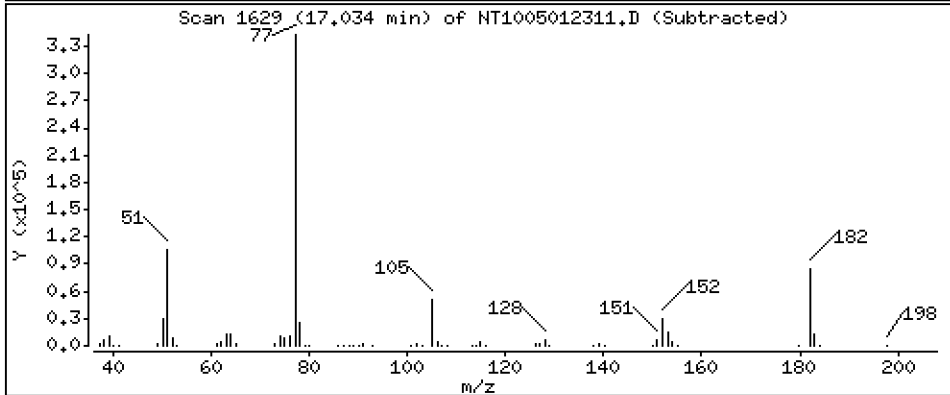
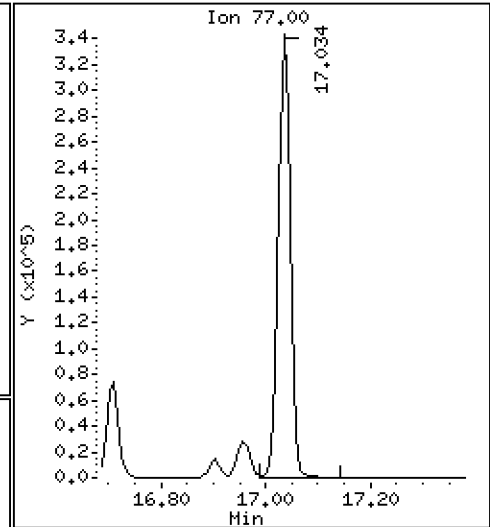
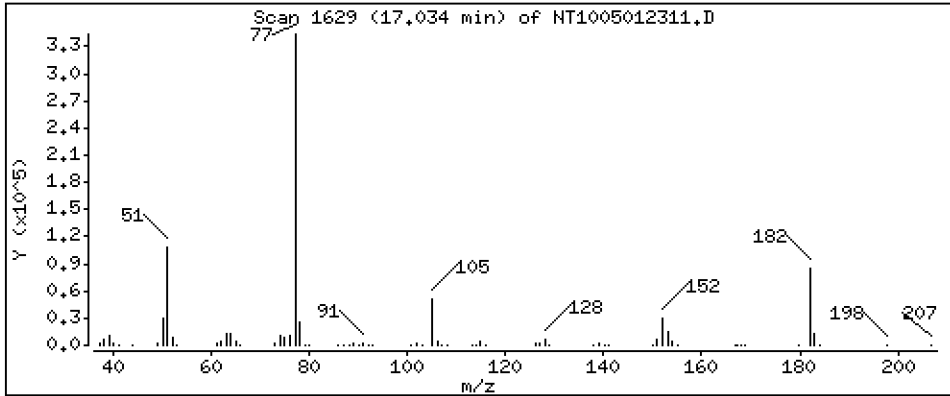
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 5,141 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

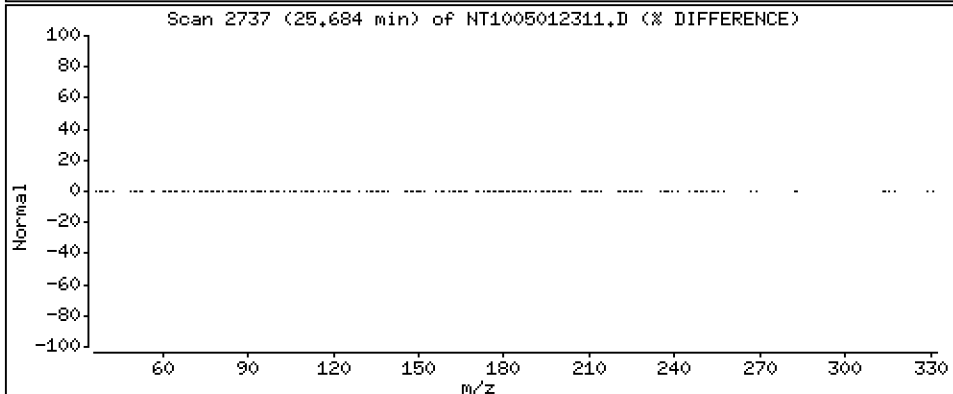
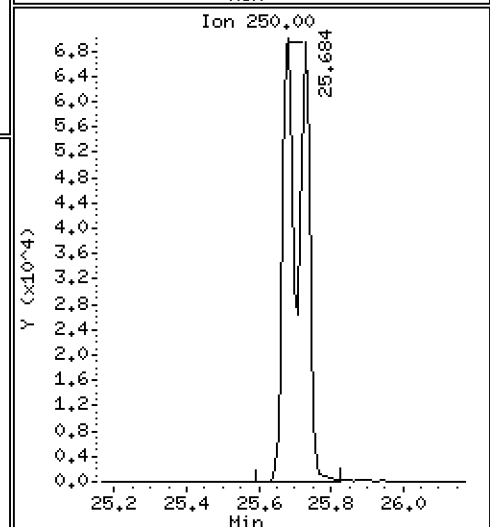
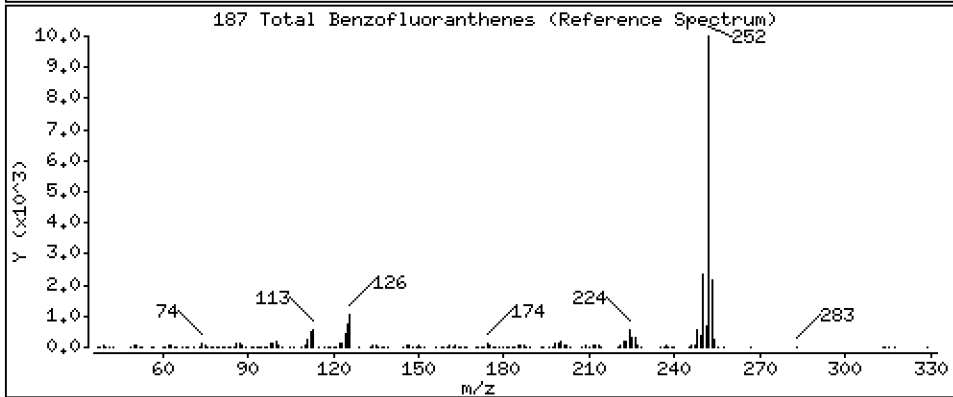
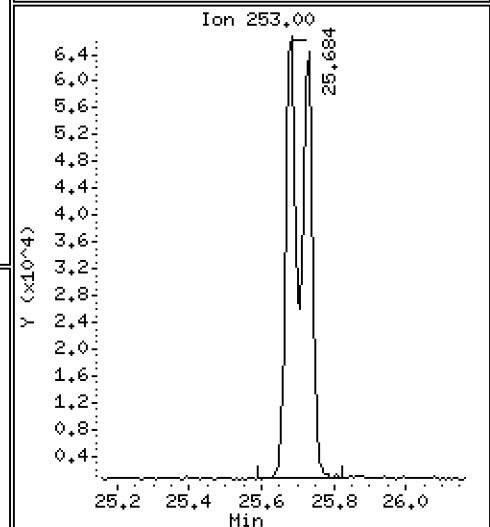
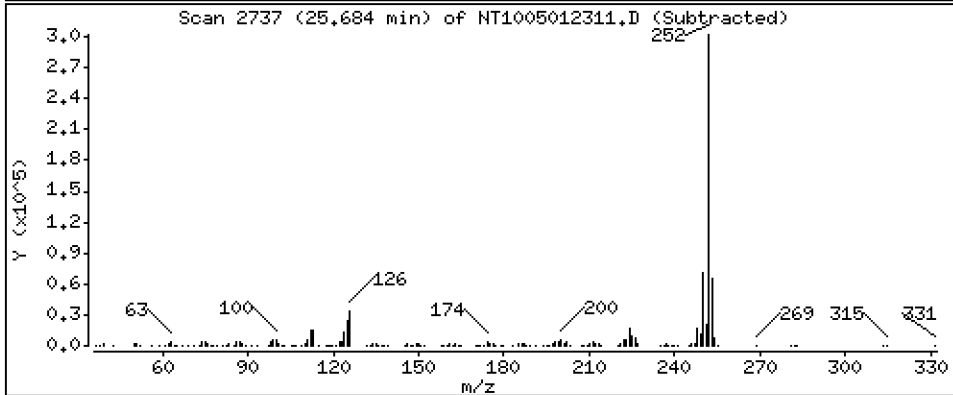
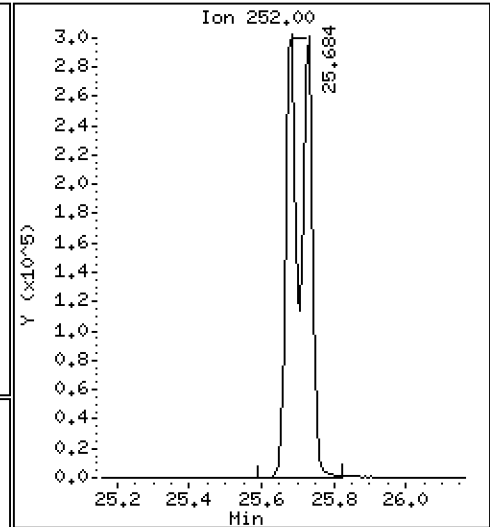
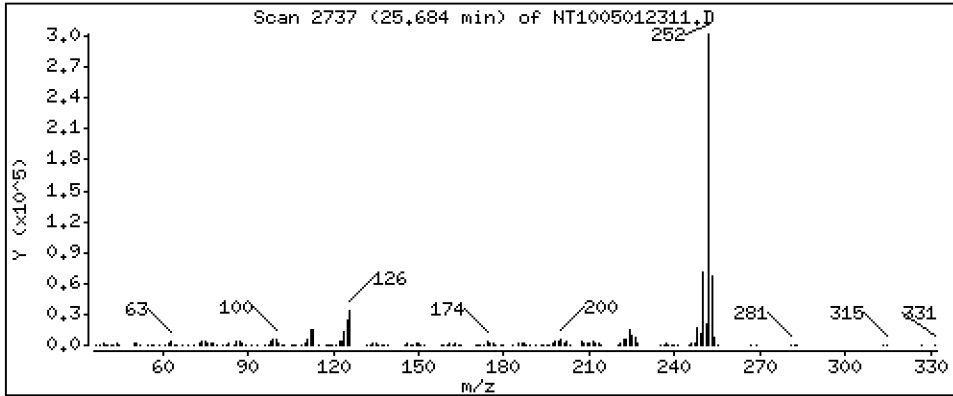
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 9,184 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

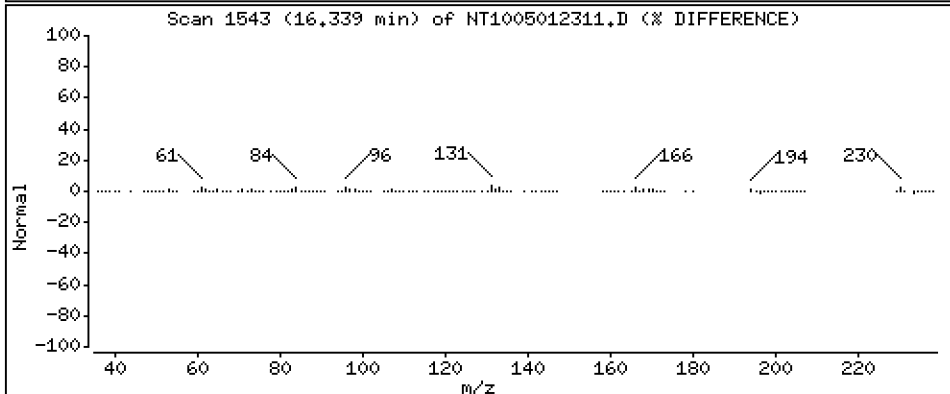
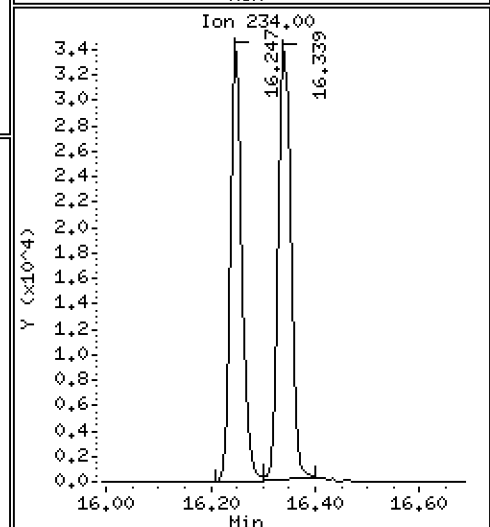
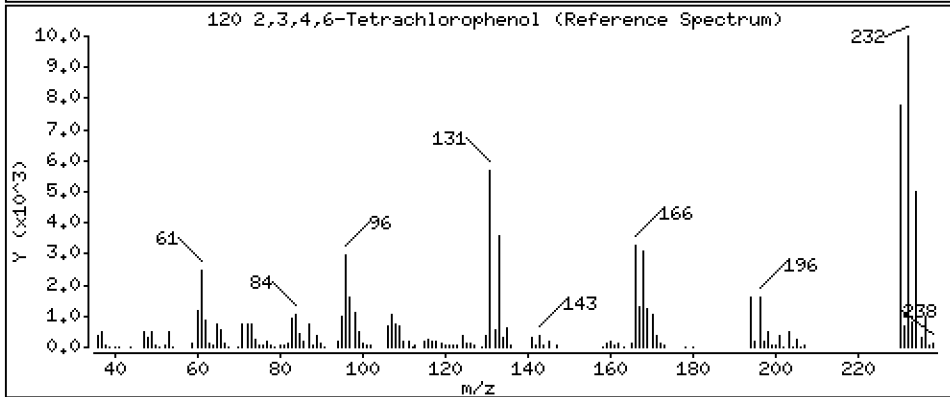
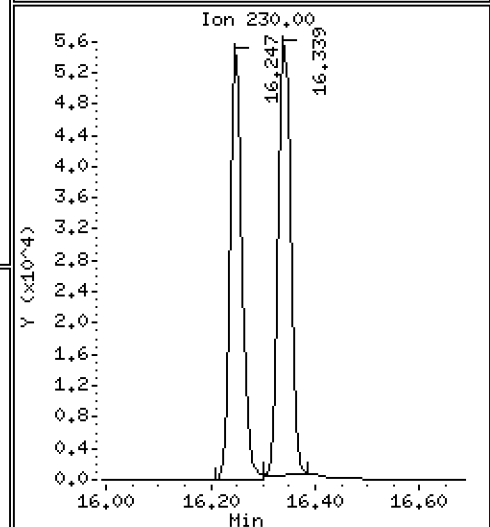
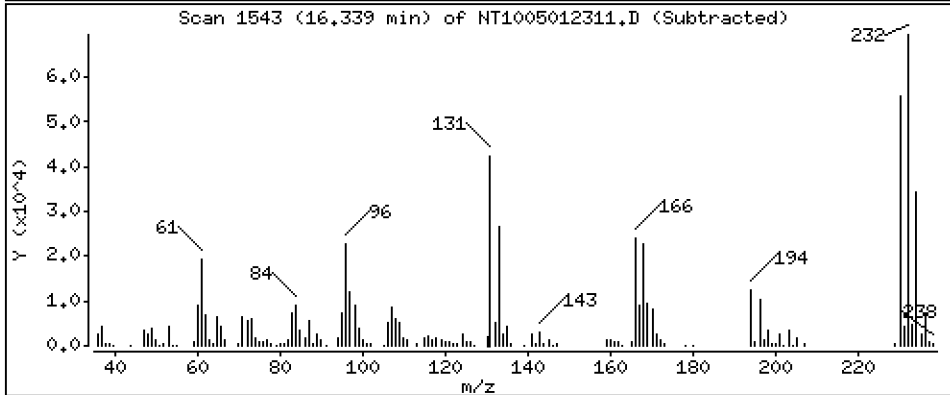
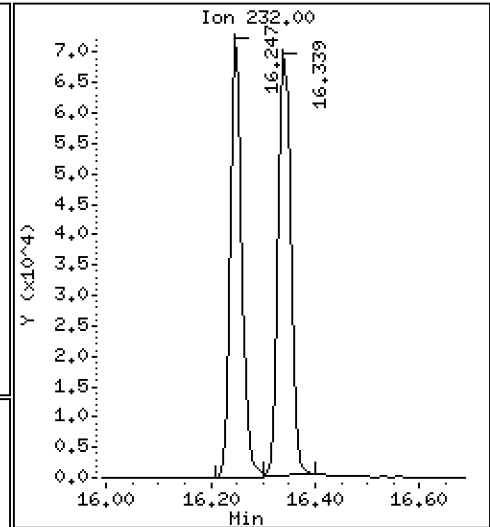
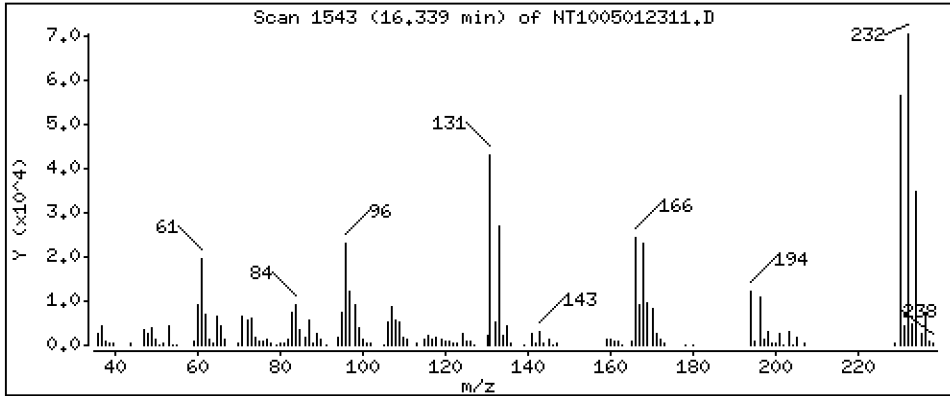
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,253 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012311.D
 Lab Smp Id: SLE0036-SCV1
 Inj Date : 01-MAY-2023 20:43
 Operator : VTS
 Smp Info : SLE0036-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		Compound Not Detected.					
\$ 2 Phenol-d5	99		Compound Not Detected.					
3 Phenol	94		8.837	8.837	(1.000)	225316	4.48333	4.483
\$ 5 2-Chlorophenol-d4	132		Compound Not Detected.					
4 Bis(2-Chloroethyl)ether	93		9.023	9.023	(1.000)	200069	5.50170	5.502
6 2-Chlorophenol	128		9.146	9.146	(1.000)	197459	4.45581	4.456
7 1,3-Dichlorobenzene	146		9.425	9.425	(1.000)	246622	4.93946	4.939
* 8 1,4-Dichlorobenzene-d4	152		9.487	9.487	(1.000)	128837	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.518	9.518	(1.000)	269341	5.49159	5.492
\$ 10 1,2-Dichlorobenzene-d4	152		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		9.875	9.875	(1.000)	235118	4.93763	4.938
11 Benzyl alcohol	108		9.751	9.750	(1.000)	122452	5.06918	5.069
14 2,2'-oxybis(1-Chloropropane)	121		10.053	10.046	(1.000)	77053	5.60278	5.603
13 2-Methylphenol	108		9.960	9.960	(1.000)	156011	4.23248	4.232
17 Hexachloroethane	117		10.473	10.472	(1.000)	111876	5.27548	5.275
16 N-Nitroso-di-n-propylamine	70		10.310	10.309	(1.000)	157237	5.38567	5.386
15 4-Methylphenol	108		10.232	10.232	(1.000)	196502	4.44066	4.441
\$ 18 Nitrobenzene-d5	82		Compound Not Detected.					
19 Nitrobenzene	77		10.628	10.628	(0.886)	251823	4.97032	4.970
20 Isophorone	82		11.070	11.062	(0.923)	475152	7.87757	7.878
21 2-Nitrophenol	139		11.257	11.249	(0.939)	104749	3.89627	3.896
22 2,4-Dimethylphenol	107		11.283	11.283	(0.941)	169403	3.42401	3.424
23 Bis(2-Chloroethoxy)methane	93		11.486	11.486	(0.958)	221150	5.73564	5.736
24 Benzoic acid	105		11.427	11.359	(0.953)	253834	7.38578	7.386
25 2,4-Dichlorophenol	162		11.699	11.698	(0.976)	174106	4.47956	4.480
26 1,2,4-Trichlorobenzene	180		11.898	11.898	(0.992)	243710	4.37789	4.378
* 27 Naphthalene-d8	136		11.991	11.983	(1.000)	469135	4.00000	
28 Naphthalene	128		12.030	12.022	(1.003)	620670	4.74201	4.742
29 4-Chloroaniline	127		12.145	12.145	(1.013)	190542	3.95611	3.956
30 Hexachlorobutadiene	225		12.385	12.377	(1.033)	142010	4.62571	4.626
31 4-Chloro-3-methylphenol	107		13.089	13.089	(1.092)	188904	4.45976	4.460
32 2-Methylnaphthalene	142		13.422	13.422	(1.119)	441670	4.51323	4.513
33 Hexachlorocyclopentadiene	237		13.886	13.886	(0.889)	151577	4.67268	4.673
34 2,4,6-Trichlorophenol	196		14.041	14.041	(0.899)	134602	4.21230	4.212

Compounds	QUANT		SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
35 2,4,5-Trichlorophenol	196	14.111	14.111	(0.903)	140409	4.02943	4.029	
\$ 36 2-Fluorobiphenyl	172	14.204	14.203	(0.909)	2537	0.02246	0.02246	
37 2-Chloronaphthalene	162	14.428	14.420	(0.924)	429636	4.83017	4.830	
38 2-Nitroaniline	65	14.676	14.676	(0.940)	129919	5.02932	5.029	
39 Dimethylphthalate	163	15.101	15.101	(0.967)	490864	4.90763	4.908	
40 Acenaphthylene	152	15.303	15.303	(0.980)	663079	4.77574	4.776	
41 2,6-Dinitrotoluene	165	15.249	15.248	(0.976)	110074	4.87568	4.876	
* 42 Acenaphthene-d10	164	15.620	15.612	(1.000)	260867	4.00000		
43 3-Nitroaniline	138	15.535	15.527	(0.995)	106140	4.77608	4.776	
44 Acenaphthene	153	15.682	15.682	(1.004)	416452	4.71606	4.716	
45 2,4-Dinitrophenol	184	15.744	15.743	(1.008)	41326	2.37611	2.376	
46 Dibenzofuran	168	16.006	16.006	(1.025)	598046	4.64493	4.645	
47 4-Nitrophenol	109	15.829	15.828	(1.013)	82973	3.99163	3.992	
48 2,4-Dinitrotoluene	165	16.061	16.060	(1.028)	141639	4.38106	4.381	
50 Diethylphthalate	149	16.563	16.555	(1.060)	524953	5.05491	5.055	
49 Fluorene	166	16.733	16.725	(1.071)	484223	4.55893	4.559	
51 4-Chlorophenyl-phenylether	204	16.710	16.702	(1.070)	253695	4.79663	4.797	
52 4-Nitroaniline	138	16.810	16.810	(1.076)	93244	4.29306	4.293	
53 4,6-Dinitro-2-methylphenol	198	16.903	16.902	(0.905)	70705	3.75964	3.760	
54 N-Nitrosodiphenylamine	169	16.957	16.956	(0.908)	324810	5.12520	5.125	
\$ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	177	0.01417	0.01417	
56 4-Bromophenyl-phenylether	248	17.720	17.712	(0.949)	147865	4.94237	4.942	
57 Hexachlorobenzene	284	18.044	18.044	(0.966)	140819	4.68942	4.689	
58 Pentachlorophenol	266	18.401	18.393	(0.985)	80436	3.86584	3.866	
* 59 Phenanthrene-d10	188	18.671	18.671	(1.000)	479585	4.00000		
60 Phenanthrene	178	18.718	18.718	(1.002)	645346	4.58600	4.586	
61 Anthracene	178	18.818	18.811	(1.008)	542159	4.16924	4.169	
62 Carbazole	167	19.136	19.136	(1.025)	518357	4.50323	4.503	
63 Di-n-butylphthalate	149	19.902	19.901	(1.066)	862725	4.89550	4.895	
64 Fluoranthene	202	21.085	21.085	(0.890)	774676	4.73795	4.738	
65 Pyrene	202	21.511	21.503	(0.908)	757130	4.63549	4.635	
\$ 66 Terphenyl-d14	244	21.782	21.774	(0.919)	2912	0.02254	0.02254	
67 Butylbenzylphthalate	149	22.695	22.687	(0.958)	349577	4.77781	4.778	
68 Benzo(a)anthracene	228	23.663	23.655	(0.999)	683788	4.71653	4.717	
* 69 Chrysene-d12	240	23.694	23.686	(1.000)	366214	4.00000		
70 3,3'-Dichlorobenzidine	252	23.617	23.601	(0.997)	467557	10.2140	10.21	
71 Chrysene	228	23.741	23.733	(1.002)	589116	4.54006	4.540	
72 bis(2-Ethylhexyl)phthalate	149	23.710	23.702	(0.958)	493652	5.40606	5.406	
* 134 Di-n-octylphthalate-d4	153	24.739	24.724	(1.000)	633915	4.00000		
73 Di-n-octylphthalate	149	24.747	24.739	(1.000)	863084	5.16068	5.161	
74 Benzo(b)fluoranthene	252	25.684	25.660	(0.968)	641646	4.78532	4.785	
75 Benzo(k)fluoranthene	252	25.730	25.715	(0.970)	593022	4.45695	4.457	
76 Benzo(a)pyrene	252	26.404	26.388	(0.995)	537284	4.78725	4.787	
* 77 Perylene-d12	264	26.536	26.520	(1.000)	326407	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.514	29.483	(1.112)	630589	4.67700	4.677	
79 Dibenzo(a,h)anthracene	278	29.522	29.491	(1.113)	524960	4.64906	4.649	
80 Benzo(g,h,i)perylene	276	30.392	30.353	(1.145)	500646	4.65862	4.659	
90 N-Nitrosodimethylamine	74	5.067	5.083	(1.000)	109300	5.19047	5.190	
91 Aniline	93	Compound Not Detected.						
93 Benzidine	184	21.310	21.310	(0.899)	165444	2.80075	2.801	
103 Pyridine	79	5.098	5.144	(1.000)	176959	5.32922	5.329	
105 1-methylnaphthalene	142	13.646	13.646	(1.138)	433828	4.83538	4.835	
111 Azobenzene (1,2-DP-Hydrazine)	77	17.034	17.034	(1.091)	521542	5.14057	5.141	
187 Total Benzofluoranthenes	252	25.684	25.660	(0.968)	1185382	9.18410	9.184	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	
120 2,3,4,6-Tetrachlorophenol	232	16.339	16.339	(1.046)	111498	3.25312	3.253

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012311.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	128837	-10.72
27 Naphthalene-d8	493698	246849	987396	469135	-4.98
42 Acenaphthene-d10	279210	139605	558420	260867	-6.57
59 Phenanthrene-d10	521463	260732	1042926	479585	-8.03
69 Chrysene-d12	369911	184956	739822	366214	-1.00
134 Di-n-octylphthala	626668	313334	1253336	633915	1.16
77 Perylene-d12	311339	155670	622678	326407	4.84

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
134 Di-n-octylphthala	24.75	24.25	25.25	24.74	-0.03
77 Perylene-d12	26.55	26.05	27.05	26.54	-0.06

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

REVIEW SUMMARY FOR FILE - NT1005012311.D

Lab ID: SLE0036-SCV1
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 20:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.059	-0.0589	2,2'-oxybis(1-Chloropropane)
0.953	0.948	0.0050	Benzoic acid

RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

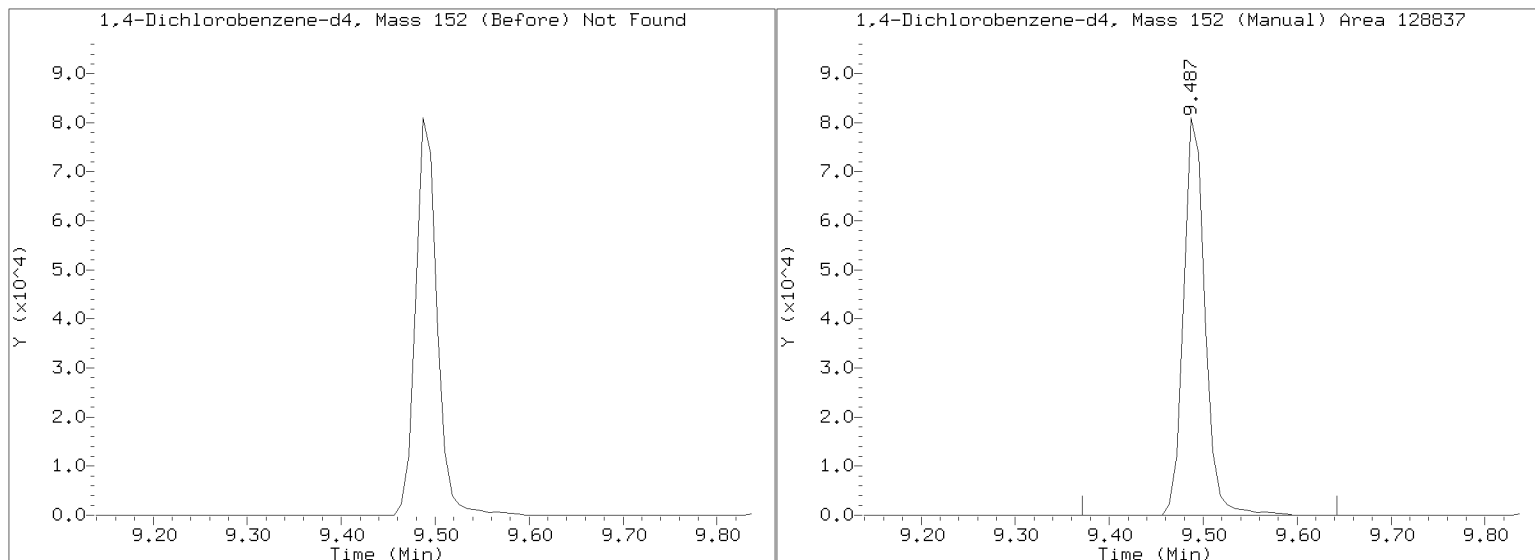
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012311.D

Injection Date: 01-MAY-2023 20:43

Lab ID: SLE0036-SCV1 Client ID:

Report Date: 05/08/2023 09:58



APPROVED

By Deenay Dunmore at 10:02 am, May 08, 2023

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012312.D

Date: 01-May-2023 21:22

Client ID:

Sample Info: SLE0036-ICB1

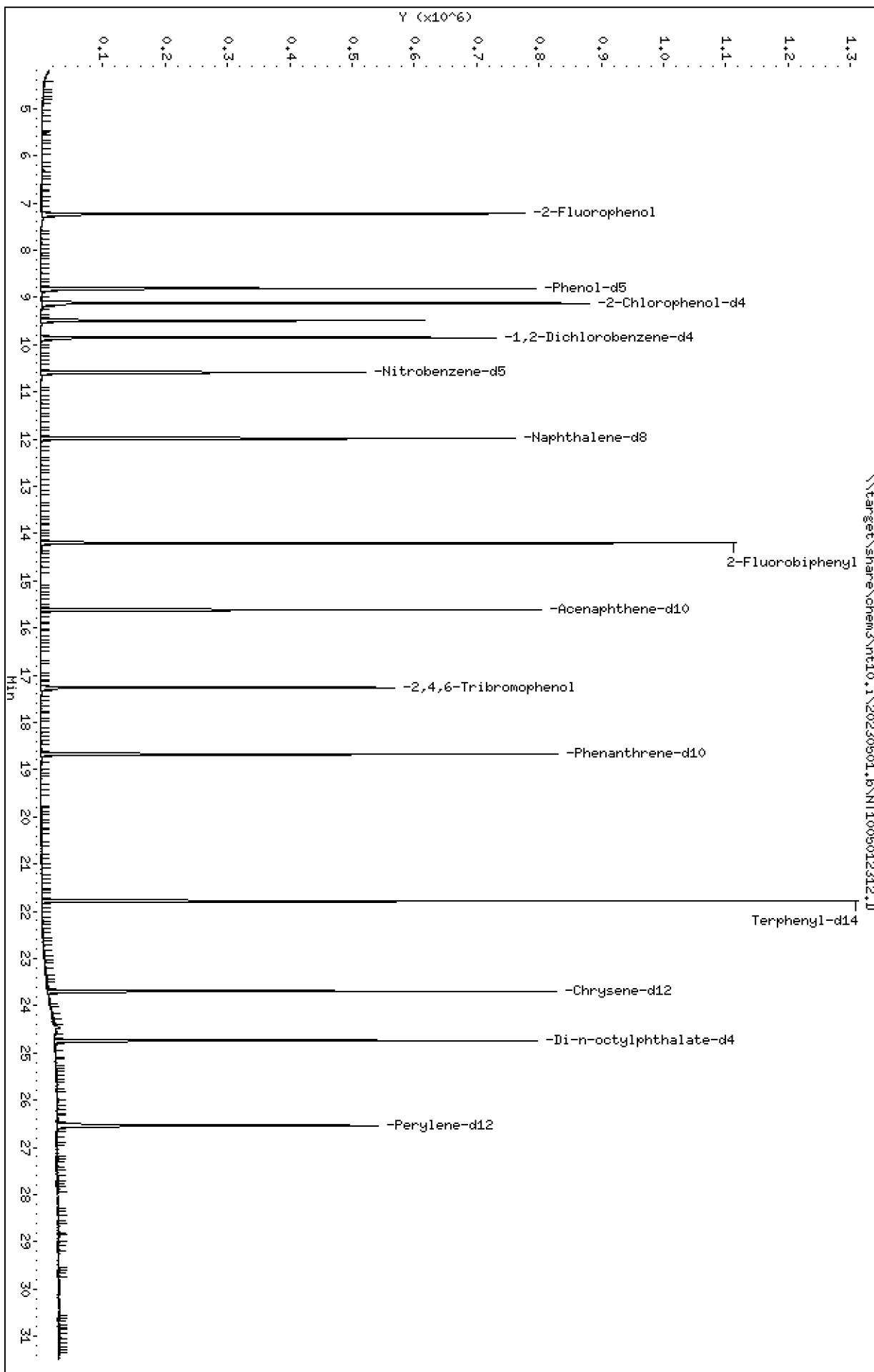
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012312.D
 Lab Smp Id: SLE0036-ICB1
 Inj Date : 01-MAY-2023 21:22
 Operator : VTS
 Smp Info : SLE0036-ICB1
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 03-May-2023 14:26 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.230	7.230	(1.000)	308314	6.79476	6.795
\$ 2 Phenol-d5	99		8.814	8.814	(1.000)	373291	6.82363	6.824
3 Phenol	94		Compound Not Detected.					
\$ 5 2-Chlorophenol-d4	132		9.123	9.123	(1.000)	349140	6.65965	6.660
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.487	9.487	(1.000)	149952	4.00000	(M)
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.851	9.851	(1.000)	173145	4.47678	4.477
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
\$ 18 Nitrobenzene-d5	82		10.589	10.589	(0.884)	271090	4.41955	4.420
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.983	11.983	(1.000)	548897	4.00000	
28 Naphthalene	128		Compound Not Detected.					
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		Compound Not Detected.					
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					
34 2,4,6-Trichlorophenol	196		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====
35 2,4,5-Trichlorophenol	196							
\$ 36 2-Fluorobiphenyl	172		14.203	14.203	(0.909)	542585	4.27358	4.274
37 2-Chloronaphthalene	162							
38 2-Nitroaniline	65							
39 Dimethylphthalate	163							
40 Acenaphthylene	152							
41 2,6-Dinitrotoluene	165							
* 42 Acenaphthene-d10	164		15.620	15.612	(1.000)	293264	4.00000	
43 3-Nitroaniline	138							
44 Acenaphthene	153							
45 2,4-Dinitrophenol	184							
46 Dibenzofuran	168							
47 4-Nitrophenol	109							
48 2,4-Dinitrotoluene	165							
50 Diethylphthalate	149							
49 Fluorene	166							
51 4-Chlorophenyl-phenylether	204							
52 4-Nitroaniline	138							
53 4,6-Dinitro-2-methylphenol	198							
54 N-Nitrosodiphenylamine	169							
\$ 55 2,4,6-Tribromophenol	330		17.265	17.265	(1.105)	76547	5.29127	5.291
56 4-Bromophenyl-phenylether	248							
57 Hexachlorobenzene	284							
58 Pentachlorophenol	266							
* 59 Phenanthrene-d10	188		18.671	18.671	(1.000)	524738	4.00000	
60 Phenanthrene	178							
61 Anthracene	178							
62 Carbazole	167							
63 Di-n-butylphthalate	149							
64 Fluoranthene	202							
65 Pyrene	202							
\$ 66 Terphenyl-d14	244		21.782	21.774	(0.919)	619196	4.33254	4.333
67 Butylbenzylphthalate	149							
68 Benzo(a)anthracene	228							
* 69 Chrysene-d12	240		23.694	23.686	(1.000)	405166	4.00000	
70 3,3'-Dichlorobenzidine	252							
71 Chrysene	228							
72 bis(2-Ethylhexyl)phthalate	149							
* 134 Di-n-octylphthalate-d4	153		24.739	24.724	(1.000)	599674	4.00000	
73 Di-n-octylphthalate	149							
74 Benzo(b)fluoranthene	252							
75 Benzo(k)fluoranthene	252							
76 Benzo(a)pyrene	252							
* 77 Perylene-d12	264		26.535	26.520	(1.000)	379142	4.00000	
78 Indeno(1,2,3-cd)pyrene	276							
79 Dibenzo(a,h)anthracene	278							
80 Benzo(g,h,i)perylene	276							
90 N-Nitrosodimethylamine	74							
91 Aniline	93							
93 Benzidine	184							
103 Pyridine	79							
105 1-methylnaphthalene	142							
111 Azobenzene (1,2-DP-Hydrazine)	77							
187 Total Benzofluoranthenes	252							

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012312.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-ICB1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	149952	3.91
27 Naphthalene-d8	493698	246849	987396	548897	11.18
42 Acenaphthene-d10	279210	139605	558420	293264	5.03
59 Phenanthrene-d10	521463	260732	1042926	524738	0.63
69 Chrysene-d12	369911	184956	739822	405166	9.53
134 Di-n-octylphthala	626668	313334	1253336	599674	-4.31
77 Perylene-d12	311339	155670	622678	379142	21.78

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.98	-0.06
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
134 Di-n-octylphthala	24.75	24.25	25.25	24.74	-0.03
77 Perylene-d12	26.55	26.05	27.05	26.54	-0.06

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

REVIEW SUMMARY FOR FILE - NT1005012312.D

Lab ID: SLE0036-ICB1
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 21:22

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

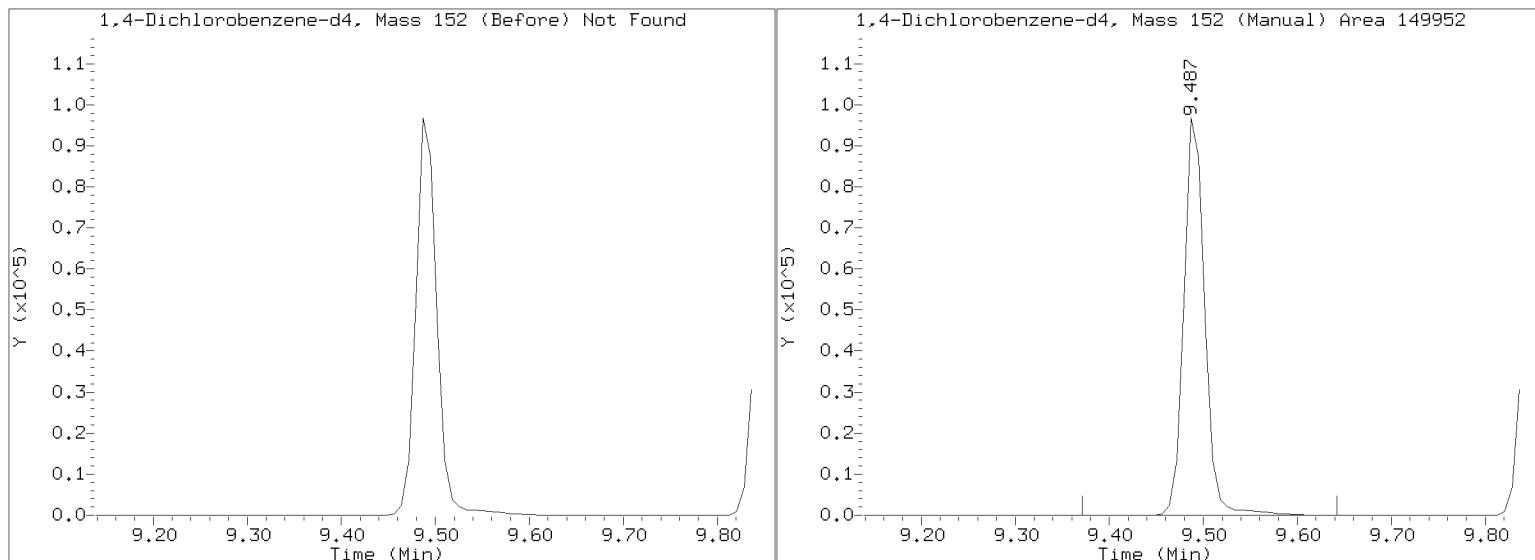
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012312.D

Injection Date: 01-MAY-2023 21:22

Lab ID: SLE0036-ICB1 Client ID:

Report Date: 05/08/2023 09:58



APPROVED

By Deenay Dunmore at 10:02 am, May 08, 2023



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00012

Laboratory ID: SLE0036-SCV1

Sequence: SLE0036

Sequence Name: SCV 5.0

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.5	-10.3	20.00
4-Methylphenol	5.0000	4.4	-11.2	20.00
Naphthalene	5.0000	4.7	-5.2	20.00
2-Methylnaphthalene	5.0000	4.5	-9.7	20.00
Acenaphthylene	5.0000	4.8	-4.5	20.00
Dimethylphthalate	5.0000	4.9	-1.8	20.00
Acenaphthene	5.0000	4.7	-5.7	20.00
Dibenzofuran	5.0000	4.6	-7.1	20.00
Fluorene	5.0000	4.6	-8.8	20.00
Phenanthrene	5.0000	4.6	-8.3	20.00
Anthracene	5.0000	4.2	-16.6	20.00
Fluoranthene	5.0000	4.7	-5.2	20.00
Pyrene	5.0000	4.6	-7.3	20.00
Butylbenzylphthalate	5.0000	4.8	-4.4	20.00
Benzo(a)anthracene	5.0000	4.7	-5.7	20.00
Chrysene	5.0000	4.5	-9.2	20.00
bis(2-Ethylhexyl)phthalate	5.0000	5.4	8.1	20.00
Benzofluoranthenes, Total	10.0000	9.2	-8.2	20.00
Benzo(a)pyrene	5.0000	4.8	-4.3	20.00
Indeno(1,2,3-cd)pyrene	5.0000	4.7	-6.5	20.00
Dibenzo(a,h)anthracene	5.0000	4.6	-7.0	20.00
Benzo(g,h,i)perylene	5.0000	4.7	-6.8	20.00
2-Fluorophenol	7.5000	0.00		20.00
Phenol-d5	7.5000	0.00		20.00
2-Chlorophenol-d4	7.5000	0.00		20.00
1,2-Dichlorobenzene-d4	5.0000	0.00		20.00
Nitrobenzene-d5	5.0000	0.00		20.00
2-Fluorobiphenyl	5.0000	0.0225	-99.6	20.00
2,4,6-Tribromophenol	7.5000	0.0142	-99.8	20.00
p-Terphenyl-d14	5.0000	0.0225	-99.5	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012311.D

Date: 01-May-2023 20:43

Client ID:

Sample Info: SLE0036-SCV1

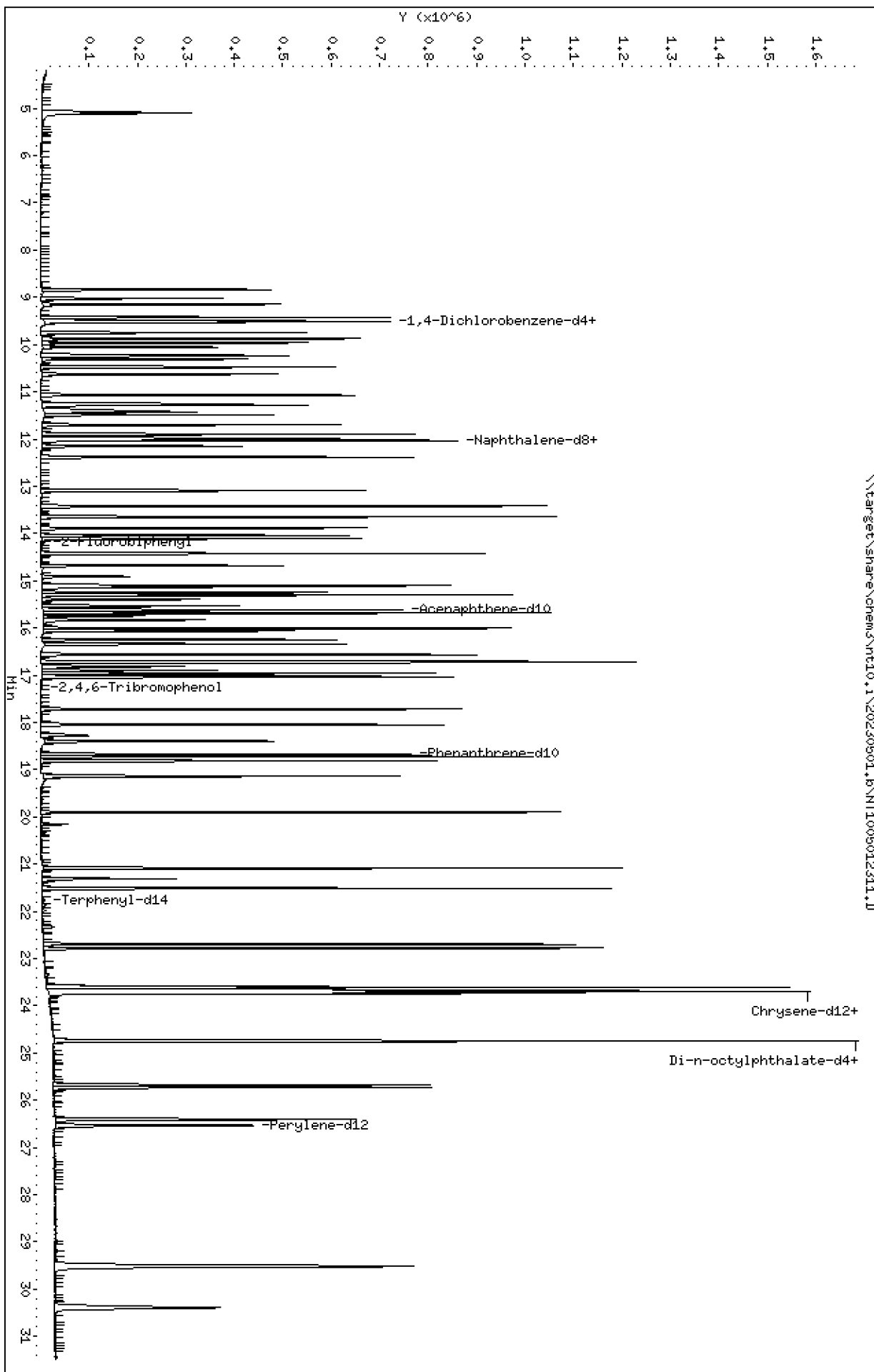
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501_b\NT1005012311.D



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

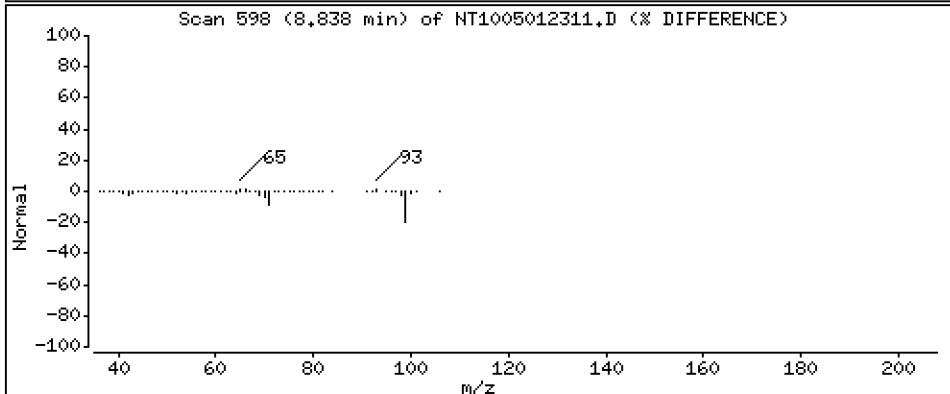
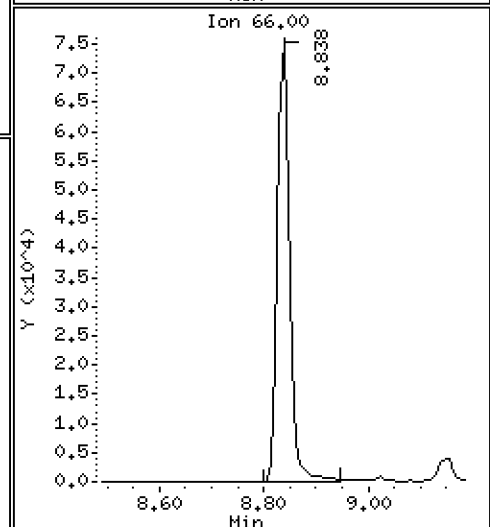
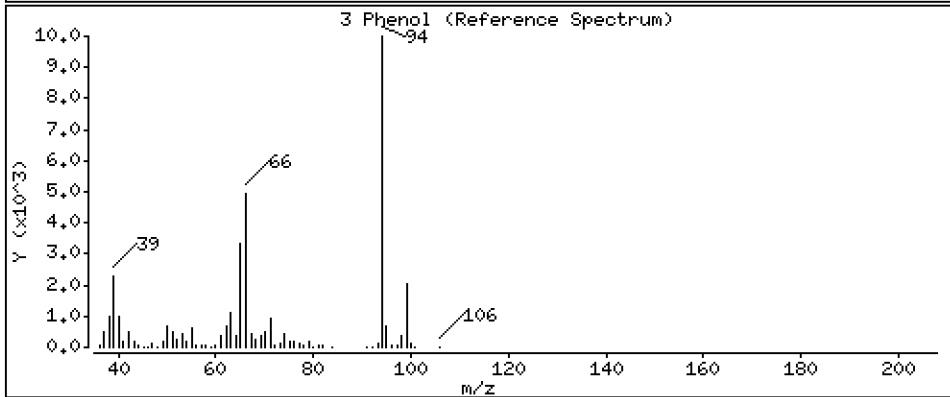
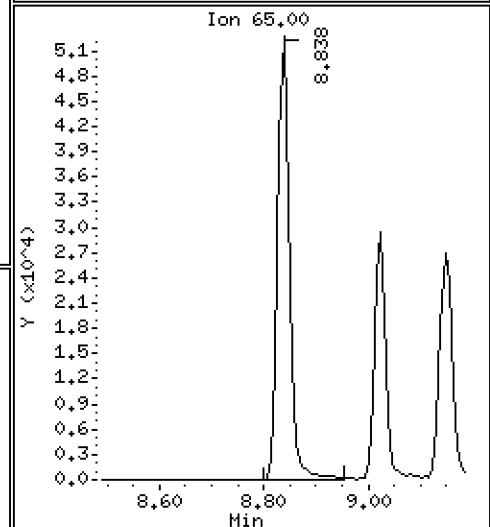
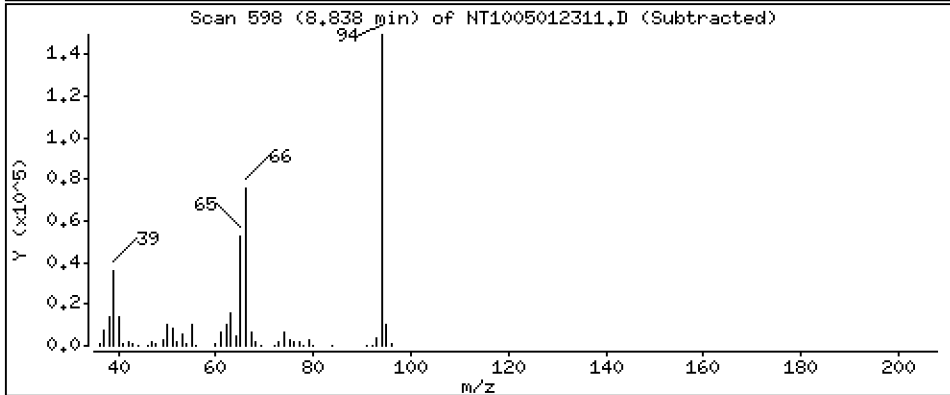
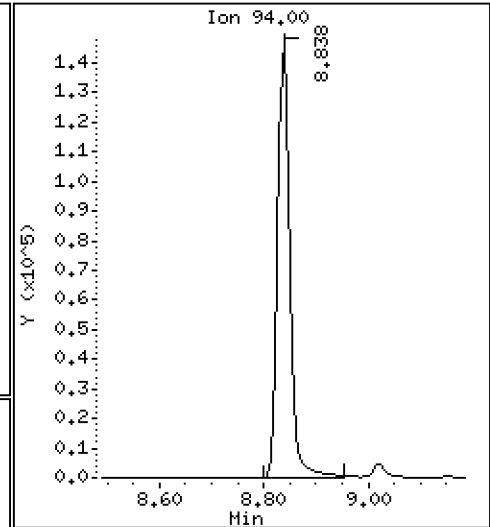
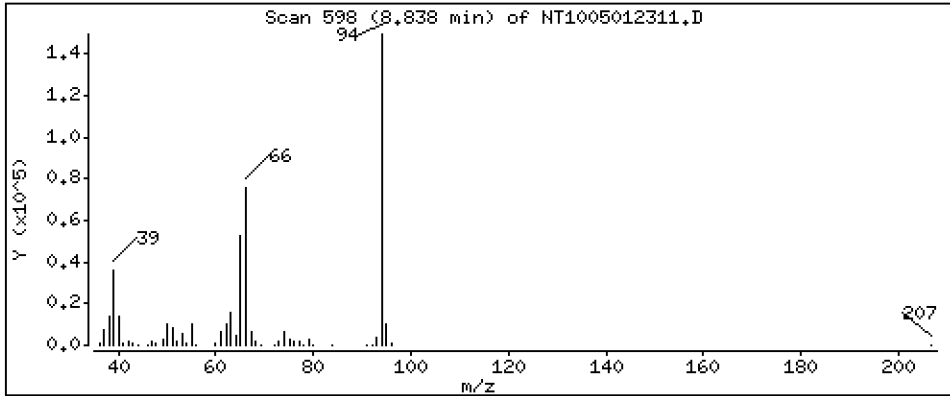
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,483 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

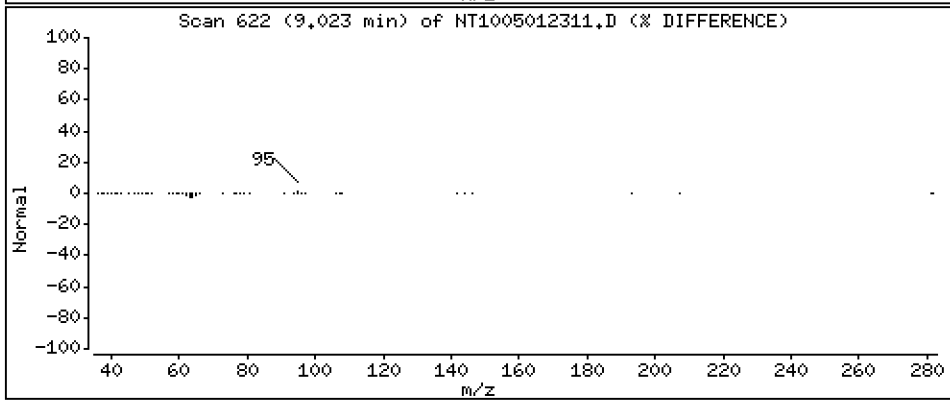
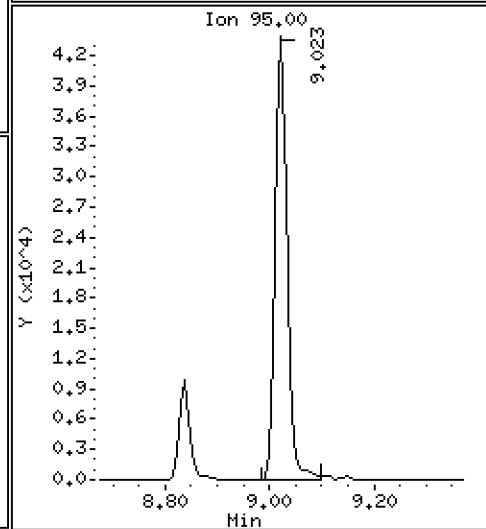
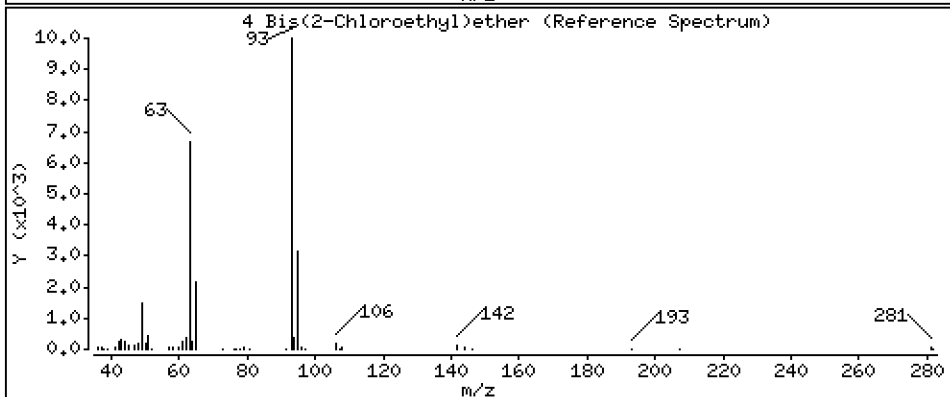
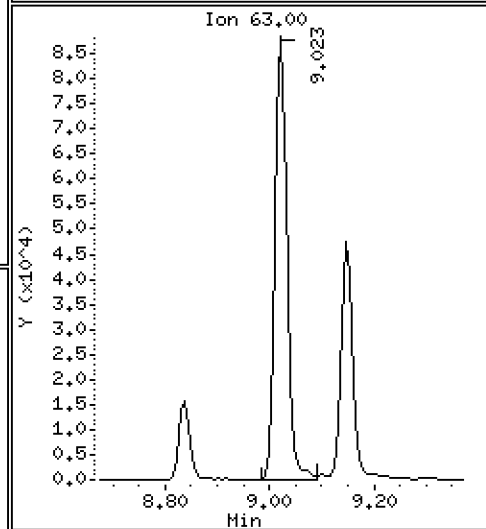
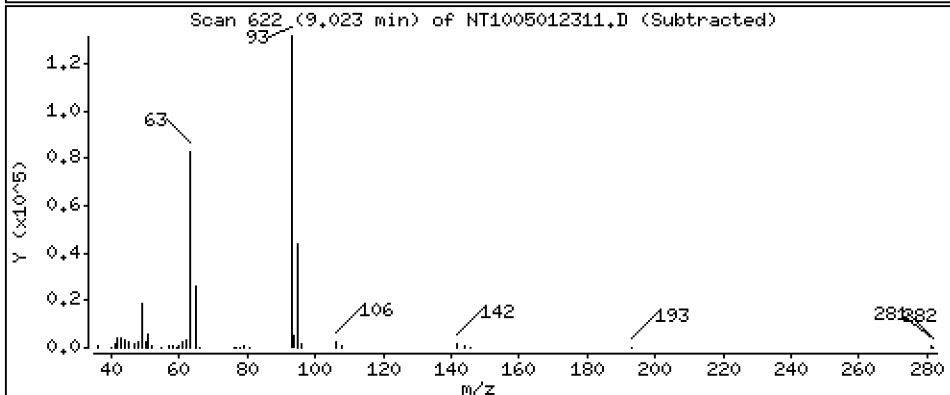
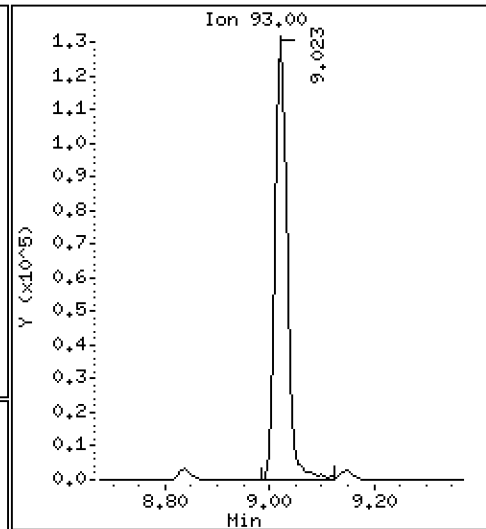
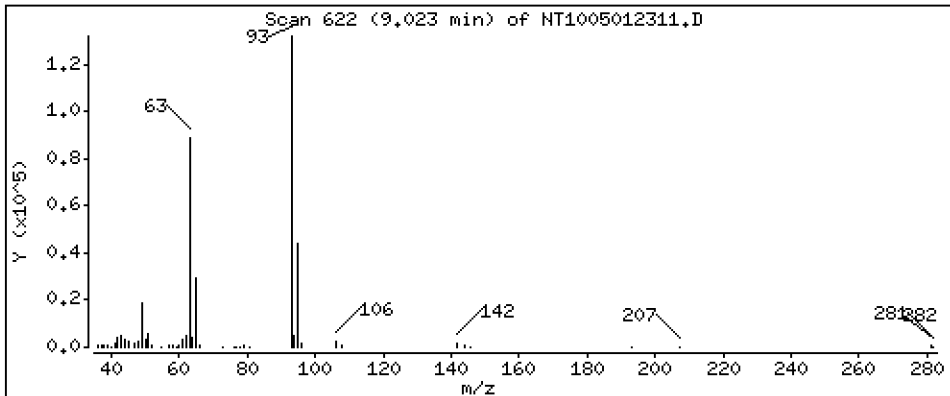
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 5,502 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

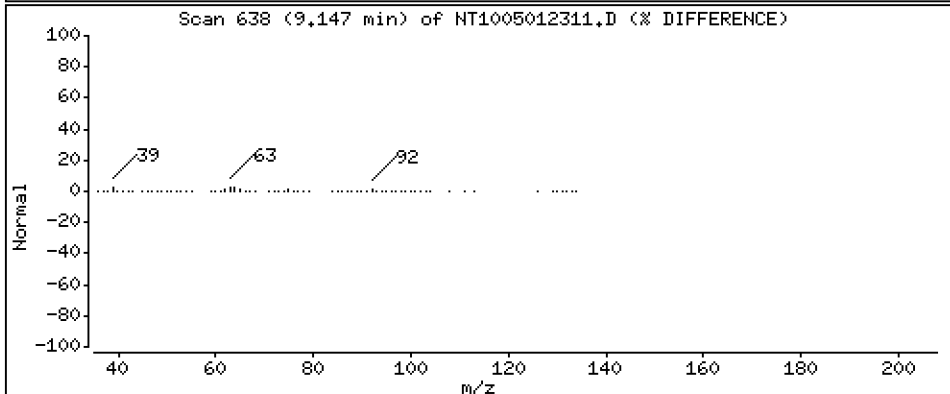
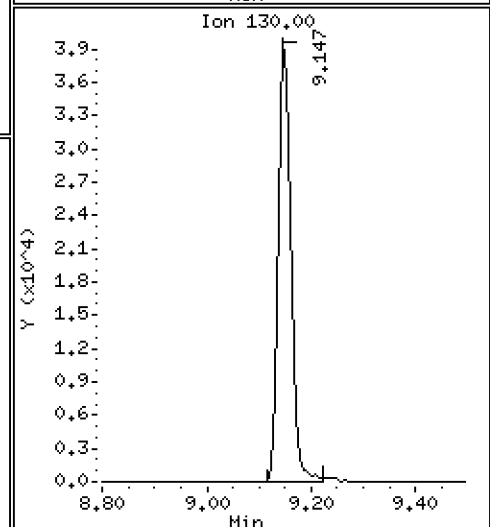
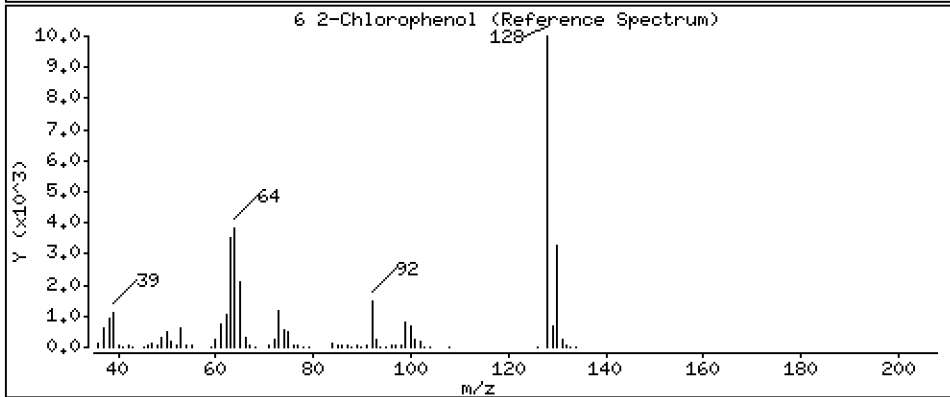
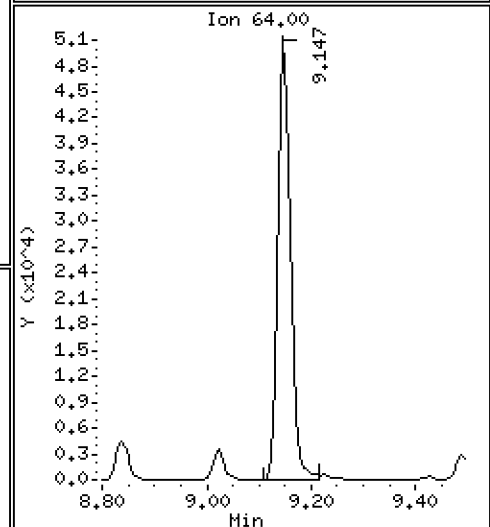
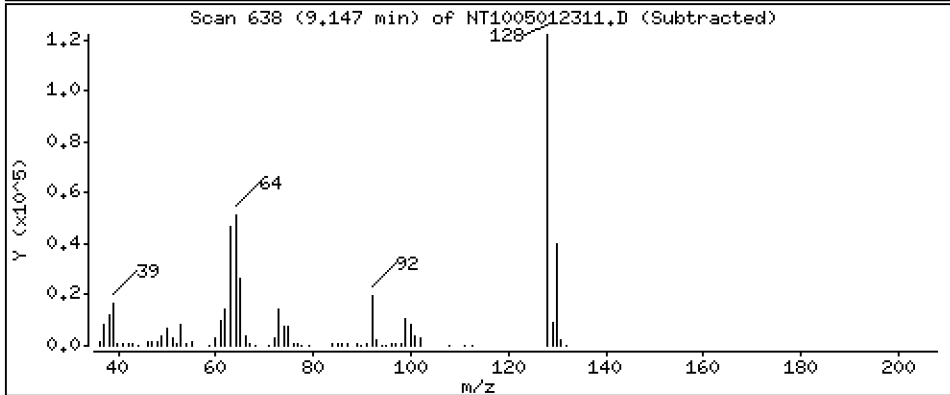
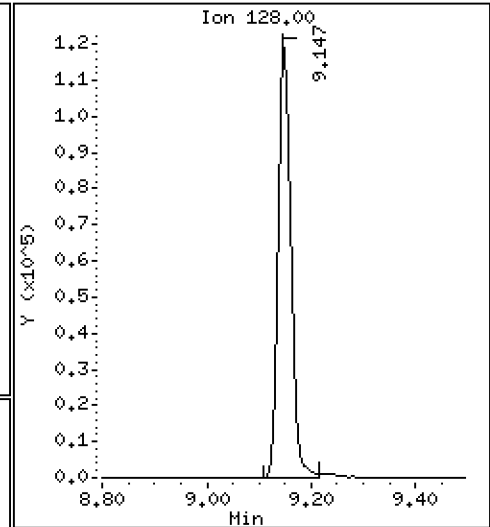
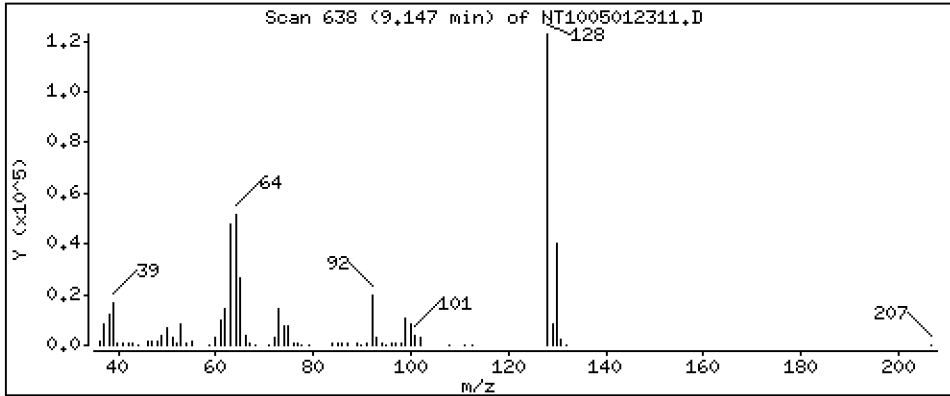
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,456 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

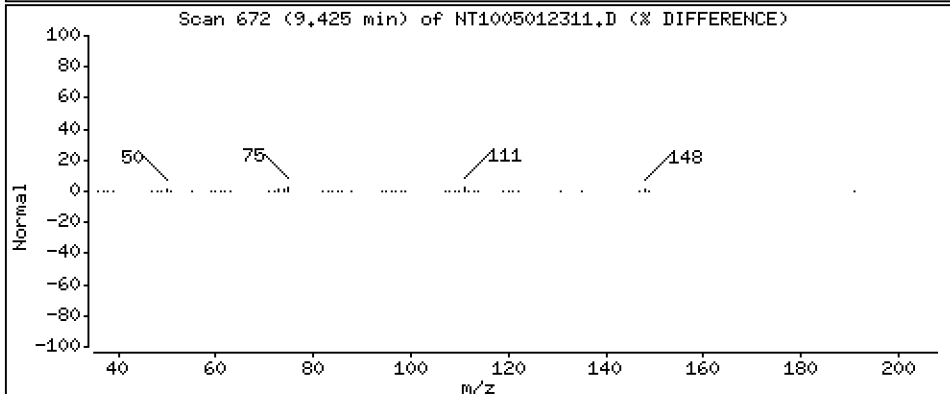
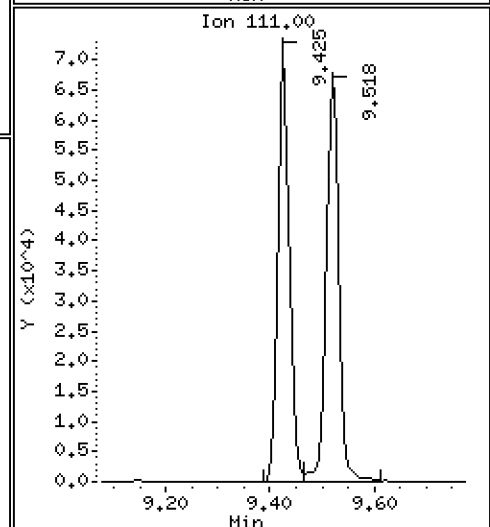
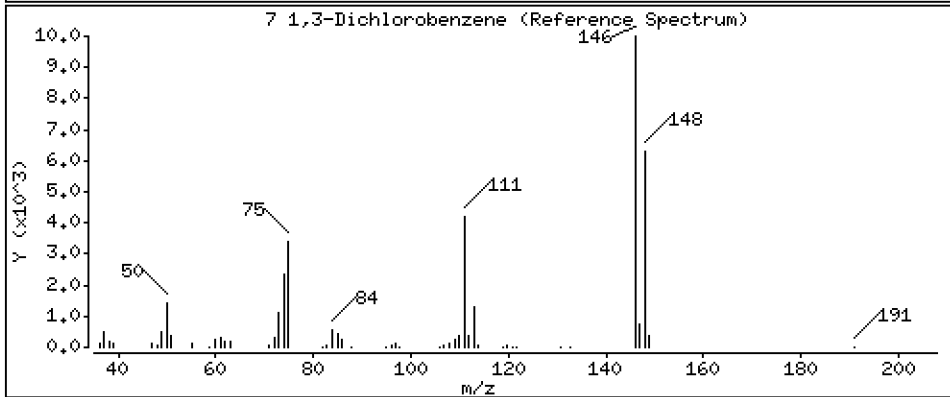
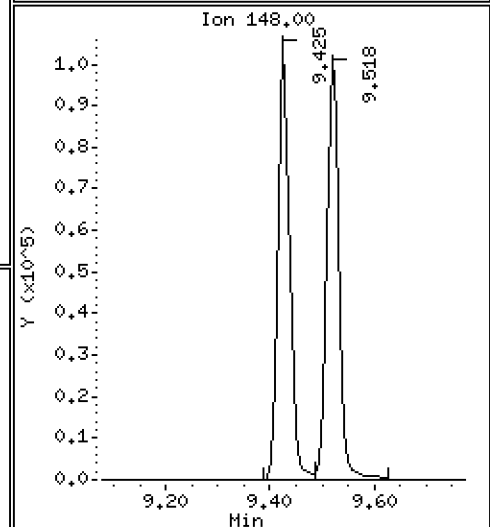
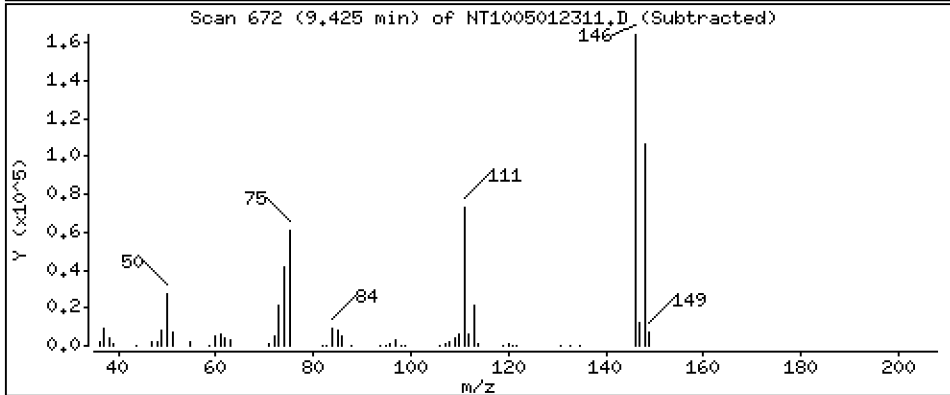
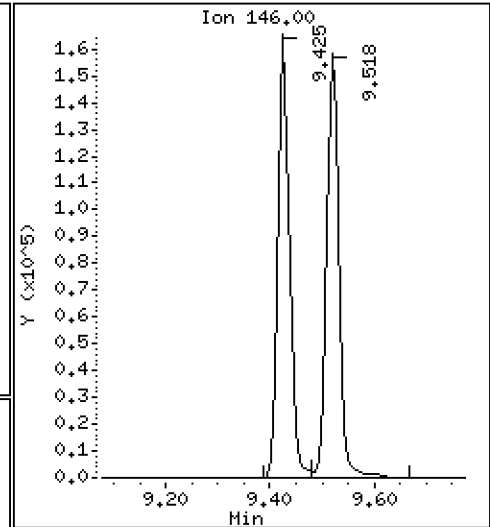
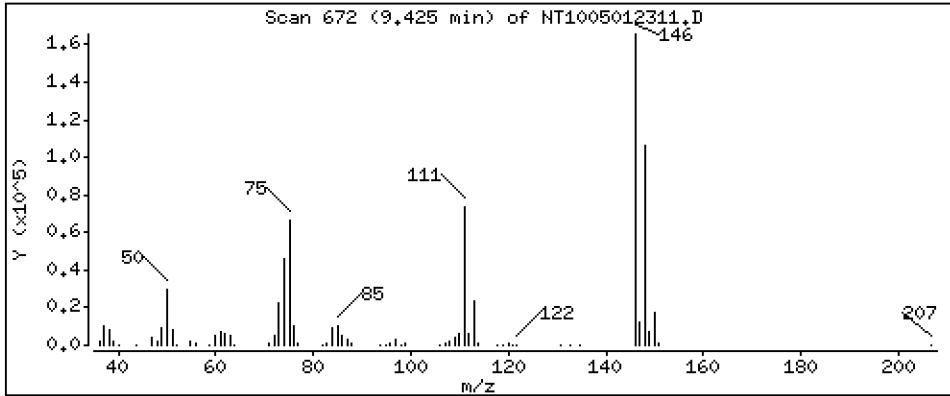
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 4.939 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

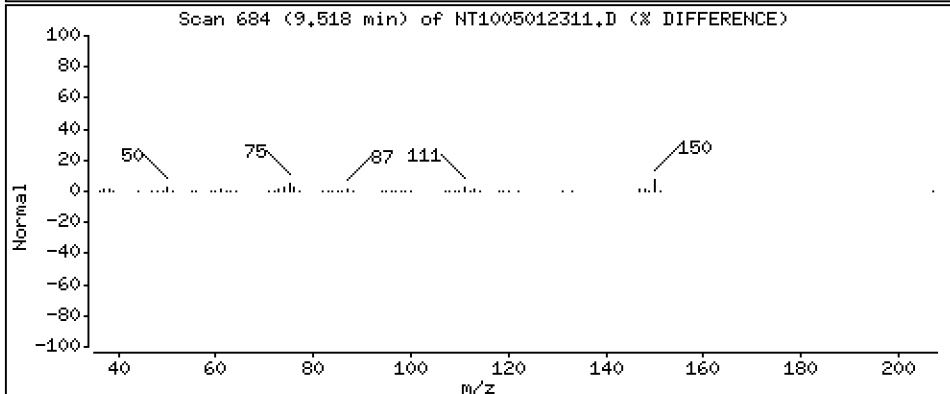
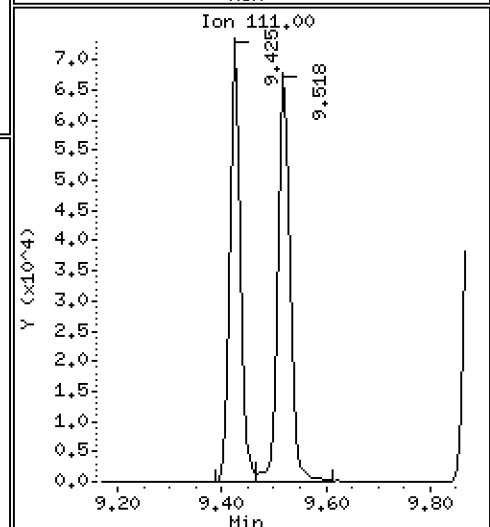
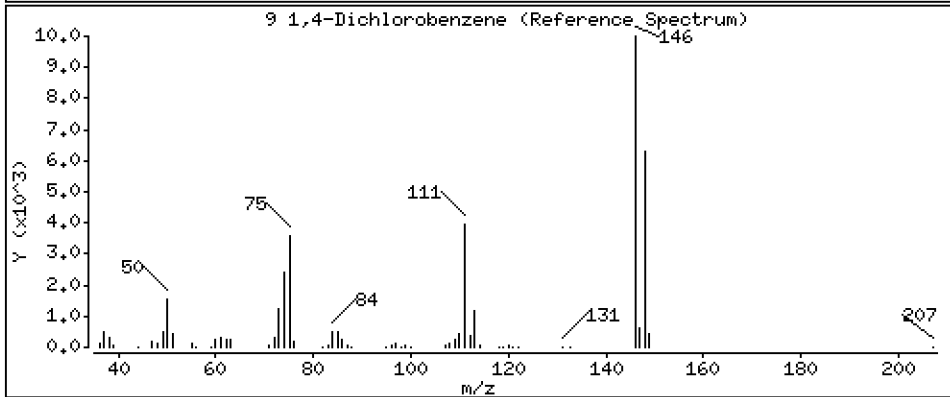
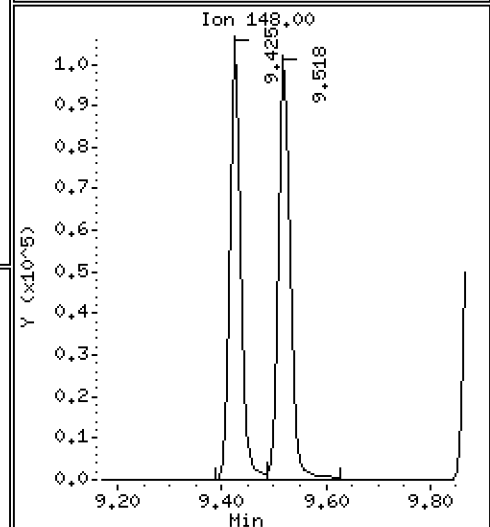
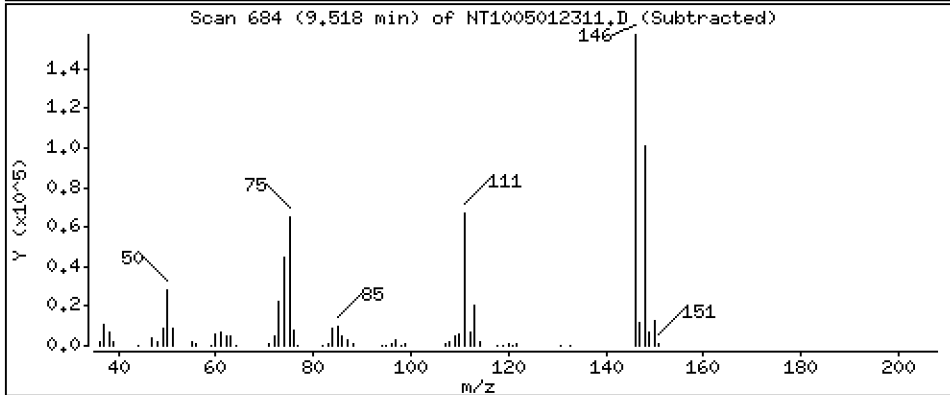
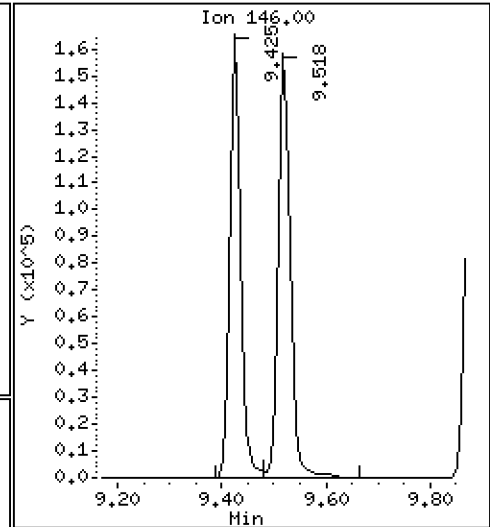
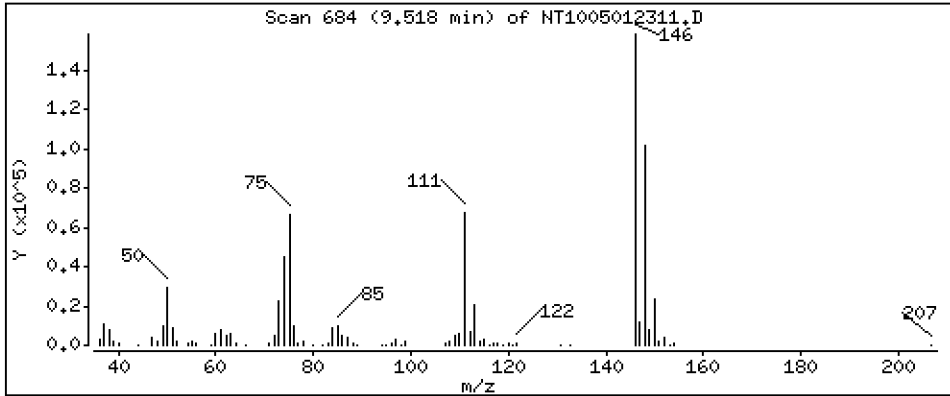
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 5,492 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

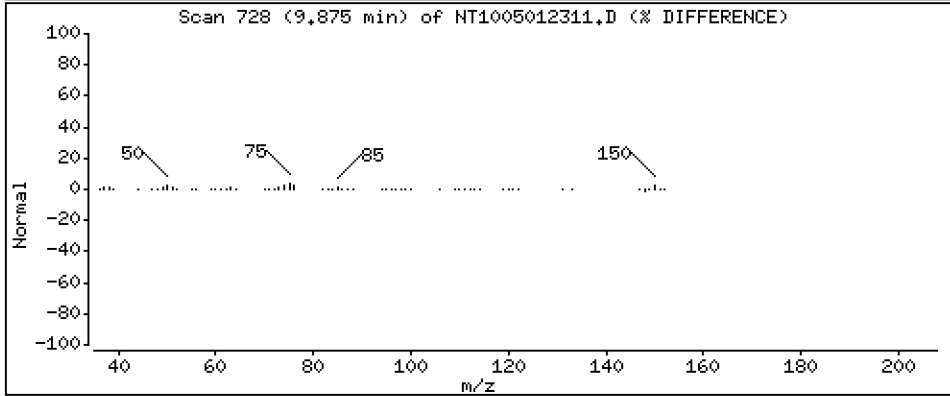
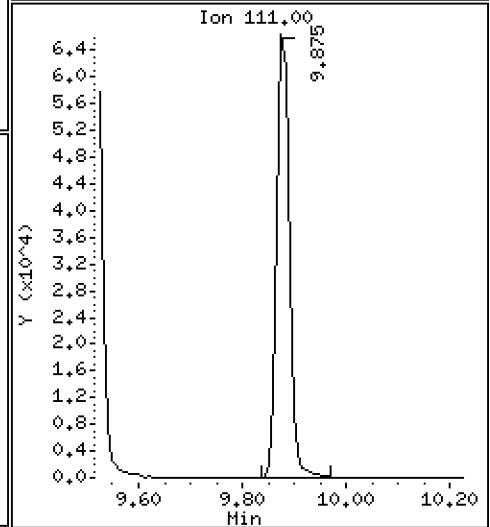
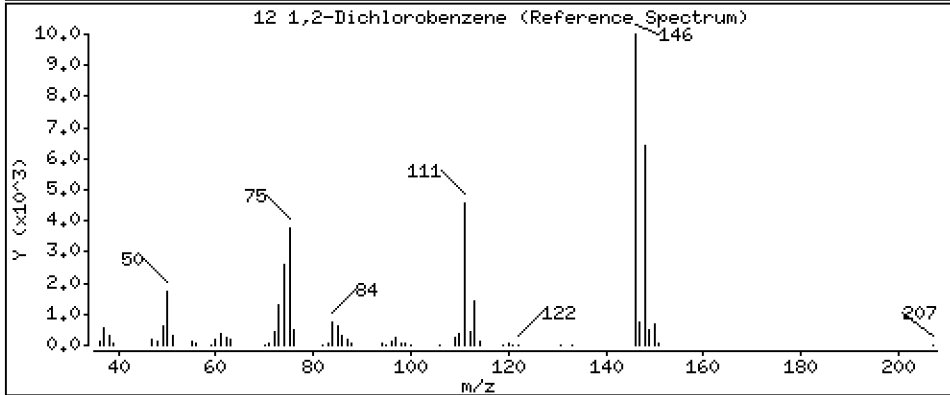
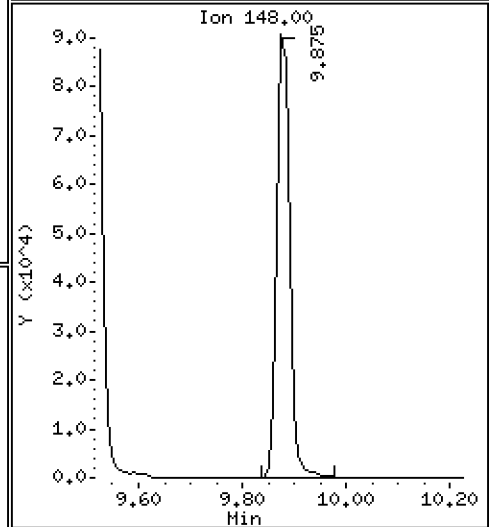
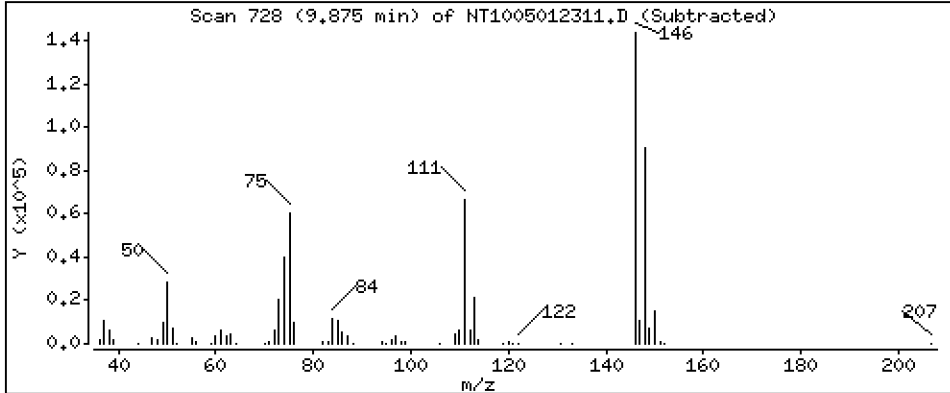
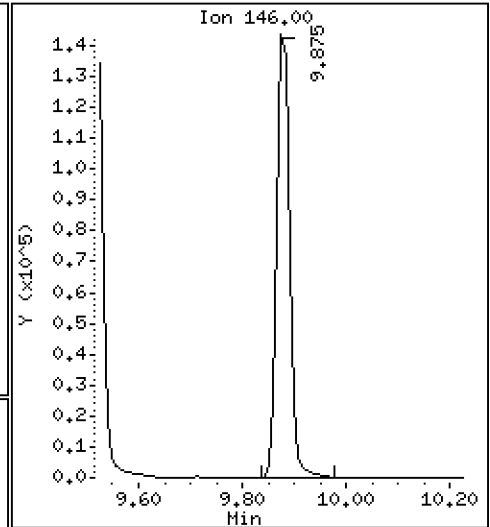
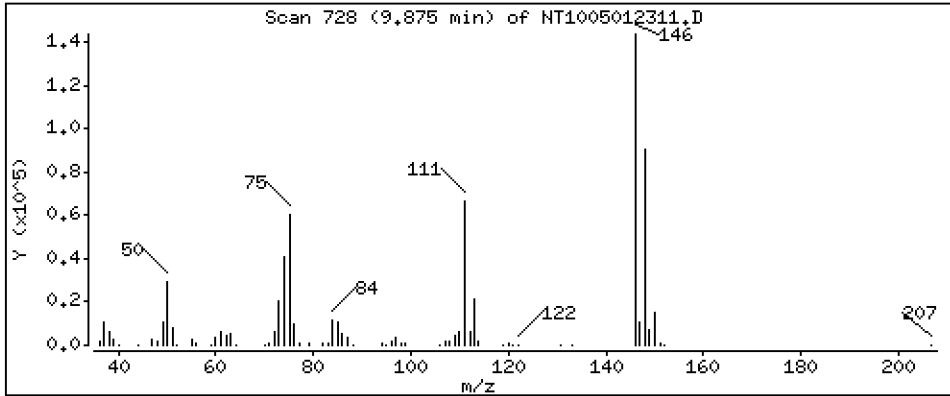
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,938 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

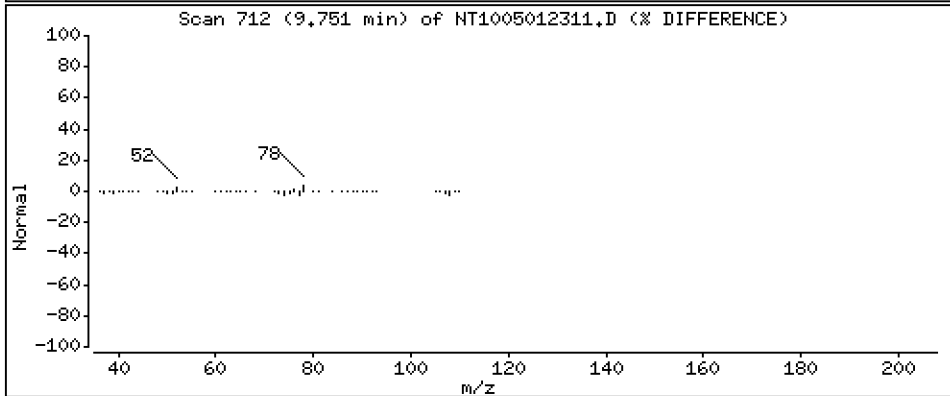
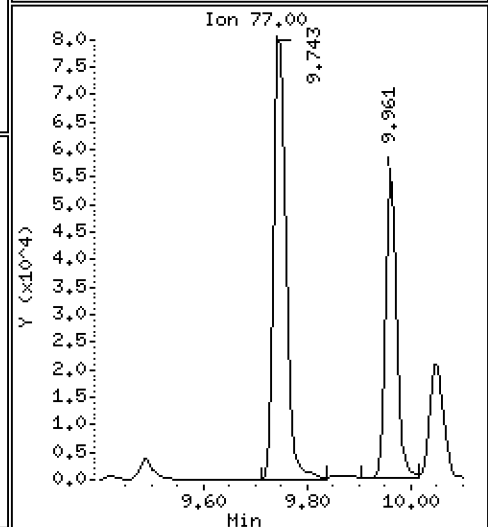
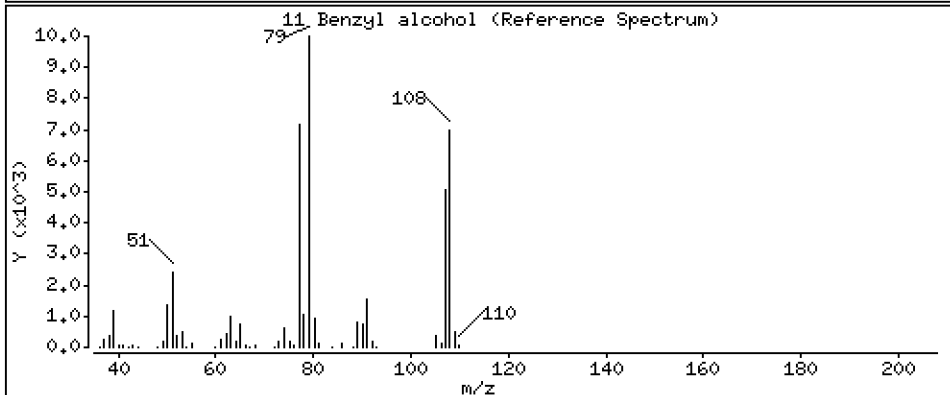
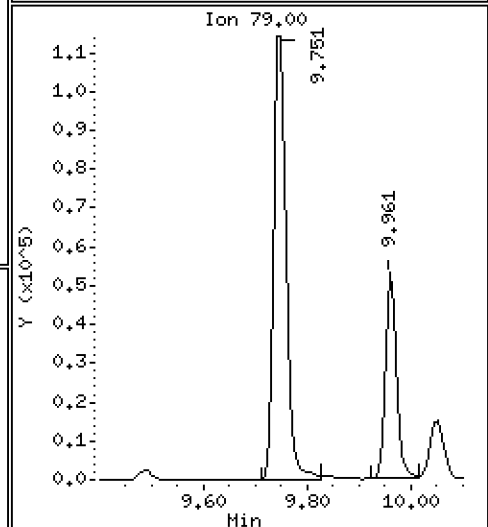
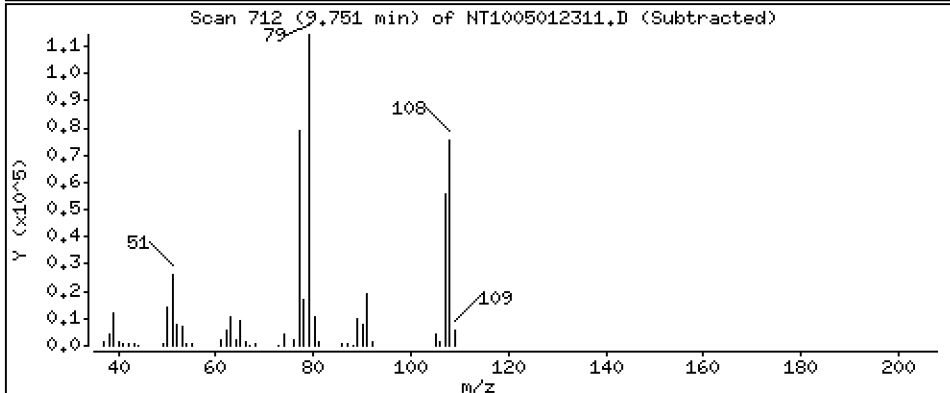
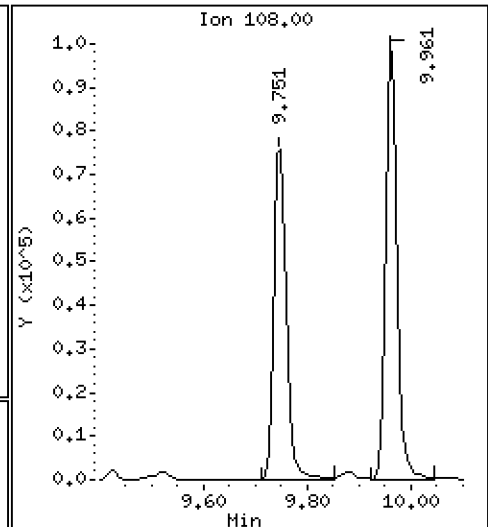
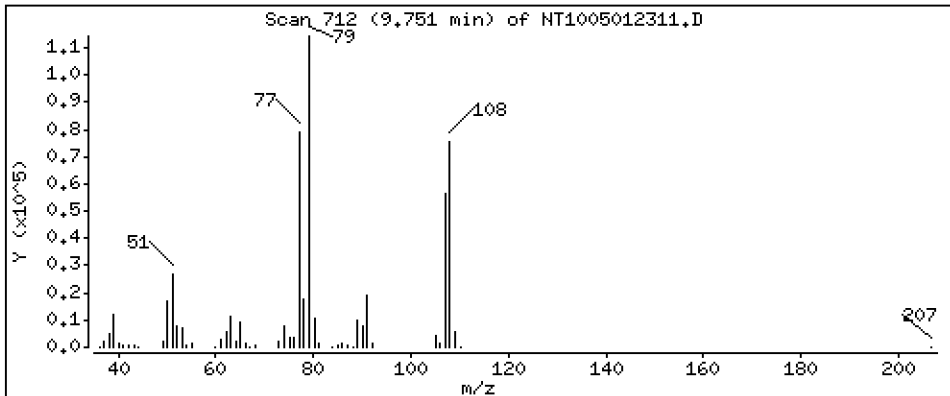
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 5,069 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

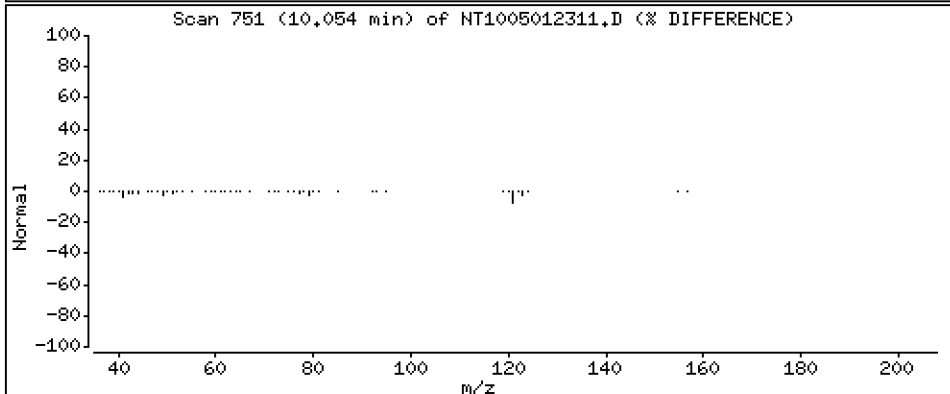
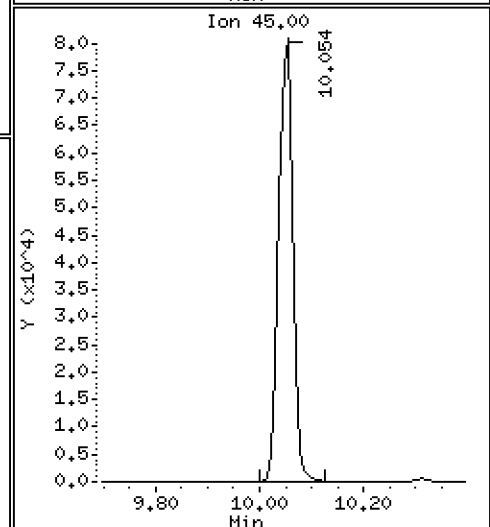
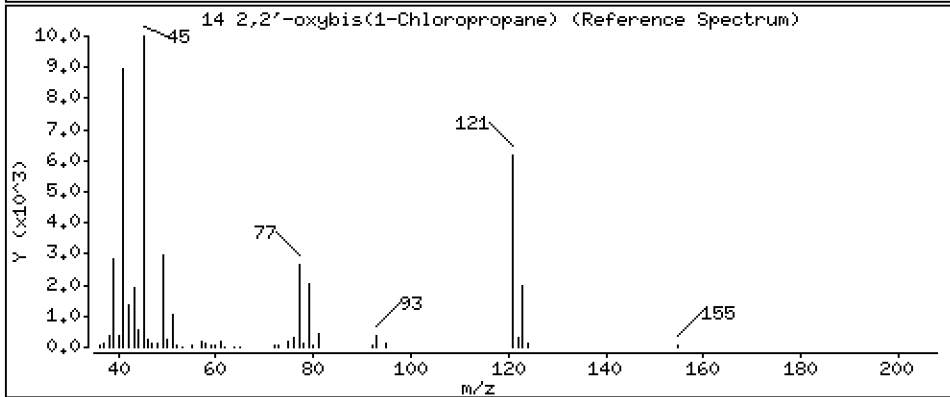
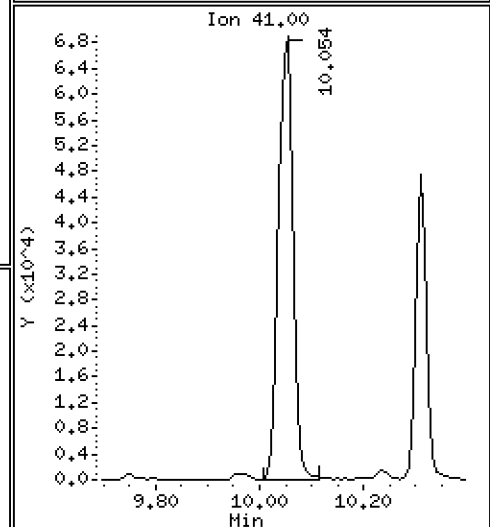
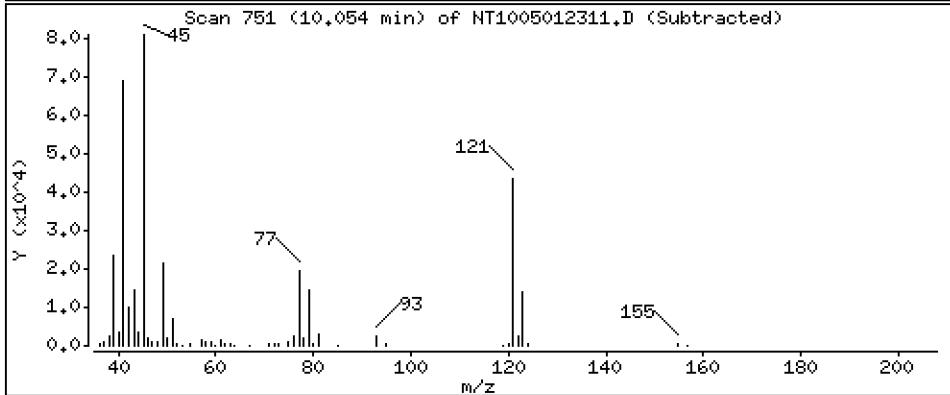
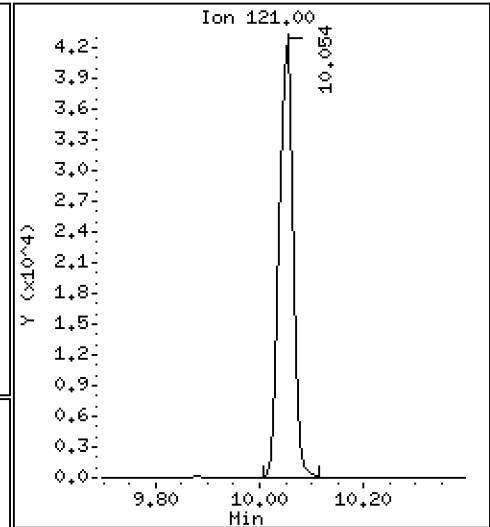
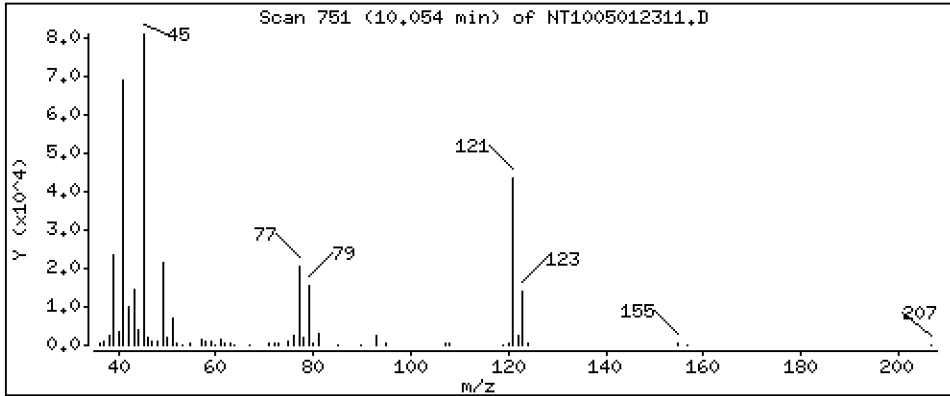
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 5,603 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

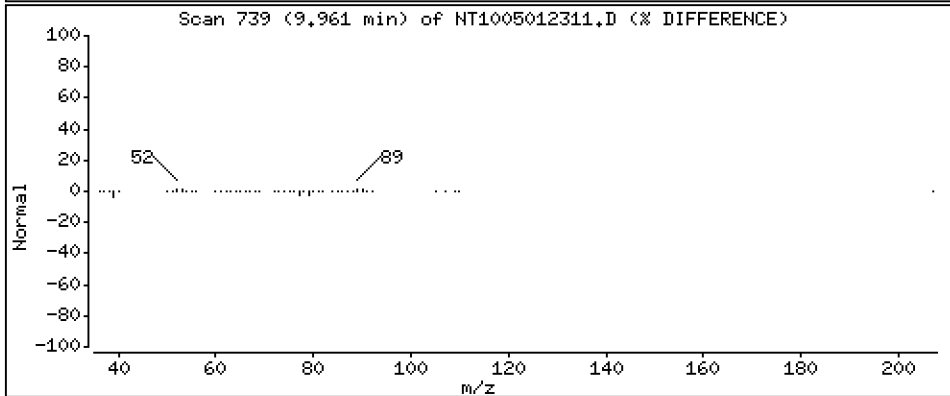
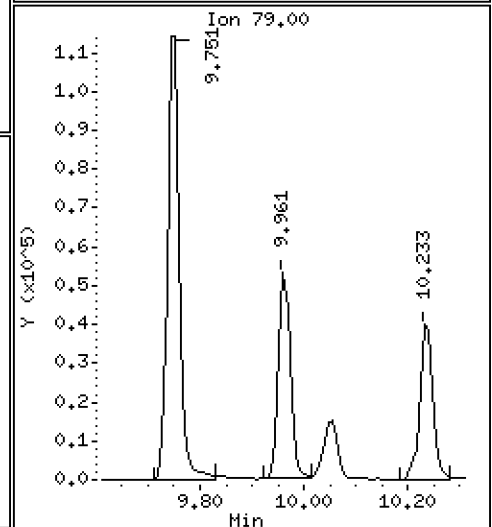
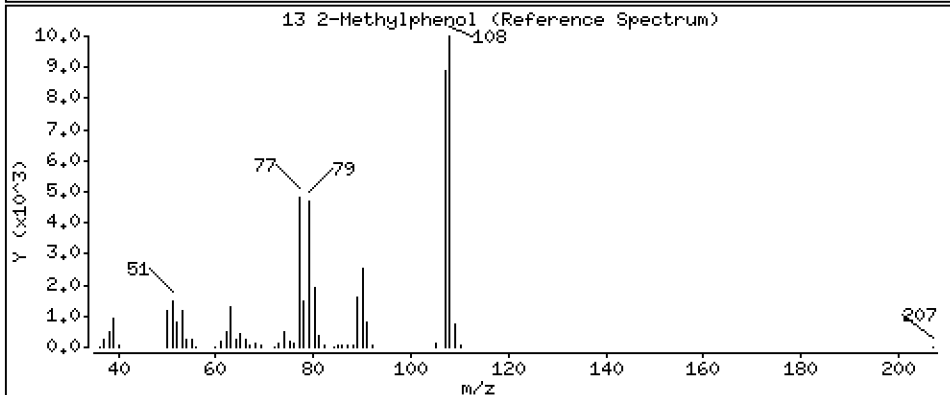
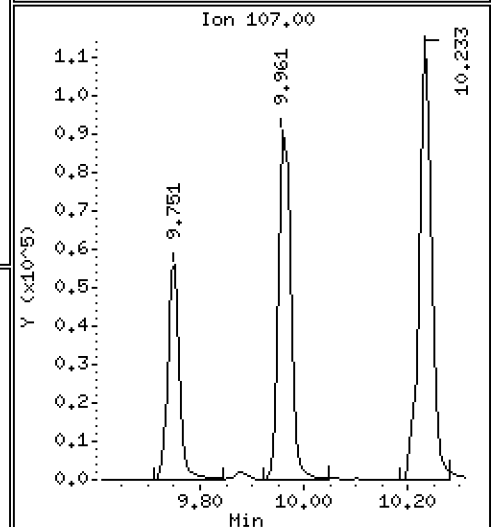
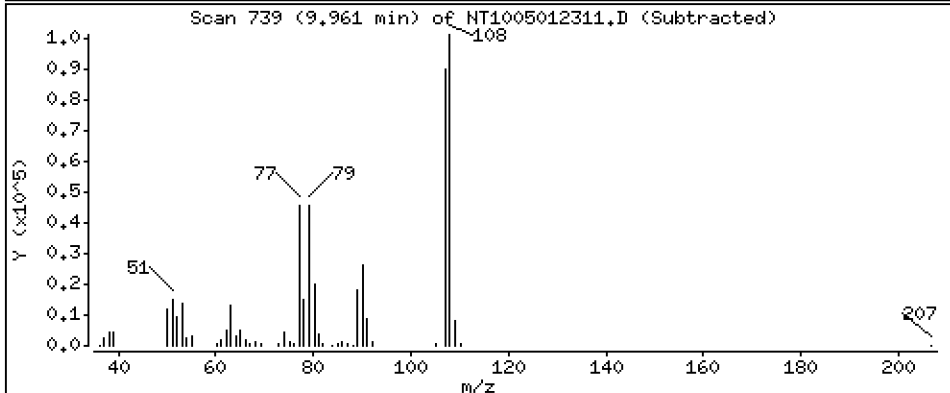
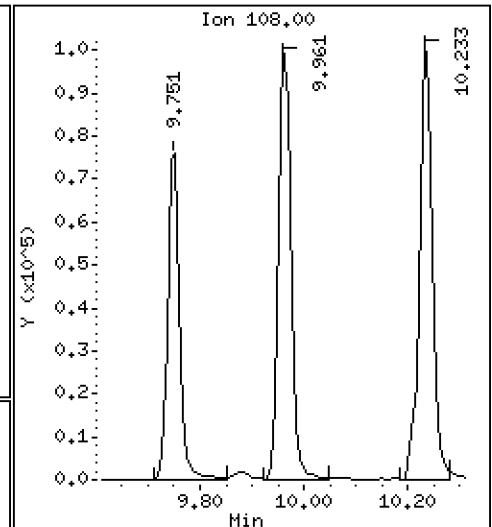
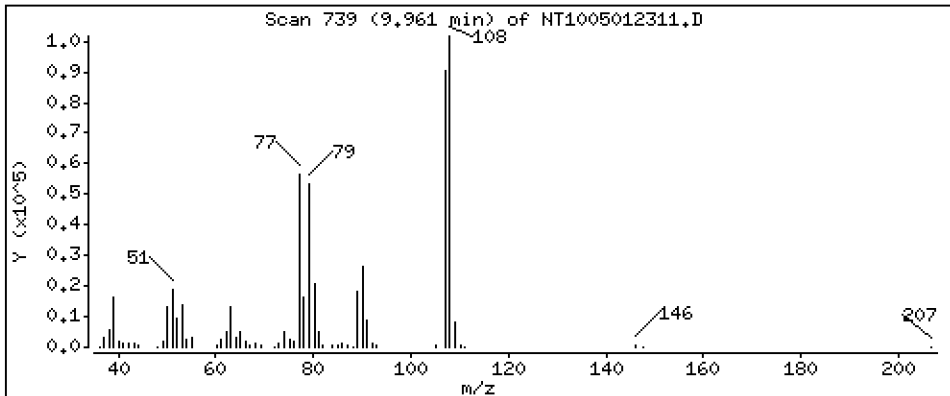
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.232 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

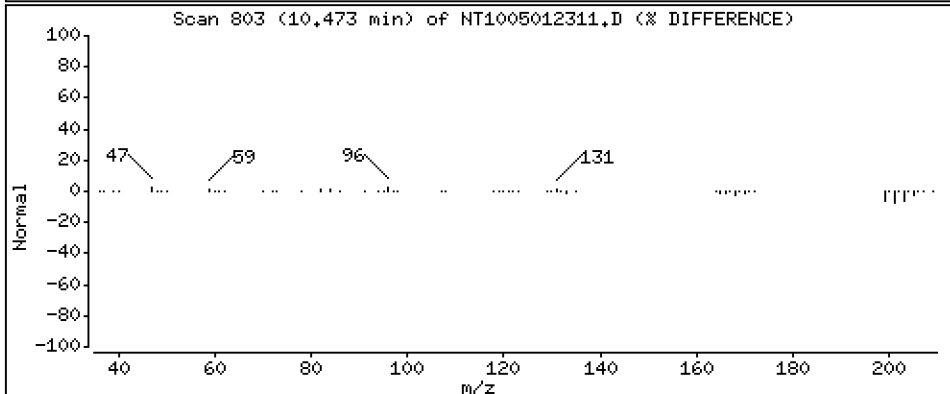
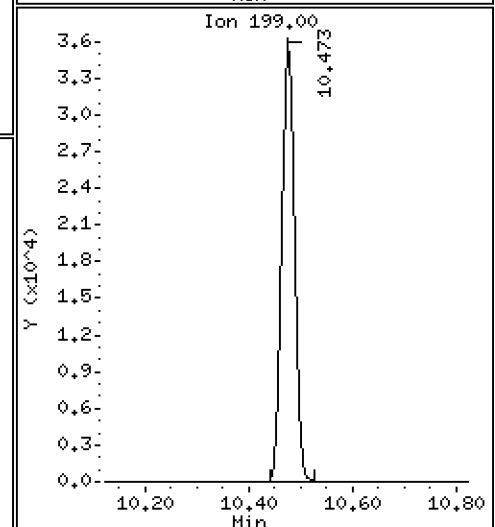
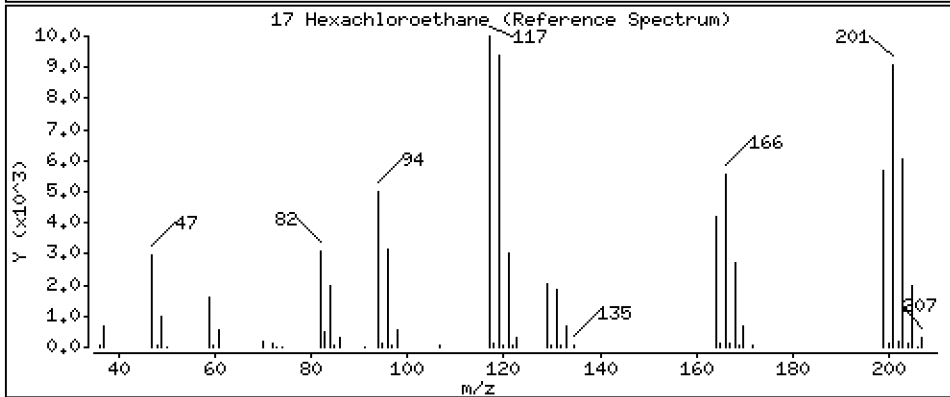
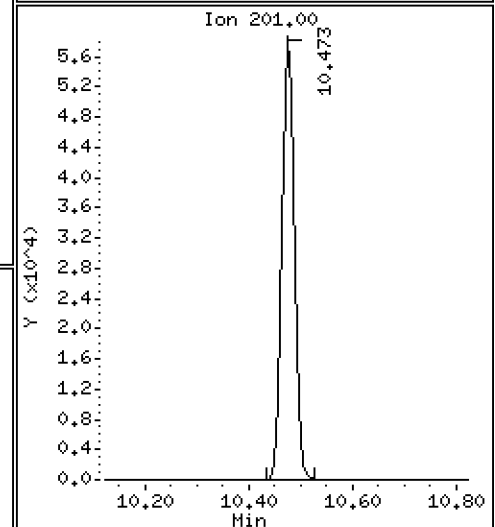
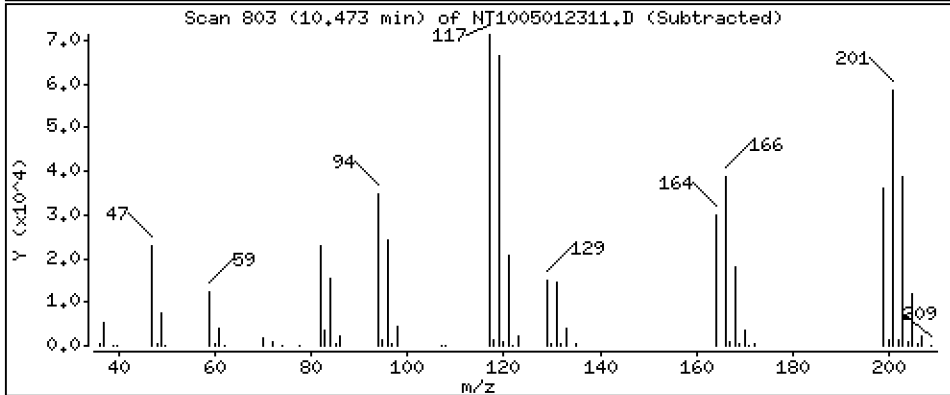
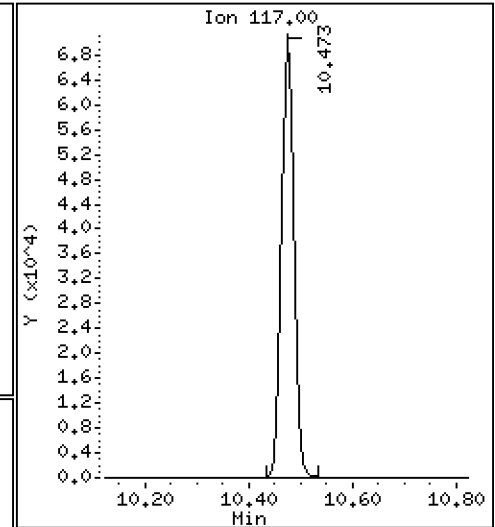
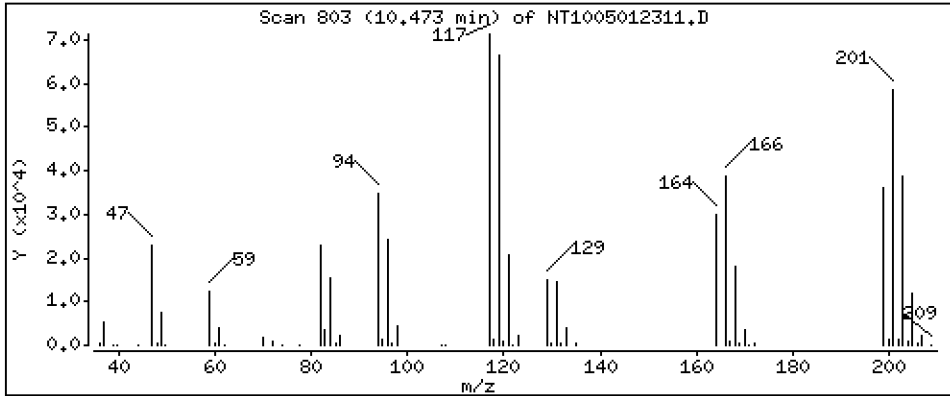
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 5.275 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

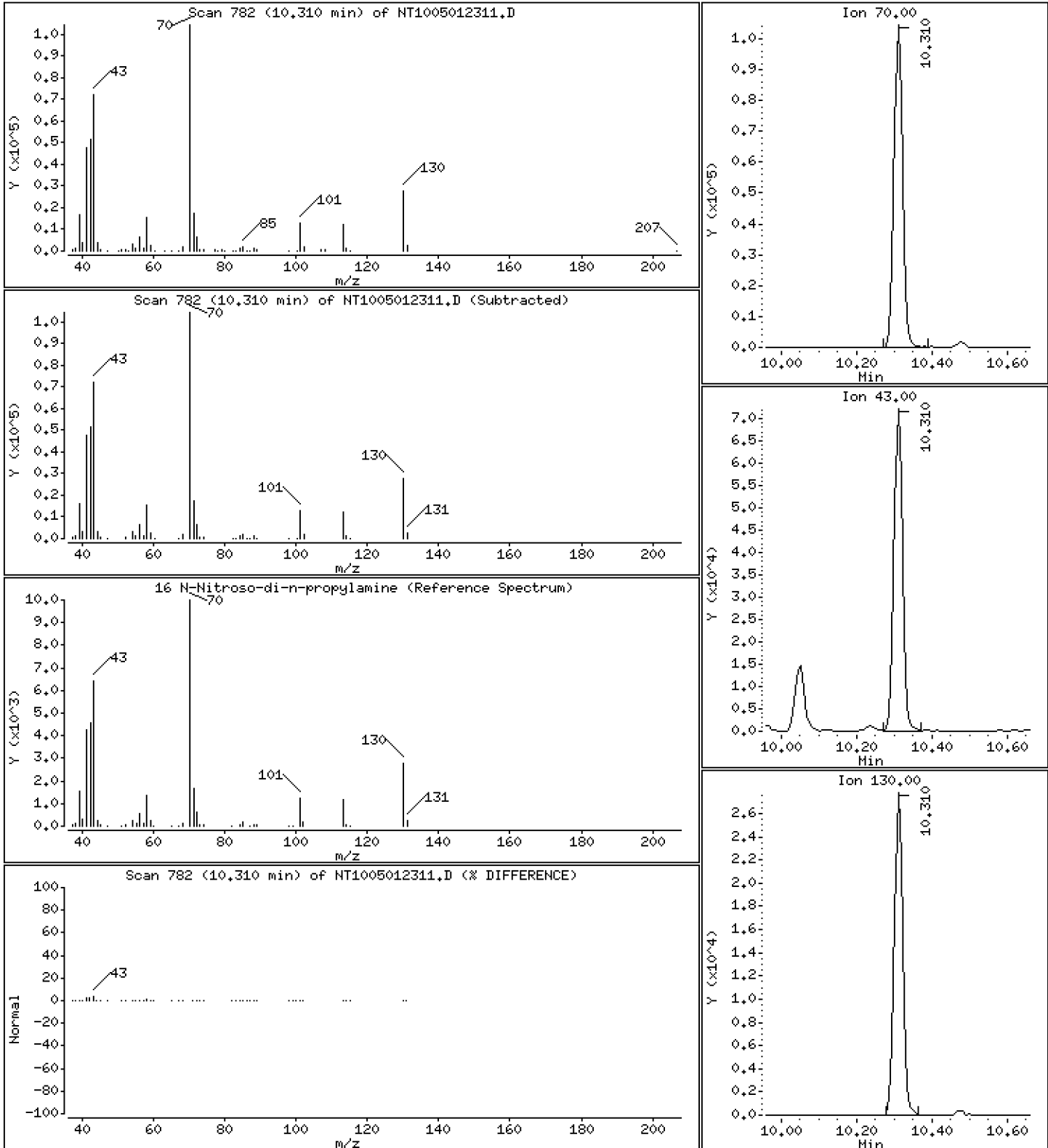
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,386 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

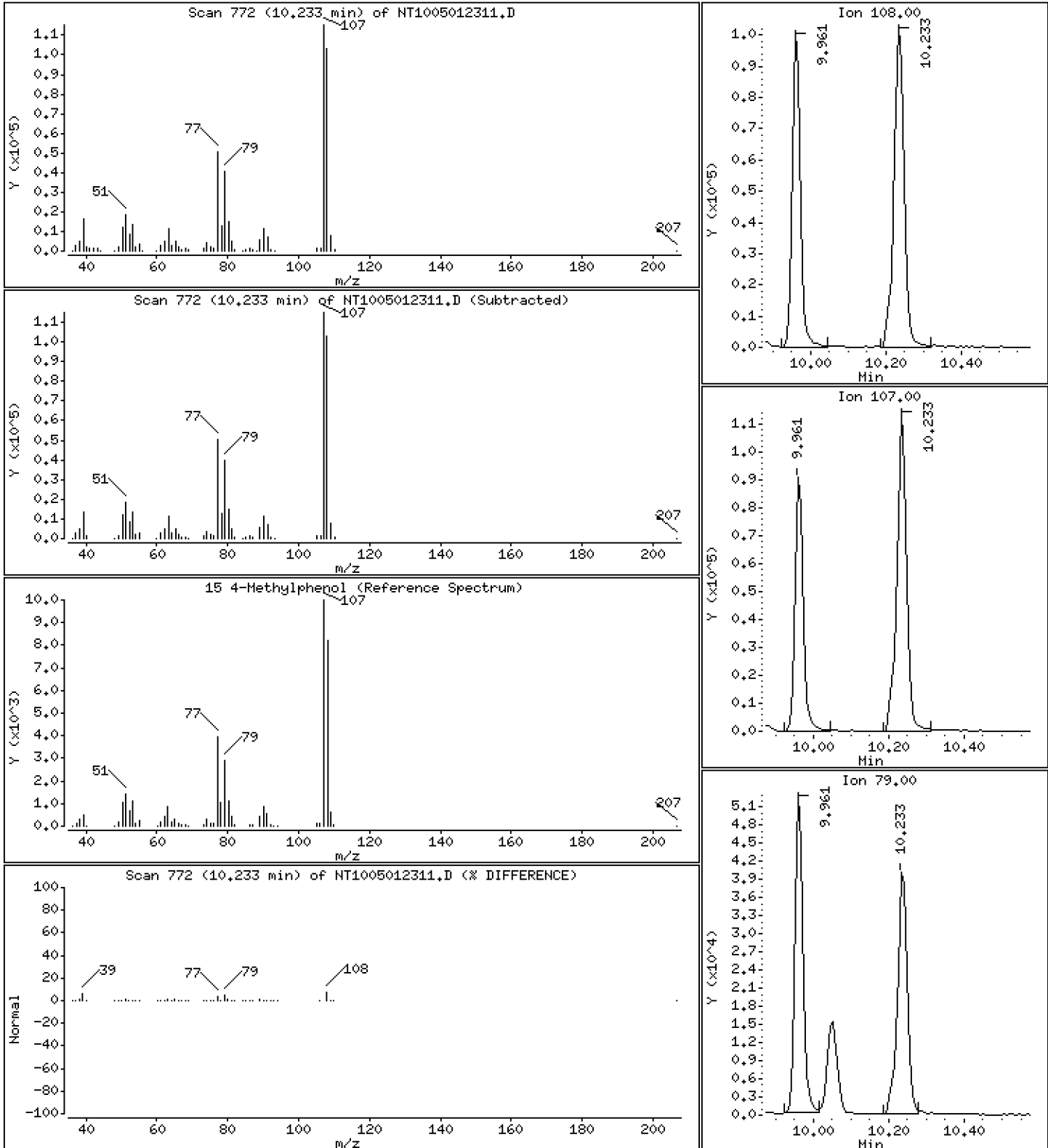
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 4,441 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

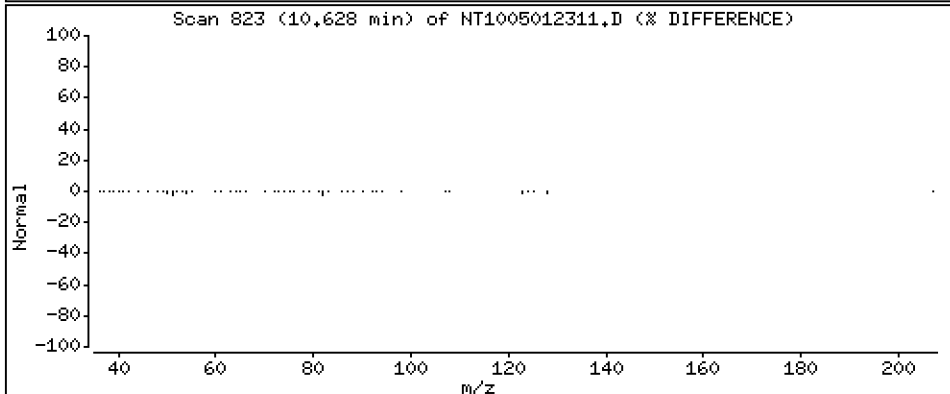
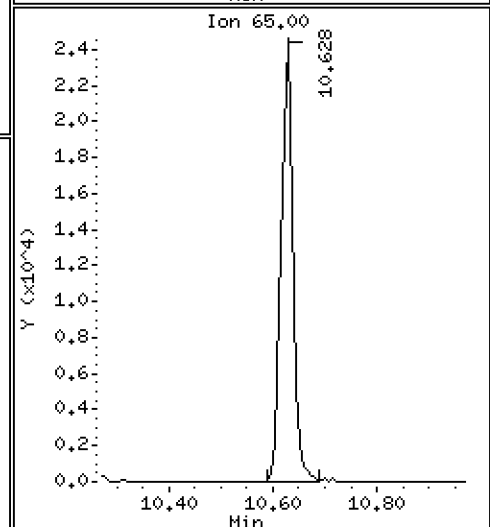
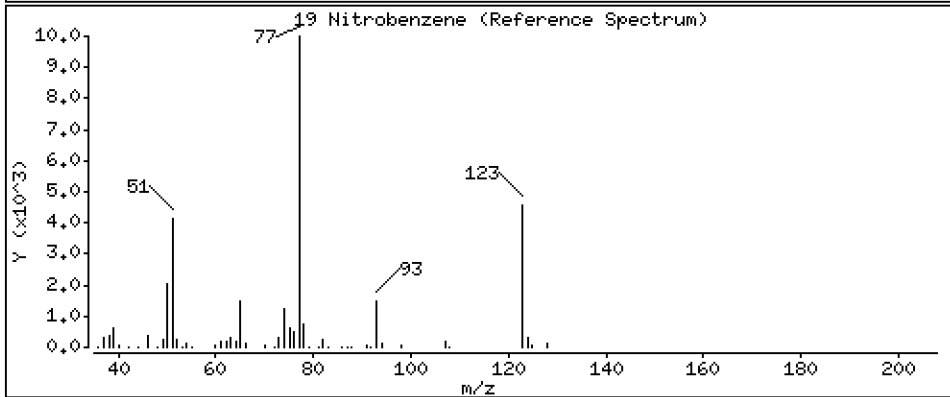
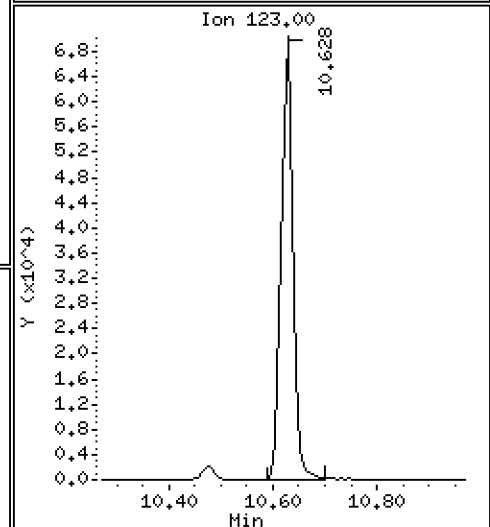
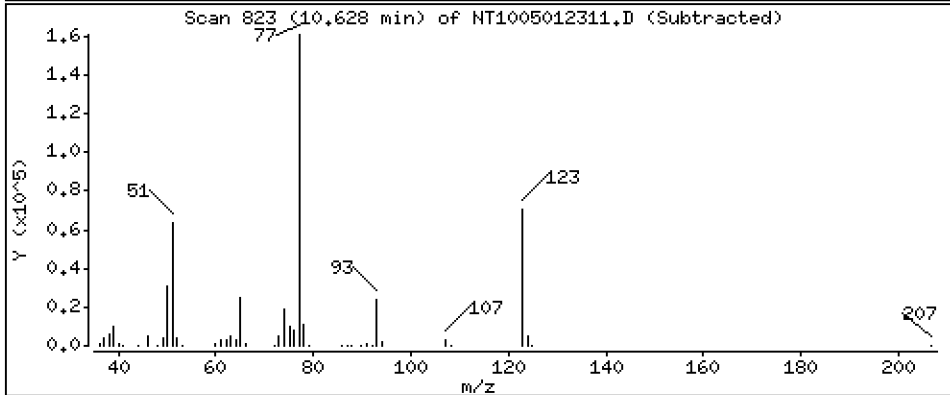
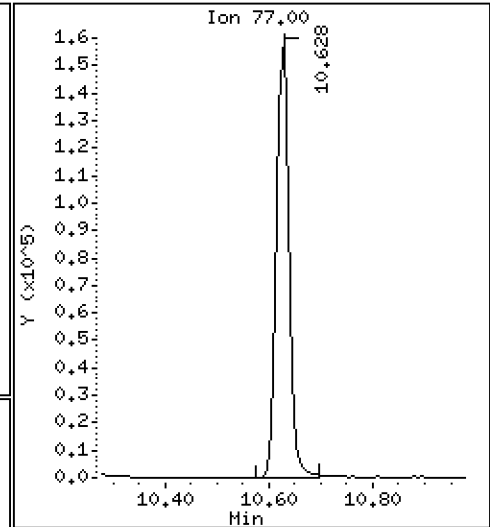
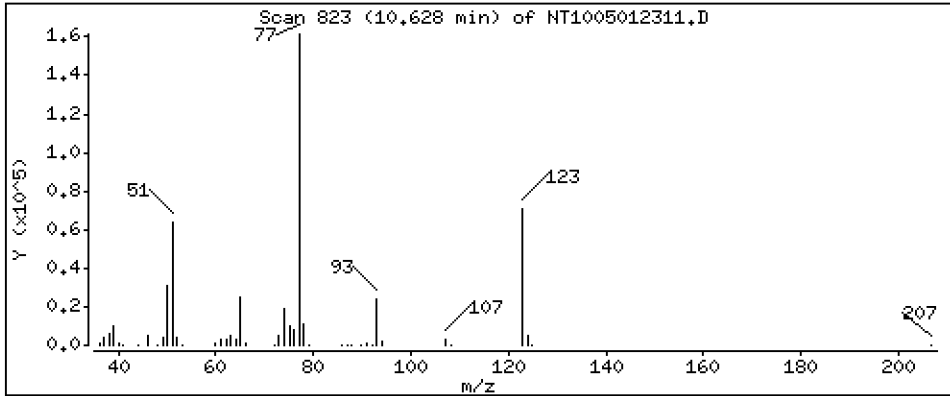
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,970 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

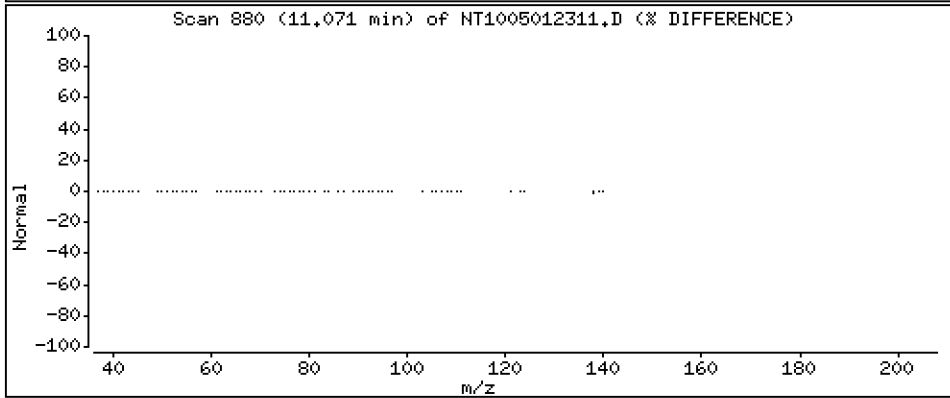
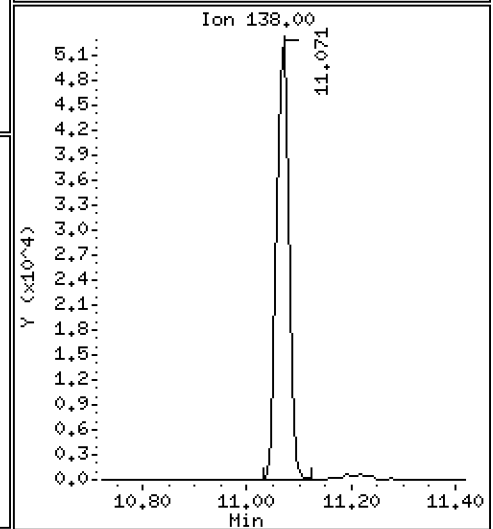
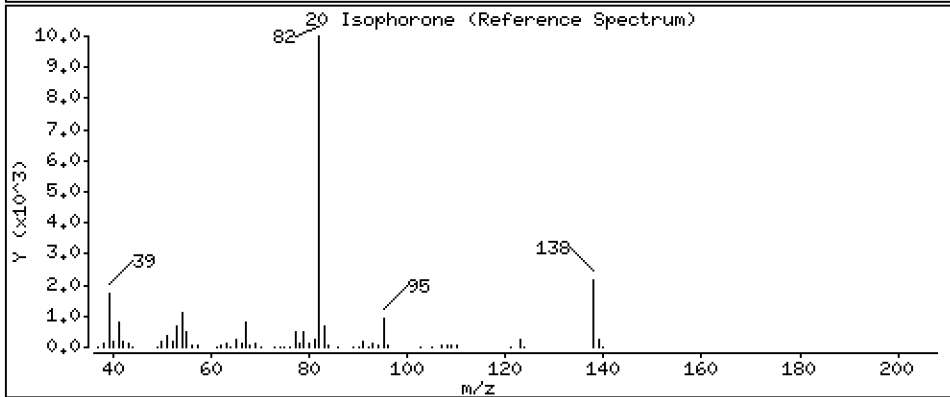
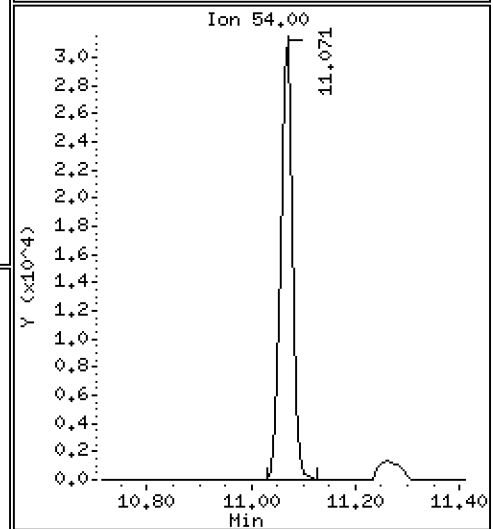
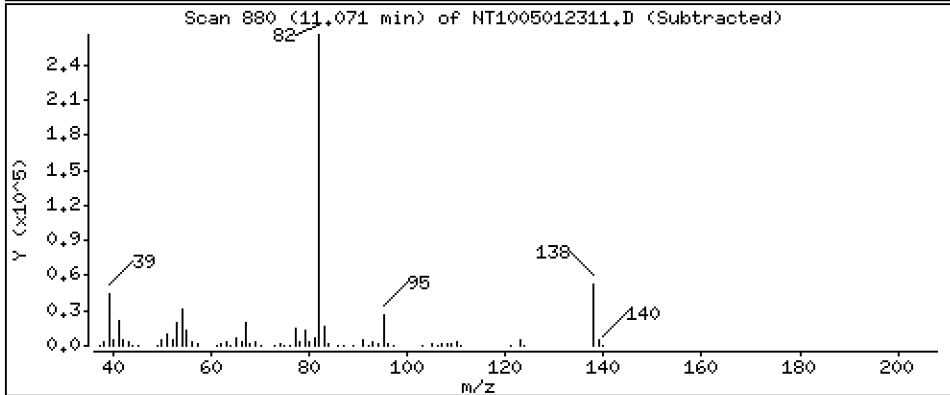
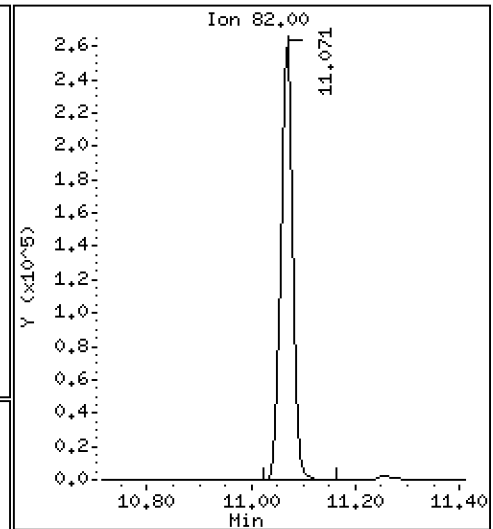
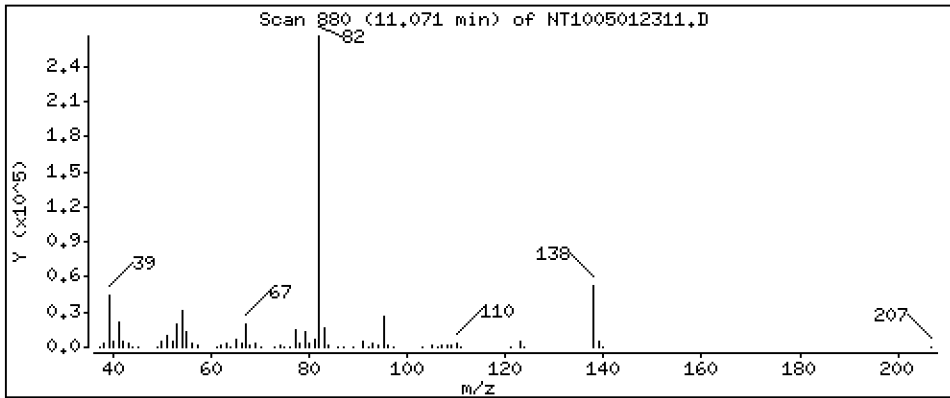
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 7,878 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

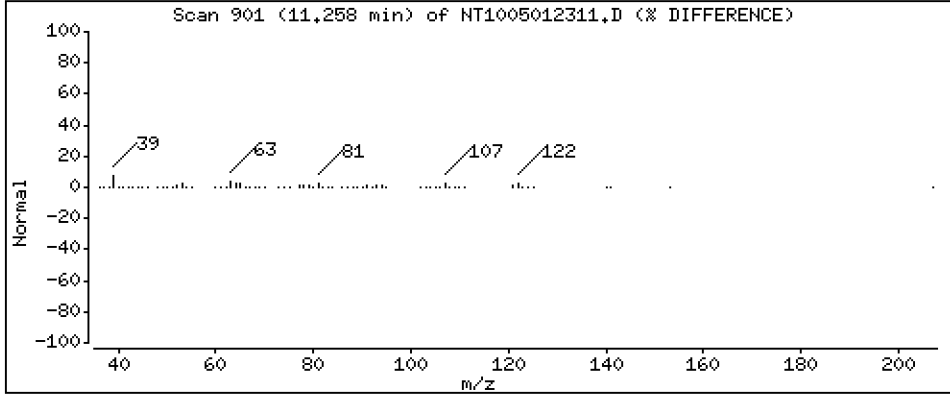
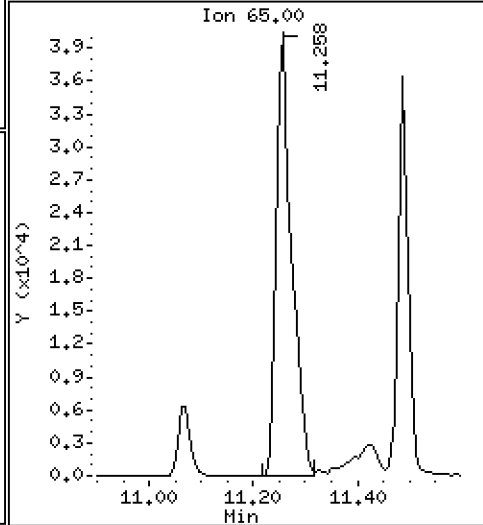
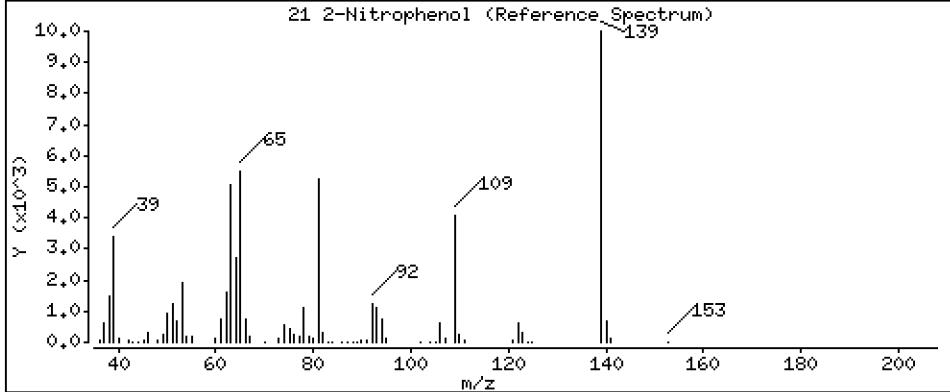
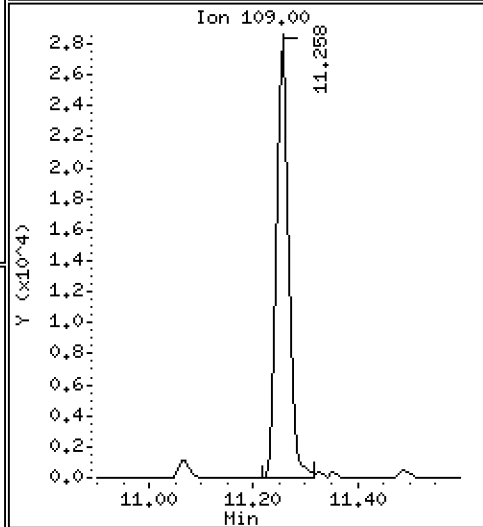
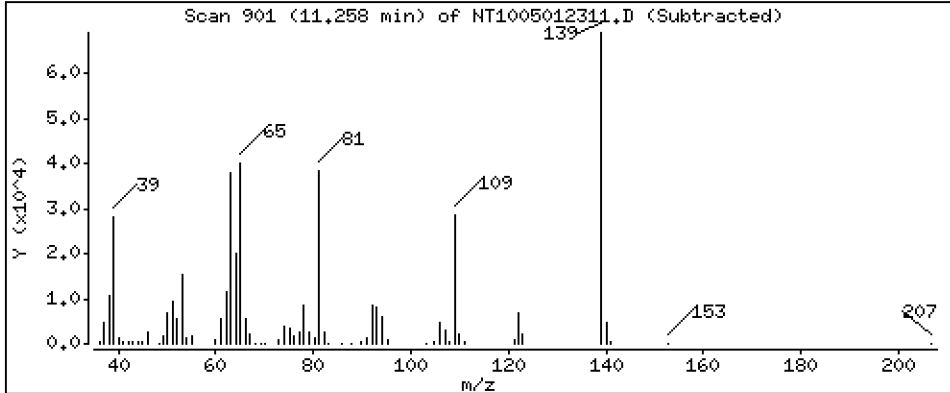
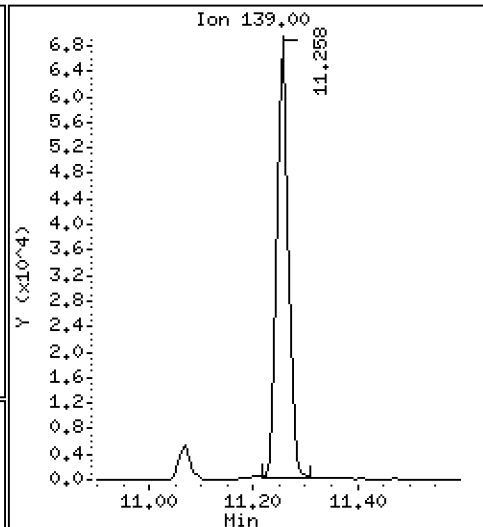
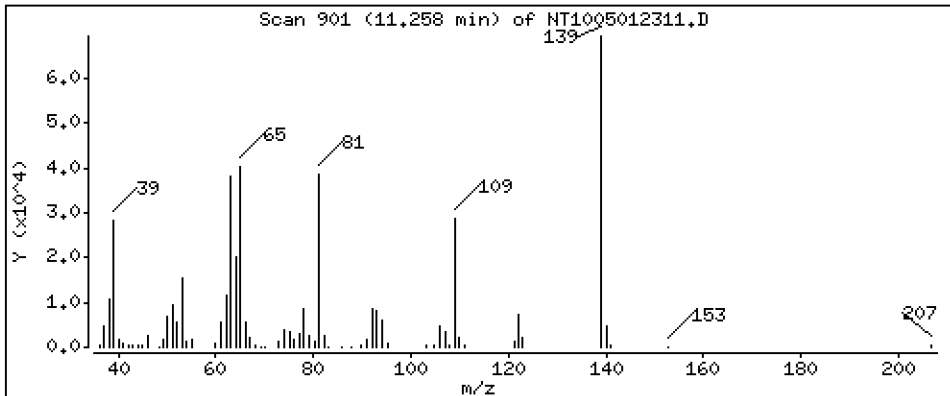
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 3,896 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

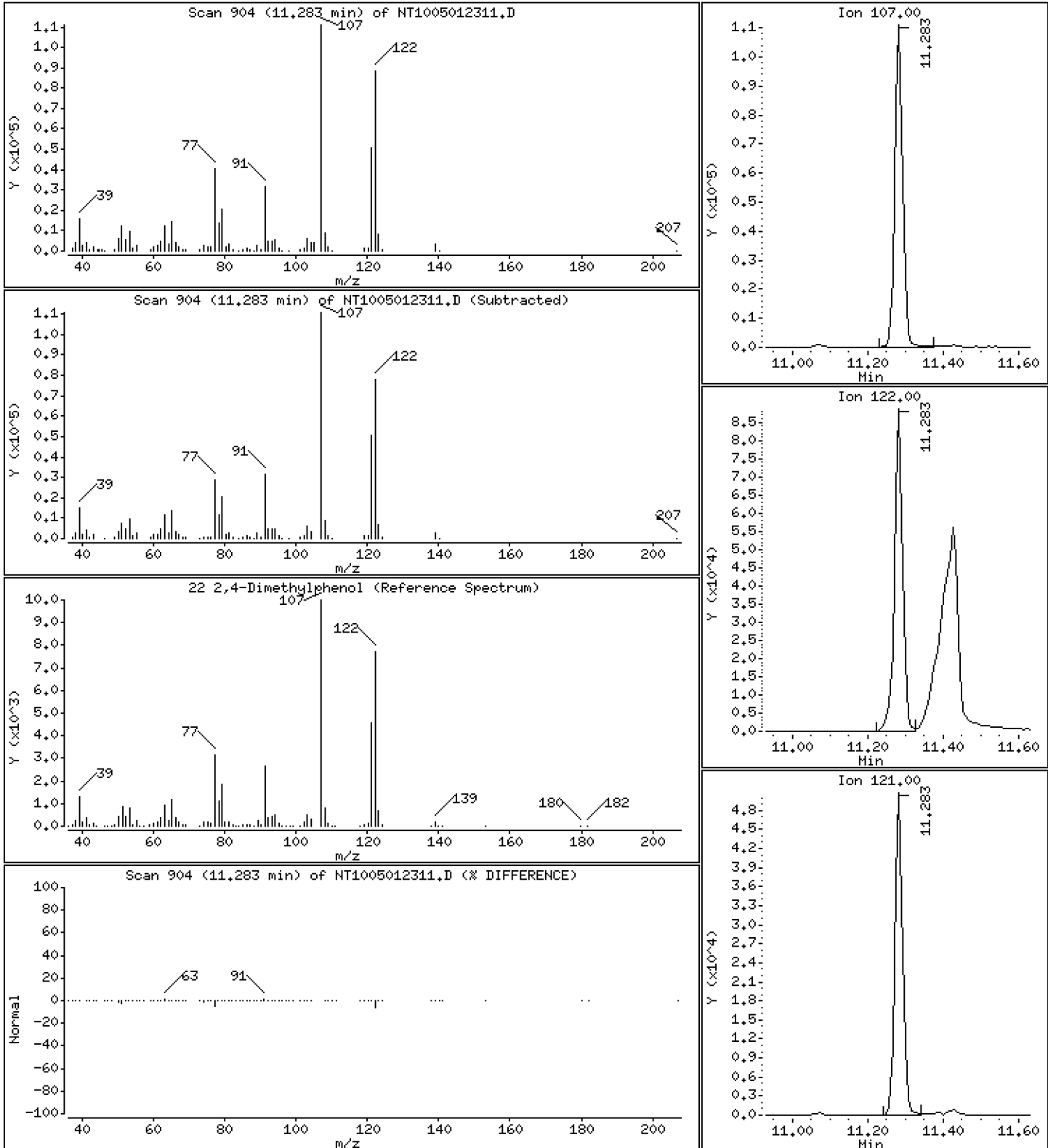
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,424 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

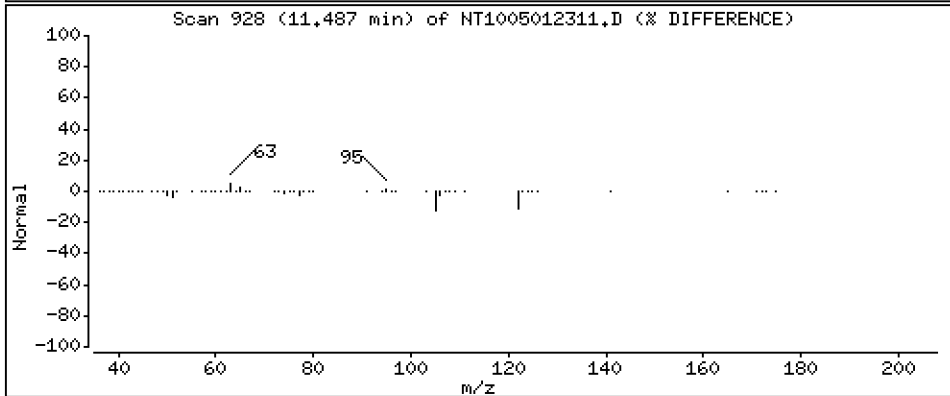
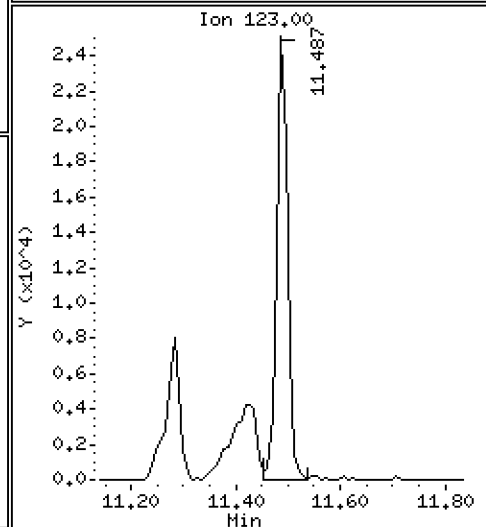
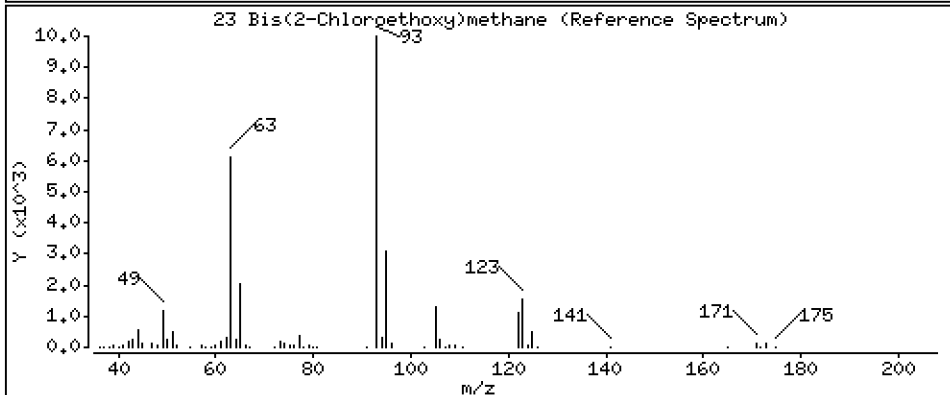
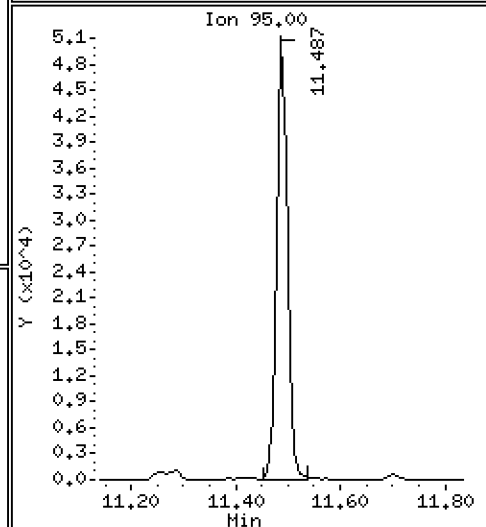
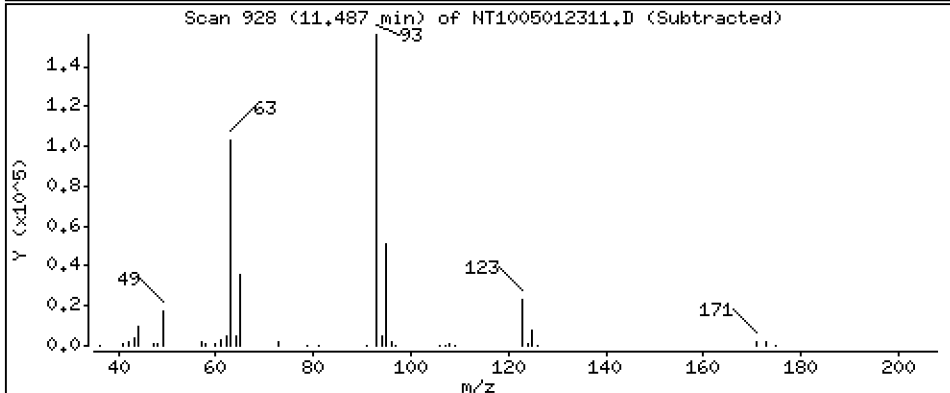
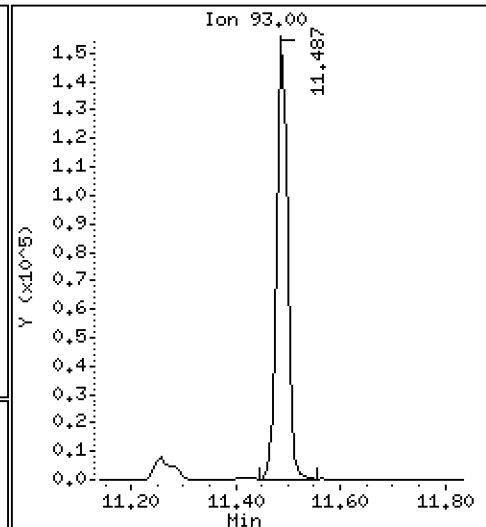
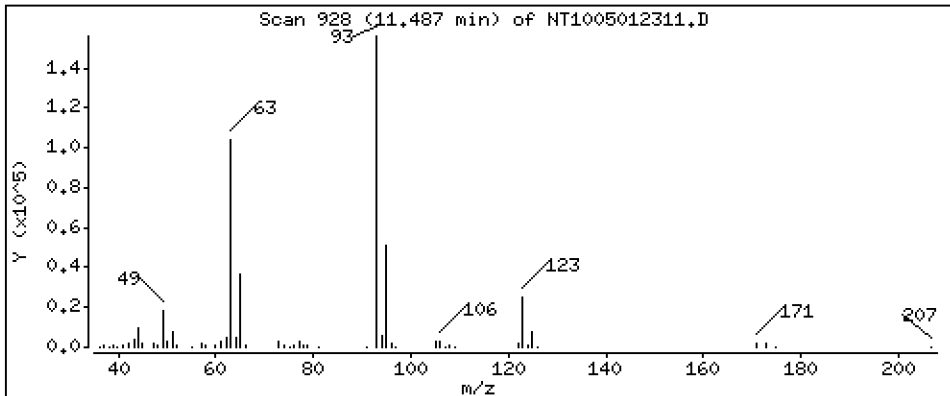
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,736 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

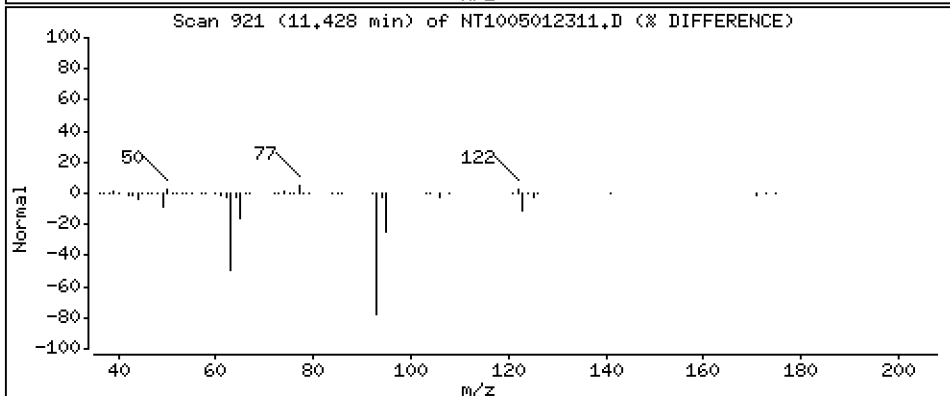
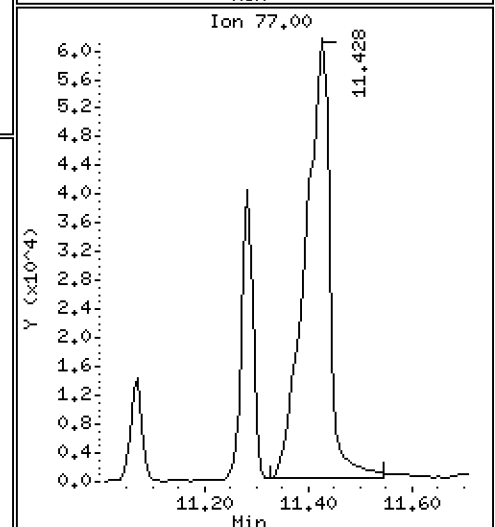
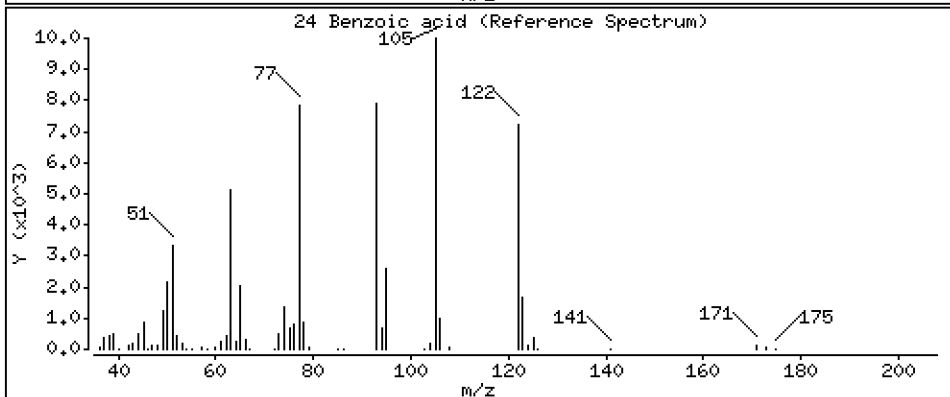
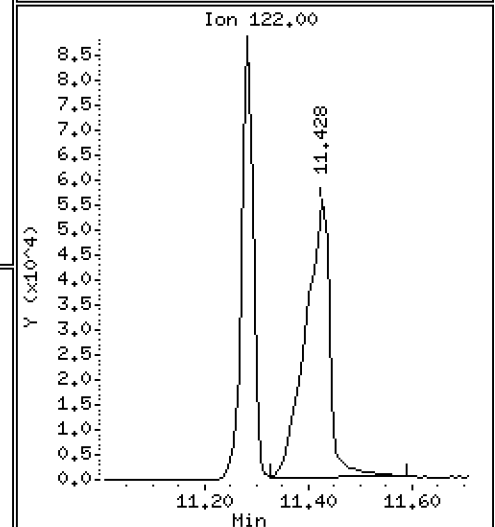
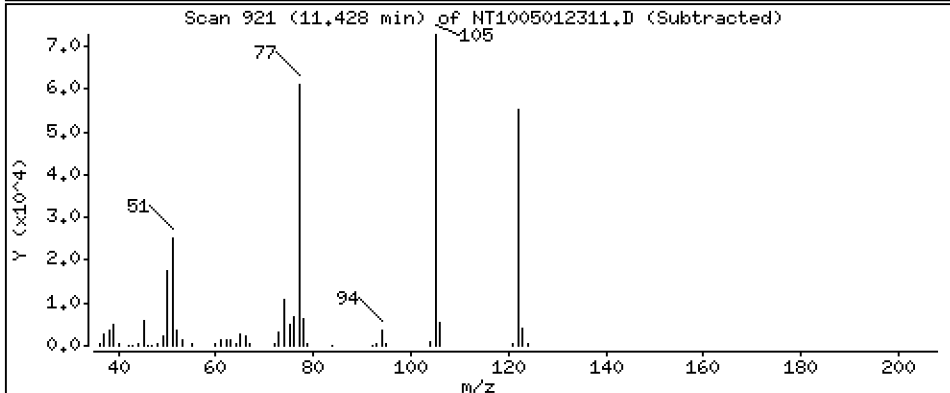
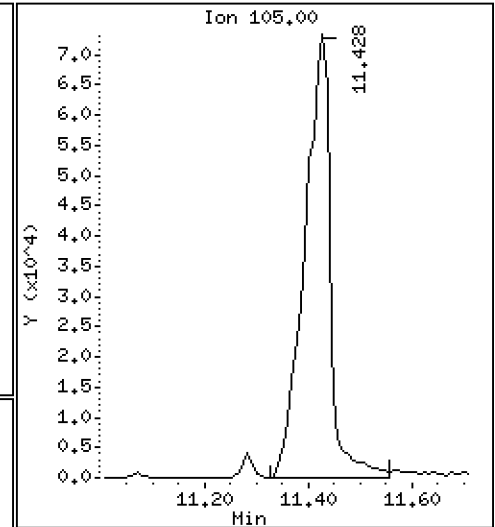
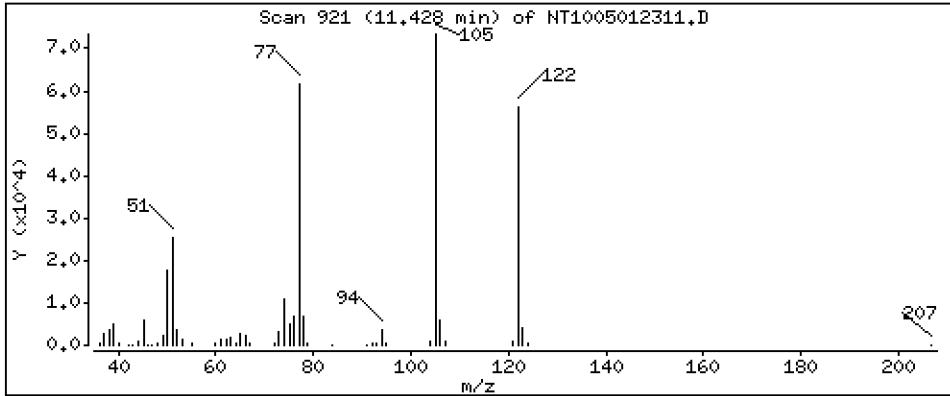
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 7,386 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

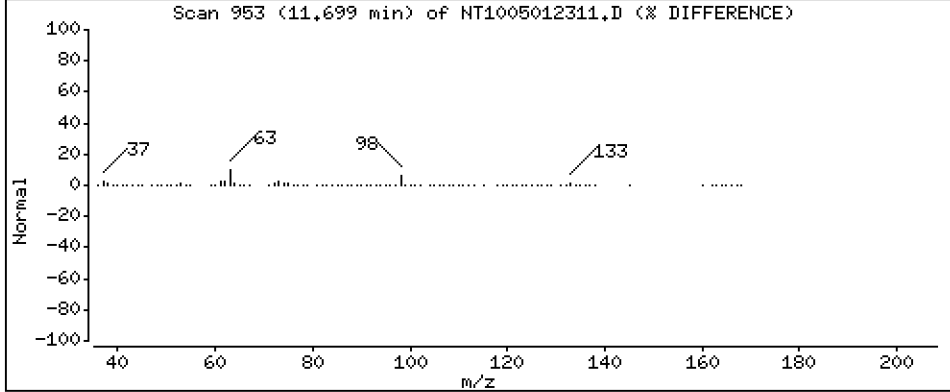
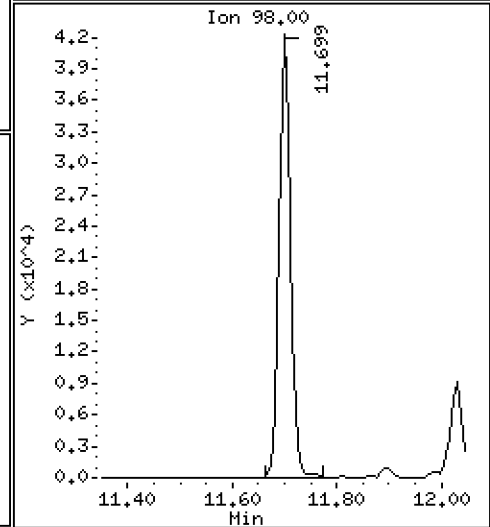
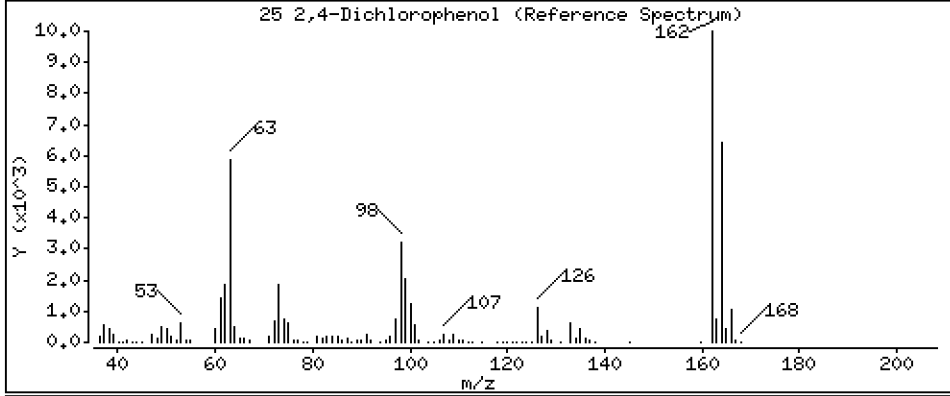
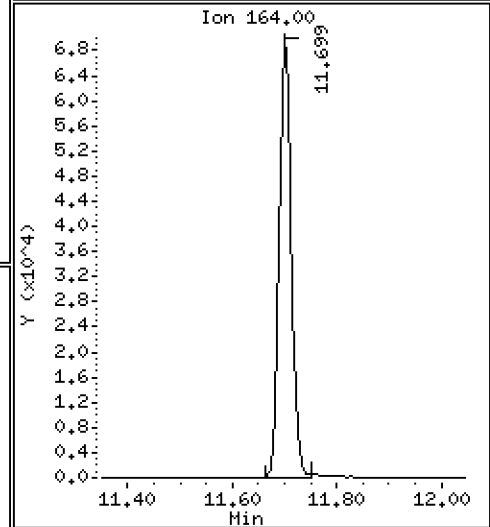
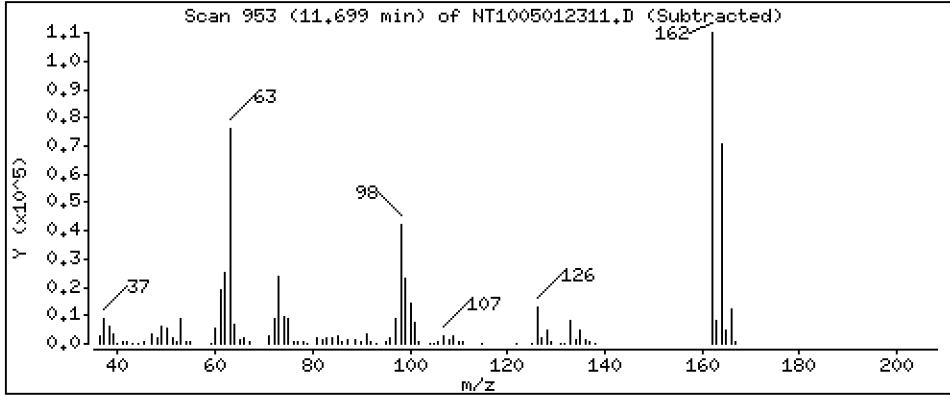
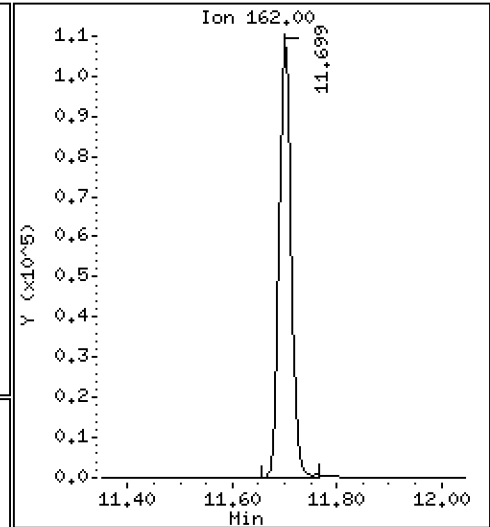
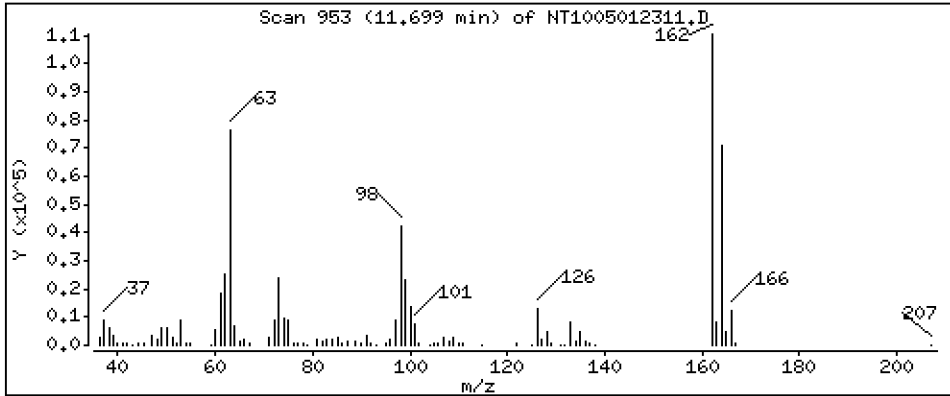
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,480 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

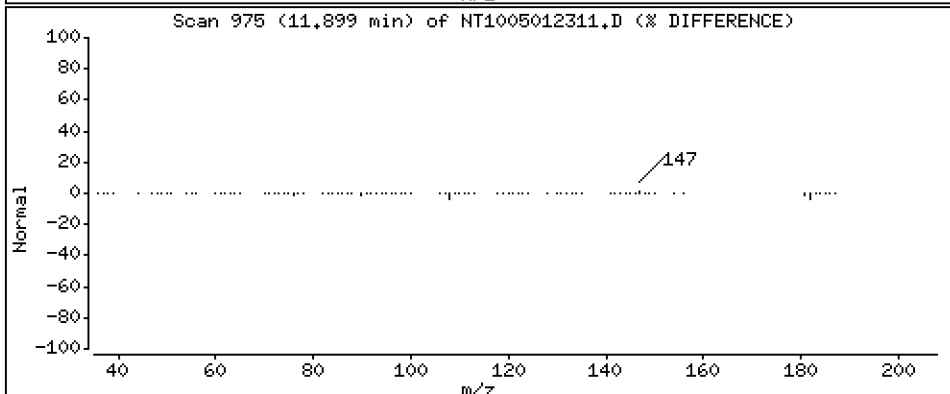
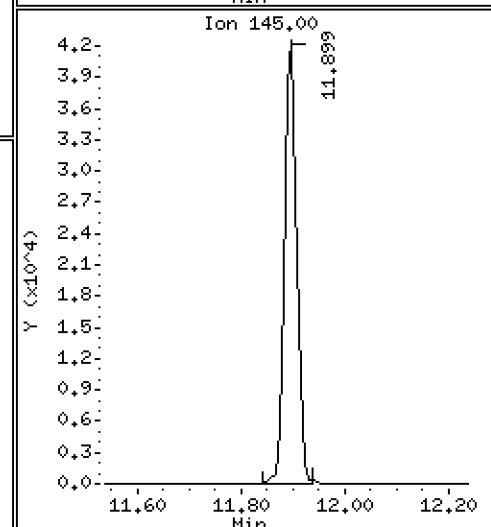
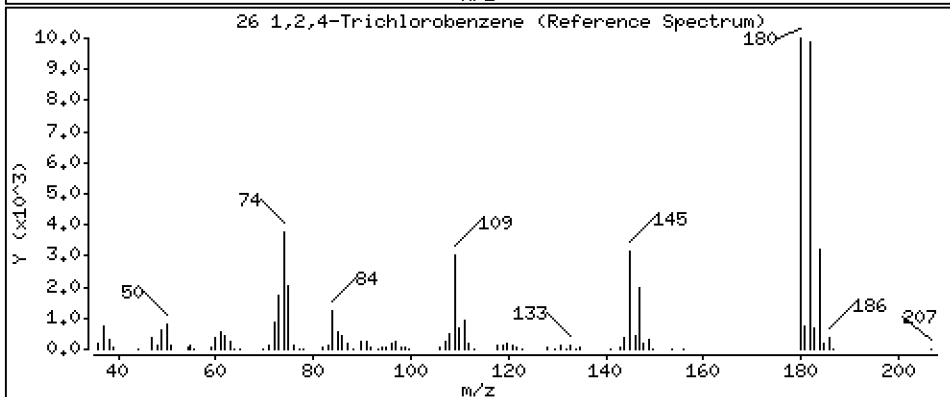
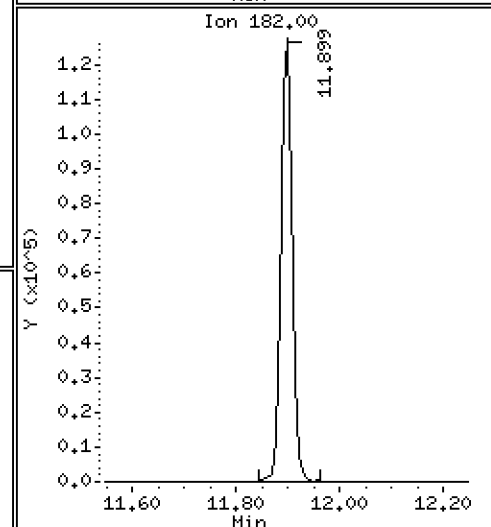
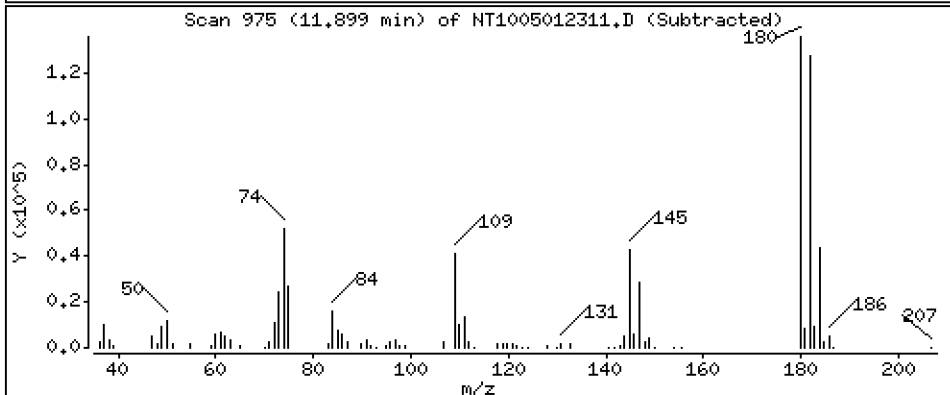
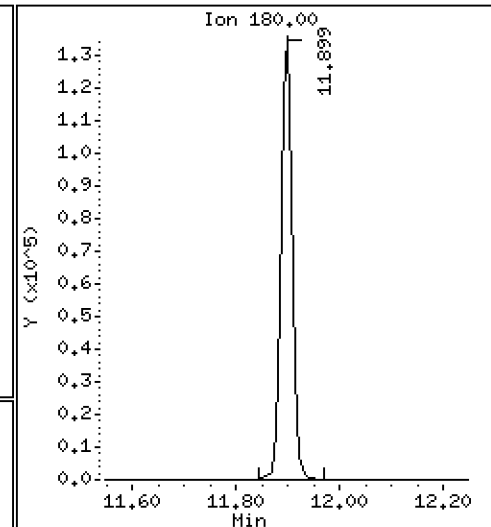
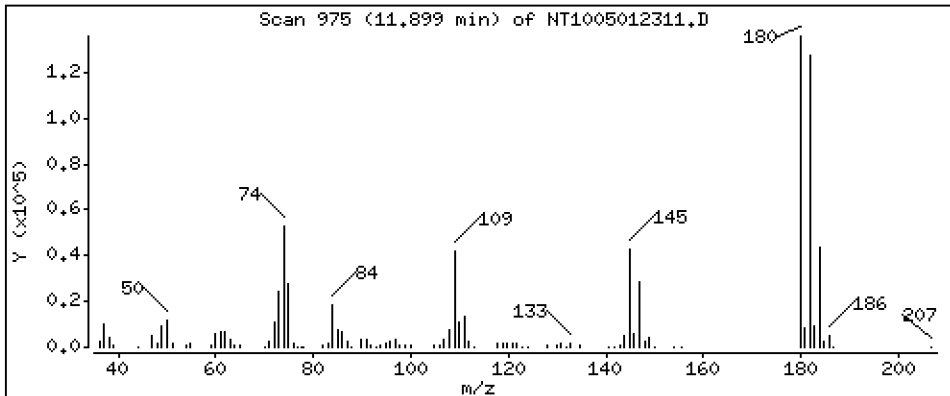
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,378 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

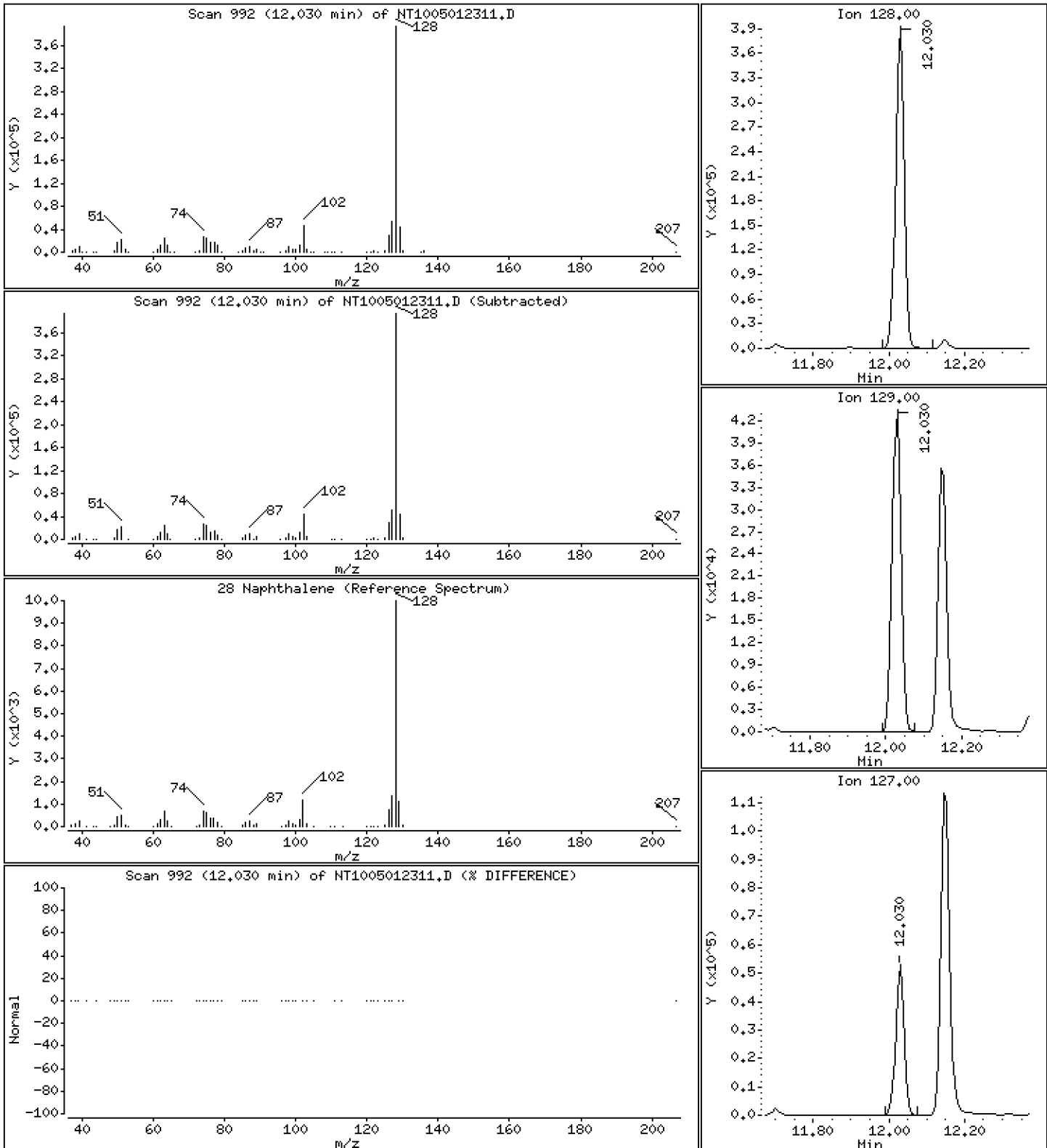
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,742 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

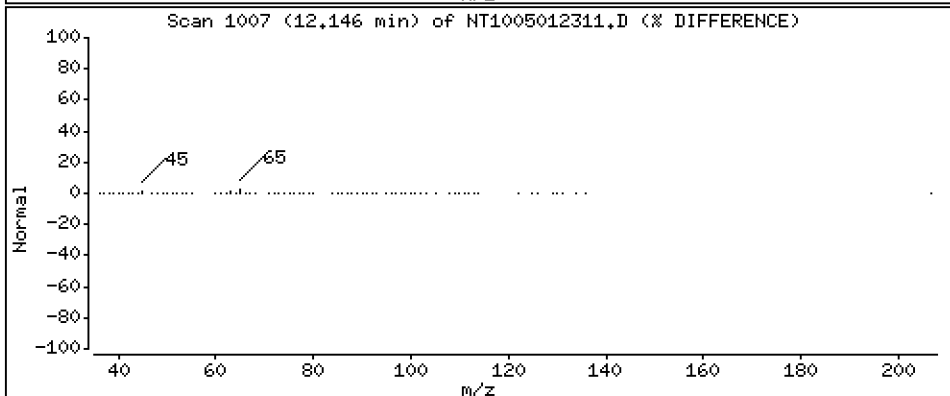
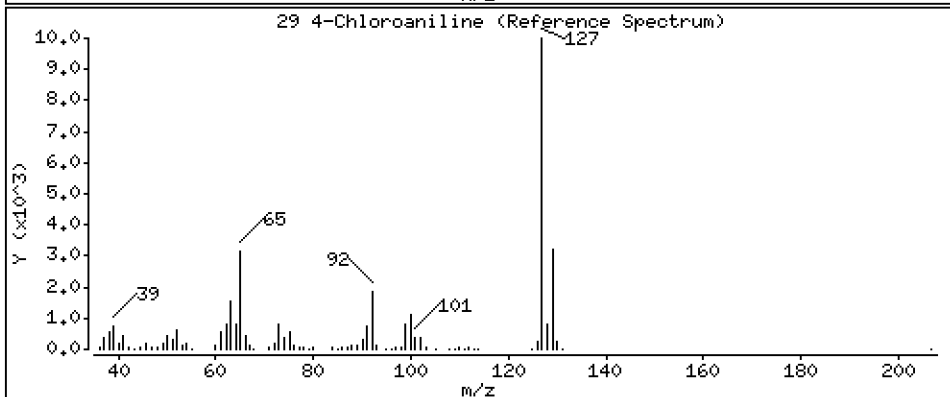
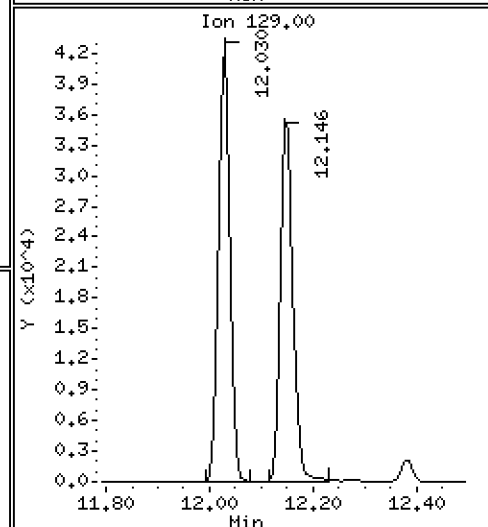
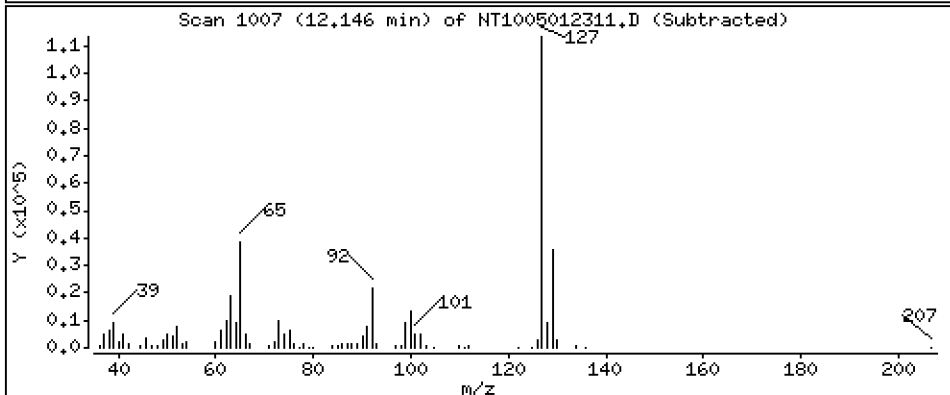
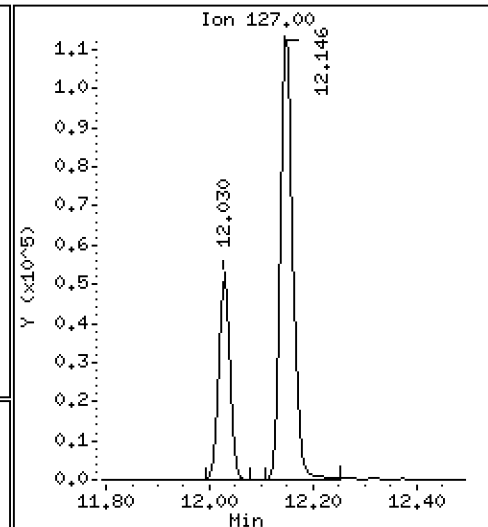
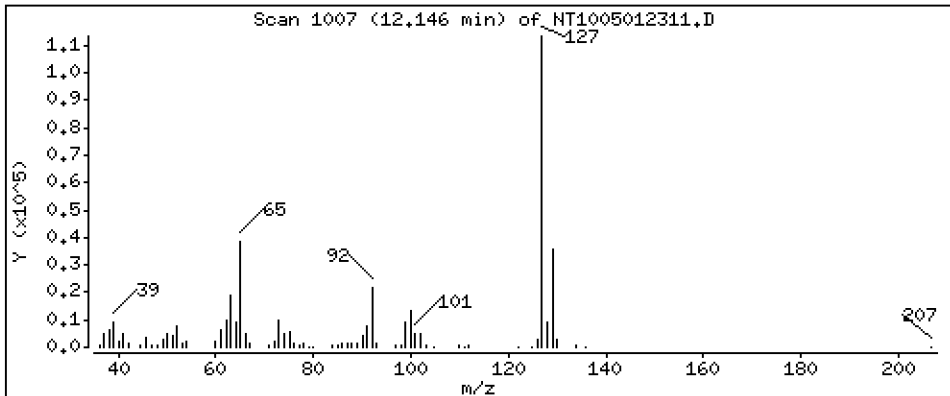
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,956 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

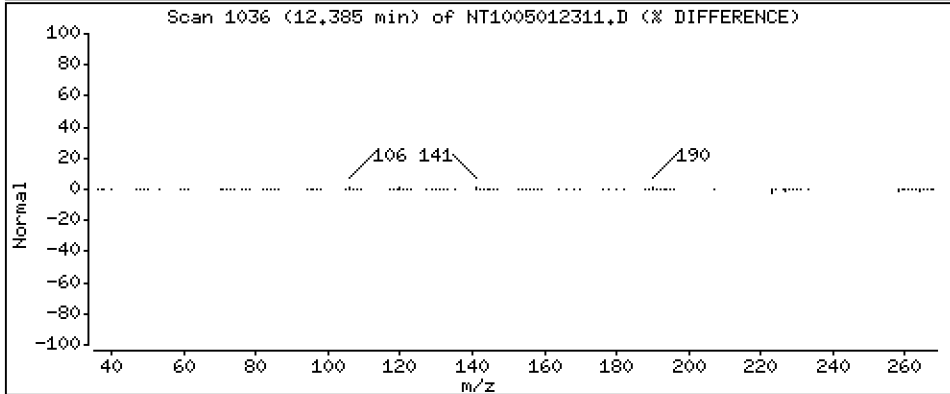
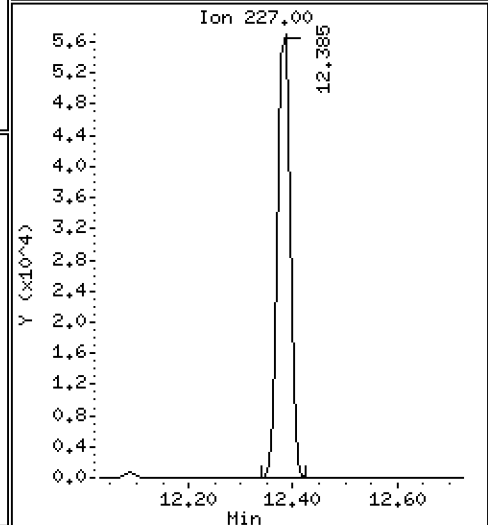
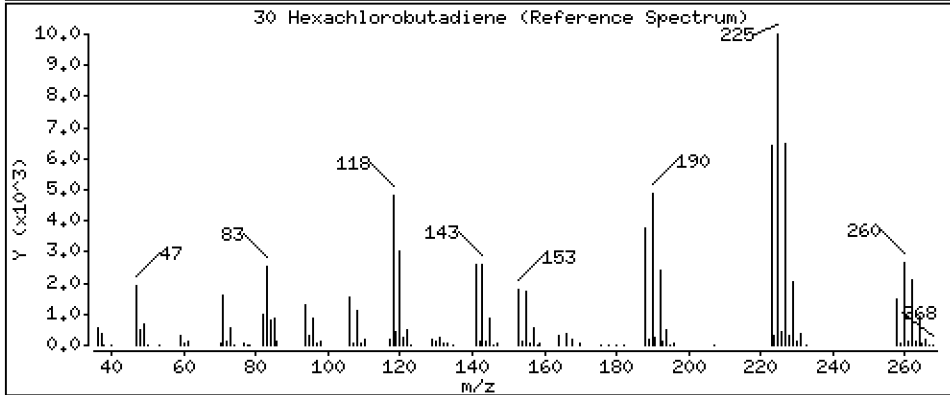
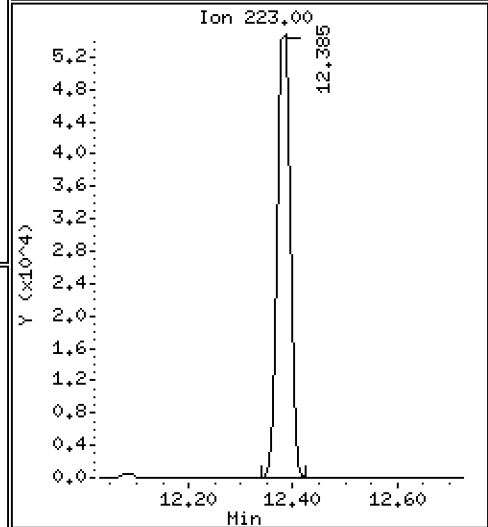
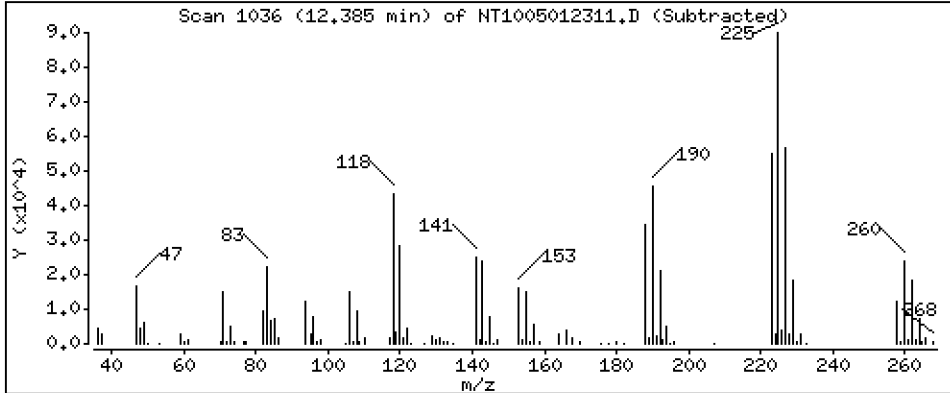
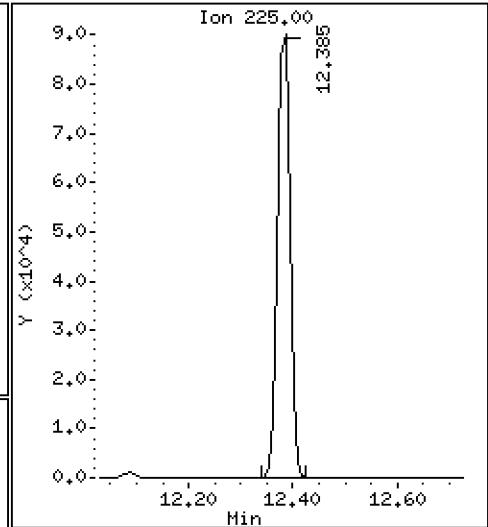
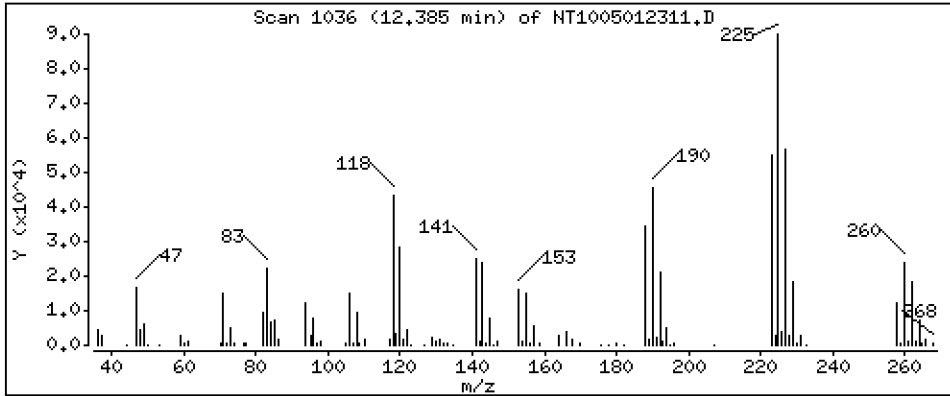
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,626 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

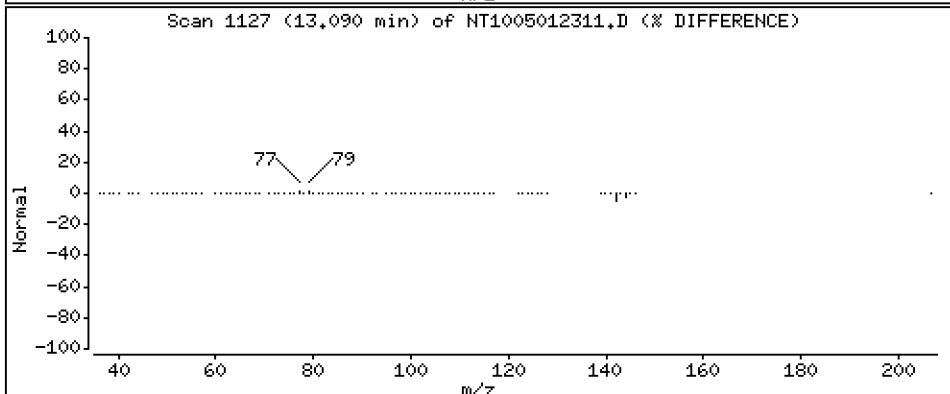
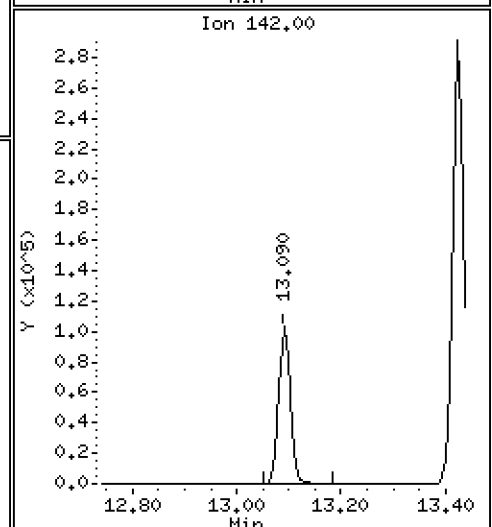
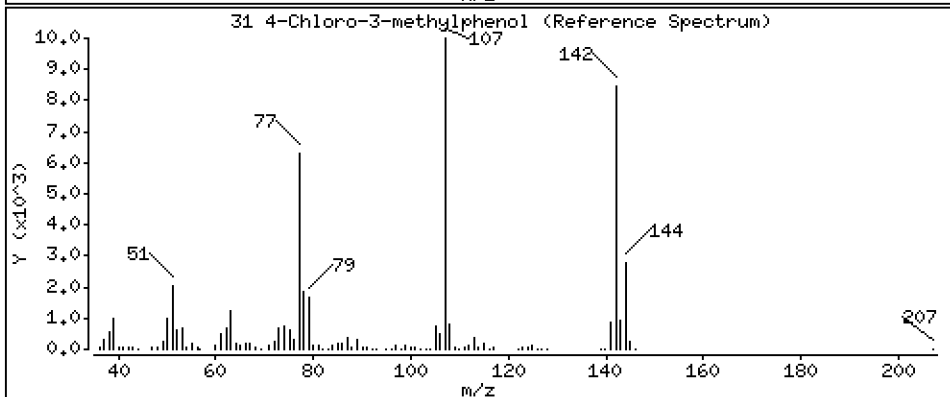
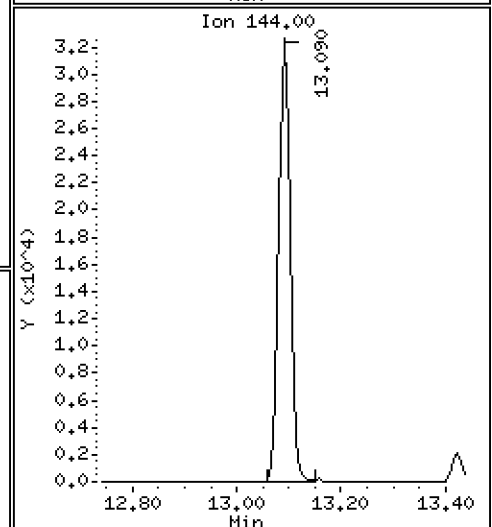
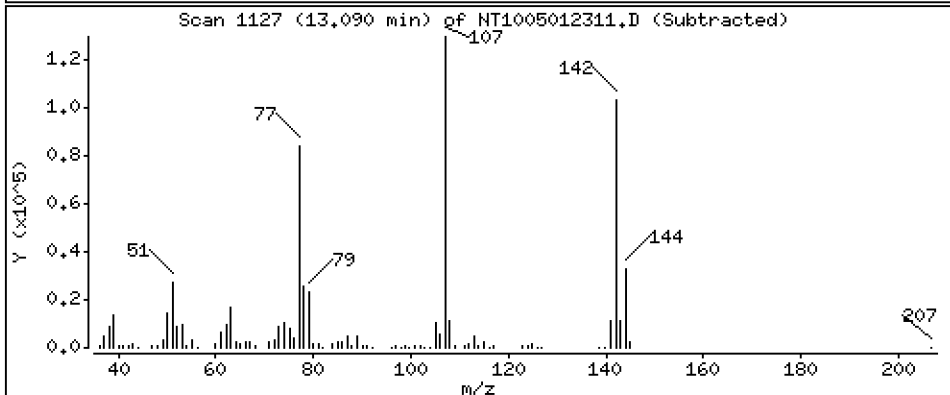
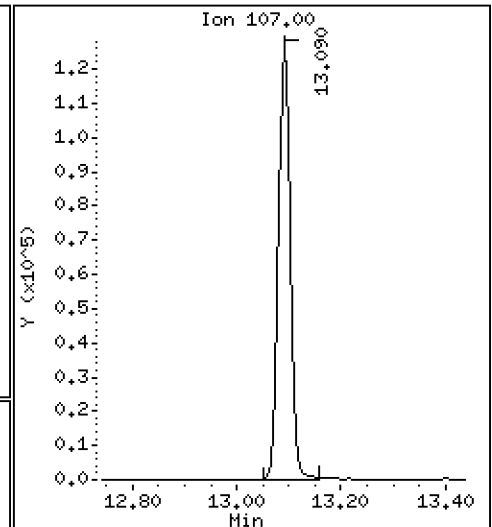
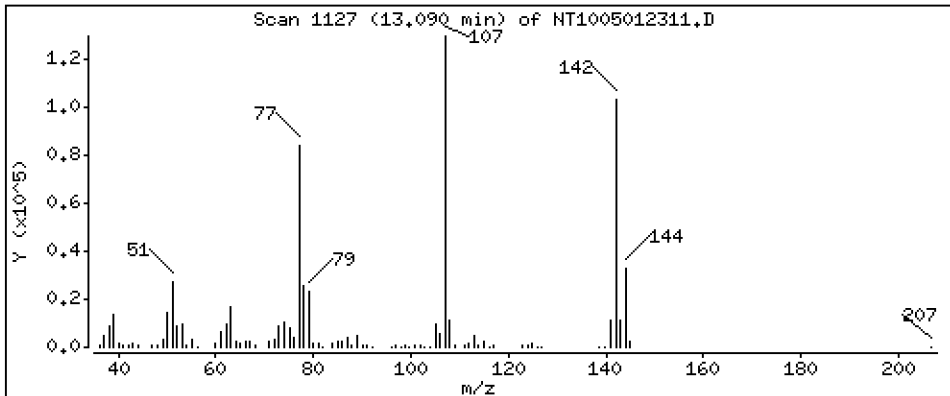
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,460 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

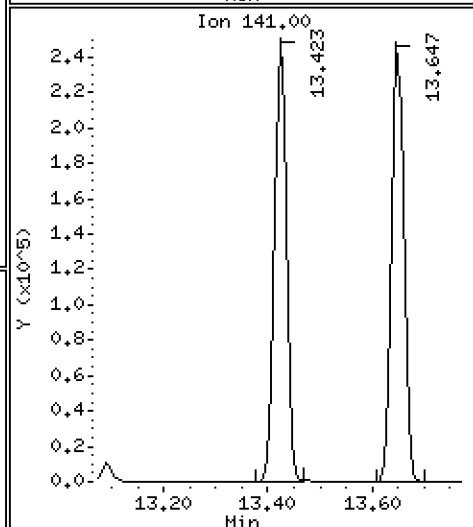
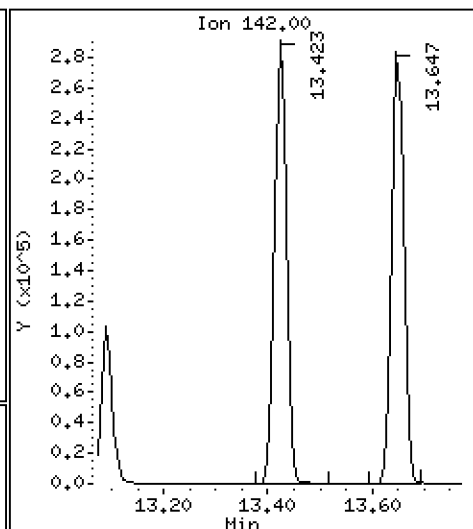
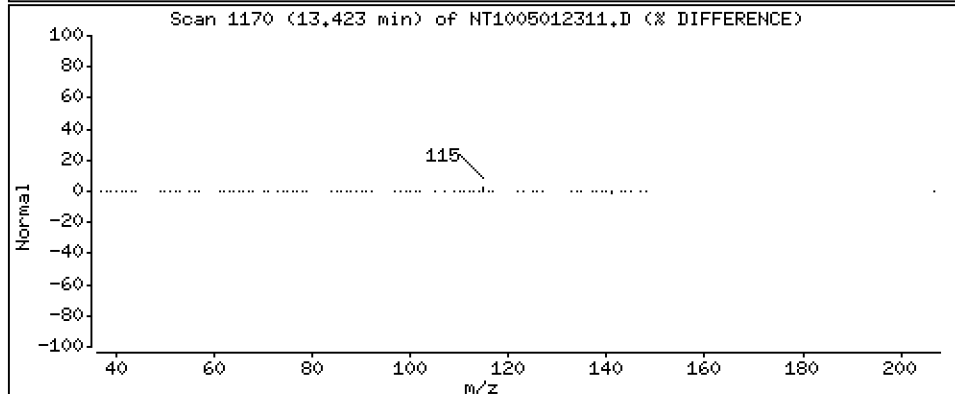
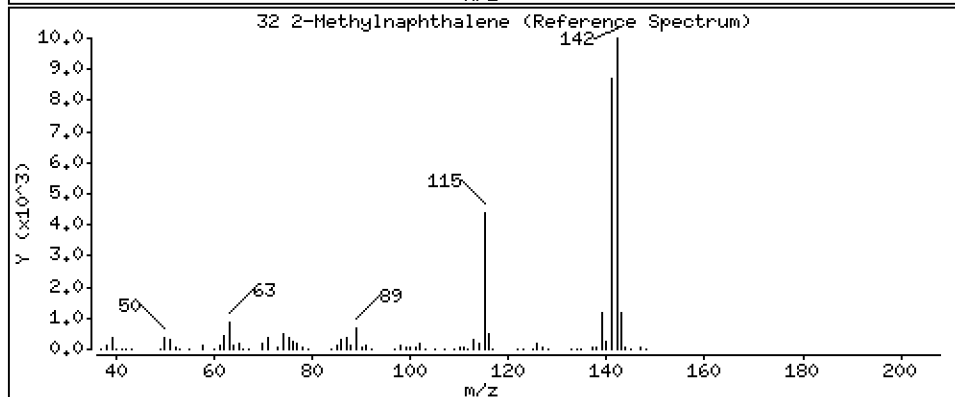
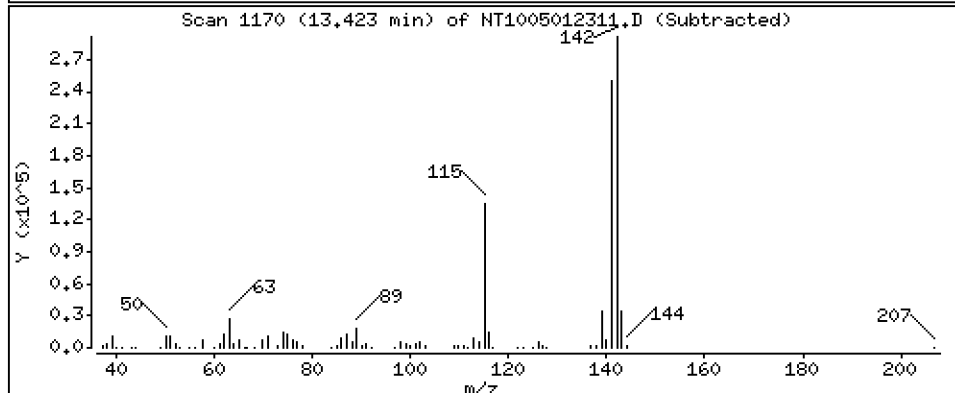
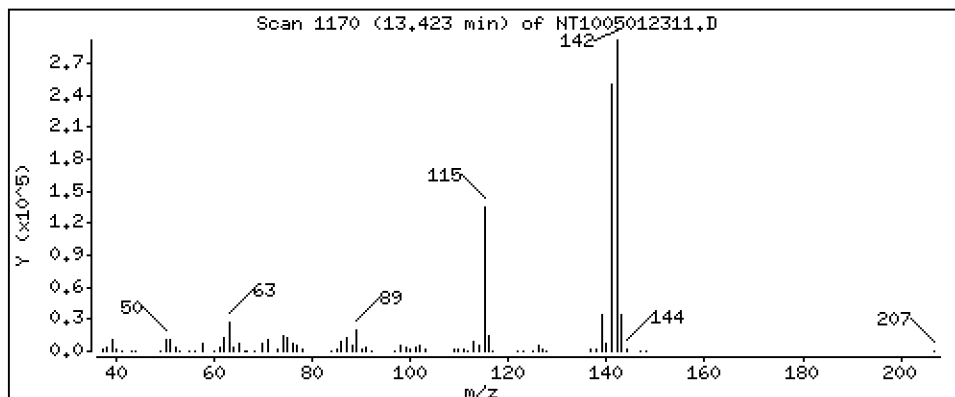
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,513 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

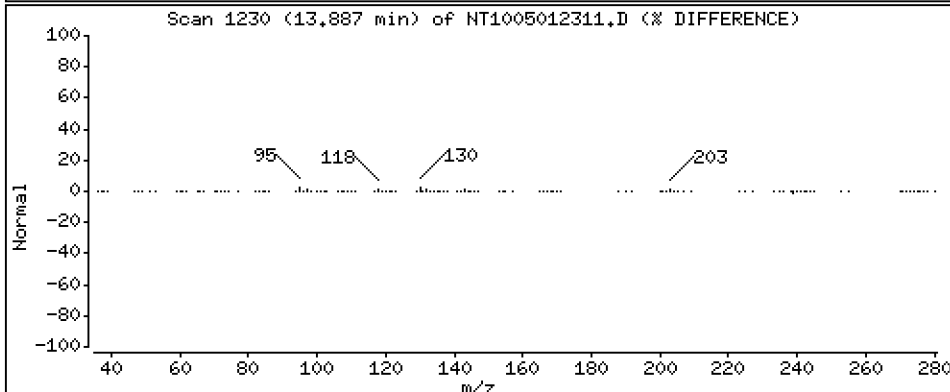
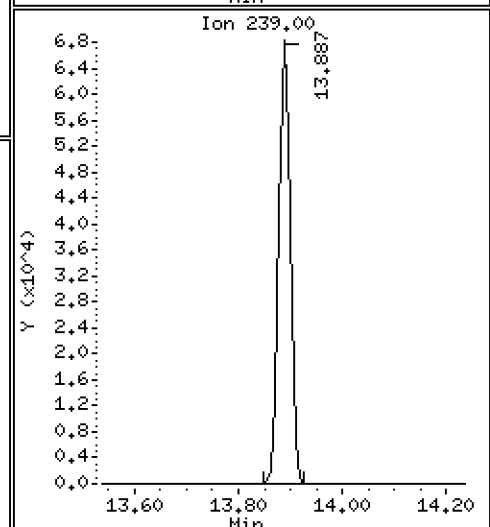
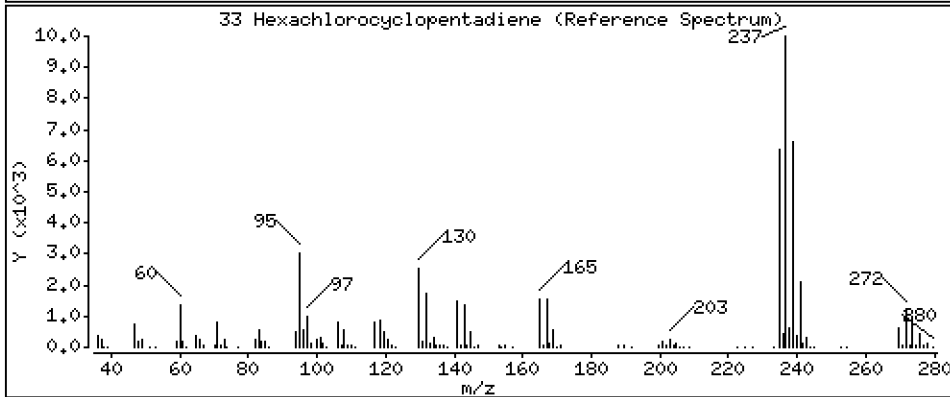
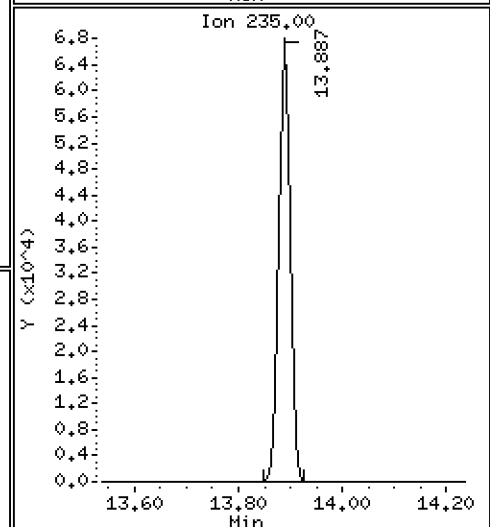
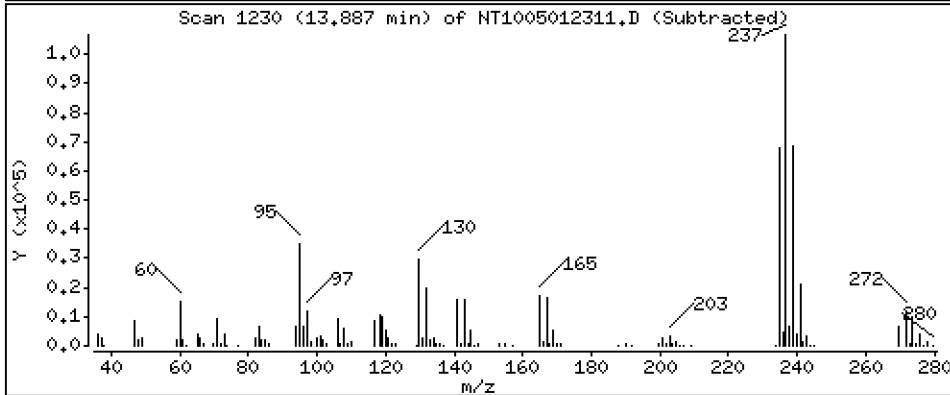
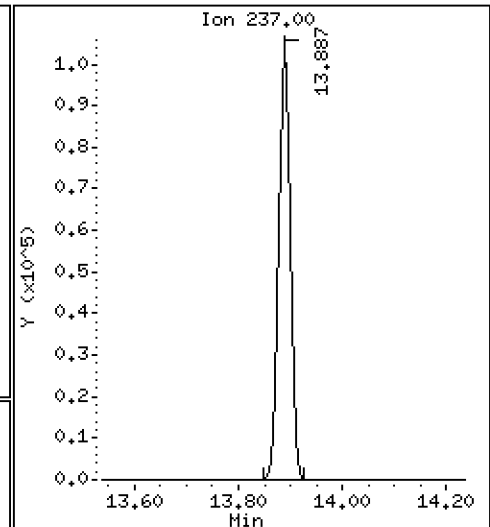
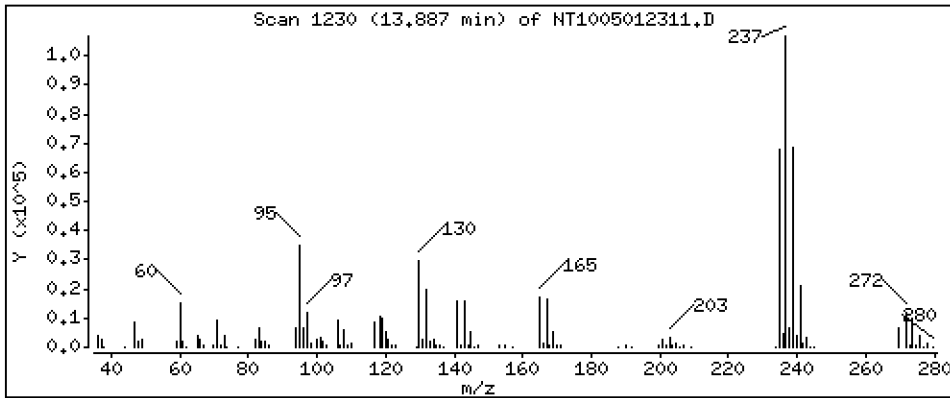
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,673 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

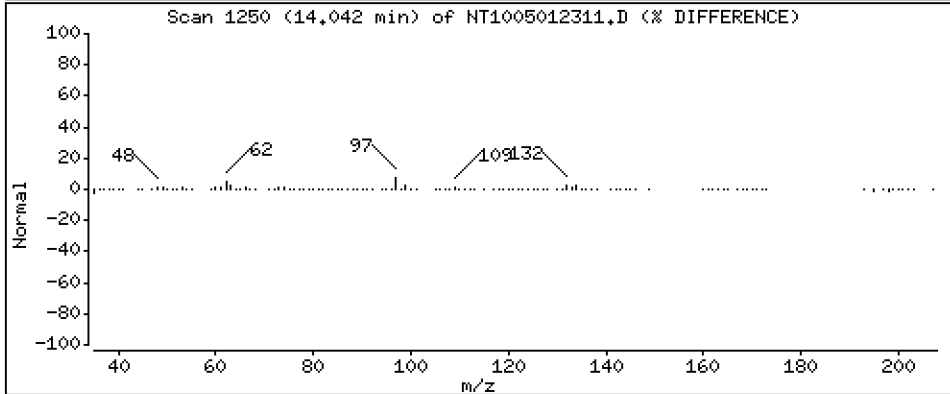
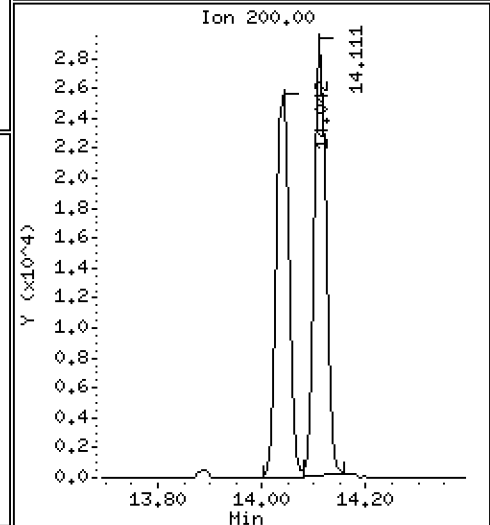
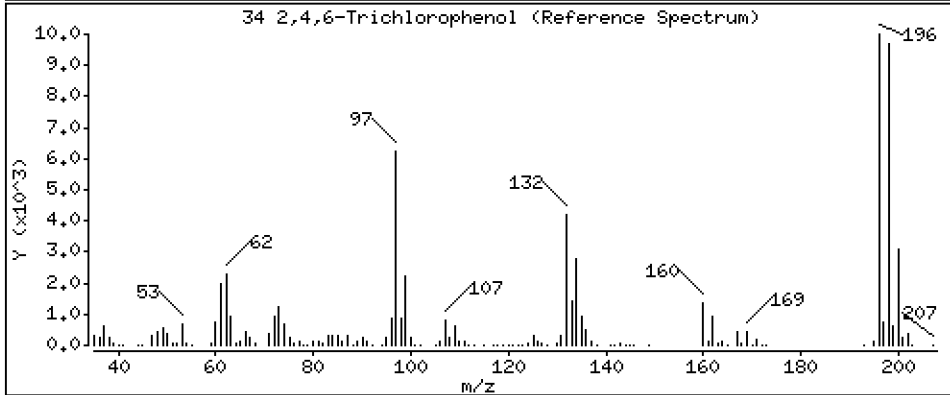
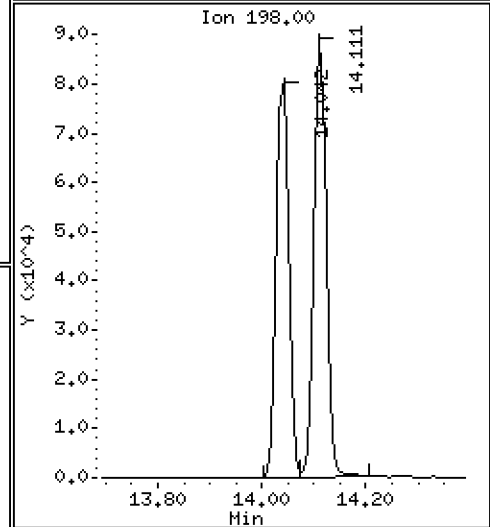
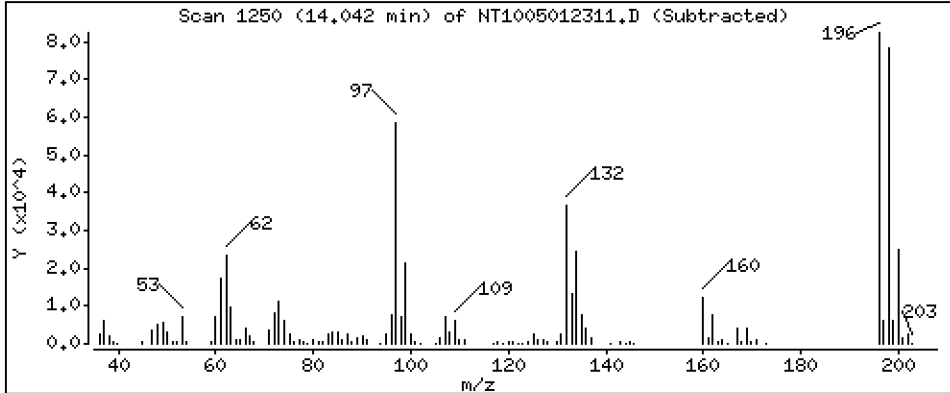
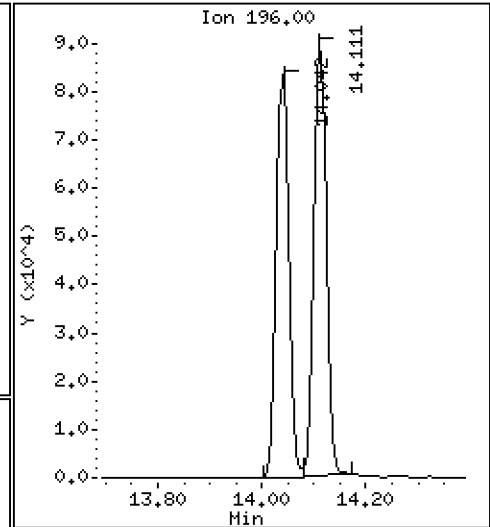
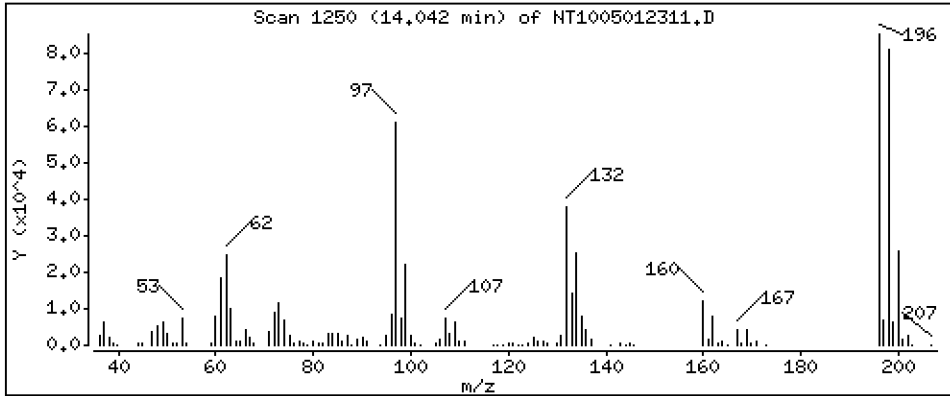
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,212 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

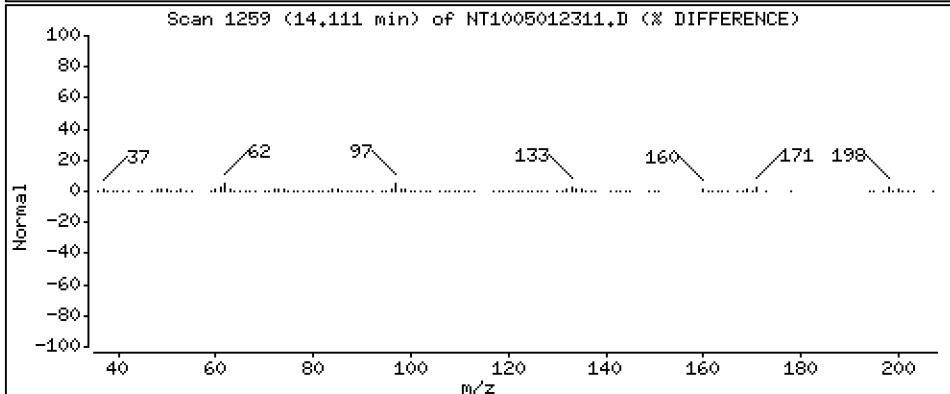
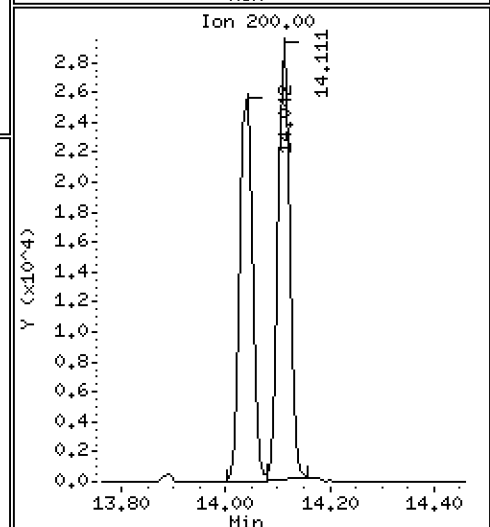
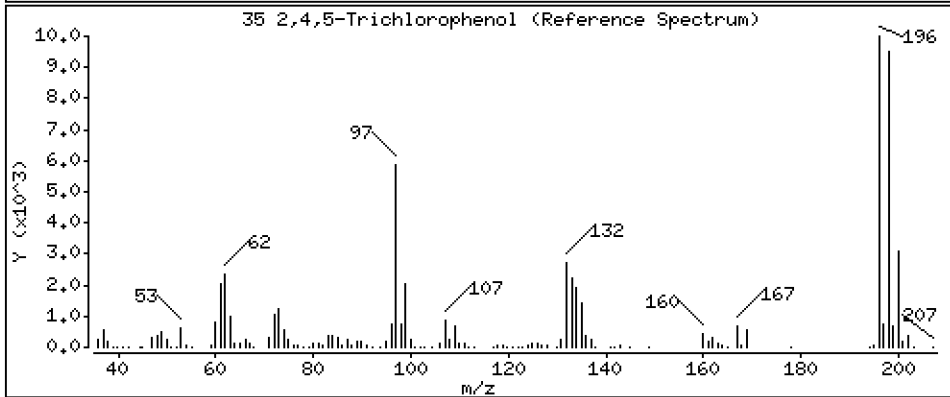
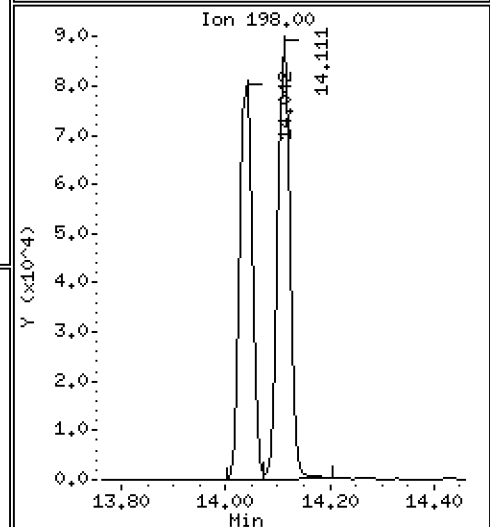
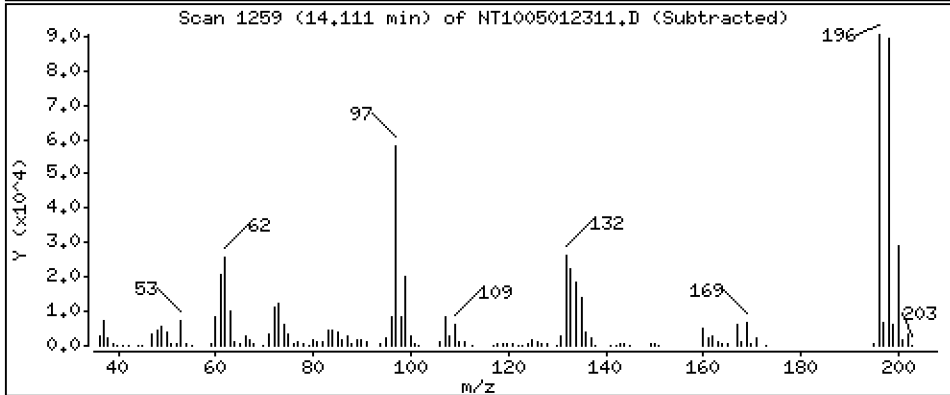
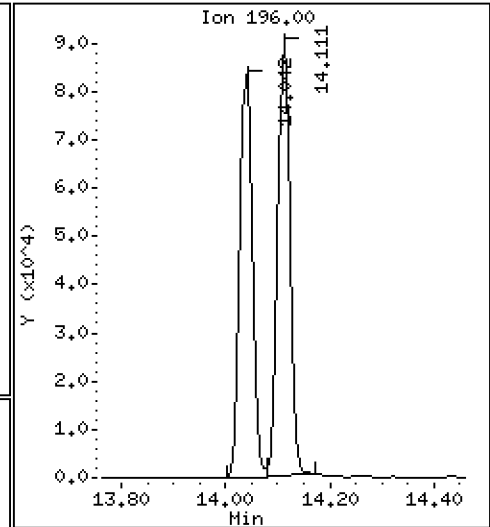
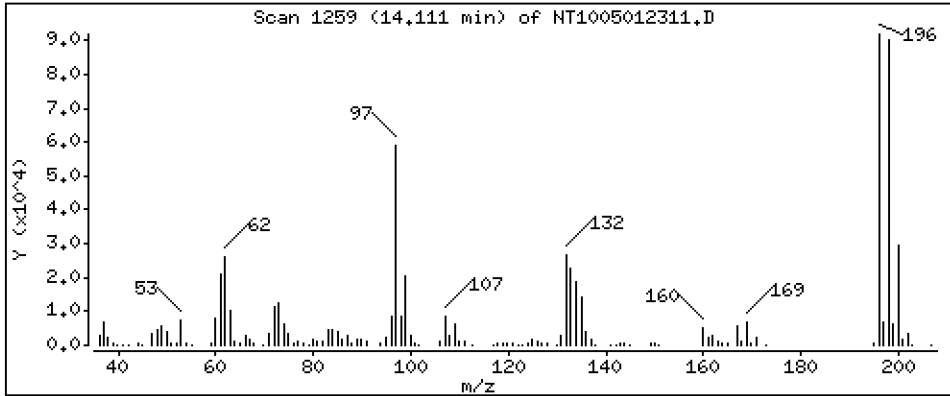
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,029 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

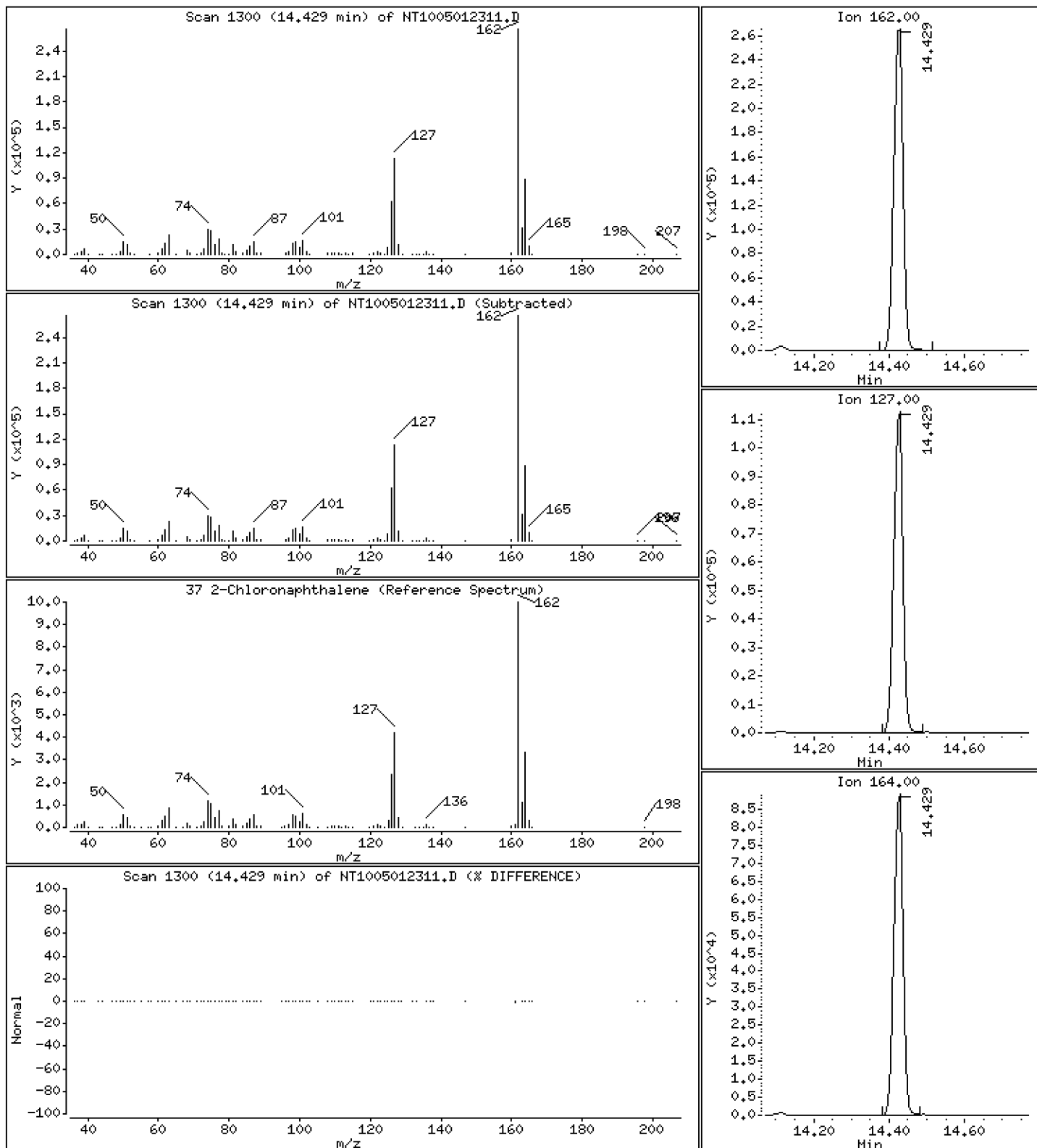
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.830 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

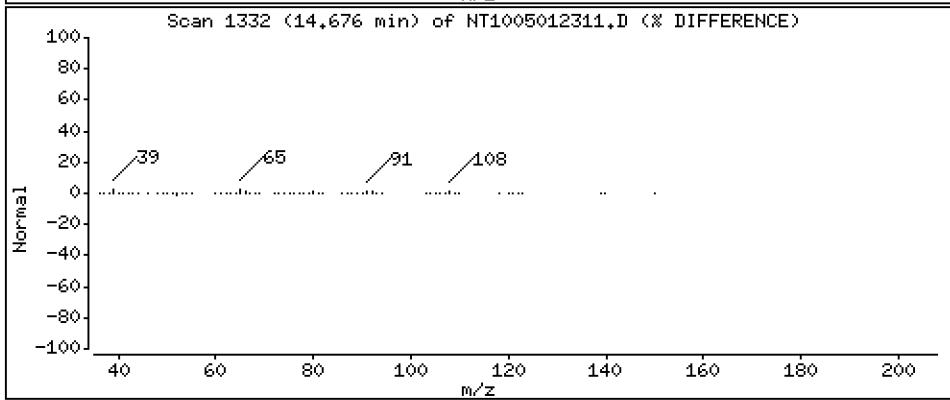
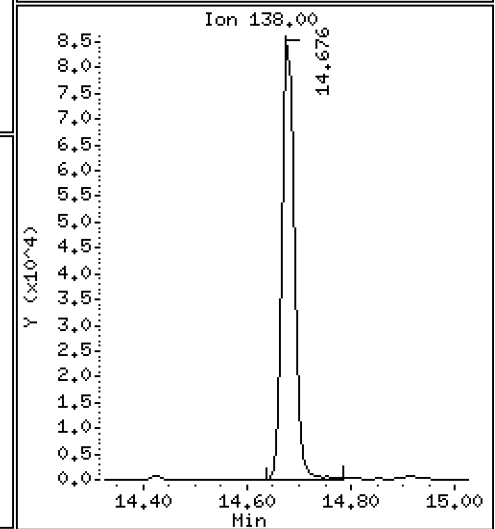
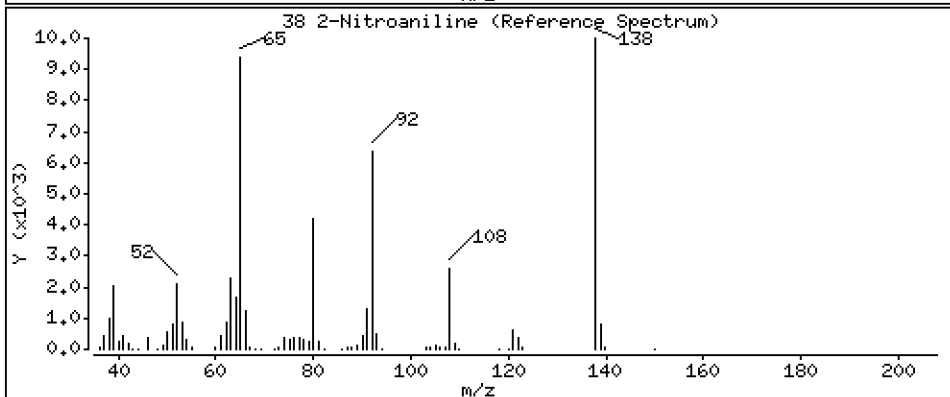
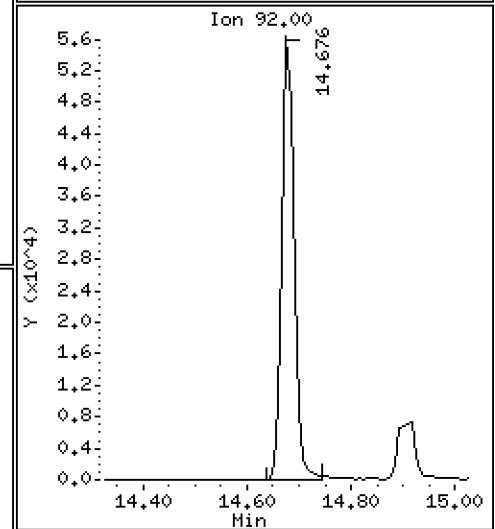
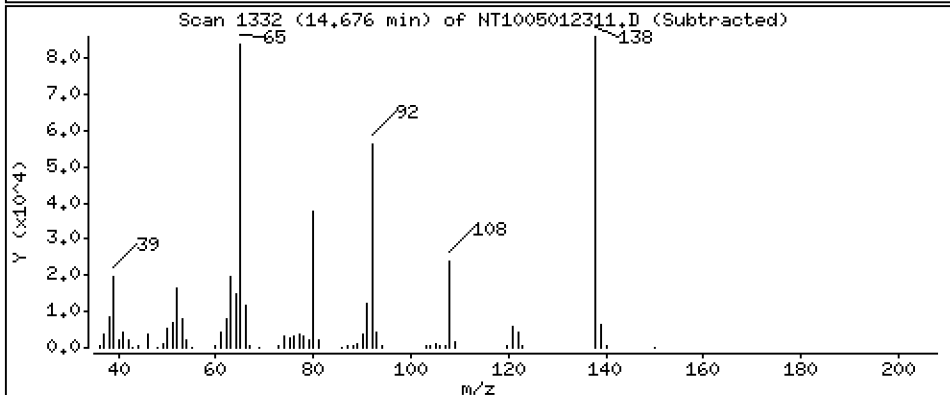
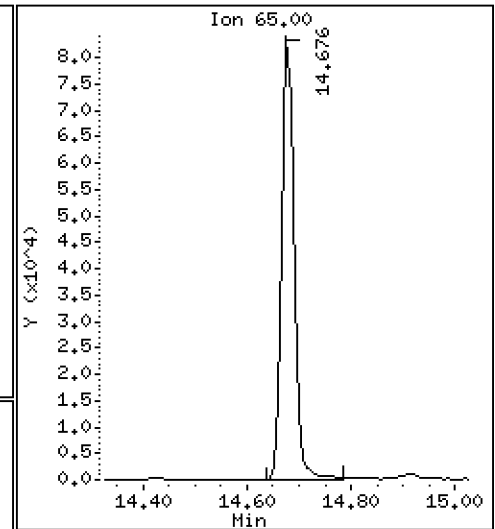
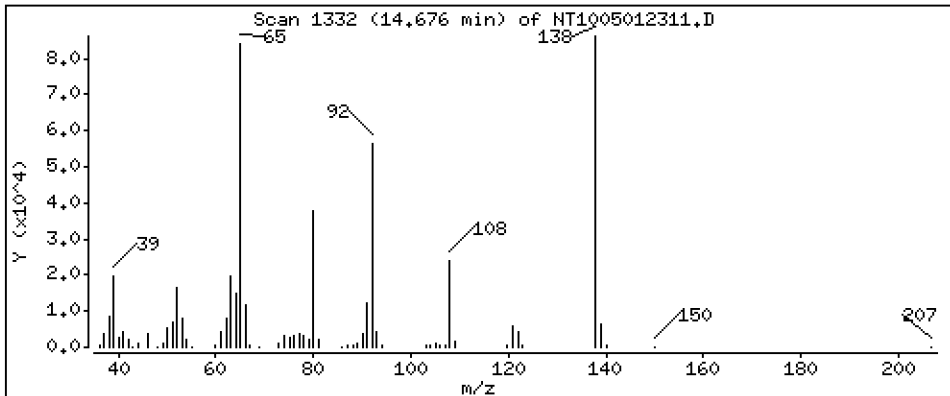
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 5,029 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

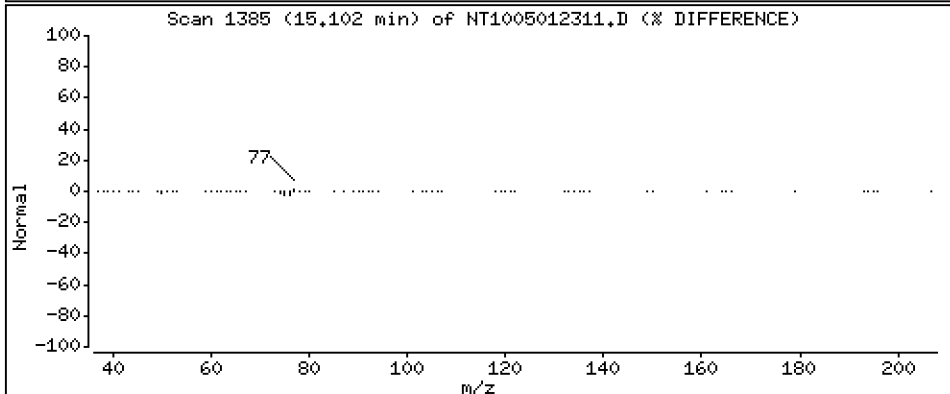
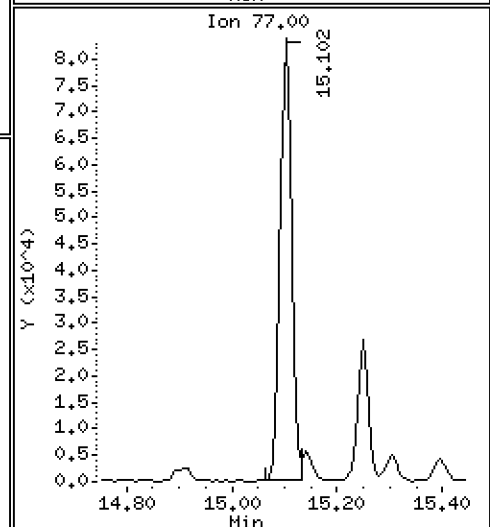
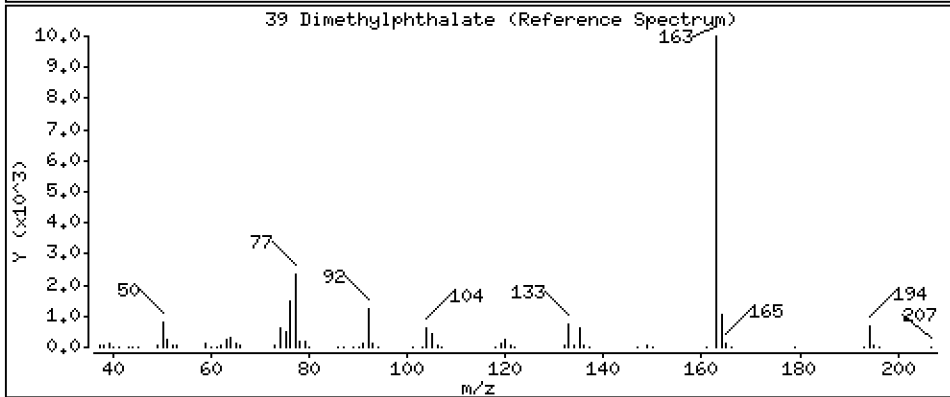
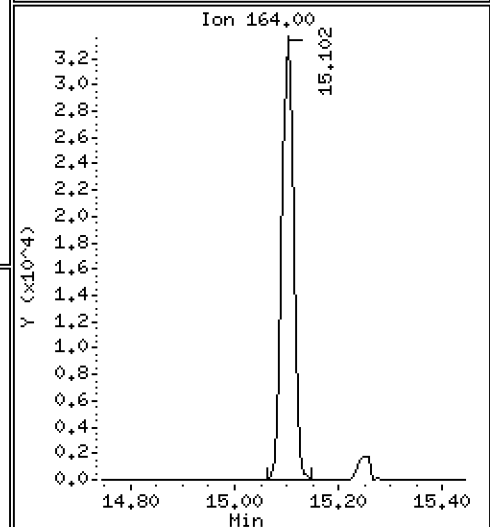
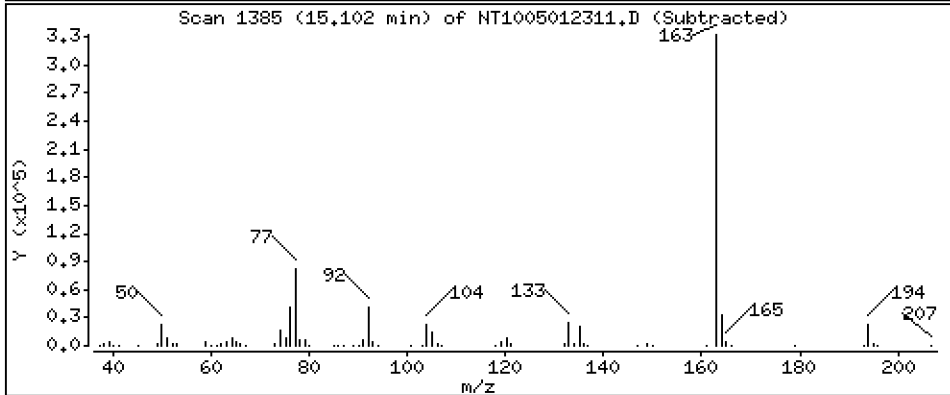
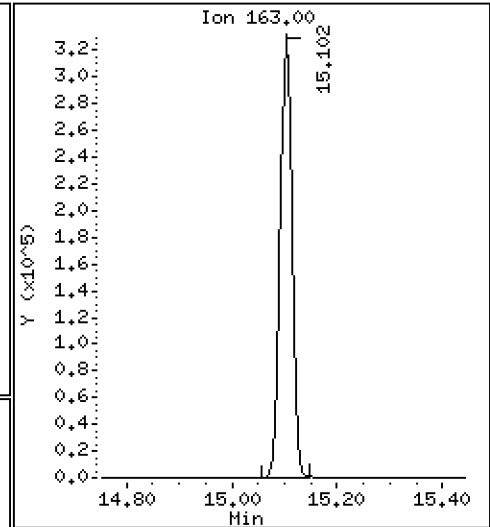
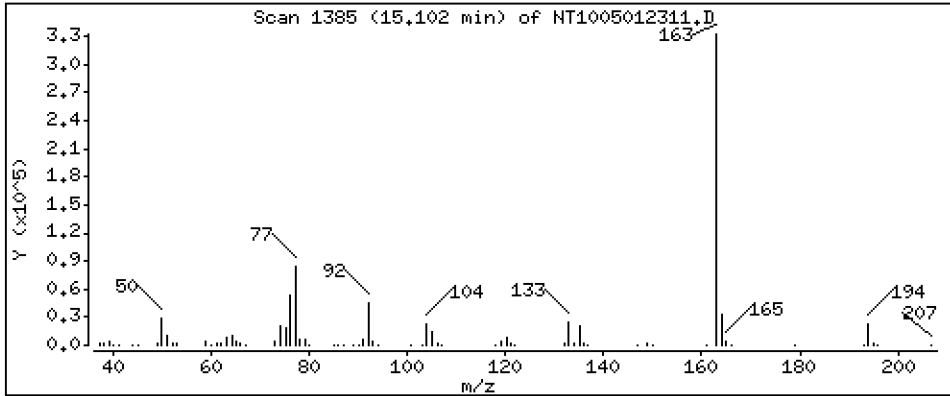
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,908 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

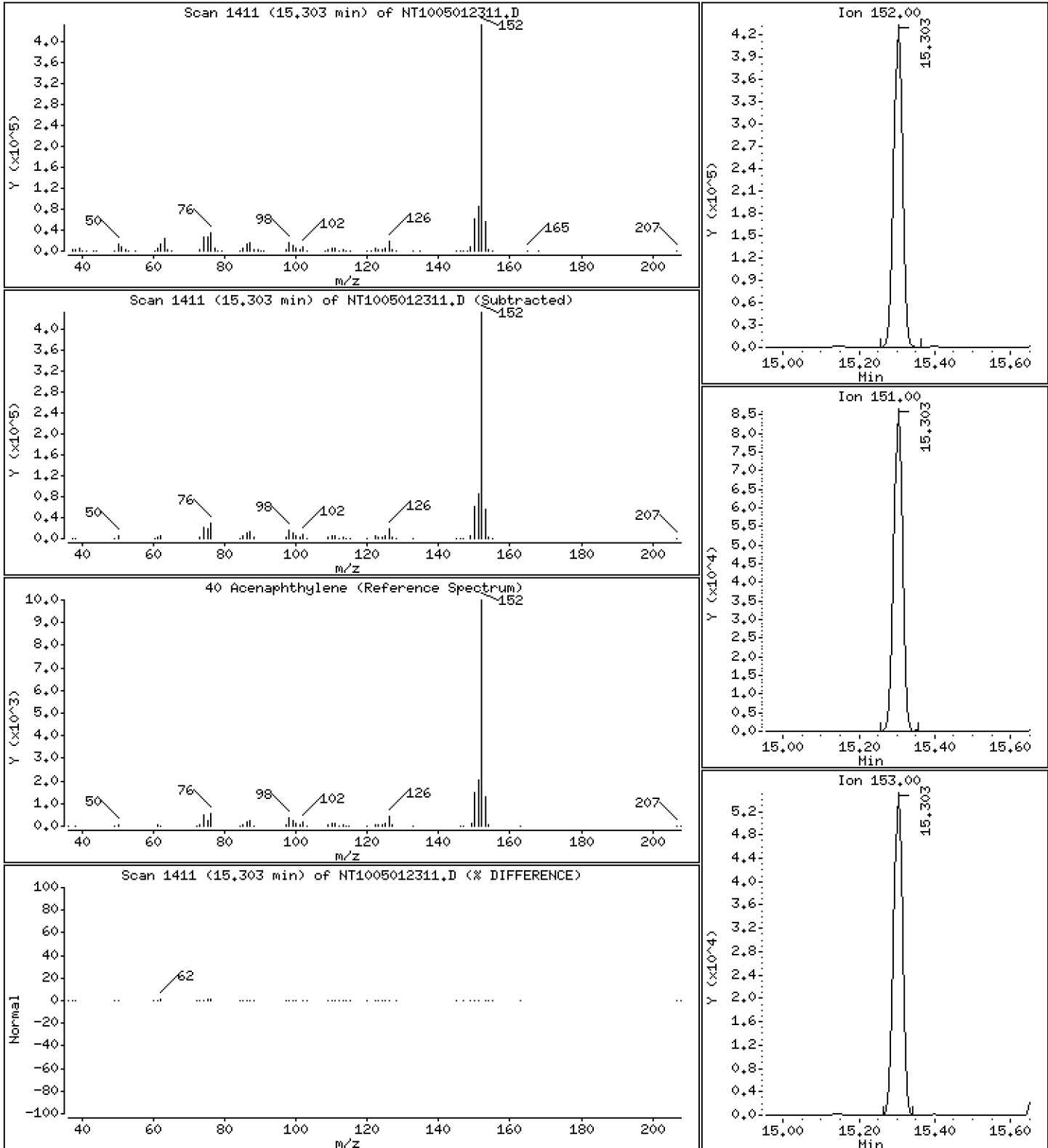
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,776 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

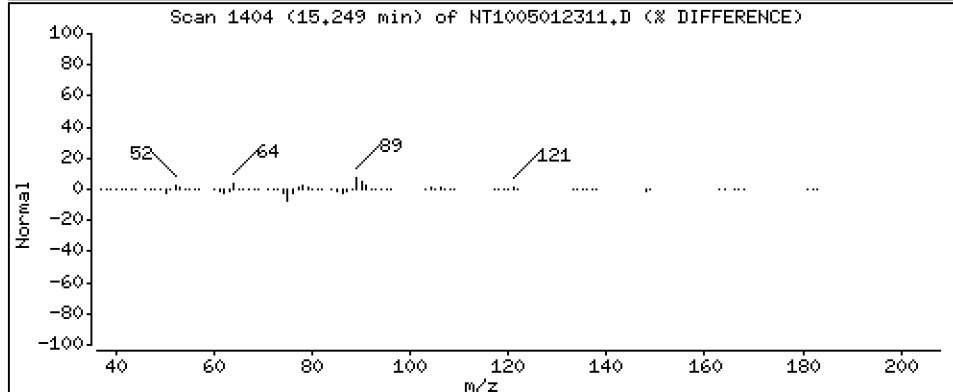
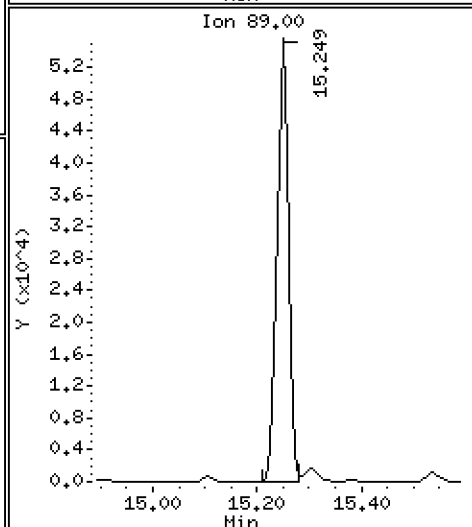
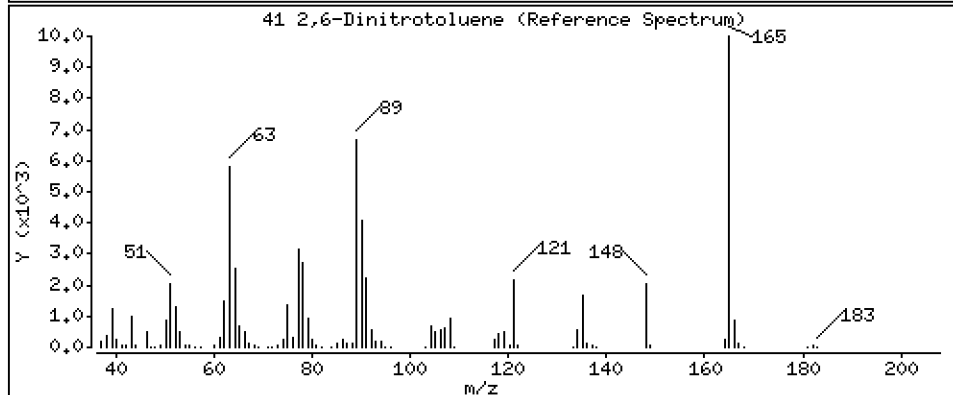
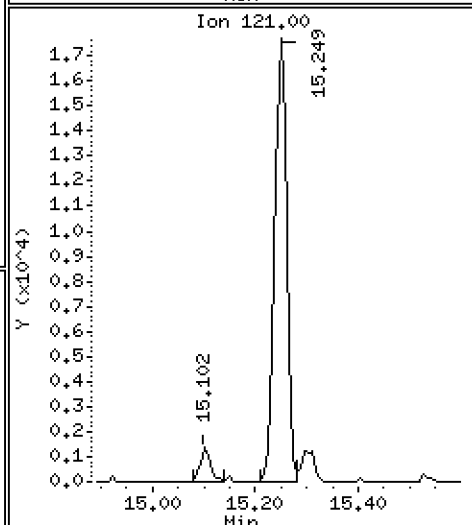
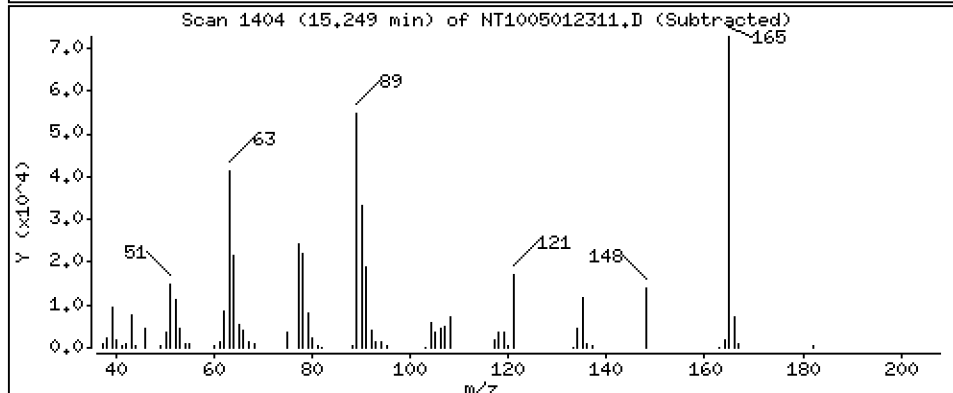
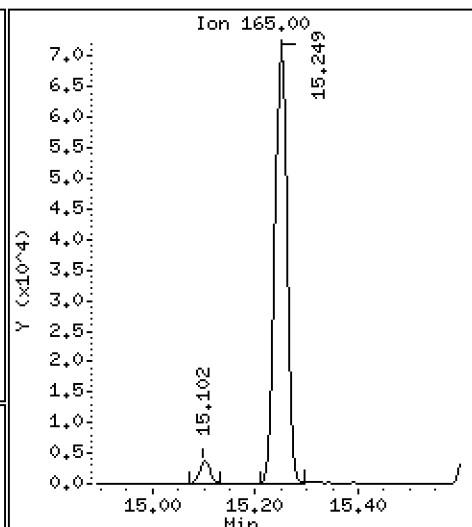
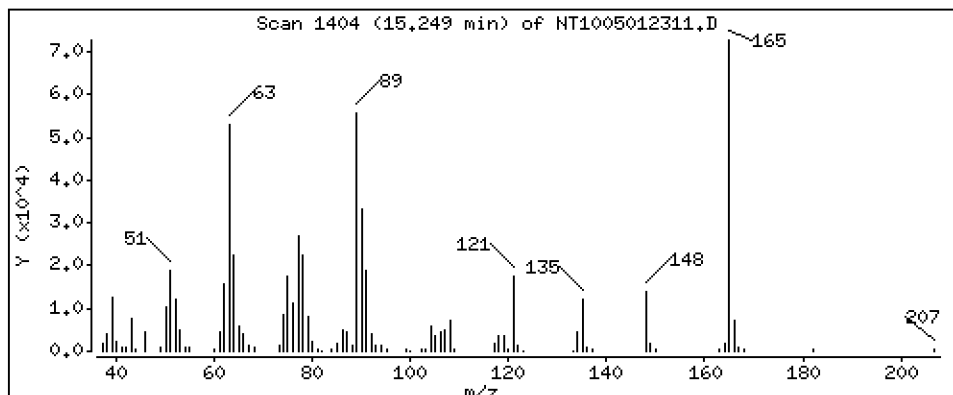
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 4,876 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

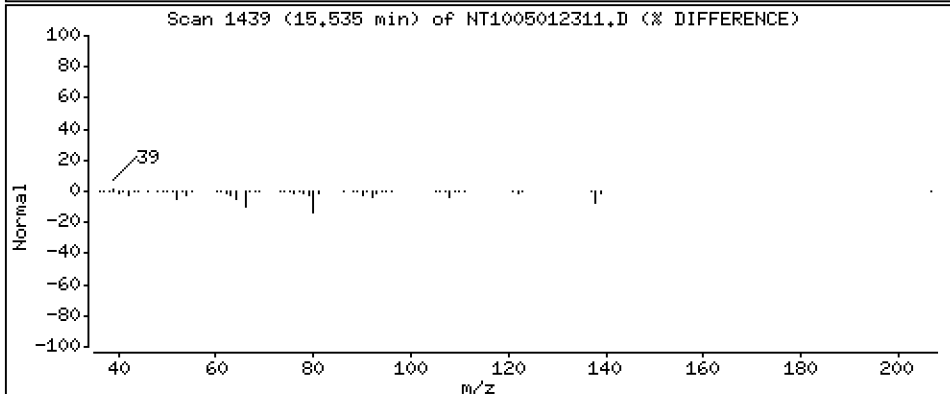
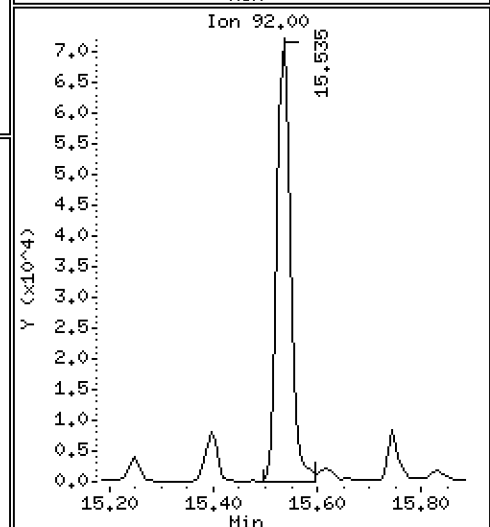
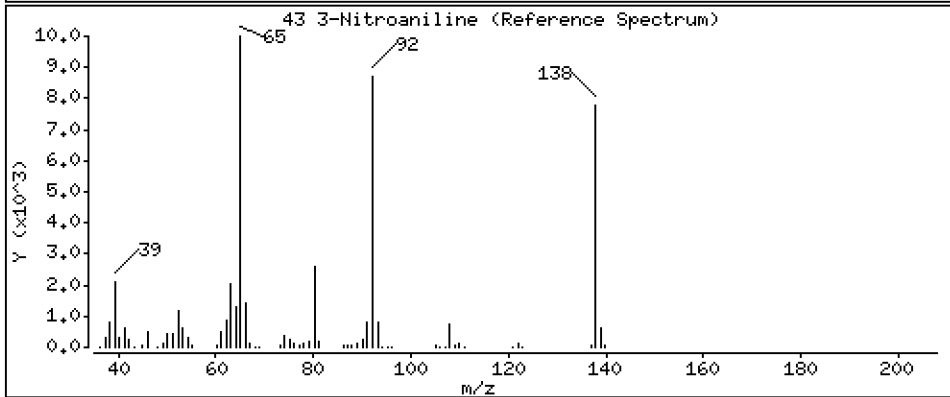
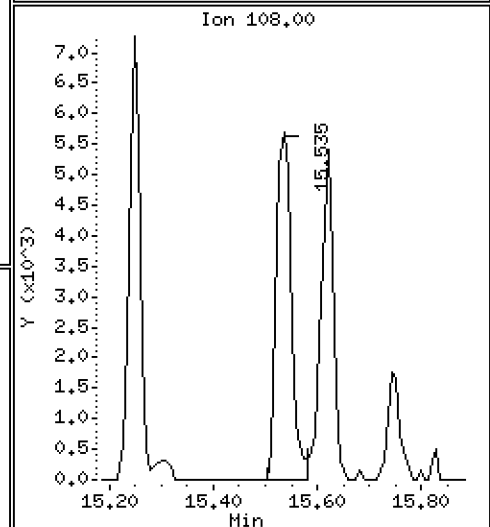
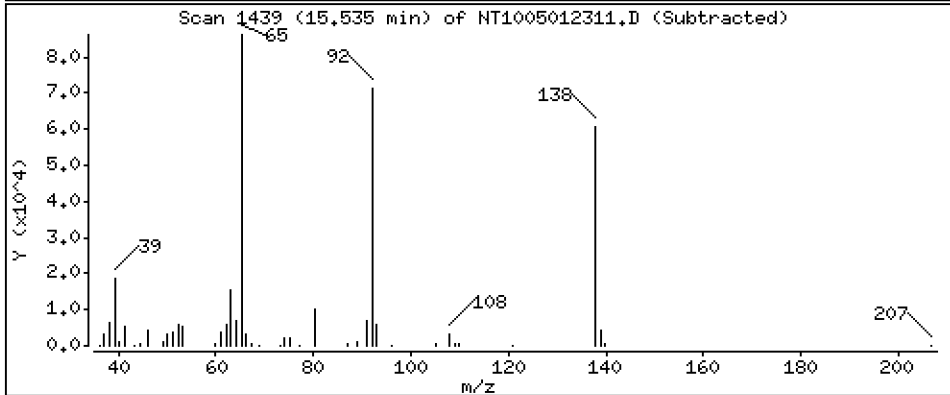
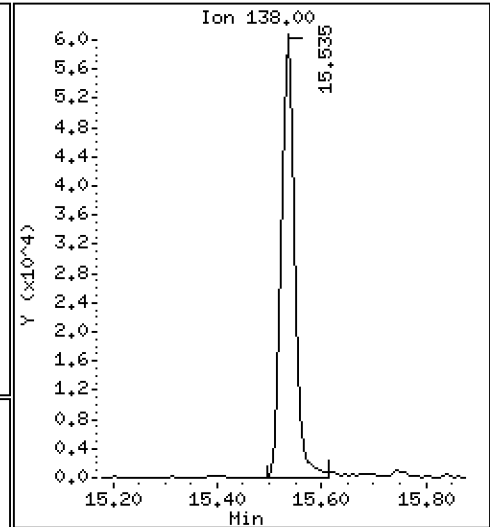
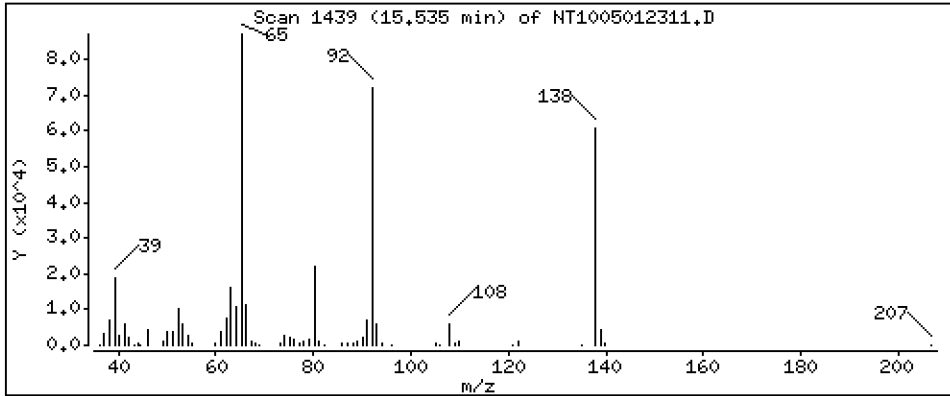
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,776 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

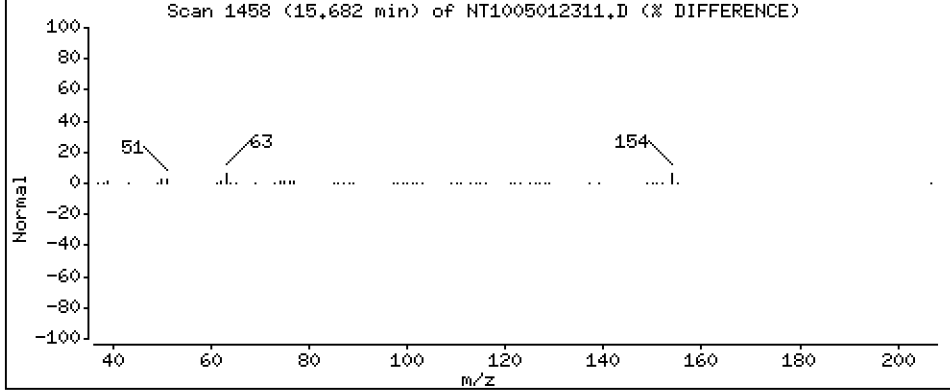
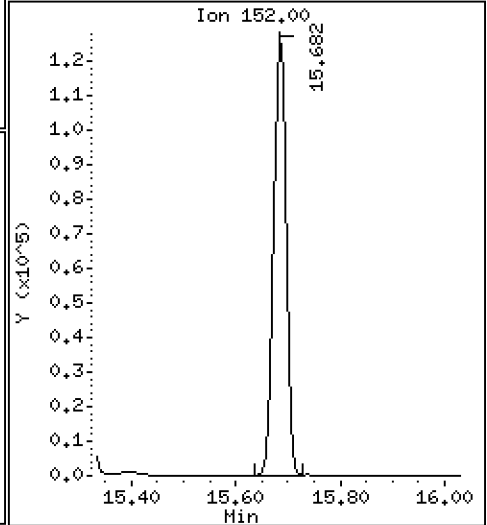
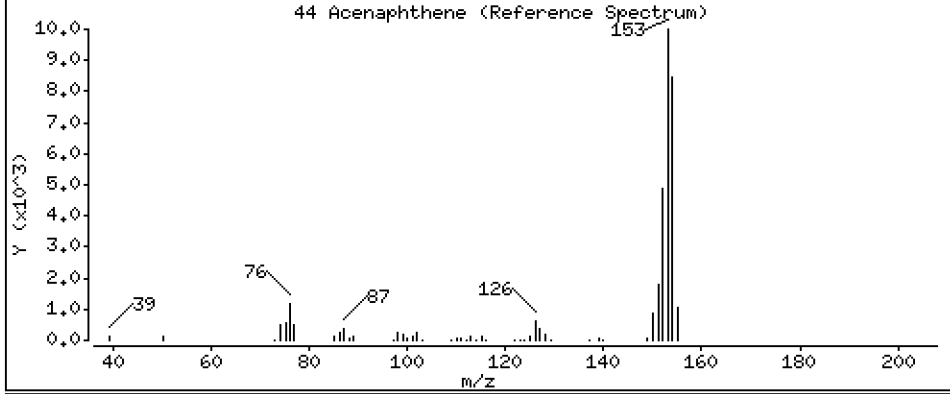
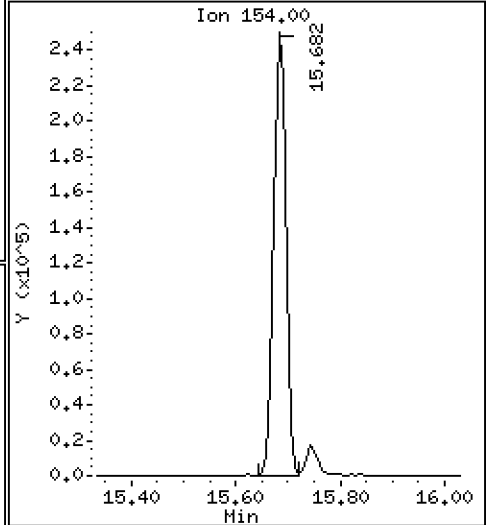
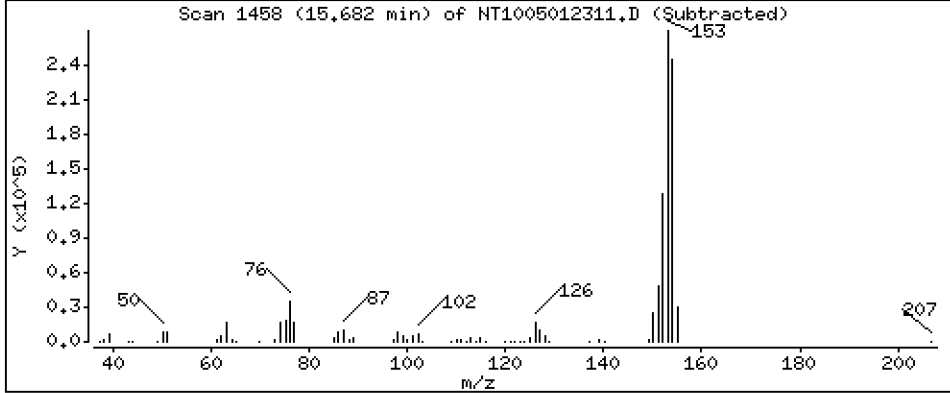
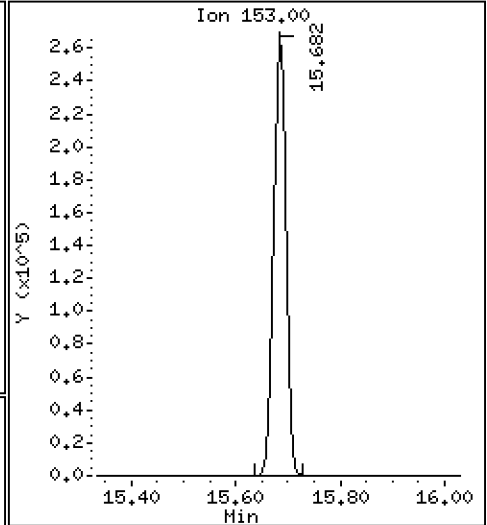
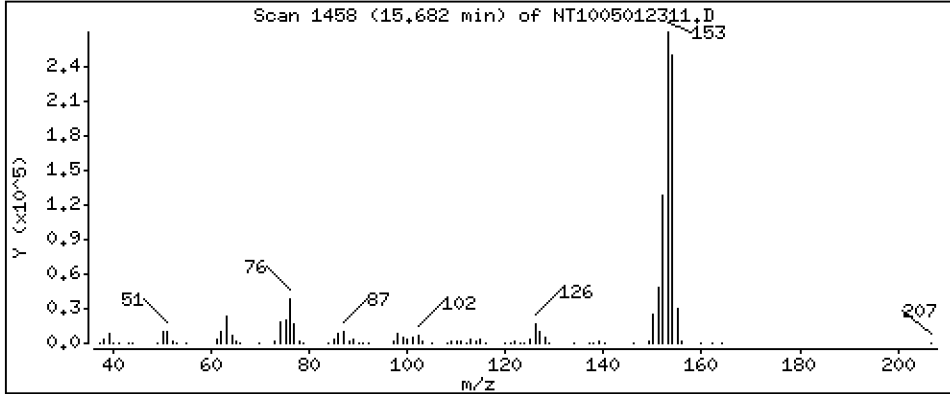
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,716 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

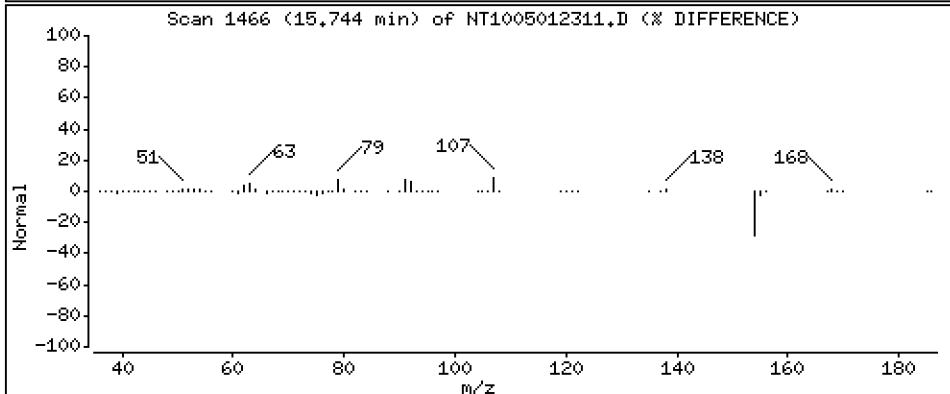
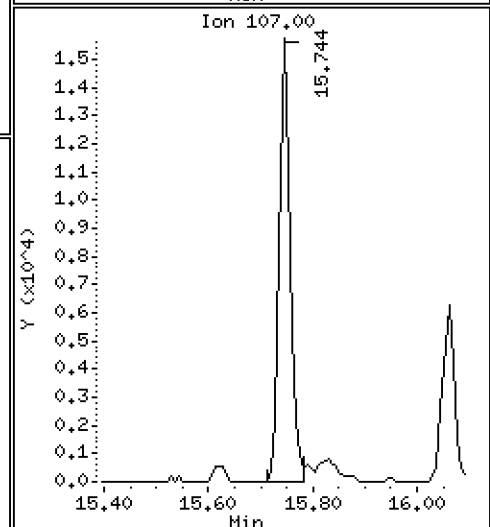
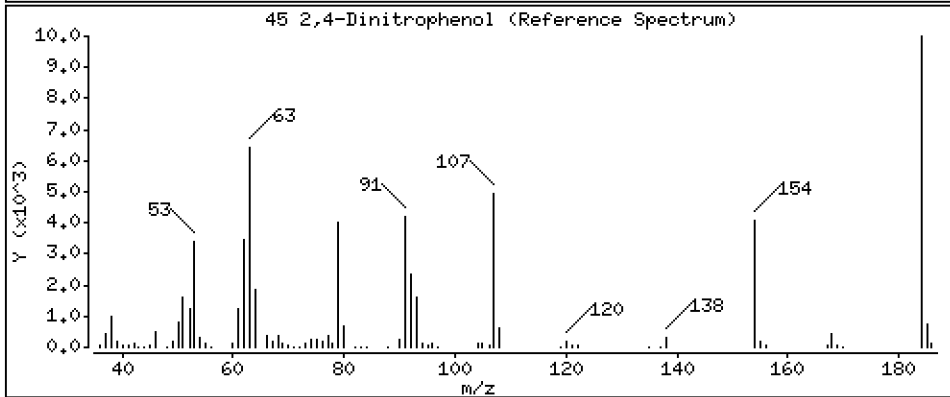
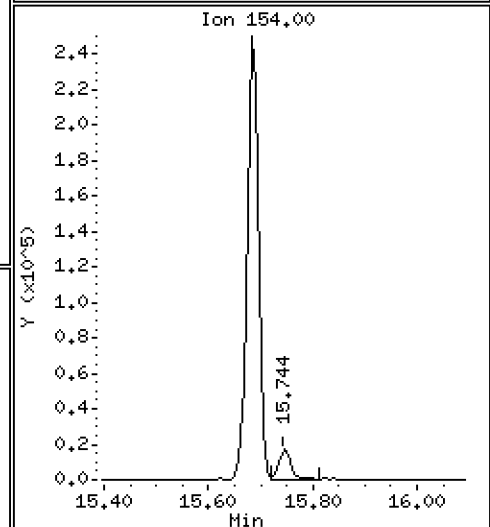
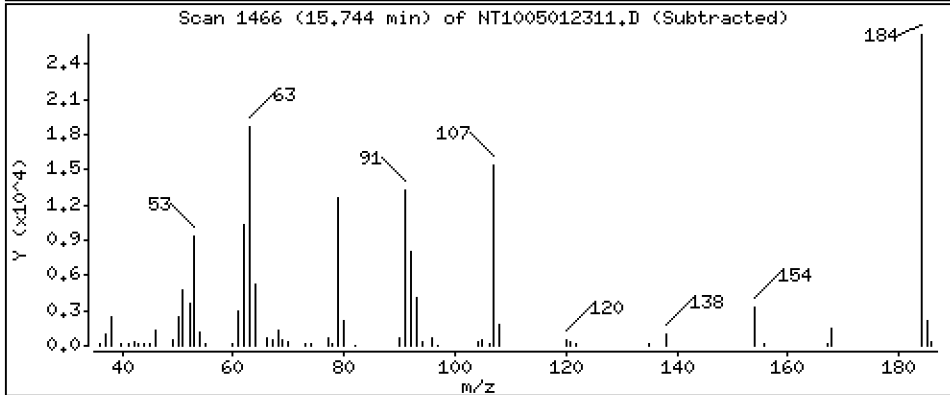
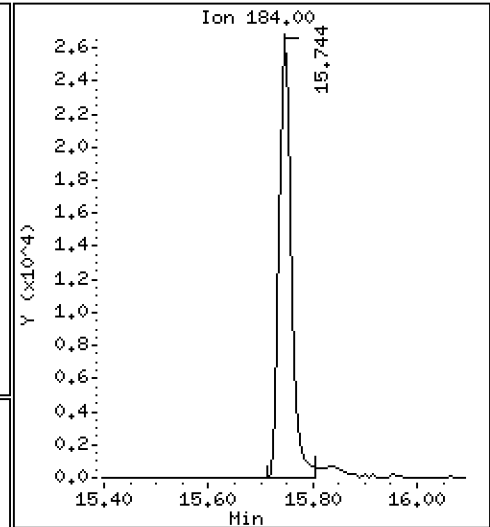
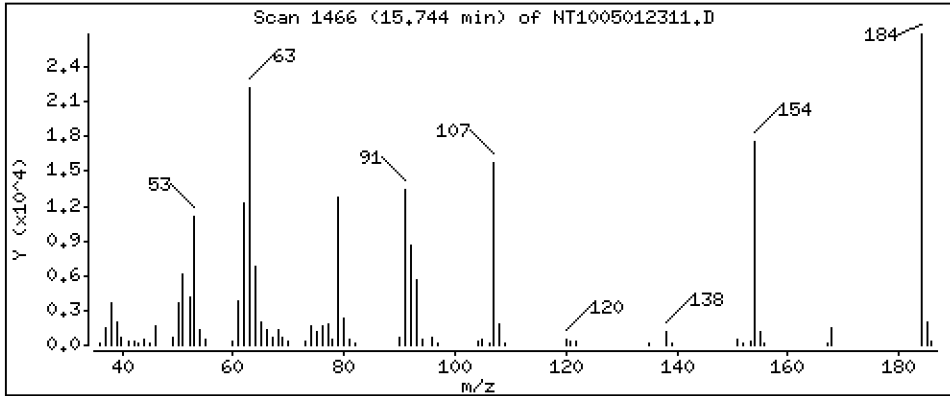
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 2,376 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

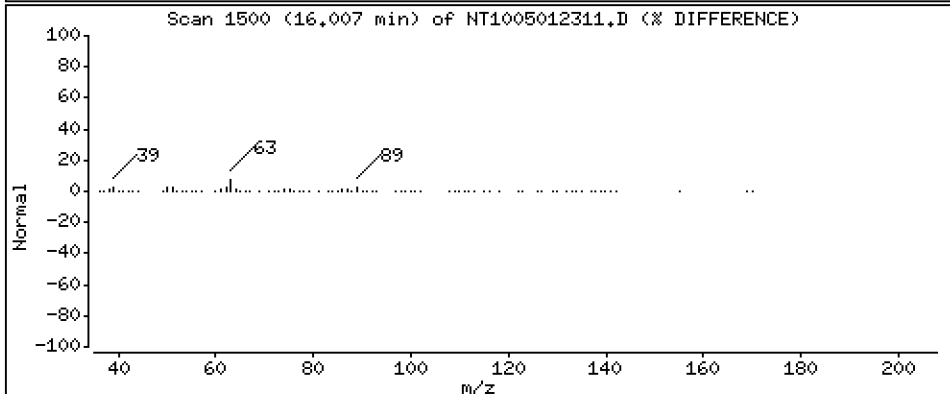
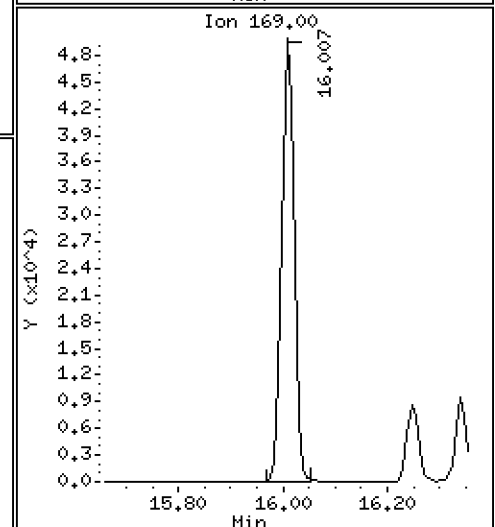
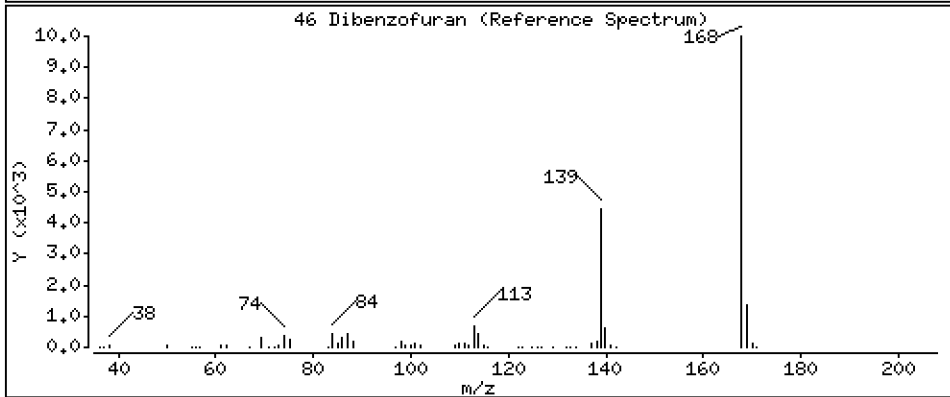
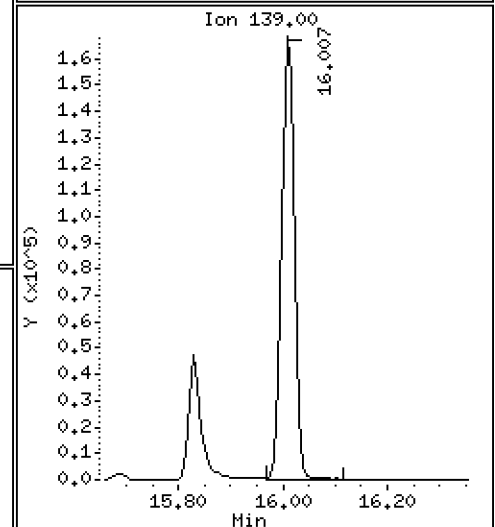
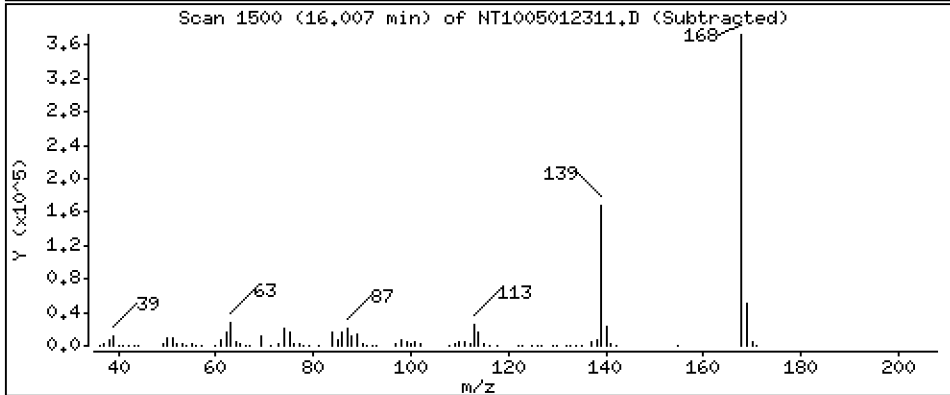
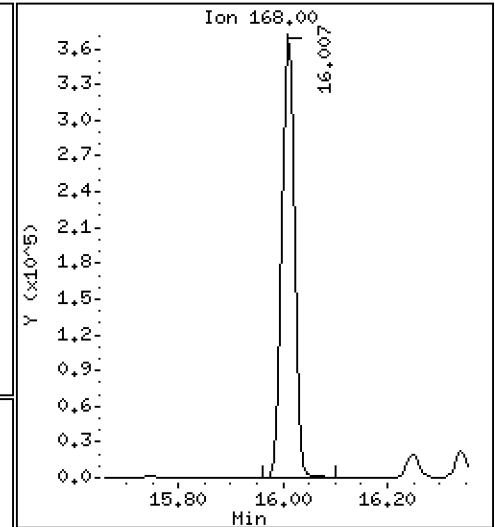
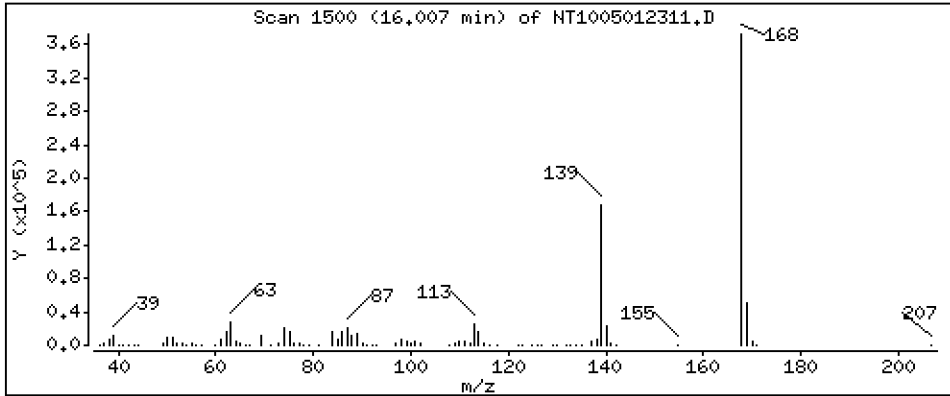
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,645 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

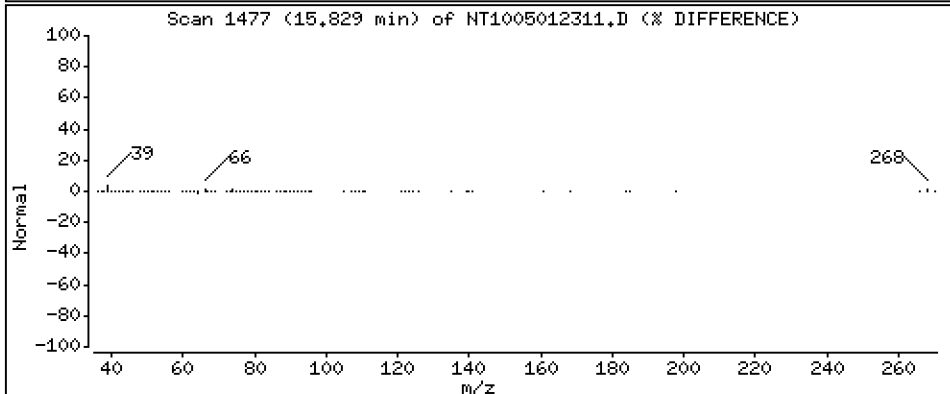
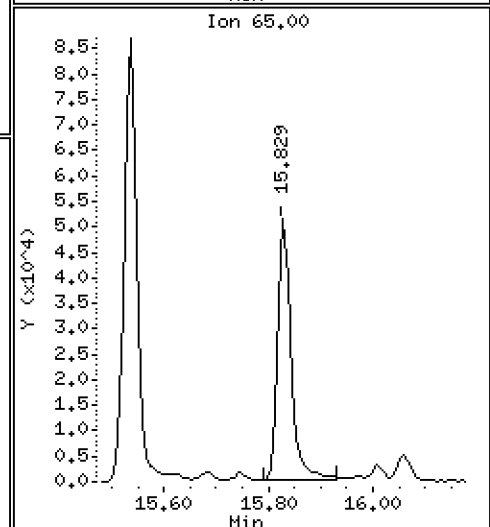
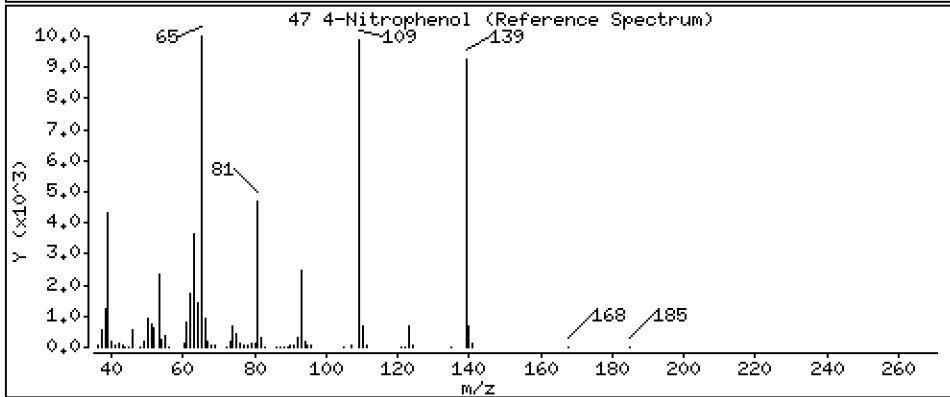
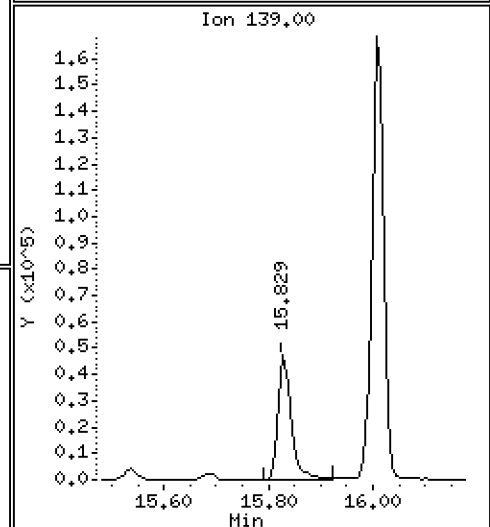
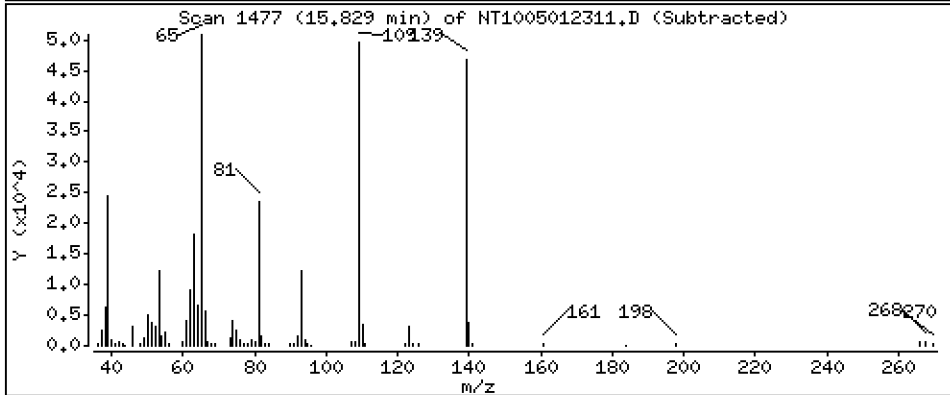
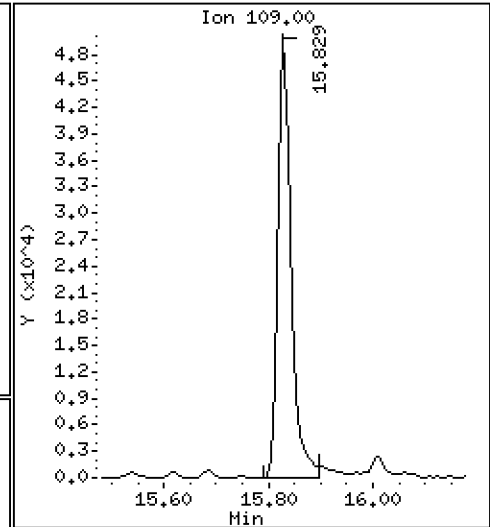
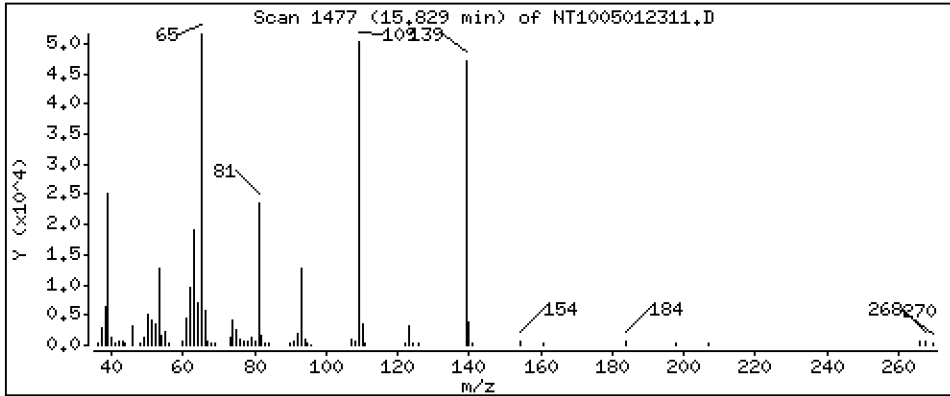
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 3,992 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

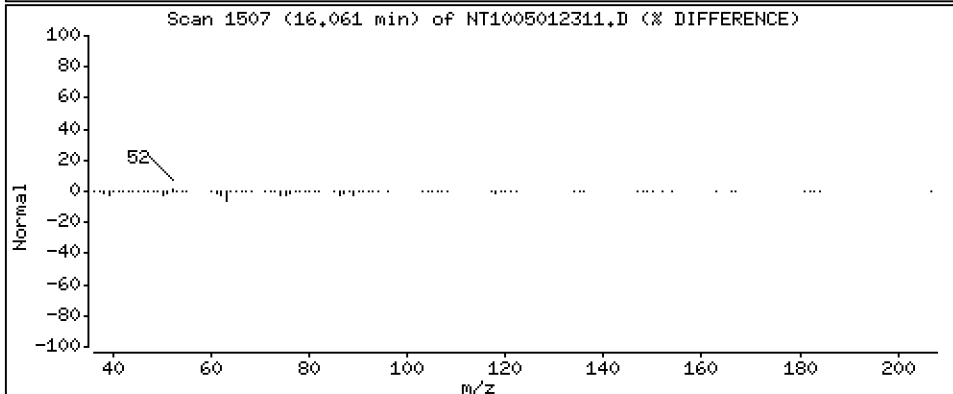
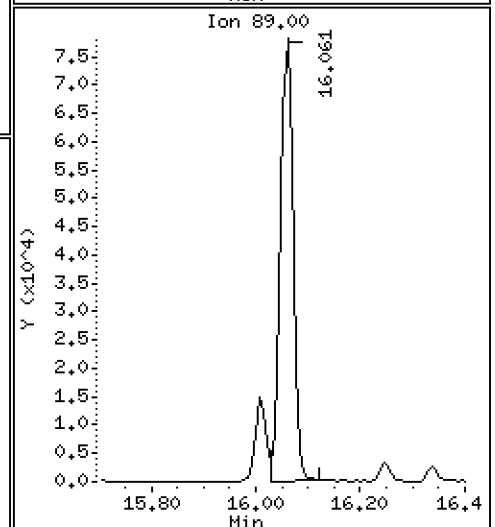
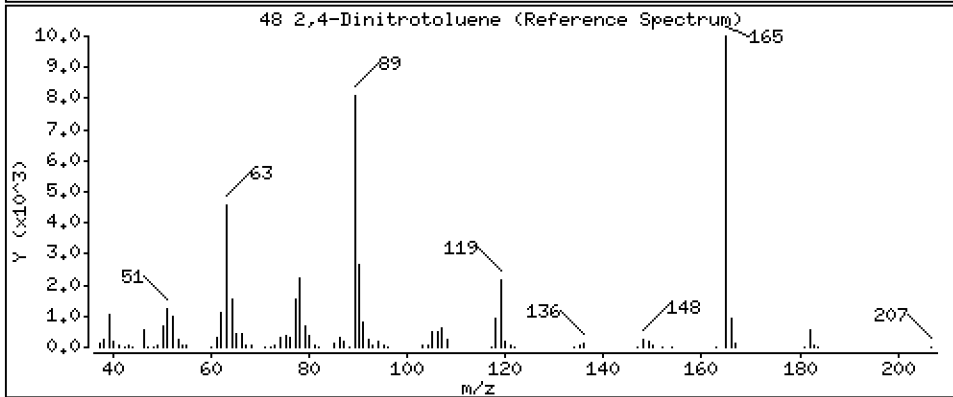
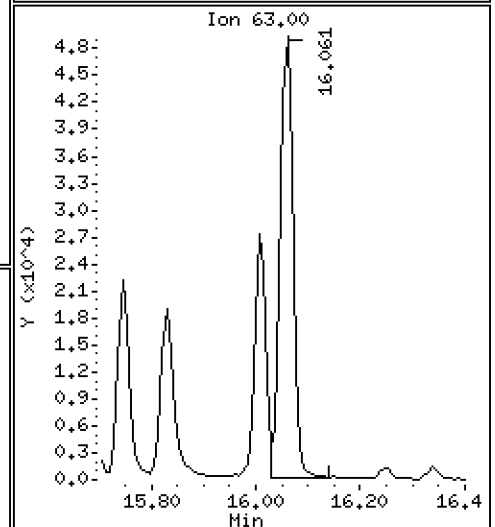
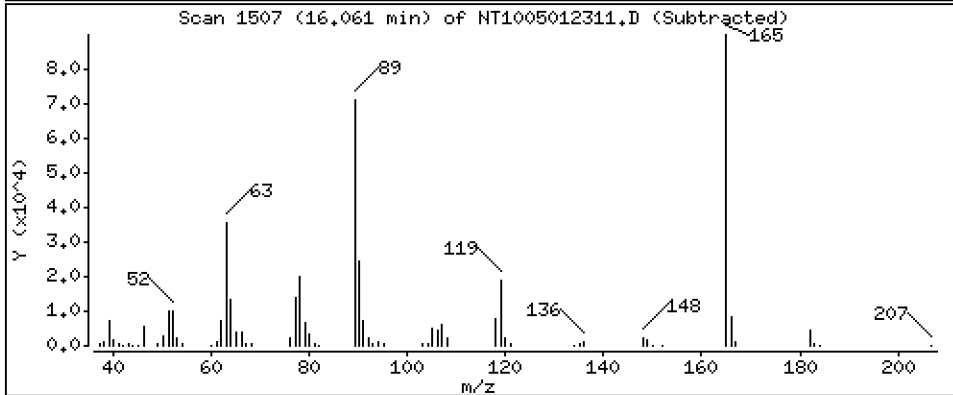
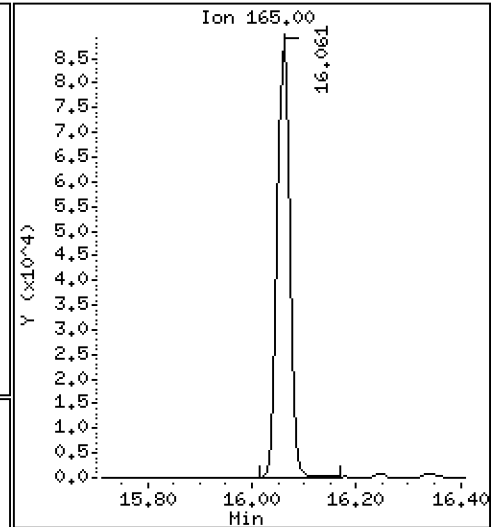
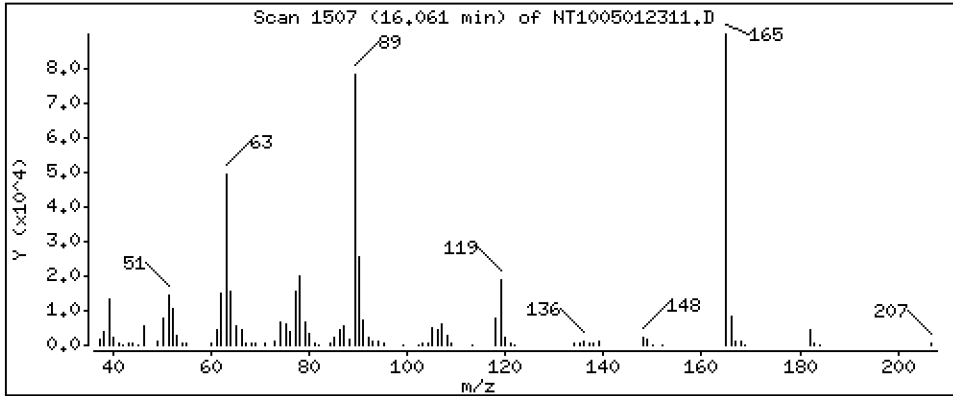
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 4,381 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

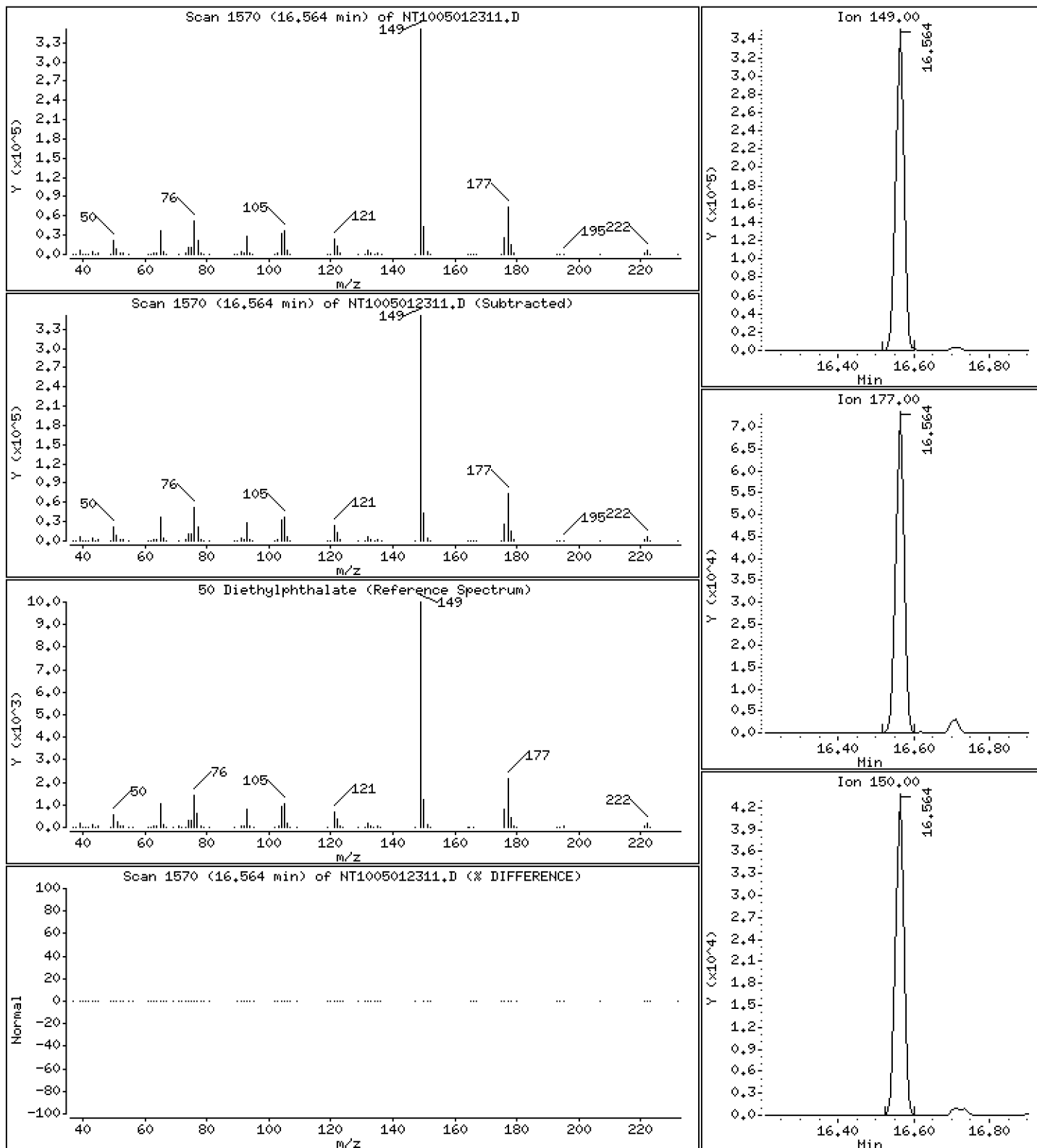
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,055 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

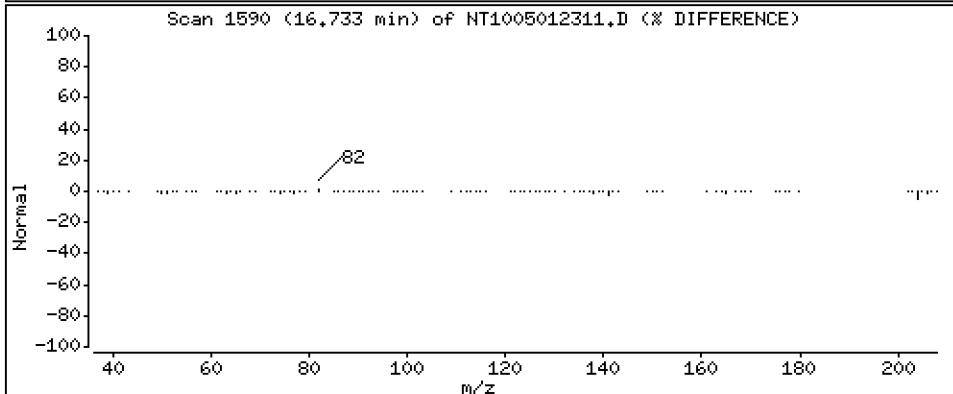
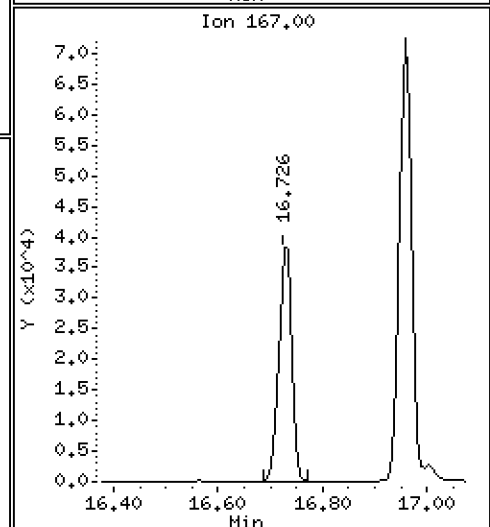
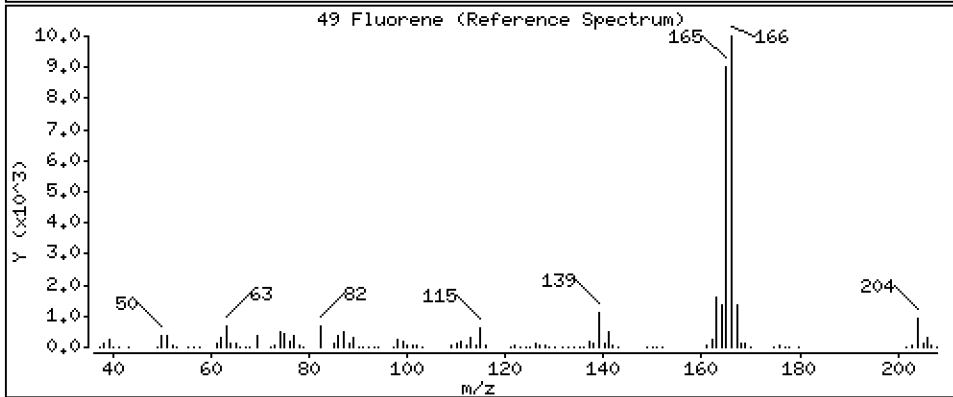
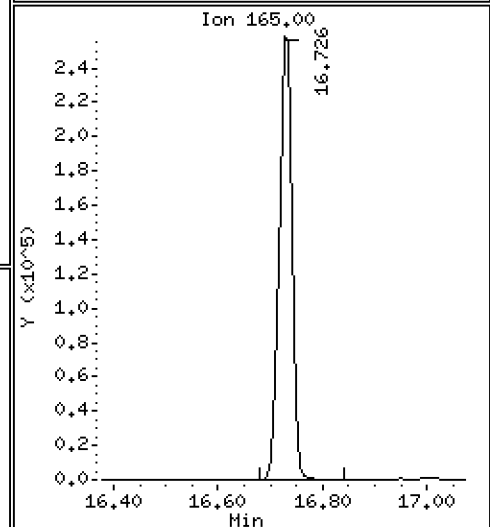
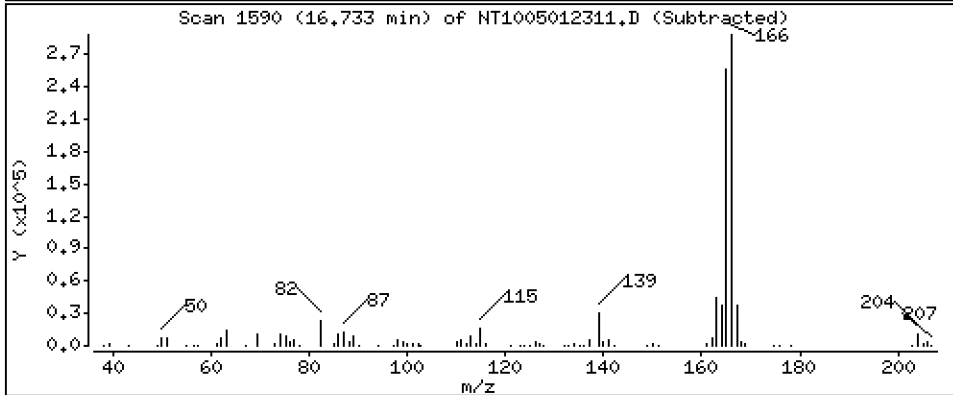
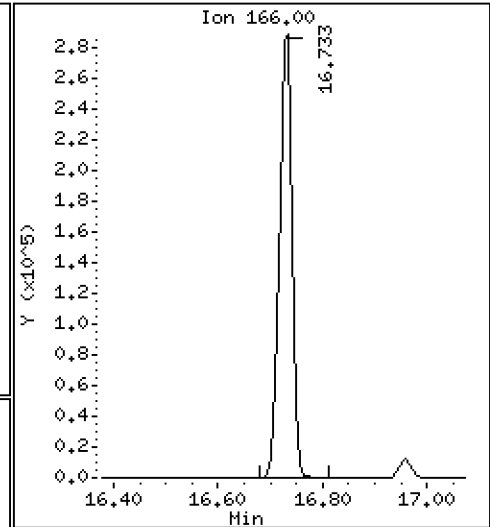
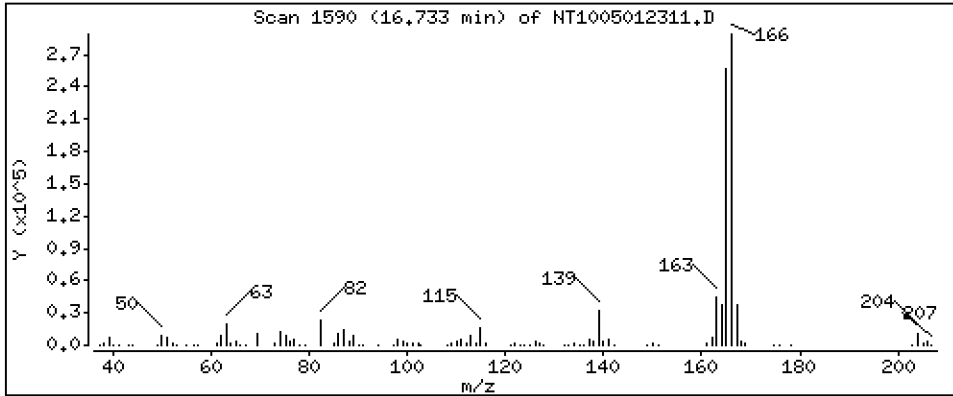
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,559 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

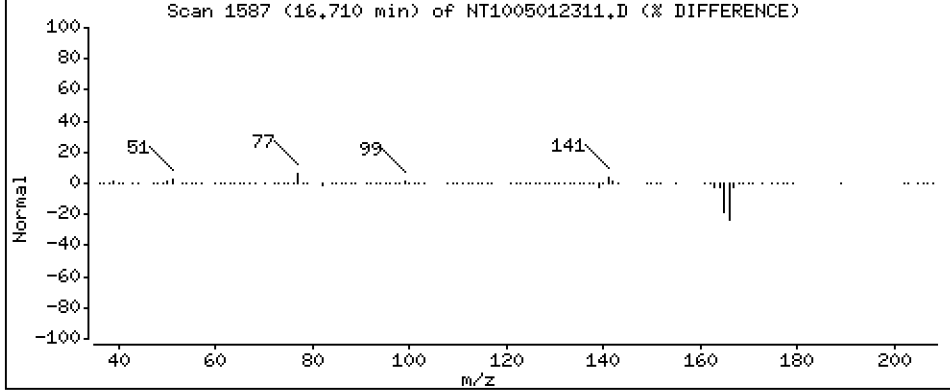
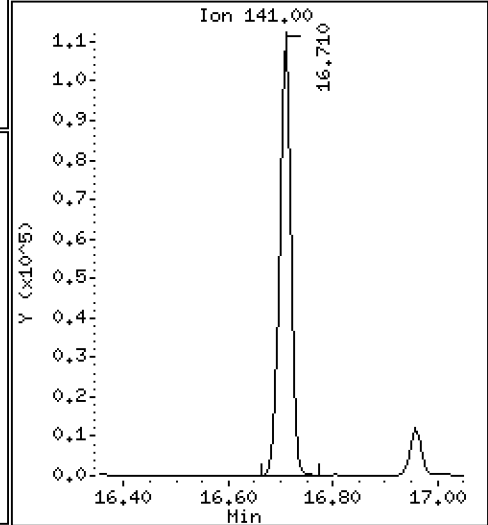
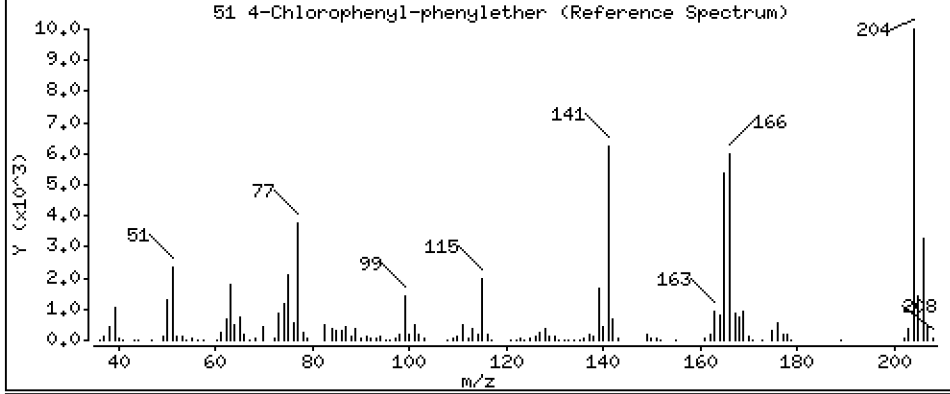
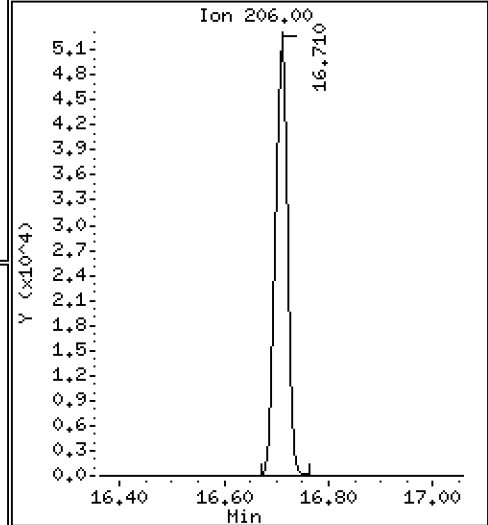
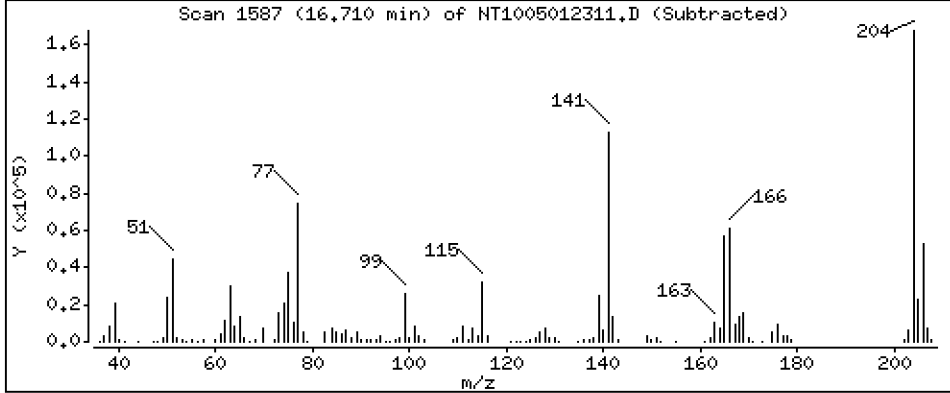
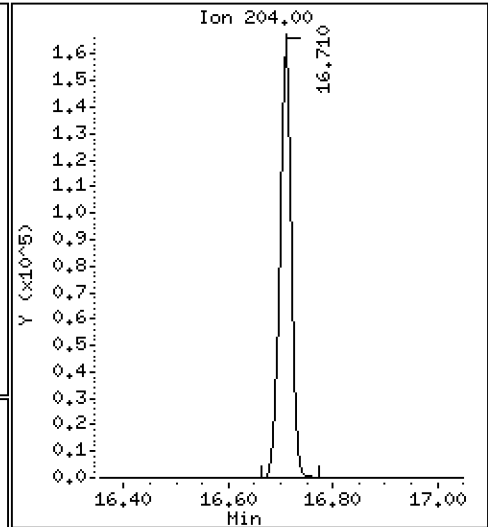
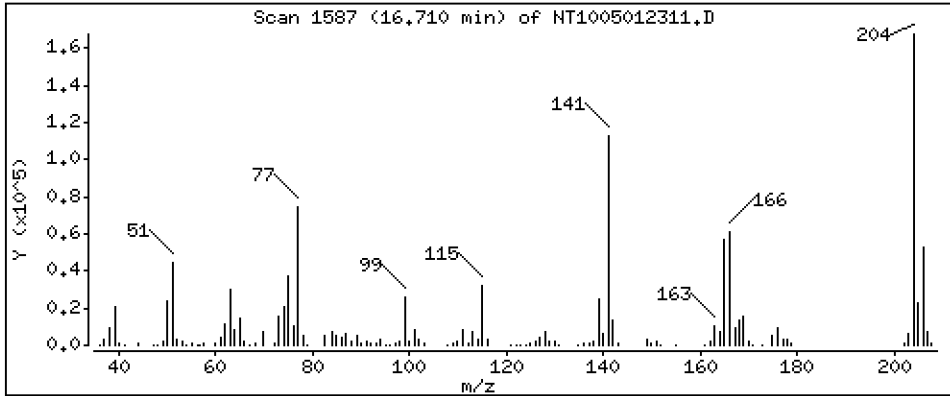
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,797 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

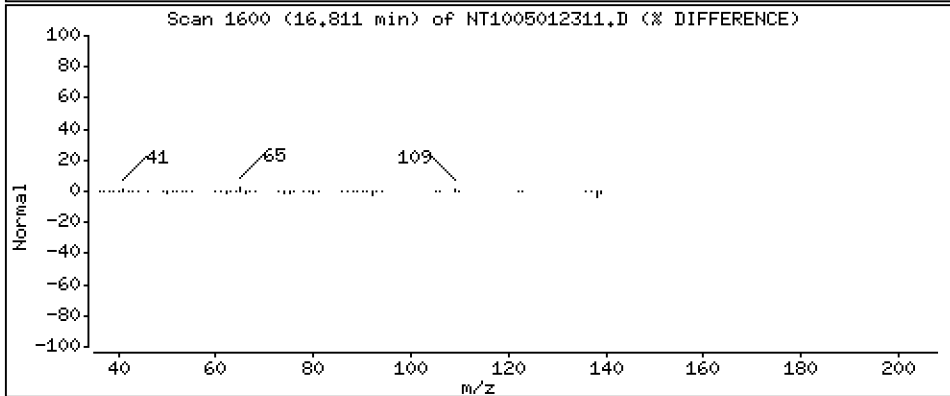
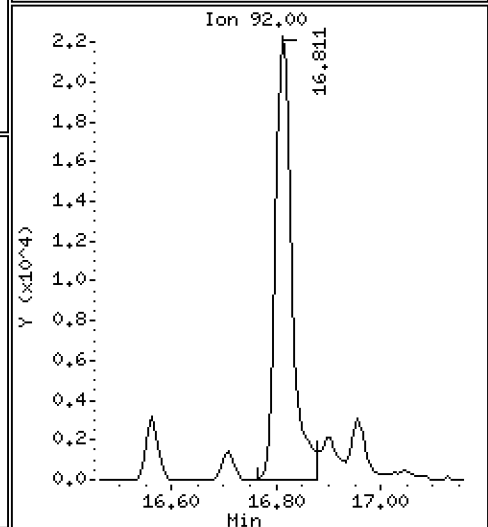
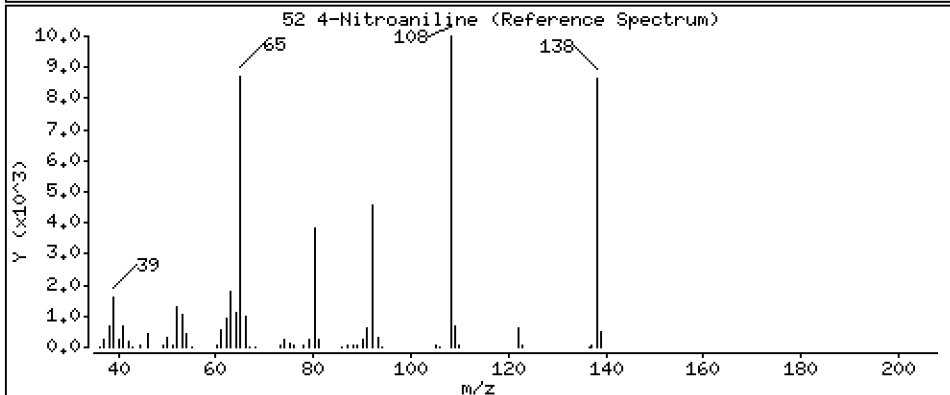
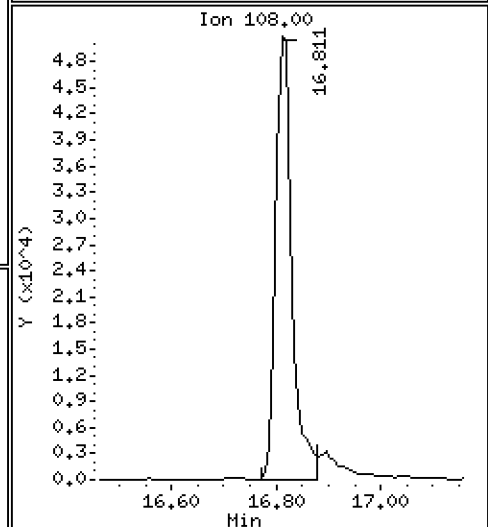
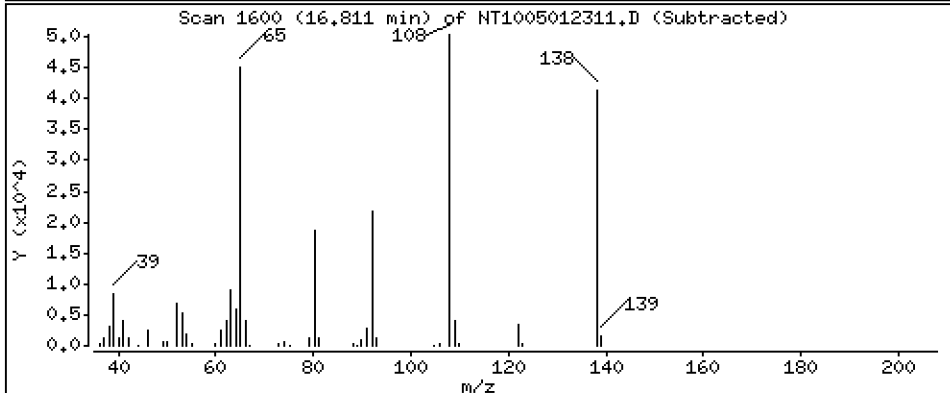
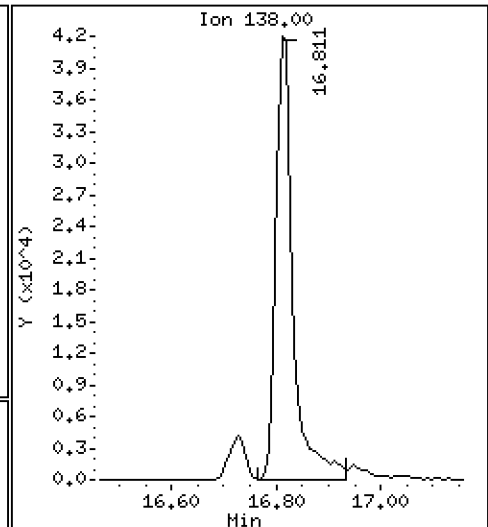
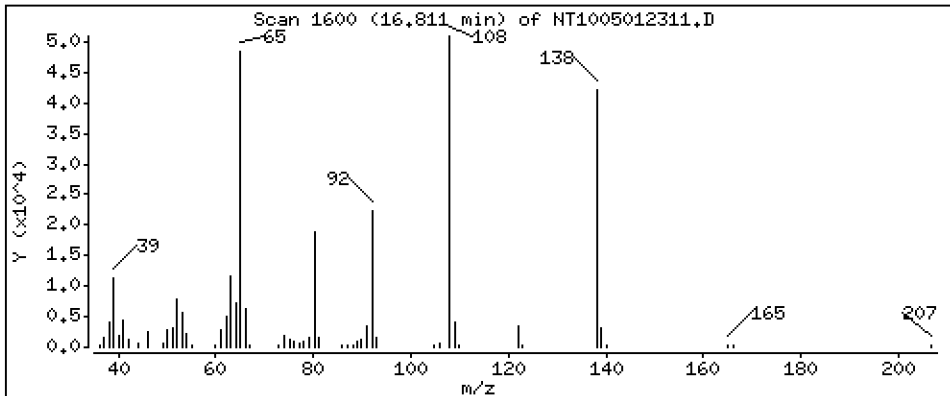
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 4.293 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

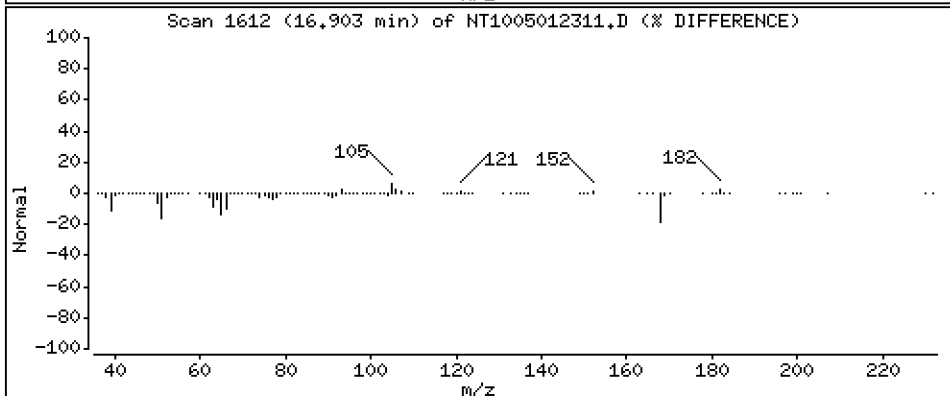
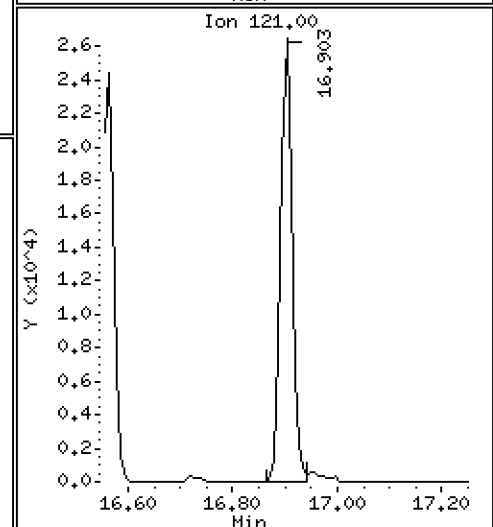
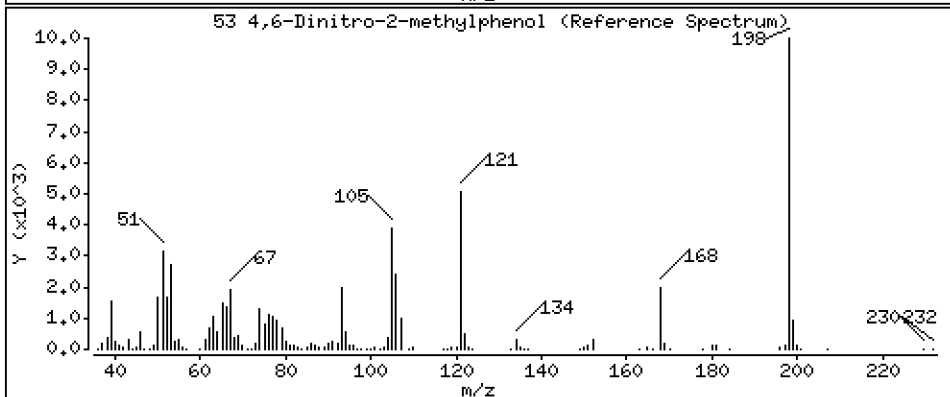
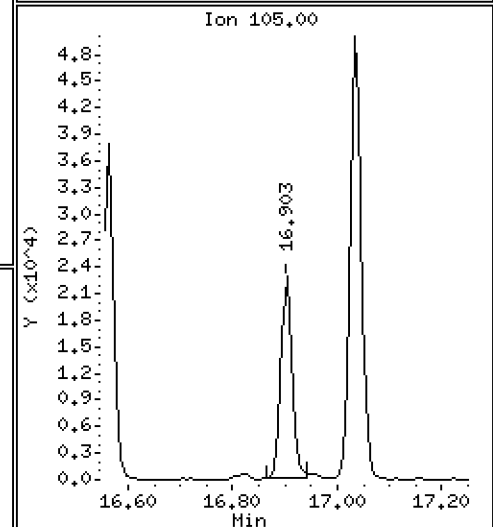
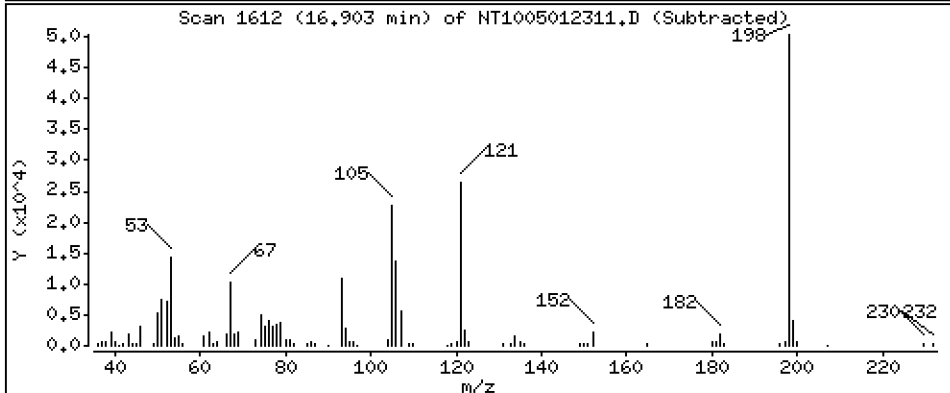
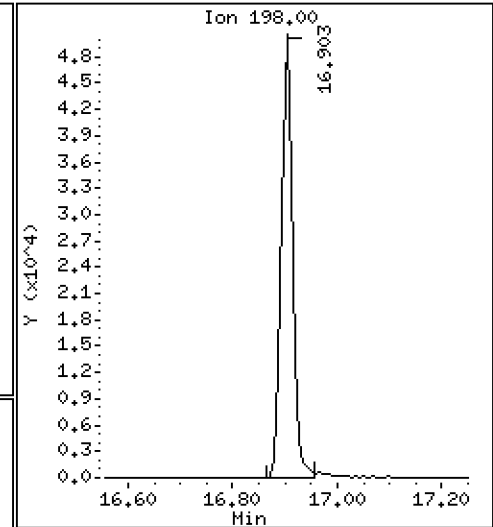
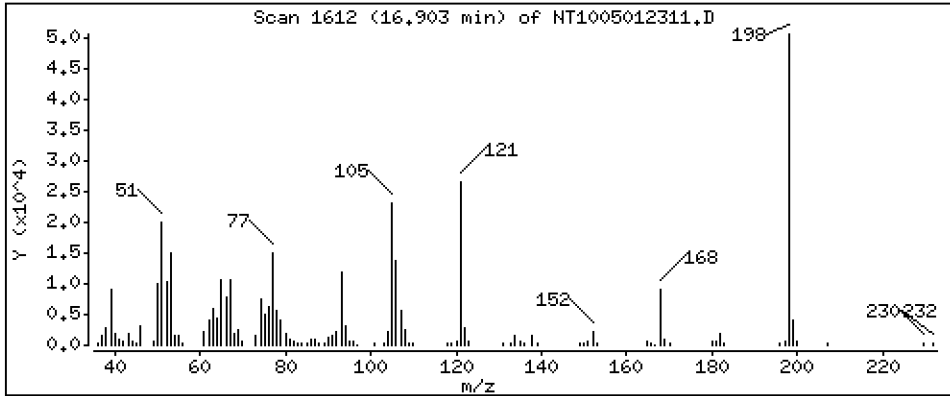
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,760 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

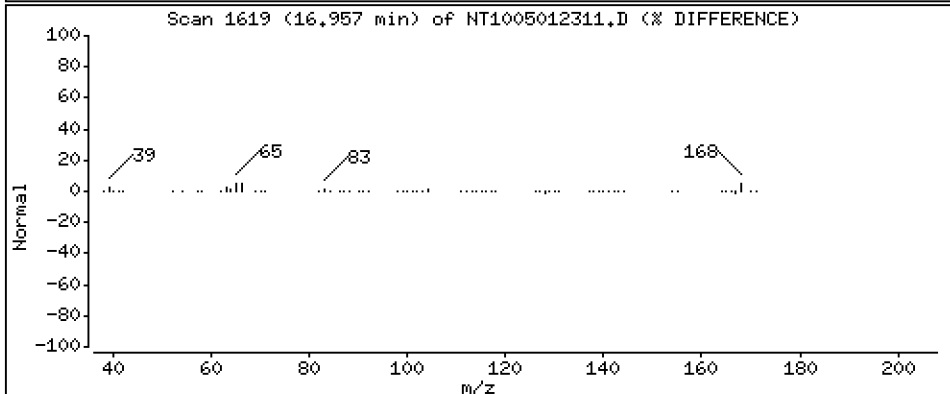
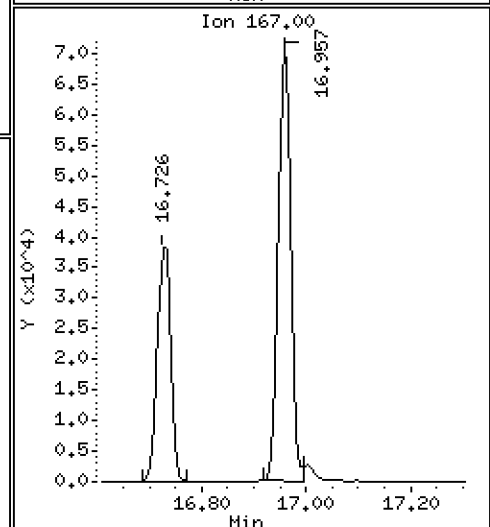
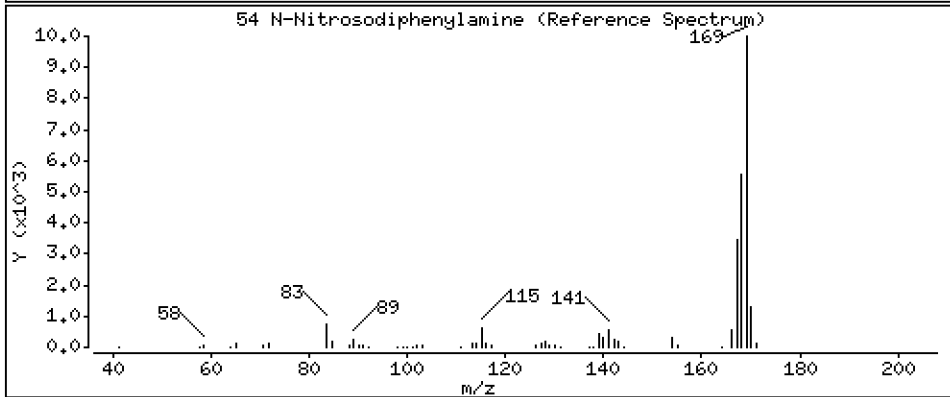
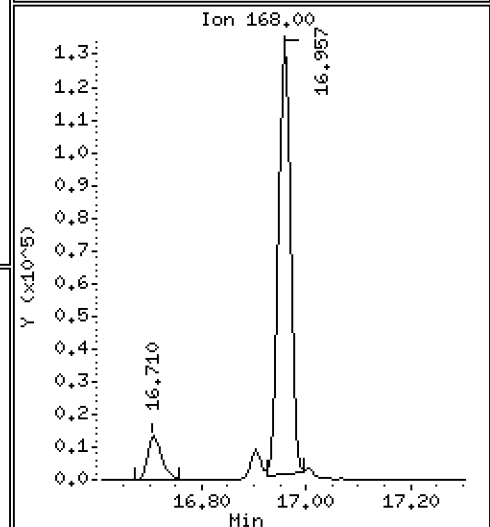
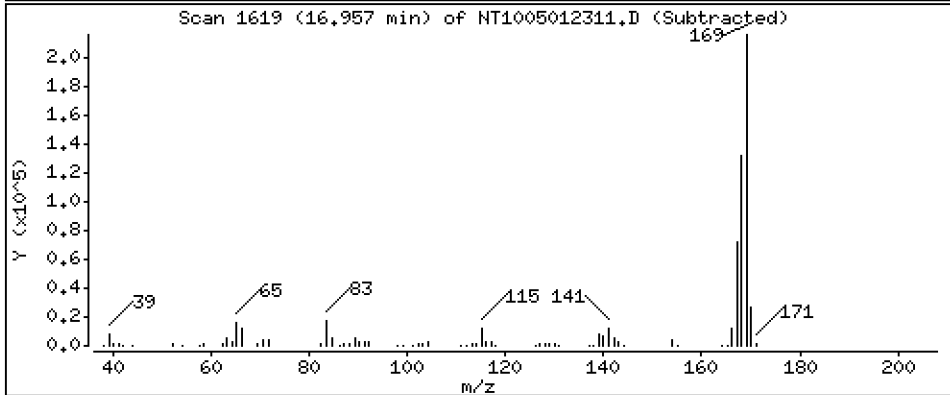
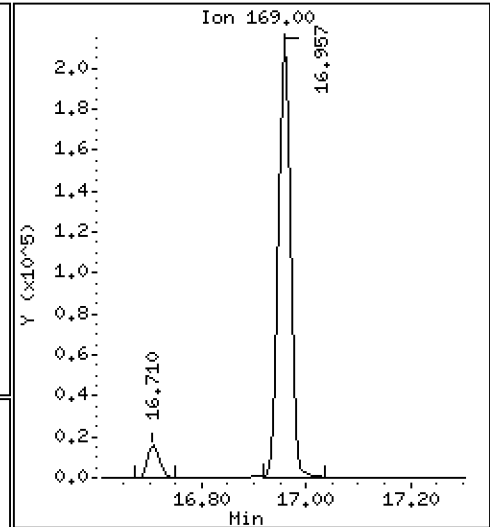
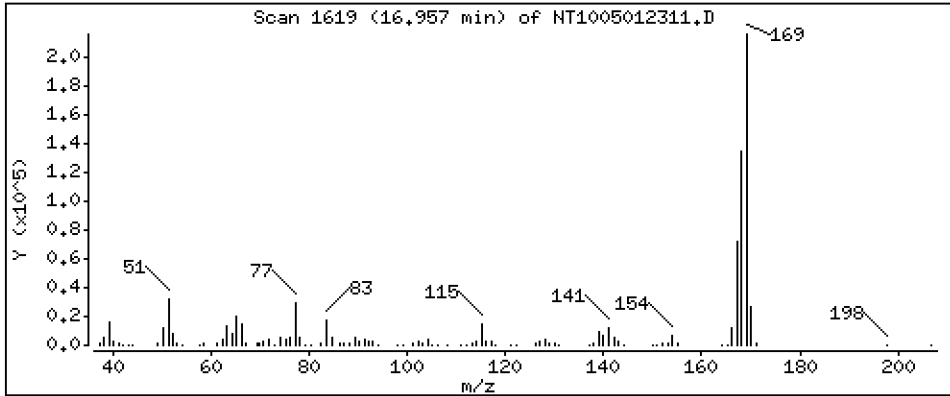
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,125 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

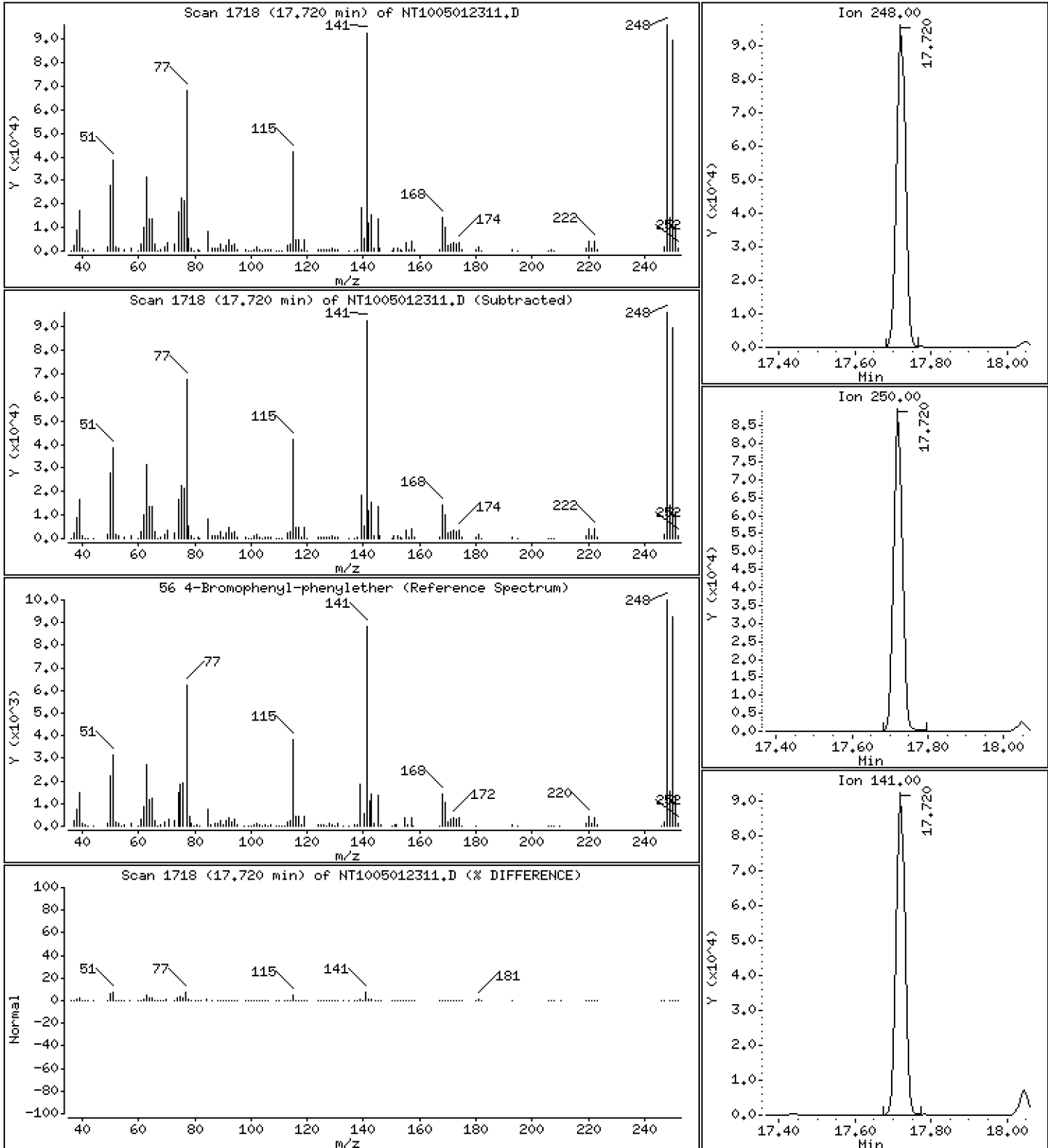
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,942 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

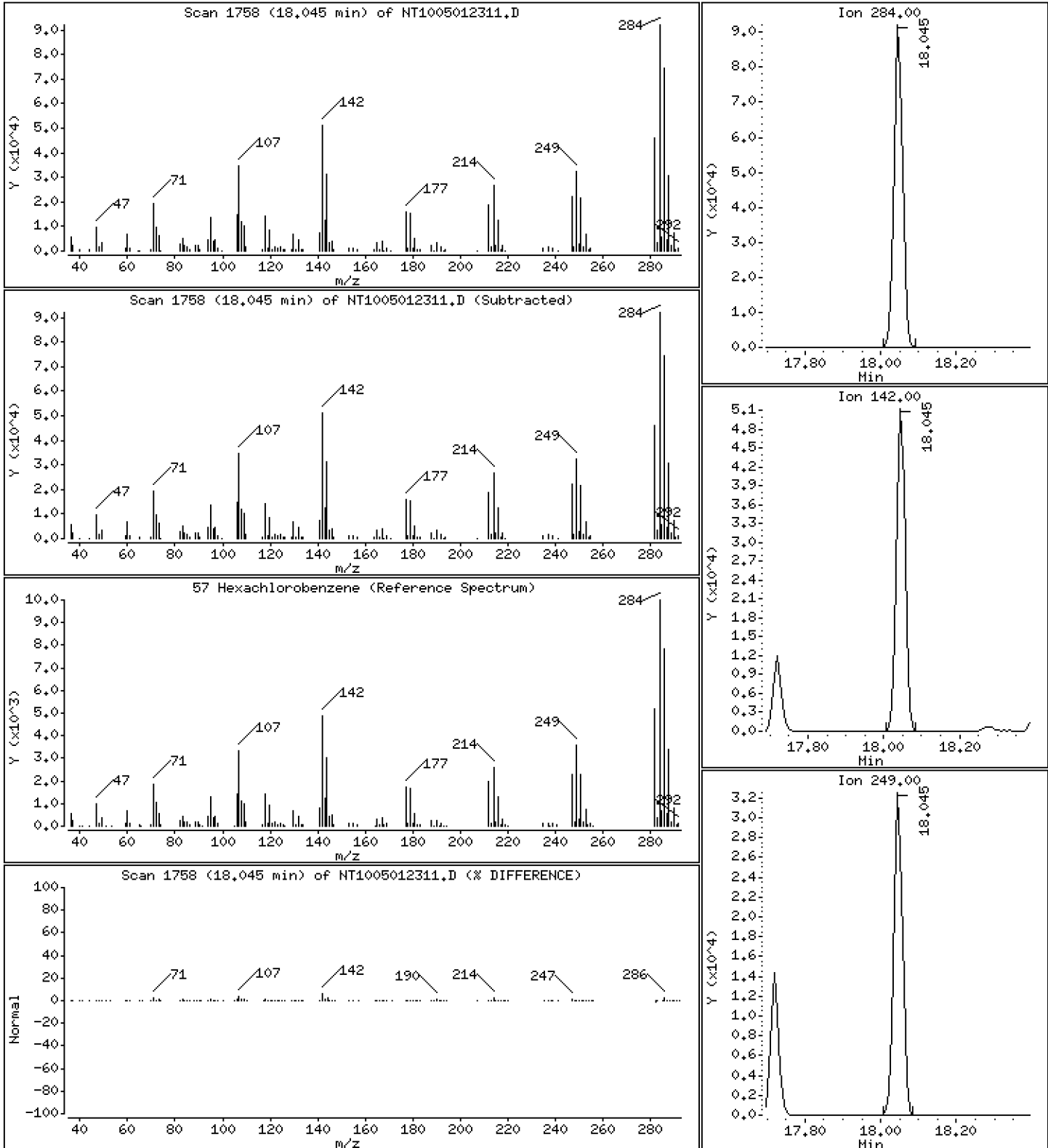
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,689 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

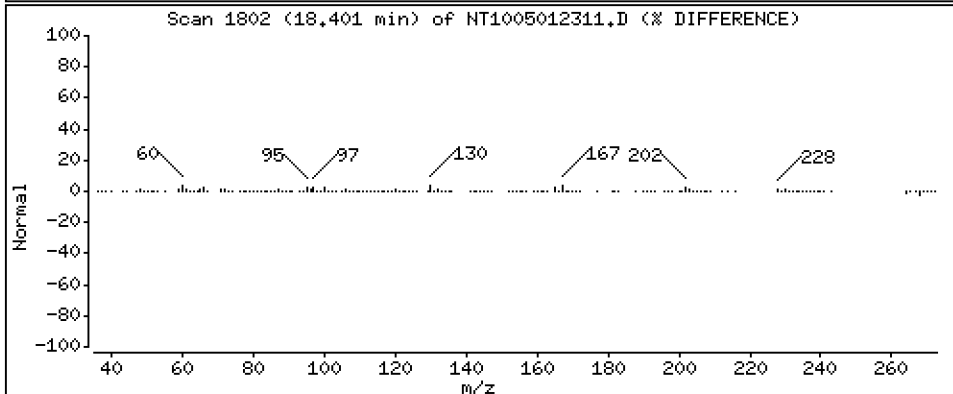
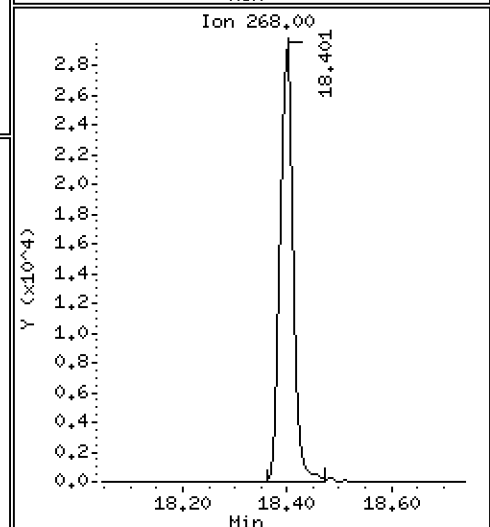
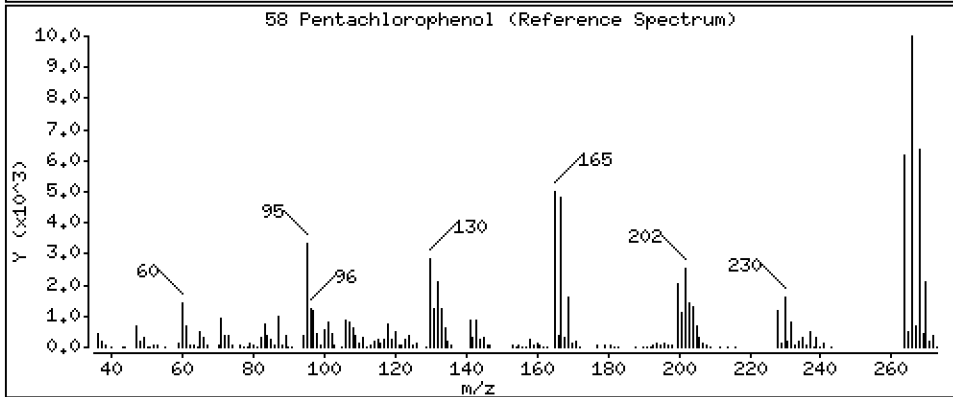
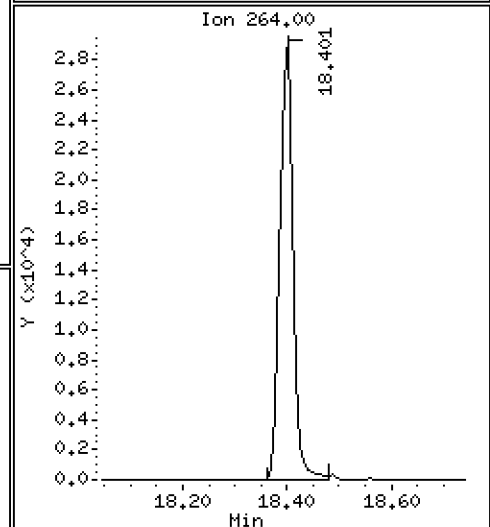
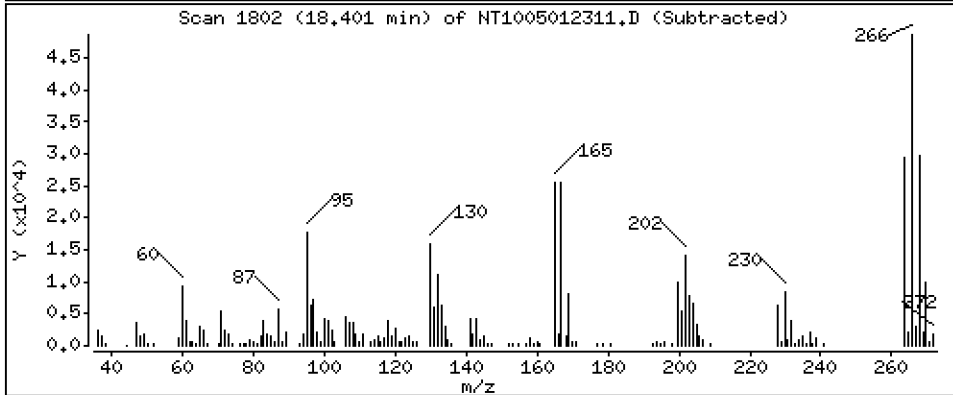
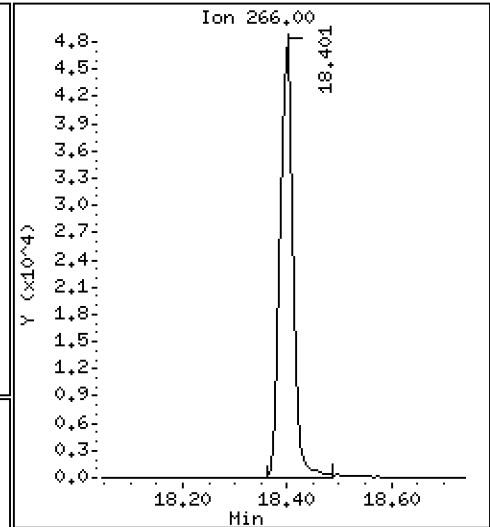
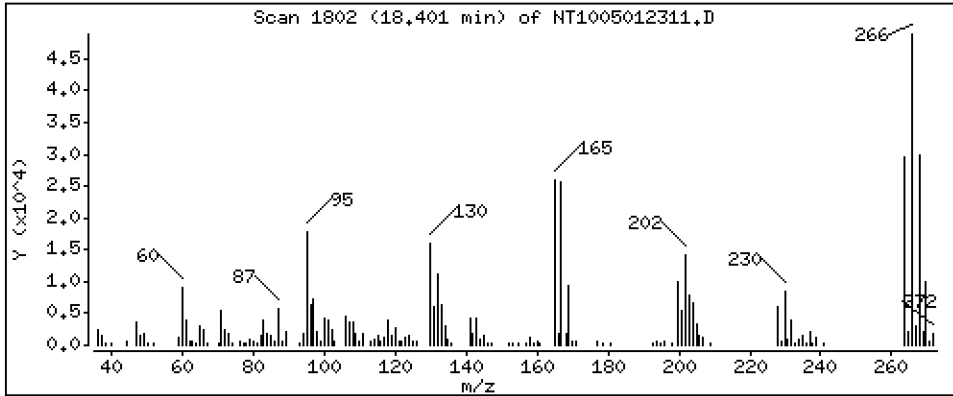
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,866 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

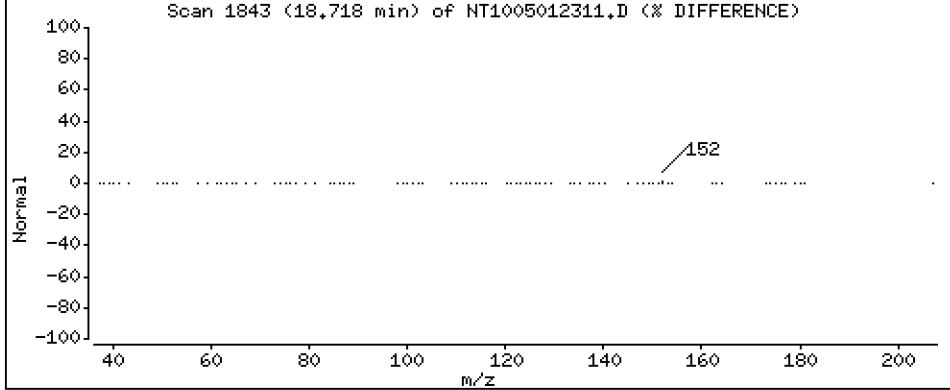
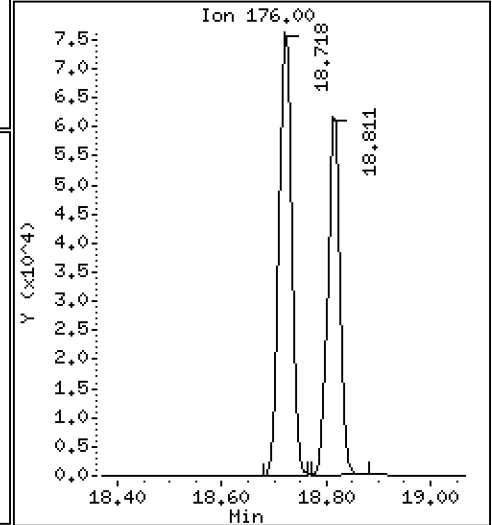
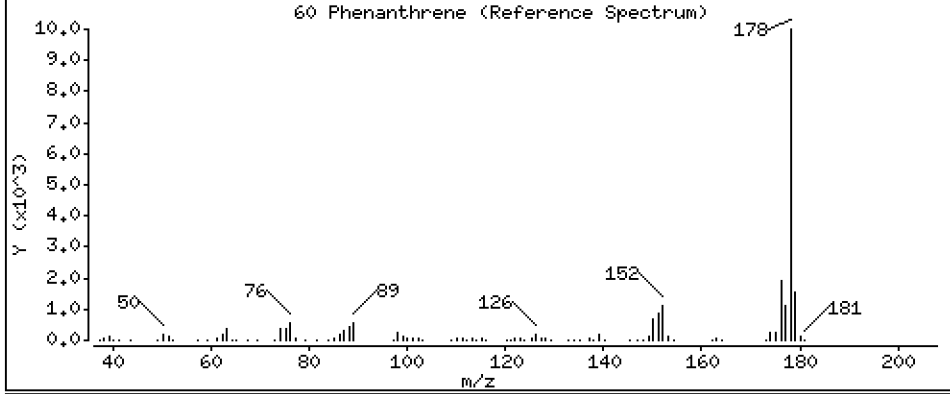
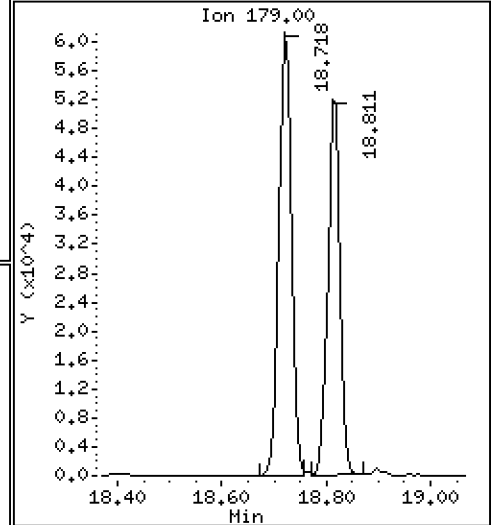
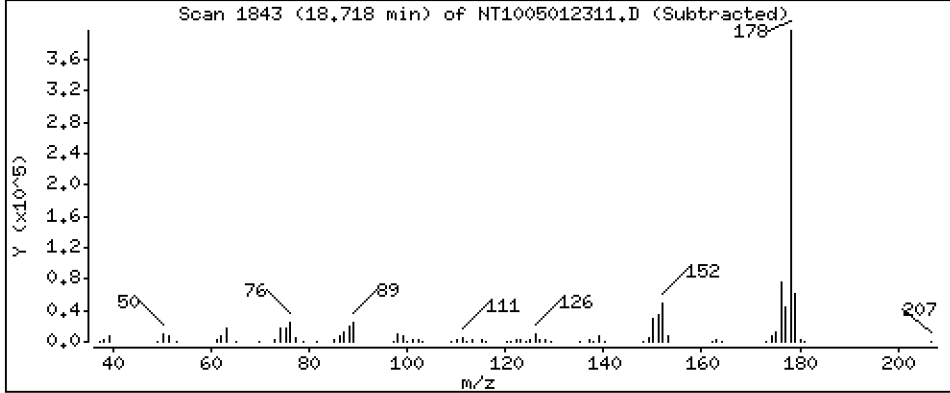
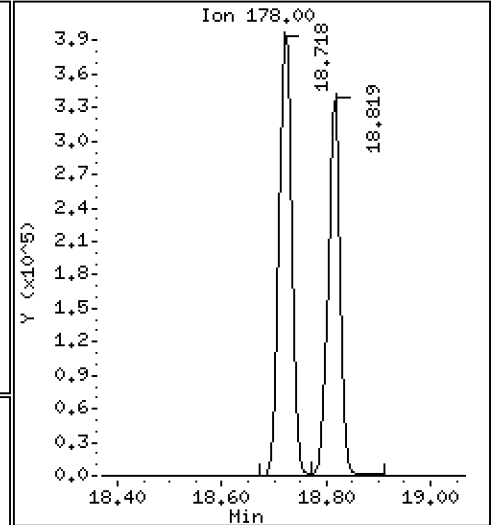
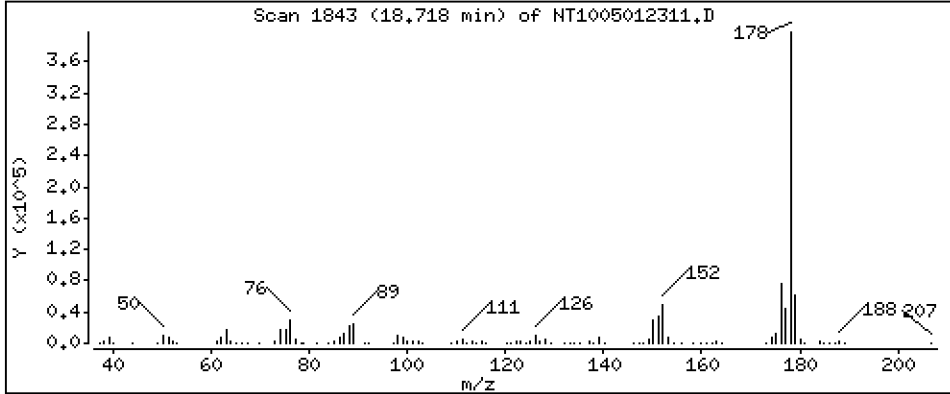
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,586 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

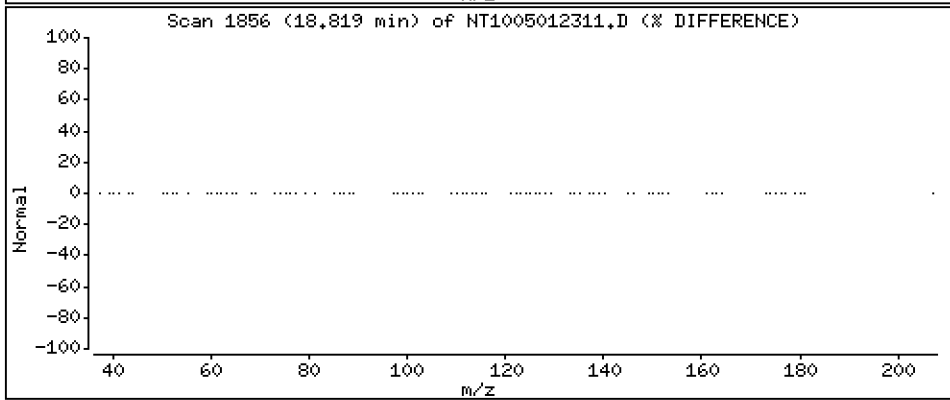
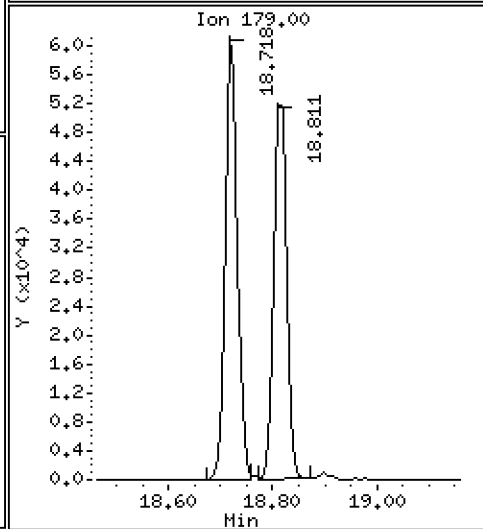
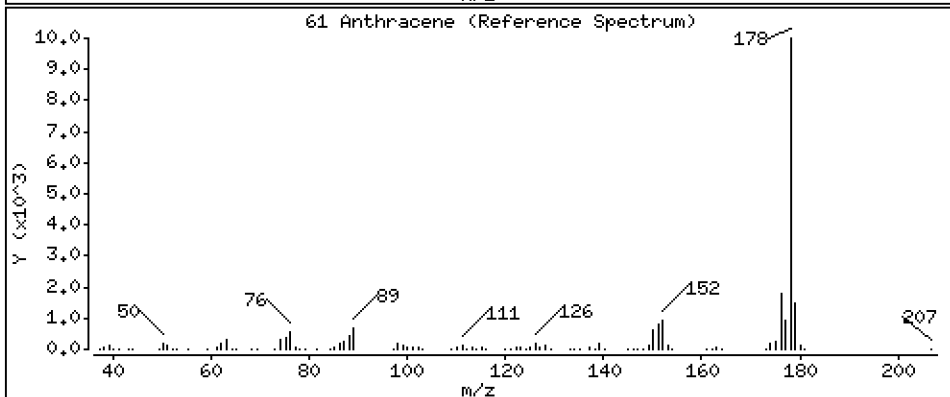
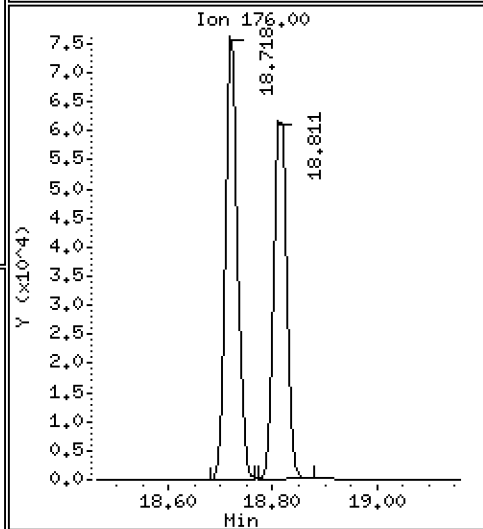
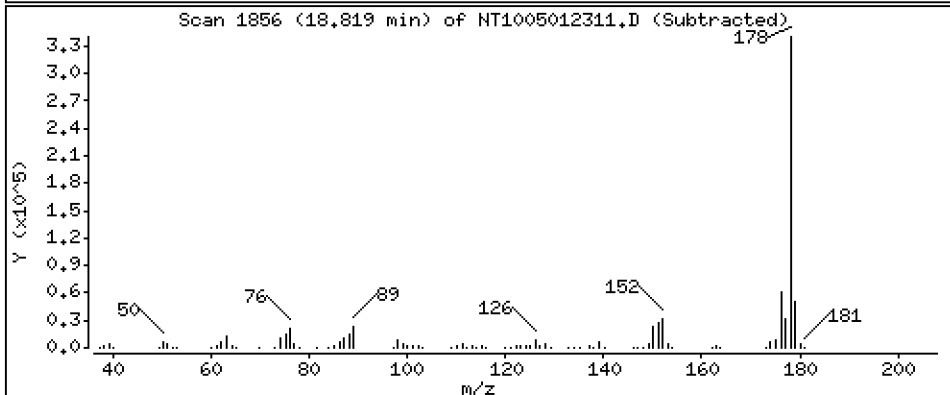
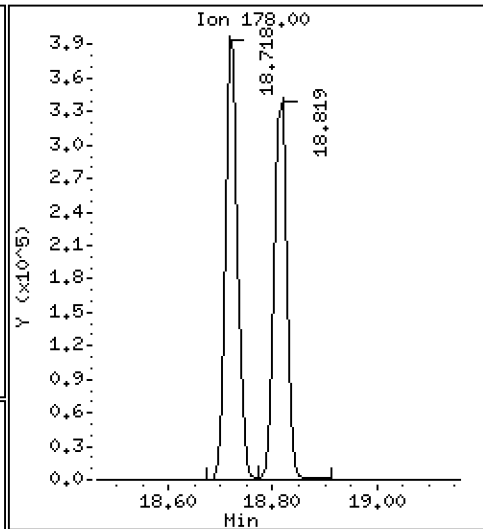
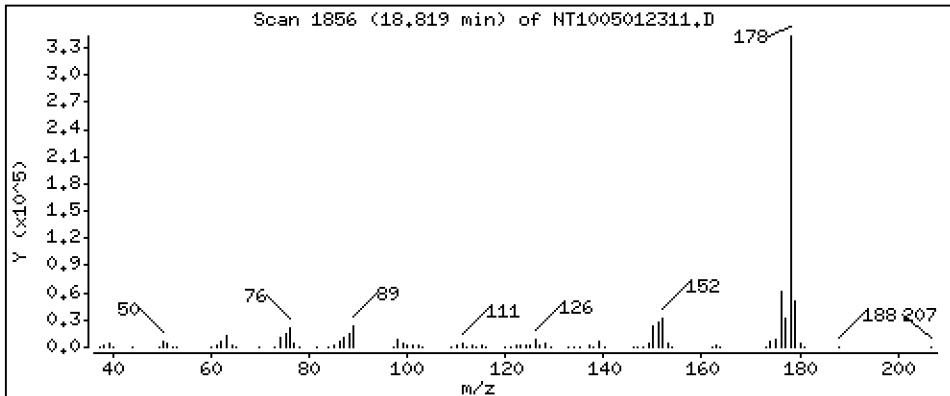
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,169 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

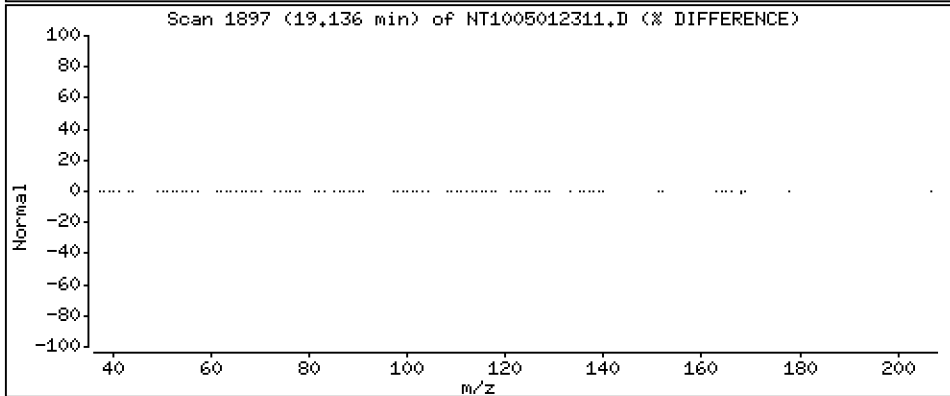
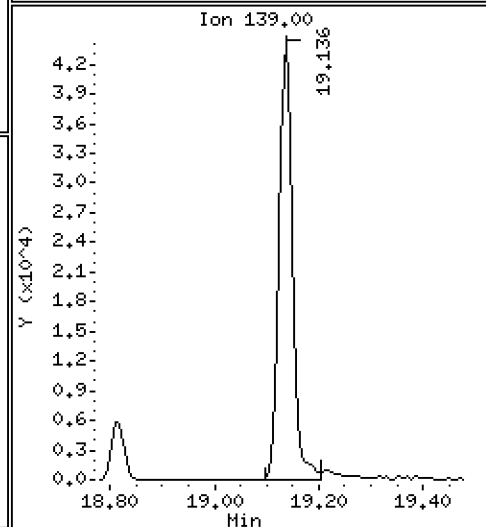
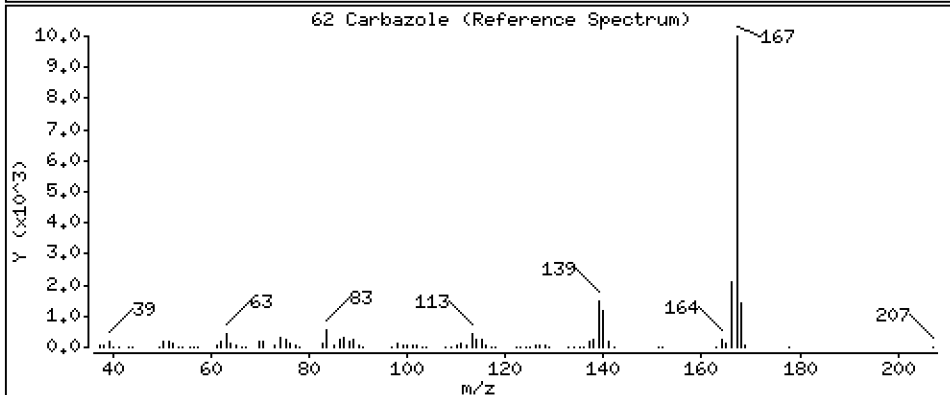
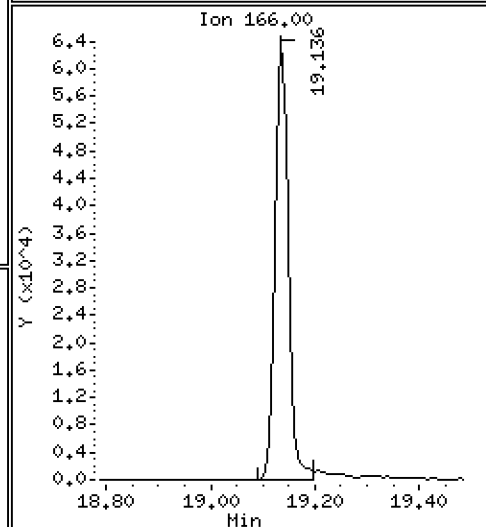
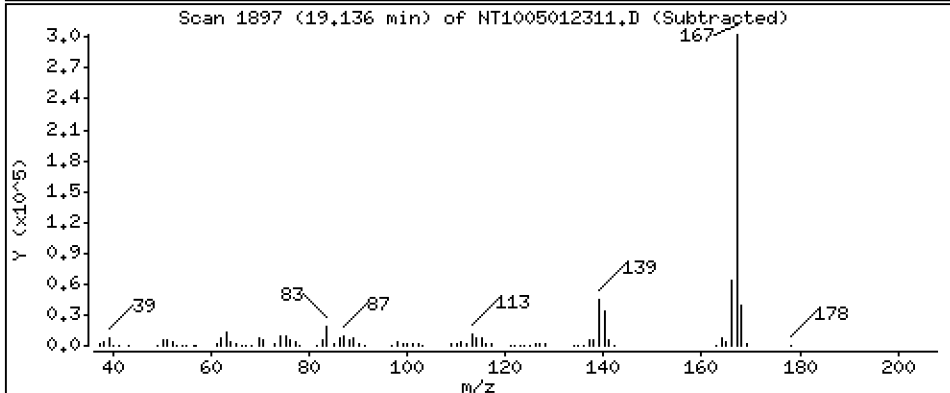
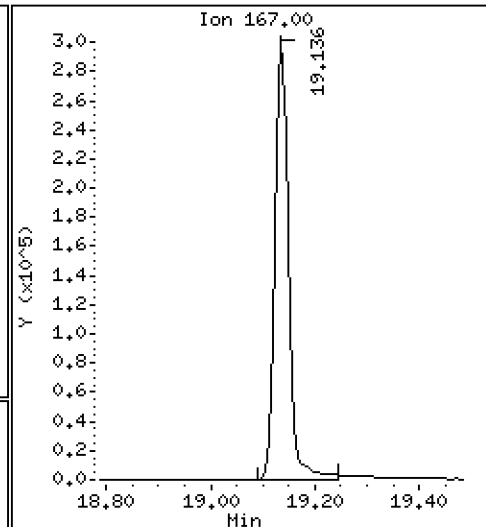
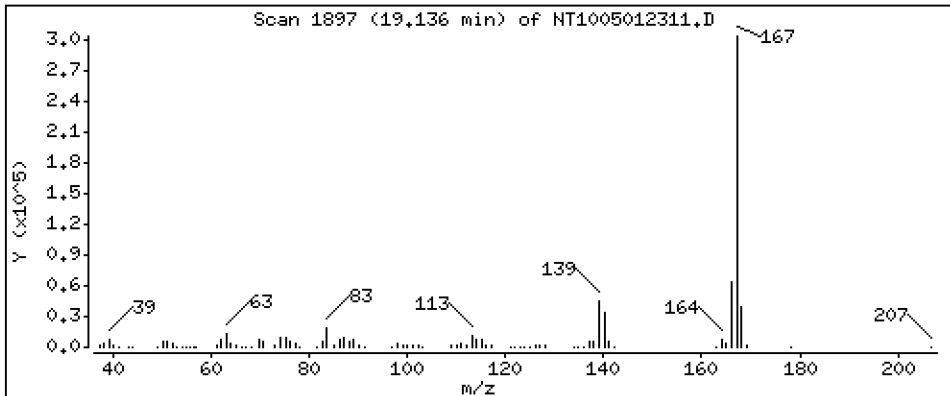
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 4,503 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

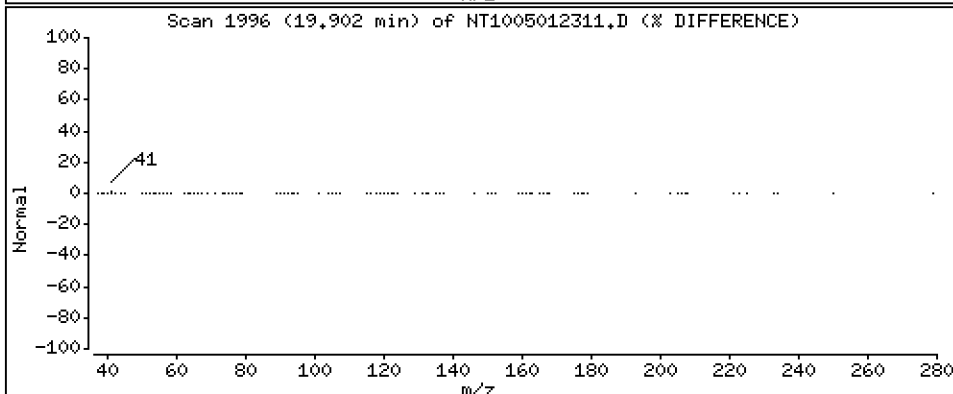
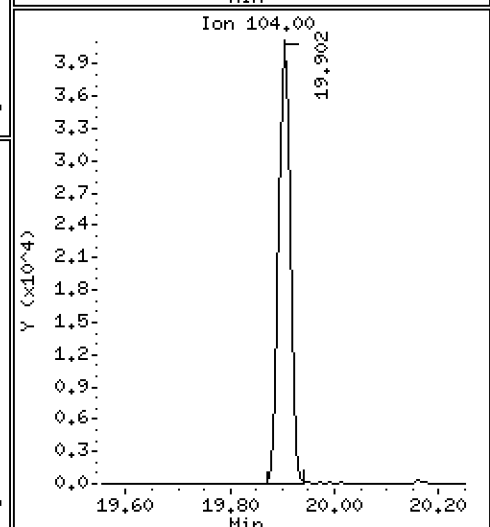
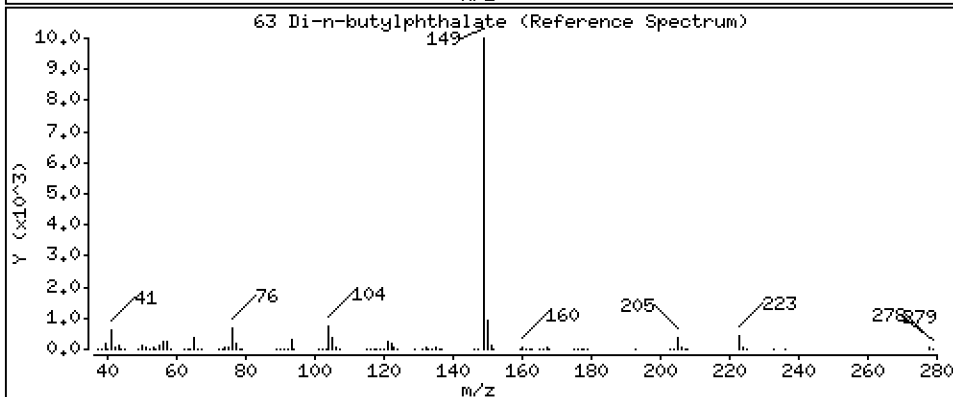
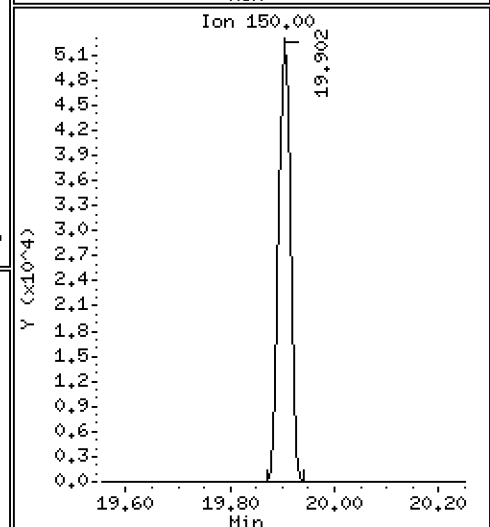
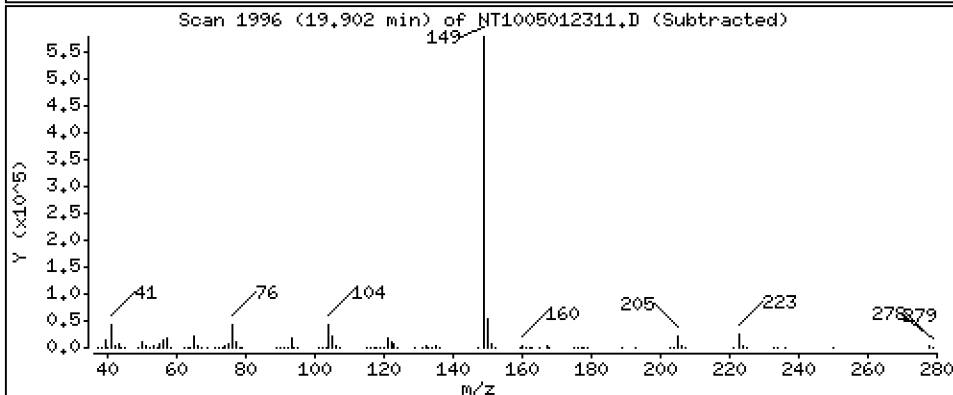
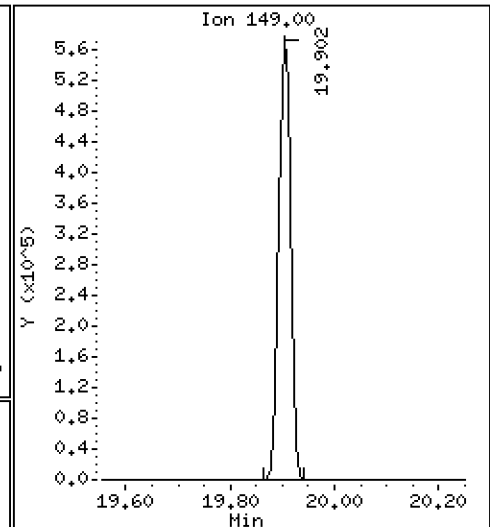
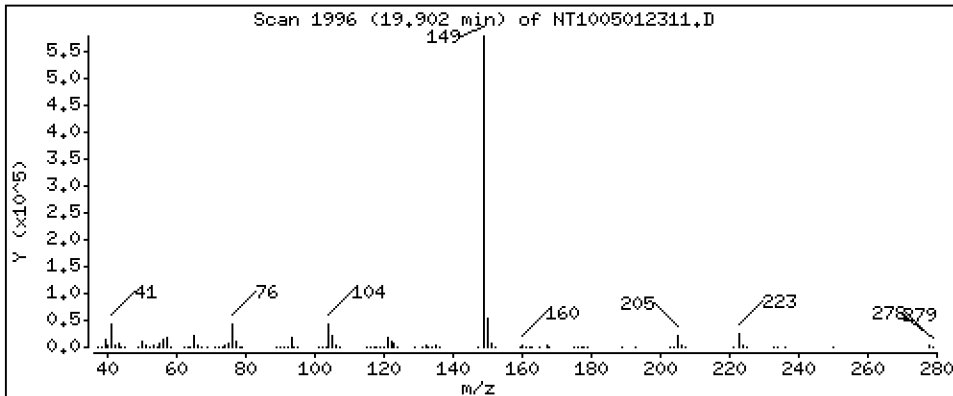
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,895 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

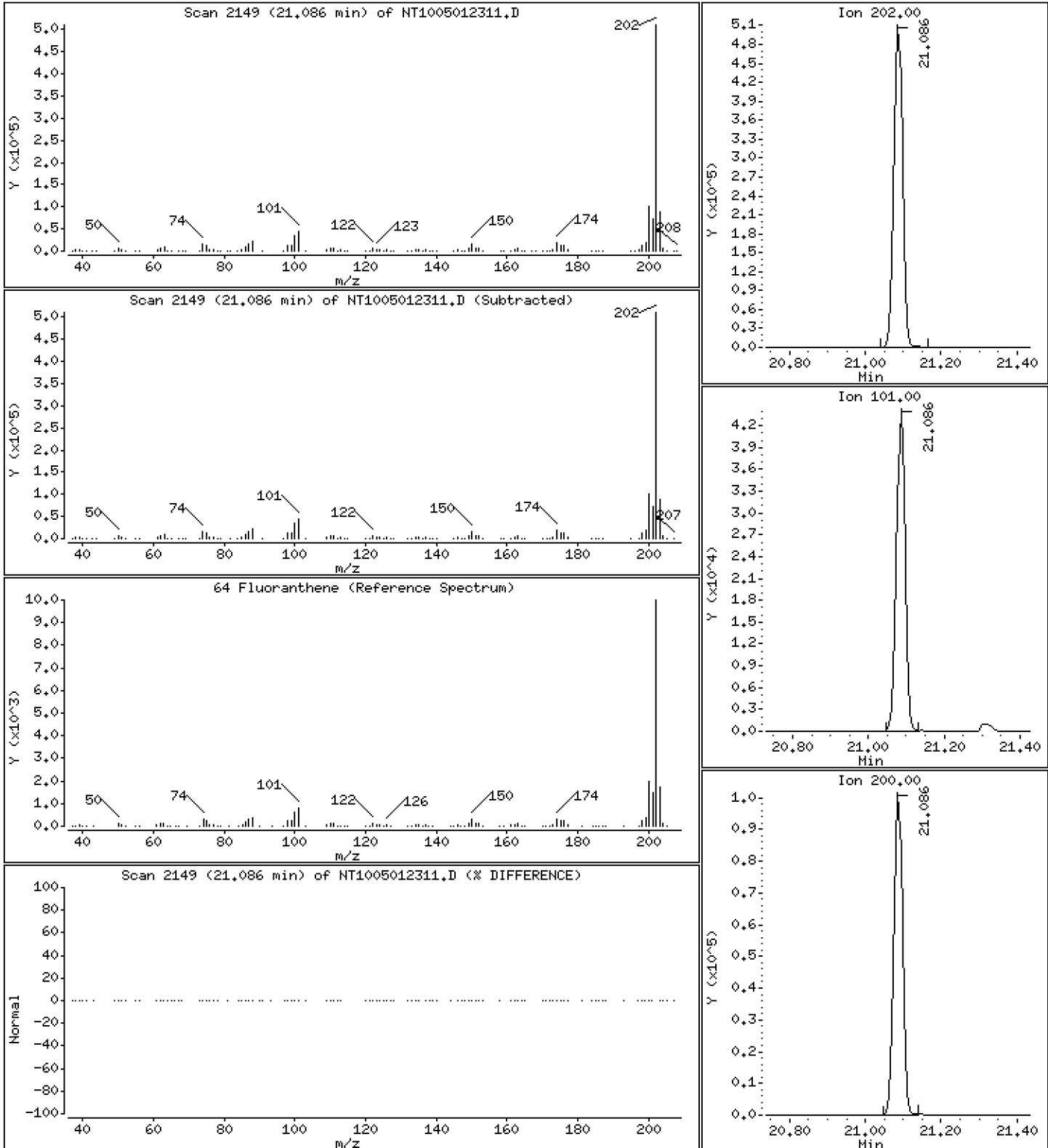
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,738 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

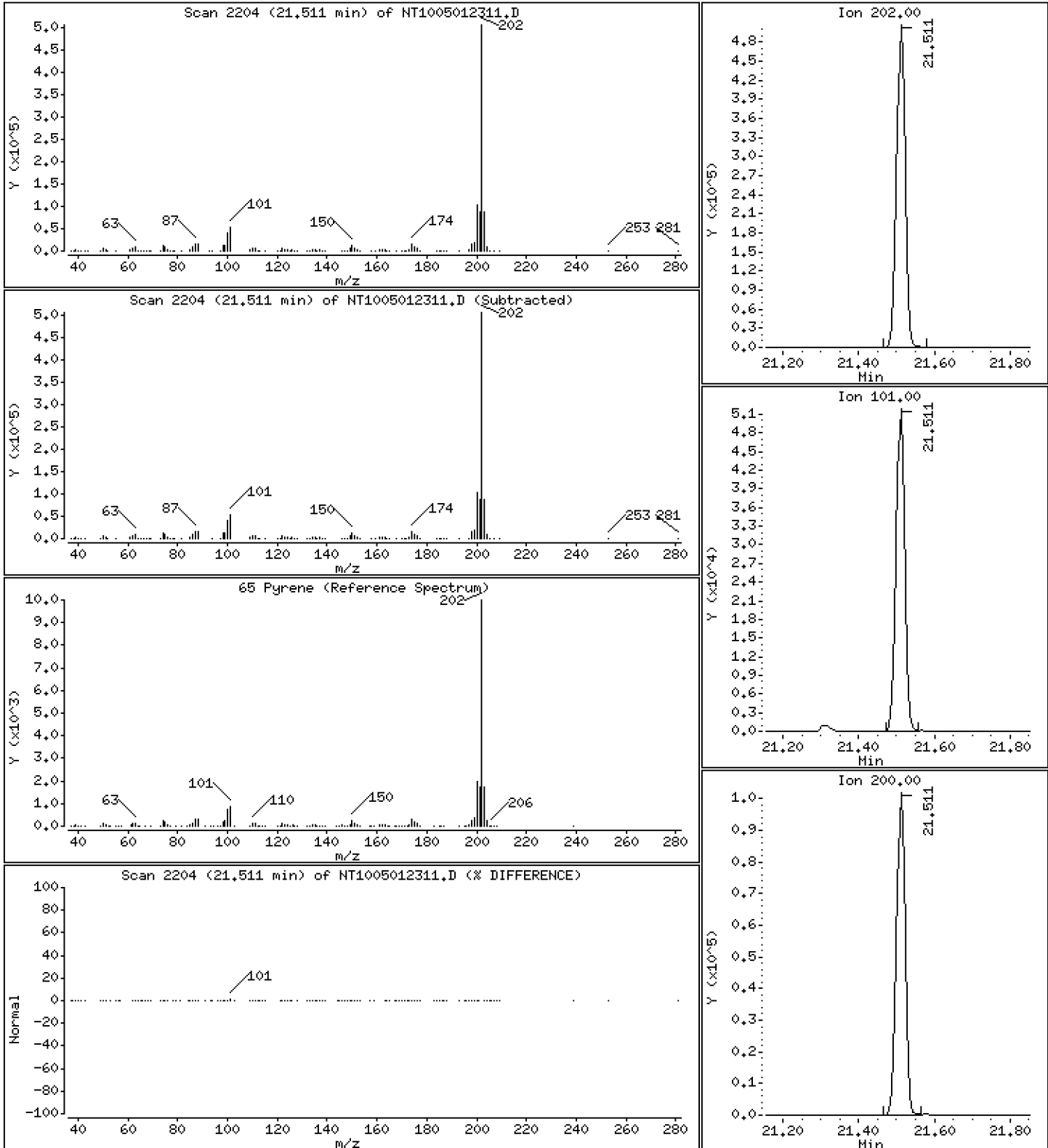
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,635 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

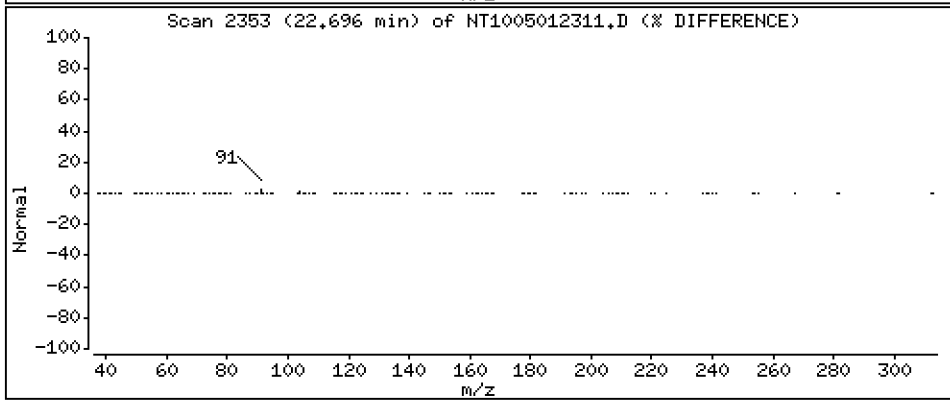
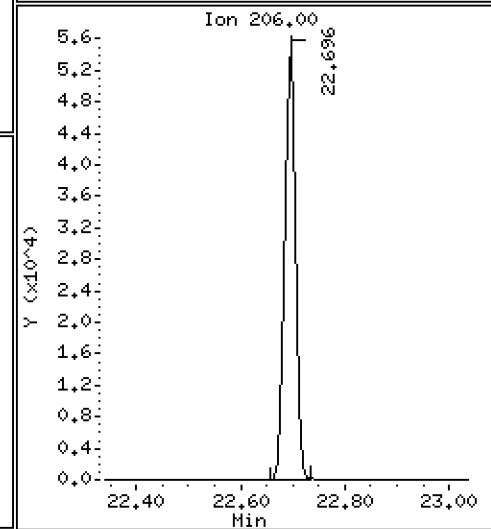
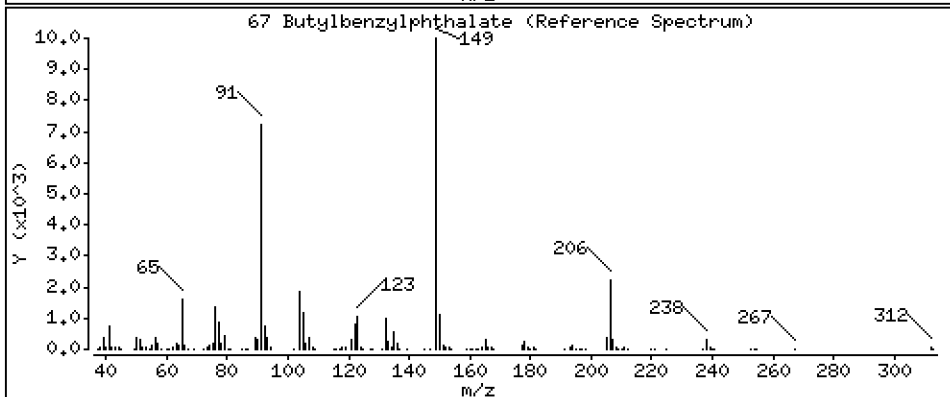
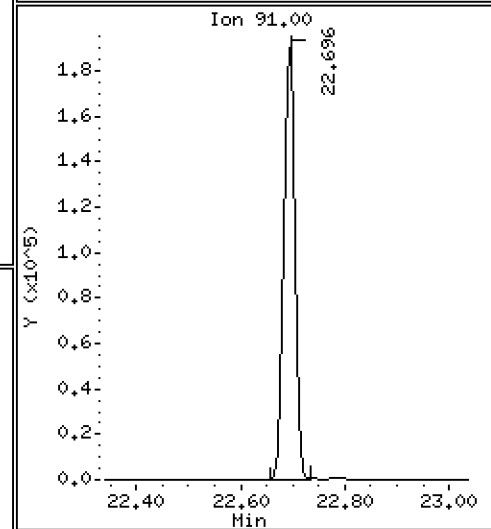
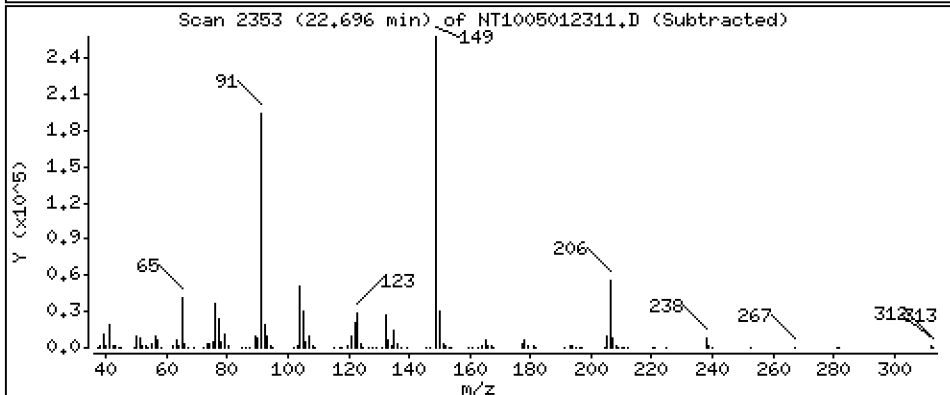
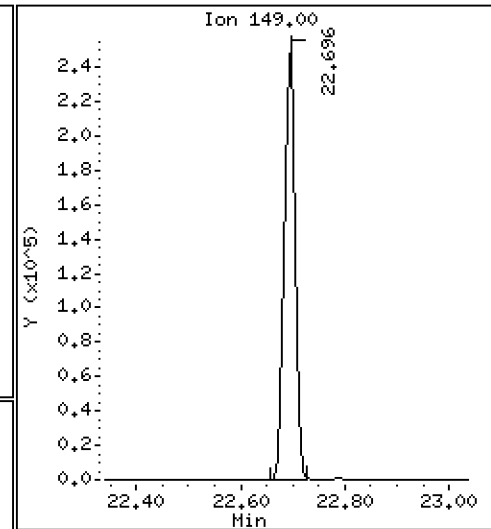
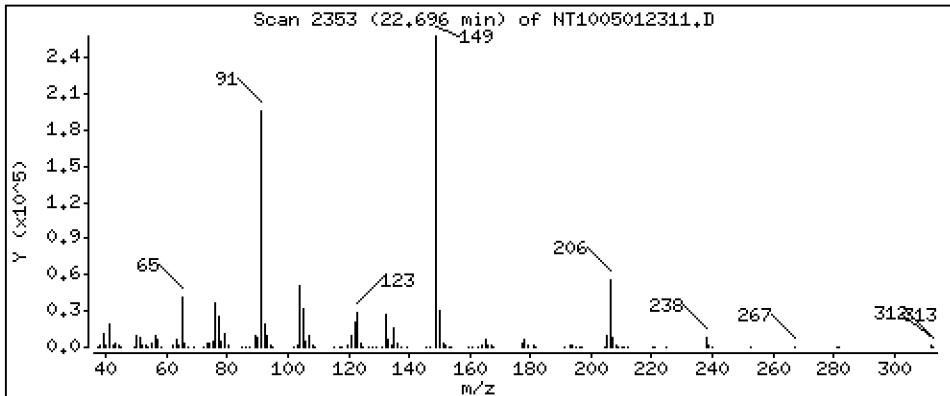
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,778 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

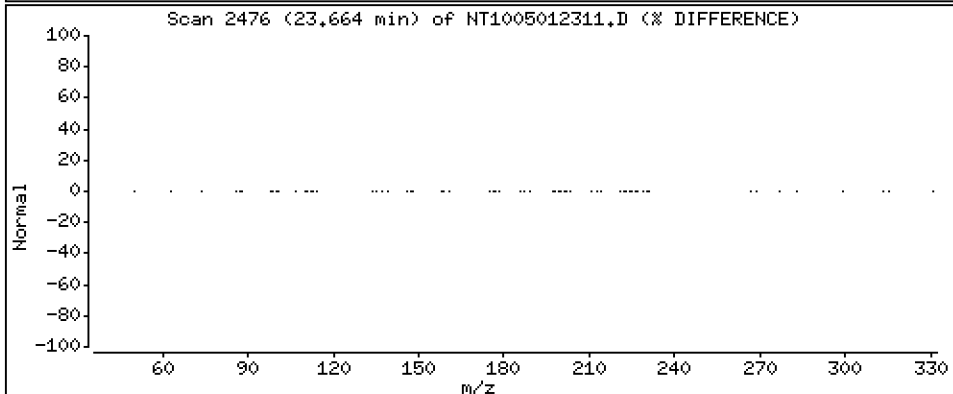
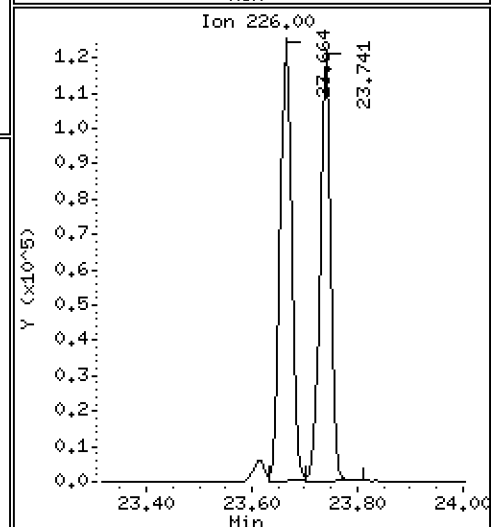
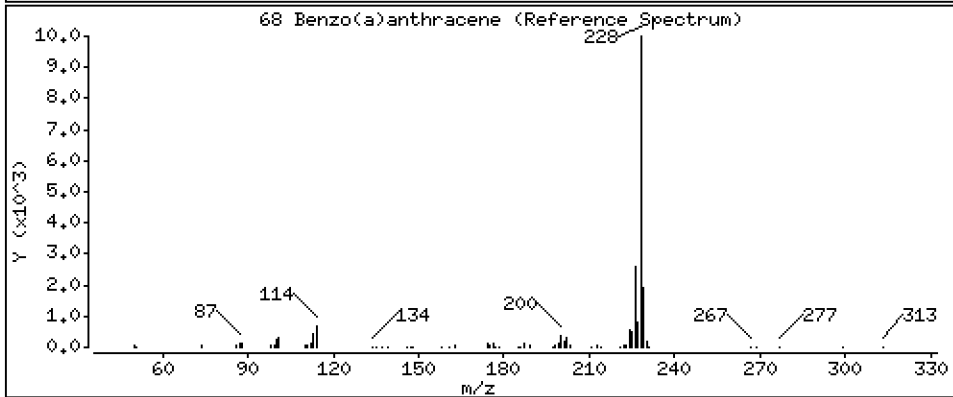
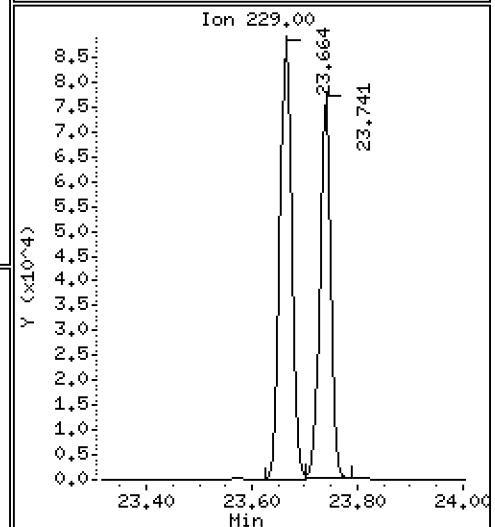
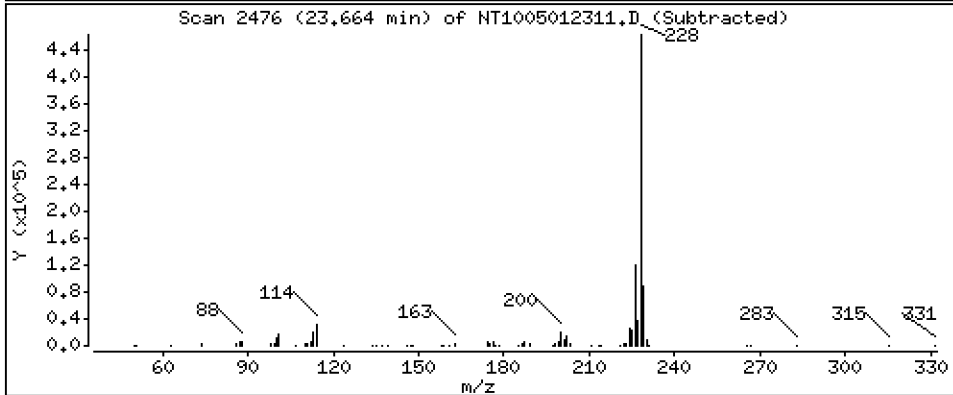
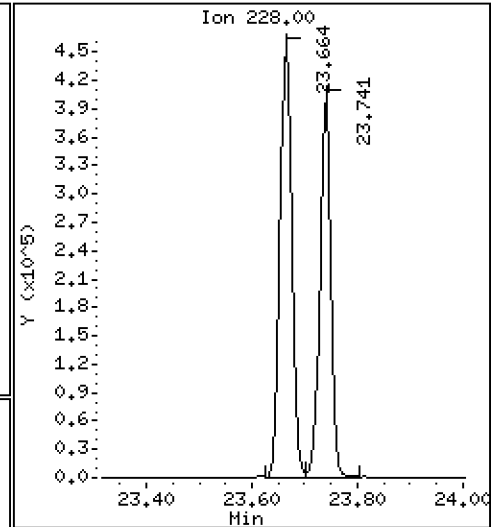
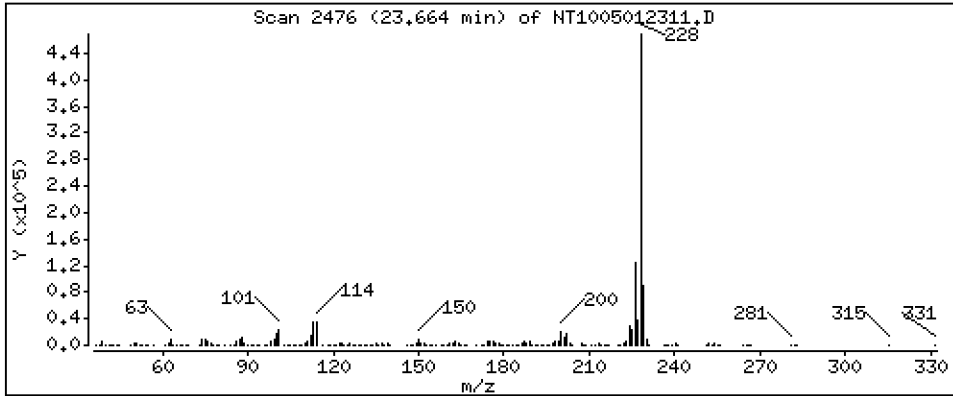
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,717 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

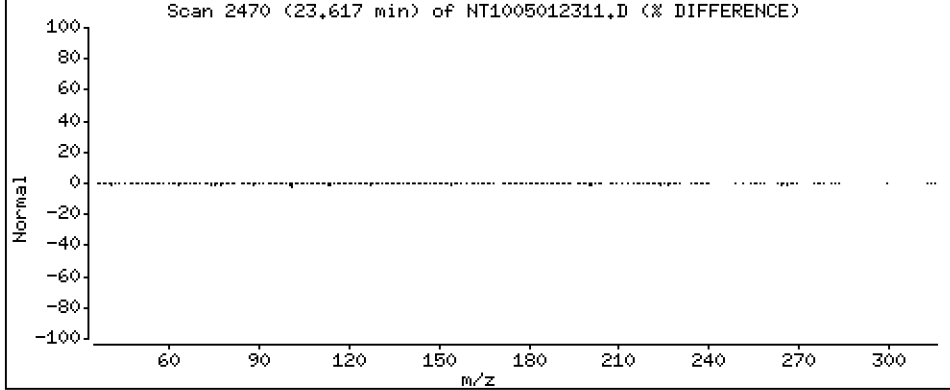
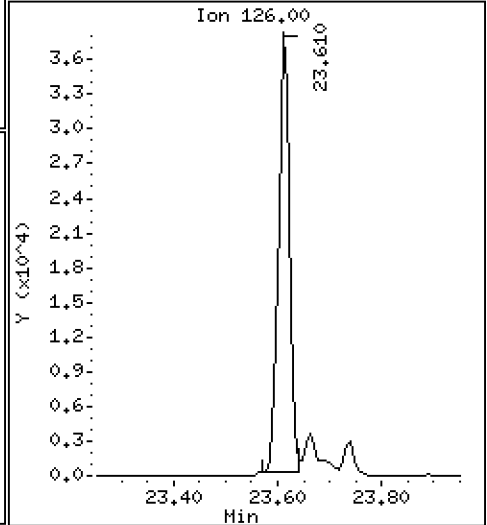
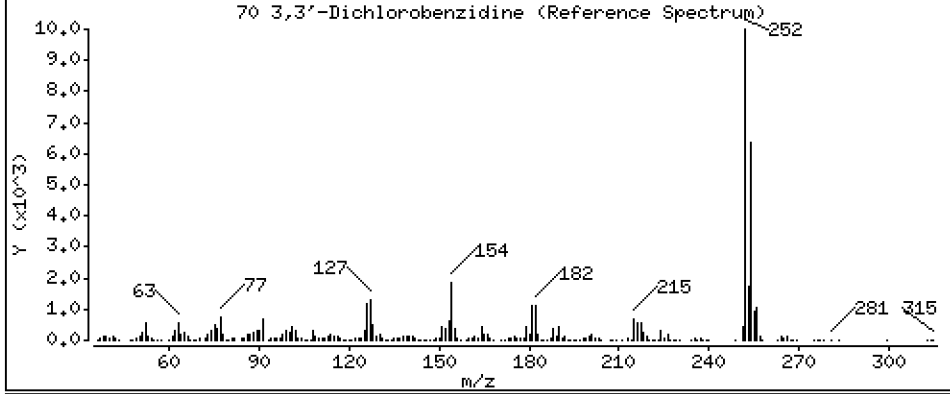
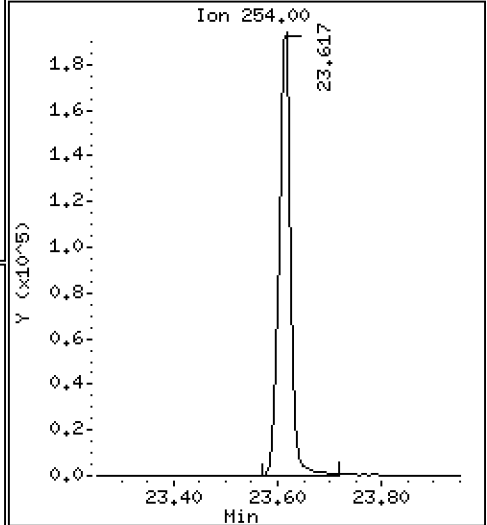
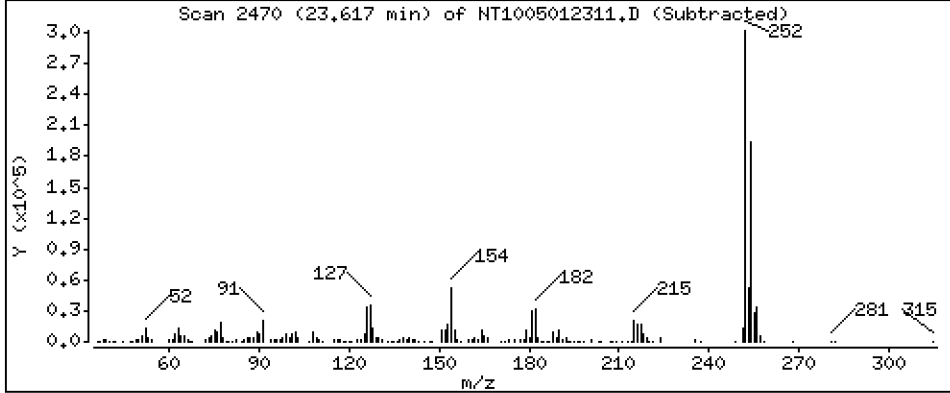
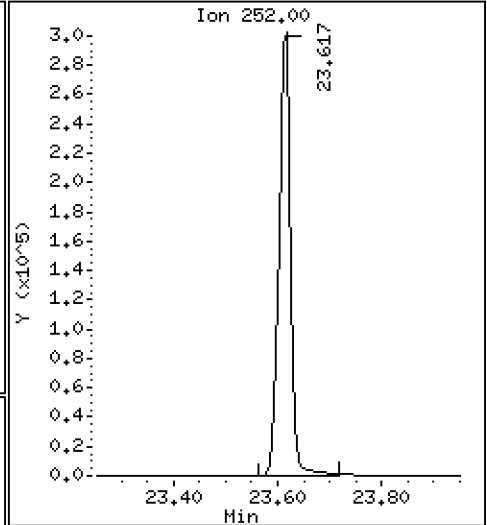
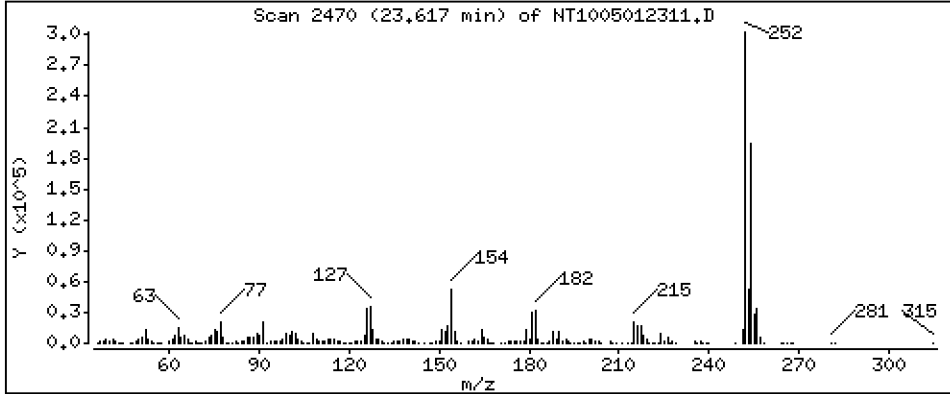
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 10,21 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

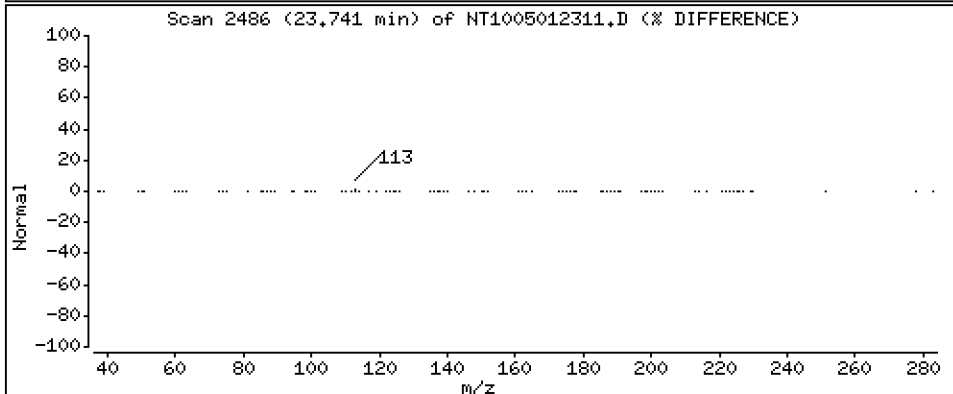
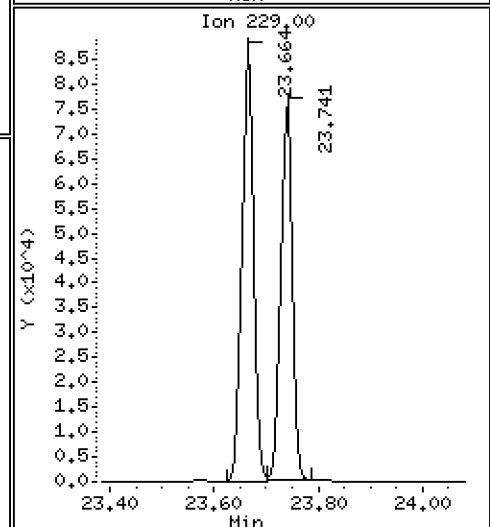
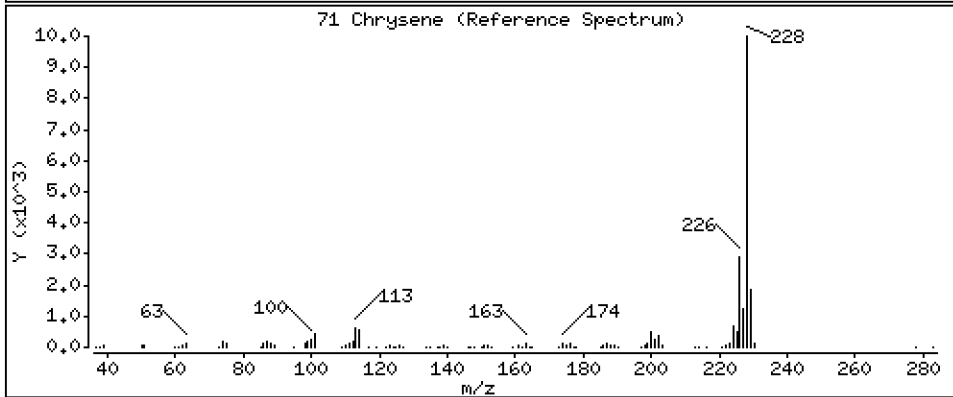
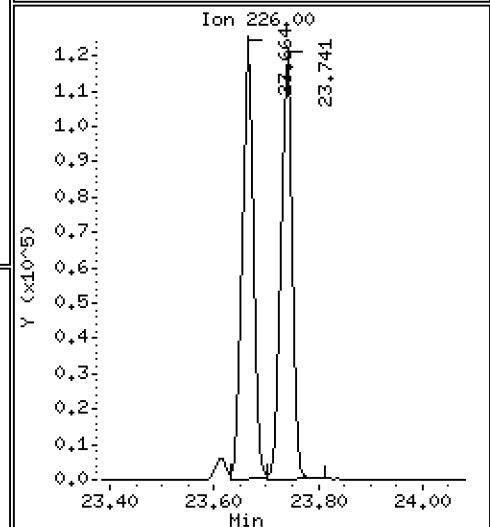
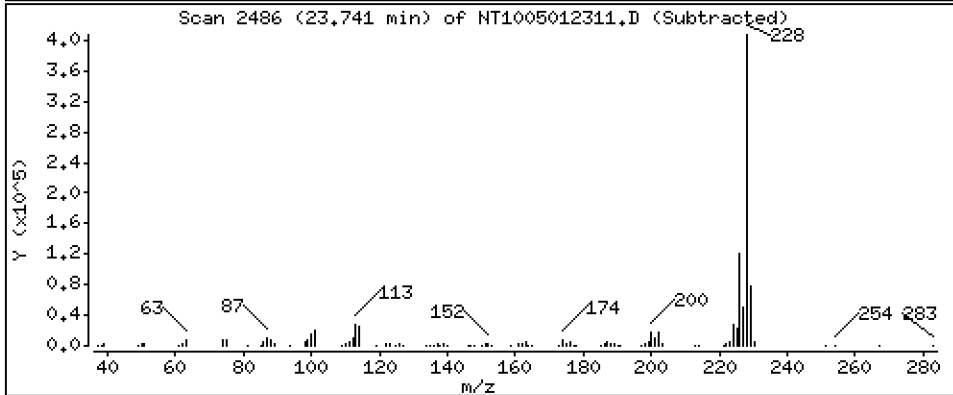
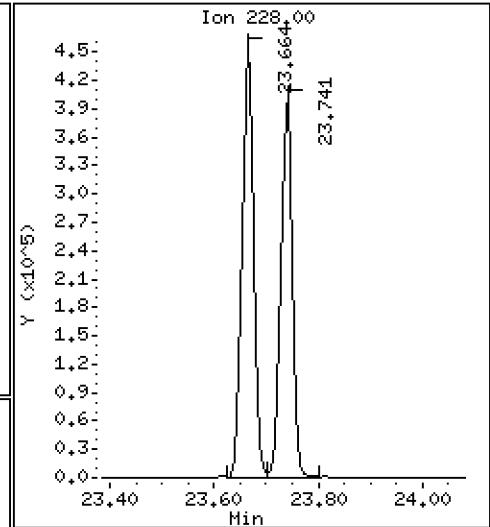
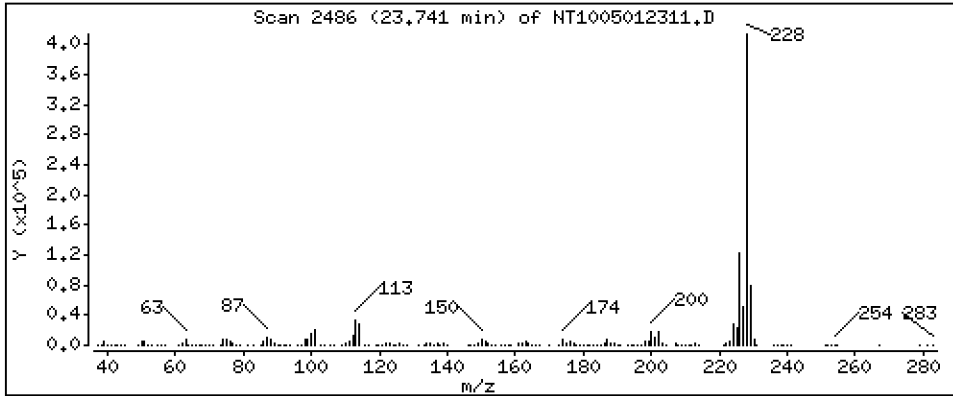
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,540 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

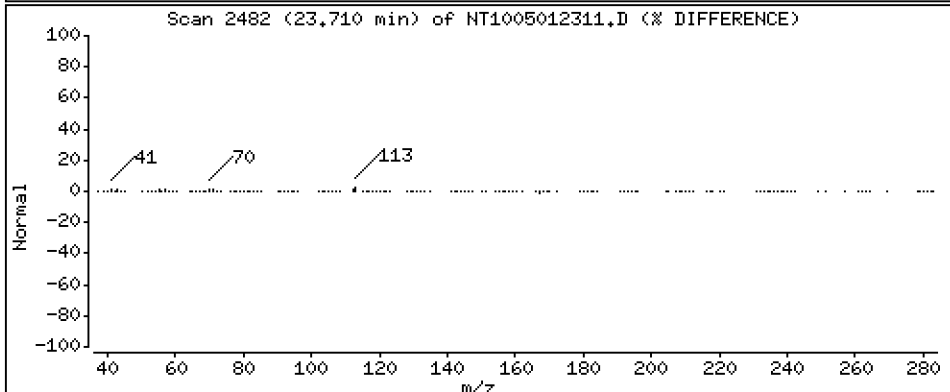
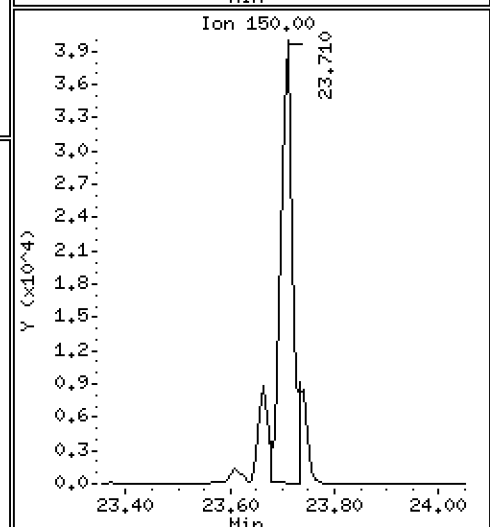
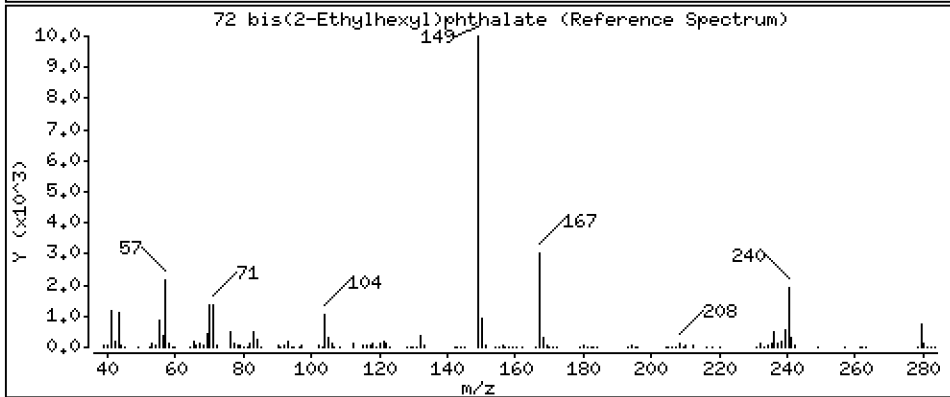
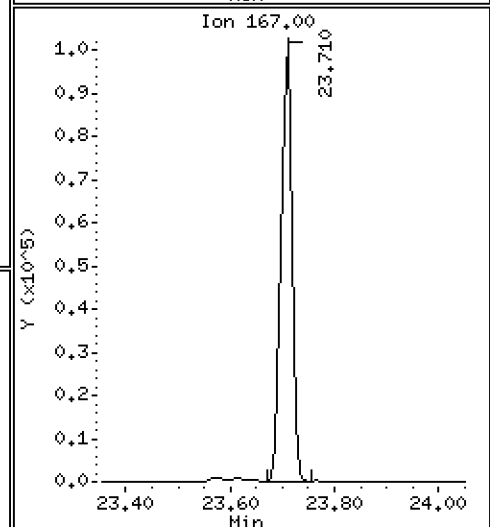
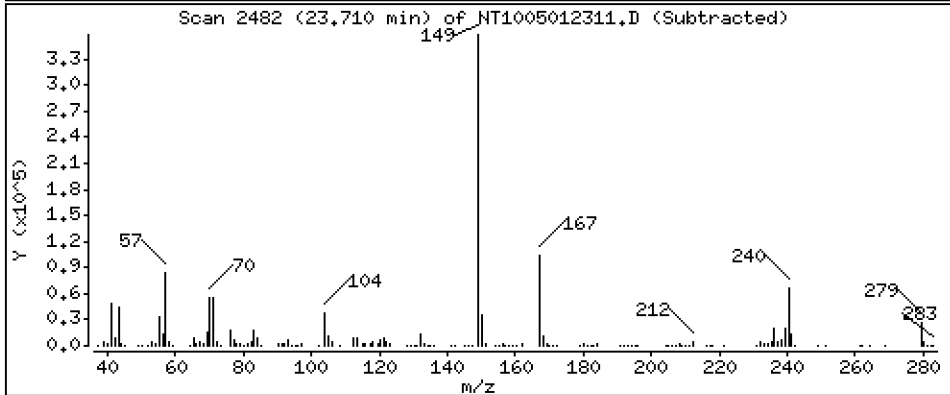
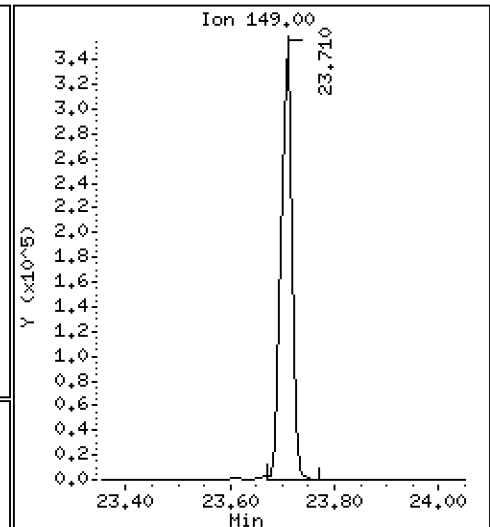
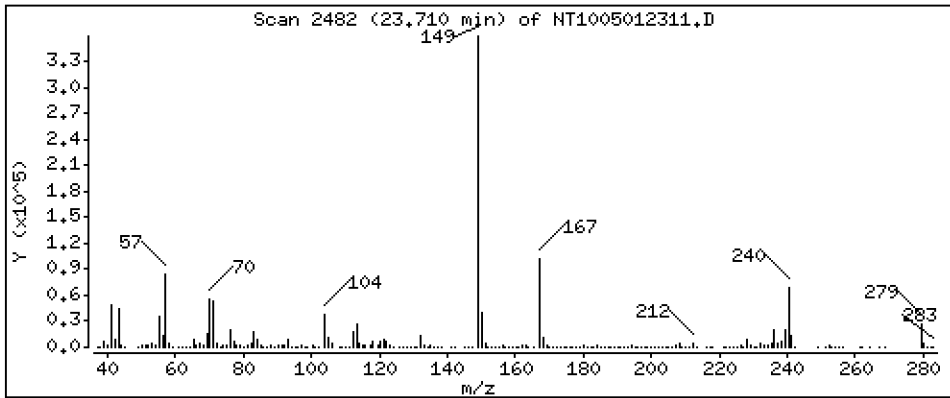
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 5,406 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

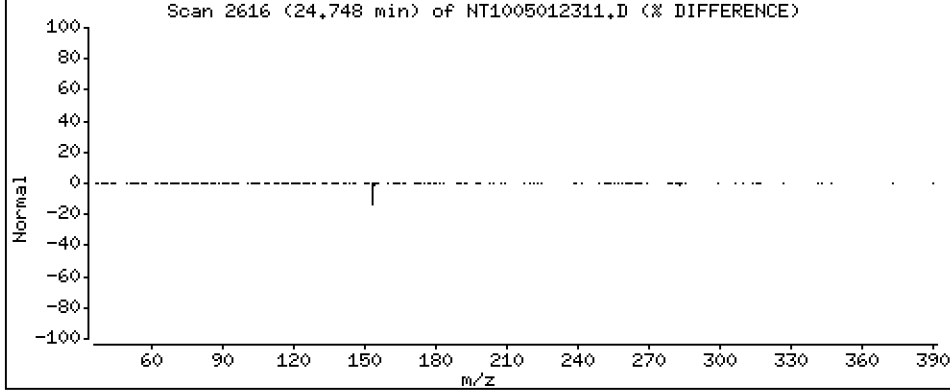
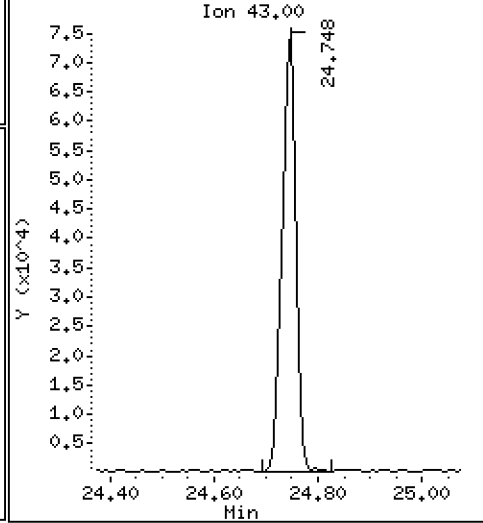
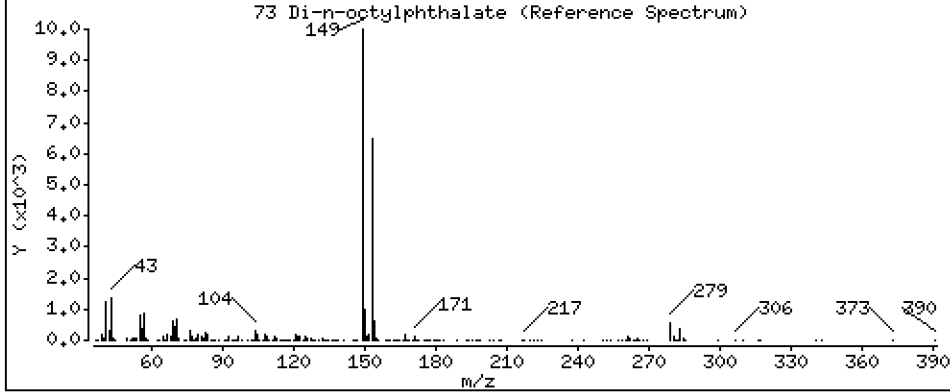
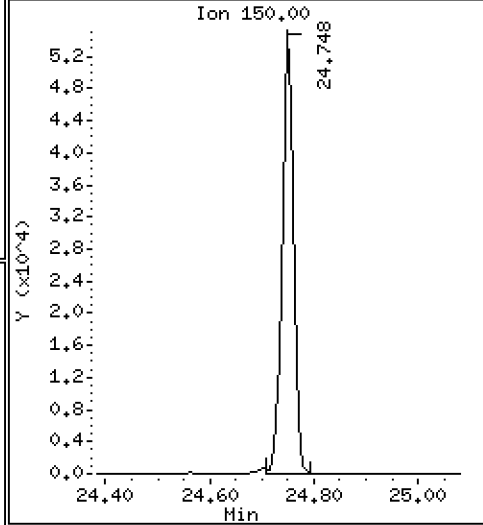
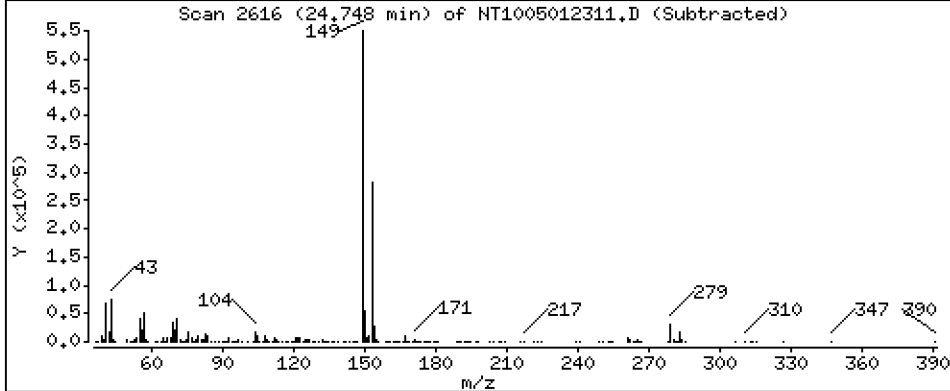
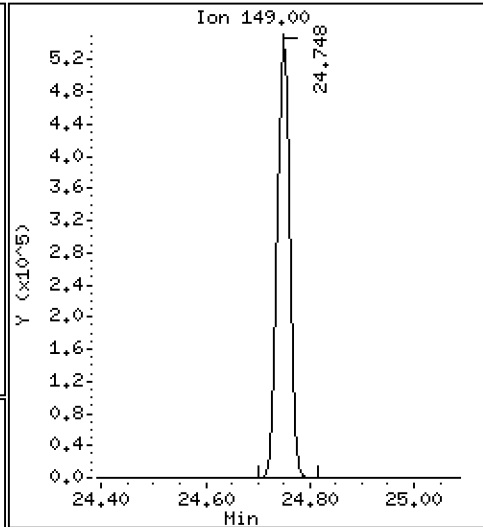
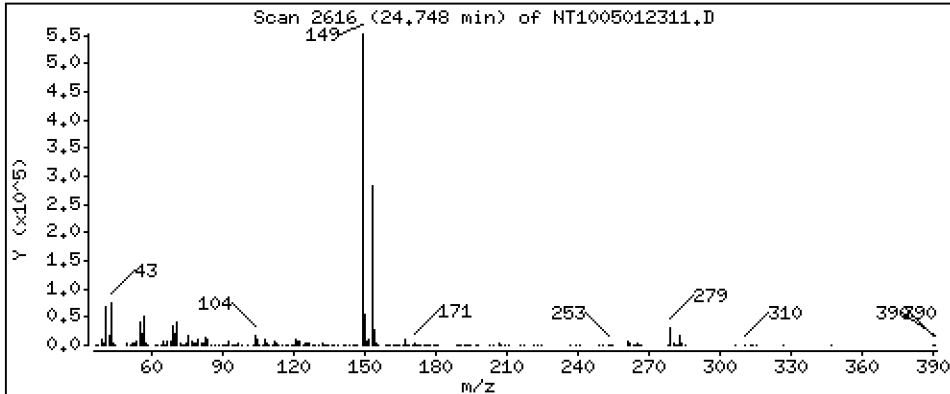
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 5,161 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

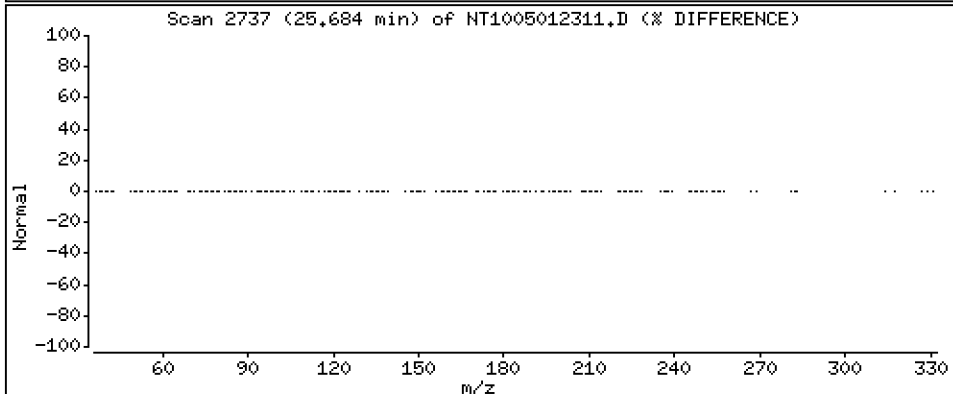
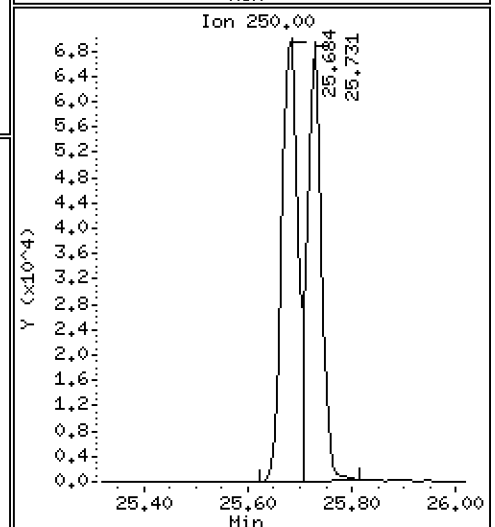
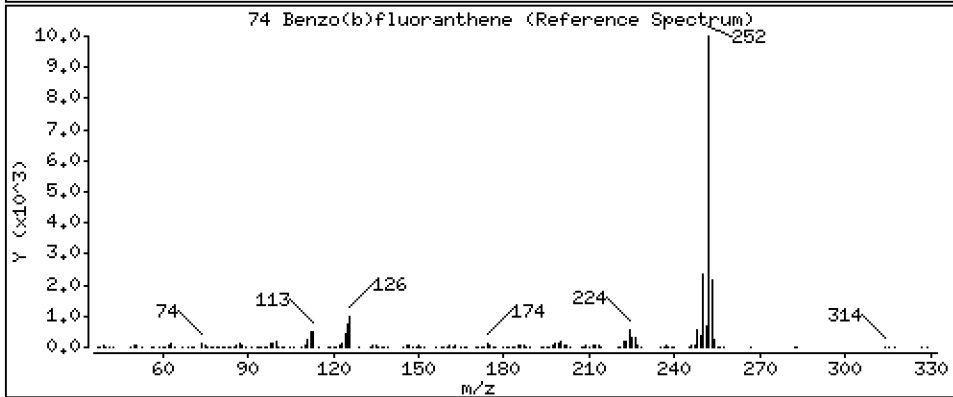
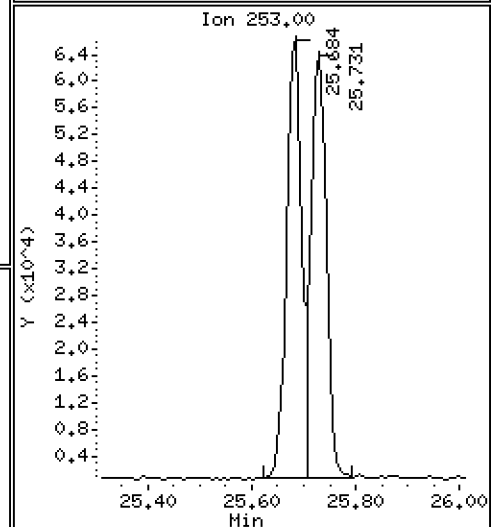
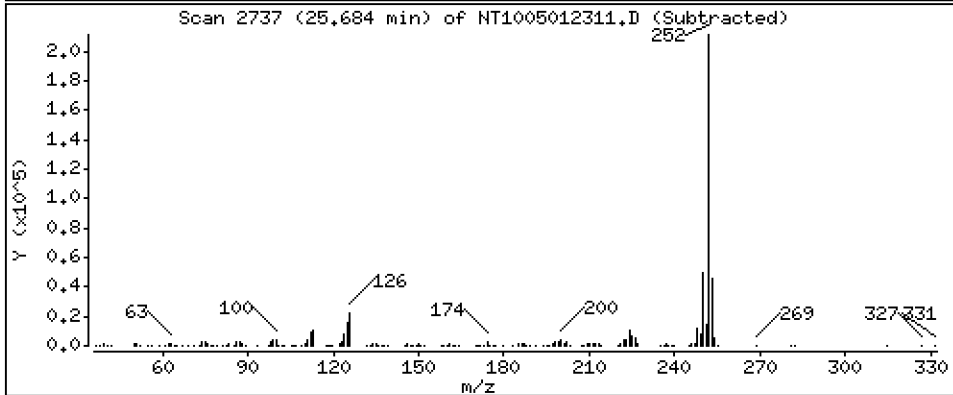
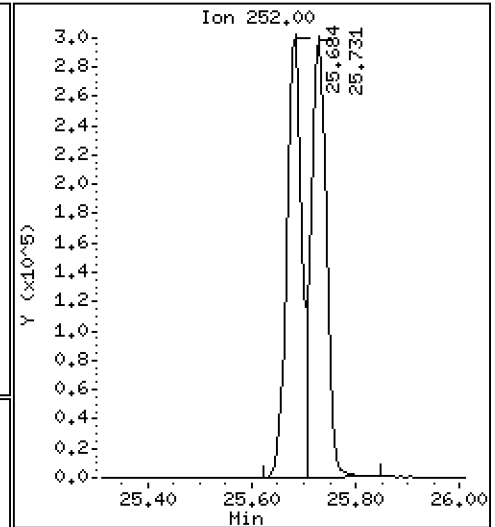
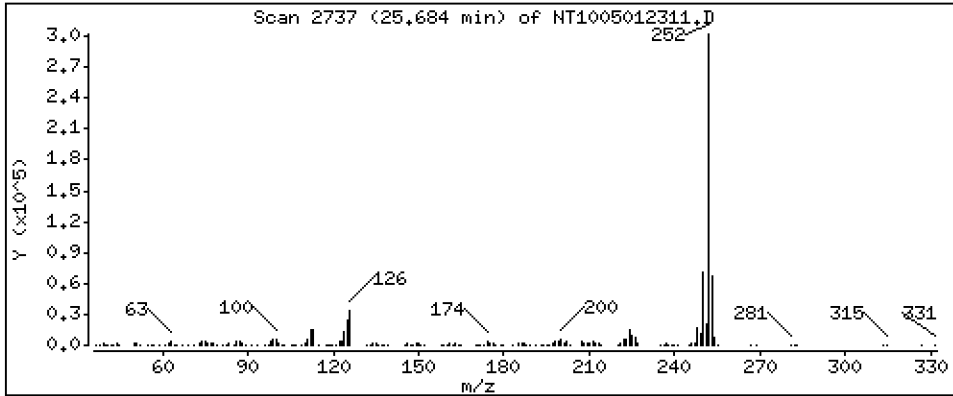
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,785 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

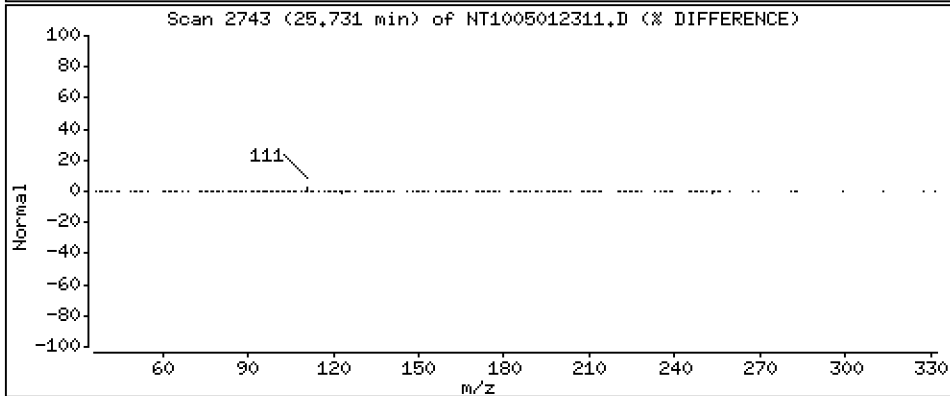
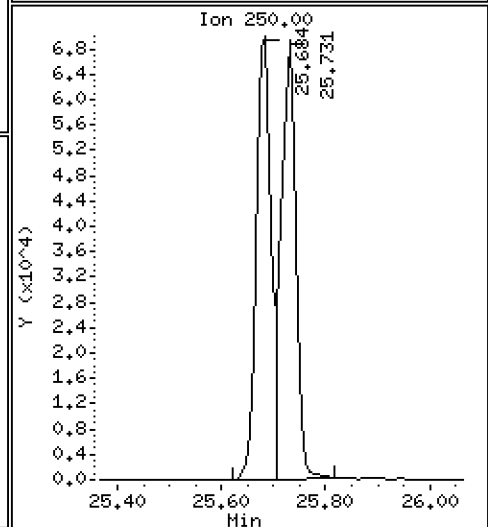
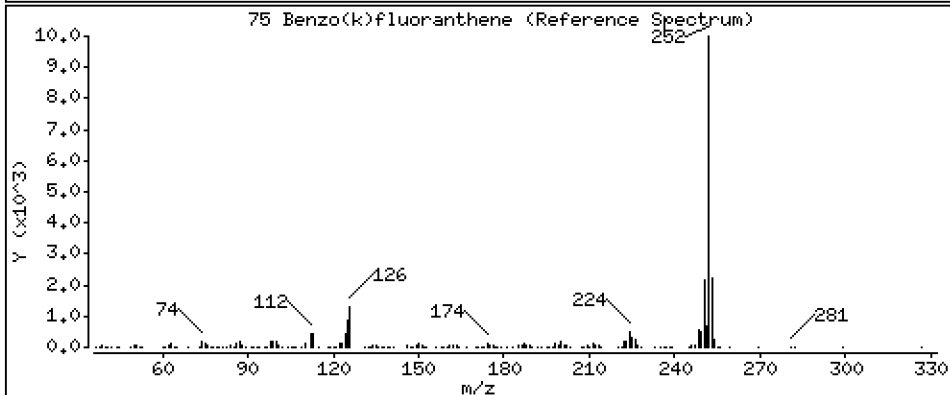
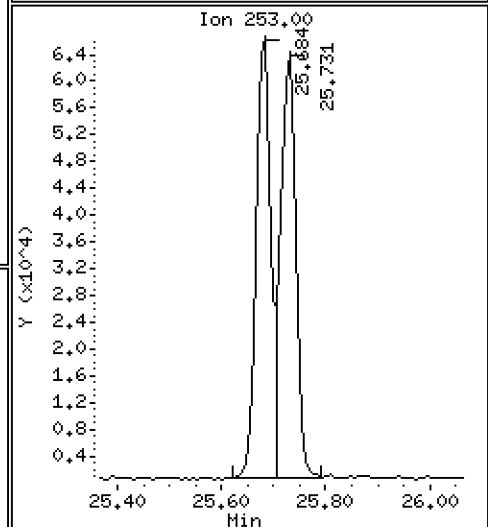
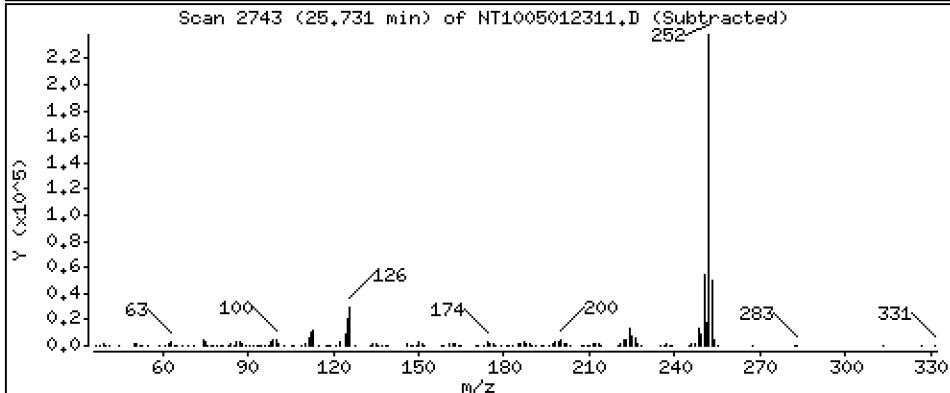
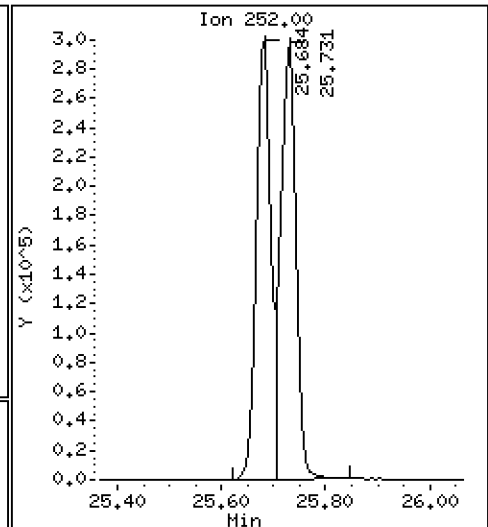
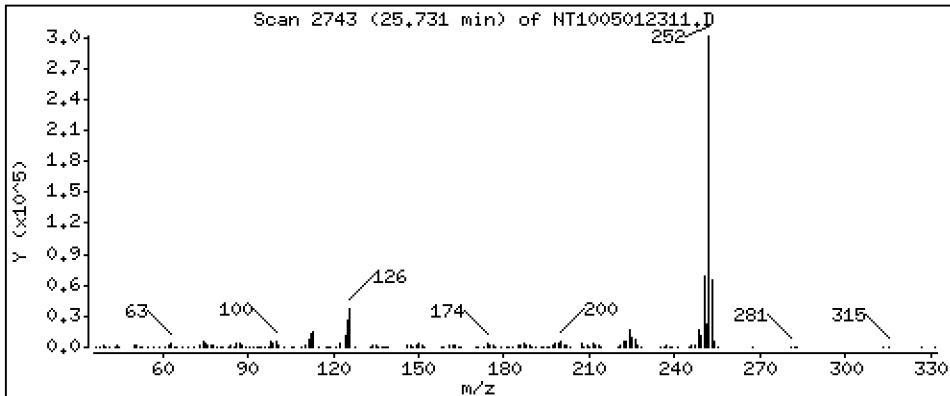
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,457 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

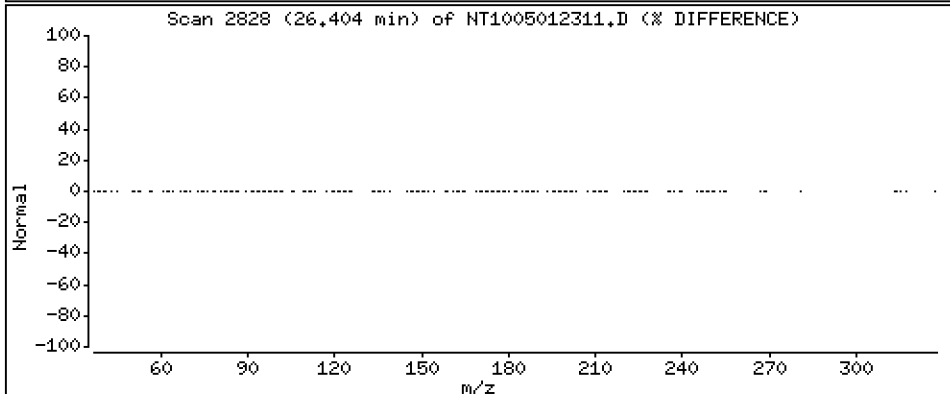
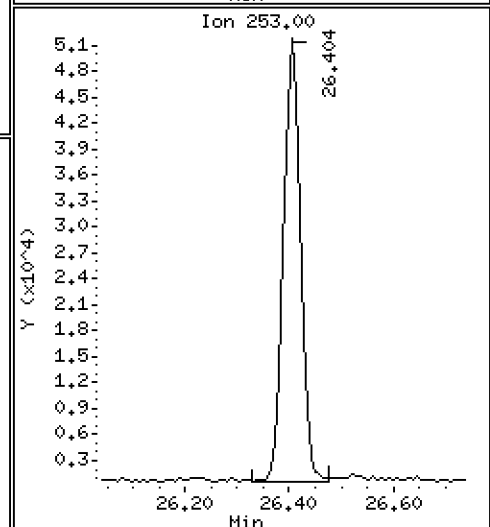
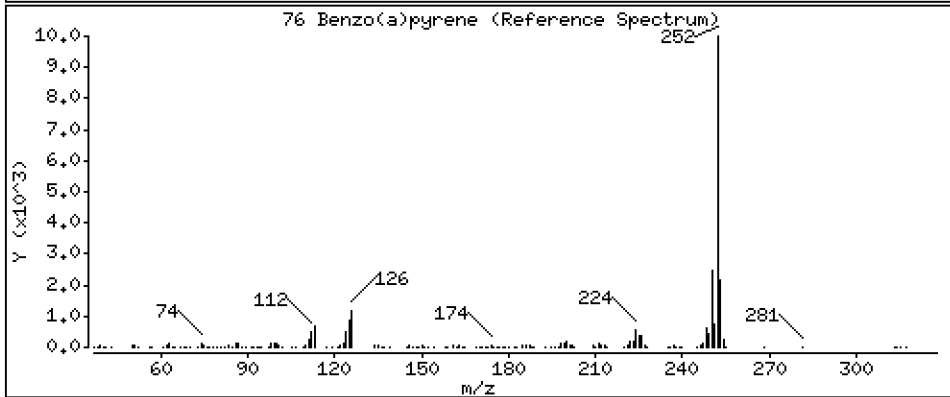
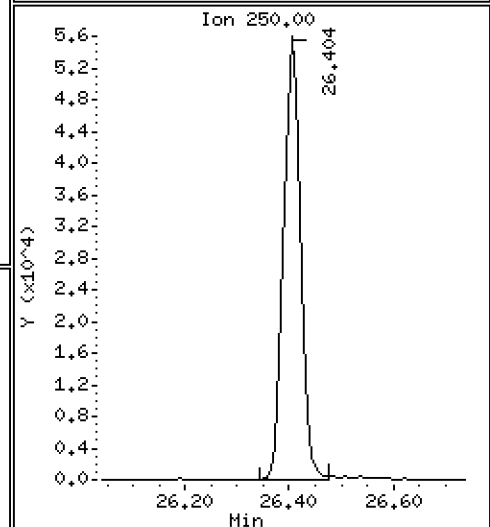
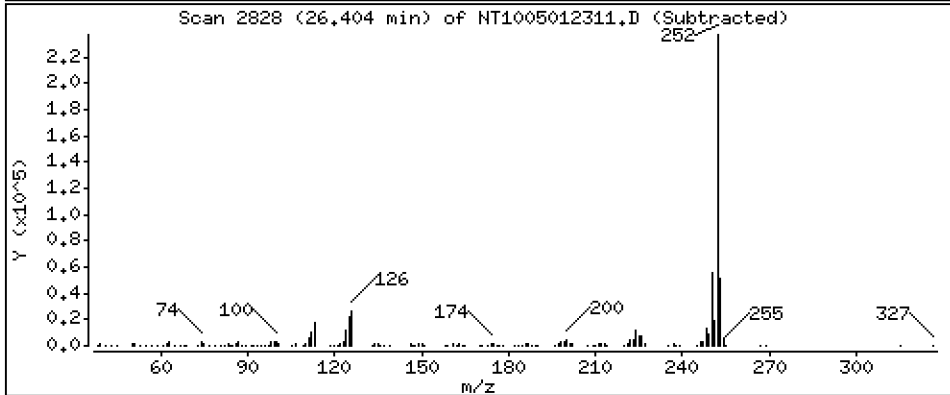
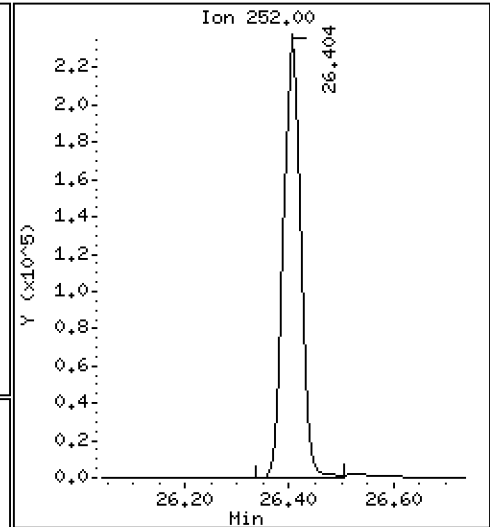
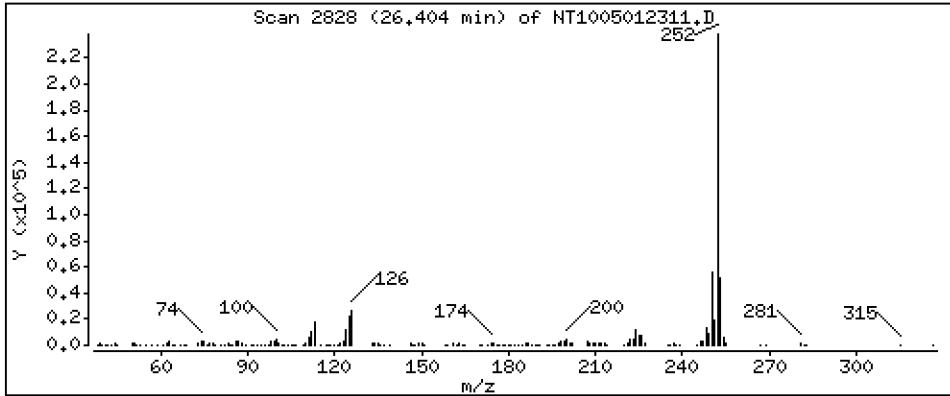
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,787 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

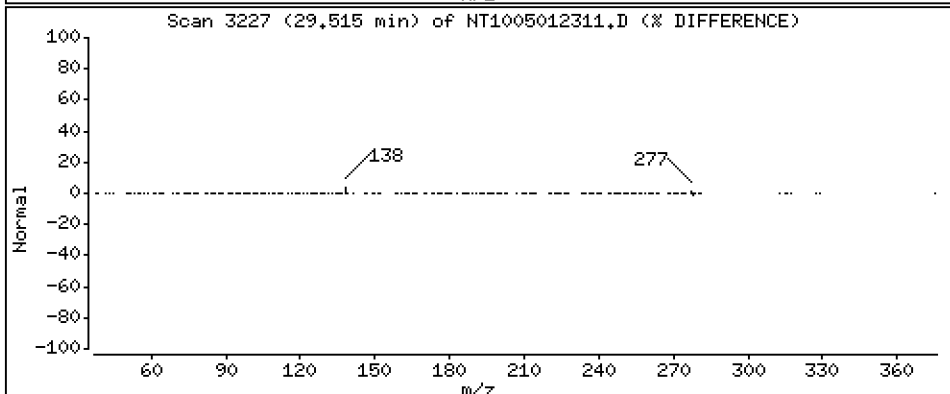
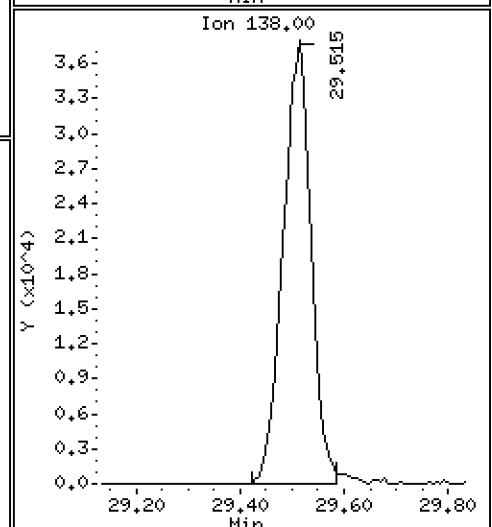
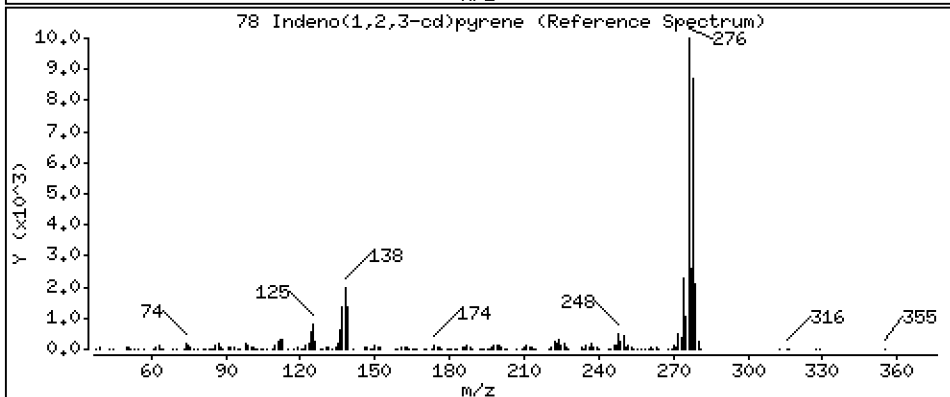
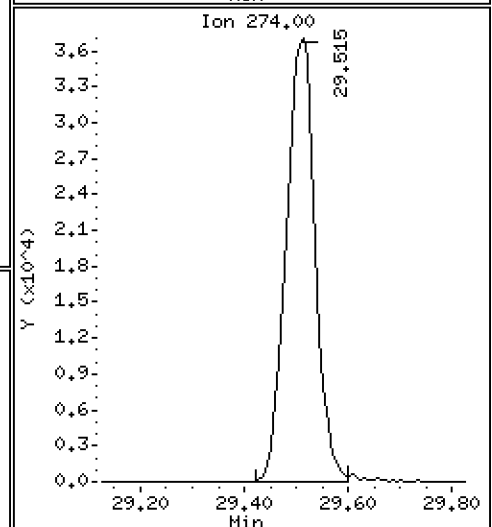
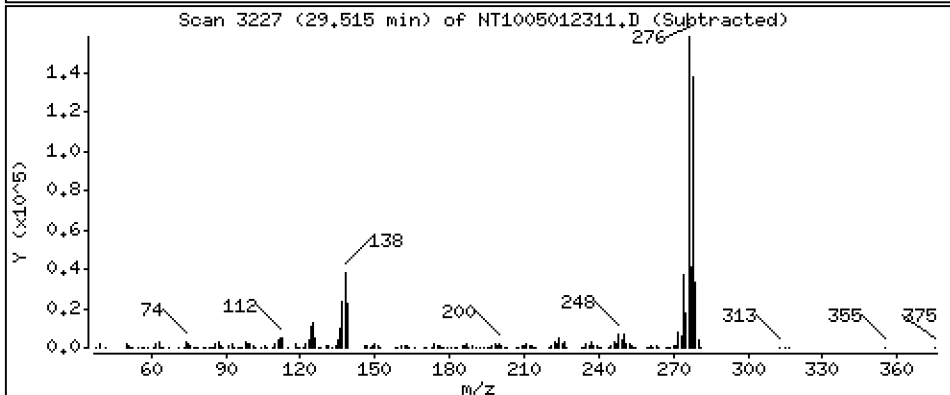
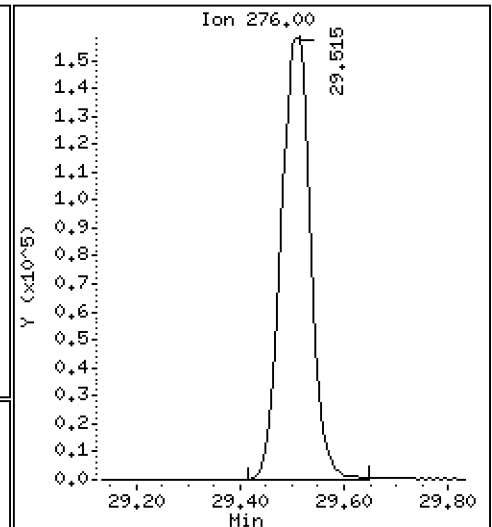
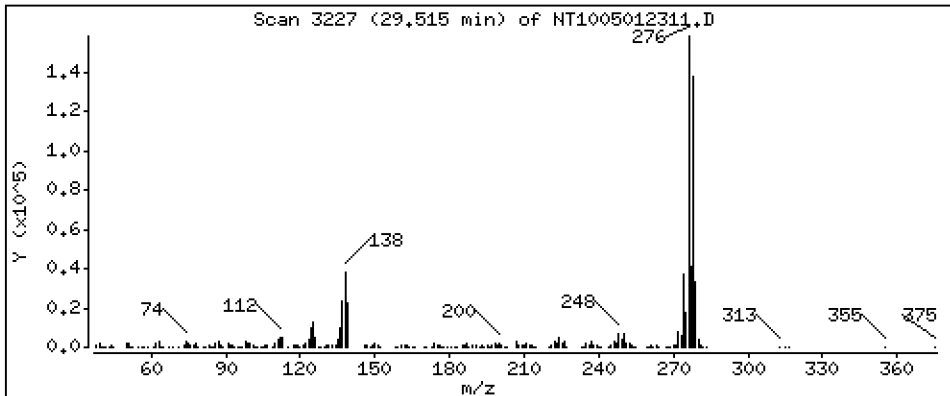
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,677 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

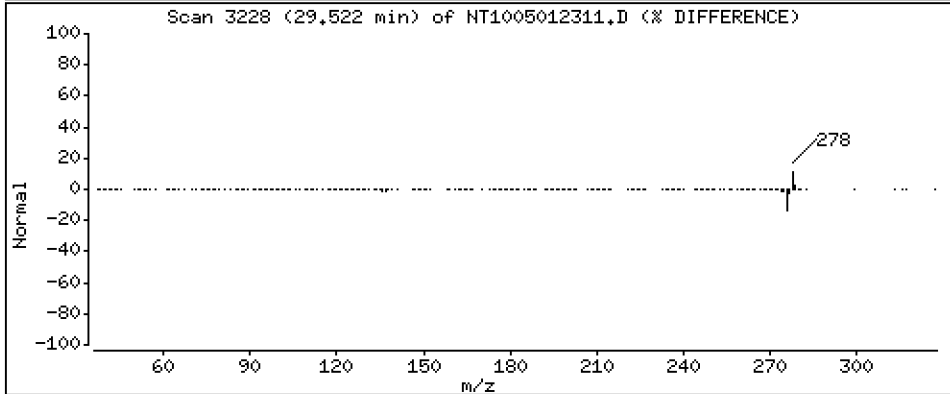
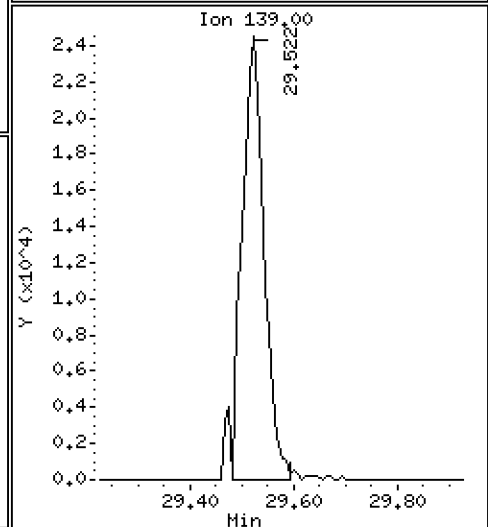
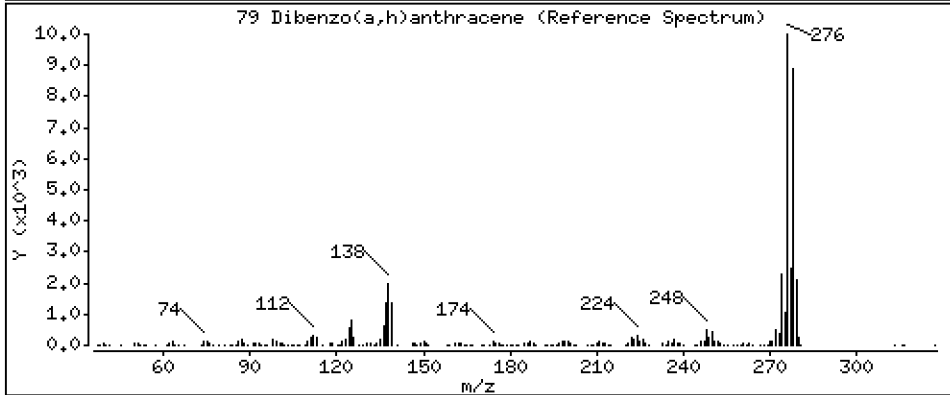
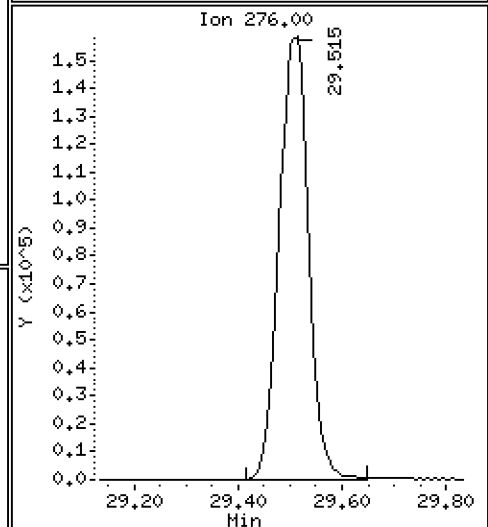
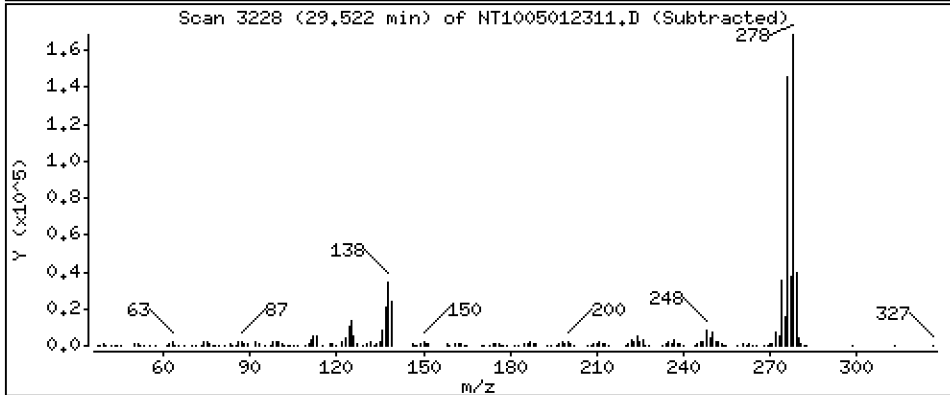
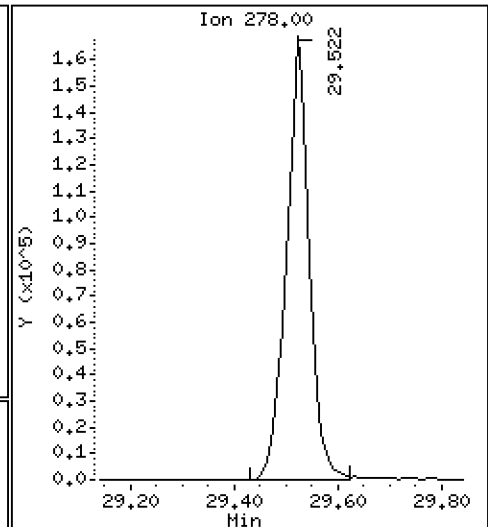
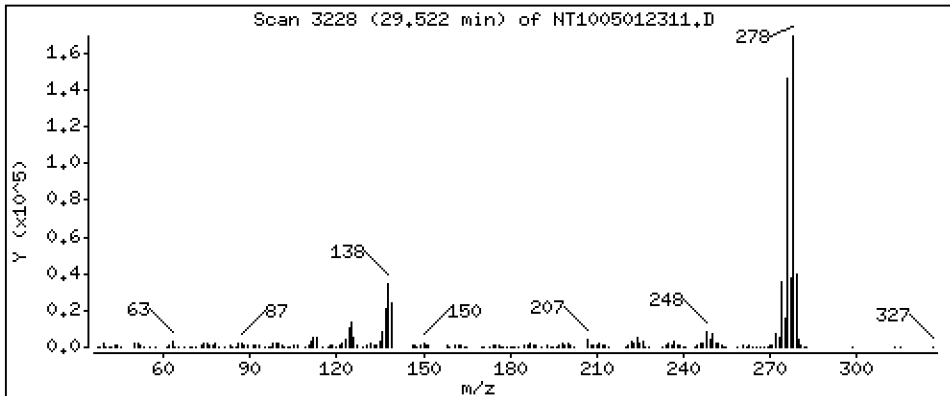
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,649 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

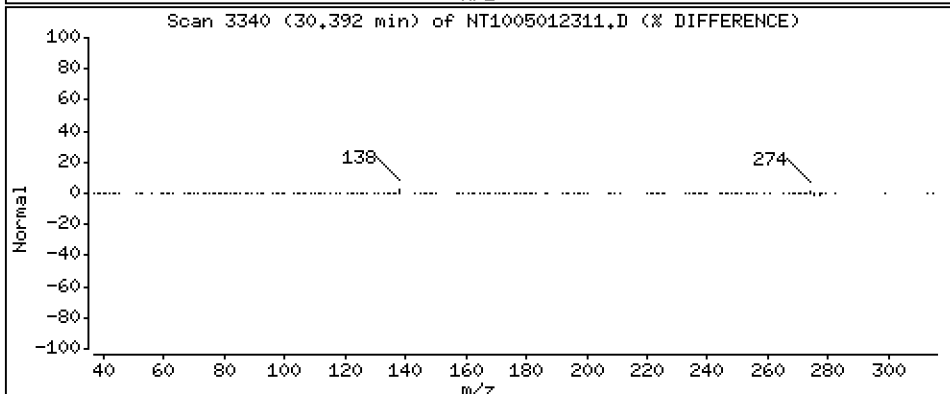
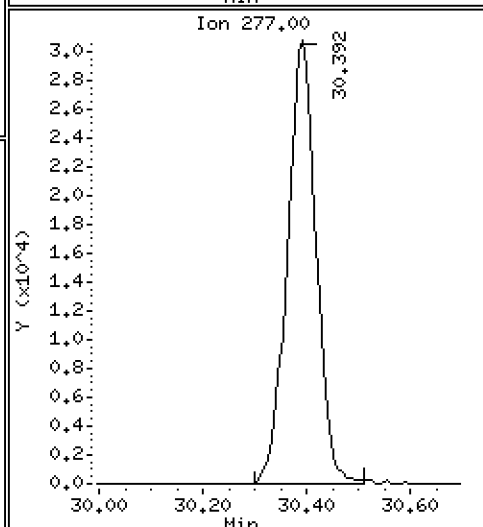
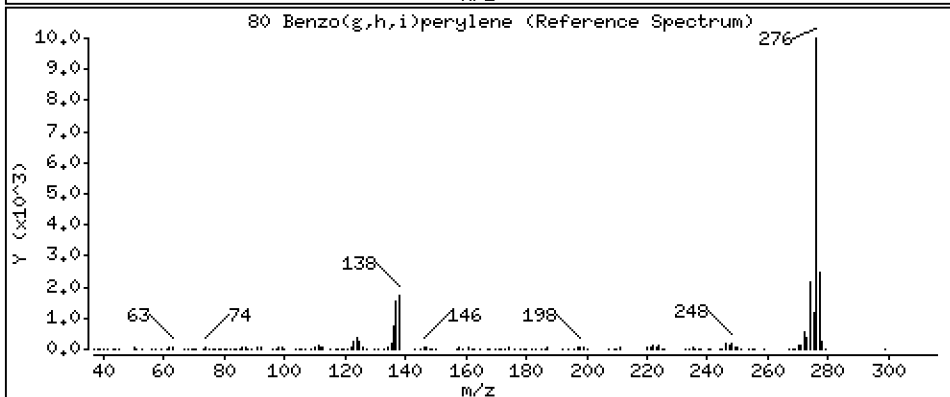
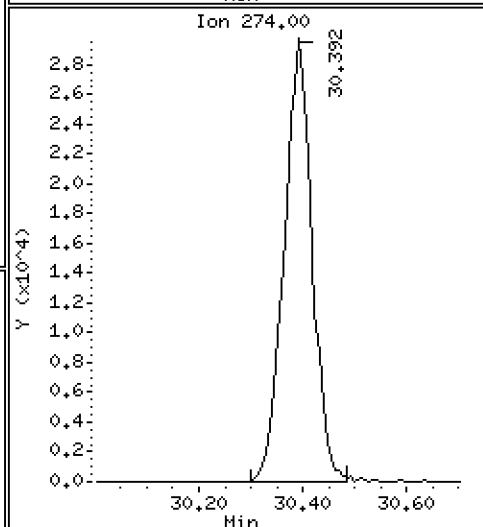
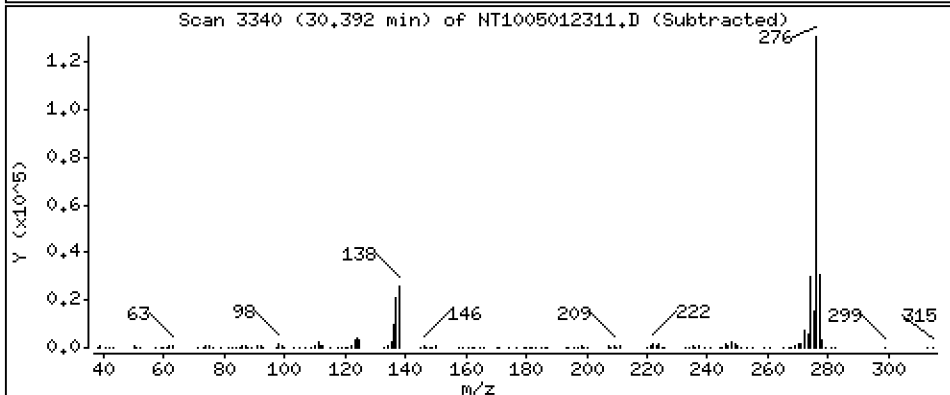
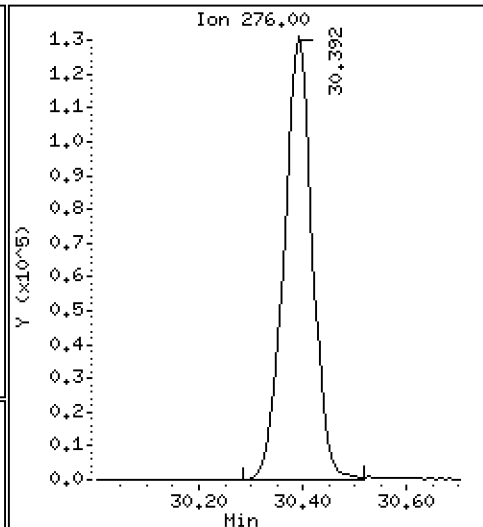
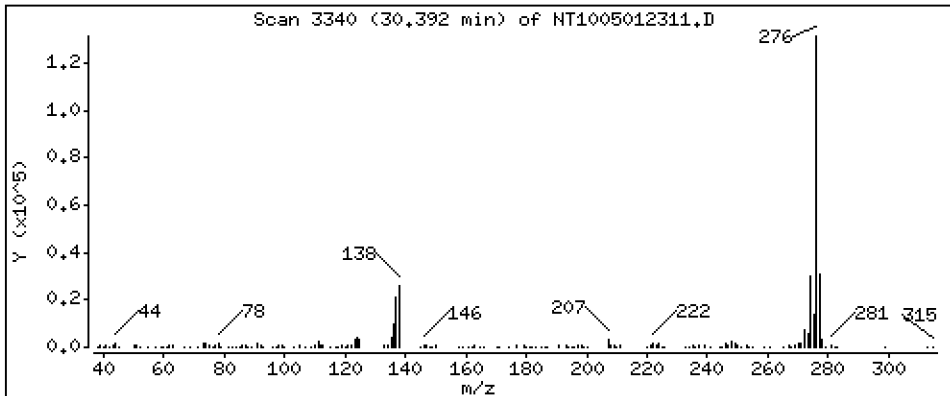
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,659 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

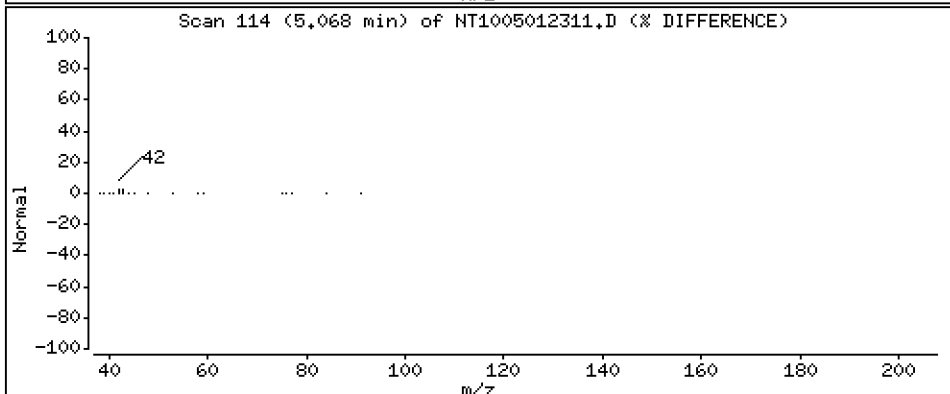
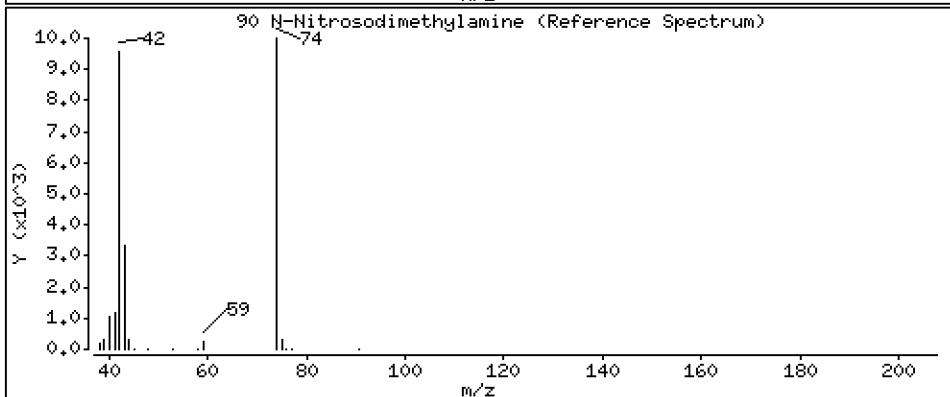
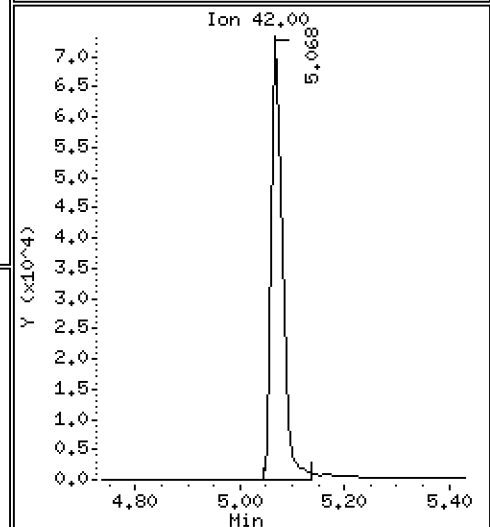
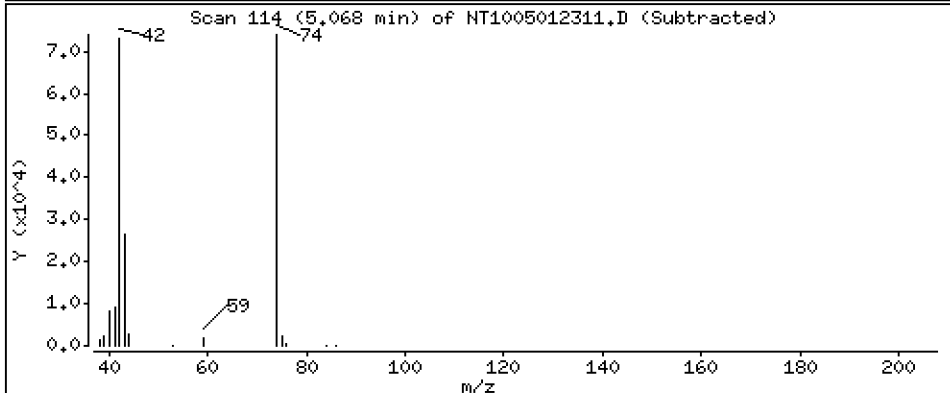
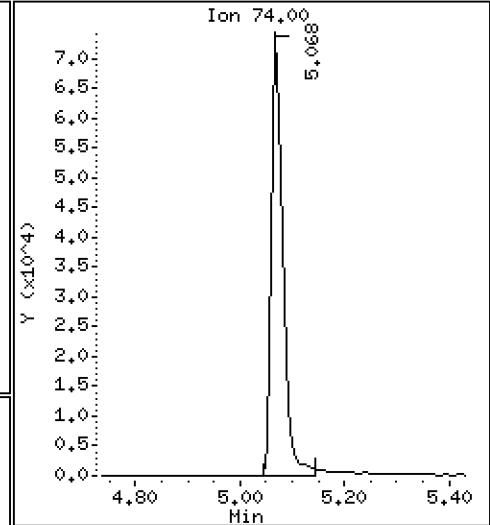
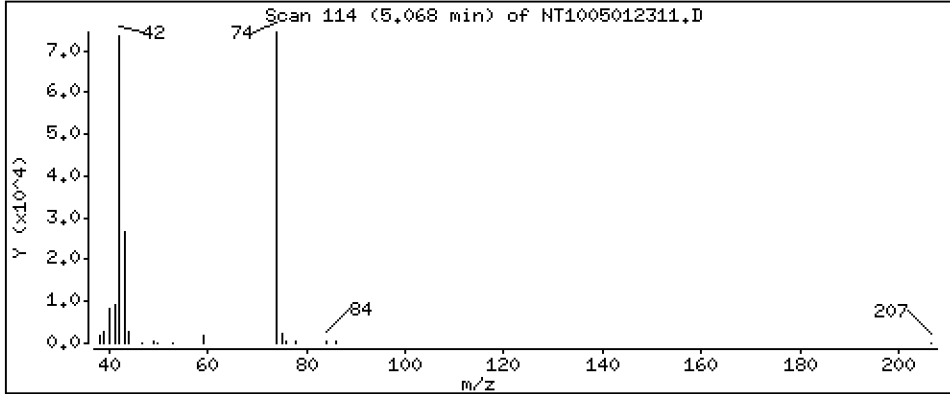
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,190 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

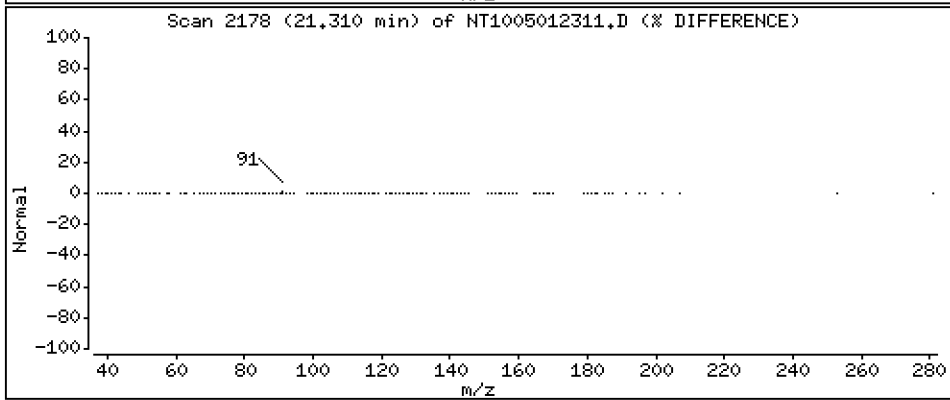
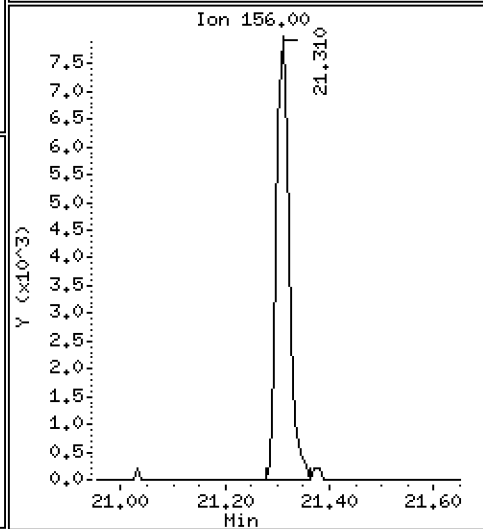
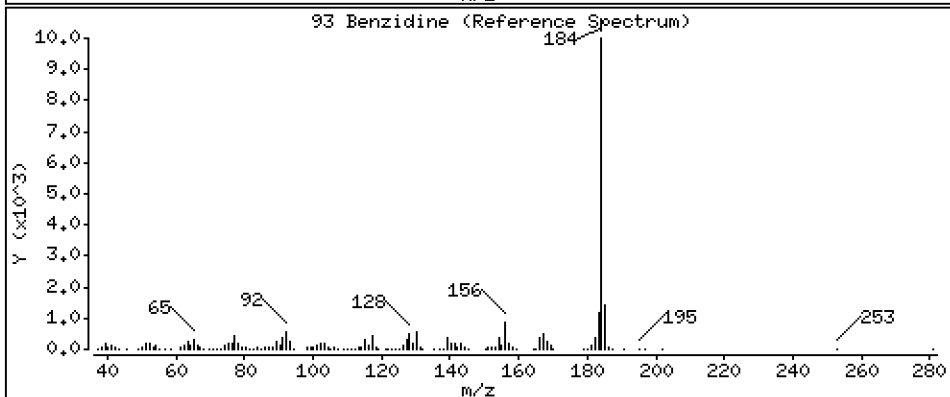
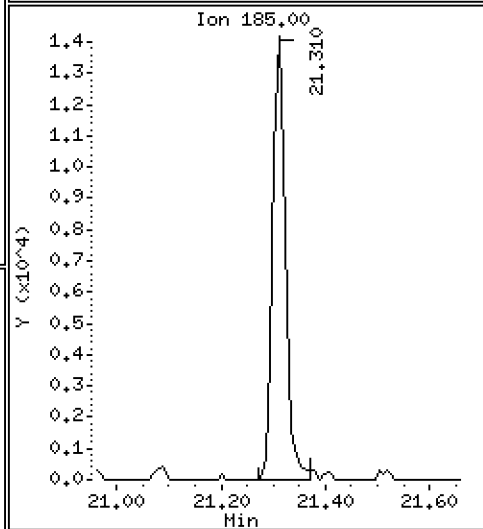
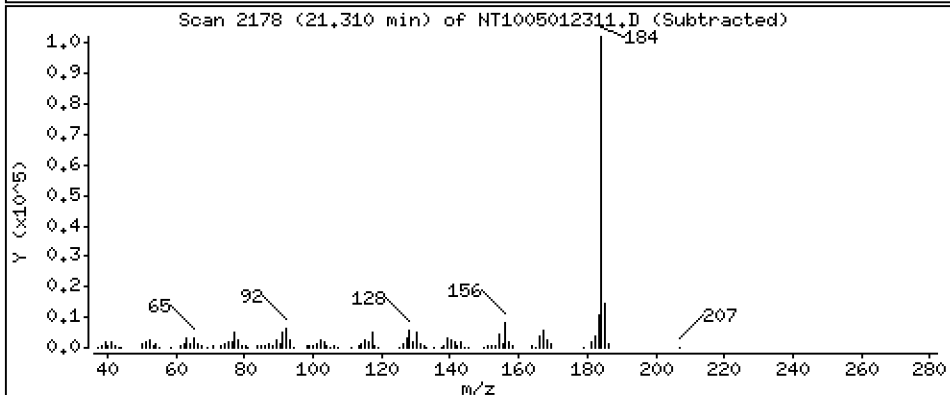
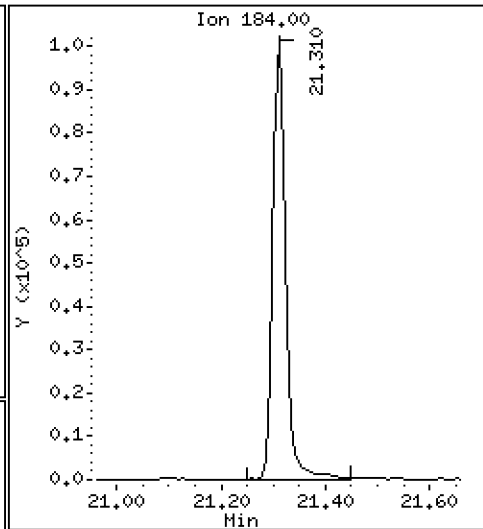
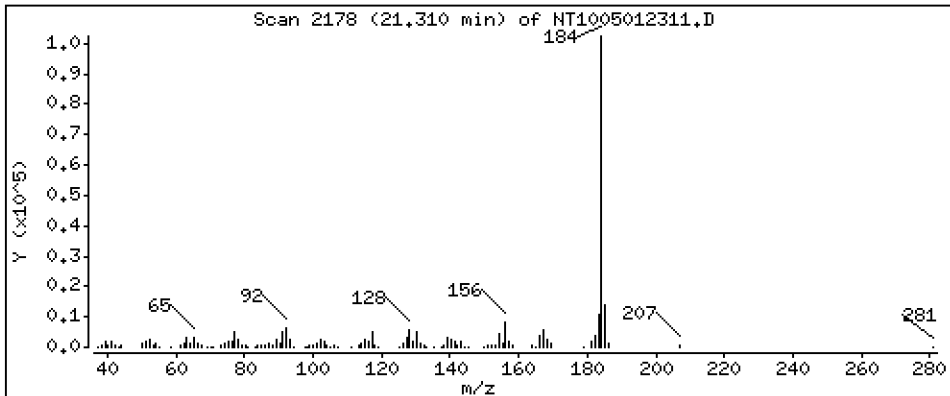
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 2,801 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

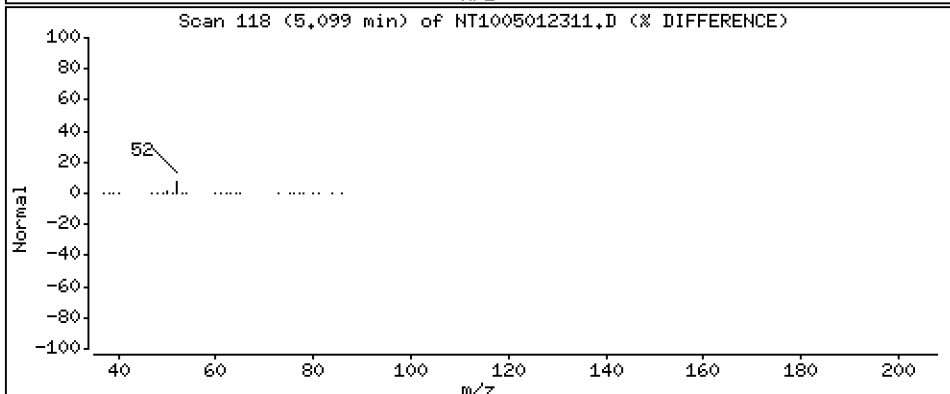
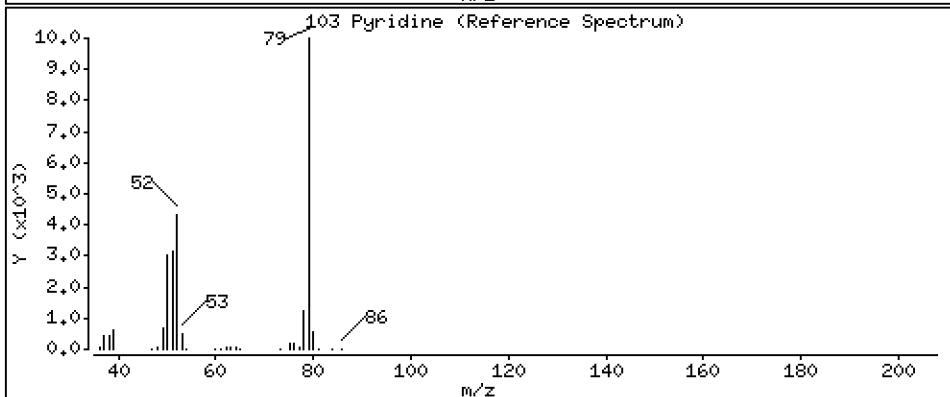
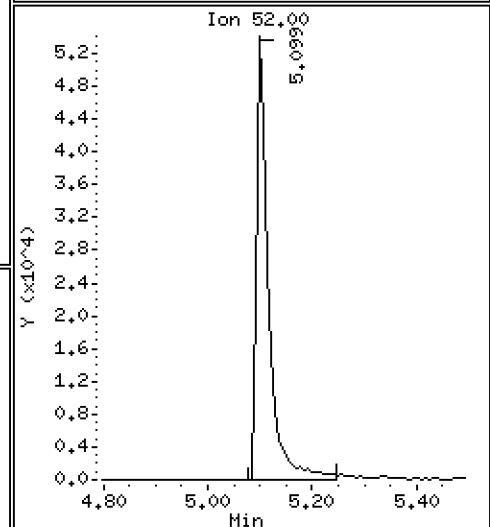
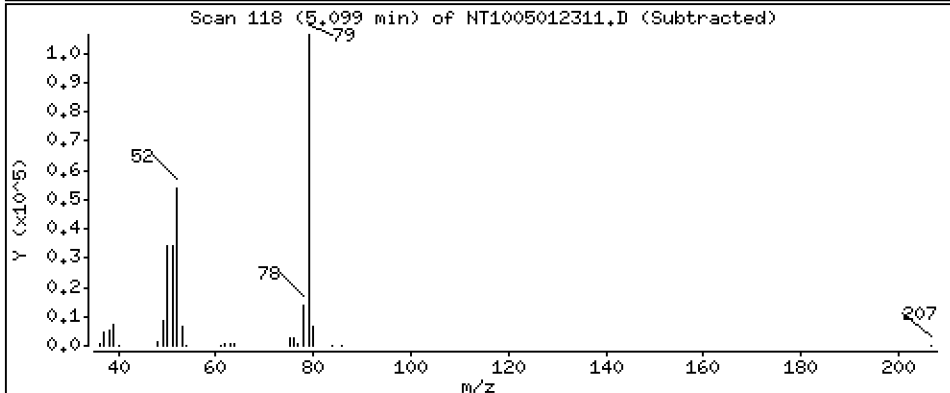
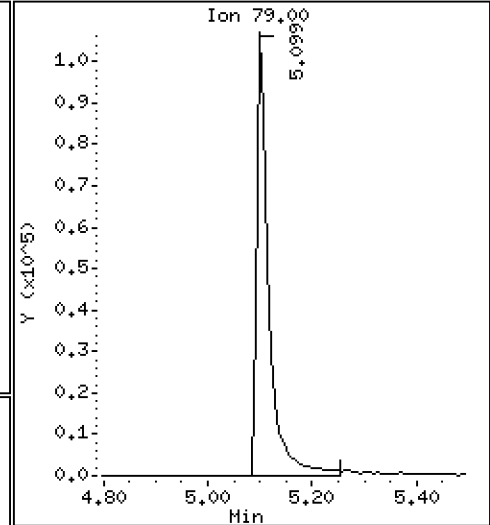
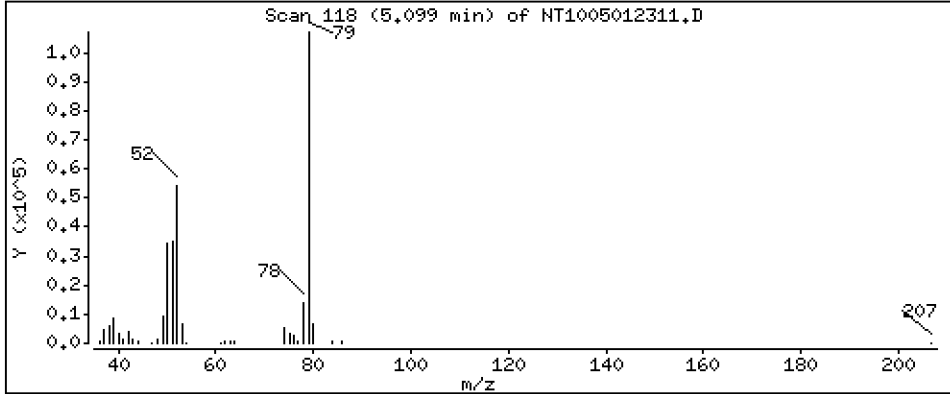
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 5,329 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

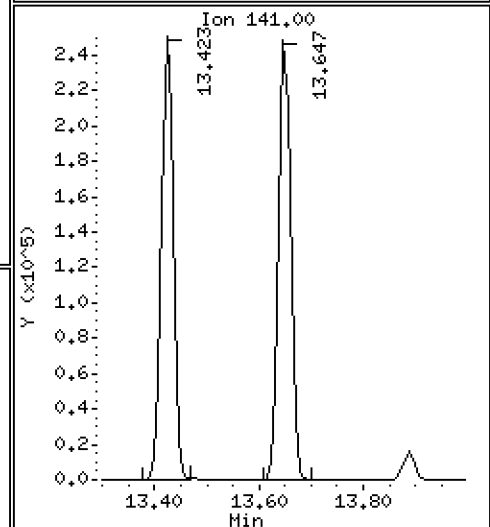
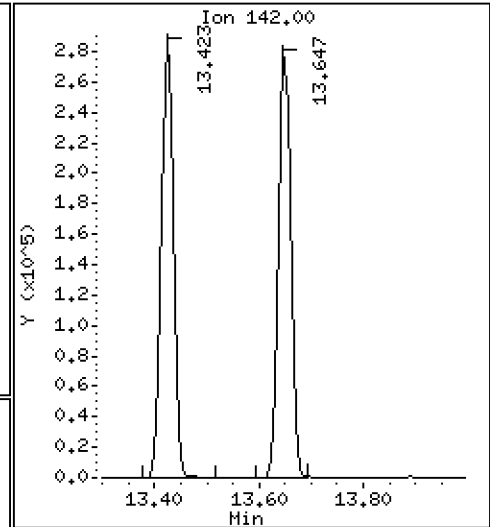
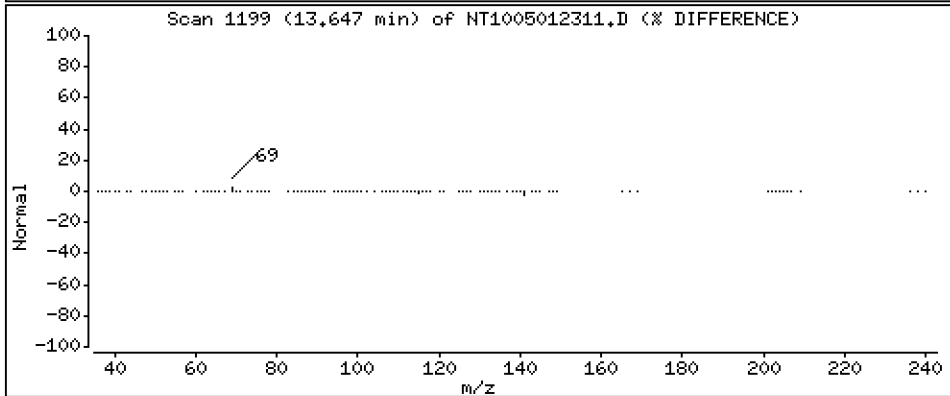
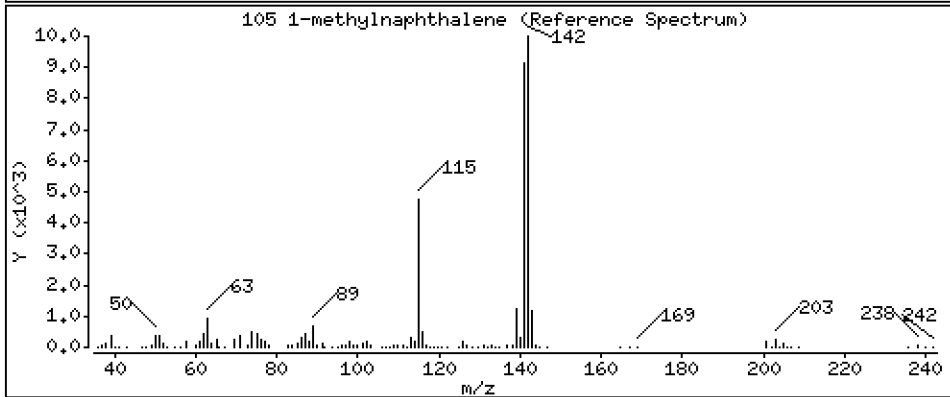
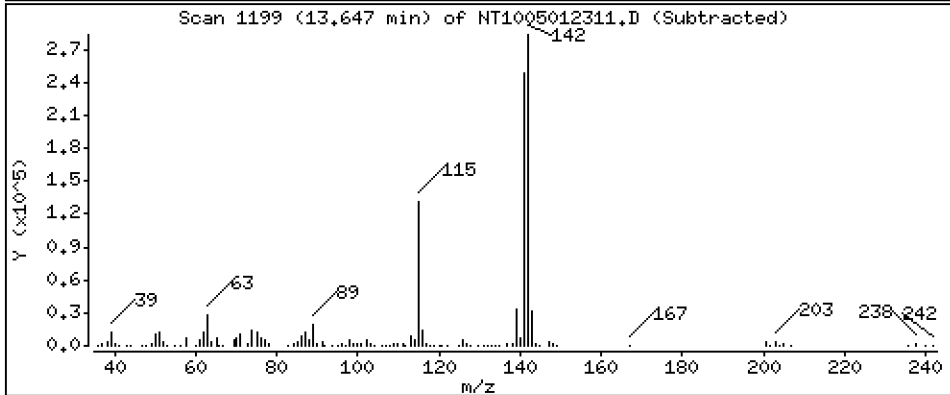
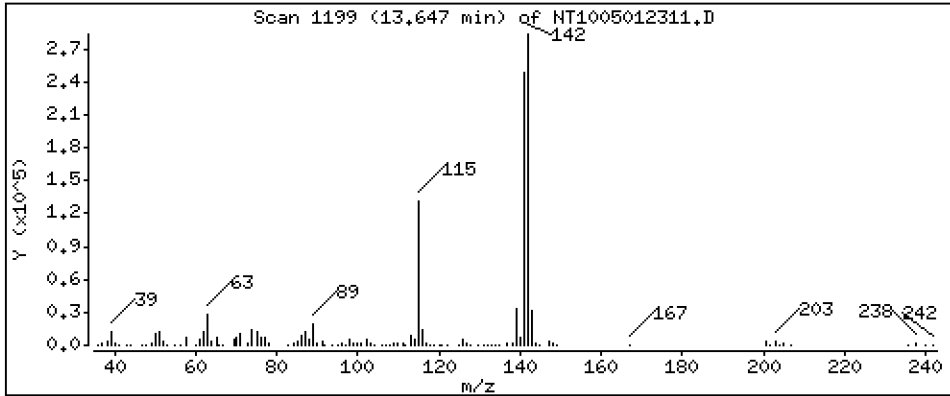
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,835 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

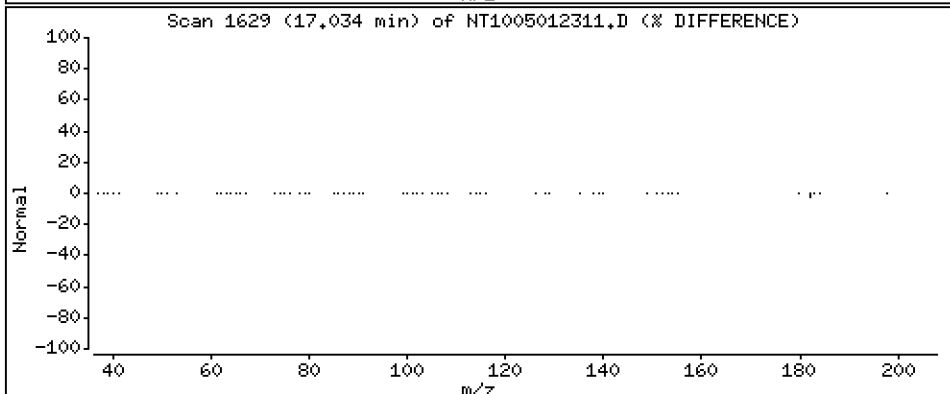
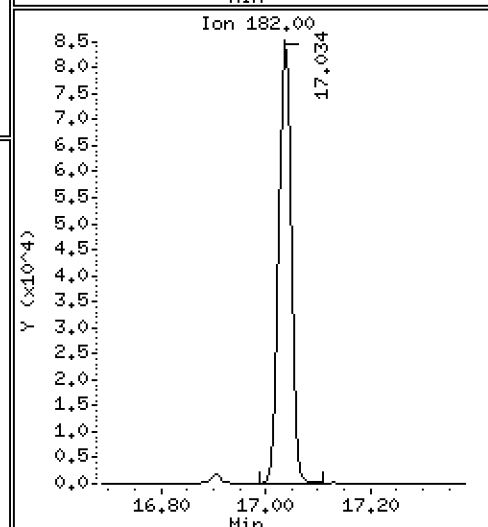
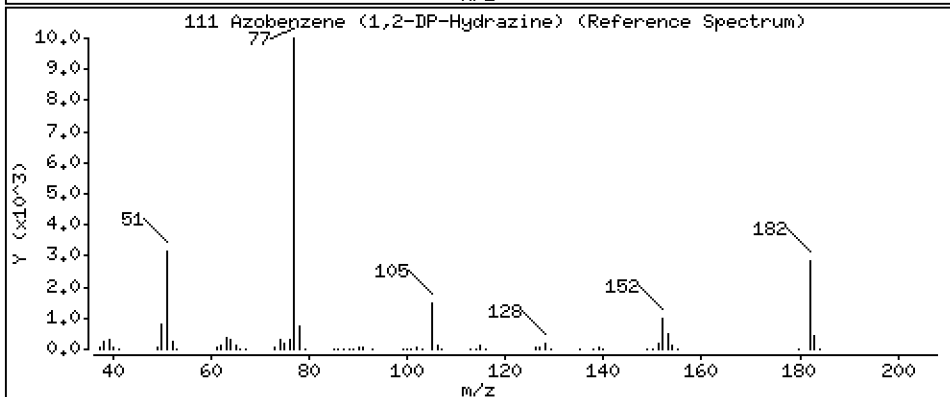
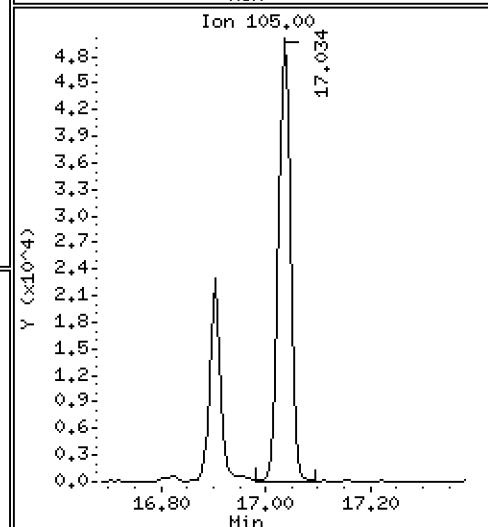
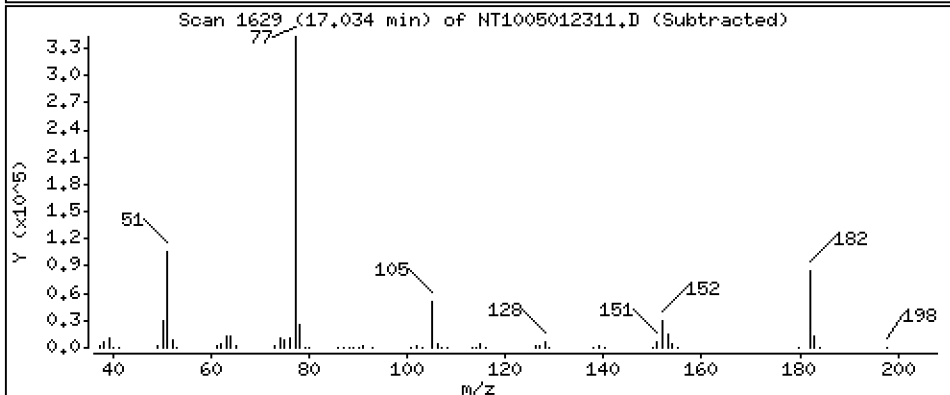
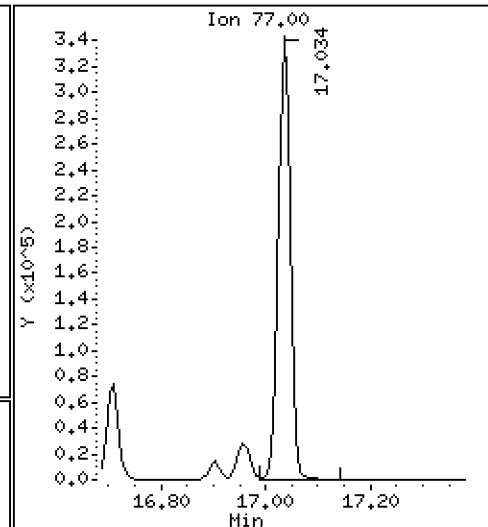
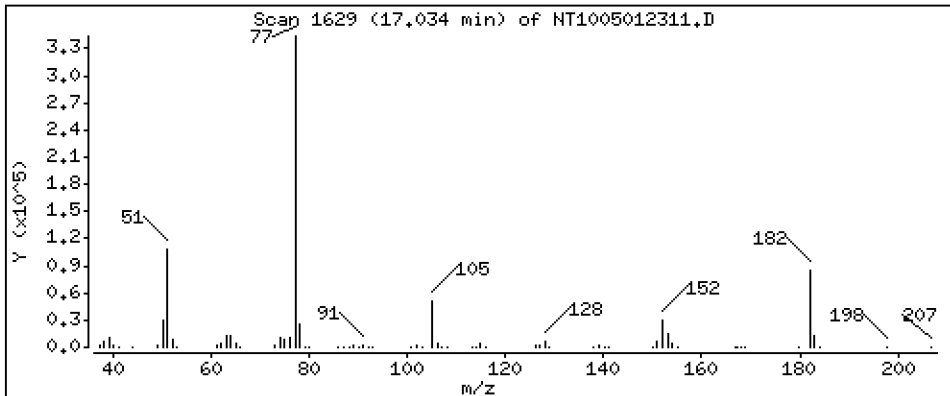
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 5,141 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

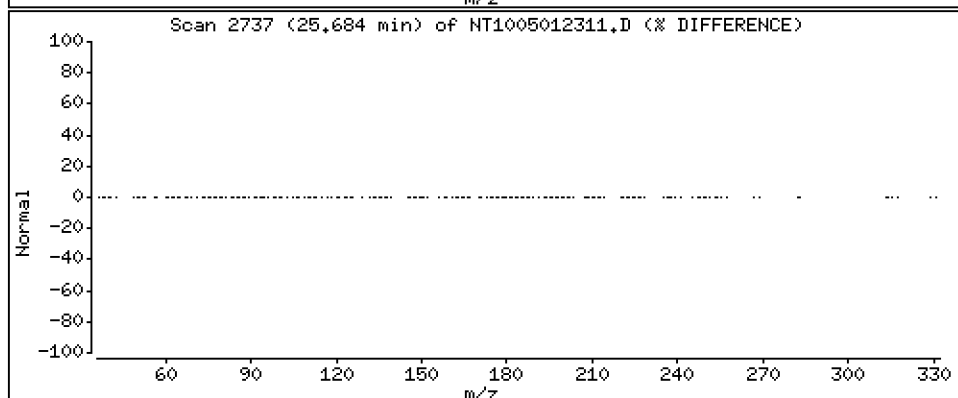
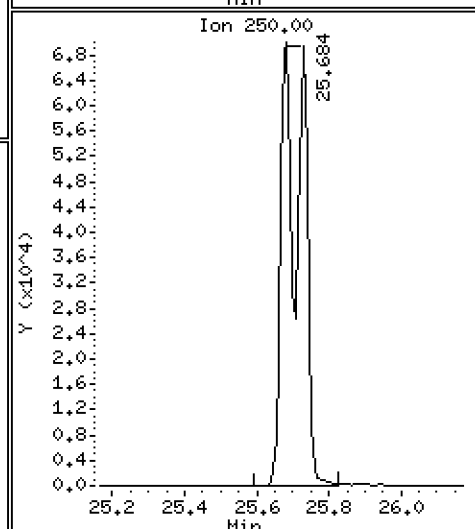
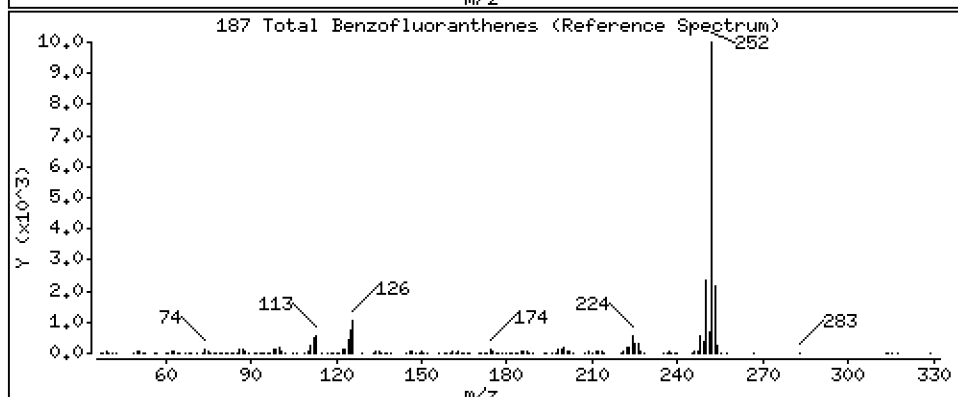
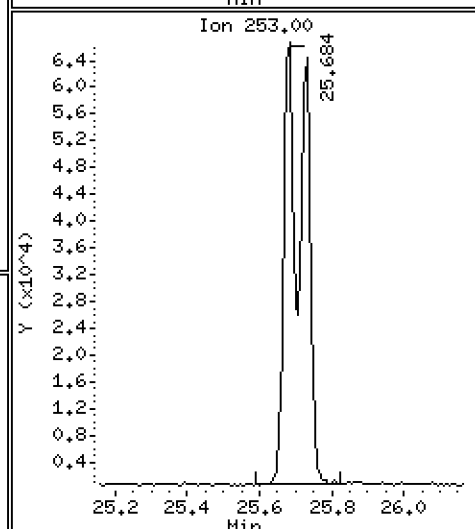
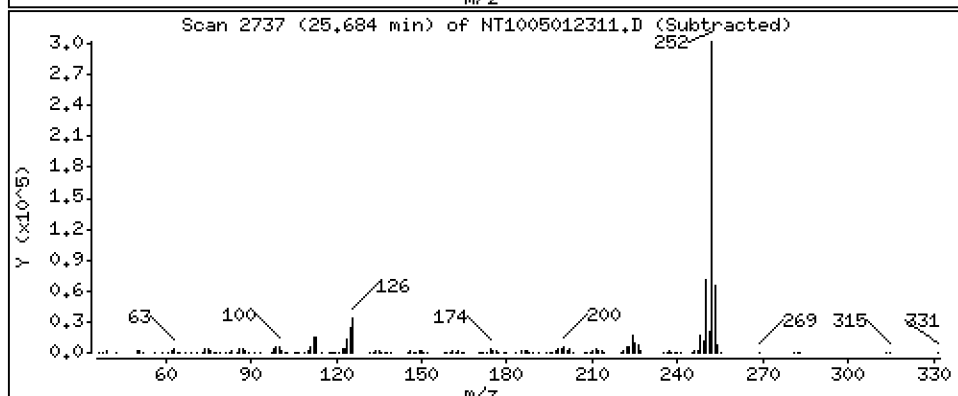
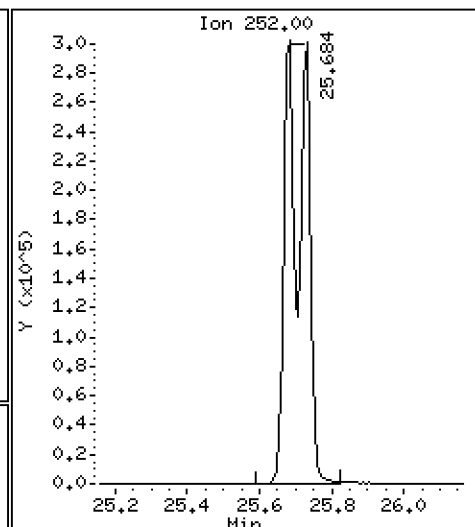
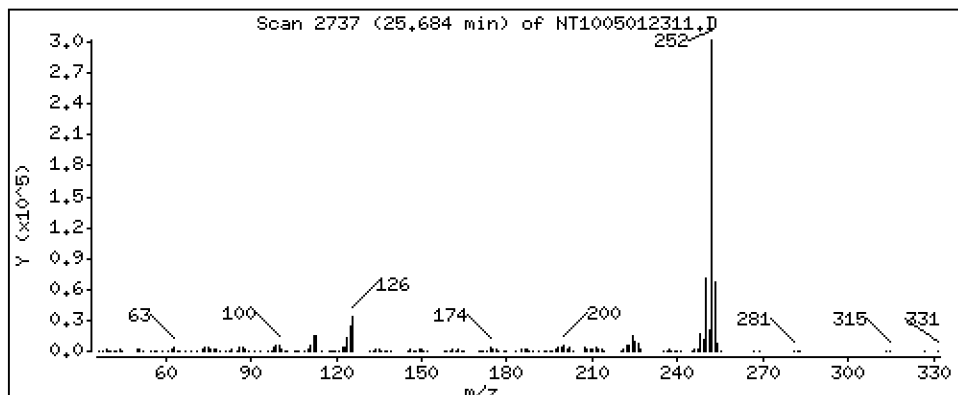
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 9,184 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

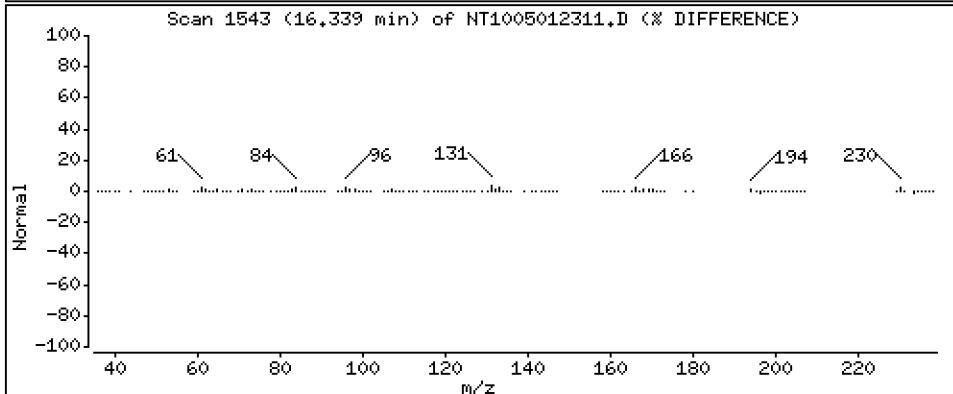
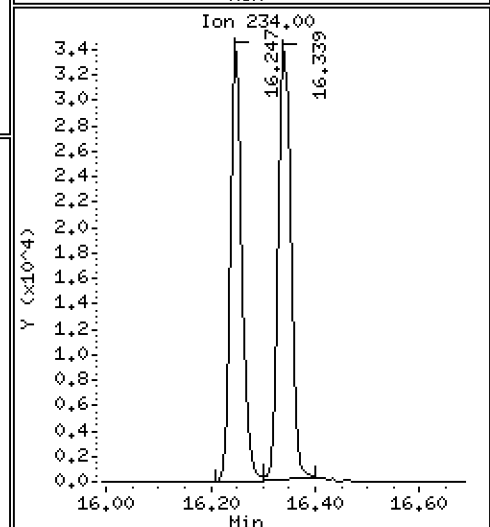
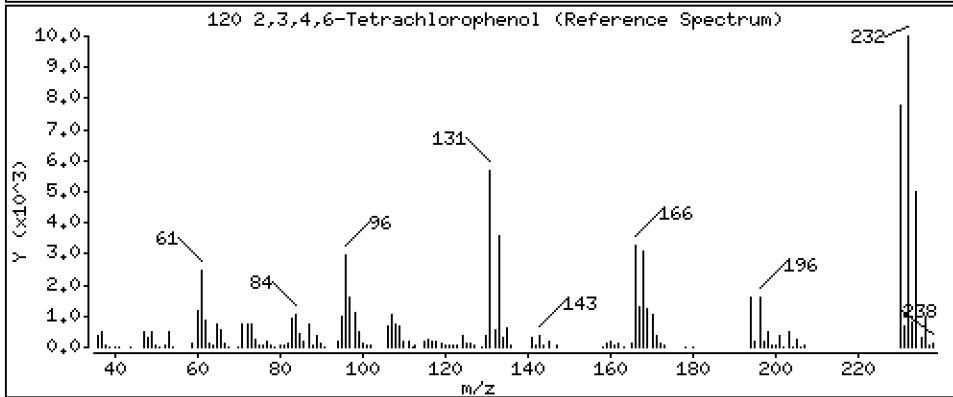
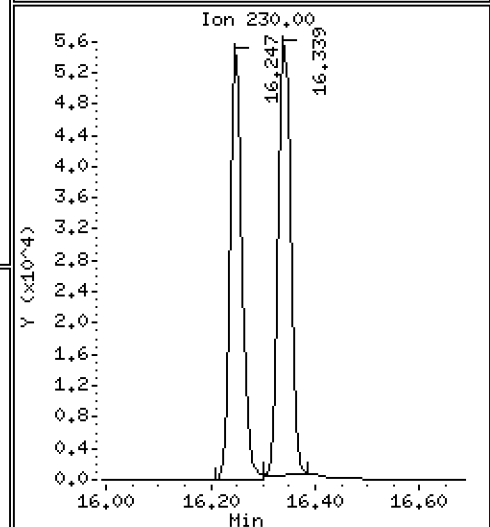
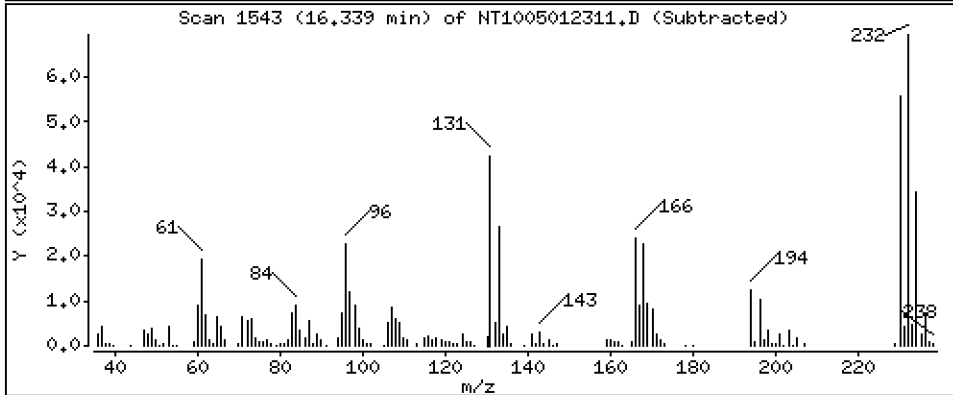
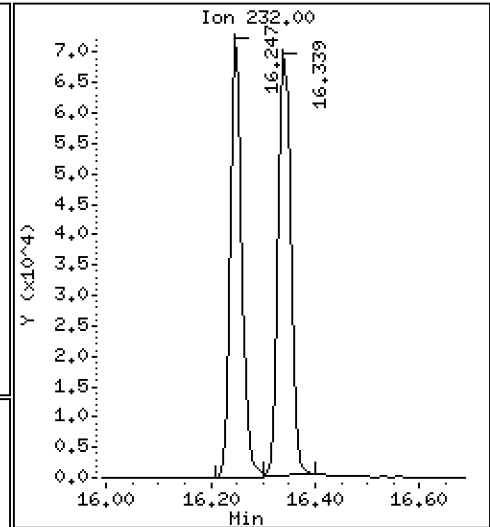
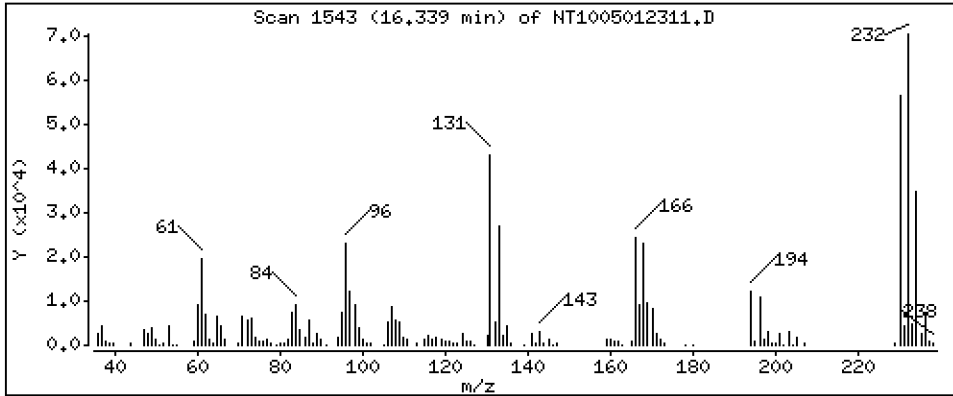
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,691 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012311.D
 Lab Smp Id: SLE0036-SCV1
 Inj Date : 01-MAY-2023 20:43
 Operator : VTS
 Smp Info : SLE0036-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 02-May-2023 15:27 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		Compound Not Detected.					
\$ 2 Phenol-d5	99		Compound Not Detected.					
3 Phenol	94		8.837	8.837	(1.000)	225316	4.48333	4.483
\$ 5 2-Chlorophenol-d4	132		Compound Not Detected.					
4 Bis(2-Chloroethyl)ether	93		9.023	9.023	(1.000)	200069	5.50170	5.502
6 2-Chlorophenol	128		9.146	9.146	(1.000)	197459	4.45581	4.456
7 1,3-Dichlorobenzene	146		9.425	9.425	(1.000)	246622	4.93946	4.939
* 8 1,4-Dichlorobenzene-d4	152		9.487	9.487	(1.000)	128837	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.518	9.518	(1.000)	269341	5.49159	5.492
\$ 10 1,2-Dichlorobenzene-d4	152		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		9.875	9.875	(1.000)	235118	4.93763	4.938
11 Benzyl alcohol	108		9.751	9.750	(1.000)	122452	5.06918	5.069
14 2,2'-oxybis(1-Chloropropane)	121		10.053	10.046	(1.000)	77053	5.60278	5.603
13 2-Methylphenol	108		9.960	9.960	(1.000)	156011	4.23248	4.232
17 Hexachloroethane	117		10.473	10.472	(1.000)	111876	5.27548	5.275
16 N-Nitroso-di-n-propylamine	70		10.310	10.309	(1.000)	157237	5.38567	5.386
15 4-Methylphenol	108		10.232	10.232	(1.000)	196502	4.44066	4.441
\$ 18 Nitrobenzene-d5	82		Compound Not Detected.					
19 Nitrobenzene	77		10.628	10.628	(0.886)	251823	4.97032	4.970
20 Isophorone	82		11.070	11.062	(0.923)	475152	7.87757	7.878
21 2-Nitrophenol	139		11.257	11.249	(0.939)	104749	3.89627	3.896
22 2,4-Dimethylphenol	107		11.283	11.283	(0.941)	169403	3.42401	3.424
23 Bis(2-Chloroethoxy)methane	93		11.486	11.486	(0.958)	221150	5.73564	5.736
24 Benzoic acid	105		11.427	11.359	(0.953)	253834	7.38578	7.386
25 2,4-Dichlorophenol	162		11.699	11.698	(0.976)	174106	4.47956	4.480
26 1,2,4-Trichlorobenzene	180		11.898	11.898	(0.992)	243710	4.37789	4.378
* 27 Naphthalene-d8	136		11.991	11.983	(1.000)	469135	4.00000	
28 Naphthalene	128		12.030	12.022	(1.003)	620670	4.74201	4.742
29 4-Chloroaniline	127		12.145	12.145	(1.013)	190542	3.95611	3.956
30 Hexachlorobutadiene	225		12.385	12.377	(1.033)	142010	4.62571	4.626
31 4-Chloro-3-methylphenol	107		13.089	13.089	(1.092)	188904	4.45976	4.460
32 2-Methylnaphthalene	142		13.422	13.422	(1.119)	441670	4.51323	4.513
33 Hexachlorocyclopentadiene	237		13.886	13.886	(0.889)	151577	4.67268	4.673

Compounds	QUANT SIG					CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
34 2,4,6-Trichlorophenol	196	14.041	14.041	(0.899)	134602	4.21230	4.212	
35 2,4,5-Trichlorophenol	196	14.111	14.111	(0.903)	140409	4.02943	4.029	
§ 36 2-Fluorobiphenyl	172	14.204	14.203	(0.909)	2537	0.02246	0.02246	
37 2-Chloronaphthalene	162	14.428	14.420	(0.924)	429636	4.83017	4.830	
38 2-Nitroaniline	65	14.676	14.676	(0.940)	129919	5.02932	5.029	
39 Dimethylphthalate	163	15.101	15.101	(0.967)	490864	4.90763	4.908	
40 Acenaphthylene	152	15.303	15.303	(0.980)	663079	4.77574	4.776	
41 2,6-Dinitrotoluene	165	15.249	15.248	(0.976)	110074	4.87568	4.876	
* 42 Acenaphthene-d10	164	15.620	15.612	(1.000)	260867	4.00000		
43 3-Nitroaniline	138	15.535	15.527	(0.995)	106140	4.77608	4.776	
44 Acenaphthene	153	15.682	15.682	(1.004)	416452	4.71606	4.716	
45 2,4-Dinitrophenol	184	15.744	15.743	(1.008)	41326	2.37611	2.376	
46 Dibenzofuran	168	16.006	16.006	(1.025)	598046	4.64493	4.645	
47 4-Nitrophenol	109	15.829	15.828	(1.013)	82973	3.99163	3.992	
48 2,4-Dinitrotoluene	165	16.061	16.060	(1.028)	141639	4.38106	4.381	
50 Diethylphthalate	149	16.563	16.555	(1.060)	524953	5.05491	5.055	
49 Fluorene	166	16.733	16.725	(1.071)	484223	4.55893	4.559	
51 4-Chlorophenyl-phenylether	204	16.710	16.702	(1.070)	253695	4.79663	4.797	
52 4-Nitroaniline	138	16.810	16.810	(1.076)	93244	4.29306	4.293	
53 4,6-Dinitro-2-methylphenol	198	16.903	16.902	(0.905)	70705	3.75964	3.760	
54 N-Nitrosodiphenylamine	169	16.957	16.956	(0.908)	324810	5.12520	5.125	
§ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	177	0.01417	0.01417	
56 4-Bromophenyl-phenylether	248	17.720	17.712	(0.949)	147865	4.94237	4.942	
57 Hexachlorobenzene	284	18.044	18.044	(0.966)	140819	4.68942	4.689	
58 Pentachlorophenol	266	18.401	18.393	(0.985)	80436	3.86584	3.866	
* 59 Phenanthrene-d10	188	18.671	18.671	(1.000)	479585	4.00000		
60 Phenanthrene	178	18.718	18.718	(1.002)	645346	4.58600	4.586	
61 Anthracene	178	18.818	18.811	(1.008)	542159	4.16924	4.169	
62 Carbazole	167	19.136	19.136	(1.025)	518357	4.50323	4.503	
63 Di-n-butylphthalate	149	19.902	19.901	(1.066)	862725	4.89550	4.895	
64 Fluoranthene	202	21.085	21.085	(0.890)	774676	4.73795	4.738	
65 Pyrene	202	21.511	21.503	(0.908)	757130	4.63549	4.635	
§ 66 Terphenyl-d14	244	21.782	21.774	(0.919)	2912	0.02254	0.02254	
67 Butylbenzylphthalate	149	22.695	22.687	(0.958)	349577	4.77781	4.778	
68 Benzo(a)anthracene	228	23.663	23.655	(0.999)	683788	4.71653	4.717	
* 69 Chrysene-d12	240	23.694	23.686	(1.000)	366214	4.00000		
70 3,3'-Dichlorobenzidine	252	23.617	23.601	(0.997)	467557	10.2140	10.21	
71 Chrysene	228	23.741	23.733	(1.002)	589116	4.54006	4.540	
72 bis(2-Ethylhexyl)phthalate	149	23.710	23.702	(0.958)	493652	5.40606	5.406	
* 134 Di-n-octylphthalate-d4	153	24.739	24.724	(1.000)	633915	4.00000		
73 Di-n-octylphthalate	149	24.747	24.739	(1.000)	863084	5.16068	5.161	
74 Benzo(b)fluoranthene	252	25.684	25.660	(0.968)	641646	4.78532	4.785	
75 Benzo(k)fluoranthene	252	25.730	25.715	(0.970)	593022	4.45695	4.457	
76 Benzo(a)pyrene	252	26.404	26.388	(0.995)	537284	4.78725	4.787	
* 77 Perylene-d12	264	26.536	26.520	(1.000)	326407	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.514	29.483	(1.112)	630589	4.67700	4.677	
79 Dibenzo(a,h)anthracene	278	29.522	29.491	(1.113)	524960	4.64906	4.649	
80 Benzo(g,h,i)perylene	276	30.392	30.353	(1.145)	500646	4.65862	4.659	
90 N-Nitrosodimethylamine	74	5.067	5.083	(1.000)	109300	5.19047	5.190	
91 Aniline	93	Compound Not Detected.						
93 Benzidine	184	21.310	21.310	(0.899)	165444	2.80075	2.801	
103 Pyridine	79	5.098	5.144	(1.000)	176959	5.32922	5.329	
105 1-methylnaphthalene	142	13.646	13.646	(1.138)	433828	4.83538	4.835	
111 Azobenzene (1,2-DP-Hydrazine)	77	17.034	17.034	(1.091)	521542	5.14057	5.141	

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS					(ug/mL)	(ug/mL)	
=====	=====		=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252		25.684	25.660	(0.968)	1185382	9.18410	9.184
120 2,3,4,6-Tetrachlorophenol	232		16.339	16.339	(1.046)	111498	3.69091	3.691

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012311.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	128837	-10.72
27 Naphthalene-d8	493698	246849	987396	469135	-4.98
42 Acenaphthene-d10	279210	139605	558420	260867	-6.57
59 Phenanthrene-d10	521463	260732	1042926	479585	-8.03
69 Chrysene-d12	369911	184956	739822	366214	-1.00
134 Di-n-octylphthala	626668	313334	1253336	633915	1.16
77 Perylene-d12	311339	155670	622678	326407	4.84

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
134 Di-n-octylphthala	24.75	24.25	25.25	24.74	-0.03
77 Perylene-d12	26.55	26.05	27.05	26.54	-0.06

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

REVIEW SUMMARY FOR FILE - NT1005012311.D

Lab ID: SLE0036-SCV1
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 20:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.059	-0.0589	2,2'-oxybis(1-Chloropropane)
0.953	0.948	0.0050	Benzoic acid

RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

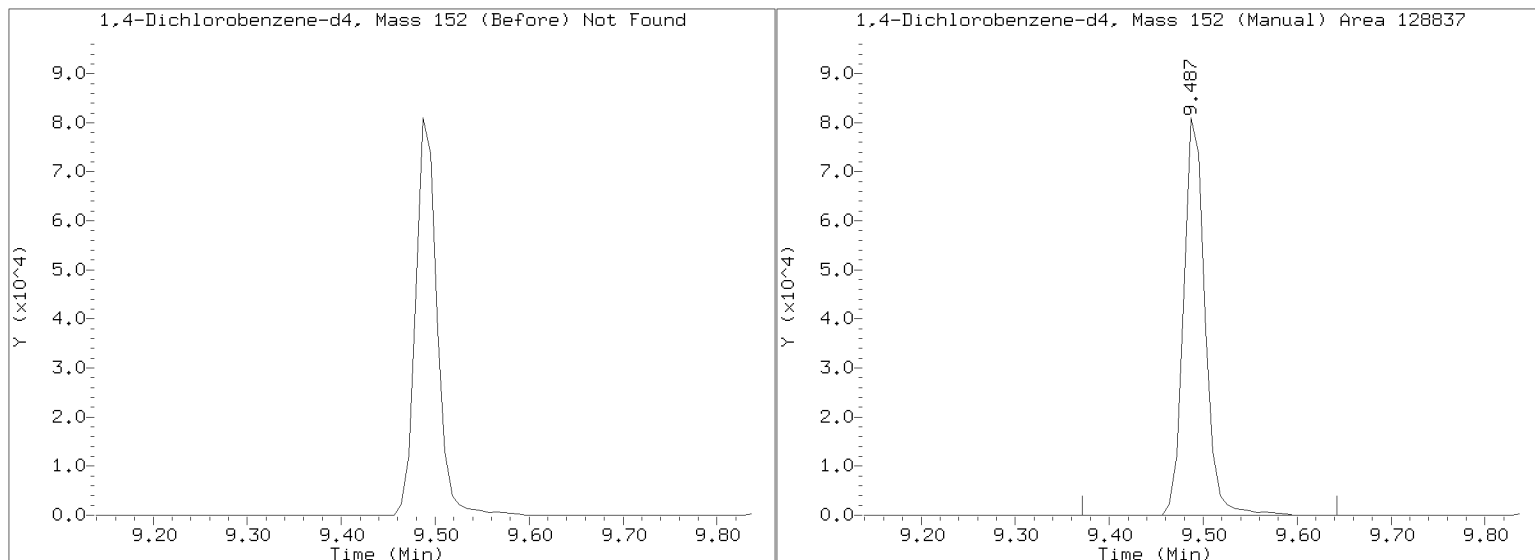
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012311.D

Injection Date: 01-MAY-2023 20:43

Lab ID: SLE0036-SCV1 Client ID:

Report Date: 05/02/2023 15:38



APPROVED

By Deenay Dunmore at 2:15 pm, May 03, 2023



**SECOND-SOURCE
CALIBRATION VERIFICATION**

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00012

Laboratory ID: SLE0036-SCV1

Sequence: SLE0036

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.5	-10.3	20.00
4-Methylphenol	5.0000	4.4	-11.2	20.00
Naphthalene	5.0000	4.7	-5.2	20.00
2-Methylnaphthalene	5.0000	4.5	-9.7	20.00
Acenaphthylene	5.0000	4.8	-4.5	20.00
Dimethylphthalate	5.0000	4.9	-1.8	20.00
Acenaphthene	5.0000	4.7	-5.7	20.00
Dibenzofuran	5.0000	4.6	-7.1	20.00
Fluorene	5.0000	4.6	-8.8	20.00
Phenanthrene	5.0000	4.6	-8.3	20.00
Anthracene	5.0000	4.2	-16.6	20.00
Fluoranthene	5.0000	4.7	-5.2	20.00
Pyrene	5.0000	4.6	-7.3	20.00
Butylbenzylphthalate	5.0000	4.8	-4.4	20.00
Benzo(a)anthracene	5.0000	4.7	-5.7	20.00
Chrysene	5.0000	4.5	-9.2	20.00
bis(2-Ethylhexyl)phthalate	5.0000	5.4	8.1	20.00
Benzofluoranthenes, Total	10.000	9.2	-8.2	20.00
Benzo(a)pyrene	5.0000	4.8	-4.3	20.00
Indeno(1,2,3-cd)pyrene	5.0000	4.7	-6.5	20.00
Dibenzo(a,h)anthracene	5.0000	4.6	-7.0	20.00
Benzo(g,h,i)perylene	5.0000	4.7	-6.8	20.00
2-Fluorophenol	7.5000	0.00		20.00
Phenol-d5	7.5000	0.00		20.00
2-Chlorophenol-d4	7.5000	0.00		20.00
1,2-Dichlorobenzene-d4	5.0000	0.00		20.00
Nitrobenzene-d5	5.0000	0.00		20.00
2-Fluorobiphenyl	5.0000	0.0225	-99.6	20.00
2,4,6-Tribromophenol	7.5000	0.0142	-99.8	20.00
p-Terphenyl-d14	5.0000	0.0225	-99.5	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012311.D

Date: 01-May-2023 20:43

Client ID:

Sample Info: SLE0036-SCV1

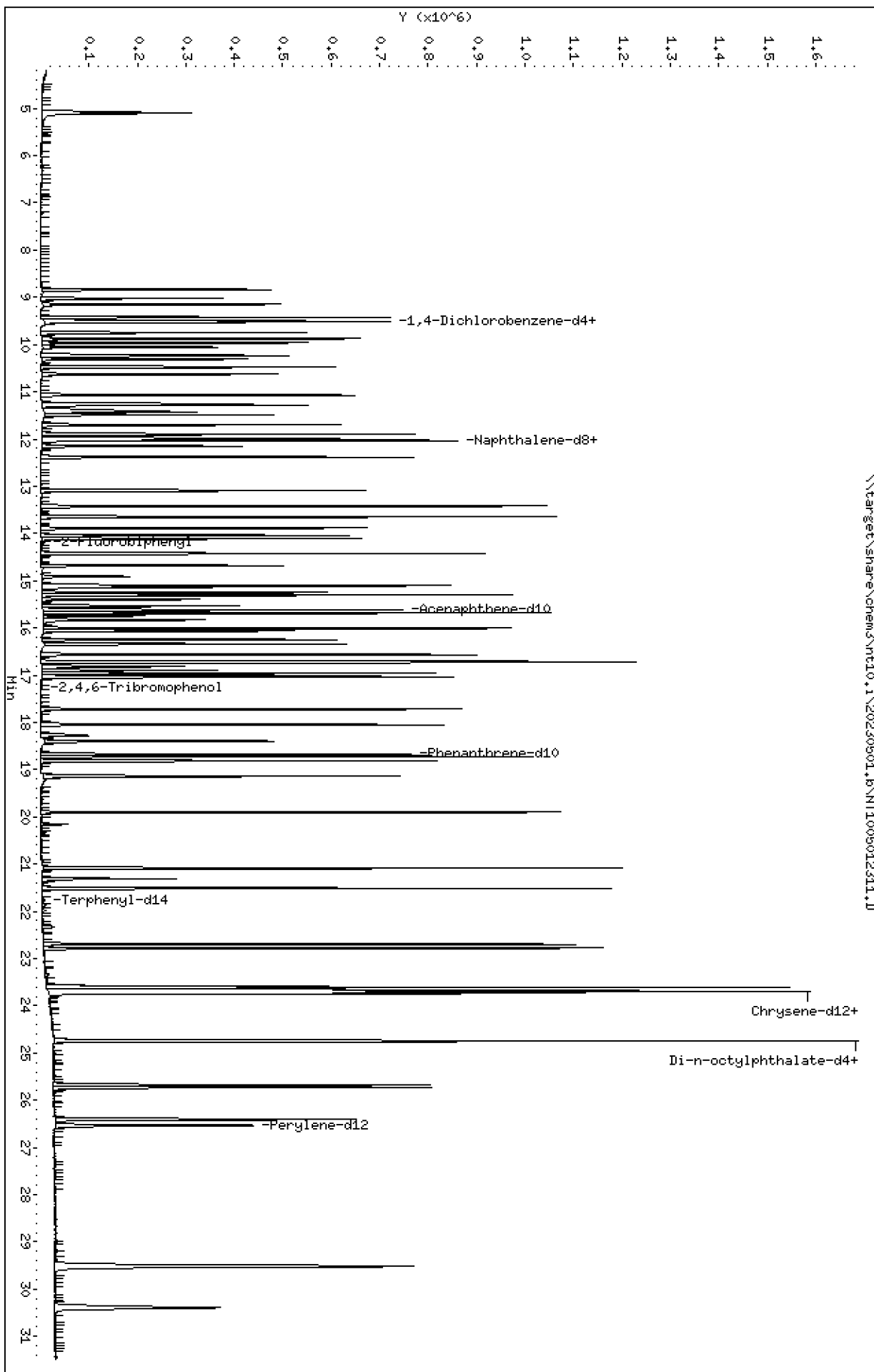
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501_b\NT1005012311.D



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

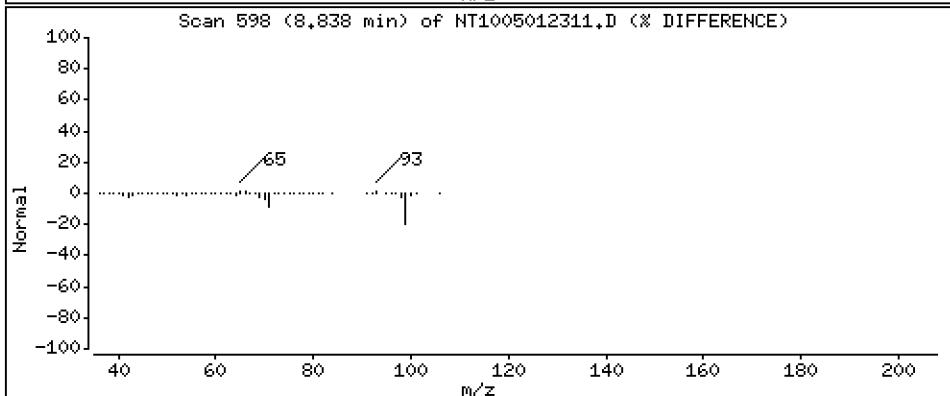
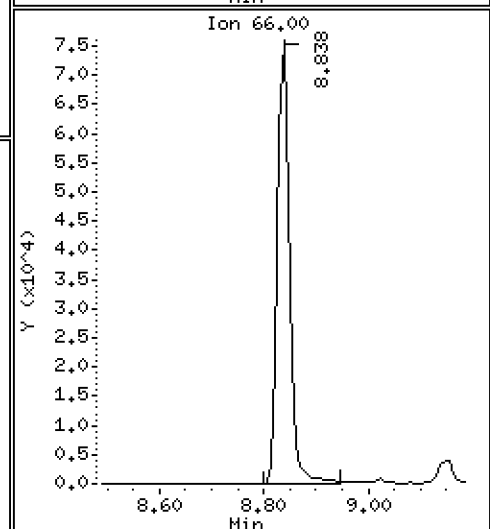
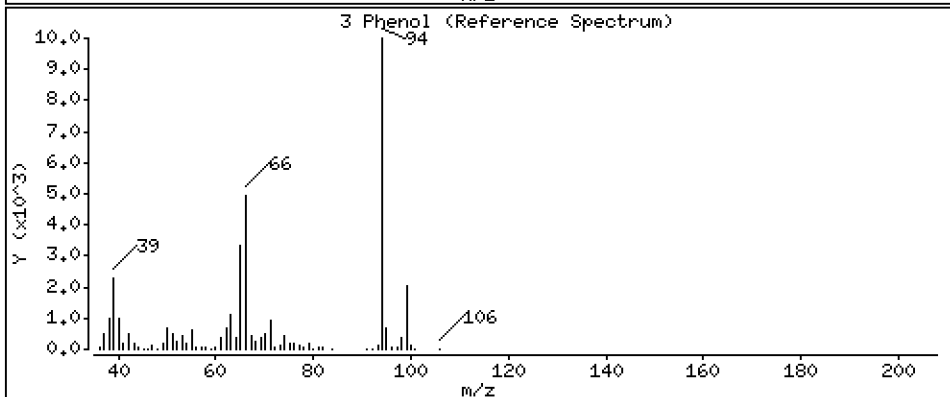
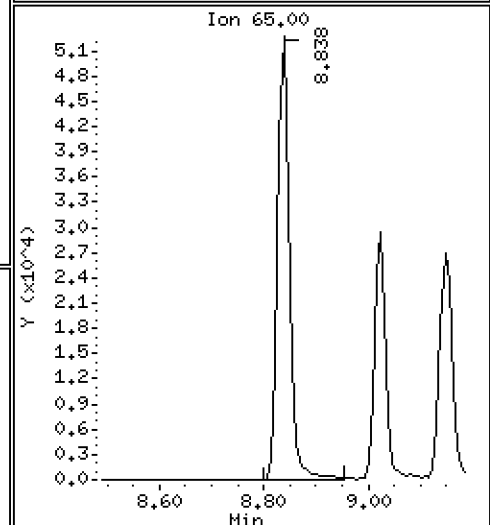
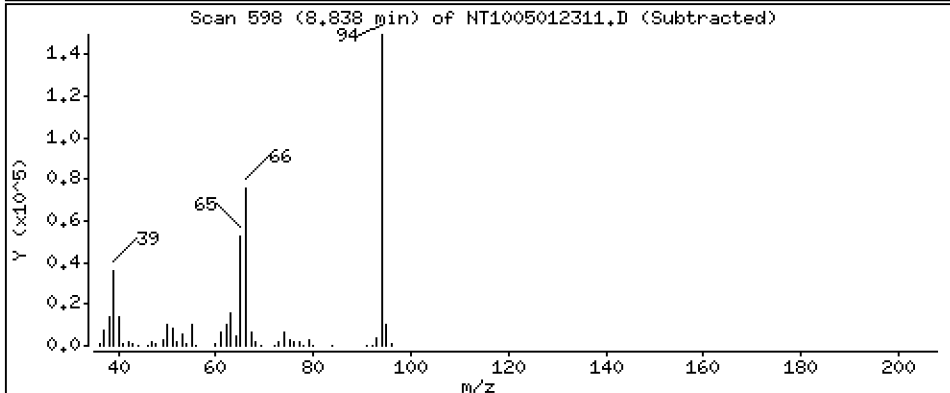
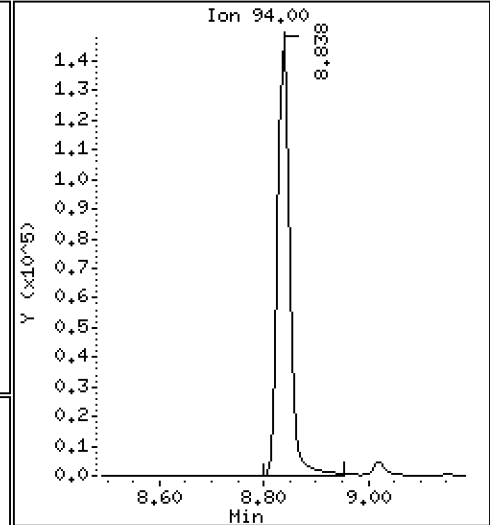
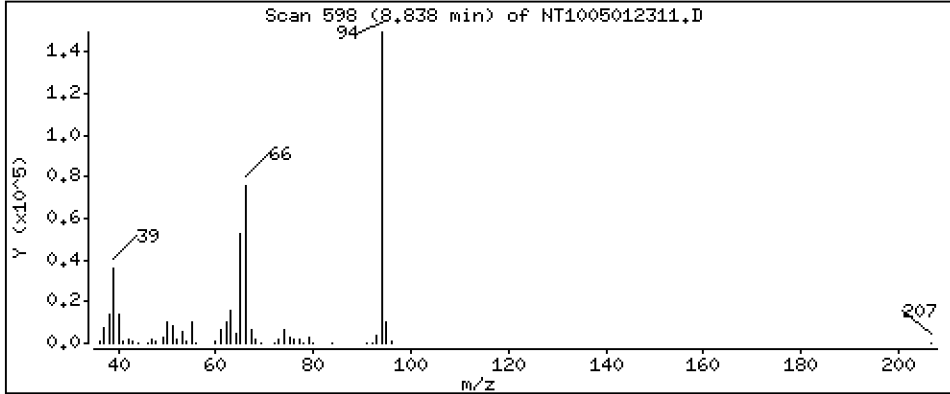
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,483 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

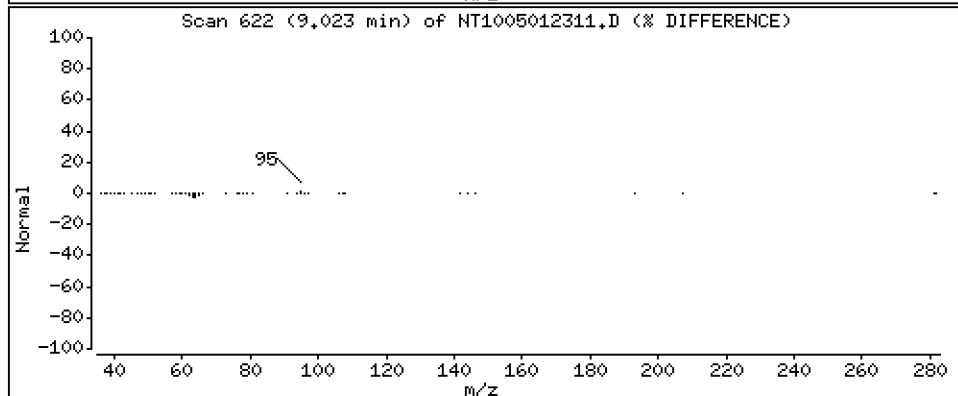
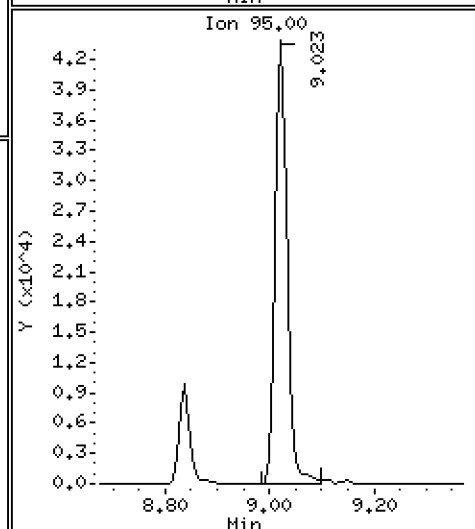
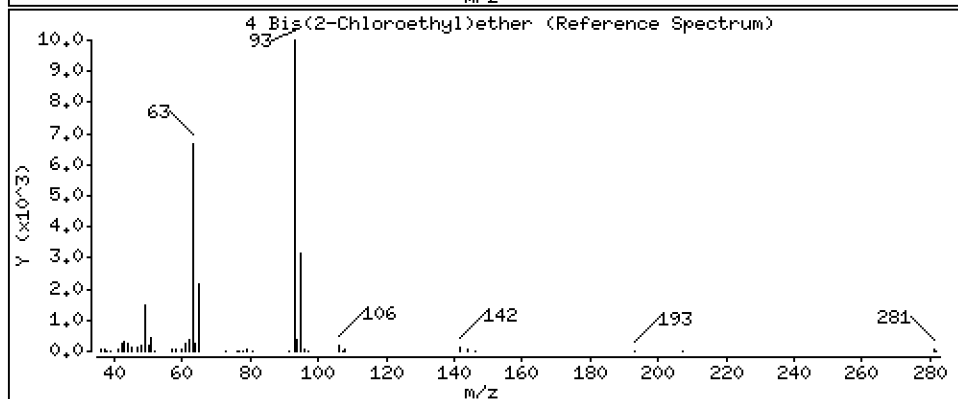
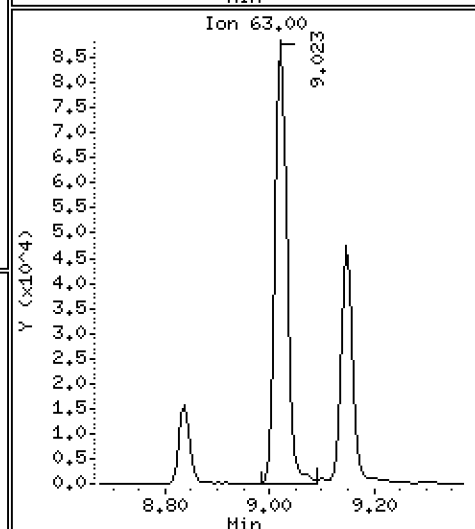
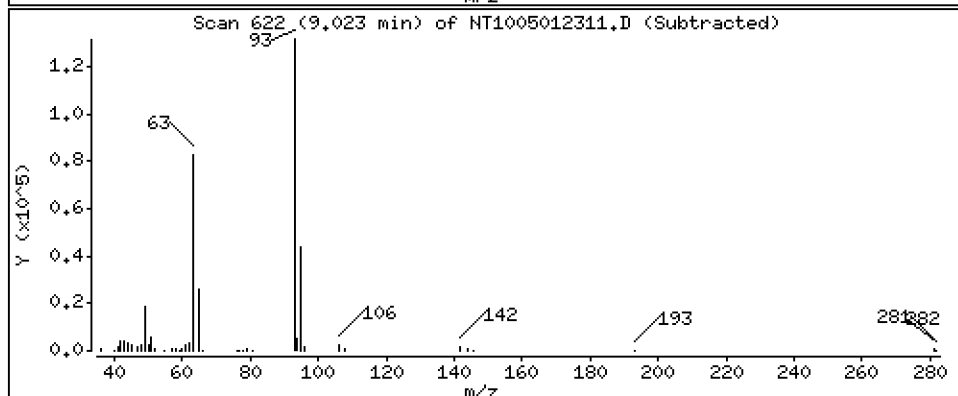
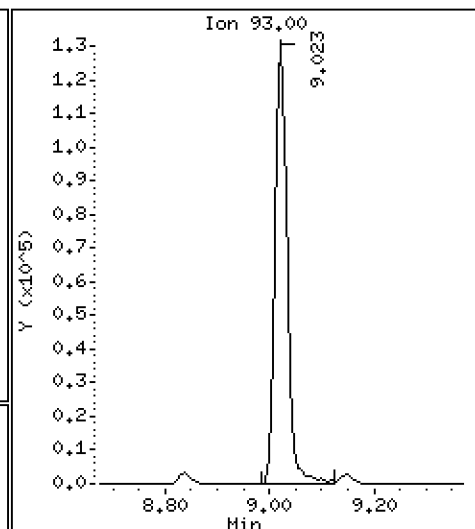
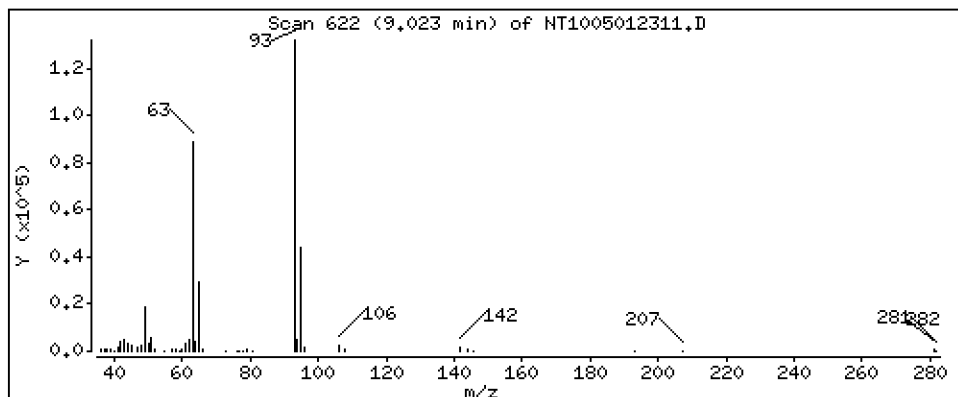
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 5,502 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

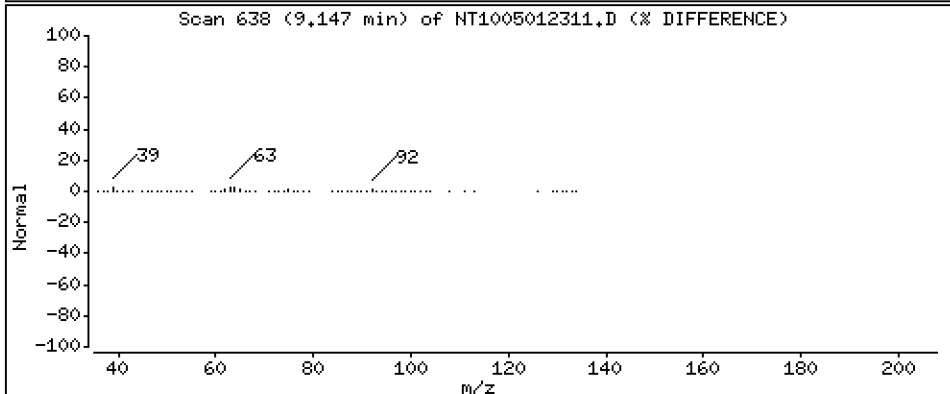
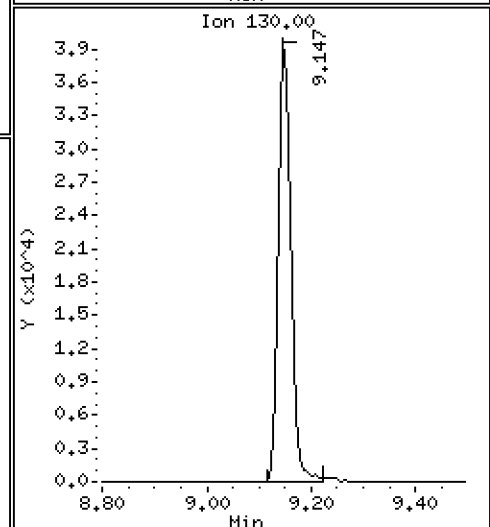
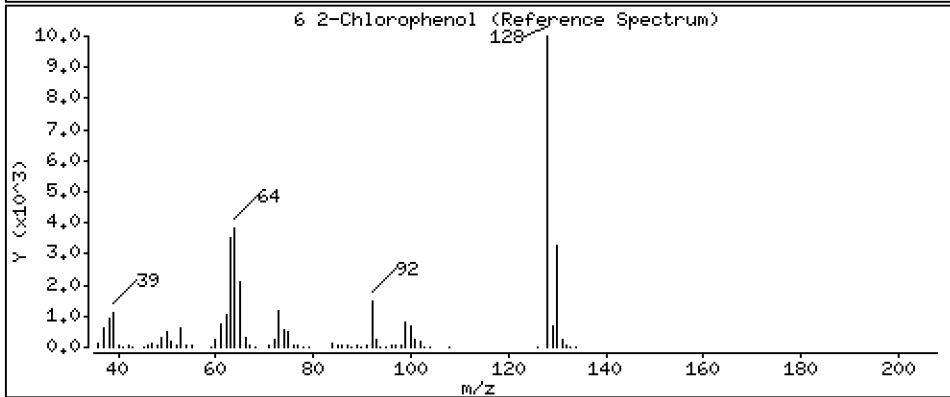
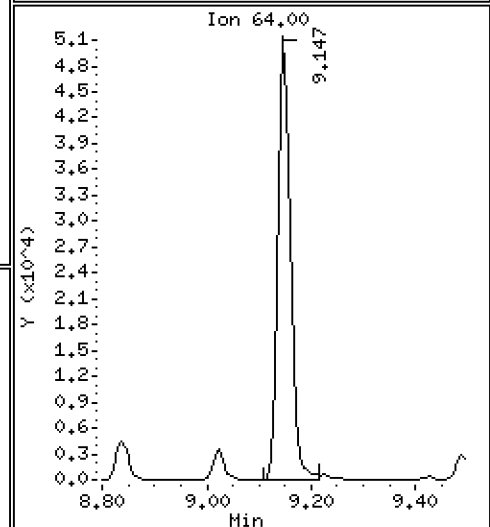
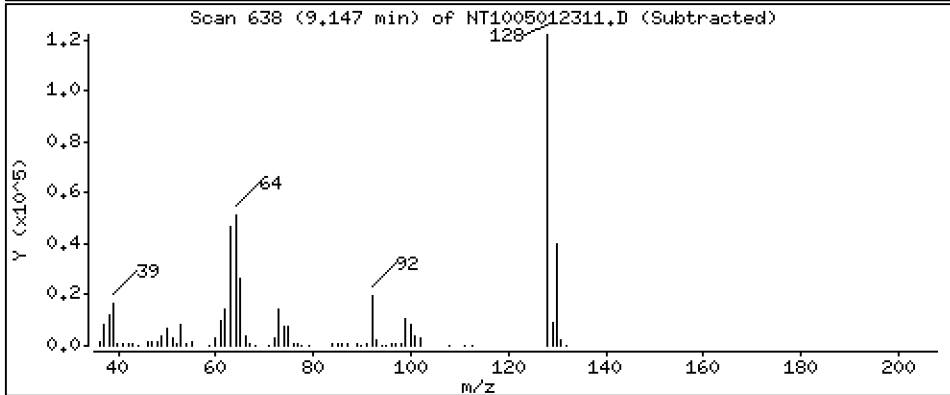
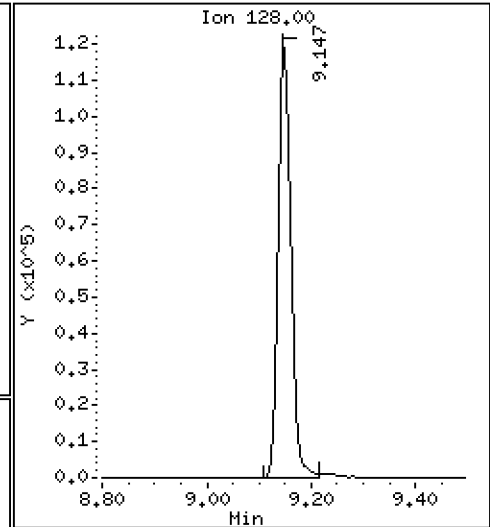
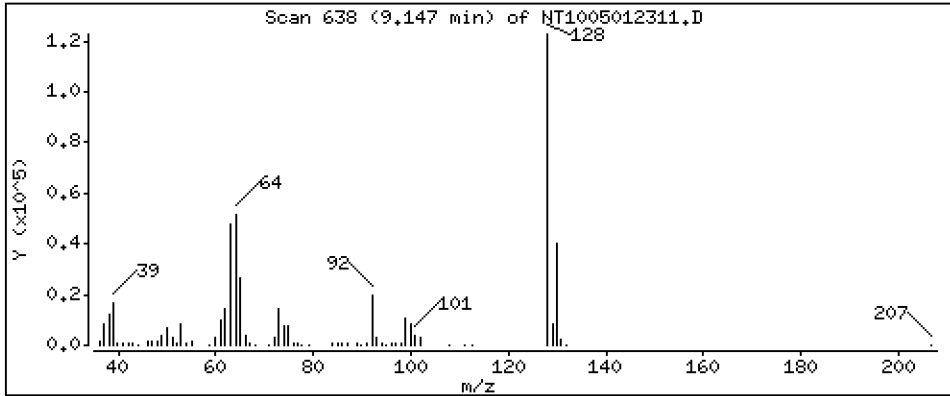
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,456 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

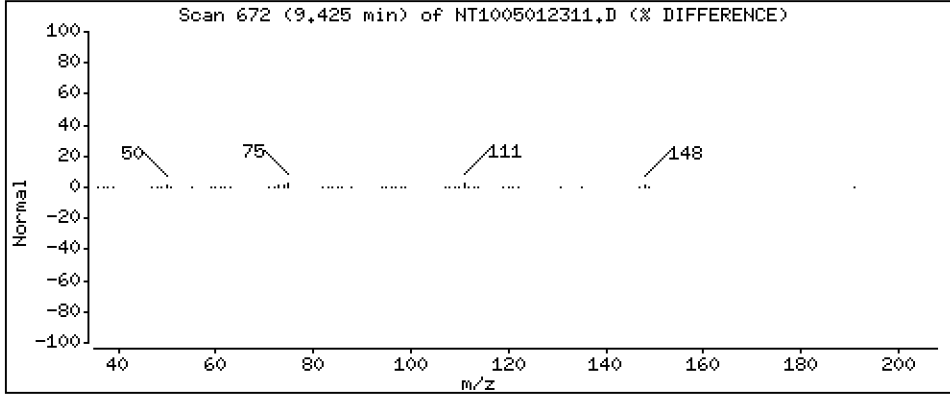
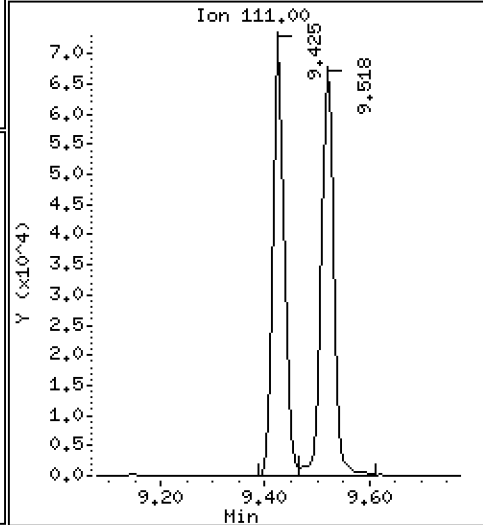
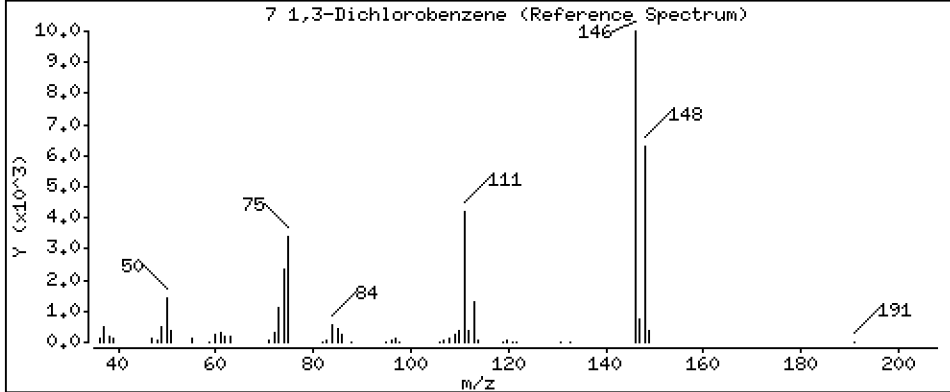
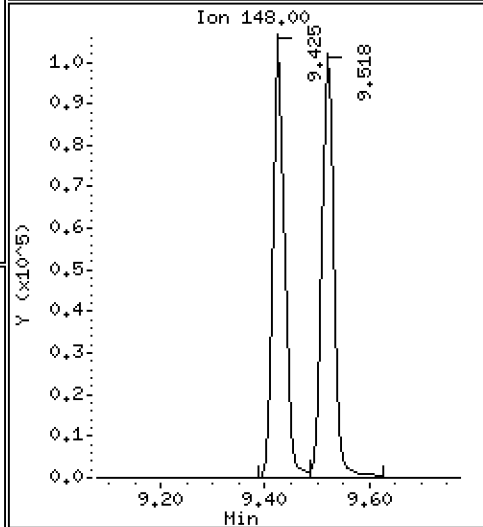
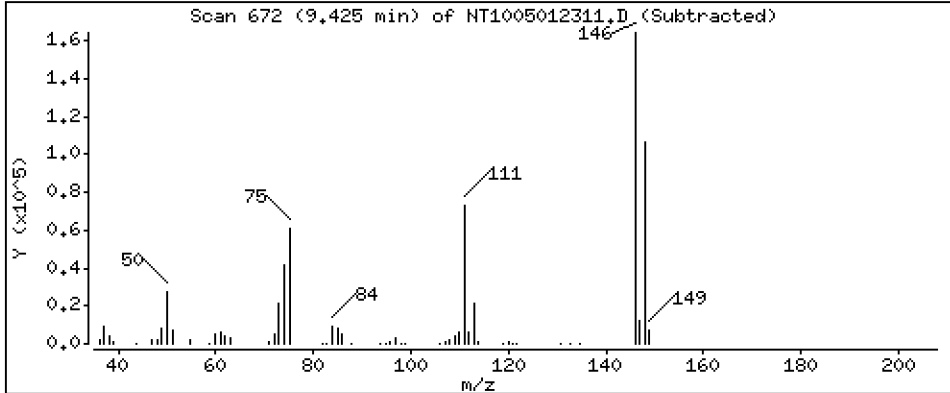
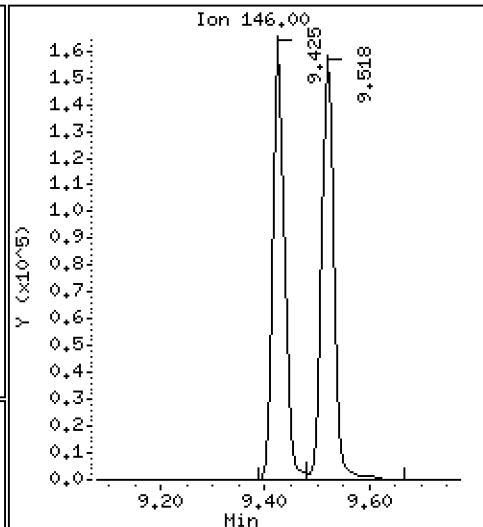
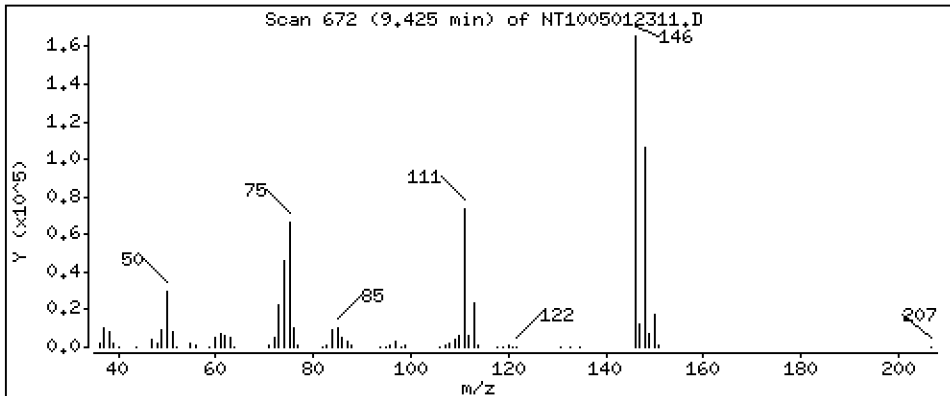
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,939 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

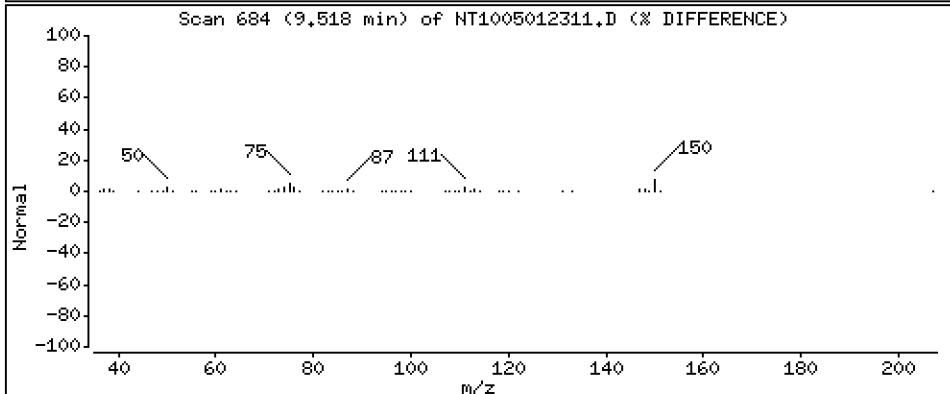
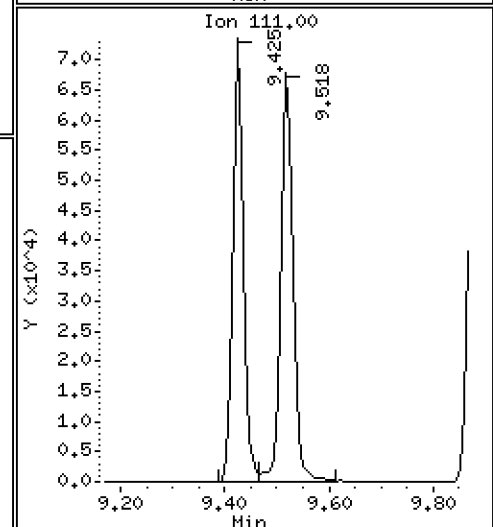
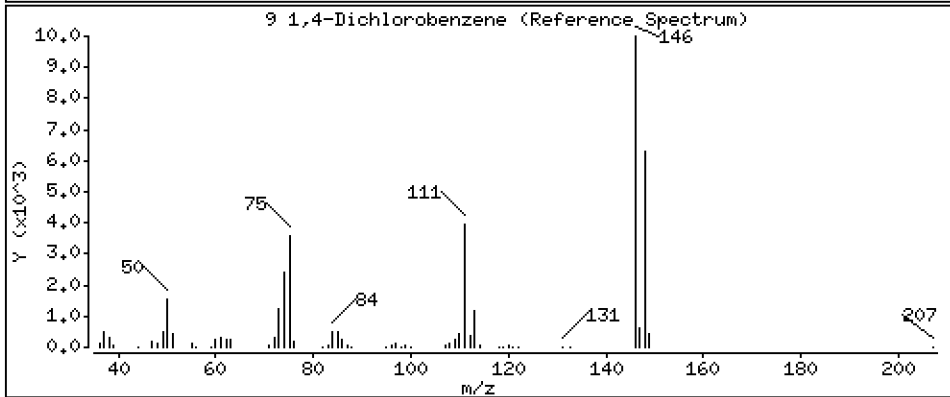
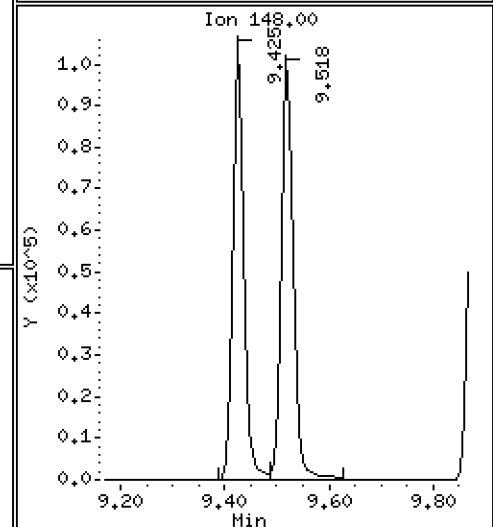
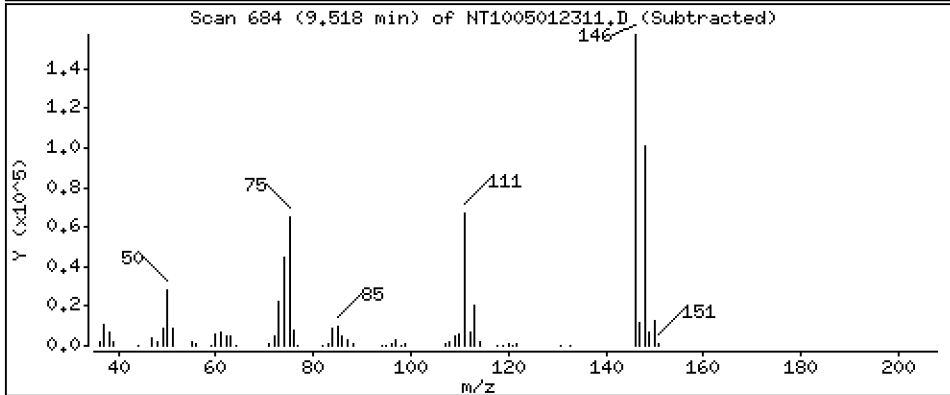
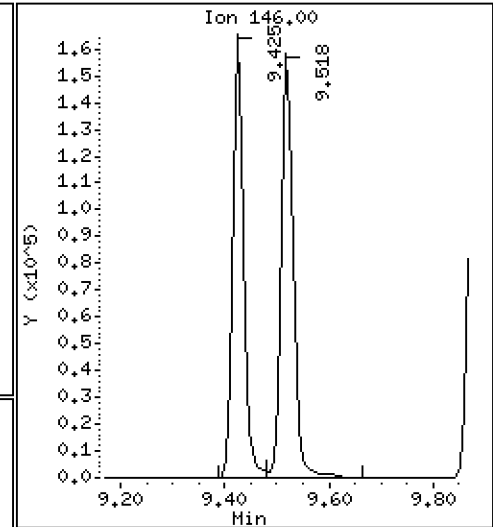
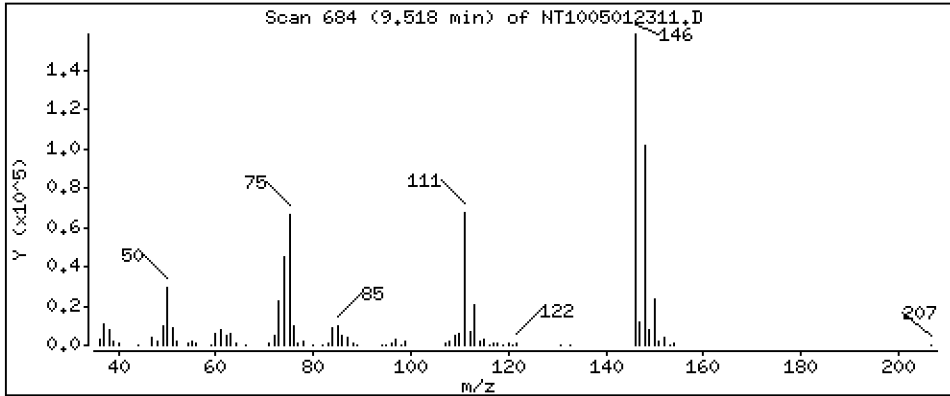
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 5.492 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

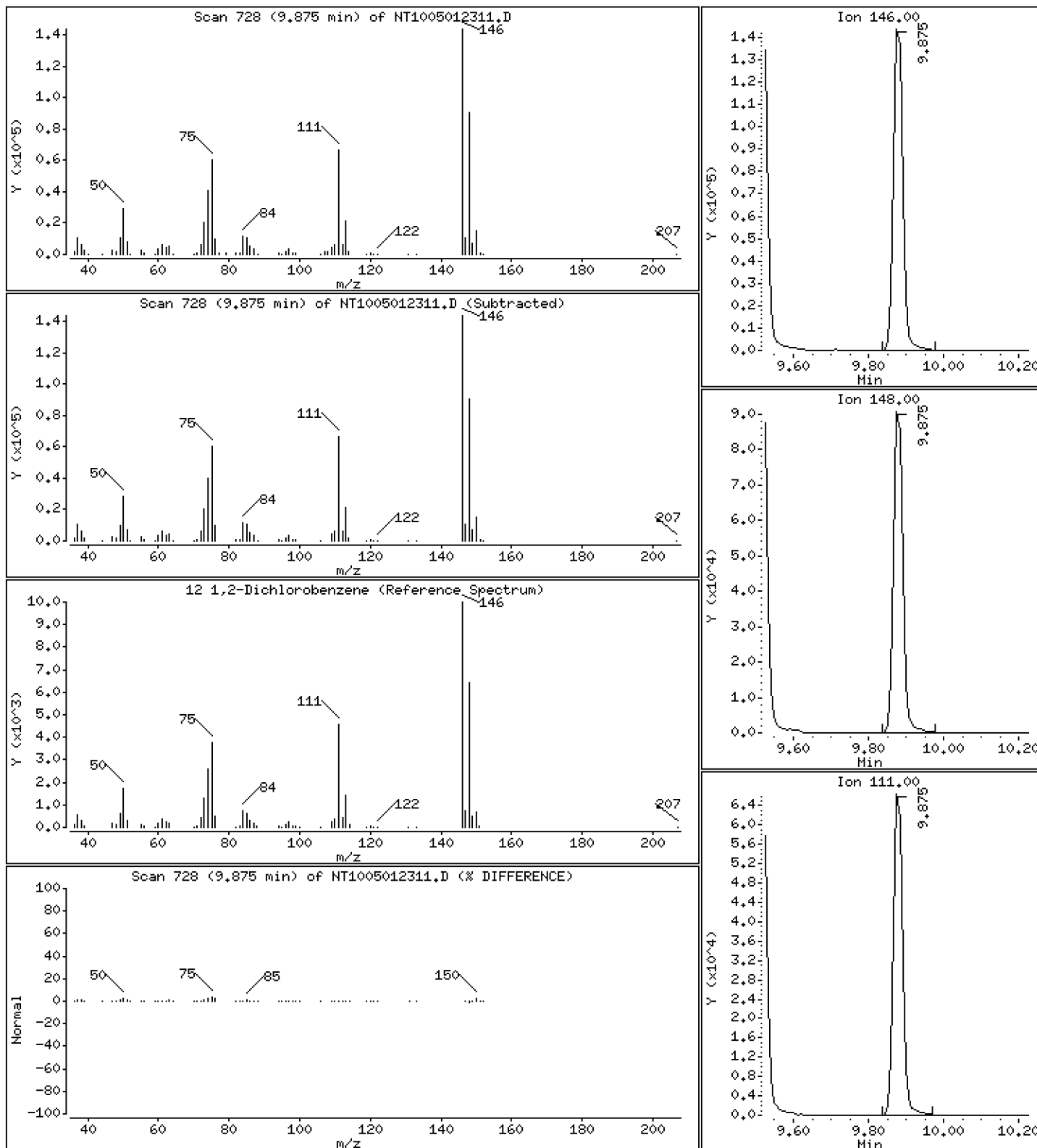
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,938 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

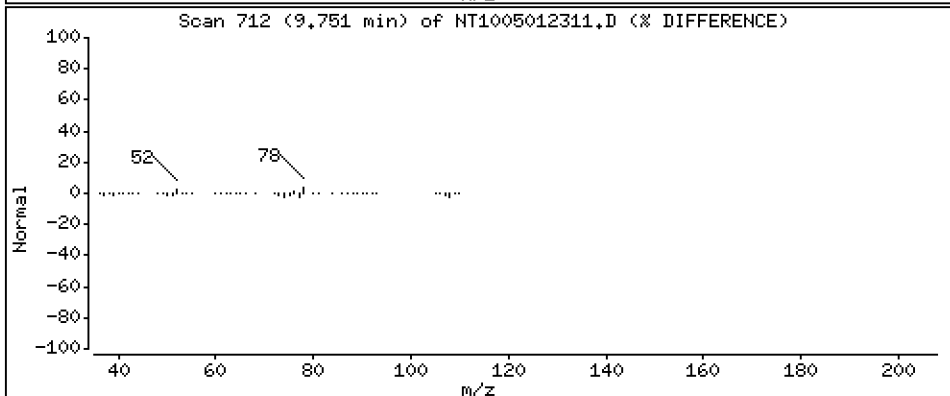
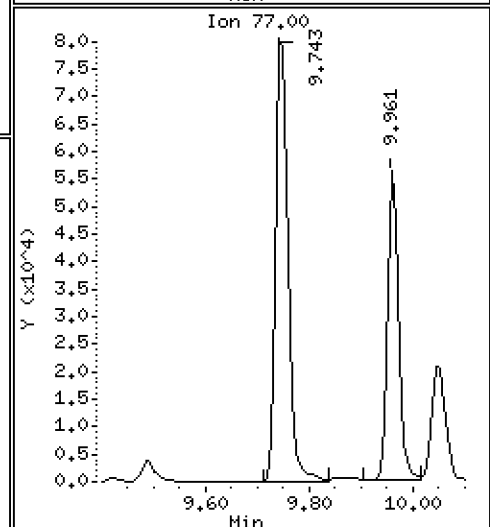
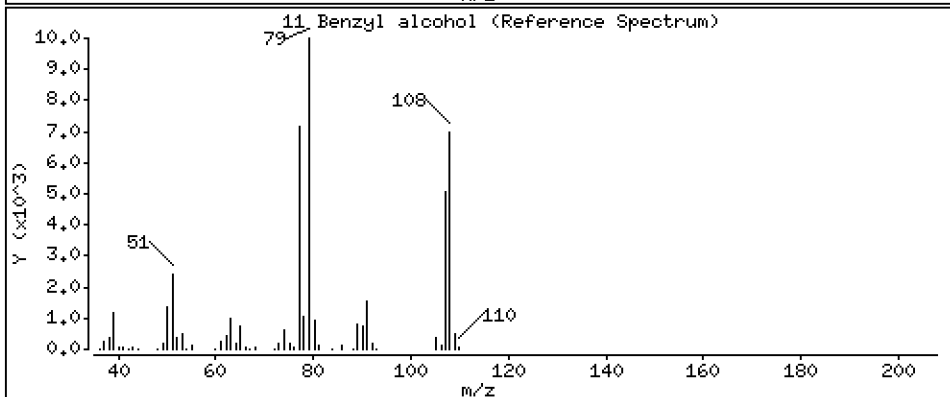
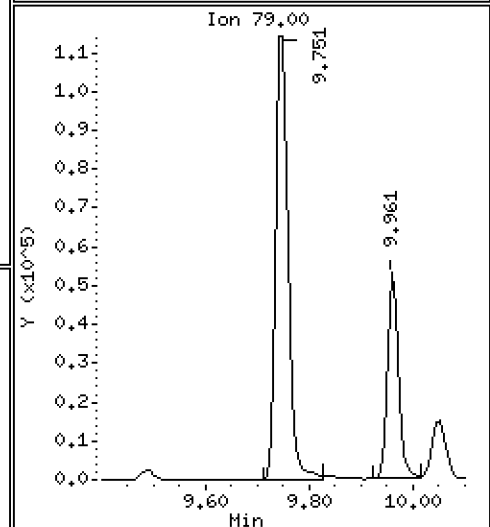
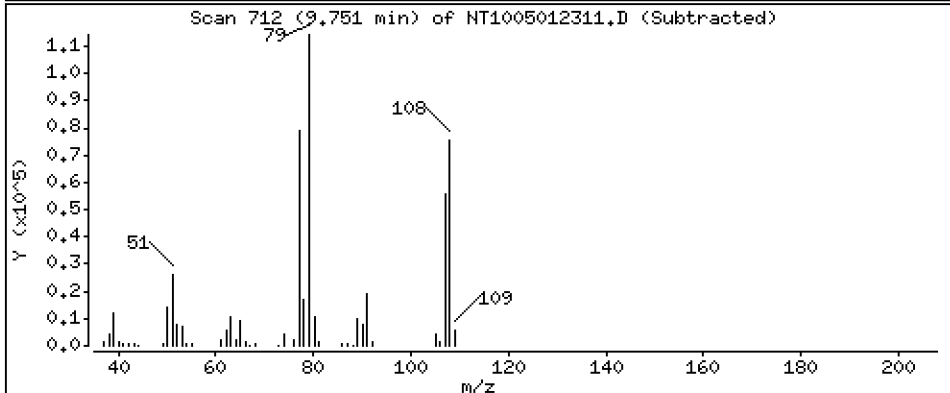
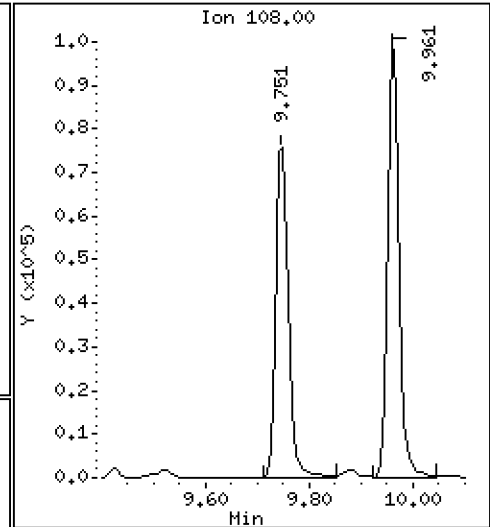
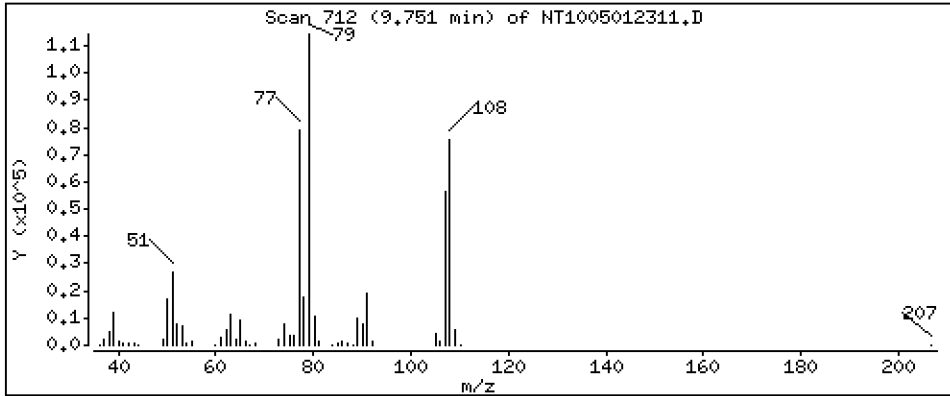
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 5,069 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

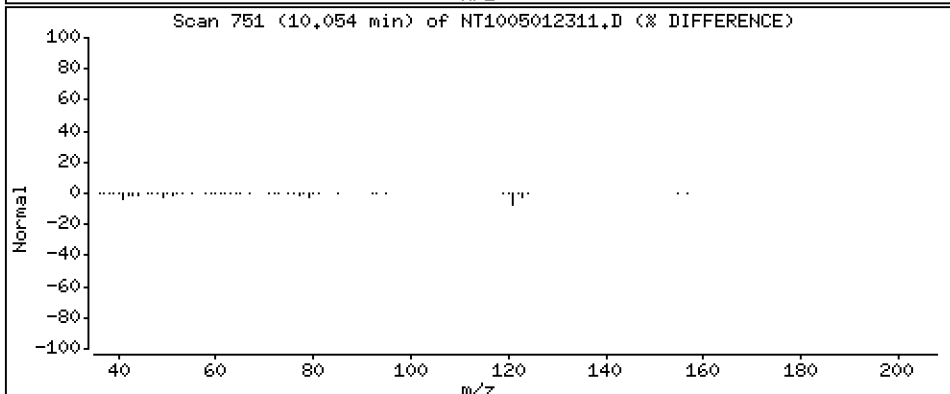
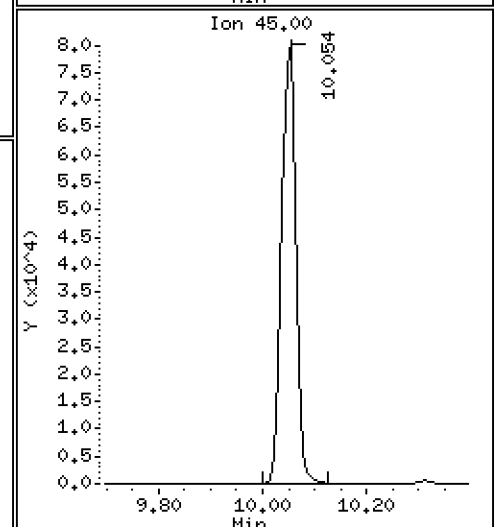
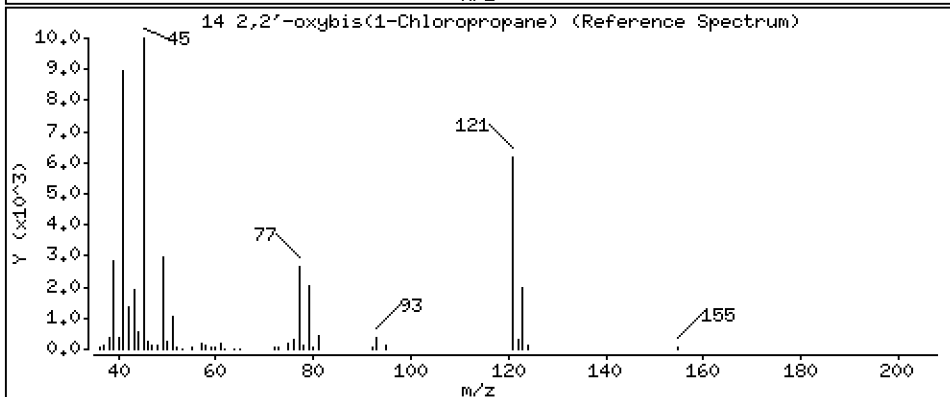
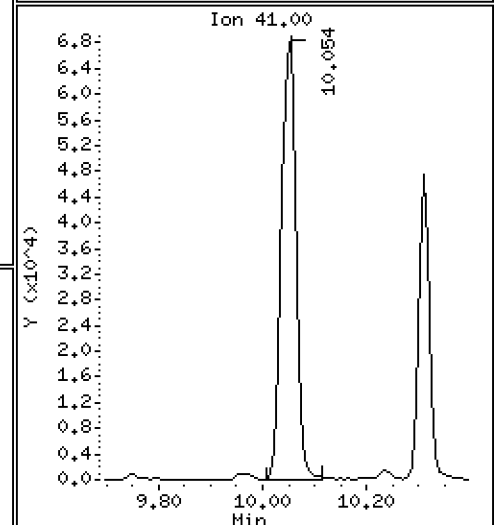
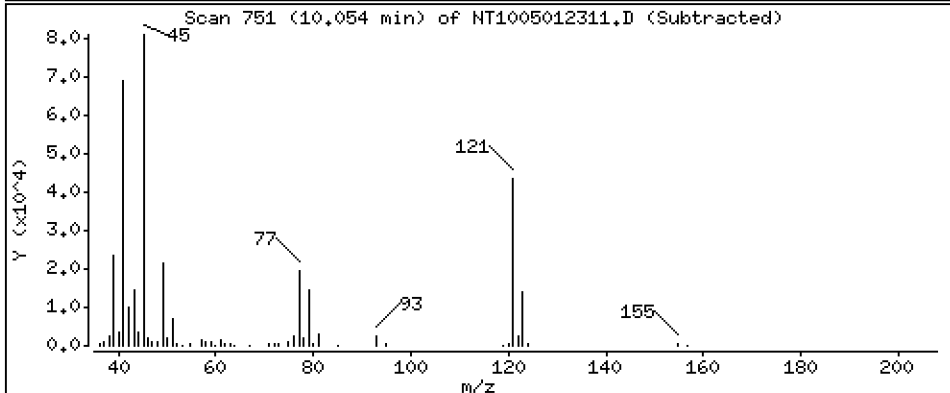
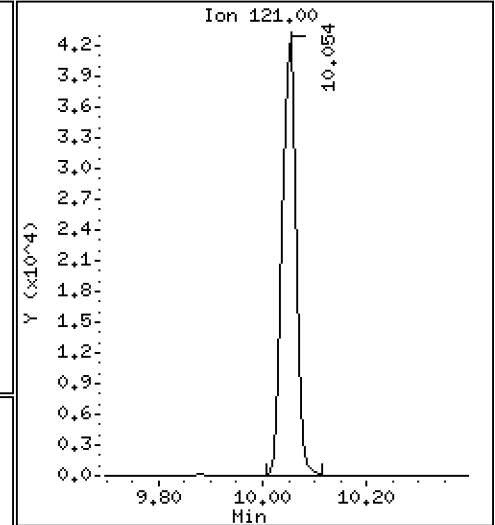
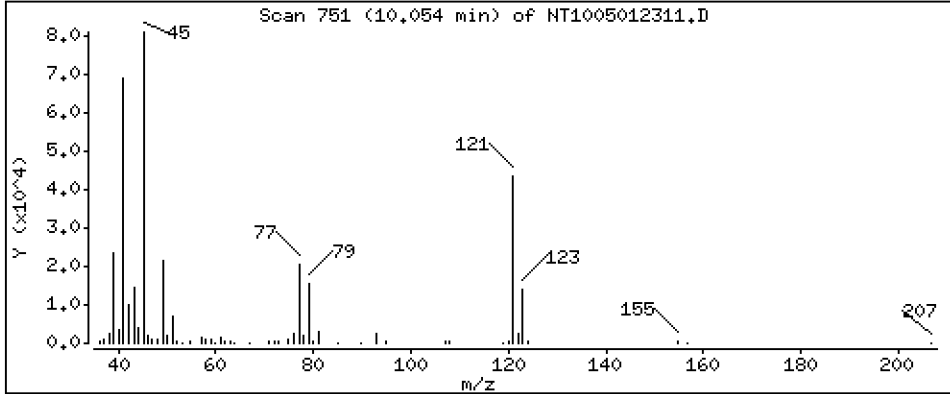
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 5,603 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

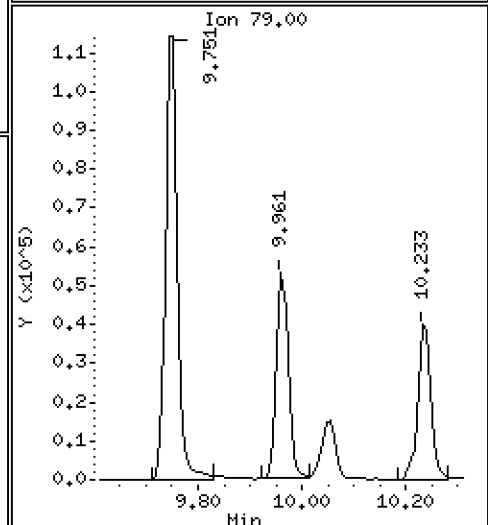
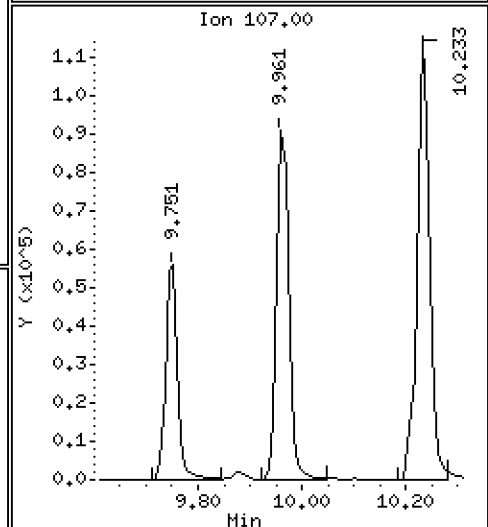
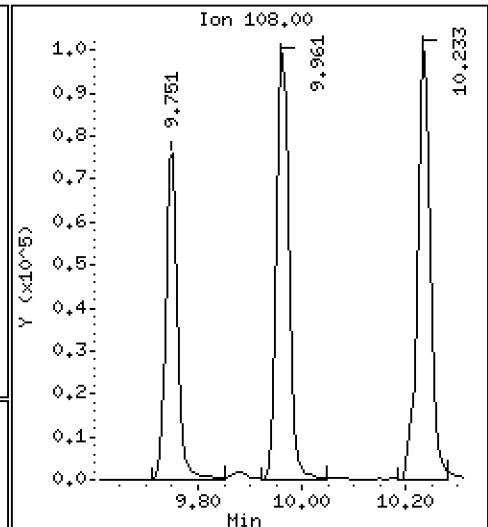
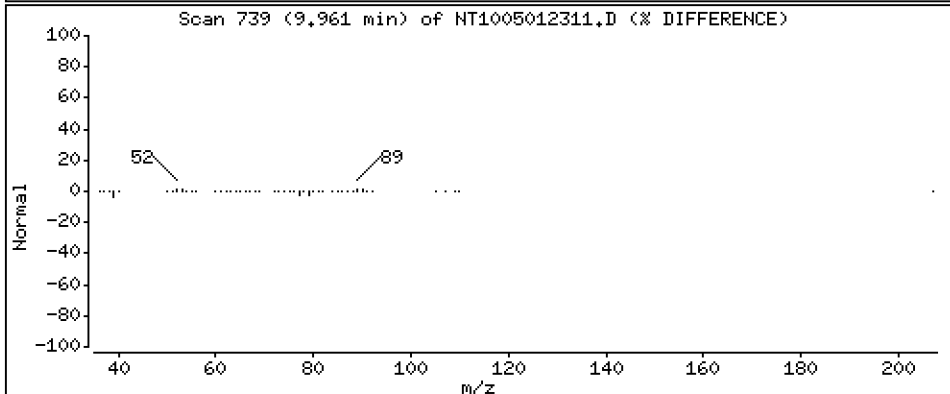
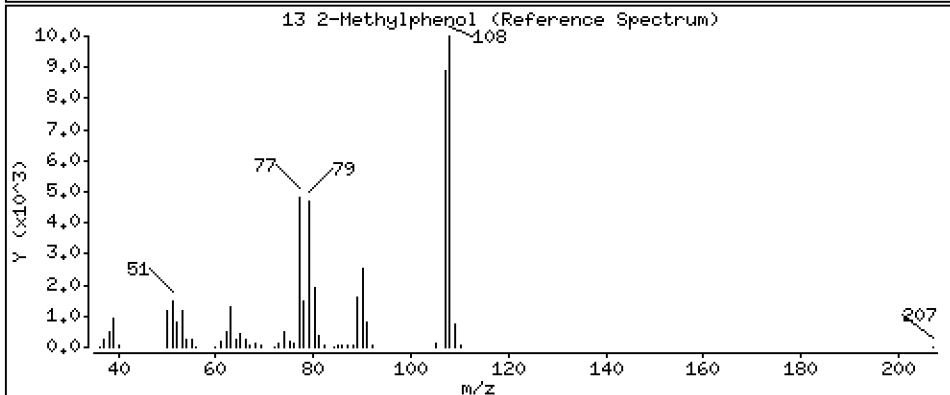
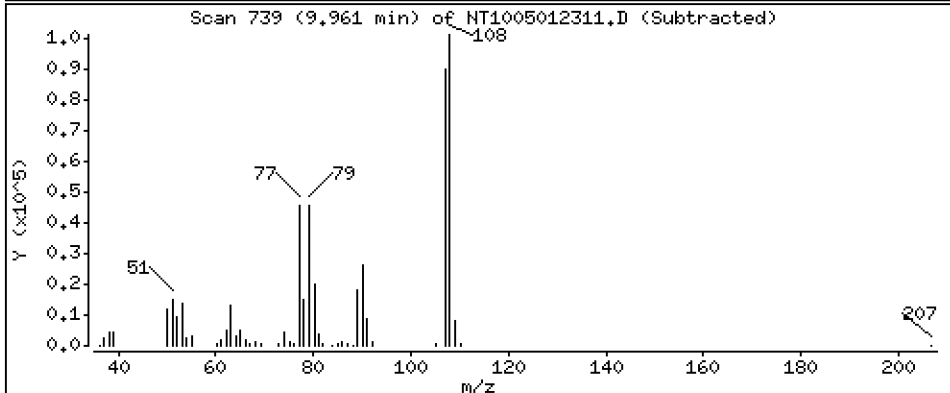
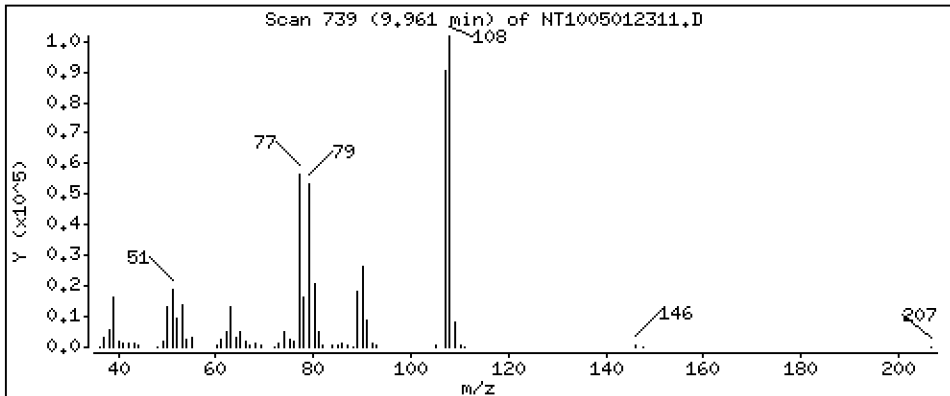
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.232 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

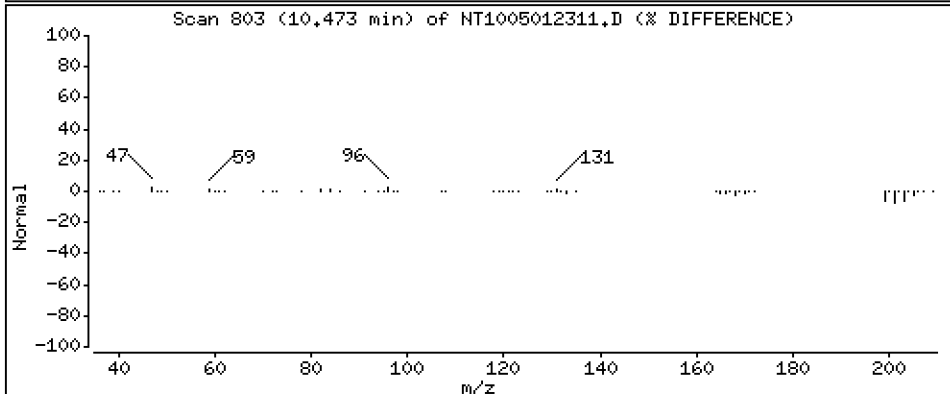
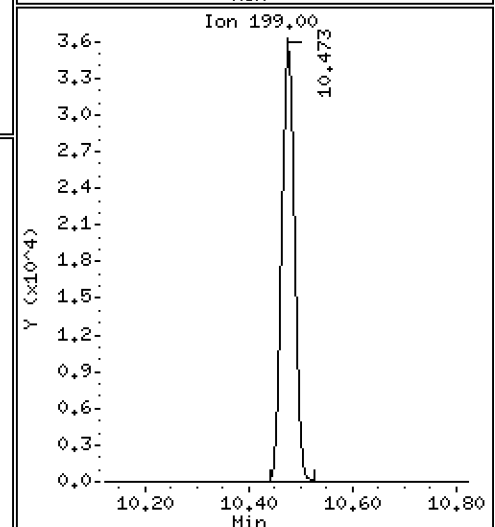
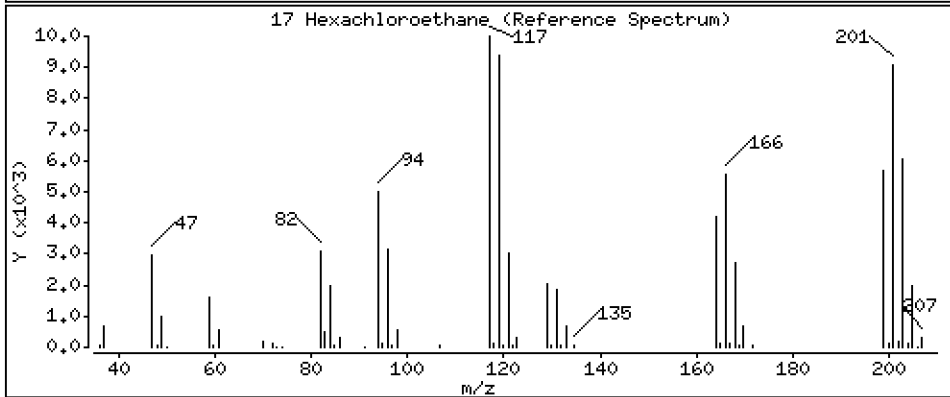
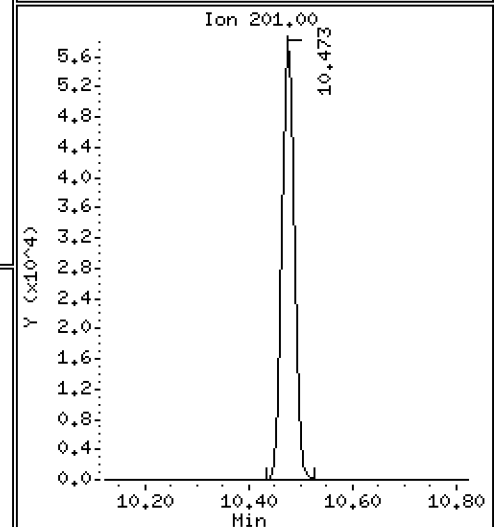
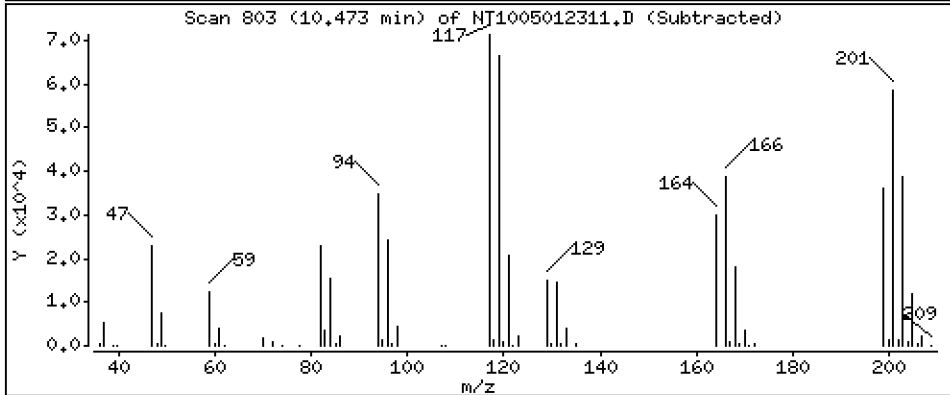
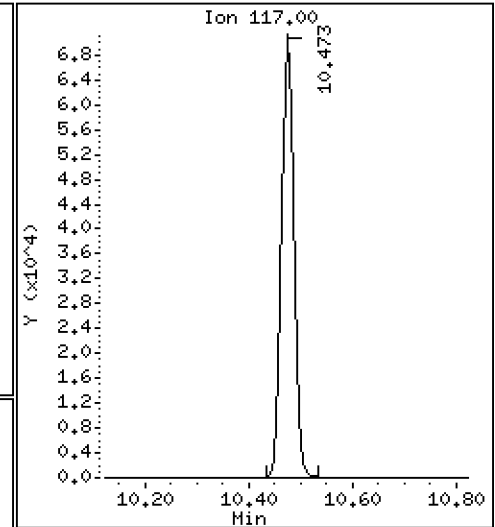
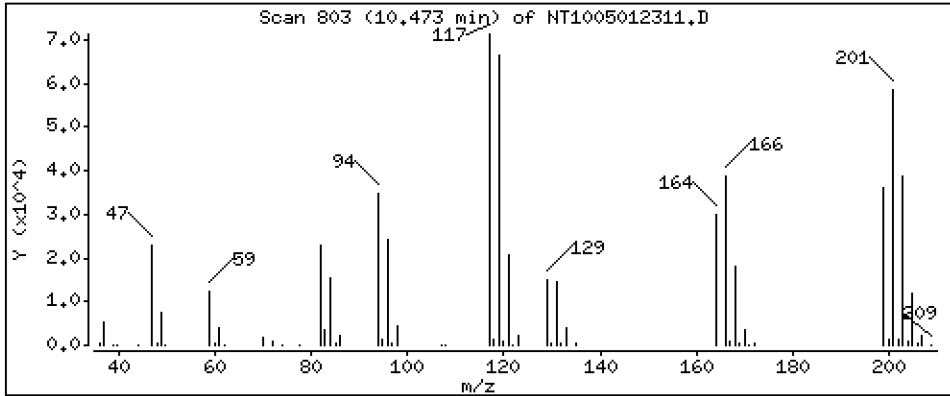
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 5.275 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

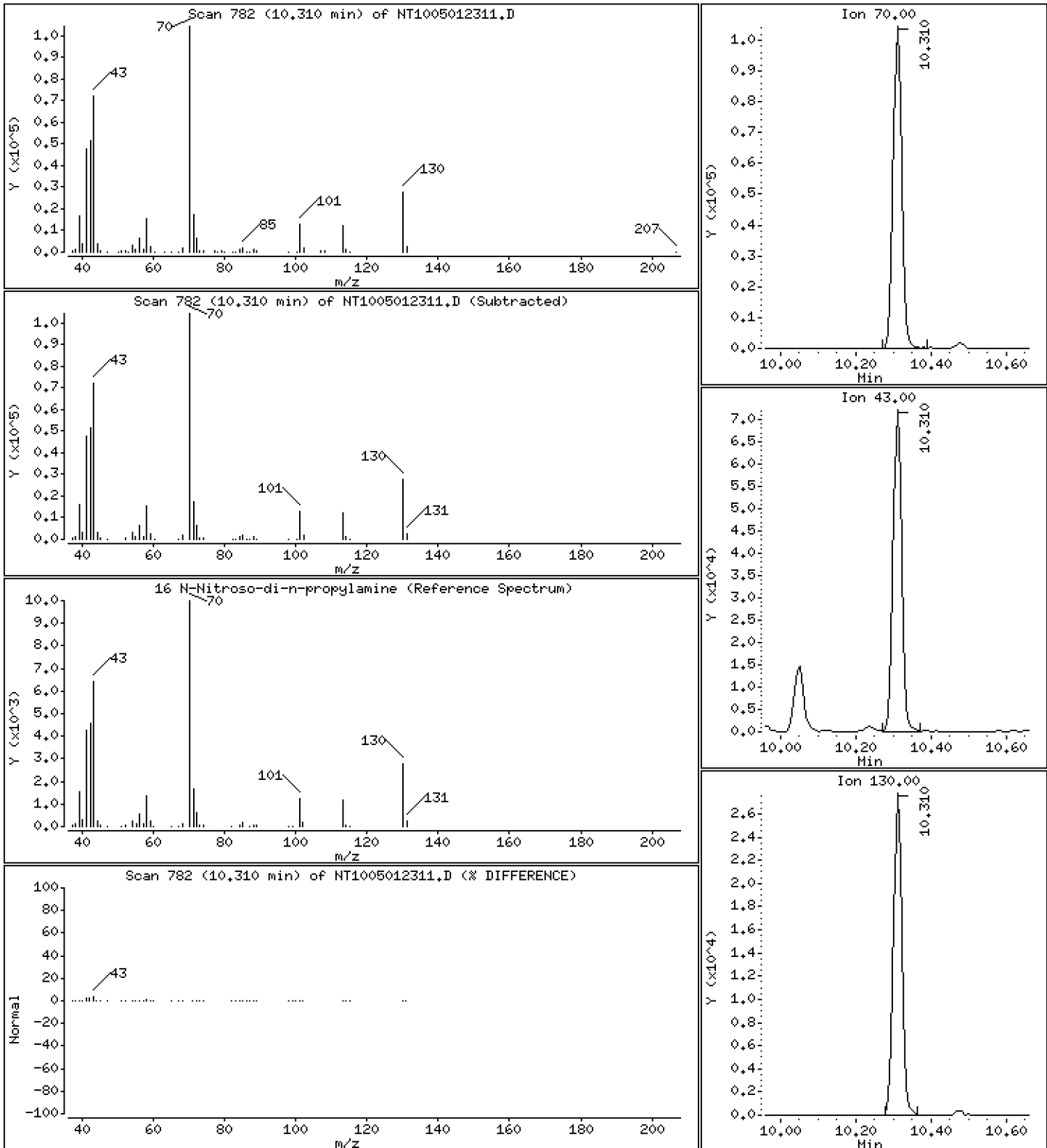
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,386 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

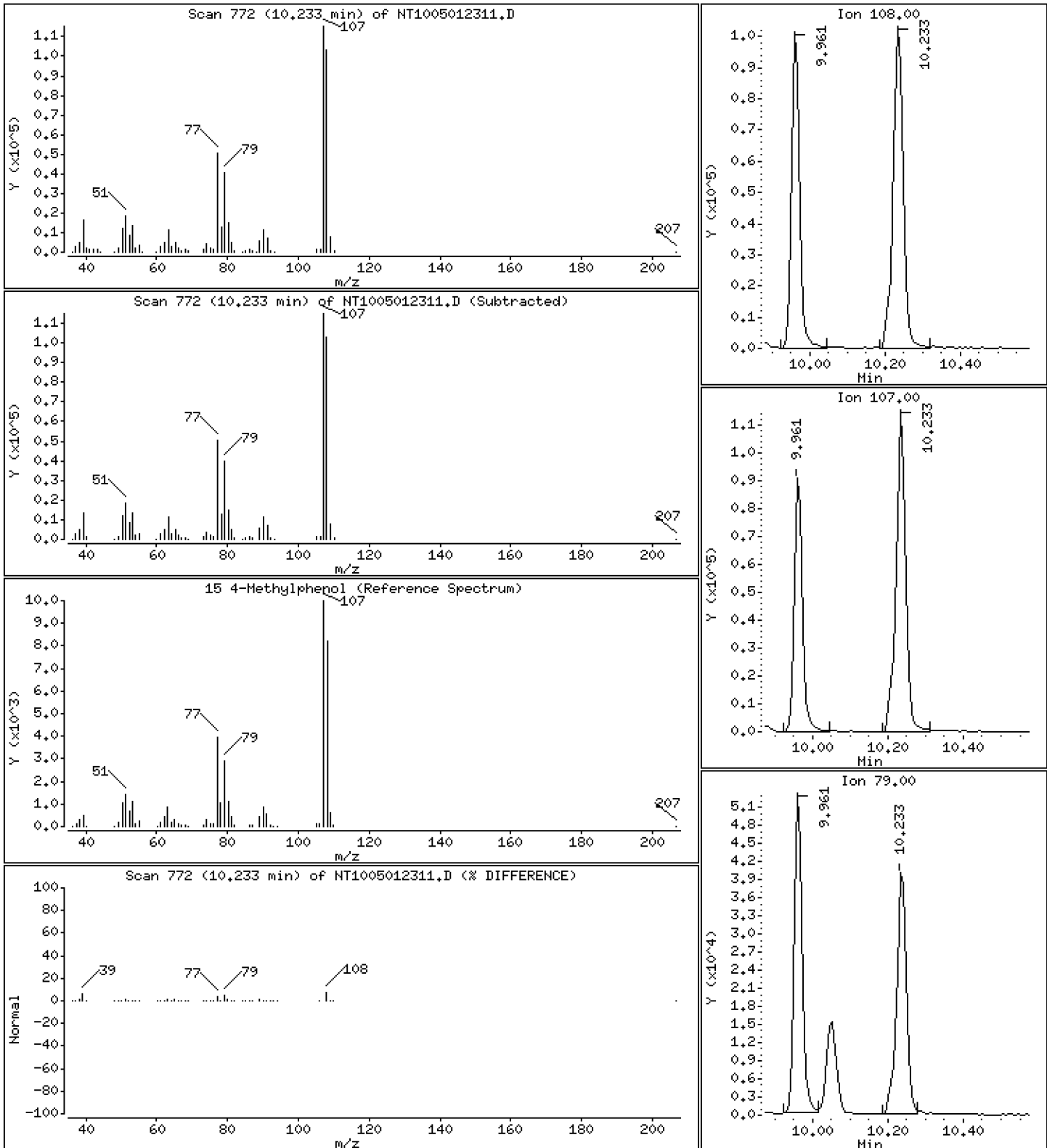
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 4.441 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

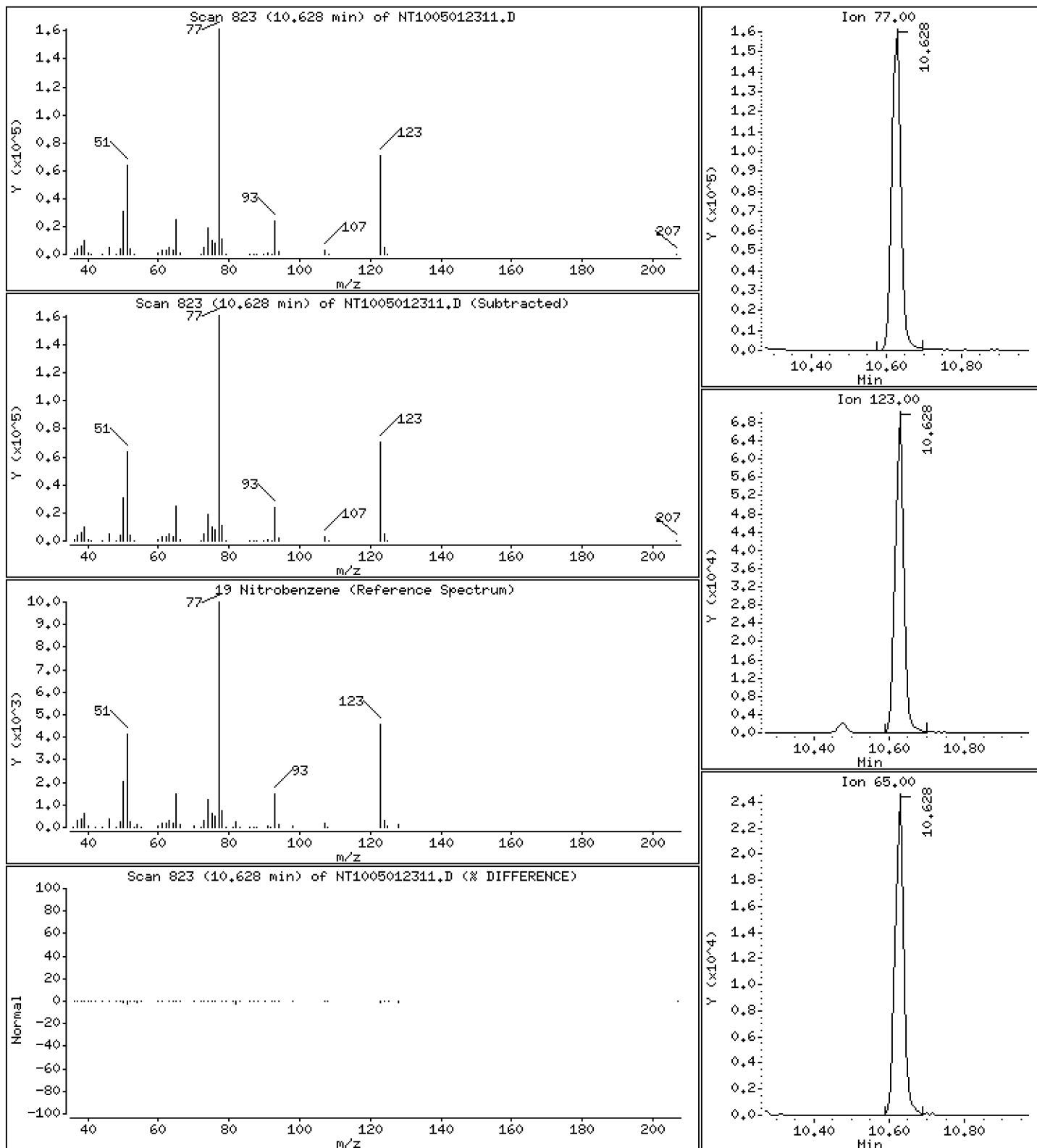
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,970 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

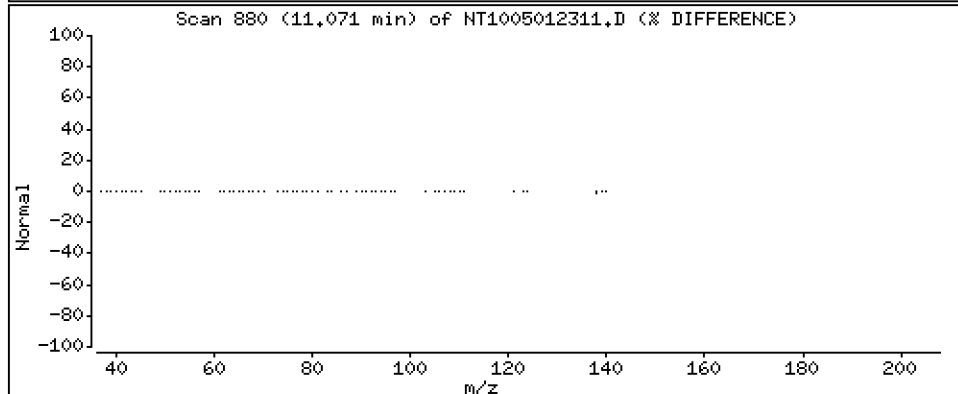
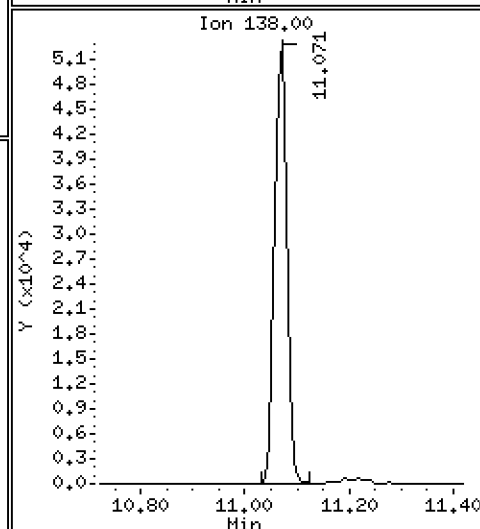
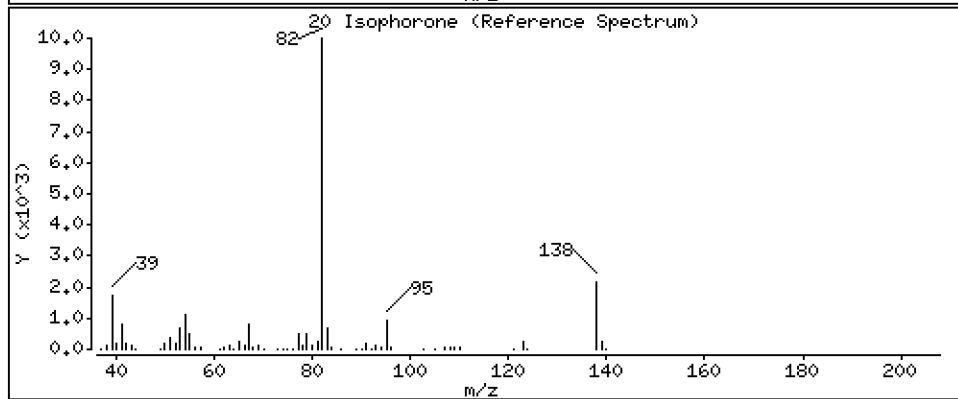
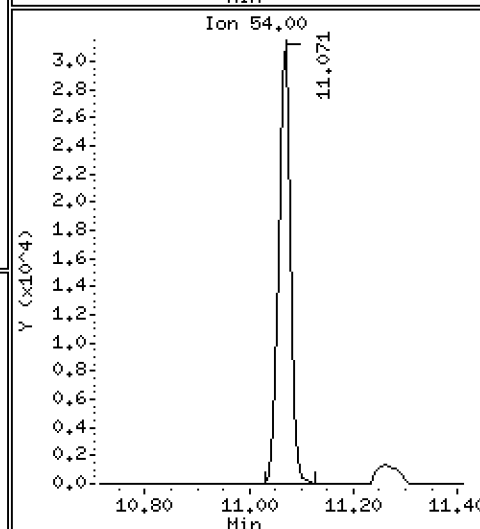
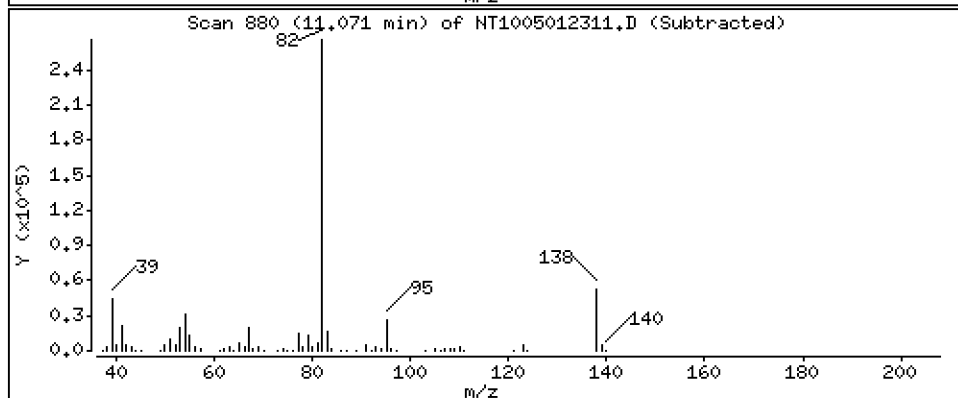
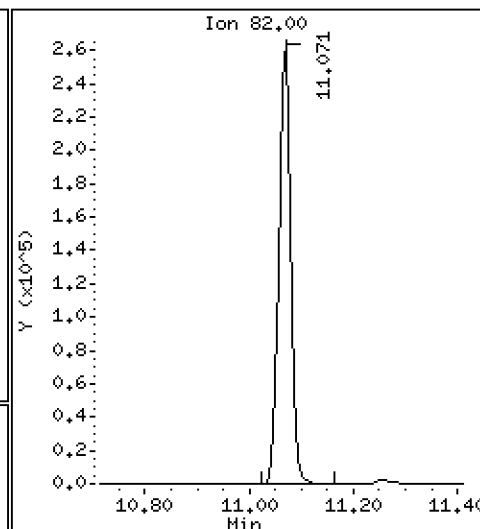
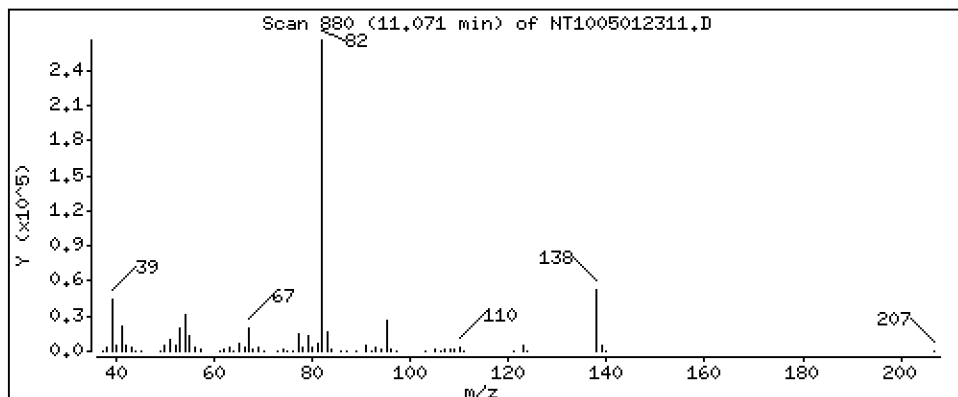
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 7,878 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

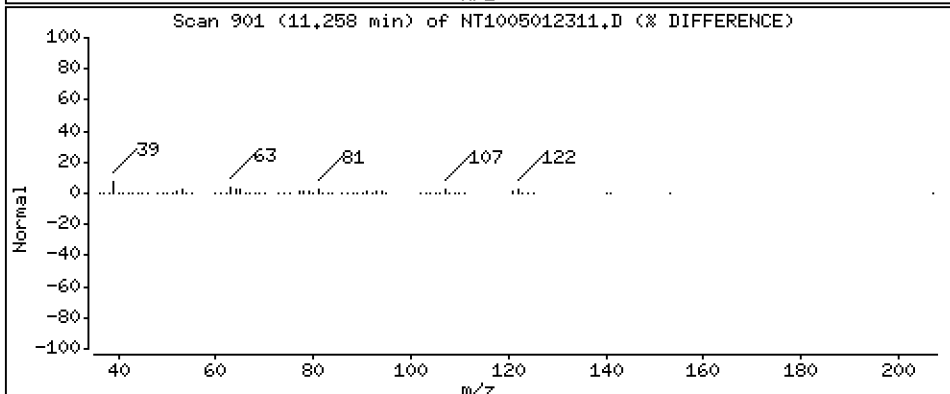
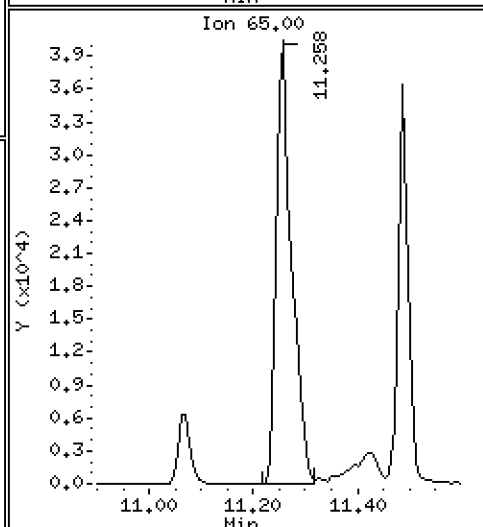
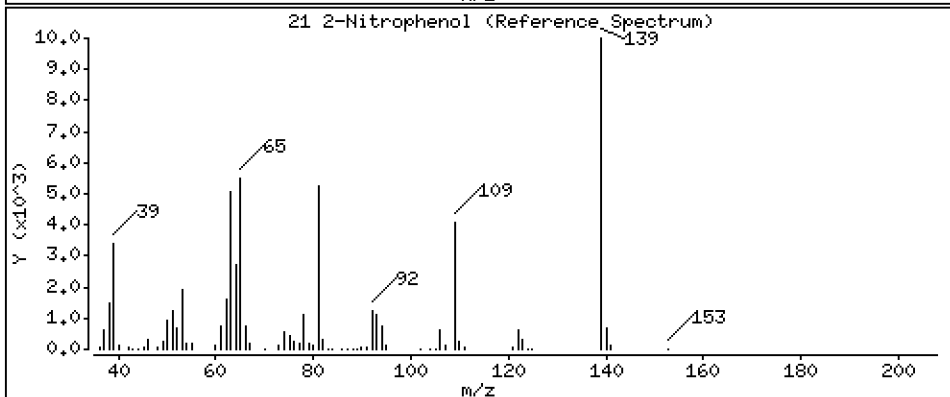
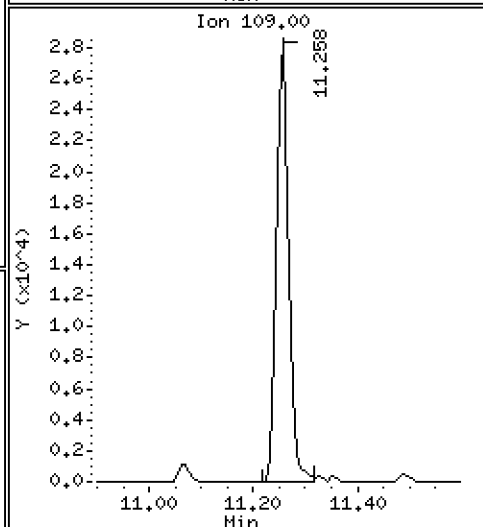
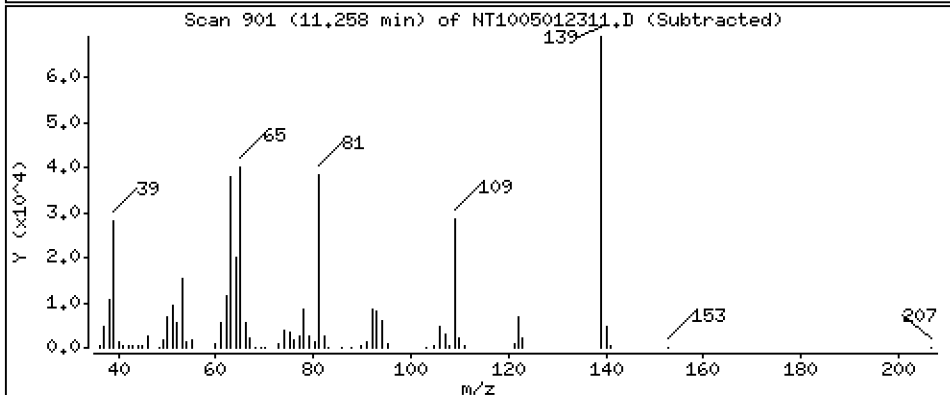
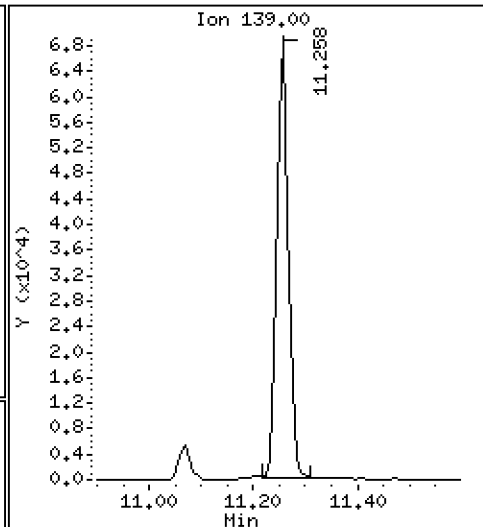
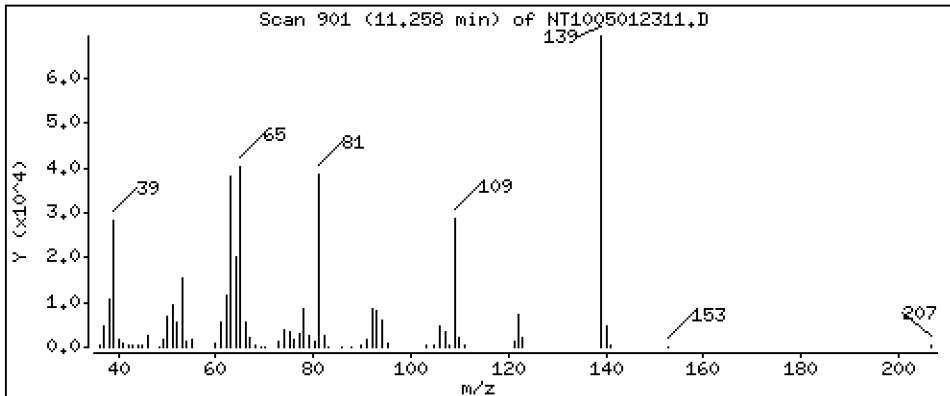
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 3,896 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

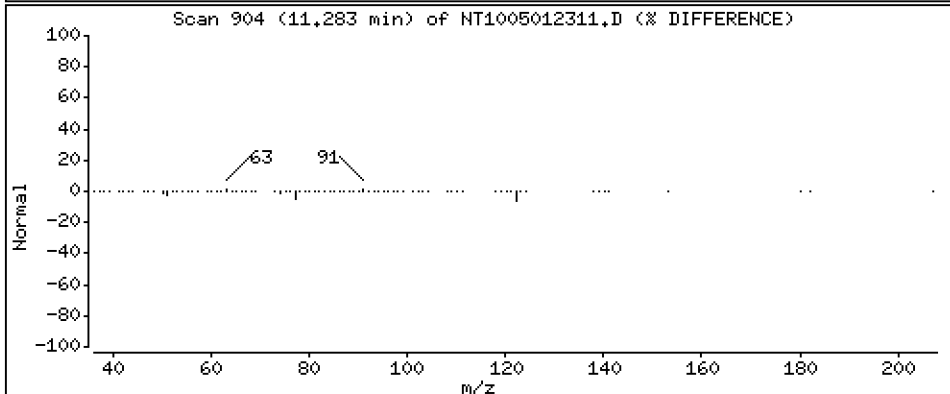
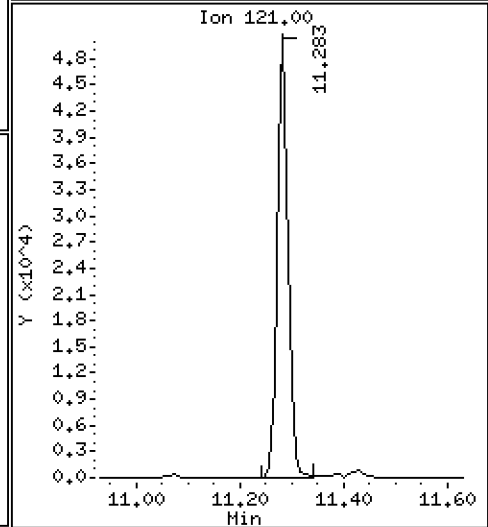
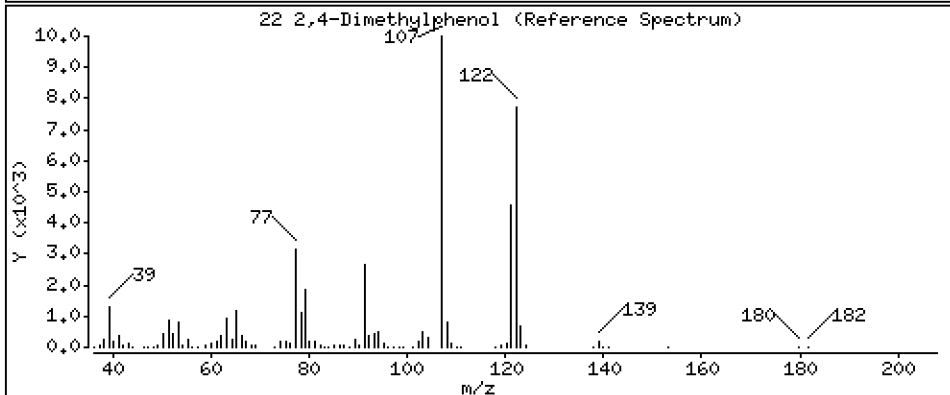
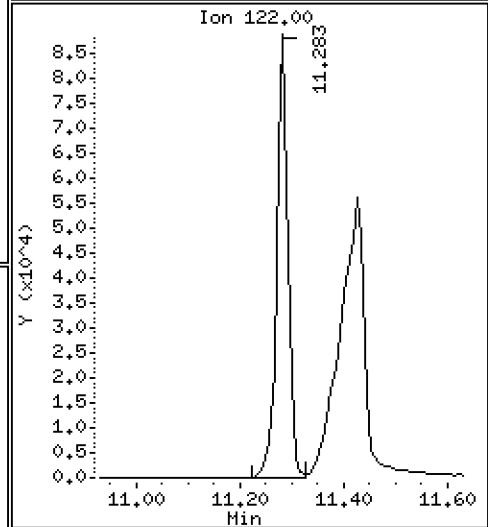
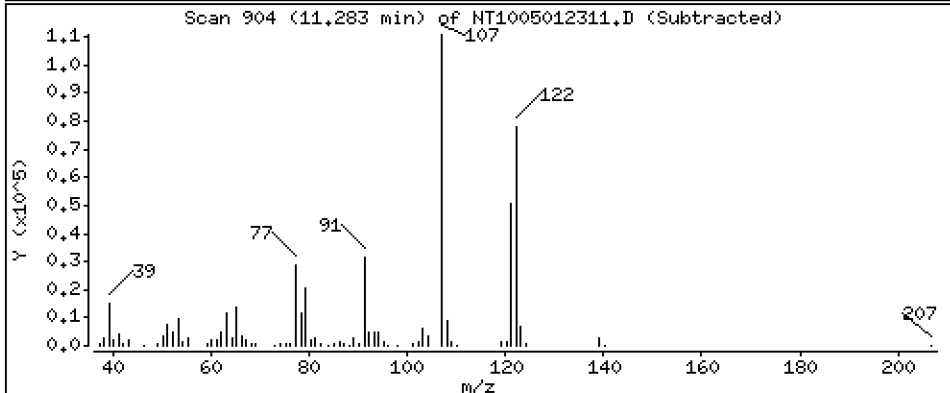
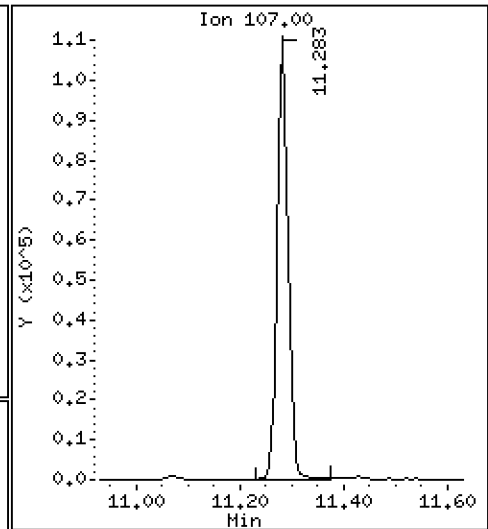
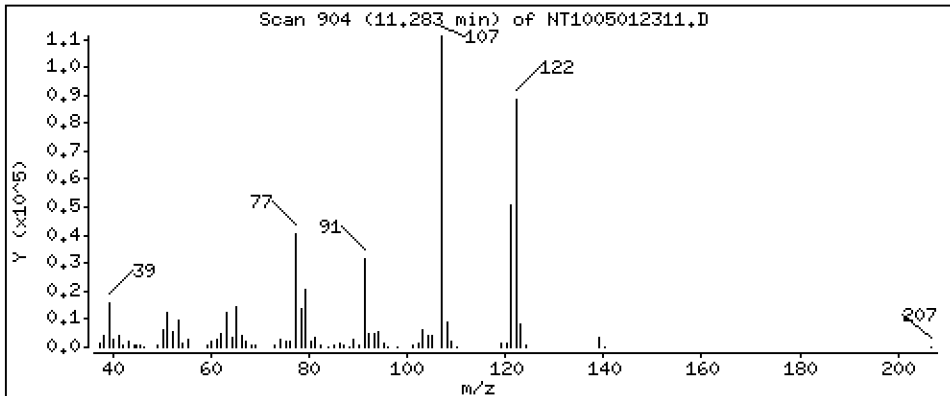
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,424 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

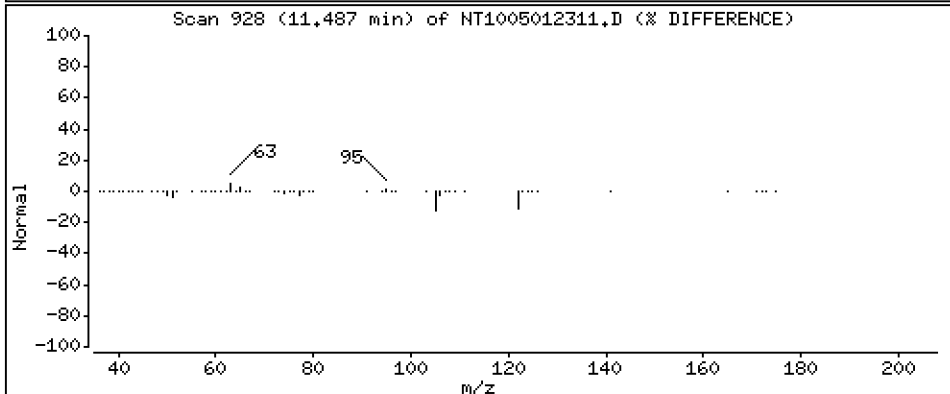
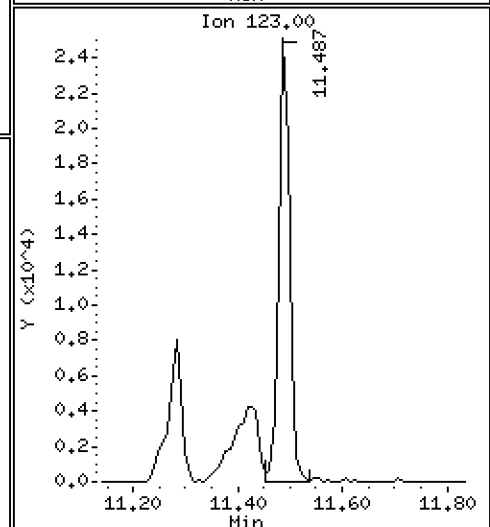
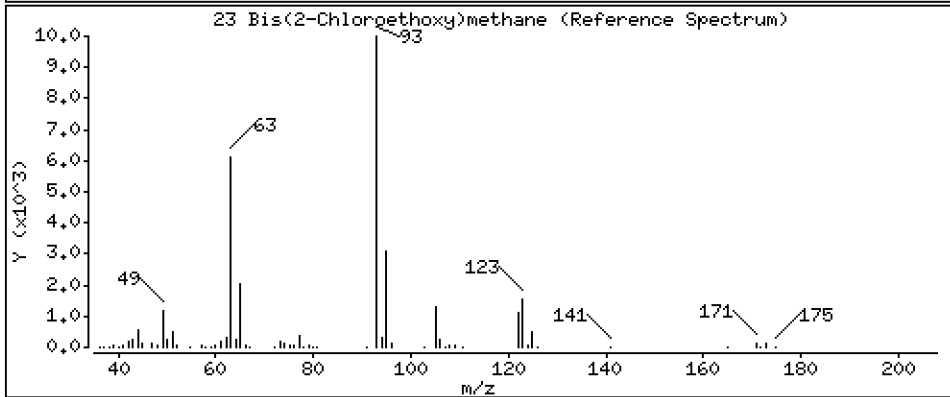
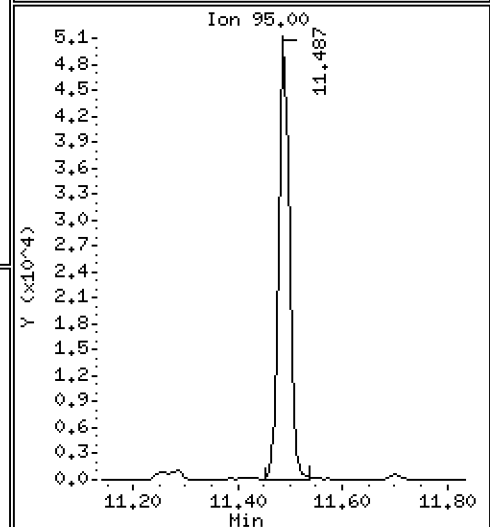
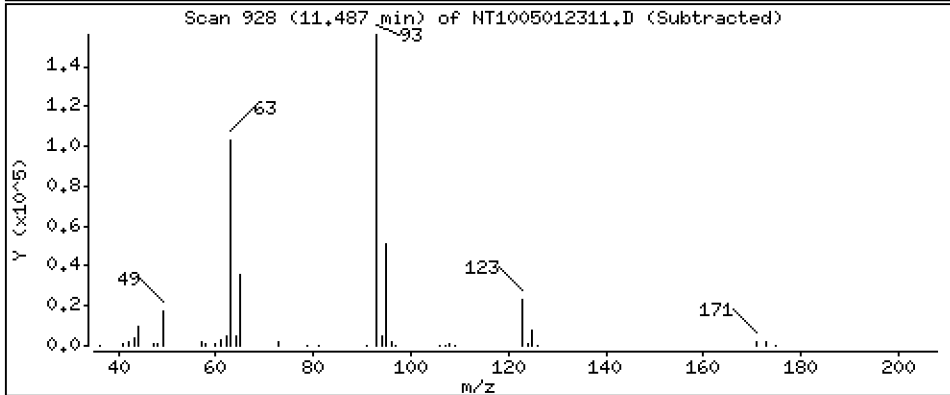
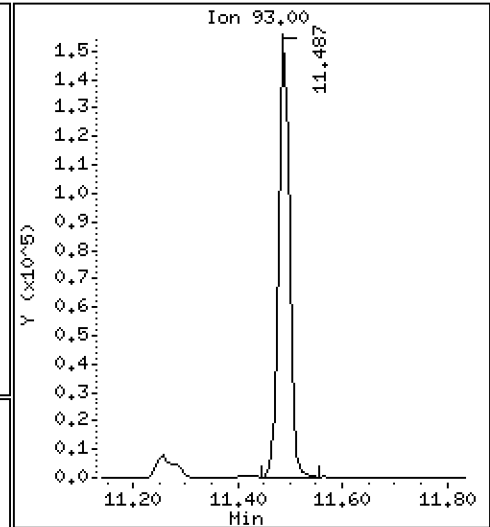
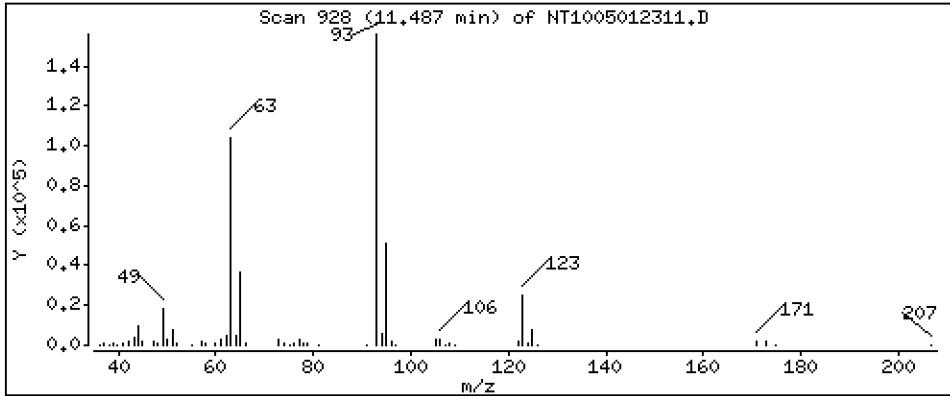
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,736 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

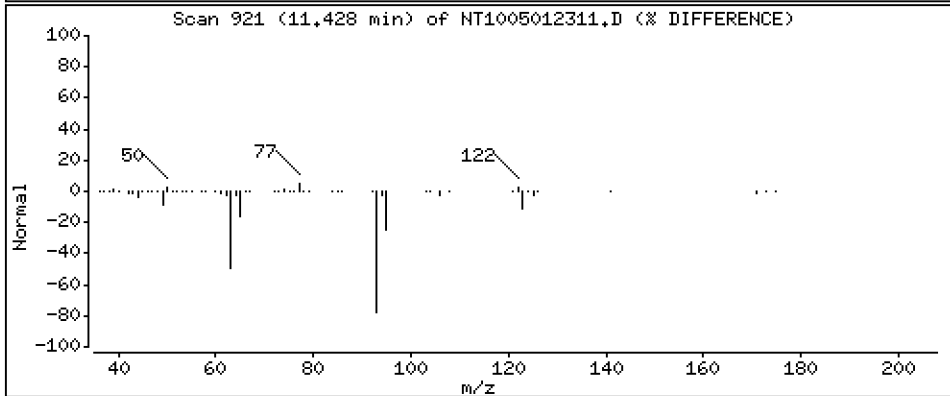
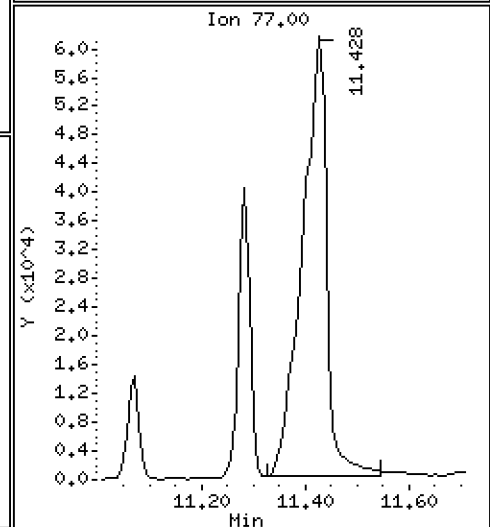
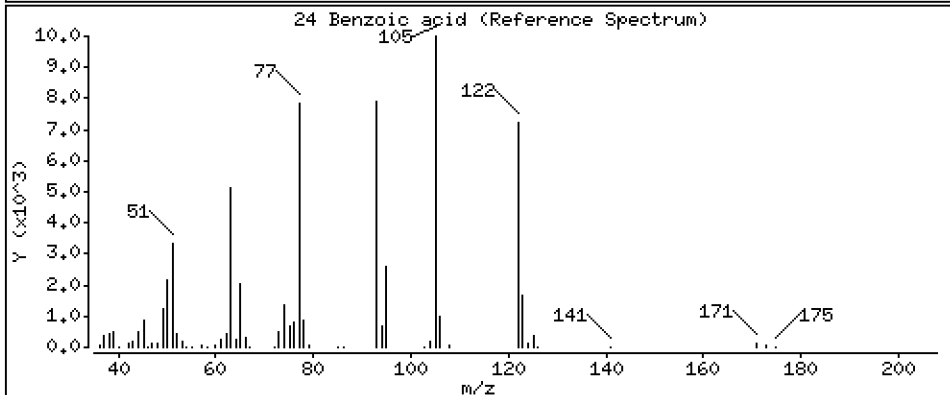
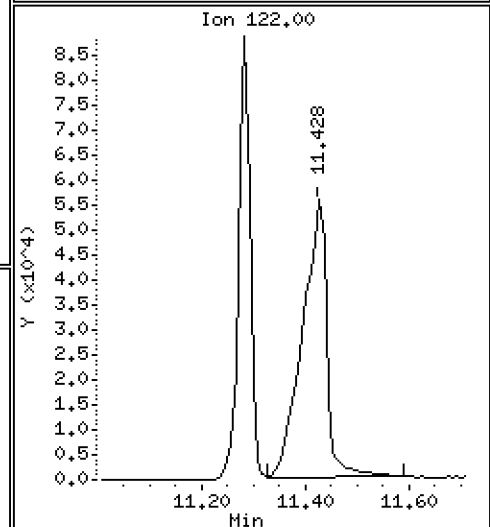
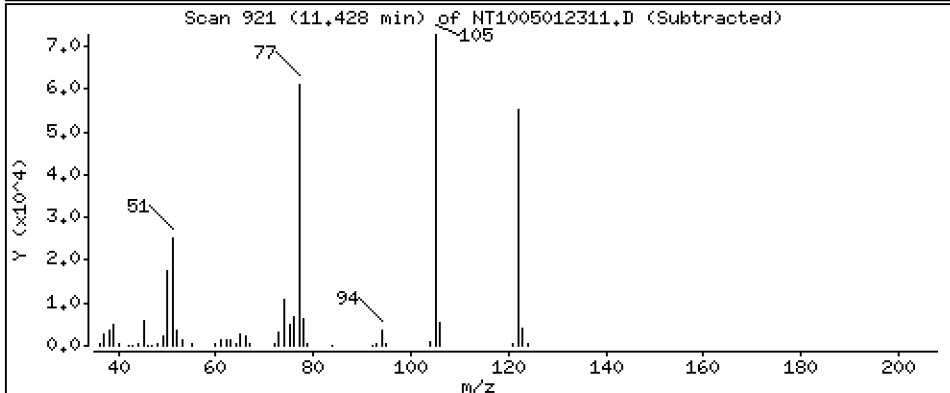
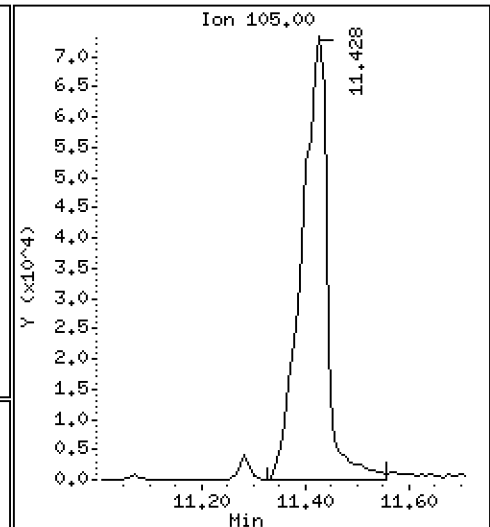
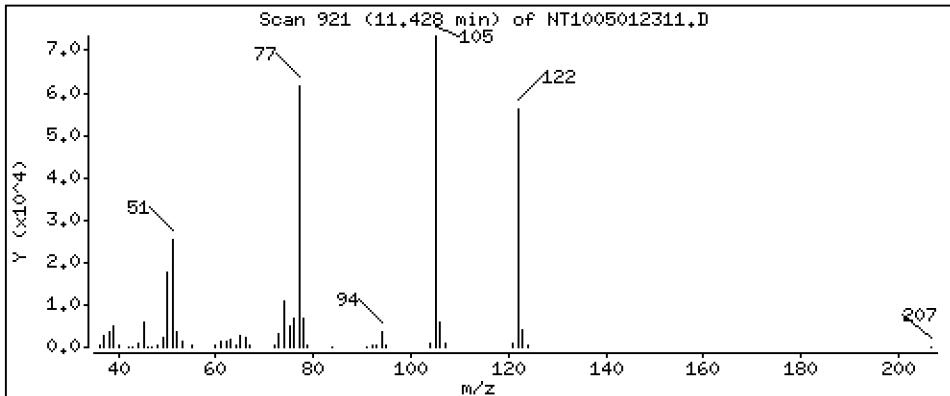
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 7,386 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

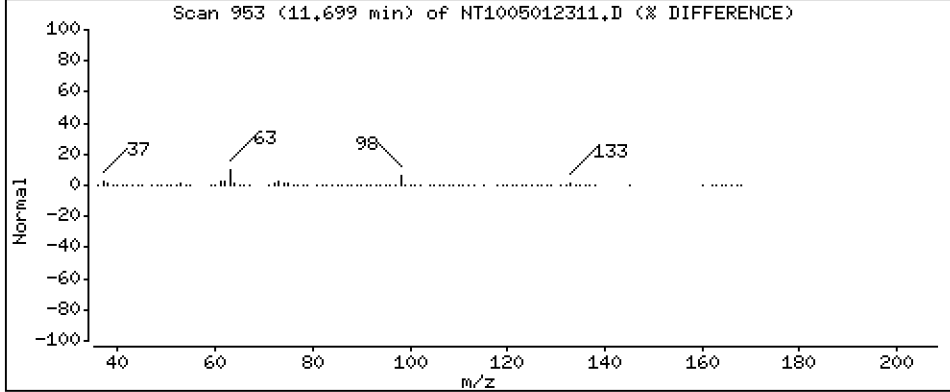
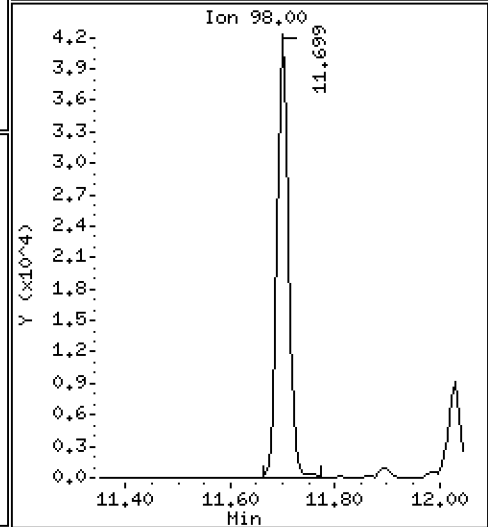
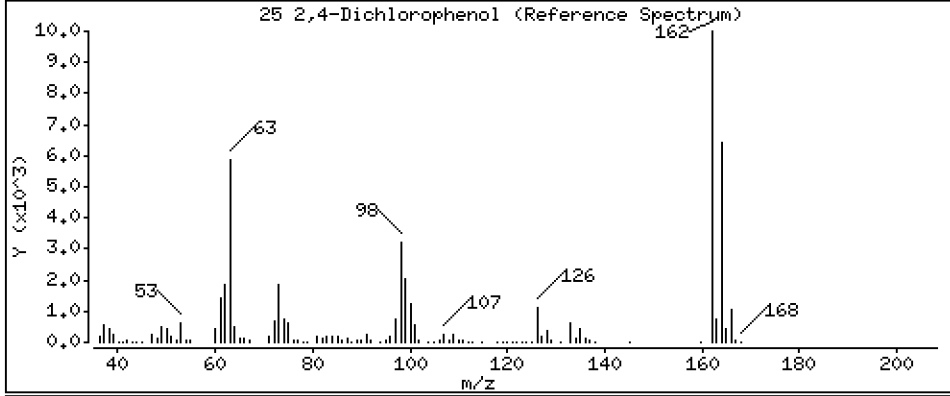
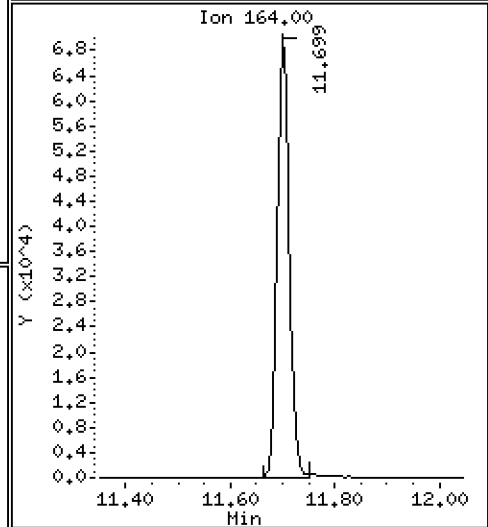
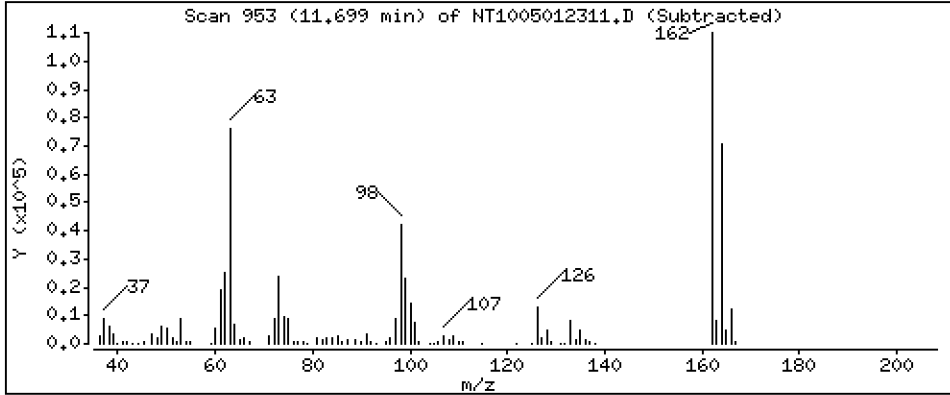
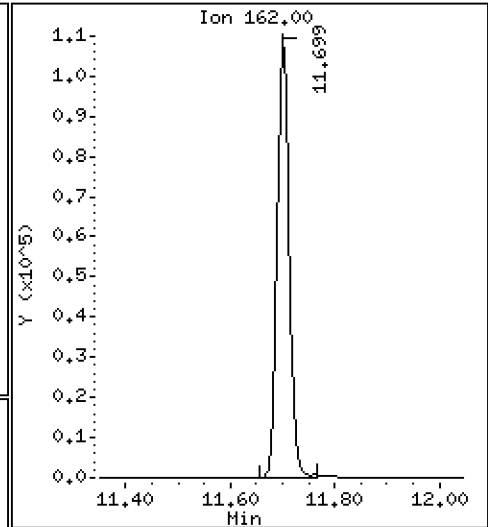
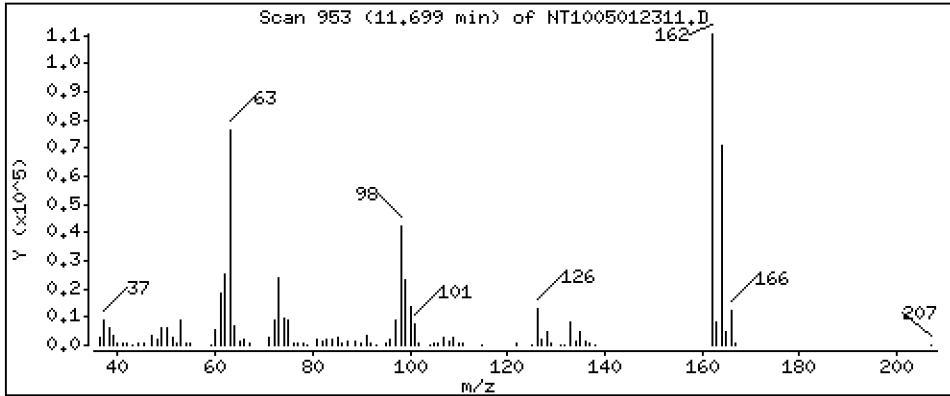
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,480 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

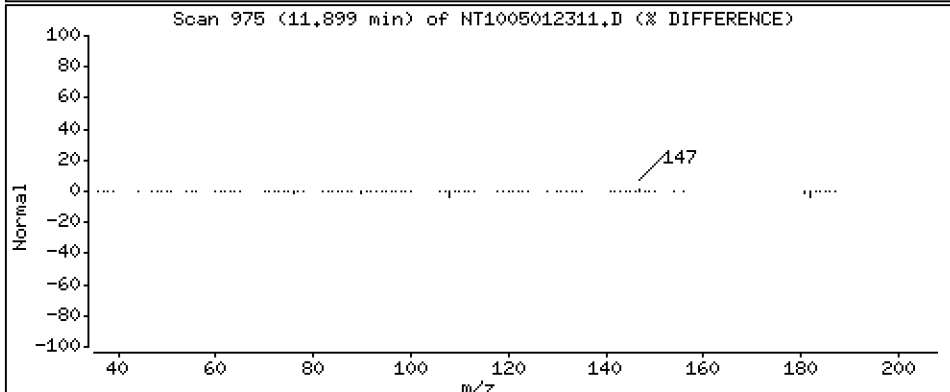
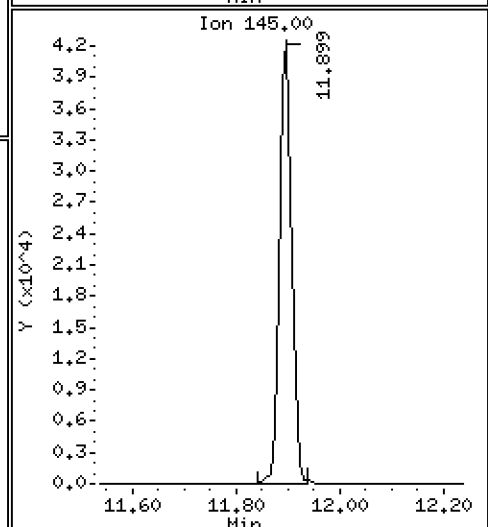
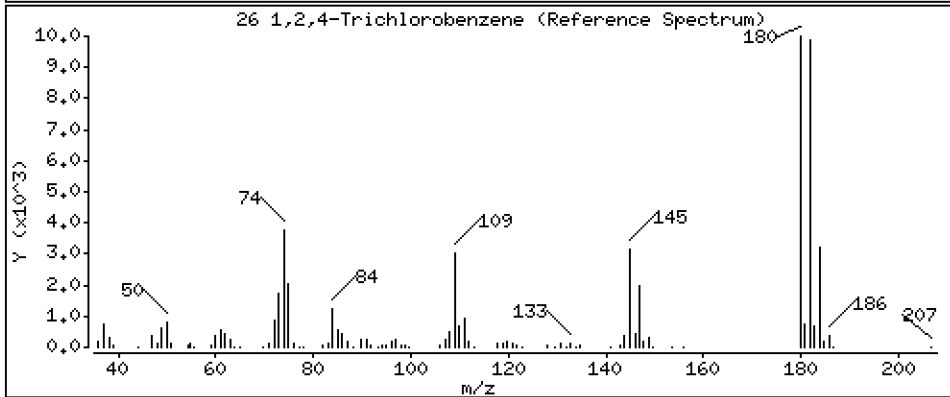
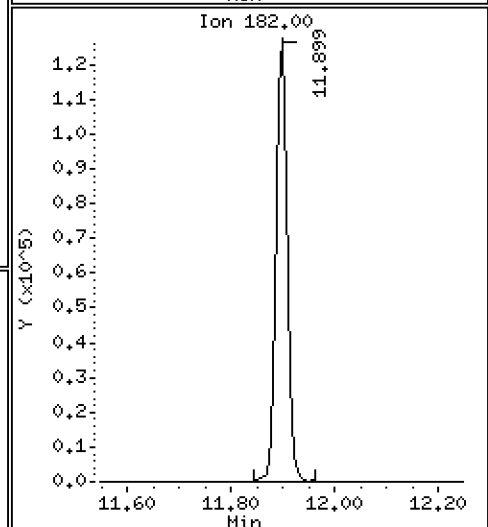
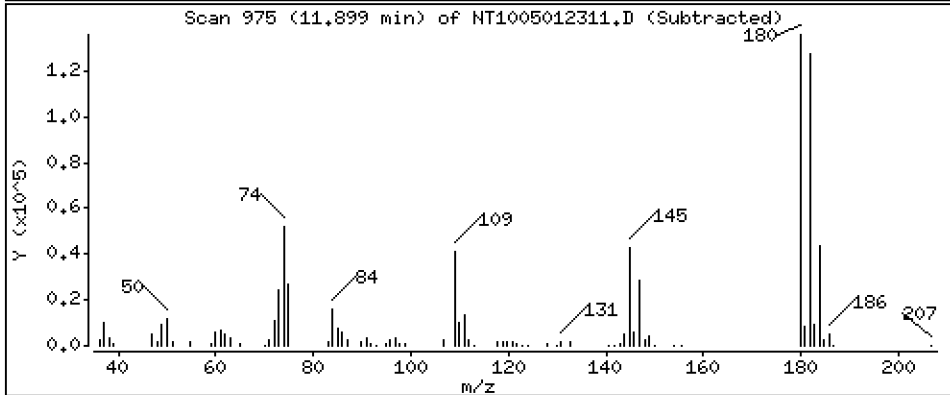
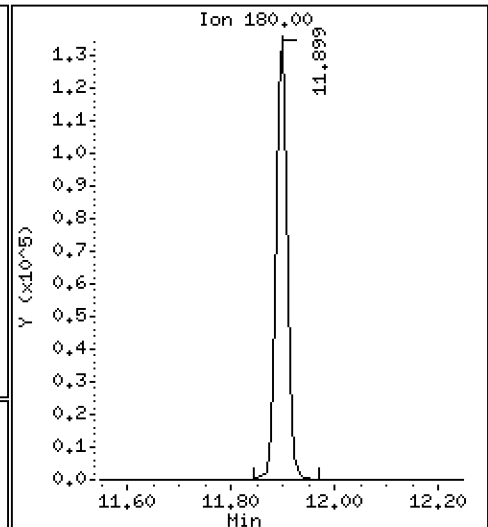
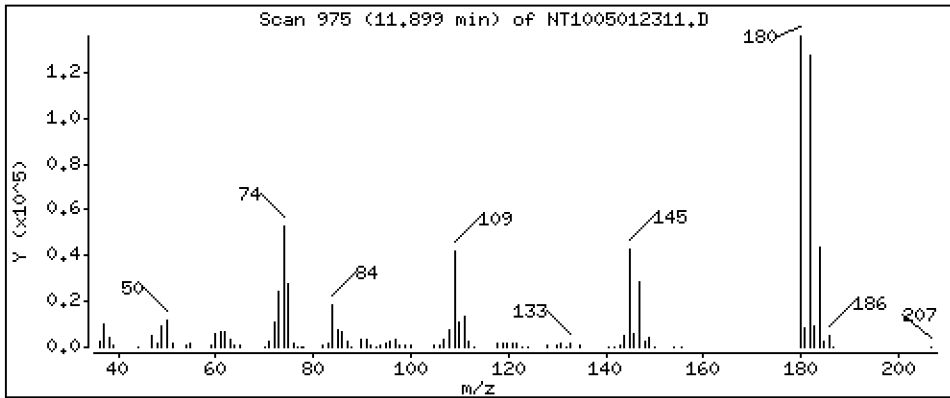
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,378 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

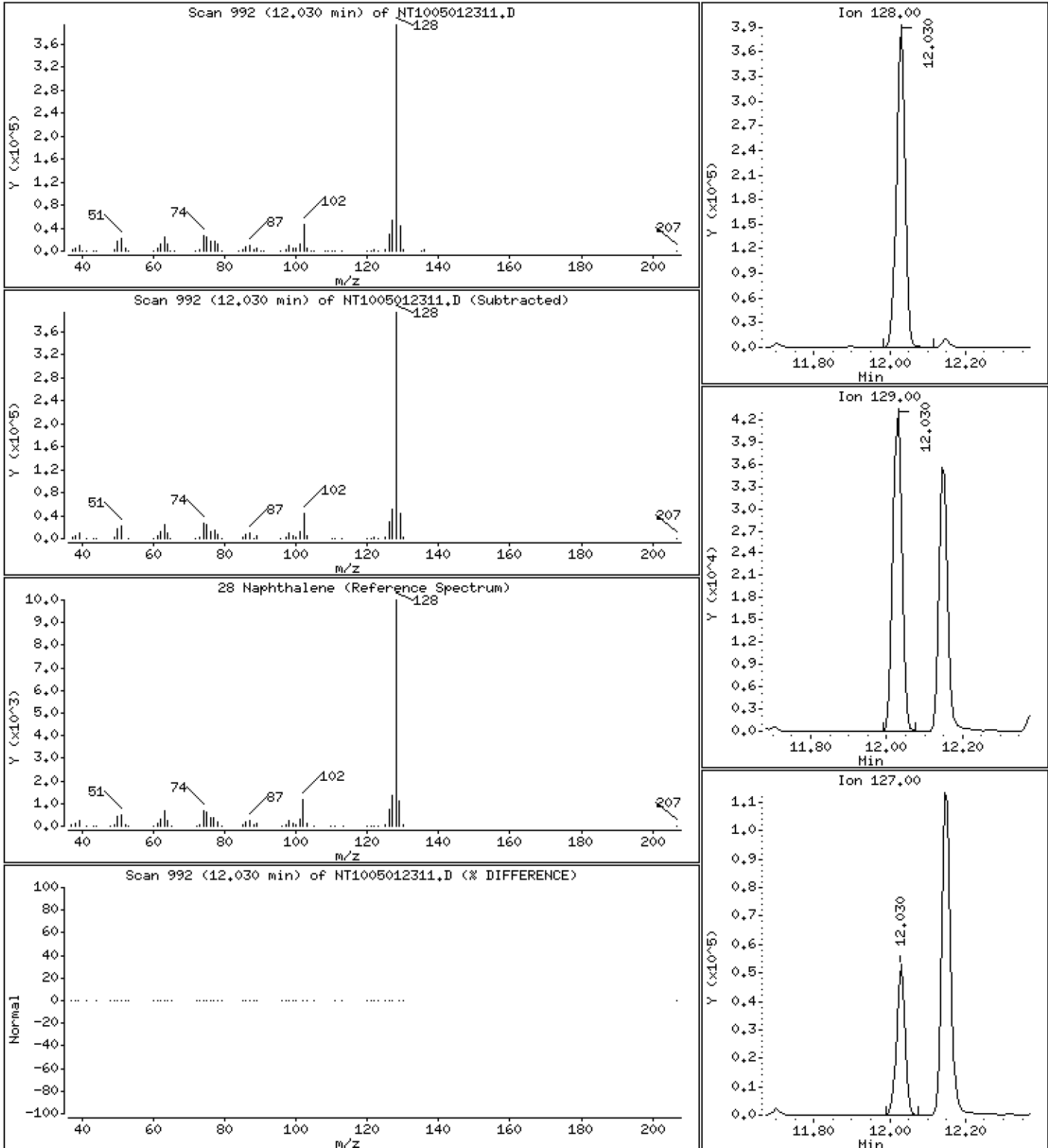
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,742 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

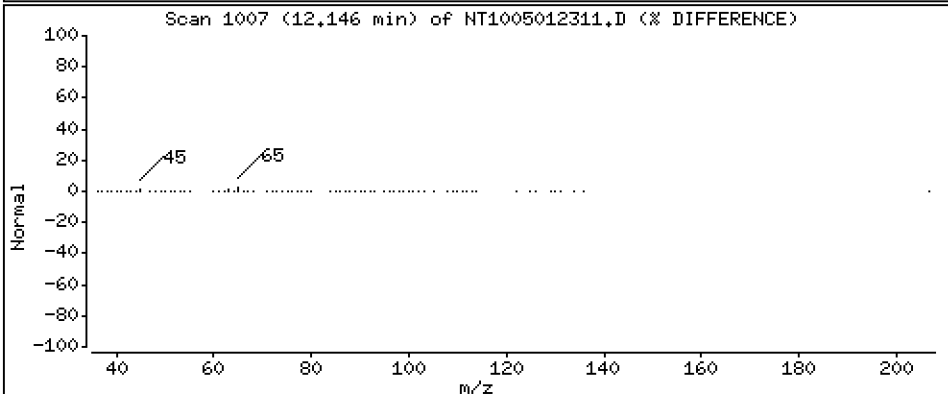
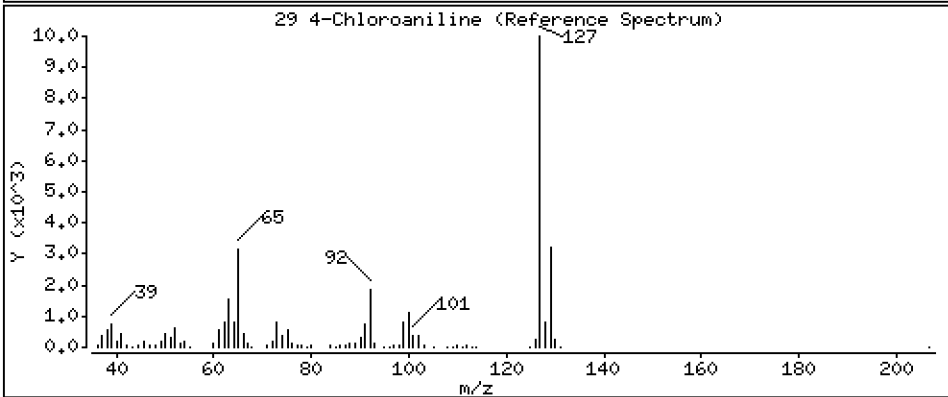
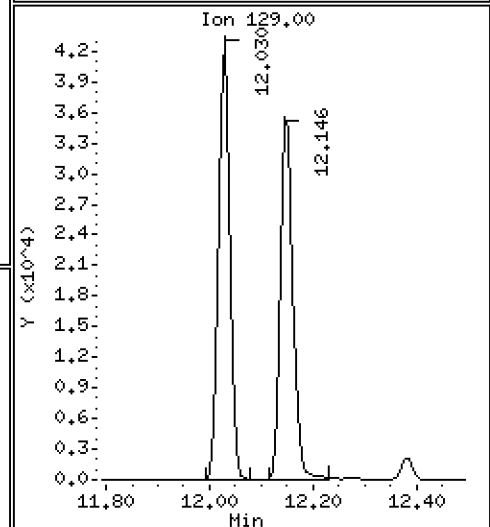
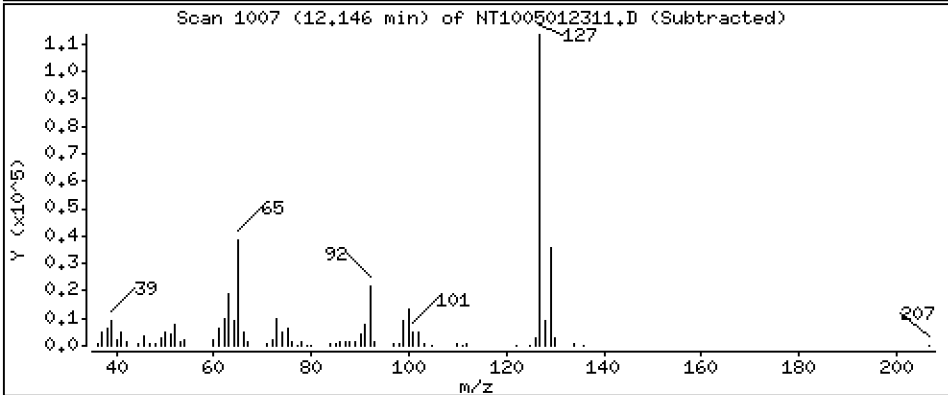
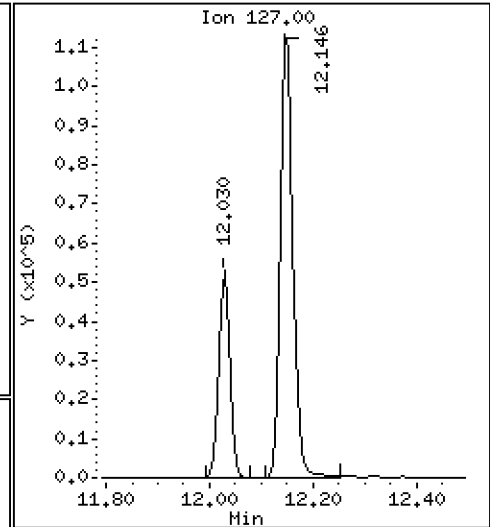
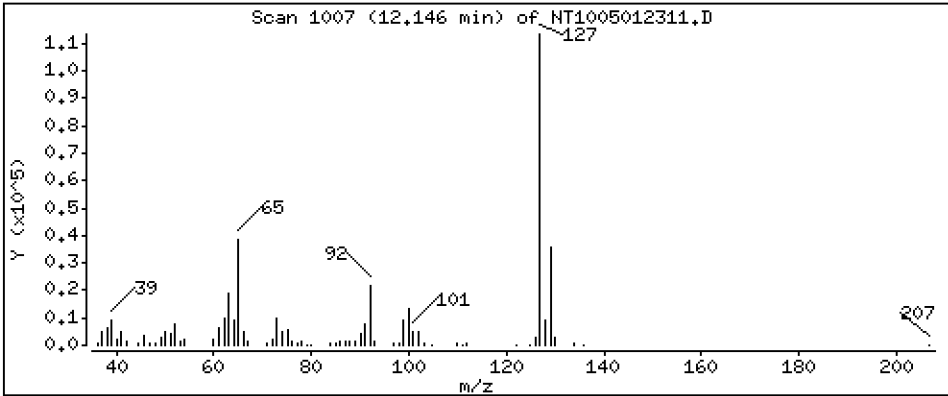
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,956 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

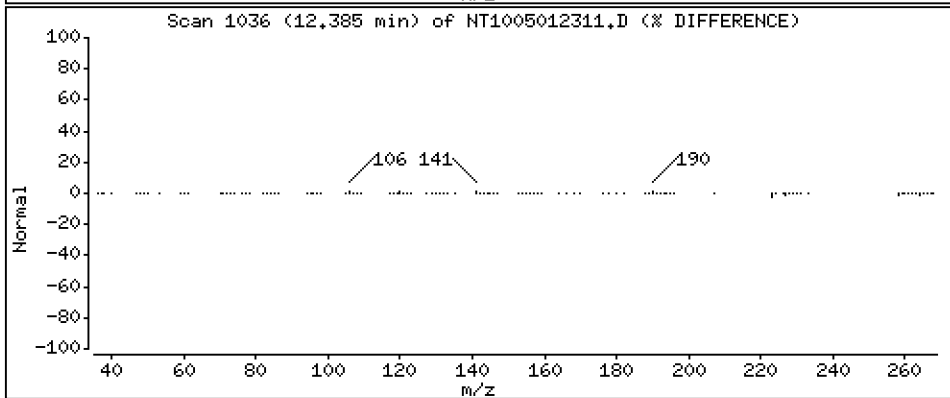
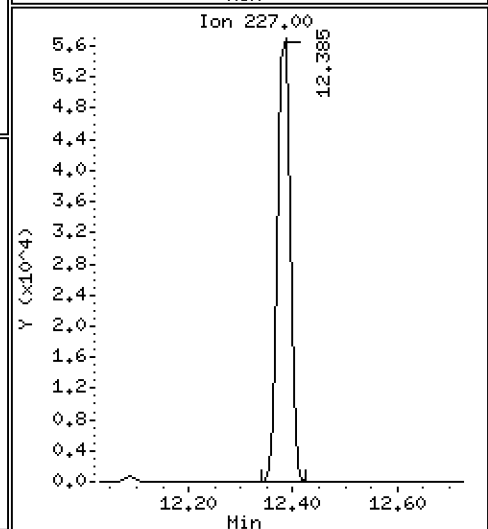
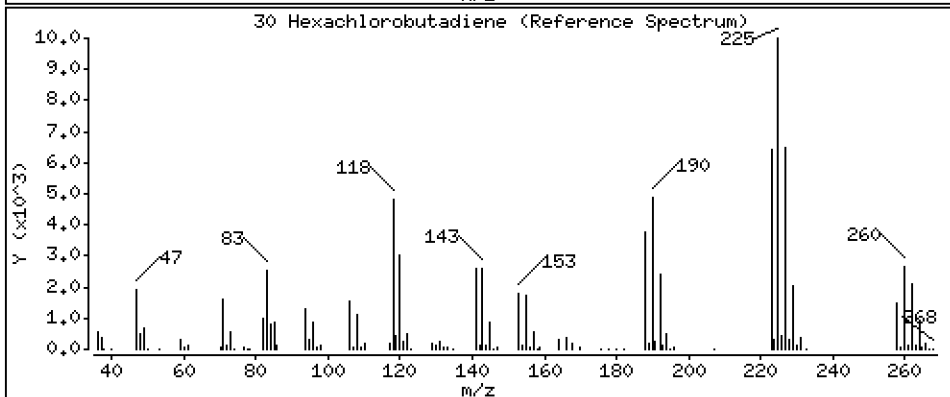
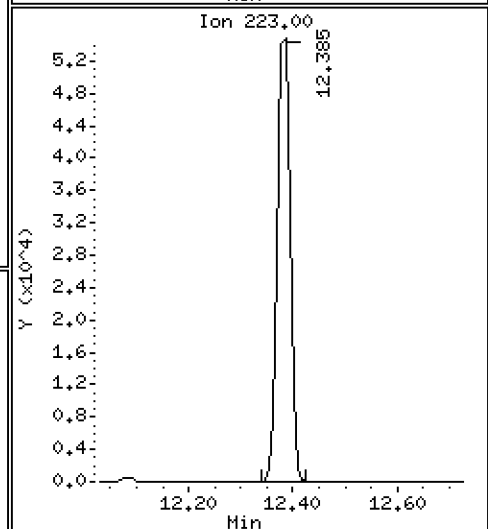
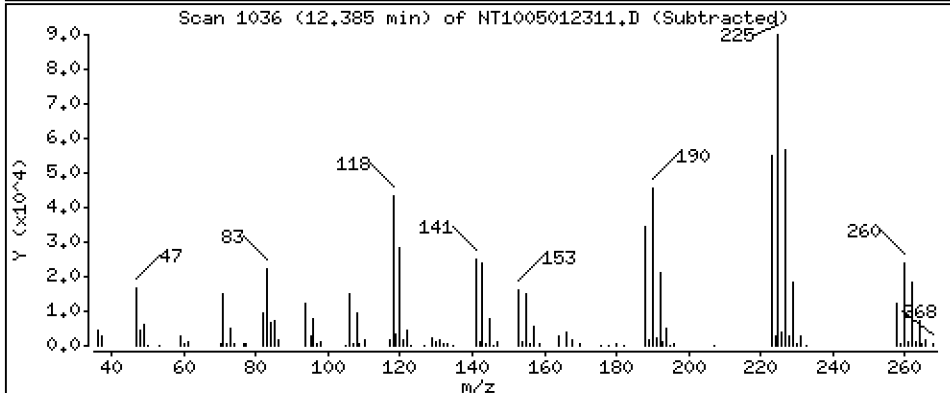
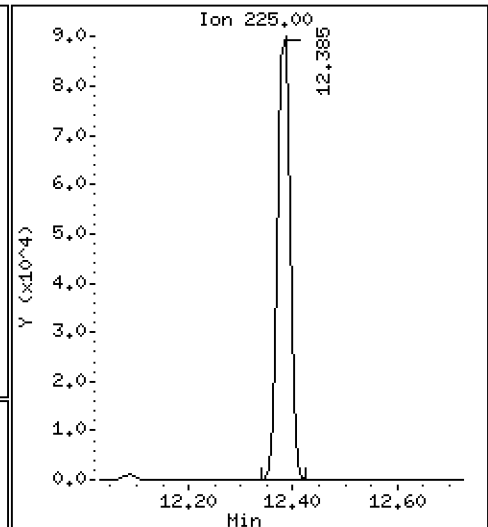
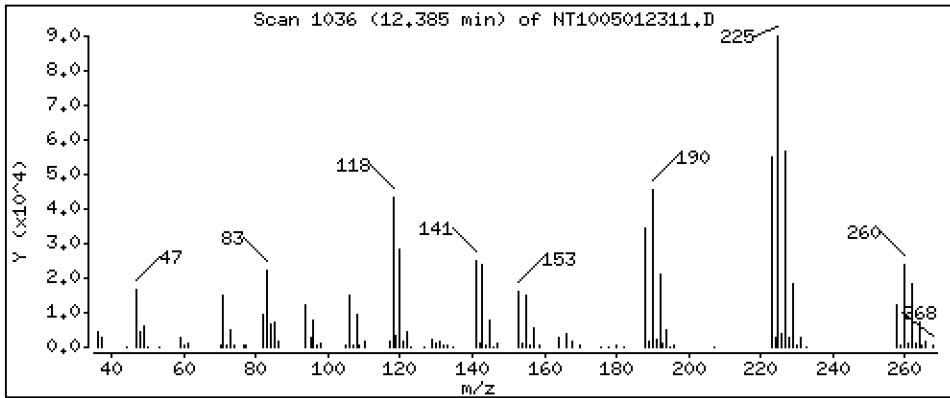
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,626 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

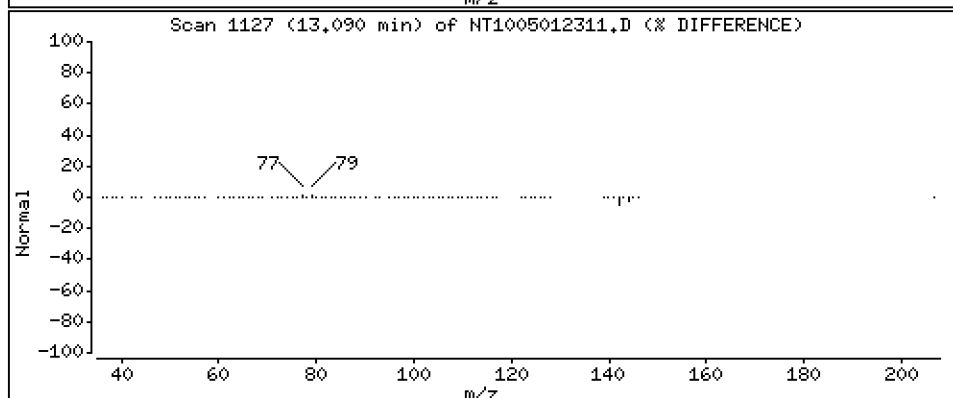
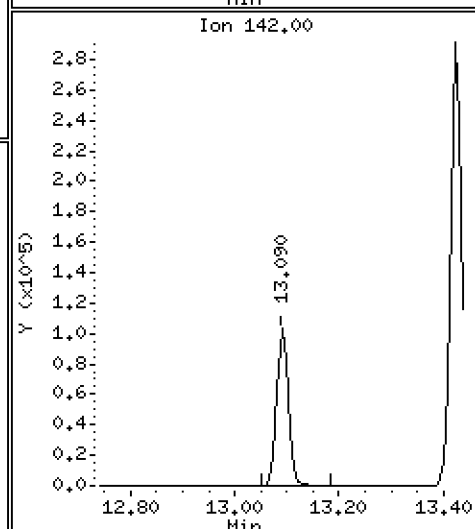
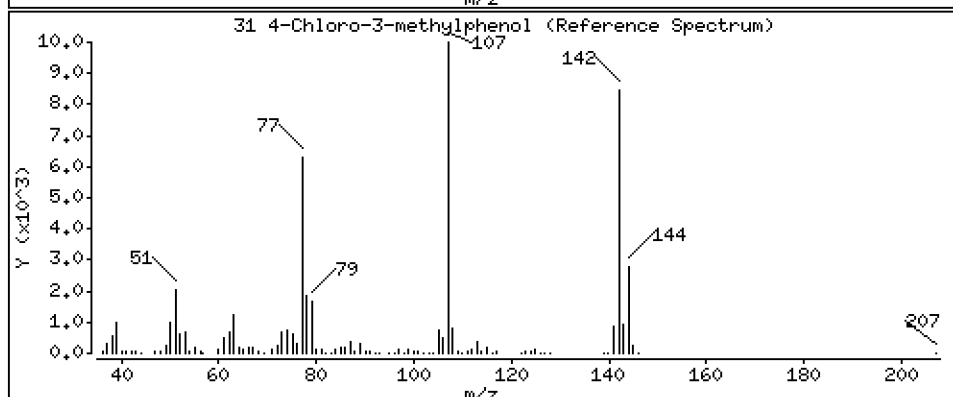
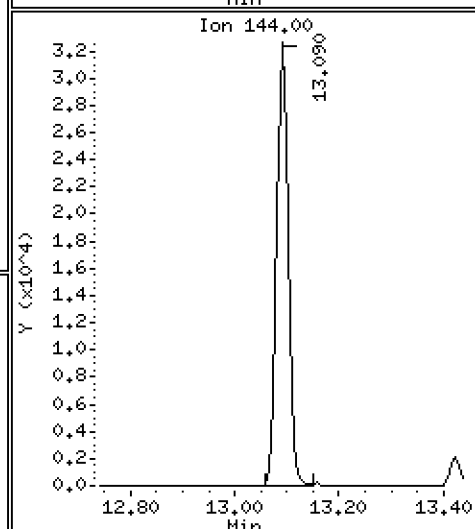
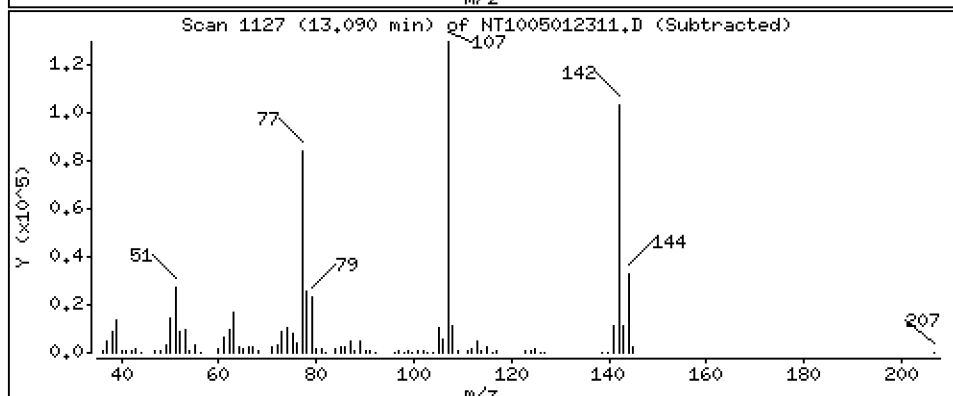
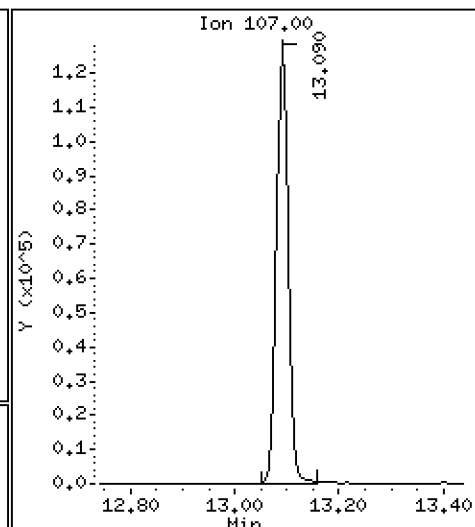
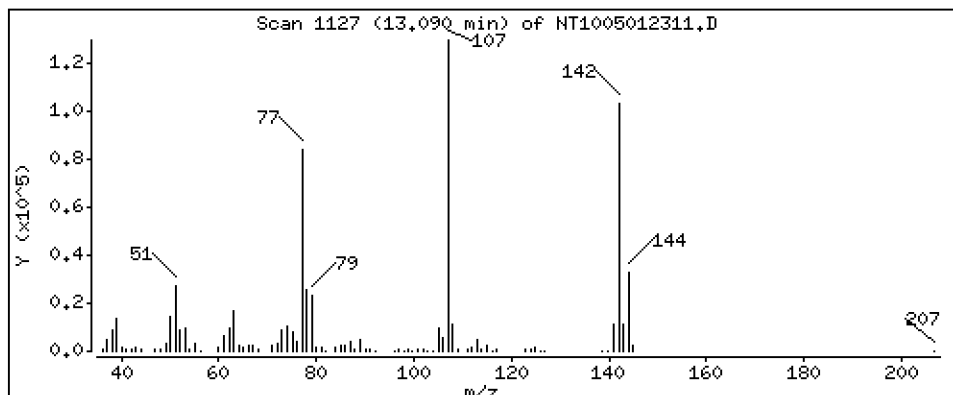
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,460 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

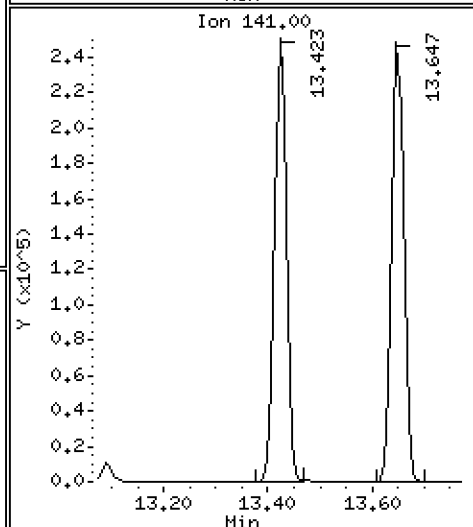
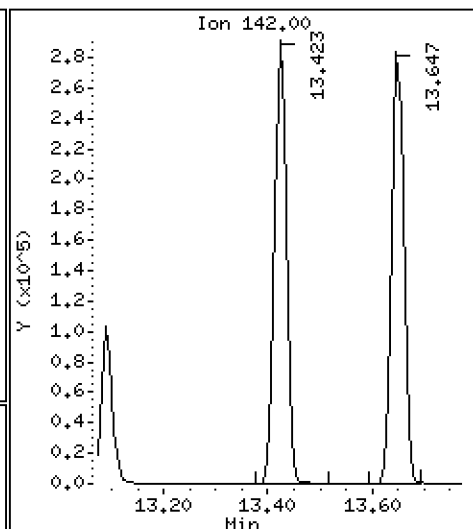
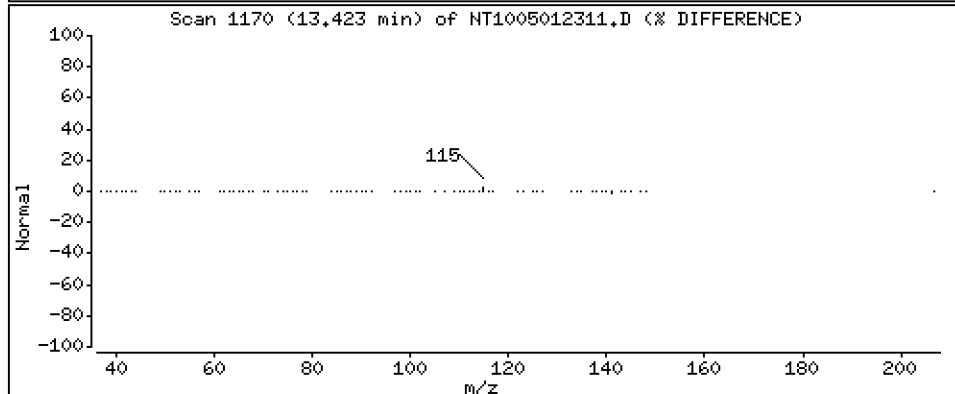
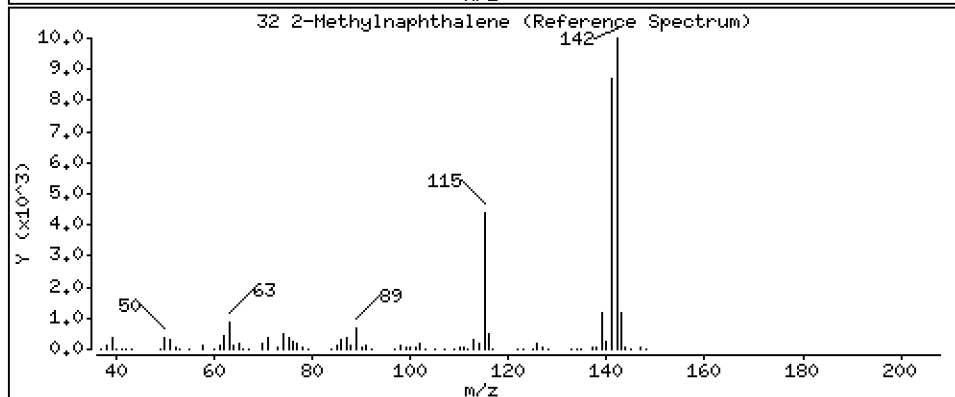
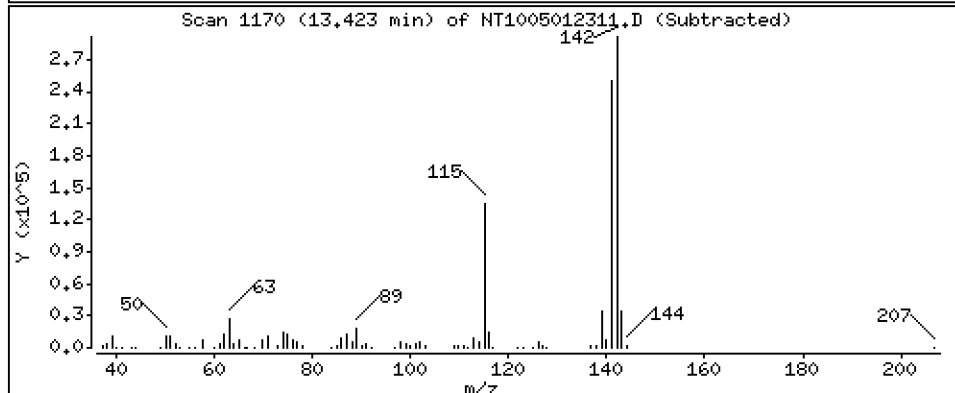
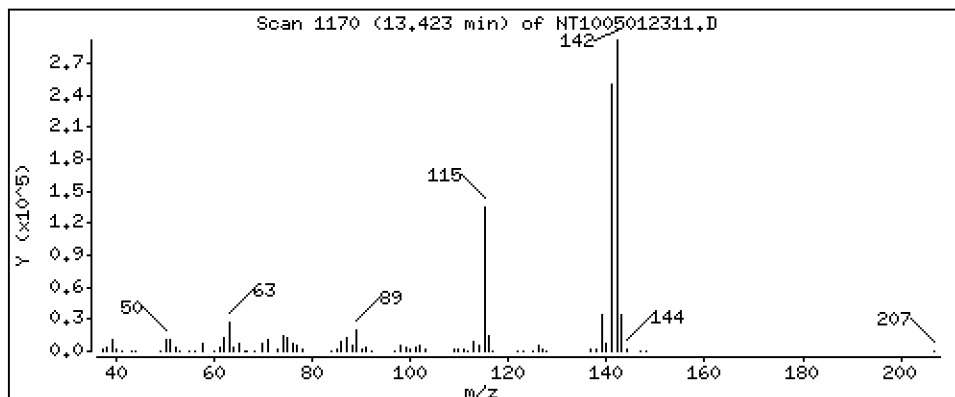
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,513 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

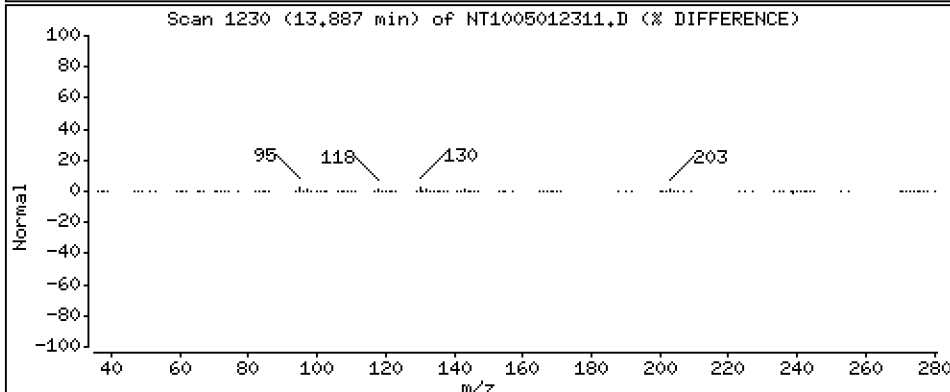
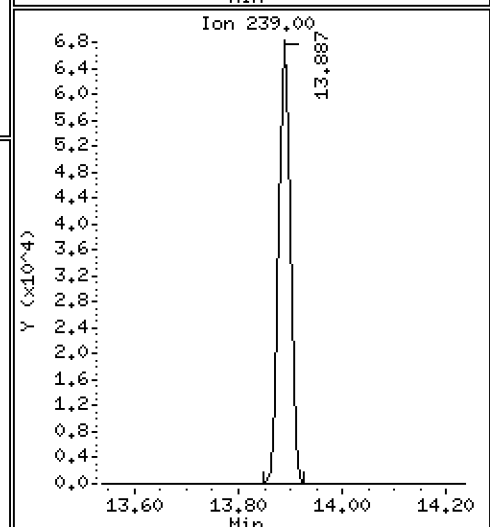
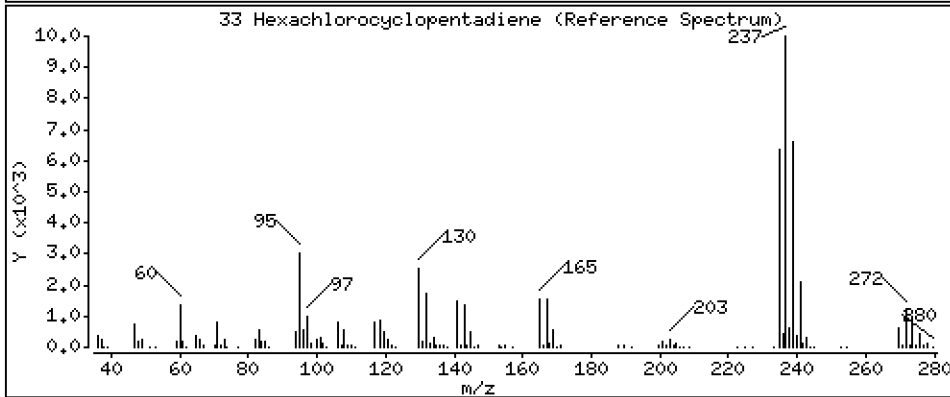
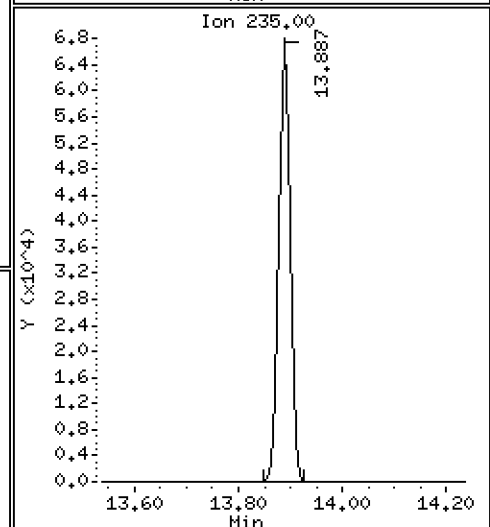
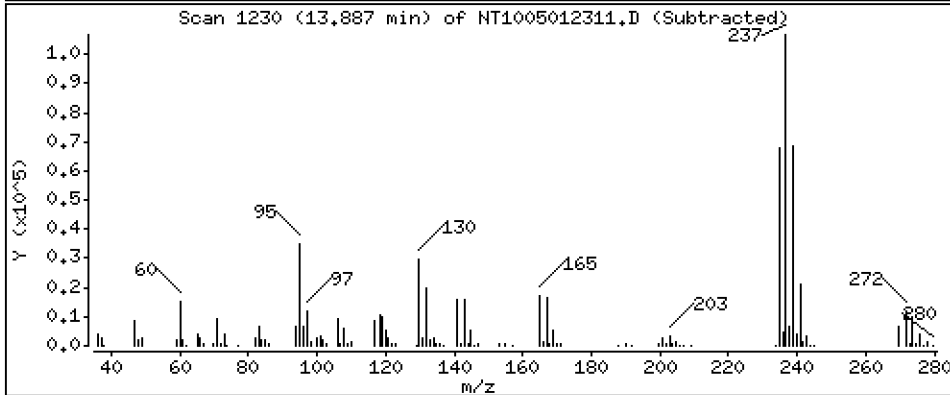
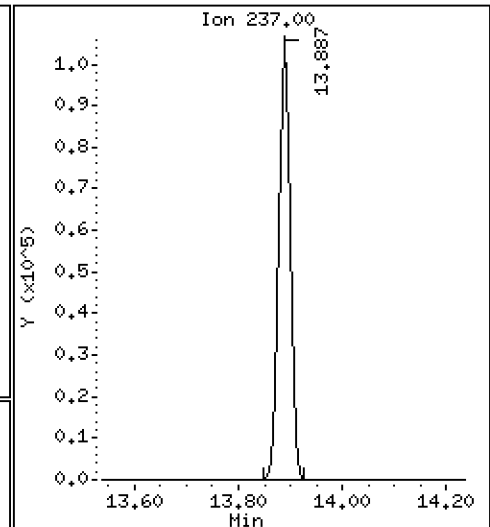
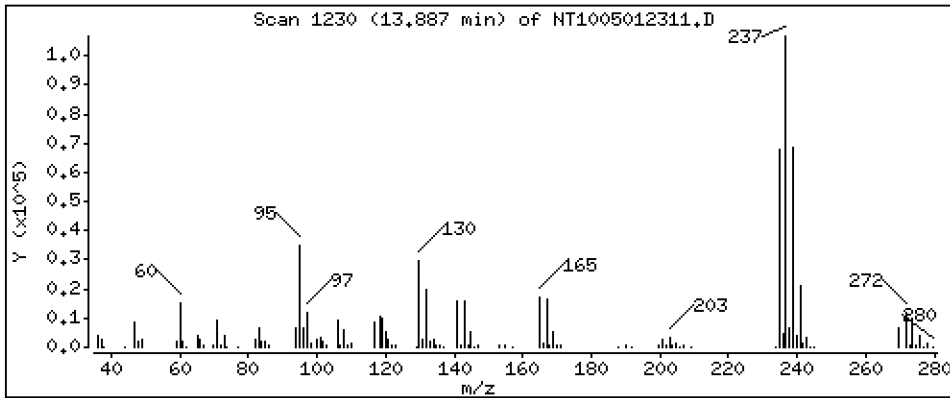
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,673 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

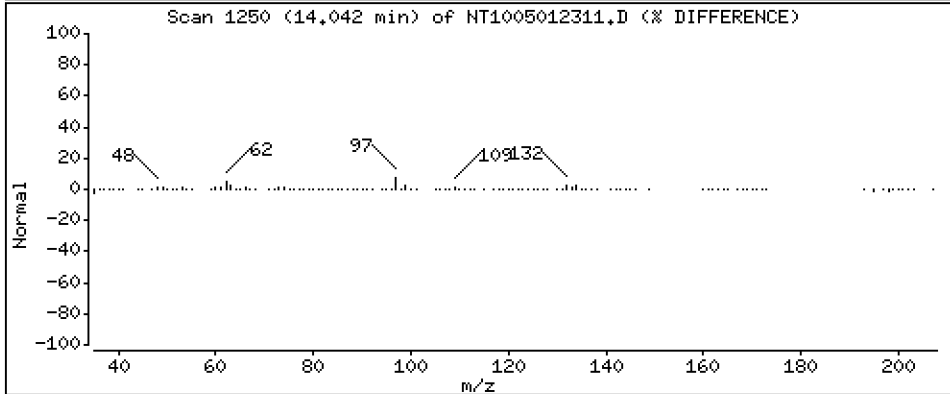
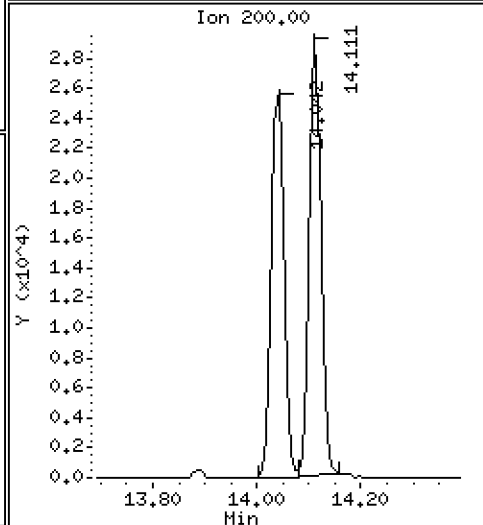
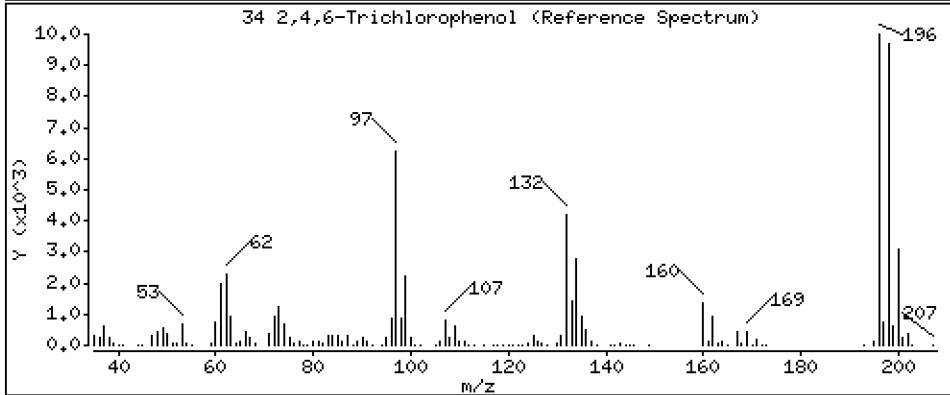
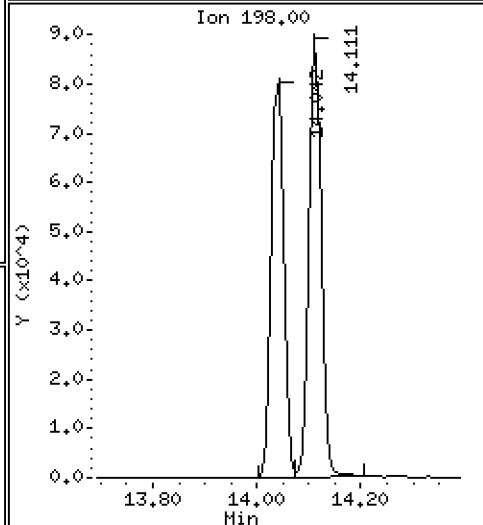
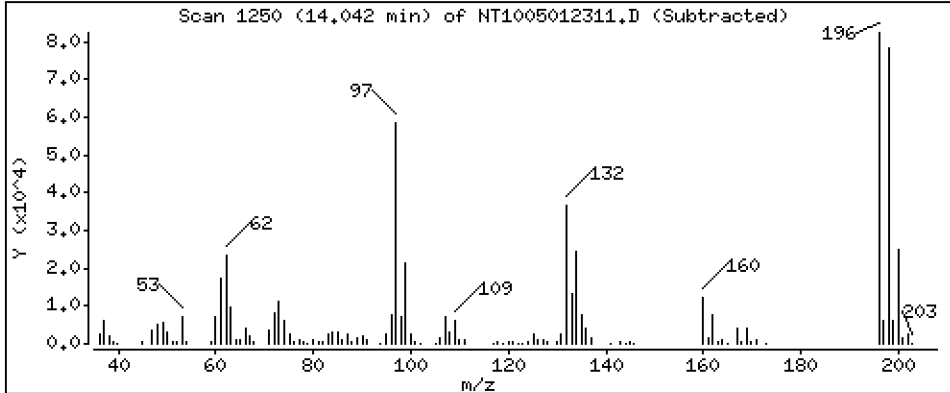
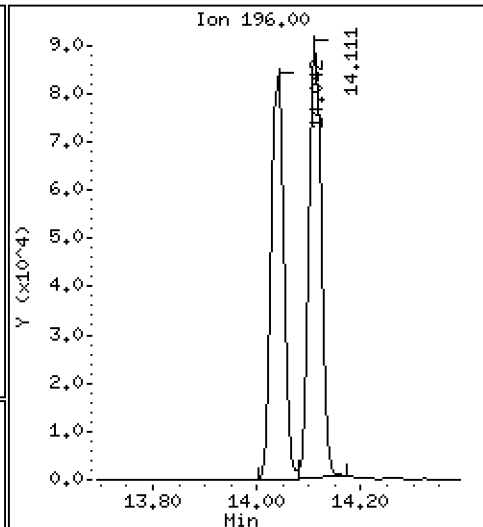
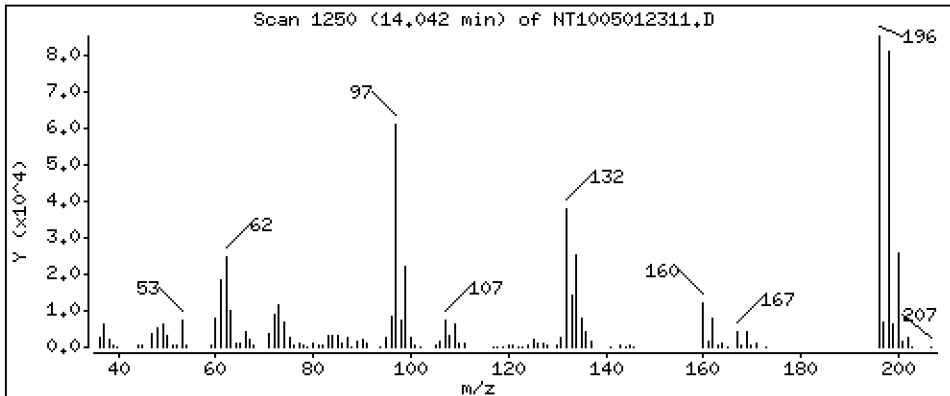
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,212 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

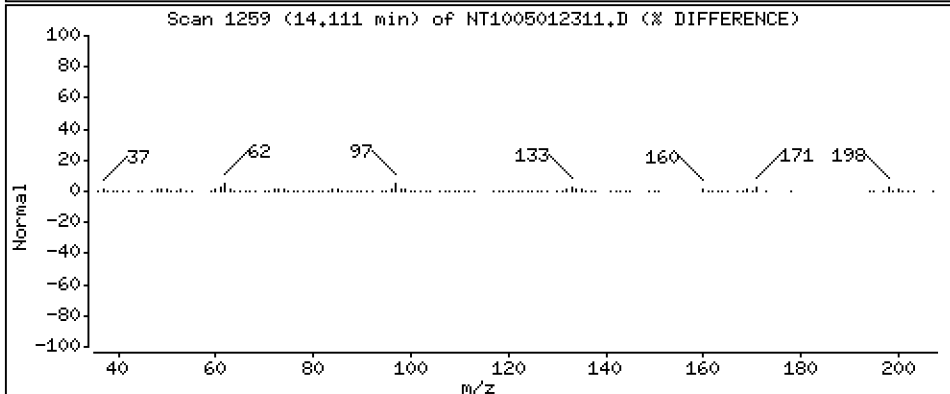
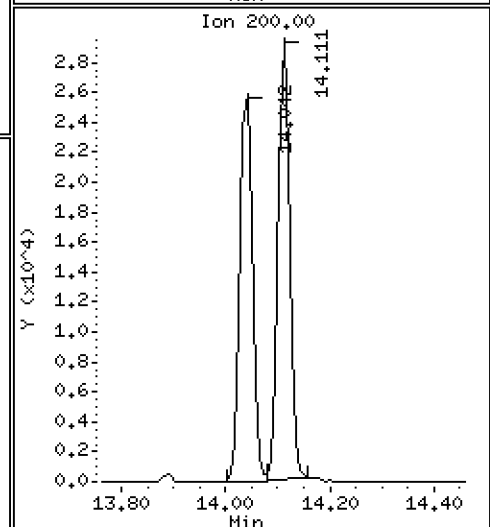
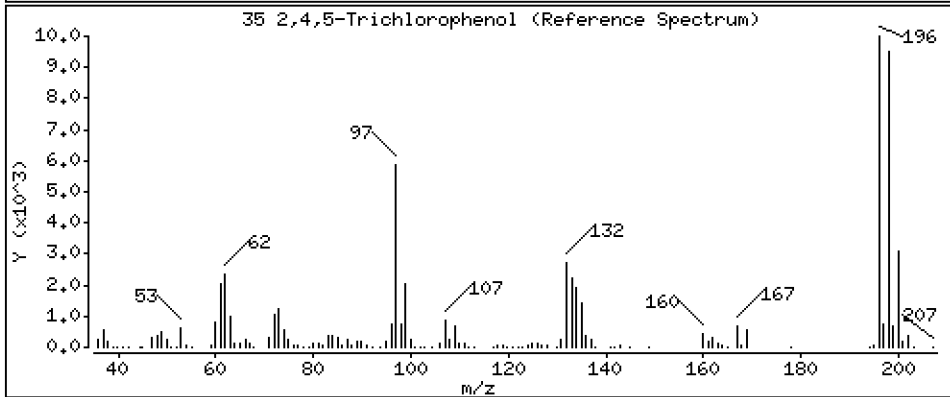
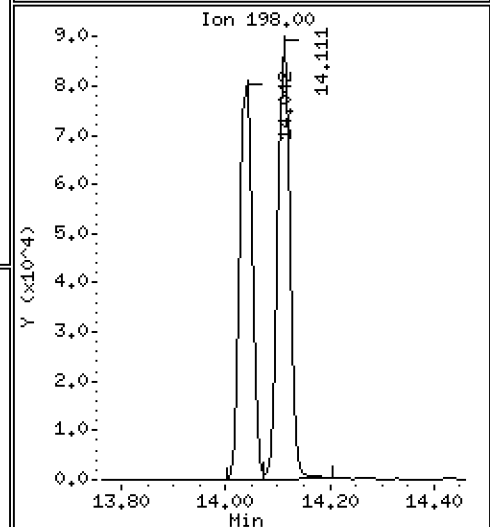
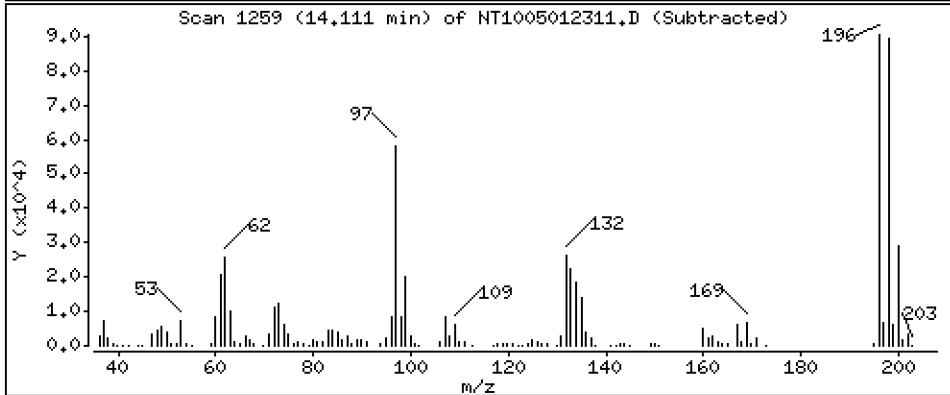
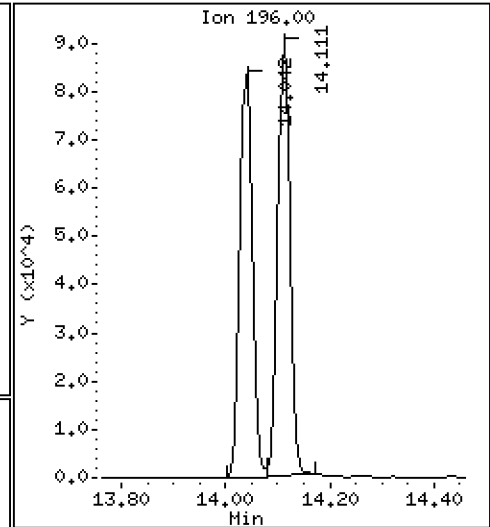
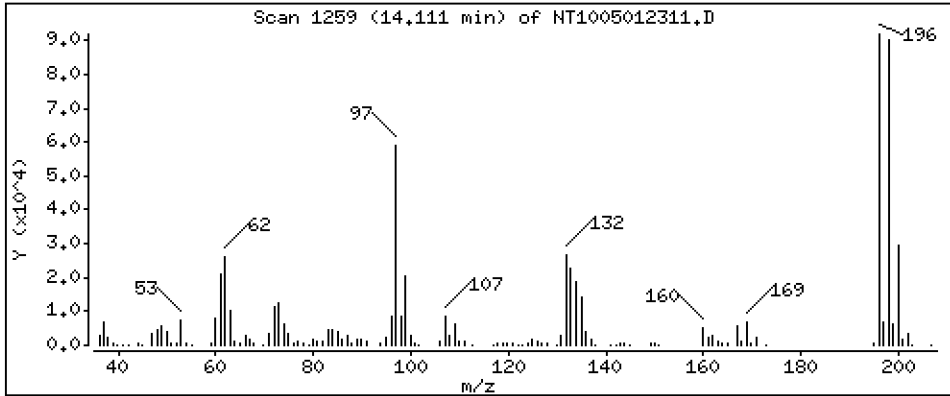
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,029 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

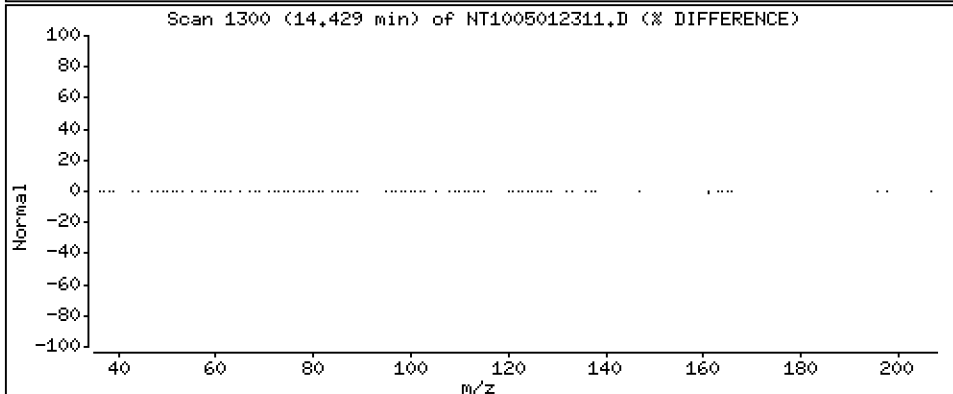
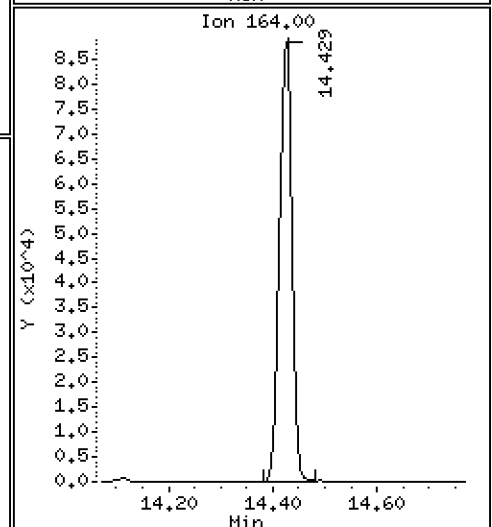
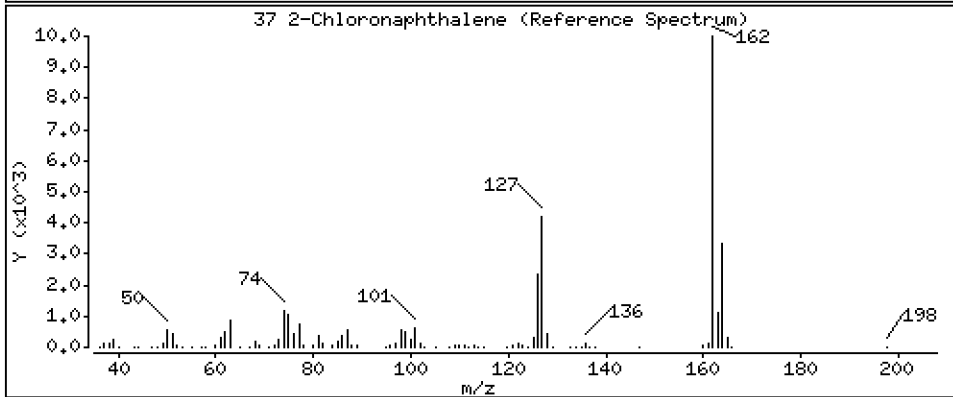
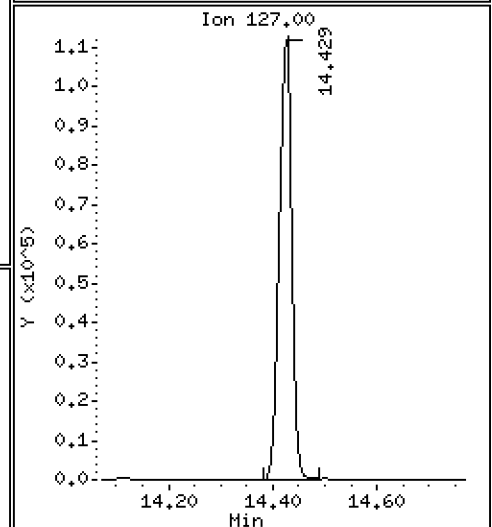
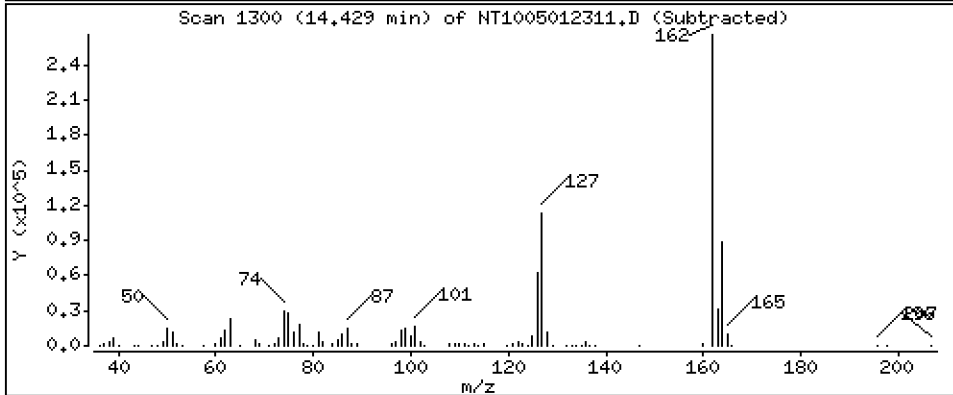
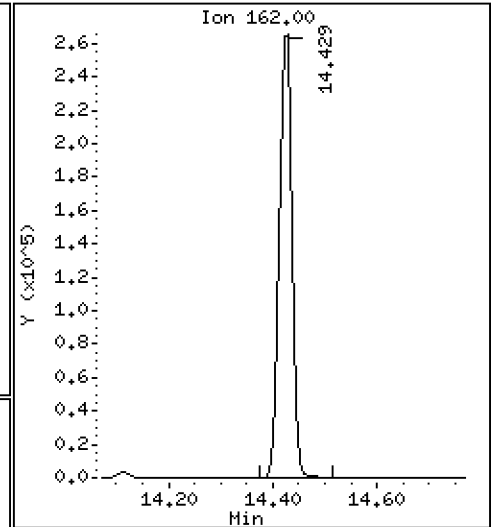
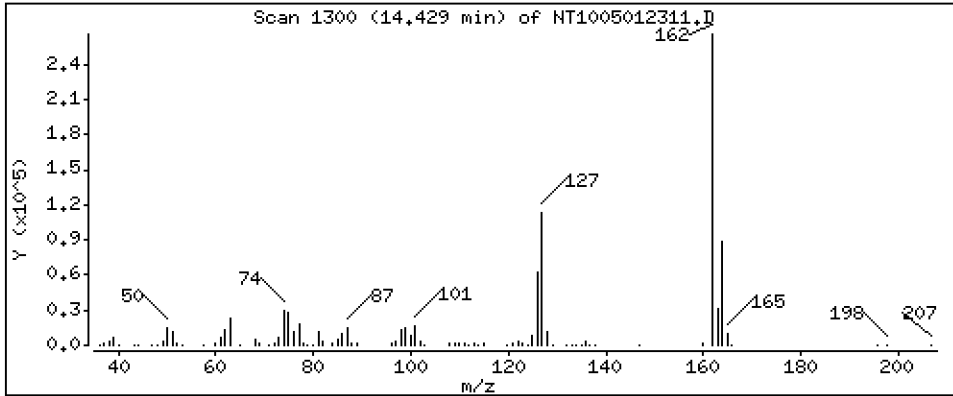
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.830 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

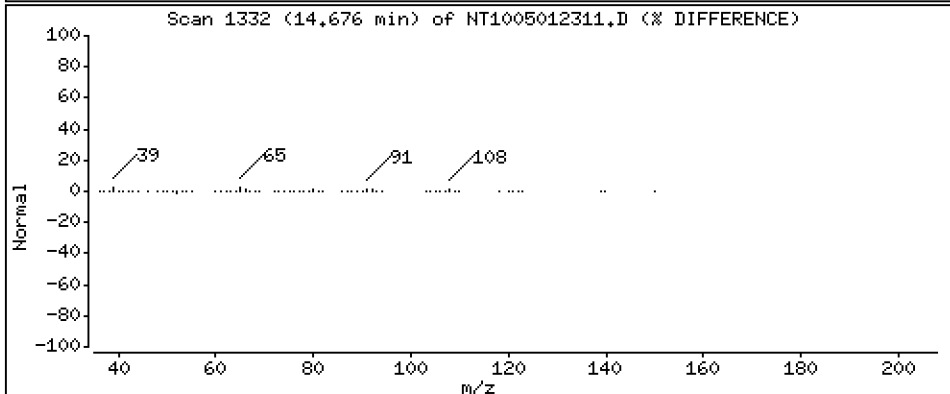
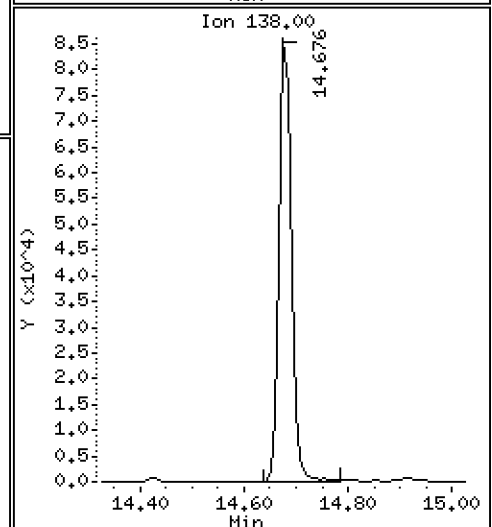
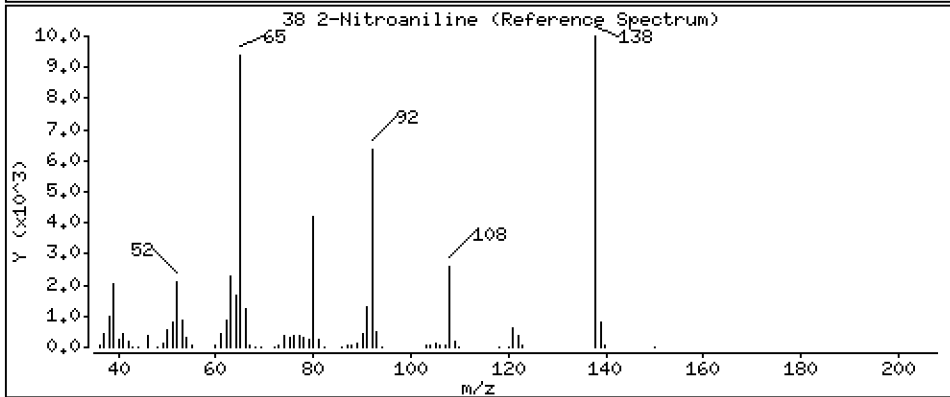
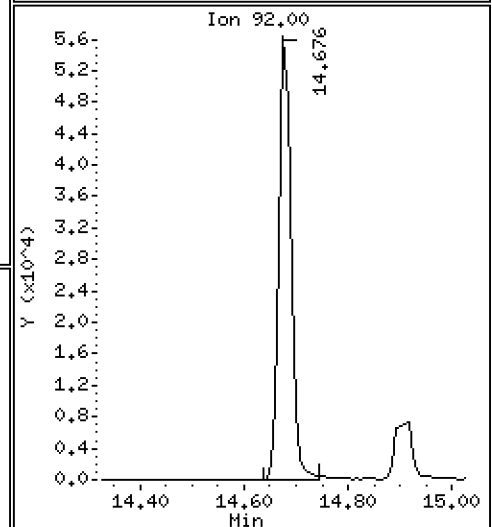
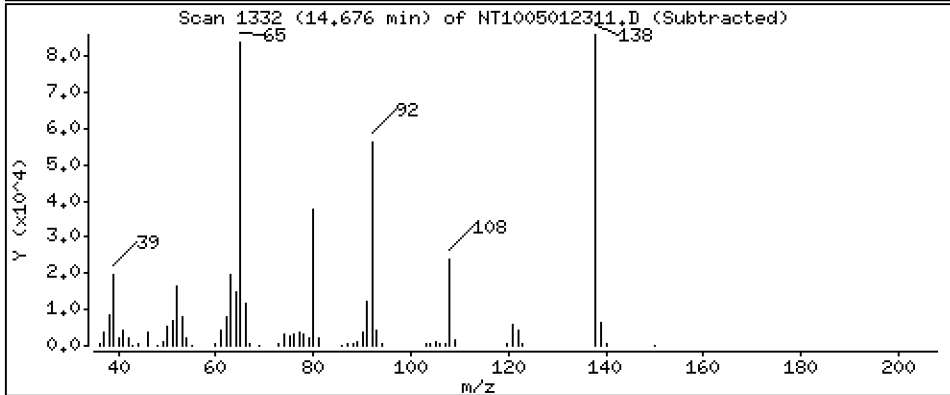
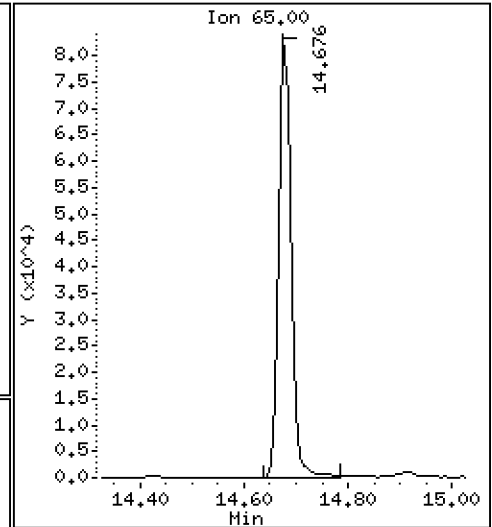
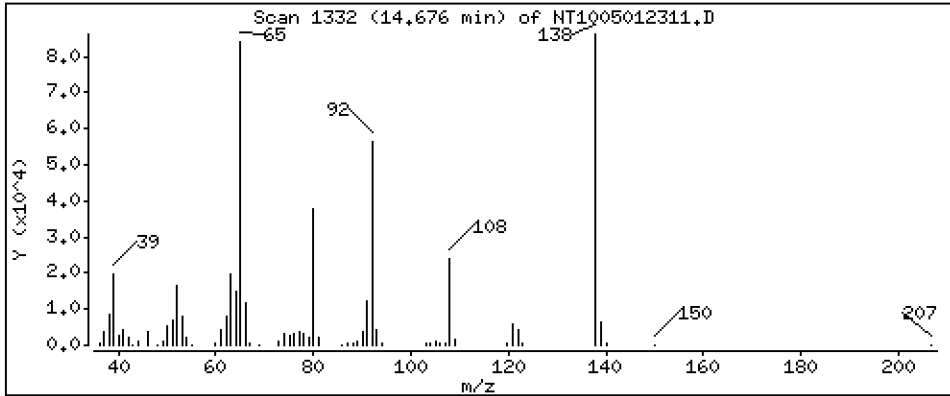
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 5,029 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

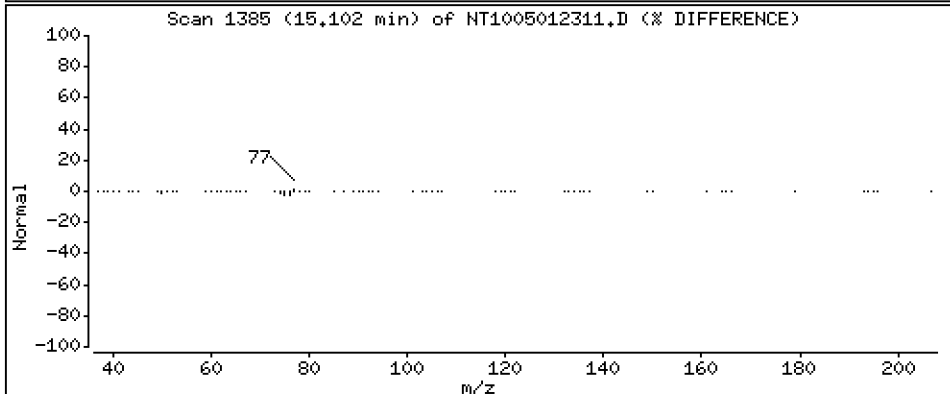
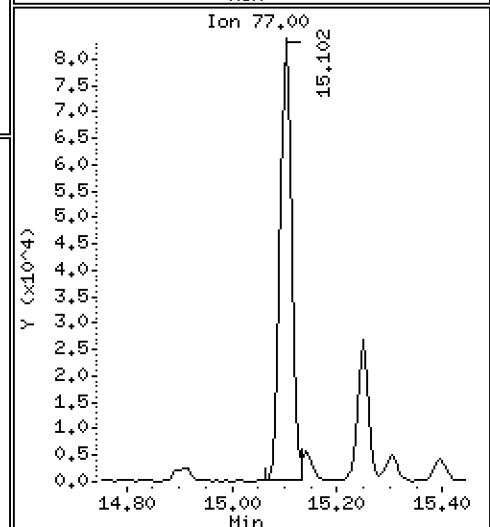
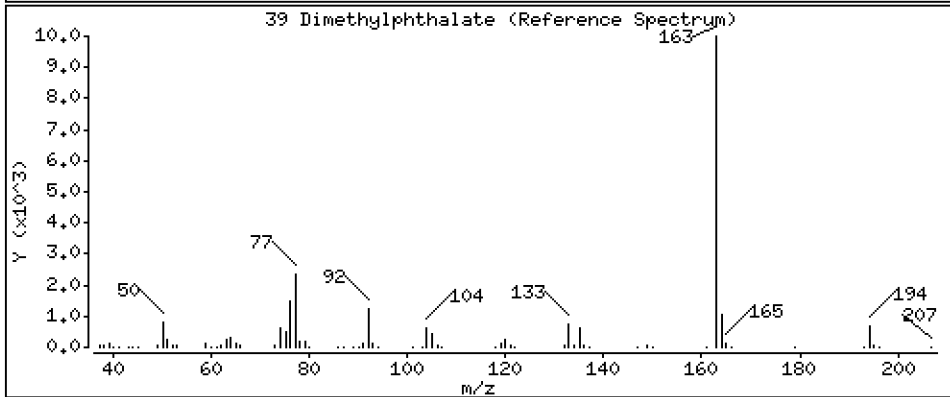
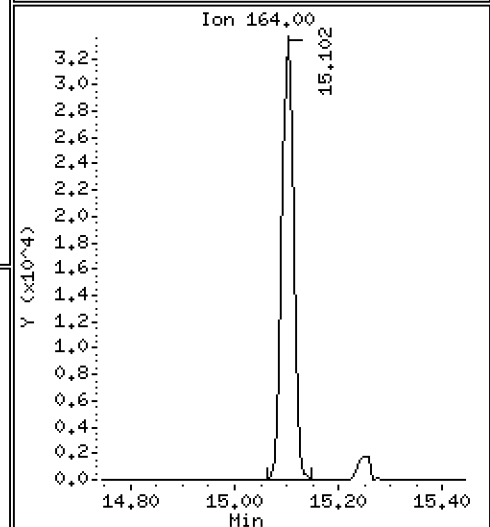
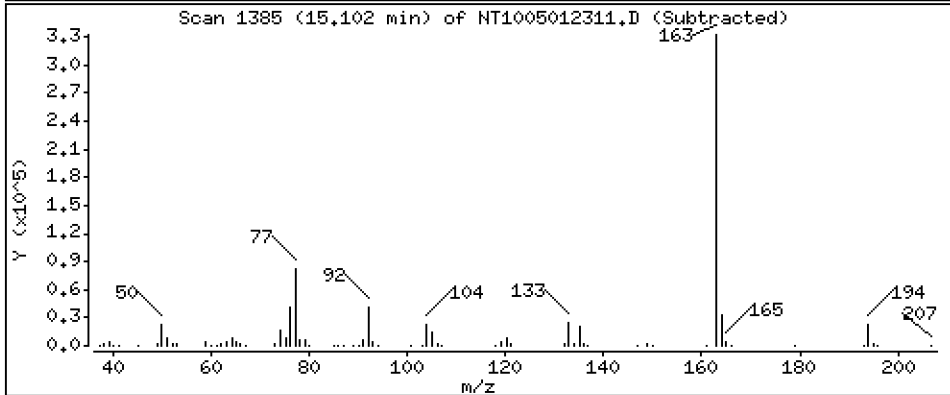
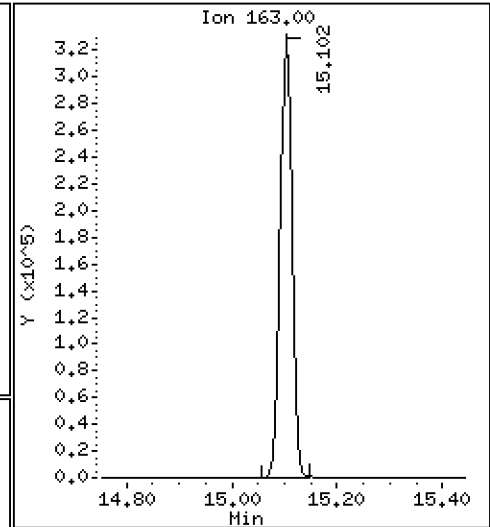
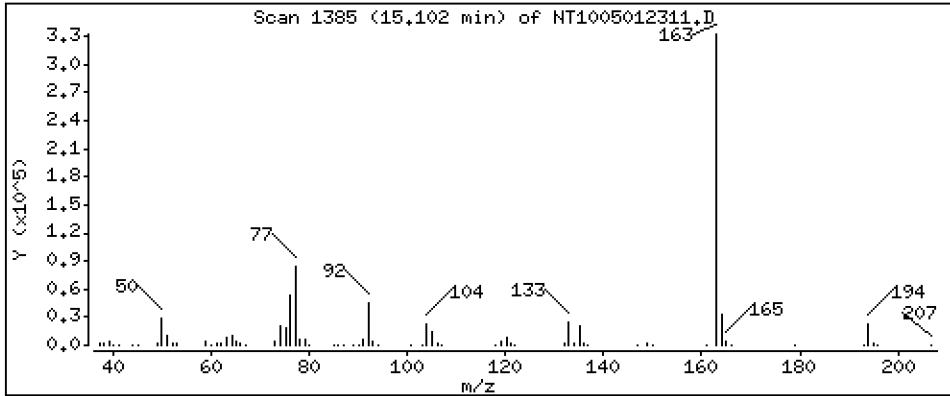
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,908 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

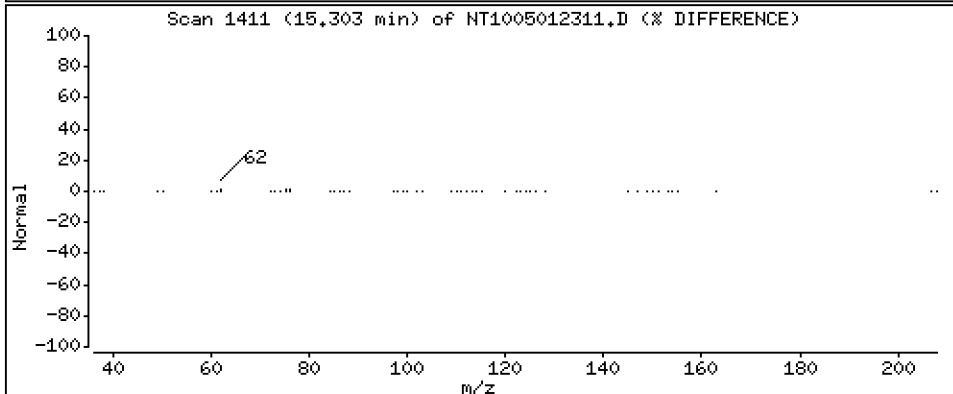
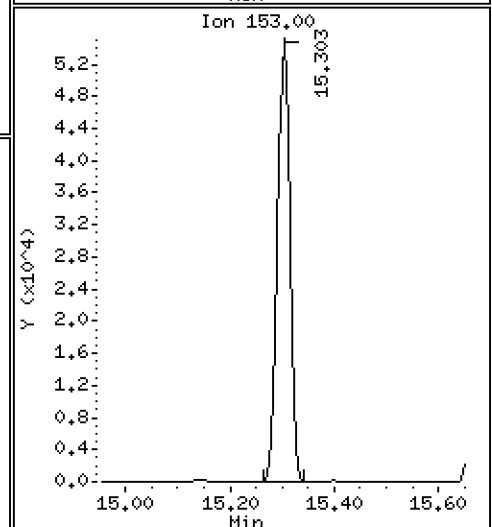
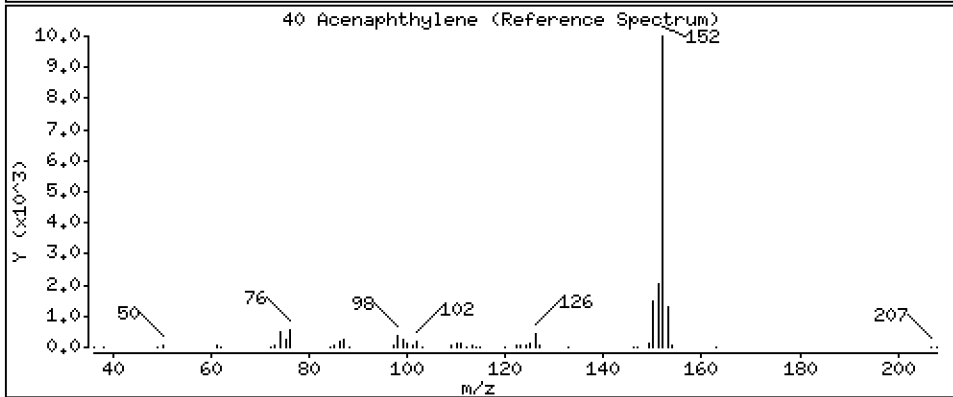
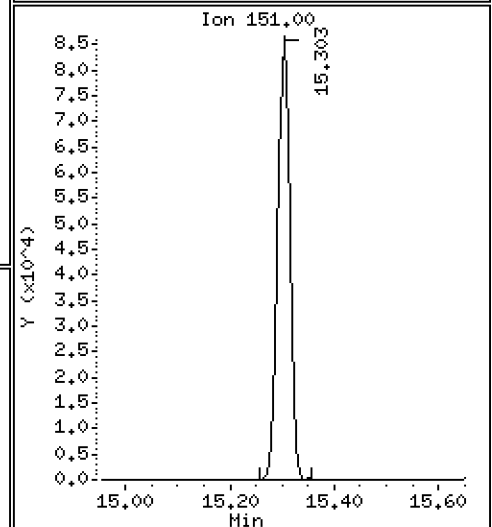
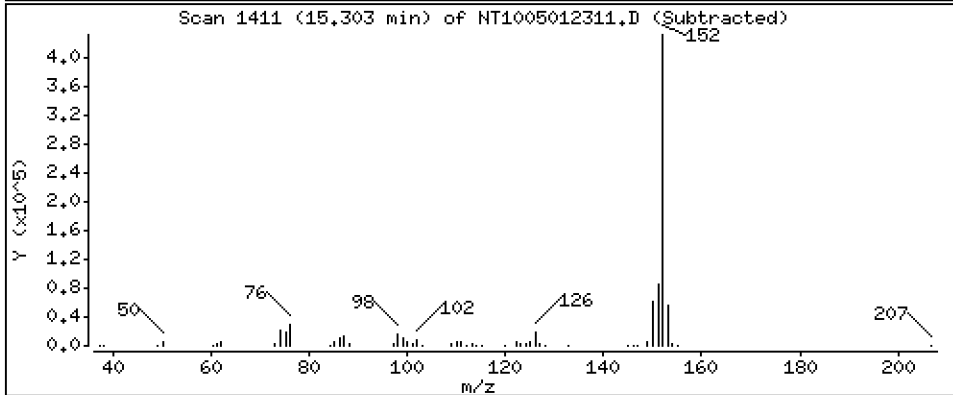
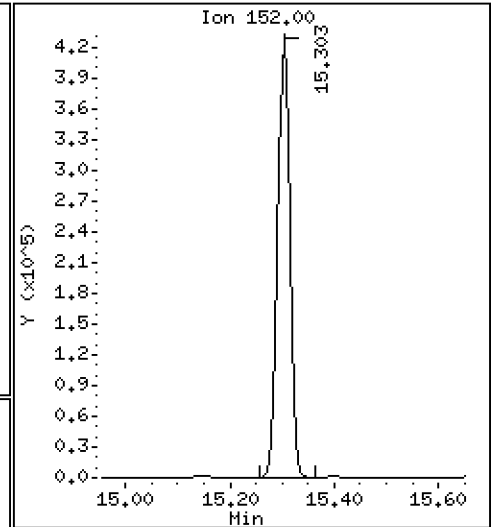
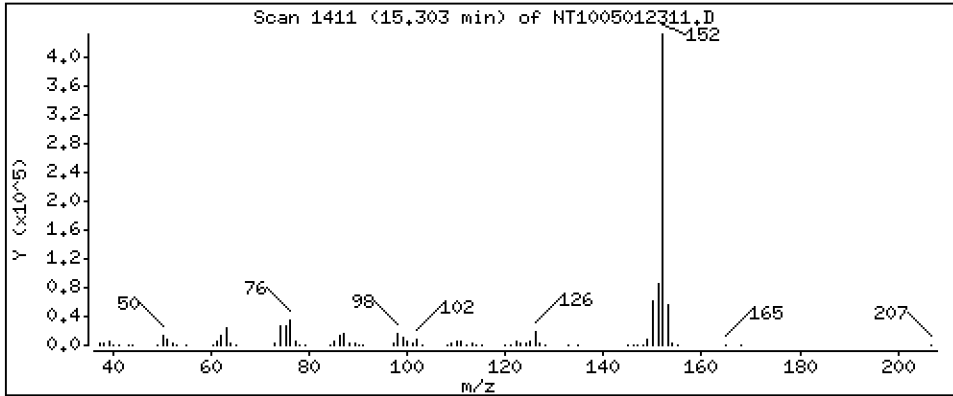
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,776 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

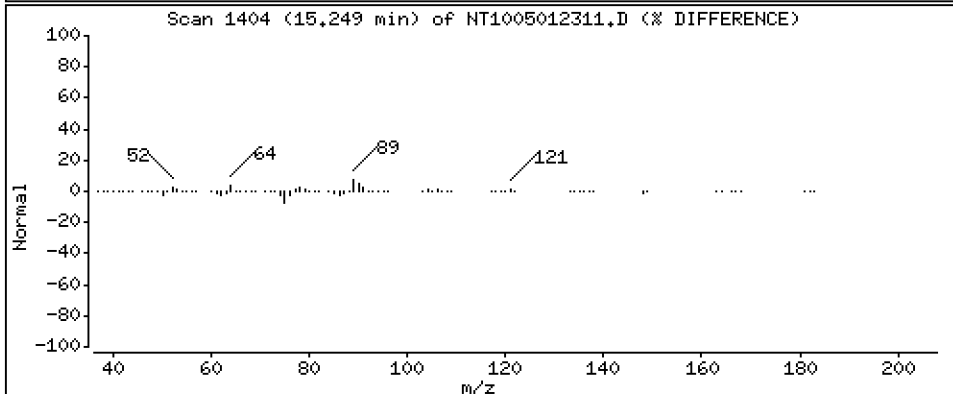
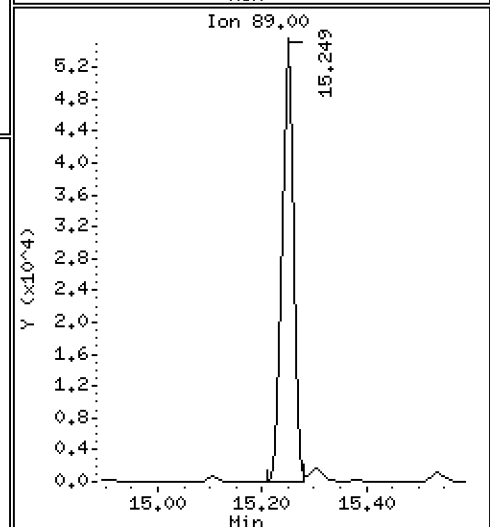
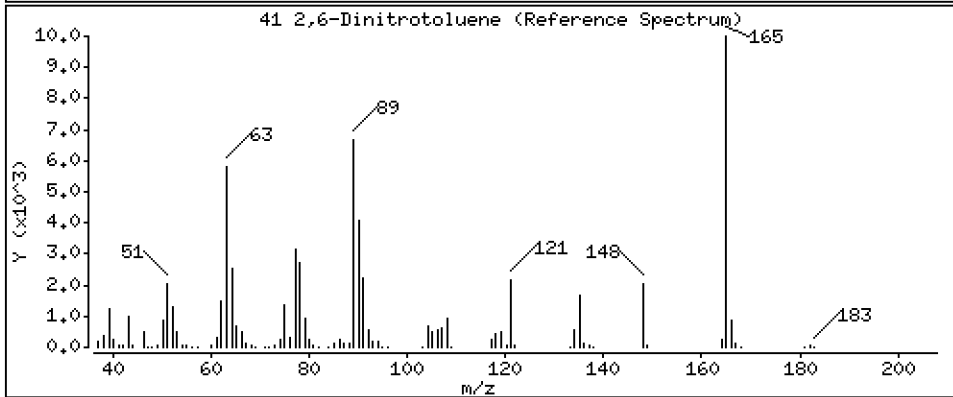
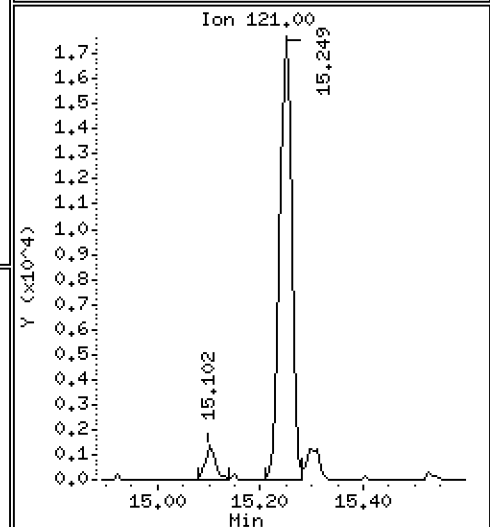
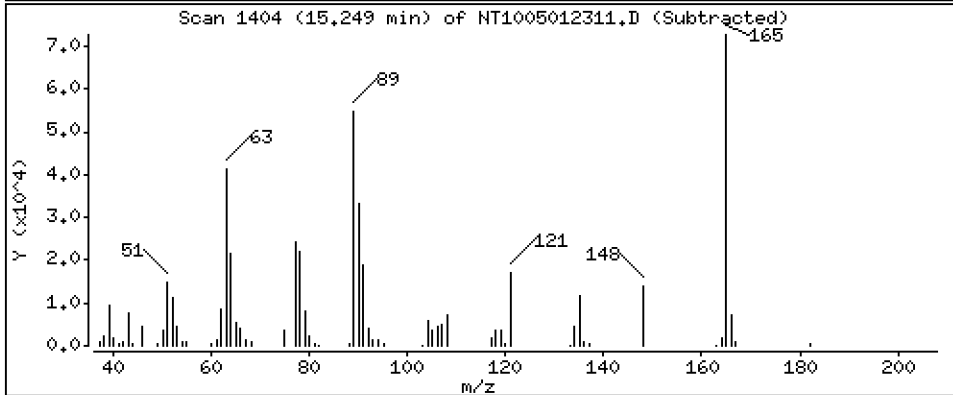
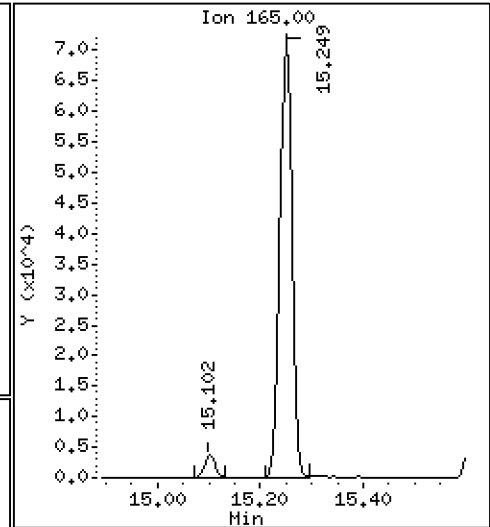
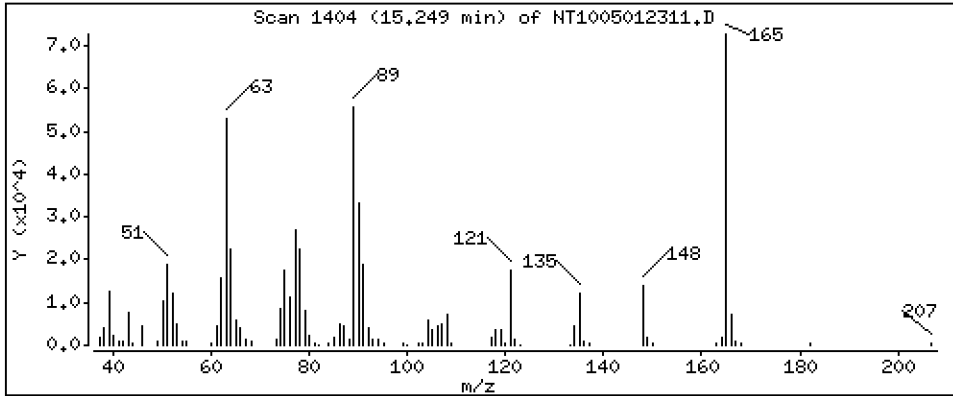
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 4,876 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

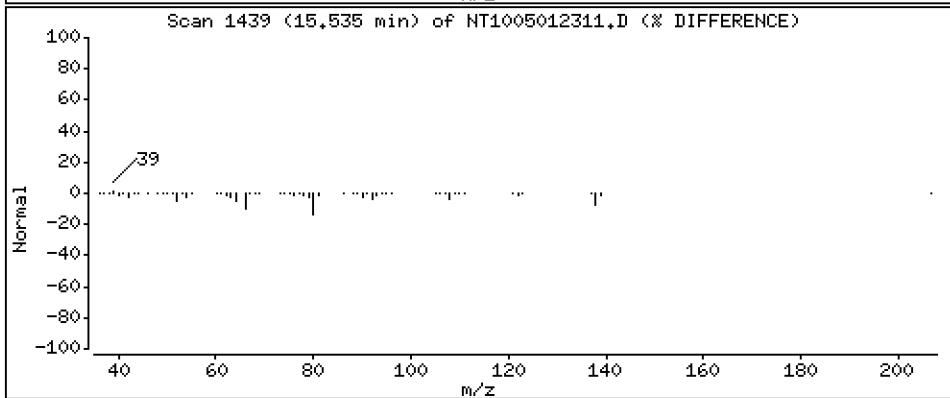
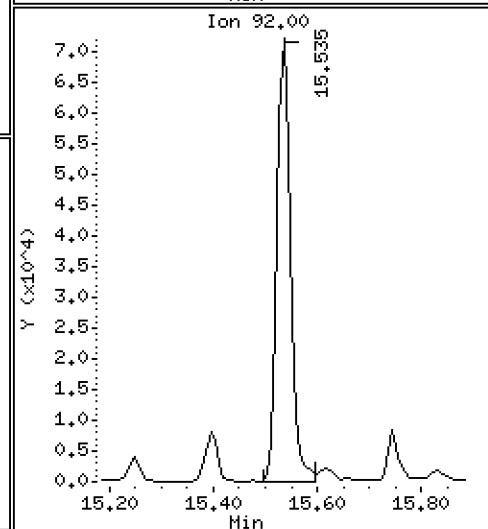
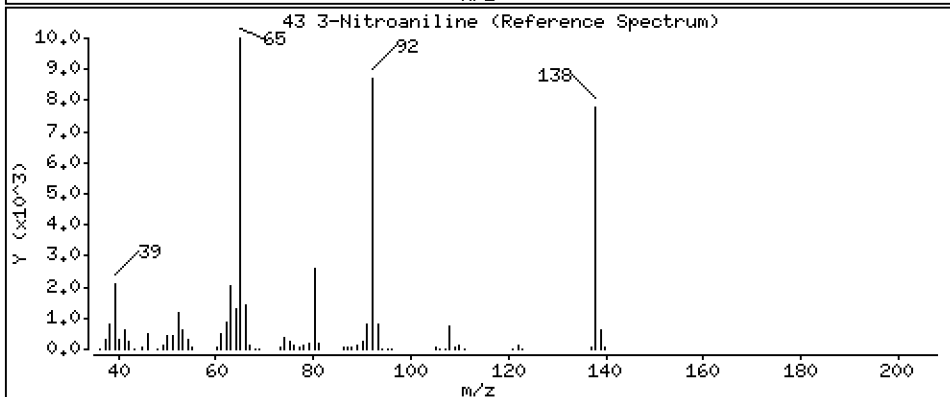
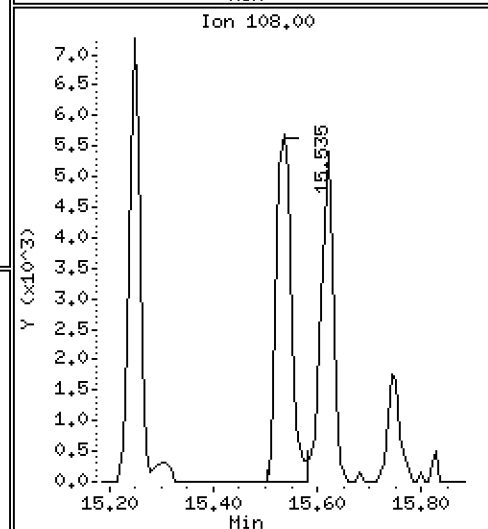
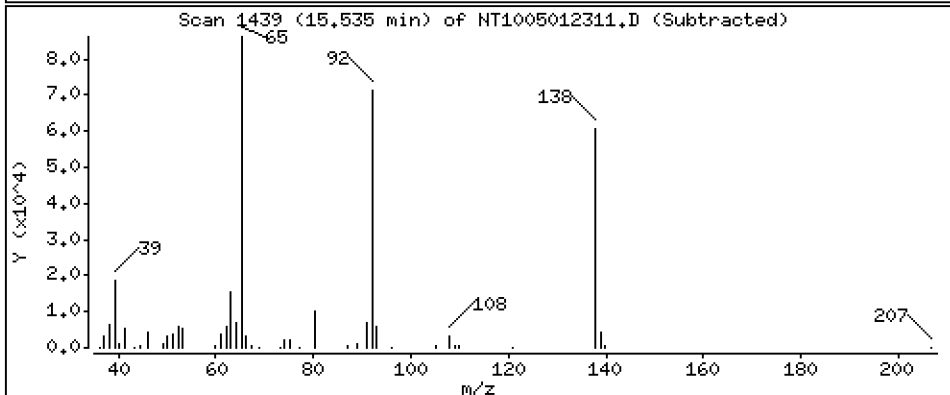
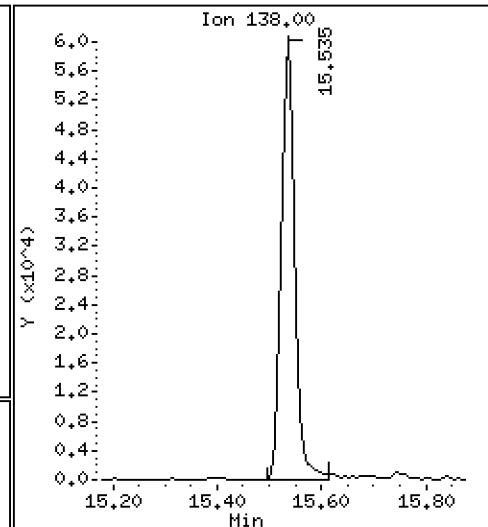
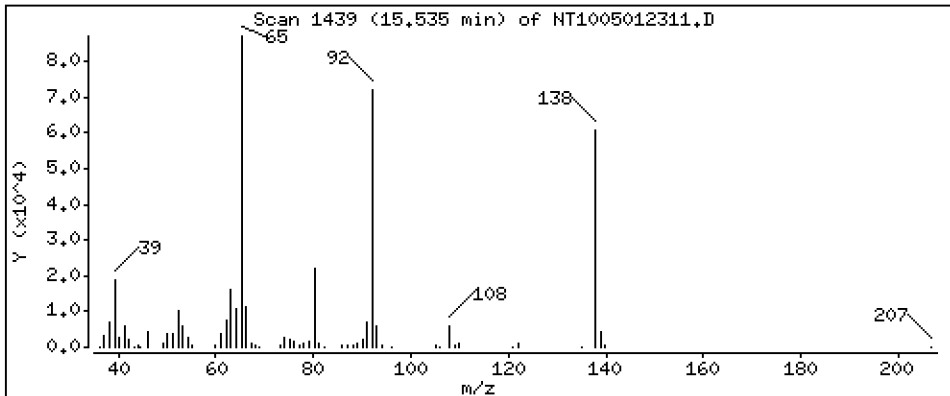
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,776 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

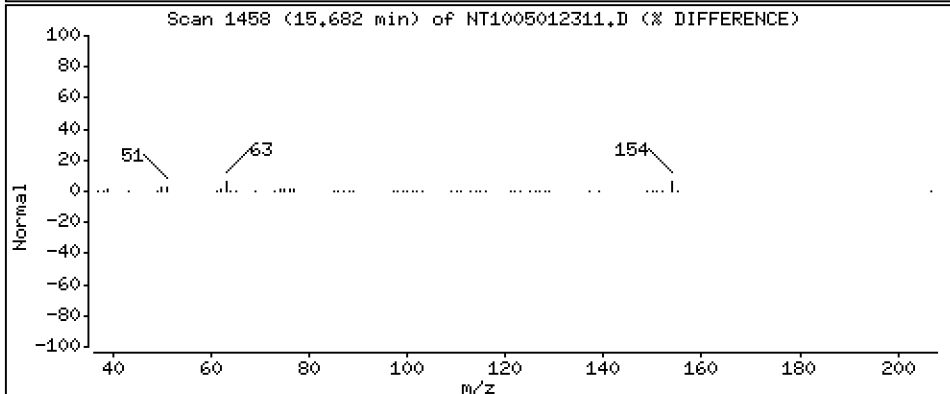
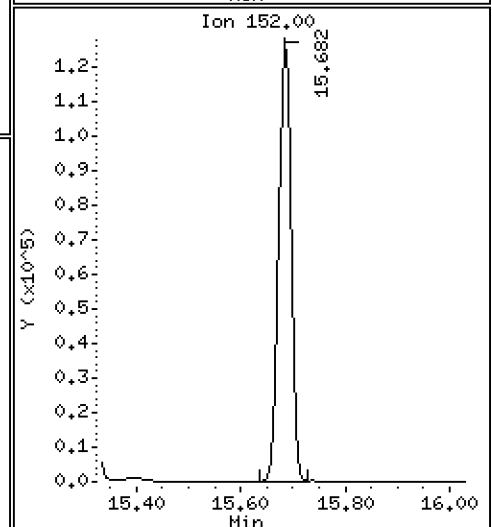
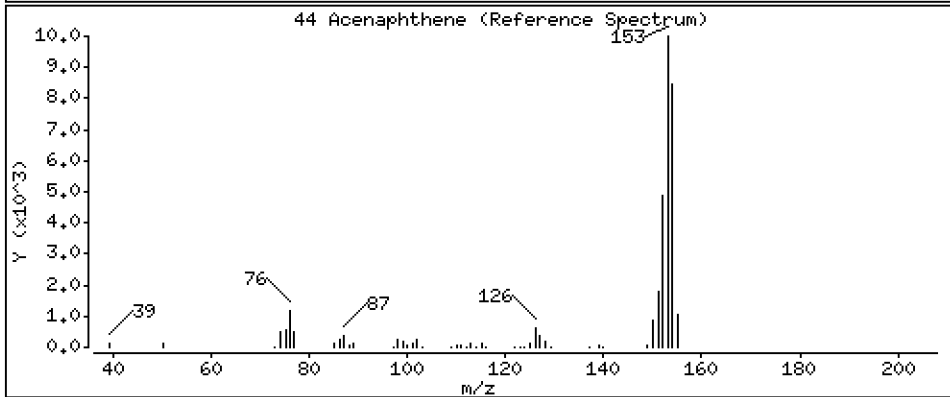
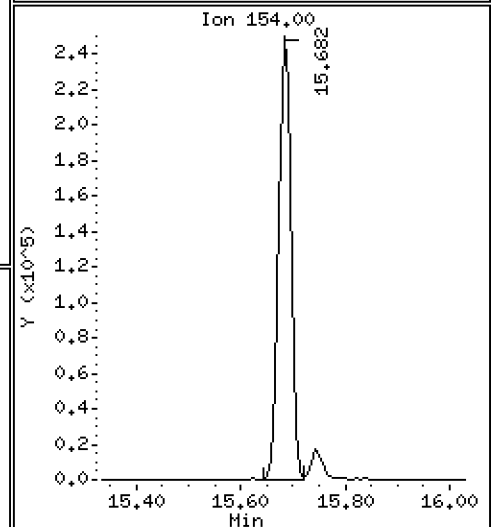
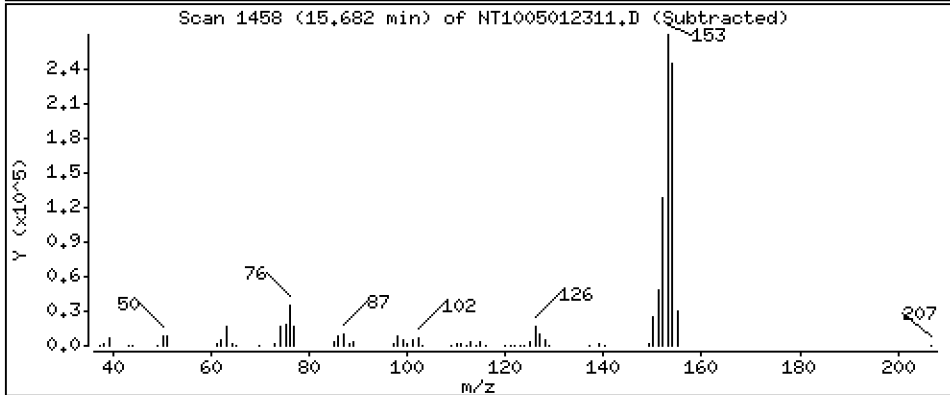
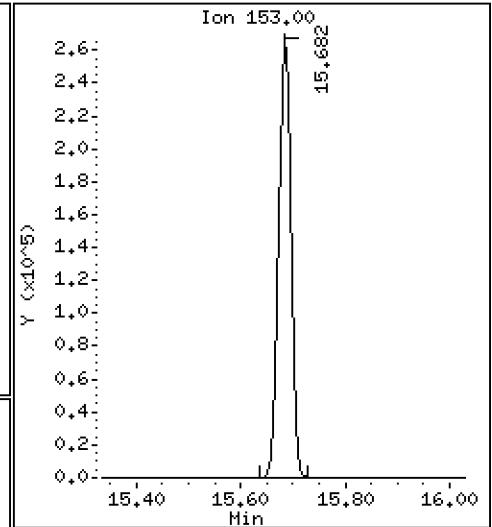
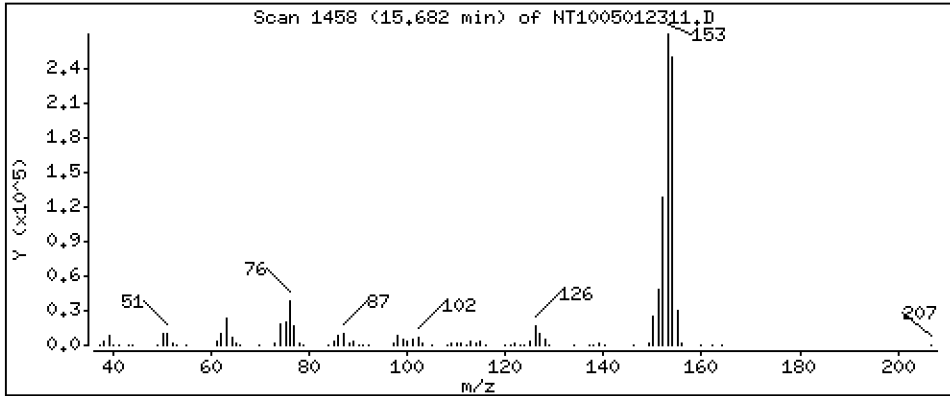
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,716 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

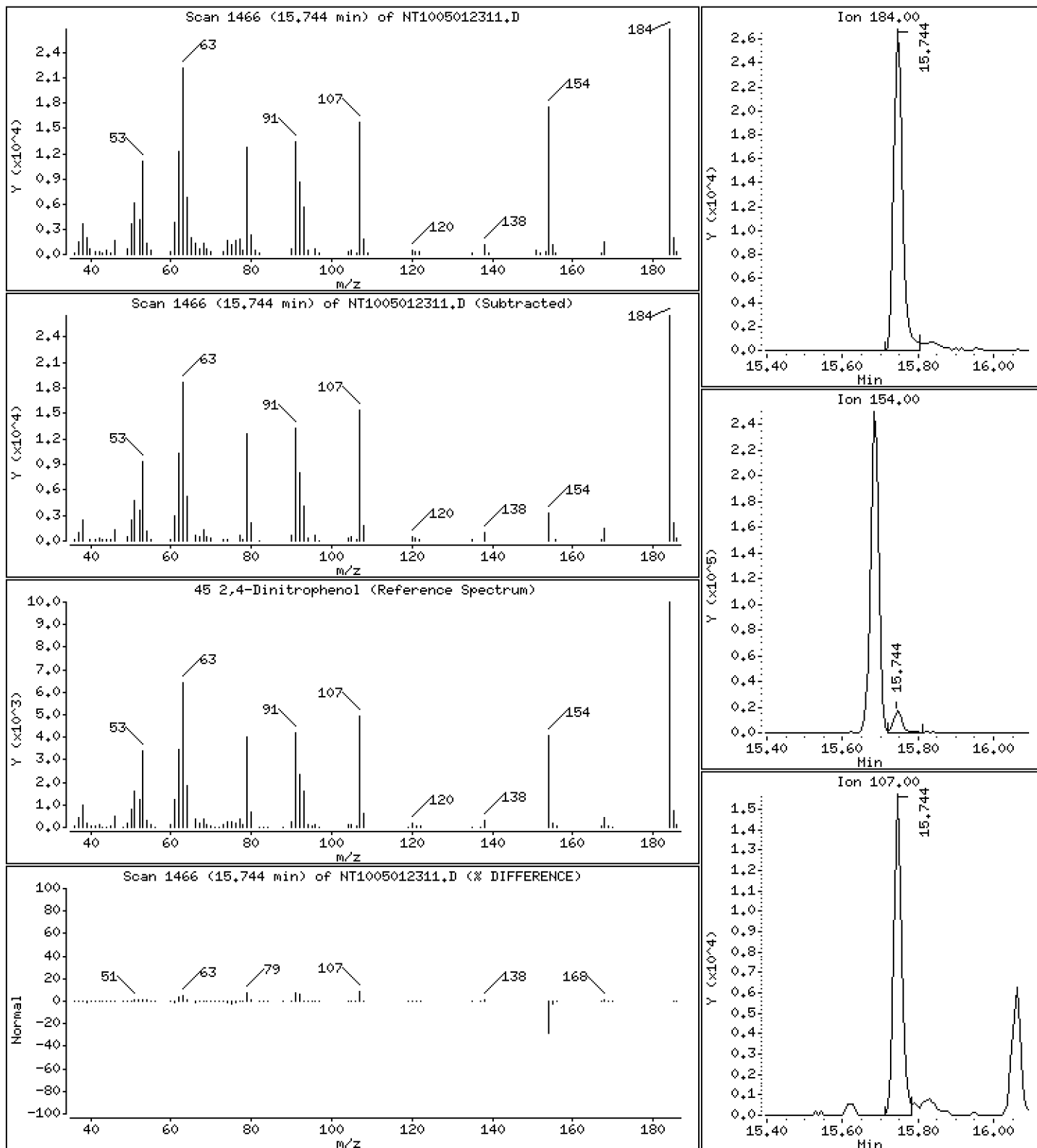
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 2,376 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

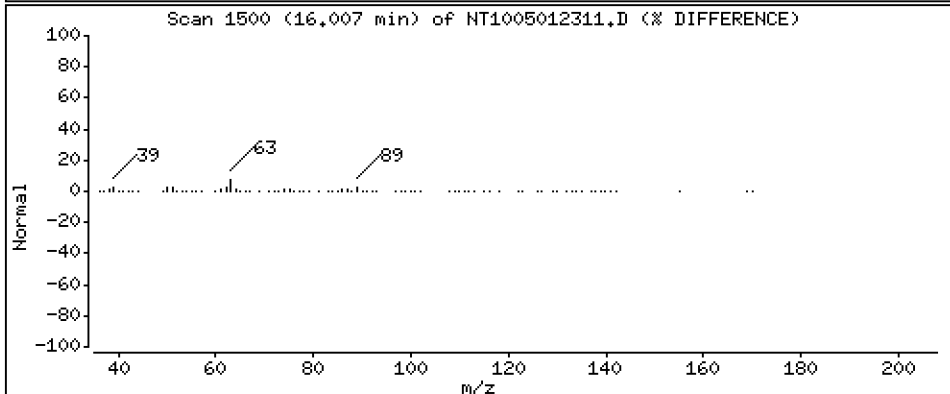
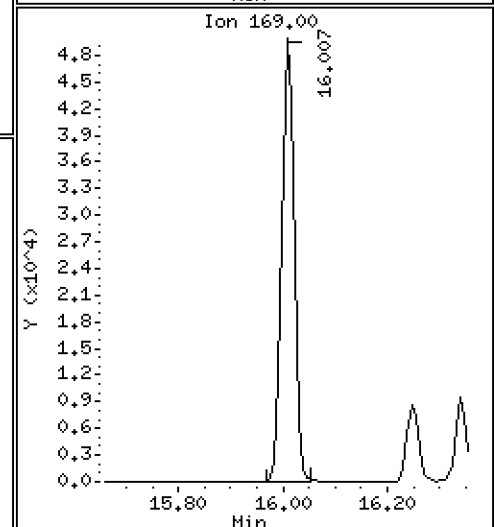
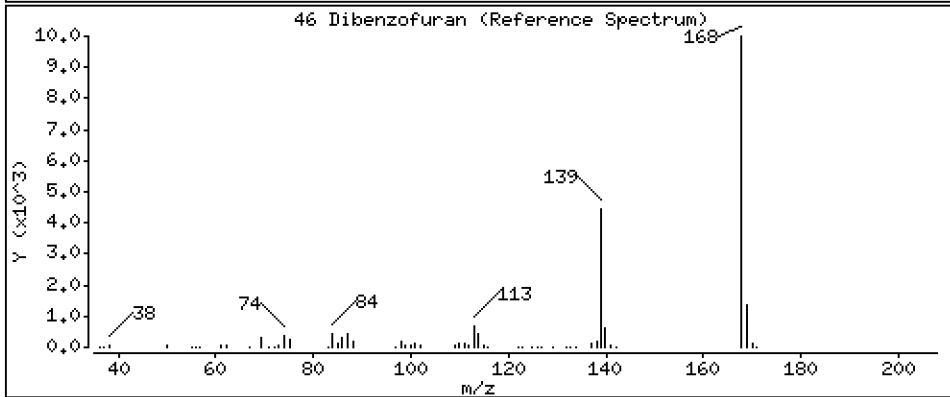
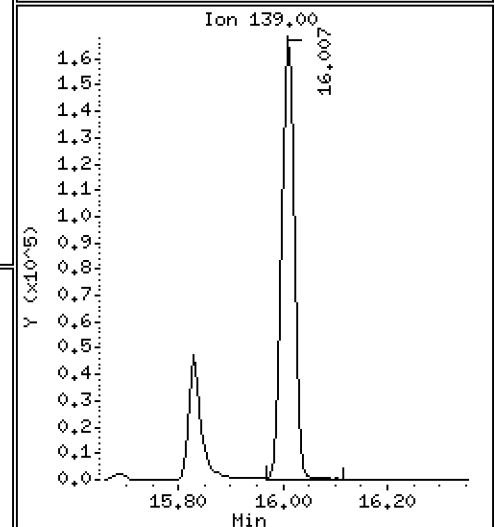
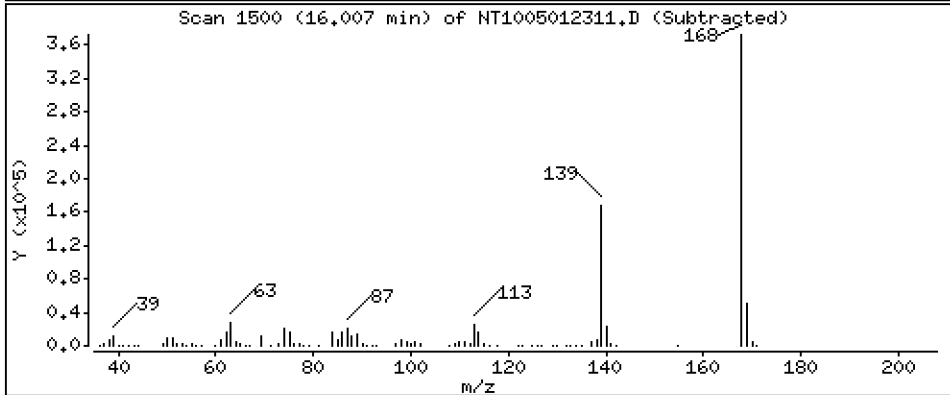
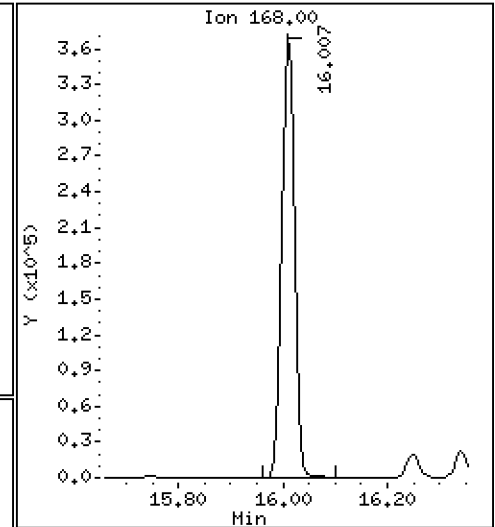
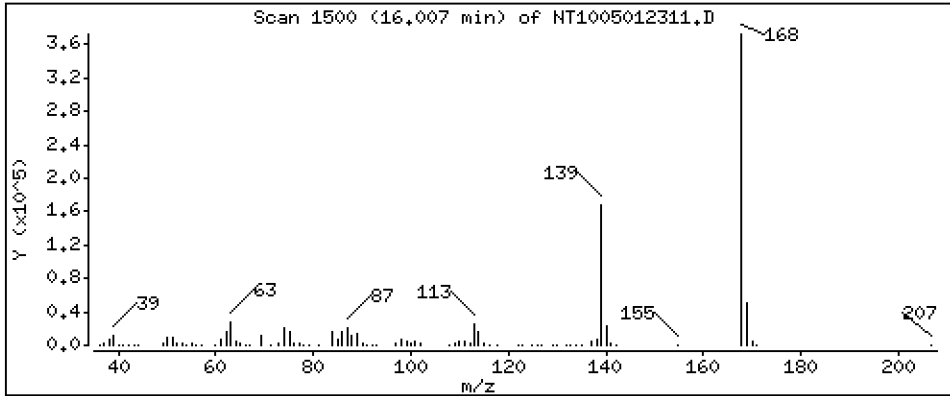
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,645 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

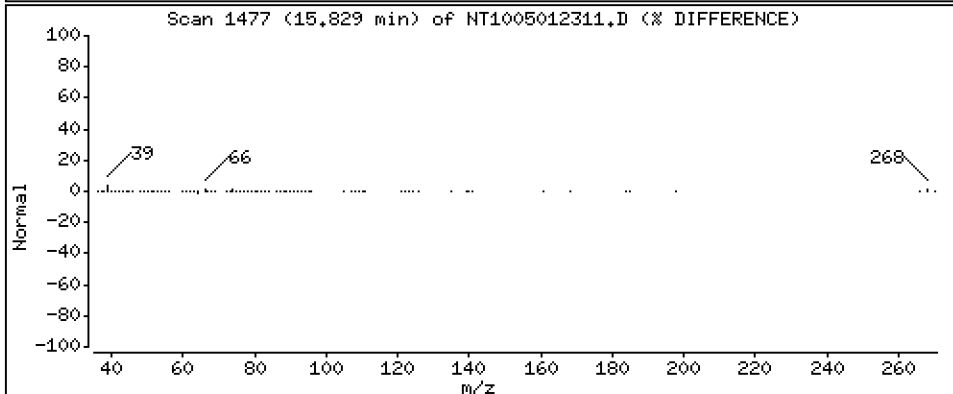
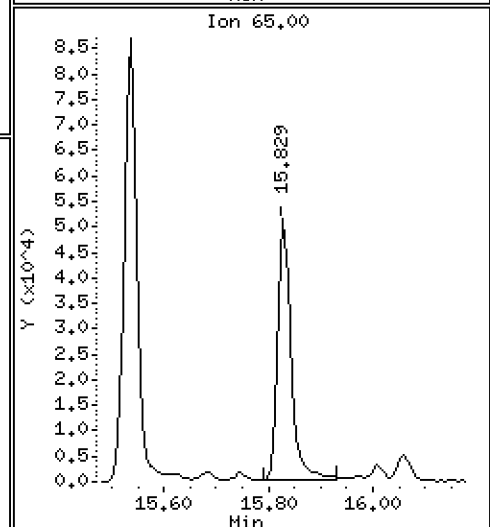
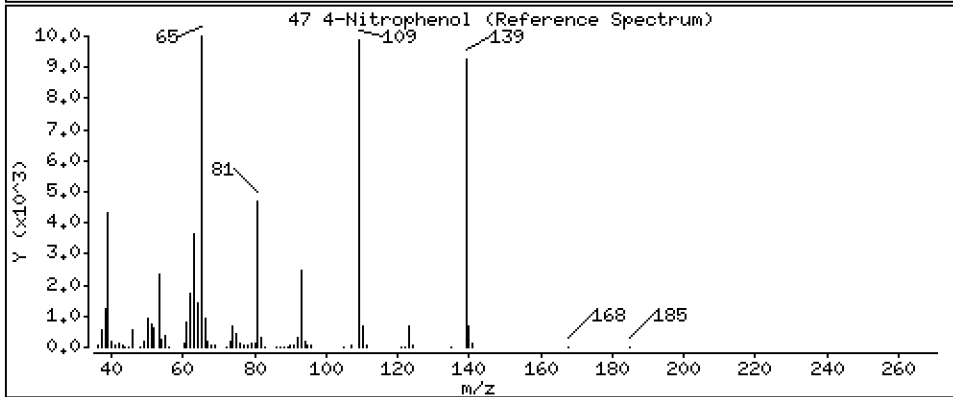
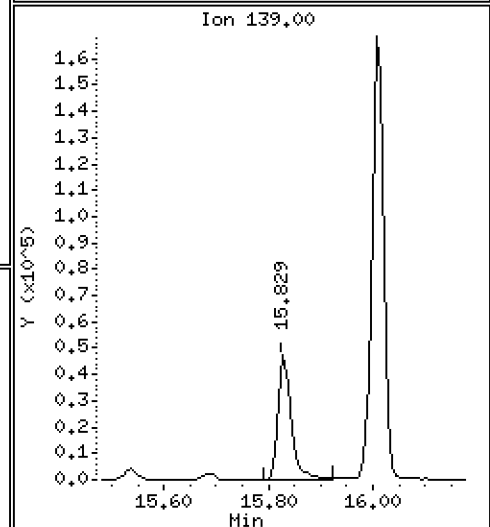
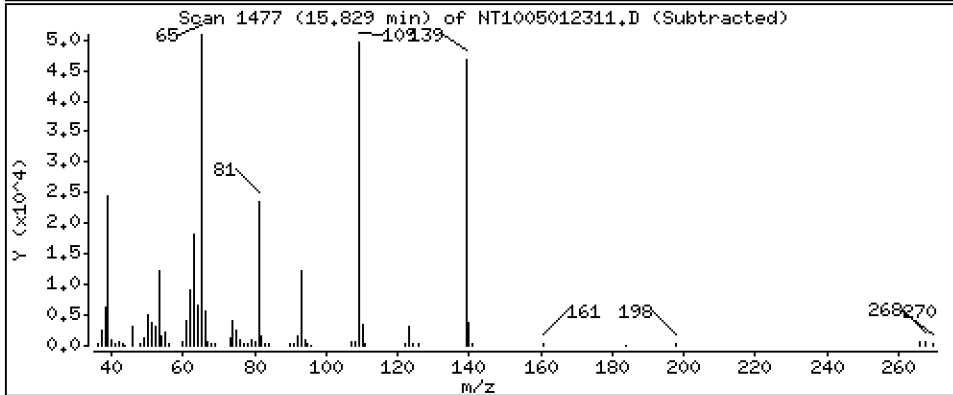
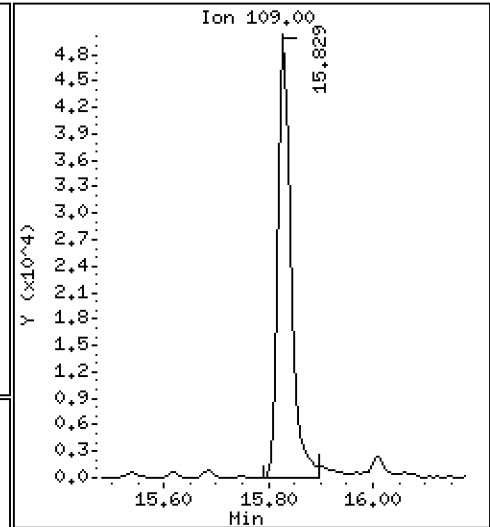
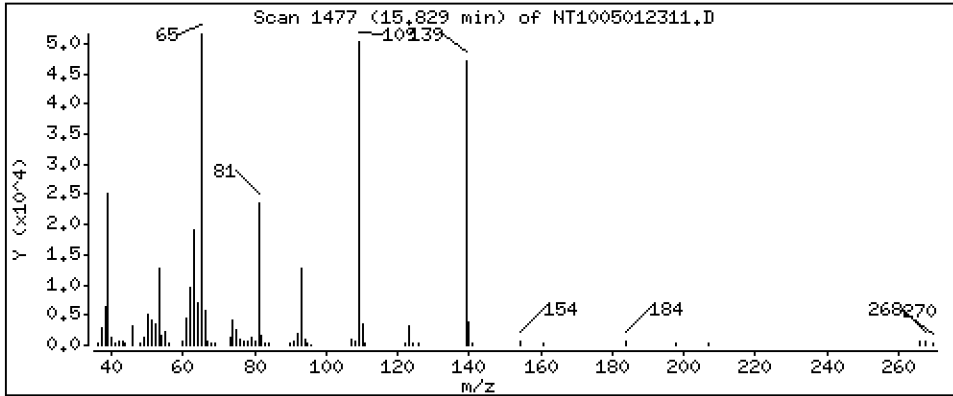
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 3,992 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

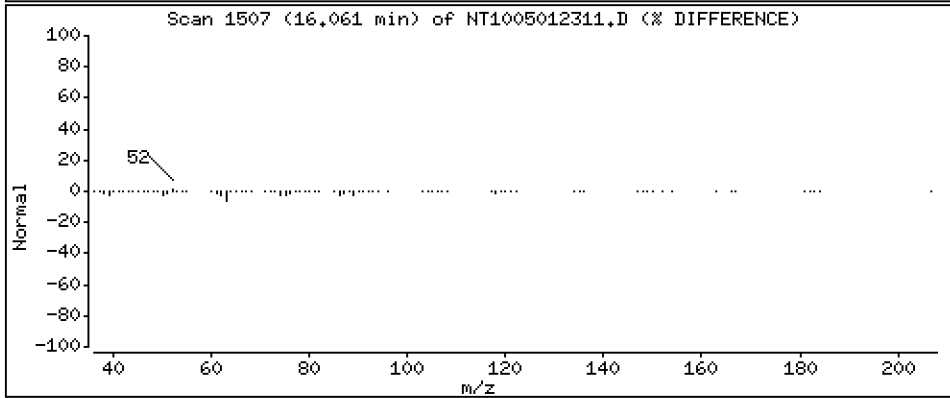
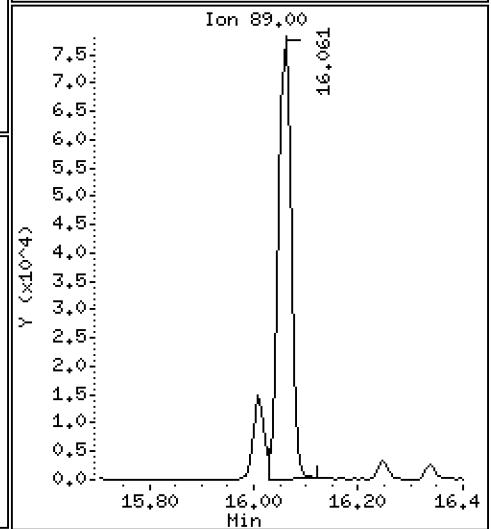
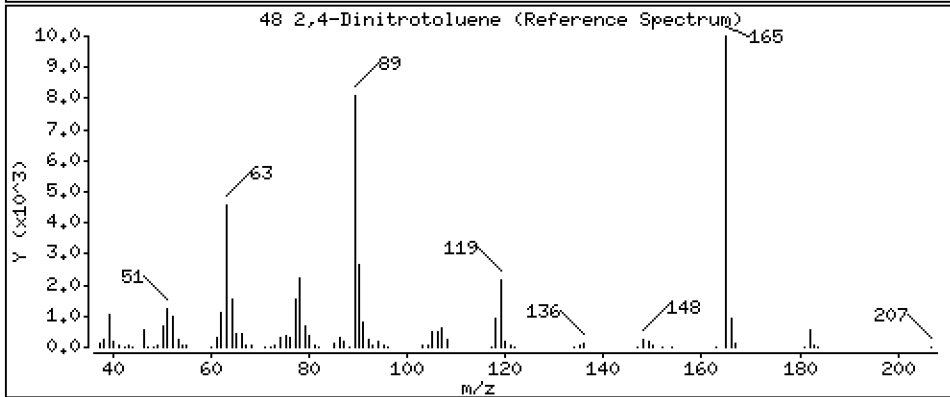
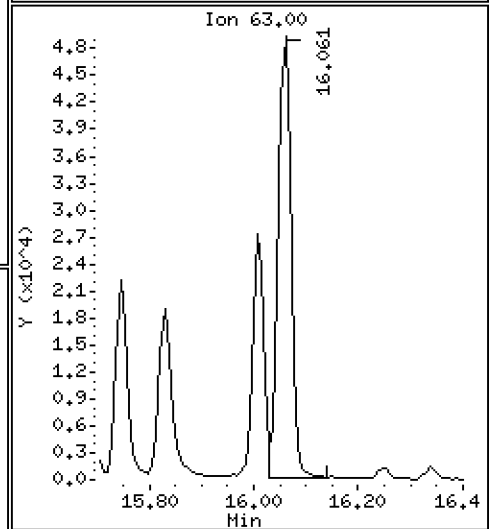
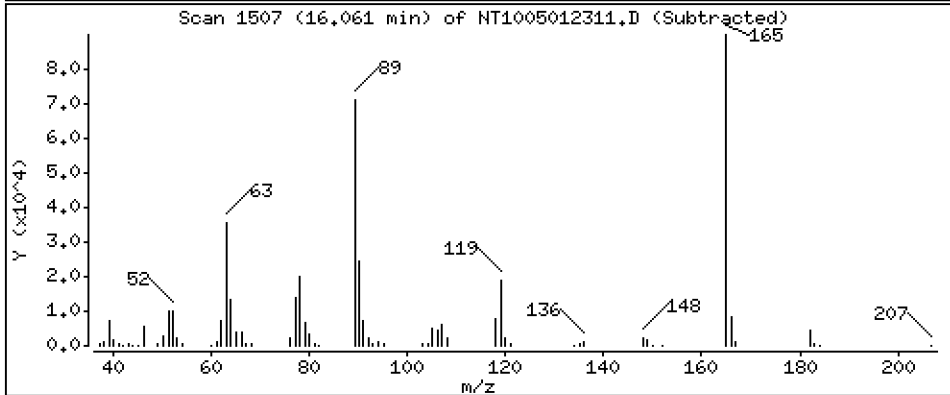
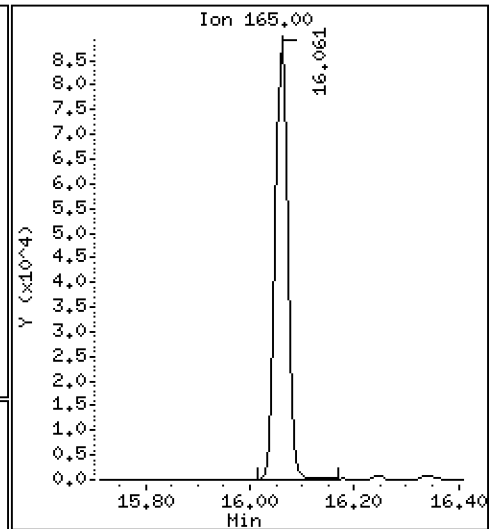
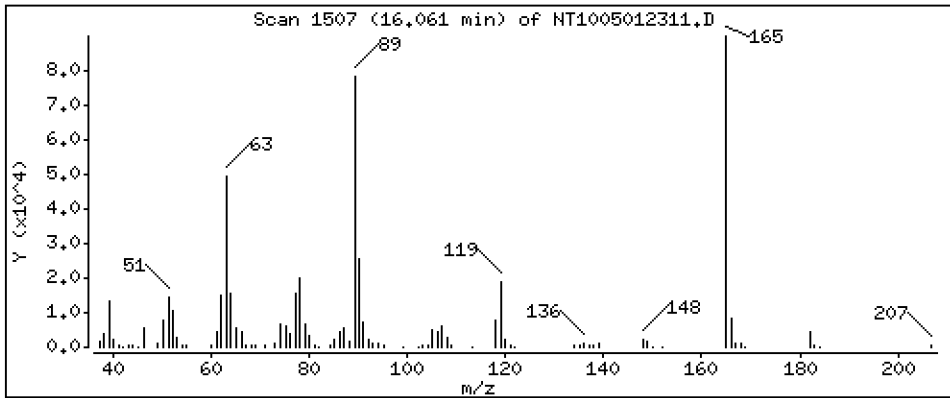
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 4,381 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

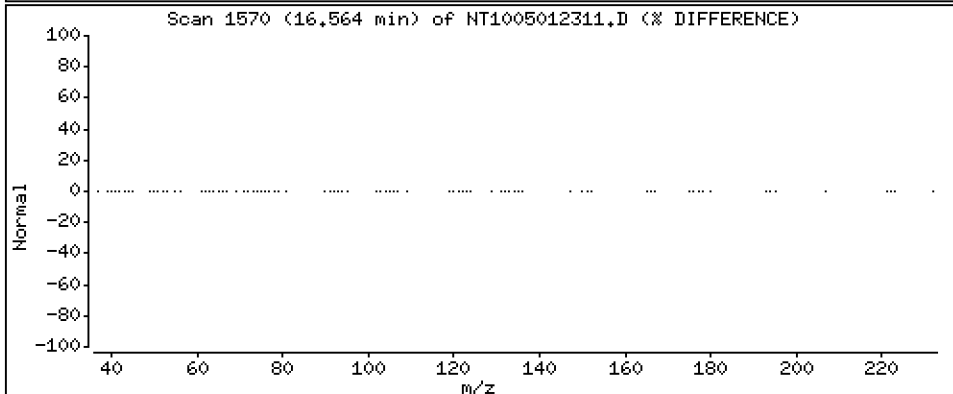
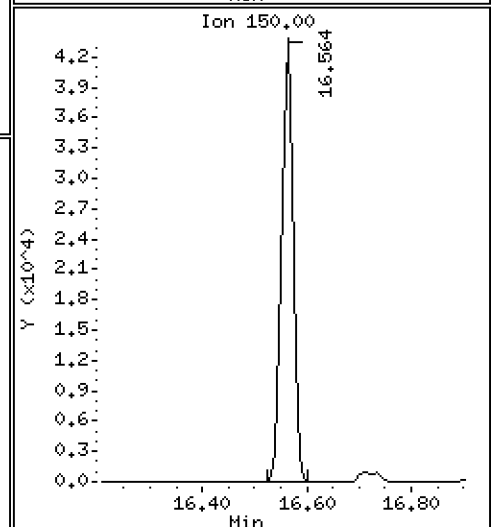
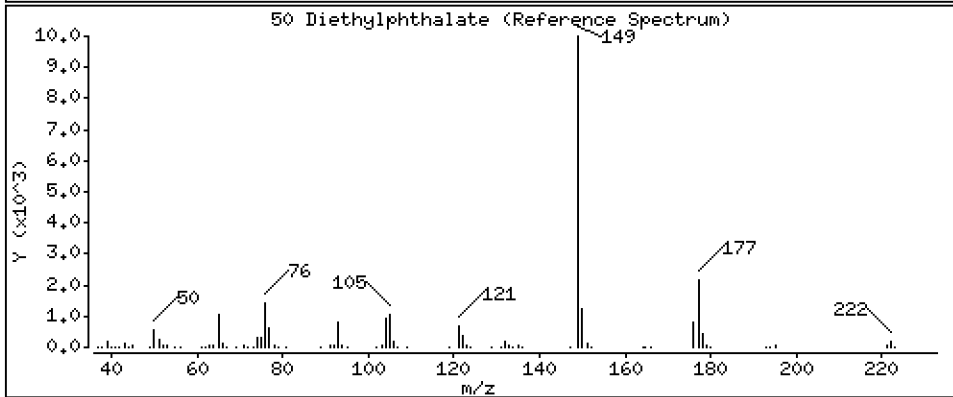
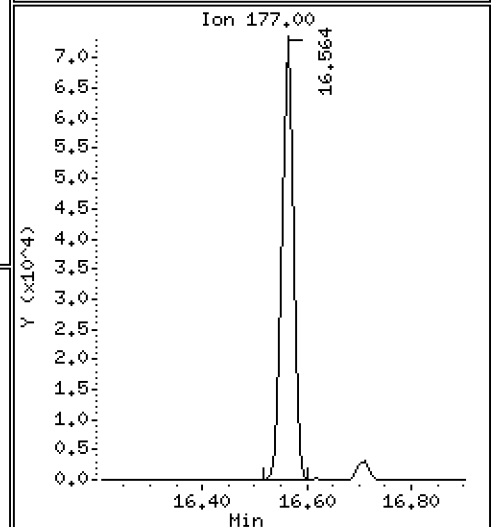
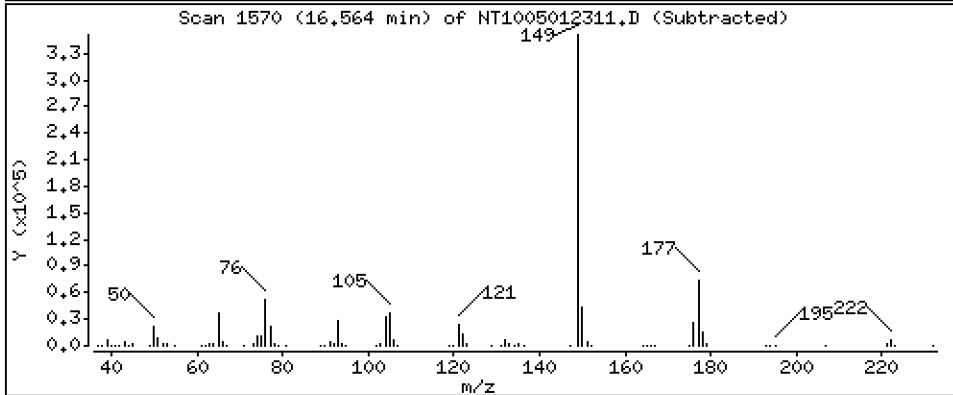
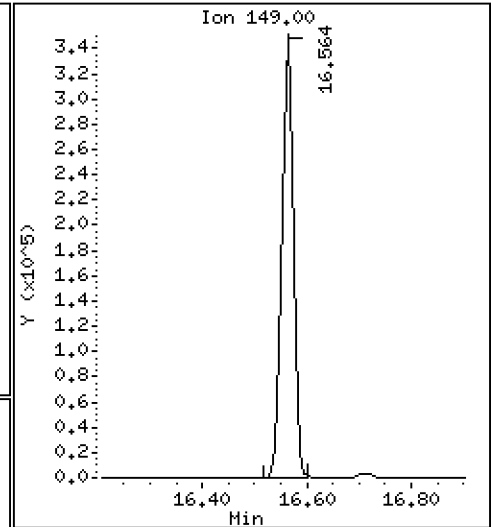
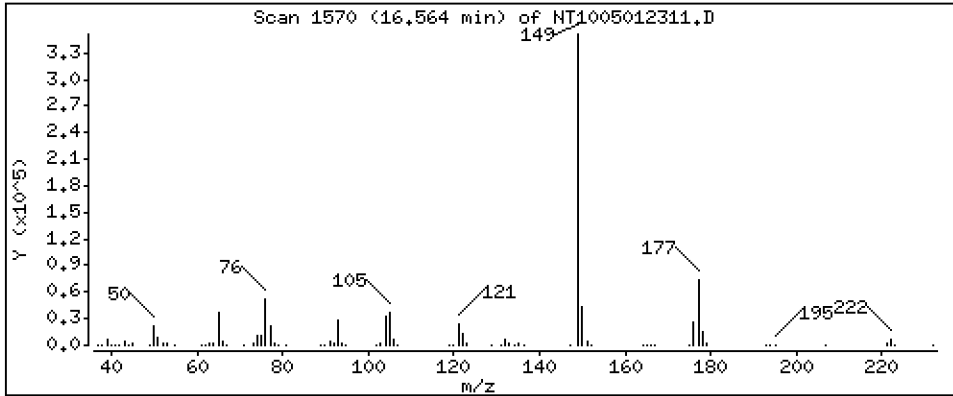
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 5.055 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

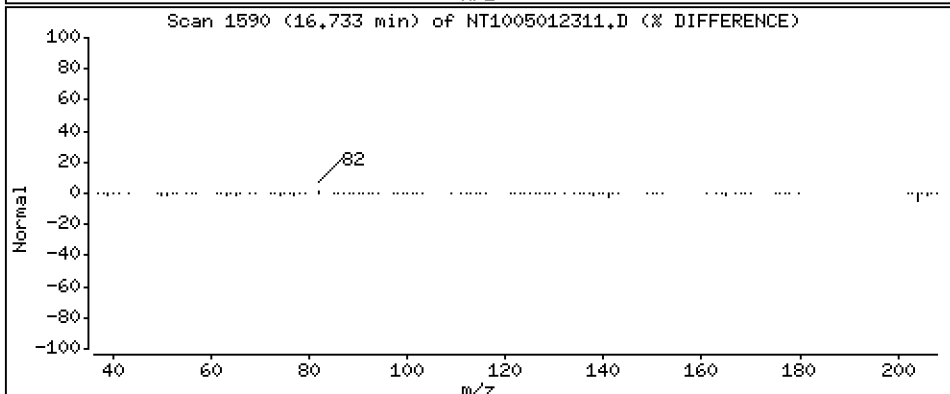
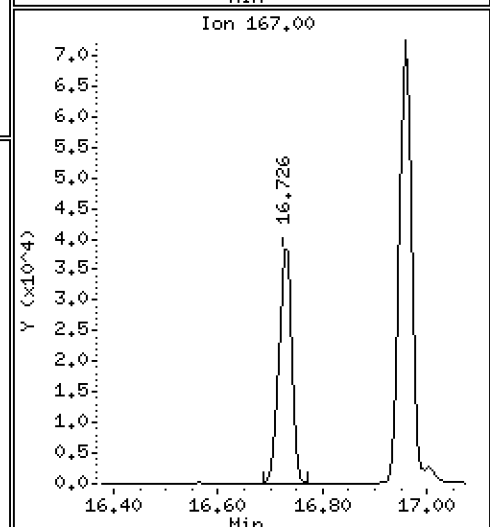
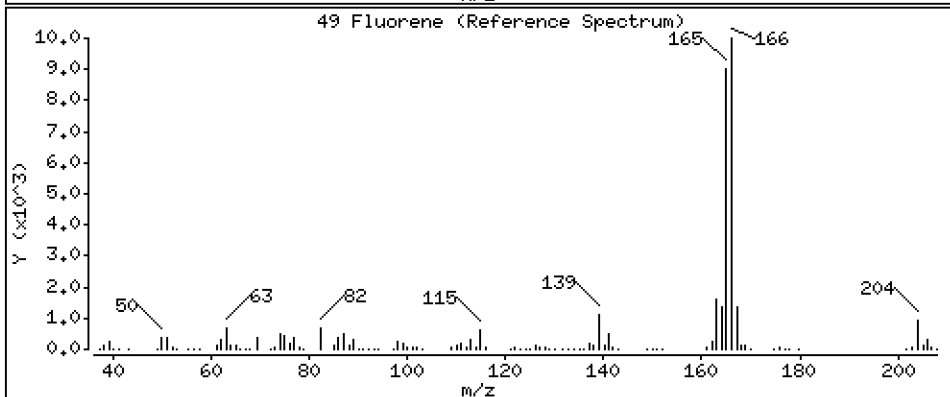
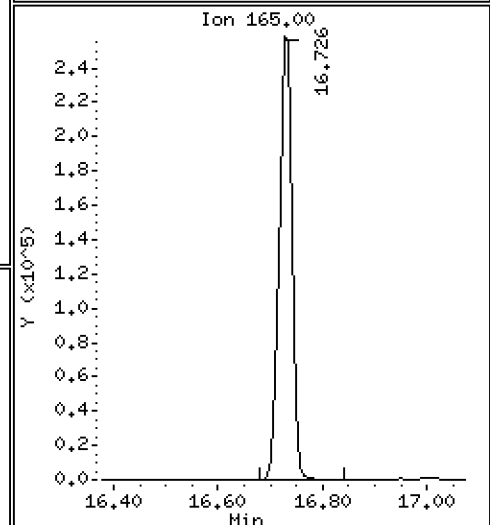
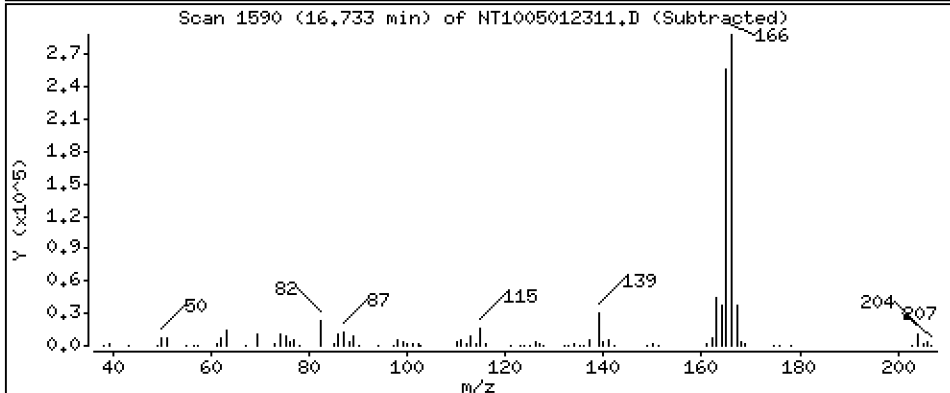
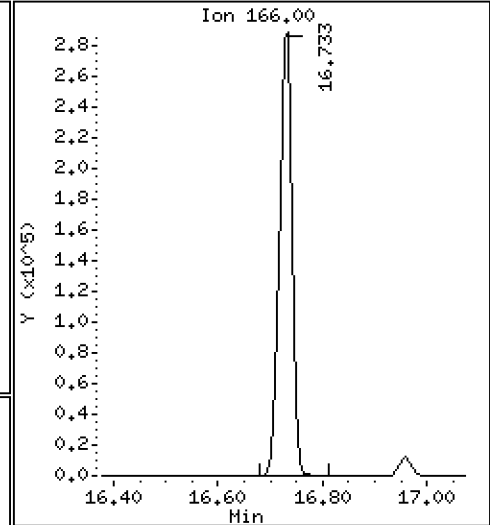
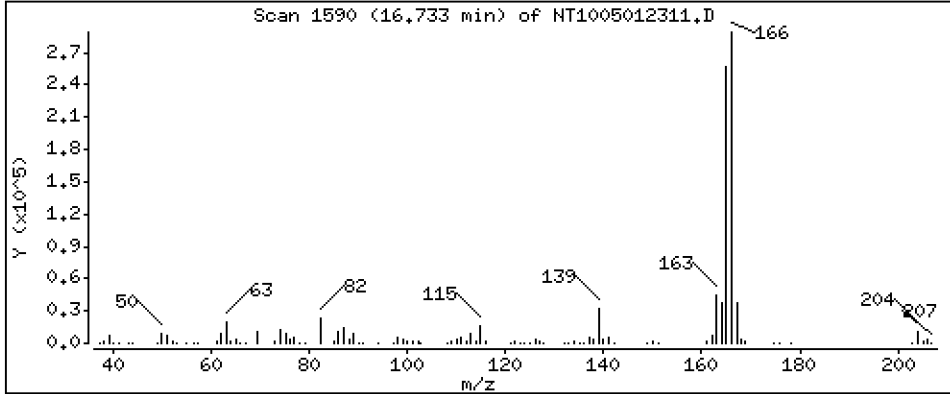
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,559 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

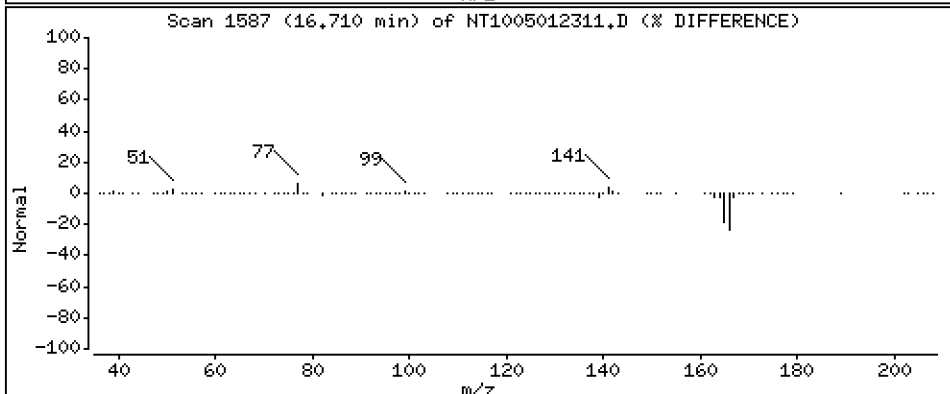
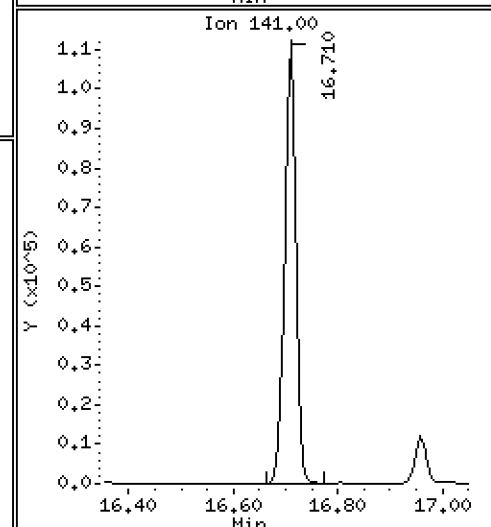
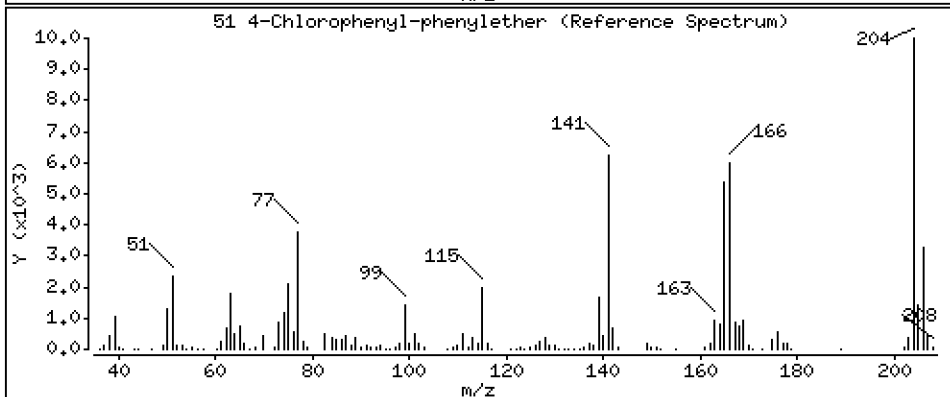
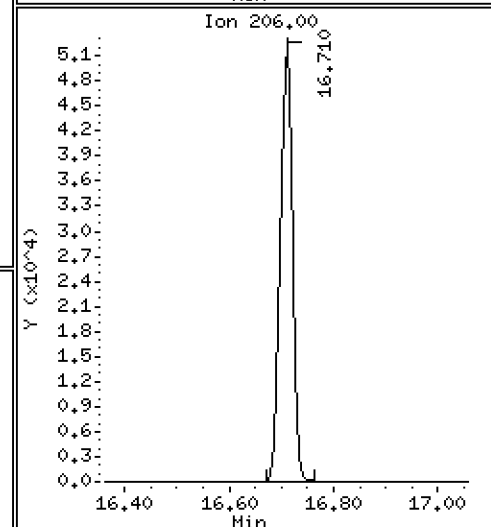
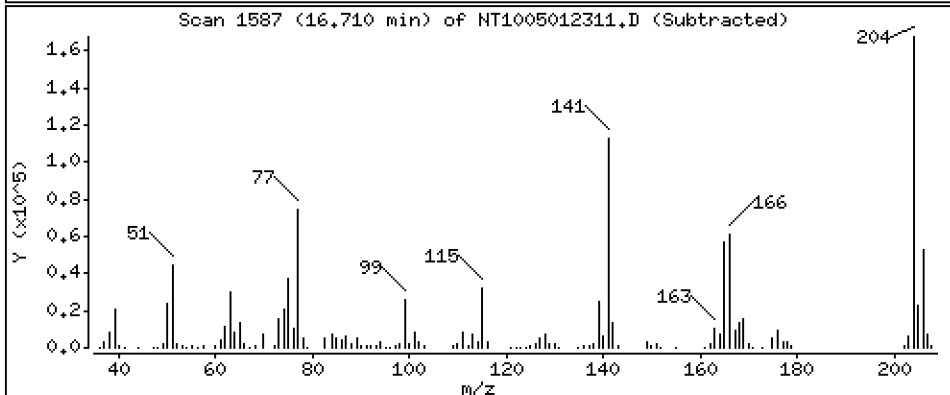
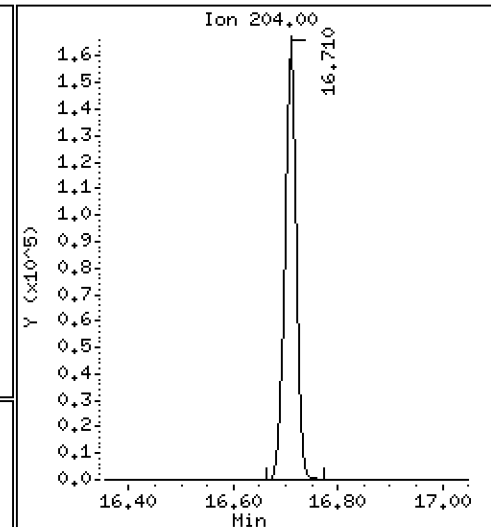
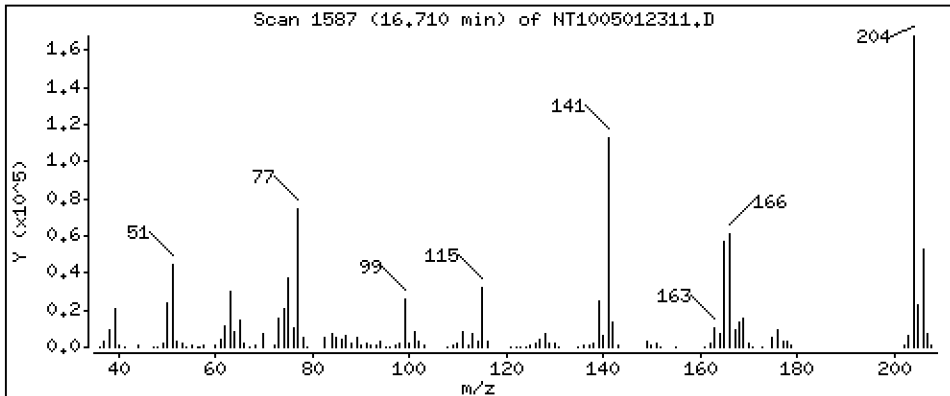
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 4.797 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

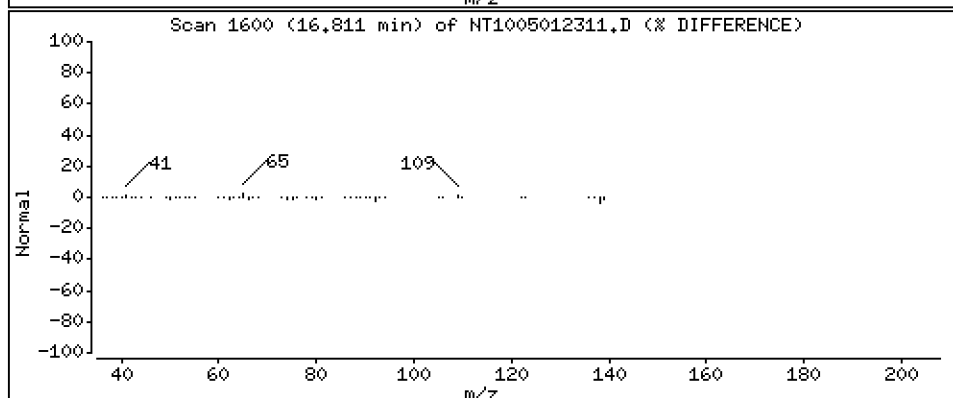
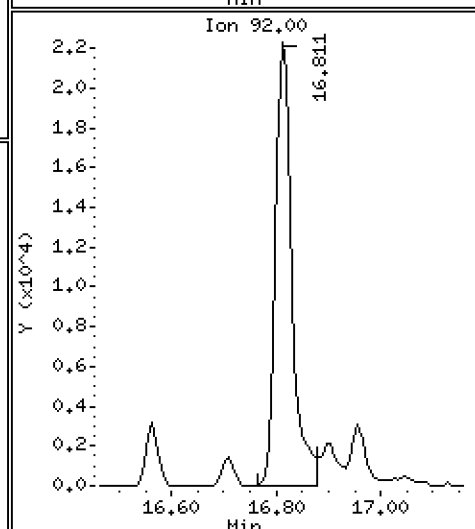
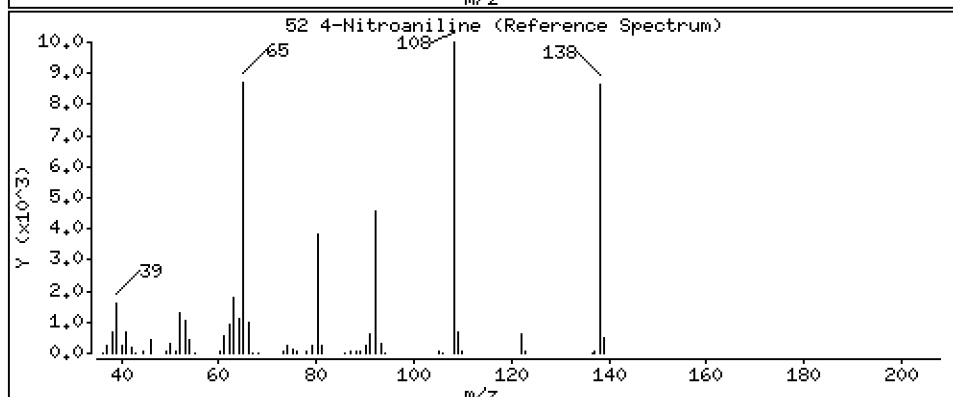
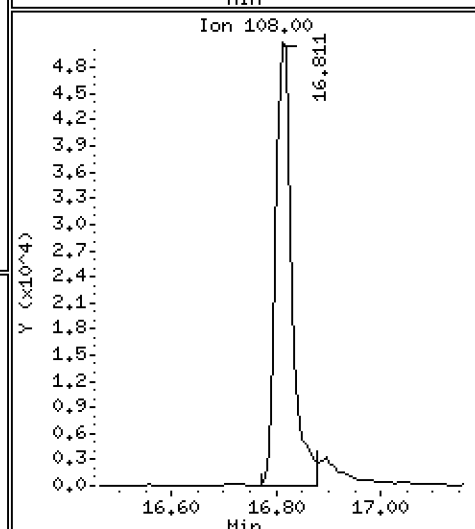
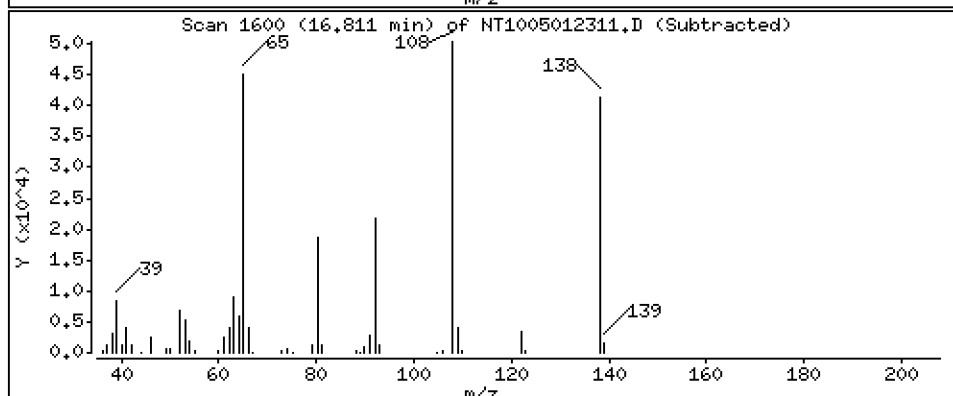
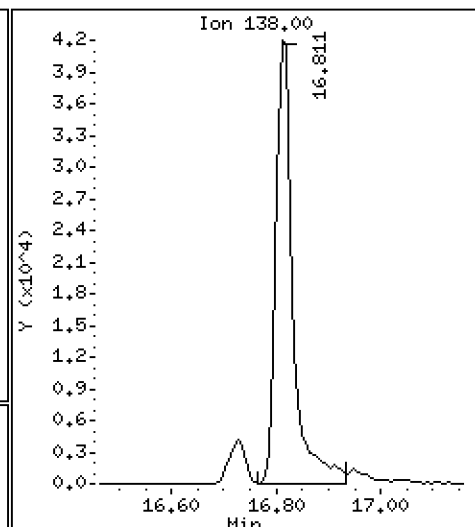
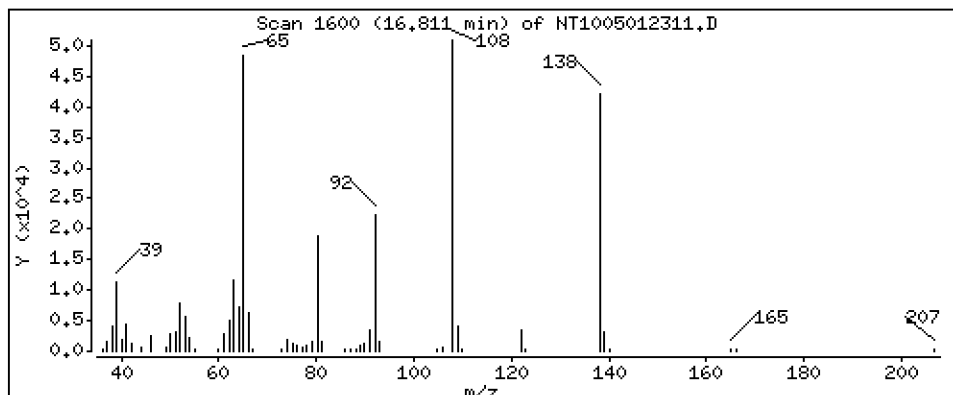
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 4.293 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

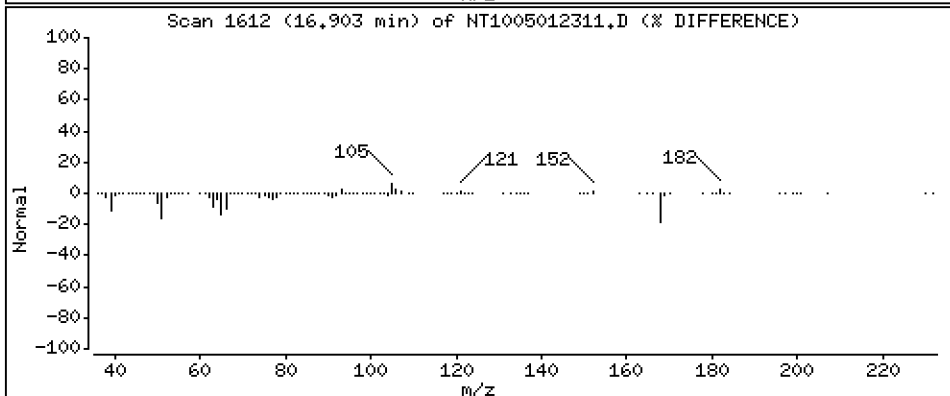
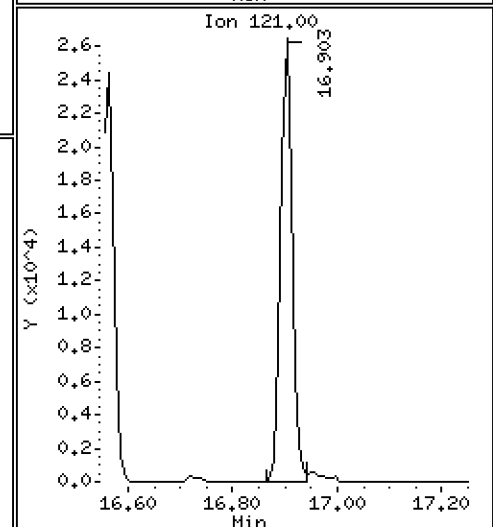
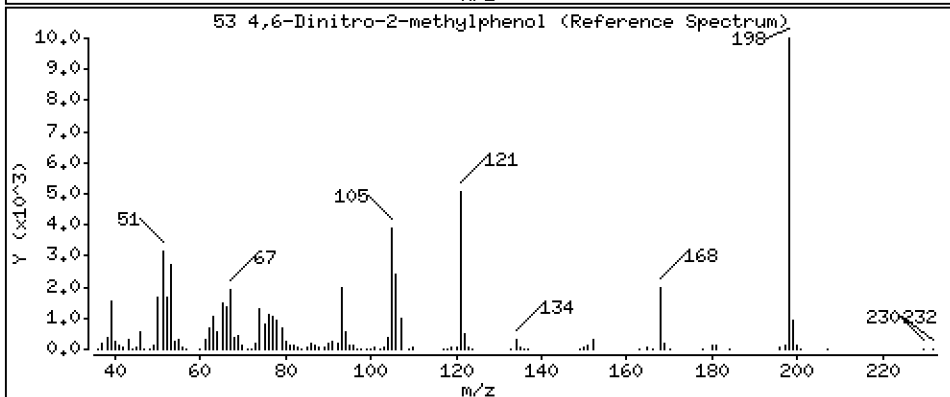
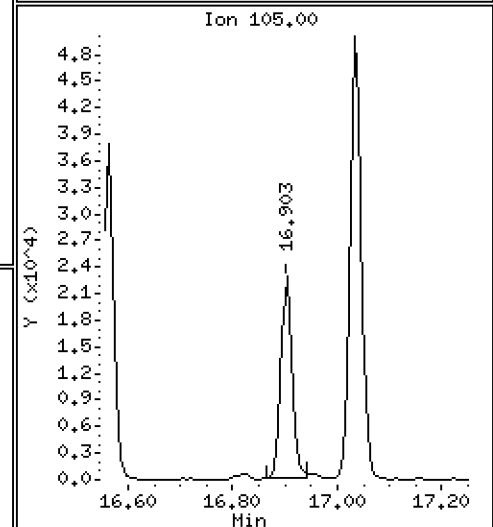
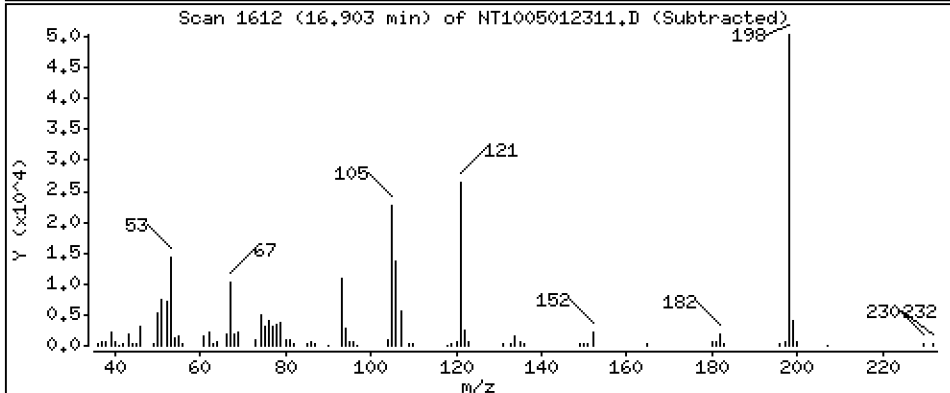
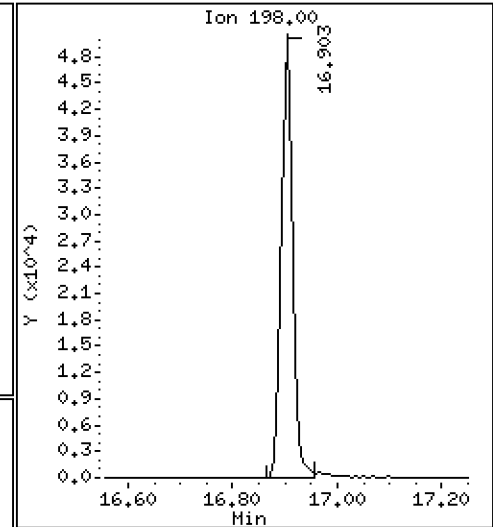
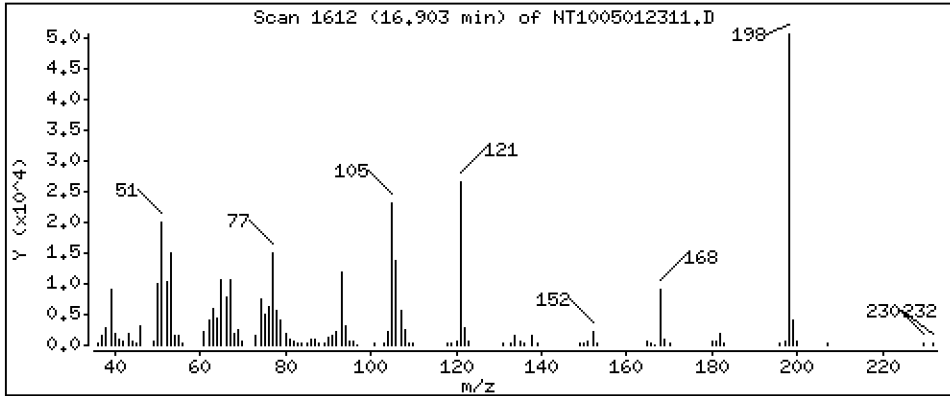
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,760 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

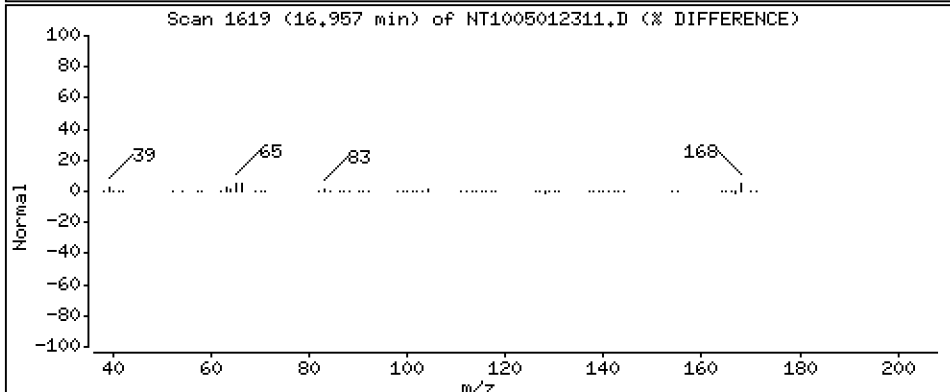
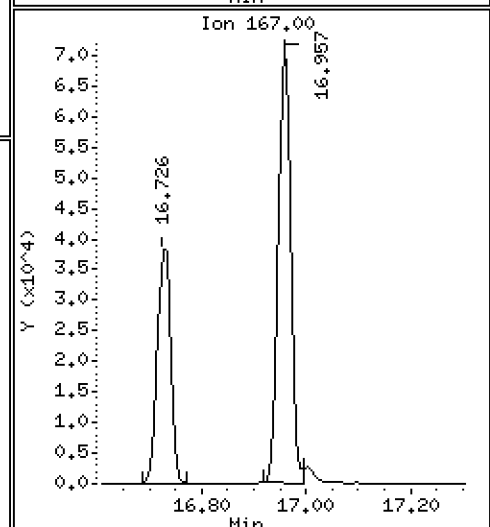
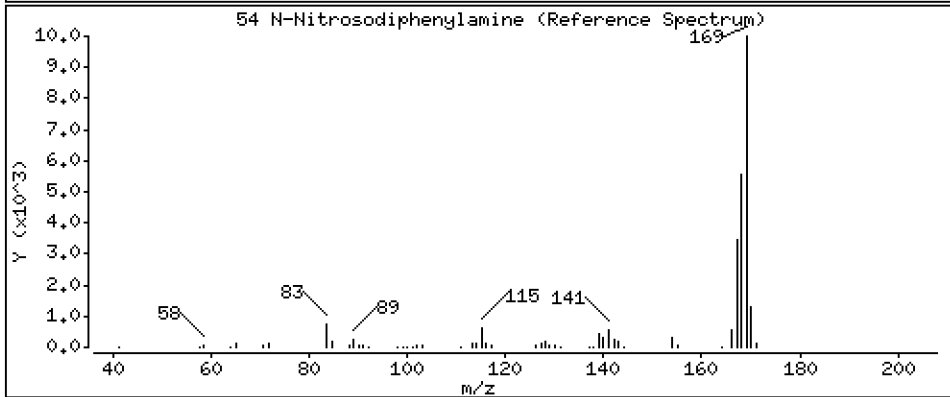
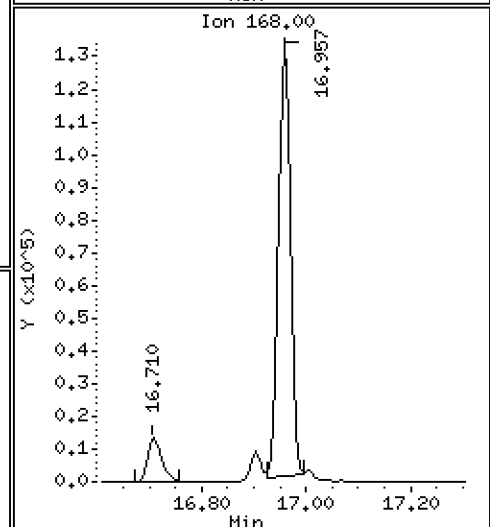
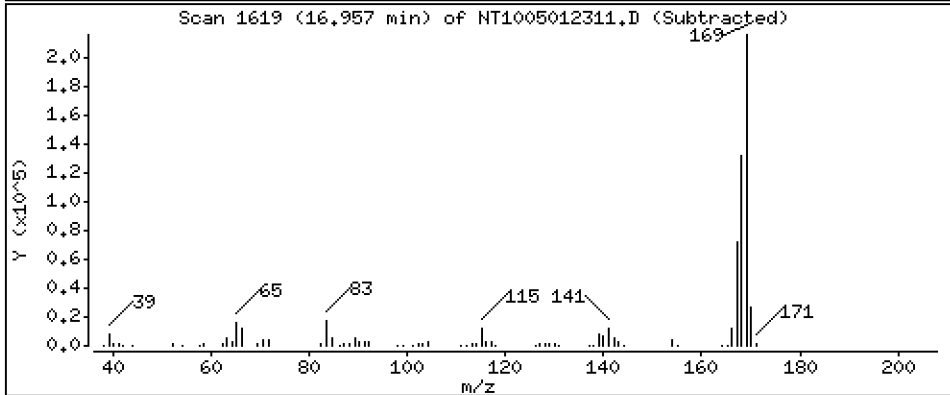
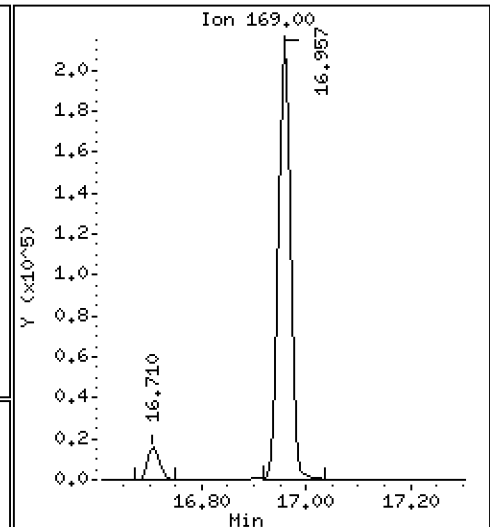
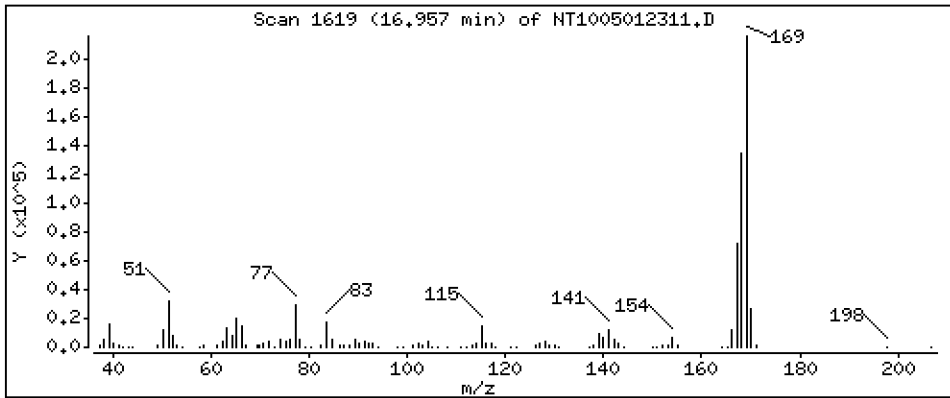
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,125 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

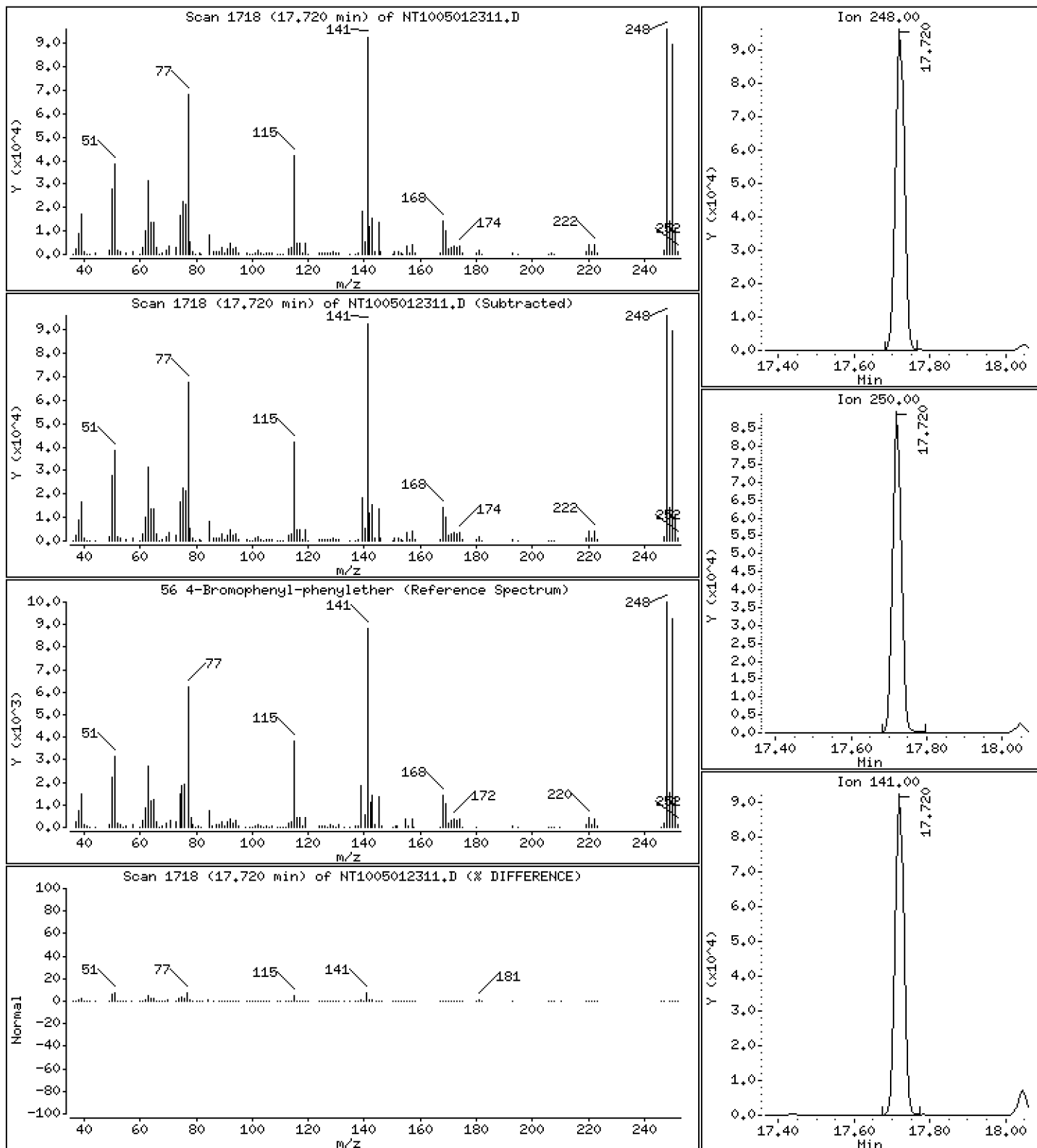
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,942 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

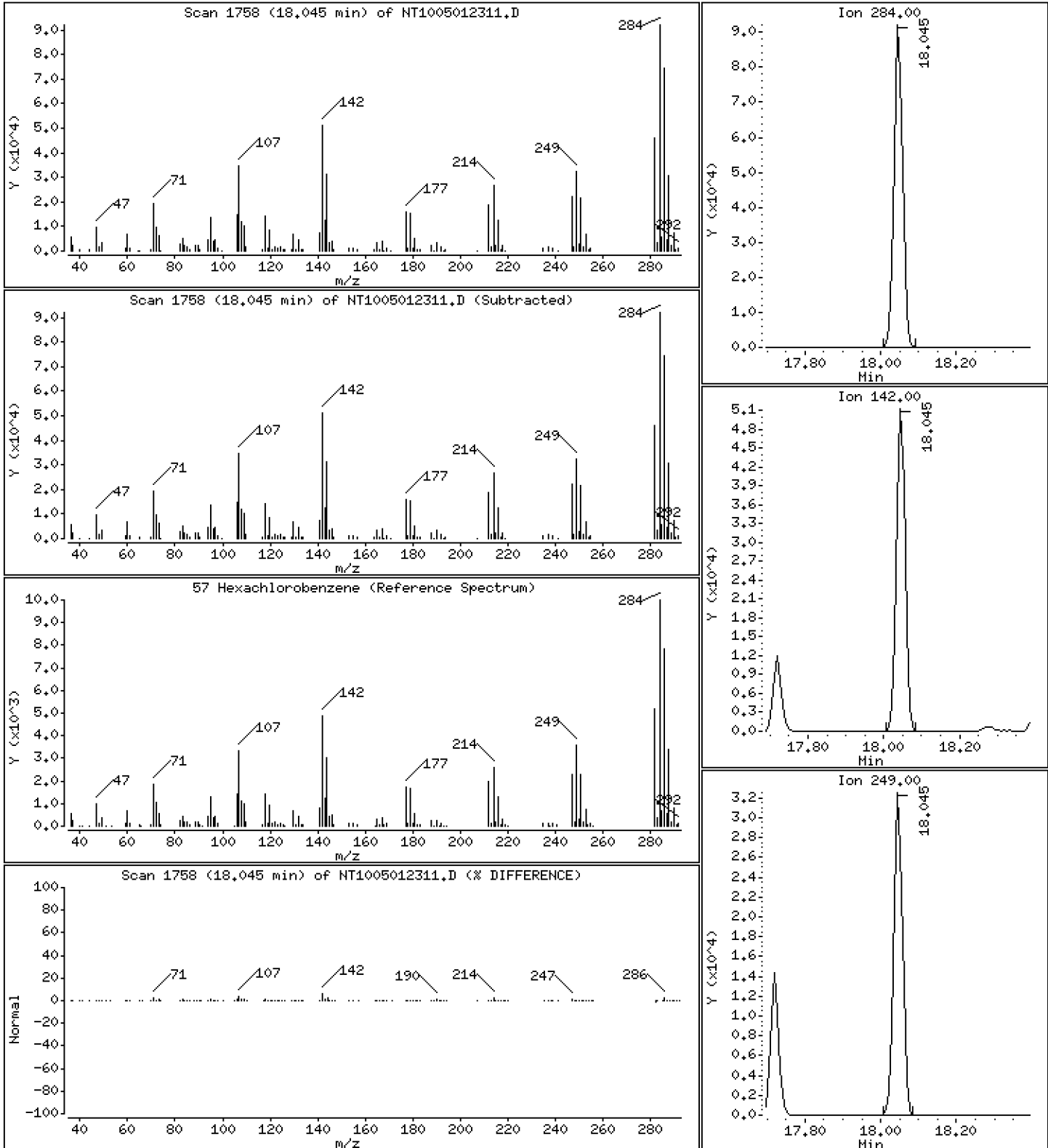
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.689 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

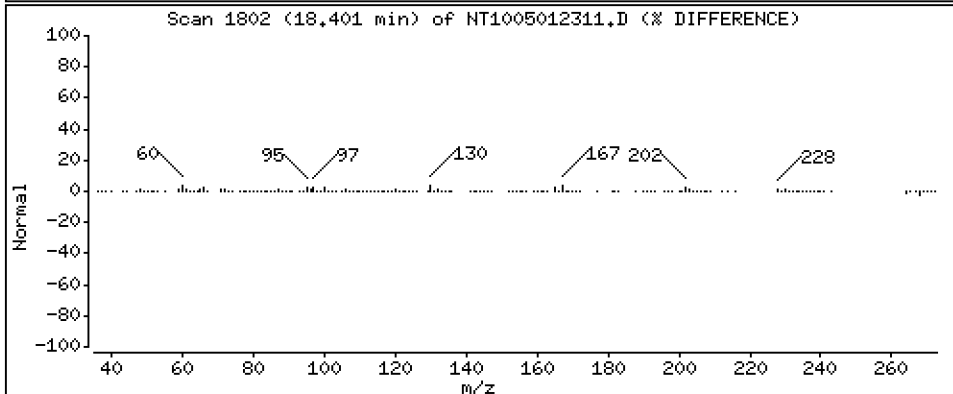
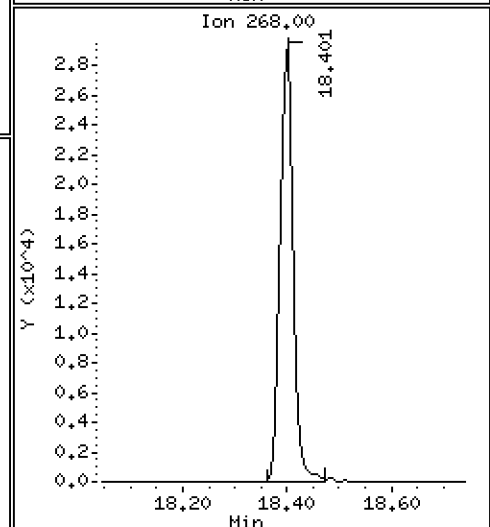
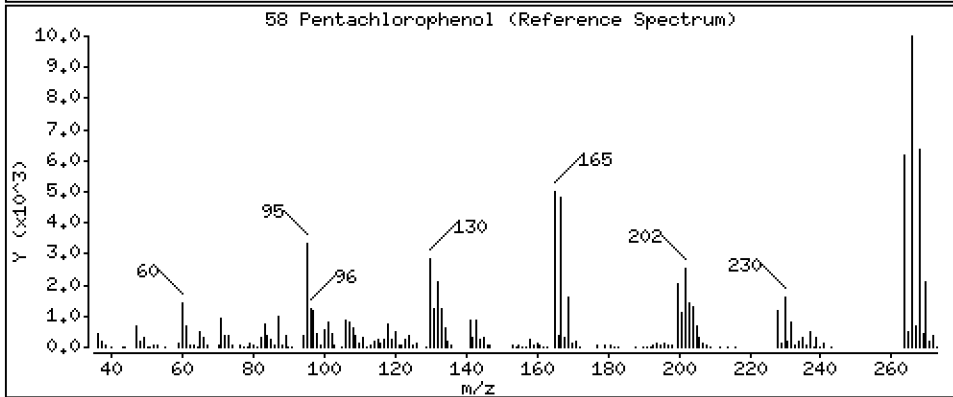
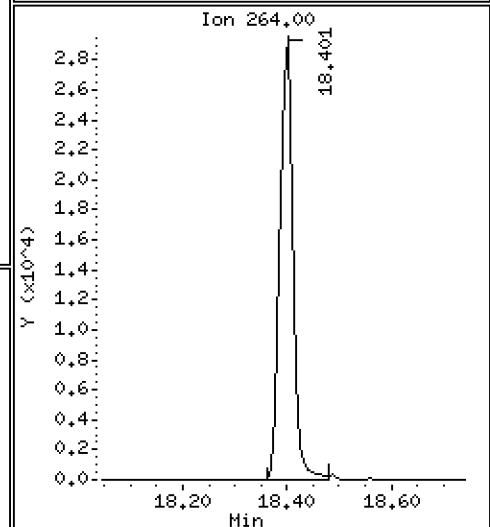
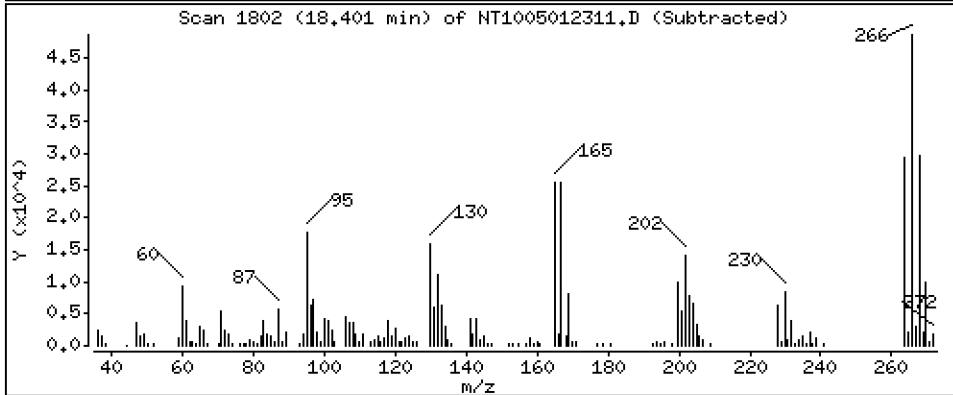
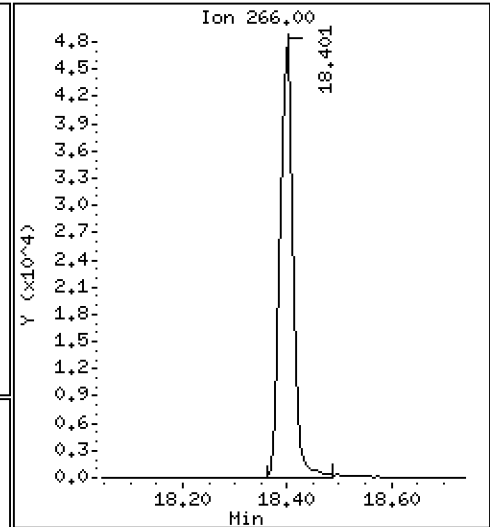
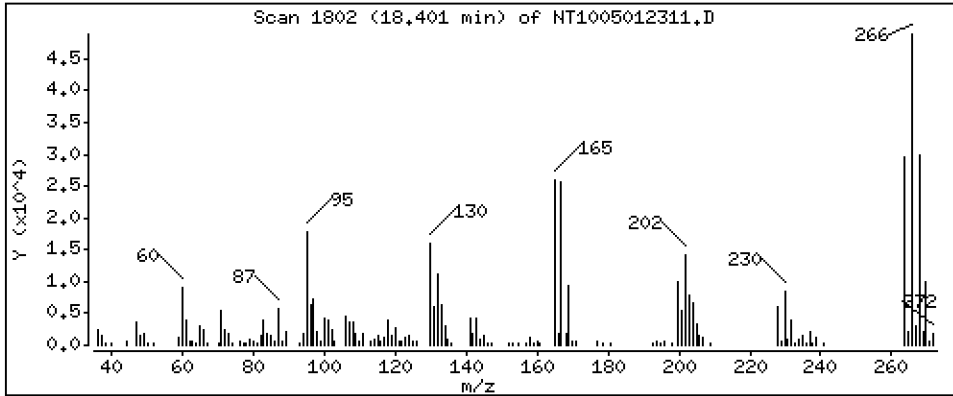
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,866 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

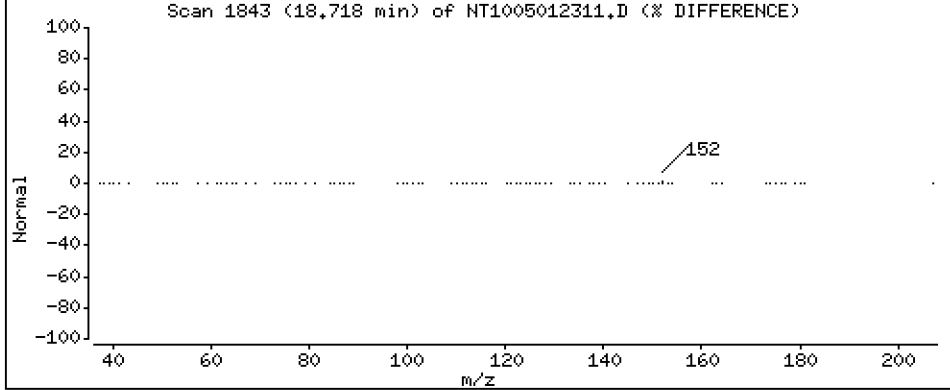
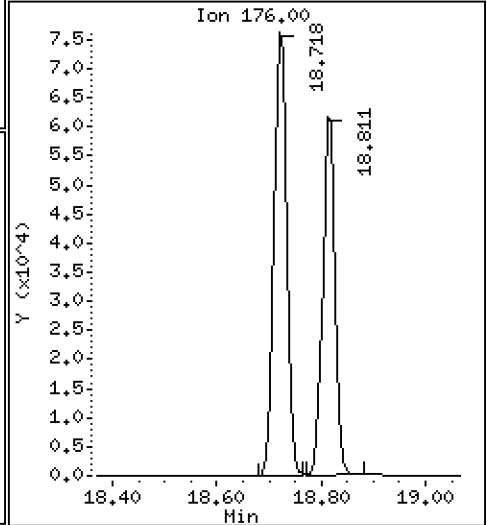
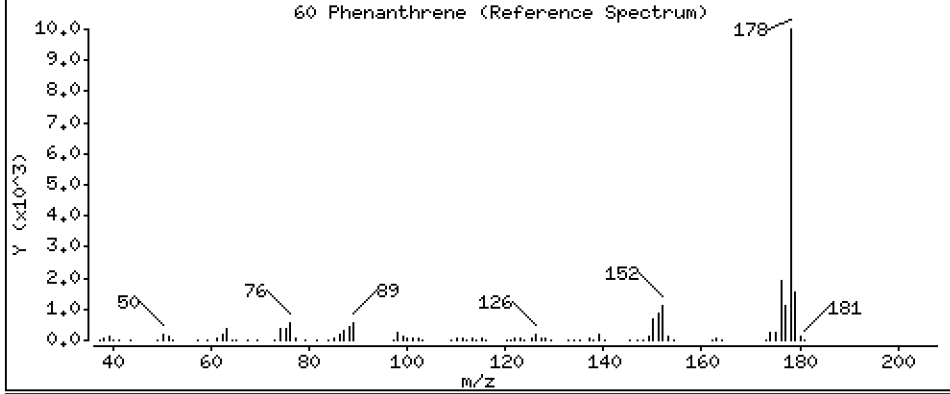
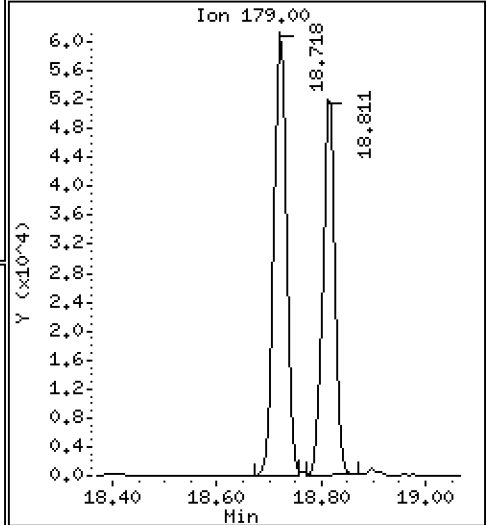
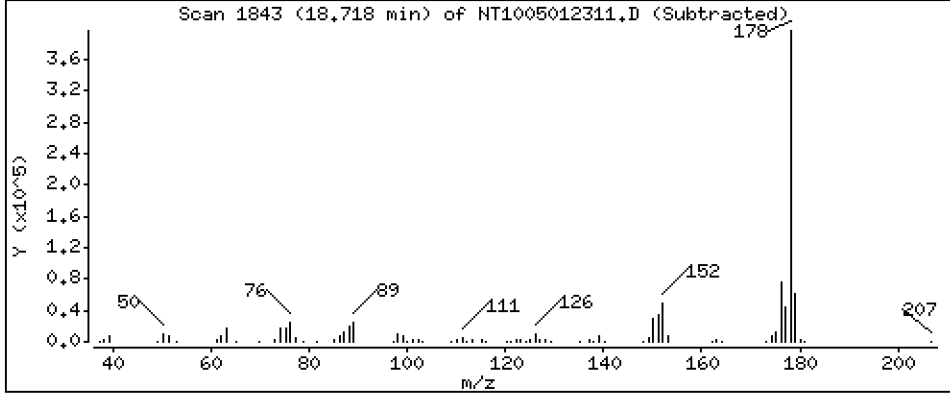
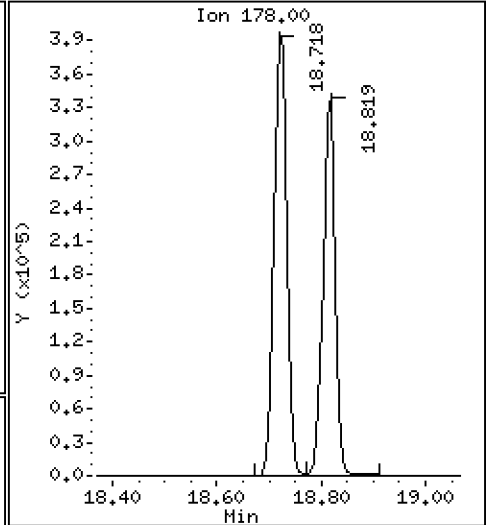
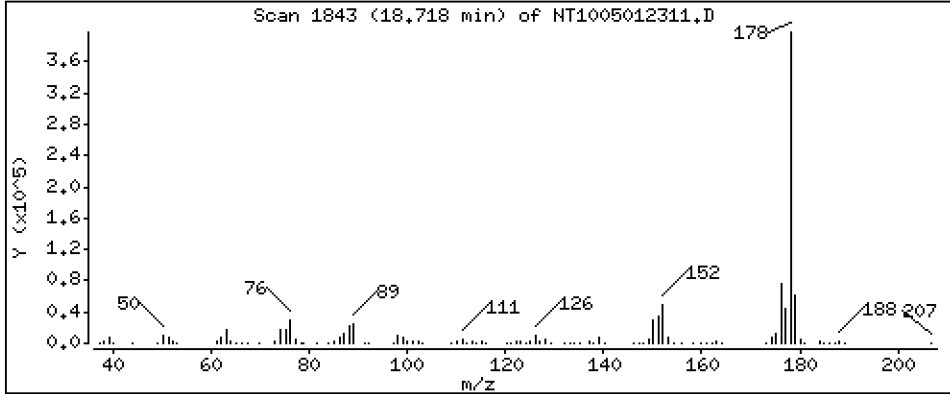
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,586 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

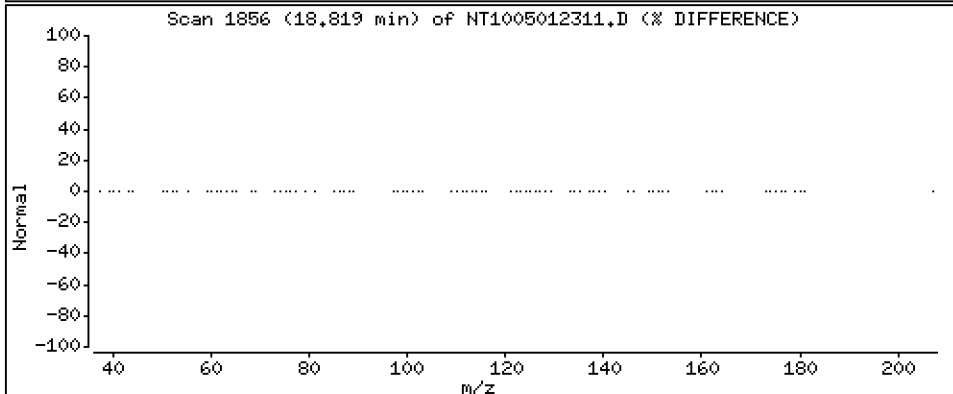
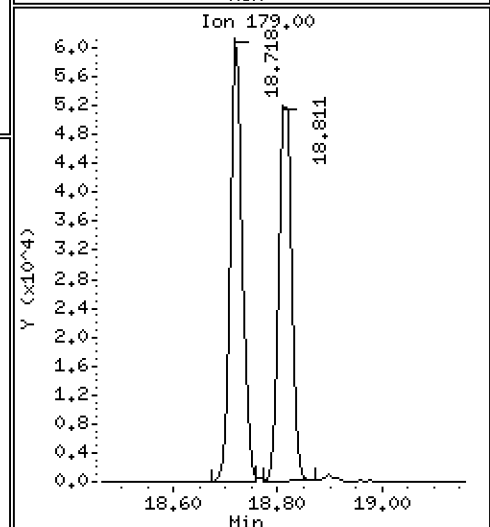
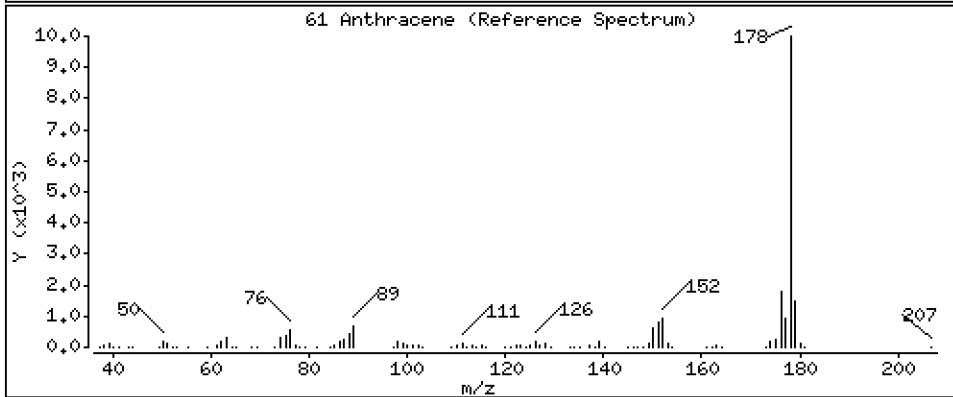
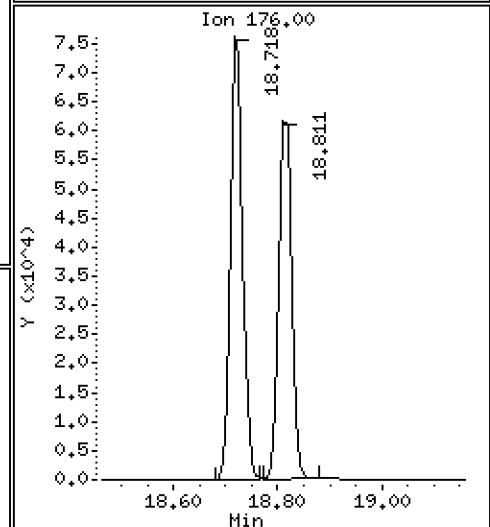
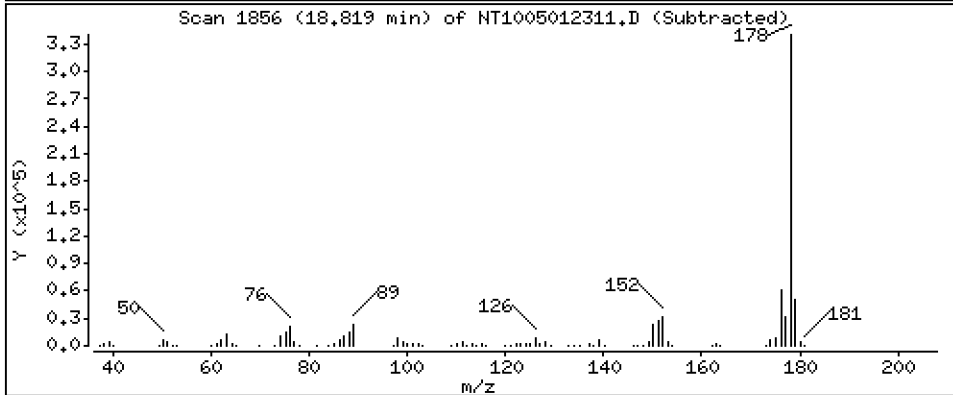
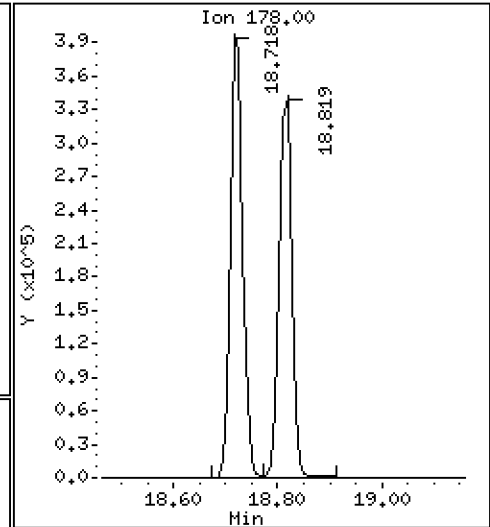
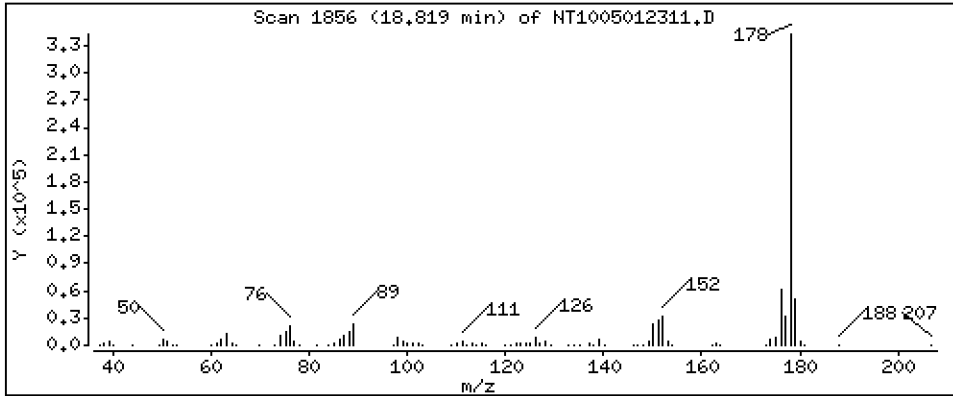
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,169 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

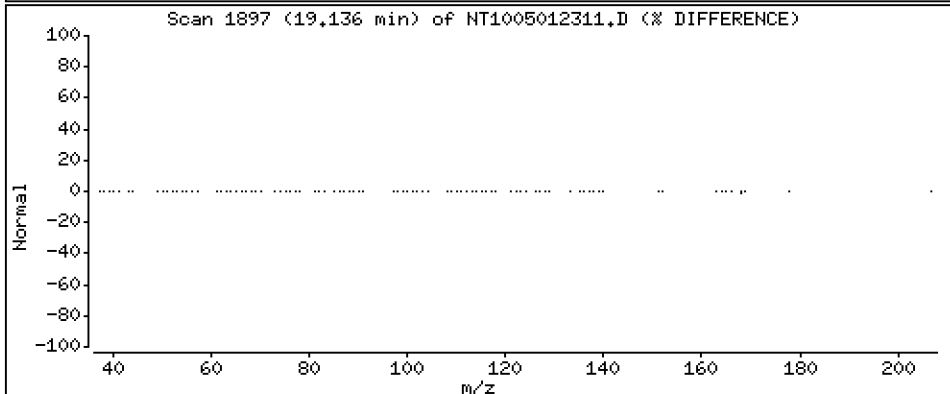
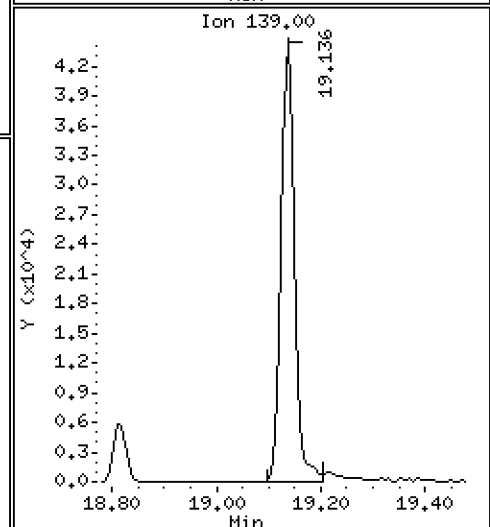
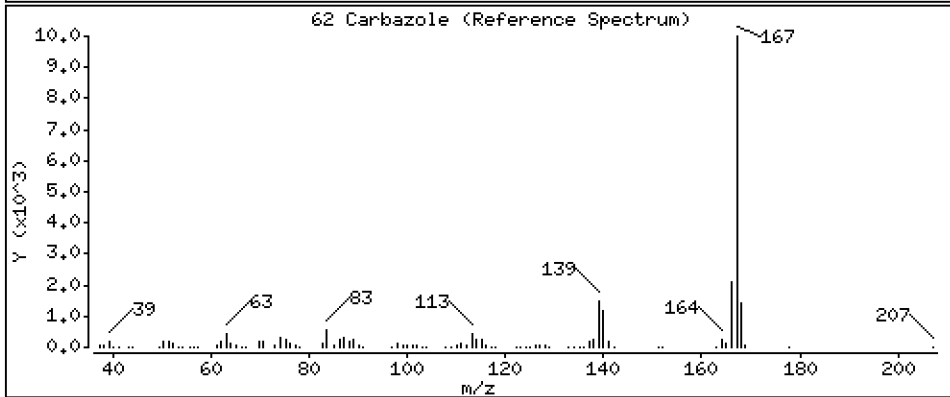
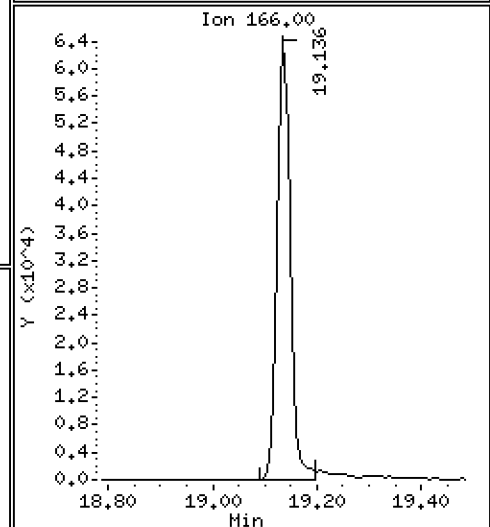
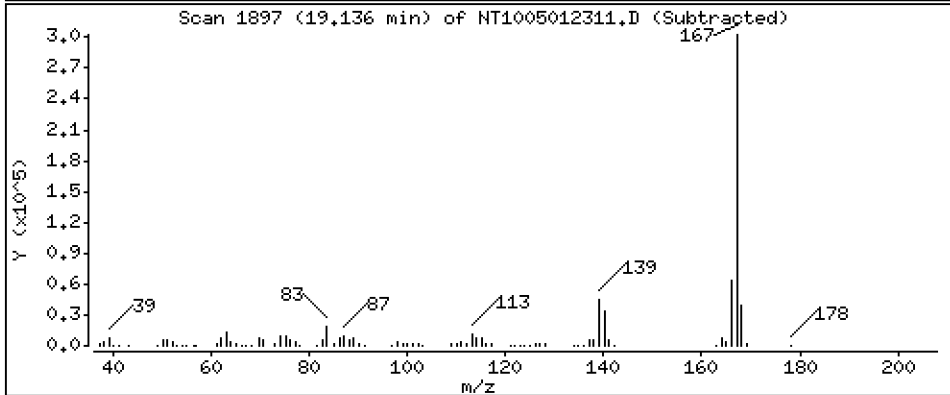
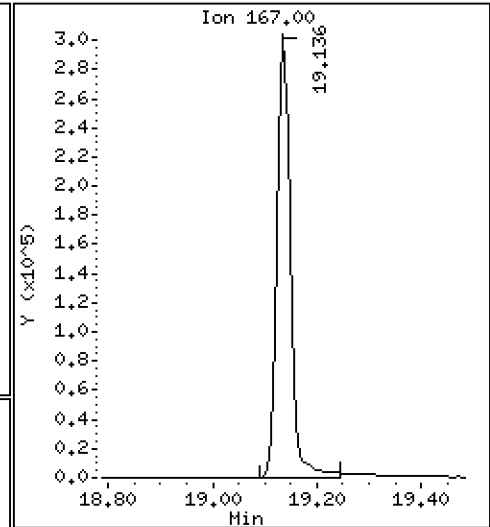
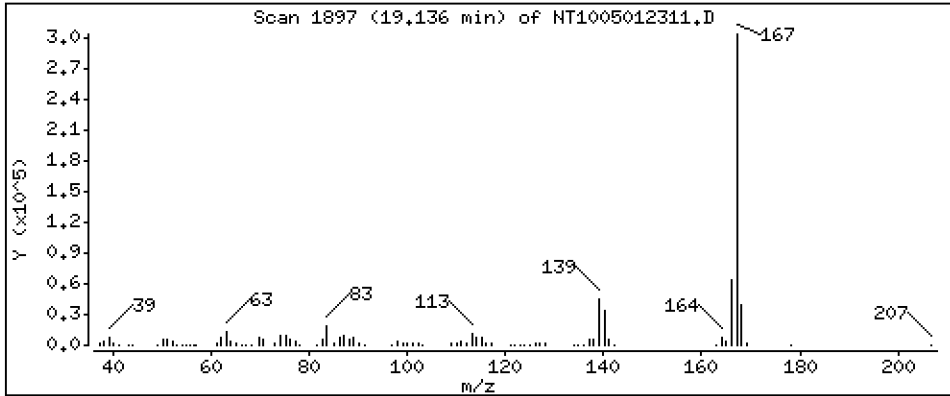
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 4,503 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

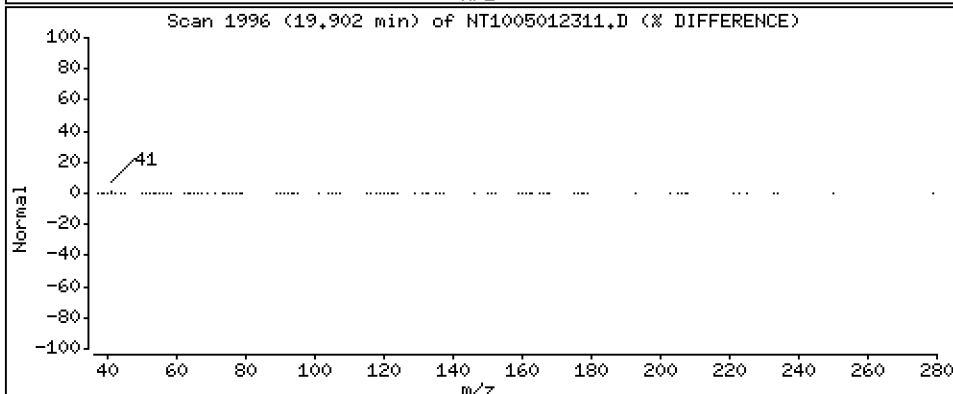
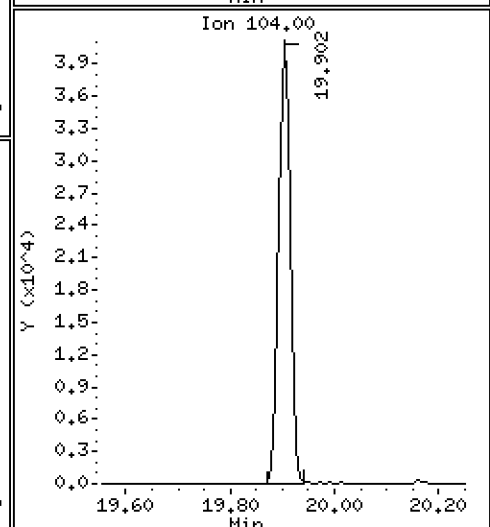
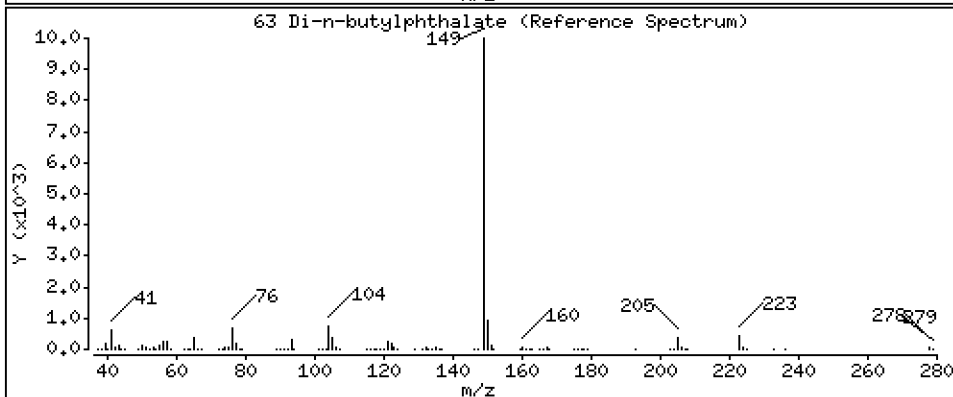
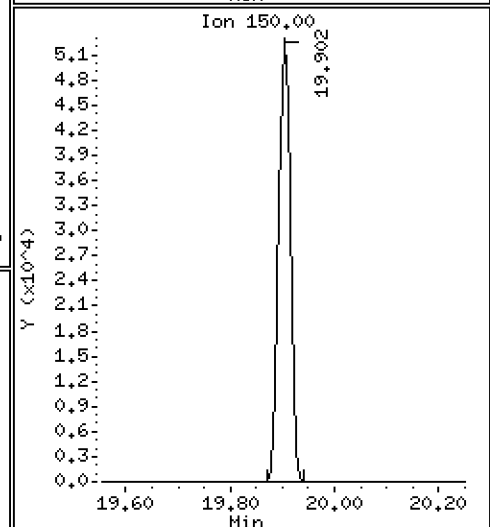
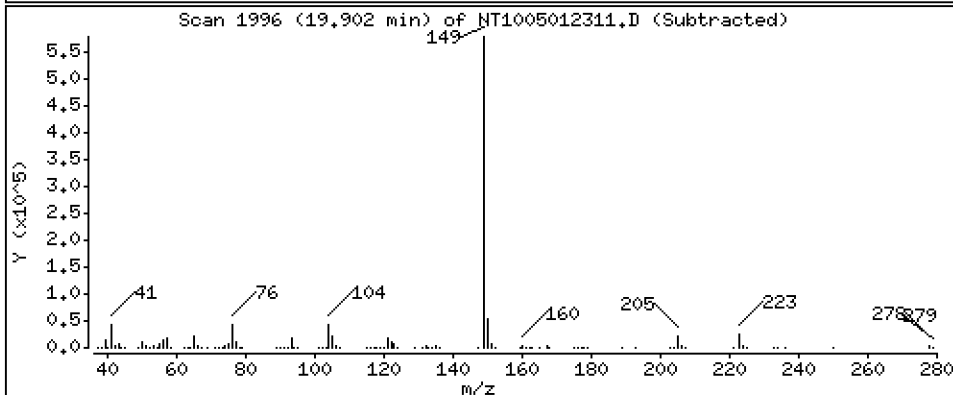
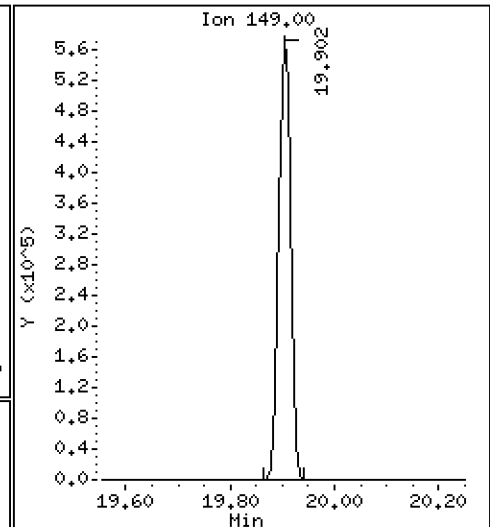
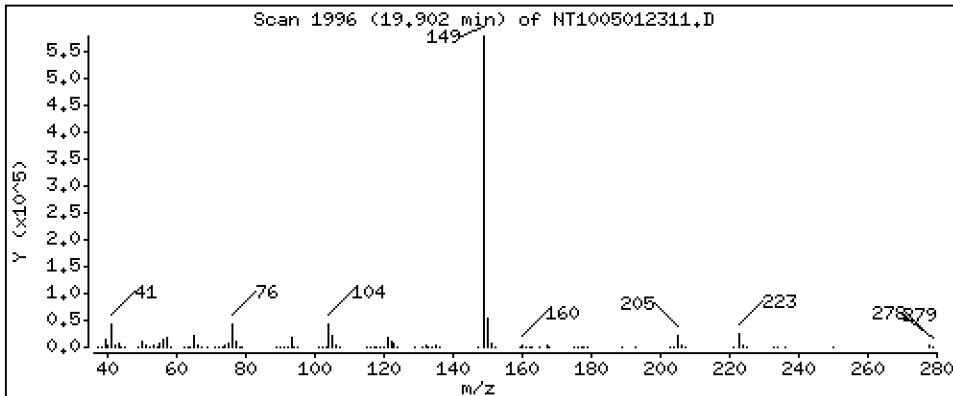
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,895 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

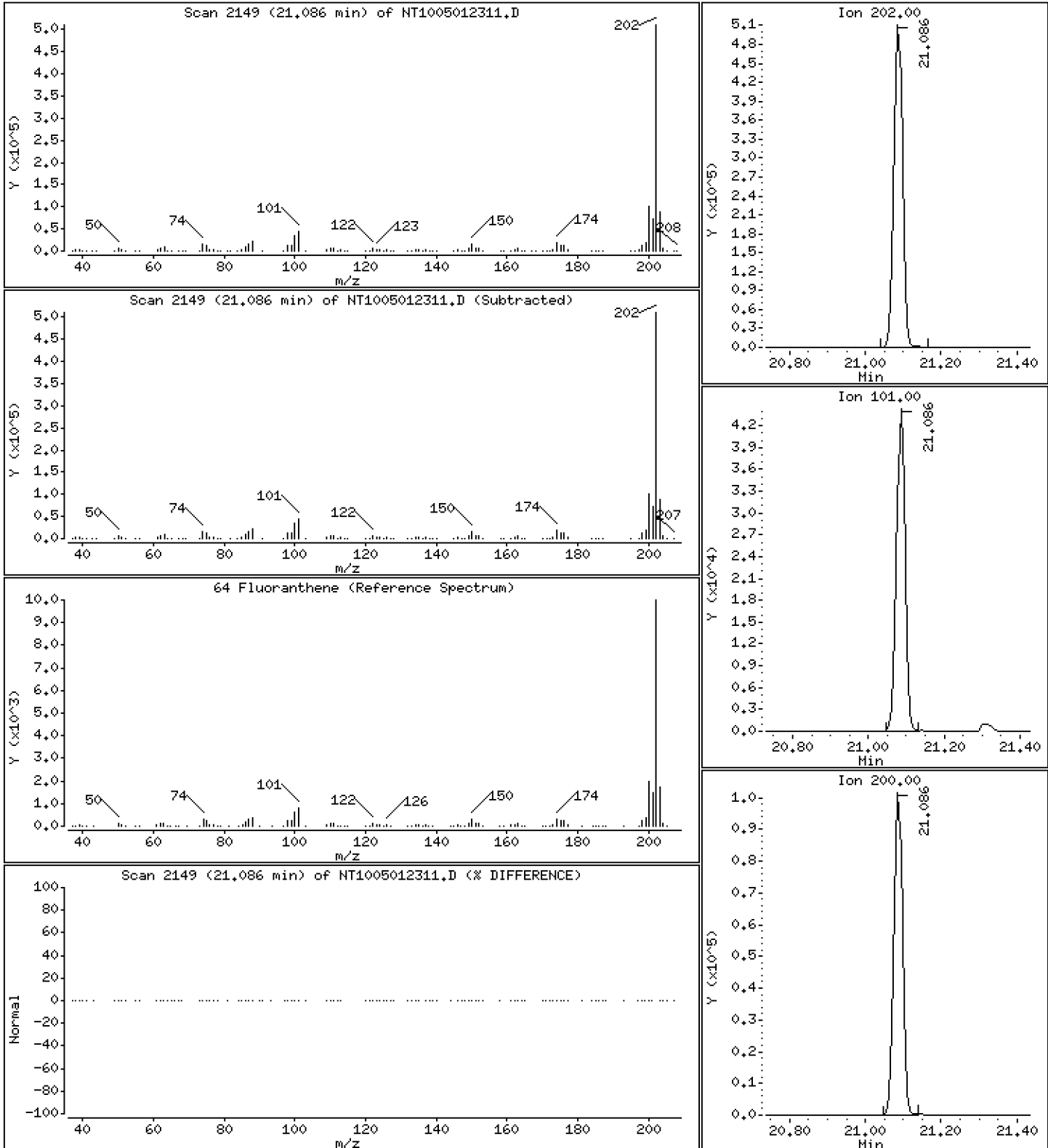
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,738 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

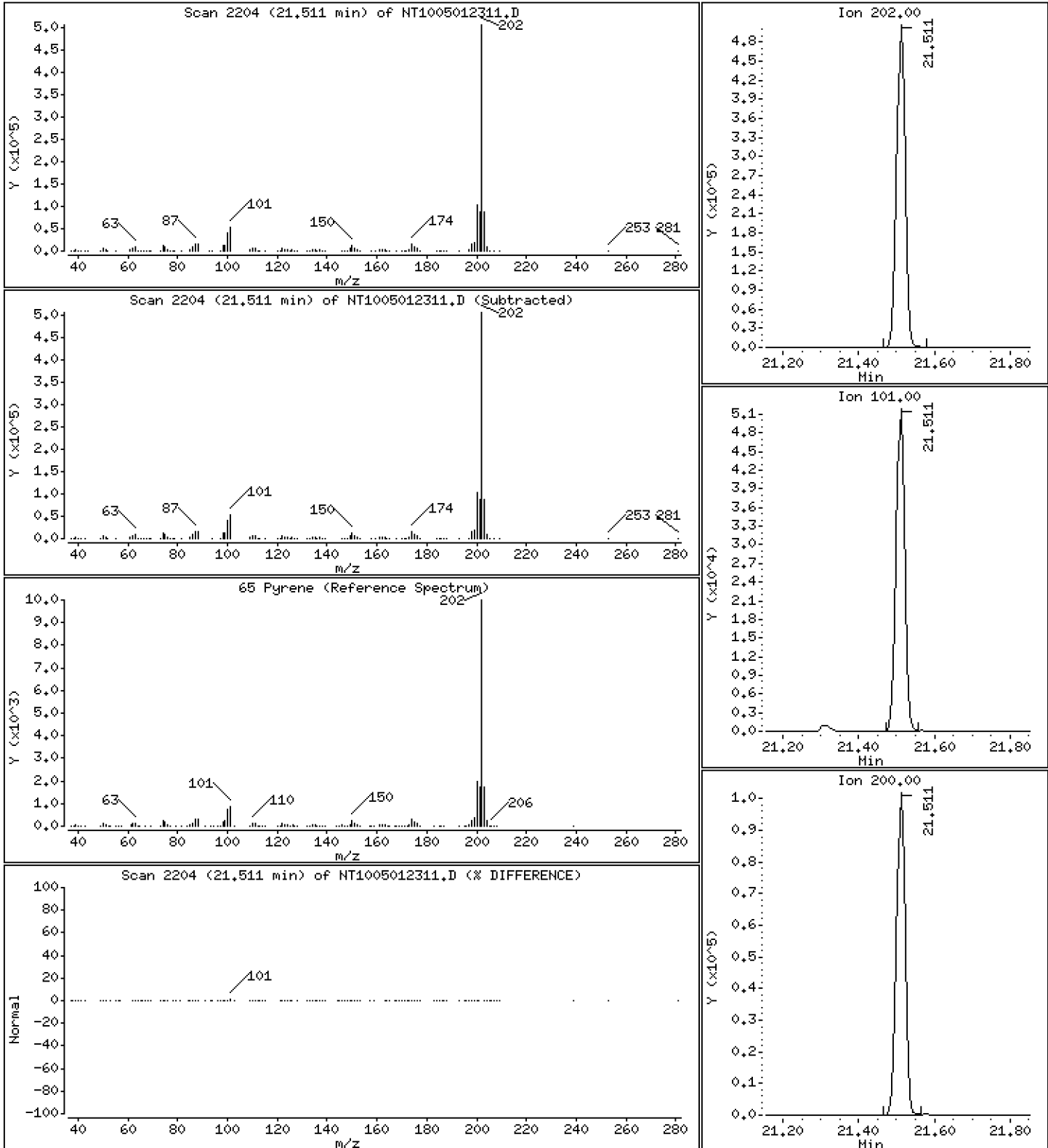
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,635 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

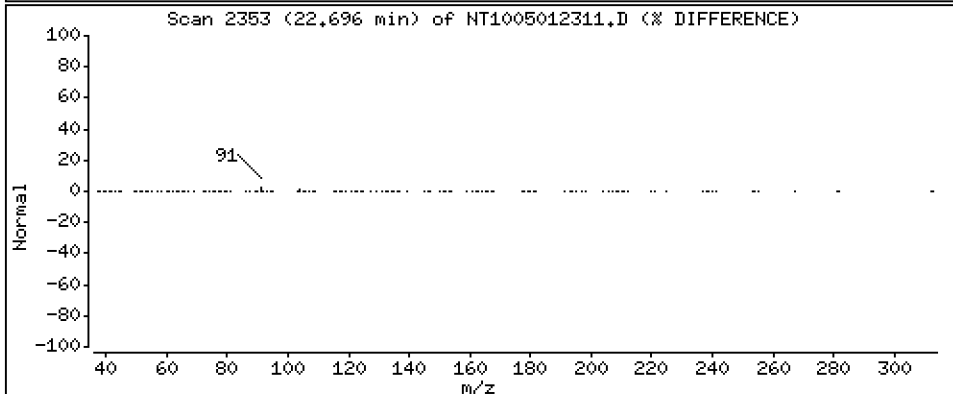
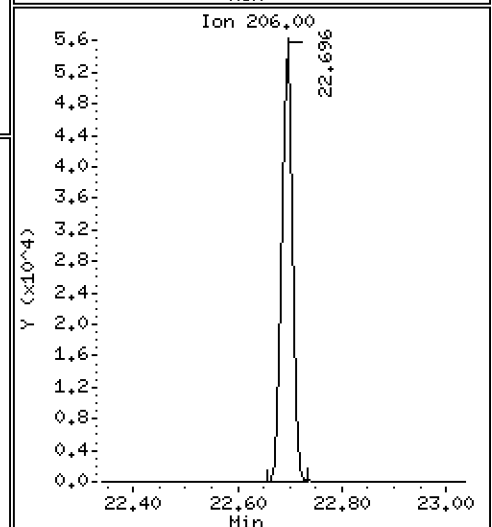
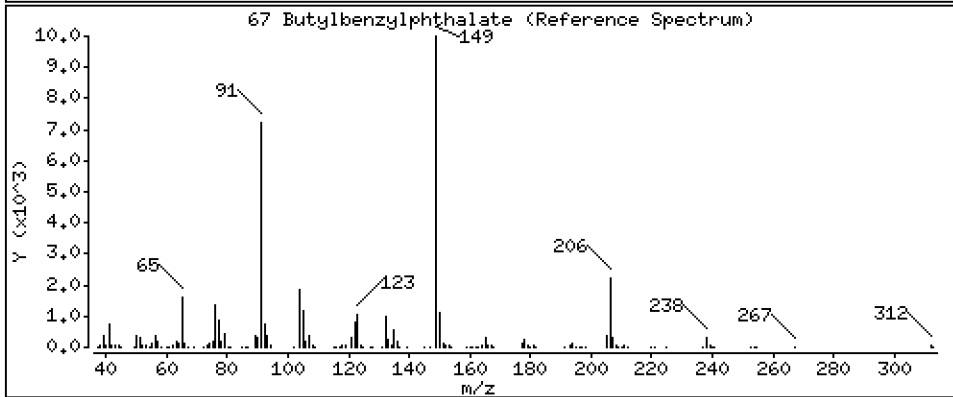
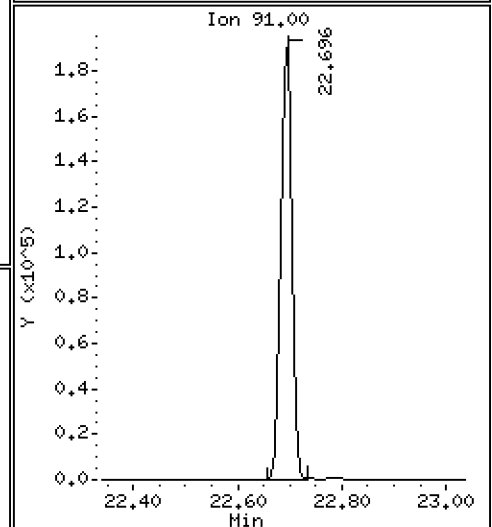
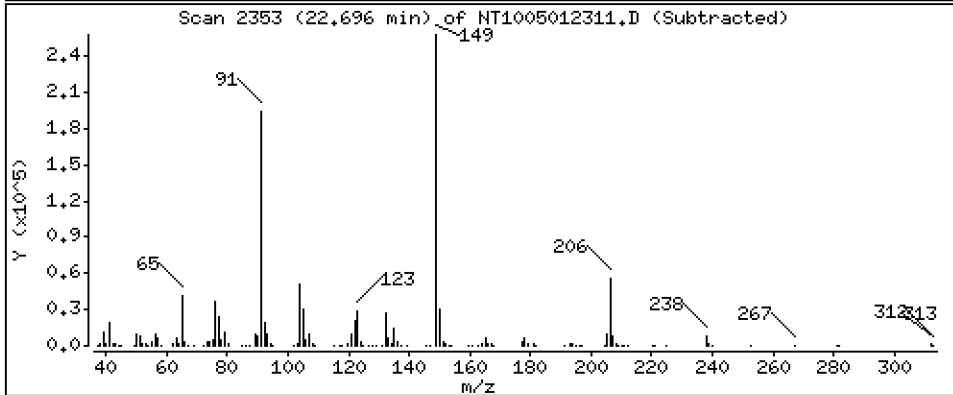
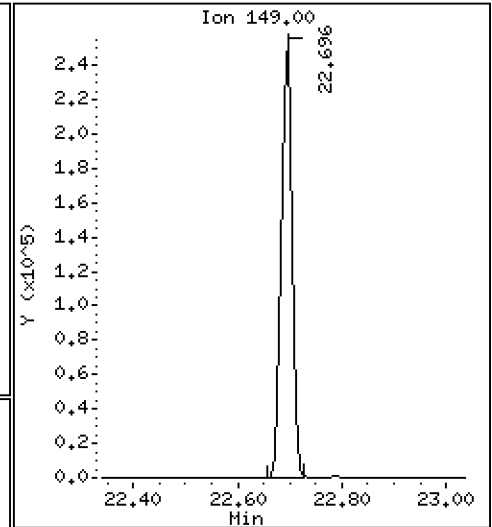
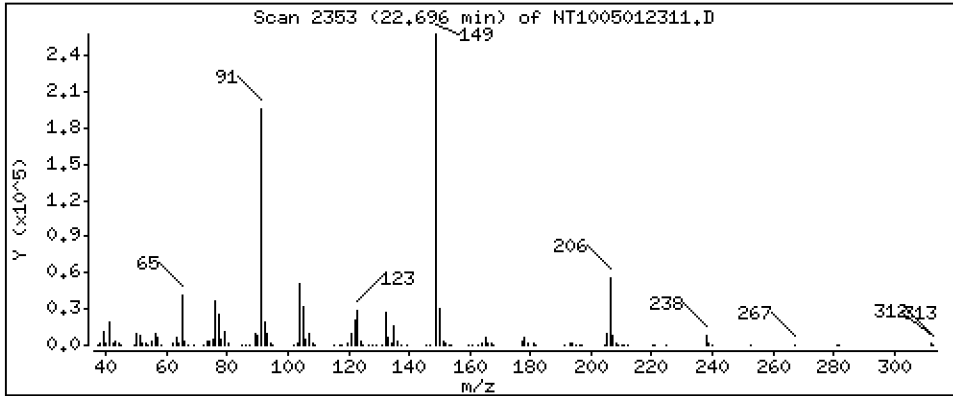
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,778 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

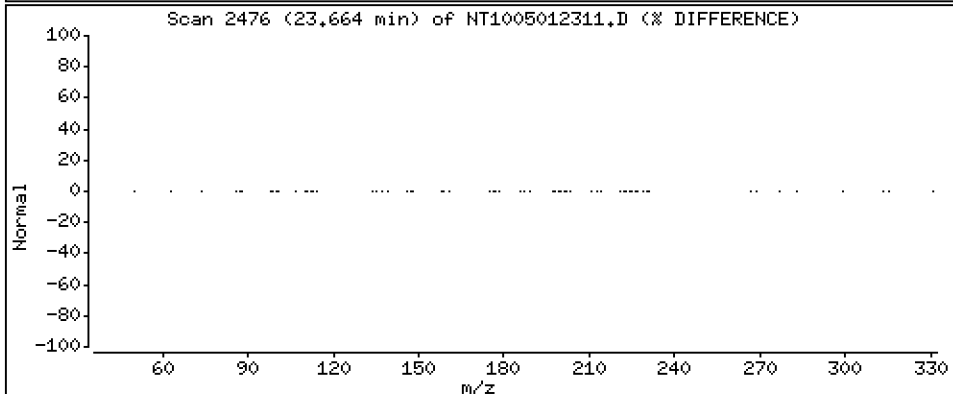
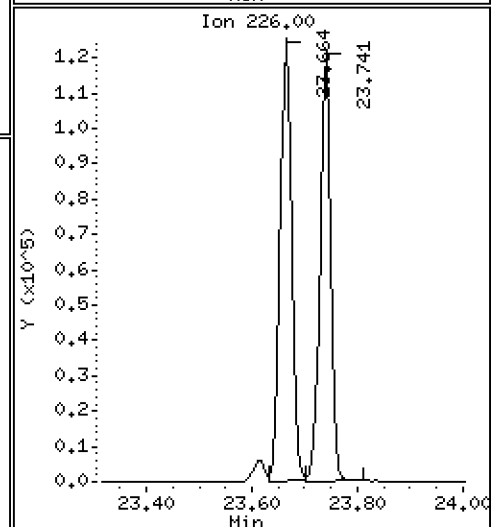
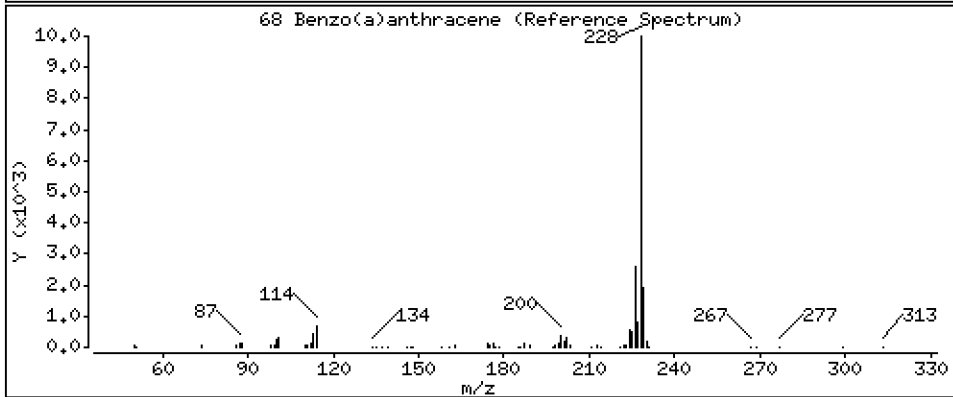
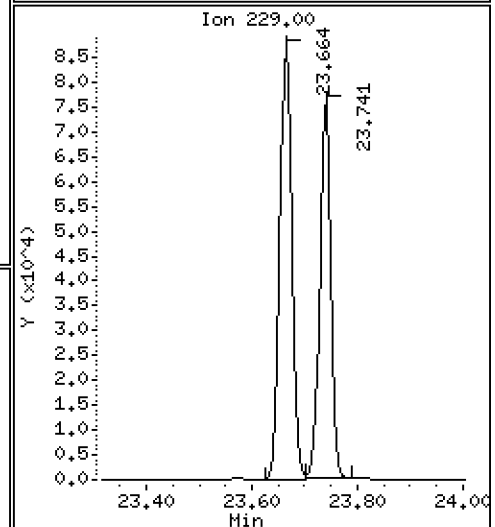
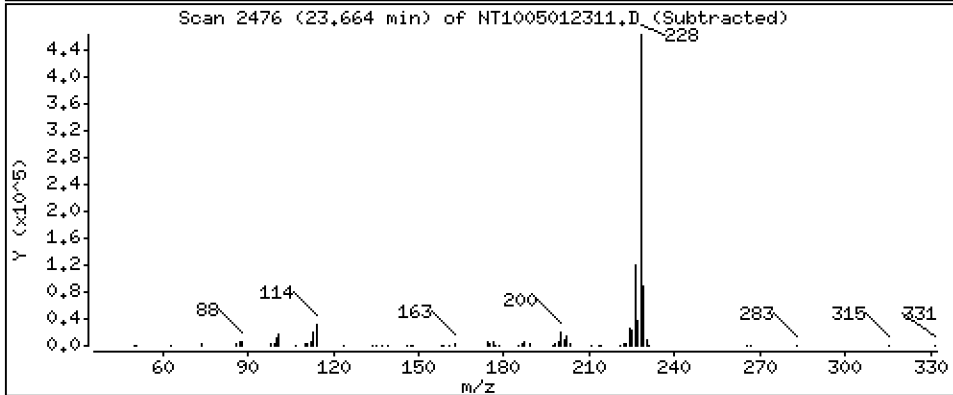
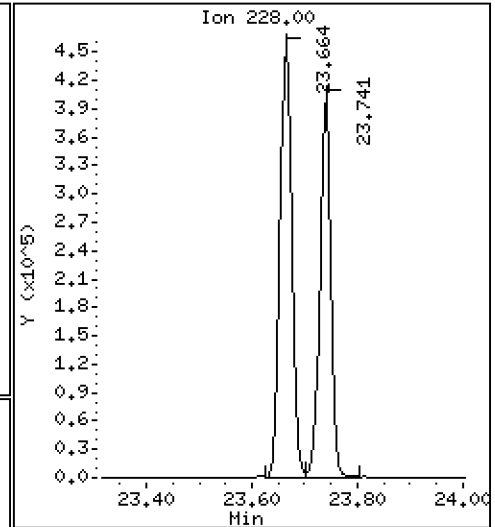
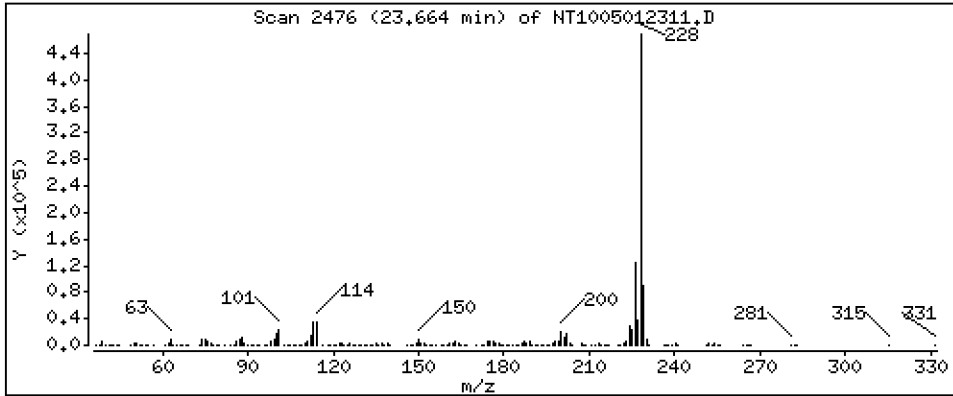
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,717 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

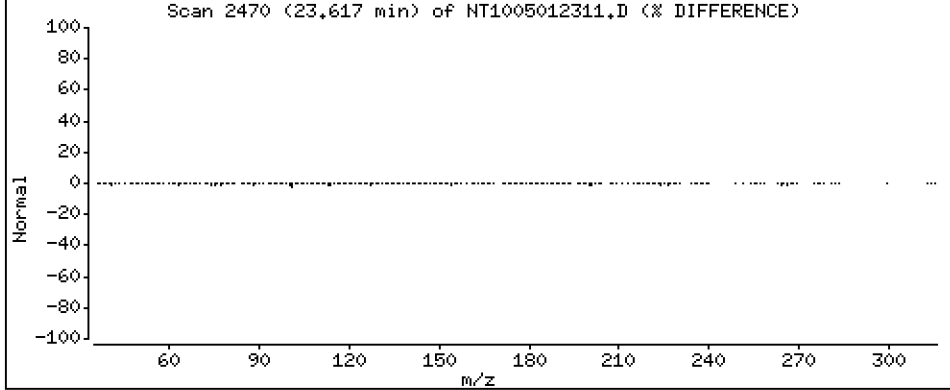
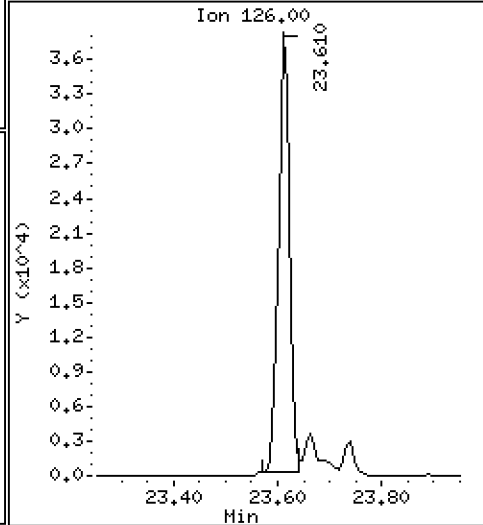
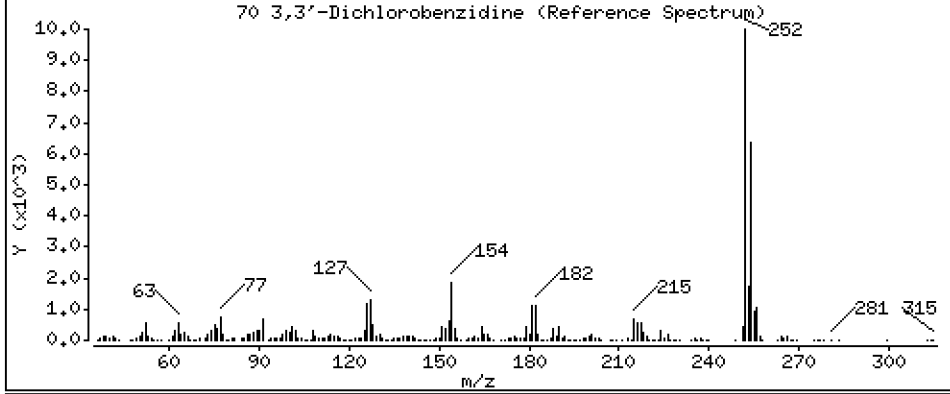
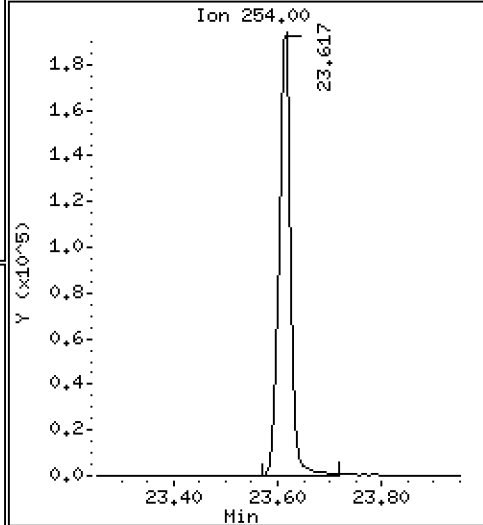
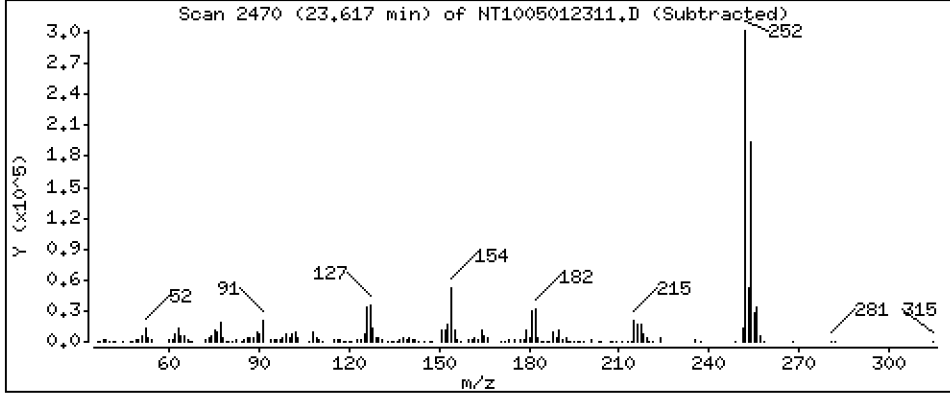
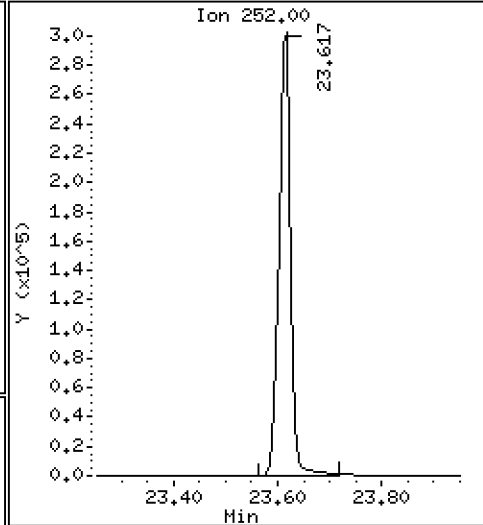
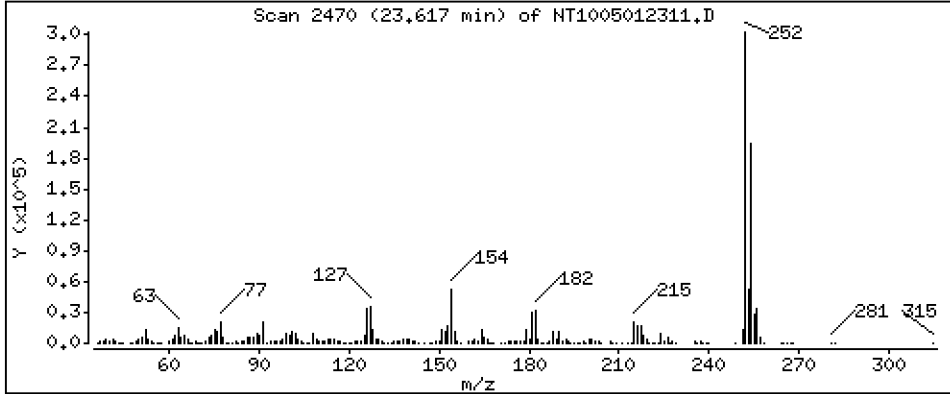
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 10,21 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

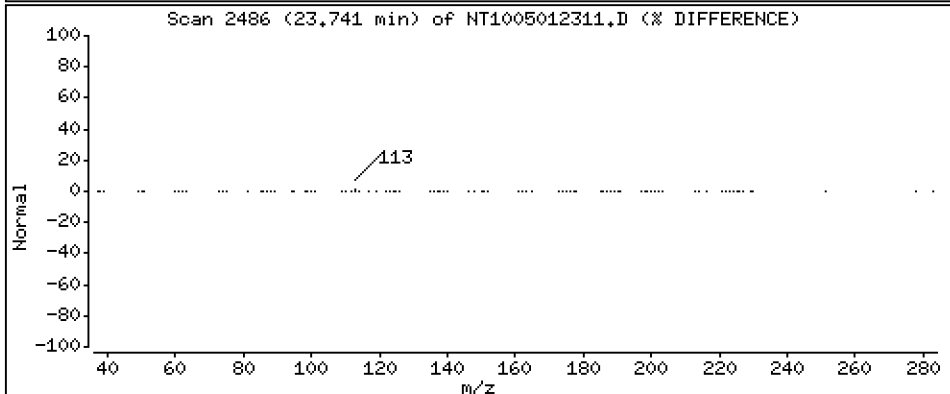
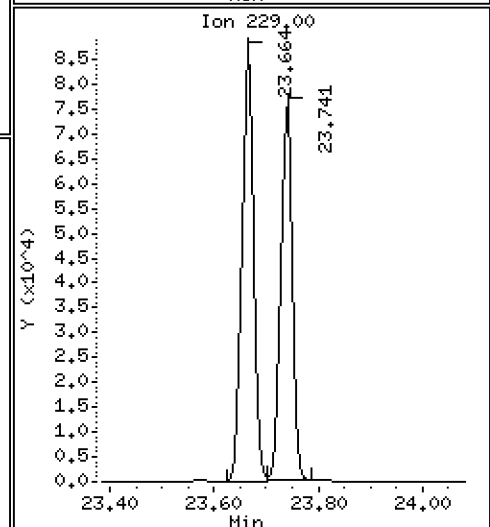
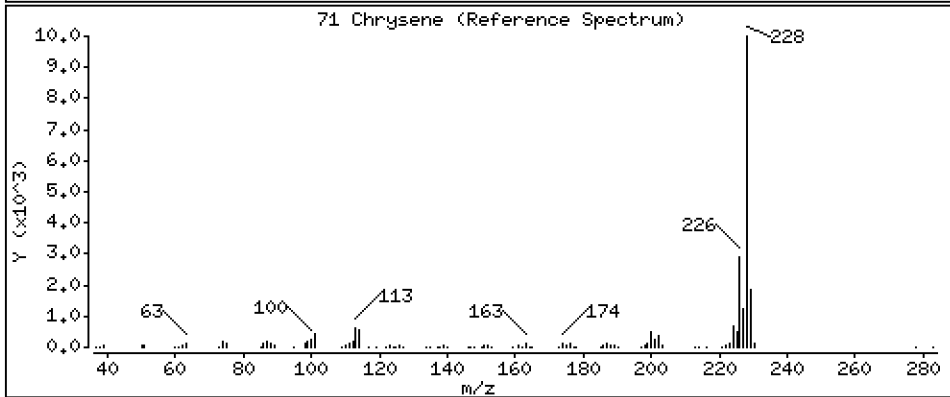
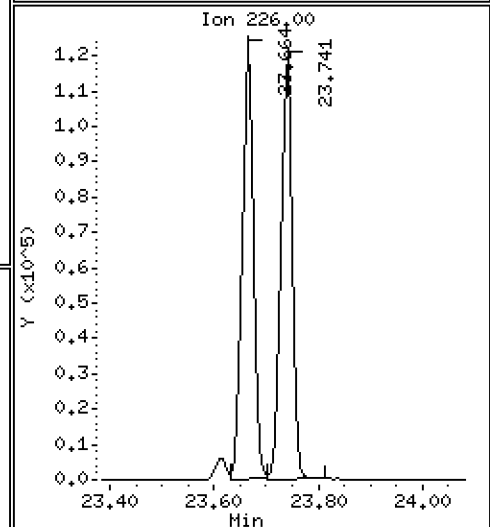
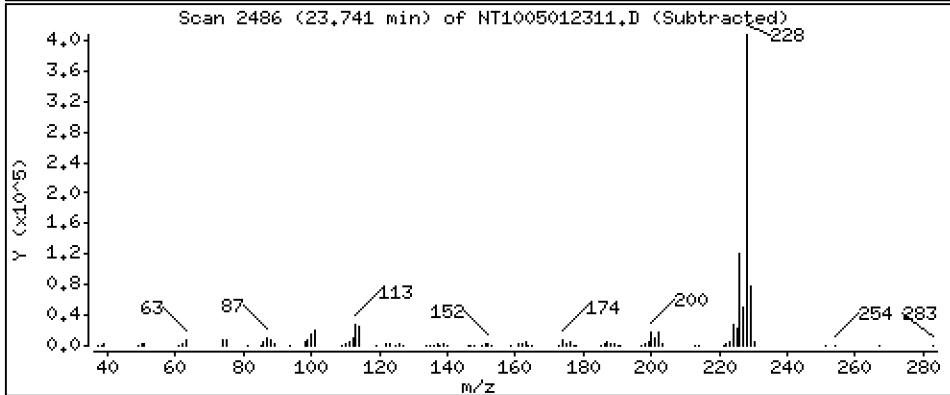
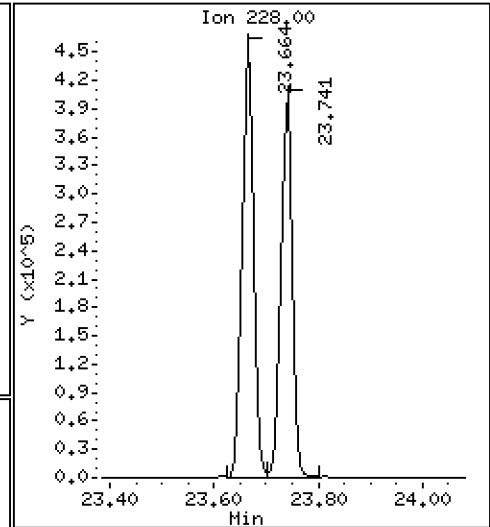
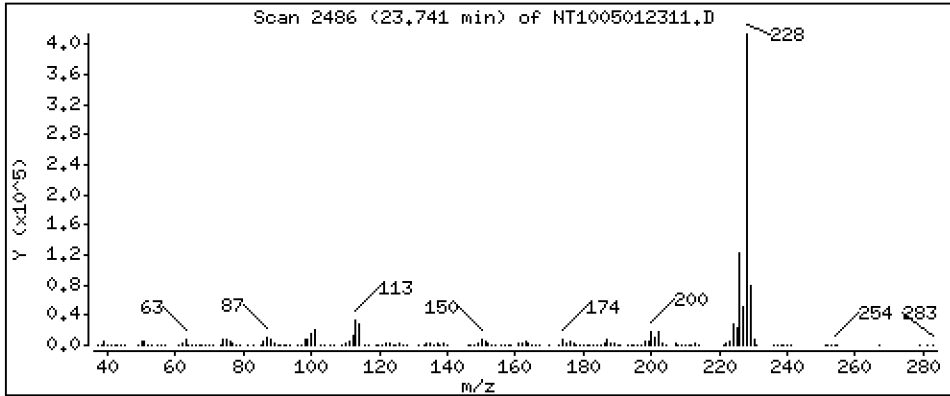
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,540 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

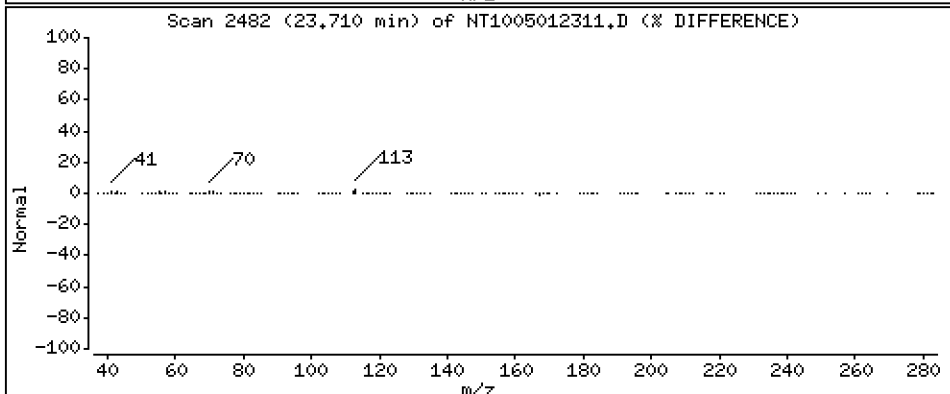
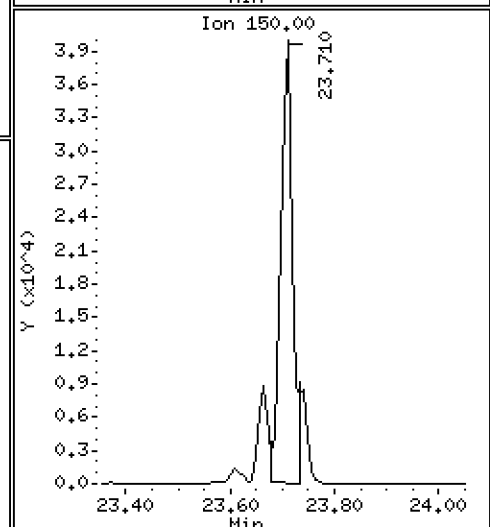
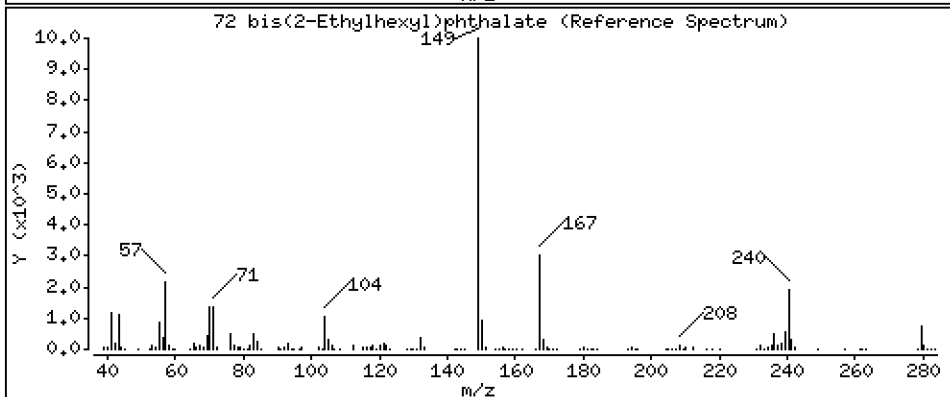
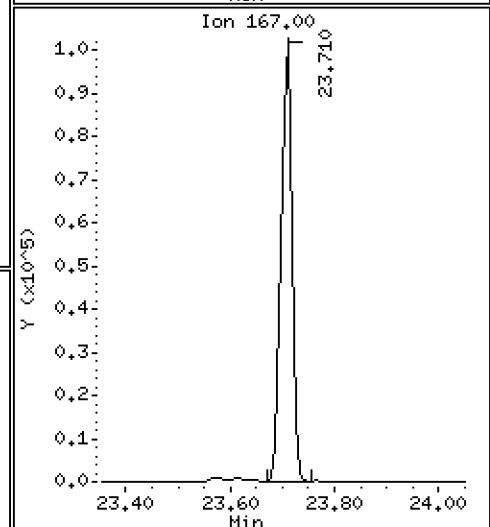
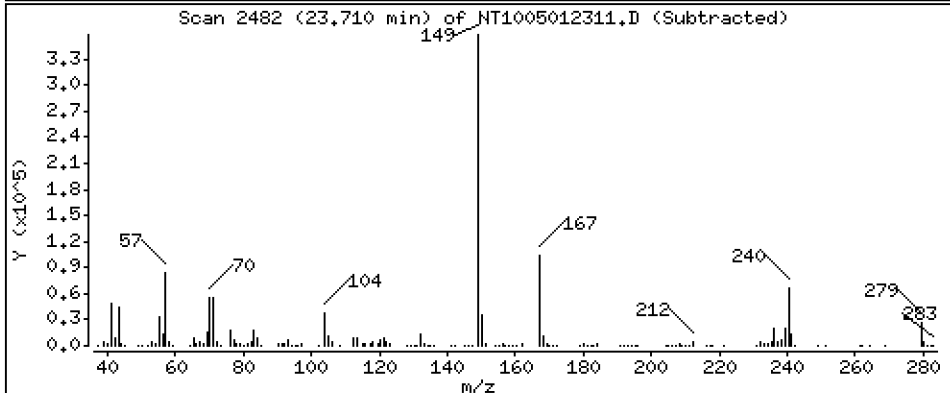
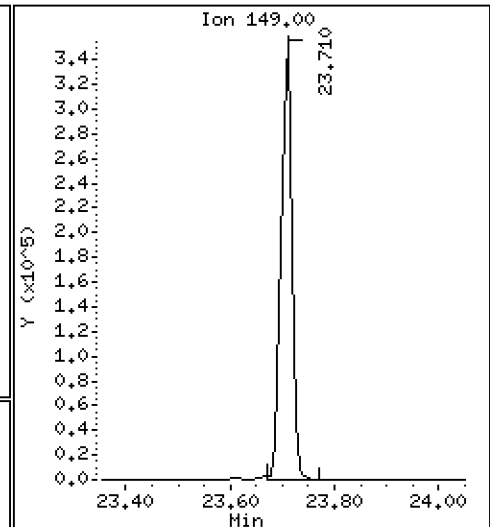
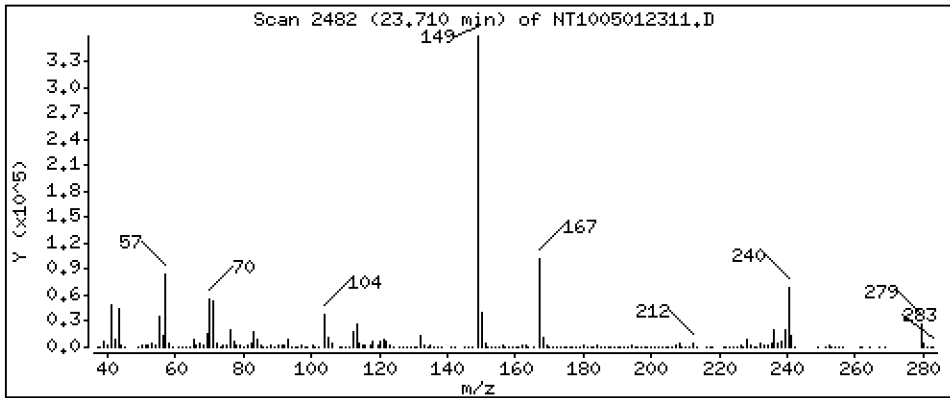
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 5,406 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

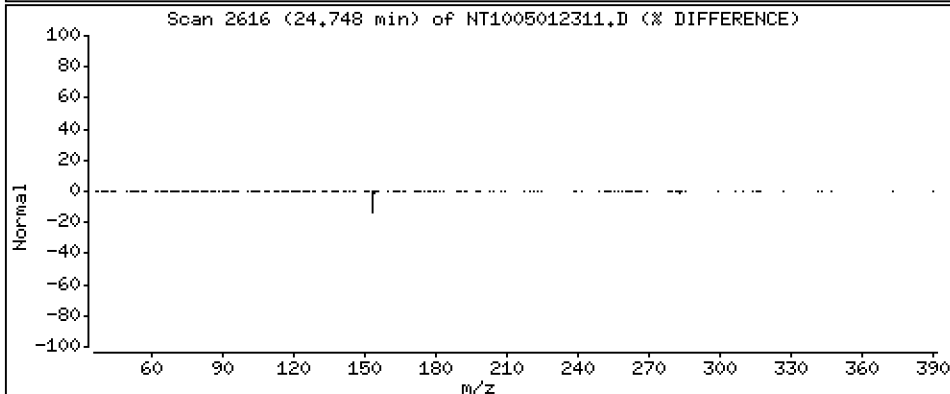
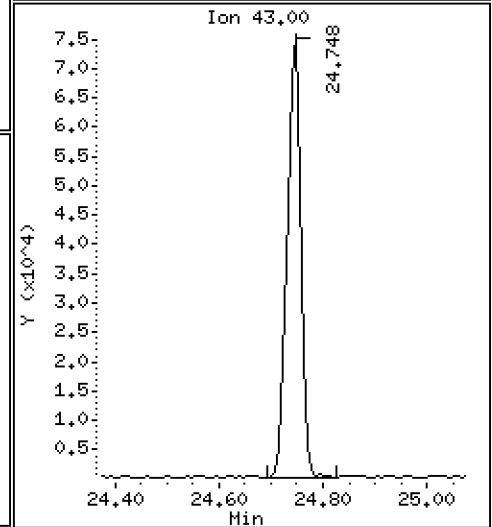
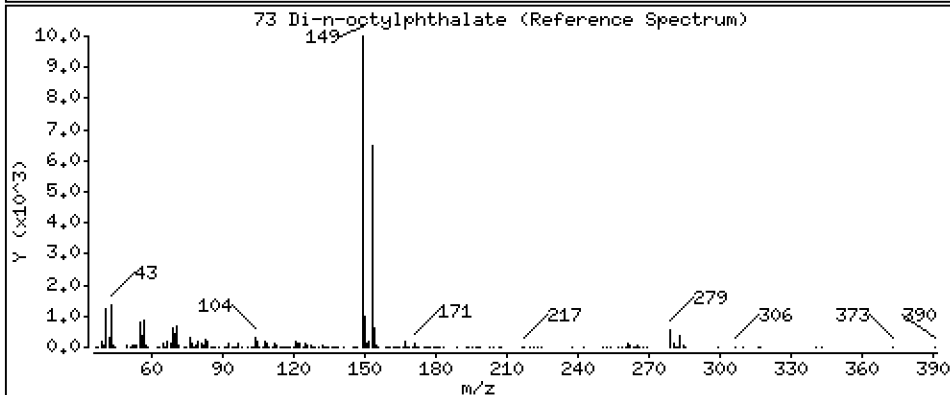
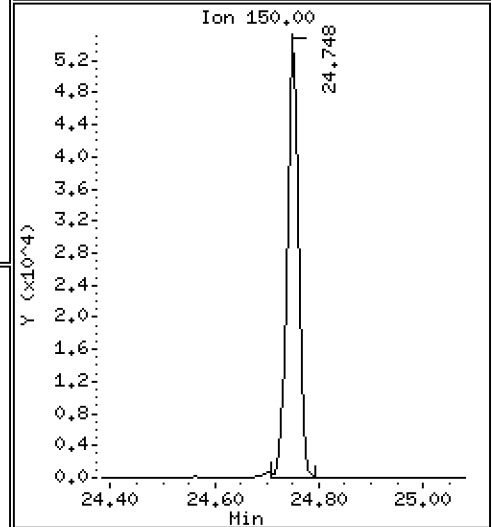
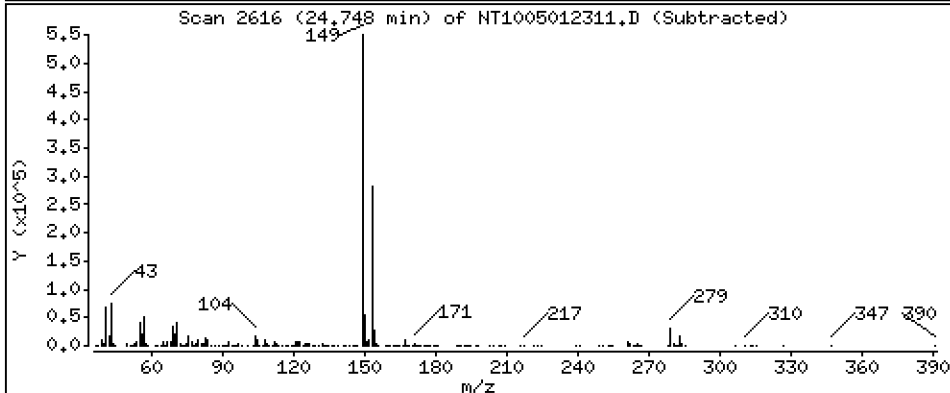
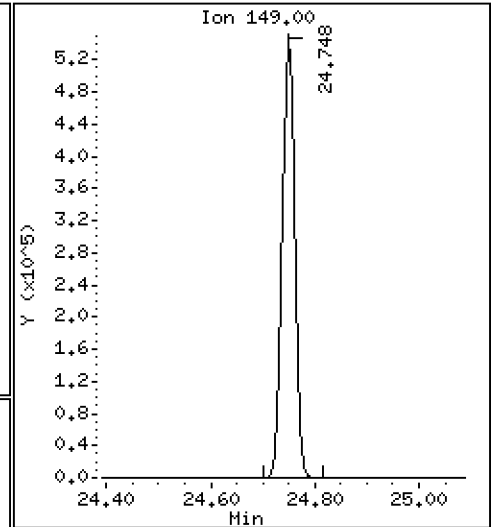
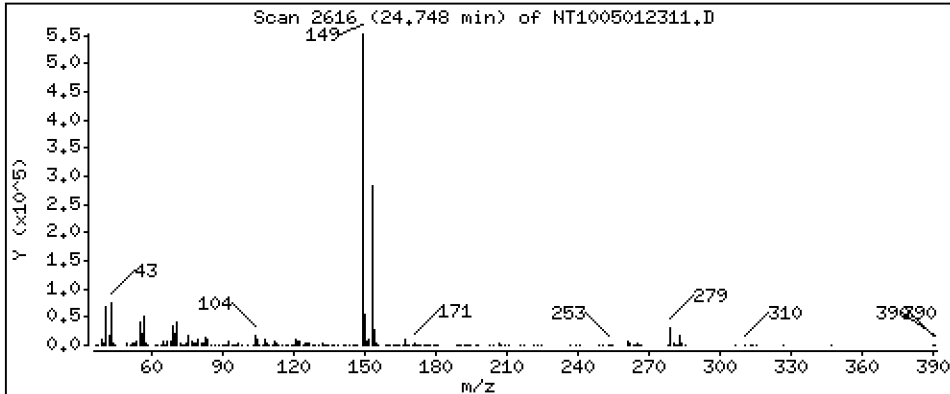
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 5,161 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

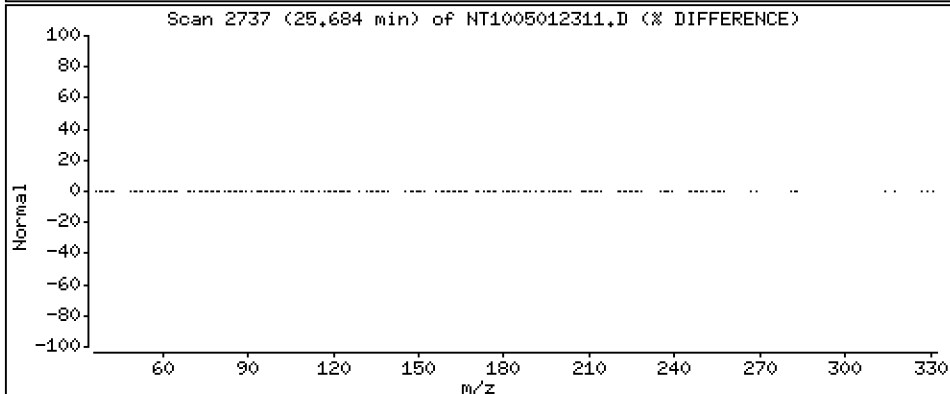
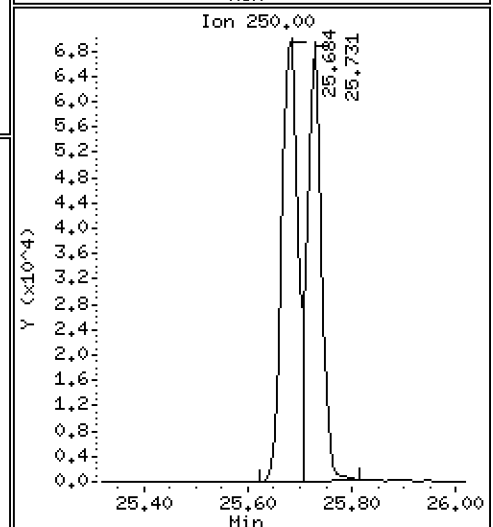
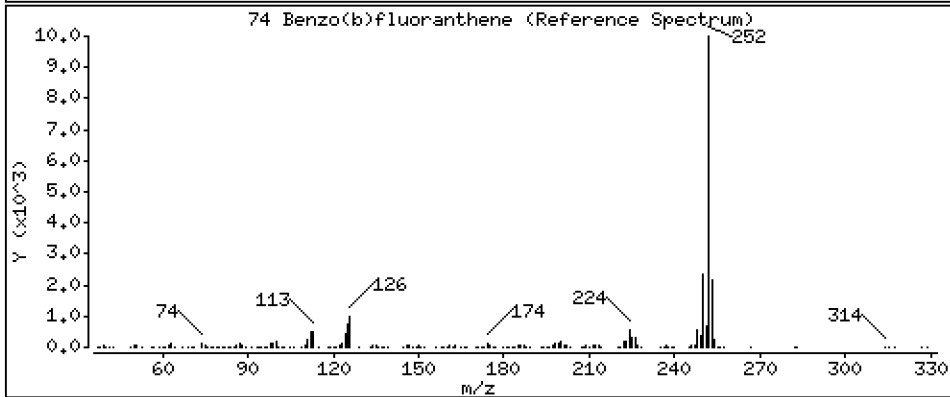
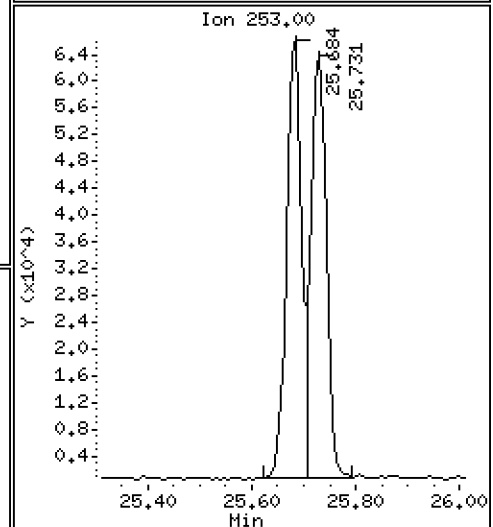
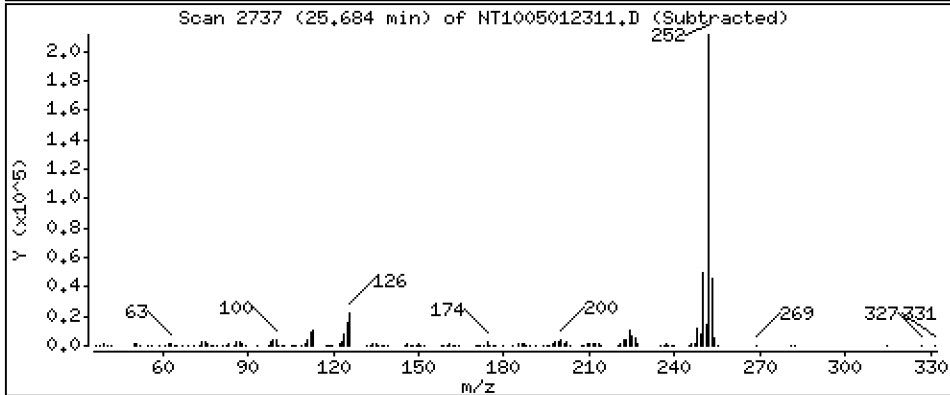
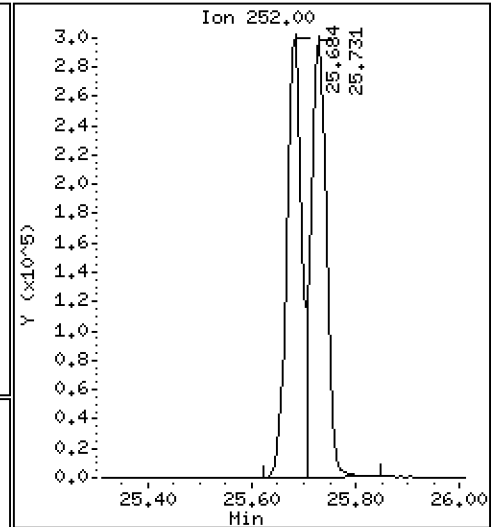
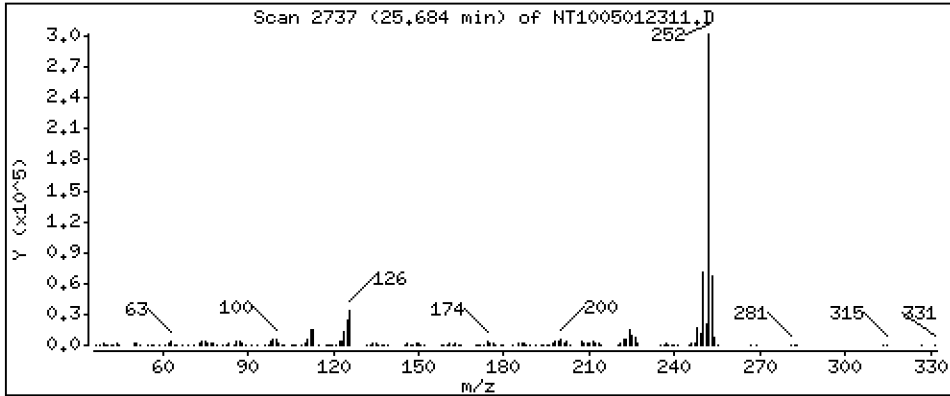
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,785 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

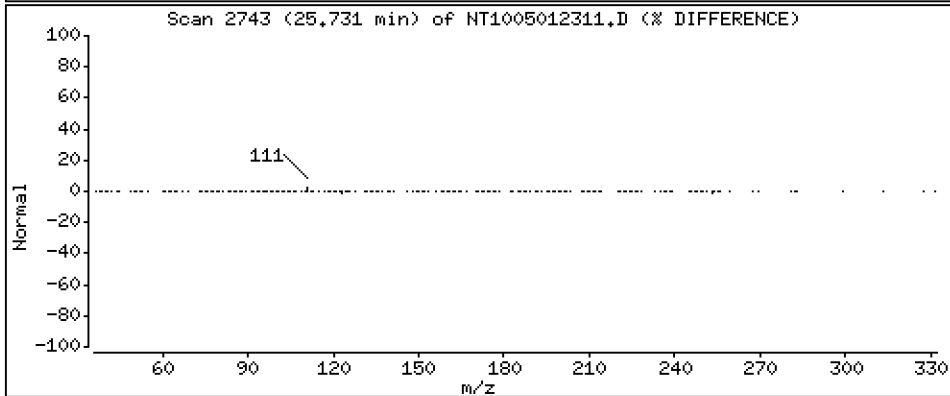
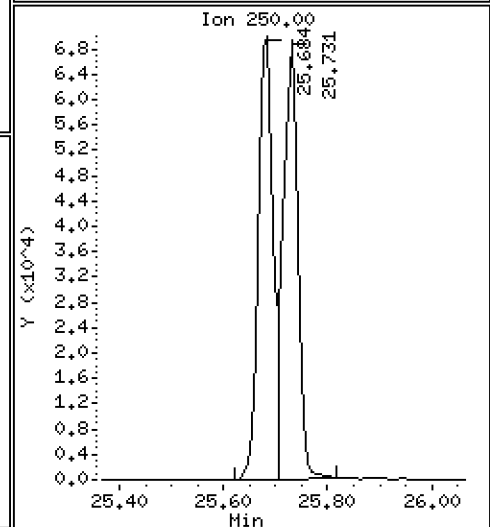
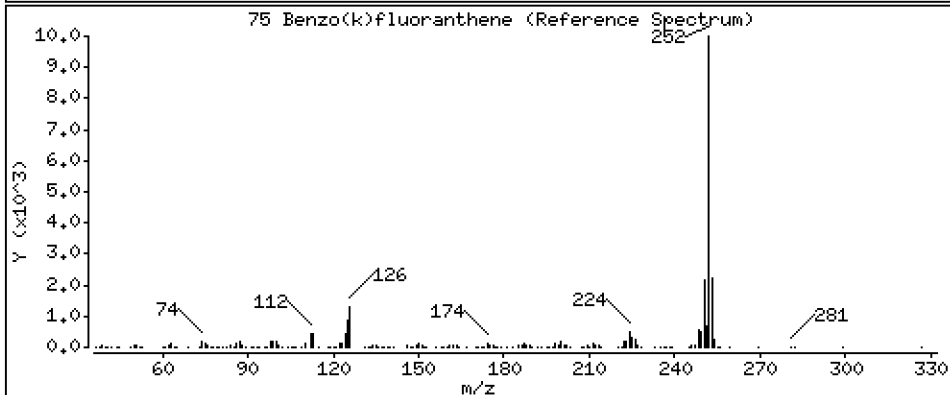
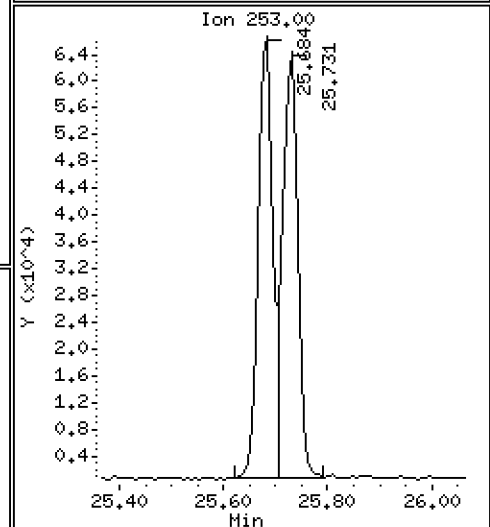
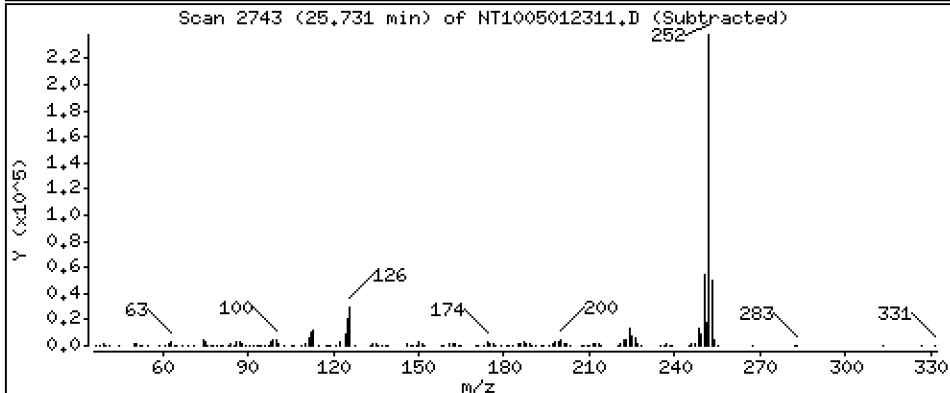
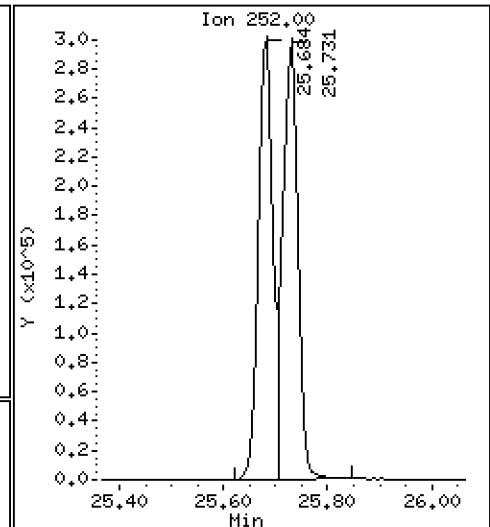
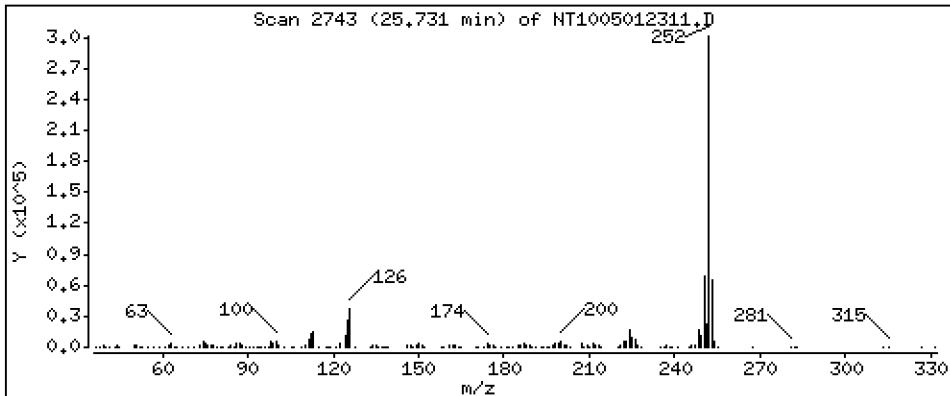
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,457 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

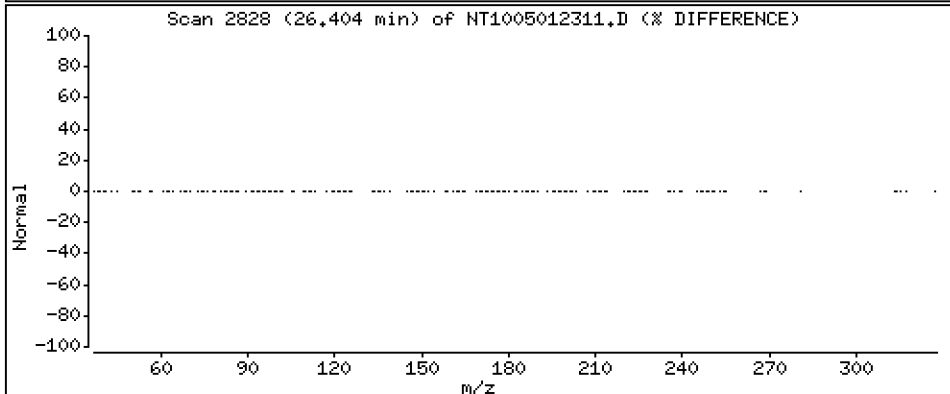
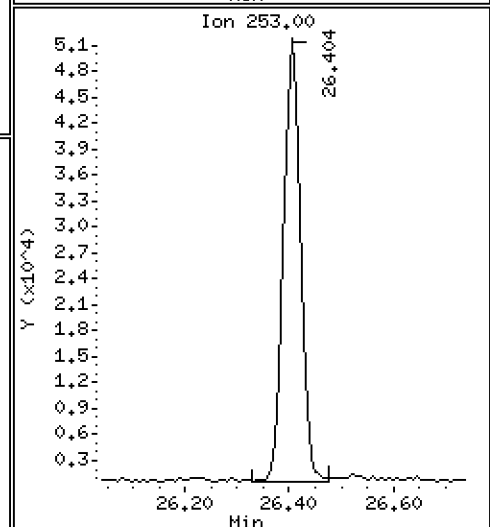
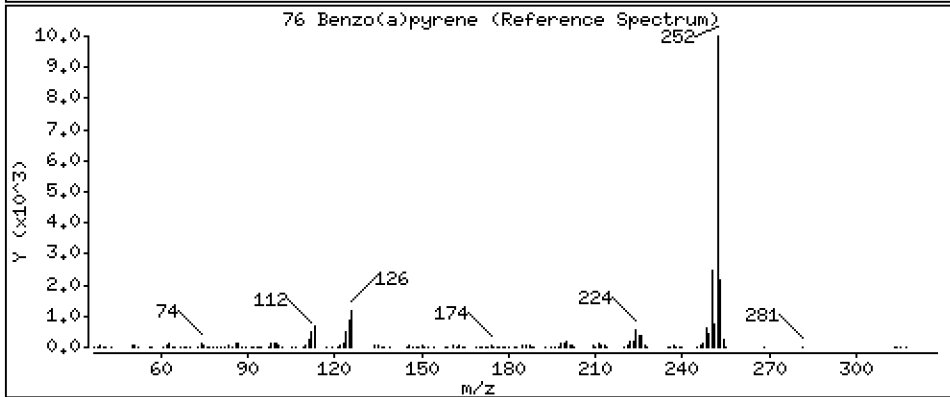
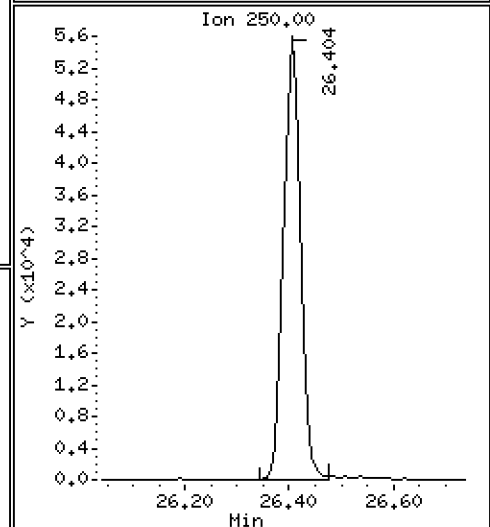
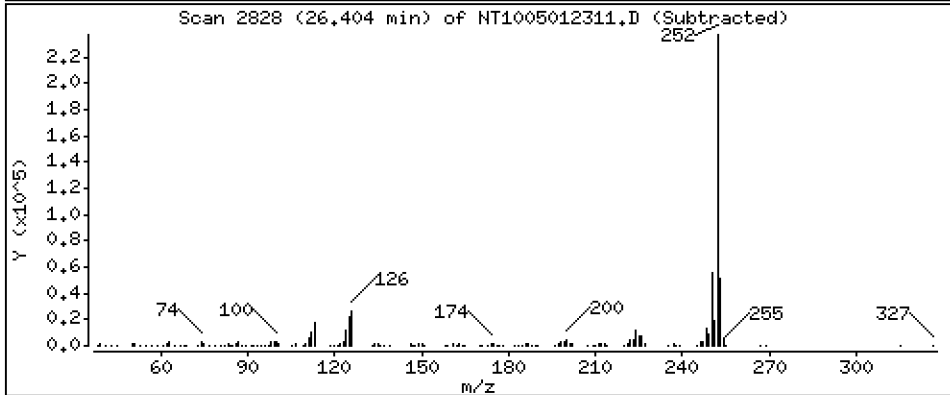
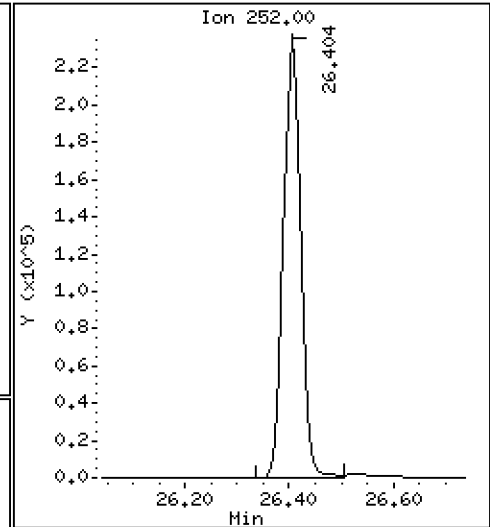
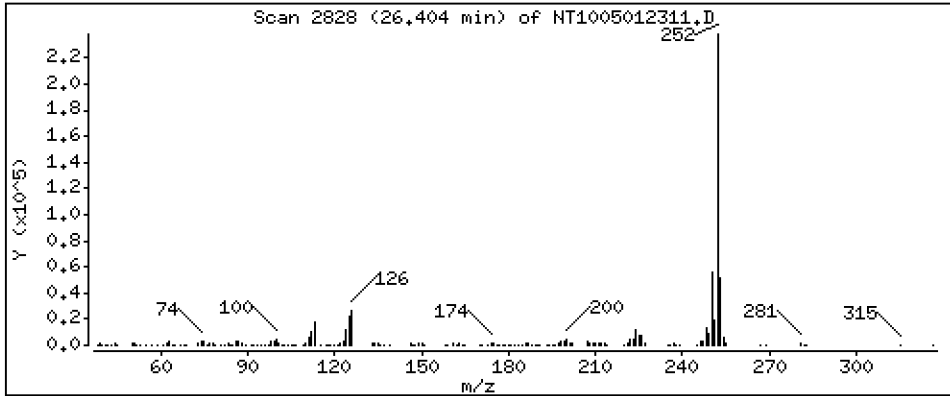
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,787 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

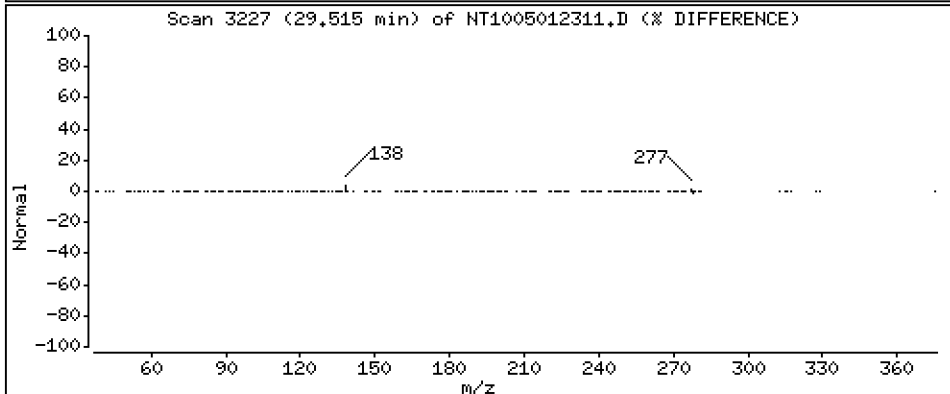
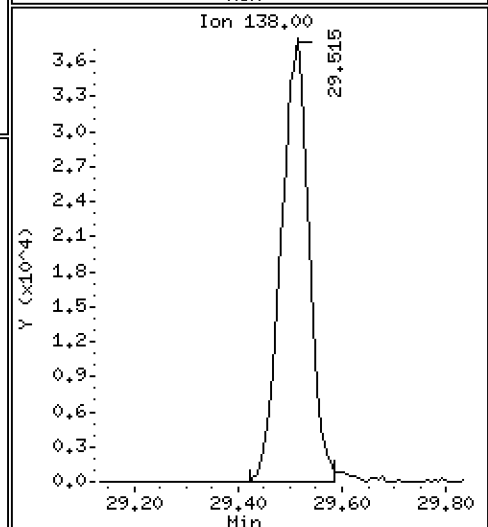
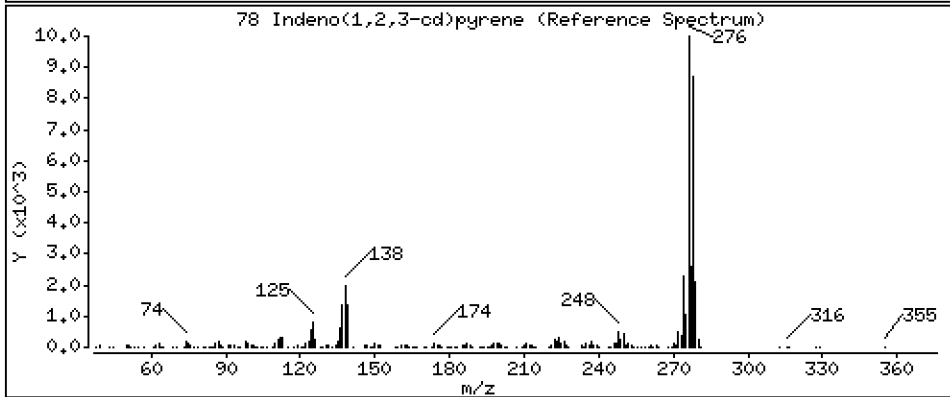
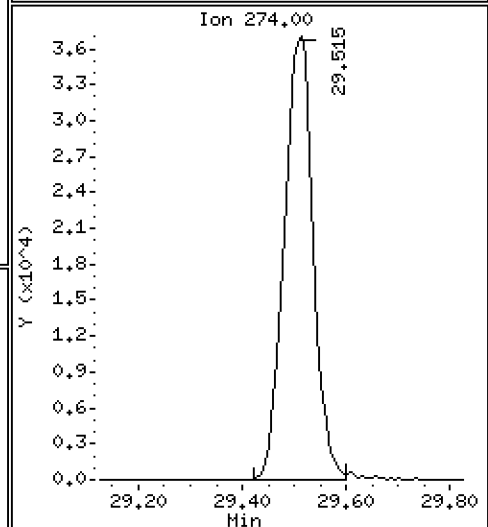
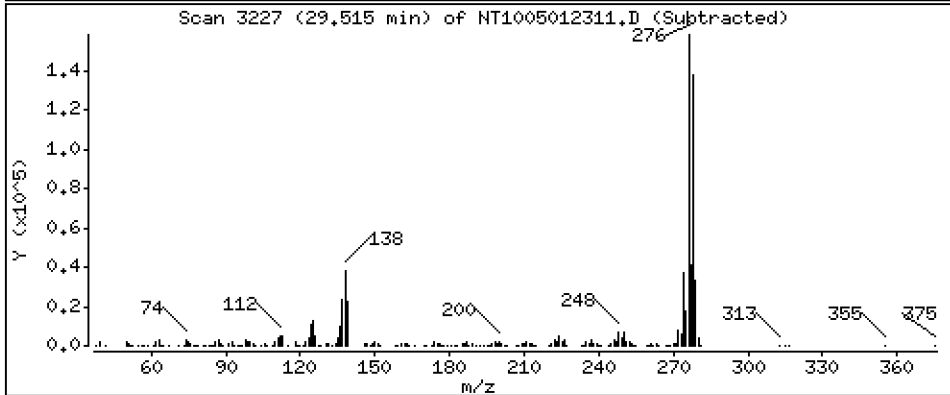
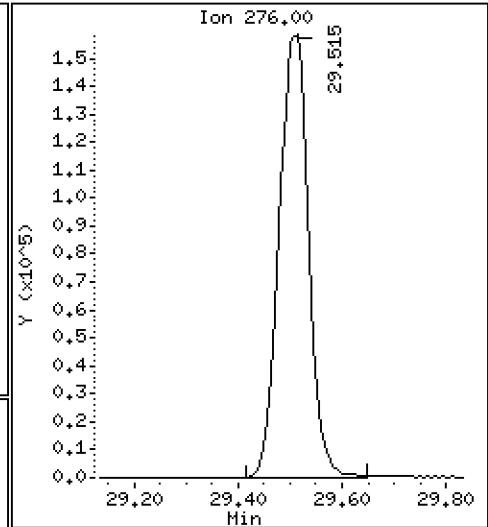
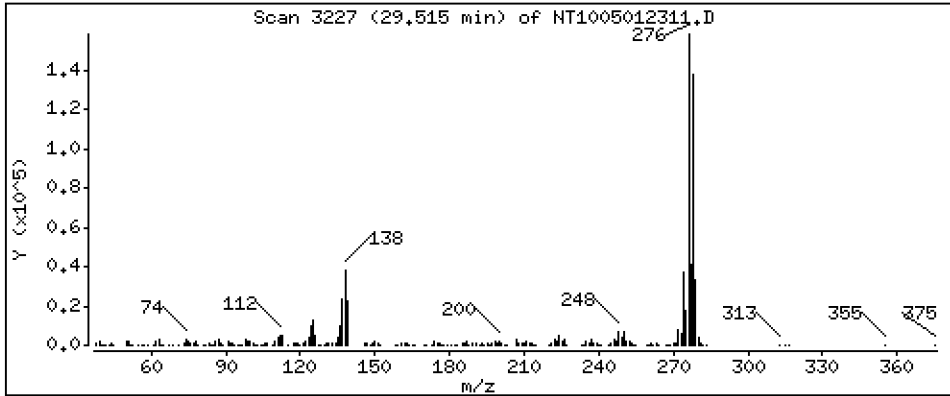
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,677 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

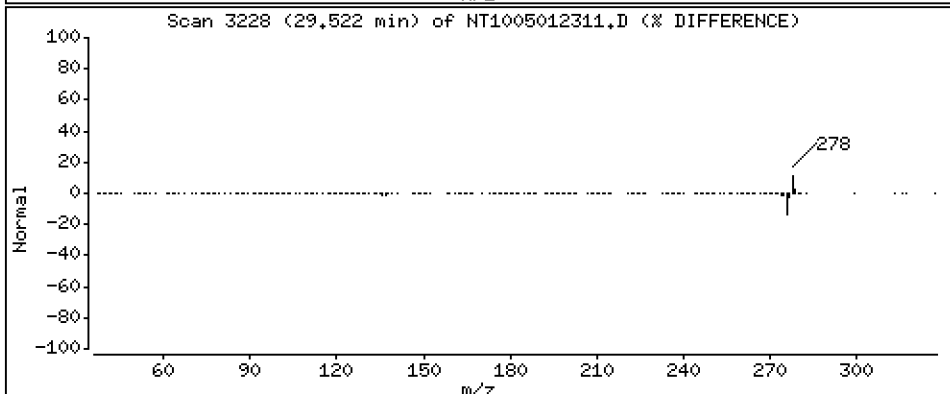
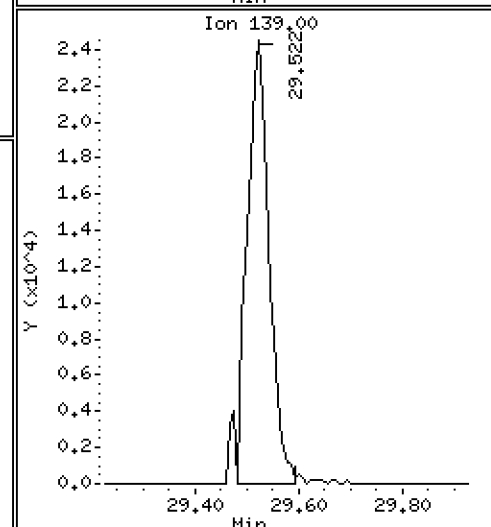
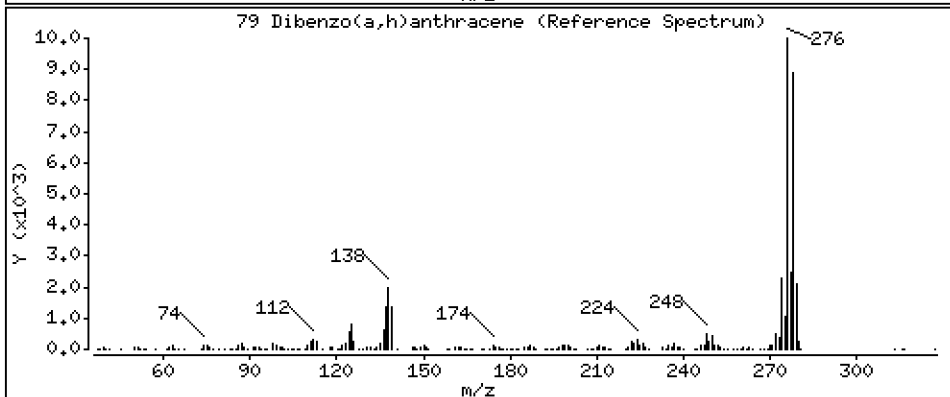
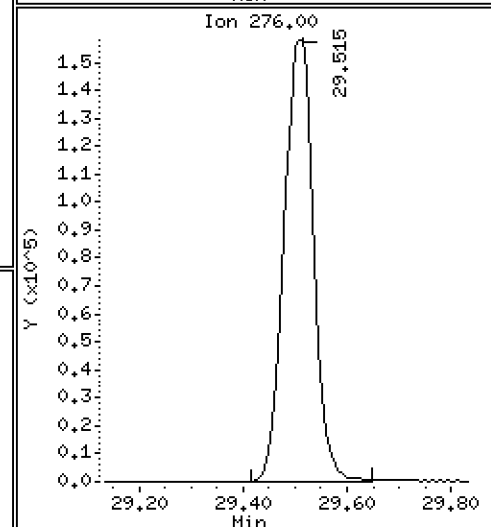
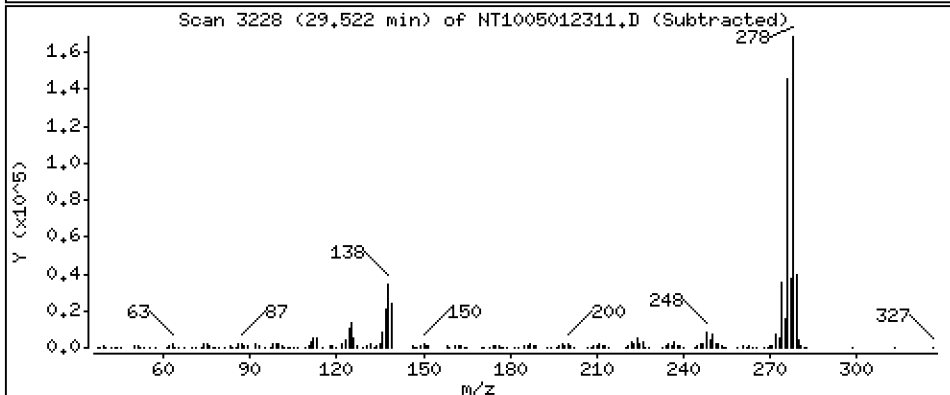
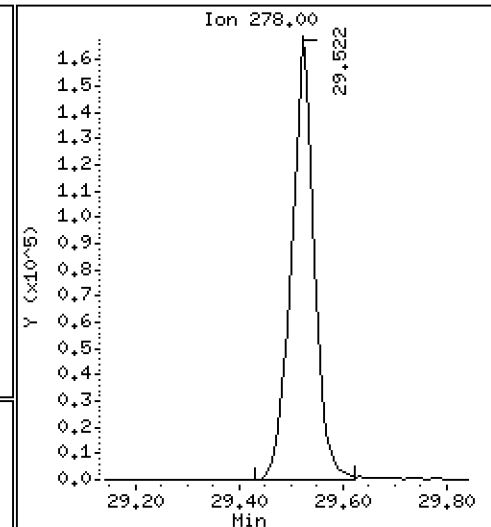
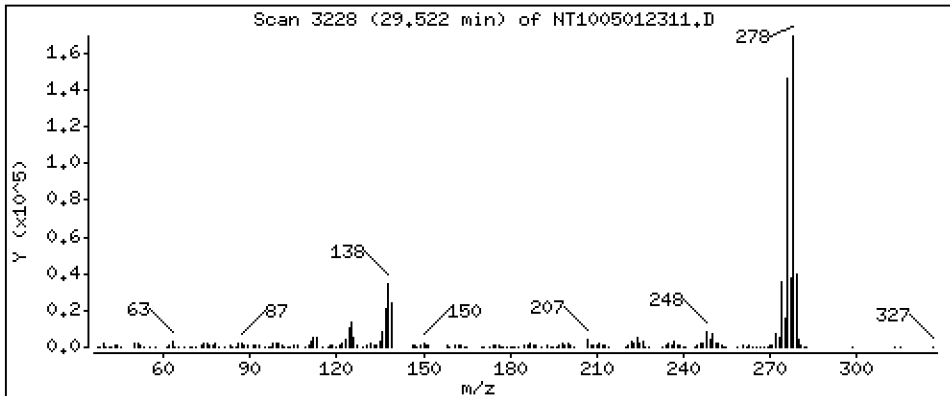
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,649 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

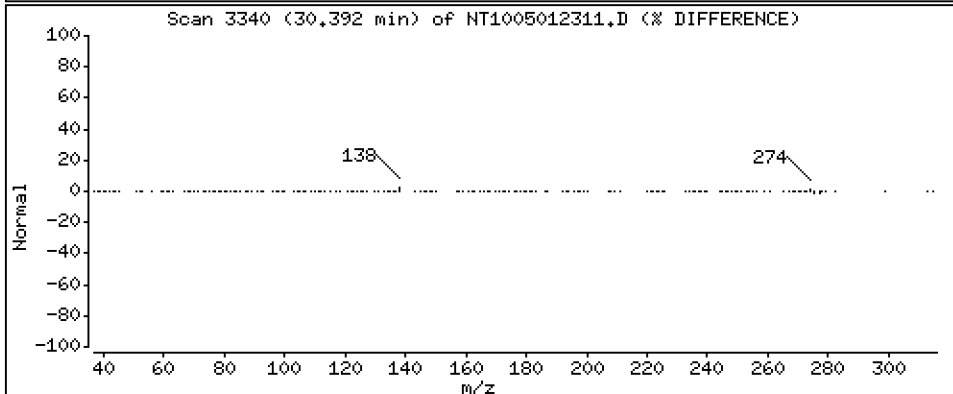
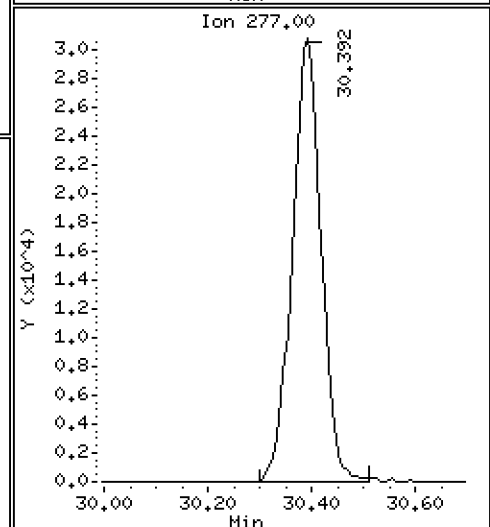
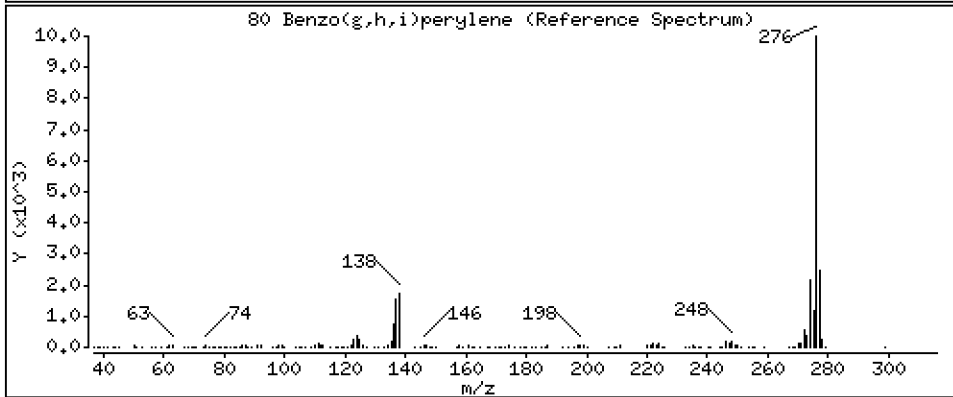
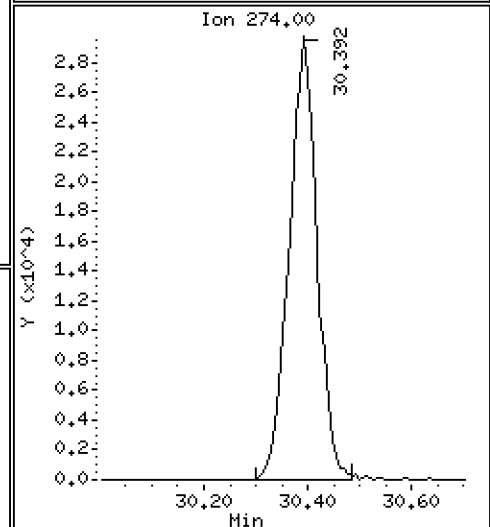
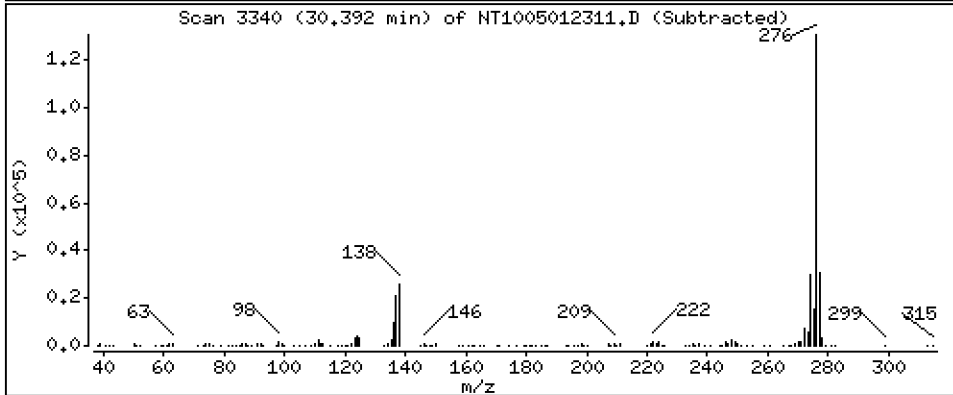
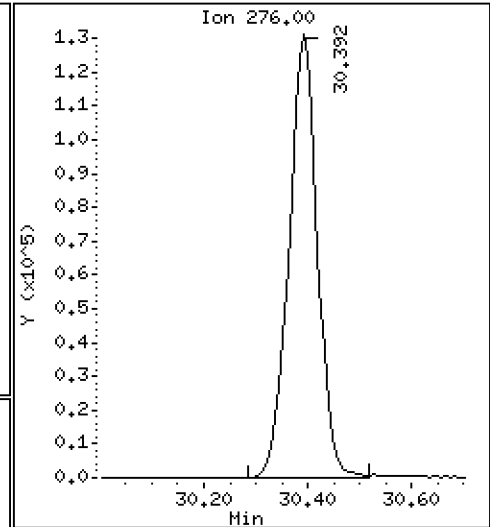
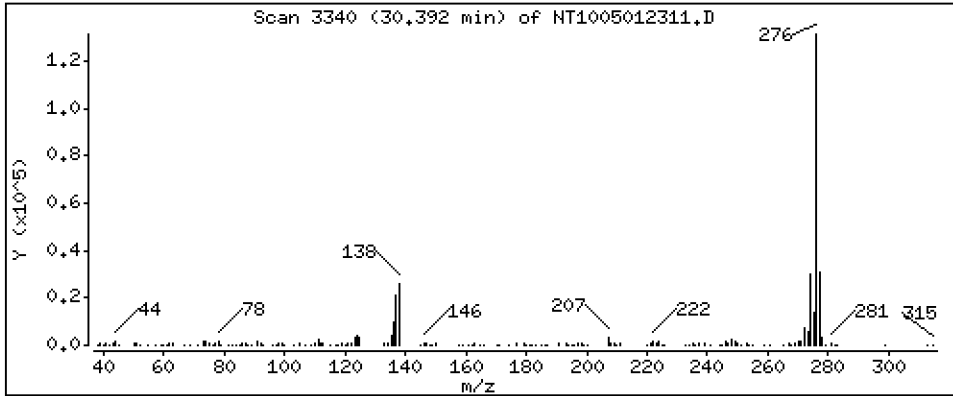
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,659 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

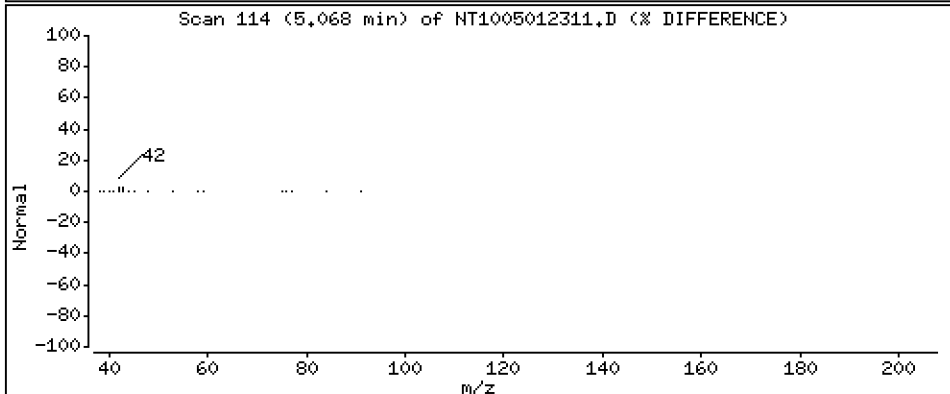
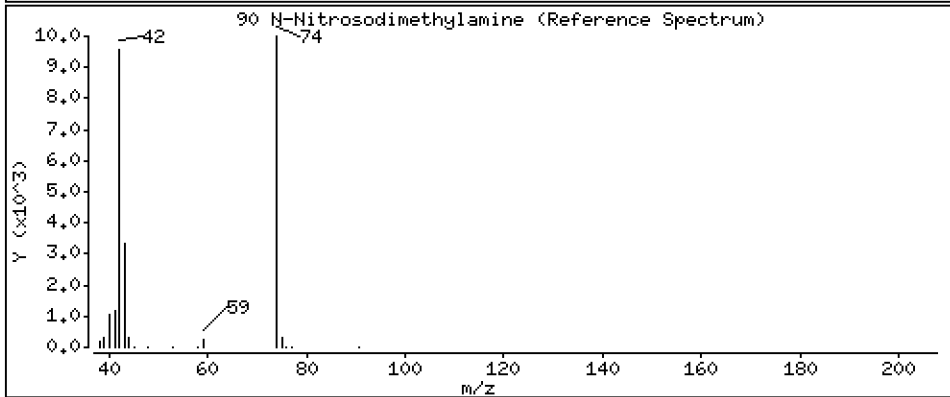
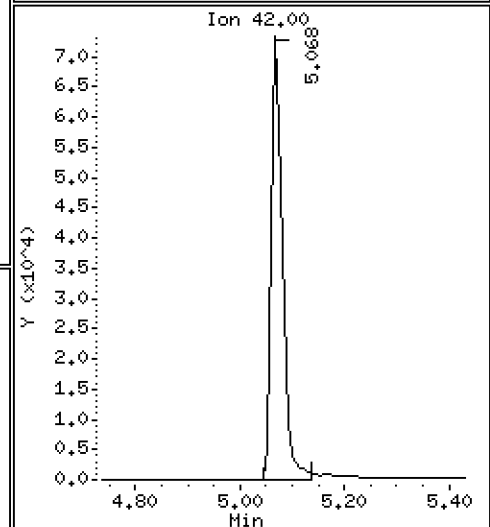
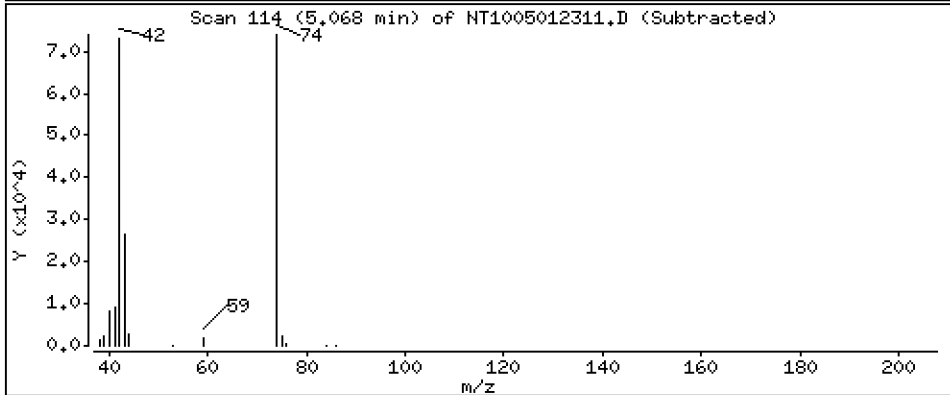
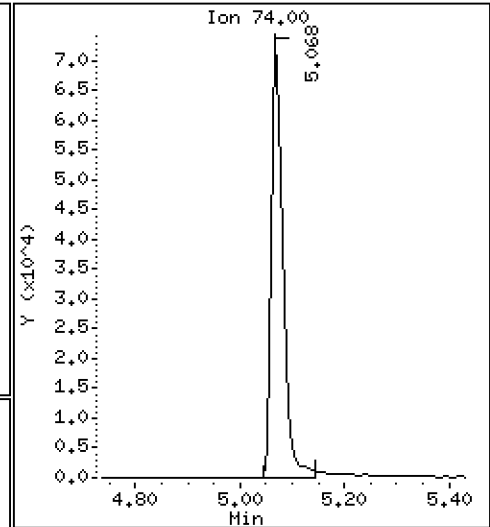
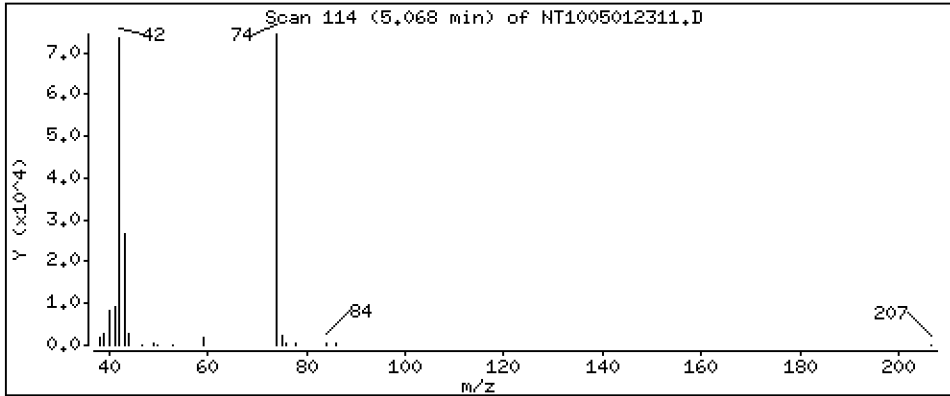
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,190 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

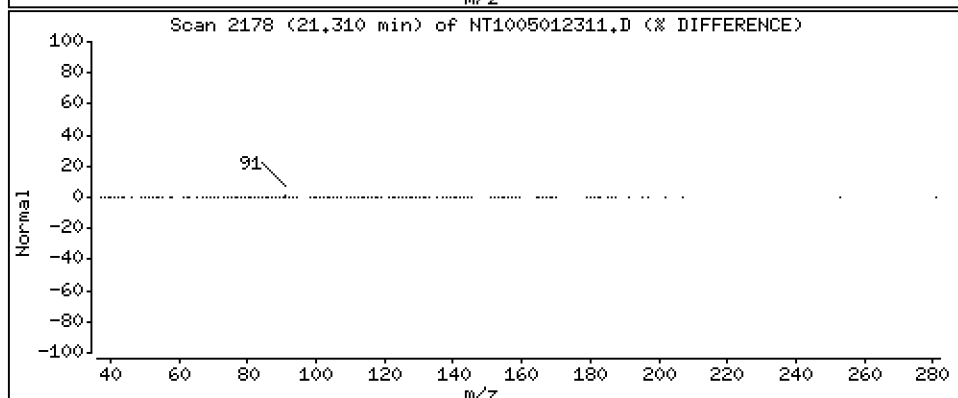
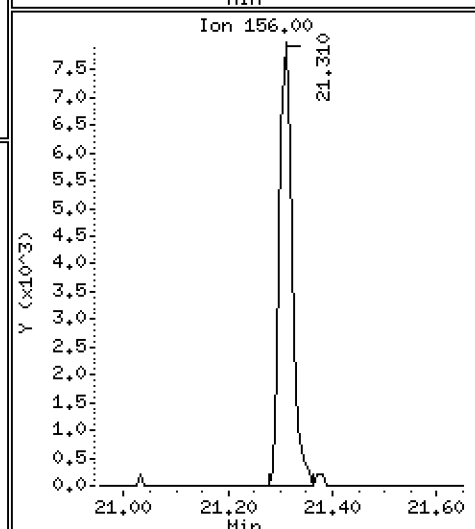
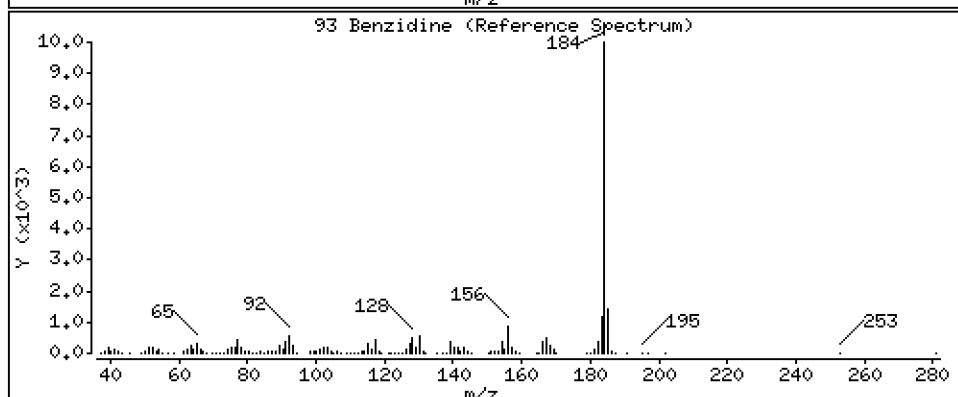
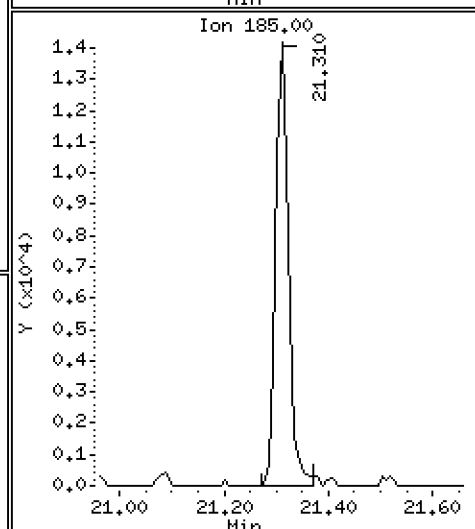
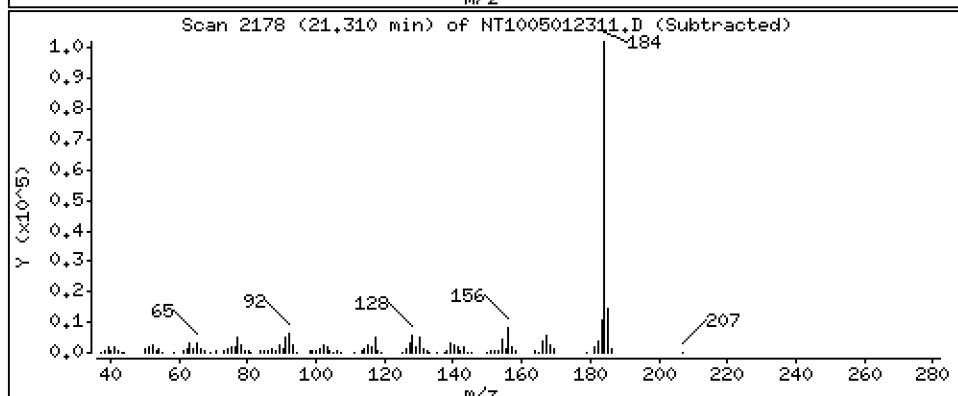
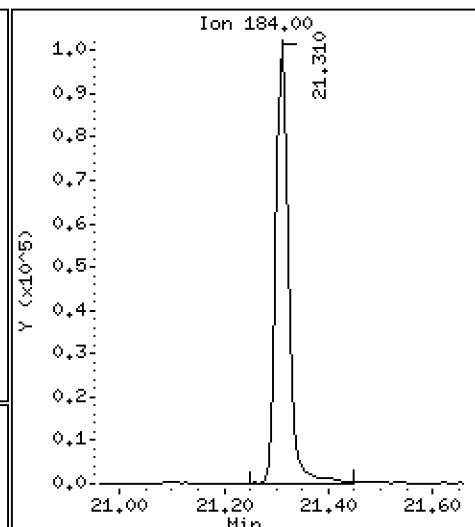
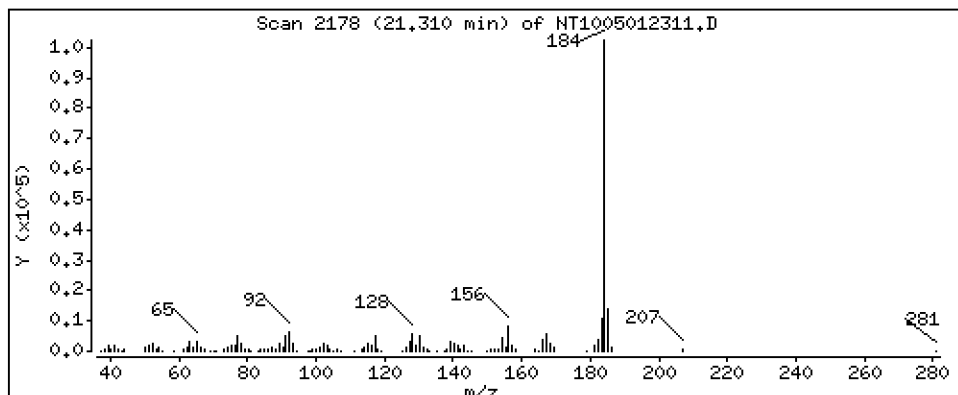
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

93 Benzidine

Concentration: 2,801 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

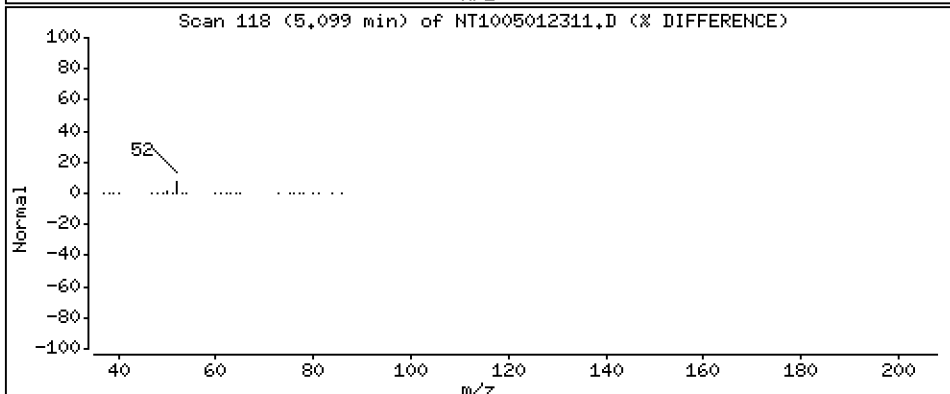
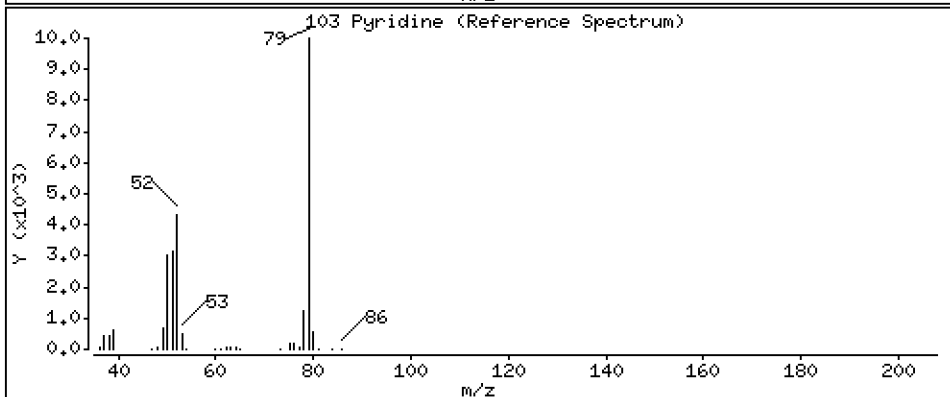
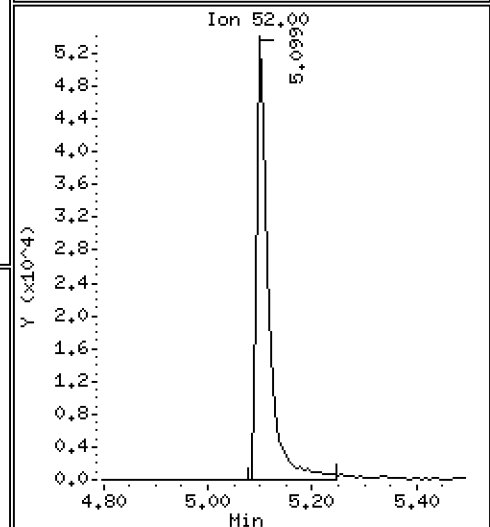
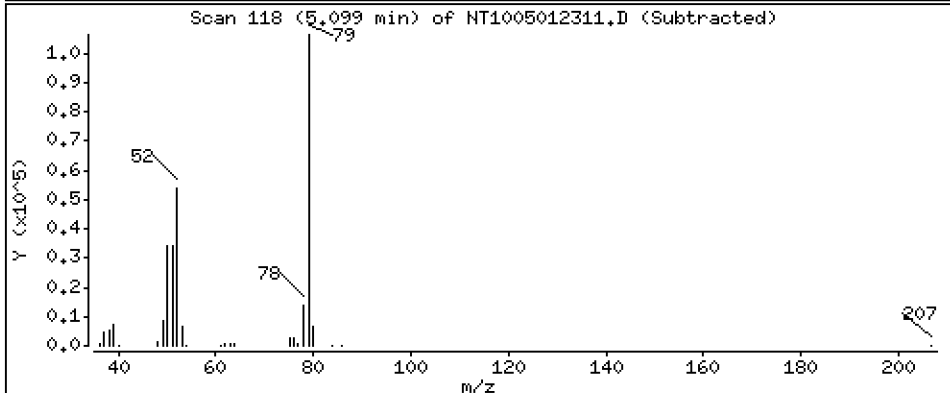
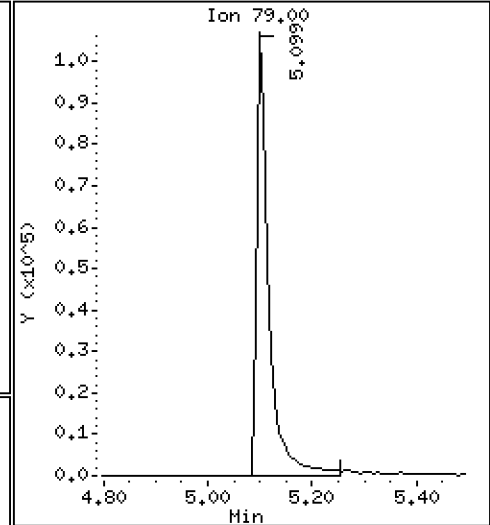
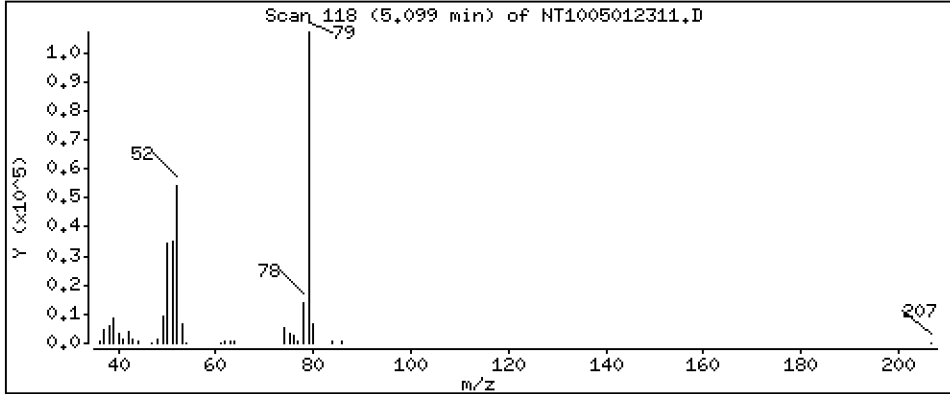
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

103 Pyridine

Concentration: 5.329 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

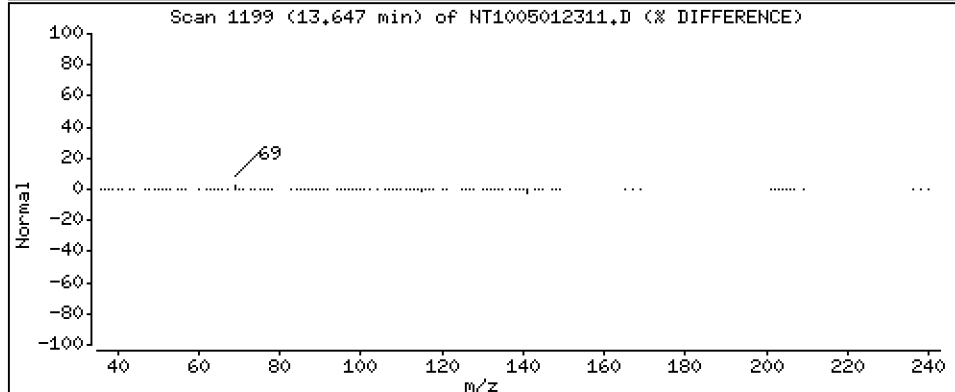
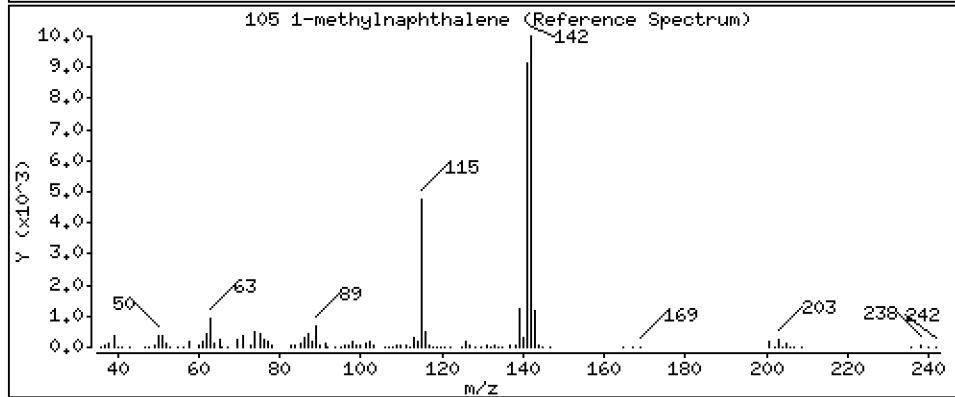
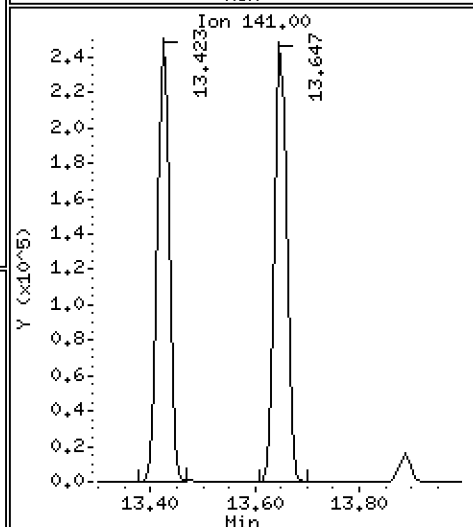
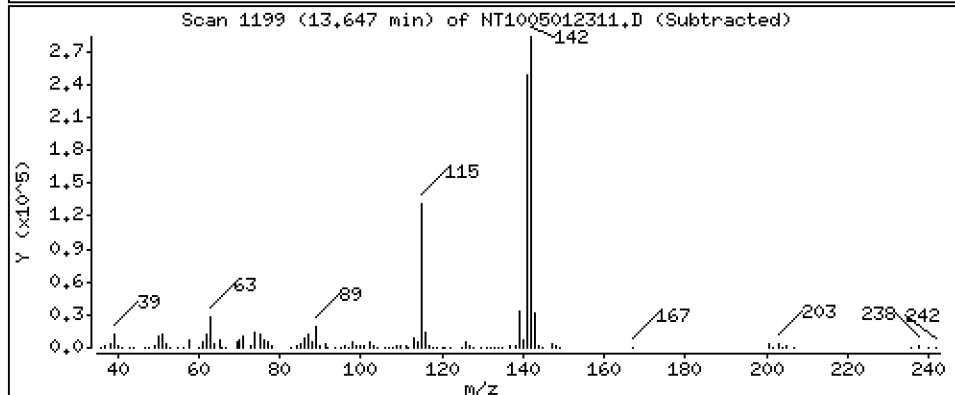
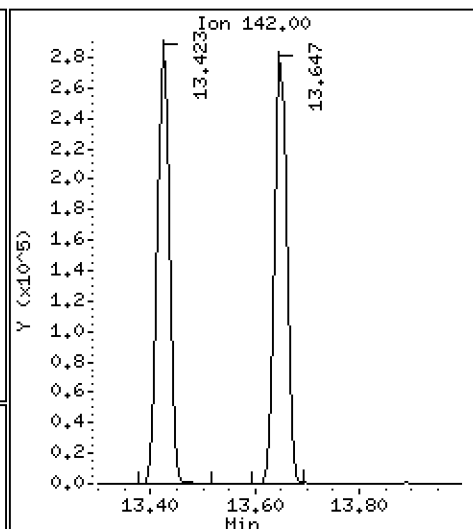
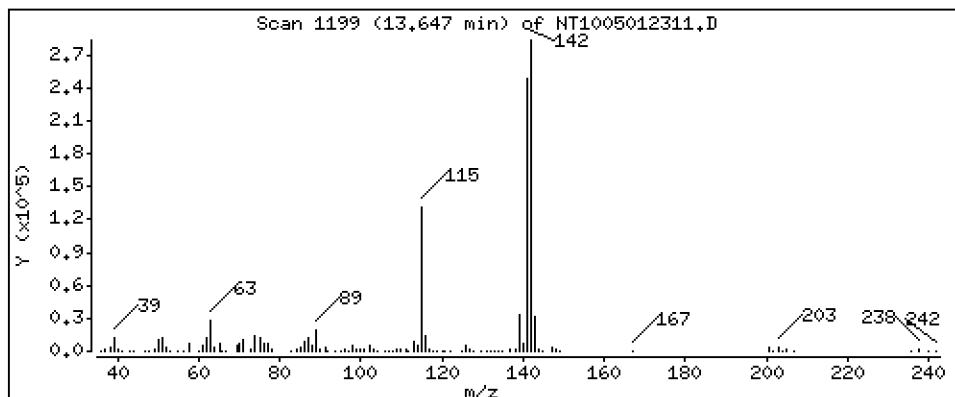
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,835 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

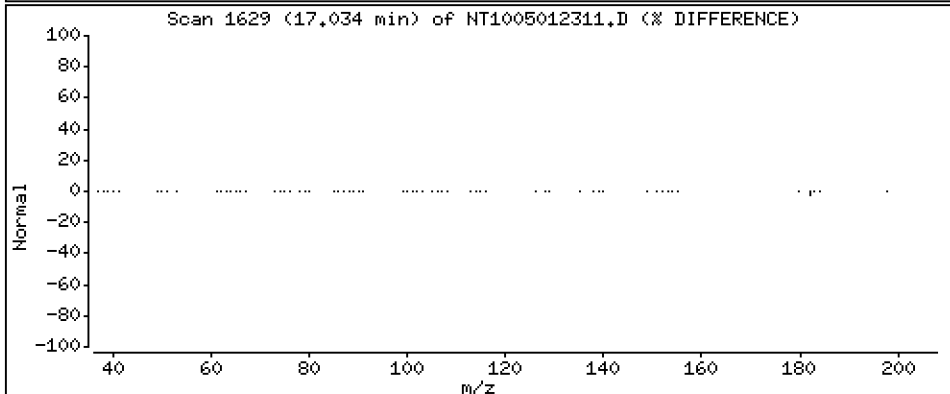
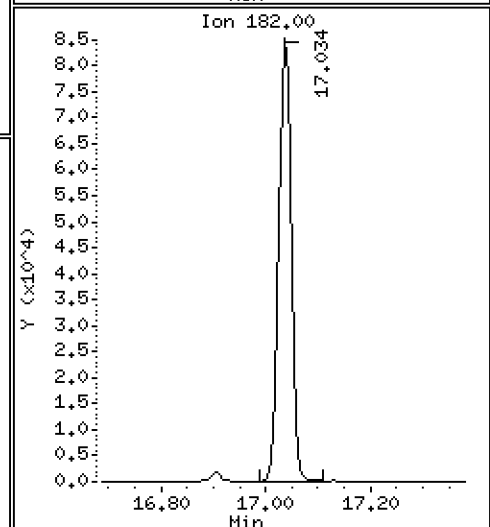
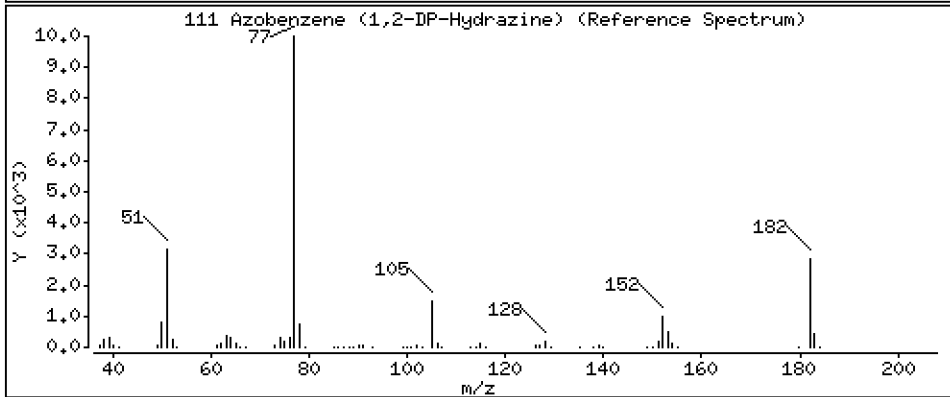
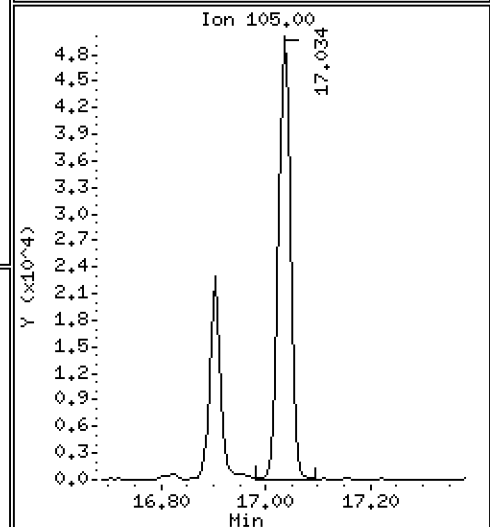
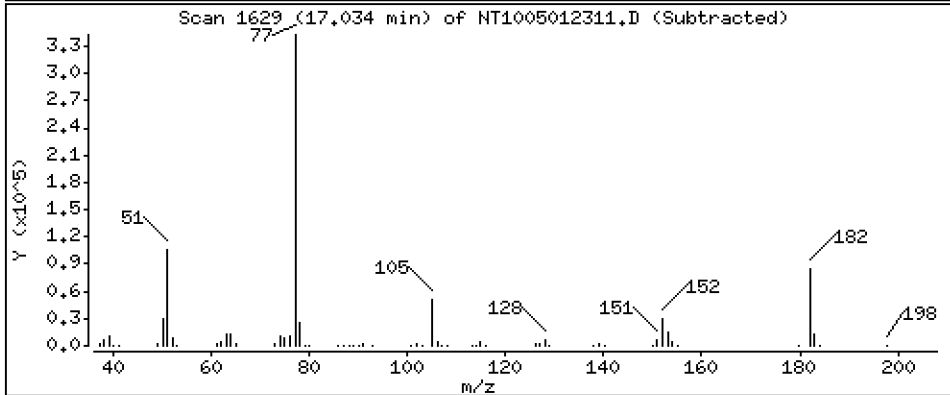
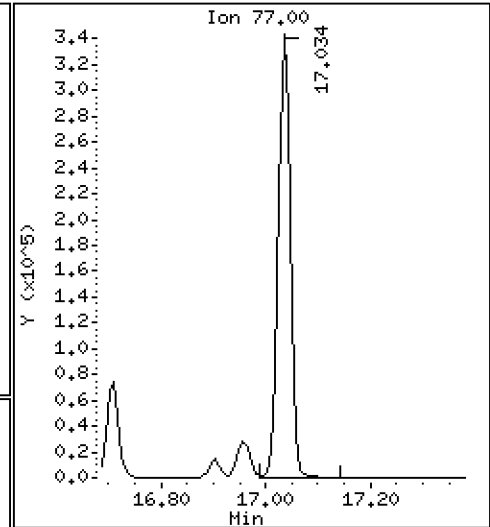
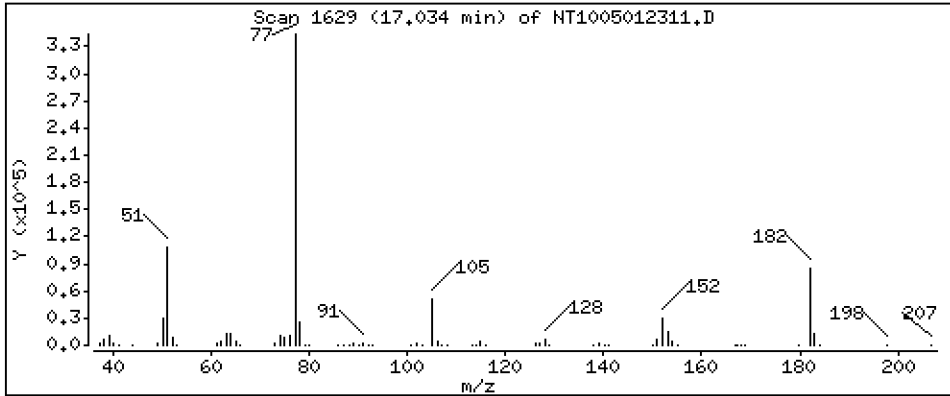
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 5,141 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

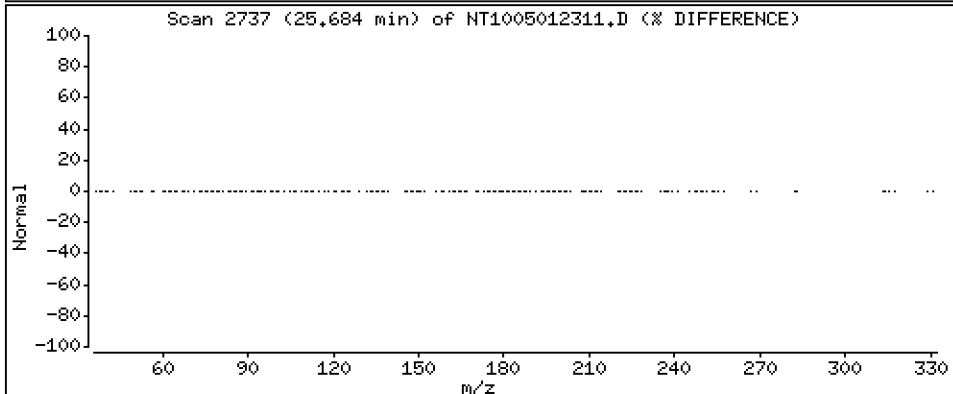
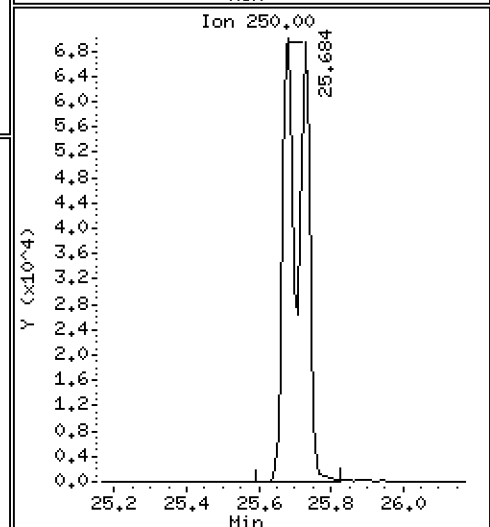
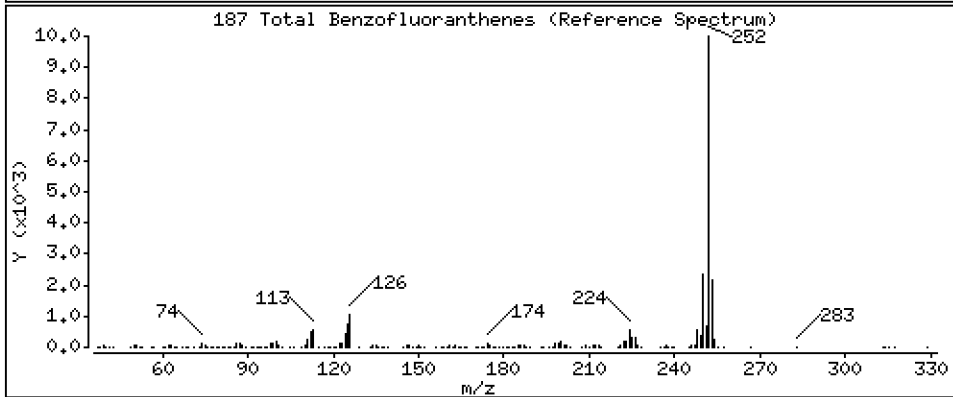
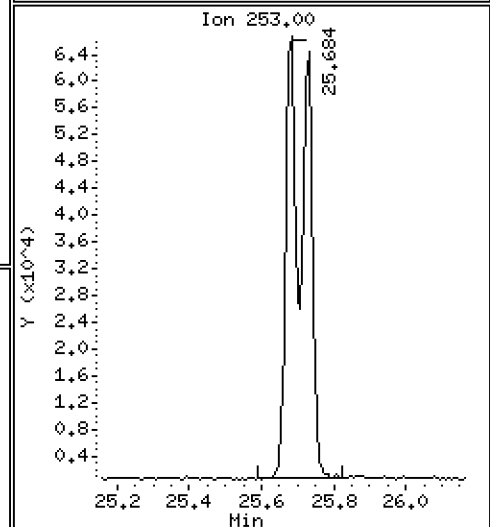
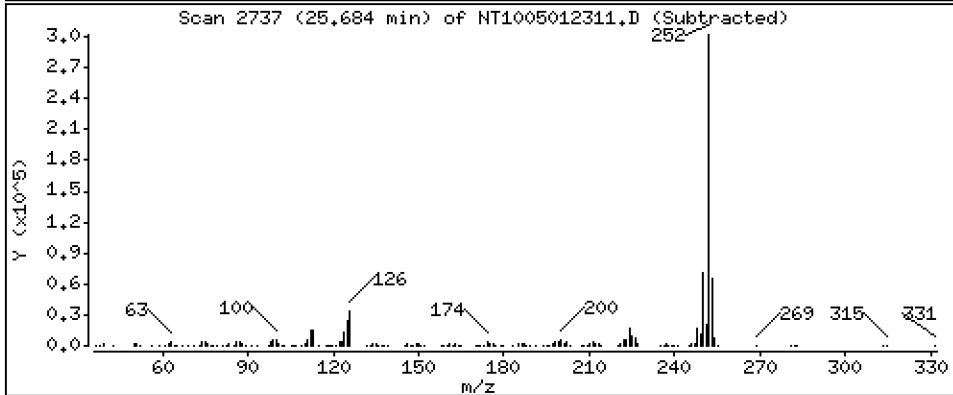
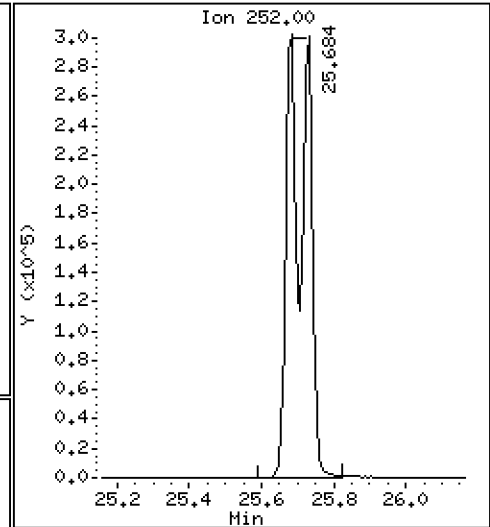
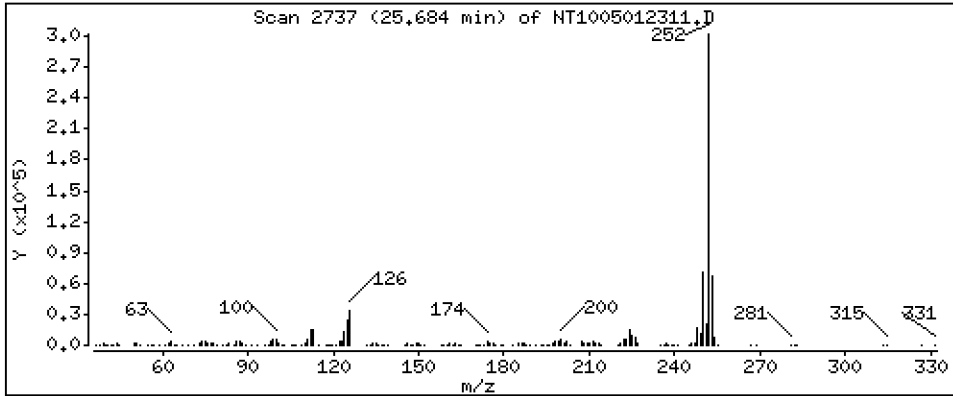
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 9,184 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

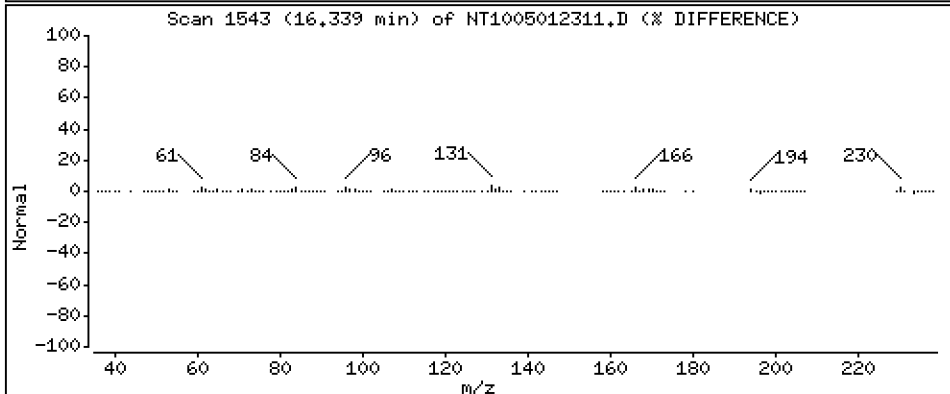
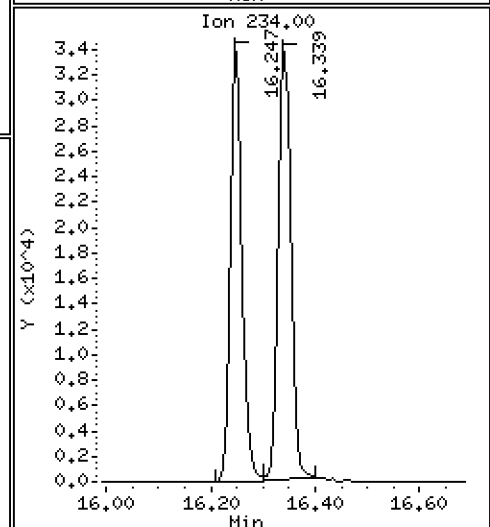
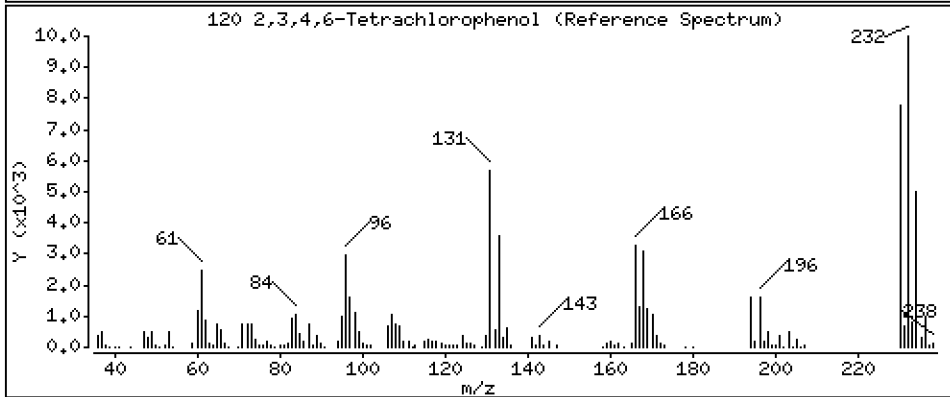
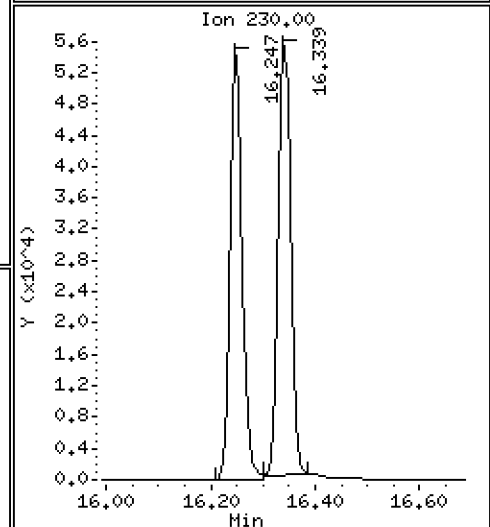
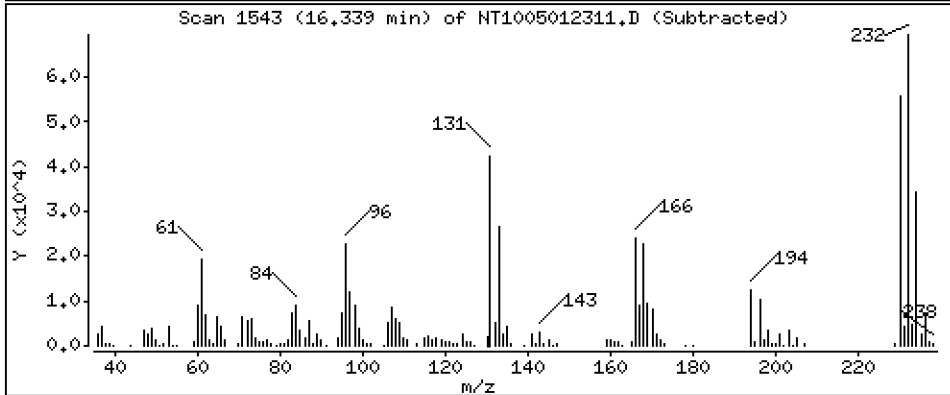
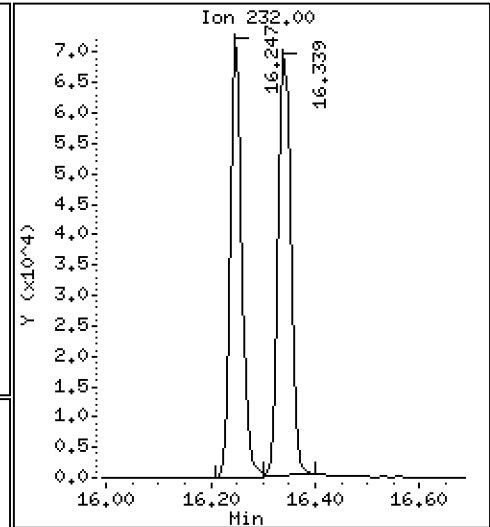
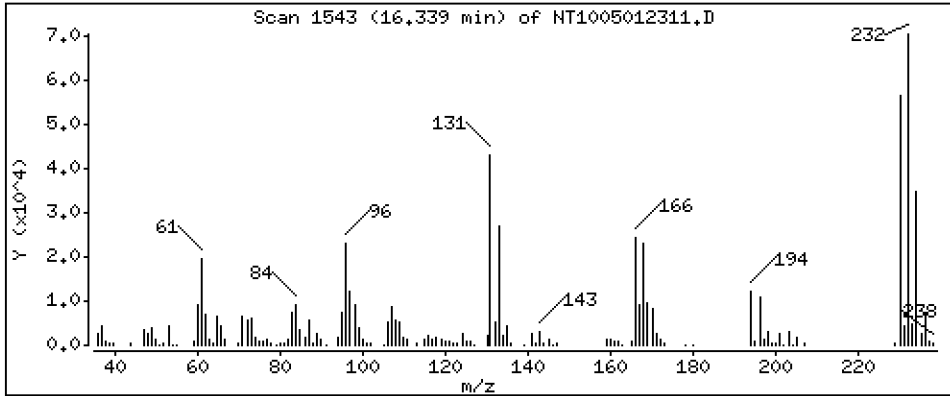
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,691 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012311.D
 Lab Smp Id: SLE0036-SCV1
 Inj Date : 01-MAY-2023 20:43
 Operator : VTS
 Smp Info : SLE0036-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 02-May-2023 15:27 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
\$ 1 2-Fluorophenol	112					Compound Not Detected.		
\$ 2 Phenol-d5	99					Compound Not Detected.		
3 Phenol	94		8.837	8.837	(1.000)	225316	4.48333	4.483
\$ 5 2-Chlorophenol-d4	132					Compound Not Detected.		
4 Bis(2-Chloroethyl)ether	93		9.023	9.023	(1.000)	200069	5.50170	5.502
6 2-Chlorophenol	128		9.146	9.146	(1.000)	197459	4.45581	4.456
7 1,3-Dichlorobenzene	146		9.425	9.425	(1.000)	246622	4.93946	4.939
* 8 1,4-Dichlorobenzene-d4	152		9.487	9.487	(1.000)	128837	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.518	9.518	(1.000)	269341	5.49159	5.492
\$ 10 1,2-Dichlorobenzene-d4	152					Compound Not Detected.		
12 1,2-Dichlorobenzene	146		9.875	9.875	(1.000)	235118	4.93763	4.938
11 Benzyl alcohol	108		9.751	9.750	(1.000)	122452	5.06918	5.069
14 2,2'-oxybis(1-Chloropropane)	121		10.053	10.046	(1.000)	77053	5.60278	5.603
13 2-Methylphenol	108		9.960	9.960	(1.000)	156011	4.23248	4.232
17 Hexachloroethane	117		10.473	10.472	(1.000)	111876	5.27548	5.275
16 N-Nitroso-di-n-propylamine	70		10.310	10.309	(1.000)	157237	5.38567	5.386
15 4-Methylphenol	108		10.232	10.232	(1.000)	196502	4.44066	4.441
\$ 18 Nitrobenzene-d5	82					Compound Not Detected.		
19 Nitrobenzene	77		10.628	10.628	(0.886)	251823	4.97032	4.970
20 Isophorone	82		11.070	11.062	(0.923)	475152	7.87757	7.878
21 2-Nitrophenol	139		11.257	11.249	(0.939)	104749	3.89627	3.896
22 2,4-Dimethylphenol	107		11.283	11.283	(0.941)	169403	3.42401	3.424
23 Bis(2-Chloroethoxy)methane	93		11.486	11.486	(0.958)	221150	5.73564	5.736
24 Benzoic acid	105		11.427	11.359	(0.953)	253834	7.38578	7.386
25 2,4-Dichlorophenol	162		11.699	11.698	(0.976)	174106	4.47956	4.480
26 1,2,4-Trichlorobenzene	180		11.898	11.898	(0.992)	243710	4.37789	4.378
* 27 Naphthalene-d8	136		11.991	11.983	(1.000)	469135	4.00000	
28 Naphthalene	128		12.030	12.022	(1.003)	620670	4.74201	4.742
29 4-Chloroaniline	127		12.145	12.145	(1.013)	190542	3.95611	3.956
30 Hexachlorobutadiene	225		12.385	12.377	(1.033)	142010	4.62571	4.626
31 4-Chloro-3-methylphenol	107		13.089	13.089	(1.092)	188904	4.45976	4.460
32 2-Methylnaphthalene	142		13.422	13.422	(1.119)	441670	4.51323	4.513
33 Hexachlorocyclopentadiene	237		13.886	13.886	(0.889)	151577	4.67268	4.673

Compounds	QUANT SIG					CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
34 2,4,6-Trichlorophenol	196	14.041	14.041	(0.899)	134602	4.21230	4.212	
35 2,4,5-Trichlorophenol	196	14.111	14.111	(0.903)	140409	4.02943	4.029	
§ 36 2-Fluorobiphenyl	172	14.204	14.203	(0.909)	2537	0.02246	0.02246	
37 2-Chloronaphthalene	162	14.428	14.420	(0.924)	429636	4.83017	4.830	
38 2-Nitroaniline	65	14.676	14.676	(0.940)	129919	5.02932	5.029	
39 Dimethylphthalate	163	15.101	15.101	(0.967)	490864	4.90763	4.908	
40 Acenaphthylene	152	15.303	15.303	(0.980)	663079	4.77574	4.776	
41 2,6-Dinitrotoluene	165	15.249	15.248	(0.976)	110074	4.87568	4.876	
* 42 Acenaphthene-d10	164	15.620	15.612	(1.000)	260867	4.00000		
43 3-Nitroaniline	138	15.535	15.527	(0.995)	106140	4.77608	4.776	
44 Acenaphthene	153	15.682	15.682	(1.004)	416452	4.71606	4.716	
45 2,4-Dinitrophenol	184	15.744	15.743	(1.008)	41326	2.37611	2.376	
46 Dibenzofuran	168	16.006	16.006	(1.025)	598046	4.64493	4.645	
47 4-Nitrophenol	109	15.829	15.828	(1.013)	82973	3.99163	3.992	
48 2,4-Dinitrotoluene	165	16.061	16.060	(1.028)	141639	4.38106	4.381	
50 Diethylphthalate	149	16.563	16.555	(1.060)	524953	5.05491	5.055	
49 Fluorene	166	16.733	16.725	(1.071)	484223	4.55893	4.559	
51 4-Chlorophenyl-phenylether	204	16.710	16.702	(1.070)	253695	4.79663	4.797	
52 4-Nitroaniline	138	16.810	16.810	(1.076)	93244	4.29306	4.293	
53 4,6-Dinitro-2-methylphenol	198	16.903	16.902	(0.905)	70705	3.75964	3.760	
54 N-Nitrosodiphenylamine	169	16.957	16.956	(0.908)	324810	5.12520	5.125	
§ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	177	0.01417	0.01417	
56 4-Bromophenyl-phenylether	248	17.720	17.712	(0.949)	147865	4.94237	4.942	
57 Hexachlorobenzene	284	18.044	18.044	(0.966)	140819	4.68942	4.689	
58 Pentachlorophenol	266	18.401	18.393	(0.985)	80436	3.86584	3.866	
* 59 Phenanthrene-d10	188	18.671	18.671	(1.000)	479585	4.00000		
60 Phenanthrene	178	18.718	18.718	(1.002)	645346	4.58600	4.586	
61 Anthracene	178	18.818	18.811	(1.008)	542159	4.16924	4.169	
62 Carbazole	167	19.136	19.136	(1.025)	518357	4.50323	4.503	
63 Di-n-butylphthalate	149	19.902	19.901	(1.066)	862725	4.89550	4.895	
64 Fluoranthene	202	21.085	21.085	(0.890)	774676	4.73795	4.738	
65 Pyrene	202	21.511	21.503	(0.908)	757130	4.63549	4.635	
§ 66 Terphenyl-d14	244	21.782	21.774	(0.919)	2912	0.02254	0.02254	
67 Butylbenzylphthalate	149	22.695	22.687	(0.958)	349577	4.77781	4.778	
68 Benzo(a)anthracene	228	23.663	23.655	(0.999)	683788	4.71653	4.717	
* 69 Chrysene-d12	240	23.694	23.686	(1.000)	366214	4.00000		
70 3,3'-Dichlorobenzidine	252	23.617	23.601	(0.997)	467557	10.2140	10.21	
71 Chrysene	228	23.741	23.733	(1.002)	589116	4.54006	4.540	
72 bis(2-Ethylhexyl)phthalate	149	23.710	23.702	(0.958)	493652	5.40606	5.406	
* 134 Di-n-octylphthalate-d4	153	24.739	24.724	(1.000)	633915	4.00000		
73 Di-n-octylphthalate	149	24.747	24.739	(1.000)	863084	5.16068	5.161	
74 Benzo(b)fluoranthene	252	25.684	25.660	(0.968)	641646	4.78532	4.785	
75 Benzo(k)fluoranthene	252	25.730	25.715	(0.970)	593022	4.45695	4.457	
76 Benzo(a)pyrene	252	26.404	26.388	(0.995)	537284	4.78725	4.787	
* 77 Perylene-d12	264	26.536	26.520	(1.000)	326407	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.514	29.483	(1.112)	630589	4.67700	4.677	
79 Dibenzo(a,h)anthracene	278	29.522	29.491	(1.113)	524960	4.64906	4.649	
80 Benzo(g,h,i)perylene	276	30.392	30.353	(1.145)	500646	4.65862	4.659	
90 N-Nitrosodimethylamine	74	5.067	5.083	(1.000)	109300	5.19047	5.190	
91 Aniline	93	Compound Not Detected.						
93 Benzidine	184	21.310	21.310	(0.899)	165444	2.80075	2.801	
103 Pyridine	79	5.098	5.144	(1.000)	176959	5.32922	5.329	
105 1-methylnaphthalene	142	13.646	13.646	(1.138)	433828	4.83538	4.835	
111 Azobenzene (1,2-DP-Hydrazine)	77	17.034	17.034	(1.091)	521542	5.14057	5.141	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.684	25.660	(0.968)	1185382	9.18410	9.184
120 2,3,4,6-Tetrachlorophenol	232	16.339	16.339	(1.046)	111498	3.69091	3.691

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012311.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	128837	-10.72
27 Naphthalene-d8	493698	246849	987396	469135	-4.98
42 Acenaphthene-d10	279210	139605	558420	260867	-6.57
59 Phenanthrene-d10	521463	260732	1042926	479585	-8.03
69 Chrysene-d12	369911	184956	739822	366214	-1.00
134 Di-n-octylphthala	626668	313334	1253336	633915	1.16
77 Perylene-d12	311339	155670	622678	326407	4.84

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
134 Di-n-octylphthala	24.75	24.25	25.25	24.74	-0.03
77 Perylene-d12	26.55	26.05	27.05	26.54	-0.06

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

REVIEW SUMMARY FOR FILE - NT1005012311.D

Lab ID: SLE0036-SCV1
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 20:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.059	-0.0589	2,2'-oxybis(1-Chloropropane)
0.953	0.948	0.0050	Benzoic acid

RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

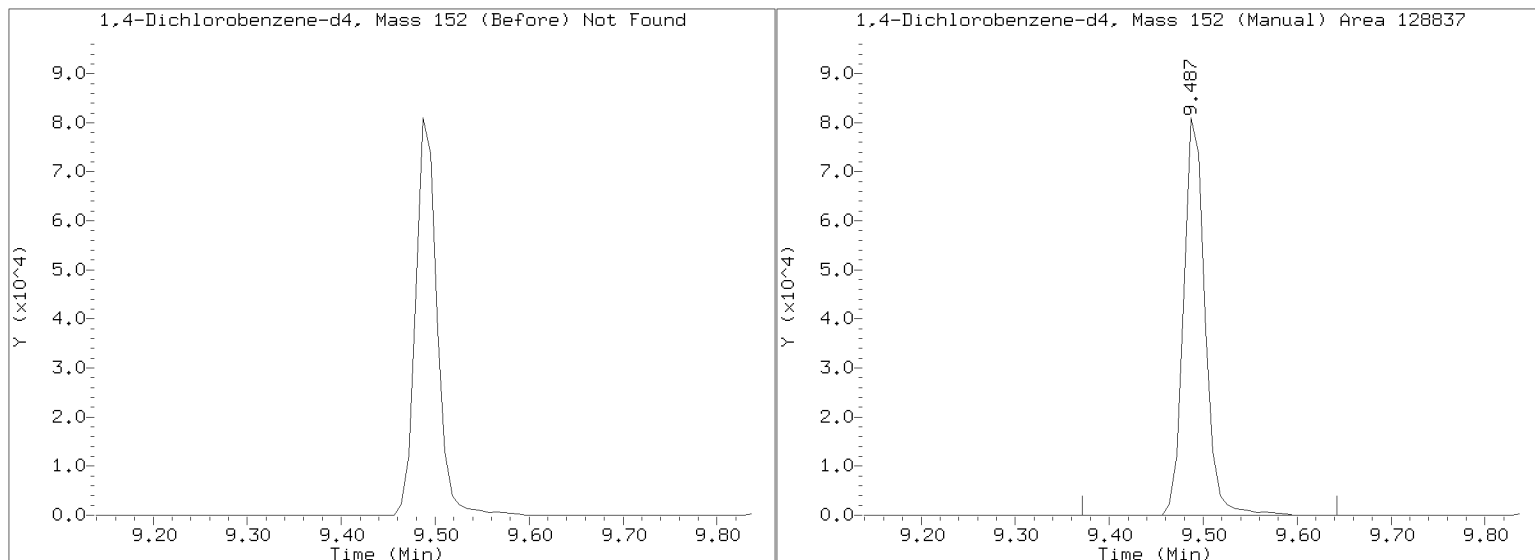
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012311.D

Injection Date: 01-MAY-2023 20:43

Lab ID: SLE0036-SCV1 Client ID:

Report Date: 05/02/2023 15:38



APPROVED

By Deenay Dunmore at 2:15 pm, May 03, 2023



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00012

Laboratory ID: SLE0101-LCV1

Sequence: SLE0101

Standard ID: K011106

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.50000	0.4	-13.1	50.00
4-Methylphenol	0.50000	0.4	-16.8	50.00
Naphthalene	0.50000	0.5	-8.6	50.00
2-Methylnaphthalene	0.50000	0.4	-13.4	50.00
Acenaphthylene	0.50000	0.4	-11.6	50.00
Dimethylphthalate	0.50000	0.4	-12.5	50.00
Acenaphthene	0.50000	0.4	-10.1	50.00
Dibenzofuran	0.50000	0.4	-10.6	50.00
Fluorene	0.50000	0.4	-10.9	50.00
Phenanthrene	0.50000	0.4	-12.1	50.00
Anthracene	0.50000	0.4	-20.7	50.00
Fluoranthene	0.50000	0.4	-23.5	50.00
Pyrene	0.50000	0.4	-20.5	50.00
Butylbenzylphthalate	0.50000	0.3	-47.9	50.00
Benzo(a)anthracene	0.50000	0.4	-13.2	50.00
Chrysene	0.50000	0.5	-9.9	50.00
bis(2-Ethylhexyl)phthalate	0.50000	0.4	-23.5	50.00
Benzo(a)fluoranthene, Total	1.0000	0.8	-19.5	50.00
Benzo(a)pyrene	0.50000	0.4	-23.4	50.00
Indeno(1,2,3-cd)pyrene	0.50000	0.4	-23.9	50.00
Dibenzo(a,h)anthracene	0.50000	0.4	-21.3	50.00
Benzo(g,h,i)perylene	0.50000	0.4	-21.0	50.00
2-Fluorophenol	0.75000	0.588	-21.6	50.00
Phenol-d5	0.75000	0.591	-21.2	50.00
2-Chlorophenol-d4	0.75000	0.587	-21.8	50.00
1,2-Dichlorobenzene-d4	0.50000	0.423	-15.4	50.00
Nitrobenzene-d5	0.50000	0.416	-16.9	50.00
2-Fluorobiphenyl	0.50000	0.441	-11.8	50.00
2,4,6-Tribromophenol	0.75000	0.435	-42.0	50.00



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00012

Laboratory ID: SLE0101-LCV1

Sequence: SLE0101

Standard ID: K011106

p-Terphenyl-d14	0.50000	0.403	-19.4	50.00
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* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.6\NT1005052304.D

Date: 05-May-2023 12:43

Client ID:

Sample Info: SLE0101-LCW1

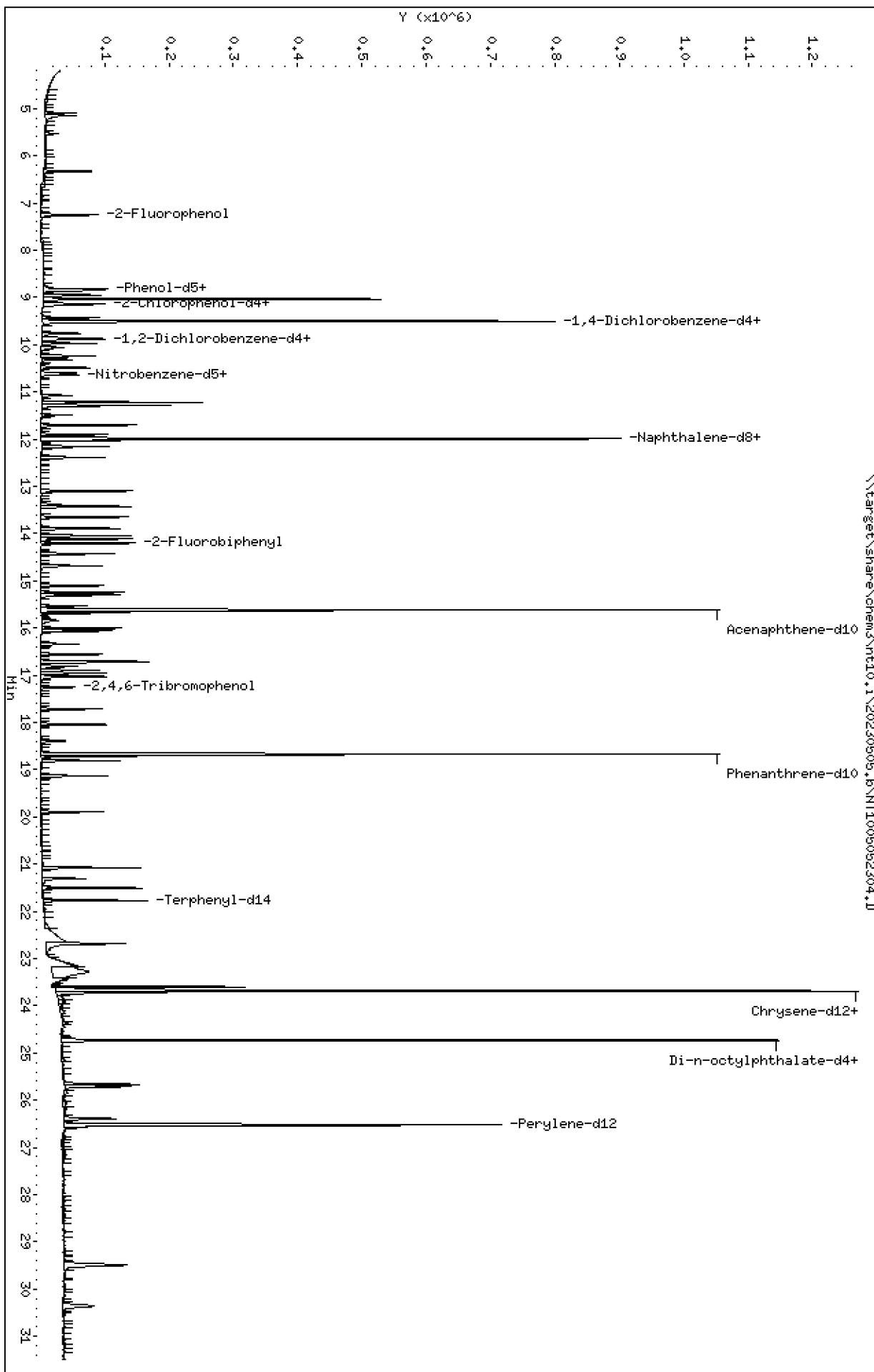
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

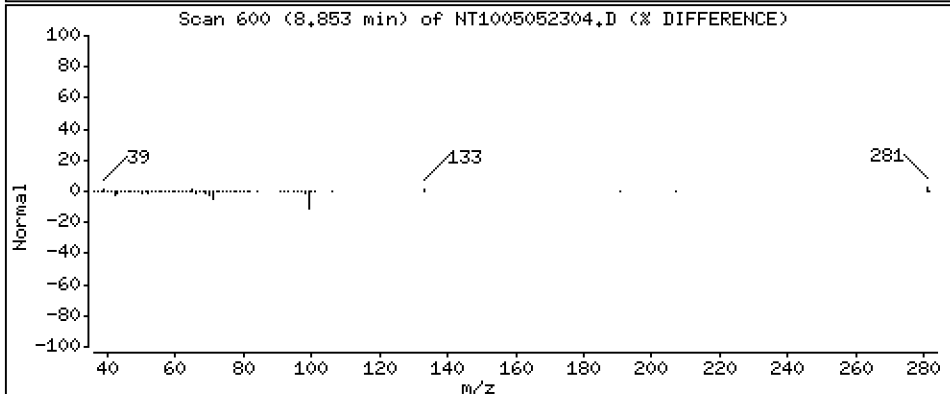
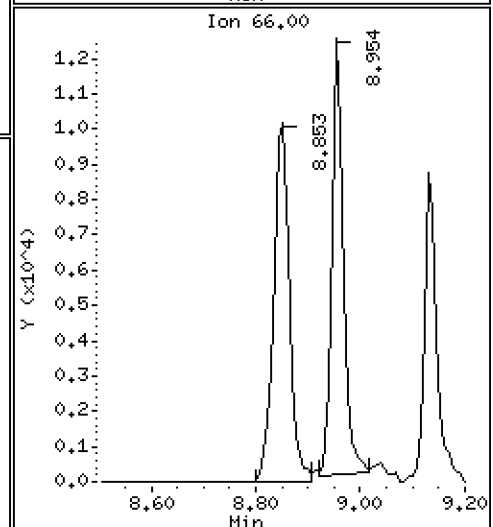
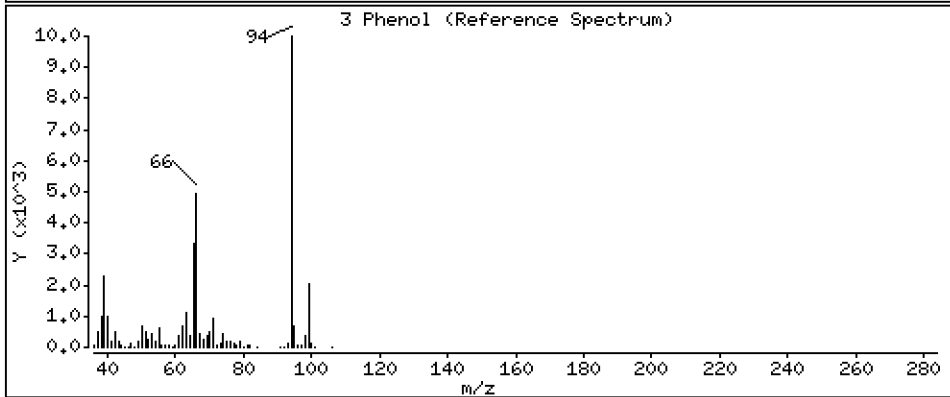
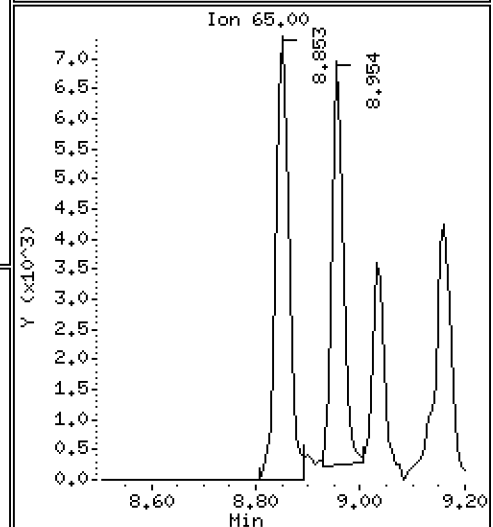
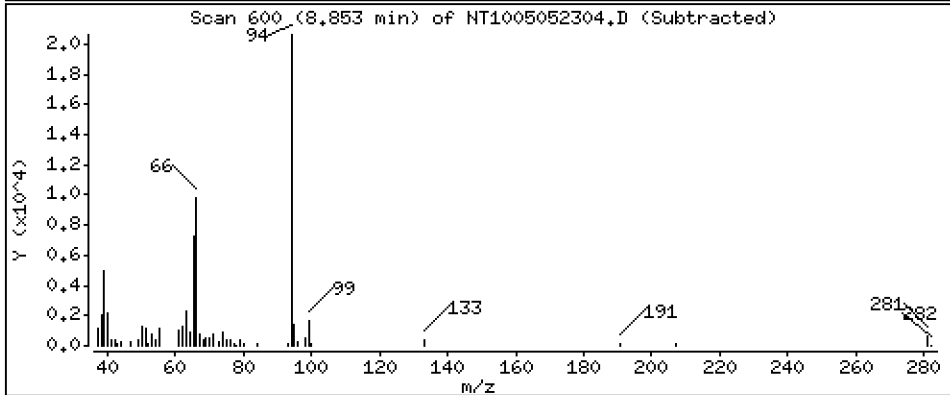
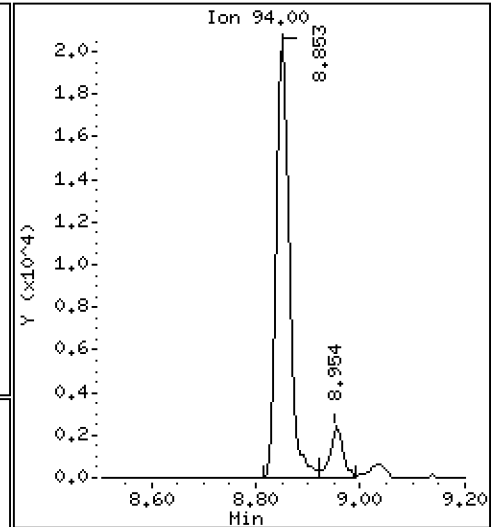
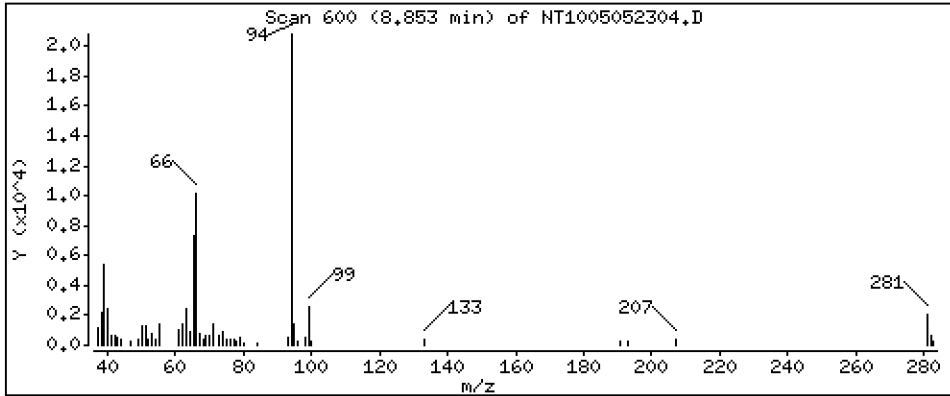
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,4344 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

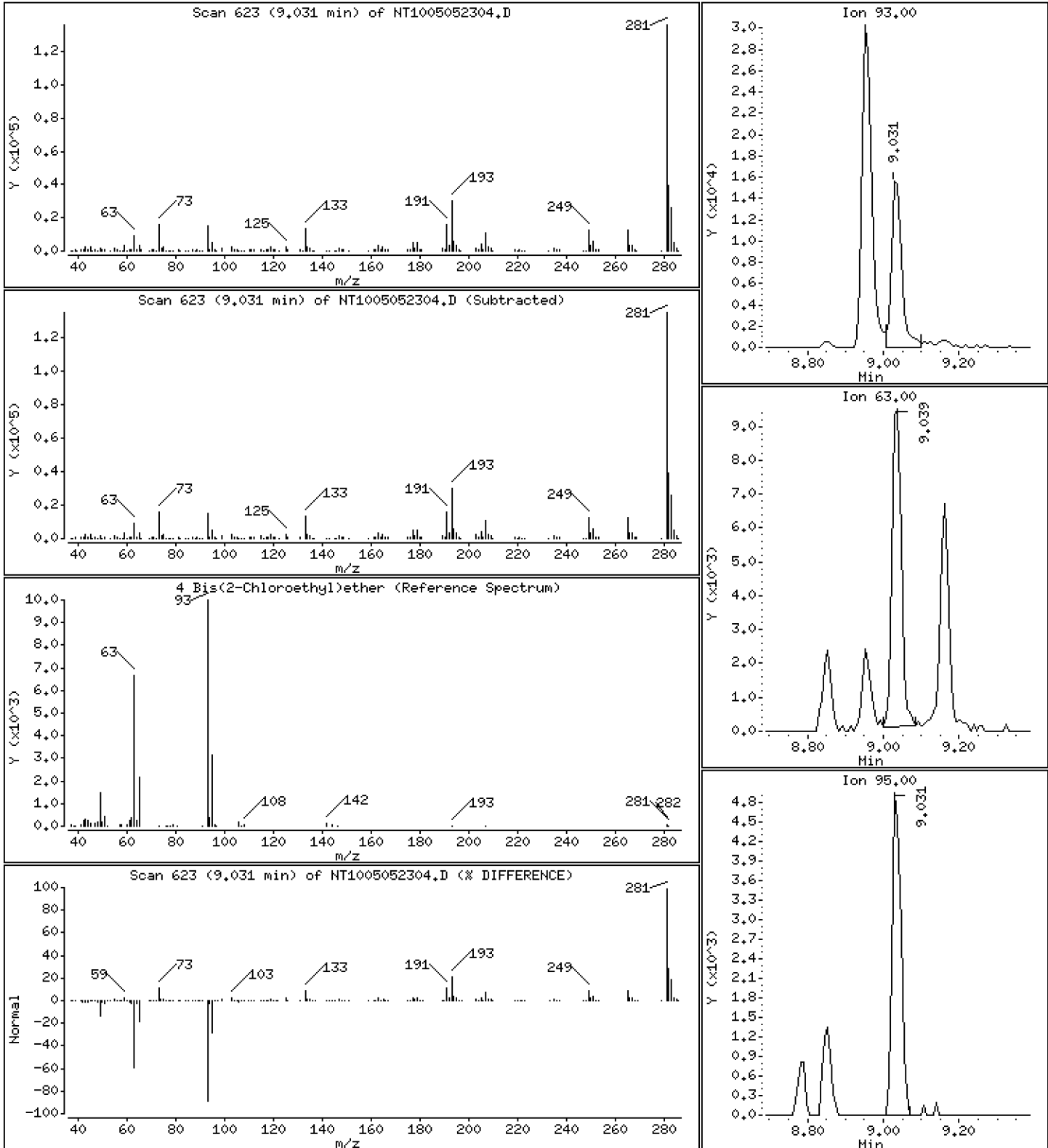
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,4944 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

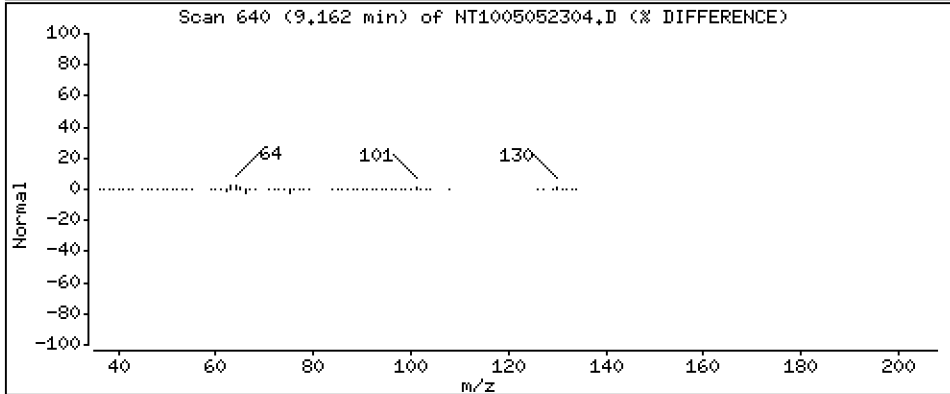
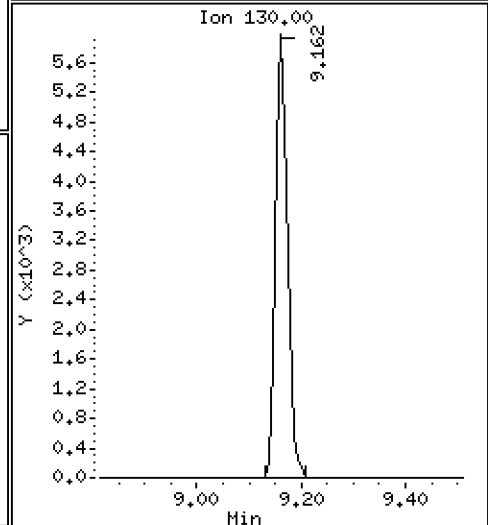
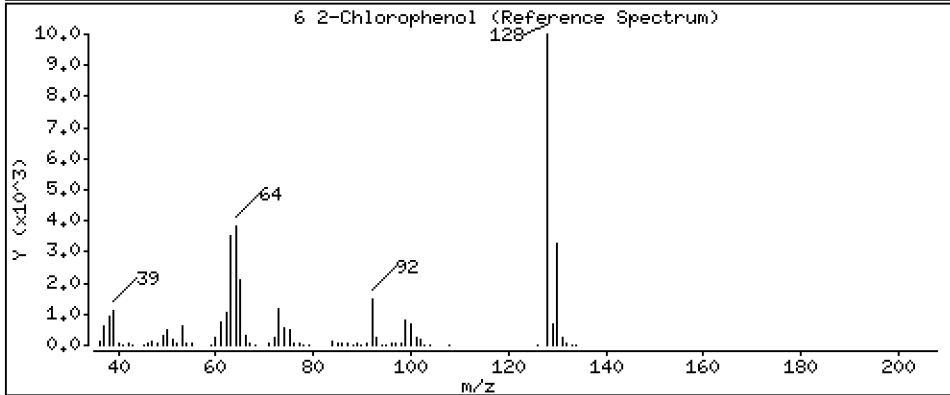
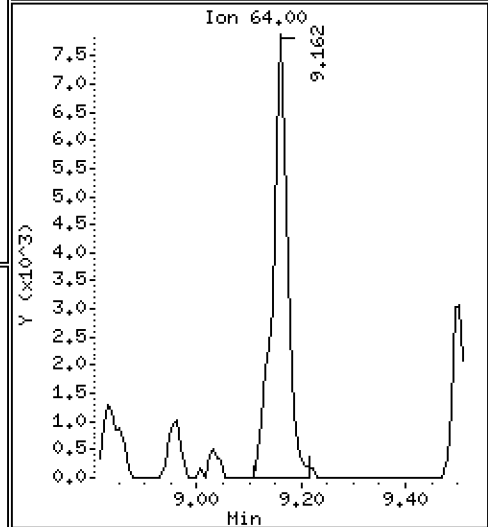
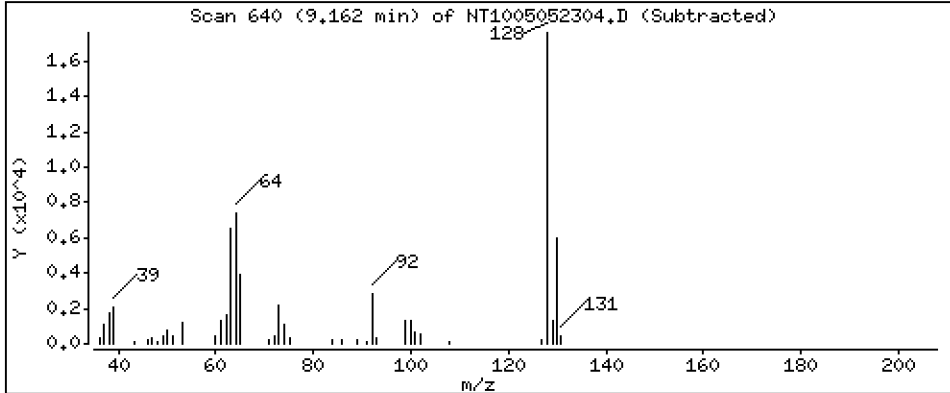
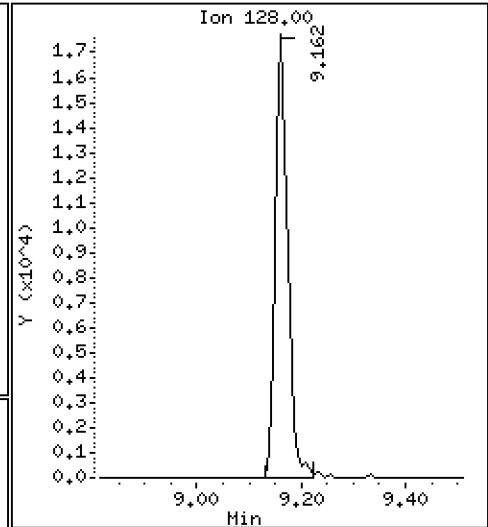
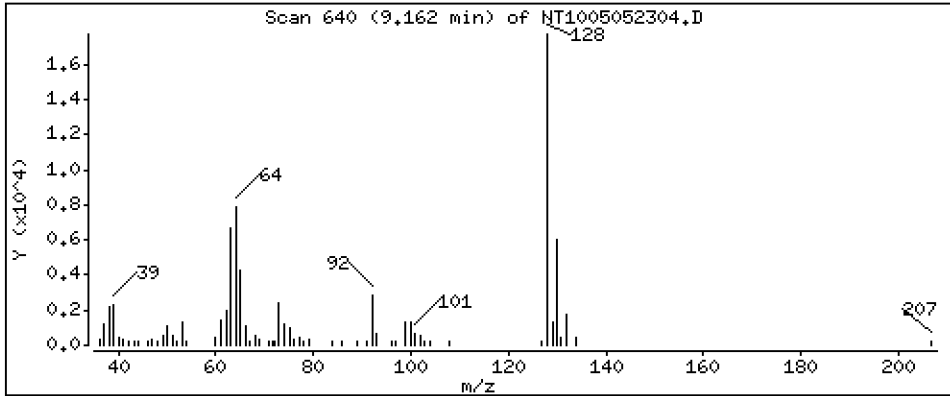
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,4114 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

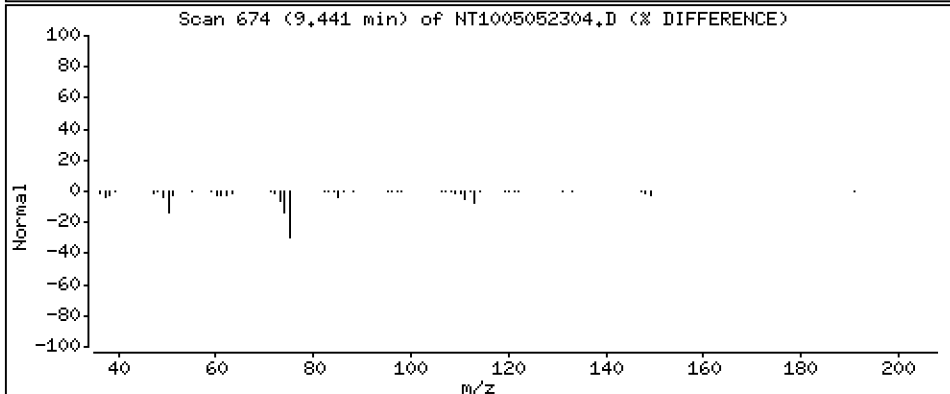
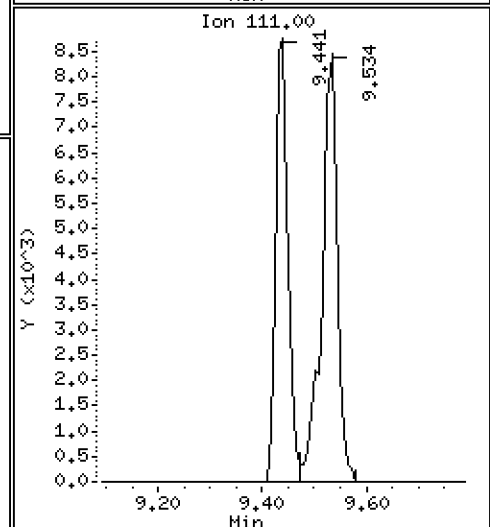
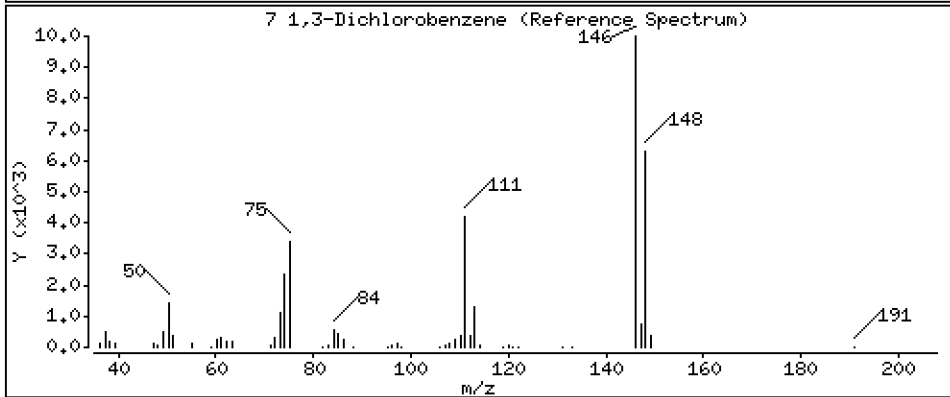
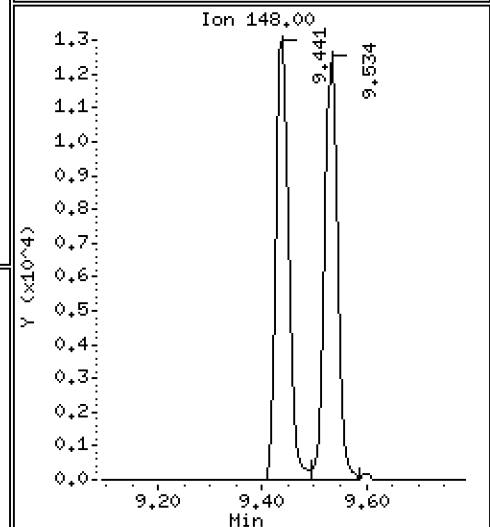
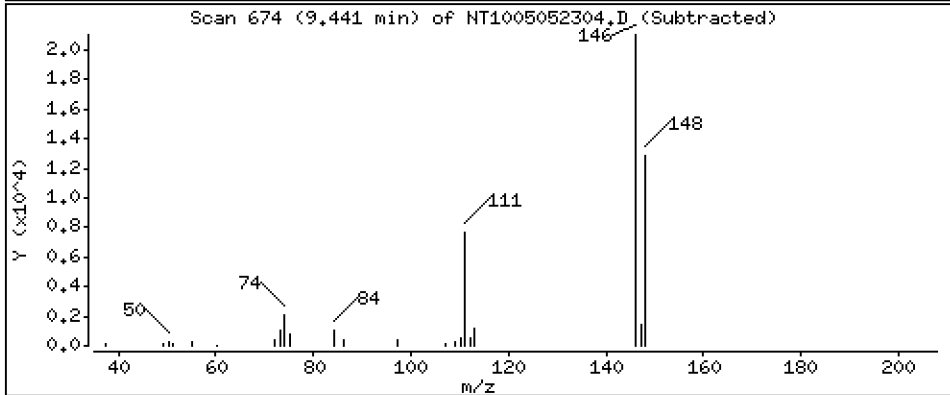
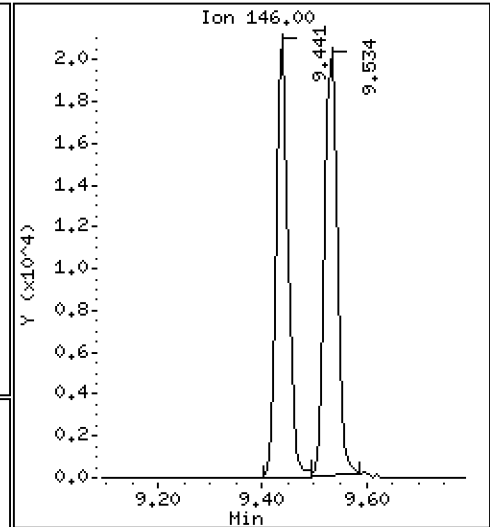
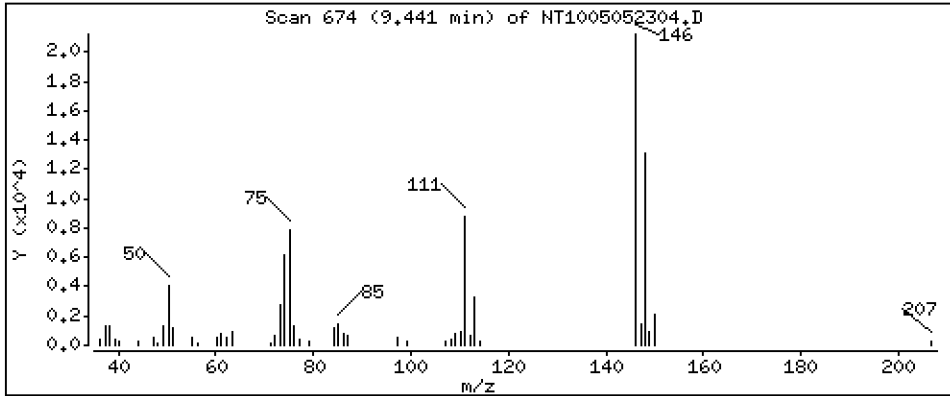
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.4272 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

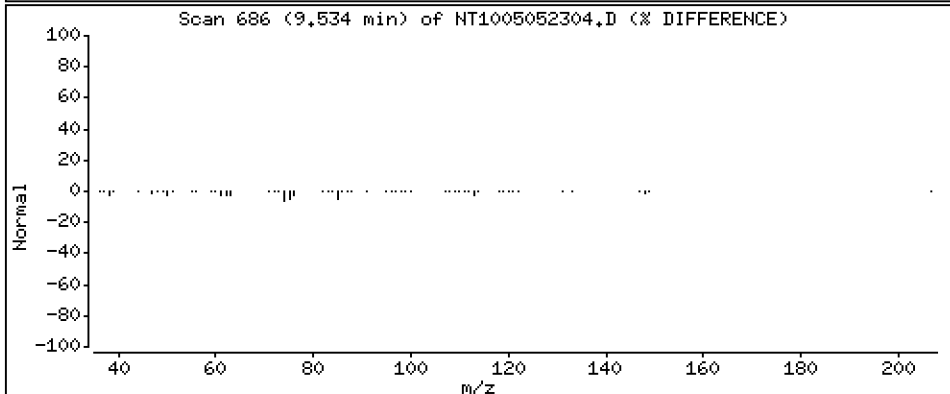
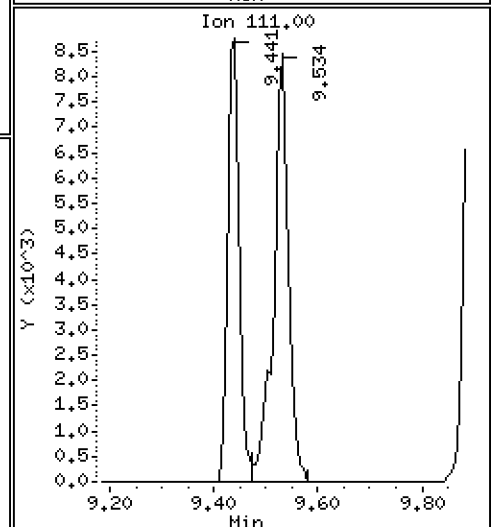
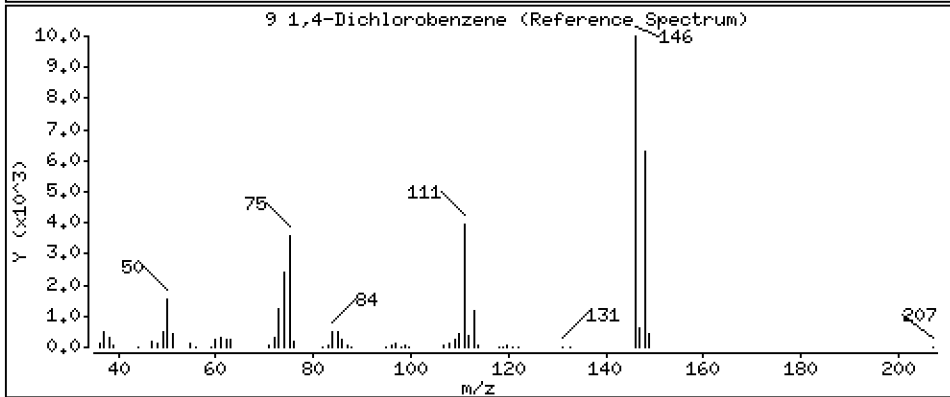
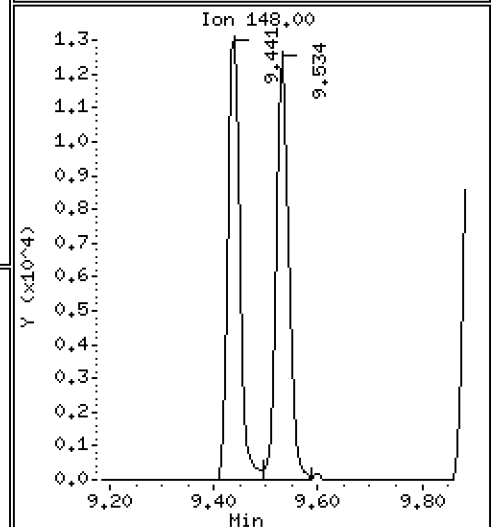
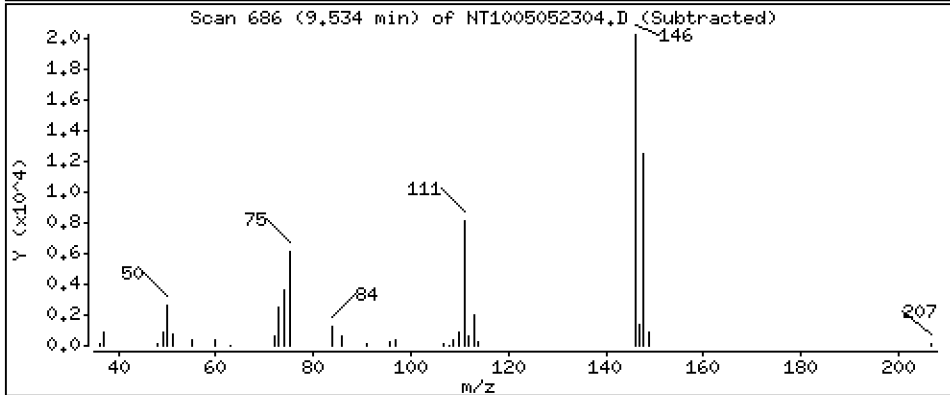
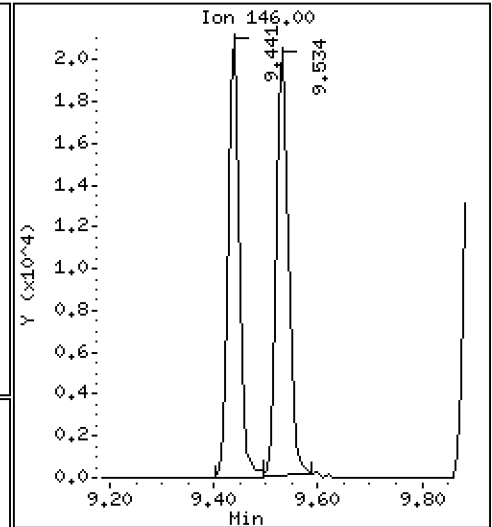
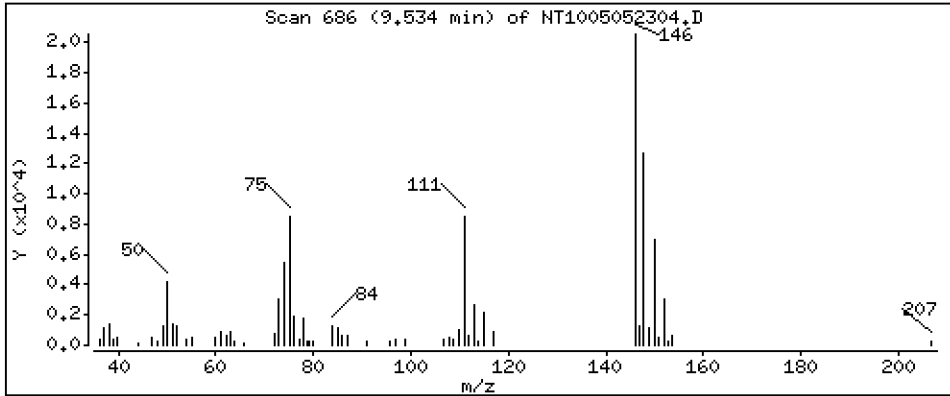
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.4250 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

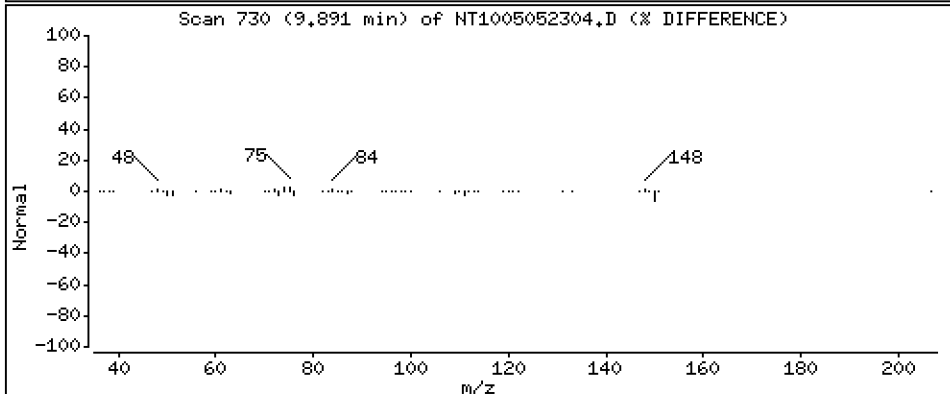
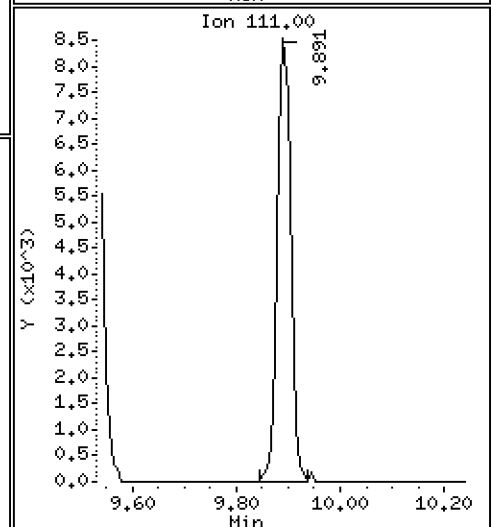
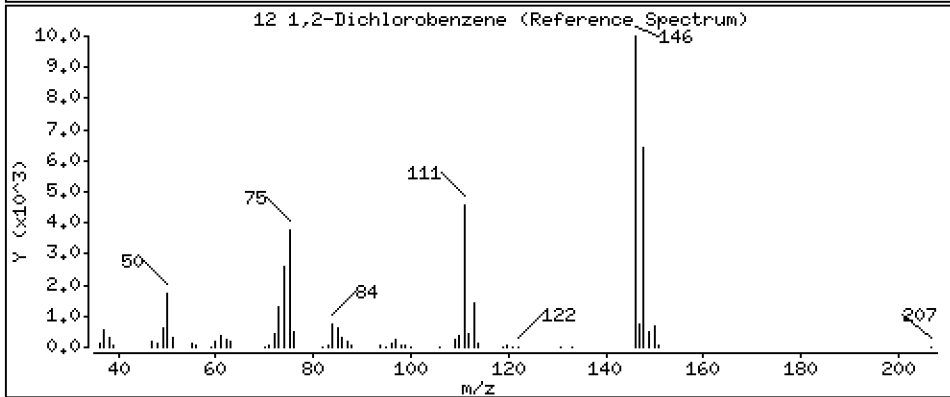
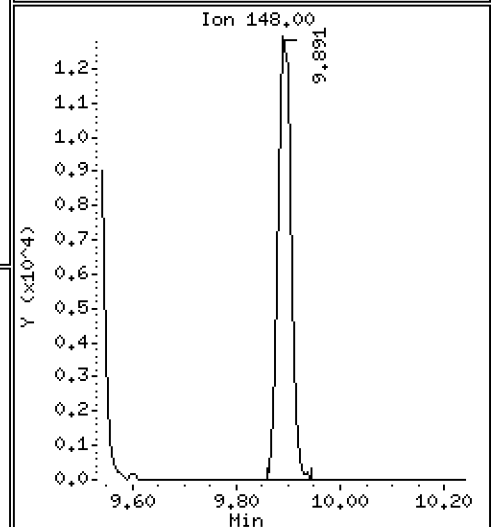
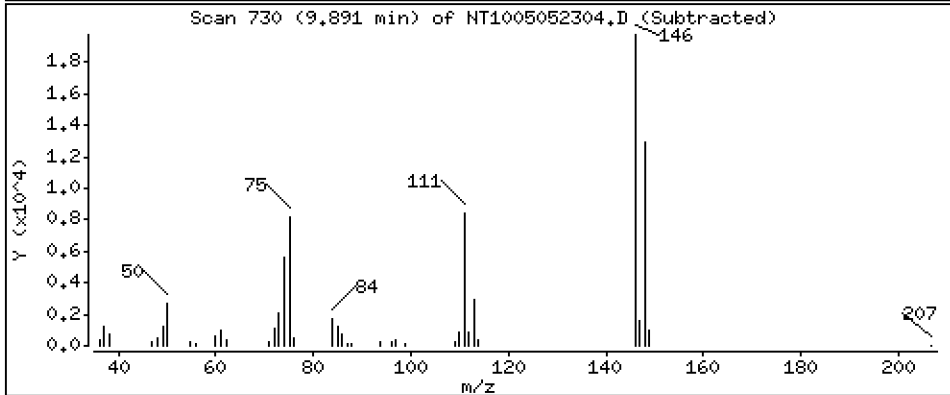
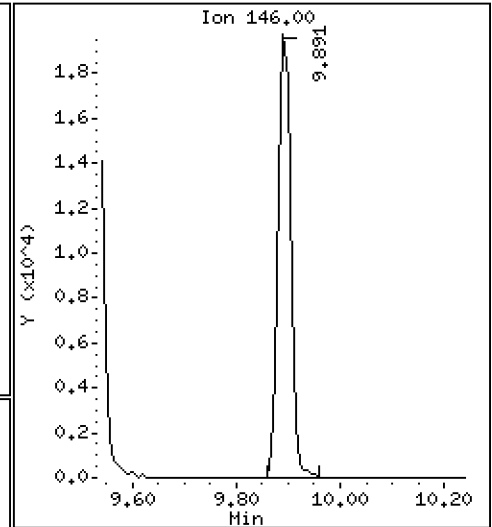
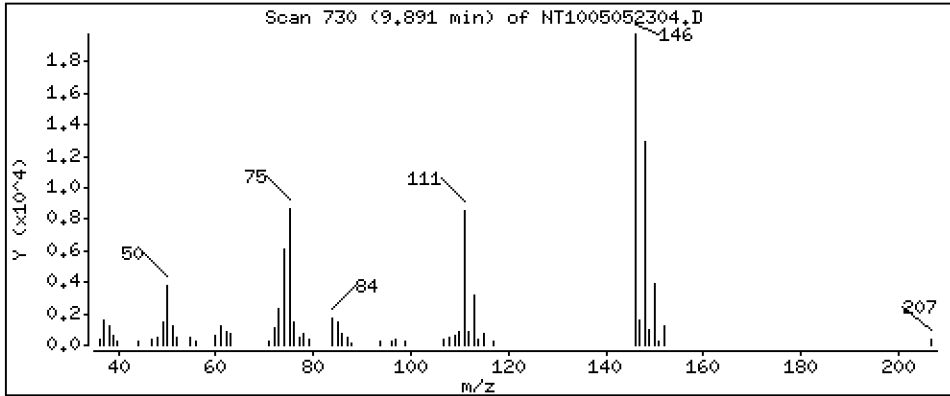
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,4285 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

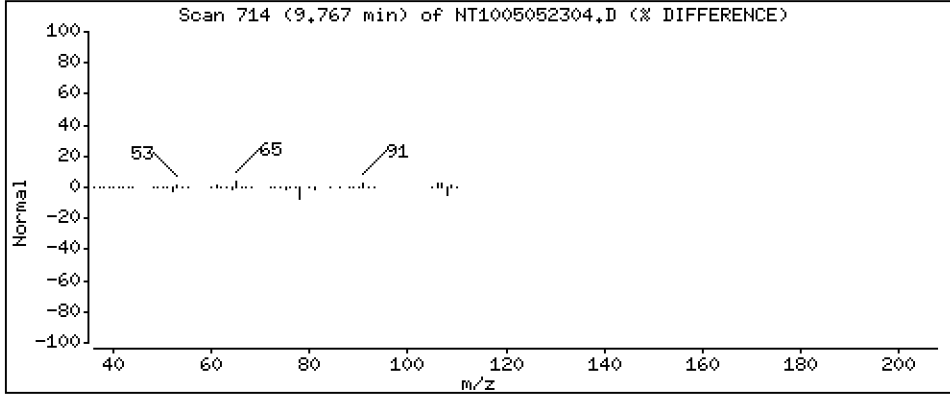
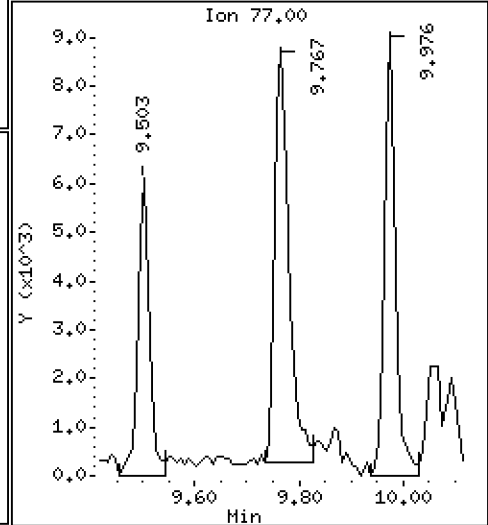
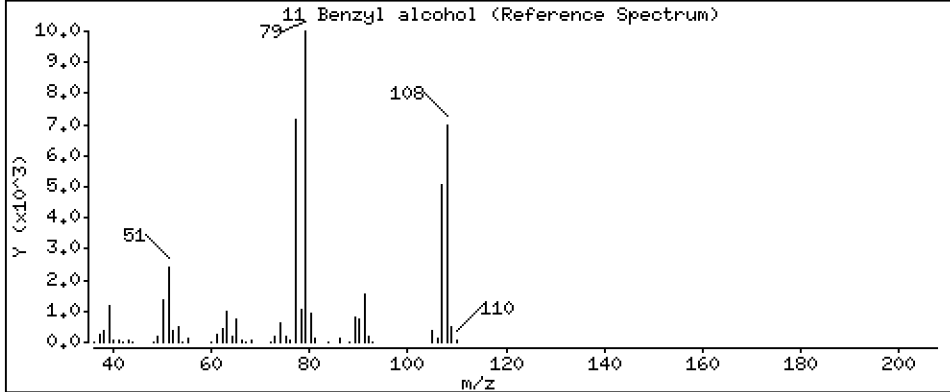
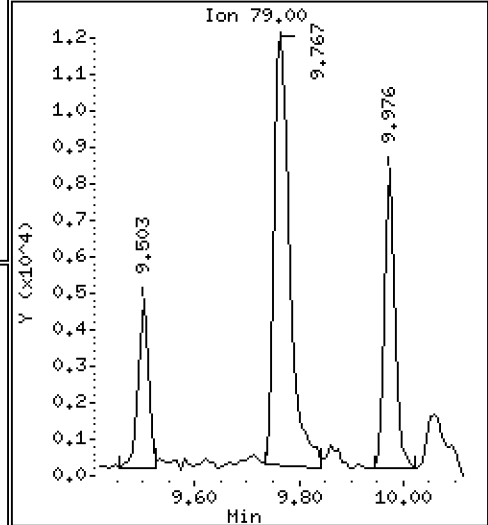
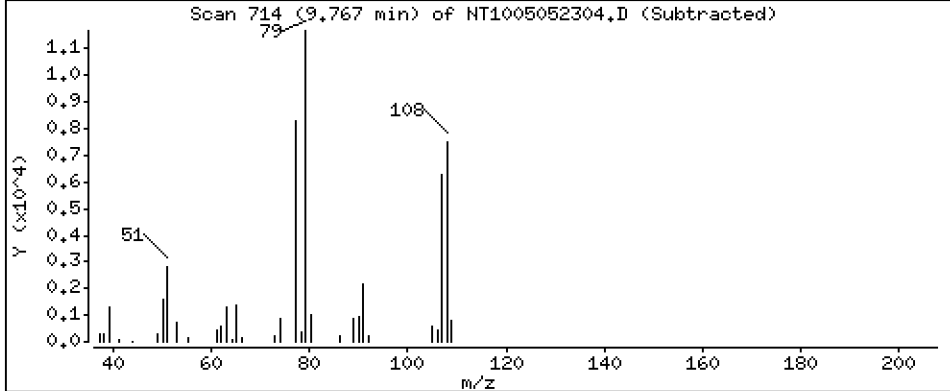
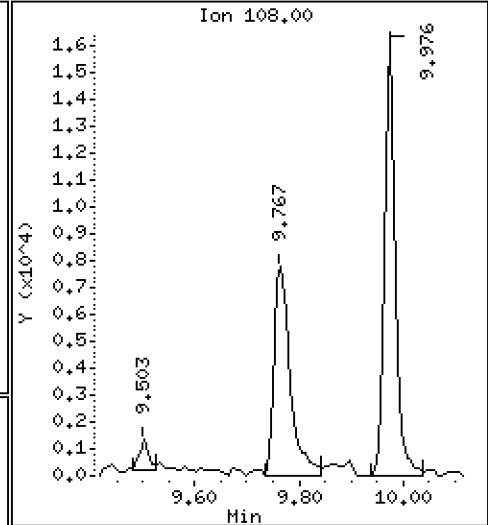
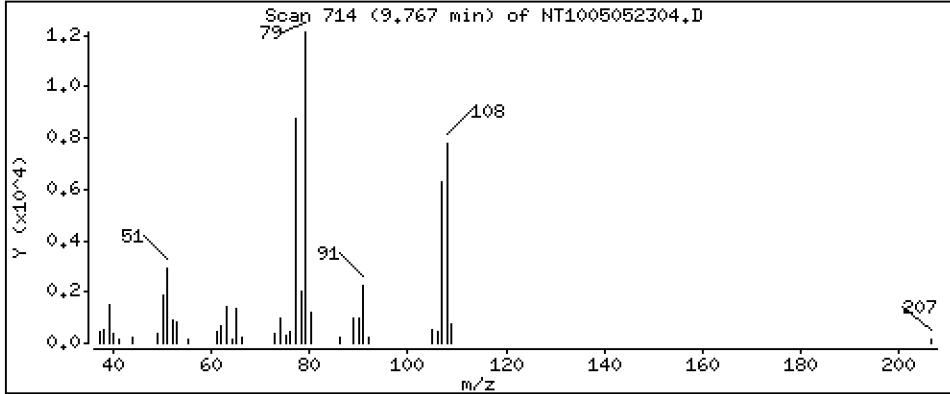
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.4329 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

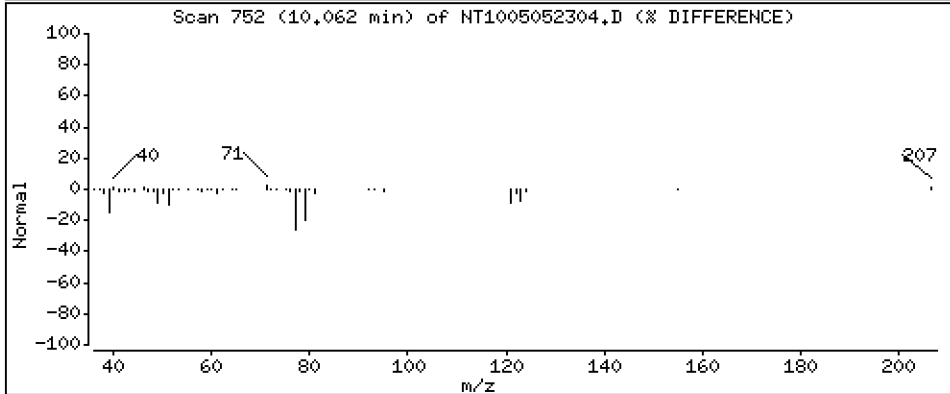
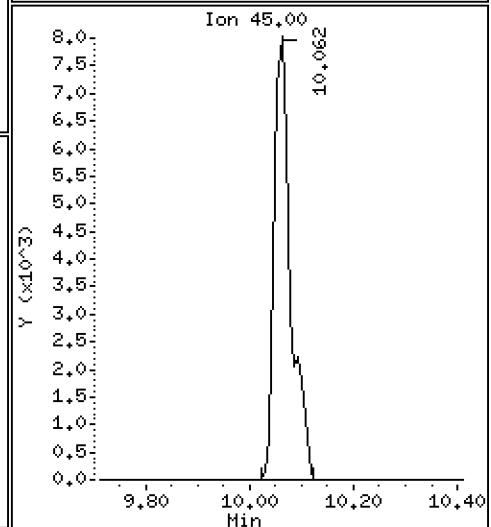
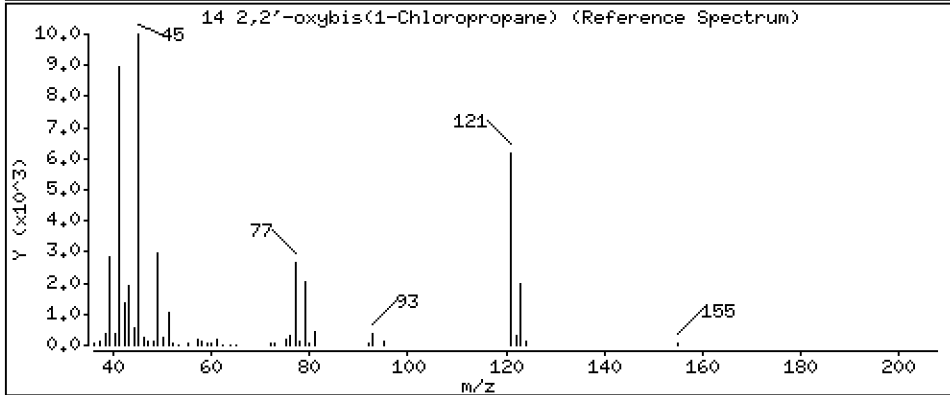
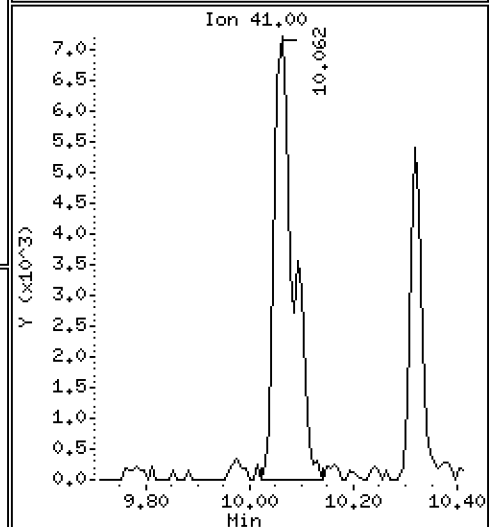
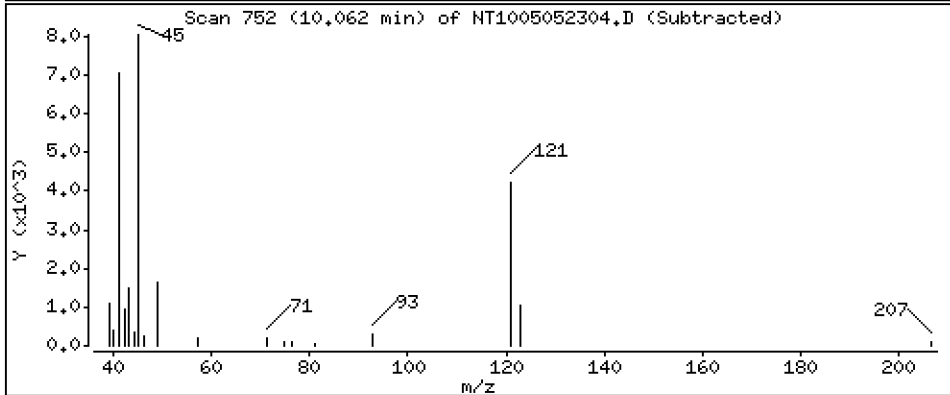
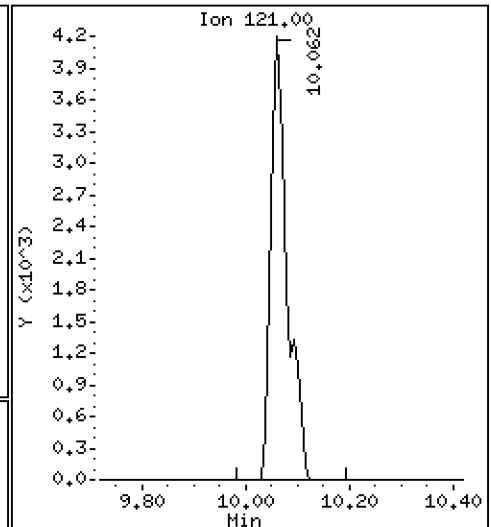
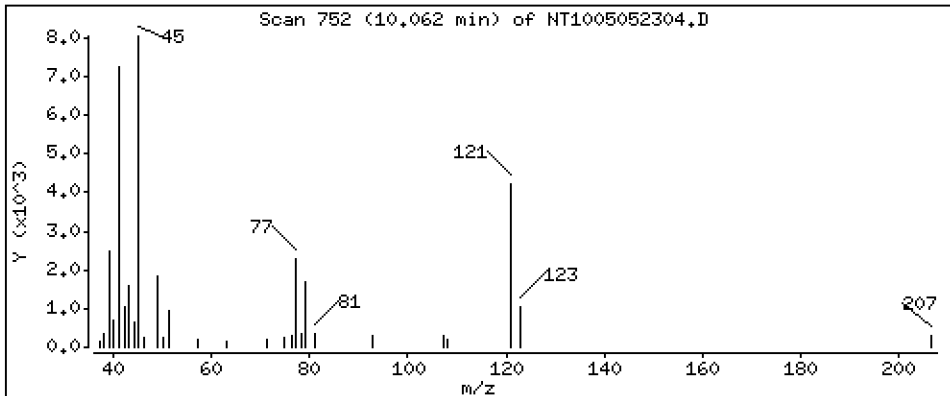
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,4125 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

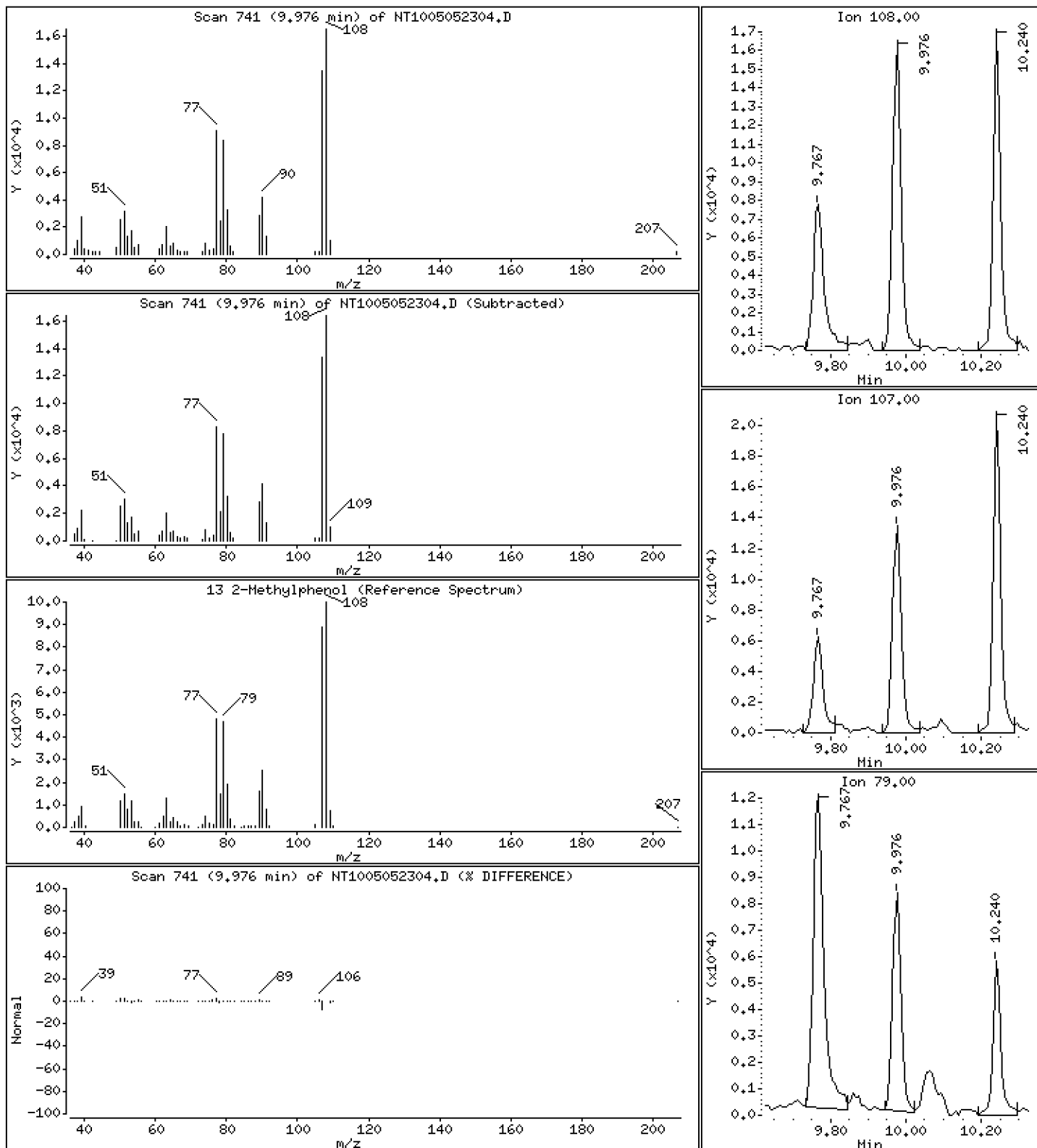
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.4213 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

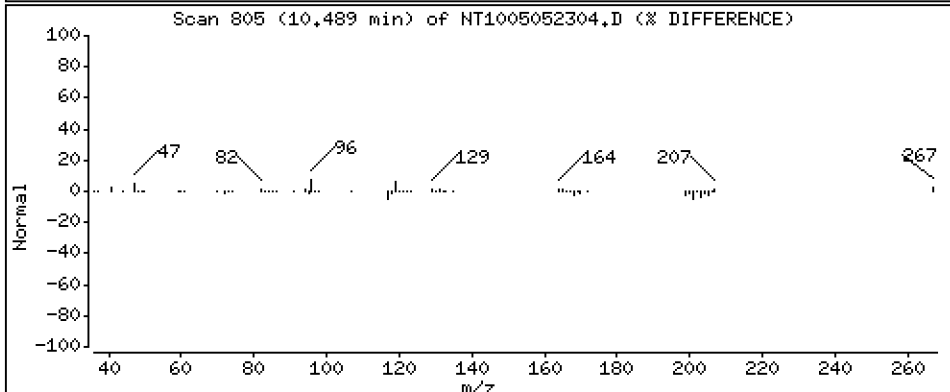
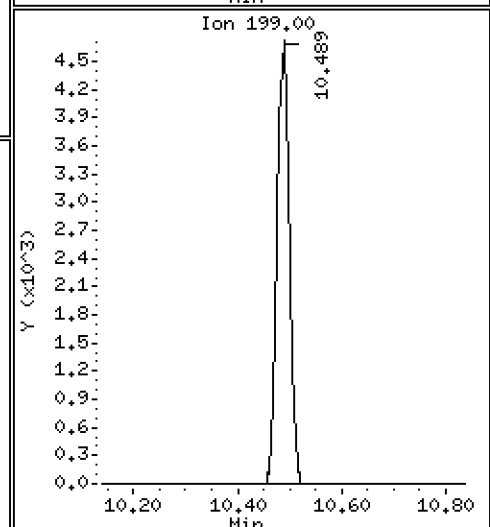
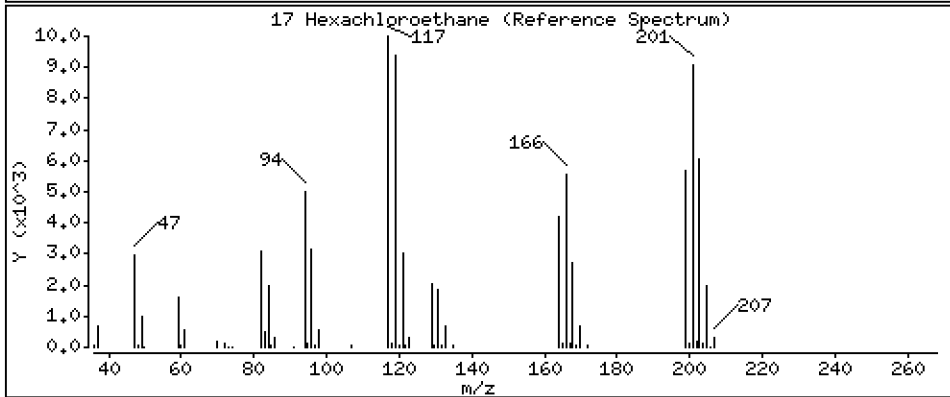
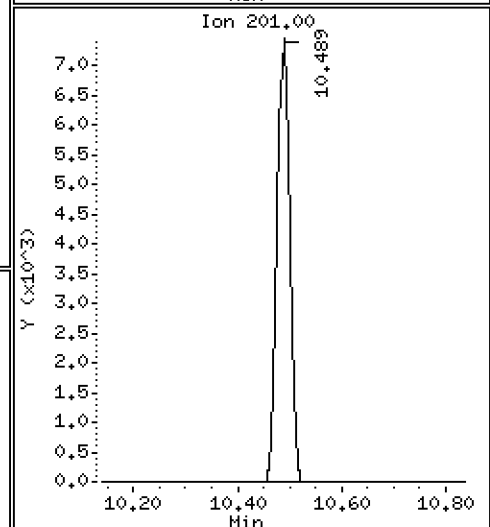
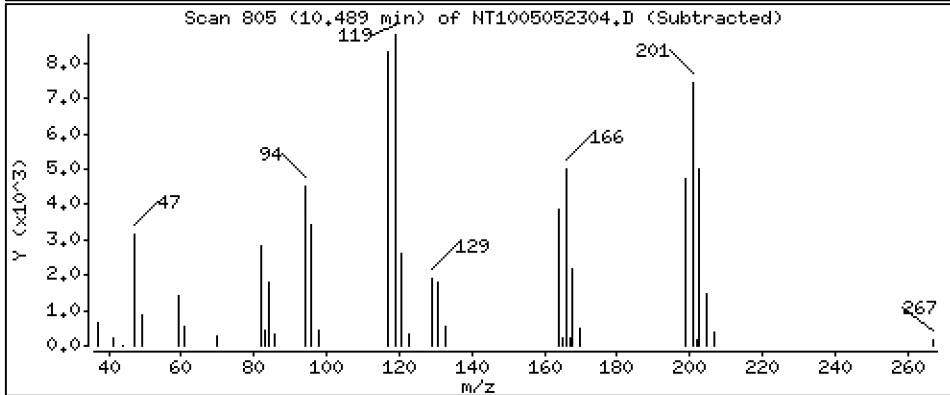
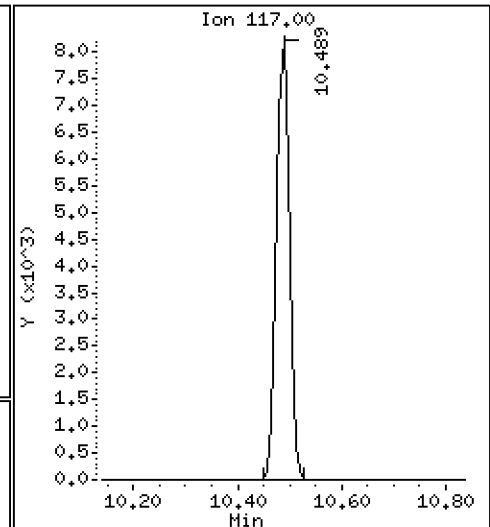
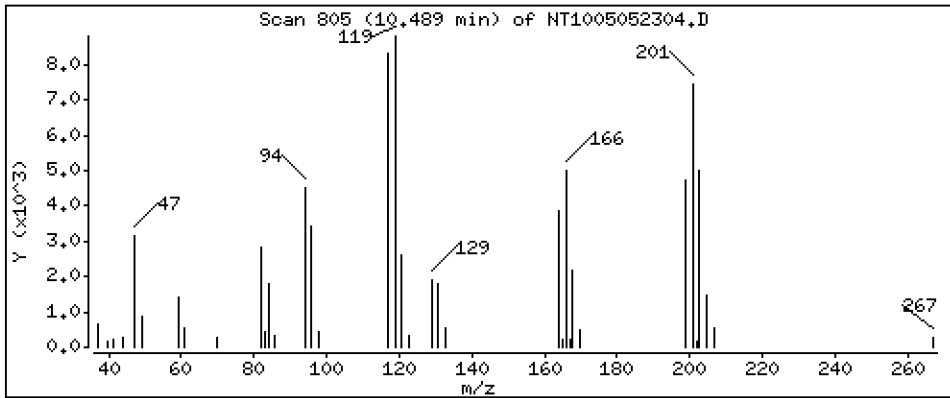
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,4099 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

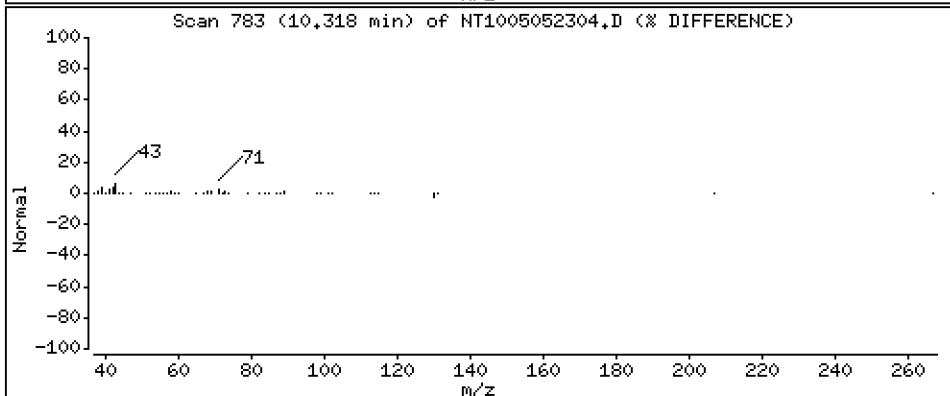
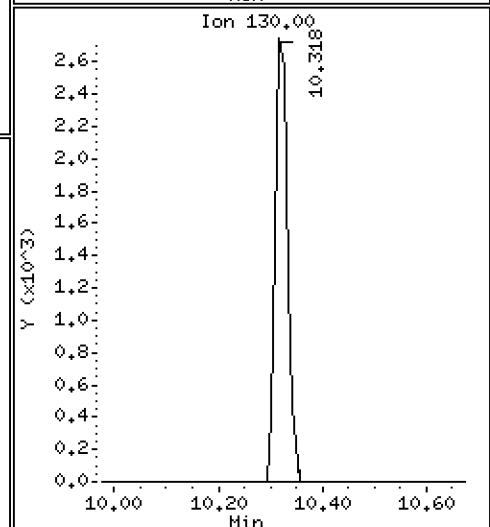
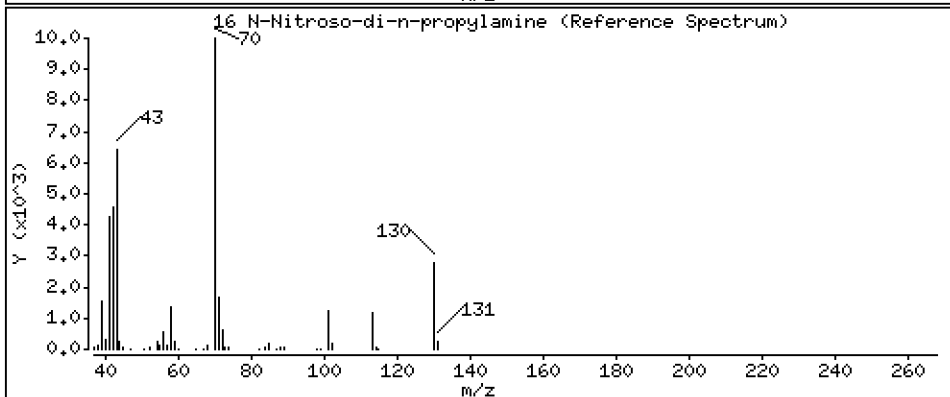
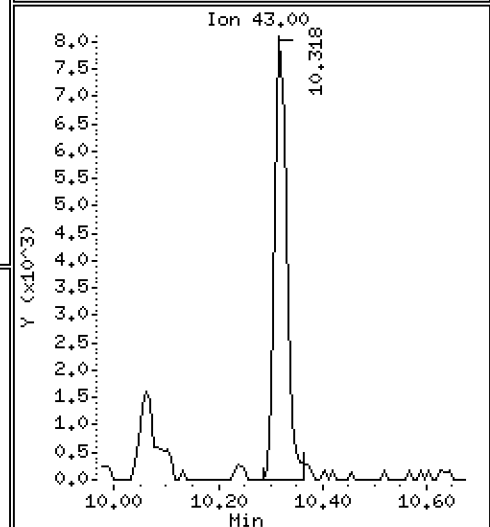
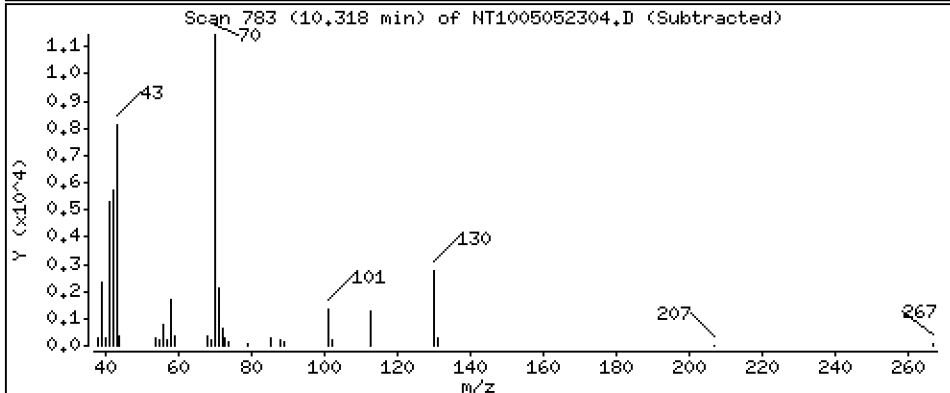
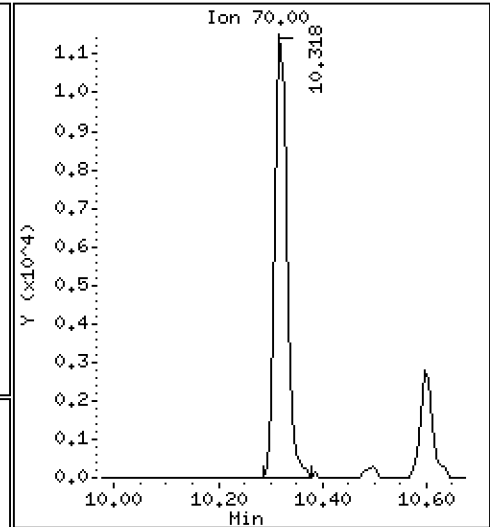
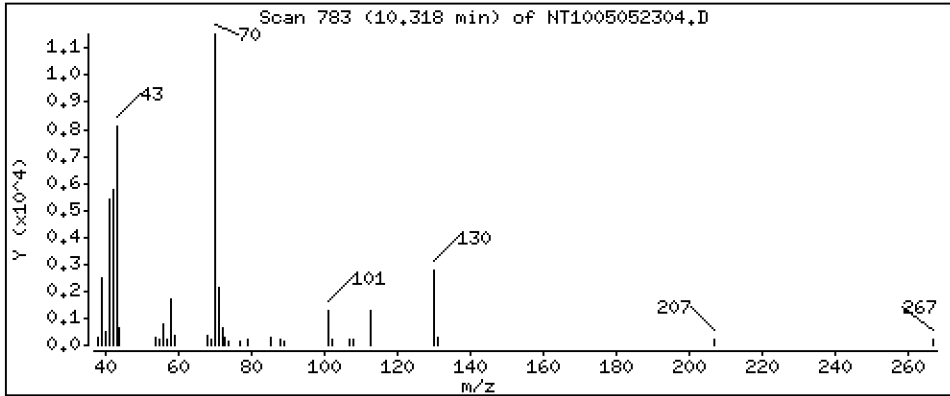
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,3855 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

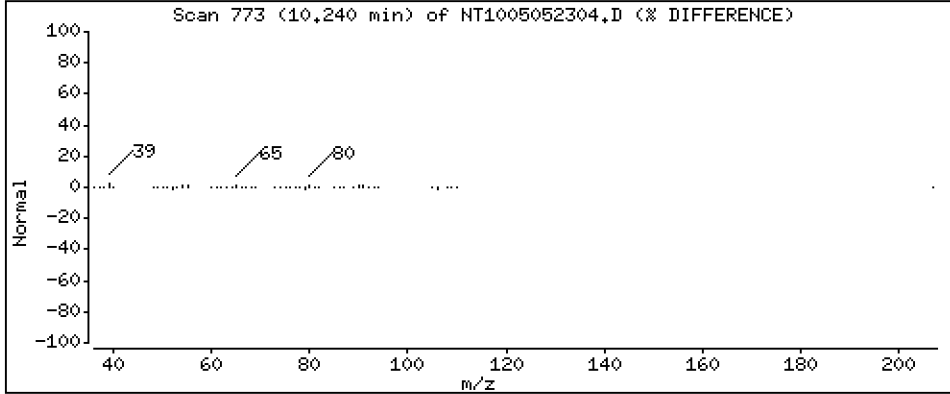
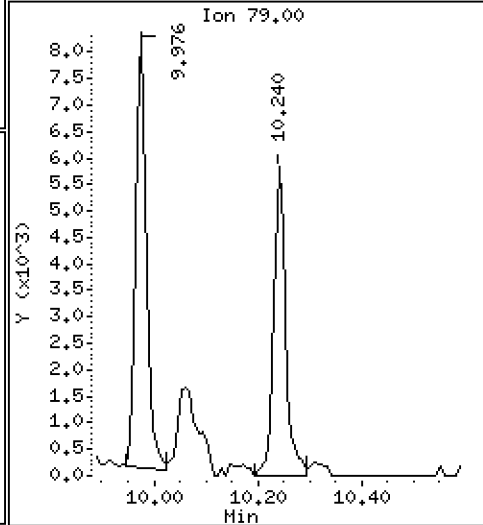
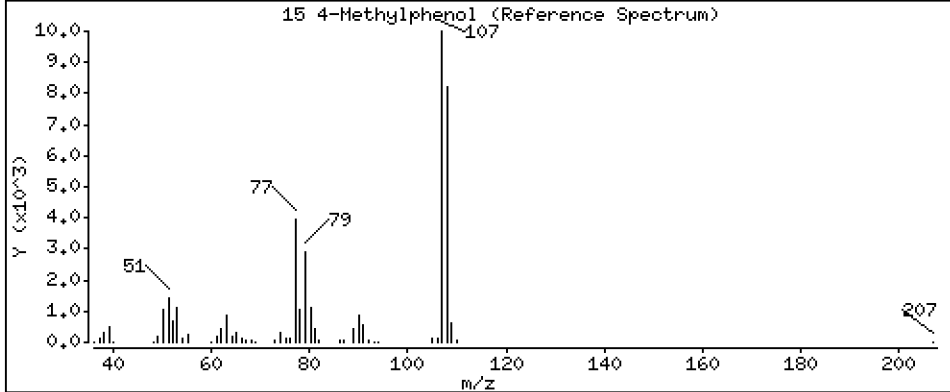
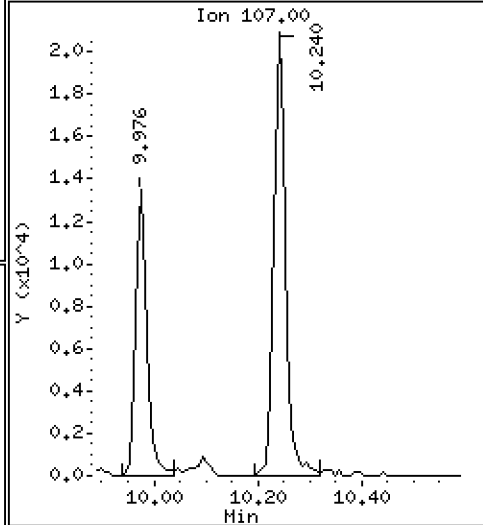
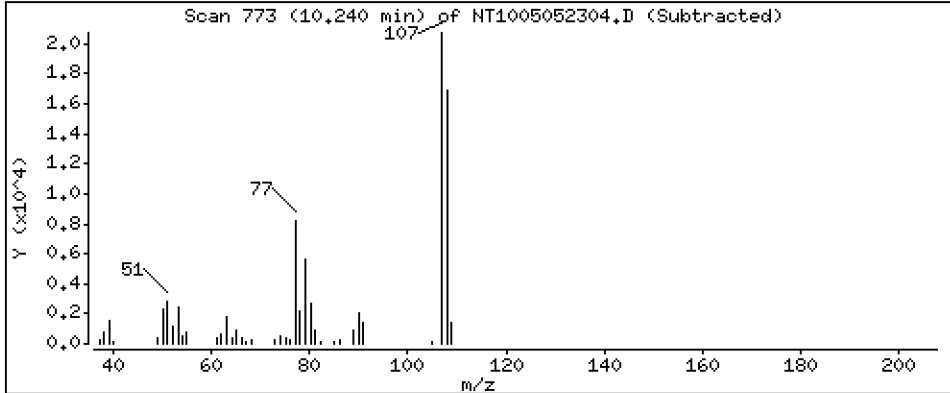
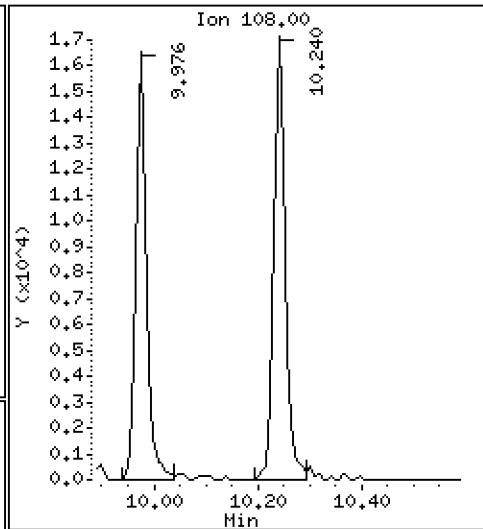
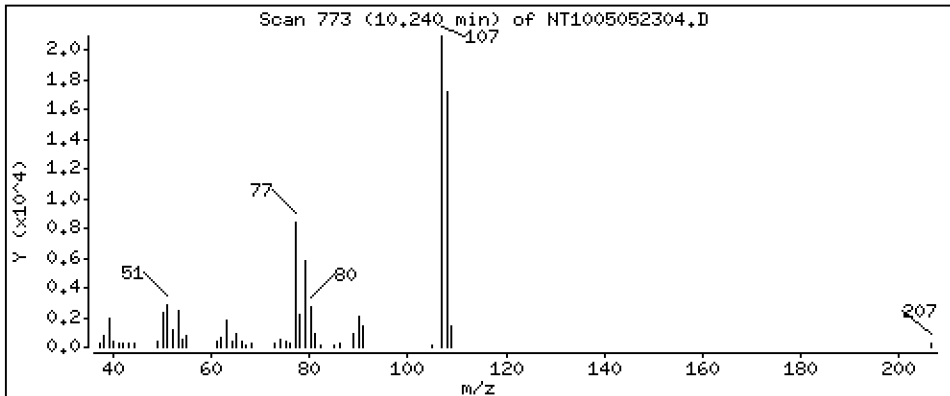
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.4160 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

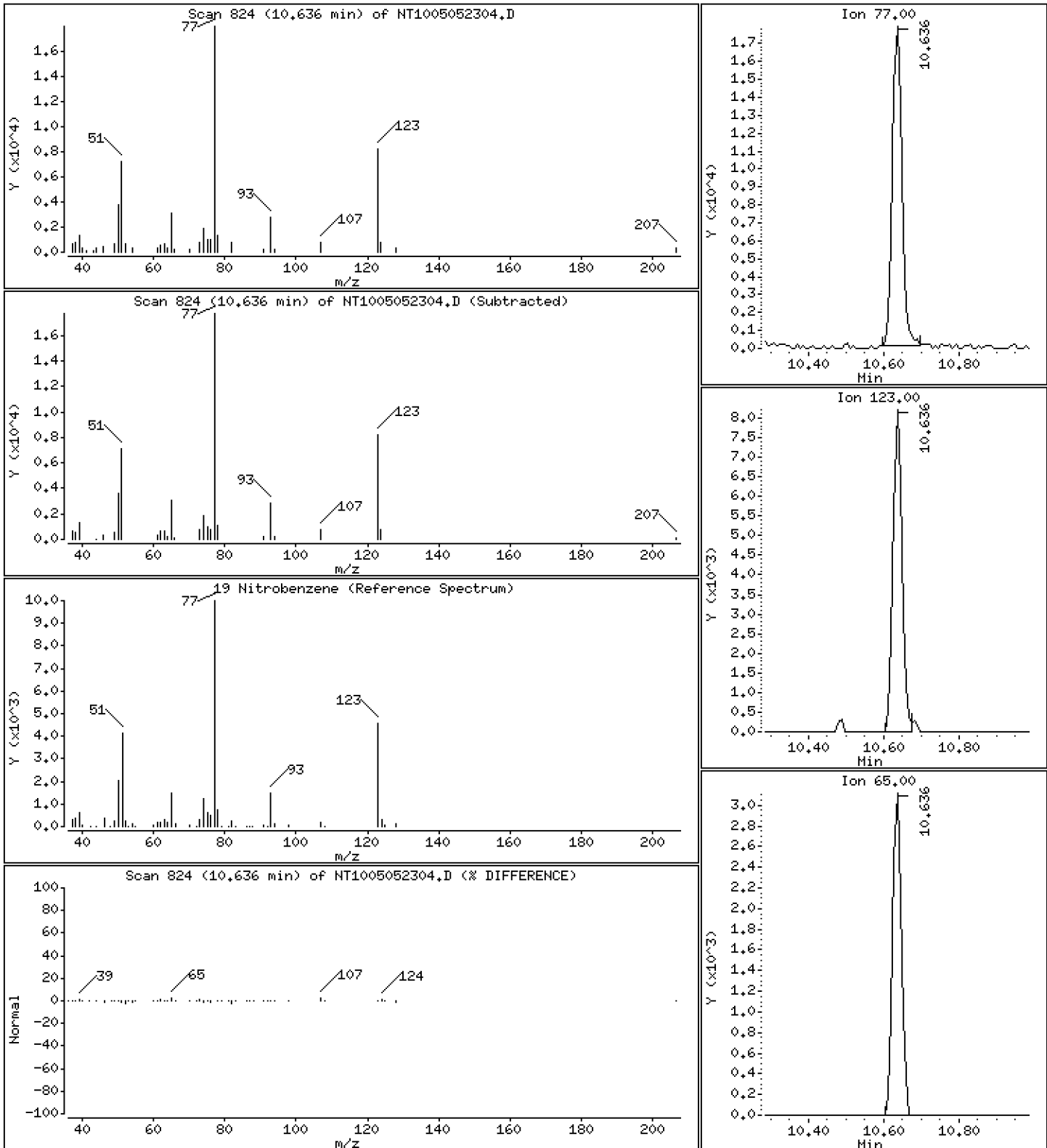
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,4169 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

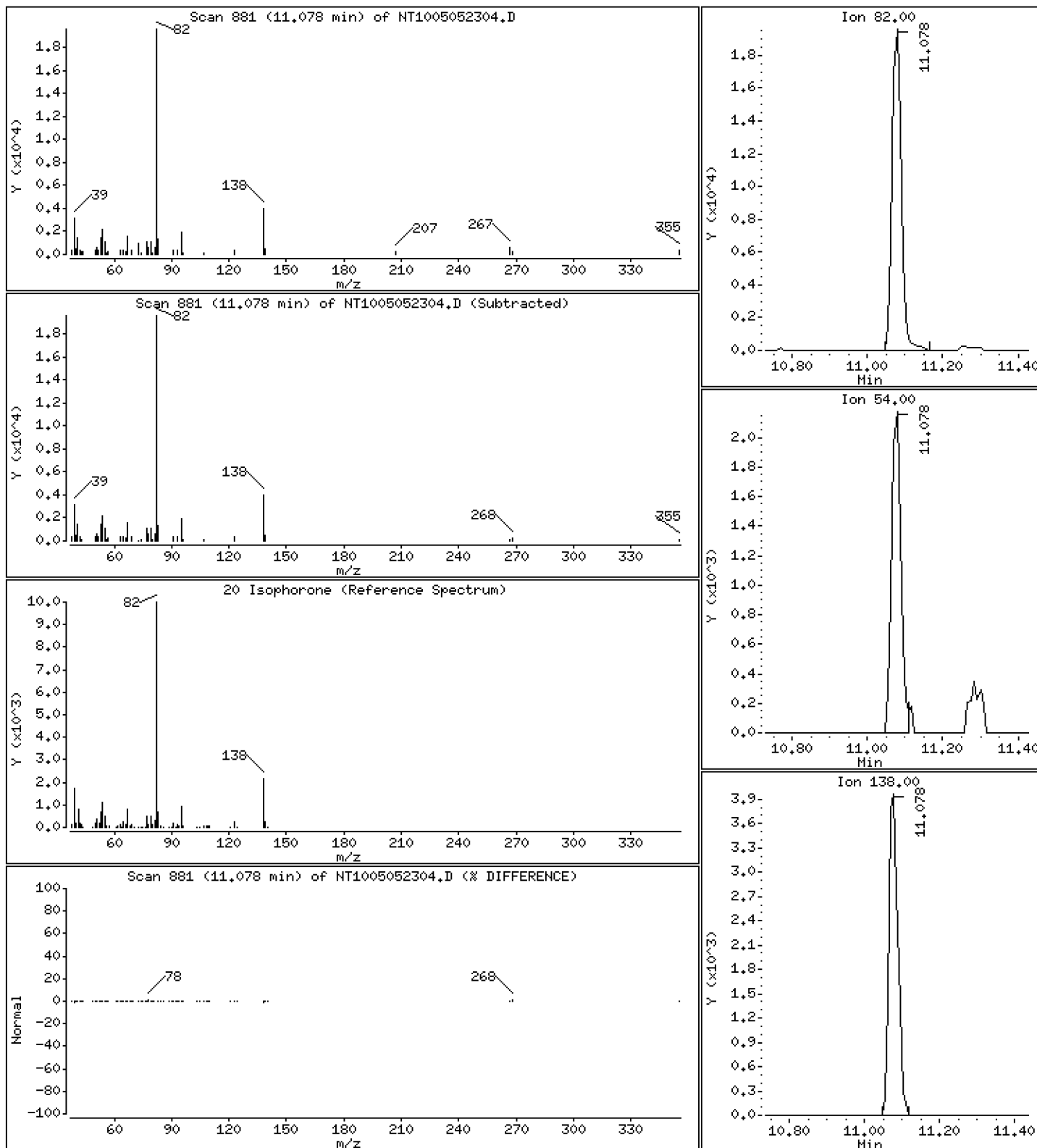
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,4300 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

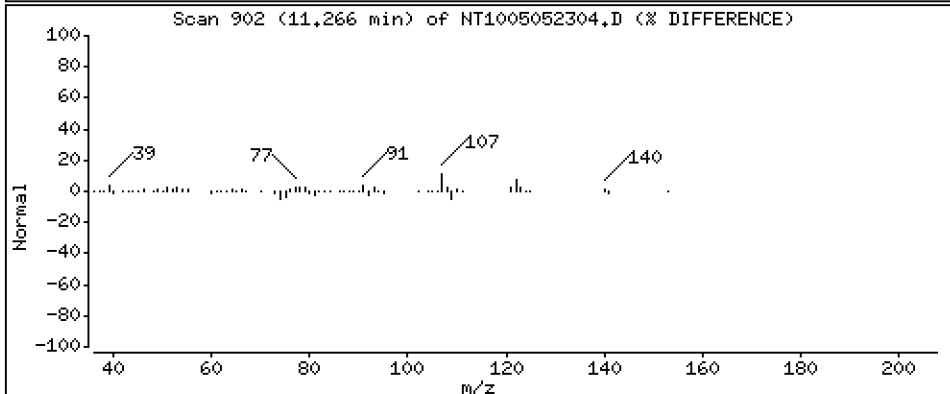
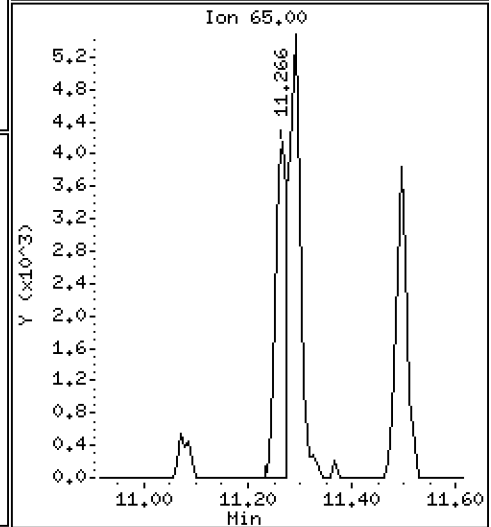
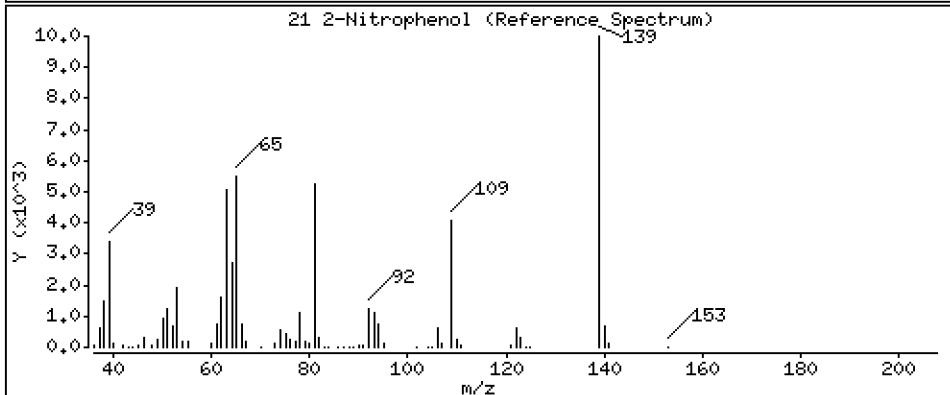
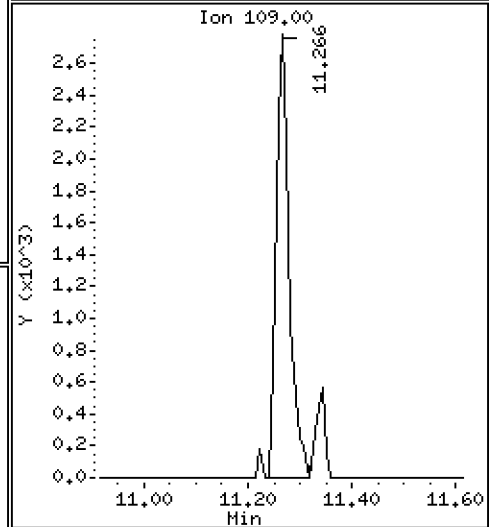
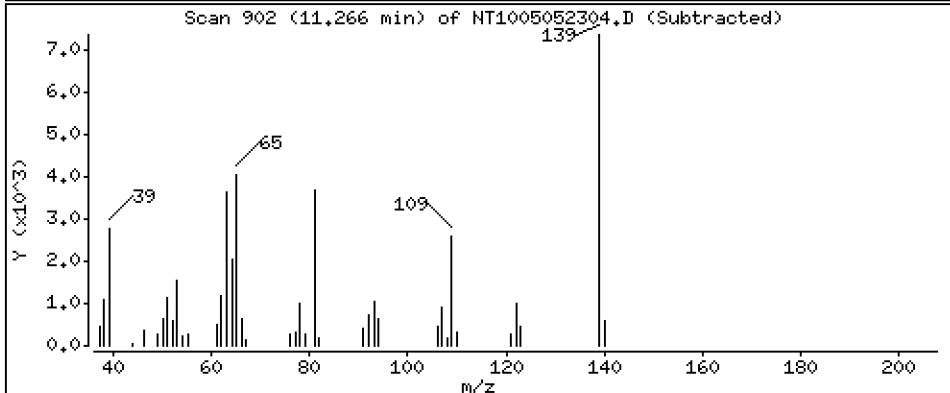
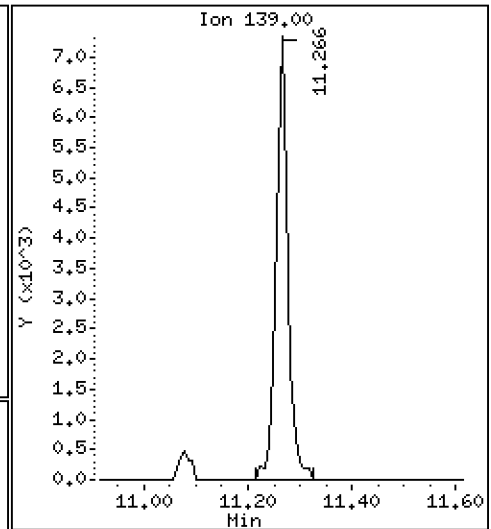
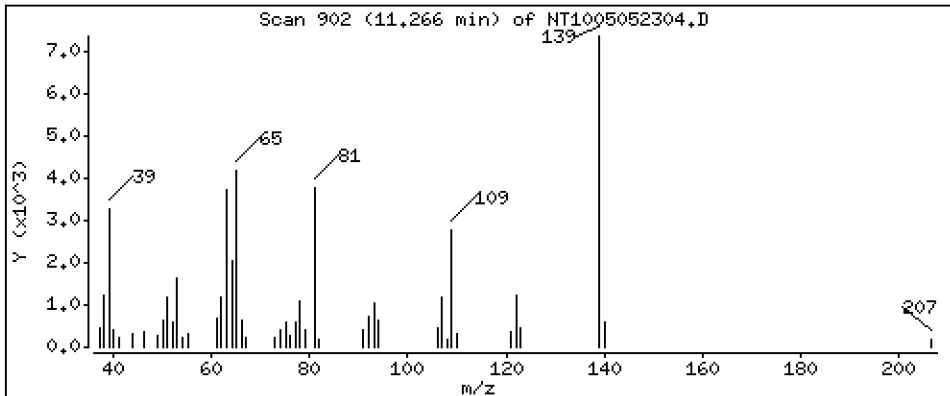
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,3153 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

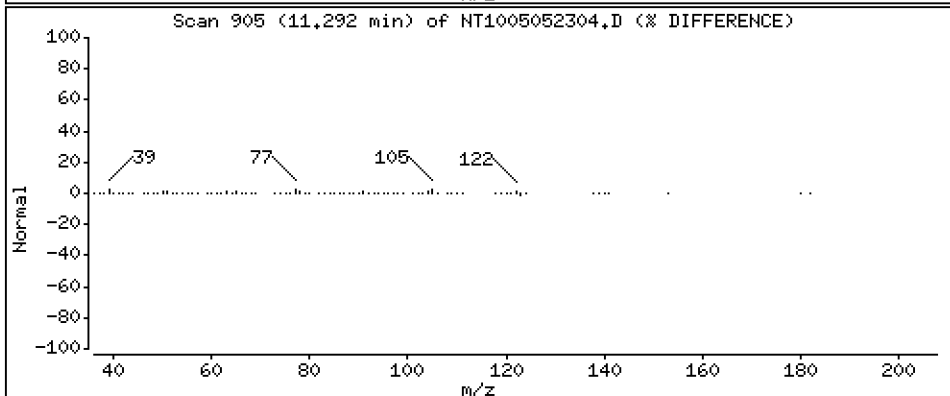
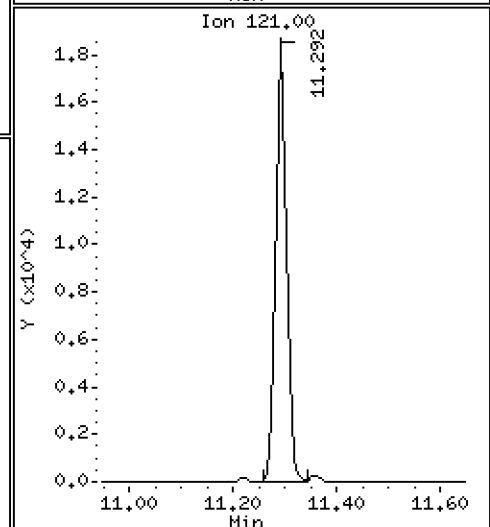
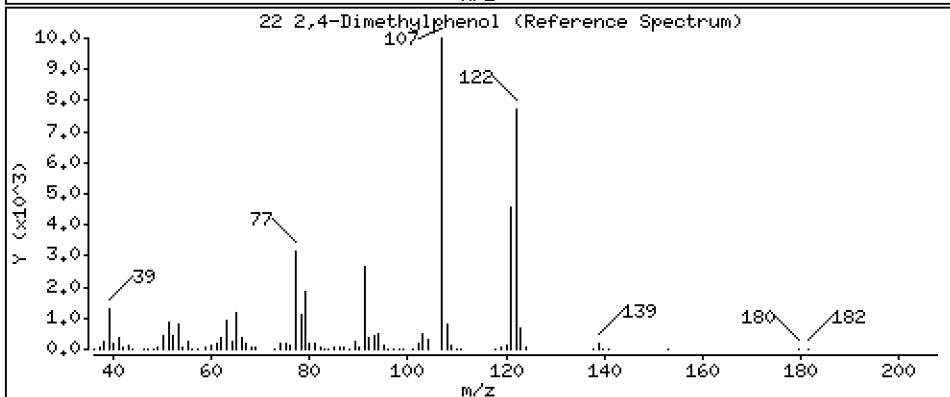
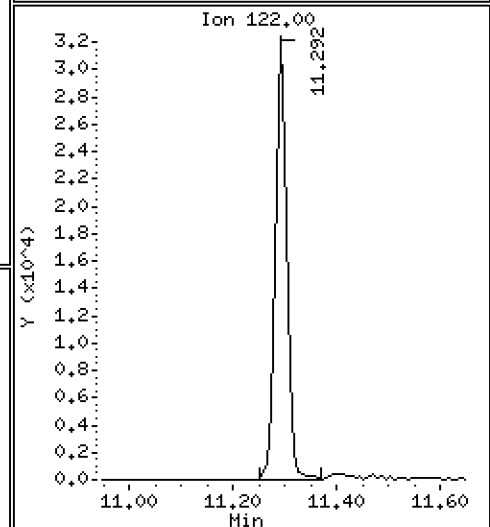
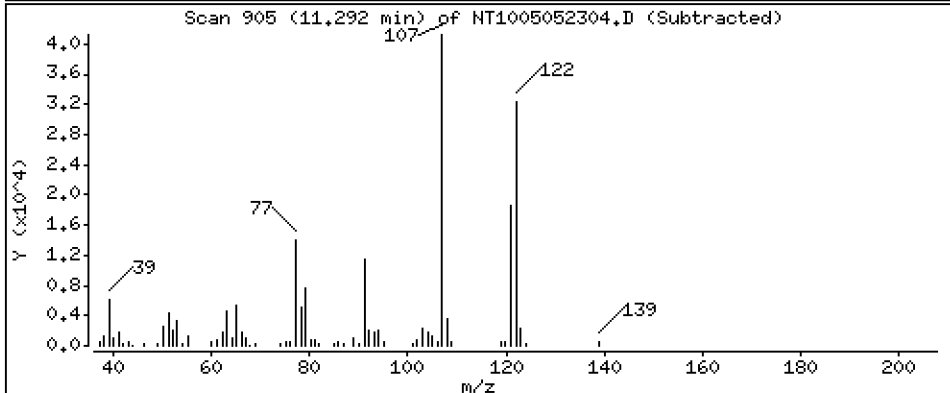
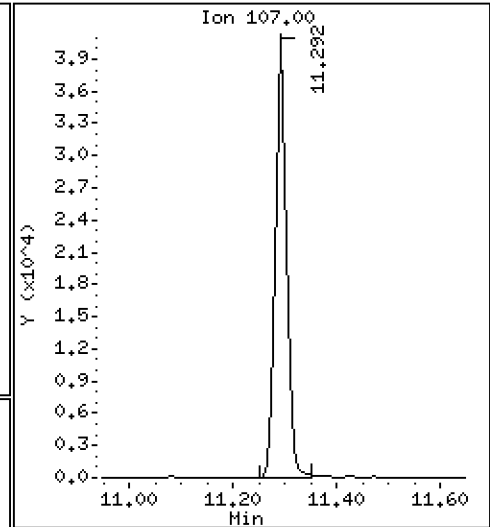
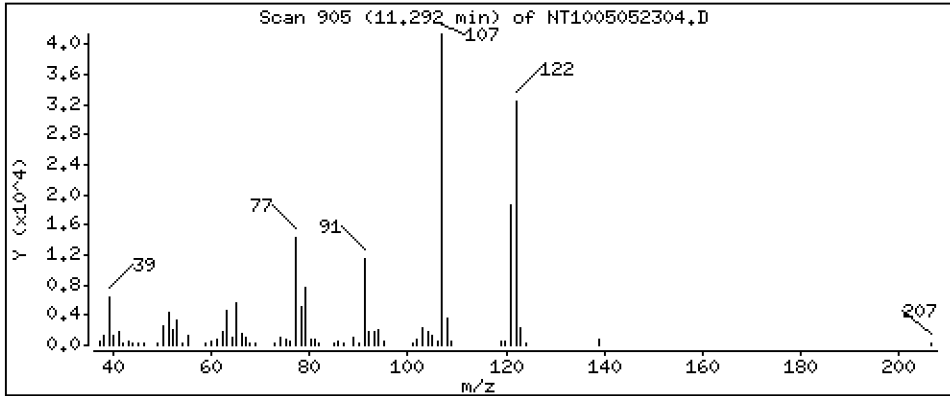
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,8687 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

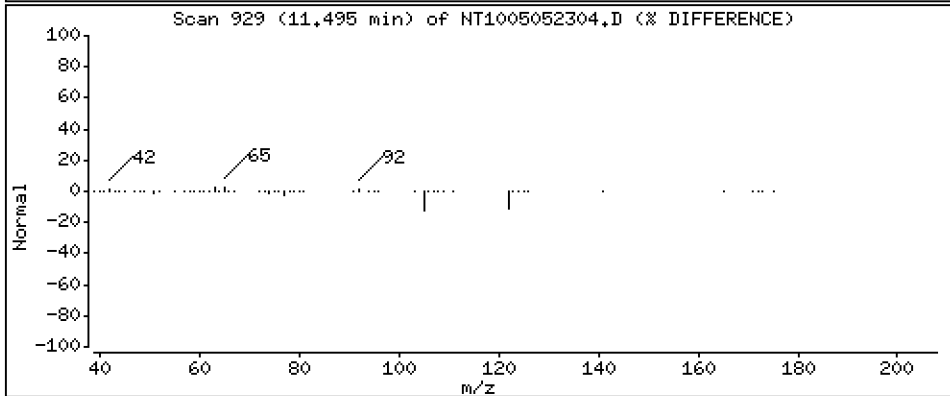
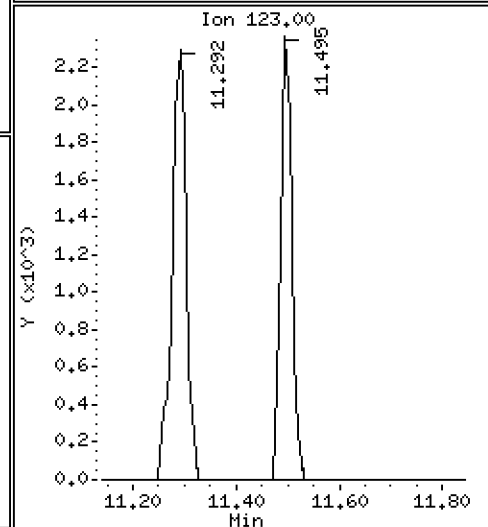
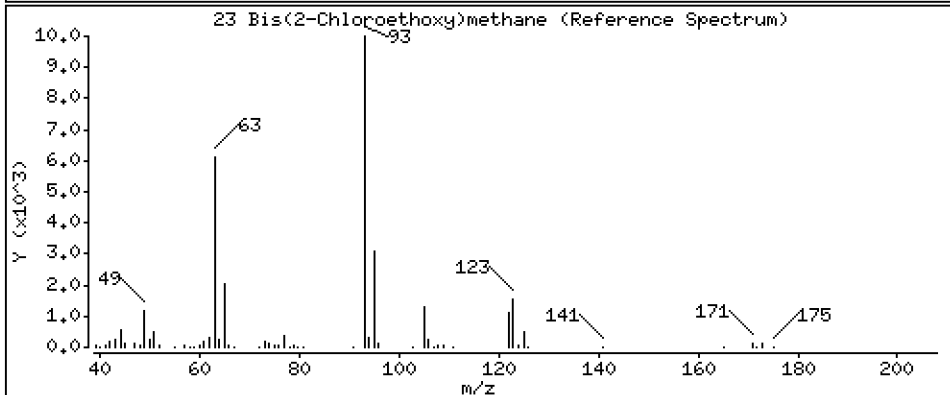
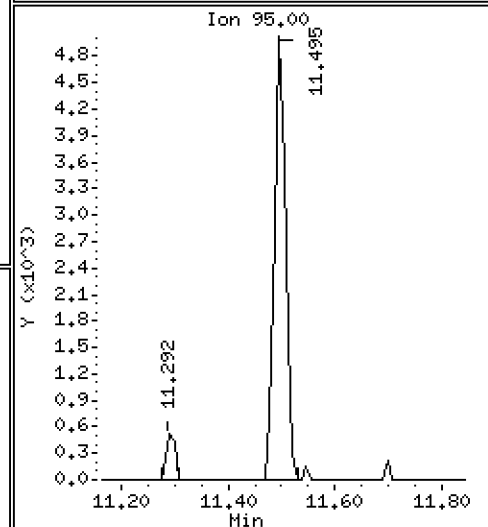
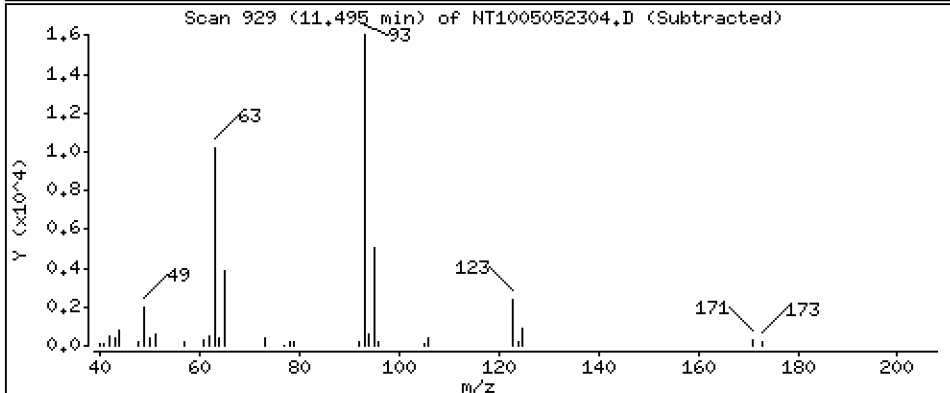
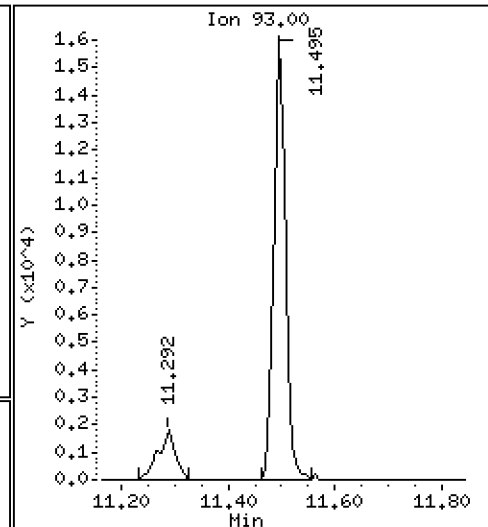
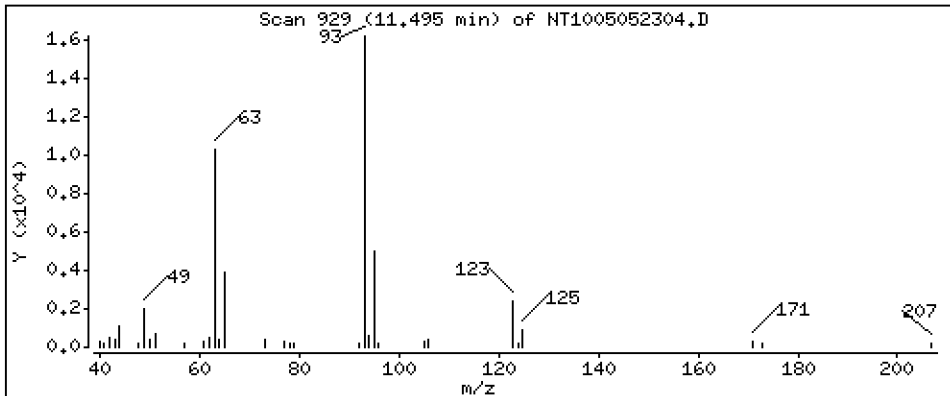
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

23 Bis(2-Chloroethoxy)methane

Concentration: 0.4385 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

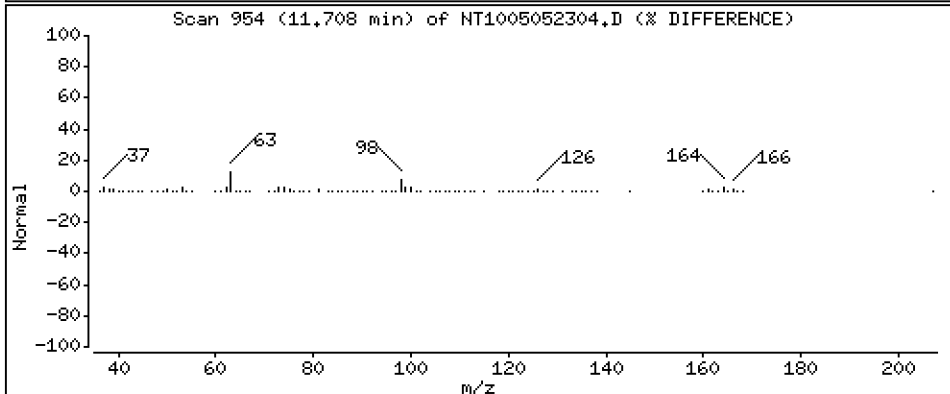
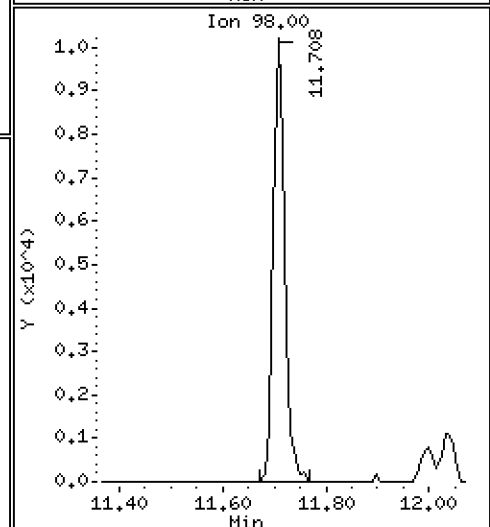
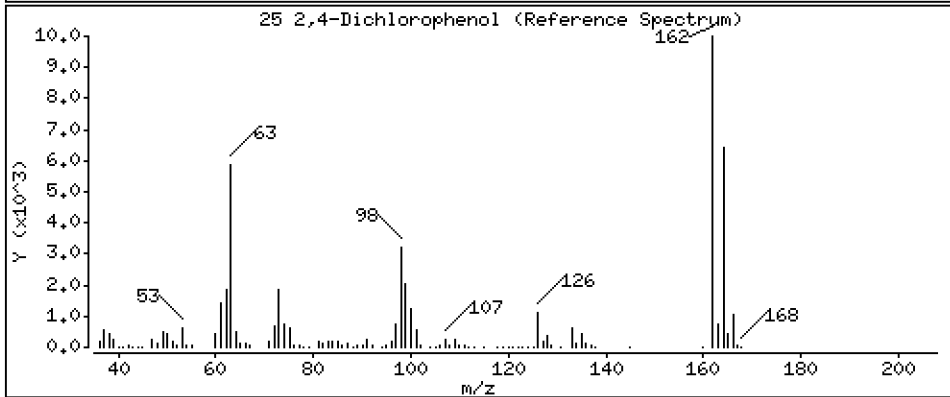
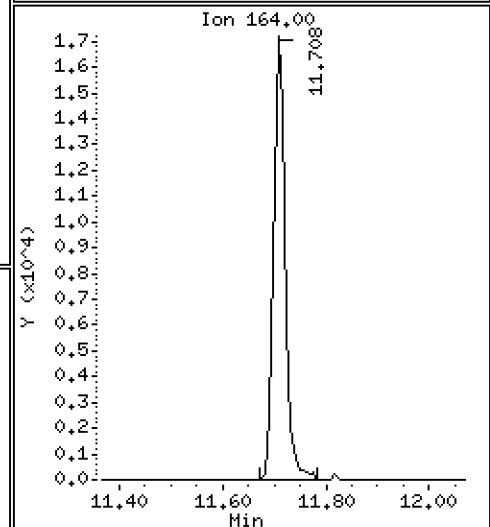
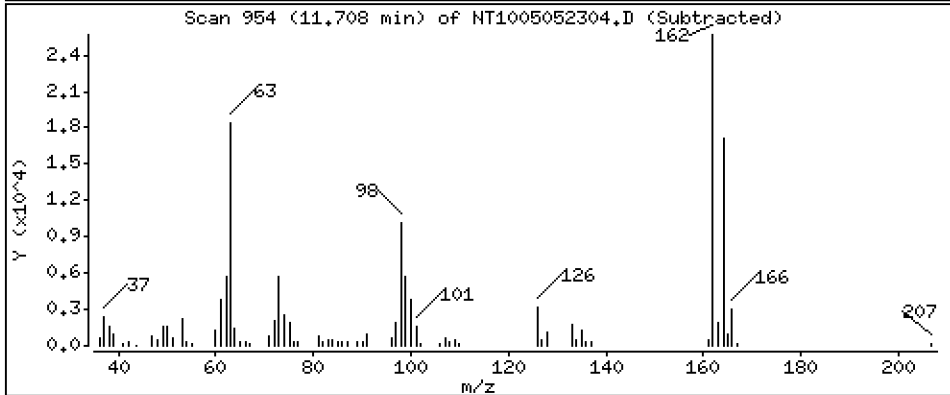
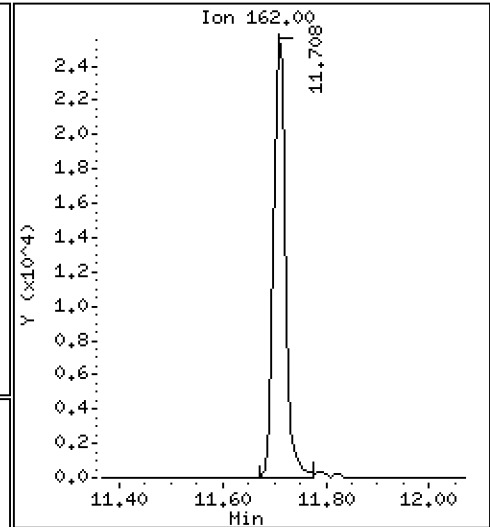
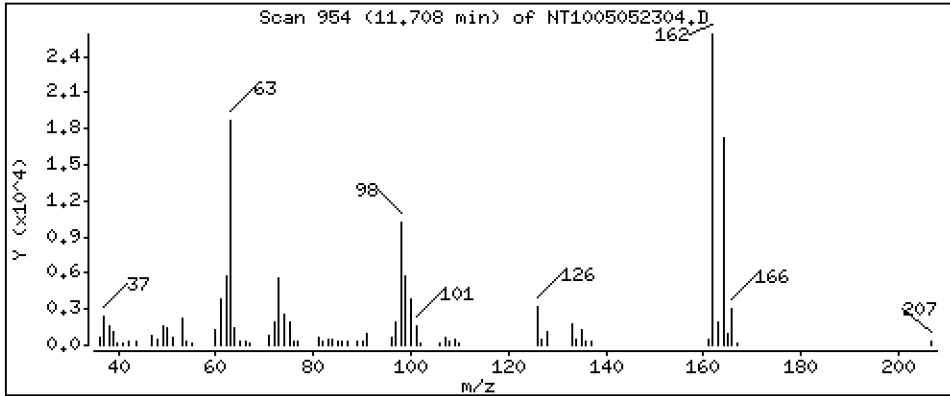
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 0,7646 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

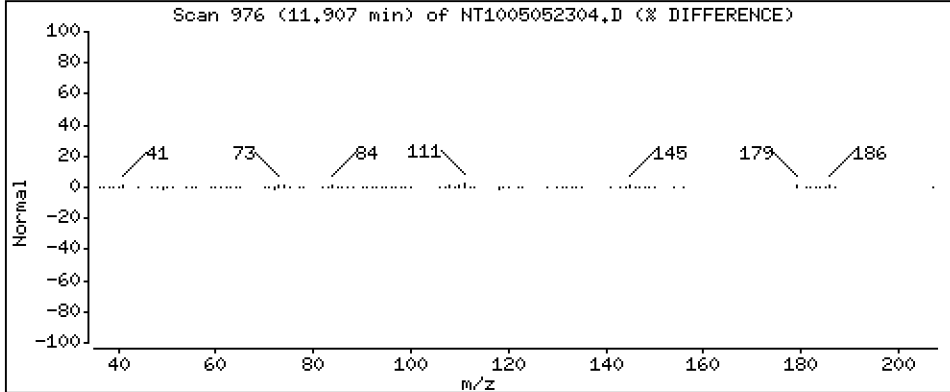
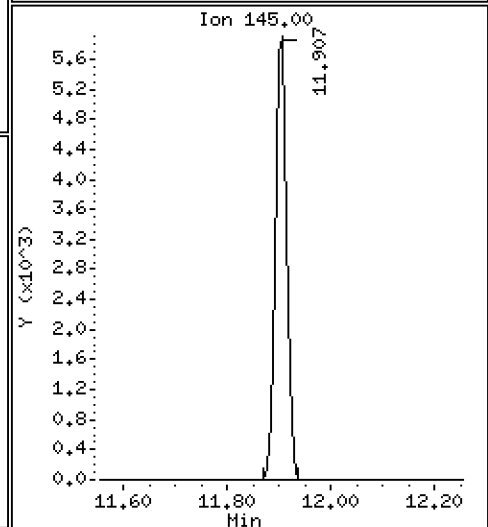
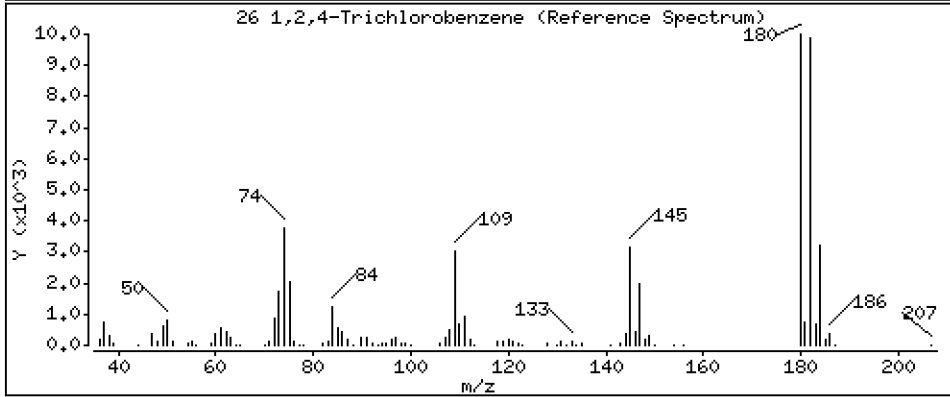
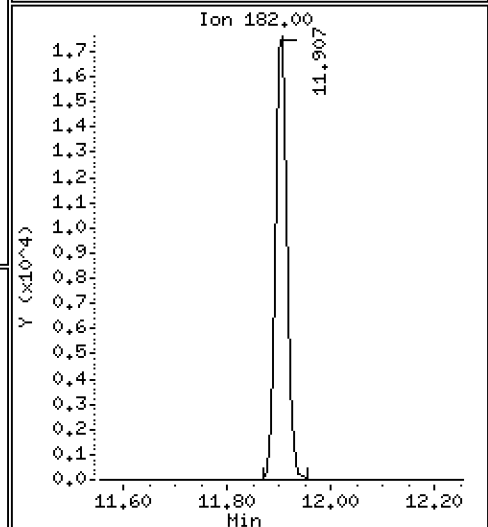
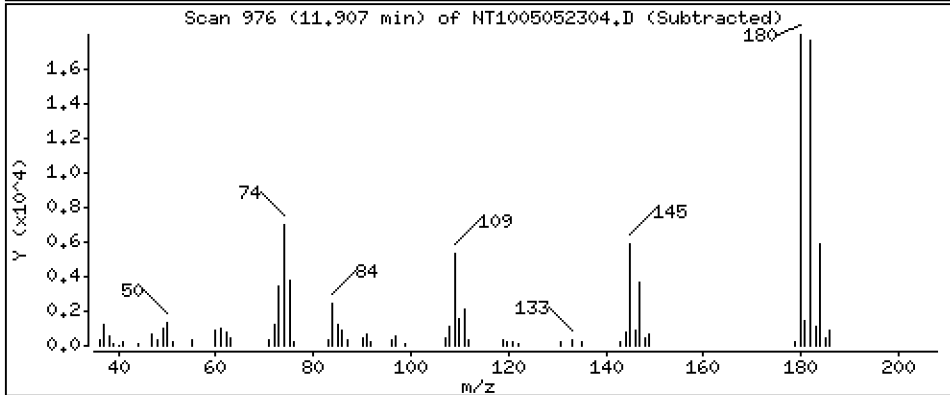
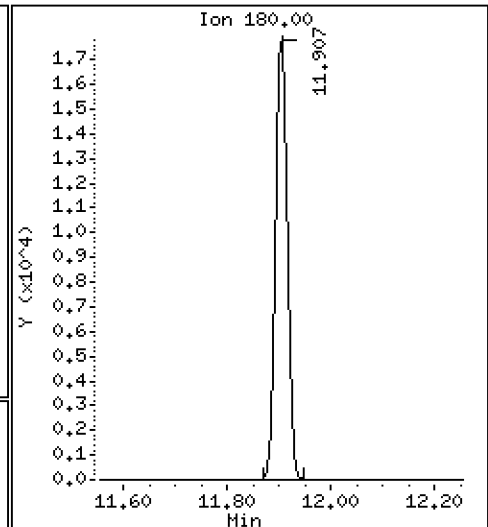
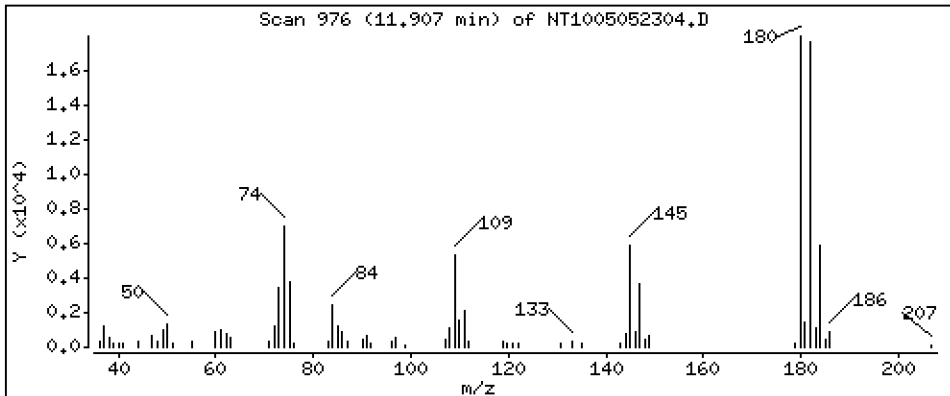
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,3801 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

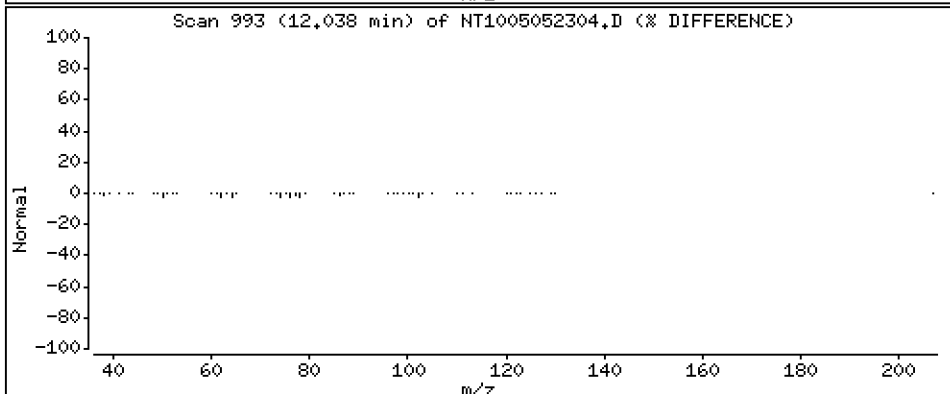
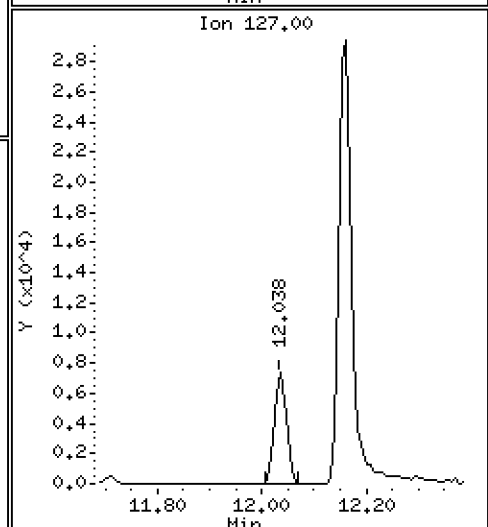
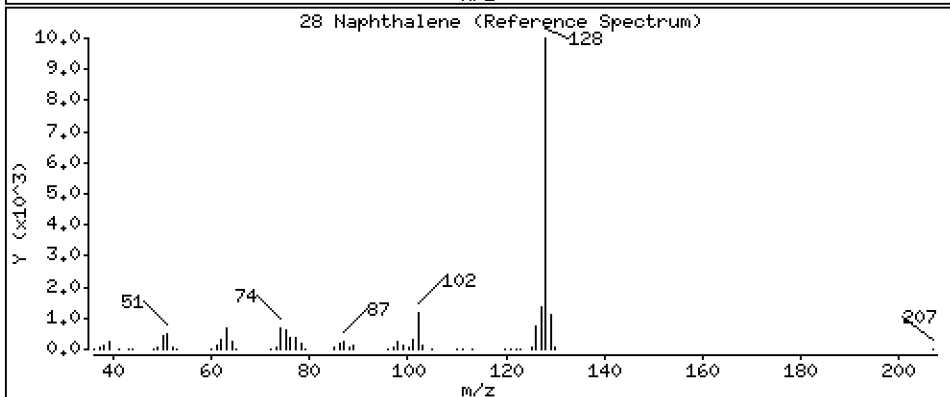
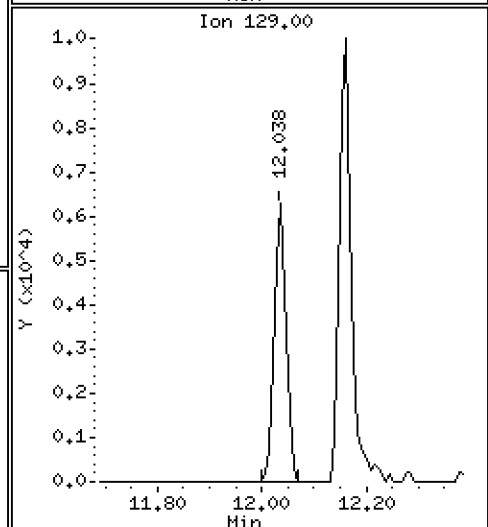
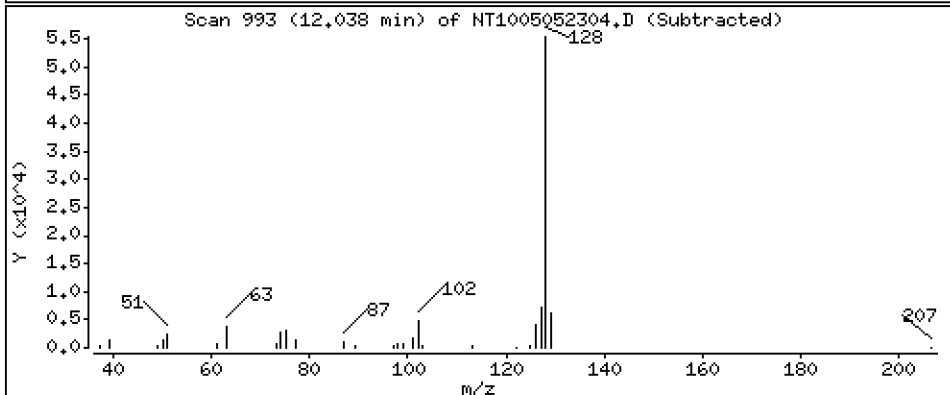
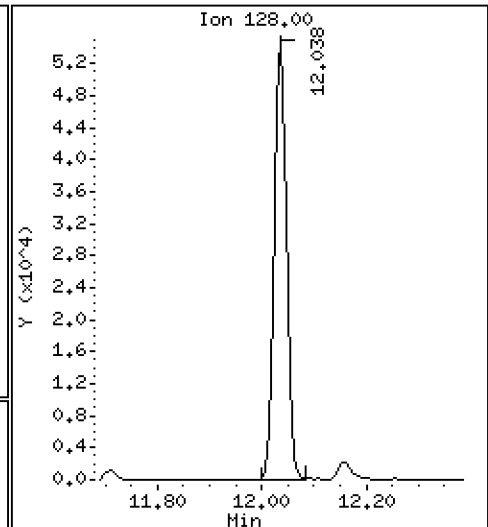
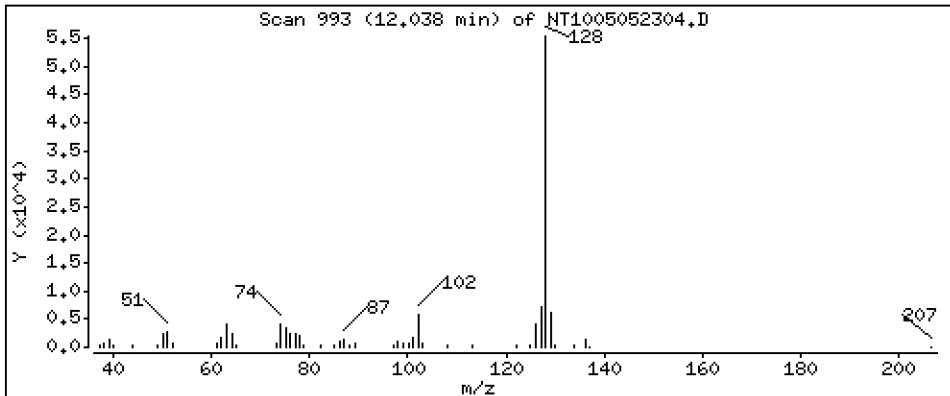
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,4573 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

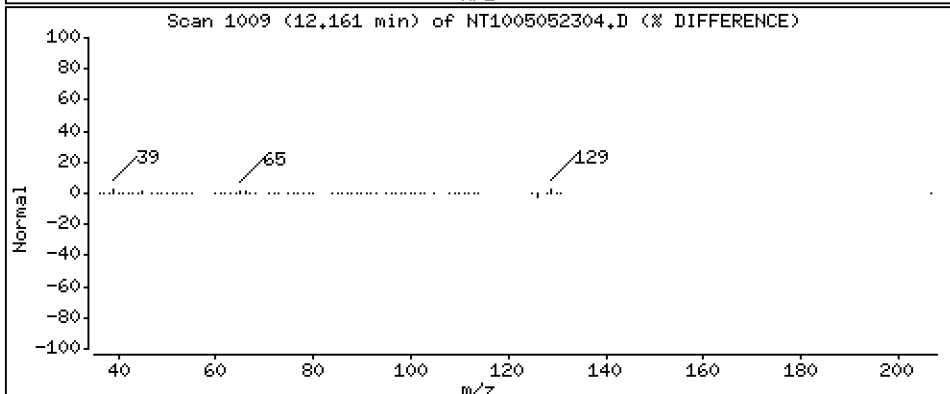
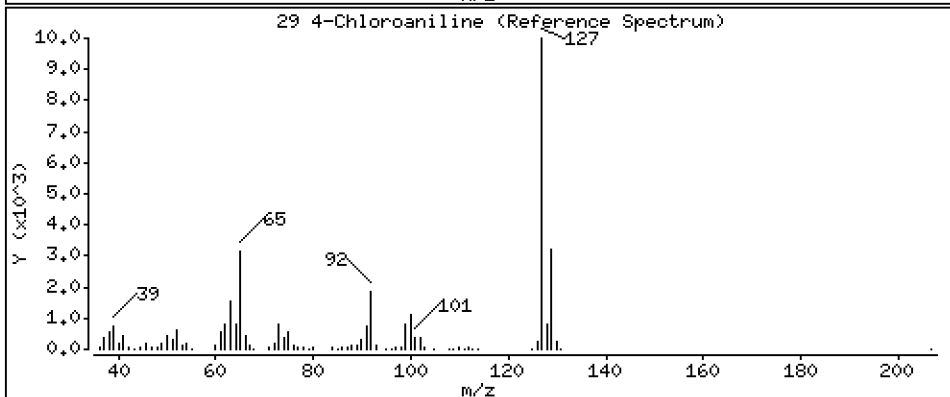
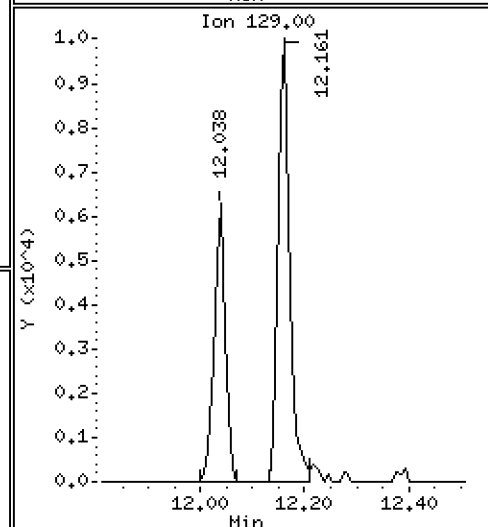
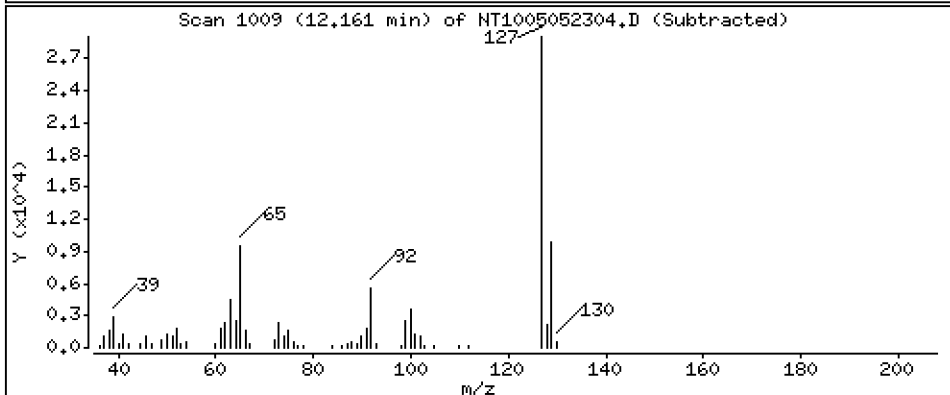
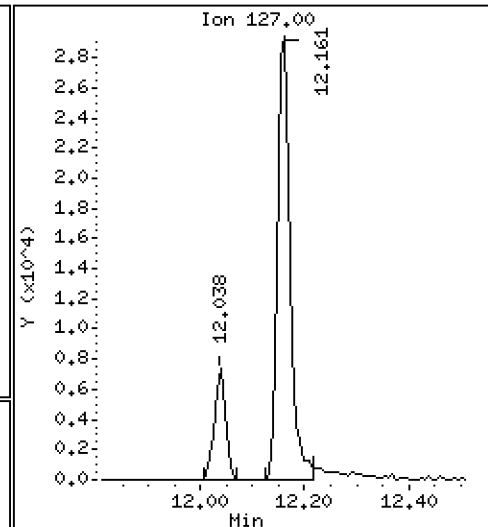
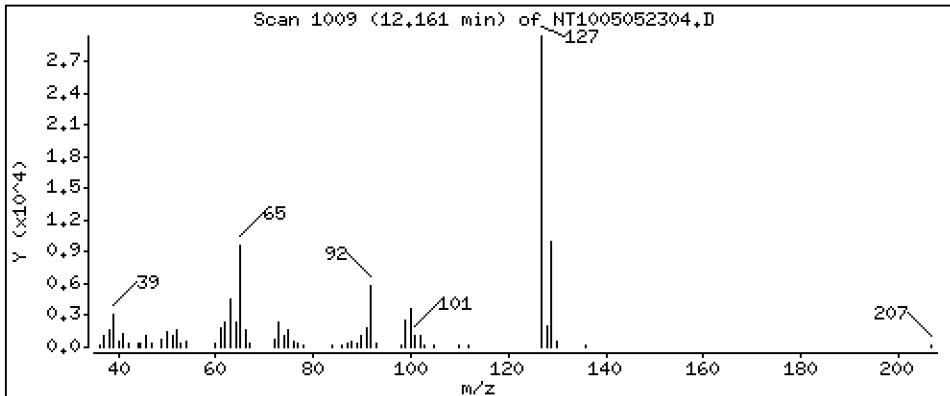
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,7710 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

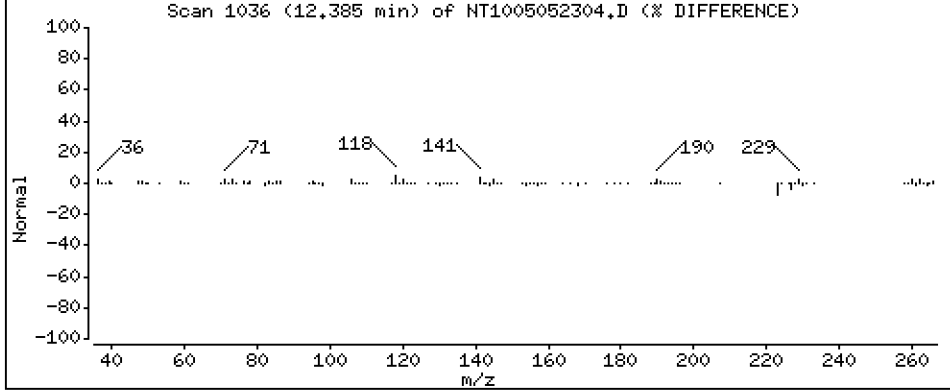
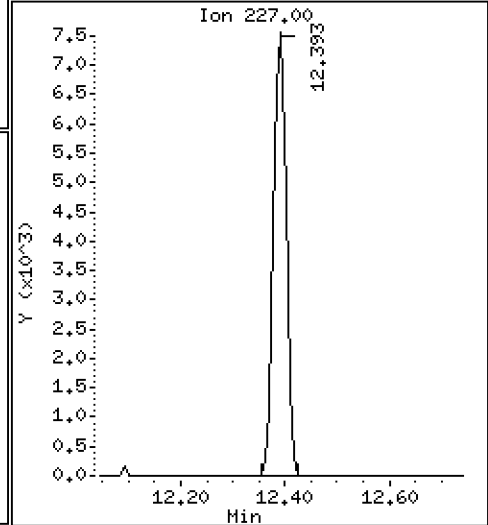
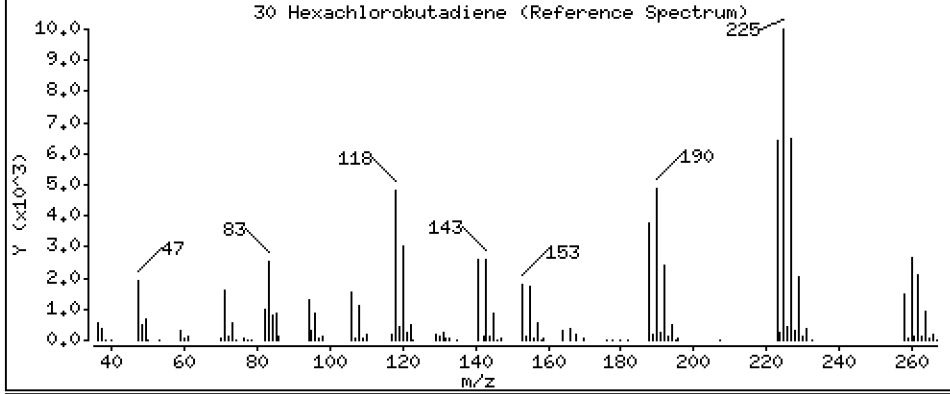
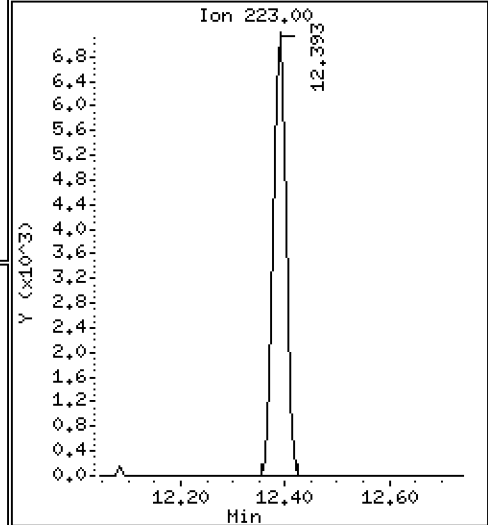
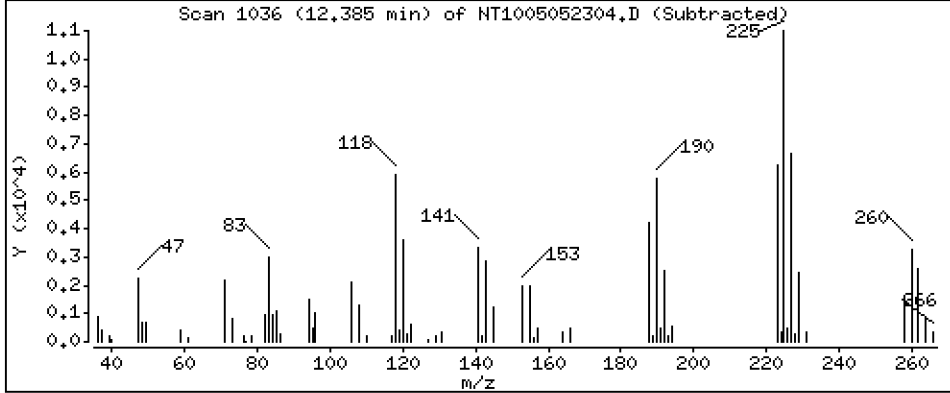
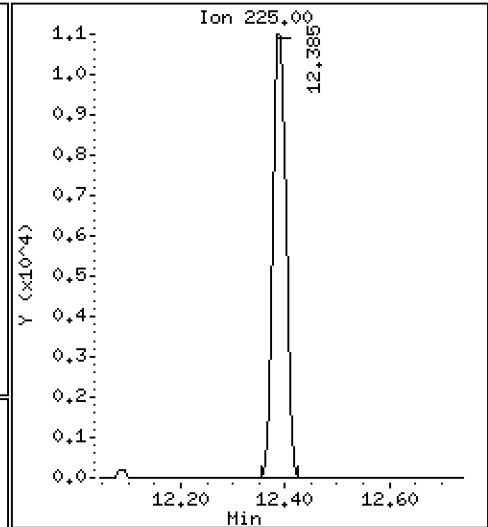
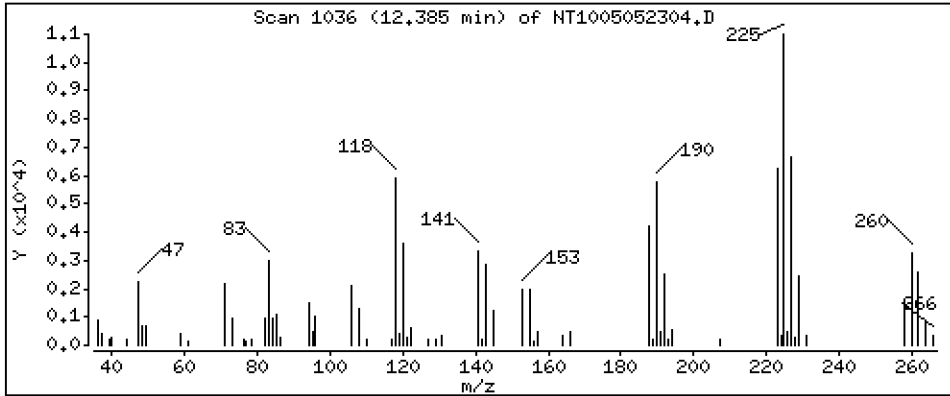
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,4248 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

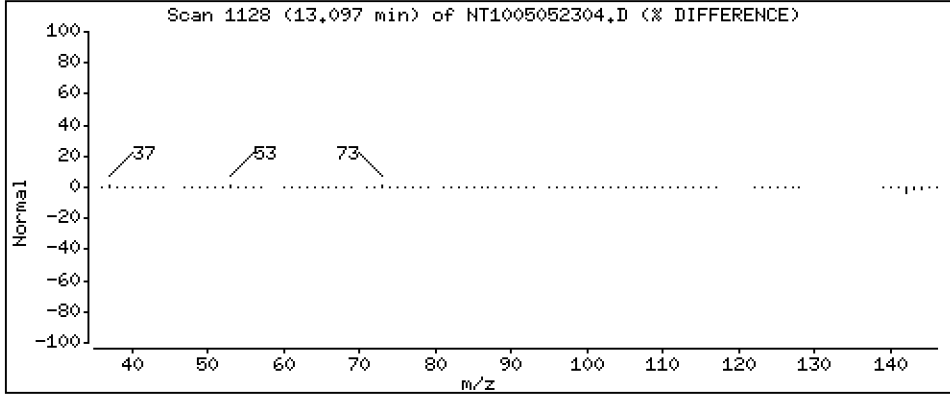
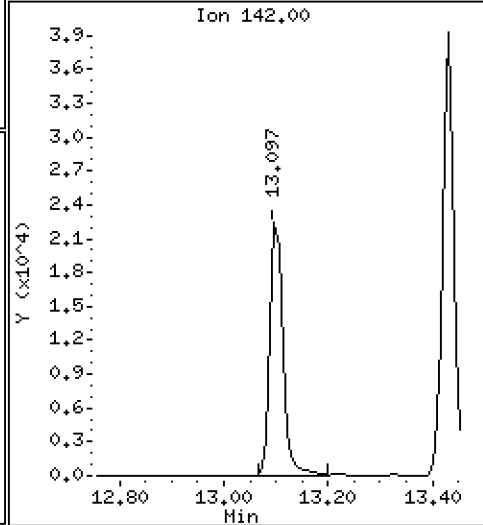
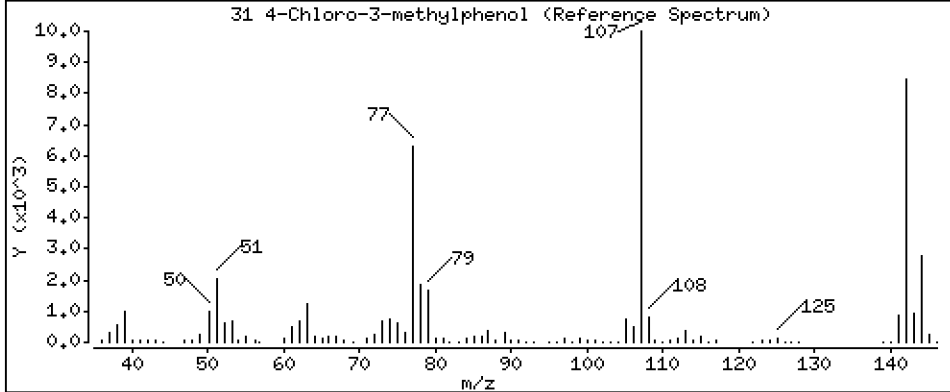
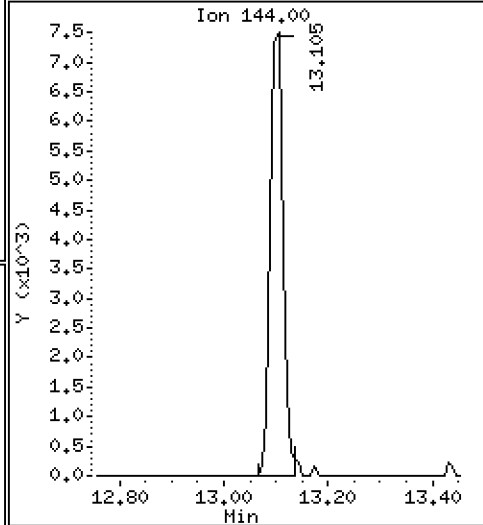
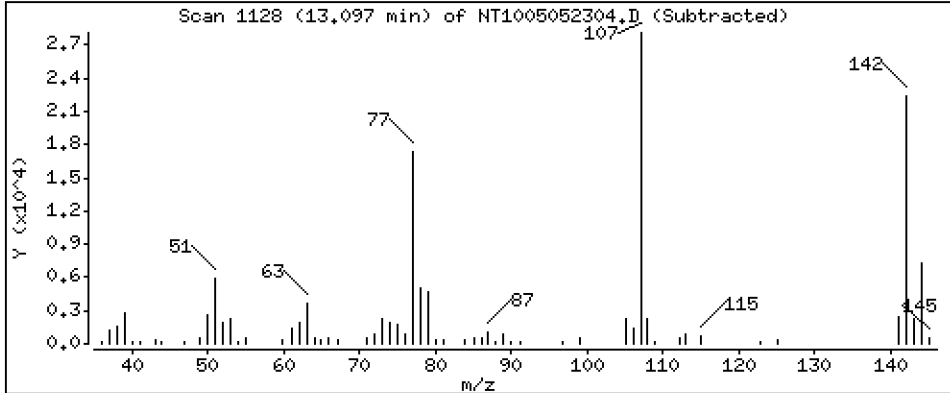
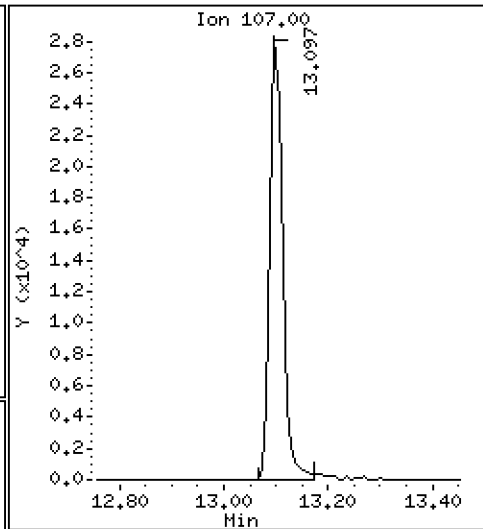
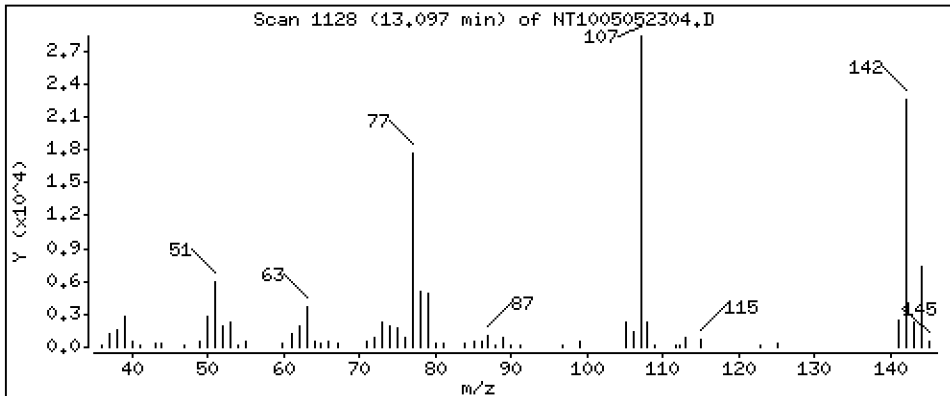
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,7661 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

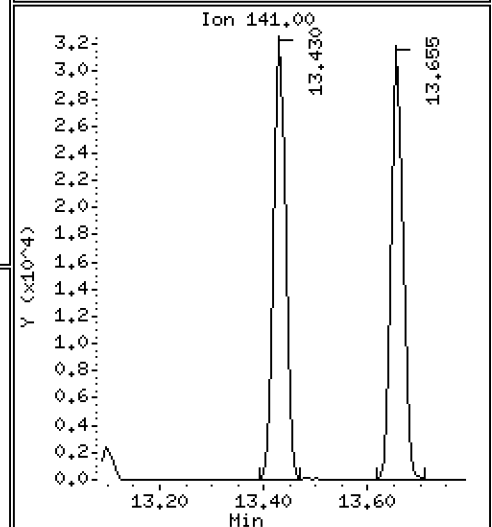
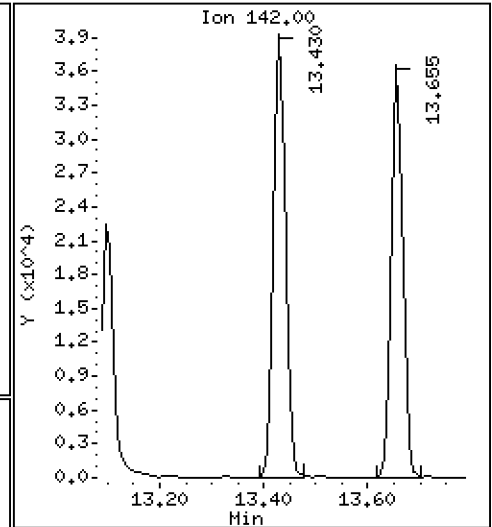
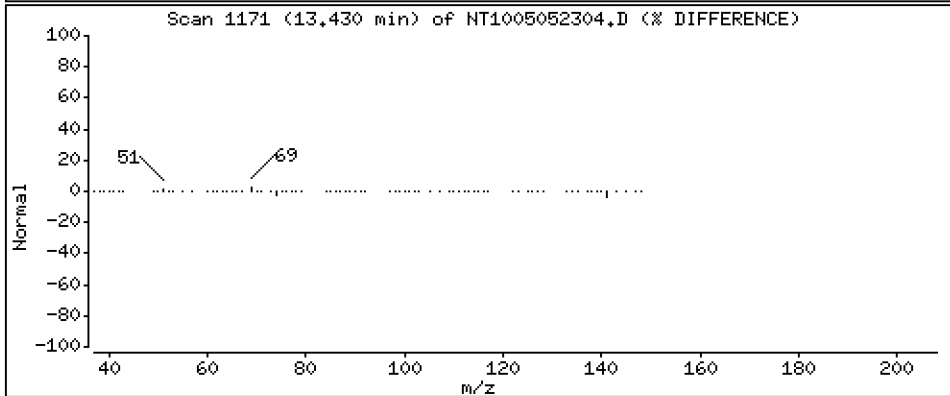
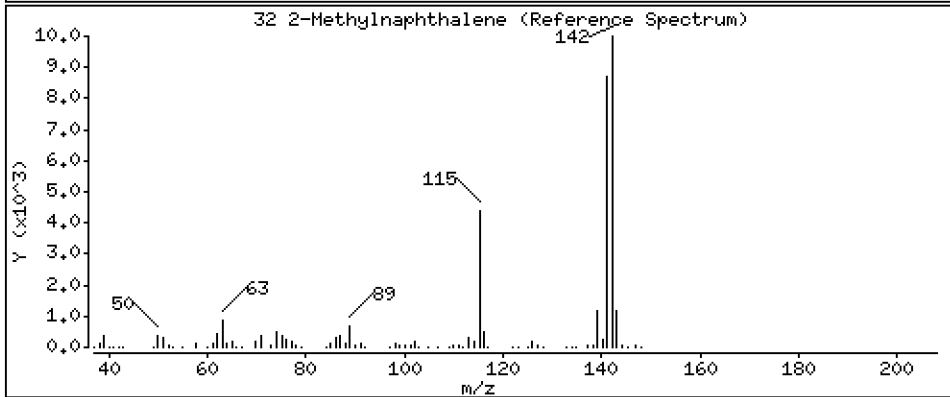
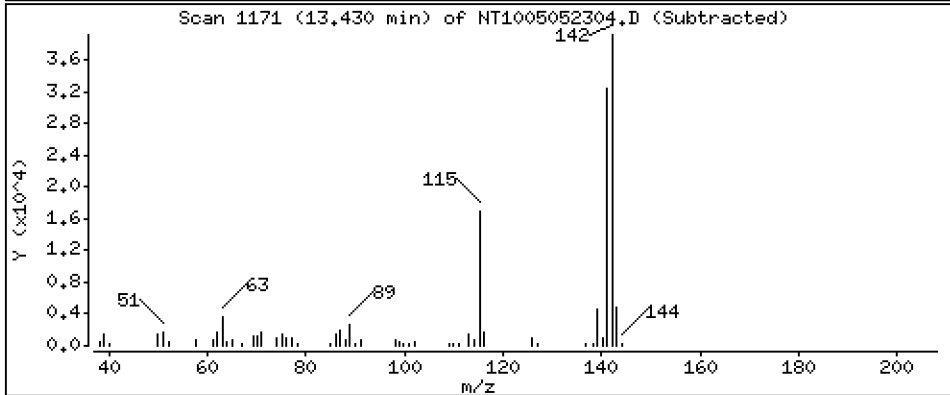
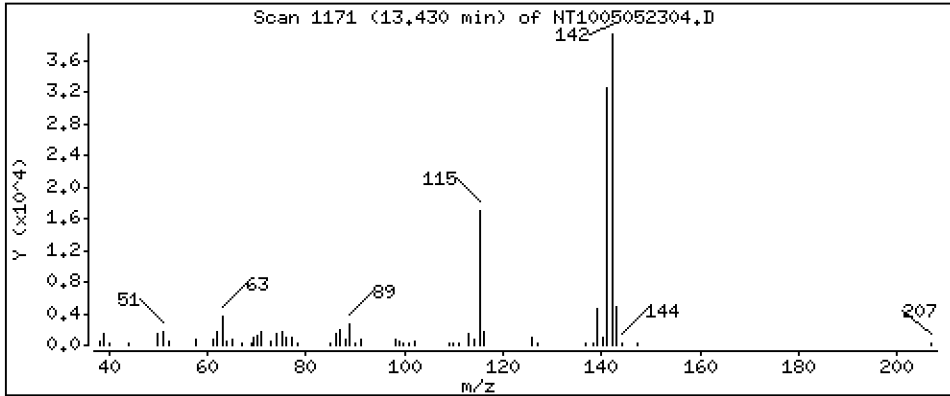
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,4328 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

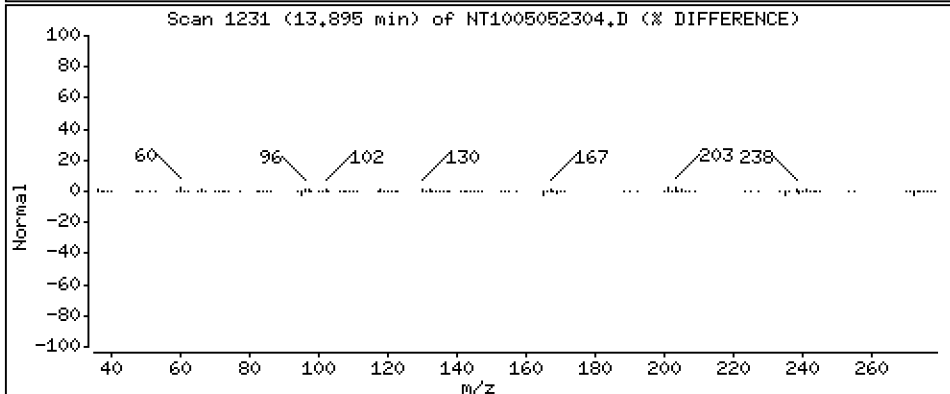
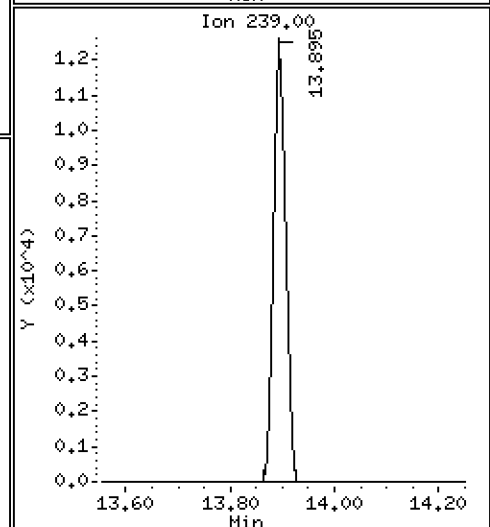
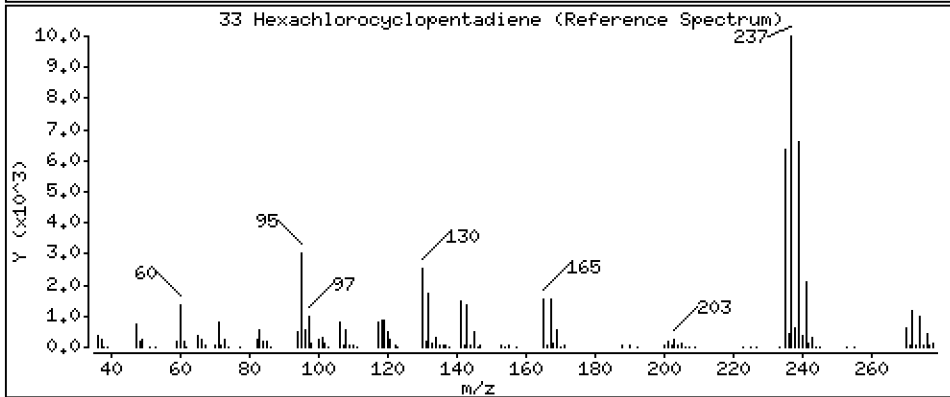
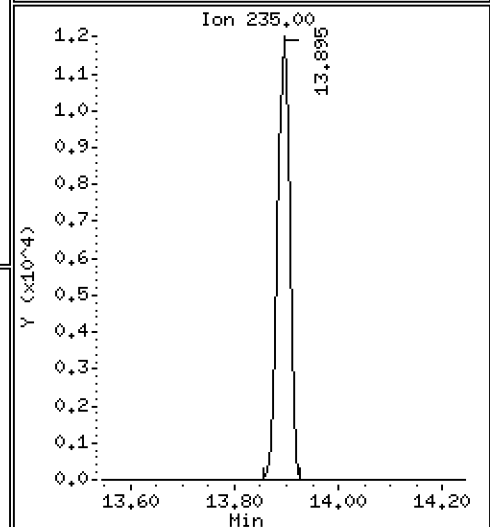
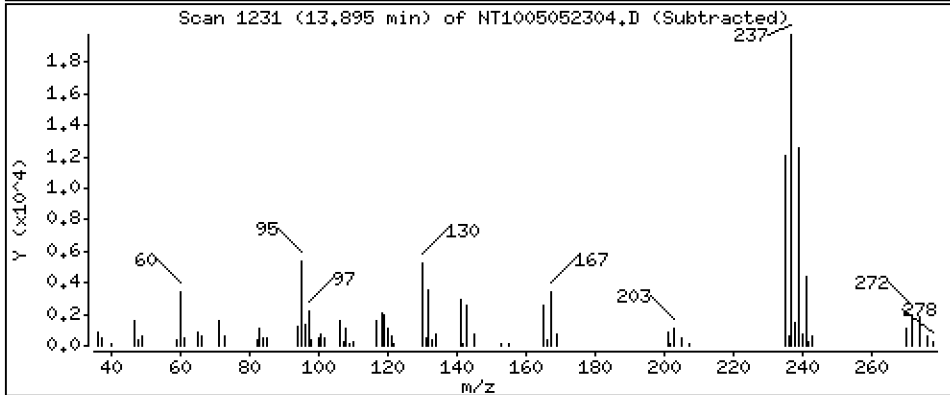
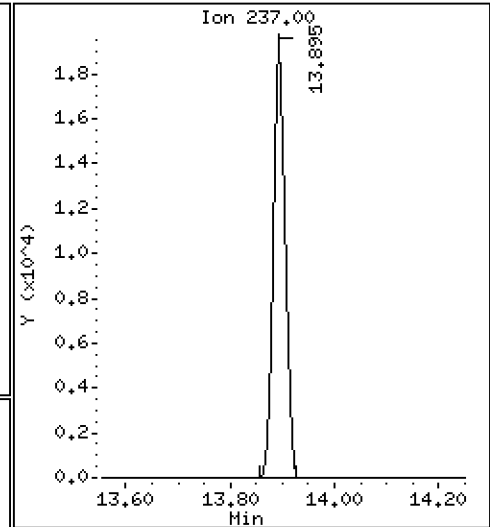
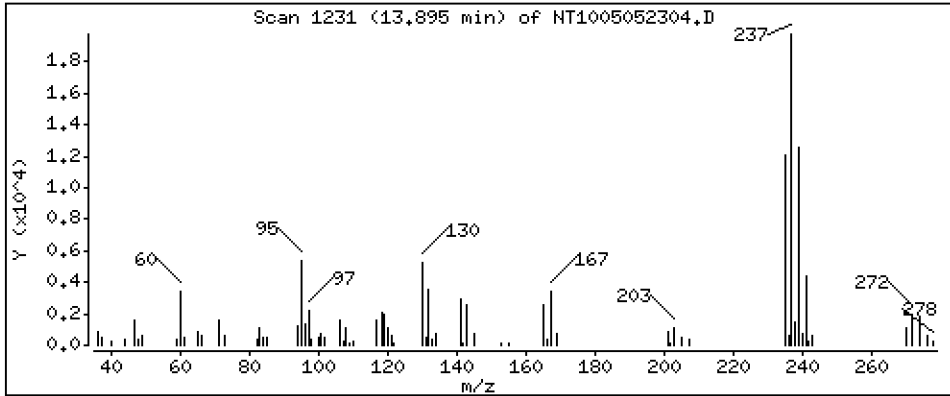
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 0.6605 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

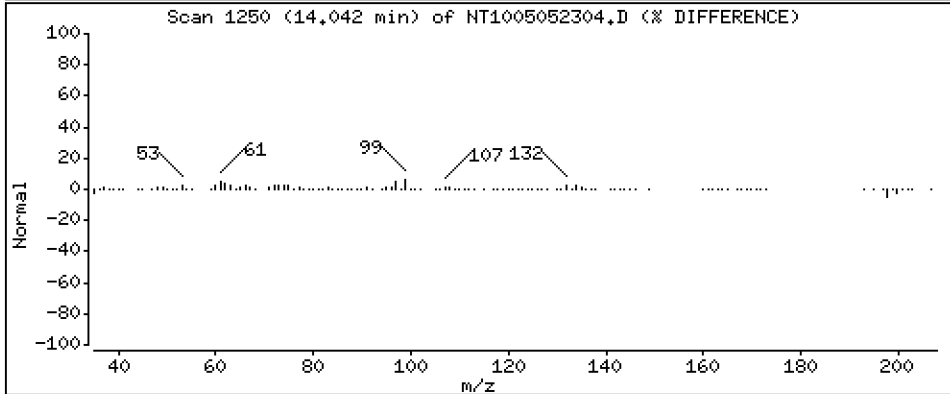
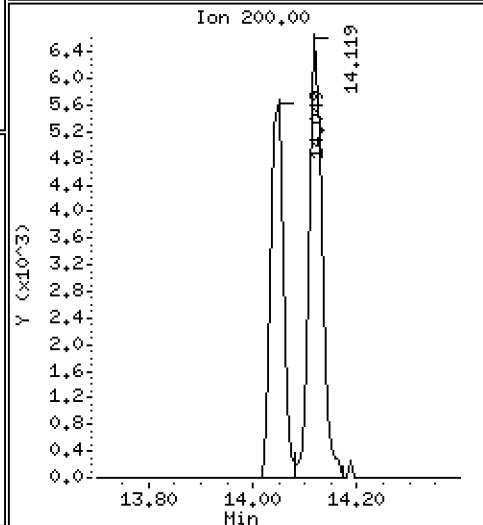
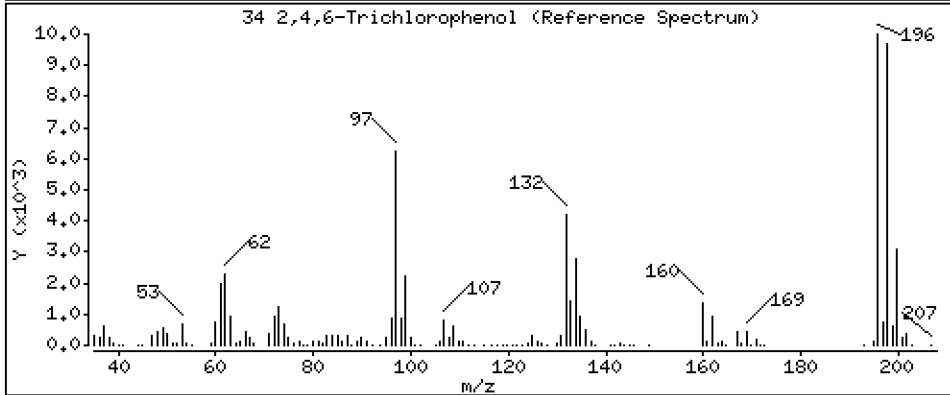
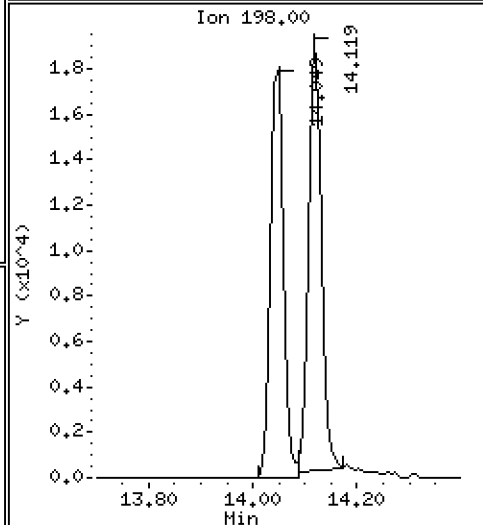
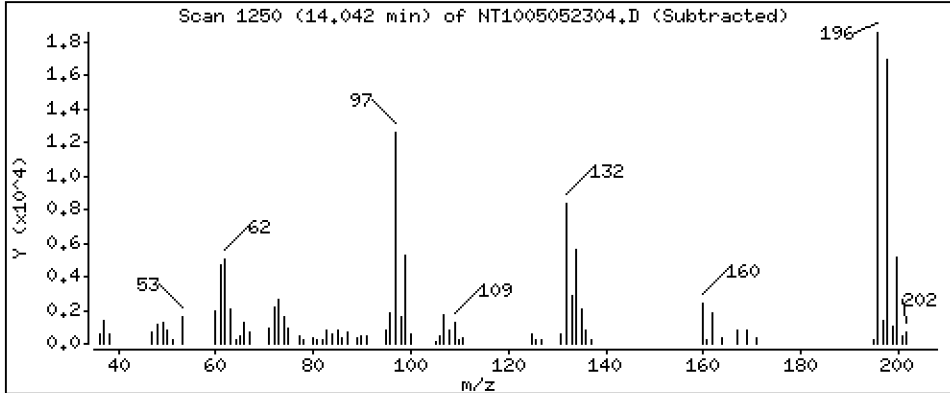
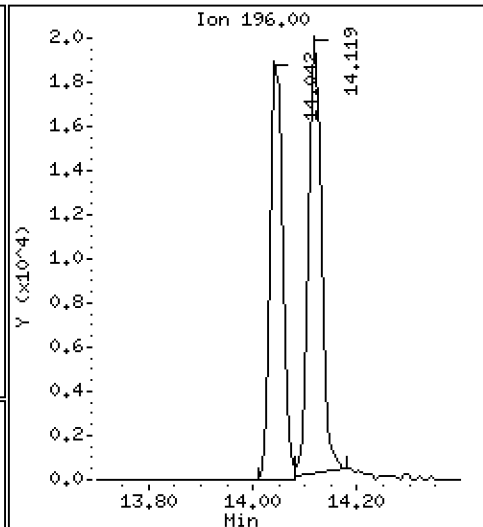
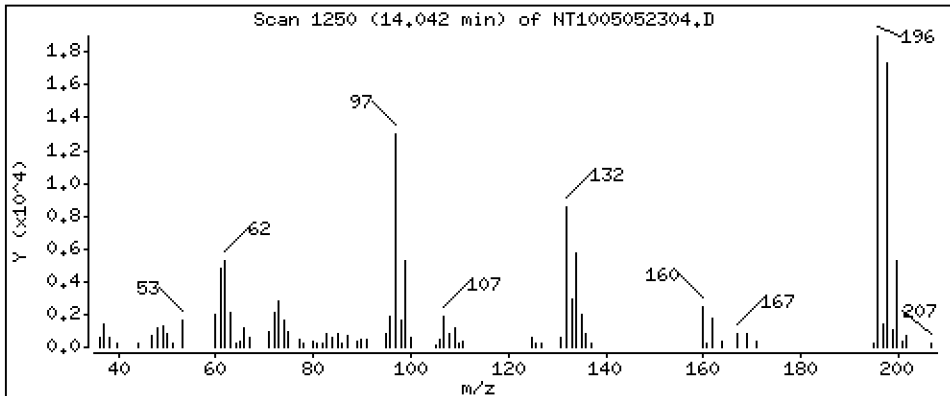
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 0,6756 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

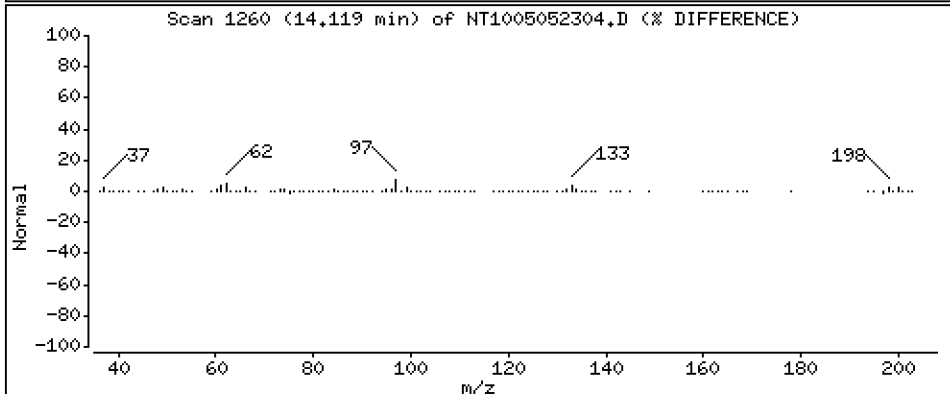
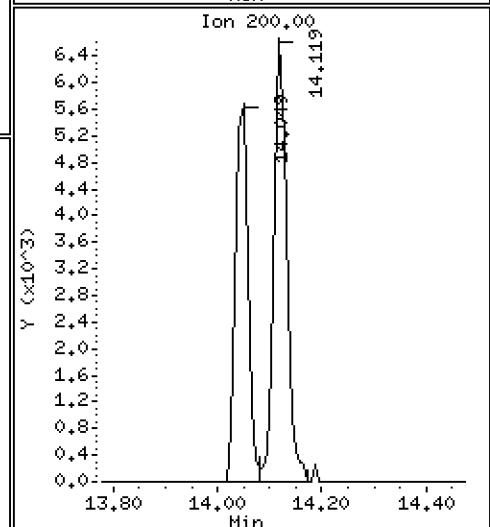
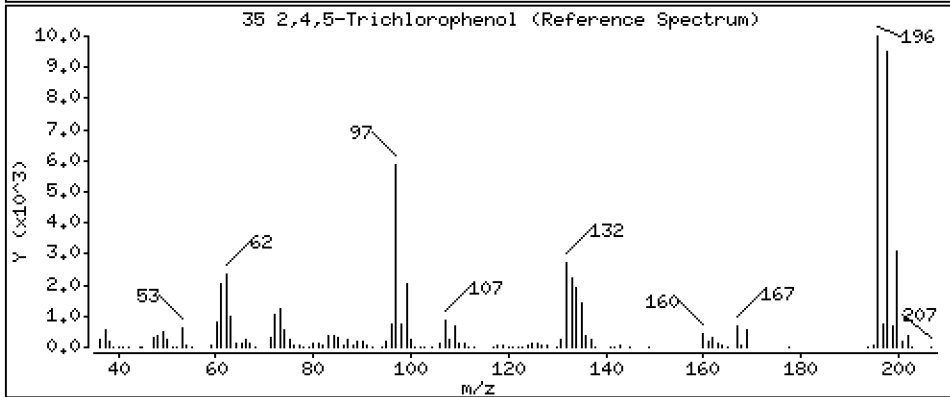
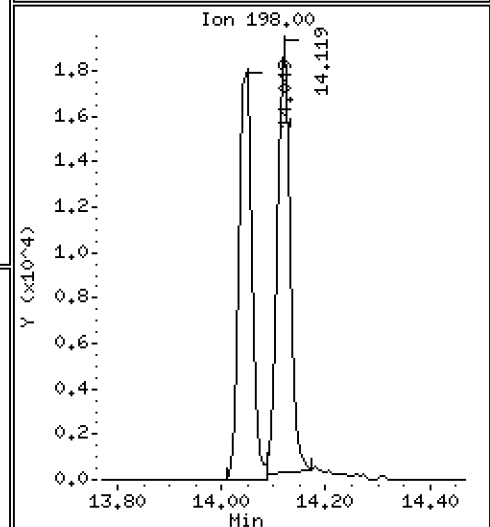
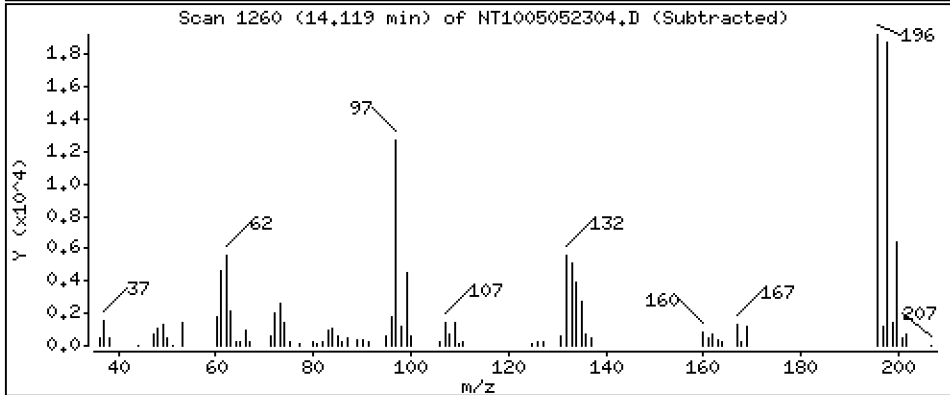
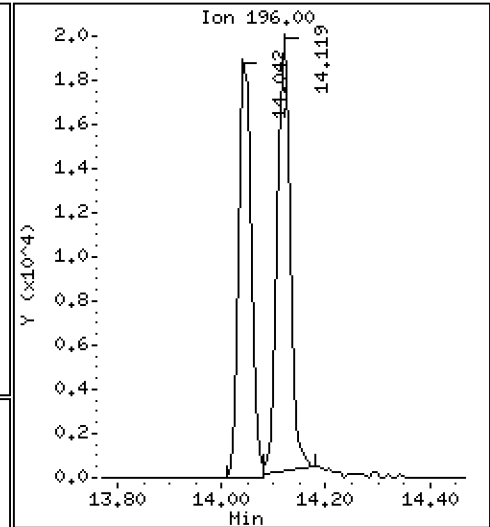
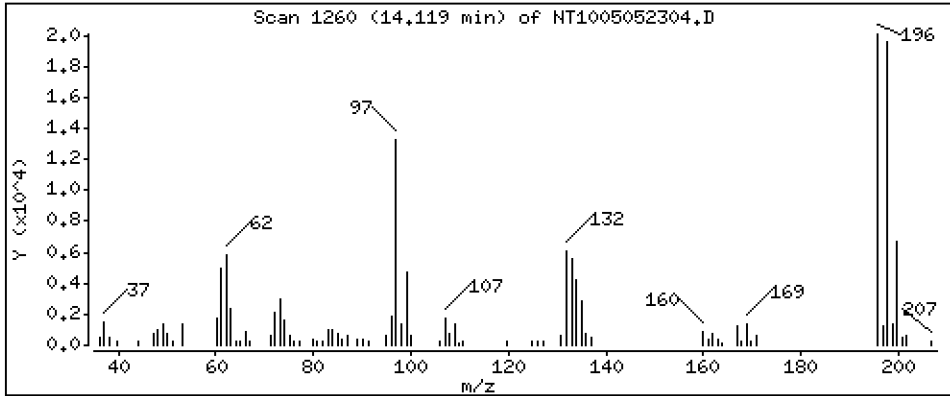
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,6656 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

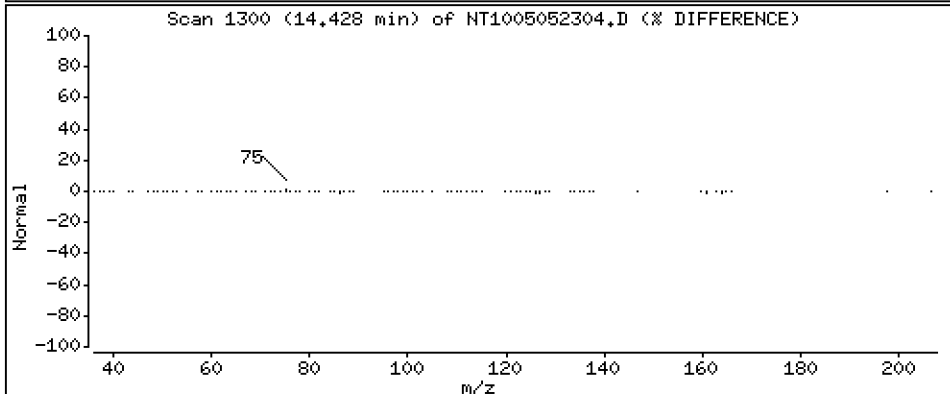
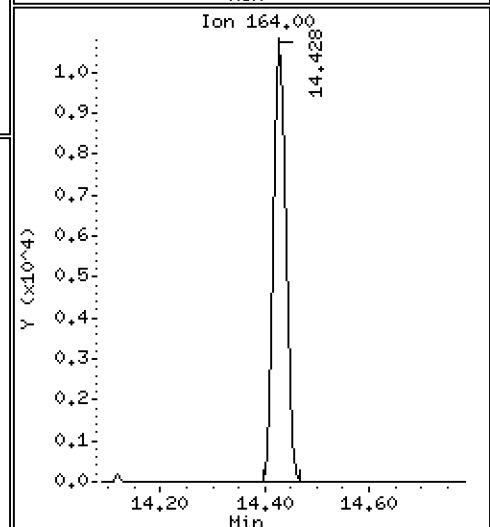
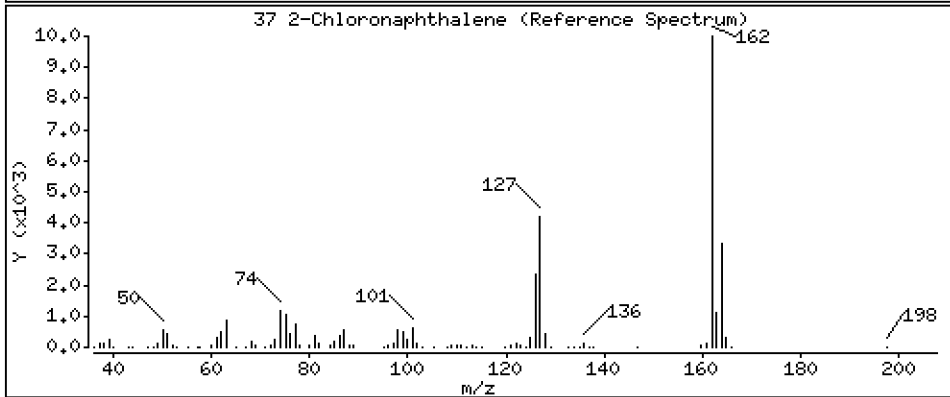
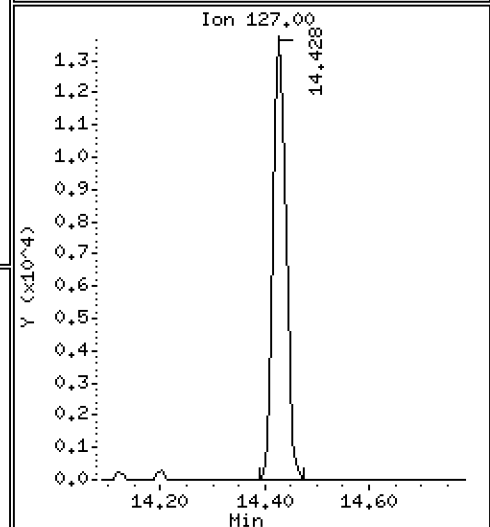
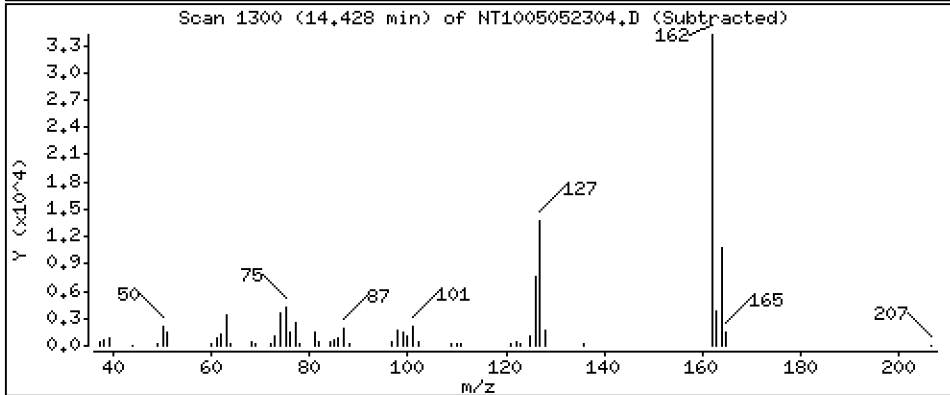
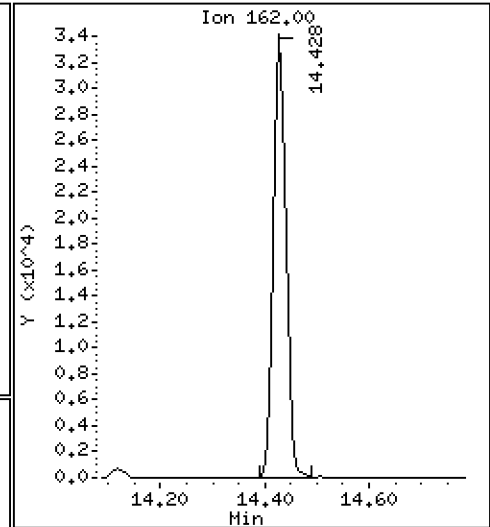
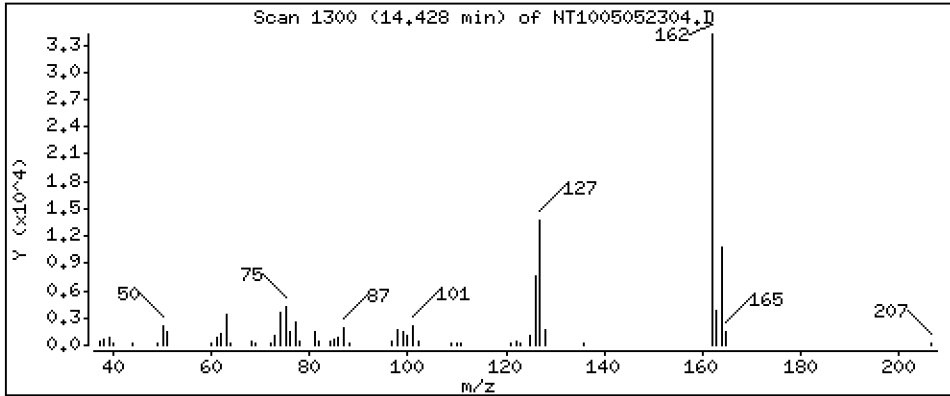
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,4515 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

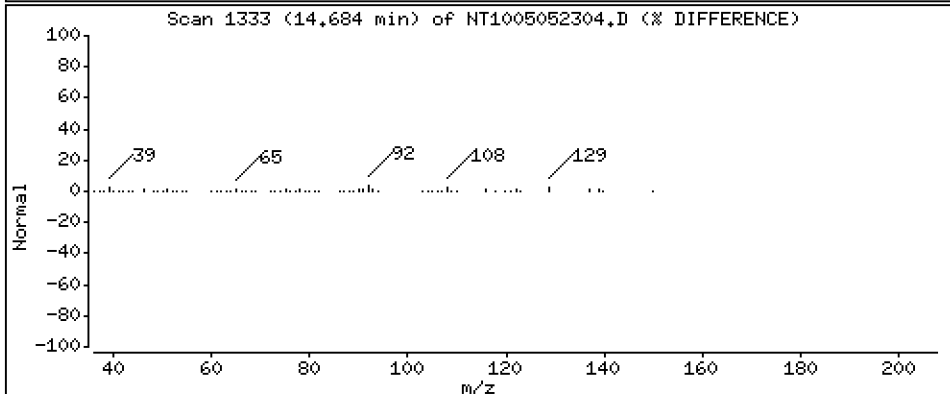
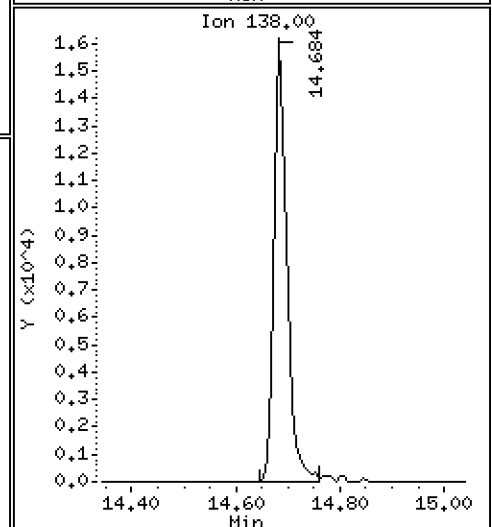
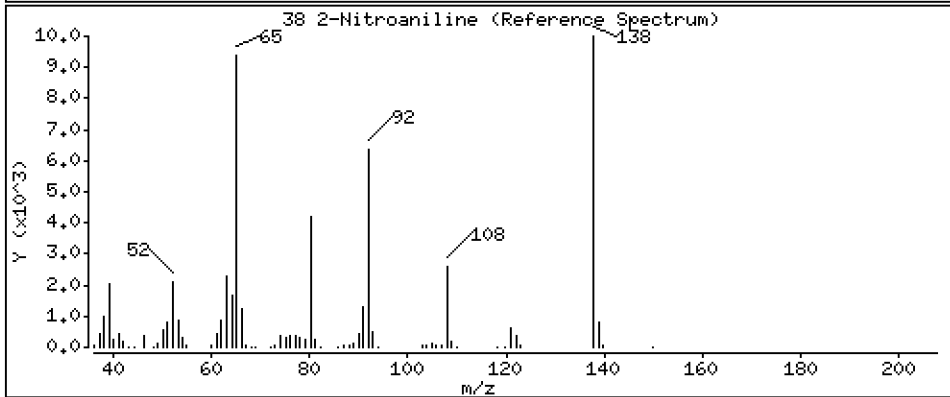
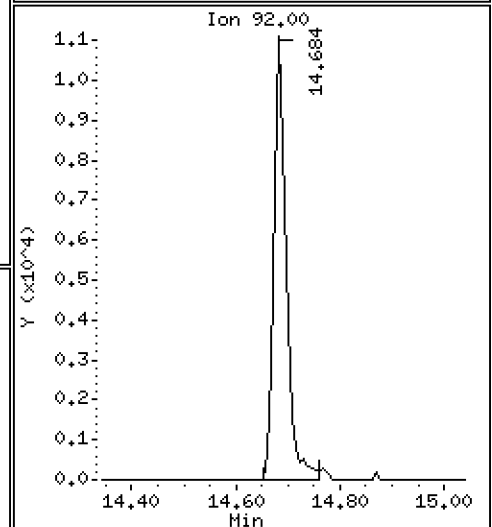
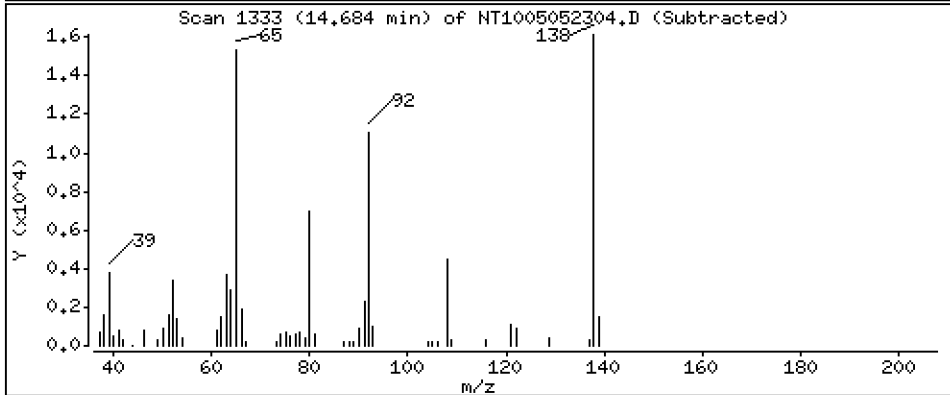
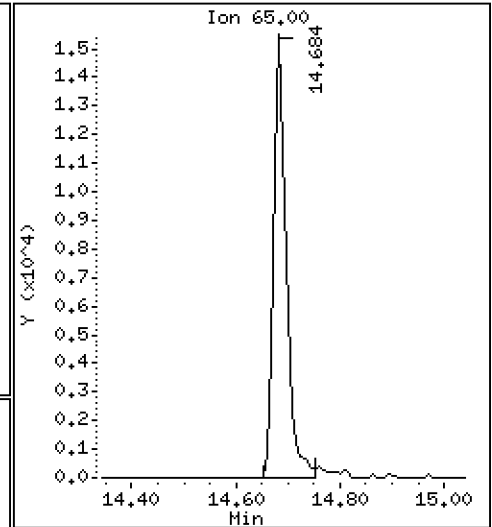
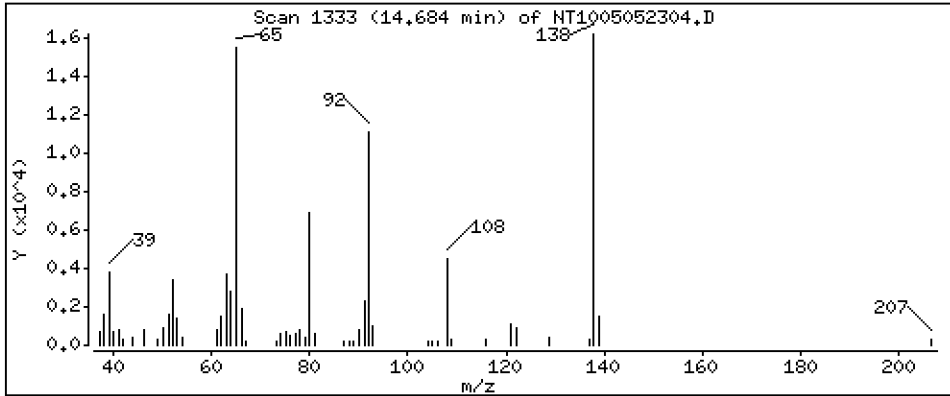
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 0,7100 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

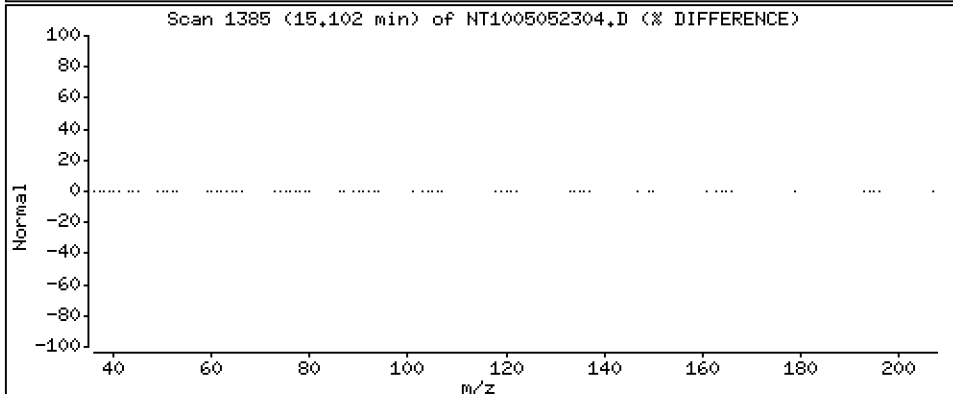
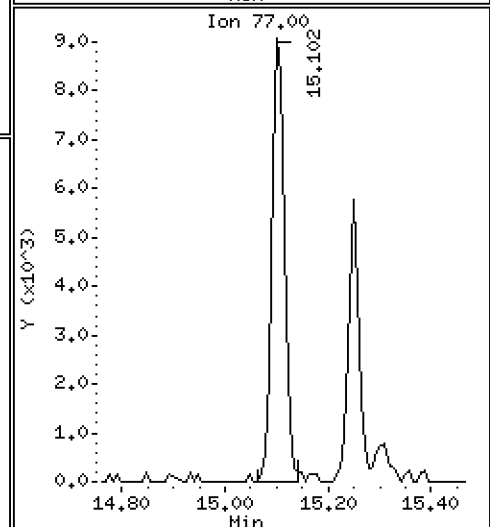
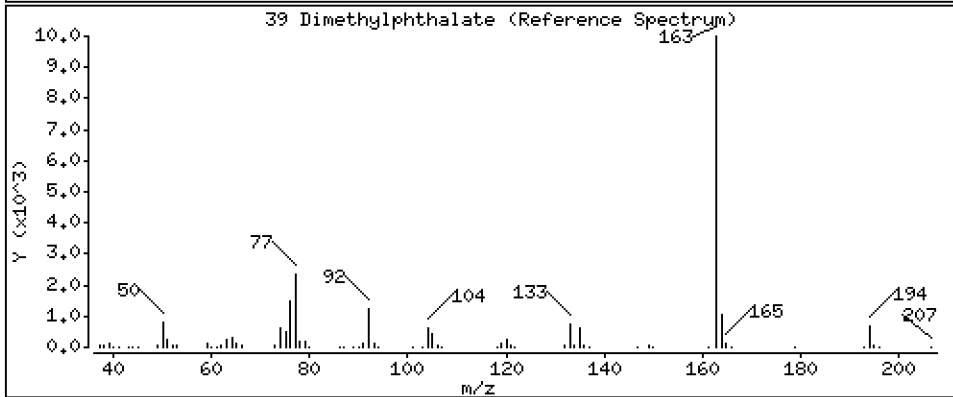
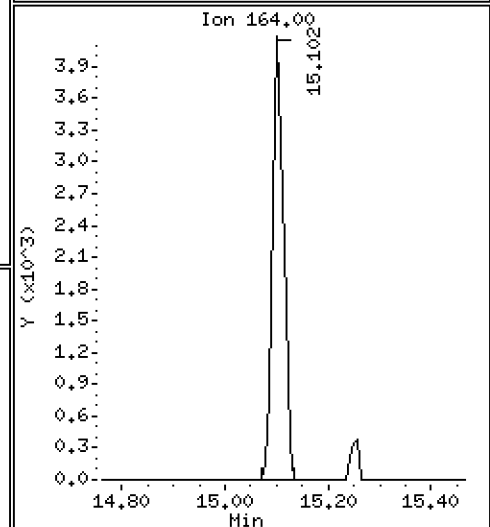
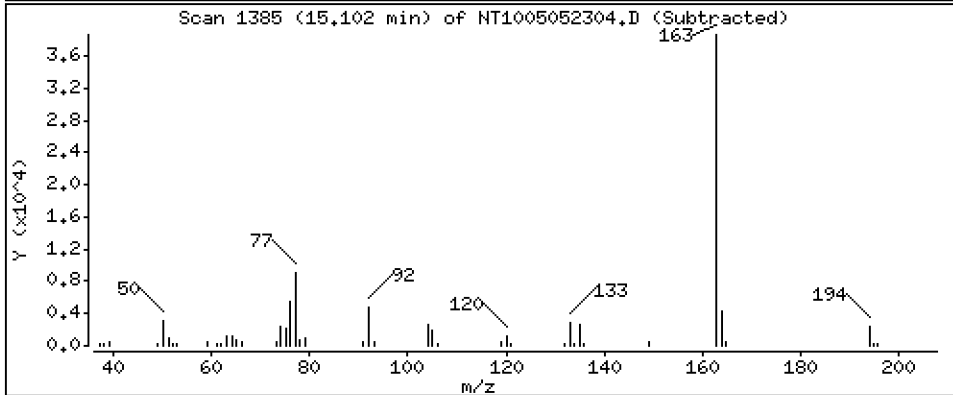
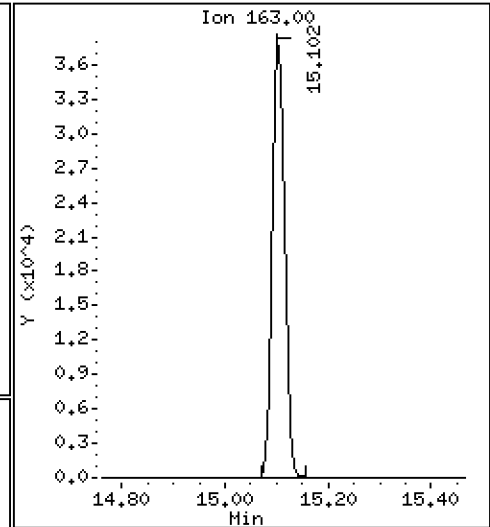
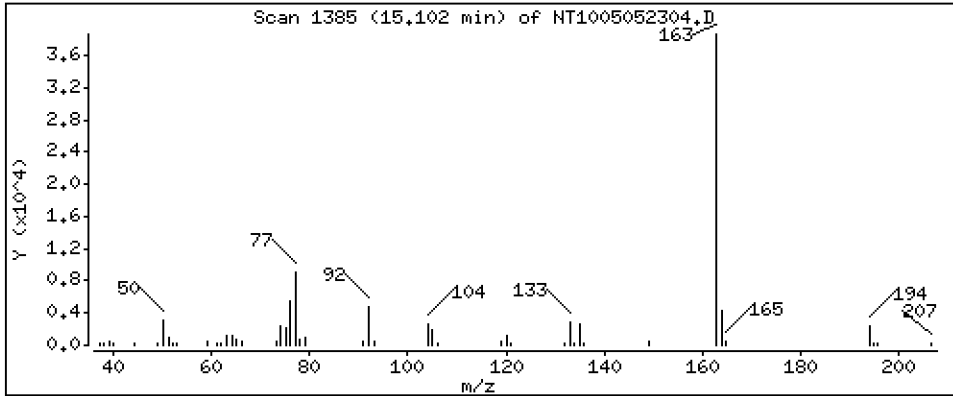
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,4375 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

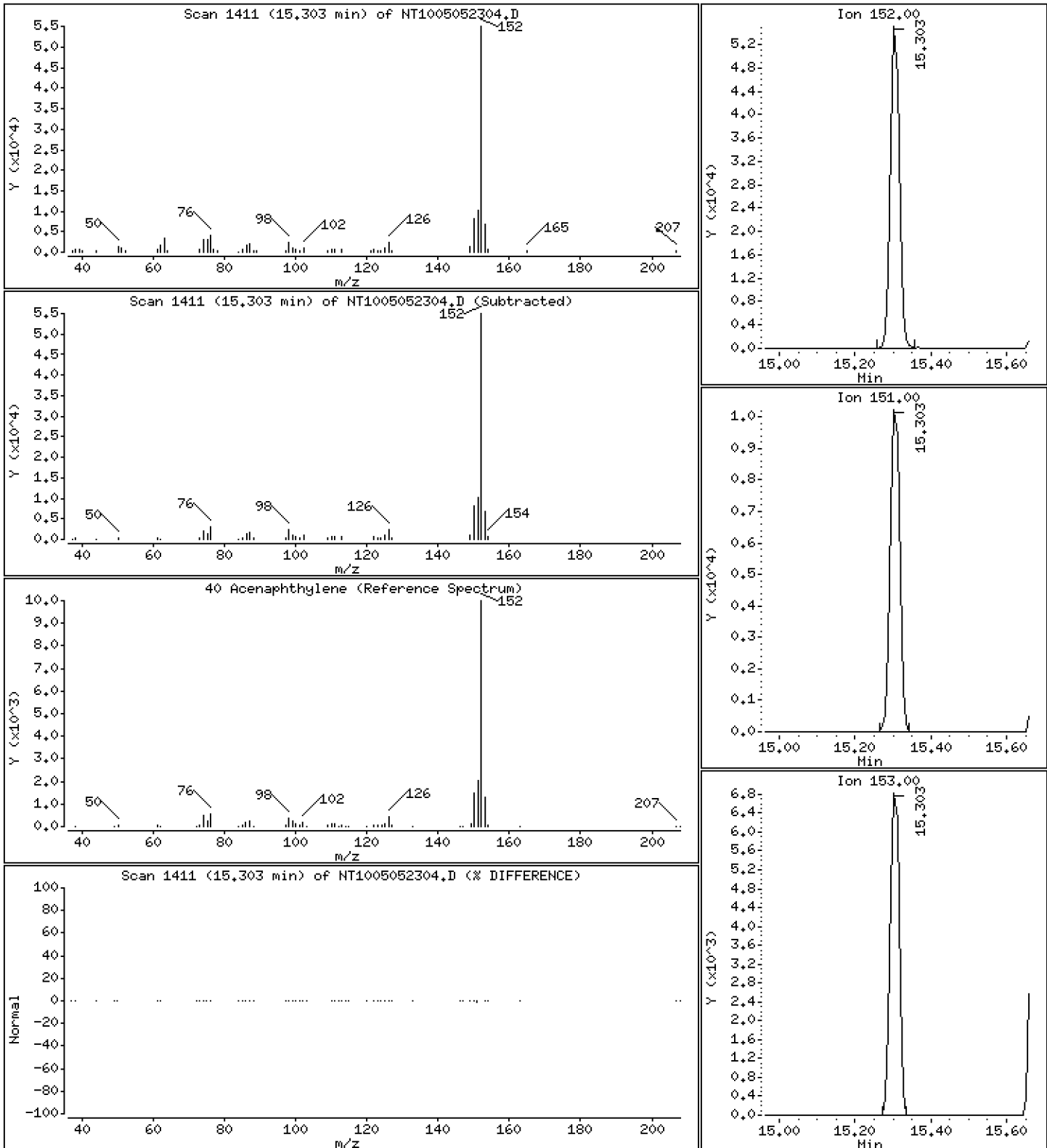
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,4419 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

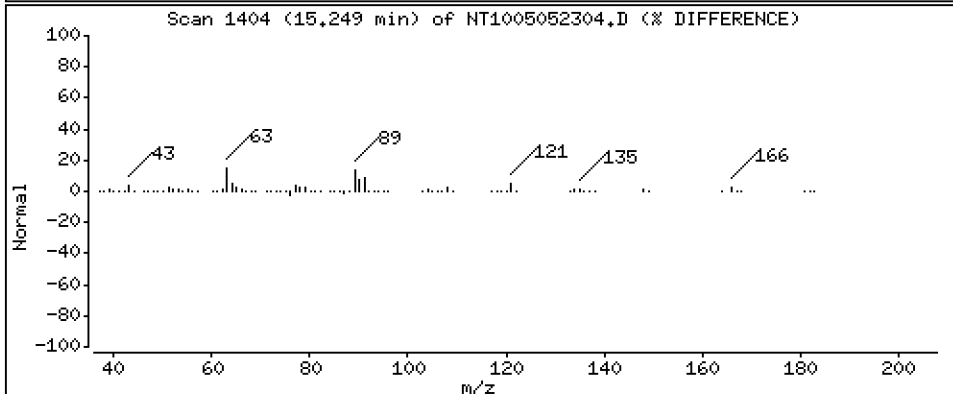
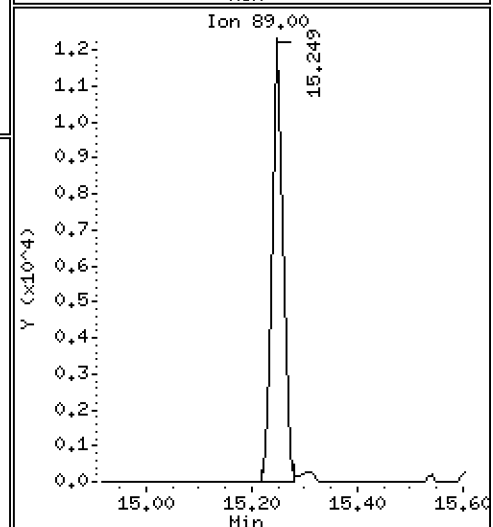
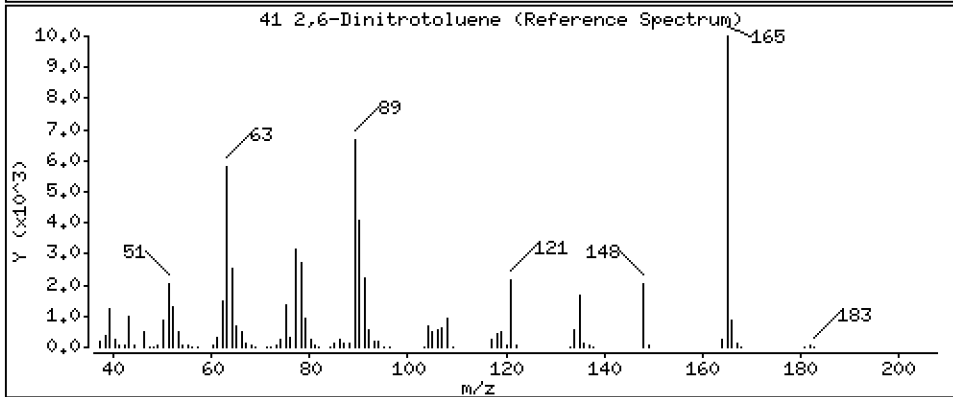
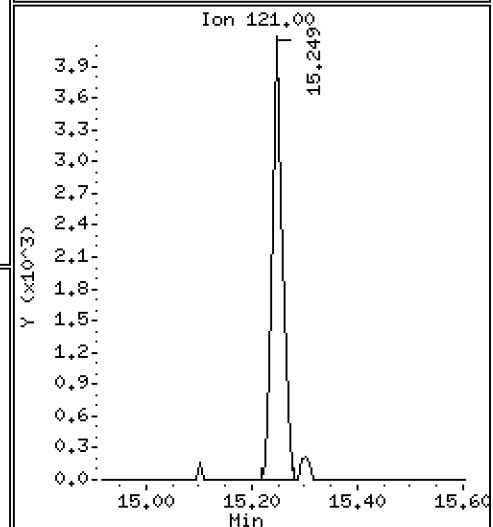
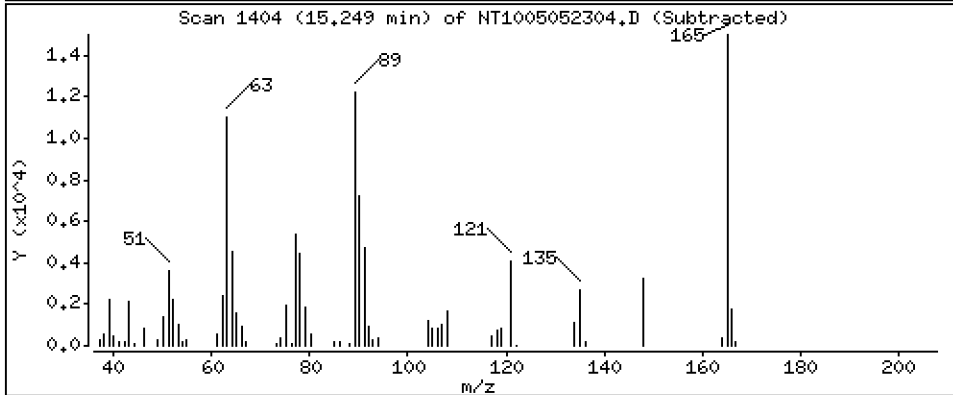
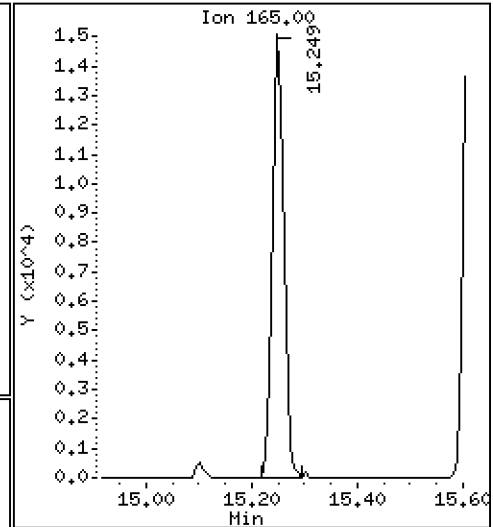
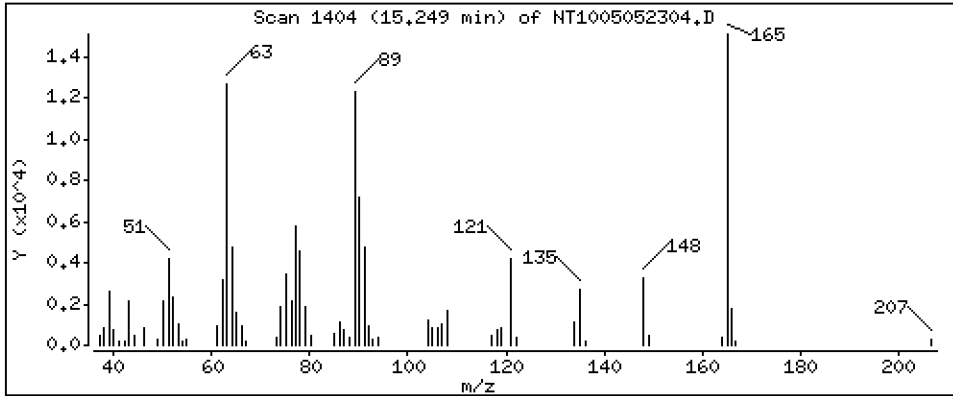
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 0,7089 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

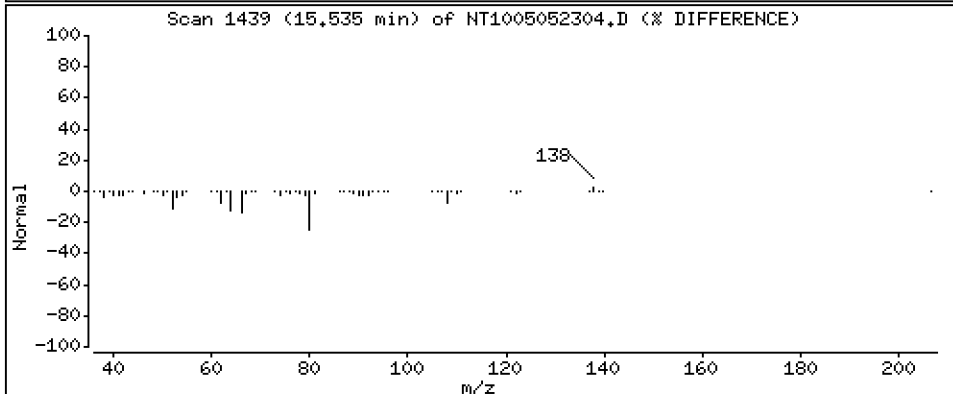
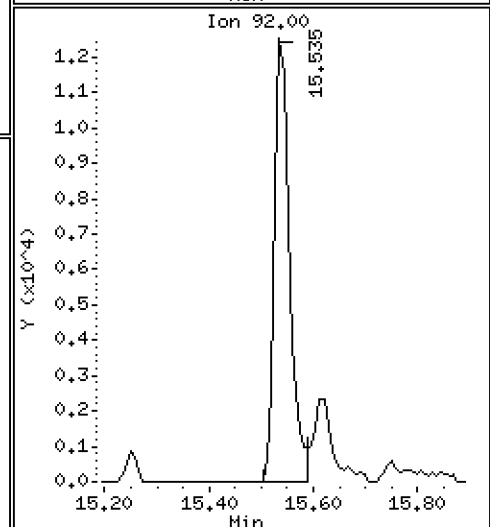
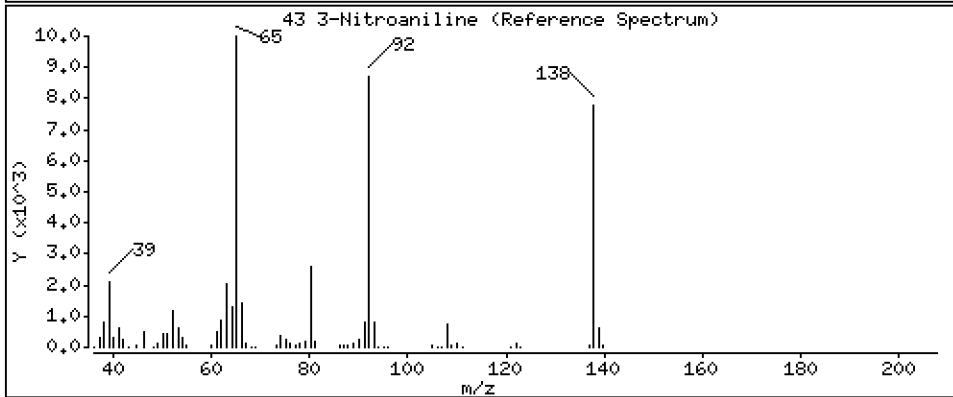
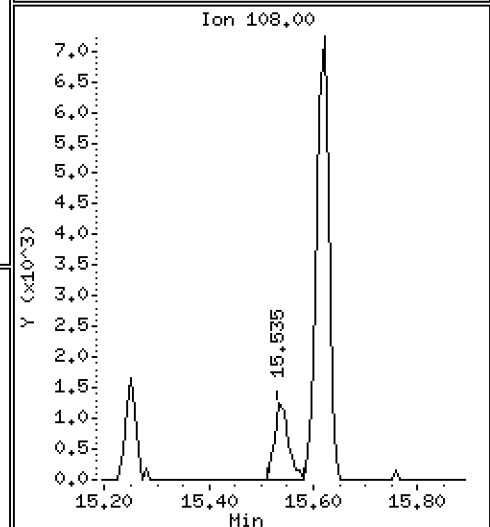
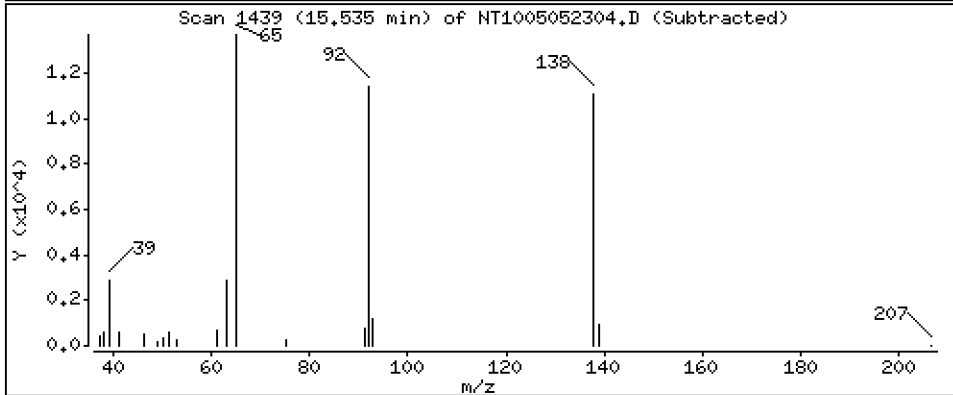
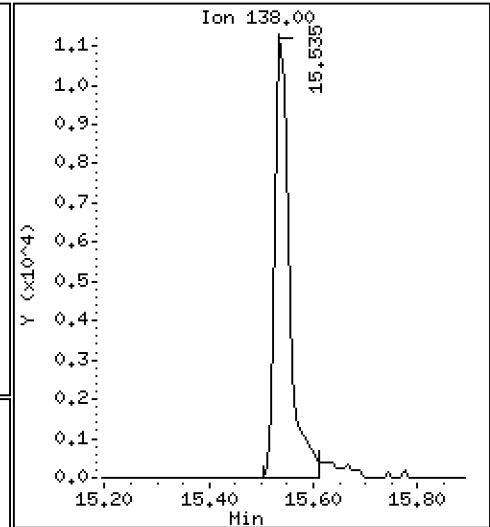
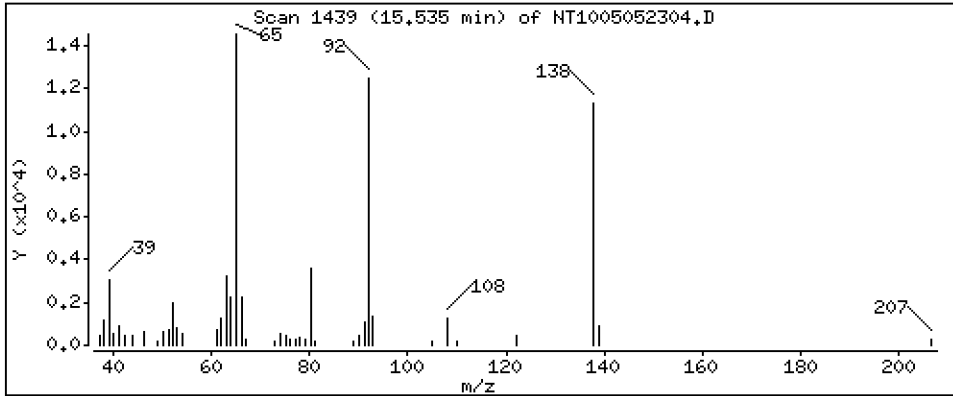
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,6810 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

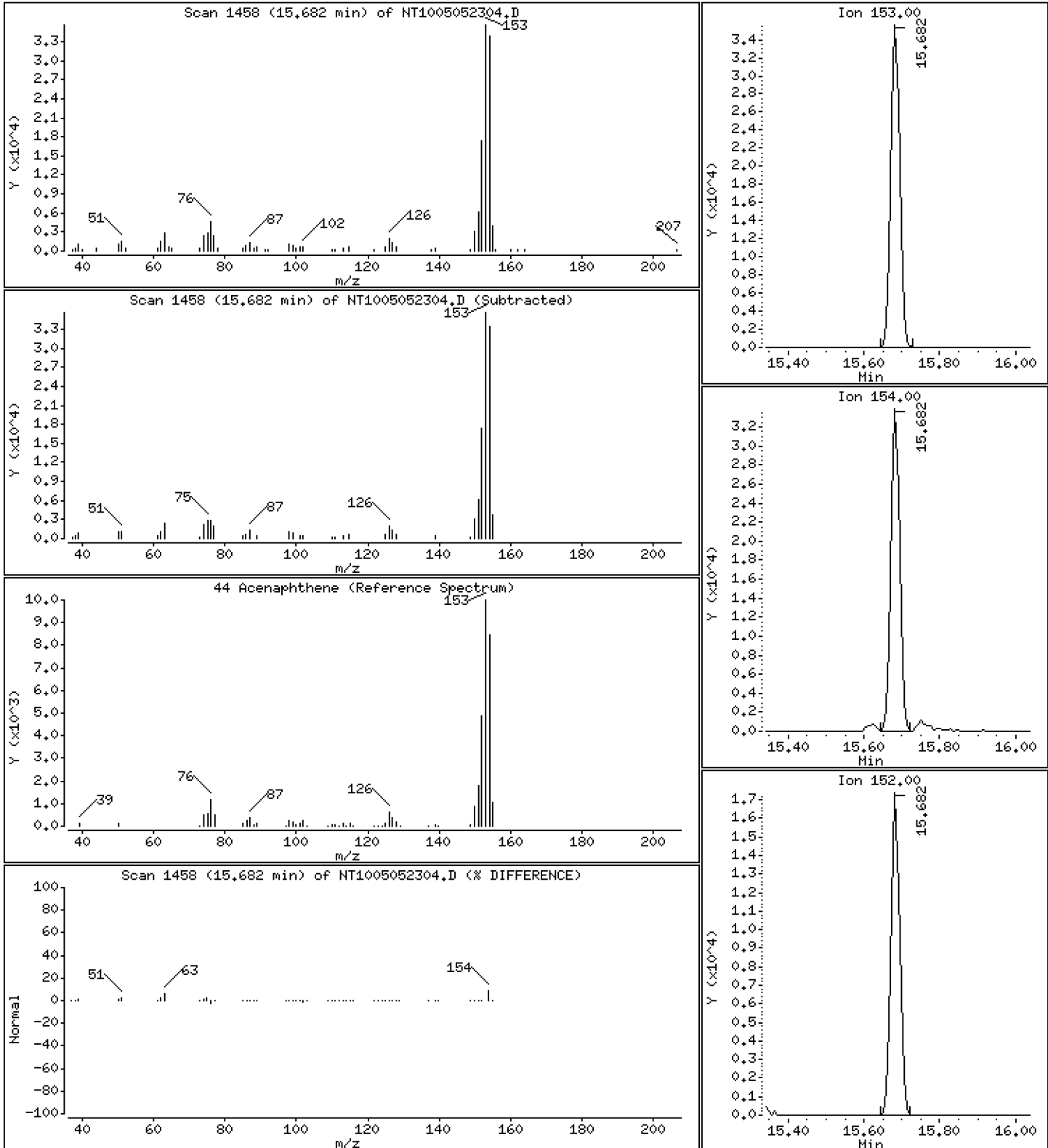
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

44 Acenaphthene

Concentration: 0.4497 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

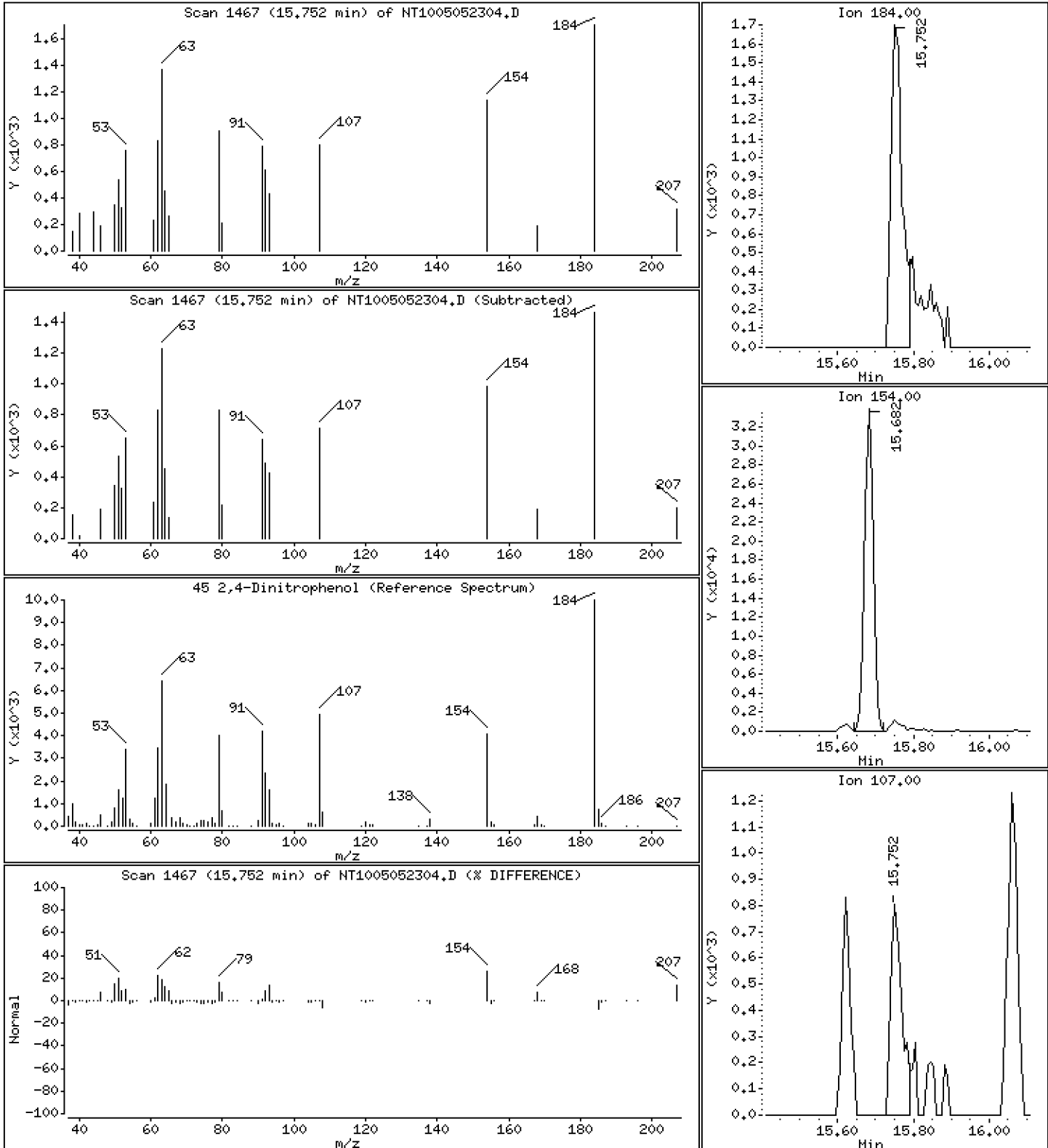
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,1404 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

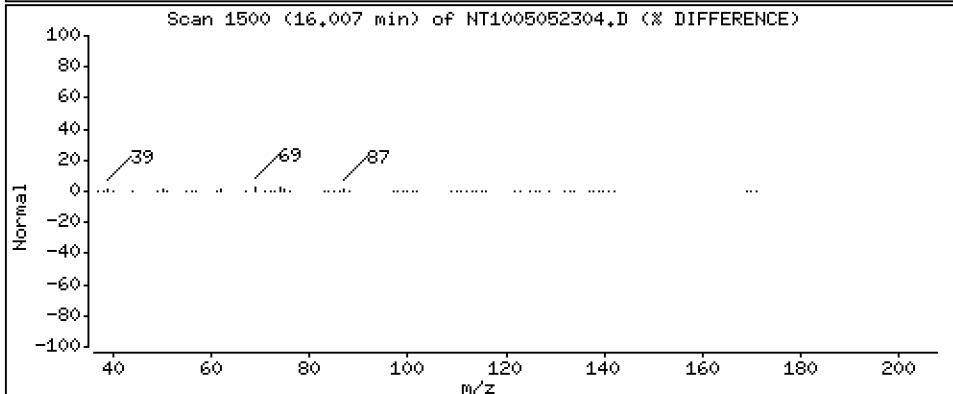
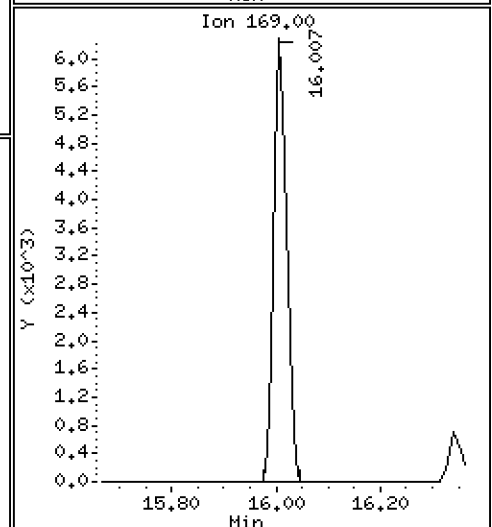
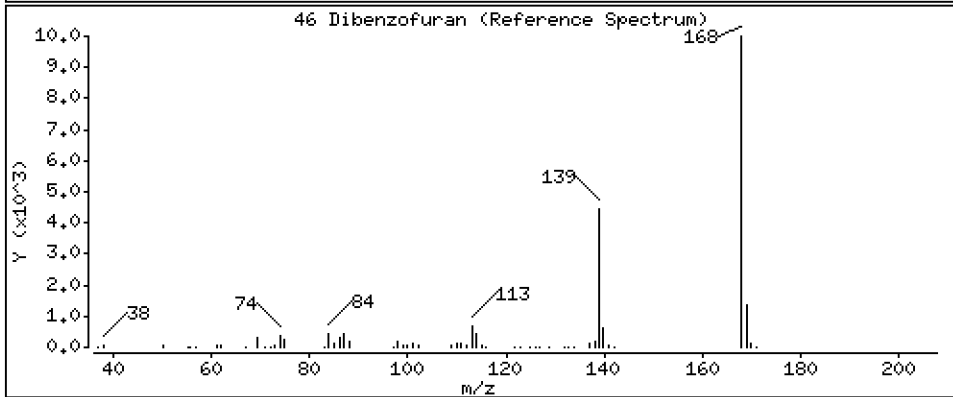
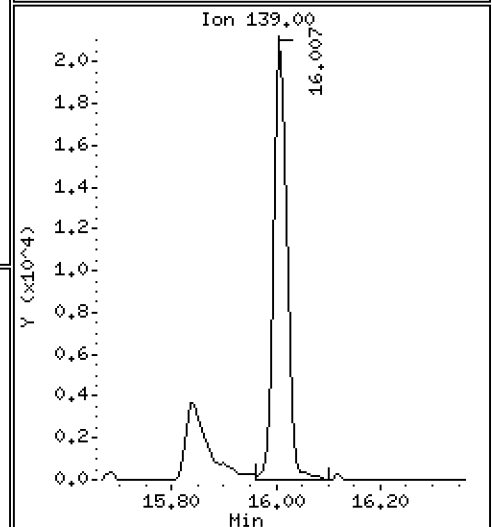
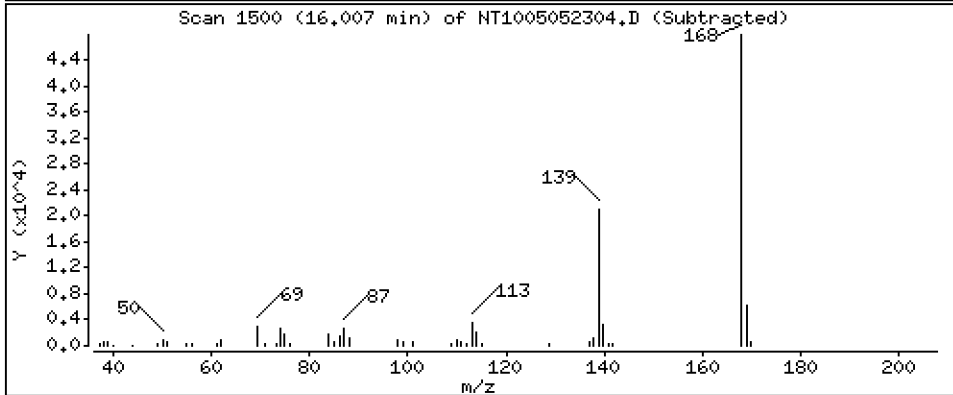
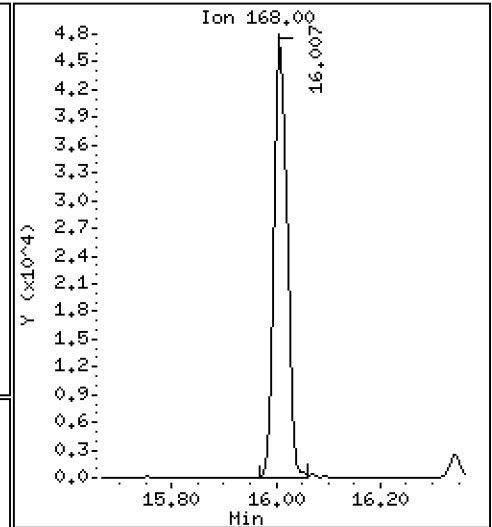
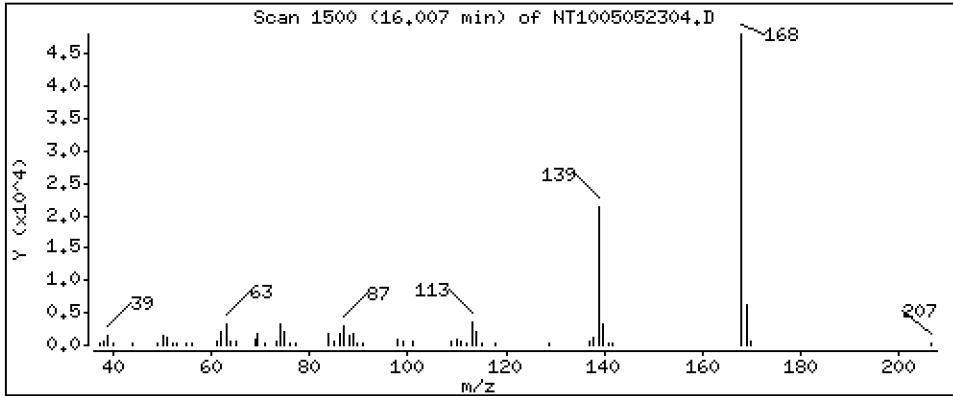
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,4469 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

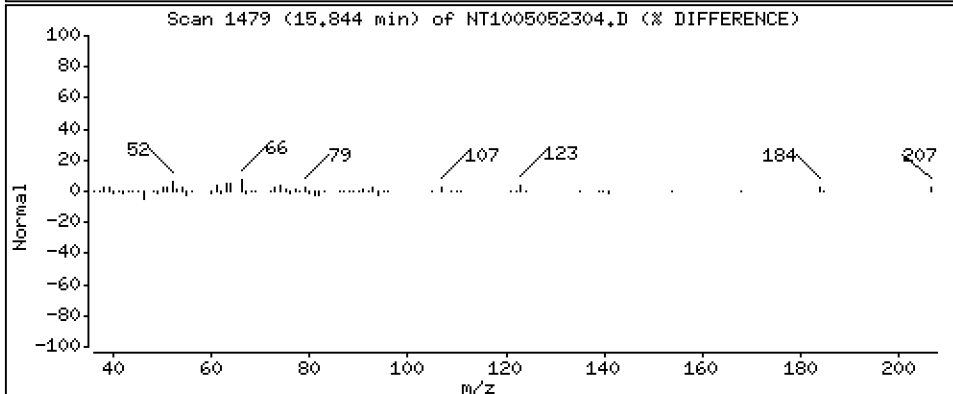
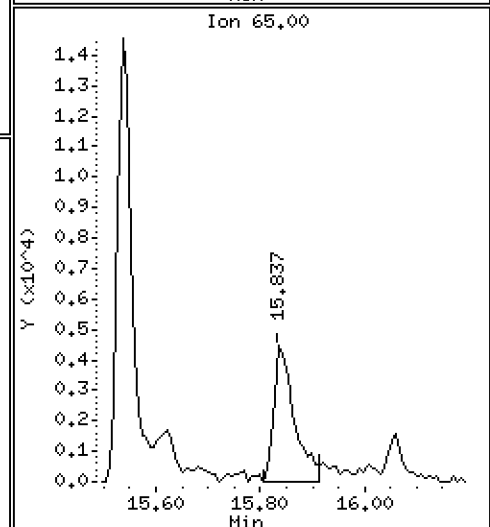
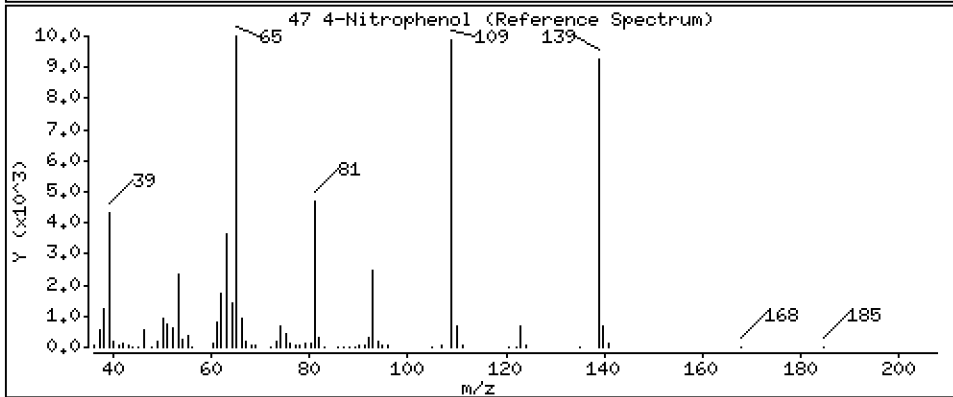
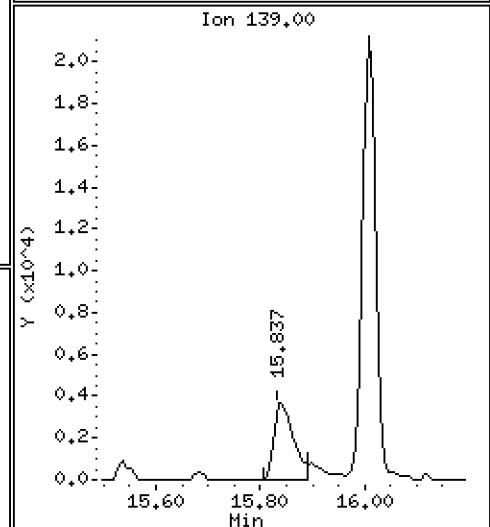
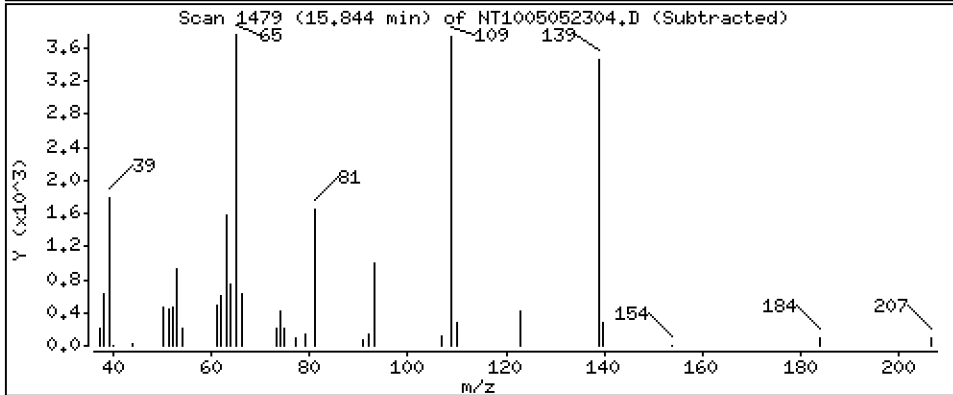
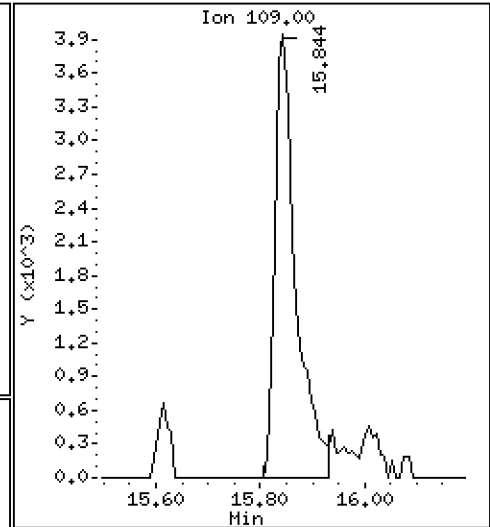
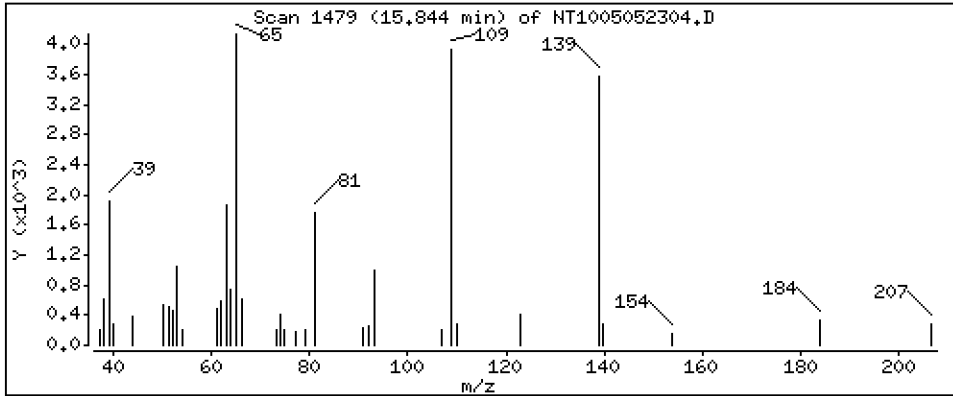
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,3731 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

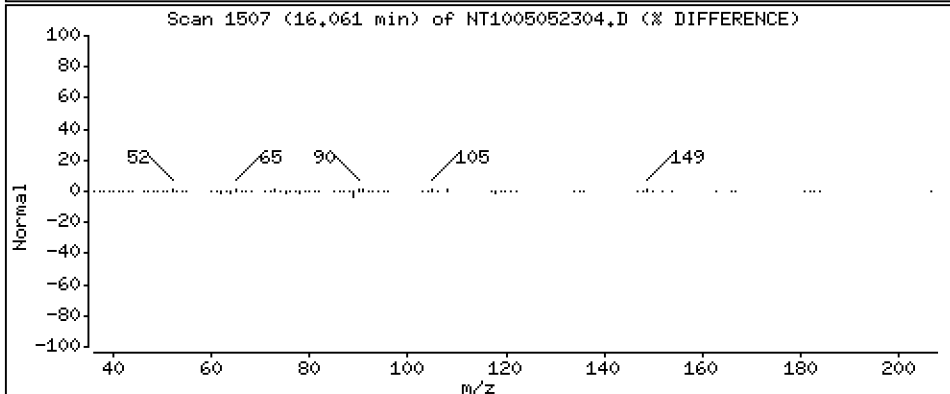
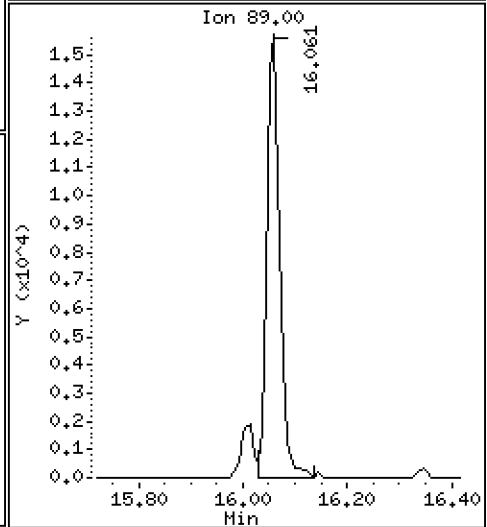
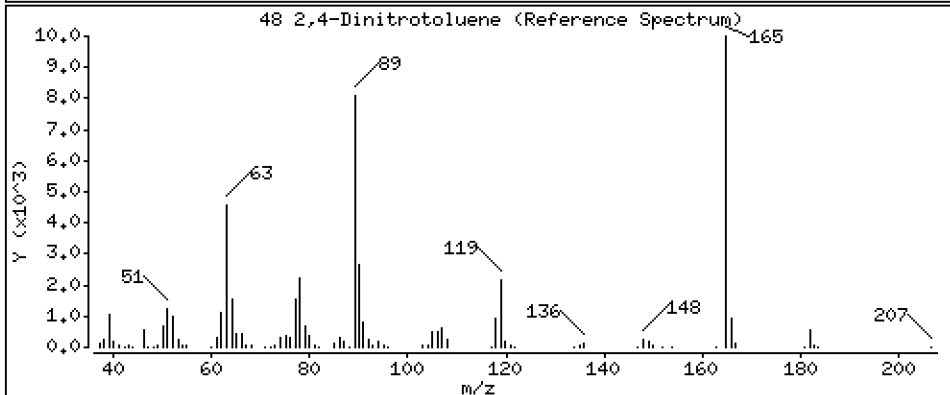
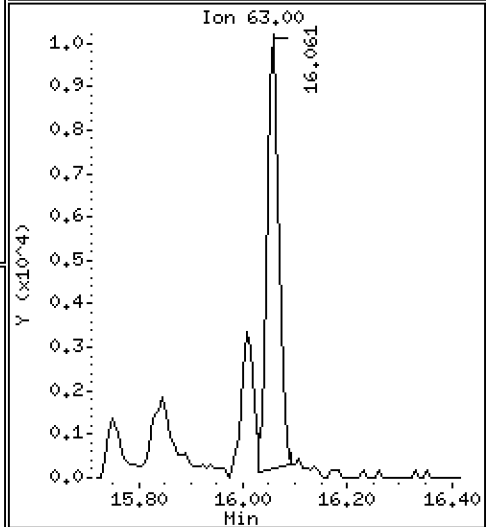
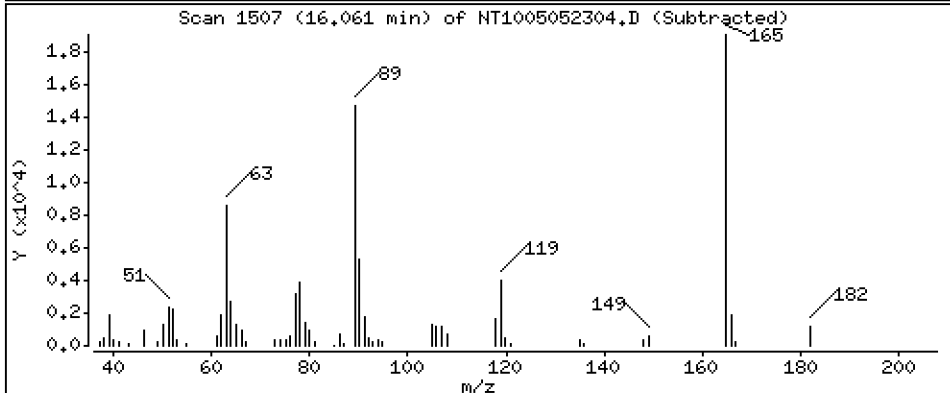
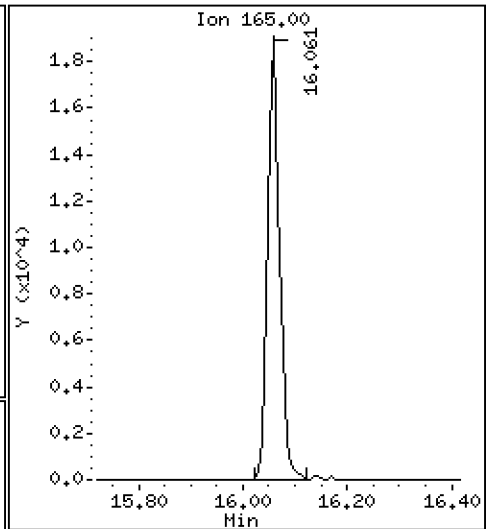
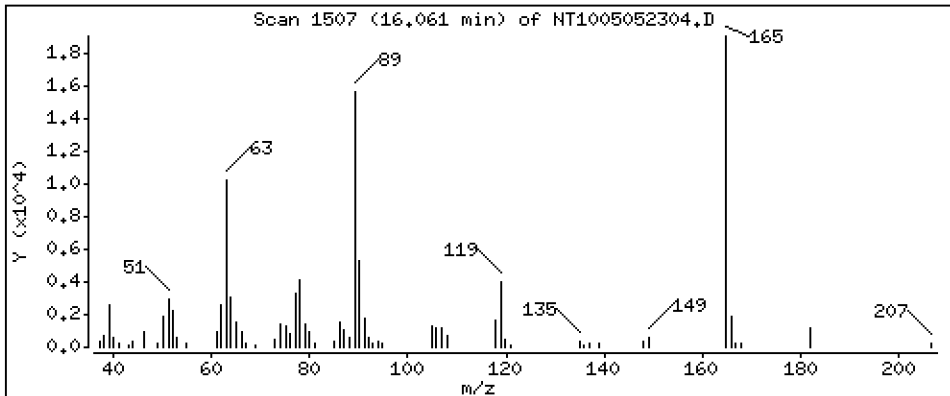
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 0.6645 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

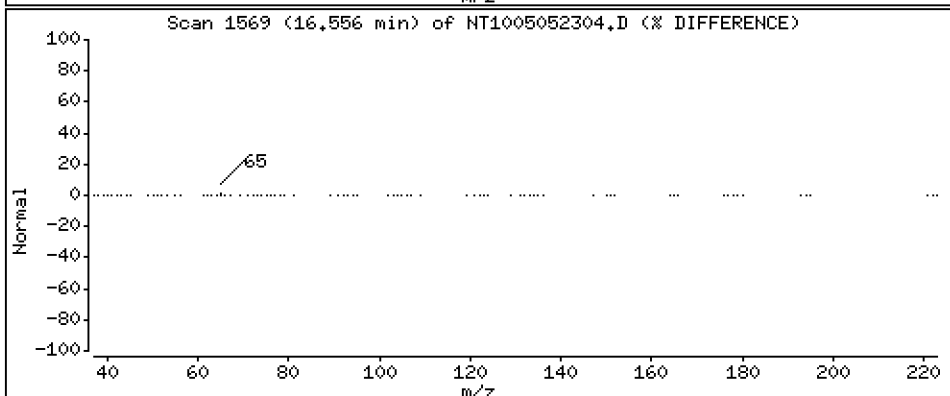
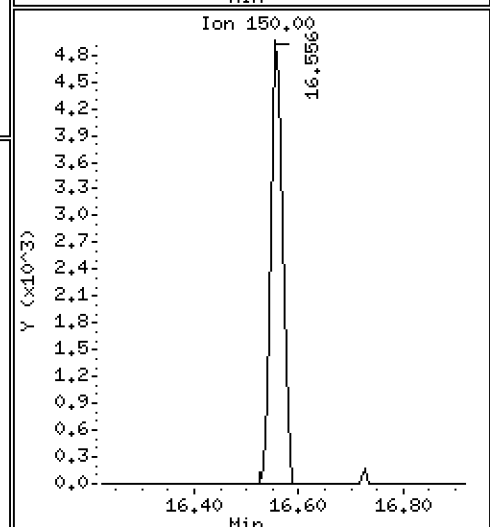
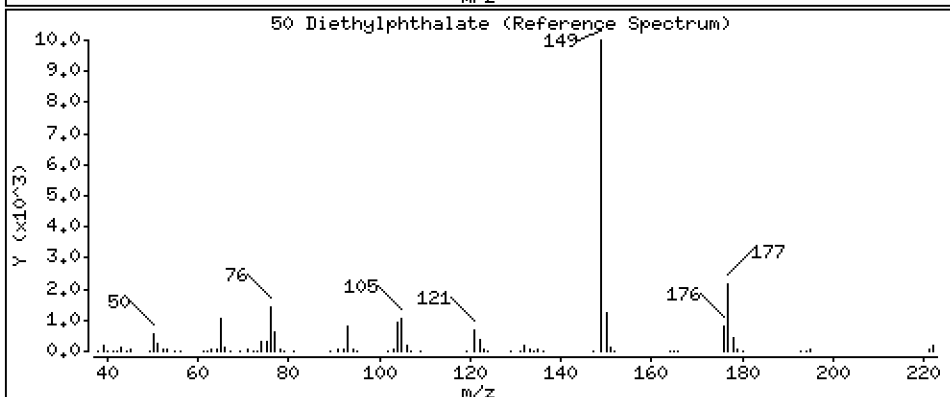
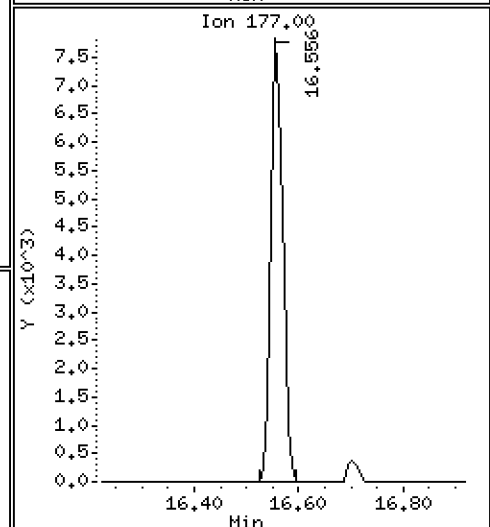
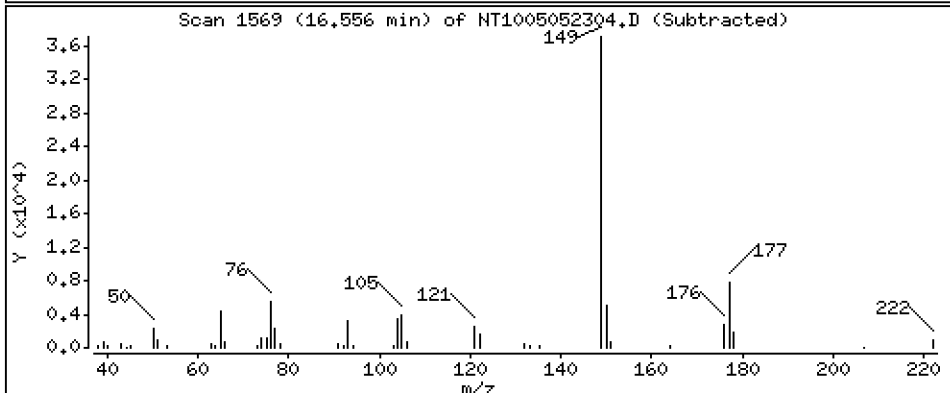
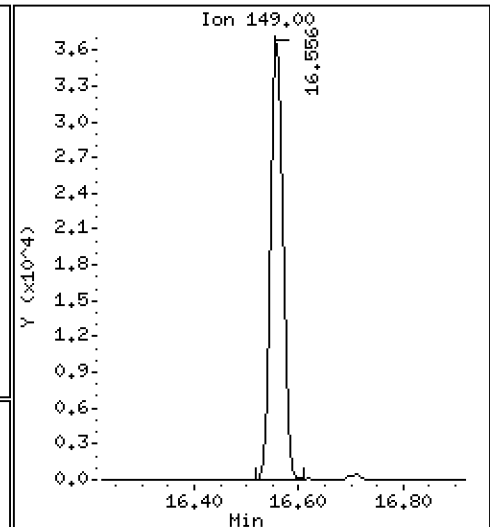
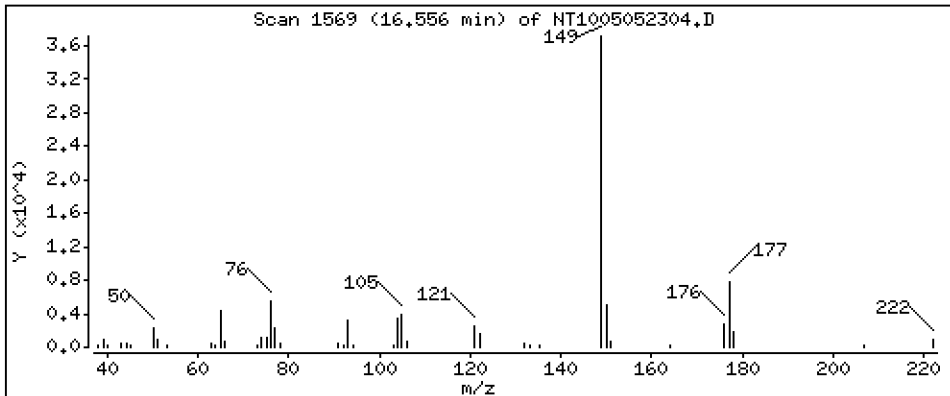
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.4079 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

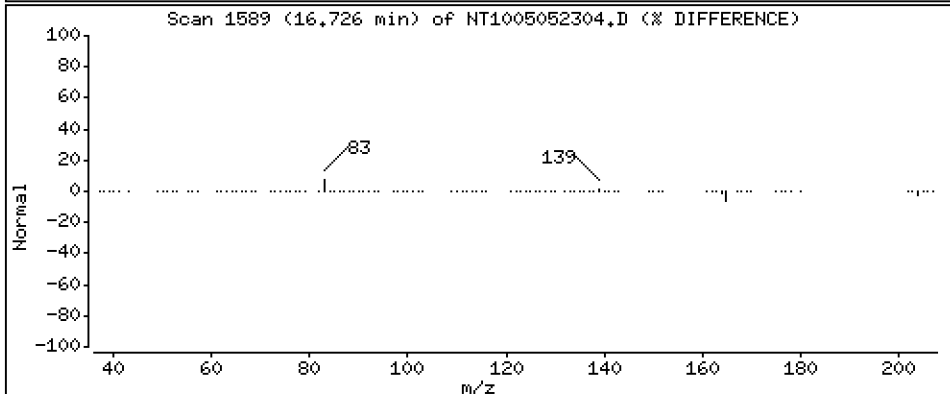
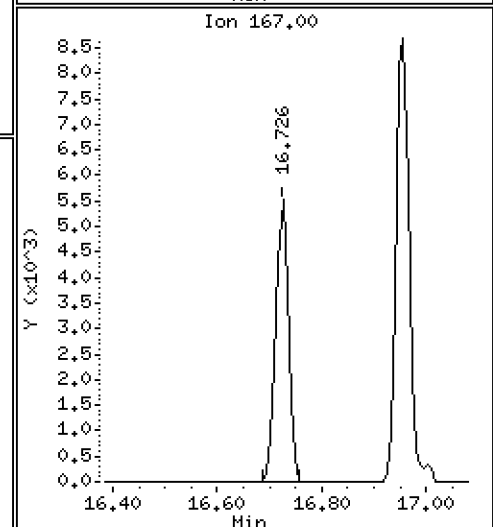
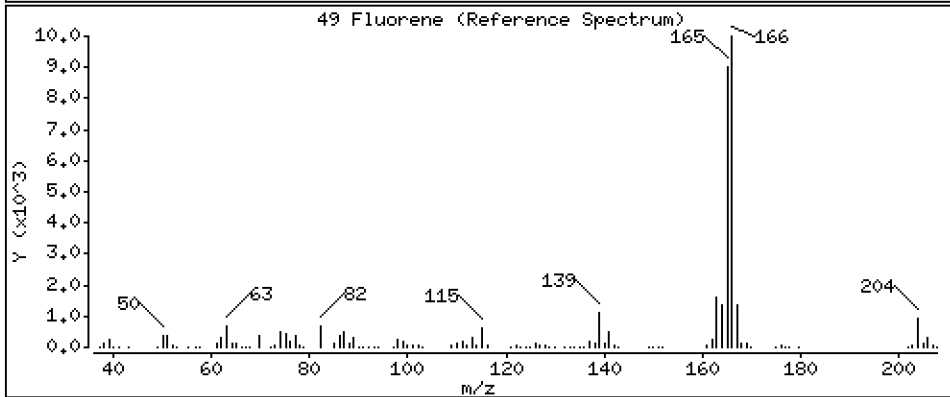
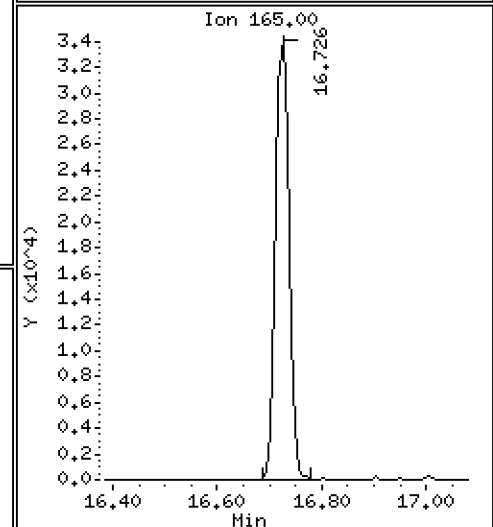
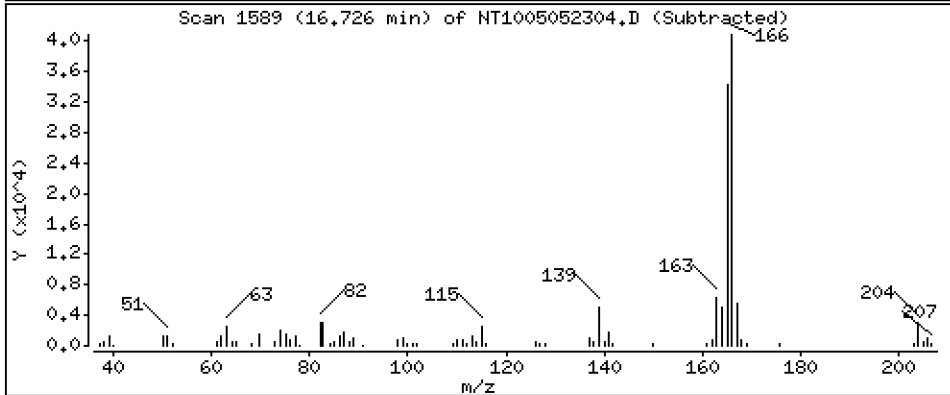
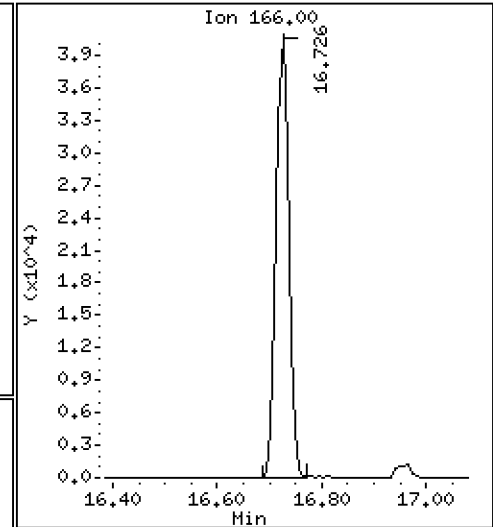
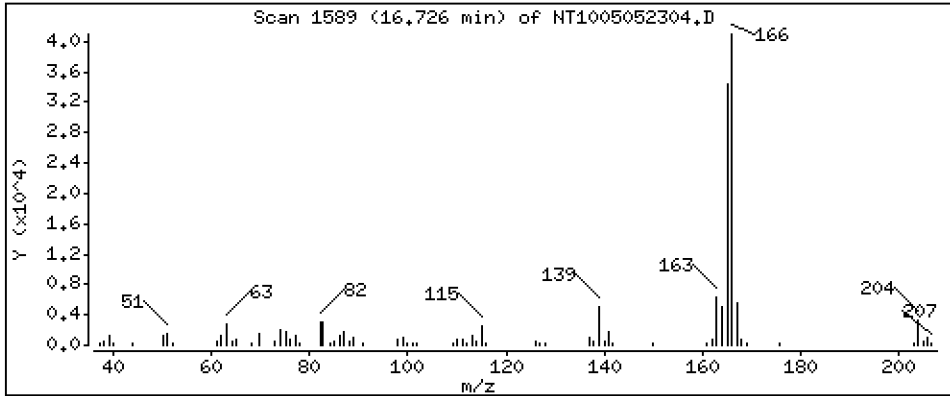
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.4453 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

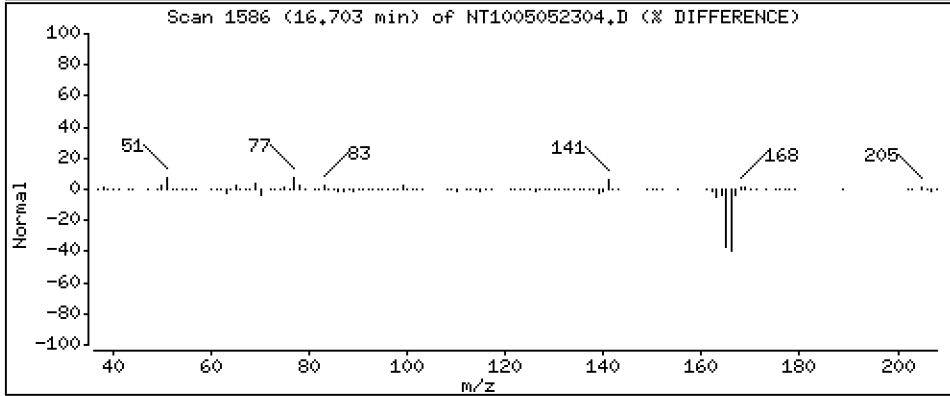
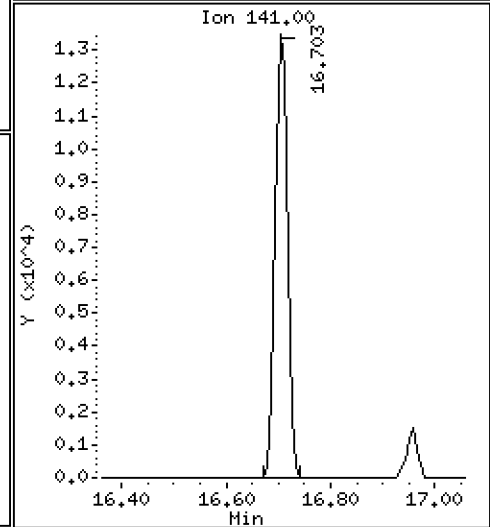
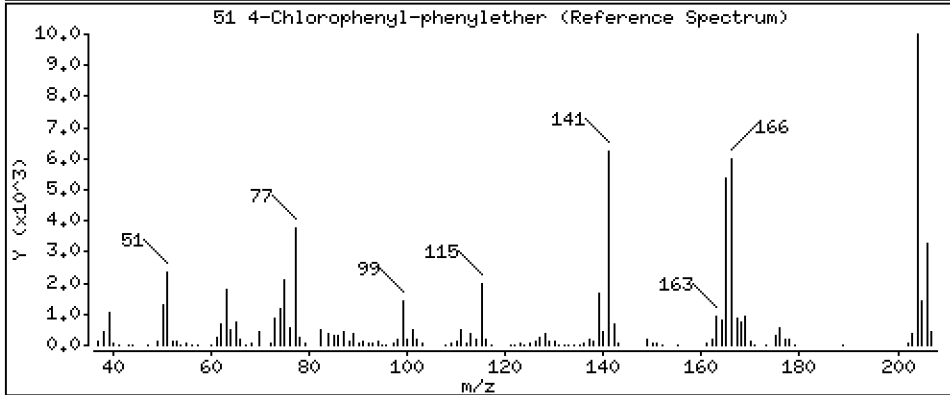
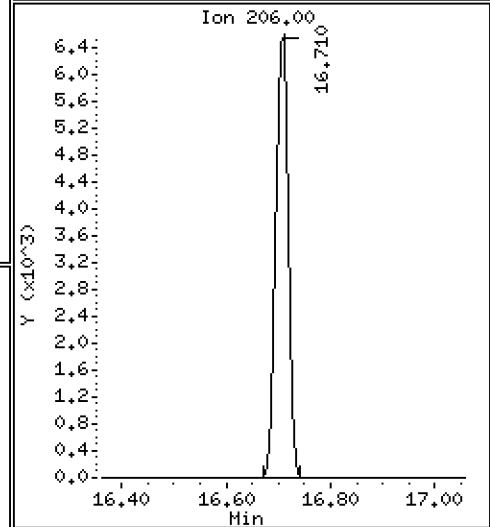
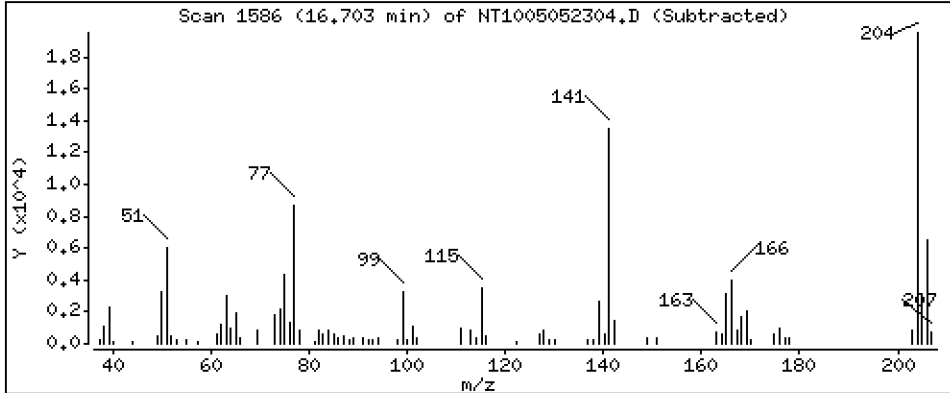
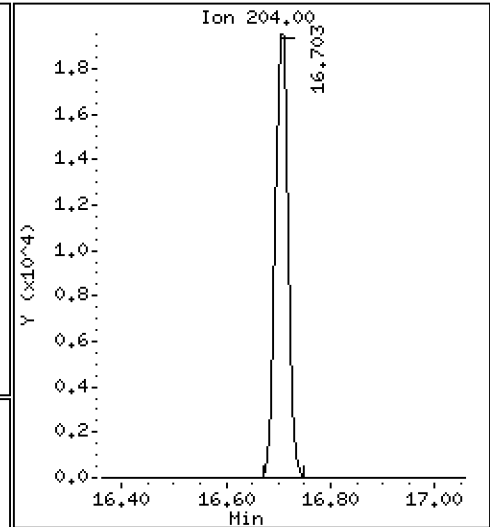
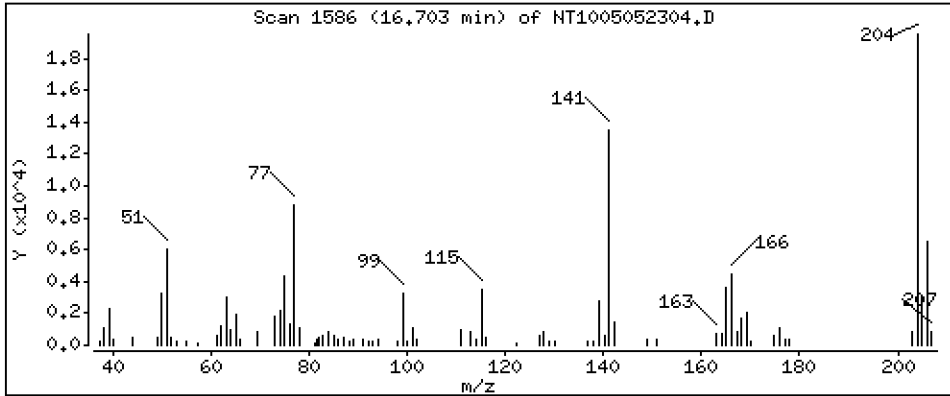
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 0.4351 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

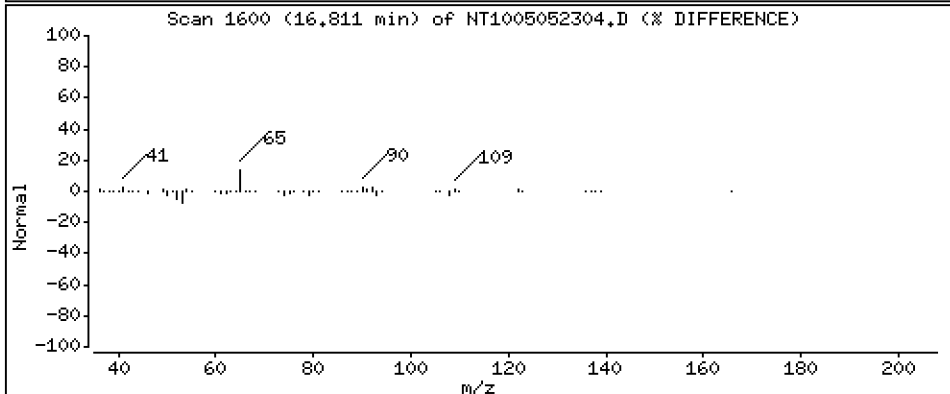
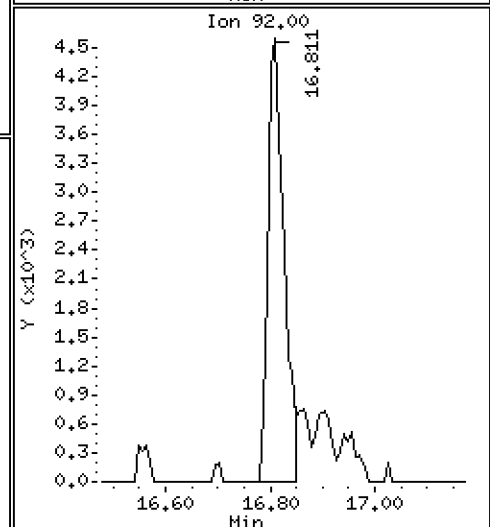
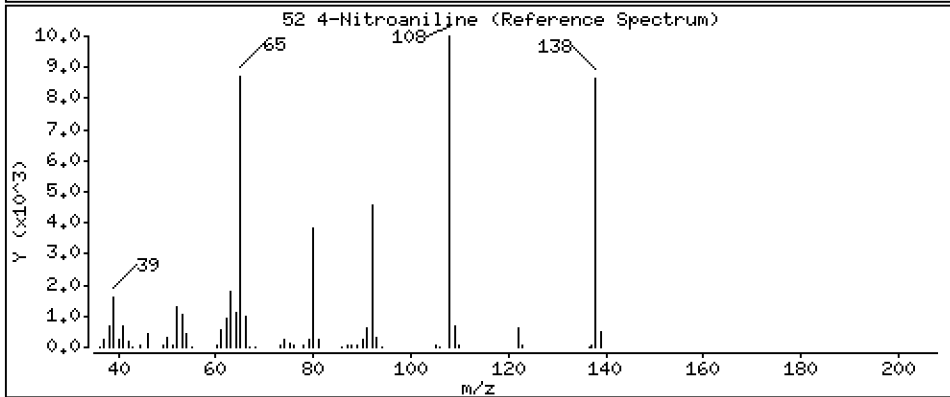
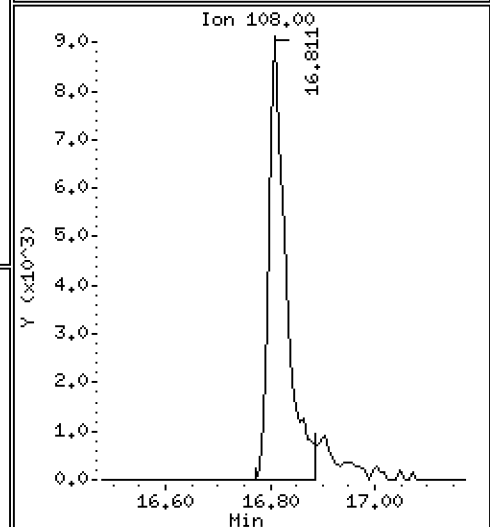
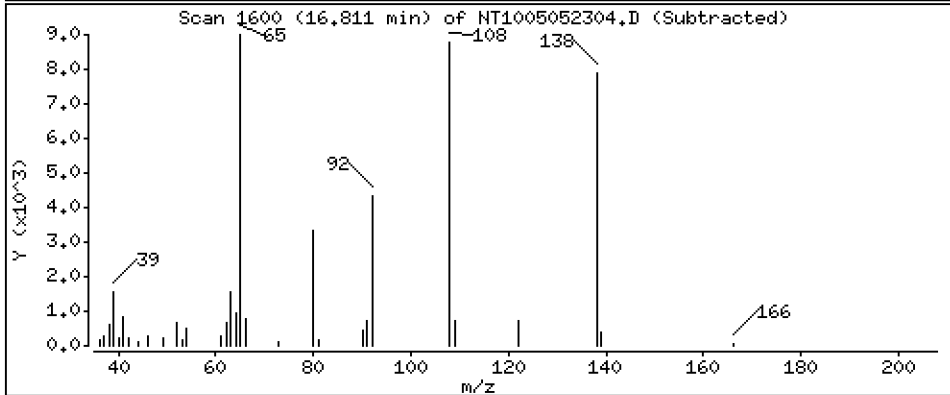
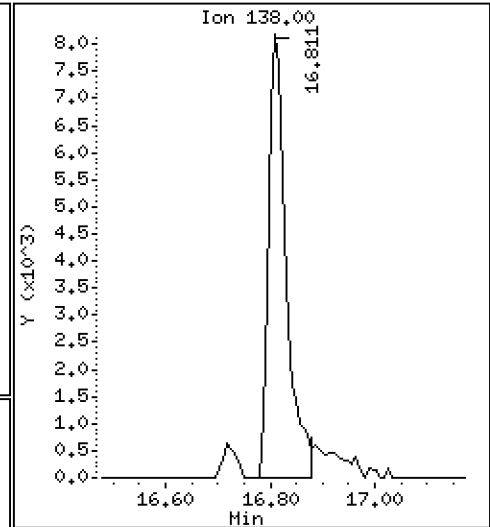
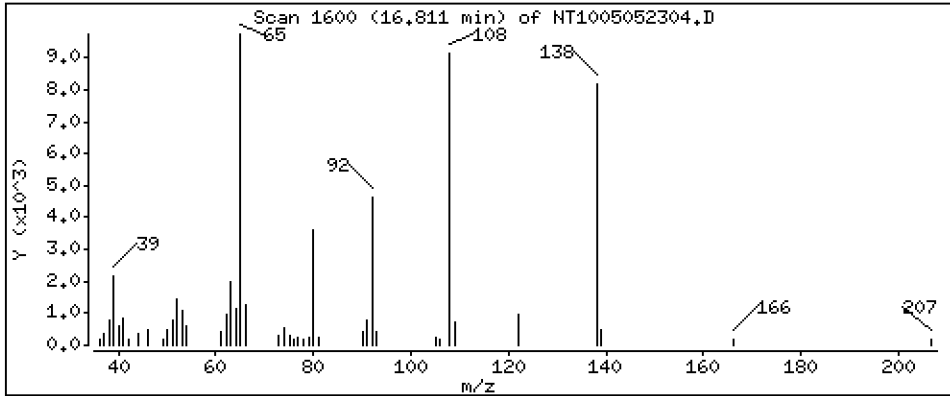
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,6285 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

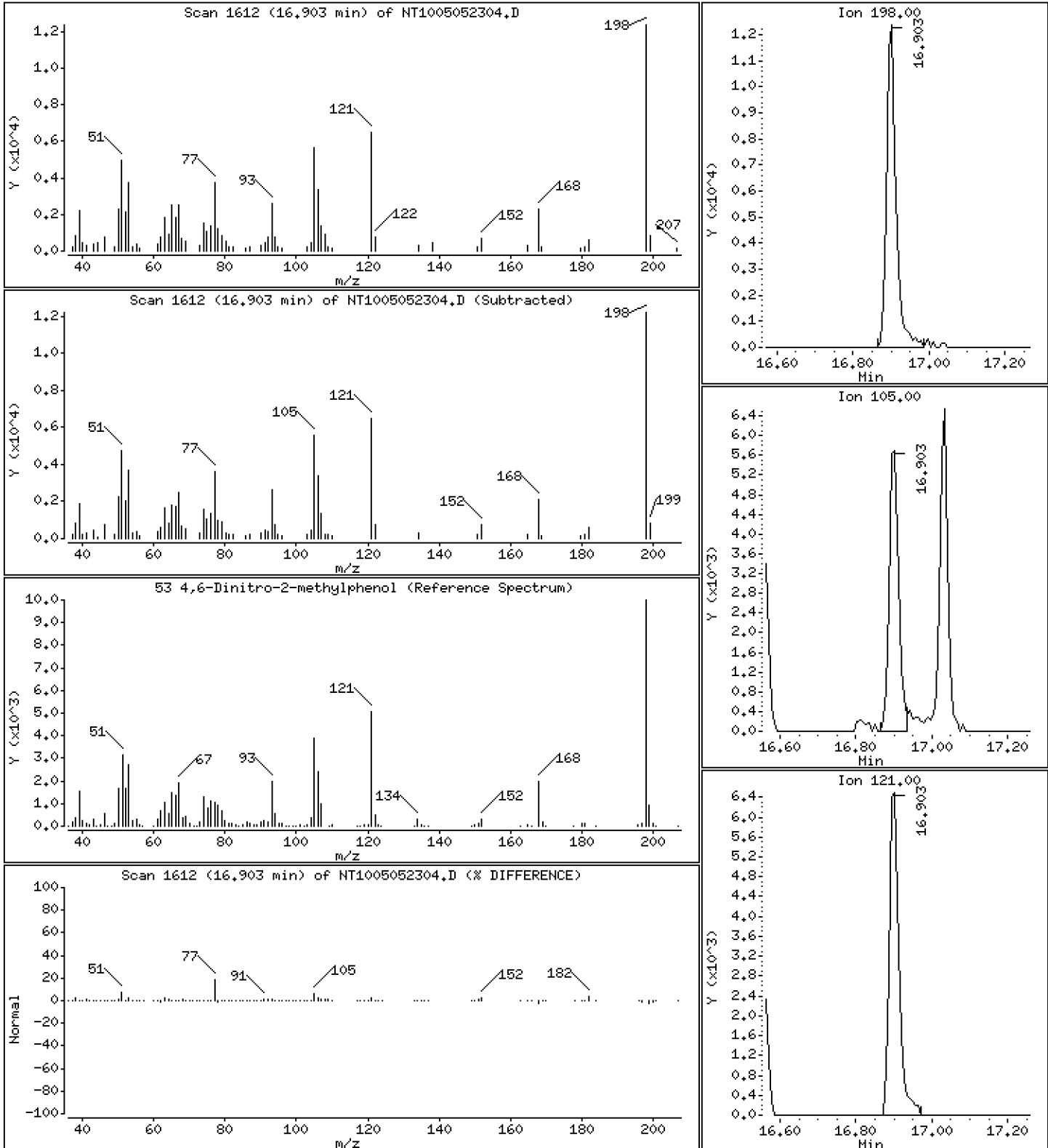
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 0,7835 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

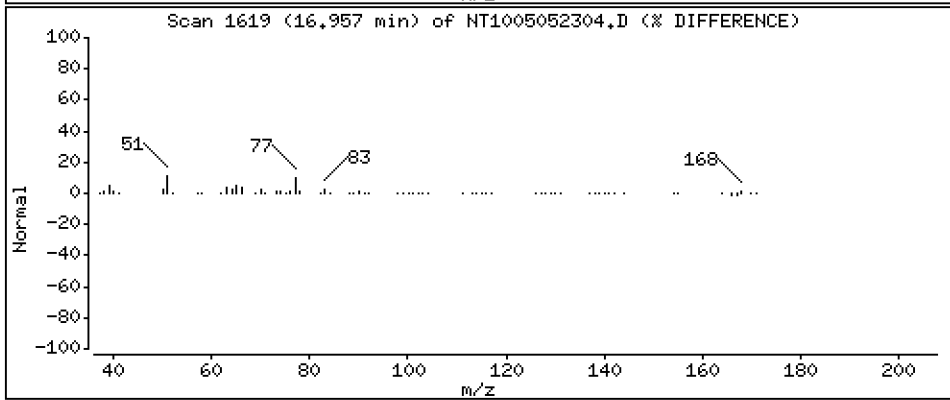
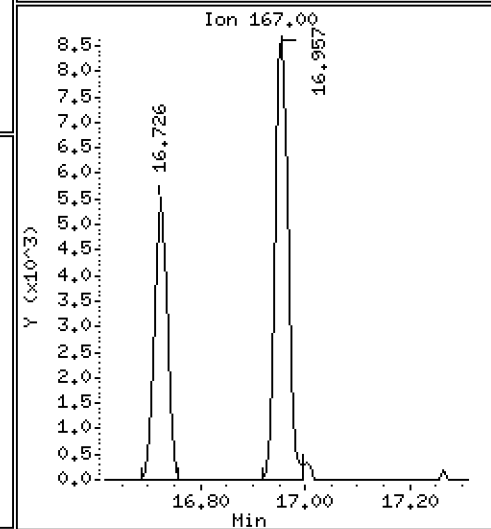
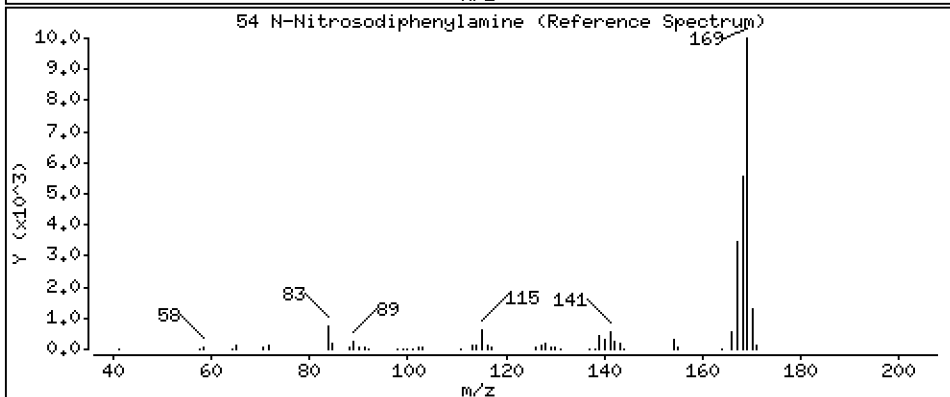
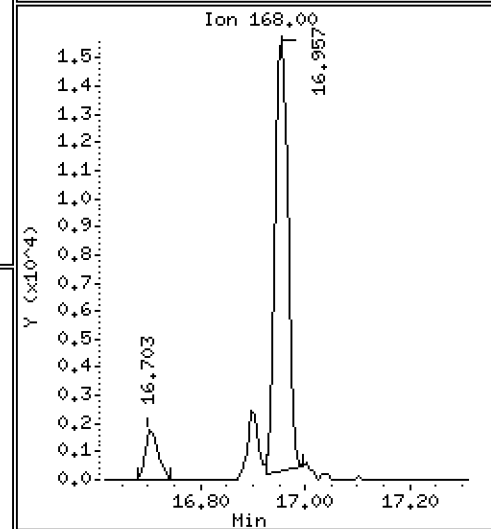
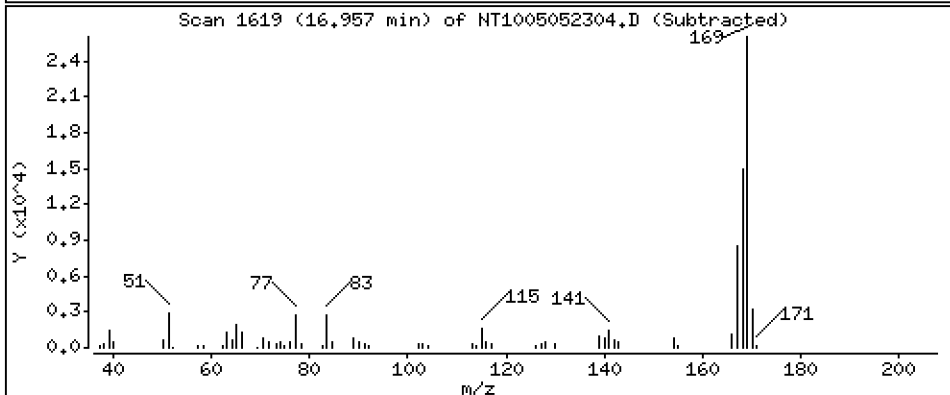
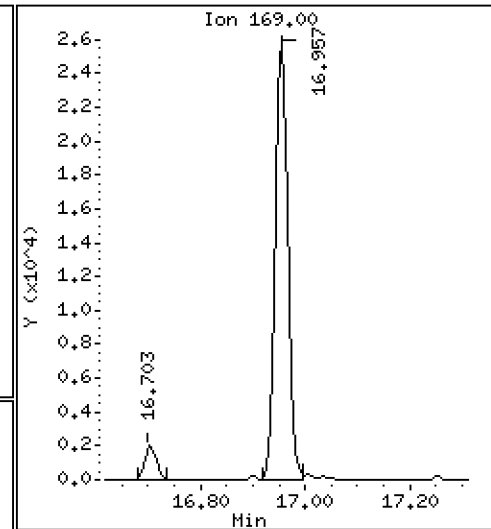
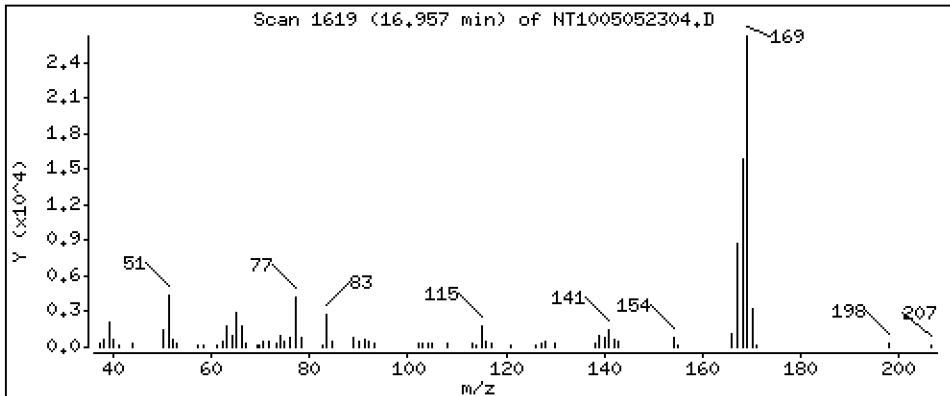
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,4466 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

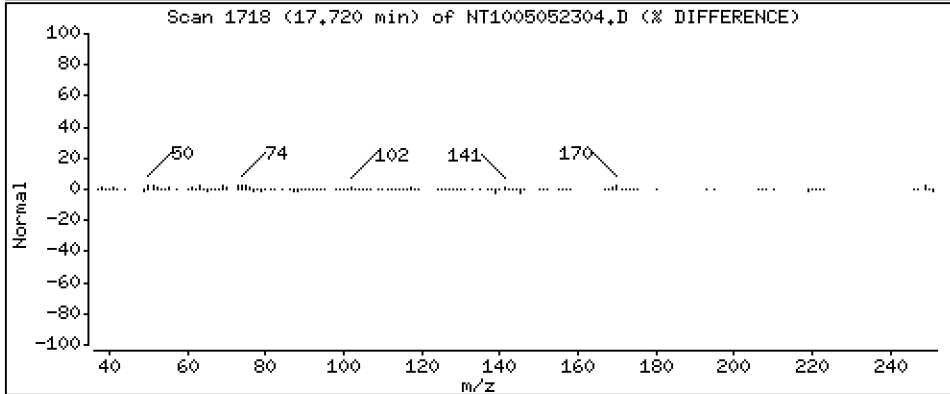
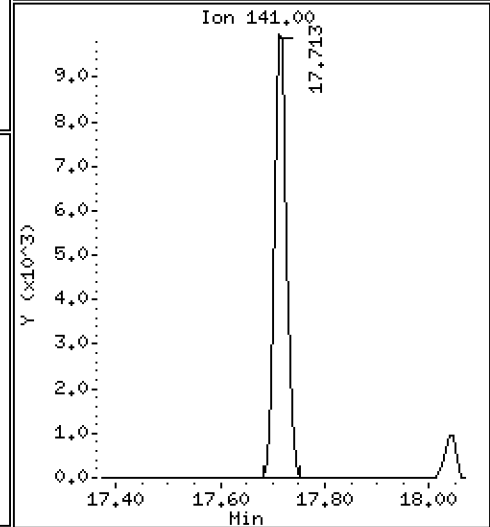
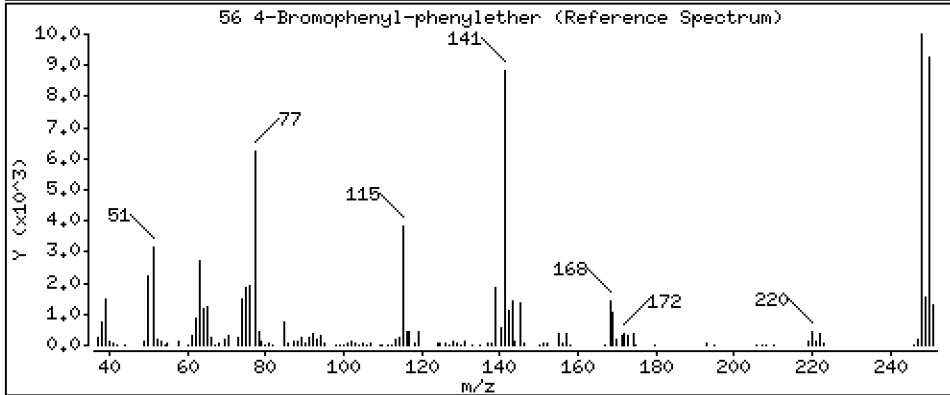
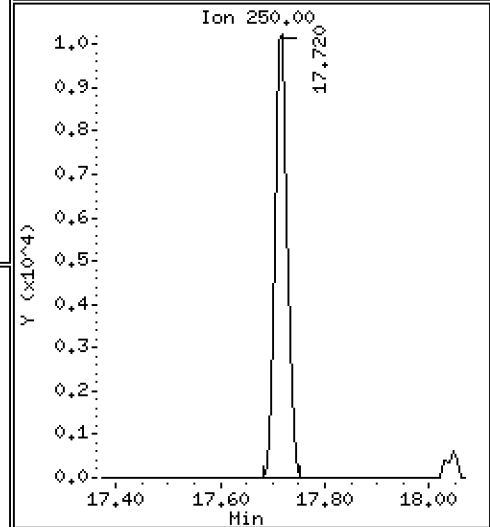
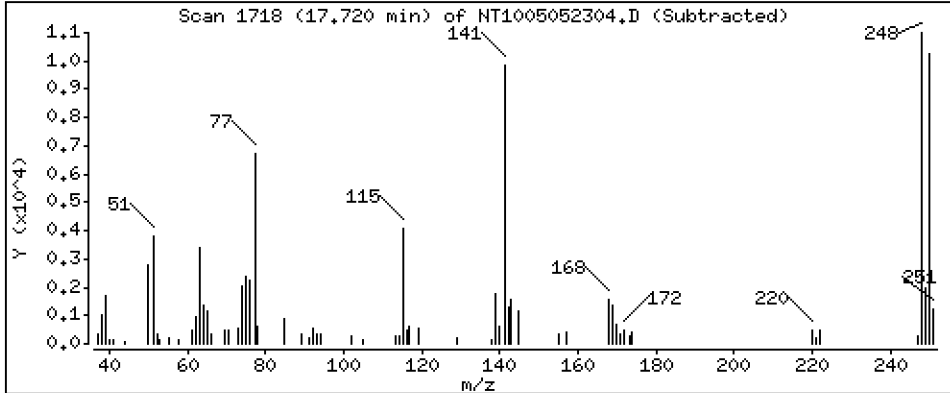
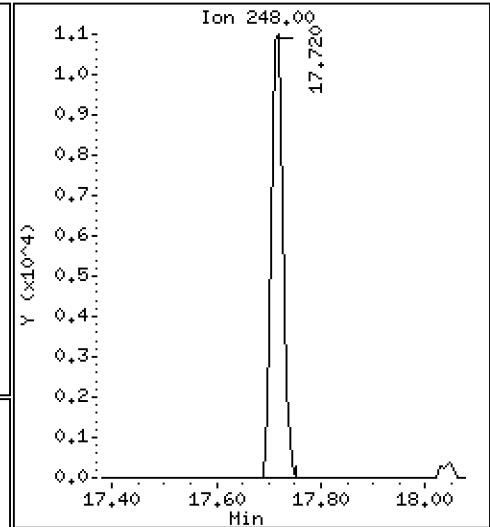
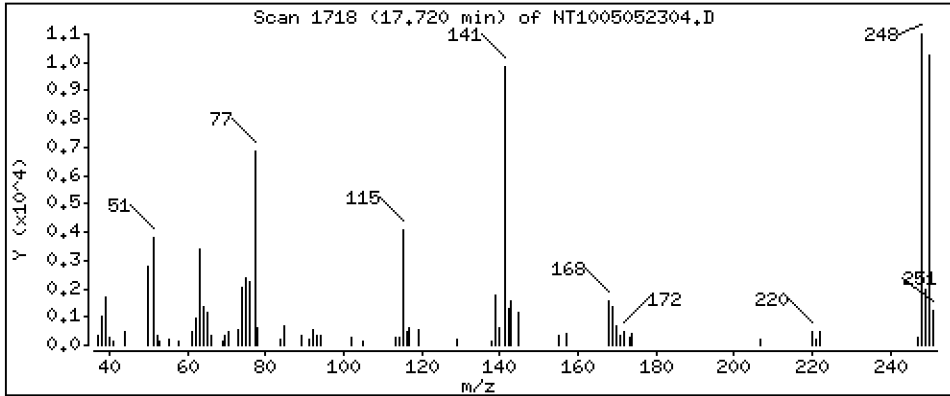
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

56 4-Bromophenyl-phenylether

Concentration: 0.4147 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

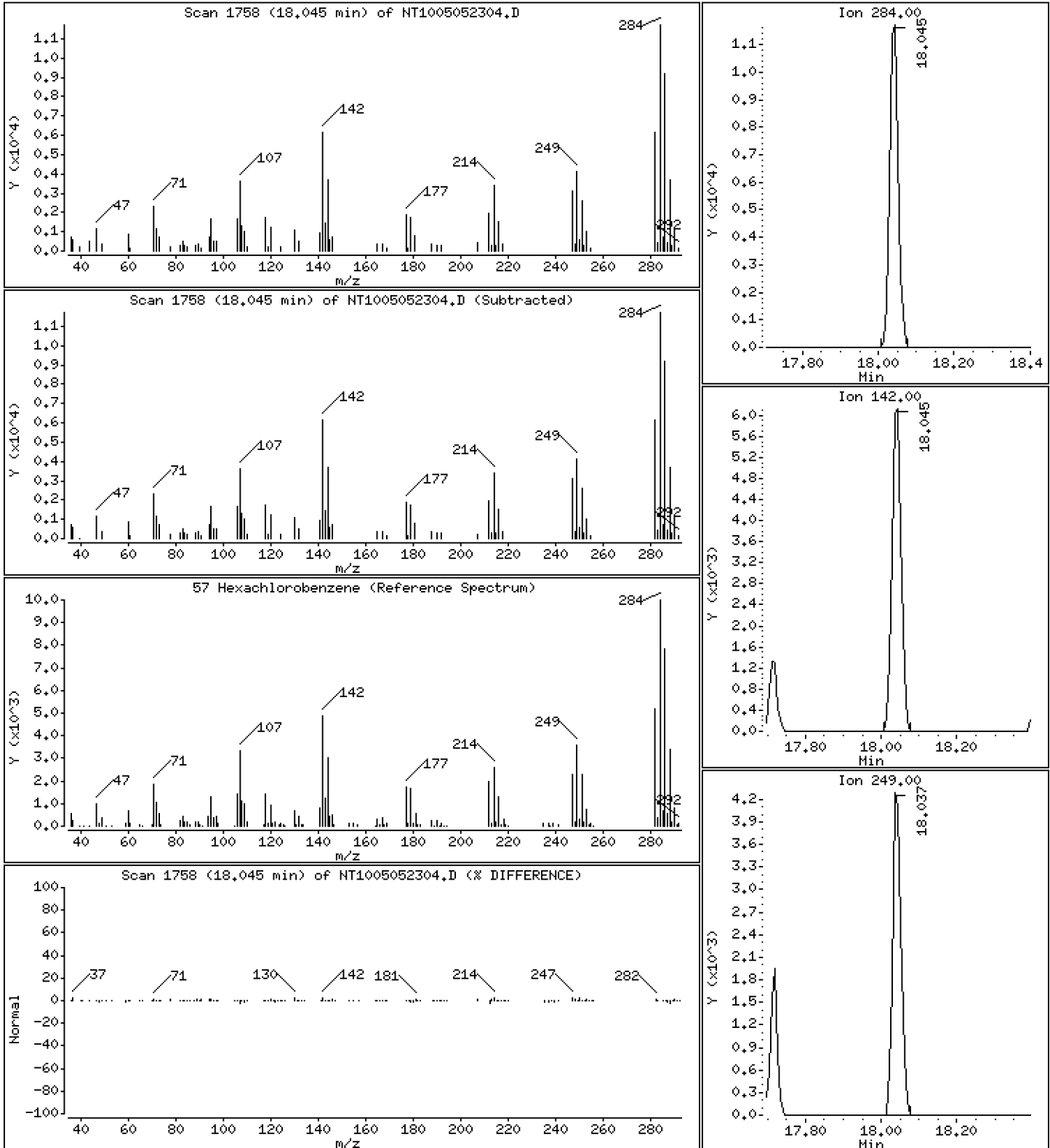
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,4382 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

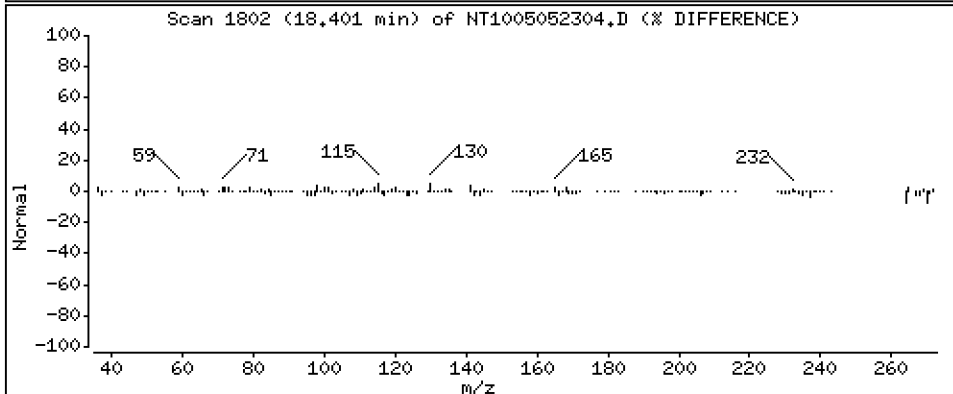
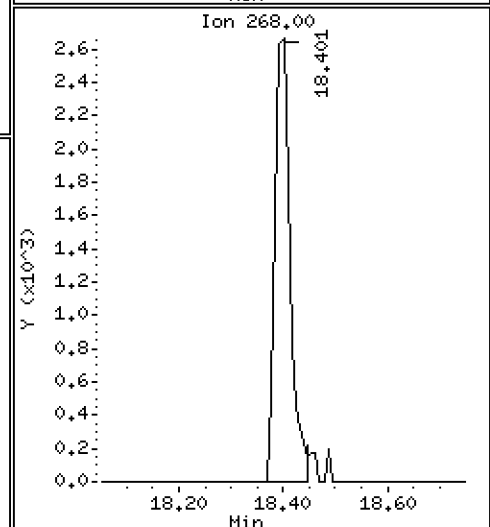
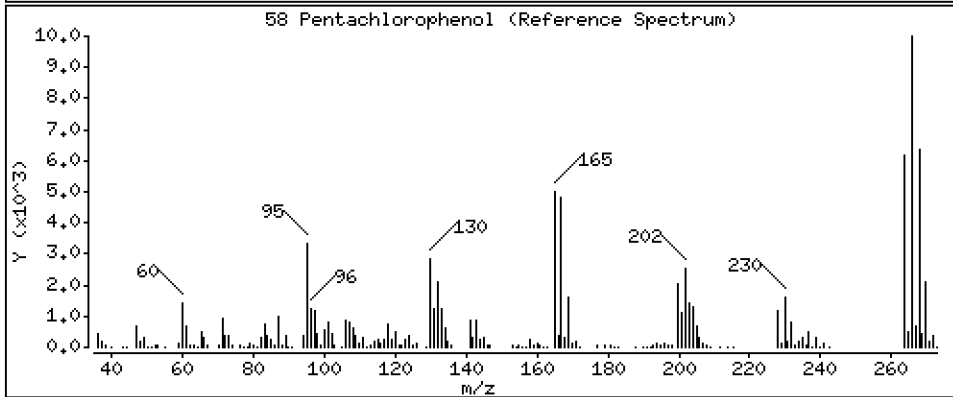
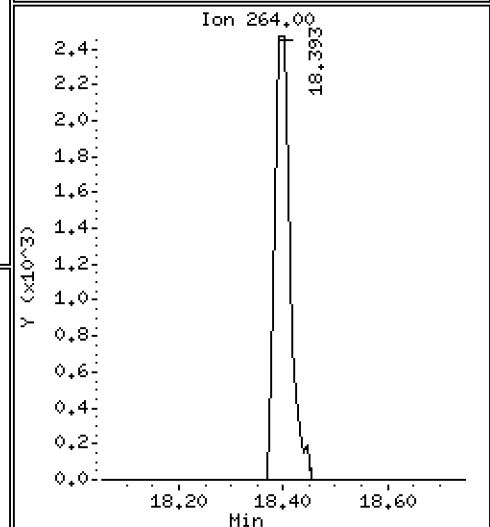
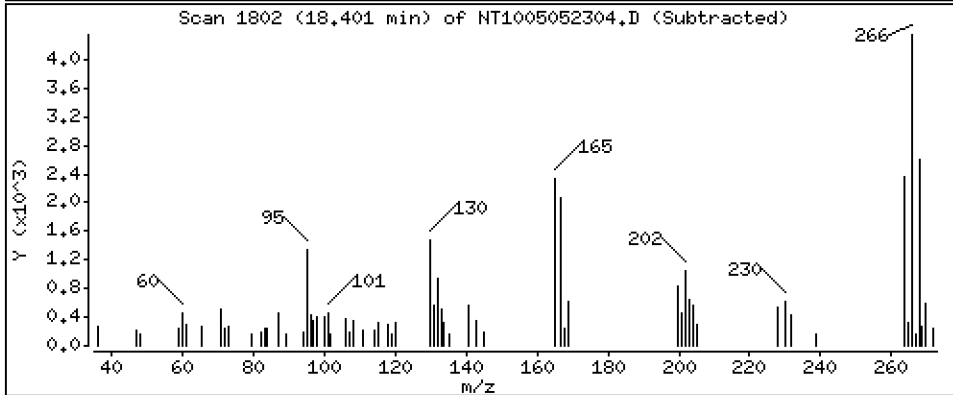
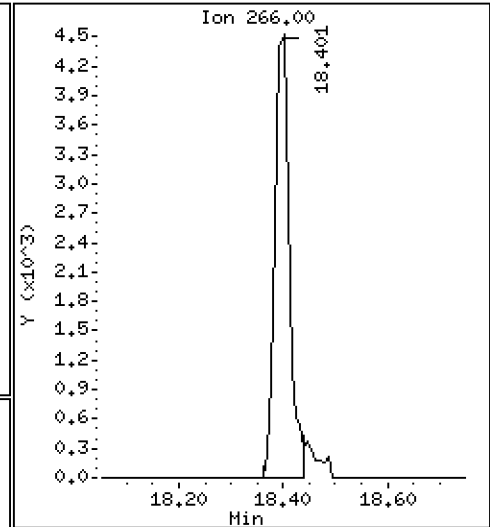
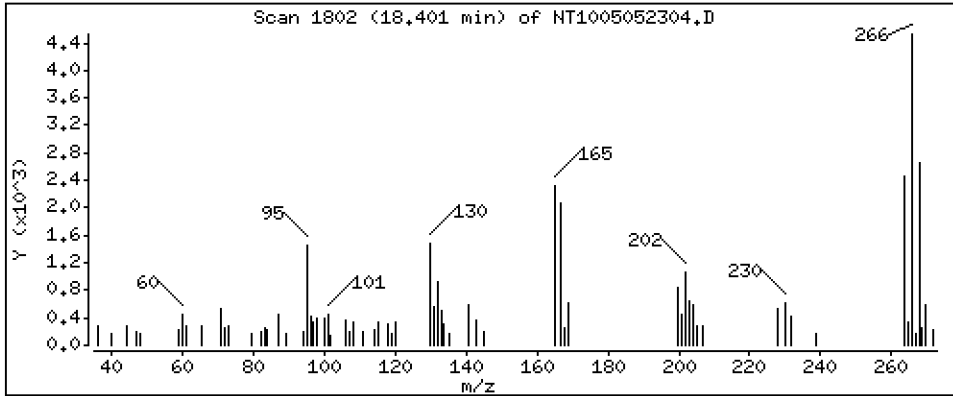
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,2840 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

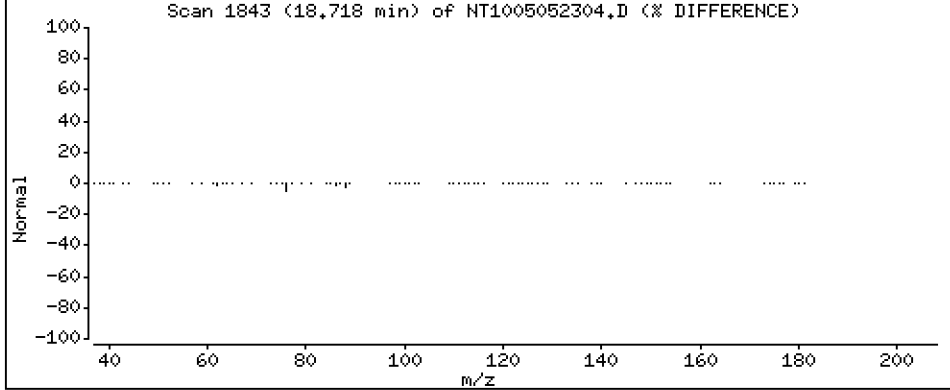
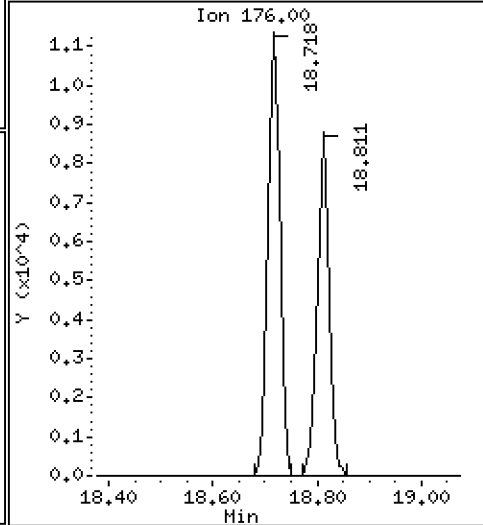
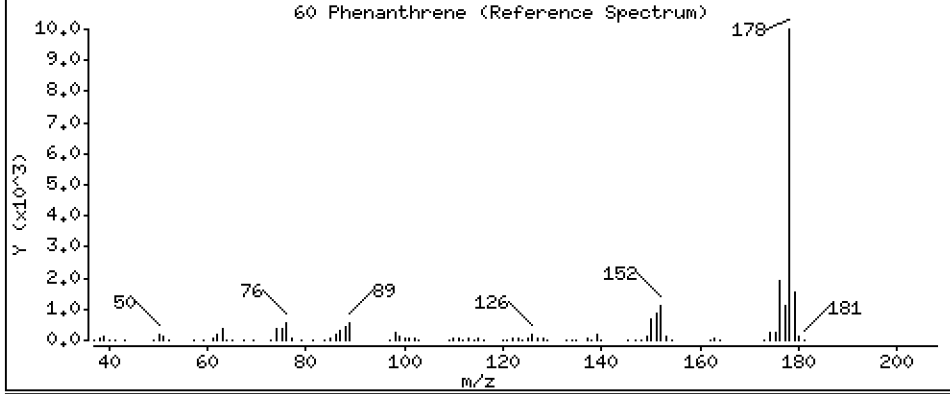
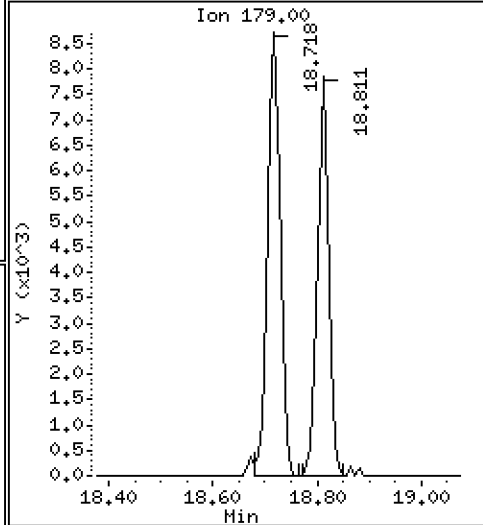
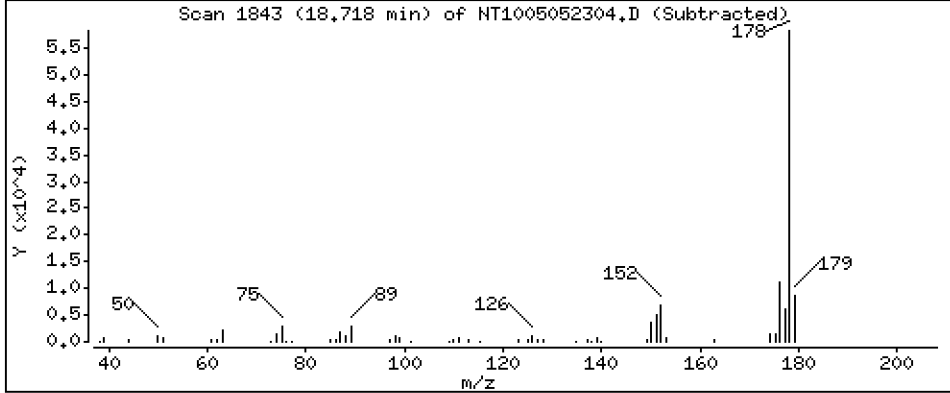
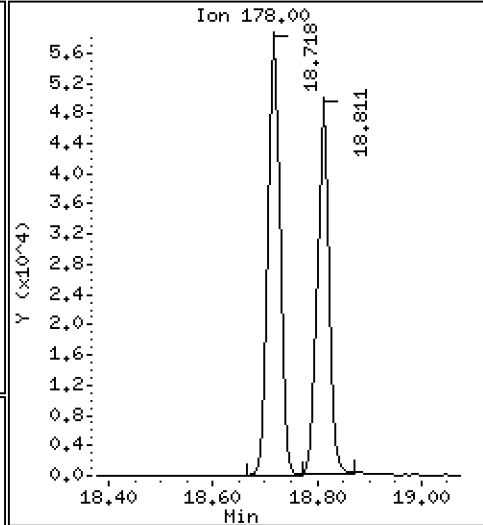
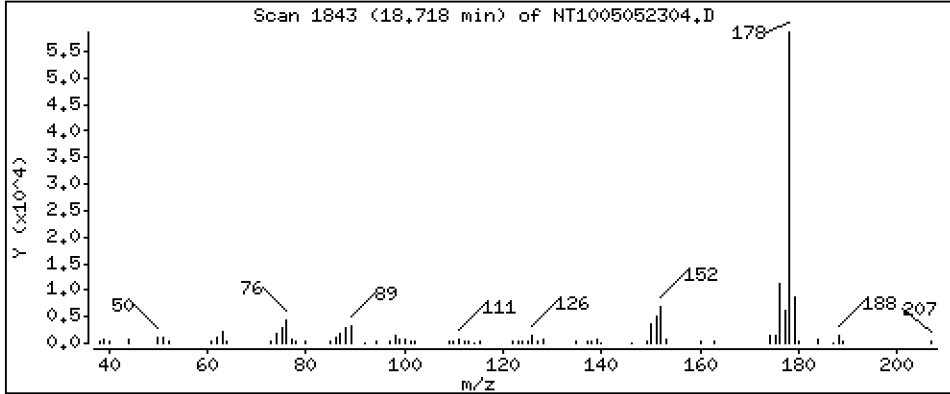
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,4394 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

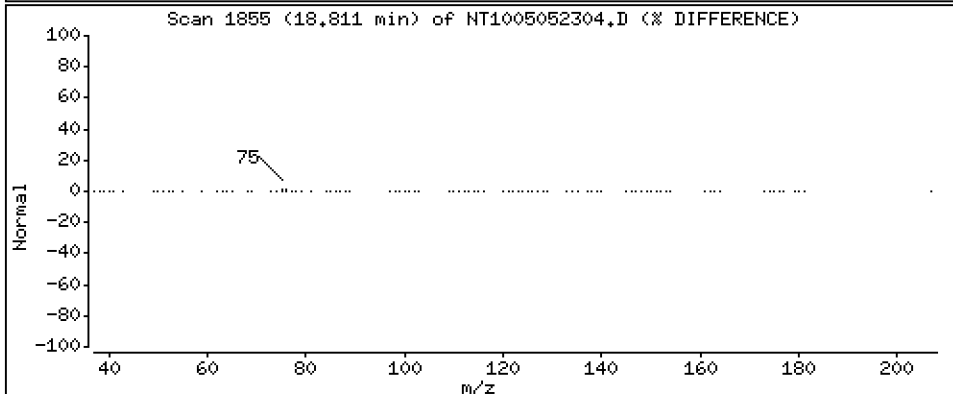
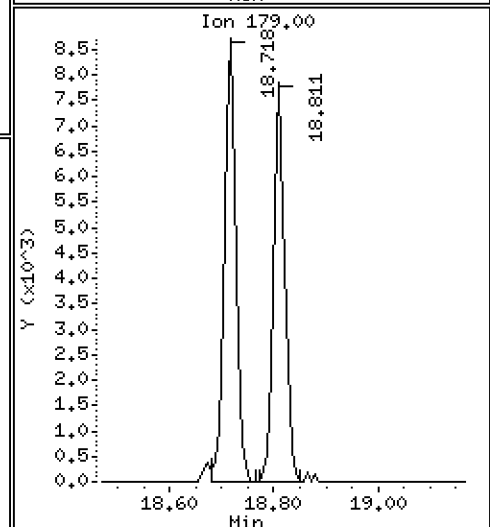
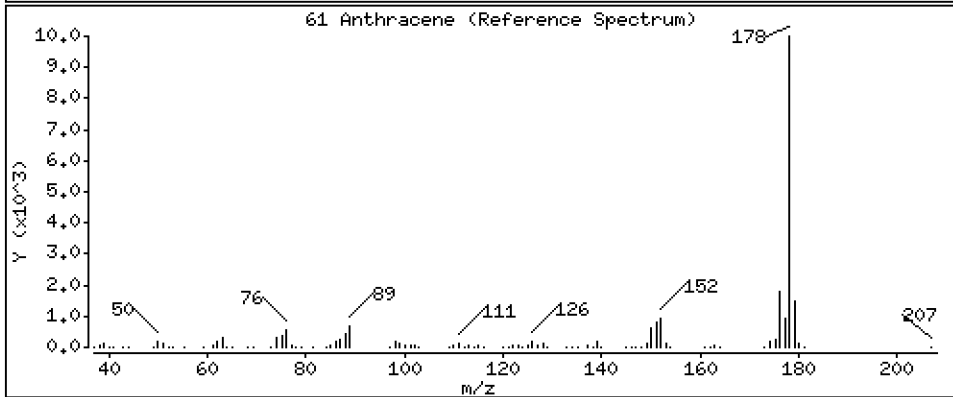
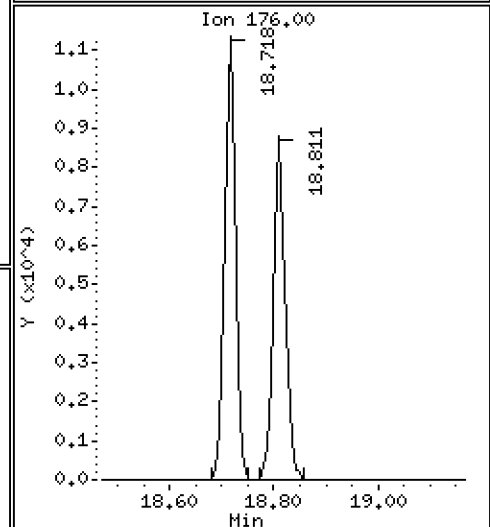
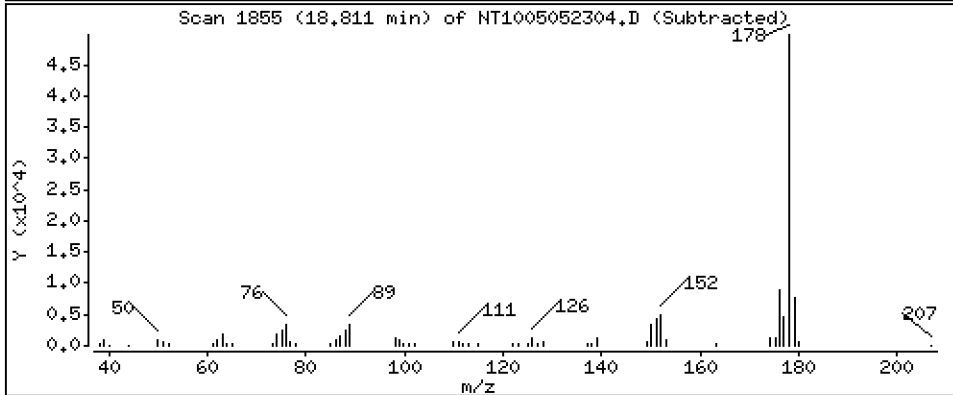
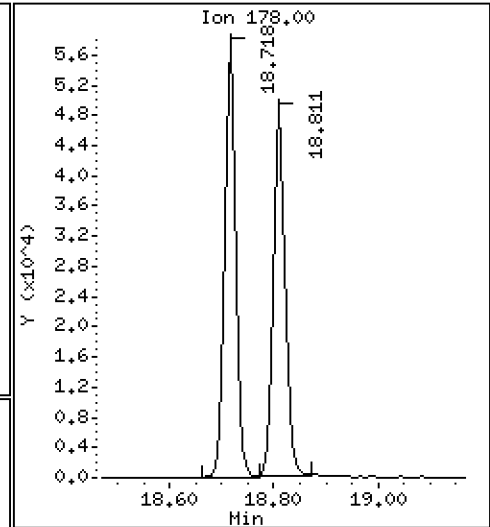
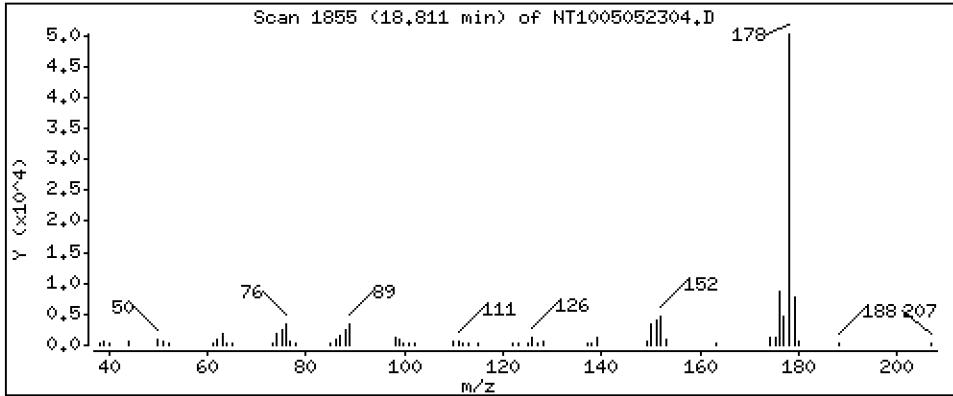
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,3967 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

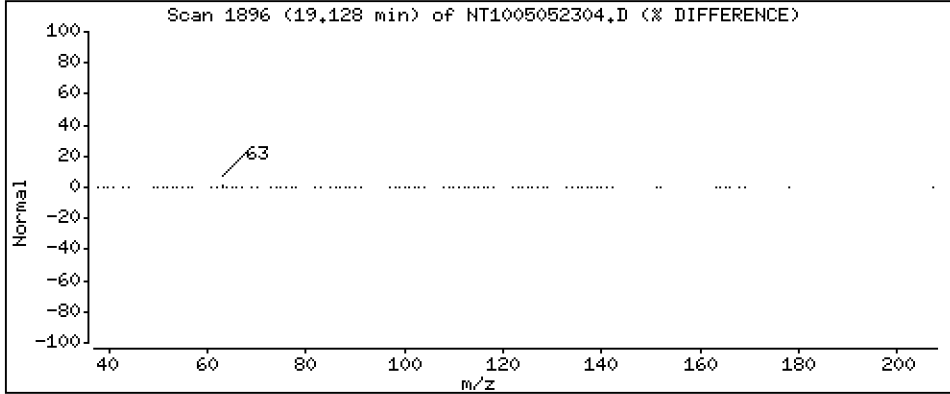
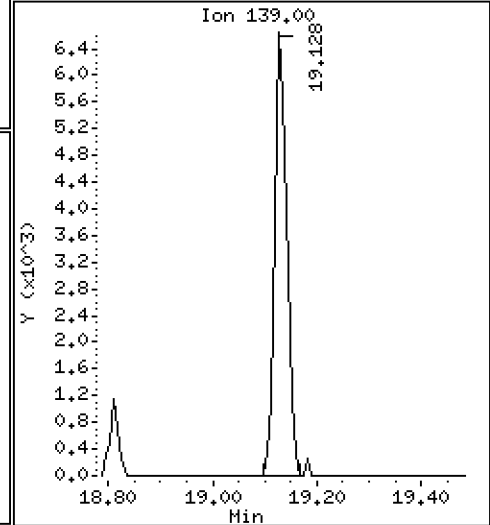
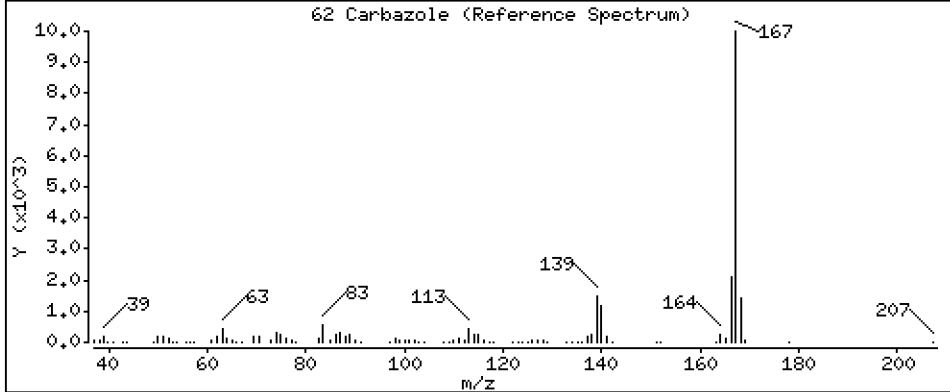
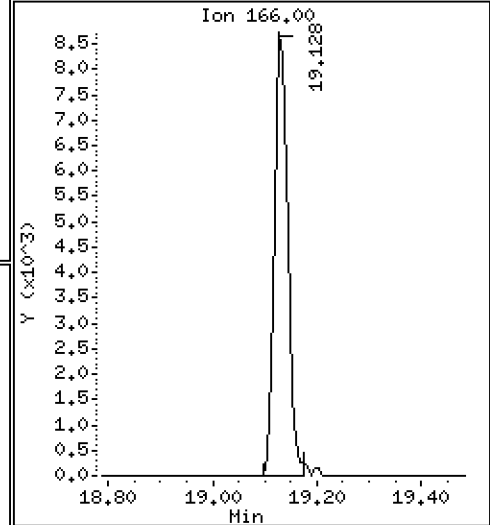
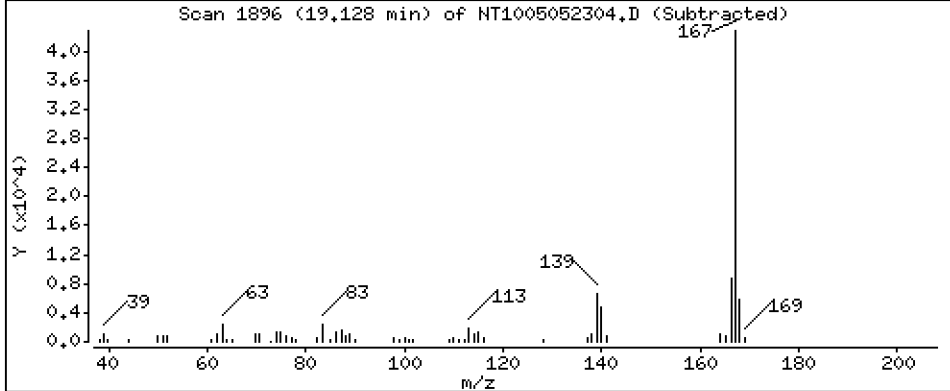
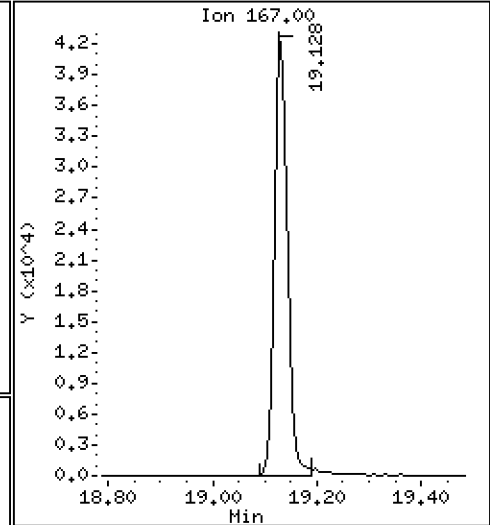
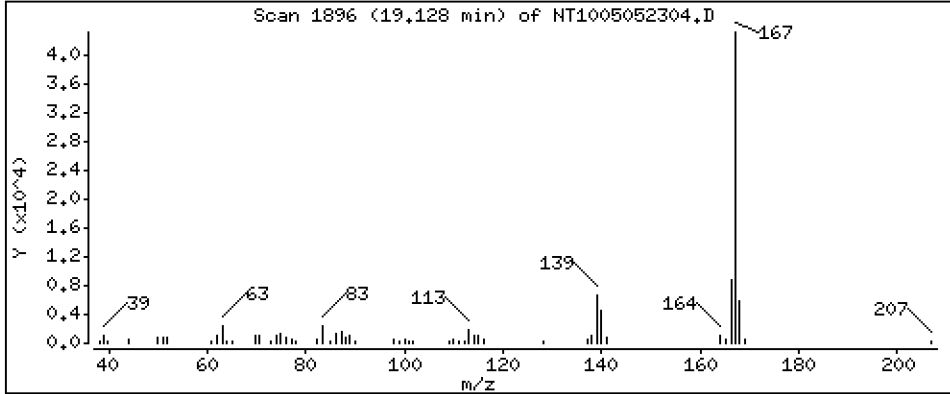
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,4257 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

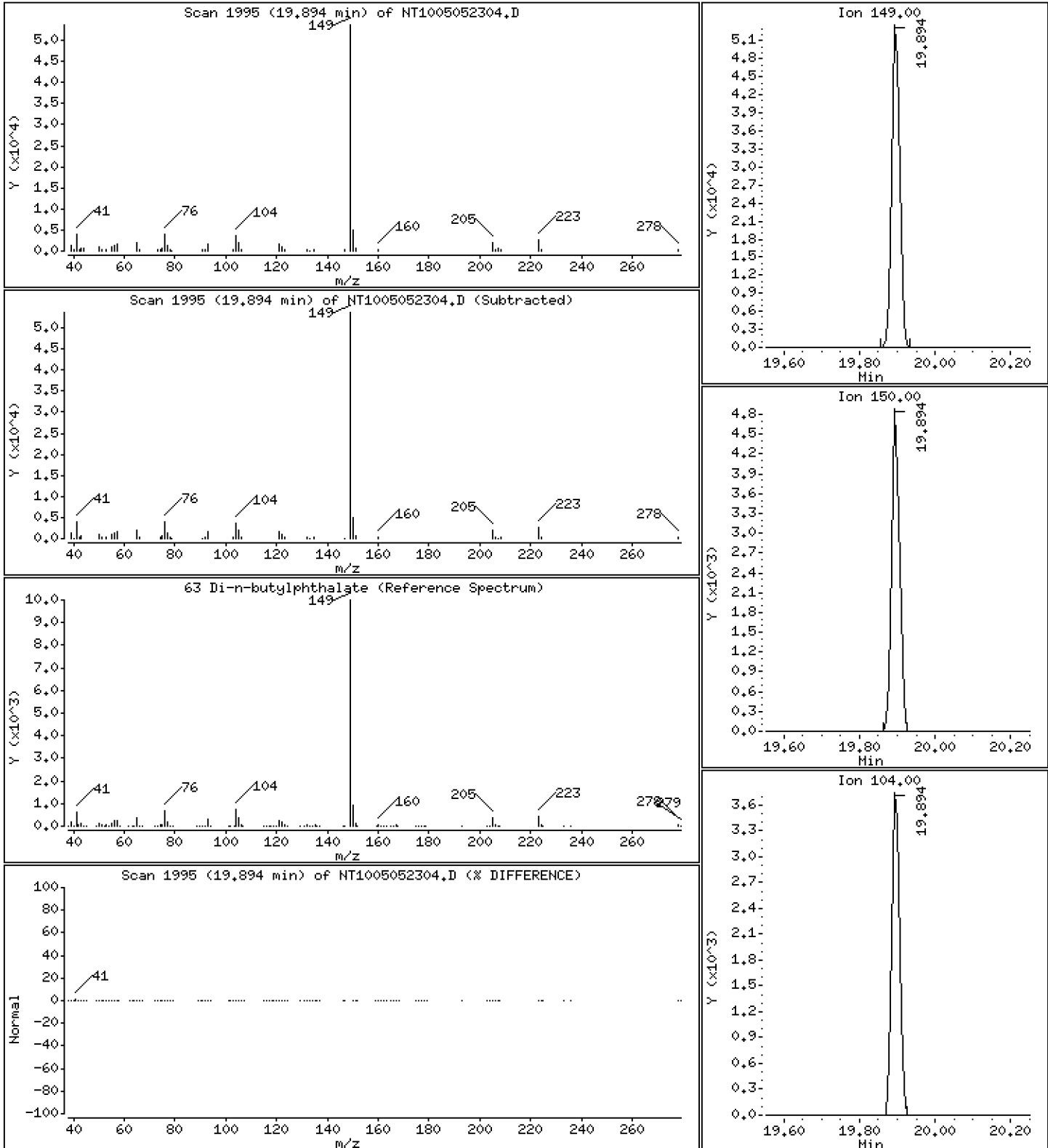
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,3040 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

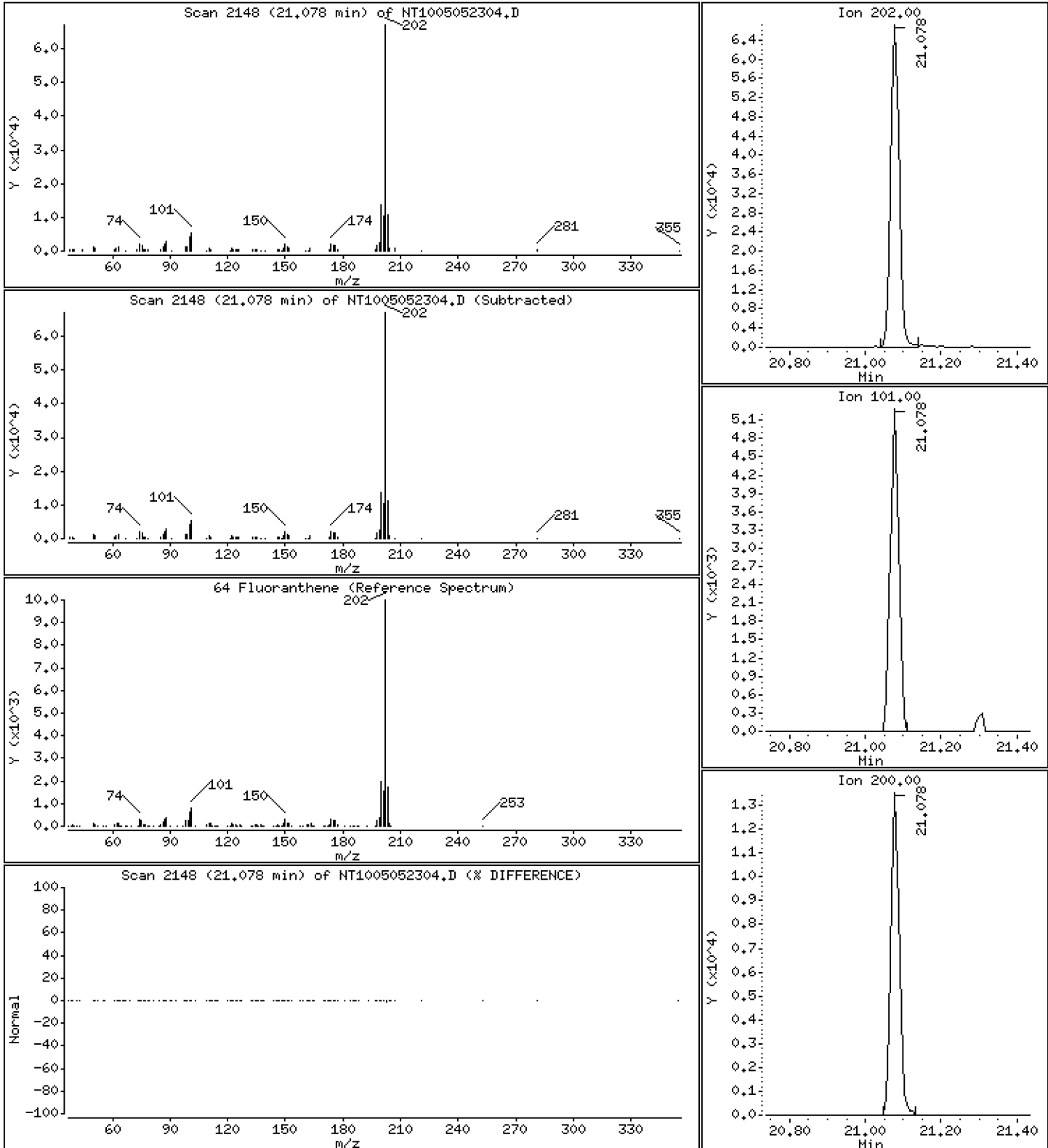
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,3827 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

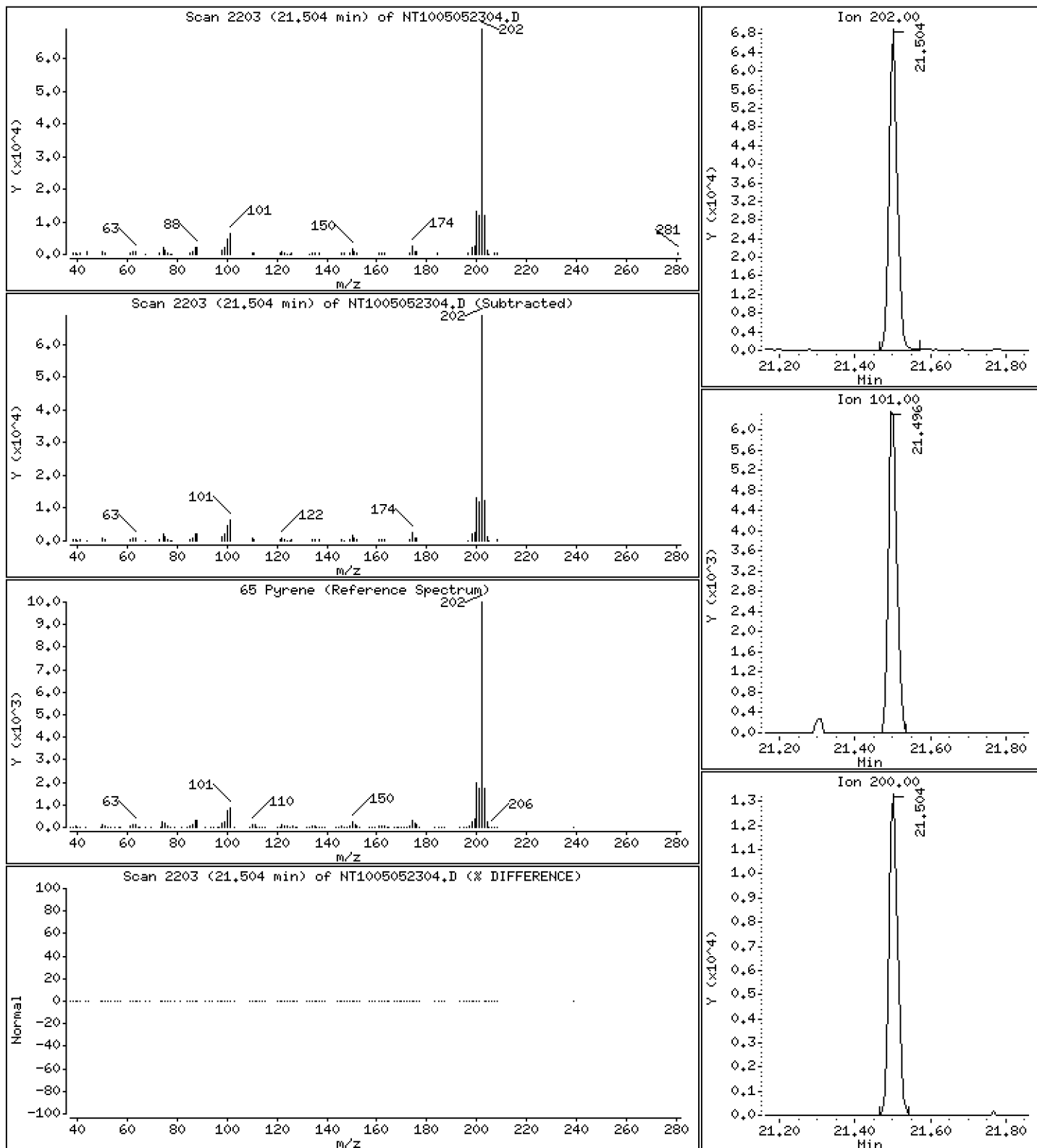
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,3974 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

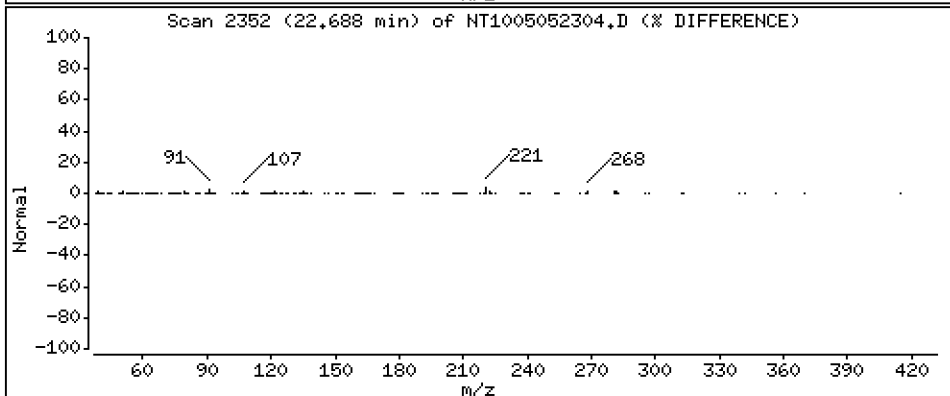
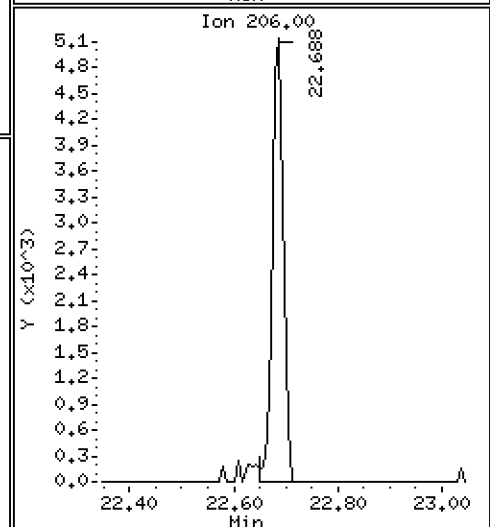
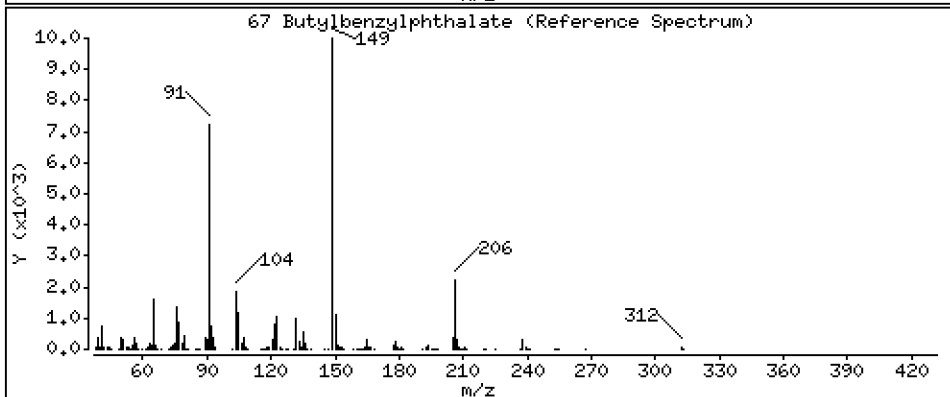
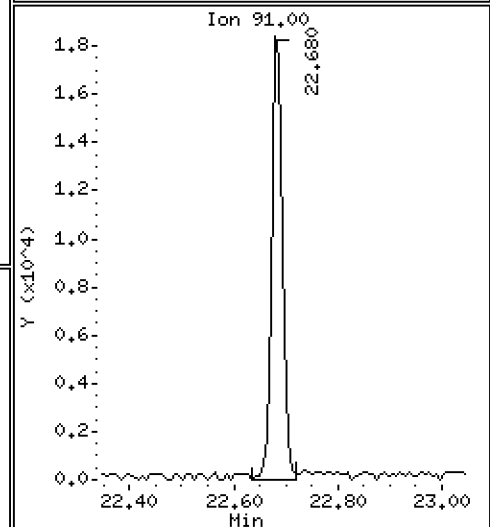
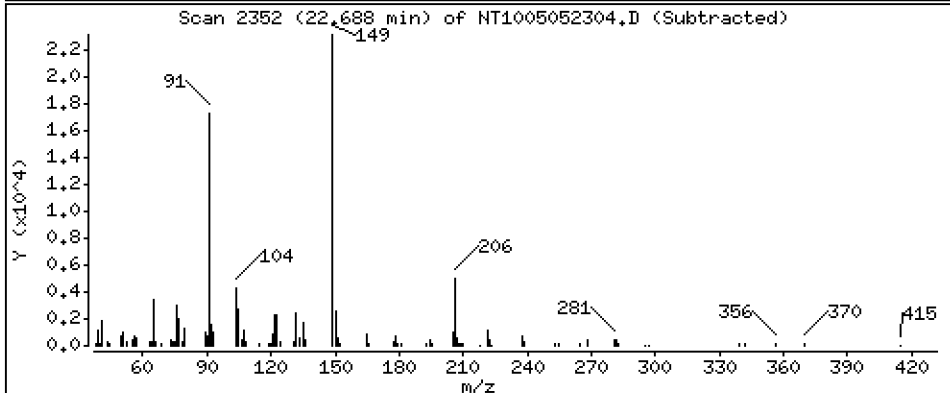
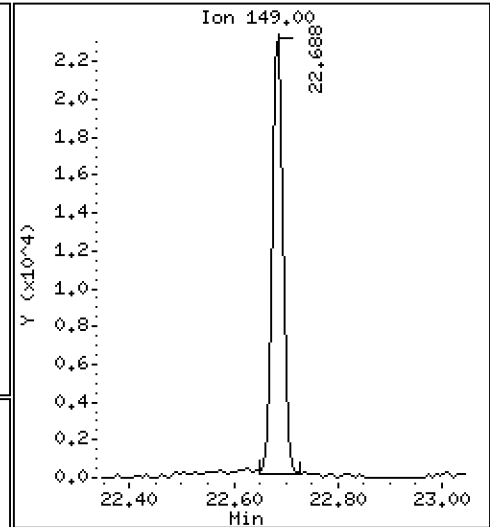
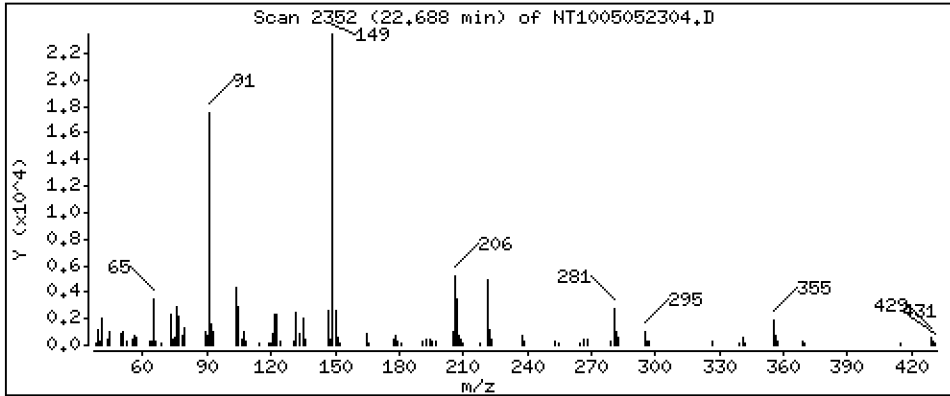
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.2605 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

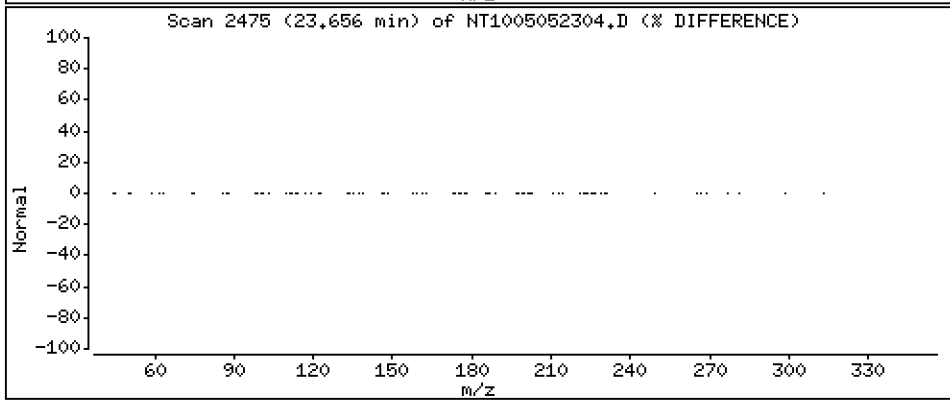
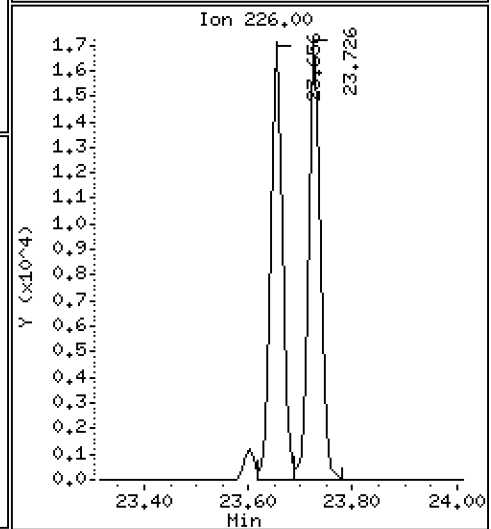
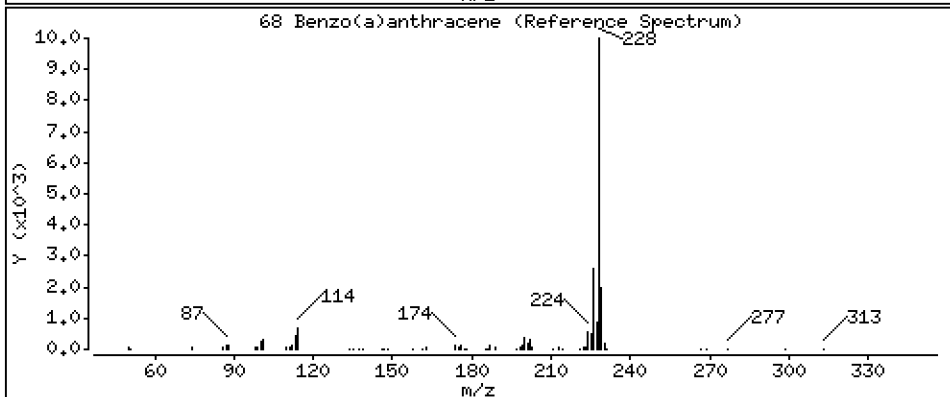
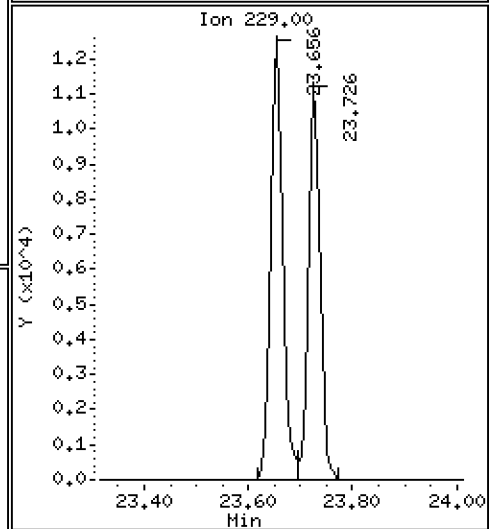
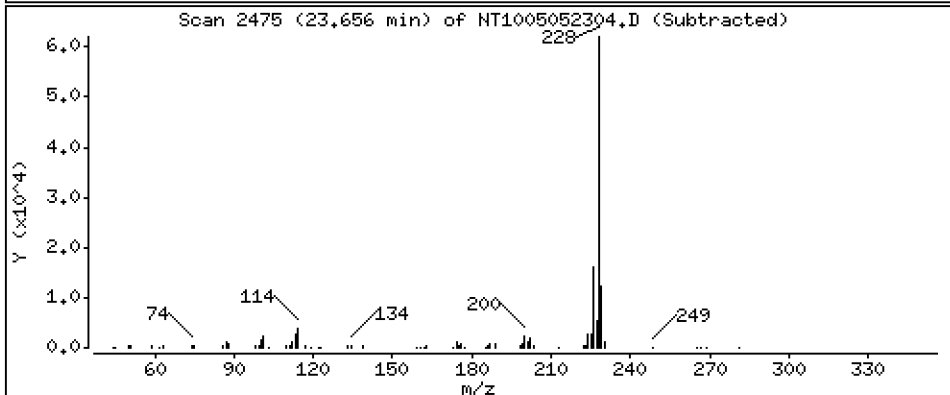
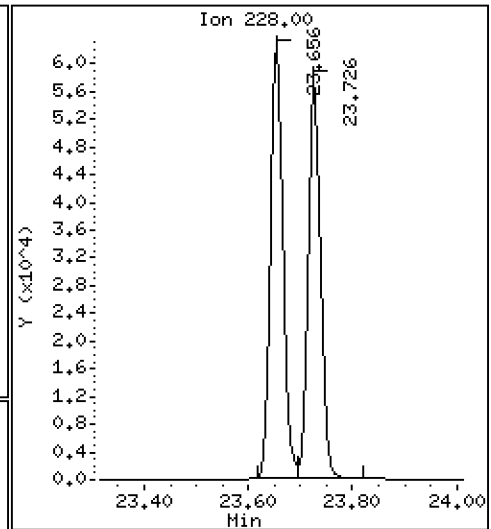
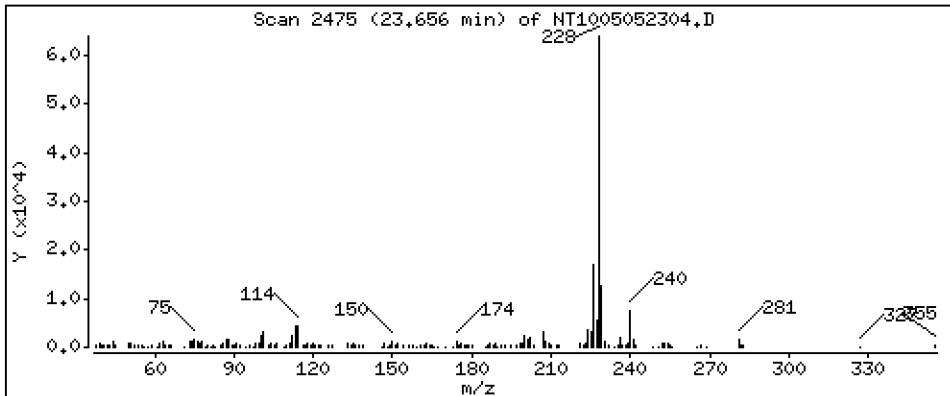
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,4338 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

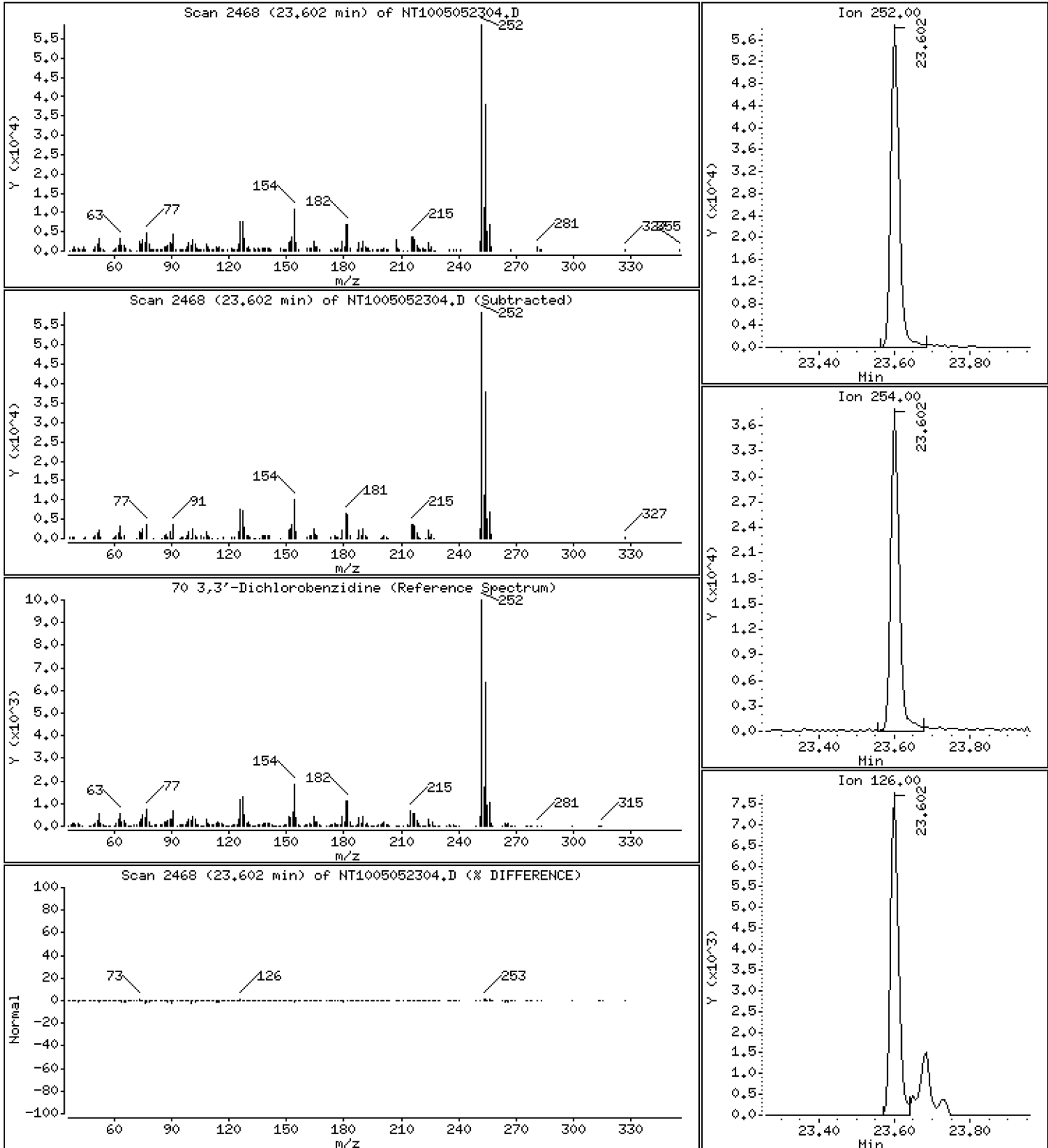
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,201 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

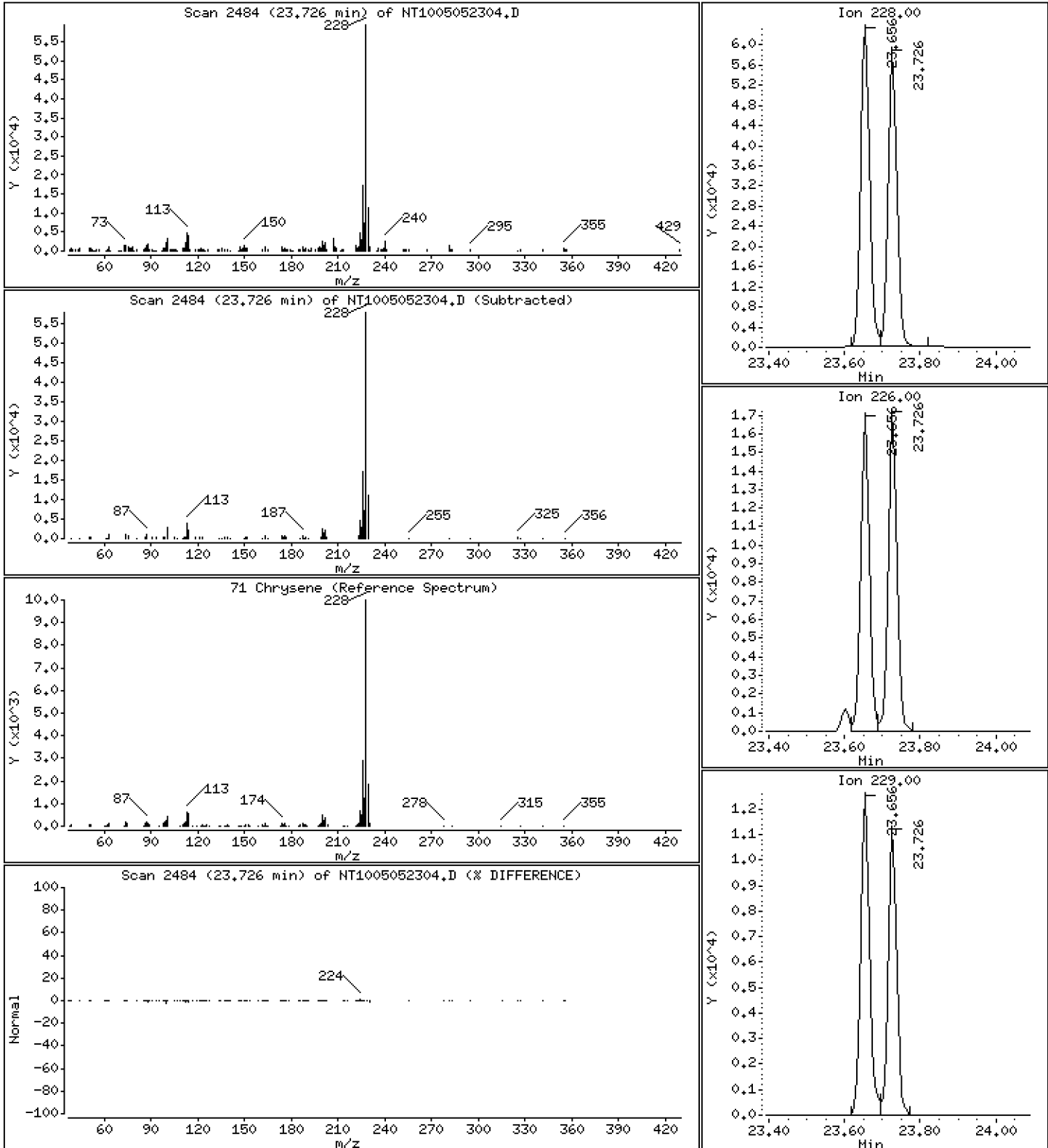
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,4506 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

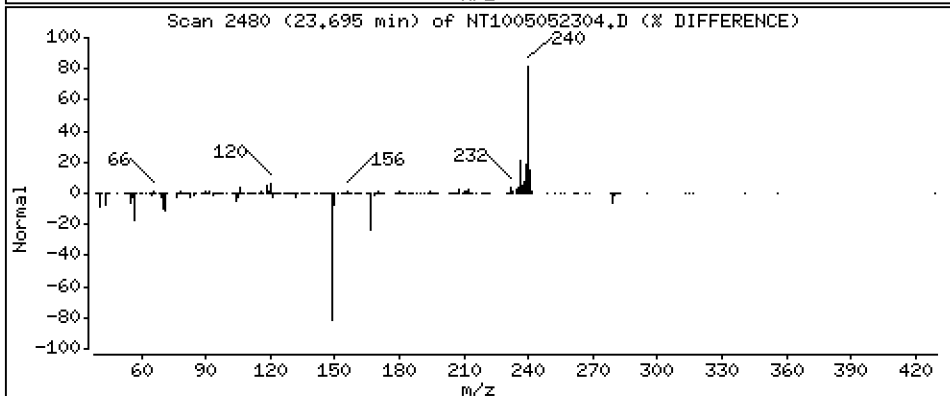
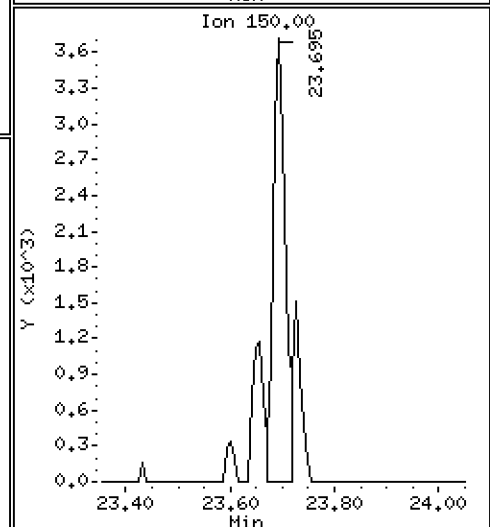
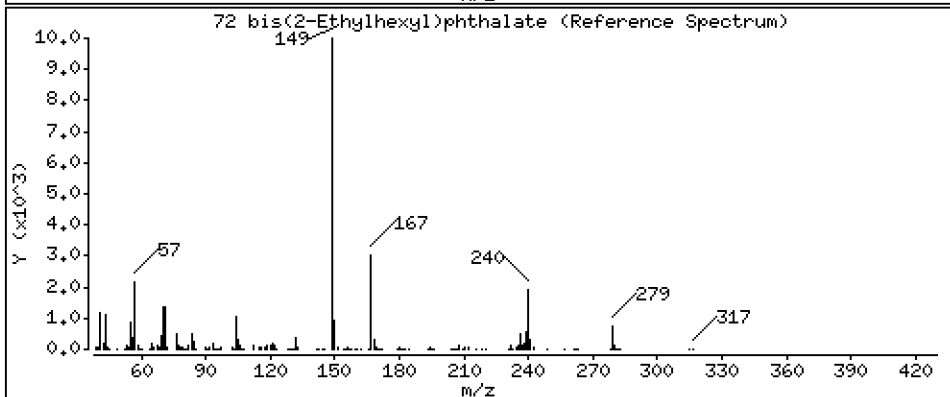
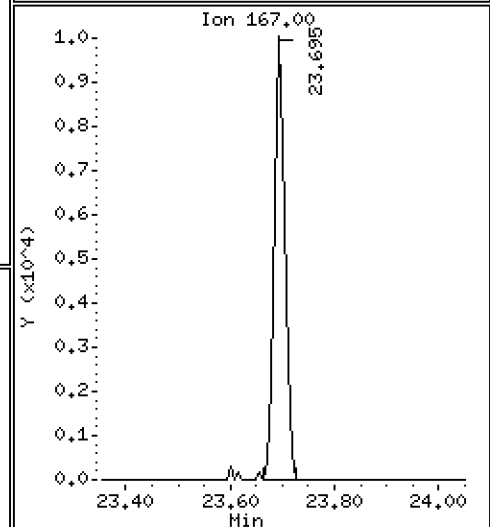
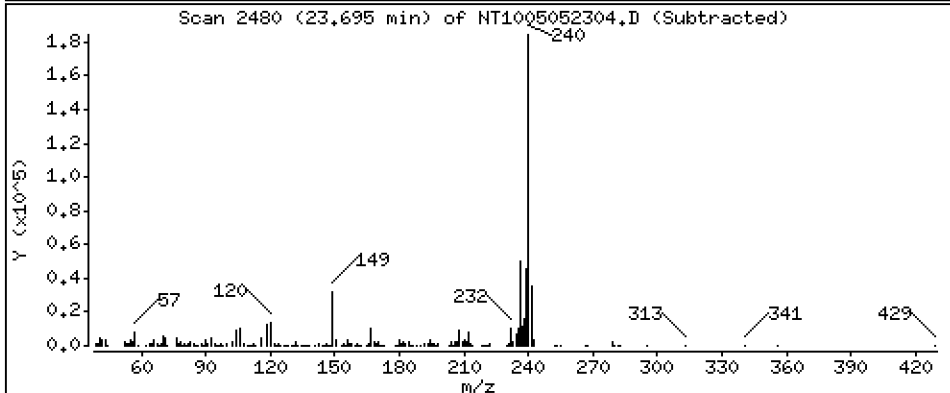
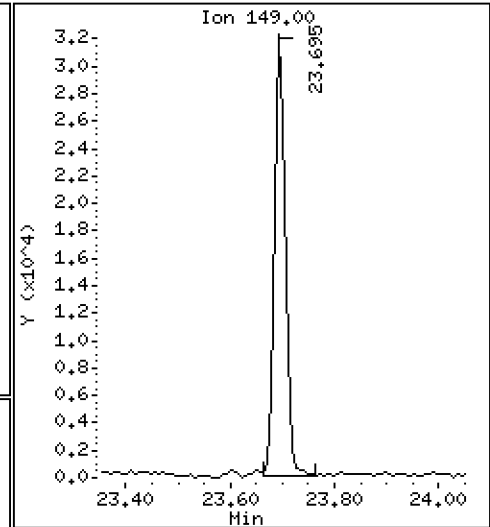
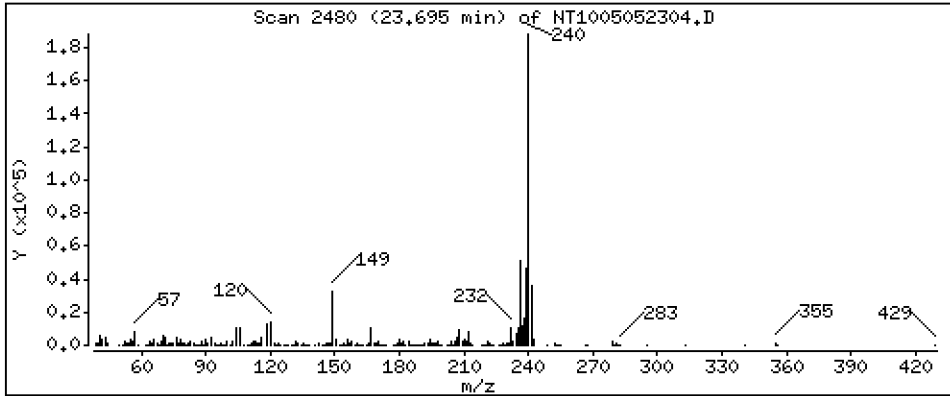
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,3823 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

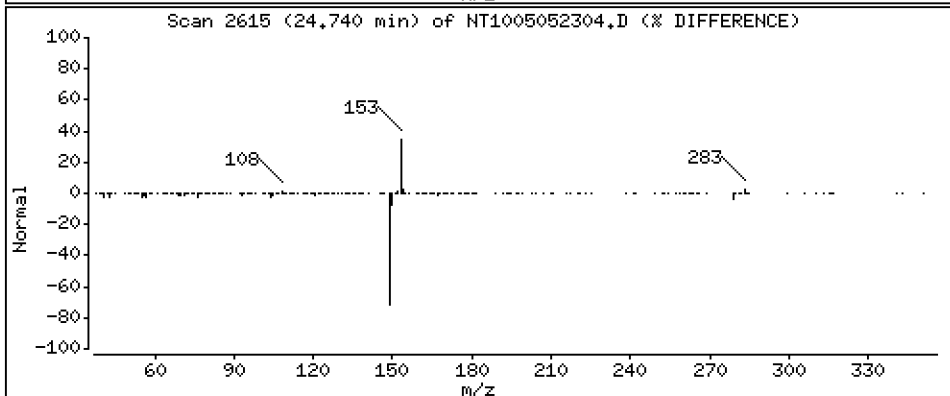
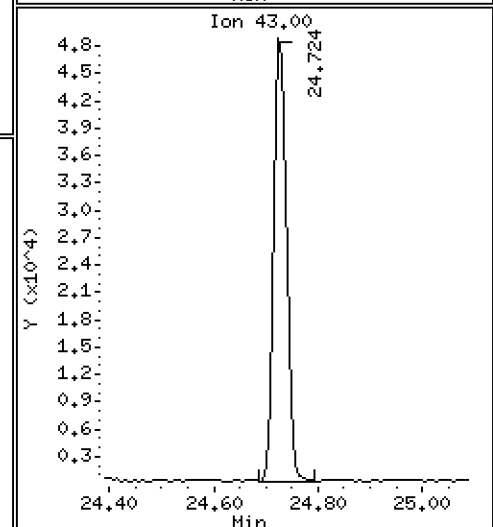
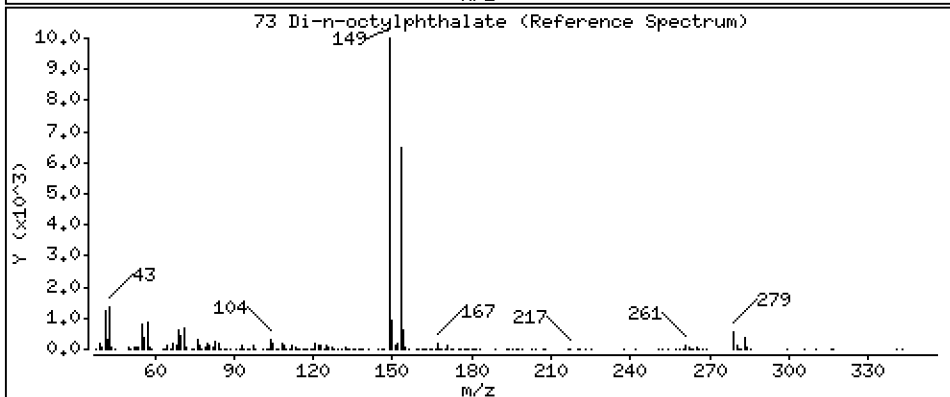
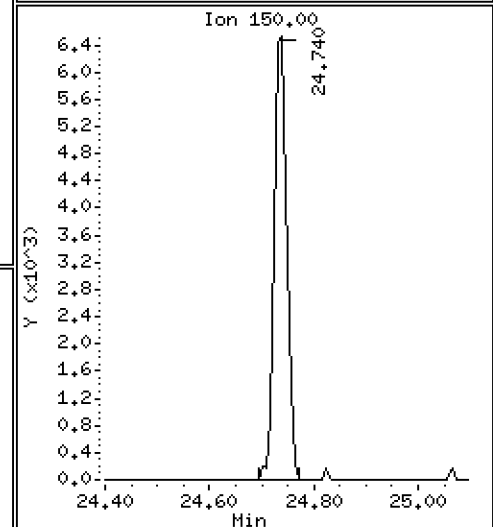
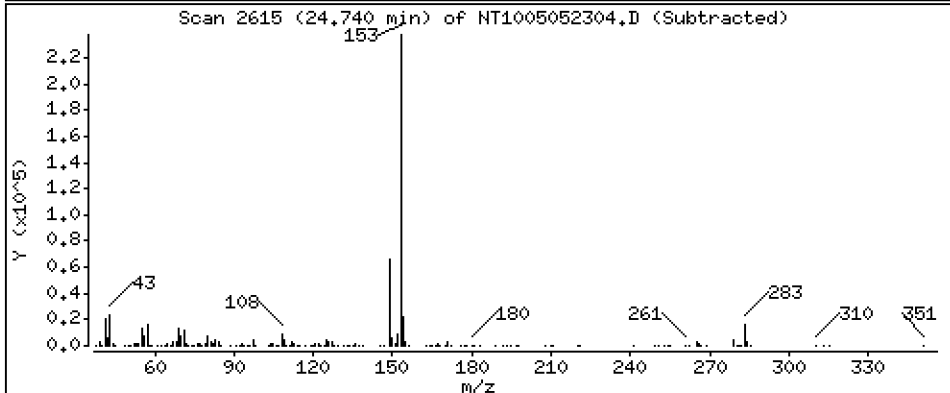
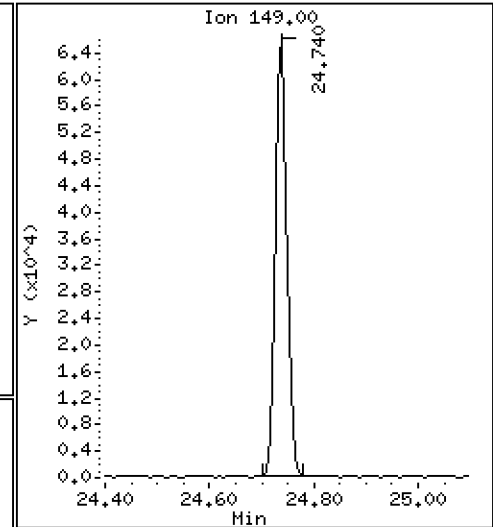
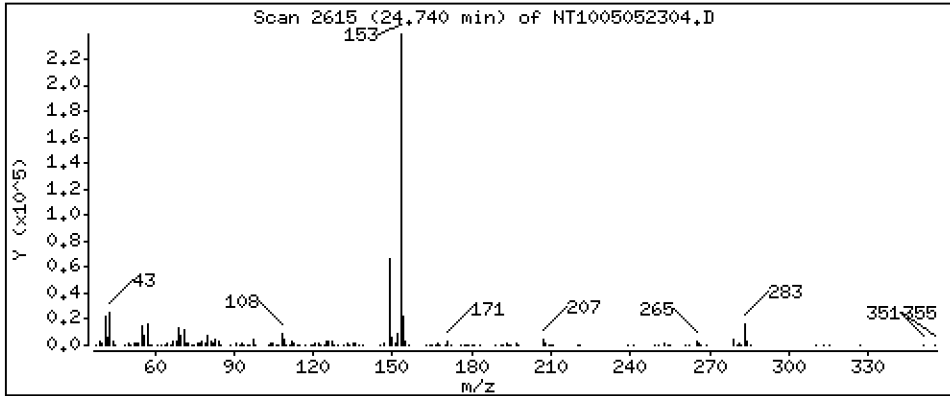
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,4660 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

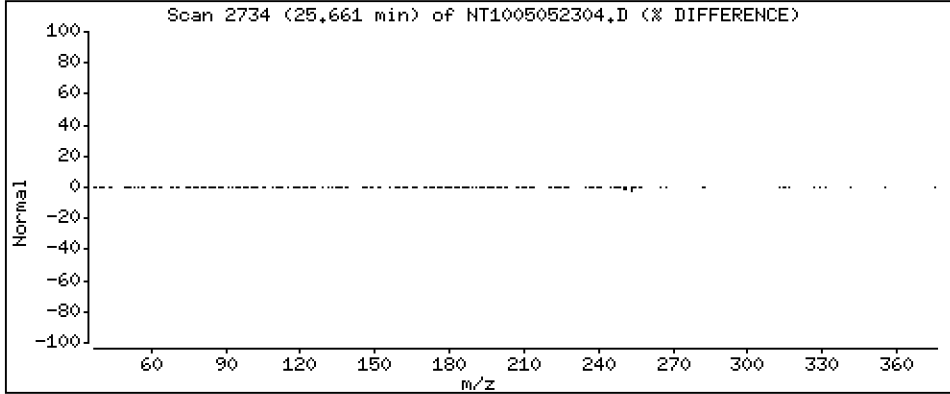
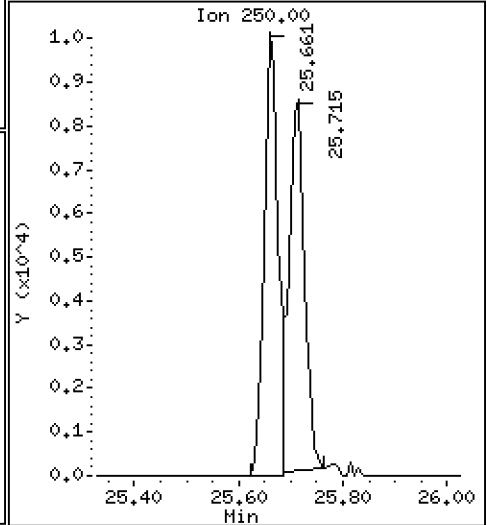
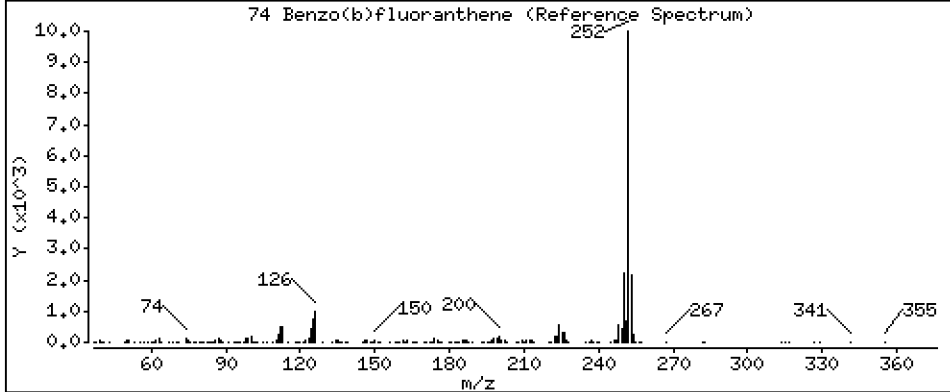
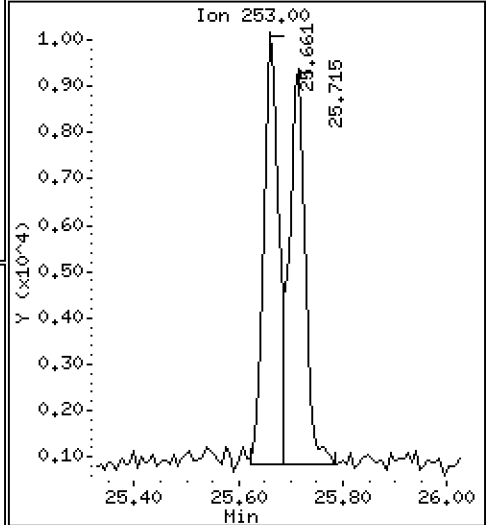
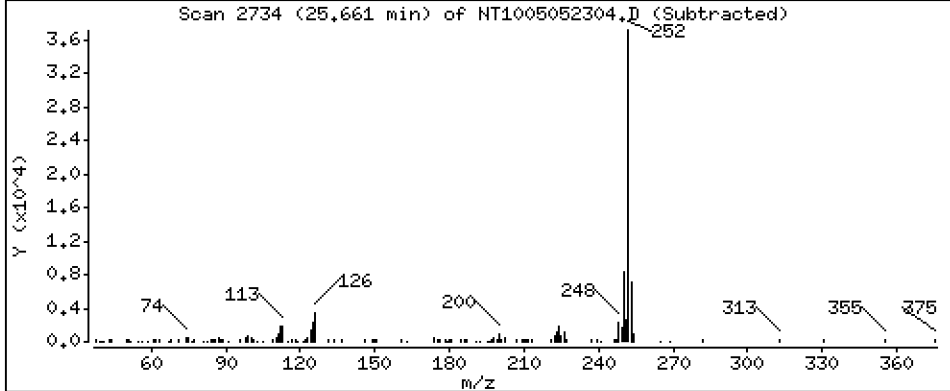
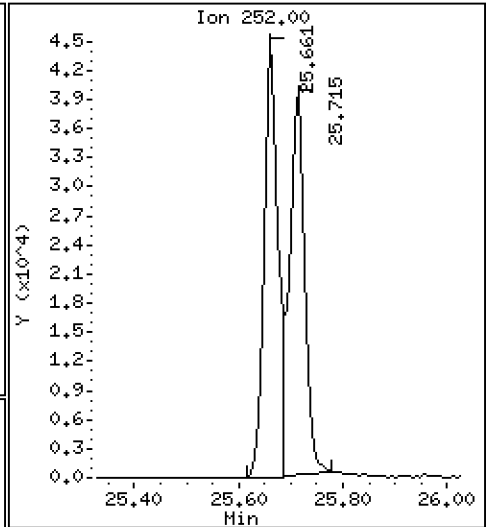
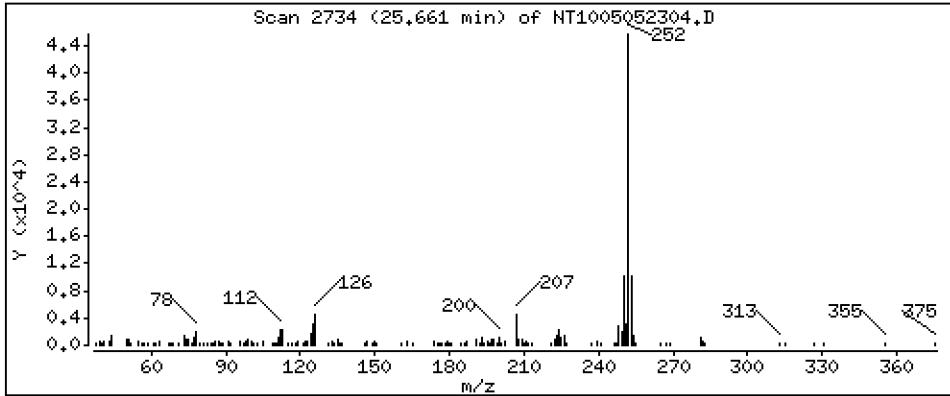
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,3897 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

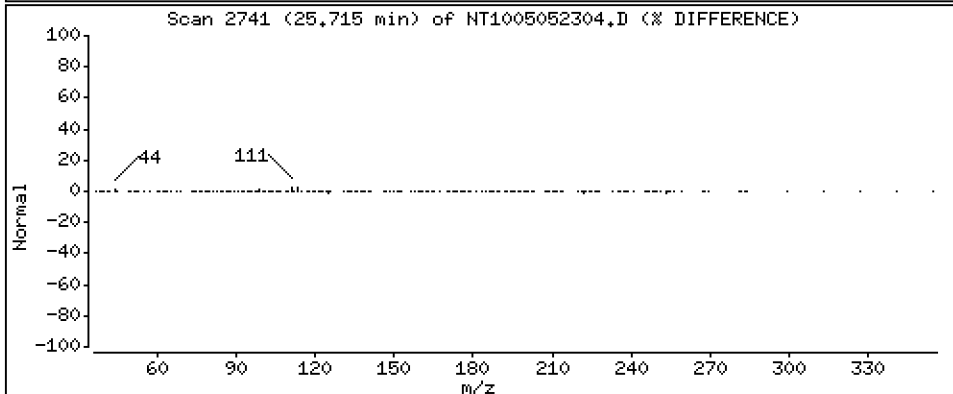
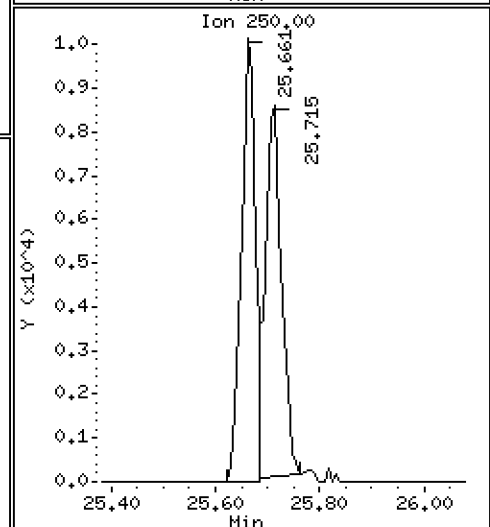
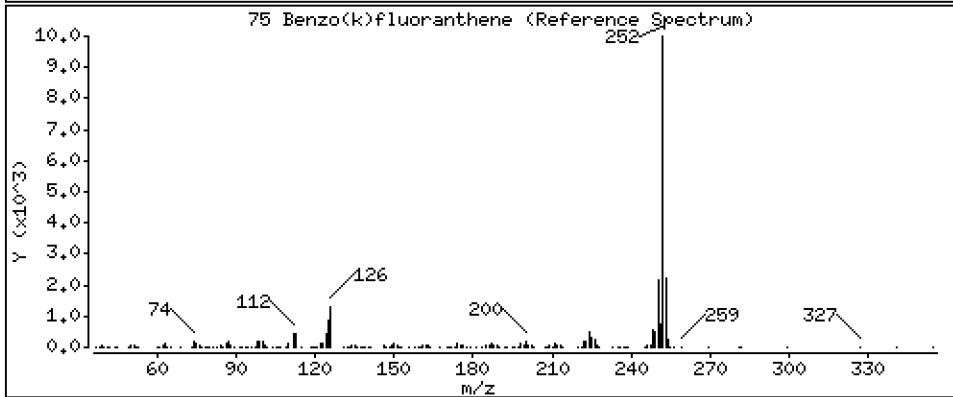
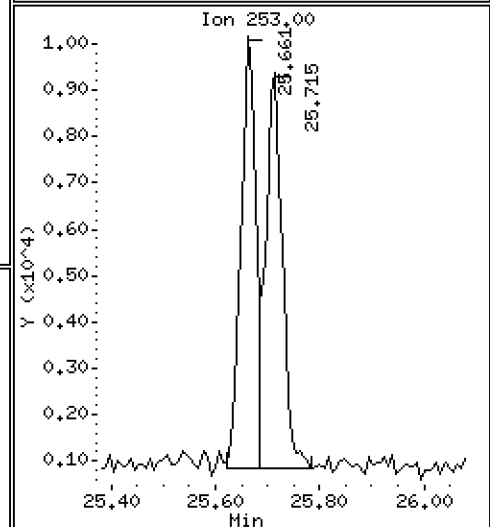
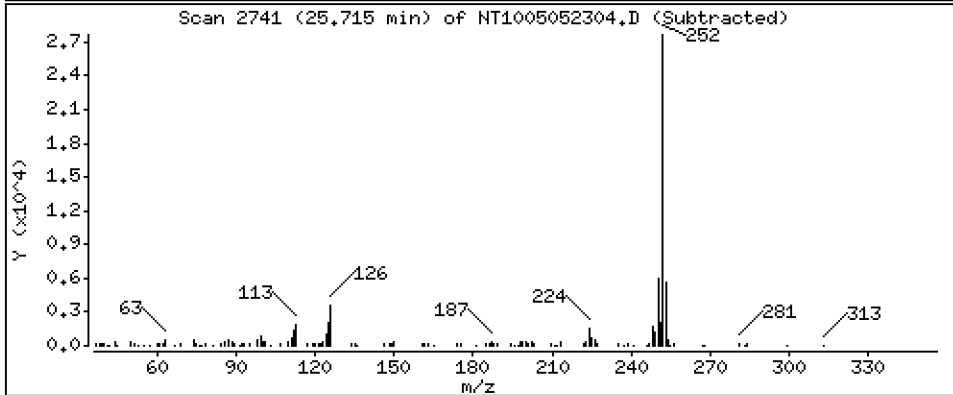
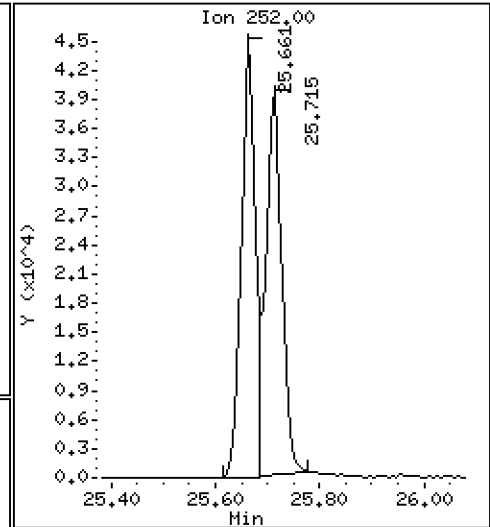
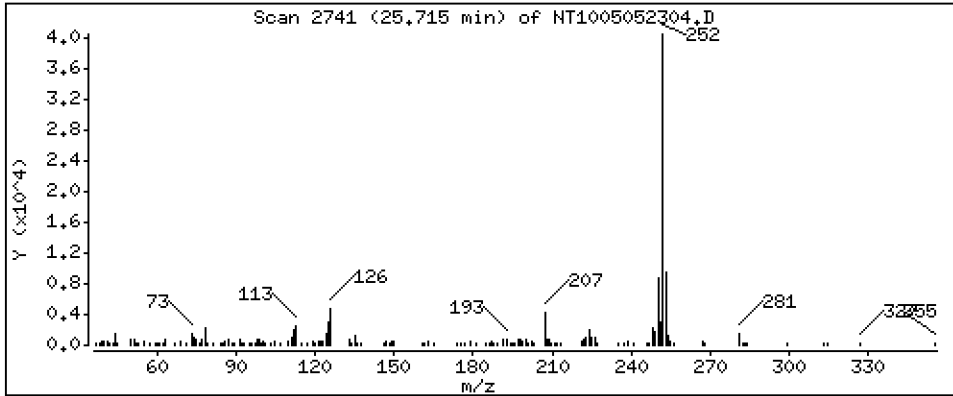
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,4113 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

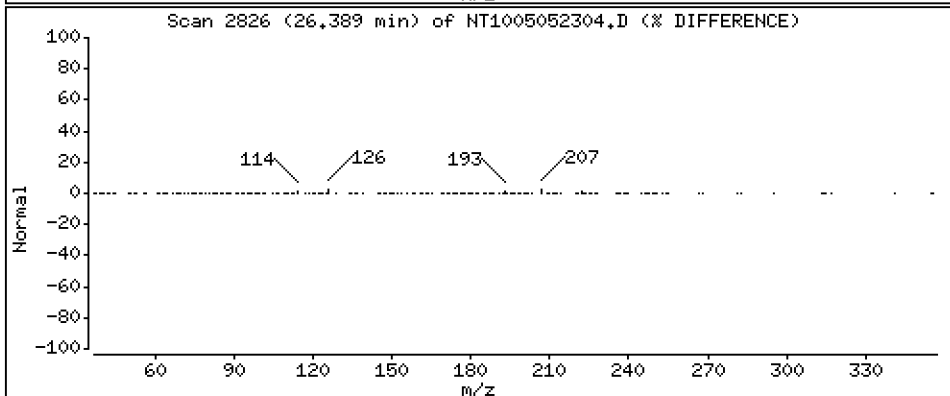
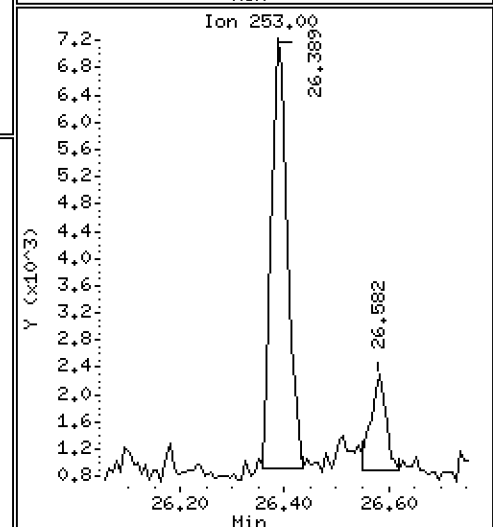
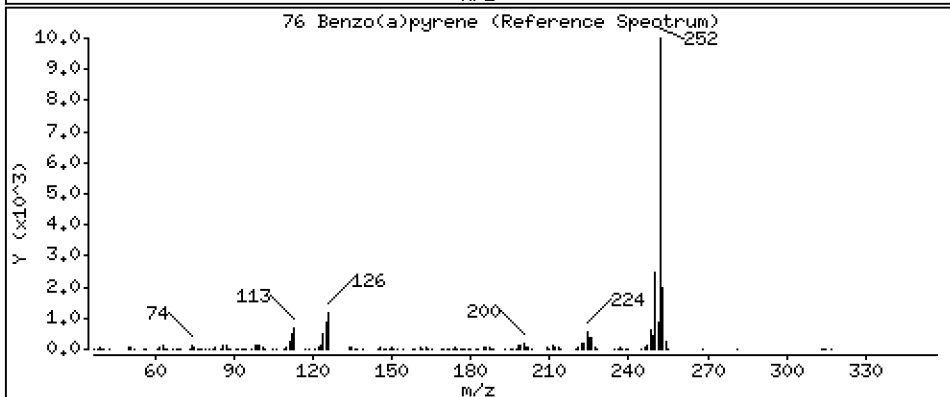
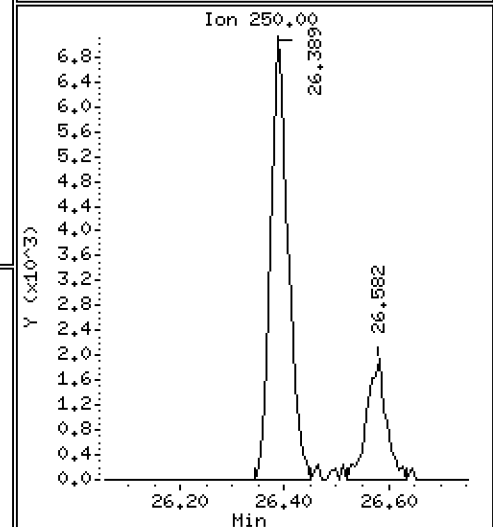
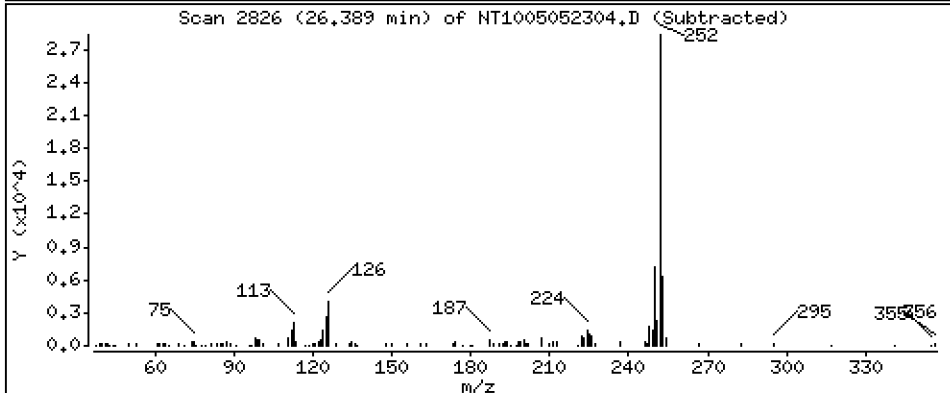
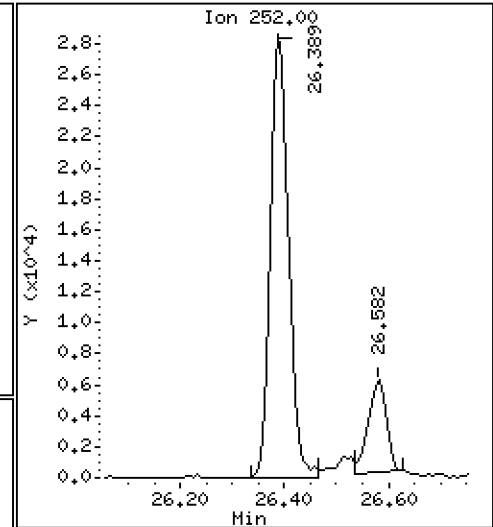
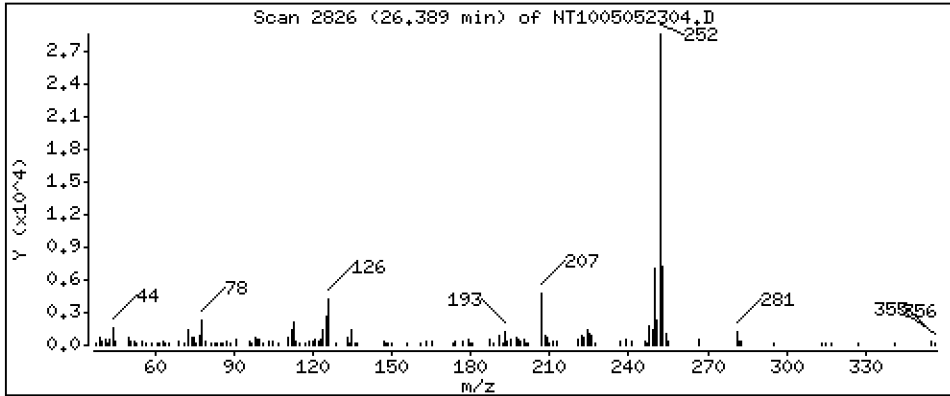
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,3831 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

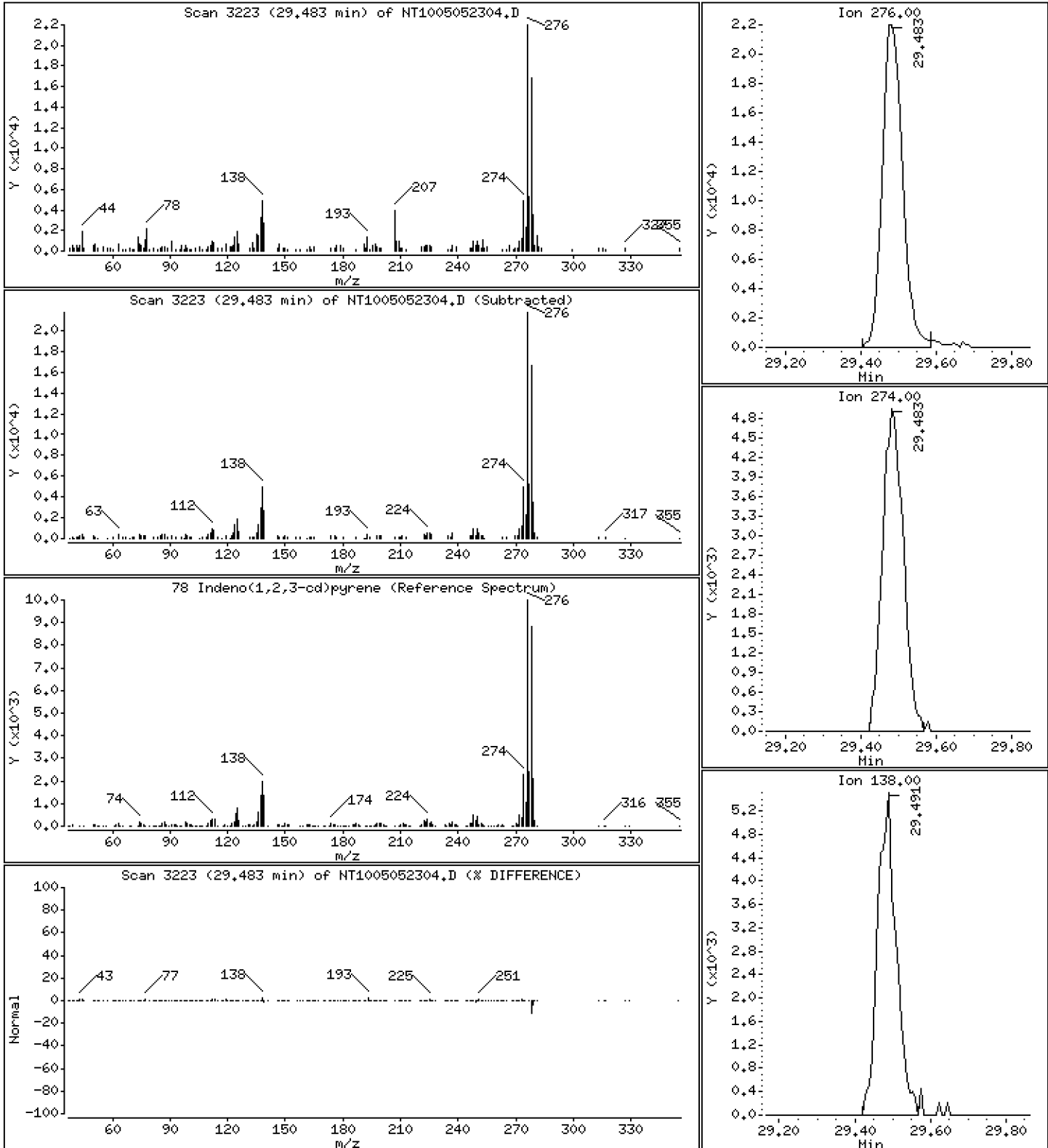
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,3805 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

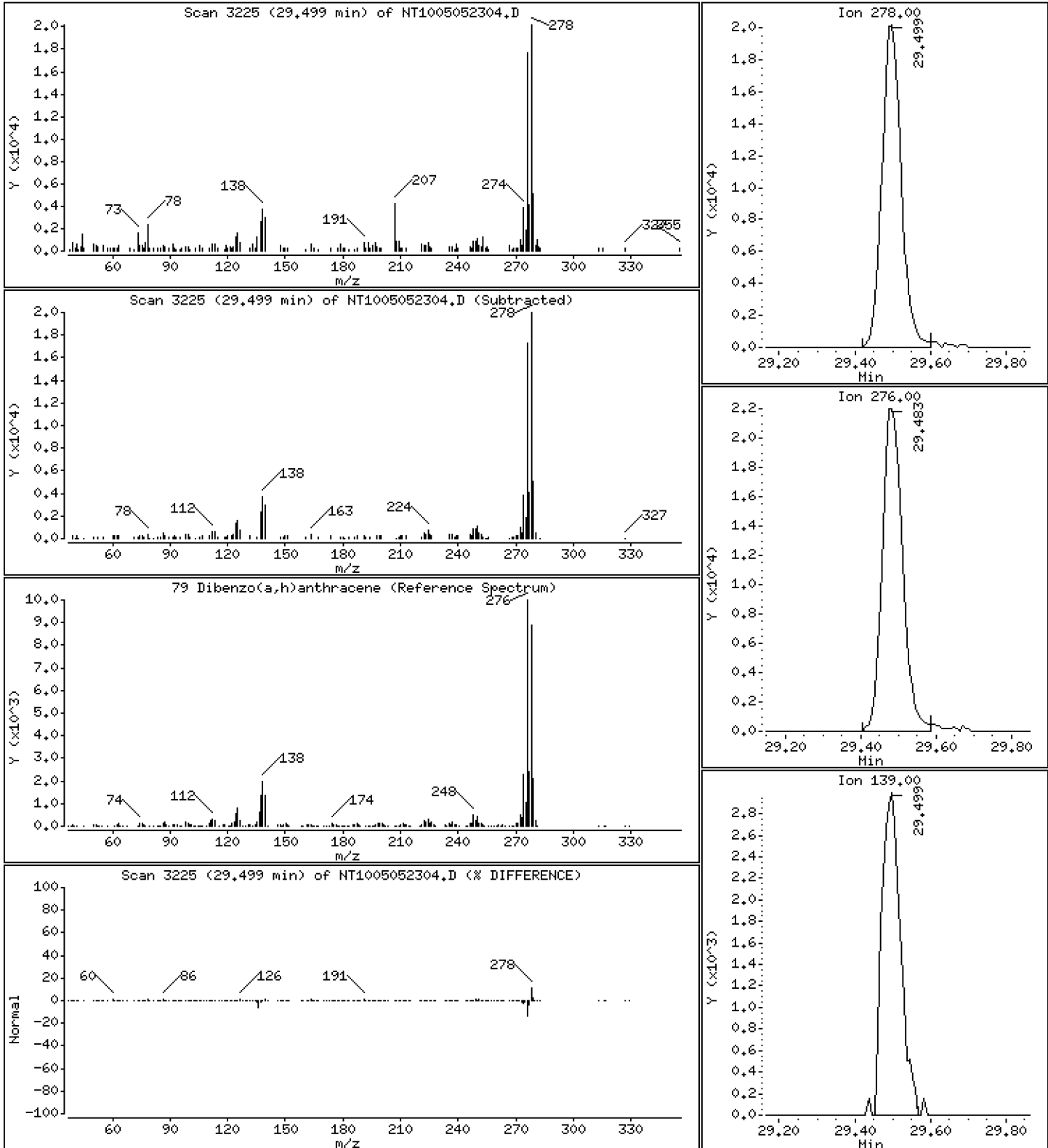
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,3934 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

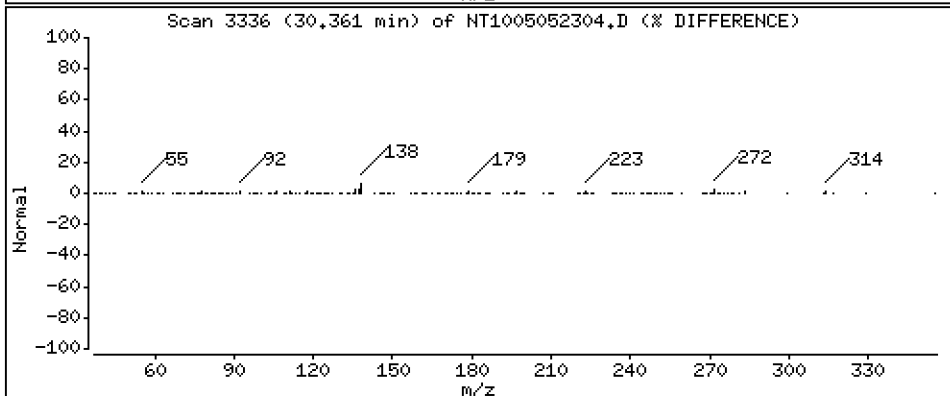
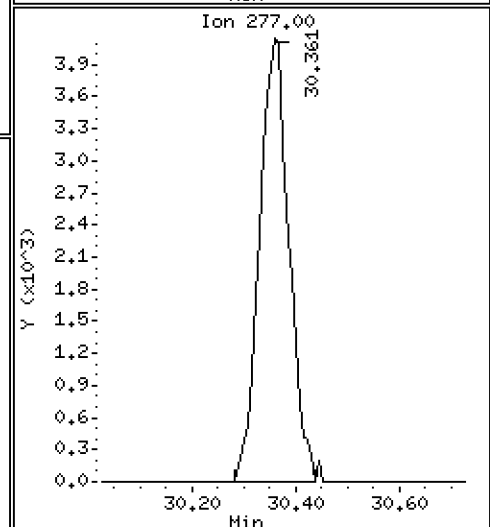
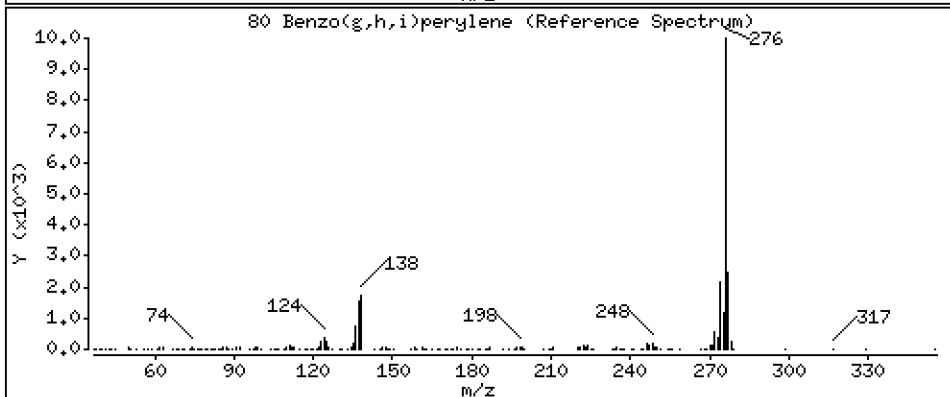
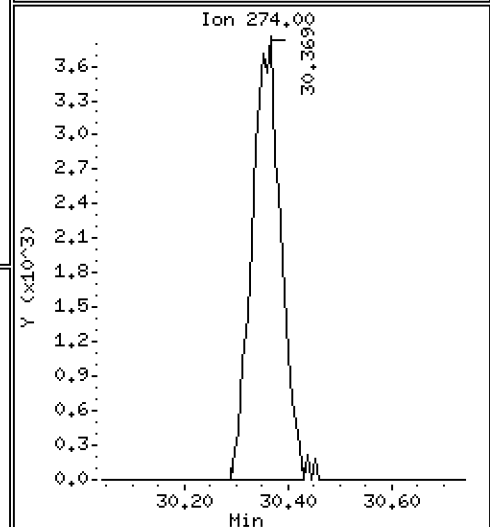
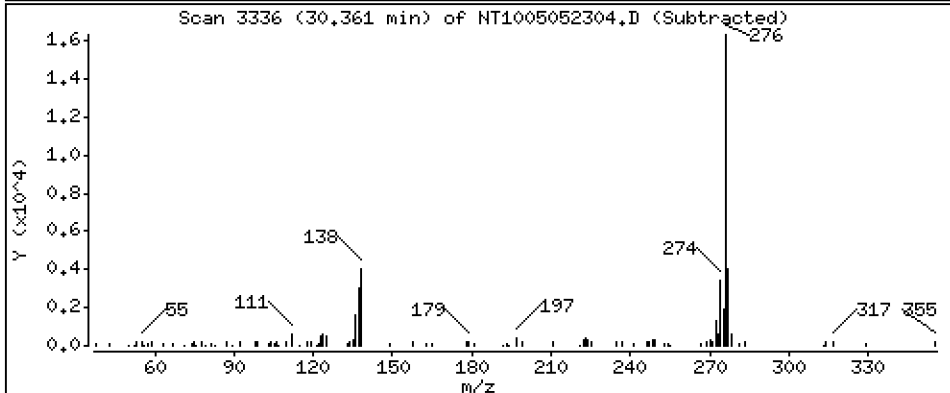
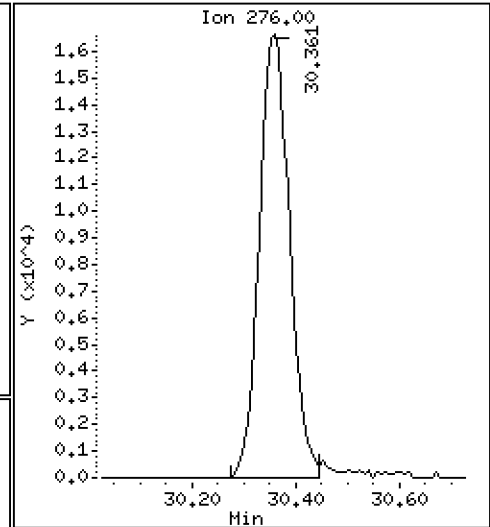
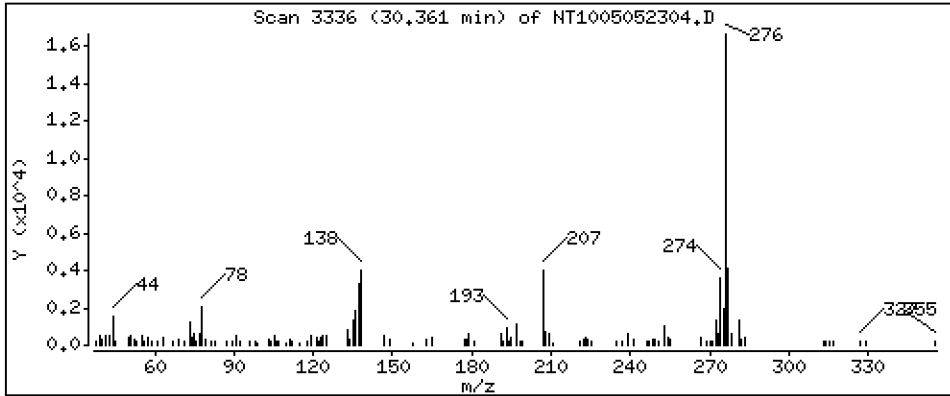
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,3948 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

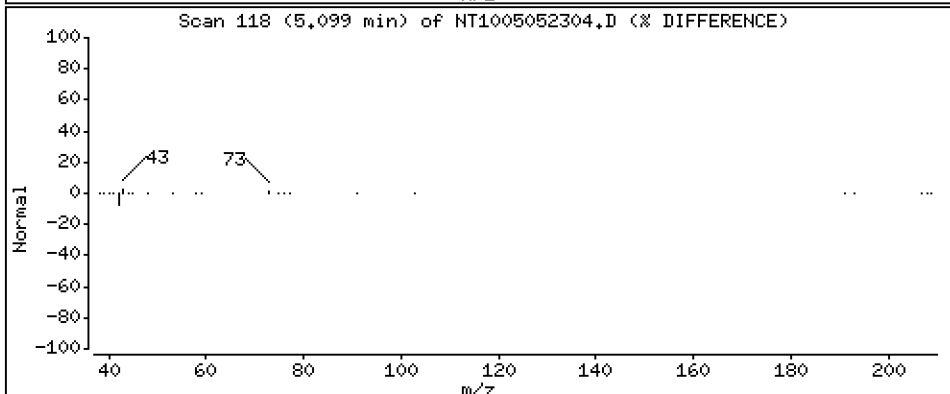
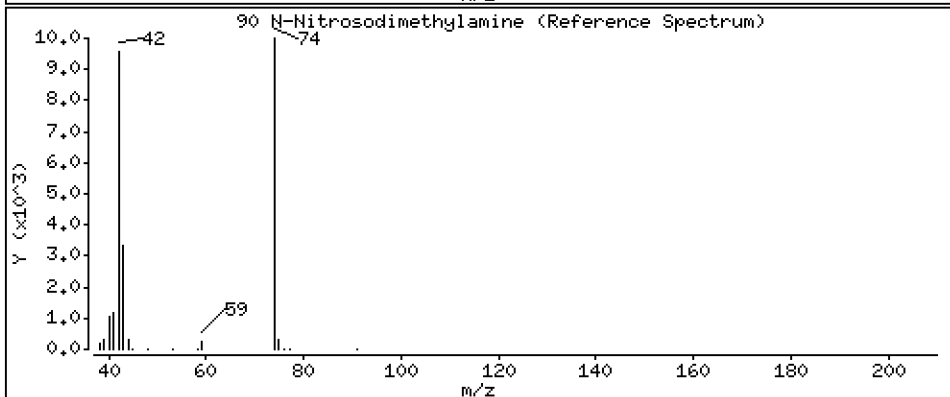
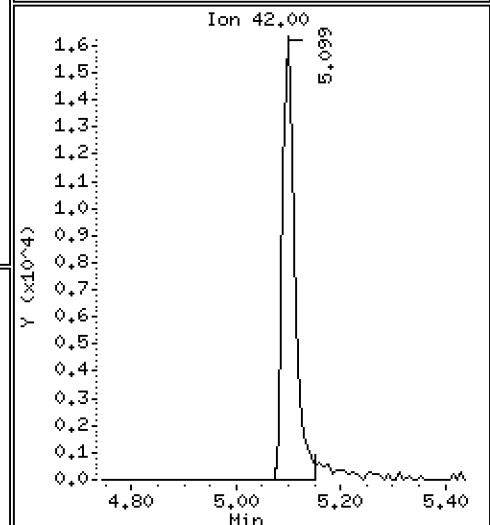
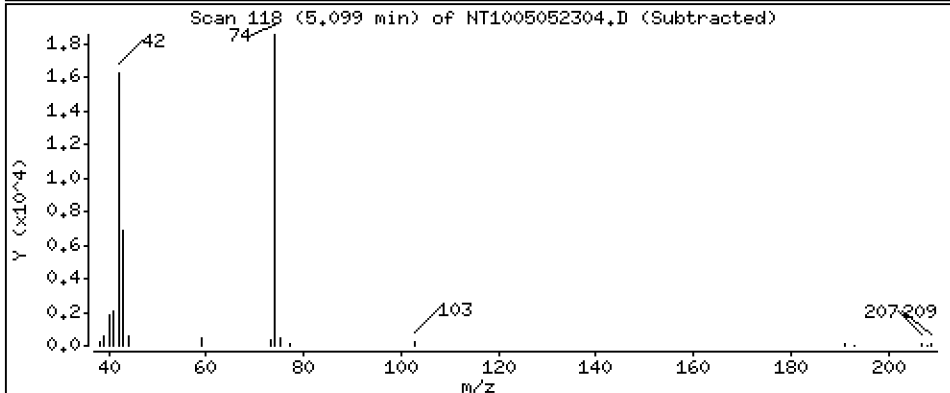
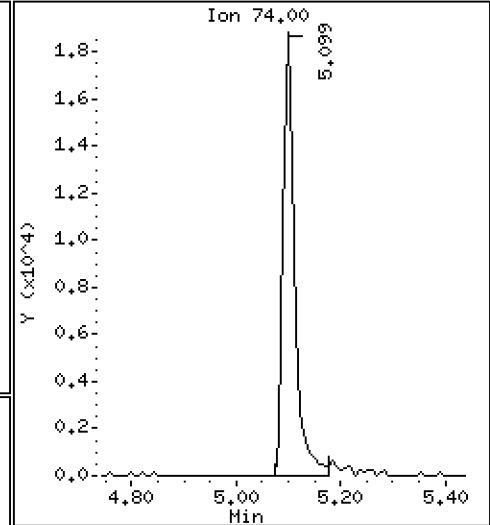
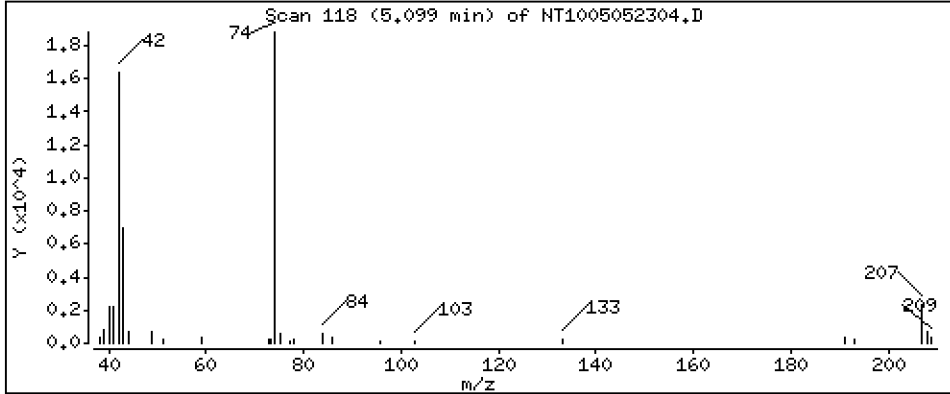
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,8374 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

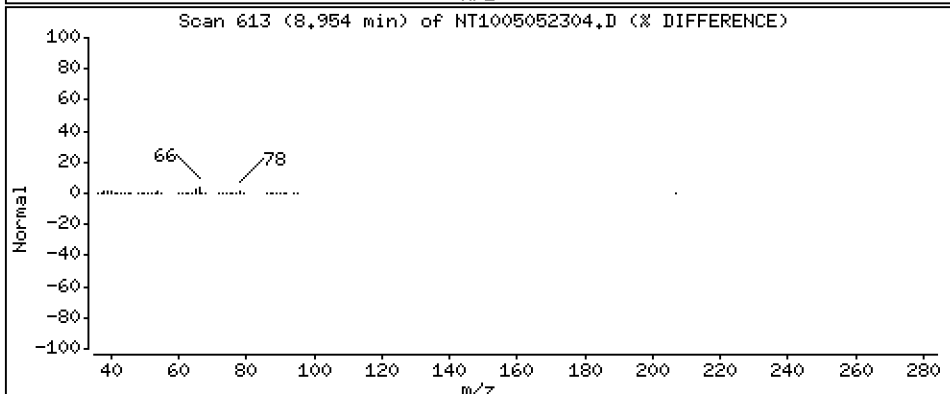
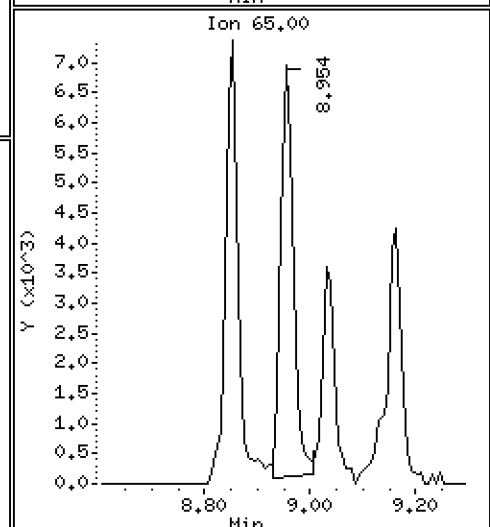
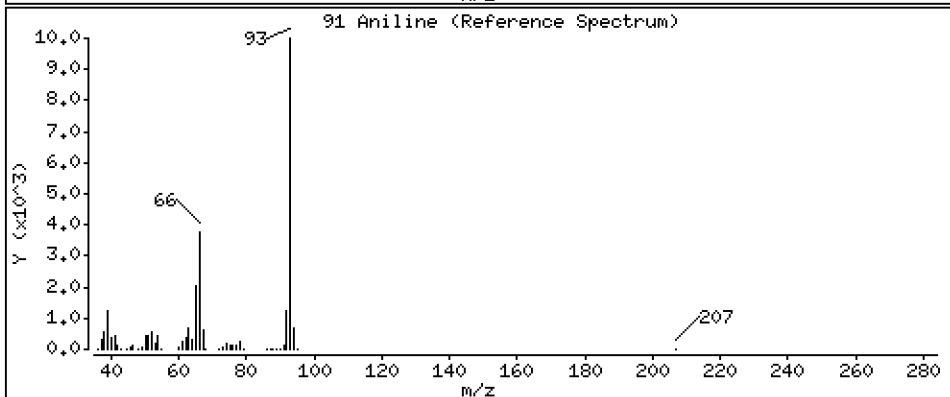
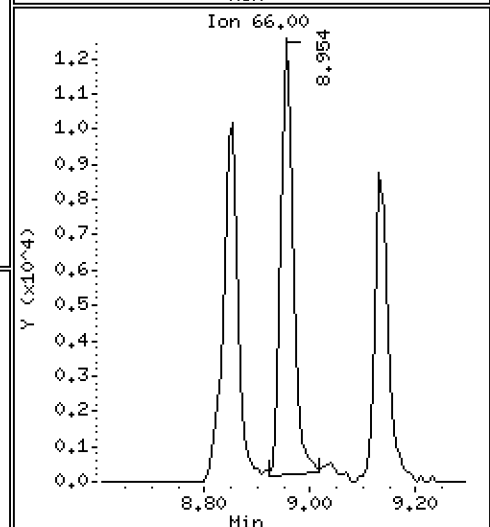
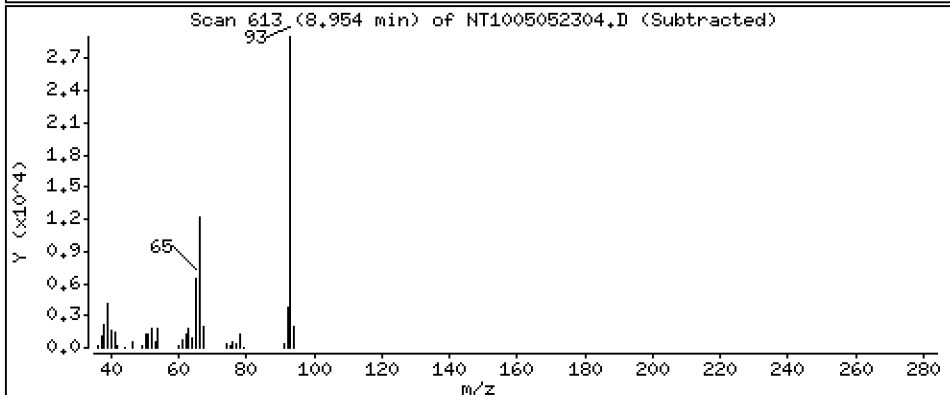
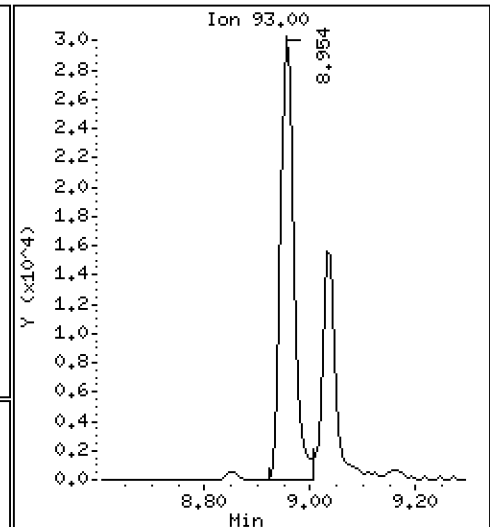
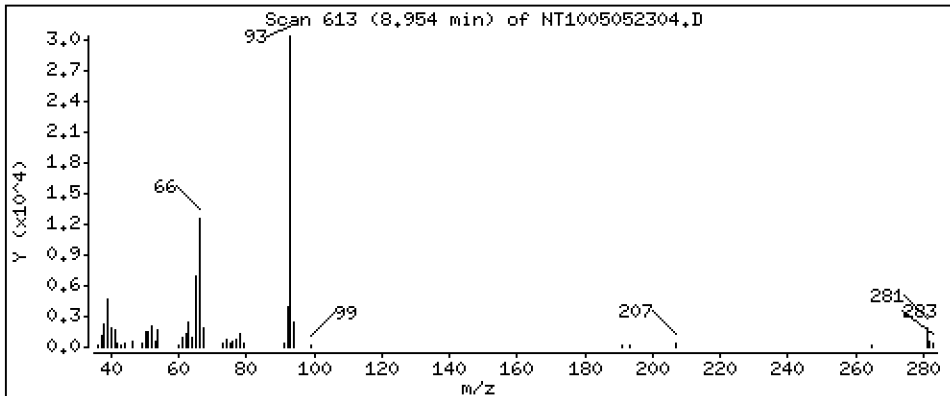
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 0.8020 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

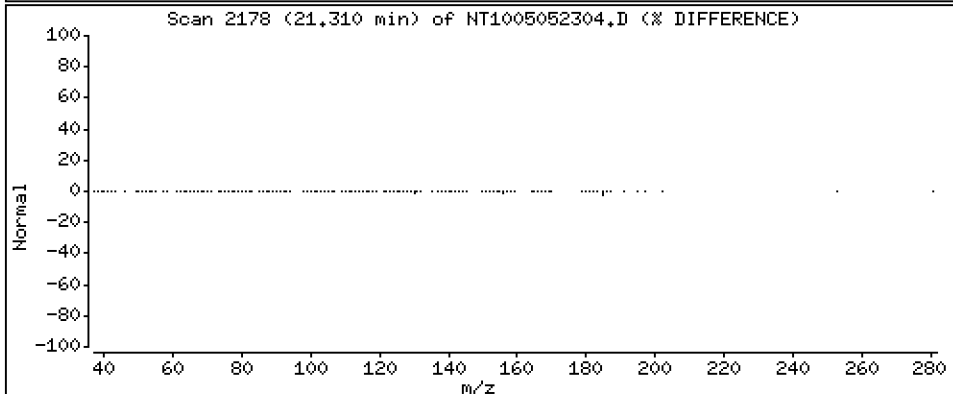
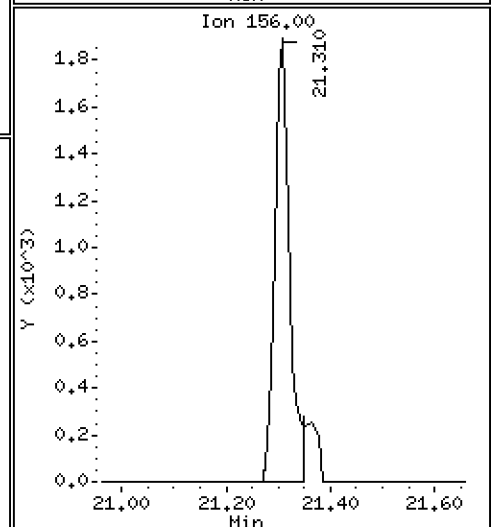
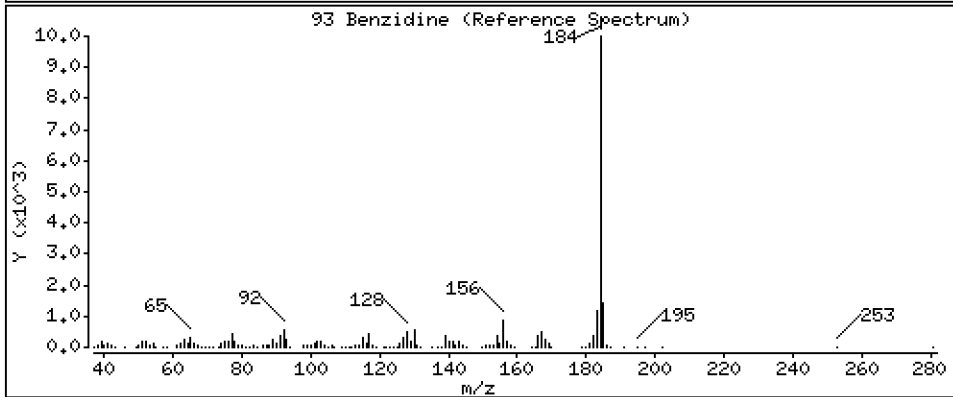
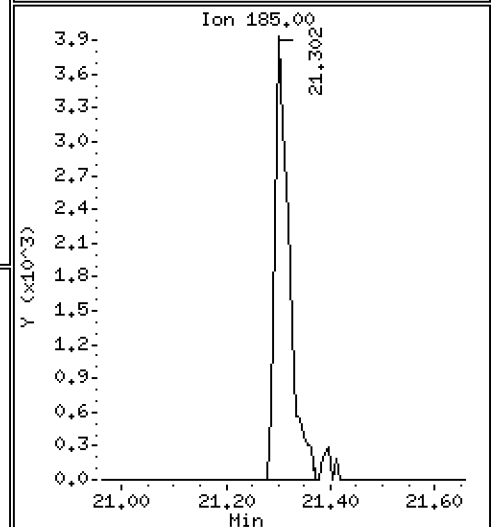
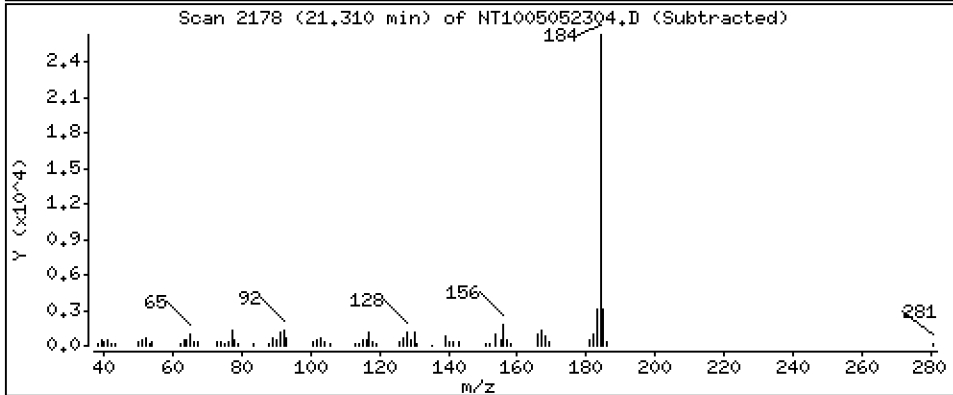
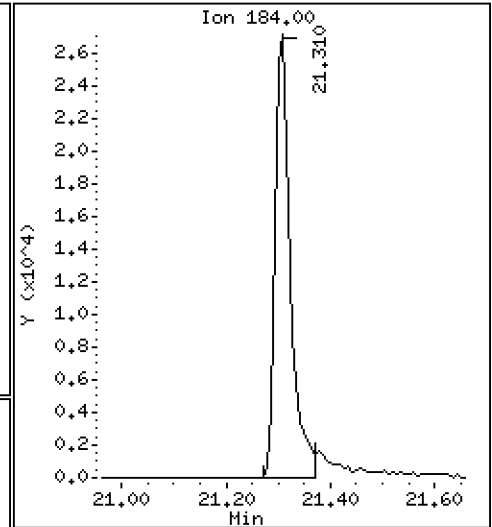
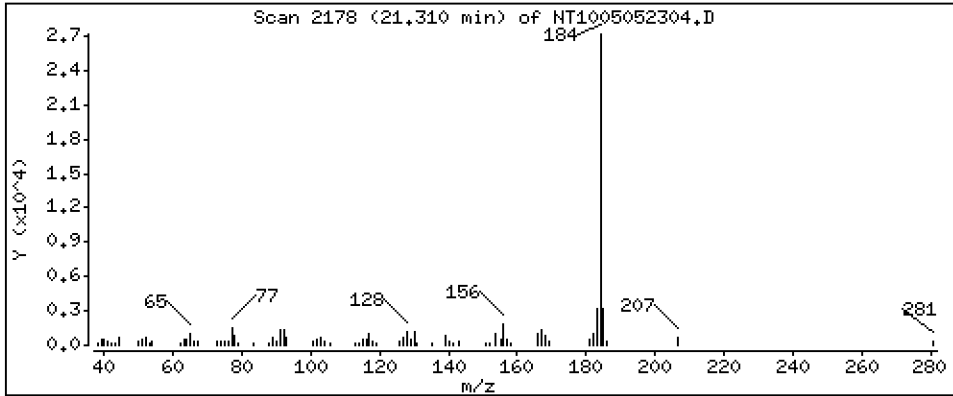
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 0,5831 ug/mL

93 Benzidine



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

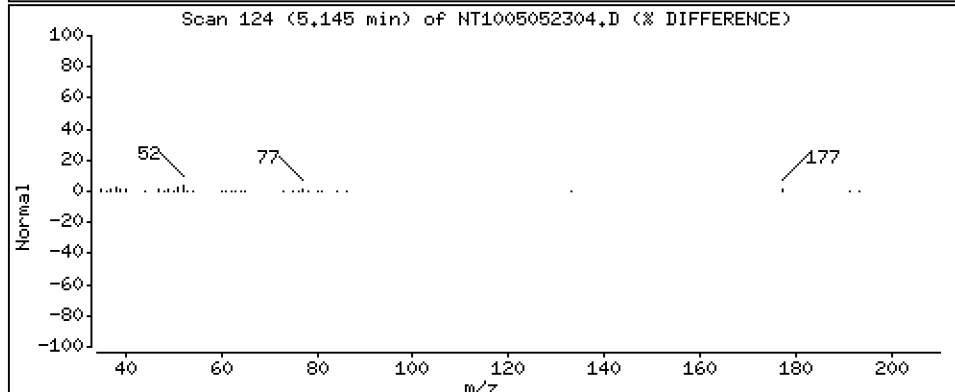
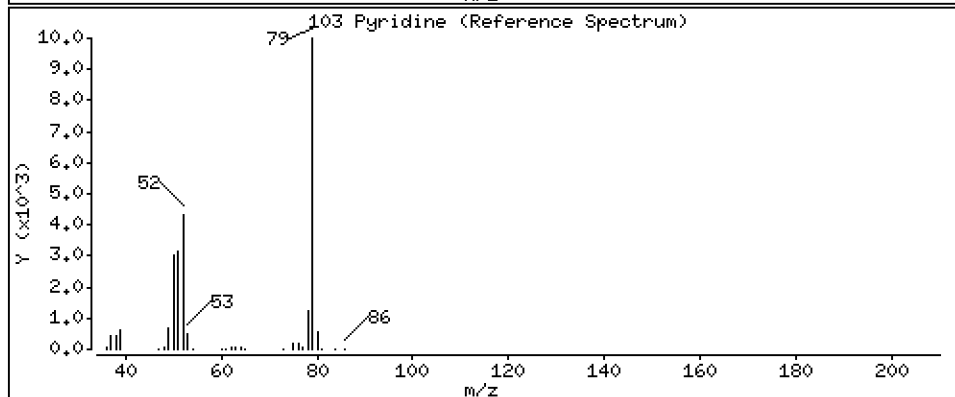
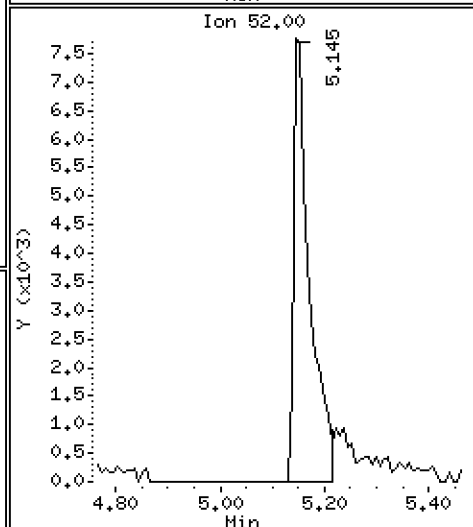
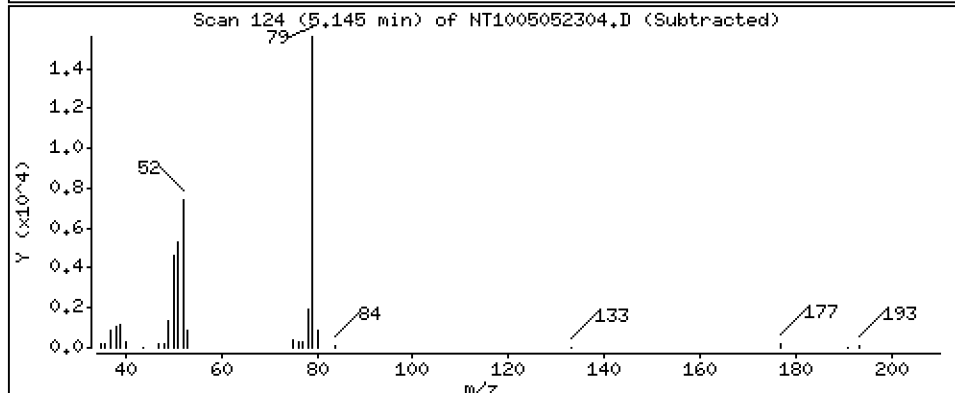
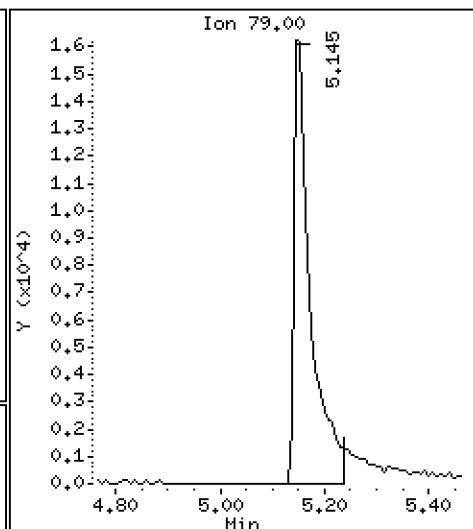
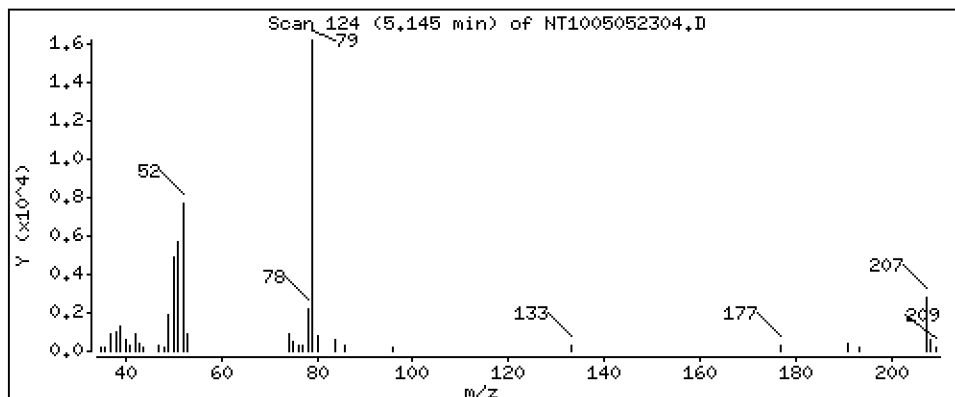
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,7089 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

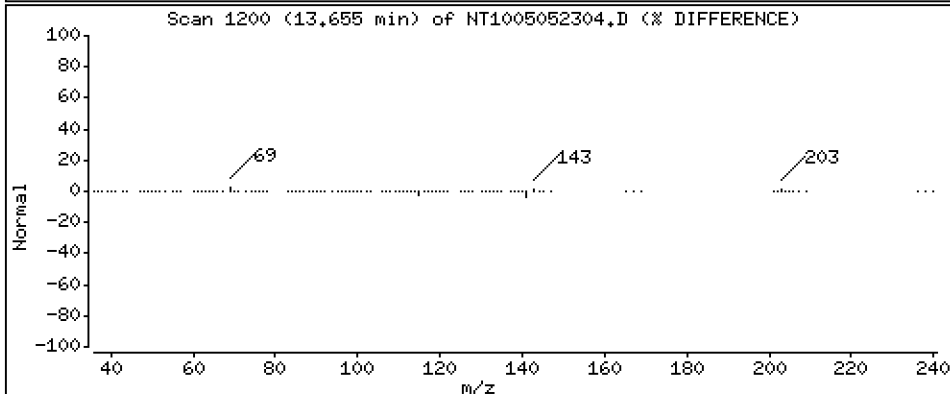
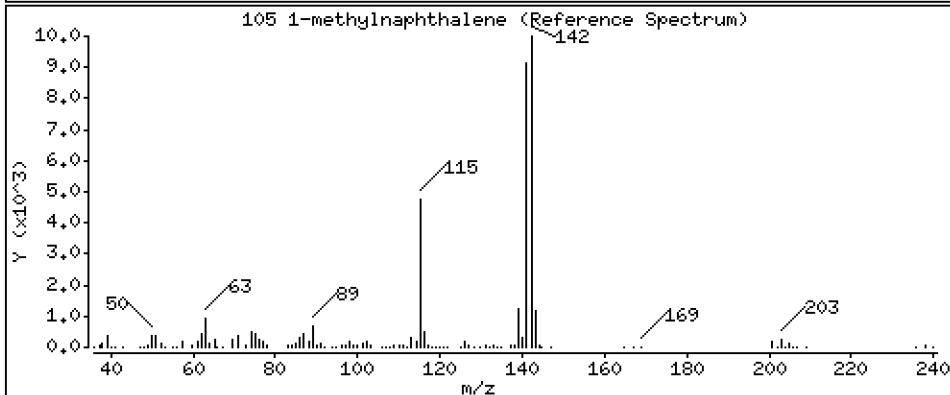
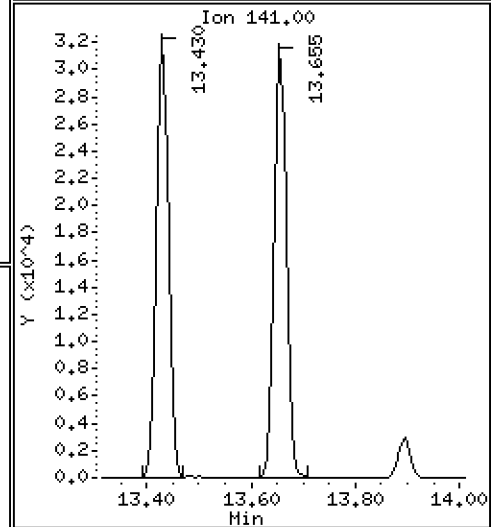
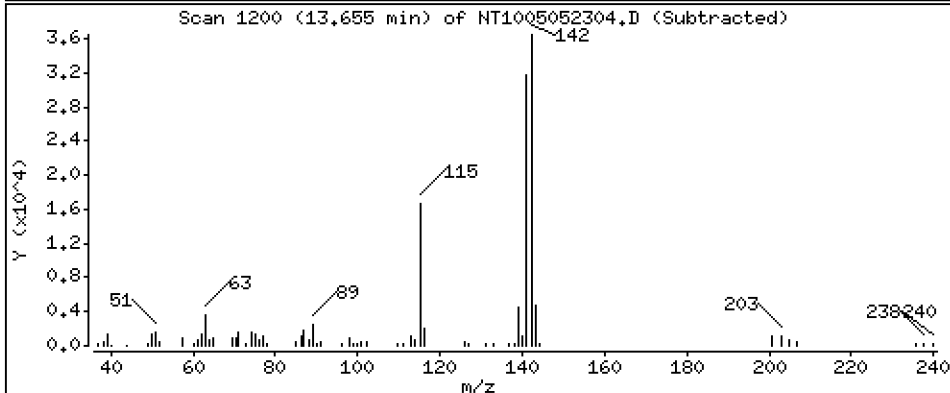
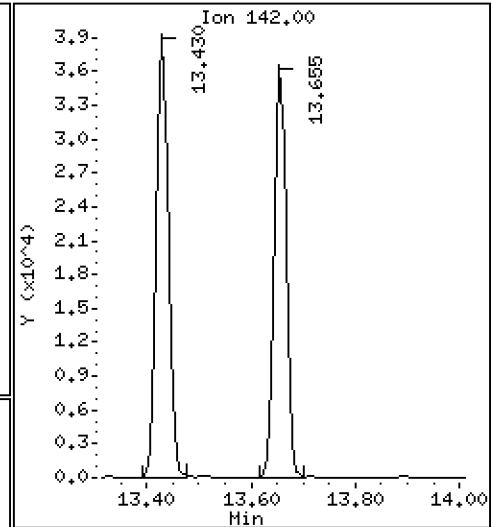
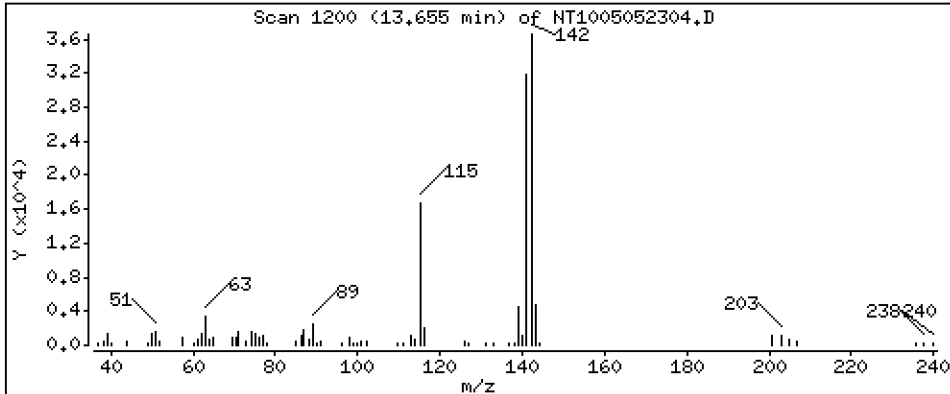
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,4315 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

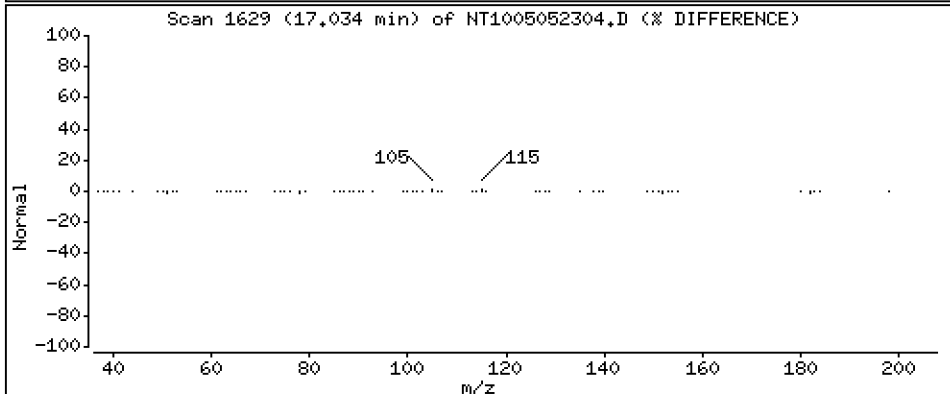
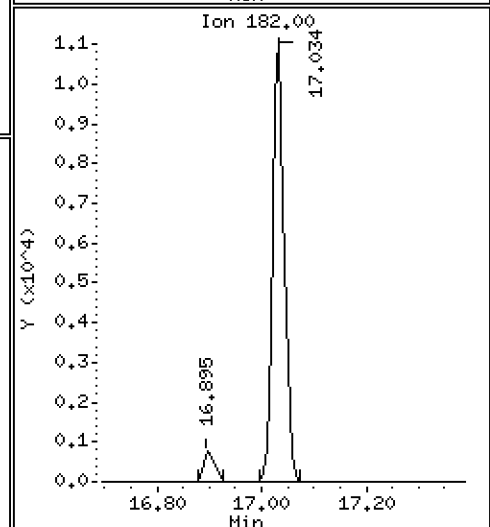
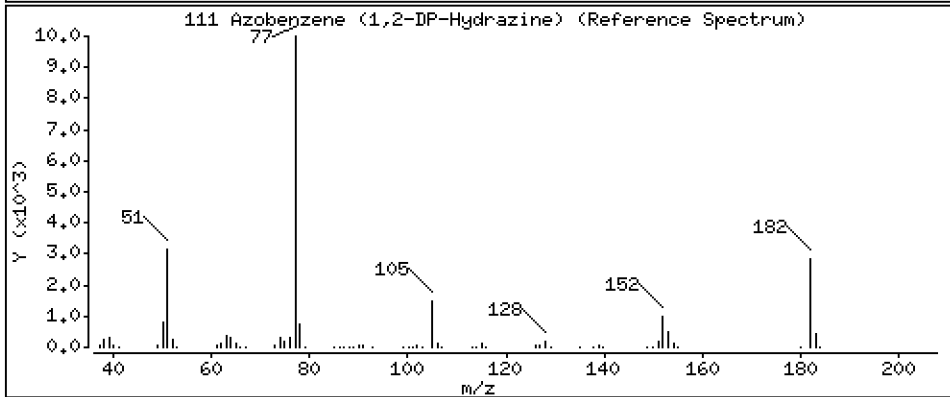
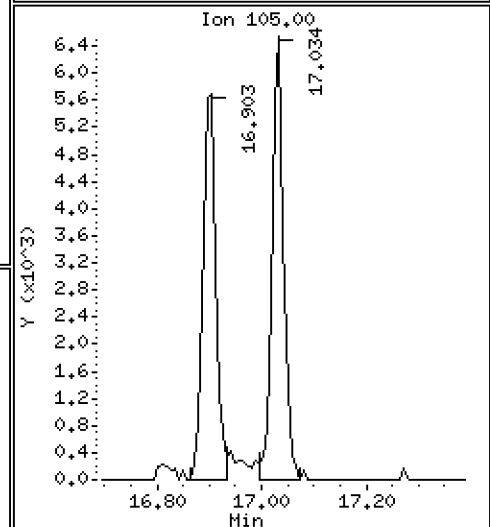
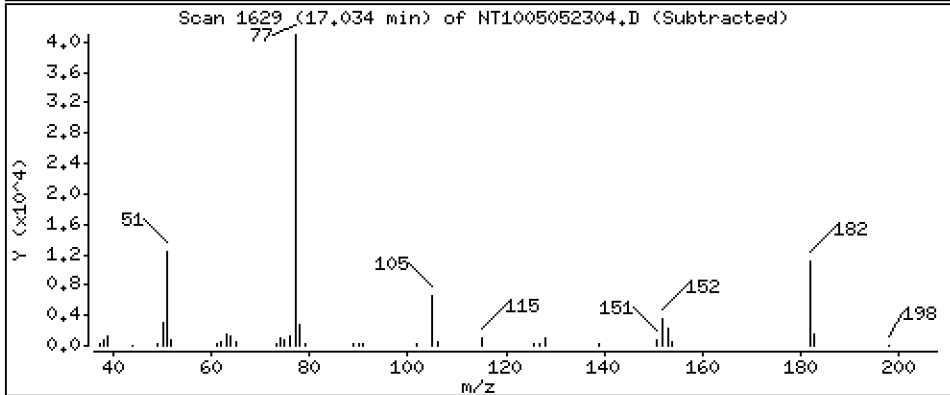
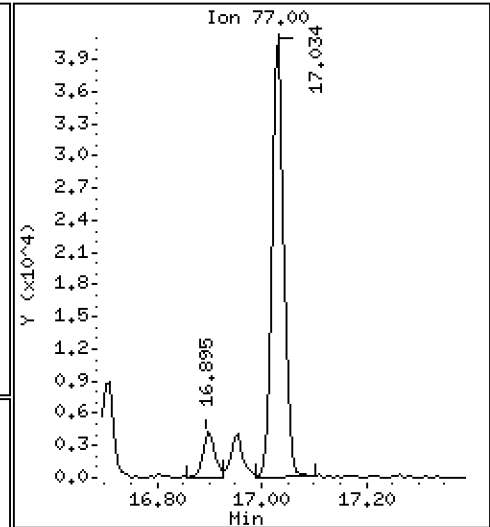
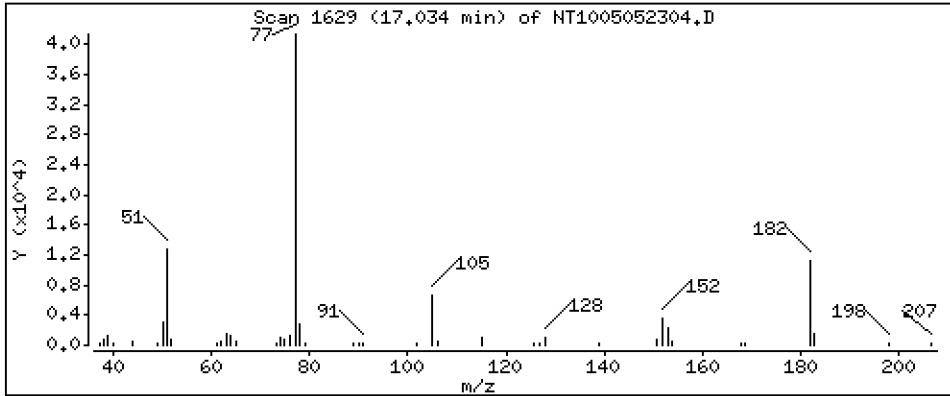
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.4474 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

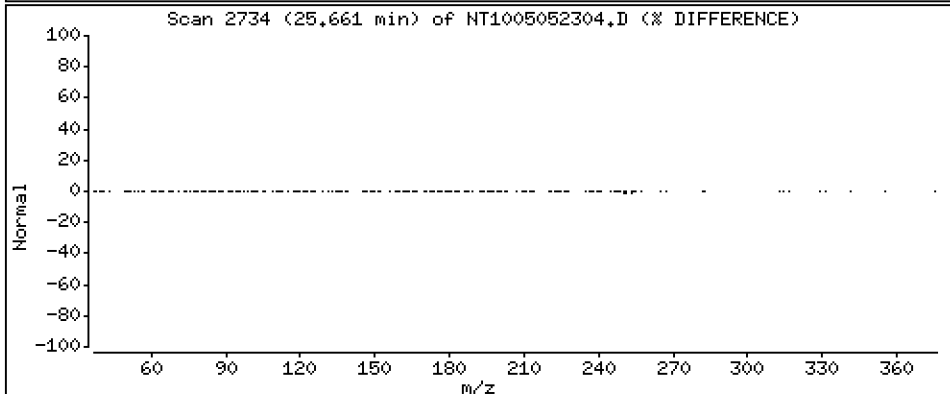
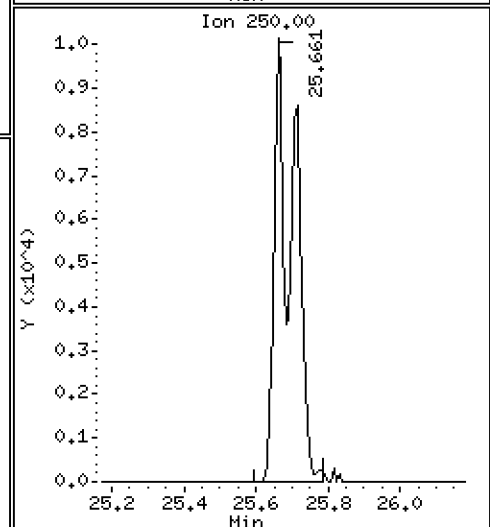
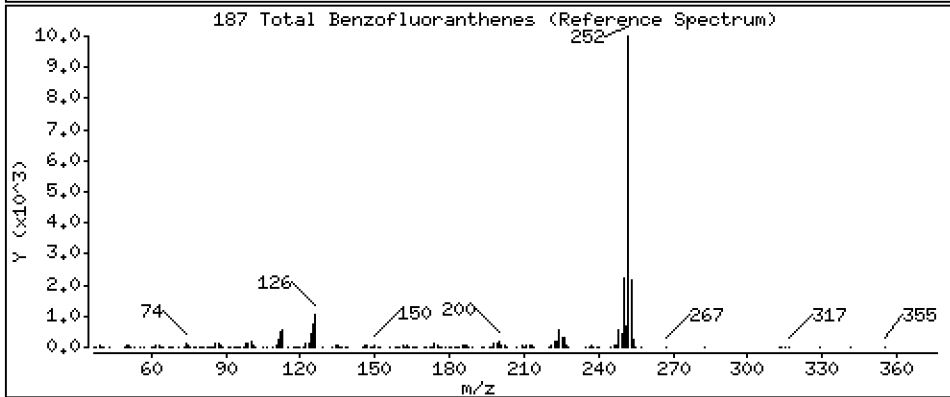
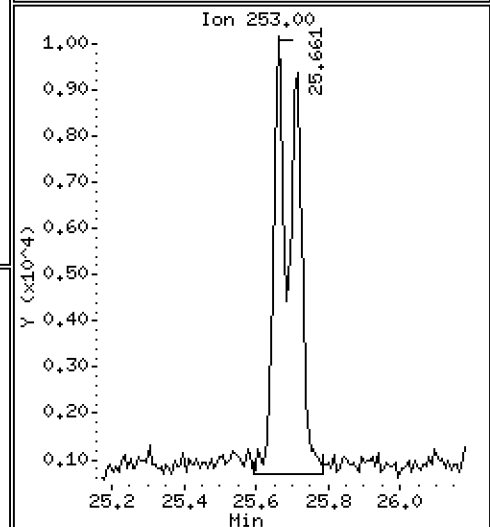
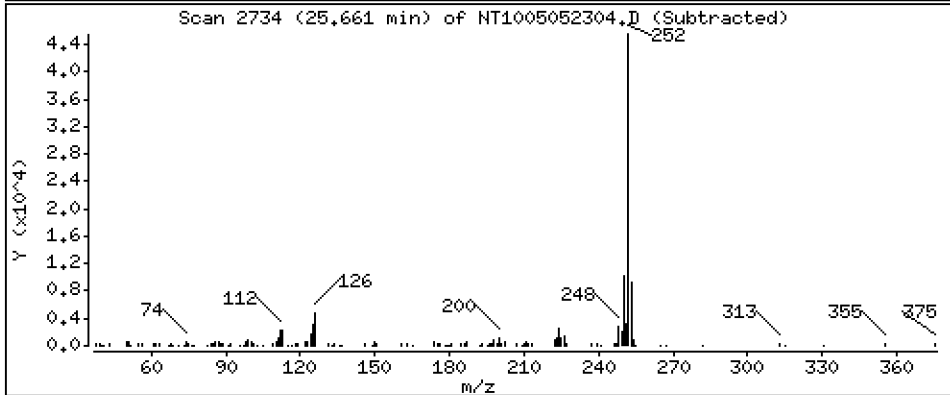
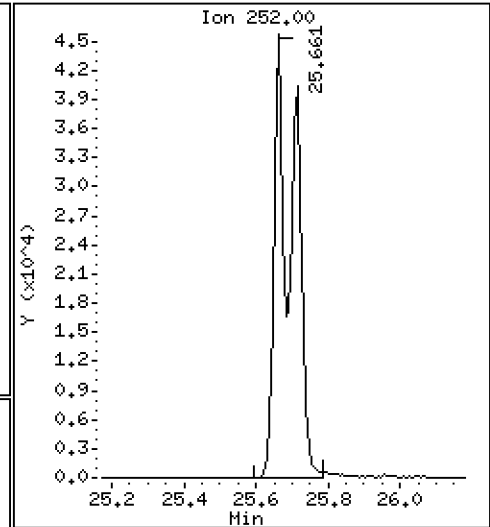
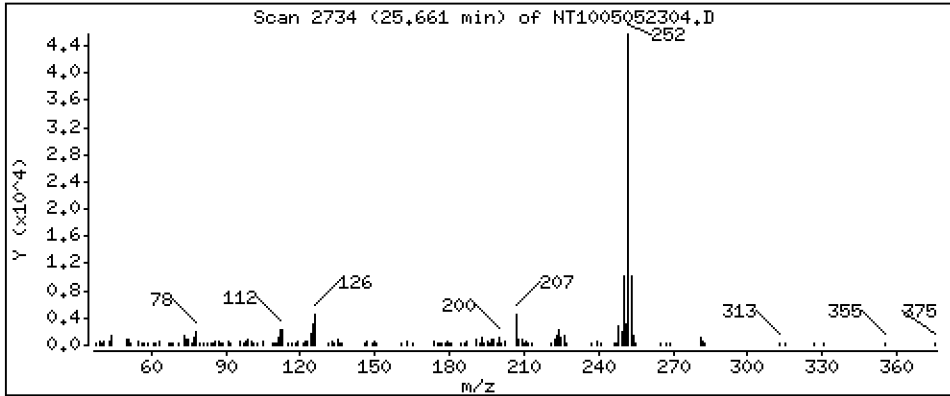
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 0,8050 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

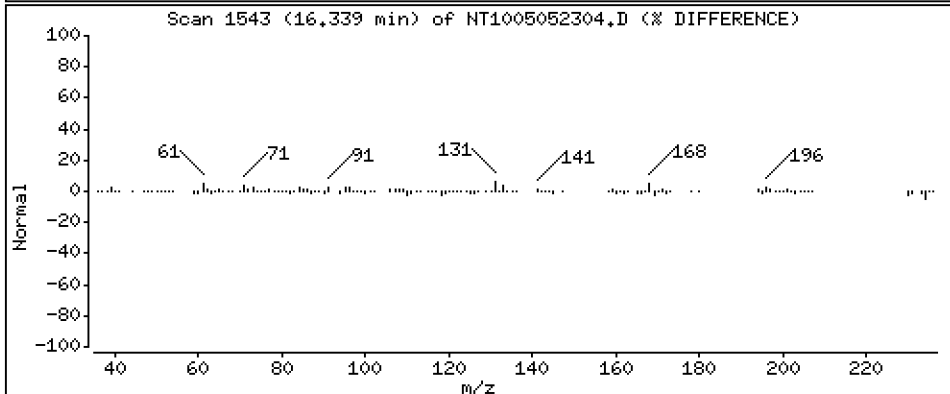
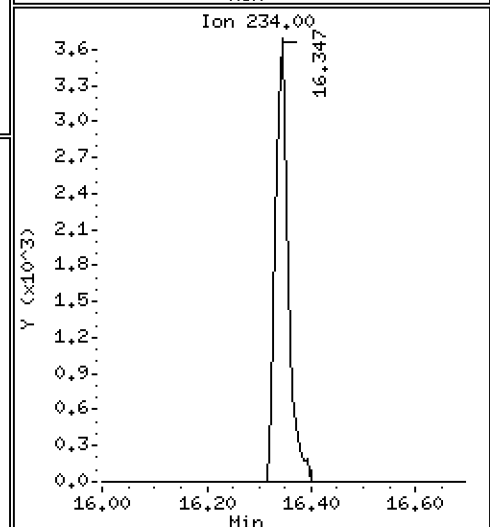
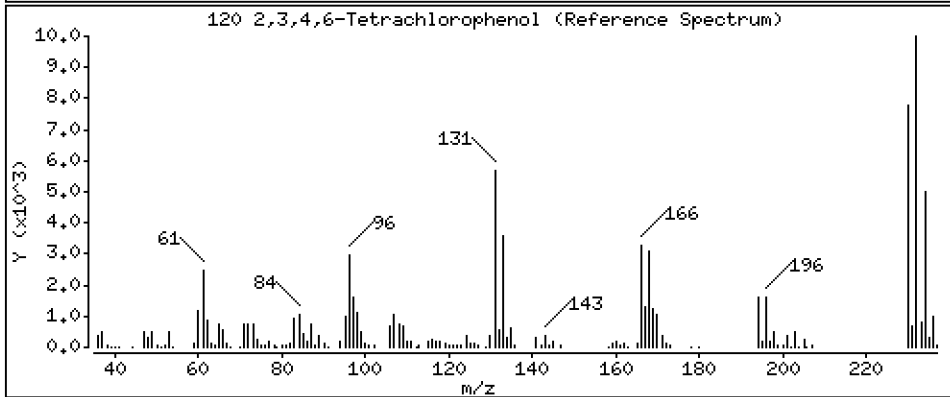
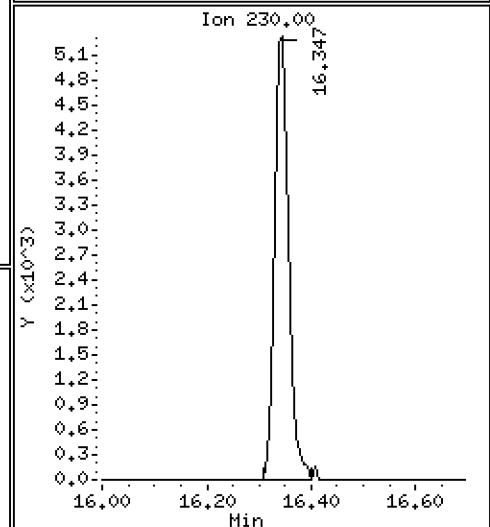
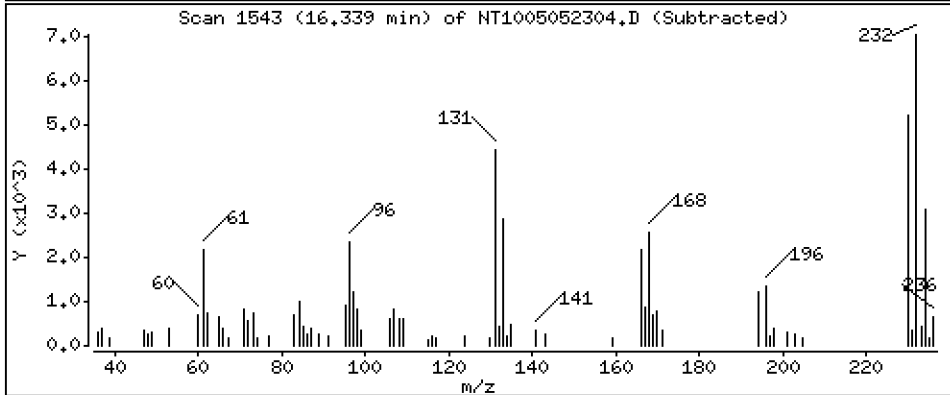
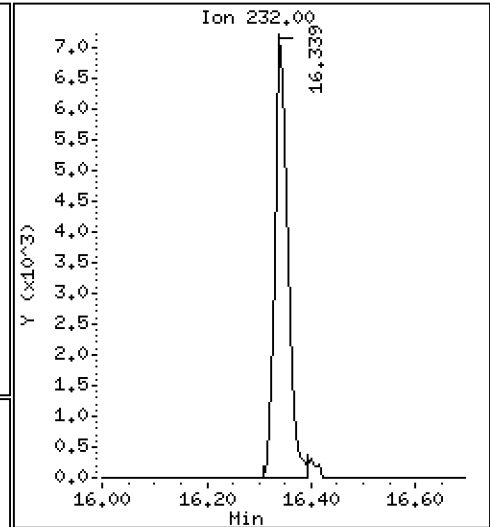
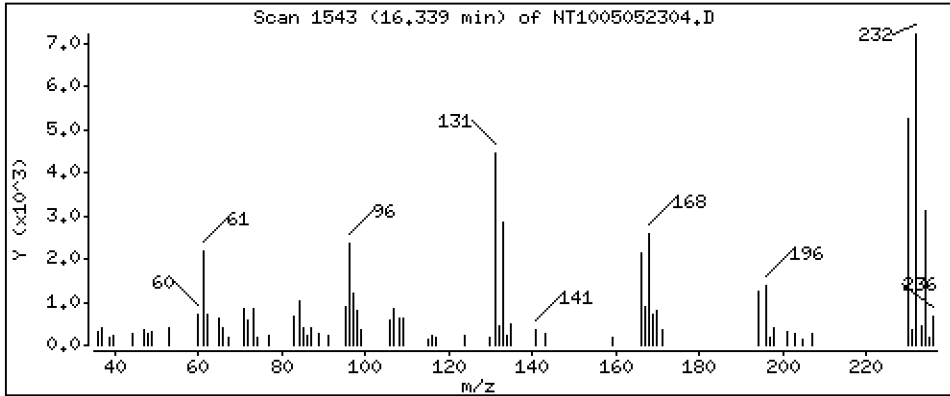
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,2545 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052304.D
 Lab Smp Id: SLE0101-LCV1
 Inj Date : 05-MAY-2023 12:43
 Operator : VTS
 Smp Info : SLE0101-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.253	7.253	(1.000)	35889	0.58828	0.5883
\$ 2 Phenol-d5	99		8.830	8.830	(1.000)	43457	0.59083	0.5908
3 Phenol	94		8.853	8.853	(1.000)	34161	0.43438	0.4344
\$ 5 2-Chlorophenol-d4	132		9.131	9.139	(1.000)	41367	0.58687	0.5869
4 Bis(2-Chloroethyl)ether	93		9.030	9.038	(1.000)	28137	0.49445	0.4944
6 2-Chlorophenol	128		9.162	9.162	(1.000)	28530	0.41141	0.4114
7 1,3-Dichlorobenzene	146		9.440	9.440	(1.000)	33376	0.42718	0.4272
* 8 1,4-Dichlorobenzene-d4	152		9.502	9.502	(1.000)	201611	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.533	9.533	(1.000)	32619	0.42500	0.4250
\$ 10 1,2-Dichlorobenzene-d4	152		9.867	9.867	(1.000)	21990	0.42288	0.4229
12 1,2-Dichlorobenzene	146		9.890	9.890	(1.000)	31930	0.42851	0.4285
11 Benzyl alcohol	108		9.766	9.766	(1.000)	16365	0.43293	0.4329
14 2,2'-oxybis(1-Chloropropane)	121		10.061	10.069	(1.059)	8877	0.41248	0.4125 (M)
13 2-Methylphenol	108		9.976	9.976	(1.000)	24303	0.42133	0.4213
17 Hexachloroethane	117		10.488	10.488	(1.000)	13603	0.40991	0.4099
16 N-Nitroso-di-n-propylamine	70		10.317	10.325	(1.000)	17611	0.38547	0.3855
15 4-Methylphenol	108		10.240	10.240	(1.000)	28806	0.41600	0.4160
\$ 18 Nitrobenzene-d5	82		10.597	10.604	(0.884)	30706	0.41572	0.4157
19 Nitrobenzene	77		10.635	10.636	(0.887)	29763	0.41695	0.4169
20 Isophorone	82		11.078	11.078	(0.924)	36538	0.42995	0.4300
21 2-Nitrophenol	139		11.266	11.266	(0.940)	11974	0.31529	0.3153
22 2,4-Dimethylphenol	107		11.291	11.300	(0.942)	60555	0.86872	0.8687
23 Bis(2-Chloroethoxy)methane	93		11.495	11.503	(0.959)	23820	0.43848	0.4385
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		11.707	11.716	(0.976)	41871	0.76463	0.7646
26 1,2,4-Trichlorobenzene	180		11.906	11.906	(0.993)	29815	0.38014	0.3801
* 27 Naphthalene-d8	136		11.991	11.999	(1.000)	660968	4.00000	
28 Naphthalene	128		12.037	12.037	(1.004)	84321	0.45725	0.4573
29 4-Chloroaniline	127		12.161	12.161	(1.014)	52318	0.77099	0.7710
30 Hexachlorobutadiene	225		12.385	12.393	(1.033)	18373	0.42477	0.4248
31 4-Chloro-3-methylphenol	107		13.097	13.105	(1.092)	45722	0.76615	0.7661
32 2-Methylnaphthalene	142		13.430	13.437	(1.120)	59678	0.43283	0.4328
33 Hexachlorocyclopentadiene	237		13.894	13.902	(0.890)	29814	0.66046	0.6605

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	14.041	14.049	(0.899)	30044	0.67564	0.6756
35 2,4,5-Trichlorophenol	196	14.118	14.118	(0.904)	32275	0.66559	0.6656
§ 36 2-Fluorobiphenyl	172	14.204	14.211	(0.909)	69282	0.44084	0.4408
37 2-Chloronaphthalene	162	14.428	14.436	(0.924)	55885	0.45149	0.4515
38 2-Nitroaniline	65	14.683	14.691	(0.940)	25522	0.70998	0.7100
39 Dimethylphthalate	163	15.101	15.109	(0.967)	60900	0.43754	0.4375
40 Acenaphthylene	152	15.303	15.310	(0.980)	85372	0.44186	0.4419
41 2,6-Dinitrotoluene	165	15.248	15.256	(0.976)	22271	0.70890	0.7089
* 42 Acenaphthene-d10	164	15.620	15.628	(1.000)	363017	4.00000	
43 3-Nitroaniline	138	15.535	15.543	(0.995)	21059	0.68096	0.6810
44 Acenaphthene	153	15.682	15.689	(1.004)	55255	0.44965	0.4497
45 2,4-Dinitrophenol	184	15.751	15.759	(1.008)	3382	0.14039	0.1404
46 Dibenzofuran	168	16.006	16.014	(1.025)	80078	0.44694	0.4469
47 4-Nitrophenol	109	15.844	15.844	(1.014)	10752	0.37310	0.3731
48 2,4-Dinitrotoluene	165	16.060	16.068	(1.028)	29757	0.66454	0.6645
50 Diethylphthalate	149	16.555	16.571	(1.060)	58942	0.40786	0.4079
49 Fluorene	166	16.725	16.733	(1.071)	65815	0.44528	0.4453
51 4-Chlorophenyl-phenylether	204	16.702	16.710	(1.069)	32025	0.43512	0.4351
52 4-Nitroaniline	138	16.810	16.825	(1.076)	18895	0.62849	0.6285
53 4,6-Dinitro-2-methylphenol	198	16.903	16.918	(0.905)	21174	0.78350	0.7835
54 N-Nitrosodiphenylamine	169	16.957	16.964	(0.908)	40889	0.44660	0.4466
§ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	7583	0.43524	0.4352
56 4-Bromophenyl-phenylether	248	17.720	17.728	(0.949)	17922	0.41466	0.4147
57 Hexachlorobenzene	284	18.044	18.052	(0.966)	19011	0.43822	0.4382
58 Pentachlorophenol	266	18.401	18.401	(0.985)	8392	0.28400	0.2840
* 59 Phenanthrene-d10	188	18.671	18.679	(1.000)	692839	4.00000	
60 Phenanthrene	178	18.718	18.726	(1.002)	89326	0.43939	0.4394
61 Anthracene	178	18.811	18.818	(1.007)	74521	0.39668	0.3967
62 Carbazole	167	19.128	19.136	(1.024)	70797	0.42574	0.4257
63 Di-n-butylphthalate	149	19.894	19.902	(1.065)	75689	0.30403	0.3040
64 Fluoranthene	202	21.078	21.085	(0.890)	98460	0.38270	0.3827
65 Pyrene	202	21.503	21.511	(0.908)	102122	0.39735	0.3974
§ 66 Terphenyl-d14	244	21.774	21.782	(0.919)	81938	0.40312	0.4031
67 Butylbenzylphthalate	149	22.688	22.695	(0.958)	31365	0.26049	0.2605
68 Benzo(a)anthracene	228	23.655	23.663	(0.999)	98961	0.43381	0.4338
* 69 Chrysene-d12	240	23.686	23.694	(1.000)	576240	4.00000	
70 3,3'-Dichlorobenzidine	252	23.601	23.609	(0.996)	83481	1.20083	1.201
71 Chrysene	228	23.725	23.741	(1.002)	91998	0.45058	0.4506
72 bis(2-Ethylhexyl)phthalate	149	23.694	23.702	(0.958)	44759	0.38226	0.3823
* 134 Di-n-octylphthalate-d4	153	24.724	24.739	(1.000)	812849	4.00000	
73 Di-n-octylphthalate	149	24.739	24.747	(1.001)	99925	0.46596	0.4660
74 Benzo(b)fluoranthene	252	25.661	25.676	(0.968)	83823	0.38973	0.3897
75 Benzo(k)fluoranthene	252	25.715	25.730	(0.970)	87790	0.41133	0.4113
76 Benzo(a)pyrene	252	26.388	26.404	(0.995)	68961	0.38306	0.3831
* 77 Perylene-d12	264	26.520	26.528	(1.000)	523576	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.483	29.498	(1.112)	82294	0.38051	0.3805
79 Dibenzo(a,h)anthracene	278	29.498	29.514	(1.112)	71258	0.39342	0.3934
80 Benzo(g,h,i)perylene	276	30.361	30.376	(1.145)	68051	0.39477	0.3948
90 N-Nitrosodimethylamine	74	5.098	5.090	(1.000)	27595	0.83742	0.8374
91 Aniline	93	8.953	8.953	(1.000)	51984	0.80201	0.8020
93 Benzidine	184	21.310	21.310	(0.900)	53632	0.58313	0.5831
103 Pyridine	79	5.144	5.114	(1.000)	36834	0.70887	0.7089
105 1-methylnaphthalene	142	13.654	13.662	(1.139)	54539	0.43146	0.4315
111 Azobenzene (1,2-DP-Hydrazine)	77	17.034	17.041	(1.091)	63169	0.44742	0.4474

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.661	25.676	(0.968)	166663	0.80500	0.8050
120 2,3,4,6-Tetrachlorophenol	232	16.339	16.346	(1.046)	11892	0.25452	0.2545

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052304.D Calibration Time: 11:37
 Lab Smp Id: SLE0101-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	201611	12.34
27 Naphthalene-d8	621628	310814	1243256	660968	6.33
42 Acenaphthene-d10	353112	176556	706224	363017	2.81
59 Phenanthrene-d10	694933	347467	1389866	692839	-0.30
69 Chrysene-d12	553967	276984	1107934	576240	4.02
134 Di-n-octylphthala	895601	447801	1791202	812849	-9.24
77 Perylene-d12	482573	241287	965146	523576	8.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.50	-0.00
27 Naphthalene-d8	12.00	11.50	12.50	11.99	-0.06
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.69	23.19	24.19	23.69	-0.03
134 Di-n-octylphthala	24.74	24.24	25.24	24.72	-0.06
77 Perylene-d12	26.53	26.03	27.03	26.52	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005052304.D

Lab ID: SLE0101-LCV1
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 12:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

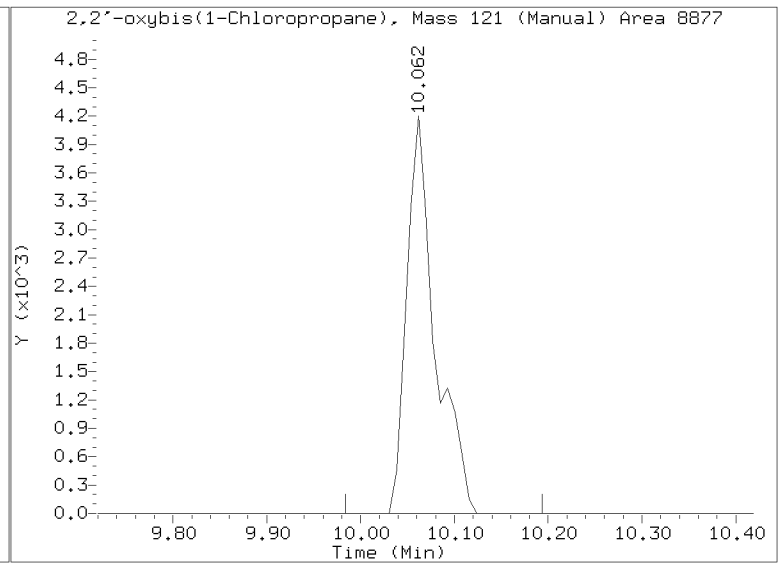
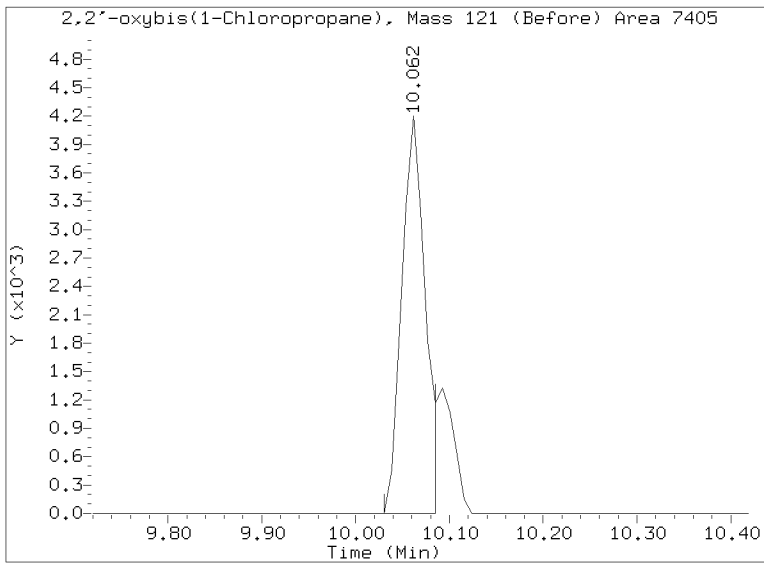
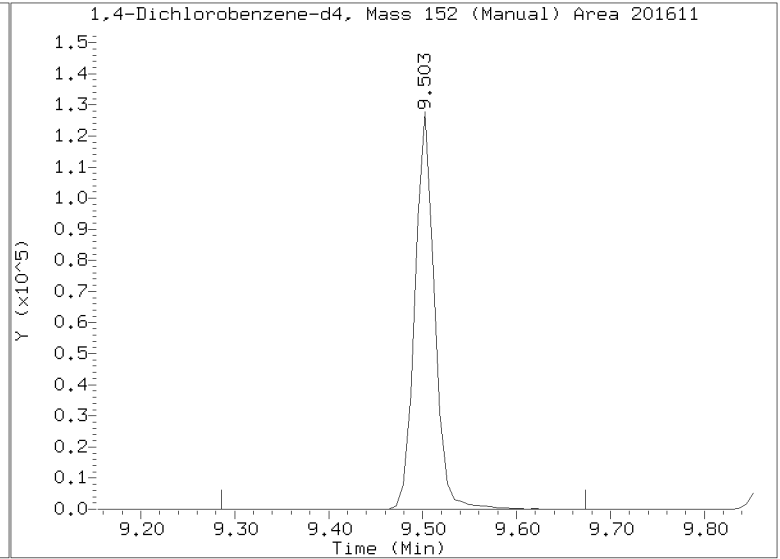
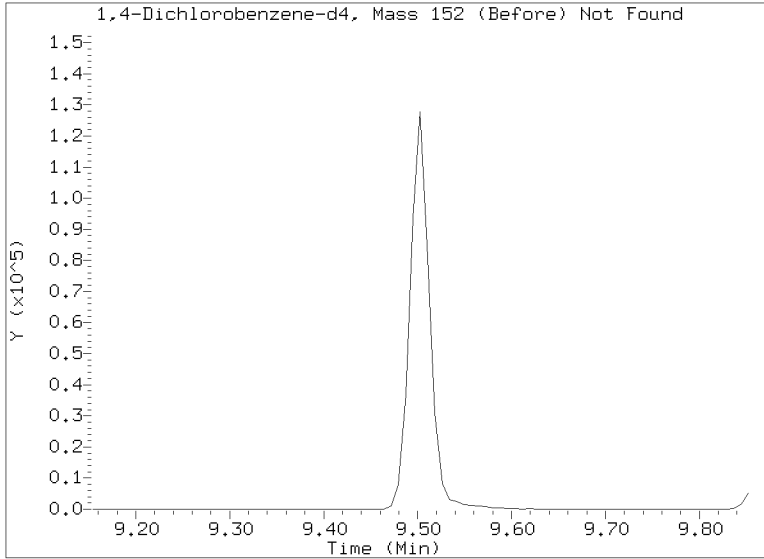
RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052304.D
Injection Date: 05-MAY-2023 12:43
Lab ID: SLE0101-LCV1 Client ID:
Report Date: 05/08/2023 10:14



APPROVED

By Deenay Dunmore at 10:39 am, May 08, 2023



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GE00012

Lab File ID: NT1005052303.D

Calibration Date: 05/01/2023

Sequence: SLE0101

Injection Date: 05/05/23

Lab Sample ID: SLE0101-ICV1

Injection Time: 11:37

Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	4.8	1.5603090	1.5056390		-3.5	+/-20
4-Methylphenol	A	5.0000	4.8	1.3738470	1.3292070		-3.2	+/-20
Naphthalene	A	5.0000	4.7	1.1159900	1.0540540		-5.5	+/-20
2-Methylnaphthalene	A	5.0000	4.6	0.8343963	0.7719935		-7.5	+/-20
Acenaphthylene	A	5.0000	4.8	2.1289490	2.0535920		-3.5	+/-20
Dimethylphthalate	A	5.0000	4.7	1.5336640	1.4407670		-6.1	+/-20
Acenaphthene	A	5.0000	4.8	1.3540250	1.2931580		-4.5	+/-20
Dibenzofuran	A	5.0000	4.8	1.9742250	1.8886400		-4.3	+/-20
Fluorene	A	5.0000	4.8	1.6286350	1.5677540		-3.7	+/-20
Phenanthrene	A	5.0000	4.6	1.1736900	1.0839800		-7.6	+/-20
Anthracene	A	5.0000	4.8	1.0845870	1.0423620		-3.9	+/-20
Fluoranthene	A	5.0000	4.6	1.7858880	1.6567930		-7.2	+/-20
Pyrene	A	5.0000	4.7	1.7840190	1.6700110		-6.4	+/-20
Butylbenzylphthalate	A	5.0000	4.1	0.6671669	0.6603224		-17.9	+/-20
Benzo(a)anthracene	A	5.0000	4.8	1.5835210	1.5114170		-4.6	+/-20
Chrysene	A	5.0000	4.8	1.4173070	1.3566340		-4.3	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	5.0	0.5761948	0.5727068		-0.6	+/-20
Benzo(a)fluoranthene, Total	A	10.0000	9.6	1.5816940	1.5231550		-3.7	+/-20
Benzo(a)pyrene	A	5.0000	4.8	1.3753650	1.3204730		-4.0	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	4.8	1.6522640	1.5845430		-4.1	+/-20
Dibenzo(a,h)anthracene	A	5.0000	4.8	1.3837630	1.3156030		-4.9	+/-20
Benzo(g,h,i)perylene	A	5.0000	4.8	1.3169650	1.2638400		-4.0	+/-20
2-Fluorophenol	A	7.5000	6.91	1.2103940	1.1150030		-7.9	+/-20
Phenol-d5	A	7.5000	7.21	1.4592840	1.4020950		-3.9	+/-20
2-Chlorophenol-d4	A	7.5000	6.73	1.3984790	1.2549370		-10.3	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	4.35	1.0316970	0.8967860		-13.1	+/-20
Nitrobenzene-d5	A	5.0000	4.78	0.4469969	0.4273064		-4.4	+/-20
2-Fluorobiphenyl	A	5.0000	4.54	1.7317170	1.5719820		-9.2	+/-20
2,4,6-Tribromophenol	A	7.5000	6.42	0.1786492	0.1700809		-14.4	+/-20
p-Terphenyl-d14	A	5.0000	4.54	1.4109530	1.2804760		-9.2	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GE00012</u>
Lab File ID:	<u>NT1005052303.D</u>	Calibration Date:	<u>05/01/2023</u>
Sequence:	<u>SLE0101</u>	Injection Date:	<u>05/05/23</u>
Lab Sample ID:	<u>SLE0101-ICV1</u>	Injection Time:	<u>11:37</u>
Sequence Name:	<u>Initial Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	36075.7500	1.0000			
Naphthalene-d8	A	4.0000	4.0	123424.5000	1.0000			
Acenaphthene-d10	A	4.0000	4.0	69802.5000	1.0000			
Phenanthrene-d10	A	4.0000	4.0	130365.8000	1.0000			
Chrysene-d12	A	4.0000	4.0	92477.7500	1.0000			
Di-n-Octylphthalate-d4	A	4.0000	4.0	156667.0000	1.0000			
Perylene-d12	A	4.0000	4.0	77834.7500	1.0000			

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.1\NT1005052303.D

Date: 05-May-2023 11:37

Client ID:

Sample Info: SLE0101-ICW1

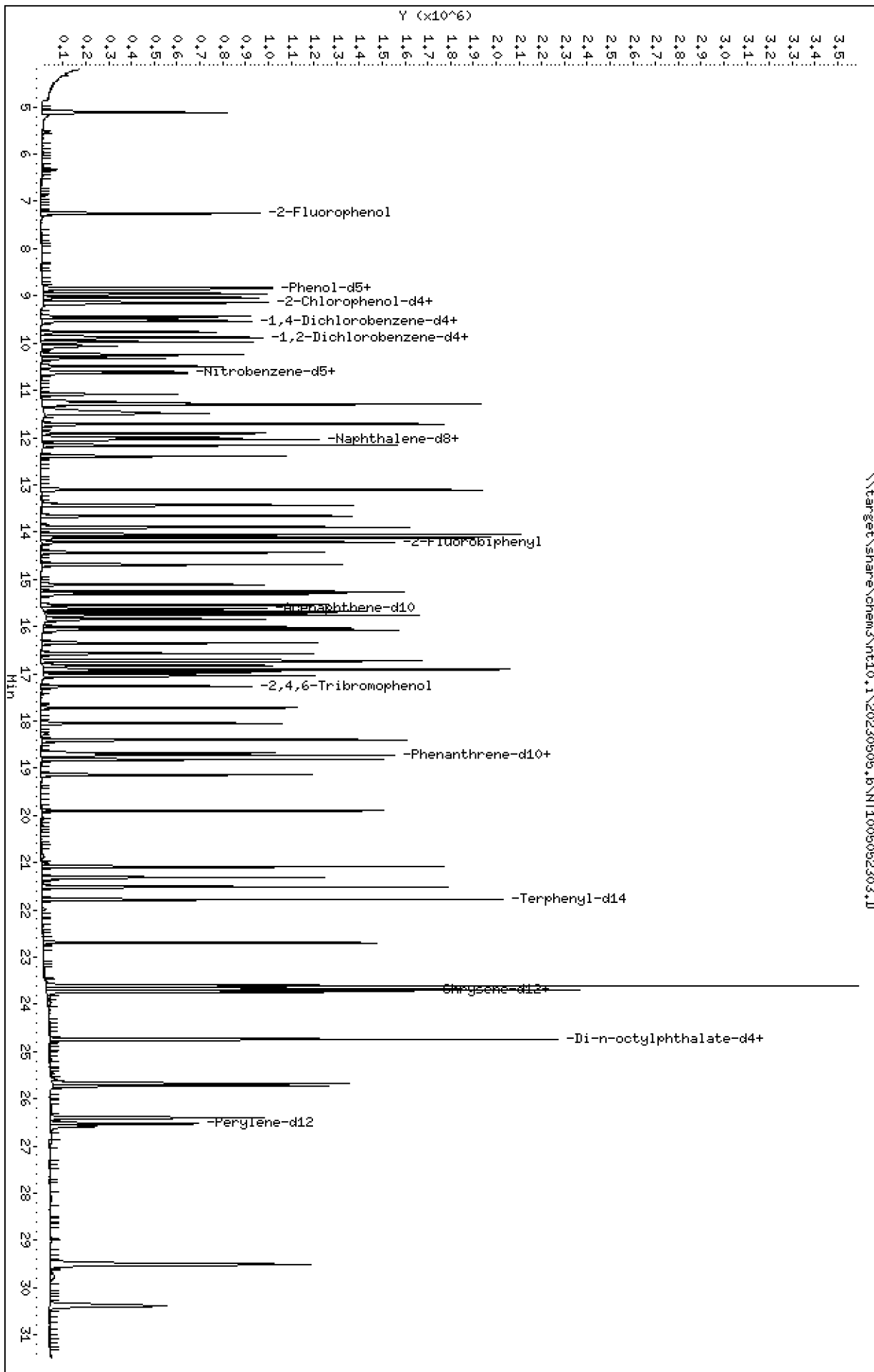
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230505.1\NT1005052303.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052303.D
 Lab Smp Id: SLE0101-ICV1
 Inj Date : 05-MAY-2023 11:37
 Operator : VTS
 Smp Info : SLE0101-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd
 Cal Date : 01-MAY-2023 18:46
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1005012308.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.253	7.253	(1.000)	375193	7.50000	6.909
\$ 2 Phenol-d5	99		8.830	8.830	(1.000)	471798	7.50000	7.206
3 Phenol	94		8.853	8.853	(1.000)	337760	5.00000	4.825
\$ 5 2-Chlorophenol-d4	132		9.139	9.139	(1.000)	422280	7.50000	6.730
4 Bis(2-Chloroethyl)ether	93		9.038	9.038	(1.000)	238077	5.00000	4.700
6 2-Chlorophenol	128		9.162	9.162	(1.000)	311692	5.00000	5.049
7 1,3-Dichlorobenzene	146		9.440	9.440	(1.000)	313566	5.00000	4.509
* 8 1,4-Dichlorobenzene-d4	152		9.502	9.502	(1.000)	179464	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.533	9.533	(1.000)	308354	5.00000	4.513
\$ 10 1,2-Dichlorobenzene-d4	152		9.867	9.867	(1.000)	201176	5.00000	4.346
12 1,2-Dichlorobenzene	146		9.890	9.890	(1.000)	296460	5.00000	4.470
11 Benzyl alcohol	108		9.766	9.766	(1.000)	158671	5.00000	4.716
14 2,2'-oxybis(1-Chloropropane)	121		10.069	10.069	(1.060)	88200	5.00000	4.604 (M)
13 2-Methylphenol	108		9.976	9.976	(1.000)	248979	5.00000	4.849
17 Hexachloroethane	117		10.488	10.488	(1.000)	138871	5.00000	4.701
16 N-Nitroso-di-n-propylamine	70		10.325	10.325	(1.000)	194336	5.00000	4.779
15 4-Methylphenol	108		10.240	10.240	(1.000)	298181	5.00000	4.838
\$ 18 Nitrobenzene-d5	82		10.604	10.604	(0.884)	332032	5.00000	4.780
19 Nitrobenzene	77		10.636	10.636	(0.886)	327577	5.00000	4.879
20 Isophorone	82		11.078	11.078	(0.923)	430472	5.00000	5.386
21 2-Nitrophenol	139		11.266	11.266	(0.939)	152101	5.00000	4.271
22 2,4-Dimethylphenol	107		11.300	11.300	(0.942)	609247	10.0000	9.293
23 Bis(2-Chloroethoxy)methane	93		11.503	11.503	(0.959)	243073	5.00000	4.758
24 Benzoic acid	105		11.486	11.486	(0.957)	506497	20.0000	11.10
25 2,4-Dichlorophenol	162		11.716	11.716	(0.976)	498940	10.0000	9.688
26 1,2,4-Trichlorobenzene	180		11.906	11.906	(0.992)	279945	5.00000	3.795
* 27 Naphthalene-d8	136		11.999	11.999	(1.000)	621628	4.00000	
28 Naphthalene	128		12.037	12.037	(1.003)	819037	5.00000	4.723
29 4-Chloroaniline	127		12.161	12.161	(1.014)	683710	10.0000	10.71
30 Hexachlorobutadiene	225		12.393	12.393	(1.033)	180388	5.00000	4.434
31 4-Chloro-3-methylphenol	107		13.105	13.105	(1.092)	564970	10.0000	10.07
32 2-Methylnaphthalene	142		13.437	13.437	(1.120)	599866	5.00000	4.626
33 Hexachlorocyclopentadiene	237		13.902	13.902	(0.890)	400006	10.0000	9.110

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	14.049	14.049	(0.899)	412369	10.0000	9.534
35 2,4,5-Trichlorophenol	196	14.118	14.118	(0.903)	447355	10.0000	9.484
§ 36 2-Fluorobiphenyl	172	14.211	14.211	(0.909)	693857	5.00000	4.539
37 2-Chloronaphthalene	162	14.436	14.436	(0.924)	564518	5.00000	4.689
38 2-Nitroaniline	65	14.691	14.691	(0.940)	358591	10.0000	10.26
39 Dimethylphthalate	163	15.109	15.109	(0.967)	635940	5.00000	4.697
40 Acenaphthylene	152	15.310	15.310	(0.980)	906435	5.00000	4.823
41 2,6-Dinitrotoluene	165	15.256	15.256	(0.976)	290165	10.0000	9.495
* 42 Acenaphthene-d10	164	15.628	15.628	(1.000)	353112	4.00000	
43 3-Nitroaniline	138	15.543	15.543	(0.995)	299675	10.0000	9.962
44 Acenaphthene	153	15.689	15.689	(1.004)	570787	5.00000	4.775
45 2,4-Dinitrophenol	184	15.759	15.759	(1.008)	348427	20.0000	14.41
46 Dibenzofuran	168	16.014	16.014	(1.025)	833627	5.00000	4.783
47 4-Nitrophenol	109	15.844	15.844	(1.014)	256006	10.0000	9.050
48 2,4-Dinitrotoluene	165	16.068	16.068	(1.028)	411837	10.0000	9.351
50 Diethylphthalate	149	16.571	16.571	(1.060)	738776	5.00000	5.255
49 Fluorene	166	16.733	16.733	(1.071)	691991	5.00000	4.813
51 4-Chlorophenyl-phenylether	204	16.710	16.710	(1.069)	339997	5.00000	4.749
52 4-Nitroaniline	138	16.825	16.825	(1.077)	290208	10.0000	9.791
53 4,6-Dinitro-2-methylphenol	198	16.918	16.918	(0.906)	493034	20.0000	17.63
54 N-Nitrosodiphenylamine	169	16.964	16.964	(0.908)	427724	5.00000	4.658
§ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	112608	7.50000	6.421
56 4-Bromophenyl-phenylether	248	17.728	17.728	(0.949)	197925	5.00000	4.566
57 Hexachlorobenzene	284	18.052	18.052	(0.966)	193733	5.00000	4.452
58 Pentachlorophenol	266	18.401	18.401	(0.985)	244505	10.0000	7.944
* 59 Phenanthrene-d10	188	18.679	18.679	(1.000)	694933	4.00000	
60 Phenanthrene	178	18.726	18.726	(1.002)	941617	5.00000	4.618
61 Anthracene	178	18.818	18.818	(1.007)	905465	5.00000	4.805
62 Carbazole	167	19.136	19.136	(1.024)	833509	5.00000	4.997
63 Di-n-butylphthalate	149	19.902	19.902	(1.065)	1142504	5.00000	4.483
64 Fluoranthene	202	21.085	21.085	(0.890)	1147261	5.00000	4.639
65 Pyrene	202	21.511	21.511	(0.908)	1156414	5.00000	4.680
§ 66 Terphenyl-d14	244	21.782	21.782	(0.919)	886677	5.00000	4.538
67 Butylbenzylphthalate	149	22.695	22.695	(0.958)	457246	5.00000	4.105
68 Benzo(a)anthracene	228	23.663	23.663	(0.999)	1046594	5.00000	4.772
* 69 Chrysene-d12	240	23.694	23.694	(1.000)	553967	4.00000	
70 3,3'-Dichlorobenzidine	252	23.609	23.609	(0.996)	1021392	15.0000	14.48
71 Chrysene	228	23.741	23.741	(1.002)	939413	5.00000	4.786
72 bis(2-Ethylhexyl)phthalate	149	23.702	23.702	(0.958)	641146	5.00000	4.970
* 134 Di-n-octylphthalate-d4	153	24.739	24.739	(1.000)	895601	4.00000	
73 Di-n-octylphthalate	149	24.747	24.747	(1.000)	1153744	5.00000	4.883
74 Benzo(b)fluoranthene	252	25.676	25.676	(0.968)	953347	5.00000	4.809
75 Benzo(k)fluoranthene	252	25.730	25.730	(0.970)	947715	5.00000	4.818
76 Benzo(a)pyrene	252	26.404	26.404	(0.995)	796531	5.00000	4.800
* 77 Perylene-d12	264	26.528	26.528	(1.000)	482573	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.498	29.498	(1.112)	955822	5.00000	4.795
79 Dibenzo(a,h)anthracene	278	29.514	29.514	(1.113)	793593	5.00000	4.754
80 Benzo(g,h,i)perylene	276	30.376	30.376	(1.145)	762369	5.00000	4.798
90 N-Nitrosodimethylamine	74	5.090	5.090	(1.000)	275603	10.0000	9.396
91 Aniline	93	8.953	8.953	(1.000)	561409	10.0000	9.730
93 Benzidine	184	21.310	21.310	(0.899)	742949	10.0000	8.096
103 Pyridine	79	5.114	5.114	(1.000)	418138	10.0000	9.040
105 1-methylnaphthalene	142	13.662	13.662	(1.139)	549270	5.00000	4.620
111 Azobenzene (1,2-DP-Hydrazine)	77	17.041	17.041	(1.090)	707436	5.00000	5.151

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.676	25.676	(0.968)	1837584	10.0000	9.630
120 2,3,4,6-Tetrachlorophenol	232		16.346	16.346	(1.046)	214878	5.00000	4.587

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005052303.D Calibration Time: 16:10
 Lab Smp Id: SLE0101-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	179464	0.00
27 Naphthalene-d8	621628	310814	1243256	621628	0.00
42 Acenaphthene-d10	353112	176556	706224	353112	0.00
59 Phenanthrene-d10	694933	347467	1389866	694933	0.00
69 Chrysene-d12	553967	276984	1107934	553967	0.00
134 Di-n-octylphthala	895601	447801	1791202	895601	0.00
77 Perylene-d12	482573	241287	965146	482573	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.50	0.00
27 Naphthalene-d8	12.00	11.50	12.50	12.00	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.63	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.69	23.19	24.19	23.69	0.00
134 Di-n-octylphthala	24.74	24.24	25.24	24.74	0.00
77 Perylene-d12	26.53	26.03	27.03	26.53	0.00

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

REVIEW SUMMARY FOR FILE - NT1005052303.D

Lab ID: SLE0101-ICV1
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 11:37

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

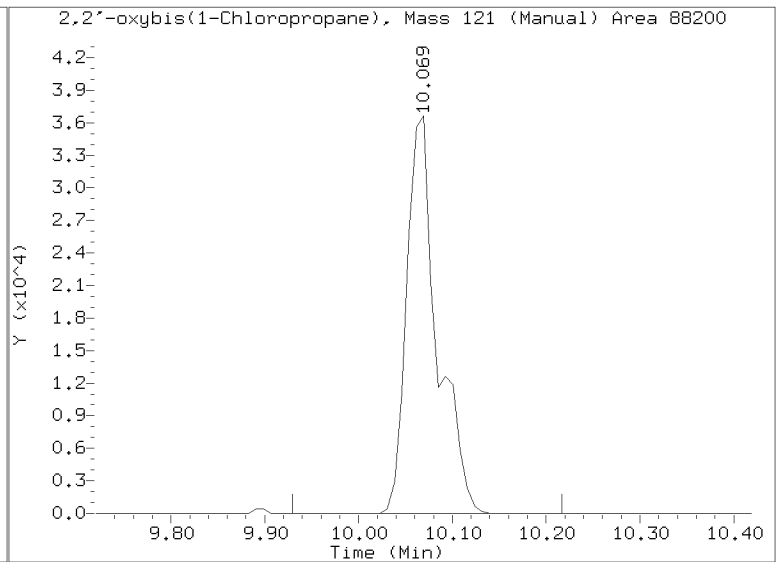
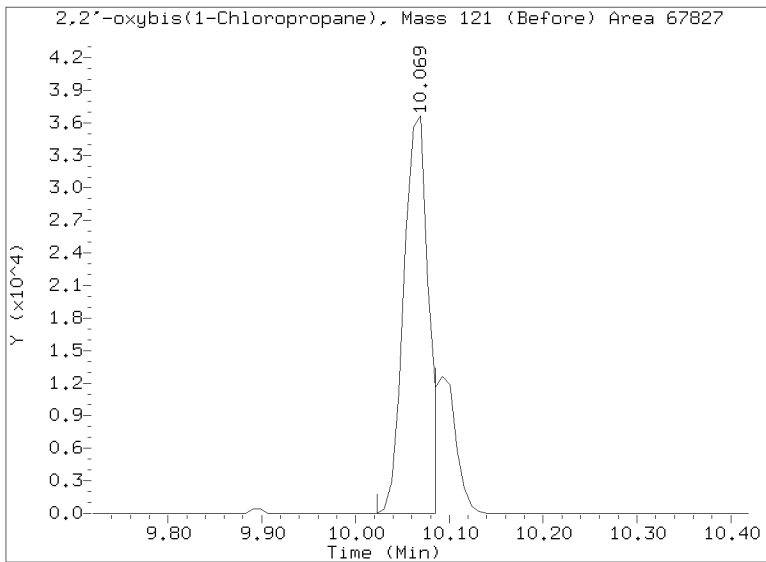
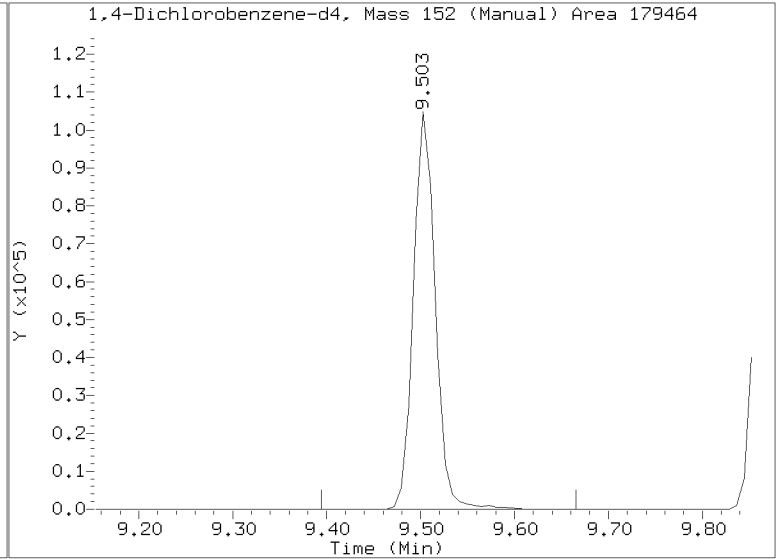
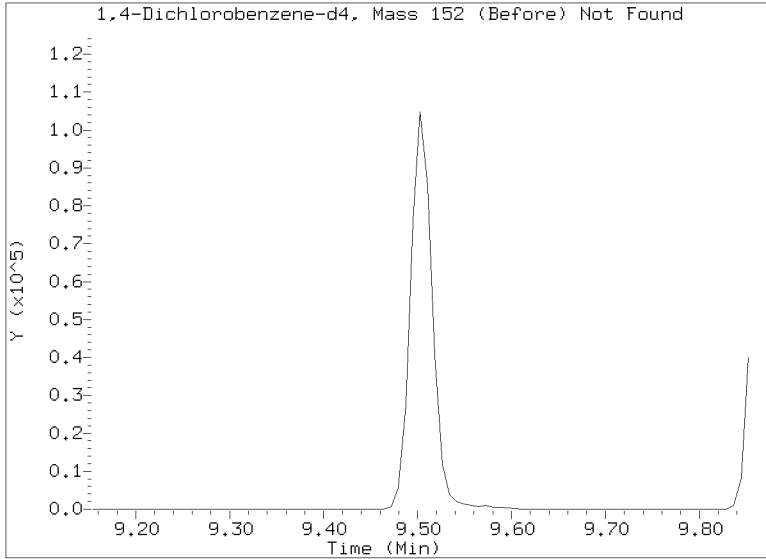
No RRT check. Ccal file.

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052303.D
Injection Date: 05-MAY-2023 11:37
Lab ID: SLE0101-ICV1 Client ID:
Report Date: 05/08/2023 10:14



APPROVED

By Deenay Dunmore at 10:38 am, May 08, 2023

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230505.b

Instrument: nt10.i Date: 05-MAY-2023 Method: 20230505.b\ABN.m

INITIAL CAL: 01-MAY-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1005052303.D 05-MAY-2023 11:37

Compound	%D

1,2,4-Trichlorobenzene	-24.1
Benzoic acid	-44.5
2,4-Dinitrophenol	-27.9
Pentachlorophenol	-20.6



SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GE00012

Lab File ID: NT1005012311.D

Calibration Date: 05/01/2023

Sequence: SLE0036

Injection Date: 05/01/23

Lab Sample ID: SLE0036-SCV1

Injection Time: 20:43

Sequence Name: SCV 5.0

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	4.5	1.5603090	1.3990760		-10.3	+/-20
4-Methylphenol	A	5.0000	4.4	1.3738470	1.2201590		-11.2	+/-20
Naphthalene	A	5.0000	4.7	1.1159900	1.0584070		-5.2	+/-20
2-Methylnaphthalene	A	5.0000	4.5	0.8343963	0.7531649		-9.7	+/-20
Acenaphthylene	A	5.0000	4.8	2.1289490	2.0334620		-4.5	+/-20
Dimethylphthalate	A	5.0000	4.9	1.5336640	1.5053310		-1.8	+/-20
Acenaphthene	A	5.0000	4.7	1.3540250	1.2771320		-5.7	+/-20
Dibenzofuran	A	5.0000	4.6	1.9742250	1.8340260		-7.1	+/-20
Fluorene	A	5.0000	4.6	1.6286350	1.4849650		-8.8	+/-20
Phenanthrene	A	5.0000	4.6	1.1736900	1.0765070		-8.3	+/-20
Anthracene	A	5.0000	4.2	1.0845870	0.9043802		-16.6	+/-20
Fluoranthene	A	5.0000	4.7	1.7858880	1.6922910		-5.2	+/-20
Pyrene	A	5.0000	4.6	1.7840190	1.6539620		-7.3	+/-20
Butylbenzylphthalate	A	5.0000	4.8	0.6671669	0.7636562		-4.4	+/-20
Benzo(a)anthracene	A	5.0000	4.7	1.5835210	1.4937450		-5.7	+/-20
Chrysene	A	5.0000	4.5	1.4173070	1.2869330		-9.2	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	5.4	0.5761948	0.6229883		8.1	+/-20
Benzo(a)fluoranthene, Total	A	10.000	9.2	1.5816940	1.4526430		-8.2	+/-20
Benzo(a)pyrene	A	5.0000	4.8	1.3753650	1.3168440		-4.3	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	4.7	1.6522640	1.5455280		-6.5	+/-20
Dibenzo(a,h)anthracene	A	5.0000	4.6	1.3837630	1.2866390		-7.0	+/-20
Benzo(g,h,i)perylene	A	5.0000	4.7	1.3169650	1.2270470		-6.8	+/-20
2-Fluorophenol	A	7.5000	0.00	1.2103940				+/-20
Phenol-d5	A	7.5000	0.00	1.4592840				+/-20
2-Chlorophenol-d4	A	7.5000	0.00	1.3984790				+/-20
1,2-Dichlorobenzene-d4	A	5.0000	0.00	1.0316970				+/-20
Nitrobenzene-d5	A	5.0000	0.00	0.4469969				+/-20
2-Fluorobiphenyl	A	5.0000	0.0225	1.7317170	0.0077802		-99.6	+/-20
2,4,6-Tribromophenol	A	7.5000	0.0142	0.1786492	0.0003619		-99.8	+/-20
p-Terphenyl-d14	A	5.0000	0.0225	1.4109530	0.0063613		-99.5	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230501_b\NT1005012311.D

Date: 01-May-2023 20:43

Client ID:

Sample Info: SLE0036-SCV1

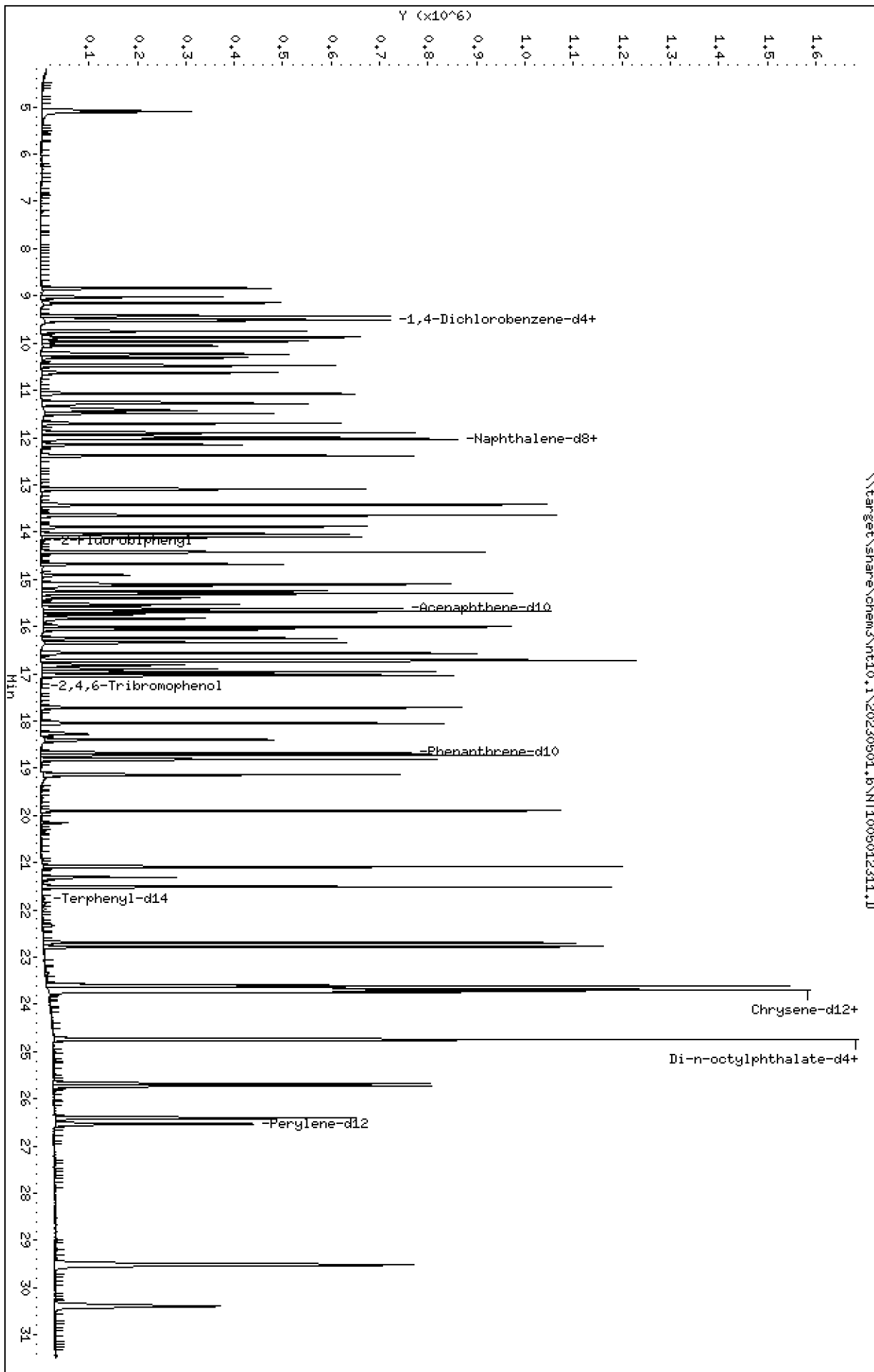
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

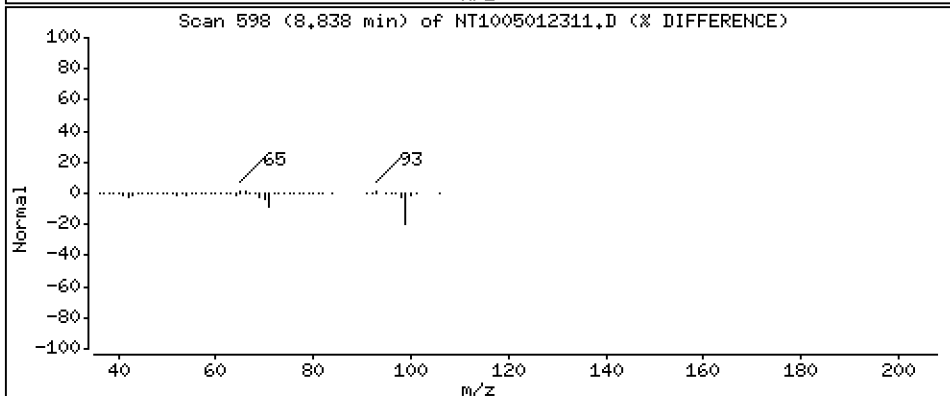
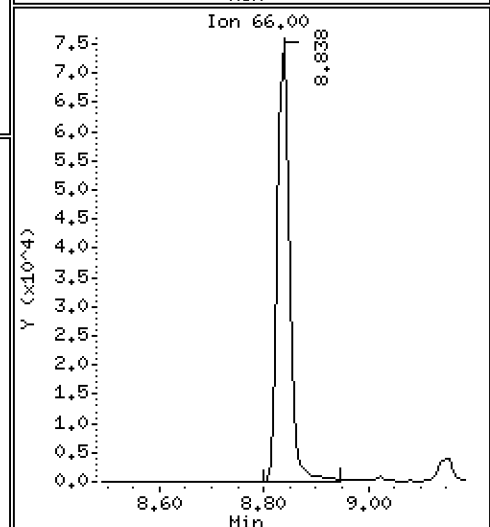
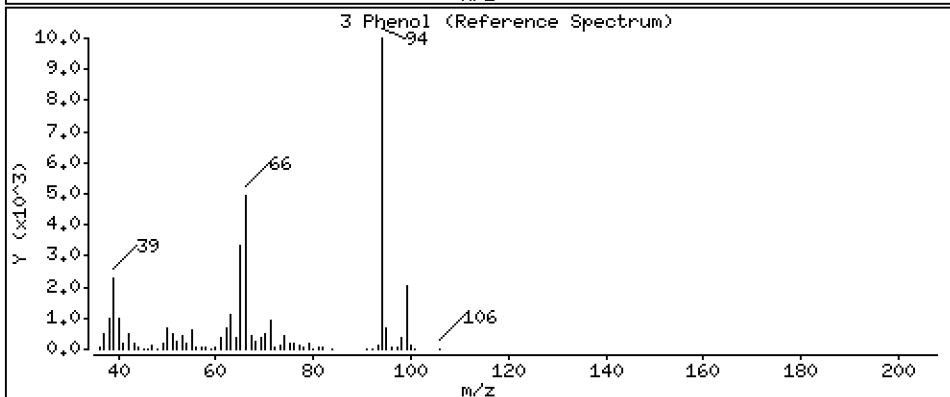
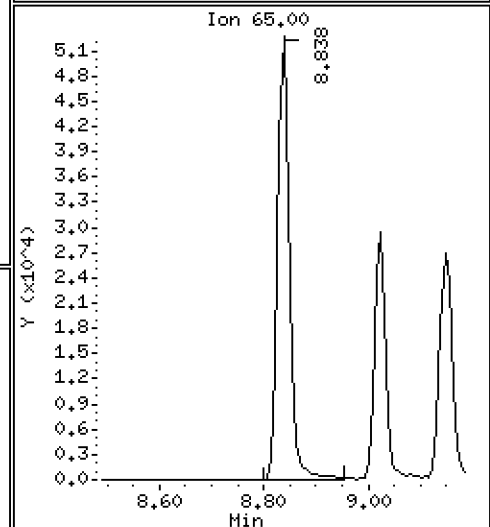
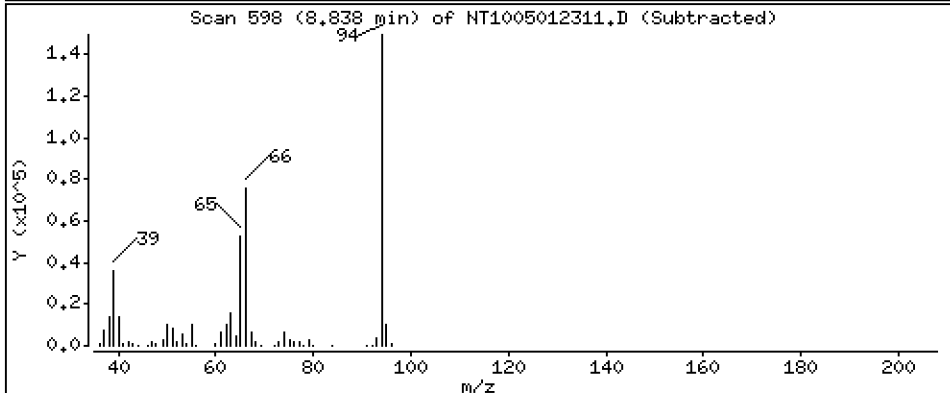
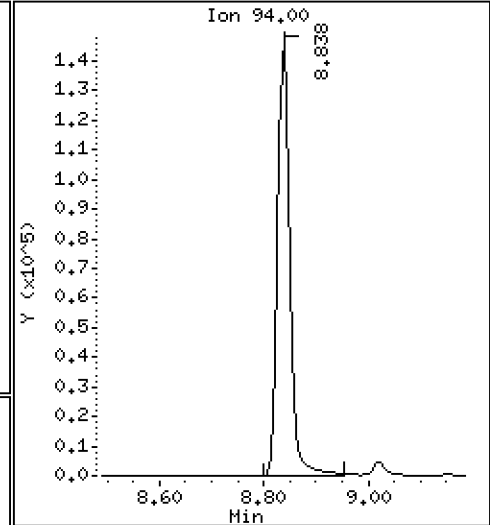
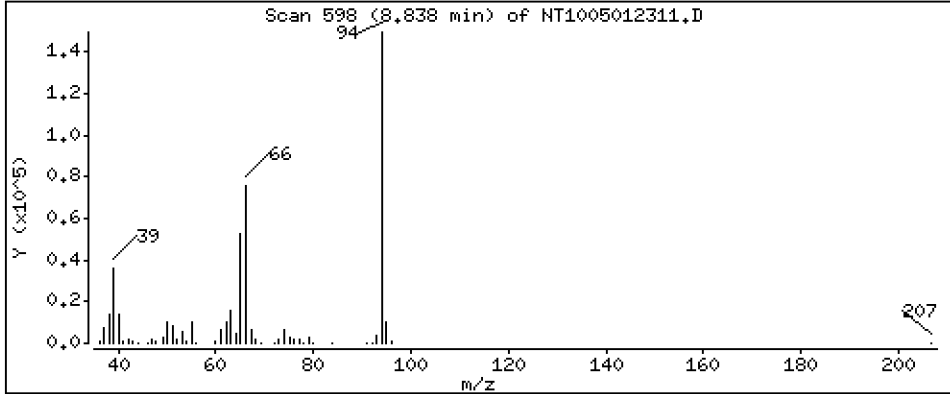
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,483 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

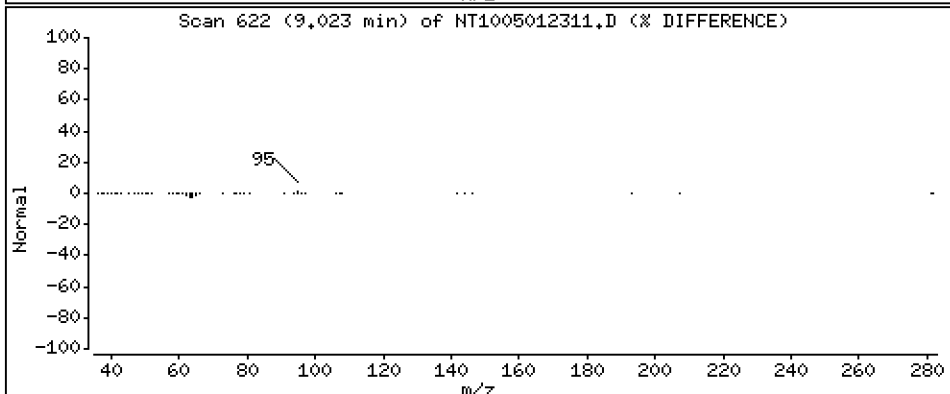
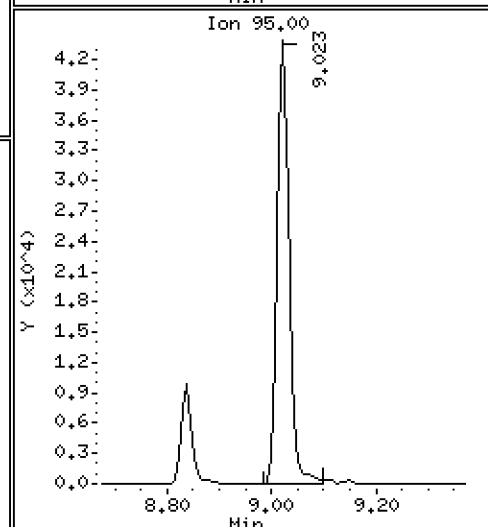
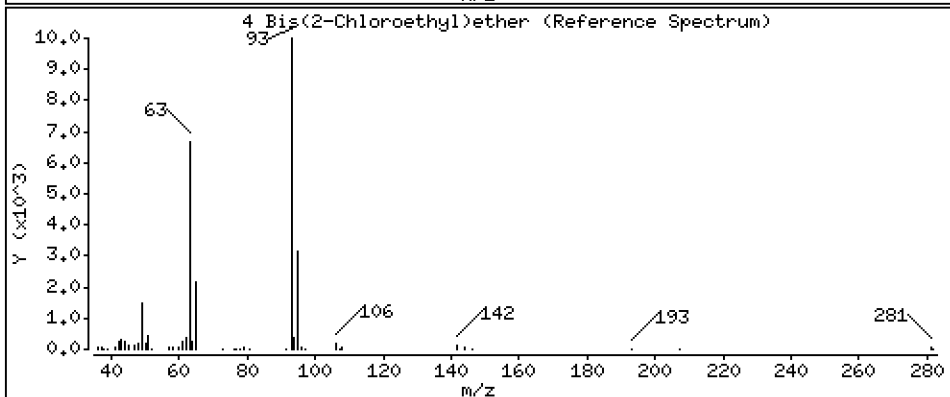
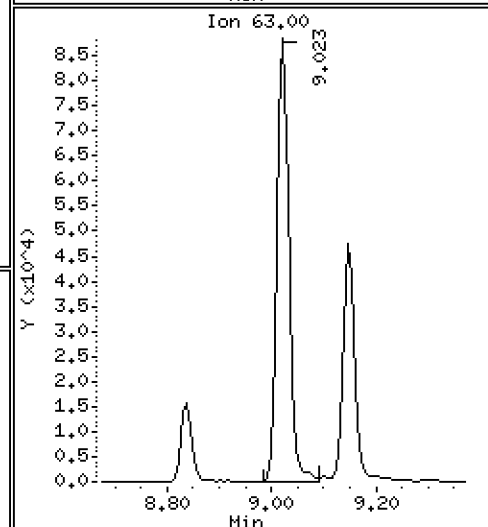
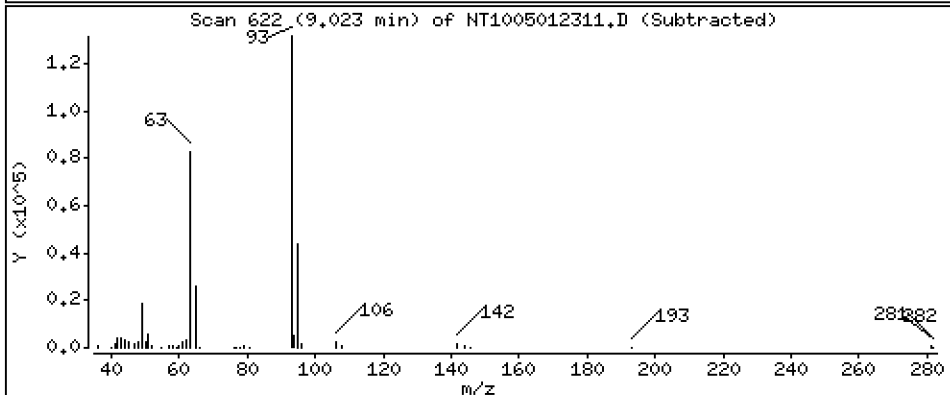
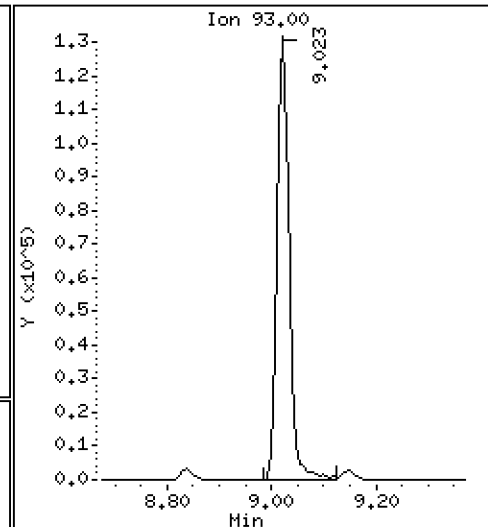
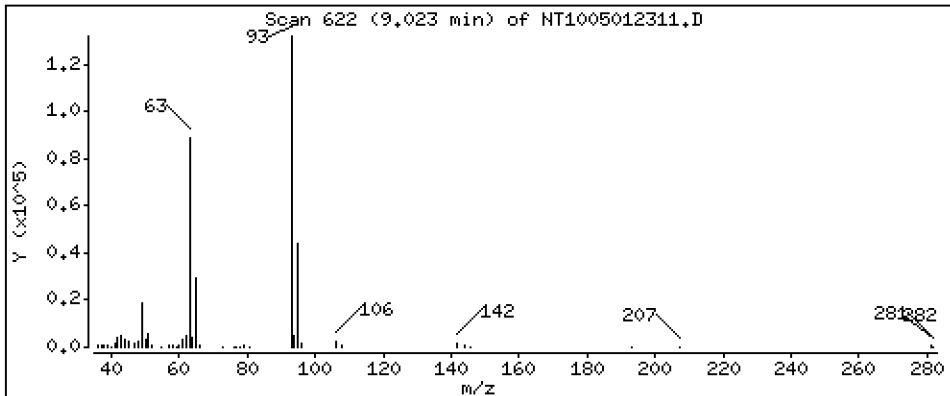
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 5,502 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

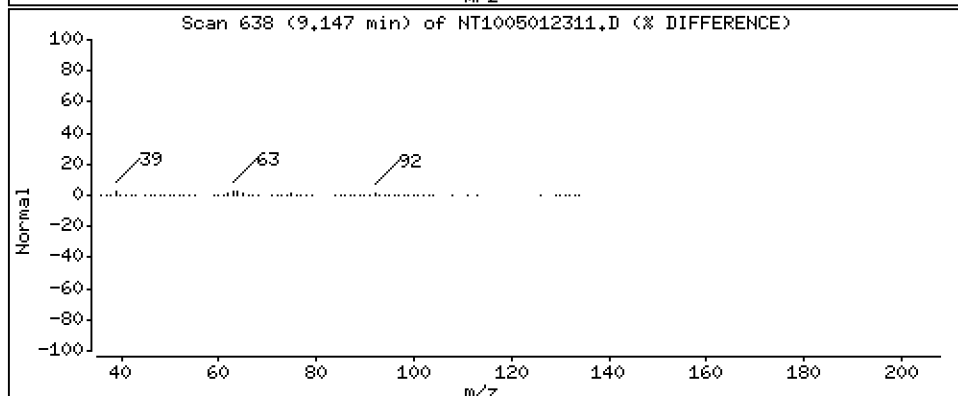
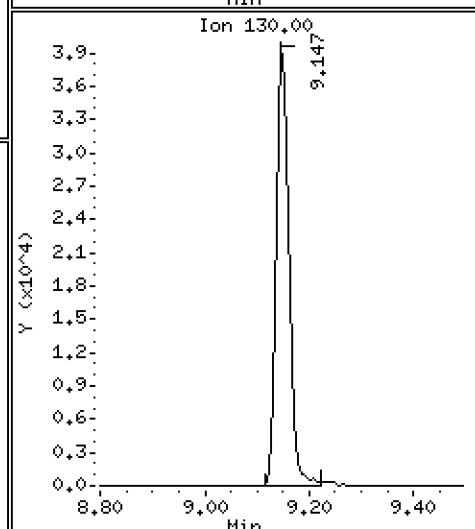
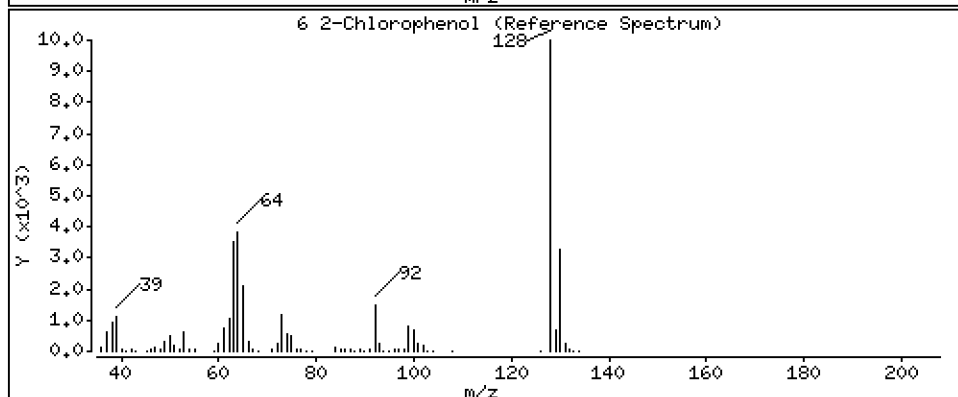
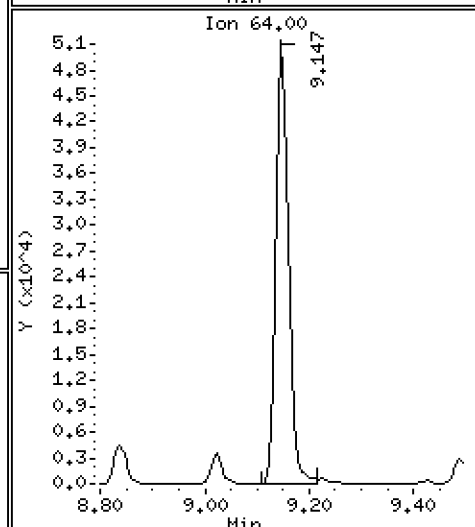
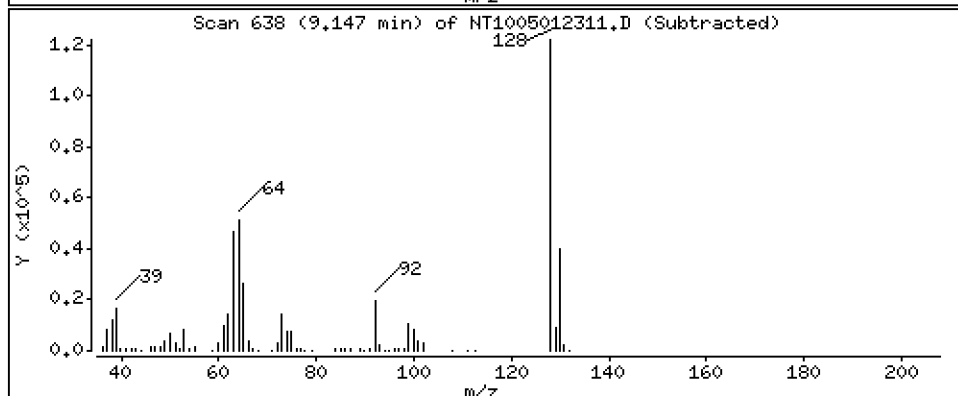
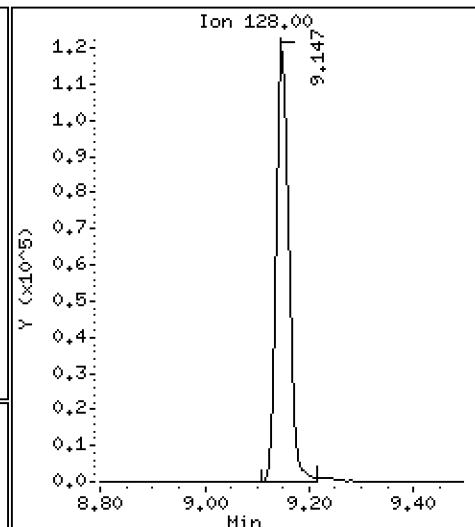
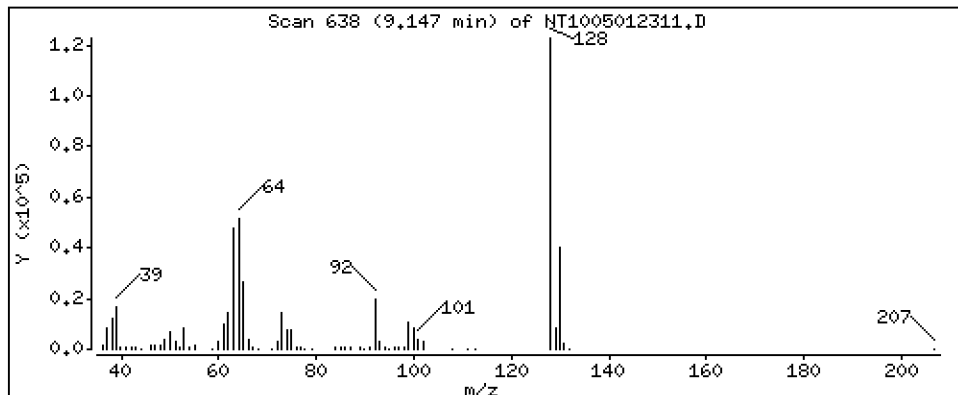
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,456 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

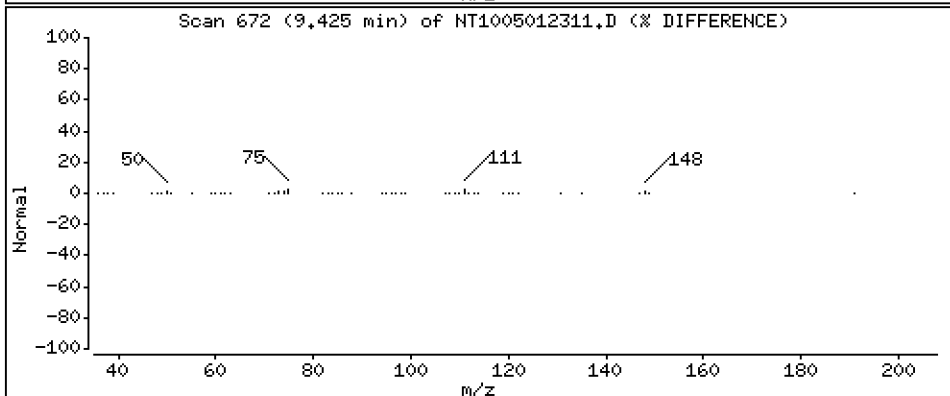
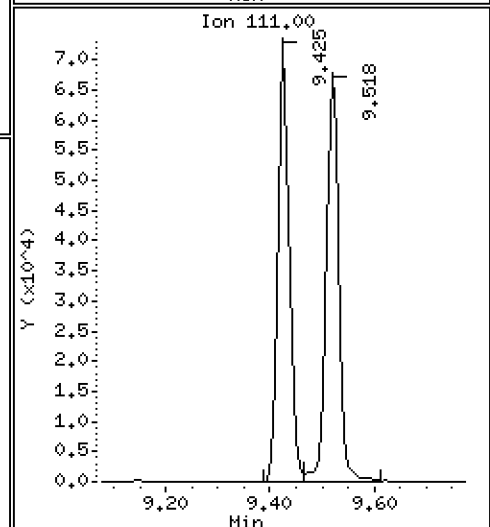
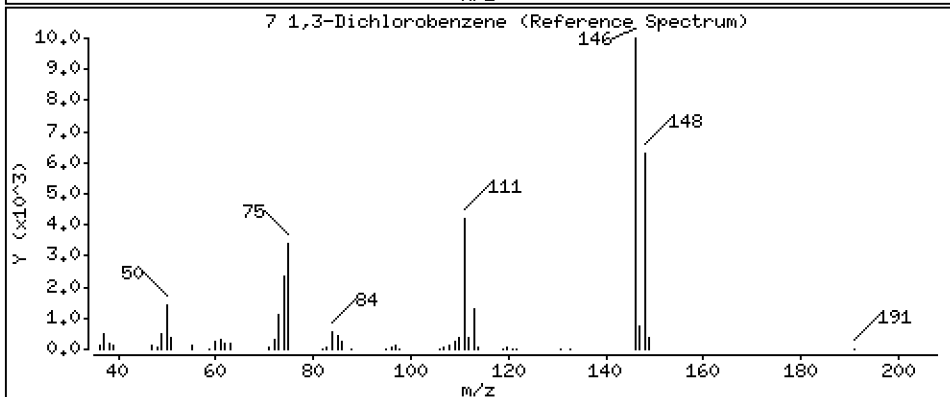
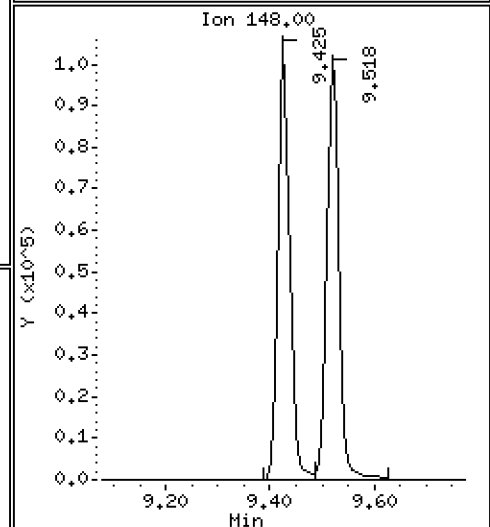
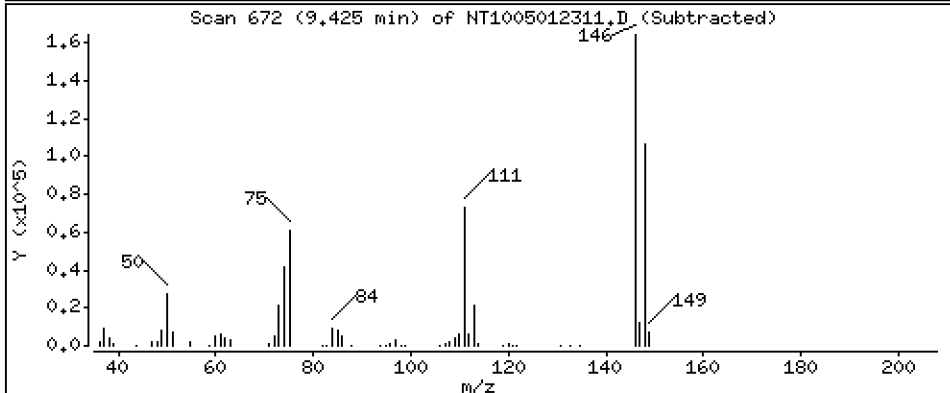
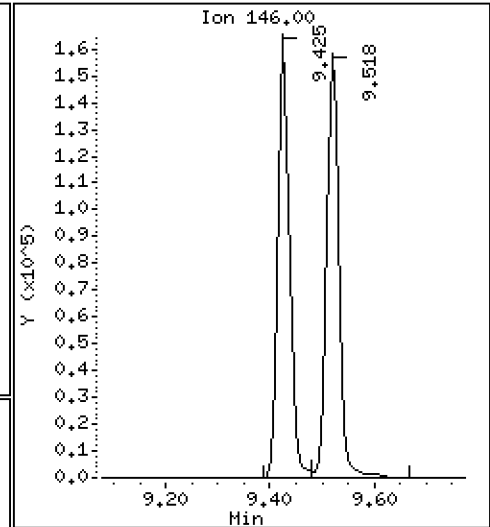
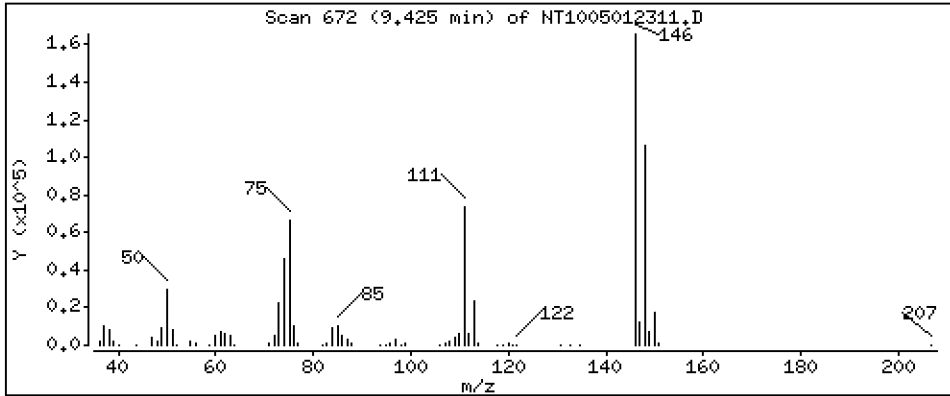
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 4.939 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

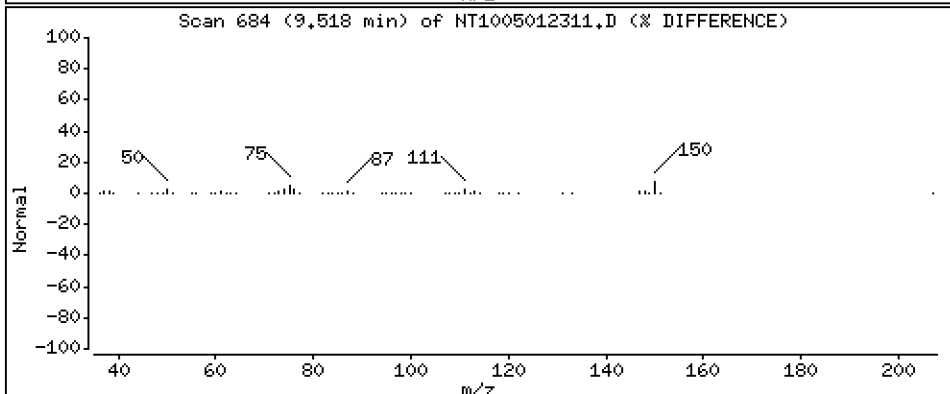
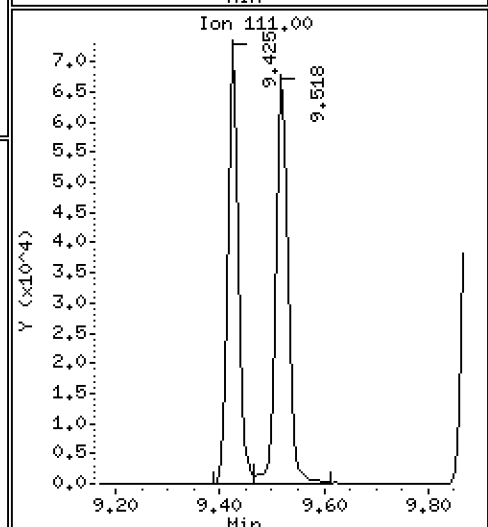
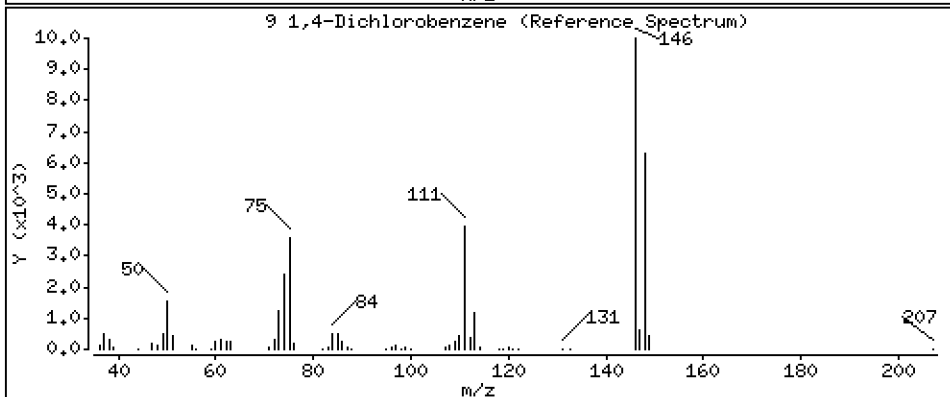
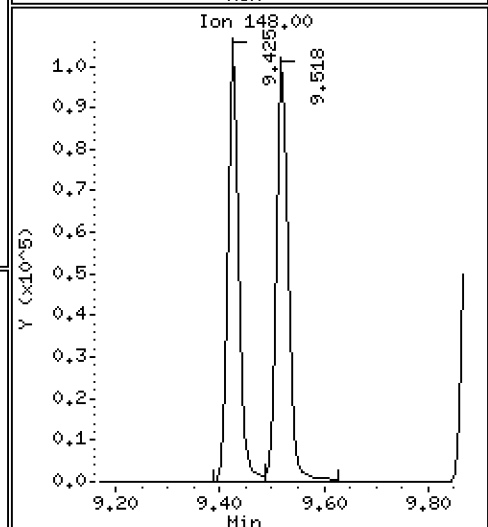
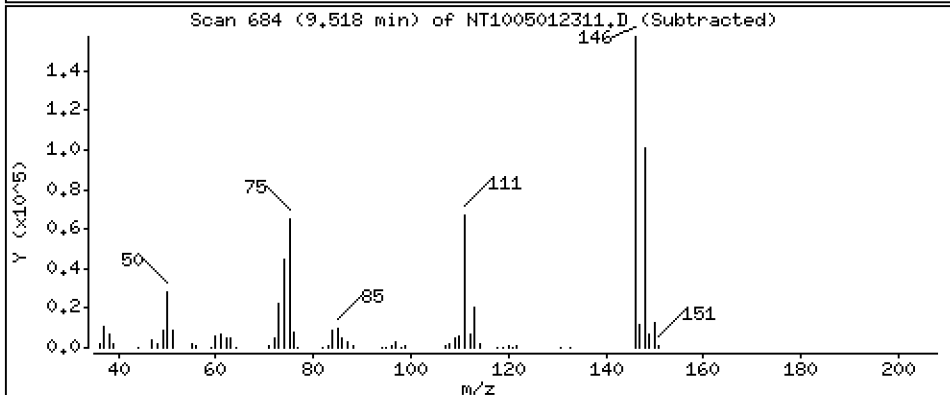
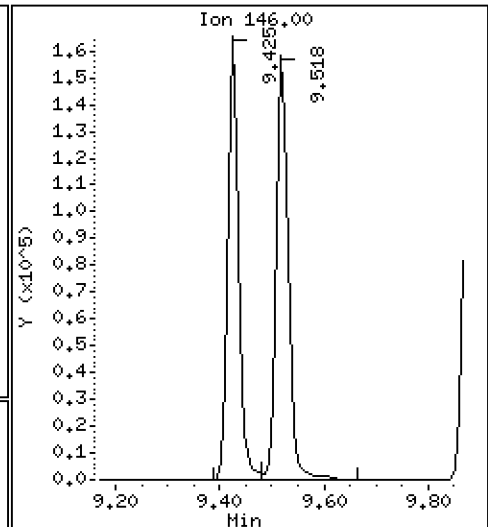
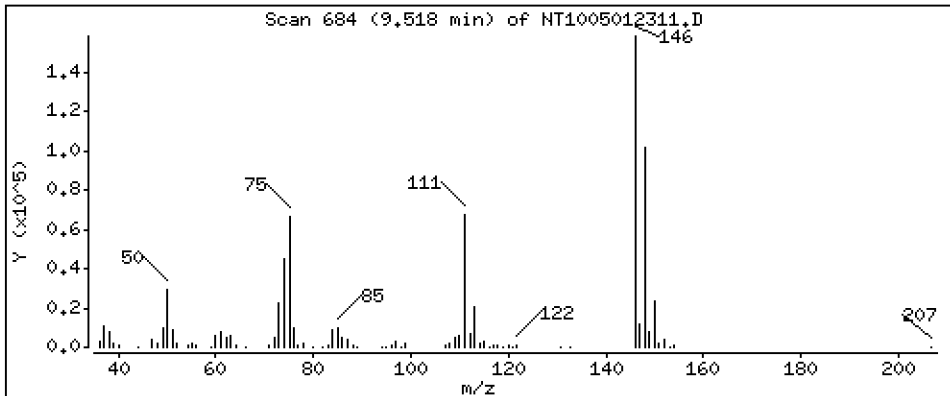
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 5.492 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

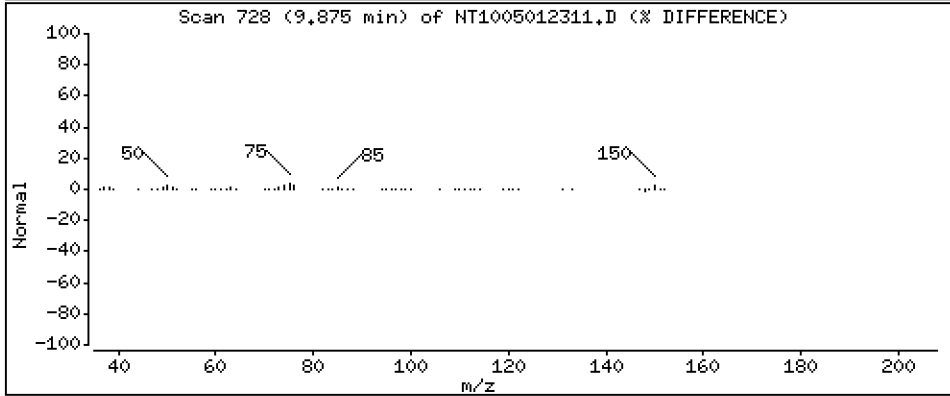
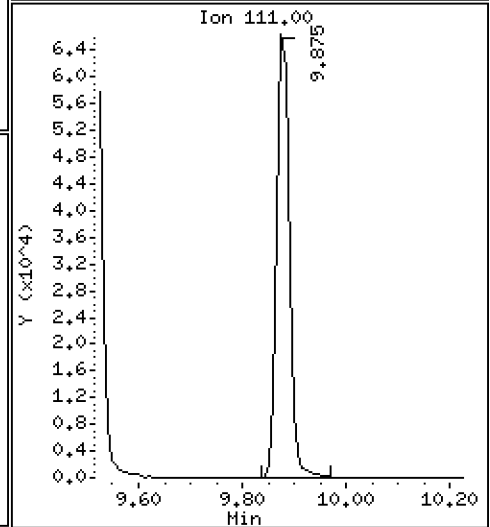
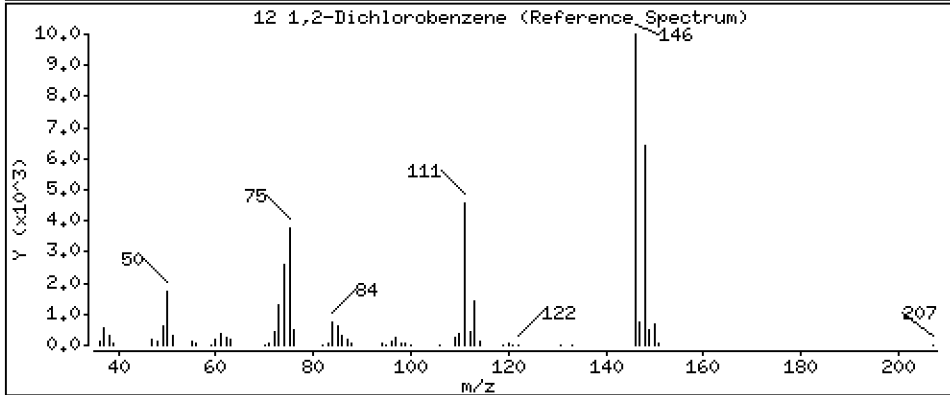
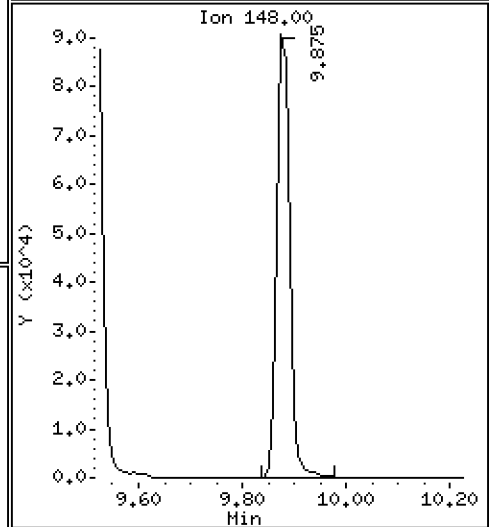
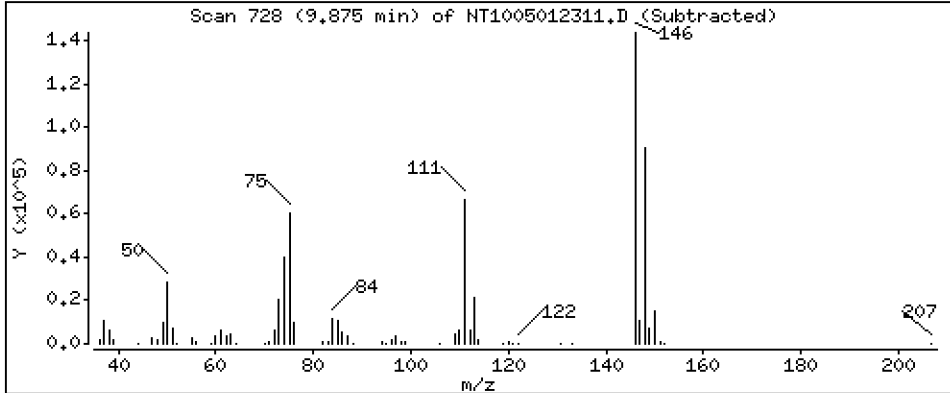
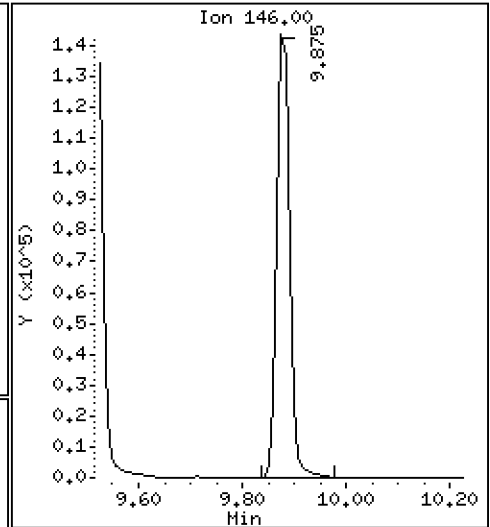
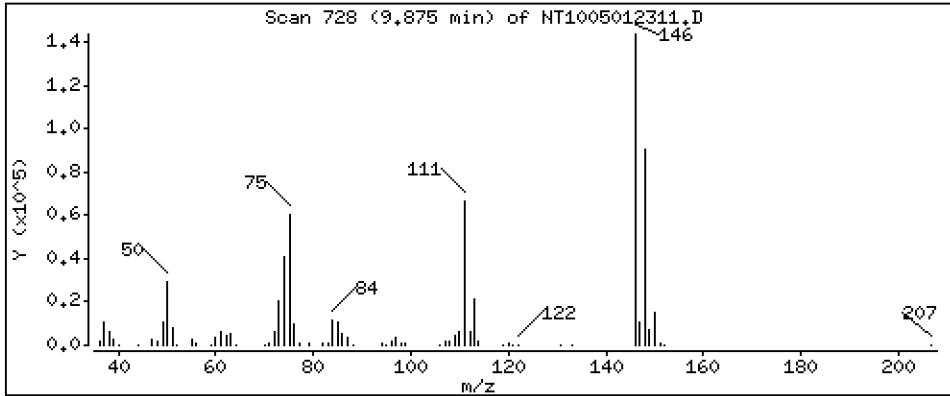
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,938 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

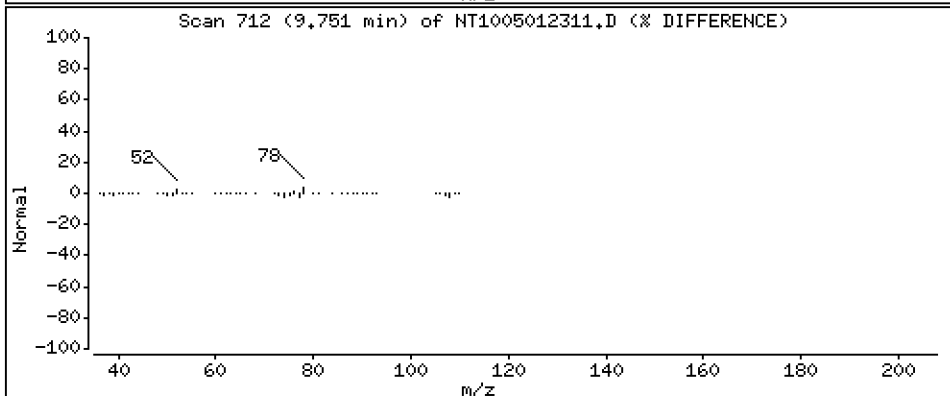
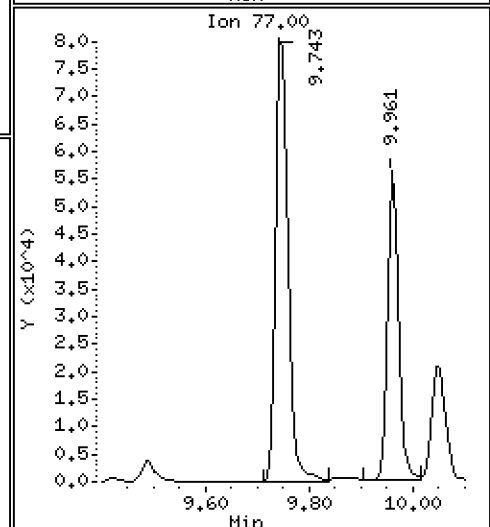
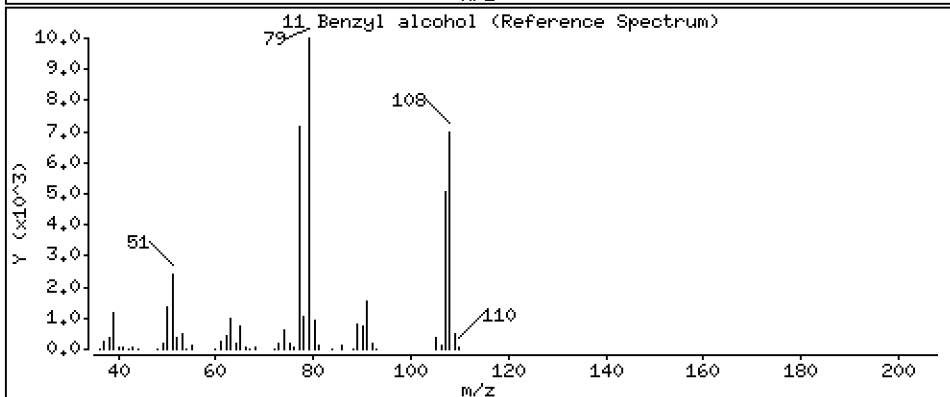
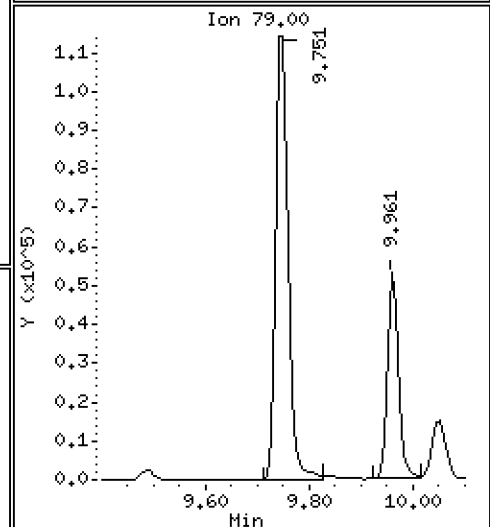
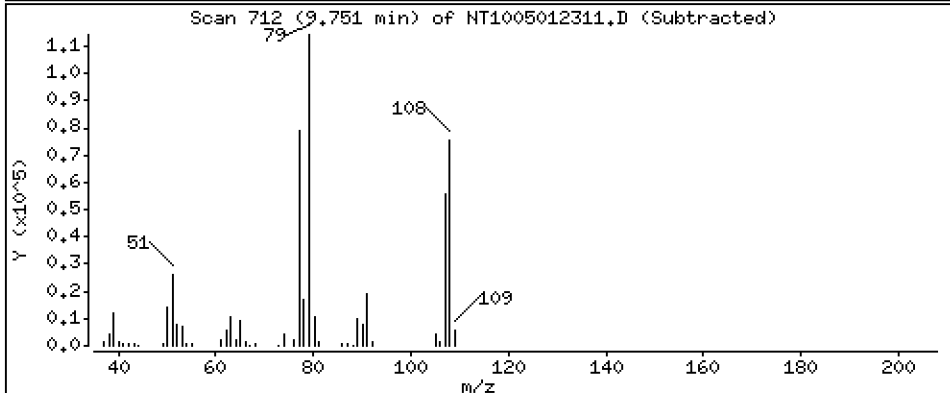
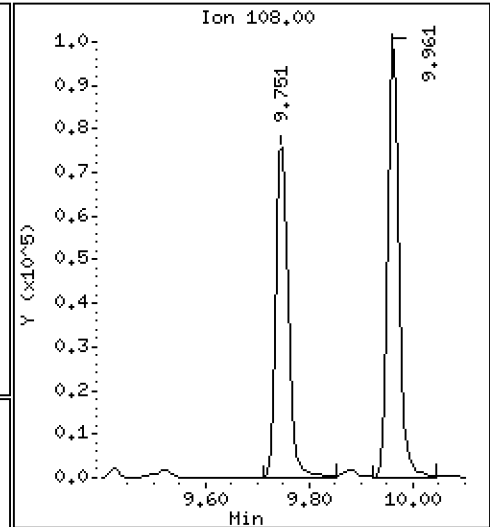
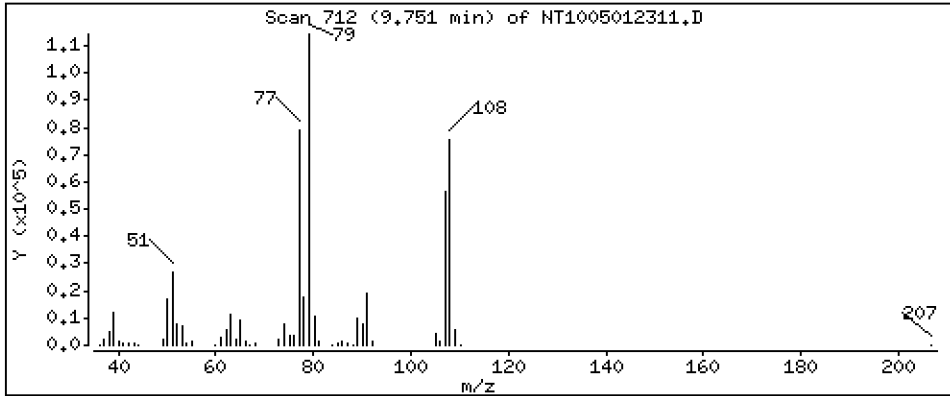
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 5,069 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

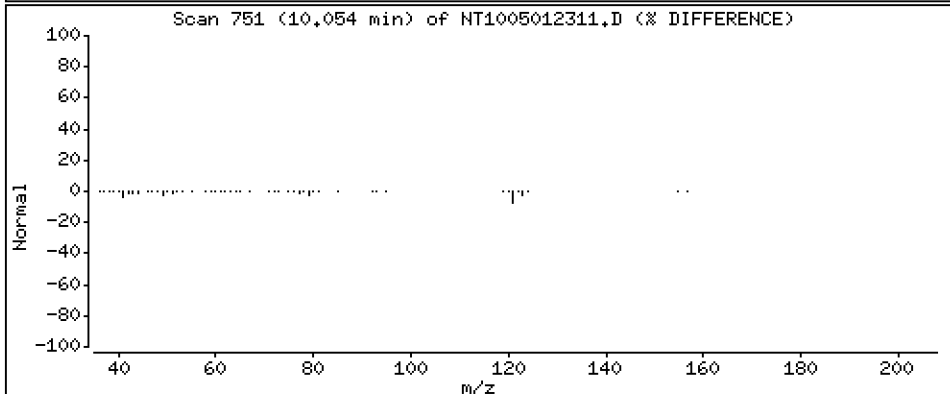
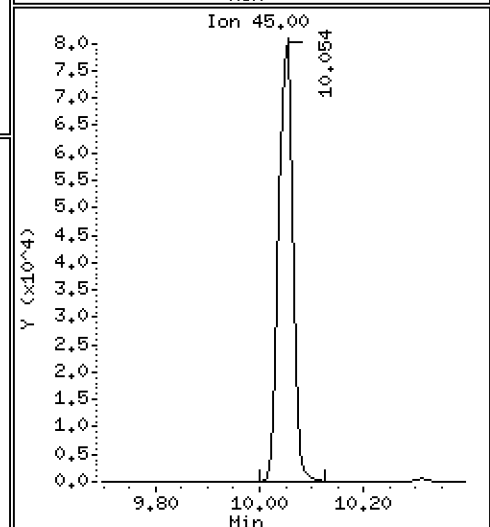
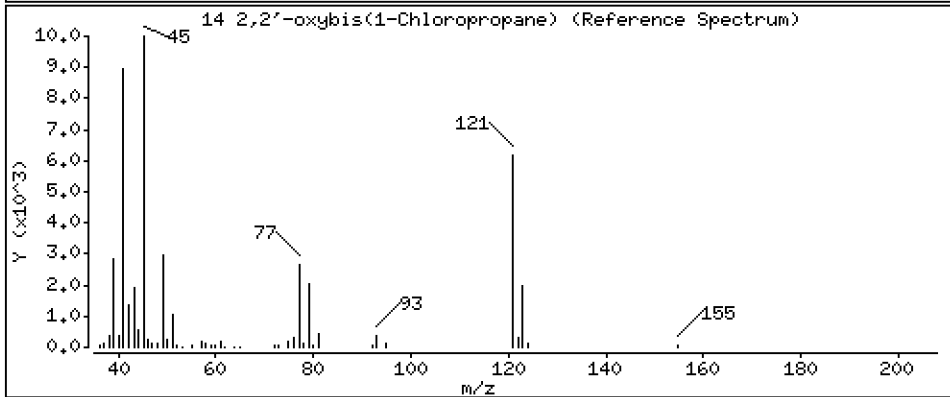
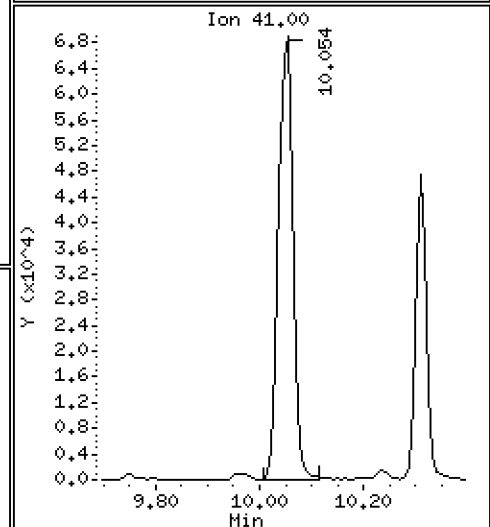
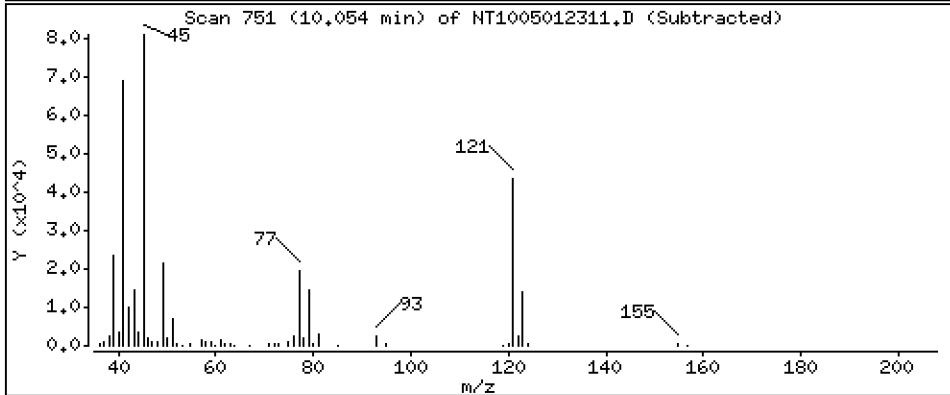
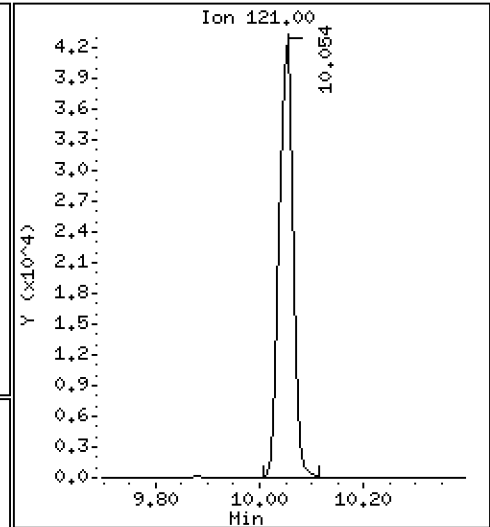
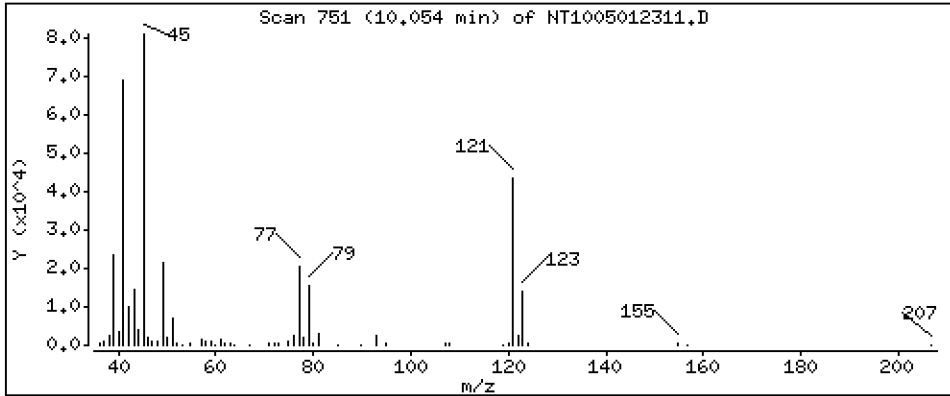
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 5,603 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

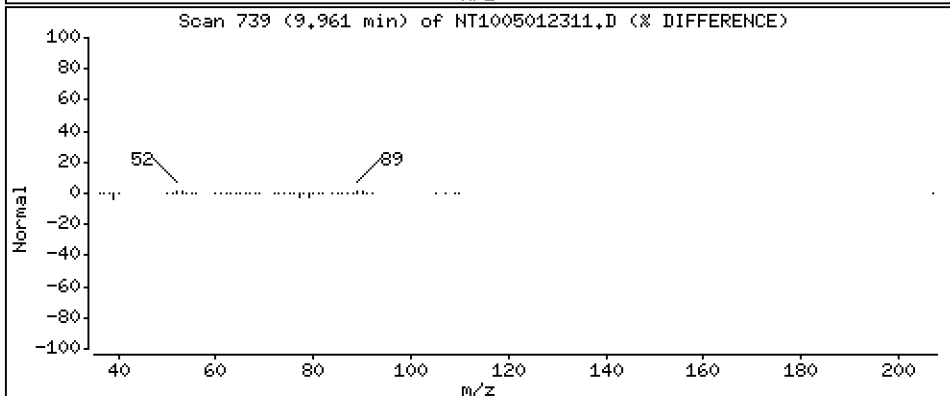
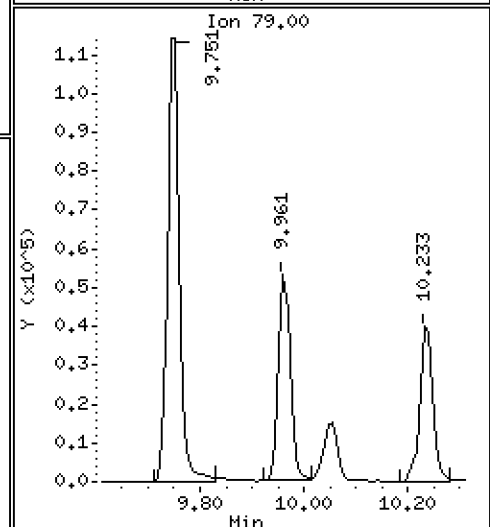
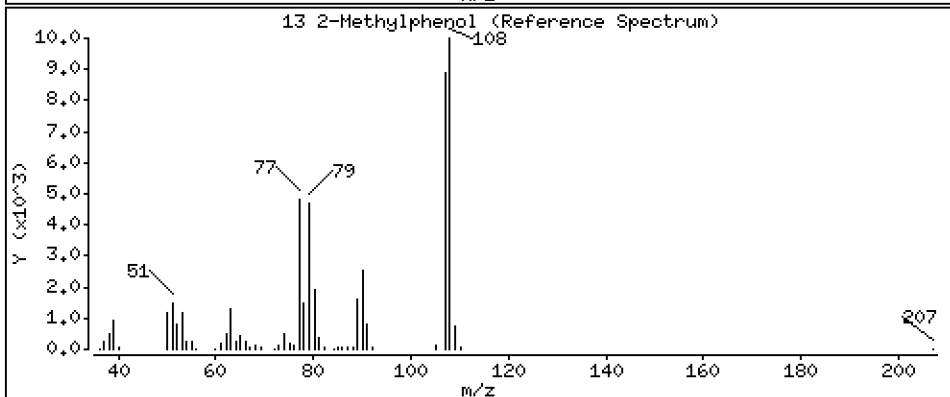
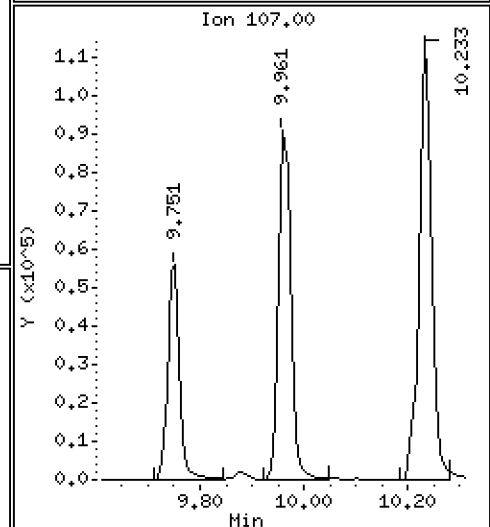
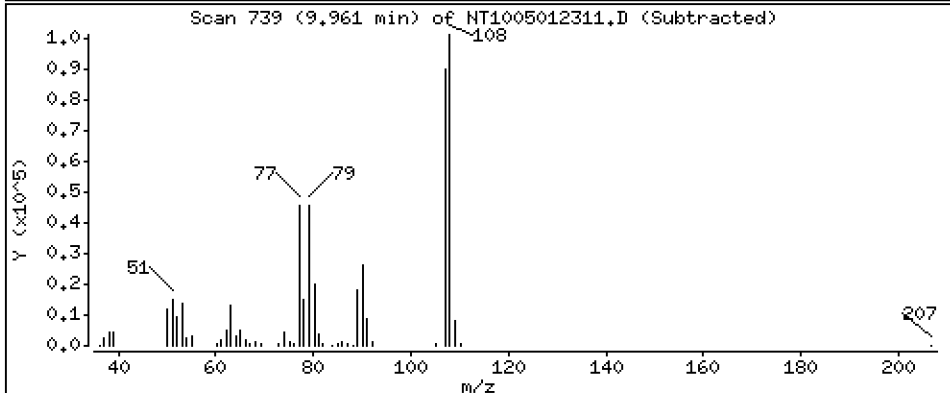
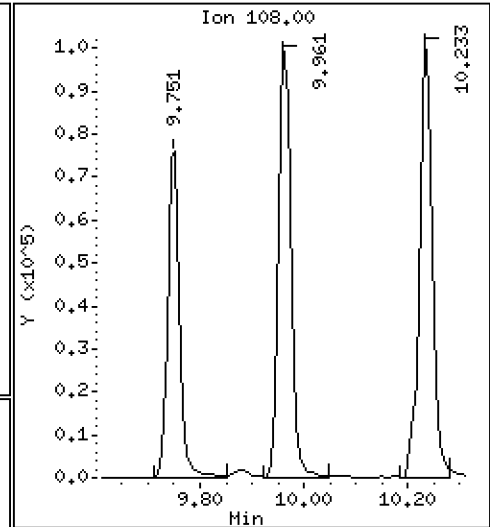
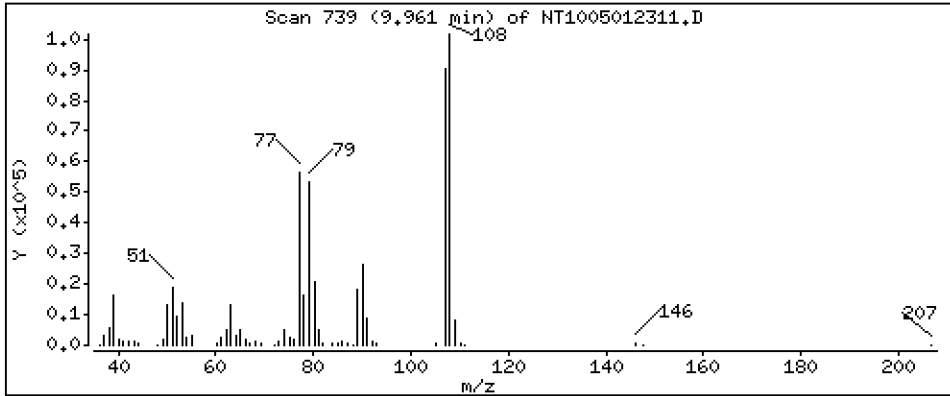
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.232 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

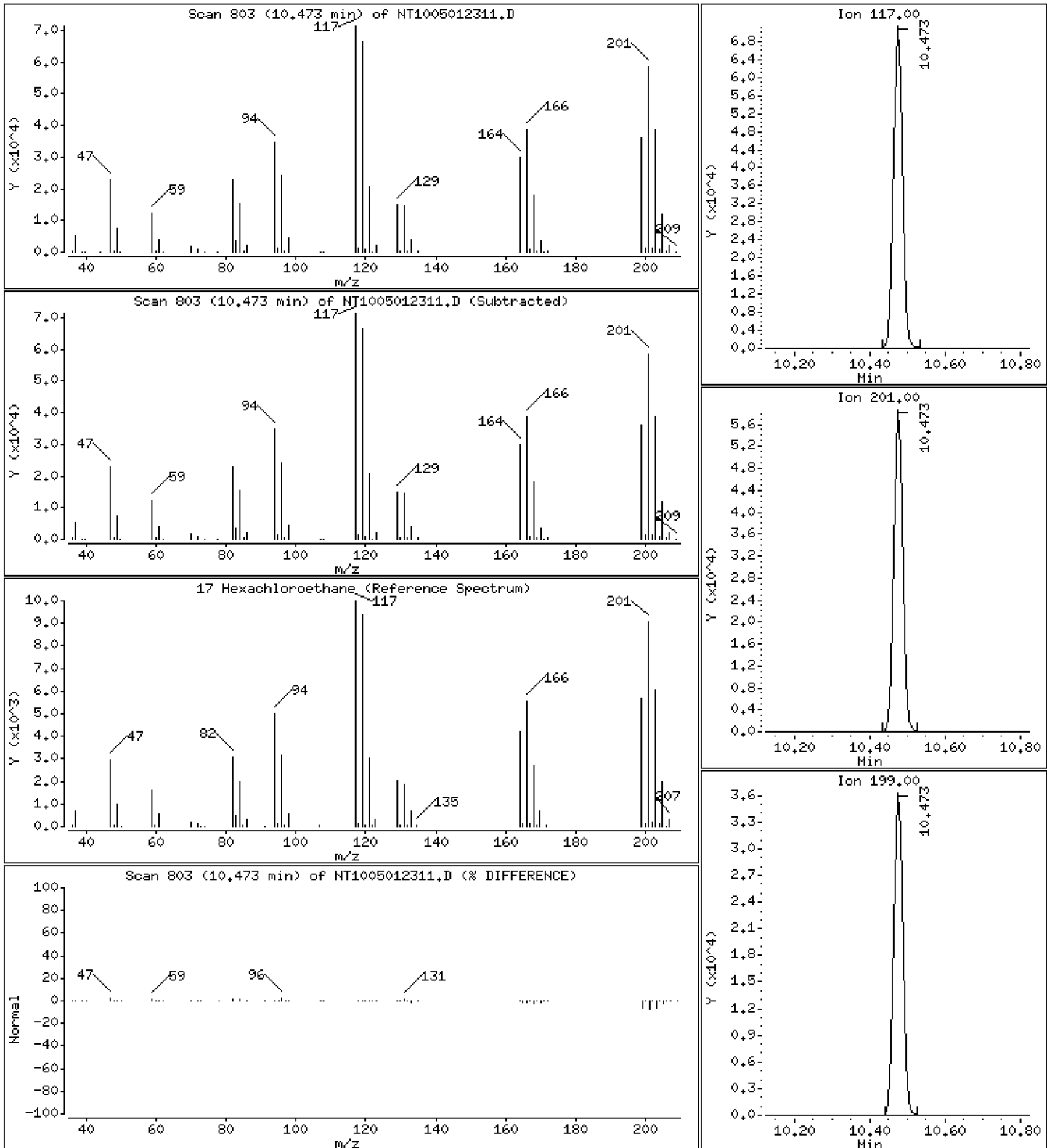
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 5.275 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

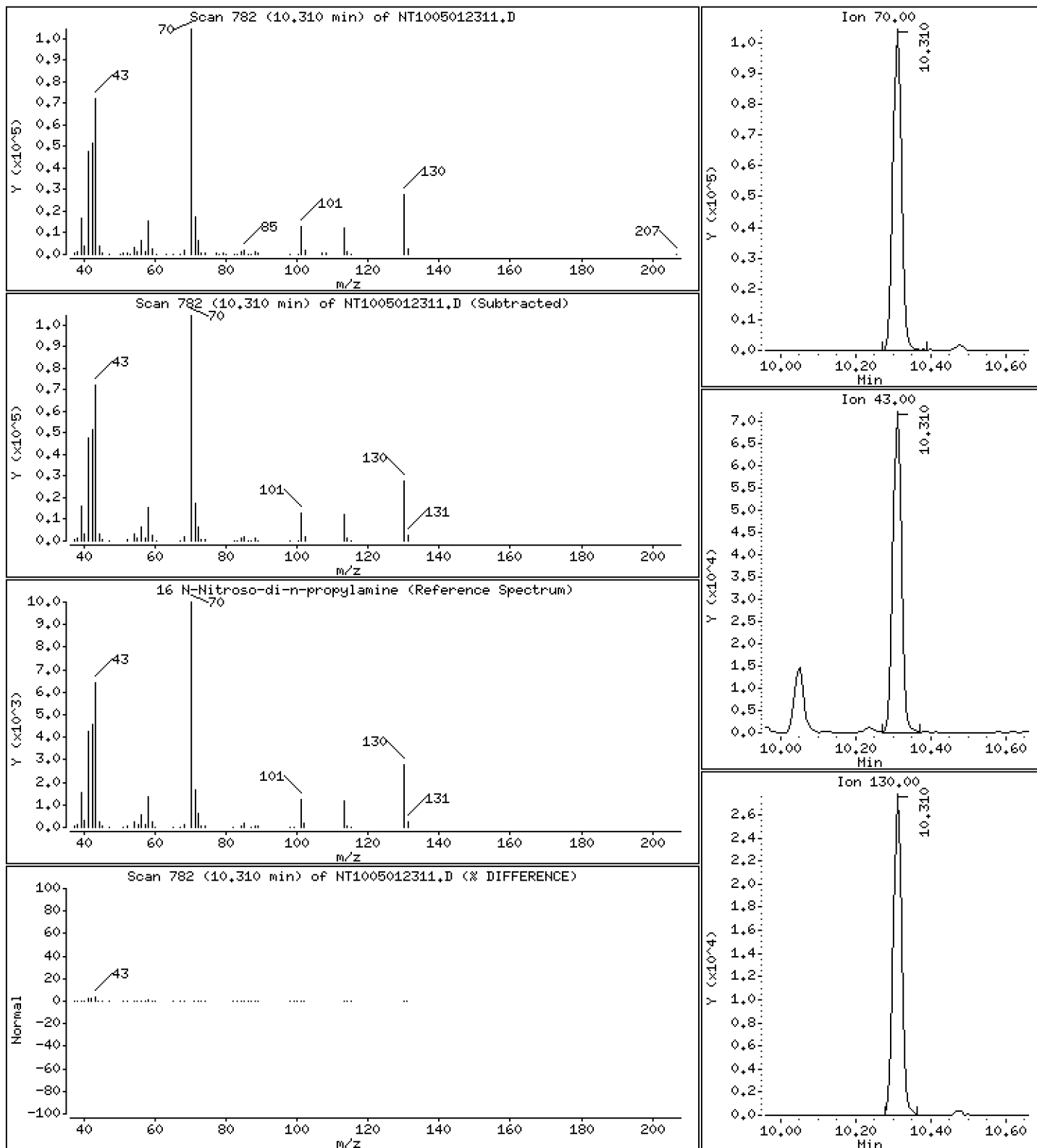
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,386 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

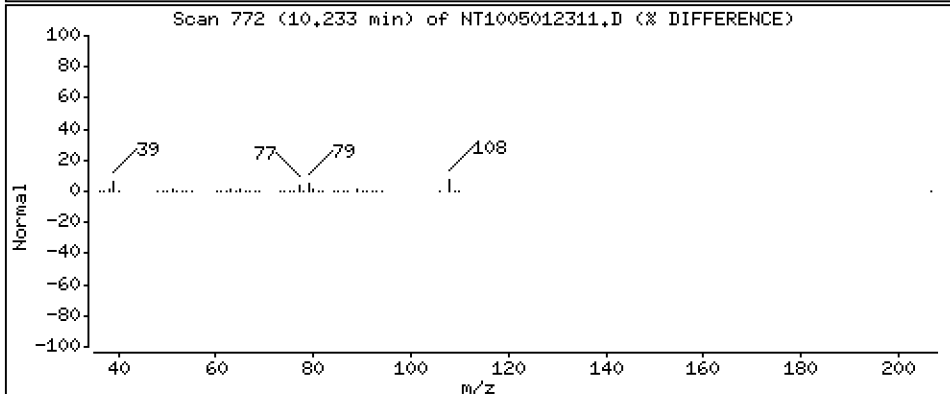
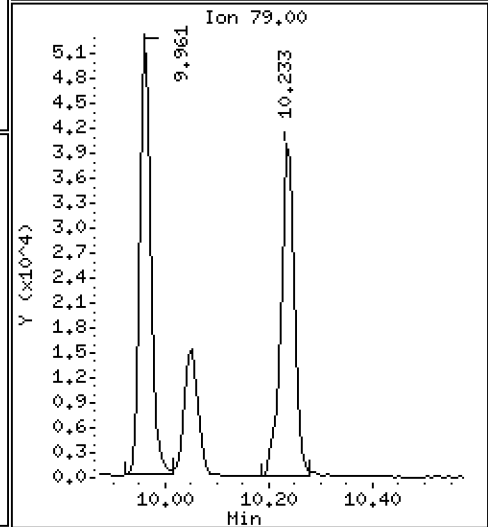
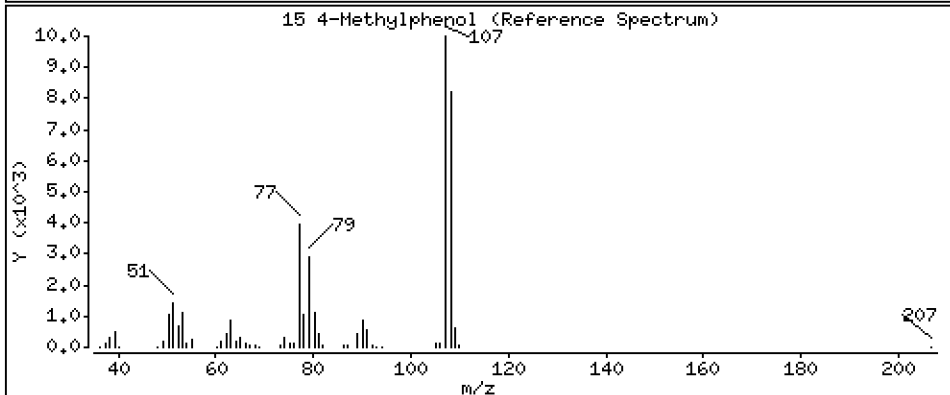
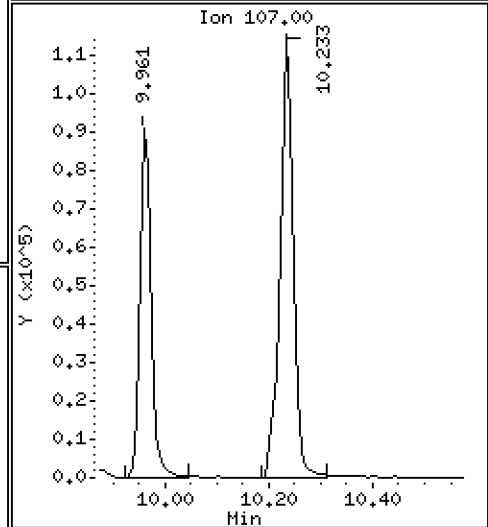
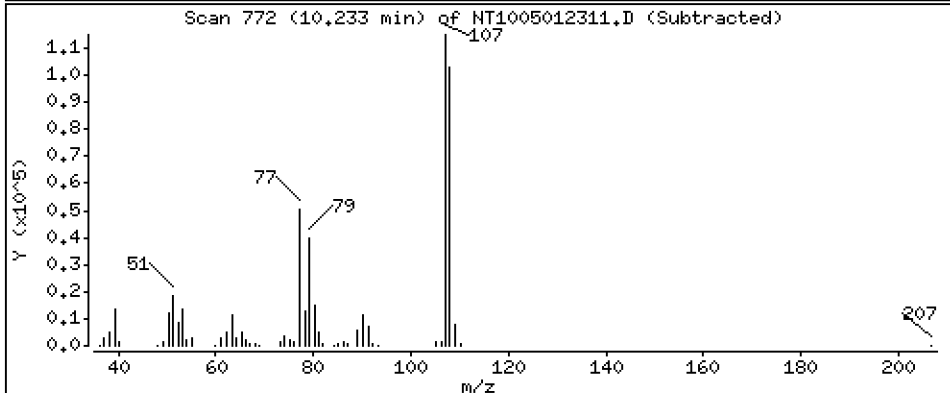
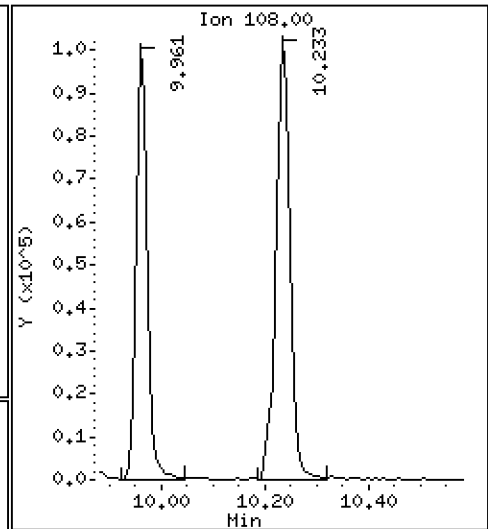
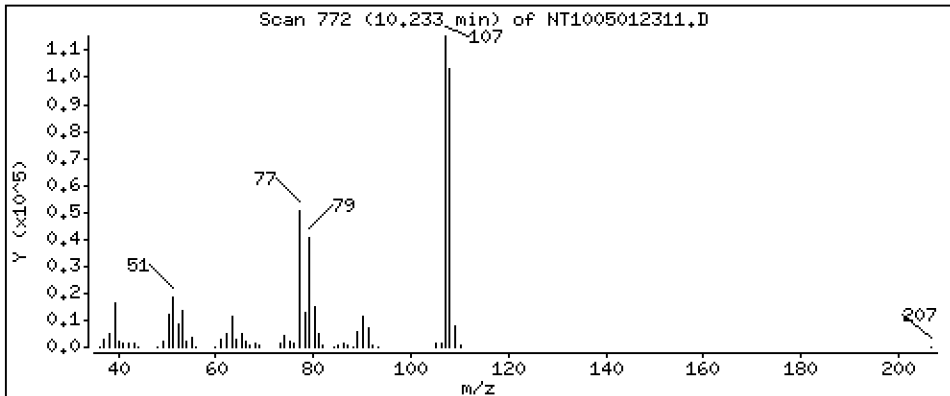
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 4.441 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

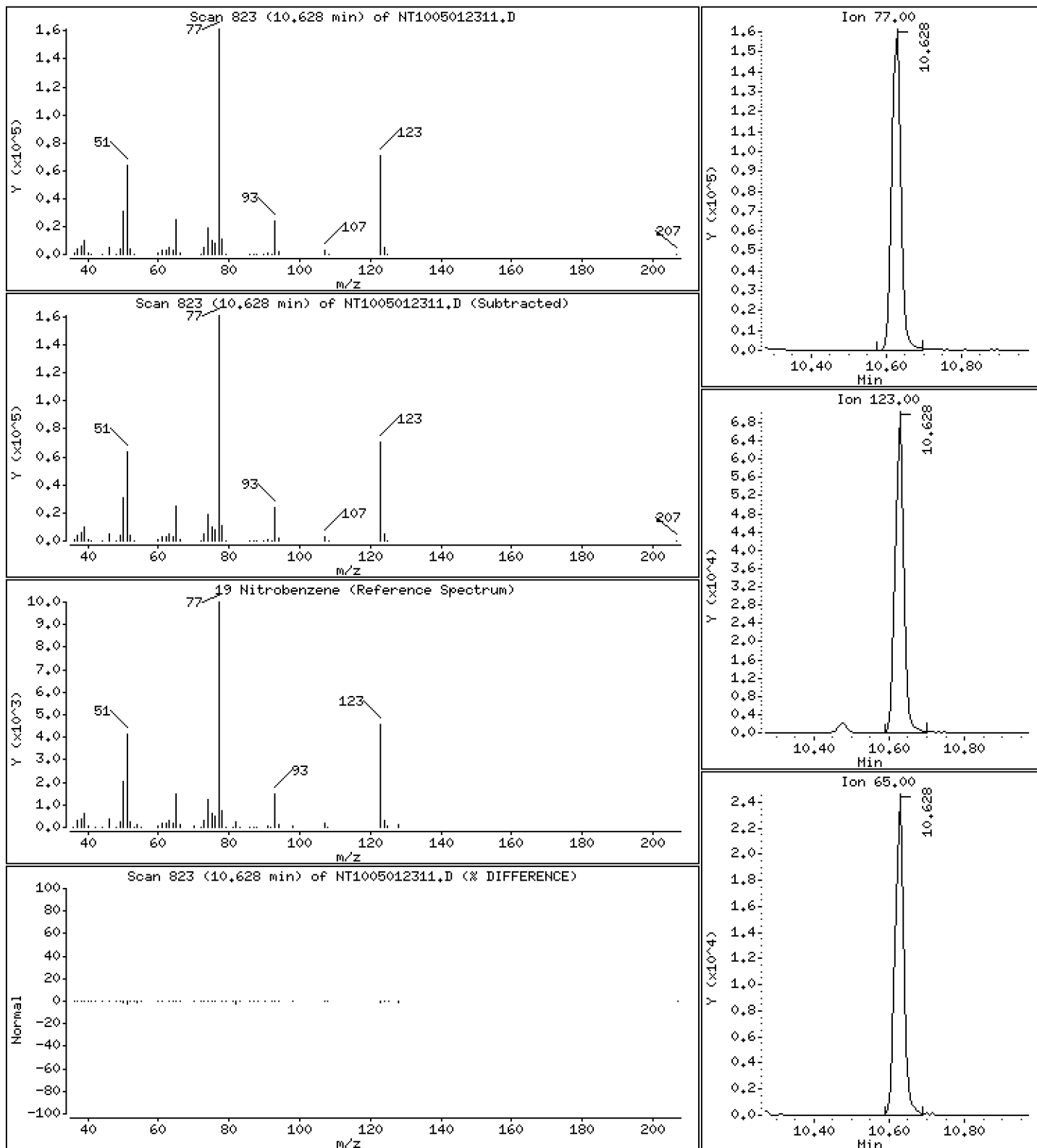
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,970 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

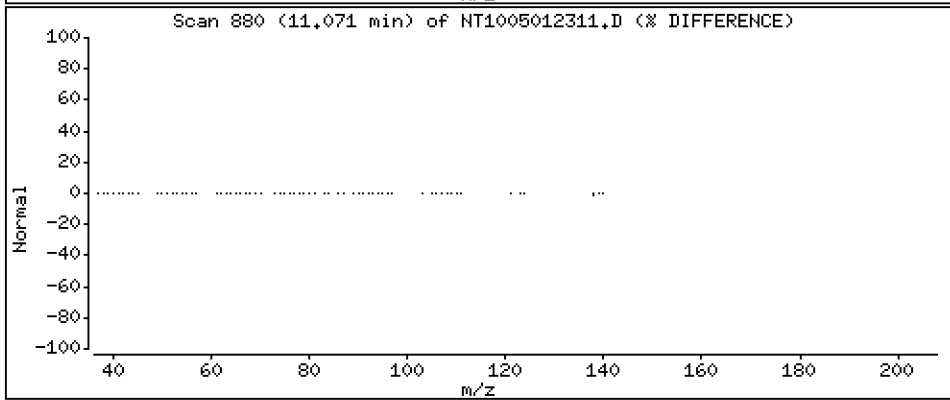
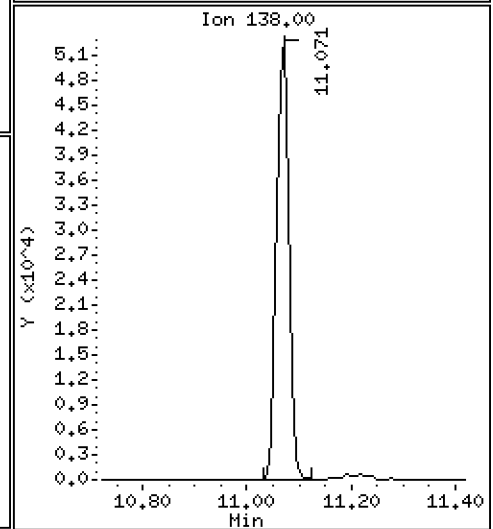
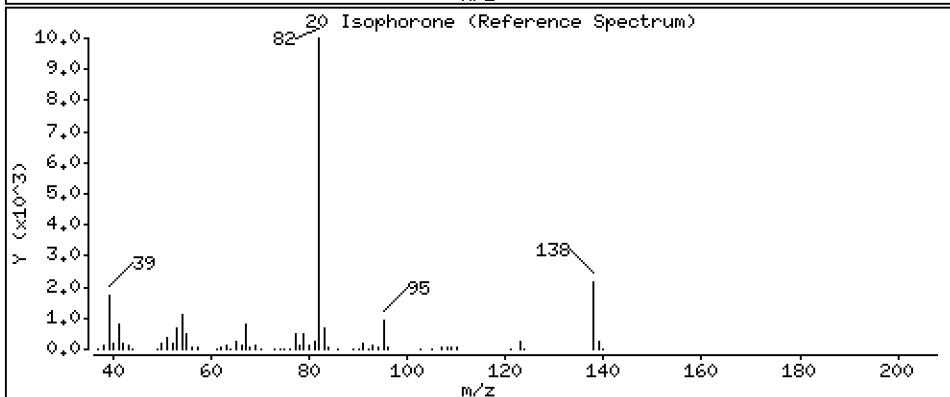
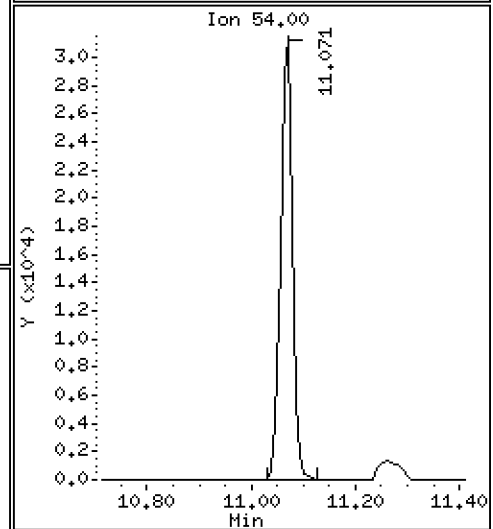
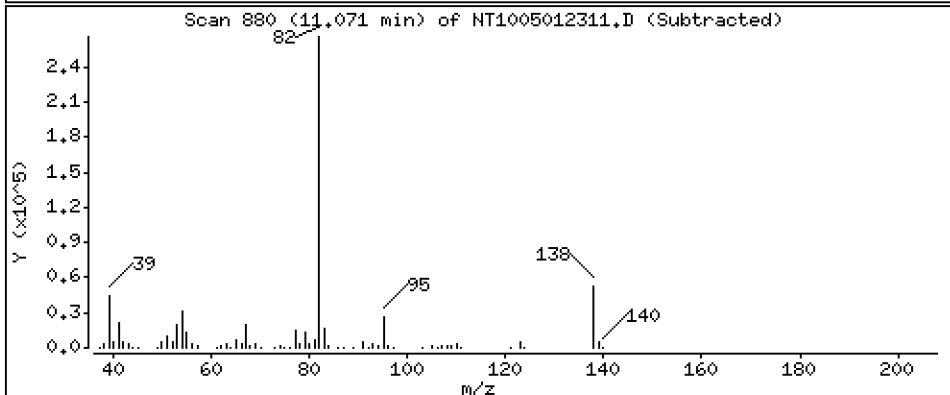
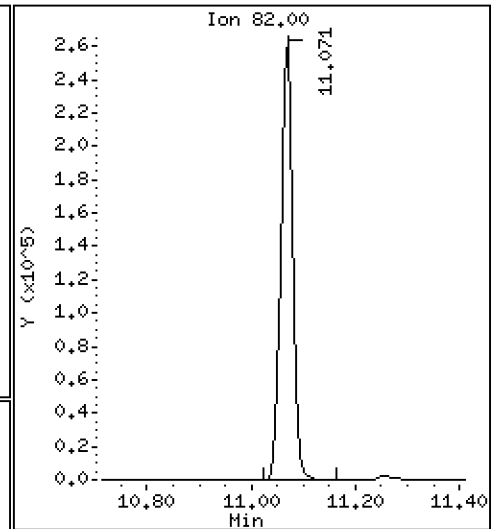
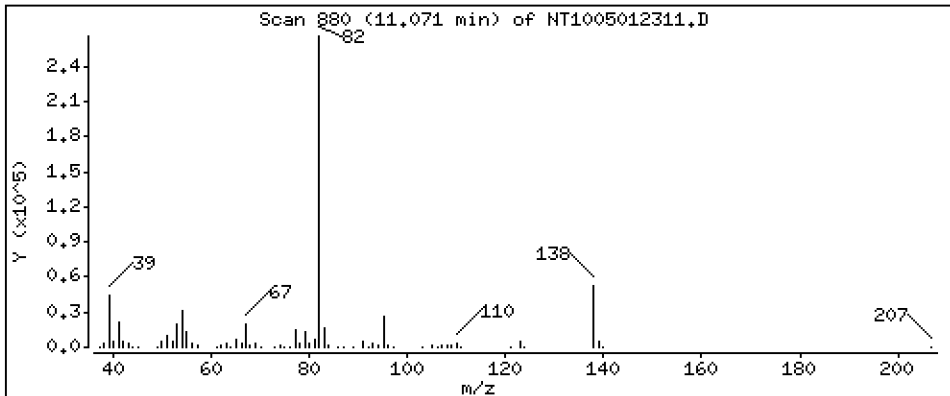
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 7,878 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

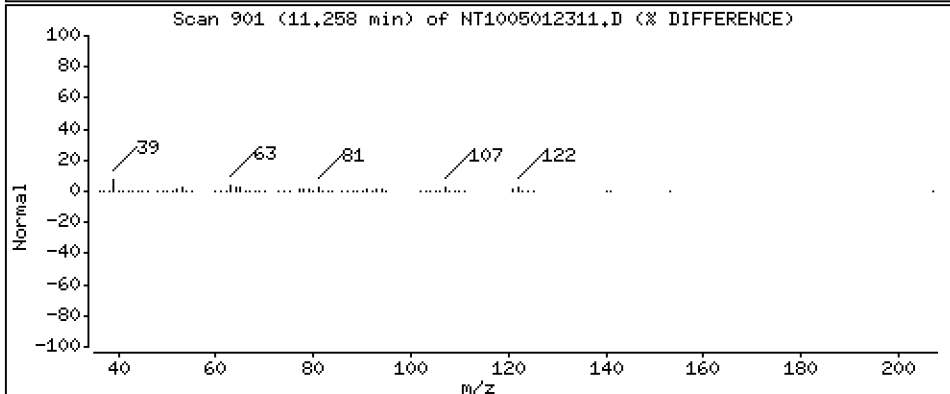
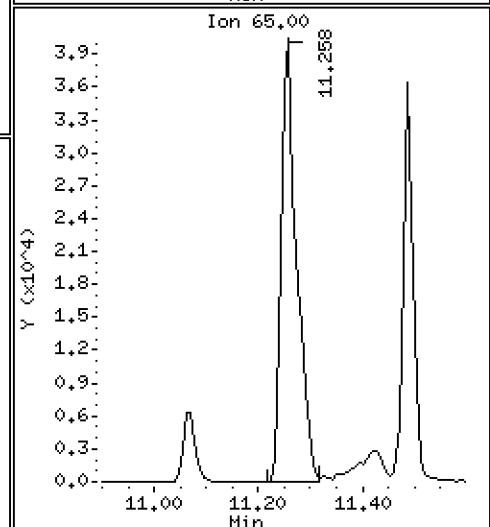
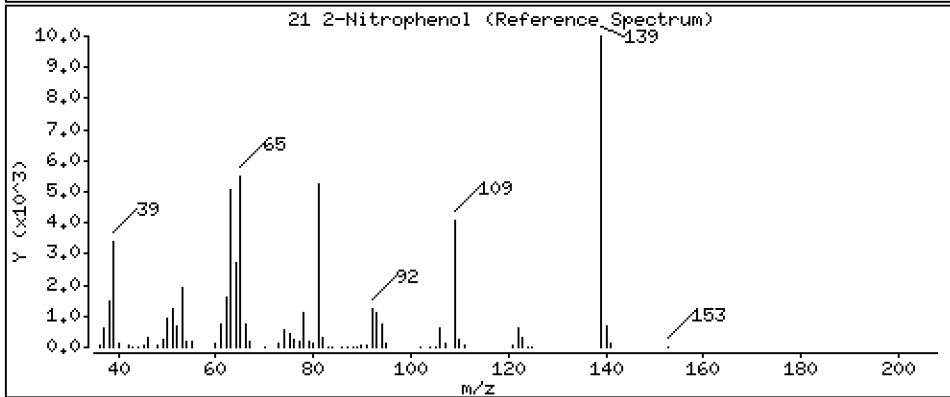
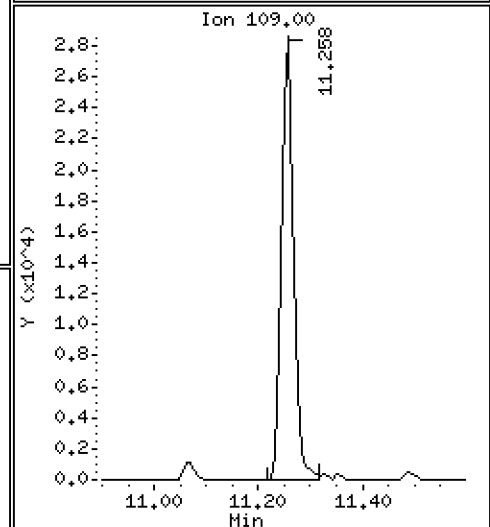
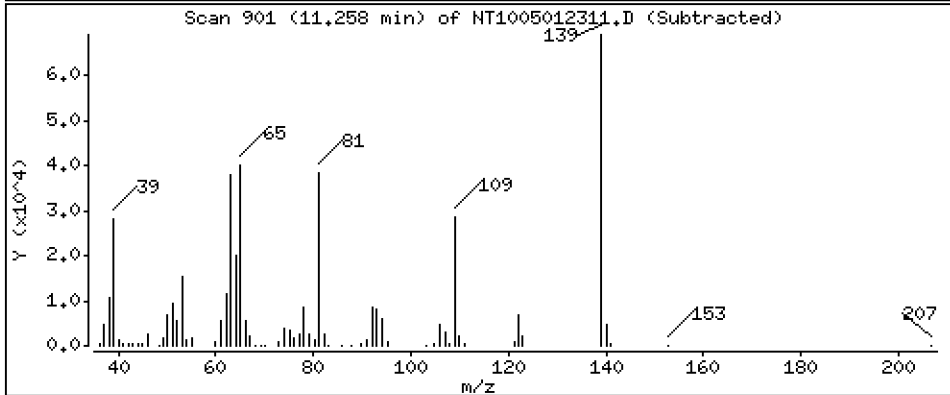
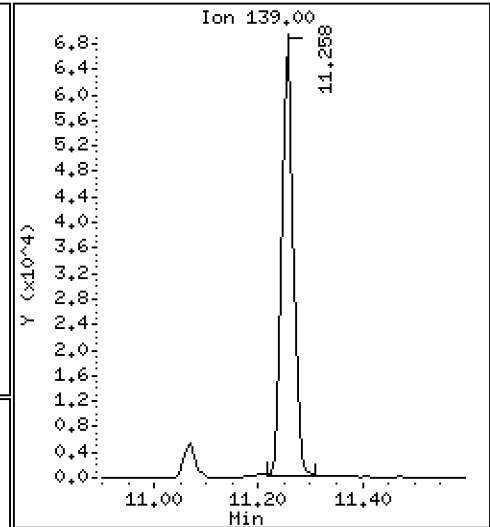
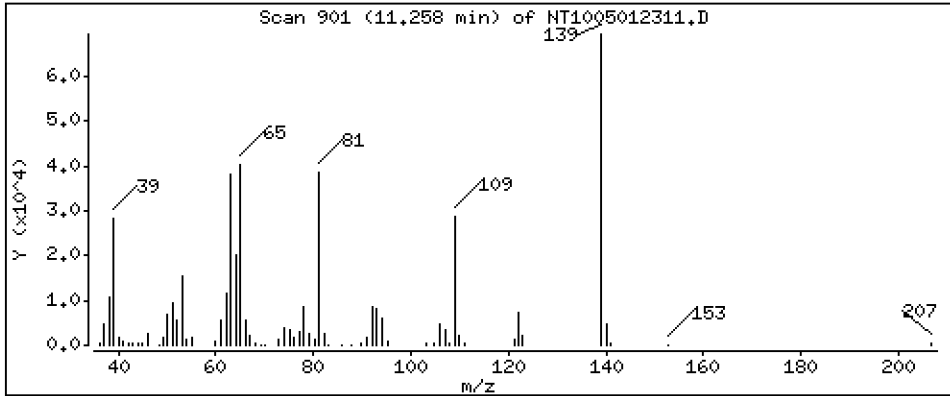
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 3,896 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

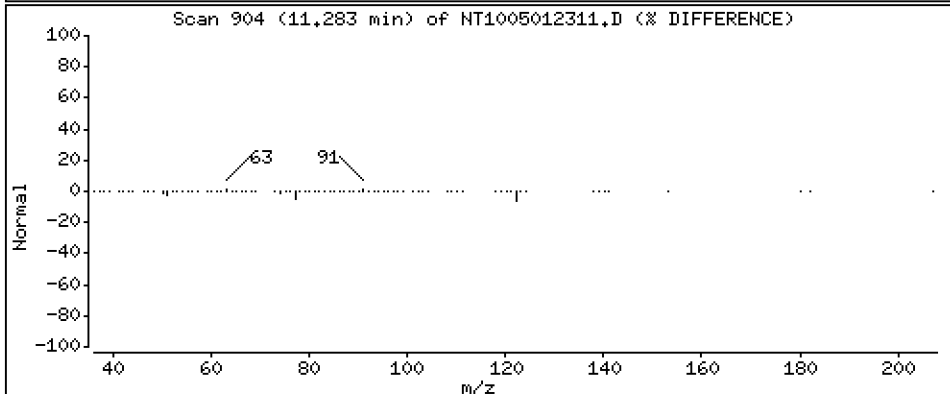
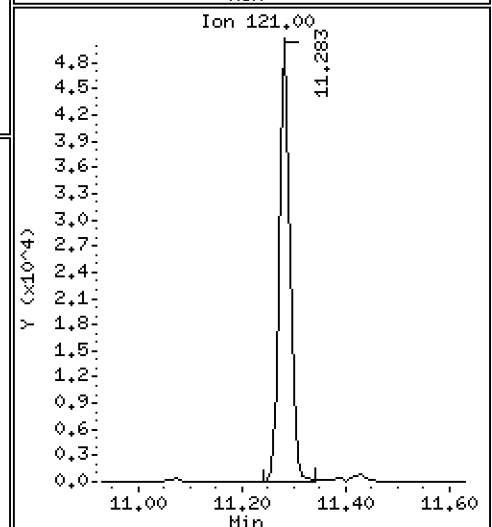
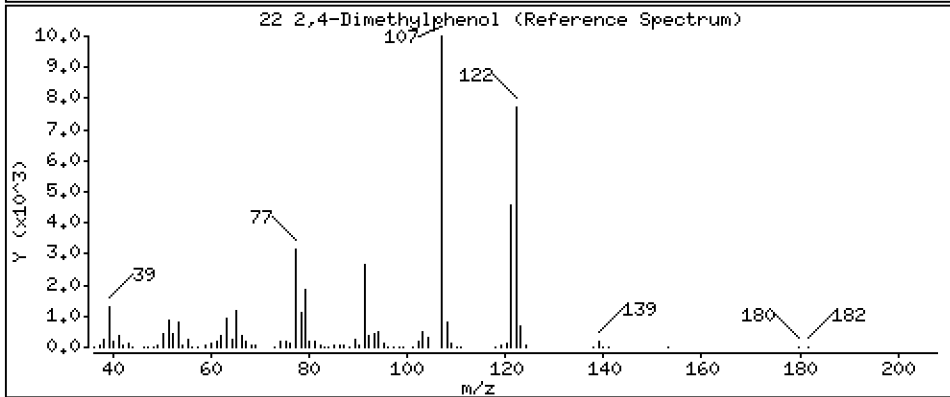
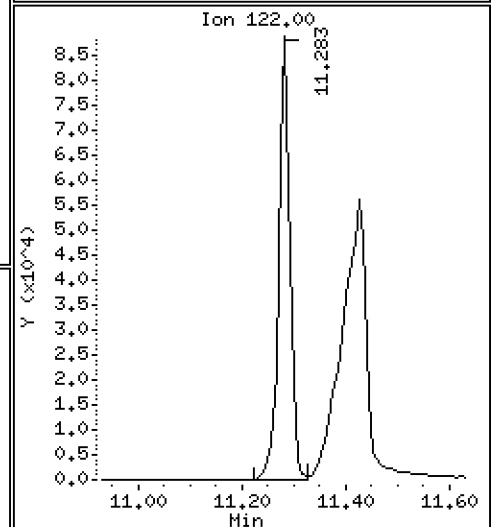
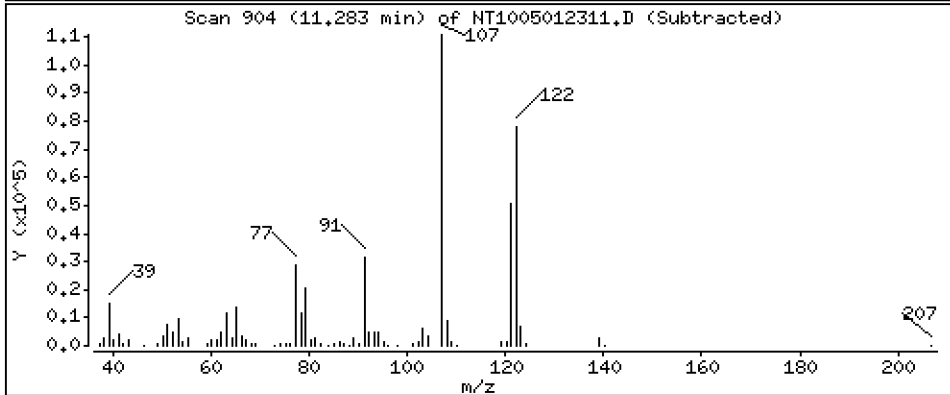
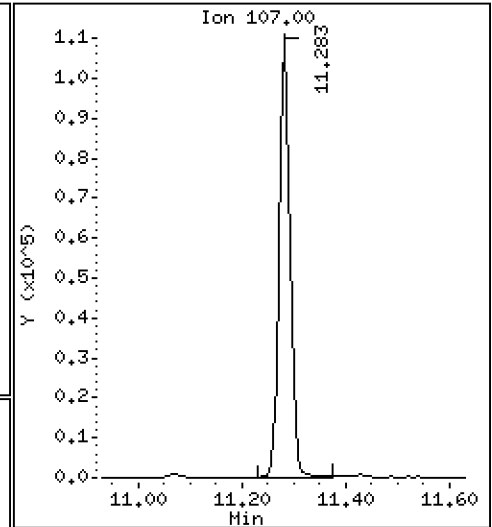
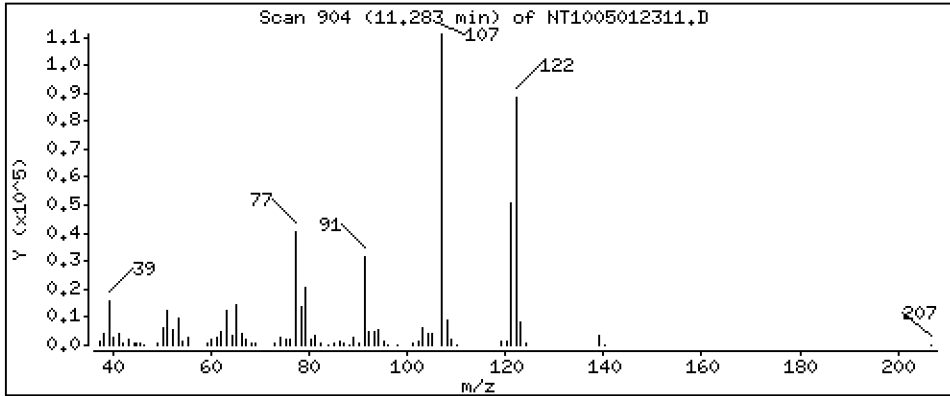
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,424 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

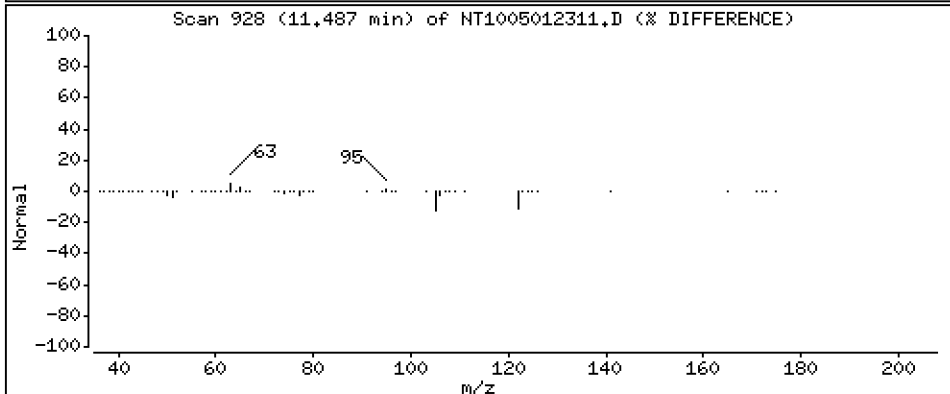
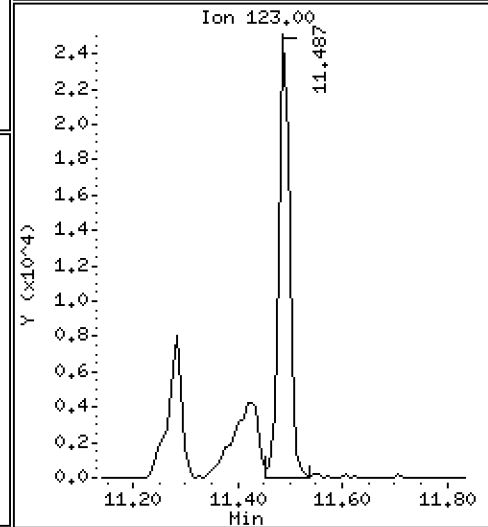
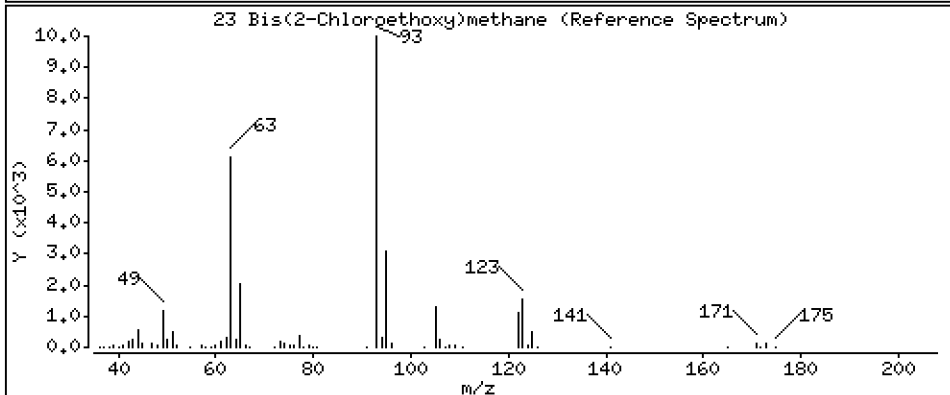
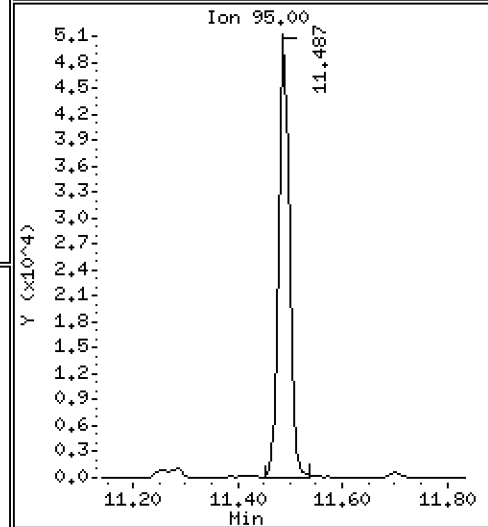
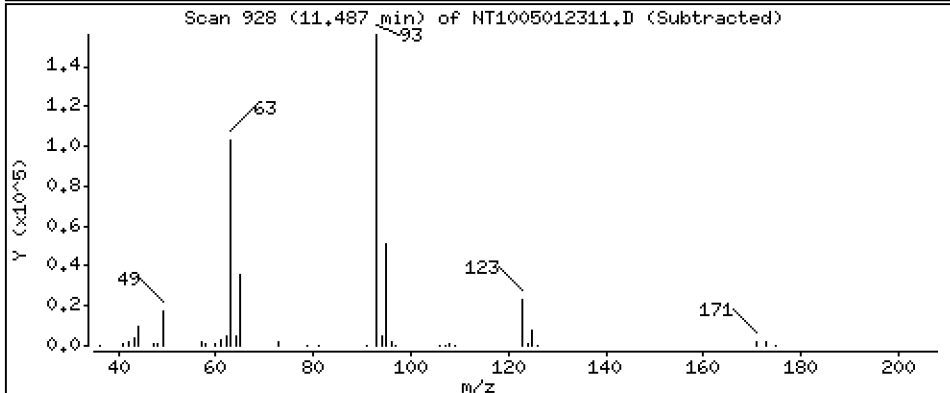
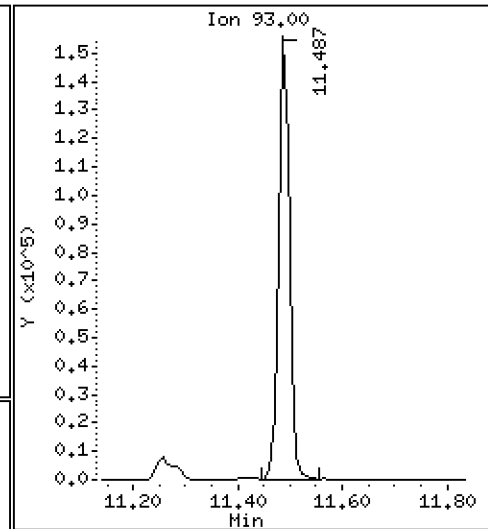
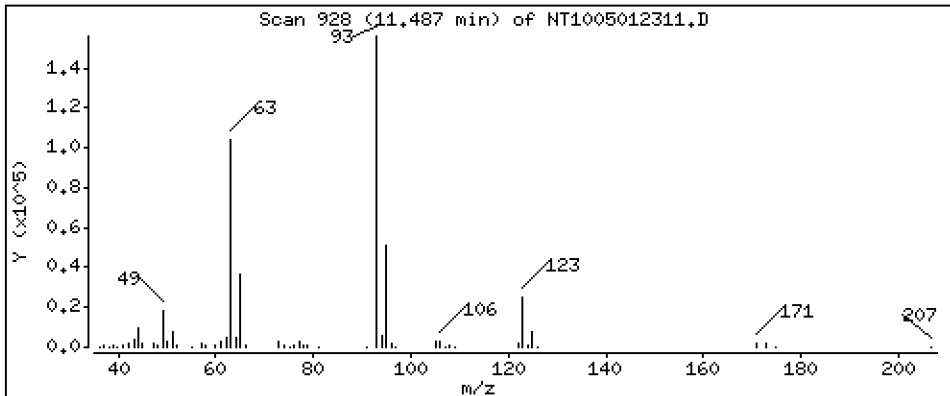
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

23 Bis(2-Chloroethoxy)methane

Concentration: 5.736 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

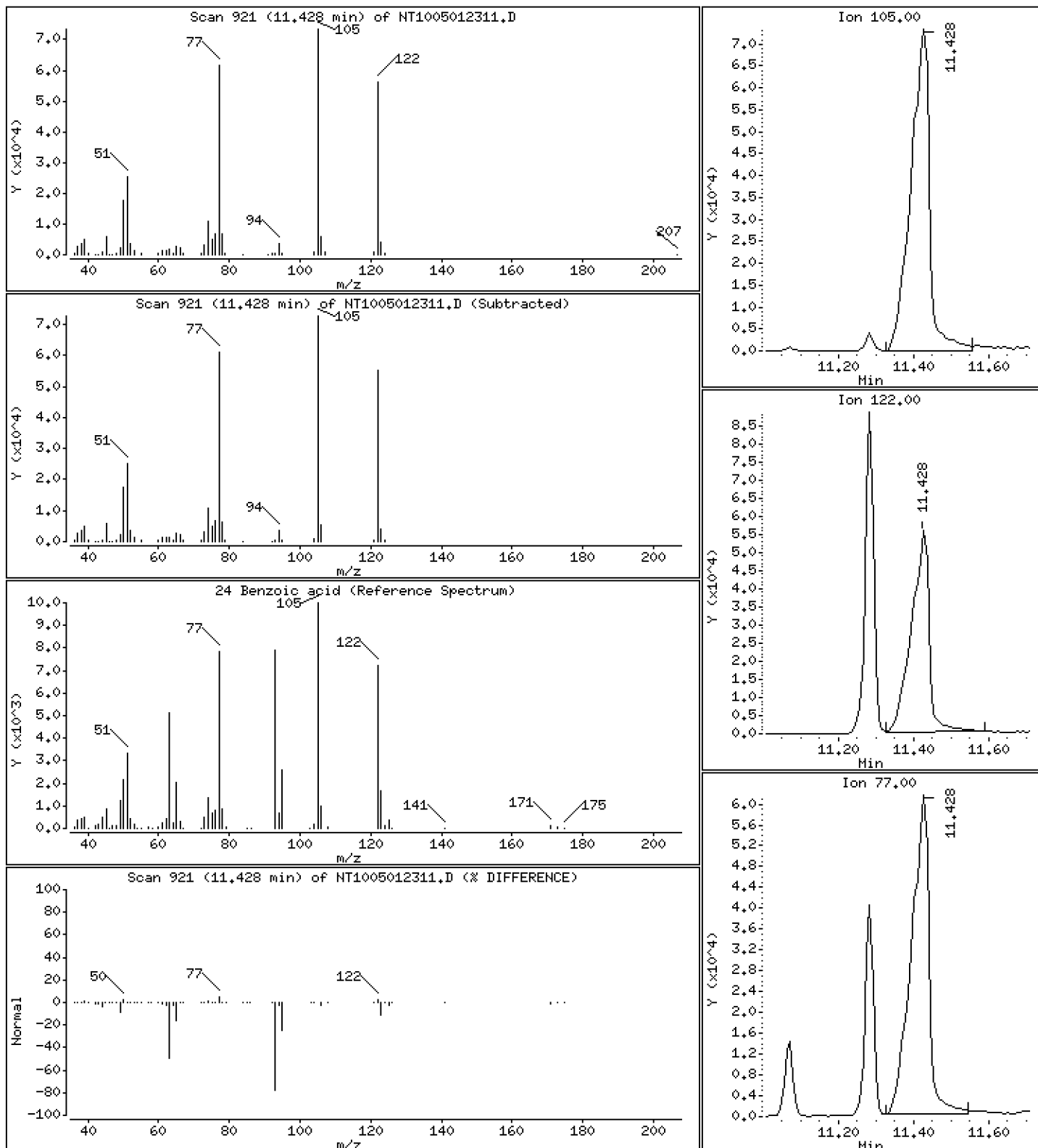
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 7,386 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

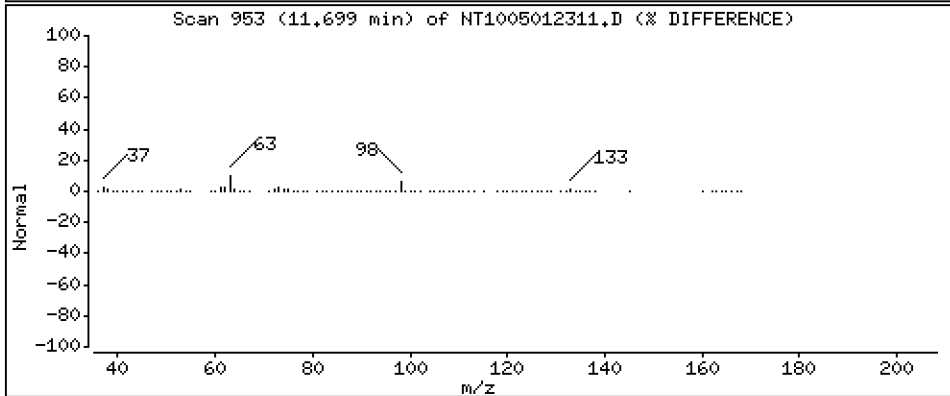
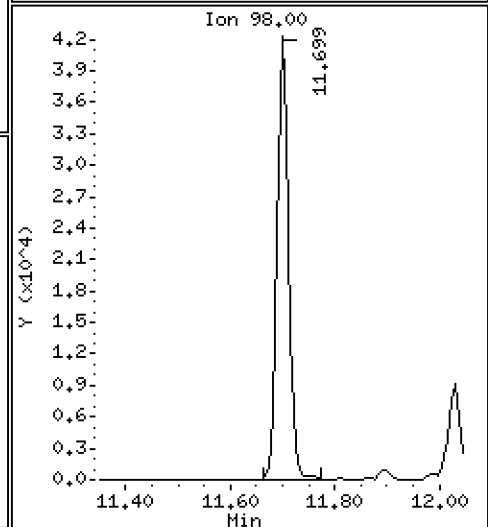
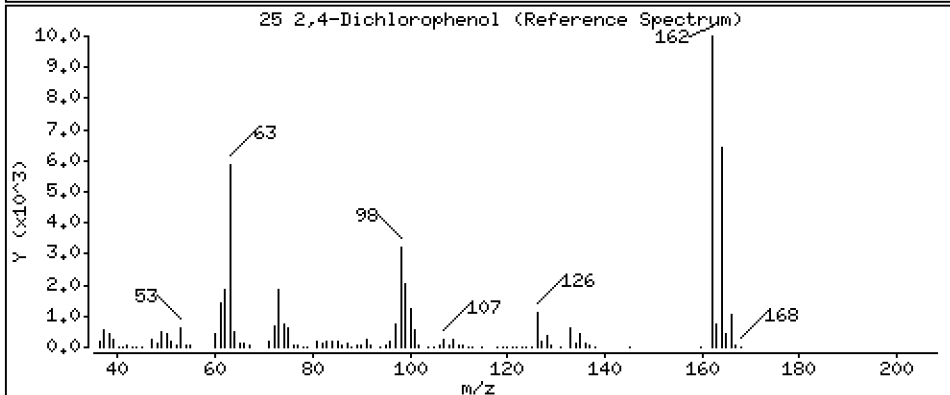
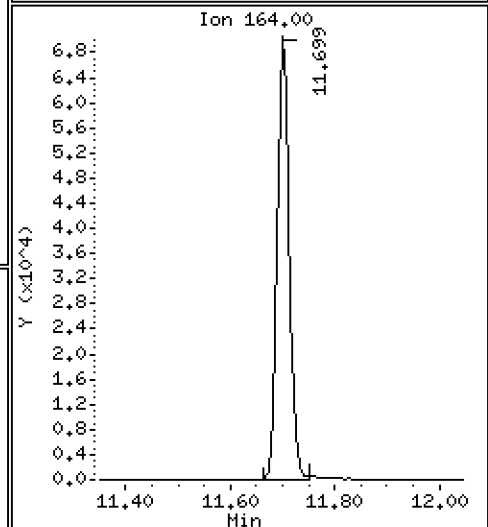
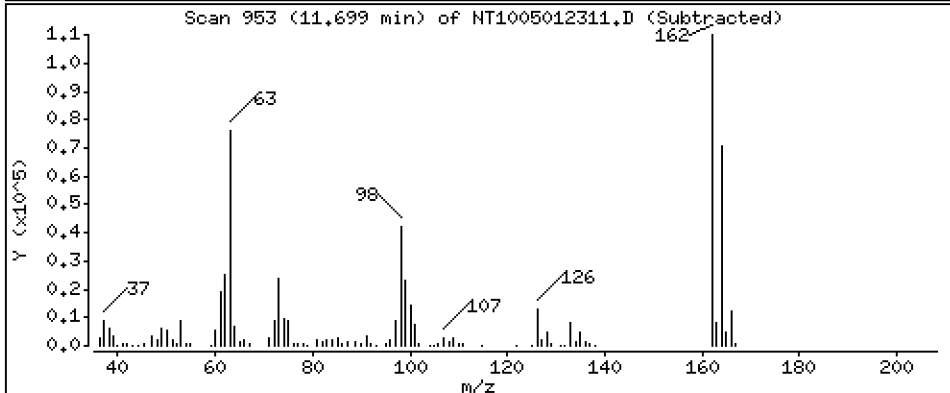
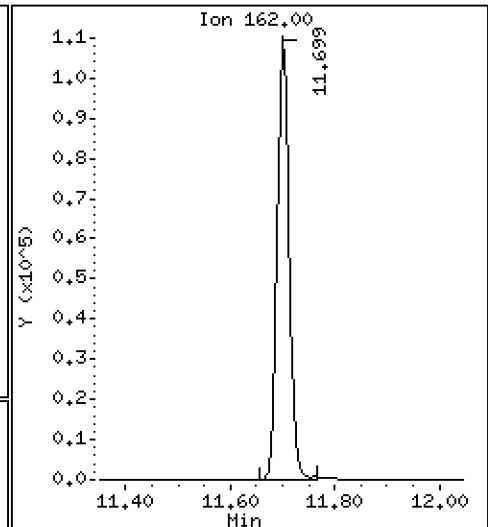
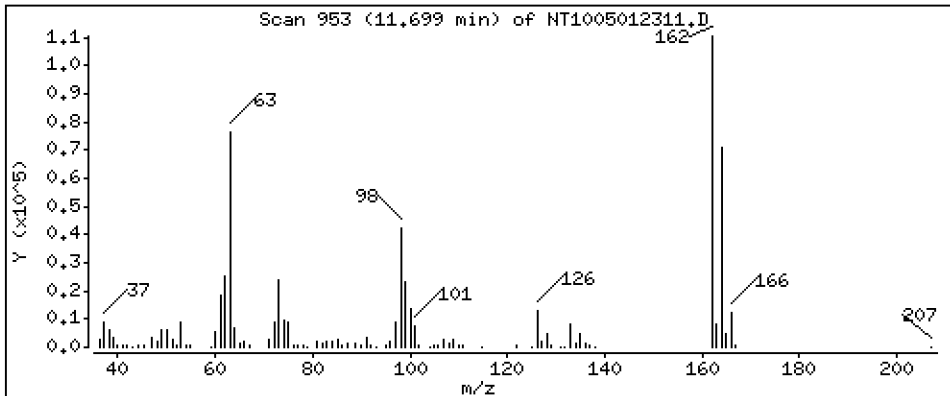
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,480 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

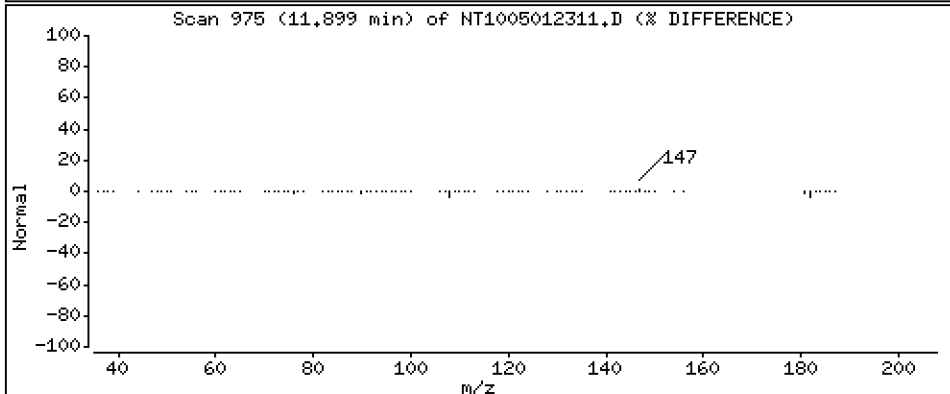
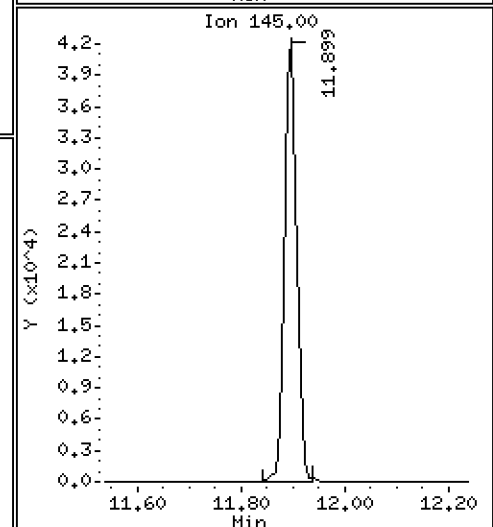
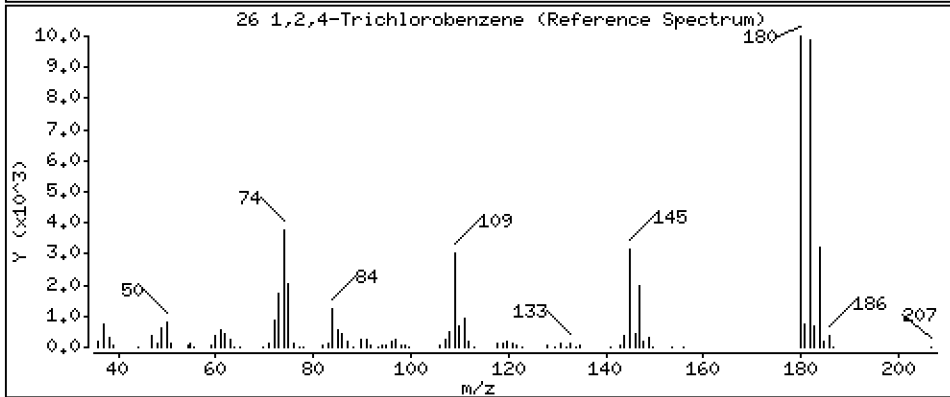
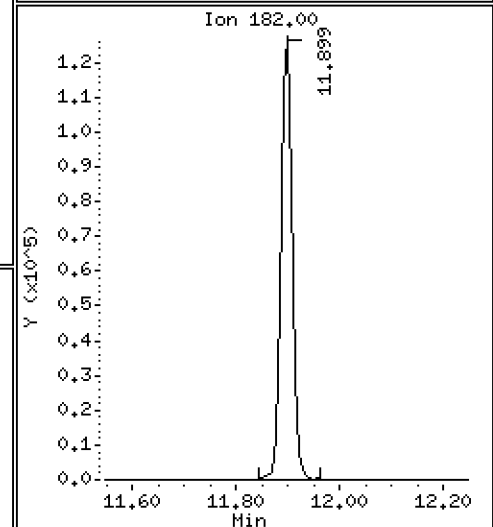
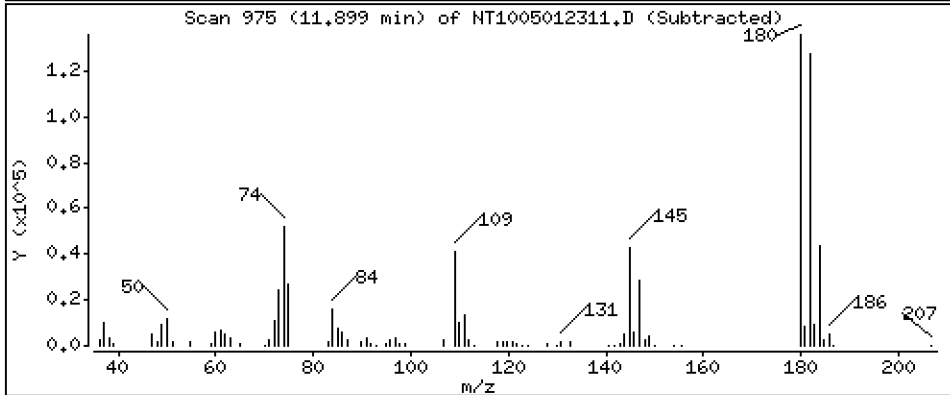
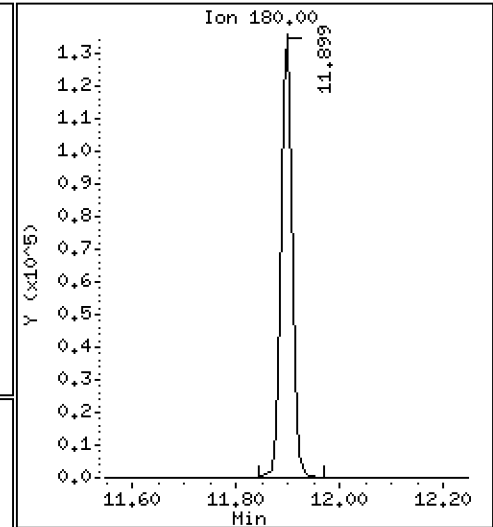
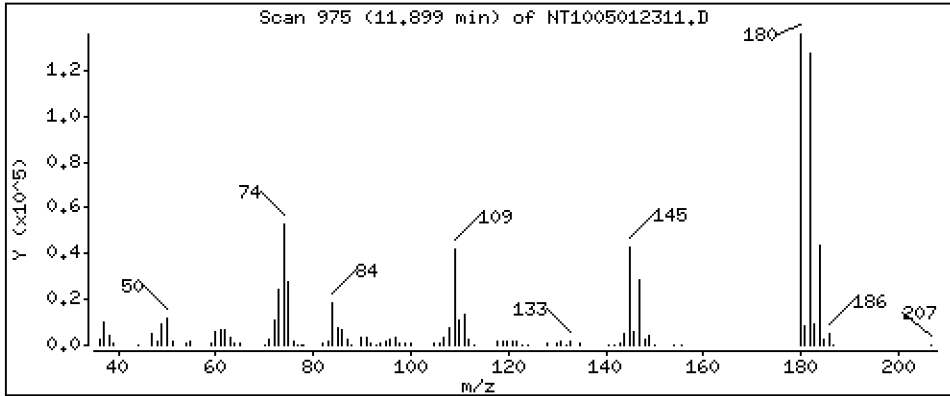
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,378 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

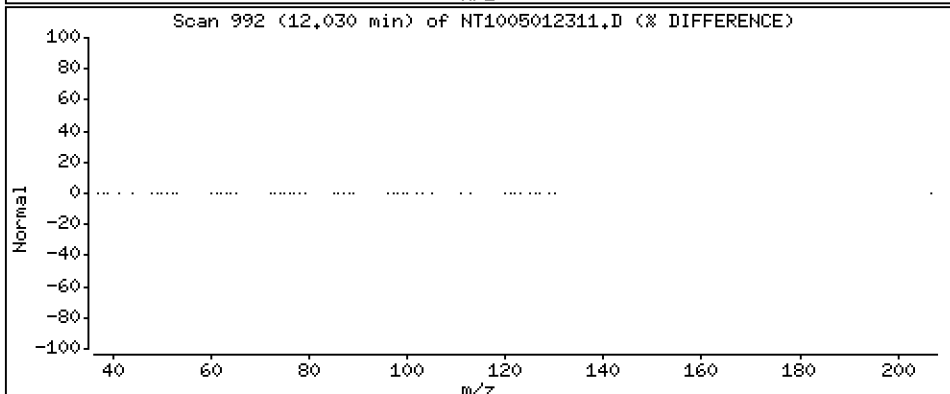
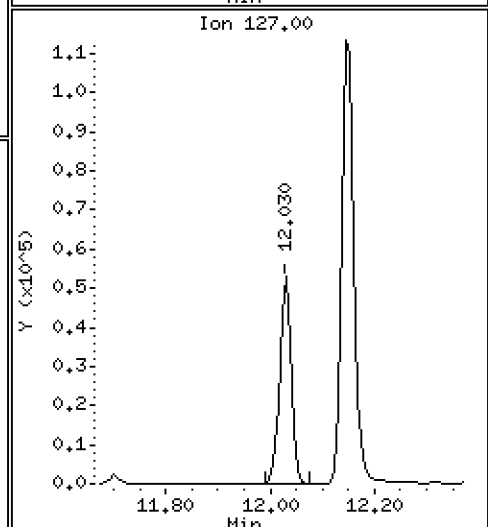
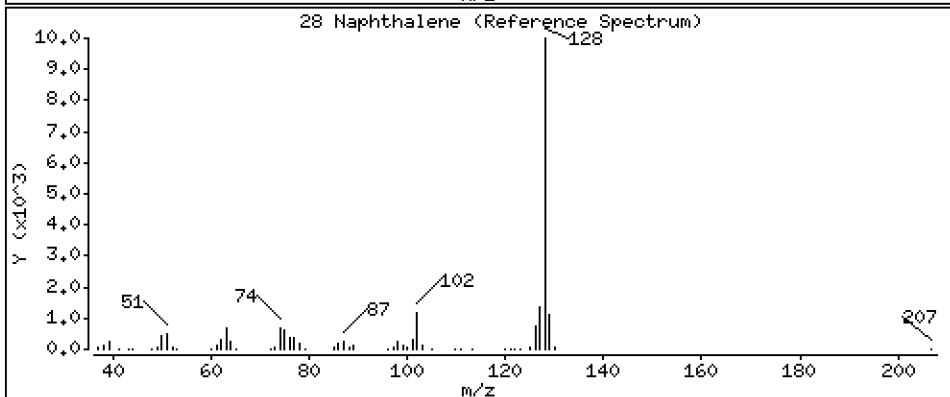
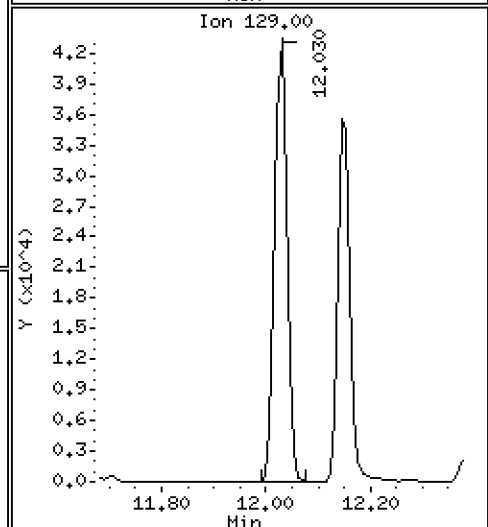
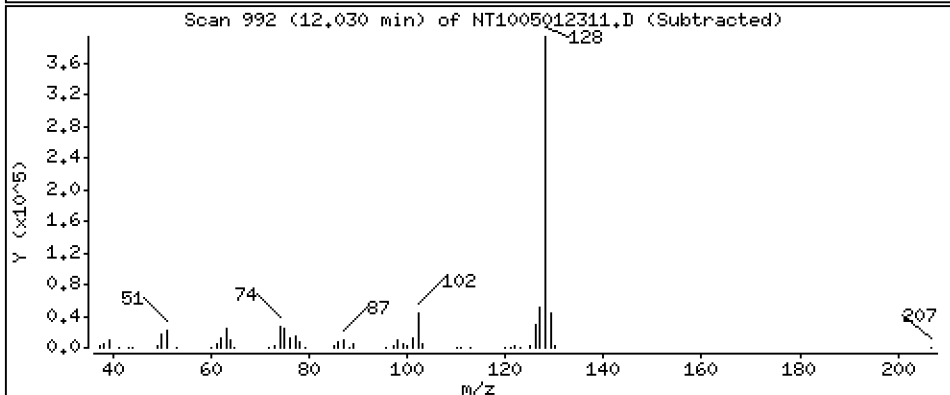
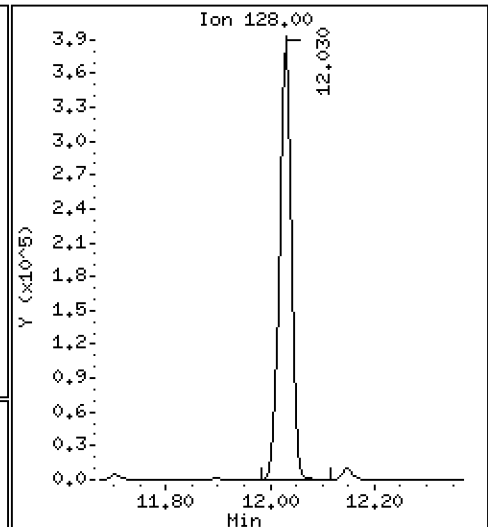
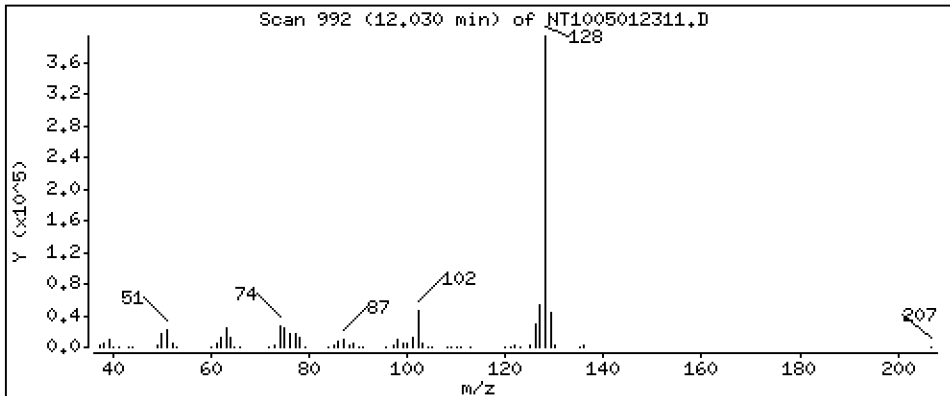
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,742 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

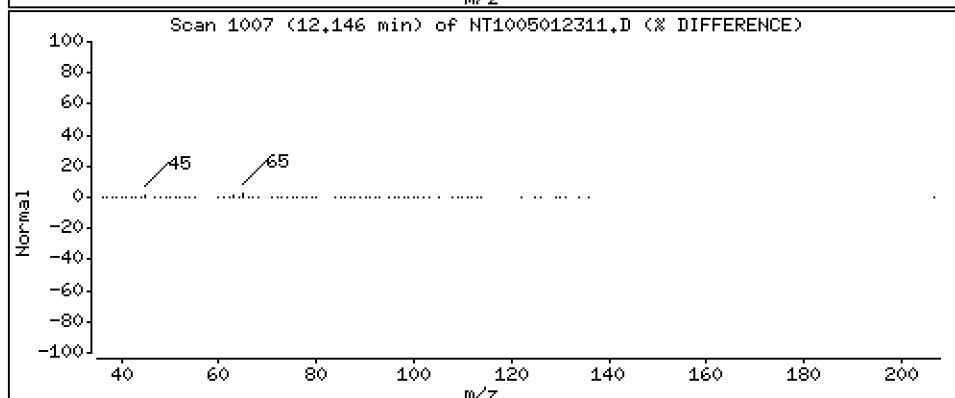
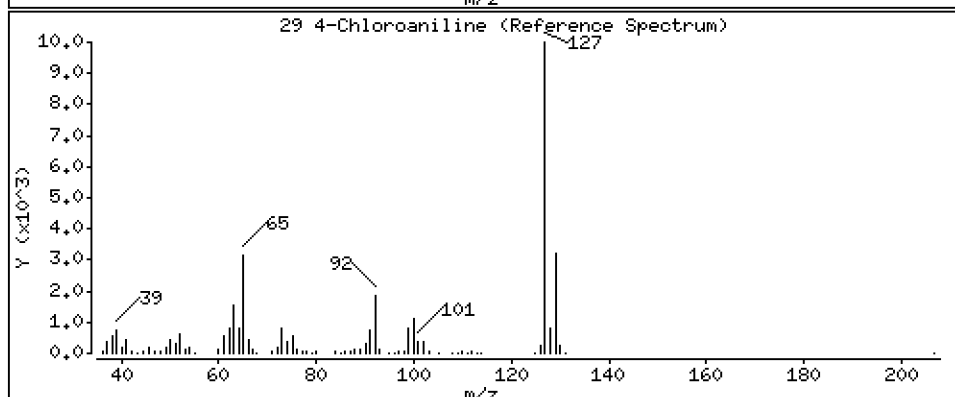
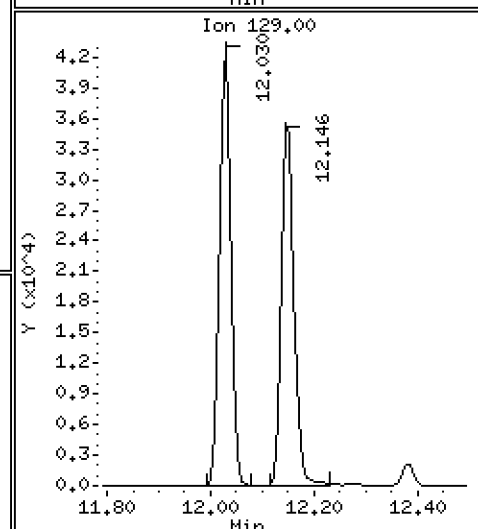
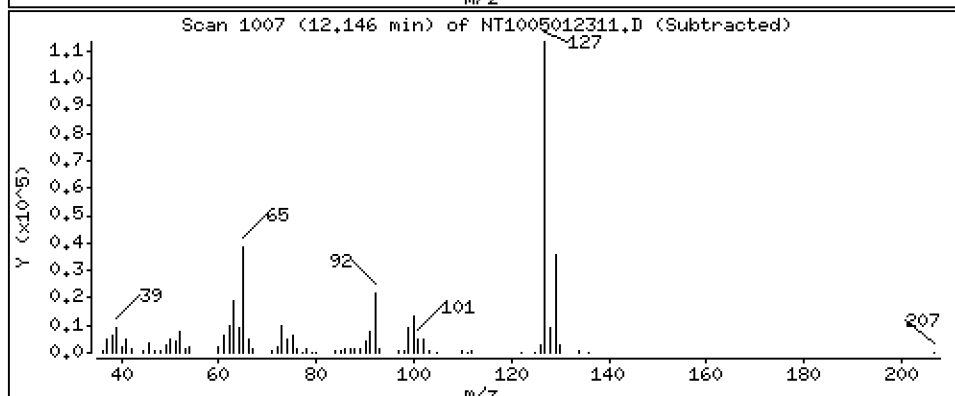
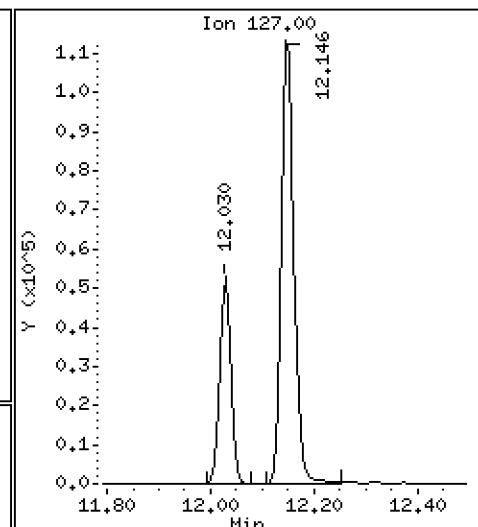
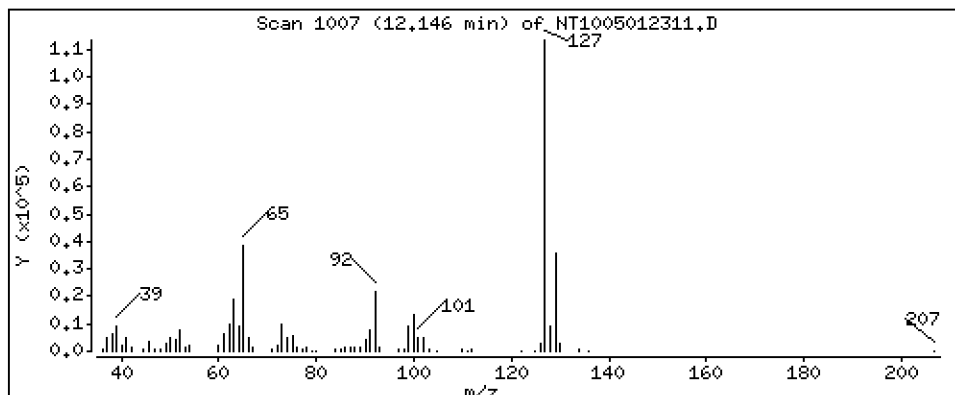
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,956 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

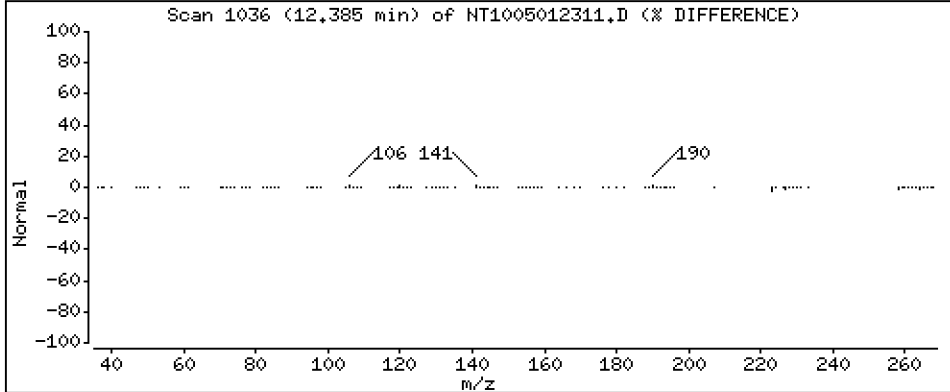
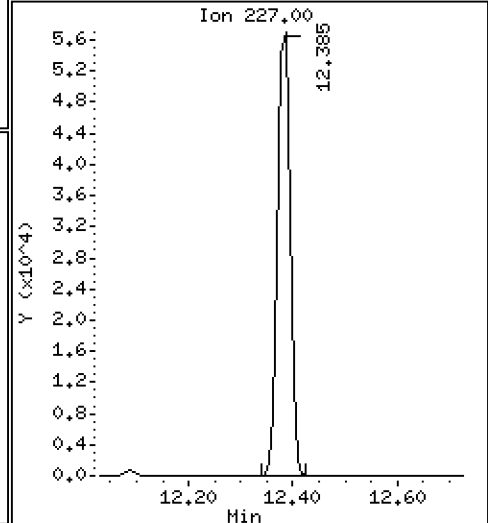
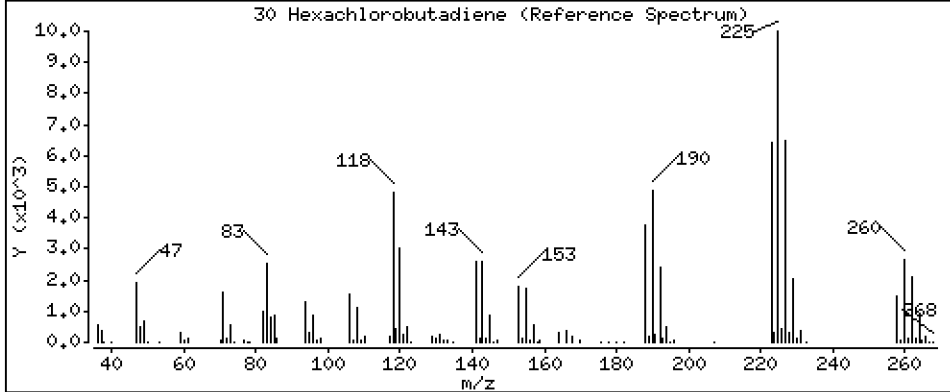
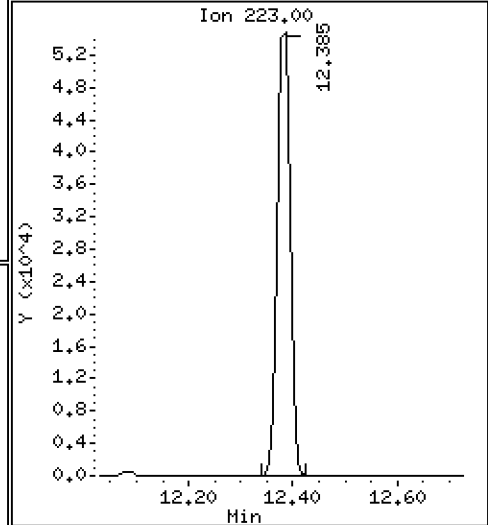
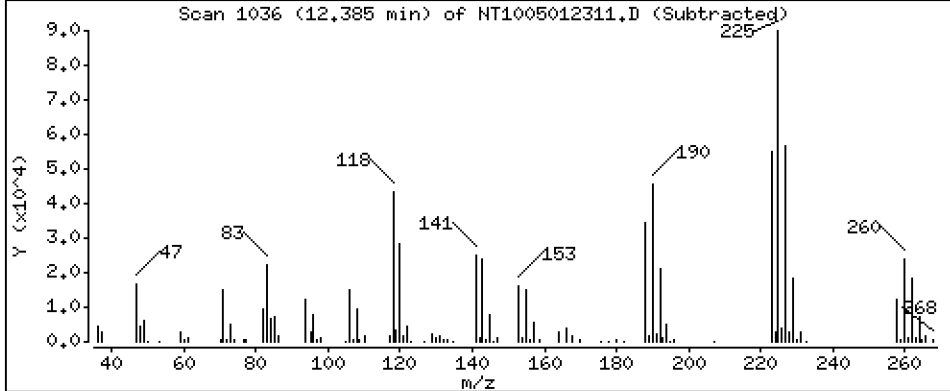
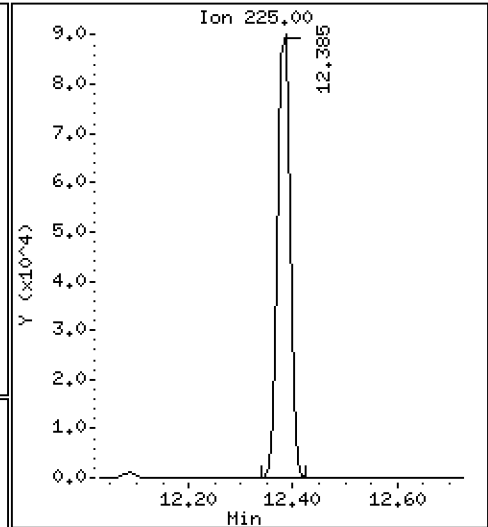
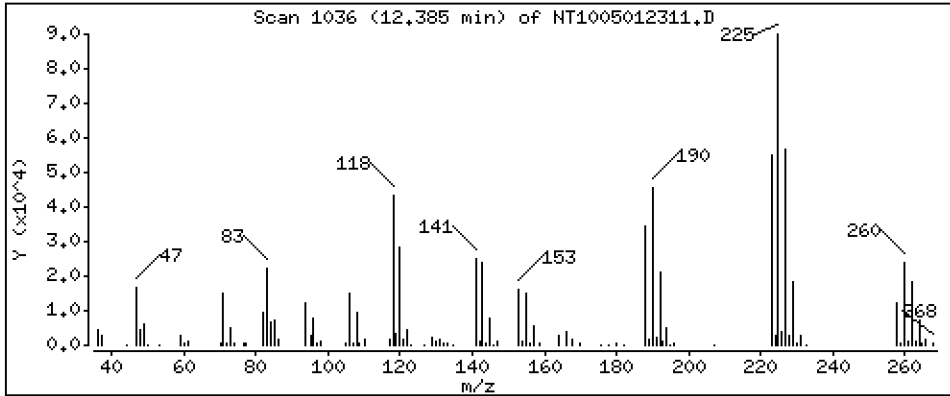
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,626 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

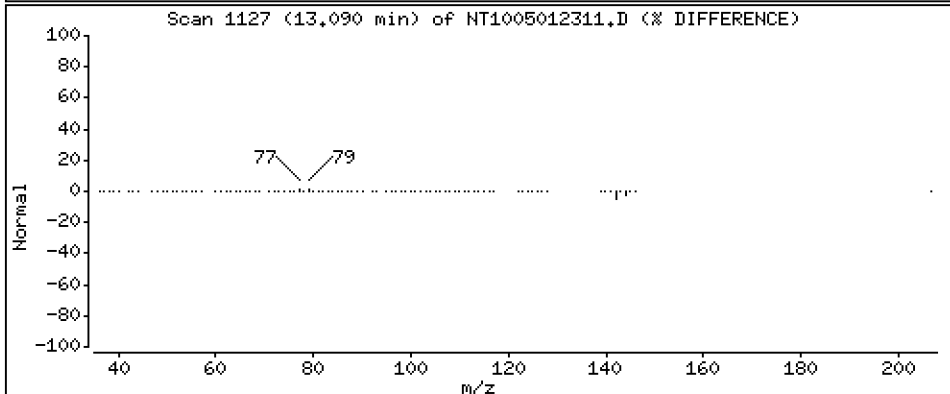
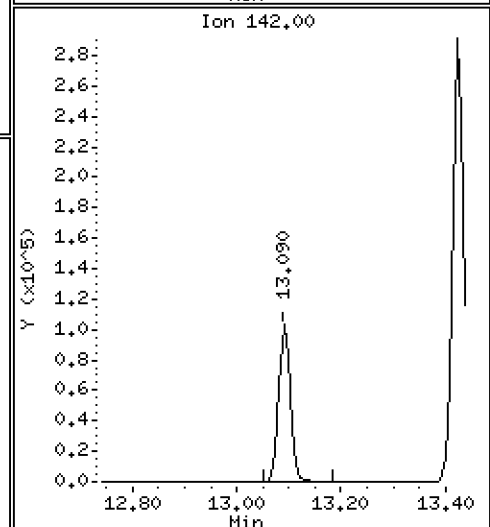
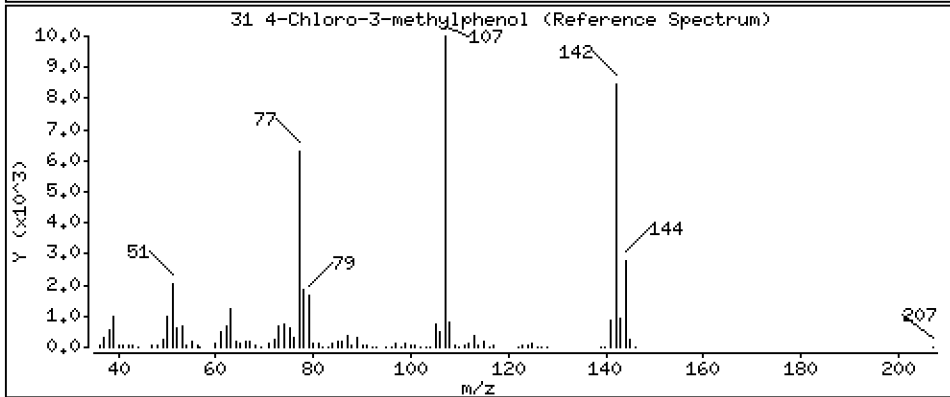
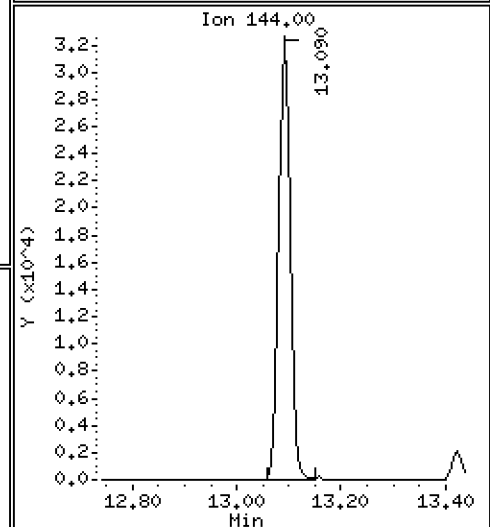
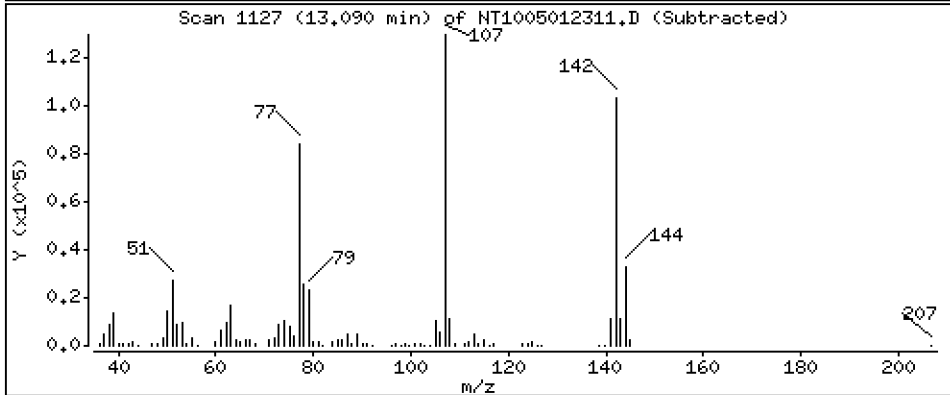
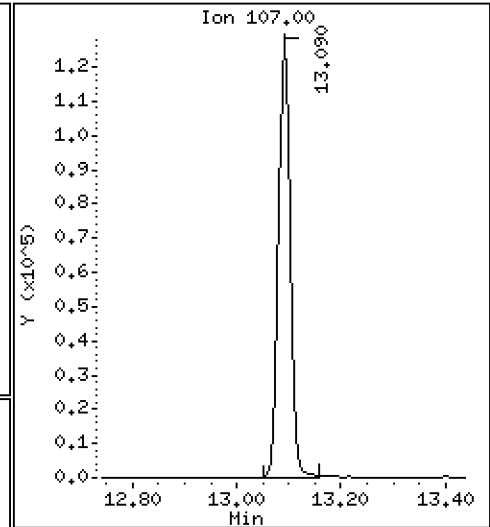
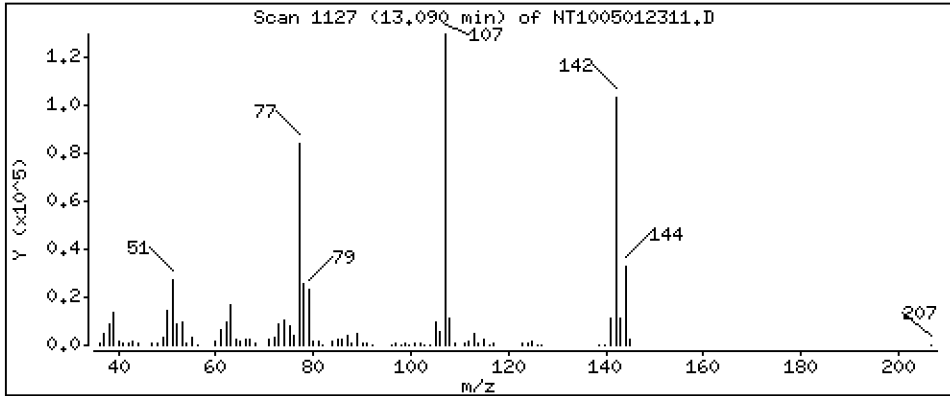
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,460 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

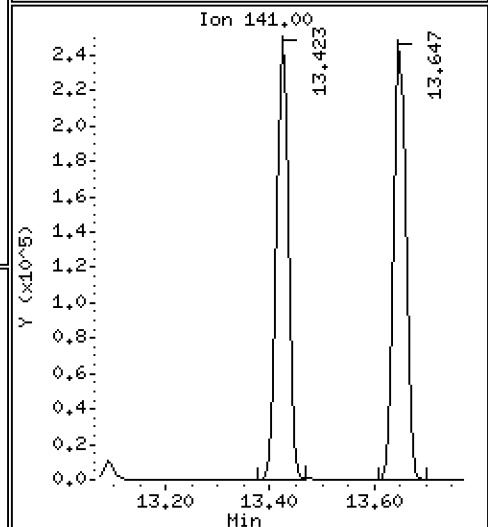
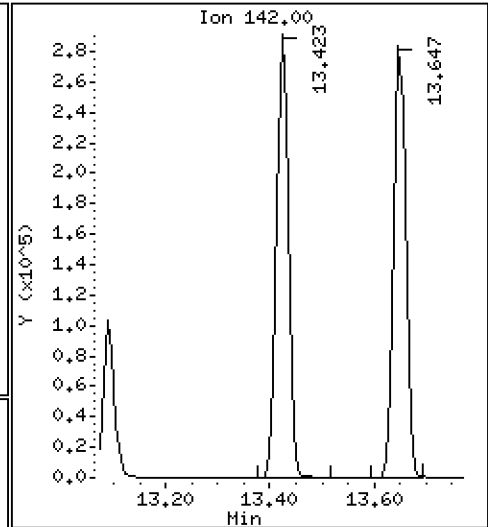
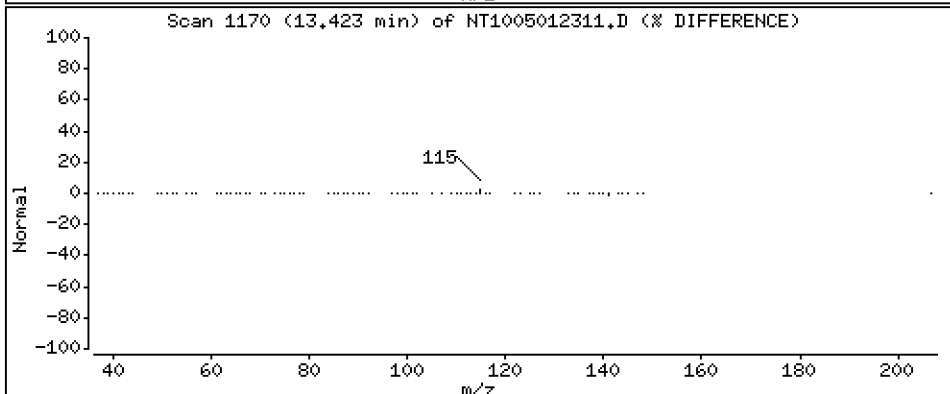
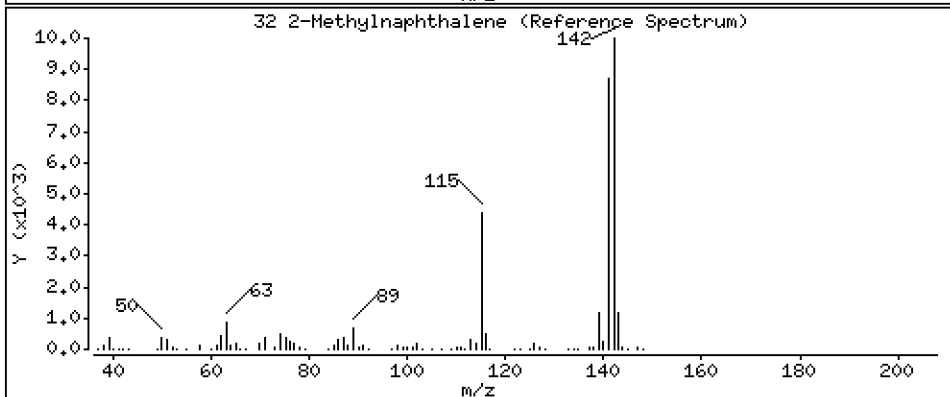
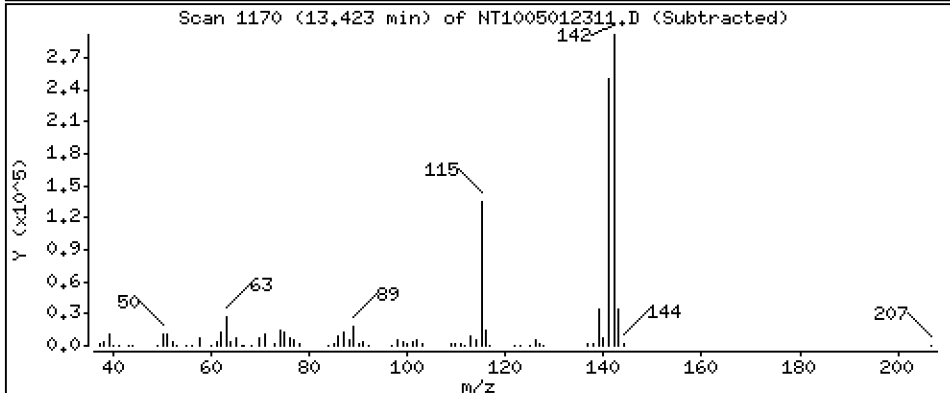
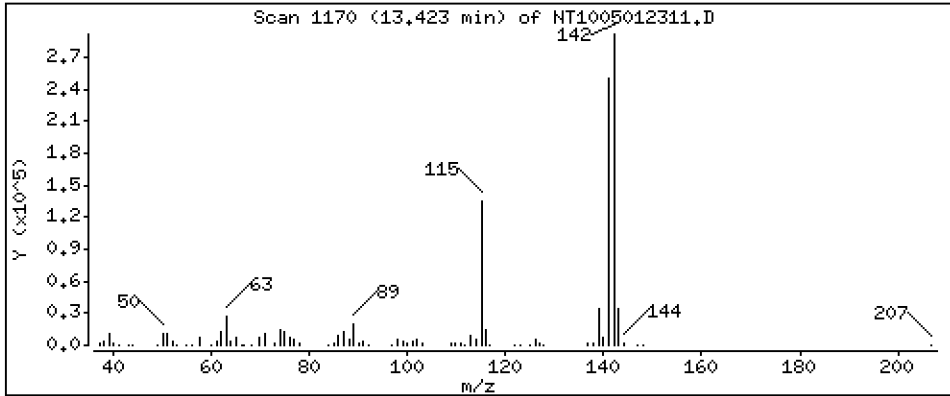
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,513 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

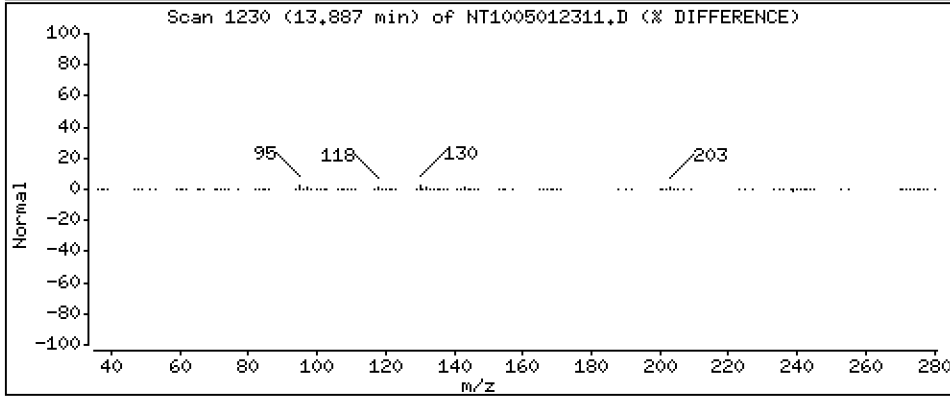
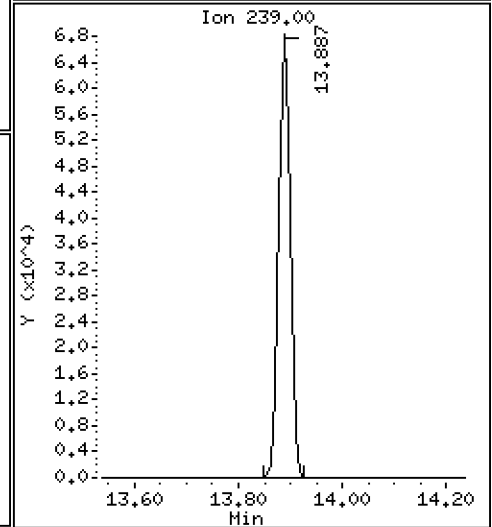
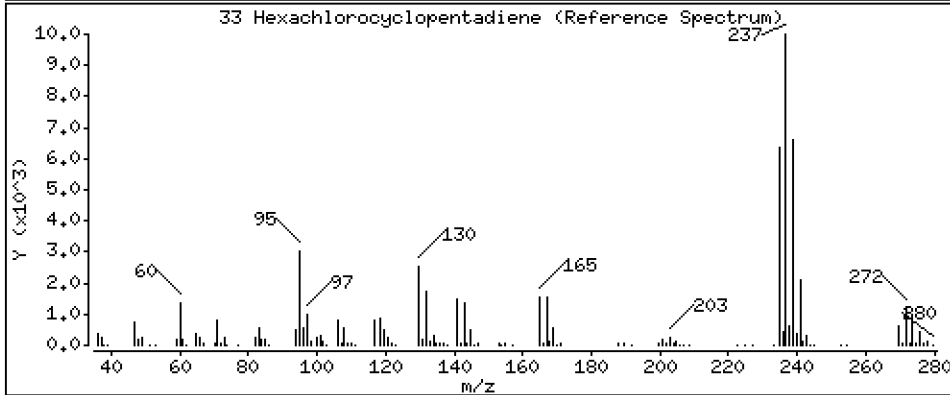
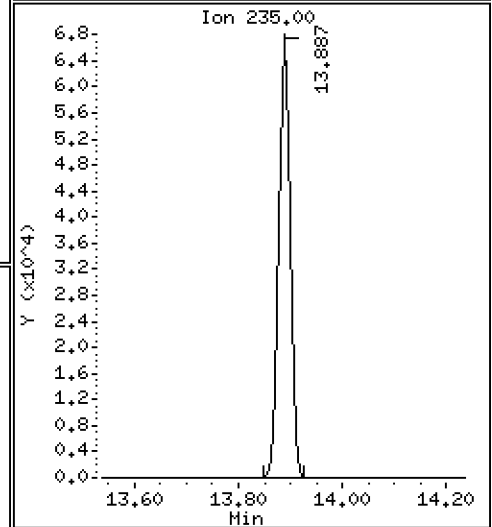
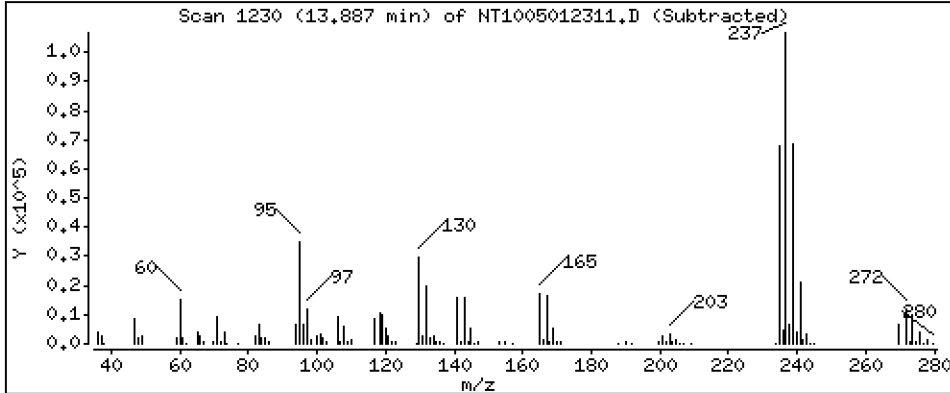
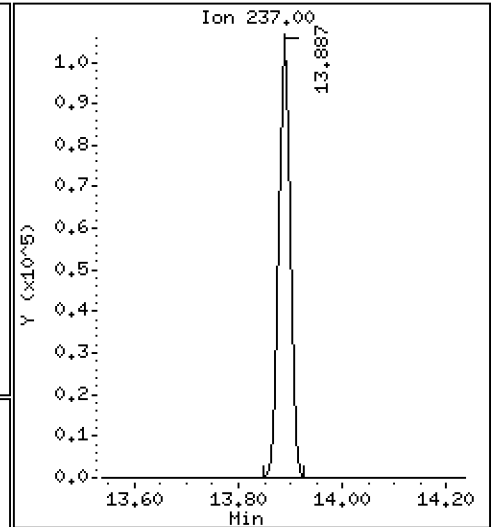
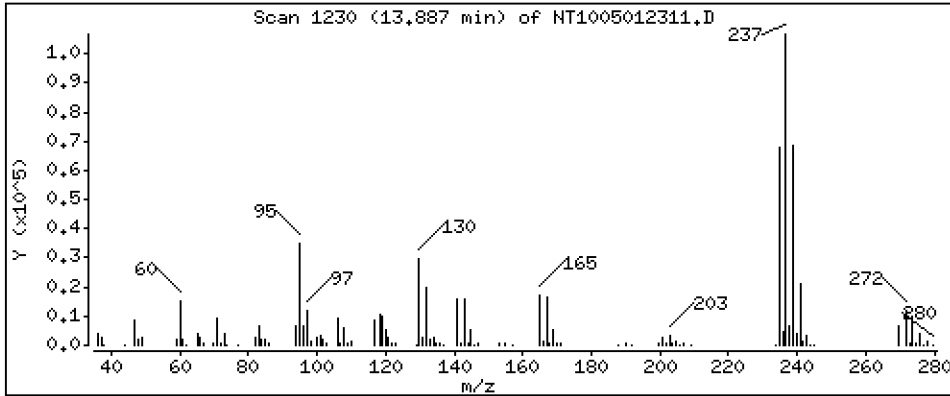
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,673 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

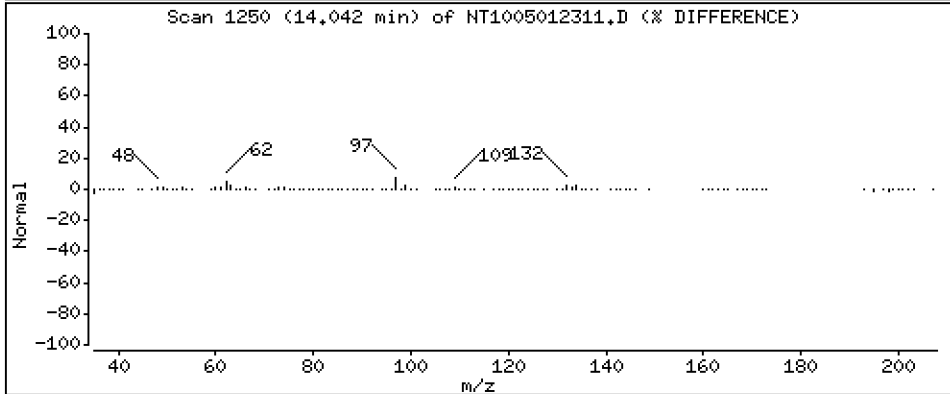
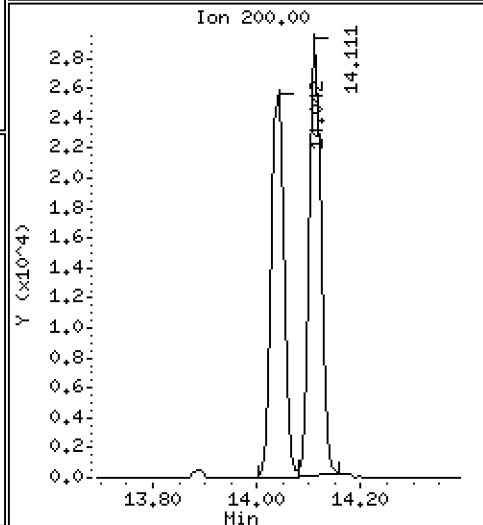
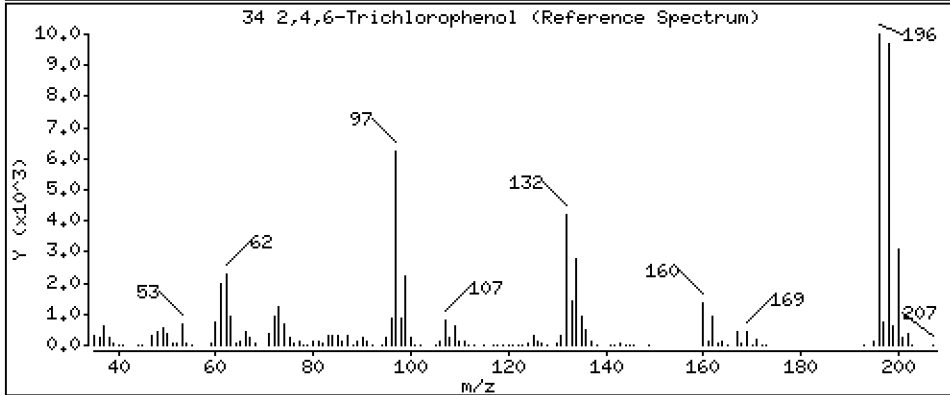
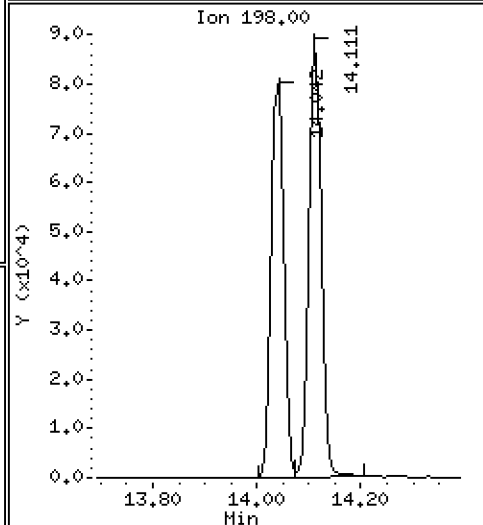
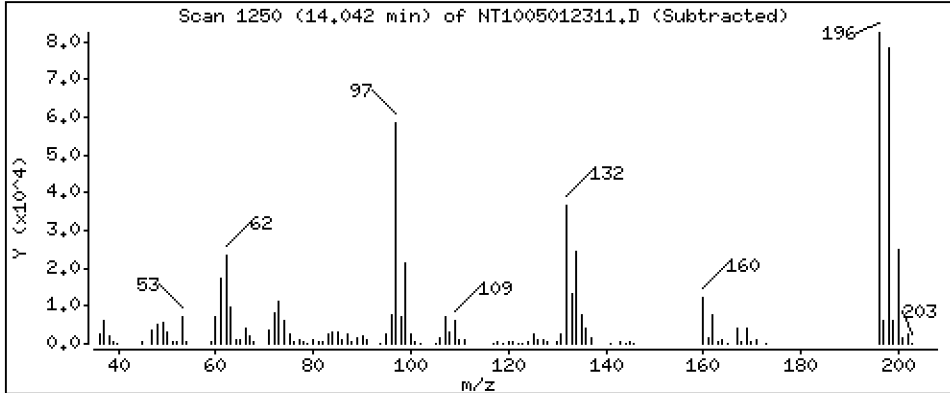
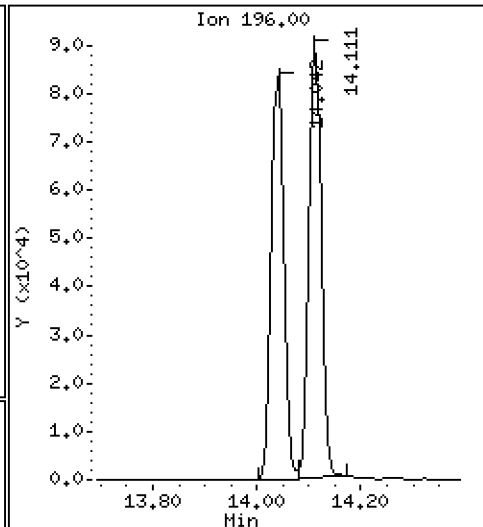
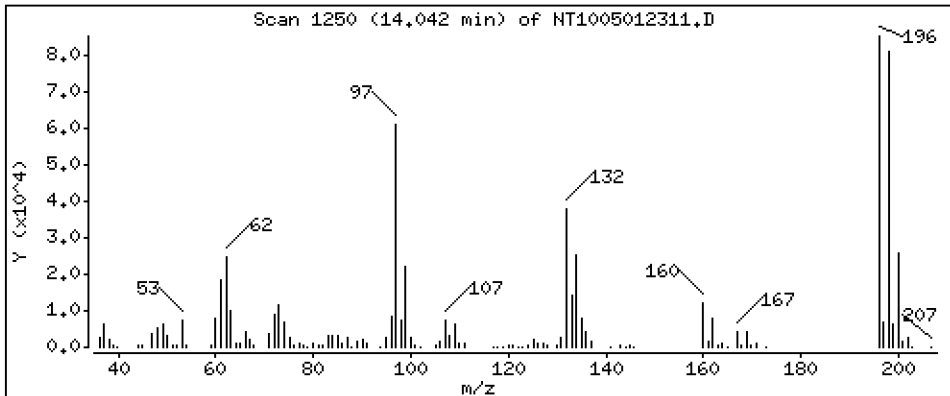
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,212 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

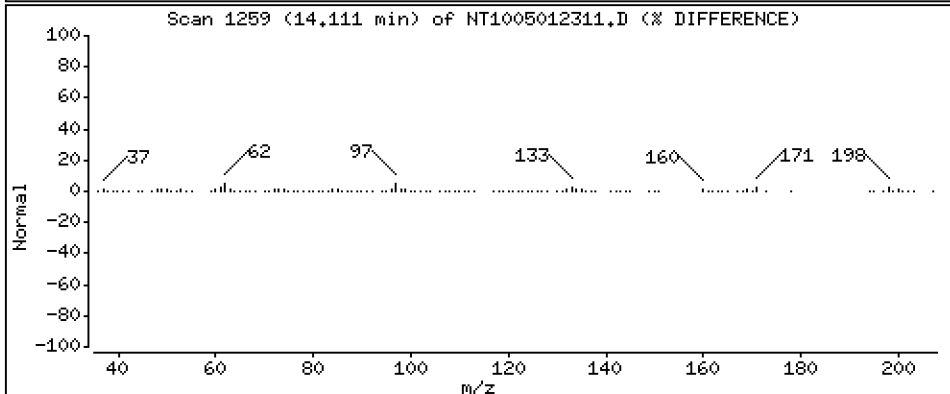
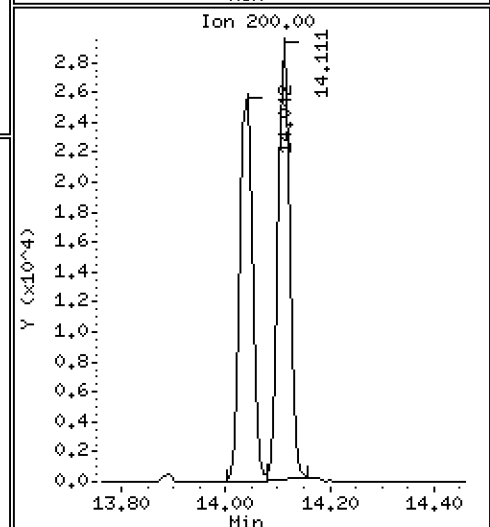
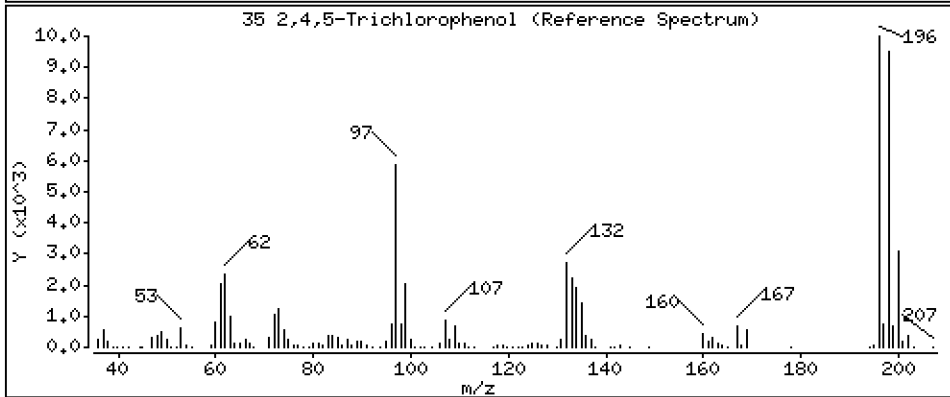
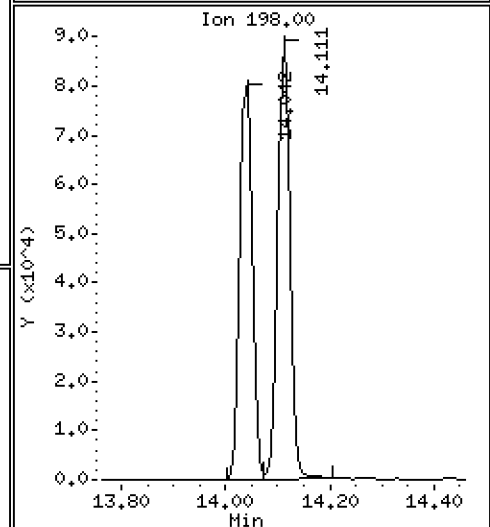
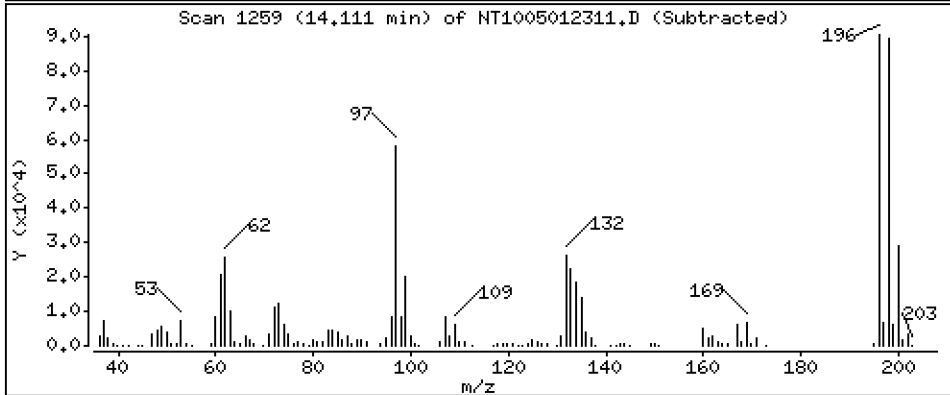
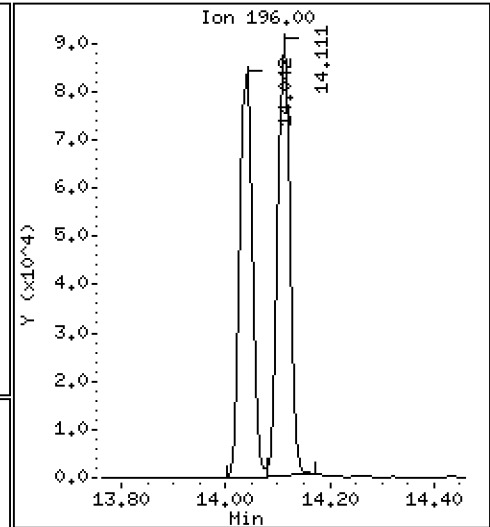
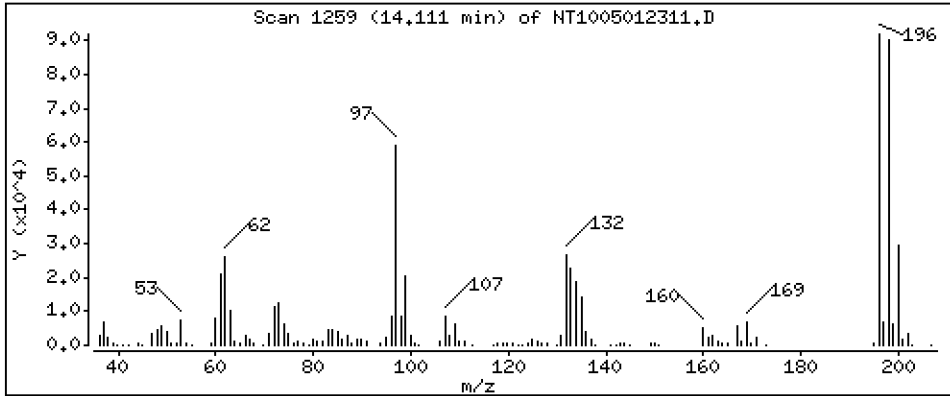
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,029 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

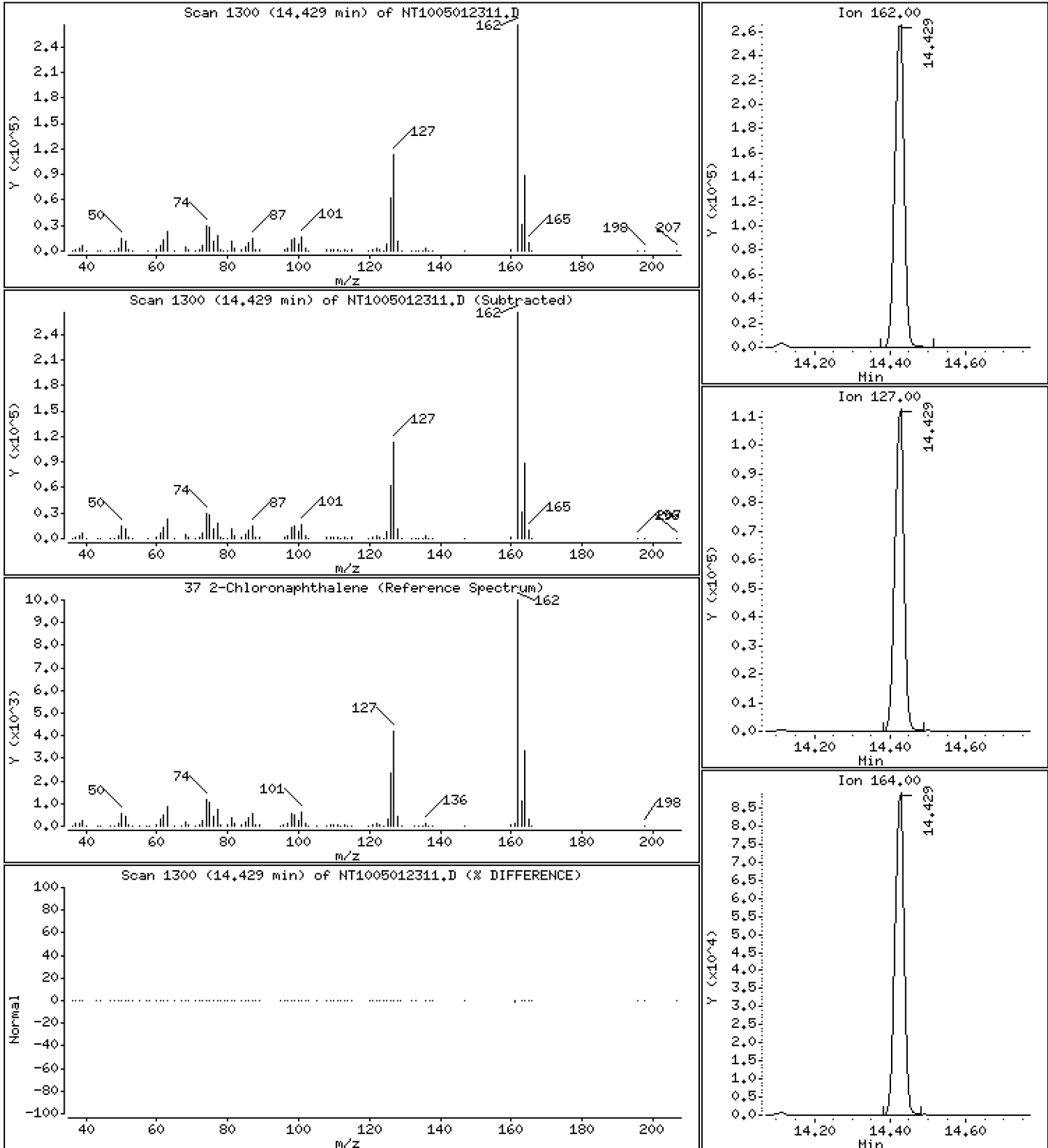
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.830 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

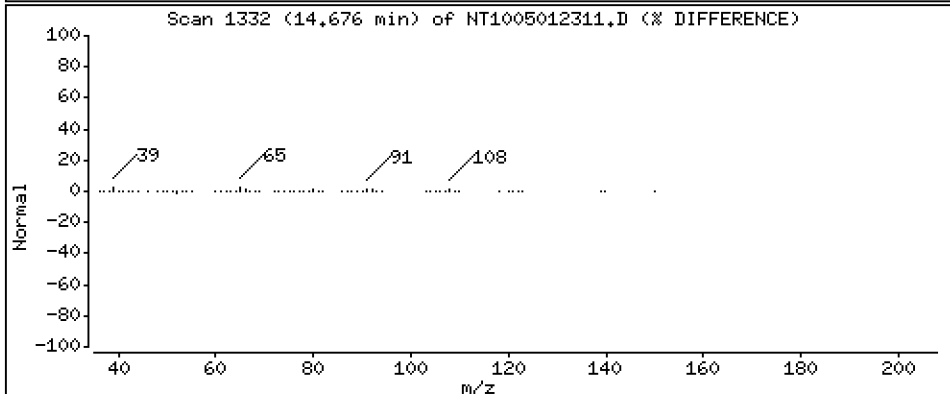
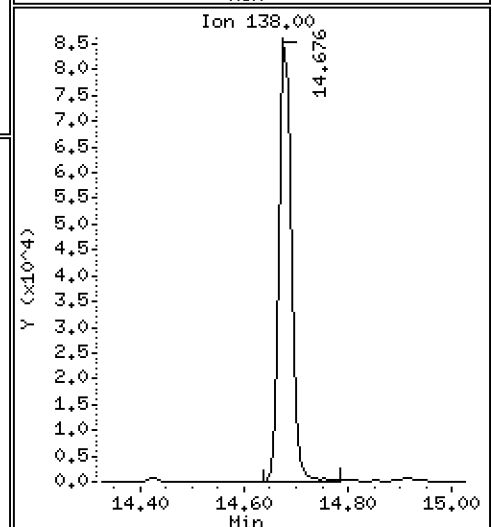
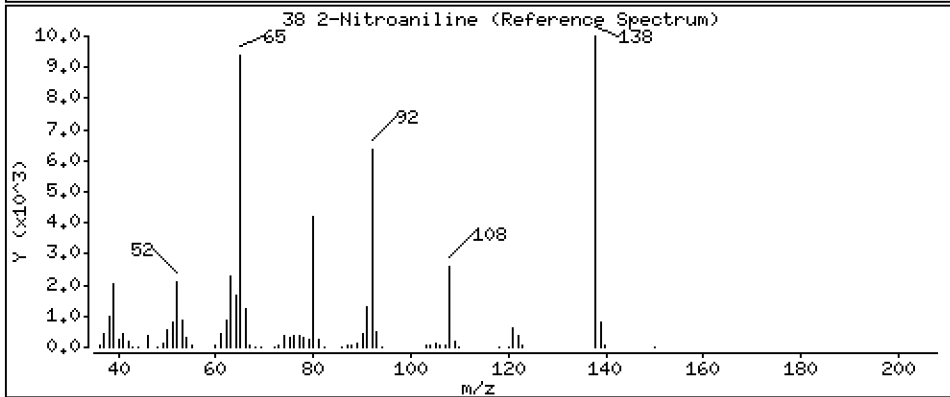
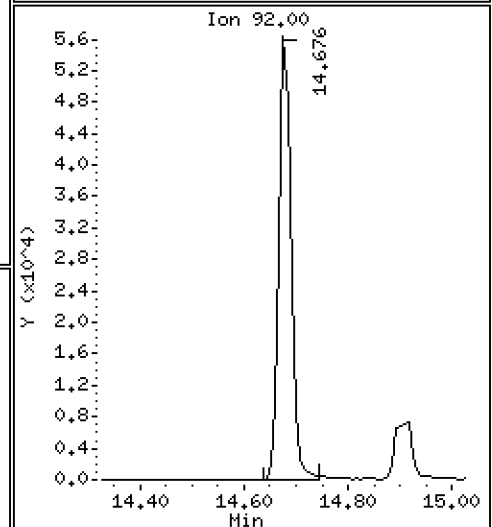
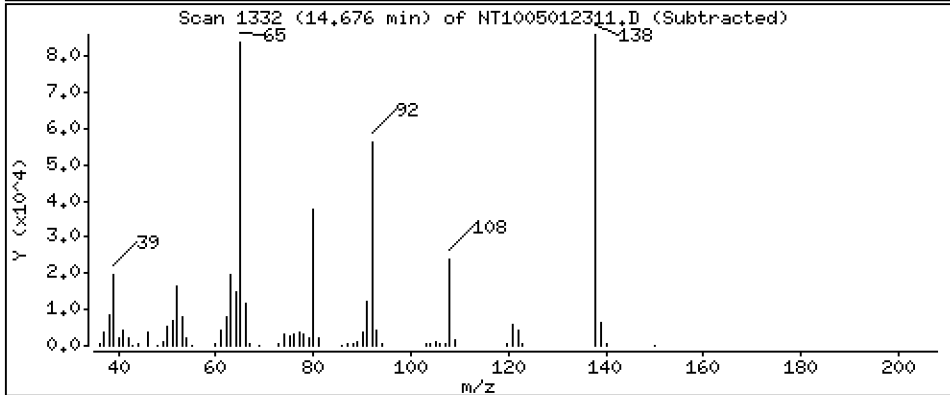
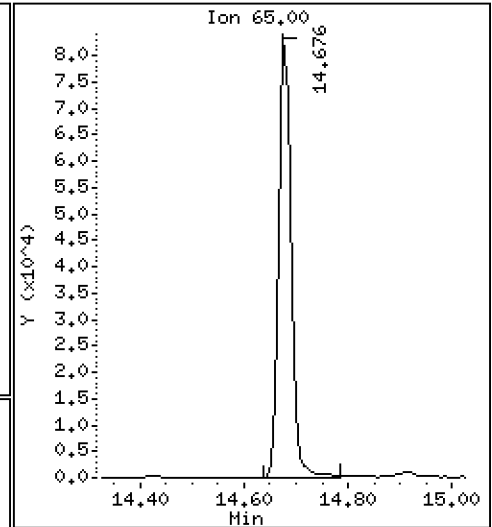
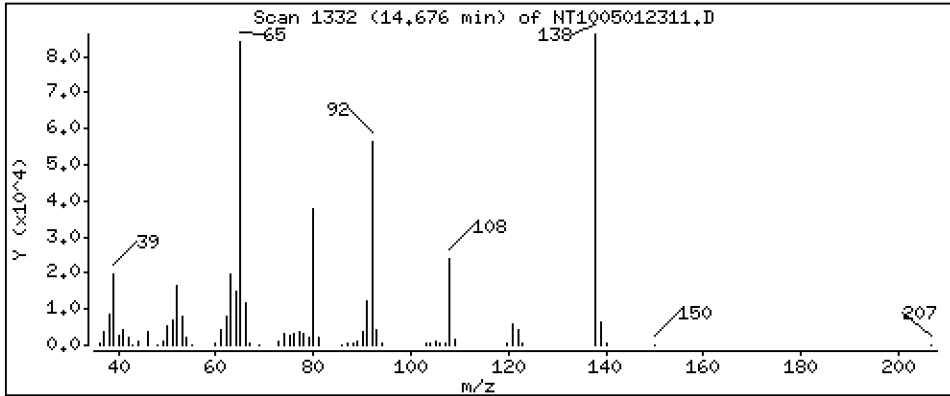
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 5,029 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

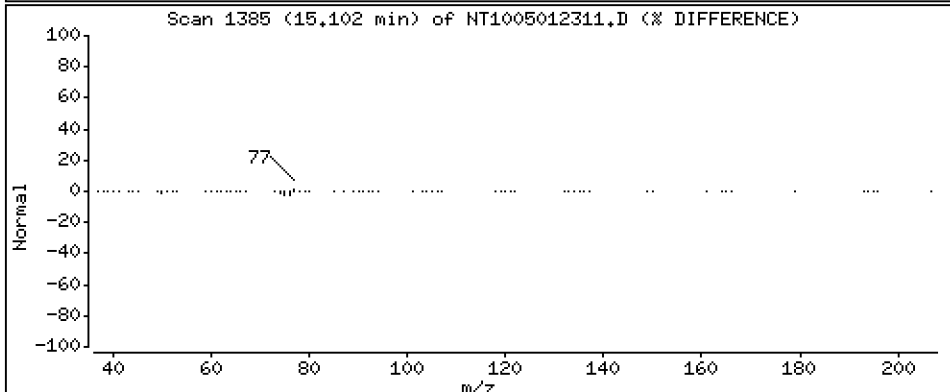
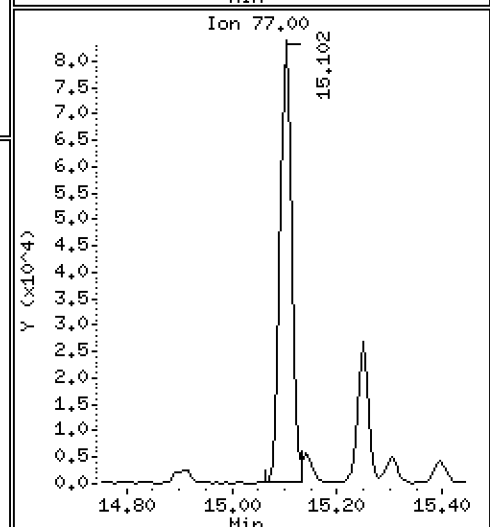
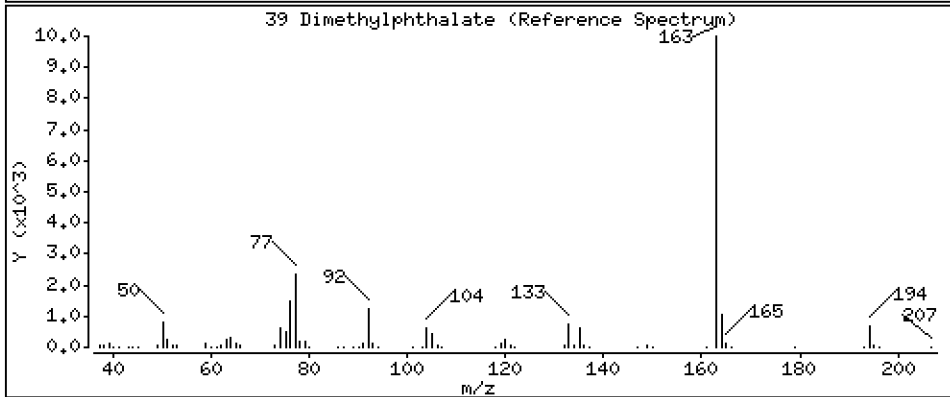
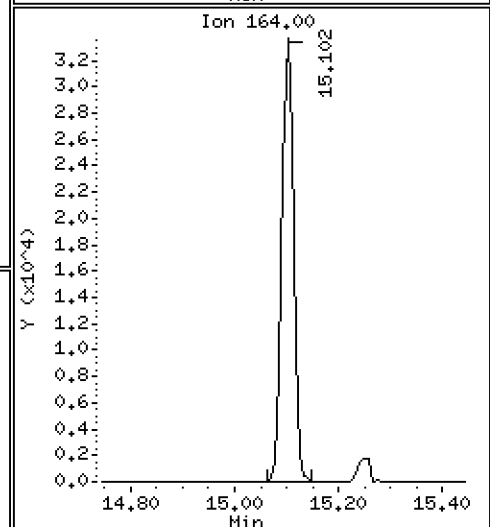
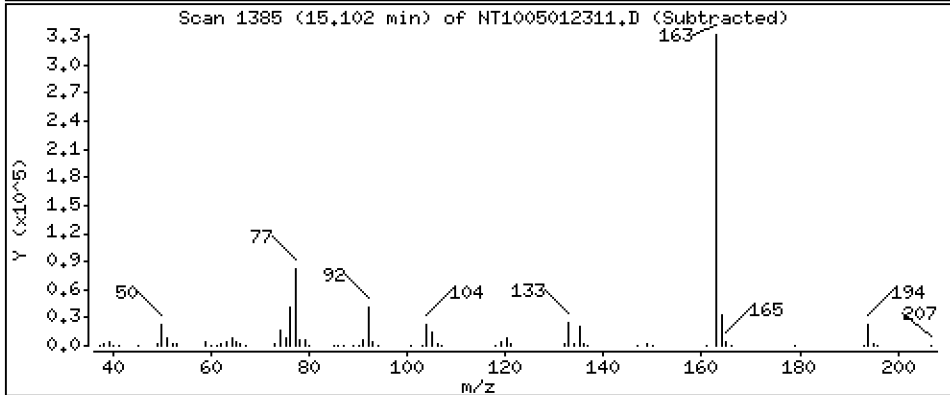
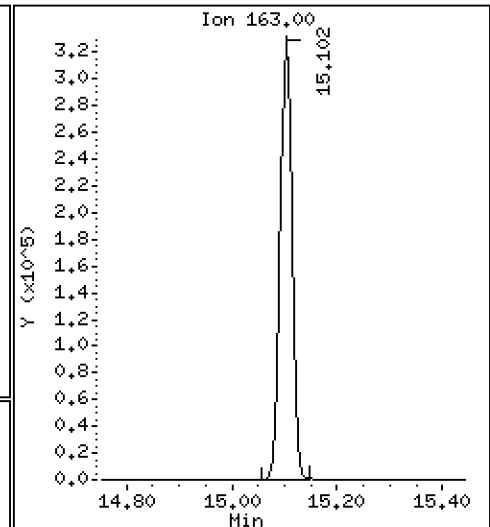
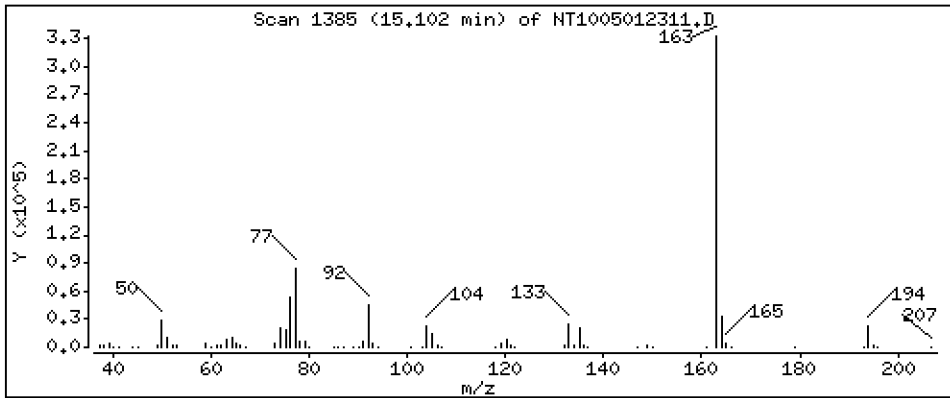
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,908 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

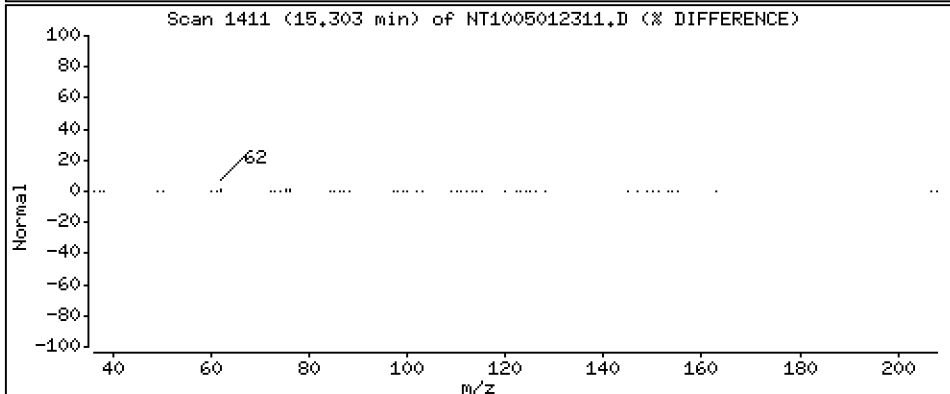
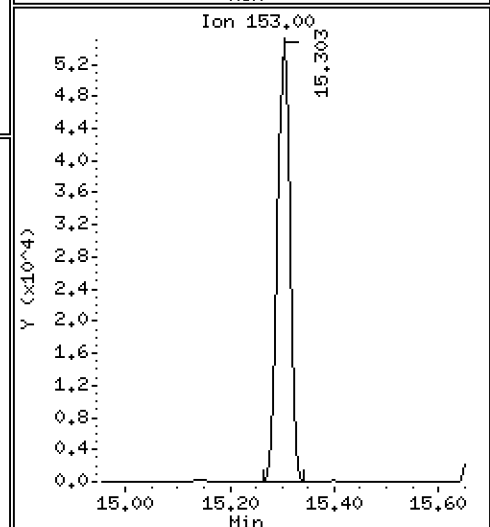
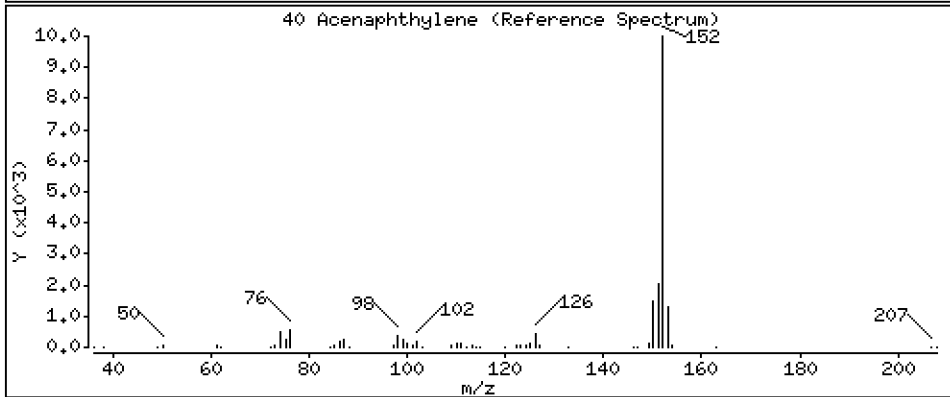
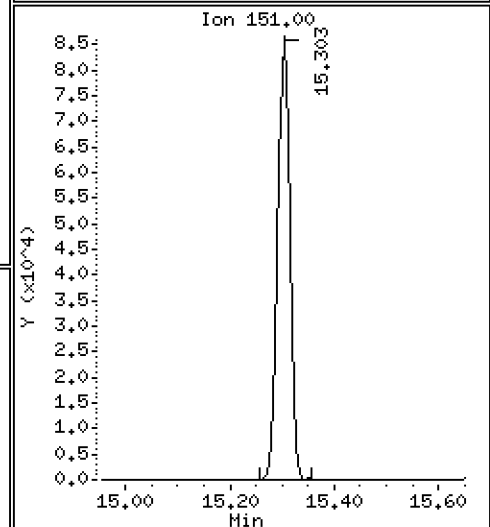
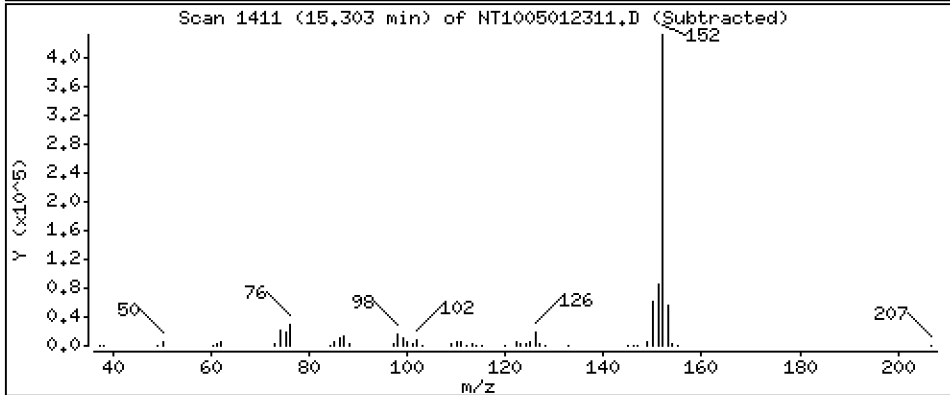
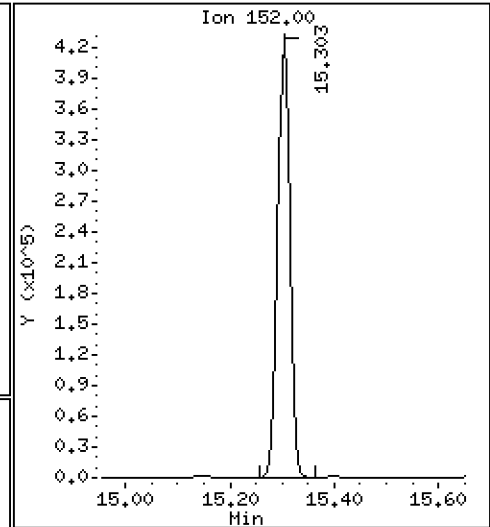
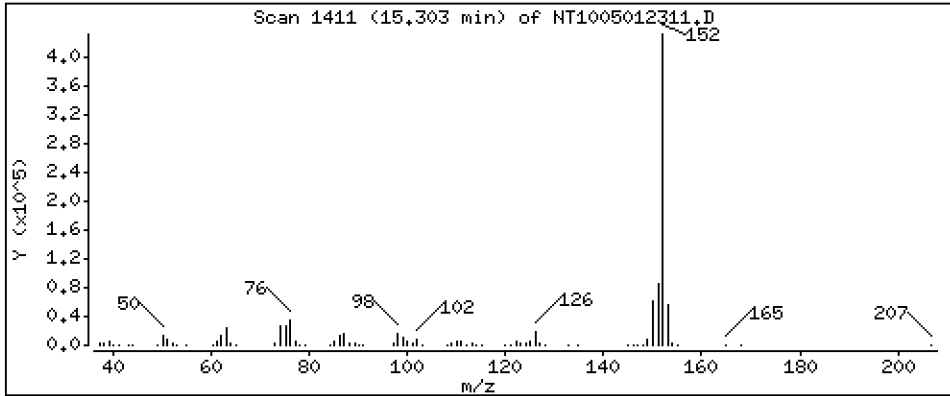
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,776 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

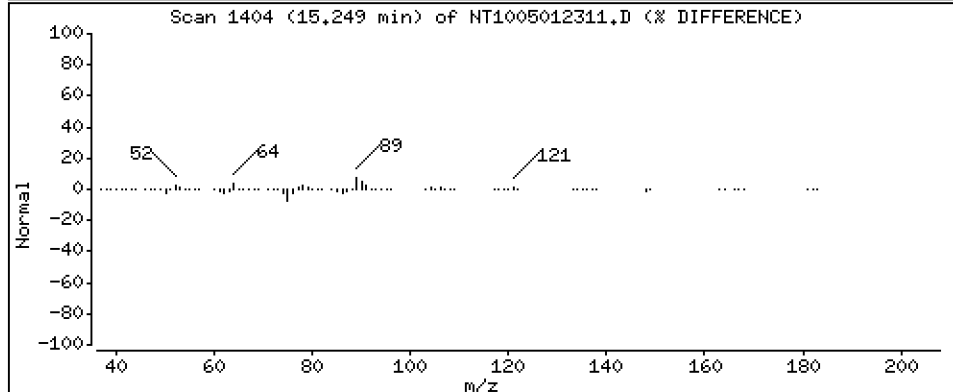
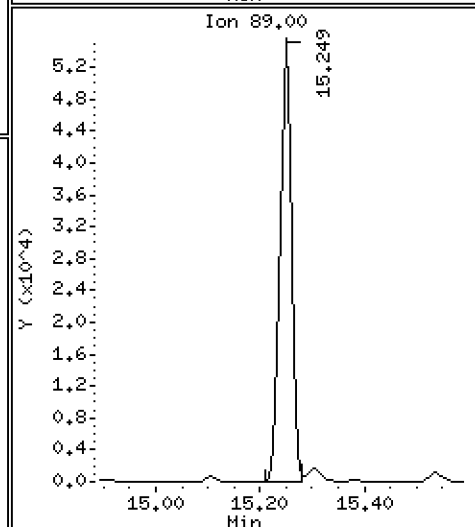
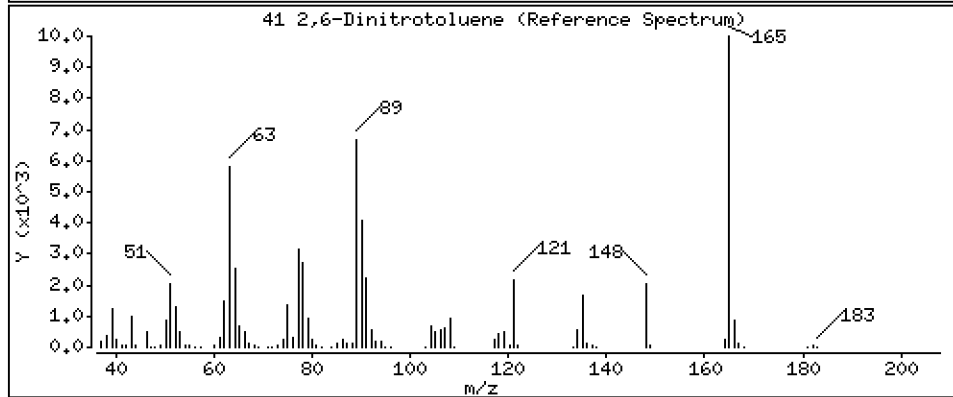
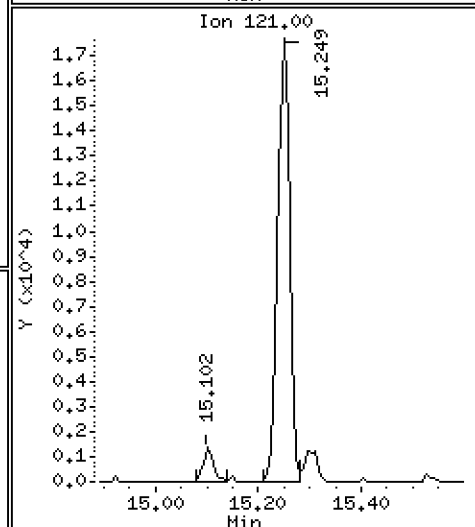
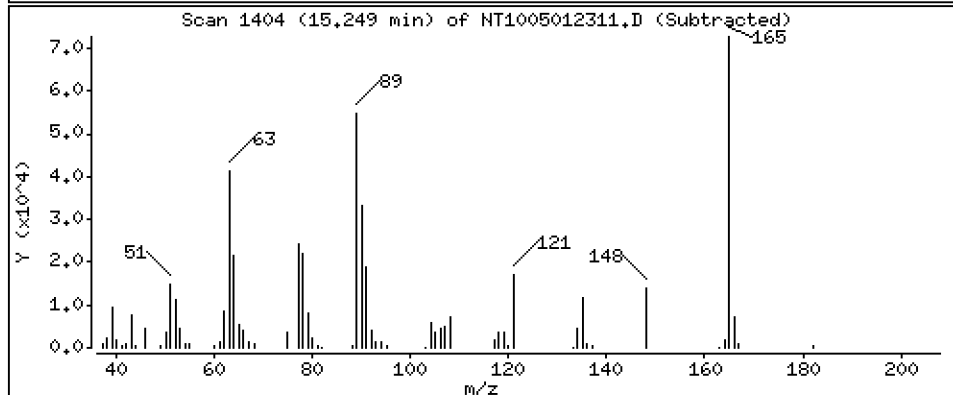
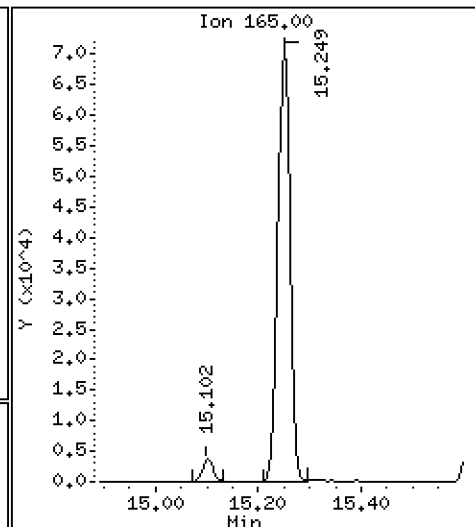
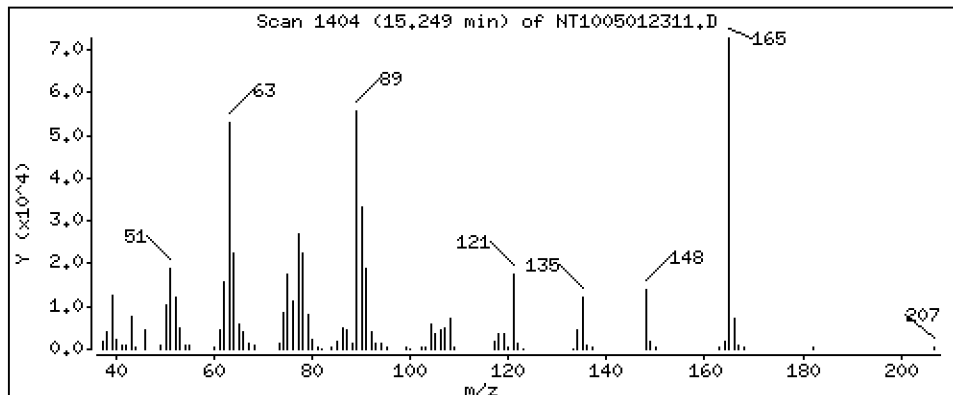
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 4,876 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

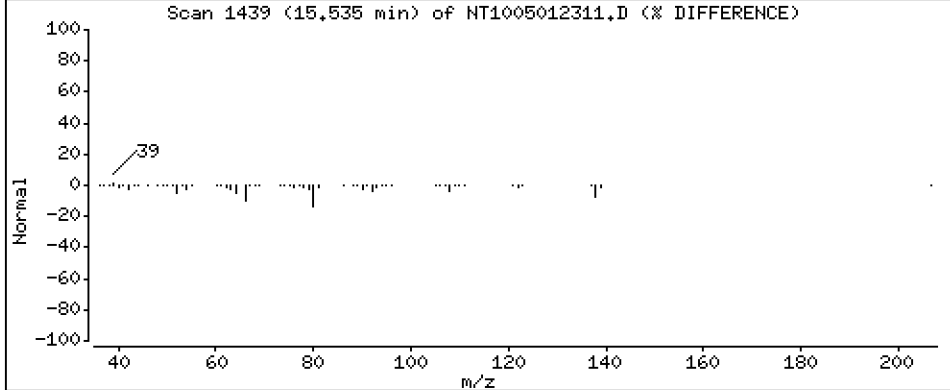
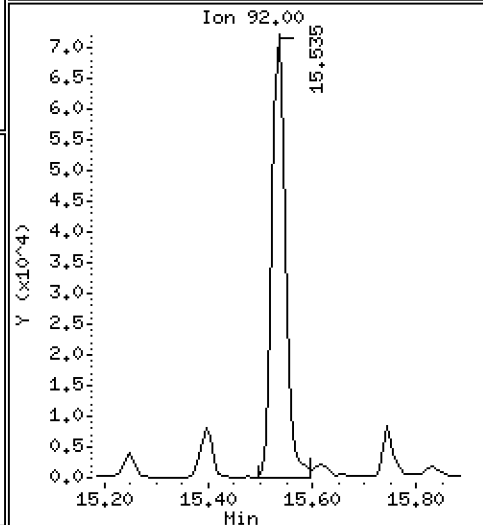
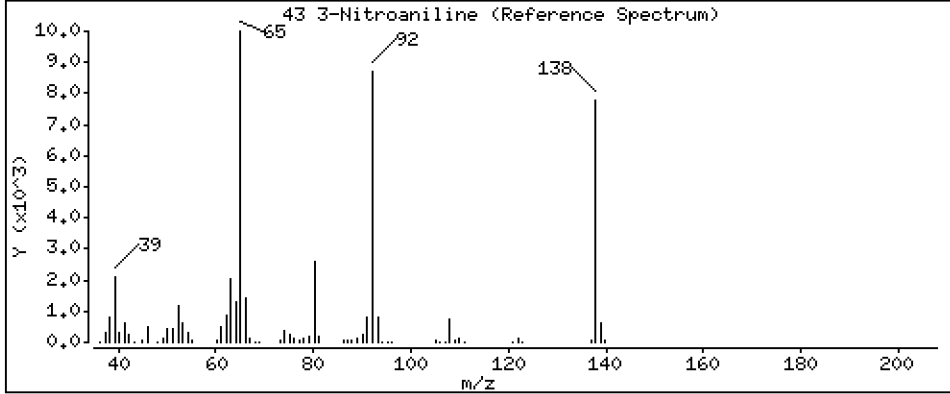
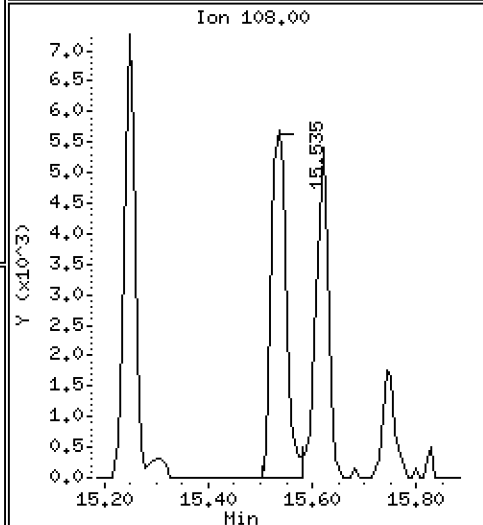
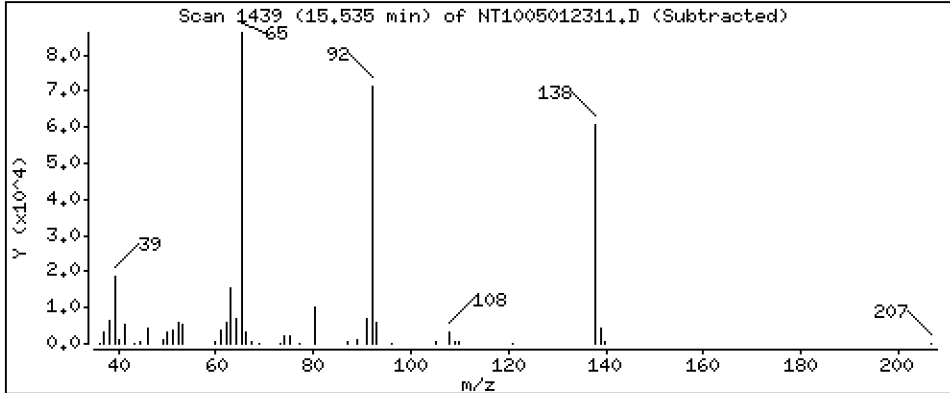
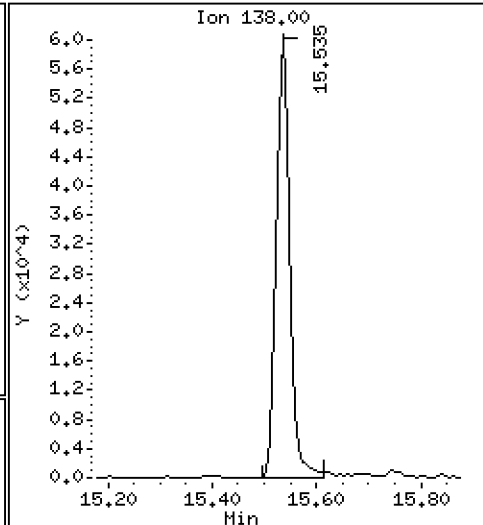
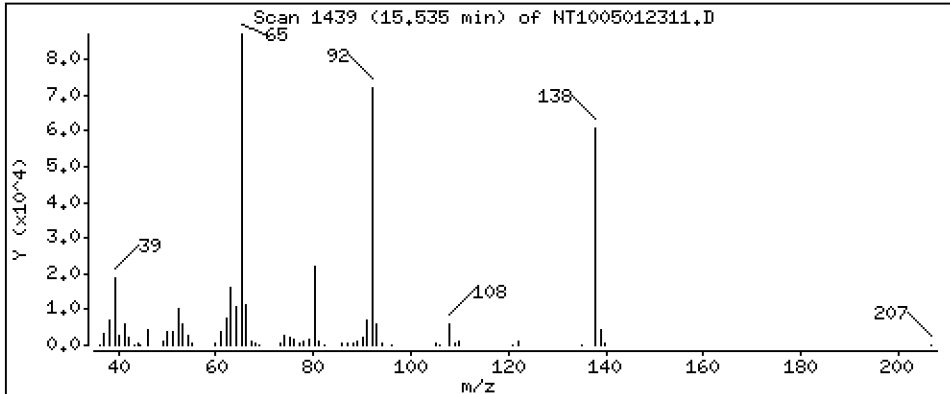
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,776 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

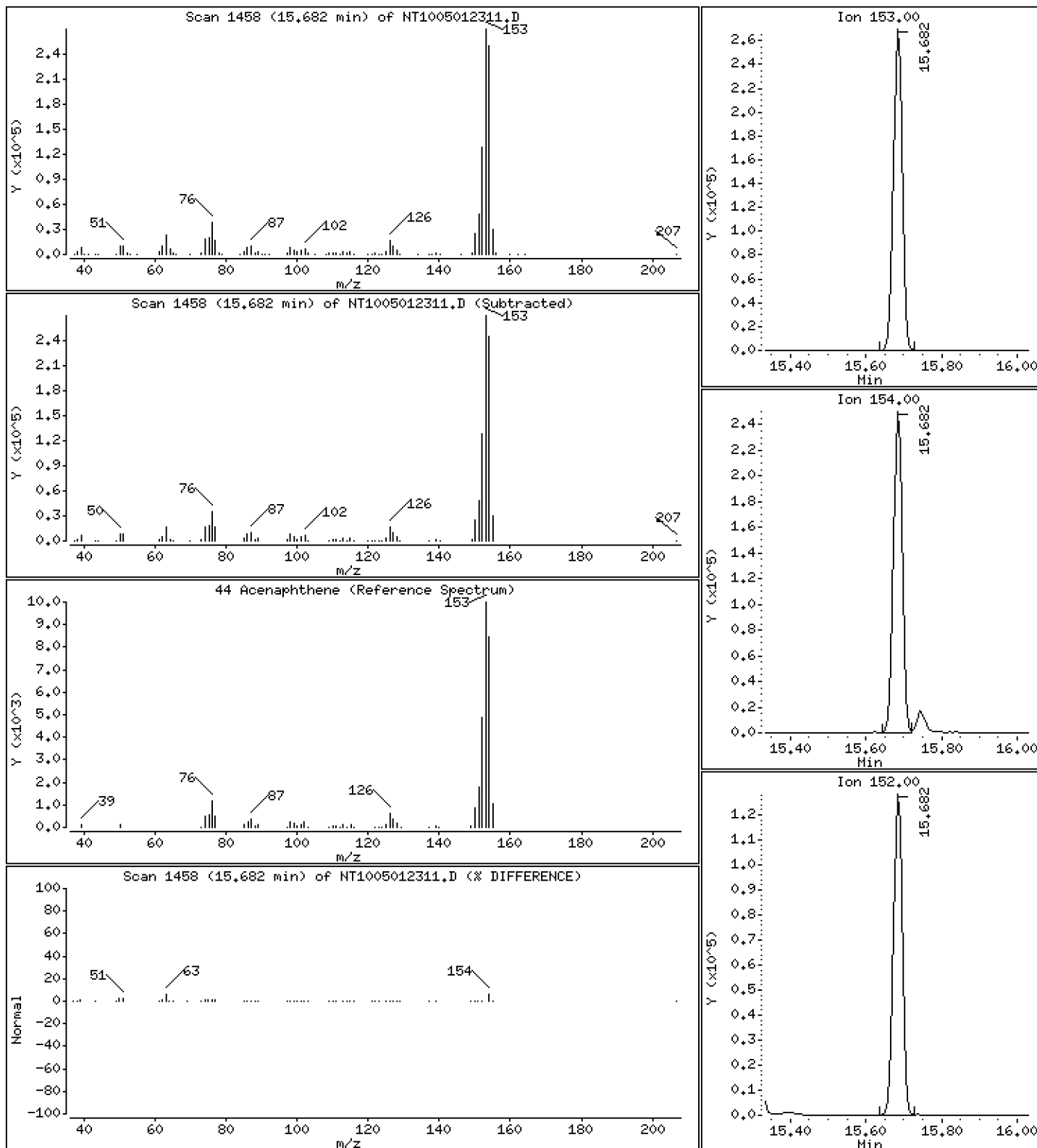
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,716 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

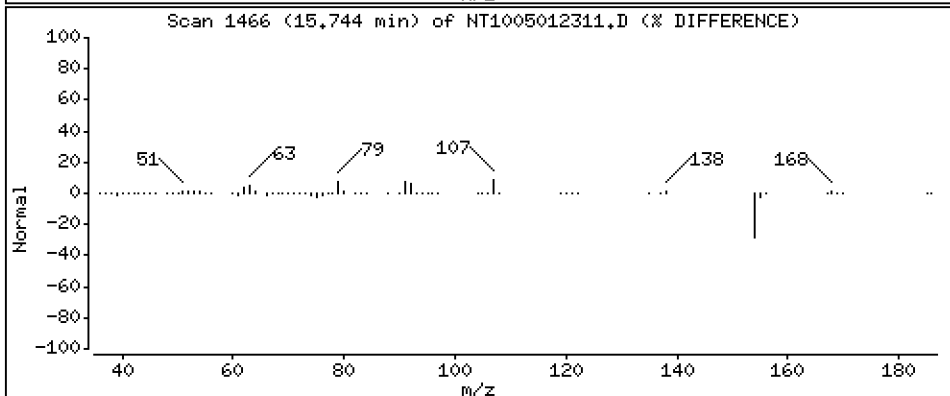
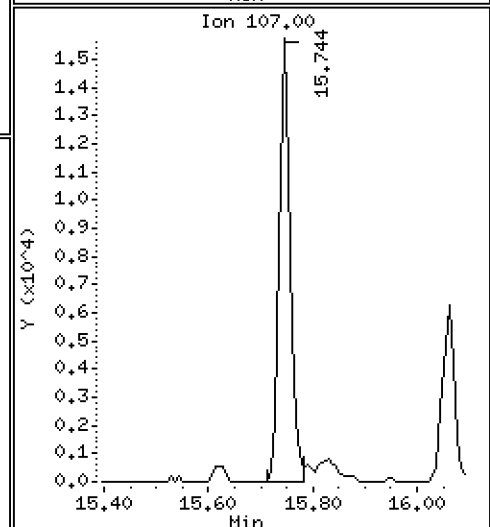
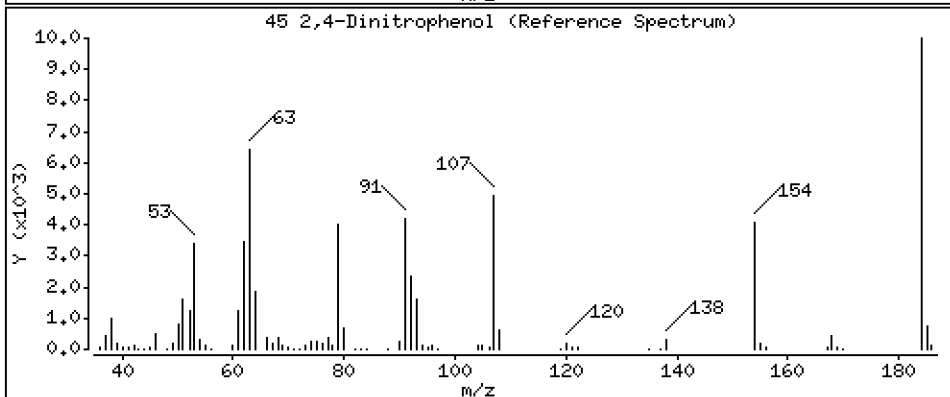
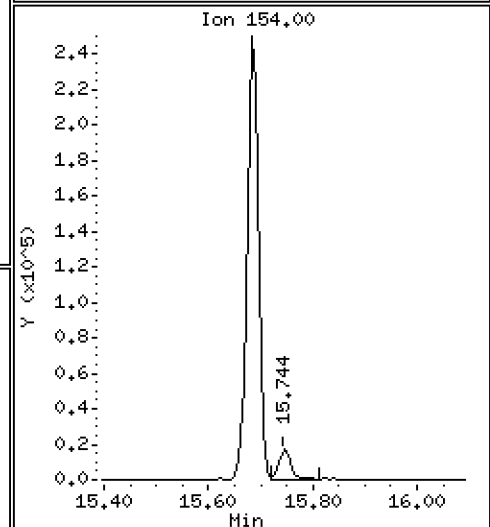
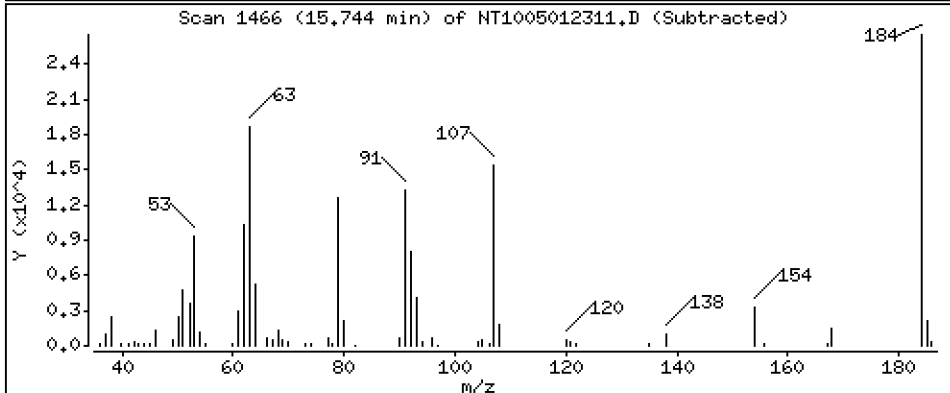
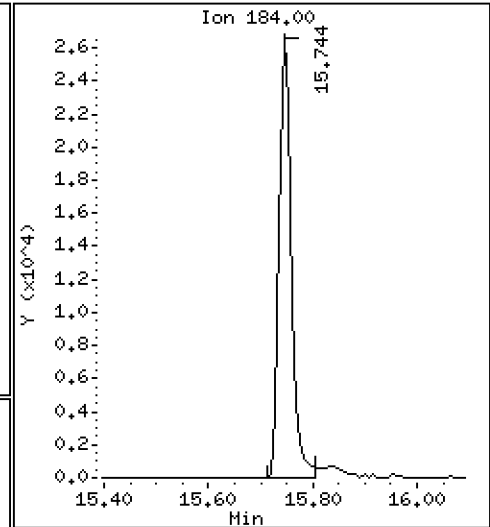
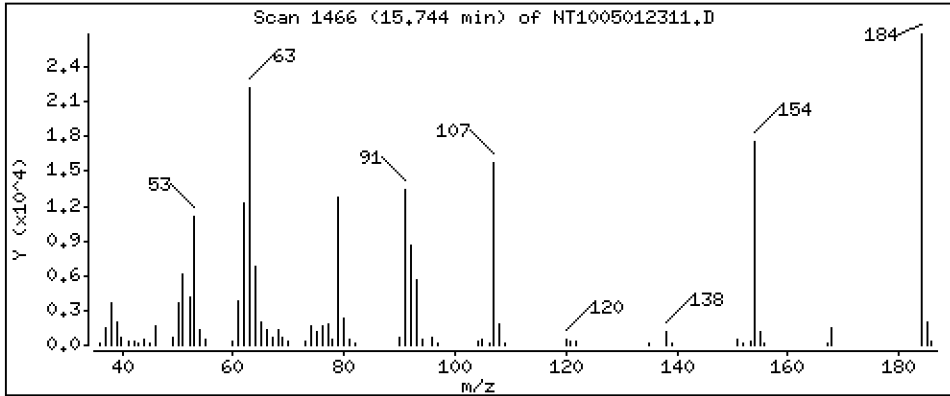
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 2,376 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

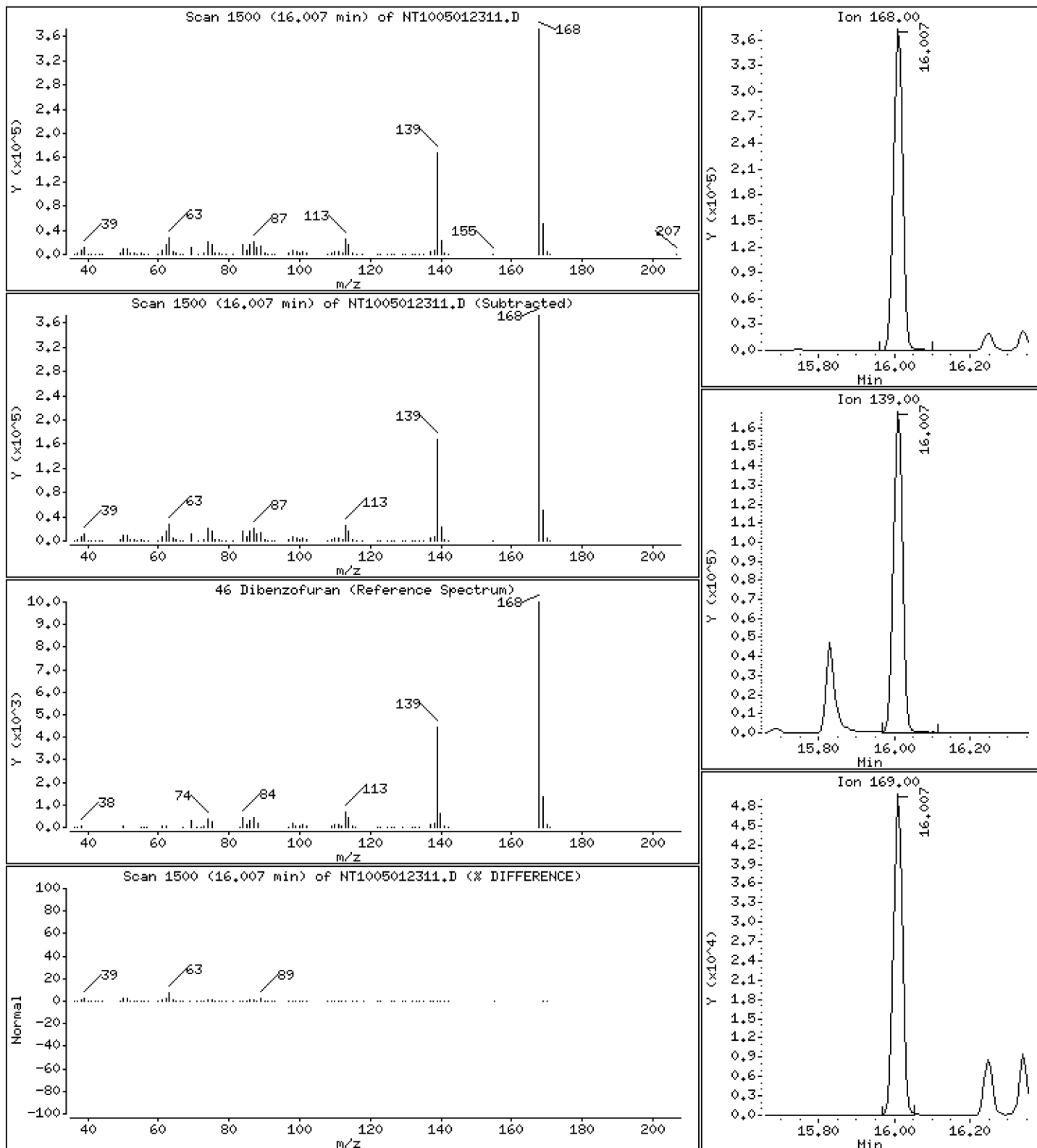
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

46 Dibenzofuran

Concentration: 4.645 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

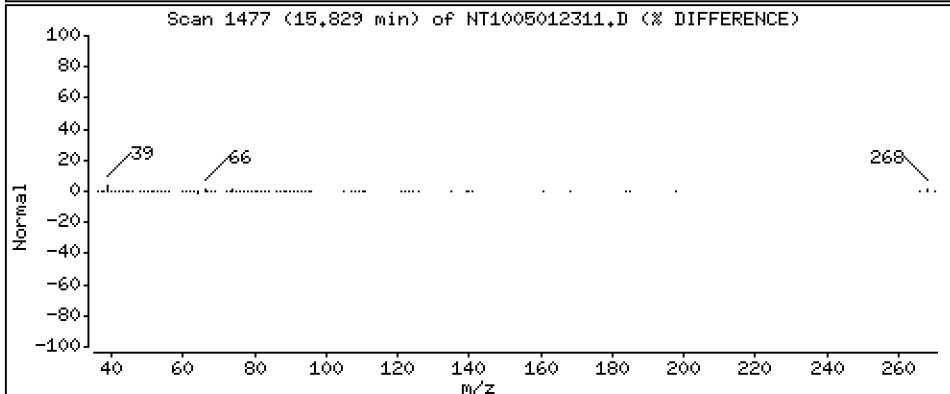
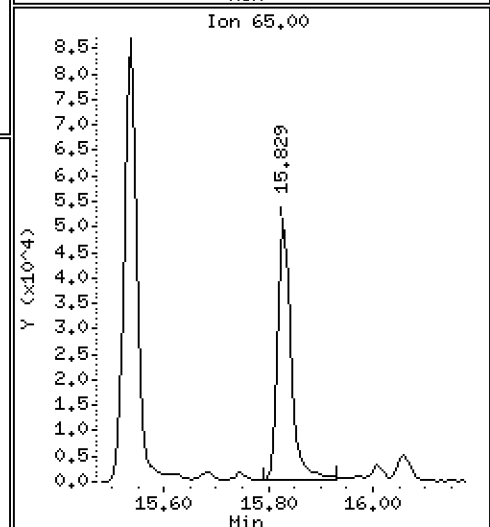
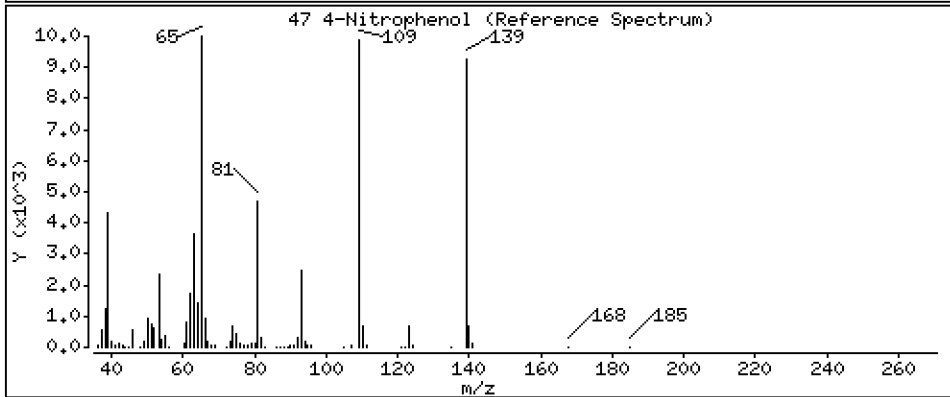
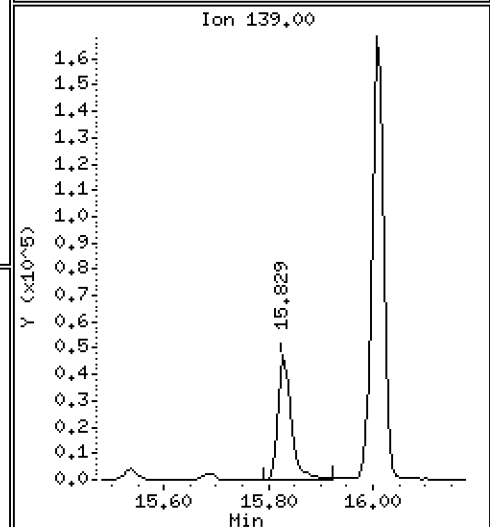
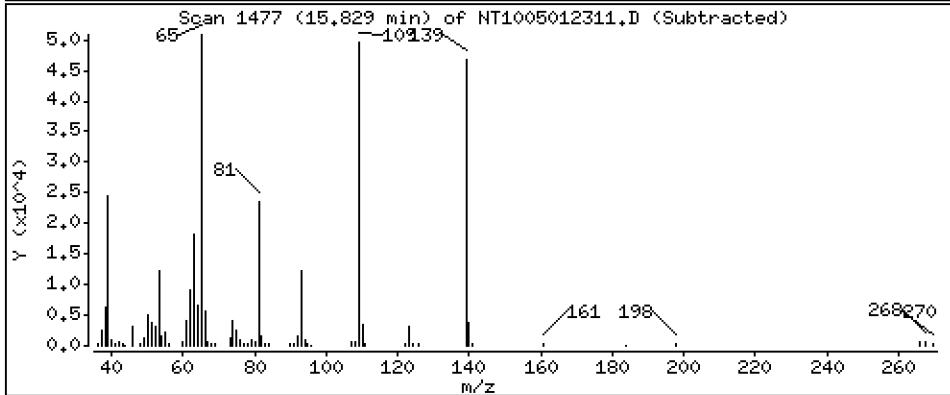
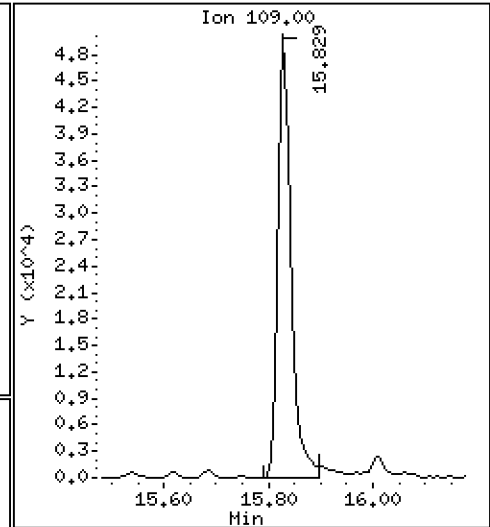
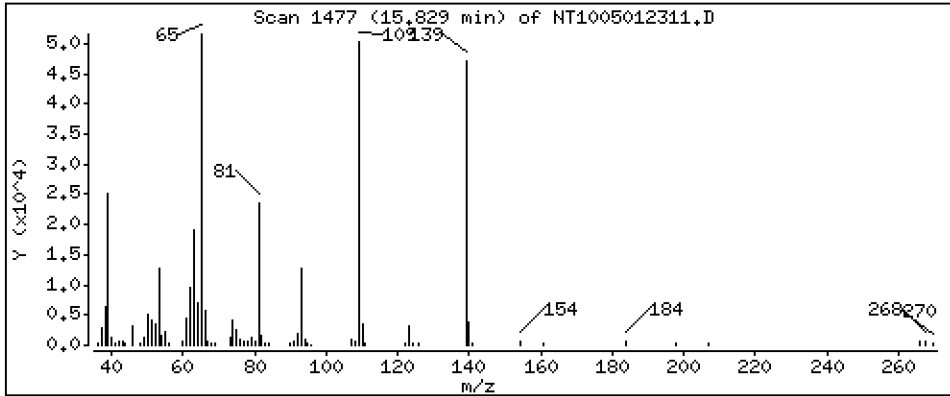
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 3,992 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

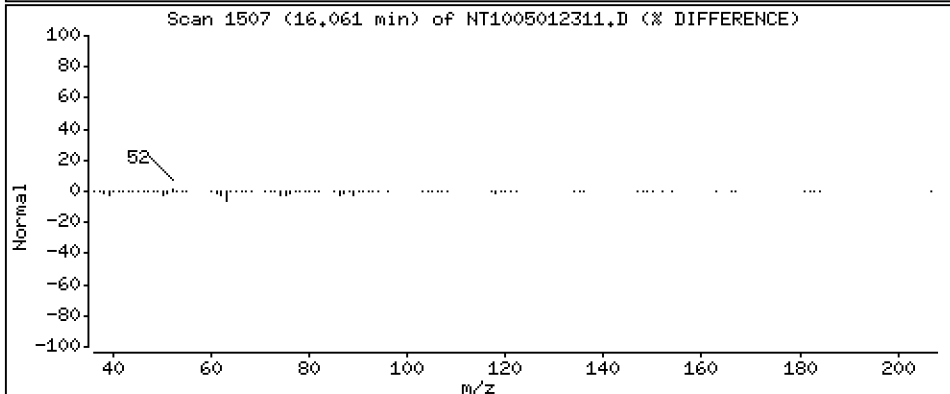
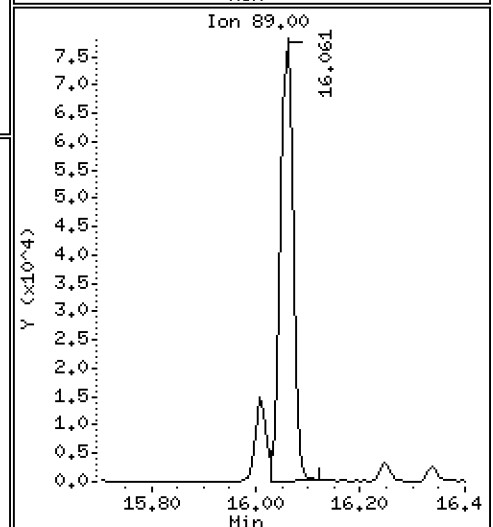
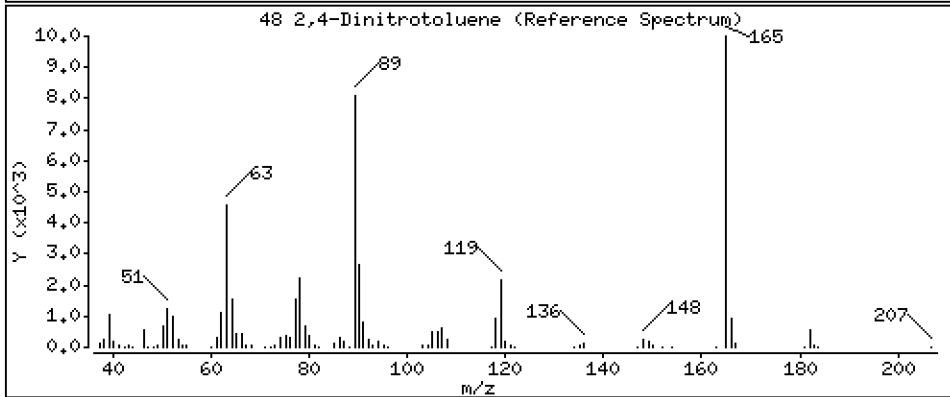
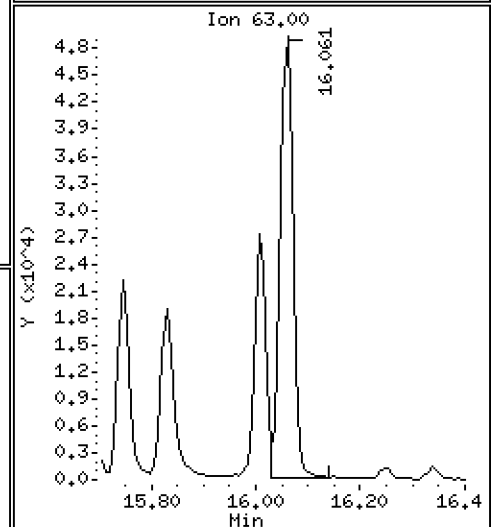
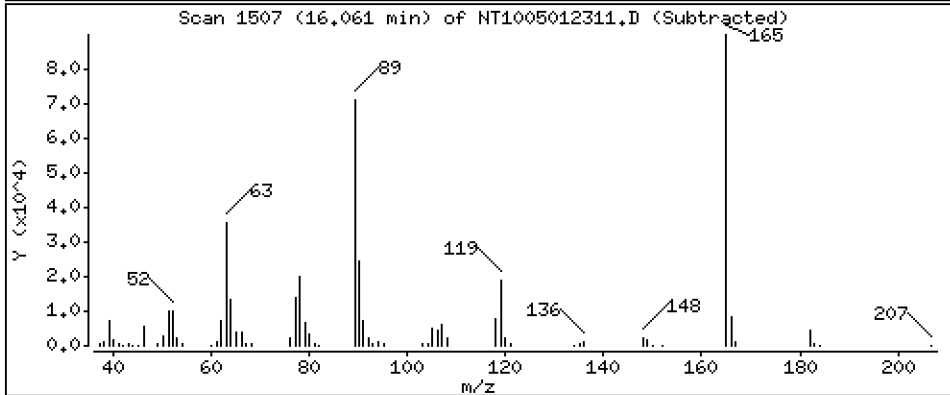
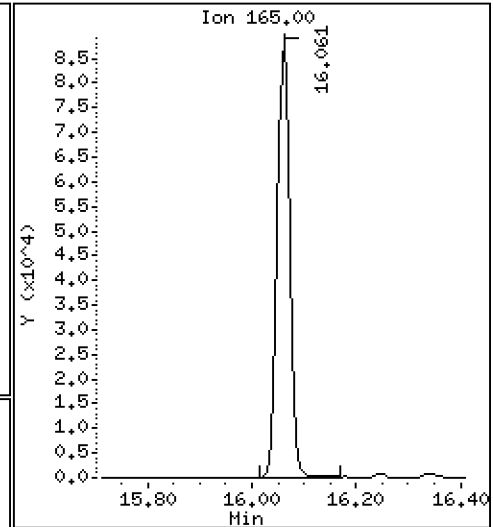
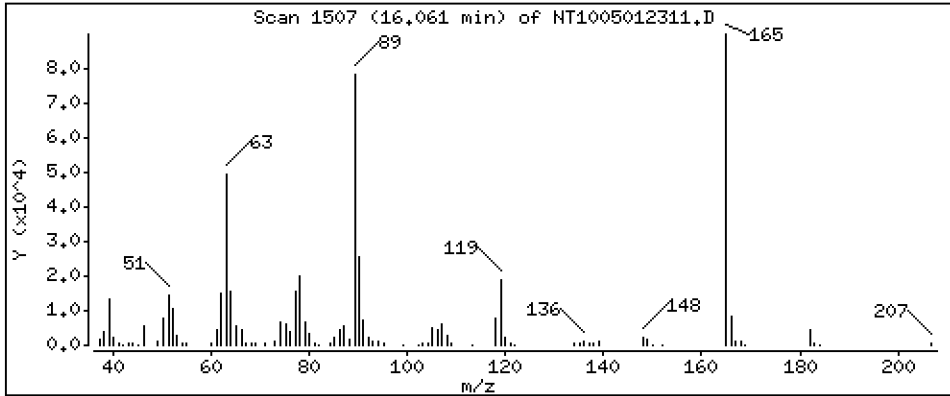
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 4,381 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

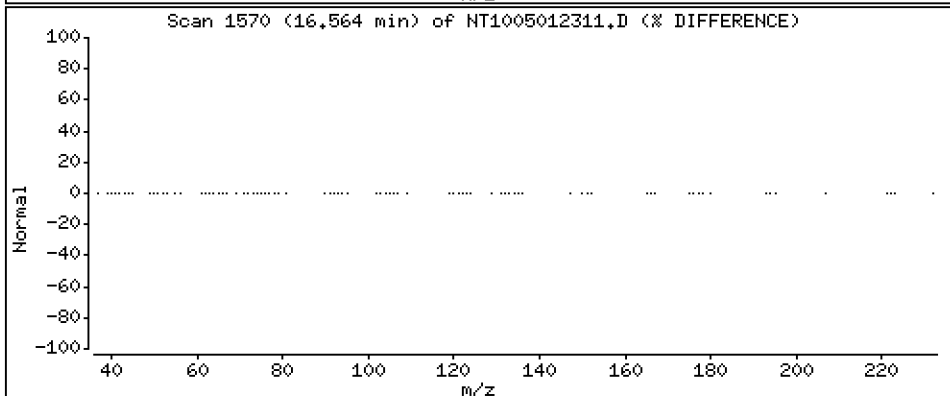
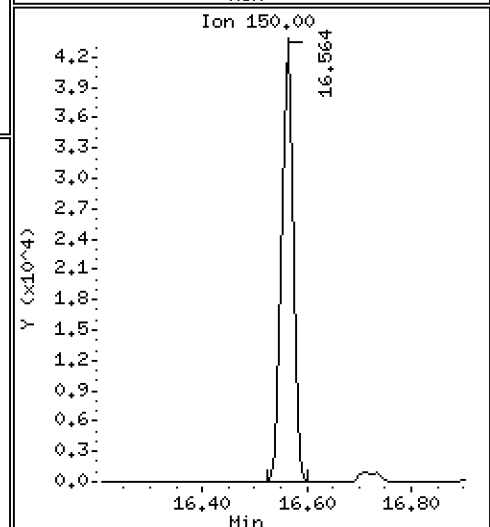
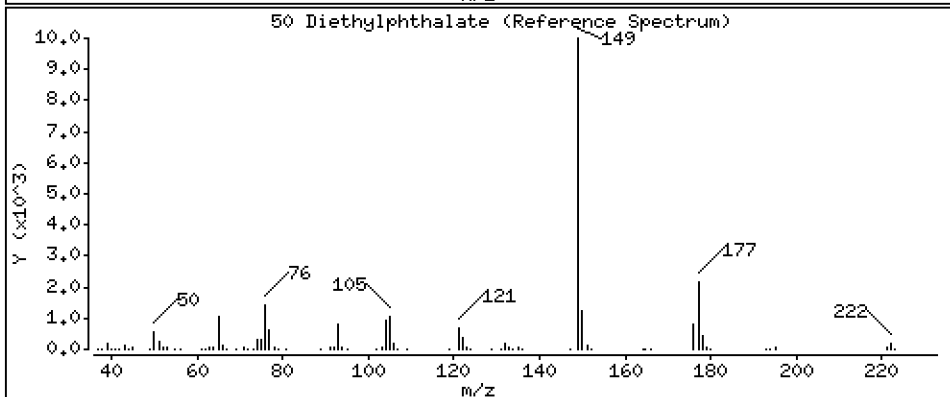
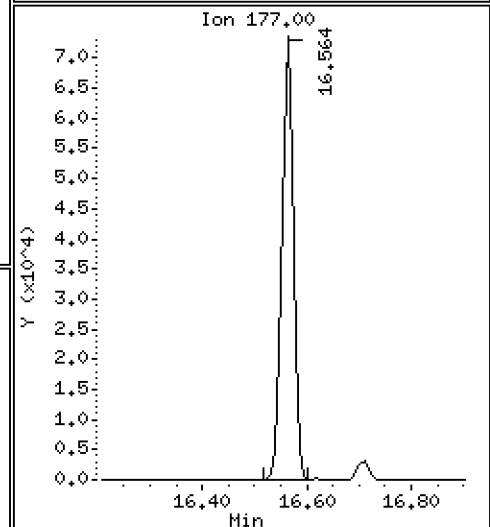
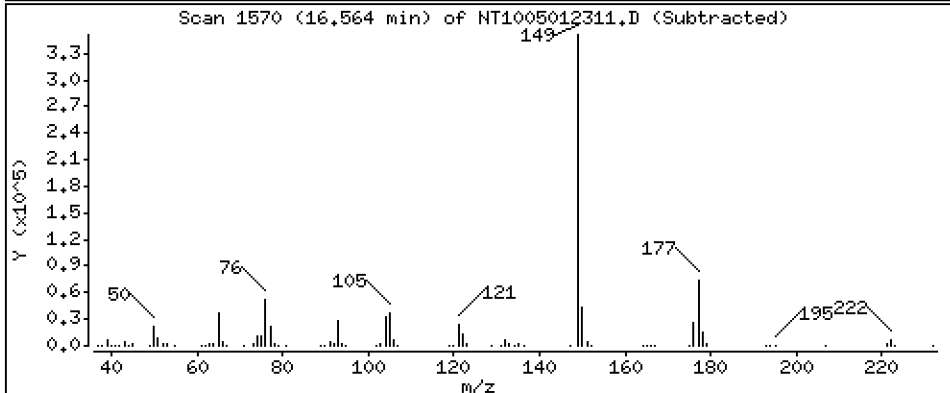
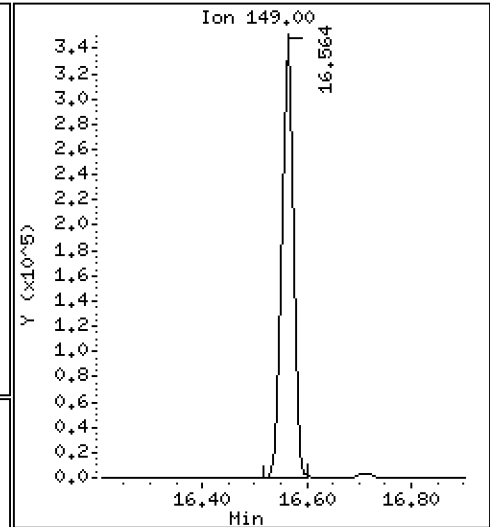
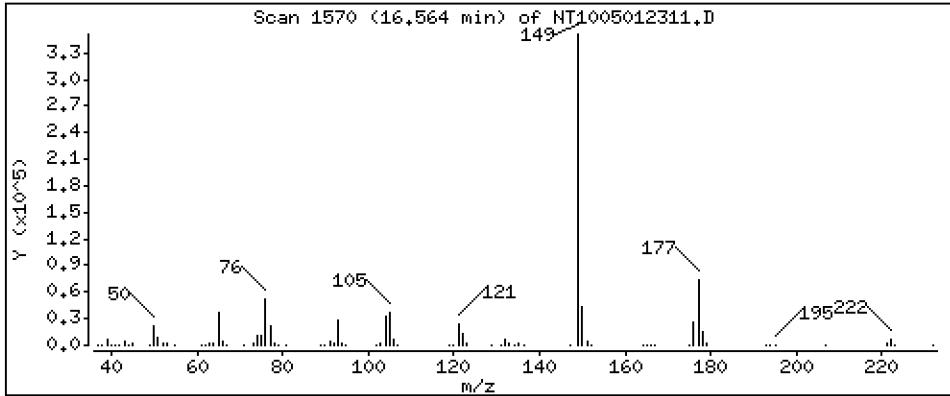
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 5.055 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

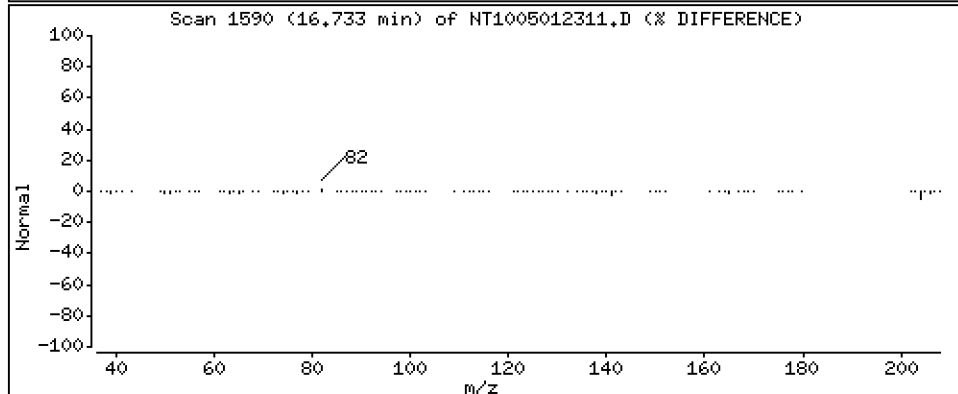
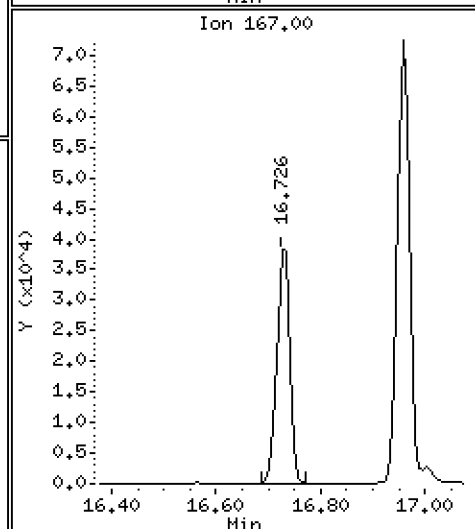
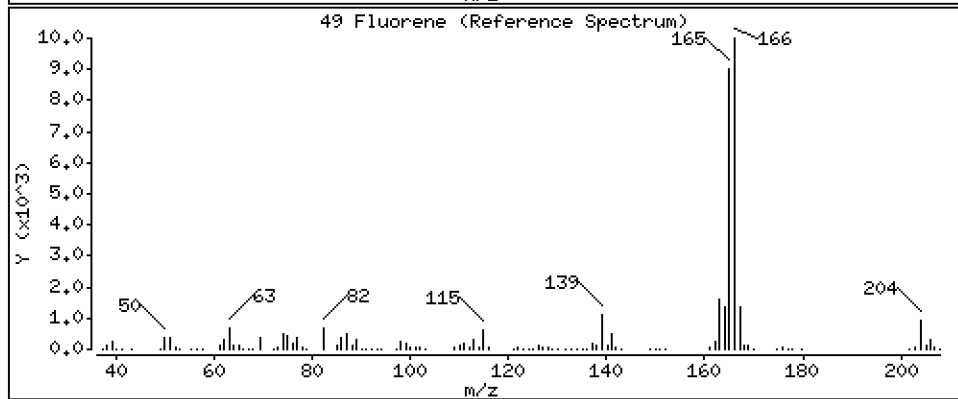
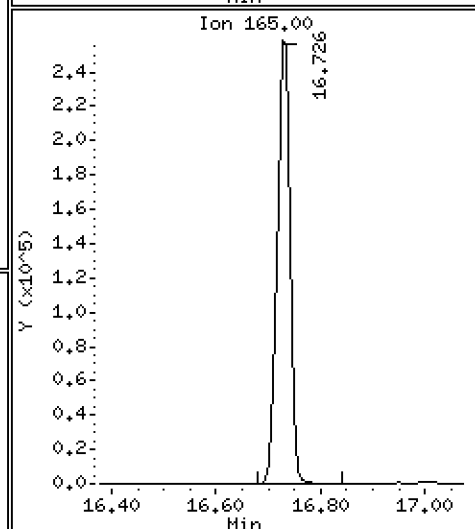
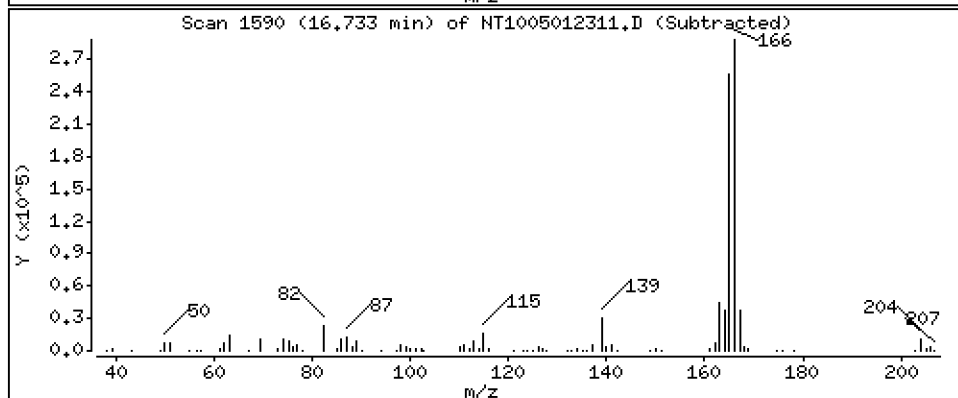
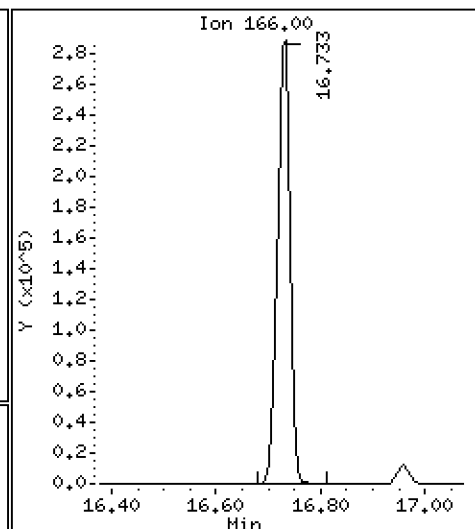
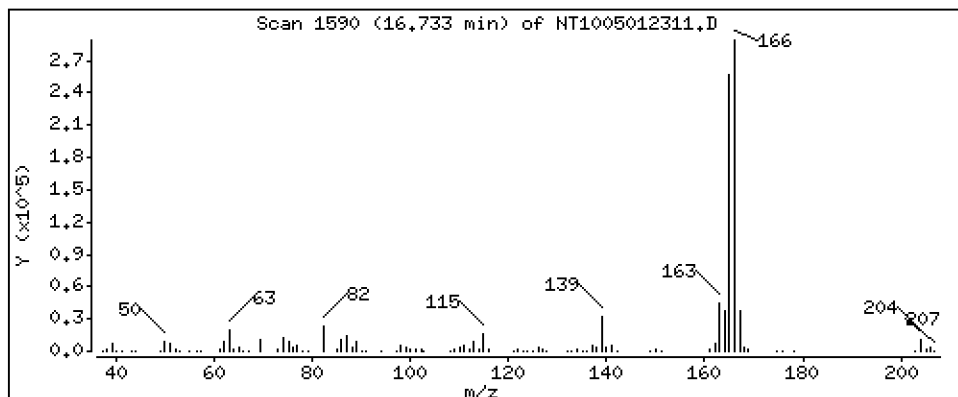
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,559 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

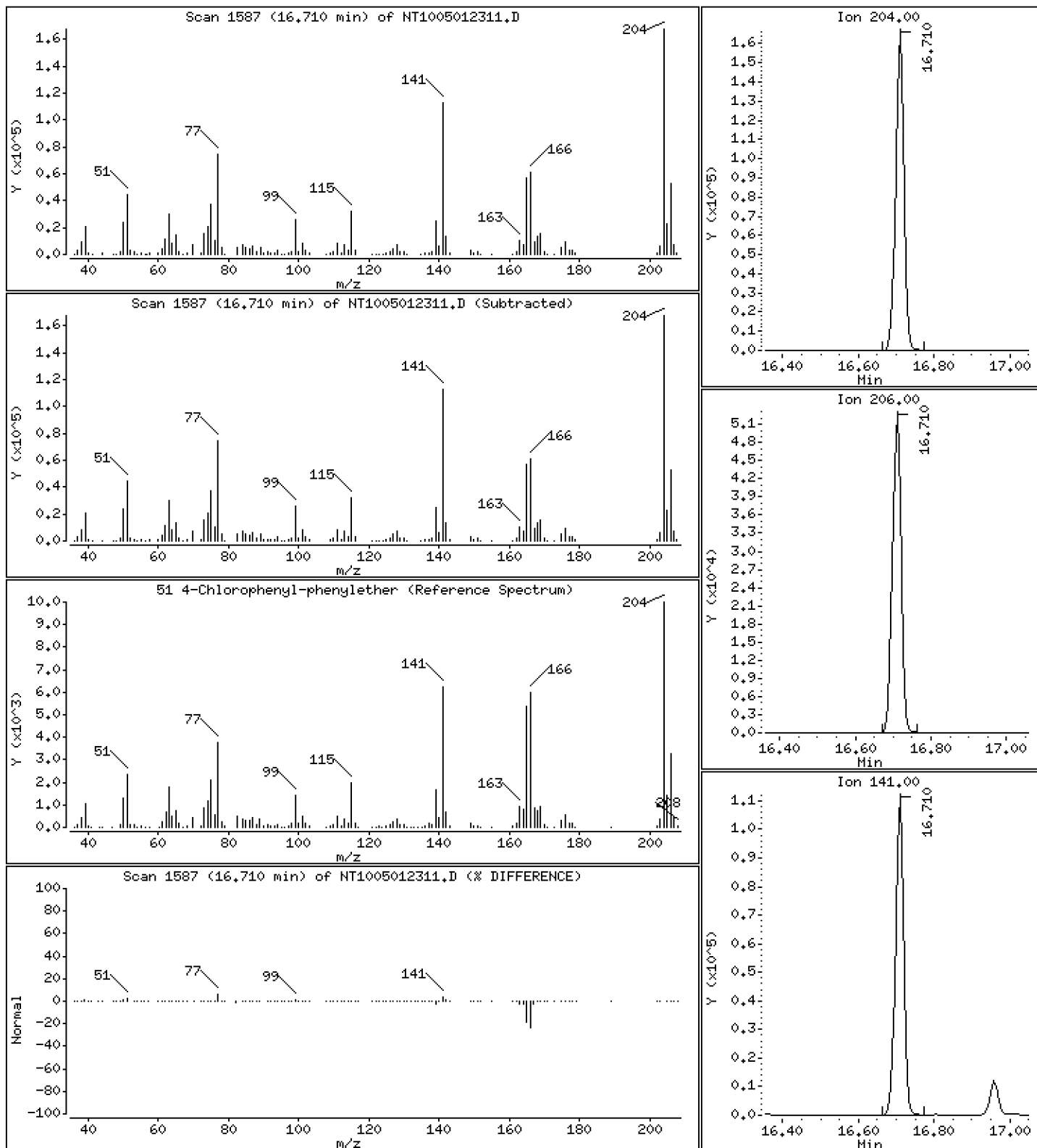
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,797 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

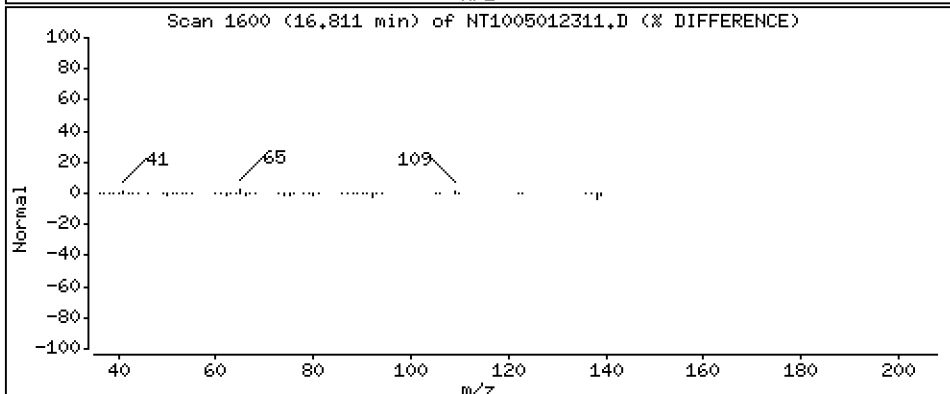
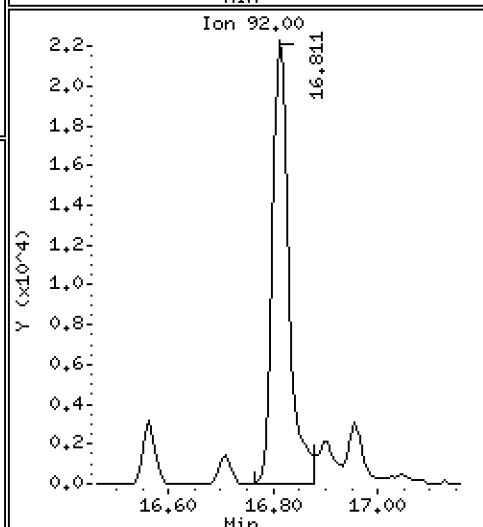
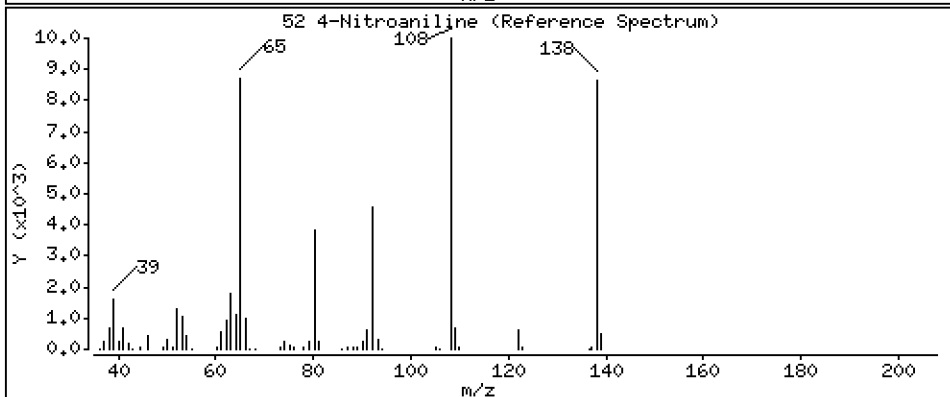
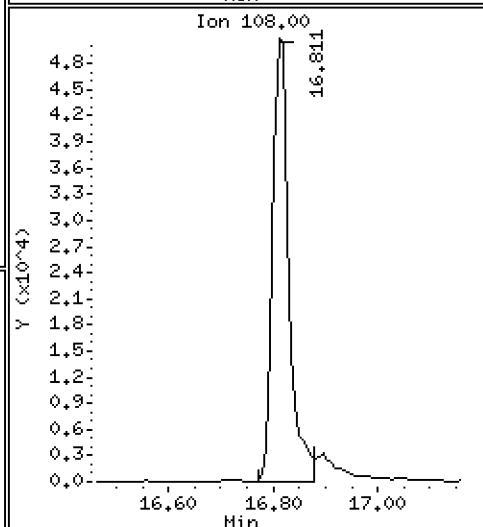
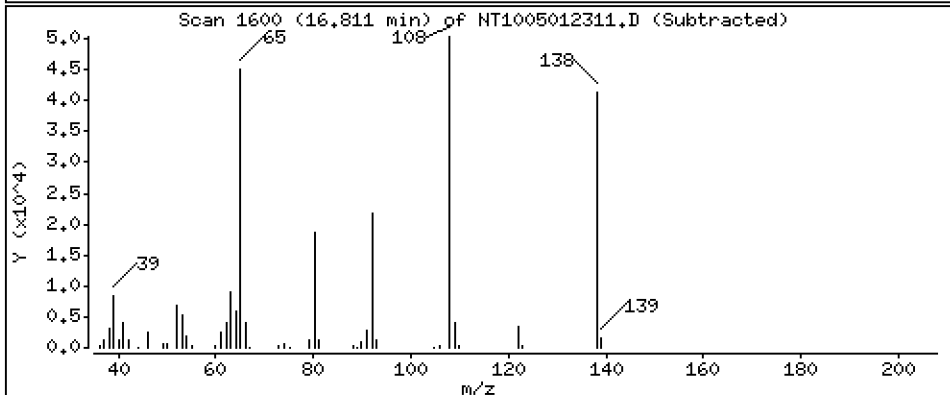
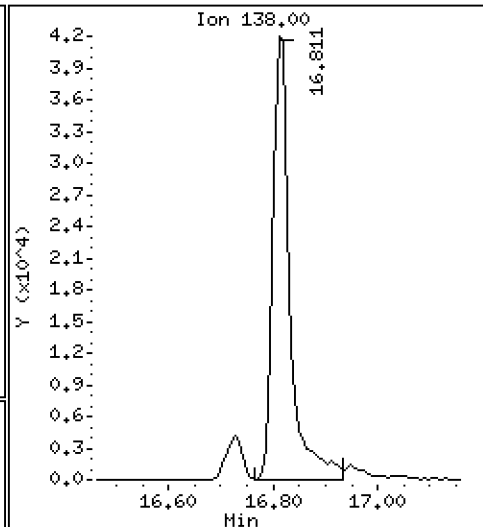
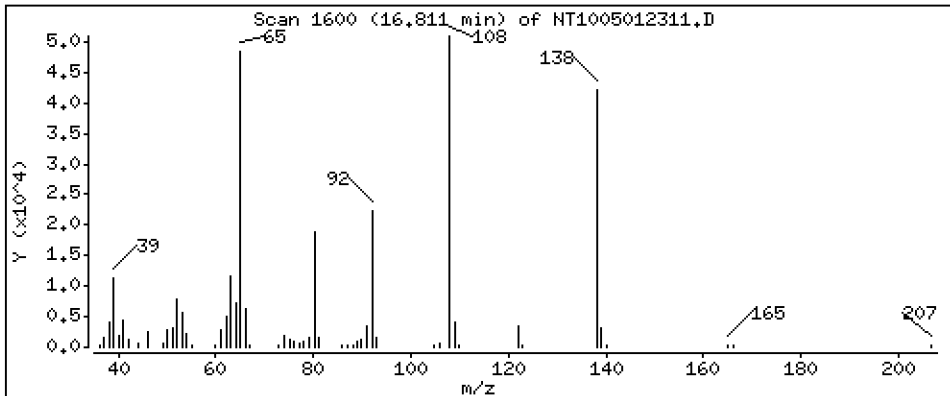
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 4.293 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

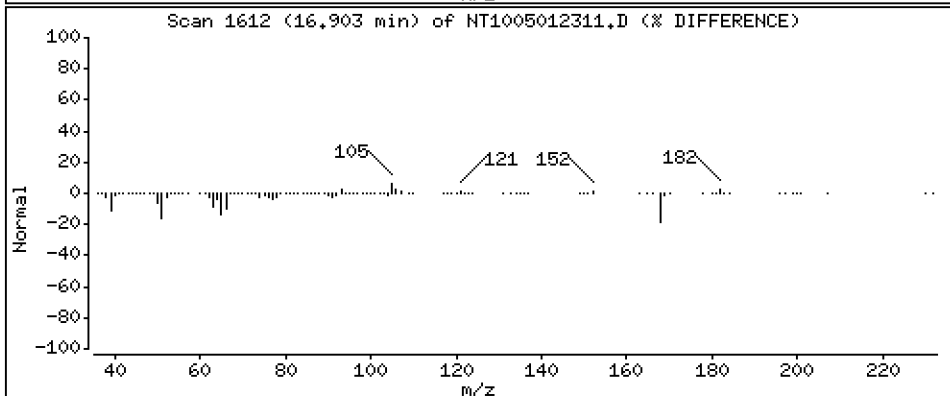
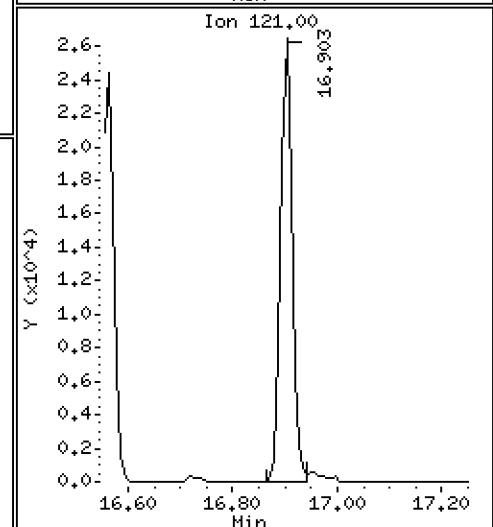
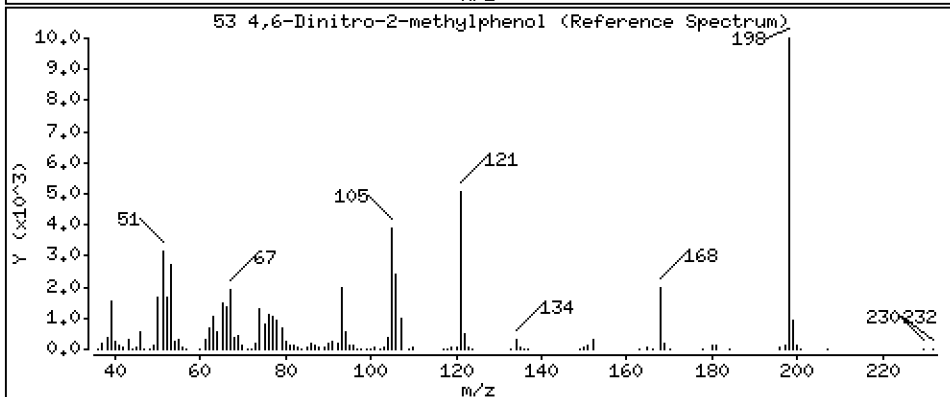
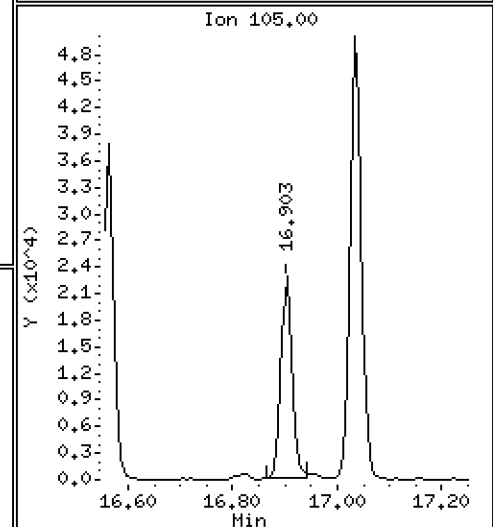
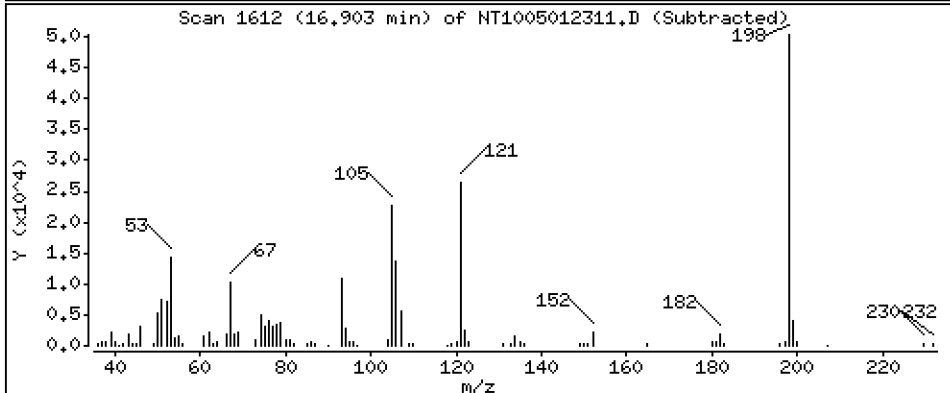
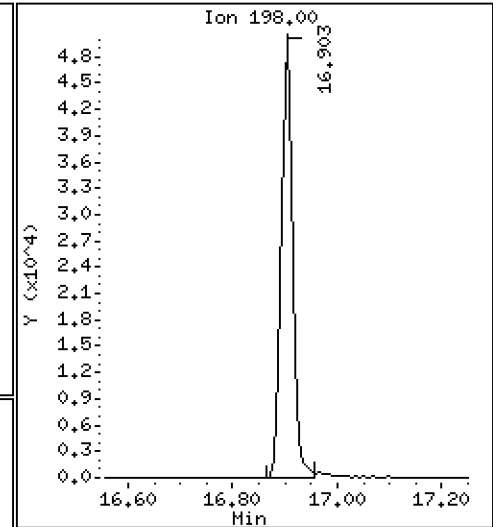
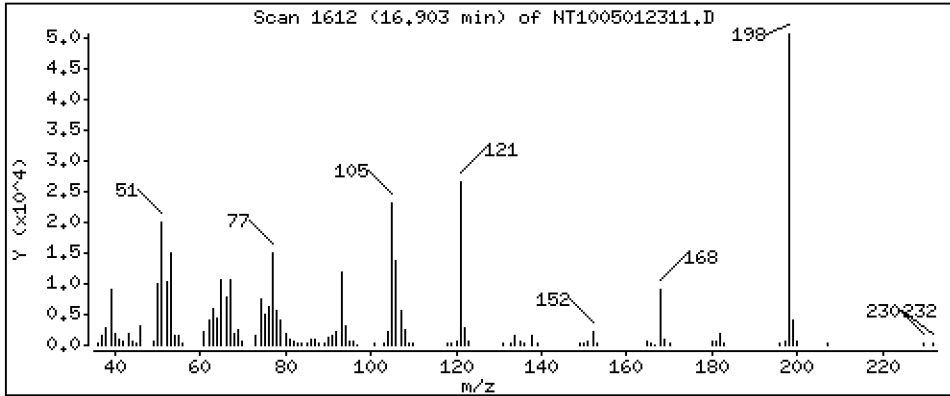
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,760 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

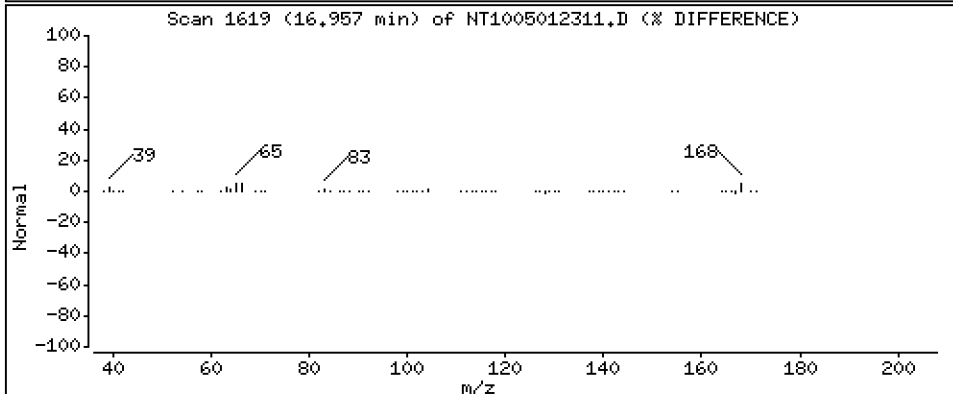
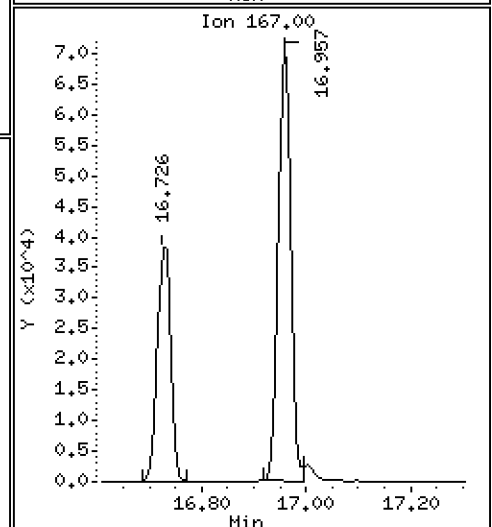
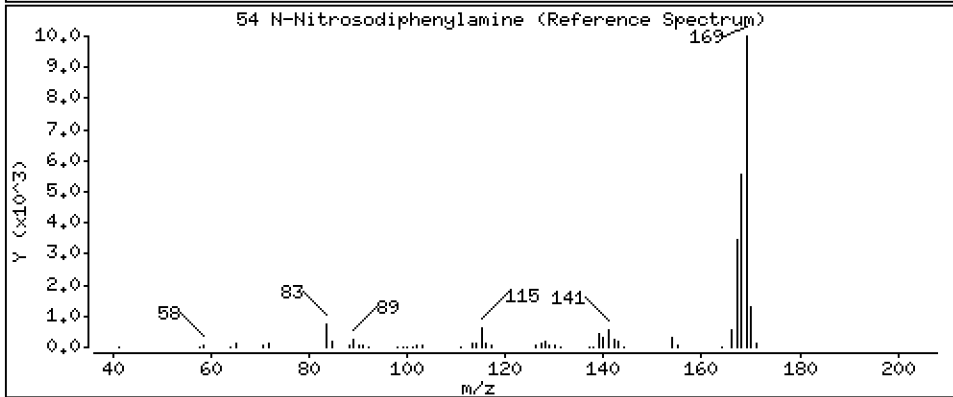
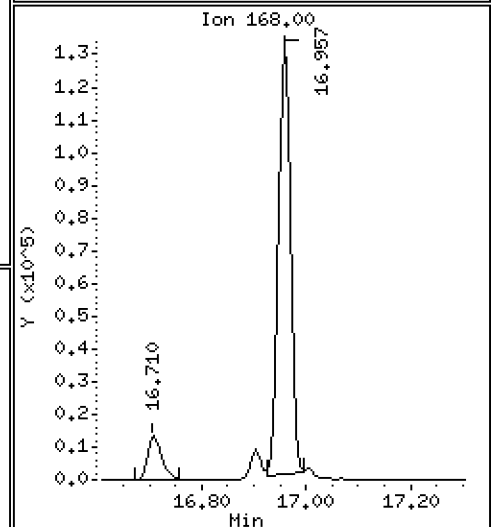
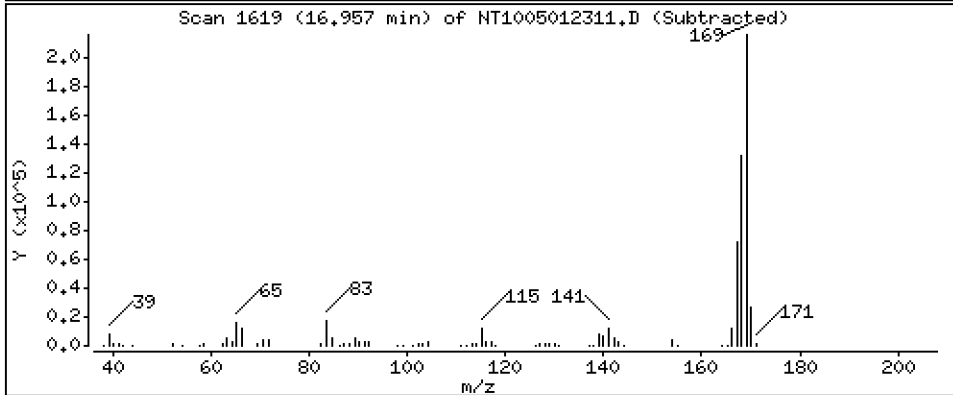
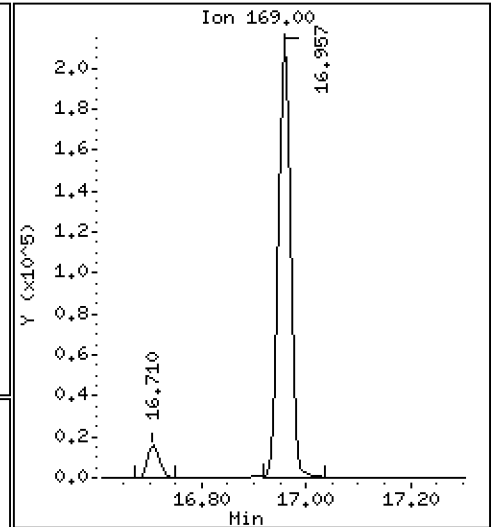
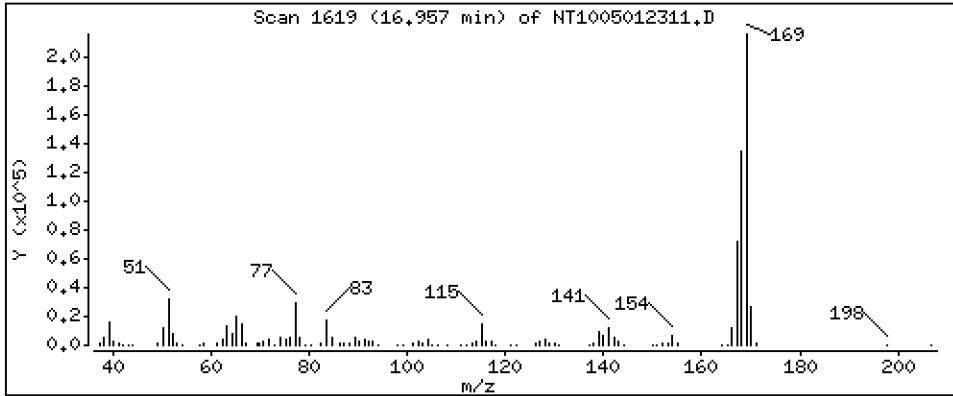
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,125 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

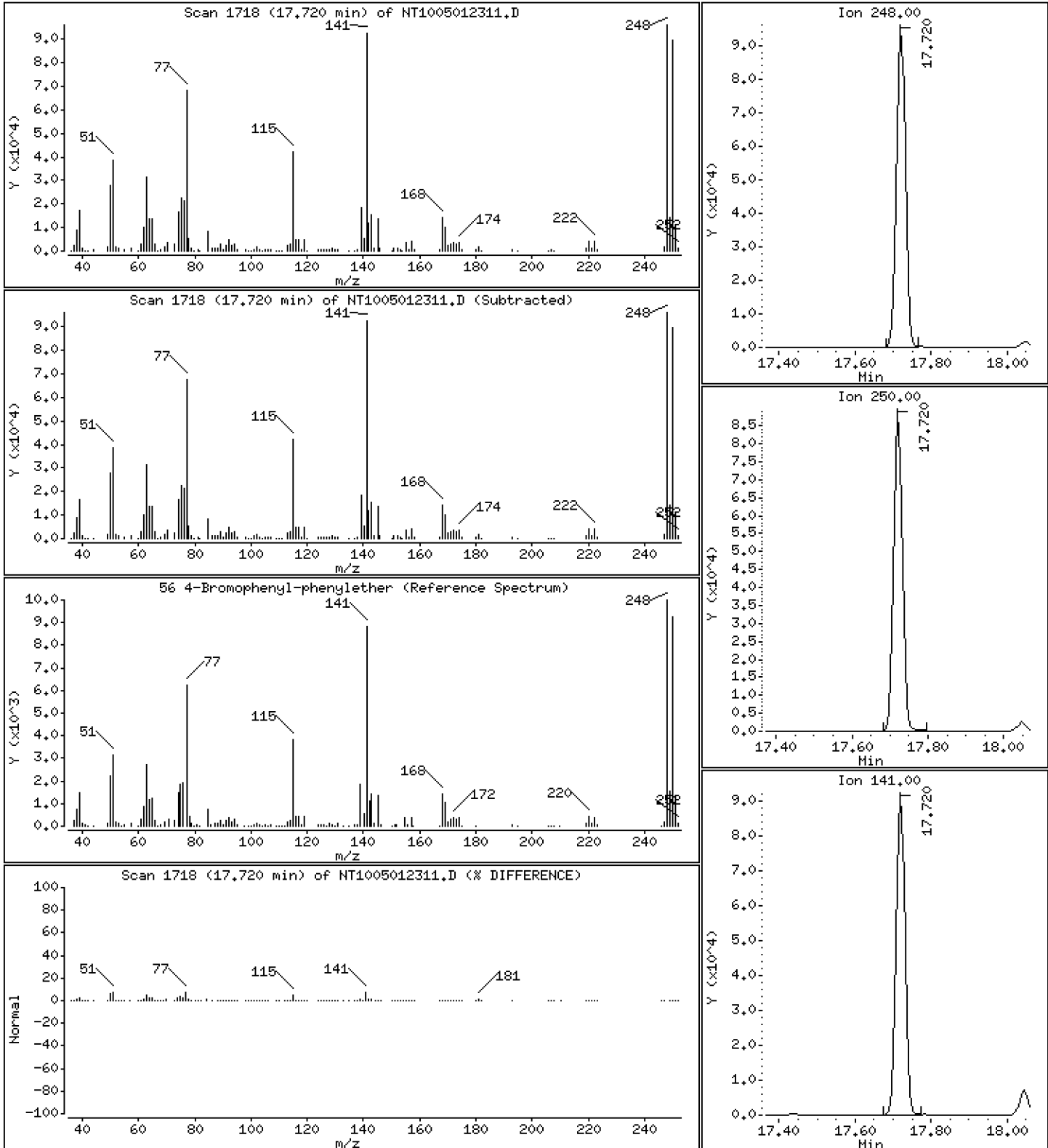
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,942 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

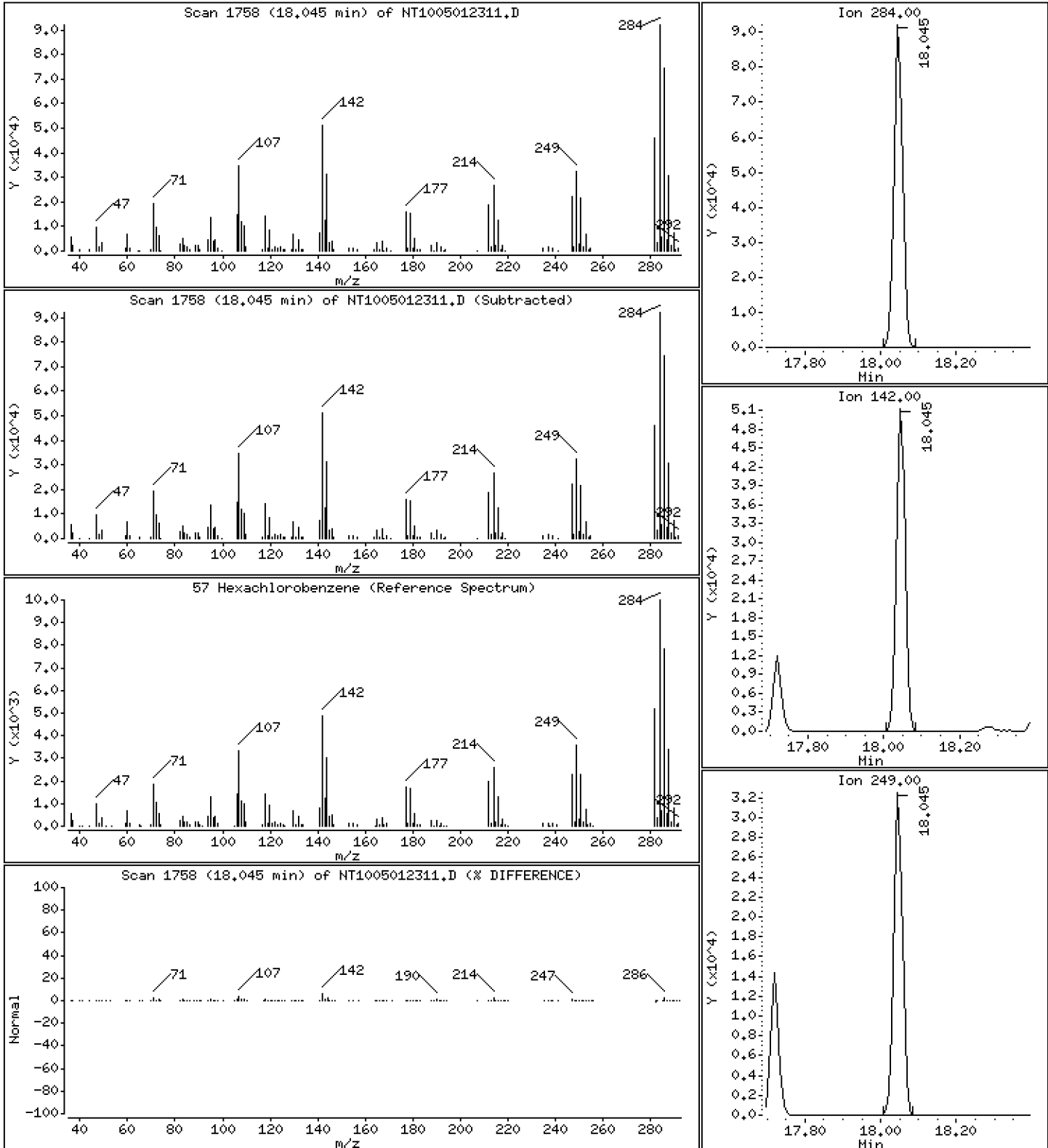
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,689 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

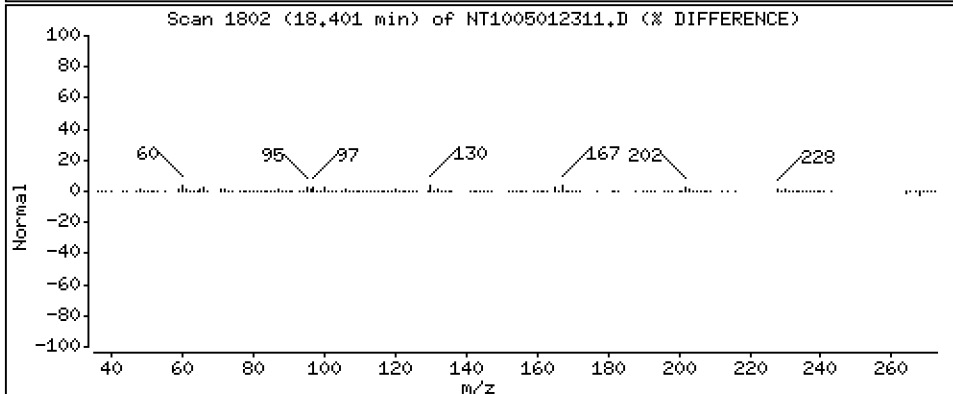
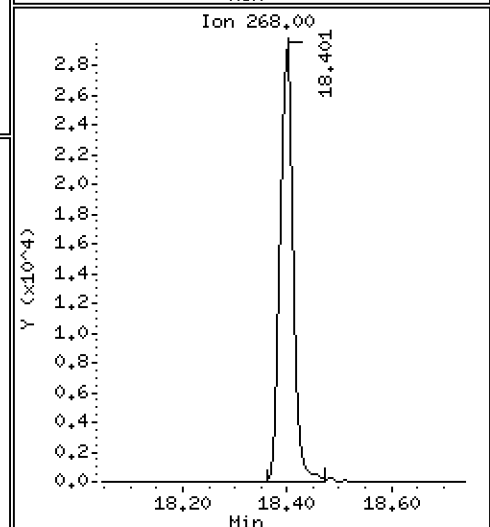
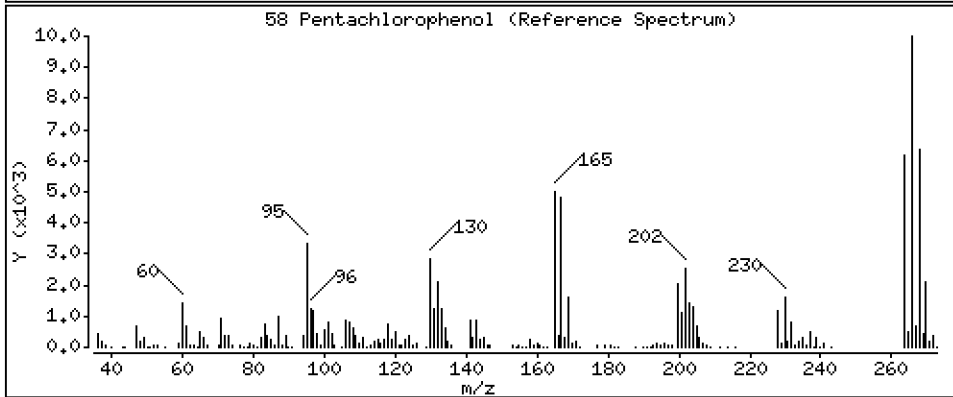
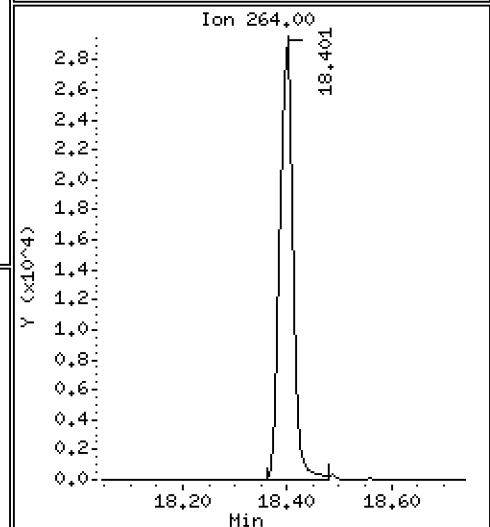
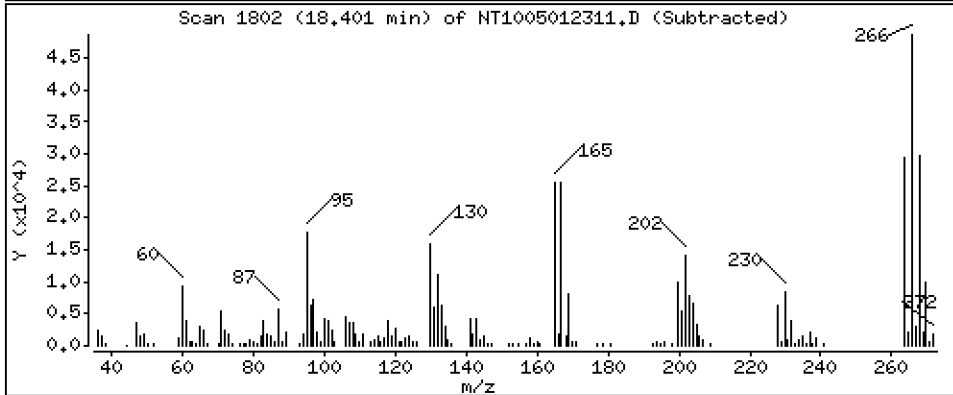
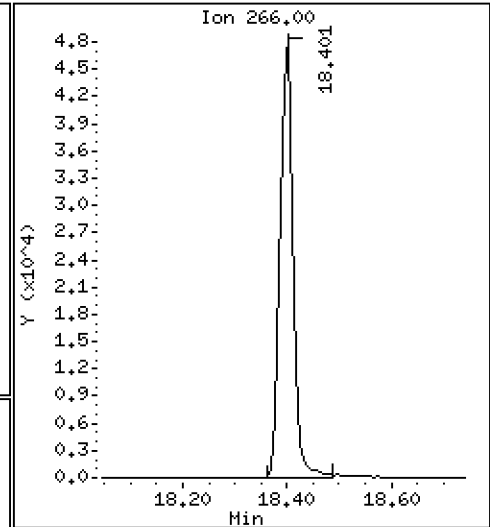
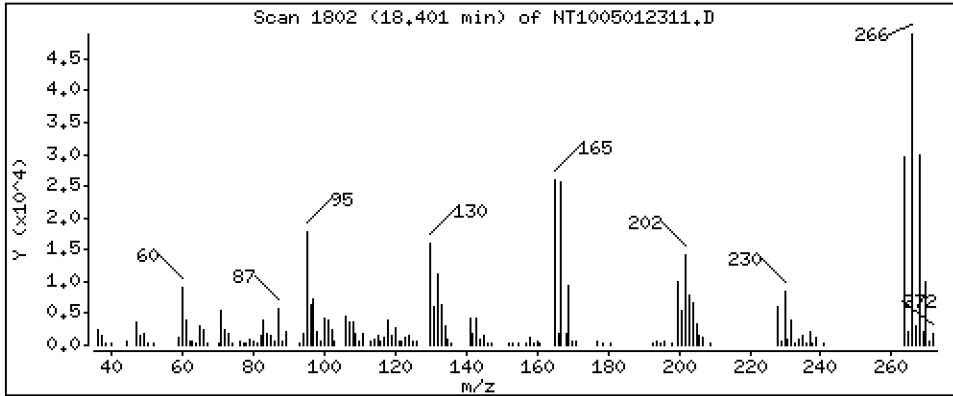
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,866 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

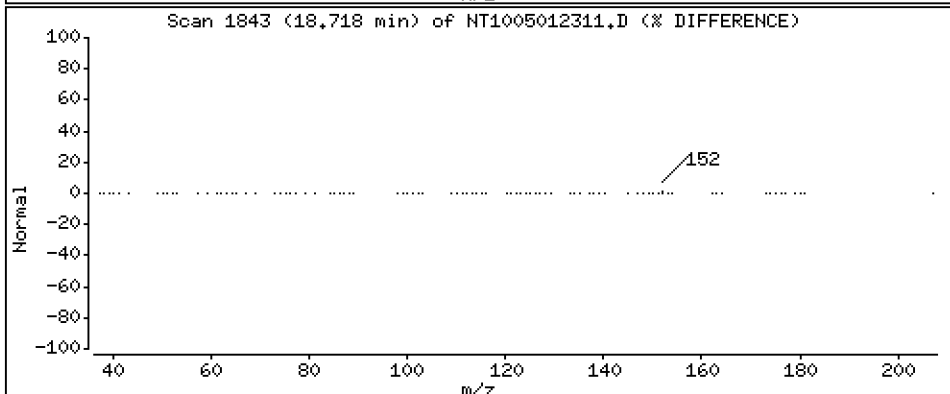
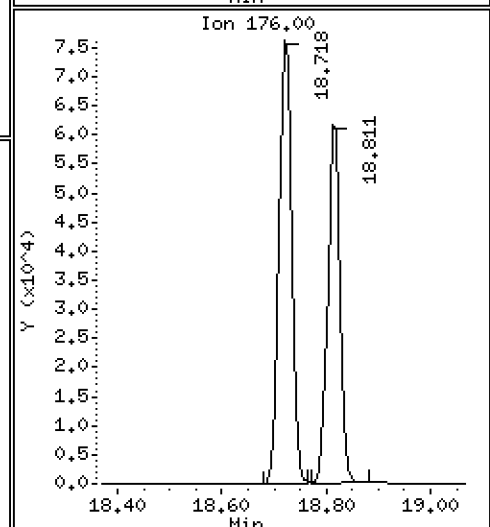
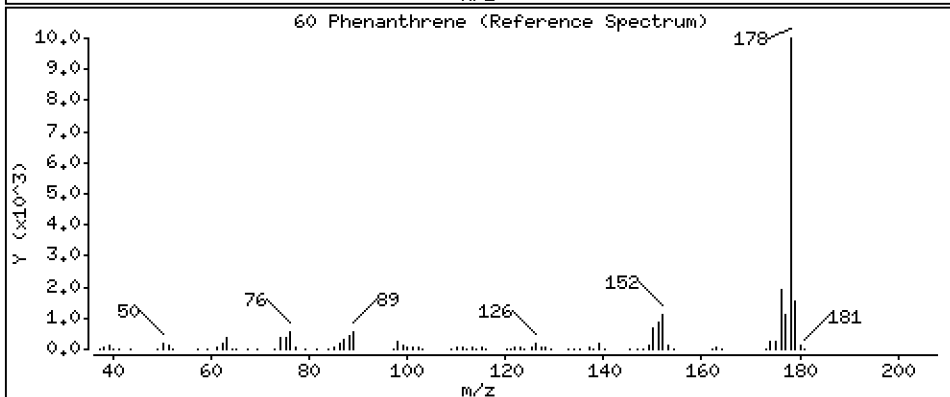
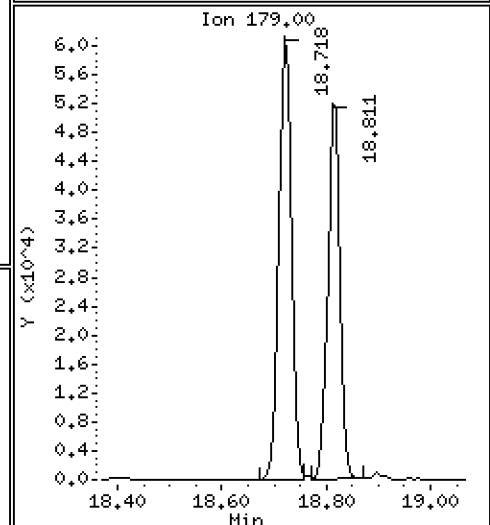
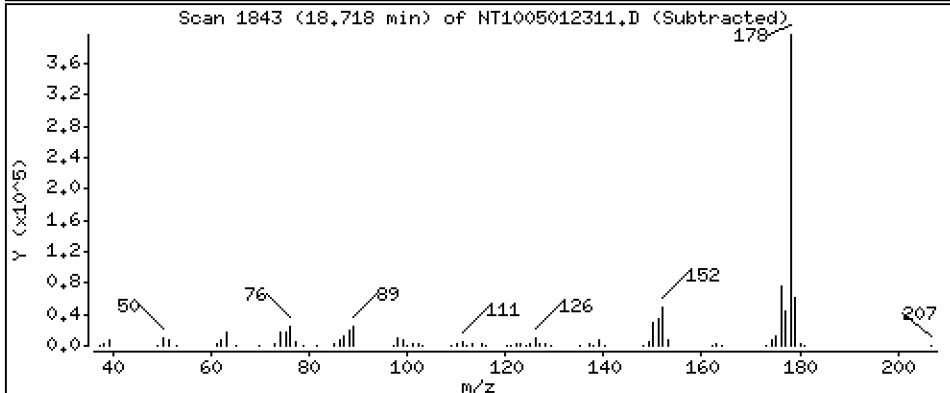
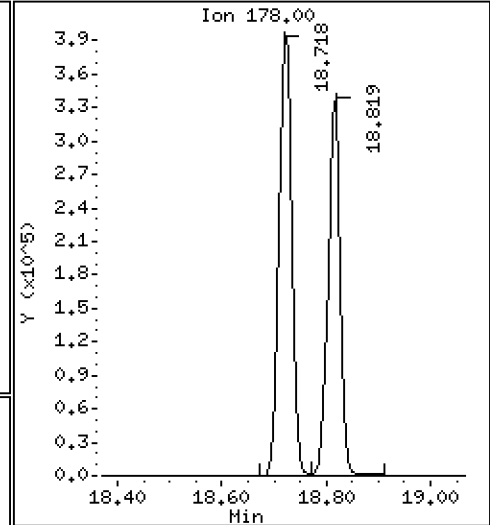
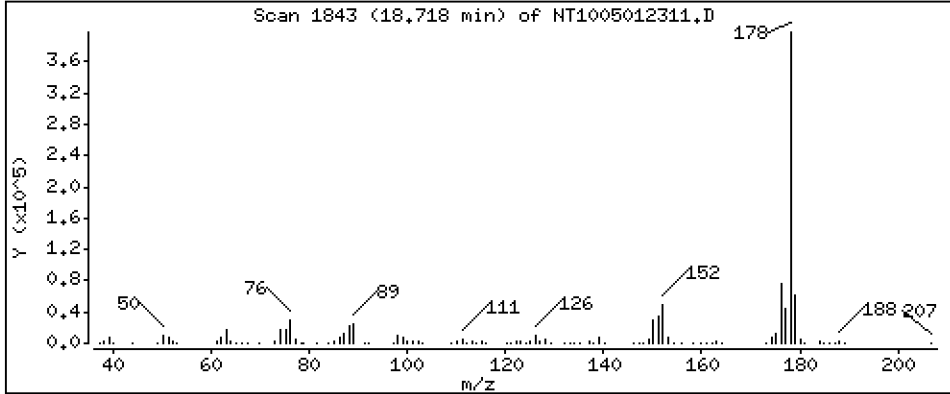
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,586 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

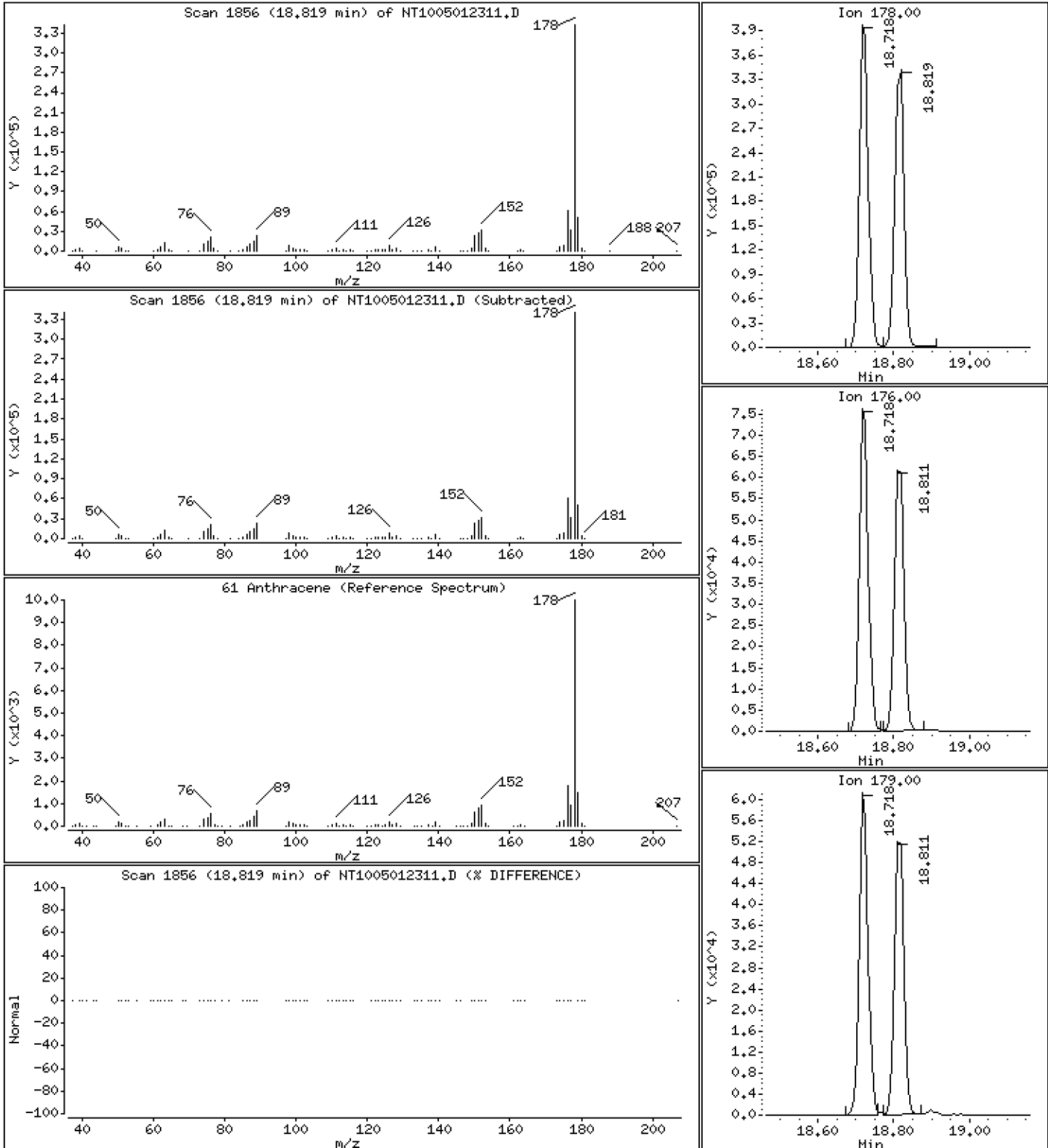
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,169 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

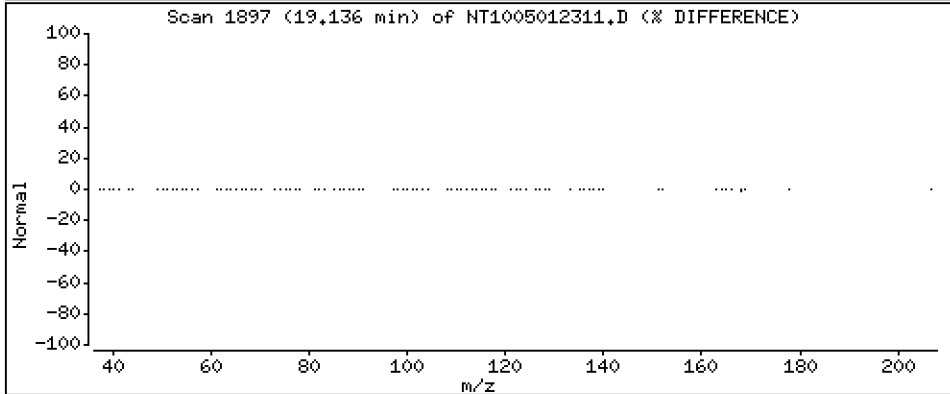
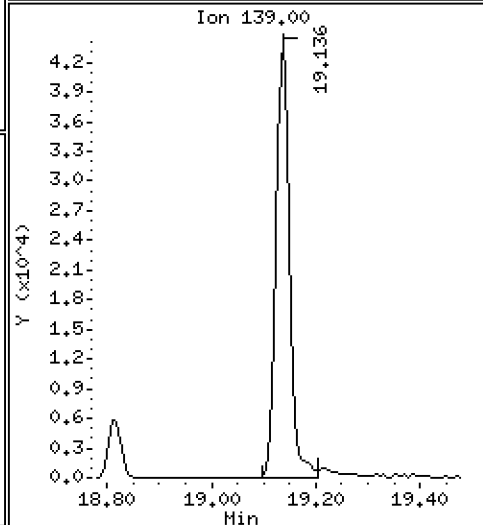
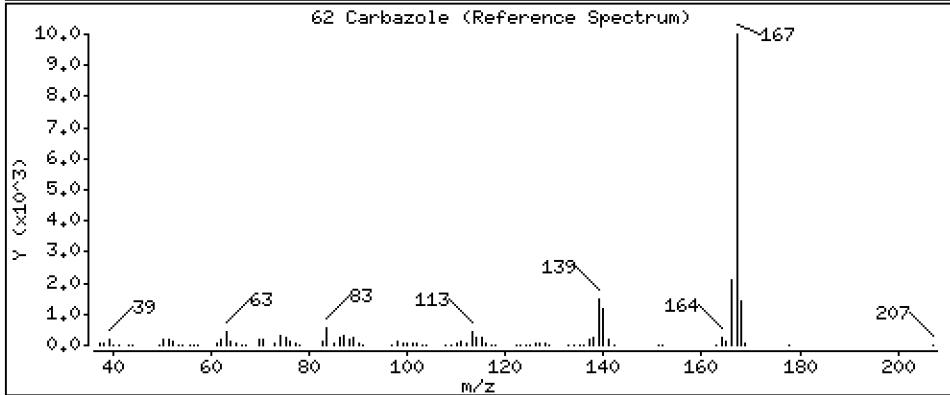
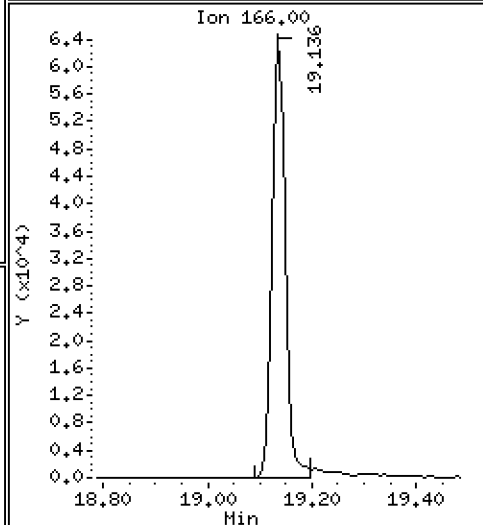
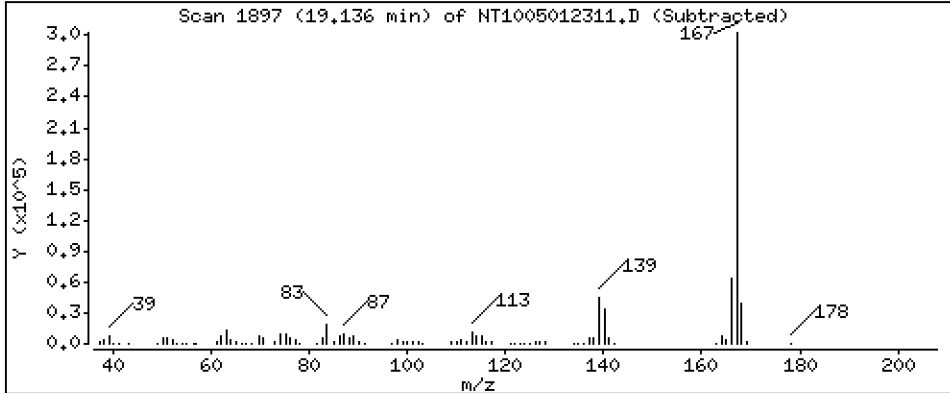
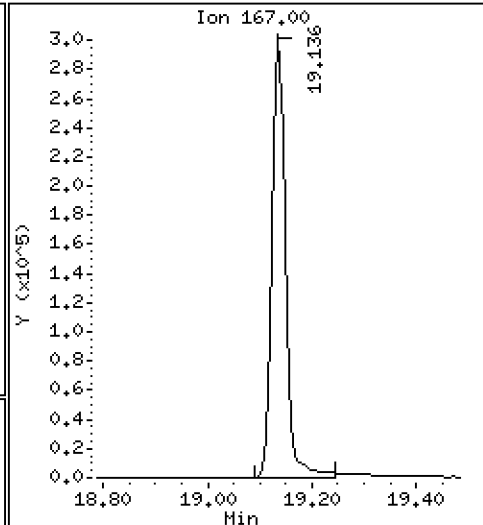
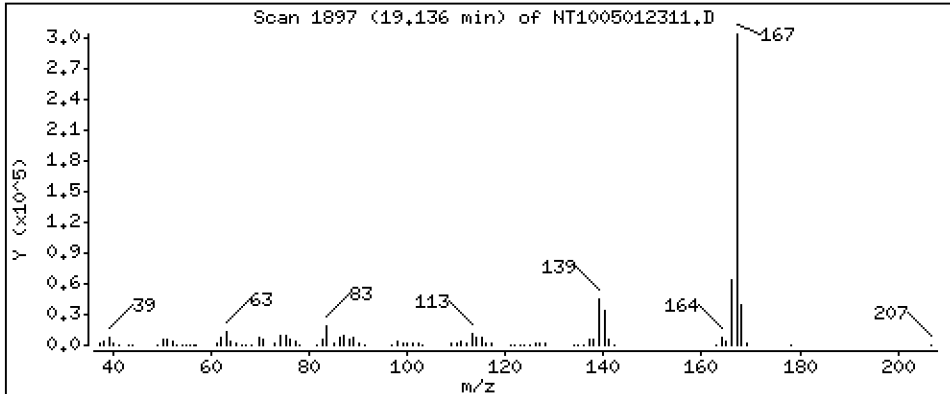
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 4.503 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

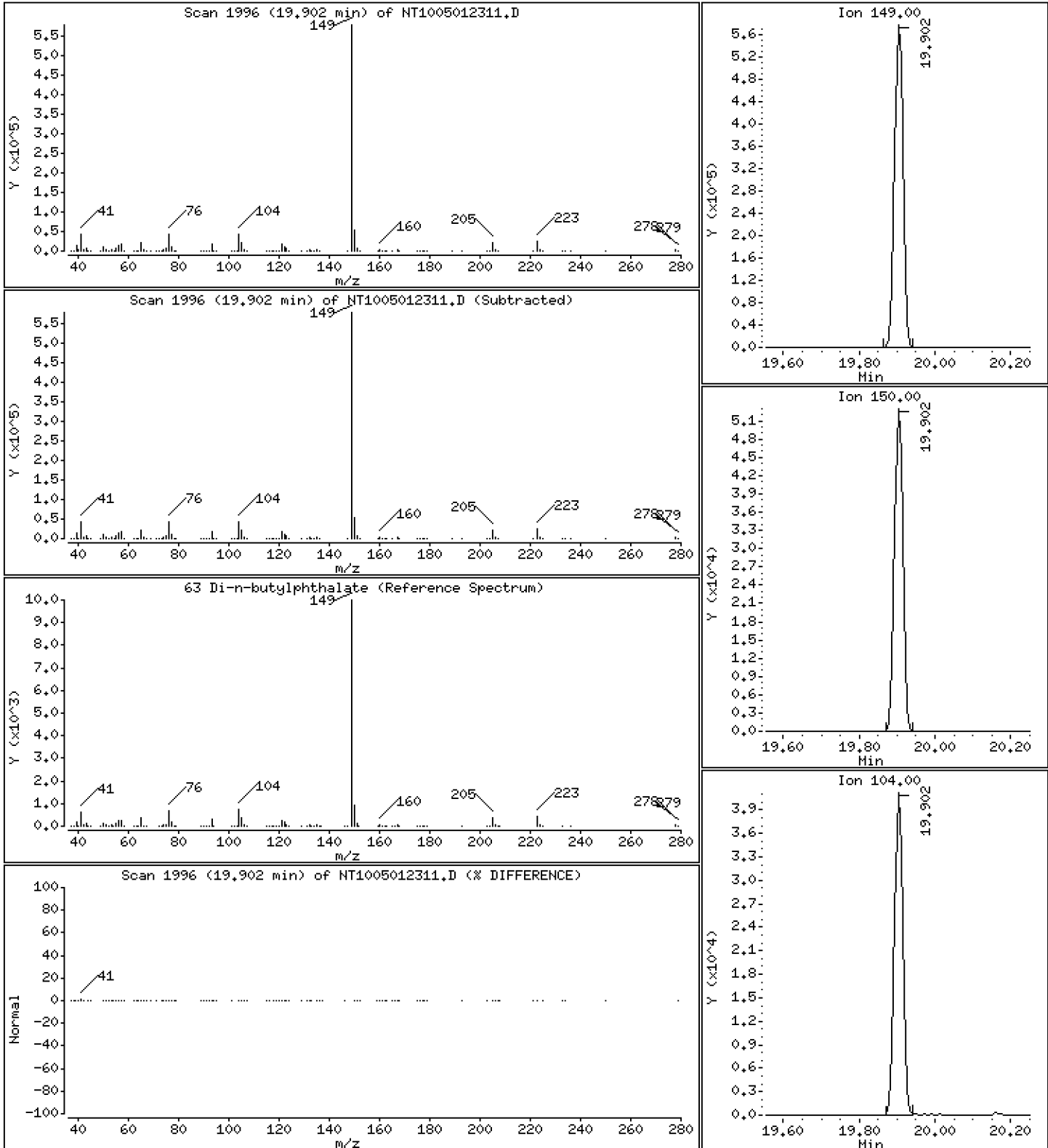
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,895 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

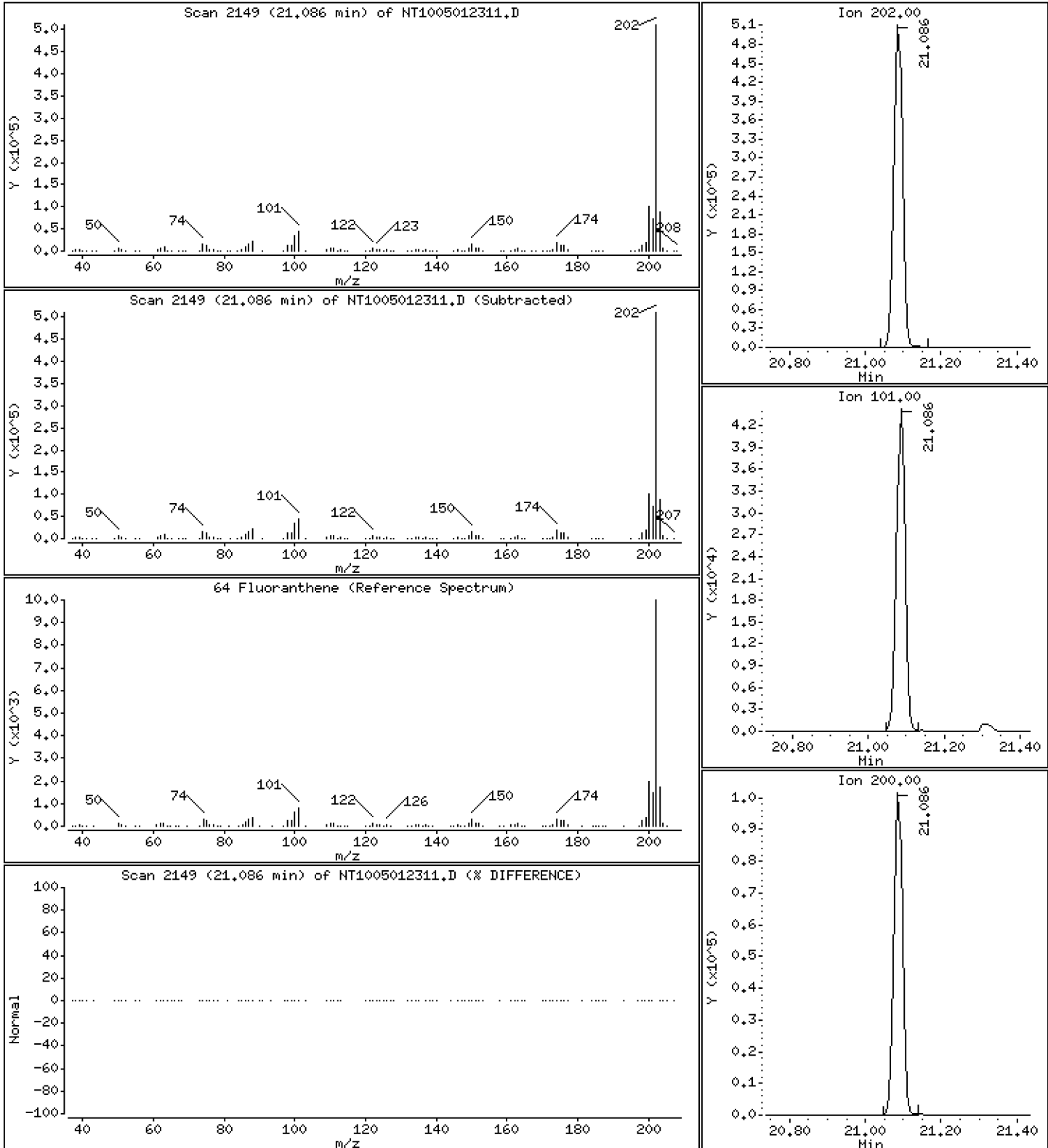
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,738 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

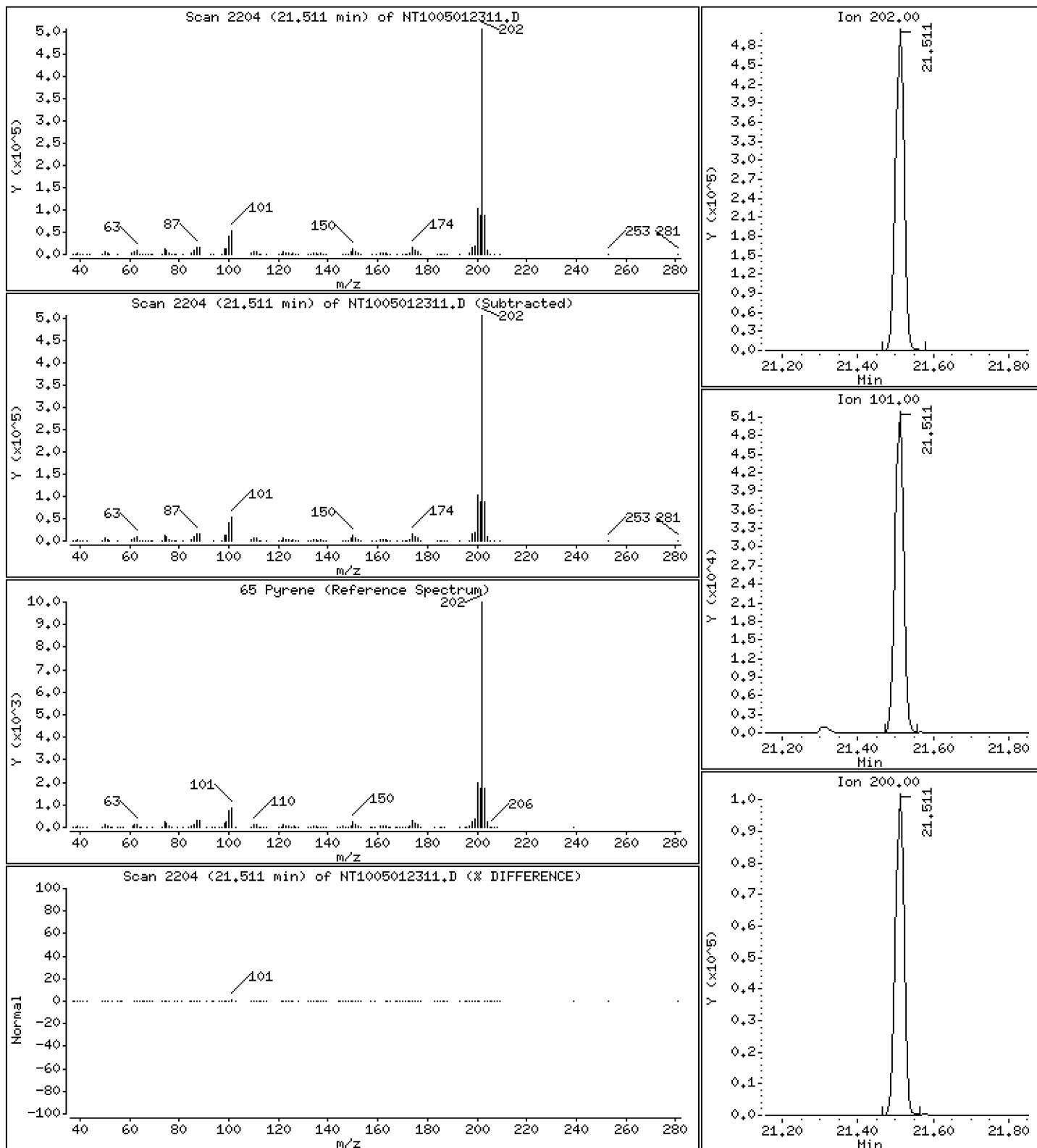
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,635 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

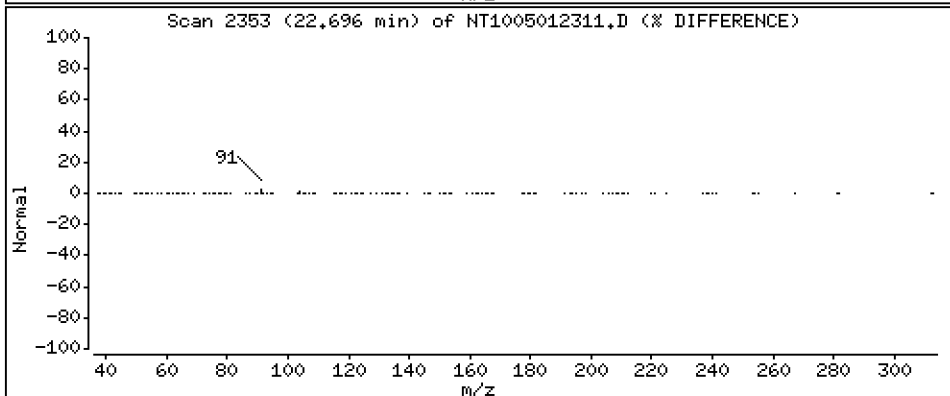
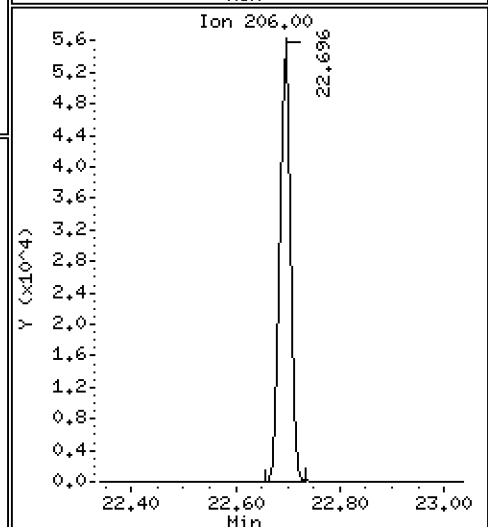
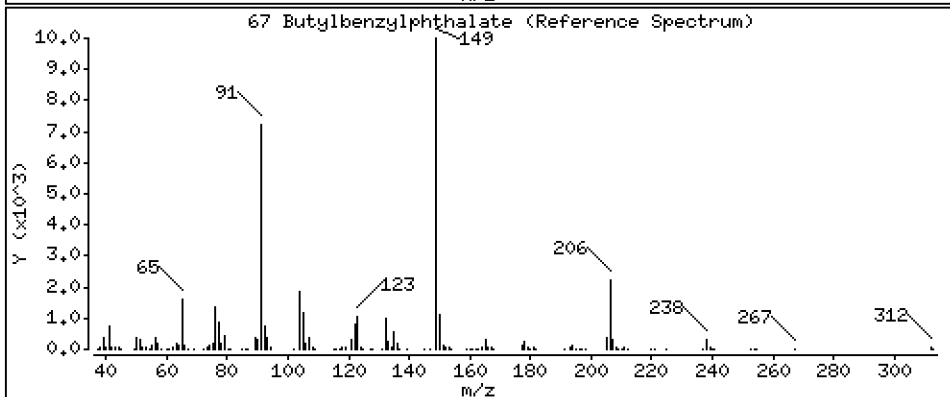
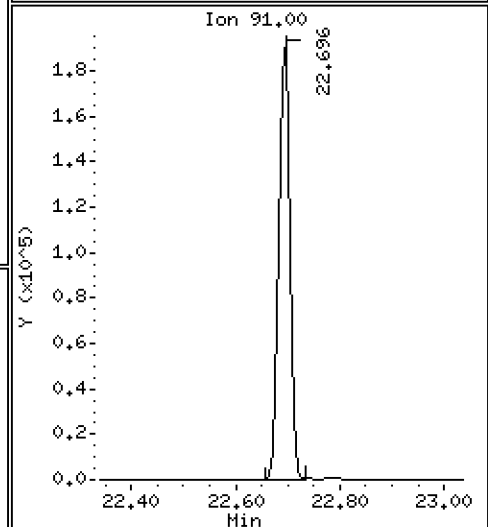
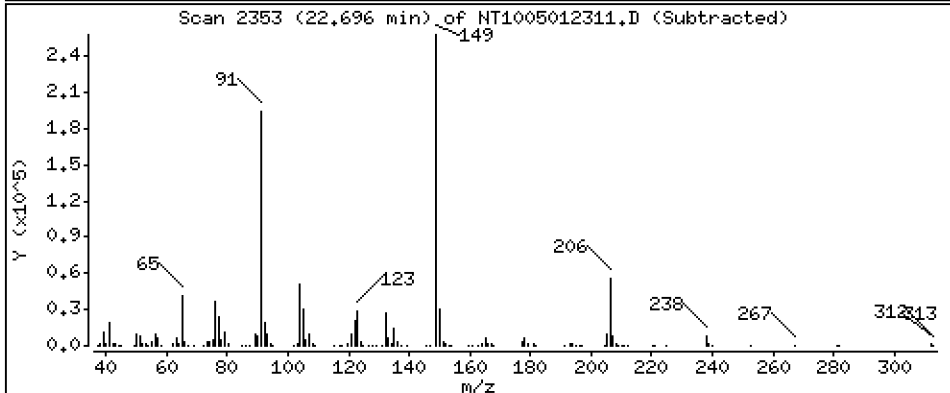
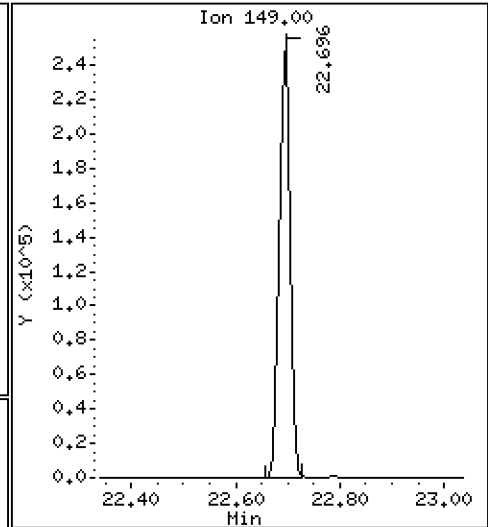
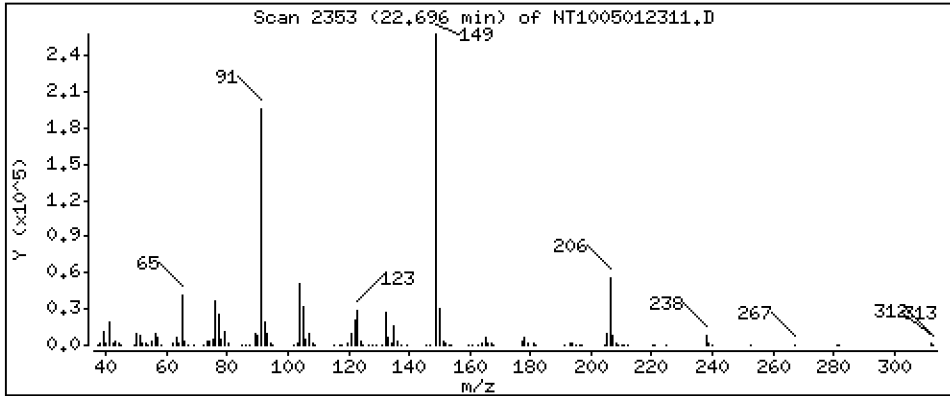
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,778 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

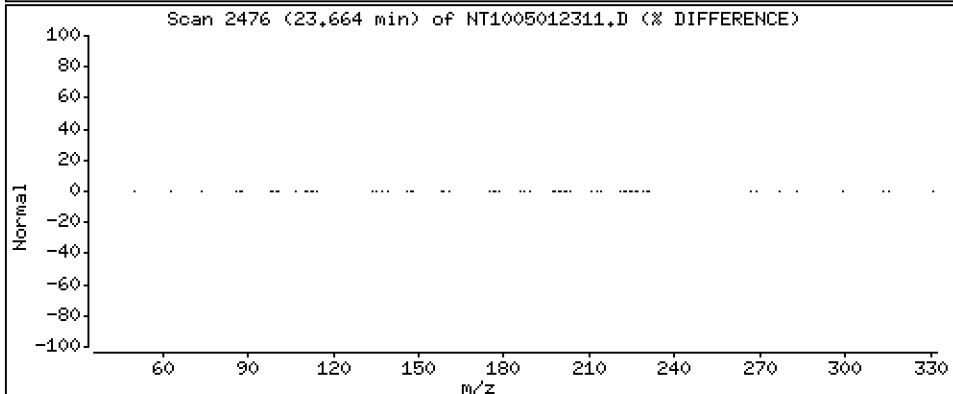
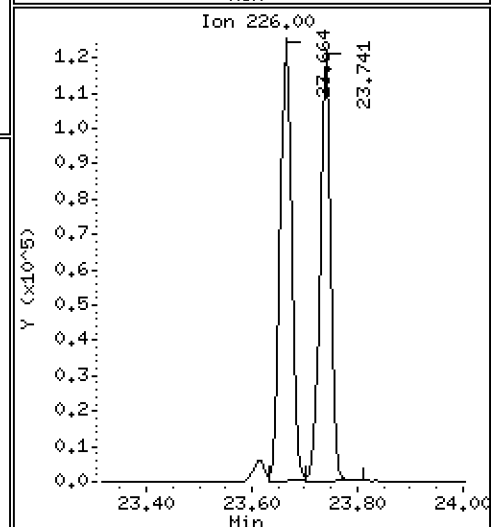
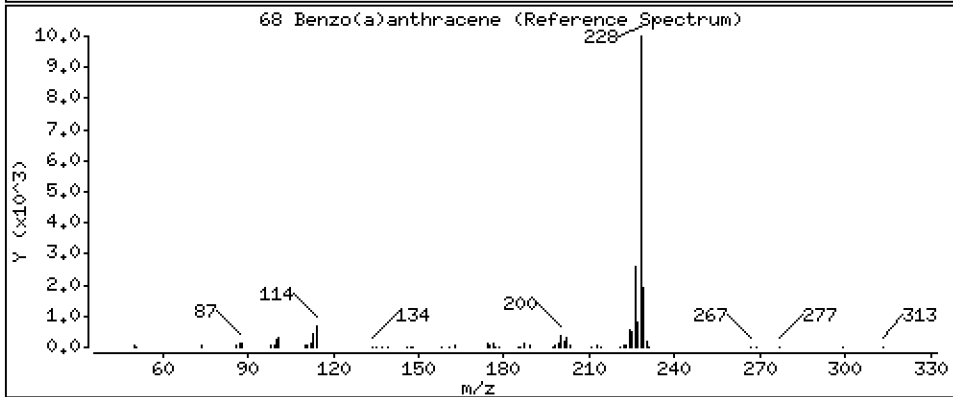
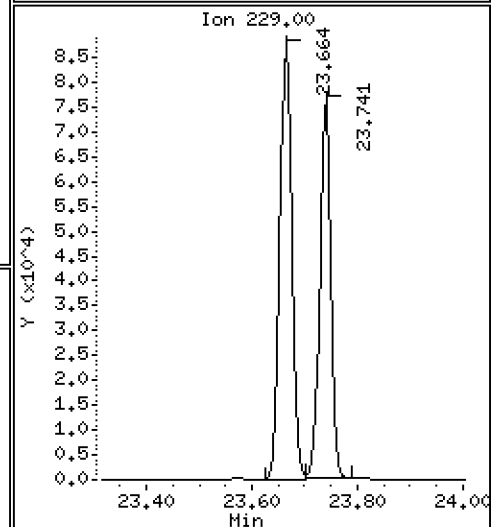
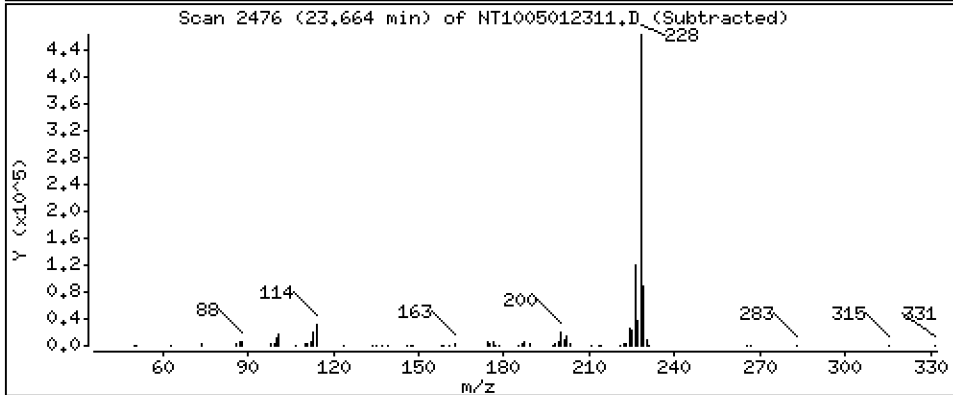
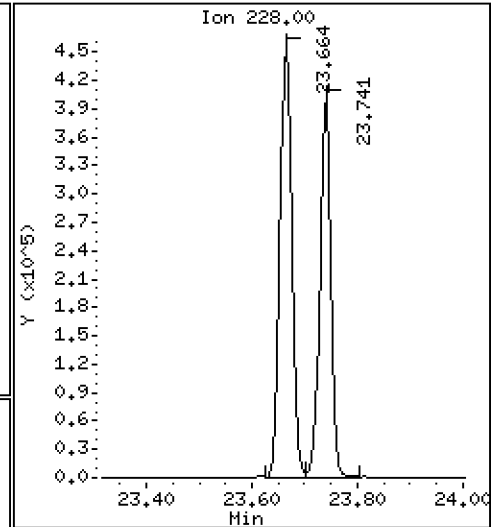
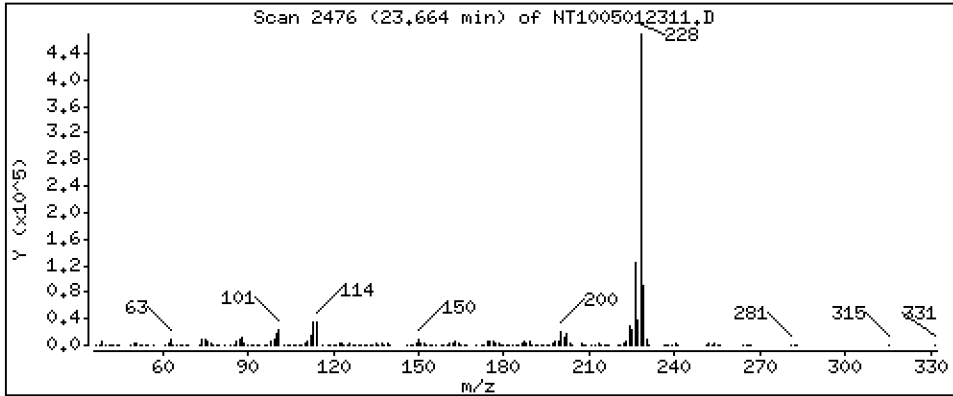
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,717 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

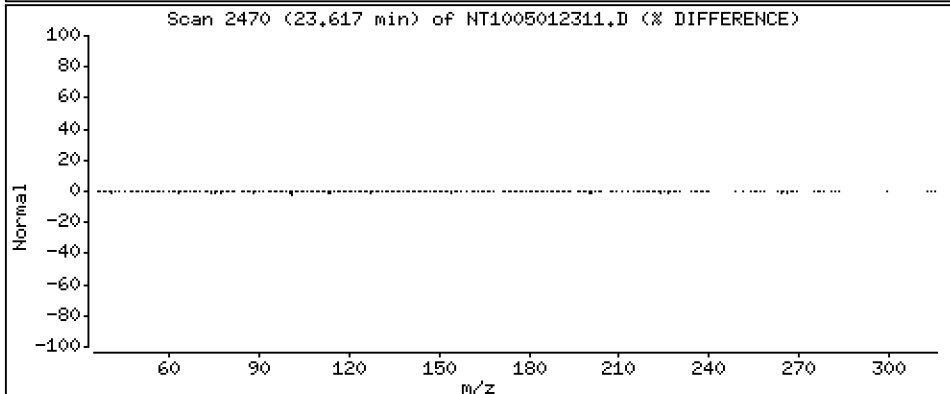
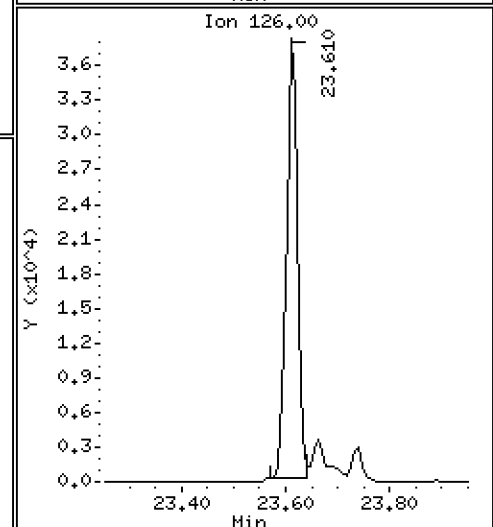
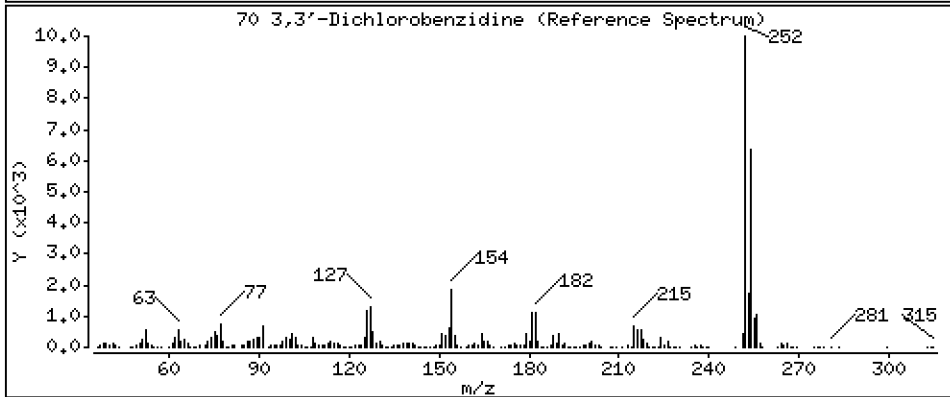
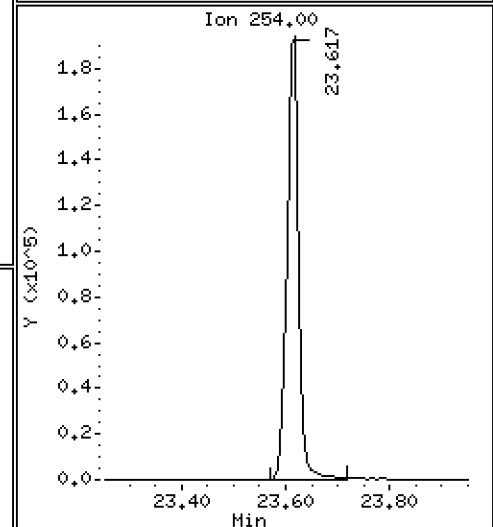
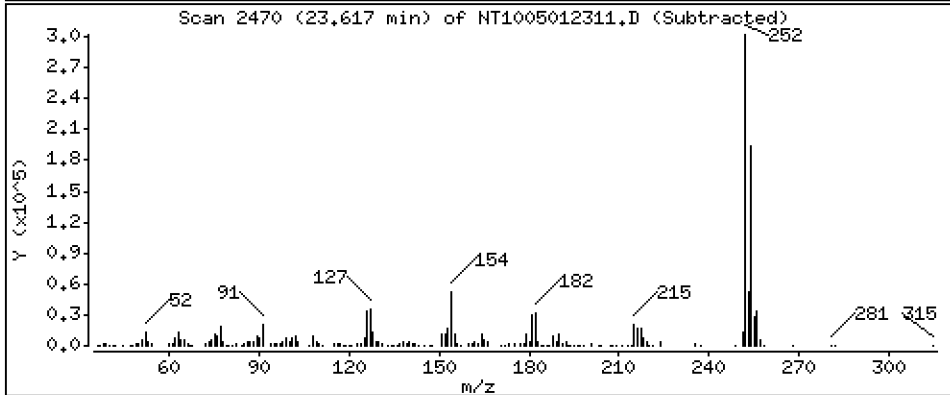
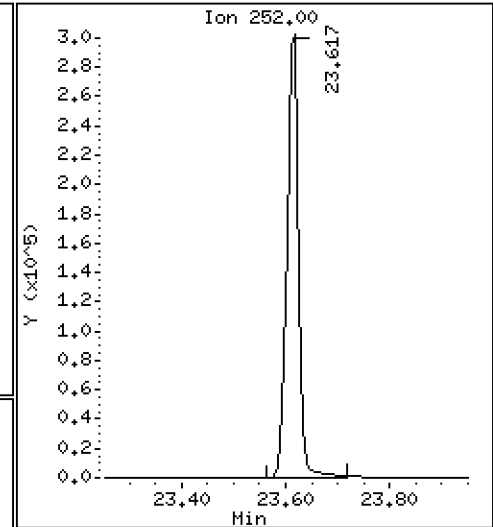
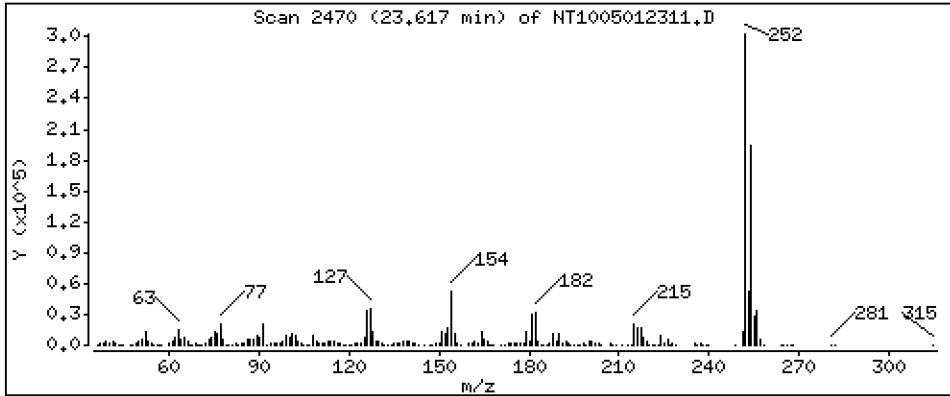
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 10,21 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

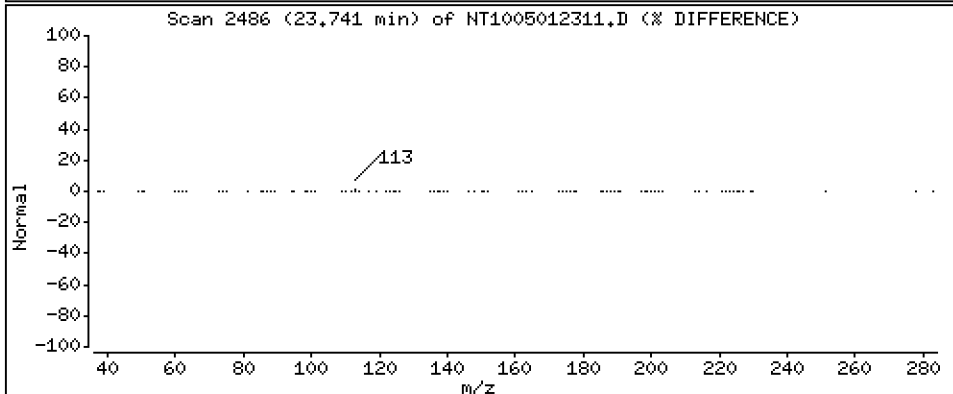
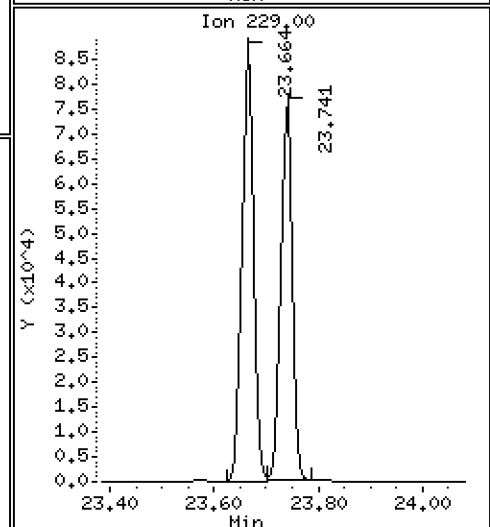
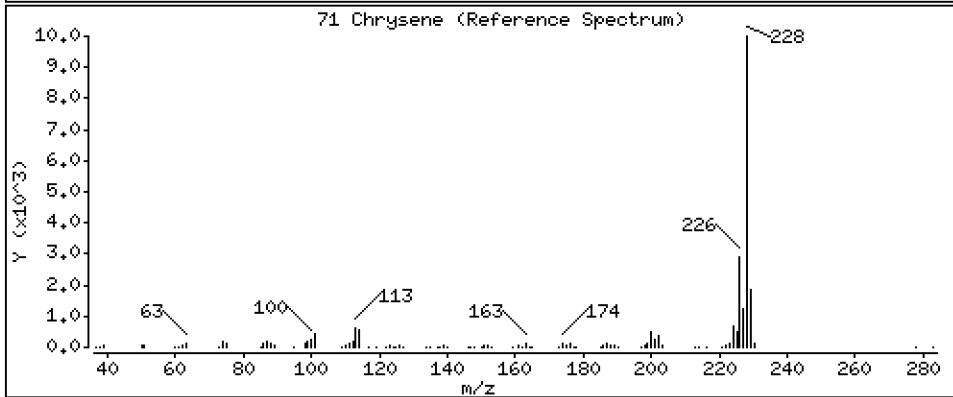
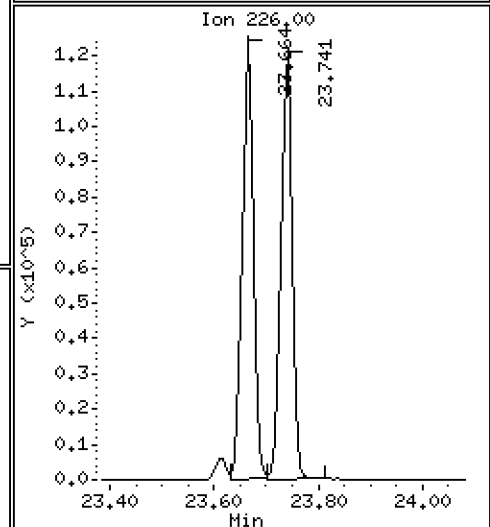
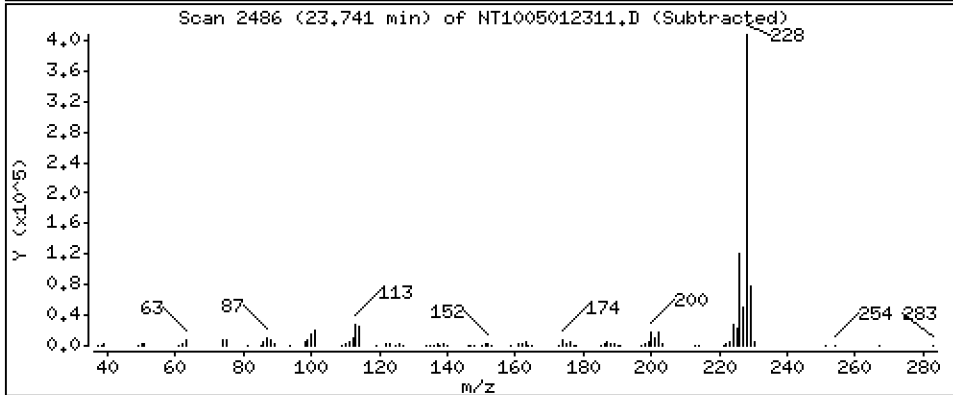
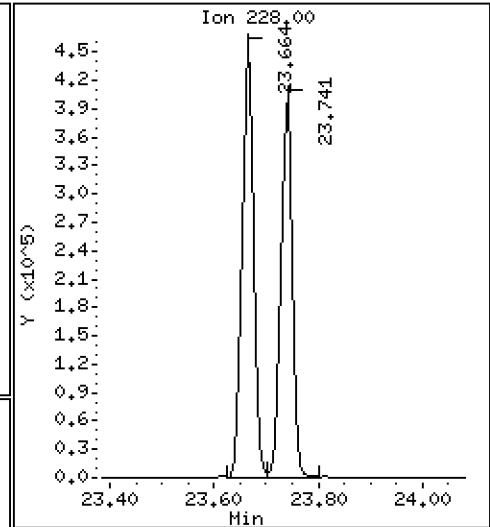
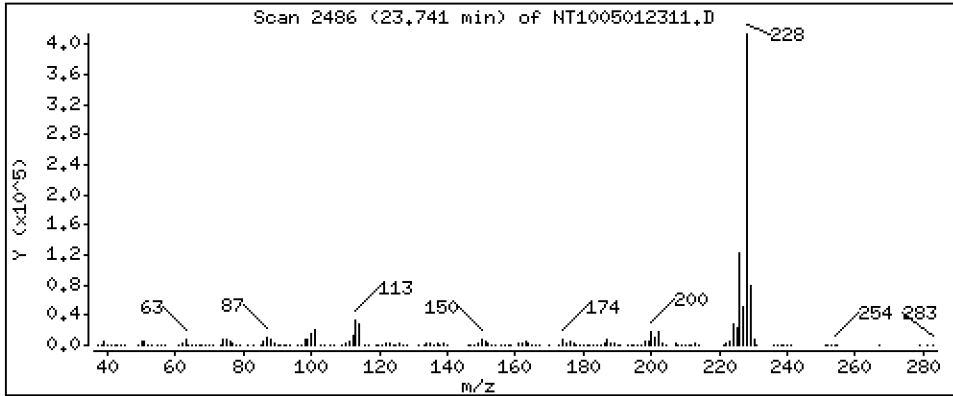
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,540 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

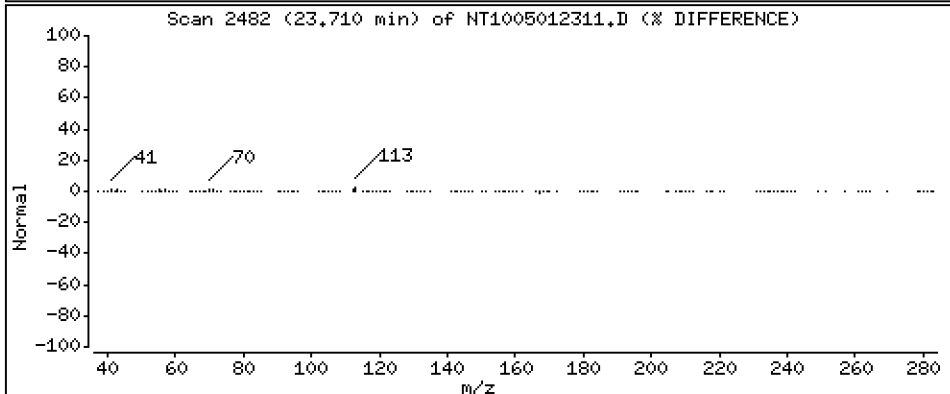
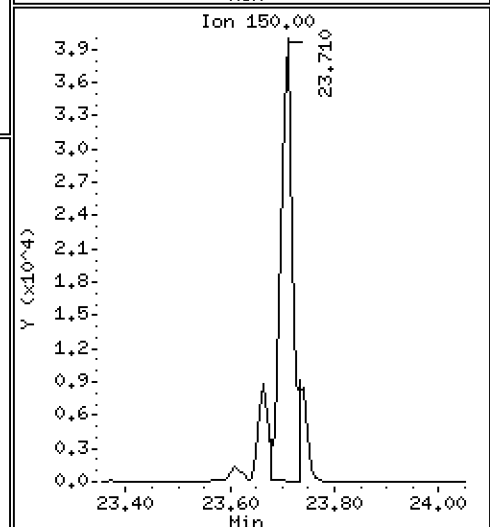
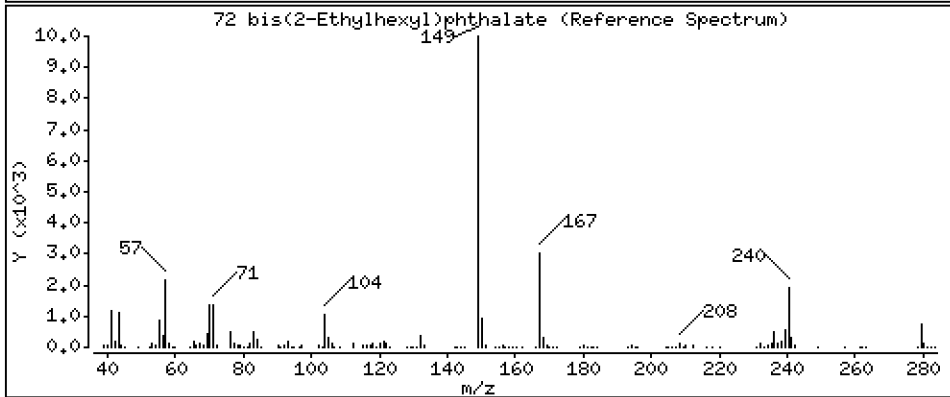
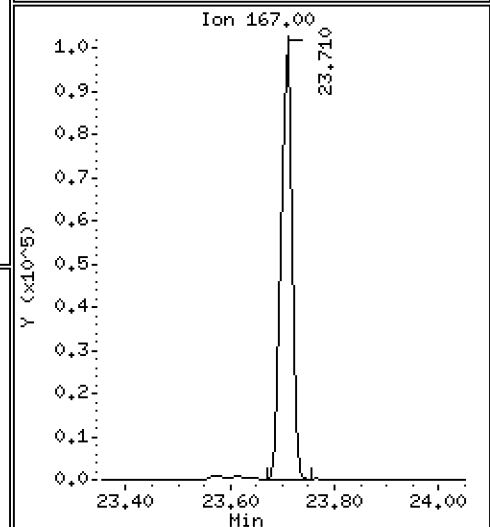
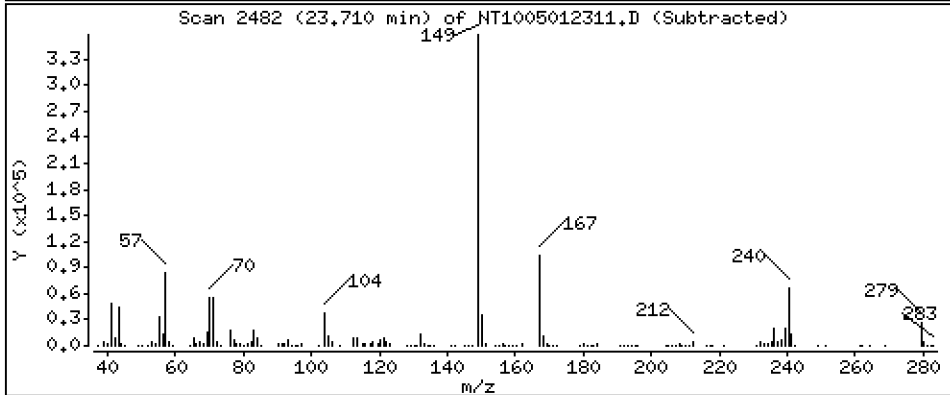
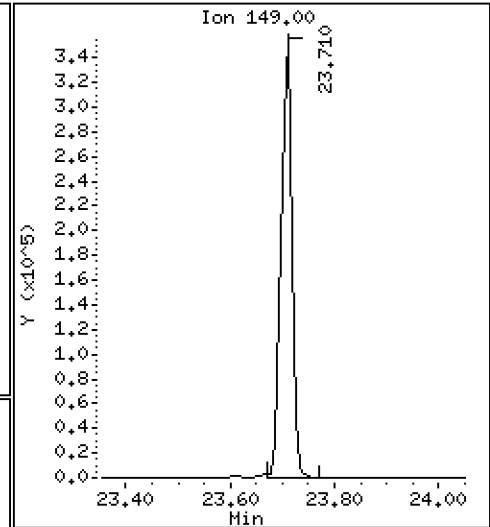
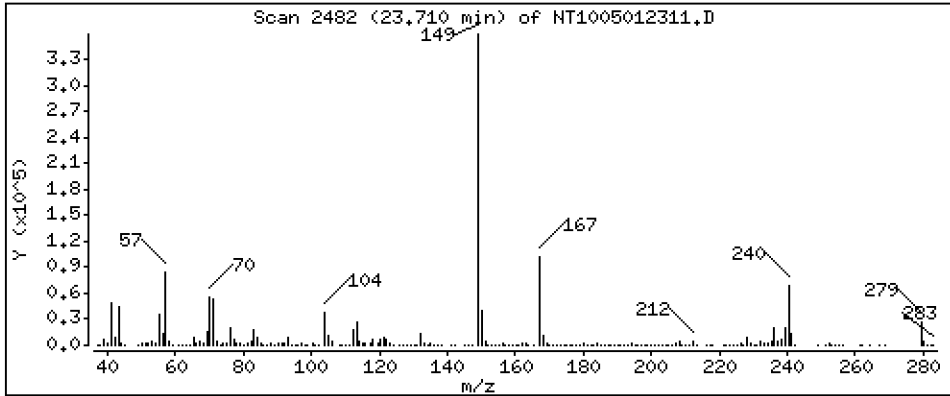
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 5,406 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

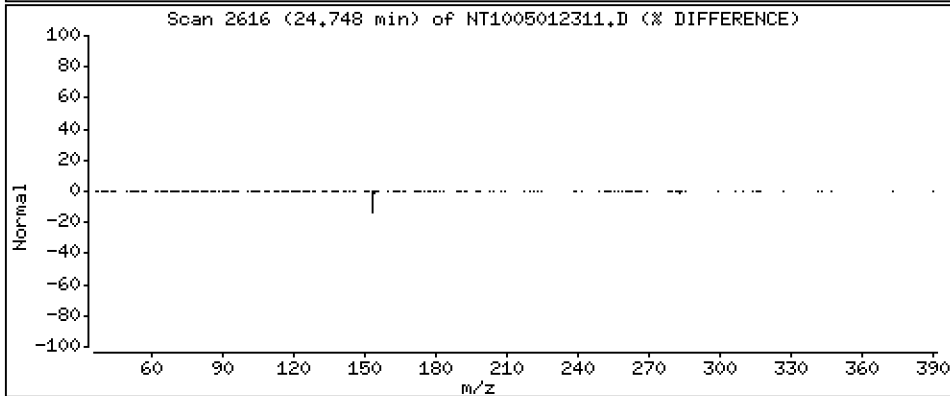
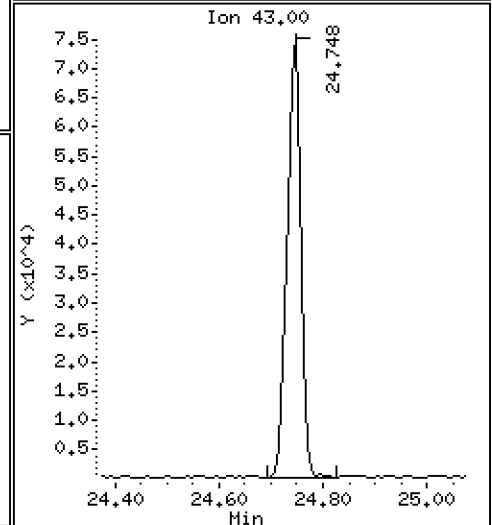
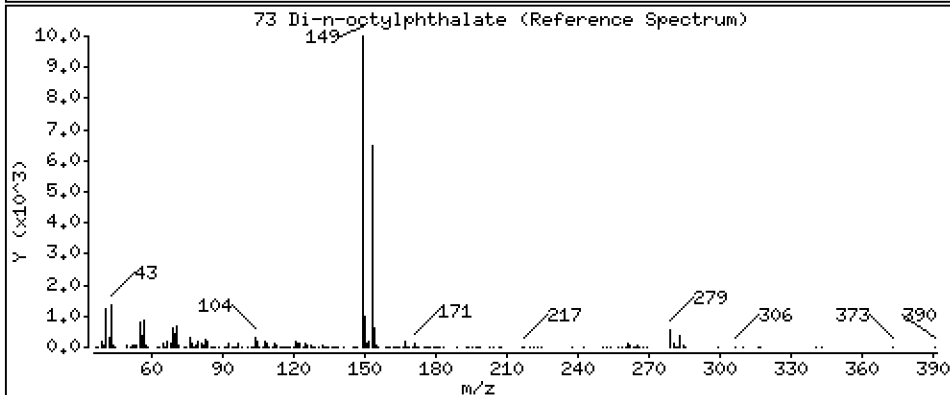
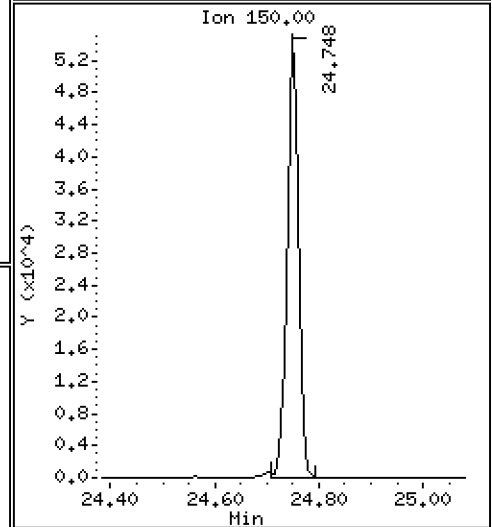
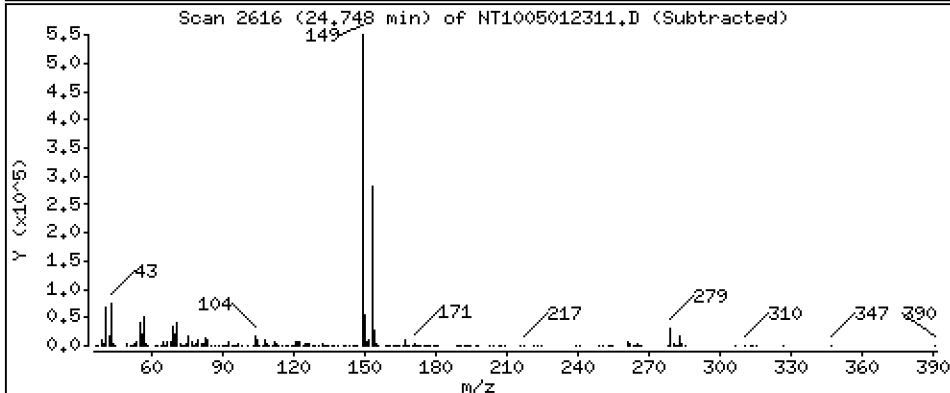
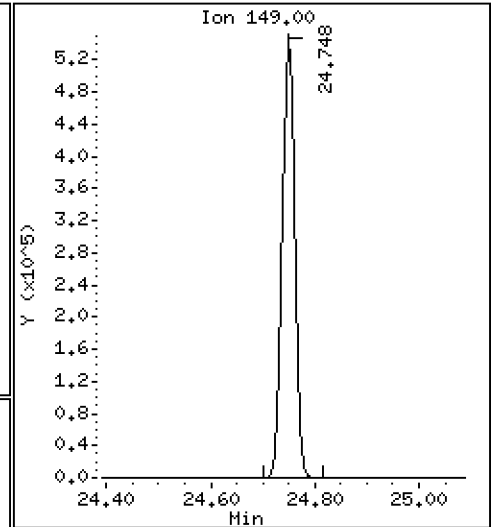
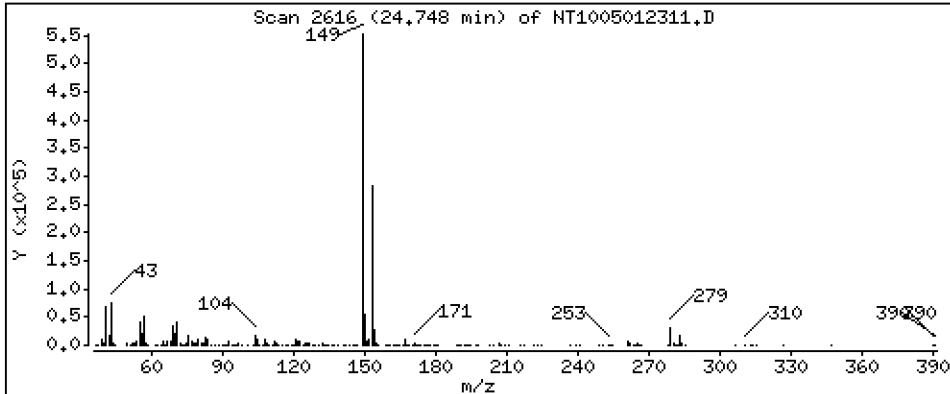
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 5,161 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

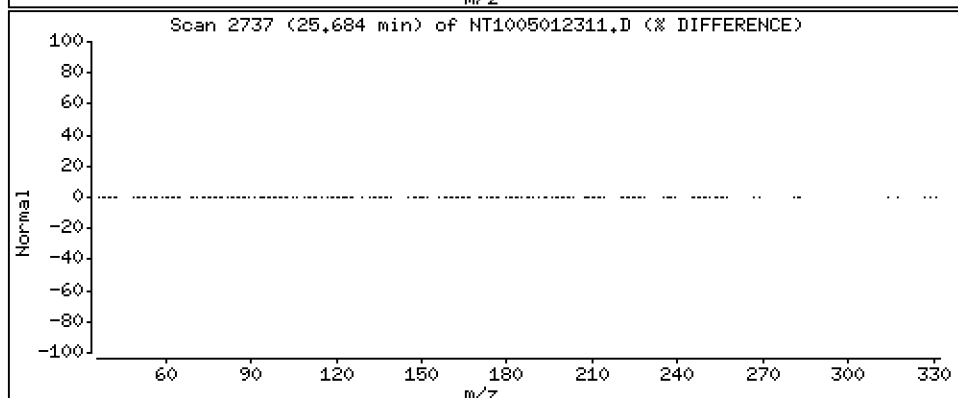
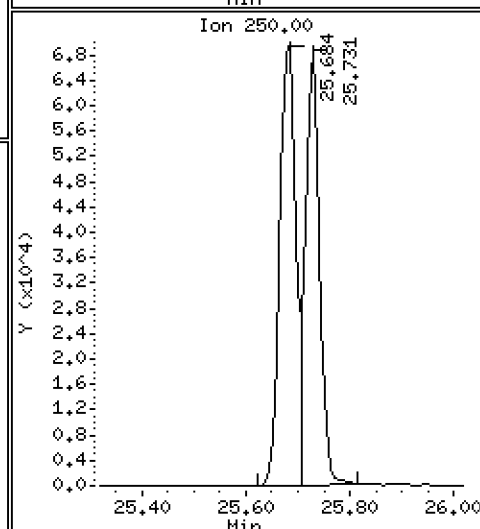
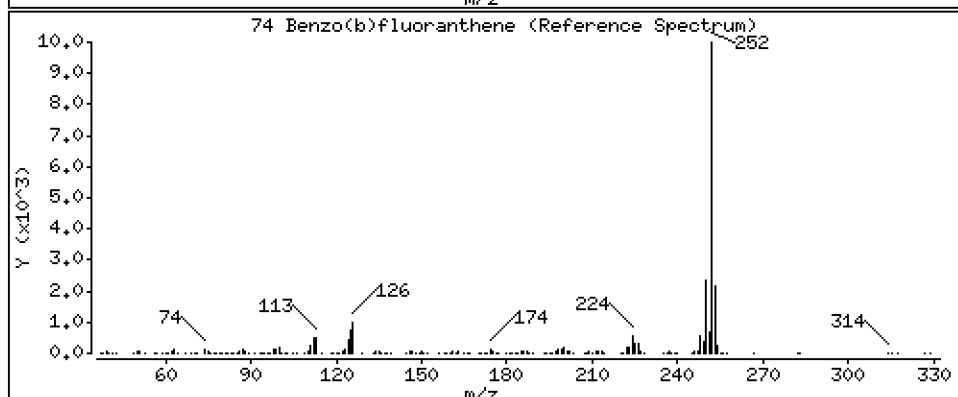
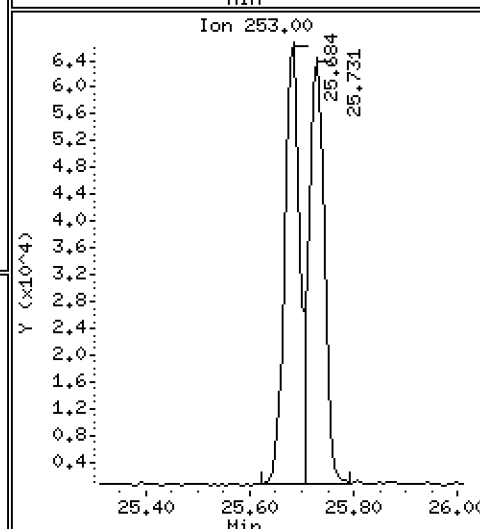
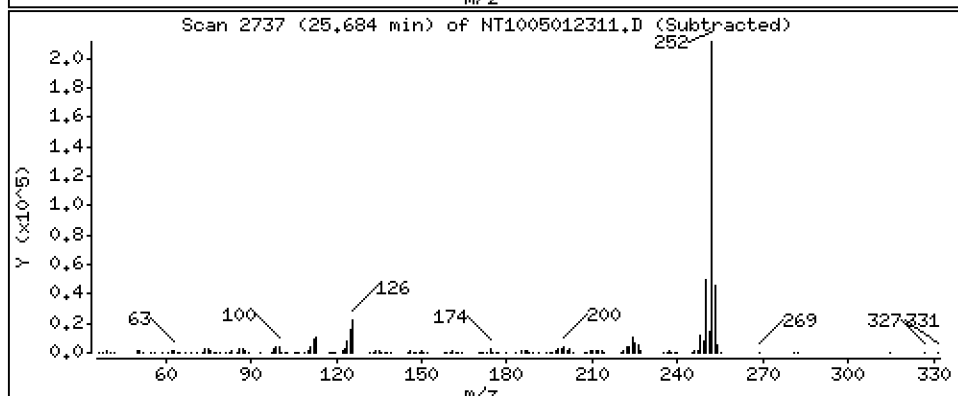
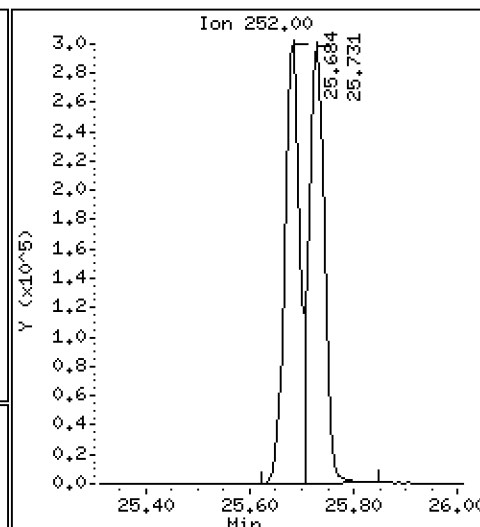
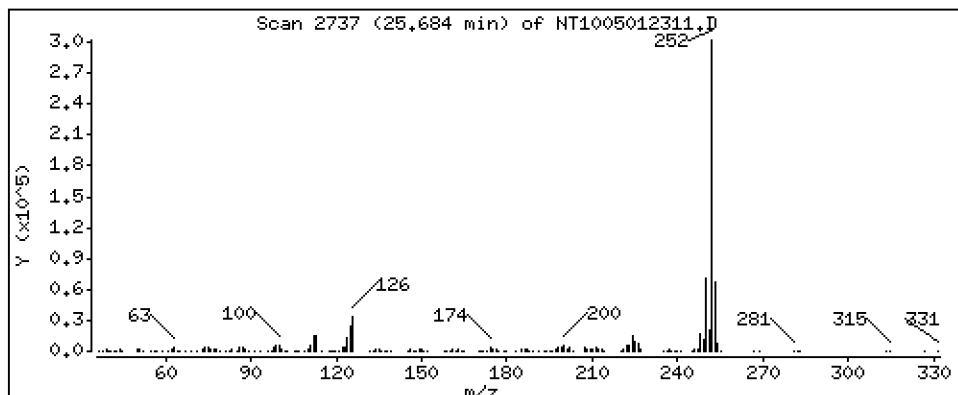
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,785 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

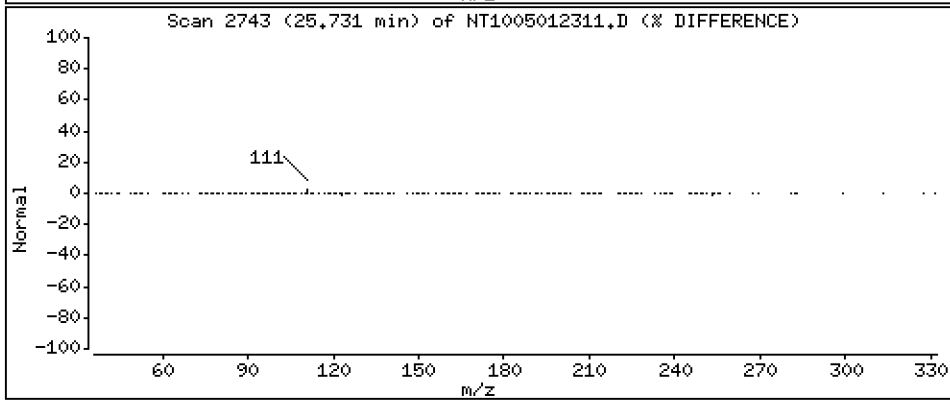
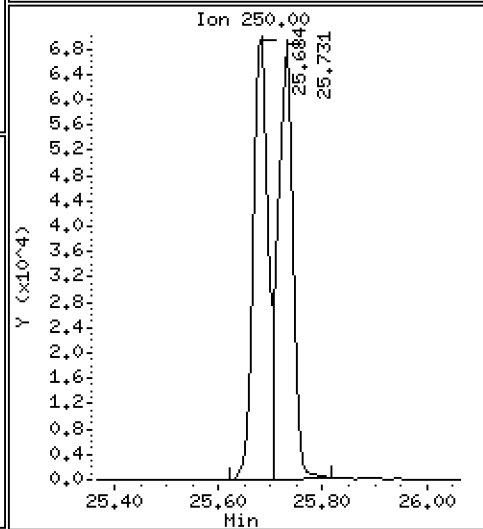
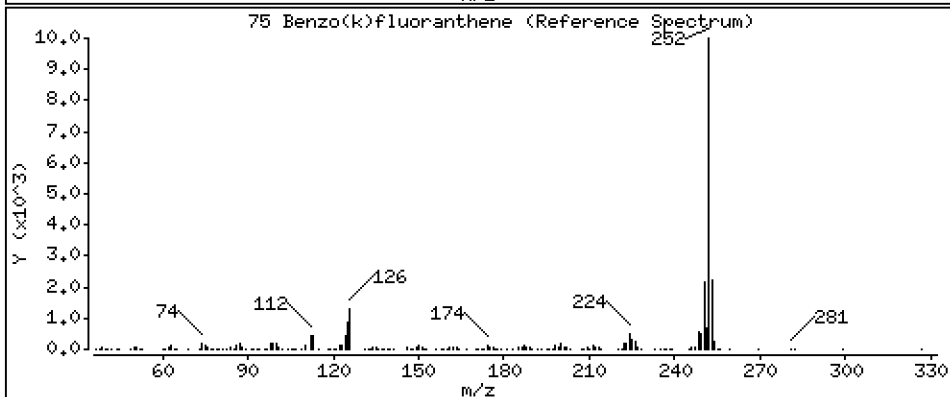
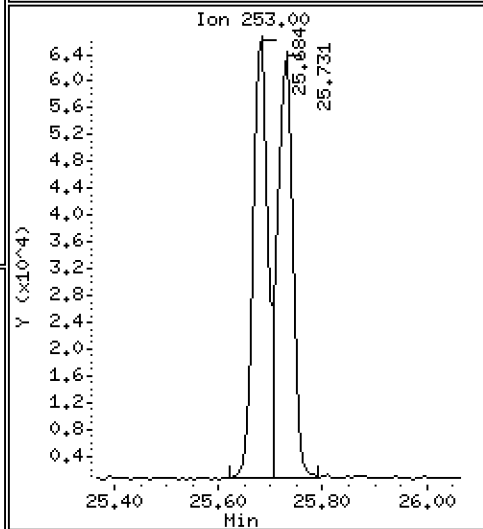
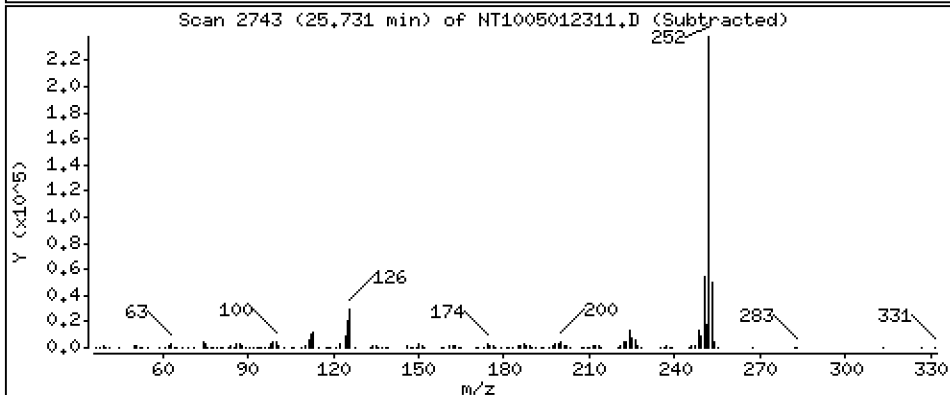
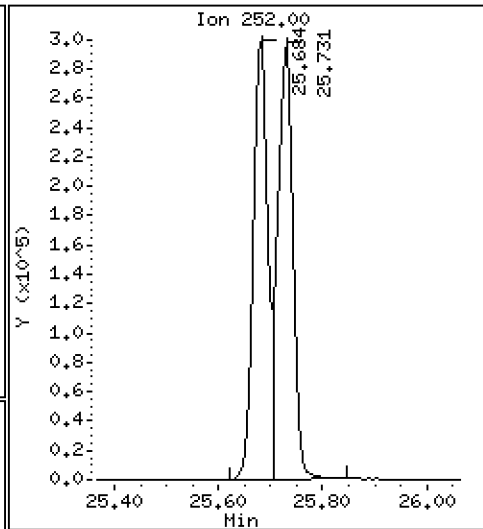
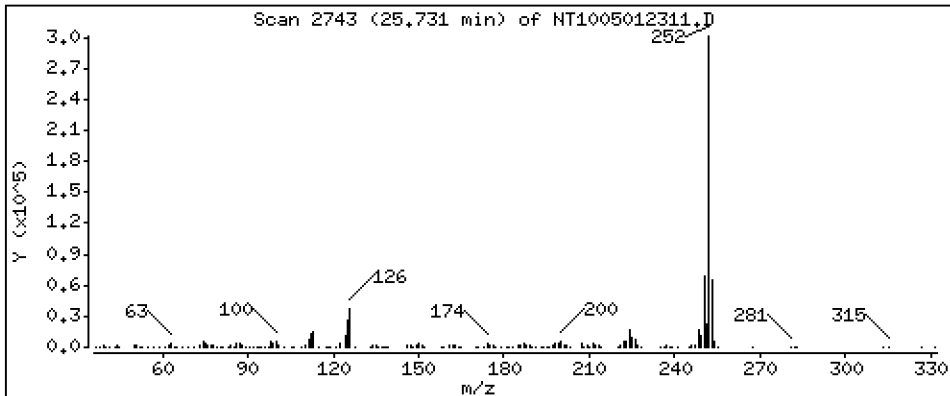
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,457 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

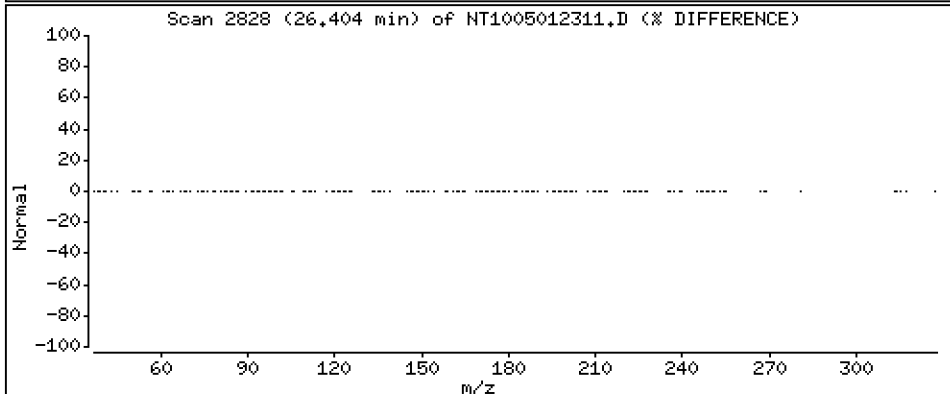
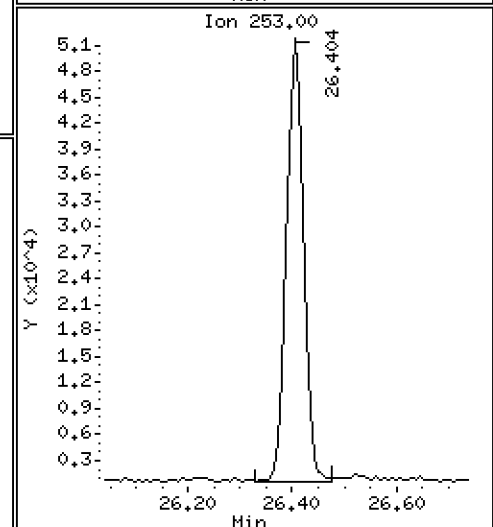
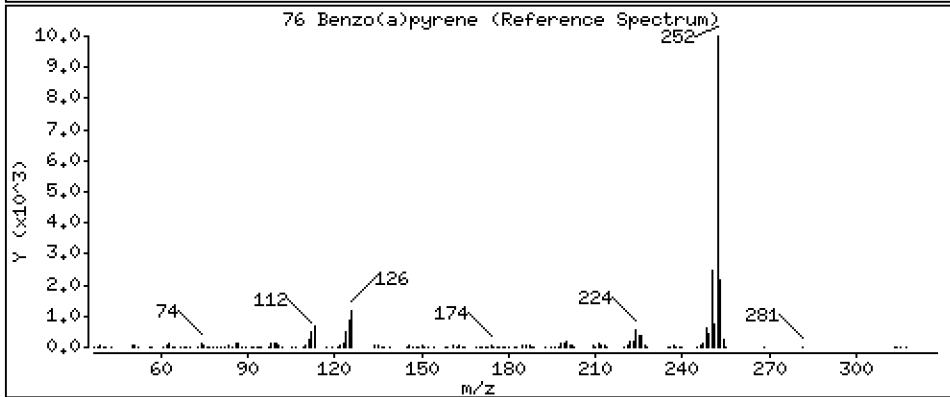
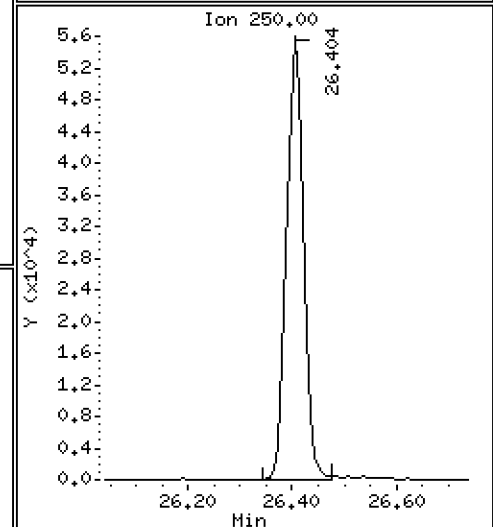
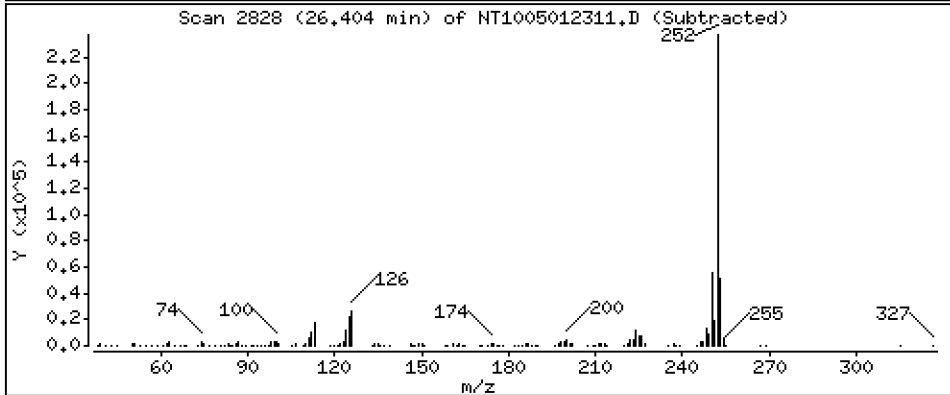
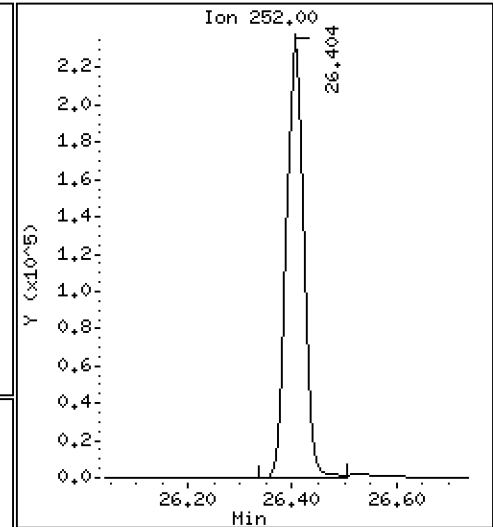
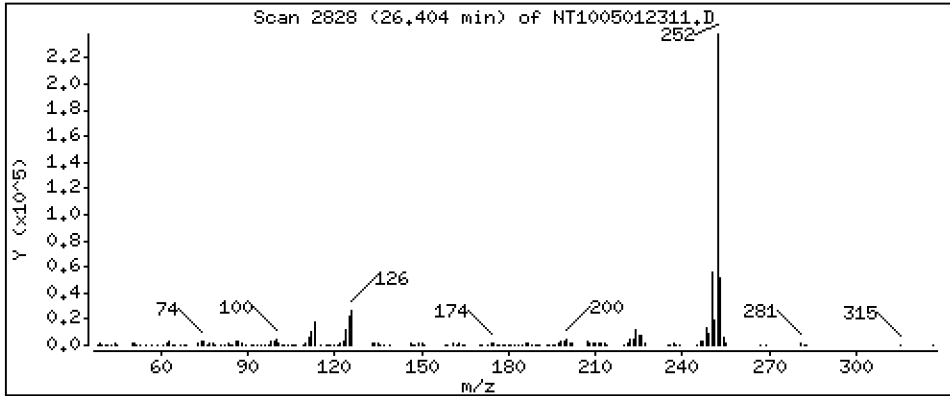
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,787 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

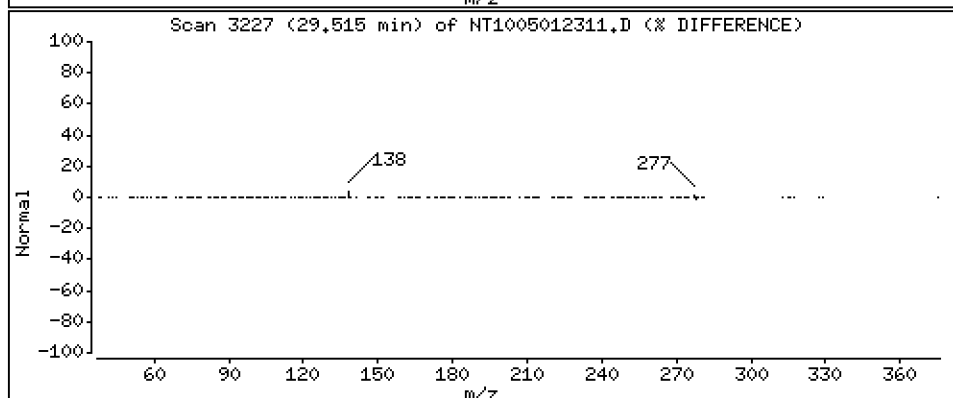
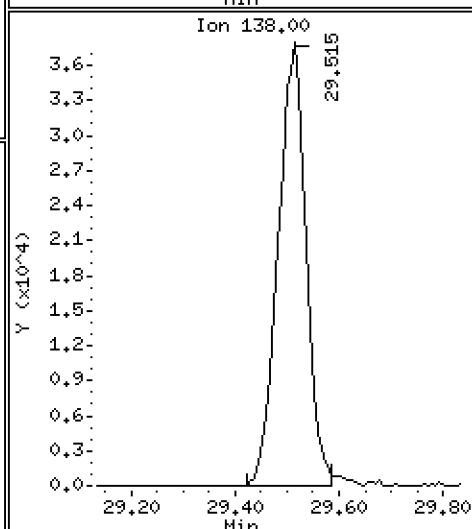
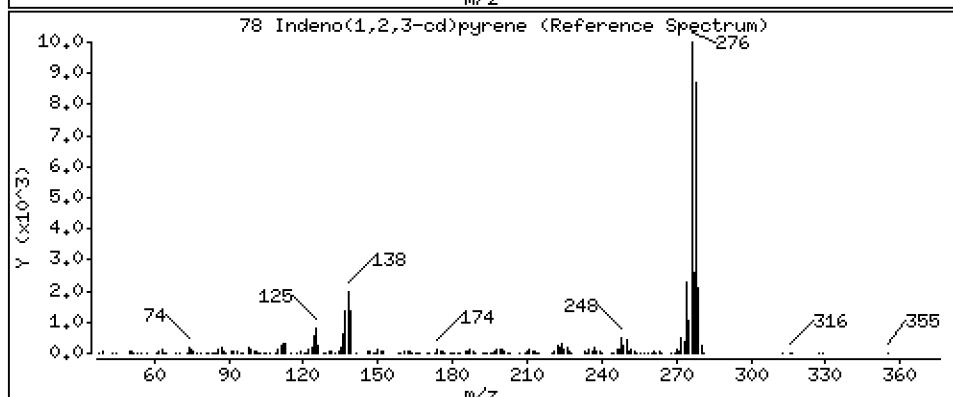
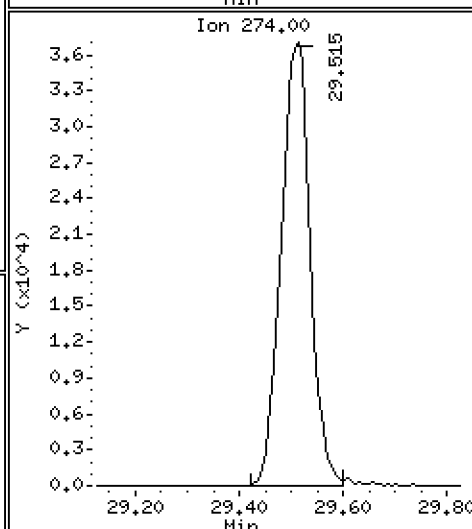
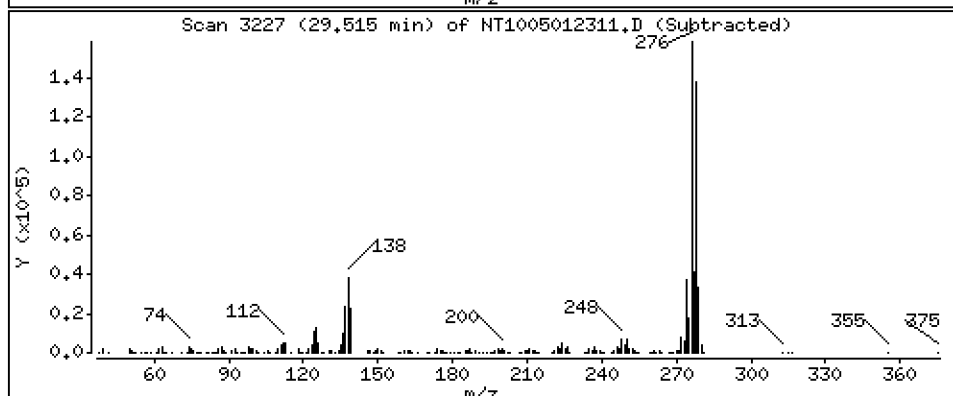
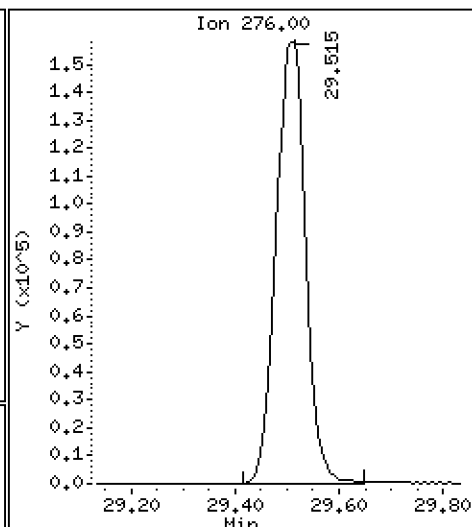
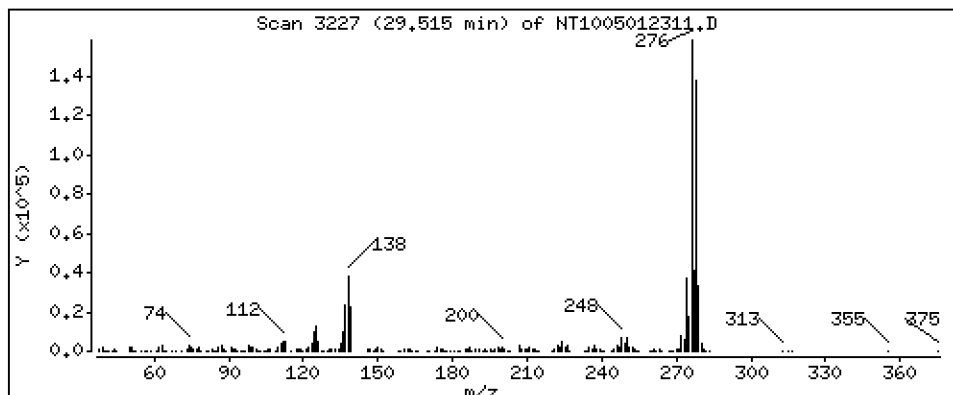
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,677 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

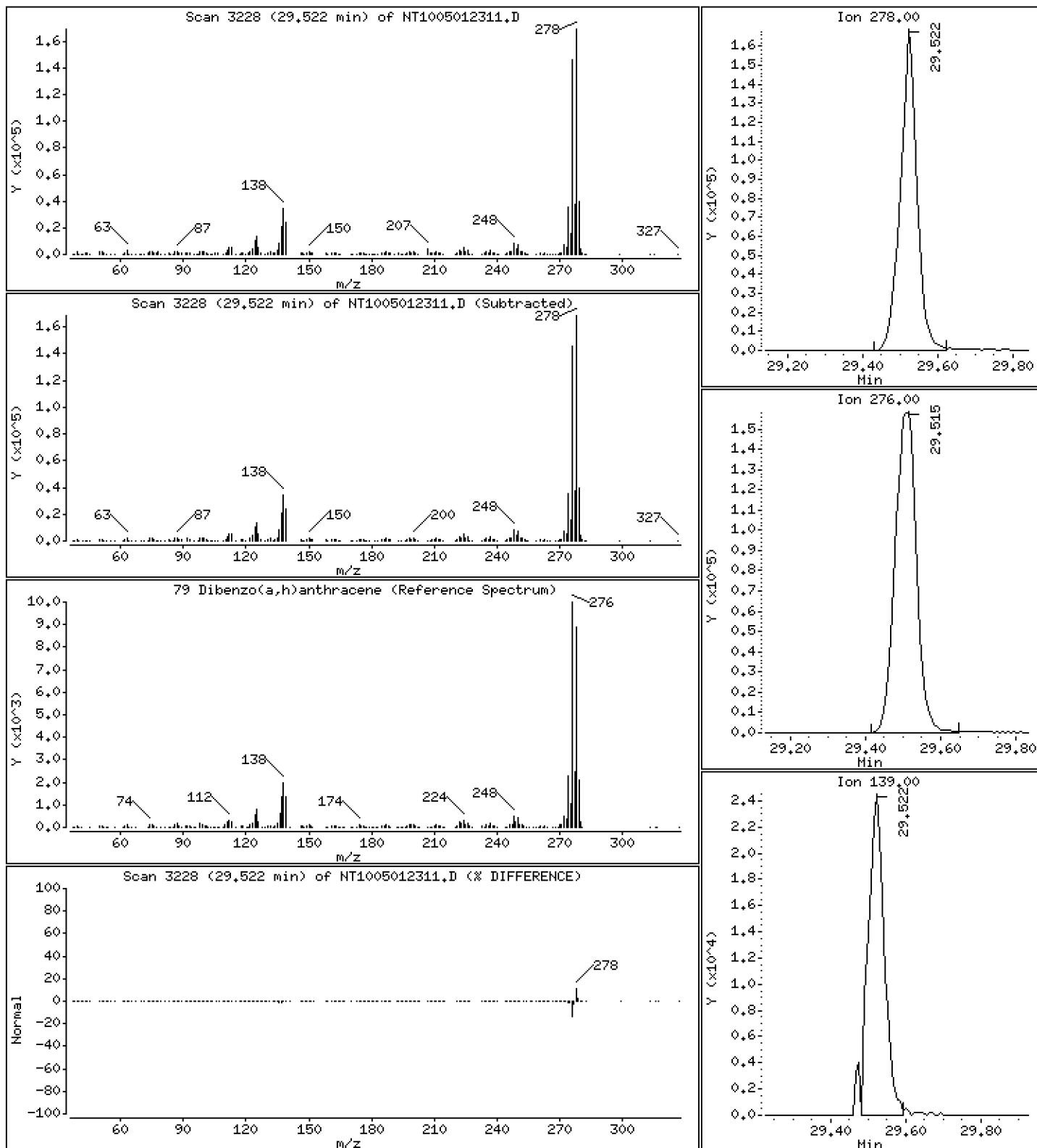
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,649 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

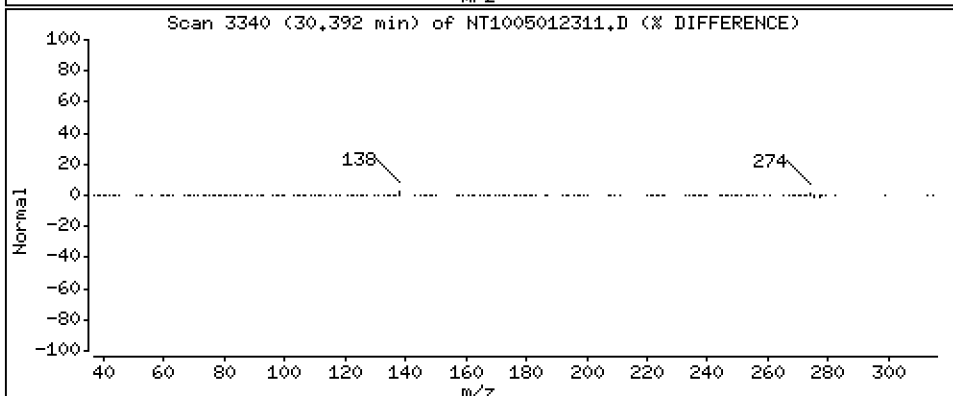
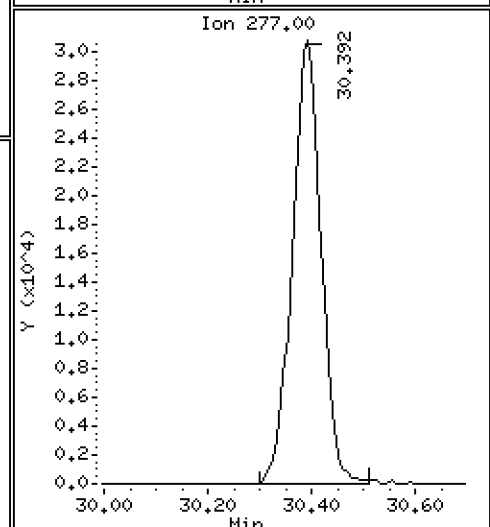
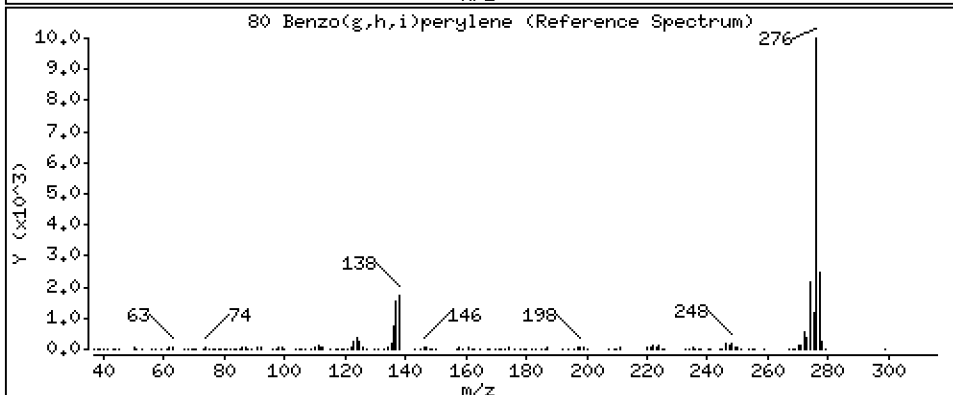
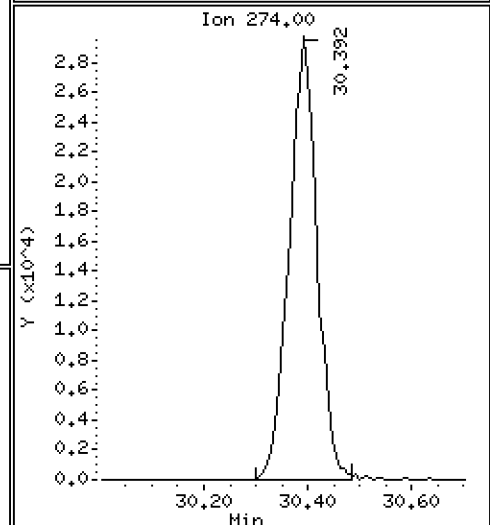
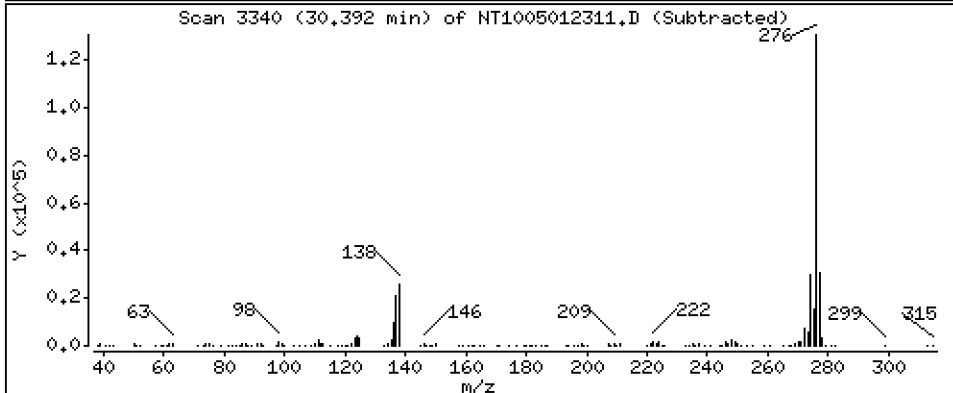
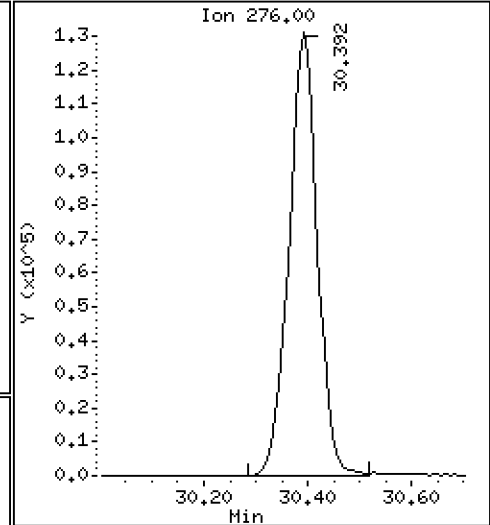
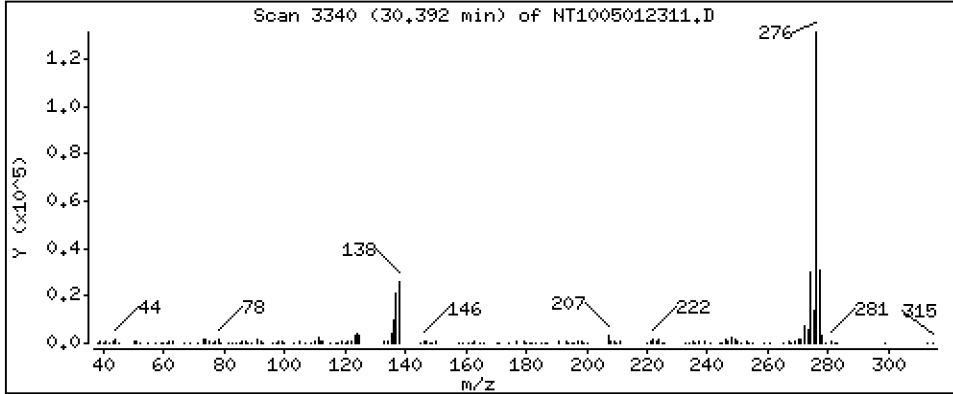
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,659 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

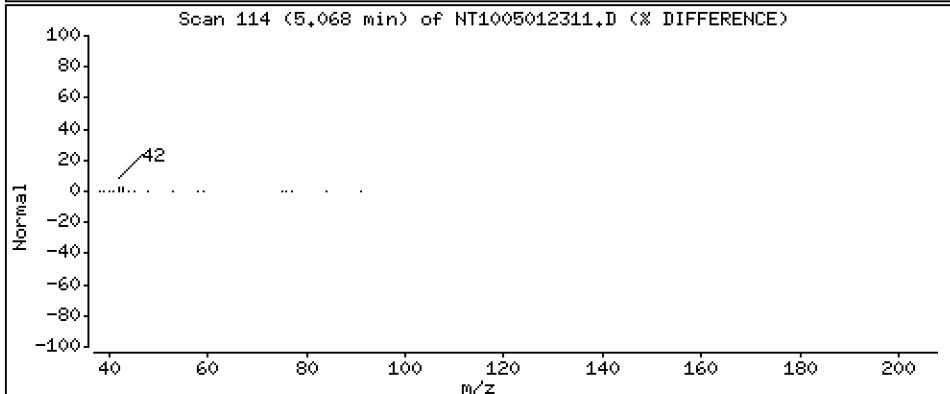
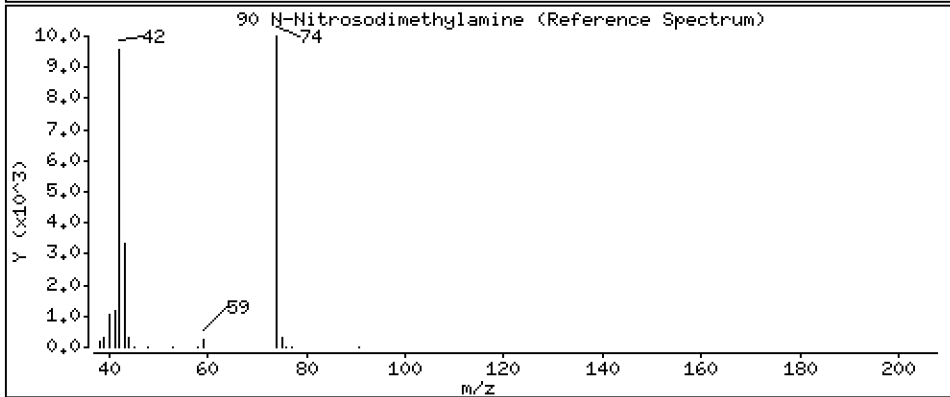
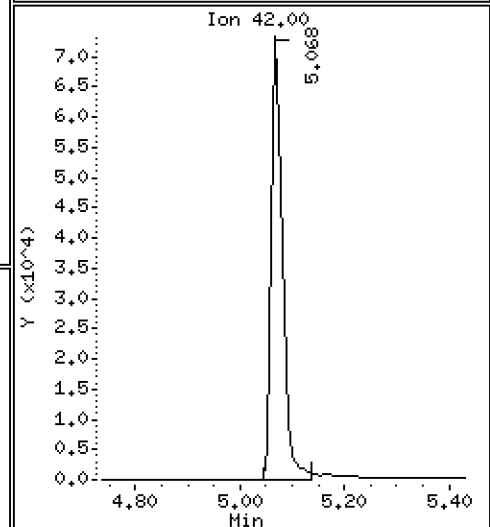
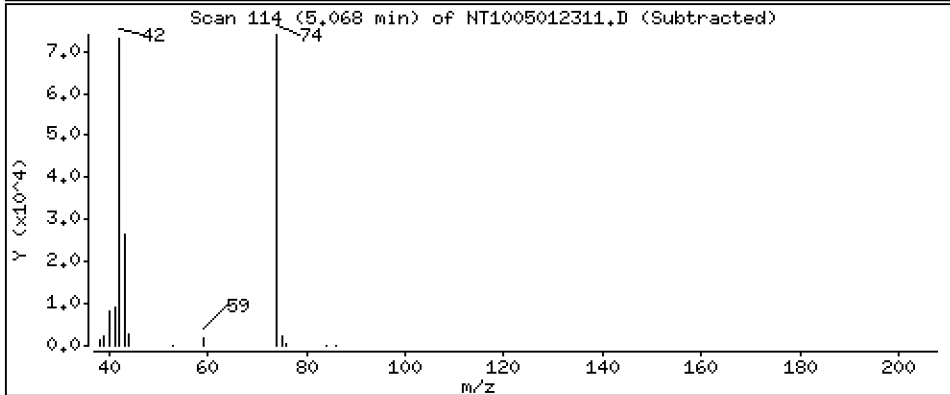
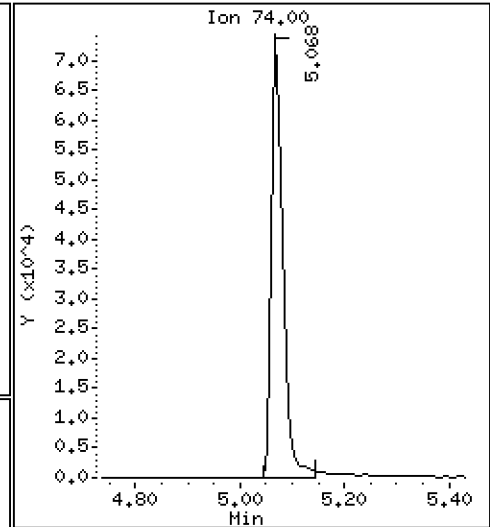
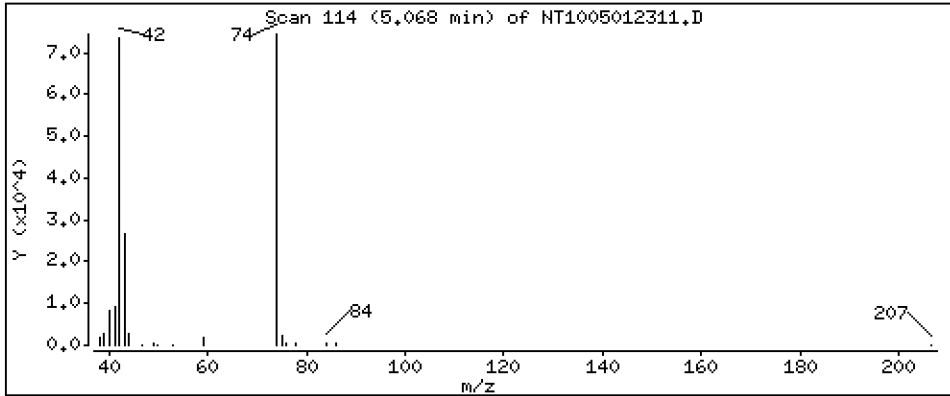
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,190 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

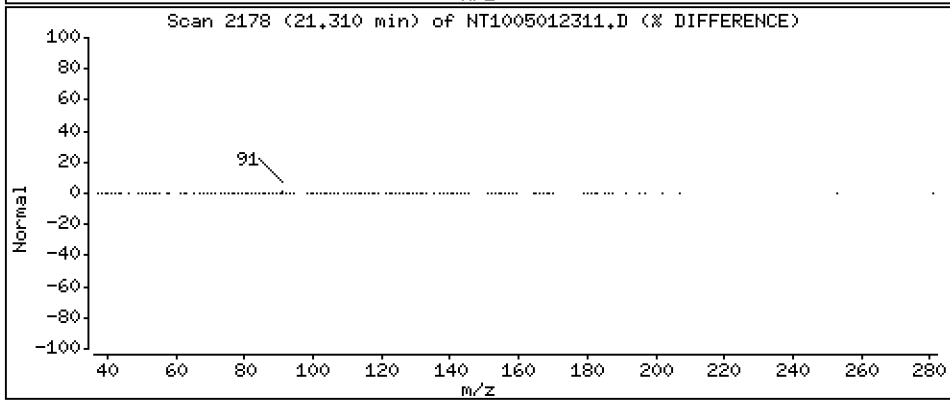
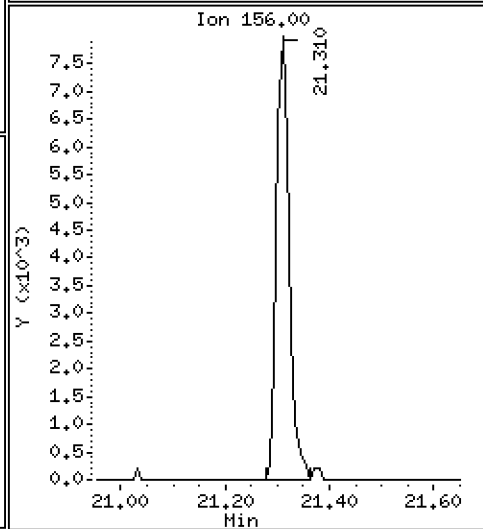
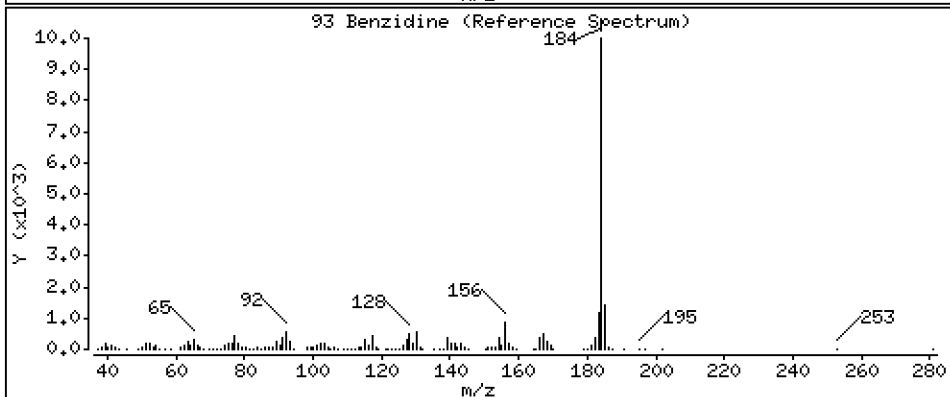
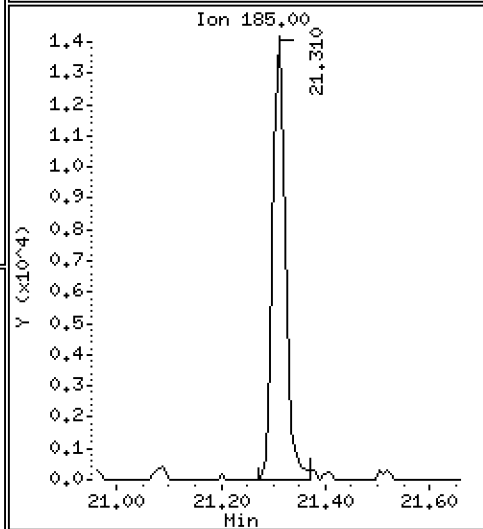
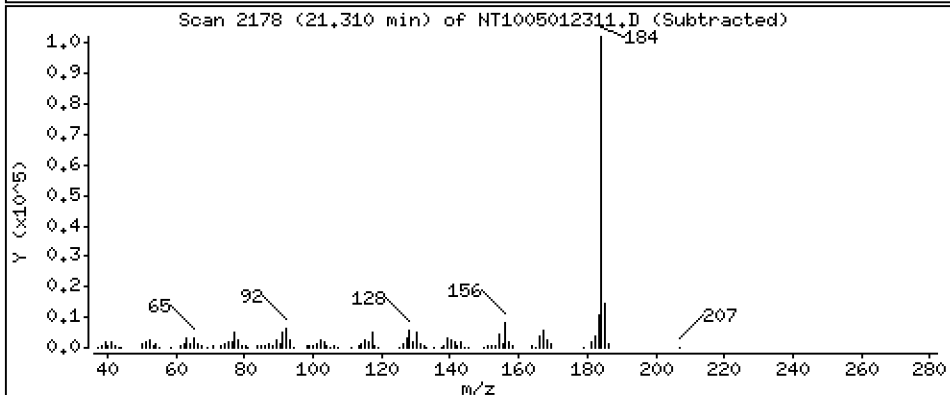
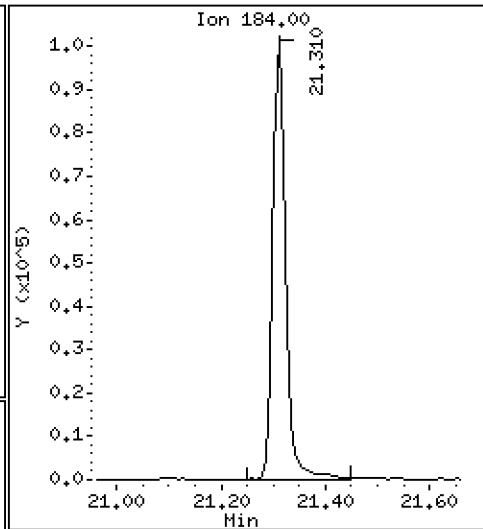
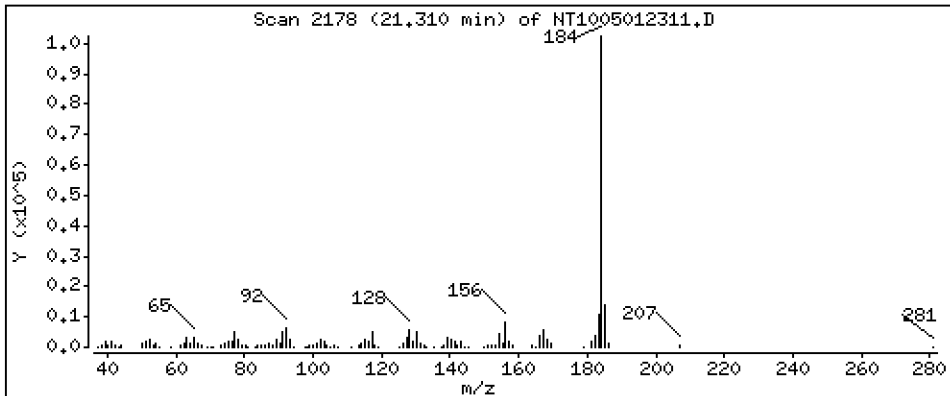
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 2,801 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

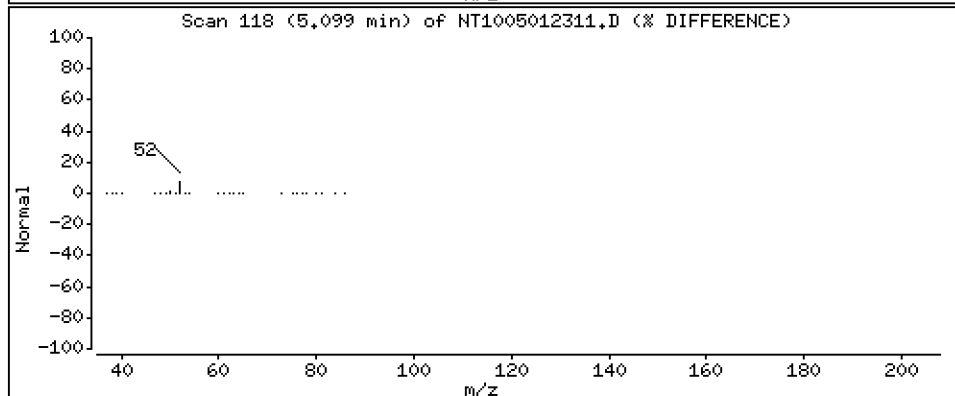
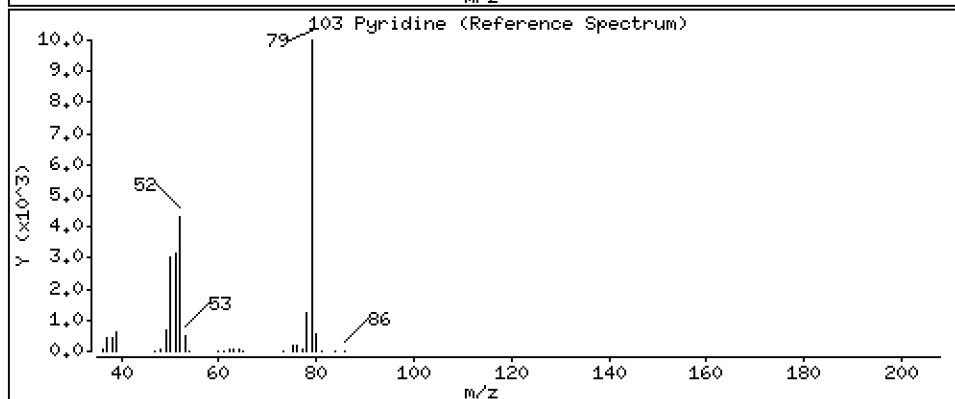
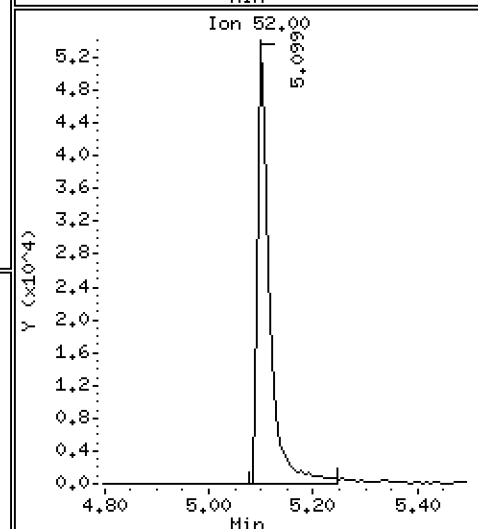
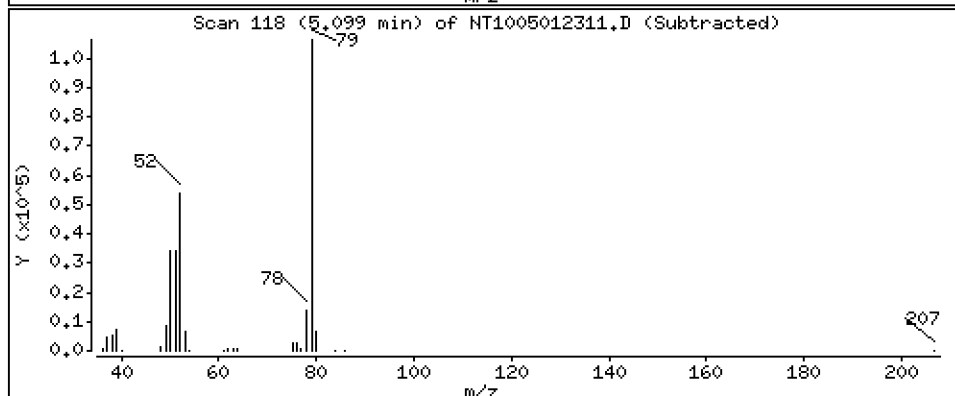
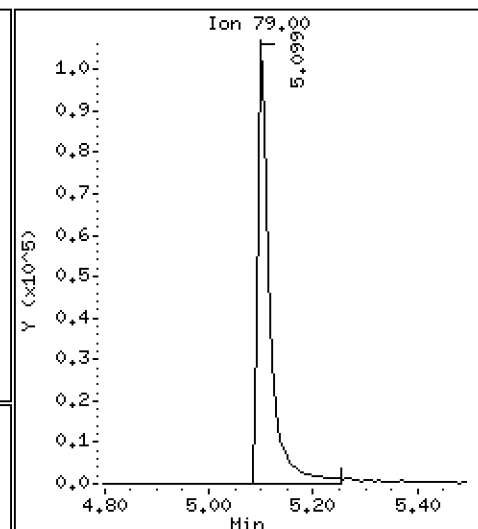
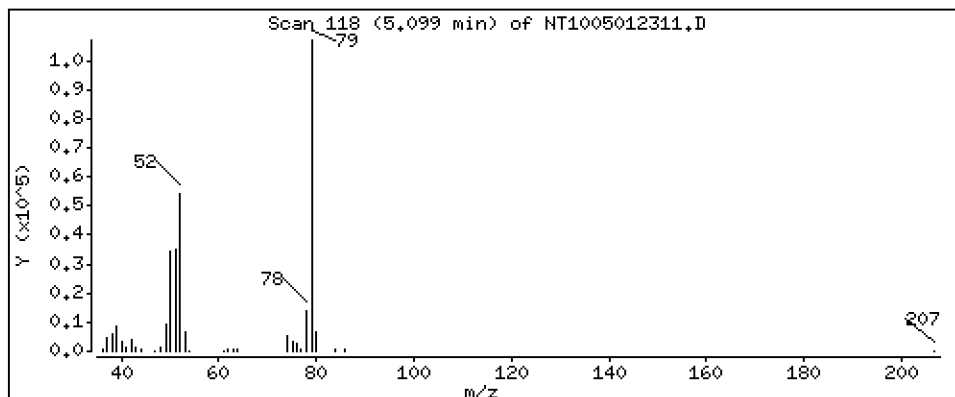
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

103 Pyridine

Concentration: 5.329 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

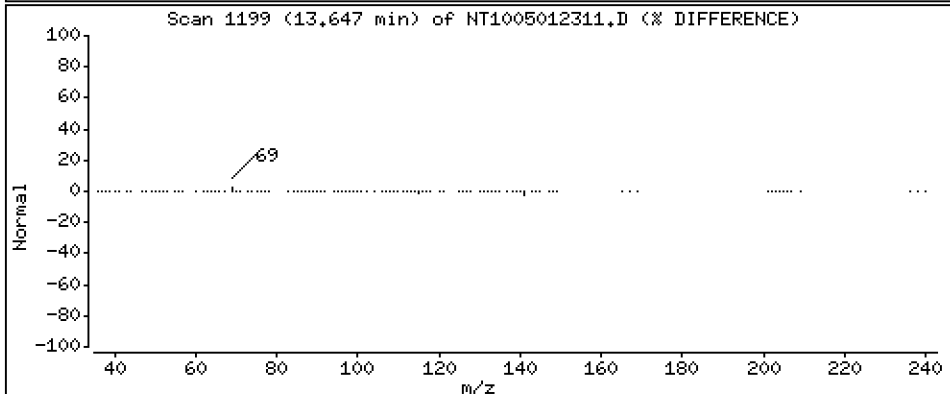
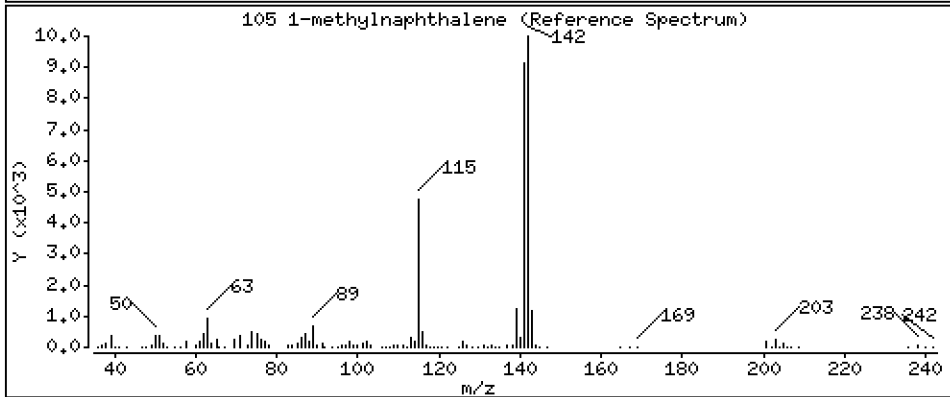
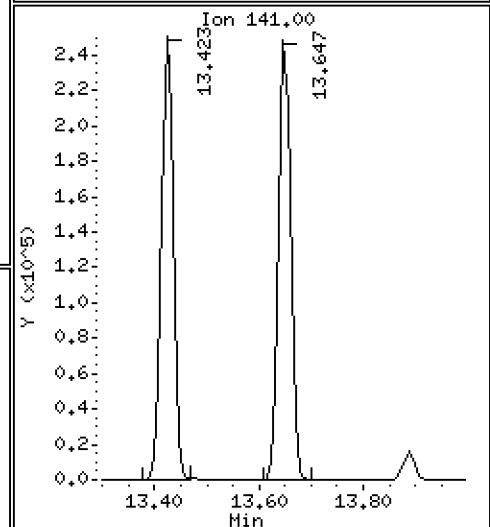
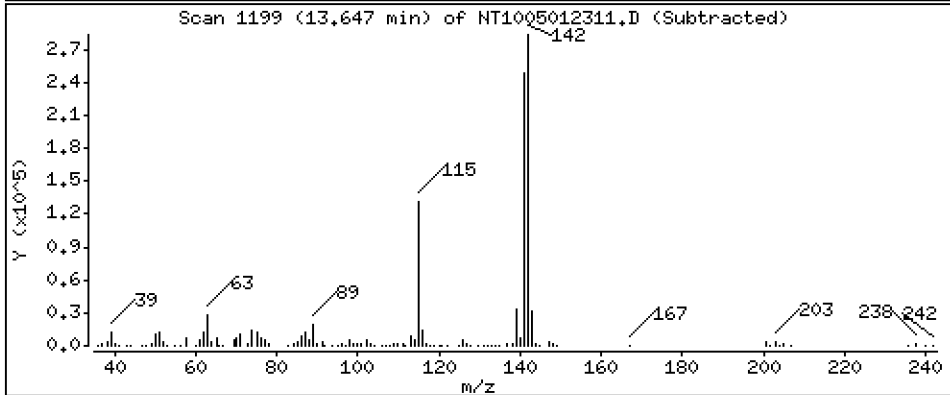
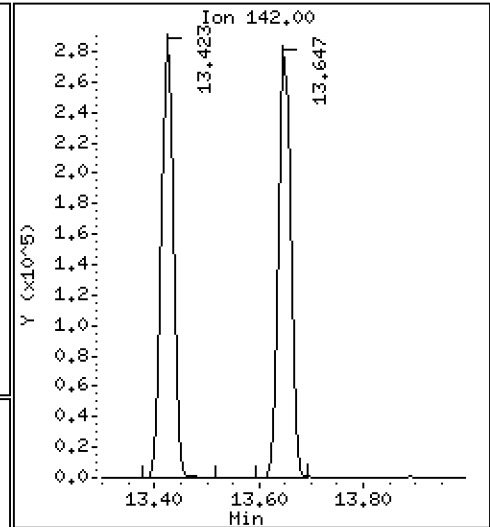
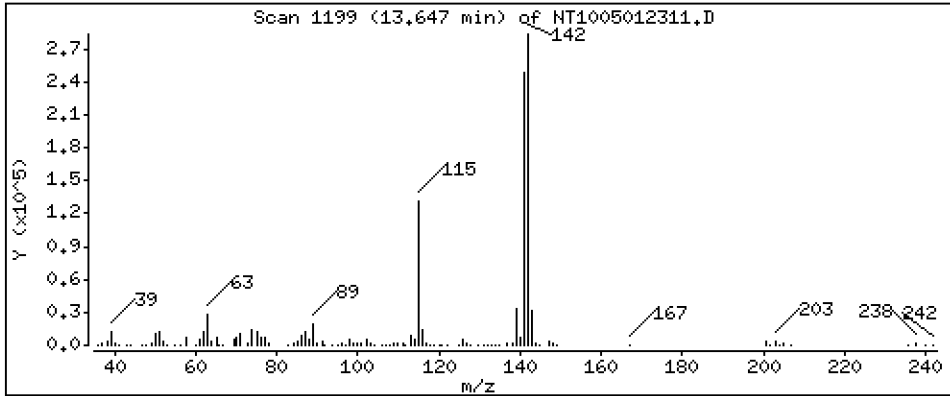
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,835 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

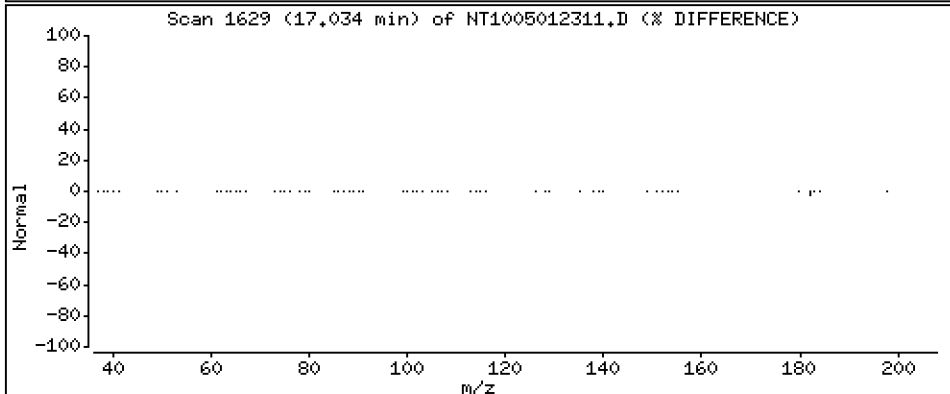
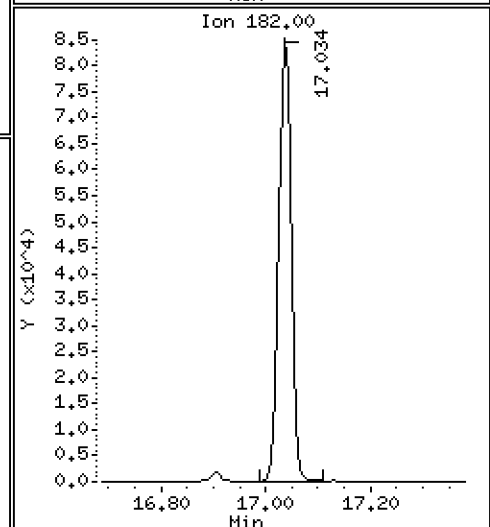
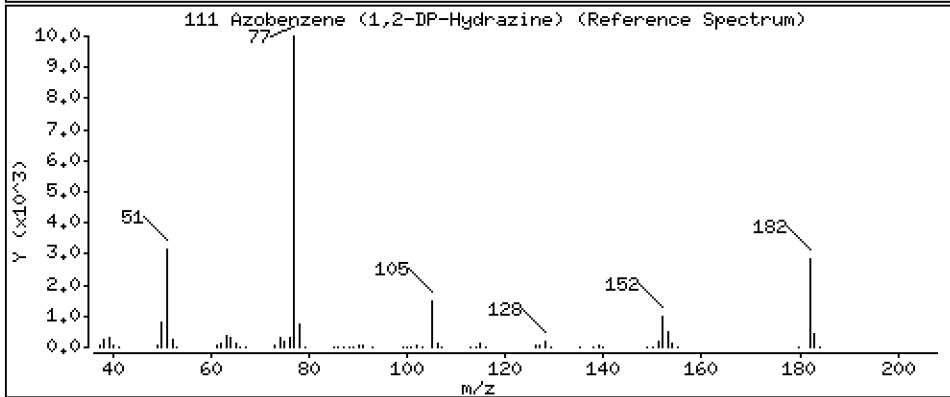
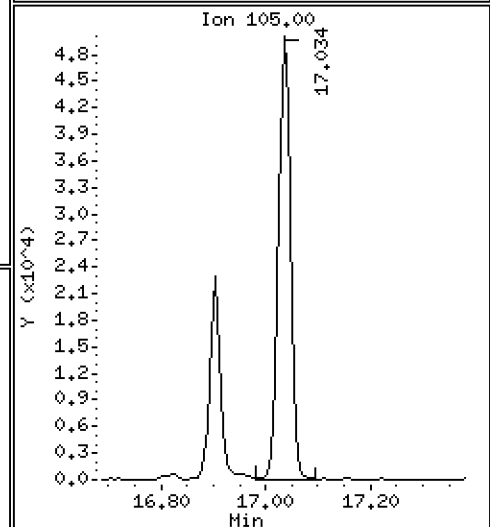
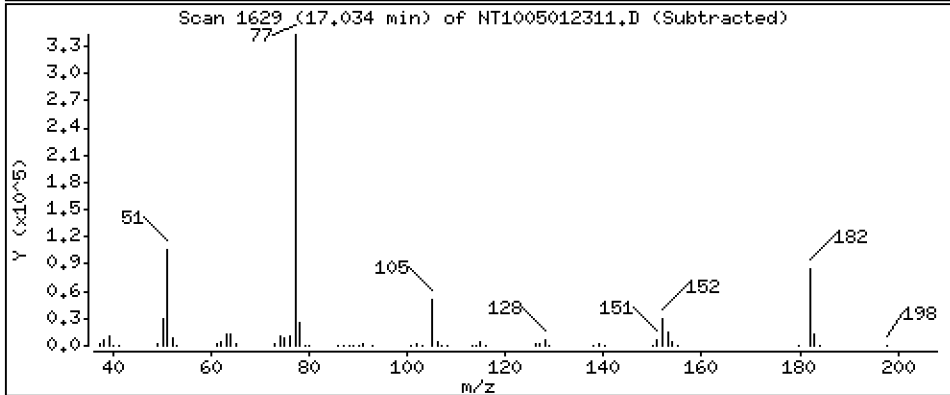
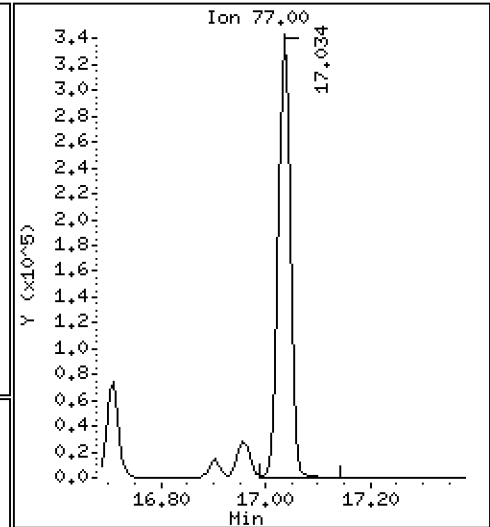
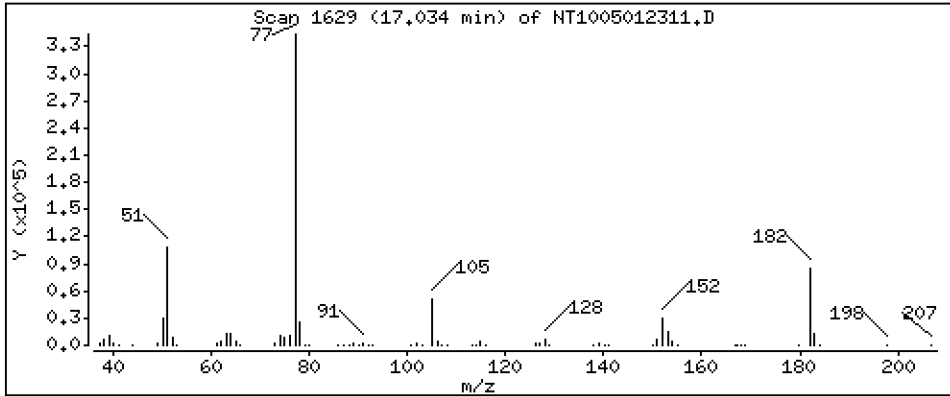
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 5,141 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

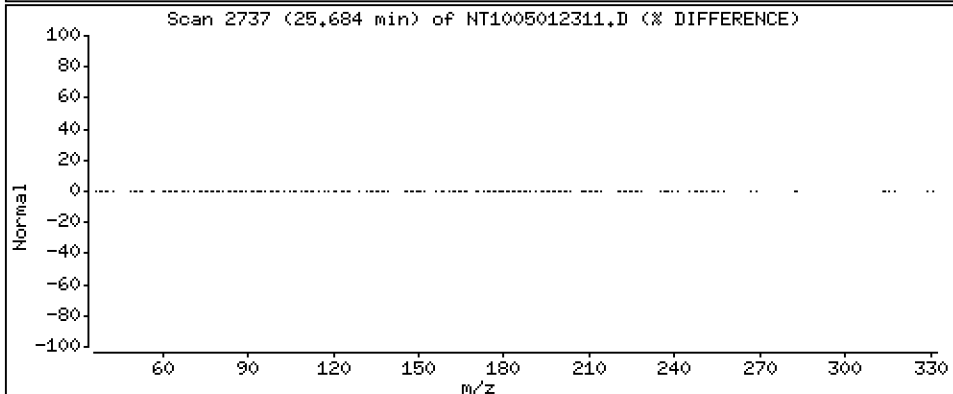
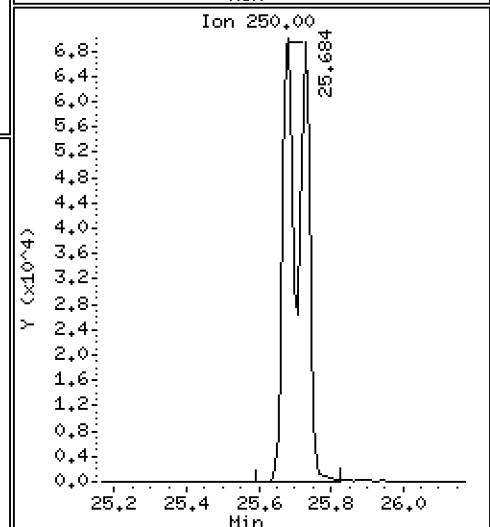
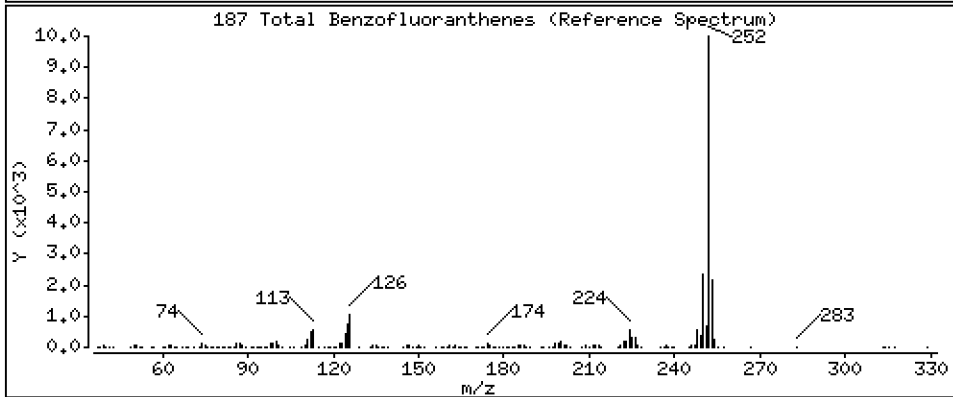
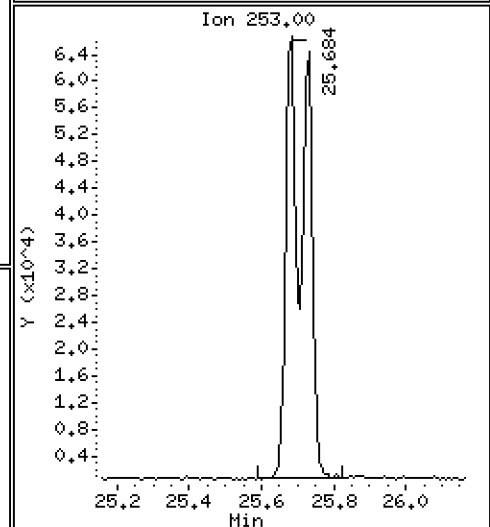
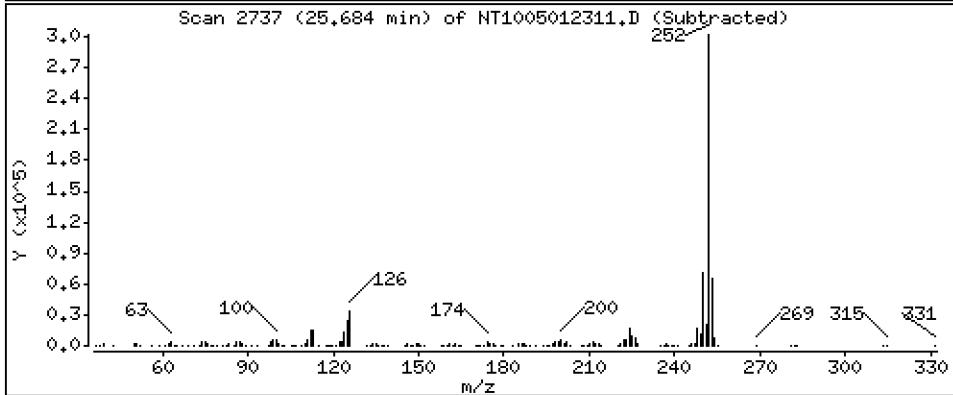
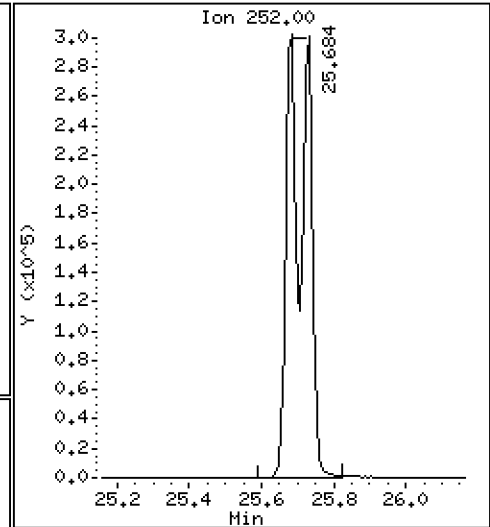
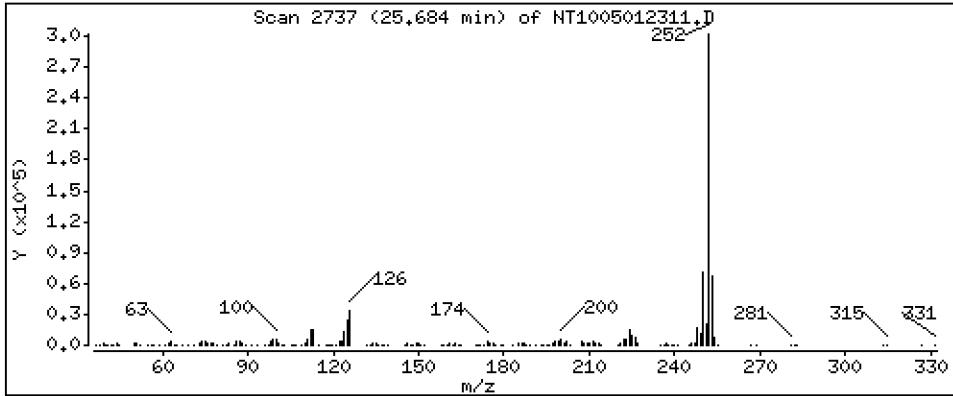
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 9,184 ug/mL



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0036-SCV1

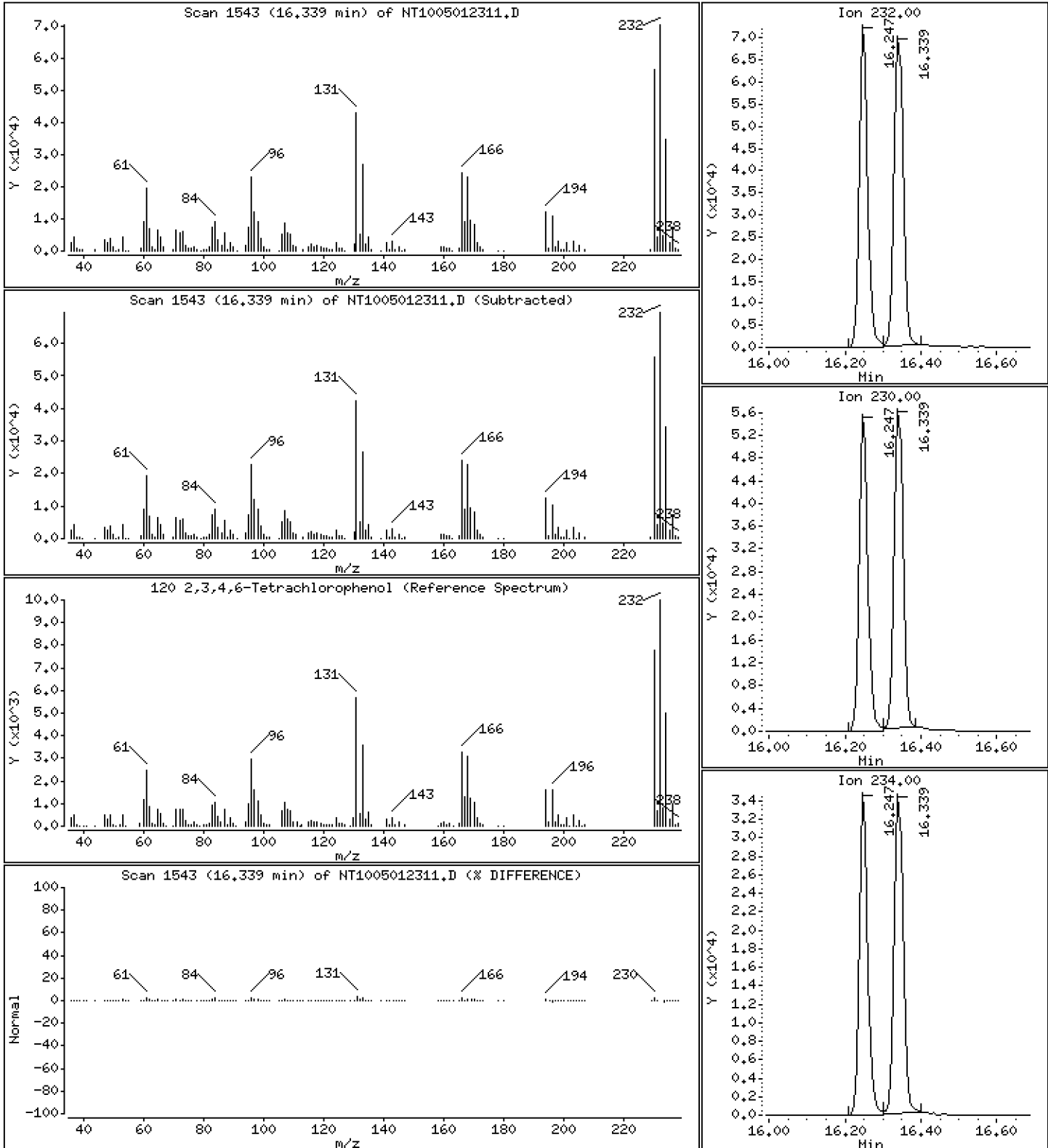
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,691 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230501.b\NT1005012311.D
 Lab Smp Id: SLE0036-SCV1
 Inj Date : 01-MAY-2023 20:43
 Operator : VTS
 Smp Info : SLE0036-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Meth Date : 02-May-2023 15:27 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
\$ 1 2-Fluorophenol	112		Compound Not Detected.					
\$ 2 Phenol-d5	99		Compound Not Detected.					
3 Phenol	94		8.837	8.837	(1.000)	225316	4.48333	4.483
\$ 5 2-Chlorophenol-d4	132		Compound Not Detected.					
4 Bis(2-Chloroethyl)ether	93		9.023	9.023	(1.000)	200069	5.50170	5.502
6 2-Chlorophenol	128		9.146	9.146	(1.000)	197459	4.45581	4.456
7 1,3-Dichlorobenzene	146		9.425	9.425	(1.000)	246622	4.93946	4.939
* 8 1,4-Dichlorobenzene-d4	152		9.487	9.487	(1.000)	128837	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.518	9.518	(1.000)	269341	5.49159	5.492
\$ 10 1,2-Dichlorobenzene-d4	152		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		9.875	9.875	(1.000)	235118	4.93763	4.938
11 Benzyl alcohol	108		9.751	9.750	(1.000)	122452	5.06918	5.069
14 2,2'-oxybis(1-Chloropropane)	121		10.053	10.046	(1.000)	77053	5.60278	5.603
13 2-Methylphenol	108		9.960	9.960	(1.000)	156011	4.23248	4.232
17 Hexachloroethane	117		10.473	10.472	(1.000)	111876	5.27548	5.275
16 N-Nitroso-di-n-propylamine	70		10.310	10.309	(1.000)	157237	5.38567	5.386
15 4-Methylphenol	108		10.232	10.232	(1.000)	196502	4.44066	4.441
\$ 18 Nitrobenzene-d5	82		Compound Not Detected.					
19 Nitrobenzene	77		10.628	10.628	(0.886)	251823	4.97032	4.970
20 Isophorone	82		11.070	11.062	(0.923)	475152	7.87757	7.878
21 2-Nitrophenol	139		11.257	11.249	(0.939)	104749	3.89627	3.896
22 2,4-Dimethylphenol	107		11.283	11.283	(0.941)	169403	3.42401	3.424
23 Bis(2-Chloroethoxy)methane	93		11.486	11.486	(0.958)	221150	5.73564	5.736
24 Benzoic acid	105		11.427	11.359	(0.953)	253834	7.38578	7.386
25 2,4-Dichlorophenol	162		11.699	11.698	(0.976)	174106	4.47956	4.480
26 1,2,4-Trichlorobenzene	180		11.898	11.898	(0.992)	243710	4.37789	4.378
* 27 Naphthalene-d8	136		11.991	11.983	(1.000)	469135	4.00000	
28 Naphthalene	128		12.030	12.022	(1.003)	620670	4.74201	4.742
29 4-Chloroaniline	127		12.145	12.145	(1.013)	190542	3.95611	3.956
30 Hexachlorobutadiene	225		12.385	12.377	(1.033)	142010	4.62571	4.626
31 4-Chloro-3-methylphenol	107		13.089	13.089	(1.092)	188904	4.45976	4.460
32 2-Methylnaphthalene	142		13.422	13.422	(1.119)	441670	4.51323	4.513
33 Hexachlorocyclopentadiene	237		13.886	13.886	(0.889)	151577	4.67268	4.673

Compounds	QUANT SIG					CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
34 2,4,6-Trichlorophenol	196	14.041	14.041	(0.899)	134602	4.21230	4.212	
35 2,4,5-Trichlorophenol	196	14.111	14.111	(0.903)	140409	4.02943	4.029	
§ 36 2-Fluorobiphenyl	172	14.204	14.203	(0.909)	2537	0.02246	0.02246	
37 2-Chloronaphthalene	162	14.428	14.420	(0.924)	429636	4.83017	4.830	
38 2-Nitroaniline	65	14.676	14.676	(0.940)	129919	5.02932	5.029	
39 Dimethylphthalate	163	15.101	15.101	(0.967)	490864	4.90763	4.908	
40 Acenaphthylene	152	15.303	15.303	(0.980)	663079	4.77574	4.776	
41 2,6-Dinitrotoluene	165	15.249	15.248	(0.976)	110074	4.87568	4.876	
* 42 Acenaphthene-d10	164	15.620	15.612	(1.000)	260867	4.00000		
43 3-Nitroaniline	138	15.535	15.527	(0.995)	106140	4.77608	4.776	
44 Acenaphthene	153	15.682	15.682	(1.004)	416452	4.71606	4.716	
45 2,4-Dinitrophenol	184	15.744	15.743	(1.008)	41326	2.37611	2.376	
46 Dibenzofuran	168	16.006	16.006	(1.025)	598046	4.64493	4.645	
47 4-Nitrophenol	109	15.829	15.828	(1.013)	82973	3.99163	3.992	
48 2,4-Dinitrotoluene	165	16.061	16.060	(1.028)	141639	4.38106	4.381	
50 Diethylphthalate	149	16.563	16.555	(1.060)	524953	5.05491	5.055	
49 Fluorene	166	16.733	16.725	(1.071)	484223	4.55893	4.559	
51 4-Chlorophenyl-phenylether	204	16.710	16.702	(1.070)	253695	4.79663	4.797	
52 4-Nitroaniline	138	16.810	16.810	(1.076)	93244	4.29306	4.293	
53 4,6-Dinitro-2-methylphenol	198	16.903	16.902	(0.905)	70705	3.75964	3.760	
54 N-Nitrosodiphenylamine	169	16.957	16.956	(0.908)	324810	5.12520	5.125	
§ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	177	0.01417	0.01417	
56 4-Bromophenyl-phenylether	248	17.720	17.712	(0.949)	147865	4.94237	4.942	
57 Hexachlorobenzene	284	18.044	18.044	(0.966)	140819	4.68942	4.689	
58 Pentachlorophenol	266	18.401	18.393	(0.985)	80436	3.86584	3.866	
* 59 Phenanthrene-d10	188	18.671	18.671	(1.000)	479585	4.00000		
60 Phenanthrene	178	18.718	18.718	(1.002)	645346	4.58600	4.586	
61 Anthracene	178	18.818	18.811	(1.008)	542159	4.16924	4.169	
62 Carbazole	167	19.136	19.136	(1.025)	518357	4.50323	4.503	
63 Di-n-butylphthalate	149	19.902	19.901	(1.066)	862725	4.89550	4.895	
64 Fluoranthene	202	21.085	21.085	(0.890)	774676	4.73795	4.738	
65 Pyrene	202	21.511	21.503	(0.908)	757130	4.63549	4.635	
§ 66 Terphenyl-d14	244	21.782	21.774	(0.919)	2912	0.02254	0.02254	
67 Butylbenzylphthalate	149	22.695	22.687	(0.958)	349577	4.77781	4.778	
68 Benzo(a)anthracene	228	23.663	23.655	(0.999)	683788	4.71653	4.717	
* 69 Chrysene-d12	240	23.694	23.686	(1.000)	366214	4.00000		
70 3,3'-Dichlorobenzidine	252	23.617	23.601	(0.997)	467557	10.2140	10.21	
71 Chrysene	228	23.741	23.733	(1.002)	589116	4.54006	4.540	
72 bis(2-Ethylhexyl)phthalate	149	23.710	23.702	(0.958)	493652	5.40606	5.406	
* 134 Di-n-octylphthalate-d4	153	24.739	24.724	(1.000)	633915	4.00000		
73 Di-n-octylphthalate	149	24.747	24.739	(1.000)	863084	5.16068	5.161	
74 Benzo(b)fluoranthene	252	25.684	25.660	(0.968)	641646	4.78532	4.785	
75 Benzo(k)fluoranthene	252	25.730	25.715	(0.970)	593022	4.45695	4.457	
76 Benzo(a)pyrene	252	26.404	26.388	(0.995)	537284	4.78725	4.787	
* 77 Perylene-d12	264	26.536	26.520	(1.000)	326407	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.514	29.483	(1.112)	630589	4.67700	4.677	
79 Dibenzo(a,h)anthracene	278	29.522	29.491	(1.113)	524960	4.64906	4.649	
80 Benzo(g,h,i)perylene	276	30.392	30.353	(1.145)	500646	4.65862	4.659	
90 N-Nitrosodimethylamine	74	5.067	5.083	(1.000)	109300	5.19047	5.190	
91 Aniline	93	Compound Not Detected.						
93 Benzidine	184	21.310	21.310	(0.899)	165444	2.80075	2.801	
103 Pyridine	79	5.098	5.144	(1.000)	176959	5.32922	5.329	
105 1-methylnaphthalene	142	13.646	13.646	(1.138)	433828	4.83538	4.835	
111 Azobenzene (1,2-DP-Hydrazine)	77	17.034	17.034	(1.091)	521542	5.14057	5.141	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.684	25.660	(0.968)	1185382	9.18410	9.184
120 2,3,4,6-Tetrachlorophenol	232	16.339	16.339	(1.046)	111498	3.69091	3.691

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAY-2023
 Lab File ID: NT1005012311.D Calibration Time: 16:10
 Lab Smp Id: SLE0036-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	144303	72152	288606	128837	-10.72
27 Naphthalene-d8	493698	246849	987396	469135	-4.98
42 Acenaphthene-d10	279210	139605	558420	260867	-6.57
59 Phenanthrene-d10	521463	260732	1042926	479585	-8.03
69 Chrysene-d12	369911	184956	739822	366214	-1.00
134 Di-n-octylphthala	626668	313334	1253336	633915	1.16
77 Perylene-d12	311339	155670	622678	326407	4.84

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
134 Di-n-octylphthala	24.75	24.25	25.25	24.74	-0.03
77 Perylene-d12	26.55	26.05	27.05	26.54	-0.06

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

REVIEW SUMMARY FOR FILE - NT1005012311.D

Lab ID: SLE0036-SCV1
nt10.i, 20230501.b\ABN.m, 01-MAY-2023 20:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.059	-0.0589	2,2'-oxybis(1-Chloropropane)
0.953	0.948	0.0050	Benzoic acid

RRT check based on Ccal File: NT1005012308.D

On Column LOD for nt10.i, 20230501.b\ABN.m, ICAL.sub = 0.0000

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

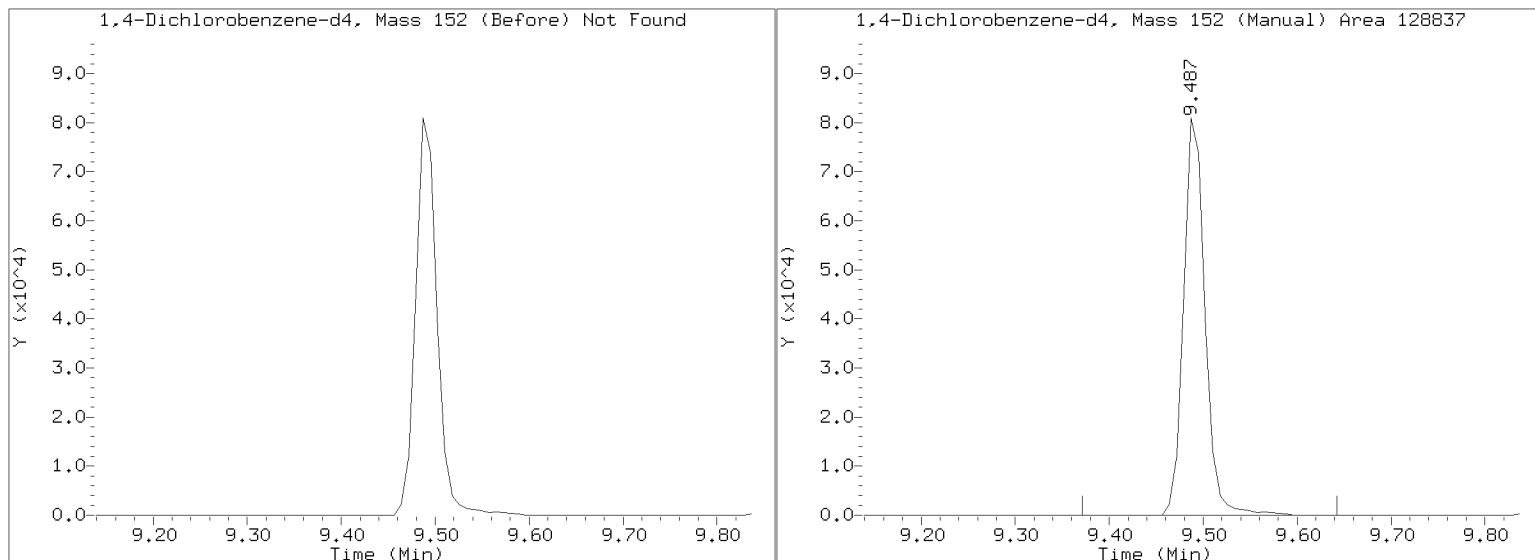
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/NT1005012311.D

Injection Date: 01-MAY-2023 20:43

Lab ID: SLE0036-SCV1 Client ID:

Report Date: 05/02/2023 15:38



APPROVED

By Deenay Dunmore at 2:15 pm, May 03, 2023



CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GE00012

Lab File ID: NT1005052315.D

Calibration Date: 05/01/2023

Sequence: SLE0101

Injection Date: 05/05/23

Lab Sample ID: SLE0101-CCV1

Injection Time: 19:50

Sequence Name: Calibration Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	5.4	1.5603090	1.7001080		9.0	+/-50
4-Methylphenol	A	5.0000	5.6	1.3738470	1.5353630		11.8	+/-50
Naphthalene	A	5.0000	4.8	1.1159900	1.0653000		-4.5	+/-50
2-Methylnaphthalene	A	5.0000	4.6	0.8343963	0.7759000		-7.0	+/-50
Acenaphthylene	A	5.0000	4.9	2.1289490	2.1010670		-1.3	+/-50
Dimethylphthalate	A	5.0000	4.9	1.5336640	1.4996490		-2.2	+/-50
Acenaphthene	A	5.0000	4.8	1.3540250	1.2995510		-4.0	+/-50
Dibenzofuran	A	5.0000	4.8	1.9742250	1.8980830		-3.9	+/-50
Fluorene	A	5.0000	4.7	1.6286350	1.5388400		-5.5	+/-50
Phenanthrene	A	5.0000	4.7	1.1736900	1.0950840		-6.7	+/-50
Anthracene	A	5.0000	4.9	1.0845870	1.0727810		-1.1	+/-50
Fluoranthene	A	5.0000	4.4	1.7858880	1.5847800		-11.3	+/-50
Pyrene	A	5.0000	4.6	1.7840190	1.6465250		-7.7	+/-50
Butylbenzylphthalate	A	5.0000	5.0	0.6671669	0.7911966		-0.8	+/-50
Benzo(a)anthracene	A	5.0000	4.7	1.5835210	1.4942620		-5.6	+/-50
Chrysene	A	5.0000	5.0	1.4173070	1.4174660		0.01	+/-50
bis(2-Ethylhexyl)phthalate	A	5.0000	4.6	0.5761948	0.5351202		-7.1	+/-50
Benzo(a)fluoranthene, Total	A	10.000	9.1	1.5816940	1.4372760		-9.1	+/-50
Benzo(a)pyrene	A	5.0000	4.6	1.3753650	1.2717140		-7.5	+/-50
Indeno(1,2,3-cd)pyrene	A	5.0000	4.5	1.6522640	1.4960460		-9.5	+/-50
Dibenzo(a,h)anthracene	A	5.0000	4.6	1.3837630	1.2732850		-8.0	+/-50
Benzo(g,h,i)perylene	A	5.0000	4.5	1.3169650	1.1771080		-10.6	+/-50
2-Fluorophenol	A	7.5000	7.32	1.2103940	1.1810030		-2.4	+/-50
Phenol-d5	A	7.5000	7.98	1.4592840	1.5528080		6.4	+/-50
2-Chlorophenol-d4	A	7.5000	7.73	1.3984790	1.4410290		3.0	+/-50
1,2-Dichlorobenzene-d4	A	5.0000	4.88	1.0316970	1.0061060		-2.5	+/-50
Nitrobenzene-d5	A	5.0000	5.18	0.4469969	0.4628683		3.6	+/-50
2-Fluorobiphenyl	A	5.0000	4.53	1.7317170	1.5691240		-9.4	+/-50
2,4,6-Tribromophenol	A	7.5000	6.51	0.1786492	0.1725987		-13.2	+/-50
p-Terphenyl-d14	A	5.0000	4.31	1.4109530	1.2163080		-13.8	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.6\NT1005052315.D

Date: 05-May-2023 19:50

Client ID:

Sample Info: SLE0101-CCW1

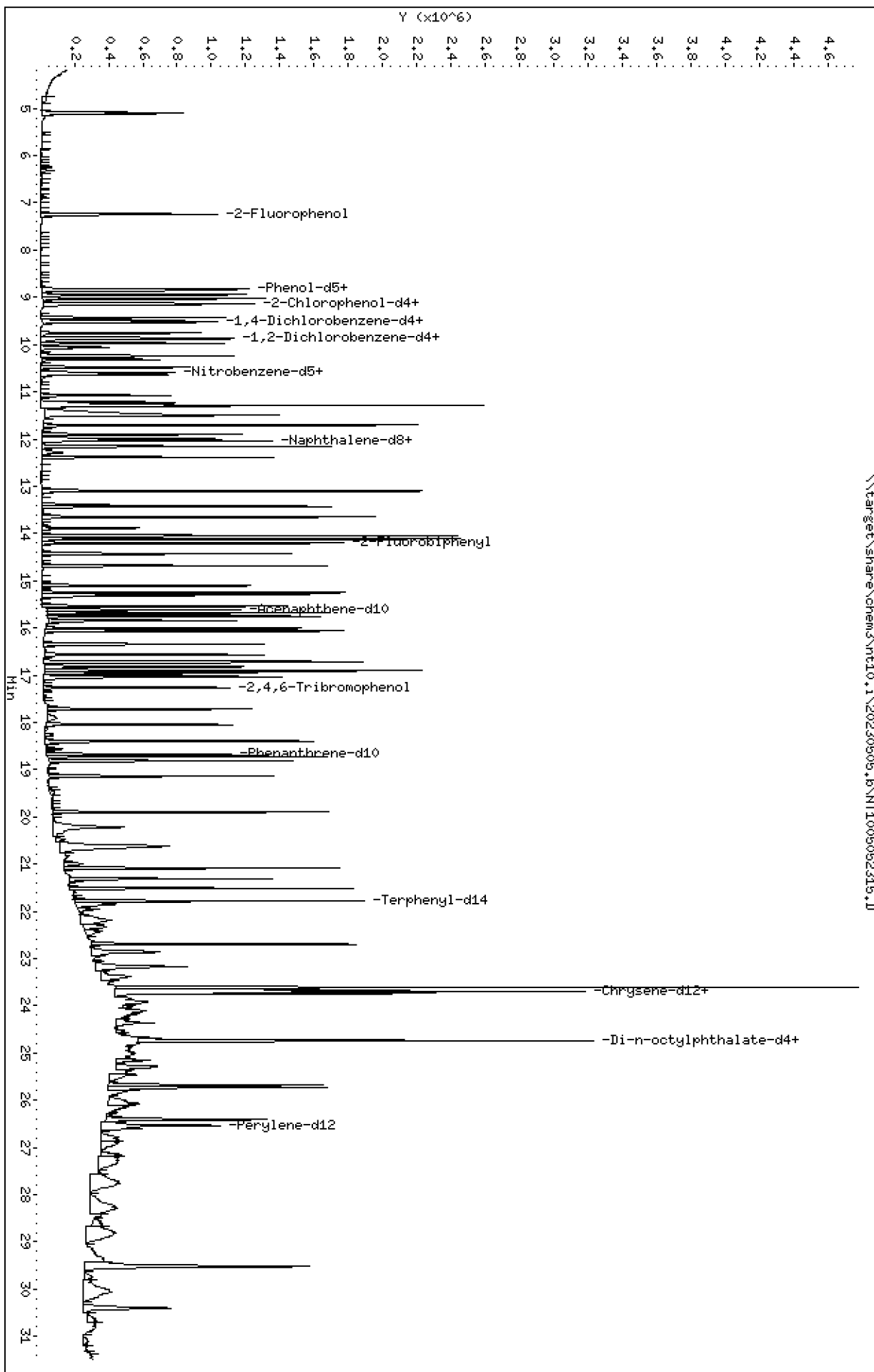
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230505.6\NT1005052315.D



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

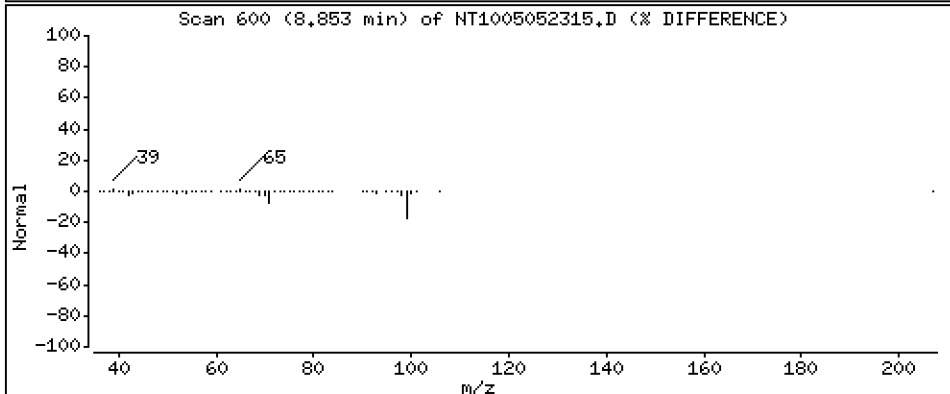
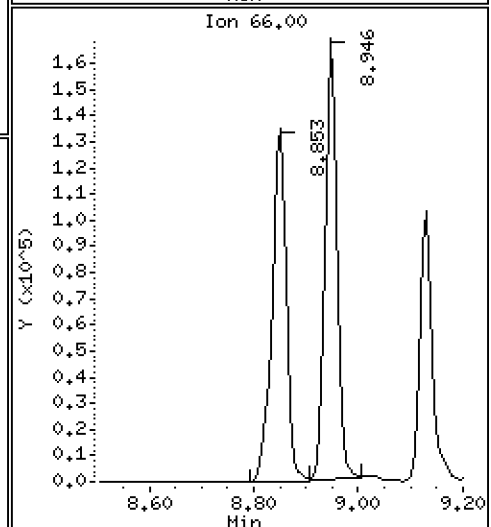
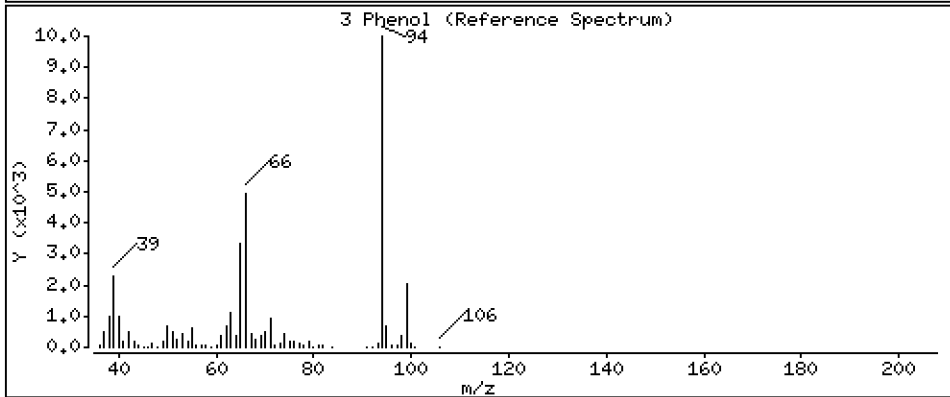
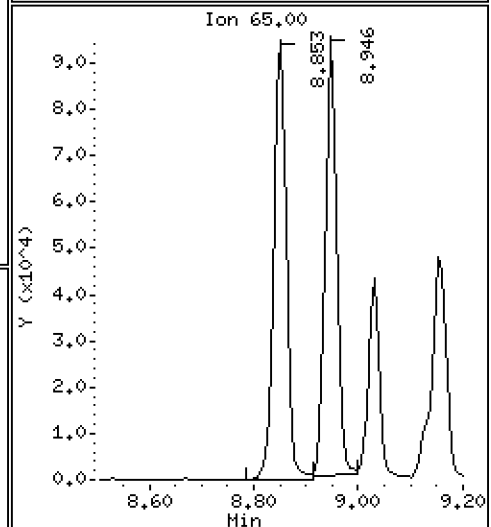
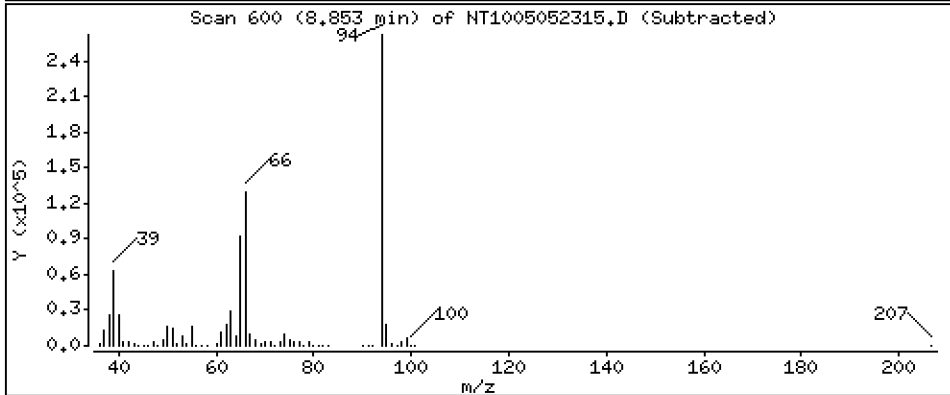
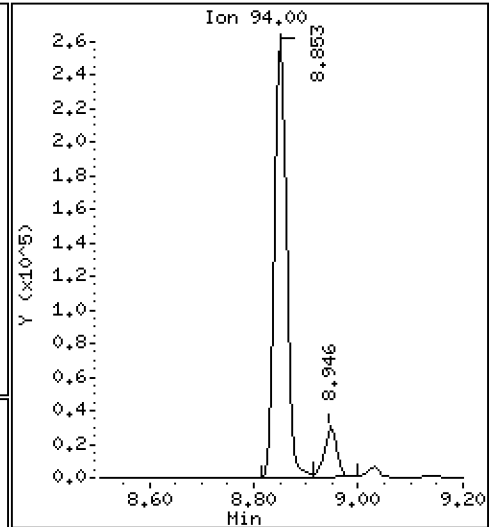
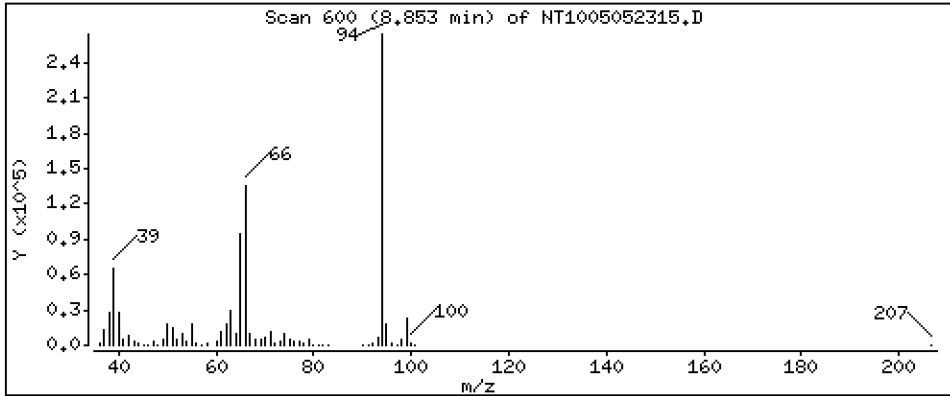
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 5,448 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

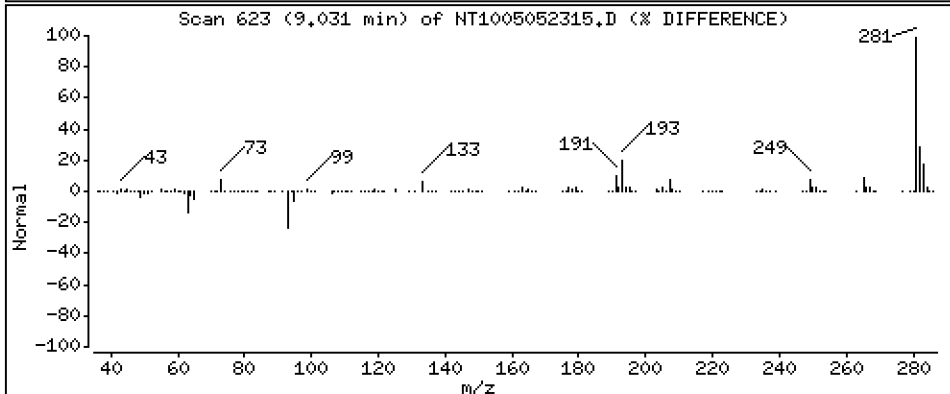
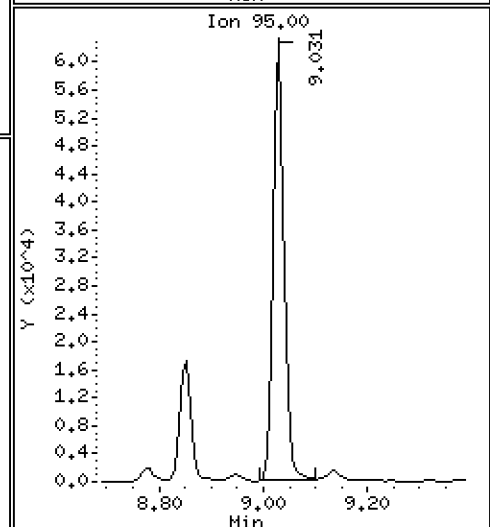
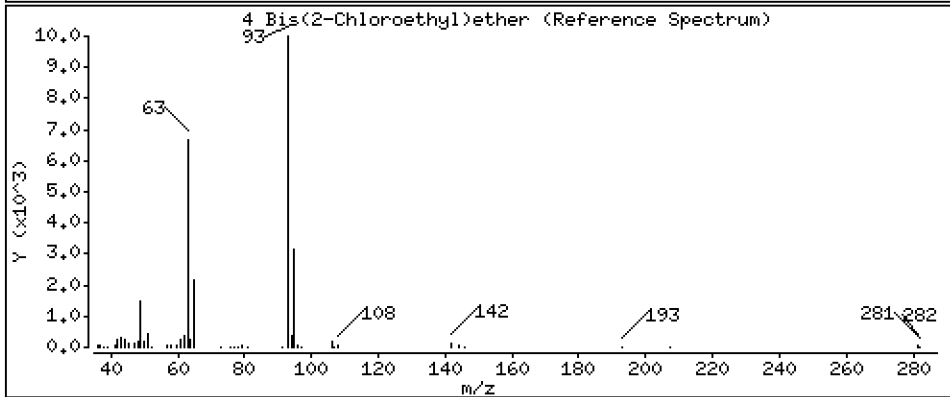
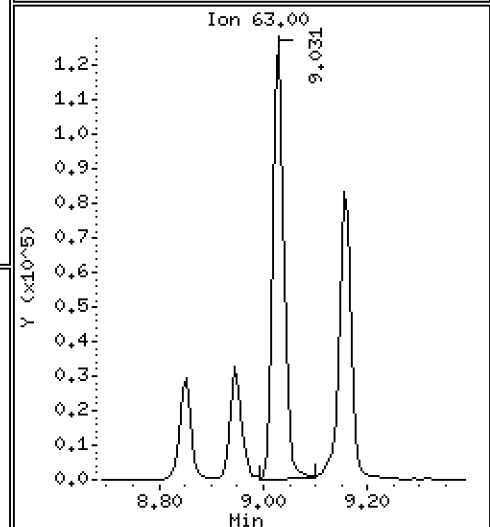
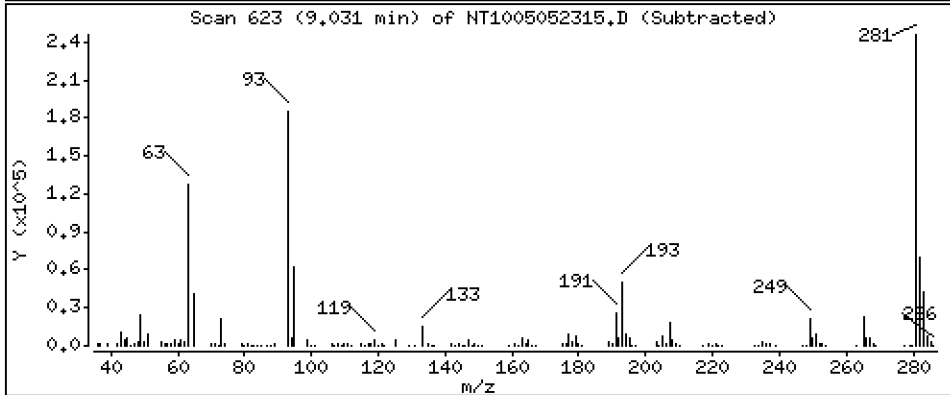
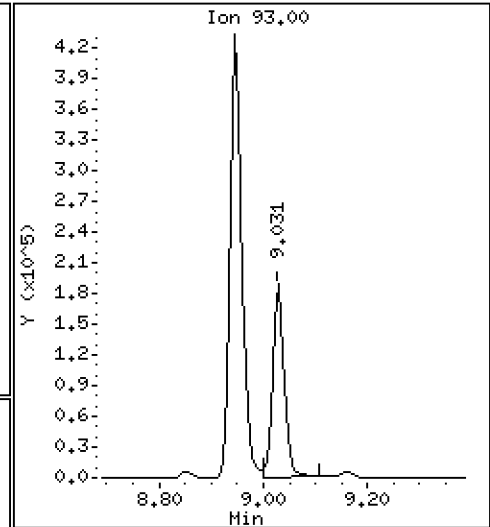
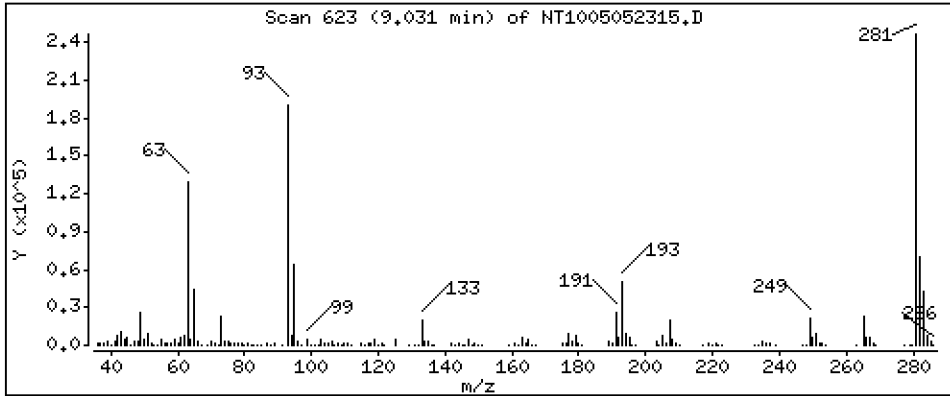
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 5,325 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

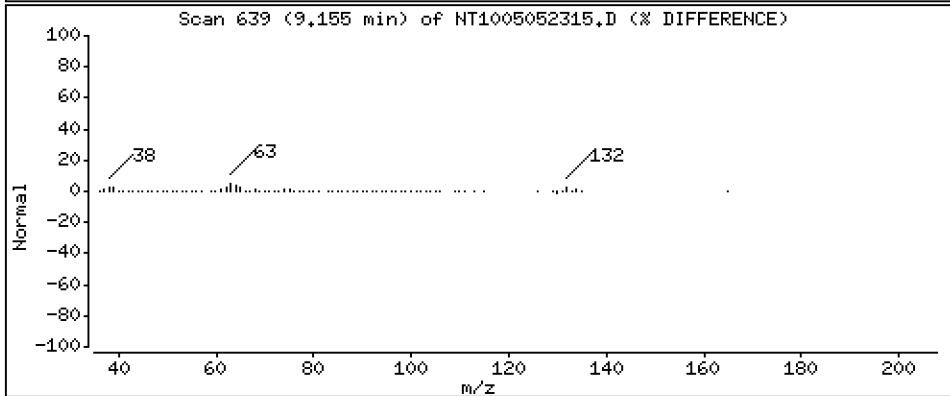
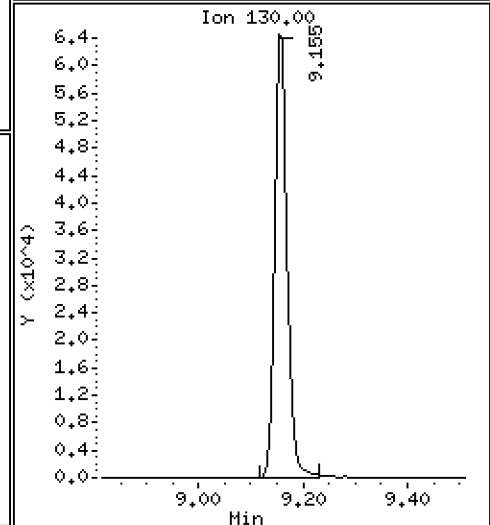
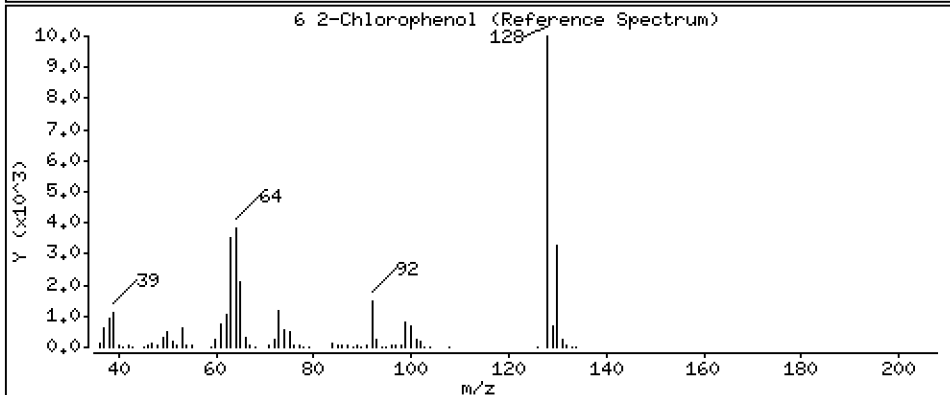
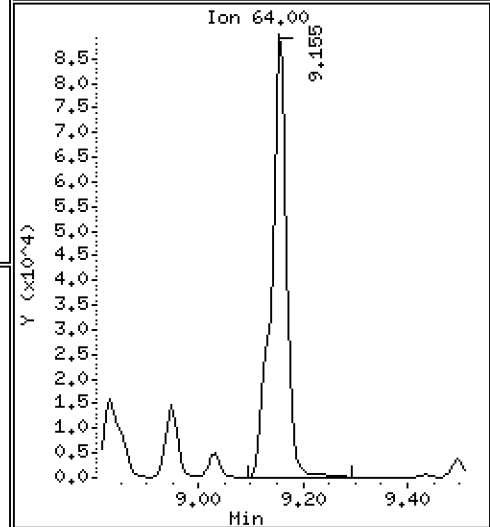
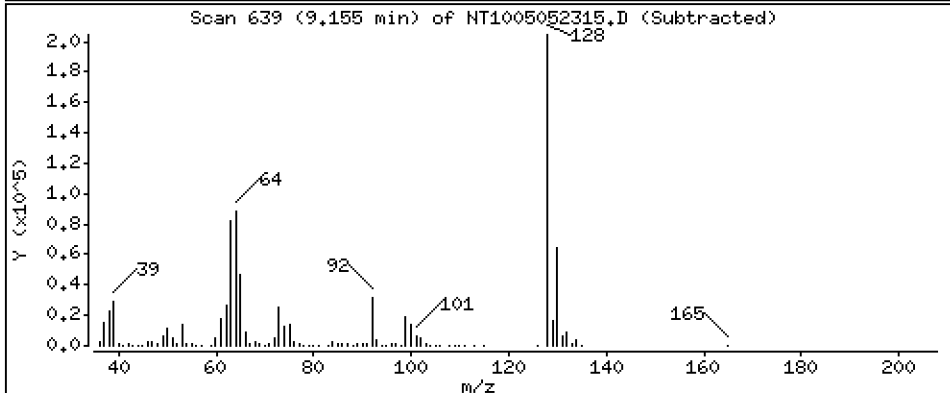
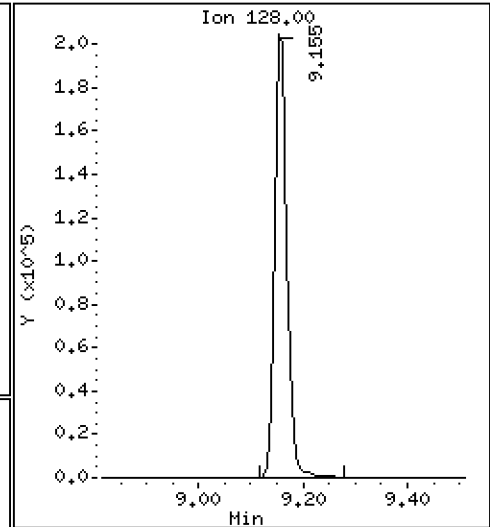
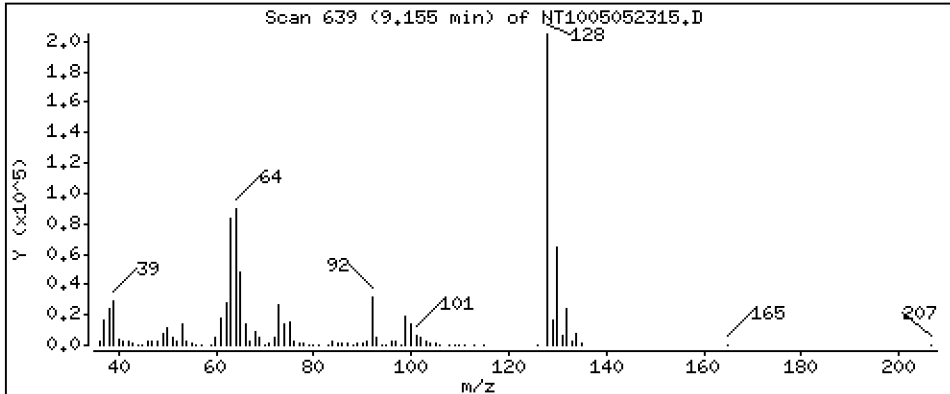
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 5,216 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

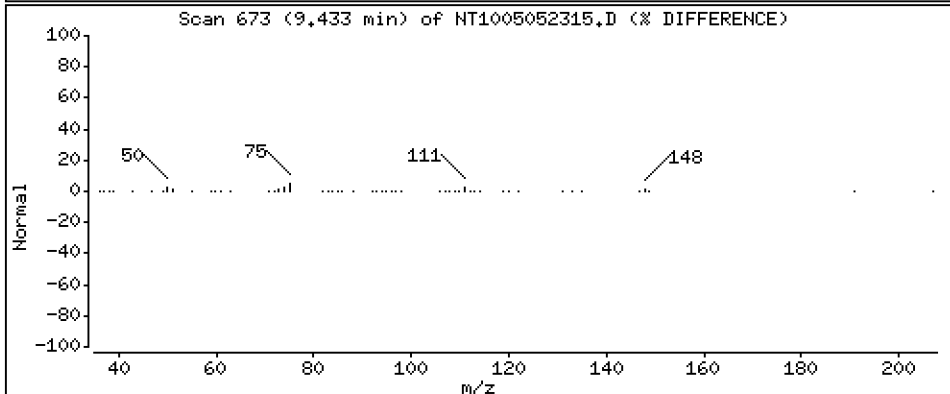
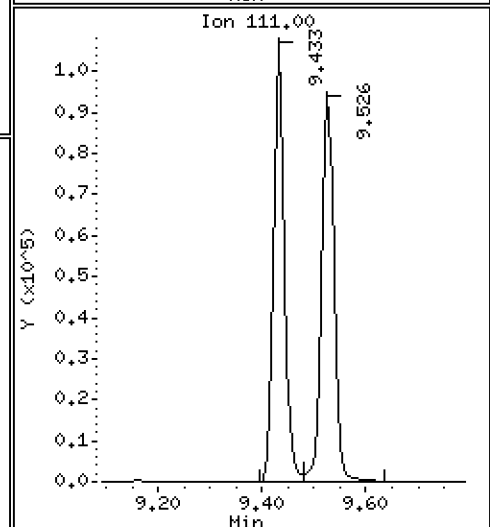
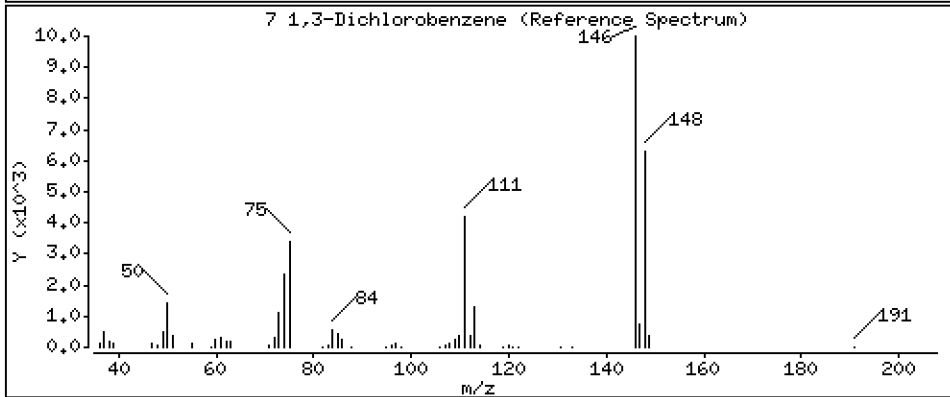
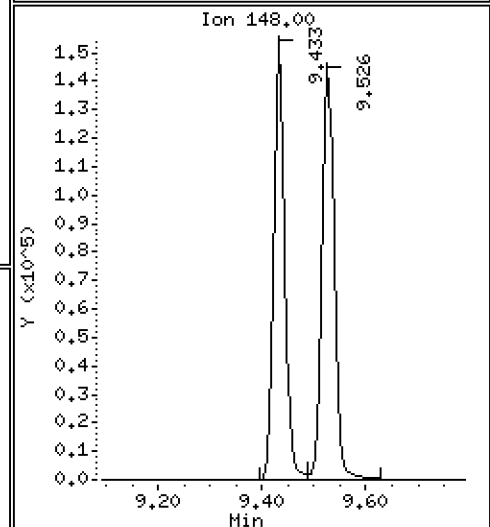
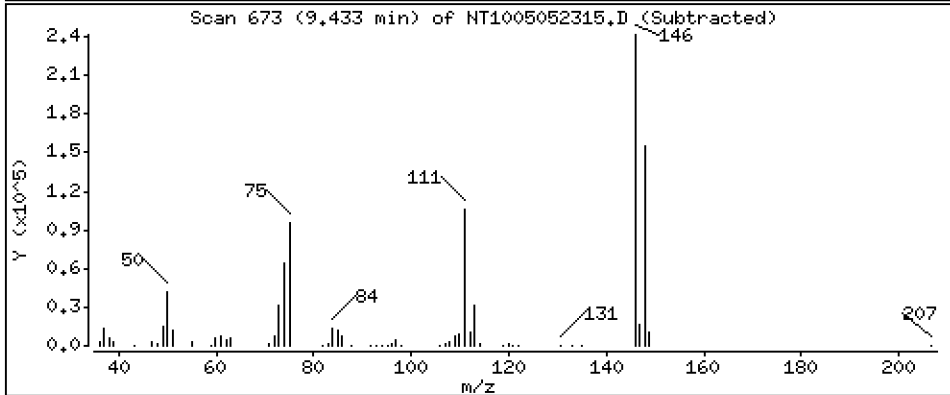
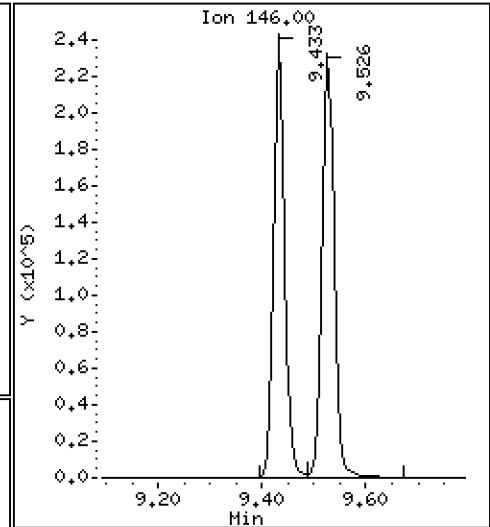
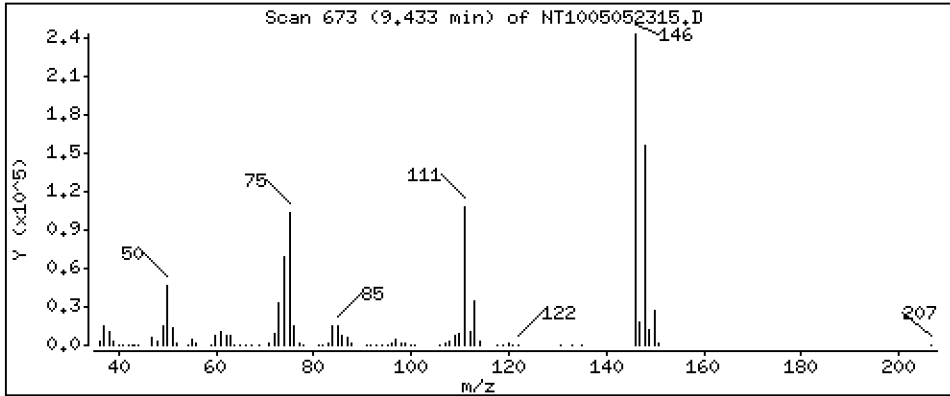
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,981 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

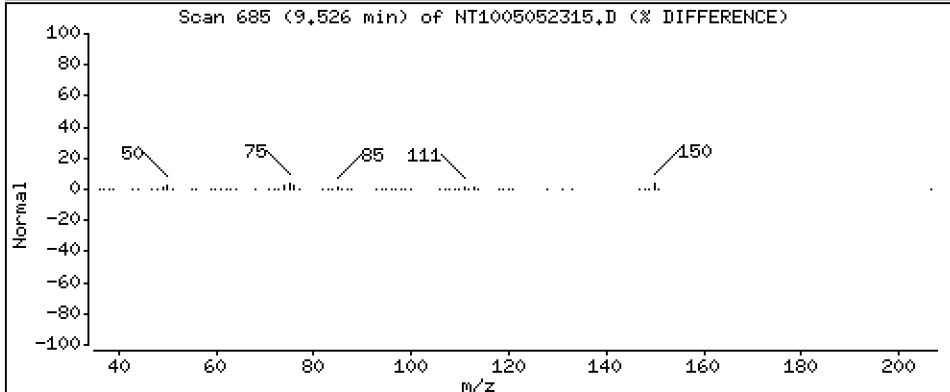
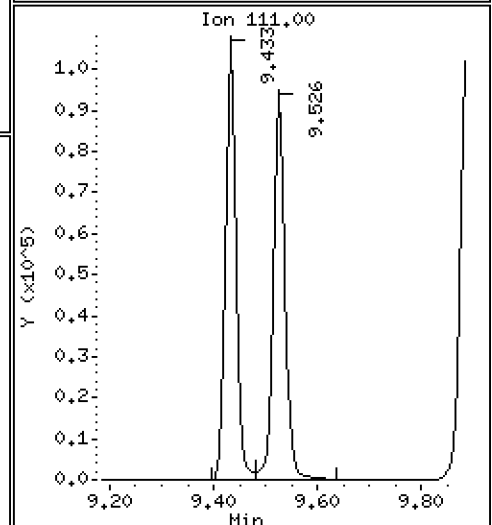
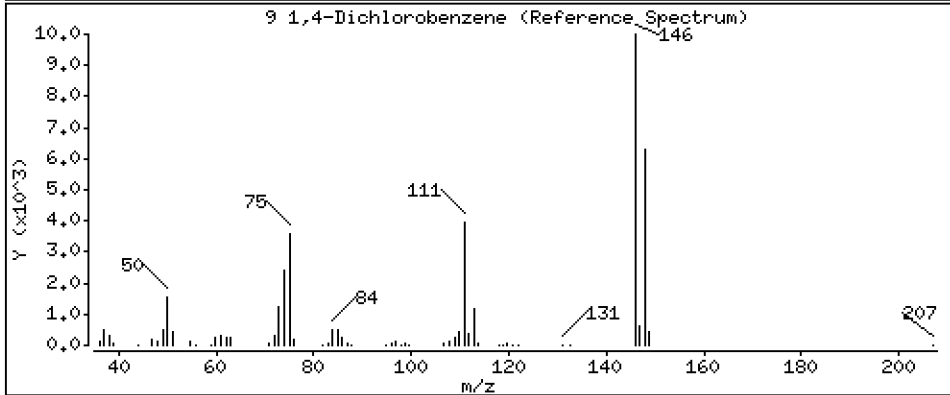
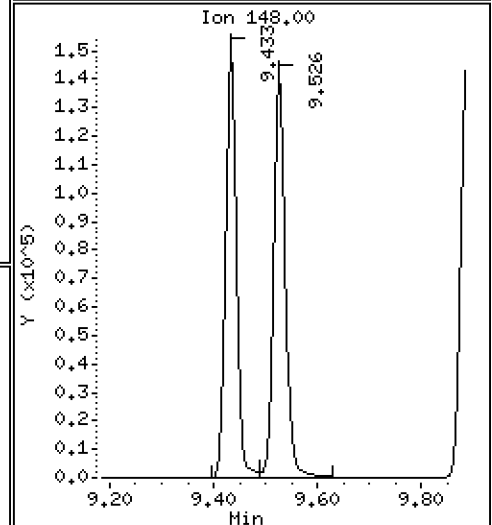
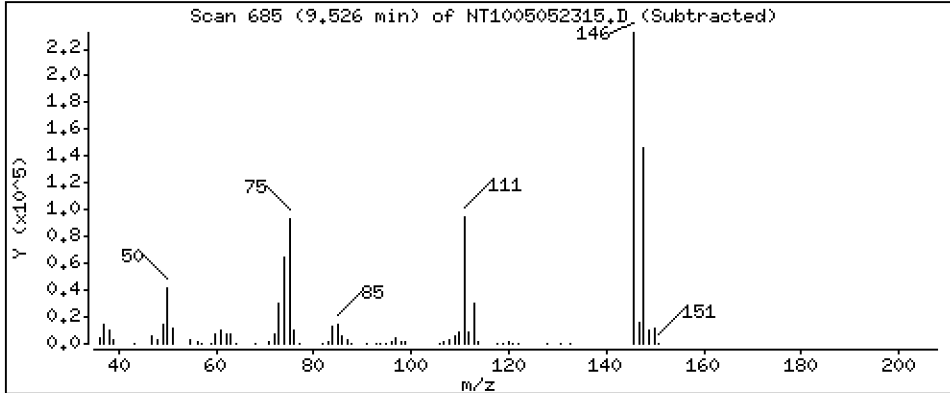
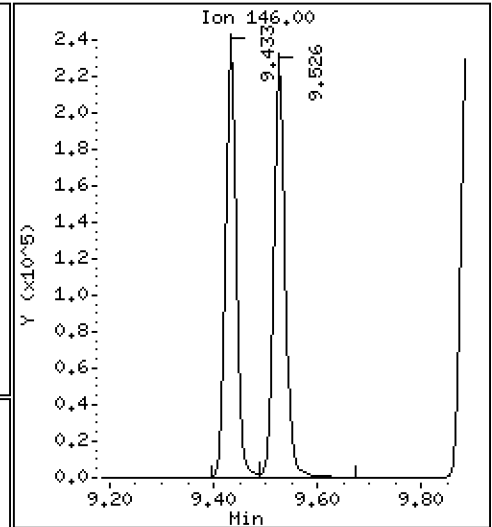
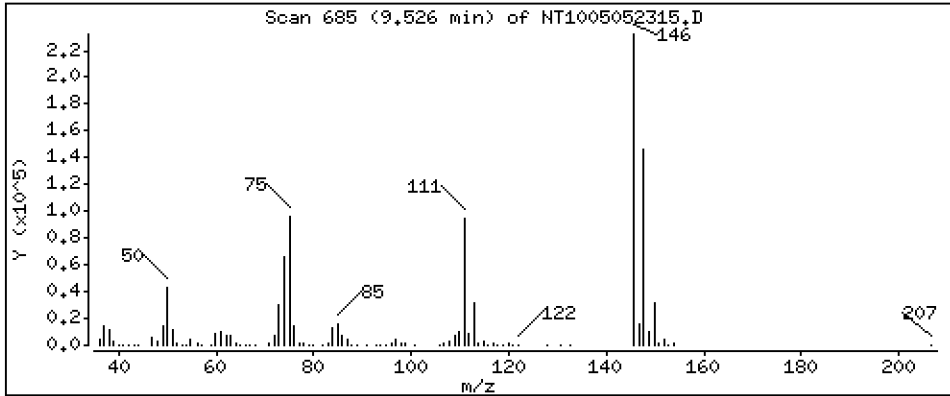
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 5,418 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

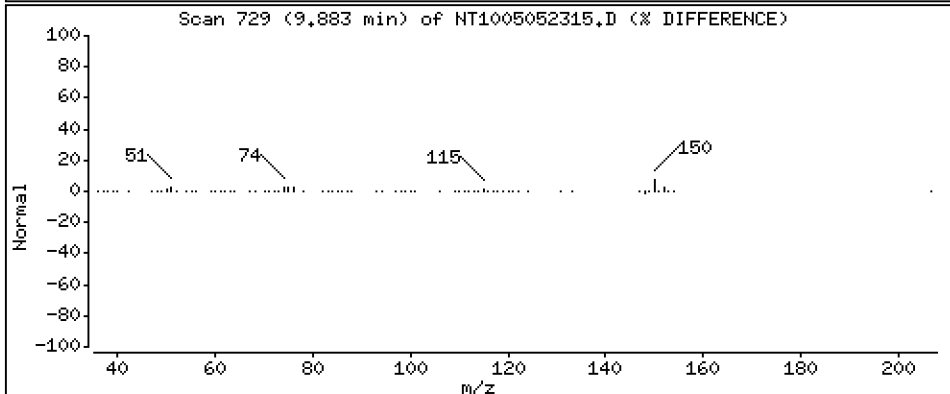
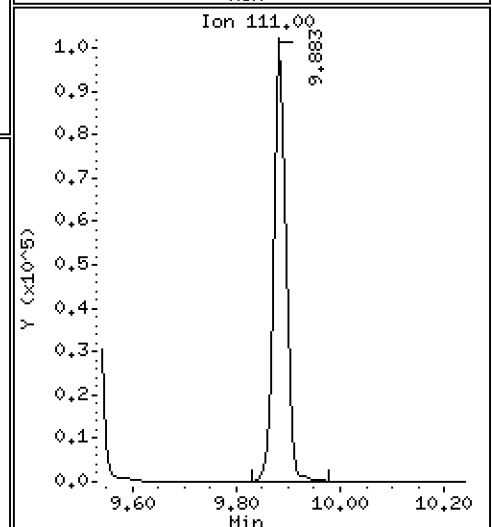
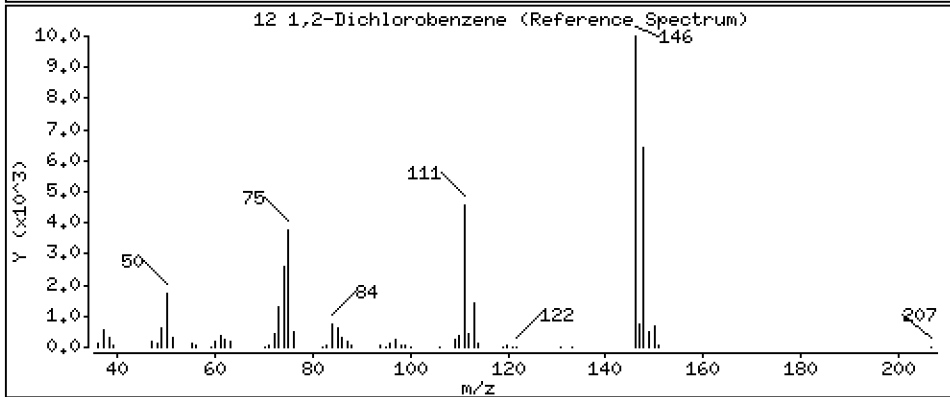
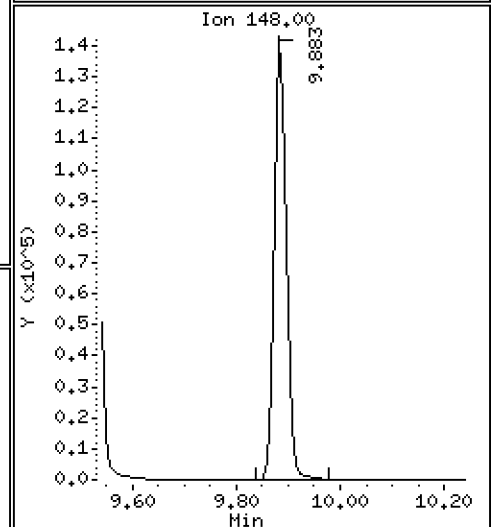
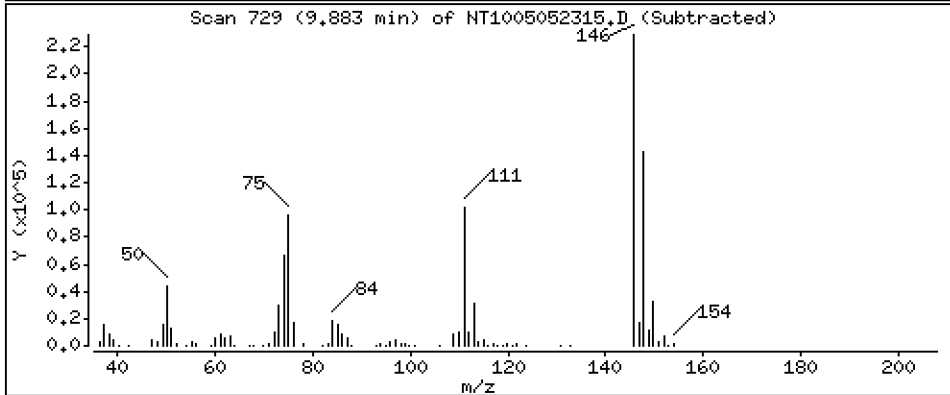
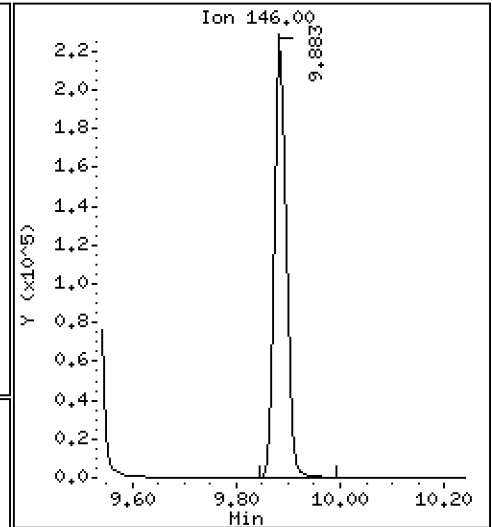
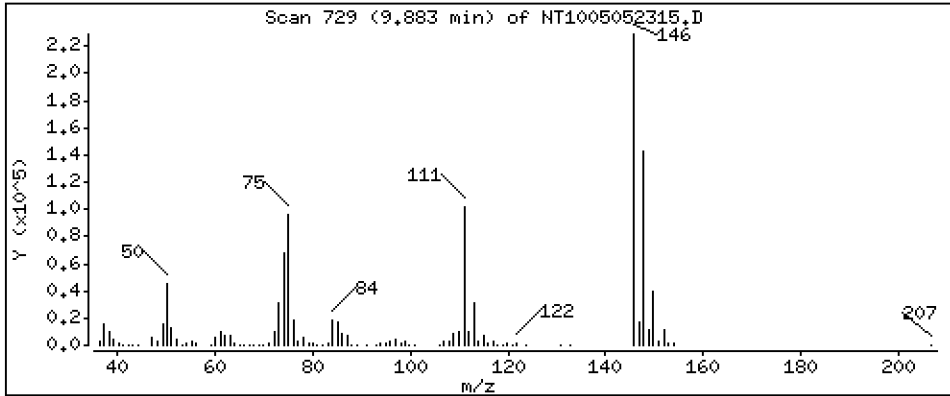
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 5,044 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

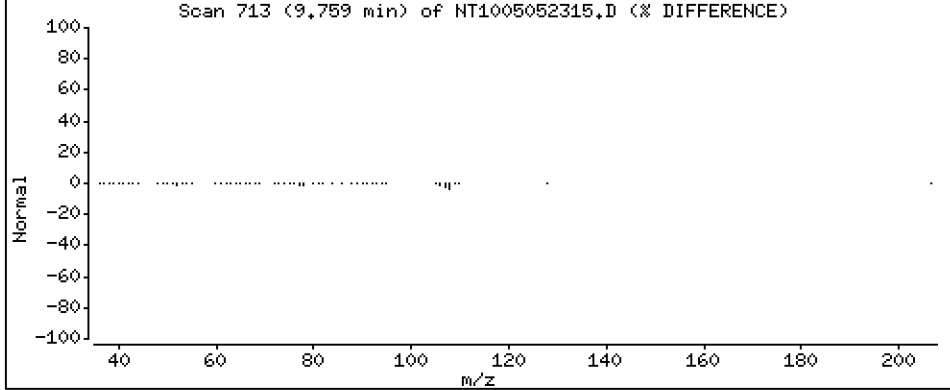
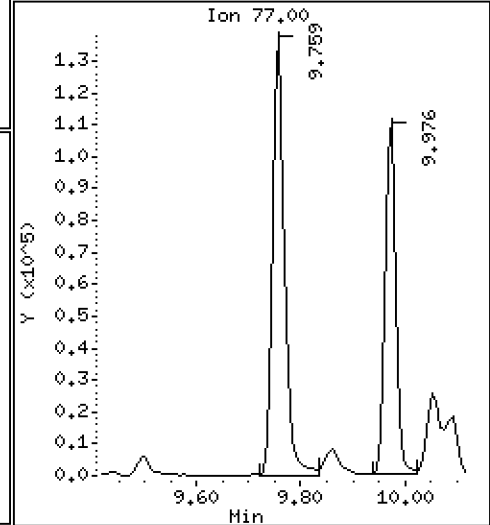
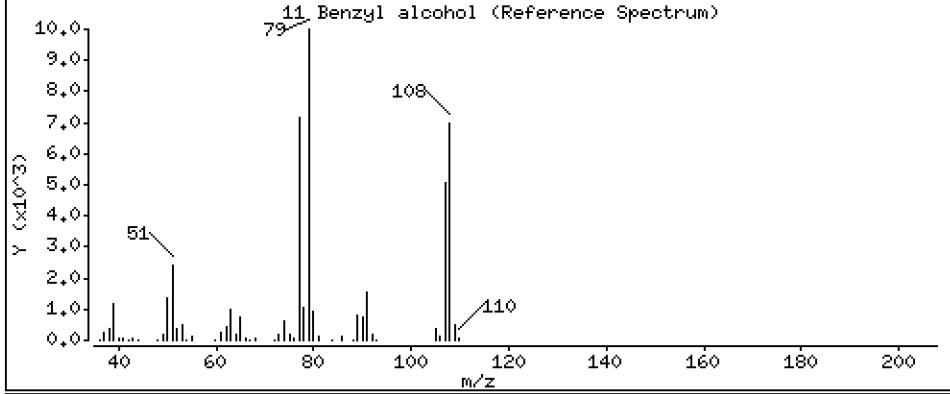
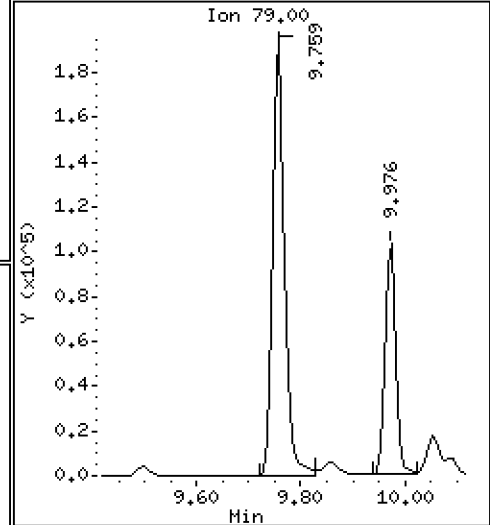
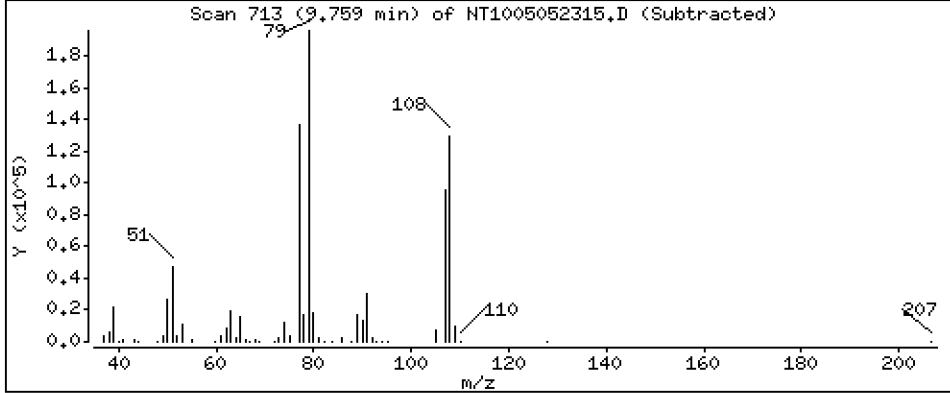
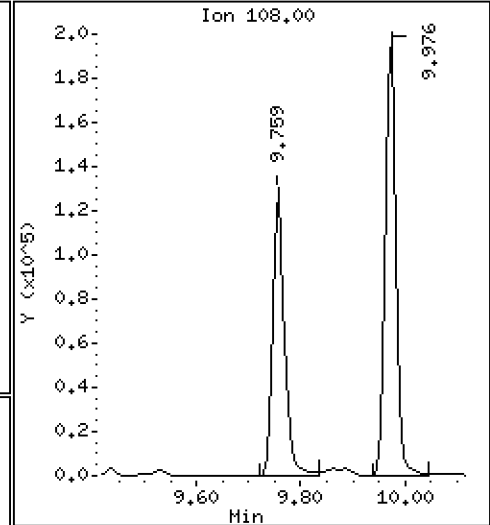
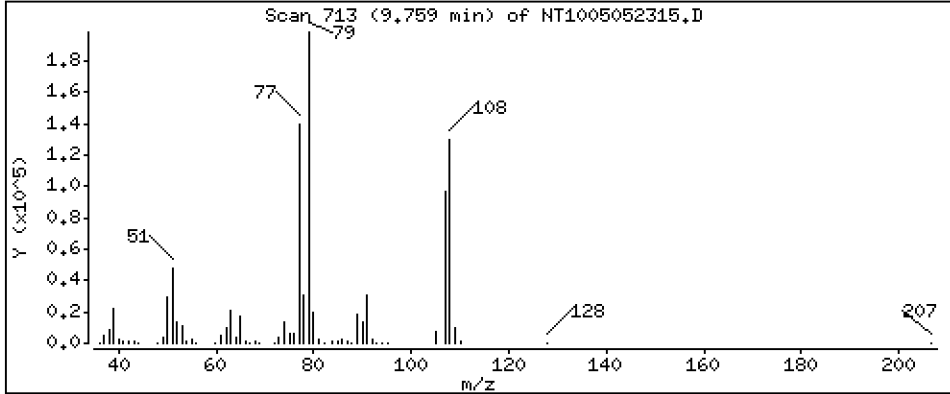
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5,664 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

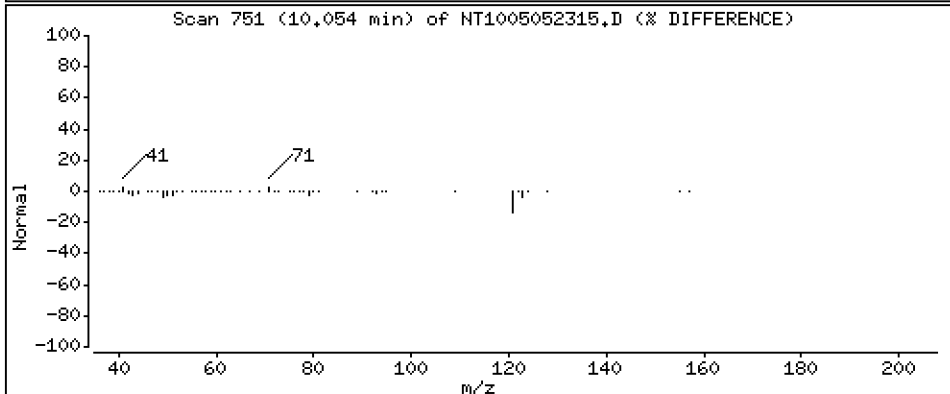
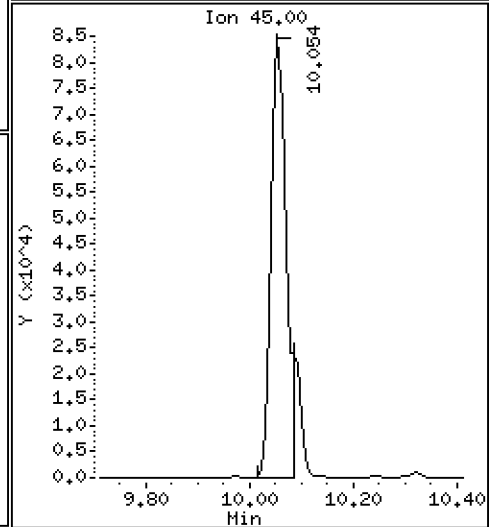
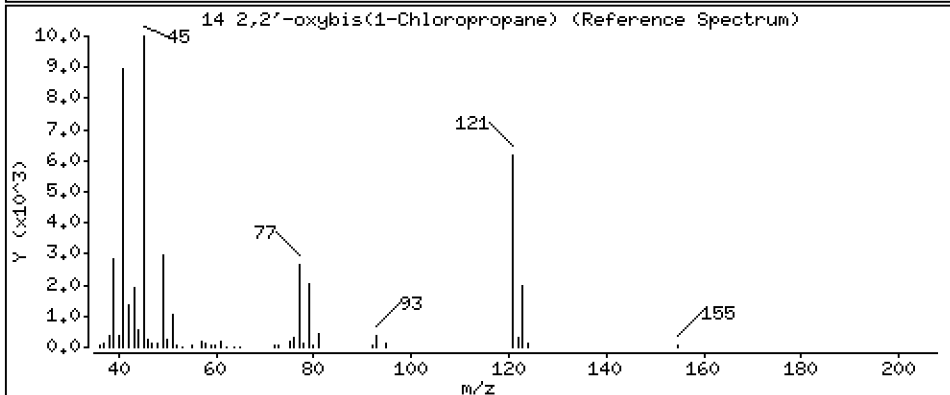
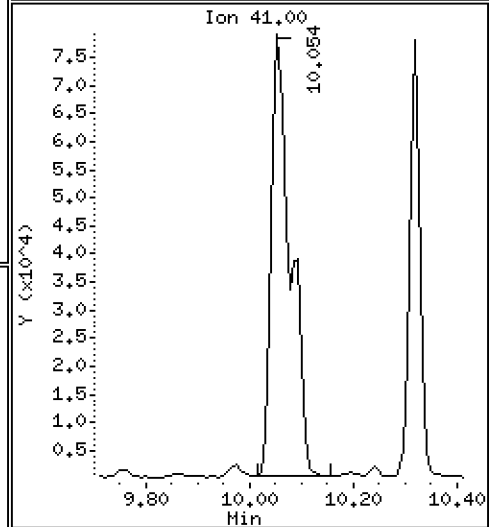
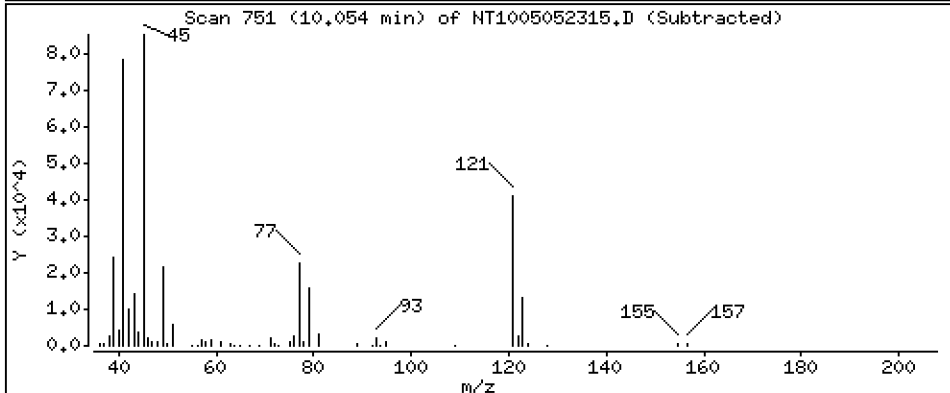
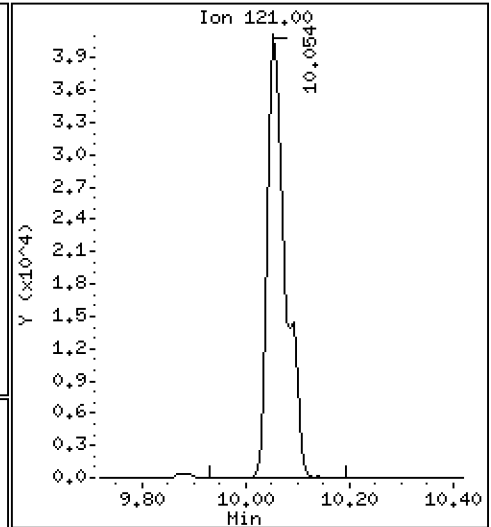
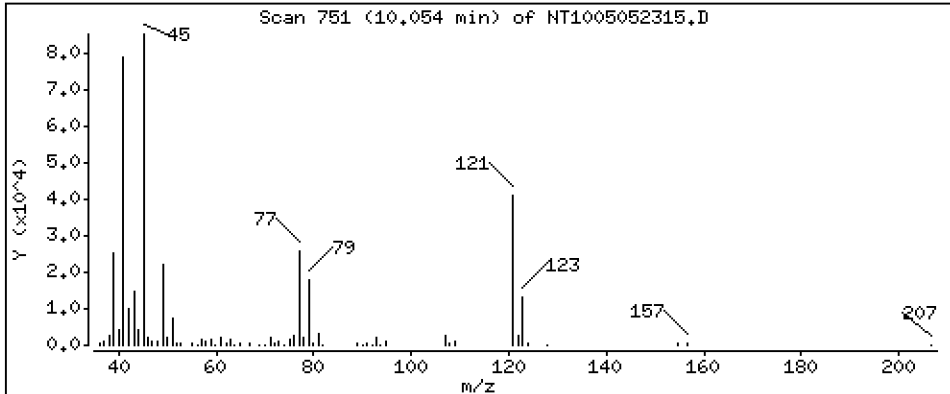
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,879 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

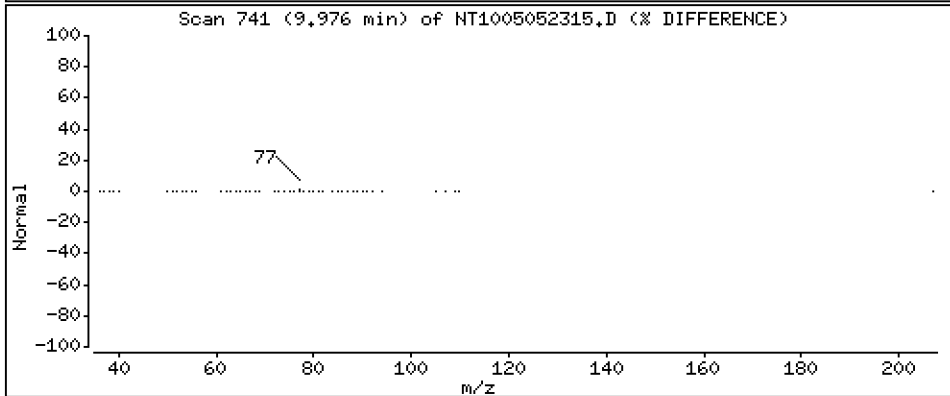
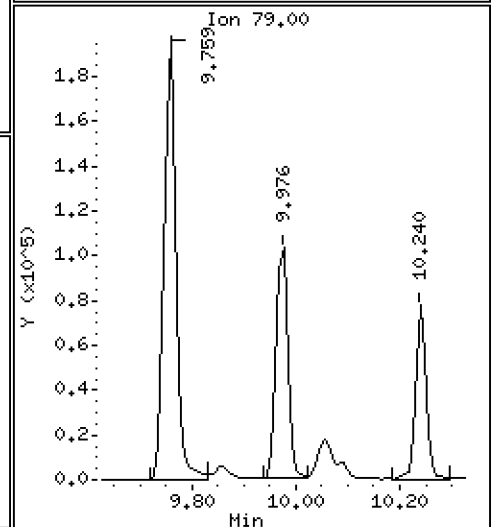
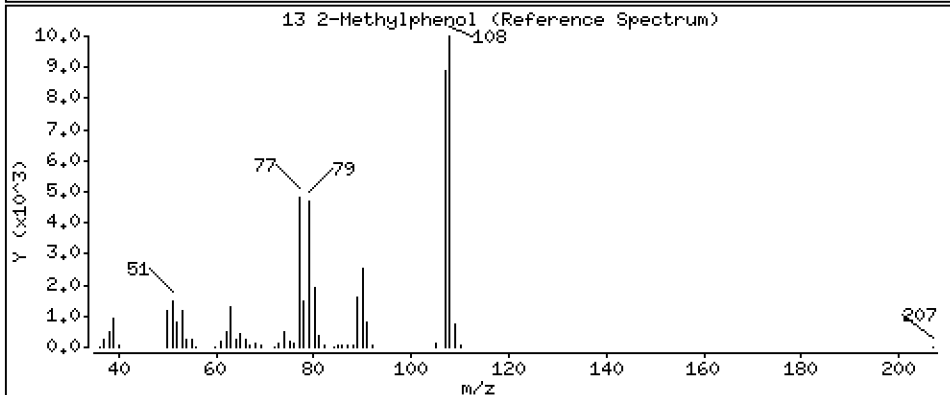
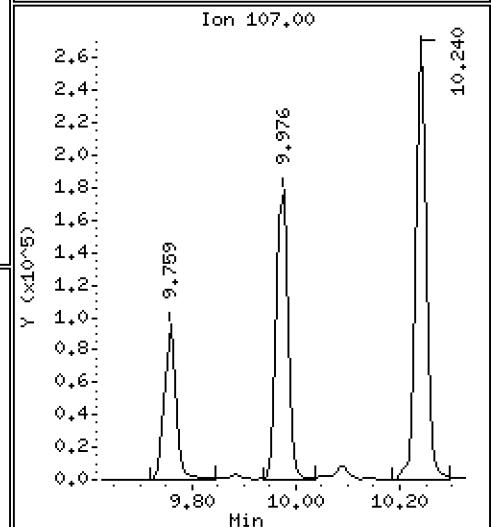
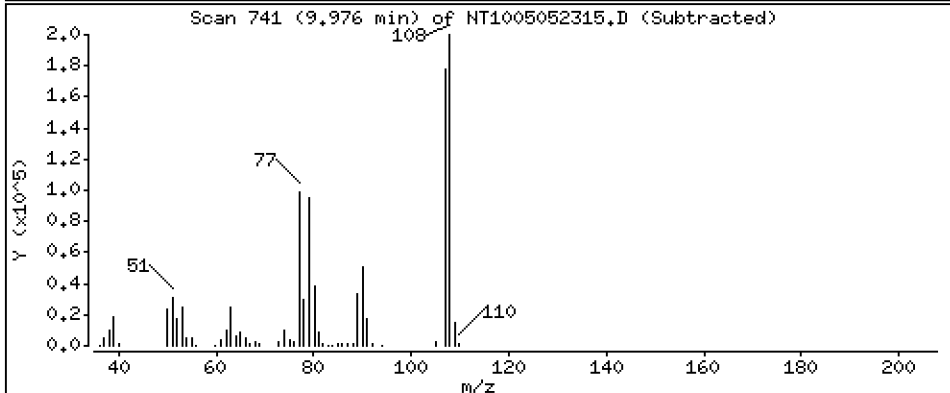
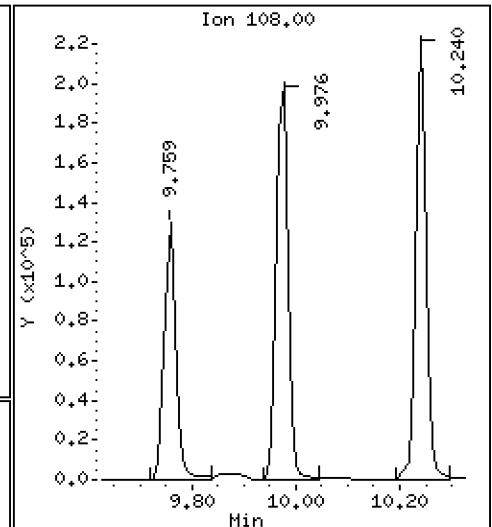
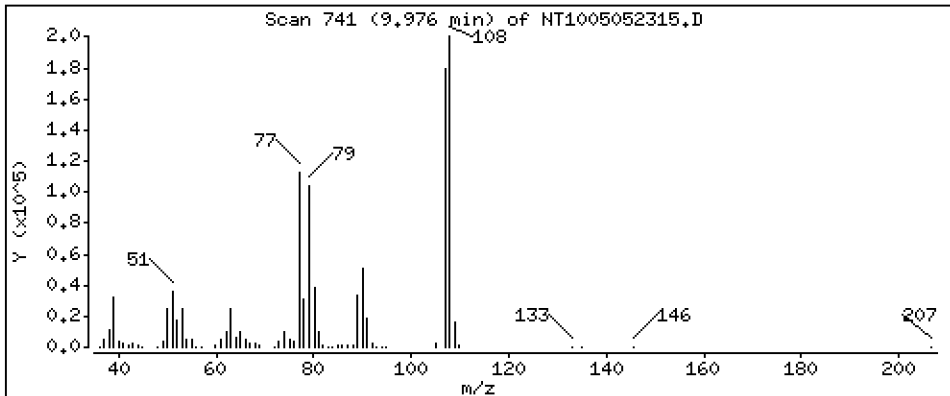
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 5,520 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

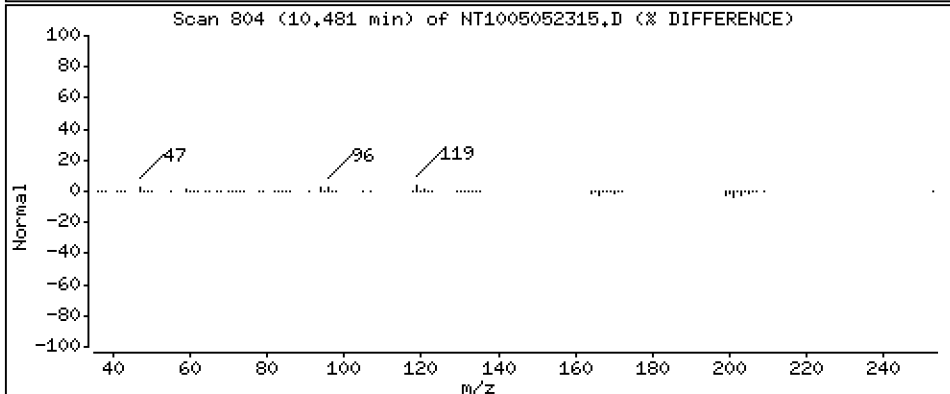
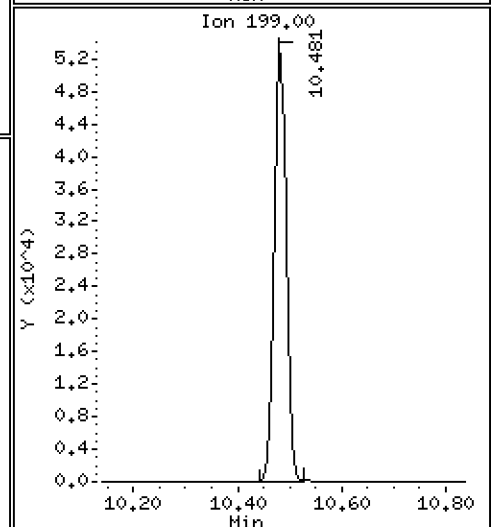
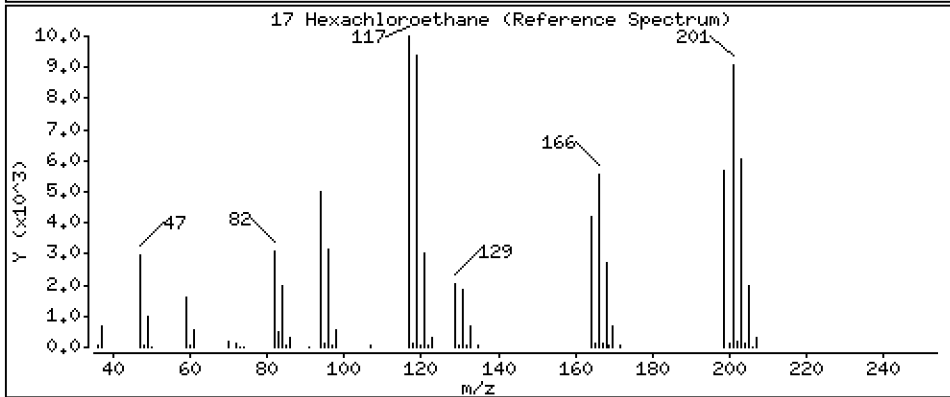
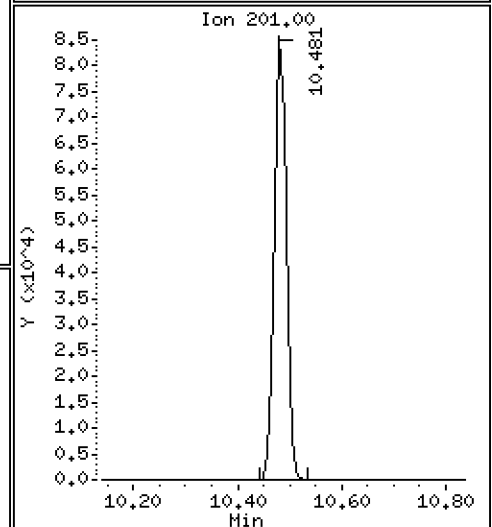
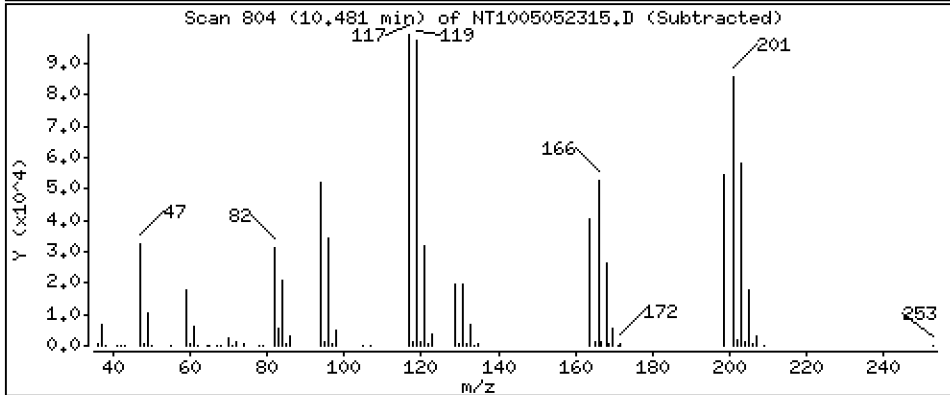
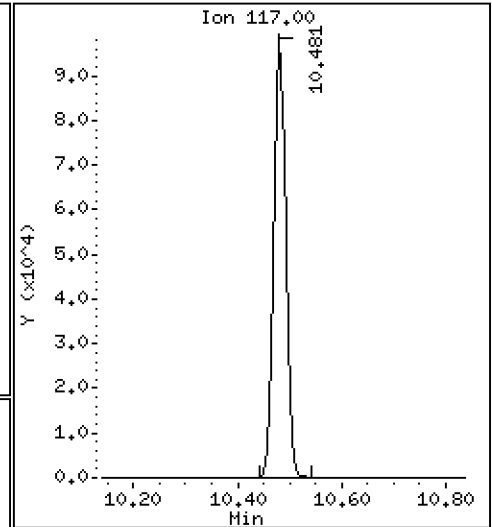
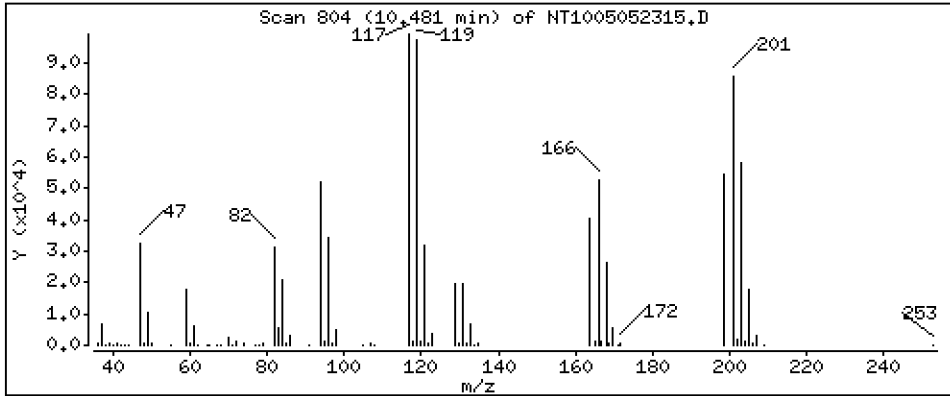
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 4,803 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

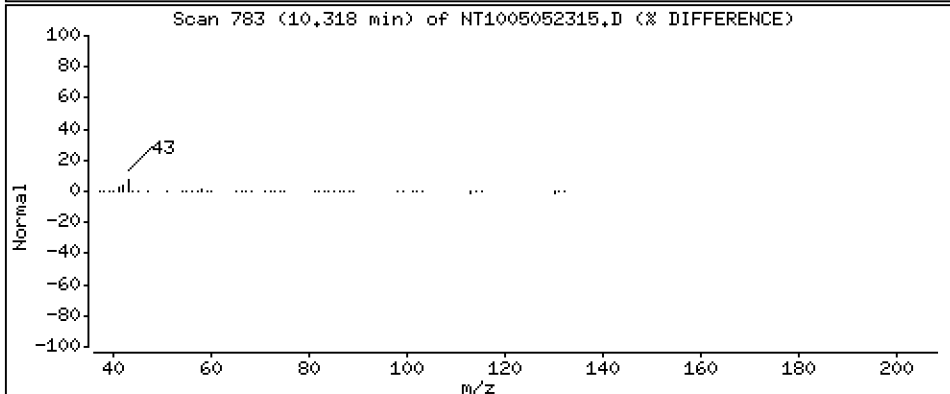
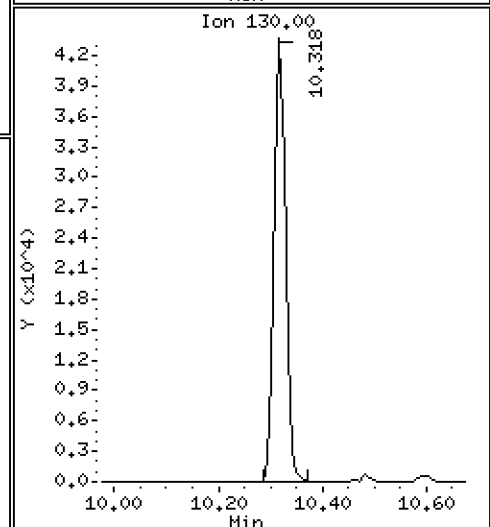
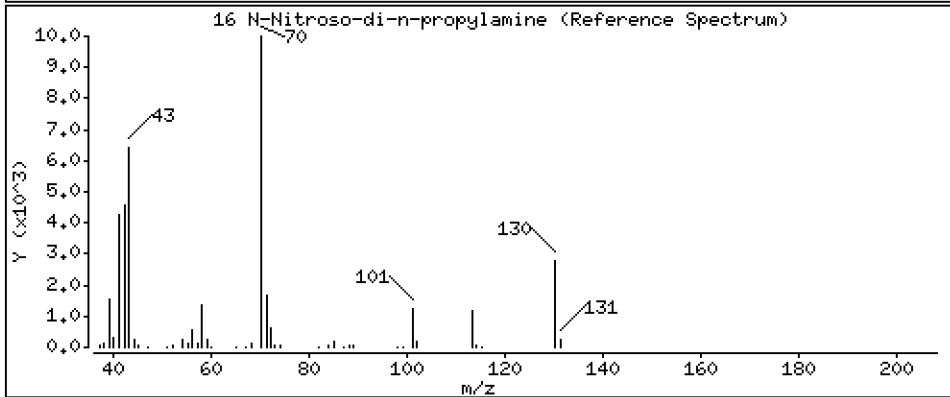
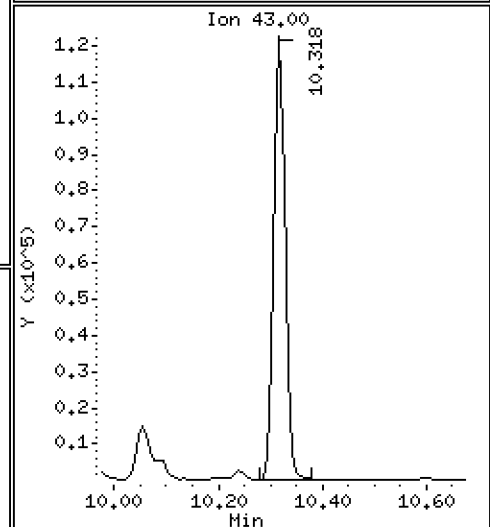
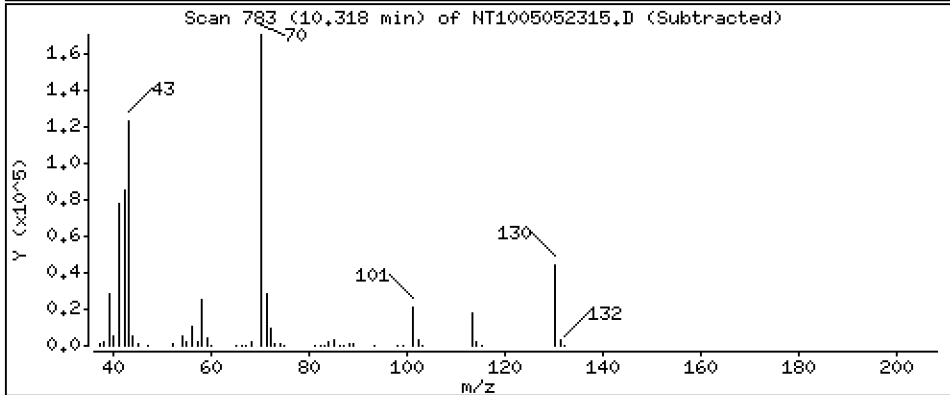
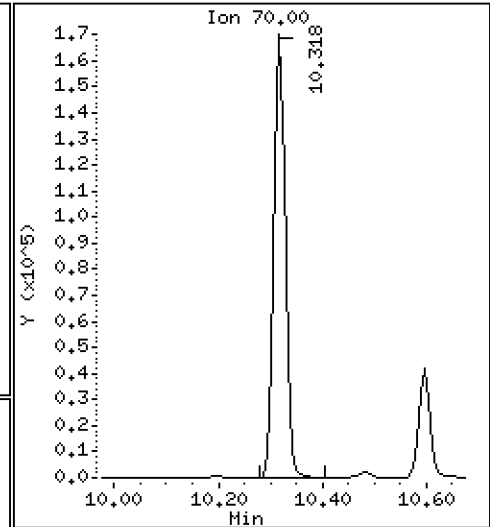
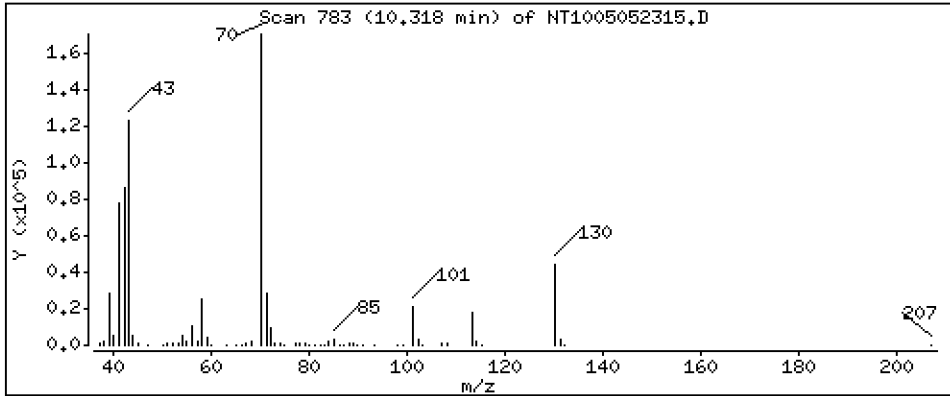
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,799 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

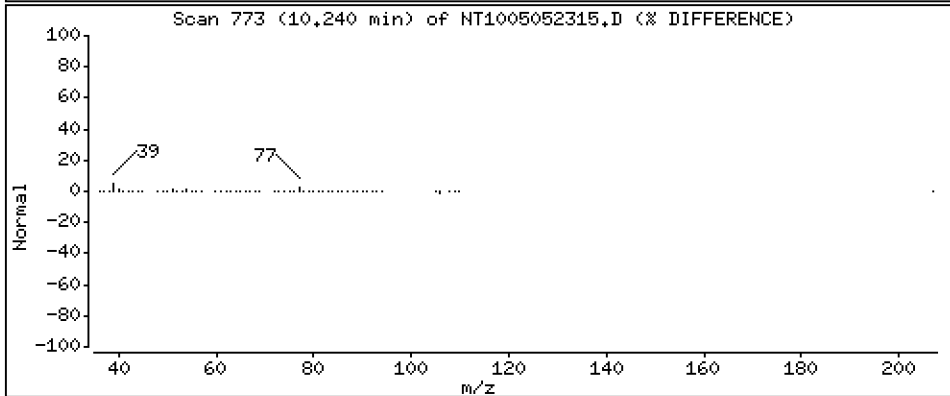
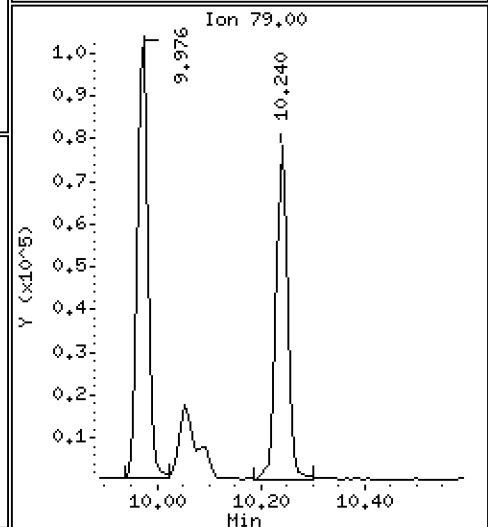
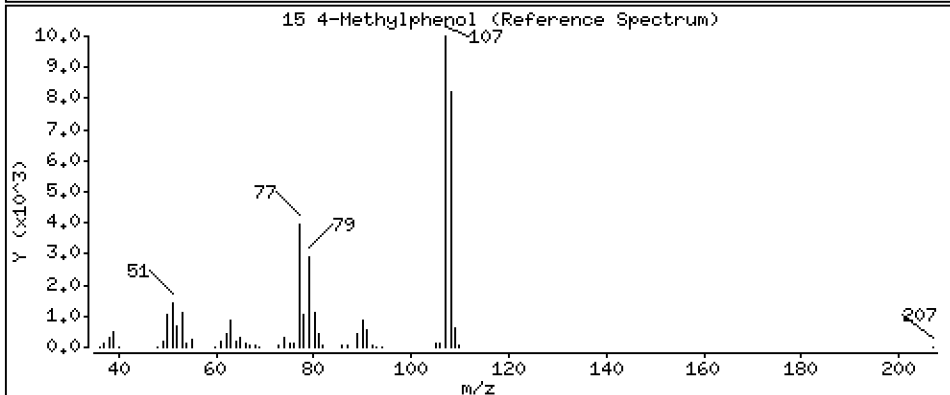
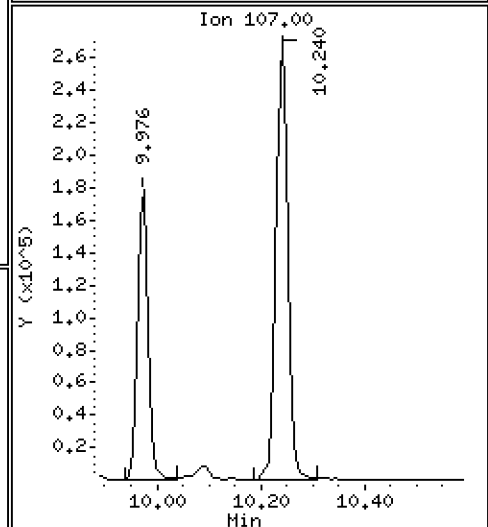
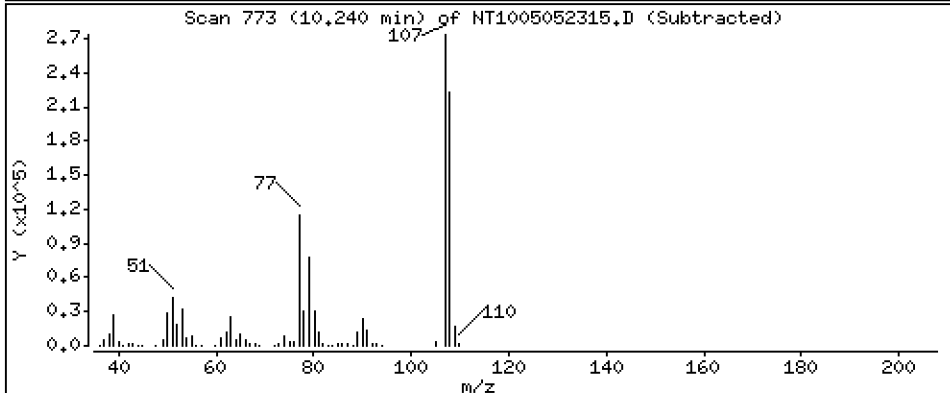
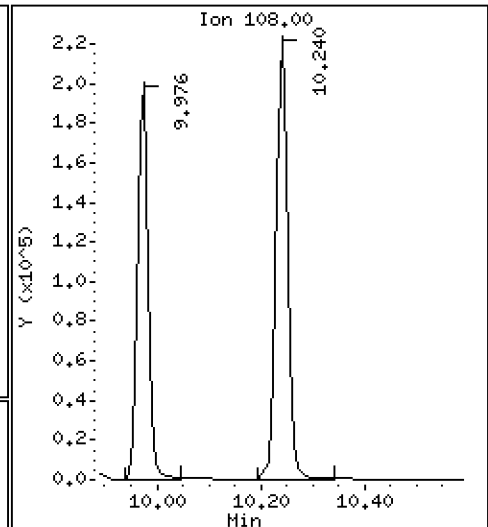
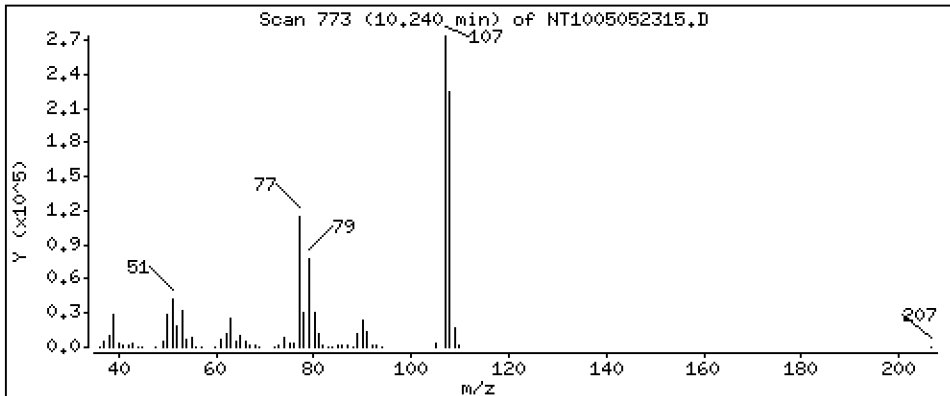
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 5.588 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

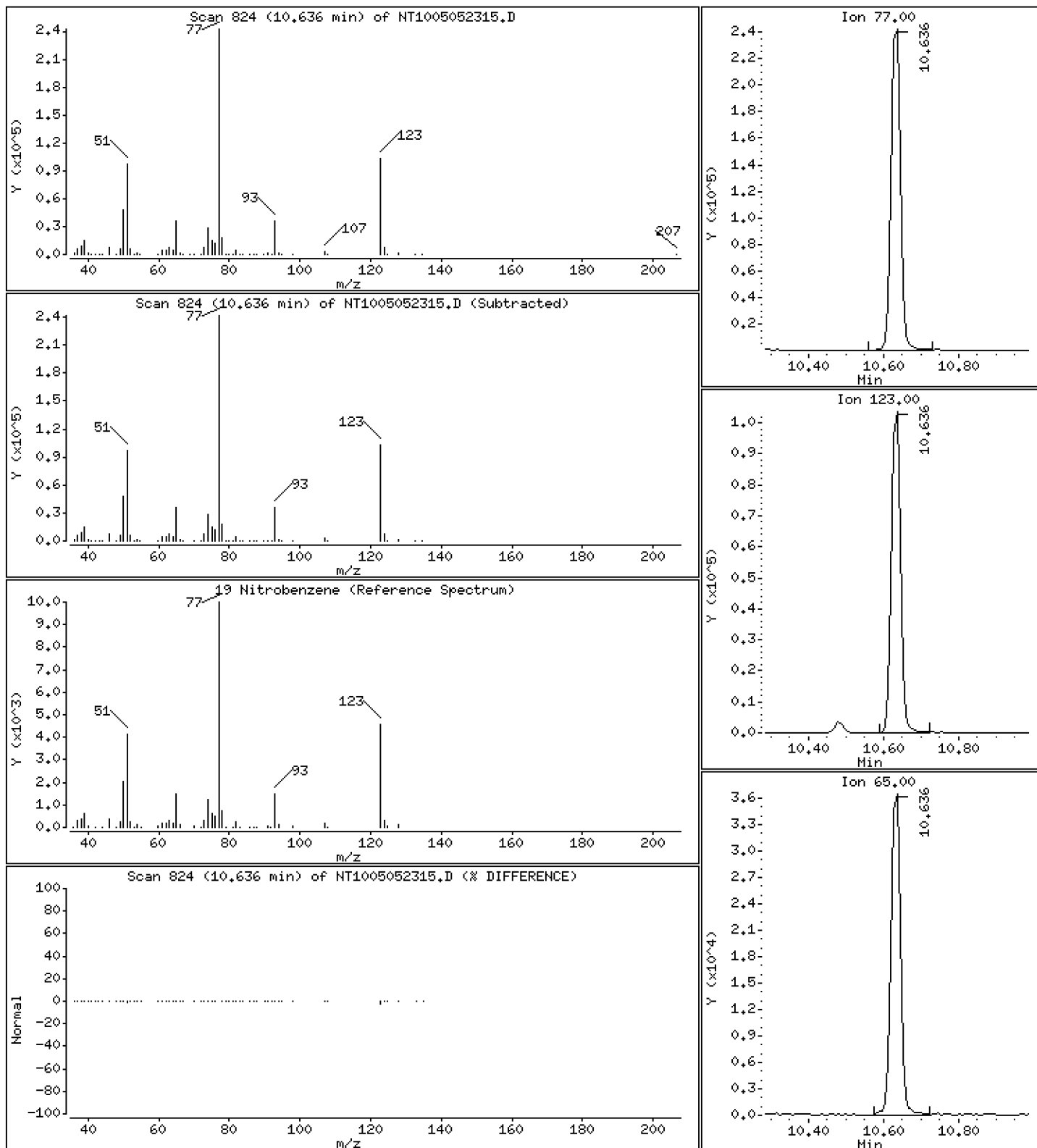
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 5,174 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

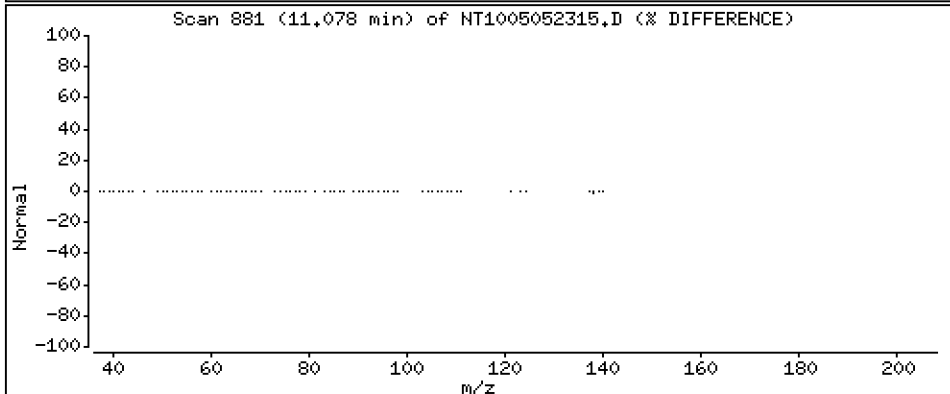
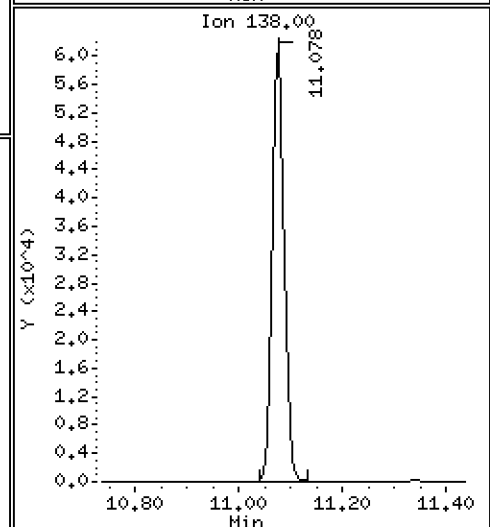
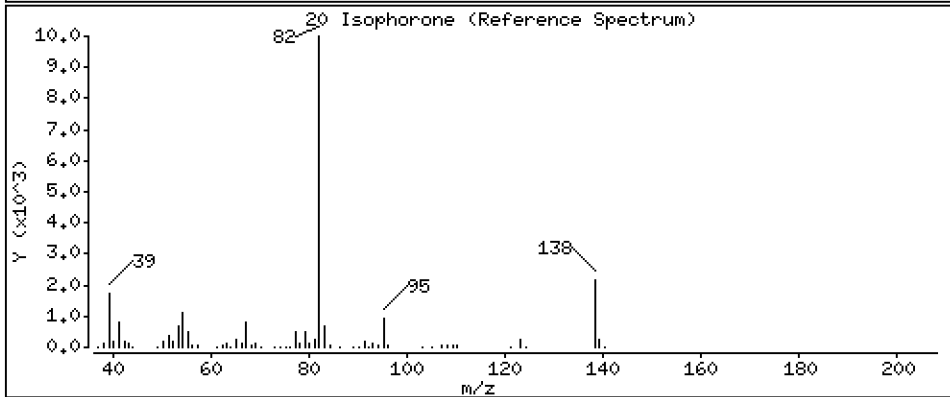
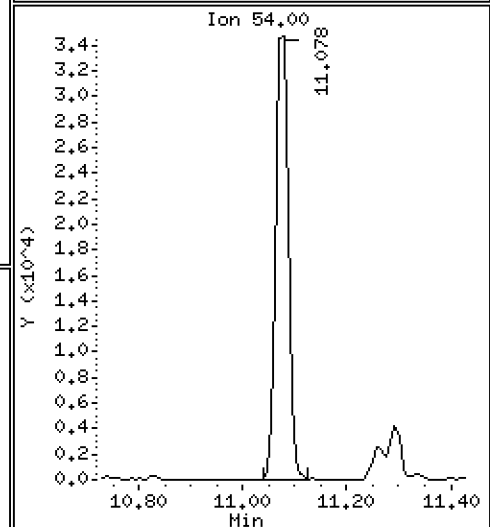
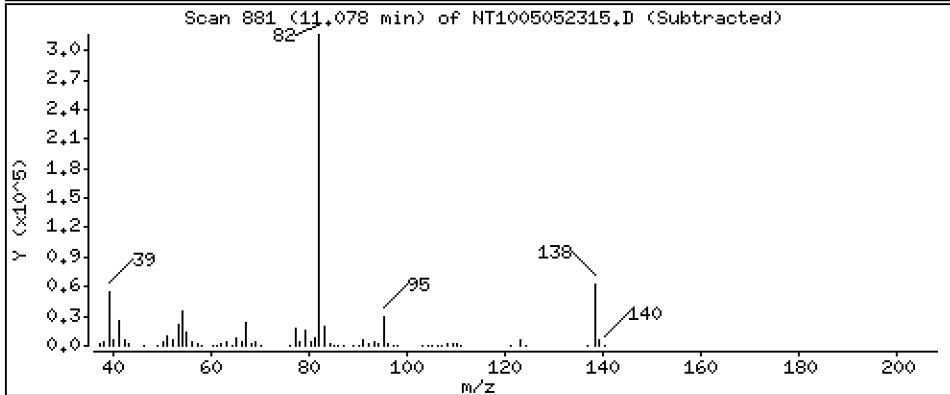
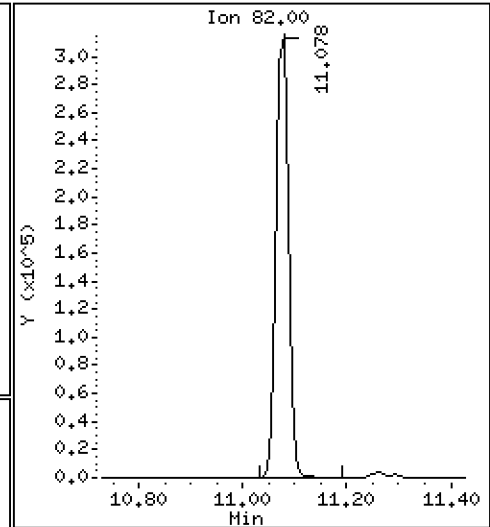
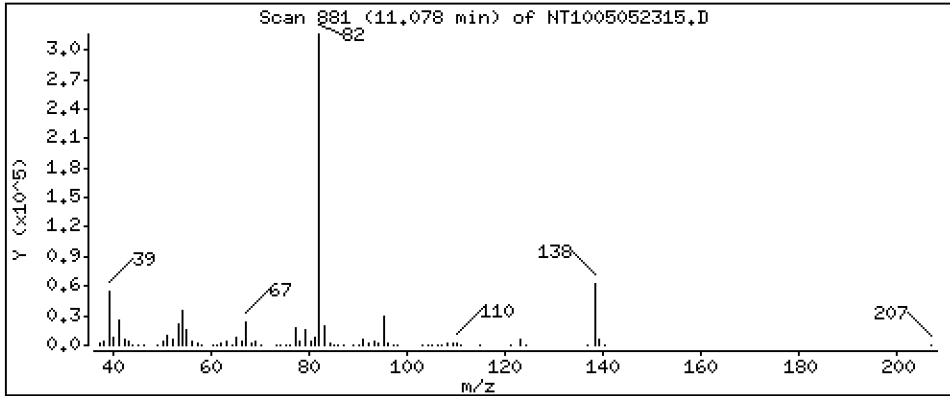
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 6,151 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

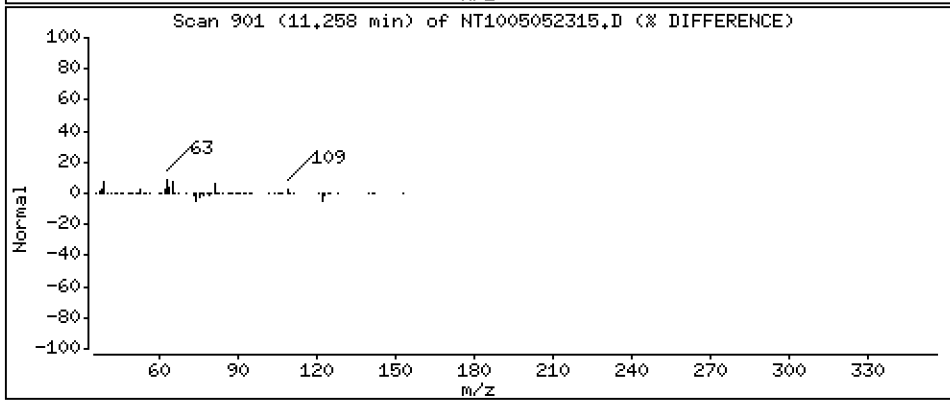
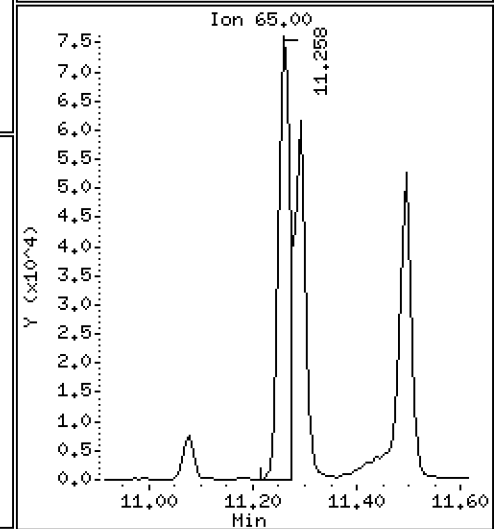
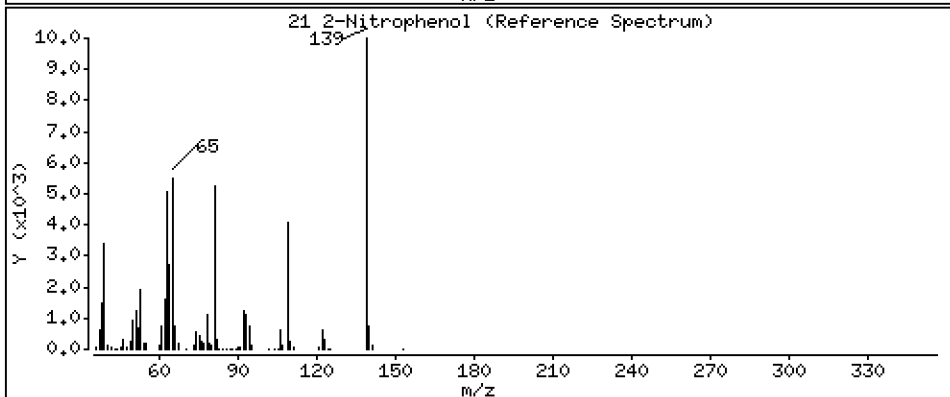
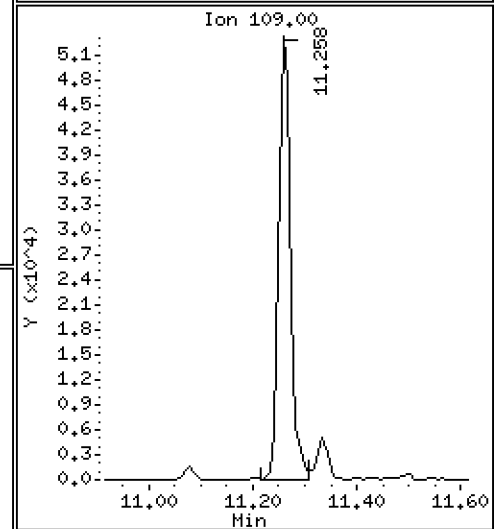
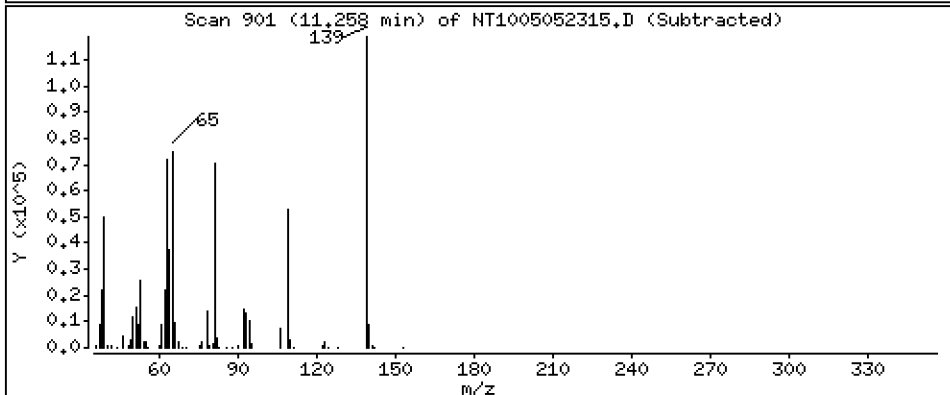
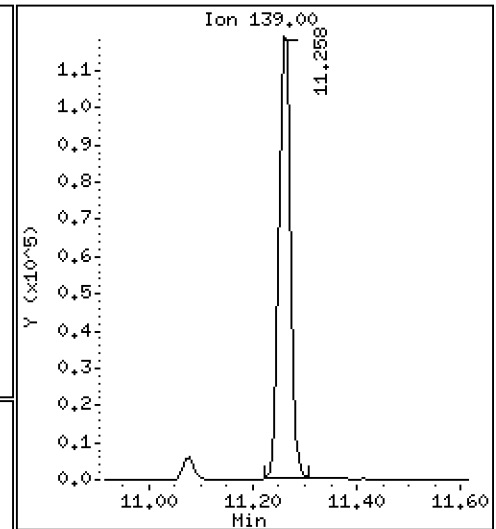
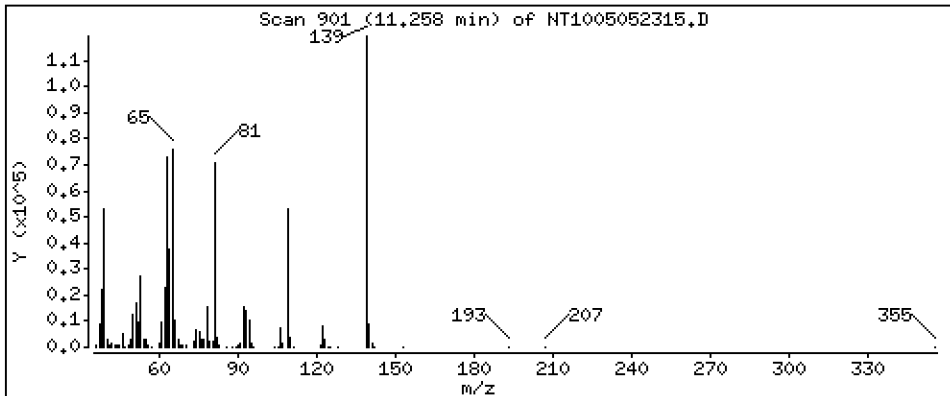
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,688 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

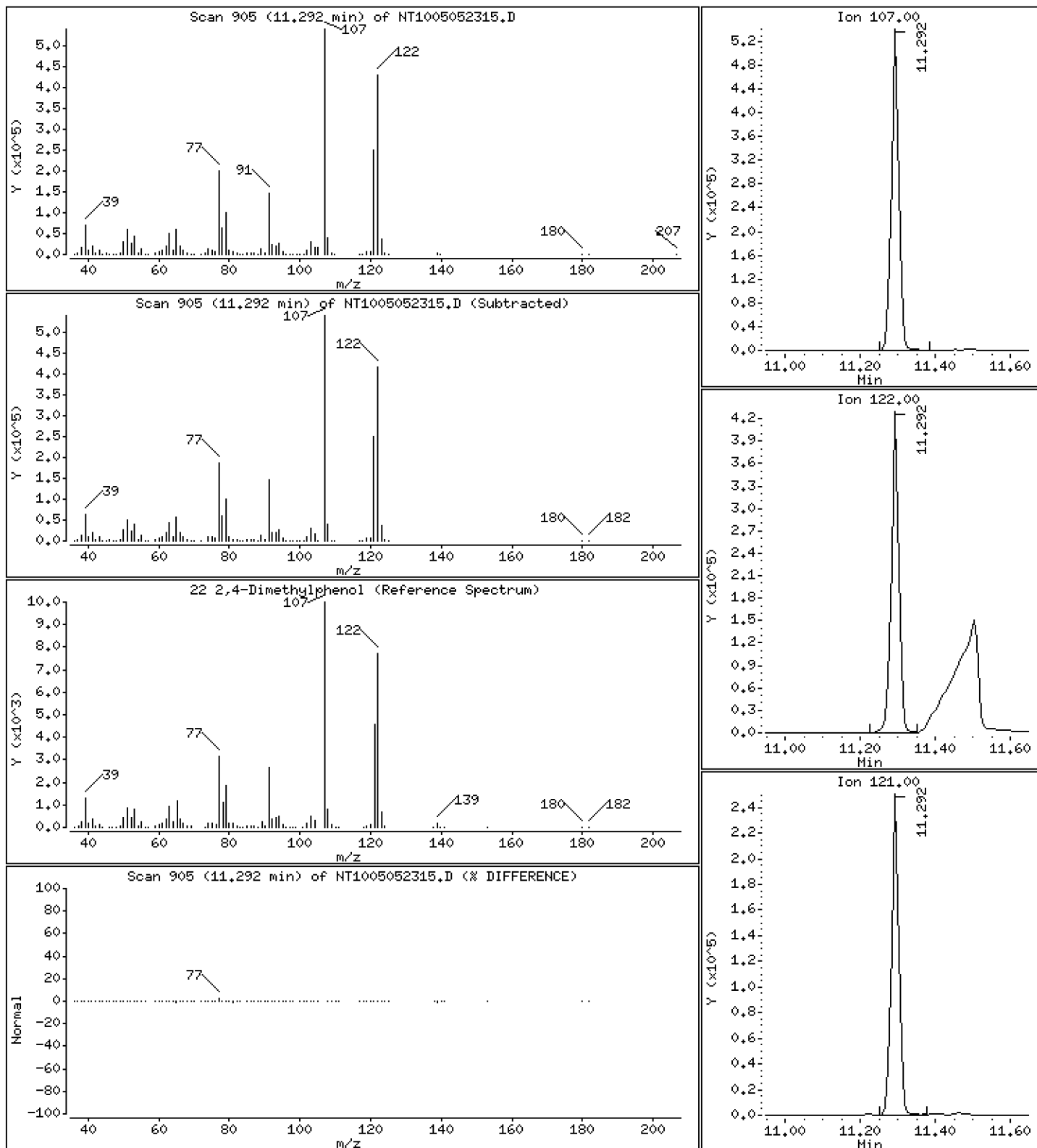
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 9,716 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

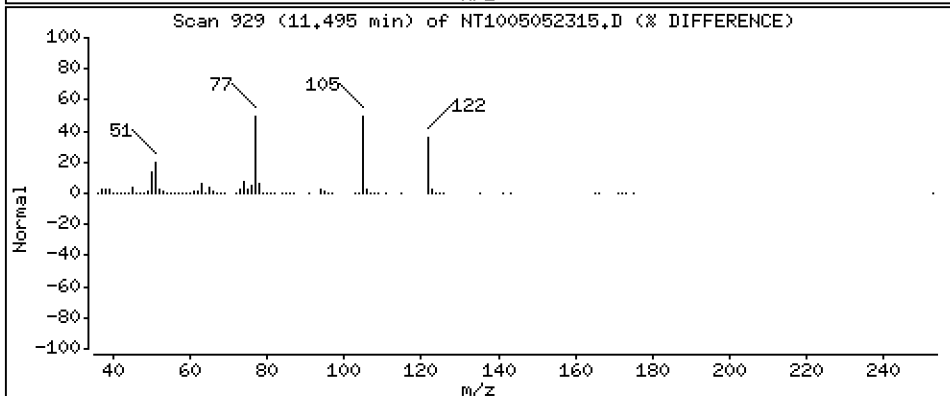
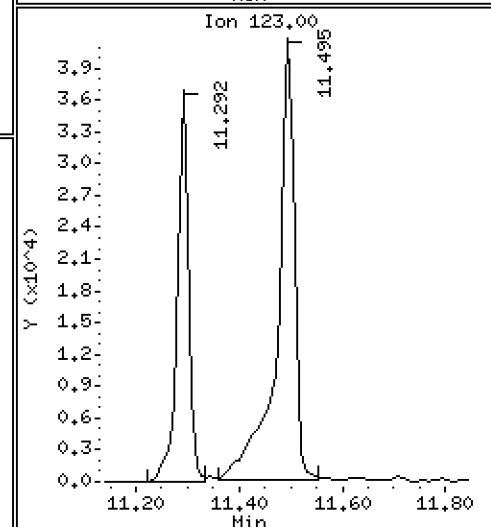
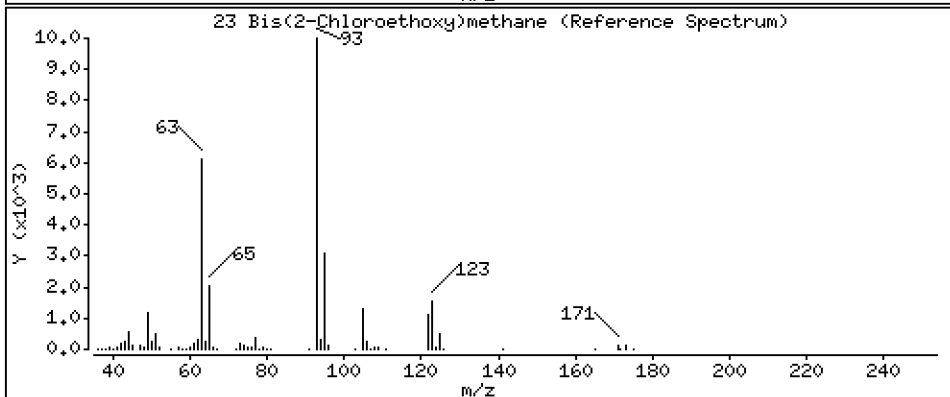
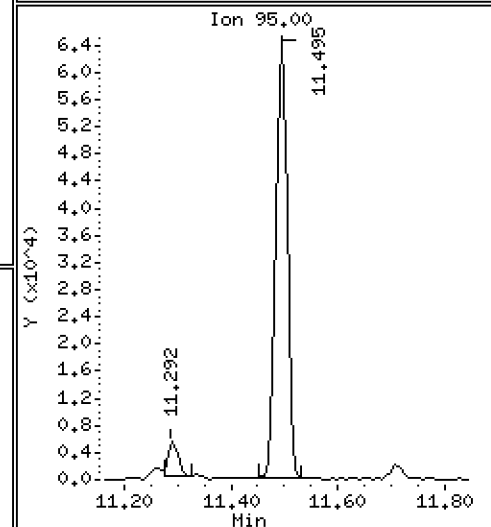
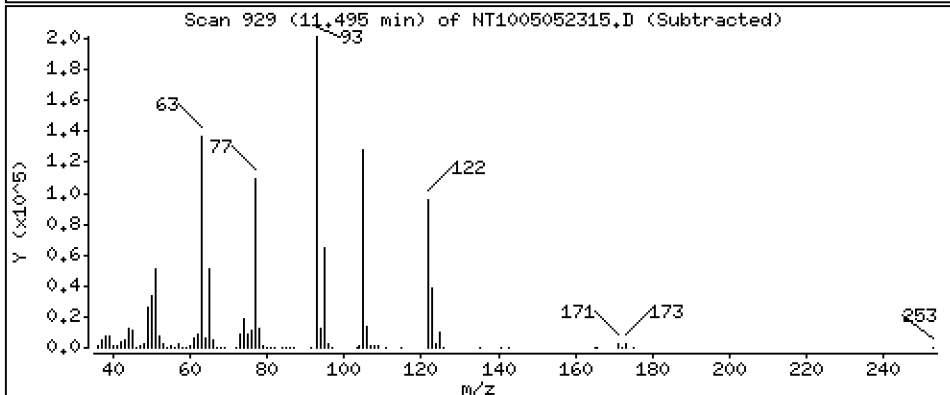
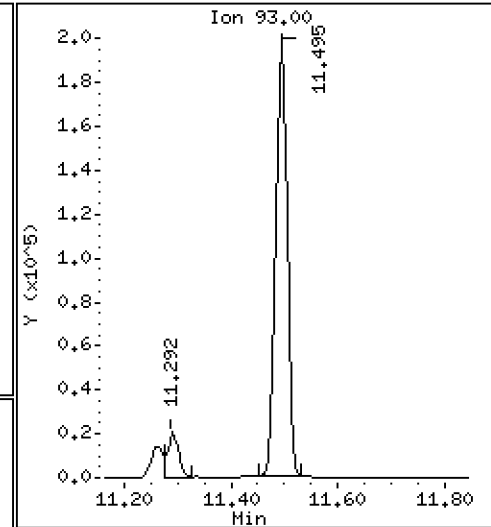
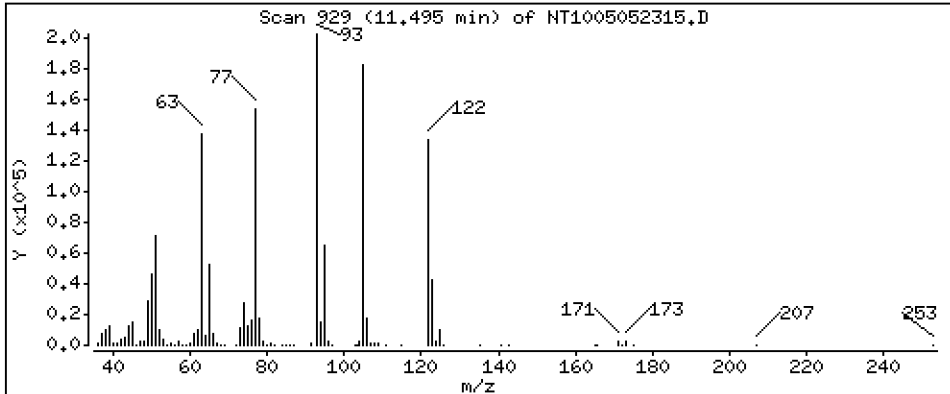
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

23 Bis(2-Chloroethoxy)methane

Concentration: 4.894 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

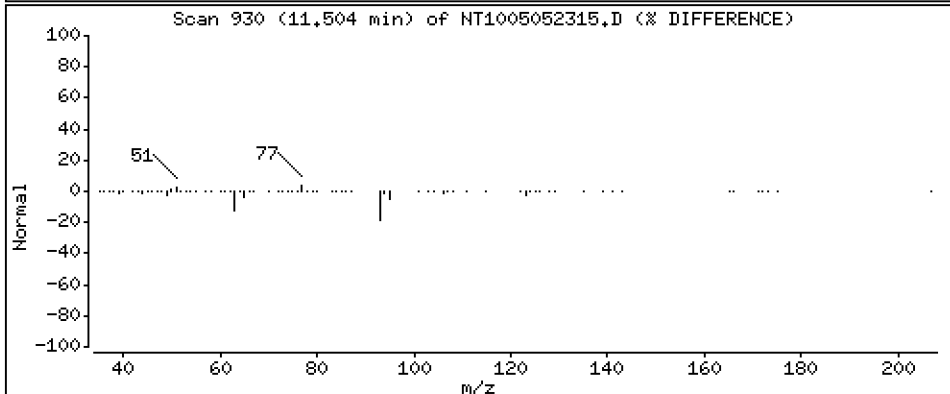
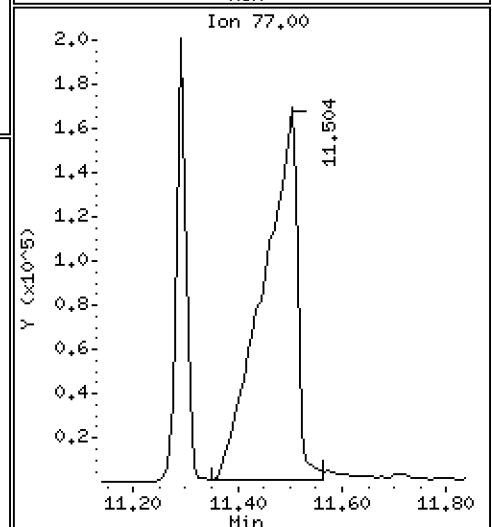
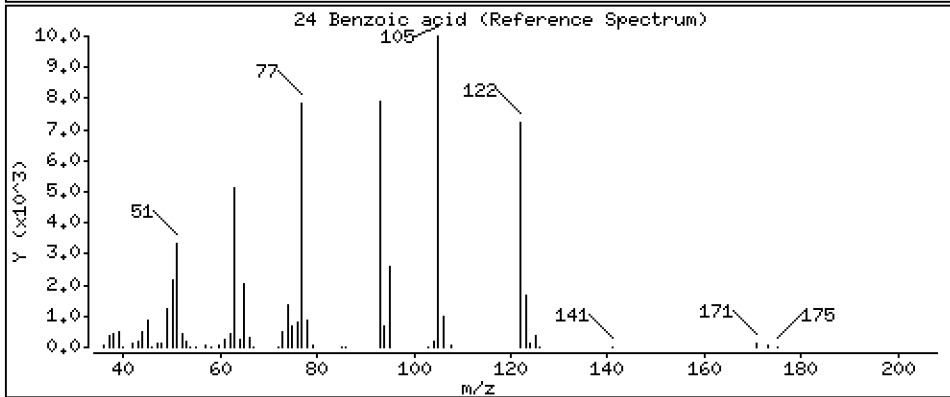
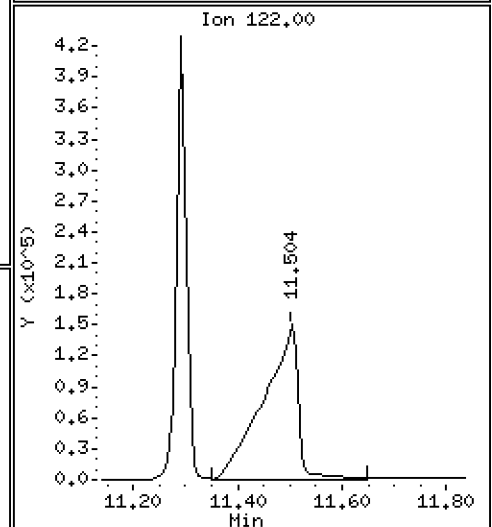
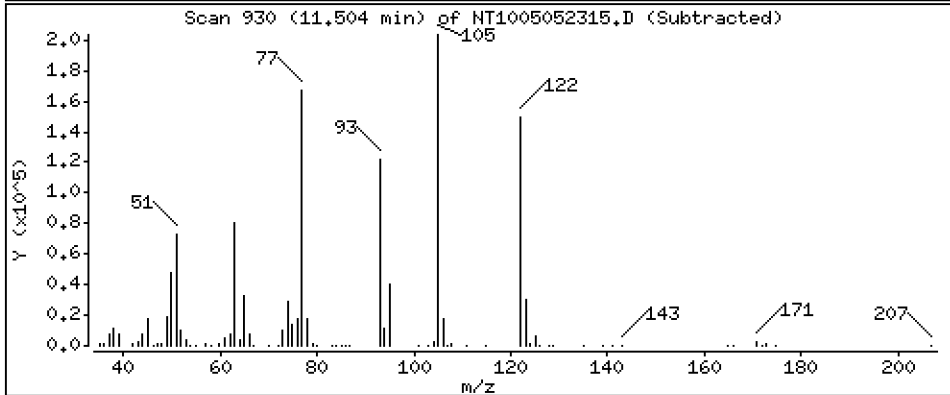
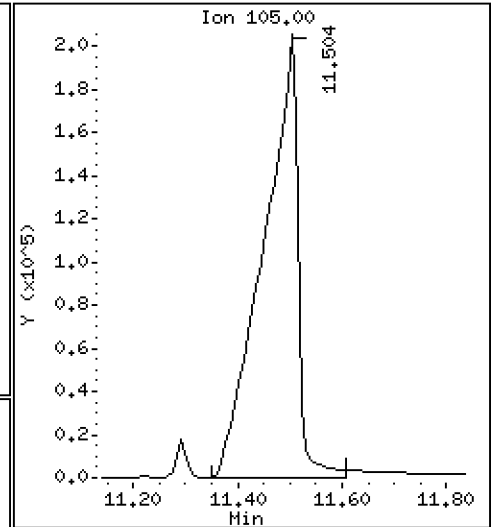
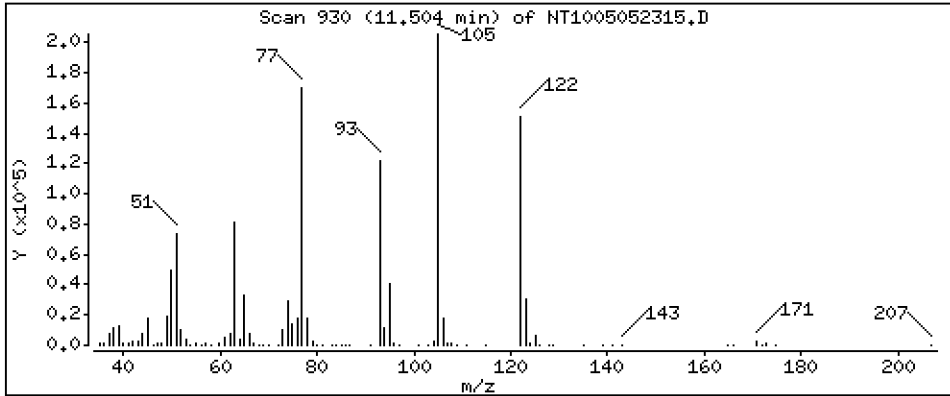
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 17,91 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

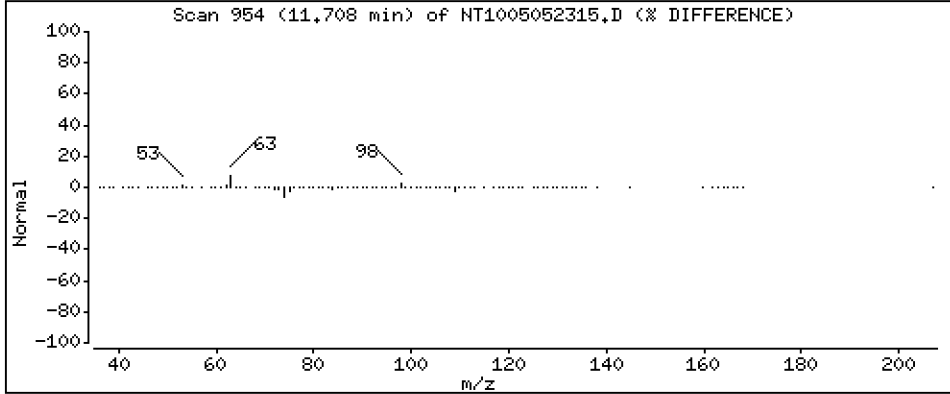
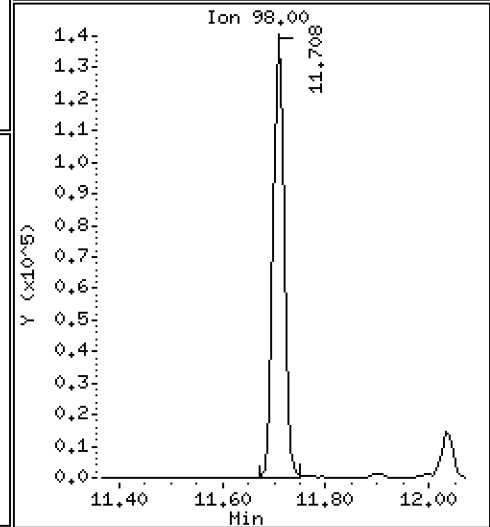
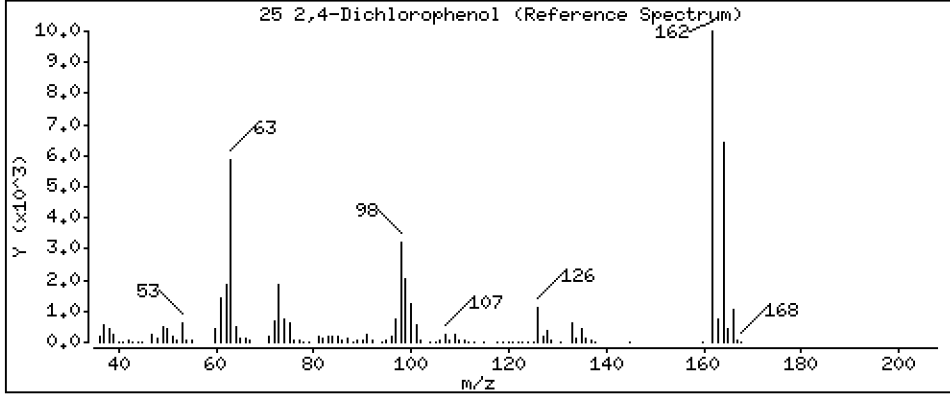
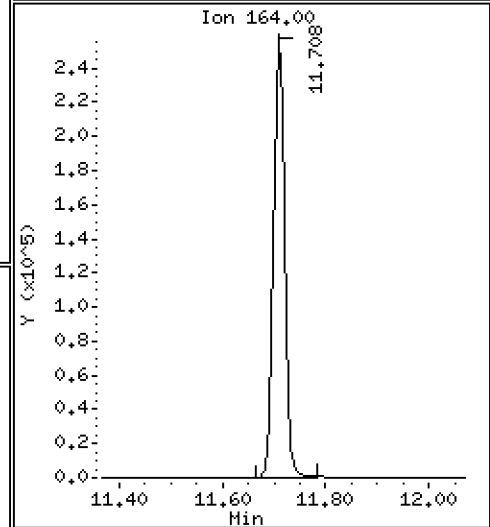
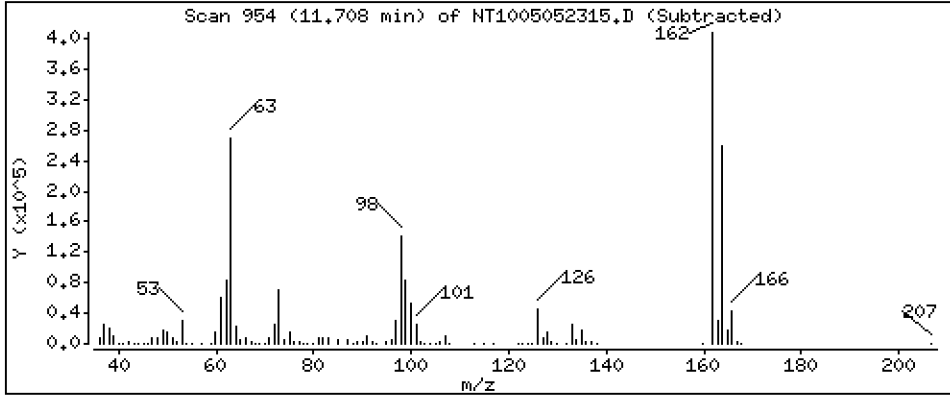
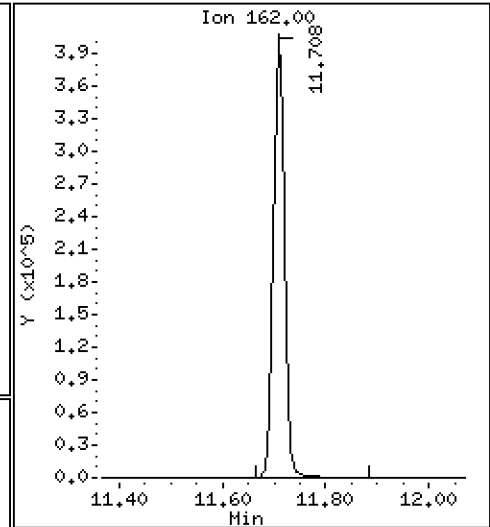
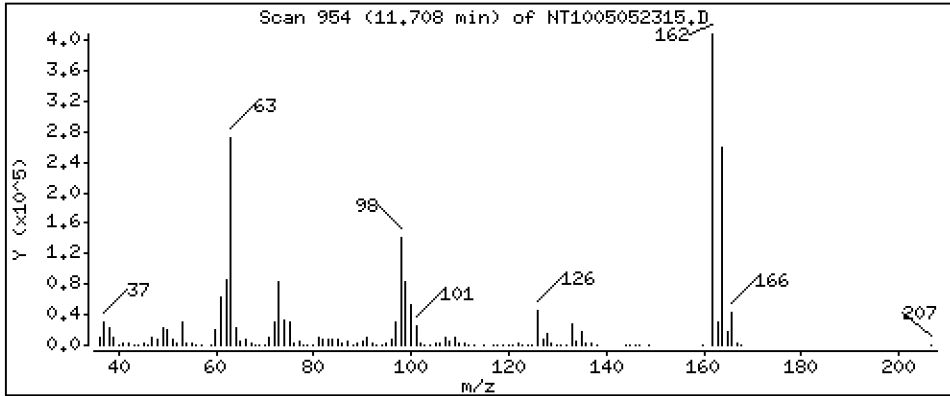
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 11,15 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

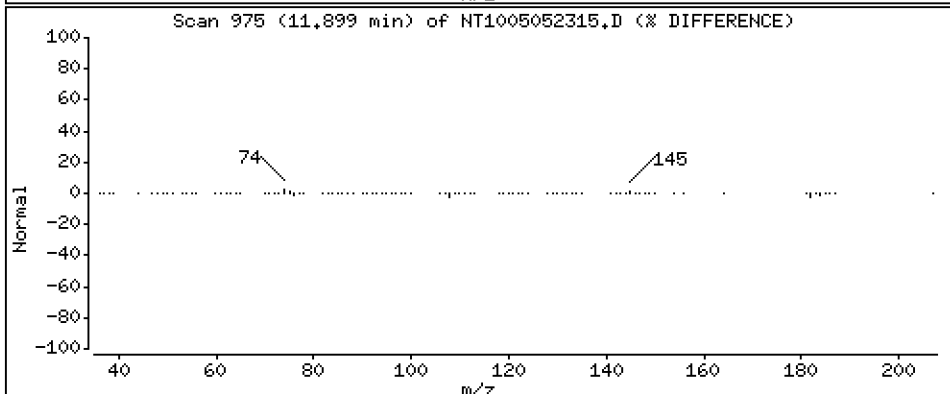
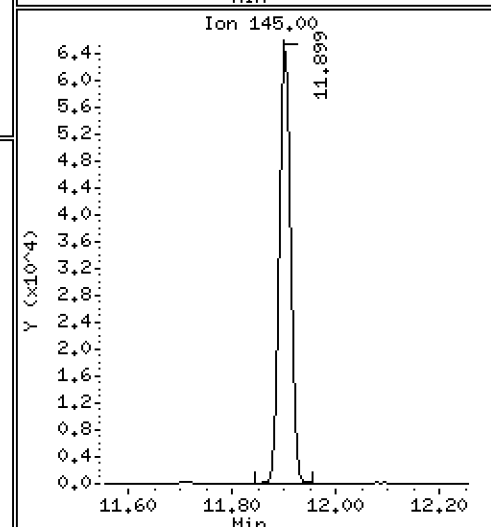
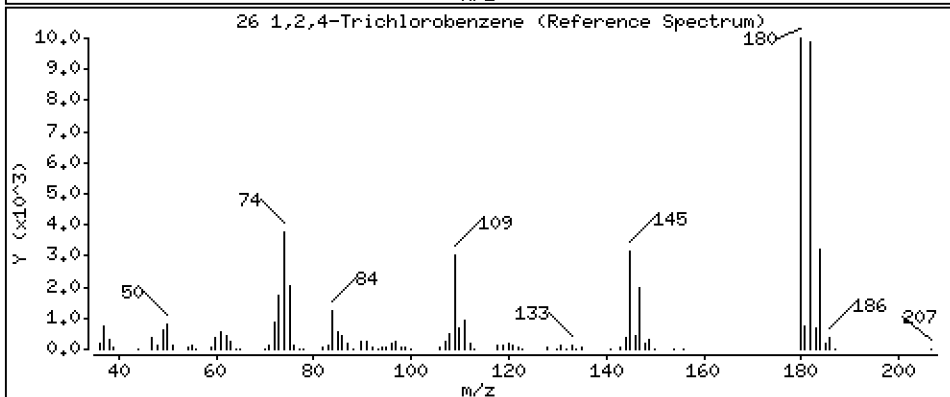
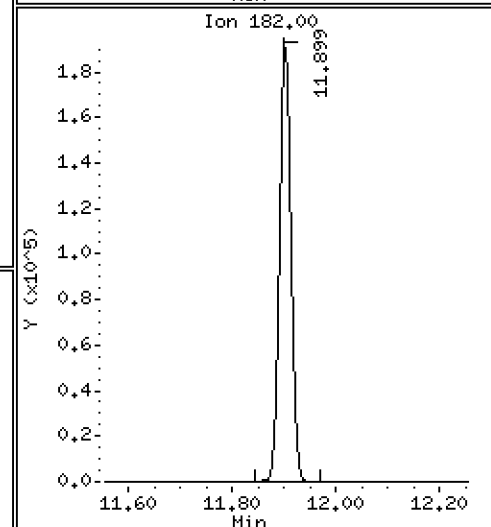
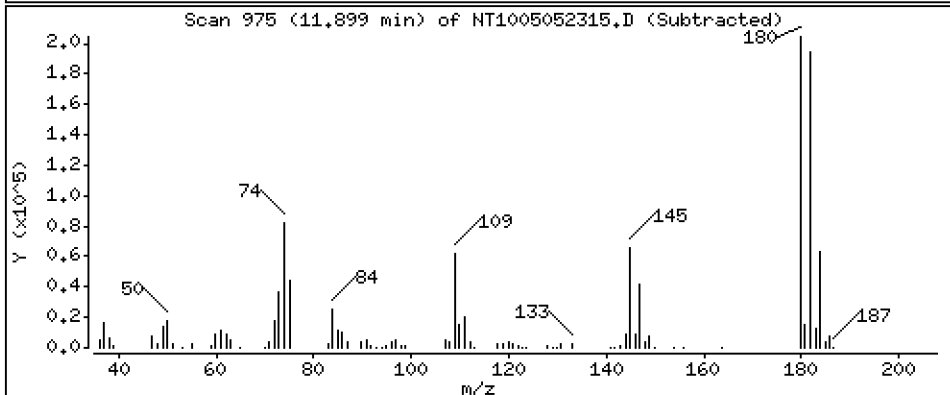
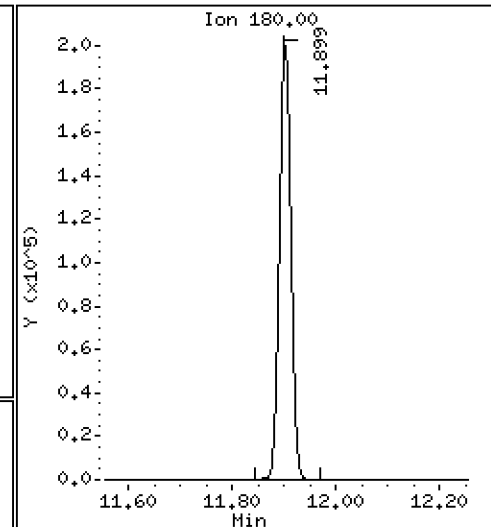
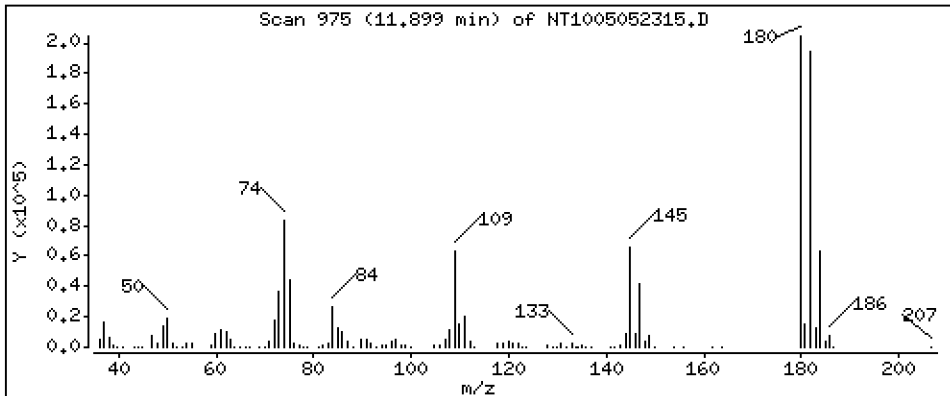
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,469 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

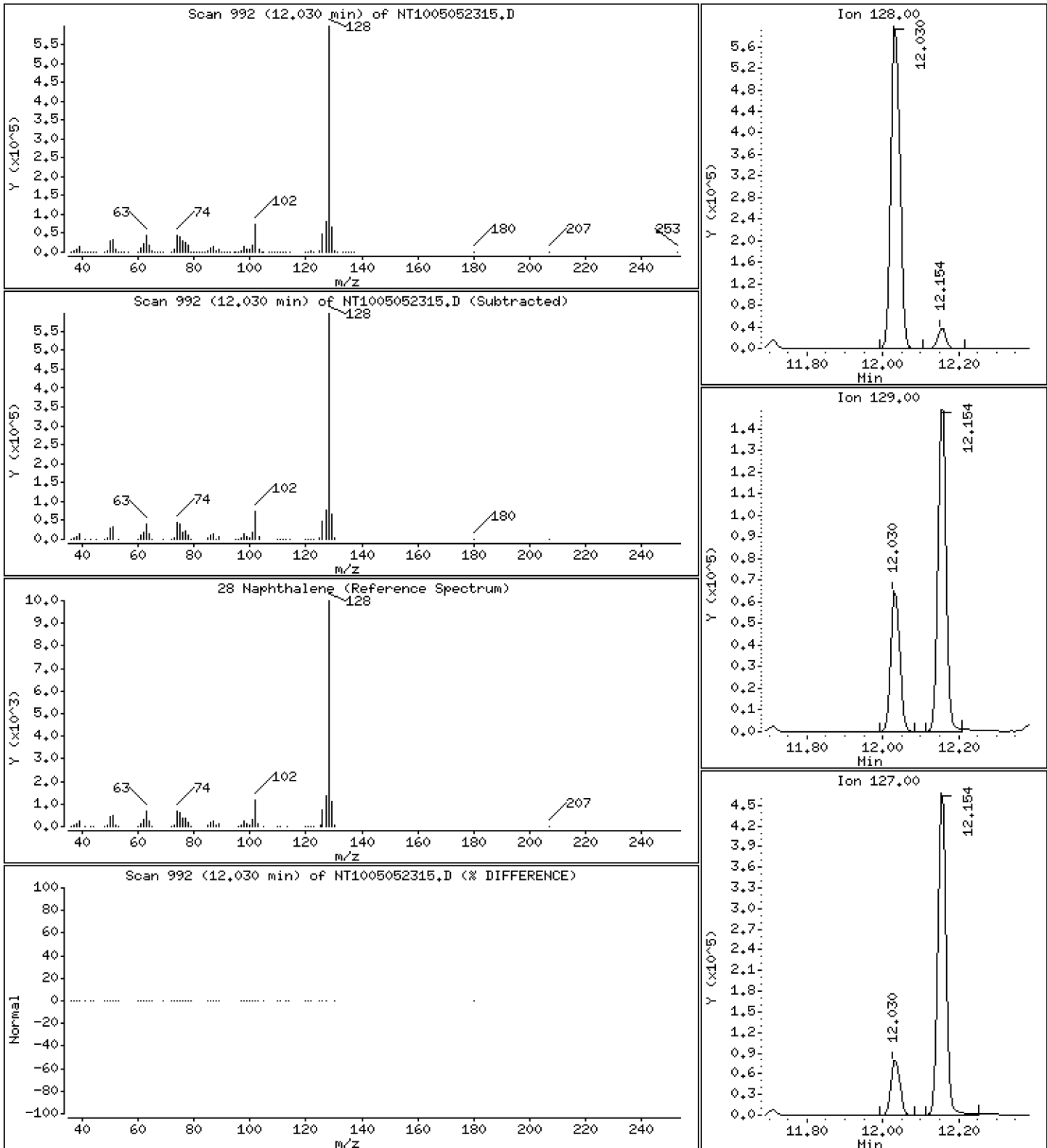
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,773 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

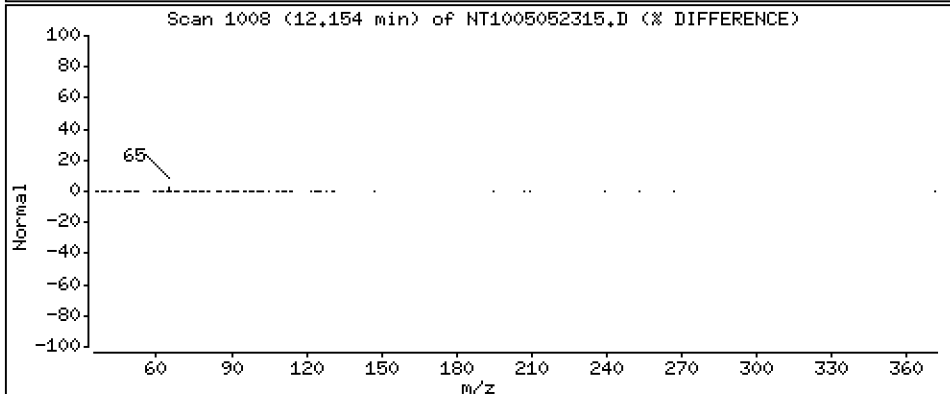
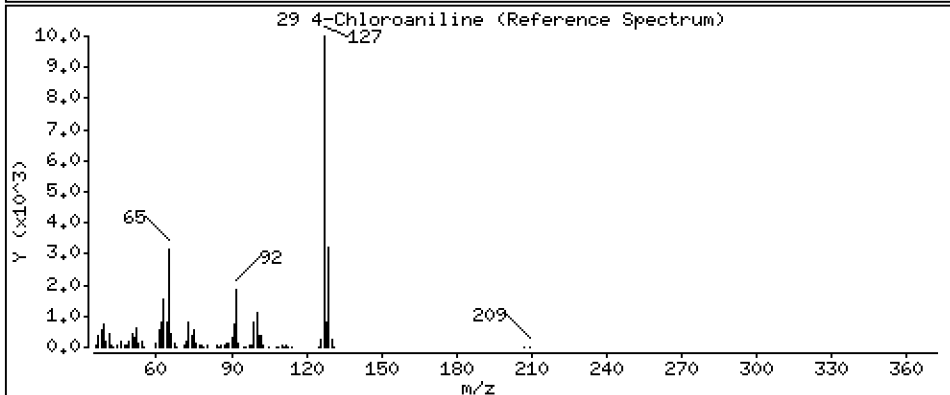
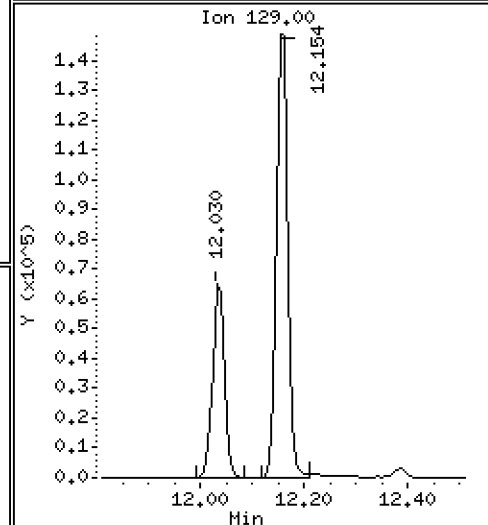
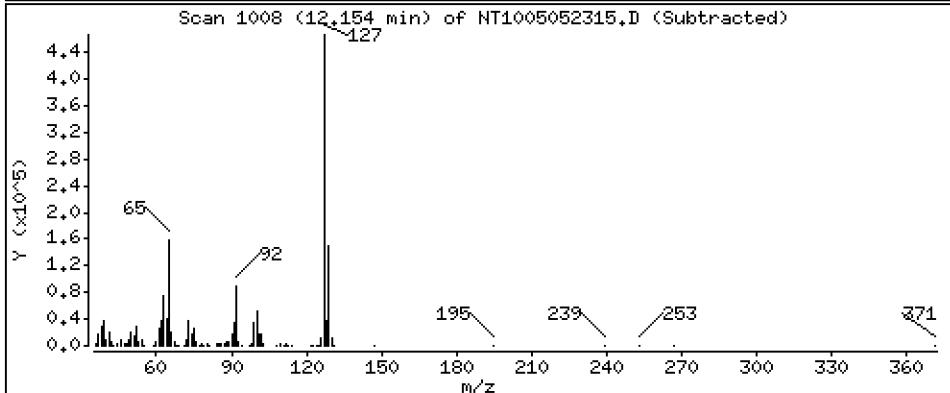
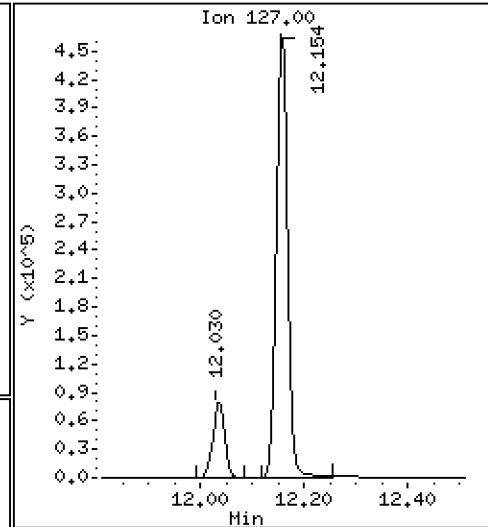
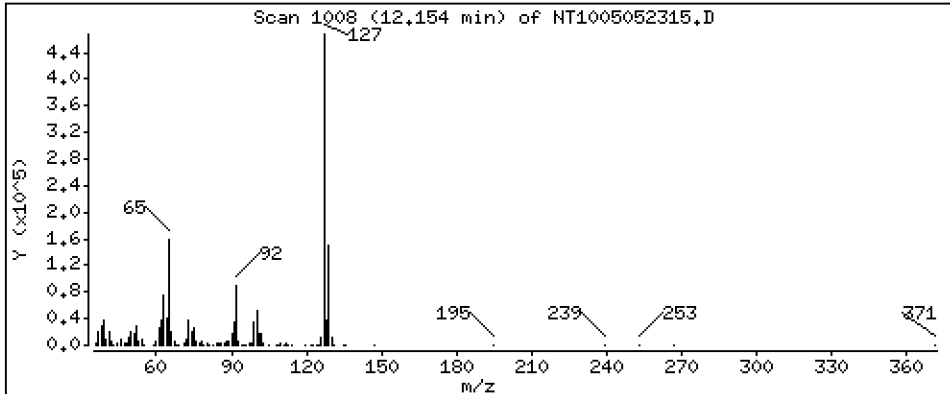
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 10,18 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

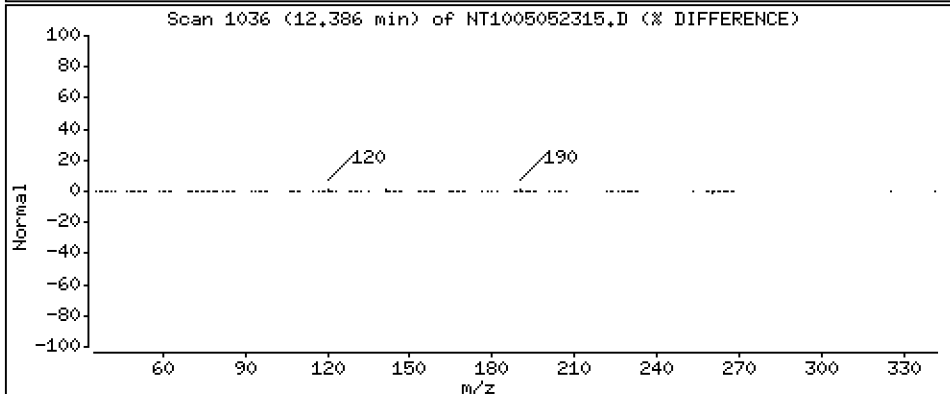
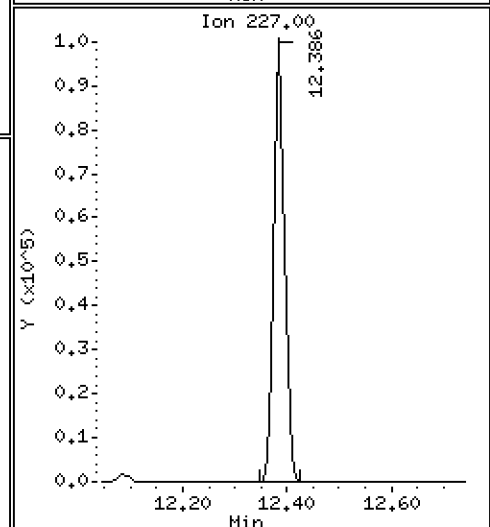
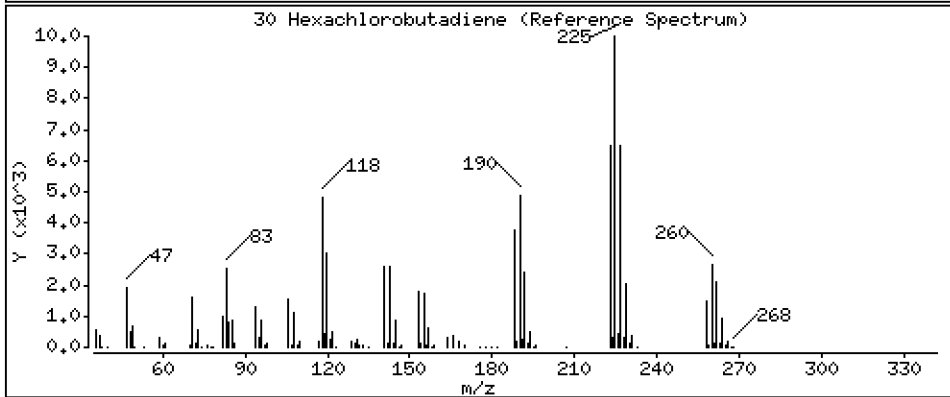
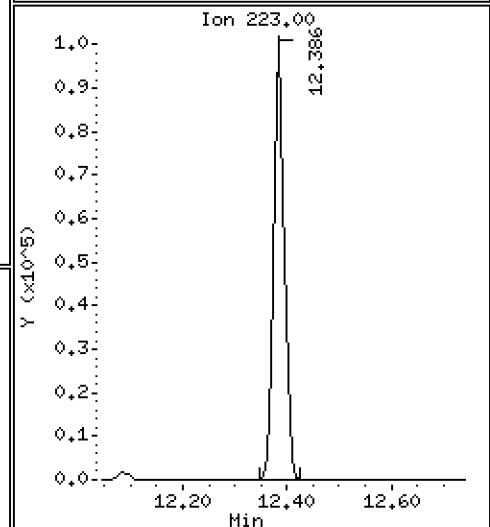
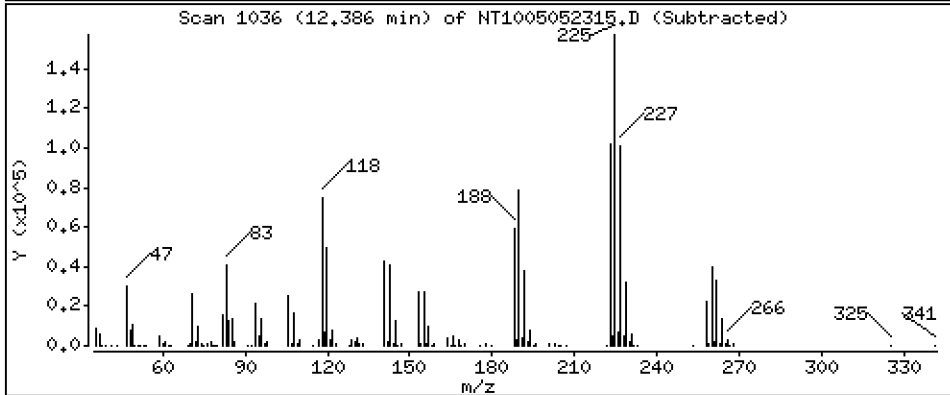
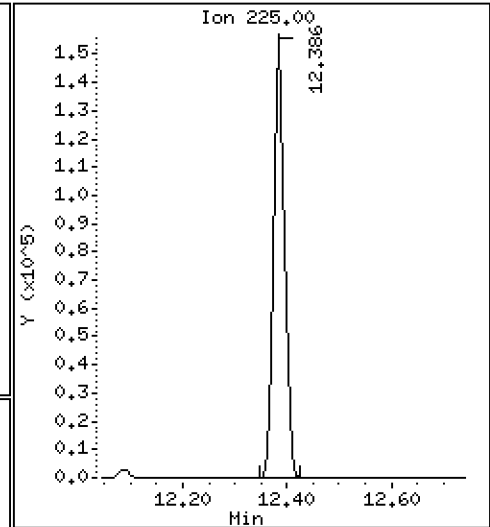
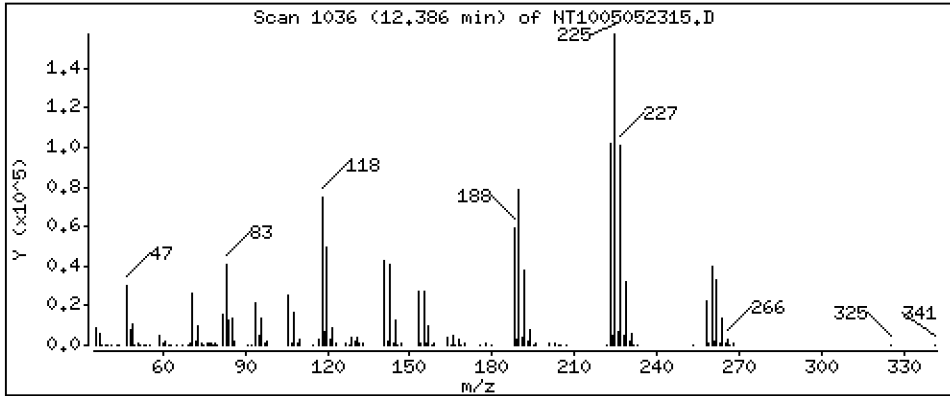
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,737 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

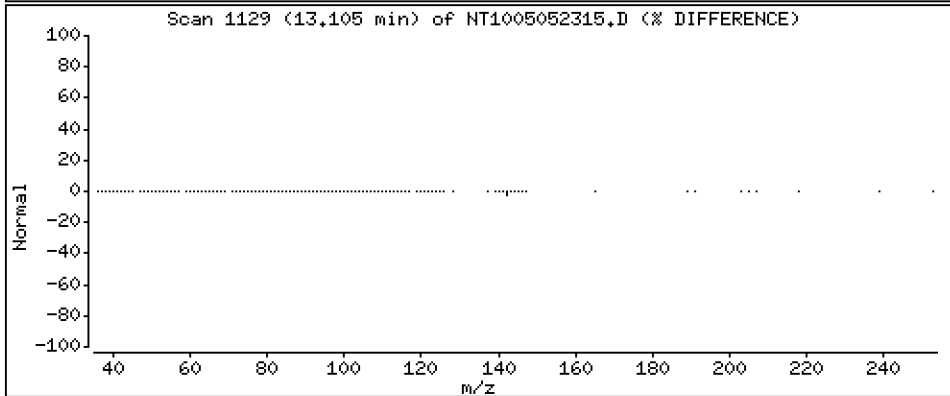
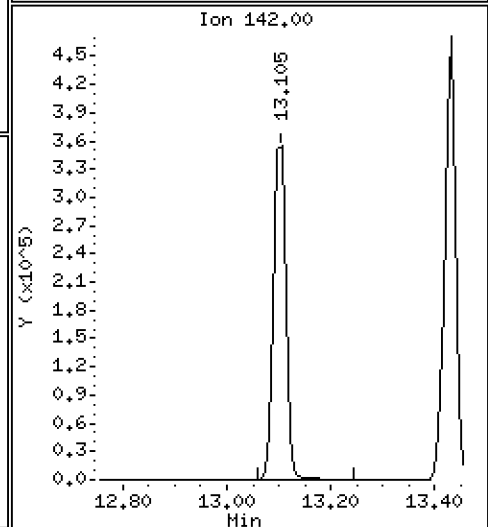
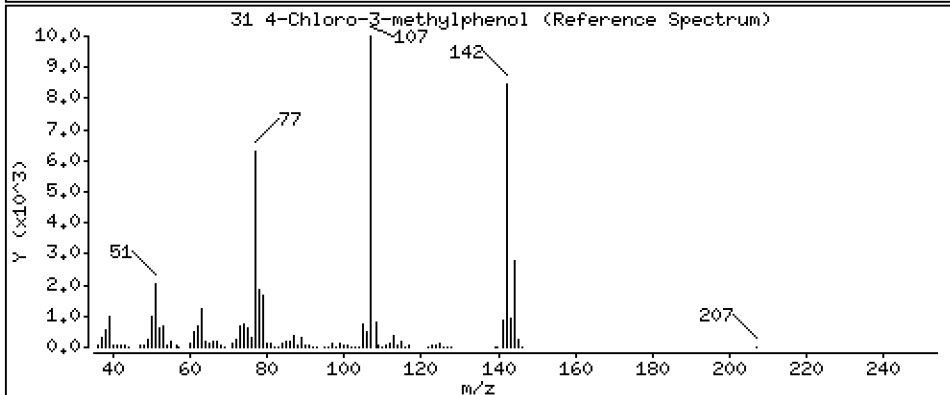
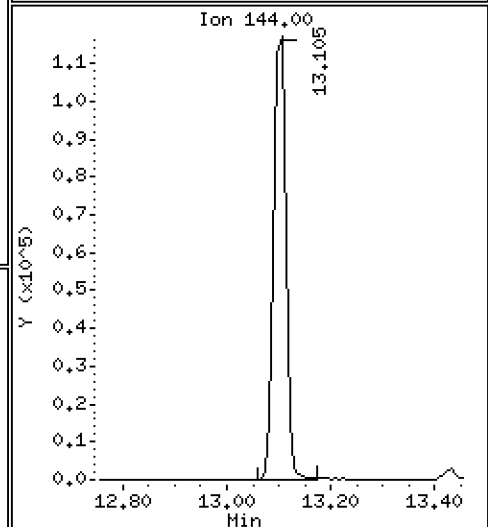
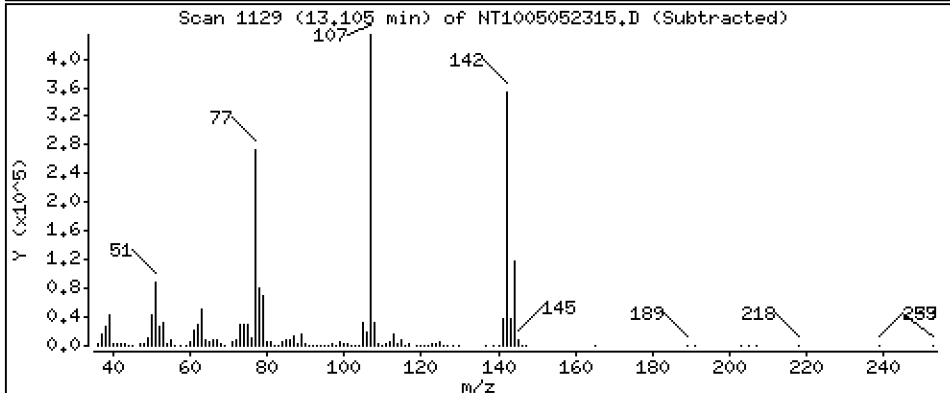
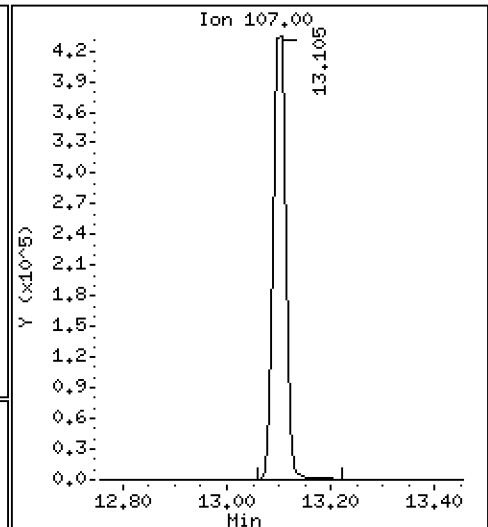
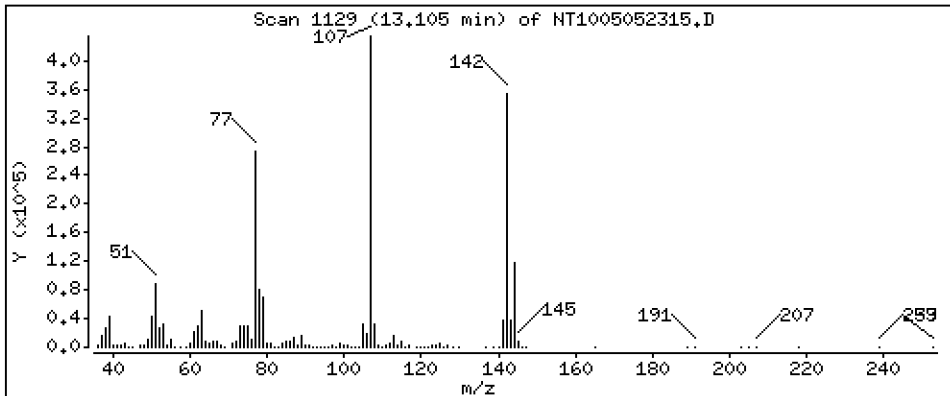
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 10,68 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

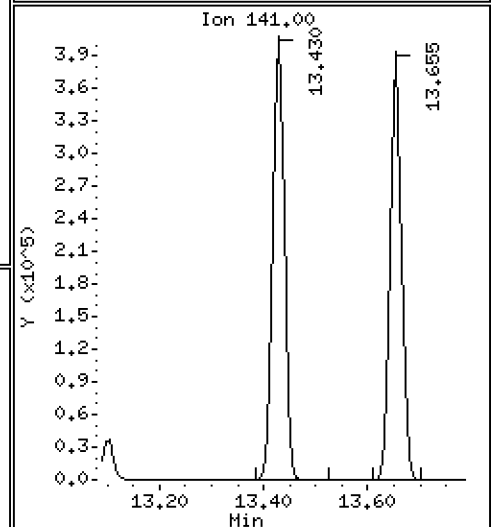
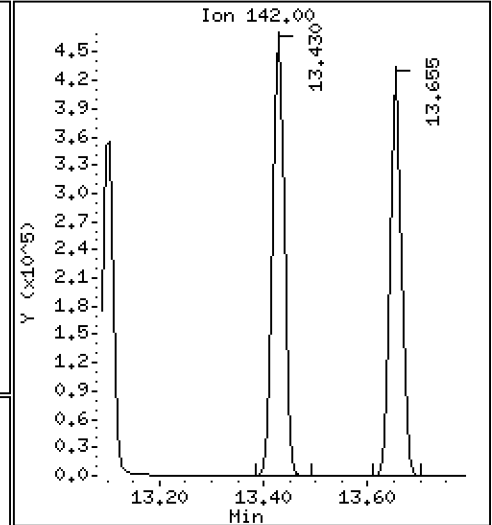
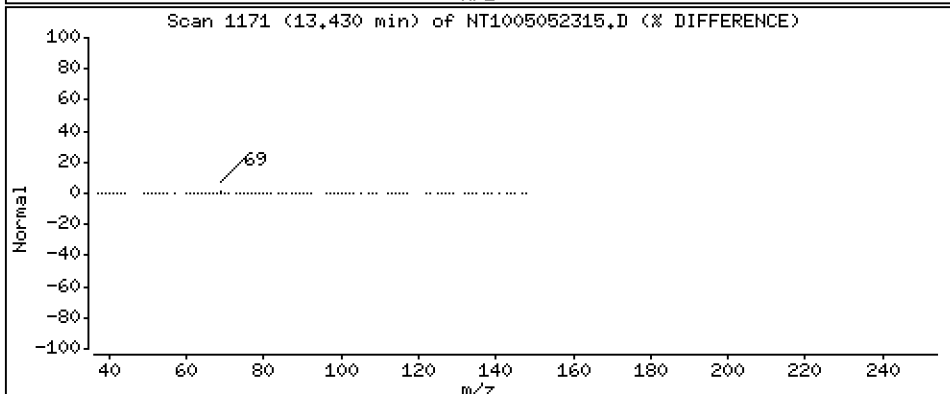
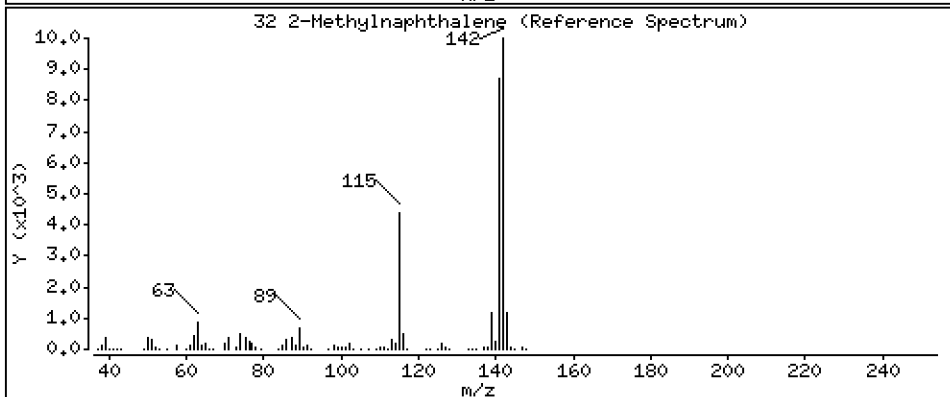
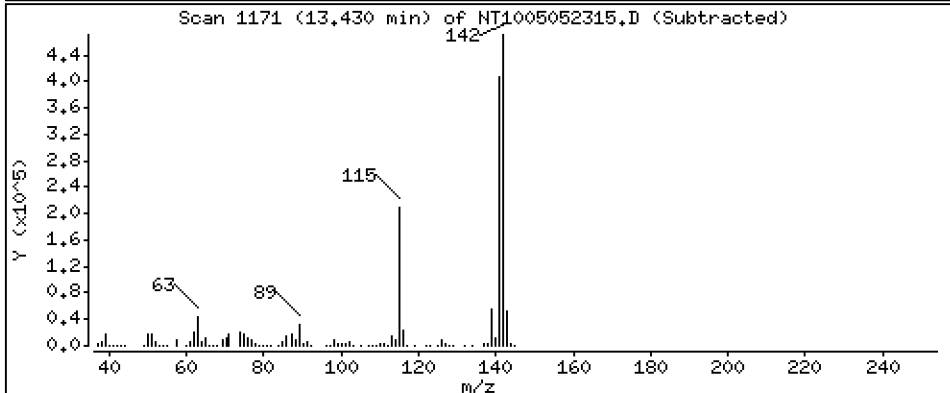
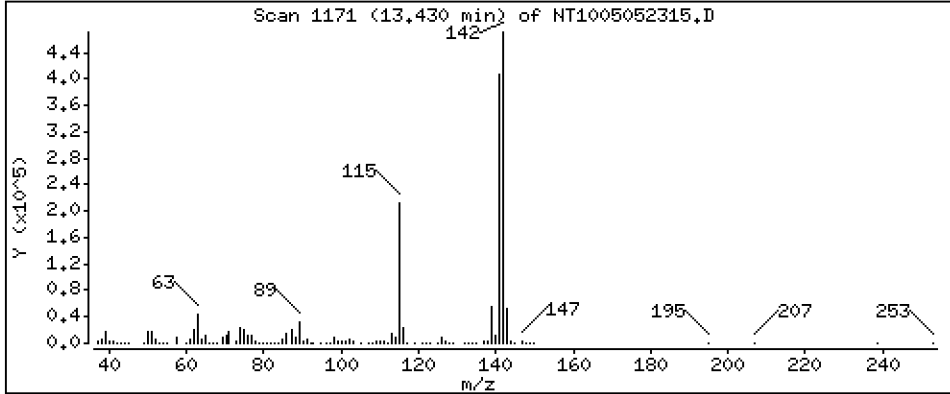
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,649 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

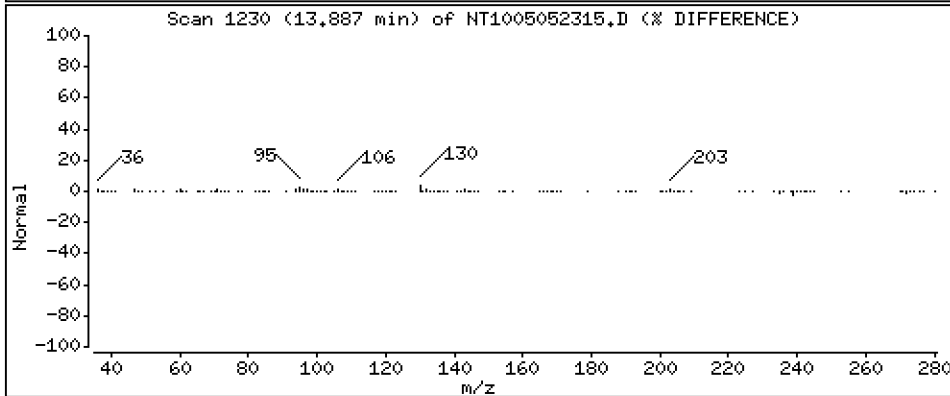
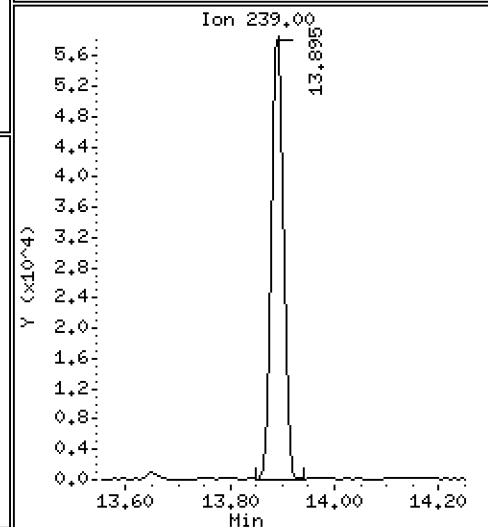
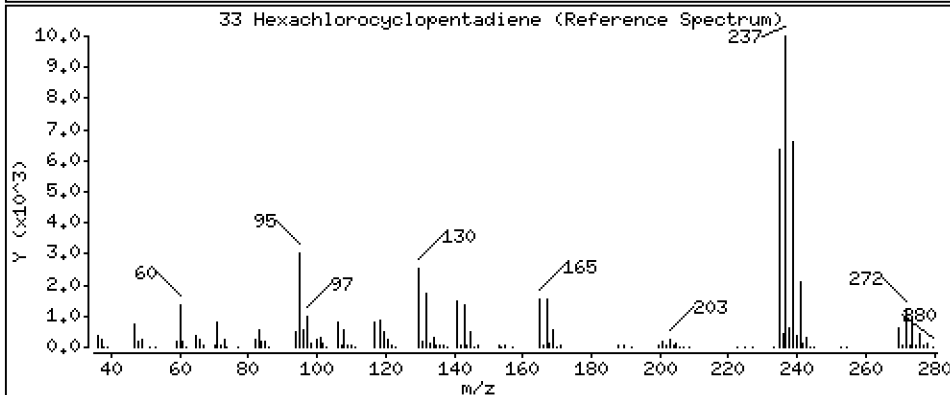
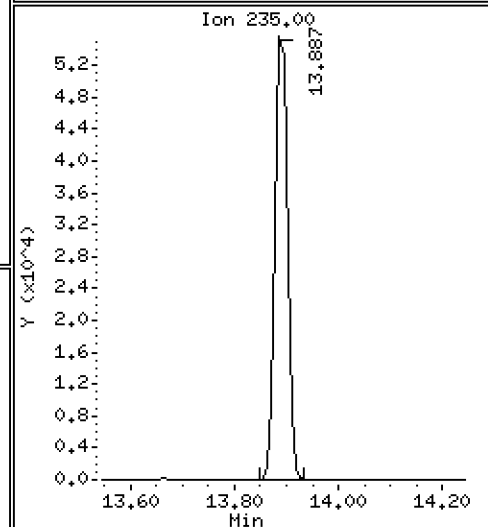
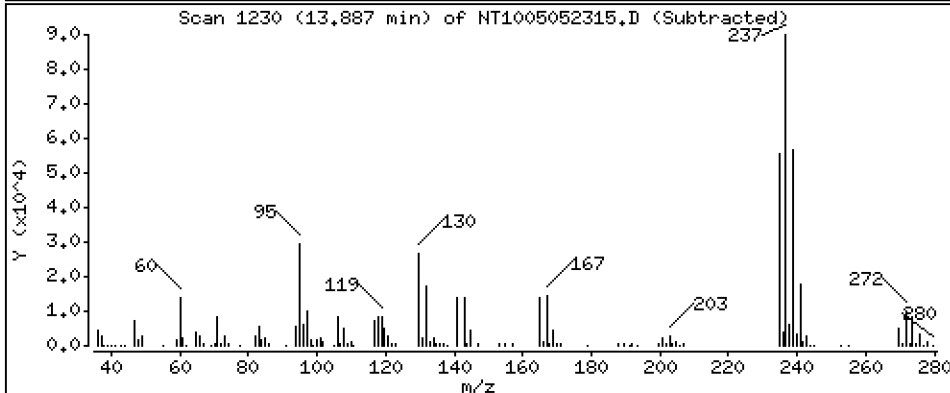
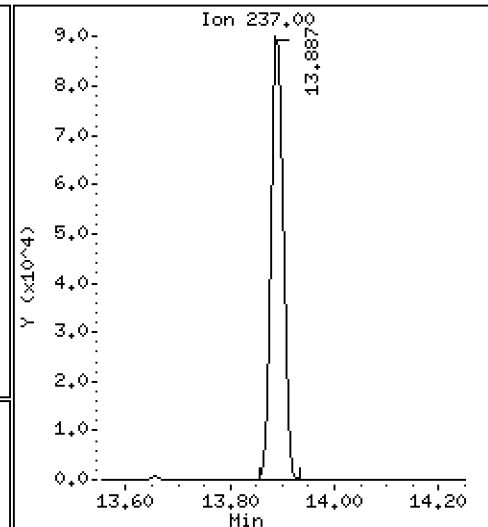
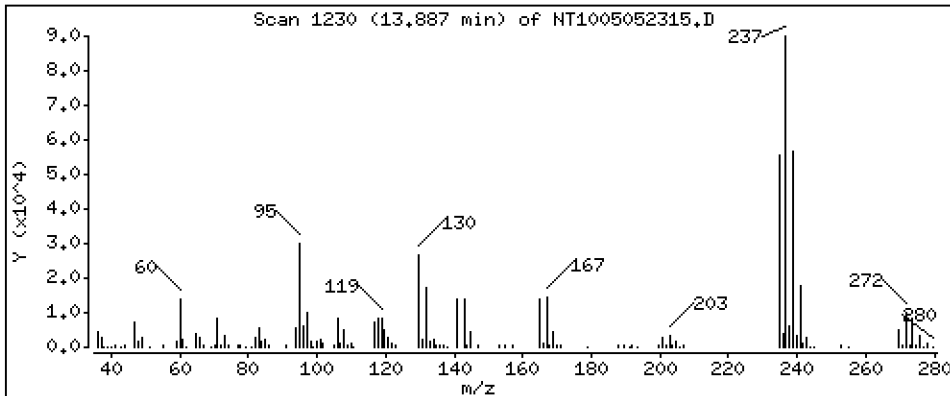
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 2,831 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

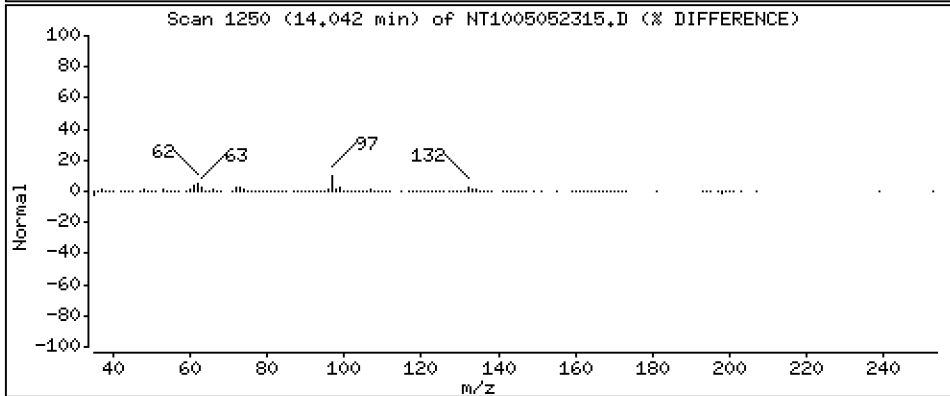
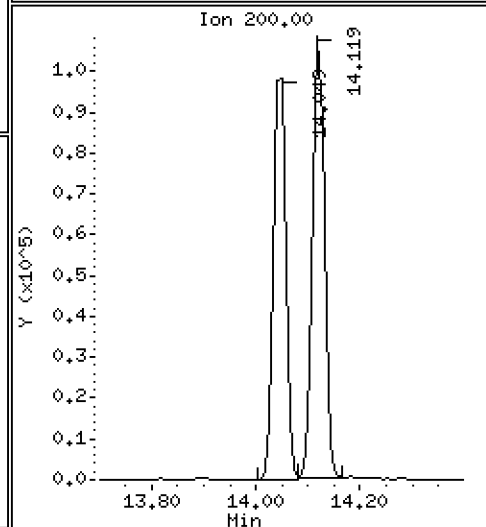
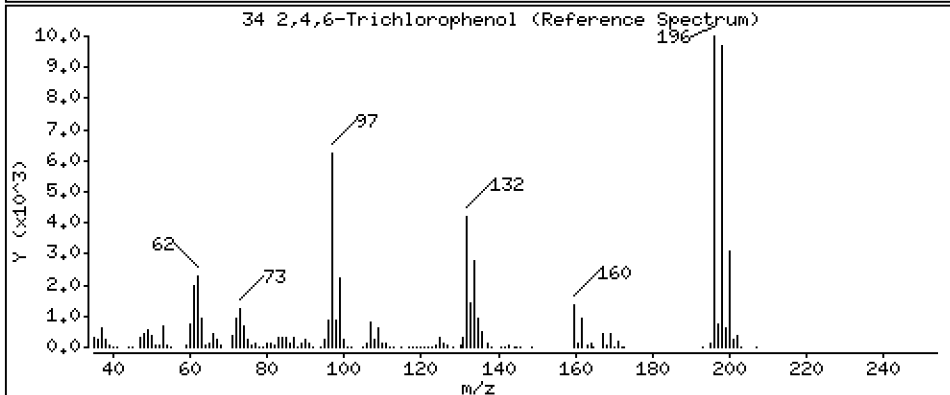
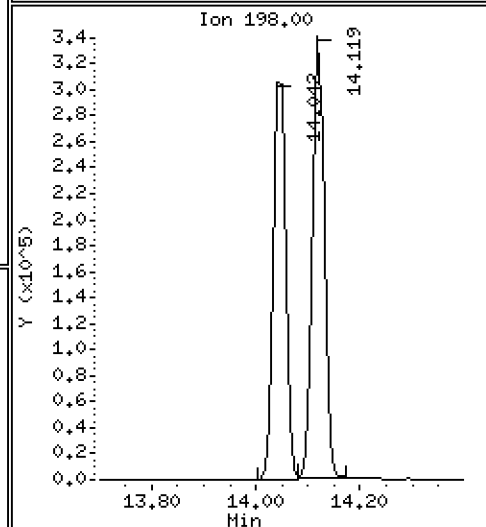
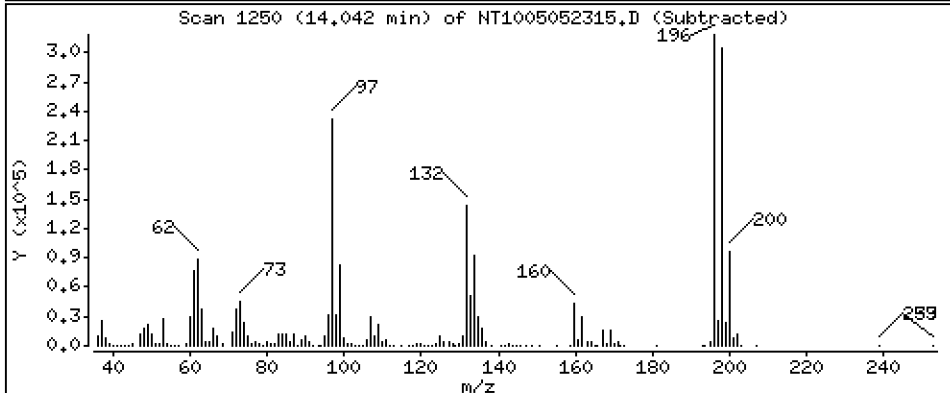
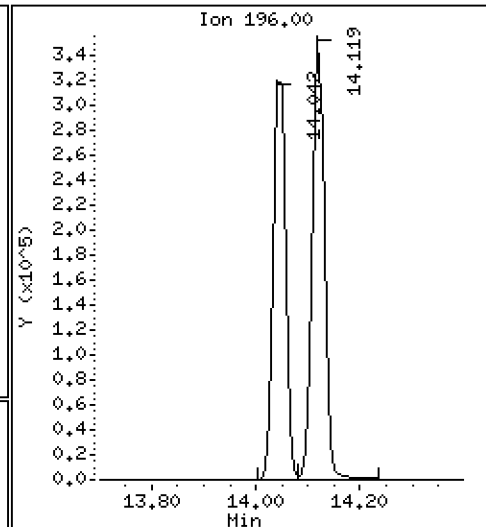
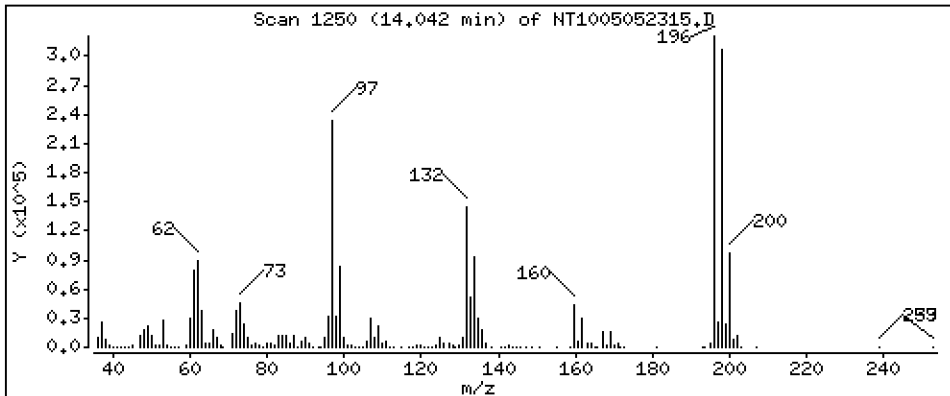
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 10,24 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

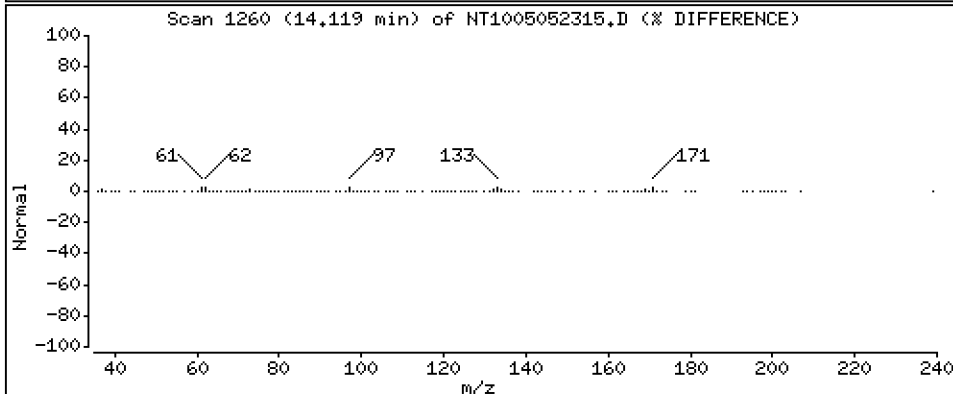
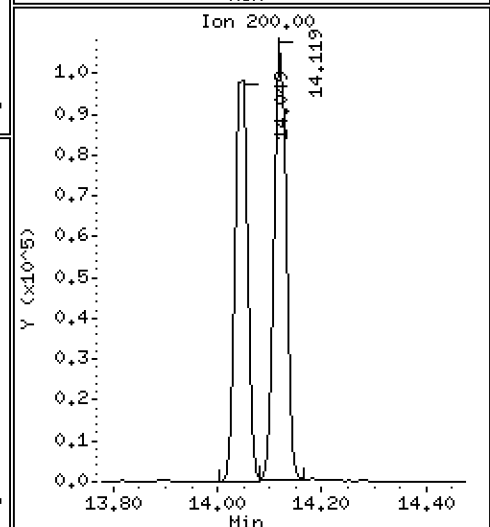
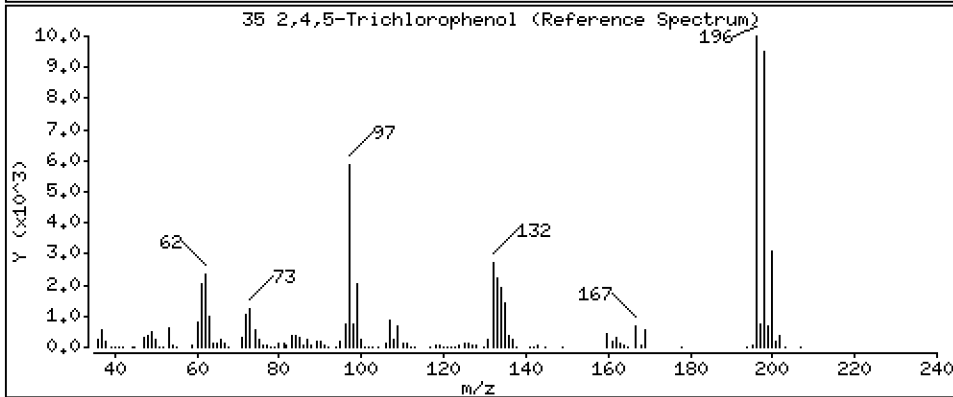
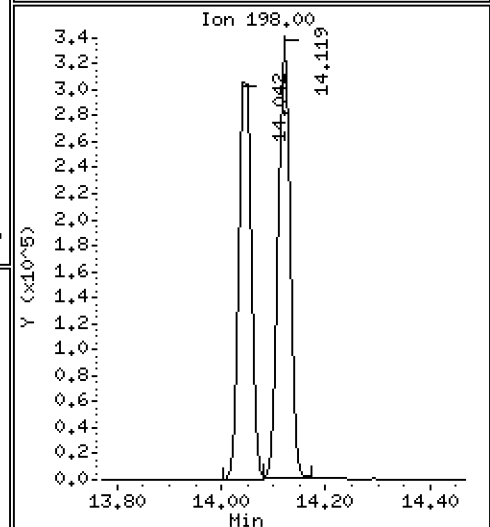
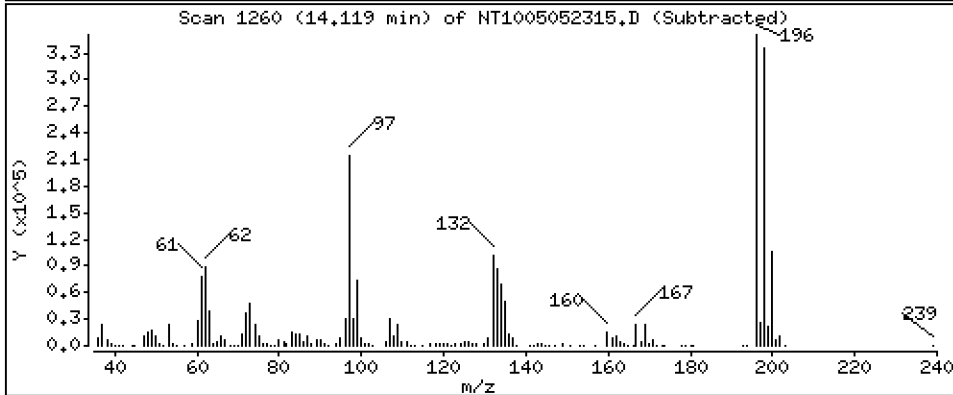
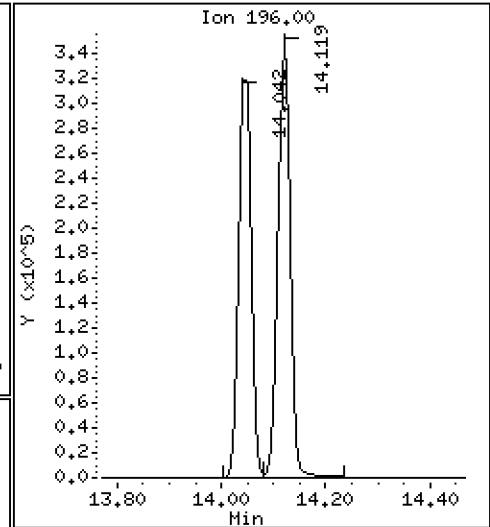
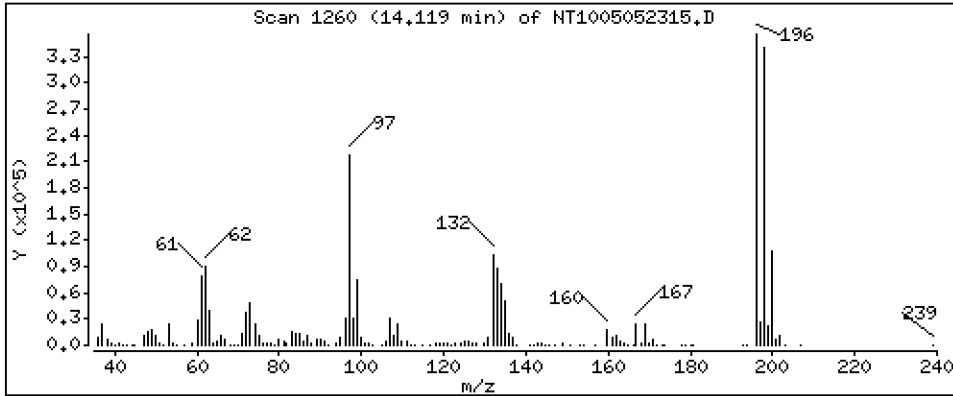
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 10,07 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

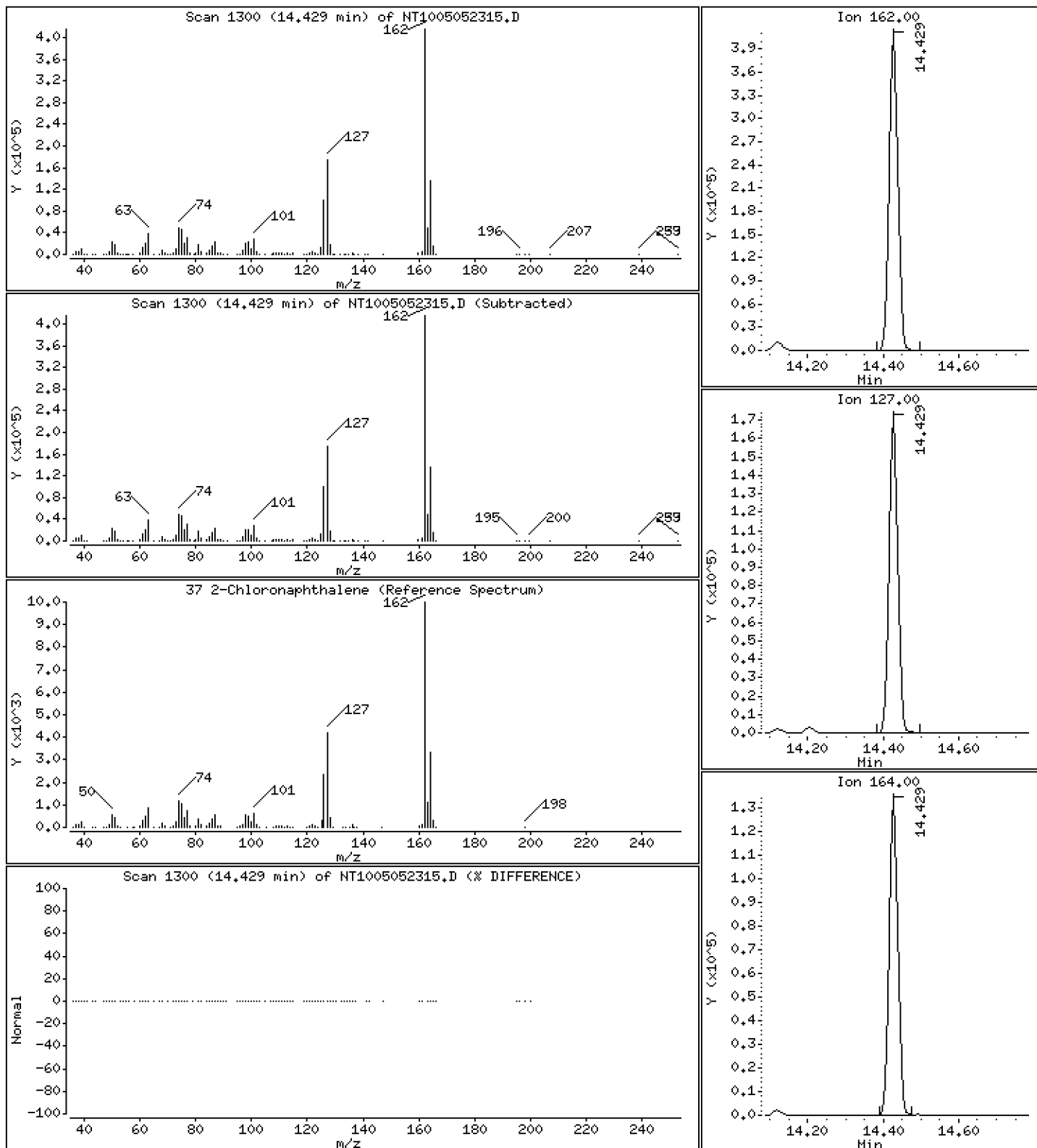
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 4,734 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

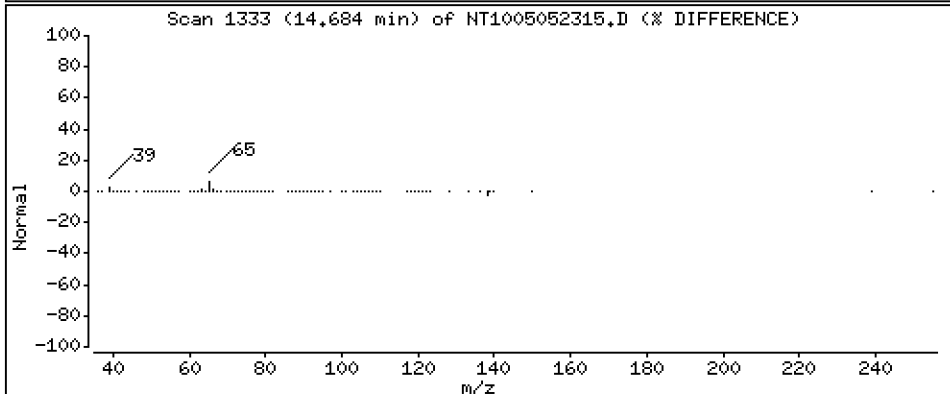
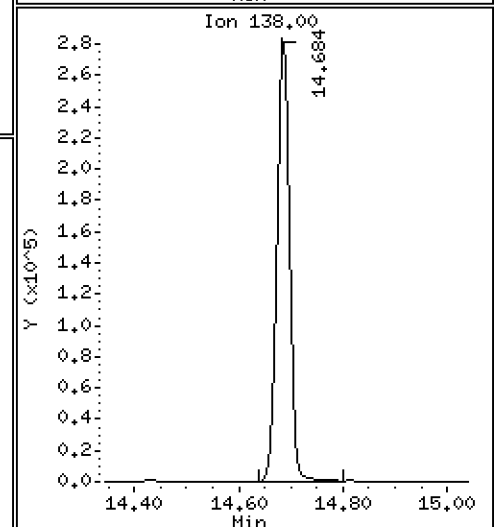
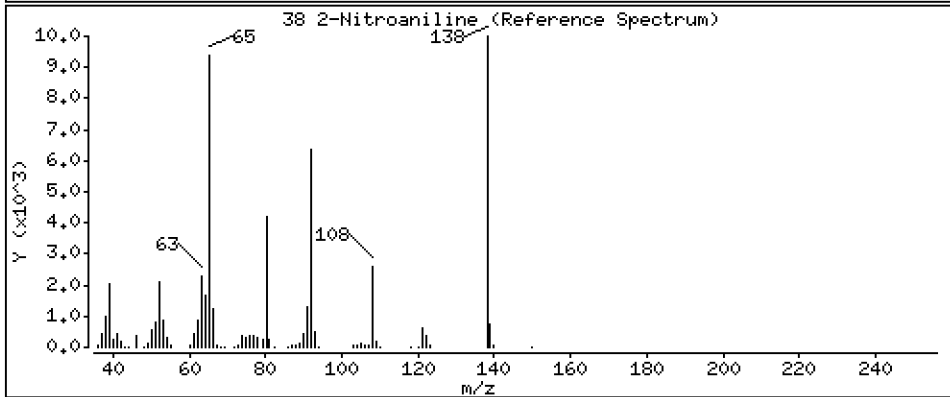
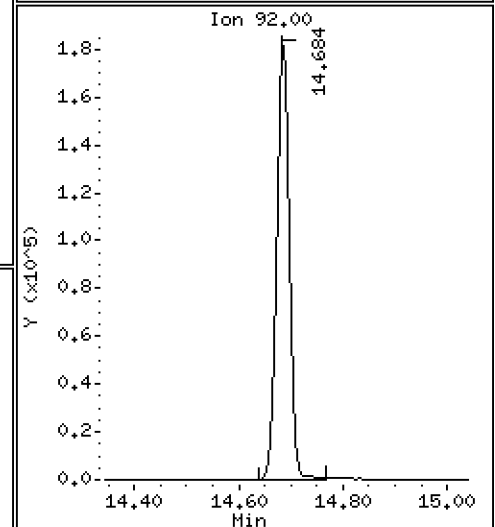
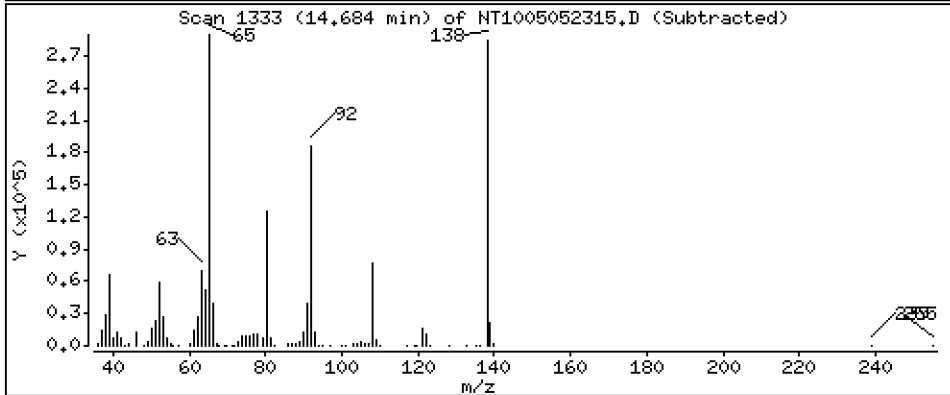
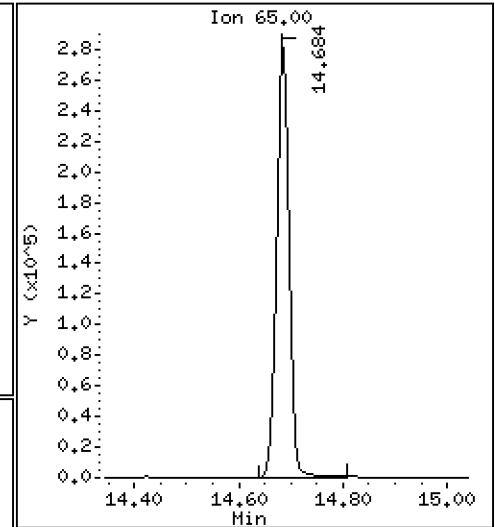
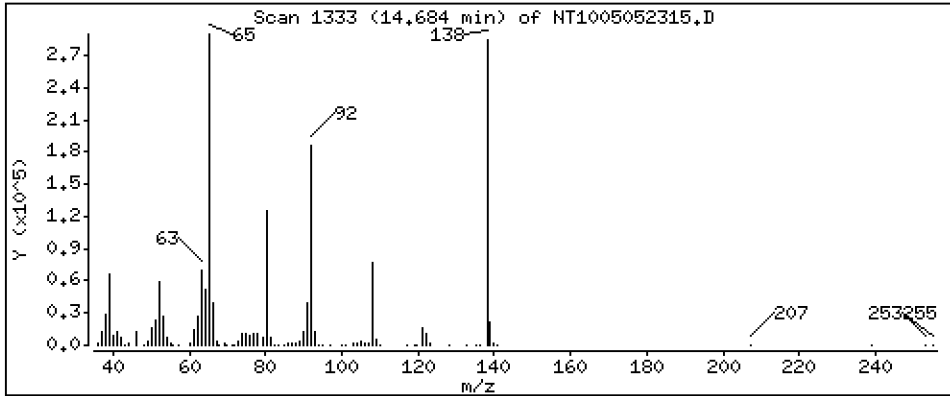
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 11,48 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

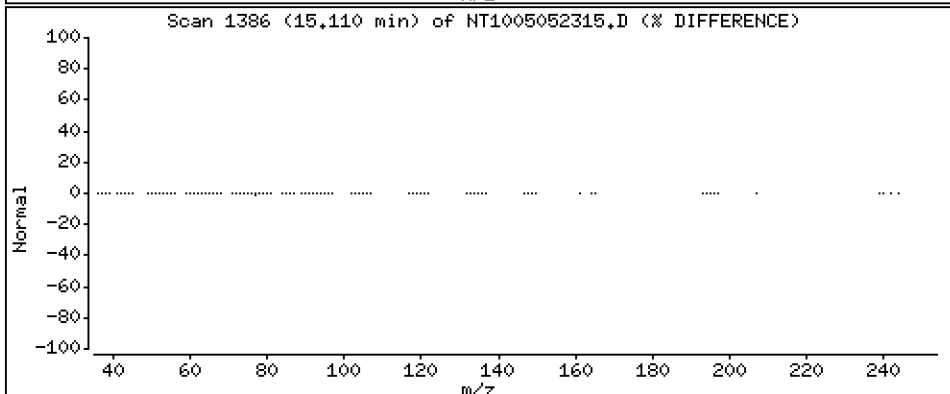
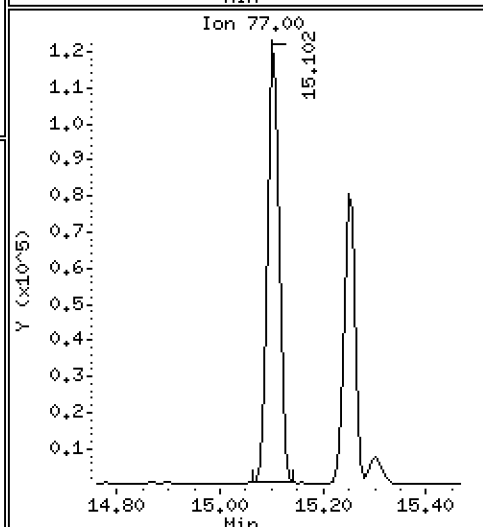
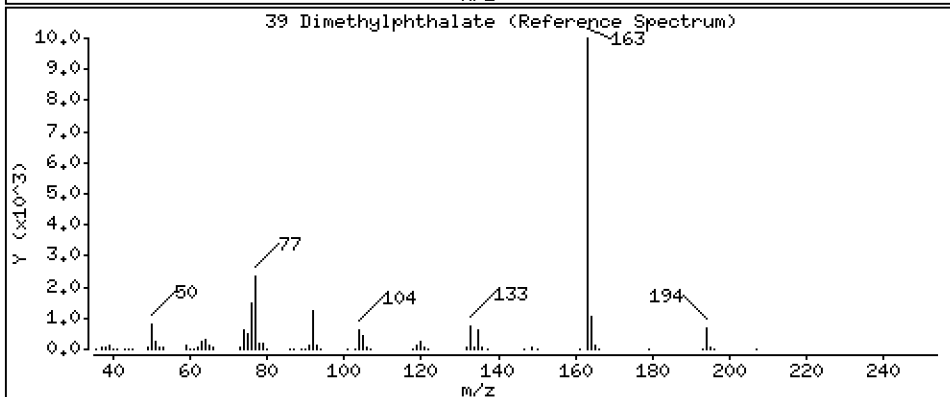
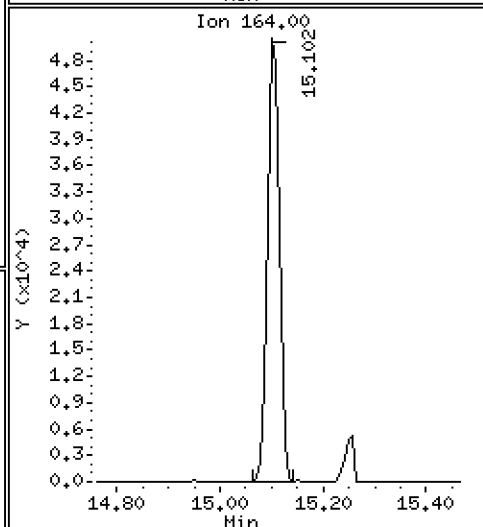
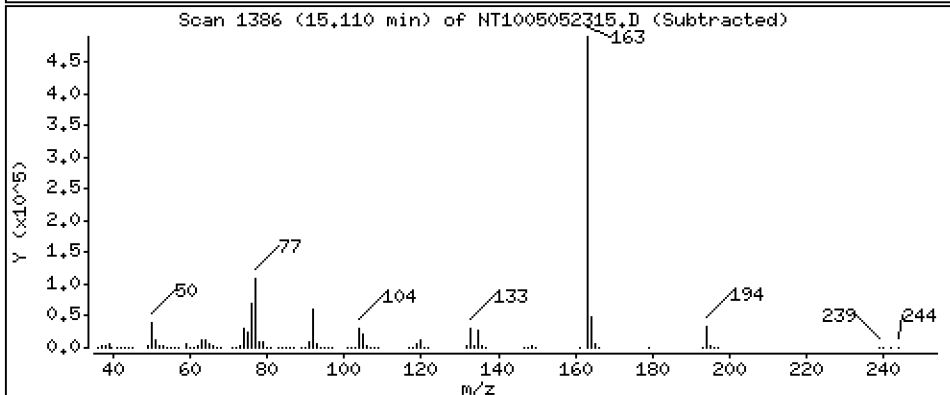
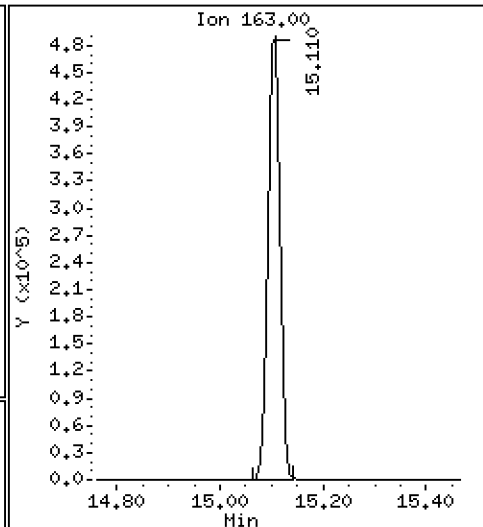
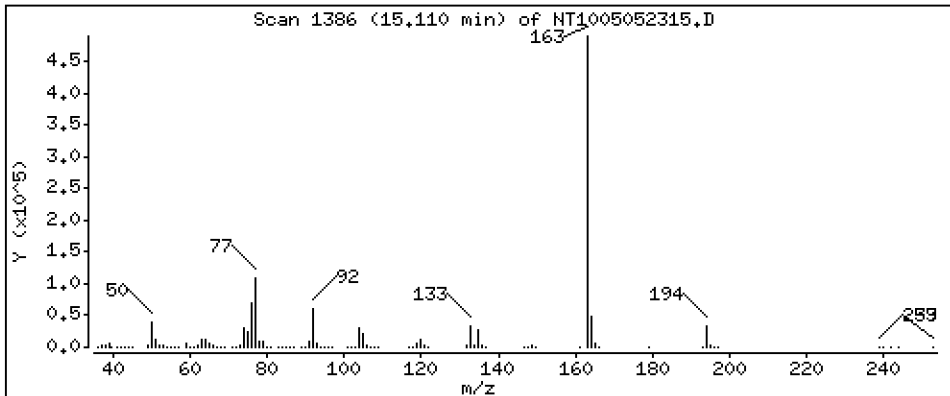
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,889 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

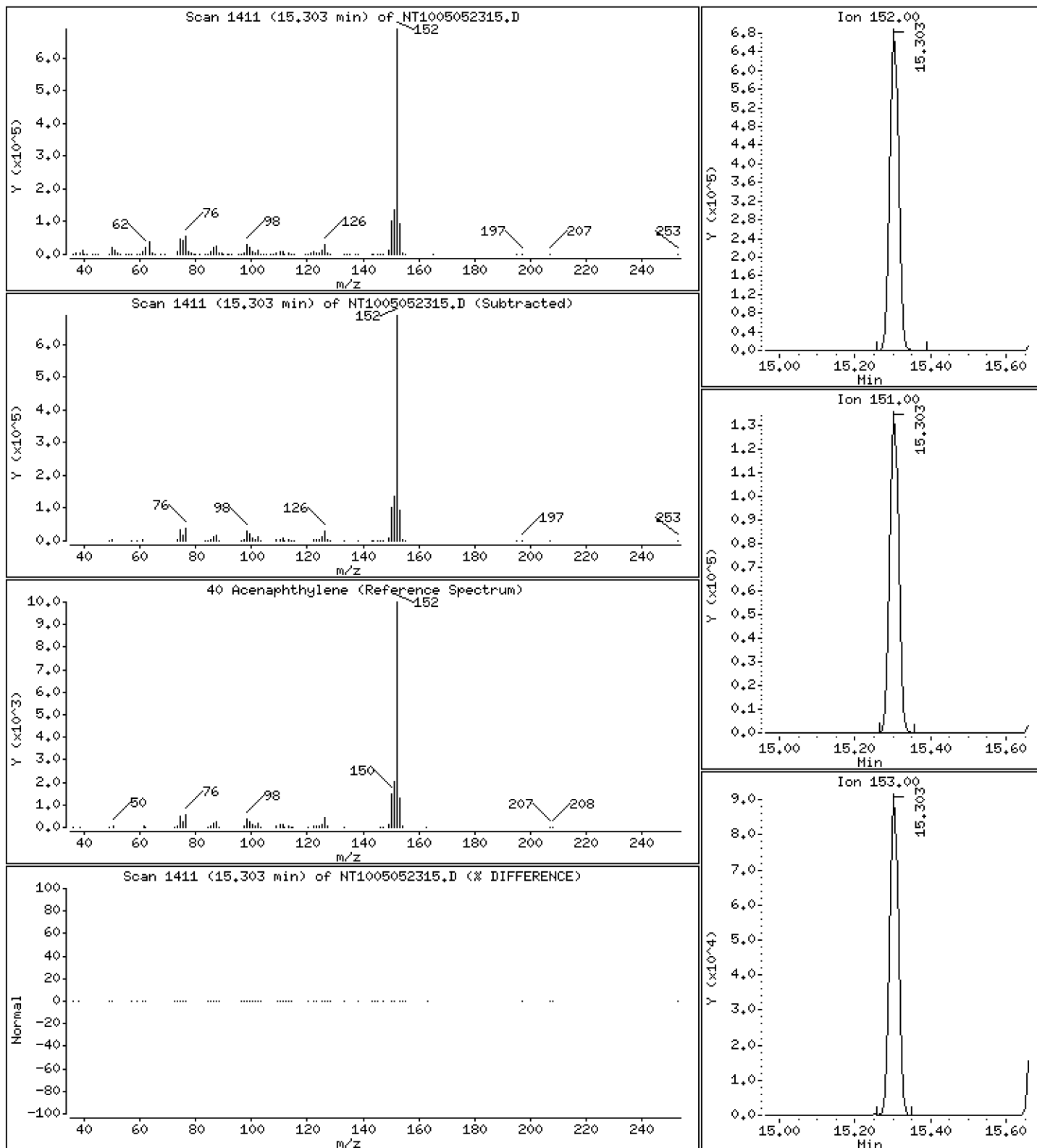
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,935 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

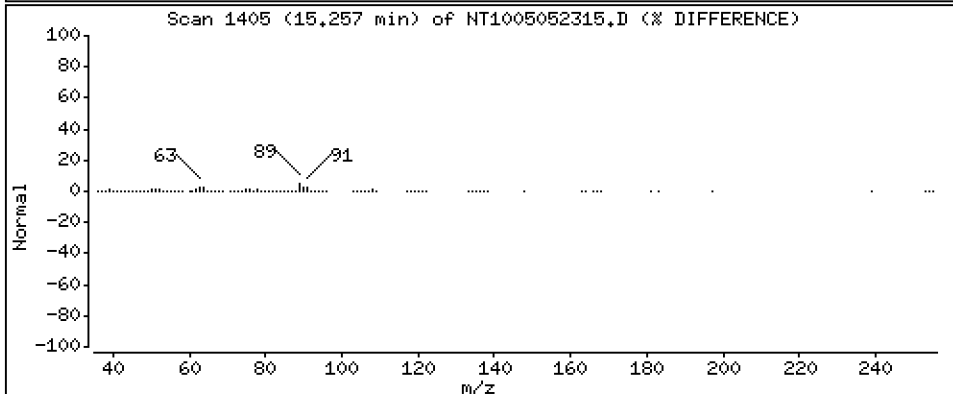
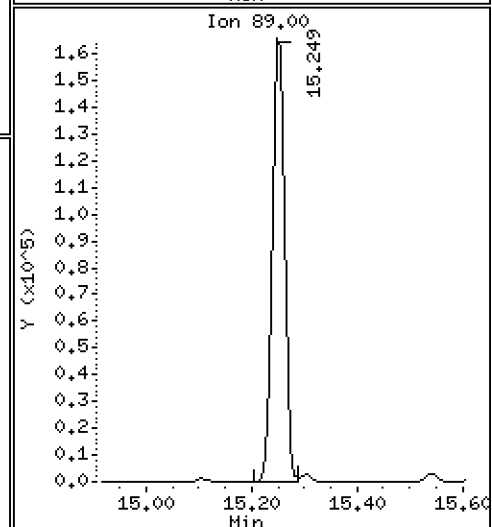
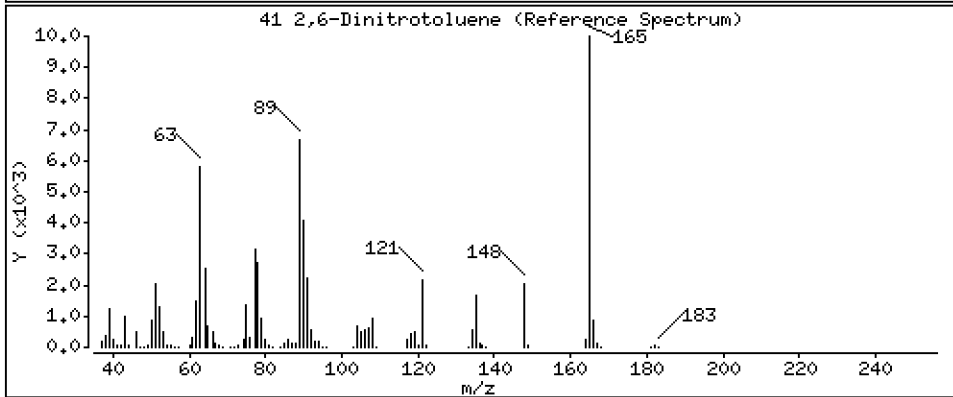
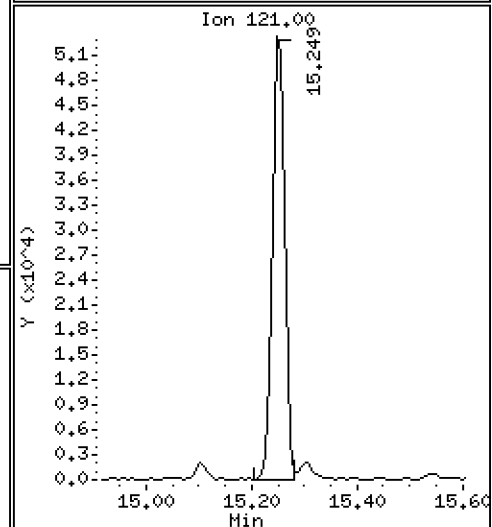
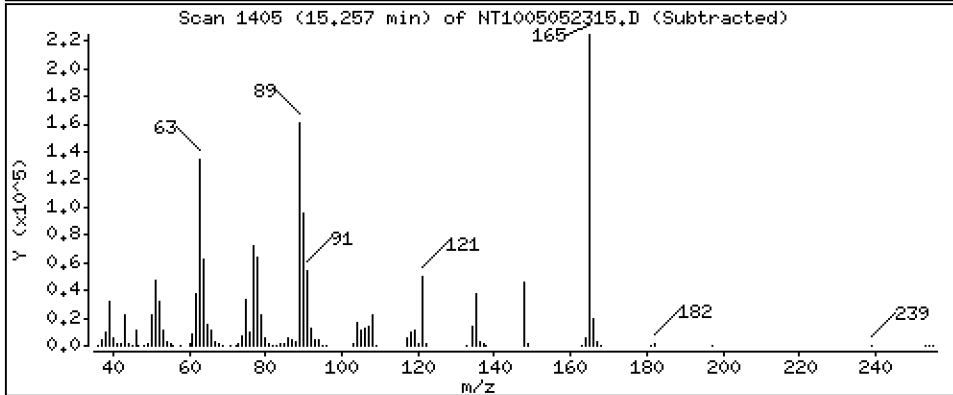
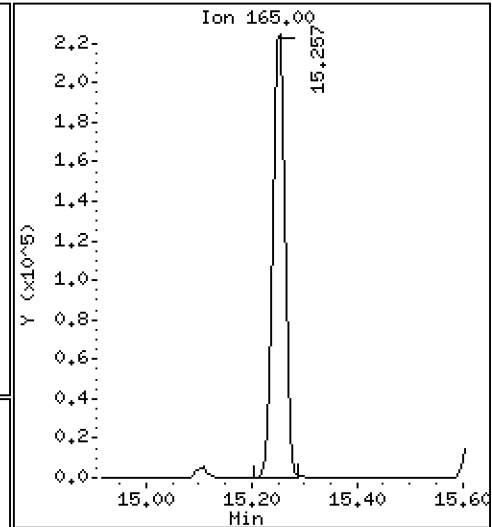
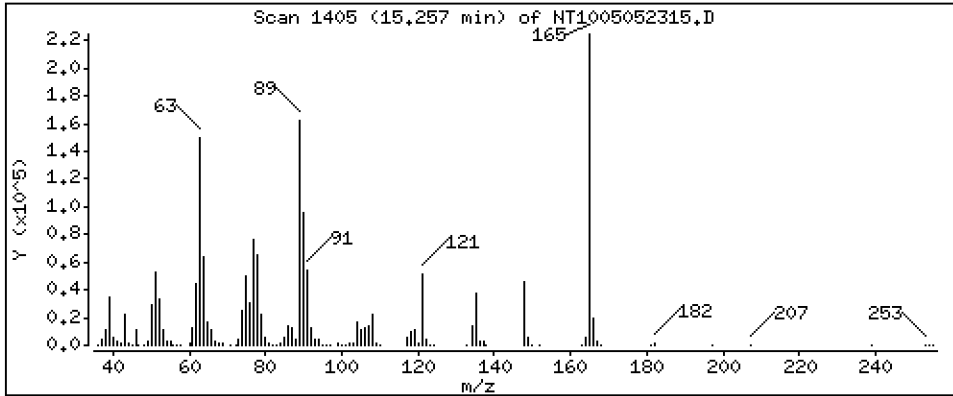
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 10,13 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

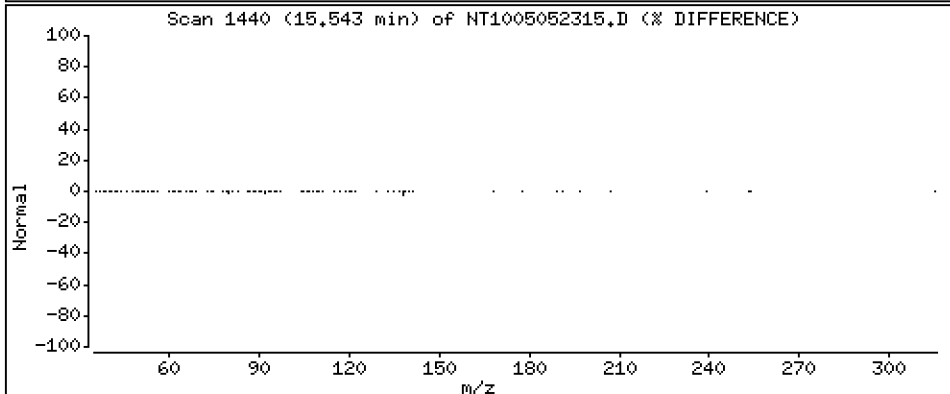
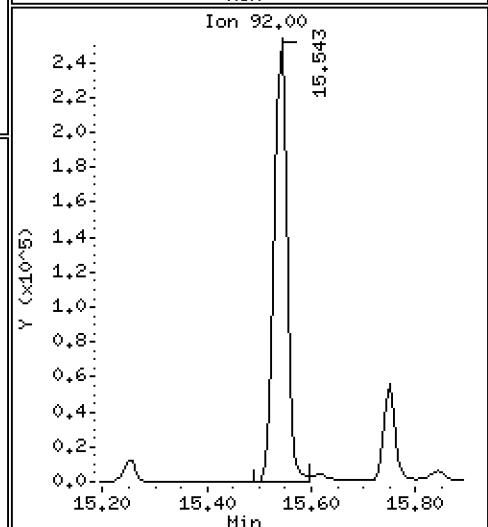
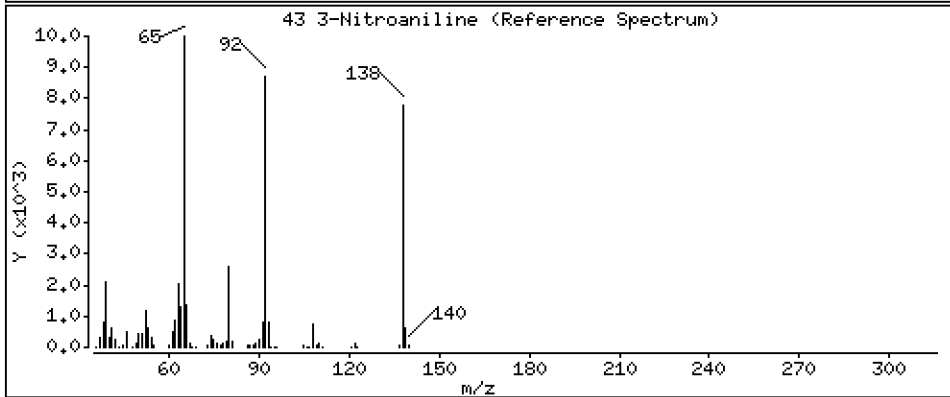
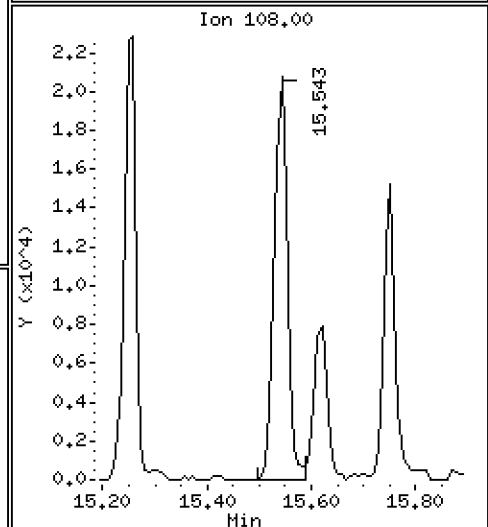
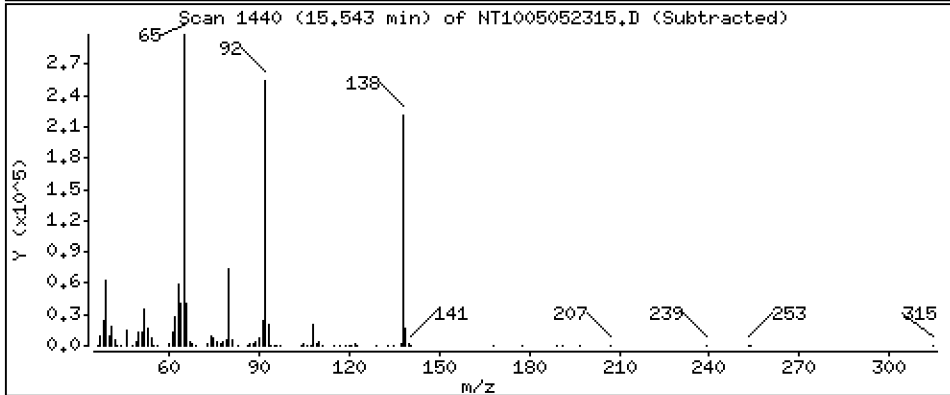
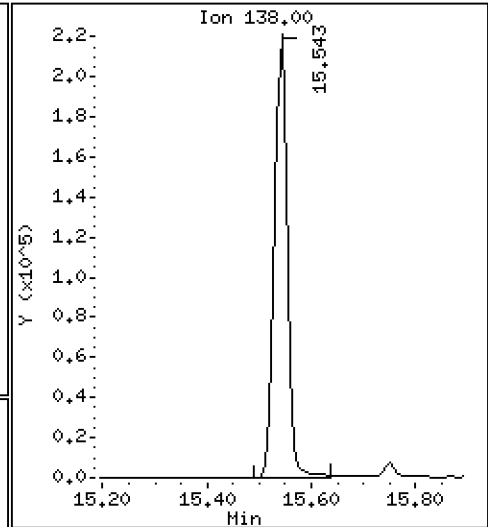
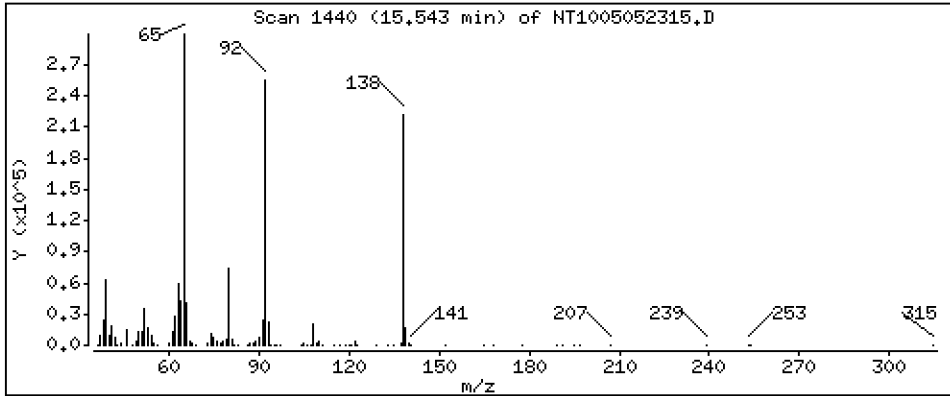
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 10,57 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

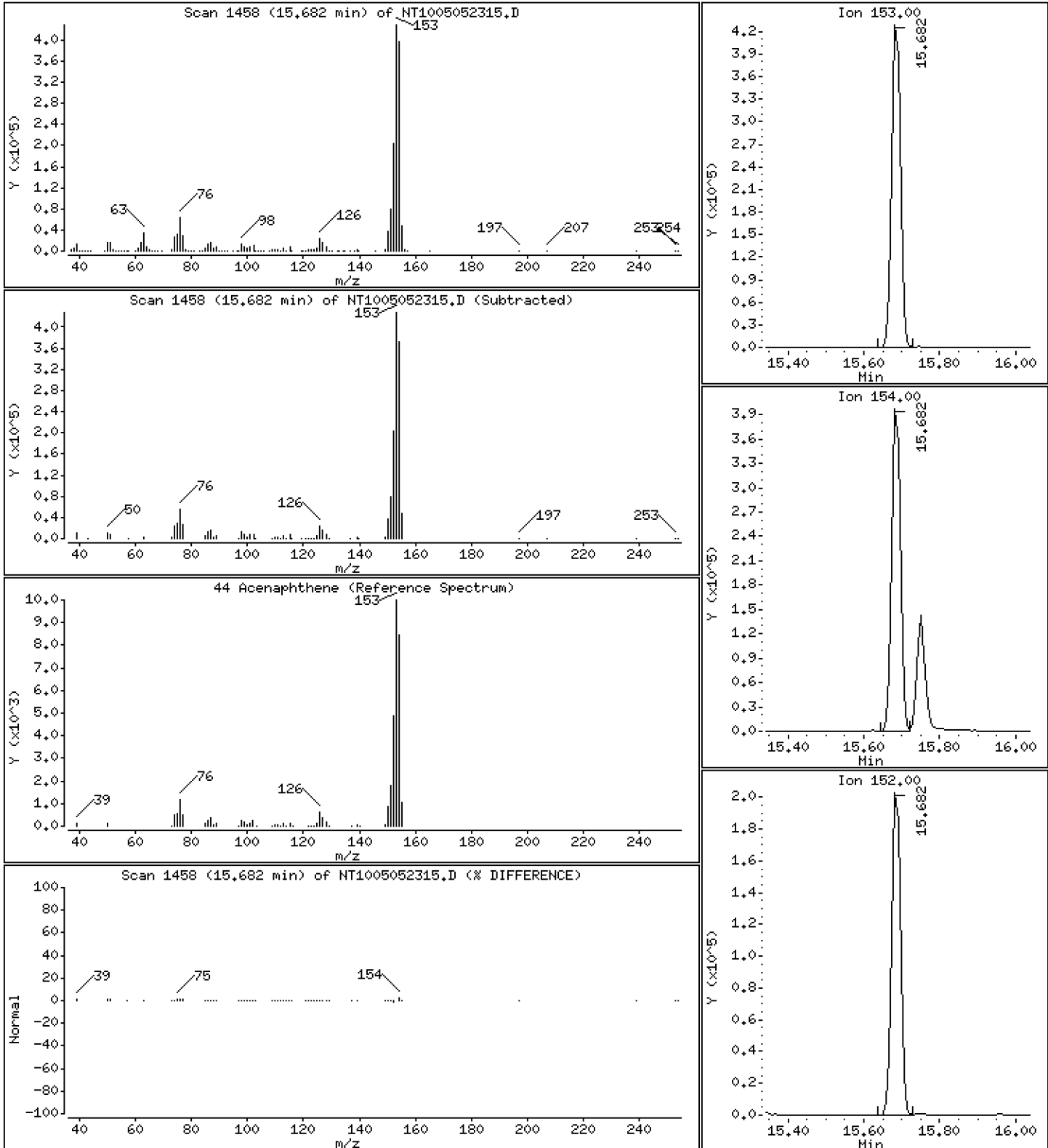
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,799 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

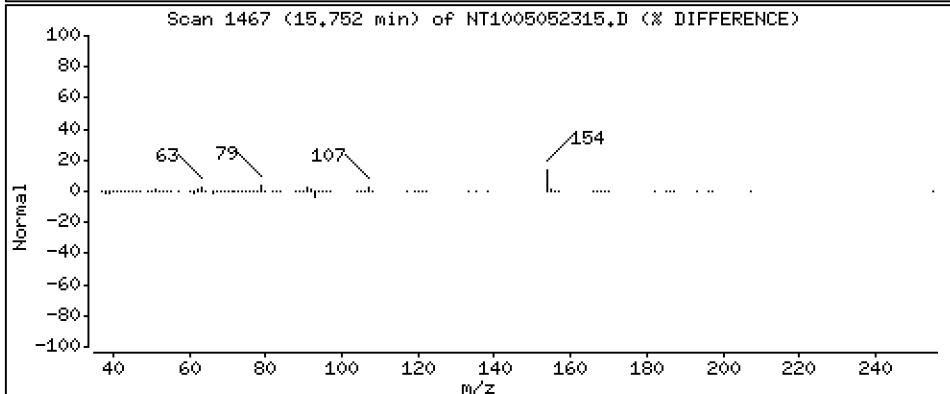
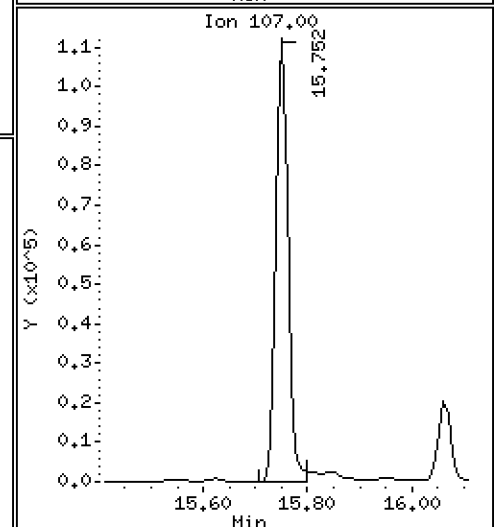
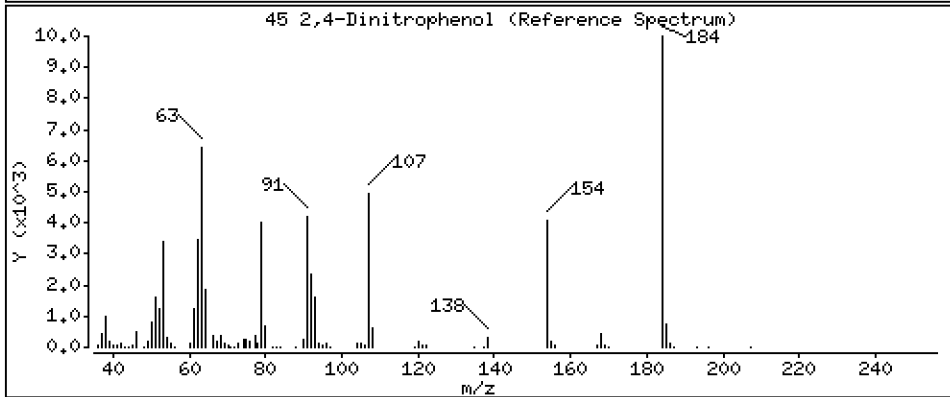
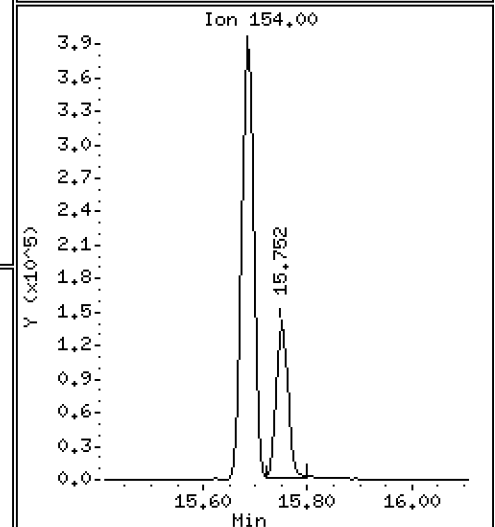
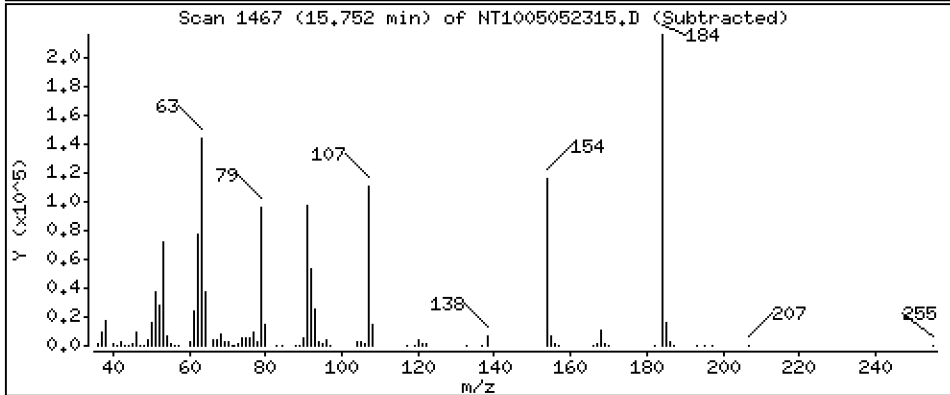
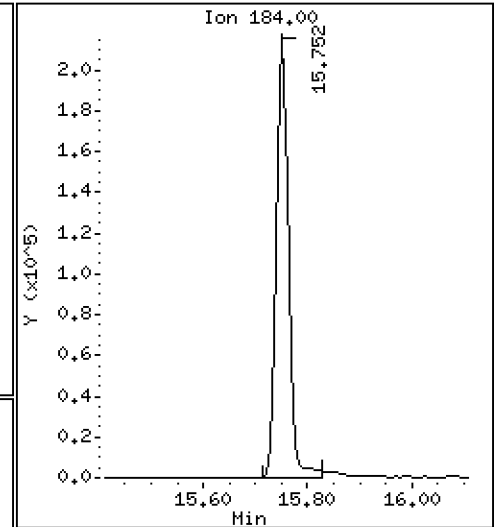
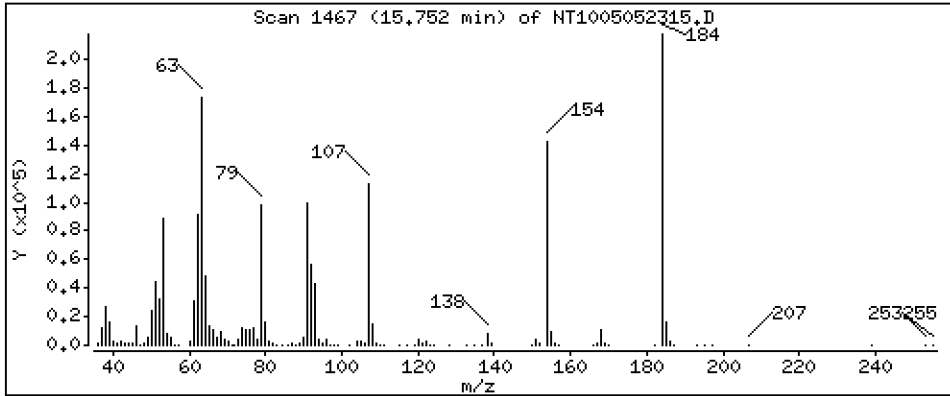
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 12,09 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

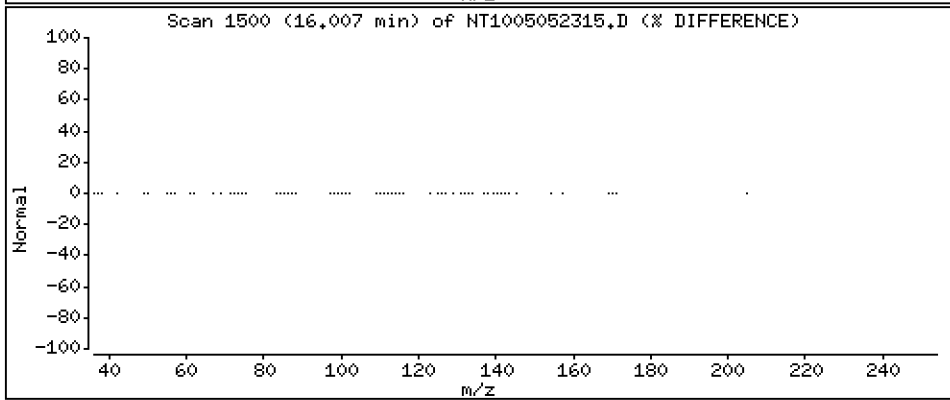
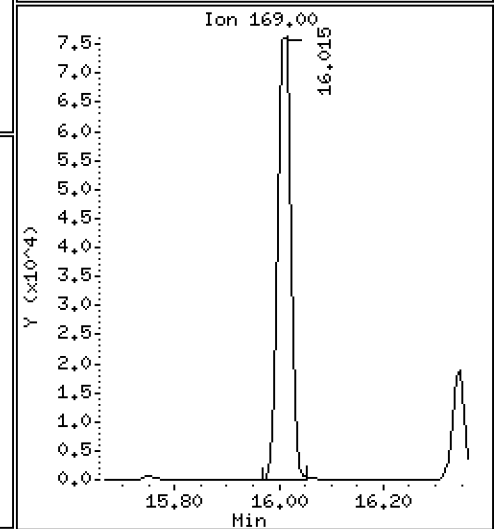
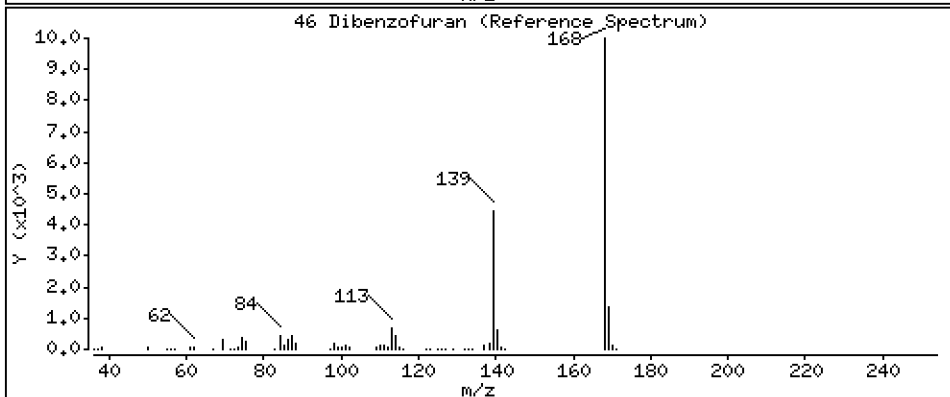
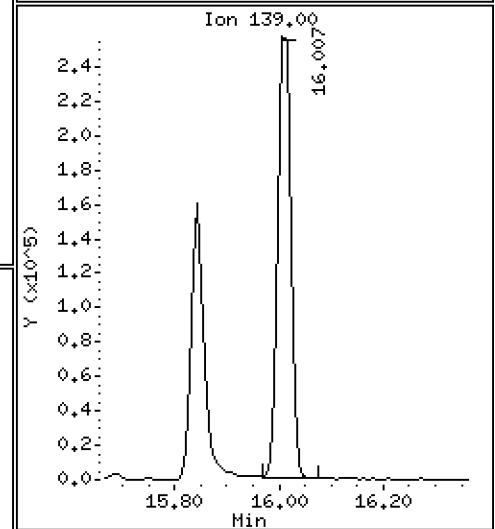
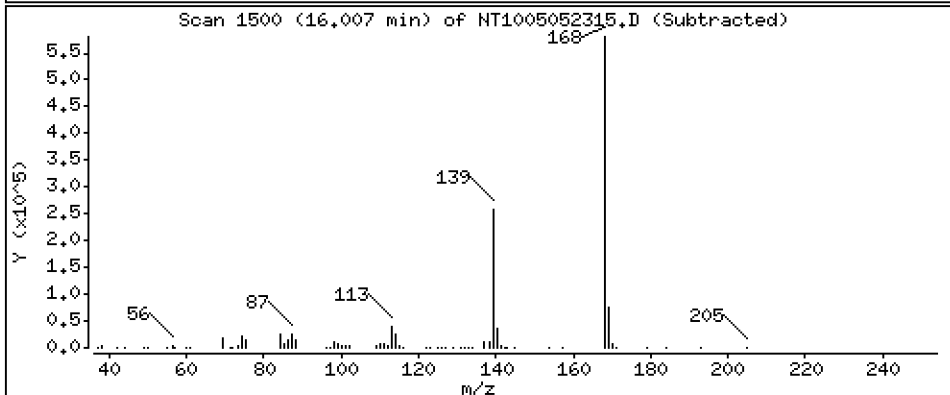
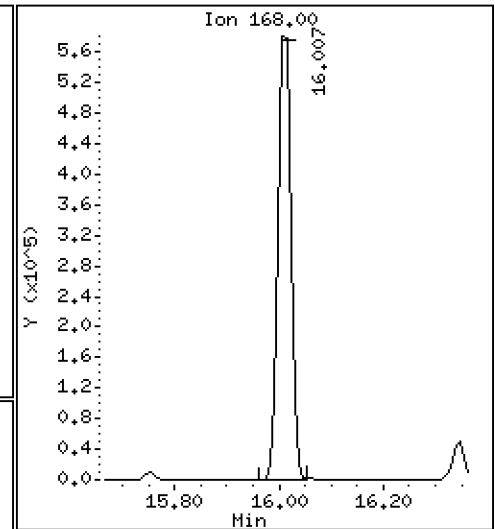
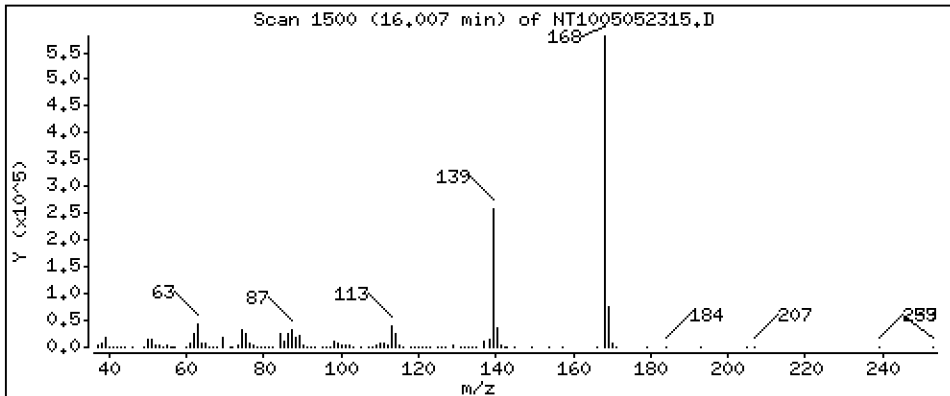
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,807 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

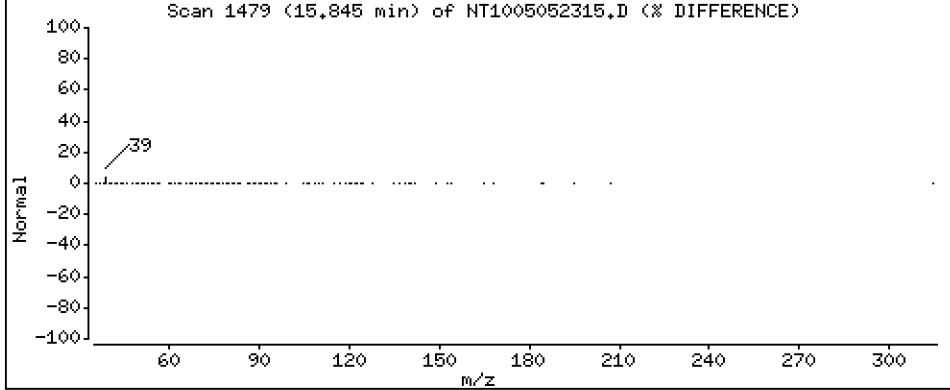
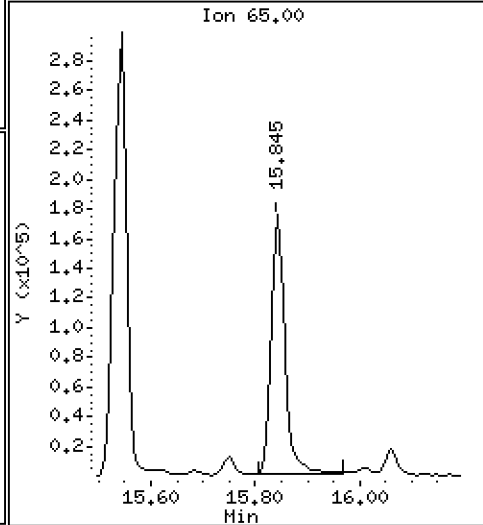
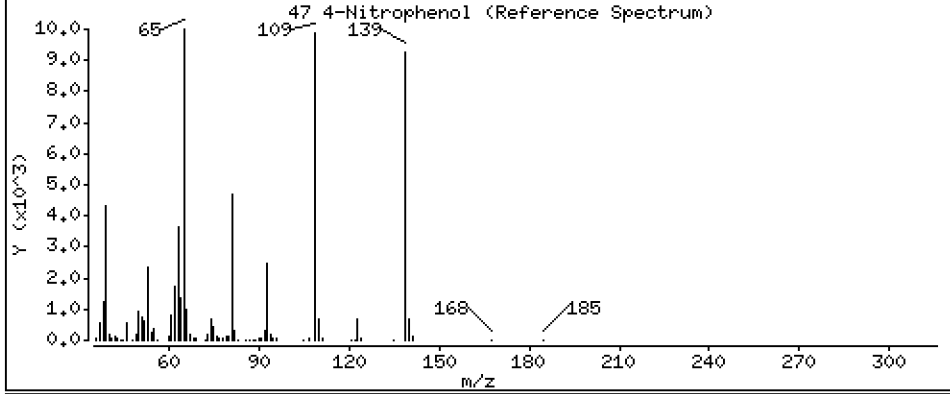
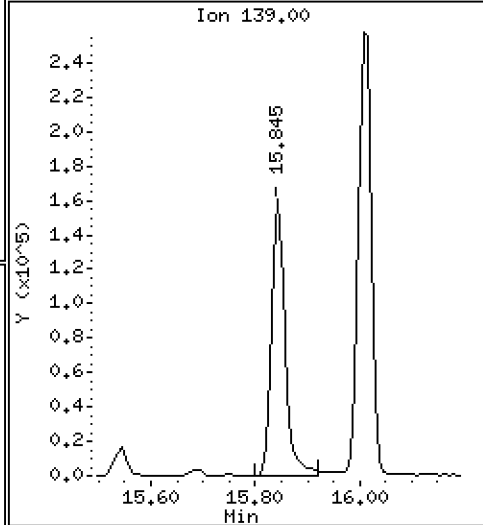
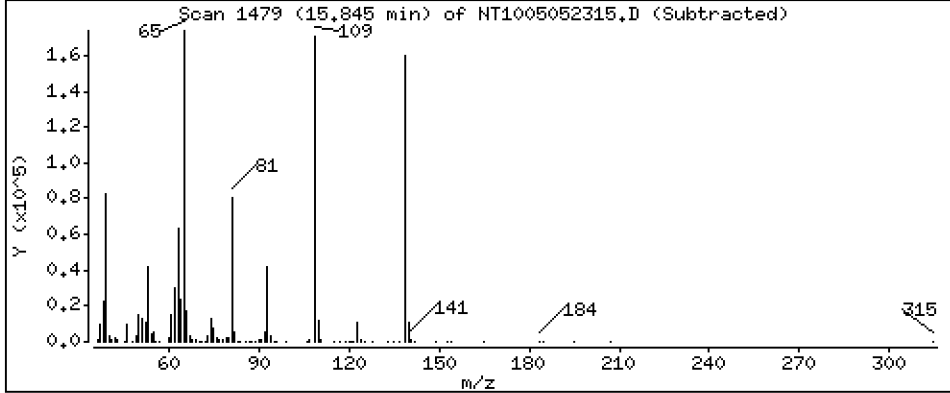
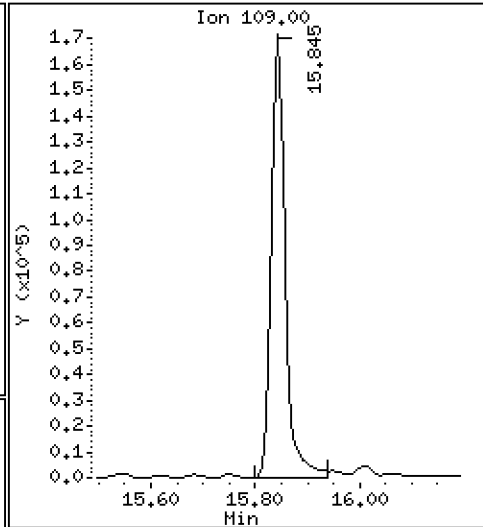
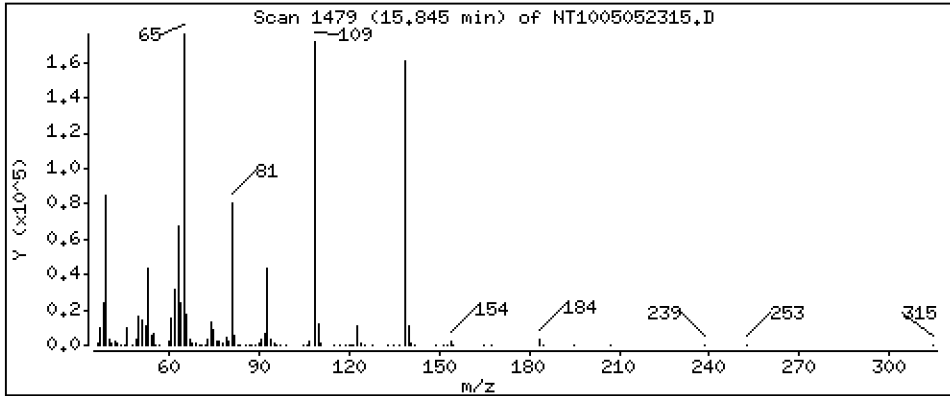
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 9,382 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

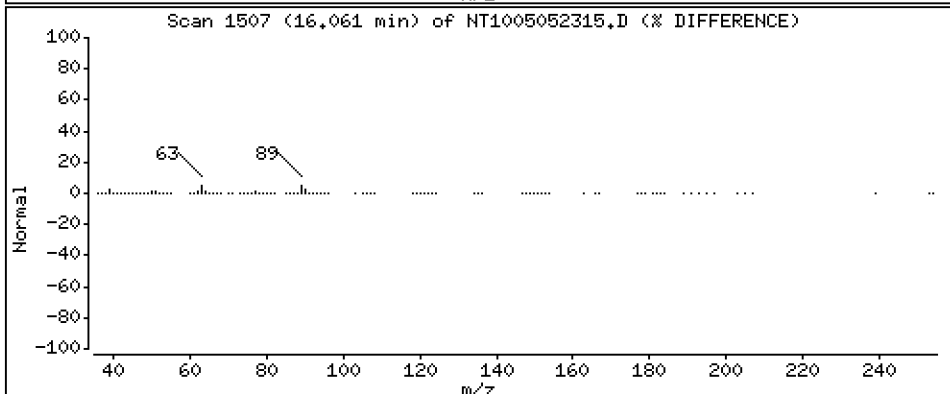
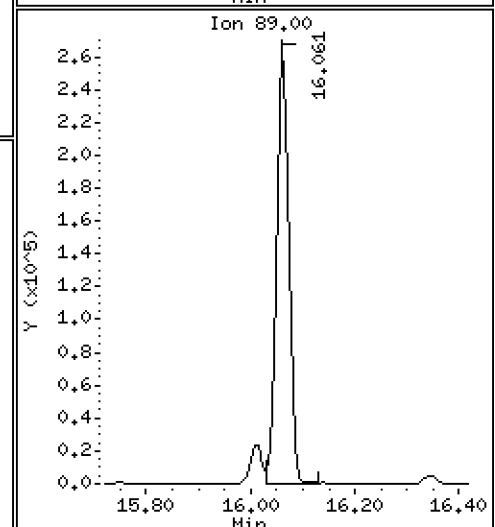
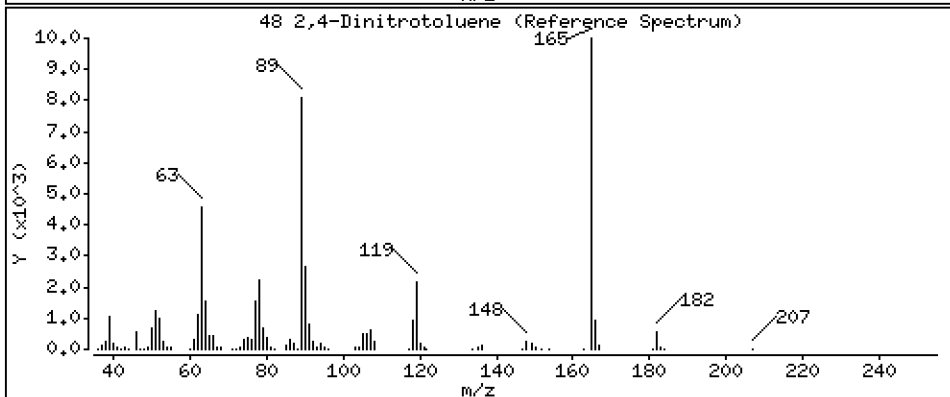
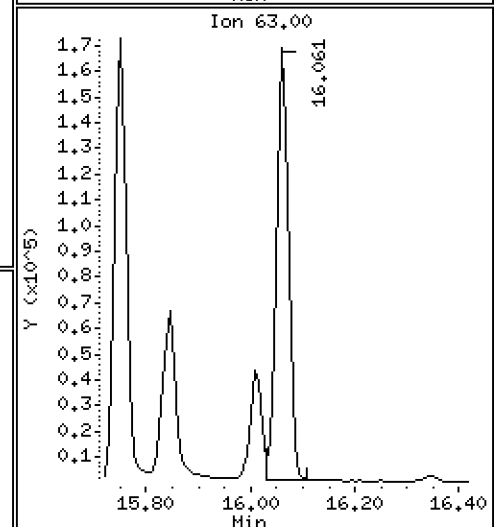
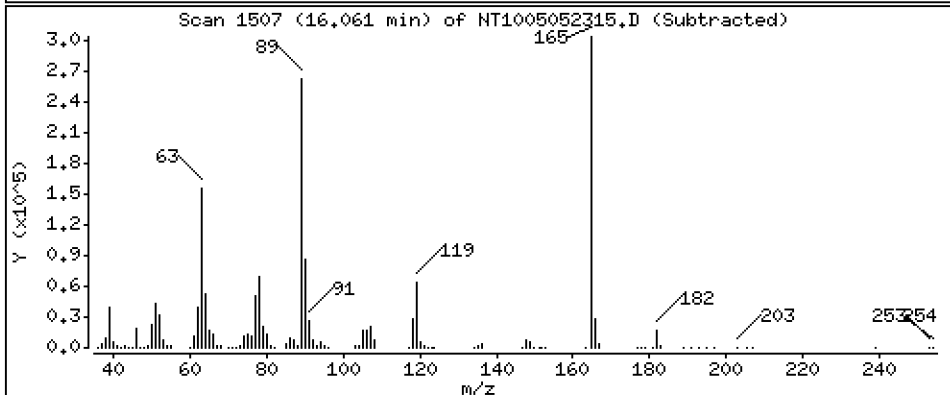
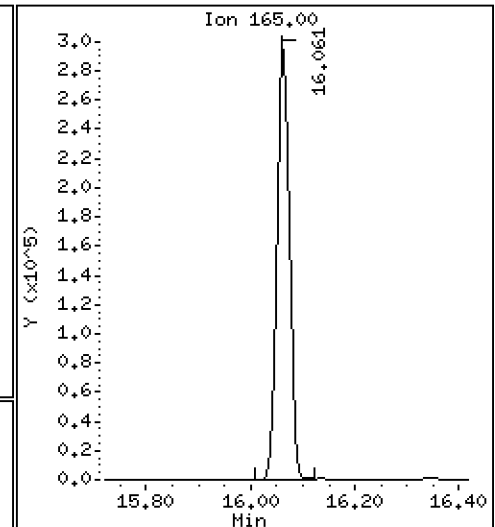
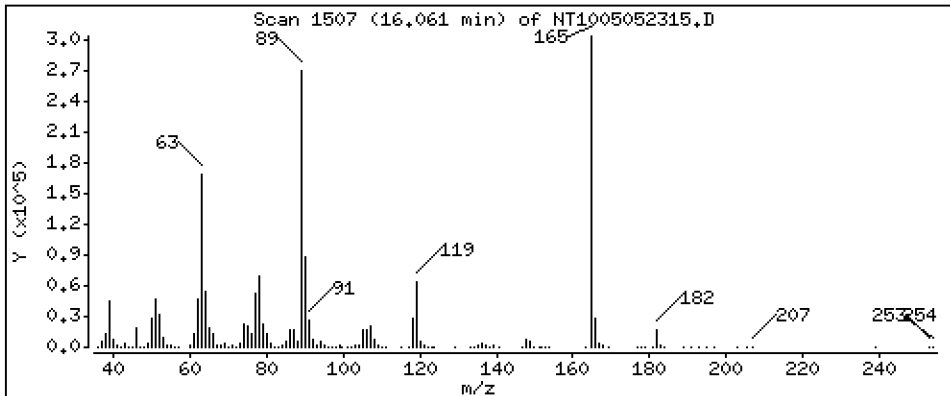
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 9,555 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

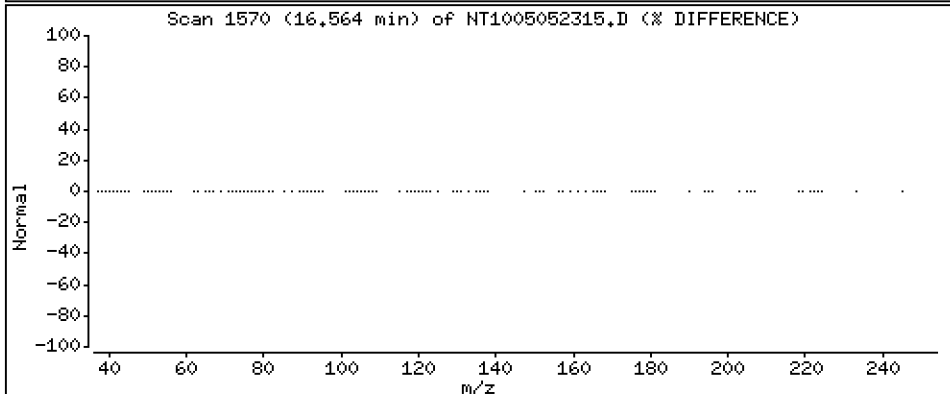
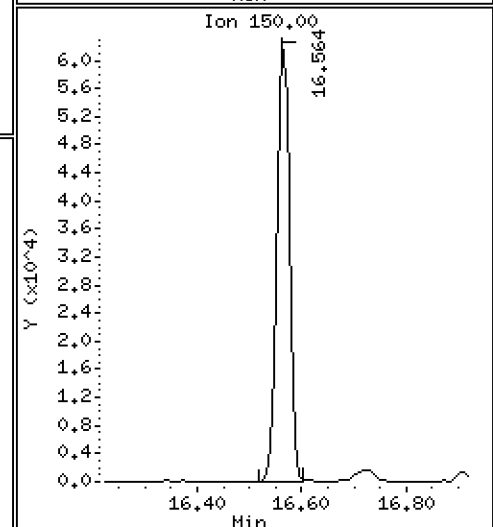
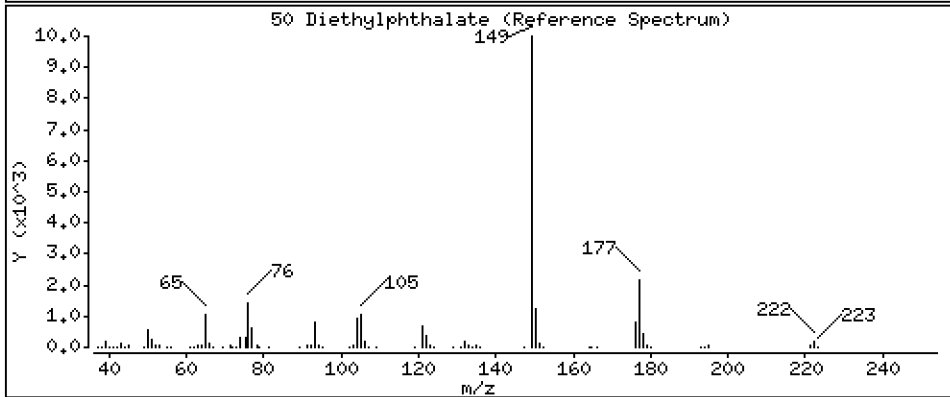
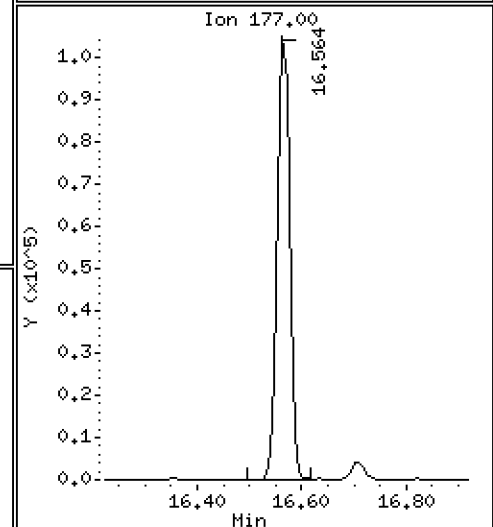
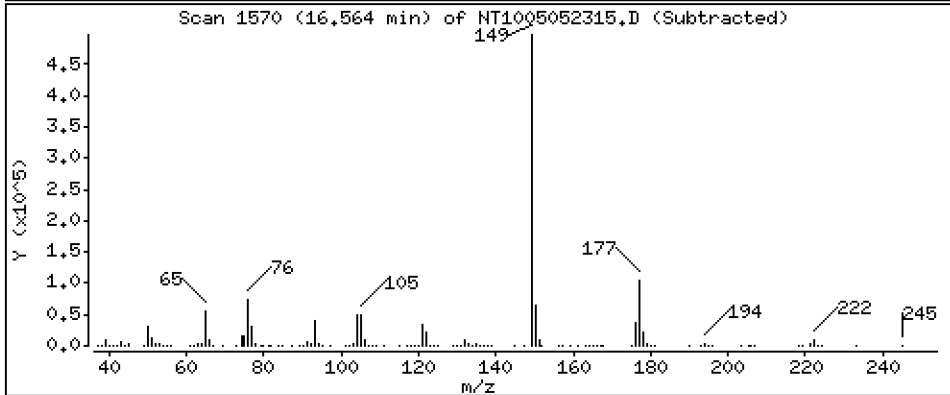
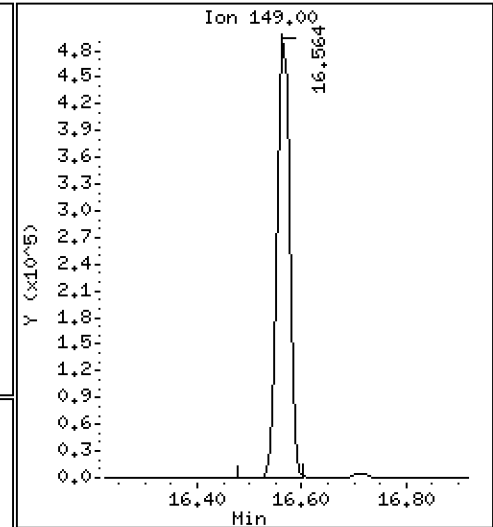
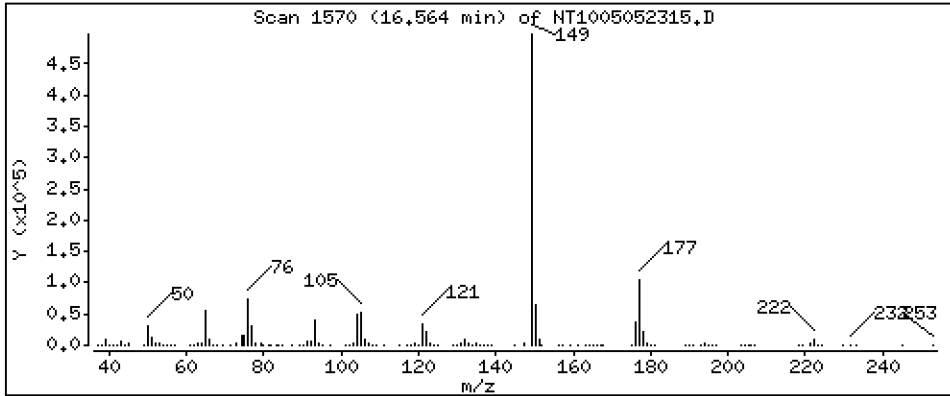
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,576 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

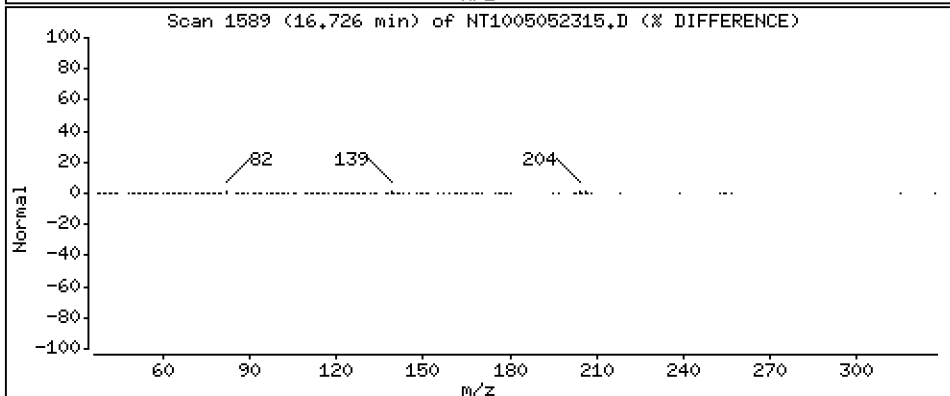
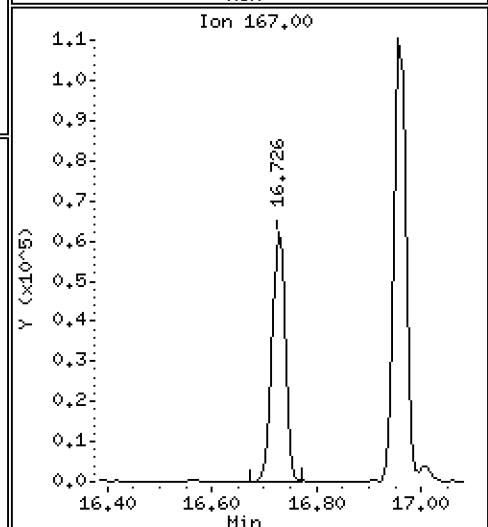
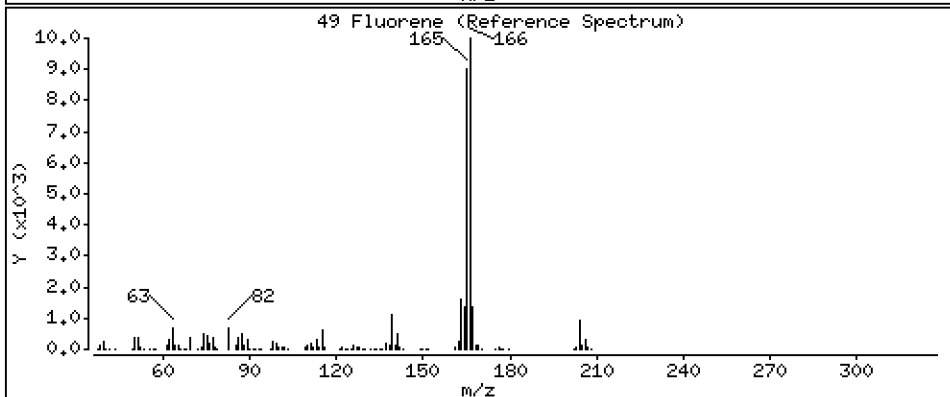
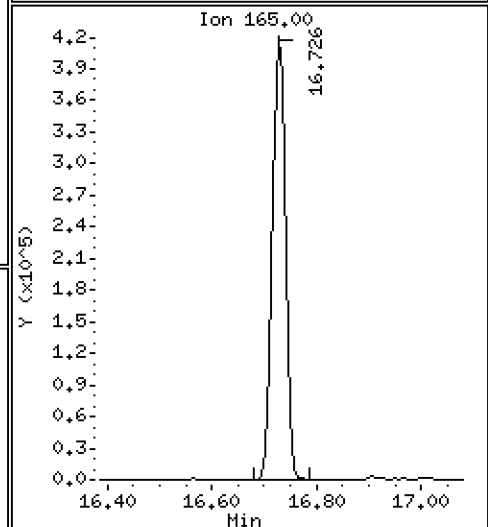
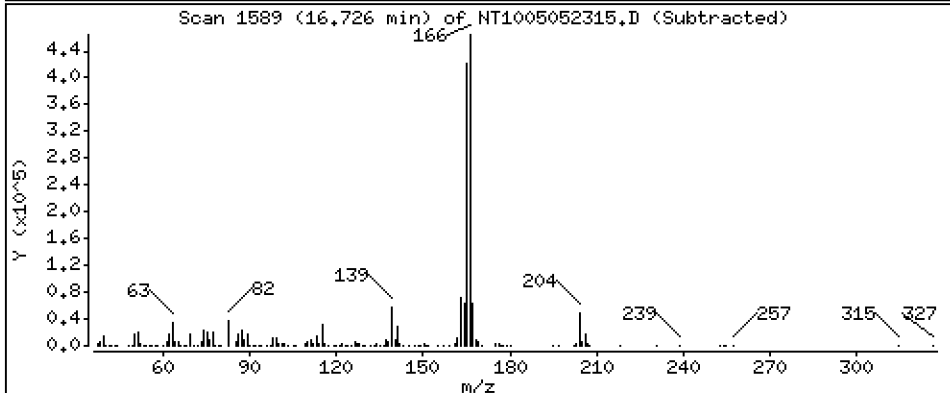
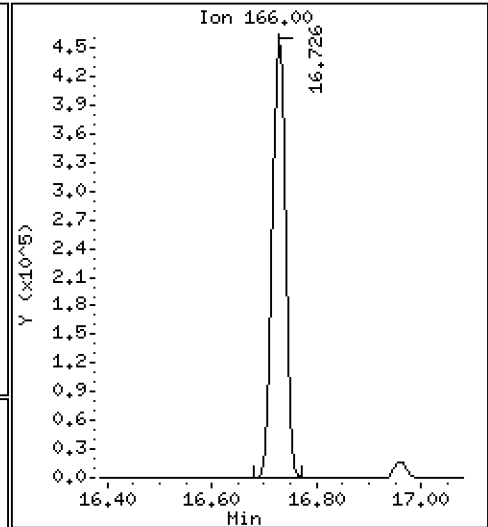
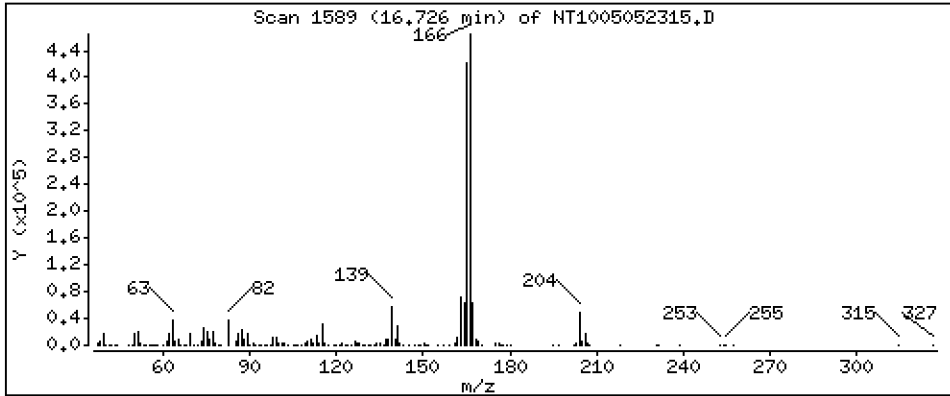
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,724 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

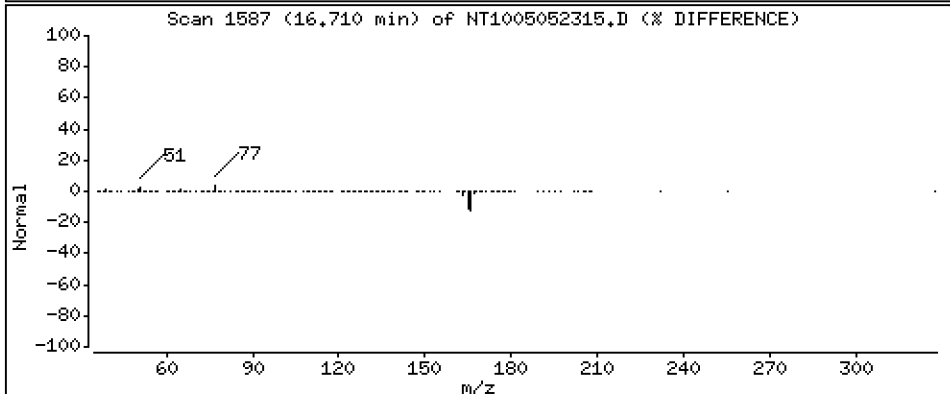
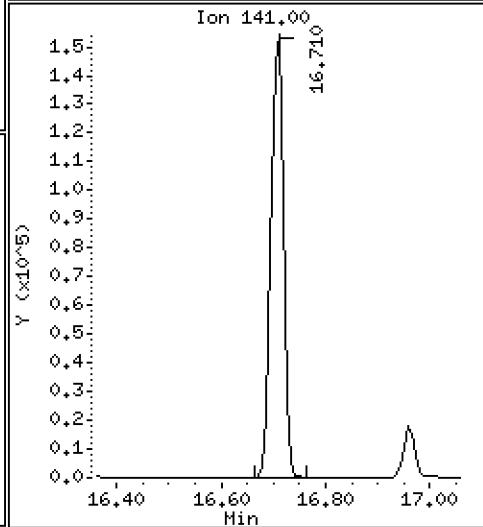
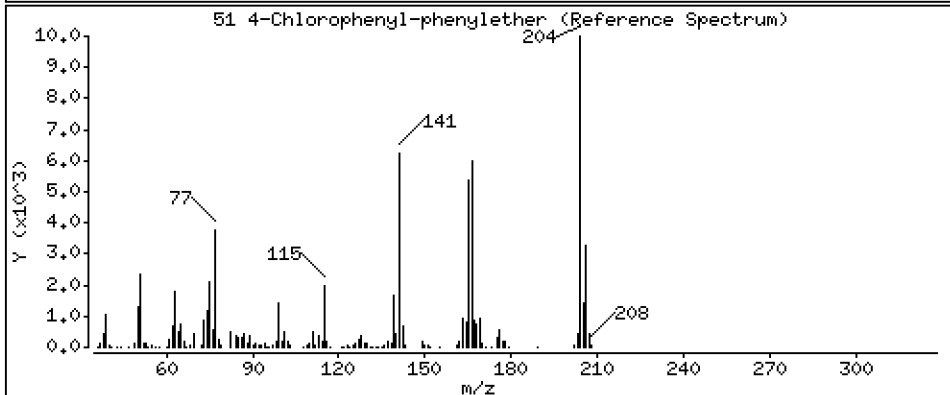
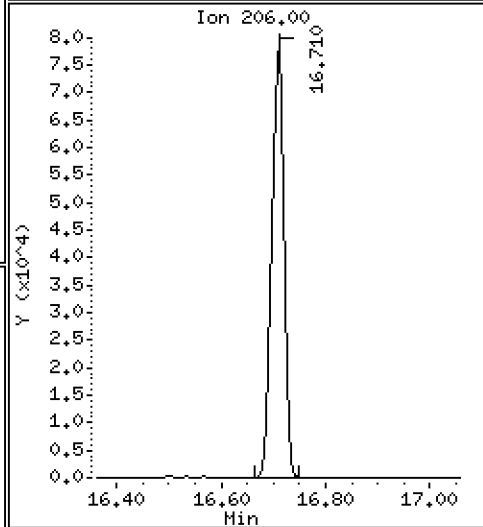
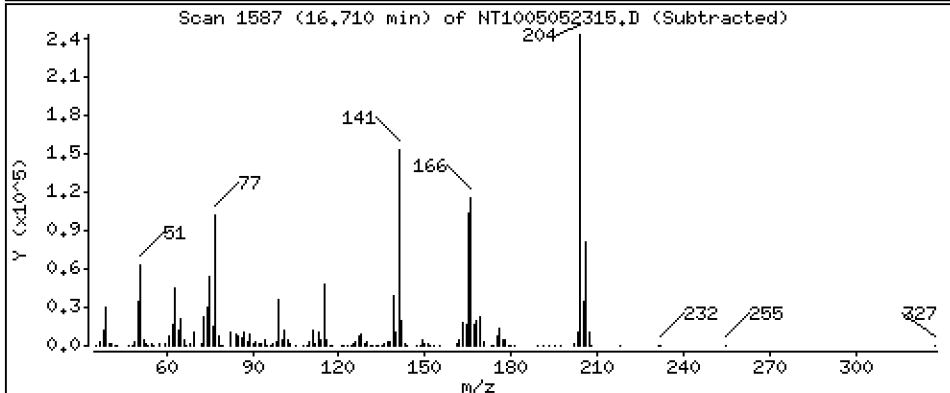
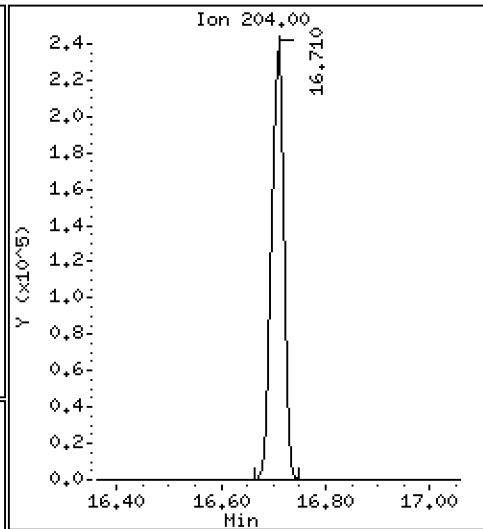
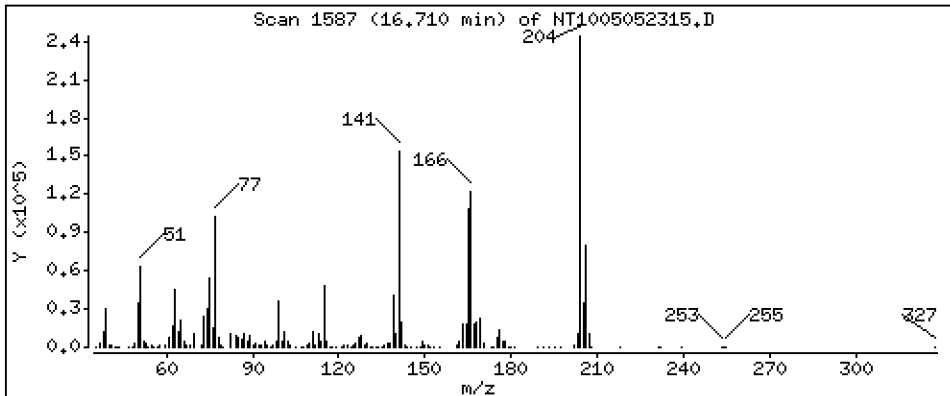
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,643 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

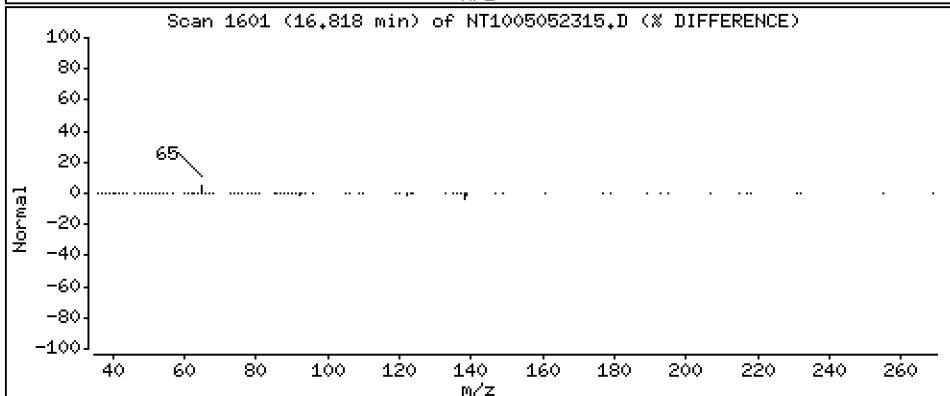
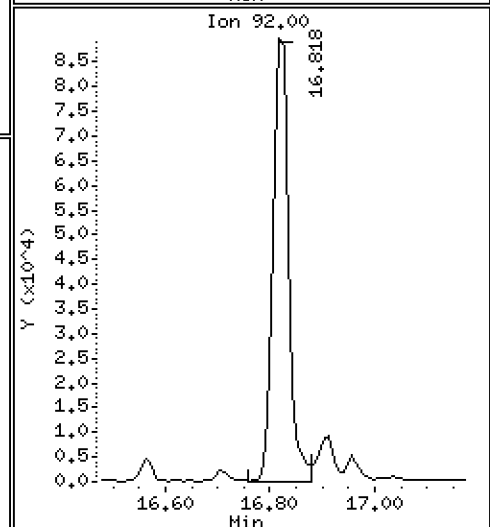
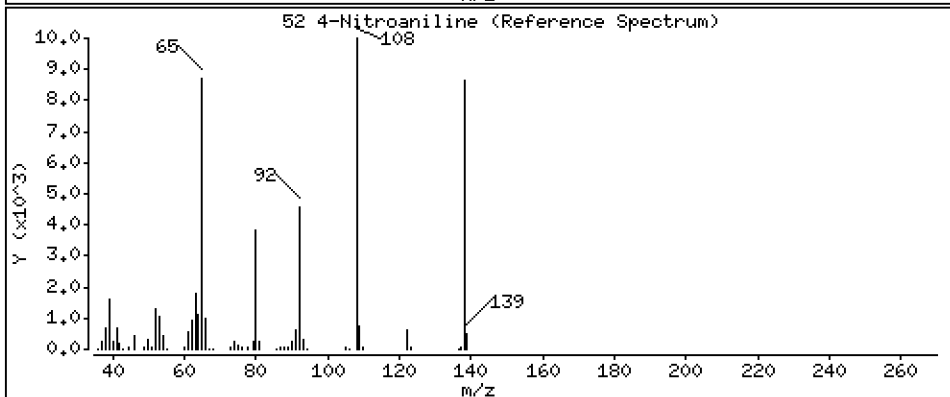
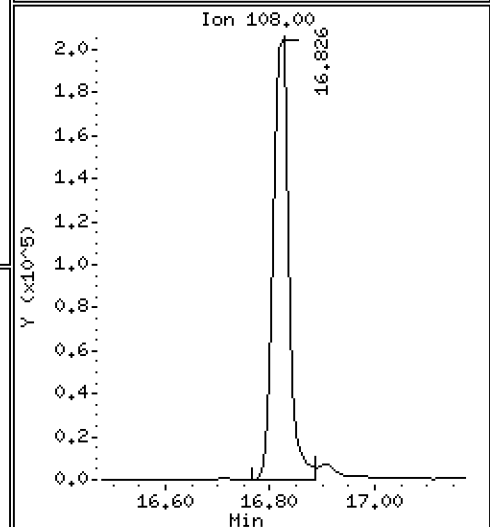
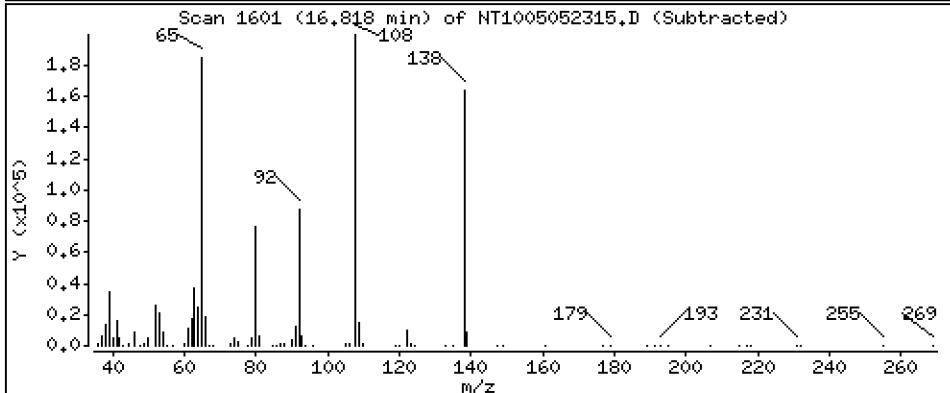
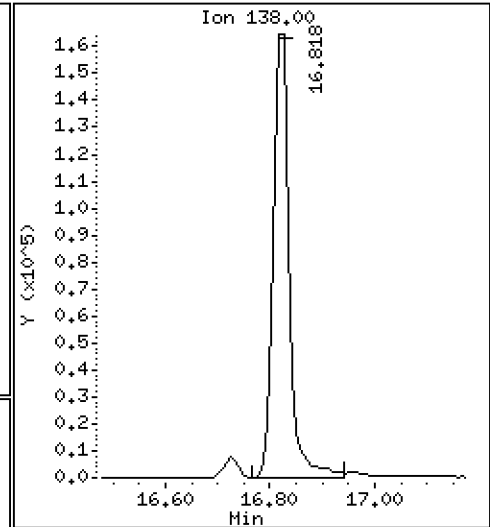
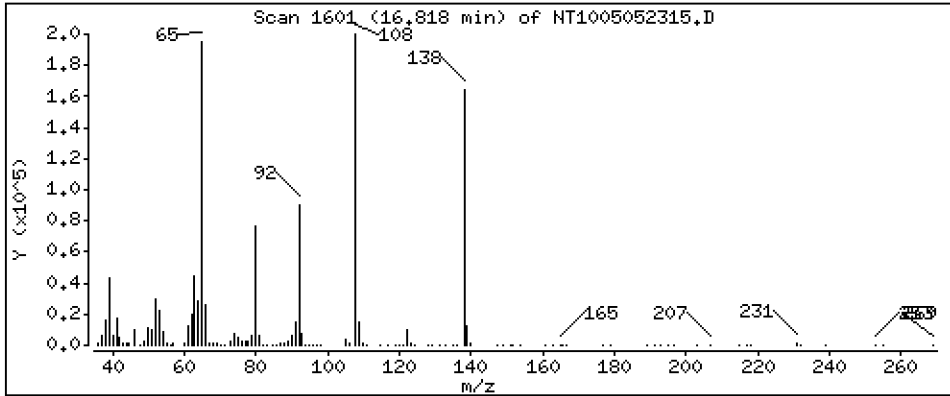
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 9.936 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

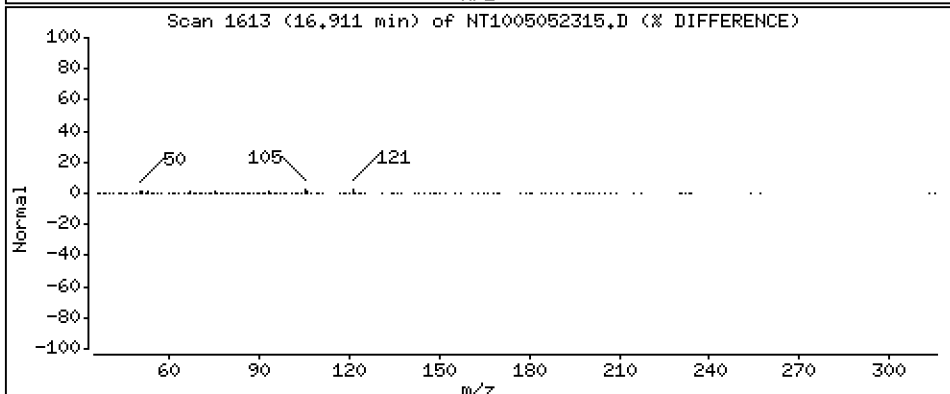
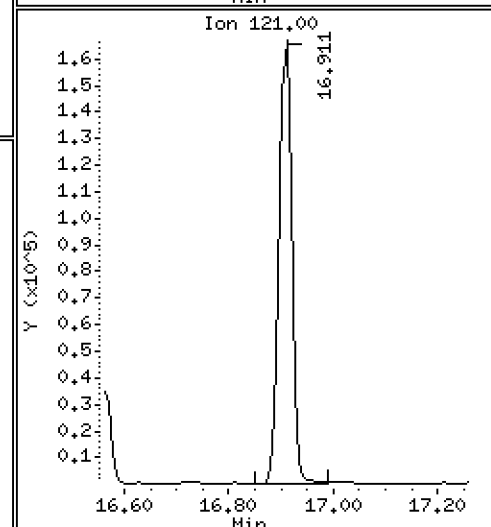
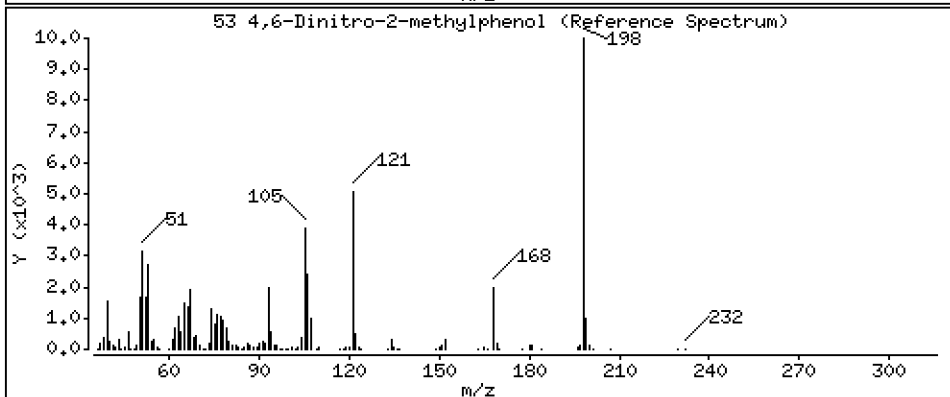
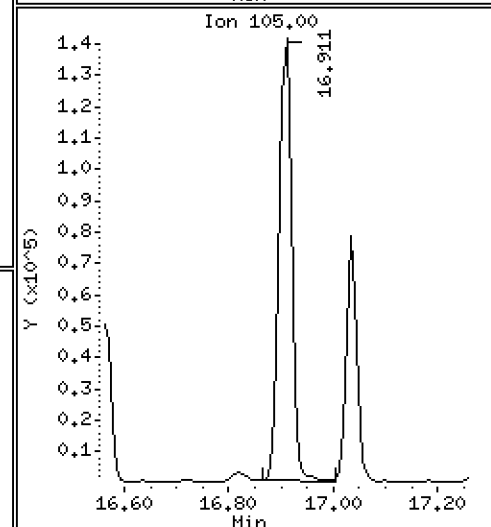
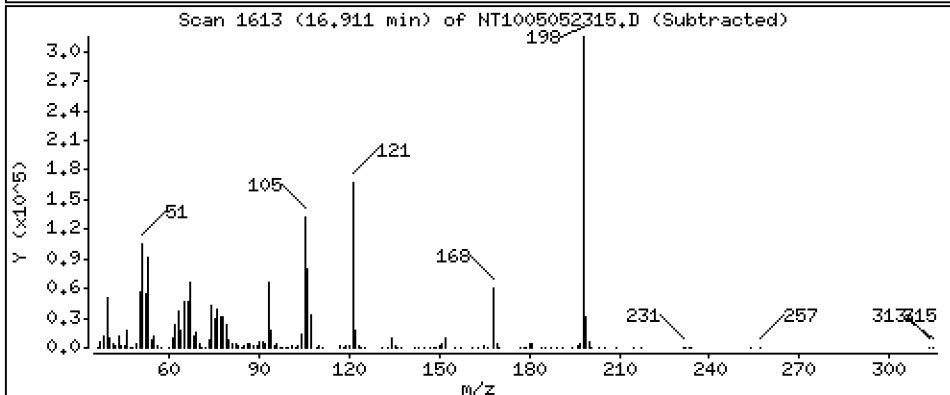
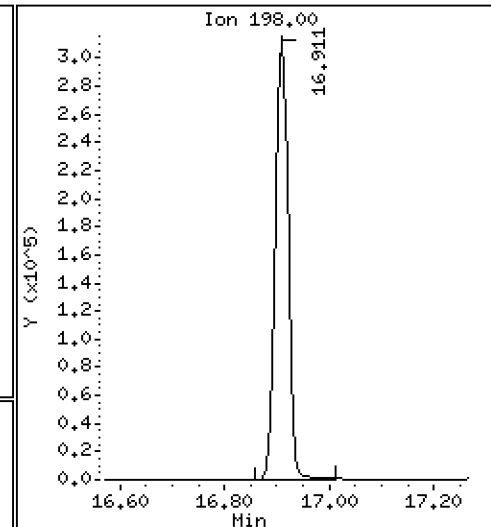
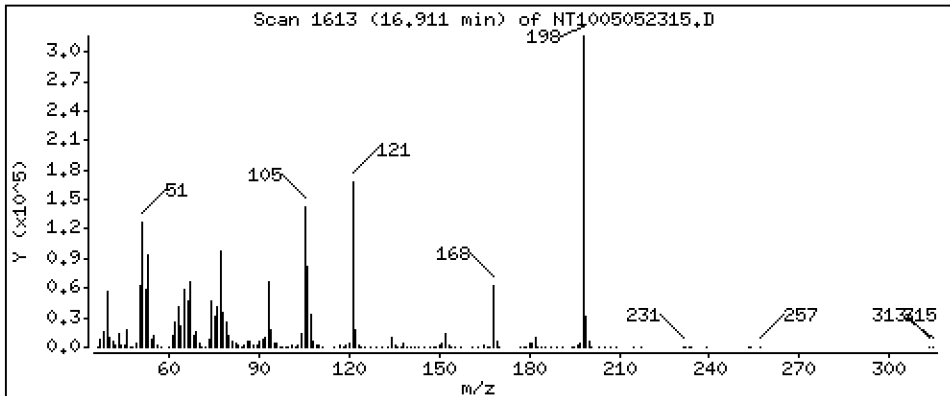
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 18,54 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

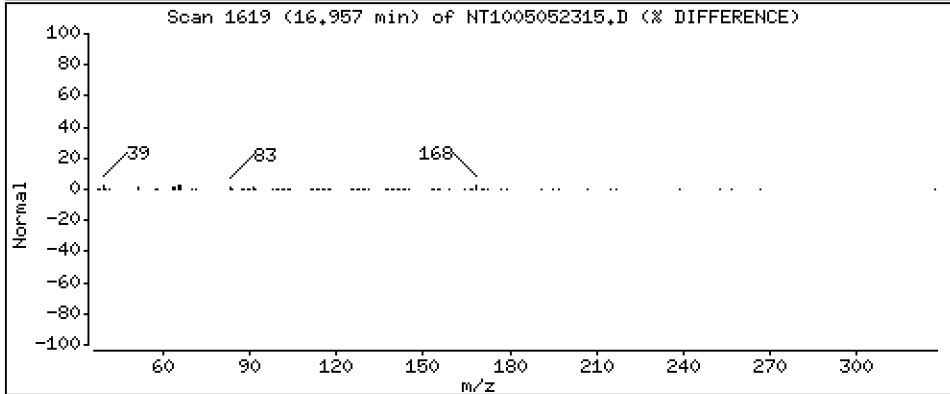
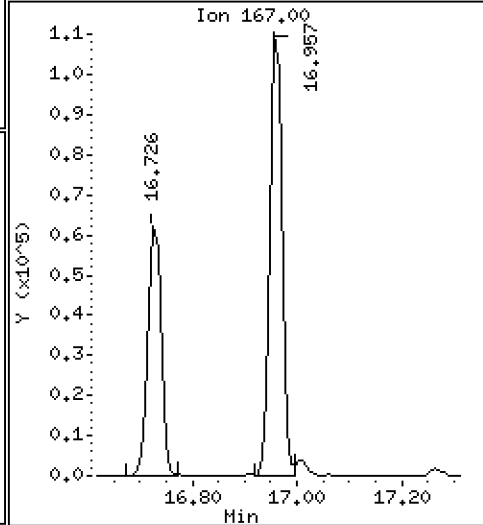
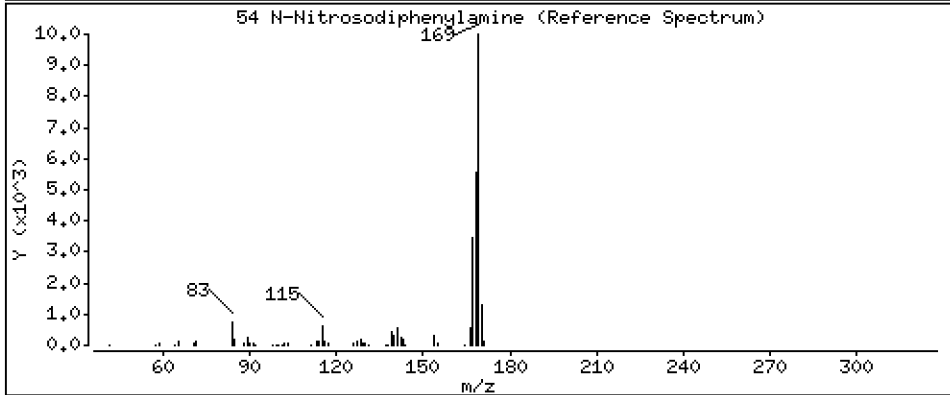
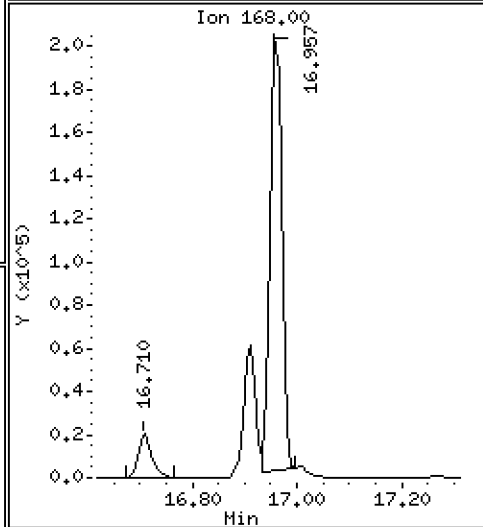
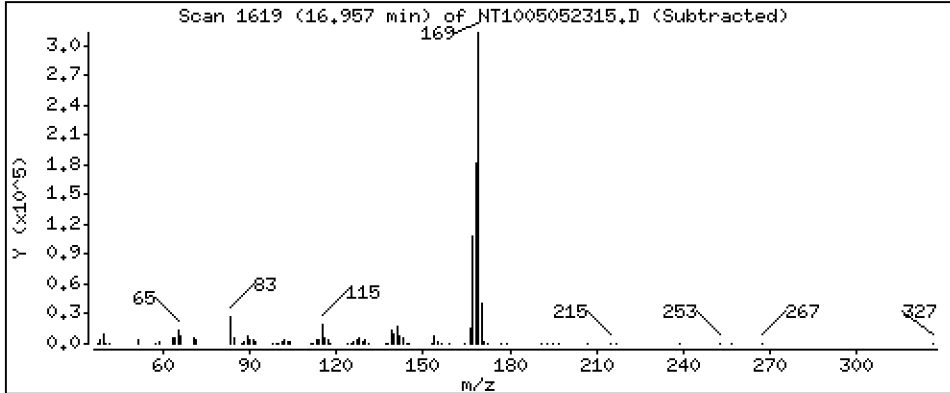
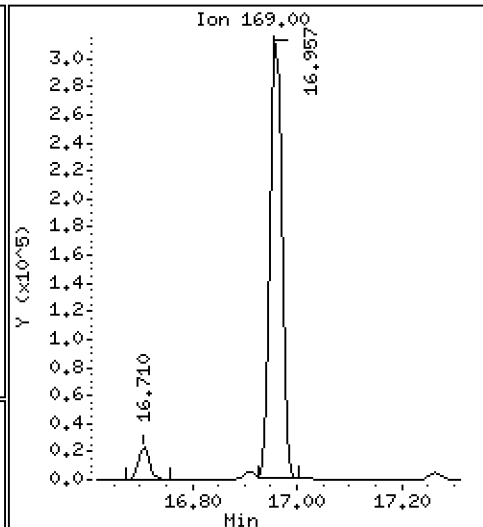
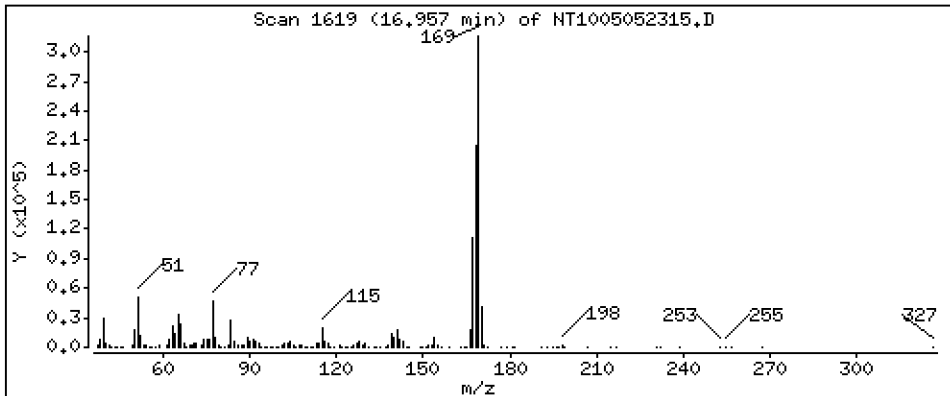
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,111 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

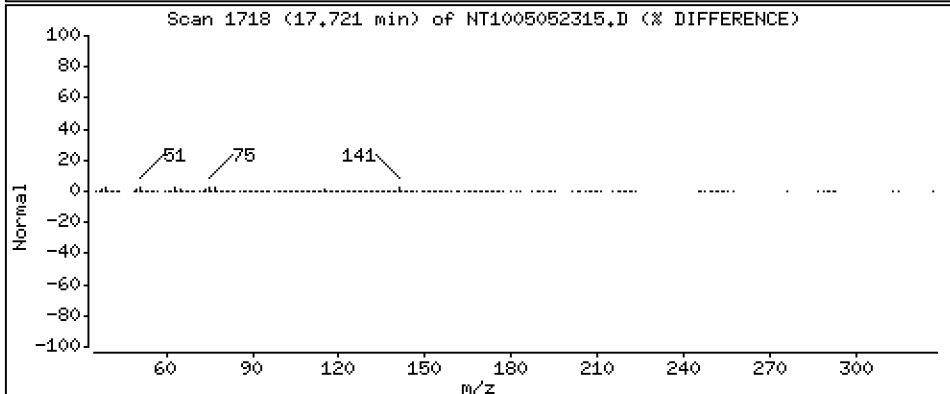
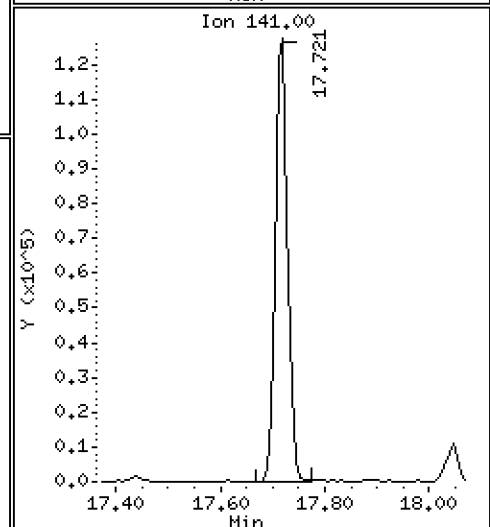
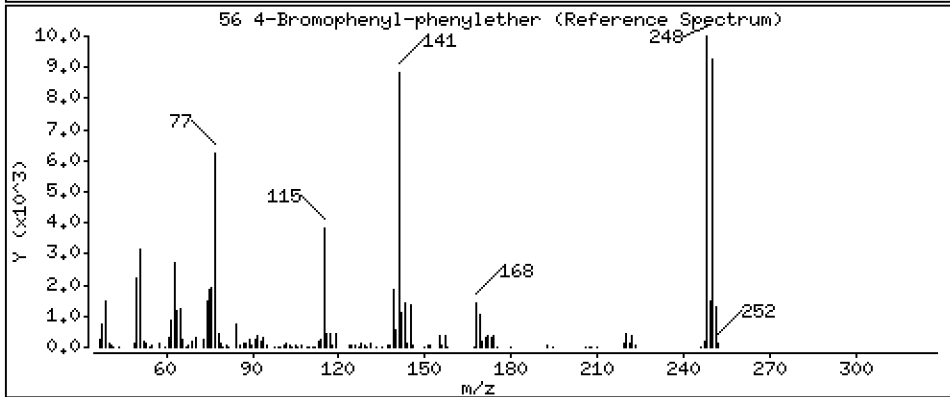
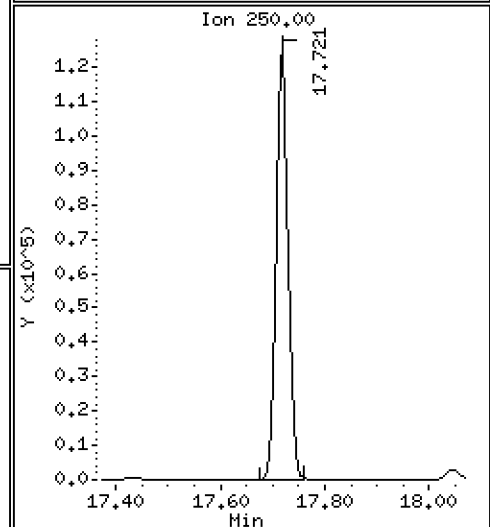
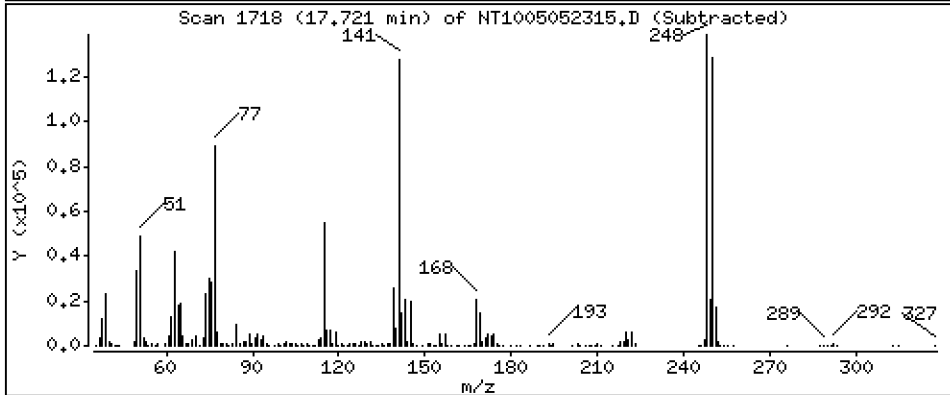
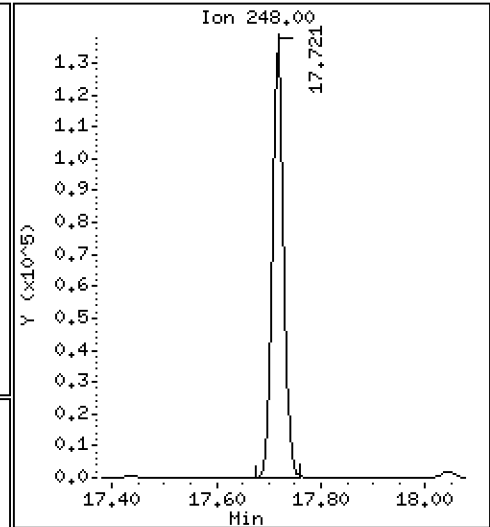
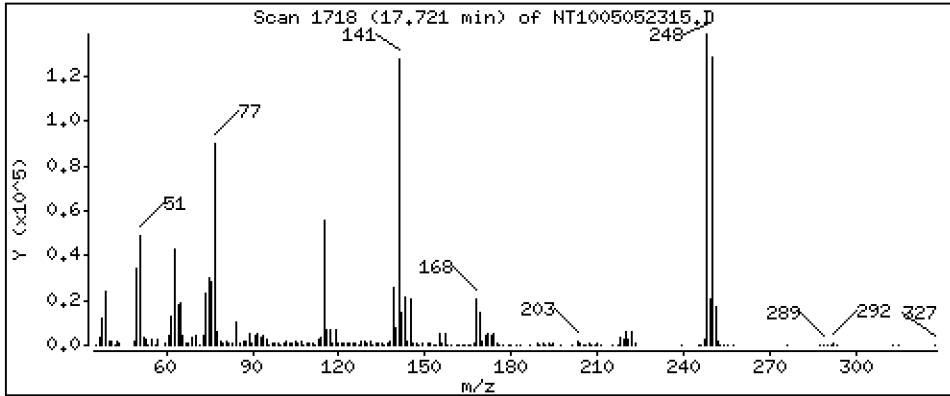
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,918 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

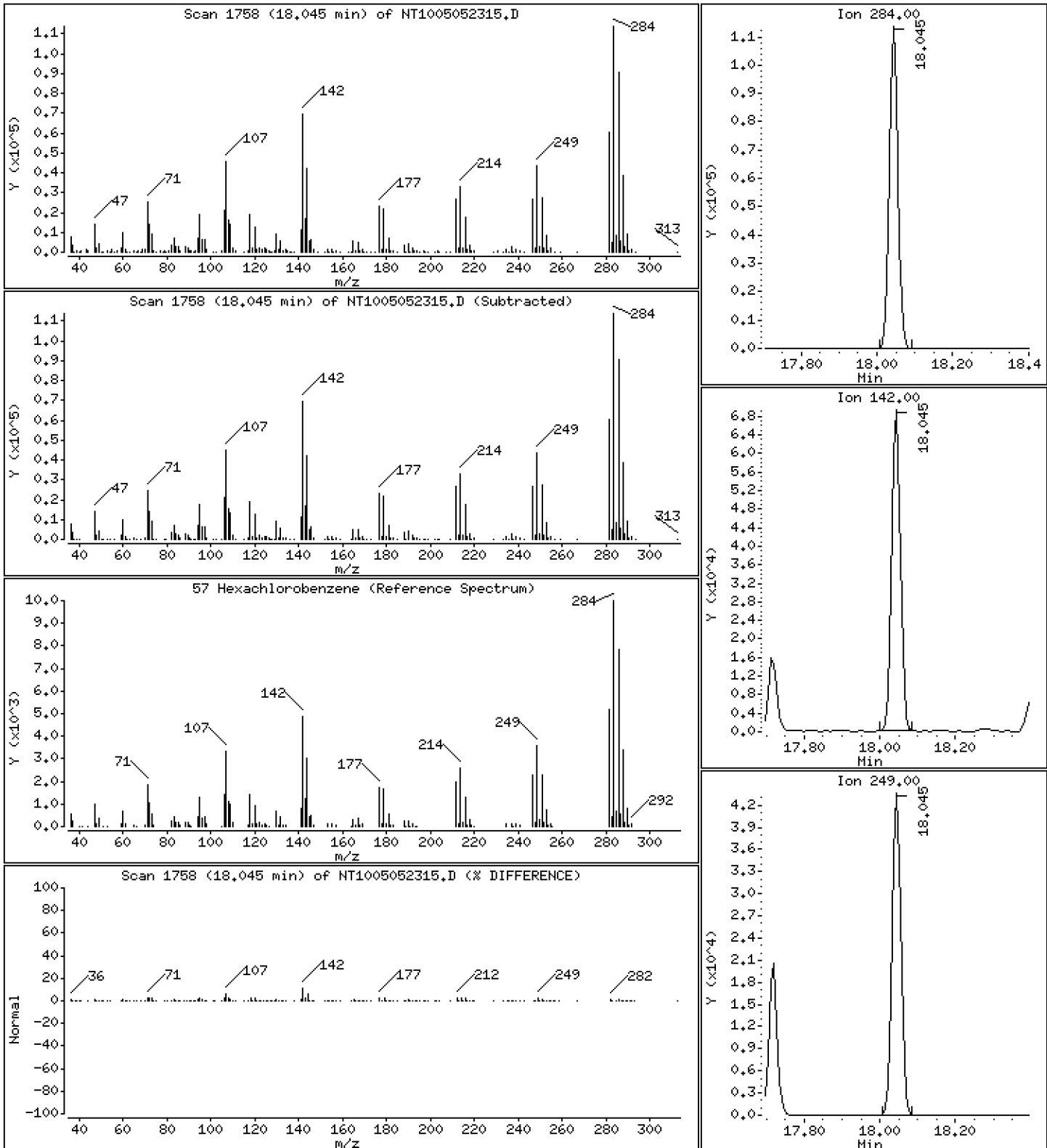
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,269 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

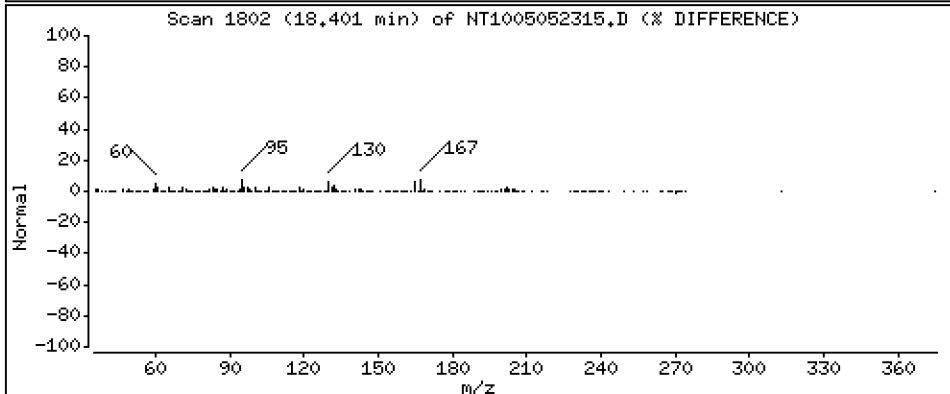
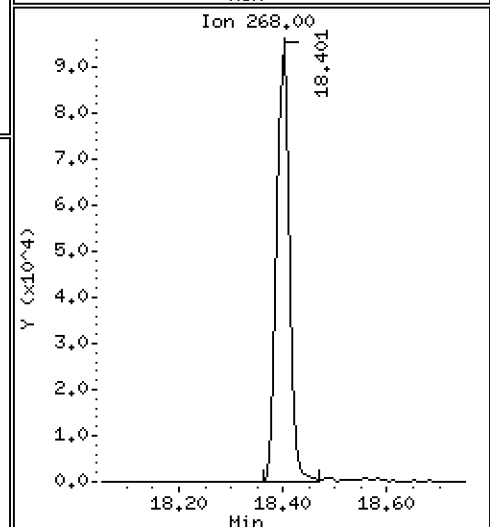
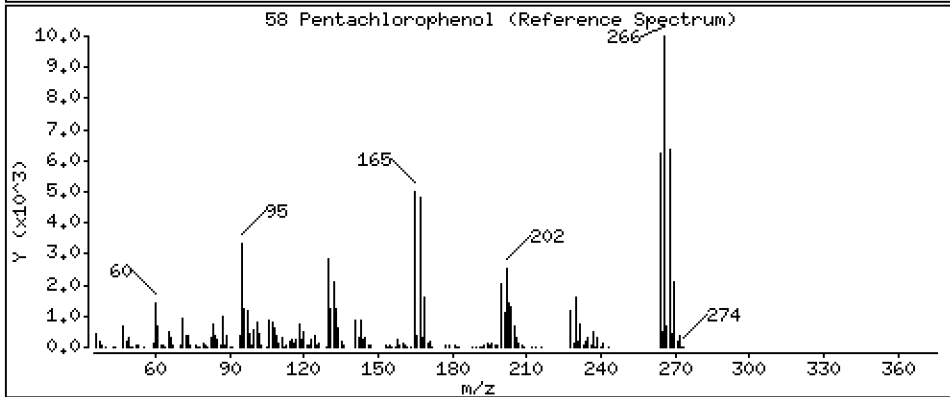
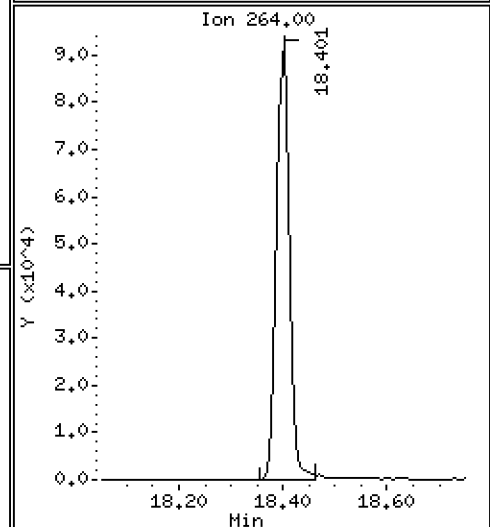
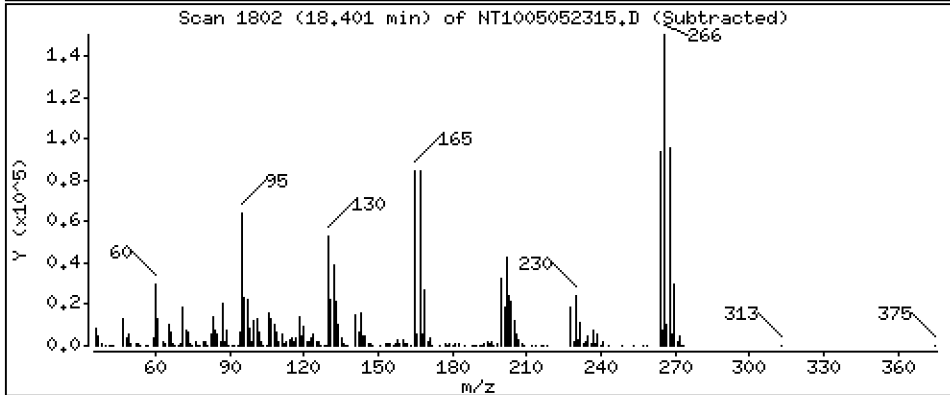
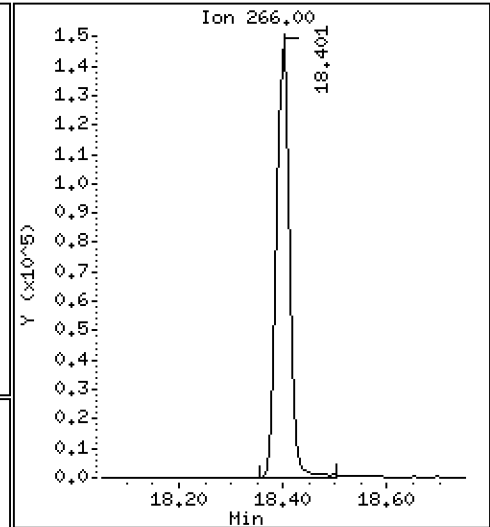
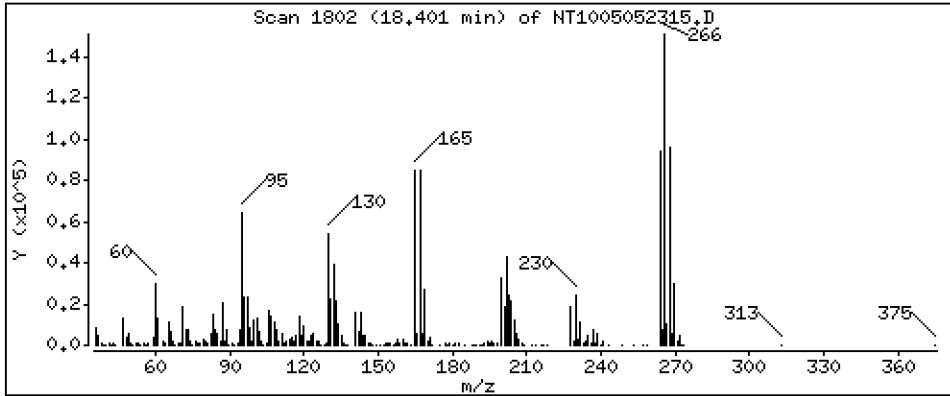
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 8,069 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

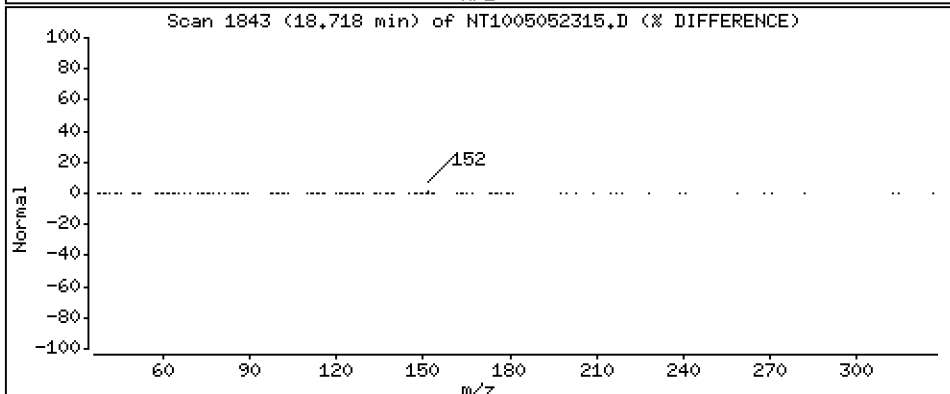
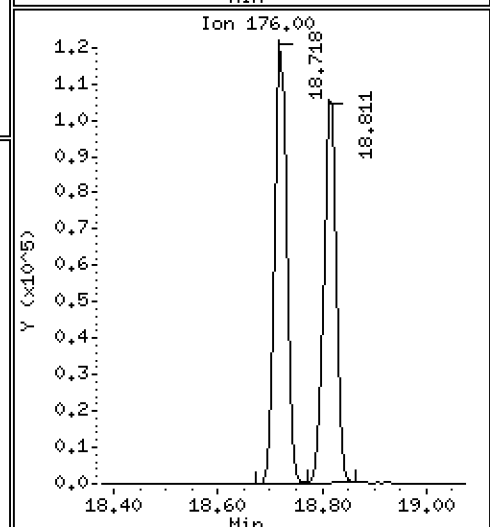
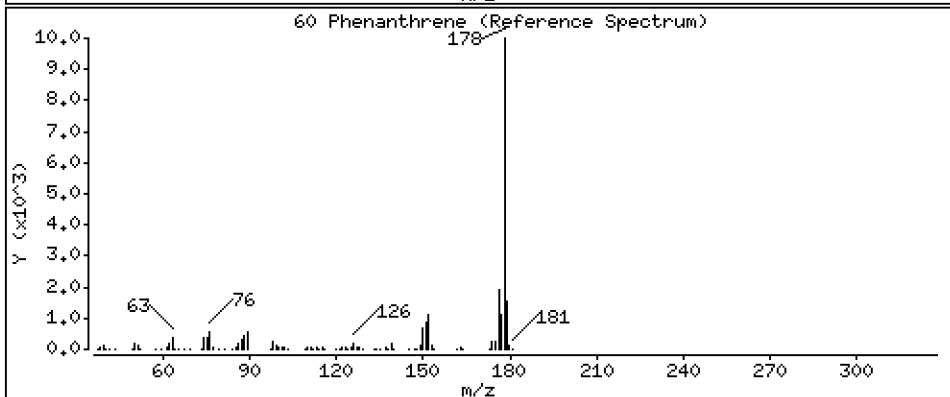
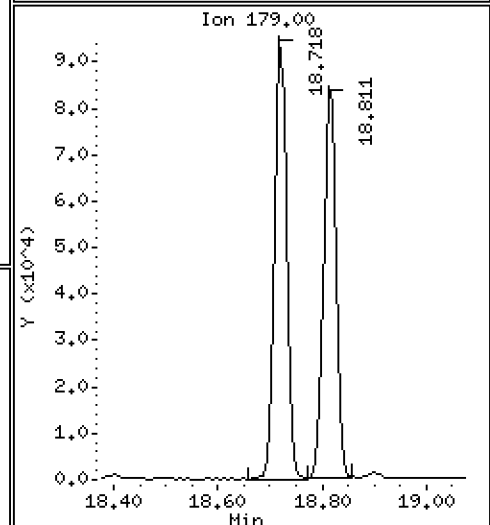
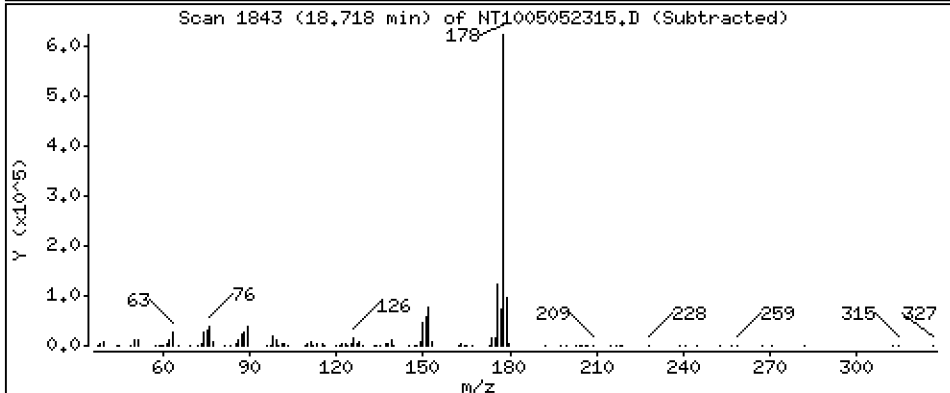
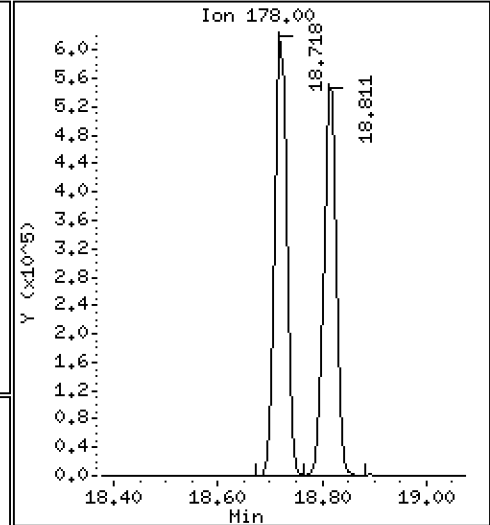
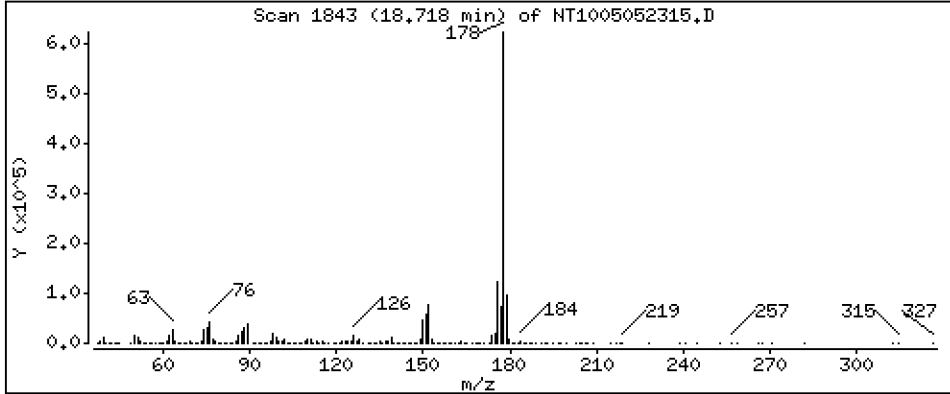
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,665 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

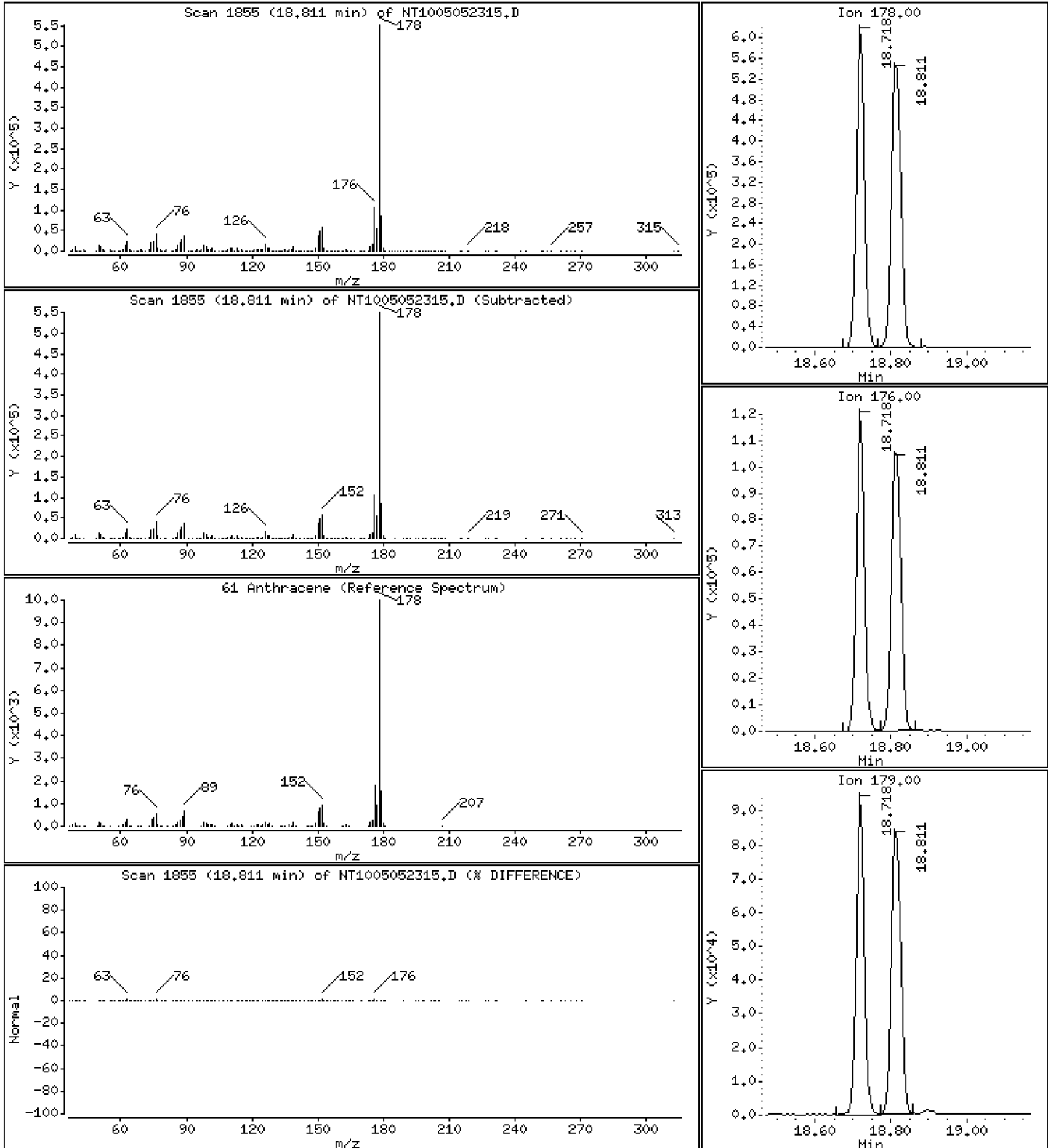
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,946 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

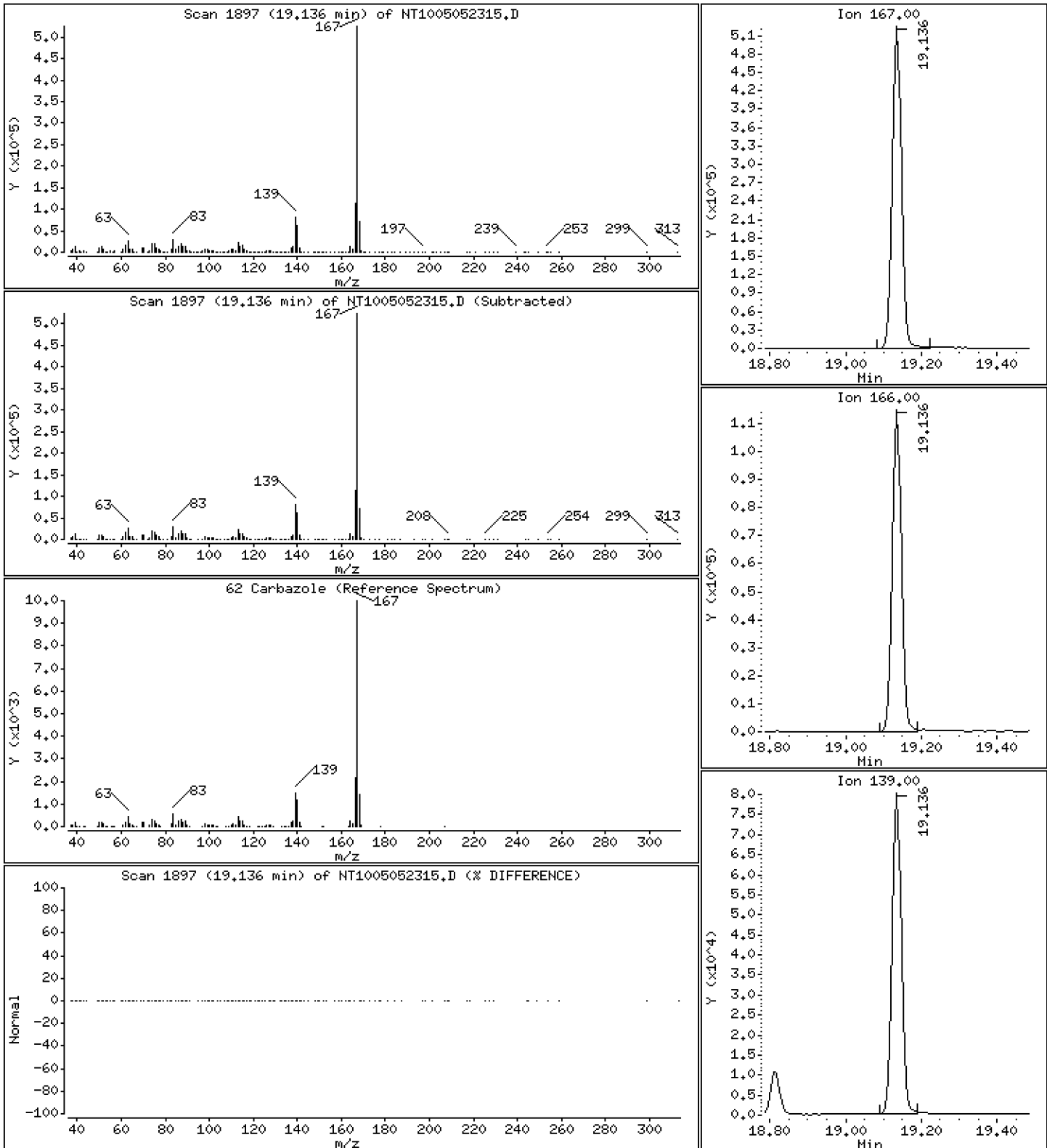
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 5,067 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

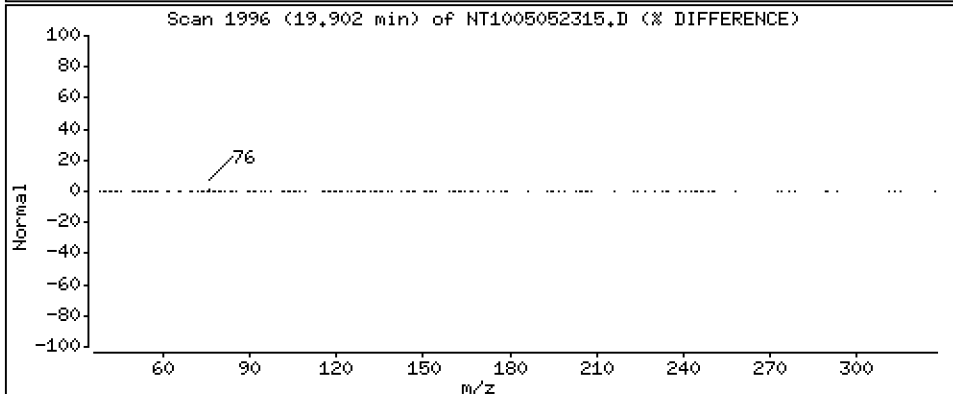
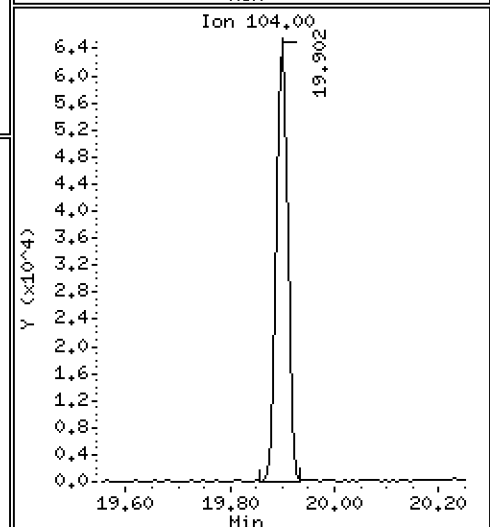
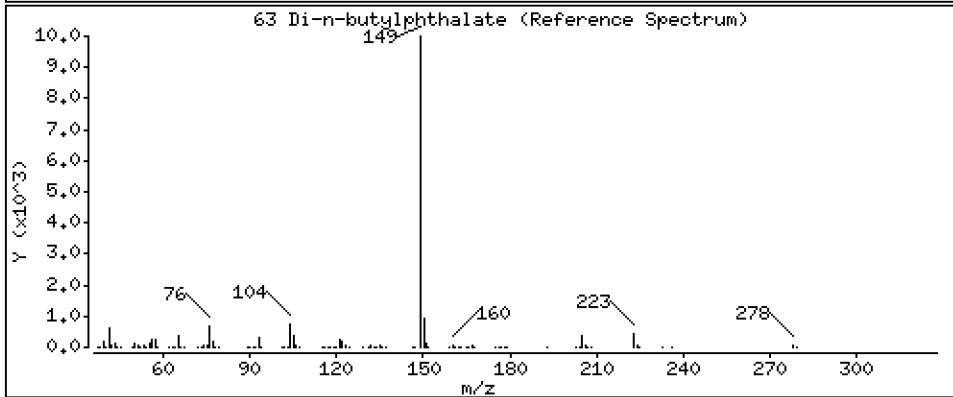
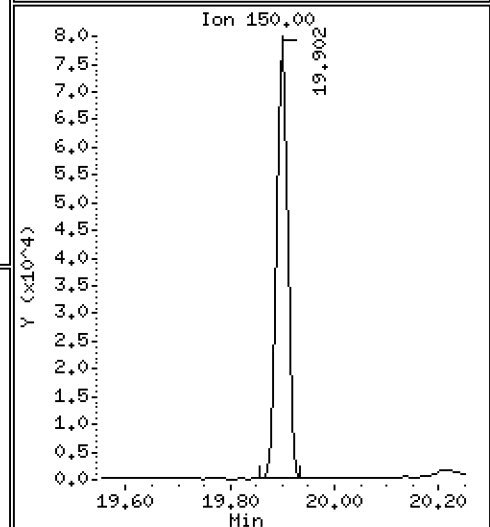
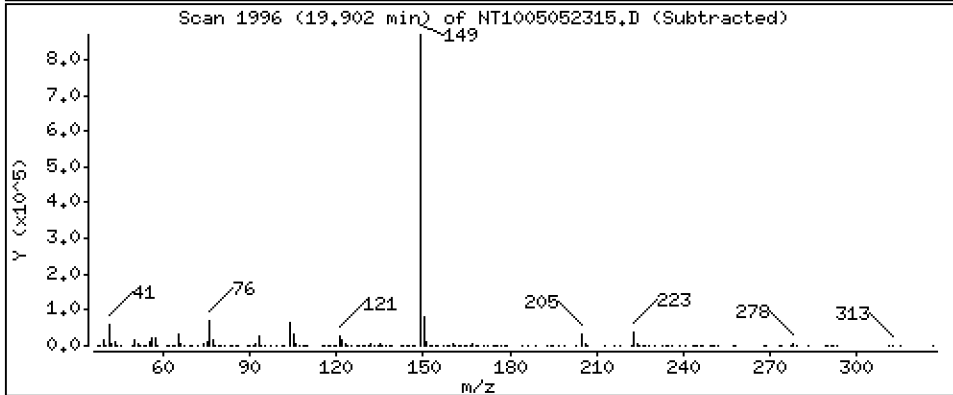
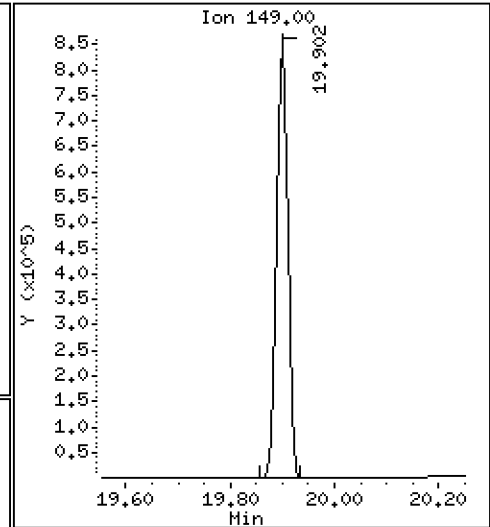
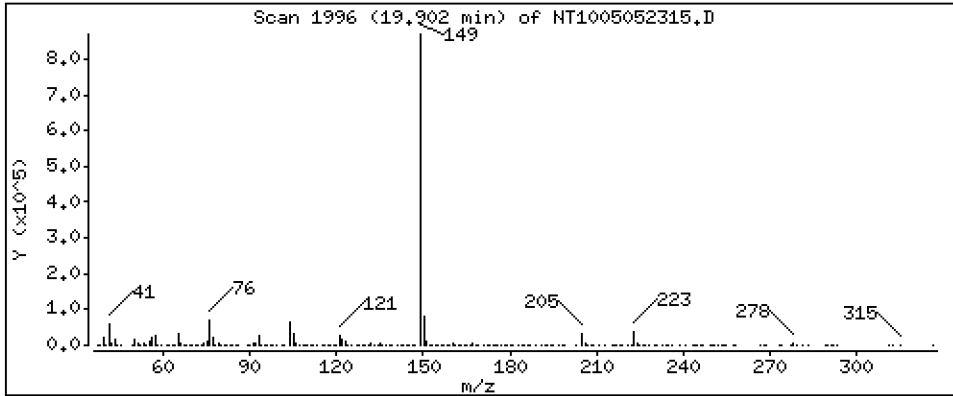
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,784 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

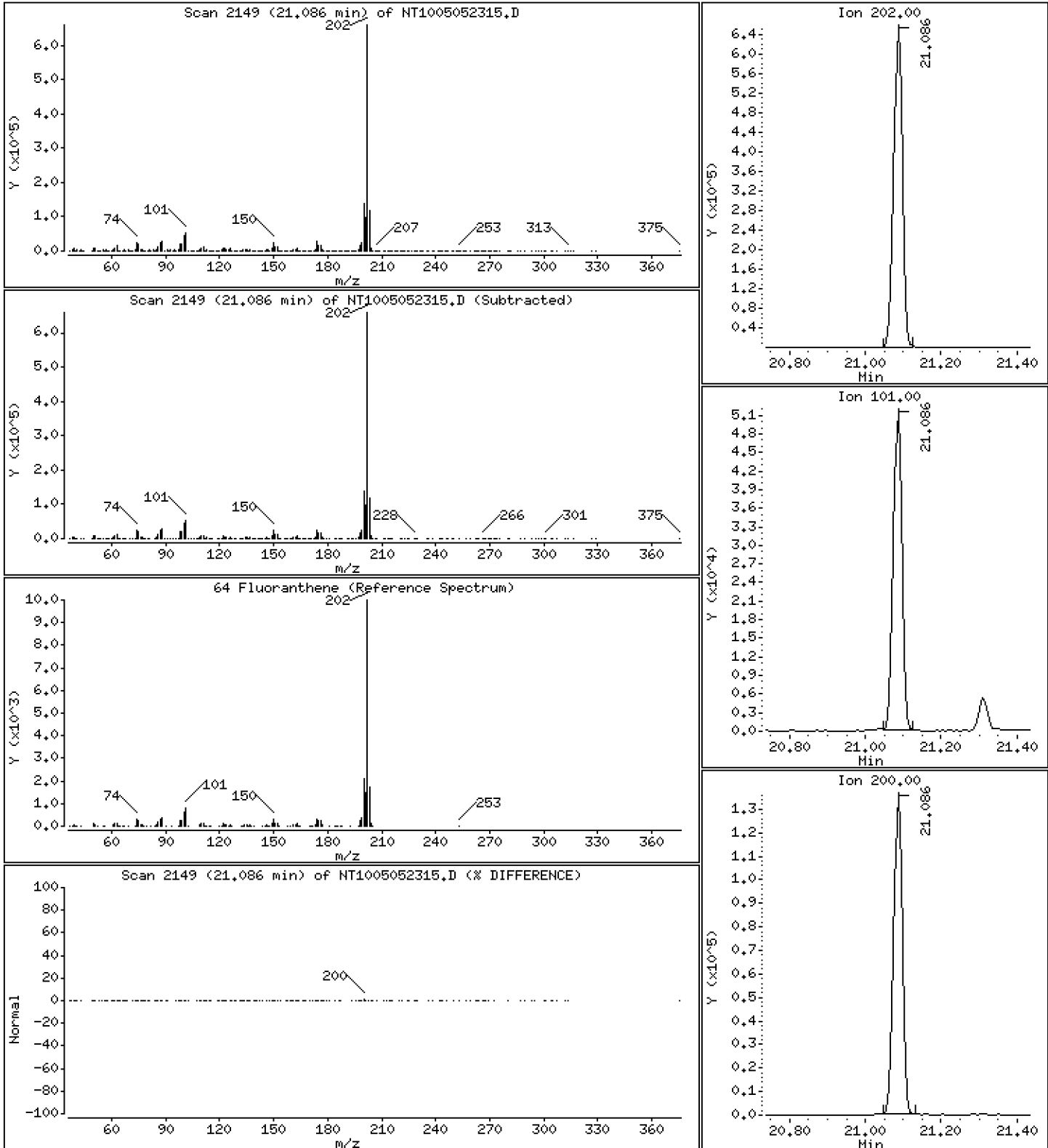
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,437 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

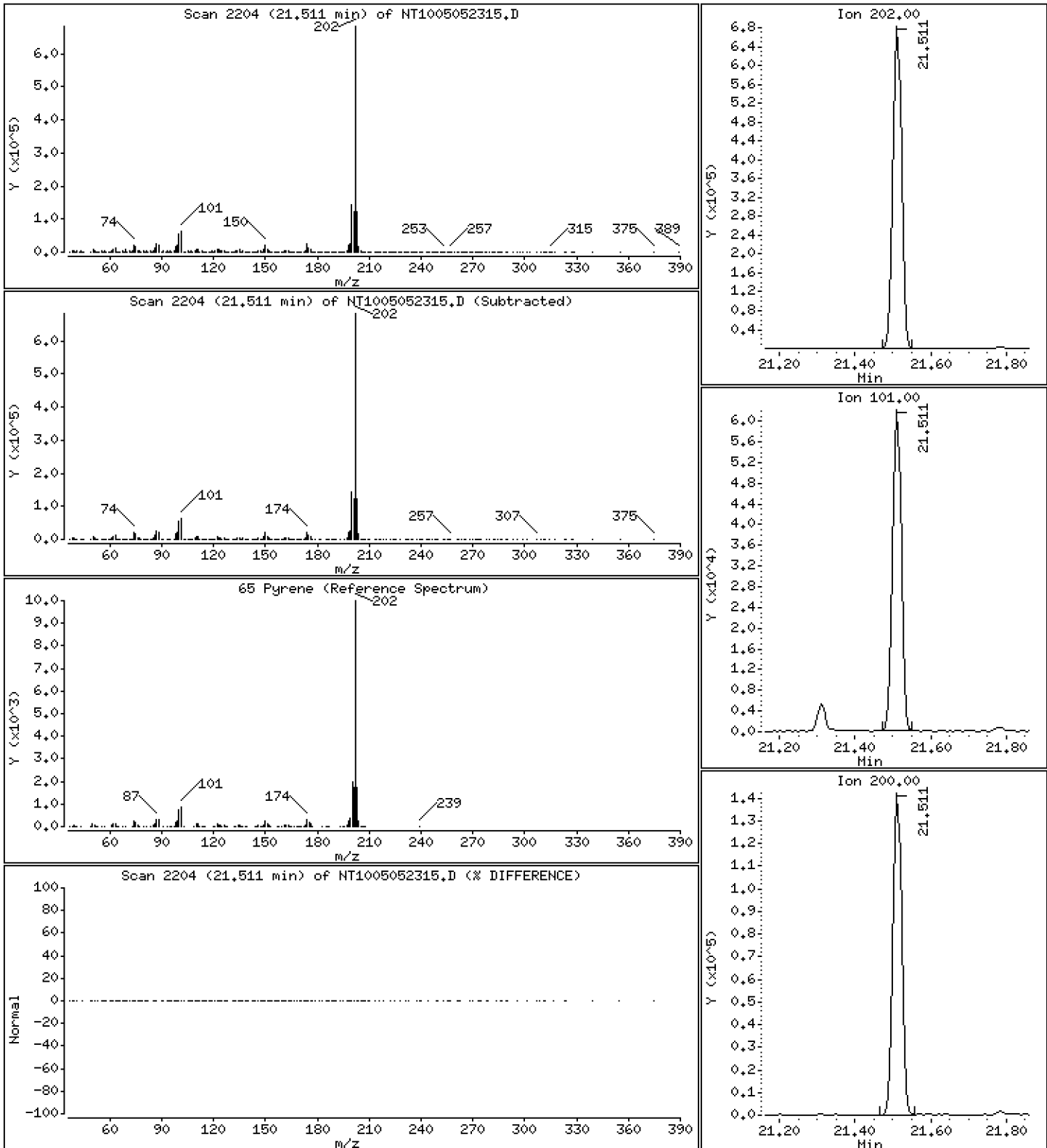
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,615 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

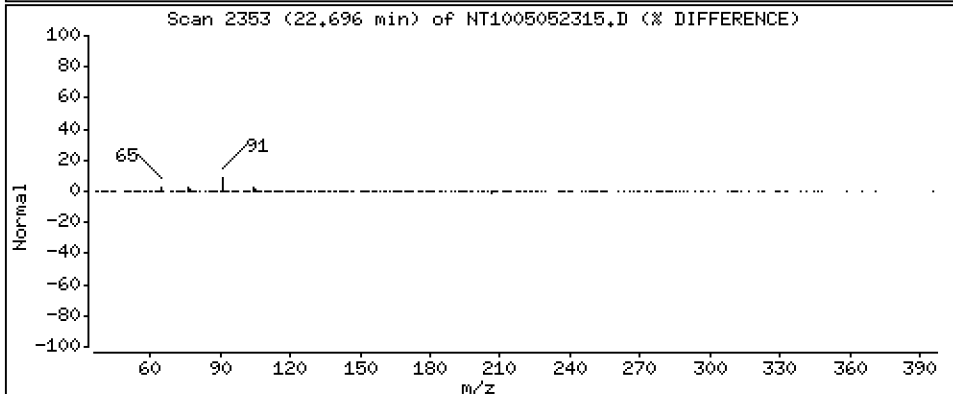
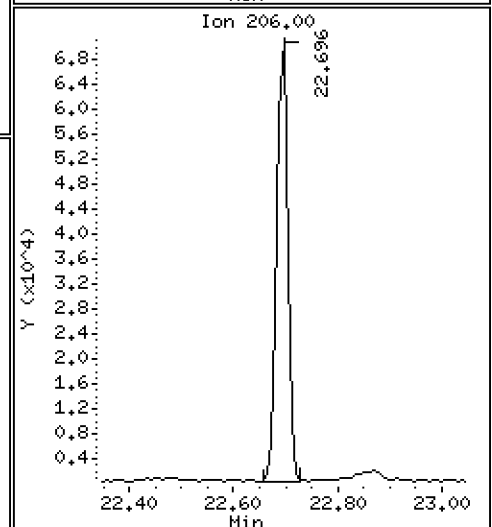
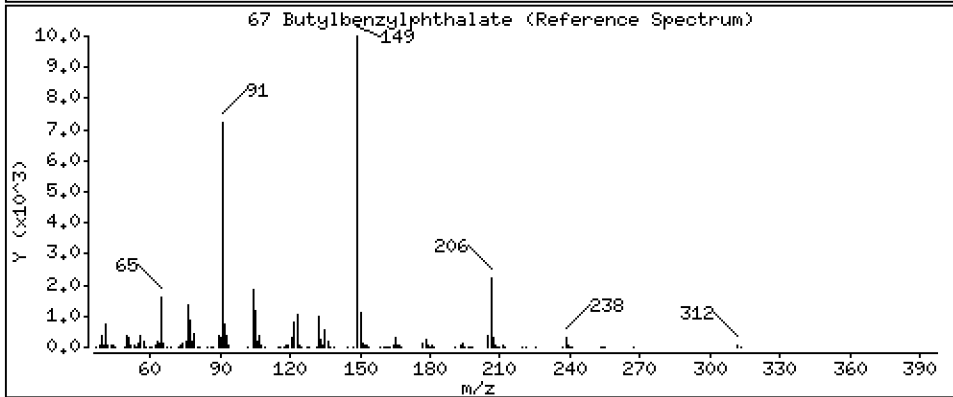
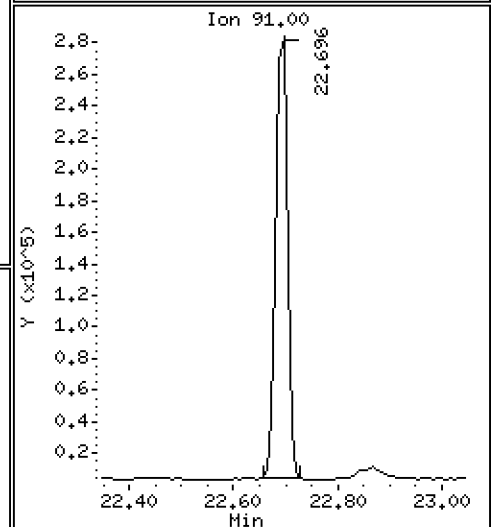
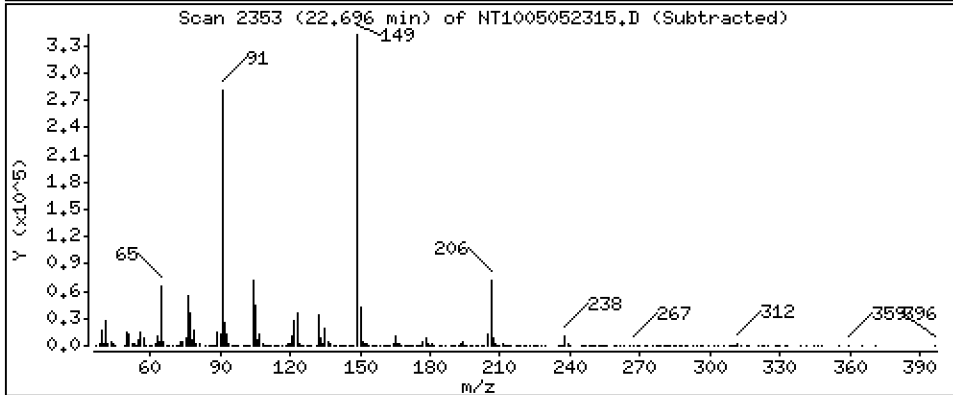
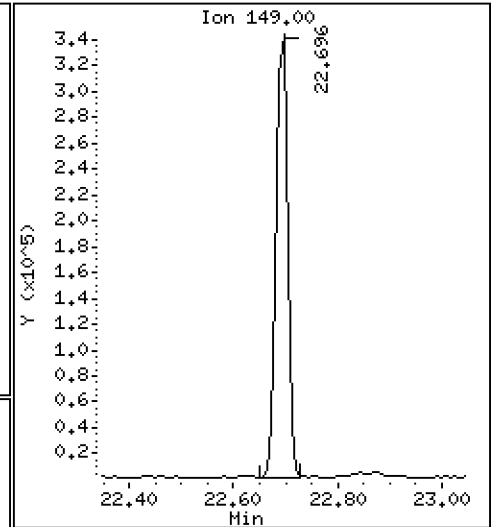
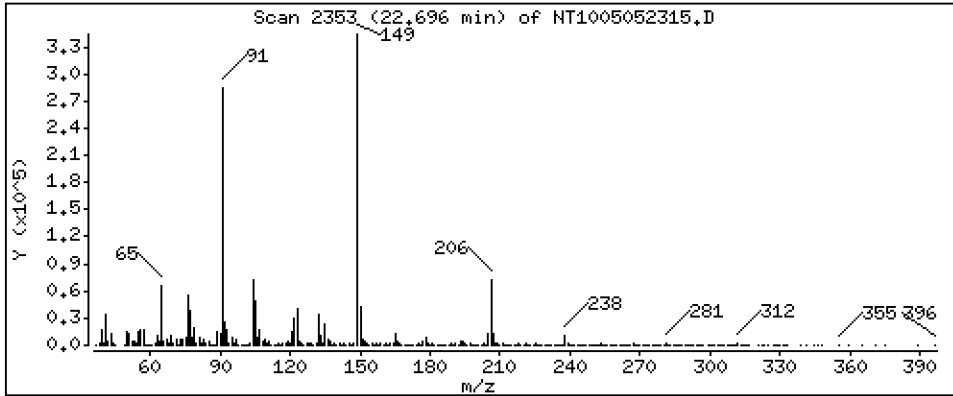
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,958 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

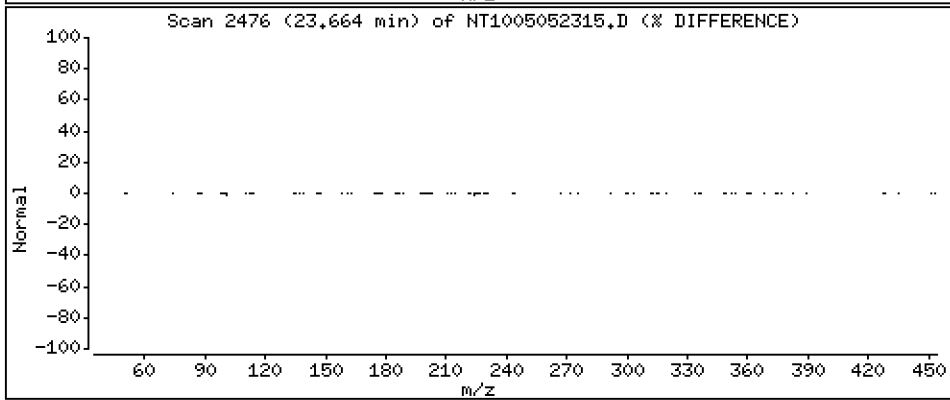
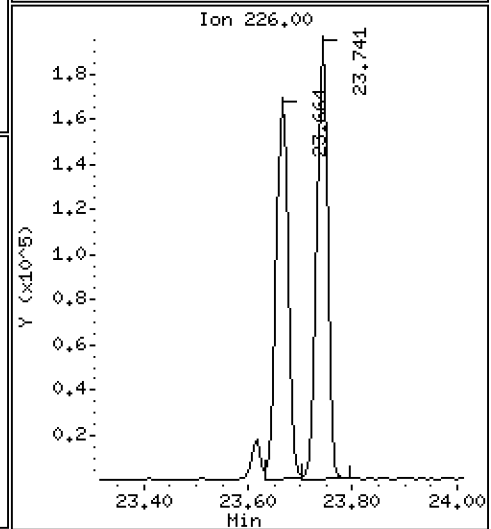
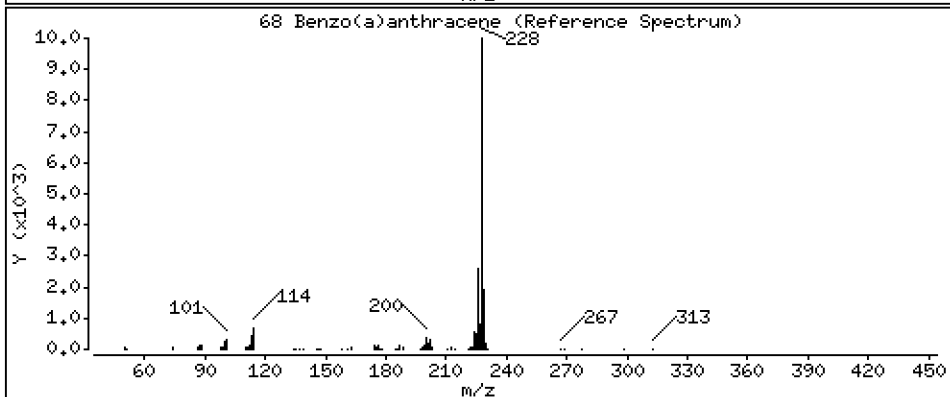
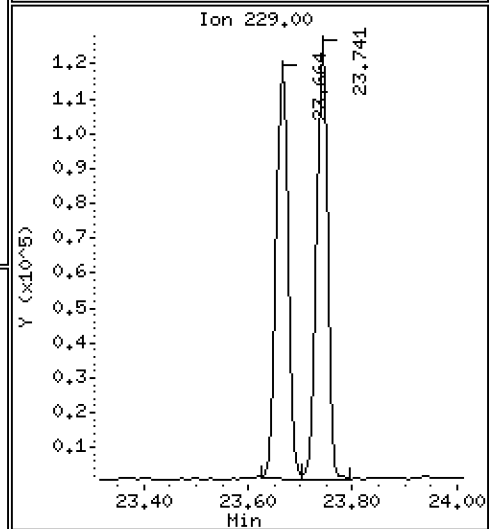
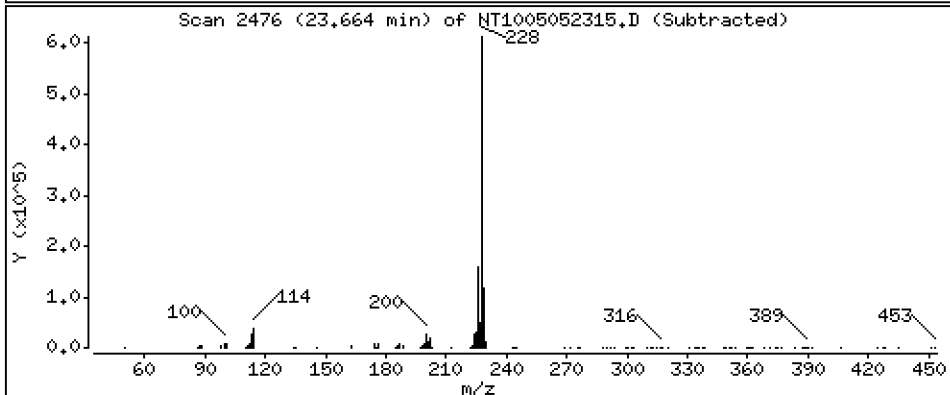
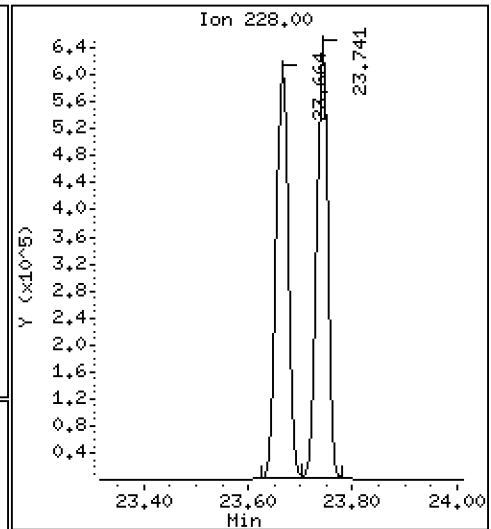
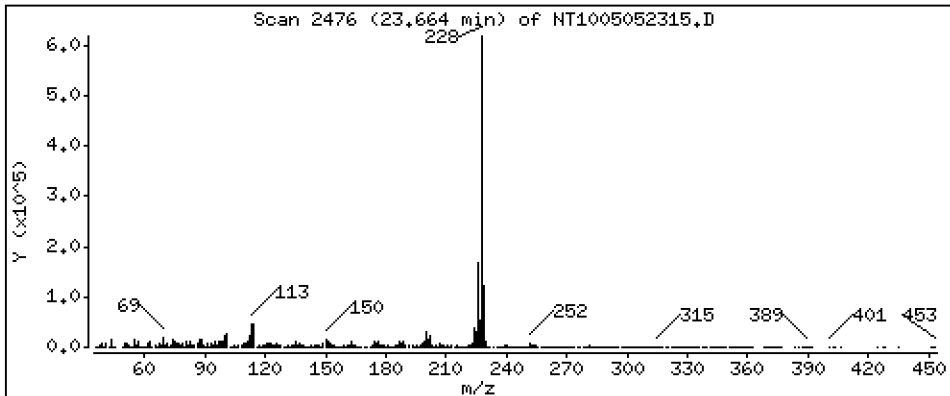
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,718 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

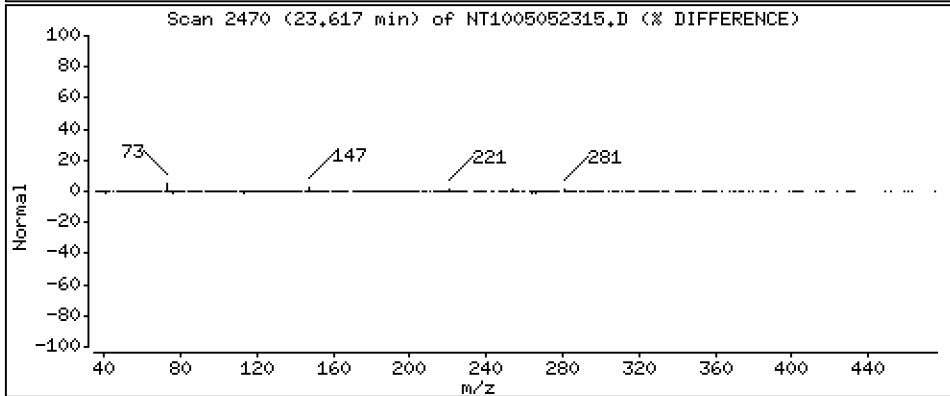
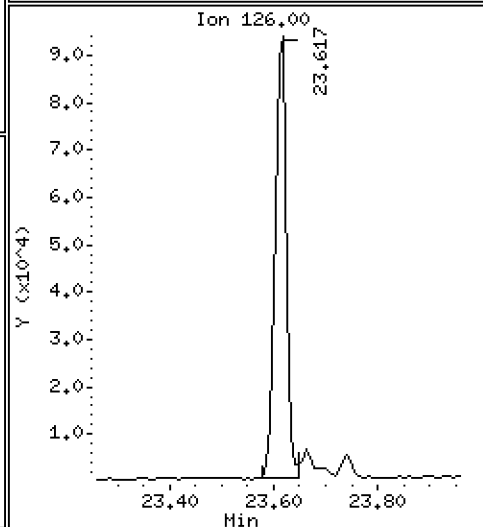
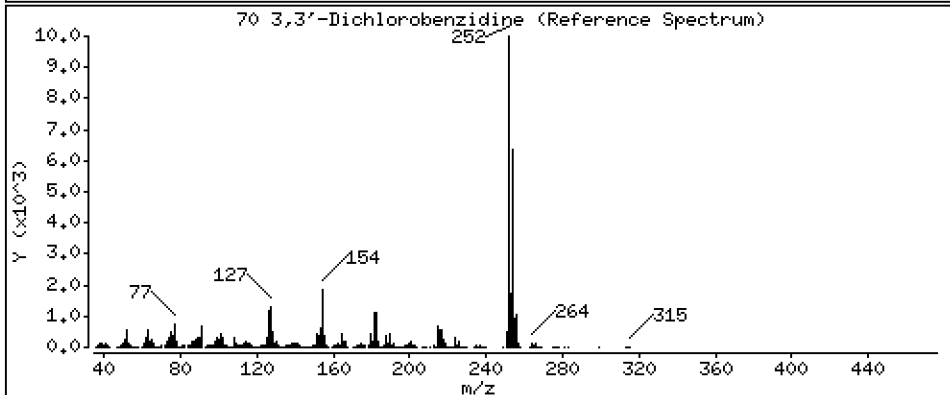
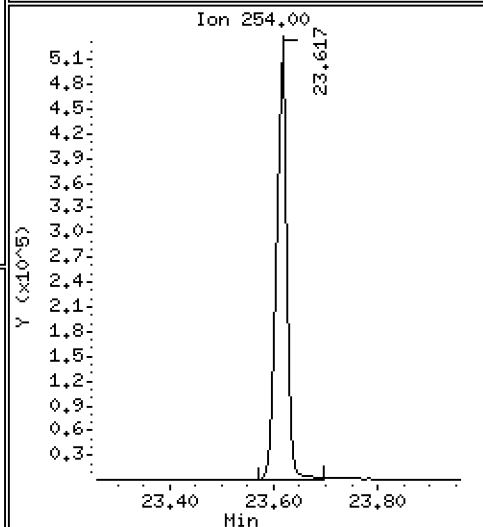
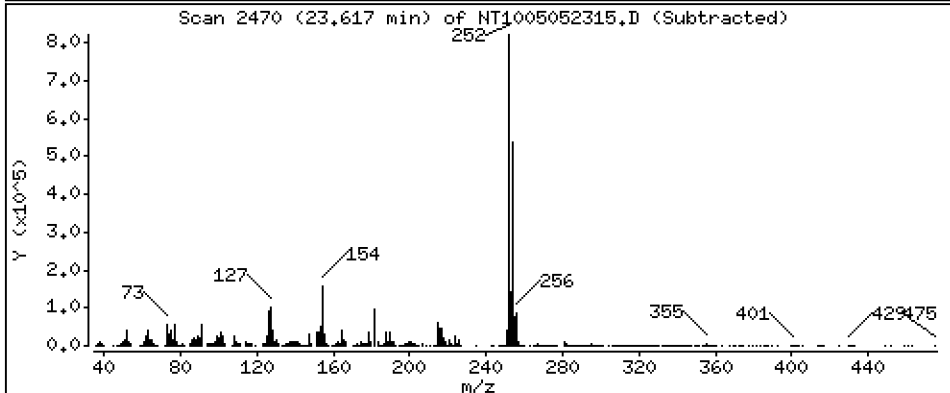
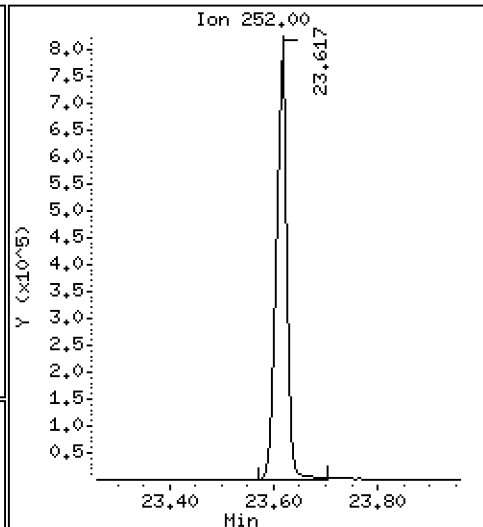
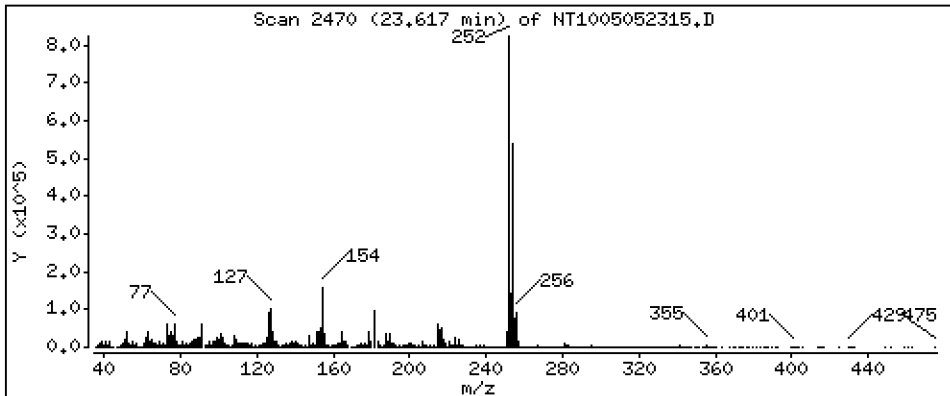
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 16,71 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

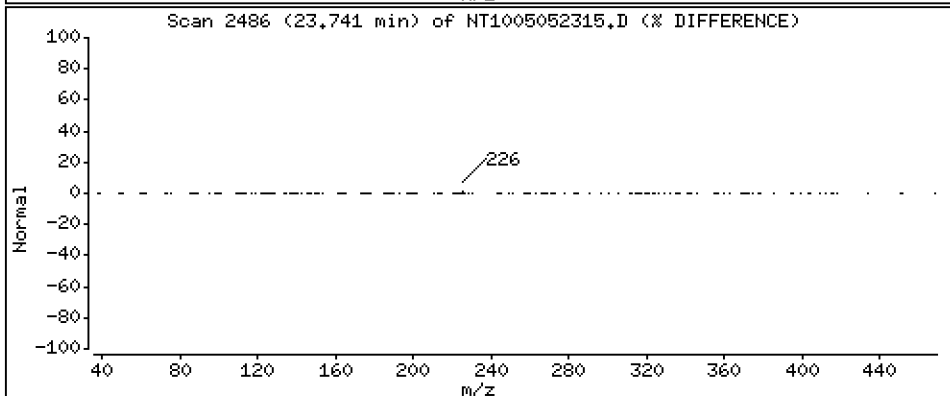
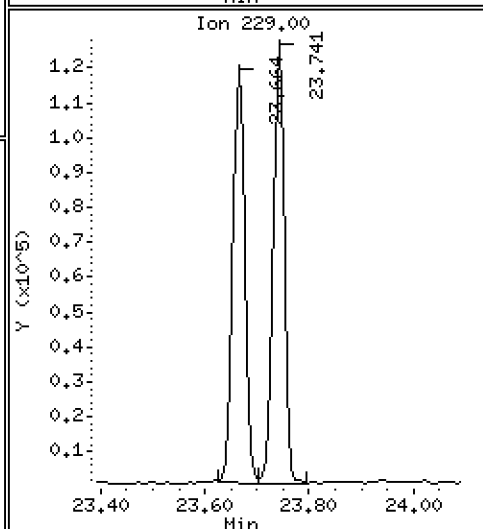
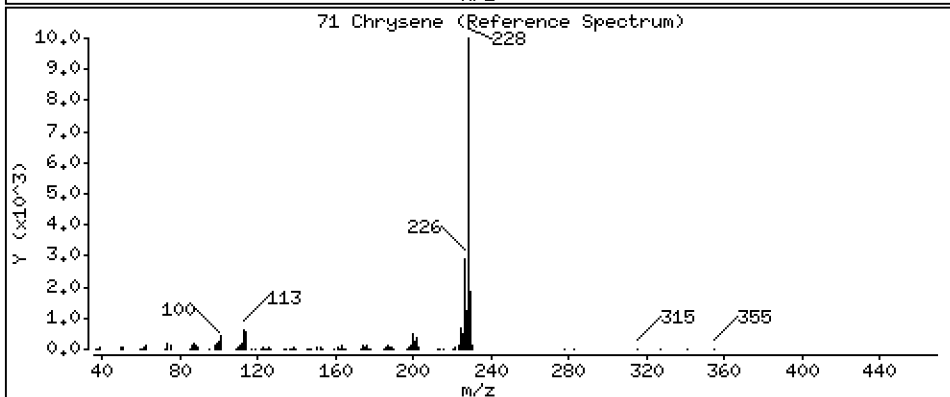
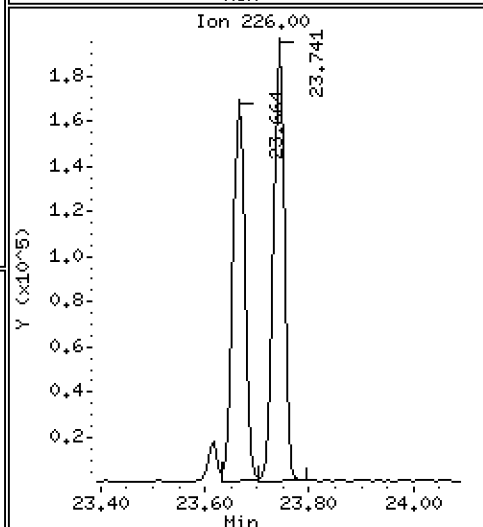
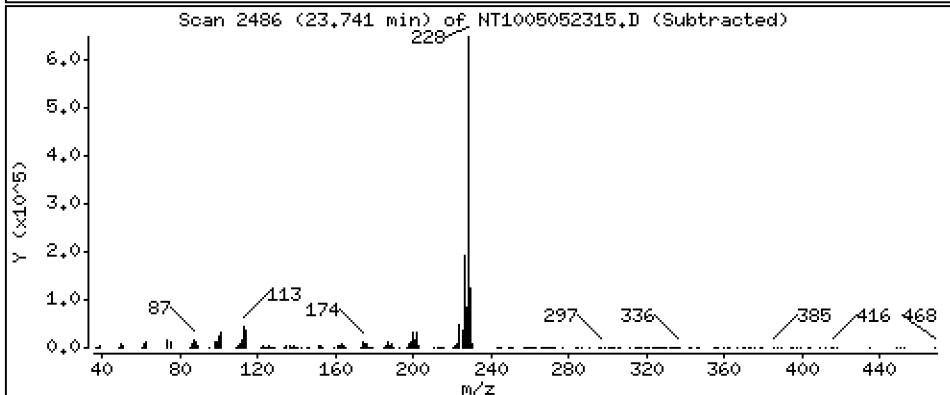
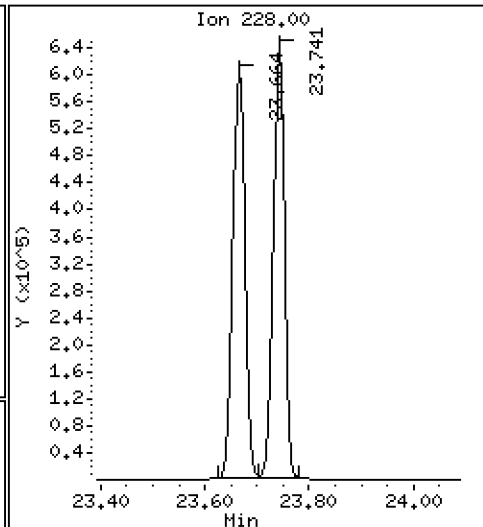
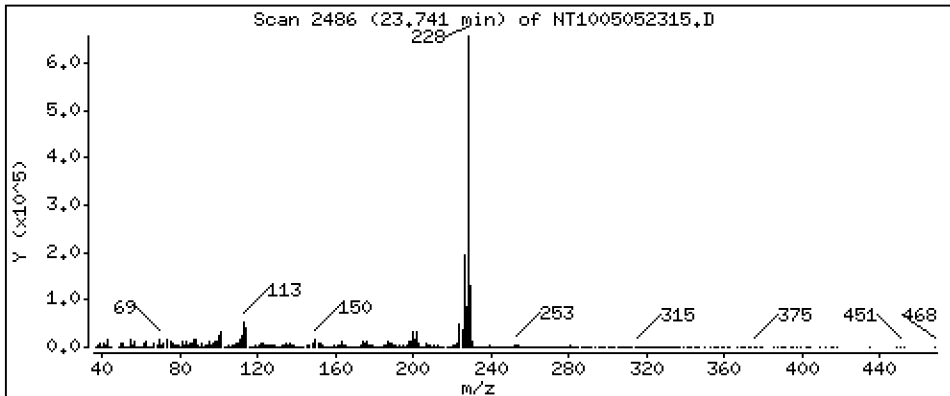
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 5,001 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

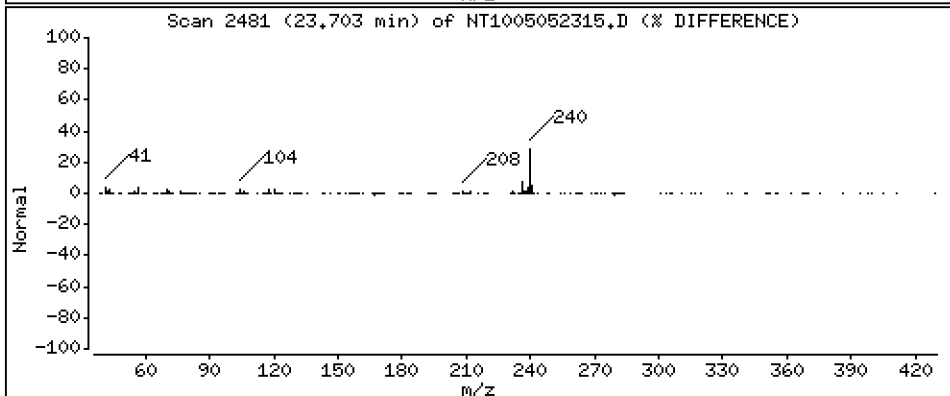
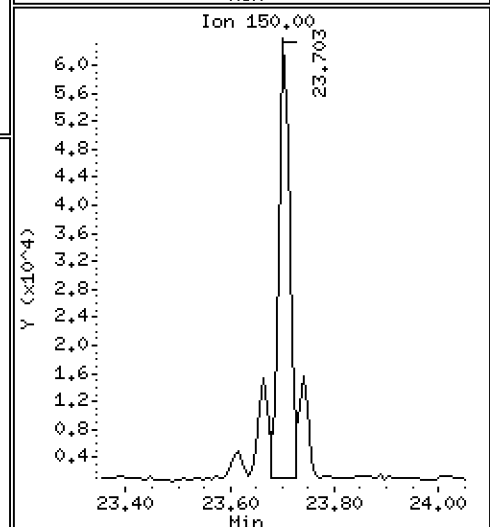
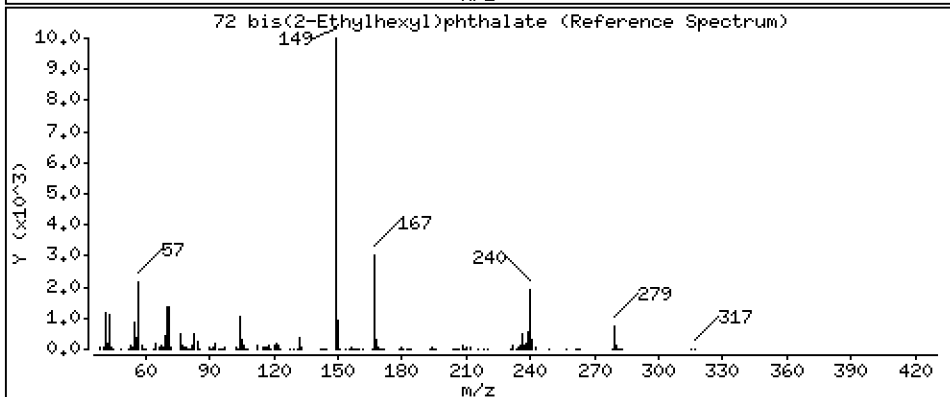
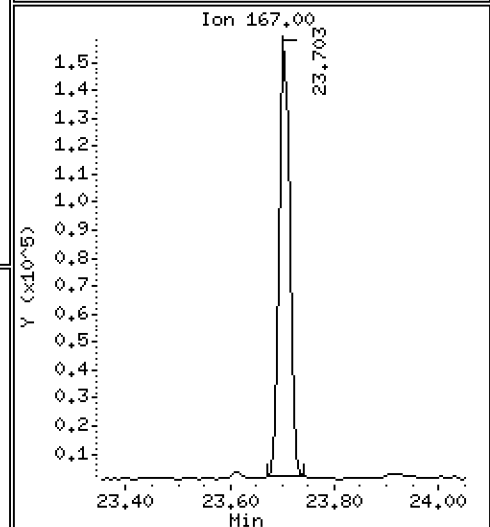
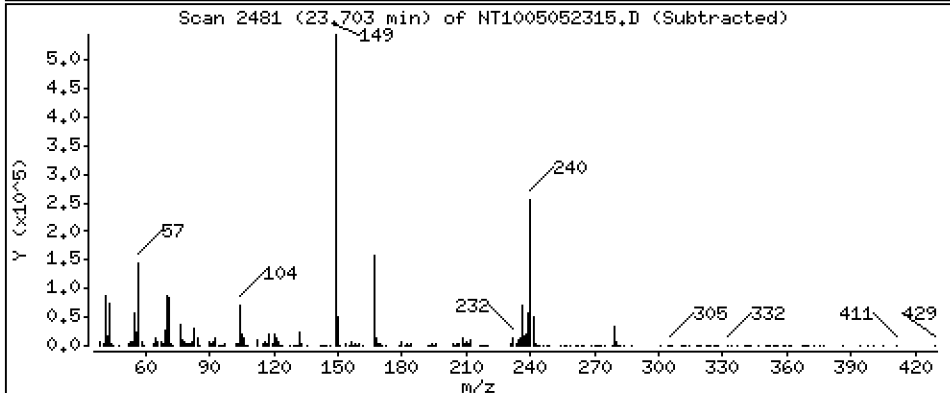
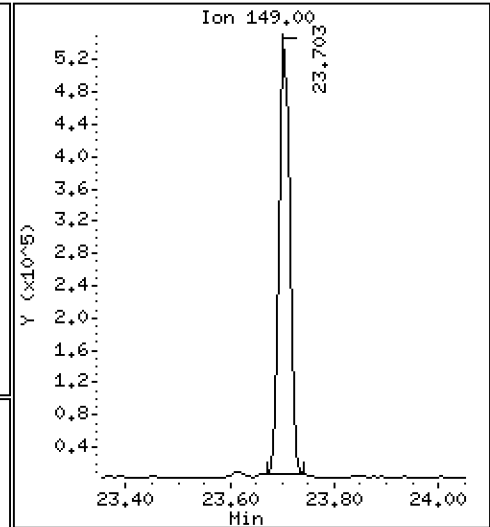
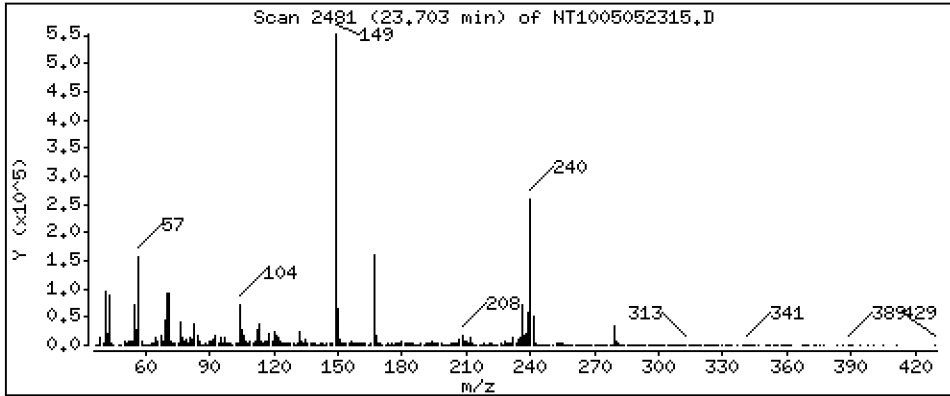
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,644 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

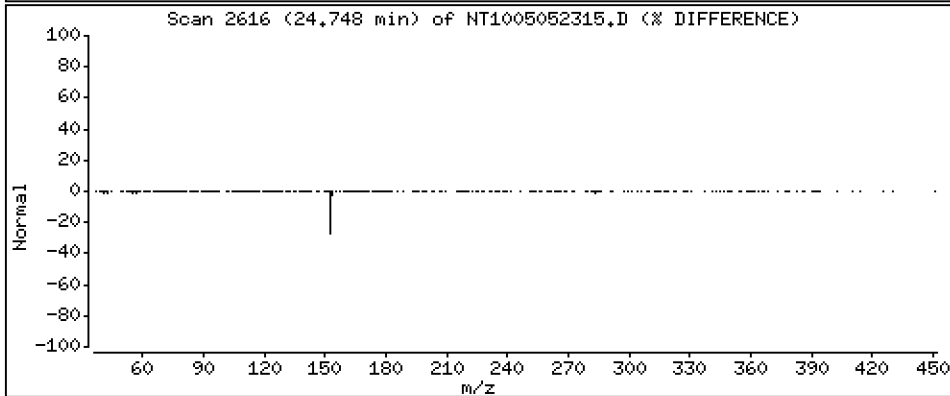
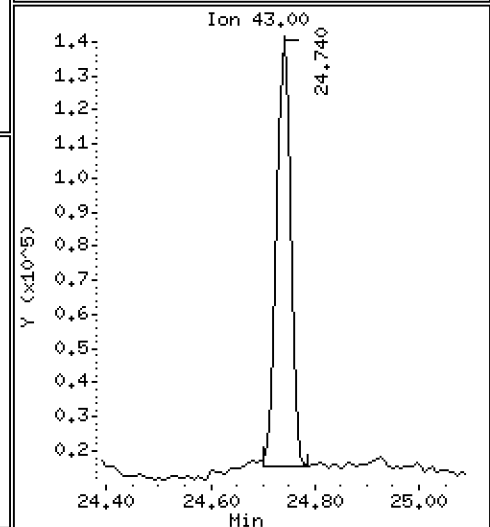
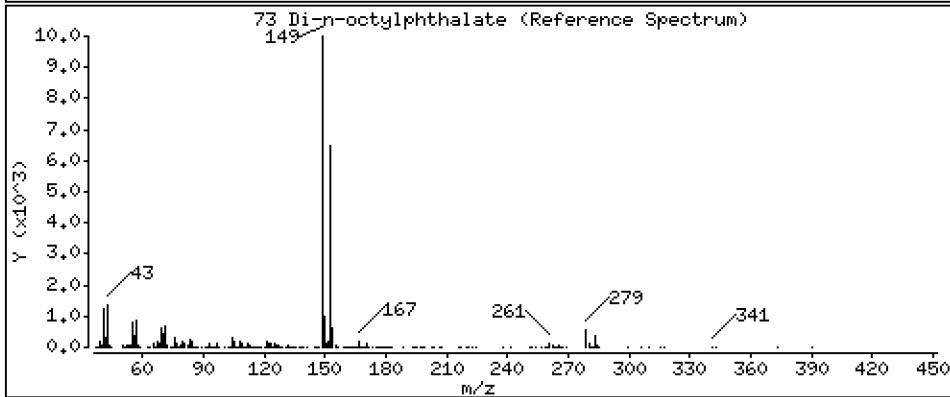
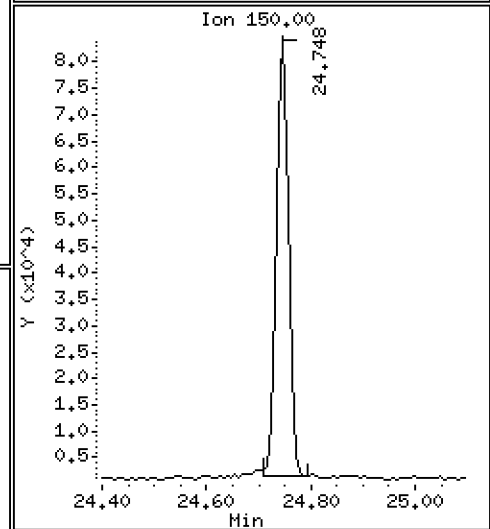
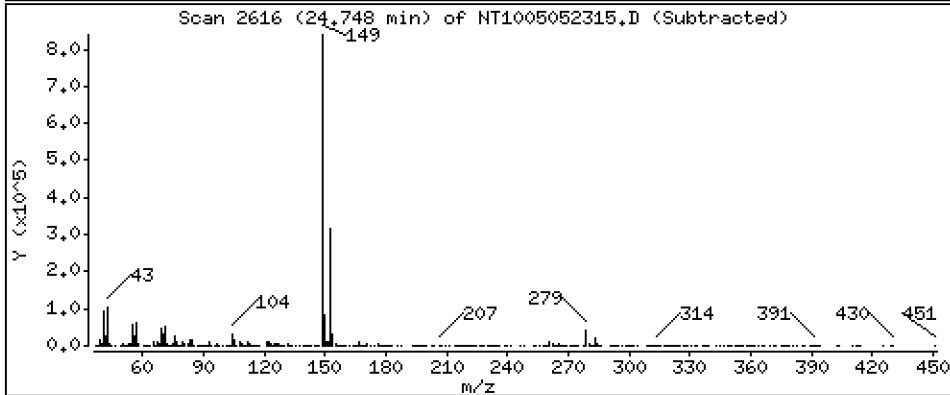
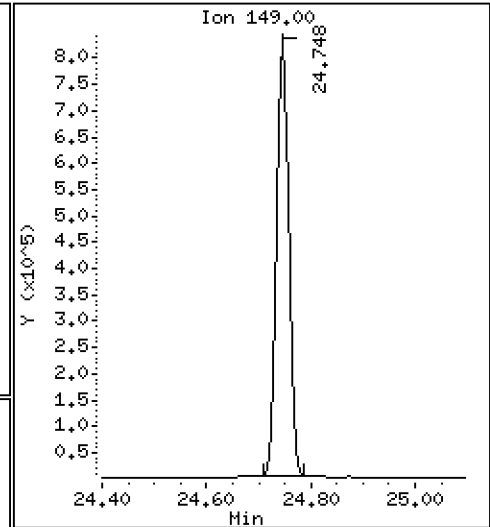
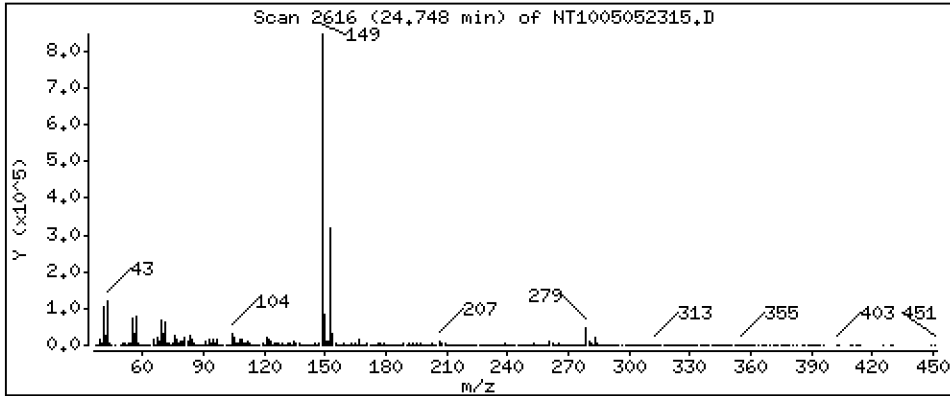
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,556 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

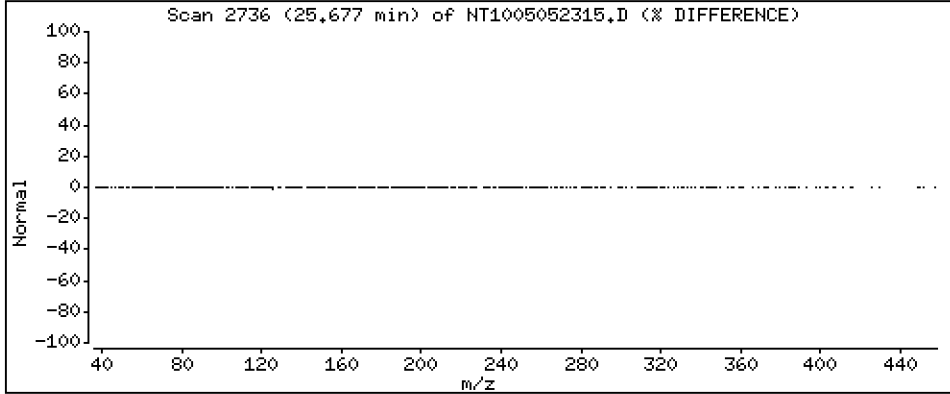
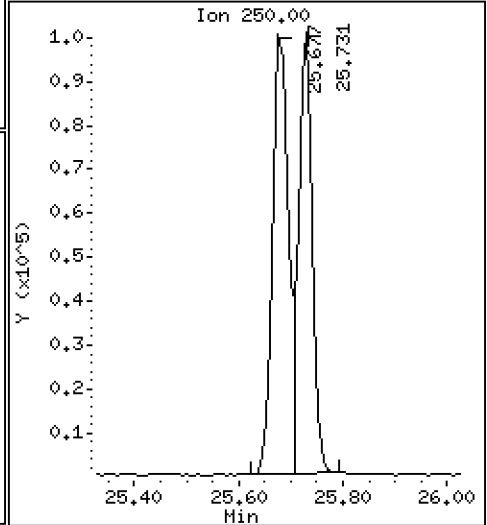
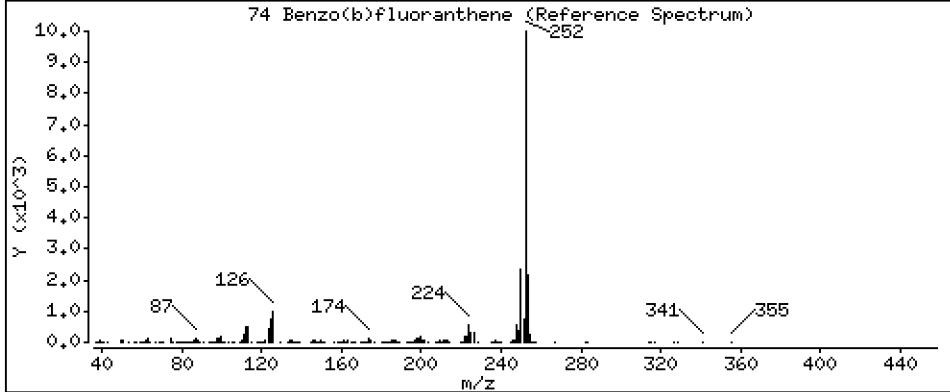
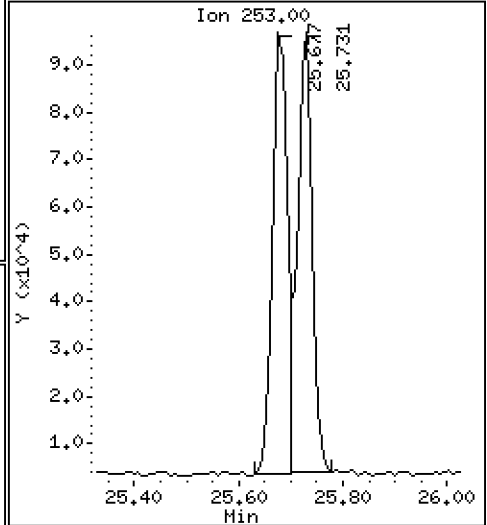
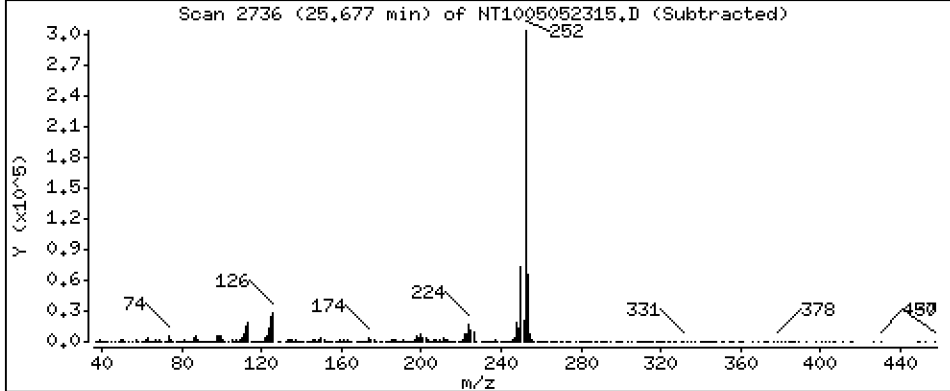
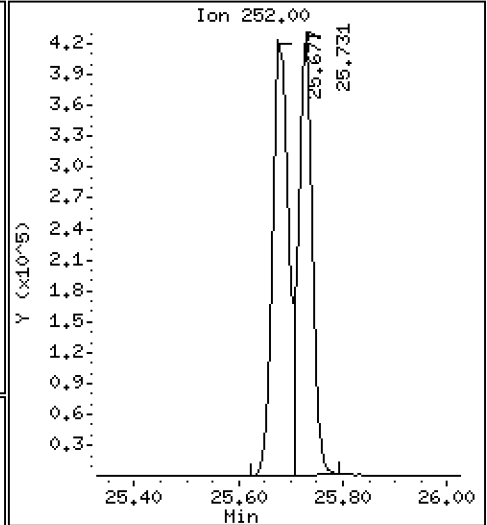
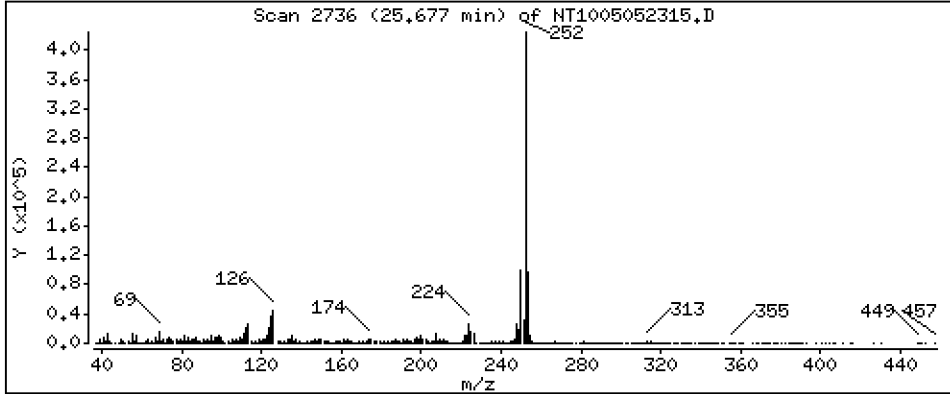
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,733 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

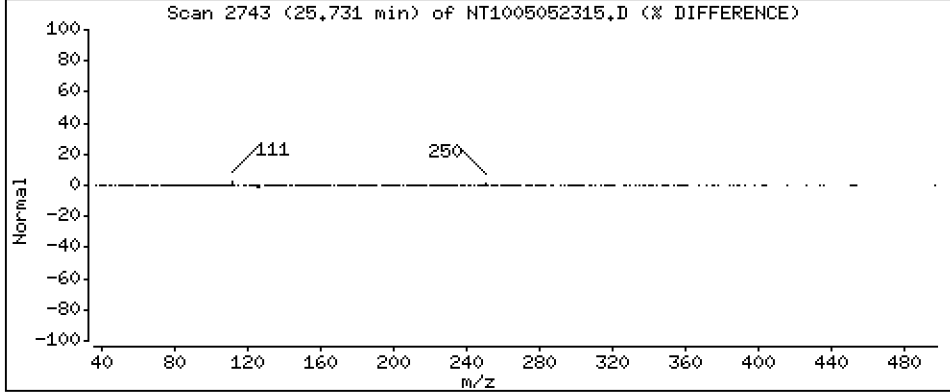
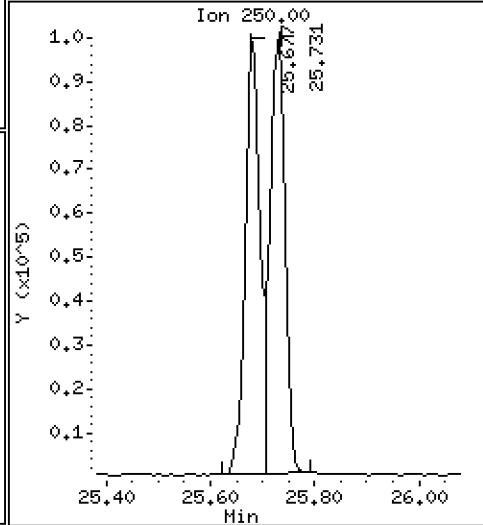
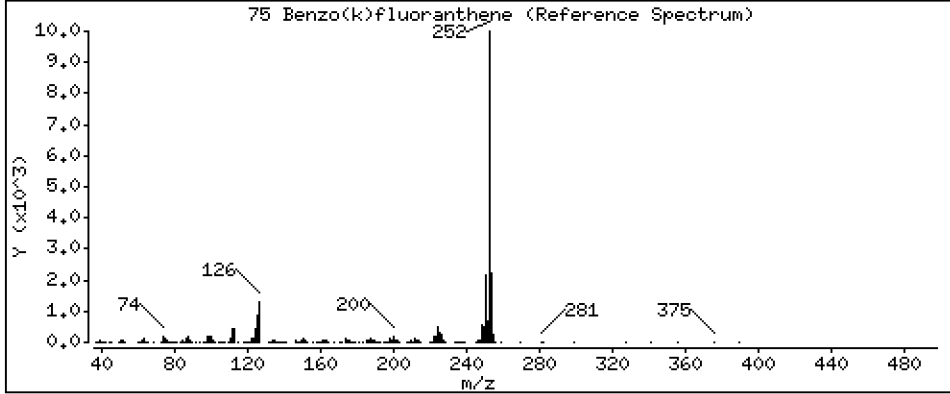
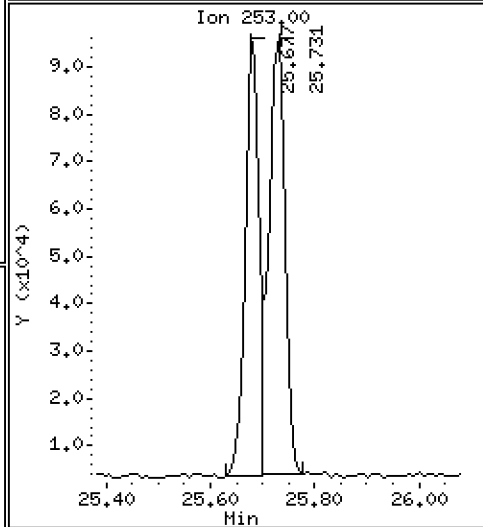
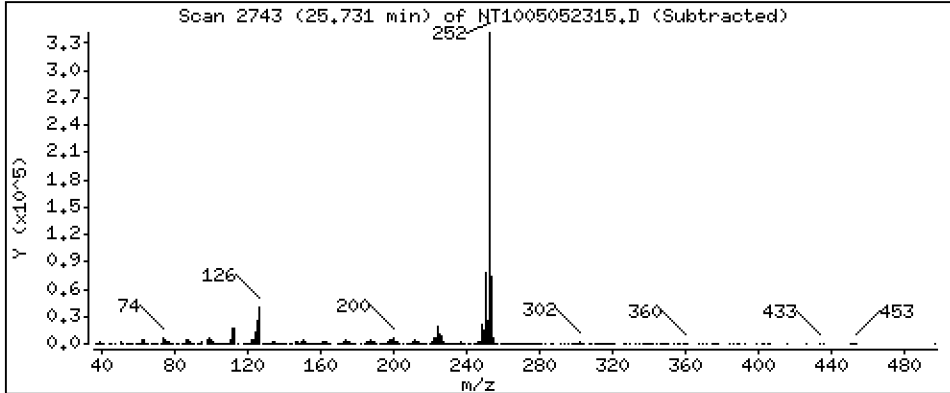
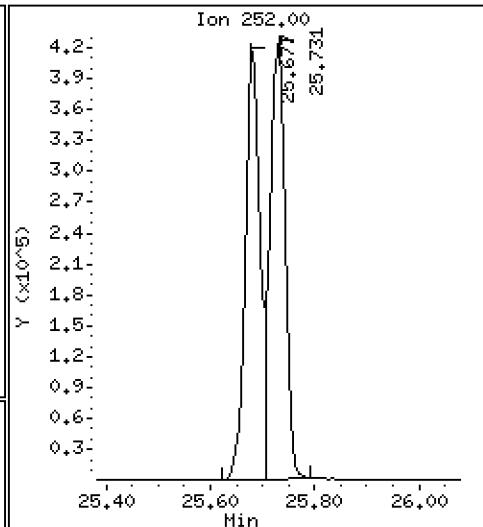
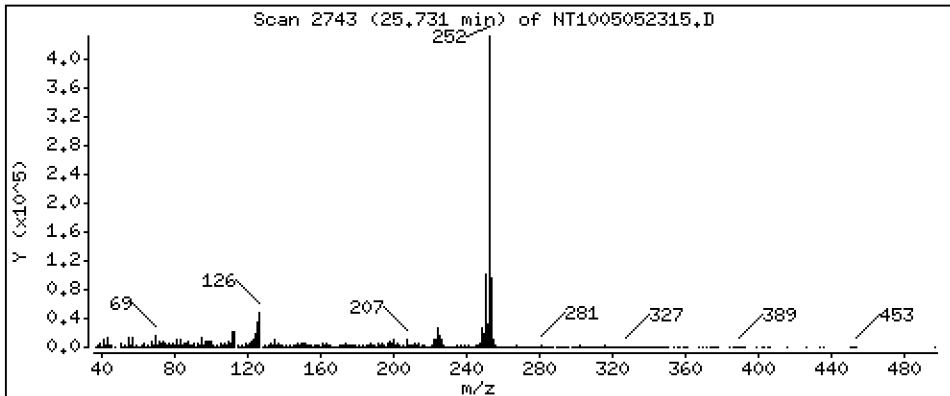
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,426 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

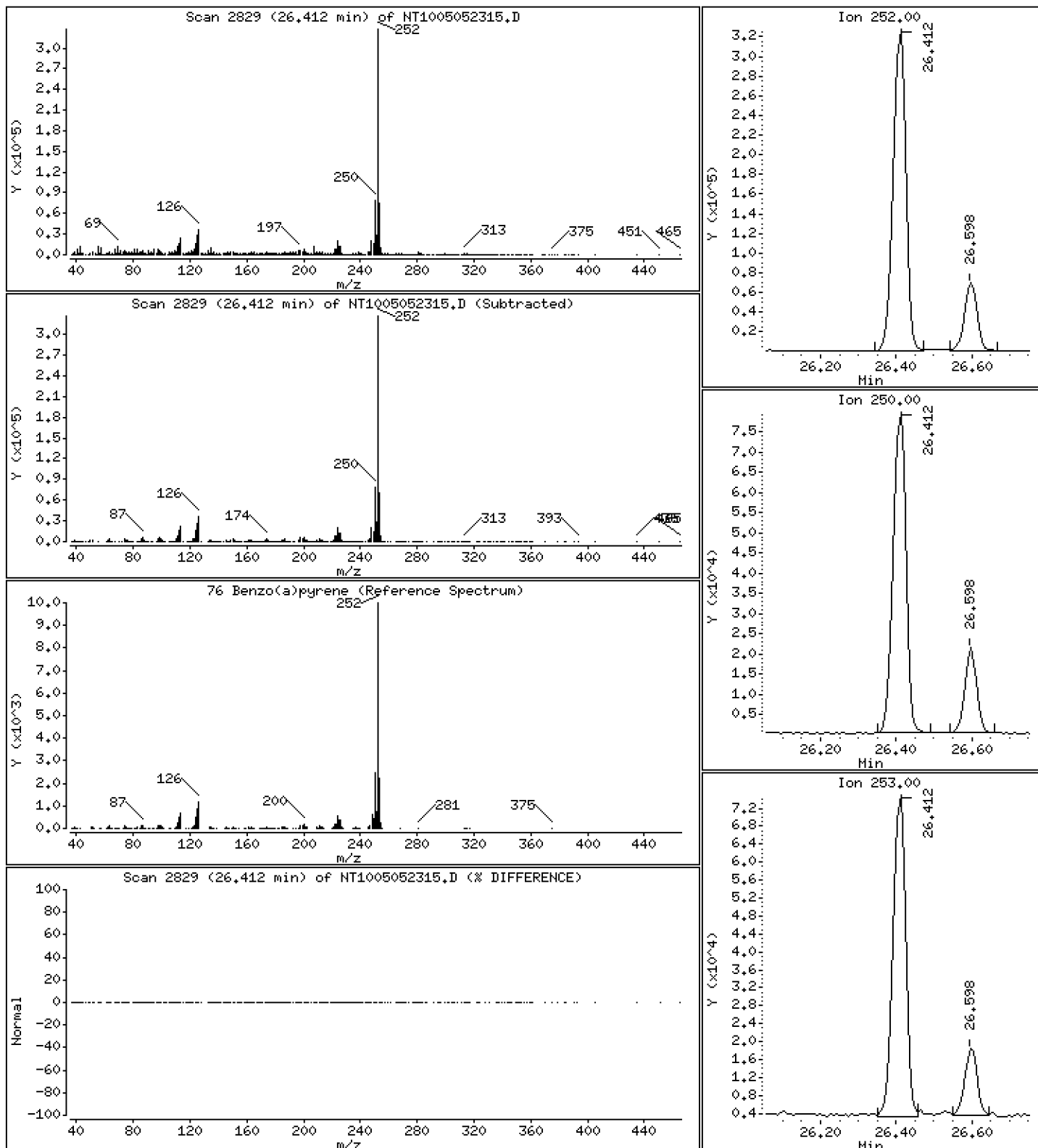
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,623 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

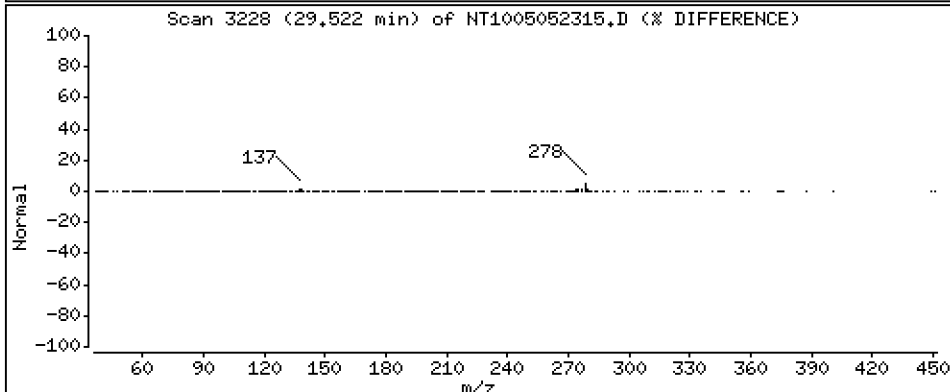
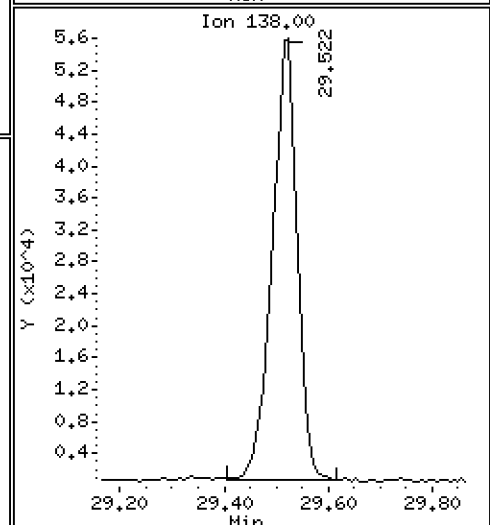
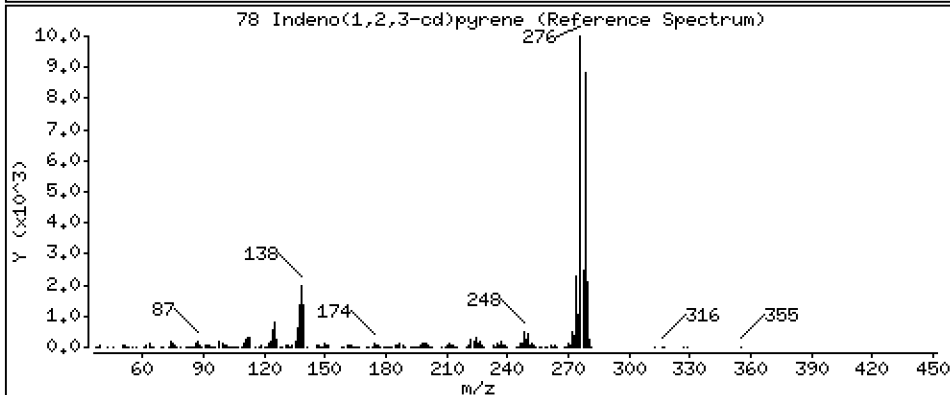
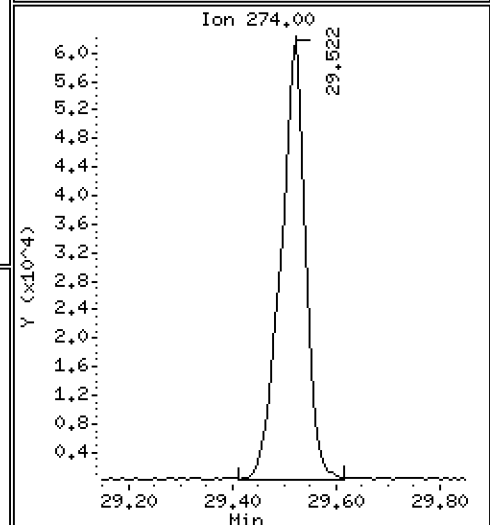
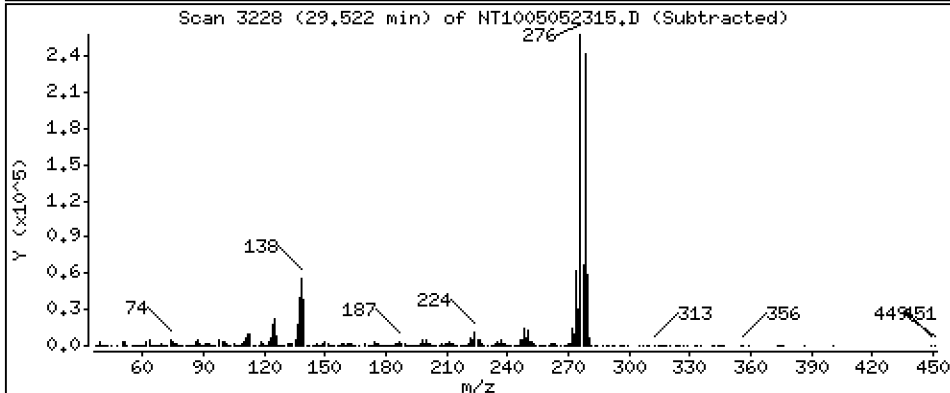
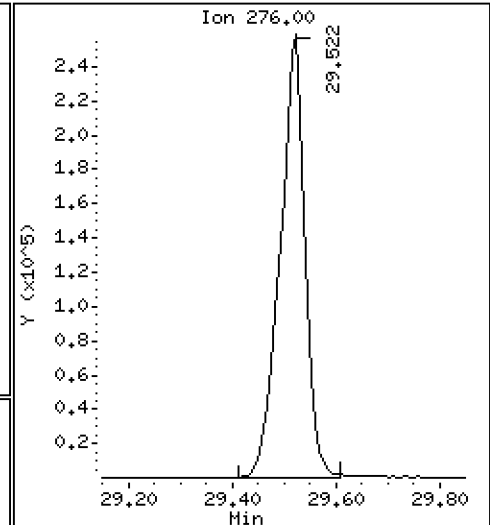
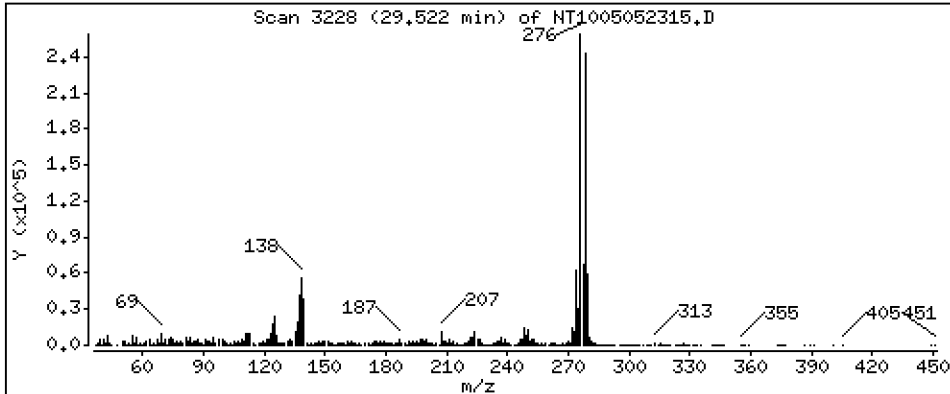
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,527 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

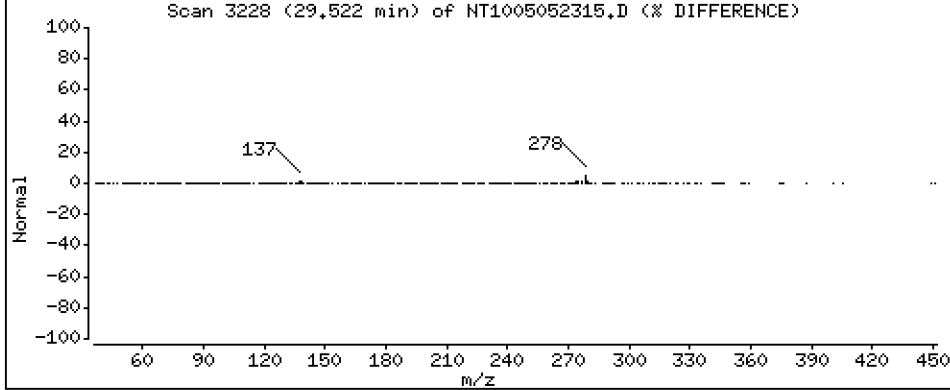
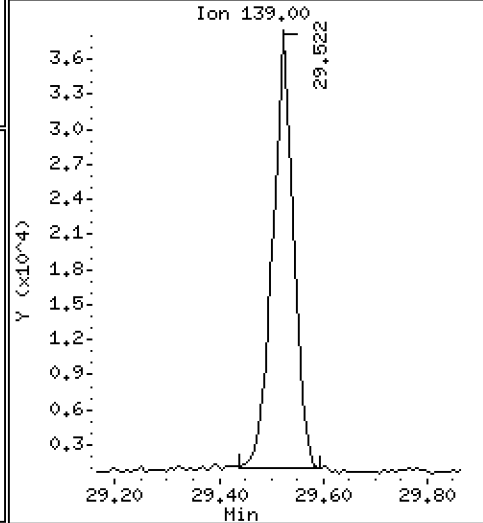
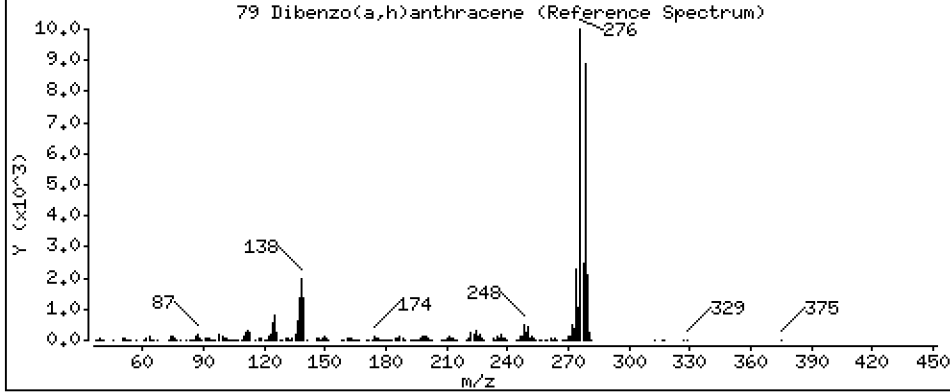
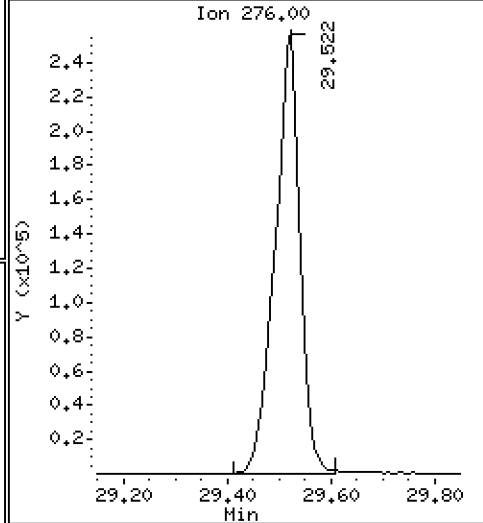
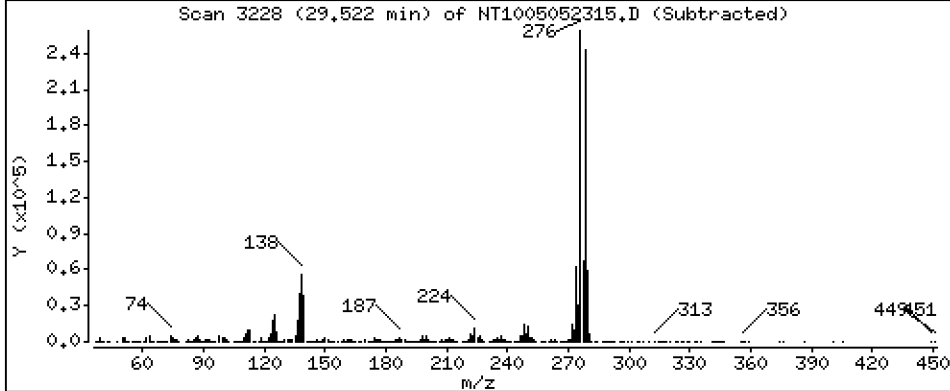
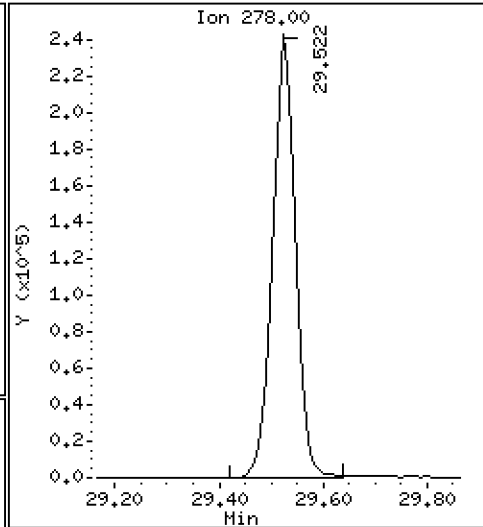
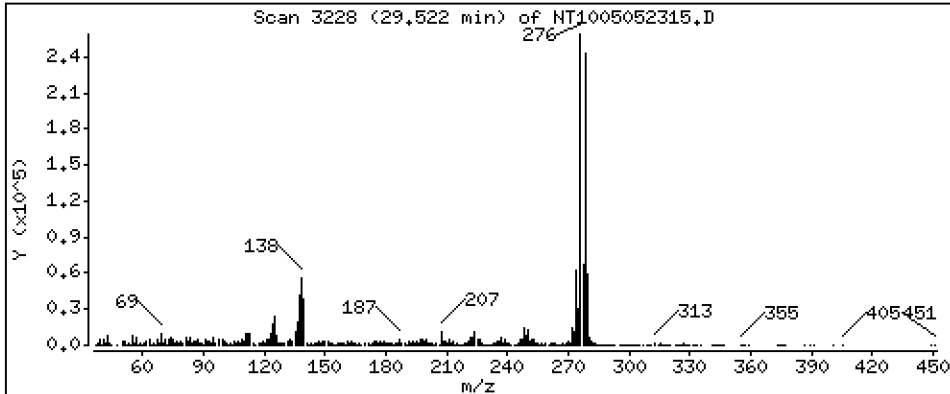
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,601 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

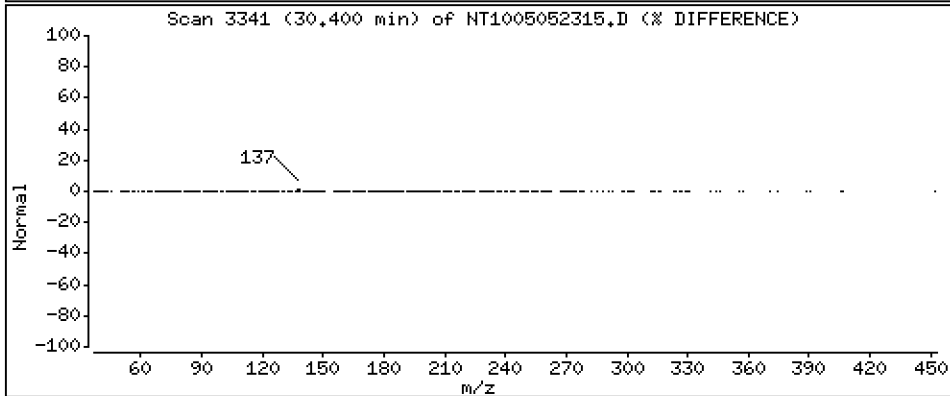
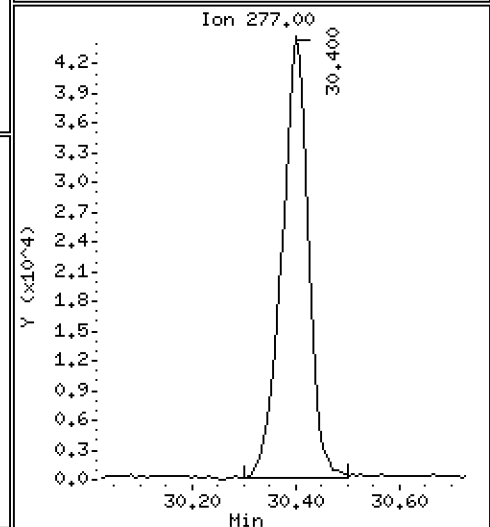
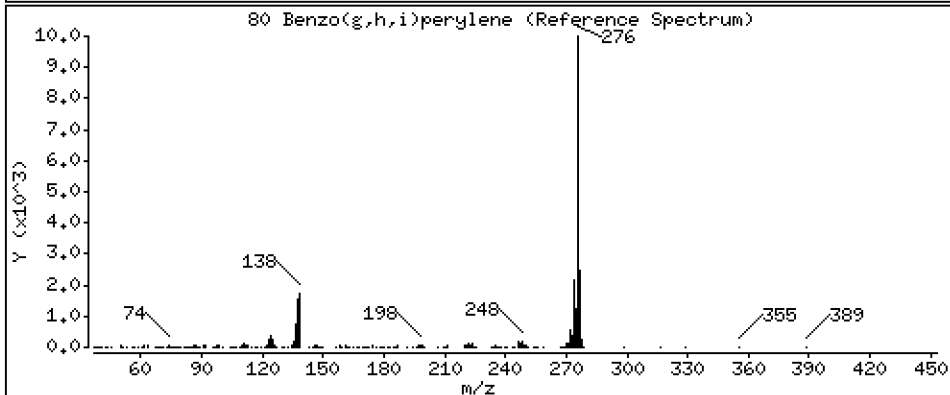
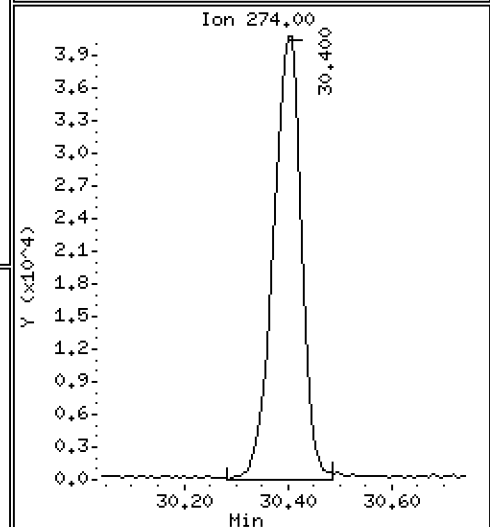
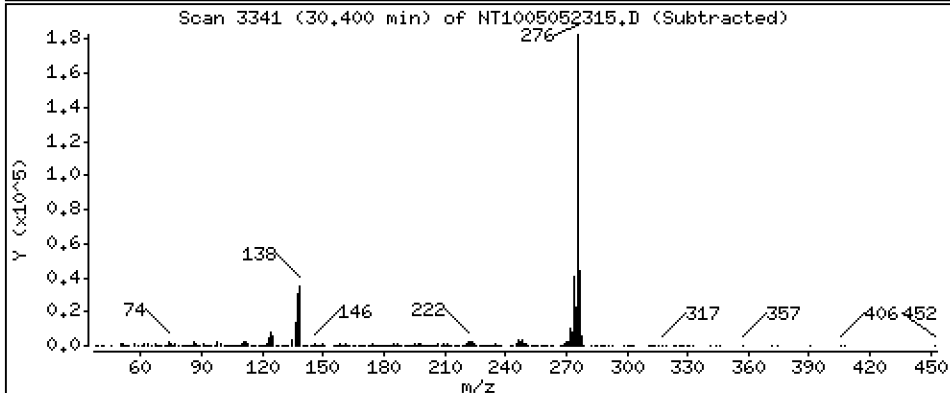
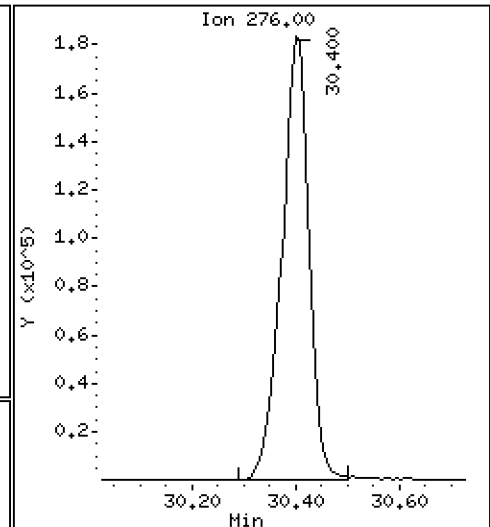
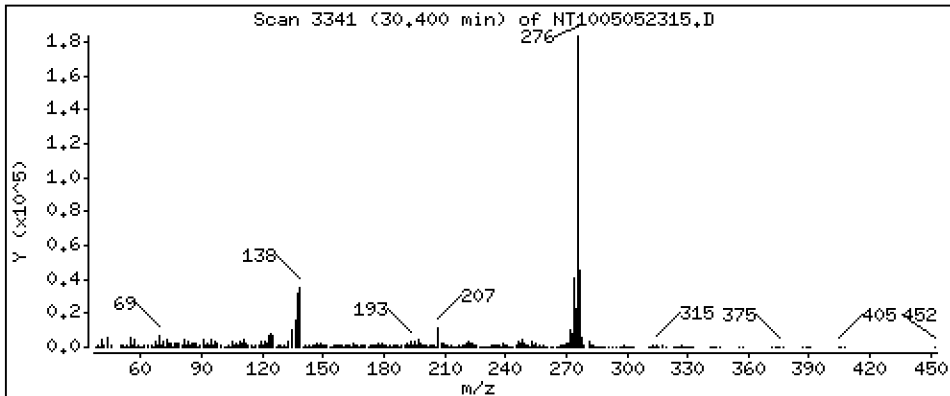
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,469 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

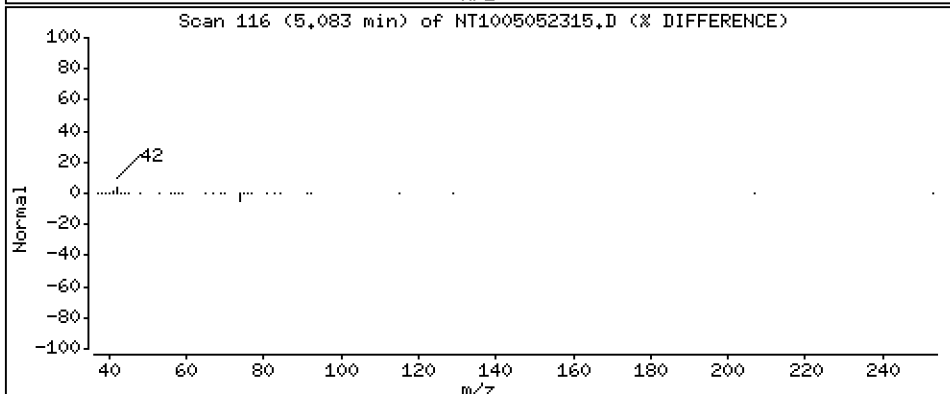
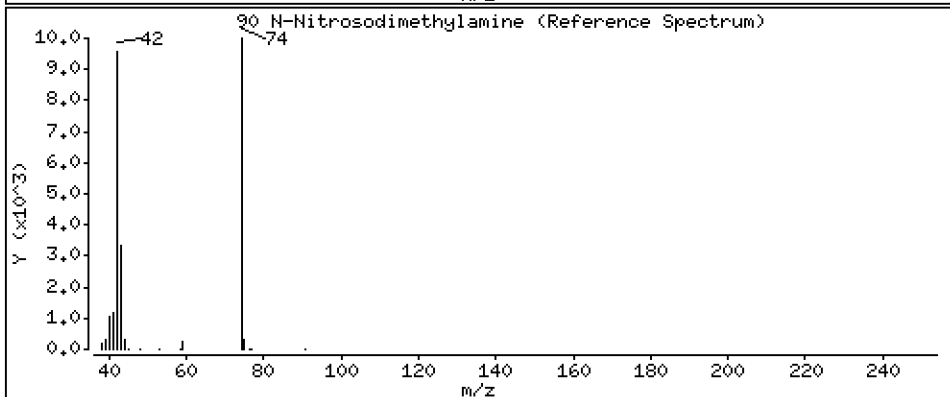
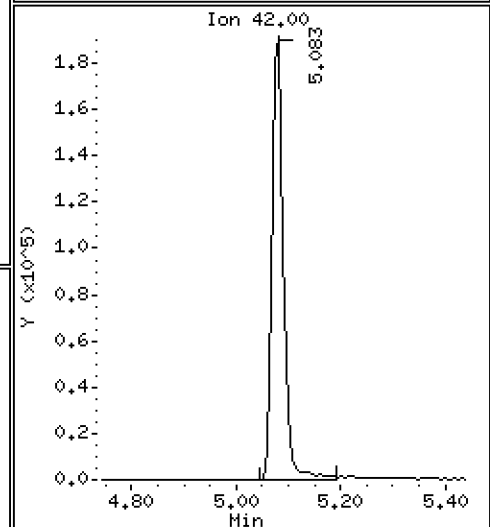
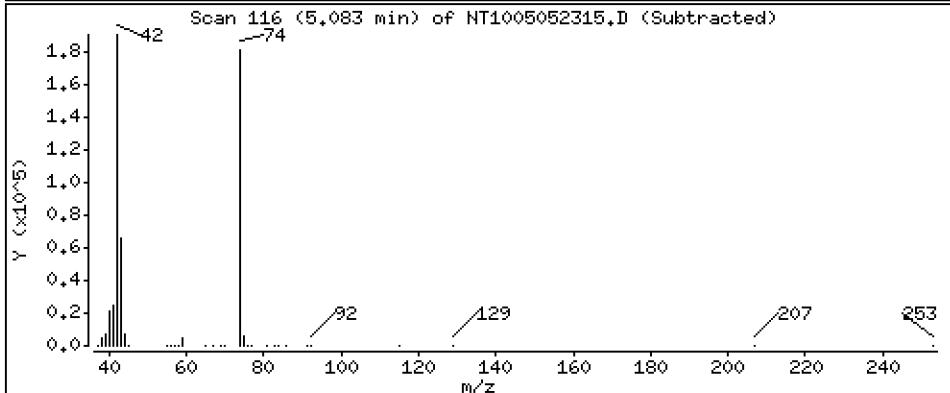
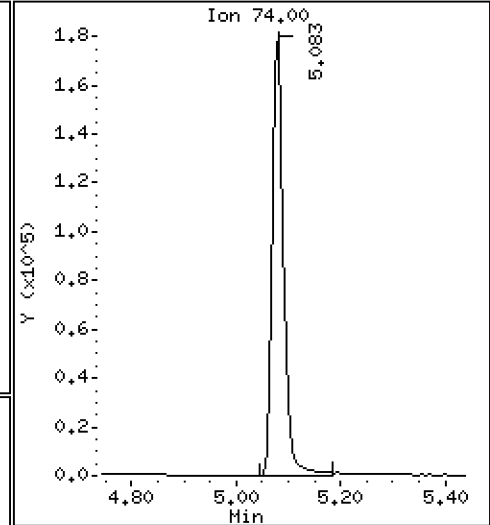
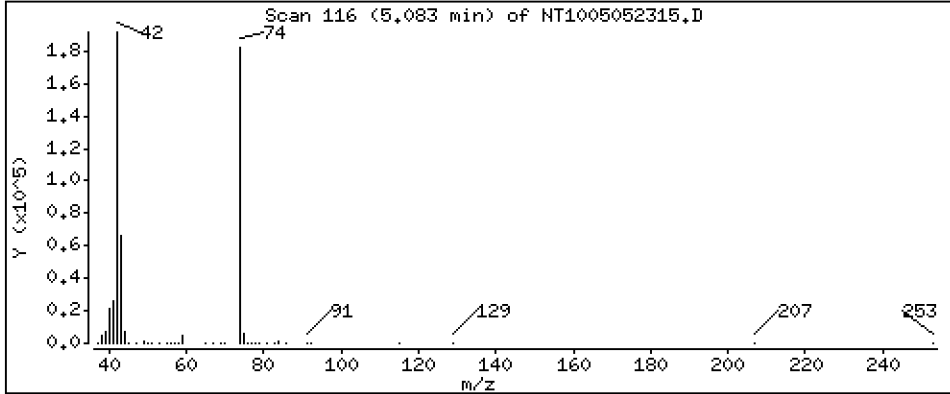
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 8,971 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

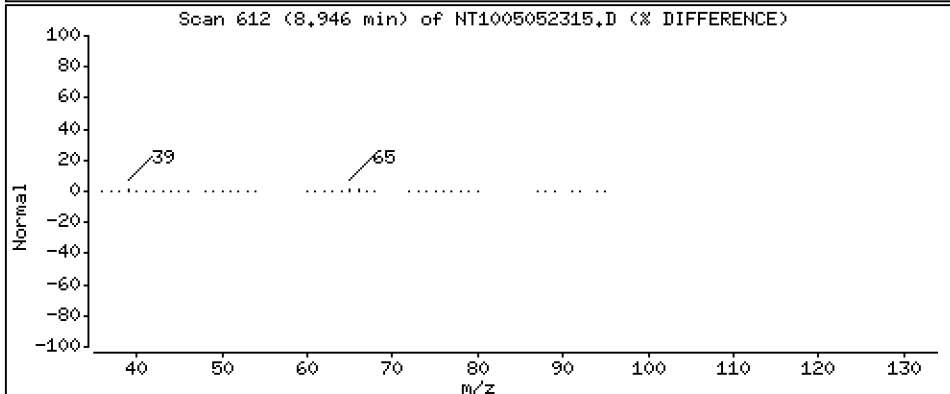
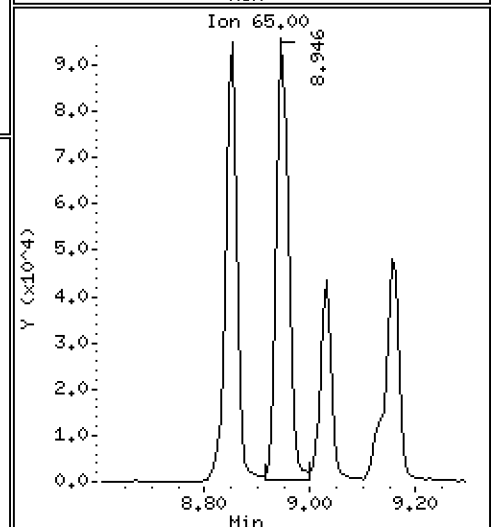
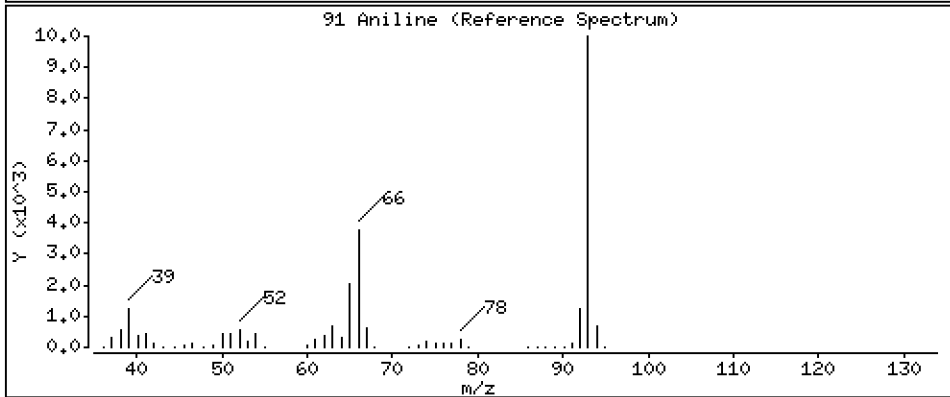
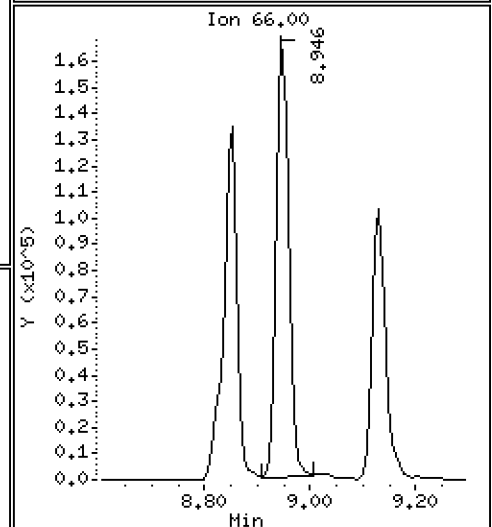
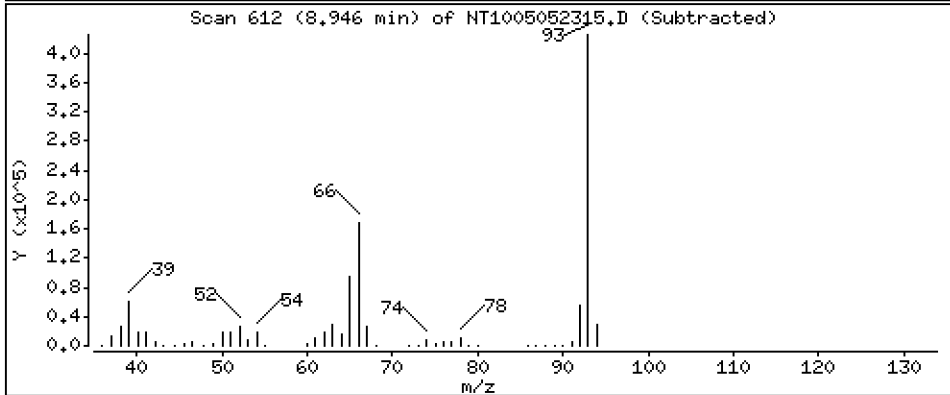
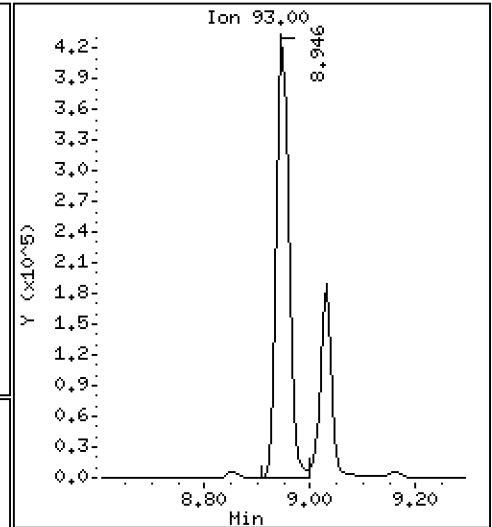
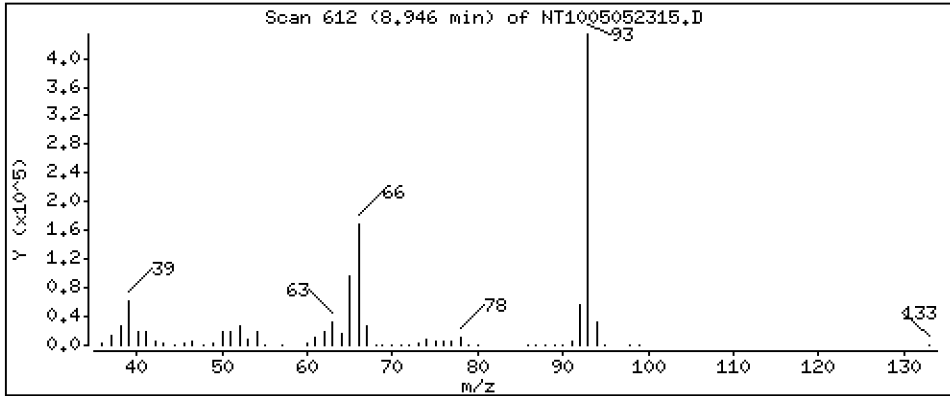
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 11.32 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

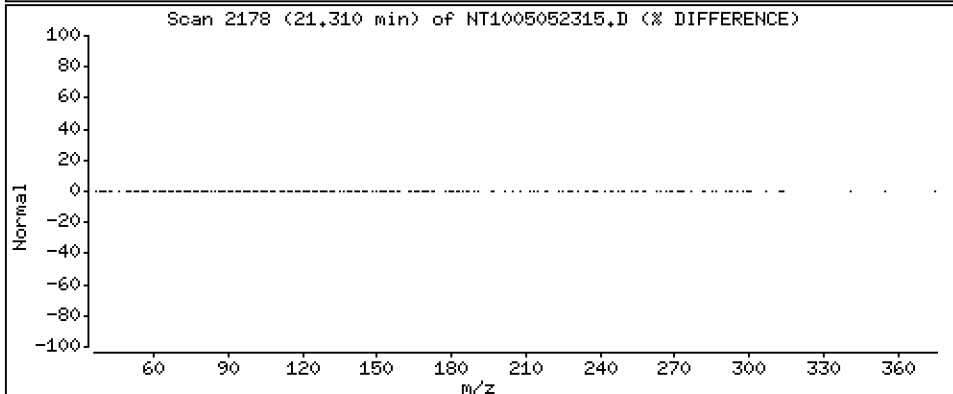
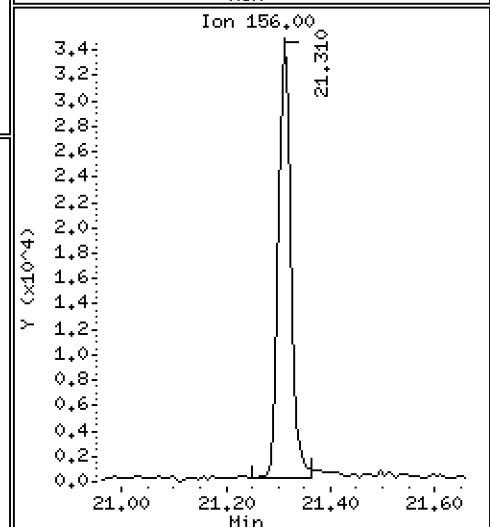
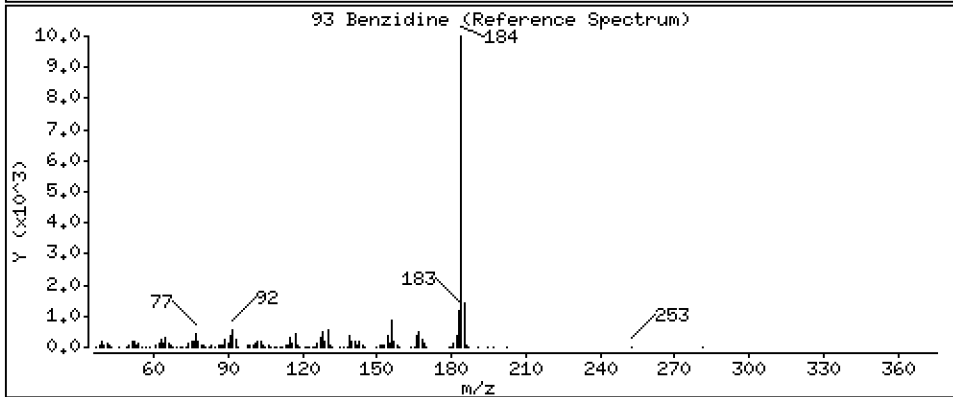
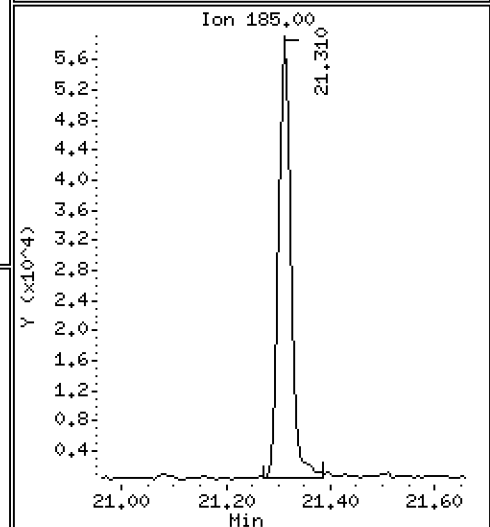
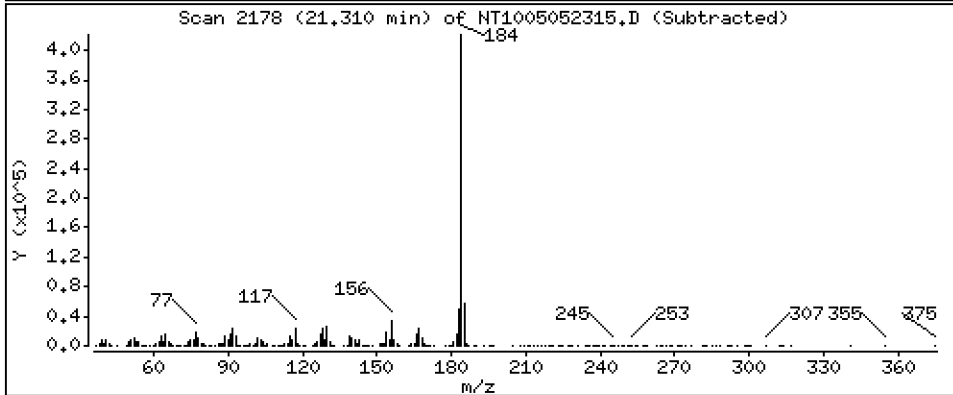
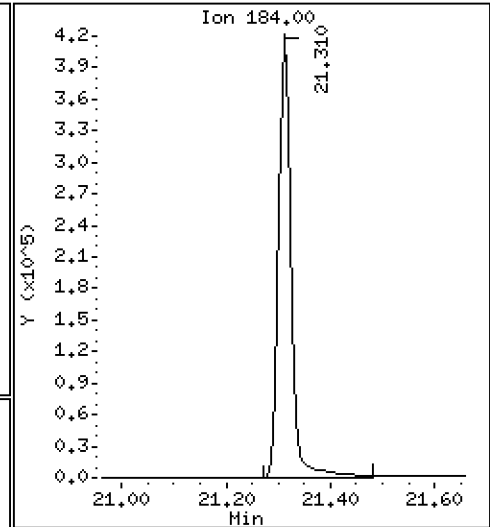
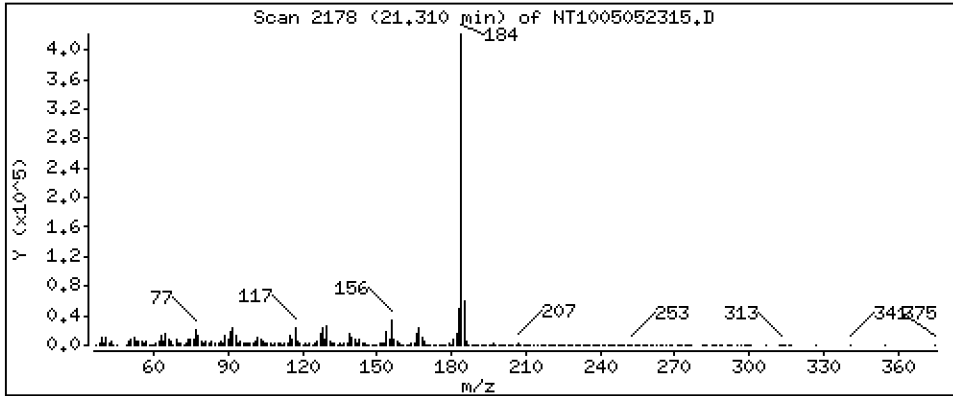
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 8,062 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

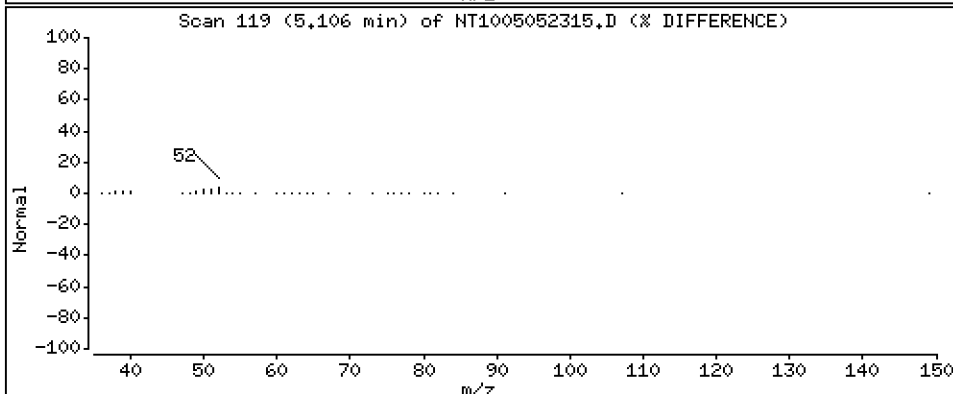
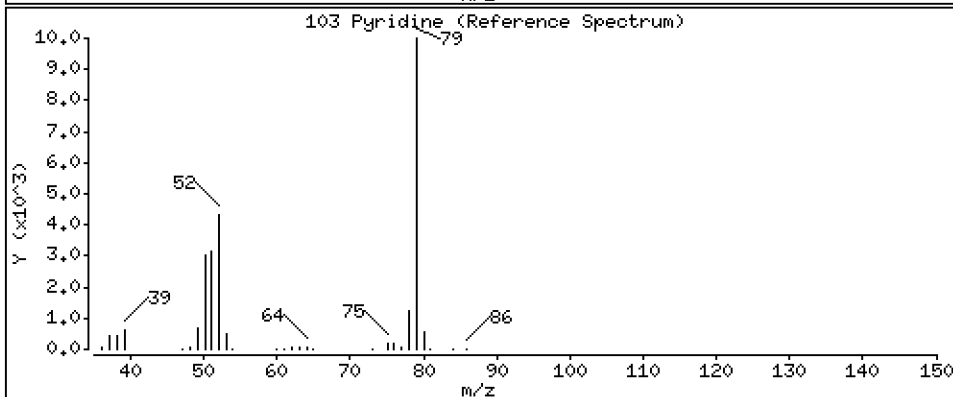
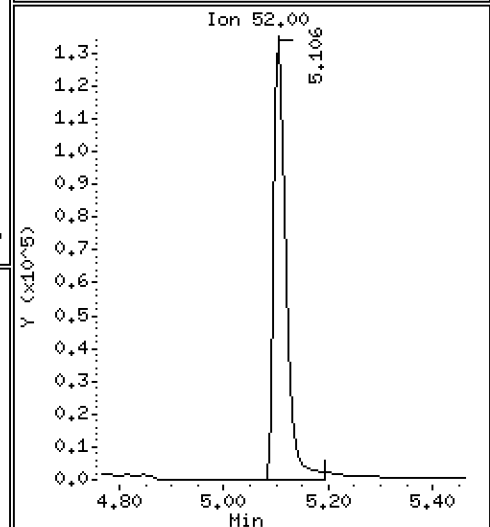
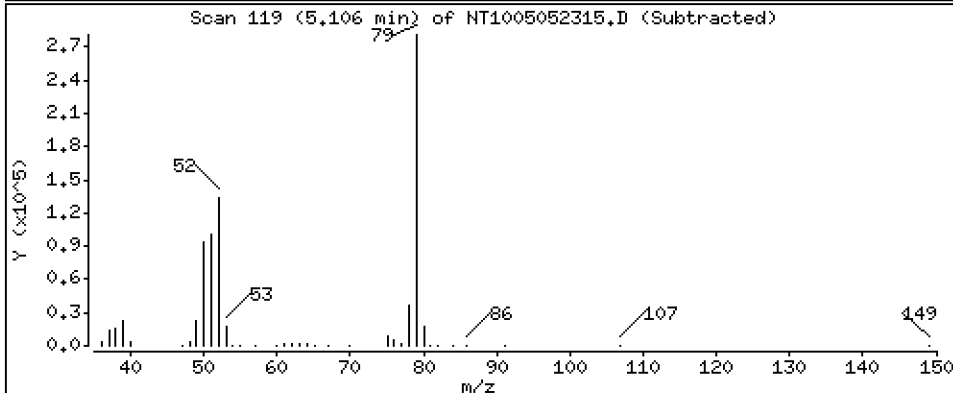
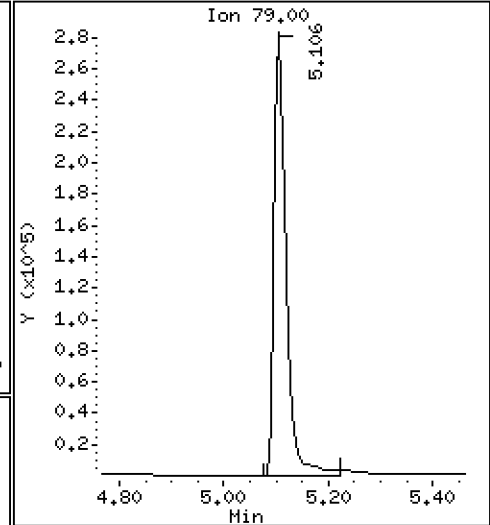
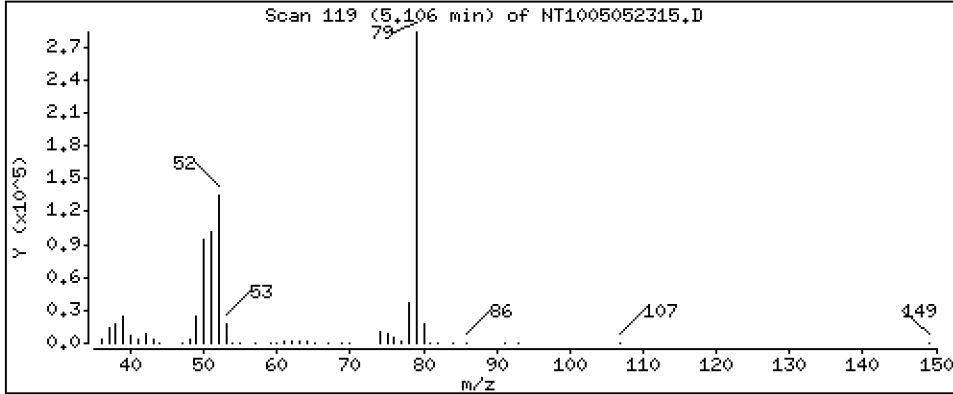
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 8,842 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

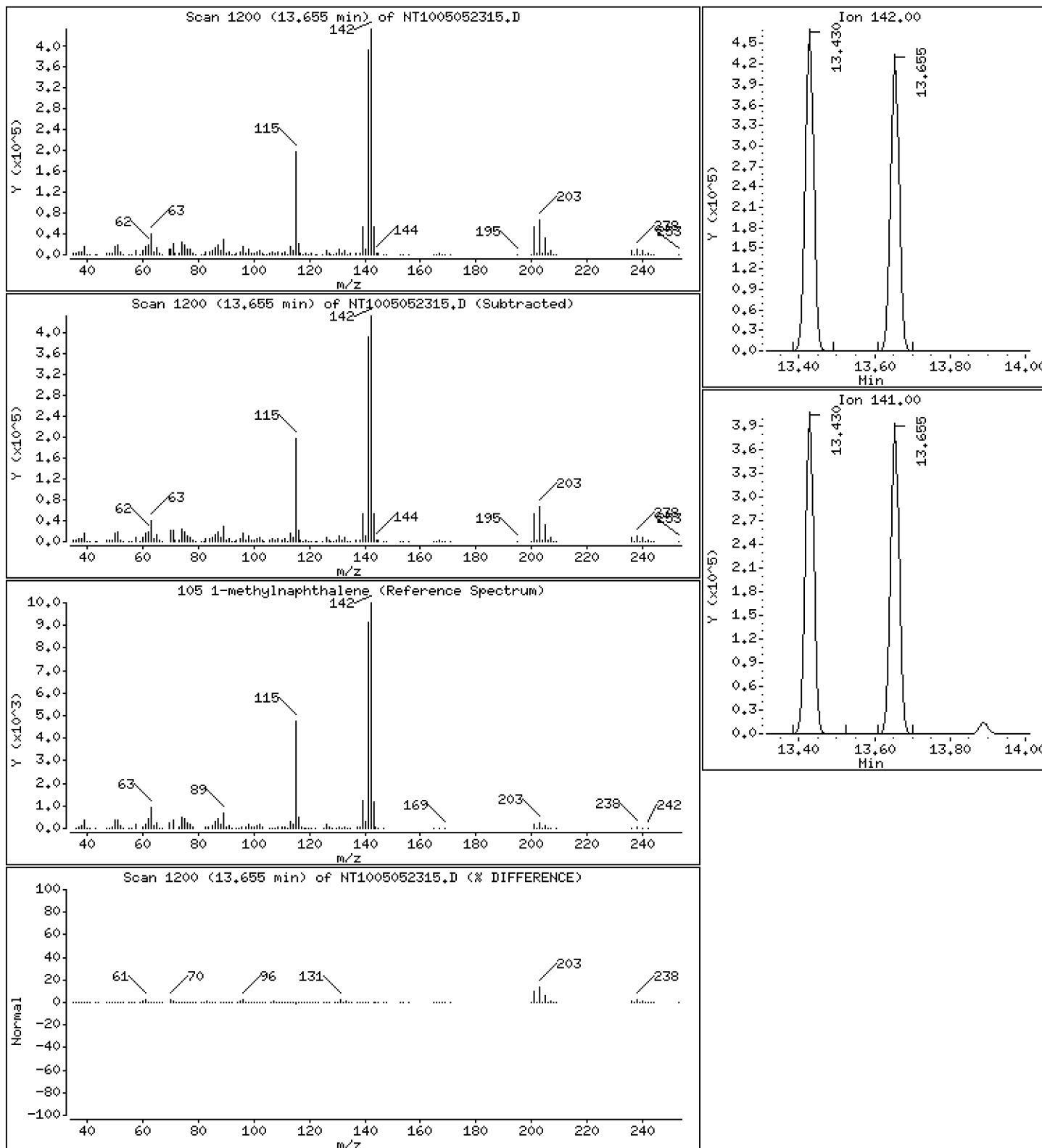
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,660 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

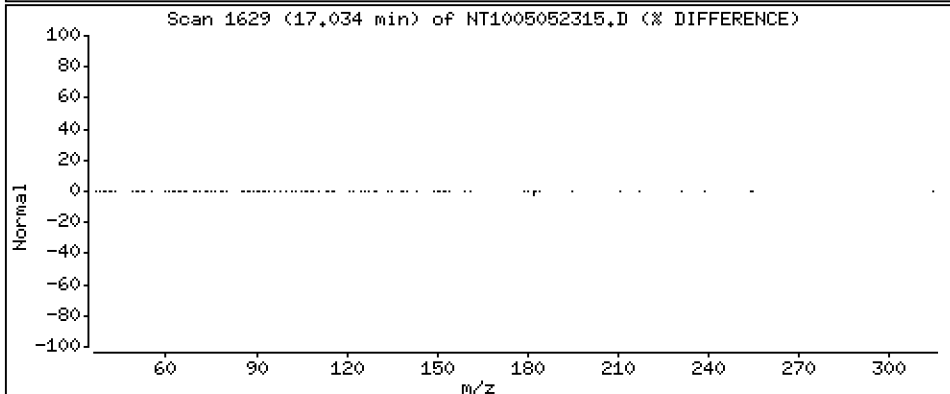
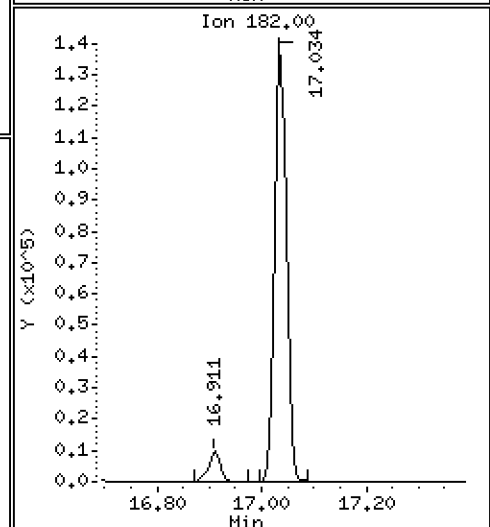
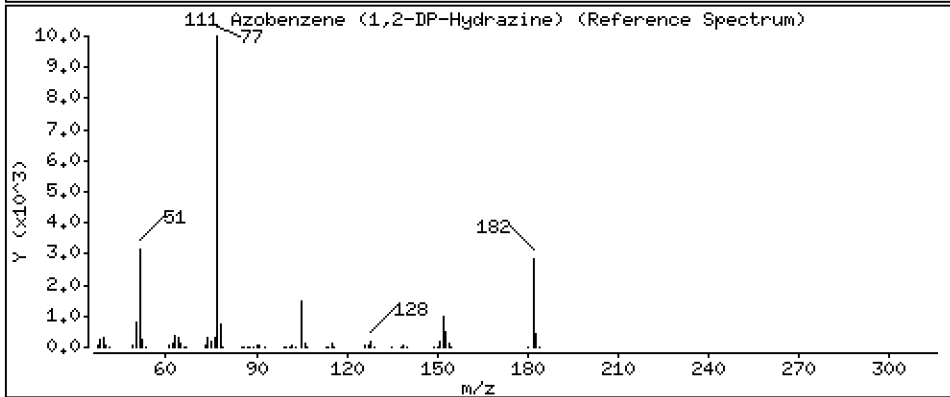
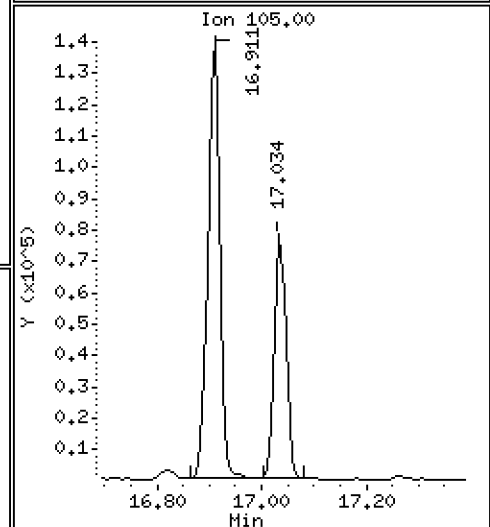
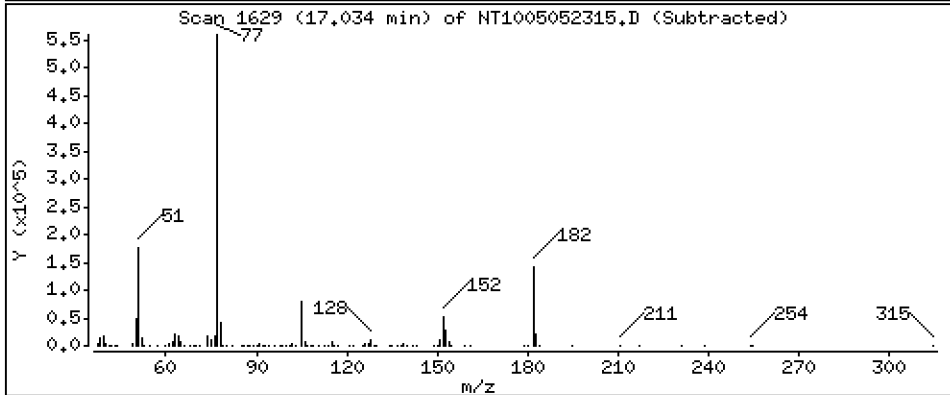
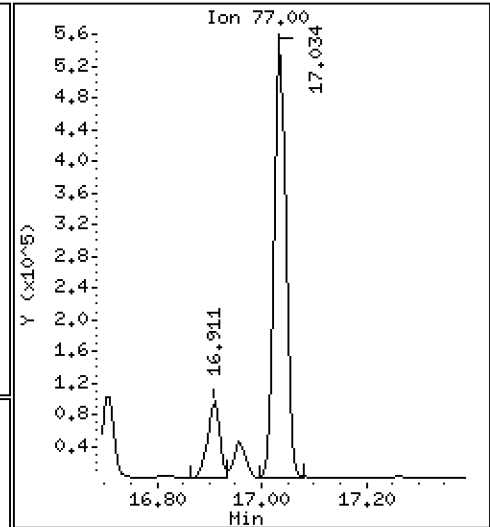
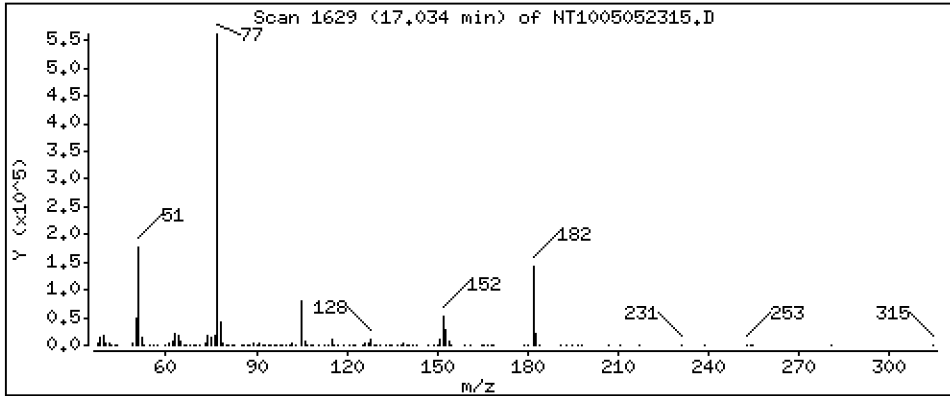
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 5,174 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

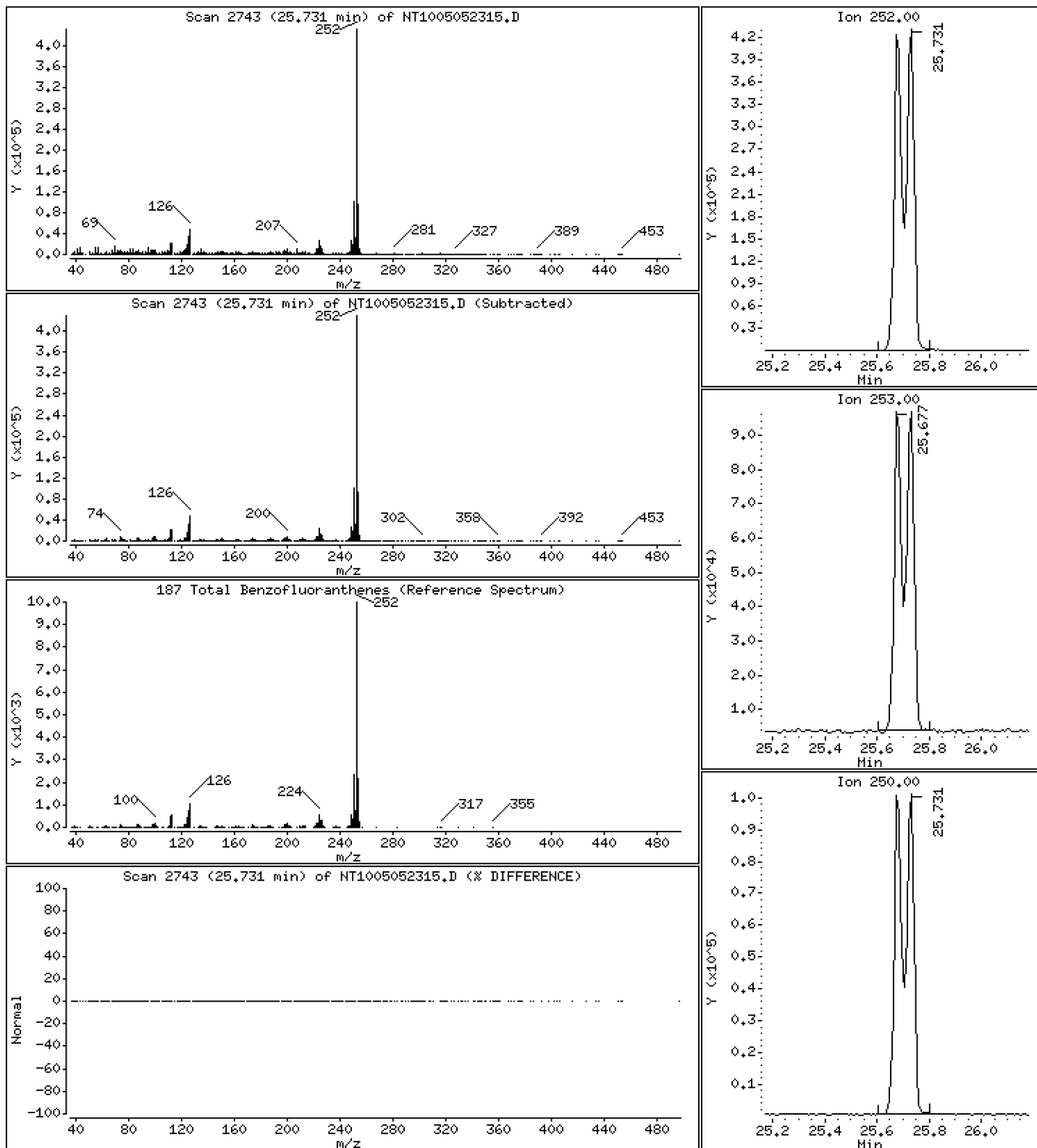
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 9,087 ug/mL



Date : 05-MAY-2023 19:50

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-CCV1

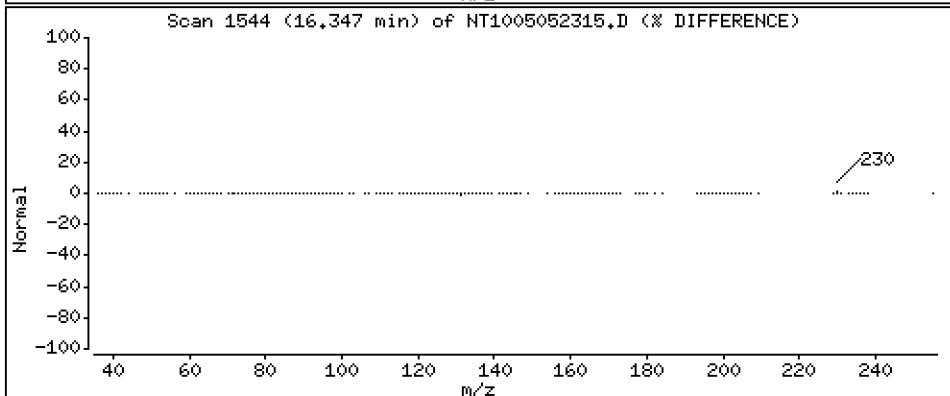
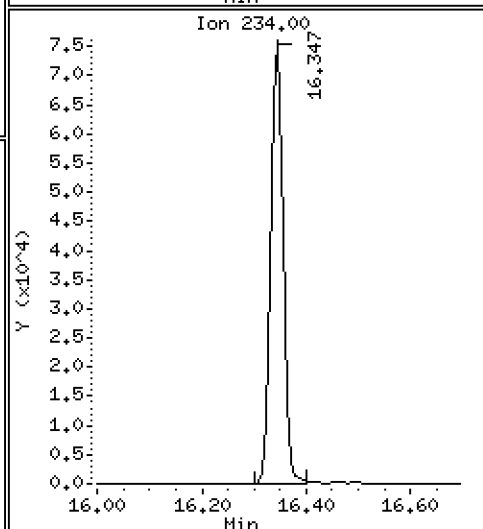
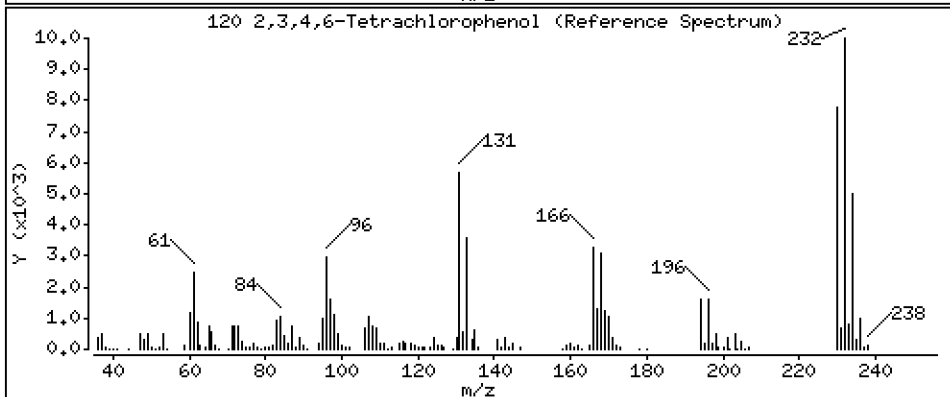
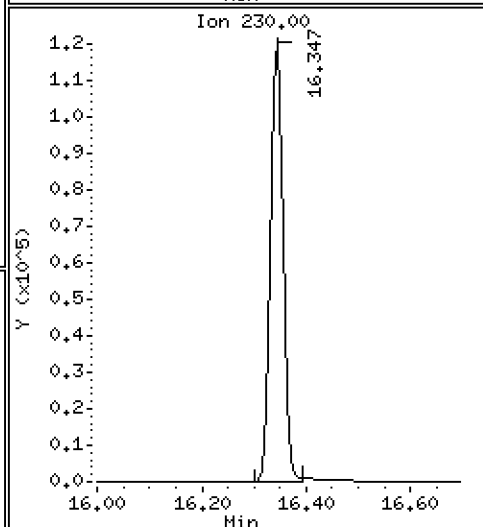
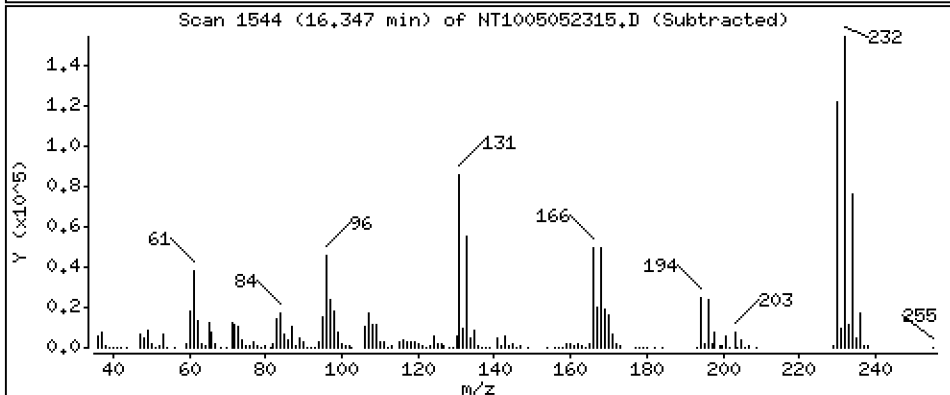
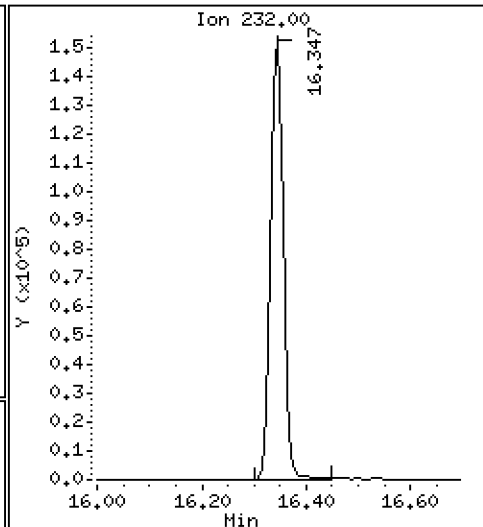
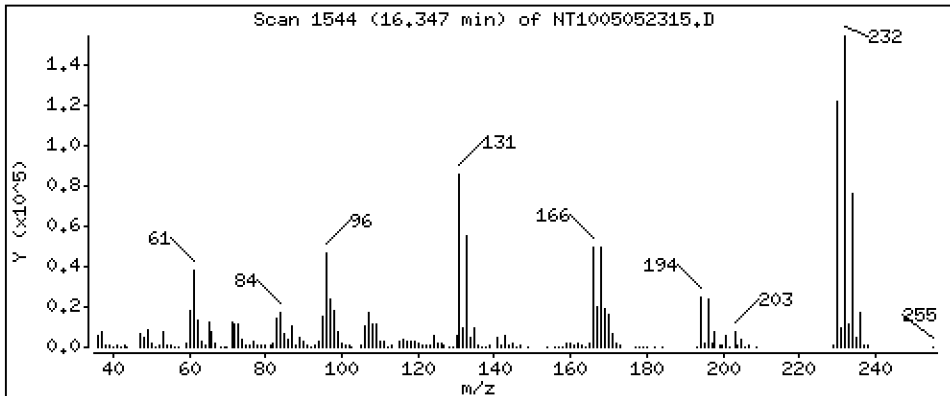
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 4,652 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052315.D
 Lab Smp Id: SLE0101-CCV1
 Inj Date : 05-MAY-2023 19:50
 Operator : VTS
 Smp Info : SLE0101-CCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.246	7.253	(1.000)	413270	7.31789	7.318
\$ 2 Phenol-d5	99		8.830	8.830	(1.000)	543376	7.98066	7.981
3 Phenol	94		8.853	8.853	(1.000)	396614	5.44798	5.448
\$ 5 2-Chlorophenol-d4	132		9.131	9.139	(1.000)	504261	7.72819	7.728
4 Bis(2-Chloroethyl)ether	93		9.030	9.038	(1.000)	280510	5.32506	5.325
6 2-Chlorophenol	128		9.154	9.162	(1.000)	334834	5.21601	5.216
7 1,3-Dichlorobenzene	146		9.433	9.440	(1.000)	360256	4.98102	4.981
* 8 1,4-Dichlorobenzene-d4	152		9.495	9.502	(1.000)	186630	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.526	9.533	(1.000)	384899	5.41753	5.418
\$ 10 1,2-Dichlorobenzene-d4	152		9.859	9.867	(1.000)	234712	4.87598	4.876
12 1,2-Dichlorobenzene	146		9.883	9.890	(1.000)	347895	5.04360	5.044
11 Benzyl alcohol	108		9.758	9.766	(1.000)	198178	5.66352	5.664
14 2,2'-oxybis(1-Chloropropane)	121		10.054	10.069	(1.059)	97195	4.87885	4.879 (M)
13 2-Methylphenol	108		9.976	9.976	(1.000)	294748	5.52014	5.520
17 Hexachloroethane	117		10.480	10.488	(1.000)	147539	4.80276	4.803
16 N-Nitroso-di-n-propylamine	70		10.317	10.325	(1.000)	245252	5.79904	5.799
15 4-Methylphenol	108		10.240	10.240	(1.000)	358181	5.58782	5.588
\$ 18 Nitrobenzene-d5	82		10.597	10.604	(0.884)	410570	5.17753	5.178
19 Nitrobenzene	77		10.636	10.636	(0.887)	396529	5.17418	5.174
20 Isophorone	82		11.078	11.078	(0.924)	561164	6.15074	6.151
21 2-Nitrophenol	139		11.257	11.266	(0.939)	190510	4.68756	4.688
22 2,4-Dimethylphenol	107		11.291	11.300	(0.942)	727077	9.71566	9.716
23 Bis(2-Chloroethoxy)methane	93		11.495	11.503	(0.959)	285422	4.89396	4.894
24 Benzoic acid	105		11.503	11.486	(0.959)	937167	17.9112	17.91
25 2,4-Dichlorophenol	162		11.707	11.716	(0.976)	655786	11.1548	11.15
26 1,2,4-Trichlorobenzene	180		11.898	11.906	(0.992)	376302	4.46896	4.469
* 27 Naphthalene-d8	136		11.991	11.999	(1.000)	709610	4.00000	
28 Naphthalene	128		12.030	12.037	(1.003)	944934	4.77289	4.773
29 4-Chloroaniline	127		12.153	12.161	(1.014)	741401	10.1767	10.18
30 Hexachlorobutadiene	225		12.385	12.393	(1.033)	219961	4.73678	4.737
31 4-Chloro-3-methylphenol	107		13.105	13.105	(1.093)	684338	10.6812	10.68
32 2-Methylnaphthalene	142		13.430	13.437	(1.120)	688233	4.64947	4.649
33 Hexachlorocyclopentadiene	237		13.886	13.902	(0.889)	140817	2.83125	2.831

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	14.041	14.049	(0.899)	501726	10.2406	10.24
35 2,4,5-Trichlorophenol	196	14.119	14.118	(0.904)	538187	10.0733	10.07
§ 36 2-Fluorobiphenyl	172	14.204	14.211	(0.909)	784507	4.53054	4.531
37 2-Chloronaphthalene	162	14.428	14.436	(0.924)	645648	4.73421	4.734
38 2-Nitroaniline	65	14.683	14.691	(0.940)	454594	11.4776	11.48
39 Dimethylphthalate	163	15.109	15.109	(0.967)	749772	4.88911	4.889
40 Acenaphthylene	152	15.303	15.310	(0.980)	1050460	4.93452	4.935
41 2,6-Dinitrotoluene	165	15.256	15.256	(0.977)	350578	10.1280	10.13
* 42 Acenaphthene-d10	164	15.620	15.628	(1.000)	399972	4.00000	
43 3-Nitroaniline	138	15.543	15.543	(0.995)	360019	10.5659	10.57
44 Acenaphthene	153	15.682	15.689	(1.004)	649730	4.79885	4.799
45 2,4-Dinitrophenol	184	15.751	15.759	(1.008)	329217	12.0869	12.09
46 Dibenzofuran	168	16.006	16.014	(1.025)	948975	4.80716	4.807
47 4-Nitrophenol	109	15.844	15.844	(1.014)	300723	9.38231	9.382
48 2,4-Dinitrotoluene	165	16.061	16.068	(1.028)	476782	9.55461	9.555
50 Diethylphthalate	149	16.563	16.571	(1.060)	887928	5.57648	5.576
49 Fluorene	166	16.725	16.733	(1.071)	769366	4.72432	4.724
51 4-Chlorophenyl-phenylether	204	16.710	16.710	(1.070)	376486	4.64262	4.643
52 4-Nitroaniline	138	16.818	16.825	(1.077)	333649	9.93560	9.936
53 4,6-Dinitro-2-methylphenol	198	16.910	16.918	(0.906)	509984	18.5393	18.54
54 N-Nitrosodiphenylamine	169	16.957	16.964	(0.908)	460862	5.11137	5.111
§ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	129440	6.51276	6.513
56 4-Bromophenyl-phenylether	248	17.720	17.728	(0.949)	209310	4.91750	4.918
57 Hexachlorobenzene	284	18.045	18.052	(0.966)	182371	4.26873	4.269
58 Pentachlorophenol	266	18.401	18.401	(0.985)	244000	8.06913	8.069
* 59 Phenanthrene-d10	188	18.672	18.679	(1.000)	682308	4.00000	
60 Phenanthrene	178	18.718	18.726	(1.002)	933981	4.66513	4.665
61 Anthracene	178	18.811	18.818	(1.007)	914959	4.94557	4.946
62 Carbazole	167	19.136	19.136	(1.025)	829741	5.06668	5.067
63 Di-n-butylphthalate	149	19.902	19.902	(1.066)	1198683	4.78364	4.784
64 Fluoranthene	202	21.085	21.085	(0.890)	988669	4.43695	4.437
65 Pyrene	202	21.511	21.511	(0.908)	1027189	4.61465	4.615
§ 66 Terphenyl-d14	244	21.782	21.782	(0.919)	758797	4.31024	4.310
67 Butylbenzylphthalate	149	22.695	22.695	(0.958)	493590	4.95841	4.958
68 Benzo(a)anthracene	228	23.663	23.663	(0.999)	932199	4.71816	4.718
* 69 Chrysene-d12	240	23.694	23.694	(1.000)	499082	4.00000	
70 3,3'-Dichlorobenzidine	252	23.617	23.609	(0.997)	1072097	16.7077	16.71
71 Chrysene	228	23.741	23.741	(1.002)	884290	5.00056	5.001
72 bis(2-Ethylhexyl)phthalate	149	23.702	23.702	(0.958)	707443	4.64357	4.644
* 134 Di-n-octylphthalate-d4	153	24.732	24.739	(1.000)	1057621	4.00000	
73 Di-n-octylphthalate	149	24.747	24.747	(1.001)	1271342	4.55635	4.556
74 Benzo(b)fluoranthene	252	25.676	25.676	(0.968)	893943	4.73312	4.733
75 Benzo(k)fluoranthene	252	25.730	25.730	(0.970)	829444	4.42564	4.426
76 Benzo(a)pyrene	252	26.412	26.404	(0.995)	730865	4.62318	4.623
* 77 Perylene-d12	264	26.536	26.528	(1.000)	459767	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.522	29.498	(1.113)	859791	4.52726	4.527
79 Dibenzo(a,h)anthracene	278	29.522	29.514	(1.113)	731768	4.60080	4.601
80 Benzo(g,h,i)perylene	276	30.400	30.376	(1.146)	676494	4.46902	4.469
90 N-Nitrosodimethylamine	74	5.083	5.090	(1.000)	273656	8.97120	8.971
91 Aniline	93	8.945	8.953	(1.000)	679031	11.3171	11.32
93 Benzidine	184	21.310	21.310	(0.899)	666478	8.06231	8.062
103 Pyridine	79	5.106	5.114	(1.000)	425322	8.84236	8.842
105 1-methylnaphthalene	142	13.654	13.662	(1.139)	632441	4.66027	4.660
111 Azobenzene (1,2-DP-Hydrazine)	77	17.034	17.041	(1.091)	804915	5.17442	5.174

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.730	25.676	(0.970)	1652030	9.08694	9.087
120 2,3,4,6-Tetrachlorophenol	232	16.347	16.346	(1.047)	246943	4.65206	4.652

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052315.D Calibration Time: 11:37
 Lab Smp Id: SLE0101-CCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	186630	3.99
27 Naphthalene-d8	621628	310814	1243256	709610	14.15
42 Acenaphthene-d10	353112	176556	706224	399972	13.27
59 Phenanthrene-d10	694933	347467	1389866	682308	-1.82
69 Chrysene-d12	553967	276984	1107934	499082	-9.91
134 Di-n-octylphthala	895601	447801	1791202	1057621	18.09
77 Perylene-d12	482573	241287	965146	459767	-4.73

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.50	-0.08
27 Naphthalene-d8	12.00	11.50	12.50	11.99	-0.06
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.69	23.19	24.19	23.69	0.00
134 Di-n-octylphthala	24.74	24.24	25.24	24.73	-0.03
77 Perylene-d12	26.53	26.03	27.03	26.54	0.03

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

REVIEW SUMMARY FOR FILE - NT1005052315.D

Lab ID: SLE0101-CCV1
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 19:50

RT	CO-ELUTION COMPOUNDS
29.522	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
29.522	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE			

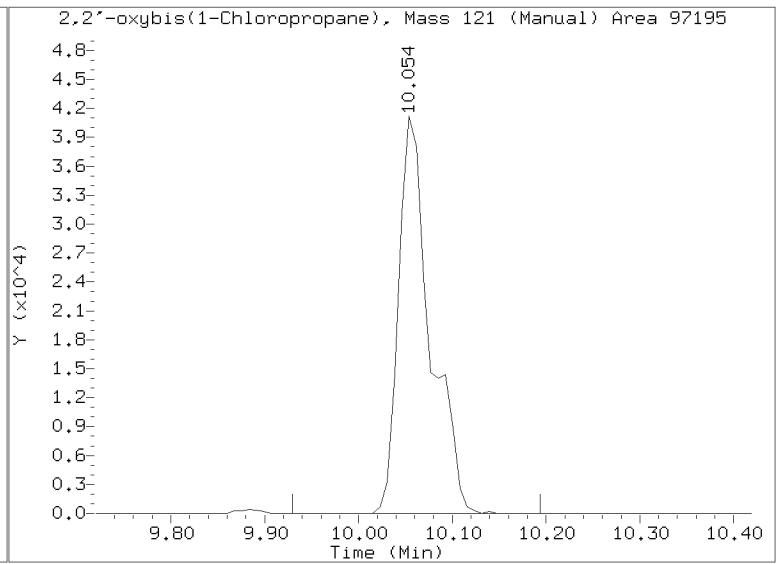
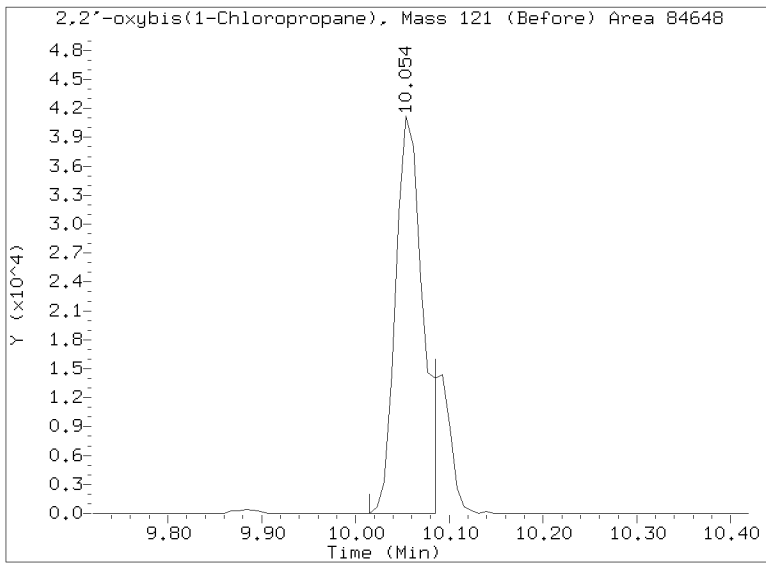
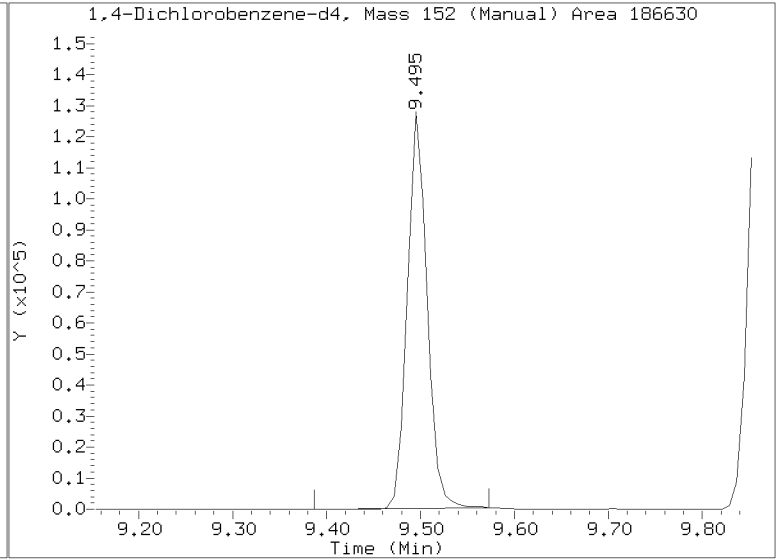
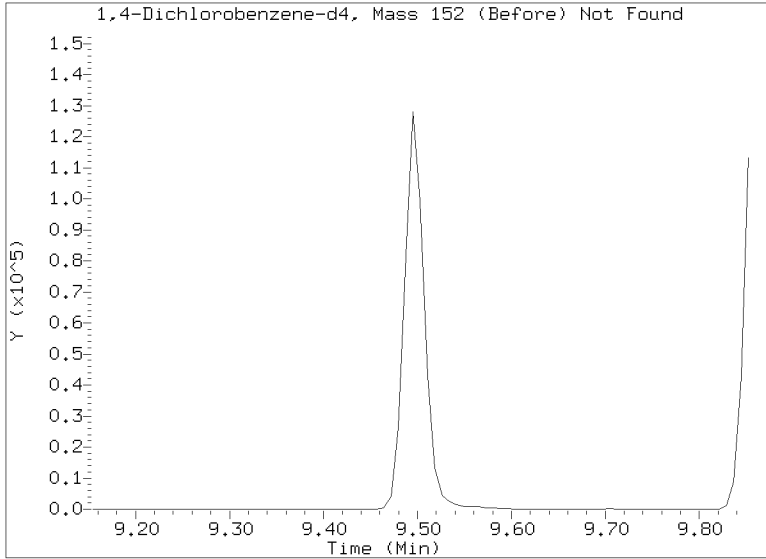
RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052315.D
Injection Date: 05-MAY-2023 19:50
Lab ID: SLE0101-CCV1 Client ID:
Report Date: 05/08/2023 10:16



APPROVED

By Deenay Dunmore at 10:40 am, May 08, 2023



**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GE00012

Lab File ID: NT1005052304.D

Calibration Date: 05/01/2023

Sequence: SLE0101

Injection Date: 05/05/23

Lab Sample ID: SLE0101-LCV1

Injection Time: 12:43

Sequence Name: ABN 0.5

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	0.50000	0.4	1.5603090	1.3555210		-13.1	+/-50
4-Methylphenol	A	0.50000	0.4	1.3738470	1.1430330		-16.8	+/-50
Naphthalene	A	0.50000	0.5	1.1159900	1.0205760		-8.6	+/-50
2-Methylnaphthalene	A	0.50000	0.4	0.8343963	0.7223103		-13.4	+/-50
Acenaphthylene	A	0.50000	0.4	2.1289490	1.8813880		-11.6	+/-50
Dimethylphthalate	A	0.50000	0.4	1.5336640	1.3420860		-12.5	+/-50
Acenaphthene	A	0.50000	0.4	1.3540250	1.2176840		-10.1	+/-50
Dibenzofuran	A	0.50000	0.4	1.9742250	1.7647220		-10.6	+/-50
Fluorene	A	0.50000	0.4	1.6286350	1.4504000		-10.9	+/-50
Phenanthrene	A	0.50000	0.4	1.1736900	1.0314200		-12.1	+/-50
Anthracene	A	0.50000	0.4	1.0845870	0.8604712		-20.7	+/-50
Fluoranthene	A	0.50000	0.4	1.7858880	1.3669300		-23.5	+/-50
Pyrene	A	0.50000	0.4	1.7840190	1.4177700		-20.5	+/-50
Butylbenzylphthalate	A	0.50000	0.3	0.6671669	0.4354436		-47.9	+/-50
Benzo(a)anthracene	A	0.50000	0.4	1.5835210	1.3738860		-13.2	+/-50
Chrysene	A	0.50000	0.5	1.4173070	1.2772180		-9.9	+/-50
bis(2-Ethylhexyl)phthalate	A	0.50000	0.4	0.5761948	0.4405148		-23.5	+/-50
Benzo(a)fluoranthene, Total	A	1.00000	0.8	1.5816940	1.2732670		-19.5	+/-50
Benzo(a)pyrene	A	0.50000	0.4	1.3753650	1.0536920		-23.4	+/-50
Indeno(1,2,3-cd)pyrene	A	0.50000	0.4	1.6522640	1.2574140		-23.9	+/-50
Dibenzo(a,h)anthracene	A	0.50000	0.4	1.3837630	1.0887890		-21.3	+/-50
Benzo(g,h,i)perylene	A	0.50000	0.4	1.3169650	1.0397880		-21.0	+/-50
2-Fluorophenol	A	0.75000	0.588	1.2103940	0.9493926		-21.6	+/-50
Phenol-d5	A	0.75000	0.591	1.4592840	1.1495930		-21.2	+/-50
2-Chlorophenol-d4	A	0.75000	0.587	1.3984790	1.0943050		-21.8	+/-50
1,2-Dichlorobenzene-d4	A	0.50000	0.423	1.0316970	0.8725714		-15.4	+/-50
Nitrobenzene-d5	A	0.50000	0.416	0.4469969	0.3716489		-16.9	+/-50
2-Fluorobiphenyl	A	0.50000	0.441	1.7317170	1.5268050		-11.8	+/-50
2,4,6-Tribromophenol	A	0.75000	0.435	0.1786492	0.1114071		-42.0	+/-50
p-Terphenyl-d14	A	0.50000	0.403	1.4109530	1.1375540		-19.4	+/-50

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.6\NT1005052304.D

Date: 05-May-2023 12:43

Client ID:

Sample Info: SLE0101-LCW1

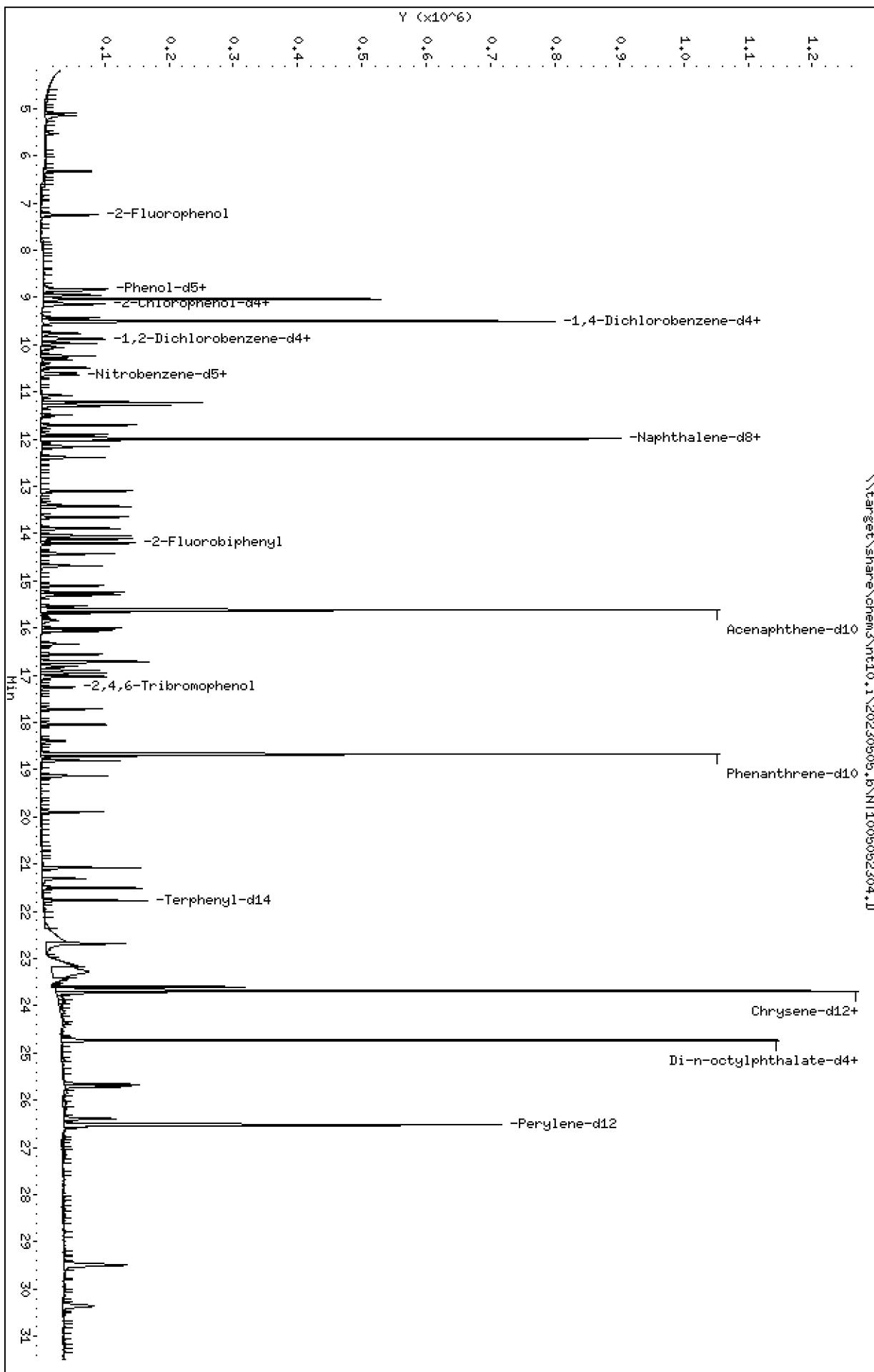
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

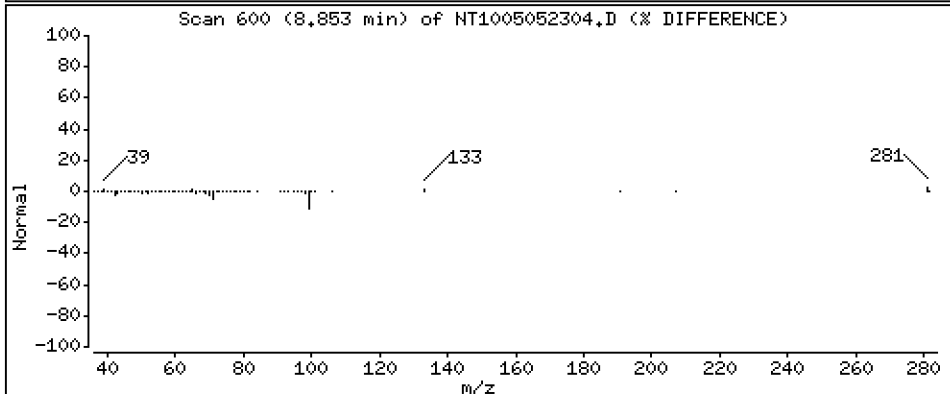
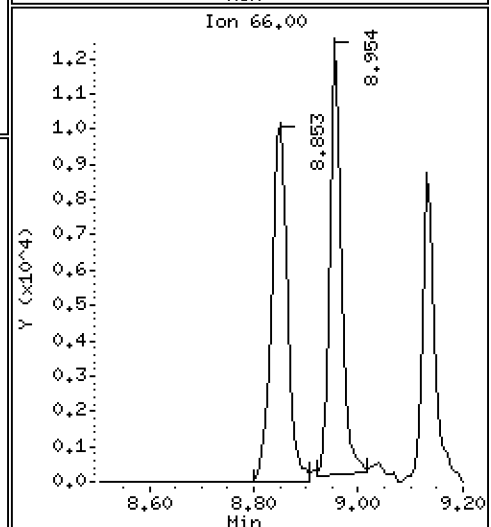
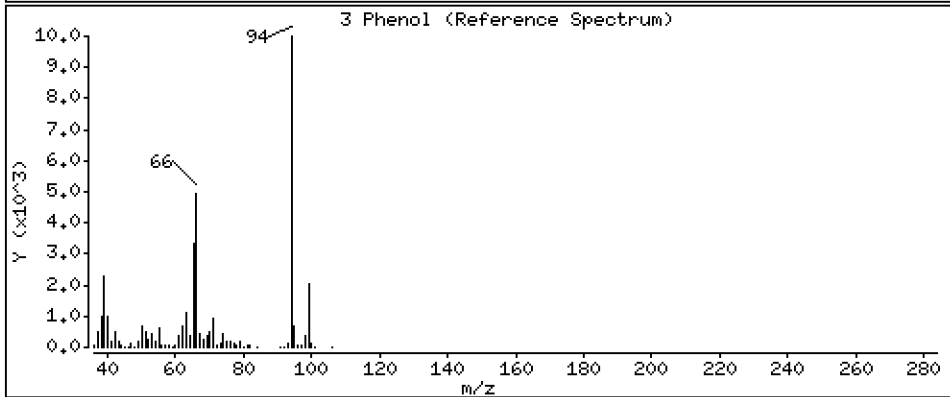
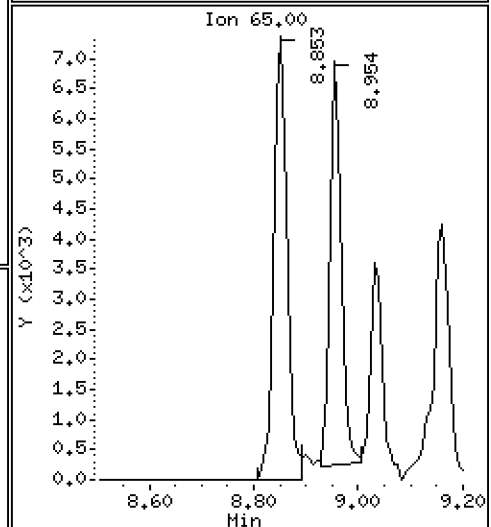
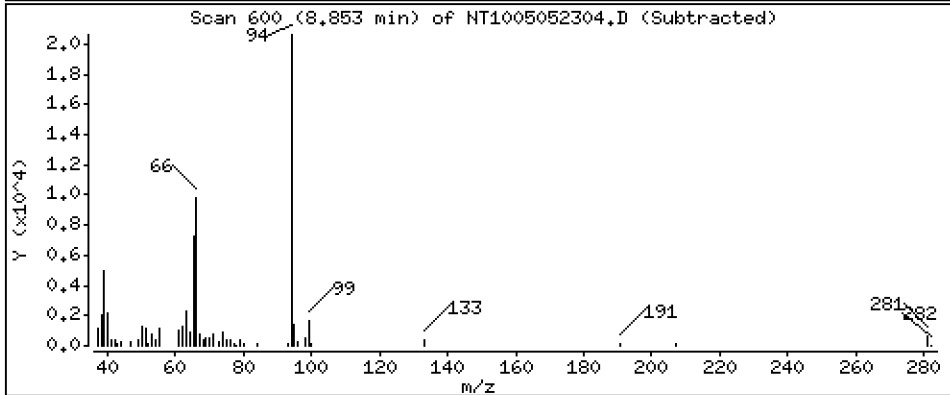
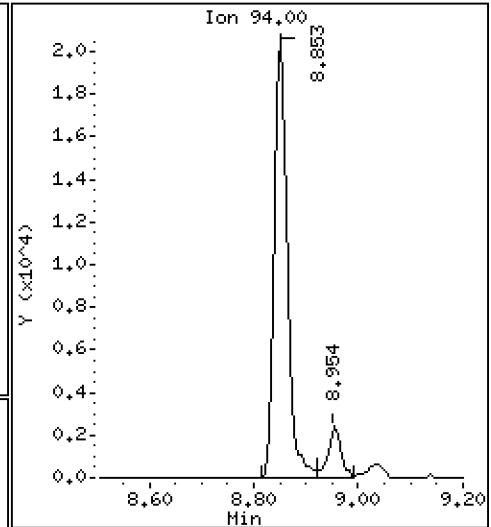
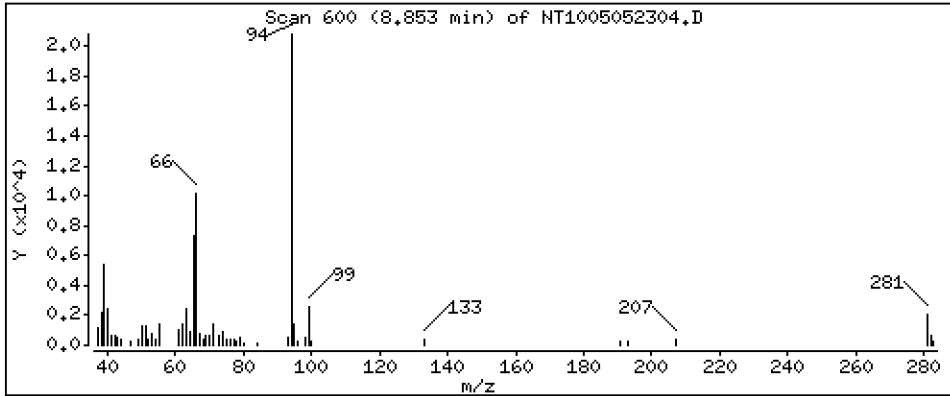
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,4344 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

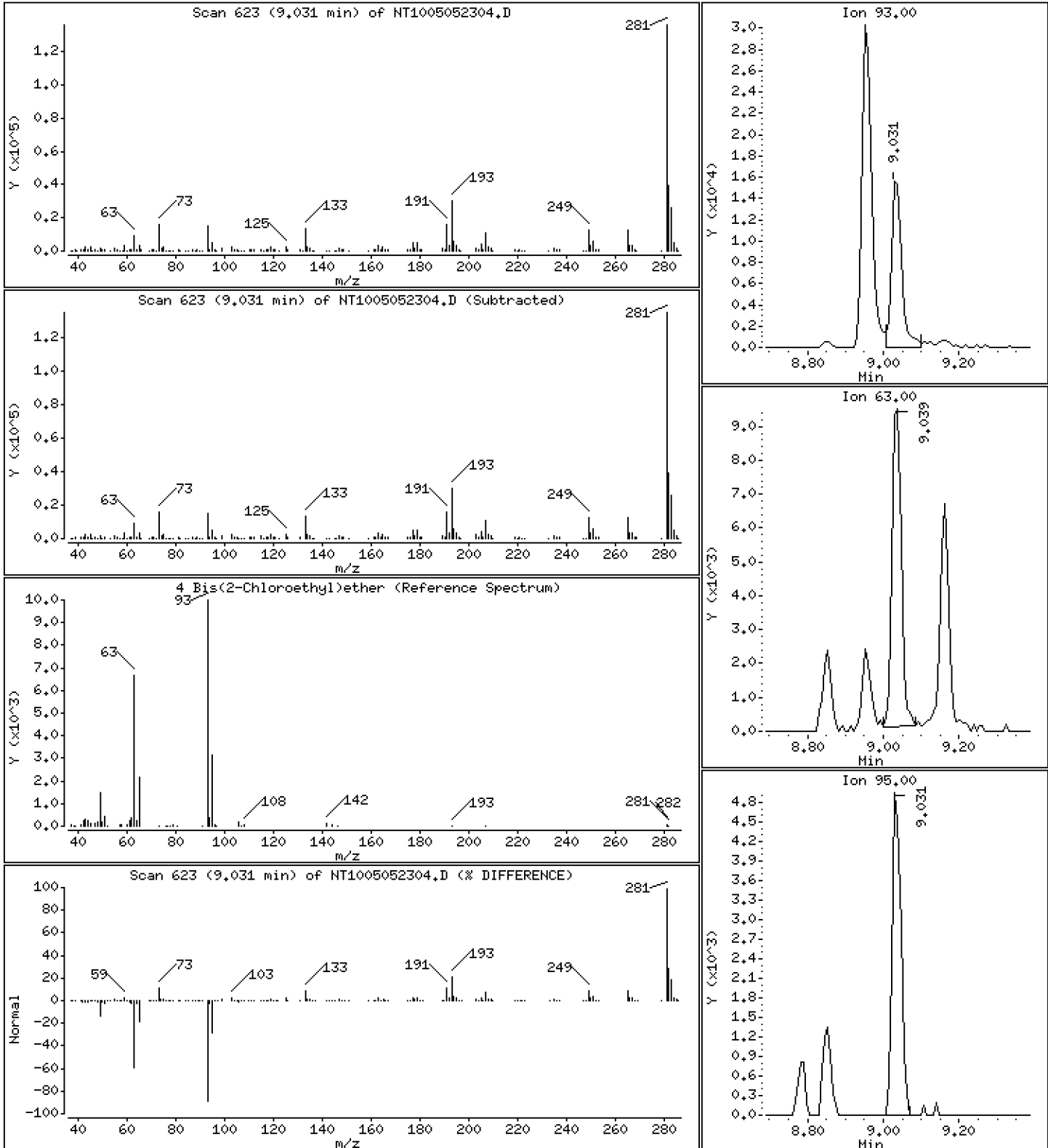
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,4944 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

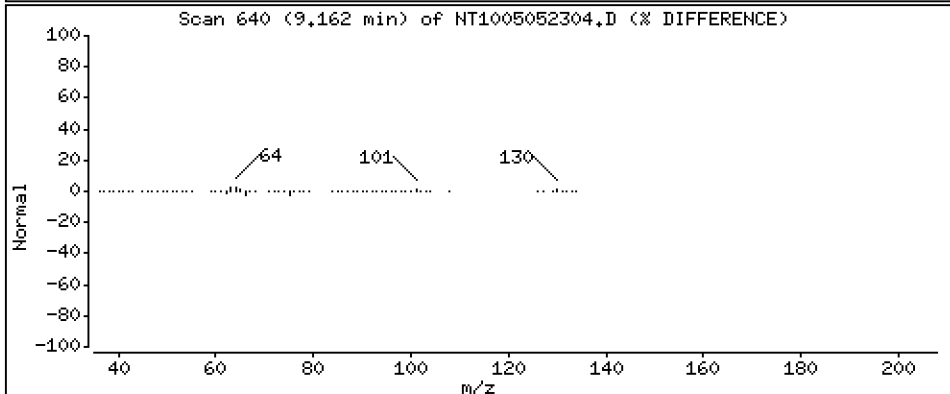
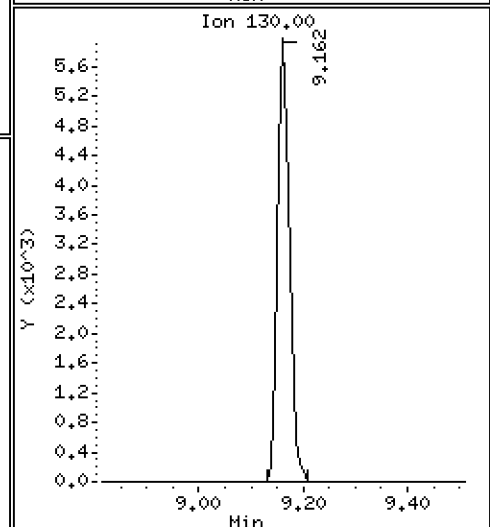
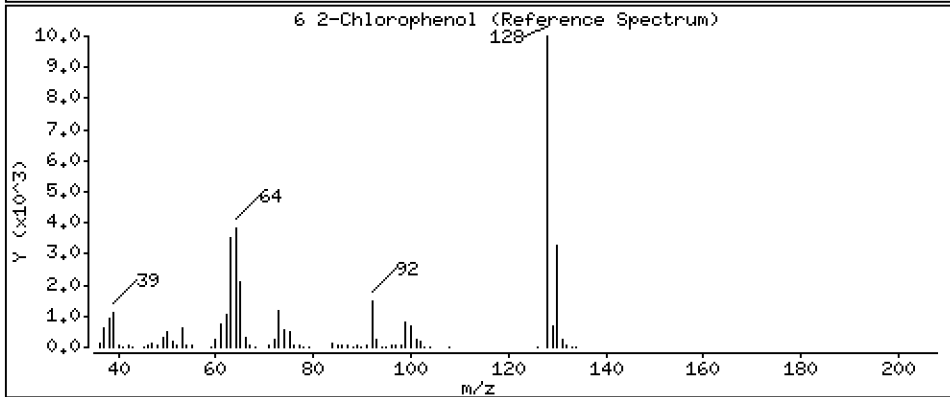
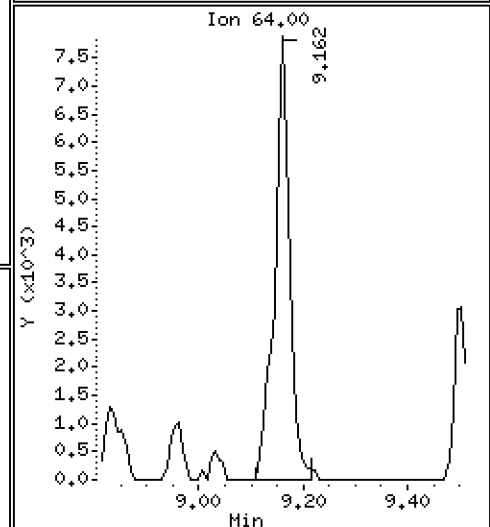
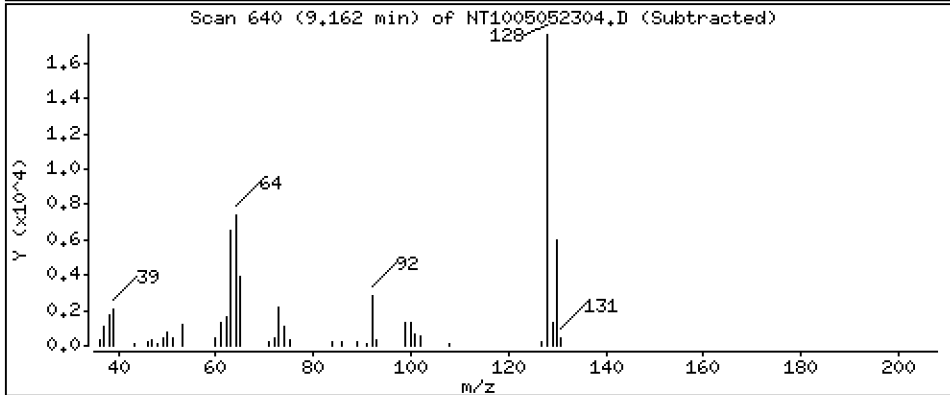
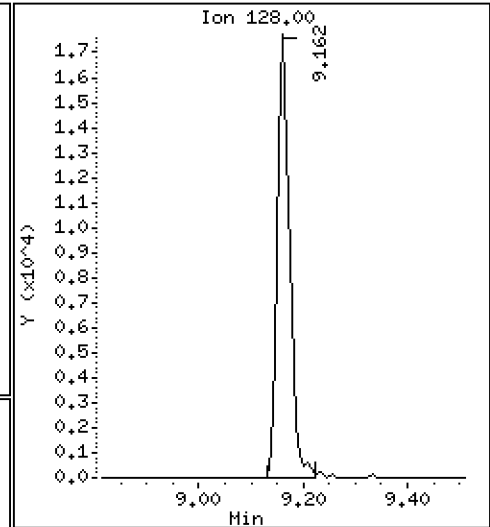
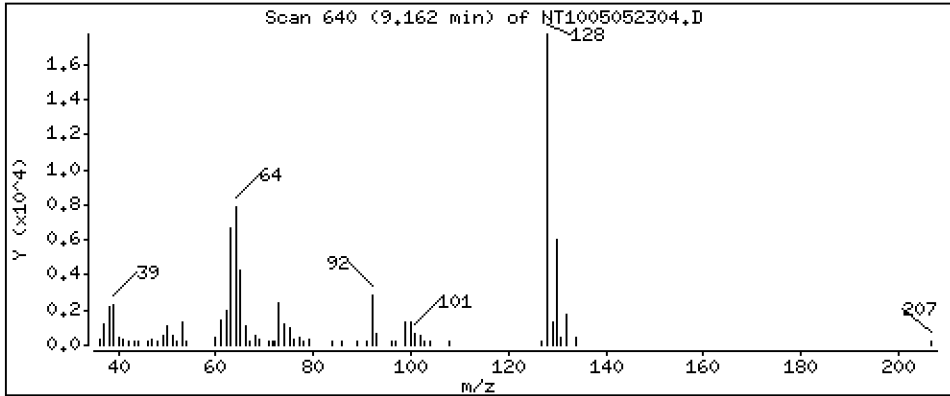
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 0.4114 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

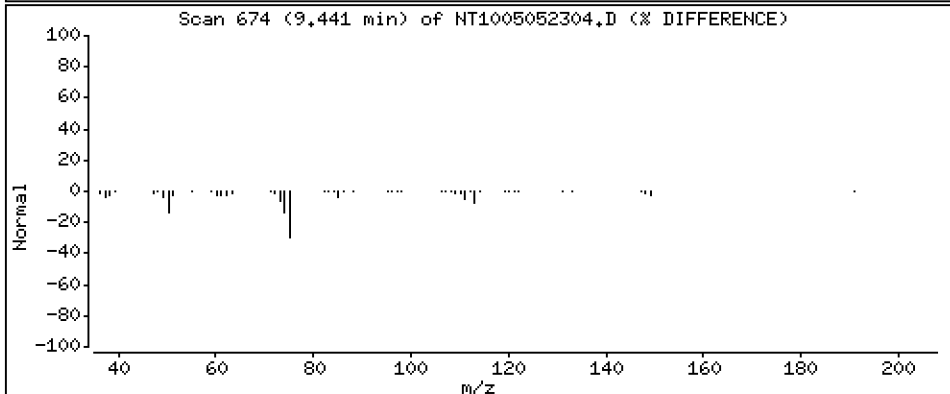
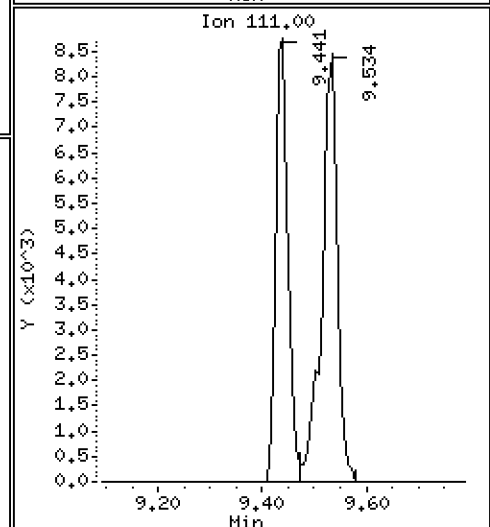
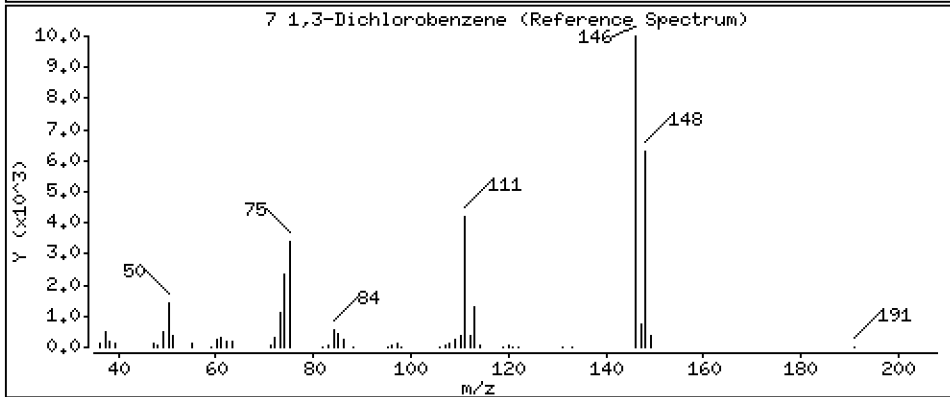
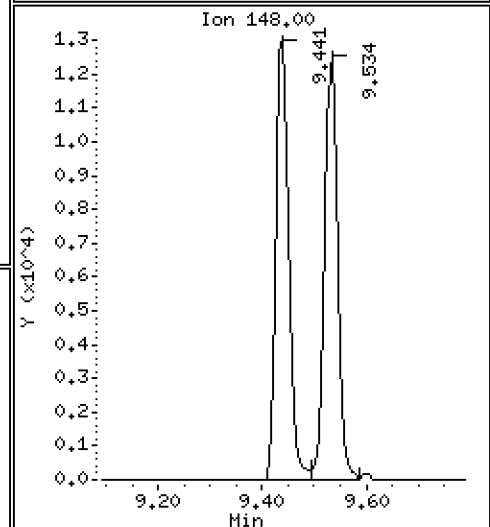
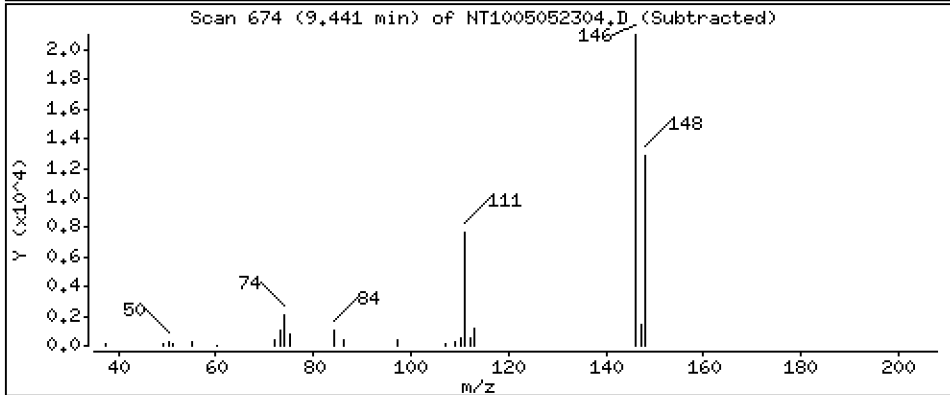
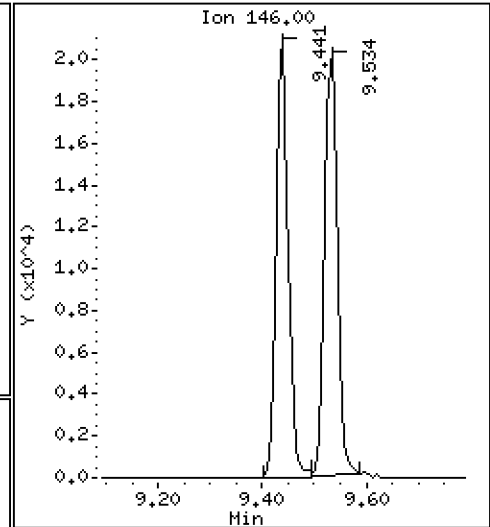
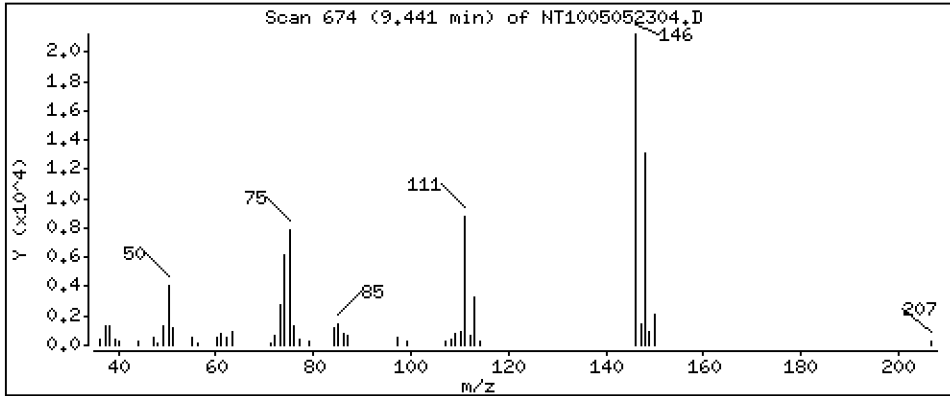
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.4272 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

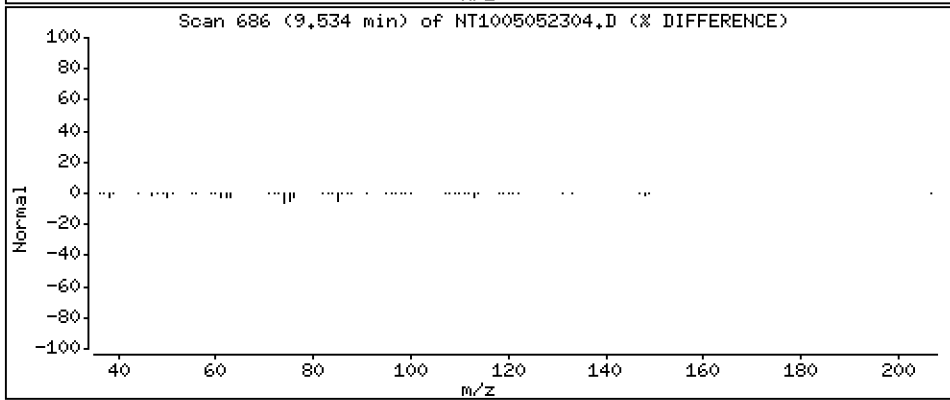
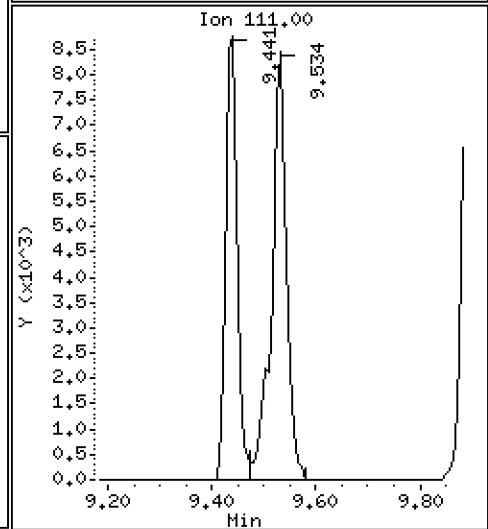
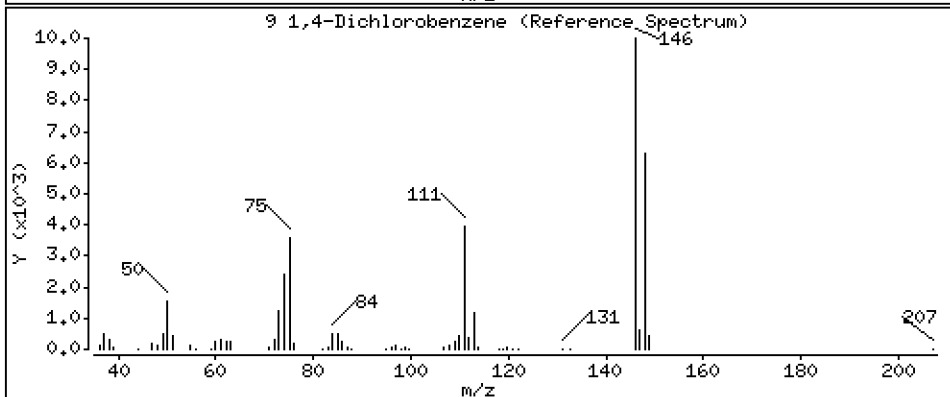
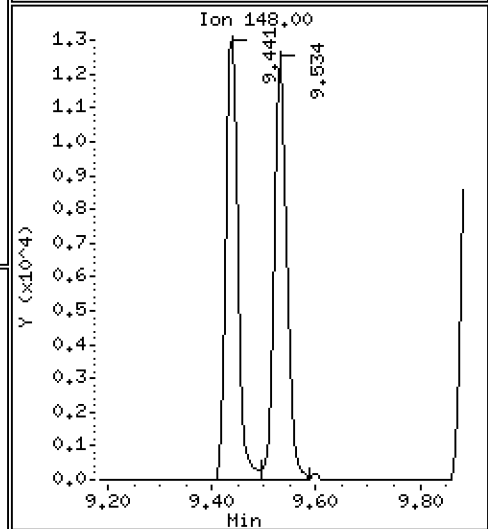
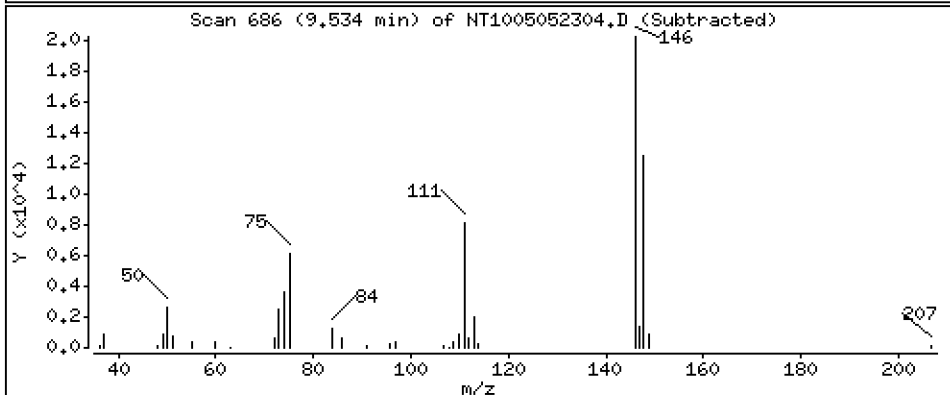
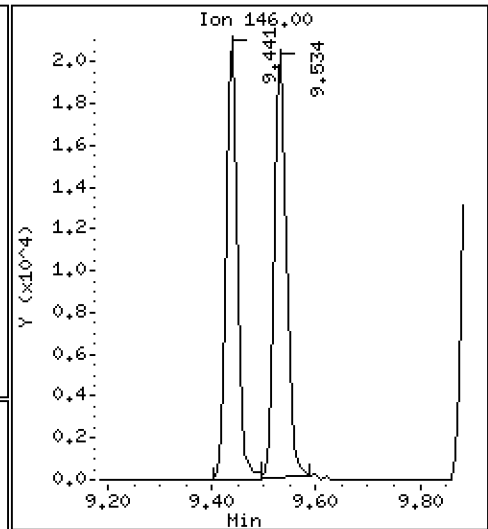
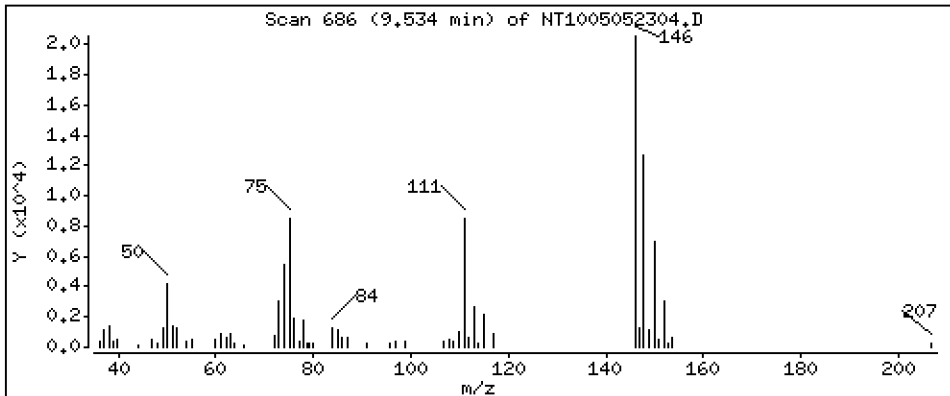
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.4250 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

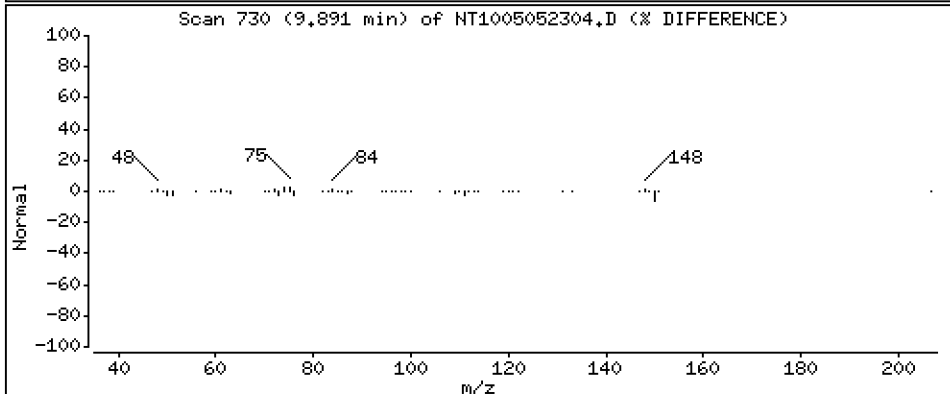
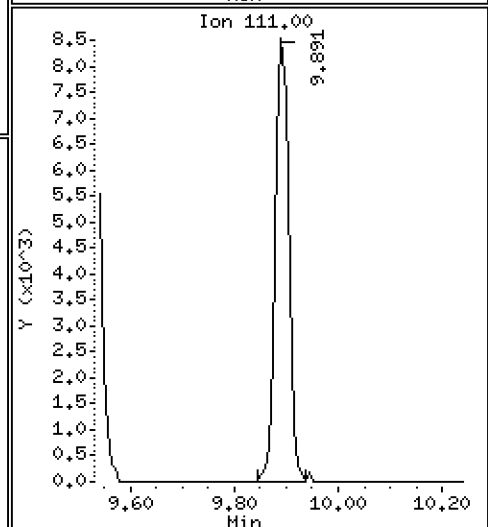
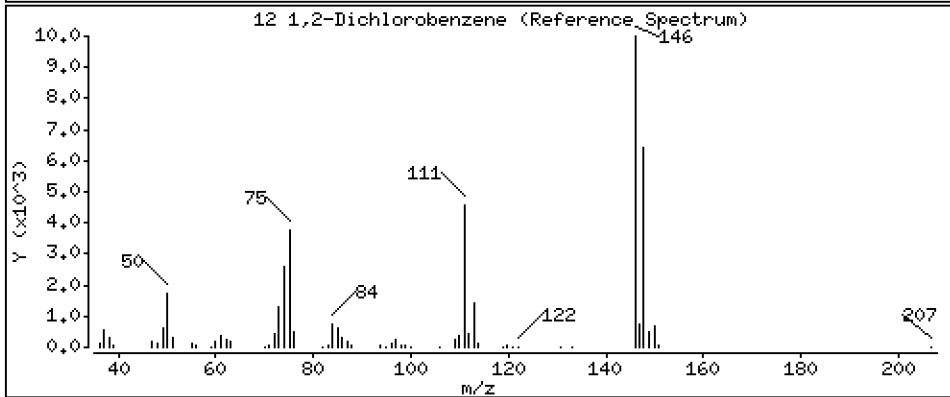
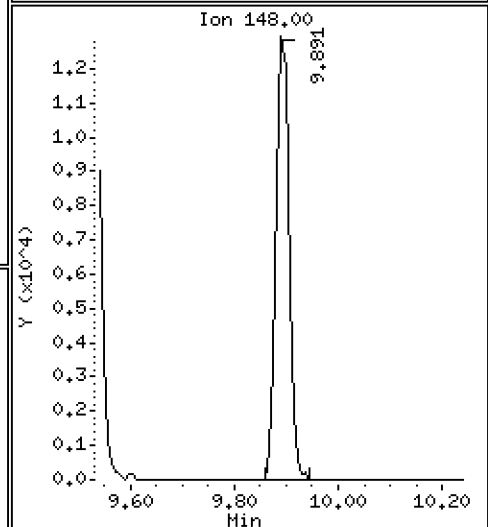
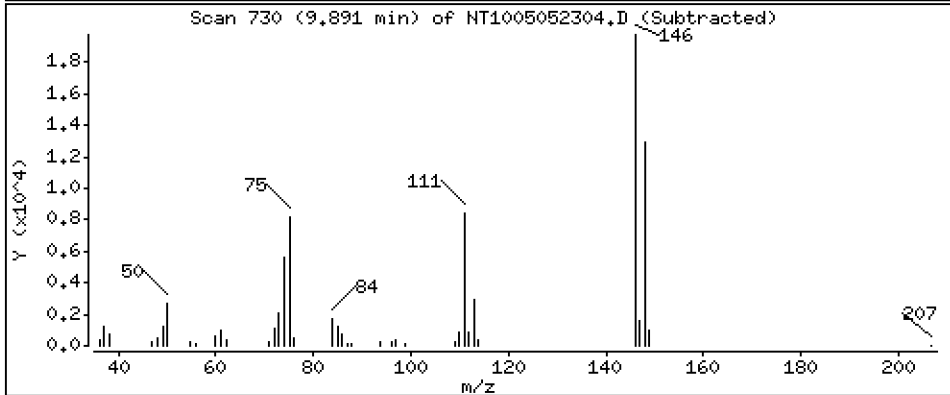
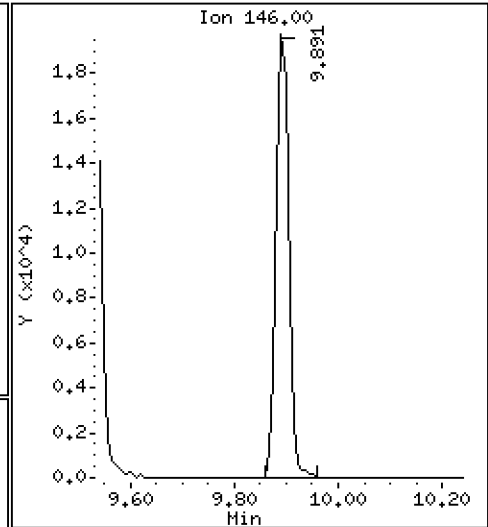
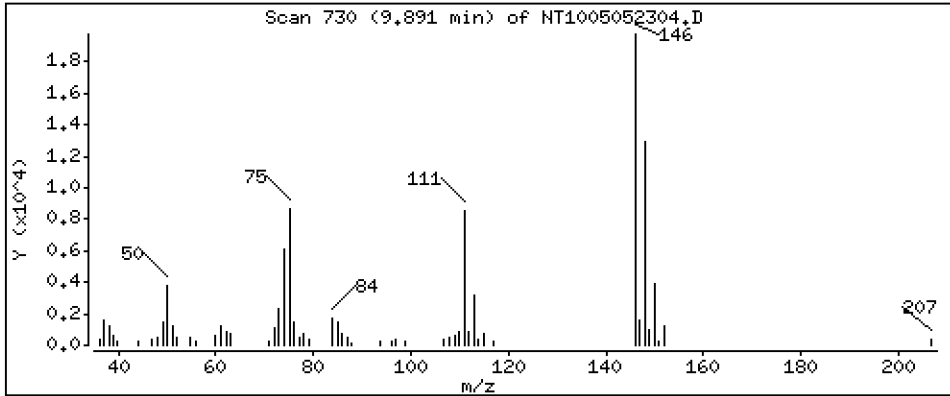
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.4285 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

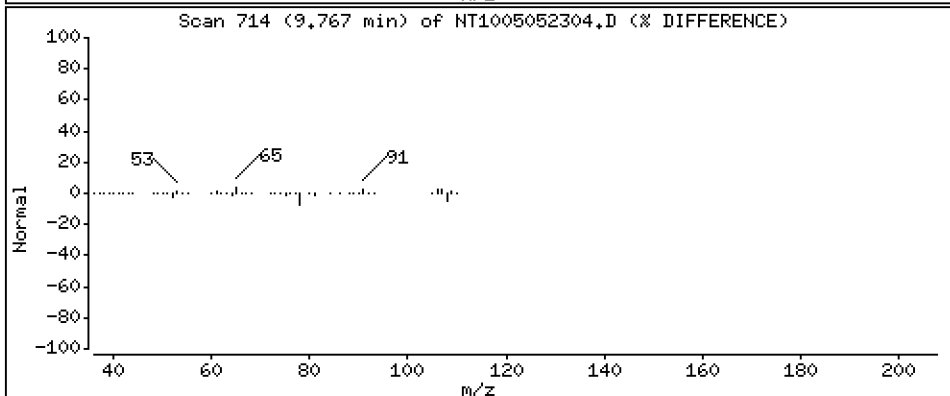
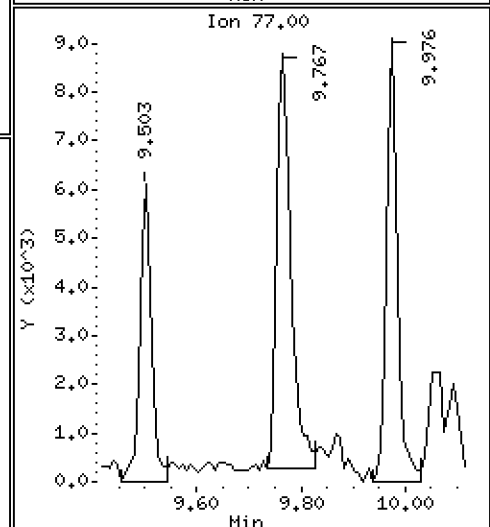
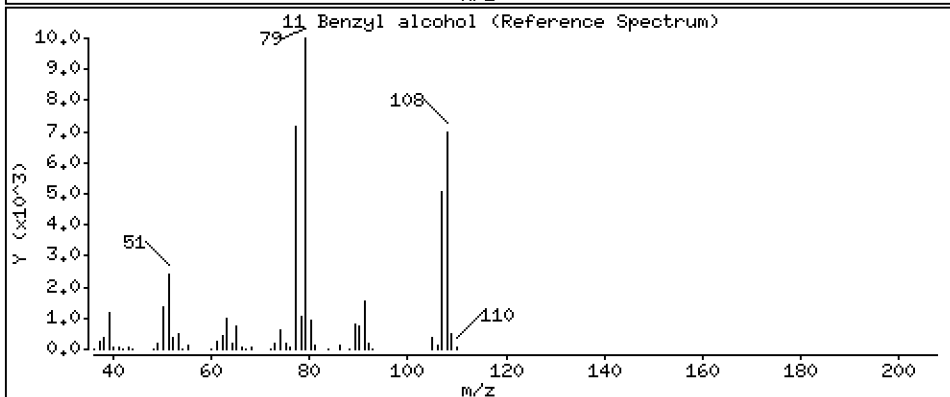
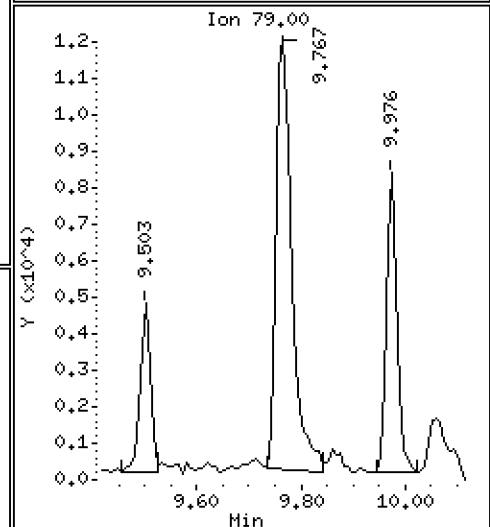
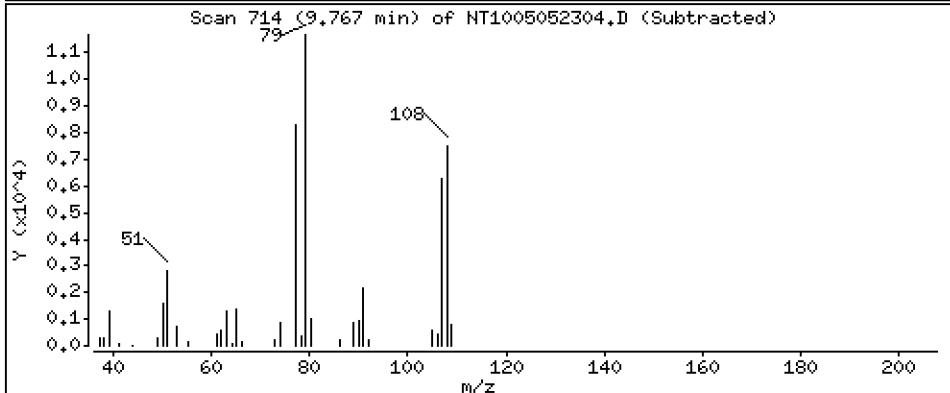
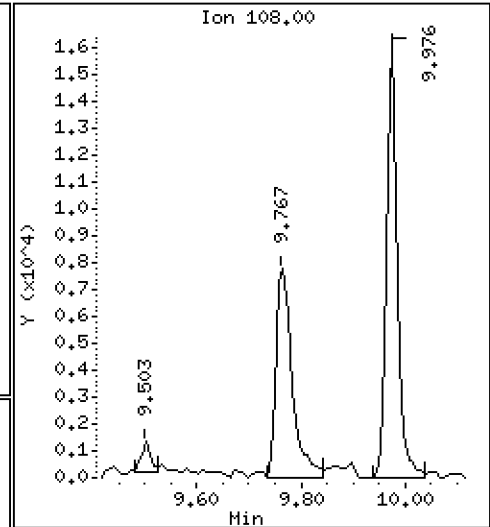
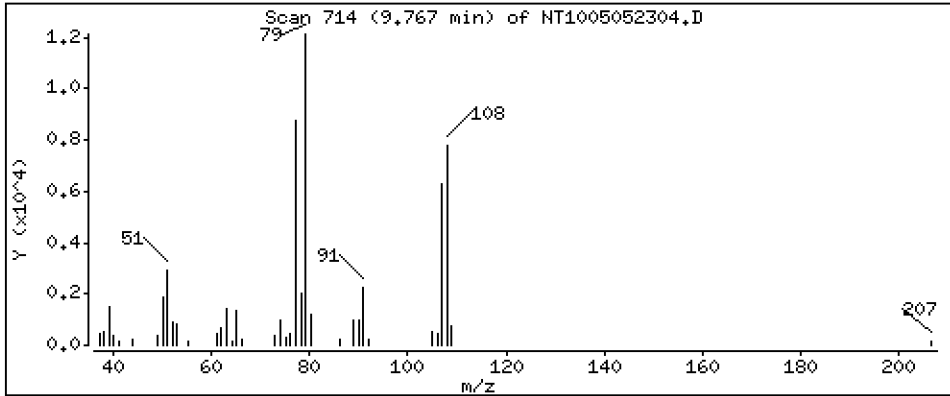
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.4329 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

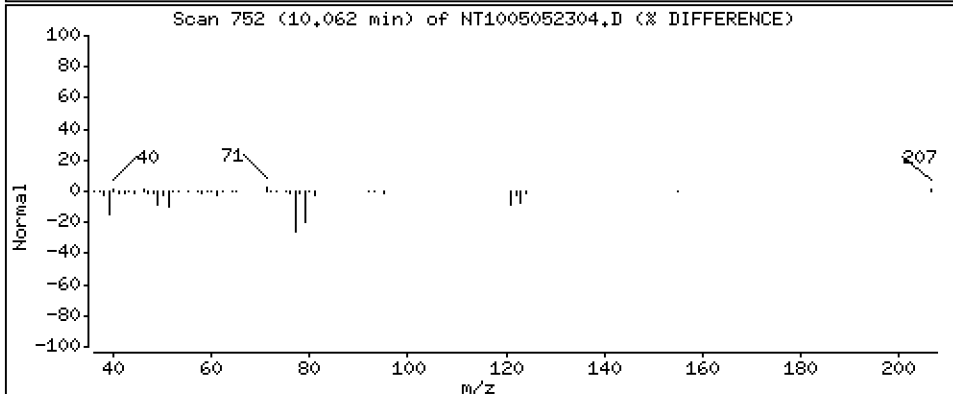
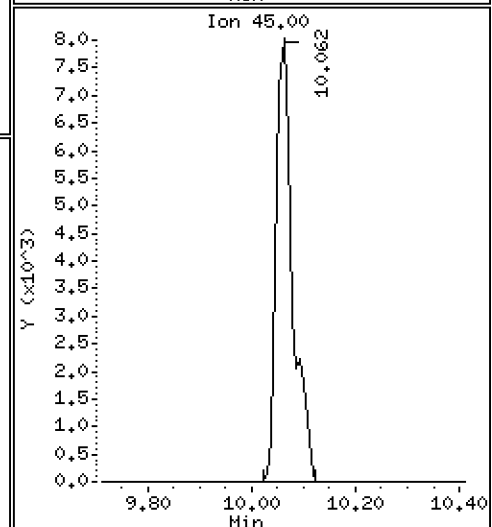
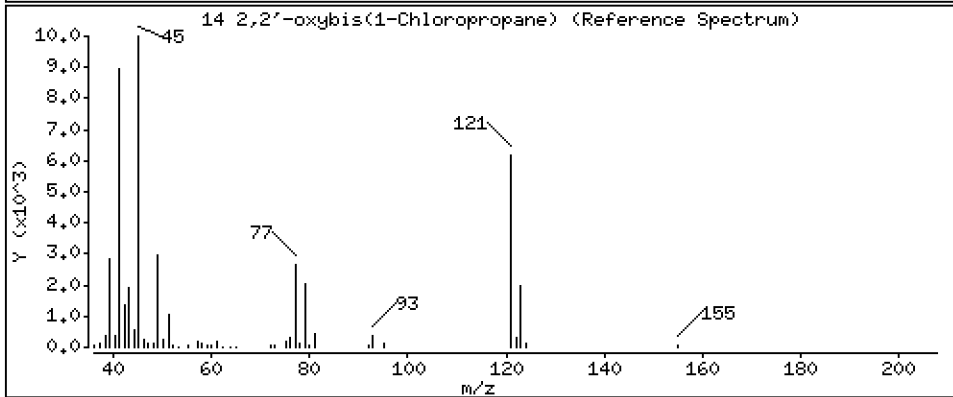
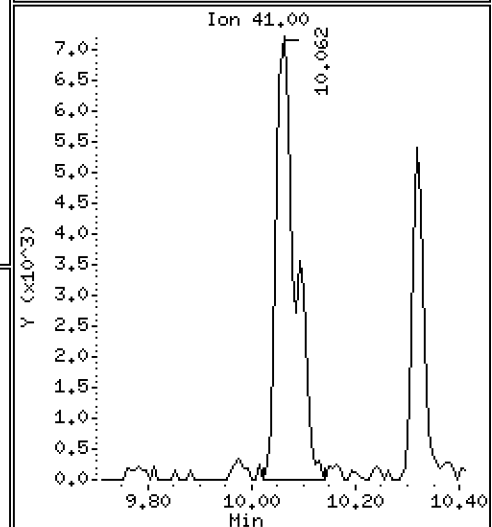
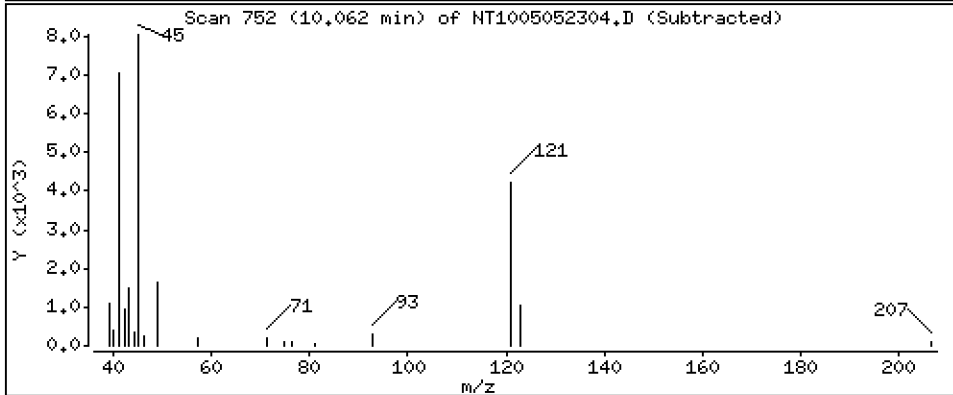
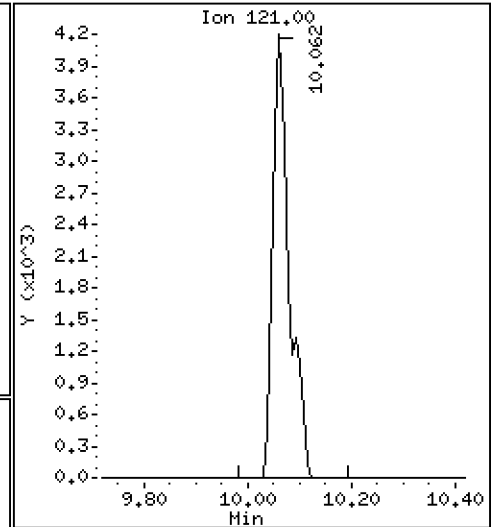
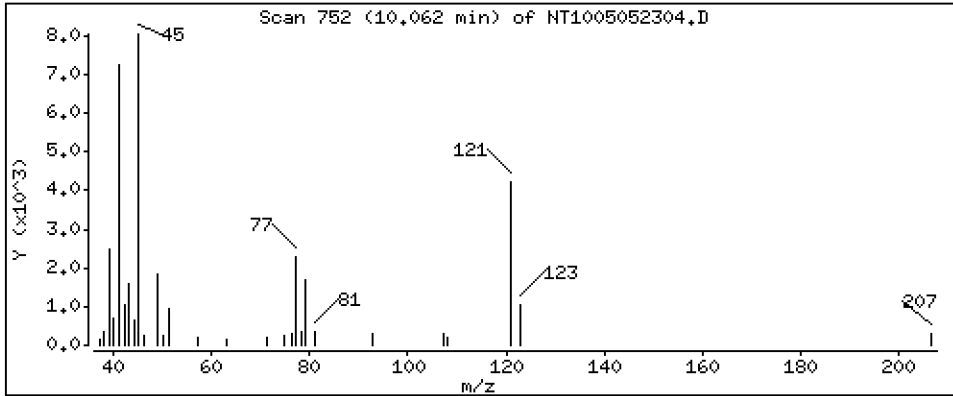
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,4125 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

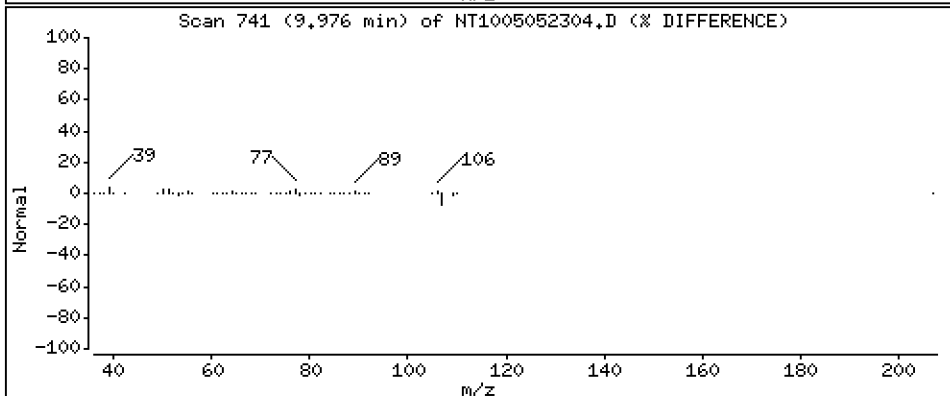
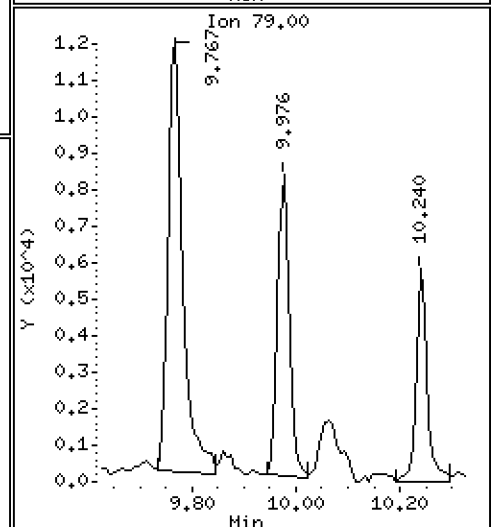
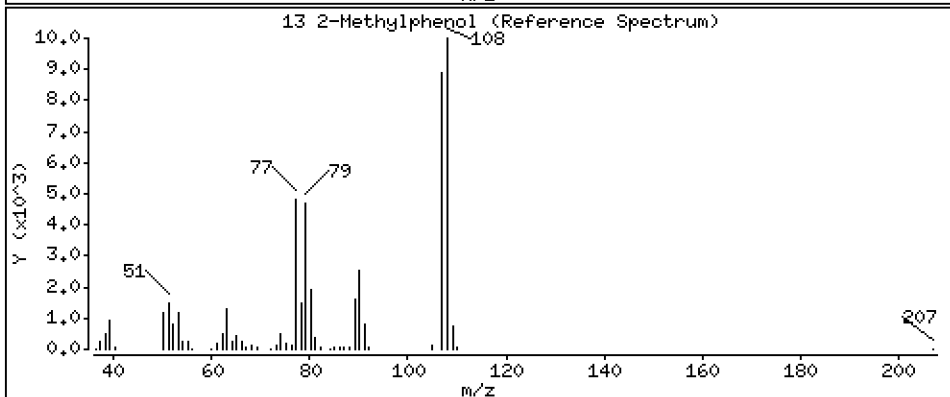
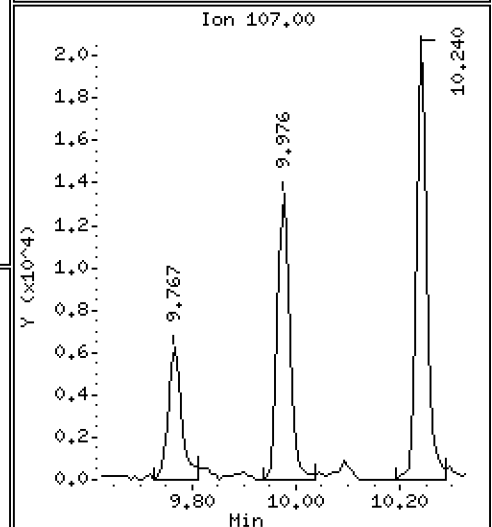
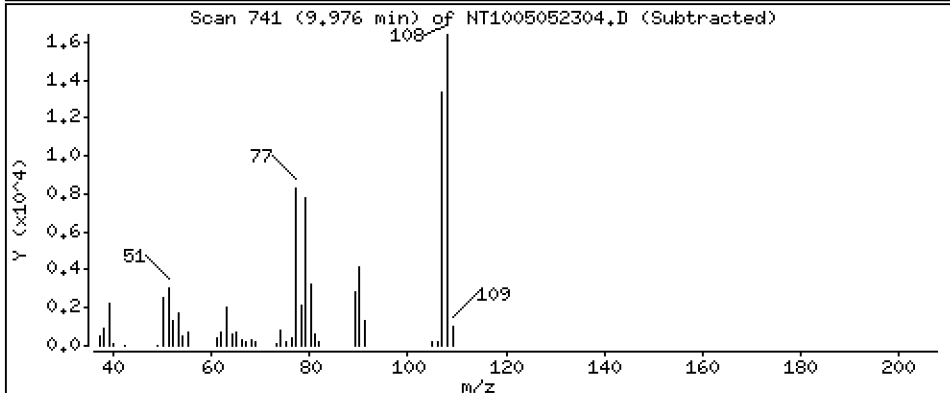
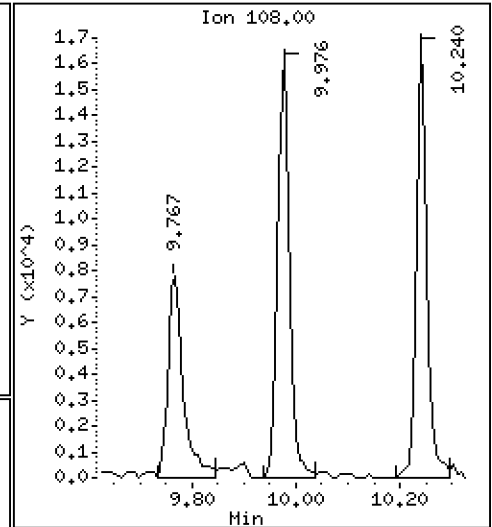
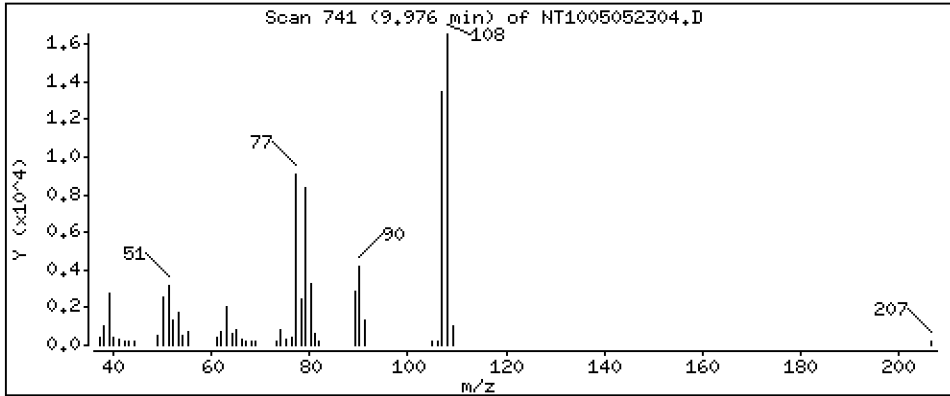
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.4213 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

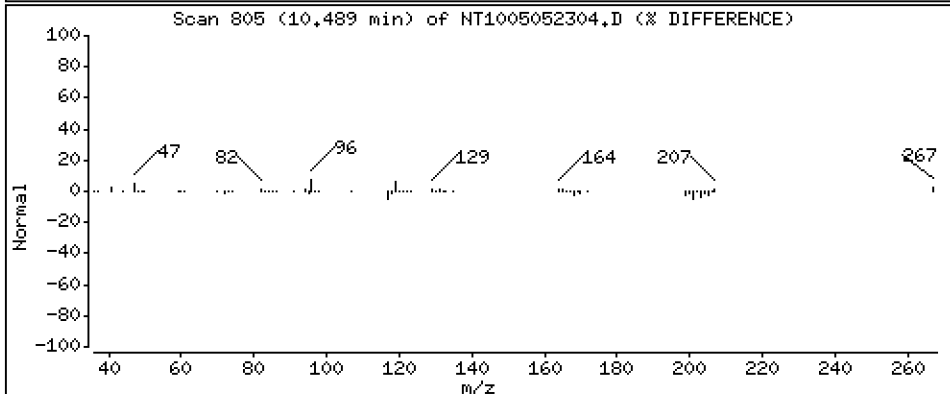
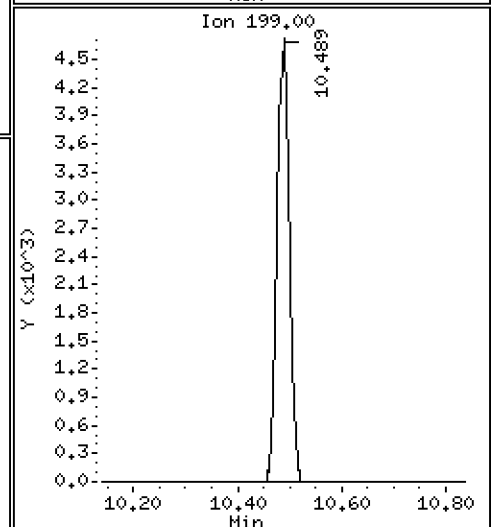
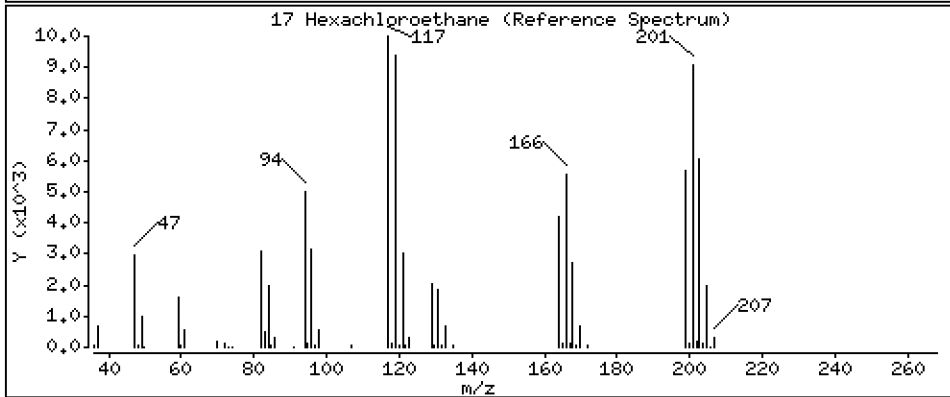
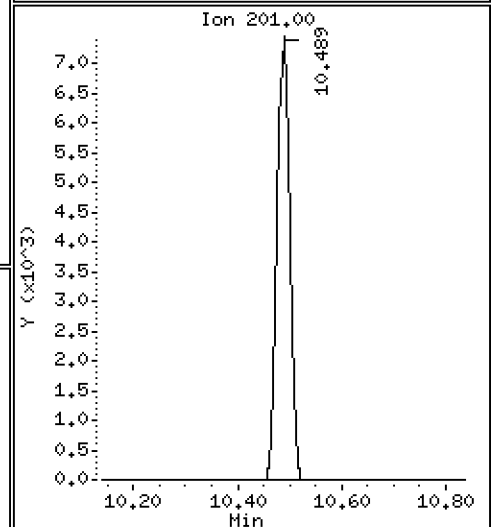
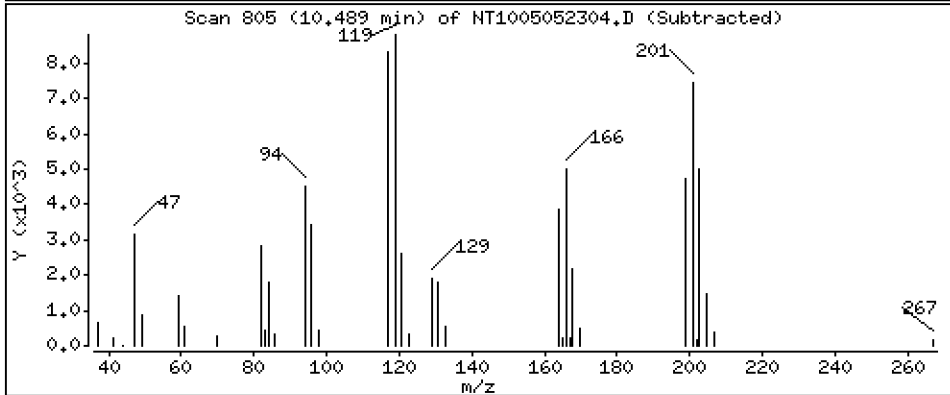
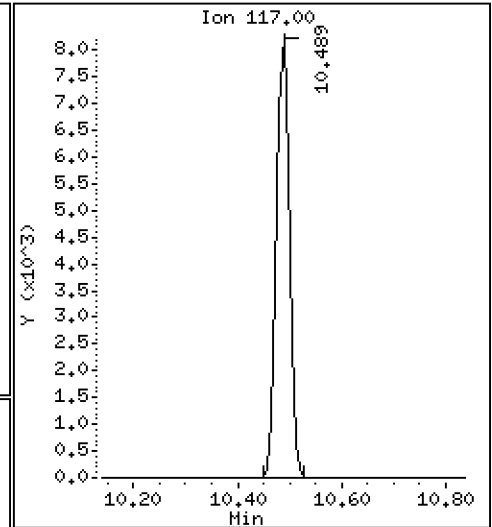
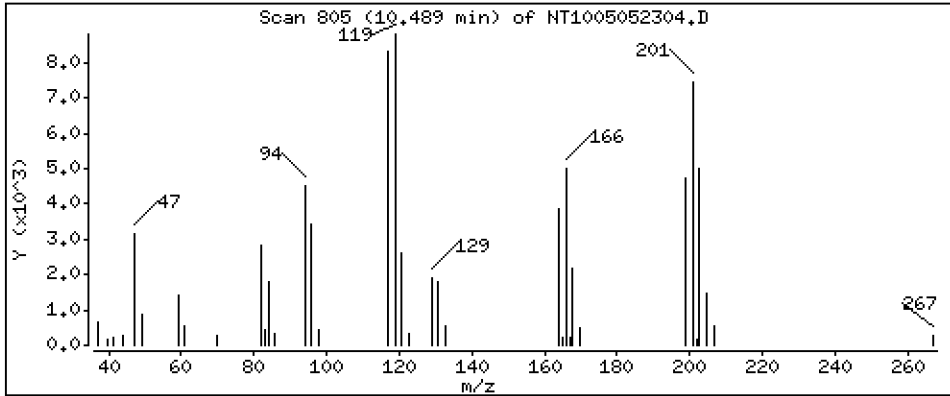
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,4099 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

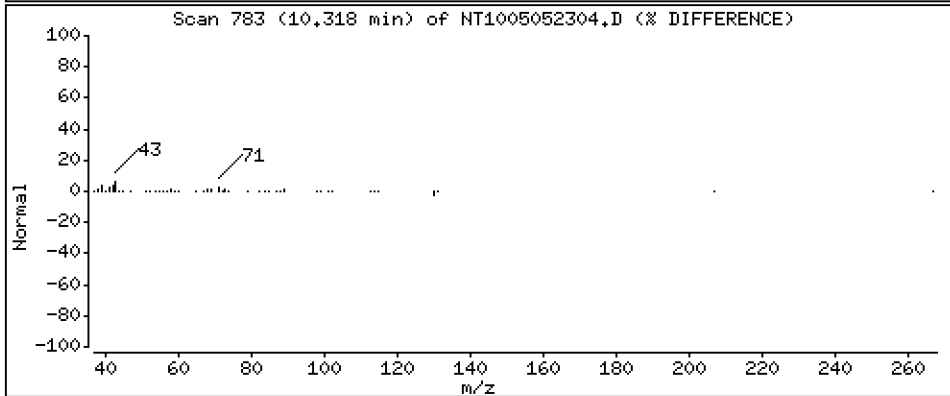
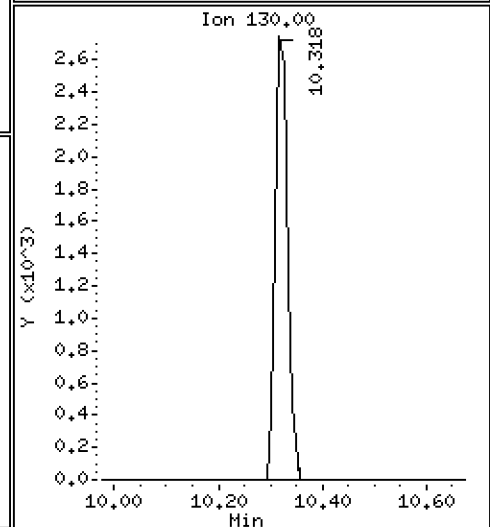
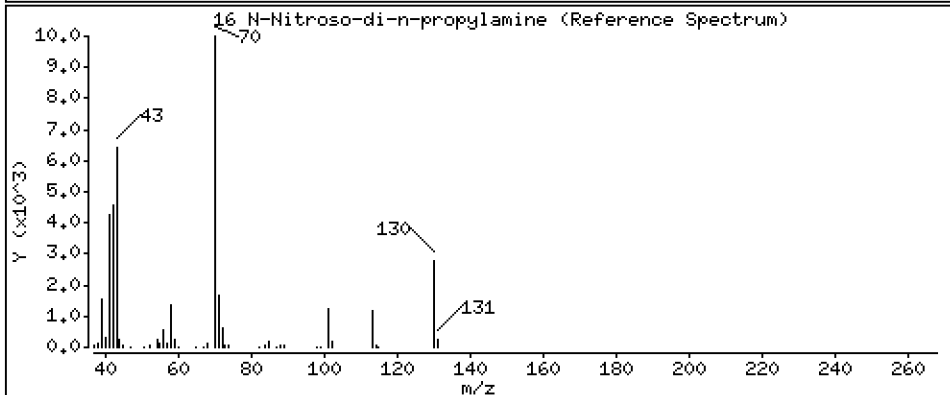
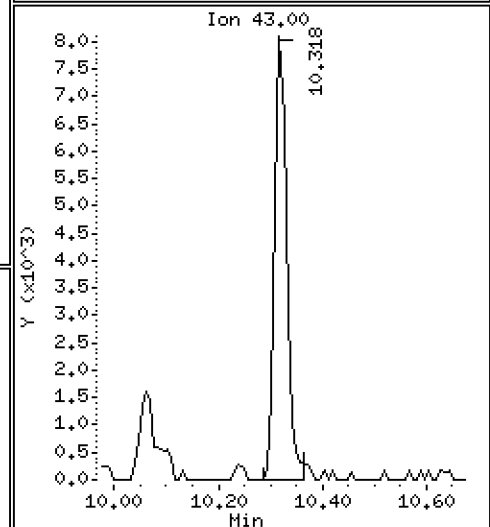
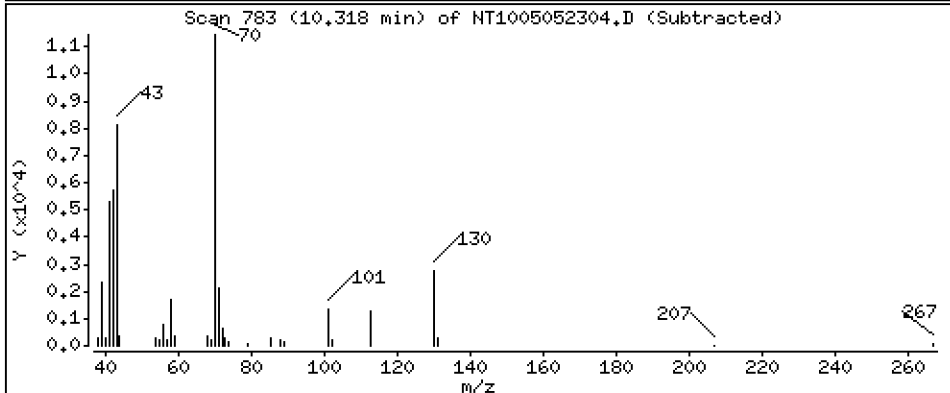
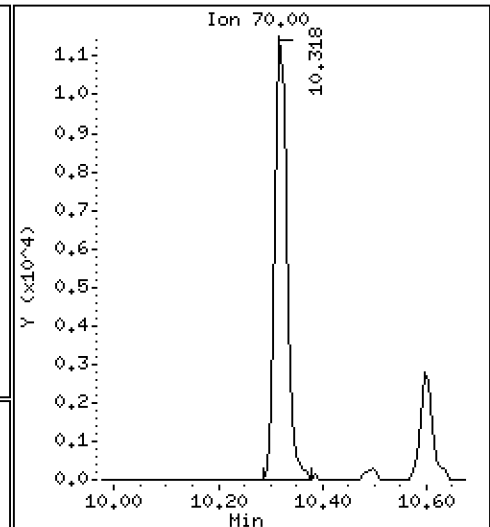
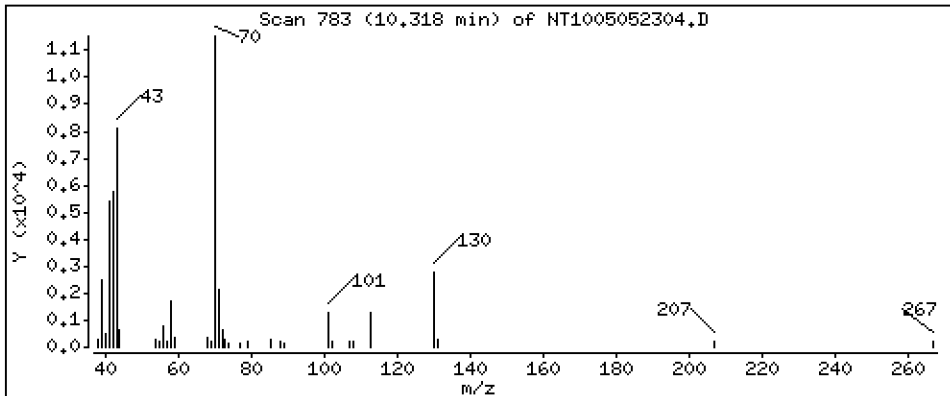
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,3855 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

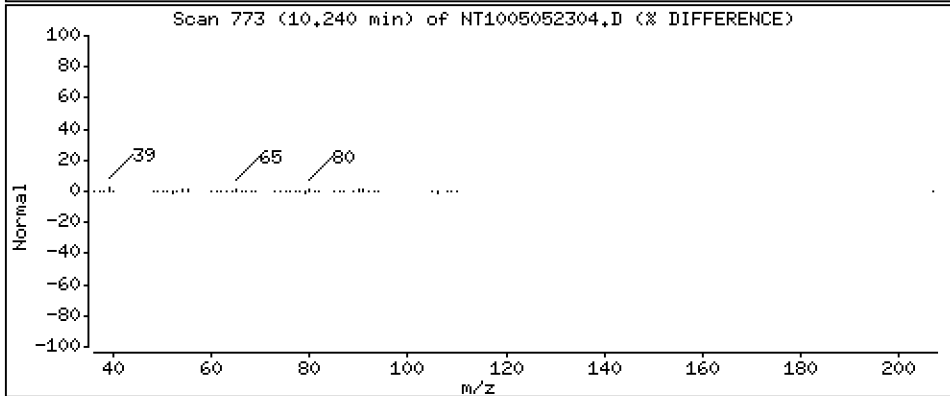
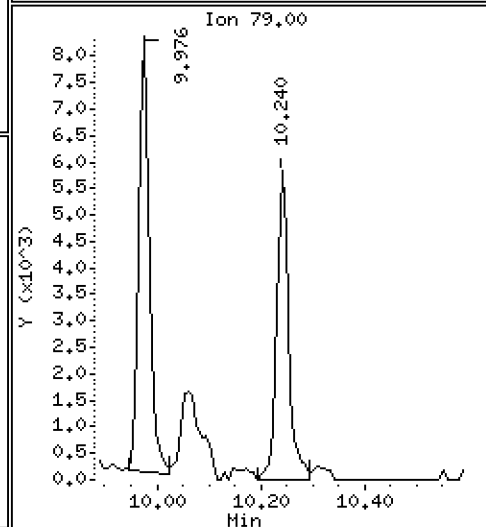
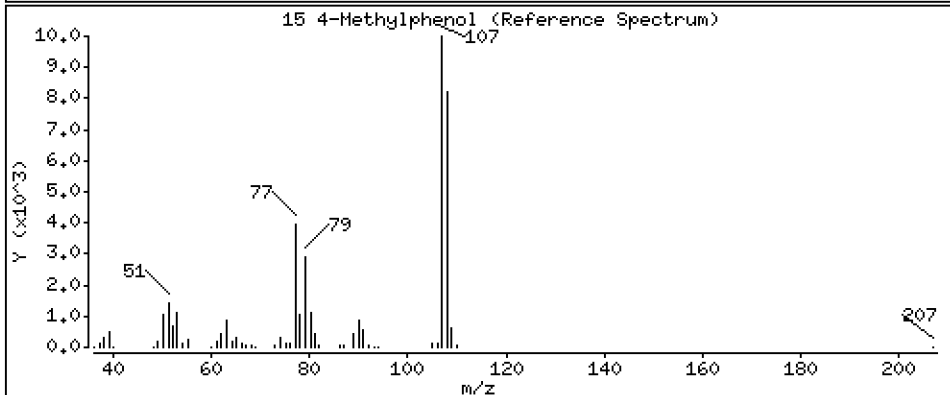
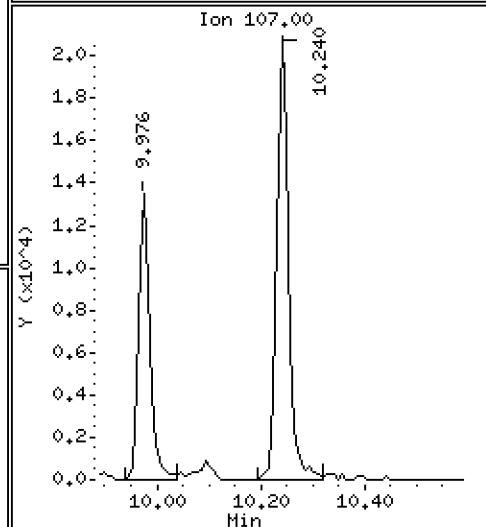
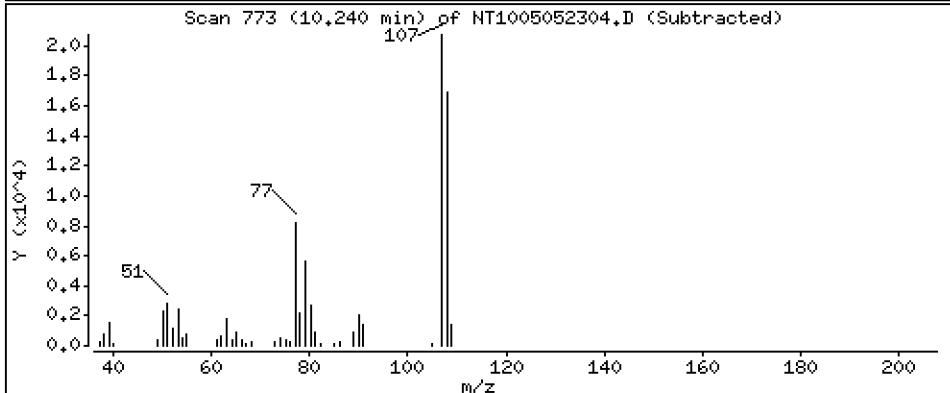
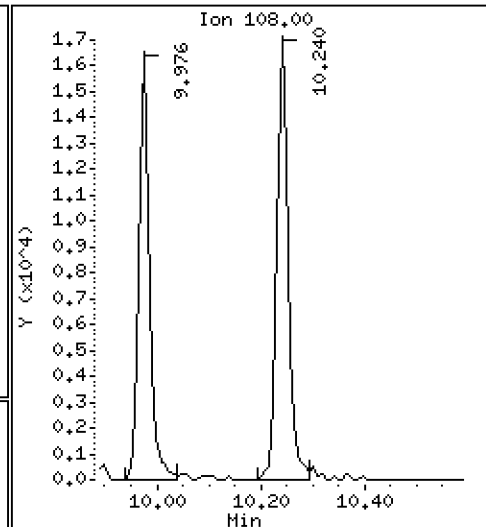
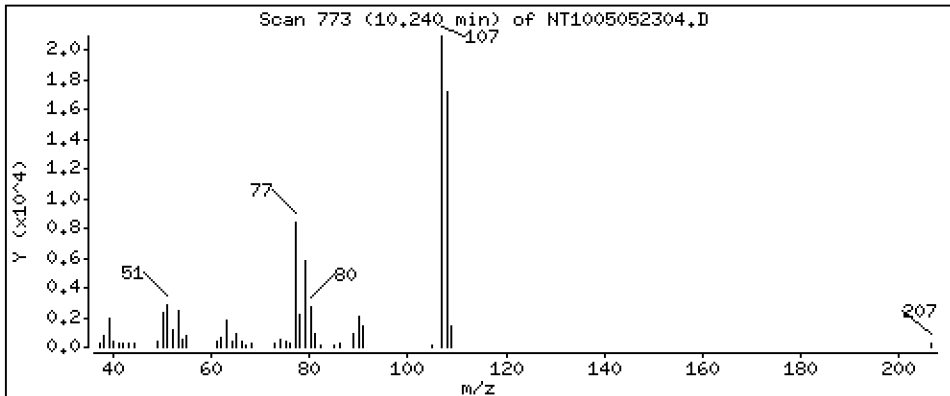
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.4160 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

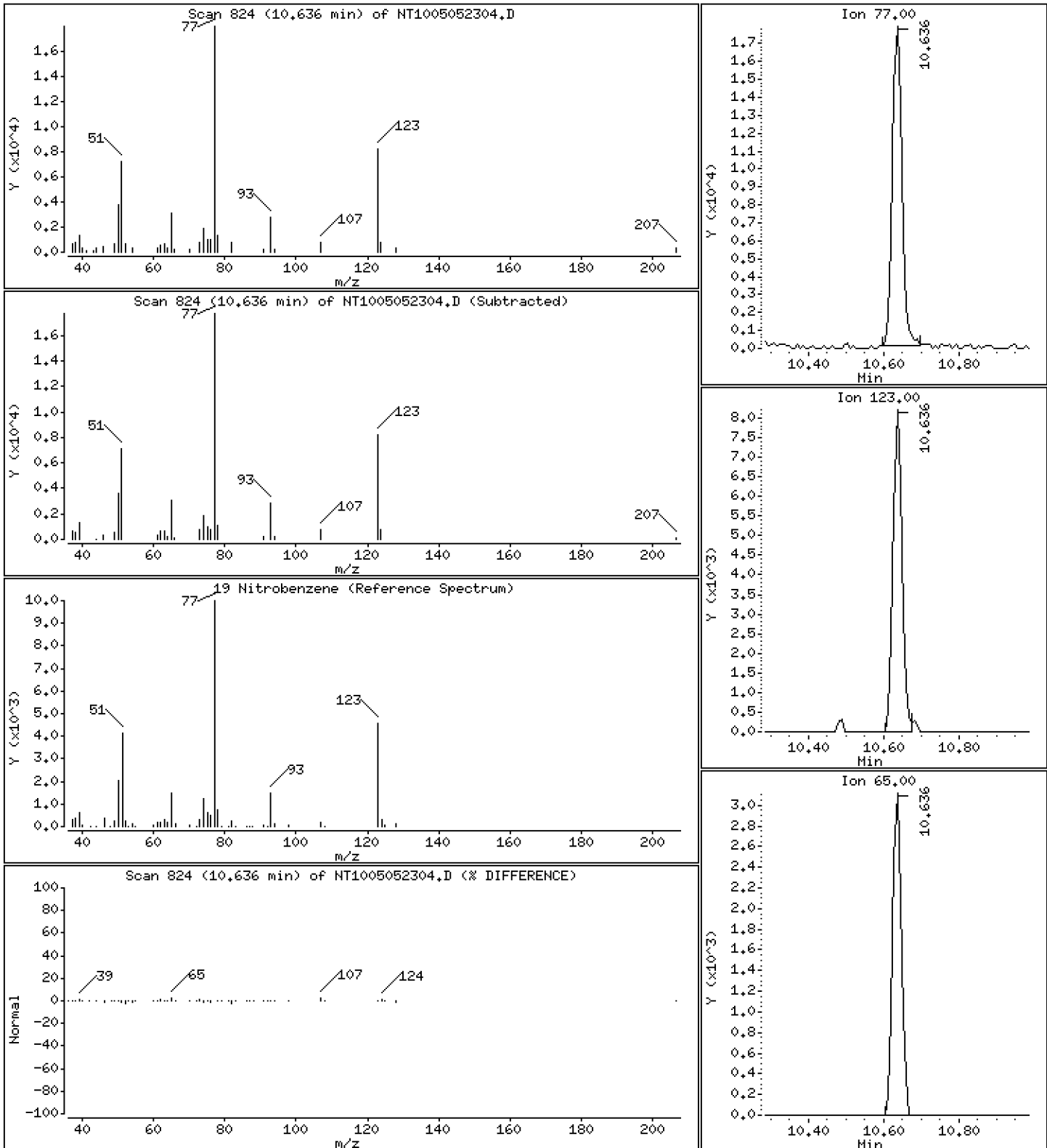
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,4169 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

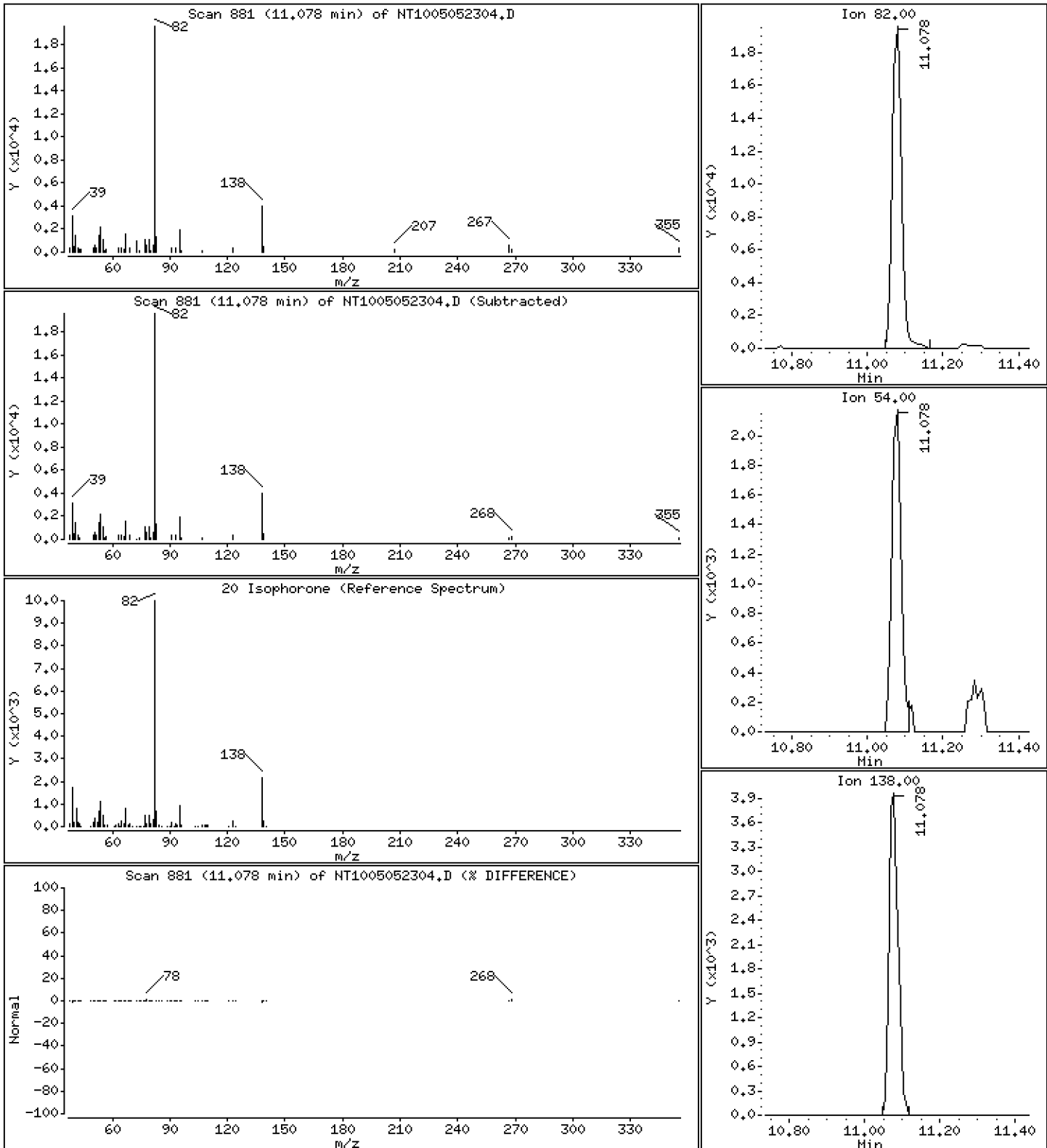
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,4300 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

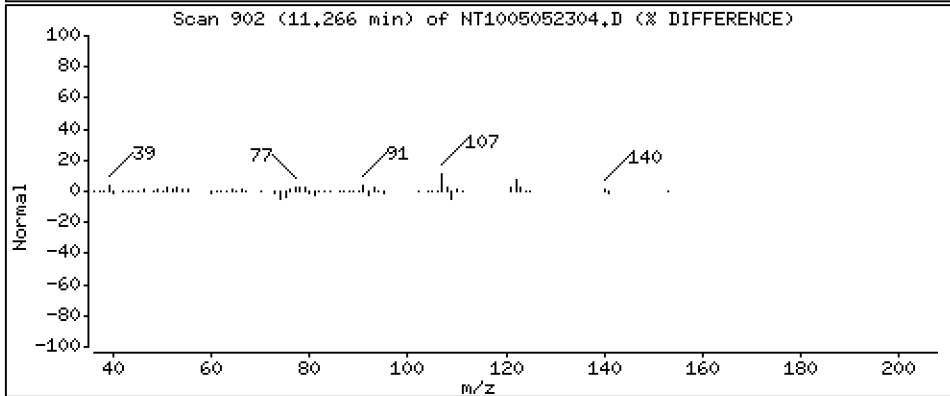
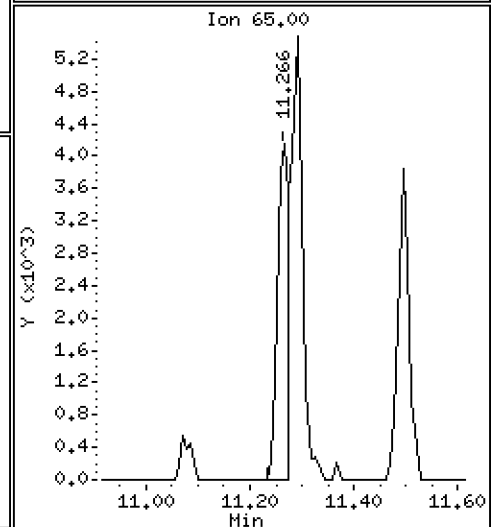
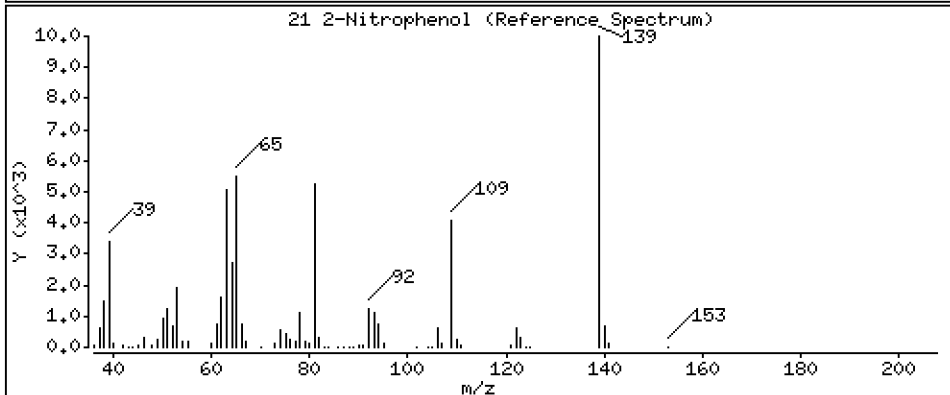
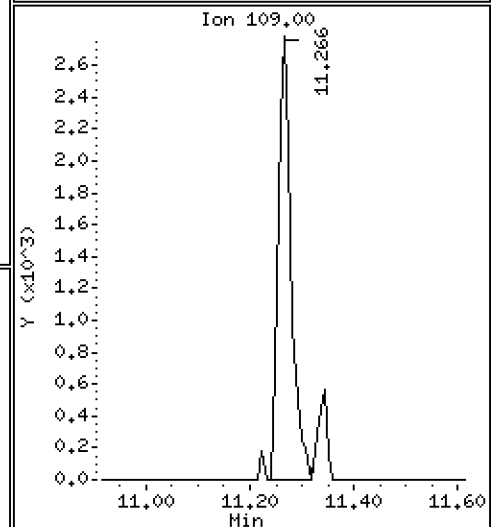
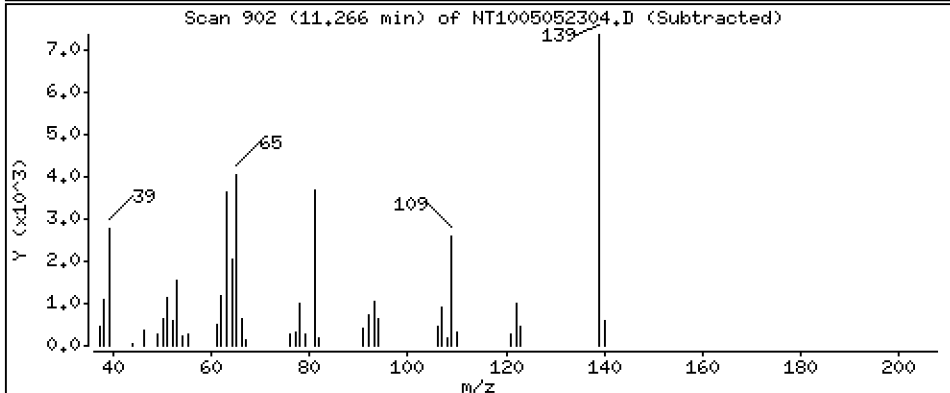
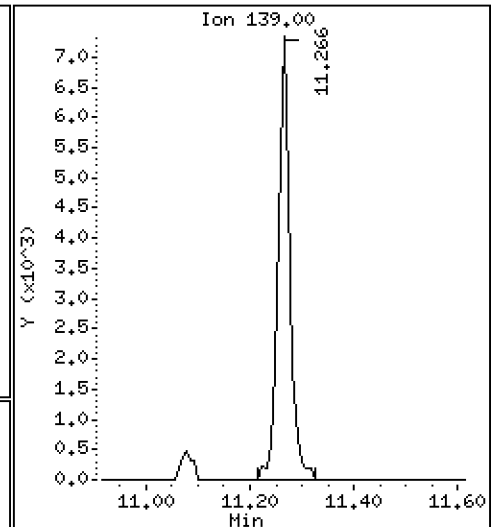
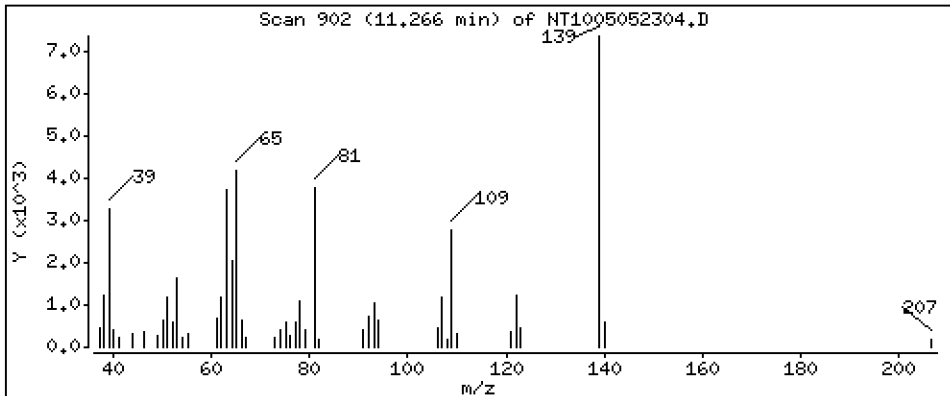
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,3153 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

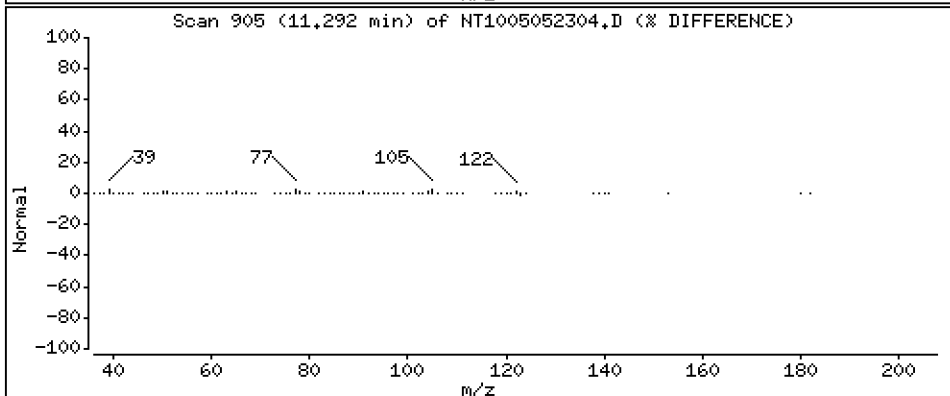
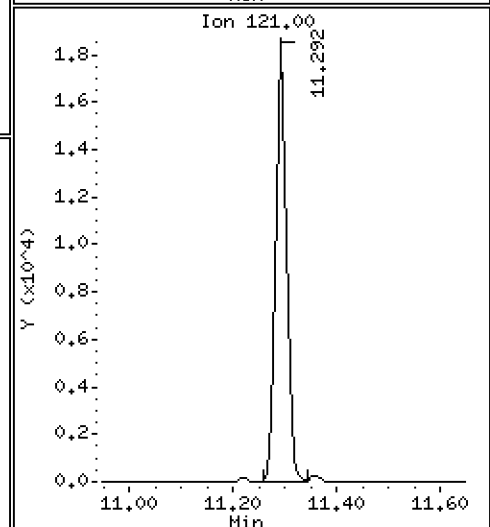
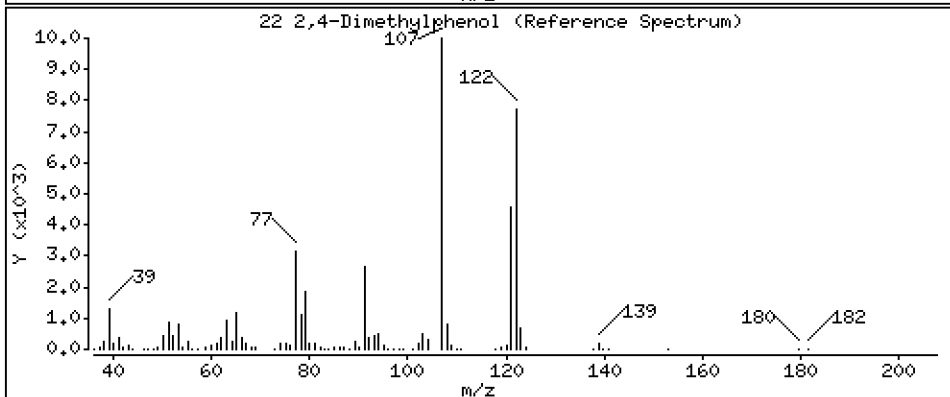
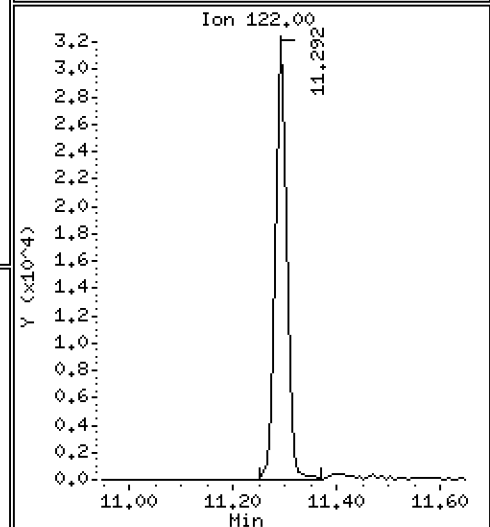
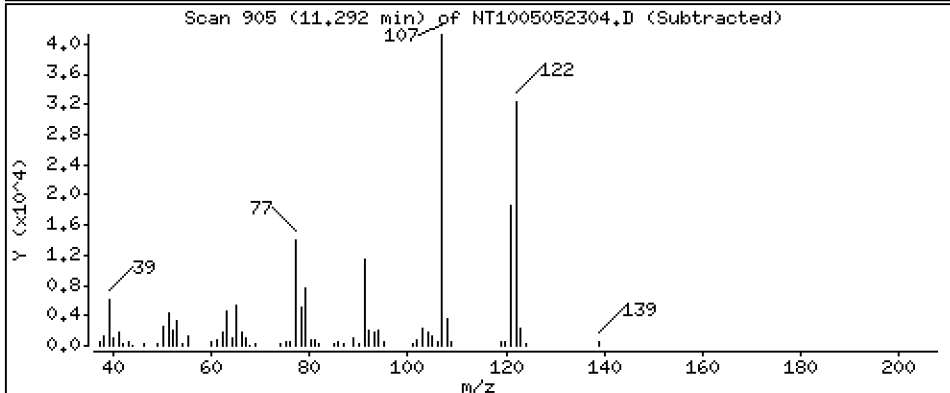
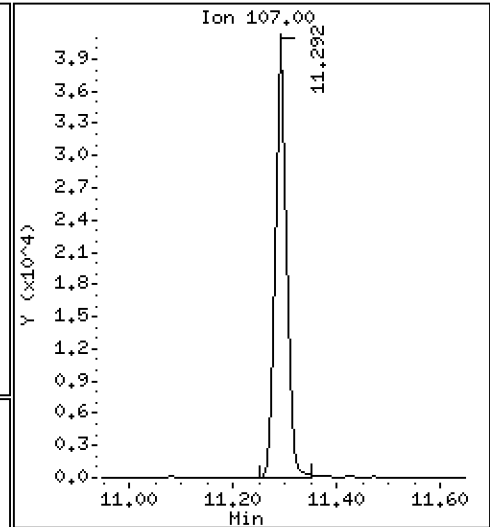
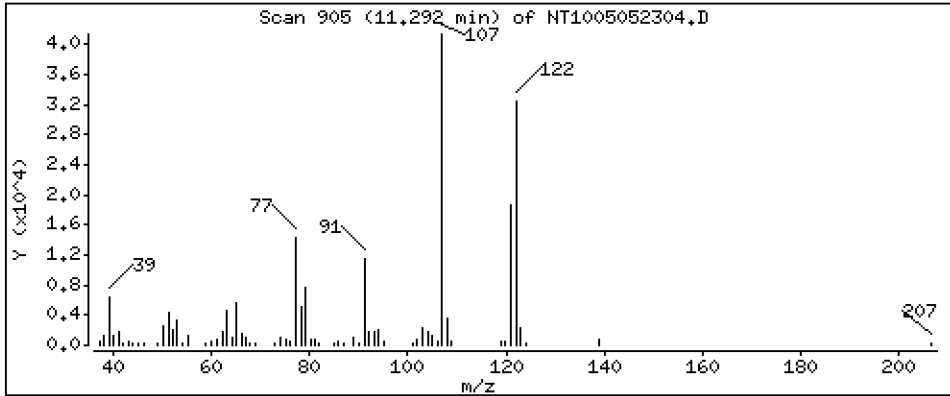
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,8687 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

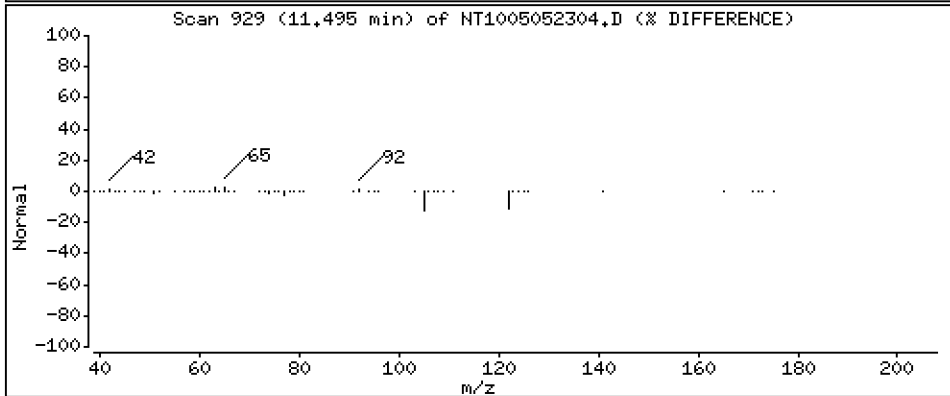
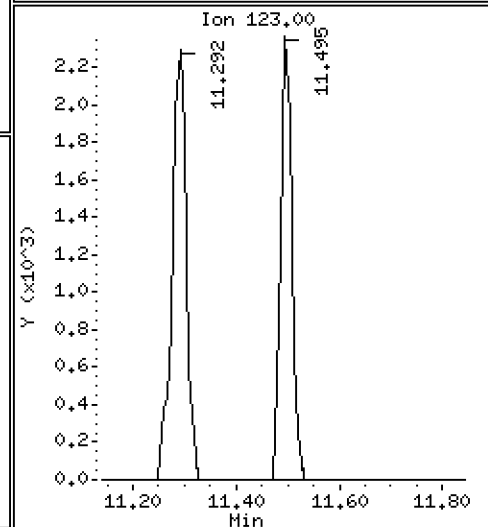
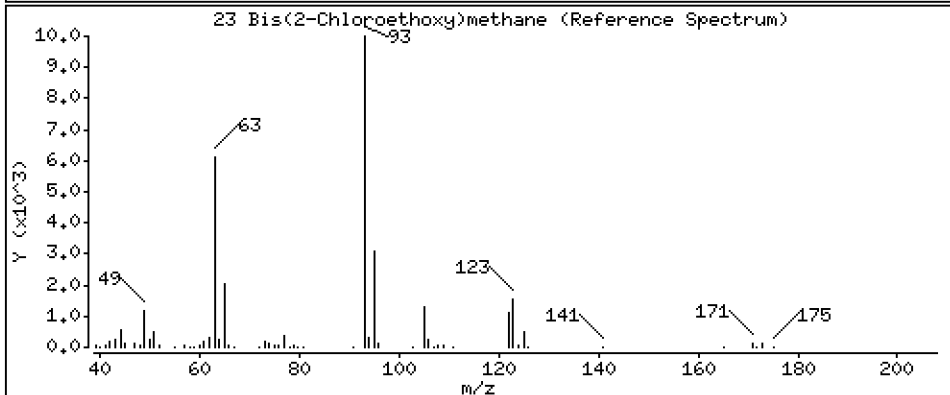
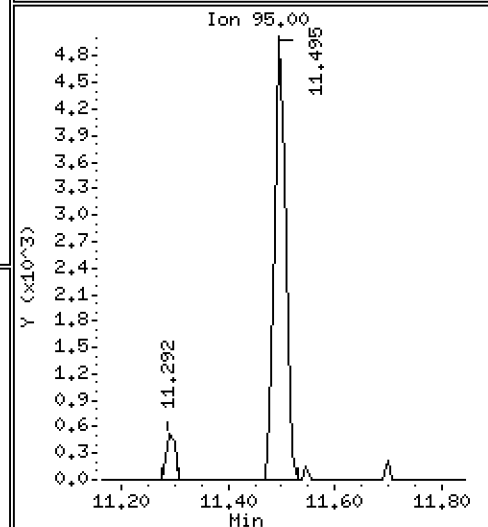
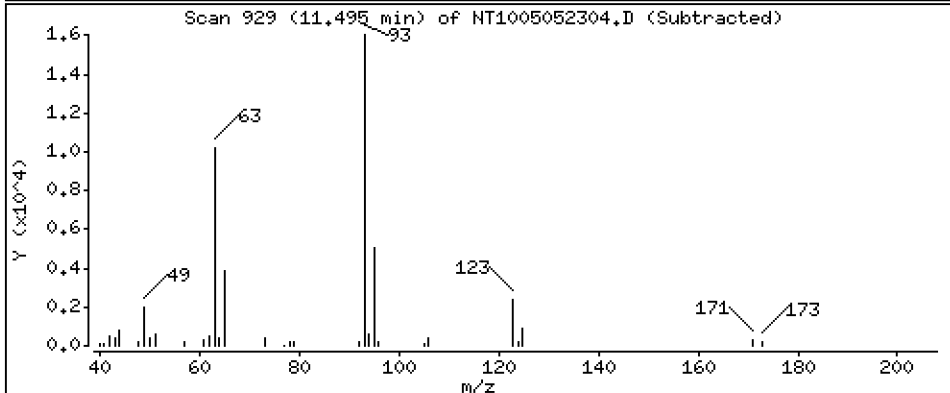
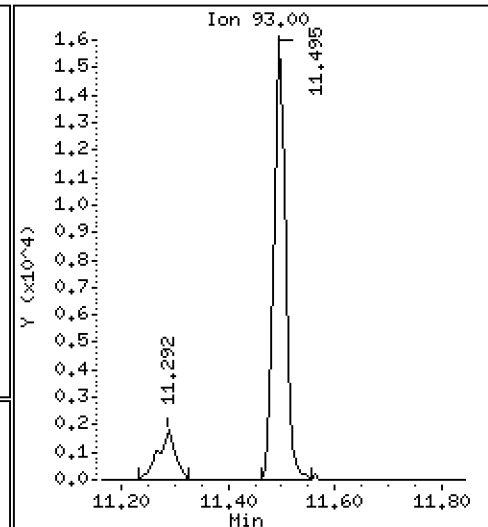
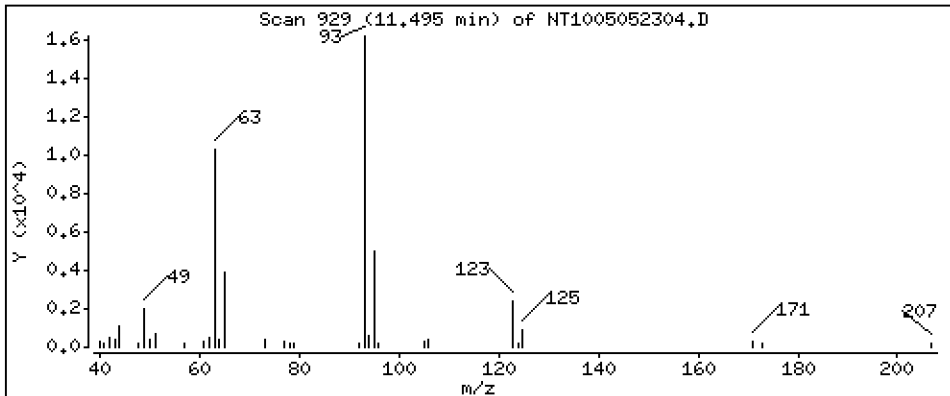
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

23 Bis(2-Chloroethoxy)methane

Concentration: 0.4385 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

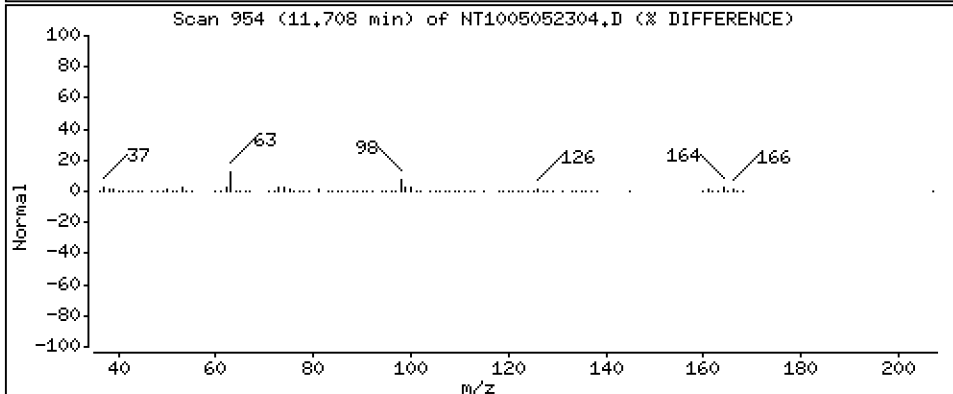
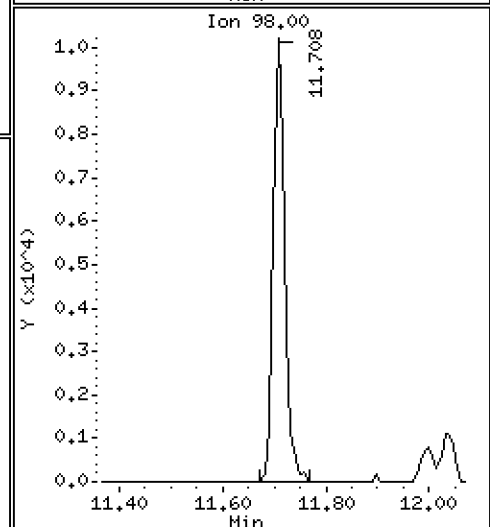
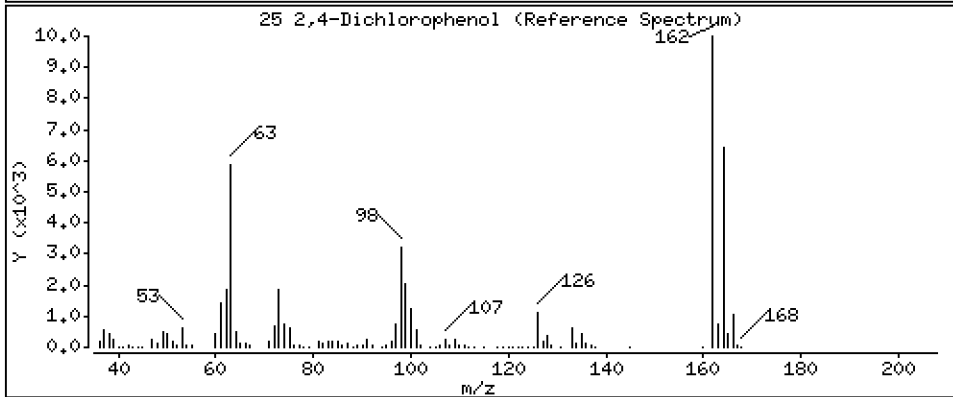
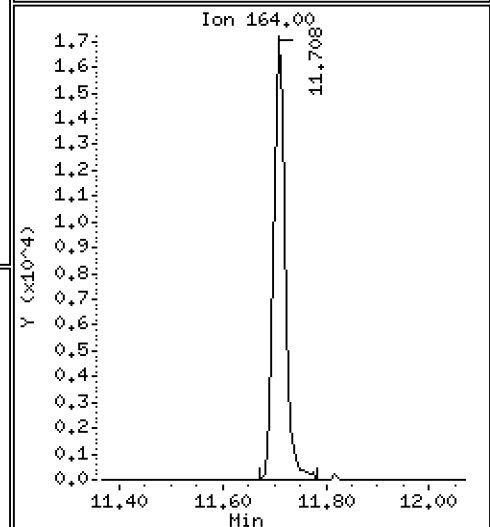
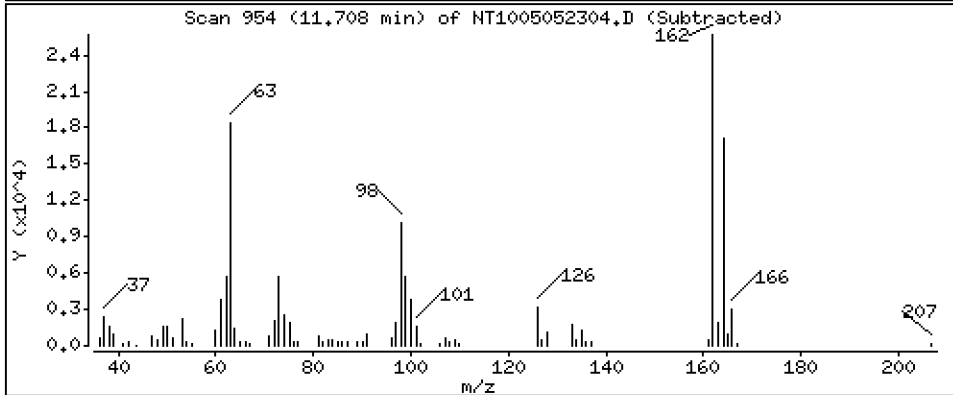
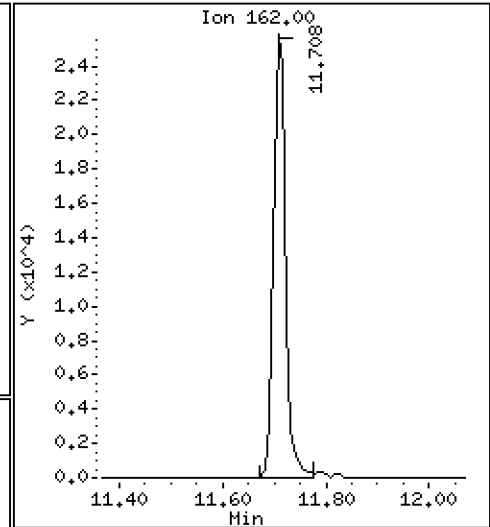
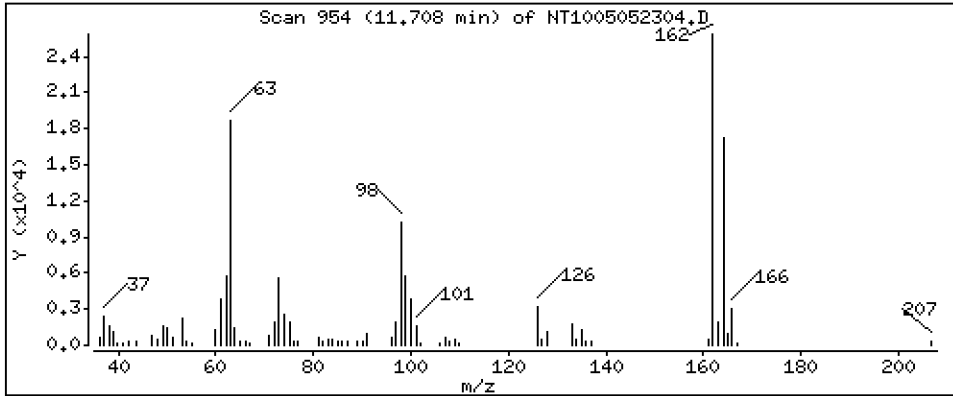
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 0,7646 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

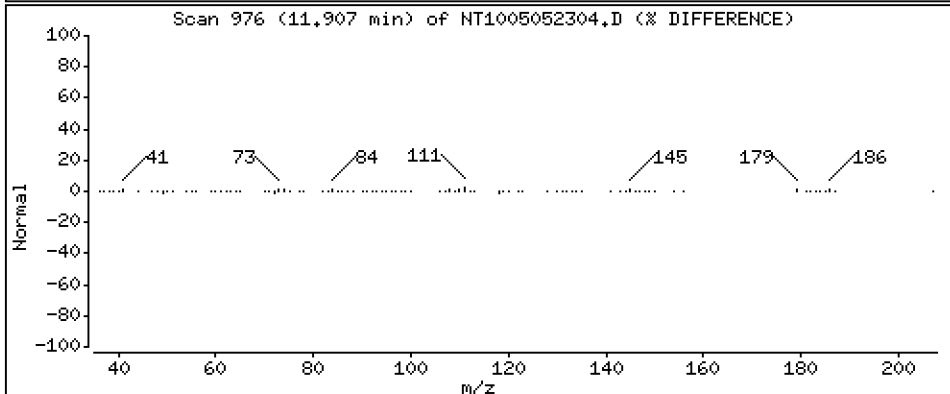
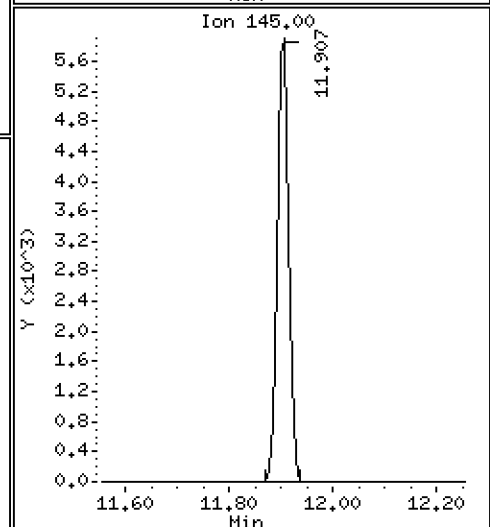
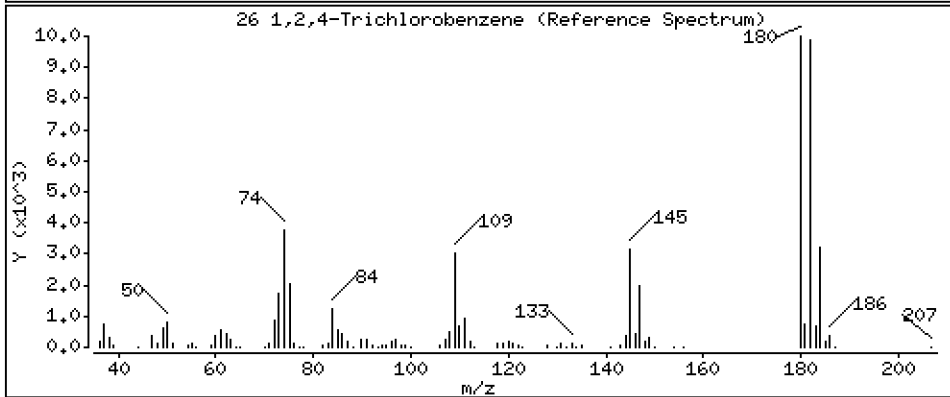
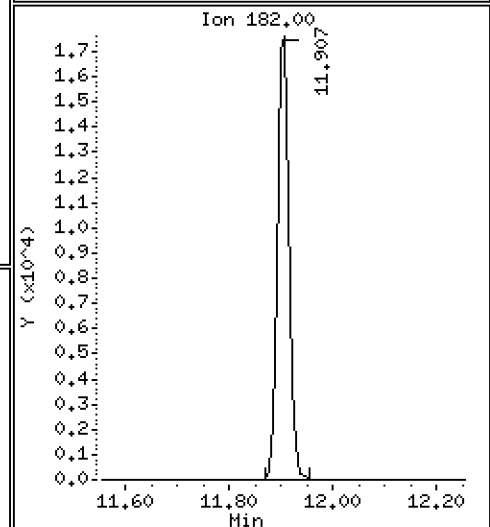
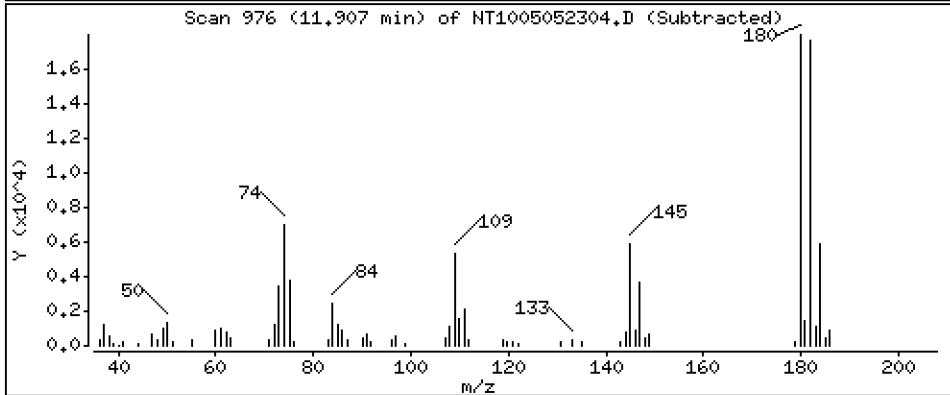
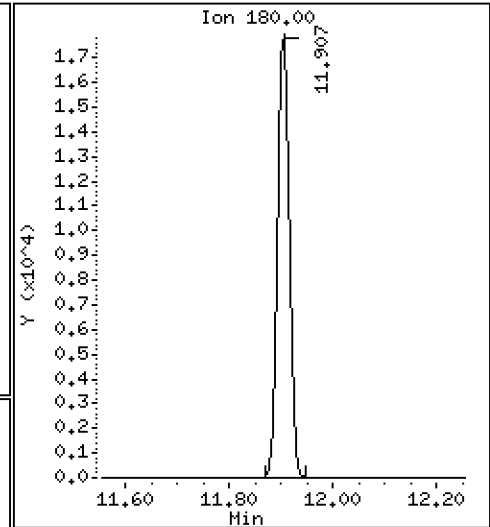
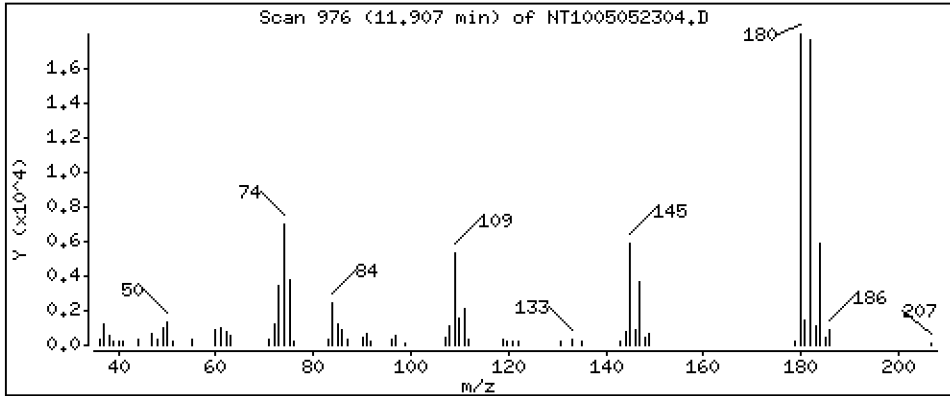
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,3801 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

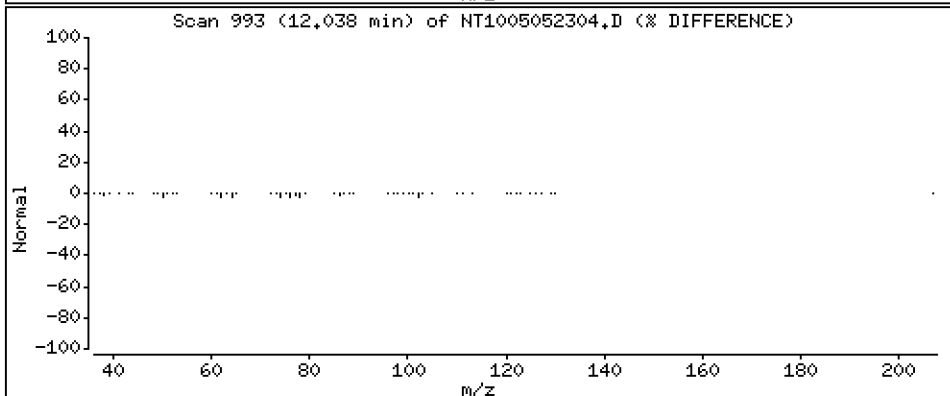
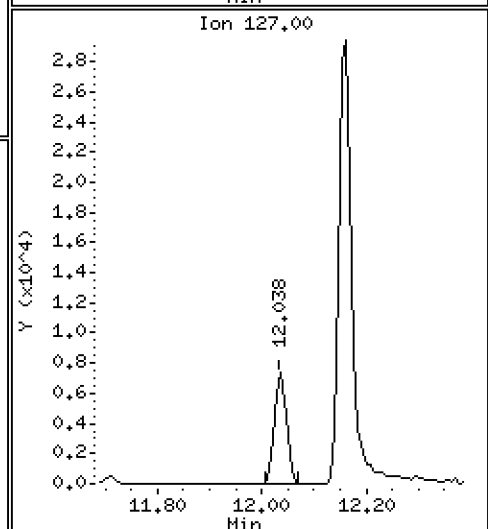
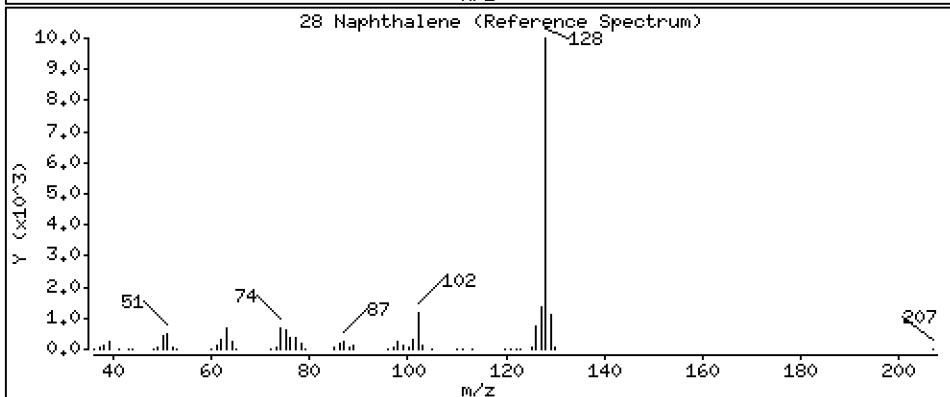
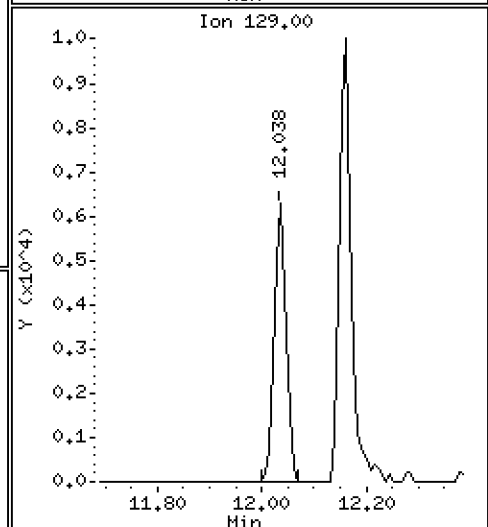
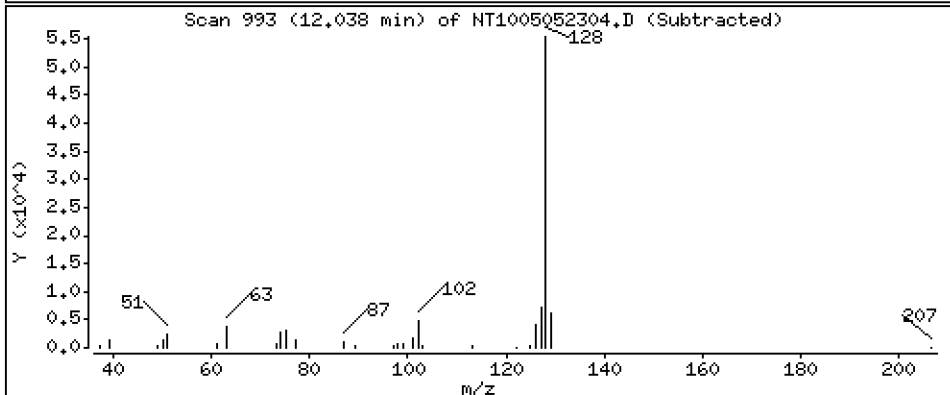
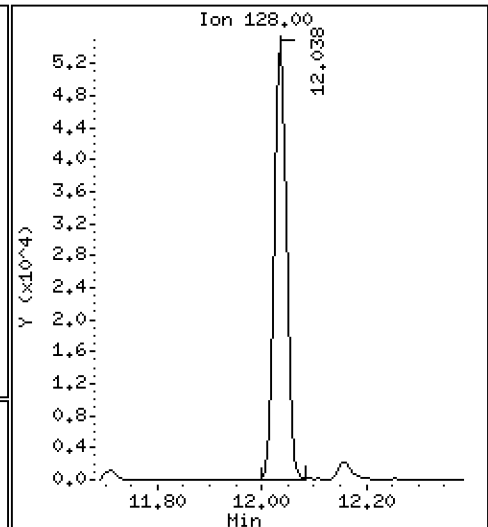
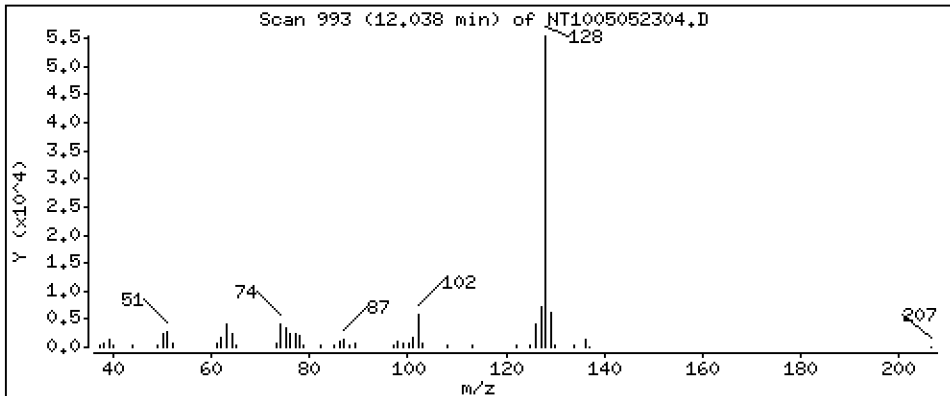
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,4573 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

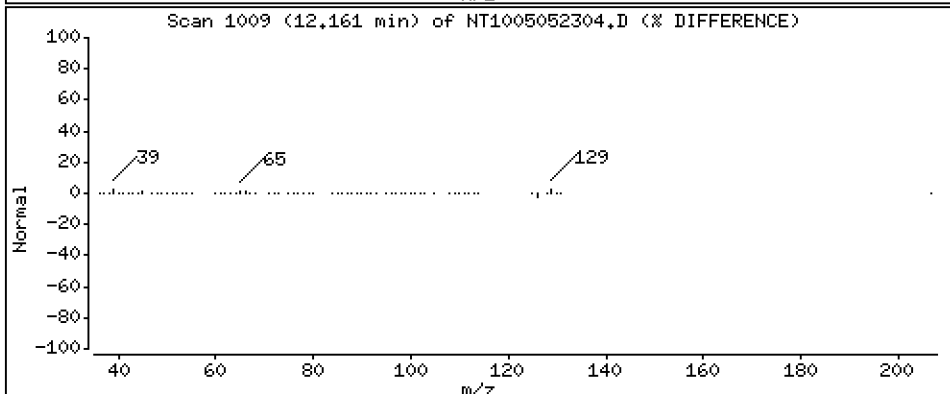
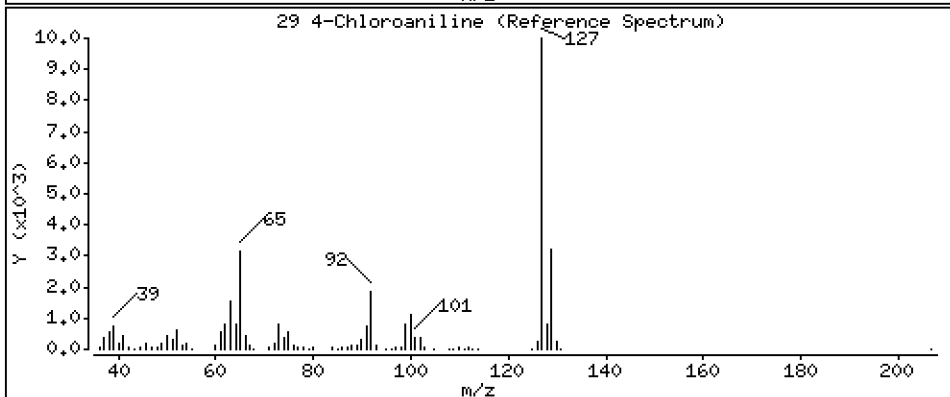
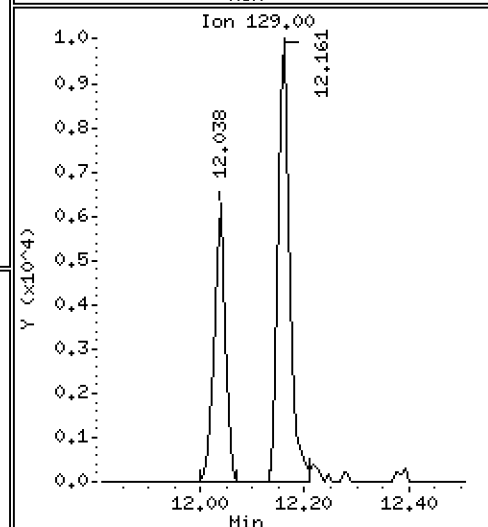
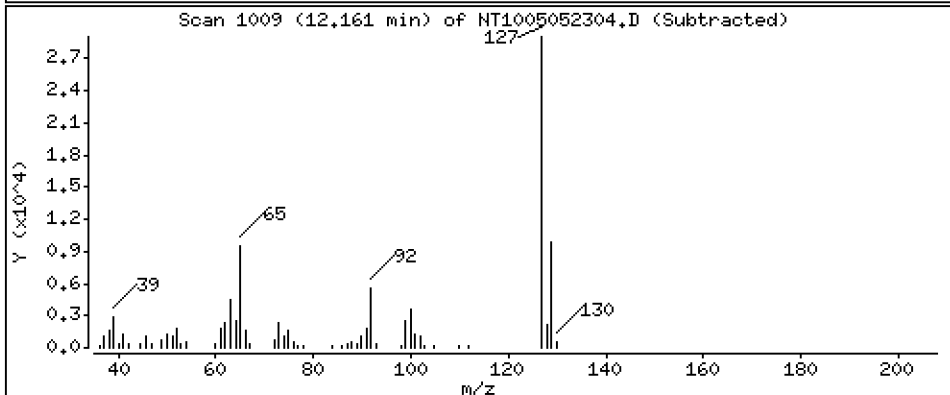
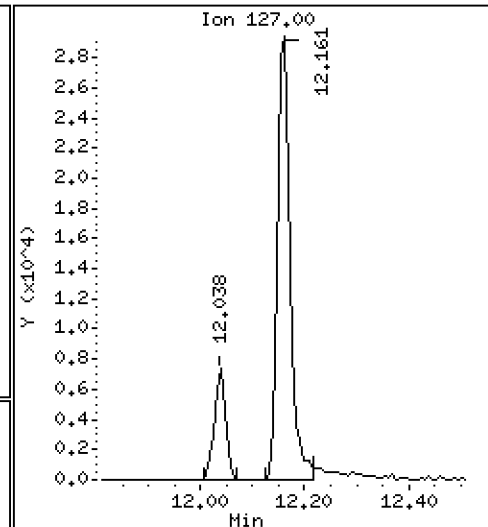
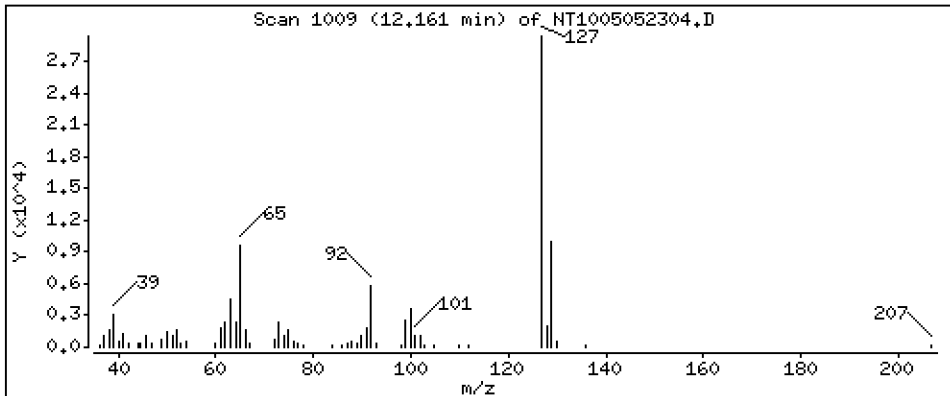
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,7710 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

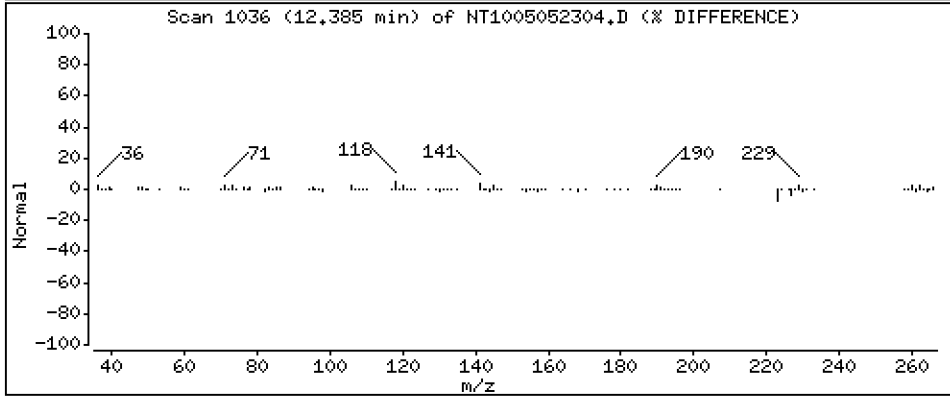
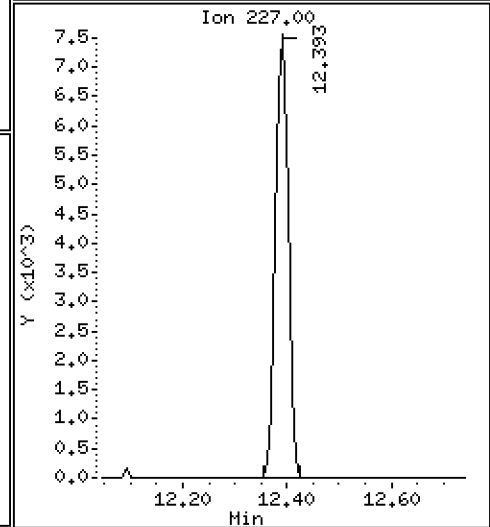
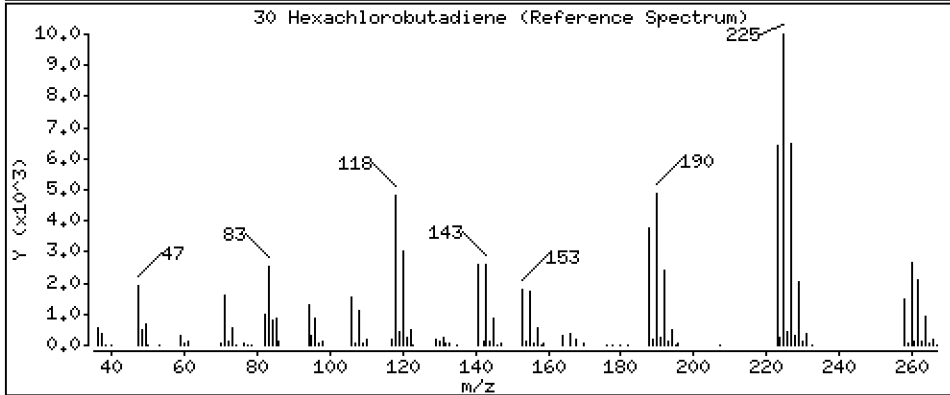
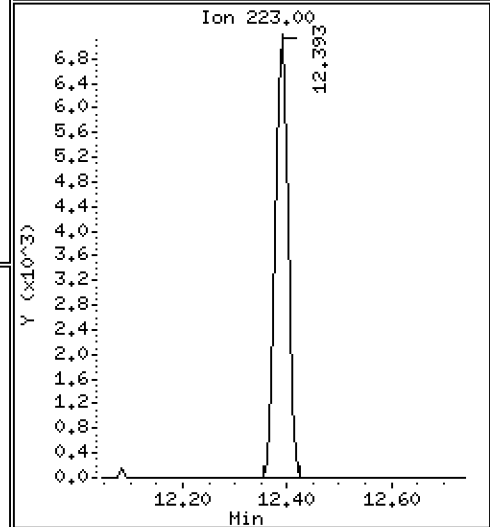
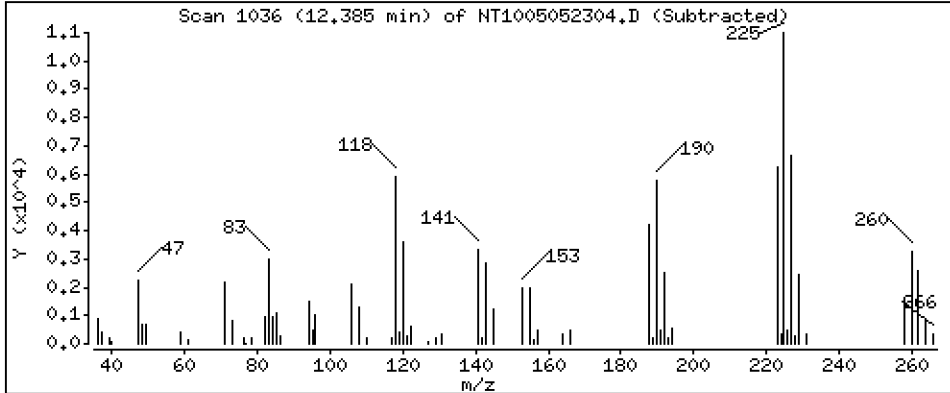
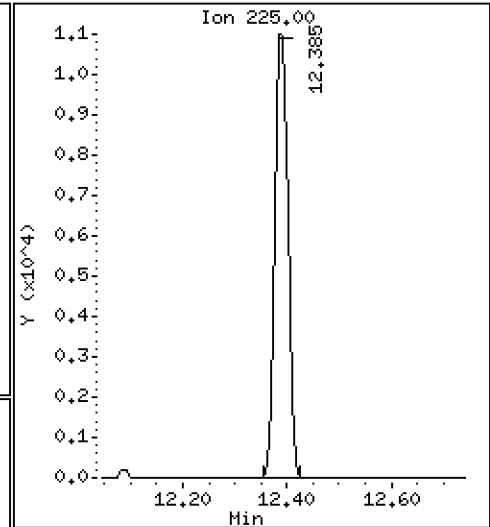
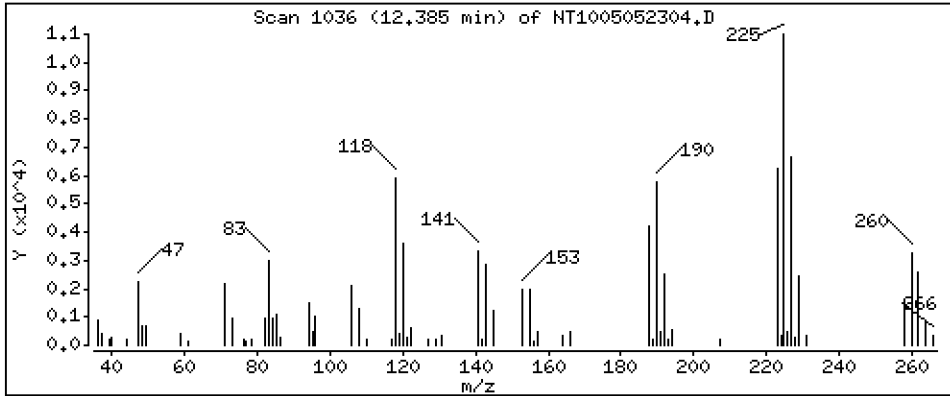
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,4248 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

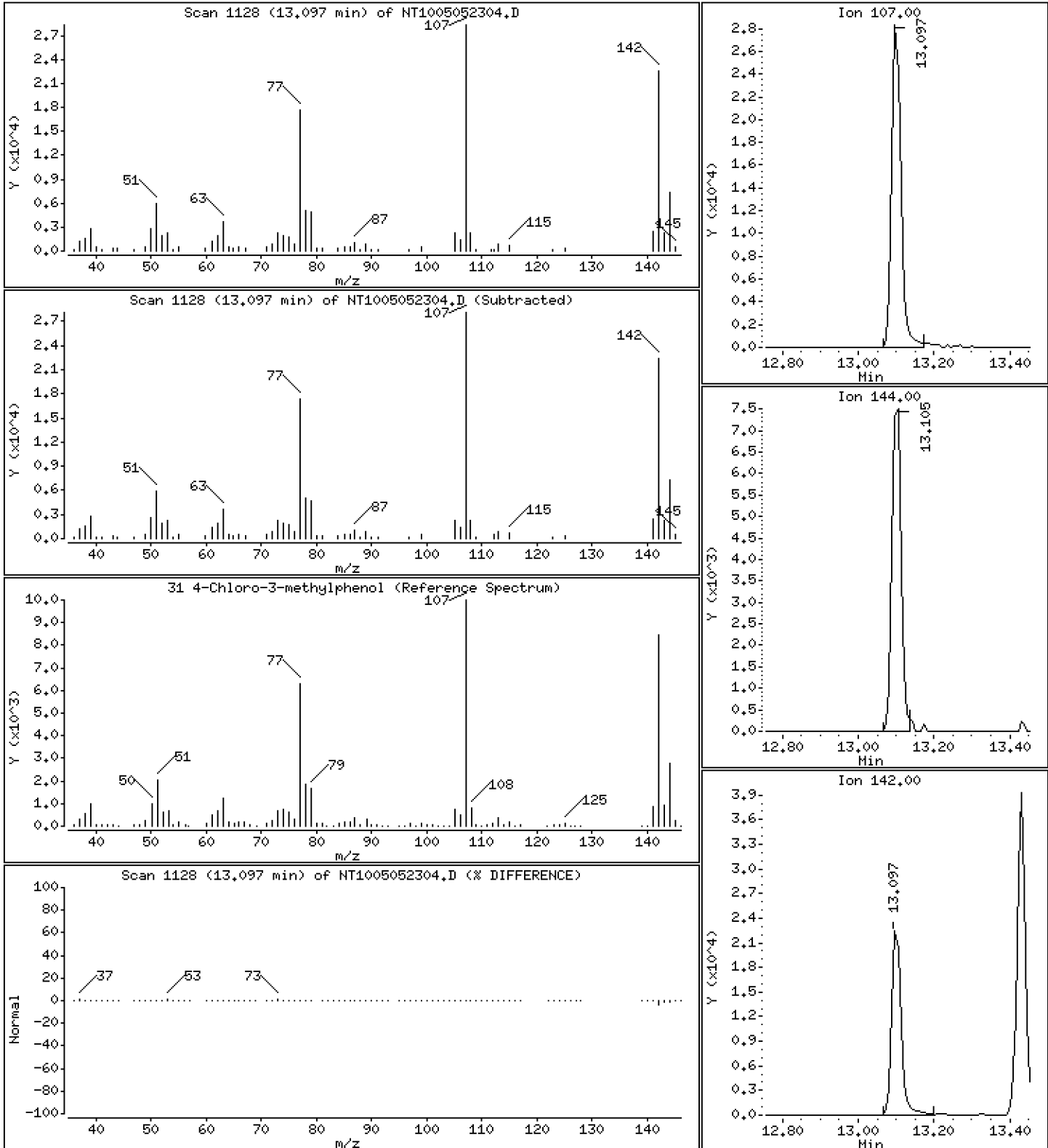
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,7661 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

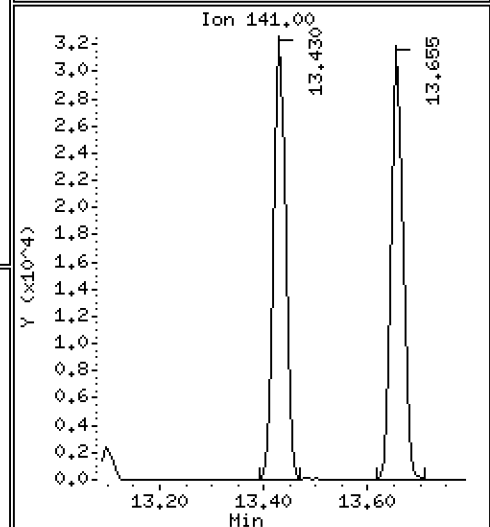
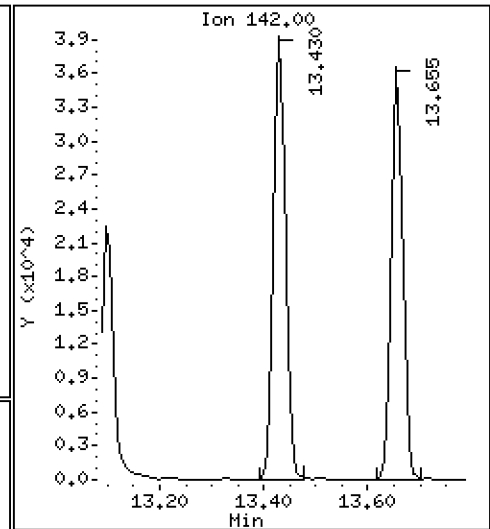
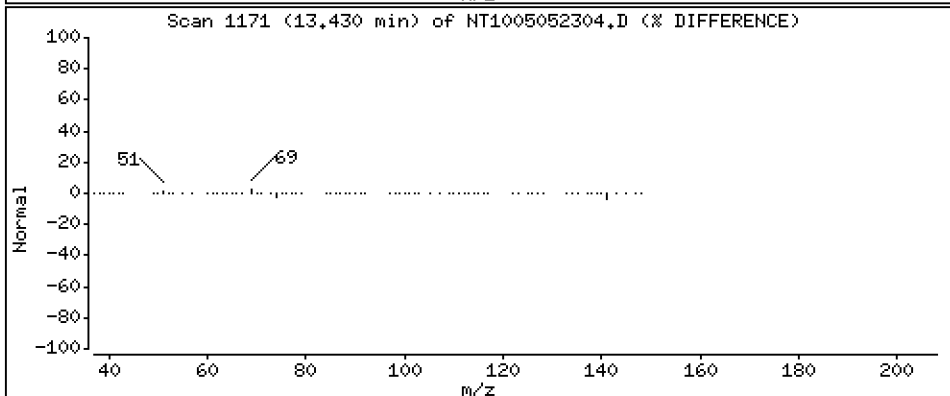
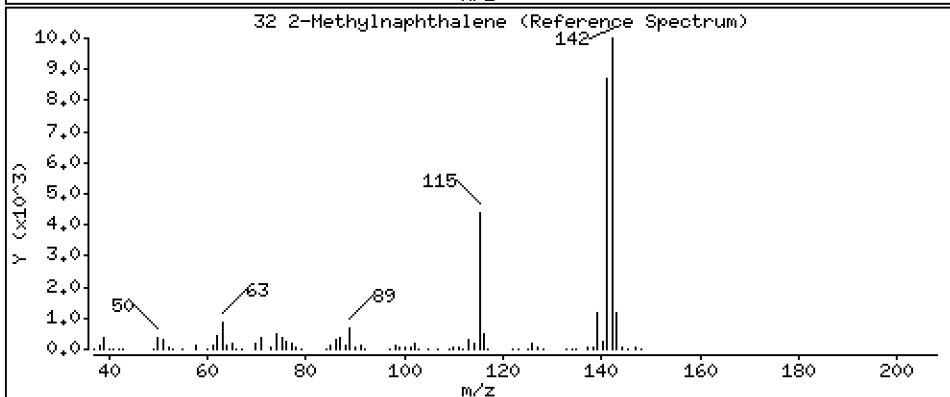
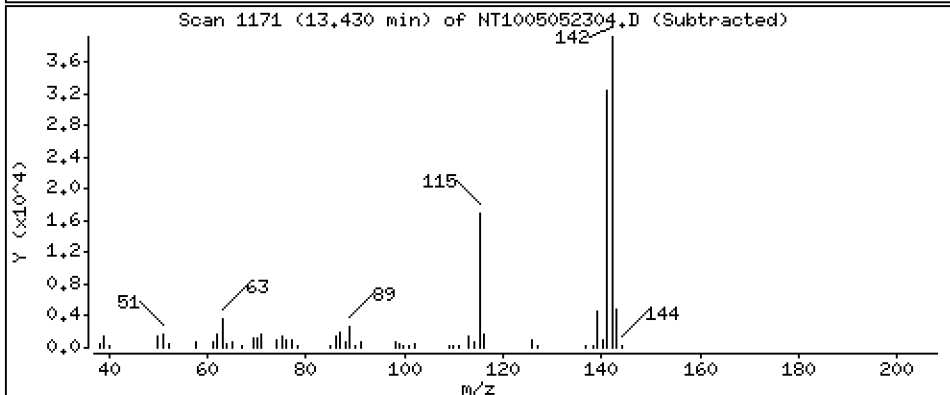
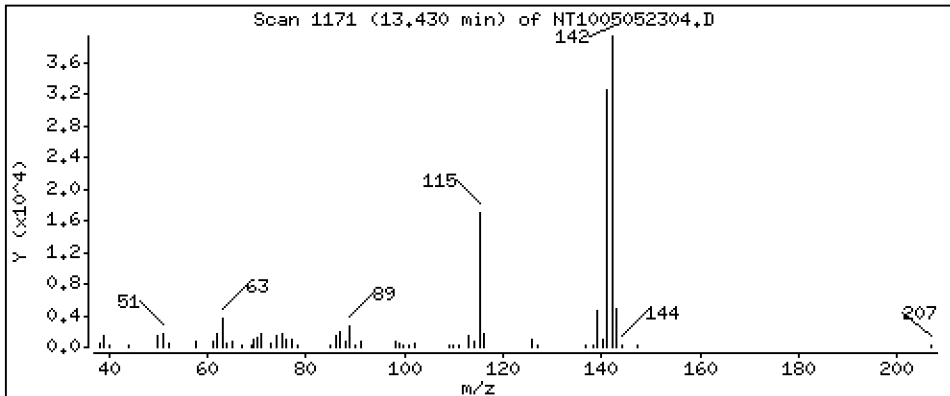
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,4328 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

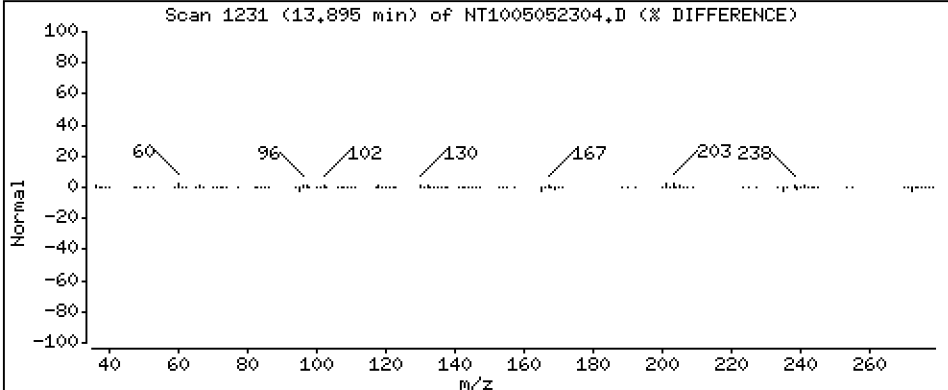
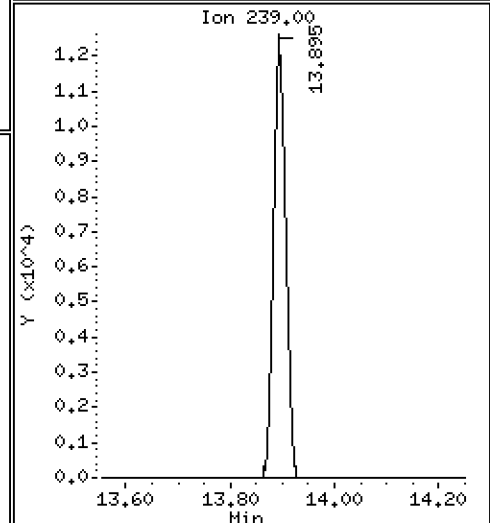
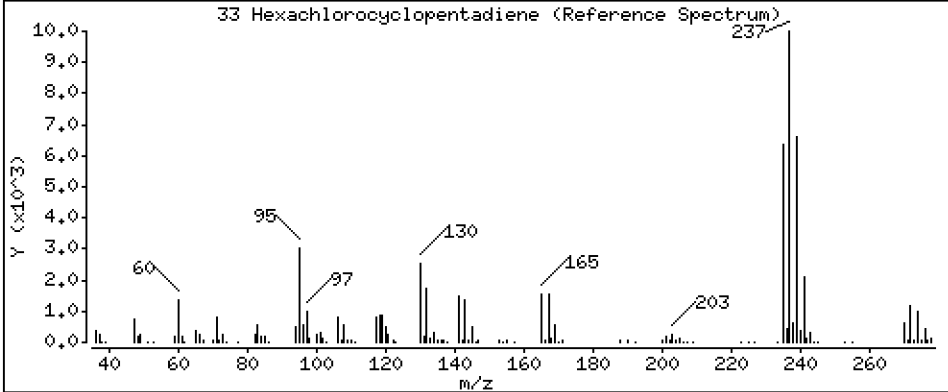
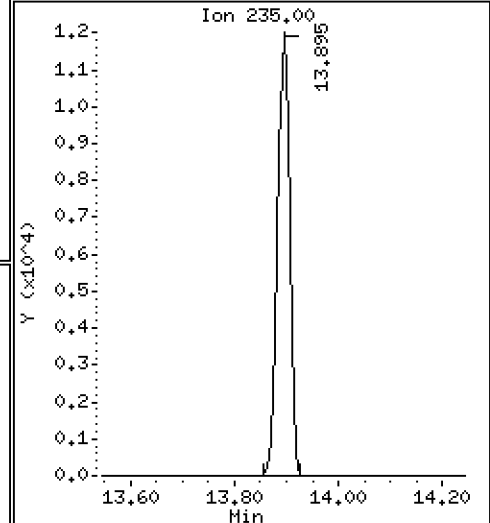
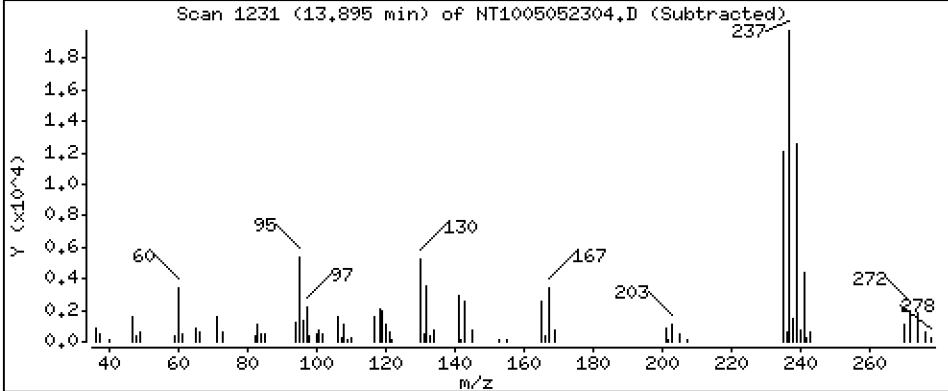
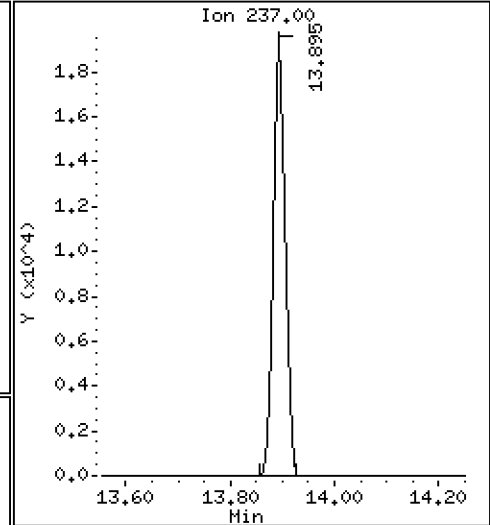
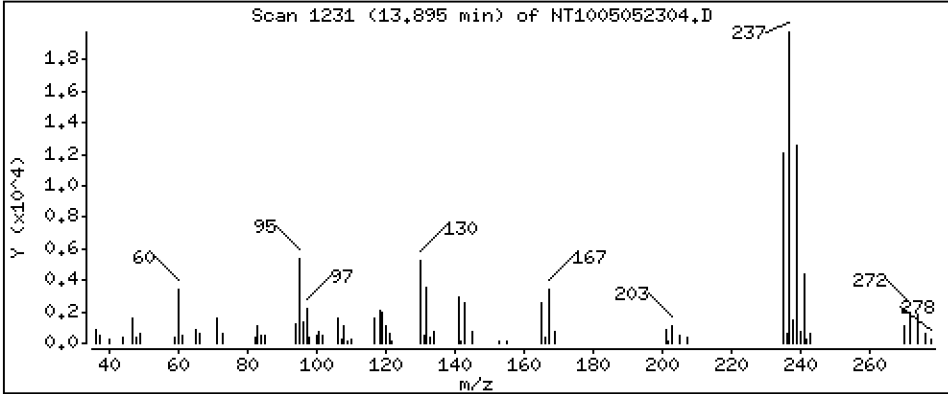
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 0.6605 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

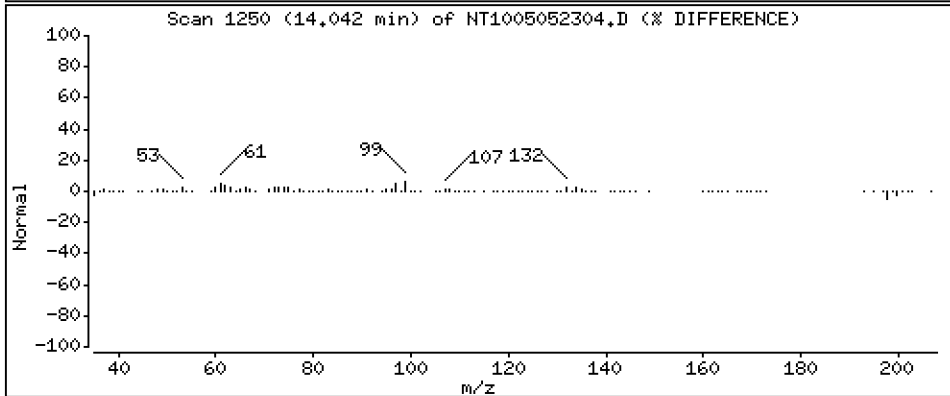
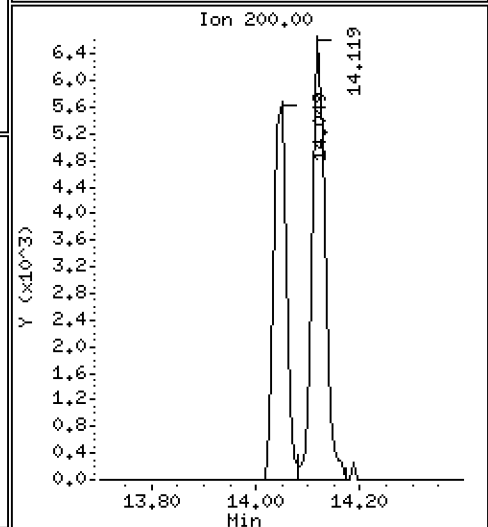
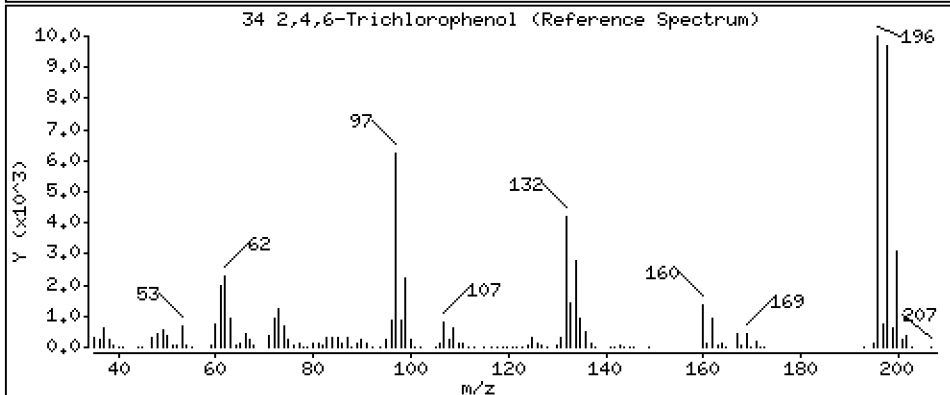
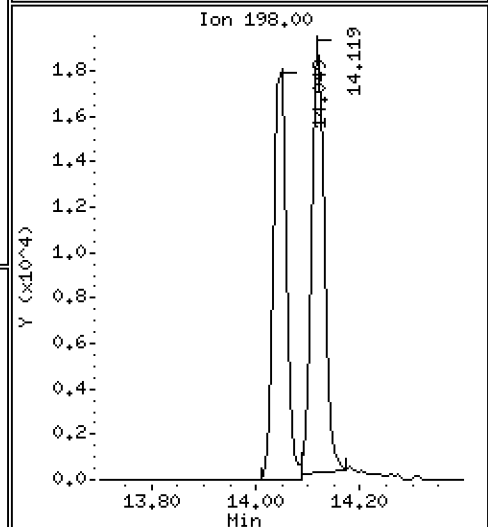
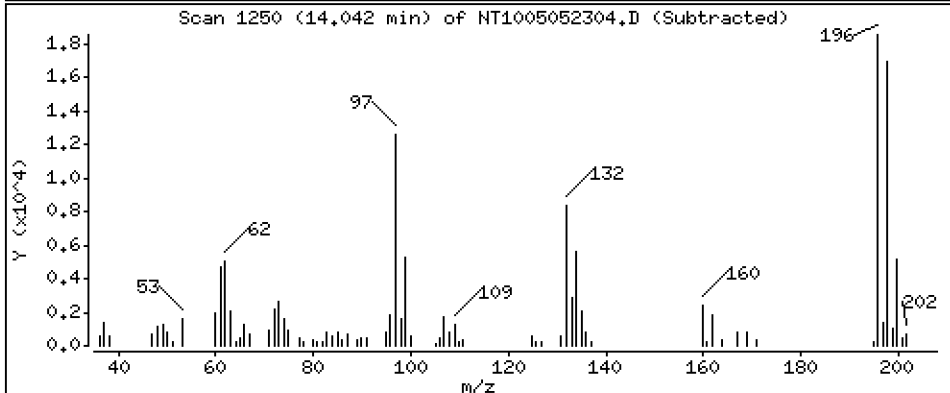
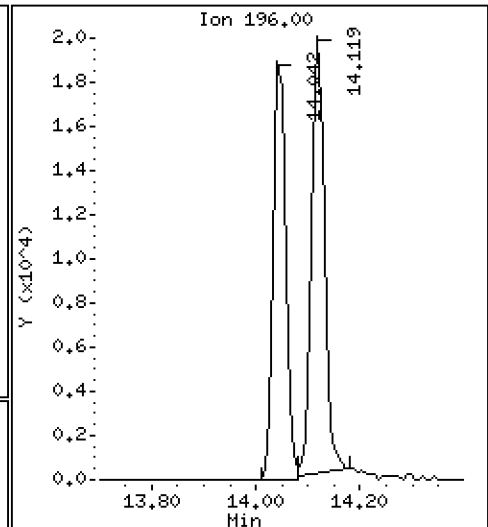
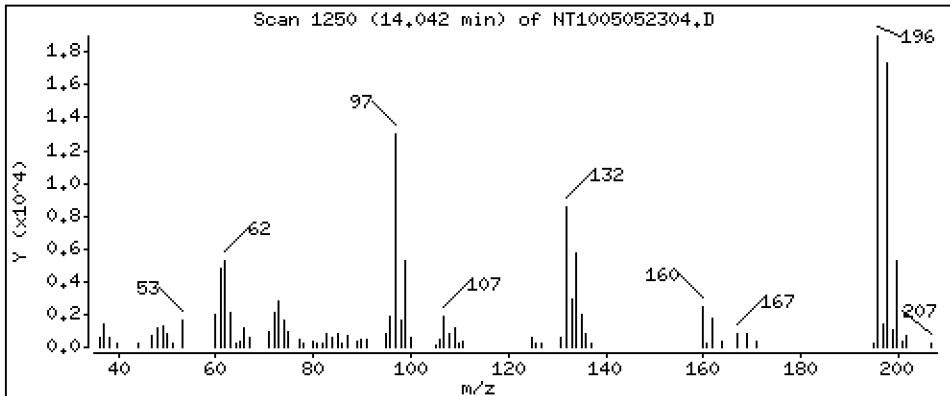
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 0.6756 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

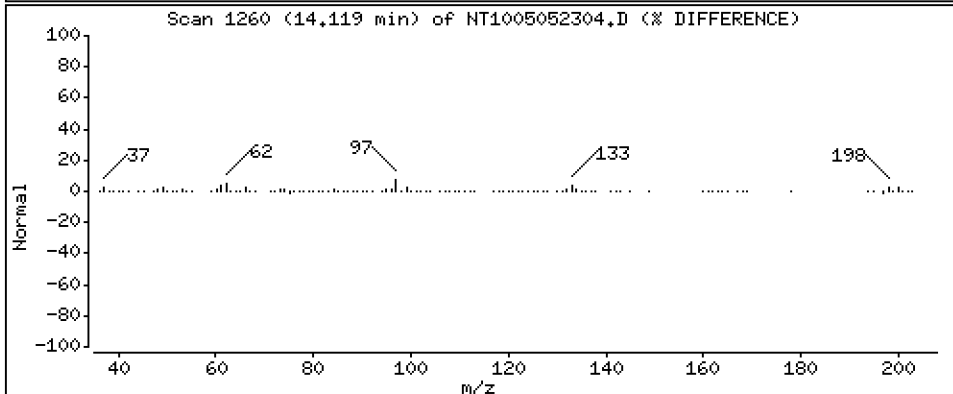
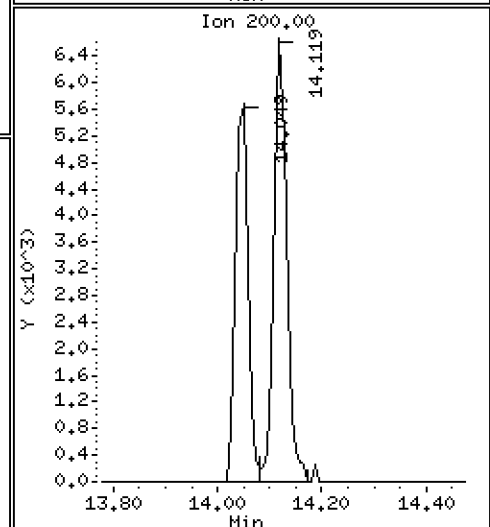
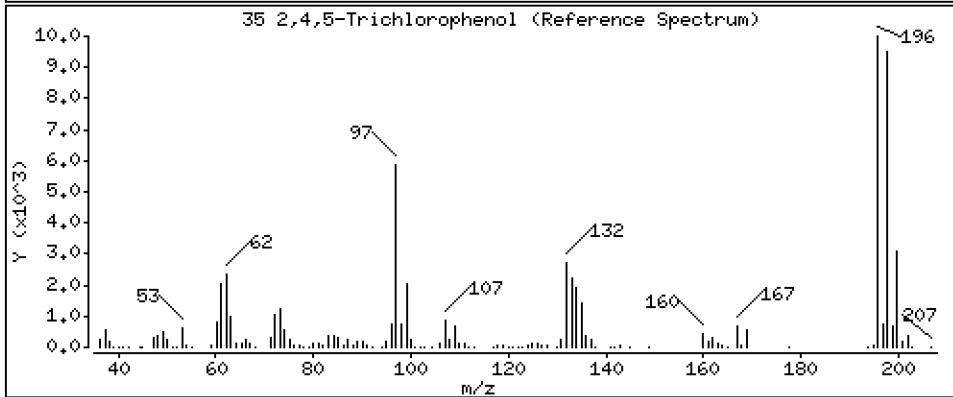
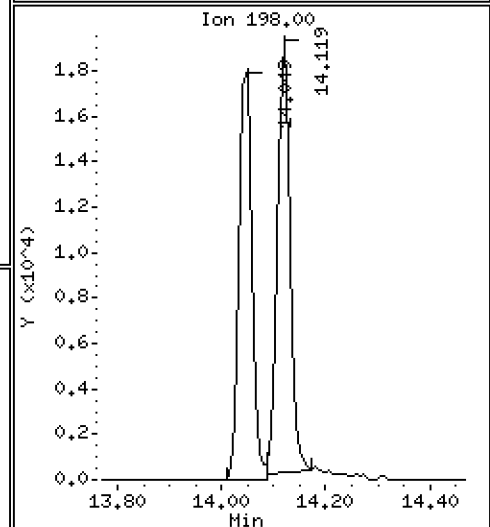
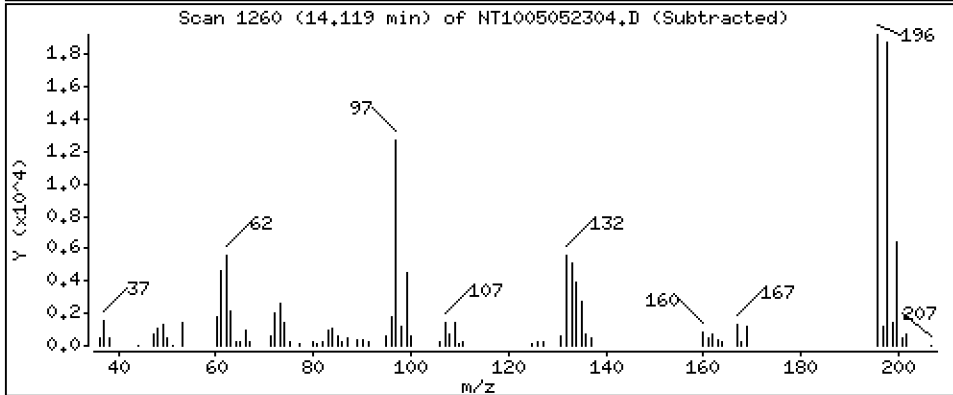
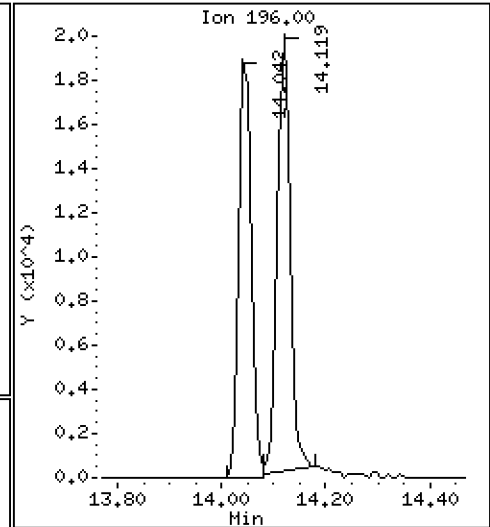
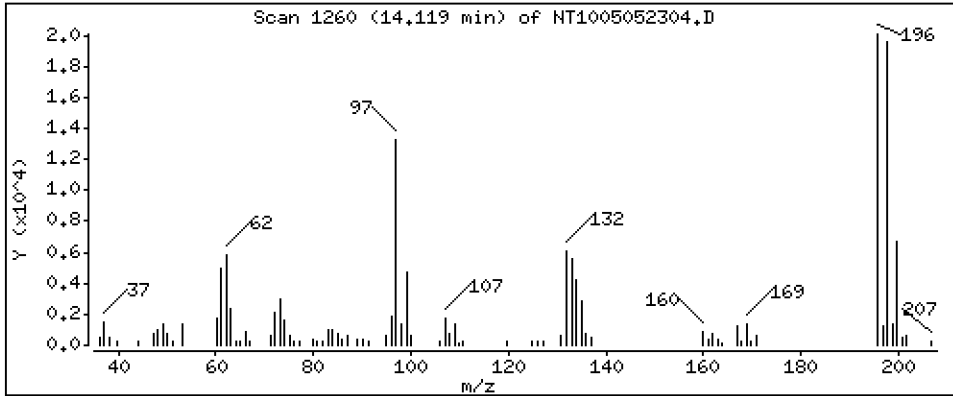
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,6656 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

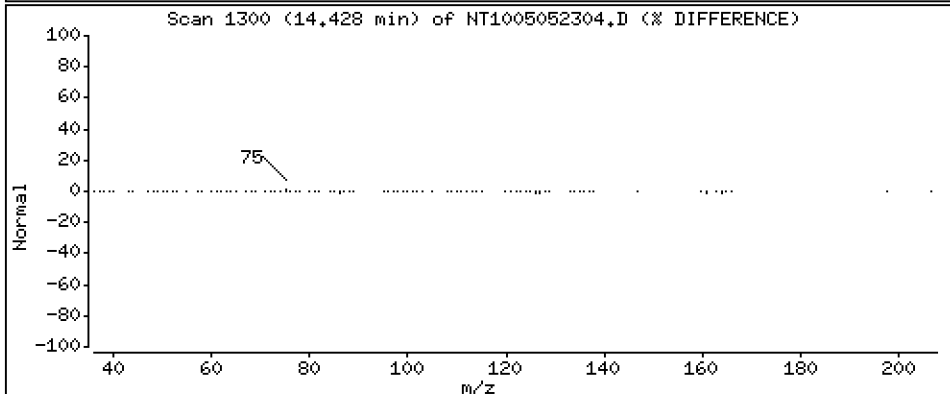
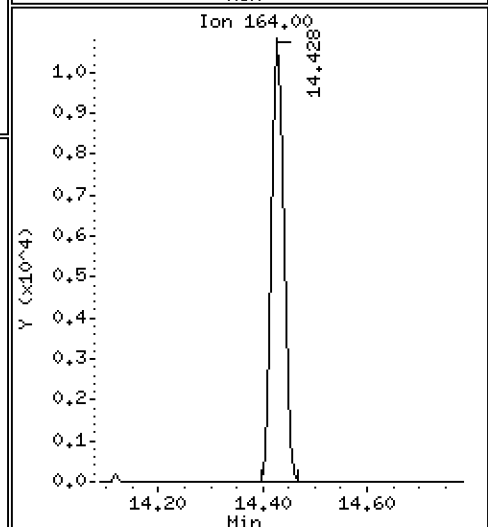
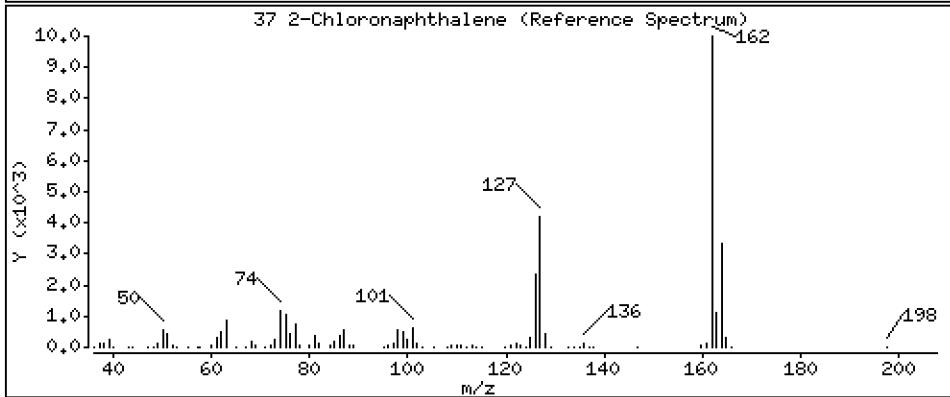
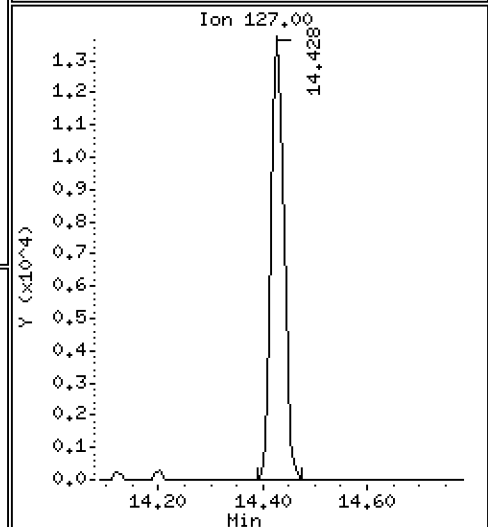
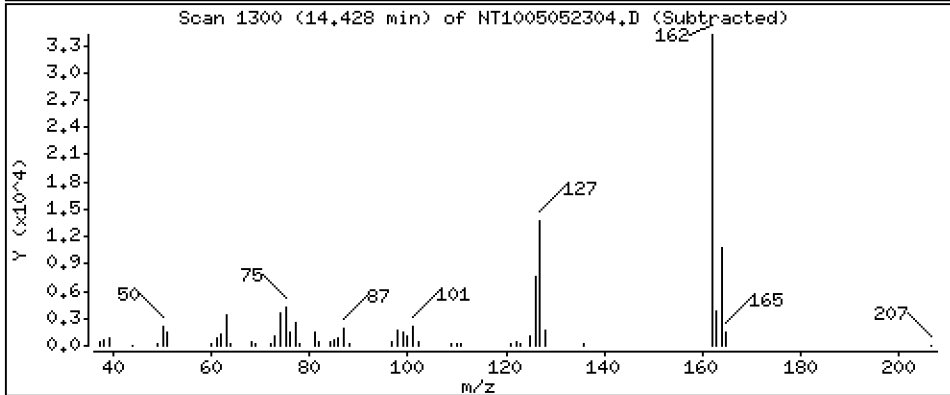
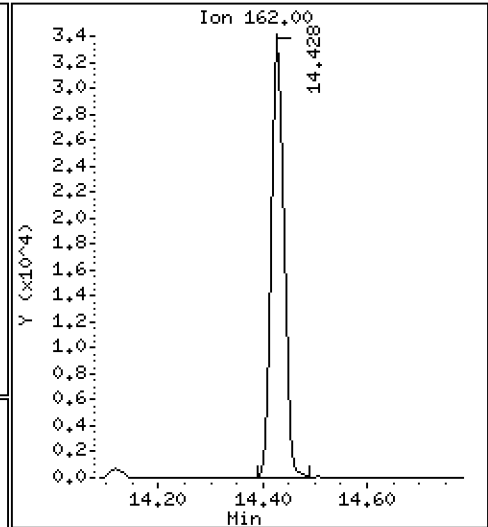
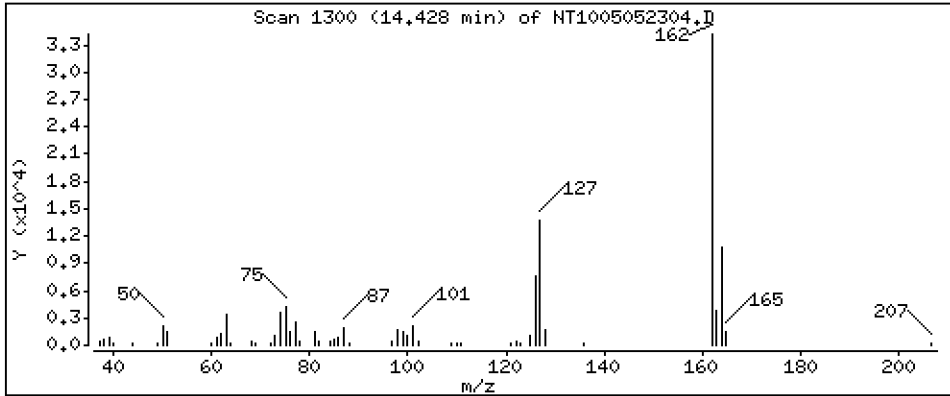
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 0.4515 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

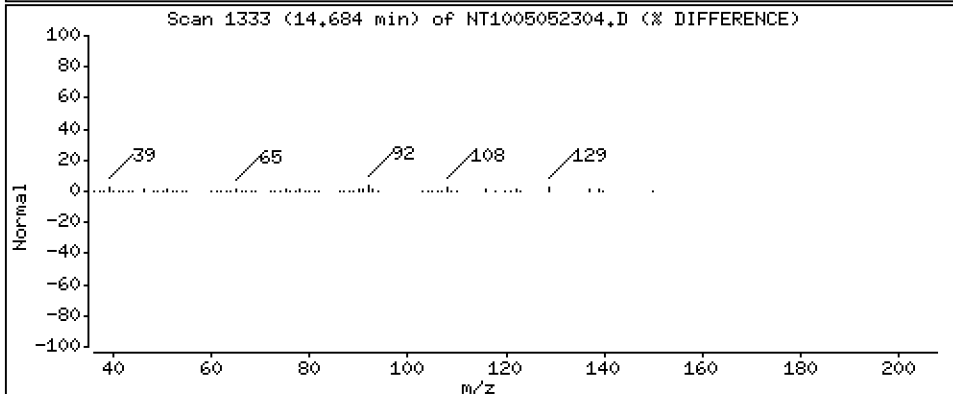
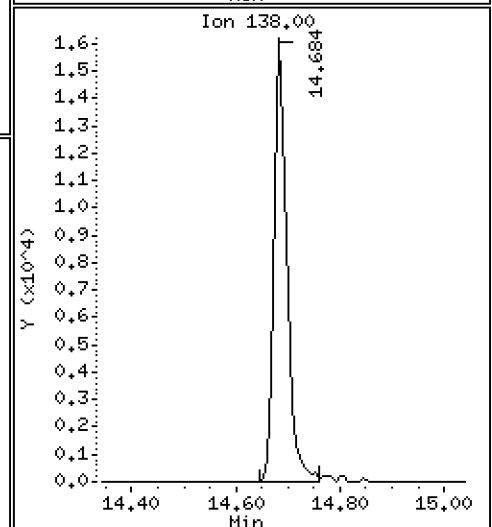
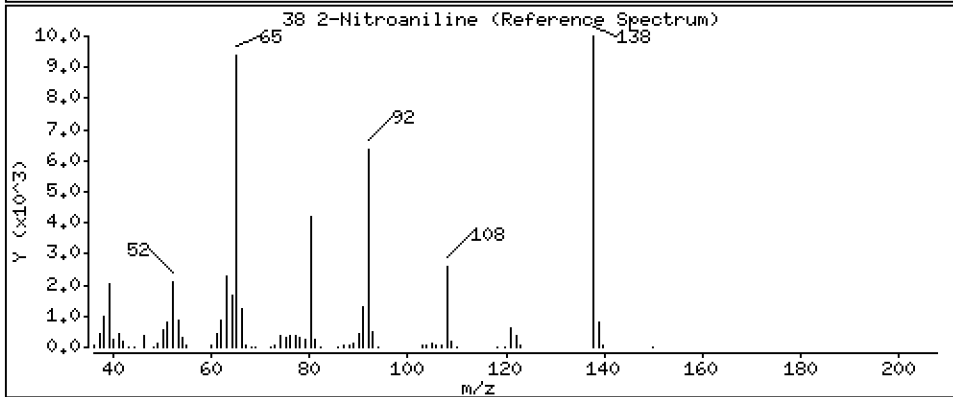
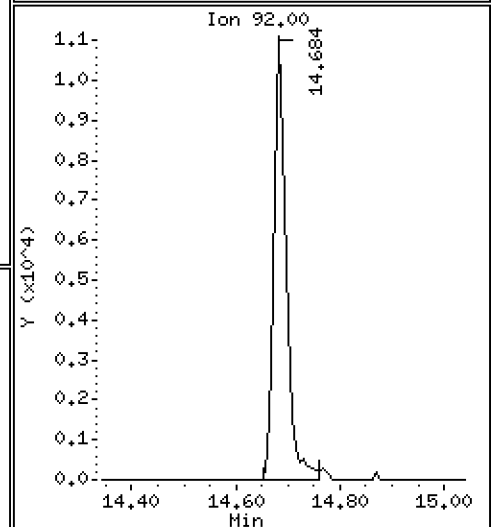
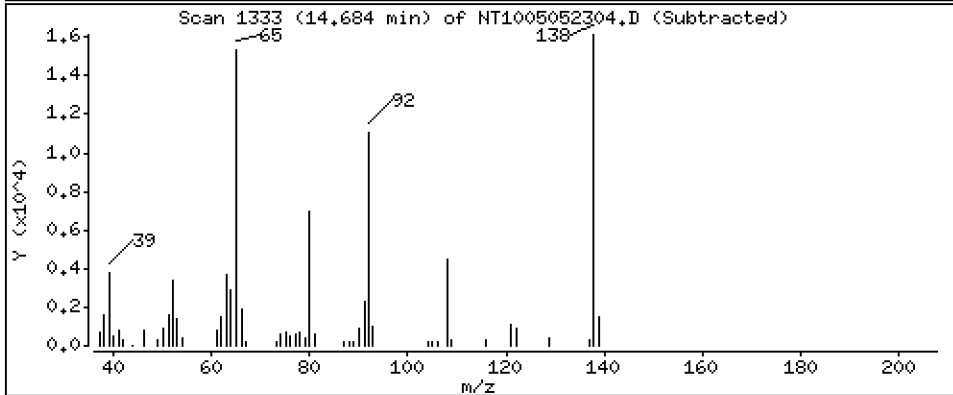
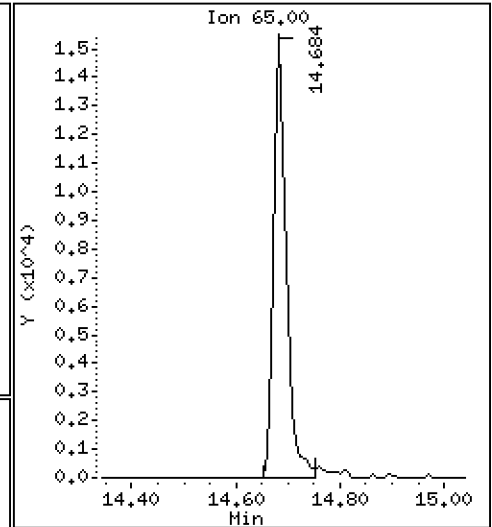
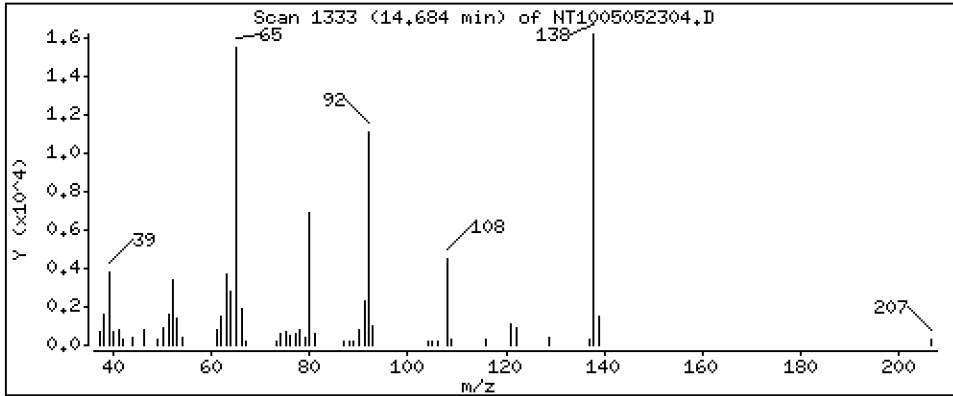
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 0,7100 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

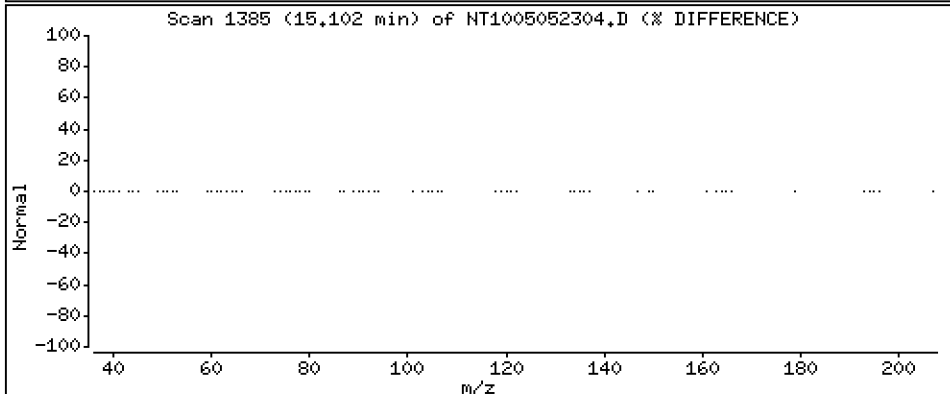
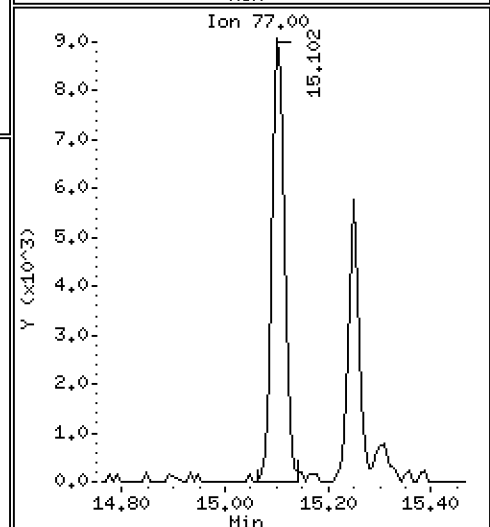
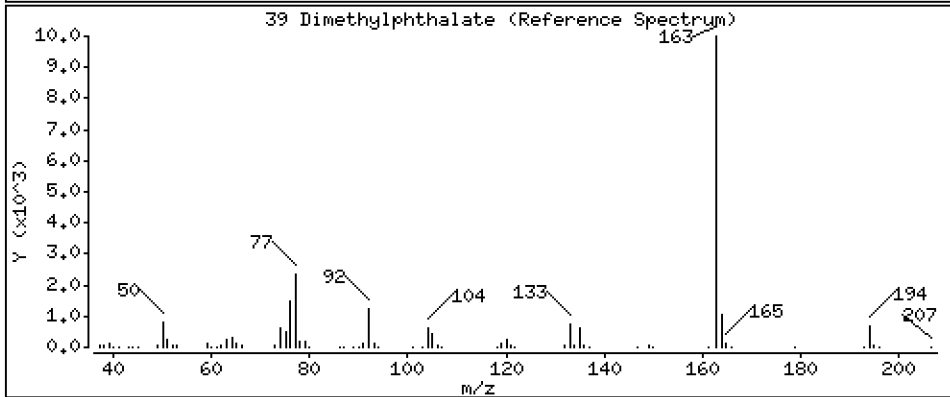
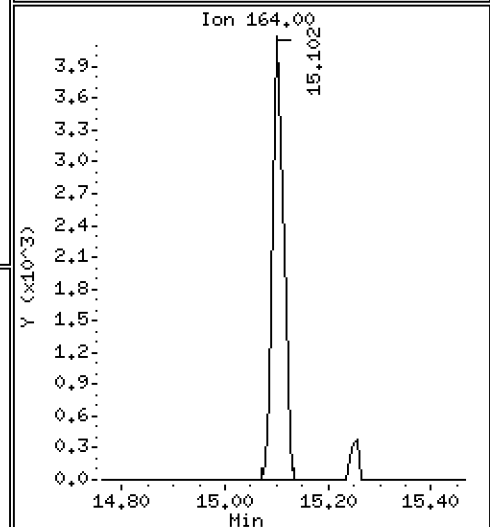
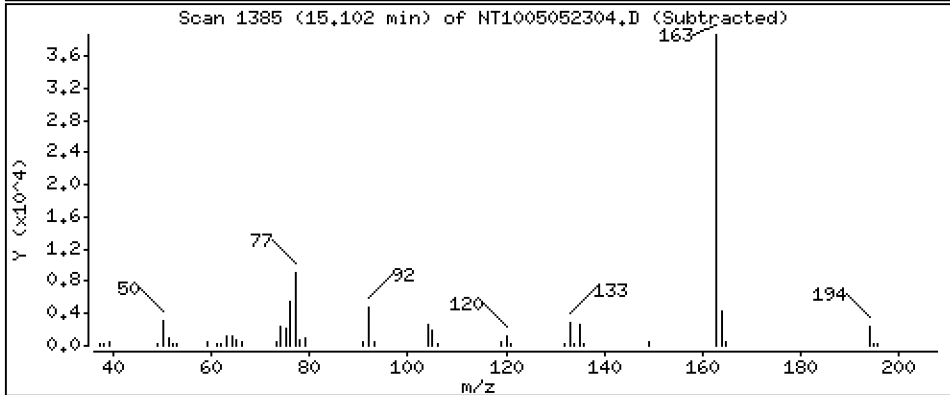
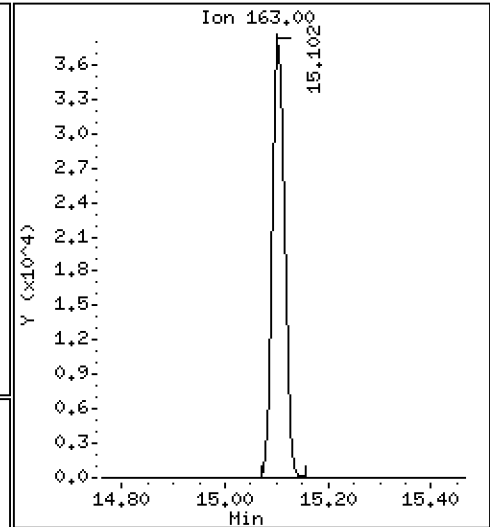
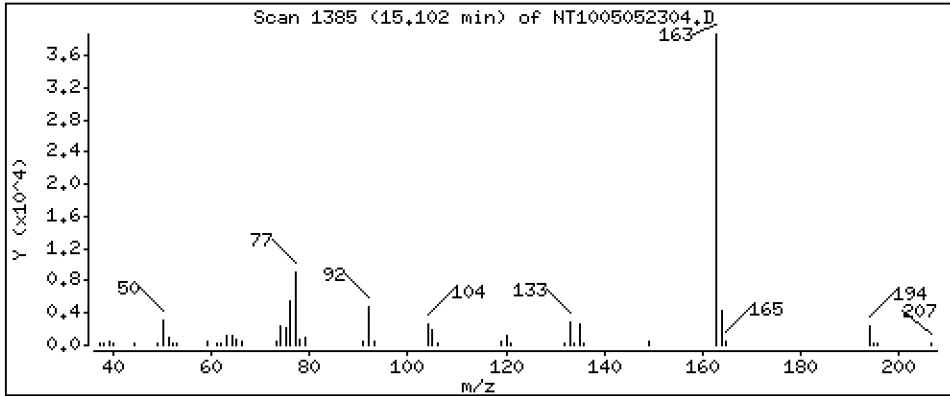
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,4375 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

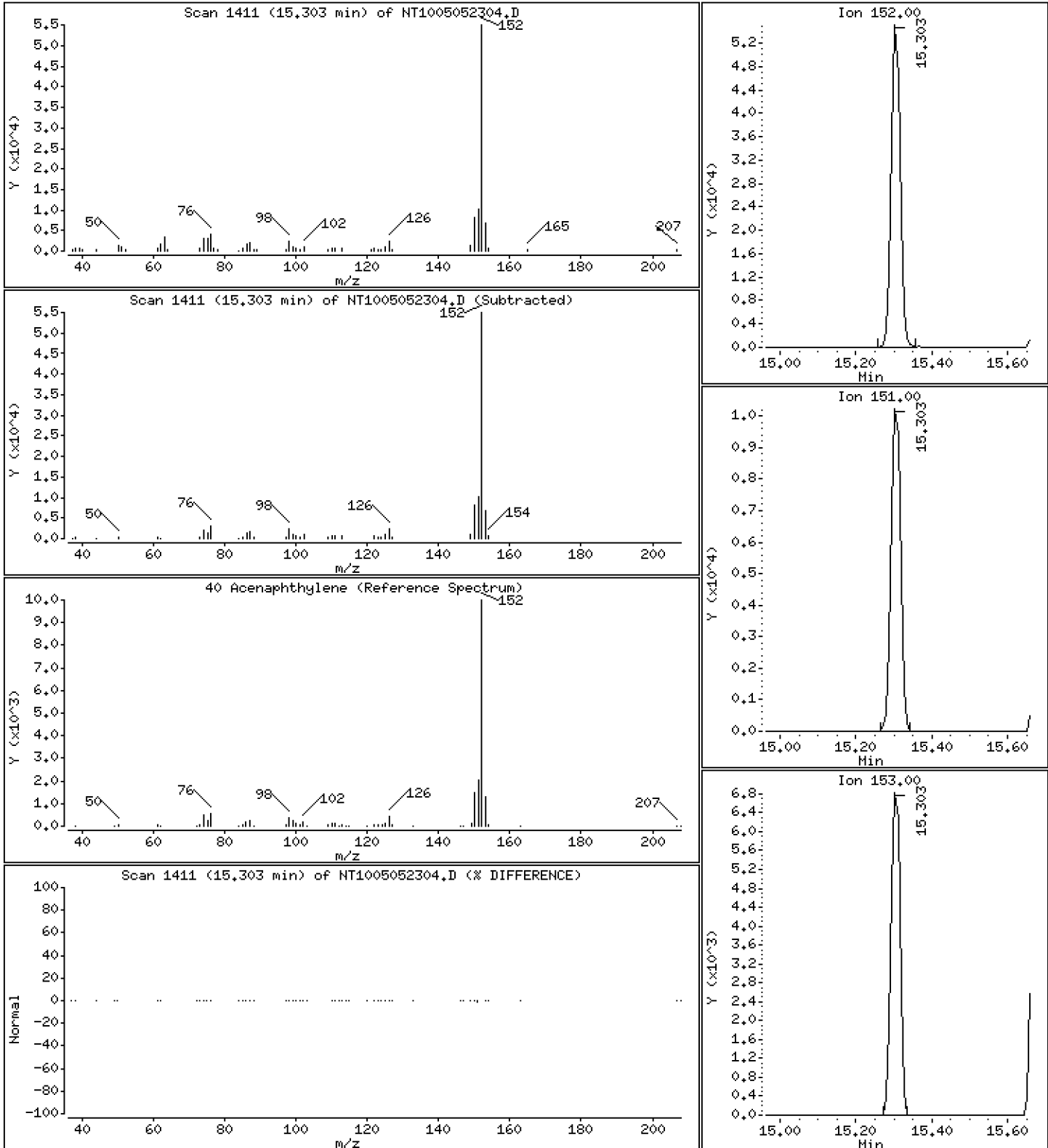
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,4419 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

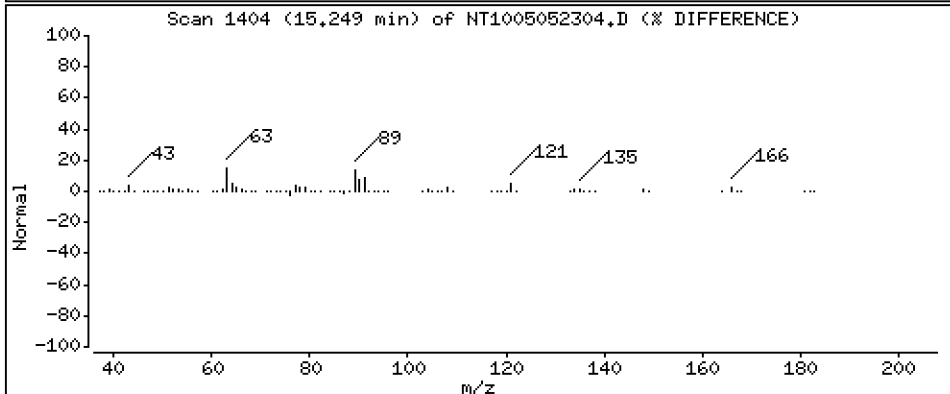
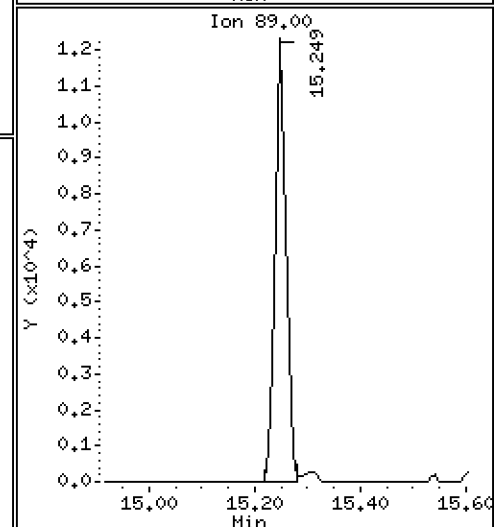
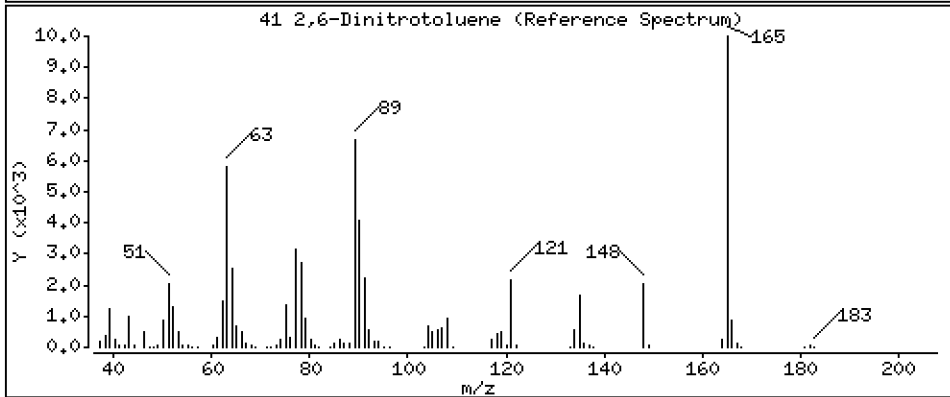
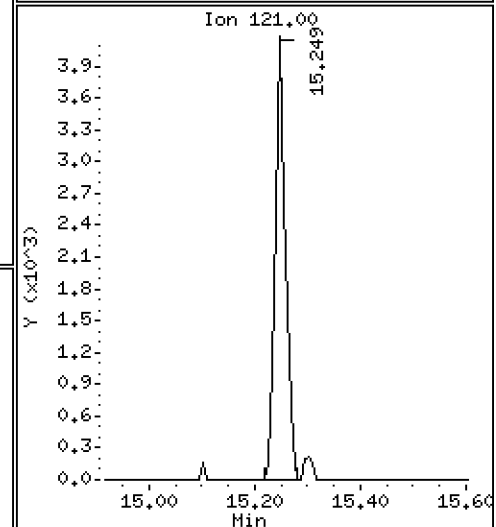
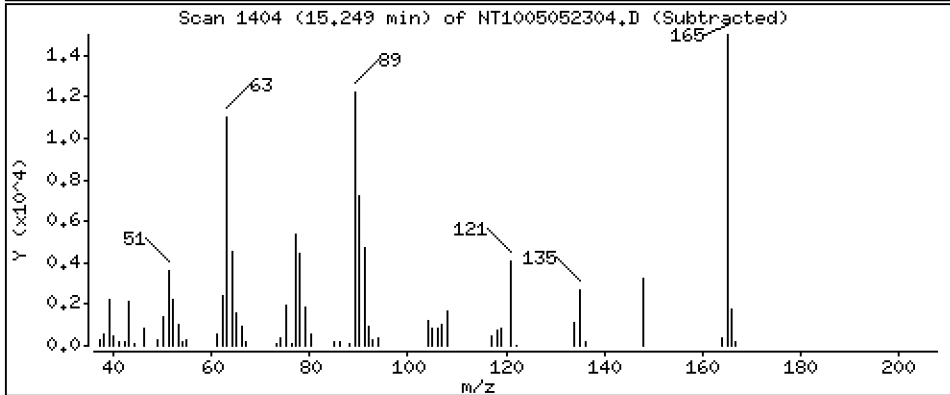
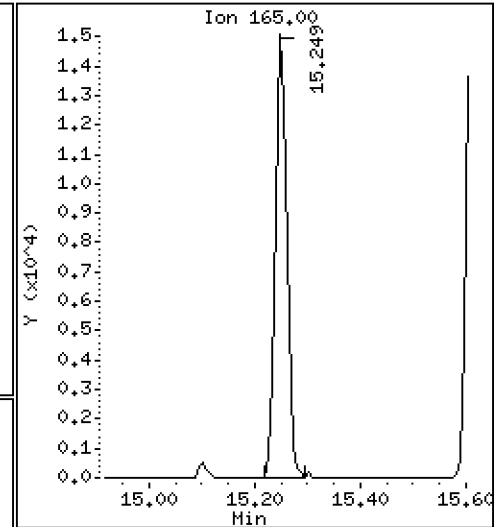
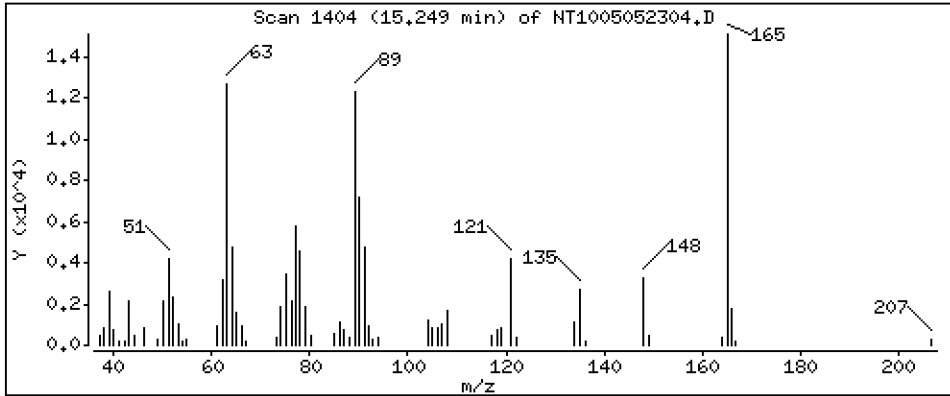
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 0,7089 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

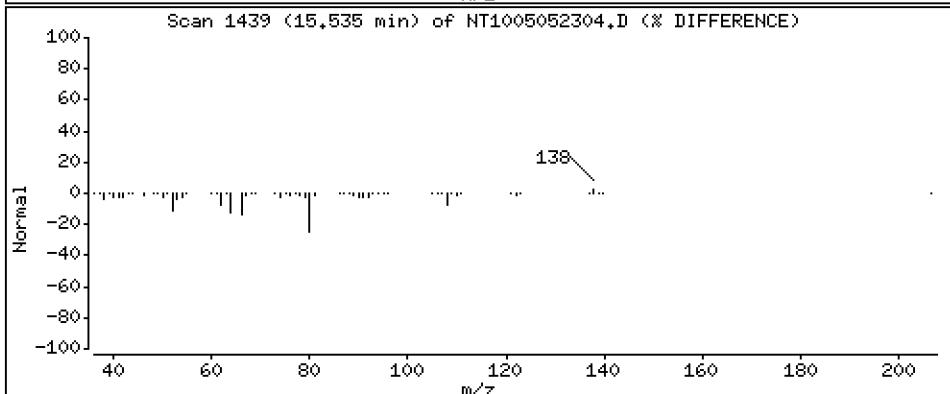
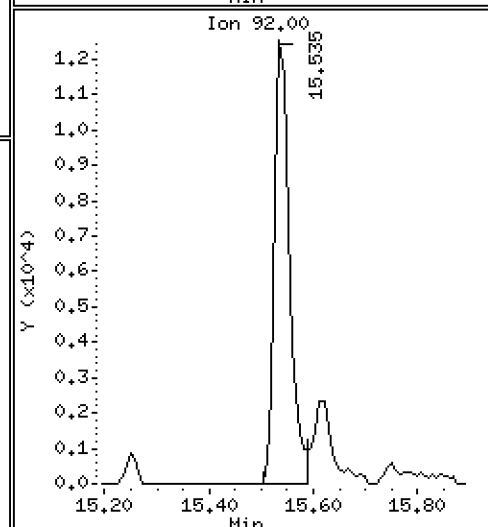
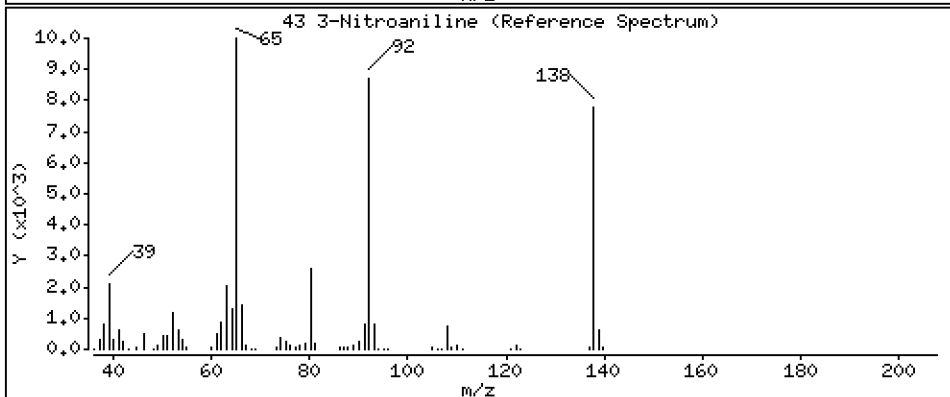
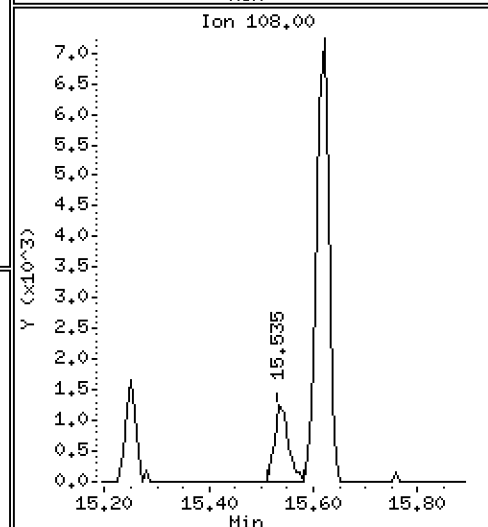
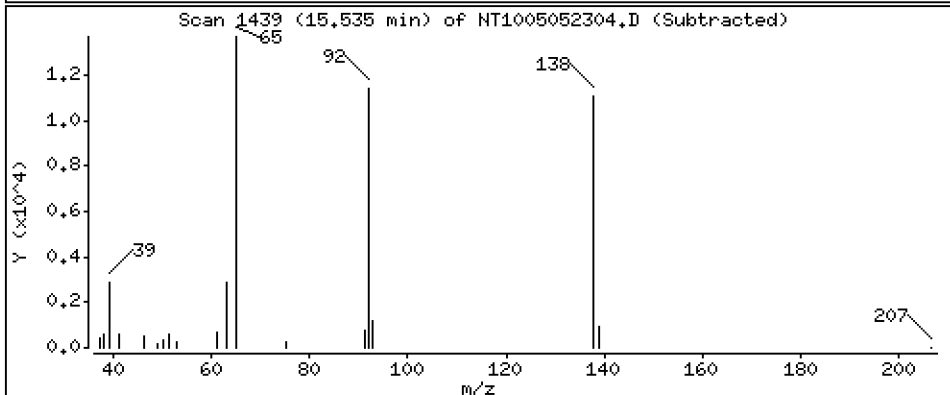
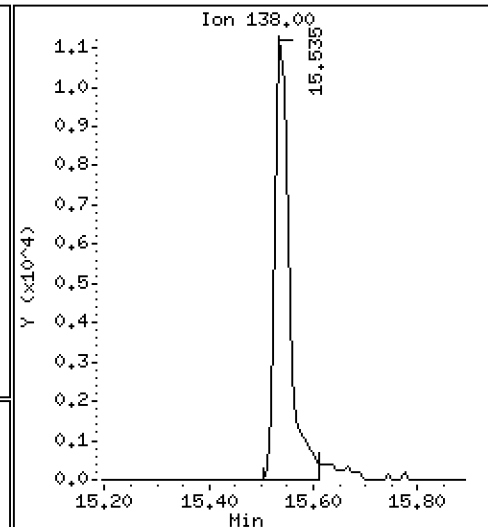
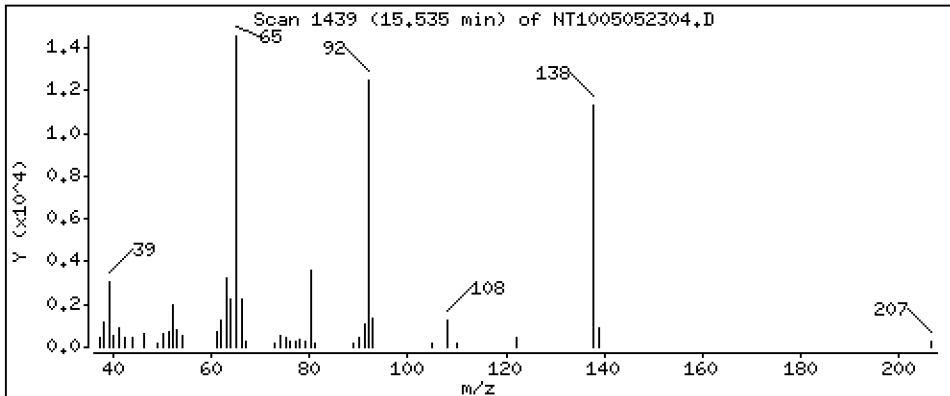
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,6810 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

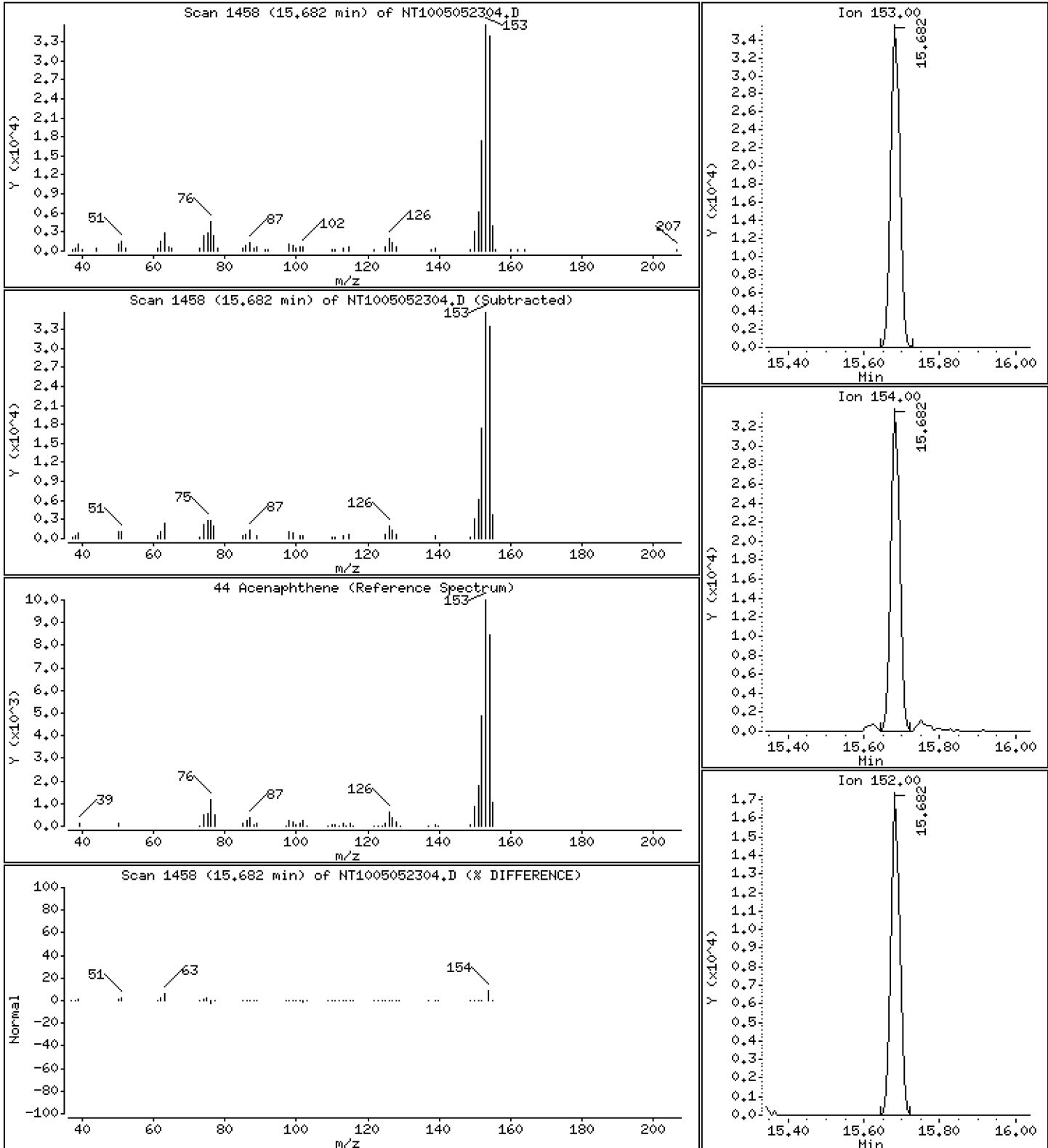
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

44 Acenaphthene

Concentration: 0.4497 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

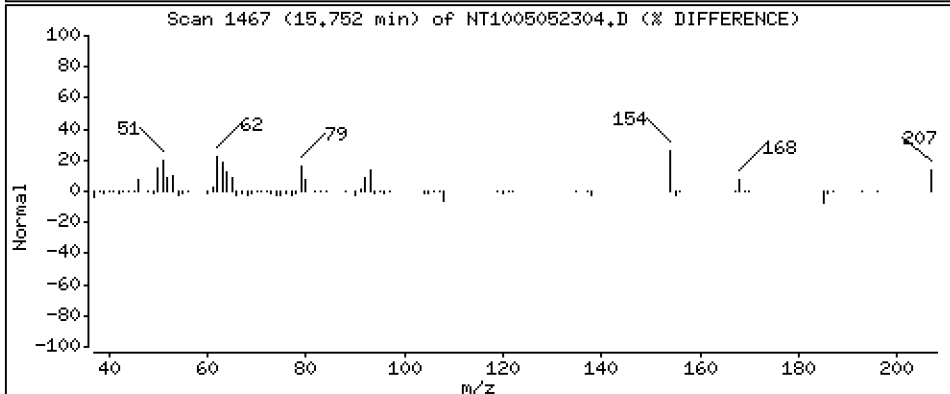
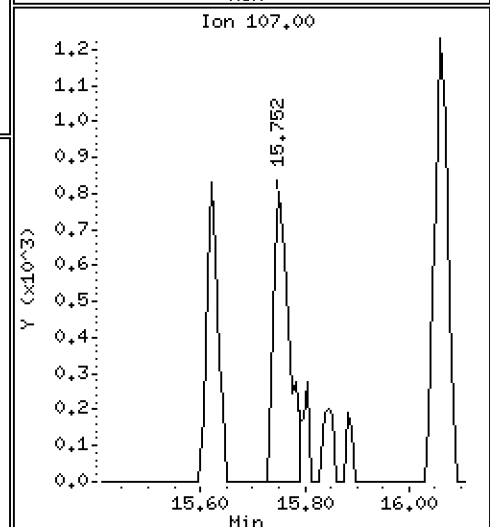
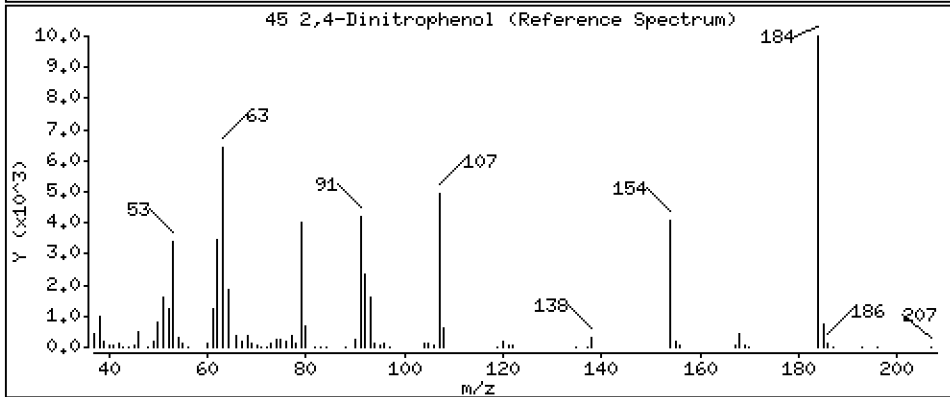
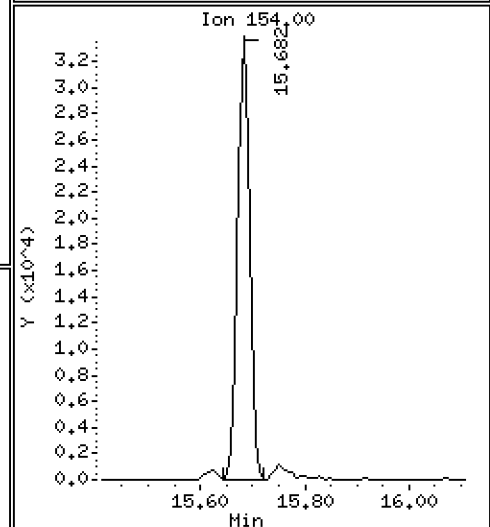
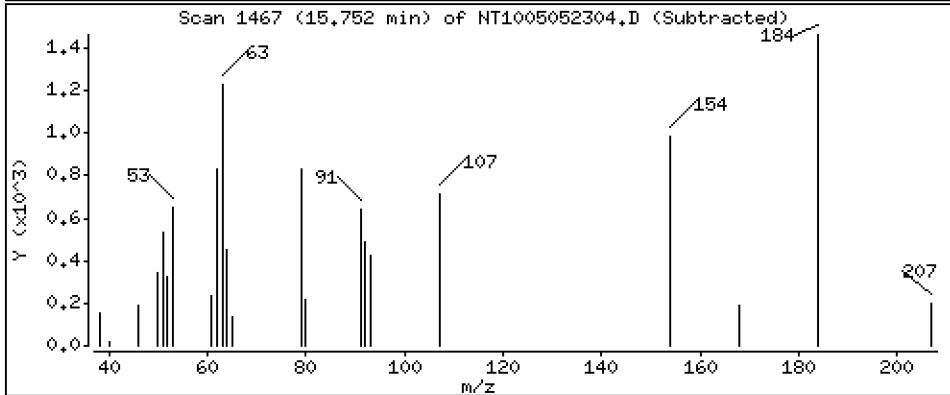
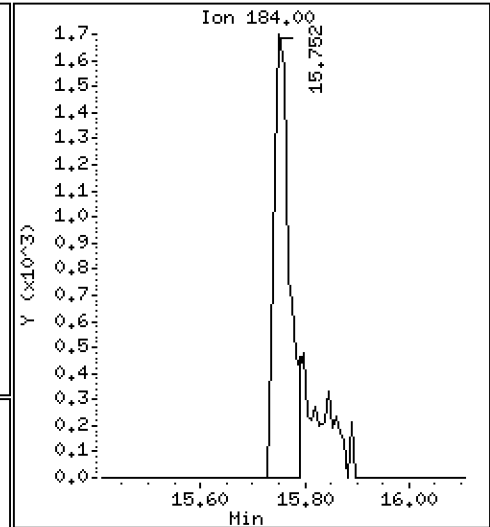
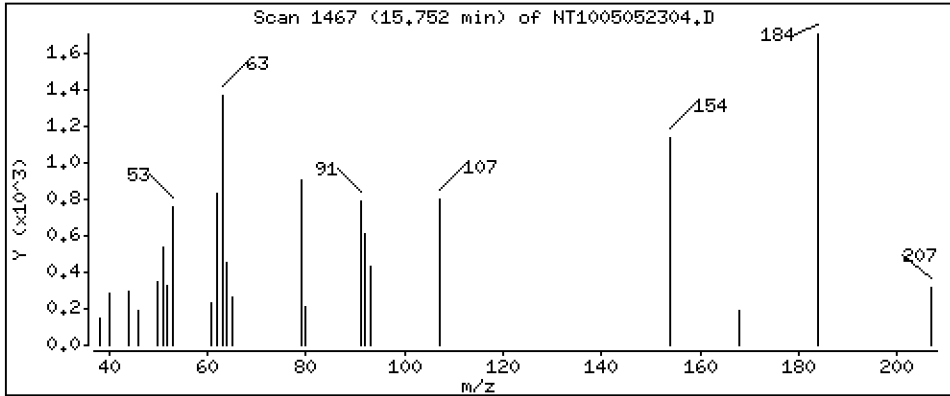
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

45 2,4-Dinitrophenol

Concentration: 0.1404 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

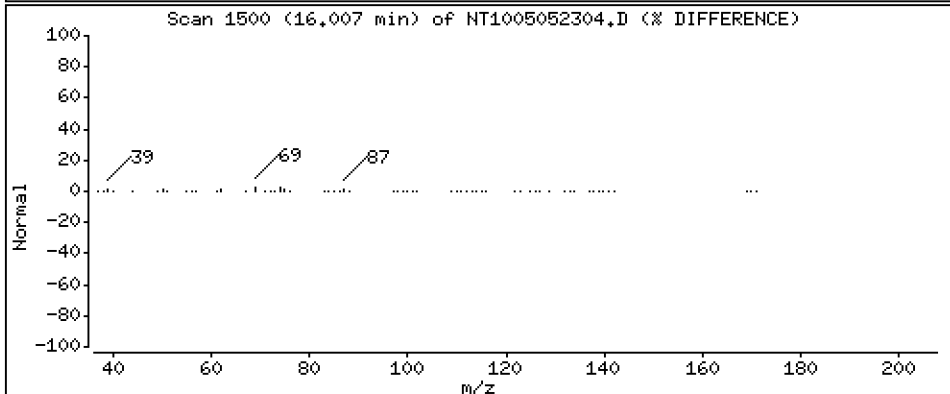
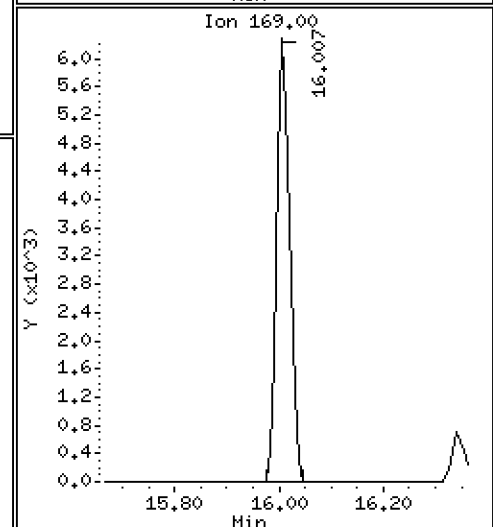
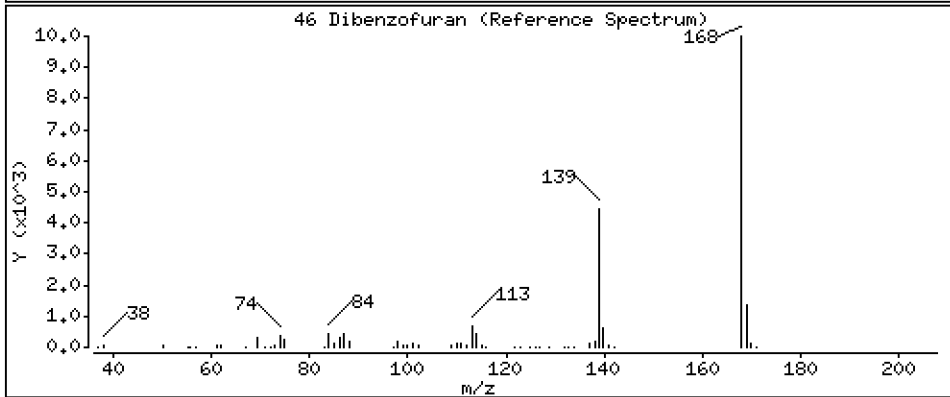
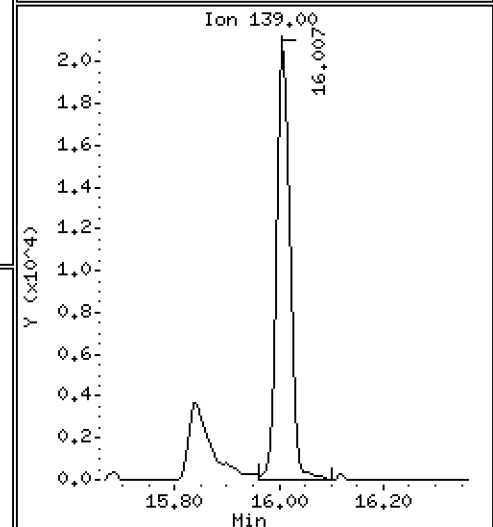
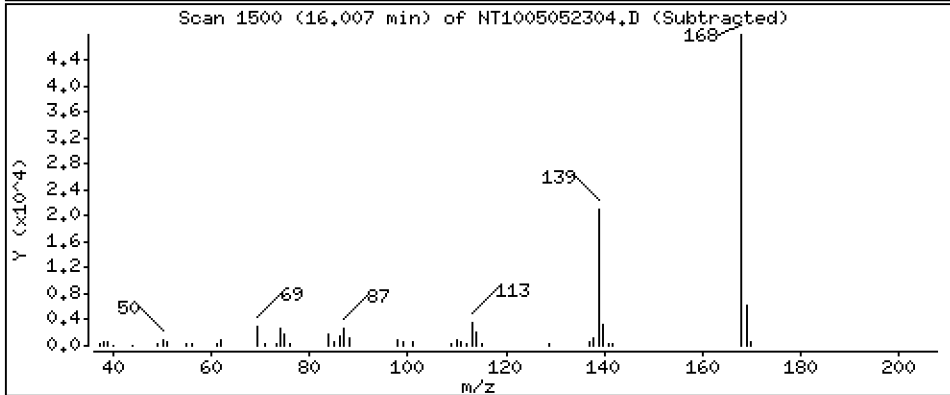
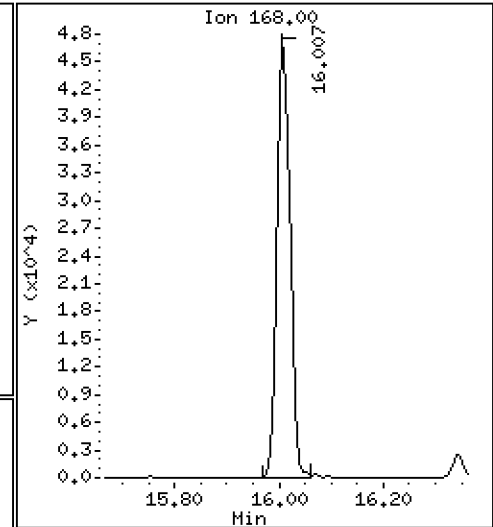
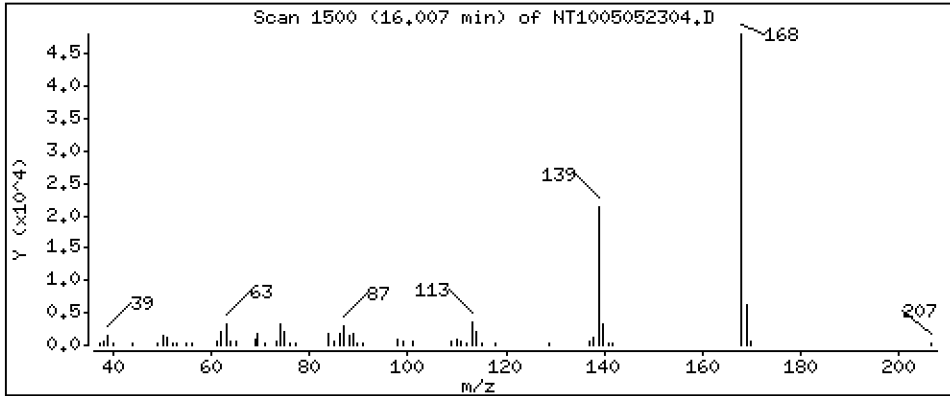
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,4469 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

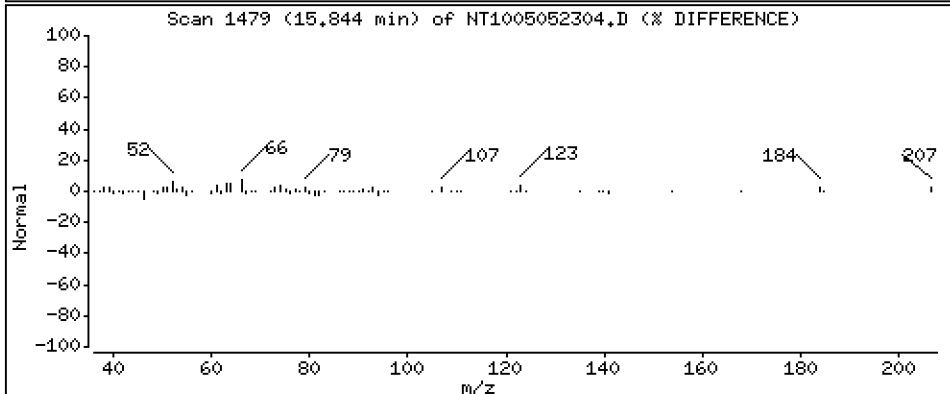
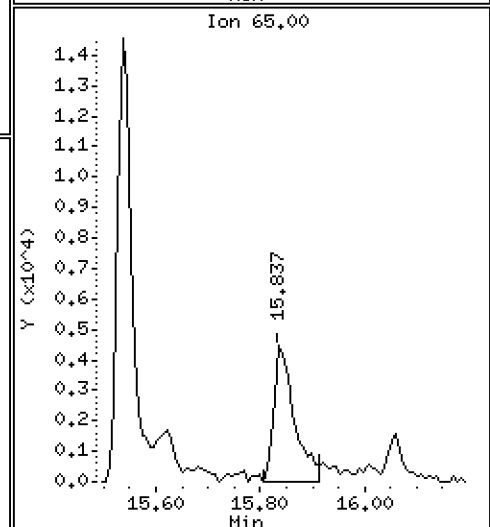
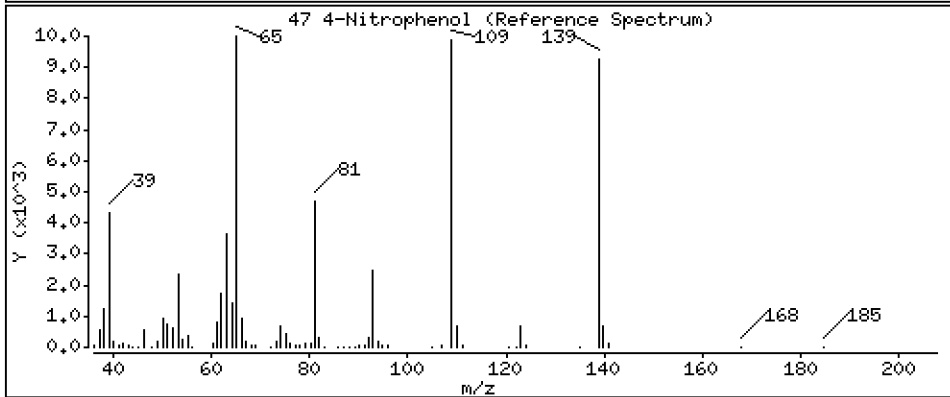
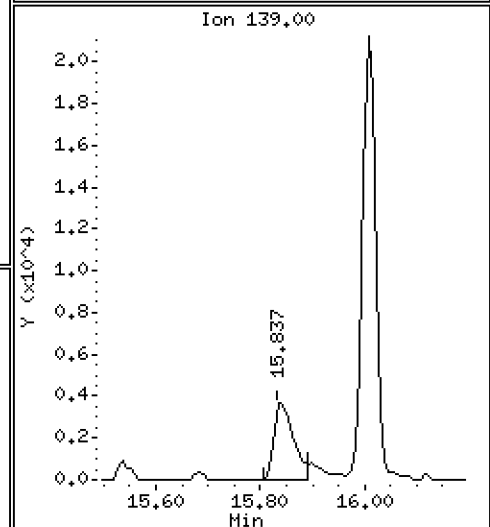
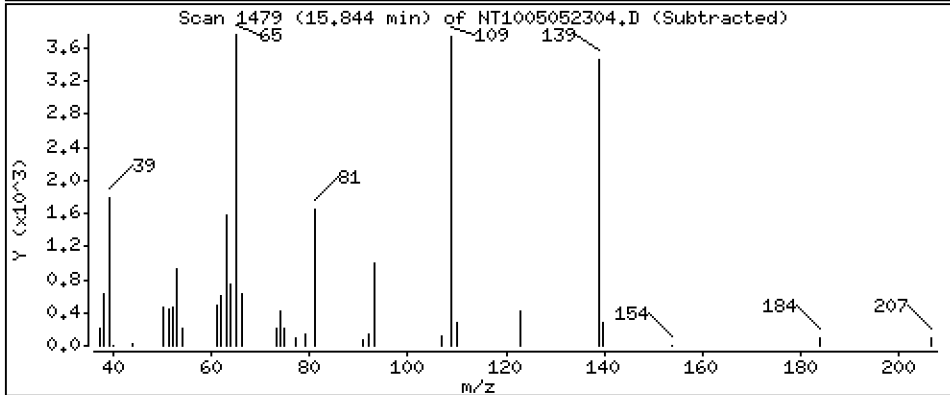
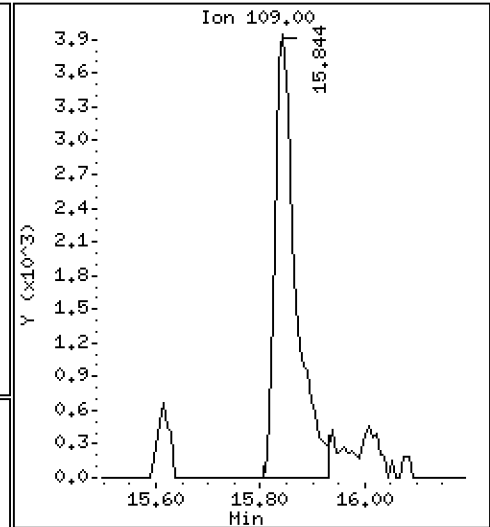
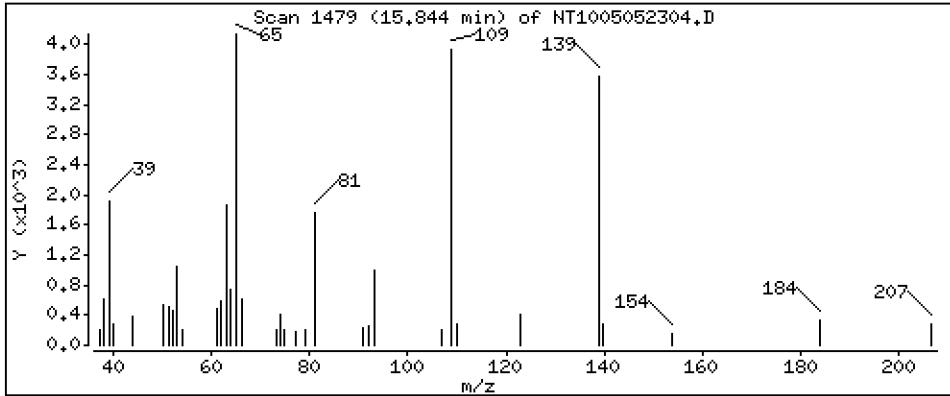
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

47 4-Nitrophenol

Concentration: 0.3731 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

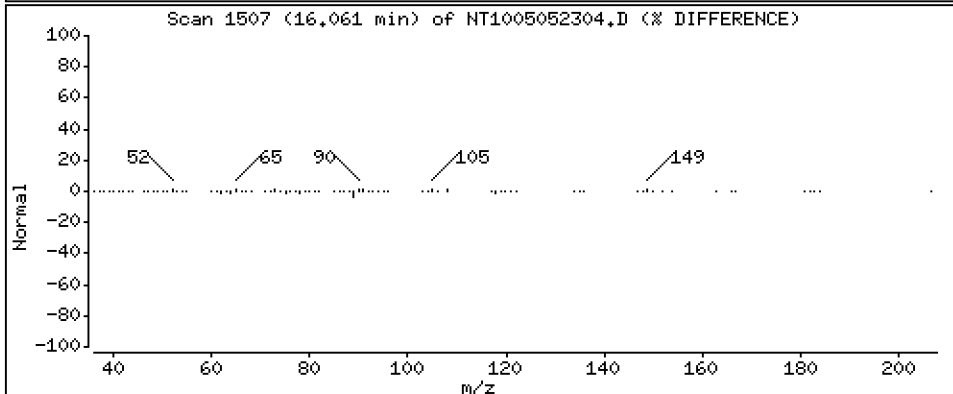
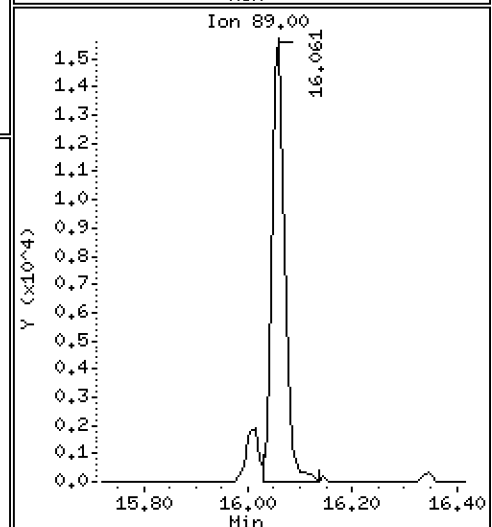
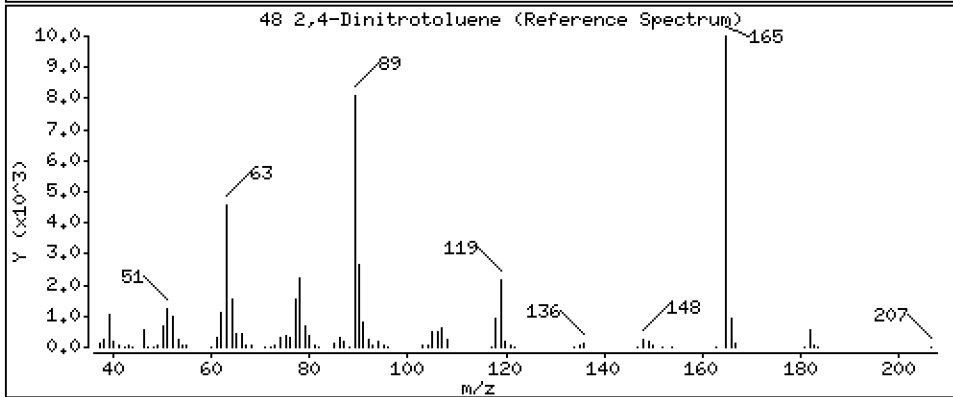
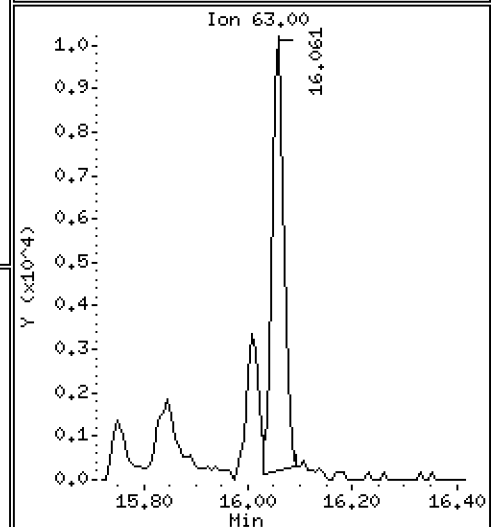
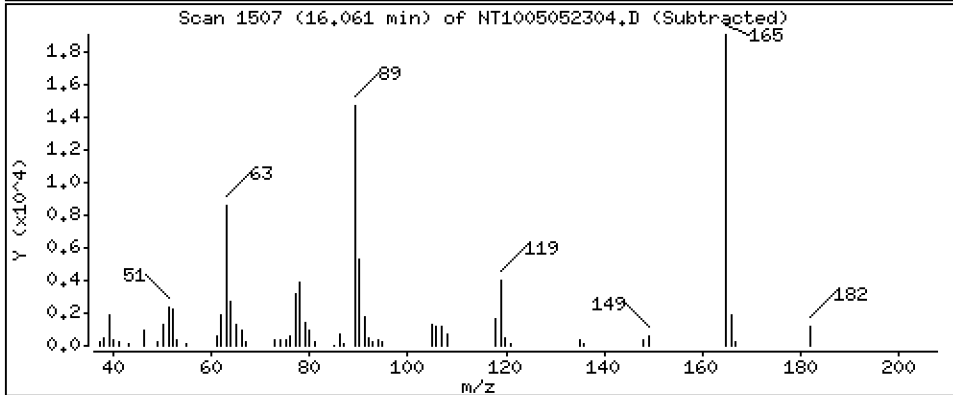
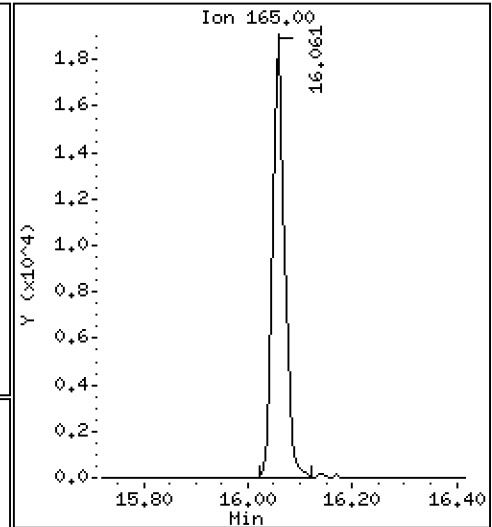
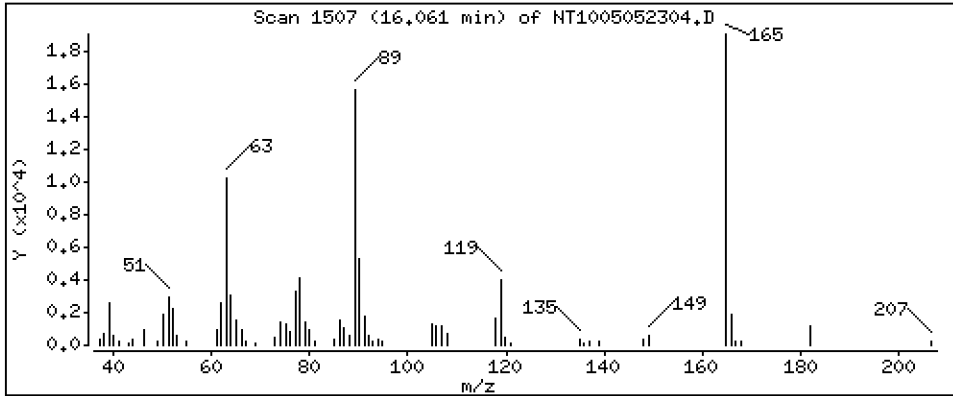
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 0.6645 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

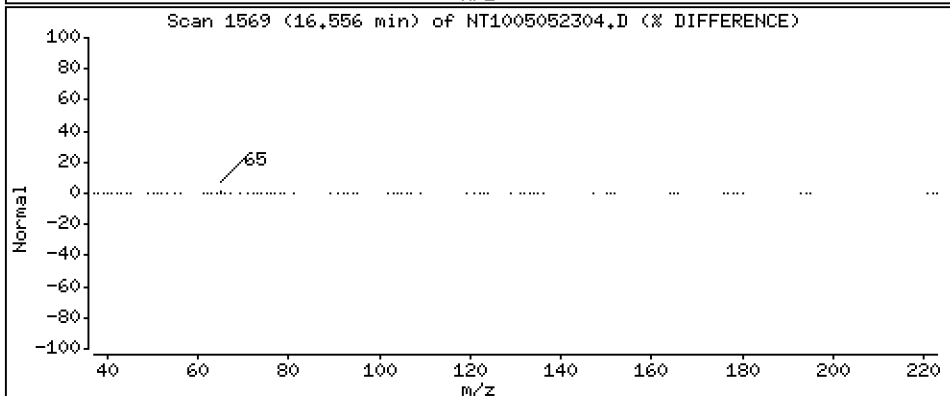
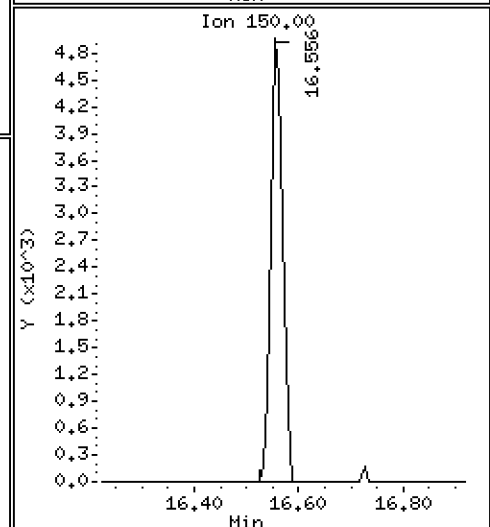
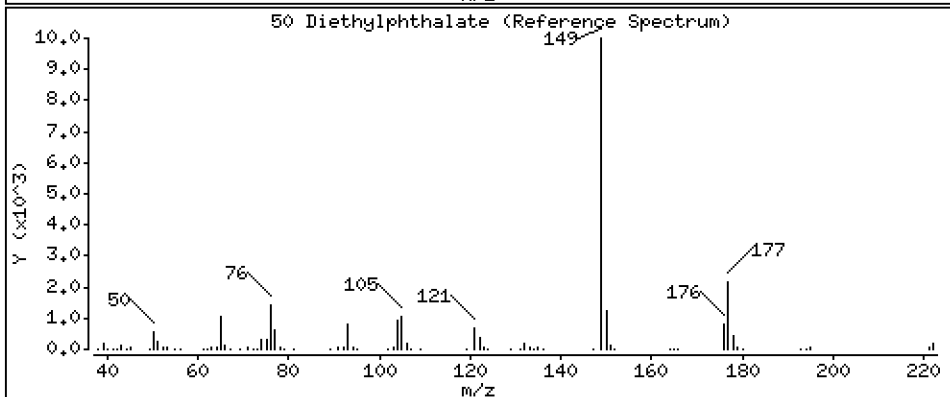
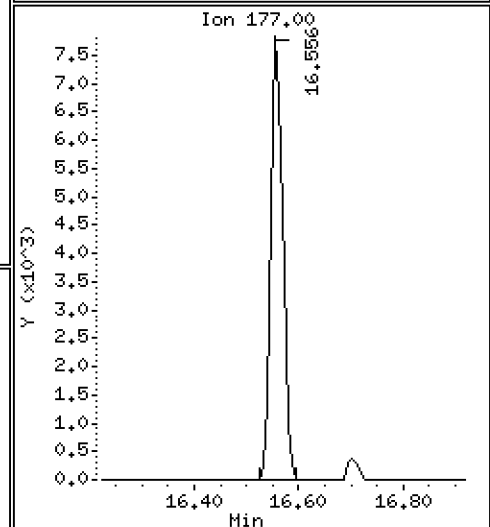
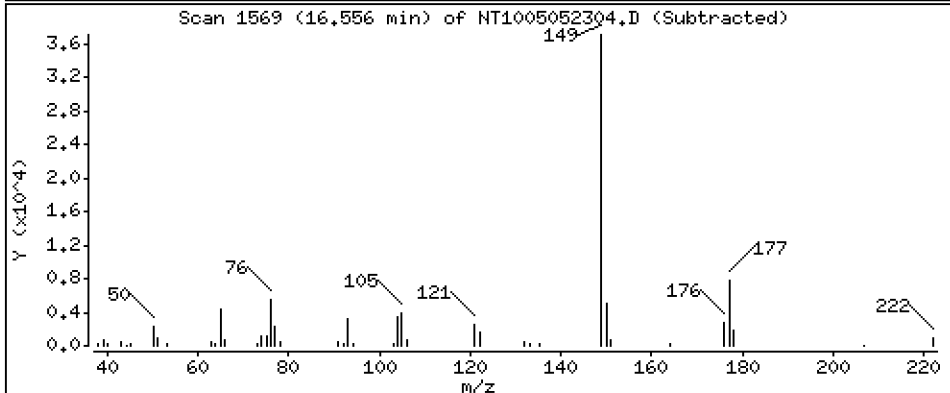
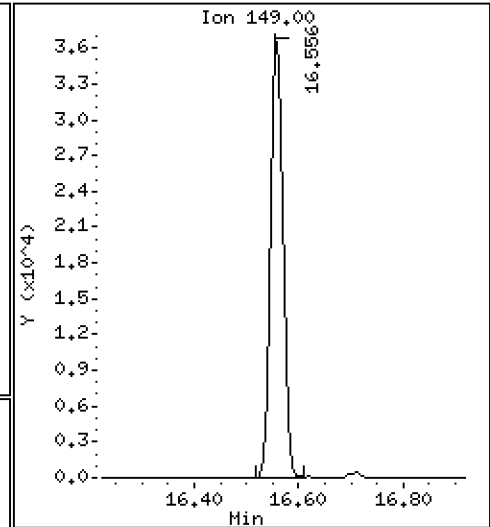
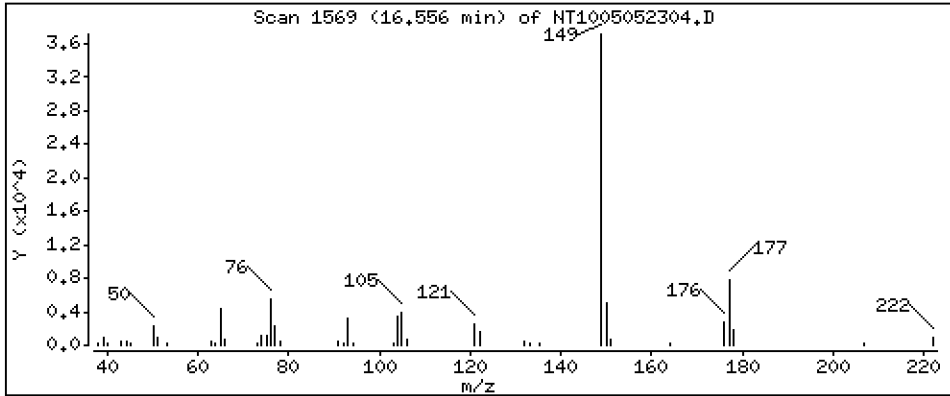
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.4079 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

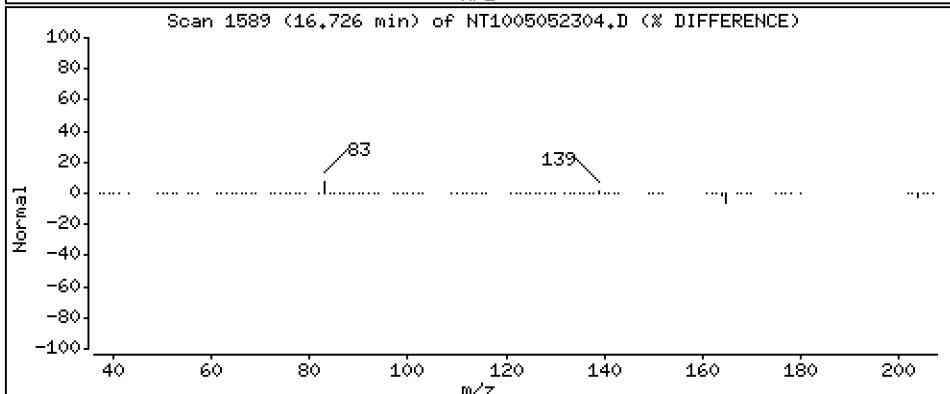
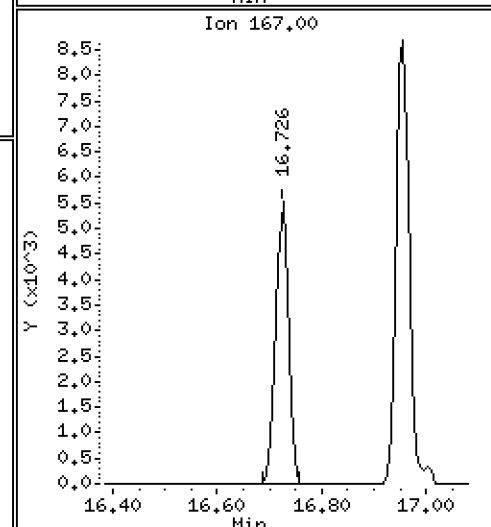
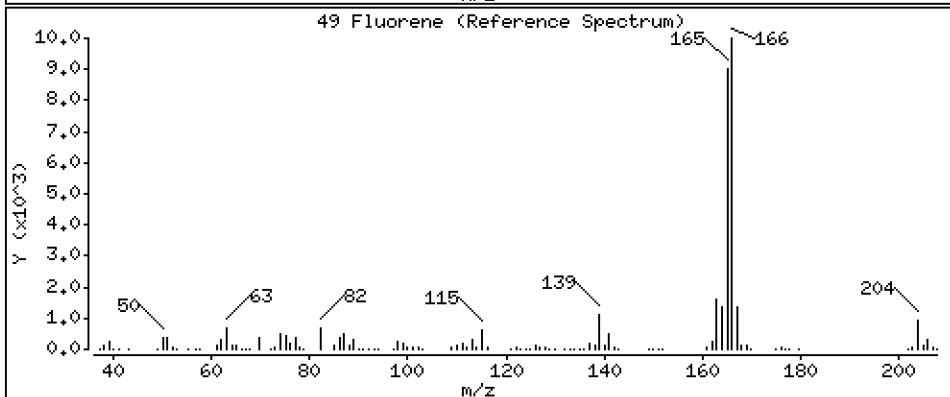
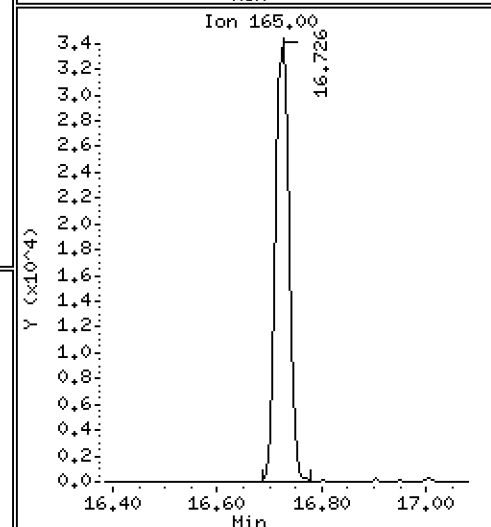
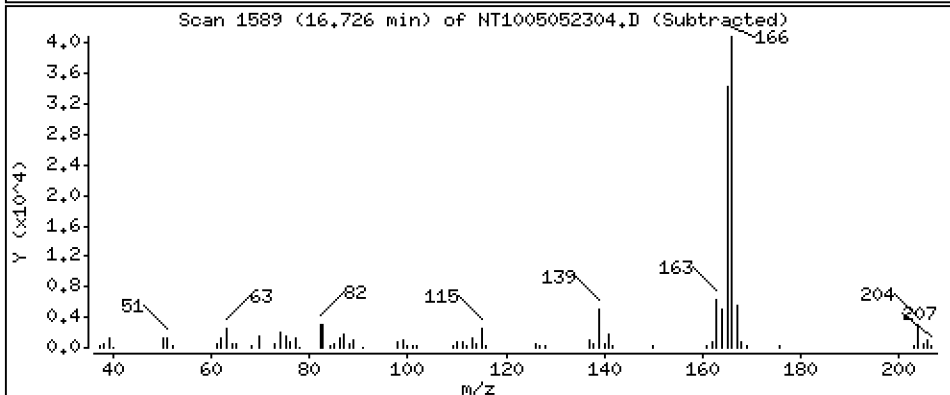
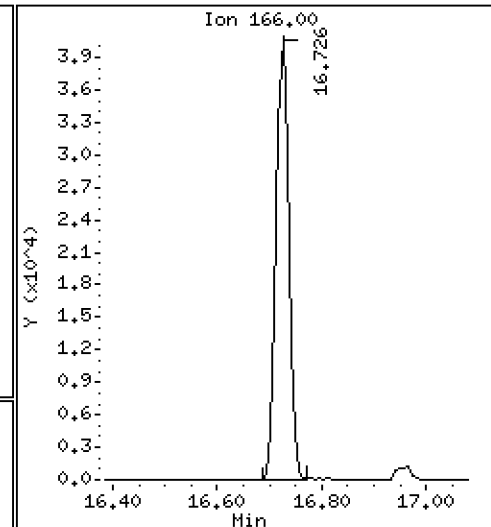
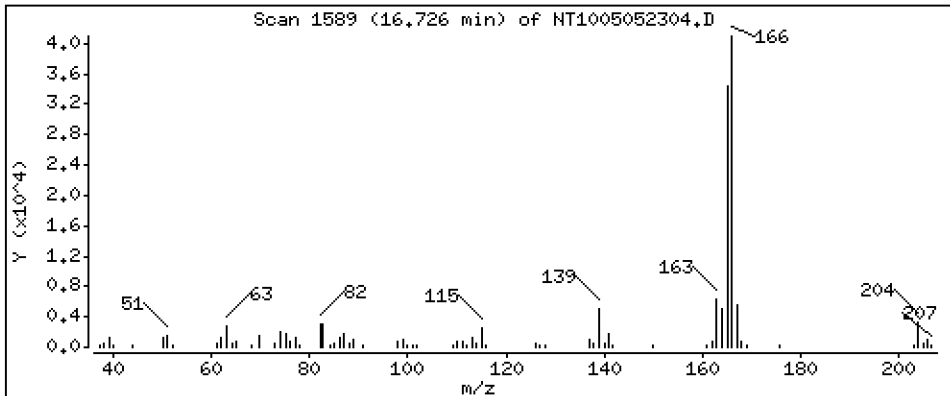
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.4453 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

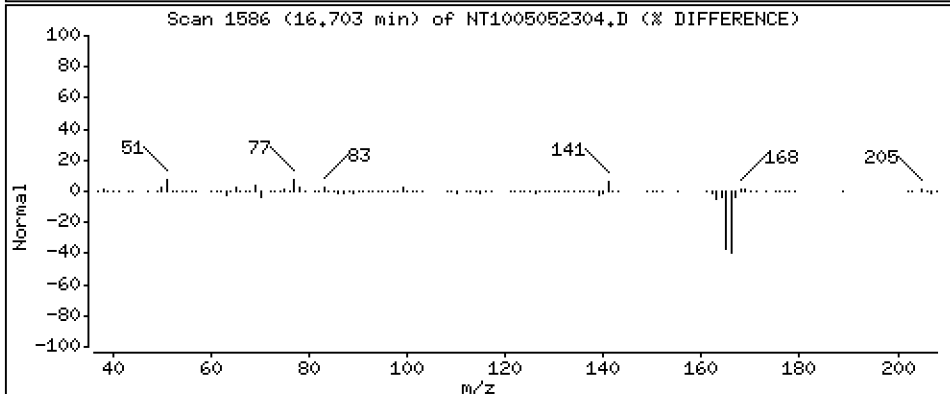
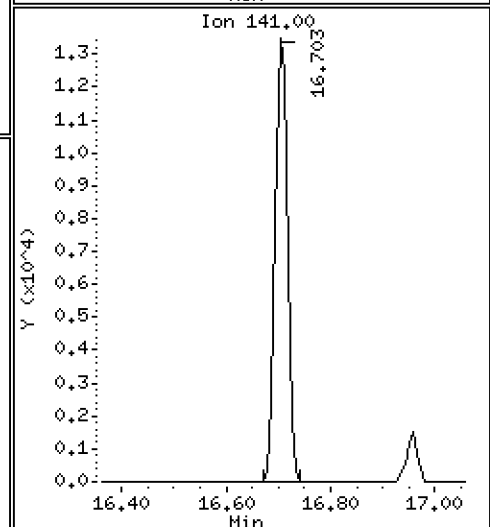
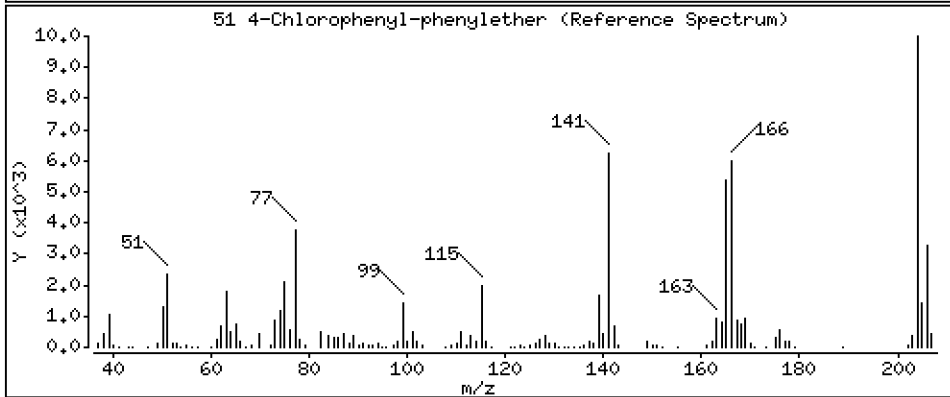
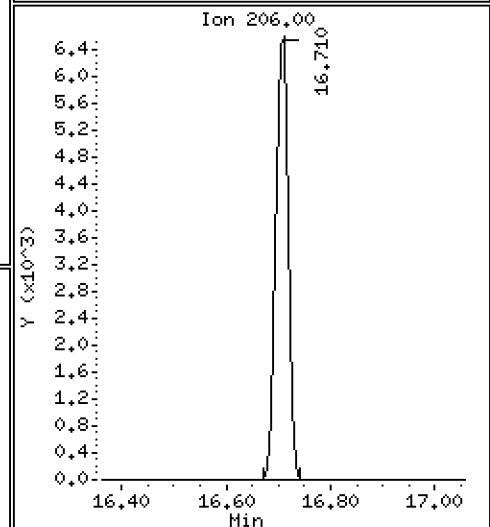
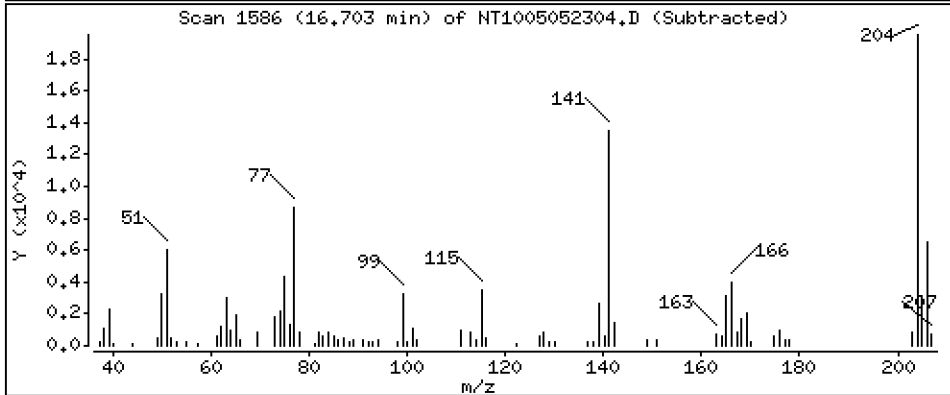
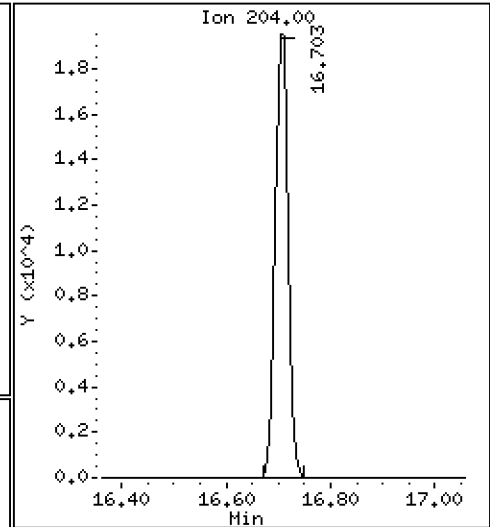
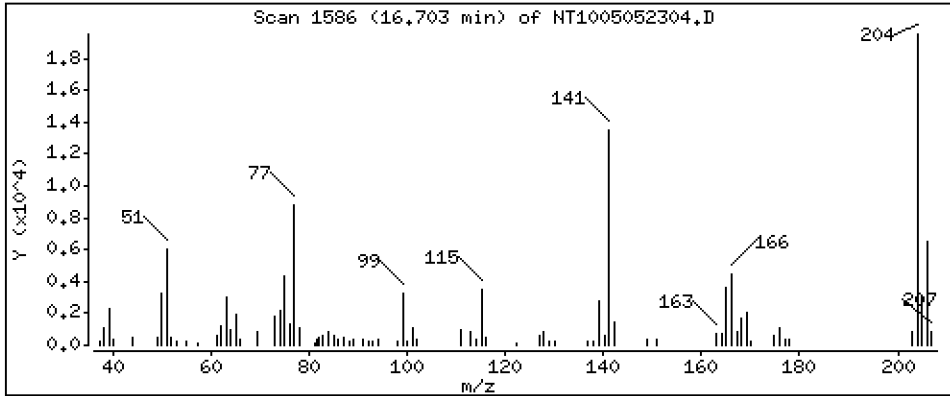
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 0.4351 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

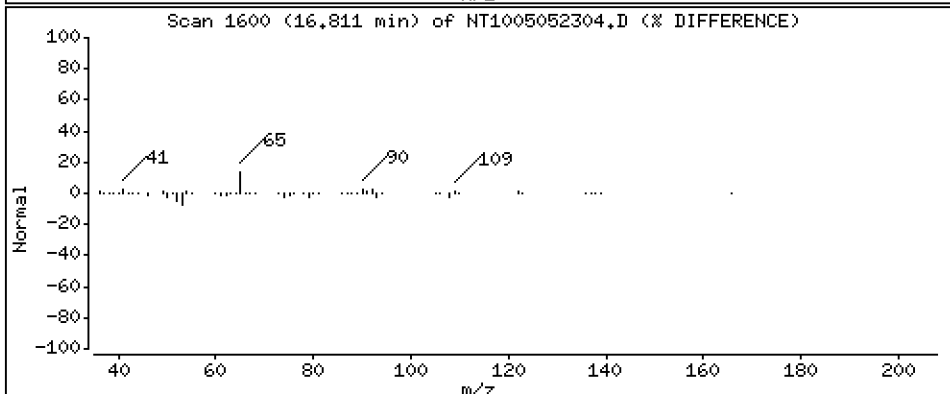
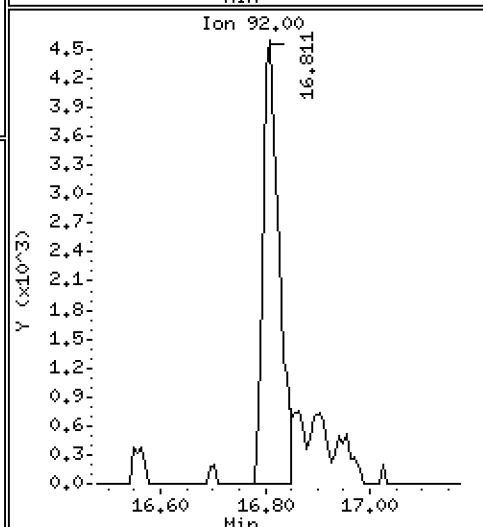
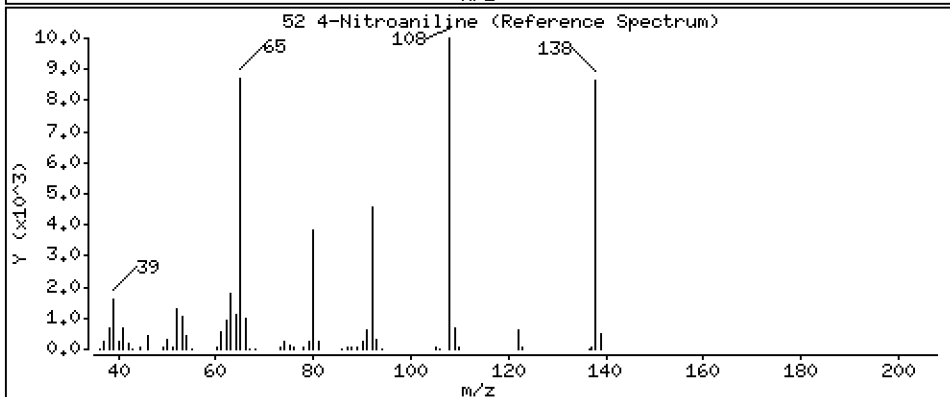
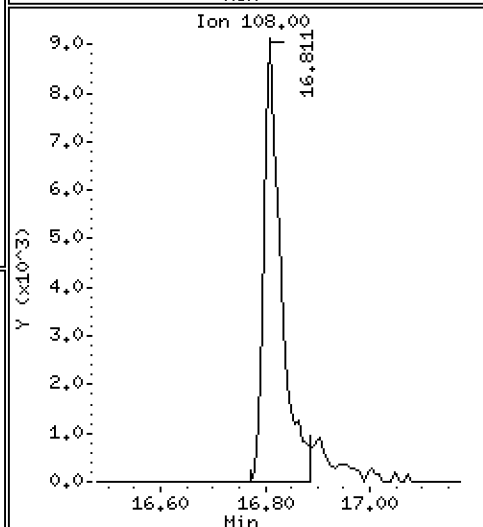
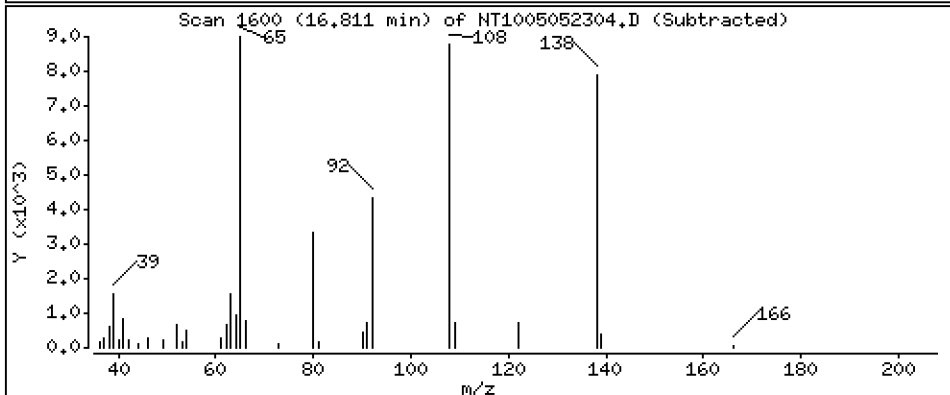
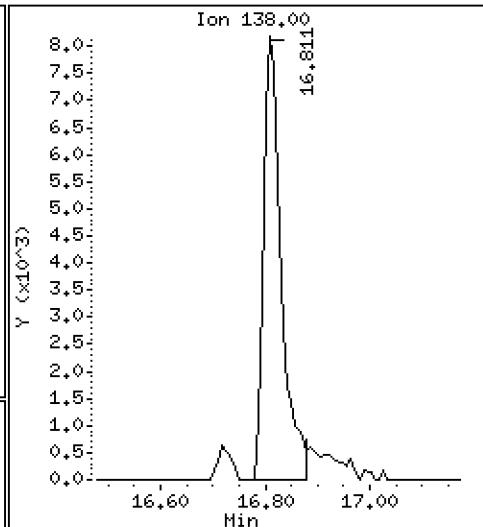
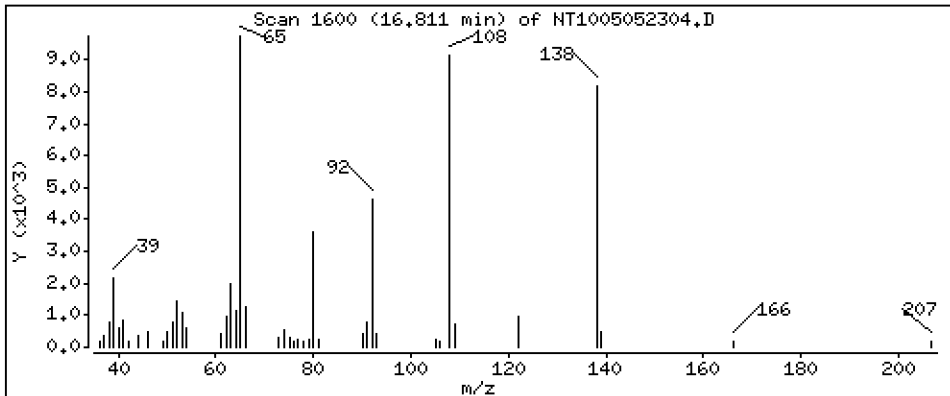
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,6285 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

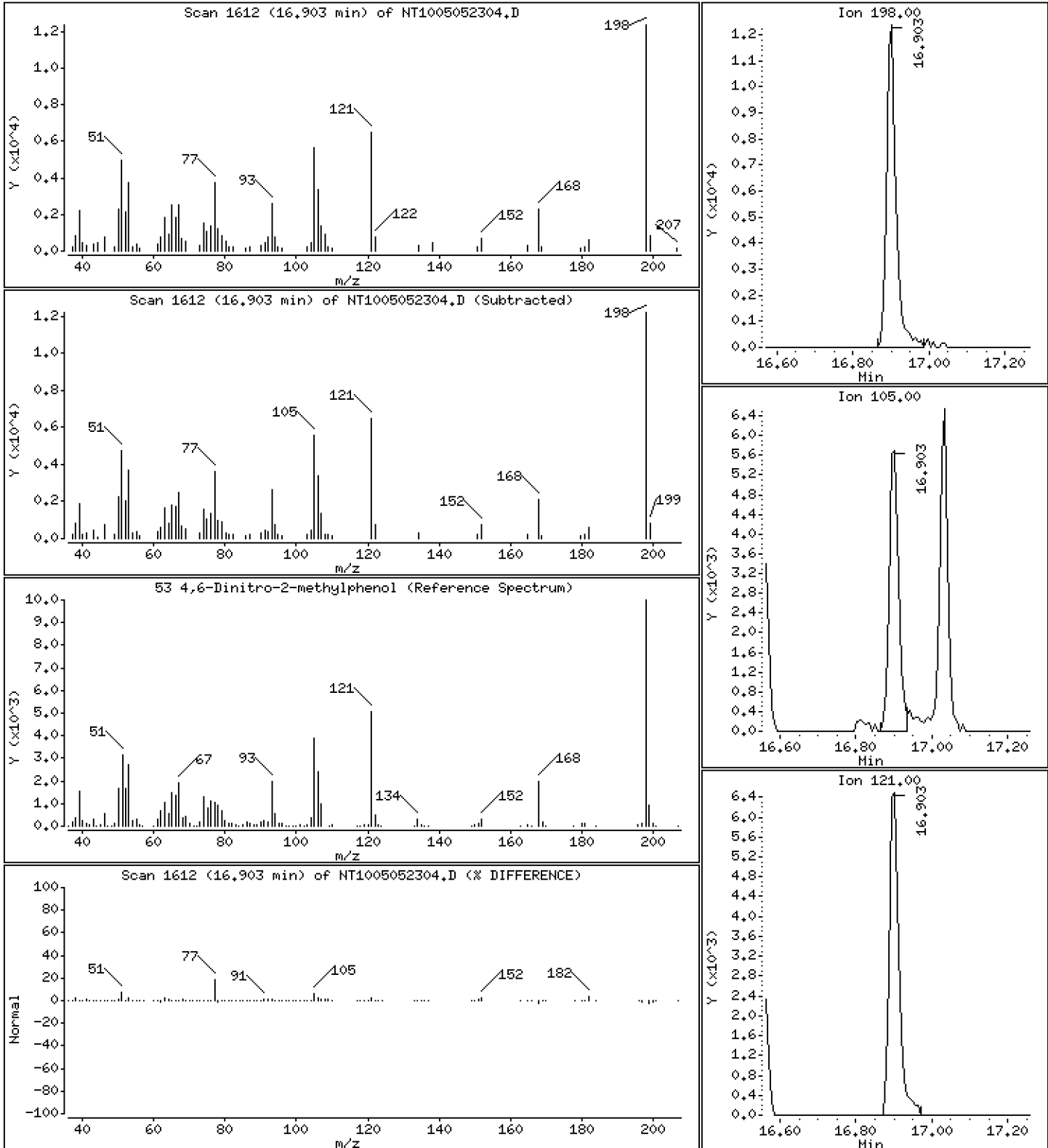
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 0,7835 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

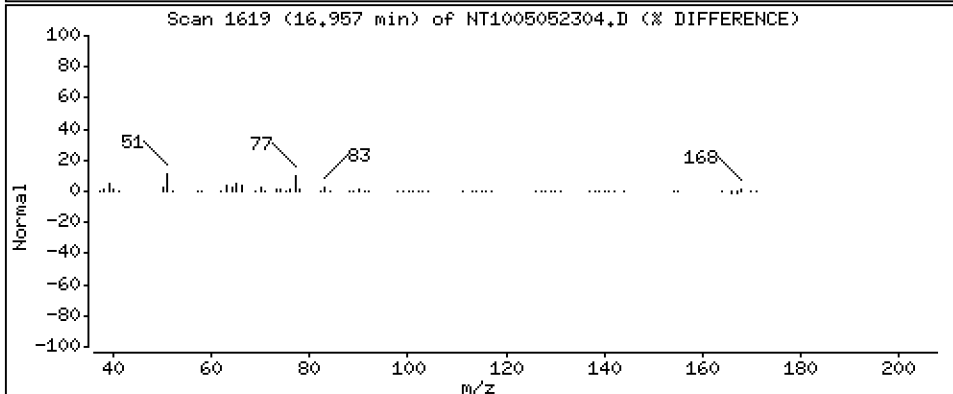
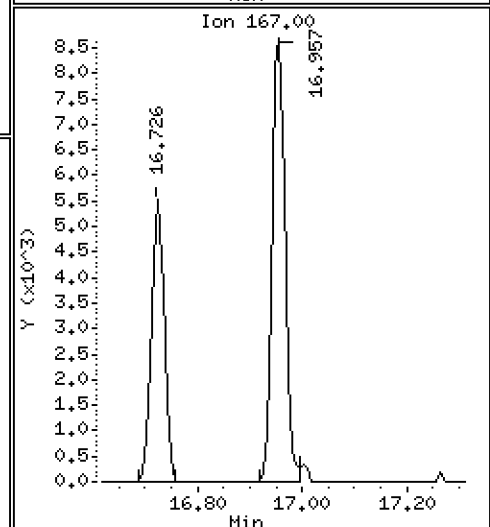
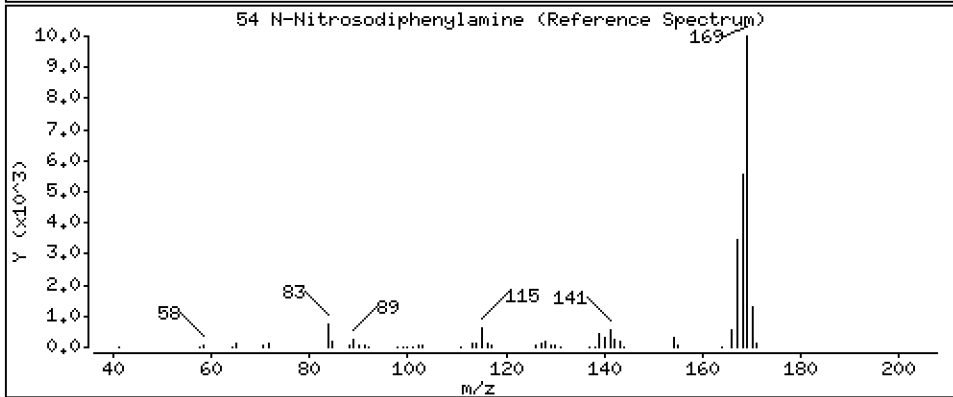
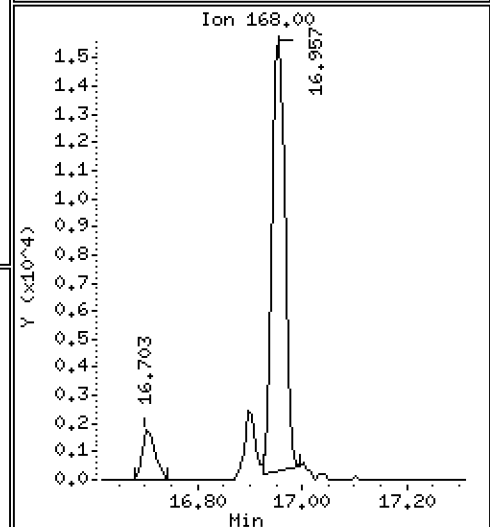
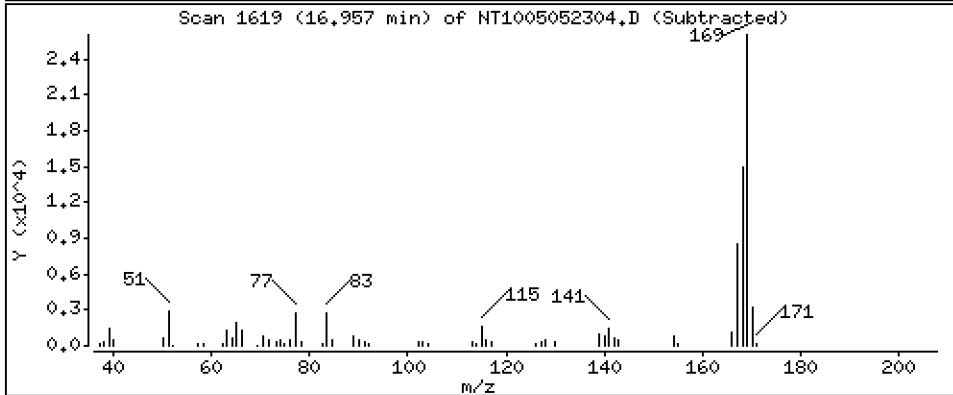
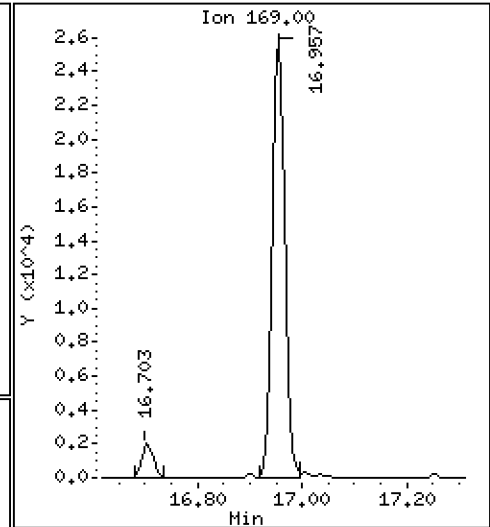
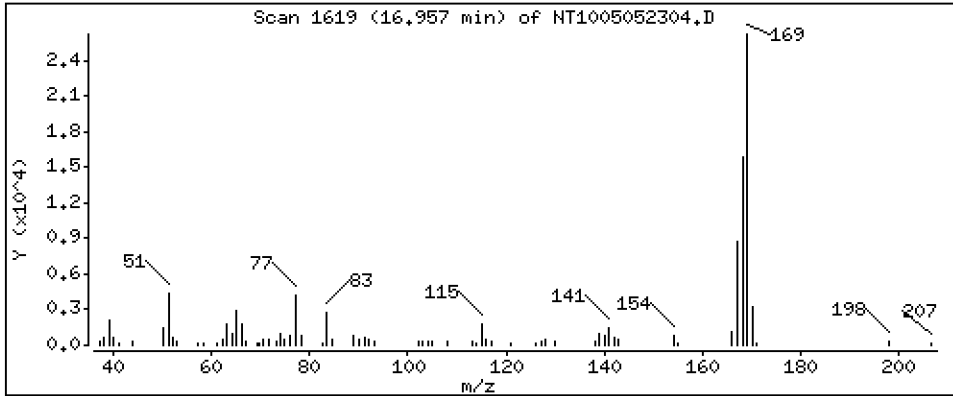
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,4466 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

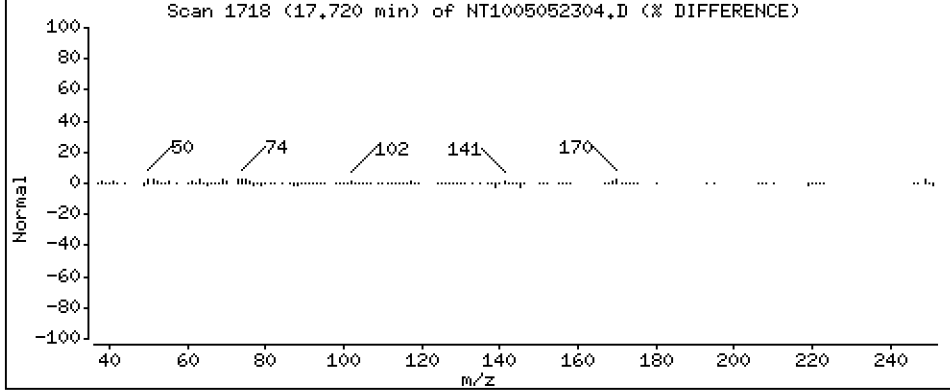
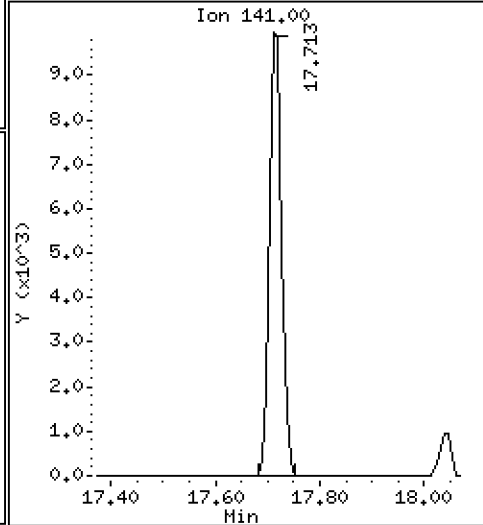
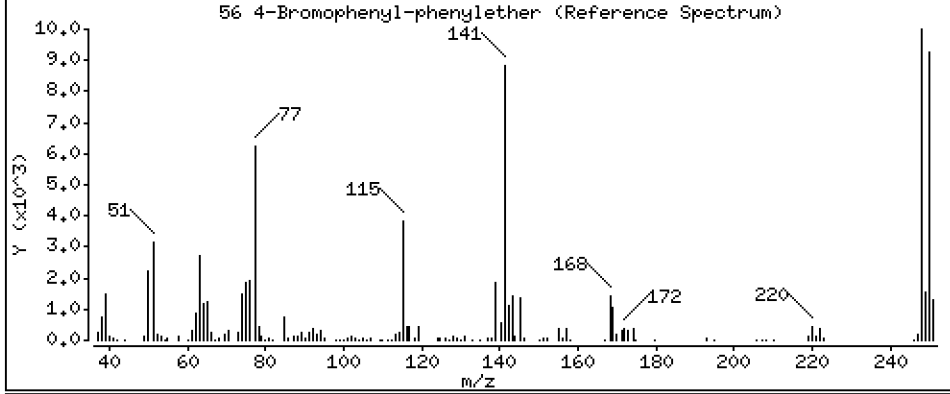
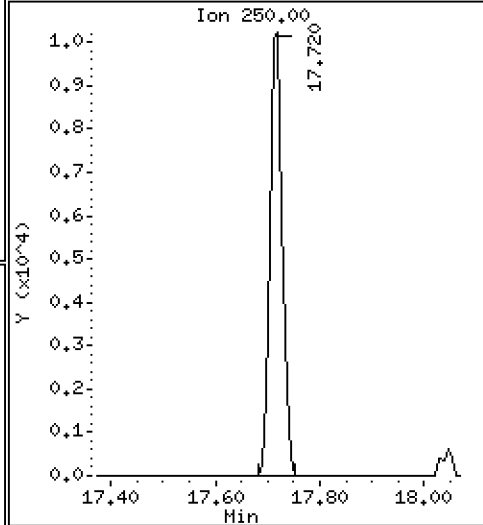
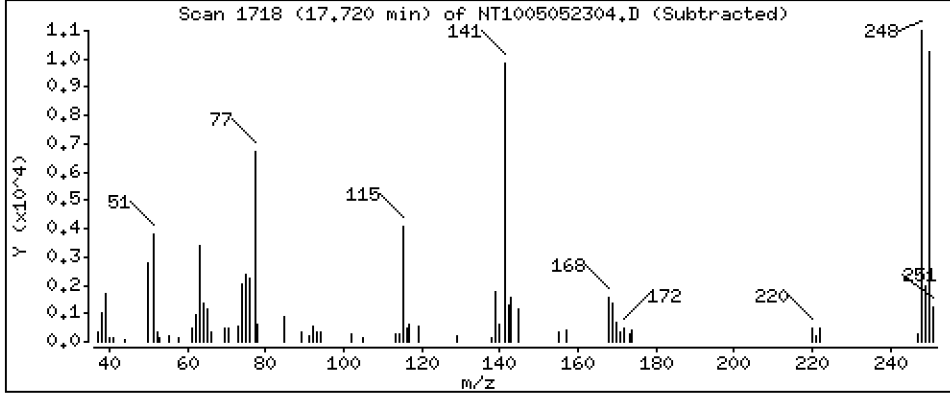
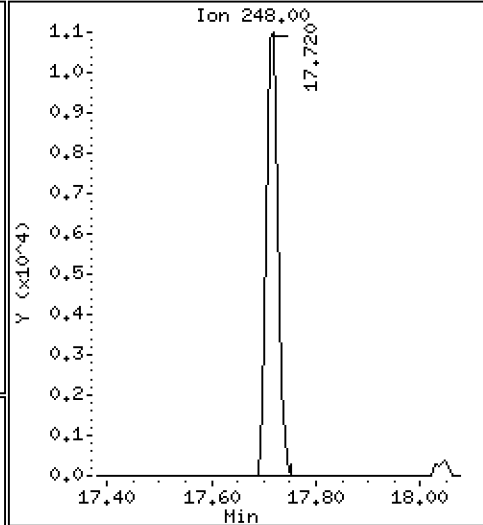
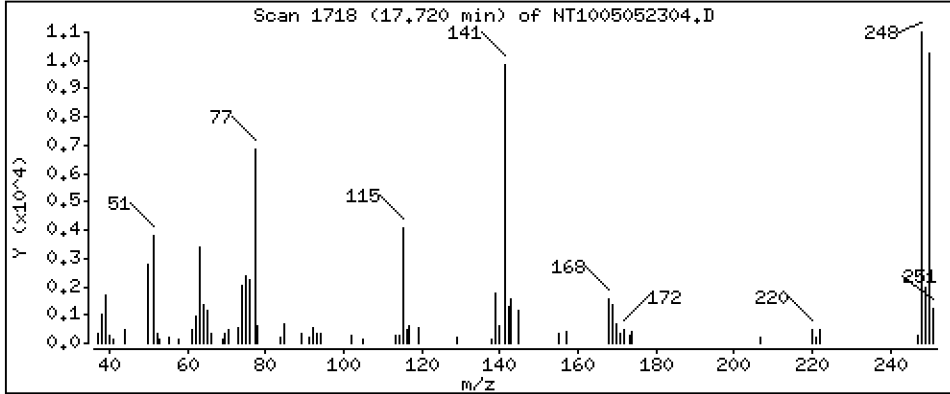
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

56 4-Bromophenyl-phenylether

Concentration: 0.4147 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

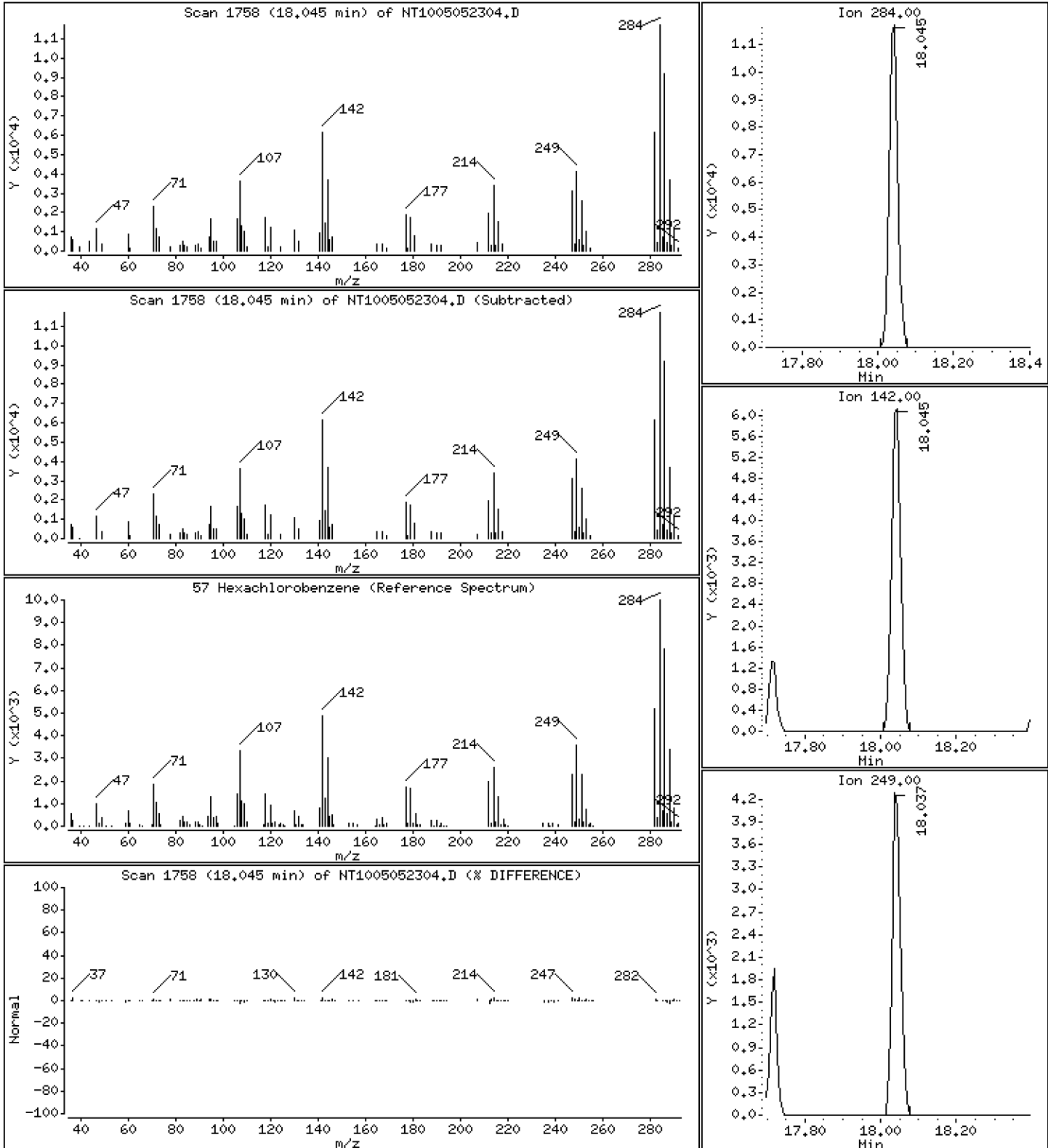
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,4382 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

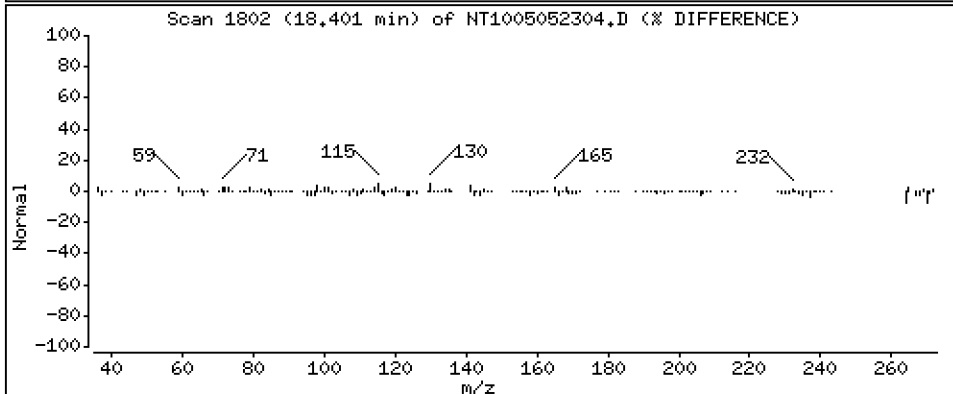
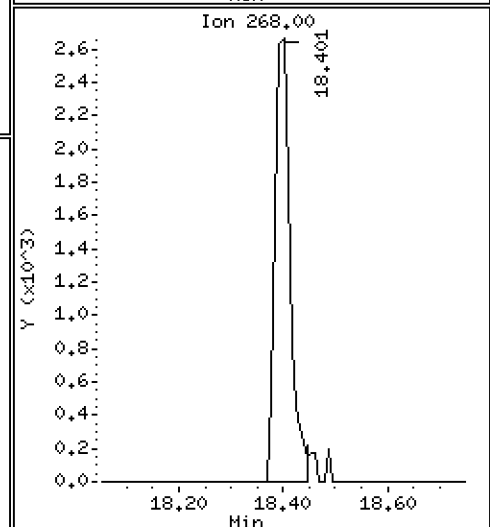
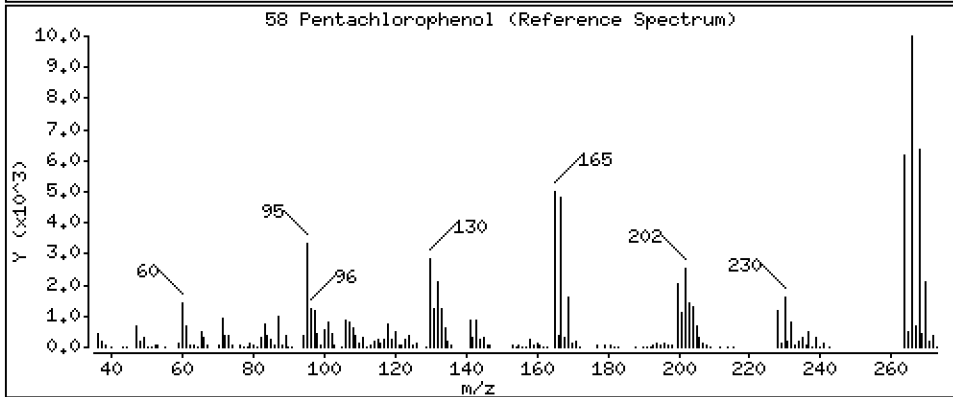
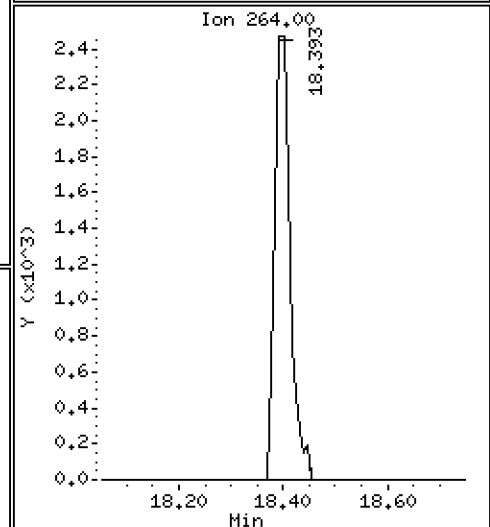
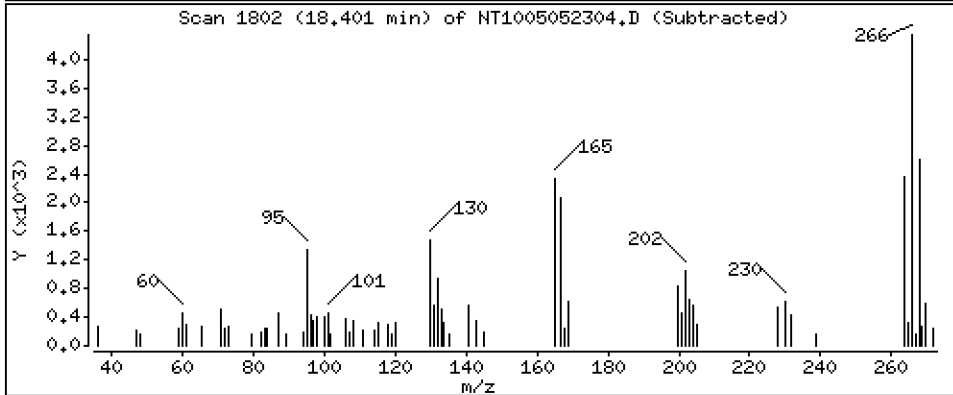
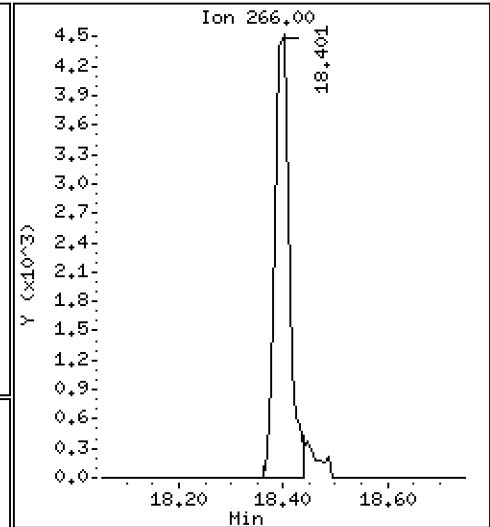
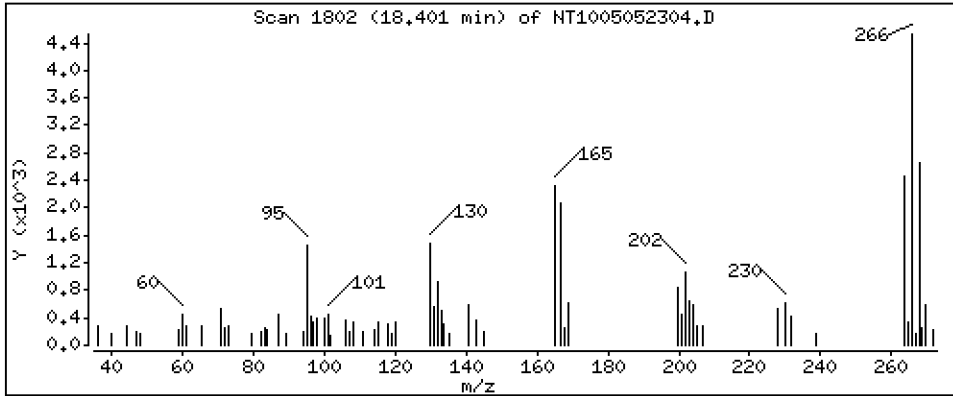
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,2840 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

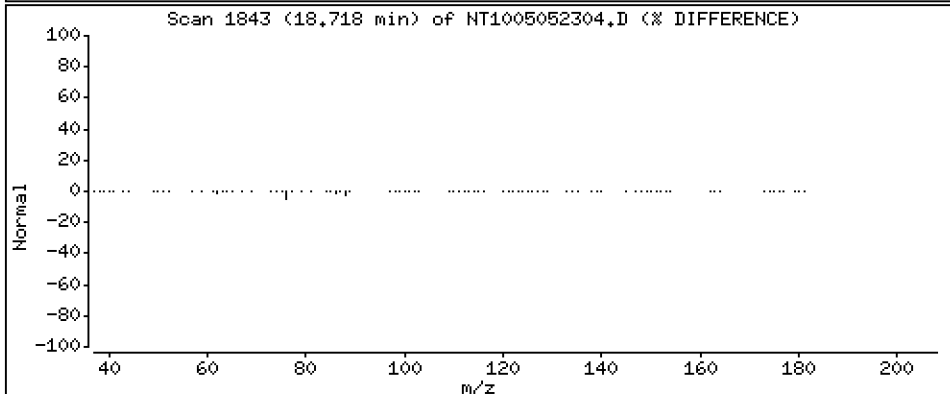
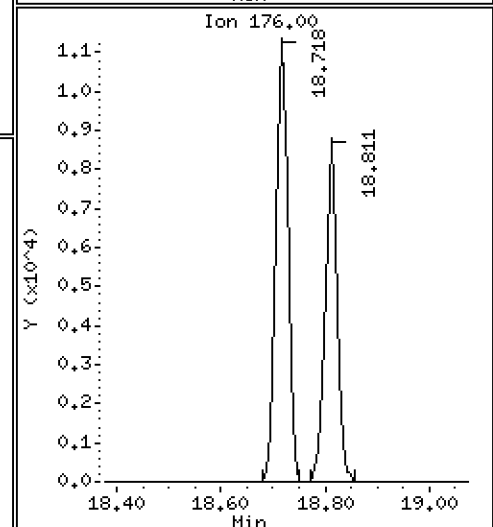
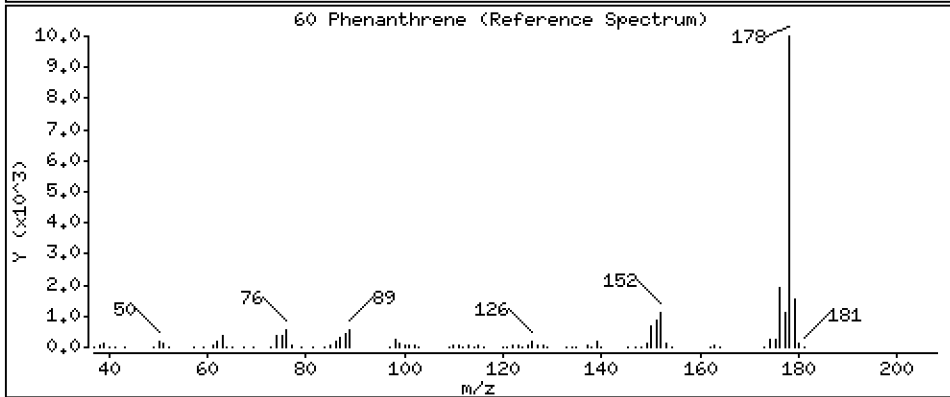
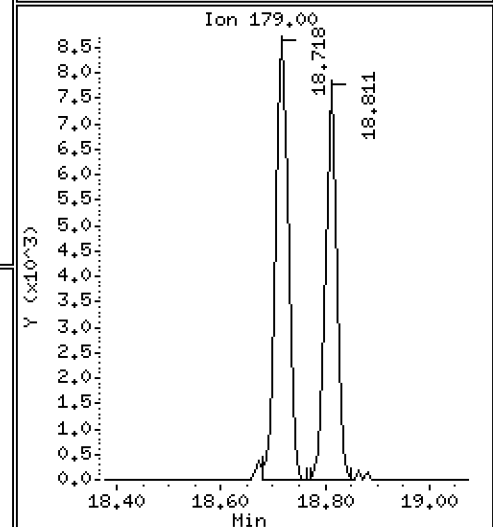
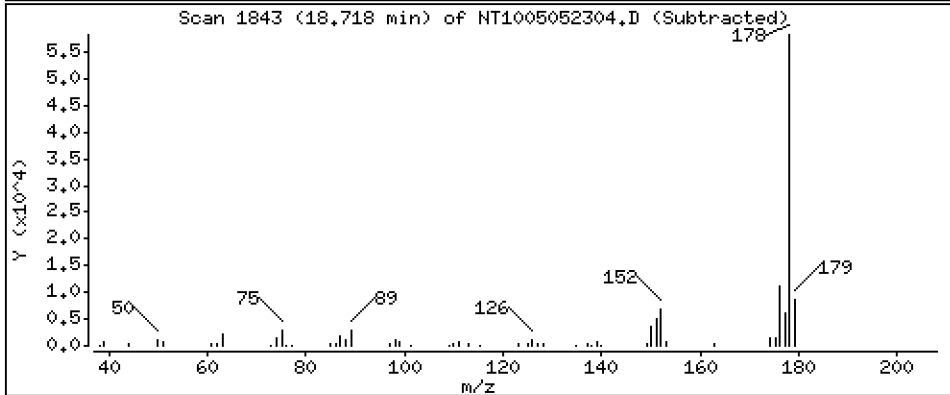
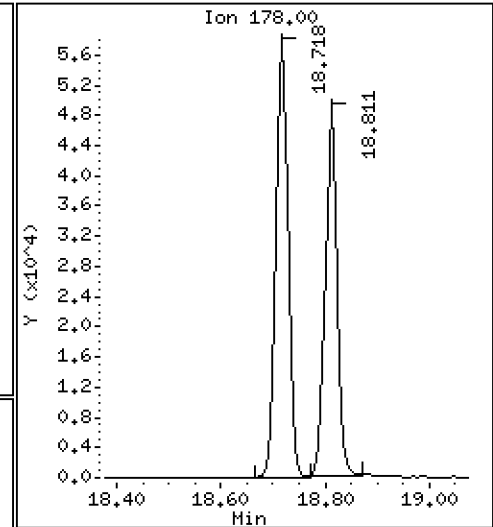
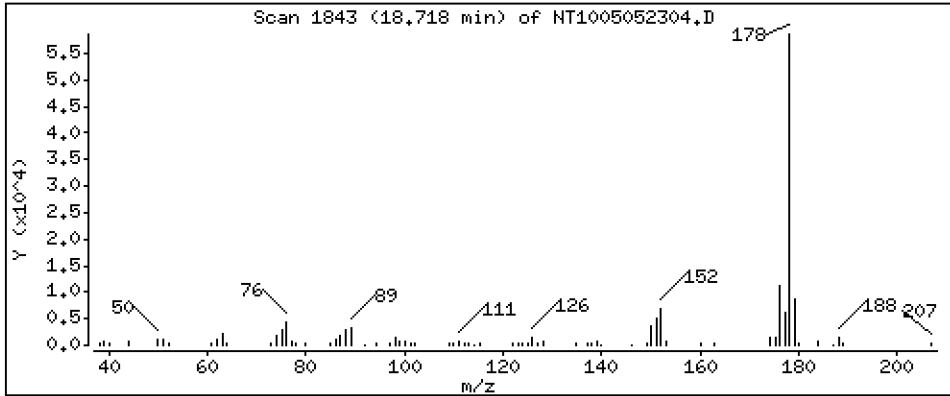
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

60 Phenanthrene

Concentration: 0.4394 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

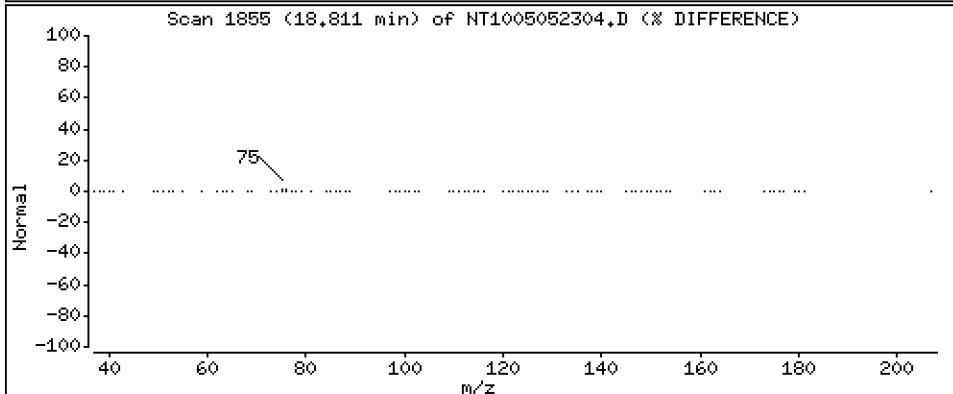
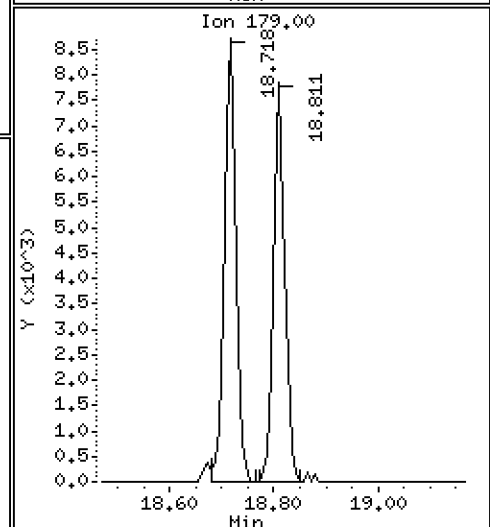
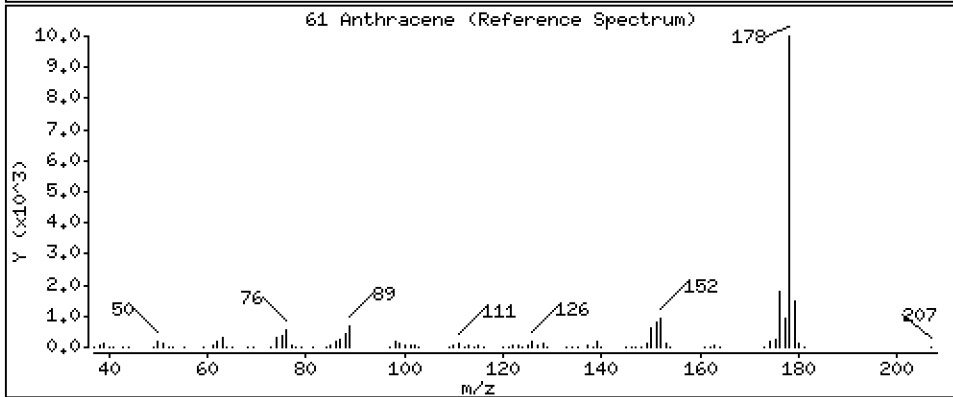
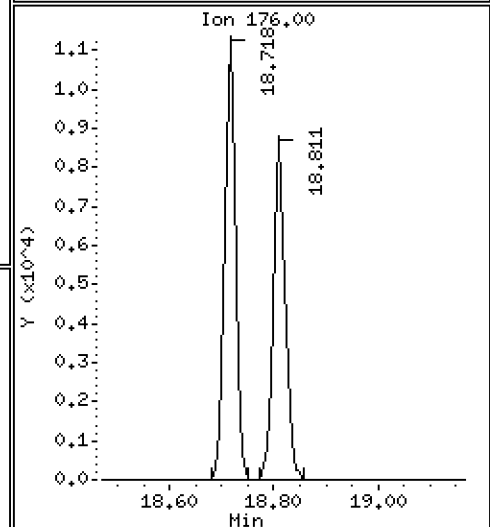
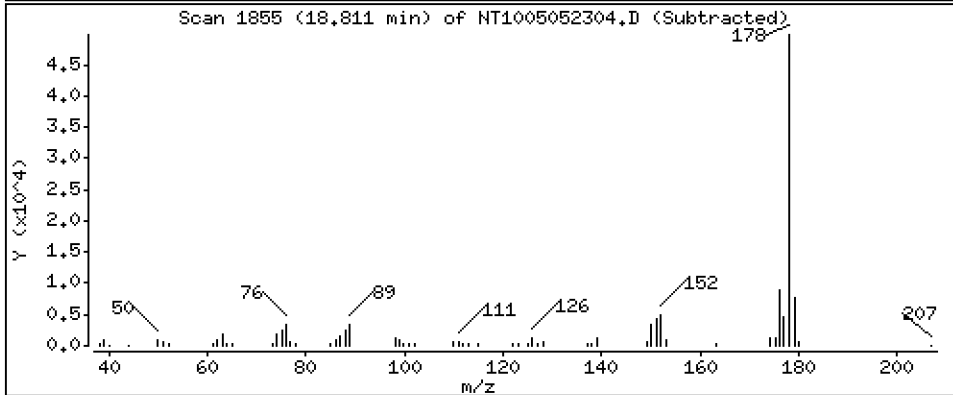
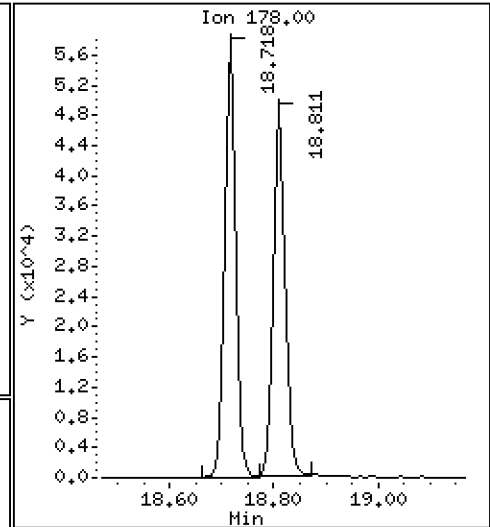
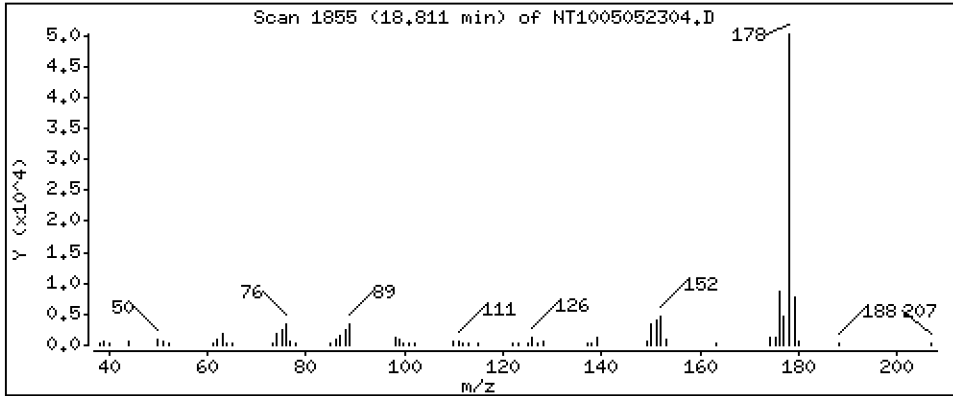
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,3967 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

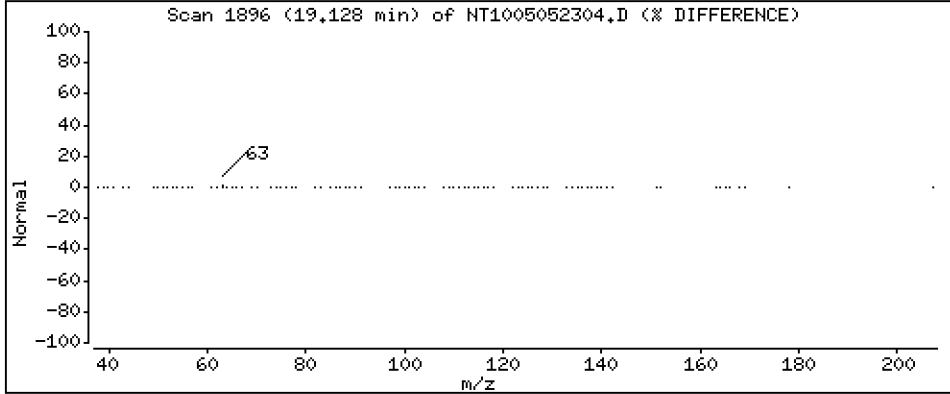
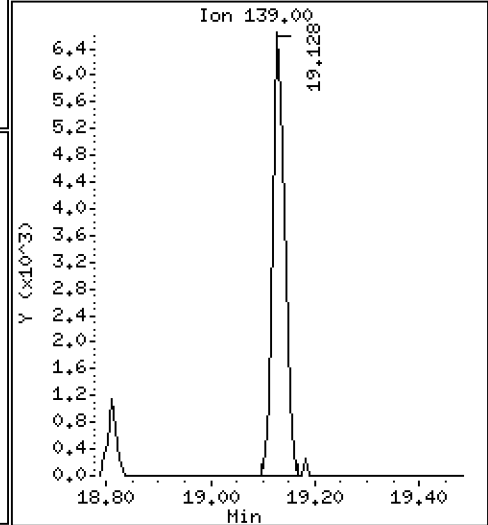
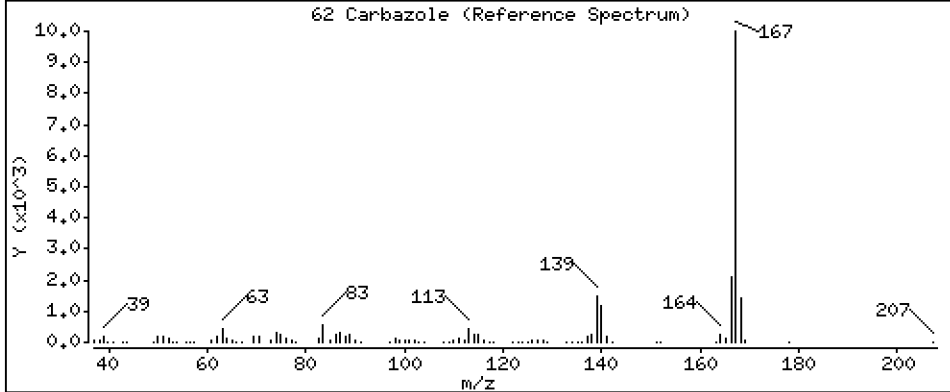
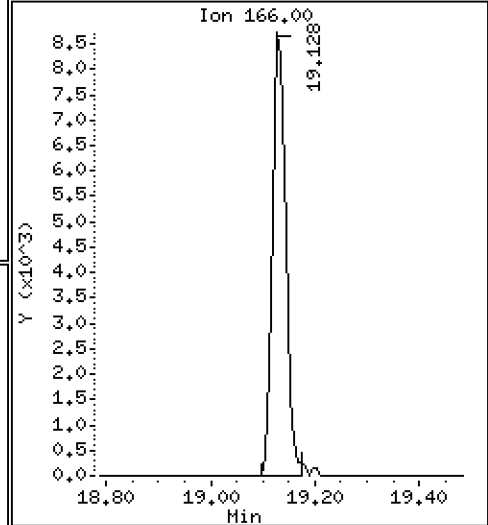
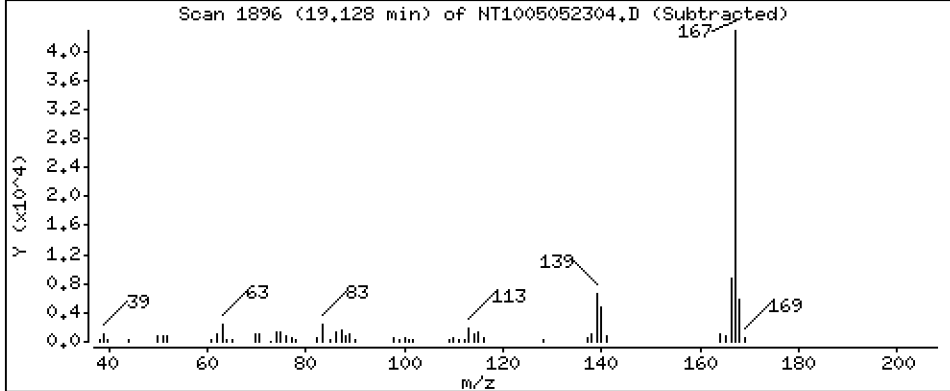
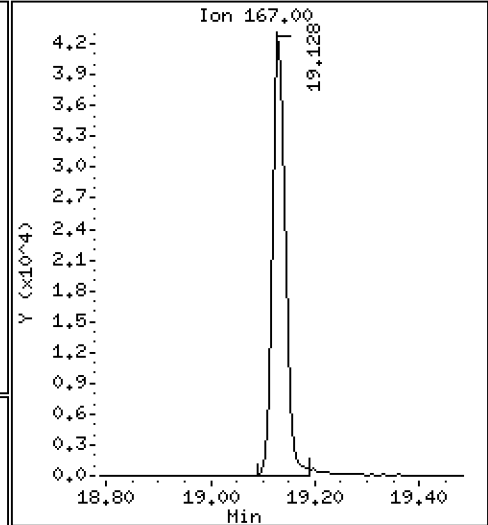
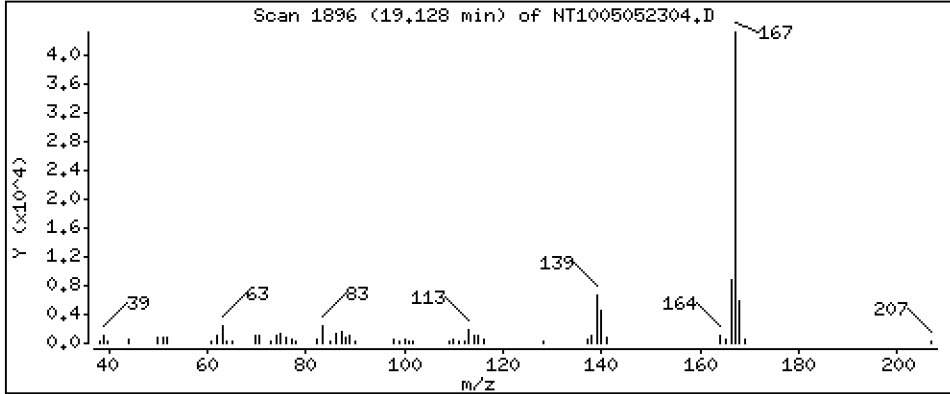
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,4257 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

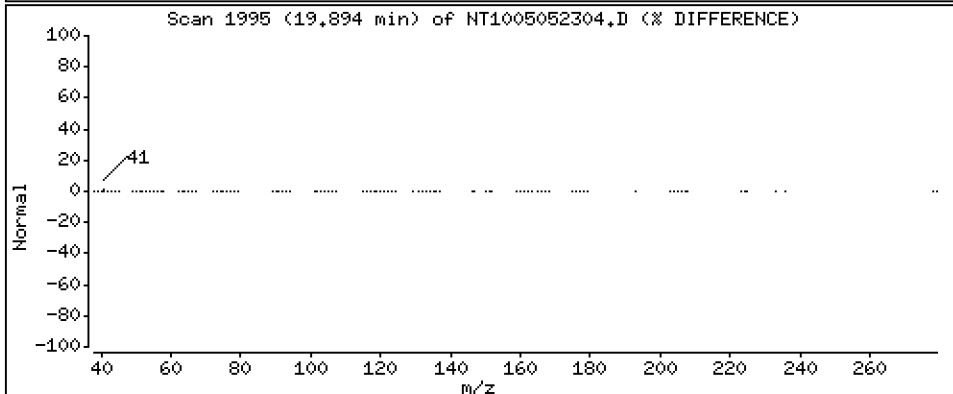
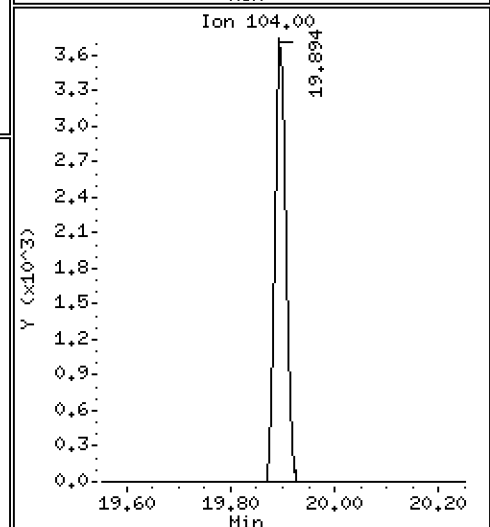
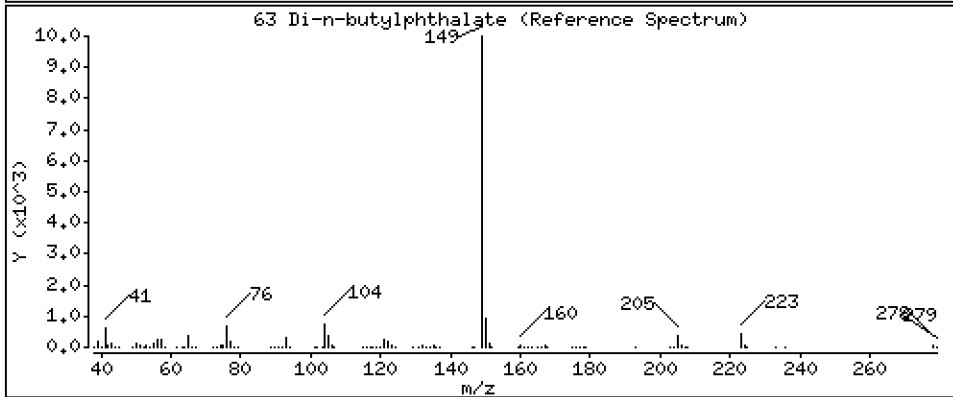
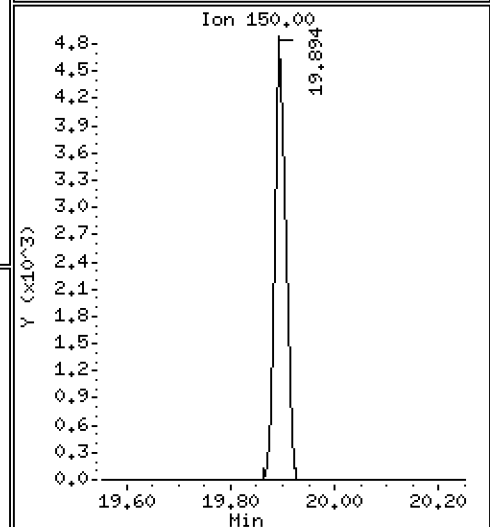
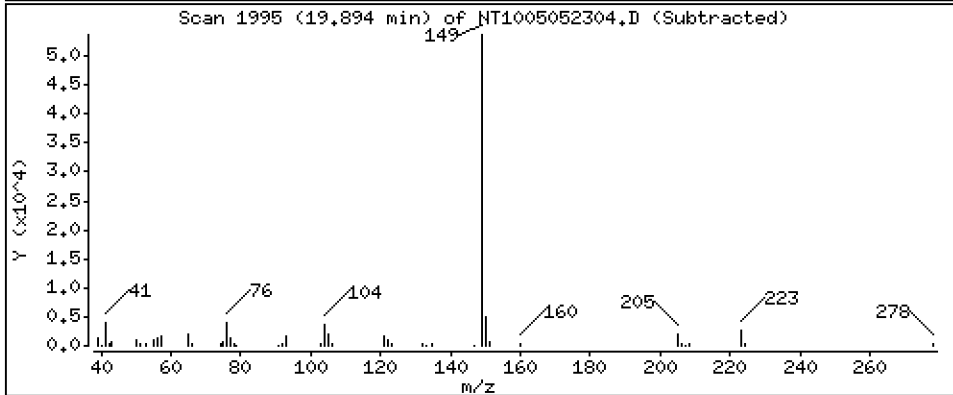
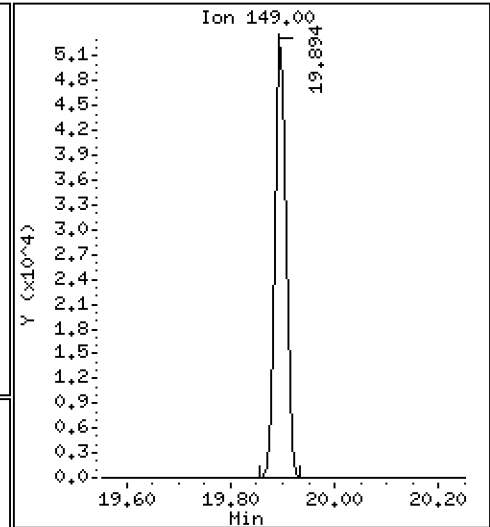
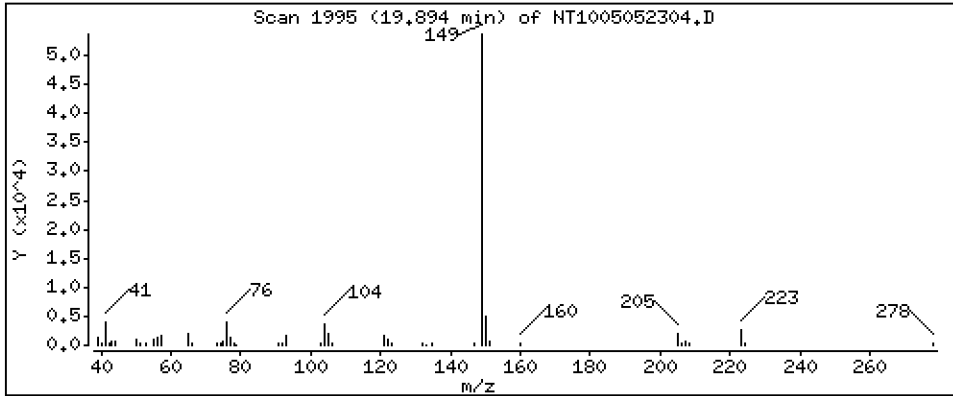
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,3040 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

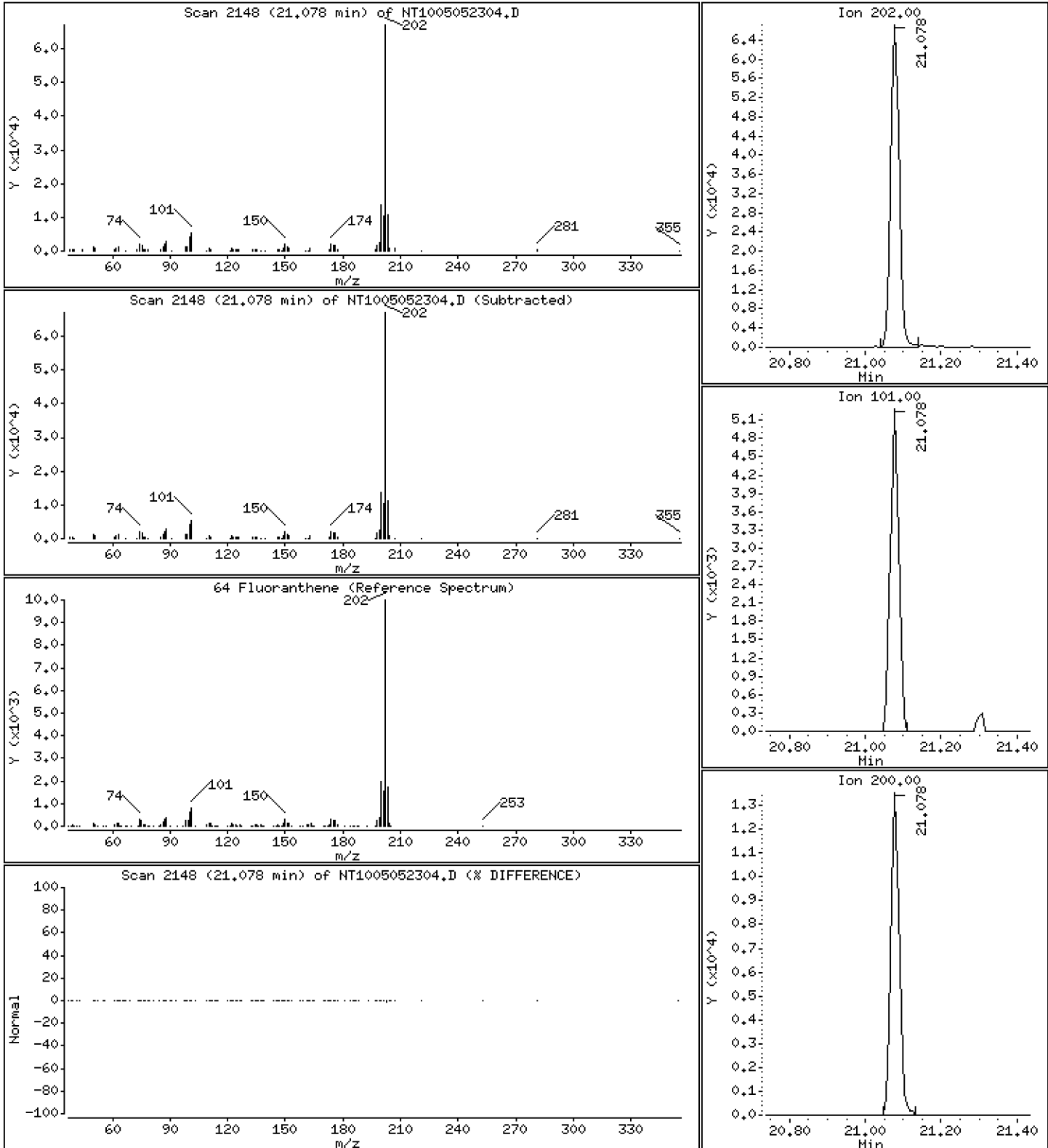
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,3827 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

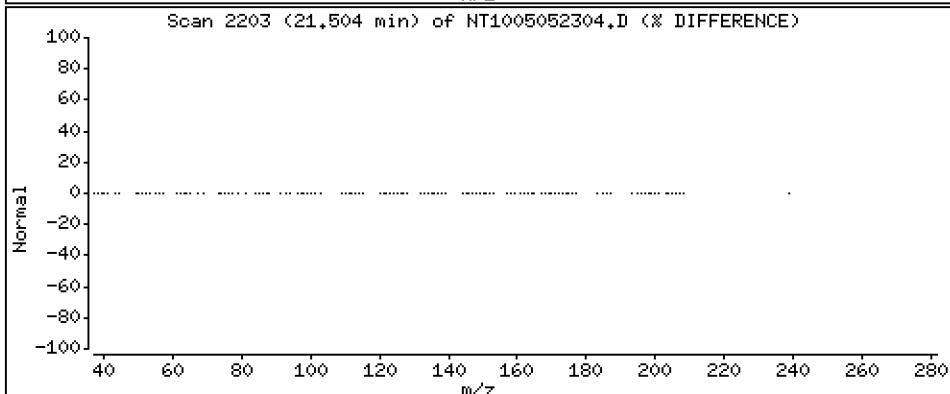
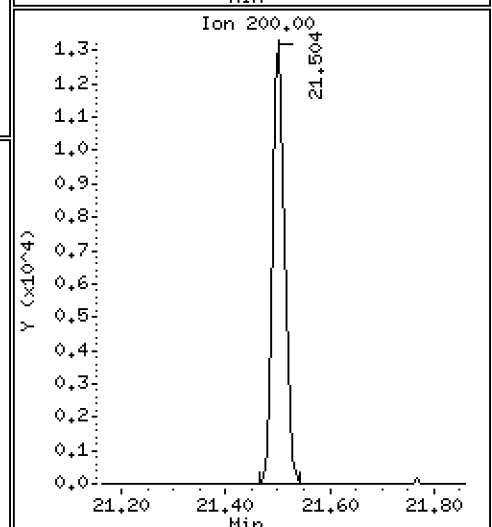
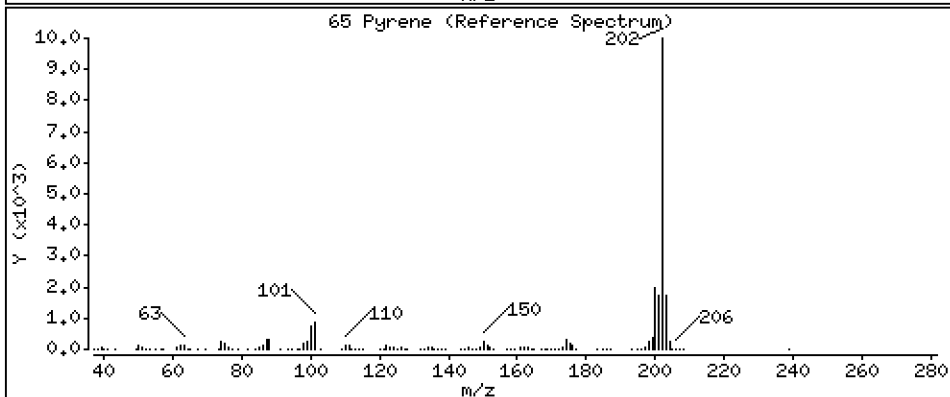
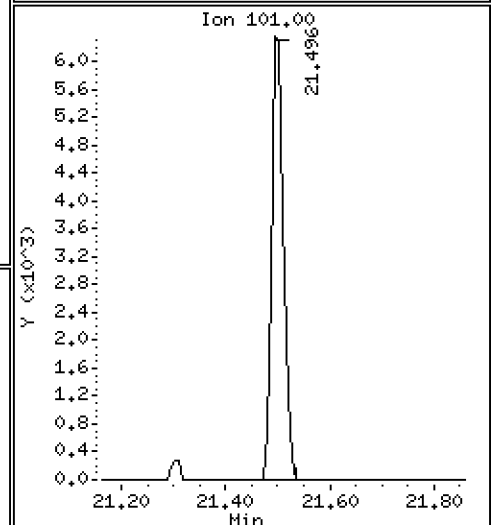
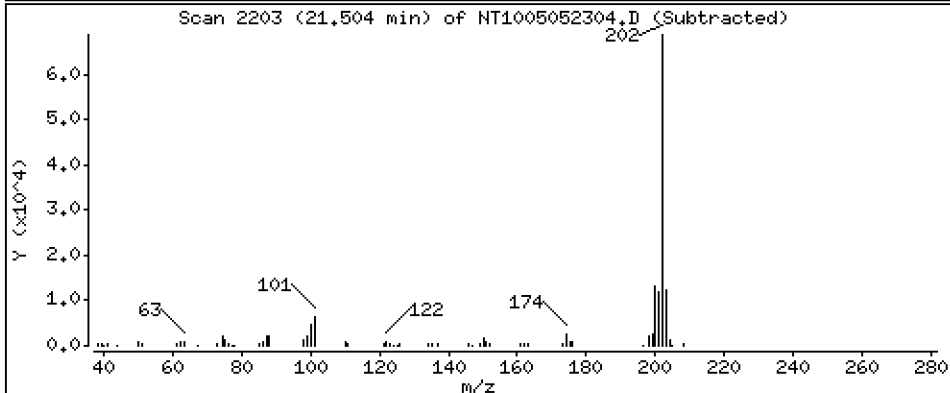
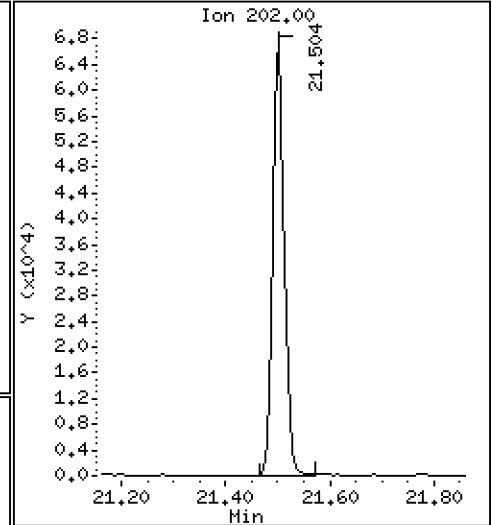
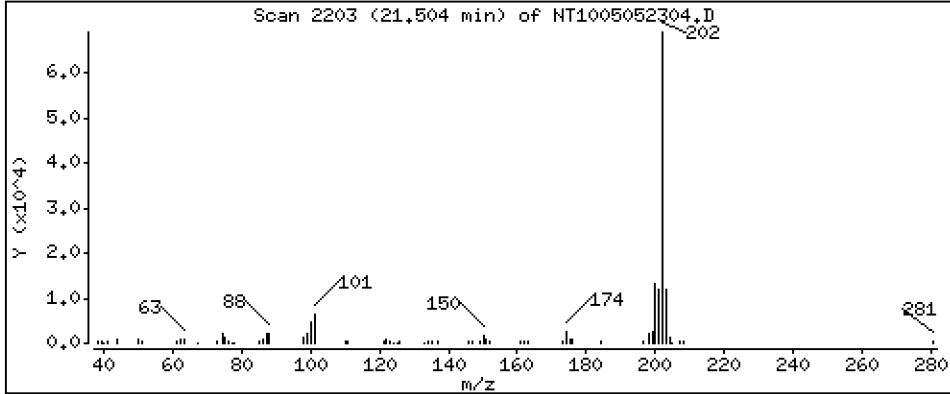
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,3974 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

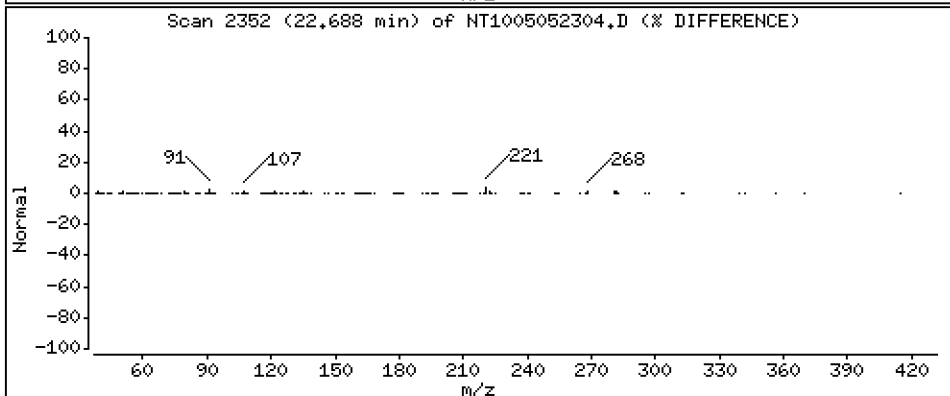
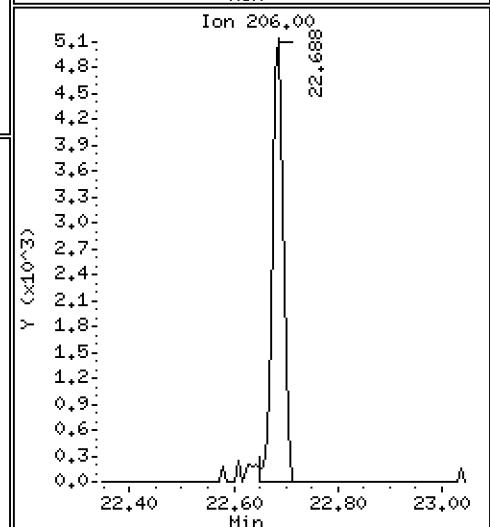
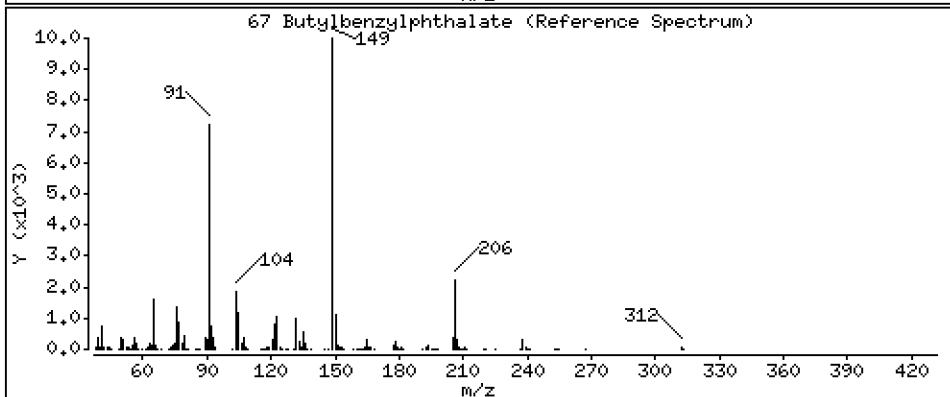
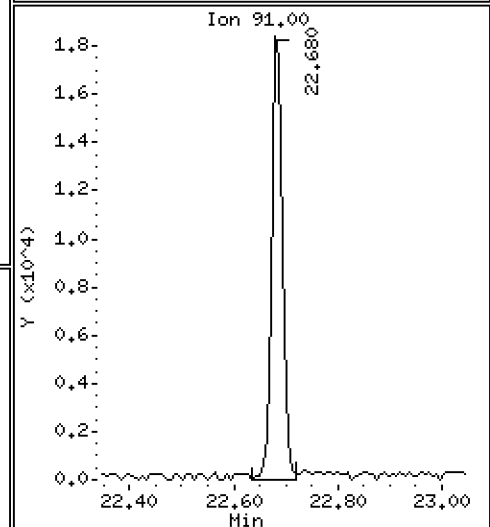
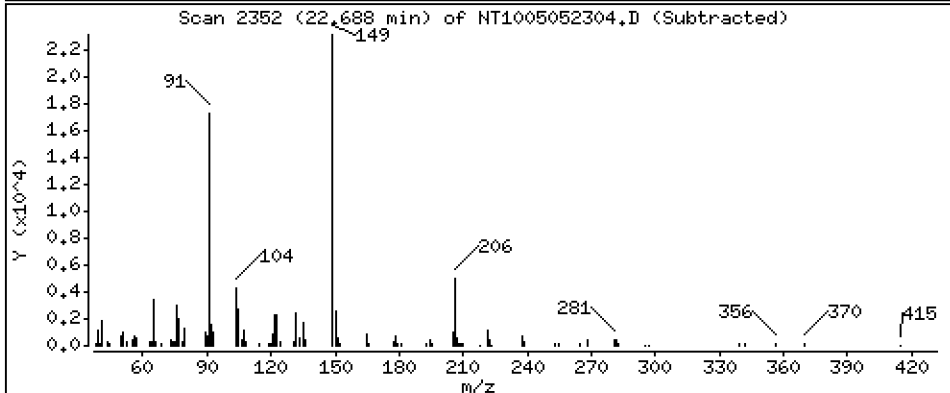
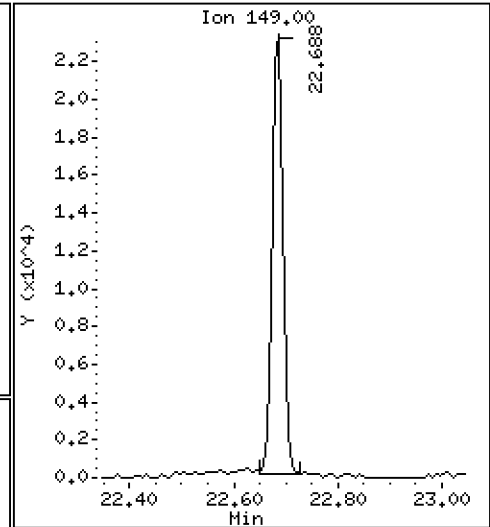
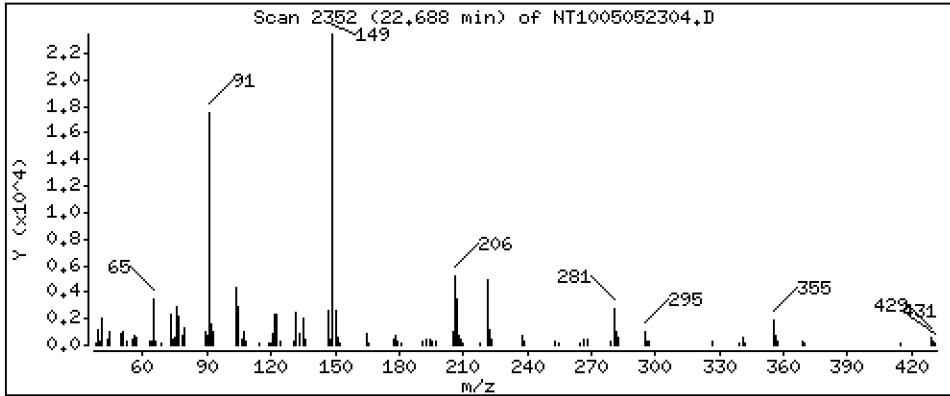
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.2605 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

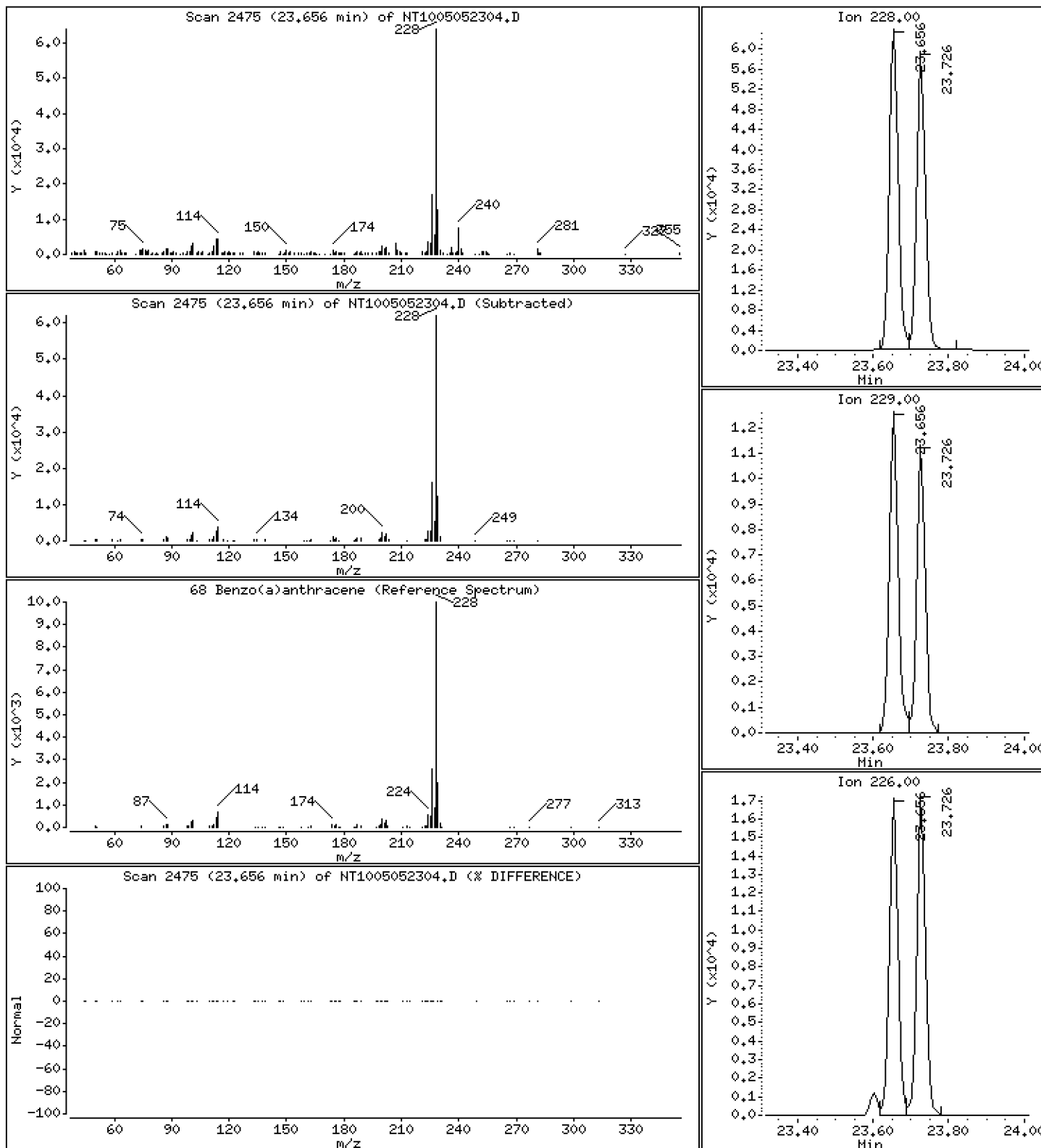
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,4338 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

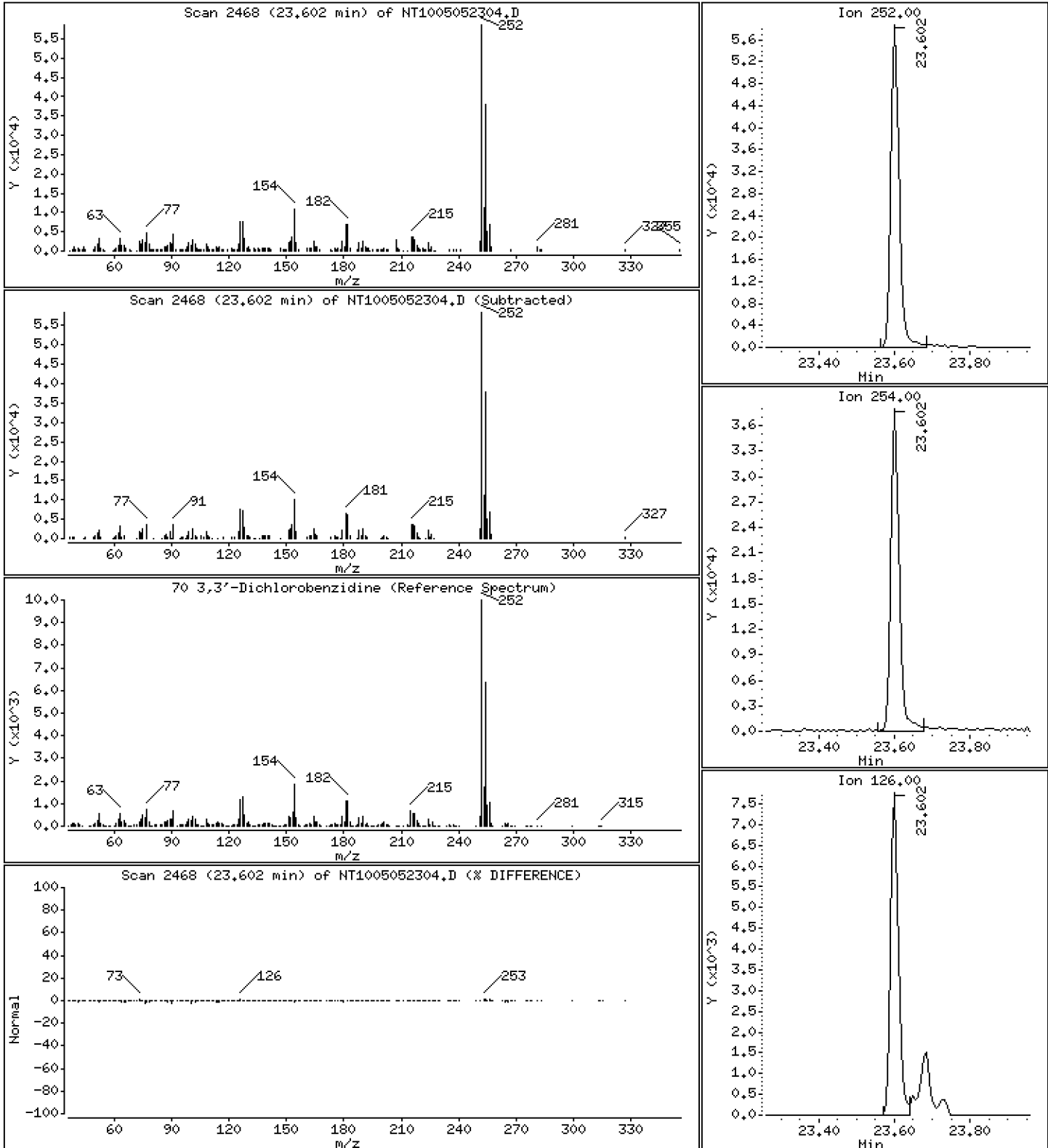
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,201 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

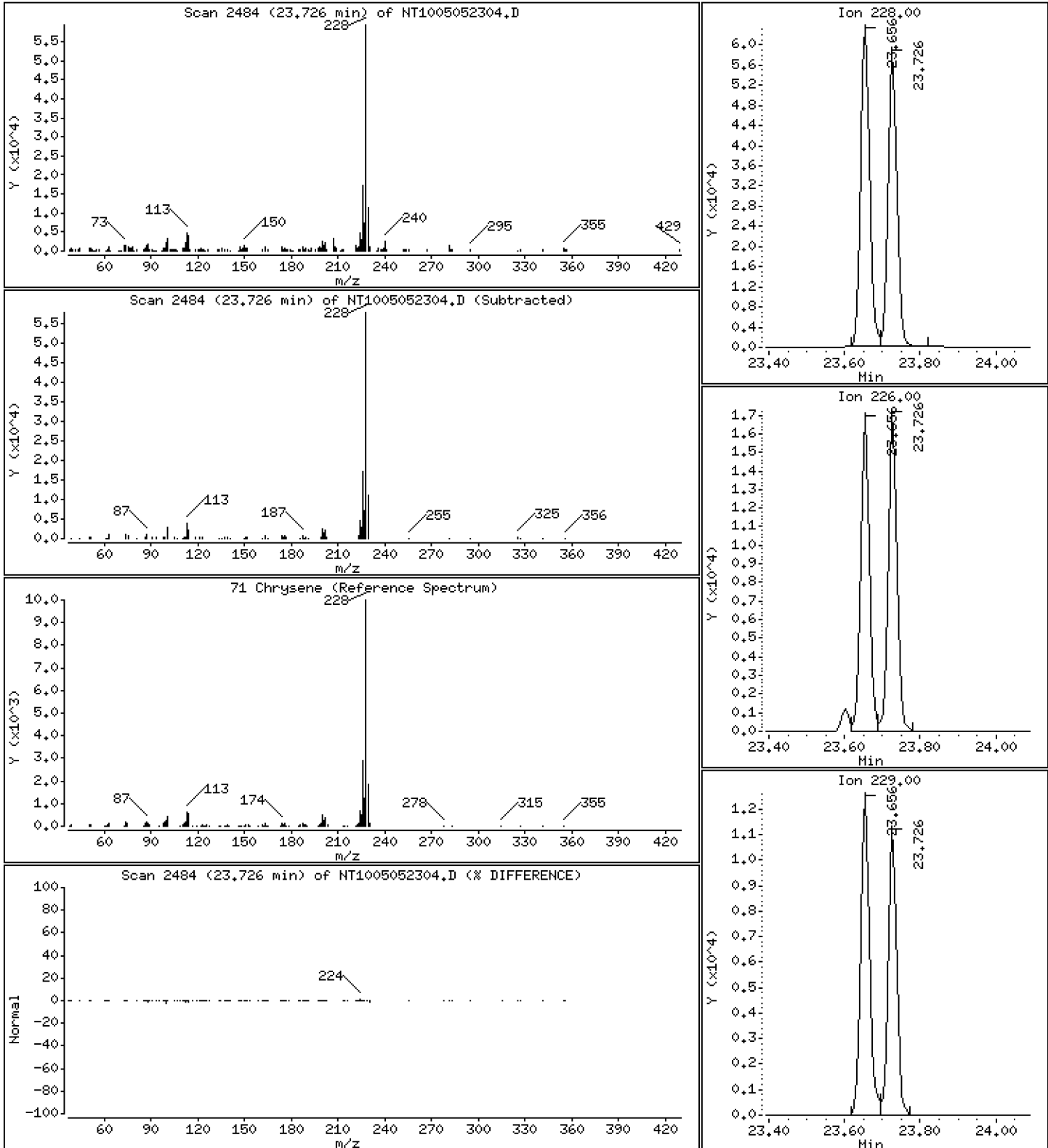
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,4506 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

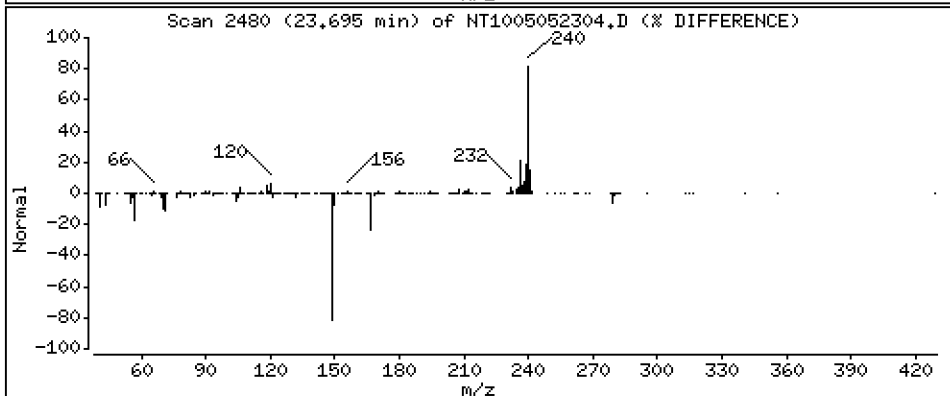
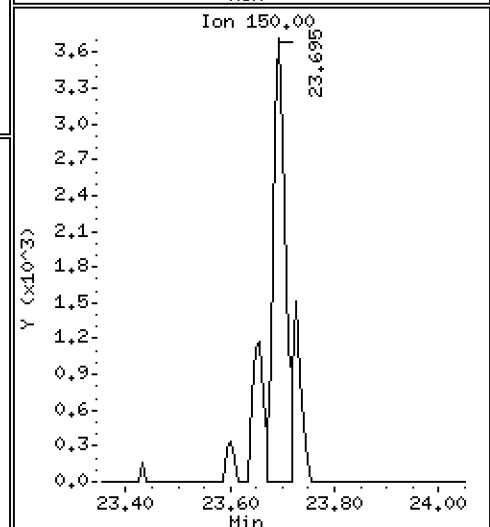
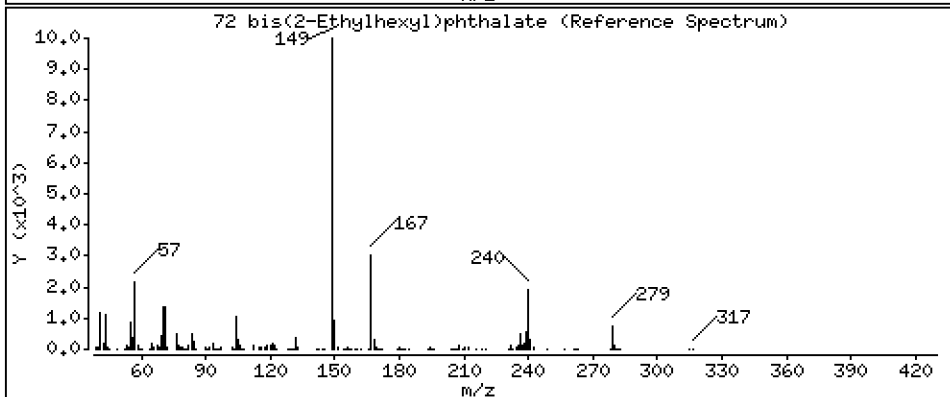
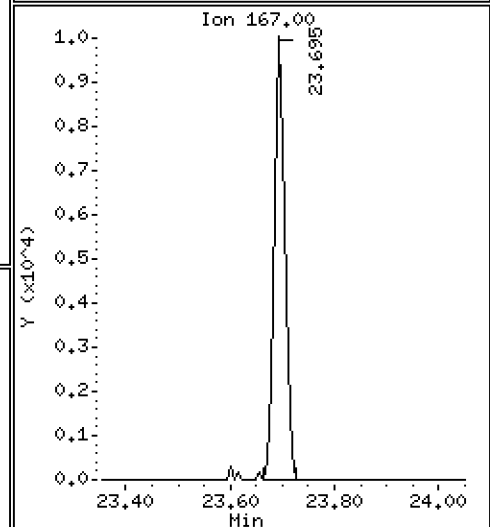
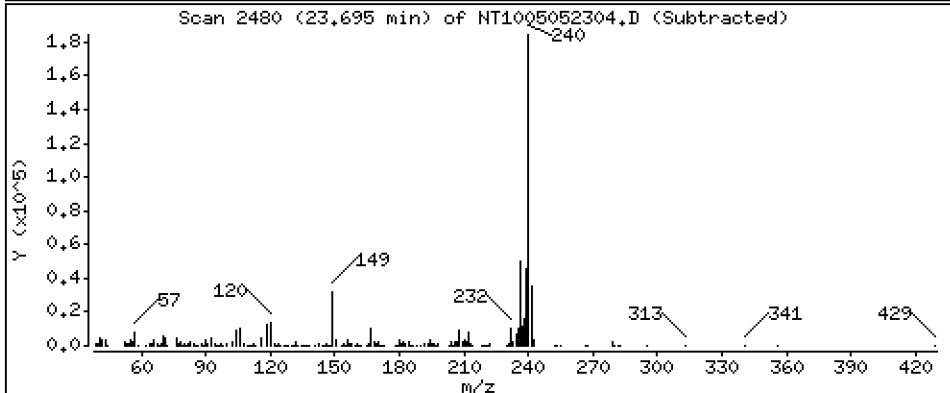
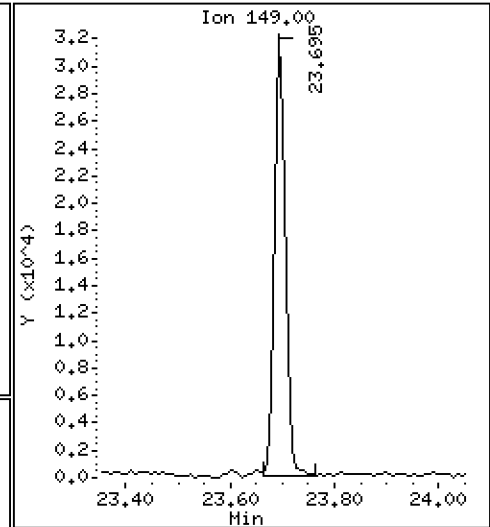
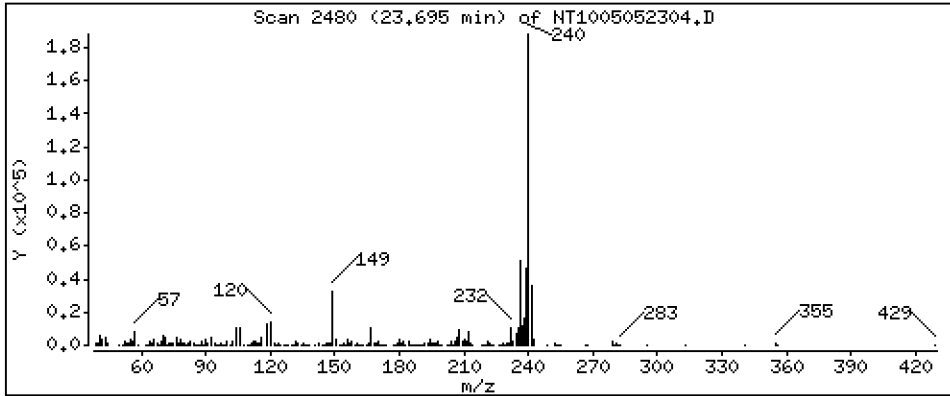
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,3823 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

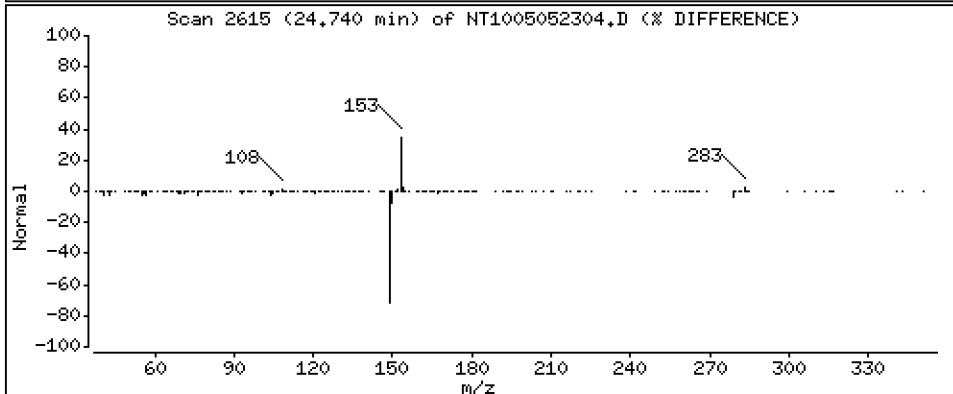
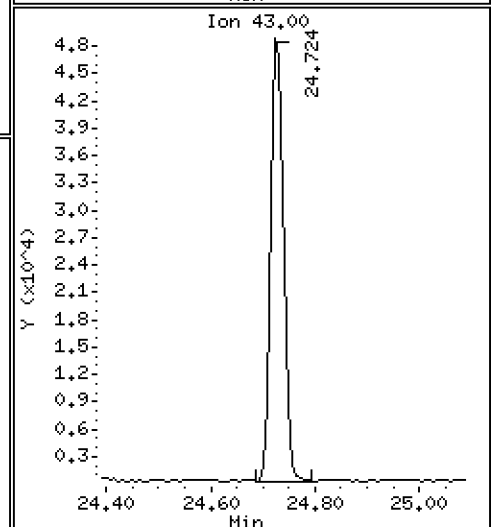
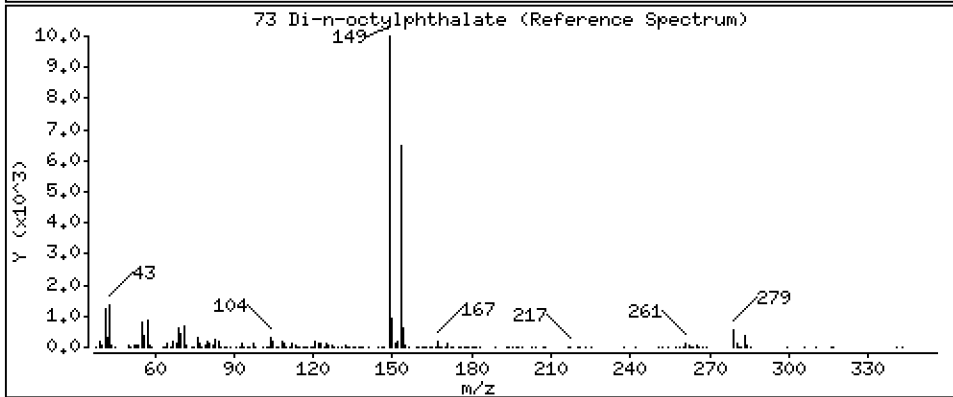
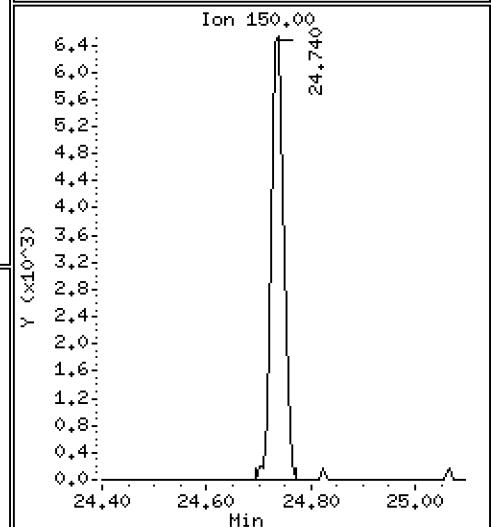
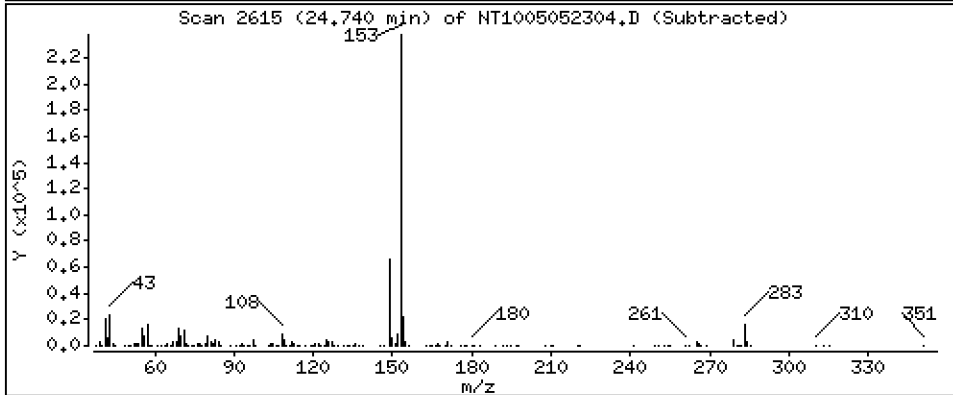
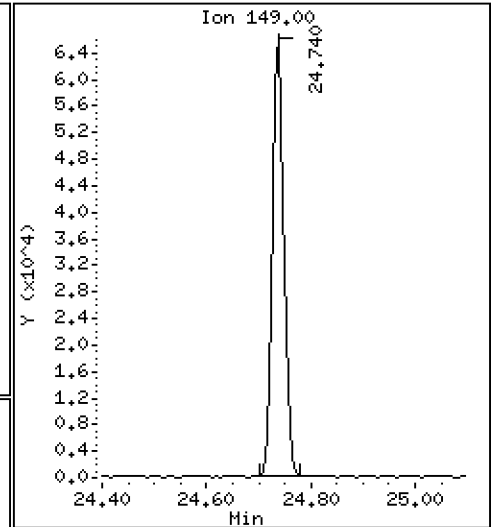
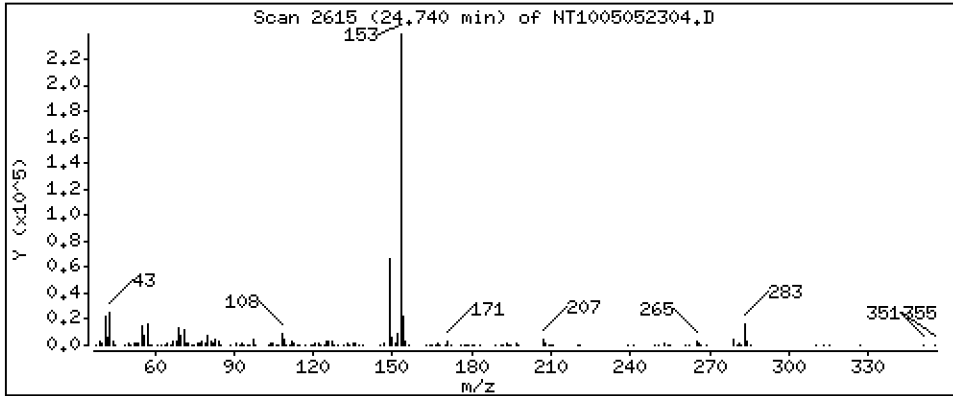
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,4660 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

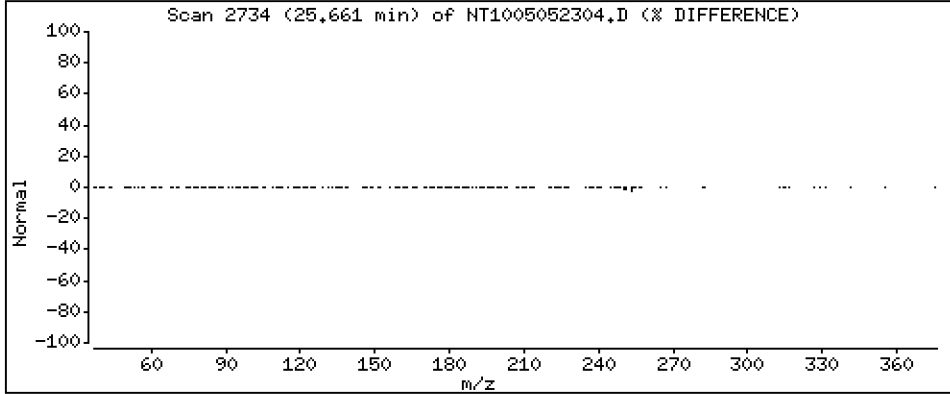
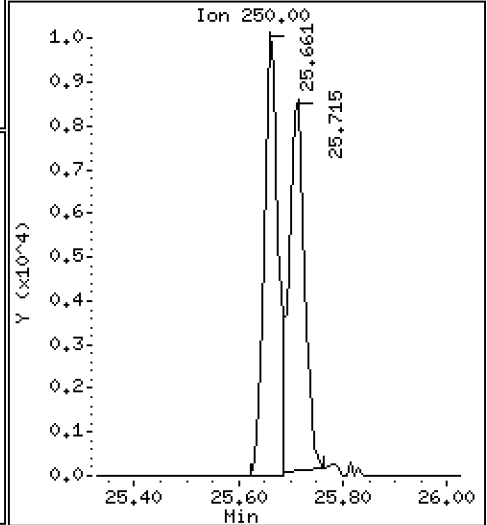
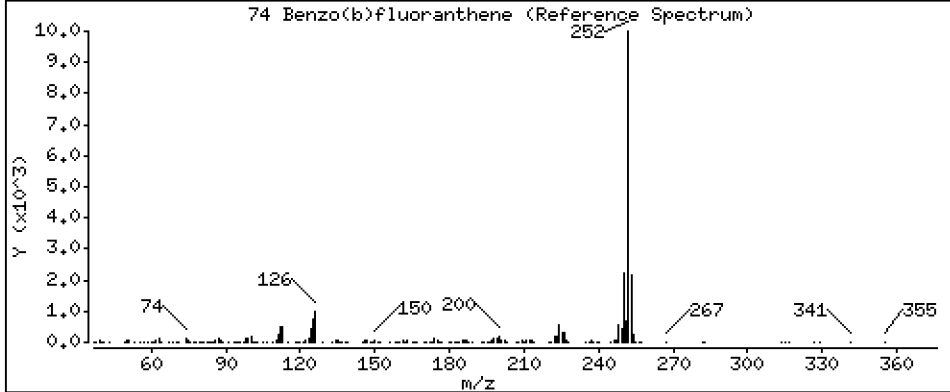
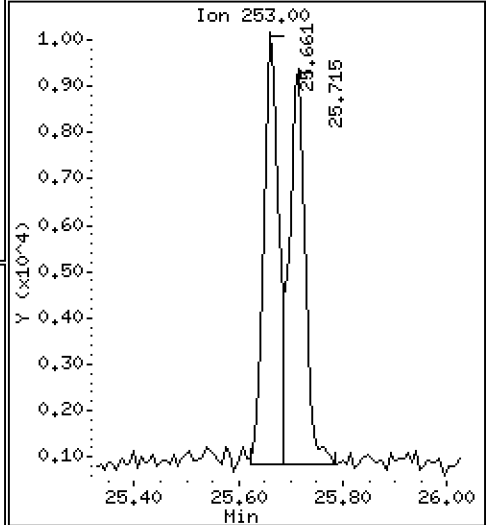
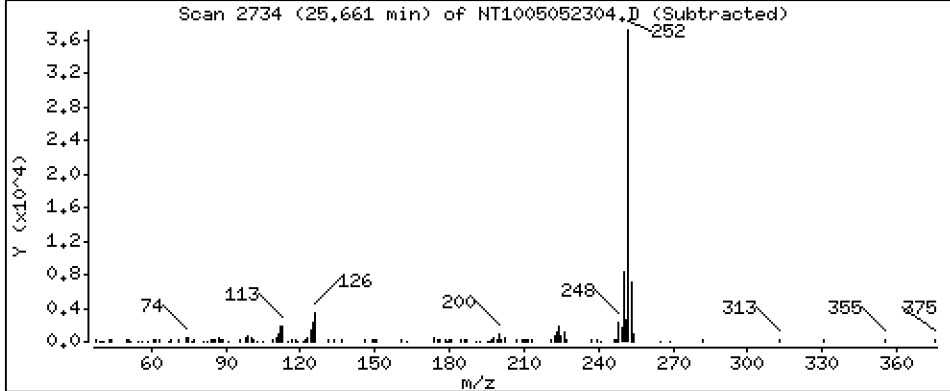
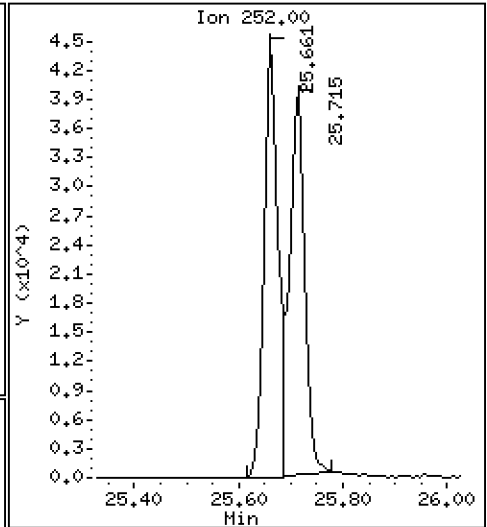
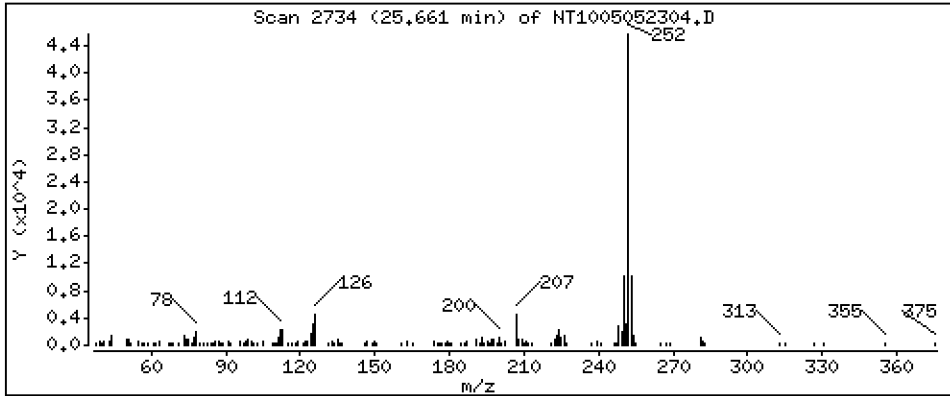
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,3897 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

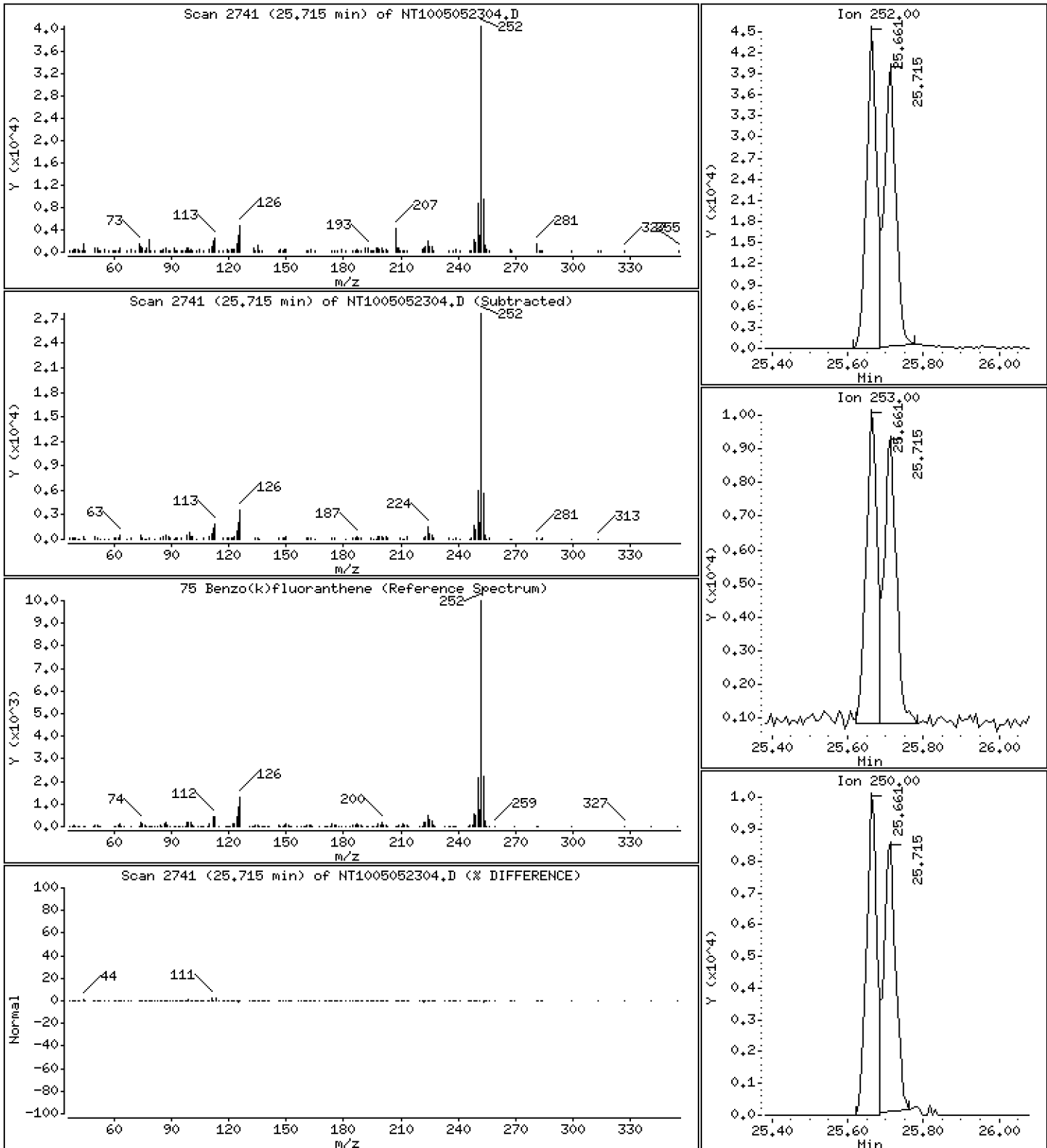
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,4113 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

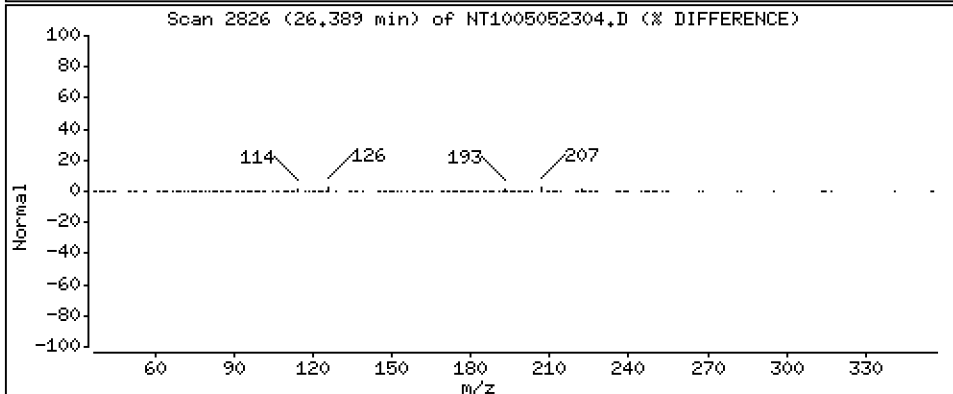
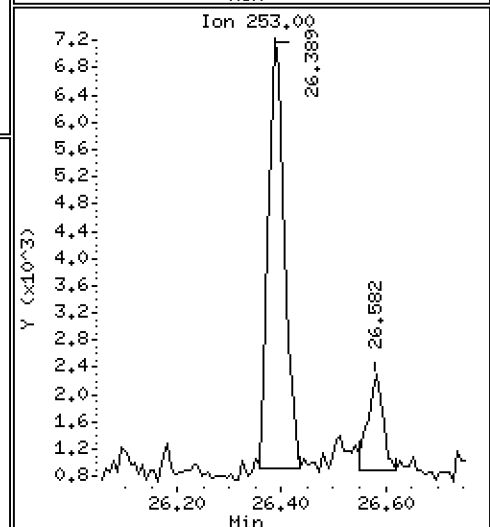
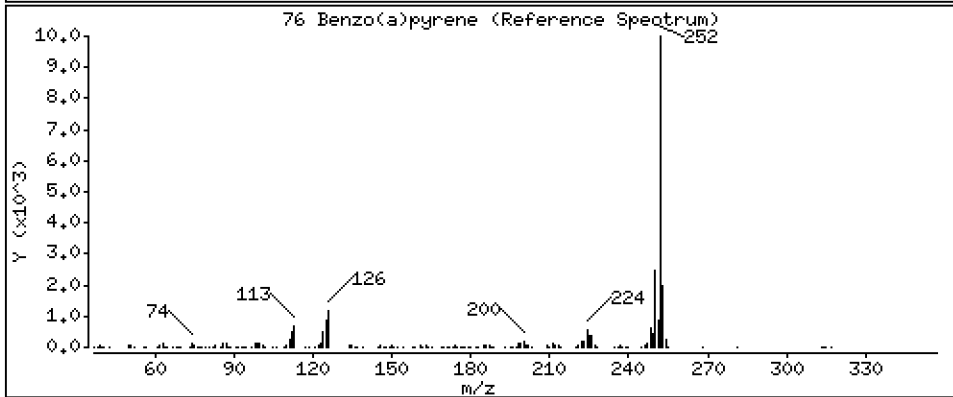
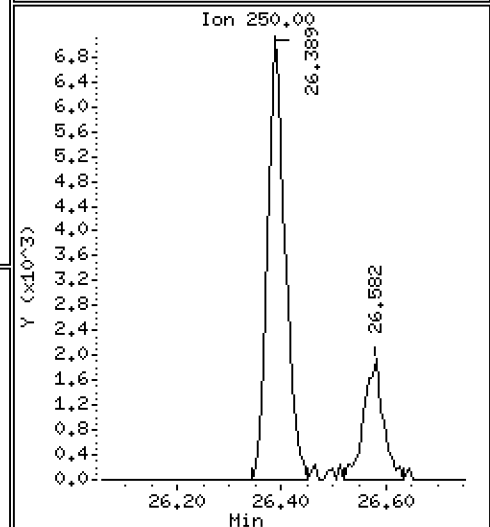
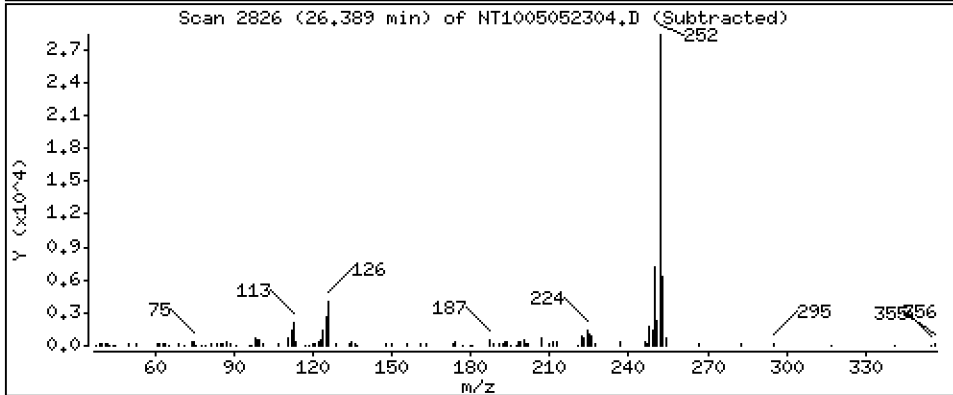
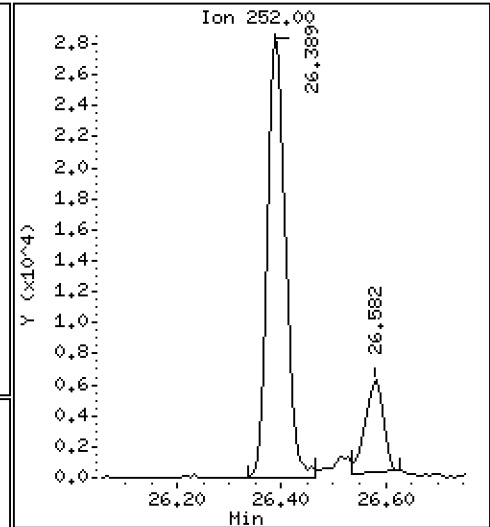
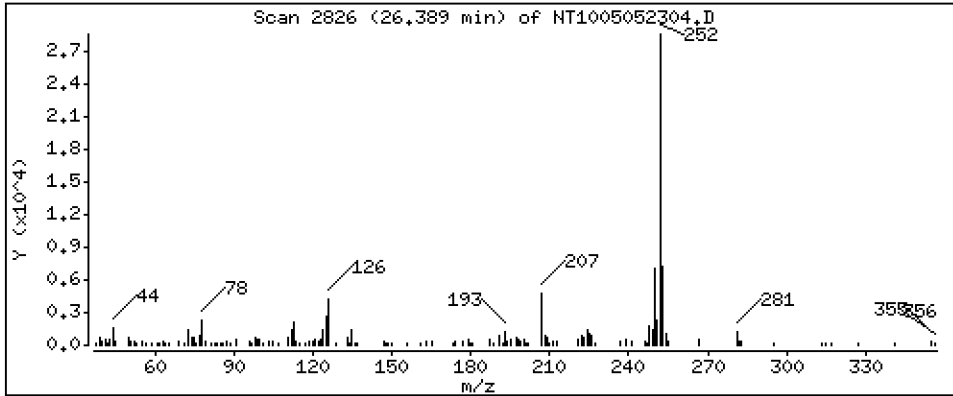
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,3831 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

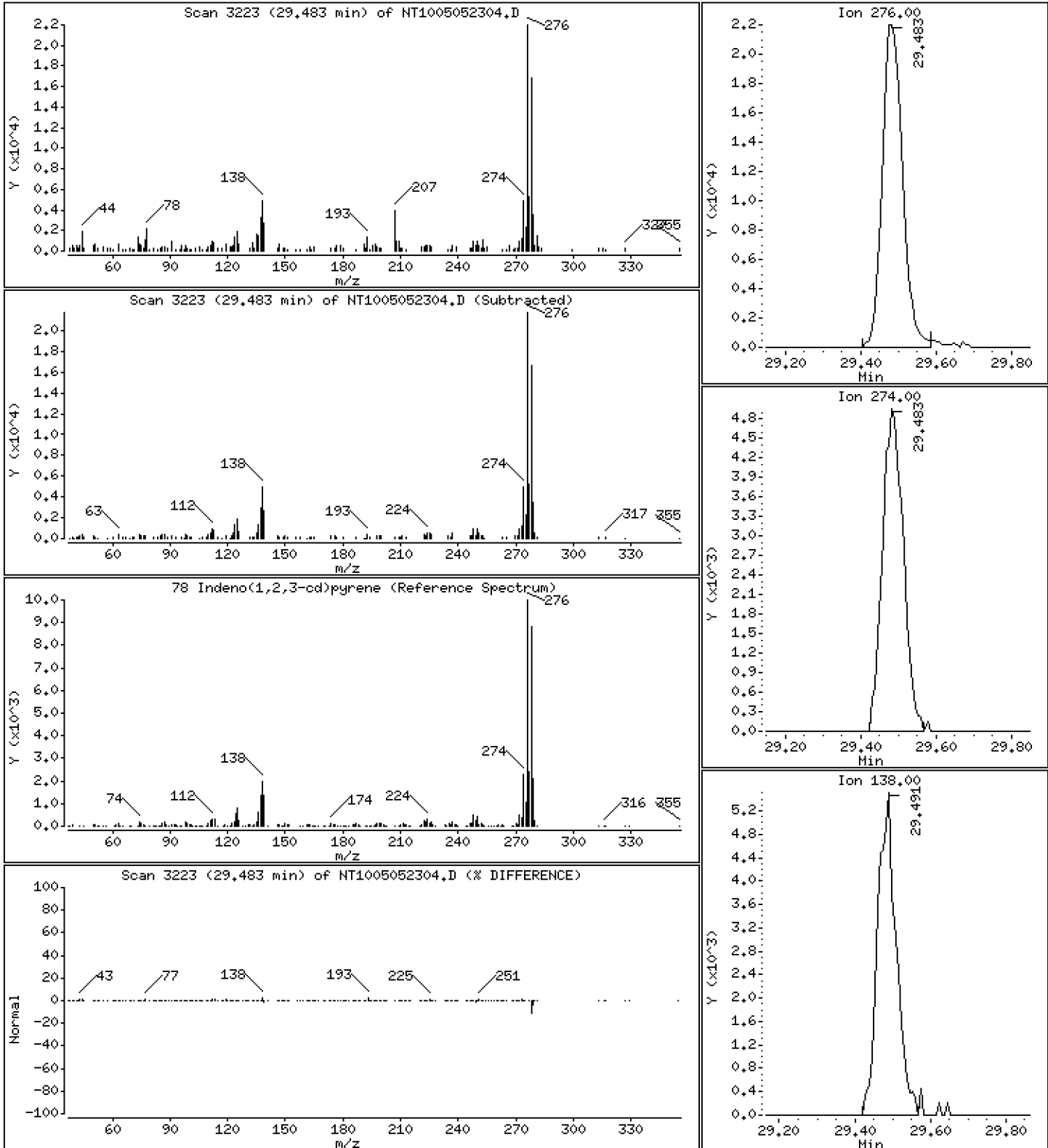
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,3805 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

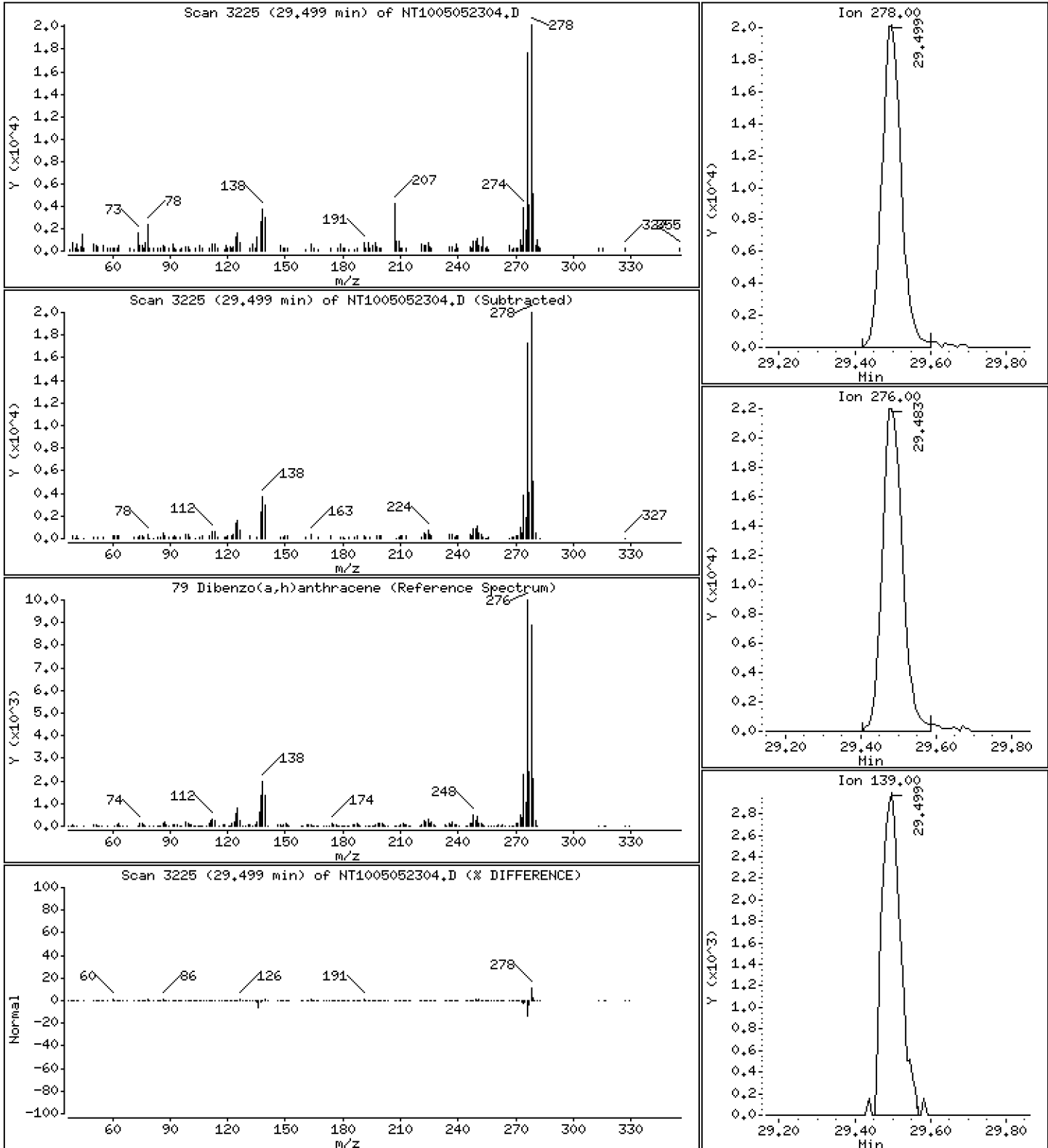
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,3934 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

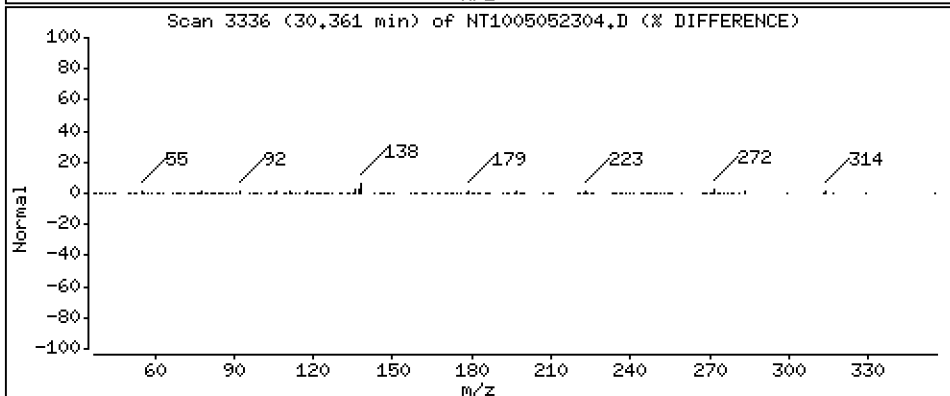
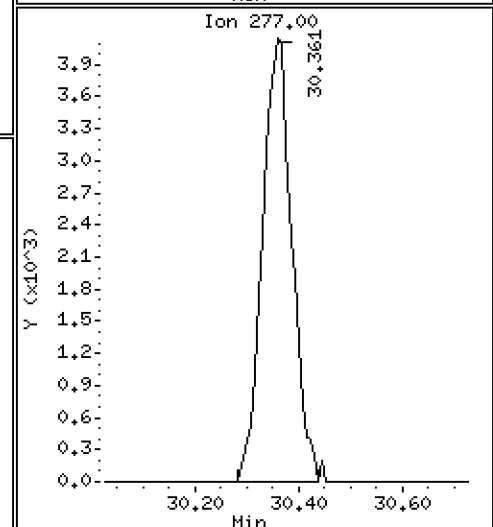
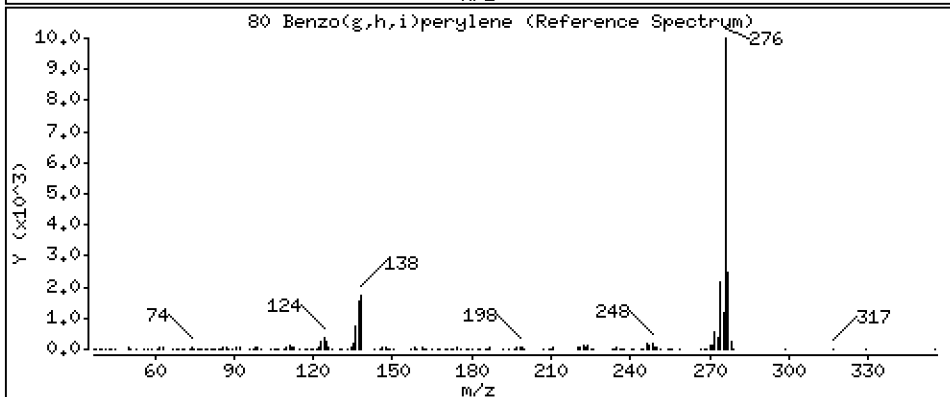
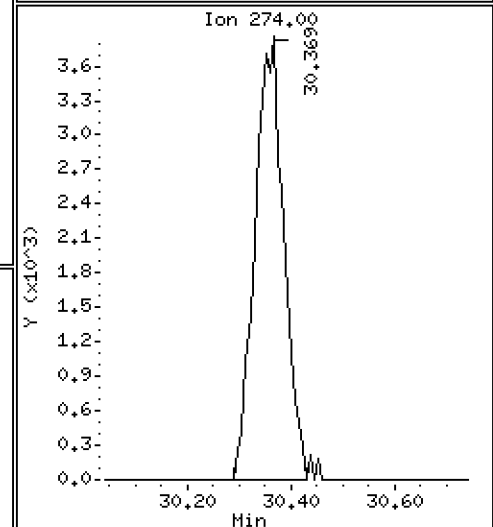
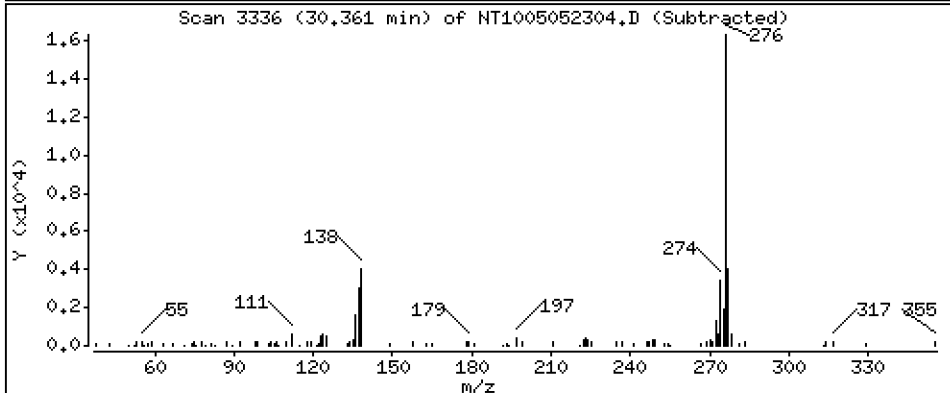
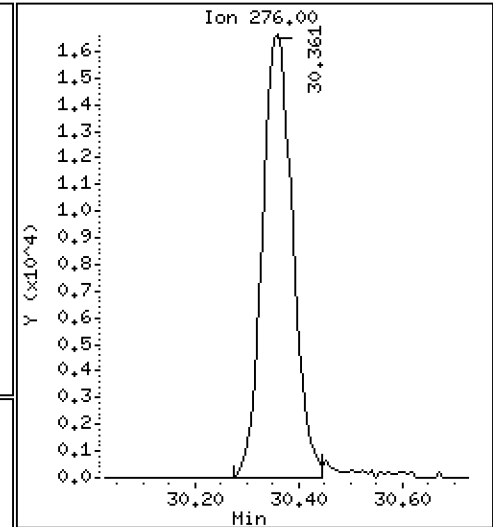
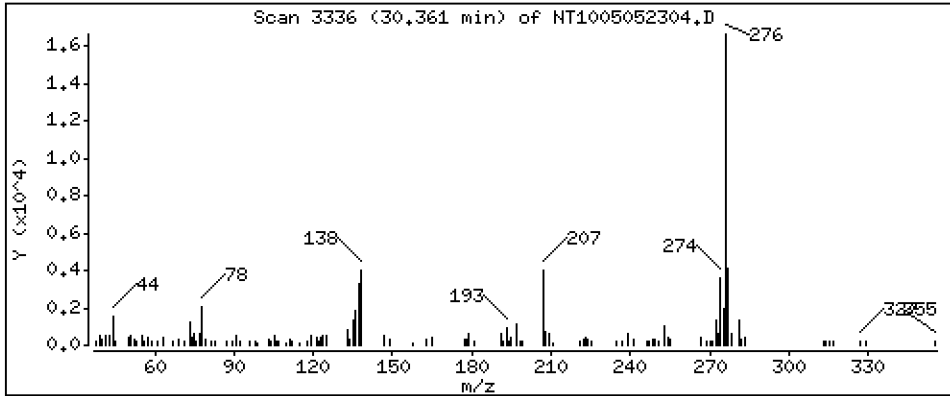
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,3948 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

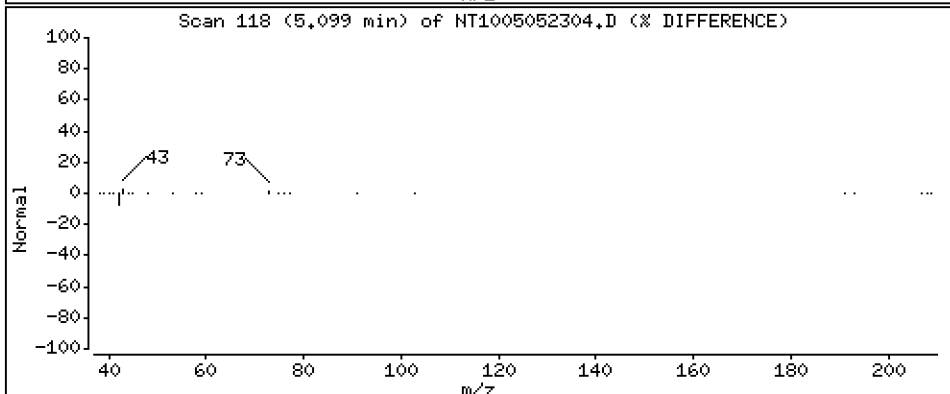
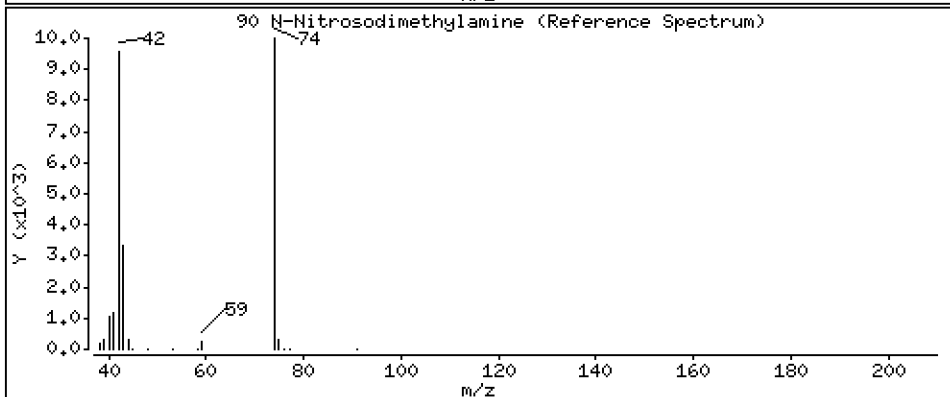
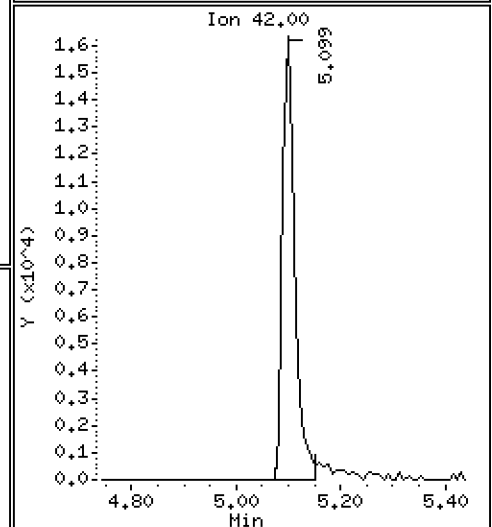
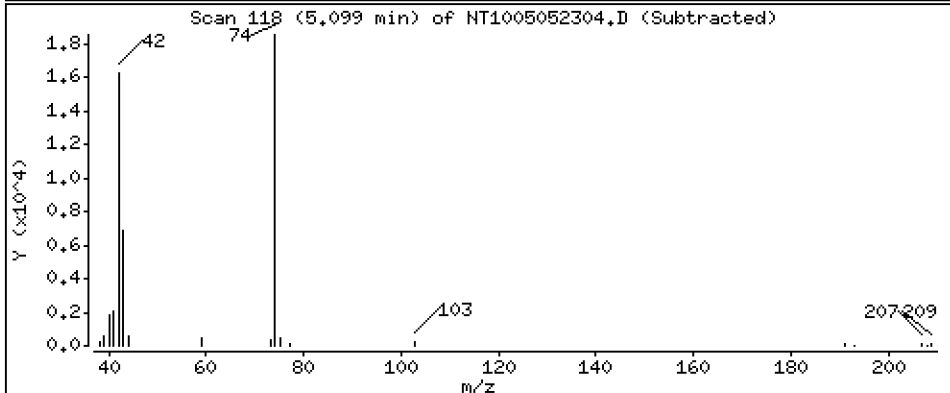
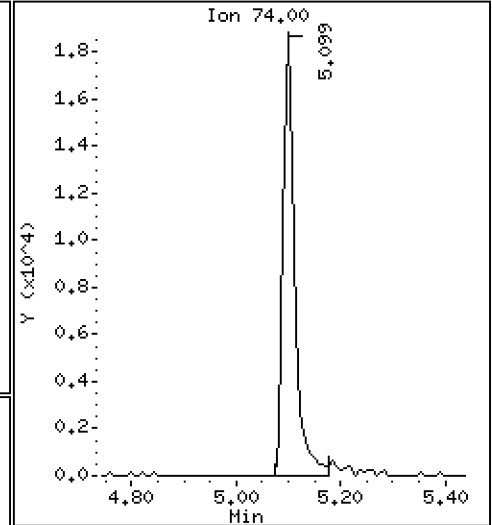
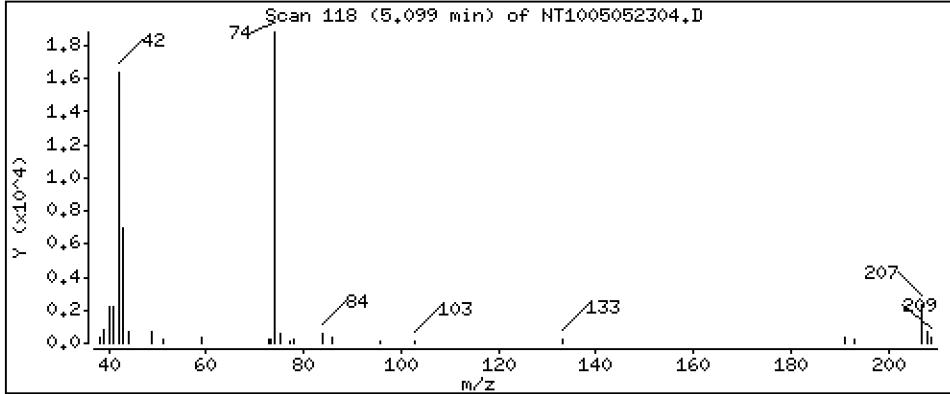
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.8374 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

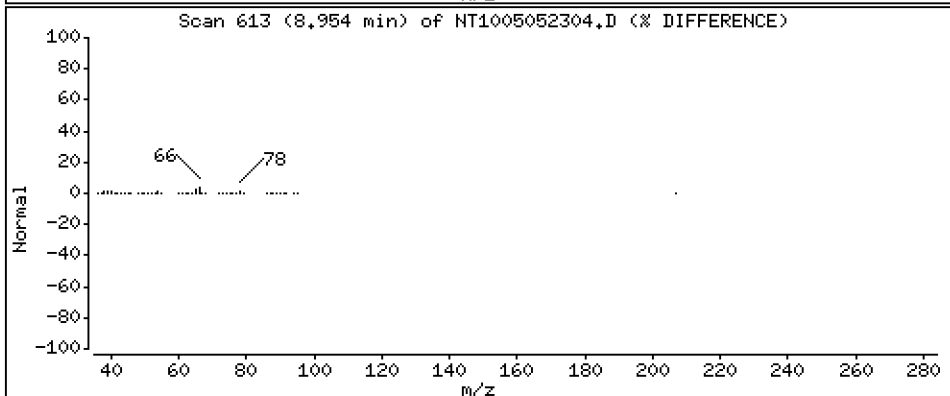
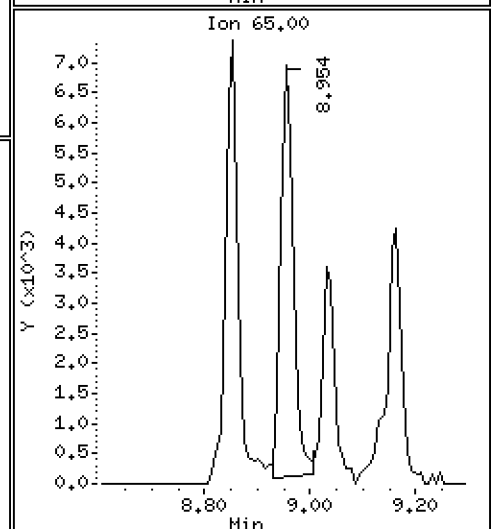
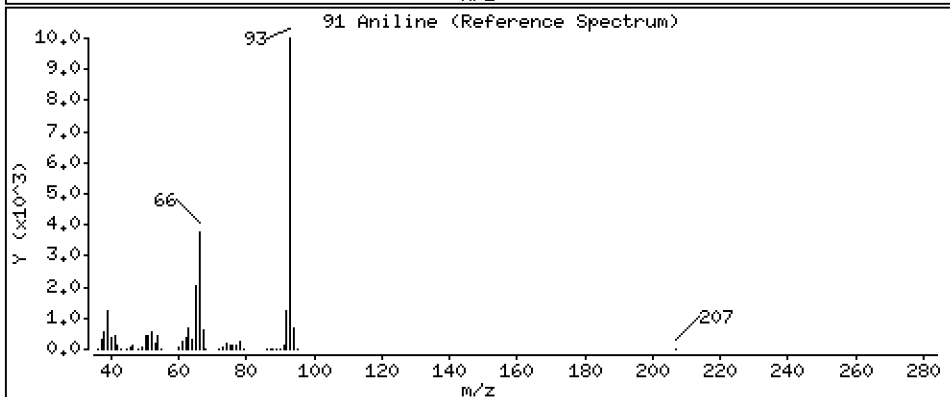
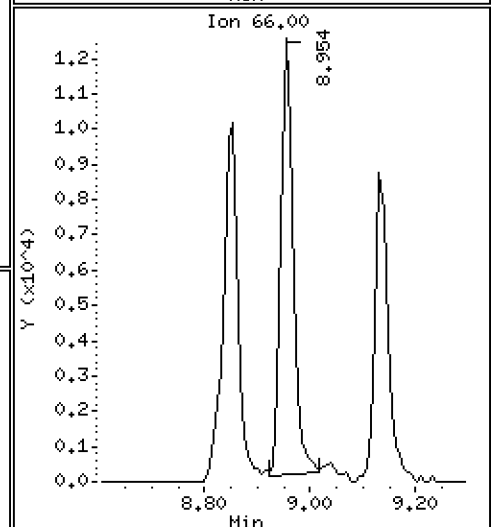
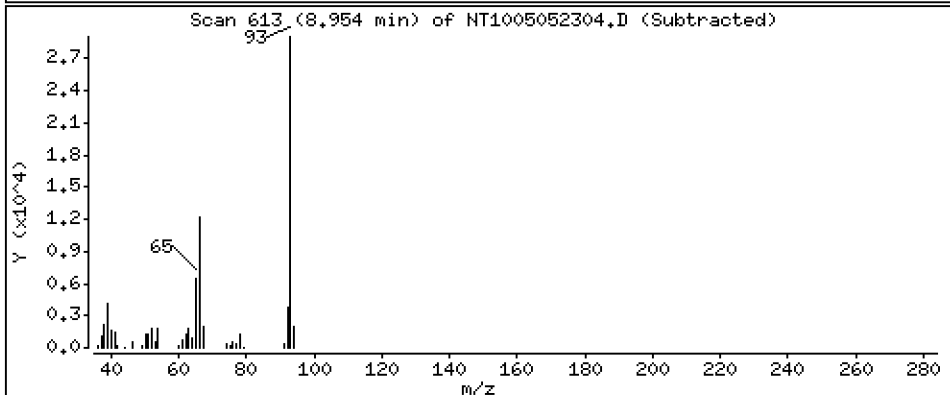
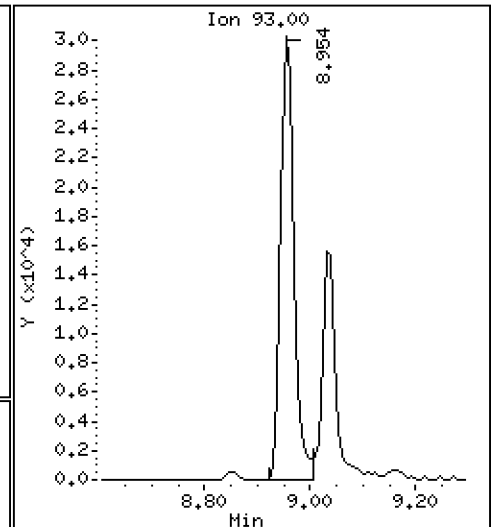
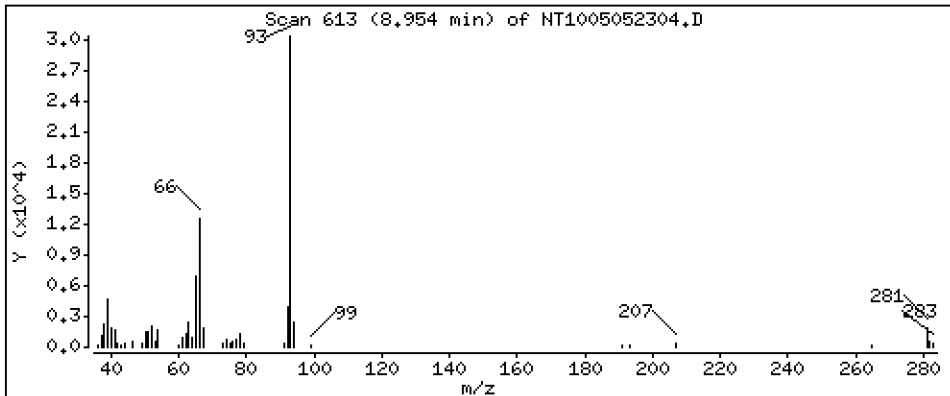
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,8020 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

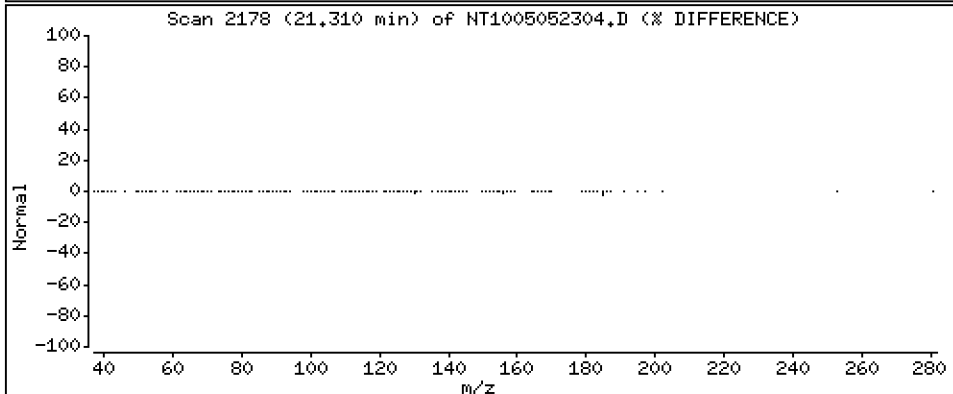
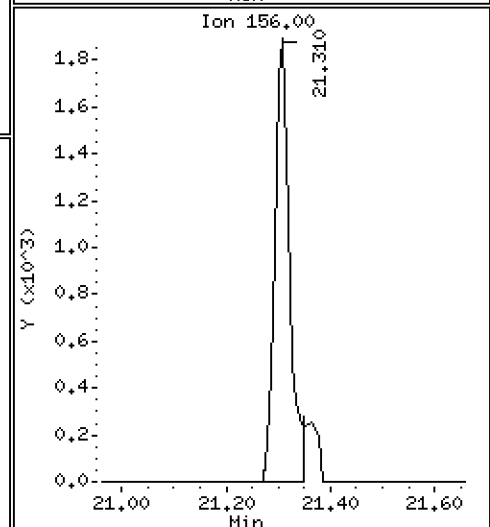
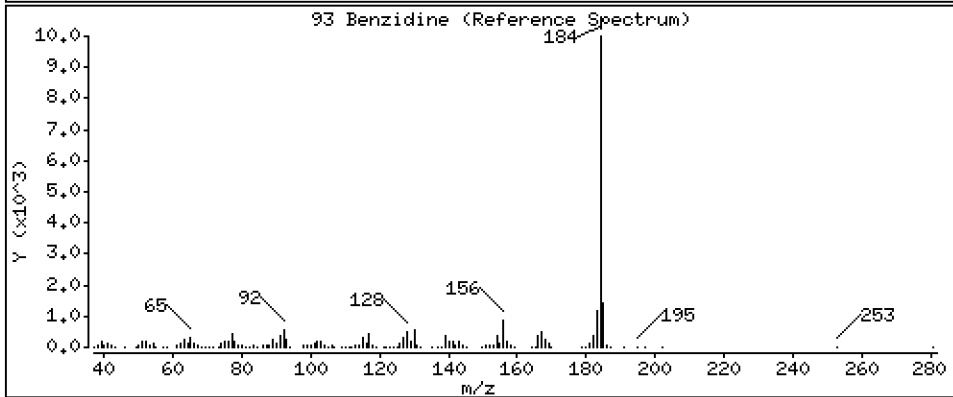
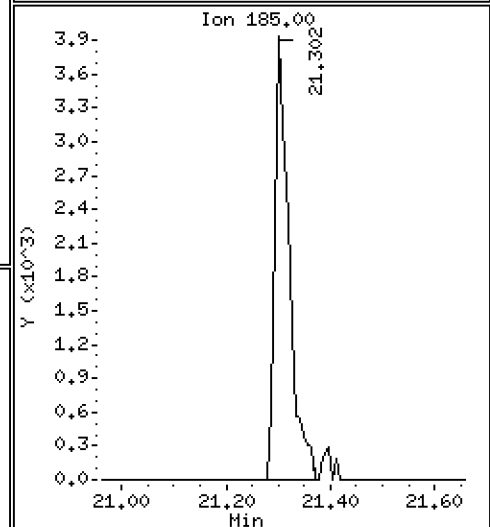
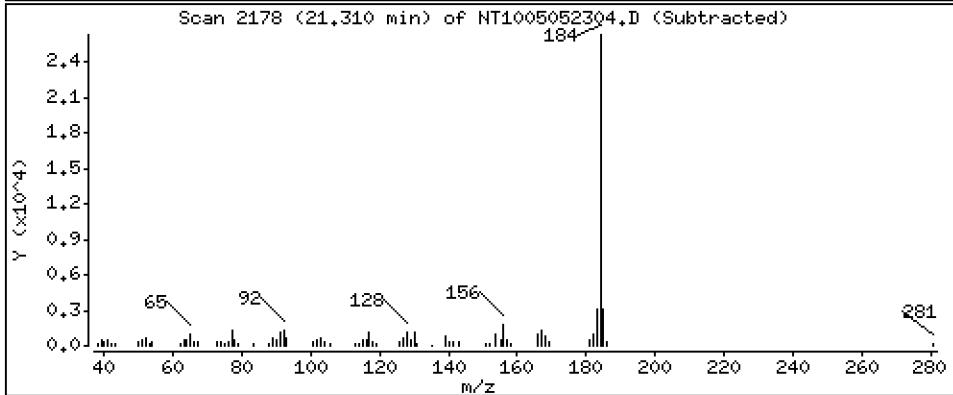
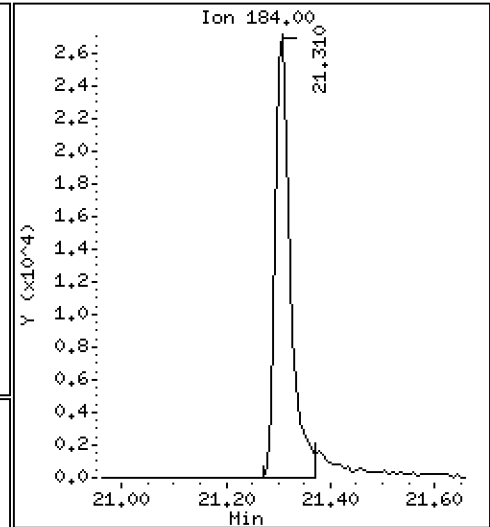
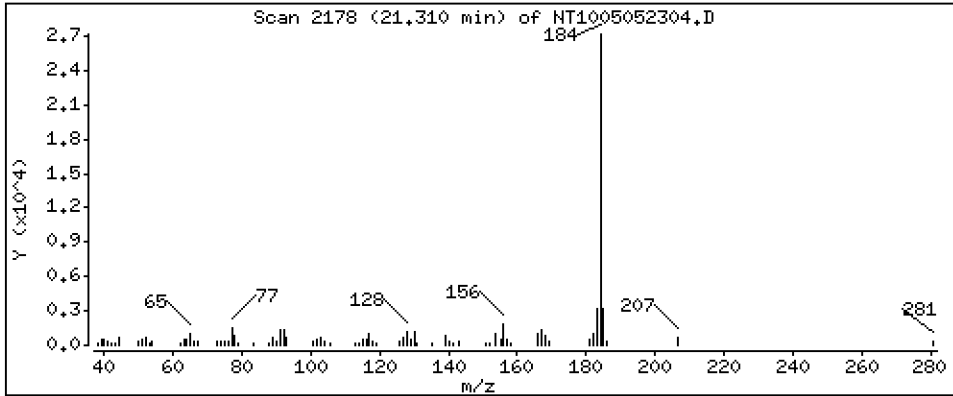
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 0,5831 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

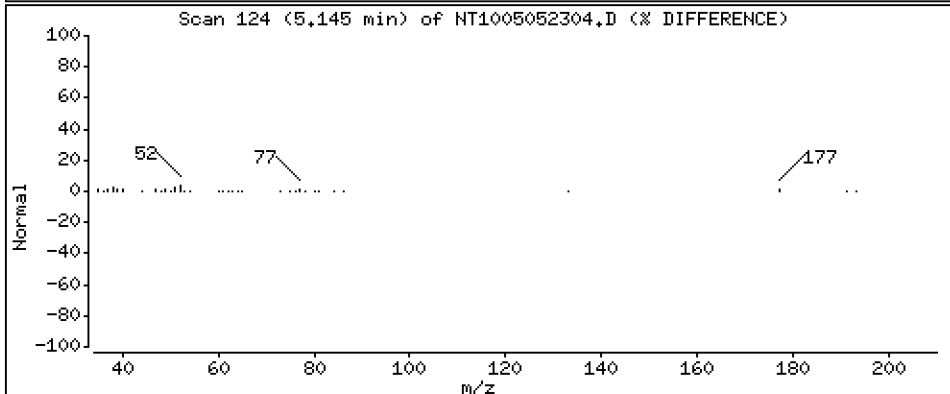
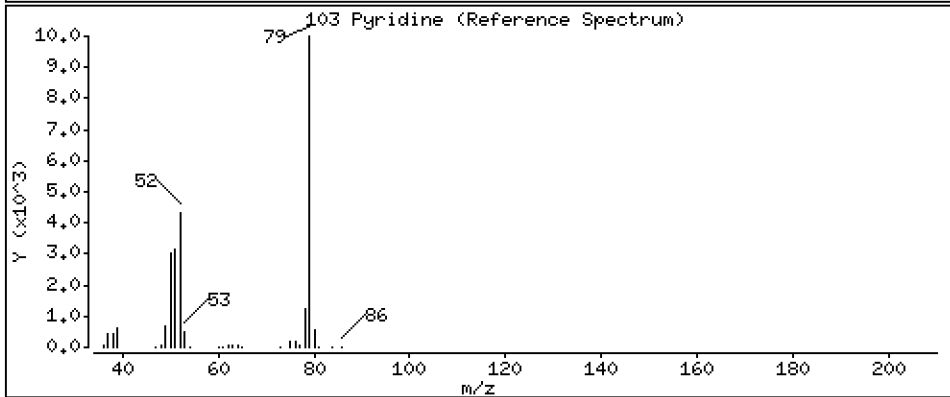
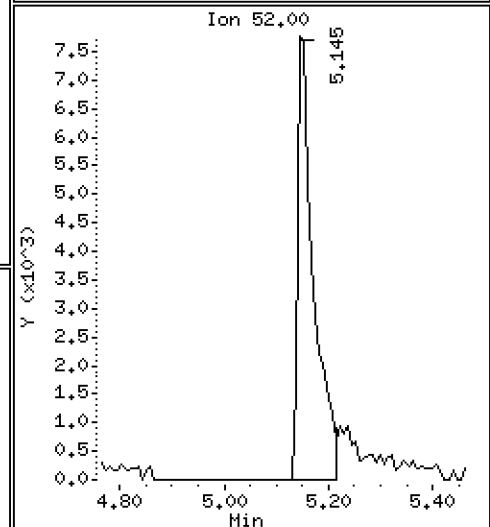
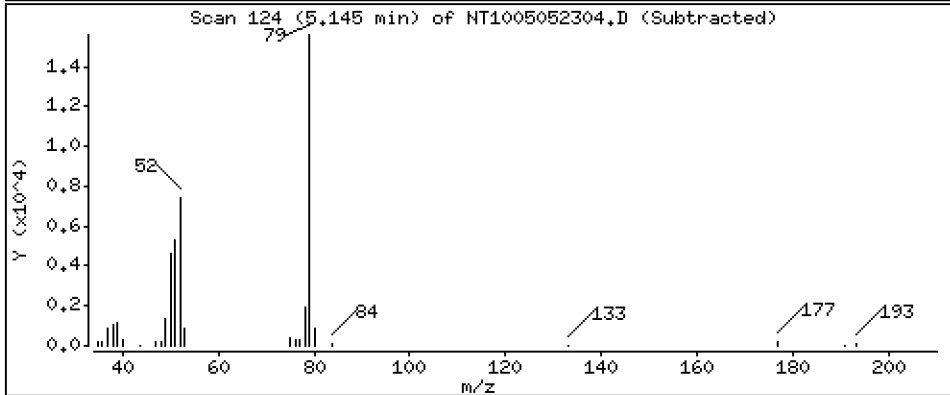
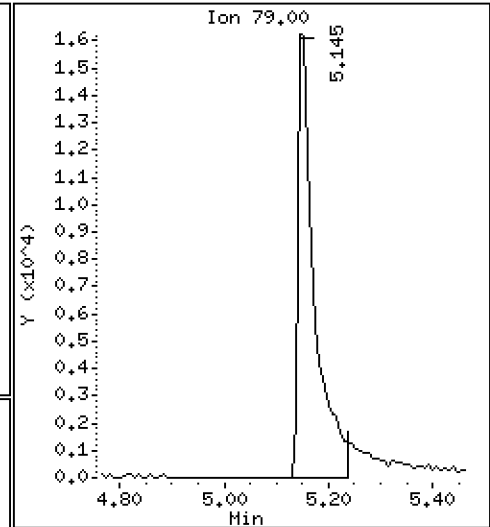
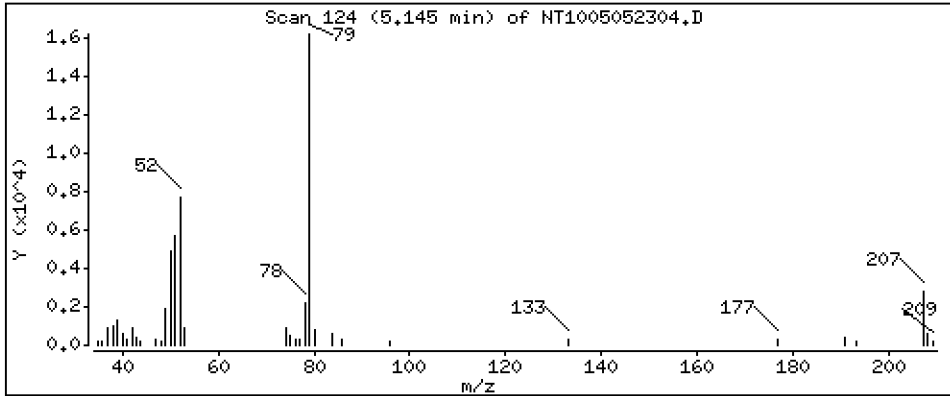
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,7089 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

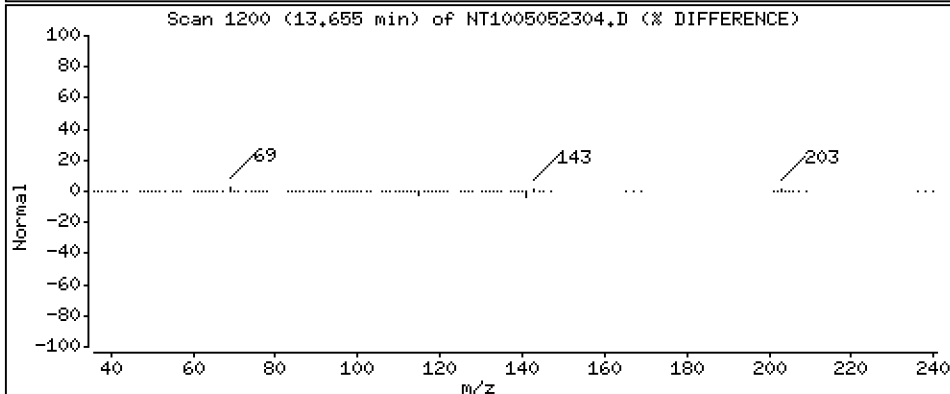
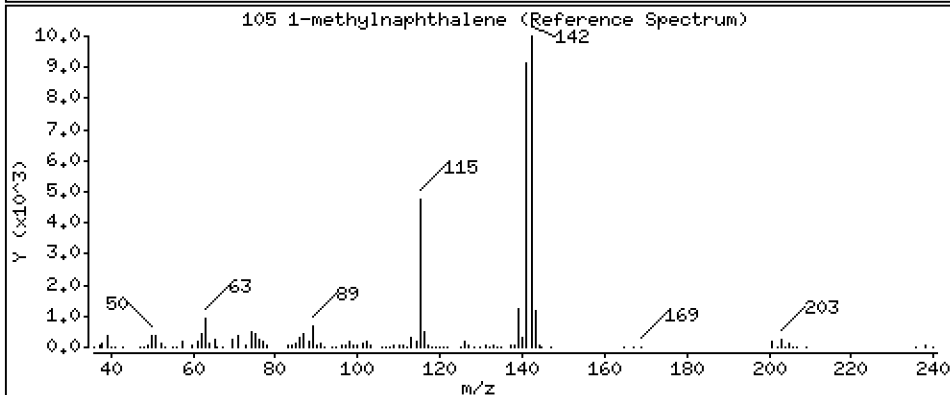
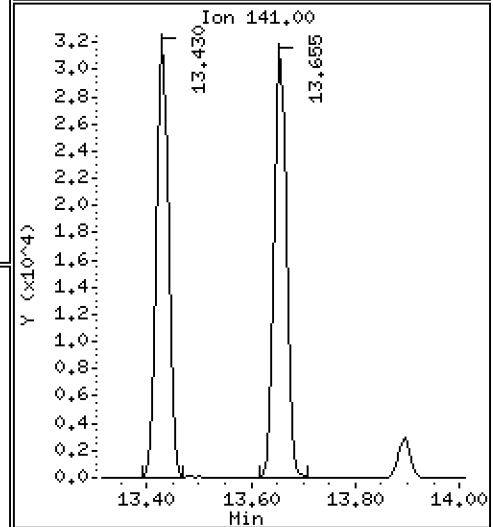
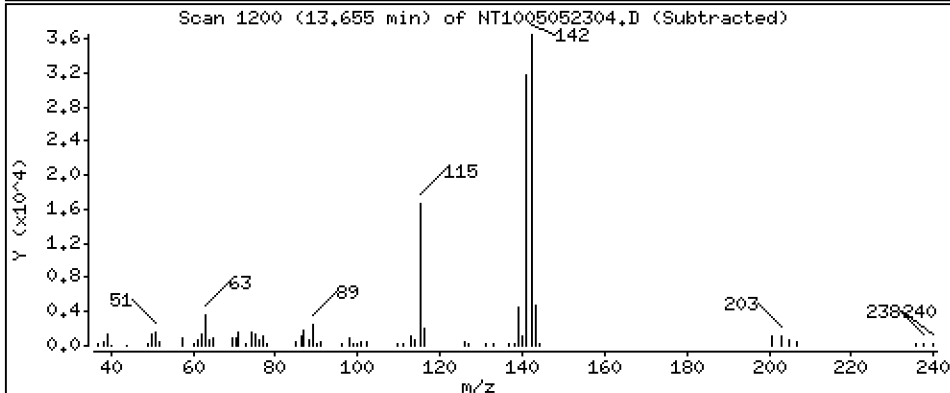
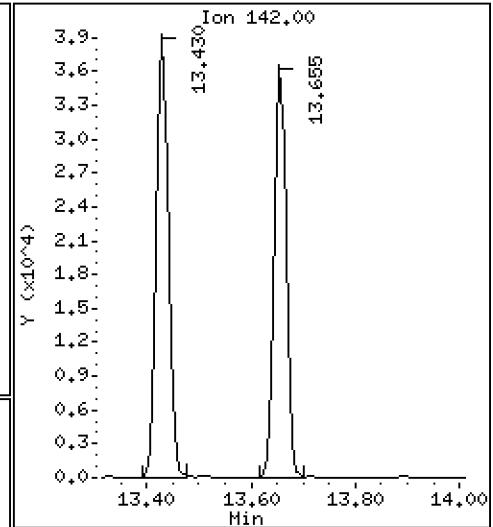
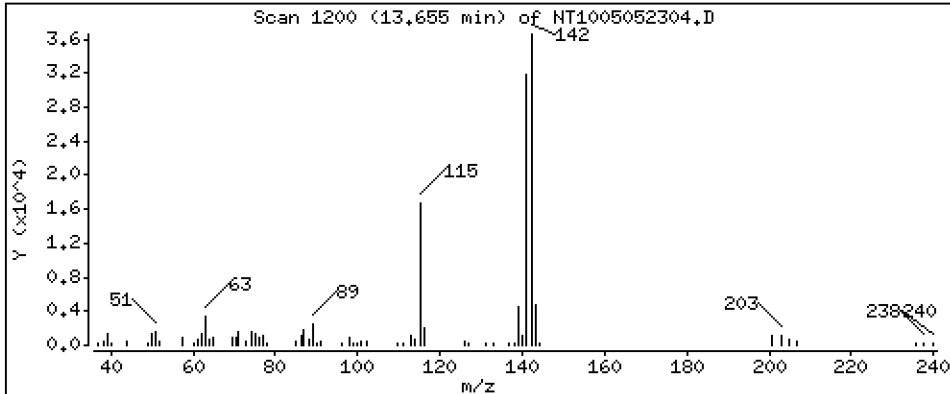
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,4315 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

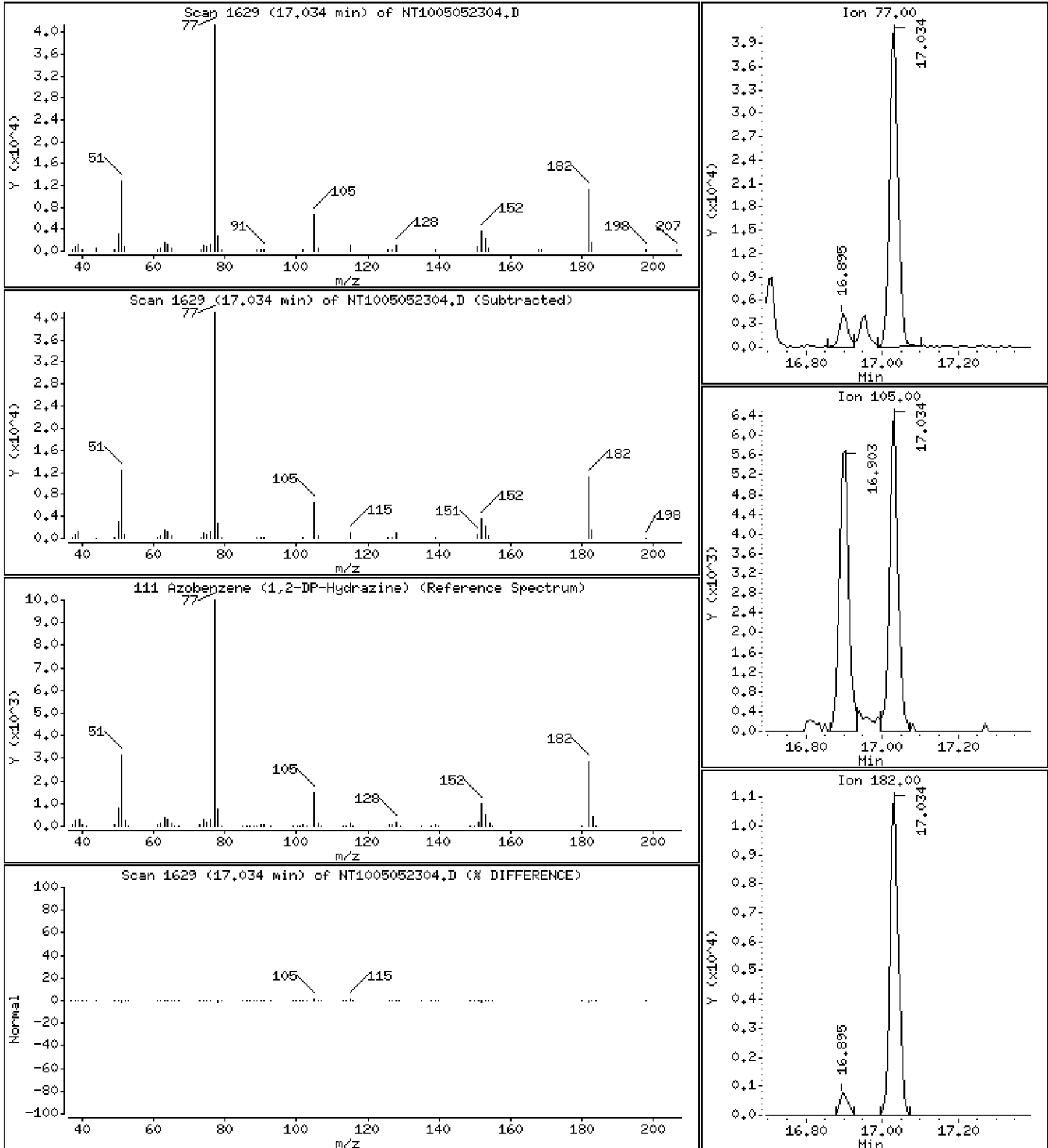
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.4474 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

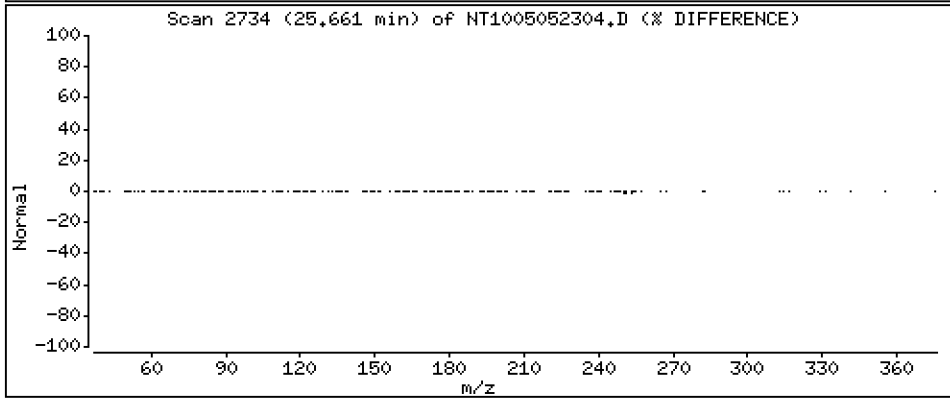
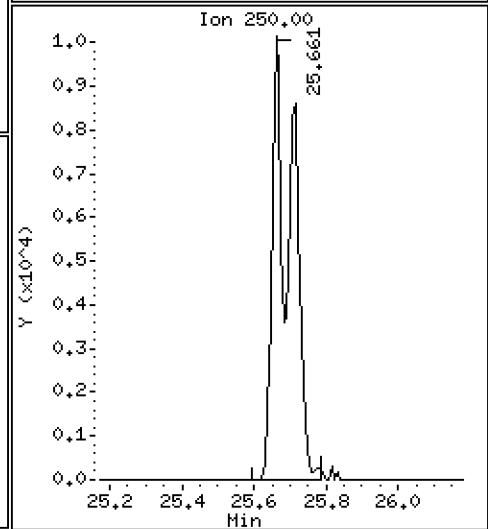
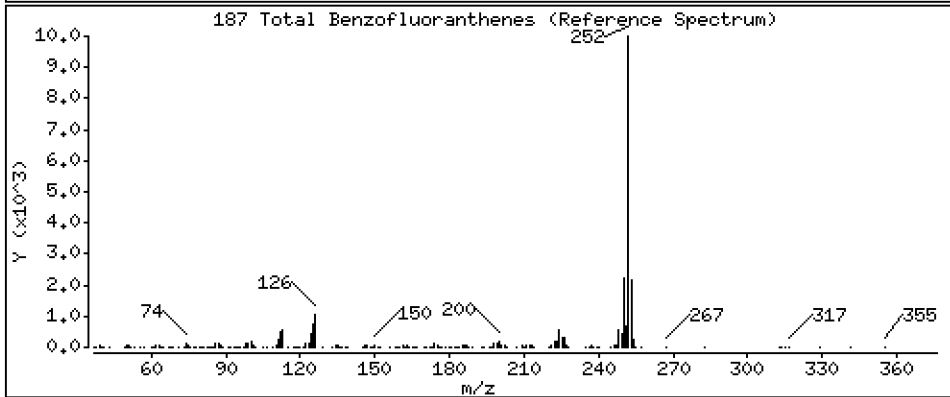
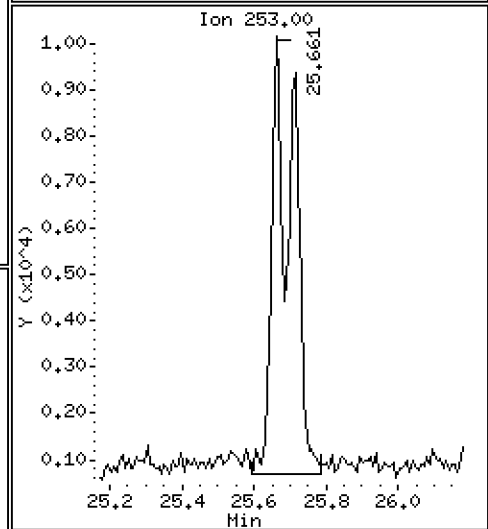
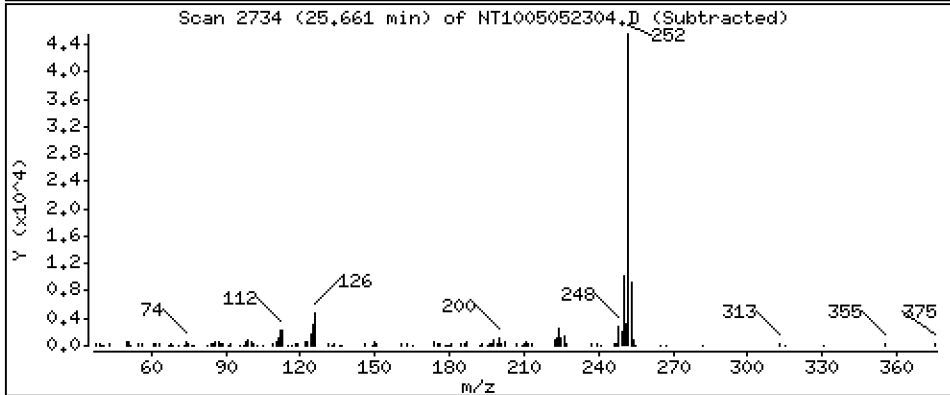
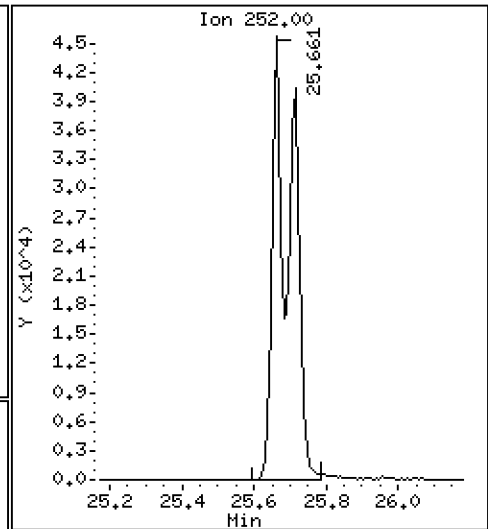
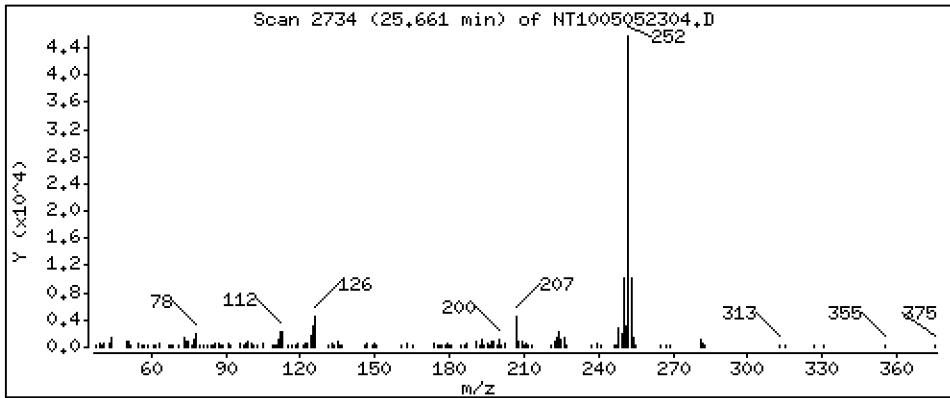
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 0,8050 ug/mL



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0101-LCV1

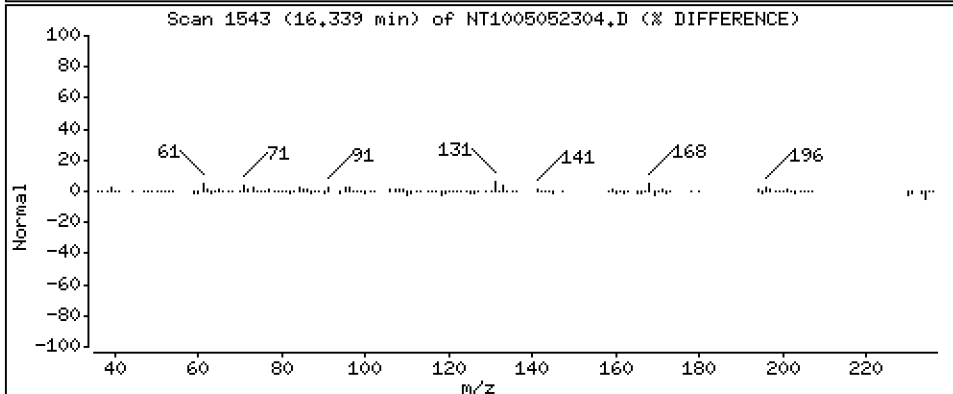
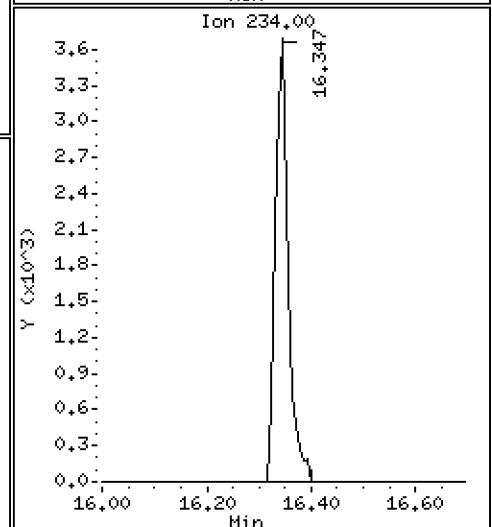
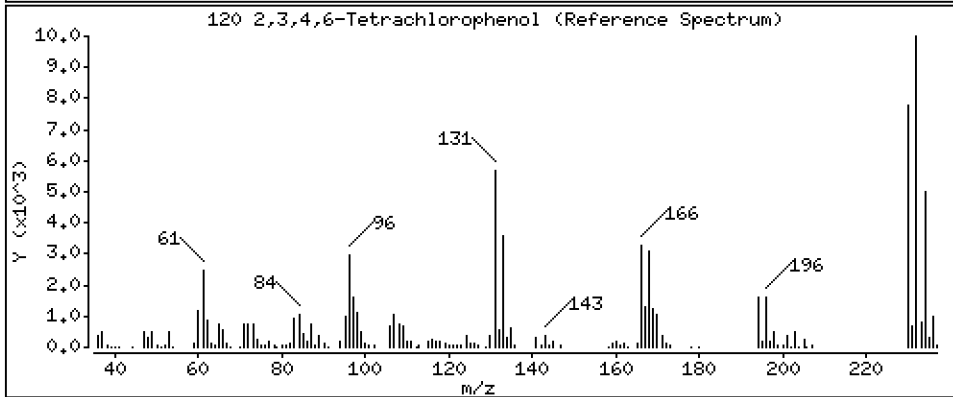
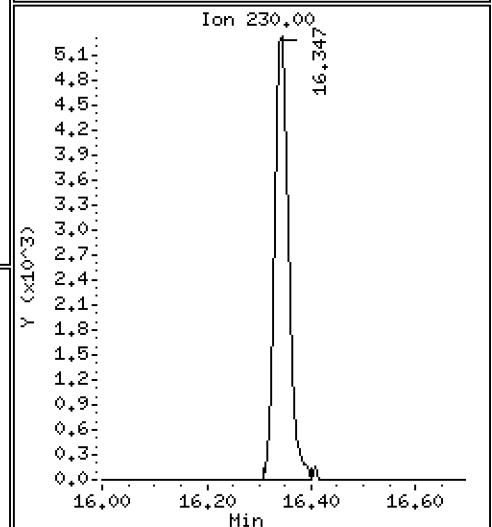
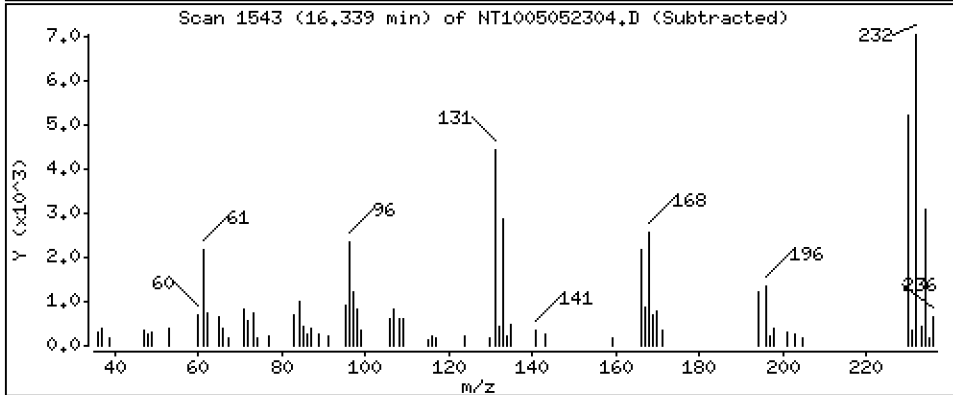
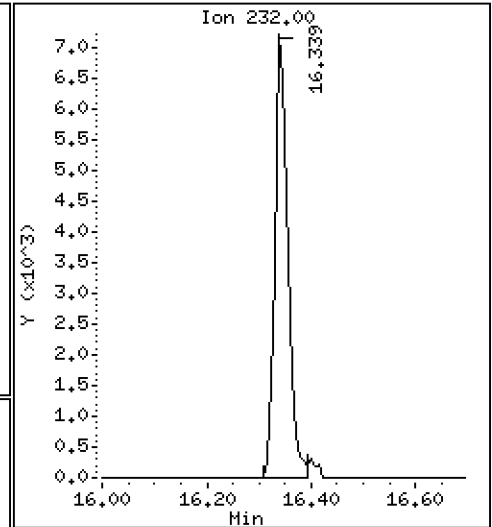
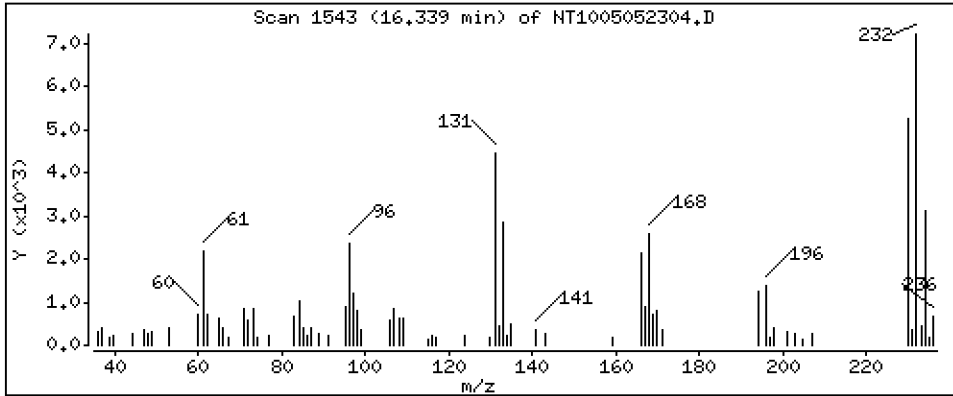
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,2545 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230505.b\NT1005052304.D
 Lab Smp Id: SLE0101-LCV1
 Inj Date : 05-MAY-2023 12:43
 Operator : VTS
 Smp Info : SLE0101-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Meth Date : 08-May-2023 10:14 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.253	7.253	(1.000)	35889	0.58828	0.5883
\$ 2 Phenol-d5	99		8.830	8.830	(1.000)	43457	0.59083	0.5908
3 Phenol	94		8.853	8.853	(1.000)	34161	0.43438	0.4344
\$ 5 2-Chlorophenol-d4	132		9.131	9.139	(1.000)	41367	0.58687	0.5869
4 Bis(2-Chloroethyl)ether	93		9.030	9.038	(1.000)	28137	0.49445	0.4944
6 2-Chlorophenol	128		9.162	9.162	(1.000)	28530	0.41141	0.4114
7 1,3-Dichlorobenzene	146		9.440	9.440	(1.000)	33376	0.42718	0.4272
* 8 1,4-Dichlorobenzene-d4	152		9.502	9.502	(1.000)	201611	4.00000	(M)
9 1,4-Dichlorobenzene	146		9.533	9.533	(1.000)	32619	0.42500	0.4250
\$ 10 1,2-Dichlorobenzene-d4	152		9.867	9.867	(1.000)	21990	0.42288	0.4229
12 1,2-Dichlorobenzene	146		9.890	9.890	(1.000)	31930	0.42851	0.4285
11 Benzyl alcohol	108		9.766	9.766	(1.000)	16365	0.43293	0.4329
14 2,2'-oxybis(1-Chloropropane)	121		10.061	10.069	(1.059)	8877	0.41248	0.4125 (M)
13 2-Methylphenol	108		9.976	9.976	(1.000)	24303	0.42133	0.4213
17 Hexachloroethane	117		10.488	10.488	(1.000)	13603	0.40991	0.4099
16 N-Nitroso-di-n-propylamine	70		10.317	10.325	(1.000)	17611	0.38547	0.3855
15 4-Methylphenol	108		10.240	10.240	(1.000)	28806	0.41600	0.4160
\$ 18 Nitrobenzene-d5	82		10.597	10.604	(0.884)	30706	0.41572	0.4157
19 Nitrobenzene	77		10.635	10.636	(0.887)	29763	0.41695	0.4169
20 Isophorone	82		11.078	11.078	(0.924)	36538	0.42995	0.4300
21 2-Nitrophenol	139		11.266	11.266	(0.940)	11974	0.31529	0.3153
22 2,4-Dimethylphenol	107		11.291	11.300	(0.942)	60555	0.86872	0.8687
23 Bis(2-Chloroethoxy)methane	93		11.495	11.503	(0.959)	23820	0.43848	0.4385
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		11.707	11.716	(0.976)	41871	0.76463	0.7646
26 1,2,4-Trichlorobenzene	180		11.906	11.906	(0.993)	29815	0.38014	0.3801
* 27 Naphthalene-d8	136		11.991	11.999	(1.000)	660968	4.00000	
28 Naphthalene	128		12.037	12.037	(1.004)	84321	0.45725	0.4573
29 4-Chloroaniline	127		12.161	12.161	(1.014)	52318	0.77099	0.7710
30 Hexachlorobutadiene	225		12.385	12.393	(1.033)	18373	0.42477	0.4248
31 4-Chloro-3-methylphenol	107		13.097	13.105	(1.092)	45722	0.76615	0.7661
32 2-Methylnaphthalene	142		13.430	13.437	(1.120)	59678	0.43283	0.4328
33 Hexachlorocyclopentadiene	237		13.894	13.902	(0.890)	29814	0.66046	0.6605

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	14.041	14.049	(0.899)	30044	0.67564	0.6756
35 2,4,5-Trichlorophenol	196	14.118	14.118	(0.904)	32275	0.66559	0.6656
§ 36 2-Fluorobiphenyl	172	14.204	14.211	(0.909)	69282	0.44084	0.4408
37 2-Chloronaphthalene	162	14.428	14.436	(0.924)	55885	0.45149	0.4515
38 2-Nitroaniline	65	14.683	14.691	(0.940)	25522	0.70998	0.7100
39 Dimethylphthalate	163	15.101	15.109	(0.967)	60900	0.43754	0.4375
40 Acenaphthylene	152	15.303	15.310	(0.980)	85372	0.44186	0.4419
41 2,6-Dinitrotoluene	165	15.248	15.256	(0.976)	22271	0.70890	0.7089
* 42 Acenaphthene-d10	164	15.620	15.628	(1.000)	363017	4.00000	
43 3-Nitroaniline	138	15.535	15.543	(0.995)	21059	0.68096	0.6810
44 Acenaphthene	153	15.682	15.689	(1.004)	55255	0.44965	0.4497
45 2,4-Dinitrophenol	184	15.751	15.759	(1.008)	3382	0.14039	0.1404
46 Dibenzofuran	168	16.006	16.014	(1.025)	80078	0.44694	0.4469
47 4-Nitrophenol	109	15.844	15.844	(1.014)	10752	0.37310	0.3731
48 2,4-Dinitrotoluene	165	16.060	16.068	(1.028)	29757	0.66454	0.6645
50 Diethylphthalate	149	16.555	16.571	(1.060)	58942	0.40786	0.4079
49 Fluorene	166	16.725	16.733	(1.071)	65815	0.44528	0.4453
51 4-Chlorophenyl-phenylether	204	16.702	16.710	(1.069)	32025	0.43512	0.4351
52 4-Nitroaniline	138	16.810	16.825	(1.076)	18895	0.62849	0.6285
53 4,6-Dinitro-2-methylphenol	198	16.903	16.918	(0.905)	21174	0.78350	0.7835
54 N-Nitrosodiphenylamine	169	16.957	16.964	(0.908)	40889	0.44660	0.4466
§ 55 2,4,6-Tribromophenol	330	17.265	17.265	(1.105)	7583	0.43524	0.4352
56 4-Bromophenyl-phenylether	248	17.720	17.728	(0.949)	17922	0.41466	0.4147
57 Hexachlorobenzene	284	18.044	18.052	(0.966)	19011	0.43822	0.4382
58 Pentachlorophenol	266	18.401	18.401	(0.985)	8392	0.28400	0.2840
* 59 Phenanthrene-d10	188	18.671	18.679	(1.000)	692839	4.00000	
60 Phenanthrene	178	18.718	18.726	(1.002)	89326	0.43939	0.4394
61 Anthracene	178	18.811	18.818	(1.007)	74521	0.39668	0.3967
62 Carbazole	167	19.128	19.136	(1.024)	70797	0.42574	0.4257
63 Di-n-butylphthalate	149	19.894	19.902	(1.065)	75689	0.30403	0.3040
64 Fluoranthene	202	21.078	21.085	(0.890)	98460	0.38270	0.3827
65 Pyrene	202	21.503	21.511	(0.908)	102122	0.39735	0.3974
§ 66 Terphenyl-d14	244	21.774	21.782	(0.919)	81938	0.40312	0.4031
67 Butylbenzylphthalate	149	22.688	22.695	(0.958)	31365	0.26049	0.2605
68 Benzo(a)anthracene	228	23.655	23.663	(0.999)	98961	0.43381	0.4338
* 69 Chrysene-d12	240	23.686	23.694	(1.000)	576240	4.00000	
70 3,3'-Dichlorobenzidine	252	23.601	23.609	(0.996)	83481	1.20083	1.201
71 Chrysene	228	23.725	23.741	(1.002)	91998	0.45058	0.4506
72 bis(2-Ethylhexyl)phthalate	149	23.694	23.702	(0.958)	44759	0.38226	0.3823
* 134 Di-n-octylphthalate-d4	153	24.724	24.739	(1.000)	812849	4.00000	
73 Di-n-octylphthalate	149	24.739	24.747	(1.001)	99925	0.46596	0.4660
74 Benzo(b)fluoranthene	252	25.661	25.676	(0.968)	83823	0.38973	0.3897
75 Benzo(k)fluoranthene	252	25.715	25.730	(0.970)	87790	0.41133	0.4113
76 Benzo(a)pyrene	252	26.388	26.404	(0.995)	68961	0.38306	0.3831
* 77 Perylene-d12	264	26.520	26.528	(1.000)	523576	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.483	29.498	(1.112)	82294	0.38051	0.3805
79 Dibenzo(a,h)anthracene	278	29.498	29.514	(1.112)	71258	0.39342	0.3934
80 Benzo(g,h,i)perylene	276	30.361	30.376	(1.145)	68051	0.39477	0.3948
90 N-Nitrosodimethylamine	74	5.098	5.090	(1.000)	27595	0.83742	0.8374
91 Aniline	93	8.953	8.953	(1.000)	51984	0.80201	0.8020
93 Benzidine	184	21.310	21.310	(0.900)	53632	0.58313	0.5831
103 Pyridine	79	5.144	5.114	(1.000)	36834	0.70887	0.7089
105 1-methylnaphthalene	142	13.654	13.662	(1.139)	54539	0.43146	0.4315
111 Azobenzene (1,2-DP-Hydrazine)	77	17.034	17.041	(1.091)	63169	0.44742	0.4474

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.661	25.676	(0.968)	166663	0.80500	0.8050
120 2,3,4,6-Tetrachlorophenol	232	16.339	16.346	(1.046)	11892	0.25452	0.2545

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAY-2023
 Lab File ID: NT1005052304.D Calibration Time: 11:37
 Lab Smp Id: SLE0101-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230505.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	179464	89732	358928	201611	12.34
27 Naphthalene-d8	621628	310814	1243256	660968	6.33
42 Acenaphthene-d10	353112	176556	706224	363017	2.81
59 Phenanthrene-d10	694933	347467	1389866	692839	-0.30
69 Chrysene-d12	553967	276984	1107934	576240	4.02
134 Di-n-octylphthala	895601	447801	1791202	812849	-9.24
77 Perylene-d12	482573	241287	965146	523576	8.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.50	-0.00
27 Naphthalene-d8	12.00	11.50	12.50	11.99	-0.06
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.69	23.19	24.19	23.69	-0.03
134 Di-n-octylphthala	24.74	24.24	25.24	24.72	-0.06
77 Perylene-d12	26.53	26.03	27.03	26.52	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005052304.D

Lab ID: SLE0101-LCV1
nt10.i, 20230505.b\ABN.m, 05-MAY-2023 12:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

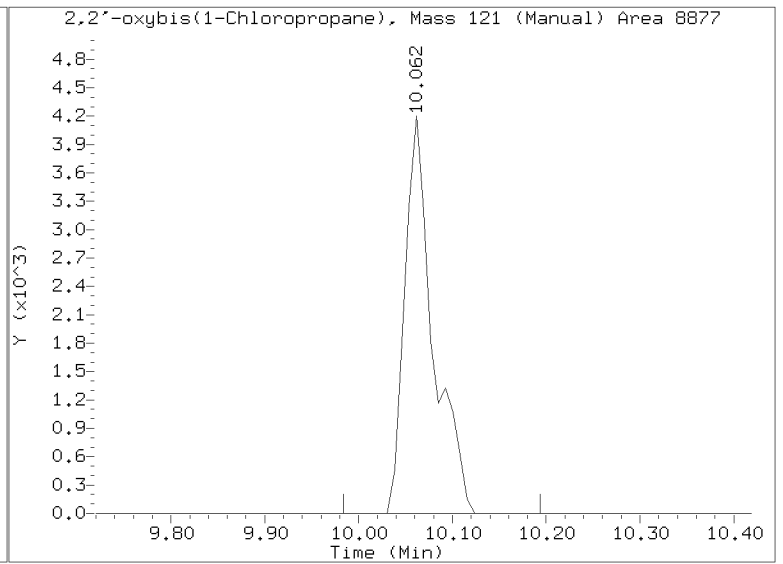
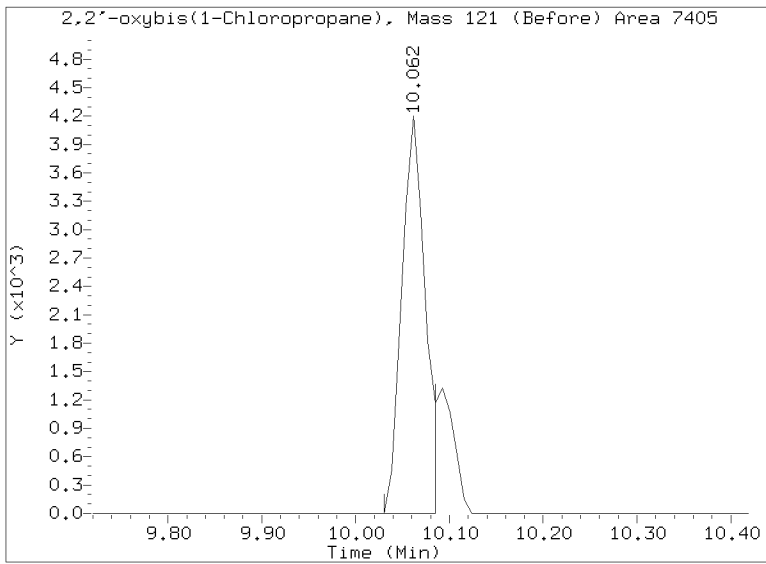
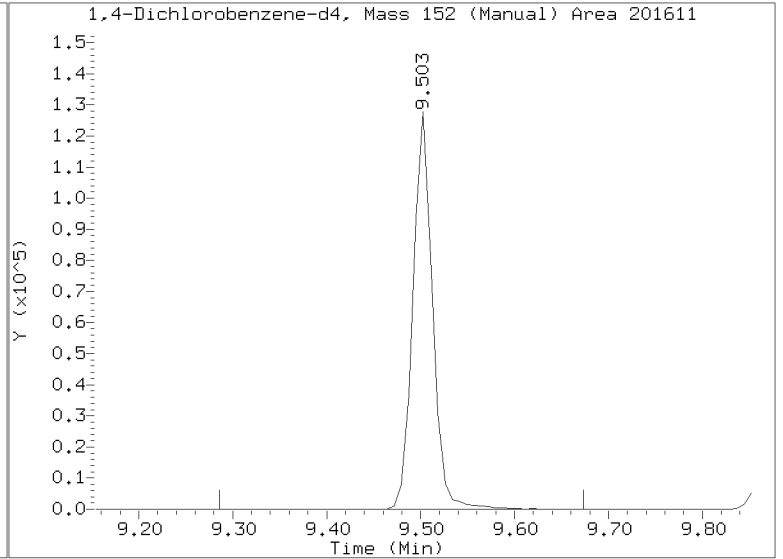
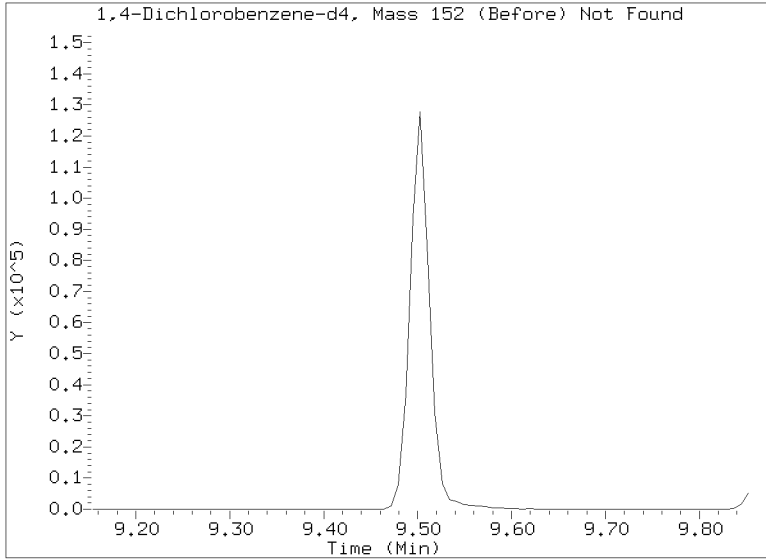
RRT check based on Ccal File: NT1005052303.D

On Column LOD for nt10.i, 20230505.b\ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/NT1005052304.D
Injection Date: 05-MAY-2023 12:43
Lab ID: SLE0101-LCV1 Client ID:
Report Date: 05/08/2023 10:14



APPROVED
By Deenay Dunmore at 10:39 am, May 08, 2023



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0036

Instrument: NT10

Calibration: GE00012

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLE0036-TUN1	NT1005012301.D	NA	05/01/23 14:35
20 ppm ABN	SLE0036-CAL7	NT1005012302.D	NA	05/01/23 14:52
10 ppm ABN	SLE0036-CAL6	NT1005012303.D	NA	05/01/23 15:31
5 ppm ABN	SLE0036-CAL5	NT1005012304.D	NA	05/01/23 16:10
2.5 ppm ABN	SLE0036-CAL4	NT1005012305.D	NA	05/01/23 16:49
1 ppm ABN	SLE0036-CAL3	NT1005012306.D	NA	05/01/23 17:28
0.5 ppm ABN	SLE0036-CAL2	NT1005012307.D	NA	05/01/23 18:07
0.2 ppm ABN	SLE0036-CAL1	NT1005012308.D	NA	05/01/23 18:46
SCV 5.0	SLE0036-SCV1	NT1005012311.D	NA	05/01/23 20:43
Initial Cal Blank	SLE0036-ICB1	NT1005012312.D	NA	05/01/23 21:22



ANALYSIS SEQUENCE

SLE0036

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GE00012 GCMS Column ID: L004747
MS EM Level: 1400 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0036-TUN1	MS Tune	QC		1	L002618		05/01/2023 14:35	NT1005012301.D	JGR	
SLE0036-CAL1	0.2 ppm ABN	QC		2	K011105	K010831	05/01/2023 18:46	NT1005012308.D	VTS	
SLE0036-CAL2	0.5 ppm ABN	QC		3	K011106	K010831	05/01/2023 18:07	NT1005012307.D	VTS	
SLE0036-CAL3	1 ppm ABN	QC		4	K011107	K010831	05/01/2023 17:28	NT1005012306.D	VTS	
SLE0036-CAL4	2.5 ppm ABN	QC		5	K011108	K010831	05/01/2023 16:49	NT1005012305.D	VTS	
SLE0036-CAL5	5 ppm ABN	QC		6	K011109	K010831	05/01/2023 16:10	NT1005012304.D	VTS	
SLE0036-CAL6	10 ppm ABN	QC		7	K011110	K010831	05/01/2023 15:31	NT1005012303.D	VTS	
SLE0036-CAL7	20 ppm ABN	QC		8	K011111	K010831	05/01/2023 14:52	NT1005012302.D	VTS	
SLE0036-SCV1	SCV 5.0	QC		9	K010066	K010831	05/01/2023 20:43	NT1005012311.D	VTS	
SLE0036-ICB1	Initial Cal Blank	QC		10	K005156	K010831	05/01/2023 21:22	NT1005012312.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230501.b

Time	Filename	LabID	ClientId	DF															
1	1435	NT1005012301.D	SLE0036-TUN1	1	|	NO ISTDS FOUND													
2	1452	NT1005012302.D	SLE0036-CAL7	1	|	9.50	146674	12.00	540672	15.63	301804	18.69	570862	23.71	491034	26.55	317394	24.75	805047
3	1531	NT1005012303.D	SLE0036-CAL6	1	|	9.49	143173	11.99	527883	15.62	301848	18.68	570788	23.70	422654	26.55	329659	24.75	727542
4	1610	NT1005012304.D	SLE0036-CAL5	1	|	9.49	144303	11.99	493698	15.62	279210	18.68	521463	23.70	369911	26.55	311339	24.75	626668
5	1649	NT1005012305.D	SLE0036-CAL4	1	|	9.49	139256	11.99	479621	15.62	272839	18.68	522698	23.70	378327	26.55	328795	24.75	602724
6	1728	NT1005012306.D	SLE0036-CAL3	1	|	9.49	162166	11.99	539712	15.62	305754	18.68	569677	23.69	438621	26.54	394959	24.74	688022
7	1807	NT1005012307.D	SLE0036-CAL2	1	|	9.49	147126	11.98	495631	15.62	278249	18.68	508190	23.69	394033	26.53	365729	24.73	603762
8	1846	NT1005012308.D	SLE0036-CAL1	1	|	9.49	159331	11.98	560494	15.61	302504	18.67	560701	23.69	440035	26.52	398434	24.72	654162
9	2043	NT1005012311.D	SLE0036-SCV1	1	|	9.49	128837	11.99	469135	15.62	260867	18.67	479585	23.69	366214	26.54	326407	24.74	633915
10	2122	NT1005012312.D	SLE0036-ICB1	1	|	9.49	149952	11.98	548897	15.62	293264	18.67	524738	23.69	405166	26.54	379142	24.74	599674

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230501.b

ARI Job No.: SEQ- Method: DFTPP8270E.m Instrument: nt10.i Date: 01-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1435	NT1005012301.D	SEQ-TUN1		1	NO MANUAL INTEGRATION
1452	NT1005012302.D	SEQ-CAL7		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane), Benzoic acid,
1531	NT1005012303.D	SEQ-CAL6		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1610	NT1005012304.D	SEQ-CAL5		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1649	NT1005012305.D	SEQ-CAL4		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1728	NT1005012306.D	SEQ-CAL3		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1807	NT1005012307.D	SEQ-CAL2		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1846	NT1005012308.D	SEQ-CAL1		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane), Dibenzo(a,h)anthracene,
1925	NT1005012309.D	SEQ-SIM2		1	NO MANUAL INTEGRATION
2004	NT1005012310.D	SEQ-SIM1		1	NO MANUAL INTEGRATION
2043	NT1005012311.D	SEQ-SCV1		1	1,4-Dichlorobenzene-d4,
2122	NT1005012312.D	SEQ-ICB1		1	1,4-Dichlorobenzene-d4,

Security Status Report

Date: 03-May-2023 14:10

NT1005012301.D	Data Locked	deenayd, 03-
NT1005012302.D	Data Locked	deenayd, 03-
NT1005012303.D	Data Locked	deenayd, 03-
NT1005012304.D	Data Locked	deenayd, 03-
NT1005012305.D	Data Locked	deenayd, 03-
NT1005012306.D	Data Locked	deenayd, 03-
NT1005012307.D	Data Locked	deenayd, 03-
NT1005012308.D	Data Locked	deenayd, 03-
NT1005012309.D	Data Locked	deenayd, 03-
NT1005012310.D	Data Locked	deenayd, 03-
NT1005012311.D	Data Locked	deenayd, 03-
NT1005012312.D	Data Locked	deenayd, 03-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

Calibration File Names:

Level 1: \\target\share\chem3\nt10.i\20230501.b\NT1005012308.D
 Level 2: \\target\share\chem3\nt10.i\20230501.b\NT1005012307.D
 Level 3: \\target\share\chem3\nt10.i\20230501.b\NT1005012306.D
 Level 4: \\target\share\chem3\nt10.i\20230501.b\NT1005012305.D
 Level 5: \\target\share\chem3\nt10.i\20230501.b\NT1005012304.D
 Level 6: \\target\share\chem3\nt10.i\20230501.b\NT1005012303.D
 Level 7: \\target\share\chem3\nt10.i\20230501.b\NT1005012302.D

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

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

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

ARI Labs, Inc.

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

ARI Labs, Inc.

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

ARI Labs, Inc.

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 Integrator : HP RTE
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 Last Edit : 03-May-2023 14:03 deenayd

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

ARI Labs, Inc.

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 Last Edit : 03-May-2023 14:03 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000
120 2,3,4,6-Tetrachlorophenol	4346	12669	32485	82028	177328	428988					
	917902						QUAD	0.000e+000	1.94569	-0.10036	0.99962
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
111 Azobenzene (1,2-DP-Hydrazine)	1.50094	1.52321	1.55454	1.59588	1.56073	1.60986					
	1.54457						|AVRG|		|1.55568|		|2.45512|
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
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 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

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

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
105 1-methylnaphthalene	0.73396|	0.74018|	0.75250|	0.77022|	0.74902|	0.80481|					
	0.80415|						|AVRG|		|0.76498|		|3.82480|
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000

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

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
3 Phenol	1.54709	1.52827	1.51975	1.60245	1.51603	1.66425					
	1.54433						AVRG		1.56031		3.47517
4 Bis(2-Chloroethyl)ether	1.20767	1.14411	1.15284	1.13222	1.06223	1.15877					
	1.04531						AVRG		1.12902		5.02937

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
6 2-Chlorophenol	1.34487| 1.40742|	1.33170|	1.34063|	1.37973|	1.33679|	1.48978|	|	|	|	|	|
							|AVRG|	|	1.37585|	|	4.16121|
7 1,3-Dichlorobenzene	1.59994| 1.55083|	1.52533|	1.49617|	1.54393|	1.49687|	1.63792|	|	|	|	|	|
							|AVRG|	|	1.55014|	|	3.39221|
9 1,4-Dichlorobenzene	1.58224| 1.54471|	1.50940|	1.48164|	1.48067|	1.45523|	1.60525|	|	|	|	|	|
							|AVRG|	|	1.52273|	|	3.69792|
11 Benzyl alcohol	0.64871| 0.82184|	0.64484|	0.72706|	0.75860|	0.77627|	0.87251|	|	|	|	|	|
							|AVRG|	|	0.74998|	|	11.25890|
12 1,2-Dichlorobenzene	1.52538| 1.50375|	1.42664|	1.41650|	1.46620|	1.41254|	1.59766|	|	|	|	|	|
							|AVRG|	|	1.47838|	|	4.62652|
13 2-Methylphenol	1.07299| 1.17559|	1.12312|	1.10507|	1.16189|	1.11802|	1.25416|	|	|	|	|	|
							|AVRG|	|	1.14440|	|	5.18466|
14 2,2'-oxybis(1-Chloropropane)	0.48390 0.40318	0.43690	0.39189	0.41476	0.38975	0.46845					
							AVRG		0.42698		8.75842

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
15 4-Methylphenol	1.34588	1.33921	1.32129	1.33472	1.37087	1.50022					
	1.40475						AVRG		1.37385		4.52720
16 N-Nitroso-di-n-propylamine	0.85031	0.88996	0.88988	0.93985	0.88898	0.97781					
	0.90823						AVRG		0.90643		4.55206
17 Hexachloroethane	0.62649	0.61825	0.63959	0.66268	0.65616	0.72145					
	0.68423						AVRG		0.65841		5.42335
19 Nitrobenzene	0.41538	0.44030	0.44563	0.45255	0.42672	0.43656					
	0.40679						AVRG		0.43199		3.82384
20 Isophorone	0.42595	0.46925	0.50316	0.52244	0.57933	0.53876					
	0.56109						AVRG		0.51428		10.36299
21 2-Nitrophenol	3761	10446	26205	61872	135168	310157					
	610580						QUAD	0.000e+000	4.35003	0.05591	0.99947
22 2,4-Dimethylphenol	++++	0.42002	0.41275	0.42238	0.41623	0.43485					
	0.42481						AVRG		0.42184		1.82411

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
23 Bis(2-Chloroethoxy)methane	0.31979| 0.31798|	0.34369|	0.33072|	0.33150|	0.32061|	0.33698|	|	|	|	|	|
							|AVRG|	|	0.32875|	|	2.95128|
24 Benzoic acid	++++| 3309159|	39492|	119940|	311612|	678934|	1642196|	|	|	|	|	|
							|QUAD|	0.000e+000|	3.42791|	-0.02831|	0.99901|
25 2,4-Dichlorophenol	0.27779| 0.36507|	0.30549|	0.32582|	0.33793|	0.33658|	0.37106|	|	|	|	|	|
							|AVRG|	|	0.33139|	|	9.81888|
26 1,2,4-Trichlorobenzene	0.47465| 0.46866|	0.48292|	0.47857|	0.47461|	0.45786|	0.48526|	|	|	|	|	|
							|AVRG|	|	0.47465|	|	1.95048|
28 Naphthalene	1.12690| 1.11421|	1.11485|	1.12188|	1.10077|	1.08655|	1.14677|	|	|	|	|	|
							|AVRG|	|	1.11599|	|	1.71736|
29 4-Chloroaniline	0.35223| 0.46367|	0.37831|	0.39494|	0.40909|	0.41030|	0.46610|	|	|	|	|	|
							|AVRG|	|	0.41066|	|	10.23266|
30 Hexachlorobutadiene	0.26123 0.25960	0.26442	0.26268	0.26245	0.25231	0.26961					
							AVRG		0.26176		1.99905

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
31 4-Chloro-3-methylphenol	+++++ 0.39926	0.31753	0.34259	0.35190	0.36013	0.39551					
							AVRG		0.36115		8.72665
32 2-Methylnaphthalene	0.79012 0.88608	0.81785	0.80593	0.83300	0.82352	0.88427					
							AVRG		0.83440		4.46348
33 Hexachlorocyclopentadiene	+++++ 0.58558	0.41189	0.44548	0.48333	0.49712	0.56102					
							AVRG		0.49740		13.34415
34 2,4,6-Trichlorophenol	+++++ 0.57499	0.39122	0.44816	0.48072	0.49681	0.54794					
							AVRG		0.48997		13.60616
35 2,4,5-Trichlorophenol	+++++ 0.62570	0.43607	0.48447	0.52371	0.53992	0.59598					
							AVRG		0.53431		13.08343
37 2-Chloronaphthalene	1.30140 1.42238	1.36557	1.36230	1.35215	1.34141	1.40202					
							AVRG		1.36389		2.90632
38 2-Nitroaniline	+++++ 0.41649	0.33780	0.37441	0.41731	0.40439	0.42619					
							AVRG		0.39610		8.53115

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
39 Dimethylphthalate	1.46570| 1.51951|	1.50783|	1.55012|	1.56811|	1.54640|	1.57798|	|	|	|	|	|
							|AVRG|	|	1.53366|	|	2.53523|
40 Acenaphthylene	2.00348| 2.19800|	2.07518|	2.13037|	2.14658|	2.14807|	2.20097|	|	|	|	|	|
							|AVRG|	|	2.12895|	|	3.28064|
41 2,6-Dinitrotoluene	++++| 0.37649|	0.29486|	0.32382|	0.34665|	0.35397|	0.38124|	|	|	|	|	|
							|AVRG|	|	0.34617|	|	9.44293|
43 3-Nitroaniline	++++| 0.38488|	0.29047|	0.31917|	0.33219|	0.33779|	0.38006|	|	|	|	|	|
							|AVRG|	|	0.34076|	|	10.63640|
44 Acenaphthene	1.31251| 1.42191|	1.33219|	1.33161|	1.33698|	1.32636|	1.41662|	|	|	|	|	|
							|AVRG|	|	1.35402|	|	3.34199|
45 2,4-Dinitrophenol	++++| 2018441|	14366|	49007|	143085|	348285|	931559|	|	|	|	|	|
							|QUAD|	0.000e+000|	3.76849|	-0.11827|	0.99811|
46 Dibenzofuran	1.87898 2.08241	1.89804	1.93698	1.98853	1.95590	2.07873					
							AVRG		1.97423		4.10613

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	20.0000										
	Level 7										
47 4-Nitrophenol	++++	14696	39582	100625	215878	501336					
	998518						QUAD	0.000e+000	3.15042	-0.04085	0.99963
48 2,4-Dinitrotoluene	9342	26851	66923	161624	332505	782047					
	1567355						QUAD	0.000e+000	2.02844	-0.02063	0.99967
49 Fluorene	1.58286	1.57082	1.58798	1.60145	1.57799	1.71530					
	1.76405						AVRG		1.62863		4.77204
50 Diethylphthalate	1.41175	1.49345	1.55297	1.58953	1.56519	1.62760					
	1.90619						AVRG		1.59238		9.74336
51 4-Chlorophenyl-phenylether	0.78492	0.76173	0.77812	0.80144	0.80327	0.85954					
	0.88792						AVRG		0.81099		5.65348
52 4-Nitroaniline	++++	18011	40151	88491	225829	533420					
	1059767						QUAD	0.000e+000	3.02140	-0.05244	0.99879
53 4,6-Dinitro-2-methylphenol	++++	24240	68698	180156	397119	997636					
	2135578						QUAD	0.000e+000	6.41817	-0.29065	0.99925

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
54 N-Nitrosodiphenylamine	0.50665 0.55884	0.52278	0.54641	0.51536	0.52014	0.52990					
							AVRG		0.52858		3.45093
56 4-Bromophenyl-phenylether	0.23021 0.27338	0.23898	0.24210	0.24375	0.24766	0.27064					
							AVRG		0.24953		6.52586
57 Hexachlorobenzene	0.25208 0.26160	0.24314	0.24855	0.24408	0.24938	0.25438					
							AVRG		0.25046		2.53236
58 Pentachlorophenol	++++ 1284710	13163	38553	95167	218051	563878					
							QUAD	0.000e+000	5.86950	-0.63894	0.99907
60 Phenanthrene	1.14642 1.26023	1.15906	1.15410	1.13442	1.15228	1.20932					
							AVRG		1.17369		3.82617
61 Anthracene	0.95184 1.21061	1.02218	1.07669	1.06681	1.10191	1.16207					
							AVRG		1.08459		7.90261
62 Carbazole	0.87045 1.09291	0.97756	1.00200	0.92359	0.87053	0.98340					
							AVRG		0.96006		8.24933

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2		
	20.0000											
	Level 7											
63 Di-n-butylphthalate	27766 4565321	71030	175110	437568	920604	2208223		QUAD	0.000e+000	0.69674	-0.00911	0.99966
64 Fluoranthene	1.51724 1.81698	1.64362	1.73268	1.85199	1.91941	2.01929		AVRG		1.78589		9.50493
65 Pyrene	1.61105 1.77982	1.67669	1.74930	1.81992	1.91024	1.94111		AVRG		1.78402		6.65429
67 Butylbenzylphthalate	10403 1736632	27273	71706	169922	360782	827854		QUAD	0.000e+000	1.19314	0.06093	0.99947
68 Benzo(a)anthracene	1.57656 1.52080	1.55932	1.59017	1.58473	1.63927	1.61381		AVRG		1.58352		2.39623
70 3,3'-Dichlorobenzidine	++++ 5247678	74000	170399	326864	595388	1833732		QUAD	0.000e+000	2.08146	-0.06379	0.99737
71 Chrysene	1.46266 1.31525	1.51149	1.41922	1.41566	1.40099	1.39588		AVRG		1.41731		4.27952

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
72 bis(2-Ethylhexyl)phthalate	0.46548 0.61887	0.53948	0.55999	0.61419	0.61315	0.62220					
							AVRG		0.57619		10.17291
73 Di-n-octylphthalate	1.11076 1.01768	1.08053	1.06530	1.03963	1.02801	1.04516					
							AVRG		1.05530		3.07585
74 Benzo(b)fluoranthene	1.40169 1.99934	1.43280	1.57119	1.60593	1.65887	1.83243					
							AVRG		1.64318		12.95904
75 Benzo(k)fluoranthene	1.50685 1.88241	1.60893	1.51616	1.53451	1.66870	1.69628					
							AVRG		1.63055		8.20104
187 Total Benzofluoranthenes	1.43293 1.87360	1.46792	1.48946	1.51395	1.60342	1.69058					
							AVRG		1.58169		9.85235
76 Benzo(a)pyrene	1.22178 1.65131	1.24219	1.30017	1.32077	1.40459	1.48675					
							AVRG		1.37537		11.08117
78 Indeno(1,2,3-cd)pyrene	1.47784 1.97635	1.52929	1.54704	1.58956	1.67153	1.77425					
							AVRG		1.65226		10.50730

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 Target Version : 4.14
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 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
79 Dibenzo(a,h)anthracene	1.31655| 1.69699|	1.24173|	1.29108|	1.30585|	1.36789|	1.46624|	|	|	|	|	|
							|AVRG|	|	1.38376|	|	11.21556|
80 Benzo(g,h,i)perylene	1.26937| 1.45720|	1.24026|	1.25633|	1.28219|	1.32631|	1.38709|	|	|	|	|	|
							|AVRG|	|	1.31697|	|	6.01928|
90 N-Nitrosodimethylamine	0.64275| 0.66202|	0.63410|	0.63476|	0.66046|	0.62423|	0.71815|	|	|	|	|	|
							|AVRG|	|	0.65378|	|	4.83713|
91 Aniline	1.26404| 1.31197|	1.24049|	1.21817|	1.29444|	1.25249|	1.42027|	|	|	|	|	|
							|AVRG|	|	1.28598|	|	5.22129|
92 1,2-Diphenylhydrazine	+++++| +++++|	+++++|	+++++|	+++++|	+++++|	+++++|	|	|	|	|	|
							|AVRG|	|	0.000e+000|	|	0.000e+000|
93 Benzidine	+++++| 4129583|	61320|	142247|	272765|	530664|	1583457|	|	|	|	|	|
							|QUAD|	0.000e+000|	1.57061|	-0.04589|	0.99755|
96 p-Cymene	+++++| +++++|	+++++|	+++++|	+++++|	+++++|	+++++|	|	|	|	|	|
							|AVRG|	|	0.000e+000|	|	0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
103 Pyridine	0.96654	1.00243	1.03459	1.05659	0.94727	1.10903					
	1.10003						AVRG		1.03093		6.07107

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
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 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
189 N-Nitrosomethylethylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
\$ 1 2-Fluorophenol	1.13650|	1.15525|	1.18137|	1.24607|	1.18572|	1.33446|					
	1.23338|						|AVRG|	|1.21039|			|5.55691|
\$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
\$ 2 Phenol-d5	1.31349|	1.35101|	1.39687|	1.49855|	1.44676|	1.65114|					
	1.55717|						|AVRG|	|1.45928|			|8.15461|
\$ 5 2-Chlorophenol-d4	1.32069|	1.30421|	1.32440|	1.42408|	1.37122|	1.57628|					
	1.46848|						|AVRG|	|1.39848|			|7.05075|
\$ 10 1,2-Dichlorobenzene-d4	1.02742|	1.01323|	0.98566|	1.03213|	0.98319|	1.11494|					
	1.06531						AVRG	1.03170			4.49300

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
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 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
\$ 18 Nitrobenzene-d5	0.40682|	0.43694|	0.46881|	0.46109|	0.45148|	0.46339|					
	0.44045|						|AVRG|		0.44700|		4.76457|
\$ 36 2-Fluorobiphenyl	1.74662|	1.69572|	1.71650|	1.69561|	1.68590|	1.78039|					
	1.80128|						|AVRG|		1.73172|		2.62113|
\$ 55 2,4,6-Tribromophenol	2793|	7502|	18231|	45436|	100361|	244125|					
	542414|						|QUAD|	0.000e+000|	5.22131|	-0.58763|	0.99964|
\$ 66 Terphenyl-d14	1.31967|	1.36969|	1.39867|	1.41822|	1.48115|	1.48168|					
	1.40758|						|AVRG|		1.41095|		4.11036|
\$ 85 p-Cresol-d4	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|						|AVRG|		0.000e+000|		0.000e+000|
\$ 86 Anthracene-d10	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|						|AVRG|		0.000e+000|		0.000e+000|
\$ 87 Fluoranthene-d10	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|						|AVRG|		0.000e+000|		0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
 End Cal Date : 01-MAY-2023 18:46
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
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 Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
 Last Edit : 03-May-2023 14:03 deenayd

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 14:52
End Cal Date : 01-MAY-2023 18:46
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230501.b\ABN.m
Last Edit : 03-May-2023 14:03 deenayd

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09
FILENAME:	NT1005012302	NT1005012303	NT1005012304	NT1005012305	NT1005012306	NT1005012307	NT1005012308	NT1005012311	NT1005012312
INJ. DATE:	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023	01-MAY-2023
INJ. TIME:	14:52	15:31	16:10	16:49	17:28	18:07	18:46	20:43	21:22

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 2-Fluorophenol	7.238	7.238	7.230	7.231	7.238	7.231	7.231	+++++	7.231	7.238	4.238-10.238	7.234	0.004
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.785	15.785-21.785	+++++	+++++
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.645	5.645-11.645	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.455	14.455-20.455	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.696	17.696-23.696	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.219	16.219-22.219	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.949	19.949-25.949	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.196	16.196-22.196	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.503	17.503-23.503	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.827	4.827-10.827	+++++	+++++
168 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.842	12.842-18.842	+++++	+++++
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.383	13.383-19.383	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
§ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.445	0.000-5.445	+++++	+++++
* 134 Di-n-octylphthalate-d4	24.748	24.747	24.747	24.748	24.740	24.732	24.724	24.740	24.740	24.748	21.748-27.748	24.741	0.008
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.571	12.571-18.571	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.447	8.447-14.447	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.252	7.252-13.252	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	16.355	16.347	16.347	16.347	16.347	16.347	16.339	16.339	+++++	16.355	13.355-19.355	16.346	0.005
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.963	15.963-21.963	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.215	18.215-24.215	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.761	13.761-19.761	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.747	15.747-21.747	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.923	13.923-19.923	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.341	11.341-17.341	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.085	11.085-17.085	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	17.057	17.049	17.041	17.042	17.034	17.034	17.034	17.034	+++++	17.057	14.057-20.057	17.041	0.009
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.140	14.140-20.140	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.070	12.070-18.070	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.232	12.232-18.232	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.374	13.374-19.374	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.120	10.120-16.120	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.096	11.096-17.096	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.096	11.096-17.096	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.735	8.735-14.735	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.243	6.243-12.243	+++++	+++++
105 1-methylnaphthalene	13.662	13.654	13.654	13.655	13.654	13.655	13.647	13.647	+++++	13.662	10.662-16.662	13.654	0.005
151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.642	24.642-30.642	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.953	22.953-28.953	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.750	24.750-30.750	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.464	23.464-29.464	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.099	24.099-30.099	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.513	21.513-27.513	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.132	22.132-28.132	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.528	16.528-22.528	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
\$ 2 Phenol-d5	8.830	8.822	8.822	8.815	8.814	8.815	8.815	+++++	8.814	8.830	5.830-11.830	8.818	0.006
3 Phenol	8.853	8.845	8.837	8.838	8.838	8.838	8.838	8.838	+++++	8.853	5.853-11.853	8.841	0.006
4 Bis(2-Chloroethyl)ethe	9.039	9.031	9.023	9.023	9.023	9.023	9.023	9.023	+++++	9.039	6.039-12.039	9.026	0.006
\$ 5 2-Chlorophenol-d4	9.131	9.123	9.123	9.124	9.123	9.116	9.123	+++++	9.123	9.131	6.131-12.131	9.123	0.004

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV	
6 2-Chlorophenol	9.162	9.154	9.154	9.147	9.147	9.147	9.147	9.147	9.147	++++	9.162	6.162-12.162	9.150	0.006
7 1,3-Dichlorobenzene	9.433	9.433	9.433	9.425	9.433	9.425	9.425	9.425	9.425	++++	9.433	6.433-12.433	9.429	0.004
* 8 1,4-Dichlorobenzene-d4	9.495	9.495	9.495	9.487	9.495	9.487	9.487	9.487	9.487	9.495	6.495-12.495	9.491	0.004	
9 1,4-Dichlorobenzene	9.526	9.526	9.526	9.526	9.526	9.518	9.518	9.518	9.518	++++	9.526	6.526-12.526	9.523	0.004
\$ 10 1,2-Dichlorobenzene-d4	9.860	9.860	9.852	9.852	9.852	9.852	9.852	9.852	9.852	++++	9.860	6.860-12.860	9.854	0.004
11 Benzyl alcohol	9.759	9.751	9.751	9.751	9.751	9.751	9.751	9.751	9.751	++++	9.759	6.759-12.759	9.752	0.003
12 1,2-Dichlorobenzene	9.883	9.883	9.883	9.883	9.883	9.875	9.875	9.875	9.875	++++	9.883	6.883-12.883	9.880	0.004
13 2-Methylphenol	9.976	9.968	9.968	9.961	9.961	9.961	9.961	9.961	9.961	++++	9.976	6.976-12.976	9.965	0.006
14 2,2'-oxybis(1-Chloropr	10.062	10.054	10.054	10.054	10.054	10.046	10.046	10.054	10.054	++++	10.062	7.062-13.062	10.053	0.005
15 4-Methylphenol	10.248	10.240	10.232	10.232	10.232	10.225	10.232	10.233	10.248	++++	10.248	7.248-13.248	10.234	0.007
16 N-Nitroso-di-n-propyla	10.333	10.318	10.317	10.310	10.310	10.310	10.310	10.310	10.310	++++	10.333	7.333-13.333	10.315	0.008
17 Hexachloroethane	10.481	10.481	10.480	10.481	10.481	10.473	10.473	10.473	10.481	++++	10.481	7.481-13.481	10.478	0.004
\$ 18 Nitrobenzene-d5	10.605	10.597	10.597	10.589	10.589	10.589	10.589	10.589	10.589	++++	10.605	7.605-13.605	10.593	0.006
19 Nitrobenzene	10.636	10.636	10.628	10.628	10.628	10.628	10.628	10.628	10.636	++++	10.636	7.636-13.636	10.630	0.004
20 Isophorone	11.094	11.078	11.070	11.071	11.070	11.071	11.063	11.071	11.094	++++	11.094	8.094-14.094	11.073	0.009
21 2-Nitrophenol	11.266	11.258	11.257	11.258	11.258	11.258	11.249	11.258	11.266	++++	11.266	8.266-14.266	11.258	0.005
22 2,4-Dimethylphenol	11.300	11.292	11.283	11.283	11.283	11.283	11.283	11.283	11.300	++++	11.300	8.300-14.300	11.286	0.006
23 Bis(2-Chloroethoxy)met	11.504	11.495	11.495	11.487	11.487	11.487	11.487	11.487	11.504	++++	11.504	8.504-14.504	11.491	0.006
24 Benzoic acid	11.631	11.555	11.487	11.436	11.402	11.377	11.360	11.428	11.631	++++	11.631	8.631-14.631	11.459	0.093
25 2,4-Dichlorophenol	11.716	11.707	11.707	11.708	11.699	11.699	11.699	11.699	11.716	++++	11.716	8.716-14.716	11.704	0.006
26 1,2,4-Trichlorobenzene	11.907	11.899	11.899	11.899	11.899	11.899	11.899	11.899	11.907	++++	11.907	8.907-14.907	11.900	0.003
* 27 Naphthalene-d8	11.999	11.991	11.991	11.992	11.991	11.984	11.984	11.992	11.984	11.999	8.999-14.999	11.990	0.005	
28 Naphthalene	12.038	12.038	12.030	12.030	12.030	12.030	12.022	12.030	12.038	++++	12.038	9.038-15.038	12.031	0.005
29 4-Chloroaniline	12.161	12.153	12.153	12.154	12.153	12.146	12.146	12.146	12.161	++++	12.161	9.161-15.161	12.152	0.005

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
30 Hexachlorobutadiene	12.385	12.385	12.385	12.385	12.385	12.385	12.378	12.385	++++	12.385	9.385-15.385	12.384	0.003
31 4-Chloro-3-methylpheno	13.105	13.097	13.097	13.097	13.097	13.090	13.090	13.090	++++	13.105	10.105-16.105	13.095	0.005
32 2-Methylnaphthalene	13.438	13.430	13.430	13.430	13.430	13.430	13.422	13.423	++++	13.438	10.438-16.438	13.429	0.005
33 Hexachlorocyclopentadi	13.895	13.894	13.894	13.895	13.894	13.895	13.887	13.887	++++	13.895	10.895-16.895	13.892	0.004
34 2,4,6-Trichlorophenol	14.057	14.049	14.049	14.042	14.041	14.042	14.041	14.042	++++	14.057	11.057-17.057	14.045	0.006
35 2,4,5-Trichlorophenol	14.127	14.119	14.119	14.119	14.111	14.111	14.111	14.111	++++	14.127	11.127-17.127	14.116	0.006
36 2-Fluorobiphenyl	14.212	14.212	14.211	14.212	14.204	14.204	14.204	14.204	14.204	14.212	11.212-17.212	14.207	0.004
37 2-Chloronaphthalene	14.436	14.436	14.428	14.429	14.428	14.428	14.421	14.429	++++	14.436	11.436-17.436	14.429	0.005
38 2-Nitroaniline	14.699	14.691	14.684	14.684	14.684	14.684	14.676	14.676	++++	14.699	11.699-17.699	14.685	0.008
39 Dimethylphthalate	15.125	15.117	15.109	15.110	15.109	15.102	15.102	15.102	++++	15.125	12.125-18.125	15.110	0.008
40 Acenaphthylene	15.319	15.311	15.311	15.311	15.303	15.303	15.303	15.303	++++	15.319	12.319-18.319	15.308	0.006
41 2,6-Dinitrotoluene	15.272	15.264	15.256	15.257	15.249	15.249	15.249	15.249	++++	15.272	12.272-18.272	15.256	0.009
42 Acenaphthene-d10	15.628	15.620	15.620	15.620	15.620	15.620	15.613	15.620	15.620	15.628	12.628-18.628	15.620	0.004
43 3-Nitroaniline	15.566	15.551	15.543	15.543	15.535	15.535	15.527	15.535	++++	15.566	12.566-18.566	15.542	0.012
44 Acenaphthene	15.698	15.690	15.690	15.690	15.690	15.682	15.682	15.682	++++	15.698	12.698-18.698	15.688	0.005
45 2,4-Dinitrophenol	15.783	15.759	15.759	15.752	15.752	15.744	15.744	15.744	++++	15.783	12.783-18.783	15.755	0.013
46 Dibenzofuran	16.030	16.022	16.014	16.015	16.014	16.015	16.007	16.007	++++	16.030	13.030-19.030	16.015	0.008
47 4-Nitrophenol	15.868	15.844	15.836	15.837	15.829	15.829	15.829	15.829	++++	15.868	12.868-18.868	15.838	0.013
48 2,4-Dinitrotoluene	16.092	16.076	16.068	16.069	16.061	16.061	16.061	16.061	++++	16.092	13.092-19.092	16.069	0.011
49 Fluorene	16.741	16.741	16.733	16.733	16.733	16.726	16.726	16.733	++++	16.741	13.741-19.741	16.733	0.006
50 Diethylphthalate	16.587	16.579	16.571	16.571	16.563	16.563	16.556	16.564	++++	16.587	13.587-19.587	16.569	0.010
51 4-Chlorophenyl-phenyle	16.718	16.718	16.718	16.710	16.710	16.710	16.702	16.710	++++	16.718	13.718-19.718	16.712	0.005
52 4-Nitroaniline	16.865	16.833	16.826	16.818	16.810	16.811	16.810	16.811	++++	16.865	13.865-19.865	16.823	0.019
53 4,6-Dinitro-2-methylph	16.942	16.926	16.910	16.911	16.903	16.903	16.903	16.903	++++	16.942	13.942-19.942	16.913	0.014

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
54 N-Nitrosodiphenylamine	16.980	16.972	16.964	16.965	16.957	16.957	16.957	16.957	+++++	16.980	13.980-19.980	16.964	0.009
\$ 55 2,4,6-Tribromophenol	17.281	17.273	17.273	17.273	17.265	17.265	17.265	17.266	17.265	17.281	14.281-20.281	17.270	0.006
56 4-Bromophenyl-phenylet	17.728	17.728	17.728	17.728	17.728	17.720	17.713	17.720	+++++	17.728	14.728-20.728	17.724	0.006
57 Hexachlorobenzene	18.060	18.052	18.052	18.053	18.053	18.045	18.045	18.045	+++++	18.060	15.060-21.060	18.051	0.005
58 Pentachlorophenol	18.417	18.409	18.409	18.401	18.401	18.401	18.393	18.401	+++++	18.417	15.417-21.417	18.404	0.007
* 59 Phenanthrene-d10	18.687	18.679	18.679	18.680	18.680	18.680	18.672	18.672	18.672	18.687	15.687-21.687	18.678	0.005
60 Phenanthrene	18.734	18.734	18.733	18.726	18.726	18.726	18.718	18.718	+++++	18.734	15.734-21.734	18.727	0.006
61 Anthracene	18.827	18.826	18.826	18.819	18.819	18.819	18.811	18.819	+++++	18.827	15.827-21.827	18.821	0.005
62 Carbazole	19.152	19.144	19.144	19.144	19.144	19.136	19.136	19.136	+++++	19.152	16.152-22.152	19.142	0.005
63 Di-n-butylphthalate	19.918	19.910	19.909	19.910	19.910	19.910	19.902	19.902	+++++	19.918	16.918-22.918	19.909	0.005
64 Fluoranthene	21.101	21.093	21.093	21.094	21.093	21.086	21.086	21.086	+++++	21.101	18.101-24.101	21.092	0.005
65 Pyrene	21.527	21.519	21.519	21.519	21.511	21.511	21.504	21.511	+++++	21.527	18.527-24.527	21.515	0.007
\$ 66 Terphenyl-d14	21.790	21.790	21.790	21.790	21.782	21.782	21.774	21.782	21.782	21.790	18.790-24.790	21.785	0.005
67 Butylbenzylphthalate	22.704	22.696	22.703	22.704	22.696	22.696	22.688	22.696	+++++	22.704	19.704-25.704	22.698	0.005
68 Benzo(a)anthracene	23.679	23.671	23.671	23.671	23.664	23.656	23.656	23.664	+++++	23.679	20.679-26.679	23.667	0.008
* 69 Chrysene-d12	23.710	23.702	23.702	23.702	23.695	23.695	23.687	23.695	23.695	23.710	20.710-26.710	23.698	0.007
70 3,3'-Dichlorobenzidine	23.633	23.625	23.617	23.617	23.617	23.610	23.602	23.617	+++++	23.633	20.633-26.633	23.617	0.009
71 Chrysene	23.757	23.749	23.749	23.749	23.741	23.733	23.733	23.741	+++++	23.757	20.757-26.757	23.744	0.008
72 bis(2-Ethylhexyl)phtha	23.710	23.710	23.718	23.718	23.710	23.702	23.702	23.710	+++++	23.710	20.710-26.710	23.710	0.006
73 Di-n-octylphthalate	24.763	24.755	24.755	24.755	24.747	24.748	24.740	24.748	+++++	24.763	21.763-27.763	24.751	0.007
74 Benzo(b)fluoranthene	25.700	25.700	25.692	25.692	25.676	25.669	25.661	25.684	+++++	25.700	22.700-28.700	25.684	0.014
75 Benzo(k)fluoranthene	25.754	25.746	25.738	25.738	25.731	25.723	25.715	25.731	+++++	25.754	22.754-28.754	25.735	0.012
187 Total Benzofluoranthen	25.754	25.746	25.692	25.692	25.731	25.669	25.661	25.684	+++++	25.754	22.754-28.754	25.704	0.035
76 Benzo(a)pyrene	26.435	26.427	26.419	26.420	26.412	26.397	26.389	26.404	+++++	26.435	23.435-29.435	26.413	0.016

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 77 Perylene-d12	26.552	26.551	26.551	26.552	26.536	26.528	26.520	26.536	26.536	26.552	23.552-29.552	26.540	0.012
| 78 Indeno(1,2,3-cd)pyrene	29.577	29.545	29.545	29.530	29.514	29.491	29.483	29.515	+++++	29.577	26.577-32.577	29.525	0.031
| 79 Dibenzo(a,h)anthracene	29.584	29.561	29.545	29.546	29.530	29.507	29.491	29.522	+++++	29.584	26.584-32.584	29.536	0.030
| 80 Benzo(g,h,i)perylene	30.462	30.431	30.423	30.416	30.400	30.377	30.353	30.392	+++++	30.462	27.462-33.462	30.407	0.034
|\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
|\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
|\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
|\$ 88 Dibenzo(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
|\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
| 90 N-Nitrosodimethylamine	5.091	5.091	5.075	5.068	5.083	5.075	5.083	5.068	+++++	5.091	2.091-8.091	5.079	0.009
| 91 Aniline	8.954	8.946	8.946	8.938	8.946	8.938	8.938	+++++	+++++	8.954	5.954-11.954	8.944	0.006
| 92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
| 93 Benzidine	21.326	21.318	21.318	21.318	21.318	21.310	21.310	21.310	+++++	21.326	18.326-24.326	21.316	0.005
|\$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
| 96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
| 97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
| 98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.787	15.787-21.787	+++++	+++++
| 99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.361	21.361-27.361	+++++	+++++
| 100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.411	22.411-28.411	+++++	+++++
| 101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.023	23.023-29.023	+++++	+++++
| 102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
| 103 Pyridine	5.099	5.098	5.098	5.099	5.122	5.122	5.145	5.099	+++++	5.099	2.099-8.099	5.110	0.018
| 188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.874	8.874-14.874	+++++	+++++
| 189 N-Nitrosomethylethylam	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.818	2.818-8.818	+++++	+++++



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0101

Instrument: NT10

Calibration: GE00012

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLE0101-TUN1	NT1005052301.D	NA	05/05/23 10:04
Initial Cal Check	SLE0101-ICV1	NT1005052303.D	NA	05/05/23 11:37
ABN 0.5	SLE0101-LCV1	NT1005052304.D	NA	05/05/23 12:43
Blank	BLD0329-BLK1	NT1005052307.D	Solid	05/05/23 14:40
LCS	BLD0329-BS1	NT1005052308.D	Solid	05/05/23 15:18
LCS Dup	BLD0329-BSD1	NT1005052309.D	Solid	05/05/23 15:57
Reference	BLD0329-SRM1	NT1005052310.D	Solid	05/05/23 16:36
LDW23-SS1804	23D0136-01	NT1005052311.D	Solid	05/05/23 17:15
LDW23-SS1803	23D0136-03	NT1005052312.D	Solid	05/05/23 17:54
LDW23-SS1803	BLD0329-MS1	NT1005052313.D	Solid	05/05/23 18:32
LDW23-SS1803	BLD0329-MSD1	NT1005052314.D	Solid	05/05/23 19:11
Calibration Check	SLE0101-CCV1	NT1005052315.D	NA	05/05/23 19:50



ANALYSIS SEQUENCE

SLE0101

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GE00012 GCMS Column ID: L004747
MS EM Level: 1400 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0101-TUN1	MS Tune	QC		1	L002618		05/05/2023 10:04	NT1005052301.D	DSD	
SLE0101-ICV1	Initial Cal Check	QC		2	K011109	K010831	05/05/2023 11:37	NT1005052303.D	VTS	
SLE0101-LCV1	ABN 0.5	QC		3	K011106	K010831	05/05/2023 12:43	NT1005052304.D	VTS	
BLD0329-BLK1	Blank	QC		4		K010831	05/05/2023 14:40	NT1005052307.D	VTS	
BLD0329-BS1	LCS	QC		5		K010831	05/05/2023 15:18	NT1005052308.D	VTS	
BLD0329-BSD1	LCS Dup	QC		6		K010831	05/05/2023 15:57	NT1005052309.D	VTS	
BLD0329-SRM1	Reference	QC		7		K010831	05/05/2023 16:36	NT1005052310.D	YZ	
23D0136-01	LDW23-SS1804	20ug/kg solid or 0.2ug/L l	A 05	8		K010831	05/05/2023 17:15	NT1005052311.D	VTS	
23D0136-03	LDW23-SS1803	20ug/kg solid or 0.2ug/L l	A 04	9		K010831	05/05/2023 17:54	NT1005052312.D	VTS	
BLD0329-MS1	Matrix Spike	QC		10		K010831	05/05/2023 18:32	NT1005052313.D	VTS	
BLD0329-MSD1	Matrix Spike Dup	QC		11		K010831	05/05/2023 19:11	NT1005052314.D	VTS	
SLE0101-CCV1	Calibration Check	QC		12	K011109	K010831	05/05/2023 19:50	NT1005052315.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230505.b

Time	Filename	LabID	ClientId	DF															
1	1004	NT1005052301.D	SLE0101-TUN1	1	|	NO ISTDS FOUND|													
2	1137	NT1005052303.D	SLE0101-ICV1	1	|	9.50	179464|	12.00	621628|	15.63	353112|	18.68	694933|	23.69	553967|	26.53	482573|	24.74	895601|
3	1243	NT1005052304.D	SLE0101-LCV1	1	|	9.50	201611|	11.99	660968|	15.62	363017|	18.67	692839|	23.69	576240|	26.52	523576|	24.72	812849|
4	1440	NT1005052307.D	BLD0329-BLK1	1	|	9.49	166260|	11.98	624309|	15.61	339232|	18.66	627090|	23.68	512752|	26.52	443652|	24.72	768100|
5	1518	NT1005052308.D	BLD0329-BS1	1	|	9.49	161608|	11.99	558307|	15.62	320442|	18.67	569811|	23.69	468254|	26.53	408634|	24.73	829477|
6	1557	NT1005052309.D	BLD0329-BSD1	1	|	9.49	158649|	11.99	587151|	15.61	327754|	18.66	592173|	23.69	488998|	26.53	418013|	24.73	841904|
7	1636	NT1005052310.D	BLD0329-SRM1	1	|	9.50	188282|	11.99	642213|	15.61	357166|	18.66	676627|	23.69	507125|	24.72	937500|	26.52	464638|
8	1715	NT1005052311.D	23D0136-01	1	|	9.50	165950|	11.98	633949|	15.61	344264|	18.67	665495|	23.69	482469|	26.54	422532|	24.74	944282|
9	1754	NT1005052312.D	23D0136-03	1	|	9.49	166481|	11.99	638506|	15.62	342307|	18.67	618530|	23.70	454352|	26.55	390090|	24.74	892773|
10	1832	NT1005052313.D	BLD0329-MS1	1	|	9.50	185292|	11.99	705262|	15.62	389417|	18.68	686638|	23.70	544347|	26.55	439193|	24.75	1055664|
11	1911	NT1005052314.D	BLD0329-MSD1	1	|	9.49	167995|	11.99	606720|	15.62	338935|	18.67	596756|	23.70	446464|	26.55	377775|	24.75	907671|
12	1950	NT1005052315.D	SLE0101-CCV1	1	|	9.50	186630|	11.99	709610|	15.62	399972|	18.67	682308|	23.69	499082|	26.54	459767|	24.73	1057621|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230505.b

ARI Job No.: SLE0 Method: DFTPP8270E.m Instrument: nt10.i Date: 05-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1004	NT1005052301.D	SLE0101-TUN1		1	NO MANUAL INTEGRATION
1028	NT1005052302.D	SLE0098-SCV1		1	NO MANUAL INTEGRATION
1137	NT1005052303.D	SLE0101-ICV1		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1243	NT1005052304.D	SLE0101-LCV1		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),
1322	NT1005052305.D	SIM-ICV1		1	NO MANUAL INTEGRATION
1401	NT1005052306.D	SIM-LCV1		1	NO MANUAL INTEGRATION
1440	NT1005052307.D	BLD0329-BLK1		1	1,4-Dichlorobenzene-d4,
1518	NT1005052308.D	BLD0329-BS1		1	1,4-Dichlorobenzene-d4,
1557	NT1005052309.D	BLD0329-BSD1		1	1,4-Dichlorobenzene-d4,
1636	NT1005052310.D	BLD0329-SRM1		1	1,4-Dichlorobenzene-d4,
1715	NT1005052311.D	23D0136-01		1	1,4-Dichlorobenzene-d4,
1754	NT1005052312.D	23D0136-03		1	1,4-Dichlorobenzene-d4, Benzo(k)fluoranthene,
1832	NT1005052313.D	BLD0329-MS1		1	1,4-Dichlorobenzene-d4,
1911	NT1005052314.D	BLD0329-MSD1		1	1,4-Dichlorobenzene-d4,
1950	NT1005052315.D	SLE0101-CCV1		1	1,4-Dichlorobenzene-d4, 2,2'-oxybis(1-Chloropropane),

Security Status Report

Date: 08-May-2023 10:44

NT1005052301.D	Data Locked	deenayd, 08-
NT1005052302.D	Data Locked	deenayd, 08-
NT1005052303.D	Data Locked	deenayd, 08-
NT1005052304.D	Data Locked	deenayd, 08-
NT1005052305.D	Data Locked	deenayd, 08-
NT1005052306.D	Data Locked	deenayd, 08-
NT1005052307.D	Data Locked	deenayd, 08-
NT1005052308.D	Data Locked	deenayd, 08-
NT1005052309.D	Data Locked	deenayd, 08-
NT1005052310.D	Data Locked	deenayd, 08-
NT1005052311.D	Data Locked	deenayd, 08-
NT1005052312.D	Data Locked	deenayd, 08-
NT1005052313.D	Data Locked	deenayd, 08-
NT1005052314.D	Data Locked	deenayd, 08-
NT1005052315.D	Data Locked	deenayd, 08-



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0036
Calibration: GE00012

SDG/WO: 23D0136
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration Date: 05/01/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q	
SLE0036-SCV1 (Solid)		Lab File ID: NT1005012311.D				Analyzed: 05/01/23 20:43			
2-Fluorophenol	7.5000		80 - 120		7.233429	-7.2334	N/A		
Phenol-d5	7.5000		80 - 120		8.818429	-8.8184	N/A		
2-Chlorophenol-d4	7.5000		80 - 120		9.123	-9.1230	N/A		
1,2-Dichlorobenzene-d4	5.0000		80 - 120		9.853571	-9.8536	N/A		
Nitrobenzene-d5	5.0000		80 - 120		10.59329	-10.5933	N/A		
2-Fluorobiphenyl	5.0000	0.449	80 - 120	14.204	14.20771	-0.0037	N/A		
2,4,6-Tribromophenol	7.5000	0.189	80 - 120	17.265	17.27029	-0.0053	N/A		
p-Terphenyl-d14	5.0000	0.451	80 - 120	21.782	21.78486	-0.0029	N/A		
SLE0036-ICB1 (Solid)		Lab File ID: NT1005012312.D				Analyzed: 05/01/23 21:22			
2-Fluorophenol	7.5000	90.6	27 - 120	7.23	7.233429	-0.0034	N/A		
Phenol-d5	7.5000	91.0	29 - 120	8.814	8.818429	-0.0044	N/A		
2-Chlorophenol-d4	7.5000	88.8	31 - 120	9.123	9.123	0.0000	N/A		
1,2-Dichlorobenzene-d4	5.0000	89.5	32 - 120	9.851	9.853571	-0.0026	N/A		
Nitrobenzene-d5	5.0000	88.4	30 - 120	10.589	10.59329	-0.0043	N/A		
2-Fluorobiphenyl	5.0000	85.5	35 - 120	14.203	14.20771	-0.0047	N/A		
2,4,6-Tribromophenol	7.5000	70.6	24 - 134	17.265	17.27029	-0.0053	N/A		
p-Terphenyl-d14	5.0000	86.7	37 - 120	21.782	21.78486	-0.0029	N/A		



SURROGATE RECOVERY AND RT SUMMARY EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0101</u>	Instrument:	<u>NT10</u>
Calibration:	<u>GE00012</u>	Calibration Date:	<u>05/01/2023</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLE0101-ICV1 (Solid) Lab File ID: NT1005052303.D Analyzed: 05/05/23 11:37								
2-Fluorophenol	7.5000	92.1	80 - 120	7.253	7.233429	0.0196	N/A	
Phenol-d5	7.5000	96.1	80 - 120	8.83	8.818429	0.0116	N/A	
2-Chlorophenol-d4	7.5000	89.7	80 - 120	9.139	9.123	0.0160	N/A	
1,2-Dichlorobenzene-d4	5.0000	86.9	80 - 120	9.867	9.853571	0.0134	N/A	
Nitrobenzene-d5	5.0000	95.6	80 - 120	10.604	10.59329	0.0107	N/A	
2-Fluorobiphenyl	5.0000	90.8	80 - 120	14.211	14.20771	0.0033	N/A	
2,4,6-Tribromophenol	7.5000	85.6	80 - 120	17.265	17.27029	-0.0053	N/A	
p-Terphenyl-d14	5.0000	90.8	80 - 120	21.782	21.78486	-0.0029	N/A	
SLE0101-LCV1 (Solid) Lab File ID: NT1005052304.D Analyzed: 05/05/23 12:43								
2-Fluorophenol	0.75000	78.4	50 - 150	7.253	7.233429	0.0196	N/A	
Phenol-d5	0.75000	78.8	50 - 150	8.83	8.818429	0.0116	N/A	
2-Chlorophenol-d4	0.75000	78.2	50 - 150	9.131	9.123	0.0080	N/A	
1,2-Dichlorobenzene-d4	0.50000	84.6	50 - 150	9.867	9.853571	0.0134	N/A	
Nitrobenzene-d5	0.50000	83.1	50 - 150	10.597	10.59329	0.0037	N/A	
2-Fluorobiphenyl	0.50000	88.2	50 - 150	14.204	14.20771	-0.0037	N/A	
2,4,6-Tribromophenol	0.75000	58.0	50 - 150	17.265	17.27029	-0.0053	N/A	
p-Terphenyl-d14	0.50000	80.6	50 - 150	21.774	21.78486	-0.0109	N/A	
BLD0329-BLK1 (Solid) Lab File ID: NT1005052307.D Analyzed: 05/05/23 14:40								
2-Fluorophenol	750.00	38.7	27 - 120	7.238	7.233429	0.0046	N/A	
Phenol-d5	750.00	44.4	29 - 120	8.822	8.818429	0.0036	N/A	
2-Chlorophenol-d4	750.00	57.6	31 - 120	9.123	9.123	0.0000	N/A	
1,2-Dichlorobenzene-d4	500.00	63.5	32 - 120	9.851	9.853571	-0.0026	N/A	
Nitrobenzene-d5	500.00	64.9	30 - 120	10.589	10.59329	-0.0043	N/A	
2-Fluorobiphenyl	500.00	65.1	35 - 120	14.196	14.20771	-0.0117	N/A	
2,4,6-Tribromophenol	750.00	41.5	24 - 134	17.257	17.27029	-0.0133	N/A	
p-Terphenyl-d14	500.00	76.6	37 - 120	21.766	21.78486	-0.0189	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG/WO: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0101

Instrument: NT10

Calibration: GE00012

Calibration Date: 05/01/2023

Surrogate Compound	Spike Level ug/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLD0329-BS1 (Solid)		Lab File ID: NT1005052308.D			Analyzed: 05/05/23 15:18			
2-Fluorophenol	750.00	48.5	27 - 120	7.238	7.233429	0.0046	N/A	
Phenol-d5	750.00	50.5	29 - 120	8.821	8.818429	0.0026	N/A	
2-Chlorophenol-d4	750.00	59.1	31 - 120	9.123	9.123	0.0000	N/A	
1,2-Dichlorobenzene-d4	500.00	57.9	32 - 120	9.851	9.853571	-0.0026	N/A	
Nitrobenzene-d5	500.00	67.0	30 - 120	10.589	10.59329	-0.0043	N/A	
2-Fluorobiphenyl	500.00	63.4	35 - 120	14.203	14.20771	-0.0047	N/A	
2,4,6-Tribromophenol	750.00	65.4	24 - 134	17.265	17.27029	-0.0053	N/A	
p-Terphenyl-d14	500.00	75.5	37 - 120	21.774	21.78486	-0.0109	N/A	
BLD0329-BSD1 (Solid)		Lab File ID: NT1005052309.D			Analyzed: 05/05/23 15:57			
2-Fluorophenol	750.00	50.9	27 - 120	7.238	7.233429	0.0046	N/A	
Phenol-d5	750.00	57.2	29 - 120	8.821	8.818429	0.0026	N/A	
2-Chlorophenol-d4	750.00	69.1	31 - 120	9.123	9.123	0.0000	N/A	
1,2-Dichlorobenzene-d4	500.00	67.6	32 - 120	9.859	9.853571	0.0054	N/A	
Nitrobenzene-d5	500.00	73.8	30 - 120	10.589	10.59329	-0.0043	N/A	
2-Fluorobiphenyl	500.00	71.4	35 - 120	14.203	14.20771	-0.0047	N/A	
2,4,6-Tribromophenol	750.00	75.2	24 - 134	17.257	17.27029	-0.0133	N/A	
p-Terphenyl-d14	500.00	82.4	37 - 120	21.774	21.78486	-0.0109	N/A	
BLD0329-SRM1 (Solid)		Lab File ID: NT1005052310.D			Analyzed: 05/05/23 16:36			
2-Fluorophenol	7500.0	69.4	27 - 120	7.246	7.233429	0.0126	N/A	
Phenol-d5	7500.0	70.9	29 - 120	8.822	8.818429	0.0036	N/A	
2-Chlorophenol-d4	7500.0	79.3	31 - 120	9.123	9.123	0.0000	N/A	
1,2-Dichlorobenzene-d4	5000.0	74.9	32 - 120	9.859	9.853571	0.0054	N/A	
Nitrobenzene-d5	5000.0	86.9	30 - 120	10.589	10.59329	-0.0043	N/A	
2-Fluorobiphenyl	5000.0	83.9	35 - 120	14.204	14.20771	-0.0037	N/A	
2,4,6-Tribromophenol	7500.0	91.7	24 - 134	17.257	17.27029	-0.0133	N/A	
p-Terphenyl-d14	5000.0	93.0	37 - 120	21.774	21.78486	-0.0109	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG/WO: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0101

Instrument: NT10

Calibration: GE00012

Calibration Date: 05/01/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23D0136-01 (Solid) Lab File ID: NT1005052311.D Analyzed: 05/05/23 17:15								
2-Fluorophenol	749.17	51.2	27 - 120	7.246	7.233429	0.0126	N/A	
Phenol-d5	749.17	60.8	29 - 120	8.83	8.818429	0.0116	N/A	
2-Chlorophenol-d4	749.17	66.6	31 - 120	9.123	9.123	0.0000	N/A	
1,2-Dichlorobenzene-d4	499.45	62.0	32 - 120	9.852	9.853571	-0.0016	N/A	
Nitrobenzene-d5	499.45	71.2	30 - 120	10.589	10.59329	-0.0043	N/A	
2-Fluorobiphenyl	499.45	73.8	35 - 120	14.204	14.20771	-0.0037	N/A	
2,4,6-Tribromophenol	749.17	85.7	24 - 134	17.257	17.27029	-0.0133	N/A	
p-Terphenyl-d14	499.45	74.4	37 - 120	21.782	21.78486	-0.0029	N/A	
23D0136-03 (Solid) Lab File ID: NT1005052312.D Analyzed: 05/05/23 17:54								
2-Fluorophenol	749.61	73.9	27 - 120	7.246	7.233429	0.0126	N/A	
Phenol-d5	749.61	78.1	29 - 120	8.829	8.818429	0.0106	N/A	
2-Chlorophenol-d4	749.61	85.5	31 - 120	9.131	9.123	0.0080	N/A	
1,2-Dichlorobenzene-d4	499.74	73.5	32 - 120	9.859	9.853571	0.0054	N/A	
Nitrobenzene-d5	499.74	84.3	30 - 120	10.596	10.59329	0.0027	N/A	
2-Fluorobiphenyl	499.74	82.3	35 - 120	14.203	14.20771	-0.0047	N/A	
2,4,6-Tribromophenol	749.61	91.2	24 - 134	17.265	17.27029	-0.0053	N/A	
p-Terphenyl-d14	499.74	77.2	37 - 120	21.789	21.78486	0.0041	N/A	
BLD0329-MS1 (Solid) Lab File ID: NT1005052313.D Analyzed: 05/05/23 18:32								
2-Fluorophenol	749.94	47.8	27 - 120	7.246	7.233429	0.0126	N/A	
Phenol-d5	749.94	56.3	29 - 120	8.83	8.818429	0.0116	N/A	
2-Chlorophenol-d4	749.94	64.8	31 - 120	9.131	9.123	0.0080	N/A	
1,2-Dichlorobenzene-d4	499.96	59.1	32 - 120	9.859	9.853571	0.0054	N/A	
Nitrobenzene-d5	499.96	68.0	30 - 120	10.597	10.59329	0.0037	N/A	
2-Fluorobiphenyl	499.96	66.0	35 - 120	14.204	14.20771	-0.0037	N/A	
2,4,6-Tribromophenol	749.94	73.4	24 - 134	17.265	17.27029	-0.0053	N/A	
p-Terphenyl-d14	499.96	59.7	37 - 120	21.782	21.78486	-0.0029	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG/WO: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0101

Instrument: NT10

Calibration: GE00012

Calibration Date: 05/01/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLD0329-MSD1 (Solid)		Lab File ID: NT1005052314.D			Analyzed: 05/05/23 19:11			
2-Fluorophenol	749.94	41.1	27 - 120	7.245	7.233429	0.0116	N/A	
Phenol-d5	749.94	51.4	29 - 120	8.829	8.818429	0.0106	N/A	
2-Chlorophenol-d4	749.94	64.2	31 - 120	9.13	9.123	0.0070	N/A	
1,2-Dichlorobenzene-d4	499.96	59.1	32 - 120	9.859	9.853571	0.0054	N/A	
Nitrobenzene-d5	499.96	70.8	30 - 120	10.596	10.59329	0.0027	N/A	
2-Fluorobiphenyl	499.96	71.8	35 - 120	14.203	14.20771	-0.0047	N/A	
2,4,6-Tribromophenol	749.94	77.1	24 - 134	17.265	17.27029	-0.0053	N/A	
p-Terphenyl-d14	499.96	67.8	37 - 120	21.781	21.78486	-0.0039	N/A	
SLE0101-CCV1 (Solid)		Lab File ID: NT1005052315.D			Analyzed: 05/05/23 19:50			
2-Fluorophenol	7.5000	97.6	50 - 150	7.246	7.233429	0.0126	N/A	
Phenol-d5	7.5000	106	50 - 150	8.83	8.818429	0.0116	N/A	
2-Chlorophenol-d4	7.5000	103	50 - 150	9.131	9.123	0.0080	N/A	
1,2-Dichlorobenzene-d4	5.0000	97.5	50 - 150	9.859	9.853571	0.0054	N/A	
Nitrobenzene-d5	5.0000	104	50 - 150	10.597	10.59329	0.0037	N/A	
2-Fluorobiphenyl	5.0000	90.6	50 - 150	14.204	14.20771	-0.0037	N/A	
2,4,6-Tribromophenol	7.5000	86.8	50 - 150	17.265	17.27029	-0.0053	N/A	
p-Terphenyl-d14	5.0000	86.2	50 - 150	21.782	21.78486	-0.0029	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0036

Instrument: NT10

Calibration: GE00012

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLE0036-SCV1)		(Solid)	Lab File ID: NT1005012311.D			Analyzed: 05/01/23 20:43			
1,4-Dichlorobenzene-d4	128837	9.487	144303	9.494	89	50 - 200	-0.007	+/-0.50	
Naphthalene-d8	469135	11.991	493698	11.991	95	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	260867	15.62	279210	15.619	93	50 - 200	0.001	+/-0.50	
Phenanthrene-d10	479585	18.671	521463	18.679	92	50 - 200	-0.008	+/-0.50	
Chrysene-d12	366214	23.694	369911	23.702	99	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	633915	24.739	626668	24.747	101	50 - 200	-0.008	+/-0.50	
Perylene-d12	326407	26.536	311339	26.551	105	50 - 200	-0.015	+/-0.50	
Initial Cal Blank (SLE0036-ICB1)		(Solid)	Lab File ID: NT1005012312.D			Analyzed: 05/01/23 21:22			
1,4-Dichlorobenzene-d4	149952	9.487	144303	9.494	104	50 - 200	-0.007	+/-0.50	
Naphthalene-d8	548897	11.983	493698	11.991	111	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	293264	15.62	279210	15.619	105	50 - 200	0.001	+/-0.50	
Phenanthrene-d10	524738	18.671	521463	18.679	101	50 - 200	-0.008	+/-0.50	
Chrysene-d12	405166	23.694	369911	23.702	110	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	599674	24.739	626668	24.747	96	50 - 200	-0.008	+/-0.50	
Perylene-d12	379142	26.535	311339	26.551	122	50 - 200	-0.016	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0101

SDG: 23D0136
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GE00012

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLE0101-ICV1)		(Solid)	Lab File ID: NT1005052303.D			Analyzed: 05/05/23 11:37			
1,4-Dichlorobenzene-d4	179464	9.502	179464	9.502	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	621628	11.999	621628	11.999	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	353112	15.628	353112	15.628	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	694933	18.679	694933	18.679	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	553967	23.694	553967	23.694	100	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	895601	24.739	895601	24.739	100	50 - 200	0.000	+/-0.50	
Perylene-d12	482573	26.528	482573	26.528	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLE0101-LCV1)		(Solid)	Lab File ID: NT1005052304.D			Analyzed: 05/05/23 12:43			
1,4-Dichlorobenzene-d4	201611	9.502	179464	9.502	112	50 - 200	0.000	+/-0.50	
Naphthalene-d8	660968	11.991	621628	11.999	106	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	363017	15.62	353112	15.628	103	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	692839	18.671	694933	18.679	100	50 - 200	-0.008	+/-0.50	
Chrysene-d12	576240	23.686	553967	23.694	104	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	812849	24.724	895601	24.739	91	50 - 200	-0.015	+/-0.50	
Perylene-d12	523576	26.52	482573	26.528	108	50 - 200	-0.008	+/-0.50	
Blank (BLD0329-BLK1)		(Solid)	Lab File ID: NT1005052307.D			Analyzed: 05/05/23 14:40			
1,4-Dichlorobenzene-d4	166260	9.494	179464	9.502	93	50 - 200	-0.008	+/-0.50	
Naphthalene-d8	624309	11.983	621628	11.999	100	50 - 200	-0.016	+/-0.50	
Acenaphthene-d10	339232	15.612	353112	15.628	96	50 - 200	-0.016	+/-0.50	
Phenanthrene-d10	627090	18.664	694933	18.679	90	50 - 200	-0.015	+/-0.50	
Chrysene-d12	512752	23.679	553967	23.694	93	50 - 200	-0.015	+/-0.50	
Di-n-Octylphthalate-d4	768100	24.724	895601	24.739	86	50 - 200	-0.015	+/-0.50	
Perylene-d12	443652	26.52	482573	26.528	92	50 - 200	-0.008	+/-0.50	
LCS (BLD0329-BS1)		(Solid)	Lab File ID: NT1005052308.D			Analyzed: 05/05/23 15:18			
1,4-Dichlorobenzene-d4	161608	9.494	179464	9.502	90	50 - 200	-0.008	+/-0.50	
Naphthalene-d8	558307	11.991	621628	11.999	90	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	320442	15.62	353112	15.628	91	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	569811	18.671	694933	18.679	82	50 - 200	-0.008	+/-0.50	
Chrysene-d12	468254	23.686	553967	23.694	85	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	829477	24.731	895601	24.739	93	50 - 200	-0.008	+/-0.50	
Perylene-d12	408634	26.527	482573	26.528	85	50 - 200	-0.001	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0101

Instrument: NT10

Calibration: GE00012

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS Dup (BLD0329-BSD1)		(Solid)	Lab File ID: NT1005052309.D			Analyzed: 05/05/23 15:57			
1,4-Dichlorobenzene-d4	158649	9.494	179464	9.502	88	50 - 200	-0.008	+/-0.50	
Naphthalene-d8	587151	11.991	621628	11.999	94	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	327754	15.612	353112	15.628	93	50 - 200	-0.016	+/-0.50	
Phenanthrene-d10	592173	18.663	694933	18.679	85	50 - 200	-0.016	+/-0.50	
Chrysene-d12	488998	23.694	553967	23.694	88	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	841904	24.731	895601	24.739	94	50 - 200	-0.008	+/-0.50	
Perylene-d12	418013	26.527	482573	26.528	87	50 - 200	-0.001	+/-0.50	
Reference (BLD0329-SRM1)		(Solid)	Lab File ID: NT1005052310.D			Analyzed: 05/05/23 16:36			
1,4-Dichlorobenzene-d4	188282	9.495	179464	9.502	105	50 - 200	-0.007	+/-0.50	
Naphthalene-d8	642213	11.991	621628	11.999	103	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	357166	15.612	353112	15.628	101	50 - 200	-0.016	+/-0.50	
Phenanthrene-d10	676627	18.664	694933	18.679	97	50 - 200	-0.015	+/-0.50	
Chrysene-d12	507125	23.687	553967	23.694	92	50 - 200	-0.007	+/-0.50	
Di-n-Octylphthalate-d4	937500	24.724	895601	24.739	105	50 - 200	-0.015	+/-0.50	
Perylene-d12	464638	26.52	482573	26.528	96	50 - 200	-0.008	+/-0.50	
LDW23-SS1804 (23D0136-01)		(Solid)	Lab File ID: NT1005052311.D			Analyzed: 05/05/23 17:15			
1,4-Dichlorobenzene-d4	165950	9.495	179464	9.502	92	50 - 200	-0.007	+/-0.50	
Naphthalene-d8	633949	11.983	621628	11.999	102	50 - 200	-0.016	+/-0.50	
Acenaphthene-d10	344264	15.612	353112	15.628	97	50 - 200	-0.016	+/-0.50	
Phenanthrene-d10	665495	18.671	694933	18.679	96	50 - 200	-0.008	+/-0.50	
Chrysene-d12	482469	23.694	553967	23.694	87	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	944282	24.739	895601	24.739	105	50 - 200	0.000	+/-0.50	
Perylene-d12	422532	26.543	482573	26.528	88	50 - 200	0.015	+/-0.50	
LDW23-SS1803 (23D0136-03)		(Solid)	Lab File ID: NT1005052312.D			Analyzed: 05/05/23 17:54			
1,4-Dichlorobenzene-d4	166481	9.494	179464	9.502	93	50 - 200	-0.008	+/-0.50	
Naphthalene-d8	638506	11.991	621628	11.999	103	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	342307	15.62	353112	15.628	97	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	618530	18.671	694933	18.679	89	50 - 200	-0.008	+/-0.50	
Chrysene-d12	454352	23.702	553967	23.694	82	50 - 200	0.008	+/-0.50	
Di-n-Octylphthalate-d4	892773	24.739	895601	24.739	100	50 - 200	0.000	+/-0.50	
Perylene-d12	390090	26.551	482573	26.528	81	50 - 200	0.023	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0101

Instrument: NT10

Calibration: GE00012

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (BLD0329-MS1)		(Solid)	Lab File ID: NT1005052313.D			Analyzed: 05/05/23 18:32			
1,4-Dichlorobenzene-d4	185292	9.495	179464	9.502	103	50 - 200	-0.007	+/-0.50	
Naphthalene-d8	705262	11.991	621628	11.999	113	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	389417	15.62	353112	15.628	110	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	686638	18.679	694933	18.679	99	50 - 200	0.000	+/-0.50	
Chrysene-d12	544347	23.702	553967	23.694	98	50 - 200	0.008	+/-0.50	
Di-n-Octylphthalate-d4	1055664	24.747	895601	24.739	118	50 - 200	0.008	+/-0.50	
Perylene-d12	439193	26.551	482573	26.528	91	50 - 200	0.023	+/-0.50	
Matrix Spike Dup (BLD0329-MSD1)		(Solid)	Lab File ID: NT1005052314.D			Analyzed: 05/05/23 19:11			
1,4-Dichlorobenzene-d4	167995	9.494	179464	9.502	94	50 - 200	-0.008	+/-0.50	
Naphthalene-d8	606720	11.991	621628	11.999	98	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	338935	15.62	353112	15.628	96	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	596756	18.671	694933	18.679	86	50 - 200	-0.008	+/-0.50	
Chrysene-d12	446464	23.702	553967	23.694	81	50 - 200	0.008	+/-0.50	
Di-n-Octylphthalate-d4	907671	24.747	895601	24.739	101	50 - 200	0.008	+/-0.50	
Perylene-d12	377775	26.551	482573	26.528	78	50 - 200	0.023	+/-0.50	
Calibration Check (SLE0101-CCV1)		(Solid)	Lab File ID: NT1005052315.D			Analyzed: 05/05/23 19:50			
1,4-Dichlorobenzene-d4	186630	9.495	179464	9.502	104	50 - 200	-0.007	+/-0.50	
Naphthalene-d8	709610	11.991	621628	11.999	114	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	399972	15.62	353112	15.628	113	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	682308	18.672	694933	18.679	98	50 - 200	-0.007	+/-0.50	
Chrysene-d12	499082	23.694	553967	23.694	90	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1057621	24.732	895601	24.739	118	50 - 200	-0.007	+/-0.50	
Perylene-d12	459767	26.536	482573	26.528	95	50 - 200	0.008	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/18/23 11:16	12	365	05/05/23 17:15	17	40	
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	04/18/23 11:16	12	365	05/05/23 17:54	17	40	
Matrix Spike BLD0329-MS1	04/05/23 16:05	04/06/23 10:30	04/18/23 11:16	12	365	05/05/23 18:32	17	40	
Matrix Spike Dup BLD0329-MSD1	04/05/23 16:05	04/06/23 10:30	04/18/23 11:16	12	365	05/05/23 19:11	17	40	

* Indicates hold time exceedance.



METHOD DETECTION AND REPORTING LIMITS

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: NT10

Analyte	MDL	RL	Units
Phenol	4.4	20.0	ug/kg
4-Methylphenol	7.4	20.0	ug/kg
Naphthalene	4.2	20.0	ug/kg
2-Methylnaphthalene	4.5	20.0	ug/kg
Acenaphthylene	6.2	20.0	ug/kg
Dimethylphthalate	4.4	20.0	ug/kg
Acenaphthene	5.2	20.0	ug/kg
Dibenzofuran	14.1	20.0	ug/kg
Fluorene	14.6	20.0	ug/kg
Phenanthrene	8.7	20.0	ug/kg
Anthracene	7.2	20.0	ug/kg
Fluoranthene	6.1	20.0	ug/kg
Pyrene	5.7	20.0	ug/kg
Butylbenzylphthalate	9.4	20.0	ug/kg
Benzo(a)anthracene	6.0	20.0	ug/kg
Chrysene	6.1	20.0	ug/kg
bis(2-Ethylhexyl)phthalate	14.1	50.0	ug/kg
Benzo(a)fluoranthene, Total	21.0	40.0	ug/kg
Benzo(a)pyrene	4.2	20.0	ug/kg
Indeno(1,2,3-cd)pyrene	14.7	20.0	ug/kg
Dibenzo(a,h)anthracene	17.2	20.0	ug/kg
Benzo(g,h,i)perylene	13.6	20.0	ug/kg



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: NA

Chemical: Tributyl Phosphate

Manufacturer: Chemservice

Product #: 0-916

Lot #: 59-57A

Purity: 99%

Analyst: VFB

Element: B000954



Description: SVOC 4,4 DDT Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 23-Sep-13
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 11:46 by JZ
Vendor: Chem Service Lot #: 198-128A
Vendor Catalog #:

Comments

Neat, Purity @ 99.2%. (ARI#: 790A)

Analyte	CAS Number	Concentration	Units
4,4'-DDT	50-29-3	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,4' DDT

Manufacturer: Chem Service

Product #: _____

Lot #: 198-128A

Purity: 99.2%

Analyst: AS



Description: SVOC alpha-Terpineol Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 12:13 by JZ
Vendor: ACROS Organics Lot #: AD16481201
Vendor Catalog #:

Comments

Neat, Purity @ 98%. (ARI#: I1582A)

Analyte	CAS Number	Concentration	Units
alpha-Terpineol	98-55-5	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: alpha-Terpineol

Manufacturer: Acros Organics

Product #: _____

Lot #: AD6481201

Purity: 98%

Analyst: 12



Description: SVOA Dibutyl Phenyl phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:45 by JZ
Vendor: Monsanto Lot #: N/A
Vendor Catalog #:

Comments

Neat, Purity @ 98.9%.

Analyte	CAS Number	Concentration	Units
Dibutyl Phenyl Phosphate	2528-36-1	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Dibutyl Phenyl Phosphate

Manufacturer: Monsanto

Product #: N/A

Lot #: N/A

Purity: 98.9%

Analyst: AD



Description: SVOC Triphenyl Phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:59 by JZ
Vendor: Aldrich Lot #: 04902CM
Vendor Catalog #:

Comments

Neat, Purity @ 99%.

Analyte	CAS Number	Concentration	Units
Triphenyl Phosphate	115-86-6	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Triphenyl phosphate

Manufacturer: Aldrich

Product #: _____

Lot #: 04902CM

Purity: 99%

Analyst: [Signature]



Description:	SVOC Butylated Hydroxytoluene	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 16:18 by JZ
Vendor:	SIGMA	Lot #:	39F-0197
Vendor Catalog #:			

Comments

neat,Purity @ 99.9%.

Analyte	CAS Number	Concentration	Units
Butylated Hydroxytoluene	128-37-0	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Bulkyated Hydroxytoluene

Manufacturer: Sigma

Product #: _____

Lot #: 39F-0197

Purity: 99.8%

Analyst: AB



Description:	SVOC Butyl Diphenyl Phosphate	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 17:02 by JZ
Vendor:	Monsanto	Lot #:	N/A
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Butyl Diphenyl Phosphate	2752-95-6	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Butyl Diphenyl Phosphate

Manufacturer: Monsanto

Product #: NA

Lot #: NA

Purity: 99%

Analyst: [Signature]



Description:	SVOC 2,4-Dinitrophenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 13:45 by JZ
Vendor:	SIGMA	Lot #:	65H5021
Vendor Catalog #:			

Comments

Neat, Purity @ 90-95%. (ARI#: 0466)

Analyte	CAS Number	Concentration	Units
2,4-Dinitrophenol	51-28-5	1000000	ug/mL

B001941

SVOA 2,4-Dinitrophenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 2,4-Dinitrophenol

Manufacturer: Sigma

Product #: _____

Lot #: 644 5021

Purity: 90.29%

Analyst: AB



Description:	SVOC Benzoic Acid	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:23 by JZ
Vendor:	ACROS Organics	Lot #:	A0224339
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Benzoic acid	65-85-0	1000000	ug/mL

B001945

SVOC Benzoic Acid
Expires 12/31/2029

Prepared By Jianqing Zhou 12/31/2012

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzoic Acid

Manufacturer: Acros Organics

Product #: _____

Lot #: A0224339

Purity: 98%

Analyst: AB



Description:	SVOC 4,6-Dinitro-2-Methylphenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:37 by JZ
Vendor:	Chem Service	Lot #:	179-31A
Vendor Catalog #:			

Comments

Neat, Purity @ 99%. (ARI#: 009A)

Analyte	CAS Number	Concentration	Units
4,6-Dinitro-2-methylphenol	534-52-1	1000000	ug/mL

B001948

SVOA 4,6-Dinitro-2-Methylphenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,6-Dinitro-2-Methylphenol

Manufacturer: Chem Service

Product #: _____

Lot #: 179-31A

Purity: 99%

Analyst: RB



Description:	SVOA 1-Methylnaphthalene	Expires:	02-Apr-14
Standard Type:	Analyte Spike	Prepared:	13-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	04-Oct-13 18:32 by JZ
Vendor:	Chem Service	Lot #:	62-5B
Vendor Catalog #:			

Comments

Neat, Purity @ 99%

Analyte	CAS Number	Concentration	Units
1-Methylnaphthalene	90-12-0	1000000	ug/mL



B002054
SVOA 1-Methylnaphthalene
Solvent / Lot: NA
Prep: 12/13/2012 by JZ
Exp: 12/31/2029
Location:



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 1-Methyl naphthalene

Manufacturer: Chem Service

Product #: 0787

Lot #: 62-53

Purity: 99%

Analyst: AB



Description: SVOA Benzidine Expires: 31-Dec-29
Standard Type: Analyte Spike Prepared: 15-Oct-13
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 15-Oct-13 12:07 by JZ
Vendor: SIGMA Lot #: 18C0024
Vendor Catalog #:

Comments

Purity @ 95%. ARI#: 0467.

Analyte	CAS Number	Concentration	Units
Benzidine	92-87-5	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzidine

Manufacturer: Sigma

Product #: B-3503

Lot #: 18C0024

Purity: 95%

Analyst: B.

Certificate of Analysis

Product Name: 1,2,4,5-Tetrachlorobenzene
Product Description: 98%
Product Brand: Sigma-Aldrich
Product Number: 131857
Molecular Weight: 215.89
CAS Number: 95-94-3

TEST

APPEARANCE
INFRARED SPECTRUM

GAS LIQUID

QUALITY CONTROL

SPECIFICATION

WHITE POWDER, CHIPS OR CRYSTALS
CONFORMS TO STRUCTURE.

97.5% (MINIMUM)

LOT 19309JR RESULTS

WHITE CHIPS
CONFORMS TO STRUCTURE AND
STANDARD AS
ILLUSTRATED ON PAGE 1011C OF EDITION
I,
VOLUME 1 OF "THE ALDRICH LIBRARY OF
FT-IR
SPECTRA".
99.9 %
JULY 1997



Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

F09172

SVOC 1,2,4,5-Tetrachlorobenzene
Expires 12/31/2079
Prepared By Joshua Rains 10/6/2017

Data File: \\target\share\chem2\fid4a,1\20230317,1\42301703.D
Date: 17-MAR-2023 10:46
Client ID:
Sample Info: K007226

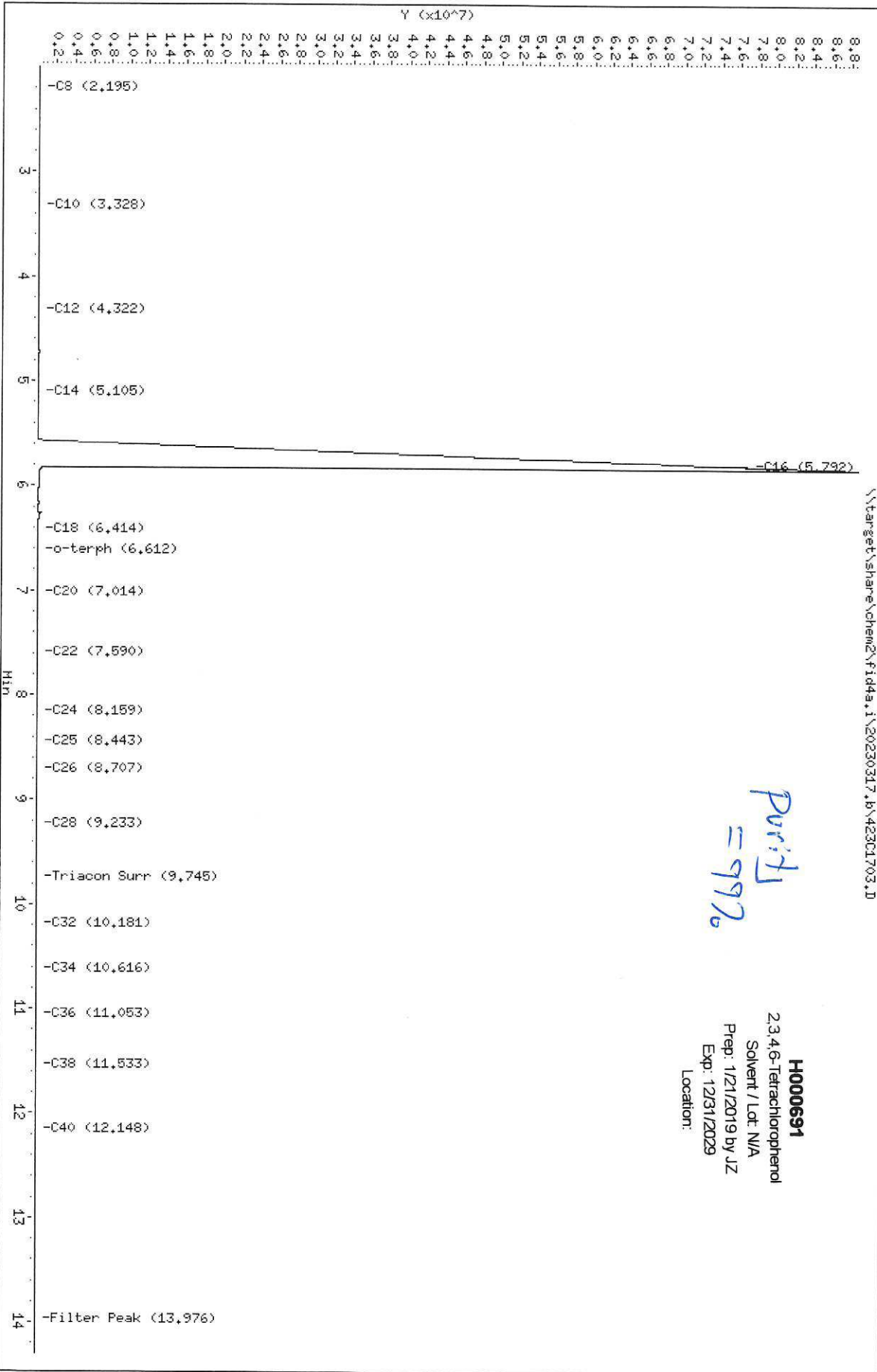
Column phase: RTX-1

Instrument: fid4a.i

Operator: AA

Column diameter: 0.25

Page 1



Purity = 99.2%

H000691
2,3,4,6-Tetrachlorophenol
Solvent / Lot: N/A
Prep: 1/21/2019 by JZ
Exp: 12/31/2029
Location:

H000691

ARI Labs, Inc.

Data file : \\target\share\chem2\fid4a.i\20230317.b\423C1703.D
 Lab Smp Id: K007226
 Inj Date : 17-MAR-2023 10:46
 Operator : AA Inst ID: fid4a.i
 Smp Info : K007226
 Misc Info :
 Comment :
 Method : \\target\share\chem2\fid4a.i\20230317.b\FID4TPH.m
 Meth Date : 17-Mar-2023 16:58 alfonso Quant Type: AREA%
 Cal Date : 18-AUG-2022 11:51 Cal File: 422H1803.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: Falcon+ Compound Sublist: tph.sub
 Target Version: 4.14
 Processing Host: ALFONSO-201901

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.043	81395	55677	0.684	0.012	1 Toluene
2.074	68503	39991	0.584	0.010	
2.104	85451	37158	0.435	0.012	
2.146	59381	25207	0.424	0.008	
2.181	11414	22862	2.003	0.001	
2.195	34939	23199	0.664	0.005	2 C8
2.218	8679	21808	2.513	0.001	
2.224	21070	21832	1.036	0.003	
2.243	45086	20191	0.448	0.006	
2.286	3130	15677	5.009	0.000	
2.291	12615	15880	1.259	0.001	
2.313	20979	15888	0.757	0.003	
2.333	7621	15373	2.017	0.001	
2.348	31874	17112	0.537	0.004	
2.373	4619	13267	2.872	0.000	
2.380	12003	13446	1.120	0.001	
2.393	10327	13347	1.292	0.001	
2.408	9963	12697	1.274	0.001	
2.446	24366	11882	0.488	0.003	
2.498	24898	10214	0.410	0.003	
2.557	1592	6395	4.017	0.000	
2.570	4427	6384	1.442	0.000	
2.583	4275	6215	1.454	0.000	
2.595	1208	6068	5.024	0.000	
2.602	3076	6230	2.025	0.000	
2.607	1560	6270	4.019	0.000	
2.631	17195	8933	0.520	0.002	
2.654	17386	7637	0.439	0.002	
2.703	4531	5468	1.207	0.000	
2.717	9156	5741	0.627	0.001	
2.740	3955	5045	1.275	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.768	1029	4134	4.017	0.000	
2.771	830	4189	5.050	0.000	
2.778	1924	4438	2.307	0.000	
2.784	5498	4564	0.830	0.000	
2.846	25970	8400	0.323	0.003	
2.880	939	3165	3.370	0.000	
2.884	1885	3183	1.688	0.000	
2.901	4805	3504	0.729	0.000	
2.938	581	1990	3.423	0.000	
2.944	1450	2016	1.390	0.000	
2.955	449	1816	4.043	0.000	
2.967	1234	2009	1.629	0.000	
2.982	712	2087	2.931	0.000	
2.988	1000	2338	2.337	0.000	
3.001	3475	3541	1.019	0.000	
3.018	3528	3705	1.050	0.000	
3.033	983	2521	2.564	0.000	
3.038	1297	2686	2.070	0.000	
3.044	2547	2541	0.997	0.000	
3.069	389	1330	3.418	0.000	
3.078	728	1545	2.123	0.000	
3.085	1244	1637	1.316	0.000	
3.098	1115	1624	1.457	0.000	
3.108	926	1475	1.593	0.000	
3.119	239	1202	5.036	0.000	
3.125	540	1251	2.315	0.000	
3.133	409	1219	2.978	0.000	
3.144	2600	1886	0.725	0.000	
3.165	620	1604	2.588	0.000	
3.173	554	1647	2.972	0.000	
3.192	2423	2273	0.938	0.000	
3.197	582	2418	4.158	0.000	
3.204	1161	2723	2.346	0.000	
3.208	825	2777	3.364	0.000	
3.228	4472	3391	0.758	0.000	
3.246	1586	2676	1.688	0.000	
3.279	1194	2070	1.734	0.000	
3.293	854	1951	2.285	0.000	
3.298	595	2029	3.408	0.000	
3.315	2640	2597	0.984	0.000	
3.320	1015	2542	2.504	0.000	
3.328	1549	2593	1.674	0.000	3 C10
3.338	1314	2533	1.928	0.000	
3.350	523	2159	4.130	0.000	
3.358	1776	2105	1.185	0.000	
3.371	356	1797	5.043	0.000	
3.378	914	1880	2.057	0.000	
3.383	380	1927	5.068	0.000	
3.387	595	2023	3.399	0.000	
3.395	1390	2270	1.633	0.000	
3.405	1490	1994	1.338	0.000	
3.423	690	1601	2.321	0.000	
3.435	821	1554	1.894	0.000	
3.441	387	1583	4.087	0.000	
3.444	401	1625	4.051	0.000	
3.448	403	1636	4.060	0.000	
3.455	1216	1700	1.398	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
3.478	235	1185	5.047	0.000	
3.482	412	1229	2.986	0.000	
3.488	695	1177	1.694	0.000	
3.501	239	969	4.063	0.000	
3.509	914	1149	1.258	0.000	
3.520	1078	1069	0.992	0.000	
3.540	301	927	3.079	0.000	
3.556	406	849	2.089	0.000	
3.567	370	873	2.359	0.000	
3.572	178	939	5.270	0.000	
3.578	591	1171	1.981	0.000	
3.591	869	1353	1.556	0.000	
3.596	741	1352	1.826	0.000	
3.606	471	1401	2.976	0.000	
3.613	548	1411	2.577	0.000	
3.618	433	1521	3.511	0.000	
3.625	710	1635	2.303	0.000	
3.630	910	1667	1.832	0.000	
3.652	661	1562	2.362	0.000	
3.670	462	1214	2.627	0.000	
3.686	1036	1453	1.403	0.000	
3.690	829	1374	1.658	0.000	
3.702	531	1191	2.241	0.000	
3.712	452	1355	3.001	0.000	
3.716	820	1423	1.736	0.000	
3.736	2685	2093	0.780	0.000	
3.752	689	2030	2.946	0.000	
3.760	4109	2349	0.572	0.000	
3.805	3183	2036	0.640	0.000	
3.823	496	1686	3.401	0.000	
3.835	1641	2314	1.410	0.000	
3.859	9243	4616	0.499	0.001	
3.897	851	1745	2.051	0.000	
3.904	503	1721	3.419	0.000	
3.927	3866	3293	0.852	0.000	
3.941	5520	3558	0.645	0.000	
3.980	573	1715	2.991	0.000	
3.992	1027	1794	1.748	0.000	
3.995	1494	1860	1.245	0.000	
4.010	887	1639	1.847	0.000	
4.021	663	1724	2.602	0.000	
4.026	1380	1776	1.287	0.000	
4.045	306	1546	5.059	0.000	
4.053	1001	1758	1.757	0.000	
4.061	1137	1804	1.586	0.000	
4.072	779	1773	2.275	0.000	
4.080	989	1896	1.917	0.000	
4.087	561	1905	3.396	0.000	
4.098	1956	2156	1.103	0.000	
4.106	1168	2044	1.750	0.000	
4.127	1049	1627	1.551	0.000	
4.142	587	1545	2.633	0.000	
4.148	1155	1572	1.361	0.000	
4.173	3682	2398	0.651	0.000	
4.189	1023	1738	1.700	0.000	
4.204	549	1627	2.961	0.000	
4.213	628	1658	2.641	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
4.221	1039	1830	1.761	0.000	
4.227	447	1814	4.058	0.000	
4.248	2703	2638	0.976	0.000	
4.256	1387	2945	2.123	0.000	
4.260	743	2988	4.022	0.000	
4.265	912	3081	3.378	0.000	
4.268	779	3140	4.031	0.000	
4.275	1736	3217	1.853	0.000	
4.289	2688	3495	1.300	0.000	
4.295	3466	3448	0.995	0.000	
4.322	1054	2680	2.543	0.000	4 C12
4.330	1686	2627	1.558	0.000	
4.358	1066	1974	1.852	0.000	
4.378	434	1758	4.054	0.000	
4.384	1324	1879	1.419	0.000	
4.403	860	1608	1.869	0.000	
4.414	457	1567	3.431	0.000	
4.421	1117	1675	1.499	0.000	
4.433	910	1538	1.690	0.000	
4.439	865	1534	1.774	0.000	
4.449	764	1302	1.705	0.000	
4.471	433	1123	2.593	0.000	
4.476	734	1135	1.546	0.000	
4.490	385	1005	2.610	0.000	
4.498	555	1186	2.137	0.000	
4.502	695	1166	1.677	0.000	
4.518	587	949	1.618	0.000	
4.526	316	925	2.924	0.000	
4.533	560	989	1.765	0.000	
4.543	469	1001	2.135	0.000	
4.548	222	916	4.130	0.000	
4.553	188	980	5.207	0.000	
4.558	255	1038	4.076	0.000	
4.568	652	1157	1.775	0.000	
4.573	338	1151	3.409	0.000	
4.580	487	1283	2.636	0.000	
4.596	3801	1950	0.513	0.000	
4.631	531	1429	2.692	0.000	
4.663	4548	3737	0.822	0.000	
4.667	2815	3822	1.358	0.000	
4.679	2199	3760	1.710	0.000	
4.688	1068	3585	3.356	0.000	
4.694	2166	3742	1.727	0.000	
4.723	372603	172476	0.463	0.055	
4.894	47034	21828	0.464	0.006	
4.956	80510	28154	0.350	0.011	
4.999	54273	16950	0.312	0.008	
5.068	1137	5713	5.027	0.000	
5.072	8415	5792	0.688	0.001	
5.105	4203	4316	1.027	0.000	5 C14
5.146	660	2685	4.070	0.000	
5.153	2524	2649	1.050	0.000	
5.170	1076	2437	2.265	0.000	
5.174	2371	2438	1.028	0.000	
5.201	1013	2011	1.986	0.000	
5.210	2064	2332	1.130	0.000	
5.224	1083	2304	2.127	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
5.228	2027	2354	1.162	0.000	
5.276	4673	2682	0.574	0.000	
5.322	195	844	4.328	0.000	
5.331	977	1203	1.231	0.000	
5.356	490	993	2.027	0.000	
5.361	814	1044	1.283	0.000	
5.382	115	387	3.351	0.000	
5.399	619	960	1.551	0.000	
5.406	402	1035	2.576	0.000	
5.410	378	1122	2.968	0.000	
5.423	1663	1555	0.935	0.000	
5.452	5951	5020	0.844	0.000	
5.501	290	797	2.753	0.000	
5.523	2317	2472	1.067	0.000	
5.538	5946	6823	1.147	0.000	
5.792	501855376	76456669	0.152	74.449	6 C16
5.807	79757019	82319946	1.032	11.775	
5.823	77929961	88539160	1.136	11.505	
5.962	75333	84828	1.126	0.011	
5.986	474748	124326	0.262	0.070	
6.070	17103	57180	3.343	0.002	
6.074	120761	57565	0.477	0.017	
6.113	90233	47140	0.522	0.013	
6.165	407438	218439	0.536	0.060	
6.263	944101	374166	0.396	0.139	
6.414	114839	39498	0.344	0.016	7 C18
6.464	53190	31177	0.586	0.007	
6.523	31509	25870	0.821	0.004	
6.551	4785	23963	5.008	0.000	
6.559	51194	25409	0.496	0.007	
6.590	21354	21666	1.015	0.003	
6.612	35061	21127	0.603	0.005	\$ 8 o-terph
6.638	17712	19934	1.125	0.002	
6.672	22159	19651	0.887	0.003	
6.683	26846	19268	0.718	0.003	
6.708	5413	18142	3.351	0.000	
6.713	24941	18247	0.732	0.003	
6.747	50657	18478	0.365	0.007	
6.795	23973	17444	0.728	0.003	
6.814	28457	17895	0.629	0.004	
6.837	10746	15445	1.437	0.001	
6.871	29974	21406	0.714	0.004	
6.874	4287	21471	5.009	0.000	
6.882	20520	21675	1.056	0.003	
6.944	32864	17445	0.531	0.004	
6.978	9138	15347	1.679	0.001	
7.014	4130	13830	3.348	0.000	9 C20
7.025	12567	14083	1.121	0.001	
7.038	4952	14274	2.882	0.000	
7.044	6508	14578	2.240	0.000	
7.050	25344	14736	0.581	0.003	
7.099	5531	12365	2.236	0.000	
7.108	16440	12371	0.752	0.002	
7.129	9415	11275	1.198	0.001	
7.175	3589	10327	2.878	0.000	
7.182	7285	10474	1.438	0.001	
7.212	11252	10002	0.889	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.227	5193	9506	1.830	0.000	
7.237	5172	9476	1.832	0.000	
7.247	4652	9357	2.011	0.000	
7.254	3258	9369	2.875	0.000	
7.259	7003	9455	1.350	0.001	
7.272	5540	9252	1.670	0.000	
7.283	4511	9087	2.014	0.000	
7.296	5828	9031	1.550	0.000	
7.308	4850	8866	1.828	0.000	
7.318	3111	9014	2.897	0.000	
7.324	3191	9168	2.873	0.000	
7.328	2775	9325	3.360	0.000	
7.339	6190	9713	1.569	0.000	
7.344	2920	9761	3.343	0.000	
7.350	17091	9874	0.578	0.002	
7.379	7217	8616	1.194	0.001	
7.395	5430	8408	1.548	0.000	
7.404	2492	8342	3.348	0.000	
7.409	1666	8354	5.014	0.000	
7.415	2955	8500	2.877	0.000	
7.423	3887	8782	2.259	0.000	
7.465	28160	14253	0.506	0.004	
7.471	6466	14499	2.242	0.000	
7.480	6649	15111	2.273	0.000	
7.484	26595	15197	0.571	0.003	
7.514	13964	13621	0.975	0.002	
7.539	8118	12614	1.554	0.001	
7.553	10540	12495	1.185	0.001	
7.584	2820	11307	4.010	0.000	
7.590	4522	11429	2.527	0.000	10 C22
7.620	16634	10435	0.627	0.002	
7.653	6793	9783	1.440	0.001	
7.663	8606	9666	1.123	0.001	
7.675	2827	9464	3.347	0.000	
7.683	9373	9620	1.026	0.001	
7.699	3657	9205	2.517	0.000	
7.708	5071	9290	1.832	0.000	
7.713	10483	9274	0.885	0.001	
7.735	10686	9257	0.866	0.001	
7.752	4732	8664	1.831	0.000	
7.765	5624	8765	1.558	0.000	
7.773	5614	8686	1.547	0.000	
7.784	3375	8506	2.520	0.000	
7.793	2118	8517	4.021	0.000	
7.799	10086	8544	0.847	0.001	
7.817	7761	8325	1.073	0.001	
7.833	2415	8088	3.350	0.000	
7.838	2838	8160	2.875	0.000	
7.844	3649	8173	2.240	0.000	
7.858	2009	8069	4.017	0.000	
7.864	4482	8197	1.829	0.000	
7.871	3688	8223	2.230	0.000	
7.879	4875	8269	1.696	0.000	
7.889	2009	8061	4.013	0.000	
7.897	4080	8308	2.036	0.000	
7.916	17828	10103	0.567	0.002	
7.935	4052	9086	2.242	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.940	2229	8948	4.015	0.000	
7.945	5765	8973	1.556	0.000	
7.954	6458	8765	1.357	0.000	
7.976	2099	8428	4.016	0.000	
7.984	10213	8807	0.862	0.001	
7.999	4897	8282	1.691	0.000	
8.013	8782	8112	0.924	0.001	
8.028	5860	7858	1.341	0.000	
8.040	3929	7871	2.003	0.000	
8.054	9161	8146	0.889	0.001	
8.067	2701	7766	2.876	0.000	
8.074	3069	7702	2.510	0.000	
8.081	2694	7742	2.874	0.000	
8.088	2705	7793	2.881	0.000	
8.095	5842	7832	1.341	0.000	
8.104	5419	7841	1.447	0.000	
8.119	5740	7735	1.348	0.000	
8.134	4986	7768	1.558	0.000	
8.141	5893	8009	1.359	0.000	
8.159	9098	8027	0.882	0.001	11 C24
8.174	3156	7971	2.526	0.000	
8.185	2376	7967	3.353	0.000	
8.190	4739	7937	1.675	0.000	
8.202	5181	8028	1.549	0.000	
8.212	1994	8027	4.025	0.000	
8.223	6137	8270	1.348	0.000	
8.236	6864	8171	1.190	0.001	
8.248	2383	7986	3.351	0.000	
8.253	2405	8059	3.351	0.000	
8.259	5294	8207	1.550	0.000	
8.268	2866	8235	2.874	0.000	
8.280	6583	8312	1.263	0.000	
8.289	4538	8296	1.828	0.000	
8.295	2060	8300	4.029	0.000	
8.300	2063	8291	4.020	0.000	
8.313	7062	8400	1.189	0.001	
8.318	1667	8375	5.023	0.000	
8.332	11362	9100	0.801	0.001	
8.343	4357	8741	2.006	0.000	
8.358	1267	8458	6.676	0.000	
8.363	2991	8621	2.882	0.000	
8.371	3980	8983	2.257	0.000	
8.379	6330	9083	1.435	0.000	
8.385	3111	8963	2.881	0.000	
8.393	6706	9050	1.349	0.000	
8.404	4903	8943	1.824	0.000	
8.417	8437	8972	1.063	0.001	
8.438	7166	9103	1.270	0.001	
8.443	3211	9227	2.873	0.000	12 C25
8.450	3688	9295	2.521	0.000	
8.455	2313	9276	4.010	0.000	
8.475	30054	13714	0.456	0.004	
8.504	5760	9733	1.690	0.000	
8.519	2799	9376	3.350	0.000	
8.529	4766	9710	2.037	0.000	
8.537	4875	9815	2.013	0.000	
8.543	8411	9973	1.186	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
8.555	2969	9916	3.340	0.000	
8.560	3974	9987	2.513	0.000	
8.568	2483	9997	4.026	0.000	
8.572	5007	10043	2.006	0.000	
8.591	14074	10725	0.762	0.002	
8.602	2648	10665	4.028	0.000	
8.606	2159	10862	5.032	0.000	
8.609	2183	10952	5.017	0.000	
8.633	7361	10561	1.435	0.001	
8.647	6774	10495	1.549	0.001	
8.658	2596	10420	4.014	0.000	
8.663	4723	10573	2.239	0.000	
8.669	3156	10589	3.355	0.000	
8.687	15405	11334	0.736	0.002	
8.699	6103	11158	1.828	0.000	
8.707	2223	11136	5.009	0.000	13 C26
8.730	28697	12536	0.437	0.004	
8.754	8658	11553	1.334	0.001	
8.763	2896	11612	4.010	0.000	
8.780	15029	12352	0.822	0.002	
8.788	1833	12243	6.680	0.000	
8.798	11854	12679	1.070	0.001	
8.806	1873	12509	6.677	0.000	
8.809	3133	12565	4.011	0.000	
8.813	2506	12550	5.008	0.000	
8.819	7588	12757	1.681	0.001	
8.829	4418	12679	2.870	0.000	
8.835	6988	12762	1.826	0.001	
8.848	13711	13258	0.967	0.002	
8.872	26625	13656	0.513	0.003	
8.894	4575	13127	2.869	0.000	
8.898	2631	13188	5.013	0.000	
8.902	5918	13262	2.241	0.000	
8.914	8577	13313	1.552	0.001	
8.922	4011	13433	3.349	0.000	
8.926	4724	13546	2.867	0.000	
8.933	6787	13651	2.011	0.001	
8.946	9614	13923	1.448	0.001	
8.951	6274	14004	2.232	0.000	
8.960	5592	14036	2.510	0.000	
8.966	3513	14090	4.011	0.000	
8.969	2829	14171	5.009	0.000	
8.973	4976	14233	2.860	0.000	
8.980	4289	14365	3.350	0.000	
8.996	27708	16441	0.593	0.004	
9.013	8129	14847	1.827	0.001	
9.025	8129	14840	1.826	0.001	
9.036	7503	15229	2.030	0.001	
9.040	4559	15225	3.340	0.000	
9.057	14920	16251	1.089	0.002	
9.067	9915	16831	1.698	0.001	
9.076	8535	17331	2.031	0.001	
9.081	5250	17596	3.352	0.000	
9.084	10558	17675	1.674	0.001	
9.095	4386	17601	4.013	0.000	
9.111	30564	19262	0.630	0.004	
9.128	8346	18722	2.243	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.139	15095	18986	1.258	0.002	
9.149	6655	19050	2.862	0.000	
9.158	23240	19719	0.848	0.003	
9.171	1903	19042	10.005	0.000	
9.175	4773	19156	4.013	0.000	
9.187	23630	19927	0.843	0.003	
9.199	4925	19763	4.013	0.000	
9.208	14115	20394	1.445	0.002	
9.219	12303	20691	1.682	0.001	
9.226	7266	20831	2.867	0.001	
9.233	15622	21000	1.344	0.002	14 C28
9.247	9280	20714	2.232	0.001	
9.262	45057	27849	0.618	0.006	
9.281	22651	23200	1.024	0.003	
9.304	13489	22820	1.692	0.001	
9.307	18038	22862	1.267	0.002	
9.328	8656	21778	2.516	0.001	
9.334	8635	21650	2.507	0.001	
9.343	16240	21738	1.339	0.002	
9.354	5409	21709	4.013	0.000	
9.367	16481	22234	1.349	0.002	
9.370	6683	22346	3.344	0.000	
9.382	14775	23166	1.568	0.002	
9.390	11679	23531	2.015	0.001	
9.394	12888	23584	1.830	0.001	
9.408	18752	23645	1.261	0.002	
9.416	4675	23396	5.004	0.000	
9.428	25138	24392	0.970	0.003	
9.438	20233	24095	1.191	0.002	
9.468	67429	26696	0.396	0.009	
9.496	8413	24122	2.867	0.001	
9.507	12049	24259	2.013	0.001	
9.527	36362	25771	0.709	0.005	
9.538	12891	25911	2.010	0.001	
9.543	6452	25853	4.007	0.000	
9.551	10420	26202	2.515	0.001	
9.557	29750	26593	0.894	0.004	
9.574	6252	25071	4.010	0.000	
9.593	29143	27655	0.949	0.004	
9.599	40783	27905	0.684	0.006	
9.620	13159	26364	2.004	0.001	
9.632	17259	26799	1.553	0.002	
9.640	13210	26592	2.013	0.001	
9.664	35362	28170	0.797	0.005	
9.672	27890	28134	1.009	0.004	
9.696	26737	28634	1.071	0.003	
9.711	53475	30848	0.577	0.007	
9.745	33266	29504	0.887	0.004	\$ 15 Triacon Surr
9.752	7348	29501	4.015	0.001	
9.756	20542	29565	1.439	0.003	
9.768	7255	29059	4.005	0.001	
9.773	7275	29173	4.010	0.001	
9.785	31543	30611	0.970	0.004	
9.803	46804	32832	0.701	0.006	
9.821	10456	30060	2.875	0.001	
9.833	30772	31156	1.012	0.004	
9.860	77784	33514	0.431	0.011	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.881	12779	32069	2.510	0.001	
9.892	14531	32668	2.248	0.002	
9.896	8201	32902	4.012	0.001	
9.908	23357	33882	1.451	0.003	
9.912	27050	34095	1.260	0.003	
9.939	14585	32570	2.233	0.002	
9.951	23032	33095	1.437	0.003	
9.956	11596	33292	2.871	0.001	
9.966	16544	33271	2.011	0.002	
9.971	11660	33391	2.864	0.001	
9.975	10051	33617	3.345	0.001	
9.983	15209	33983	2.234	0.002	
9.988	15177	33830	2.229	0.002	
9.996	10128	33907	3.348	0.001	
10.018	43348	35629	0.822	0.006	
10.021	7133	35693	5.004	0.001	
10.025	8960	35988	4.016	0.001	
10.034	42064	36944	0.878	0.006	
10.063	65447	38699	0.591	0.009	
10.077	7375	36906	5.004	0.001	
10.083	16743	37428	2.235	0.002	
10.095	34467	38665	1.122	0.005	
10.118	90921	40621	0.447	0.013	
10.151	37738	38047	1.008	0.005	
10.158	11383	38037	3.342	0.001	
10.168	36074	38274	1.061	0.005	
10.181	15072	37809	2.509	0.002	16 C32
10.185	5655	37746	6.675	0.000	
10.198	43905	38471	0.876	0.006	
10.208	24771	38177	1.541	0.003	
10.218	19031	38113	2.003	0.002	
10.228	13353	38279	2.867	0.001	
10.237	21225	38826	1.829	0.003	
10.243	30946	38929	1.258	0.004	
10.266	43064	39733	0.923	0.006	
10.275	11912	39784	3.340	0.001	
10.278	19932	39886	2.001	0.002	
10.293	46366	40725	0.878	0.006	
10.318	46465	41024	0.883	0.006	
10.328	24720	41353	1.673	0.003	
10.334	10308	41278	4.005	0.001	
10.343	29100	41866	1.439	0.004	
10.354	22822	41695	1.827	0.003	
10.360	16568	41490	2.504	0.002	
10.376	31388	42321	1.348	0.004	
10.384	36478	43119	1.182	0.005	
10.393	21427	43144	2.014	0.003	
10.416	82339	44731	0.543	0.012	
10.434	23173	42257	1.824	0.003	
10.455	42801	43684	1.021	0.006	
10.459	19648	44004	2.240	0.002	
10.469	19632	43883	2.235	0.002	
10.492	56113	45807	0.816	0.008	
10.497	20626	45915	2.226	0.003	
10.503	27439	45837	1.671	0.004	
10.513	31833	45842	1.440	0.004	
10.523	6773	45190	6.672	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
10.529	22697	45513	2.005	0.003	
10.543	39087	46432	1.188	0.005	
10.552	16284	46719	2.869	0.002	
10.558	18796	47158	2.509	0.002	
10.576	69878	48769	0.698	0.010	
10.586	12085	48384	4.004	0.001	
10.592	21757	48469	2.228	0.003	
10.609	46960	50482	1.075	0.006	
10.616	40486	50812	1.255	0.005	17 C34
10.628	52392	50284	0.960	0.007	
10.665	99744	52644	0.528	0.014	
10.680	20832	52264	2.509	0.003	
10.699	126137	55939	0.443	0.018	
10.723	18258	52316	2.865	0.002	
10.733	65550	52928	0.807	0.009	
10.751	49102	51903	1.057	0.007	
10.765	10288	51490	5.005	0.001	
10.777	73220	52877	0.722	0.010	
10.791	15621	52150	3.338	0.002	
10.799	46819	52190	1.115	0.006	
10.817	52000	52328	1.006	0.007	
10.828	13014	52167	4.008	0.001	
10.833	18275	52280	2.861	0.002	
10.838	67284	52271	0.777	0.009	
10.860	15395	51401	3.339	0.002	
10.867	15366	51252	3.335	0.002	
10.874	25712	51608	2.007	0.003	
10.885	59363	52064	0.877	0.008	
10.901	33199	51247	1.544	0.004	
10.911	35859	51446	1.435	0.005	
10.925	15150	50526	3.335	0.002	
10.936	27761	50508	1.819	0.004	
10.954	40634	51235	1.261	0.005	
10.958	17973	51428	2.861	0.002	
10.982	101216	54997	0.543	0.014	
10.999	80380	54264	0.675	0.011	
11.022	15822	52869	3.342	0.002	
11.029	23878	53171	2.227	0.003	
11.032	23908	53219	2.226	0.003	
11.044	39793	53228	1.338	0.005	
11.053	13218	52959	4.007	0.001	19 C36
11.057	26491	53088	2.004	0.003	
11.069	47933	53454	1.115	0.007	
11.079	78088	52997	0.679	0.011	
11.132	4853	48537	10.002	0.000	
11.138	21933	48845	2.227	0.003	
11.148	46678	49317	1.057	0.006	
11.158	12248	49060	4.006	0.001	
11.164	14711	49102	3.338	0.002	
11.179	64473	49939	0.775	0.009	
11.192	19751	49439	2.503	0.002	
11.197	14848	49541	3.337	0.002	
11.202	17336	49566	2.859	0.002	
11.206	12400	49639	4.003	0.001	
11.212	56808	49881	0.878	0.008	
11.230	26830	48794	1.819	0.003	
11.263	19014	47590	2.503	0.002	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
11.267	11927	47790	4.007	0.001	
11.285	66432	50042	0.753	0.009	
11.308	17214	49235	2.860	0.002	
11.312	19684	49285	2.504	0.002	
11.322	19740	49570	2.511	0.002	
11.331	27467	50208	1.828	0.004	
11.334	12565	50301	4.003	0.001	
11.338	17617	50367	2.859	0.002	
11.356	50450	50688	1.005	0.007	
11.383	31641	48774	1.541	0.004	
11.392	14562	48589	3.337	0.002	
11.398	14566	48593	3.336	0.002	
11.405	21947	48858	2.226	0.003	
11.418	36961	49602	1.342	0.005	
11.428	52174	49838	0.955	0.007	
11.438	46900	49605	1.058	0.006	
11.456	66003	49218	0.746	0.009	
11.481	84312	48818	0.579	0.012	
11.518	39837	46996	1.180	0.005	
11.533	55836	46822	0.839	0.008	20 C38
11.560	30101	46465	1.544	0.004	
11.568	20916	46512	2.224	0.003	
11.573	11637	46596	4.004	0.001	
11.579	23274	46598	2.002	0.003	
11.586	13953	46531	3.335	0.002	
11.591	9318	46631	5.004	0.001	
11.623	97892	48831	0.499	0.014	
11.631	17107	48984	2.863	0.002	
11.638	22090	49260	2.230	0.003	
11.642	32050	49351	1.540	0.004	
11.669	95446	50981	0.534	0.014	
11.685	95822	49865	0.520	0.014	
11.788	8918	44609	5.002	0.001	
11.791	35704	44768	1.254	0.005	
11.804	11082	44350	4.002	0.001	
11.813	22172	44403	2.003	0.003	
11.823	19993	44543	2.228	0.002	
11.829	13395	44754	3.341	0.001	
11.837	20184	44981	2.228	0.002	
11.852	26933	44942	1.669	0.003	
11.866	36041	45224	1.255	0.005	
11.877	15835	45355	2.864	0.002	
11.883	18222	45726	2.509	0.002	
11.889	15985	45741	2.861	0.002	
11.896	20679	46117	2.230	0.003	
11.905	23259	46896	2.016	0.003	
11.929	70146	49826	0.710	0.010	
11.936	52288	50085	0.958	0.007	
11.951	14787	49369	3.339	0.002	
11.957	17313	49595	2.865	0.002	
11.961	32199	49647	1.542	0.004	
11.971	19578	49063	2.506	0.002	
11.980	34244	49065	1.433	0.005	
12.019	96987	51133	0.527	0.014	
12.025	48685	51499	1.058	0.007	
12.053	38386	51386	1.339	0.005	
12.062	38575	51549	1.336	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
12.070	17923	51300	2.862	0.002	
12.078	45780	51141	1.117	0.006	
12.105	31495	48817	1.550	0.004	
12.118	85510	48295	0.565	0.012	
12.148	55474	46657	0.841	0.008	21 C40
12.172	34299	45899	1.338	0.005	
12.181	18286	45754	2.502	0.002	
12.188	20565	45727	2.223	0.003	
12.198	29701	45787	1.542	0.004	
12.212	11377	45530	4.002	0.001	
12.218	29576	45566	1.541	0.004	
12.237	41054	45750	1.114	0.006	
12.243	13695	45701	3.337	0.002	
12.253	27528	46122	1.675	0.004	
12.260	16149	46201	2.861	0.002	
12.272	32473	46571	1.434	0.004	
12.347	231342	54259	0.235	0.034	
12.355	96470	54322	0.563	0.014	
12.383	13155	52687	4.005	0.001	
12.389	52817	52930	1.002	0.007	
12.434	117936	55204	0.468	0.017	
12.440	19323	55283	2.861	0.002	
12.448	22049	55156	2.502	0.003	
12.460	127044	56114	0.442	0.018	
12.500	63536	55700	0.877	0.009	
12.519	44746	56237	1.257	0.006	
12.523	16928	56556	3.341	0.002	
12.528	14154	56666	4.003	0.002	
12.532	14154	56644	4.002	0.002	
12.538	25607	57089	2.229	0.003	
12.543	31284	57010	1.822	0.004	
12.560	76588	57084	0.745	0.011	
12.574	22463	56167	2.500	0.003	
12.583	192414	56305	0.293	0.028	
12.668	201456	54098	0.269	0.029	
12.722	63529	49368	0.777	0.009	
12.744	14574	48683	3.340	0.002	
12.757	68233	49046	0.719	0.010	
12.777	29106	48653	1.672	0.004	
12.802	69072	49884	0.722	0.010	
12.805	19947	49915	2.502	0.002	
12.813	12457	49907	4.006	0.001	
12.826	42860	50672	1.182	0.006	
12.830	15192	50711	3.338	0.002	
12.835	63121	50727	0.804	0.009	
12.856	30109	50299	1.671	0.004	
12.871	12459	49875	4.003	0.001	
12.876	24950	49913	2.001	0.003	
12.883	12458	49860	4.002	0.001	
12.892	24999	50091	2.004	0.003	
12.904	37682	50442	1.339	0.005	
12.918	60965	51059	0.838	0.009	
12.929	15268	50972	3.338	0.002	
12.950	101236	52476	0.518	0.014	
12.991	32619	50285	1.542	0.004	
13.030	23826	47690	2.002	0.003	
13.047	49429	47410	0.959	0.007	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.072	11668	46709	4.003	0.001	
13.077	14056	46964	3.341	0.002	
13.083	21201	47214	2.227	0.003	
13.092	45034	47490	1.055	0.006	
13.103	33139	47401	1.430	0.004	
13.119	58622	47300	0.807	0.008	
13.136	61979	46406	0.749	0.009	
13.163	36232	45399	1.253	0.005	
13.172	13552	45219	3.337	0.002	
13.178	13550	45211	3.337	0.002	
13.183	13581	45318	3.337	0.002	
13.188	15867	45365	2.859	0.002	
13.193	11350	45433	4.003	0.001	
13.206	54879	45909	0.837	0.008	
13.233	74220	46899	0.632	0.010	
13.246	18724	46923	2.506	0.002	
13.250	14089	47028	3.338	0.002	
13.254	9392	46999	5.004	0.001	
13.261	35241	47103	1.337	0.005	
13.270	21093	46884	2.223	0.003	
13.278	16404	46889	2.858	0.002	
13.284	28108	46937	1.670	0.004	
13.309	27777	46575	1.677	0.004	
13.313	11643	46617	4.004	0.001	
13.323	30391	46938	1.544	0.004	
13.337	49696	47554	0.957	0.007	
13.345	11906	47686	4.005	0.001	
13.352	21499	47921	2.229	0.003	
13.358	14416	48133	3.339	0.002	
13.366	24163	48487	2.007	0.003	
13.391	108474	49842	0.459	0.016	
13.411	39818	49922	1.254	0.005	
13.421	140245	49882	0.356	0.020	
13.468	75433	46221	0.613	0.011	
13.519	59701	44435	0.744	0.008	
13.538	26345	44021	1.671	0.003	
13.553	17475	43727	2.502	0.002	
13.559	19699	43828	2.225	0.002	
13.566	15324	43832	2.860	0.002	
13.574	28519	43956	1.541	0.004	
13.585	21950	43943	2.002	0.003	
13.595	26497	44341	1.673	0.003	
13.603	22230	44574	2.005	0.003	
13.608	11135	44585	4.004	0.001	
13.633	100703	46371	0.460	0.014	
13.650	25255	45974	1.820	0.003	
13.663	20511	45675	2.227	0.003	
13.670	15945	45584	2.859	0.002	
13.677	40973	45642	1.114	0.006	
13.688	4544	45448	10.002	0.000	
13.693	29520	45508	1.542	0.004	
13.718	24720	44995	1.820	0.003	
13.727	11216	44890	4.002	0.001	
13.735	29185	45025	1.543	0.004	
13.752	17874	44782	2.505	0.002	
13.767	35874	45020	1.255	0.005	
13.775	36036	45104	1.252	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.785	11226	44939	4.003	0.001	
13.790	47016	44953	0.956	0.006	
13.813	11118	44516	4.004	0.001	
13.818	37641	44507	1.182	0.005	
13.832	15424	44192	2.865	0.002	
13.838	17564	43967	2.503	0.002	
13.844	26339	43892	1.666	0.003	
13.855	30567	43821	1.434	0.004	
13.865	23854	43526	1.825	0.003	
13.882	28266	43639	1.544	0.004	
13.886	30418	43629	1.434	0.004	
13.901	34702	43472	1.253	0.005	
13.920	48162	44005	0.914	0.007	
13.928	17577	43956	2.501	0.002	
13.941	15410	44084	2.861	0.002	
13.946	11045	44251	4.006	0.001	
13.949	24369	44341	1.820	0.003	
13.959	22103	44264	2.003	0.003	
13.967	22088	44195	2.001	0.003	
13.976	33207	44336	1.335	0.004	18 Filter Peak
13.998	24195	44018	1.819	0.003	
14.007	15335	43888	2.862	0.002	
14.014	17519	43863	2.504	0.002	
14.019	54335	43870	0.807	0.008	
14.046	10722	42915	4.003	0.001	
14.052	19305	42955	2.225	0.002	
14.058	8568	42864	5.003	0.001	
14.067	38739	43159	1.114	0.005	
14.077	15012	42931	2.860	0.002	
14.083	25753	42977	1.669	0.003	
14.102	25682	42913	1.671	0.003	
14.108	19267	42865	2.225	0.002	
14.116	12834	42815	3.336	0.001	
14.126	25874	43369	1.676	0.003	
14.133	56339	43595	0.774	0.008	
14.161	32503	43582	1.341	0.004	
14.165	10909	43696	4.006	0.001	
14.170	15313	43822	2.862	0.002	
14.175	10960	43911	4.007	0.001	
14.178	13176	43945	3.335	0.001	
14.183	19785	43976	2.223	0.002	
14.191	8796	44018	5.005	0.001	
14.197	17636	44177	2.505	0.002	
14.208	28815	44459	1.543	0.004	
14.219	8873	44379	5.002	0.001	
14.223	13318	44445	3.337	0.001	
14.229	28860	44456	1.540	0.004	
14.247	15436	44194	2.863	0.002	
14.260	37147	43758	1.178	0.005	
14.274	45685	43705	0.957	0.006	
===== 677340272	===== 268782821	===== 100.000			

Total unknown % area = 25.478

Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAC9812
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9812.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

J005200
 SVOA-ABN ACID STOCK-200-800ug/ml
 Solvent / Lot: DCM
 Prep: 5/18/2021 by JZ
 Exp: 5/31/2023
 Location:



Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	802	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	802	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	802	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1806	µg/mL	75.9	MKBP5833V
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	803	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	801	µg/mL	99.9	JS00013
4-NITROPHENOL CAS# 100-02-7	801	µg/mL	99.9	LC10889
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1804	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	803	µg/mL	98.7	MKCK8156
BENZOIC ACID CAS# 65-85-0	1805	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.



Certificate of Analysis

J008074

 SVOA PAH STD 2000ug/ml
 Expires 6/30/2023
 Prepared By Joshua Rains 8/5/2021

Product Name: PAH Standard

Product Number: US-106N-1

Lot Issue Date: 11-Jun-2020

Lot Number: 0006540449

Expiration Date: 30-Jun-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
acenaphthene	000083-32-9	RM10879	2008 ± 10 µg/mL
acenaphthylene	000208-96-8	RM10891	2003 ± 10 µg/mL
anthracene	000120-12-7	RM14212	2006 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM16072	2006 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM14571	2005 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM14321	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM15761	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM12669	2009 ± 10 µg/mL
chrysene	000218-01-9	RM12260	2009 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2009 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2004 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2009 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM14192	2009 ± 10 µg/mL
naphthalene	000091-20-3	NT00970	2008 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2009 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2008 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)

 ISO 17034 Cert No.
 AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/

 ISO 17025 Cert
 No. AT-1937

Certificate of Analysis

Product Number: US-106N-1

Lot Number: 0006540449

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:



Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 2 of 2

www.agilent.com/quality/



ISO 17025 Cert
No. AT-1937

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL16062

Description: Benzidines Standard

Certification Date: November 19, 2020

Storage: 4 °C

Expiration Date: November 30, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 2.740%
3,3'-Dichlorobenzidine	91-94-1	2000	± 3.229%

J008310

Benzidines std @2000ug/ml

Expires 11/30/2030

Prepared By Van Spohn 8/12/2021

Certificate of Analysis

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

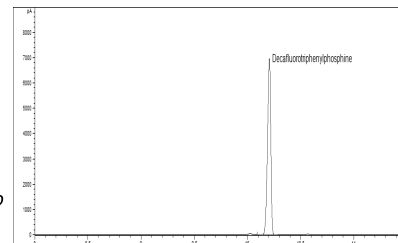


Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis - Certified Reference Material

Decafluorotriphenylphosphine solution

Product no.: 48724-U
Lot no.: LRAD0628
Expiry Date: October 2024
Manufacturing Date: September 2021
Storage: ROOM TEMPERATURE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0628.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
DFTPP CAS# 5074-71-5	25.2 ± 2.6	mg/mL	97.0	10220909

ASSAY Method

METHOD: GC (BELLEFONTE)

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness

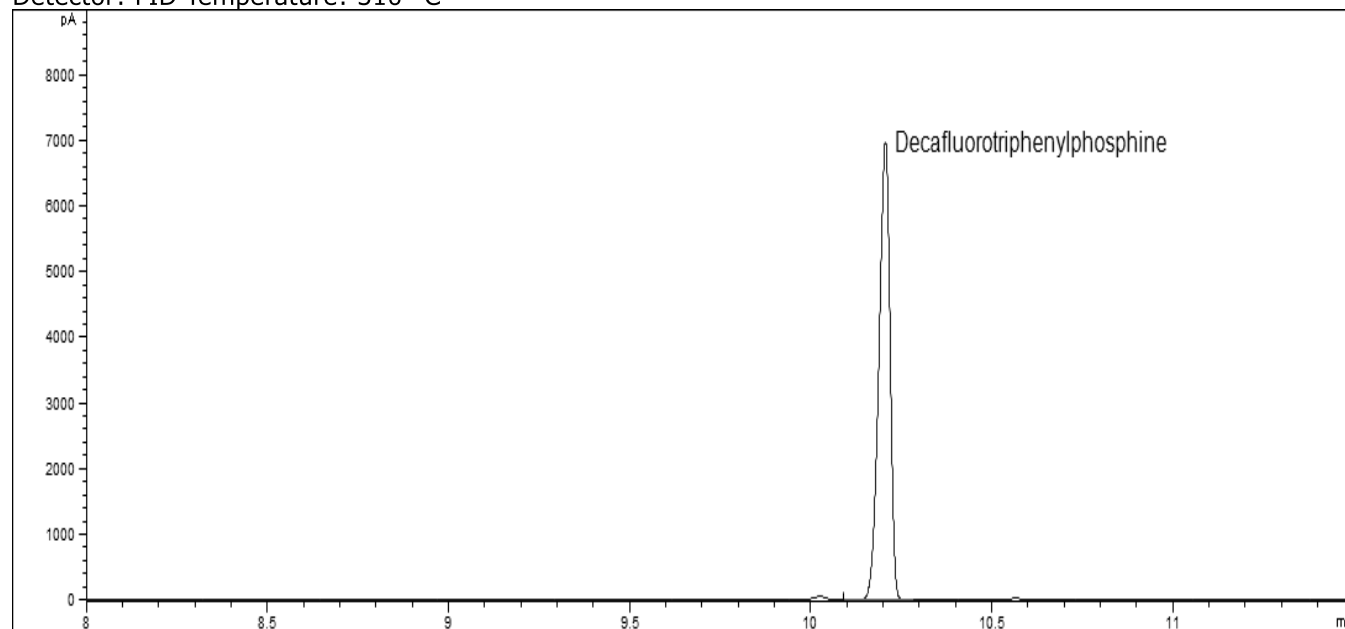
Carrier Gas: H₂ Flow Rate: 4.3 mL/min

Inlet Temperature: 250 °C Injection Volume: 1 µL

Injection Mode: 25:1

Temperature Program: 120 °C (Hold 0 min) @ 12 °C/min to 260 °C (Hold 0 min)

Detector: FID Temperature: 310 °C



Elution details:

EO	RT(MIN)	ANALYTE
1	10.206	Decafluorotriphenylphosphine

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Minimum sample size: 1 µL

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 30-Sep-2021



Andy Ommen - QC Manager

Scott Stetler - QA Manager

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0628.01	30-Sep-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Certified Values

Analyte	Units	Certified ^{1,4} Value
1,2,4-Trichlorobenzene	µg/Kg	1477 ± 181
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	1625 ± 292
1-Chloronaphthalene	µg/Kg	2809 ± 84
2,3-Dimethylphenol	µg/Kg	4552 ± 137
2,4,5-Trichlorophenol	µg/Kg	3438 ± 245
2,4,6-Trichlorophenol	µg/Kg	2194 ± 251
2,4-Dichlorophenol	µg/Kg	6991 ± 394
2,4-Dimethylphenol	µg/Kg	6357 ± 879
2,4-Dinitrophenol	µg/Kg	2922 ± 523
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	3318 ± 442
2,6-Dichlorophenol	µg/Kg	4578 ± 874
2,6-Dimethylphenol	µg/Kg	7582 ± 228
2-Chloronaphthalene	µg/Kg	2223 ± 168
2-Chlorophenol	µg/Kg	1678 ± 202
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	5148 ± 685
2-Methylphenol (o-Cresol)	µg/Kg	6004 ± 573
2-Nitrophenol	µg/Kg	6456 ± 383
3,4-Dimethylphenol	µg/Kg	7185 ± 216
3+4-Methylphenol (m+p-Cresol)	µg/Kg	8033 ± 1613
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	7169 ± 310
4-Chloro-3-methylphenol	µg/Kg	2071 ± 110
4-Chlorophenyl phenylether	µg/Kg	2052 ± 113
4-Methylphenol (p-Cresol)	µg/Kg	6617 ± 1371
4-Nitrophenol	µg/Kg	6812 ± 595
Acenaphthene	µg/Kg	5489 ± 380



SIGMA-ALDRICH®

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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Acenaphthylene	µg/Kg	1948 ± 240
Anthracene	µg/Kg	2866 ± 237
Benzo(a)anthracene	µg/Kg	5751 ± 552
Benzo(a)pyrene	µg/Kg	5902 ± 612
Benzo(b)fluoranthene	µg/Kg	3010 ± 409
Benzo(b+k)fluoranthene	µg/Kg	6534 ± 196
Benzo(g,h,i)perylene	µg/Kg	1380 ± 136
Benzo(k)fluoranthene	µg/Kg	2215 ± 237
Butyl benzyl phthalate	µg/Kg	3511 ± 384
Carbazole	µg/Kg	5412 ± 407
Chrysene	µg/Kg	1477 ± 72
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	2905 ± 321
Dibenzo(a,h)anthracene	µg/Kg	3420 ± 302
Dibenzofuran	µg/Kg	6130 ± 253
Dimethyl phthalate	µg/Kg	4537 ± 250
Di-n-butyl phthalate	µg/Kg	1721 ± 154
Di-n-octyl phthalate	µg/Kg	2744 ± 288
Fluoranthene	µg/Kg	2497 ± 222
Fluorene	µg/Kg	3724 ± 222
Hexachlorobutadiene	µg/Kg	1877 ± 245
Indeno(1,2,3-cd) pyrene	µg/Kg	3914 ± 409
Isophorone	µg/Kg	1615 ± 170
Naphthalene	µg/Kg	4458 ± 480
Nitrobenzene	µg/Kg	3539 ± 266
n-Nitrosodimethylamine	µg/Kg	1580 ± 402
n-Nitrosodiphenylamine	µg/Kg	2854 ± 379
Pentachlorophenol	µg/Kg	3411 ± 358
Phenanthrene	µg/Kg	5052 ± 385
Phenol	µg/Kg	2660 ± 184
Pyrene	µg/Kg	2964 ± 256
Pyridine	µg/Kg	1008 ± 30

Informational Values



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

<i>Analyte</i>	<i>Units</i>	<i>Suggested Acceptance Windows</i>	<i>Standard Deviation</i>
1,2,4-Trichlorobenzene	µg/Kg	148 to 2853	459
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	163 to 3440	605
1-Chloronaphthalene	µg/Kg	1123 to 4494	562
2,3-Dimethylphenol	µg/Kg	1821 to 7284	910
2,4,5-Trichlorophenol	µg/Kg	1003 to 5872	811
2,4,6-Trichlorophenol	µg/Kg	640 to 3748	518
2,4-Dichlorophenol	µg/Kg	2391 to 11591	1533
2,4-Dimethylphenol	µg/Kg	0.00 to 13959	2534
2,4-Dinitrophenol	µg/Kg	1169 to 4675	584
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	1248 to 5388	690
2,6-Dichlorophenol	µg/Kg	1831 to 7324	916
2,6-Dimethylphenol	µg/Kg	3033 to 12132	1516
2-Chloronaphthalene	µg/Kg	748 to 3699	492
2-Chlorophenol	µg/Kg	415 to 2942	421
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	0.00 to 10347	1733
2-Methylphenol (o-Cresol)	µg/Kg	1306 to 10702	1566
2-Nitrophenol	µg/Kg	1534 to 11379	1641
3,4-Dimethylphenol	µg/Kg	2874 to 11495	1437
3+4-Methylphenol (m+p-Cresol)	µg/Kg	4054 to 16218	2027
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	2901 to 11437	1423
4-Chloro-3-methylphenol	µg/Kg	677 to 3464	464
4-Chlorophenyl phenylether	µg/Kg	756 to 3348	432
4-Methylphenol (p-Cresol)	µg/Kg	2647 to 10587	1323
4-Nitrophenol	µg/Kg	681 to 14762	2650
Acenaphthene	µg/Kg	2243 to 8736	1082
Acenaphthylene	µg/Kg	712 to 3183	412
Anthracene	µg/Kg	1218 to 4515	550
Benzo(a)anthracene	µg/Kg	2806 to 8696	982
Benzo(a)pyrene	µg/Kg	2512 to 9292	1130
Benzo(b)fluoranthene	µg/Kg	1197 to 4822	604
Benzo(b+k)fluoranthene	µg/Kg	2614 to 10454	1307



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Benzo(g,h,i)perylene	µg/Kg	489 to 2271	297
Benzo(k)fluoranthene	µg/Kg	892 to 3537	441
Butyl benzyl phthalate	µg/Kg	1255 to 5766	752
Carbazole	µg/Kg	2032 to 8792	1127
Chrysene	µg/Kg	669 to 2284	269
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	765 to 5045	713
Dibenzo(a,h)anthracene	µg/Kg	1257 to 5583	721
Dibenzofuran	µg/Kg	2766 to 9493	1121
Dimethyl phthalate	µg/Kg	1842 to 7231	898
Di-n-butyl phthalate	µg/Kg	495 to 2947	409
Di-n-octyl phthalate	µg/Kg	690 to 4798	685
Fluoranthene	µg/Kg	984 to 4009	504
Fluorene	µg/Kg	1638 to 5810	695
Hexachlorobutadiene	µg/Kg	425 to 3329	484
Indeno(1,2,3-cd) pyrene	µg/Kg	870 to 6957	1015
Isophorone	µg/Kg	437 to 2792	392
Naphthalene	µg/Kg	1131 to 7784	1109
Nitrobenzene	µg/Kg	1024 to 6054	838
n-Nitrosodimethylamine	µg/Kg	632 to 2528	316
n-Nitrosodiphenylamine	µg/Kg	1142 to 4567	571
Pentachlorophenol	µg/Kg	341 to 7037	1209
Phenanthrene	µg/Kg	2307 to 7798	915
Phenol	µg/Kg	681 to 4639	660
Pyrene	µg/Kg	1118 to 4810	615
Pyridine	µg/Kg	403 to 1613	202

Additional Information:

DESCRIPTION

The organic sample is a soil containing extractable BNAs for analysis by 8100, 8270, 8310 or equivalent methods.

This product consist of a 5 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested how homogeneity. Only one vial is need for test the remaining vials are to be used for multiple methods or routine testing.

The soil has been sterilized to minimize degradation of the sample.

The sample has been sized to 100 mesh.

Required storage condition is 4°C.

The sample has been intentionally prepared with an apparent headspace.

STORAGE

The sample should be stored at 4°C. It has been determined to be stable for the duration of the expiration date.

After sub-sampling replace cap securely and store remaining sample at 4°C.

The shelf life of the product was determined by historic stability of similar CRM's. The expiration date may be extended based on stock and popularity upon successful stability testing by a 17025 accredited laboratory.

Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Stability and shelf life after opening must be determined by the user, taking into account sampling frequency/volume and all local conditions.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Assume a 10g sample size for all calculations.

Note: Sample extracts and calibration solutions should be in the same solvent.

Report all results on a wet weight basis, do not correct for moisture.

NOTE: For method 8100 and using a packed column gas chromatographic method or cannot adequately resolve the following may coelute in four pairs of compounds: anthracene and phenanthrene; chrysene and benzo(a)anthracene; benzo(b)fluoranthene and benzo(k)fluoranthene; and dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

SCOPE AND APPLICATION

The BNAs in Soil Certified Reference Material (CRM) consists of 5 10mL VOA vials, with a Teflon lined closures containing approximately 10 grams of soil, fortified with BNAs. Being a natural matrix waste sample the analyst is challenged by the same preparation problems, analytical interferences, etc. as is typical for similar matrices received by the laboratory for analysis.



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. K=2 unless specified. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager



Mark Pooler - QA Supervisor

Certification Date January 05, 2021
Version 0-152021





Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-103N-1

Lot Issue Date: 25-May-2021

Lot Number: 0006609664

Expiration Date: 30-Jun-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
benzoic acid	000065-85-0	RM01884	2005 ± 10 µg/mL
o-cresol	000095-48-7	RM12877	2005 ± 10 µg/mL
p-cresol	000106-44-5	RM01988	2005 ± 10 µg/mL
2,4,5-trichlorophenol	000095-95-4	NT00344	2004 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

[Handwritten signature]
5/11/22

K004539

toxic sub mix#1

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 6/30/2024

Location:



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: Phenols Standard **Lot Number:** 0006648297
Product Number: US-107N-1 **Lot Issue Date:** 17-Nov-2021
Storage Conditions: Store at Room Temperature (15° to 30°C). **Expiration Date:** 31-Dec-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
4-chloro-3-methylphenol	2006	± 10 µg/mL		000059-50-7	RM01885
2-chlorophenol	2007	± 10 µg/mL		000095-57-8	RM01871
2,4-dichlorophenol	2005	± 10 µg/mL		000120-83-2	RM13878
2,4-dimethylphenol	2006	± 10 µg/mL		000105-67-9	RM13009
2,4-dinitrophenol	2006	± 10 µg/mL		000051-28-5	RM02112
2-methyl-4,6-dinitrophenol	2005	± 10 µg/mL		000534-52-1	RM02292
2-nitrophenol	2007	± 10 µg/mL		000088-75-5	RM13445
4-nitrophenol	2006	± 10 µg/mL		000100-02-7	RM03752
pentachlorophenol	2006	± 10 µg/mL		000087-86-5	RM02474
phenol	2006	± 10 µg/mL		000108-95-2	RM11471
2,4,6-trichlorophenol	2006	± 10 µg/mL		000088-06-2	RM18096

Matrix: methylene chloride (dichloromethane)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NC SL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

JZ 5/11/22

Page: 1 of 2

CSD-QA-015.1

K004540

phenols mix

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 12/31/2024

Location:

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: PAH Standard

Lot Number: 0006627349

Product Number: US-106N-1

Lot Issue Date: 17-Sep-2021

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 31-Oct-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
acenaphthene	2007	± 10 µg/mL		000083-32-9	RM10879
acenaphthylene	2004	± 10 µg/mL		000208-96-8	RM10891
anthracene	2006	± 10 µg/mL		000120-12-7	RM14212
benz[a]anthracene	2006	± 10 µg/mL		000056-55-3	RM16072
benzo[b]fluoranthene	2006	± 10 µg/mL		000205-99-2	RM14571
benzo[k]fluoranthene	2006	± 10 µg/mL		000207-08-9	RM18376
benzo[ghi]perylene	2006	± 10 µg/mL		000191-24-2	RM15761
benzo[a]pyrene	2006	± 10 µg/mL		000050-32-8	RM17573
chrysene	2007	± 10 µg/mL		000218-01-9	RM13771
dibenz[a,h]anthracene	2006	± 10 µg/mL		000053-70-3	RM06786
fluoranthene	2006	± 10 µg/mL		000206-44-0	RM12277
fluorene	2006	± 10 µg/mL		000086-73-7	RM09441
indeno[1,2,3-cd]pyrene	2006	± 10 µg/mL		000193-39-5	RM14192
naphthalene	2007	± 10 µg/mL		000091-20-3	RM10445
phenanthrene	2005	± 10 µg/mL		000085-01-8	RM10495
pyrene	2005	± 10 µg/mL		000129-00-0	RM16126

Matrix: methylene chloride/benzene (1:1)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

K004541

SVOA PAH STD 2000ug/ml

Solvent / Lot: DCM/BENZENE

Prep: 5/11/2022 by JZ

Exp: 10/31/2024

Location: Fridge 19

Page: 1 of 2

CSD-QA-015.1



Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

Certificate of Reference Material

Catalog Number:	ECS-A-030	Lot No.	AA210126005
Description:	Base/Neutrals Mix 1	Manufactured Date:	1-26-2021
Matrix:	Methylene Chloride	Expiration Date:	1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Mave

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- $u_c =$ combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

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Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

K004542

Certificate of Reference Material

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Nove

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25 µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

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Phone: 1-732-549-7144 • Fax 1-732-603-9647





Certificate of Analysis

Product Name: 1-Methylnaphthalene Standard

Product Number: EPA-1225-1

Lot Issue Date: 19-Jul-2021

Lot Number: 0006624769

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1-methylnaphthalene	000090-12-0	RM07712	999.3 ± 5.0 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

K004543

1-Methylnaphthalene
Solvent / Lot: MEOH
Prep: 5/11/2022 by JZ
Exp: 7/31/2023
Location:

[Handwritten signature]
5/11/22

Sample lot approver:

[Handwritten signature]
Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-104N-1

Lot Issue Date: 02-Jul-2021

Lot Number: 0006620643

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
aniline	000062-53-3	RM12853	2005 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2004 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	2002 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2002 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2006 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2003 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM02424	2003 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2003 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

K004544

toxic sub mix#2

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 7/31/2023

Location:

JZ 05/11/22



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0181243

Description : CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

Handwritten signature and date: 05/11/22

K004545
 CLP 04.1 BNA SURR MIX
 Solvent / Lot: AO175316
 Prep: 5/11/2022 by JZ
 Exp: 10/20/2025
 Location:

Elution Order	Compound	Gr (weight)					
1	2-Fluorophenol CAS # 367-12-4 (Lot STBJ2508) Purity 99%	1,50					
			+/-	53.3632	µg/mL		Stressed
2	Phenol-d6 CAS # 13127-88-3 (Lot PR-31262) Purity 99%	1,506.0	µg/mL				
			+/-	8.9452	µg/mL		Gravimetric
			+/-	43.9882	µg/mL		Unstressed
			+/-	53.3632	µg/mL		Stressed
3	2-Chlorophenol-d4 CAS # 93951-73-6 (Lot PR-30568) Purity 99%	1,510.0	µg/mL				
			+/-	8.9689	µg/mL		Gravimetric
			+/-	44.1050	µg/mL		Unstressed
			+/-	53.5049	µg/mL		Stressed
4	1,2-Dichlorobenzene-d4 CAS # 2199-69-1 (Lot PR-32542/022621DB1) Purity 99%	1,004.0	µg/mL				
			+/-	5.9635	µg/mL		Gravimetric
			+/-	29.3255	µg/mL		Unstressed
			+/-	35.5754	µg/mL		Stressed
5	Nitrobenzene-d5 CAS # 4165-60-0 (Lot PR-29940A) Purity 99%	1,008.0	µg/mL				
			+/-	5.9872	µg/mL		Gravimetric
			+/-	29.4423	µg/mL		Unstressed
			+/-	35.7172	µg/mL		Stressed
6	2-Fluorobiphenyl CAS # 321-60-8 (Lot 19169) Purity 99%	1,006.0	µg/mL				
			+/-	5.9753	µg/mL		Gravimetric
			+/-	29.3839	µg/mL		Unstressed
			+/-	35.6463	µg/mL		Stressed
7	2,4,6-Tribromophenol CAS # 118-79-6 (Lot MKCJ7664) Purity 99%	1,506.0	µg/mL				
			+/-	8.9452	µg/mL		Gravimetric
			+/-	43.9882	µg/mL		Unstressed
			+/-	53.3632	µg/mL		Stressed

Certificate of Analysis

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246

Lot Number: CL17953

Description: Benzoic Acid

Certification Date: January 31, 2022

Storage: 4 °C

Expiration Date: January 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 2.714%

K004603

Benzoic Acid @2000ug/ml

Solvent / Lot: N/A

Prep: 5/13/2022 by JZ

Exp: 1/31/2032

Location: GC

 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL17662

Description: Benzidines Standard

Certification Date: December 2, 2021

Storage: 4 °C

Expiration Date: November 30, 2031

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 0.211%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.305%

K004604

Benzidines std @2000ug/ml
Solvent / Lot: Mecl2
Prep: 5/13/2022 by JZ
Exp: 11/30/2031
Location: GC

JZ 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

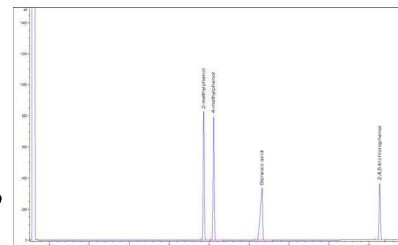


Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis - Certified Reference Material

EPA TCL Hazardous Substances Mix 1

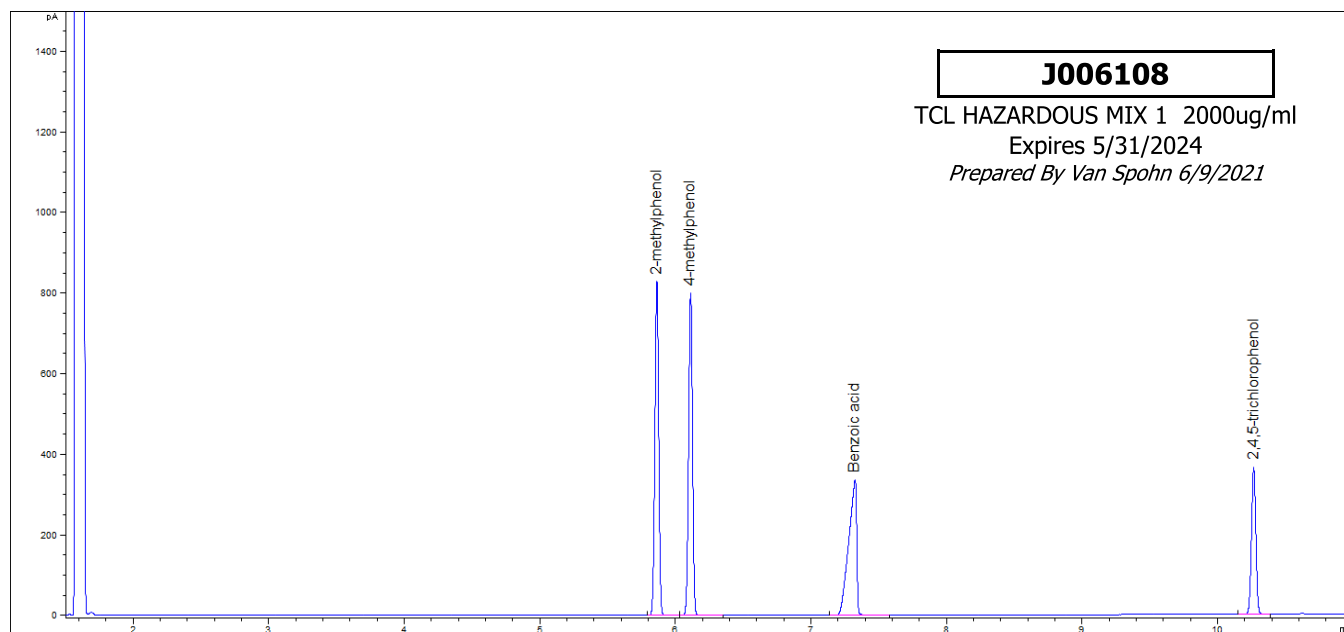
Product no.: 48907
Lot no.: LRAC9610
Expiry Date: May 2024
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAC9610.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Elution order	Raw Material Lot
2-METHYLPHENOL CAS# 95-48-7	2004 ± 9	µg/mL	99.0	1	G1735A
4-METHYLPHENOL CAS# 106-44-5	2004 ± 13	µg/mL	98.9	2	06921MG
BENZOIC ACID CAS# 65-85-0	2012 ± 6	µg/mL	99.9	3	LC16514
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	2003 ± 6	µg/mL	99.9	4	JS00008

Informational Values:



Additional Information:

Analytical Method Parameters:
 Column: Equity-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #98)
 Carrier Gas: H₂, Flow: 4.5 mL/min
 Inlet Temperature: 170 °C, Injection Volume: 1 µL
 Injection Mode: Split, Split Ratio: 20:1



Temperature Program: 80 °C @ 10 °C/min to 190 °C (Hold 5 min)
Detector: FID
Detector Temperature: 310 °C

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 20-May-2021



Handwritten signature of Andy Ommen in black ink.

Andy Ommen - QC Manager

Handwritten signature of Mark Pooler in black ink.

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9610.01	20-May-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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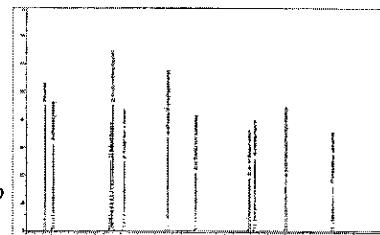
The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis - Certified Reference Material

EPA TCL Phenols Mix

Product no.: 48904
Lot no.: LRAD0139
Expiry Date: July 2024
Manufacturing Date: July 2021
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0139.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

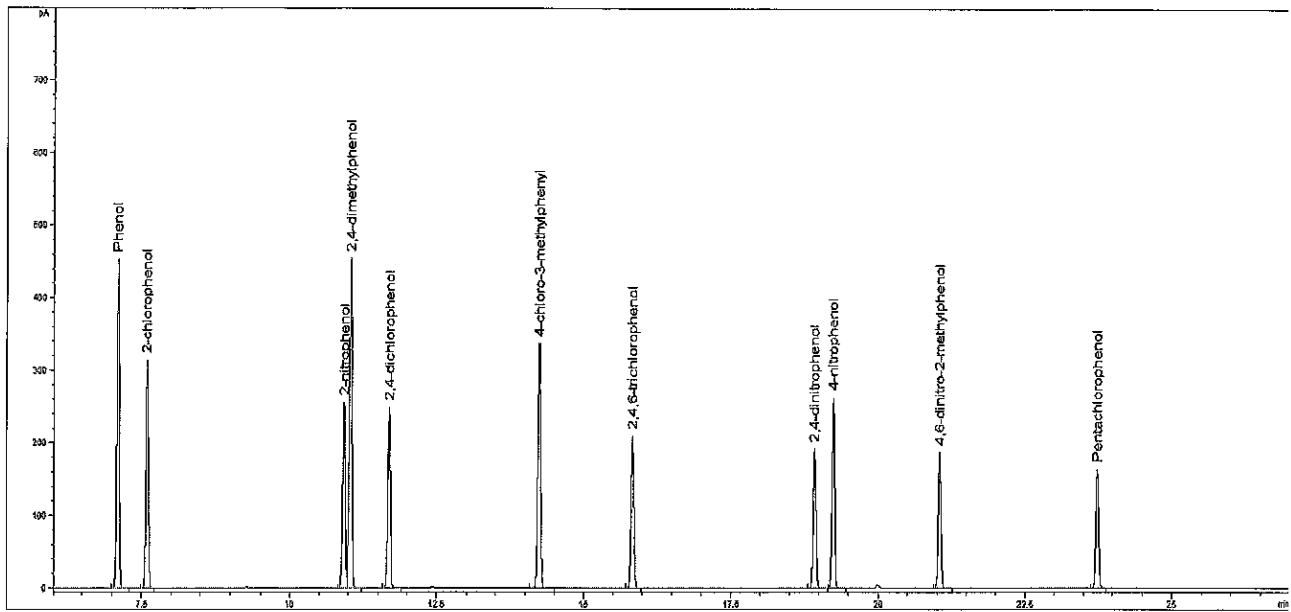
Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
2-CHLOROPHENOL CAS# 95-57-8	2001 ± 25	µg/mL	99.9	STBG3033V
2-NITROPHENOL CAS# 88-75-5	1999 ± 18	µg/mL	99.3	15905BB
2,4-DIMETHYLPHENOL CAS# 105-67-9	2000 ± 14	µg/mL	99.2	05421CO
2,4-DICHLOROPHENOL CAS# 120-83-2	2000 ± 17	µg/mL	99.5	03221TN
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	2000 ± 5	µg/mL	99.9	JS00013
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	2002 ± 5	µg/mL	99.5	04212PS
2,4-DINITROPHENOL CAS# 51-28-5	2000 ± 28	µg/mL	66.9	STBJ5751
4-NITROPHENOL CAS# 100-02-7	2000 ± 33	µg/mL	99.0	04628LT
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	2000 ± 27	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	1999 ± 25	µg/mL	97.9	MKCD2150

ASSAY Method

J013597

TCL Phenols Mix 2000ug/ml
 Solvent / Lot: LRAD0139
 Prep: 12/30/2021 by VS
 Exp: 7/31/2024
 Location:





METHOD: GC (Bellefonte Method)

Column: SPB-5, 30 m x 0.53 mm I.D., 1.5 µm film thickness

Carrier Gas: H₂ Flow Rate: 4.5 mL/min

Inlet Temperature: 200 °C Injection Volume: 1.0 µL

Injection Mode: 25:1

Temperature Program: 80 °C (Hold 2 min) @ 6 °C/min to 260 °C (Hold 5 min)

Detector: FID Temperature: 310 °C

Elution details:

EO	RT(MIN)	ANALYTE
1	7.095	Phenol
2	7.585	2-chlorophenol
3	10.925	2-nitrophenol
4	11.037	2,4-dimethylphenol
5	11.696	2,4-dichlorophenol
6	14.242	4-chloro-3-methylphenol
7	15.842	2,4,6-trichlorophenol
8	18.93	2,4-dinitrophenol
9	19.25	4-nitrophenol
10	21.05	4,6-dinitro-2-methylphenol
11	23.752	Pentachlorophenol

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 12-Jul-2021



Andy Ommen

Mark Pooler

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability:

This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty:

Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment:

Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0139.01	12-Jul-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.





110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

K007194
 CLP 04.1 BNA SURR MIX
 Solvent / Lot: A0187400
 Prep: 8/5/2022 by VS
 Exp: 4/30/2026
 Location:

IAL



Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0187400
Description : CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2026 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
			µg/mL	µg/mL	µg/mL	Gravimetric
1	2-Fluorophenol	1,508.0 µg/mL	+/- 8.9571	µg/mL	Gravimetric	
	CAS # 367-12-4 (Lot STBJ3299)		+/- 44.0466	µg/mL	Unstressed	
	Purity 99%		+/- 53.4340	µg/mL	Stressed	
2	Phenol-d6	1,510.0 µg/mL	+/- 8.9689	µg/mL	Gravimetric	
	CAS # 13127-88-3 (Lot SL210831)		+/- 44.1050	µg/mL	Unstressed	
	Purity 99%		+/- 53.5049	µg/mL	Stressed	
3	2-Chlorophenol-d4	1,512.0 µg/mL	+/- 8.9808	µg/mL	Gravimetric	
	CAS # 93951-73-6 (Lot PR-30568)		+/- 44.1635	µg/mL	Unstressed	
	Purity 99%		+/- 53.5758	µg/mL	Stressed	
4	1,2-Dichlorobenzene-d4	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric	
	CAS # 2199-69-1 (Lot PR-32597)		+/- 29.3255	µg/mL	Unstressed	
	Purity 99%		+/- 35.5754	µg/mL	Stressed	
5	Nitrobenzene-d5	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric	
	CAS # 4165-60-0 (Lot PR-29940A)		+/- 29.3255	µg/mL	Unstressed	
	Purity 99%		+/- 35.5754	µg/mL	Stressed	
6	2-Fluorobiphenyl	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric	
	CAS # 321-60-8 (Lot 00021384)		+/- 29.3255	µg/mL	Unstressed	
	Purity 99%		+/- 35.5754	µg/mL	Stressed	
7	2,4,6-Tribromophenol	1,502.0 µg/mL	+/- 8.9214	µg/mL	Gravimetric	
	CAS # 118-79-6 (Lot MKCJ7664)		+/- 43.8714	µg/mL	Unstressed	
	Purity 99%		+/- 53.2214	µg/mL	Stressed	

8	p-Terphenyl-d14		1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-30504)		+/- 29.2671	µg/mL	Unstressed
	Purity 99%			+/- 35.5046	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)

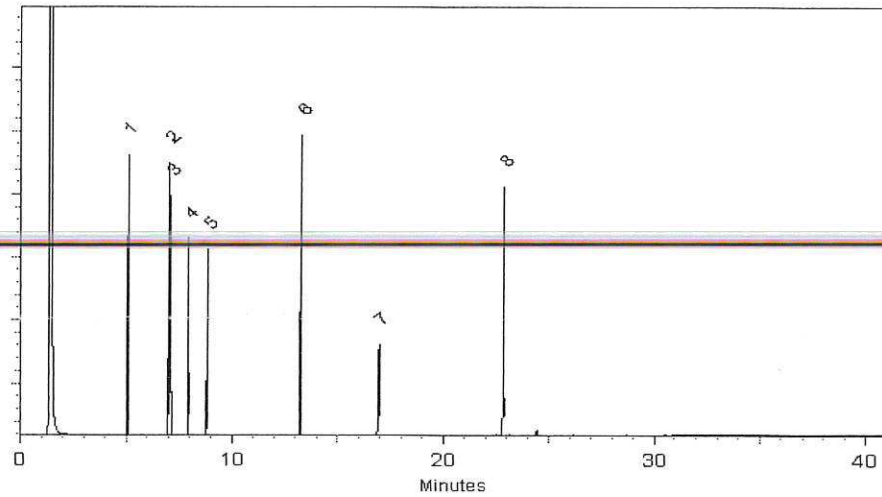
Carrier Gas:
 hydrogen-constant pressure 10 psi.

Temp. Program:
 40°C (hold 2 min.) to 330°C
 @ 10°C/min. (hold 10 min.)

Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder
 Bryan Snyder - Operations Tech I

Date Mixed: 17-Jul-2022 **Balance:** 1128353505

Christie Mills
 Christie Mills - Operations Tech II - ARM QC

Date Passed: 21-Jul-2022

Manufactured under Restek's ISO 9001:2015
 Registered Quality System
 Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

K007995

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: N/A

Prep: 8/29/2022 by JZ

Exp: 8/31/2023

Location: FREEZER 44



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 0.300%
Acenaphthylene	208-96-8	1000	± 0.225%
Anthracene	120-12-7	1000	± 6.858%
Azobenzene	103-33-3	1000	± 0.224%
Benzo(a)anthracene	56-55-3	1000	± 0.247%
Benzo(a)pyrene	50-32-8	1000	± 0.270%
Benzo(b)fluoranthene	205-99-2	1000	± 0.635%
Benzo(k)fluoranthene	207-08-9	1000	± 0.682%
Benzo(g,h,i)perylene	191-24-2	1000	± 0.272%
Benzyl alcohol	100-51-6	1000	± 0.231%
Benzyl butyl phthalate	85-68-7	1000	± 0.480%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.479%
bis(2-Chloroethyl) ether	111-44-4	1000	± 0.479%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 0.550%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 0.479%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 0.479%
4-Bromophenyl phenyl ether	101-55-3	1000	± 0.479%
Carbazole	86-74-8	1000	± 0.146%

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Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 0.300%
4-Chloro-3-methylphenol	59-50-7	1000	± 0.545%
2-Chloronaphthalene	91-58-7	1000	± 0.224%
2-Chlorophenol	95-57-8	1000	± 0.507%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 0.479%
Chrysene	218-01-9	1000	± 0.145%
Dibenz(a,h)anthracene	53-70-3	1000	± 1.058%
Dibenzofuran	132-64-9	1000	± 0.302%
Di-n-butyl phthalate	84-74-2	1000	± 0.518%
1,2-Dichlorobenzene	95-50-1	1000	± 0.247%
1,3-Dichlorobenzene	541-73-1	1000	± 0.225%
1,4-Dichlorobenzene	106-46-7	1000	± 0.224%
2,4-Dichlorophenol	120-83-2	1000	± 0.545%
Diethyl phthalate	84-66-2	1000	± 0.518%
2,4-Dimethylphenol	105-67-9	1000	± 0.507%
Dimethyl phthalate	131-11-3	1000	± 0.518%
1,2-Dinitrobenzene	528-29-0	1000	± 0.361%
1,3-Dinitrobenzene	99-65-0	1000	± 0.300%
1,4-Dinitrobenzene	100-25-4	1000	± 0.242%
2,4-Dinitrophenol	51-28-5	1000	± 0.545%
2,4-Dinitrotoluene	121-14-2	1000	± 1.128%

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Certified Reference Material

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Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 0.224%
Di-n-octyl phthalate	117-84-0	1000	± 0.486%
Fluoranthene	206-44-0	1000	± 0.224%
Fluorene	86-73-7	1000	± 0.224%
Hexachlorobenzene	118-74-1	1000	± 0.152%
Hexachlorobutadiene	87-68-3	1000	± 0.746%
Hexachlorocyclopentadiene	77-47-4	1000	± 0.153%
Hexachloroethane	67-72-1	1000	± 0.300%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 0.883%
Isophorone	78-59-1	1000	± 0.145%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 0.508%
1-Methylnaphthalene	90-12-0	1000	± 0.479%
2-Methylnaphthalene	91-57-6	1000	± 0.487%
2-Methylphenol	95-48-7	1000	± 0.545%
3-Methylphenol	108-39-4	500	± 0.279%
4-Methylphenol	106-44-5	500	± 0.399%
Naphthalene	91-20-3	1000	± 0.226%
2-Nitroaniline	88-74-4	1000	± 0.224%
3-Nitroaniline	99-09-2	1000	± 0.235%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 0.300%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444 **Lot Number:** CL18355
Description: 8270 Calibration Standard **Certification Date:** July 25, 2022
Storage: -18 °C **Expiration Date:** August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.514%
4-Nitrophenol	100-02-7	1000	± 0.519%
N-Nitrosodimethylamine	62-75-9	1000	± 0.503%
N-Nitrosodiphenylamine	86-30-6	1000	± 0.476%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.461%
Pentachlorophenol	87-86-5	1000	± 0.202%
Phenanthrene	85-01-8	1000	± 0.145%
Phenol	108-95-2	1000	± 0.545%
Pyrene	129-00-0	1000	± 0.147%
Pyridine	110-86-1	1000	± 0.503%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 0.247%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 0.247%
1,2,4-Trichlorobenzene	120-82-1	1000	± 0.224%
2,4,5-Trichlorophenol	95-95-4	1000	± 0.507%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.509%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

Certificate of Analysis

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAD2751
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2751.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
3,3'-DICHLOROBENZIDINE, 100MG, NEAT CAS# 91-94-1	799	µg/mL	99.8	LRAD2376
2,4-DINITROTOLUENE CAS# 121-14-2	801	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	800	µg/mL	99.2	11231AN
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	800	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	800	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	200	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	800	µg/mL	99.9	LA41596
4-CHLOROANILINE CAS# 106-47-8	800	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	799	µg/mL	99.9	07411KN
3-NITROANILINE CAS# 99-09-2	800	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	800	µg/mL	99.9	15609AA
PYRIDINE (LOW WATER) CAS# 110-86-1	800	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.



Health and safety information:

All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date:

03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2751.01	03 JUN 2022	Original Release Date

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Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAD2750
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2750.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	800	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	800	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	801	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1799	µg/mL	66.9	STBJ5751
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	800	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	800	µg/mL	100.0	BCCD4461
4-NITROPHENOL CAS# 100-02-7	800	µg/mL	100.0	MKCN1089
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1800	µg/mL	100.0	BCBX5762
PENTACHLOROPHENOL CAS# 87-86-5	800	µg/mL	99.0	23614-01
BENZOIC ACID CAS# 65-85-0	1800	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.



Certificate issue date:

03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2750.01	03 JUN 2022	Original Release Date

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Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL18939

Description: Benzidines Standard

Certification Date: September 7, 2022

Storage: 4 °C

Expiration Date: August 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 3.812%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.419%

L001288

Benzidines std @2000ug/ml
Solvent / Lot: CL18939
Prep: 2/7/2023 by VS
Exp: 8/31/2032
Location: GC



Reference Material Producer
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Certified Reference Material

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Catalog No.: AL0-101443

Lot Number: CL18741

Description: Aniline

Certification Date: July 21, 2022

Storage: 4 °C

Expiration Date: July 31, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Aaron Duker, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aniline	62-53-3	1000	± 1.719%

L001290

Aniline-1000ug/mL
Solvent / Lot: CL18741
Prep: 2/7/2023 by VS
Exp: 7/31/2030
Location: GC



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Certified Reference Material

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Catalog No.: AL0-101444

Lot Number: CL18811

Description: 8270 Calibration Standard

Certification Date: August 9, 2022

Storage: -18 °C

Expiration Date: November 30, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

L001291

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: CL18811

Prep: 2/7/2023 by VS

Exp: 11/30/2023

Location: FREEZER 44



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 1.643%
Acenaphthylene	208-96-8	1000	± 1.317%
Anthracene	120-12-7	1000	± 2.136%
Azobenzene	103-33-3	1000	± 1.630%
Benzo(a)anthracene	56-55-3	1000	± 2.372%
Benzo(a)pyrene	50-32-8	1000	± 3.028%
Benzo(b)fluoranthene	205-99-2	1000	± 2.377%
Benzo(k)fluoranthene	207-08-9	1000	± 2.286%
Benzo(g,h,i)perylene	191-24-2	1000	± 2.561%
Benzyl alcohol	100-51-6	1000	± 1.803%
Benzyl butyl phthalate	85-68-7	1000	± 1.855%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 1.626%
bis(2-Chloroethyl) ether	111-44-4	1000	± 1.776%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 2.406%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 2.415%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 2.350%
4-Bromophenyl phenyl ether	101-55-3	1000	± 1.708%
Carbazole	86-74-8	1000	± 1.844%



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Catalog No.: AL0-101444	Lot Number: CL18811
Description: 8270 Calibration Standard	Certification Date: August 9, 2022
Storage: -18 °C	Expiration Date: November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl ₂ /Methanol (97:3)	

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 2.831%
4-Chloro-3-methylphenol	59-50-7	1000	± 1.571%
2-Chloronaphthalene	91-58-7	1000	± 2.022%
2-Chlorophenol	95-57-8	1000	± 2.001%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 1.634%
Chrysene	218-01-9	1000	± 2.358%
Dibenz(a,h)anthracene	53-70-3	1000	± 2.452%
Dibenzofuran	132-64-9	1000	± 0.310%
Di-n-butyl phthalate	84-74-2	1000	± 2.347%
1,2-Dichlorobenzene	95-50-1	1000	± 1.803%
1,3-Dichlorobenzene	541-73-1	1000	± 1.808%
1,4-Dichlorobenzene	106-46-7	1000	± 1.503%
2,4-Dichlorophenol	120-83-2	1000	± 1.393%
Diethyl phthalate	84-66-2	1000	± 1.870%
2,4-Dimethylphenol	105-67-9	1000	± 2.495%
Dimethyl phthalate	131-11-3	1000	± 2.113%
1,2-Dinitrobenzene	528-29-0	1000	± 0.240%
1,3-Dinitrobenzene	99-65-0	1000	± 1.221%
1,4-Dinitrobenzene	100-25-4	1000	± 0.246%
2,4-Dinitrophenol	51-28-5	1000	± 0.519%
2,4-Dinitrotoluene	121-14-2	1000	± 2.242%



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Catalog No.: AL0-101444 **Lot Number:** CL18811
Description: 8270 Calibration Standard **Certification Date:** August 9, 2022
Storage: -18 °C **Expiration Date:** November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 2.154%
Di-n-octyl phthalate	117-84-0	1000	± 2.670%
Fluoranthene	206-44-0	1000	± 2.103%
Fluorene	86-73-7	1000	± 0.890%
Hexachlorobenzene	118-74-1	1000	± 1.210%
Hexachlorobutadiene	87-68-3	1000	± 1.304%
Hexachlorocyclopentadiene	77-47-4	1000	± 1.510%
Hexachloroethane	67-72-1	1000	± 3.281%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 1.921%
Isophorone	78-59-1	1000	± 2.022%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 1.661%
1-Methylnaphthalene	90-12-0	1000	± 1.929%
2-Methylnaphthalene	91-57-6	1000	± 2.220%
2-Methylphenol	95-48-7	1000	± 2.168%
3-Methylphenol	108-39-4	500	± 1.025%
4-Methylphenol	106-44-5	500	± 1.064%
Naphthalene	91-20-3	1000	± 1.199%
2-Nitroaniline	88-74-4	1000	± 1.874%
3-Nitroaniline	99-09-2	1000	± 2.146%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 1.704%



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Catalog No.: AL0-101444 **Lot Number:** CL18811
Description: 8270 Calibration Standard **Certification Date:** August 9, 2022
Storage: -18 °C **Expiration Date:** November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 2.051%
4-Nitrophenol	100-02-7	1000	± 1.413%
N-Nitrosodimethylamine	62-75-9	1000	± 0.545%
N-Nitrosodiphenylamine	86-30-6	1000	± 1.669%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.712%
Pentachlorophenol	87-86-5	1000	± 2.454%
Phenanthrene	85-01-8	1000	± 2.072%
Phenol	108-95-2	1000	± 2.140%
Pyrene	129-00-0	1000	± 1.869%
Pyridine	110-86-1	1000	± 0.545%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 2.552%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 2.220%
1,2,4-Trichlorobenzene	120-82-1	1000	± 1.632%
2,4,5-Trichlorophenol	95-95-4	1000	± 1.596%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.481%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.



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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



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Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
SIM SVOC Organics (Dual scan list)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0136-01 A

SDG: 23D0136

Sampled: 04/05/23 11:45

Prepared: 04/18/23 11:16

File ID: NT1005052311S.D

% Solids: 49.34

Preparation: EPA 3546 (Microwave)

Analyzed: 05/05/23 17:15

Batch: BLD0329

Sequence: SLE0466

Initial/Final: 20.29 g Wet / 1 mL

Instrument: NT10

Column: ZB-5MSi

Calibration: GE00018

Cleanups: GPC

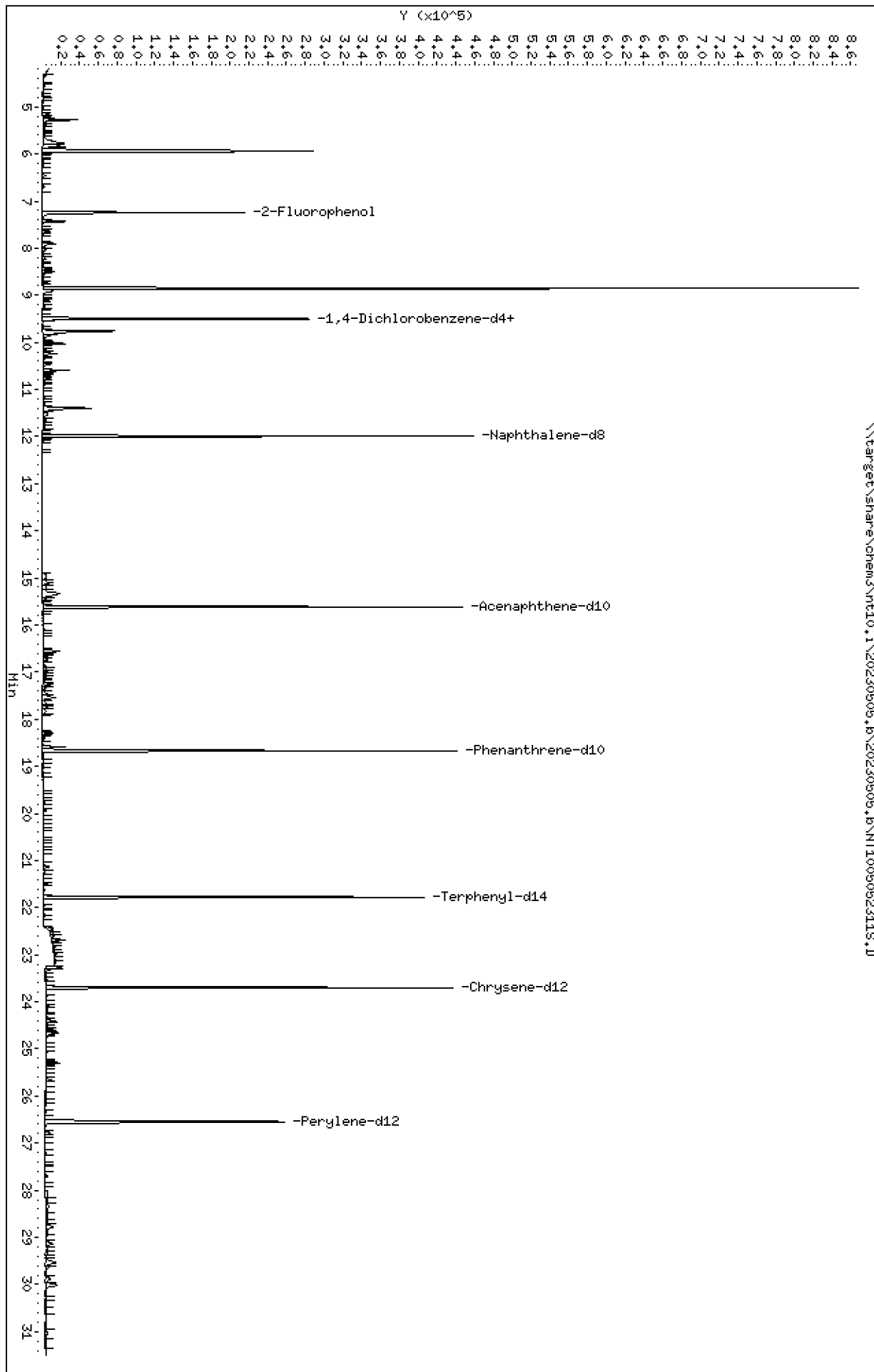
CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	1.8	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	5.0	U	0.7	5.0
100-51-6	Benzyl Alcohol	1	251		2.5	20.0
65-85-0	Benzoic acid	1	170	Q, J	13.4	200
105-67-9	2,4-Dimethylphenol	1	2.8	J	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	9.1	J	2.1	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	749.17	375	50.0	27 - 120	
p-Terphenyl-d14	499.45	425	85.2	37 - 120	

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Date: 05-May-2023 17:15
Client ID:
Sample Info: 23D0136-01
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25

\\target\share\chem3\nt10.1\20230505.b\20230505.b\NT10050523115.D



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

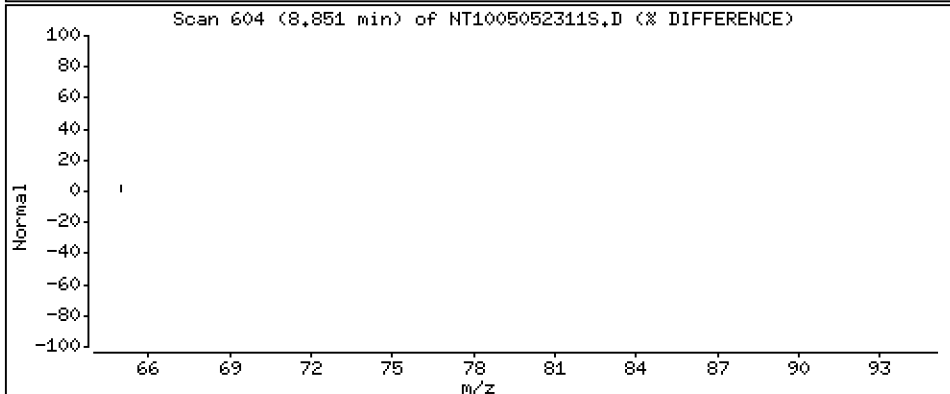
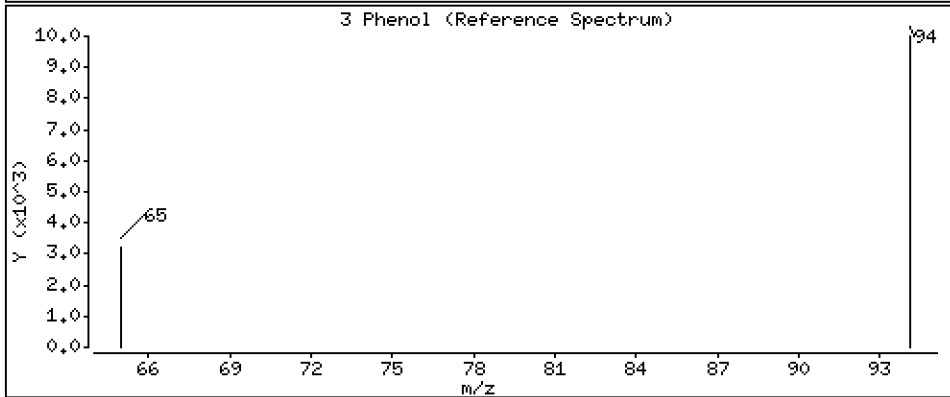
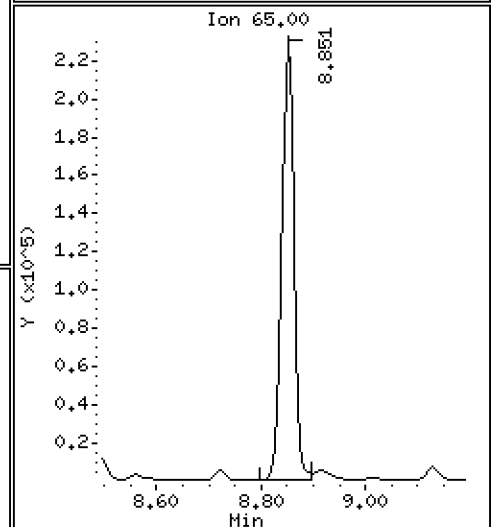
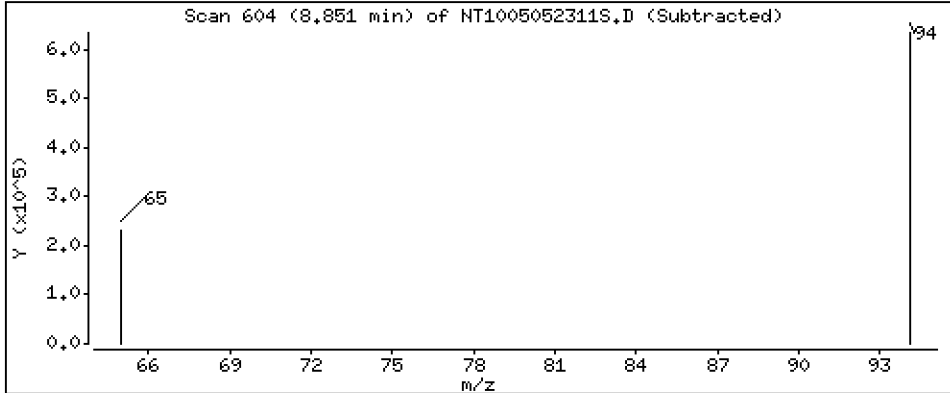
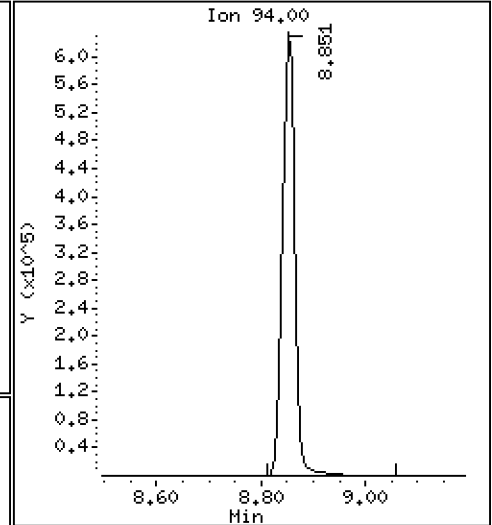
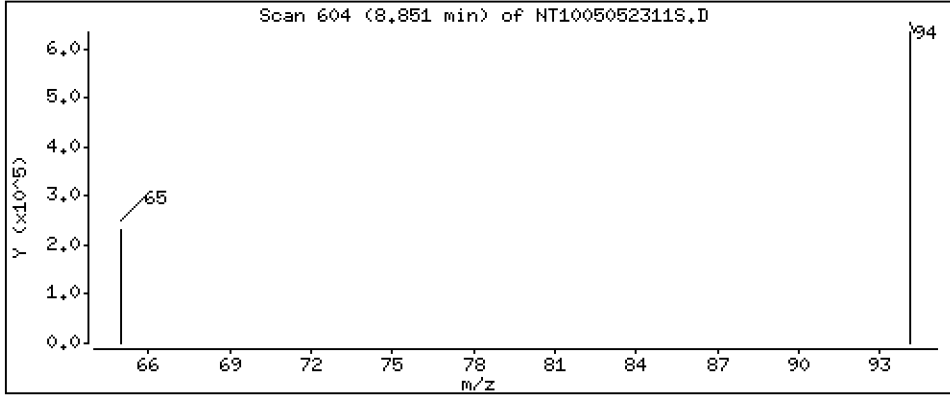
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 13,93 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

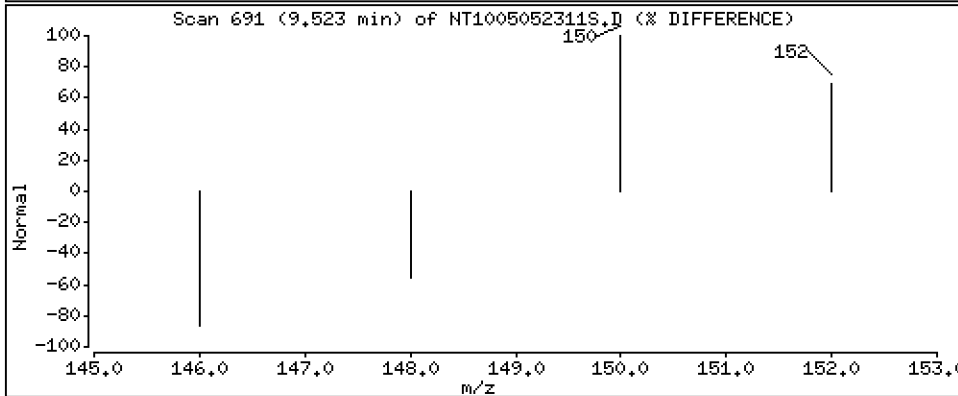
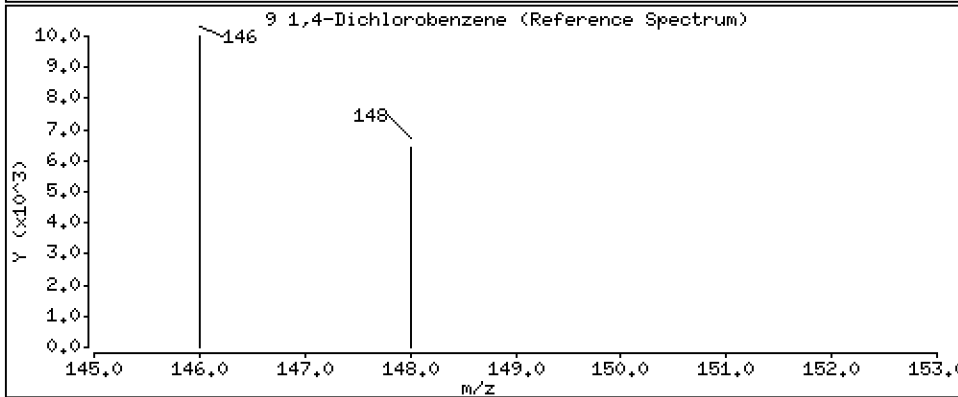
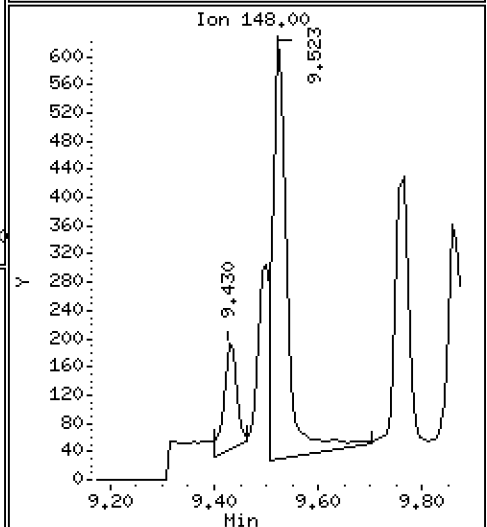
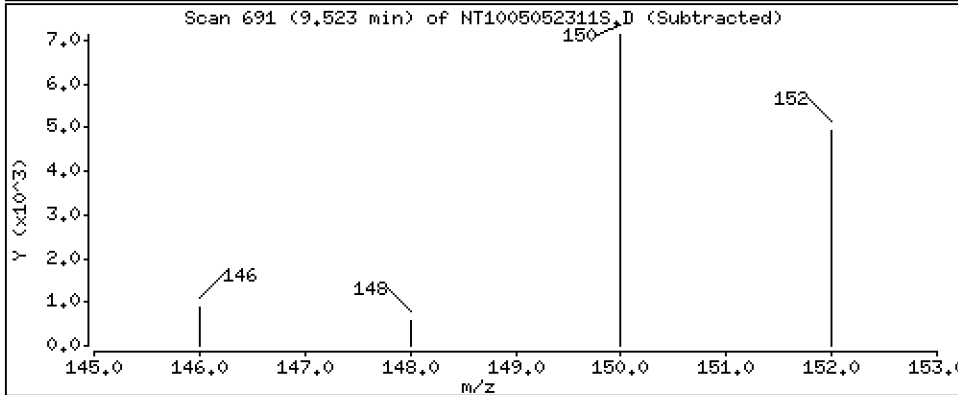
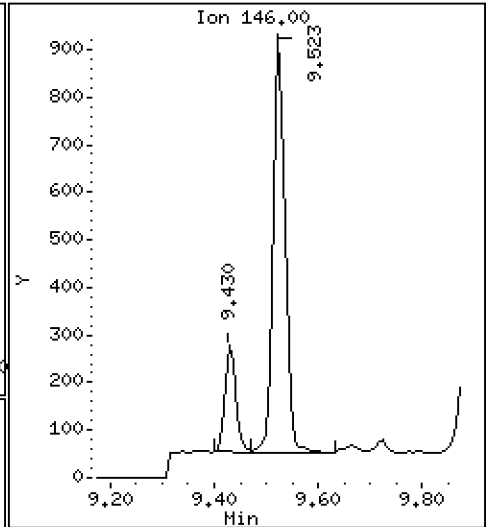
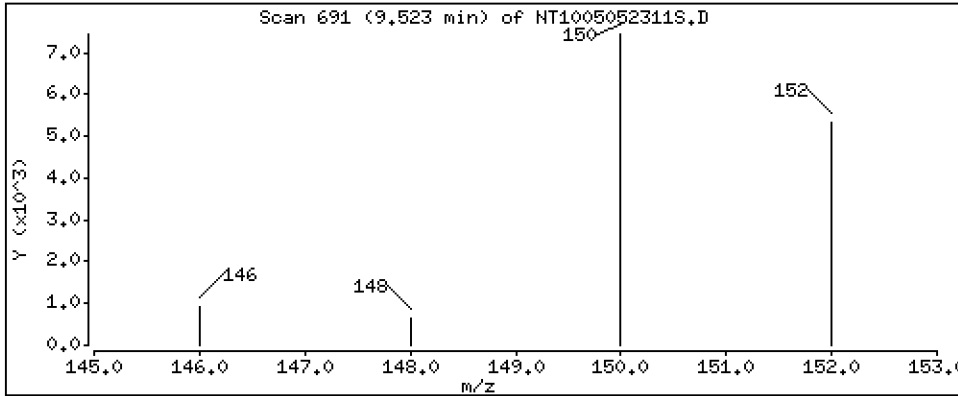
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,01842 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

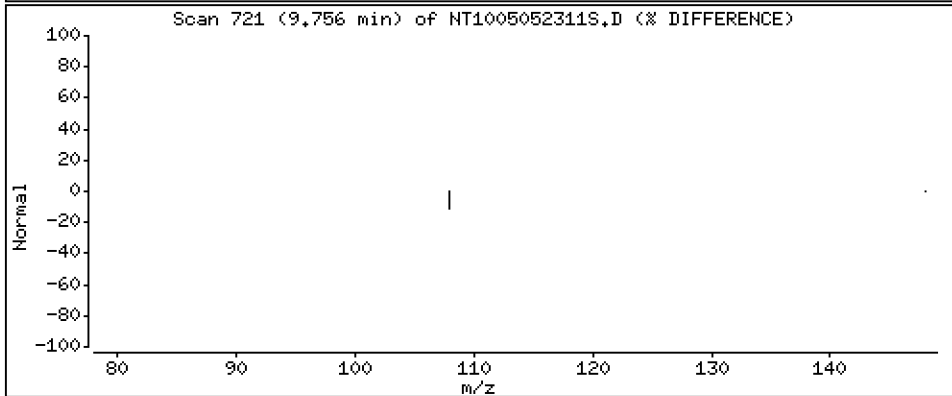
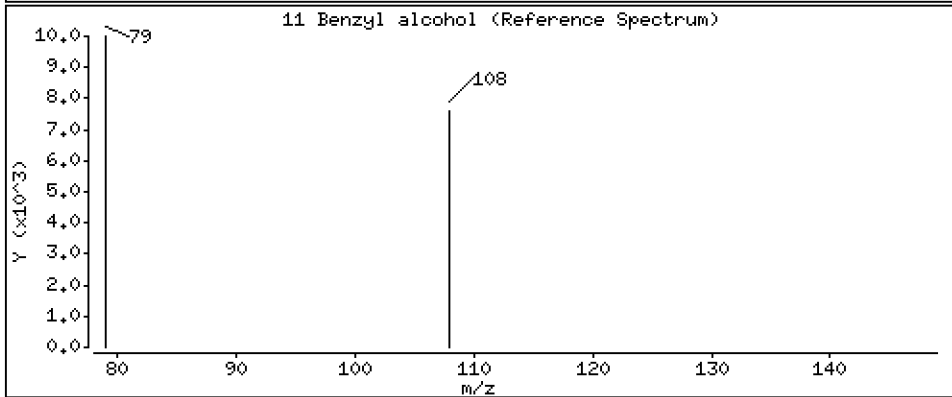
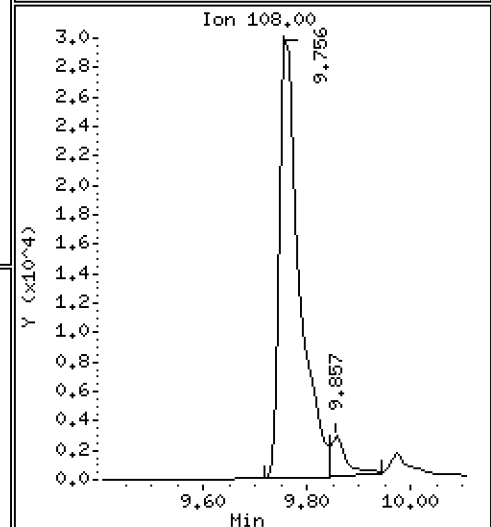
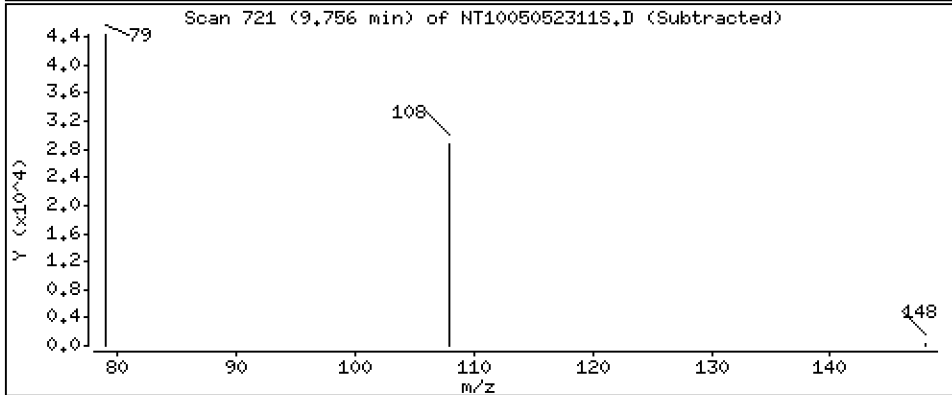
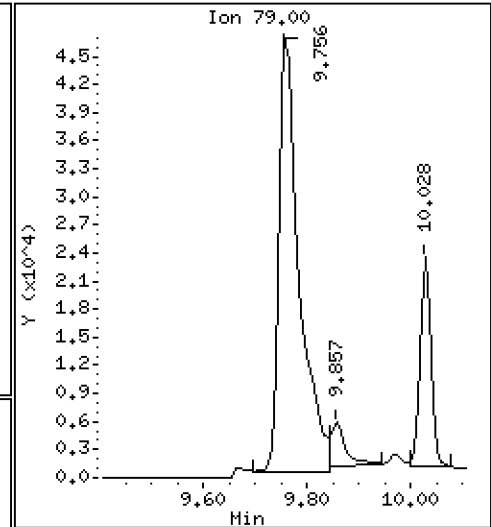
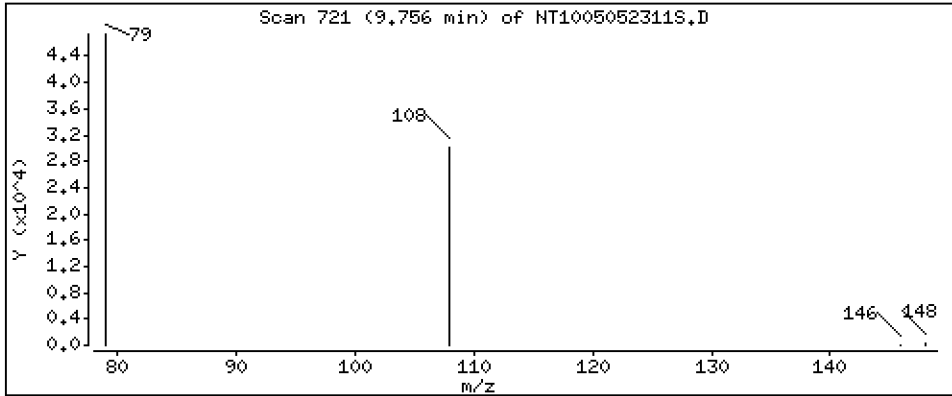
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 2,514 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

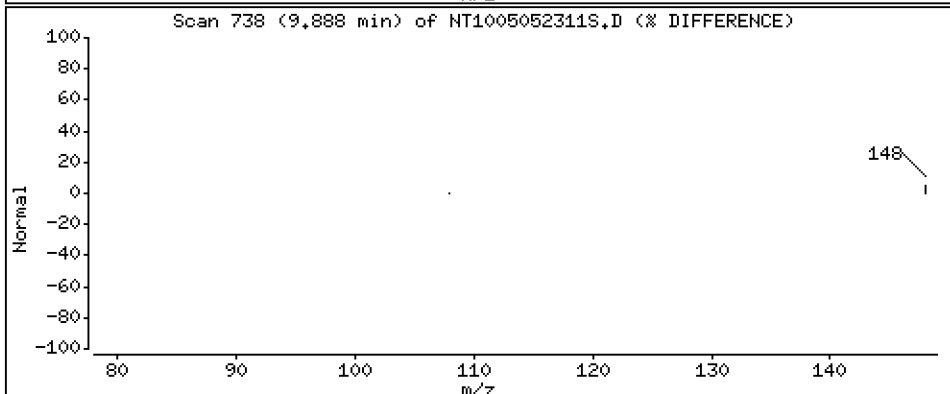
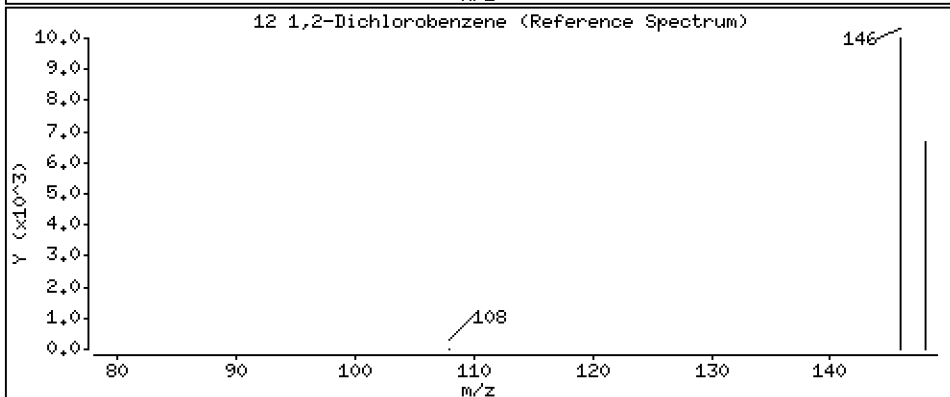
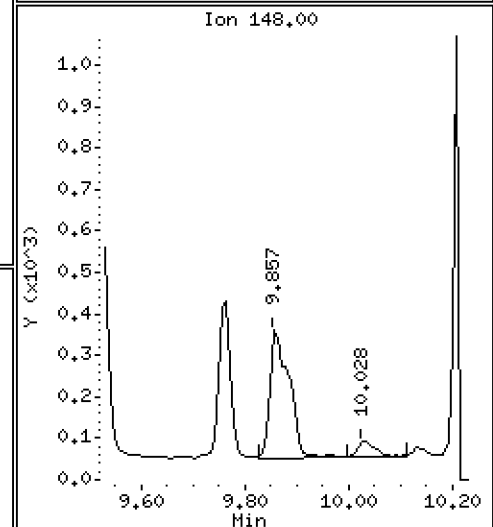
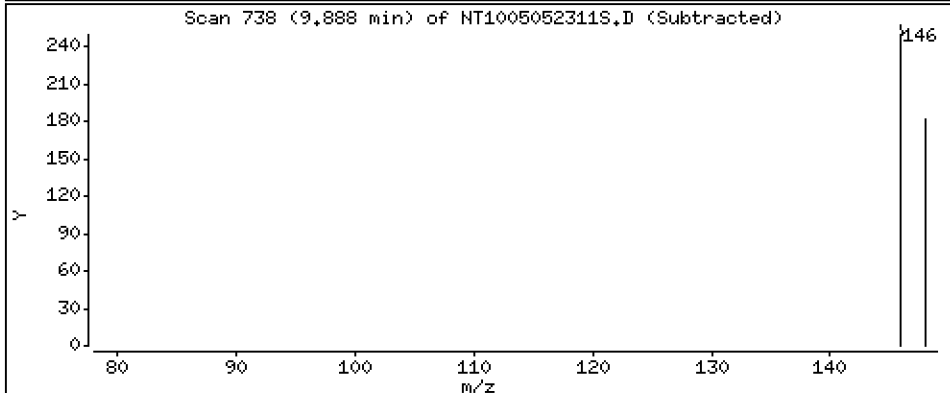
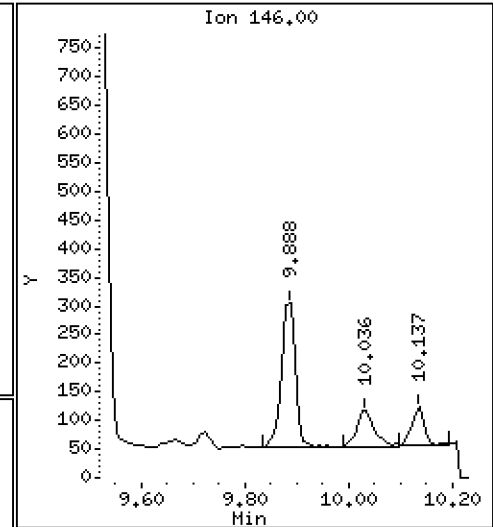
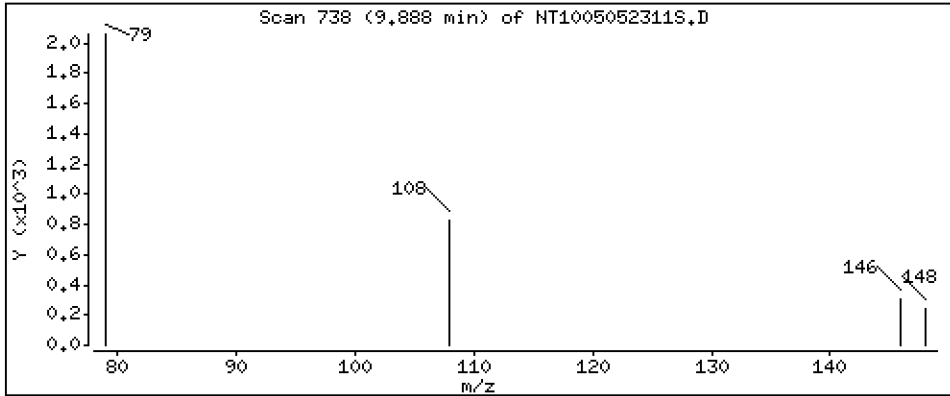
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.006446 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

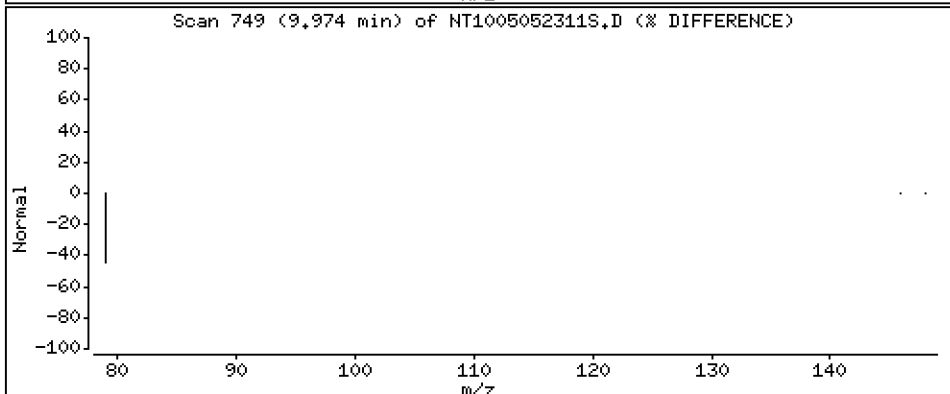
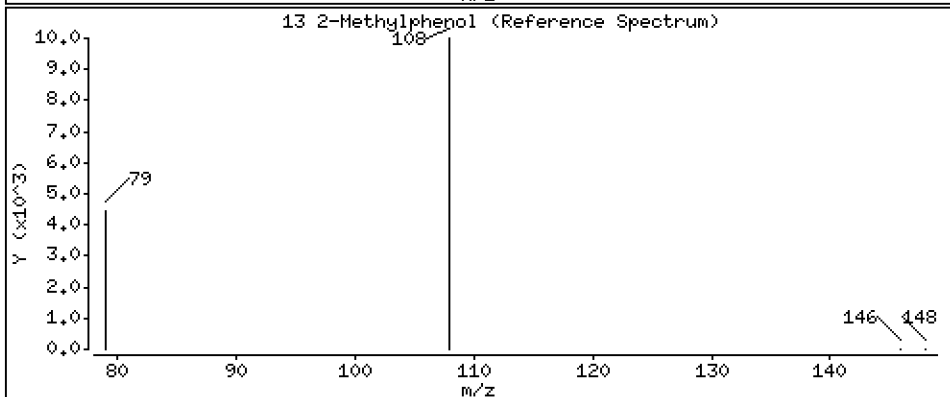
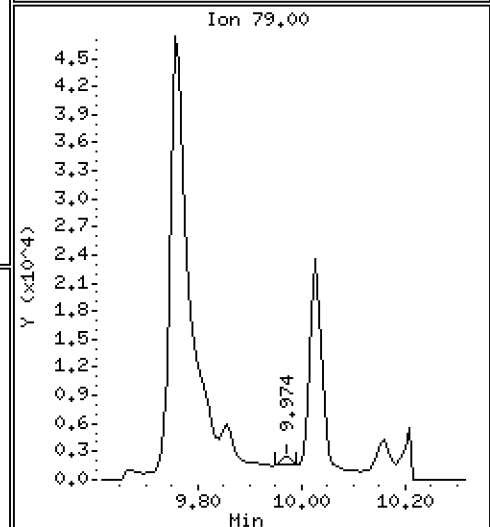
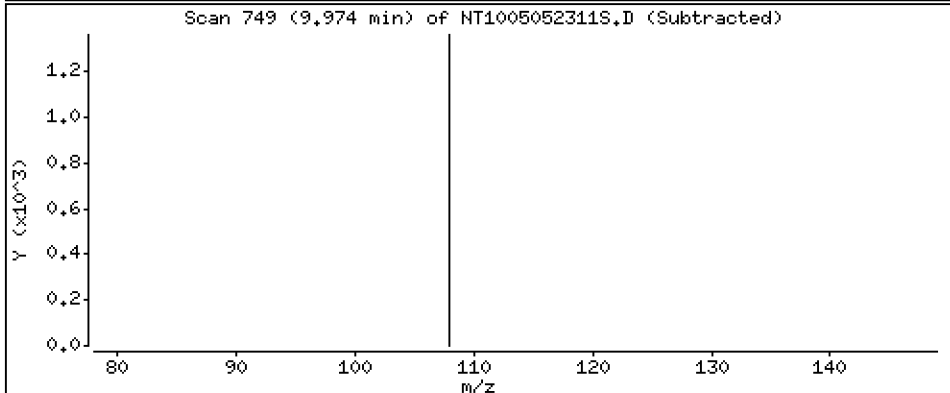
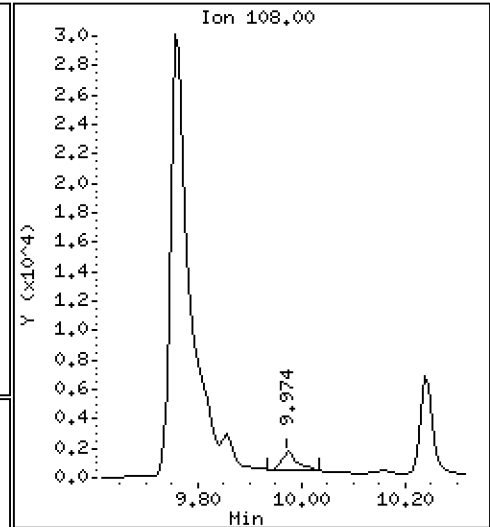
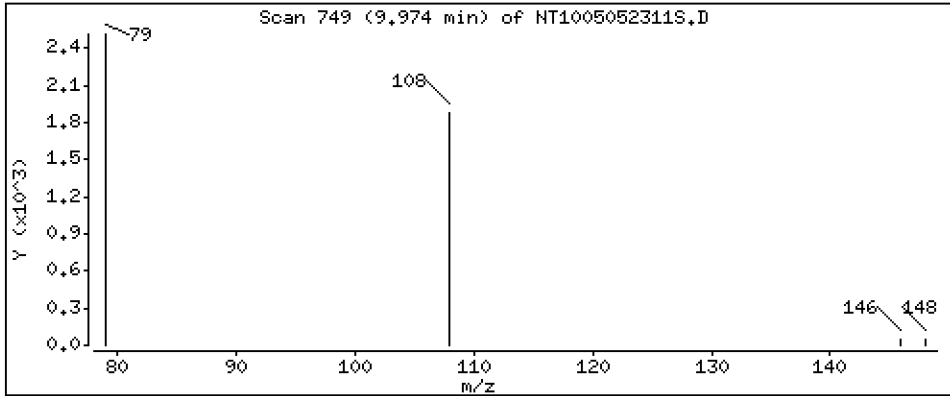
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.04729 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

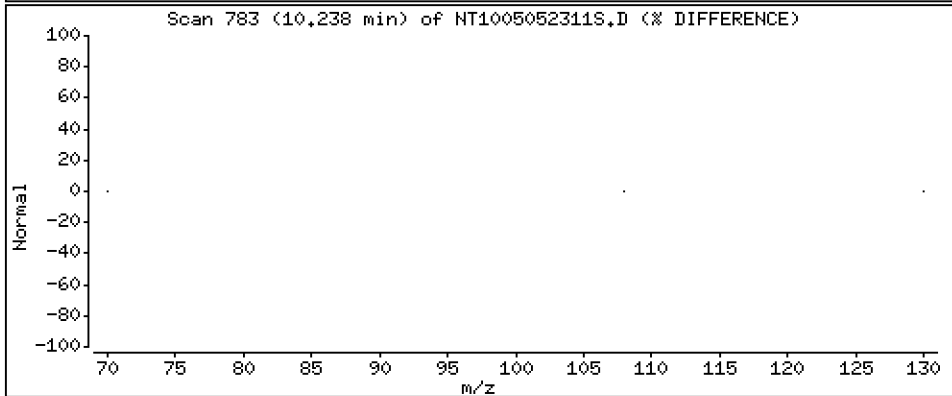
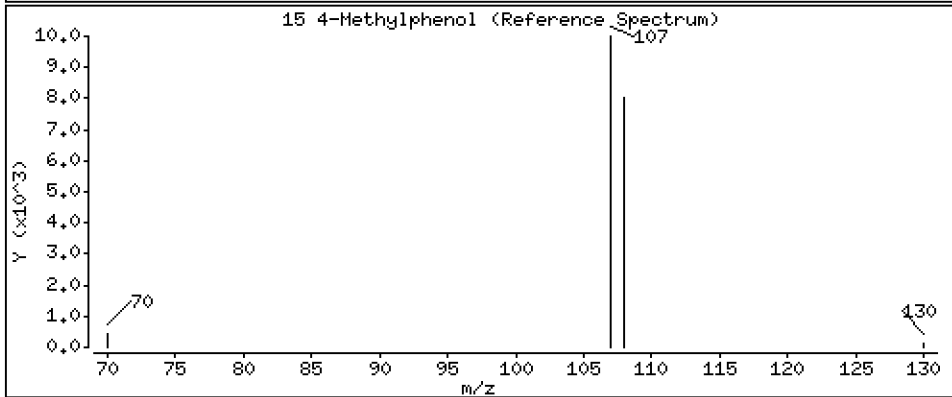
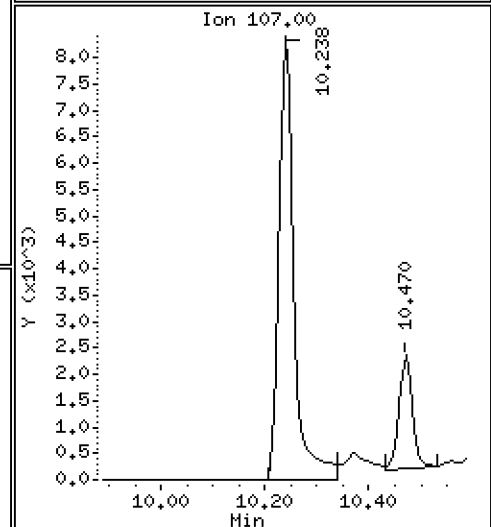
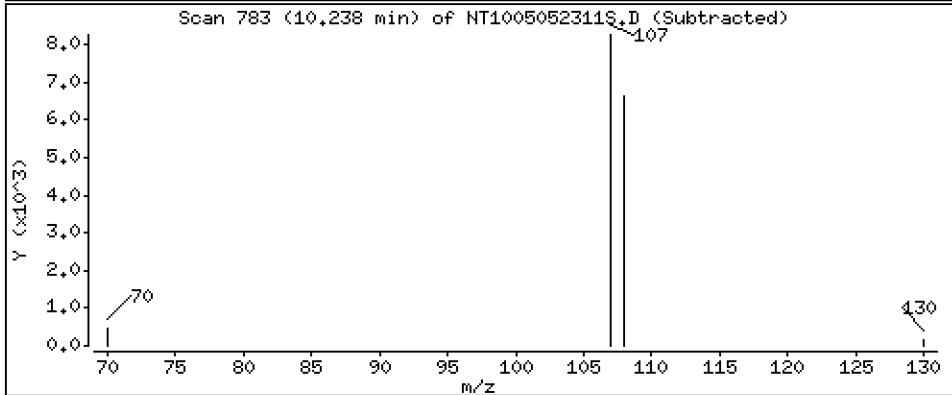
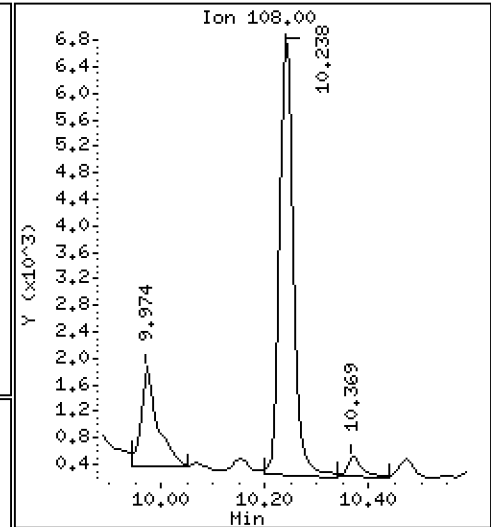
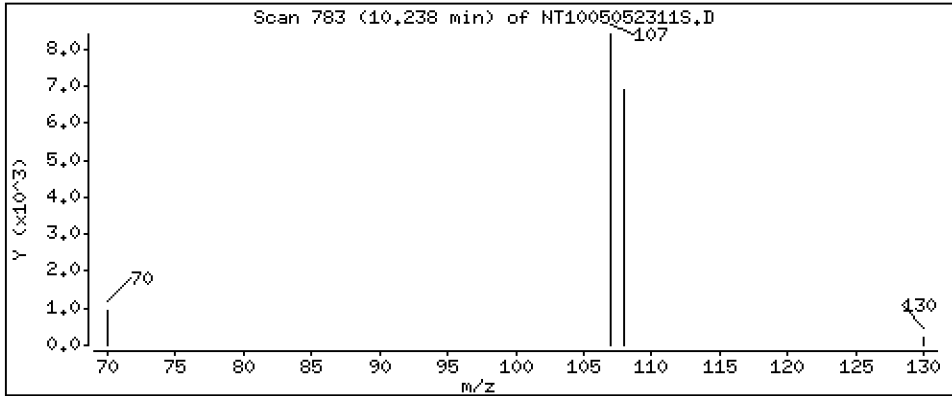
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.2124 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

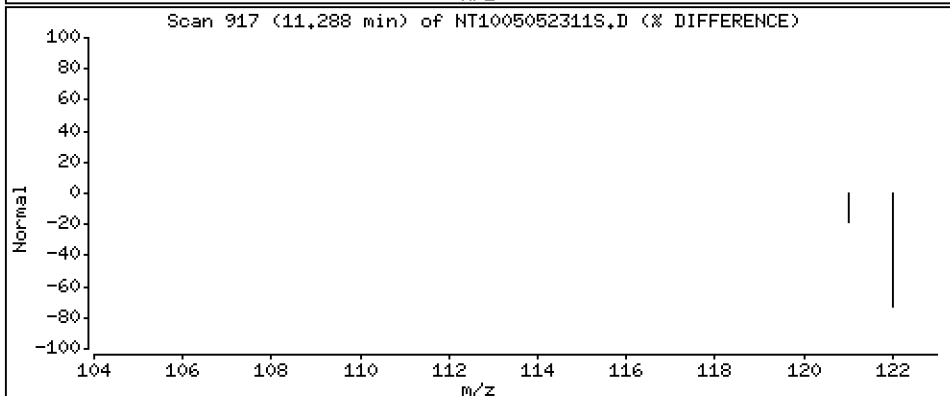
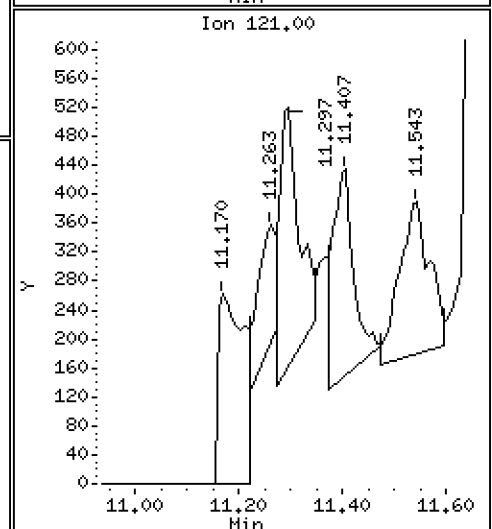
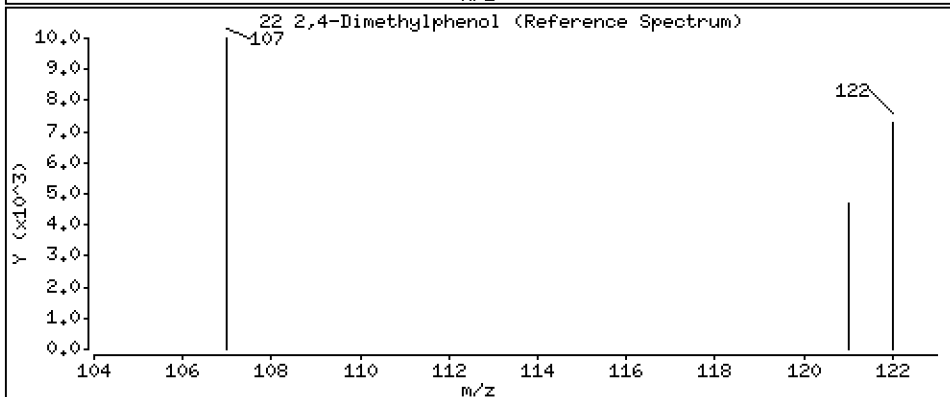
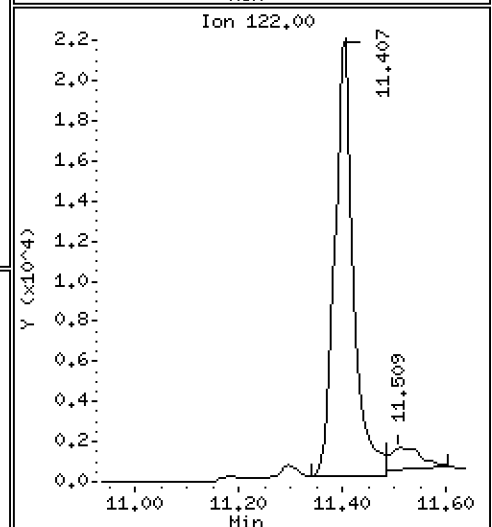
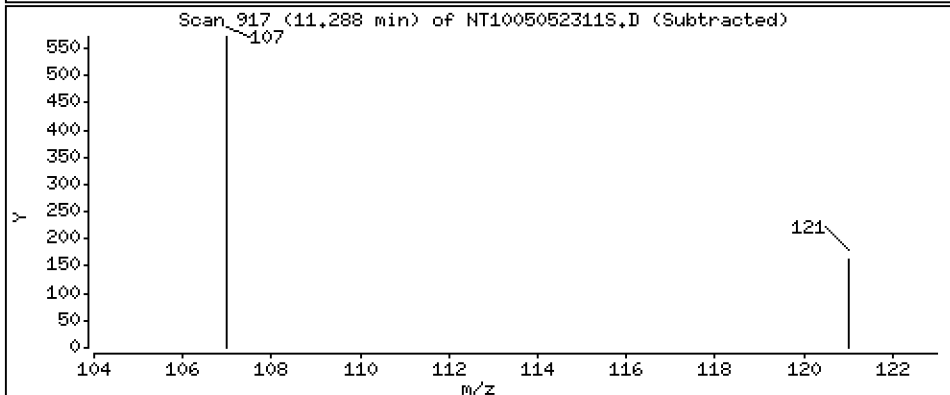
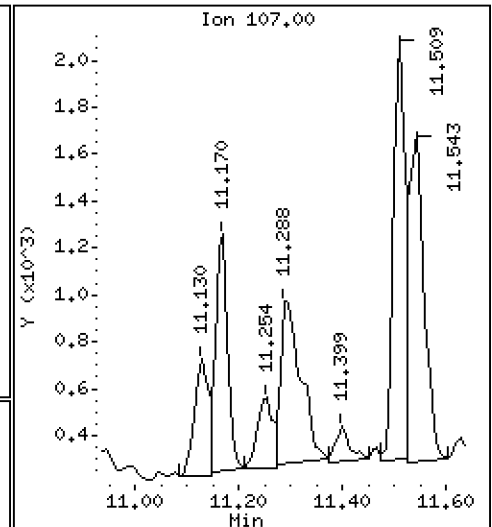
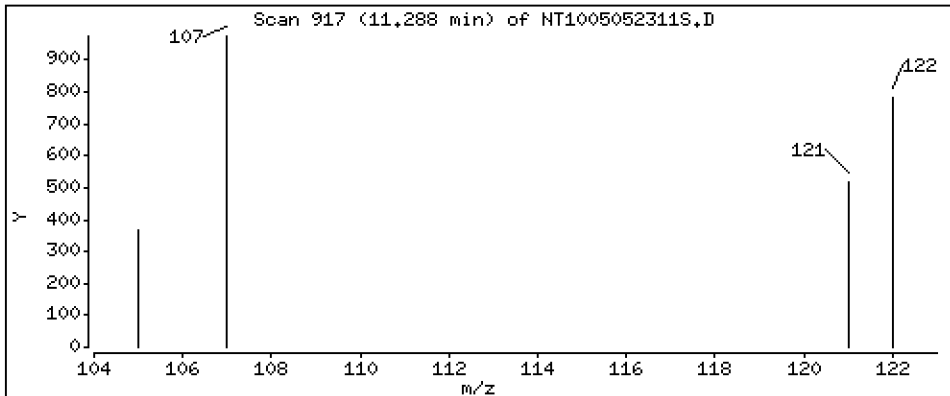
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.02836 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

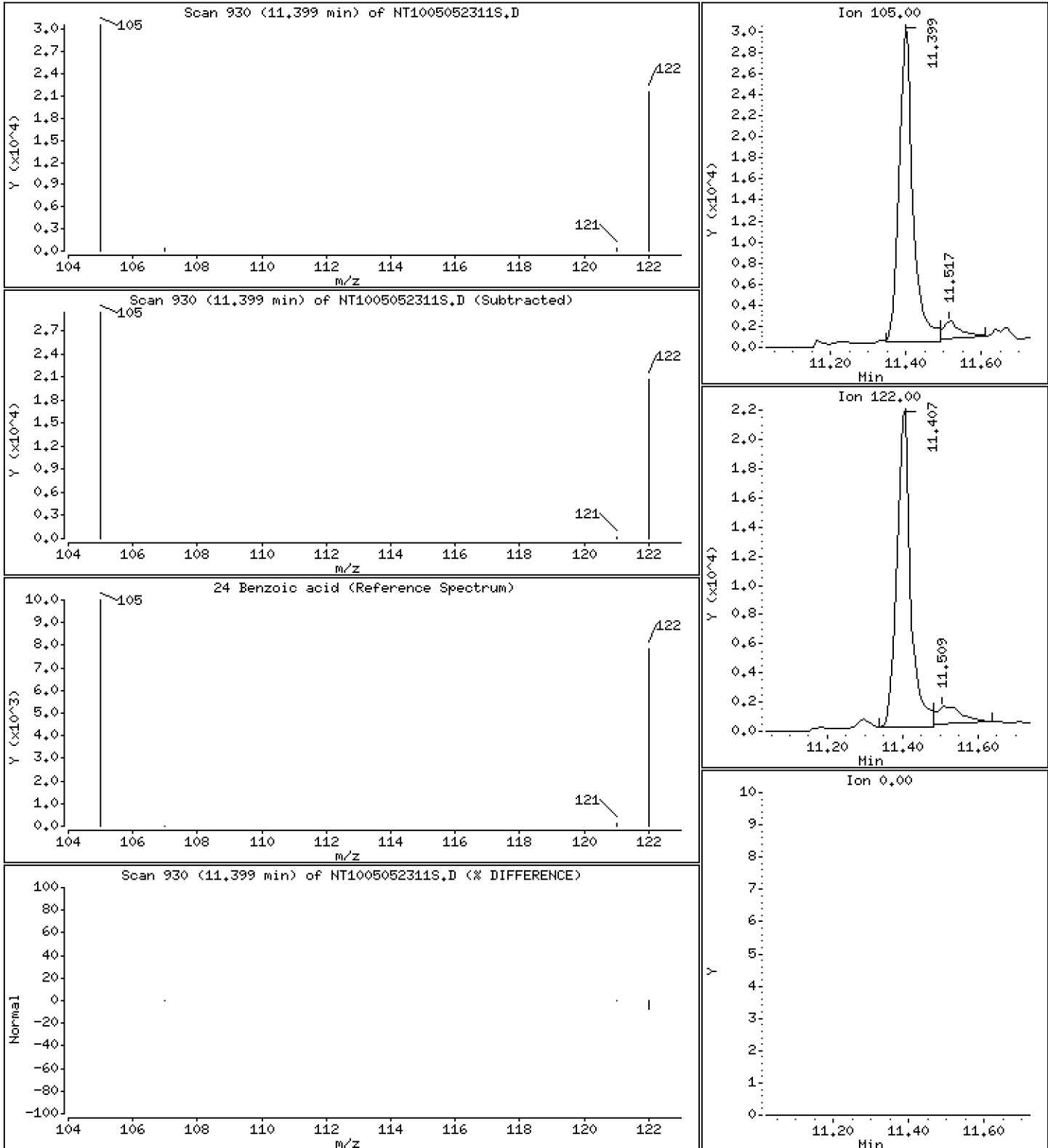
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 1,706 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

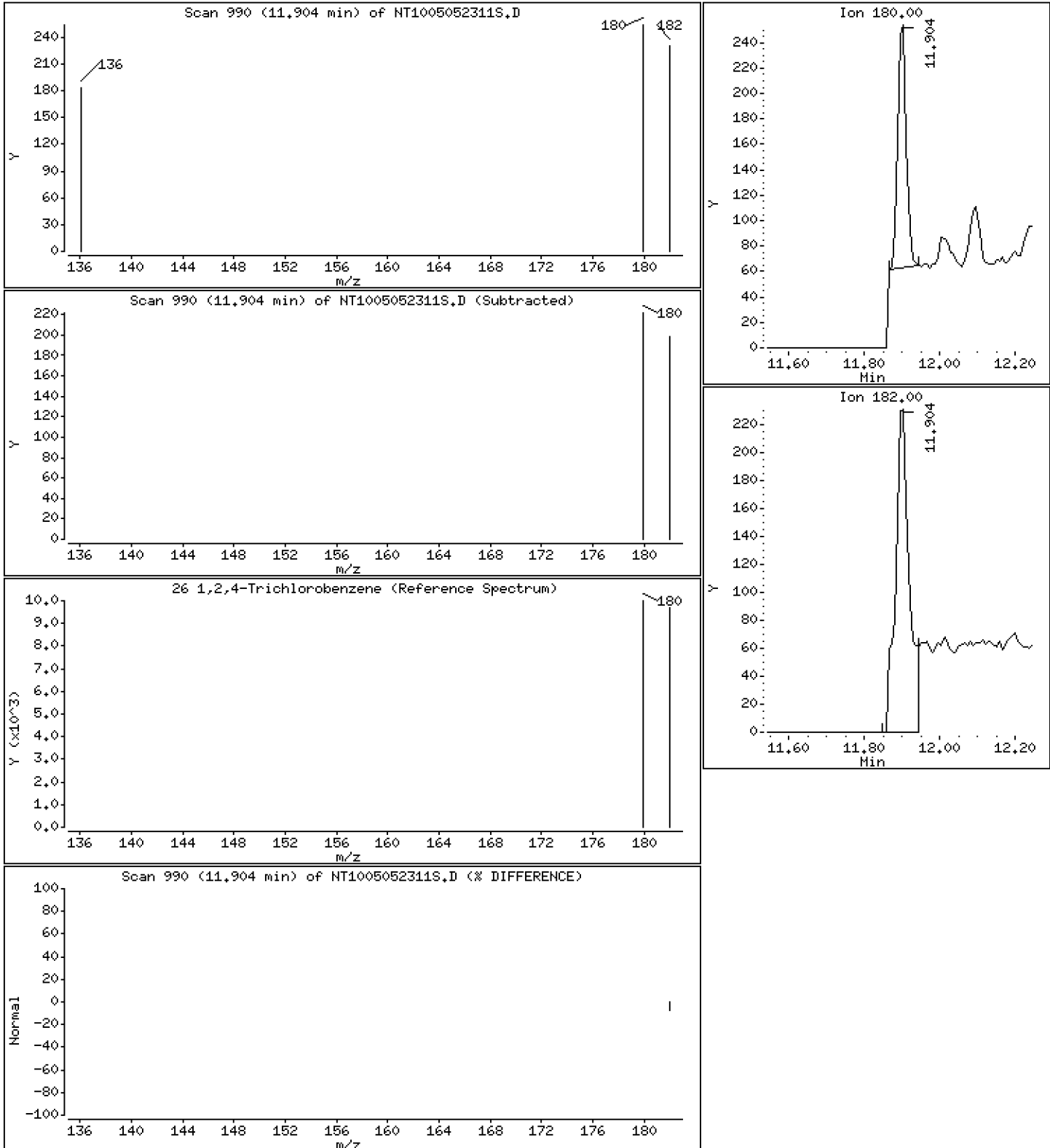
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,004220 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

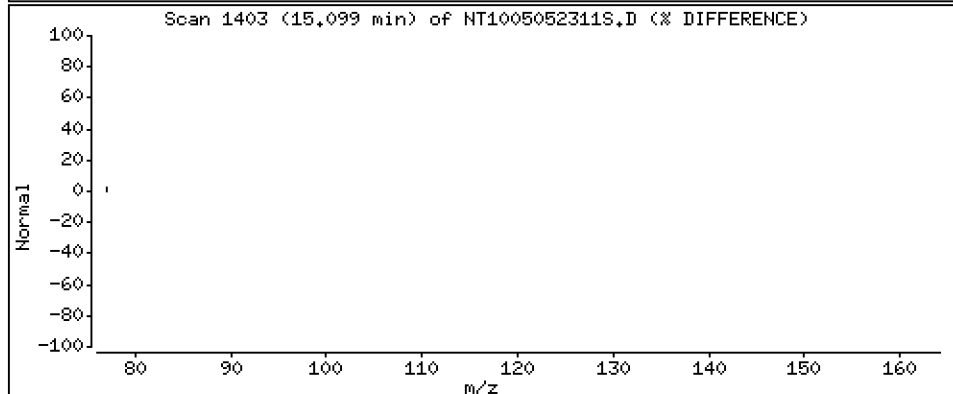
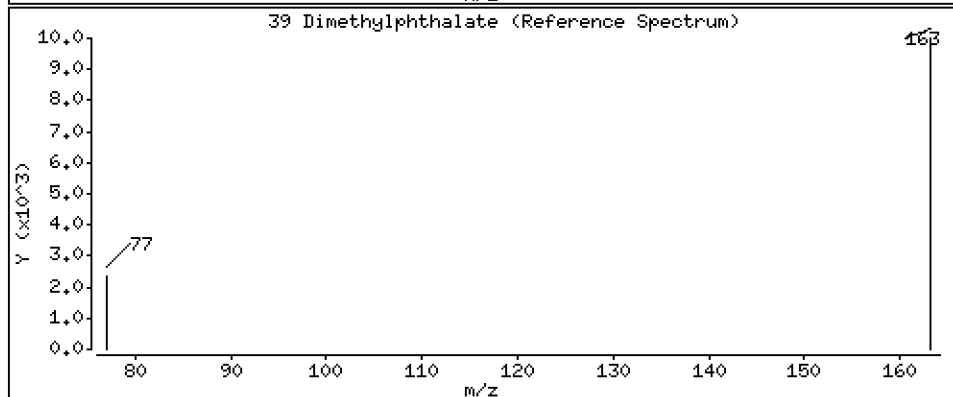
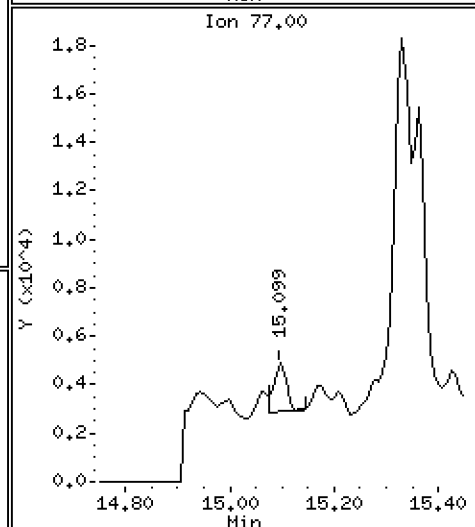
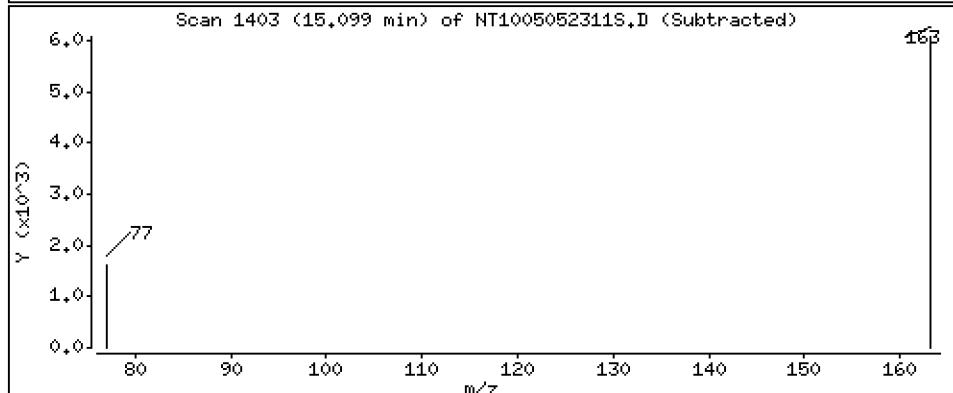
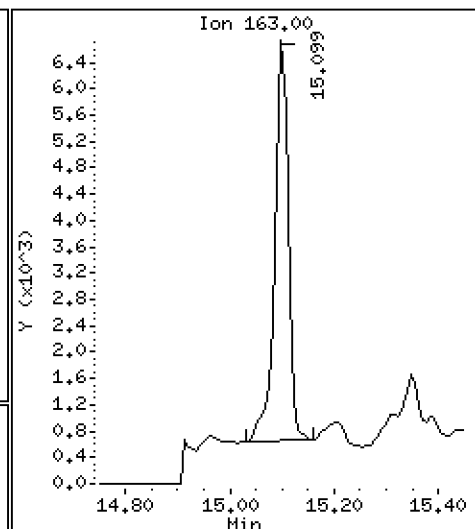
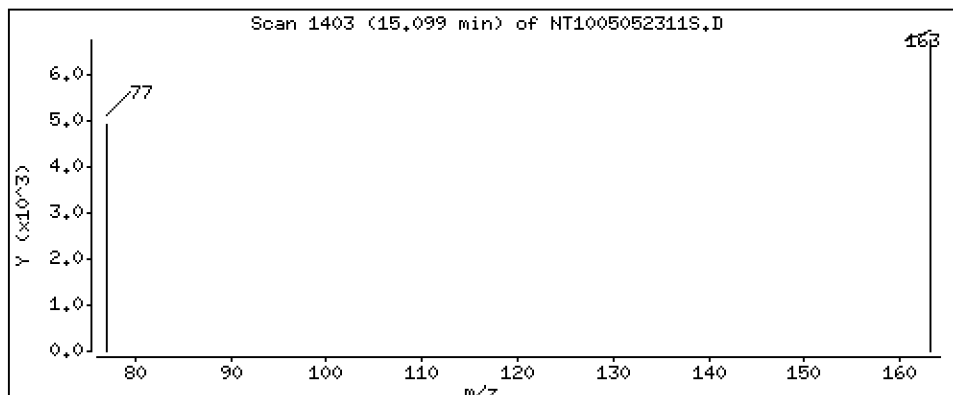
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,08012 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

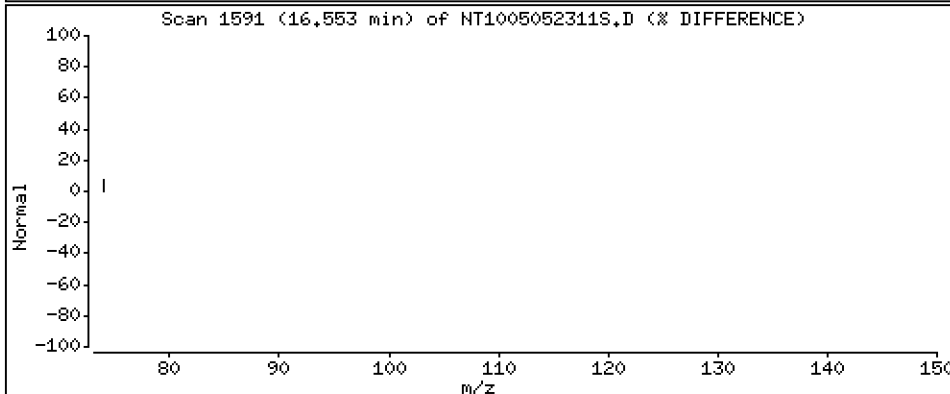
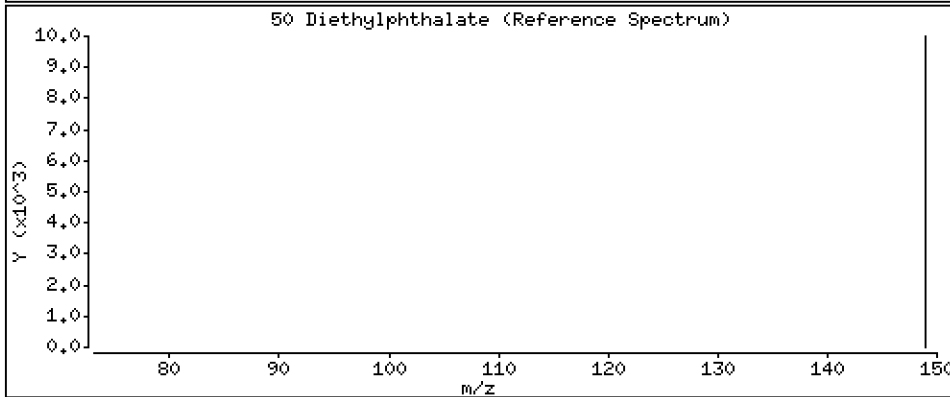
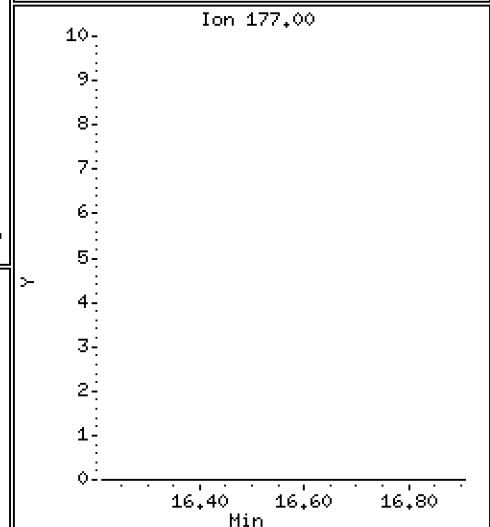
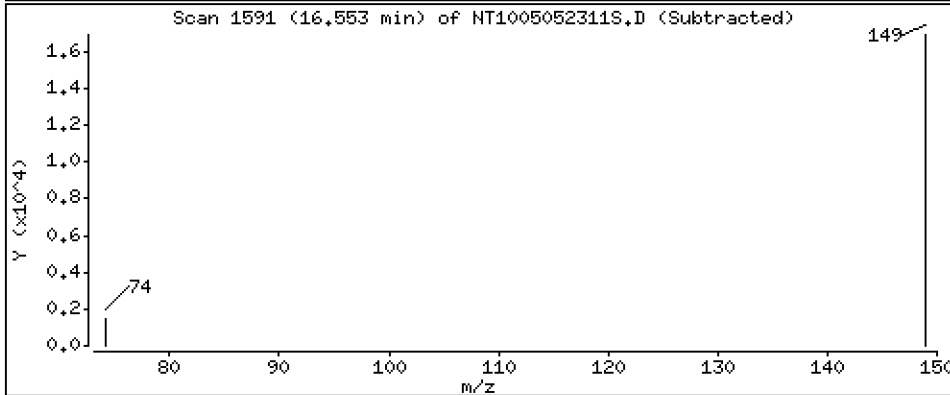
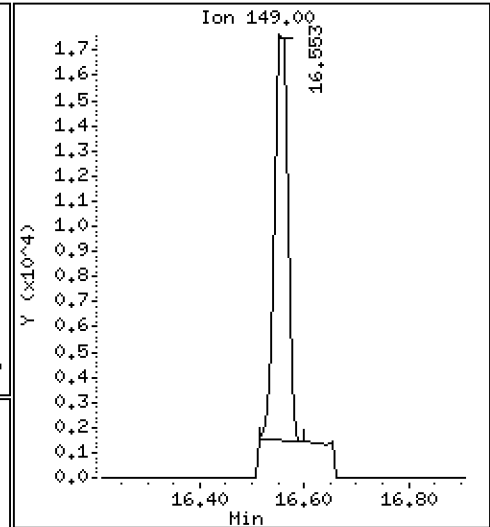
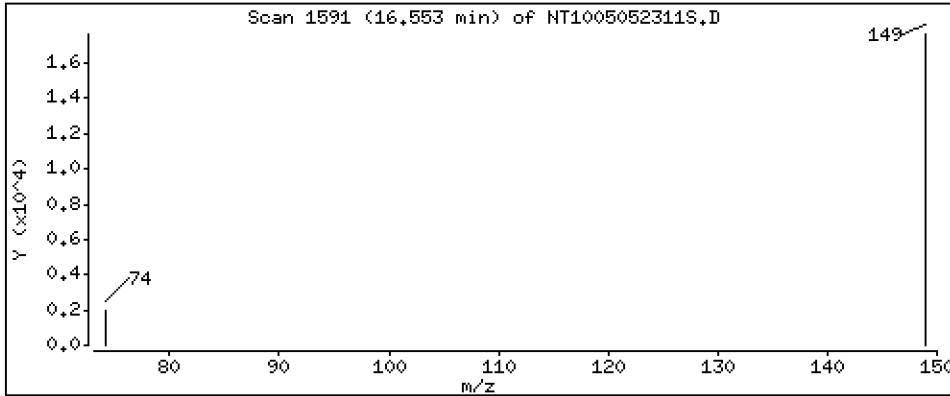
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1946 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

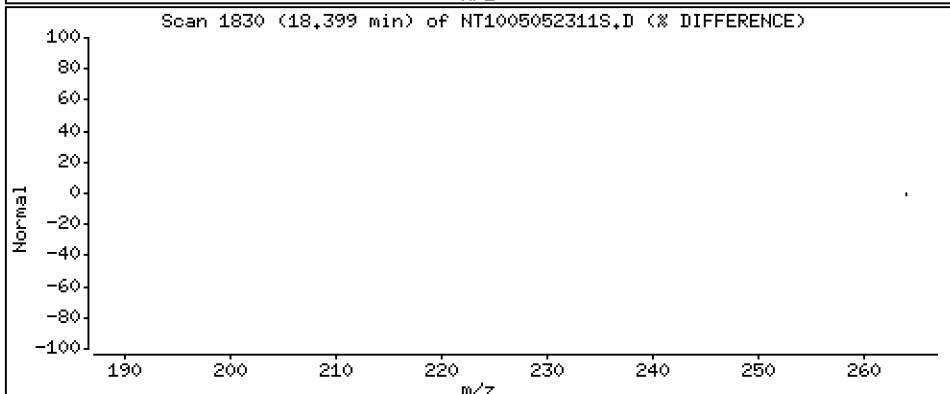
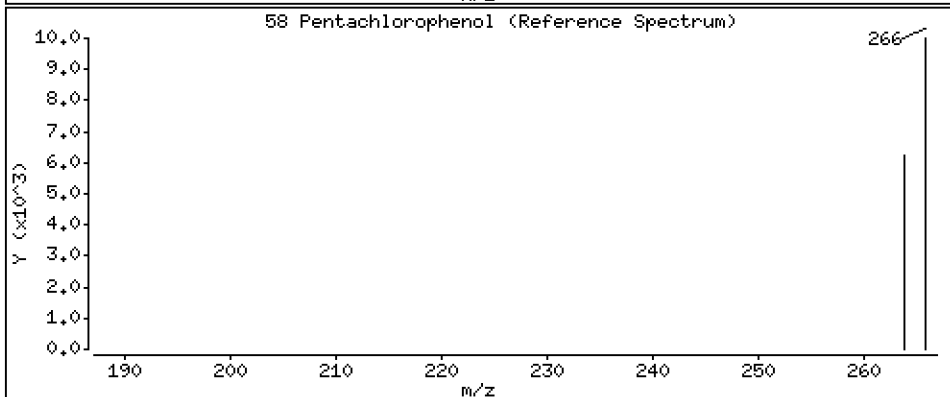
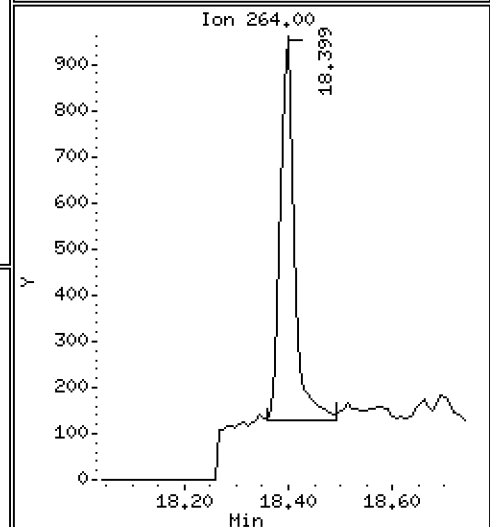
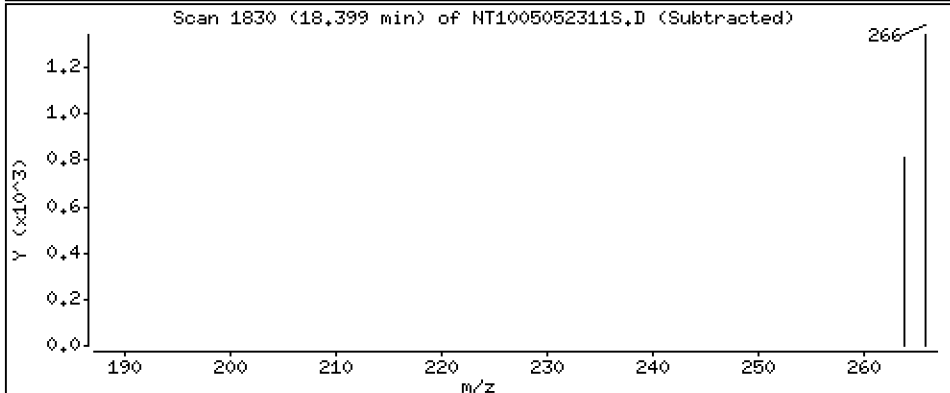
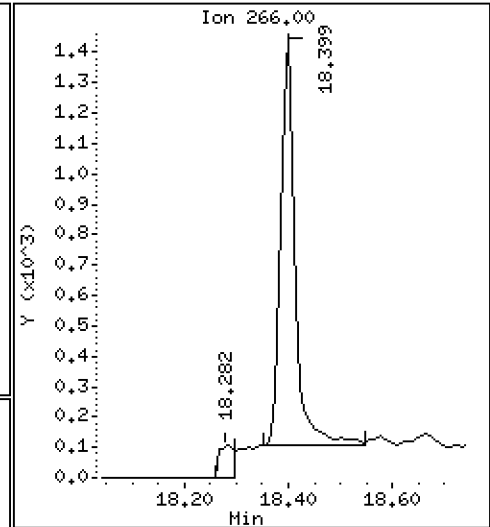
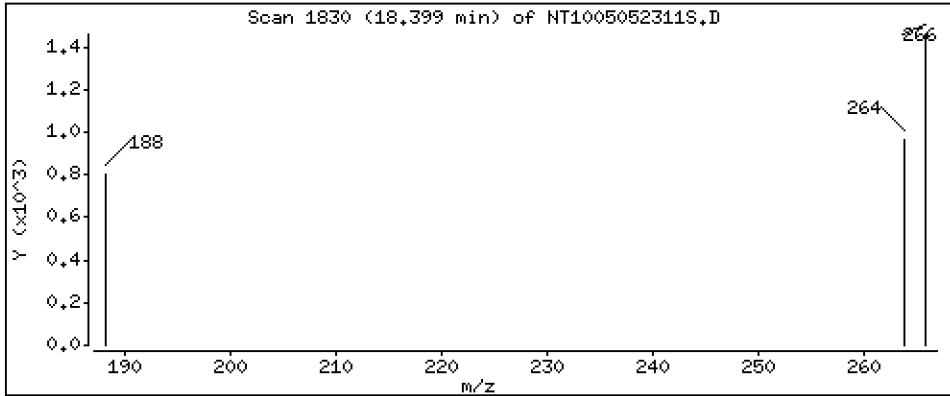
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,09065 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

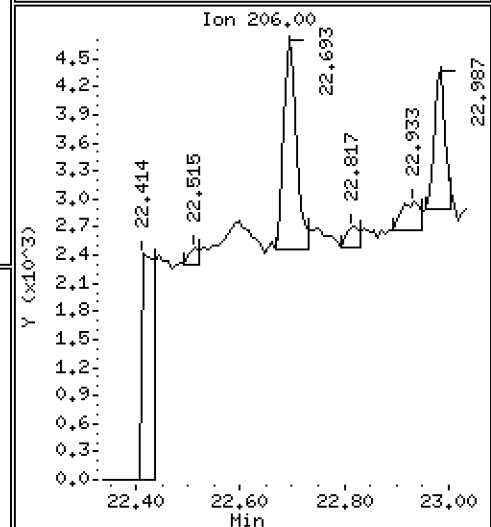
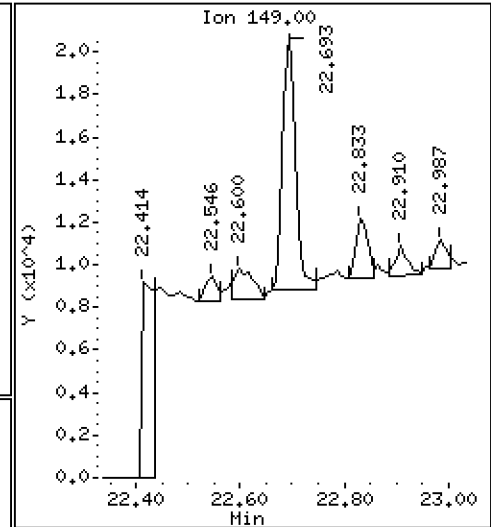
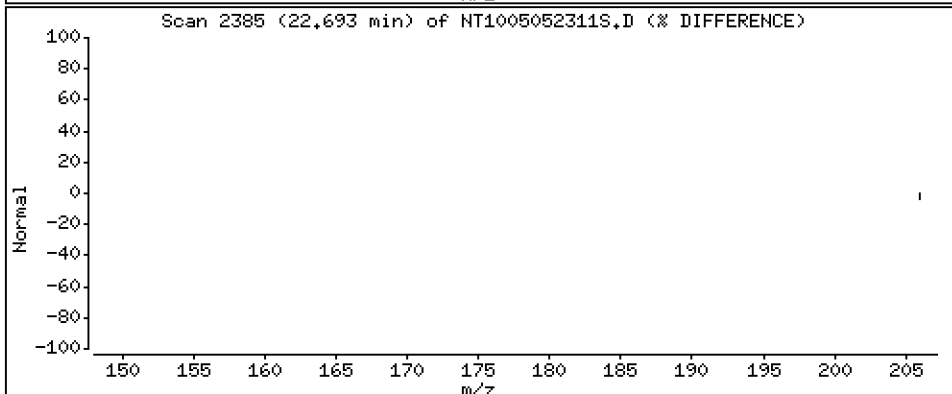
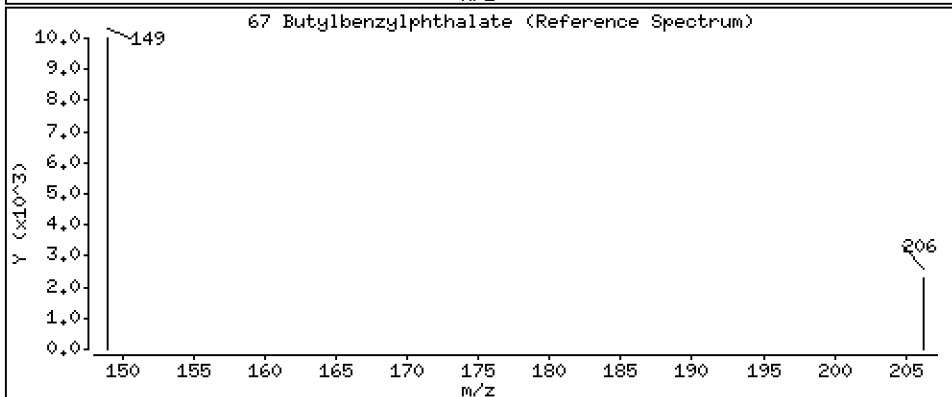
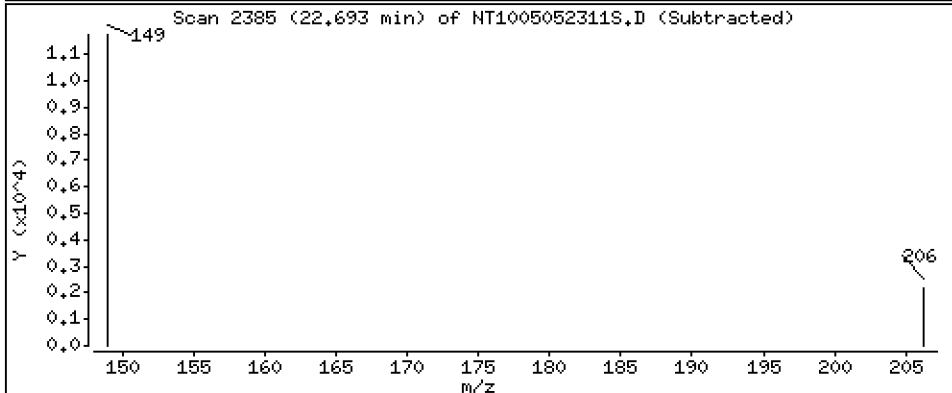
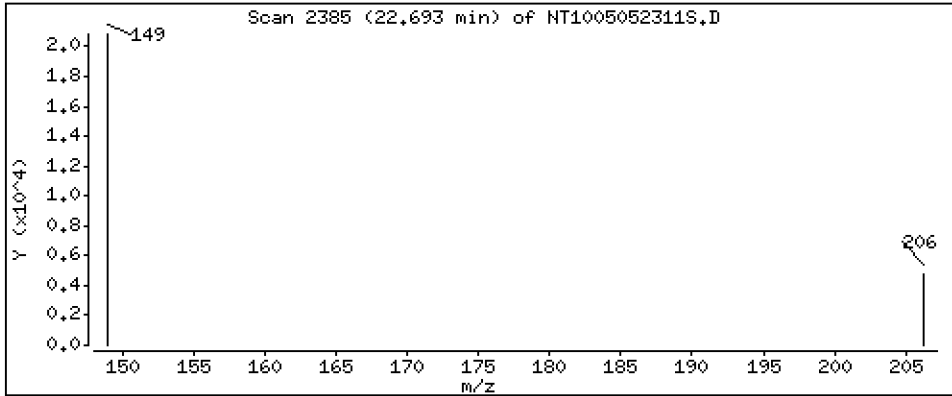
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.2059 ug/L



Date : 05-MAY-2023 17:15

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-01

Volume Injected (uL): 1.0

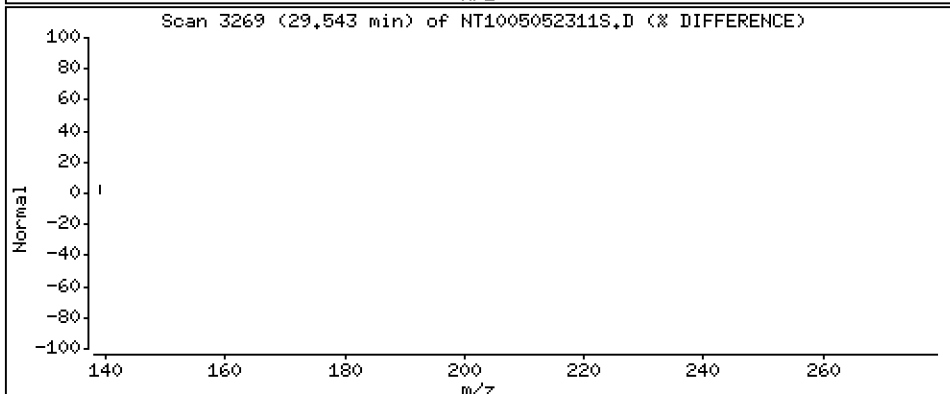
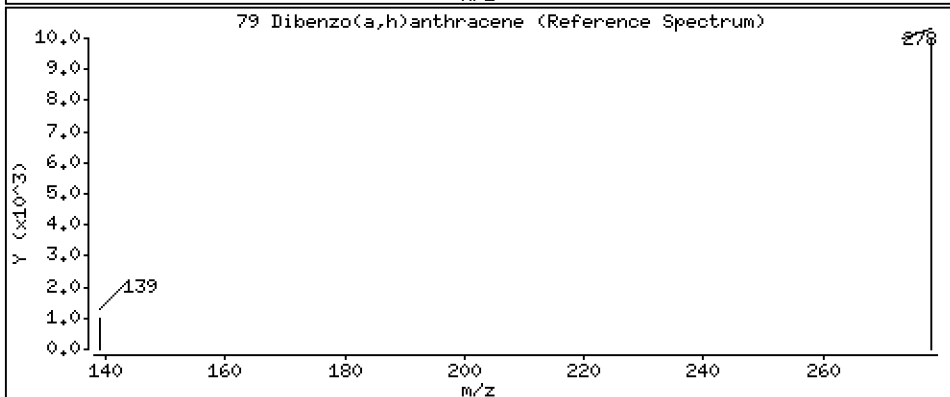
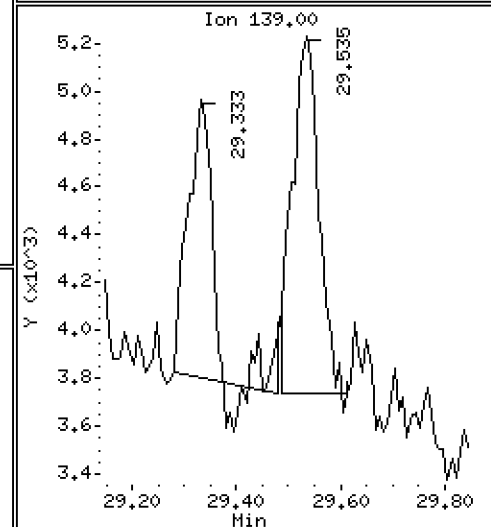
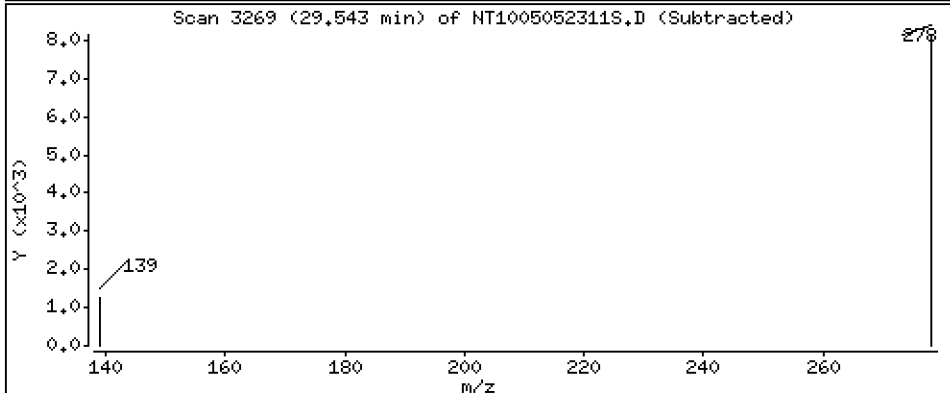
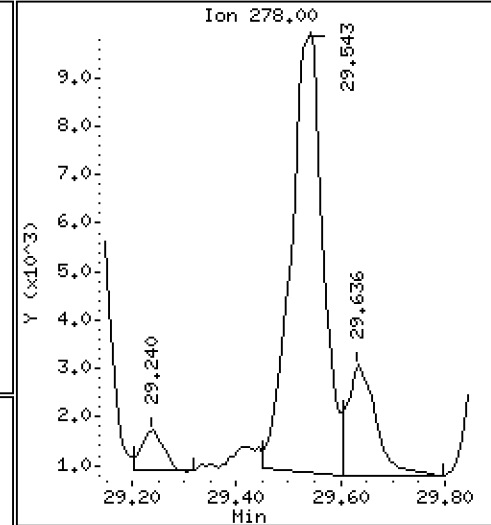
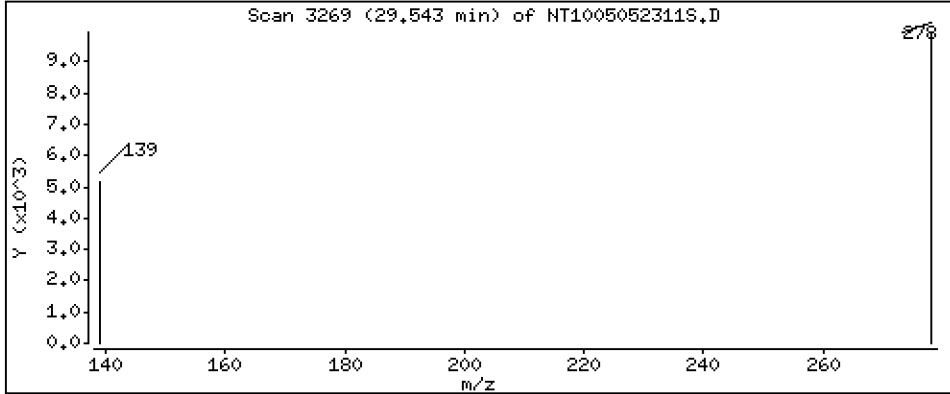
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,2598 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052311S.D
 Lab Smp Id: 23D0136-01
 Inj Date : 05-MAY-2023 17:15 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : 23D0136-01
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSSDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.762)	210458	3.74972	3.750 (R)
3 Phenol	94		8.850	8.842	(0.932)	979265	13.9287	13.93
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.500	9.492	(1.000)	184248	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.002)	1349	0.01842	0.01842
11 Benzyl alcohol	79		9.756	9.756	(1.027)	122241	2.51424	2.514
12 1,2-Dichlorobenzene	146		9.888	9.880	(1.041)	454	0.00645	0.006446
13 2-Methylphenol	108		9.973	9.965	(1.050)	2488	0.04729	0.04729 (M)
15 4-Methylphenol	108		10.237	10.237	(1.078)	11748	0.21235	0.2124
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		11.288	11.288	(0.942)	1939	0.02836	0.02836
24 Benzoic acid	105		11.398	11.381	(0.951)	76263	1.70552	1.706
26 1,2,4-Trichlorobenzene	180		11.904	11.896	(0.993)	296	0.00422	0.004220 (M)
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	688156	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		15.099	15.099	(0.967)	10393	0.08012	0.08012 (M)
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	342198	4.00000	
50 Diethylphthalate	149		16.553	16.560	(1.060)	27103	0.19459	0.1946 (M)
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.398	18.390	(0.985)	2519	0.09065	0.09065
* 59 Phenanthrene-d10	188	18.669	18.669	(1.000)	726795	4.00000	
\$ 66 Terphenyl-d14	244	21.779	21.771	(0.919)	495384	4.25922	4.259 (R)
67 Butylbenzylphthalate	149	22.693	22.685	(0.958)	19544	0.20587	0.2059
* 69 Chrysene-d12	240	23.699	23.684	(1.000)	539399	4.00000	
* 77 Perylene-d12	264	26.548	26.517	(1.000)	475433	4.00000	
79 Dibenzo(a,h)anthracene	278	29.542	29.496	(1.113)	39872	0.25981	0.2598
90 N-Nitrosodimethylamine	74	Compound Not Detected.					

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052311S.D
 Lab Smp Id: 23D0136-01
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	184248	0.85
27 Naphthalene-d8	662220	331110	1324440	688156	3.92
42 Acenaphthene-d10	335558	167779	671116	342198	1.98
59 Phenanthrene-d10	678190	339095	1356380	726795	7.17
69 Chrysene-d12	566969	283485	1133938	539399	-4.86
77 Perylene-d12	522906	261453	1045812	475433	-9.08

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.50	0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.67	18.17	19.17	18.67	0.00
69 Chrysene-d12	23.68	23.18	24.18	23.70	0.07
77 Perylene-d12	26.52	26.02	27.02	26.55	0.12

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

REVIEW SUMMARY FOR FILE - NT1005052311S.D

Lab ID: 23D0136-01

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 17:15

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

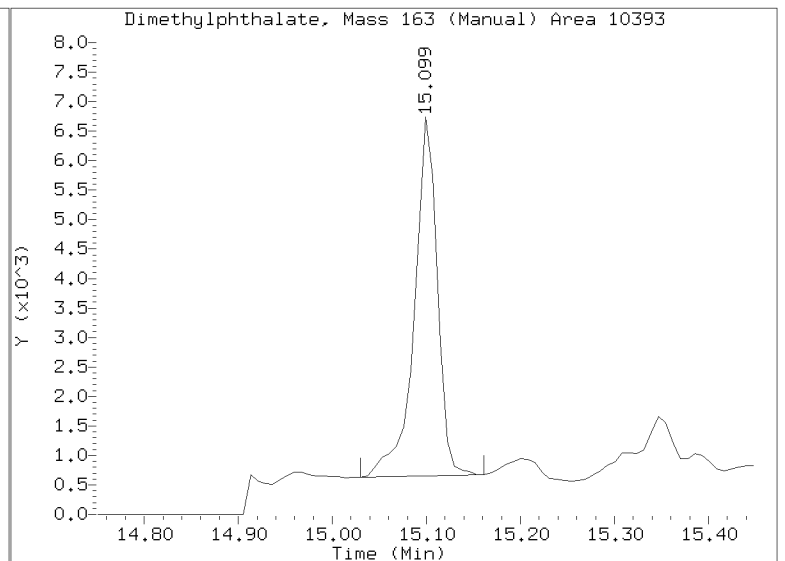
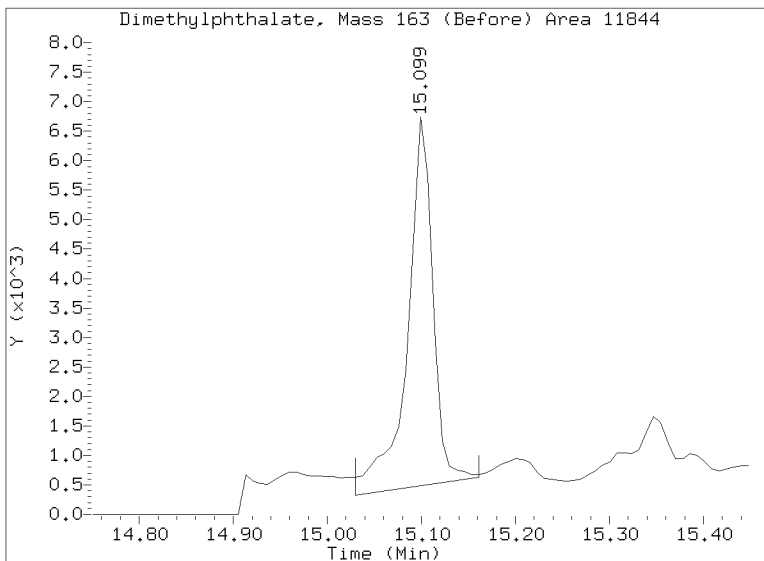
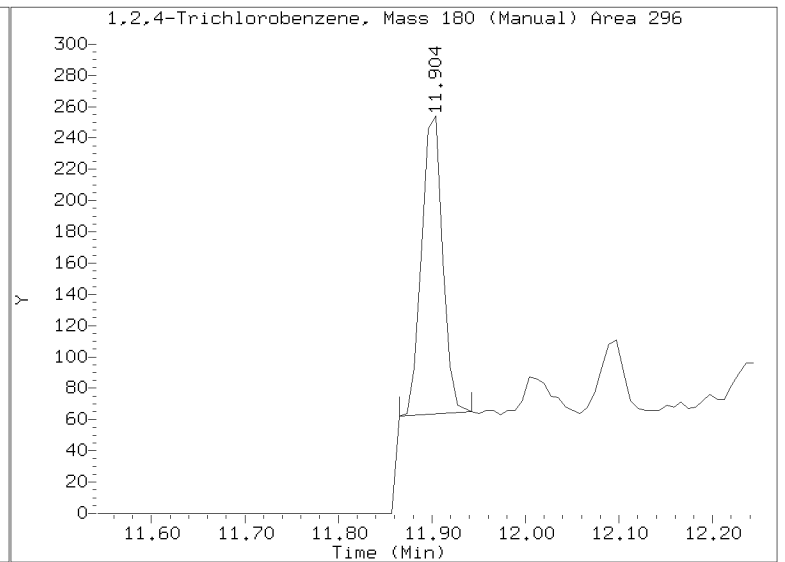
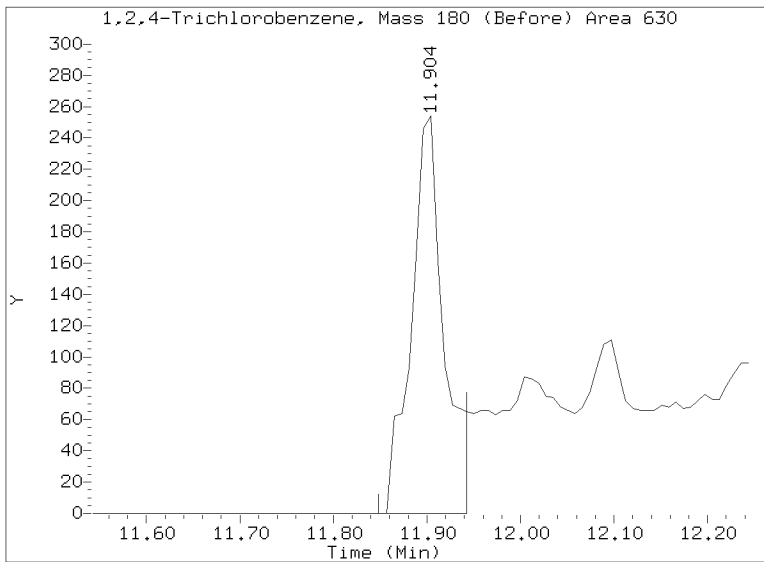
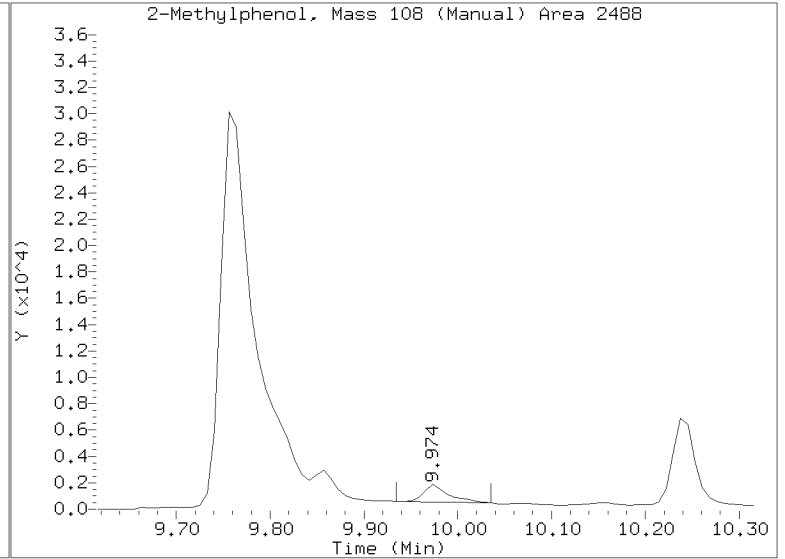
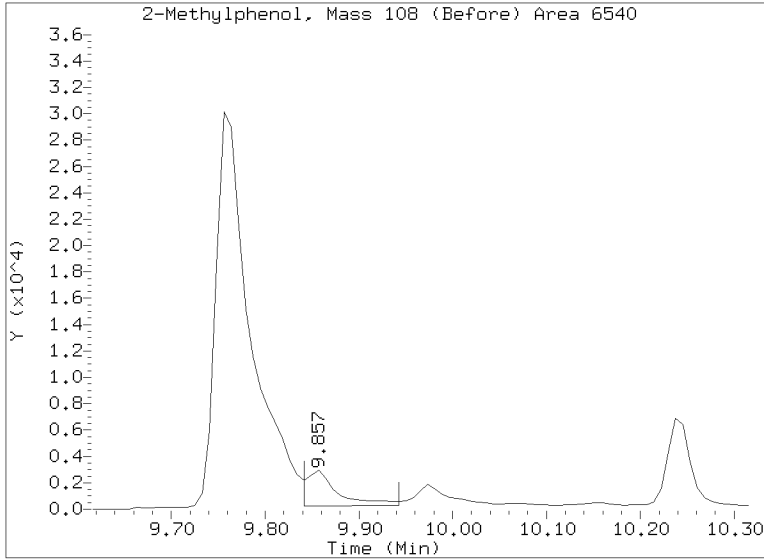
On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

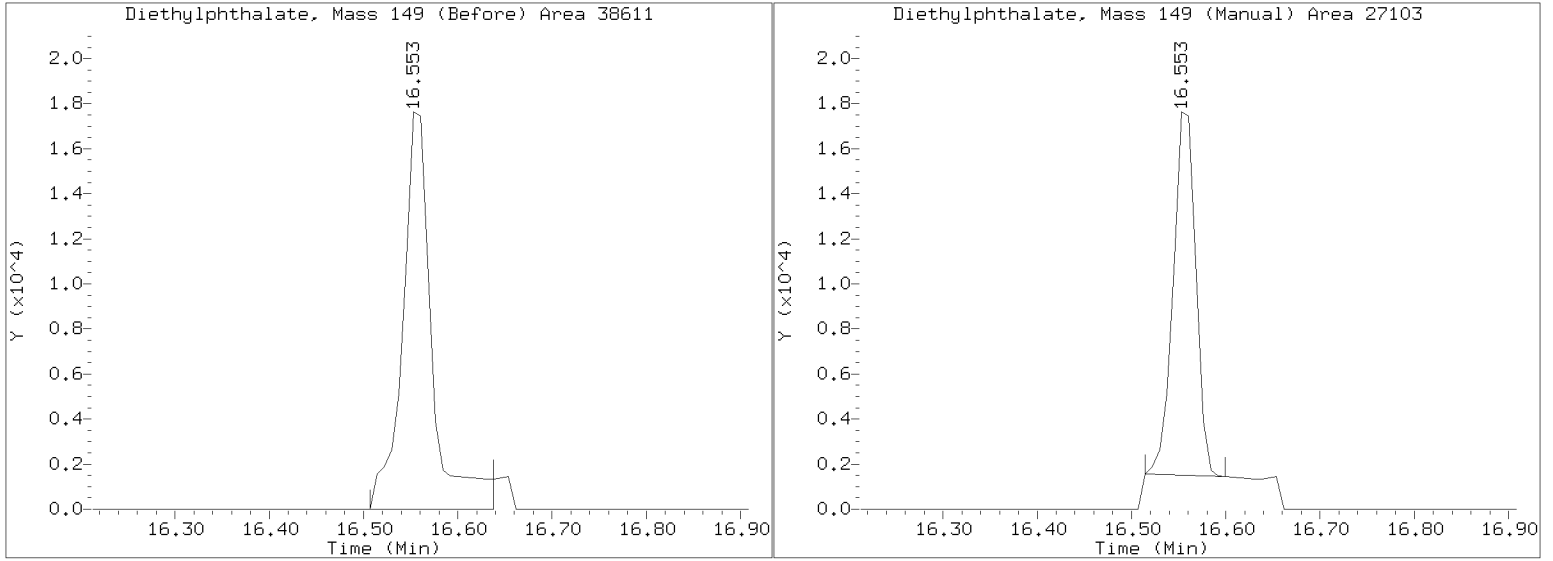
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052311S.D
Injection Date: 05-MAY-2023 17:15
Lab ID:23D0136-01 Client ID:
Report Date: 05/31/2023 14:31



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052311S.D
Injection Date: 05-MAY-2023 17:15
Lab ID:23D0136-01 Client ID:
Report Date: 05/31/2023 14:31





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
SIM SVOC Organics (Dual scan list)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0136-03 A

SDG: 23D0136

Sampled: 04/05/23 16:05

Prepared: 04/18/23 11:16

File ID: NT1005052312S.D

% Solids: 44.31

Preparation: EPA 3546 (Microwave)

Analyzed: 05/05/23 17:54

Batch: BLD0329

Sequence: SLE0466

Initial/Final: 22.58 g Wet / 1 mL

Instrument: NT10

Column: ZB-5MSi

Calibration: GE00018

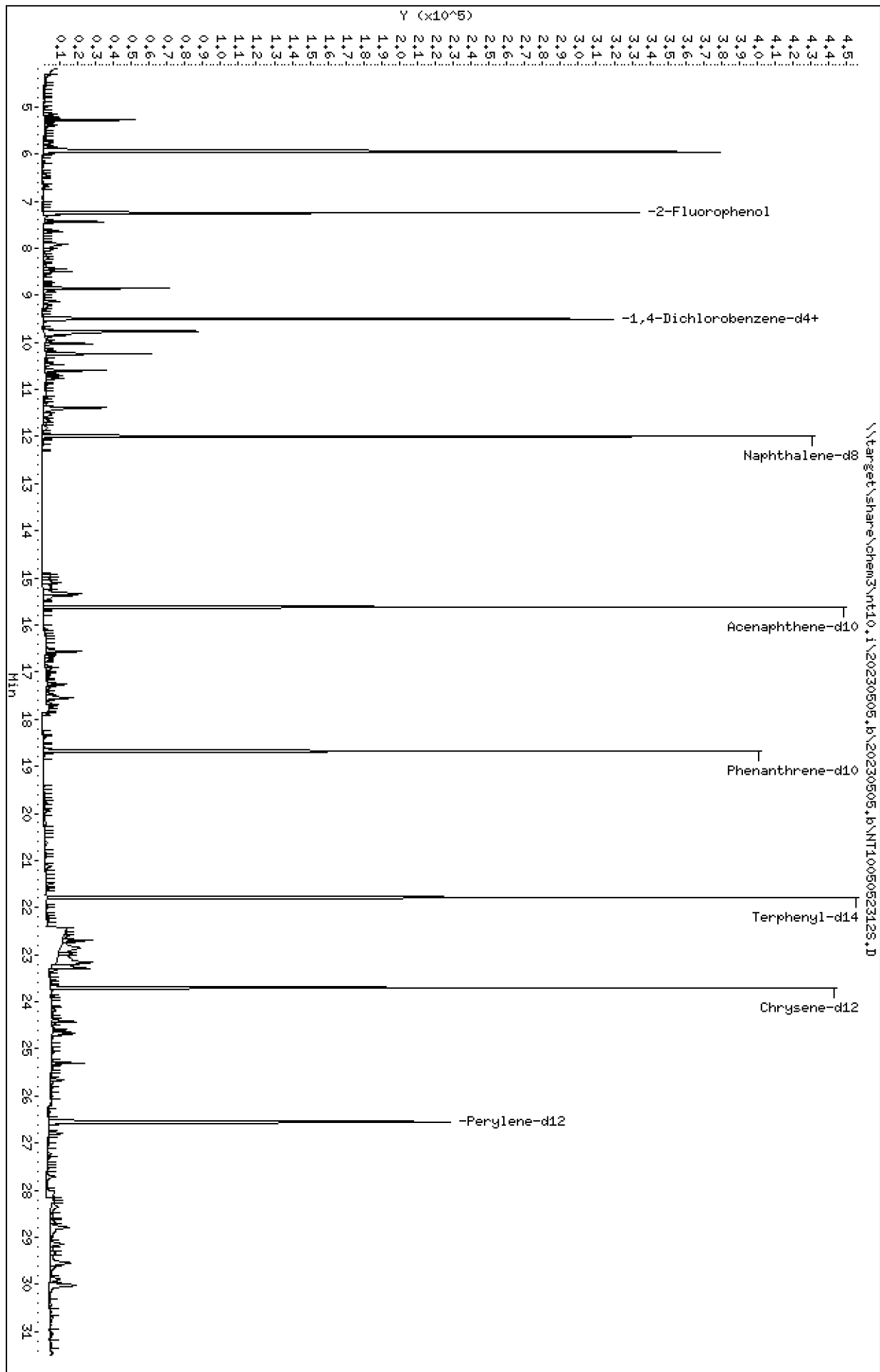
Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	2.2	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	5.0	U	0.7	5.0
100-51-6	Benzyl Alcohol	1	301		2.5	20.0
65-85-0	Benzoic acid	1	106	Q, J	13.4	200
105-67-9	2,4-Dimethylphenol	1	3.1	J	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	5.4	J	2.1	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	749.61	543	72.4	27 - 120	
p-Terphenyl-d14	499.74	493	98.7	37 - 120	

Data File: \\target\share\chem3\nt10.1\20230505.b\20230505.b\NT10050523125.D
 Date: 05-May-2023 17:54
 Client ID:
 Sample Info: 23D0136-03
 Volume Injected (uL): 1.0
 Column phase: ZB-5msi

Instrument: nt10.1
 Operator: DSD
 Column diameter: 0.25



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

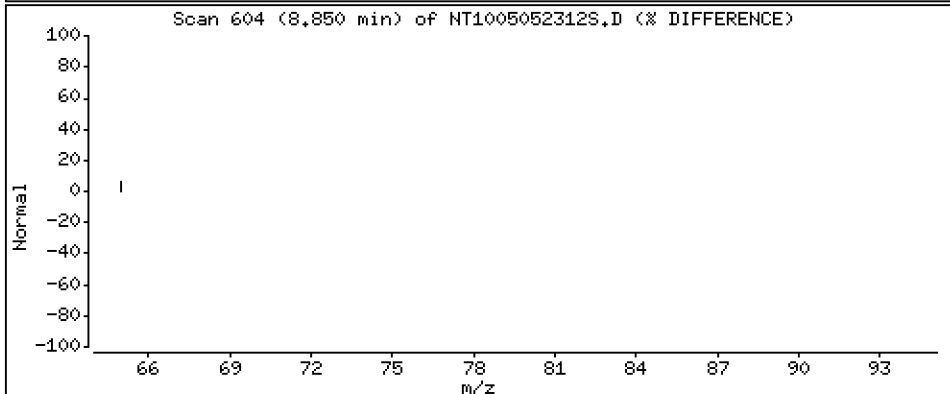
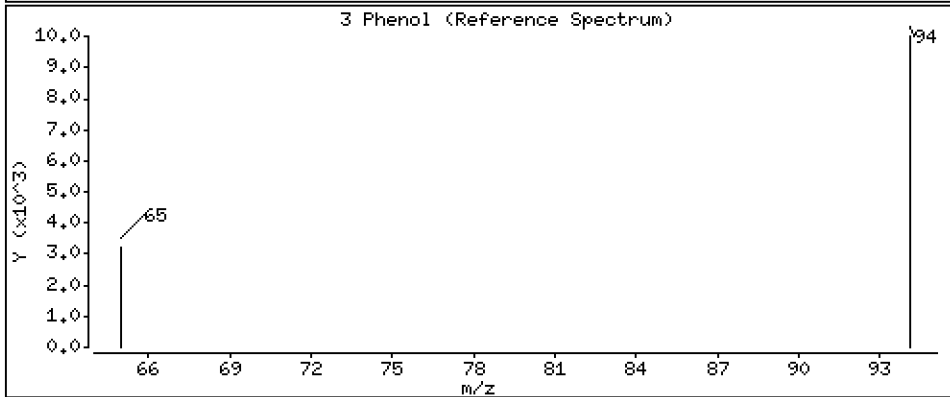
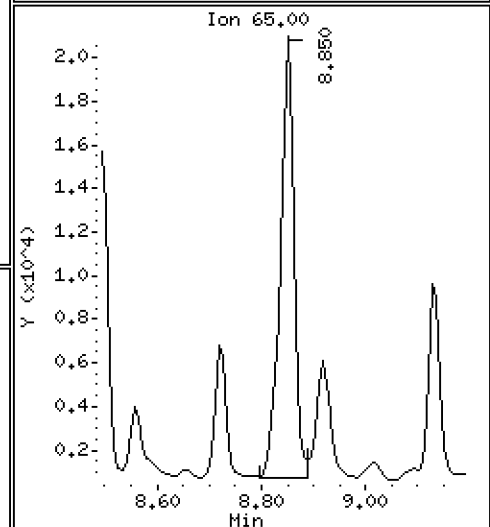
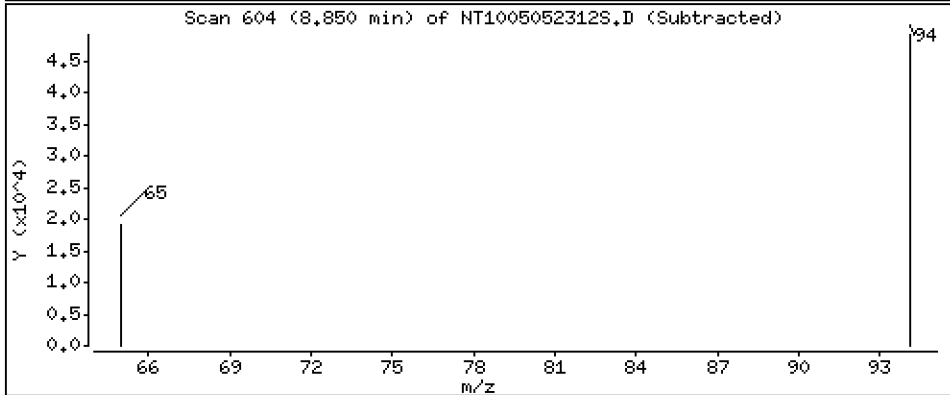
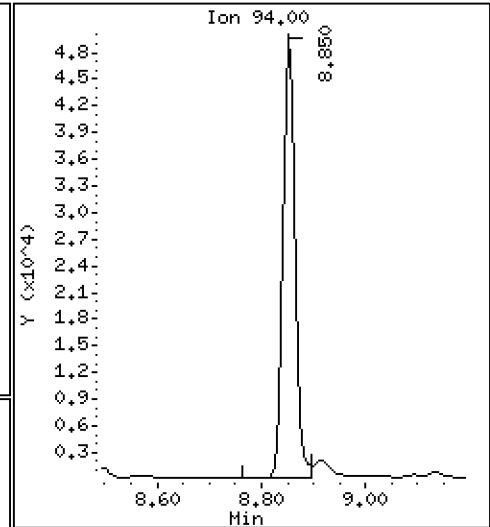
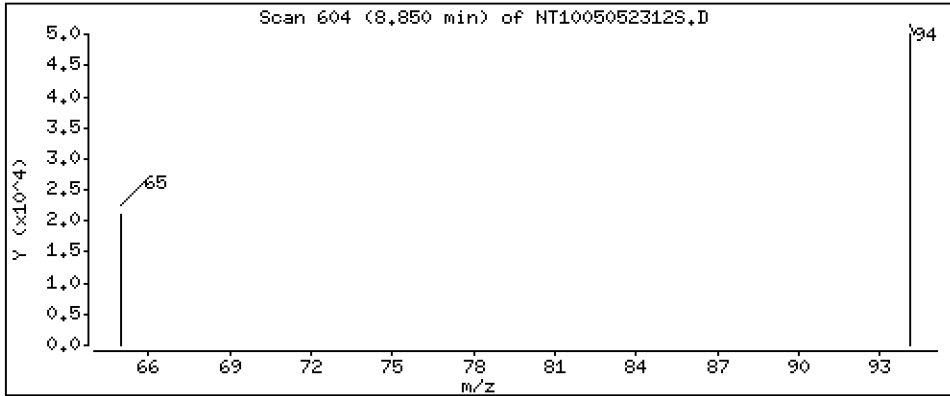
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 1,070 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

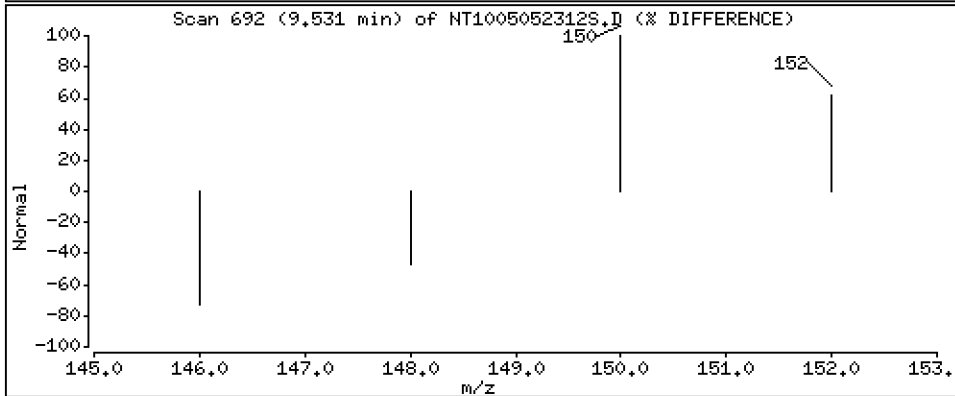
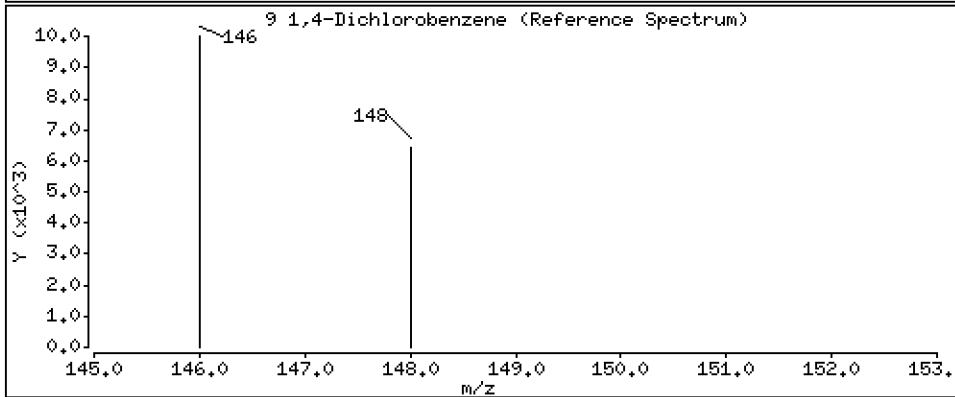
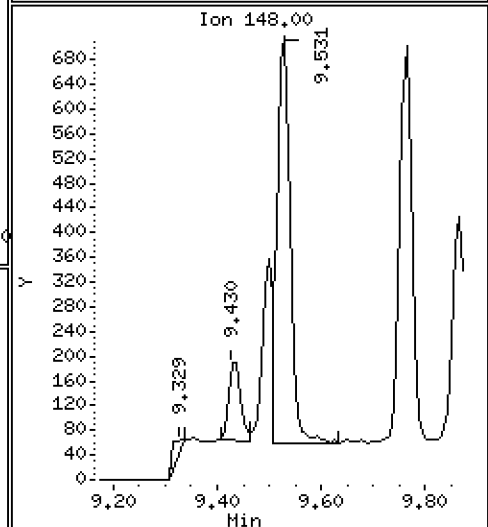
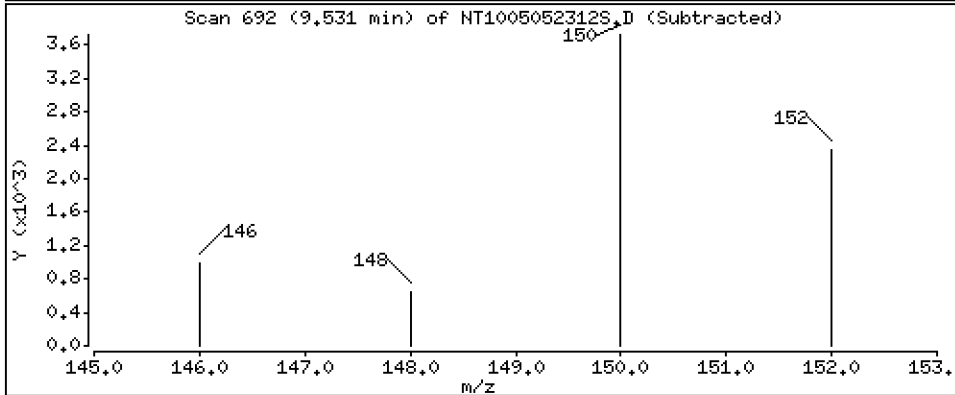
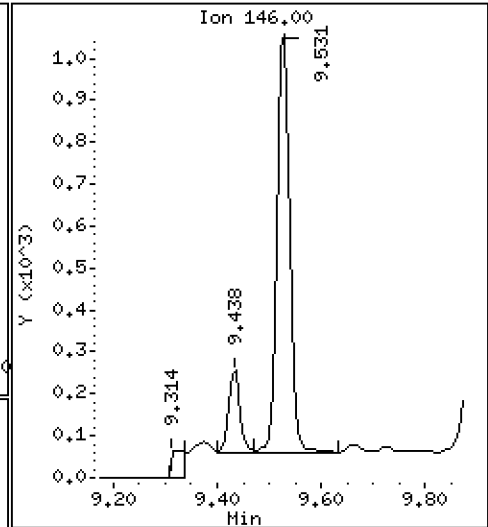
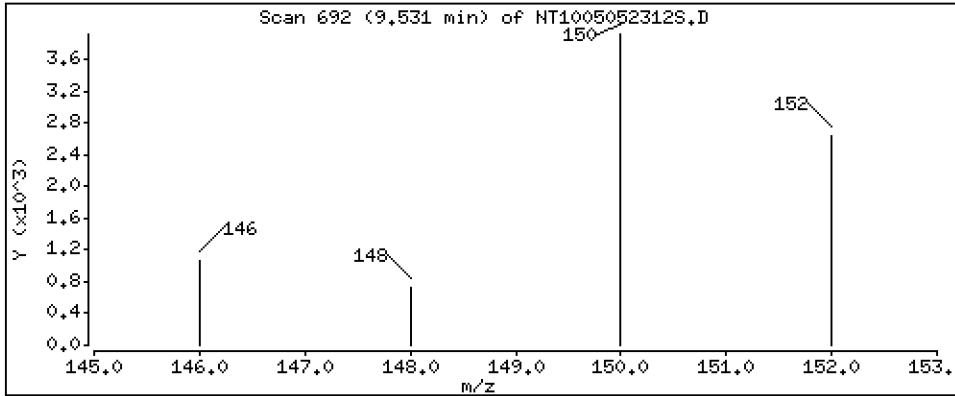
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,02216 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

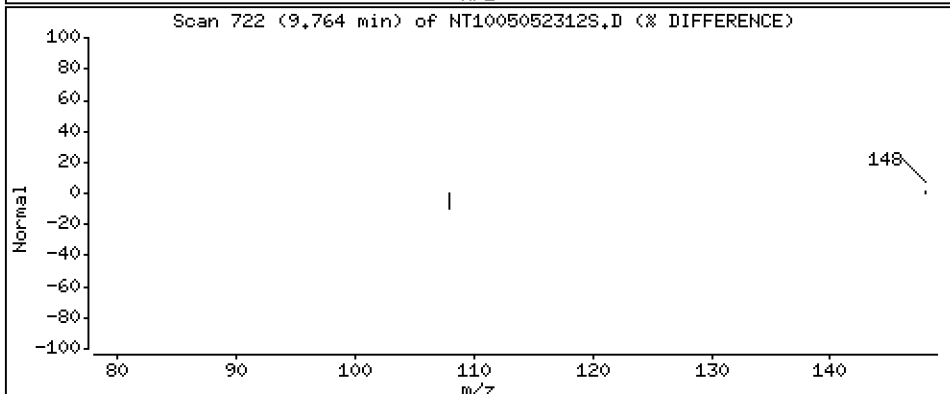
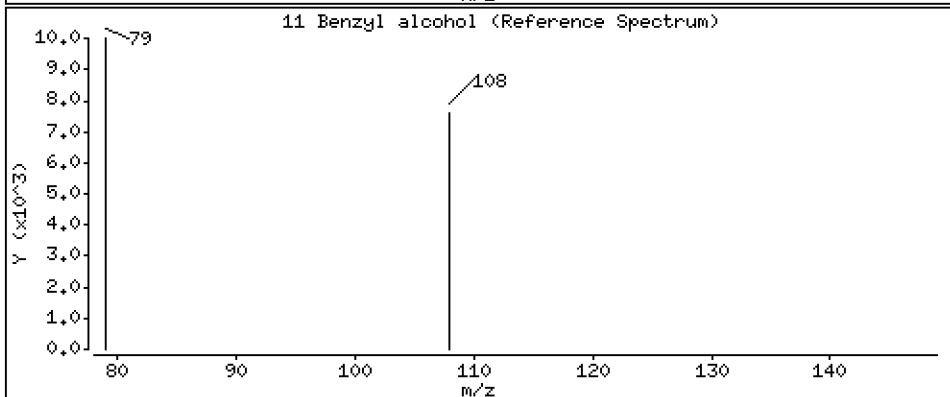
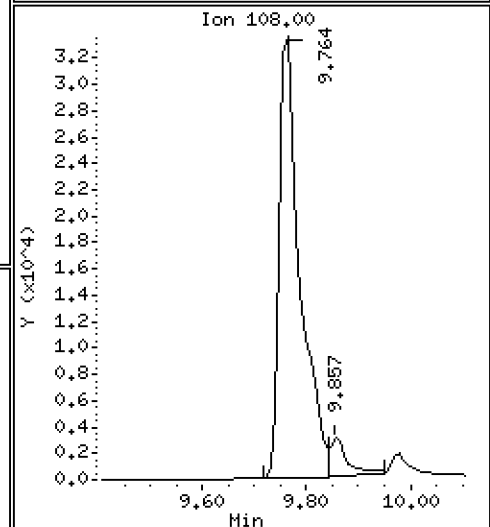
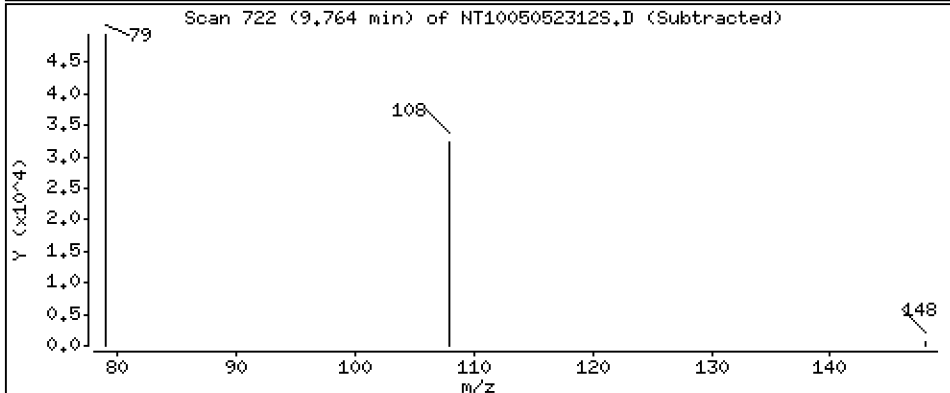
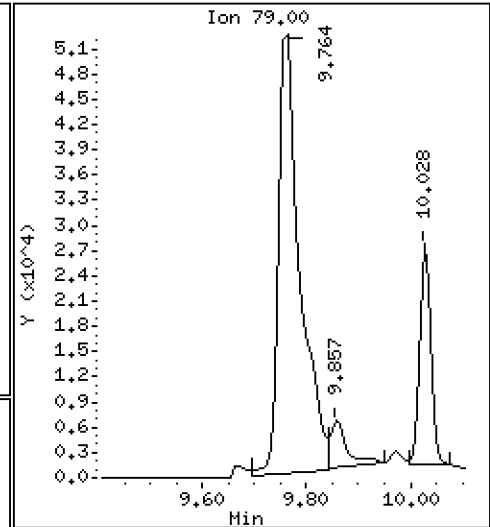
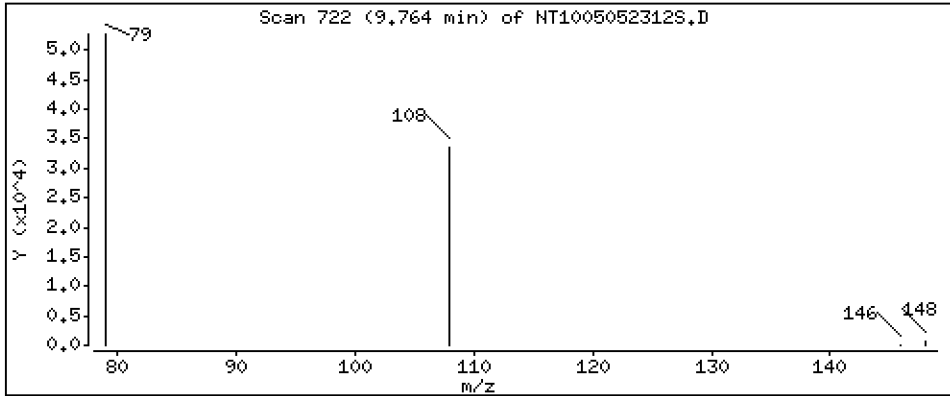
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 3.016 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

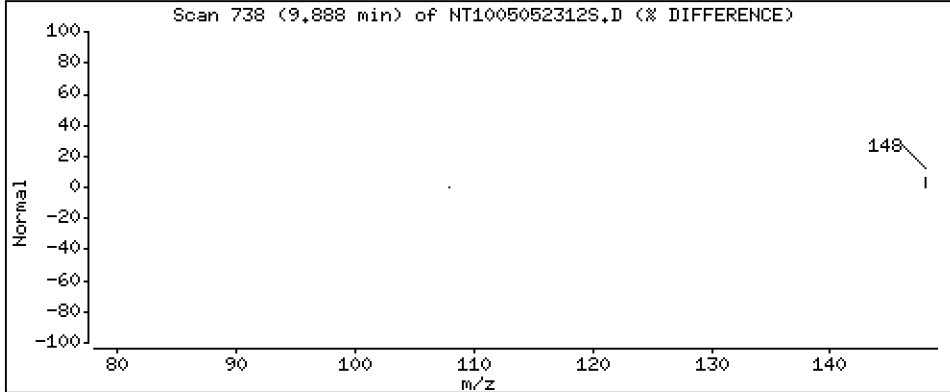
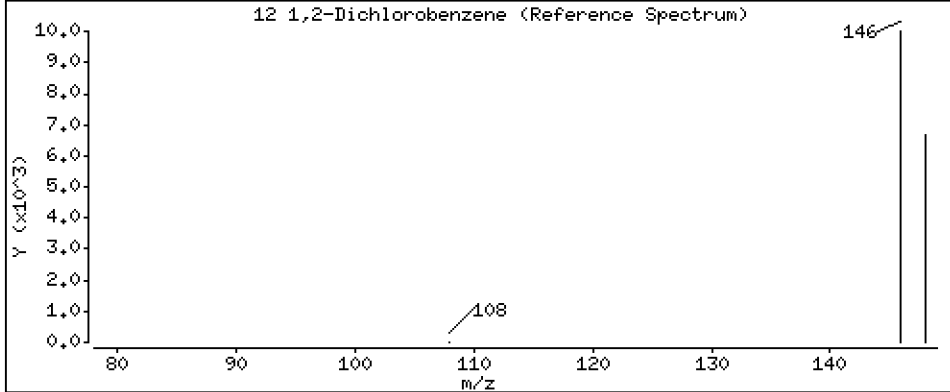
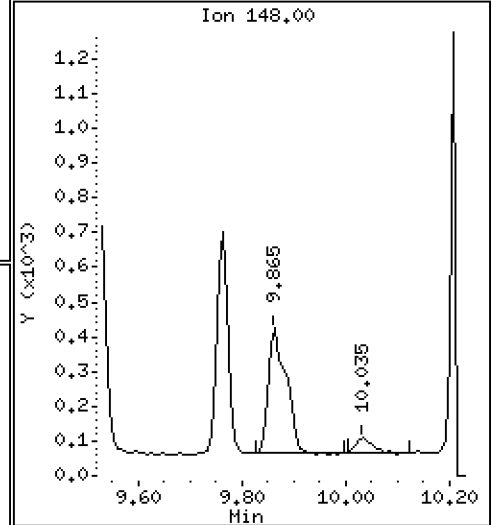
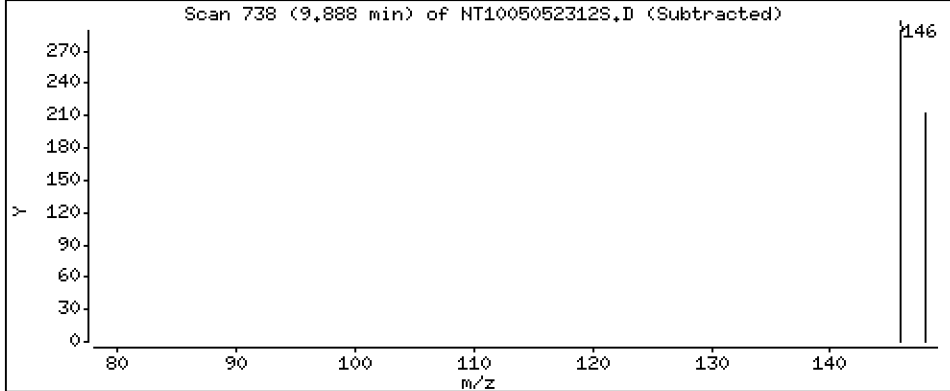
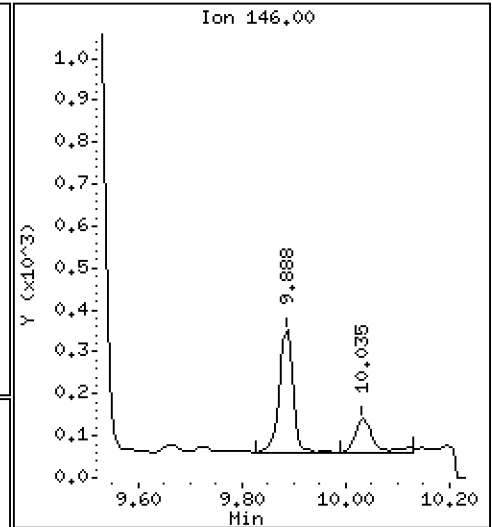
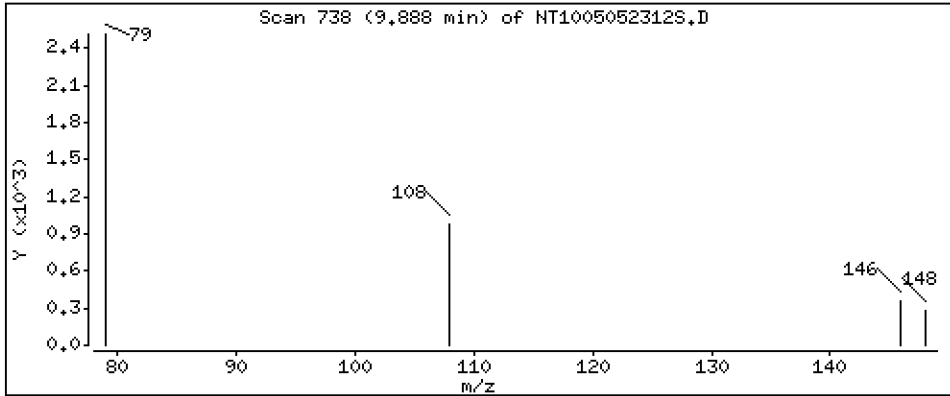
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.007282 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

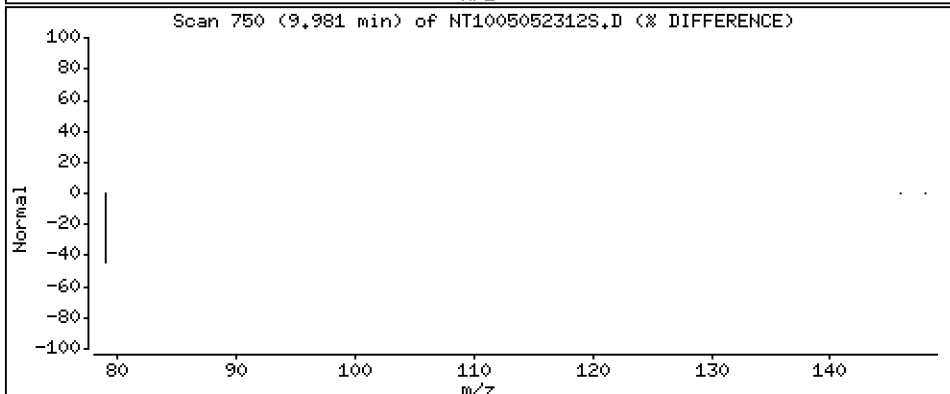
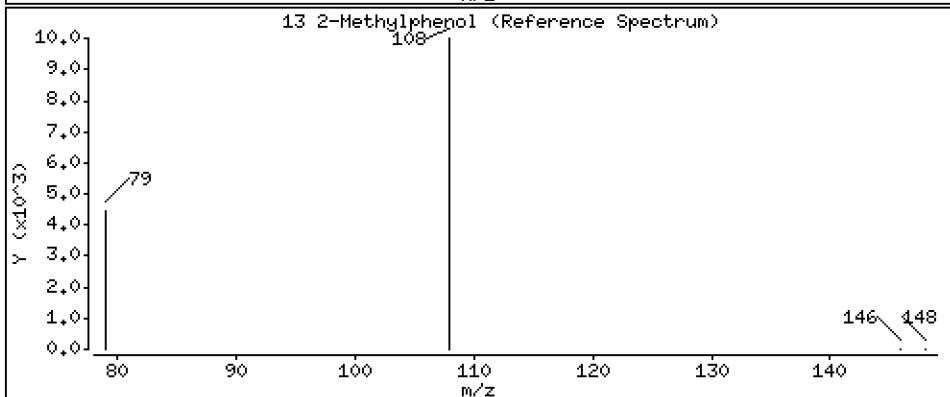
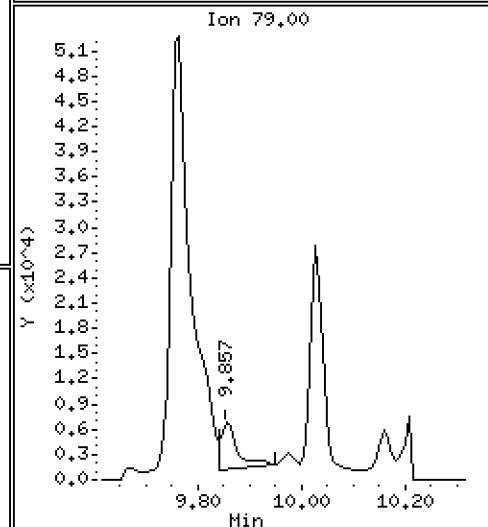
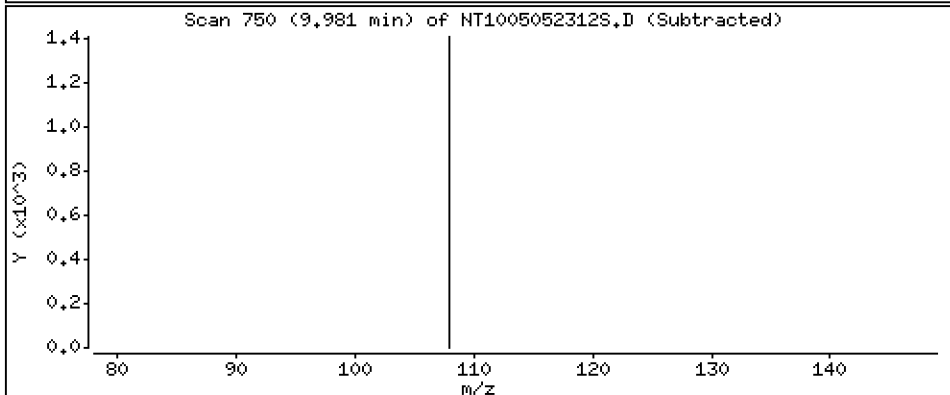
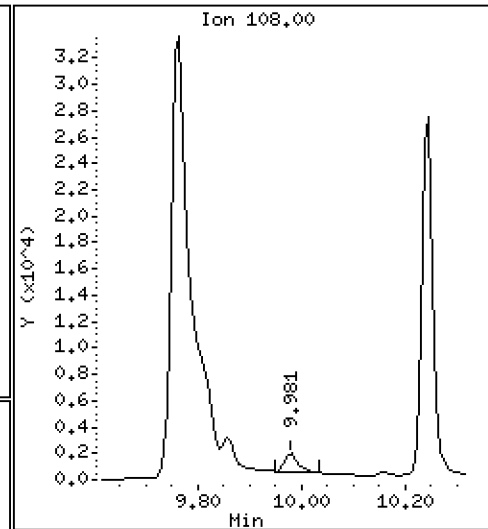
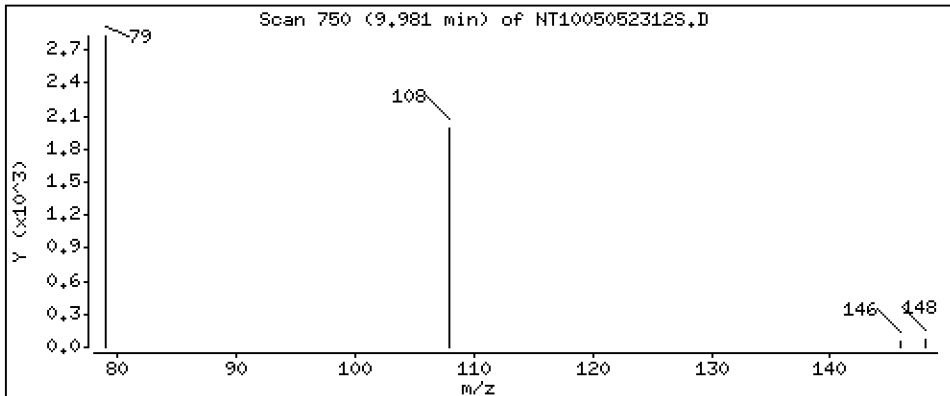
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.04745 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

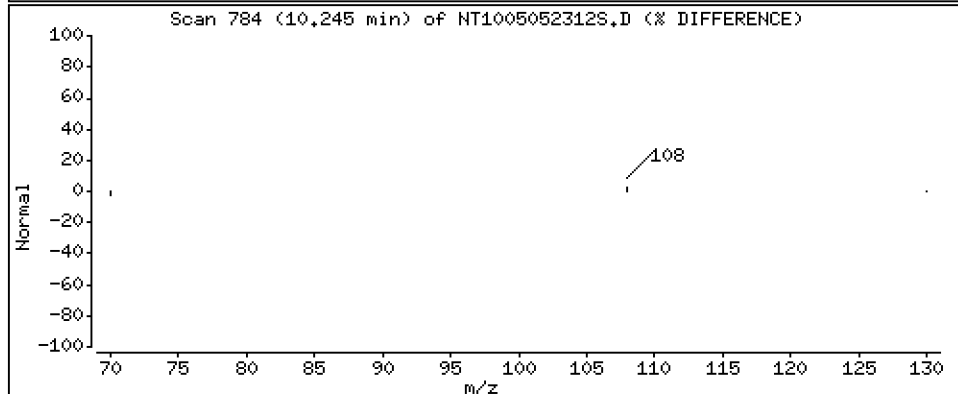
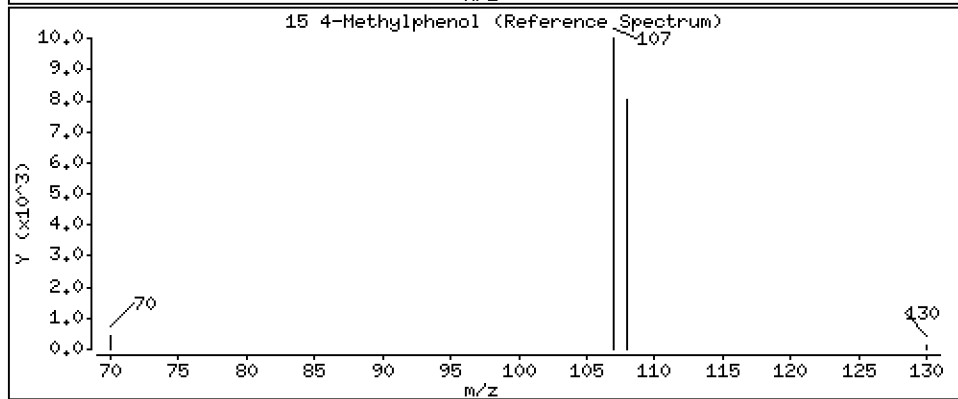
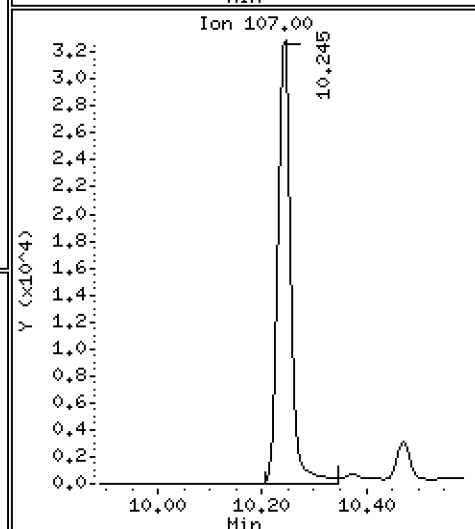
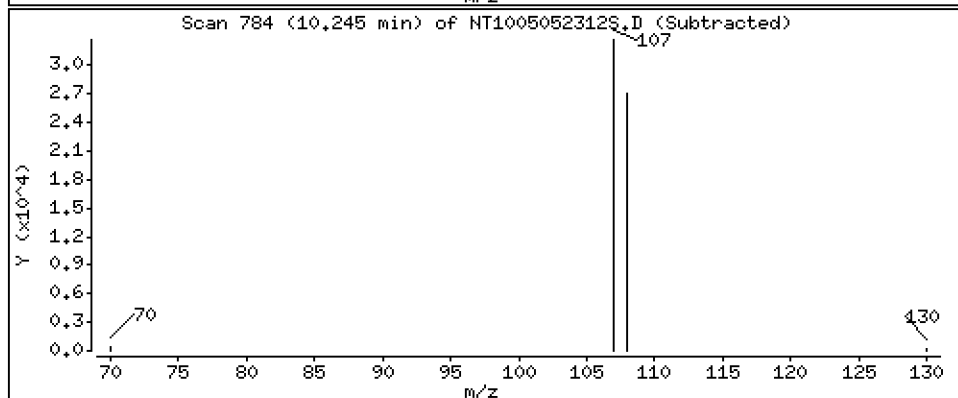
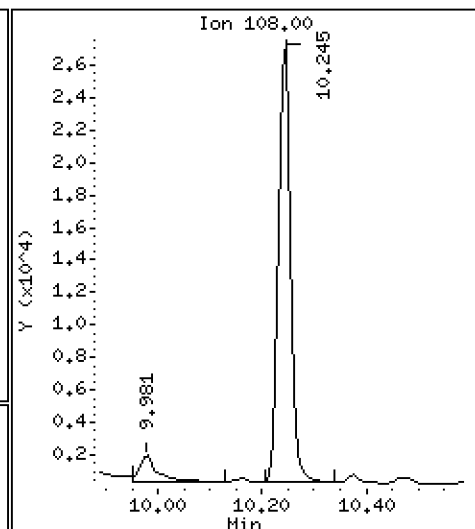
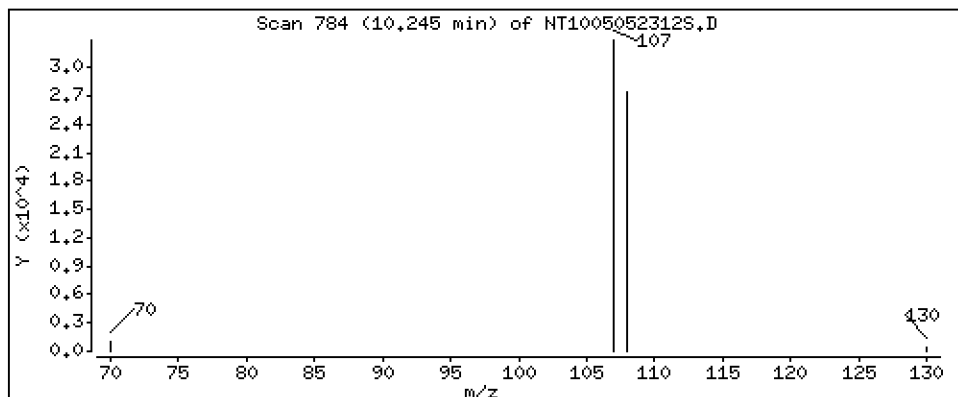
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.7565 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

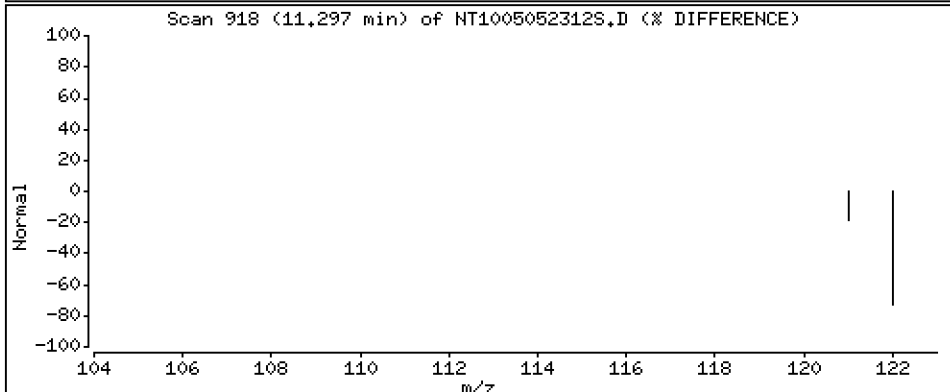
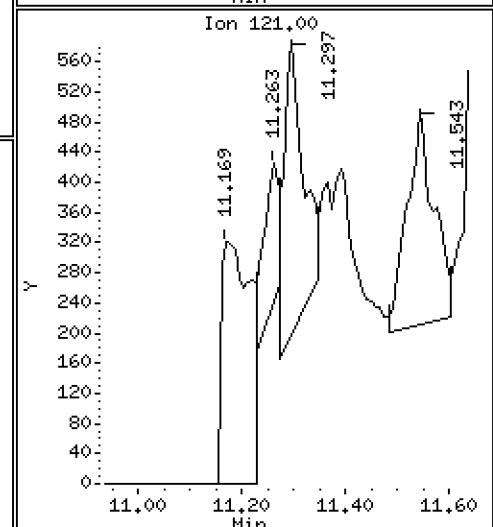
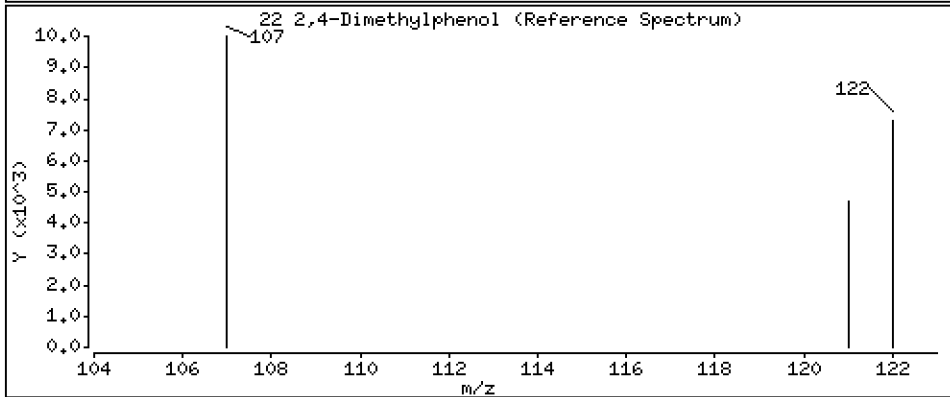
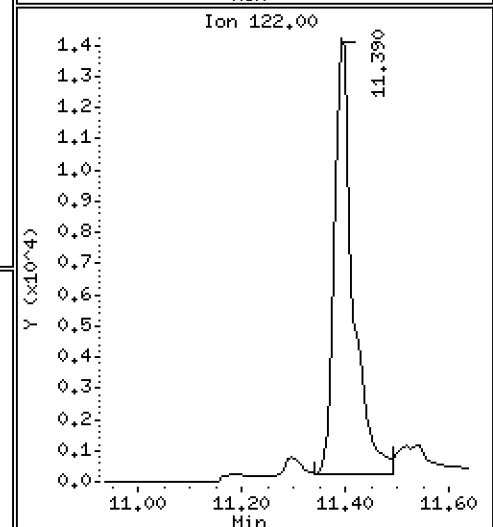
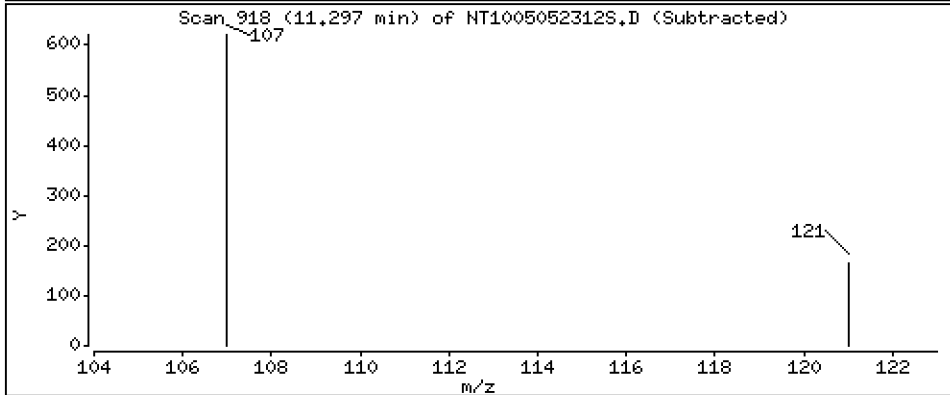
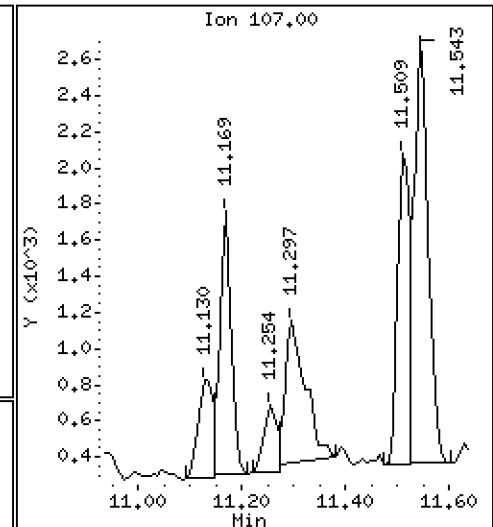
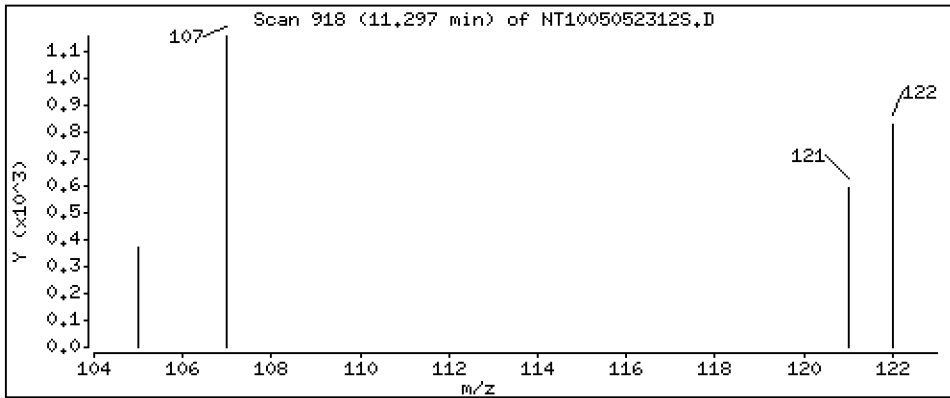
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.03133 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

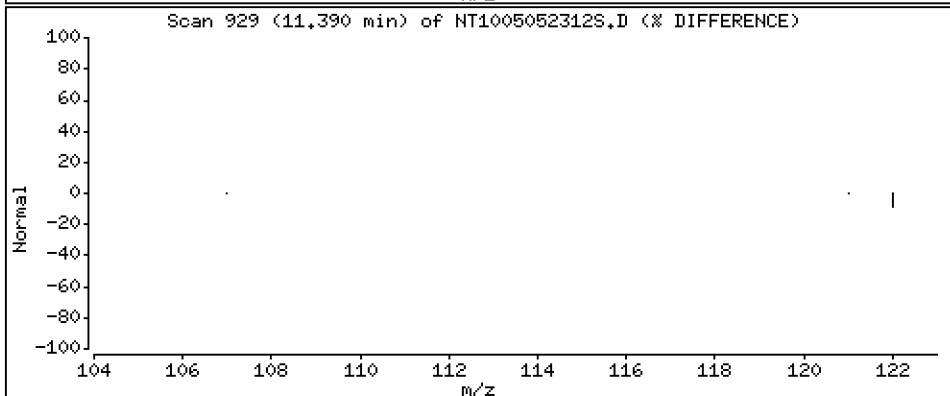
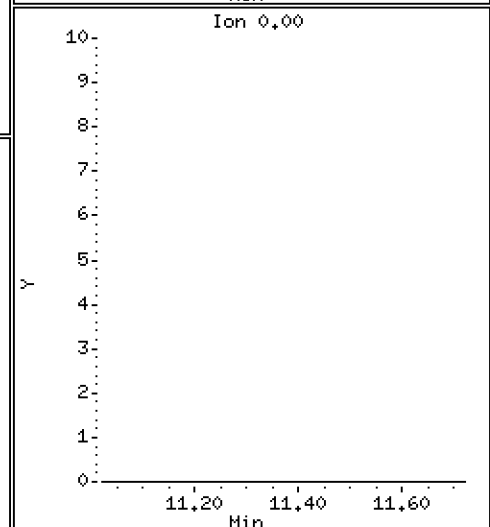
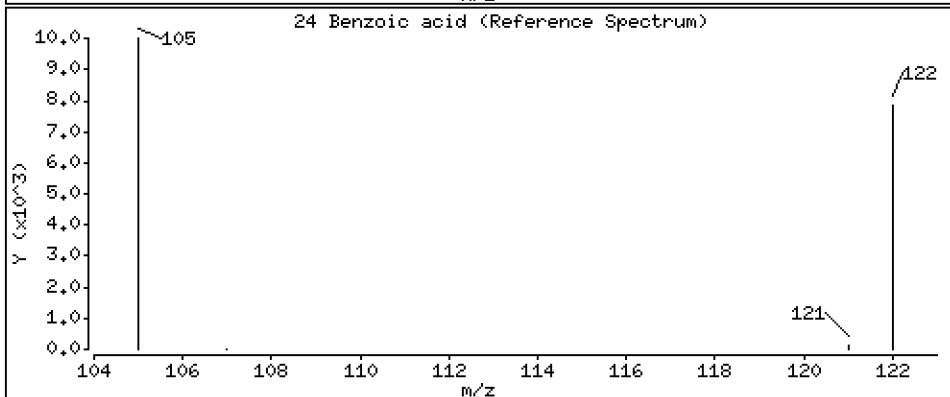
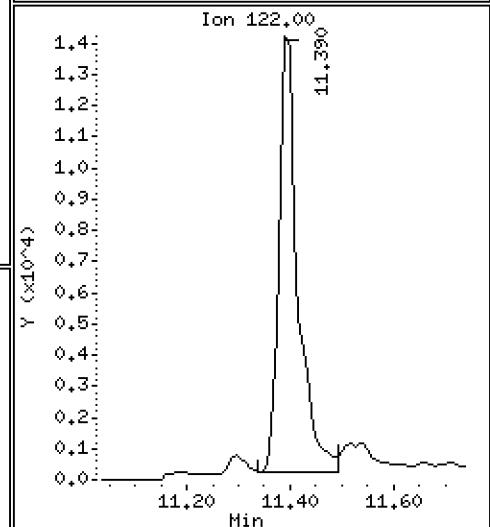
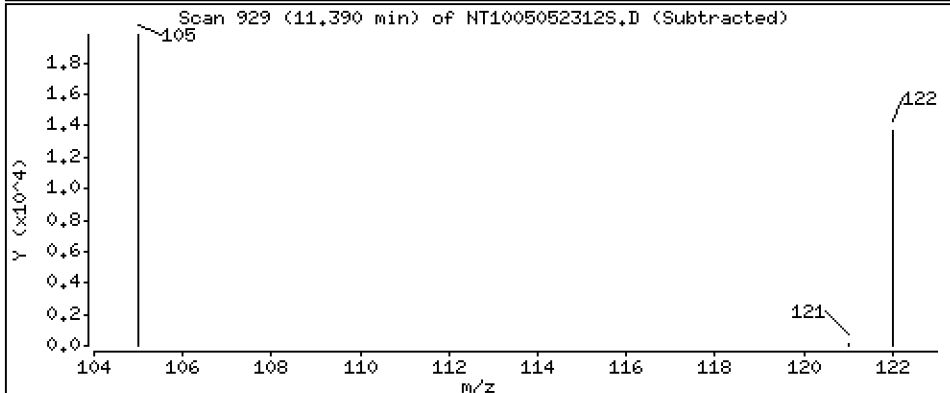
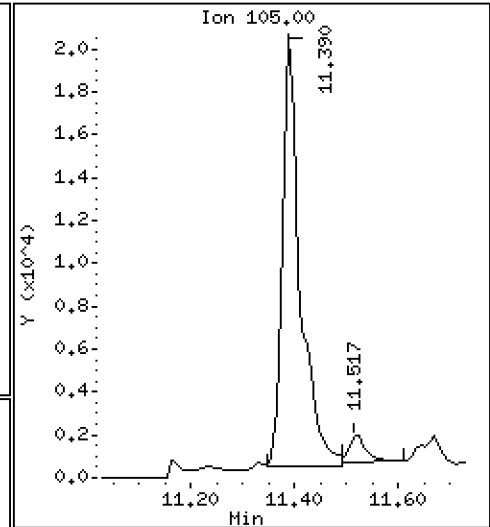
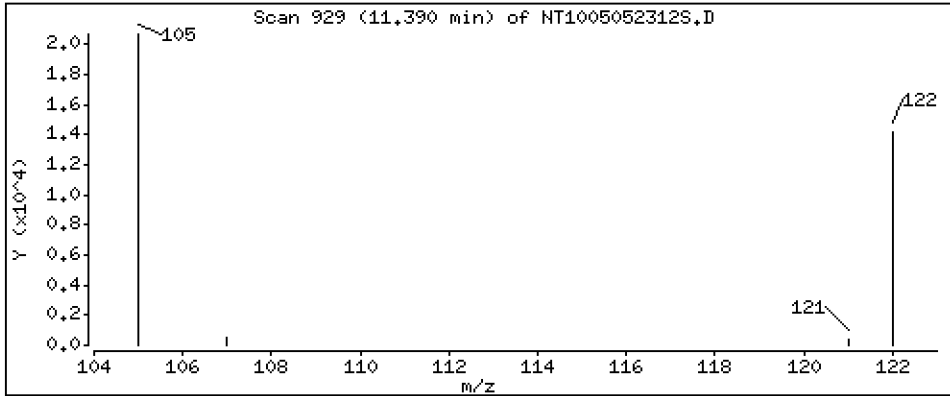
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 1.064 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

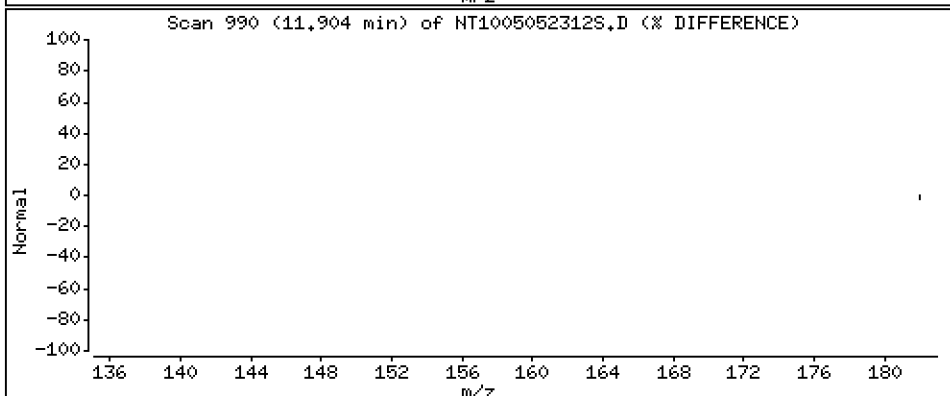
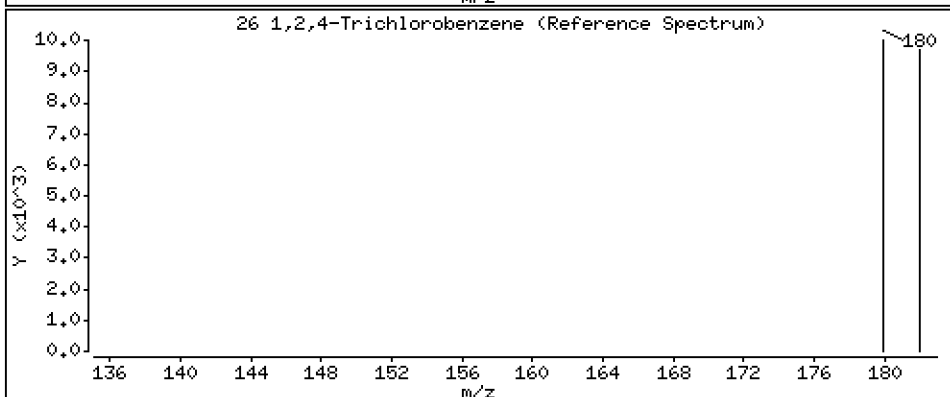
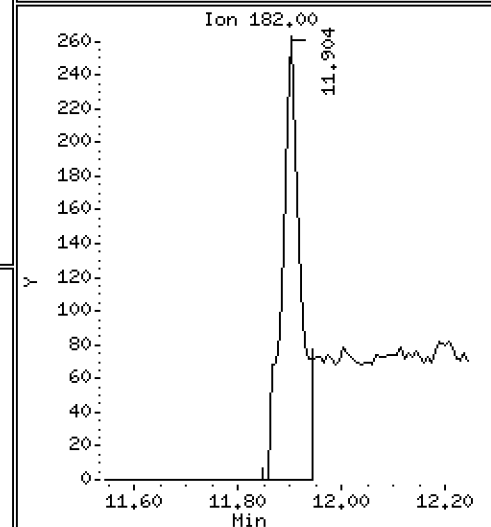
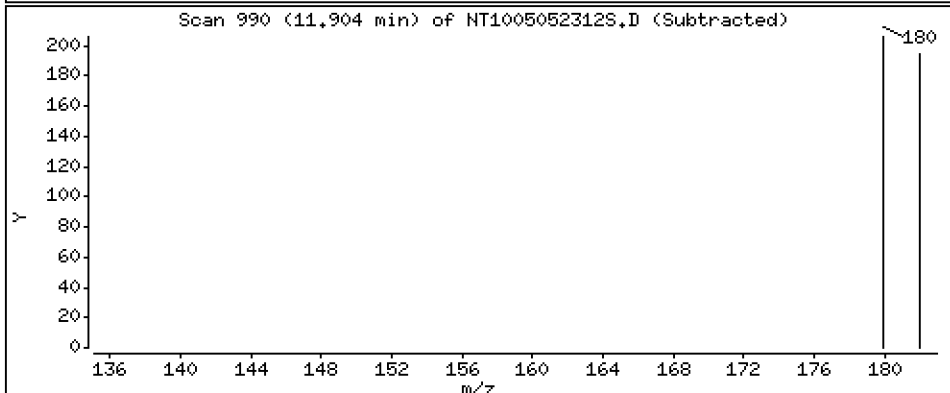
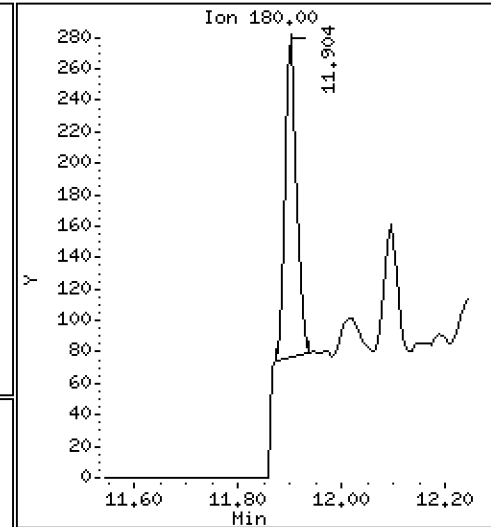
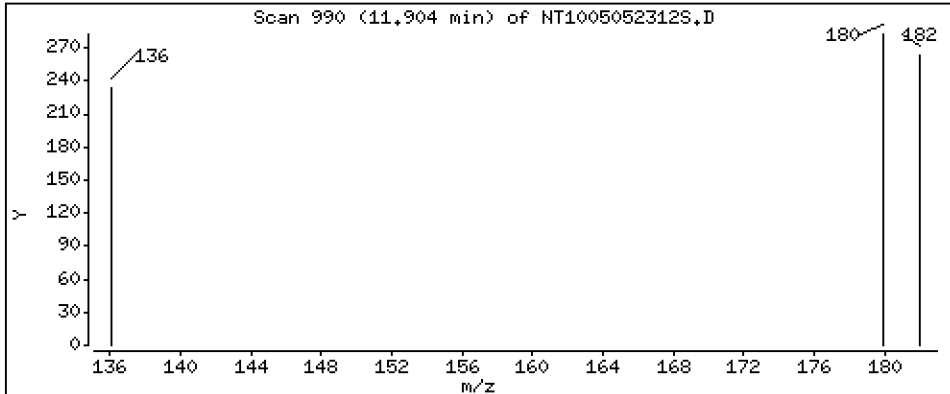
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,004292 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

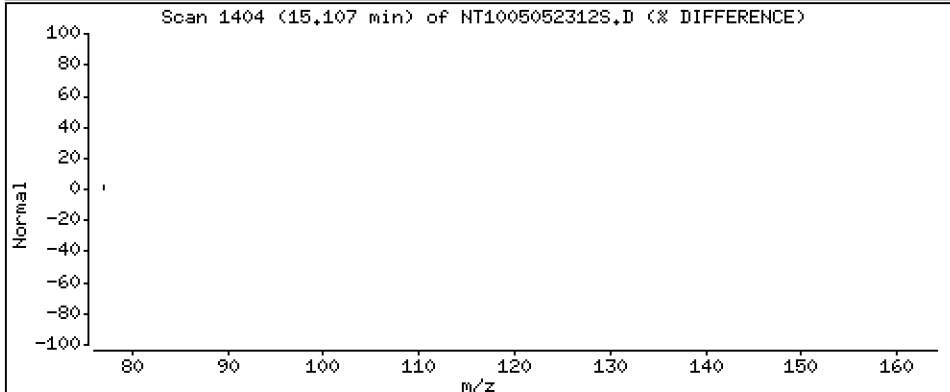
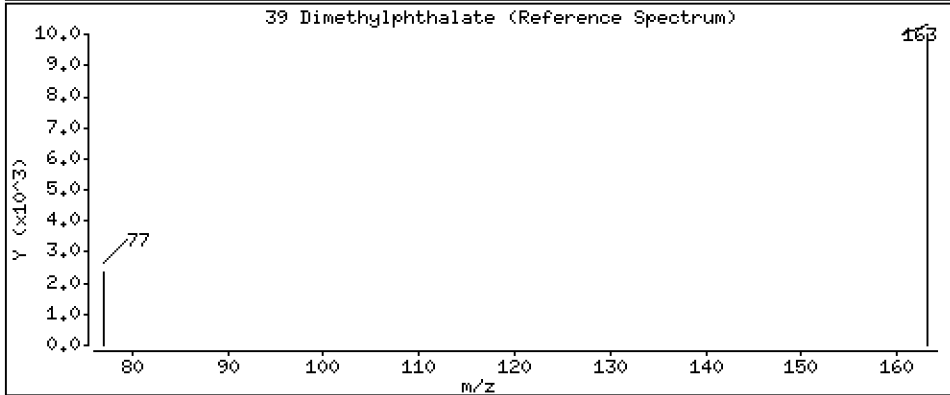
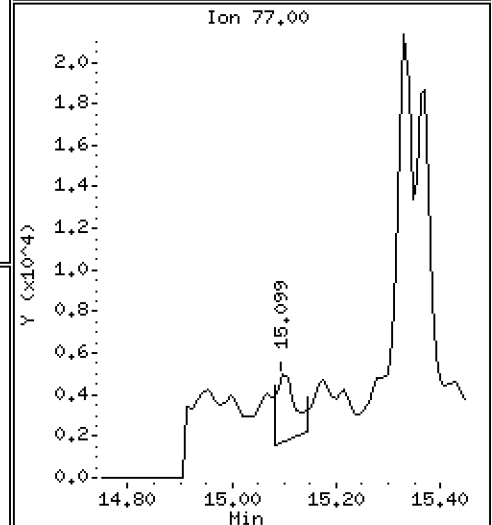
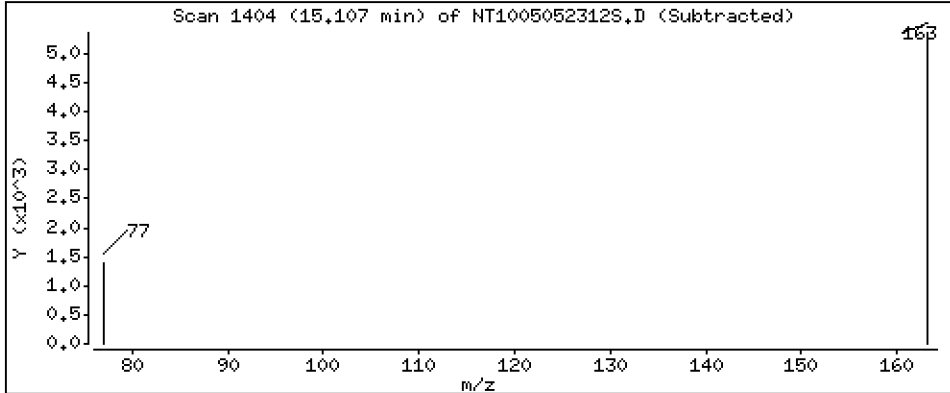
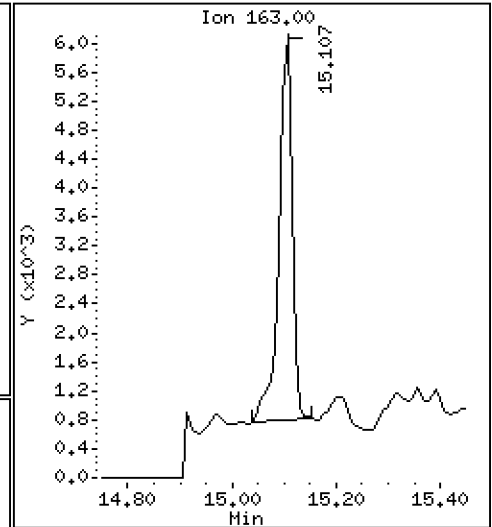
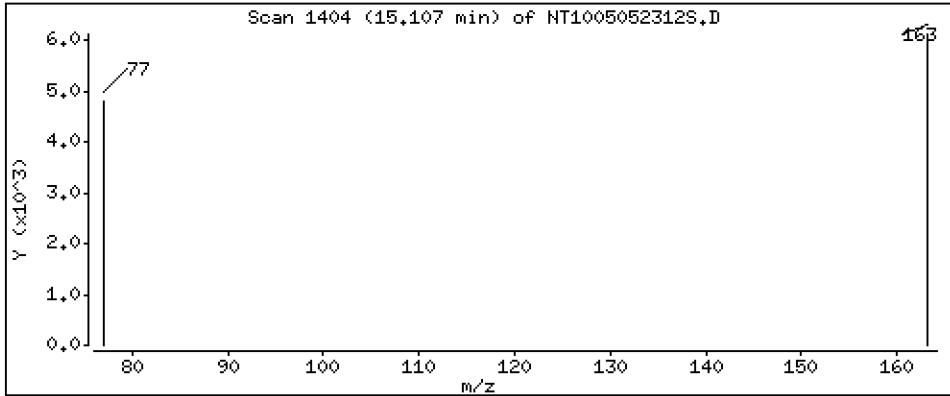
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,06826 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

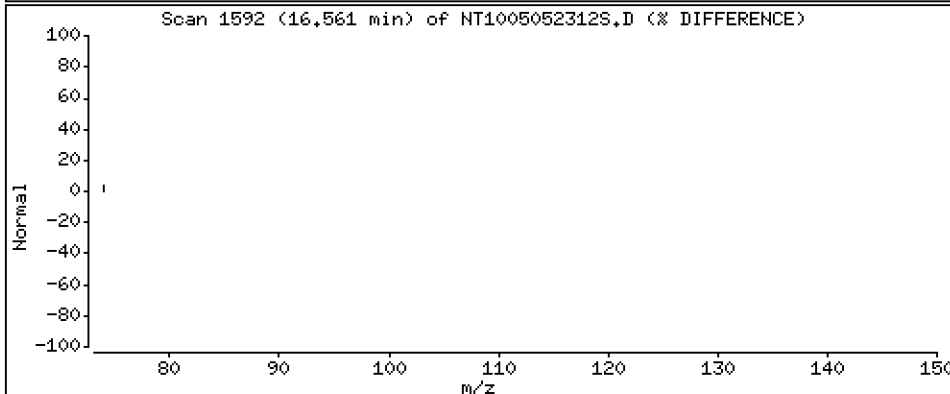
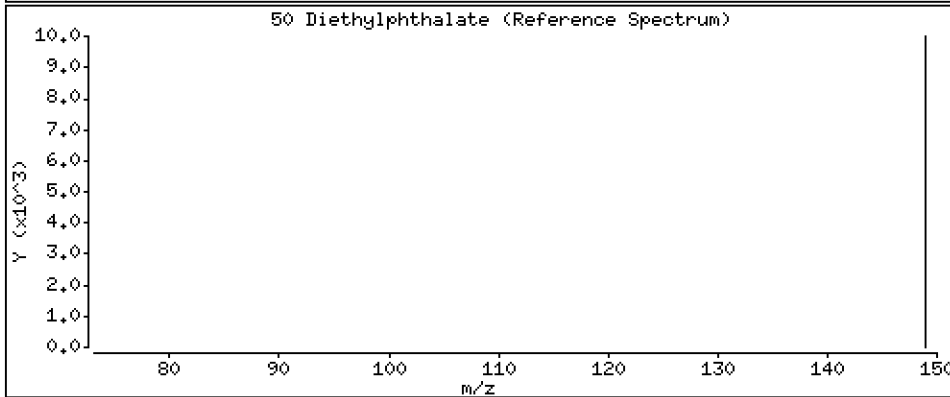
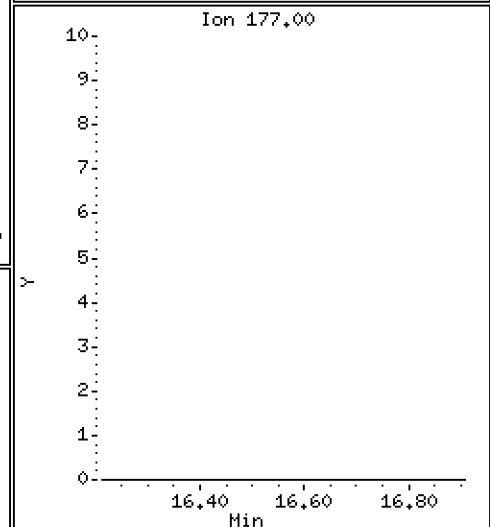
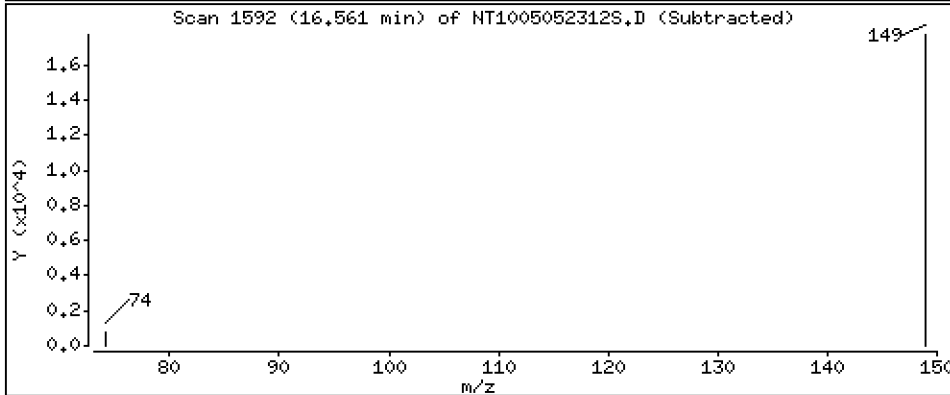
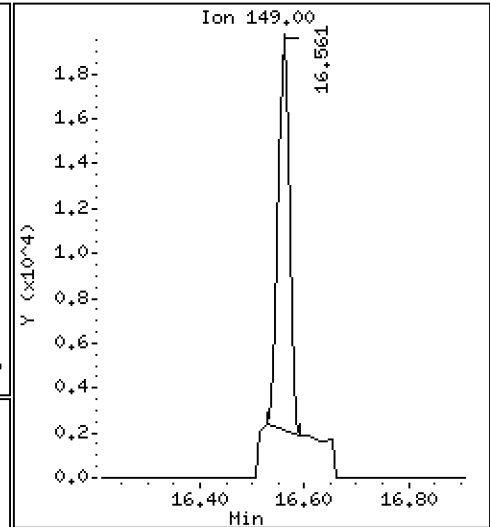
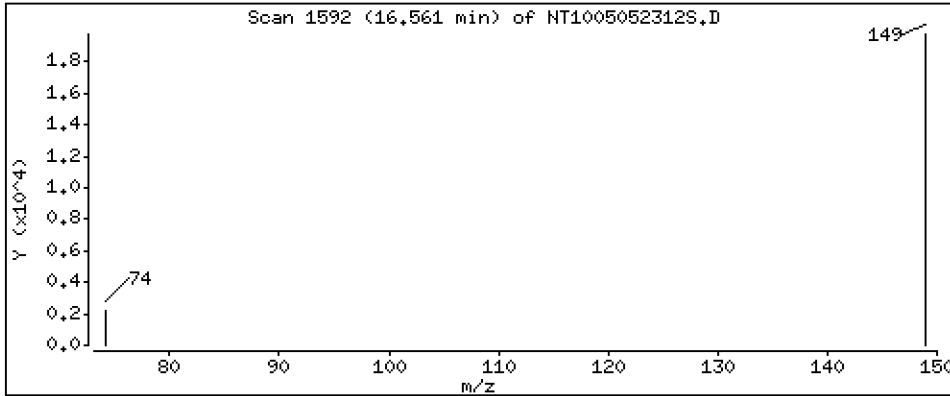
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1790 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

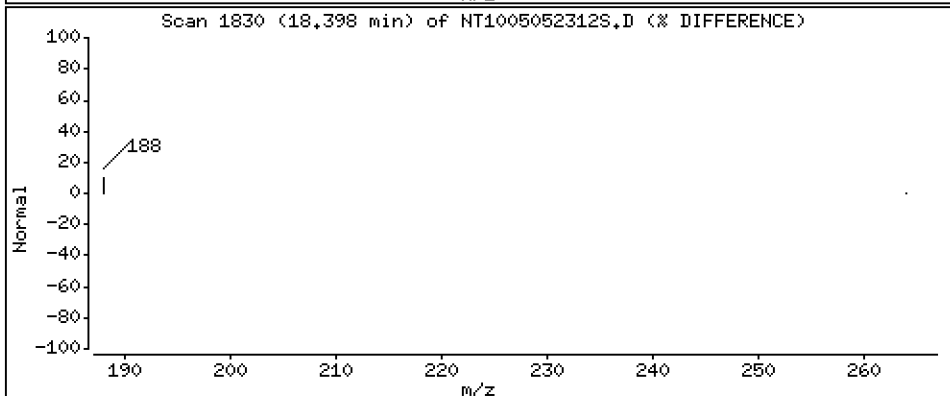
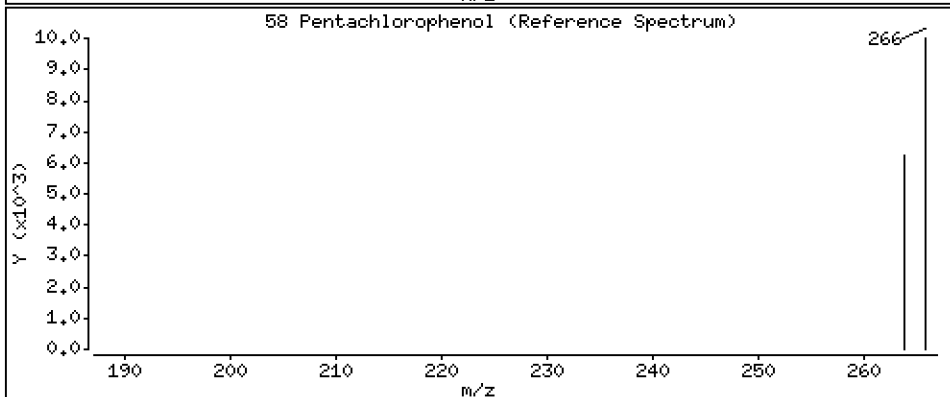
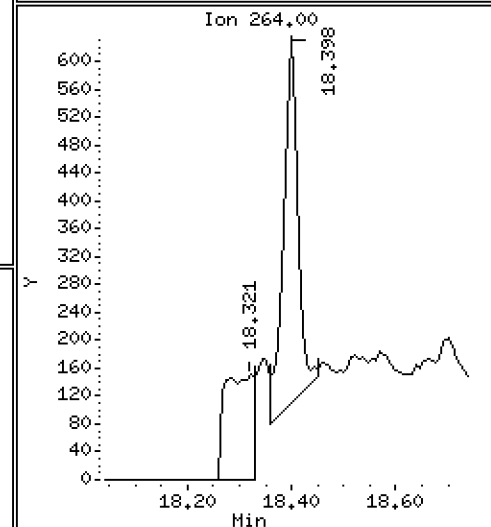
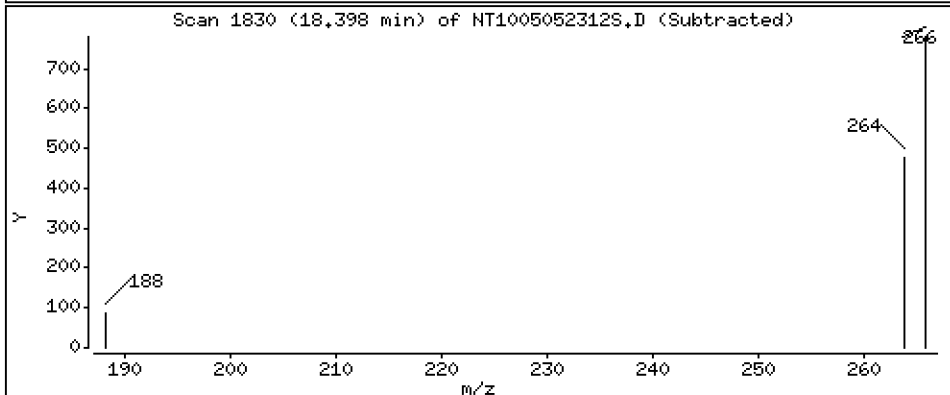
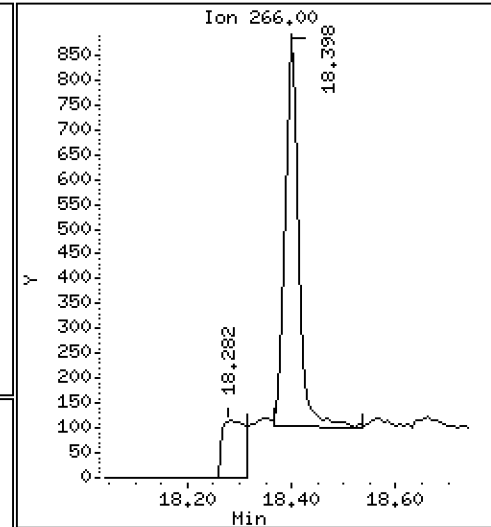
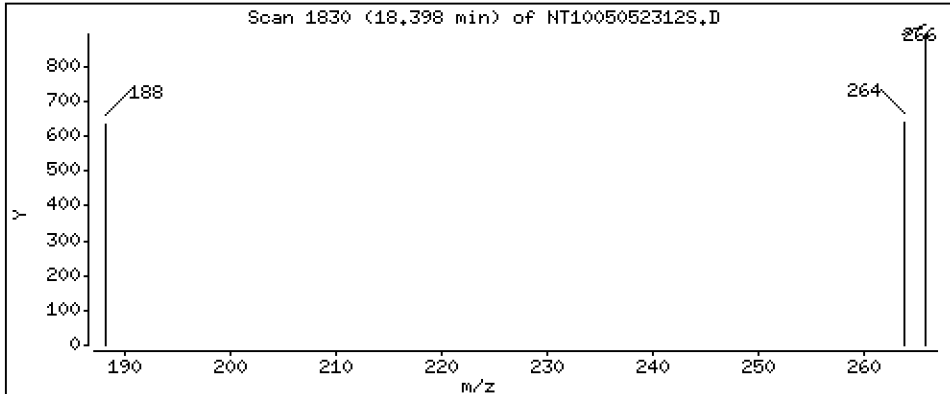
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,05355 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

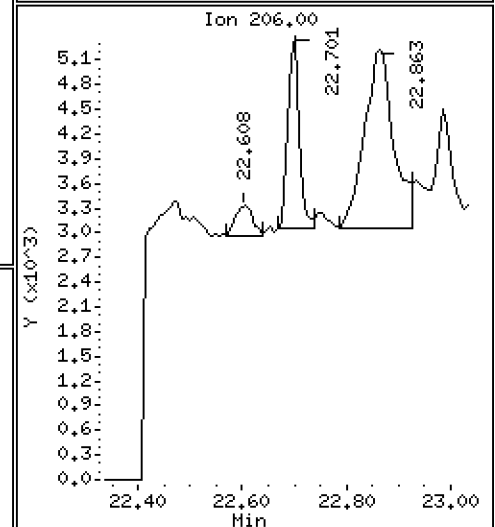
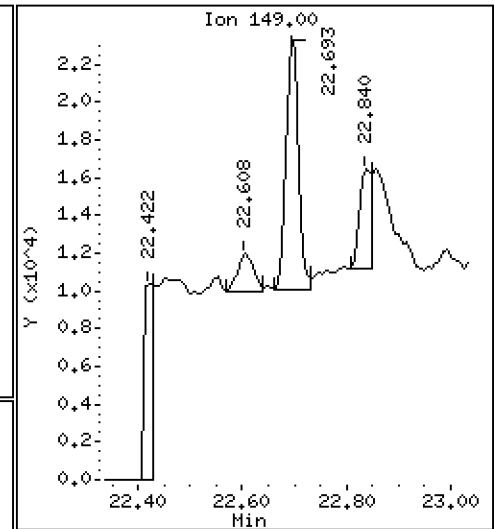
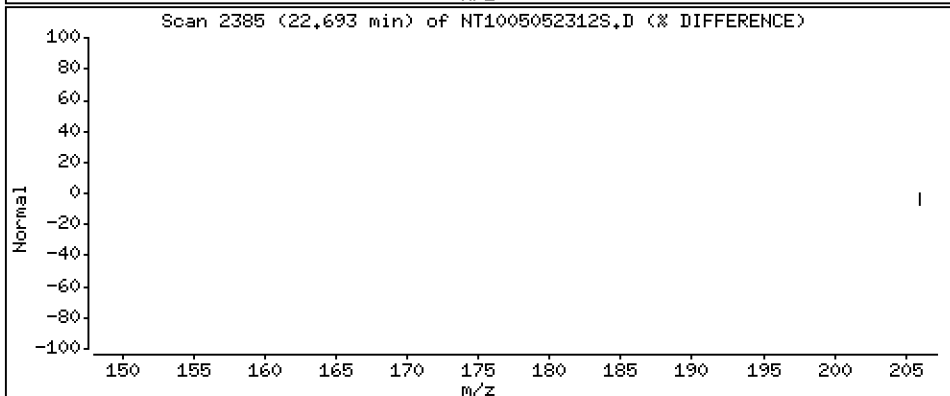
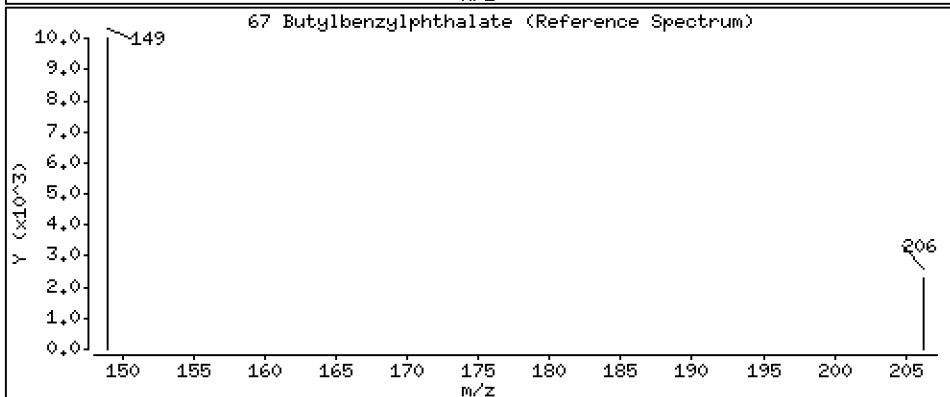
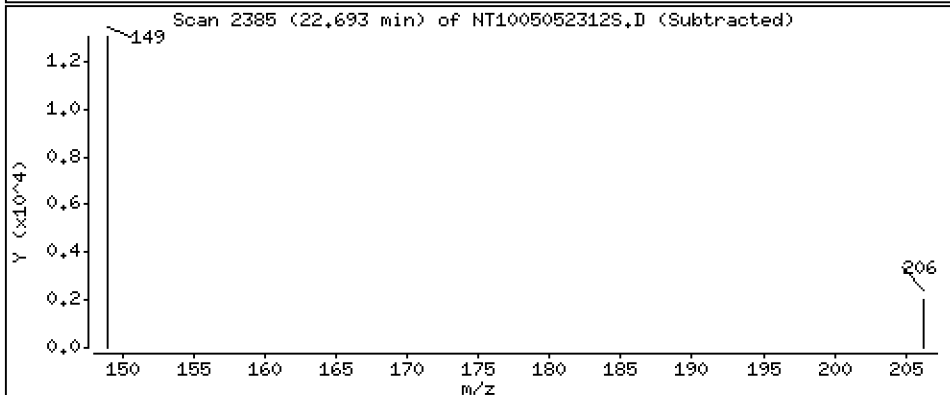
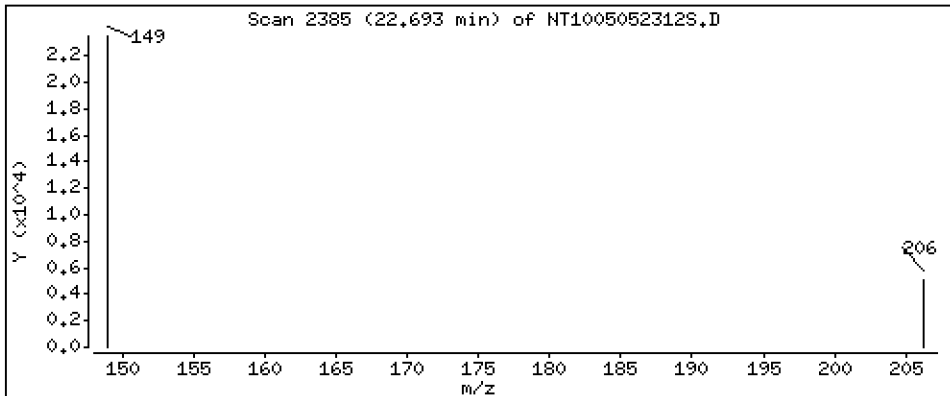
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.2409 ug/L



Date : 05-MAY-2023 17:54

Client ID:

Instrument: nt10.i

Sample Info: 23D0136-03

Volume Injected (uL): 1.0

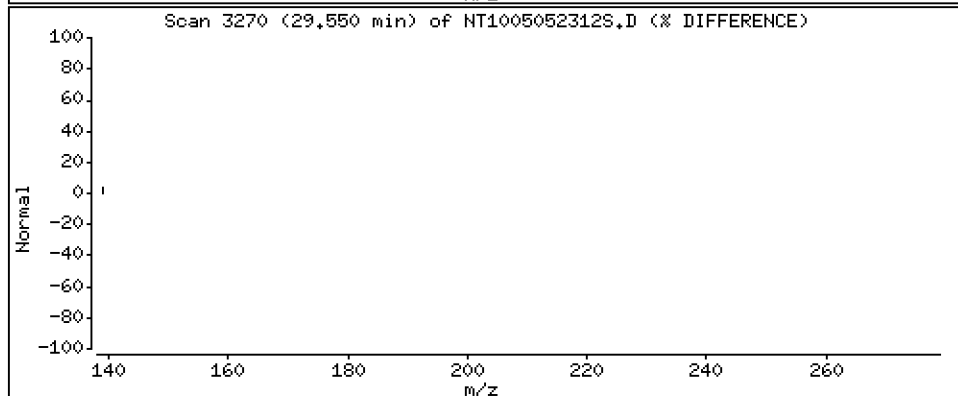
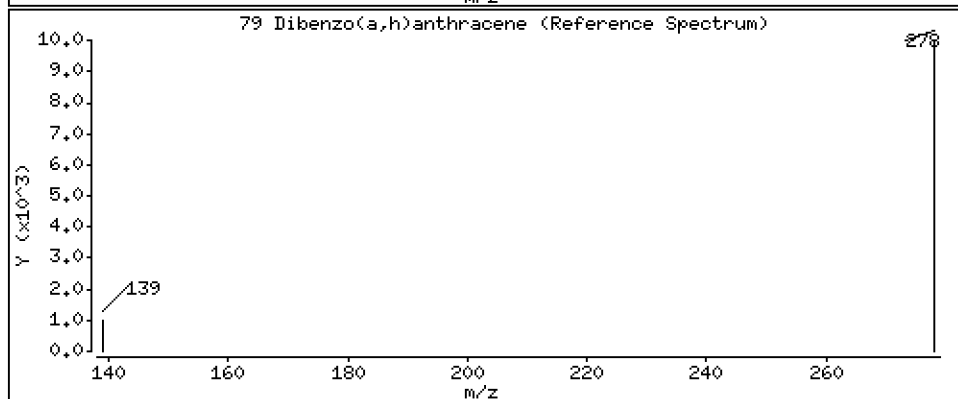
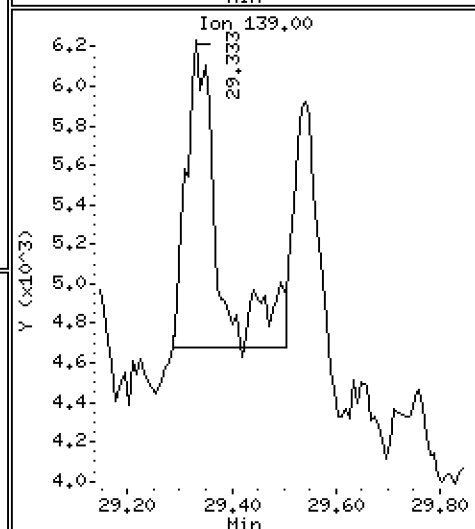
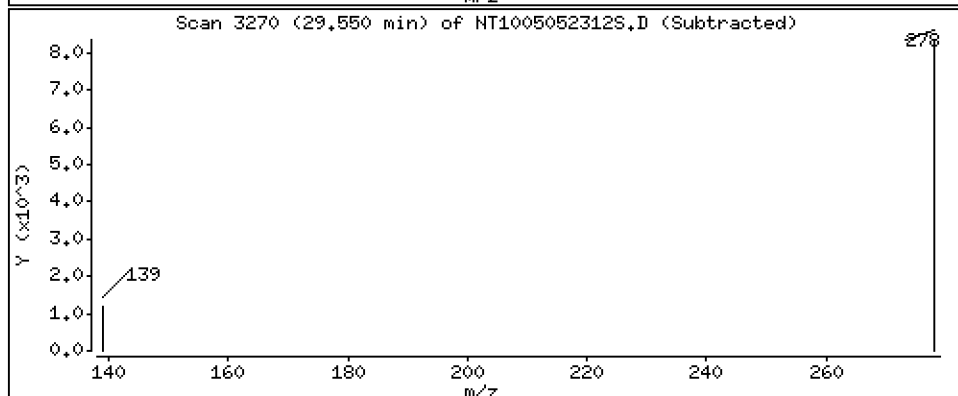
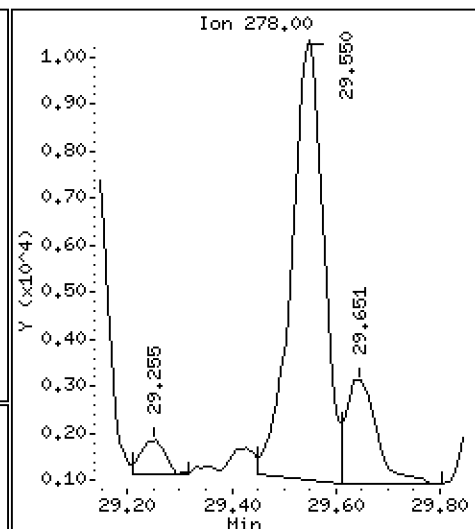
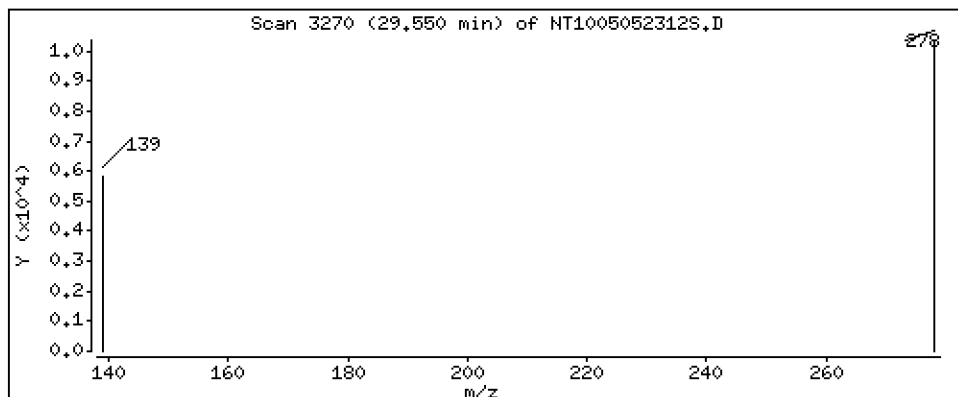
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

79 Dibenzo(a,h)anthracene

Concentration: 0.2835 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052312S.D
 Lab Smp Id: 23D0136-03
 Inj Date : 05-MAY-2023 17:54 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : 23D0136-03
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSSDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		7.251	7.243	(0.763)	305567	5.43290	5.433 (R)
3 Phenol	94		8.850	8.842	(0.932)	75389	1.07007	1.070
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.499	9.492	(1.000)	184634	4.00000	
9 1,4-Dichlorobenzene	146		9.530	9.523	(1.003)	1626	0.02216	0.02216
11 Benzyl alcohol	79		9.763	9.756	(1.028)	146928	3.01568	3.016
12 1,2-Dichlorobenzene	146		9.887	9.880	(1.041)	514	0.00728	0.007282
13 2-Methylphenol	108		9.981	9.965	(1.051)	2502	0.04745	0.04745 (M)
15 4-Methylphenol	108		10.245	10.237	(1.078)	41939	0.75649	0.7565
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		11.296	11.288	(0.942)	2170	0.03133	0.03133
24 Benzoic acid	105		11.389	11.381	(0.950)	48083	1.06426	1.064
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.993)	305	0.00429	0.004292 (M)
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	697055	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		15.106	15.099	(0.967)	8893	0.06826	0.06826 (M)
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	343698	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	25040	0.17899	0.1790 (M)
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		18.398	18.390	(0.985)	1389	0.05355	0.05355
* 59 Phenanthrene-d10	188		18.676	18.669	(1.000)	678617	4.00000	
\$ 66 Terphenyl-d14	244		21.787	21.771	(0.919)	527711	4.93729	4.937 (R)
67 Butylbenzylphthalate	149		22.692	22.685	(0.958)	21022	0.24088	0.2409
* 69 Chrysene-d12	240		23.699	23.684	(1.000)	495685	4.00000	
* 77 Perylene-d12	264		26.548	26.517	(1.000)	444419	4.00000	
79 Dibenzo(a,h)anthracene	278		29.550	29.496	(1.113)	40666	0.28348	0.2835
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052312S.D
 Lab Smp Id: 23D0136-03
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	184634	1.06
27 Naphthalene-d8	662220	331110	1324440	697055	5.26
42 Acenaphthene-d10	335558	167779	671116	343698	2.43
59 Phenanthrene-d10	678190	339095	1356380	678617	0.06
69 Chrysene-d12	566969	283485	1133938	495685	-12.57
77 Perylene-d12	522906	261453	1045812	444419	-15.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.50	0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	-0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	-0.00
59 Phenanthrene-d10	18.67	18.17	19.17	18.68	0.04
69 Chrysene-d12	23.68	23.18	24.18	23.70	0.06
77 Perylene-d12	26.52	26.02	27.02	26.55	0.12

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

REVIEW SUMMARY FOR FILE - NT1005052312S.D

Lab ID: 23D0136-03

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 17:54

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

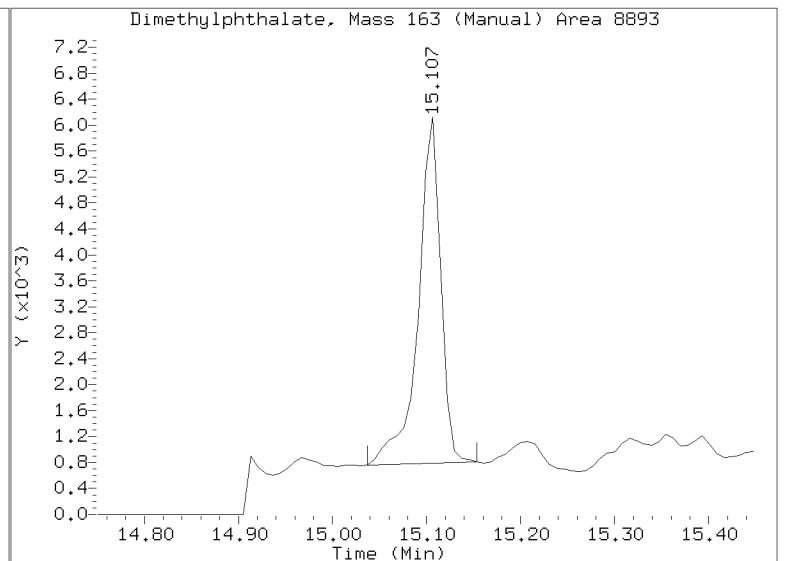
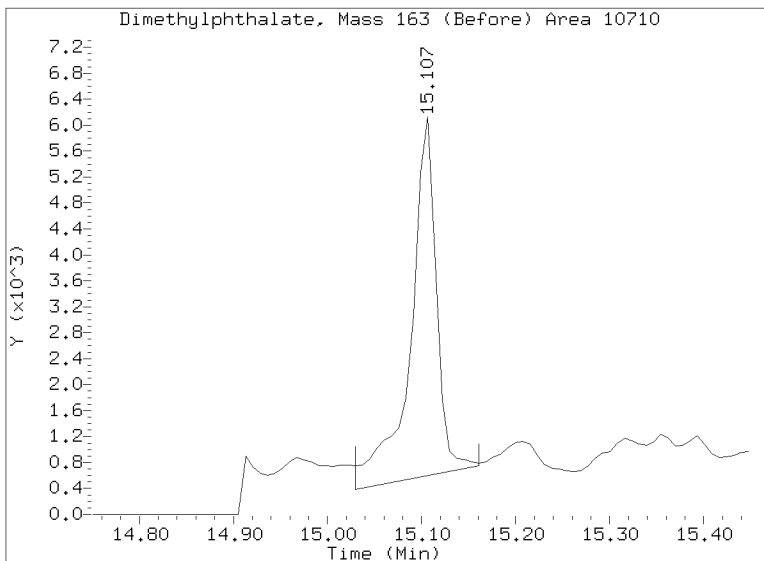
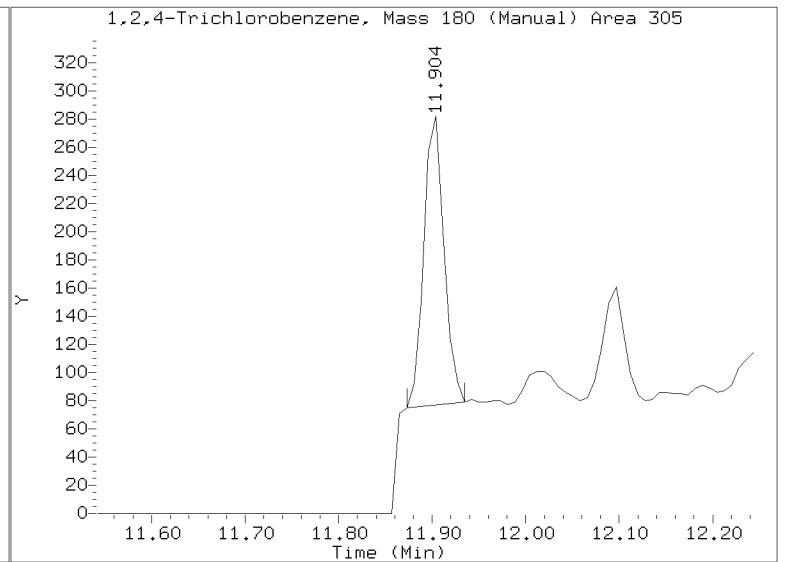
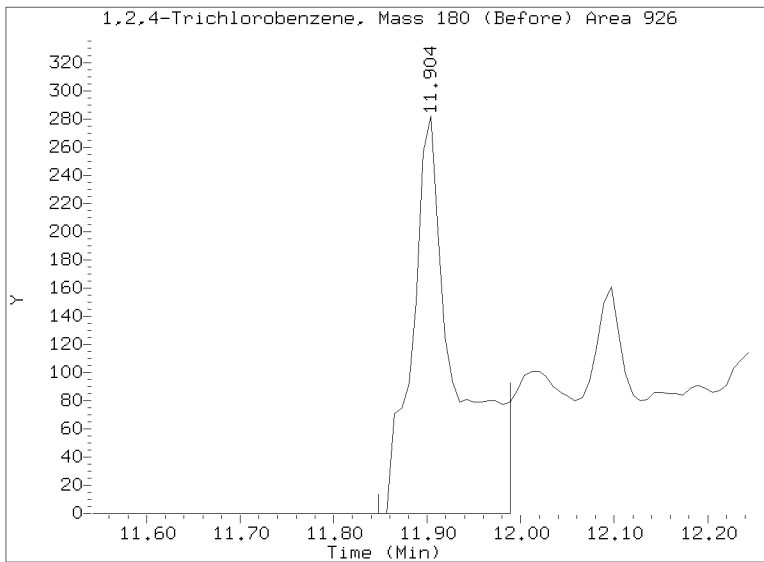
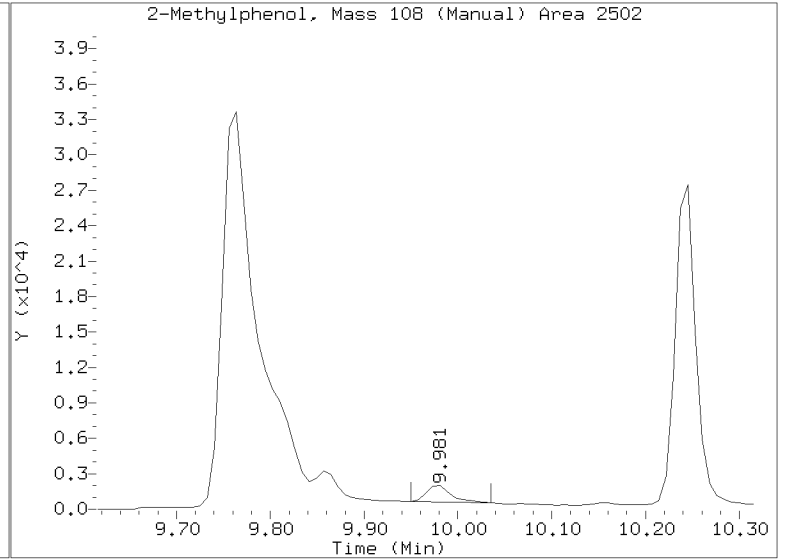
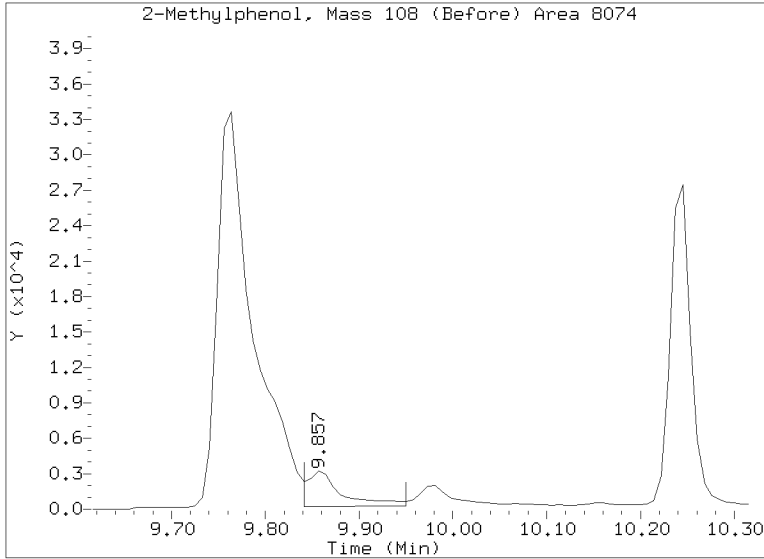
On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

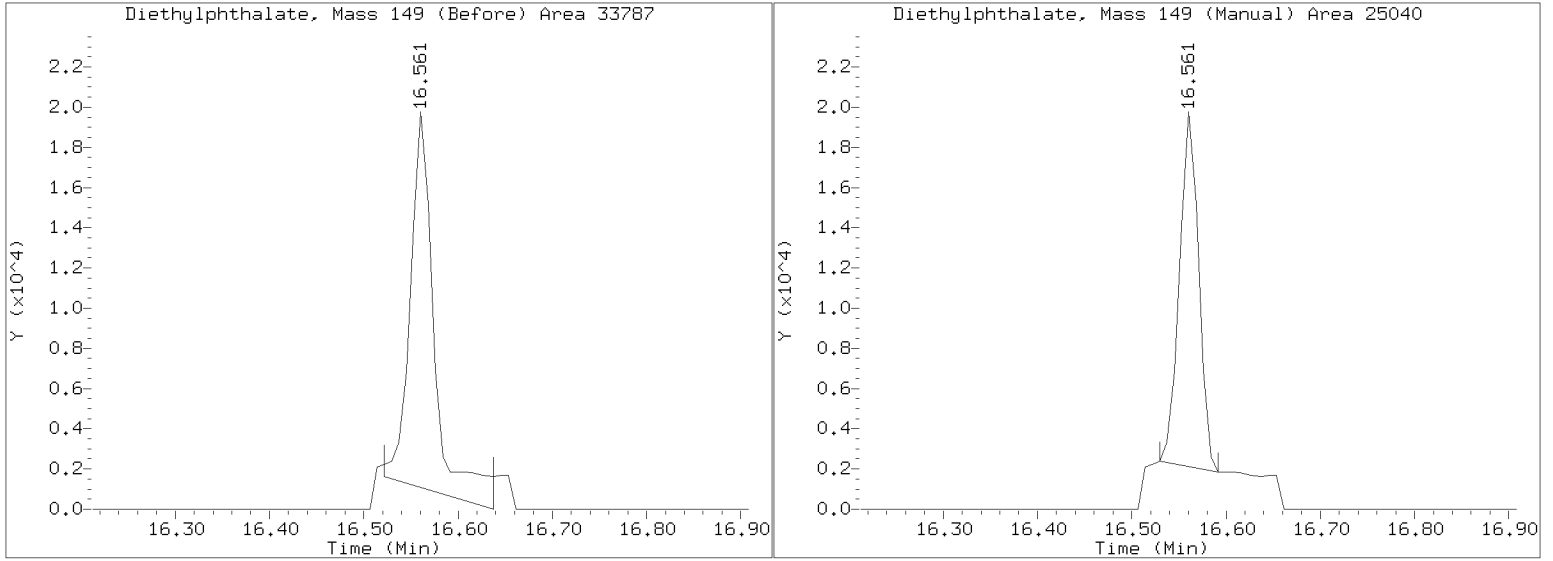
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052312S.D
Injection Date: 05-MAY-2023 17:54
Lab ID:23D0136-03 Client ID:
Report Date: 05/31/2023 14:31



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052312S.D
Injection Date: 05-MAY-2023 17:54
Lab ID:23D0136-03 Client ID:
Report Date: 05/31/2023 14:31





PREPARATION BATCH SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC SDG: 23D0136
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLD0329 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	NT1005052311S.D	04/18/23 11:16	
LDW23-SS1803	23D0136-03	NT1005052312S.D	04/18/23 11:16	
Blank	BLD0329-BLK2	NT1005052307S.D	04/18/23 11:16	
LCS	BLD0329-BS2	NT1005052308S.D	04/18/23 11:16	
LCS Dup	BLD0329-BSD2	NT1005052309S.D	04/18/23 11:16	
LDW23-SS1803	BLD0329-MS2	NT1005052313S.D	04/18/23 11:16	
LDW23-SS1803	BLD0329-MSD2	NT1005052314S.D	04/18/23 11:16	
Reference	BLD0329-SRM2	NT1005052310S.D	04/18/23 11:16	



Batch: BLD0329

Prepared using: EPA 3546 (Microwave)

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

Matrix: Solid

Date Prepared: 04/18/23

Balance ID: B146462614

Set Up By: CJO 4/18/23

WO Comments
23D0136: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E> Sample ID for -03 and -04 changed by client

The following standards may be missing from this batch!

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

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

Lab Number & Container	% Solids	Initial (g)		(REQ) GPC C/U (1:1)	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
23D0136-01 A	49.3	(20.27)	<u>26.29</u>	1 2 3 (1:1)	1mL	1	0.5	
23D0136-03 A	44.3	(22.57)	<u>22.58</u>	(1:1)	1mL	1	0.5	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) GPC C/U (1:1)	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
BLD0329-BLK1	100.0	(10.00)	<u>10.00</u>	1 2 3 (1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0329-BS1	100.0	(10.00)	<u>10.00</u>	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0329-BSD1	100.0	(10.00)	<u>10.00</u>	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0329-MS1	44.3	(22.57)	<u>22.57</u>	(1:1)	1mL	1	0.5	Use 23D0136-03
BLD0329-MSD1	44.3	(22.57)	<u>22.57</u>	(1:1)	1mL	1	0.5	Use 23D0136-03
BLD0329-SRM1	100.0	(10.00)	<u>1.00</u>	(1:1)	1mL	1	0.5	Use K003477

+1g DI WATER

Client AA verified By AA Date 04/18/23

Preparation Reviewed By AA Date 5-4-23

Extraction Date and Time 04/18/23 11:16



Batch: BLD0329

Prepared using: EPA 3546 (Microwave)

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

WO Comments
23D0136: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E> Sample ID for -03 and -04 changed by client

Prep Steps	Reagents Used	Surrogates & Spike Standards Used																																					
Microwave 0 2 3 Analyst/Date: 4/18/23	Station/Reagent Standard ID Microwave Analyst: JCT Date: 4/18/23 Anhydrous Sodium Sulfate L003657 1:1 Methylene Chloride/Acetone L002244 Methylene Chloride L002621 Pre-Deactivated Glass Wool L001924	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>A L001153</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">JCT</td> </tr> <tr> <td>100/150µg/mL</td> <td>Exp Date: 8/11/2023</td> <td></td> </tr> <tr> <td>Full List Spike (Freezer)</td> <td>7 L001812 (V)</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">JCT</td> </tr> <tr> <td>100µg/mL</td> <td>Exp Date: 8/4/2023</td> <td></td> </tr> <tr> <td>Base Spike</td> <td>56 L001812 (V)</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">JCT</td> </tr> <tr> <td>200µg/mL</td> <td>Exp Date: 8/20/2023</td> <td></td> </tr> <tr> <td>Acid Spike</td> <td>38 L001812 (V)</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">JCT</td> </tr> <tr> <td>100/200µg/mL</td> <td>Exp Date: 8/20/2023</td> <td></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	A L001153	50µL	CT	JCT	100/150µg/mL	Exp Date: 8/11/2023		Full List Spike (Freezer)	7 L001812 (V)	50µL	CT	JCT	100µg/mL	Exp Date: 8/4/2023		Base Spike	56 L001812 (V)	50µL	CT	JCT	200µg/mL	Exp Date: 8/20/2023		Acid Spike	38 L001812 (V)	50µL	CT	JCT	100/200µg/mL	Exp Date: 8/20/2023	
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100/200µg/mL	Exp Date: 8/20/2023																																						
Pre-GPC KD 100°C Exchange to Hexane (add 10 mL to KD) 0 2 4 6 Analyst/Date: 4/24/23	Pre GPC KD Analyst: CR Date: 4/24/23 Pre-Deactivated Glass Wool																																						
TurboVap Pre GPC 1 2 3 4 5 Analyst/Date: 4/26/23	Anhydrous Sodium Sulfate Methylene Chloride L002621 Hexane L003500 GPC Filter Prep Analyst: LJ Date: 4/26/23	<p>MANUALLY ENTER EXPIRATION DATES!</p> <p>(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.</p> <p>If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).</p>																																					
Post GPC KD 80-85°C 0 2 4 5 6 Analyst/Date: 5/13/23	Methylene Chloride K005941 GPC Filter L001799 GPC Analyst: AA Date: 4-27-23																																						
TurboVap 1 2 3 4 5 Analyst/Date: 5-4-23	Methylene Chloride K005941 GPC Calibration File C1C0059-GPC2 Post GPC KD Analyst: LJ Date: 5/3/23																																						
Water Wash Analyst/Date: 5-4-23	Methylene Chloride L004175 Vialing Analyst: AA Date: 5-4-23 Methylene Chloride L004175																																						



Batch: BLD0329

Prepared using: EPA 3546 (Microwave)

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

WO Comments

23D0136: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E> Sample ID for -03 and -04 changed by client

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"> 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in Refridgerator 05. Re-homogenize while cool. 7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using 1:1 DCM/ACE. 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD: Add 10 mL Hexane directly to extract in the KD. 12. GPC REQUIRED 100°C water bath (CLP) KD to 5mL. 13. Vialers to take 1:5 Split Pre- GPC. 14. (After GPC): KD at 80°C. 15. TurboVap to 1mL in DCM. 16. WATER WASH REQUIRED: <ol style="list-style-type: none"> 16a. Vial 1mL of all extracts in 2mL amber vials in DCM. 16b. Add ~0.5mL DI water and vortex for ~5 seconds each. 16c. Centrifuge extracts for 5 minutes at 1500-2000rpm. 16d. Transfer and vial 0.5mL to new 2mL amber vials (Avoiding collecting water in syringe and cleaning syringe with Acetone and DCM between each vial). 17. Archive water wahed vials and deliever new vials to GC Department for analysis. <p>A. Need Total Solids Y <input checked="" type="checkbox"/> N</p> <p>B. Archive/Freeze <input checked="" type="checkbox"/> Y N</p>	



Extraction Parameter: SMA Extraction Batch 230329

Total Solids Batch: BLD0208 Work Order(s): 2300136

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>01-04</u>	<u>CR 4/12/23</u>
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / (N)	<u>CR 4/12/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y / (N)	<u>CR 4/12/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0051

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1803	23D0136-03	NT1005052312S.D	05/04/2023	
Reference	BLD0329-SRM2	NT1005052310S.D	05/04/2023	
LDW23-SS1804	23D0136-01	NT1005052311S.D	05/04/2023	
Blank	BLD0329-BLK2	NT1005052307S.D	05/04/2023	
LCS	BLD0329-BS2	NT1005052308S.D	05/04/2023	
Matrix Spike Dup	BLD0329-MSD2	NT1005052314S.D	05/04/2023	
Matrix Spike	BLD0329-MS2	NT1005052313S.D	05/04/2023	
LCS Dup	BLD0329-BSD2	NT1005052309S.D	05/04/2023	



Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLD0329-BLK2</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/18/23 11:16</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLD0329</u>	Sequence:	<u>SLE0466</u>
Instrument:	<u>NT10</u>	Column:	<u>ZB-5MSi</u>
		File ID:	<u>NT1005052307S.D</u>
		Analyzed:	<u>05/05/23 14:40</u>
		Initial/Final:	<u>10 g / 1 mL</u>
		Calibration:	<u>GE00018</u>
		Cleanups:	<u>GPC</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	0.8	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	0.7	J	0.7	5.0
100-51-6	Benzyl Alcohol	1	11.1	J	2.5	20.0
65-85-0	Benzoic acid	1	200	U	13.4	200
105-67-9	2,4-Dimethylphenol	1	20.0	U	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	20.0	U	2.1	20.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	750.00	284	37.8	27 - 120	
p-Terphenyl-d14	500.00	380	76.0	37 - 120	

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523075.D

Date : 05-May-2023 14:40

Client ID:

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

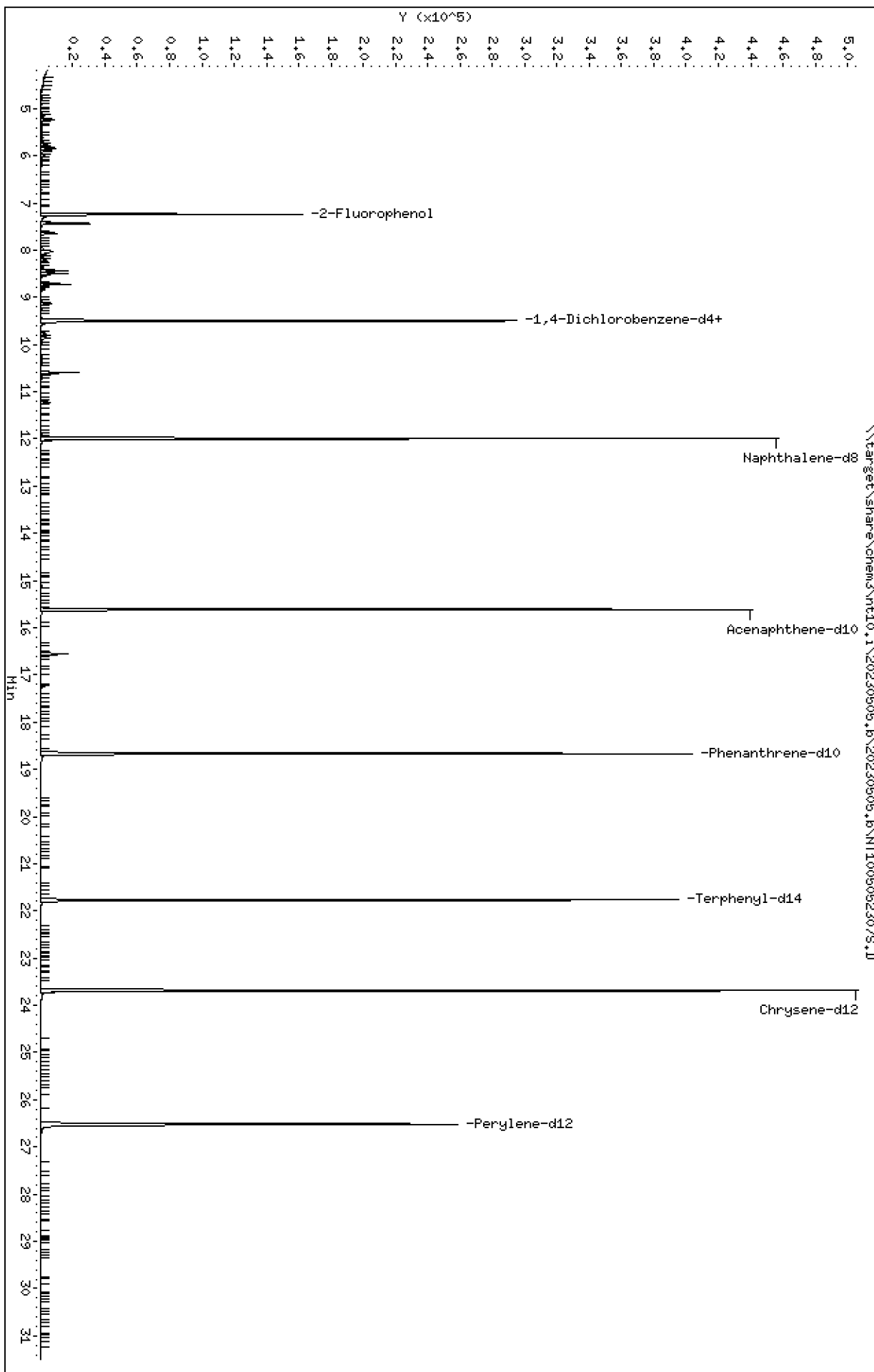
Column phase: ZB-5msi

Instrument: nt10.1

Operator: USD

Column diameter: 0.25

Page 1



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

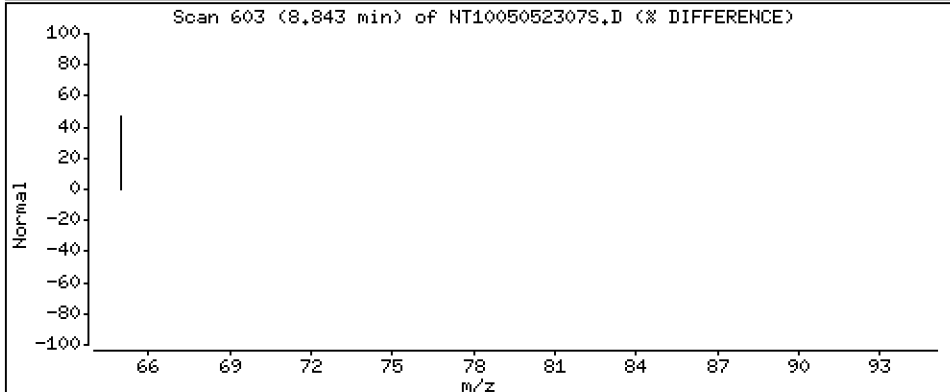
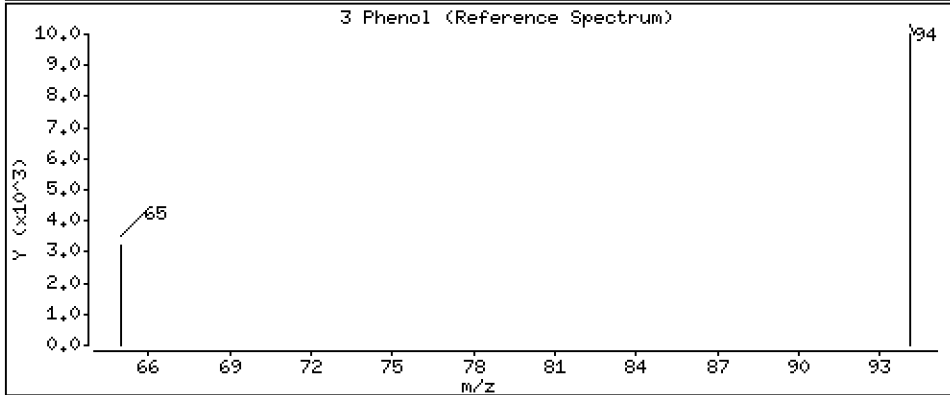
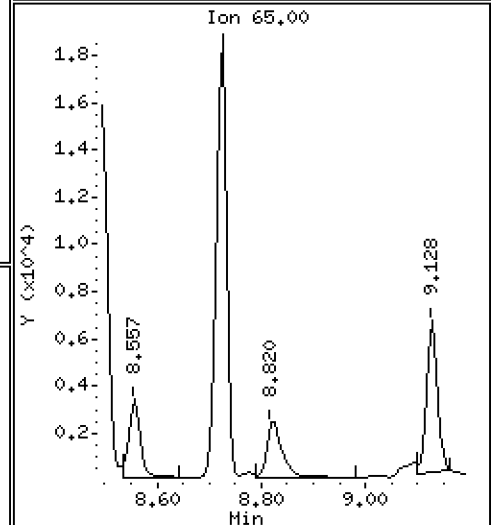
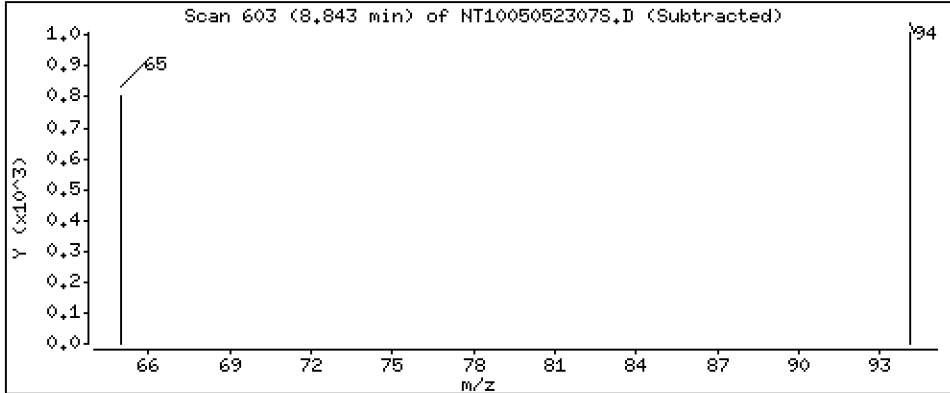
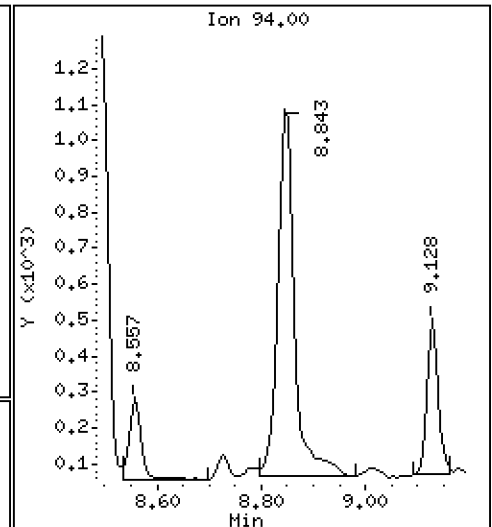
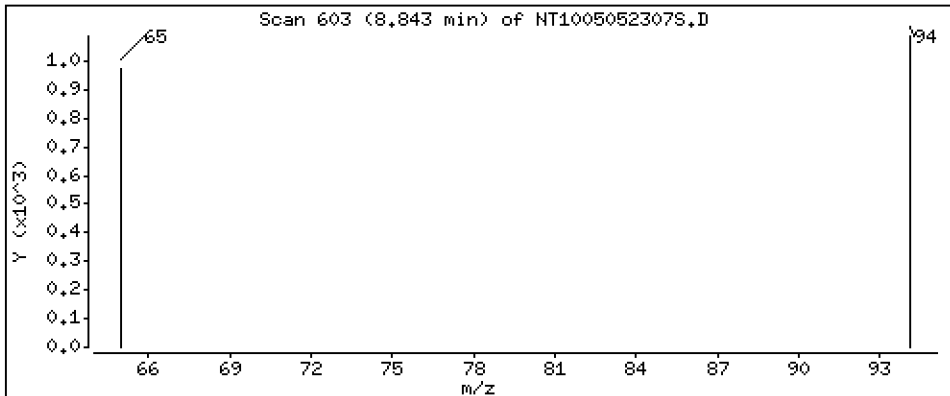
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.03104 ug/L



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

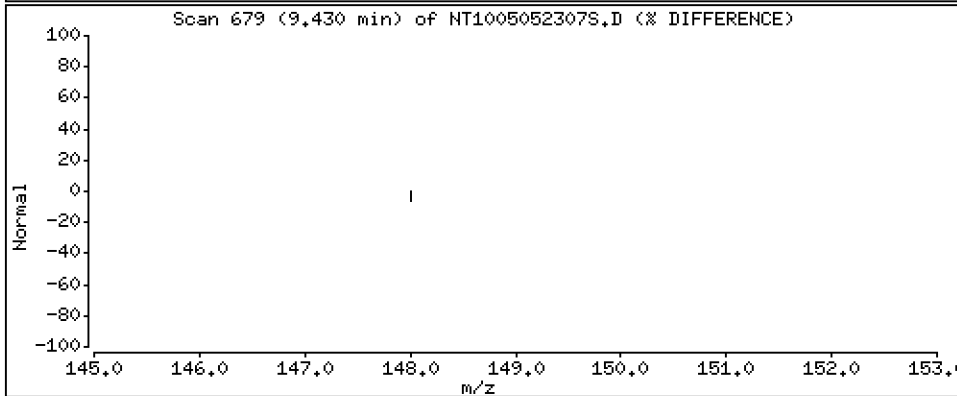
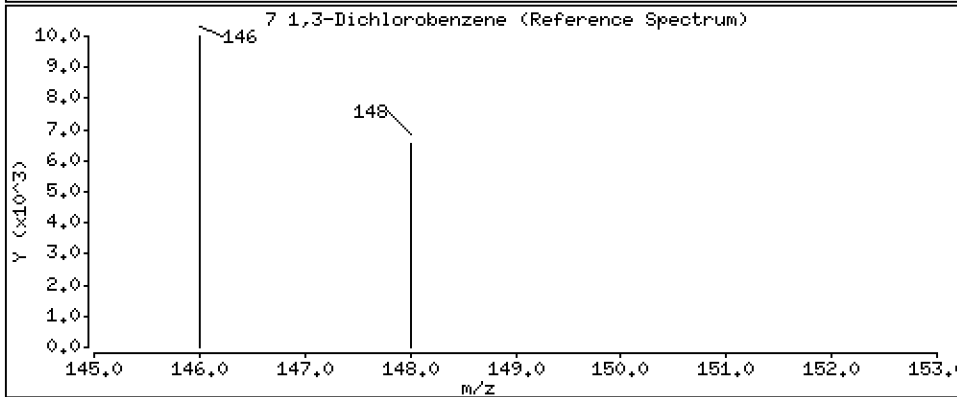
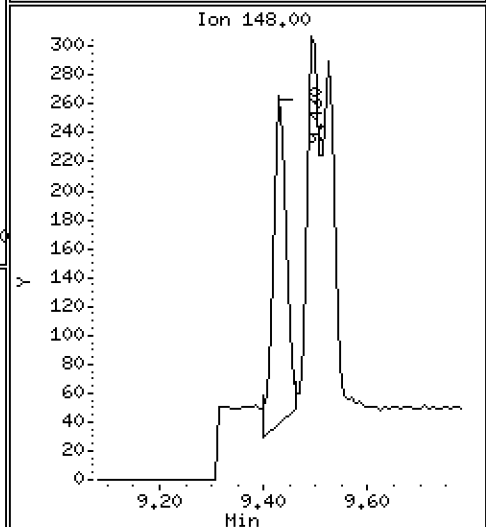
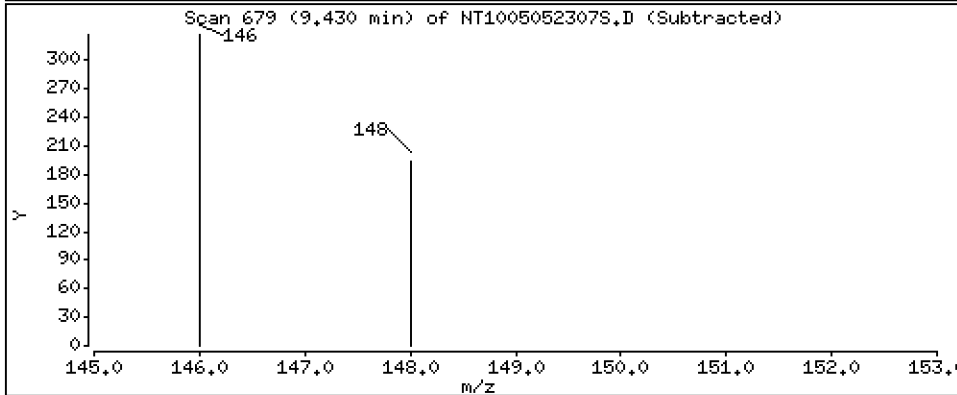
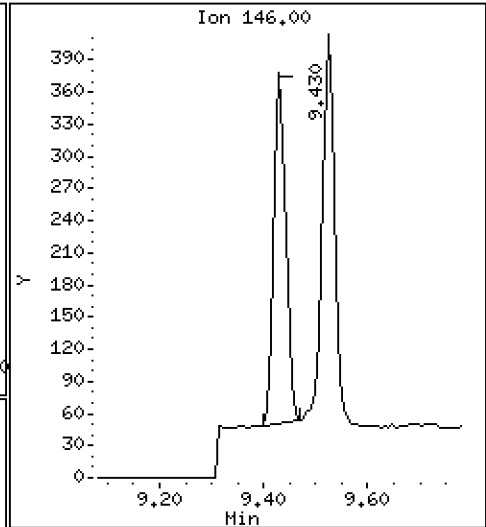
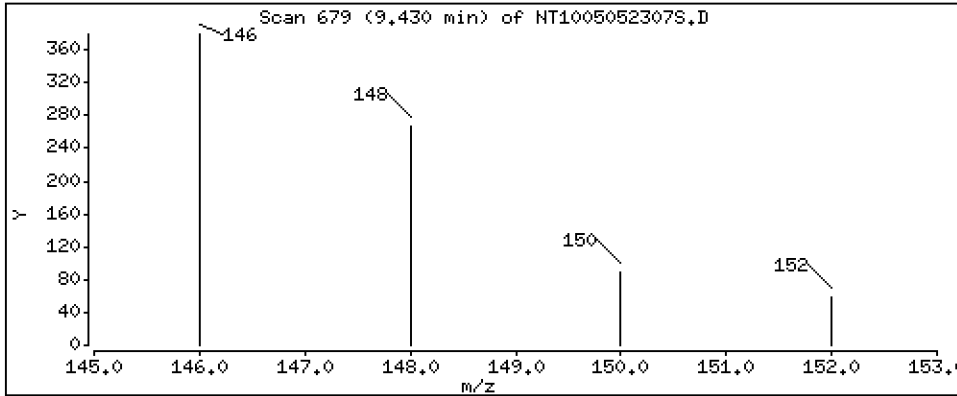
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,006817 ug/L



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

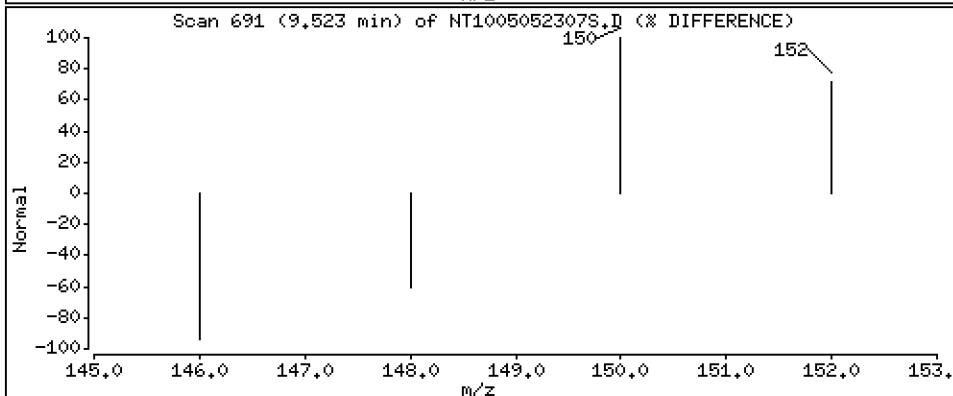
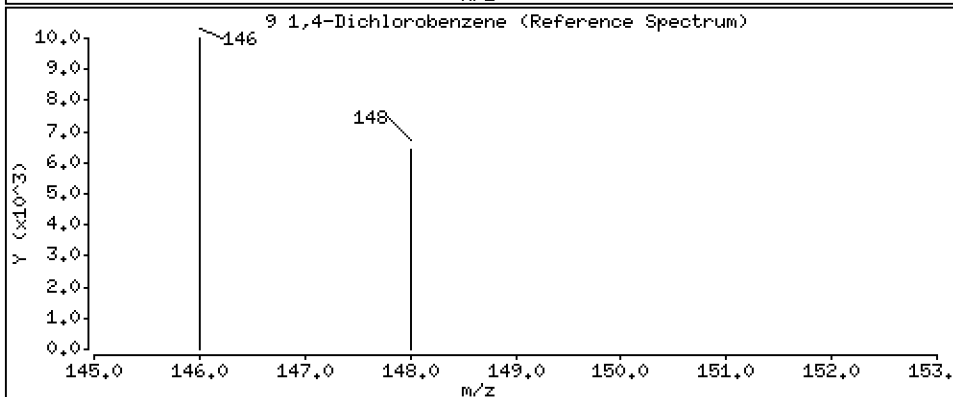
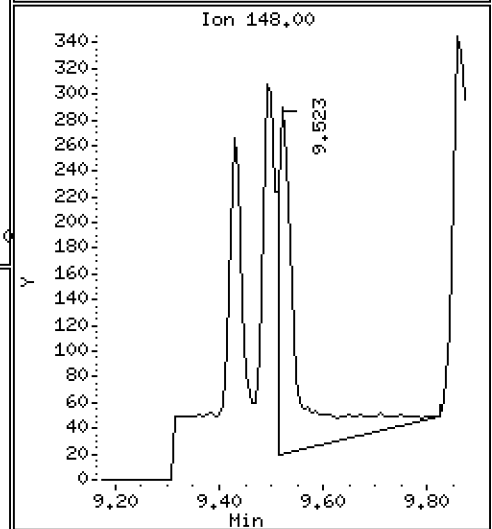
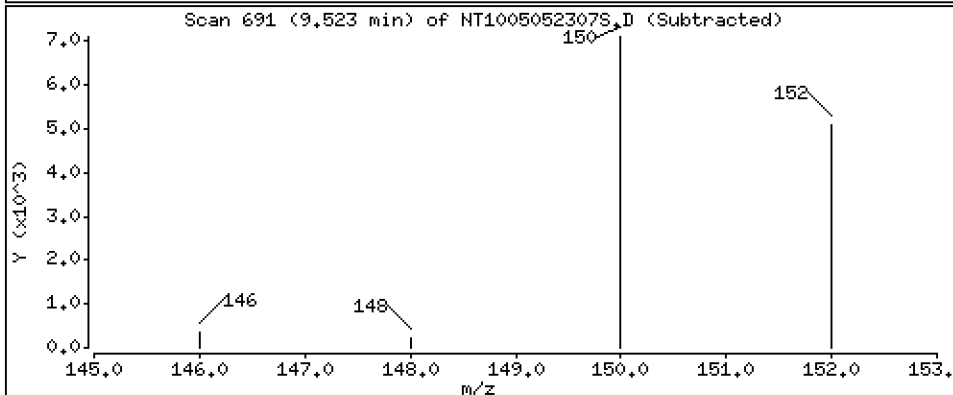
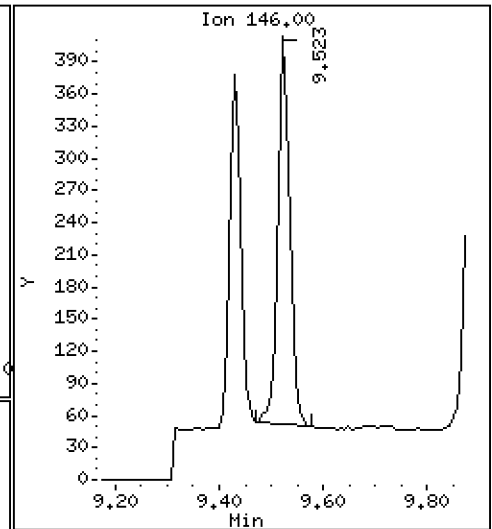
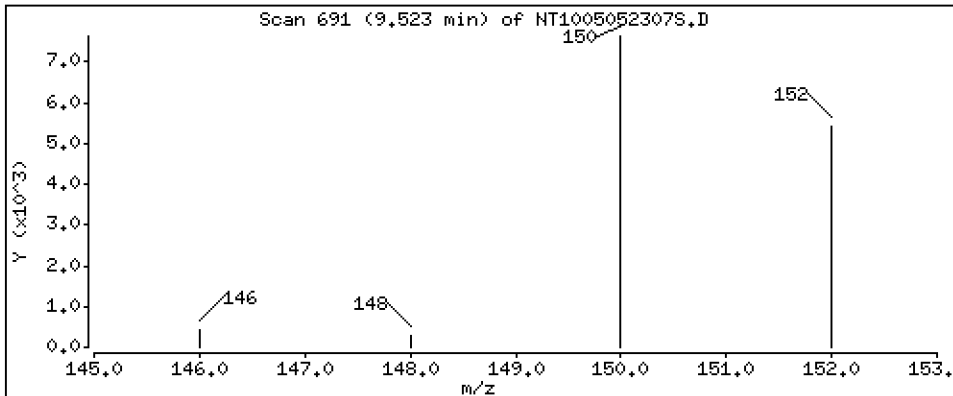
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,007561 ug/L



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

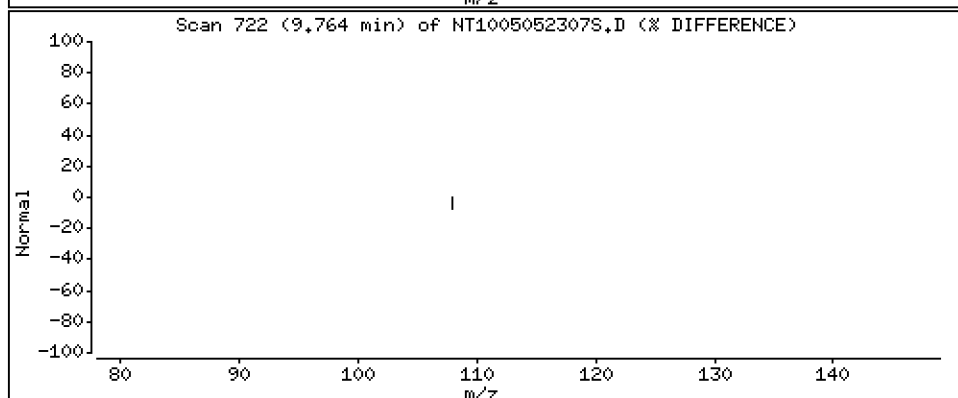
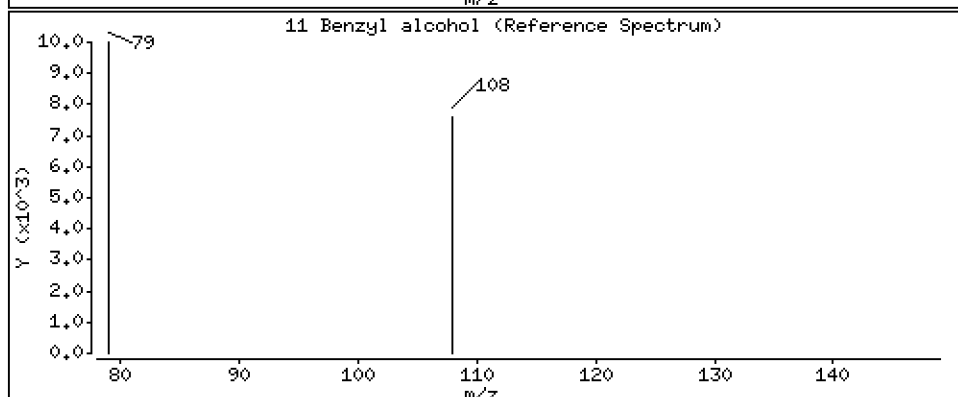
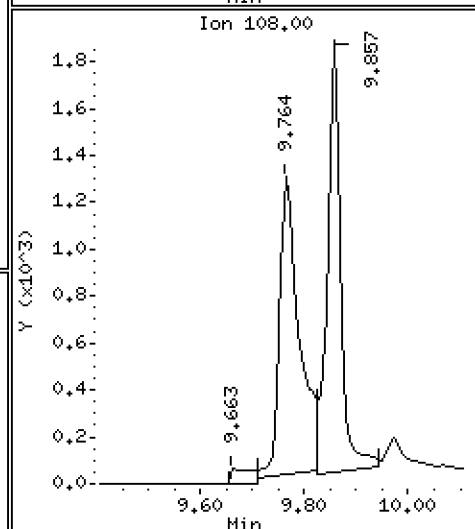
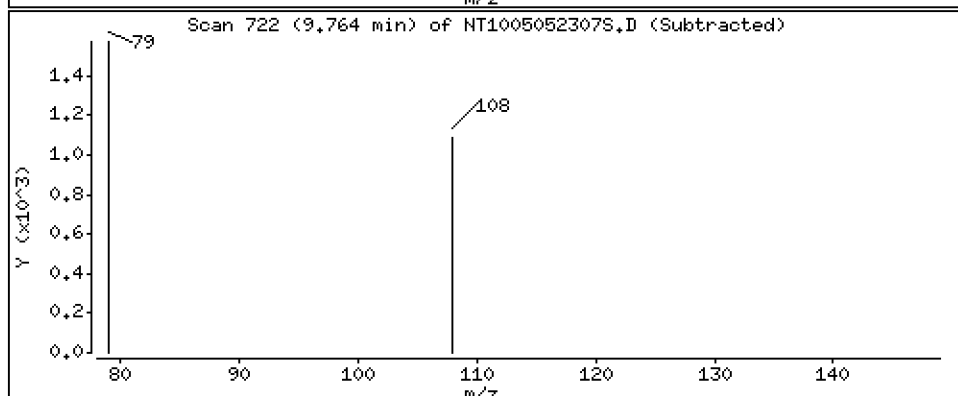
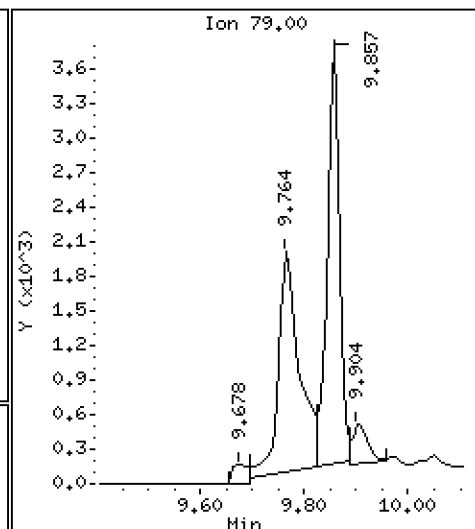
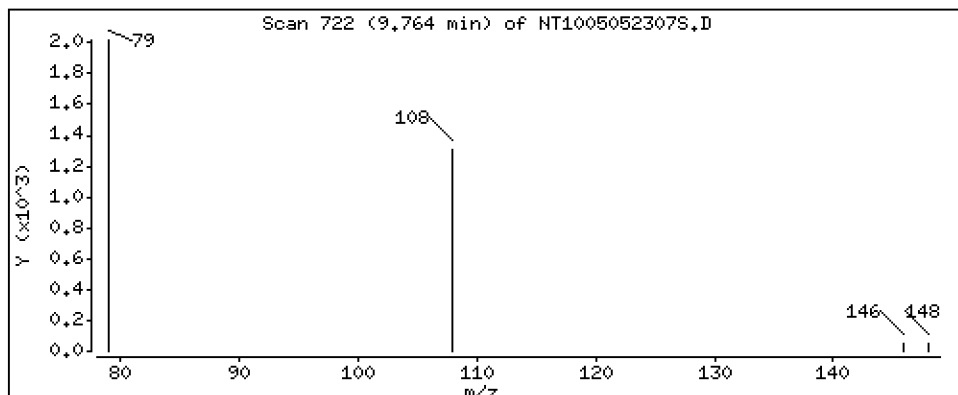
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.1107 ug/L



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

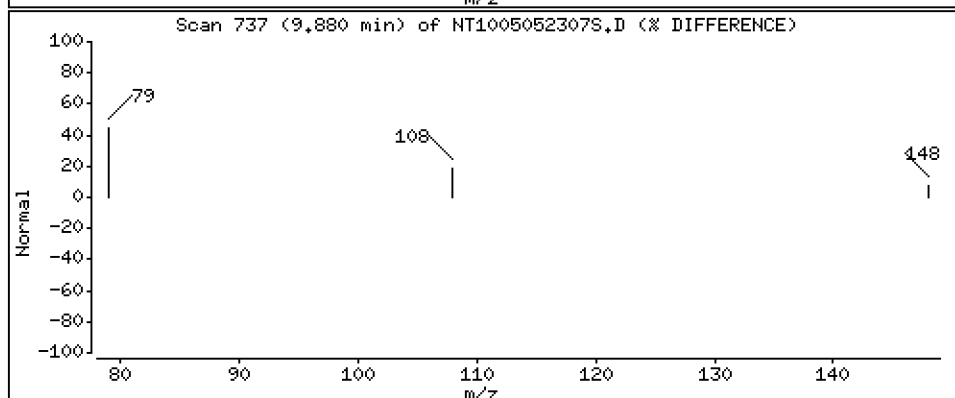
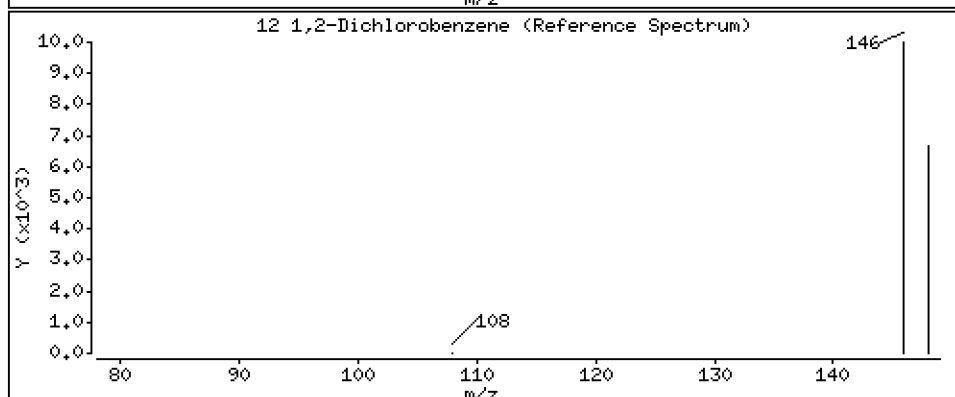
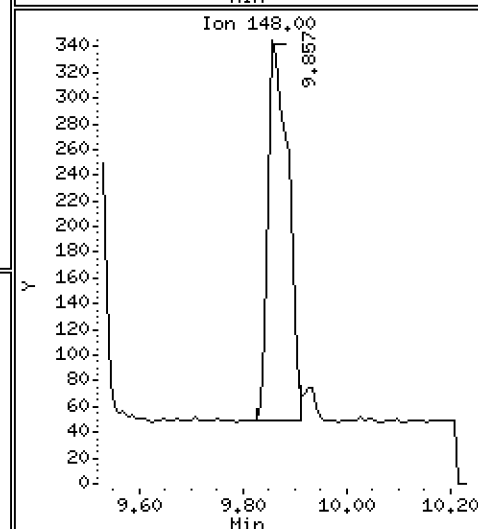
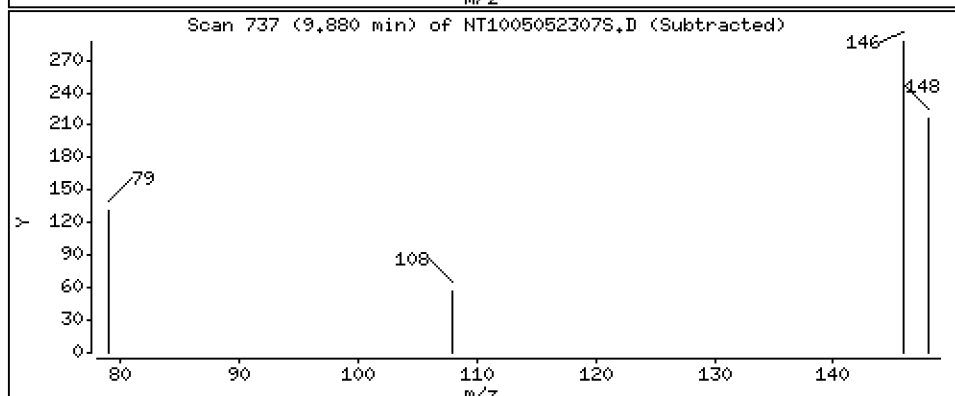
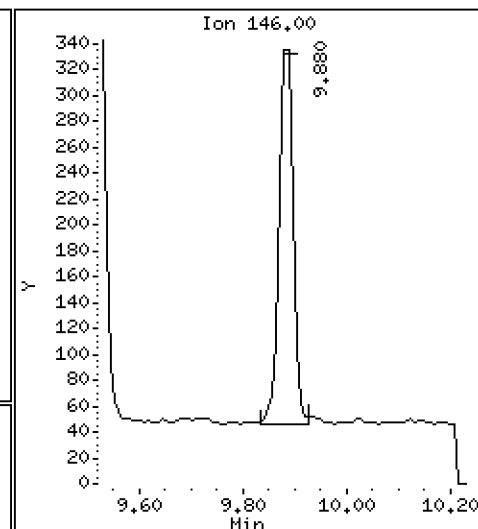
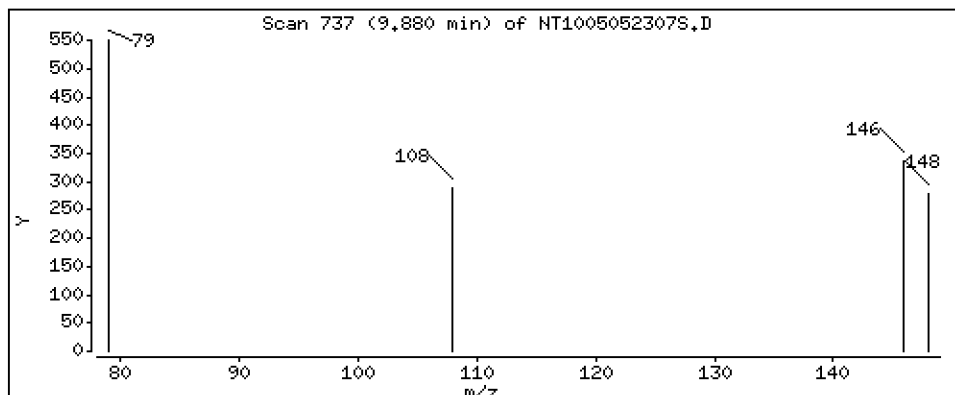
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,007396 ug/L



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

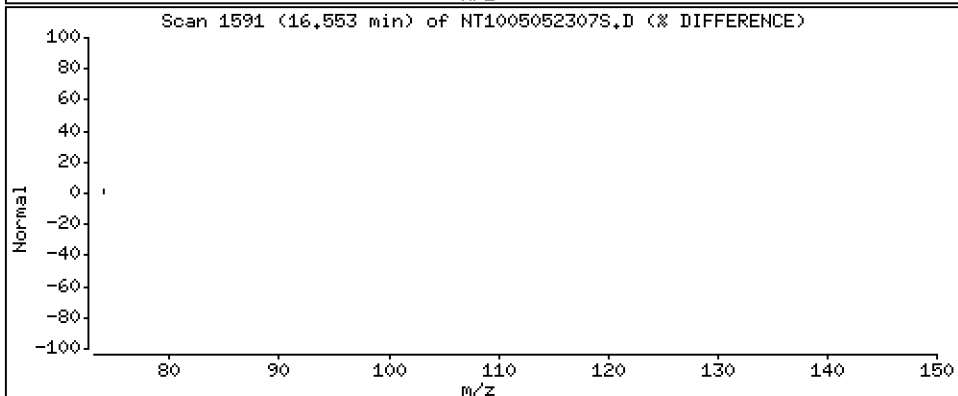
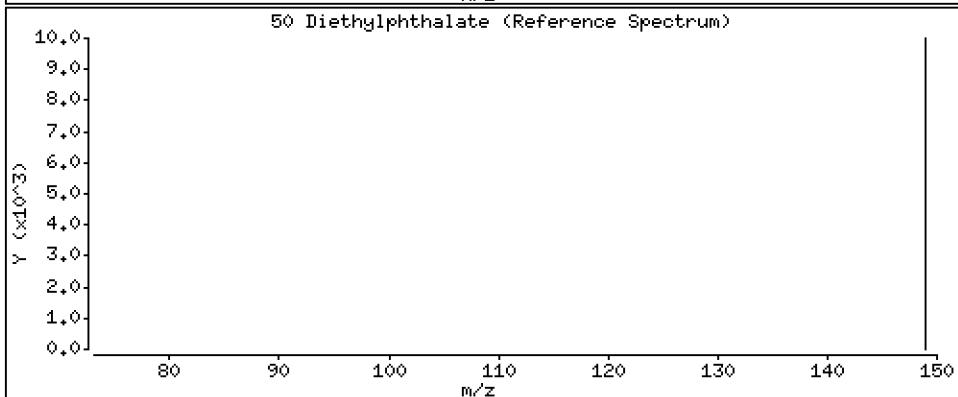
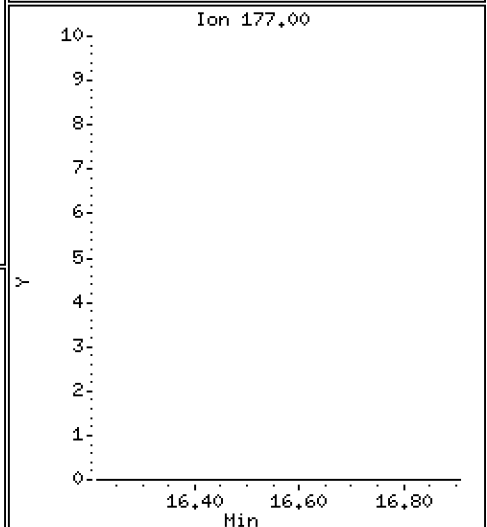
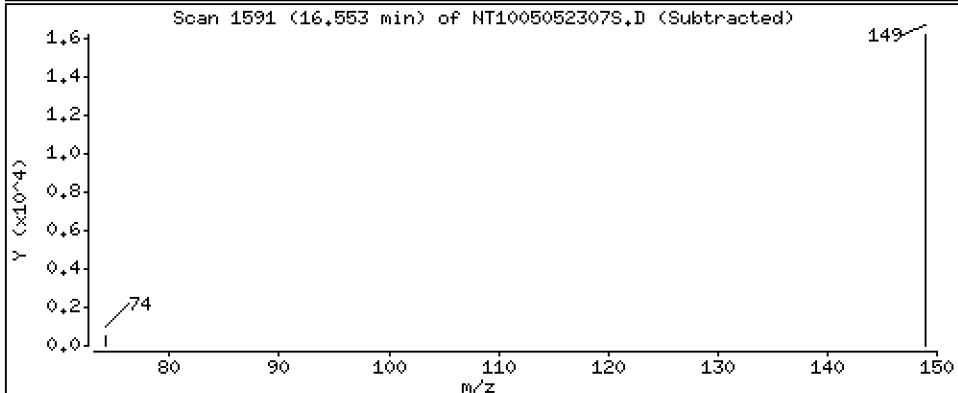
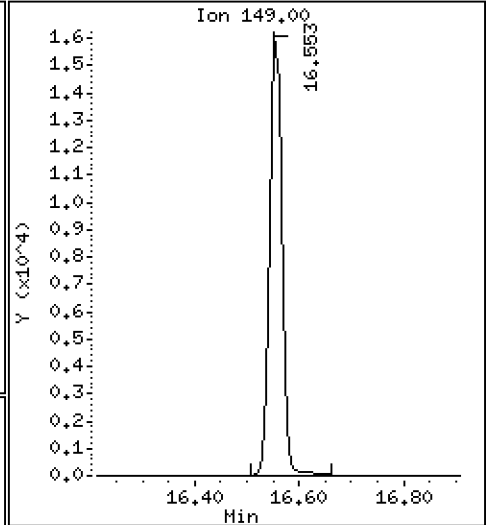
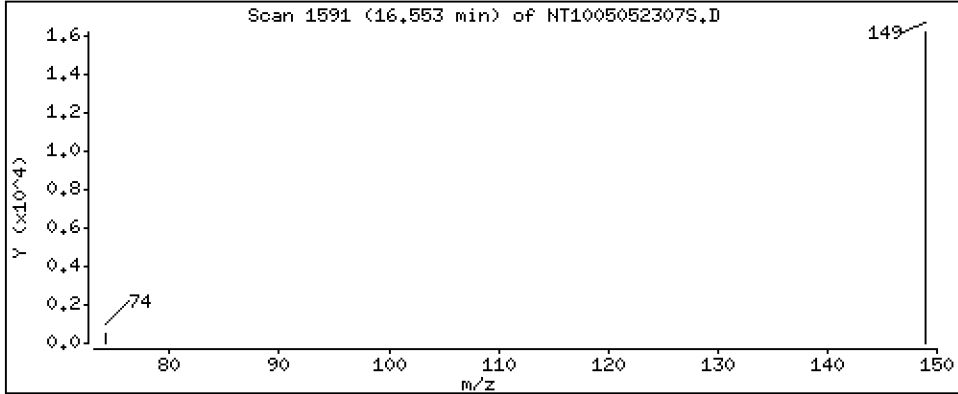
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1775 ug/L



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

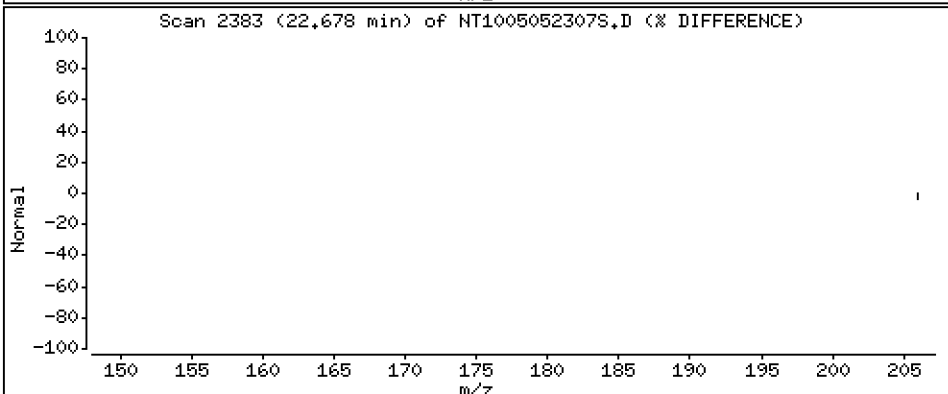
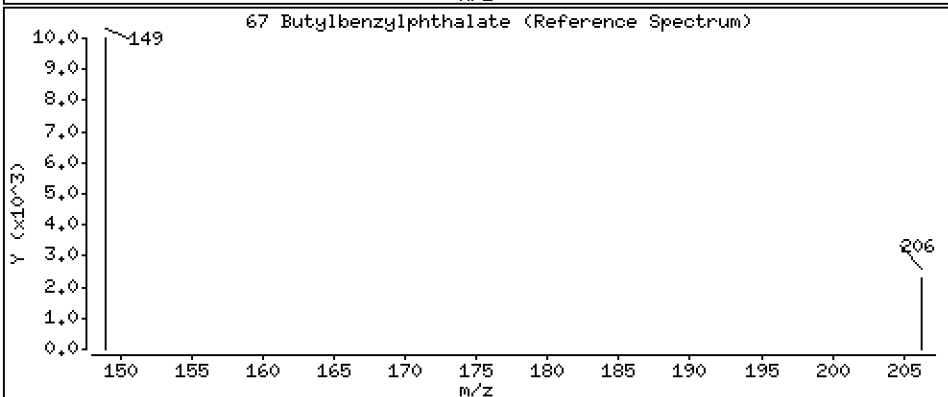
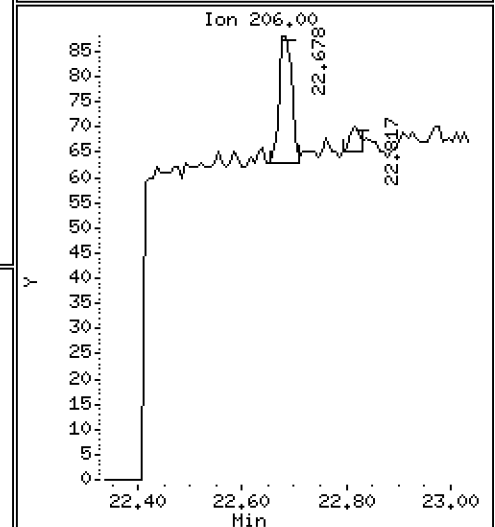
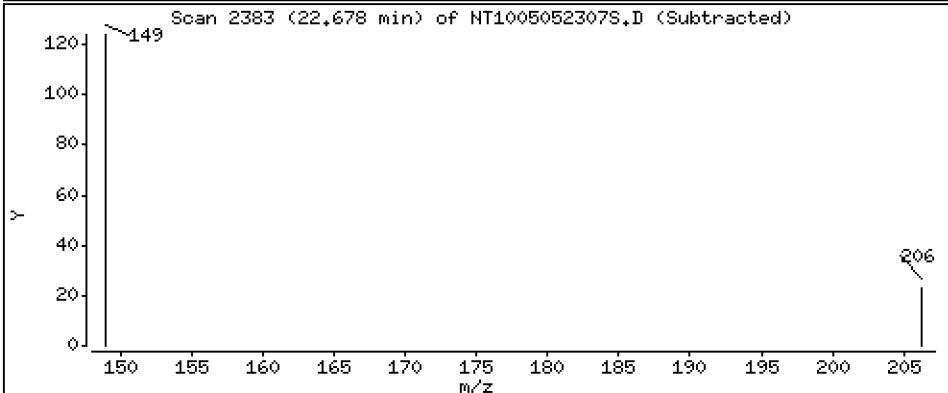
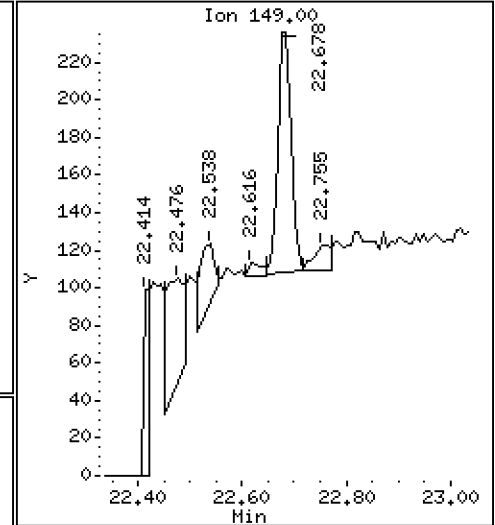
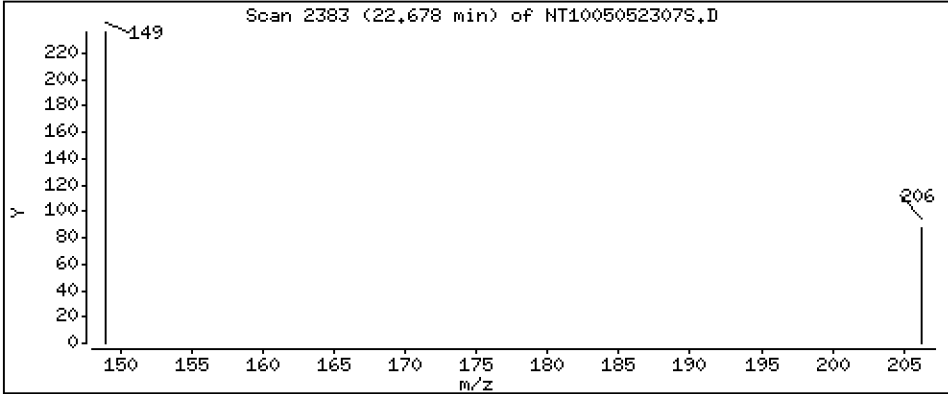
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,002183 ug/L



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

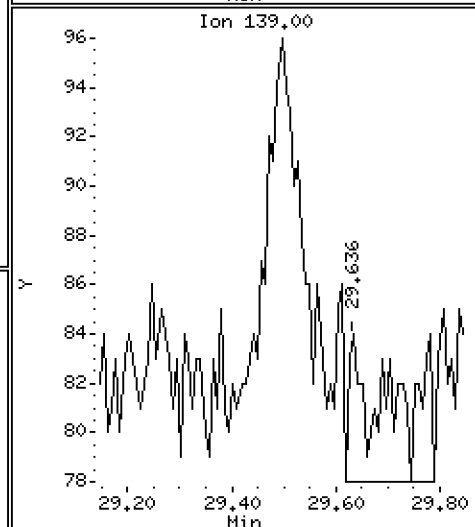
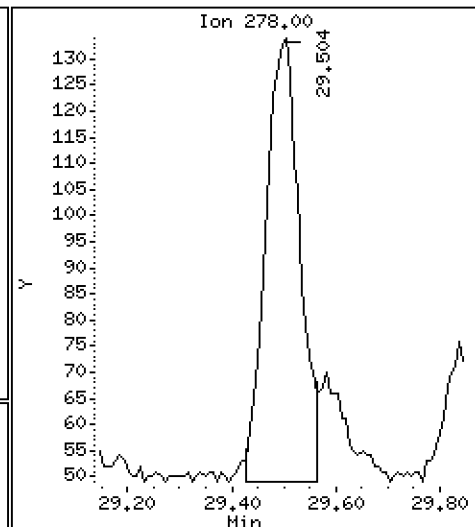
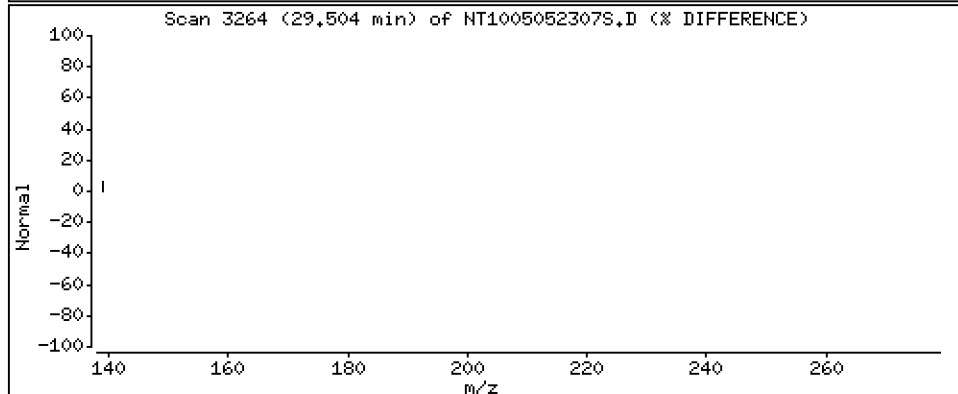
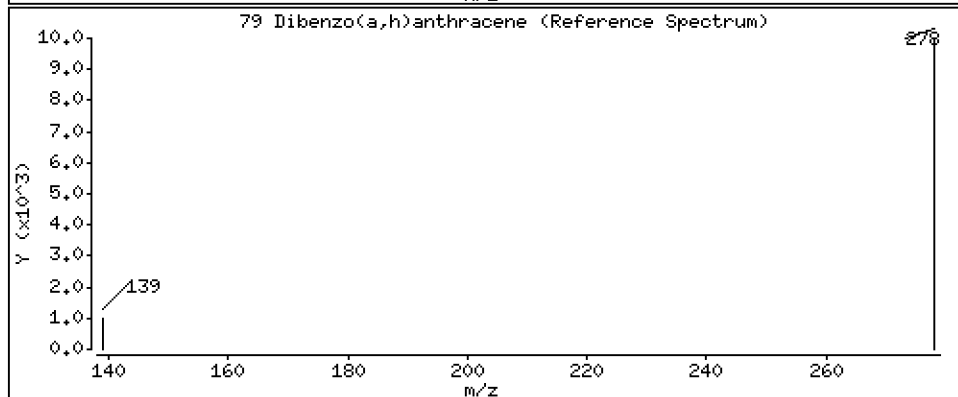
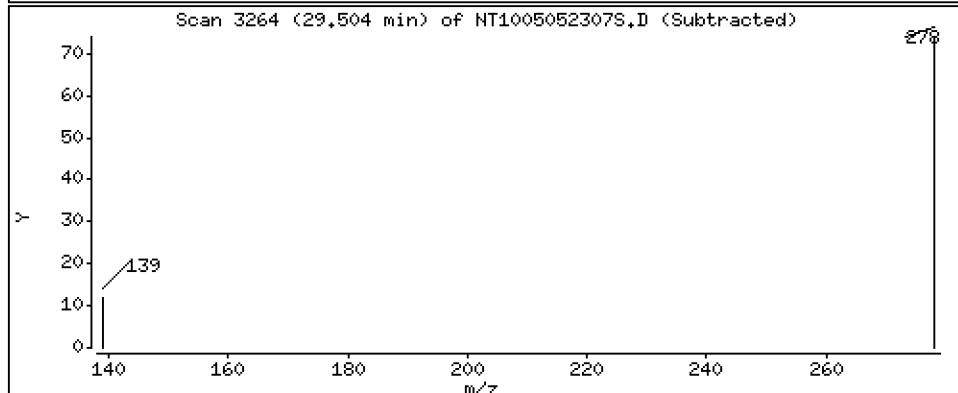
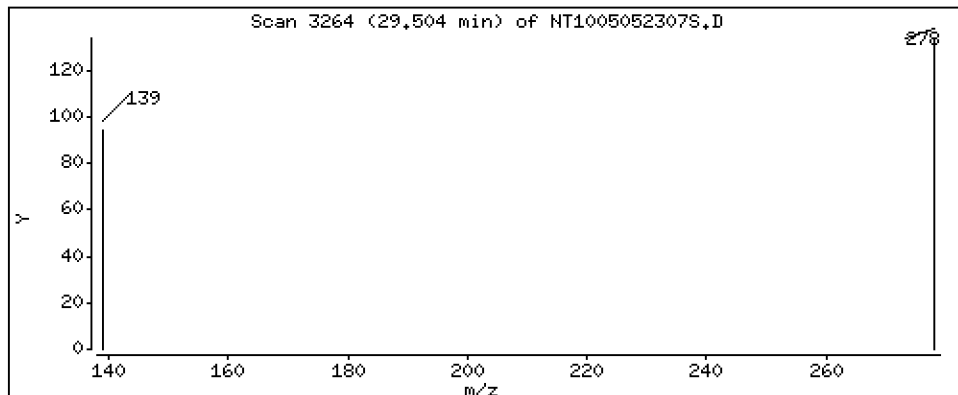
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,002430 ug/L



Date : 05-MAY-2023 14:40

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BLK2

Volume Injected (uL): 1.0

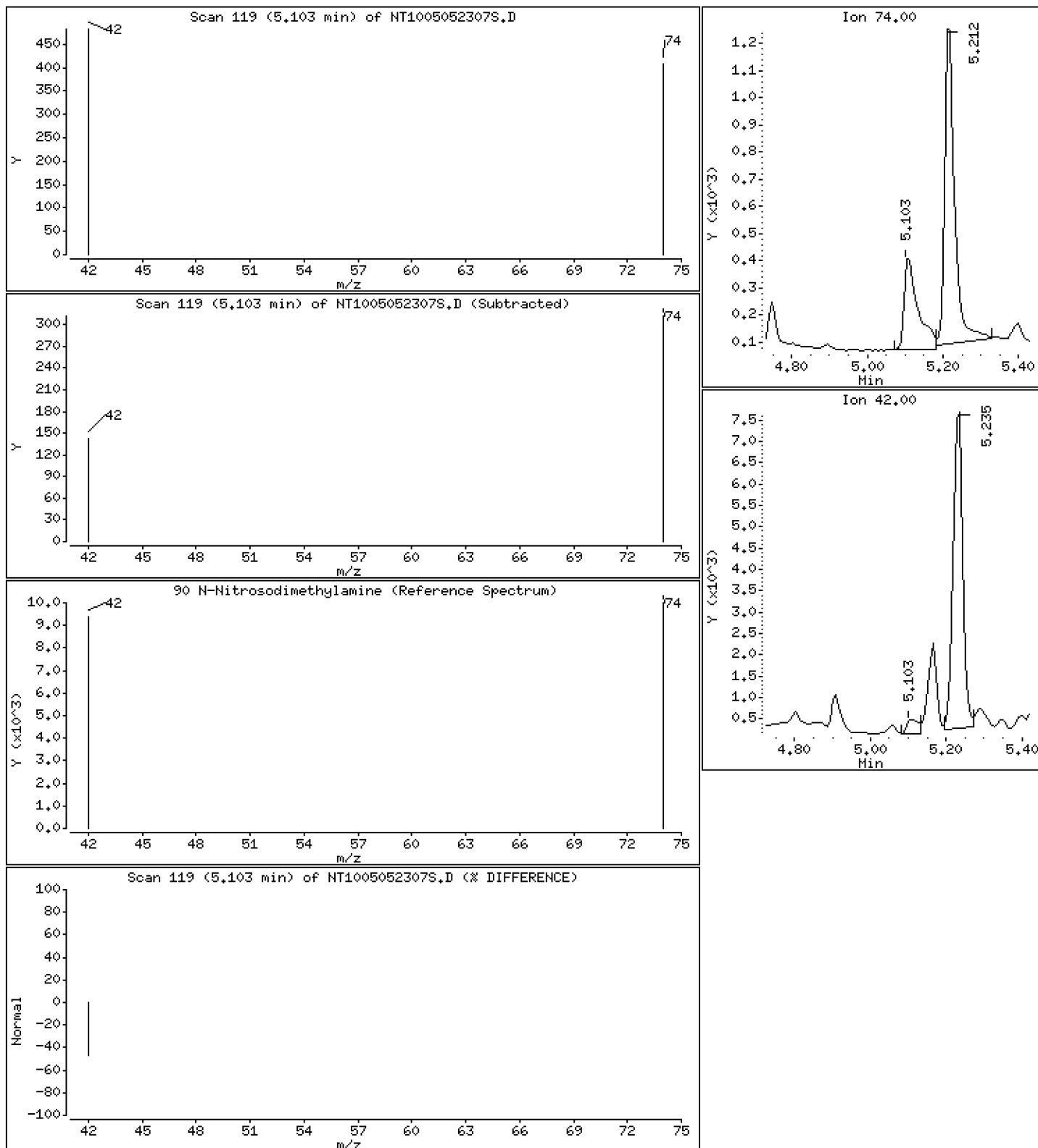
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,02922 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052307S.D
 Lab Smp Id: BLD0329-BLK2
 Inj Date : 05-MAY-2023 14:40 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLD0329-BLK2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.762)	160215	2.83774	2.838 (R)
3 Phenol	94		8.842	8.842	(0.931)	2195	0.03104	0.03104
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	507	0.00682	0.006817 (M)
* 8 1,4-Dichlorobenzene-d4	152		9.499	9.492	(1.000)	185339	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.002)	557	0.00756	0.007561 (M)
11 Benzyl alcohol	79		9.763	9.756	(1.028)	5413	0.11068	0.1107
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.040)	524	0.00740	0.007396 (M)
13 2-Methylphenol	108							Compound Not Detected.
15 4-Methylphenol	108							Compound Not Detected.
16 N-Nitroso-di-n-propylamine	70							Compound Not Detected.
22 2,4-Dimethylphenol	107							Compound Not Detected.
24 Benzoic acid	105							Compound Not Detected.
26 1,2,4-Trichlorobenzene	180							Compound Not Detected.
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	684119	4.00000	
30 Hexachlorobutadiene	225							Compound Not Detected.
39 Dimethylphthalate	163							Compound Not Detected.
* 42 Acenaphthene-d10	162		15.609	15.617	(1.000)	343668	4.00000	
50 Diethylphthalate	149		16.552	16.560	(1.060)	24825	0.17747	0.1775
54 N-Nitrosodiphenylamine	169							Compound Not Detected.
57 Hexachlorobenzene	284							Compound Not Detected.

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	Compound Not Detected.					
* 59 Phenanthrene-d10	188	18.661	18.669	(1.000)	674902	4.00000	
\$ 66 Terphenyl-d14	244	21.771	21.771	(0.919)	459375	3.80019	3.800 (R)
67 Butylbenzylphthalate	149	22.677	22.685	(0.957)	215	0.00218	0.002183
* 69 Chrysene-d12	240	23.684	23.684	(1.000)	560609	4.00000	
* 77 Perylene-d12	264	26.517	26.517	(1.000)	497276	4.00000	
79 Dibenzo(a,h)anthracene	278	29.503	29.496	(1.113)	390	0.00243	0.002430 (M)
90 N-Nitrosodimethylamine	74	5.103	5.080	(0.537)	900	0.02922	0.02922

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052307S.D
 Lab Smp Id: BLD0329-BLK2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	185339	1.44
27 Naphthalene-d8	662220	331110	1324440	684119	3.31
42 Acenaphthene-d10	335558	167779	671116	343668	2.42
59 Phenanthrene-d10	678190	339095	1356380	674902	-0.48
69 Chrysene-d12	566969	283485	1133938	560609	-1.12
77 Perylene-d12	522906	261453	1045812	497276	-4.90

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.50	0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	-0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.61	-0.05
59 Phenanthrene-d10	18.67	18.17	19.17	18.66	-0.04
69 Chrysene-d12	23.68	23.18	24.18	23.68	-0.00
77 Perylene-d12	26.52	26.02	27.02	26.52	-0.00

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

REVIEW SUMMARY FOR FILE - NT1005052307S.D

Lab ID: BLD0329-BLK2

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 14:40

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

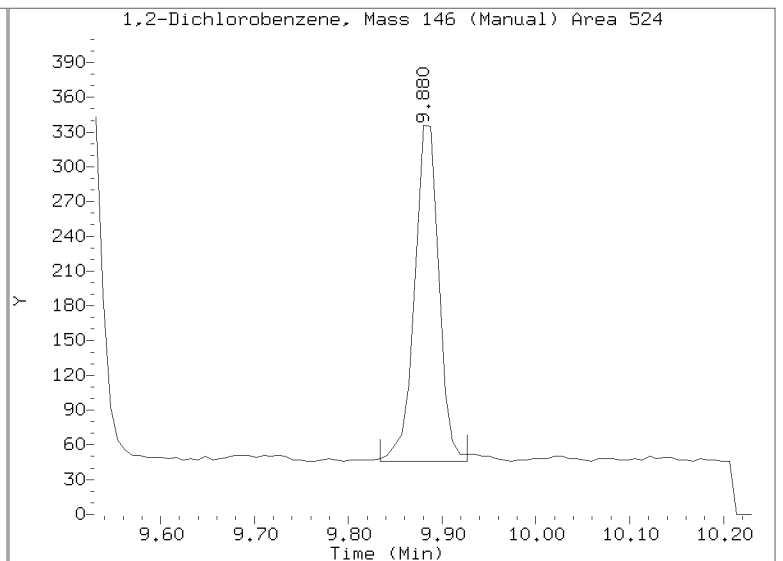
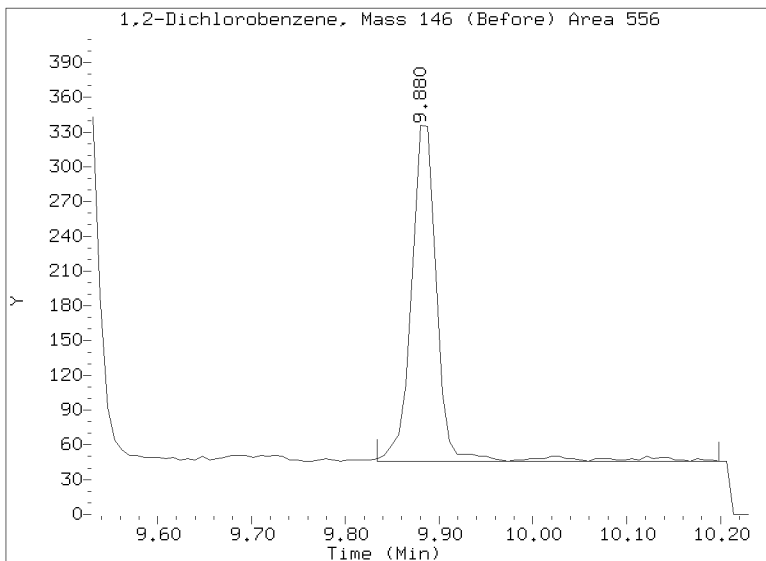
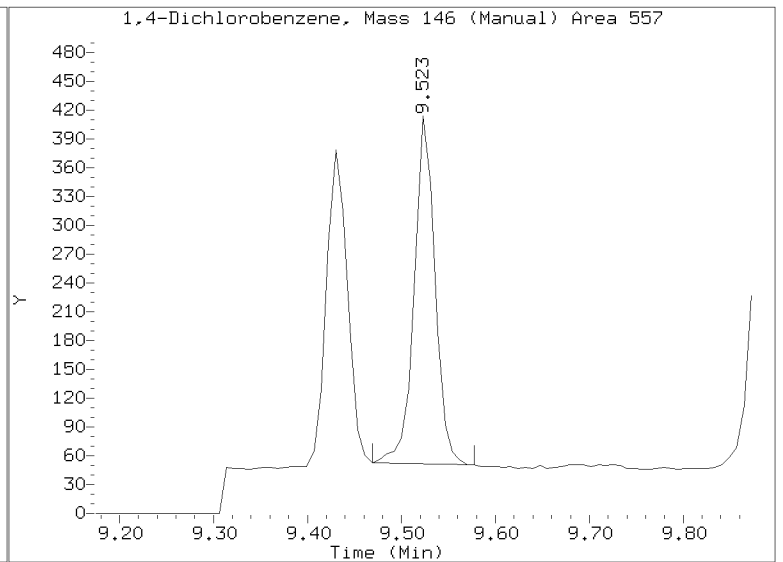
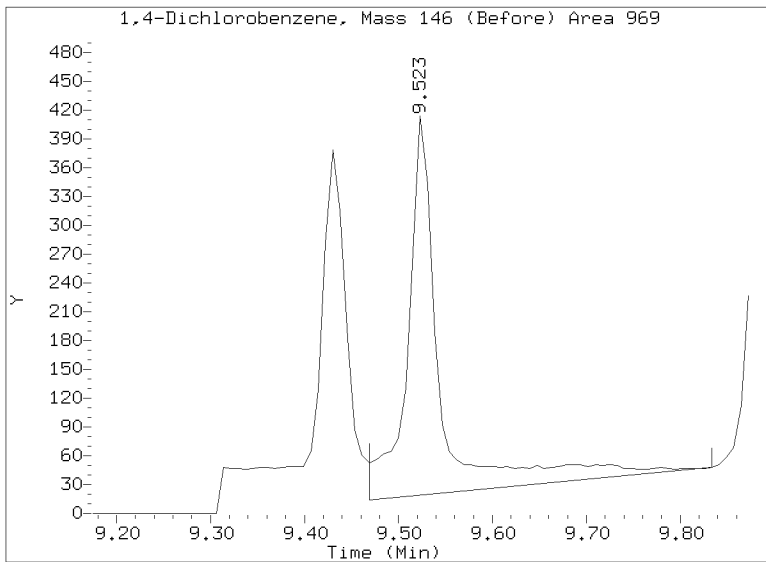
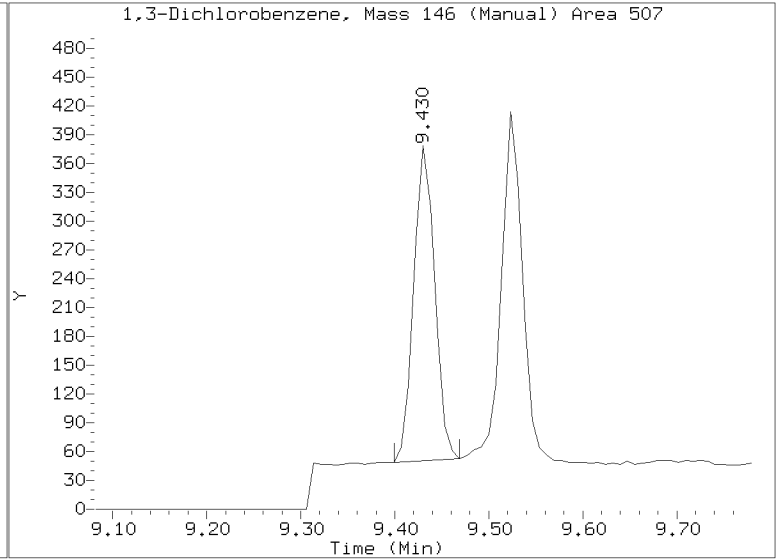
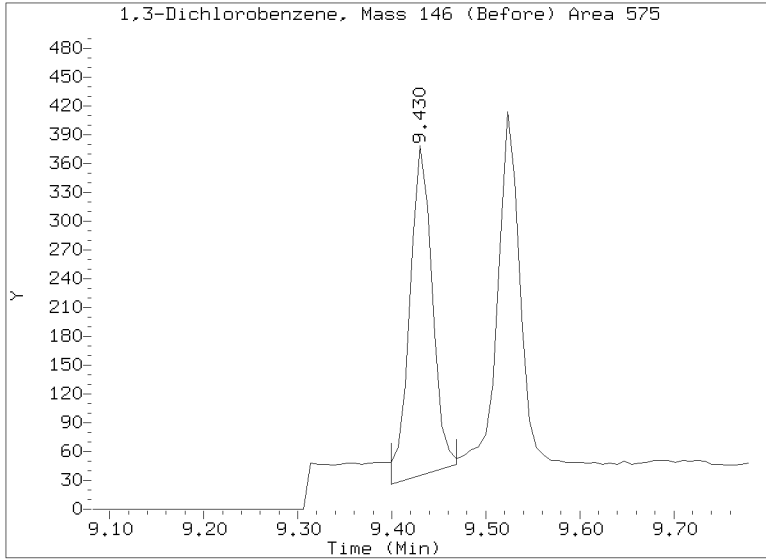
On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

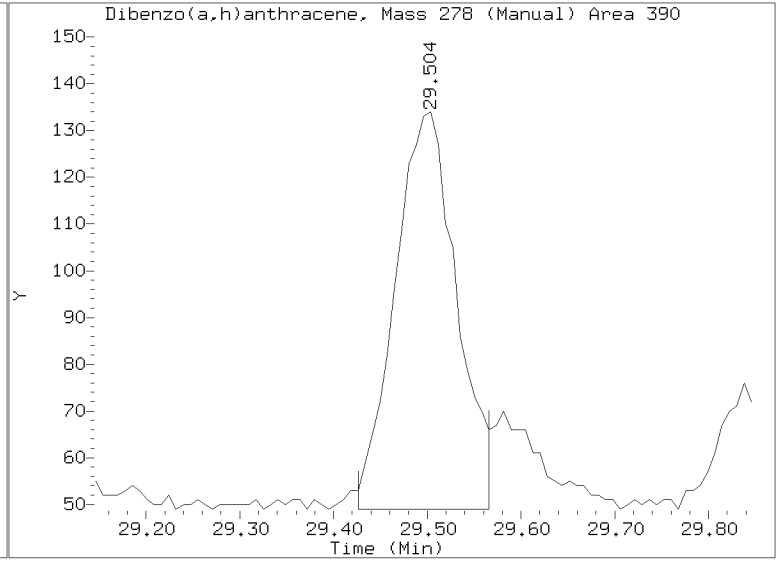
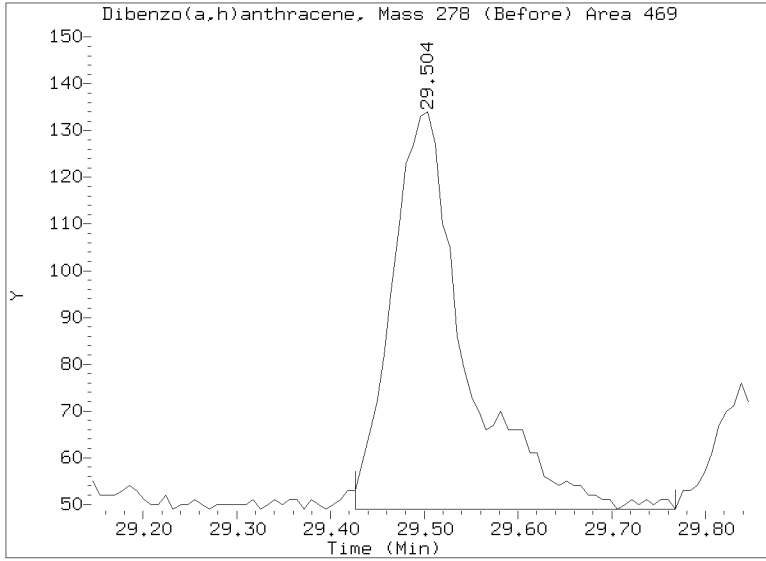
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052307S.D
Injection Date: 05-MAY-2023 14:40
Lab ID:BLD0329-BLK2 Client ID:
Report Date: 05/31/2023 14:30



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052307S.D
Injection Date: 05-MAY-2023 14:40
Lab ID:BLD0329-BLK2 Client ID:
Report Date: 05/31/2023 14:30





LCS / LCS DUPLICATE RECOVERY EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/05/23 15:18</u>
Batch:	<u>BLD0329</u>	Laboratory ID:	<u>BLD0329-BS2</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>10 g / 1 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
1,4-Dichlorobenzene	500	298		59.6	36 - 120
1,2-Dichlorobenzene	500	305		60.9	36 - 120
Benzyl Alcohol	500	351		70.2	25 - 123
Benzoic acid	2300	519	Q	22.5	10 - 160
2,4-Dimethylphenol	1300	432		33.3	10 - 120
1,2,4-Trichlorobenzene	500	287		57.4	35 - 120
N-Nitrosodiphenylamine	500	307		61.3	27 - 120
Pentachlorophenol	1300	852	Q	65.5	26 - 120

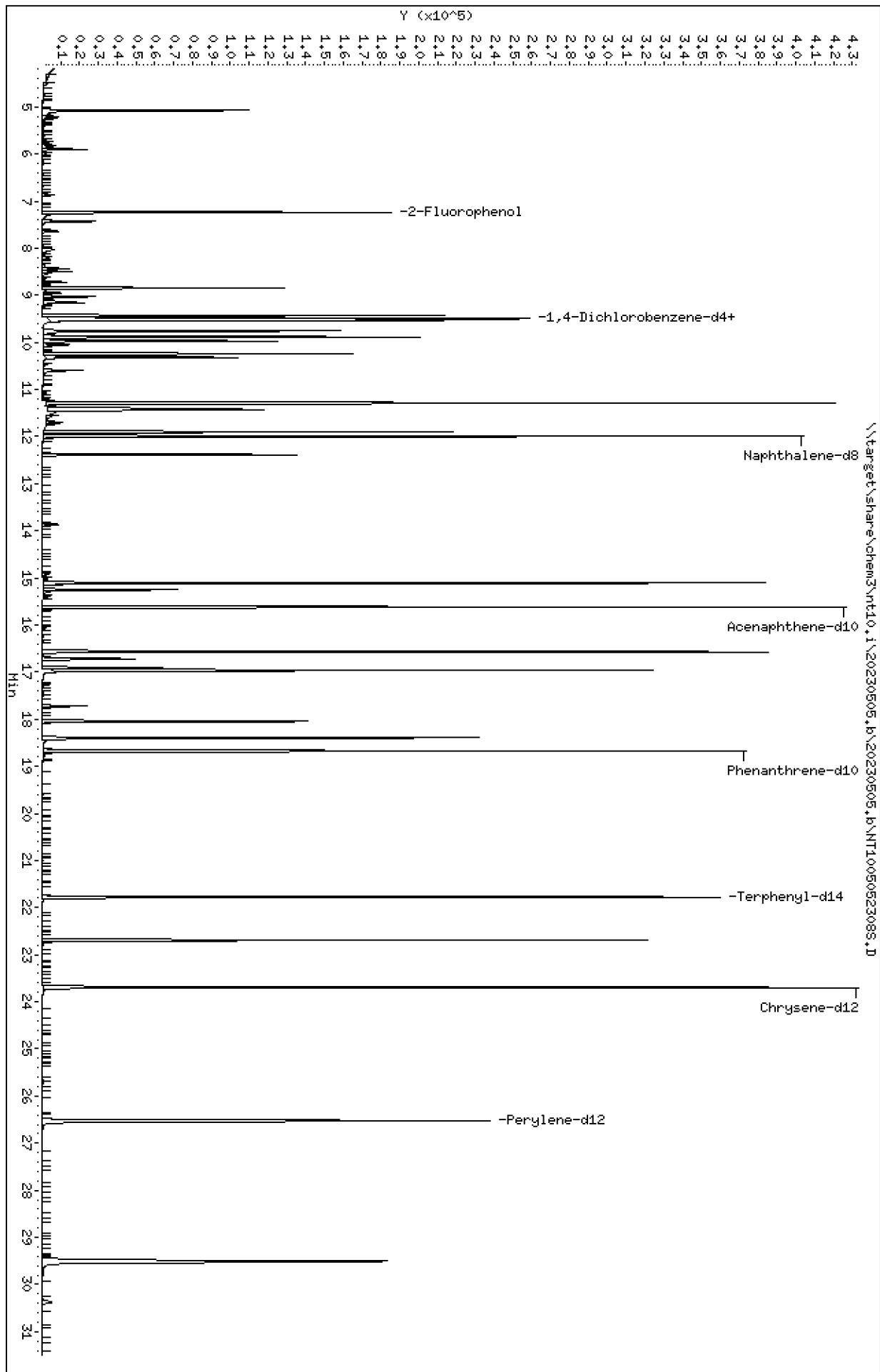
* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
1,4-Dichlorobenzene	500	320		64.0	7.19	30	36 - 120
1,2-Dichlorobenzene	500	329		65.8	7.61	30	36 - 120
Benzyl Alcohol	500	386		77.2	9.40	30	25 - 123
Benzoic acid	2300	943	*, Q	41.0	58.1 *	30	10 - 160
2,4-Dimethylphenol	1300	566		43.5	26.8	30	10 - 120
1,2,4-Trichlorobenzene	500	321		64.2	11.3	30	35 - 120
N-Nitrosodiphenylamine	500	357		71.4	15.2	30	27 - 120
Pentachlorophenol	1300	1040	Q	80.1	20.1	30	26 - 120

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523085.D
 Date: 05-May-2023 15:18
 Client ID:
 Sample Info: BLD0329-B52
 Volume Injected (uL): 1.0
 Column phase: ZB-5msi

Instrument: nt10.1
 Operator: USD
 Column diameter: 0.25



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

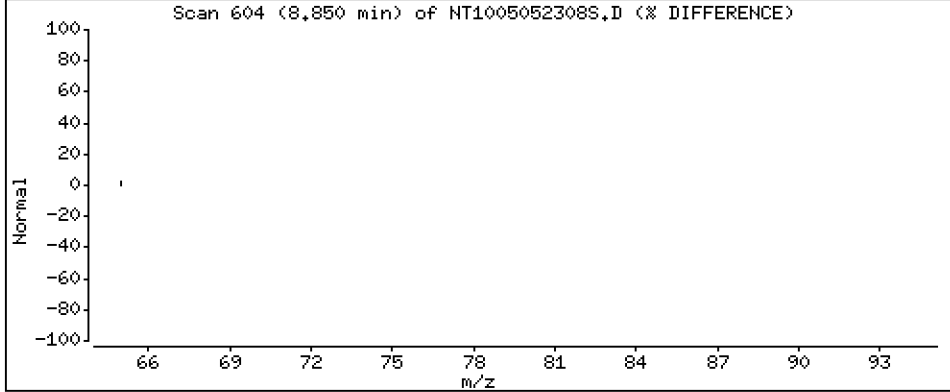
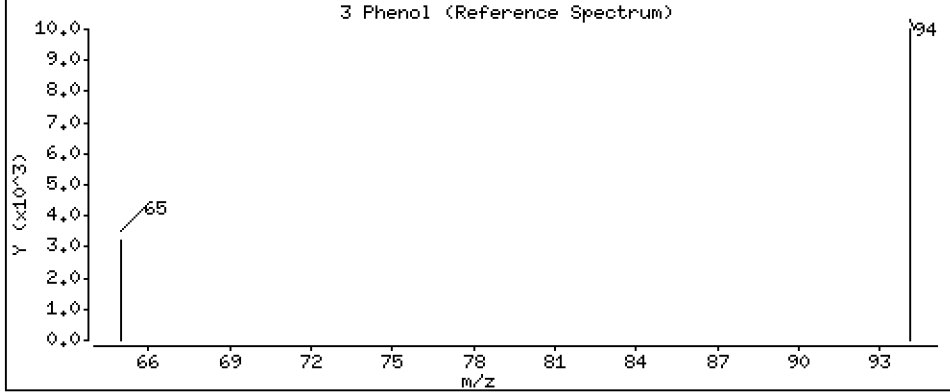
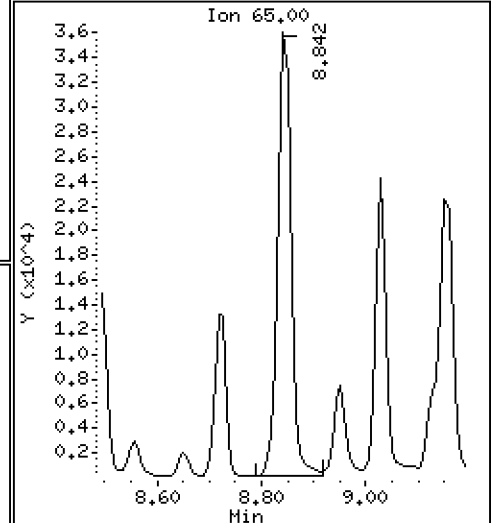
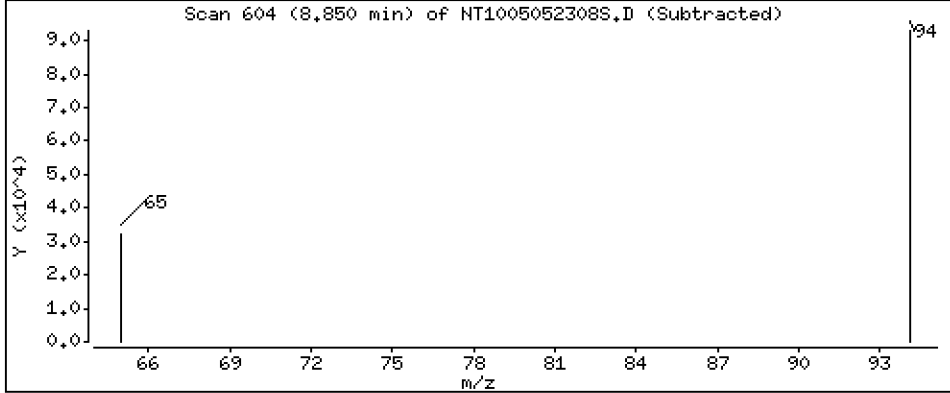
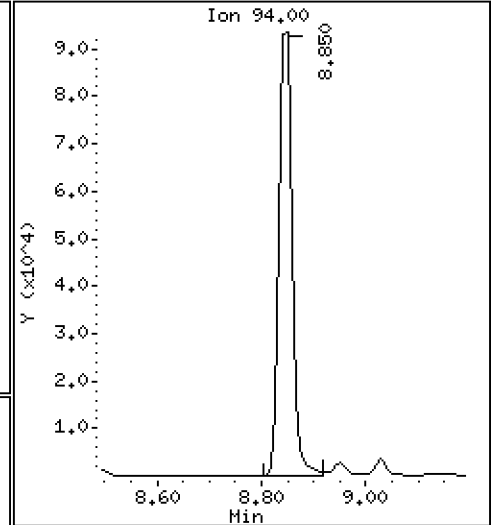
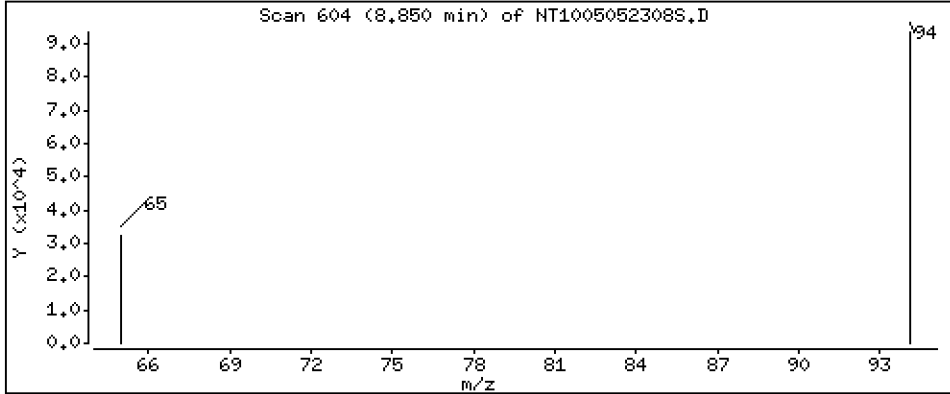
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 2,478 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

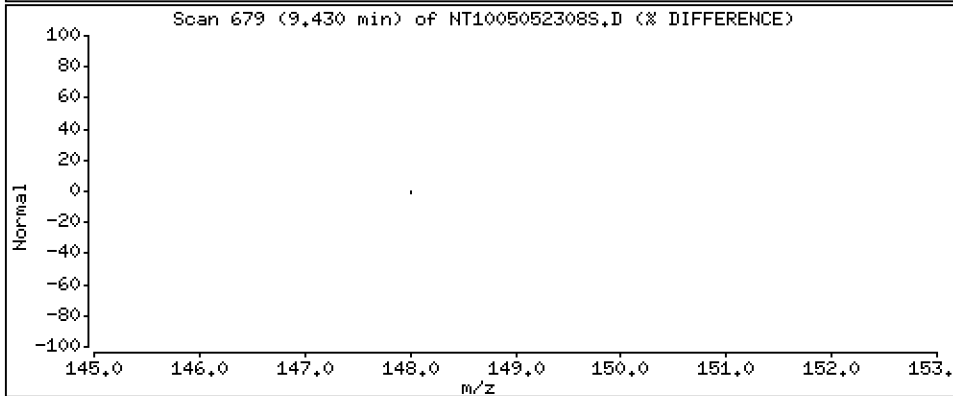
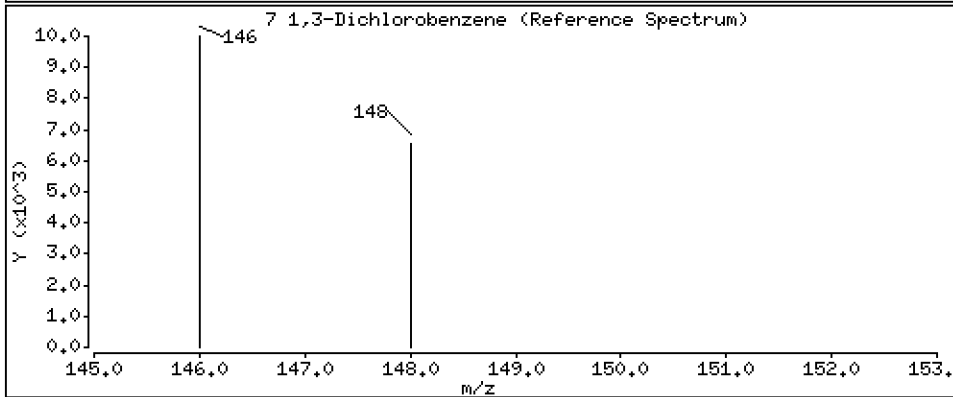
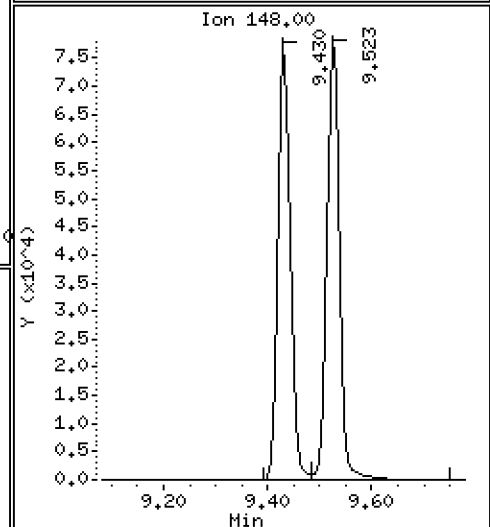
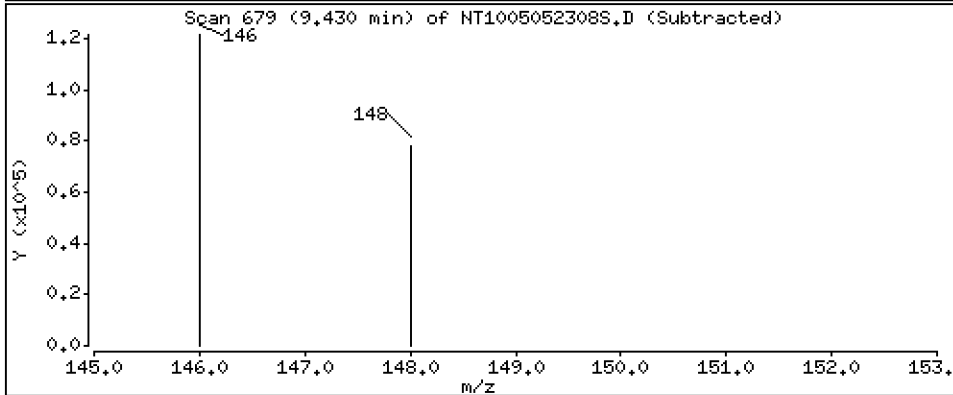
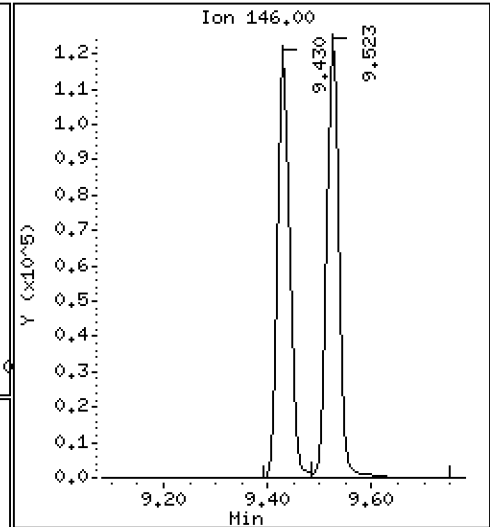
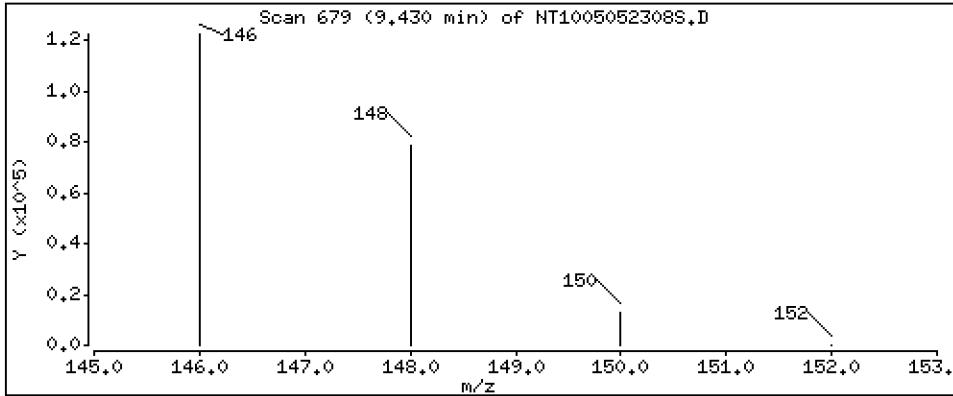
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 2,924 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

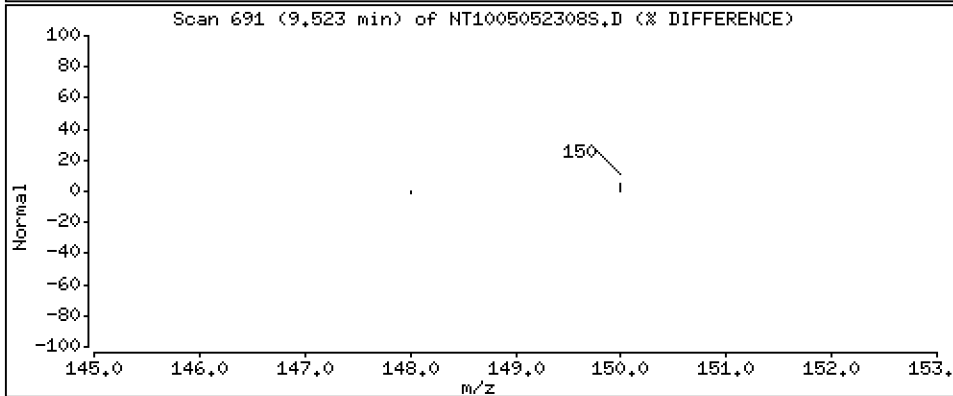
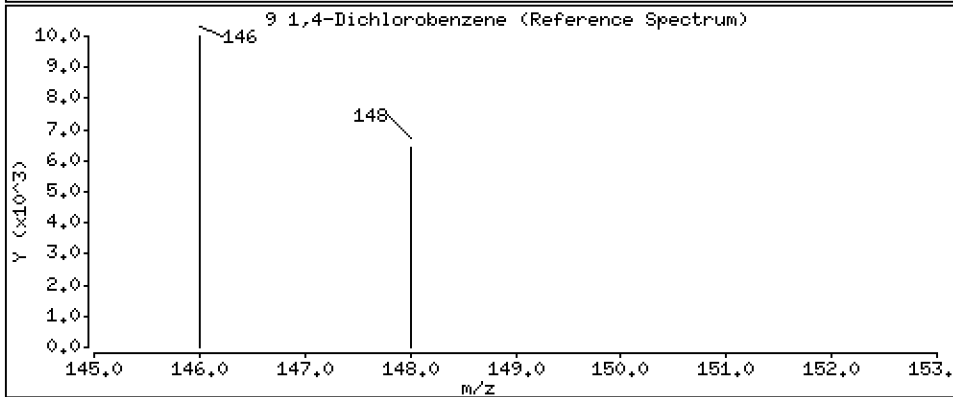
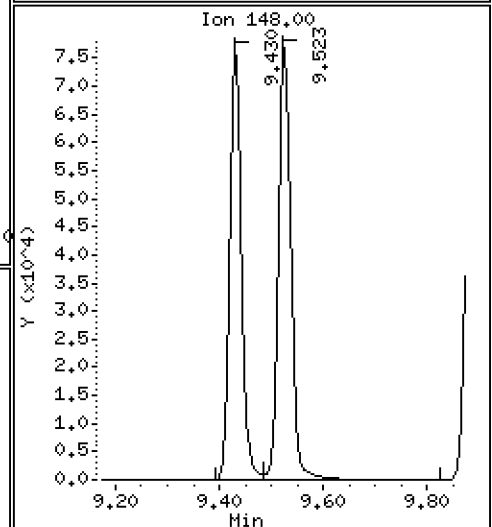
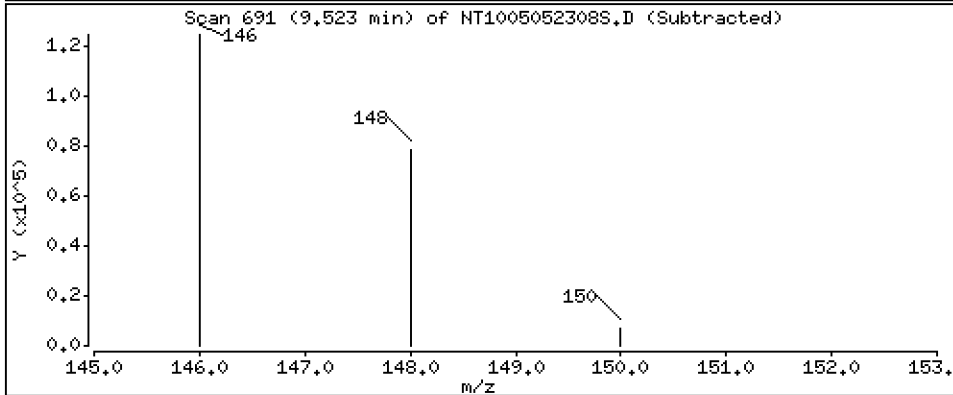
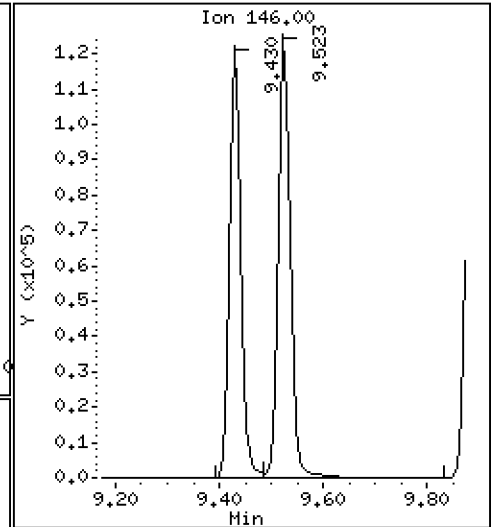
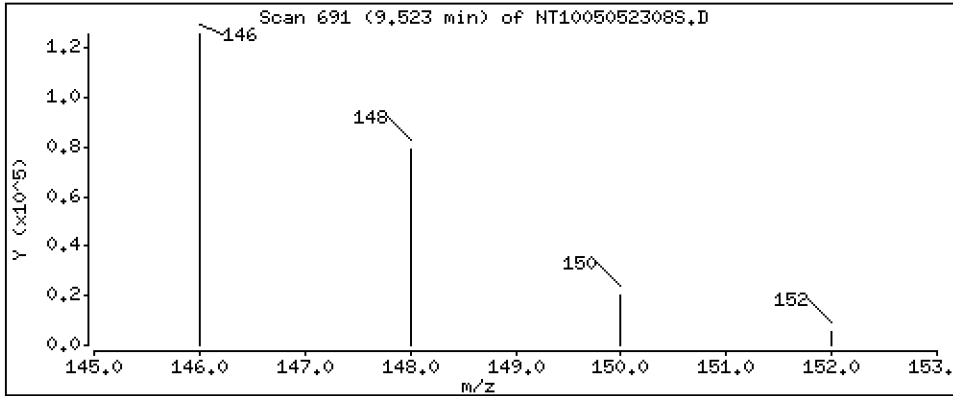
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 2,979 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

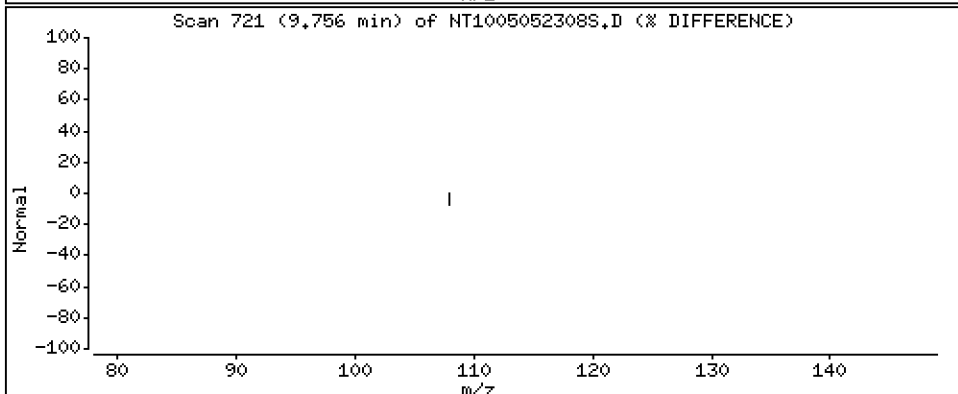
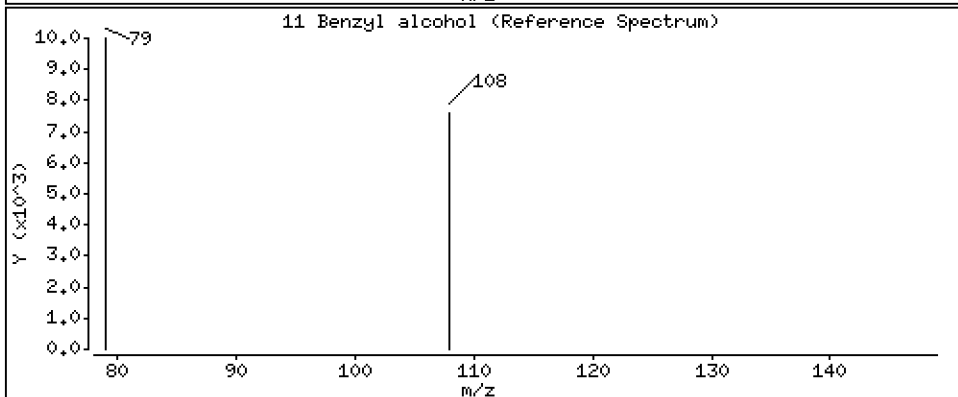
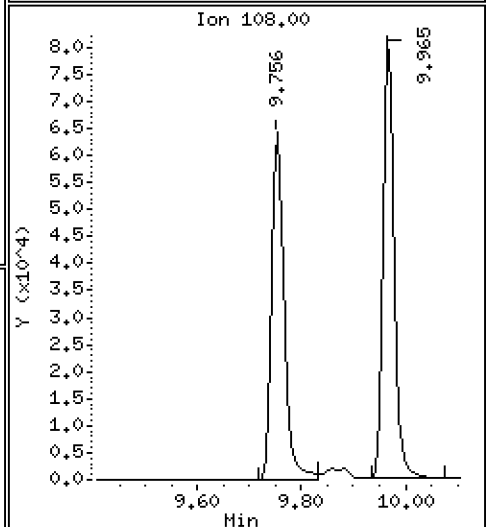
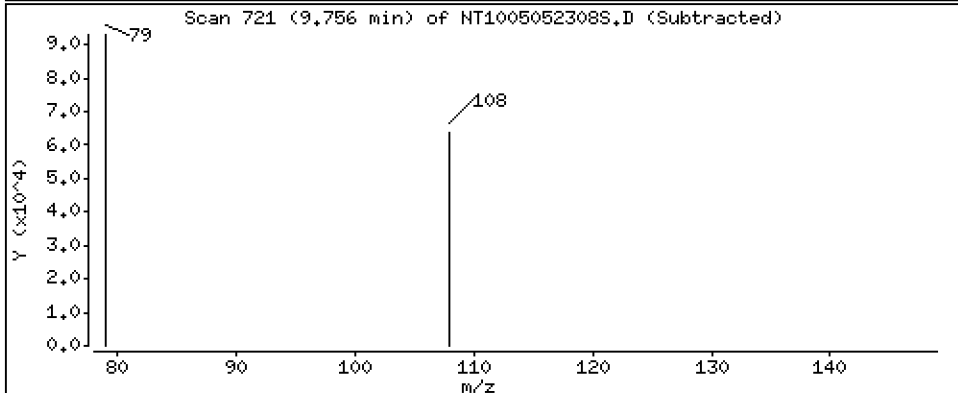
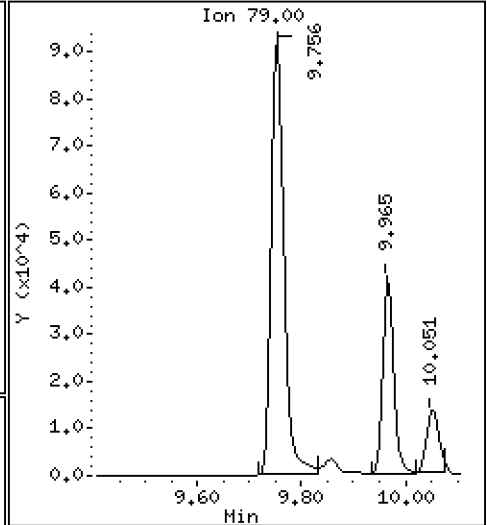
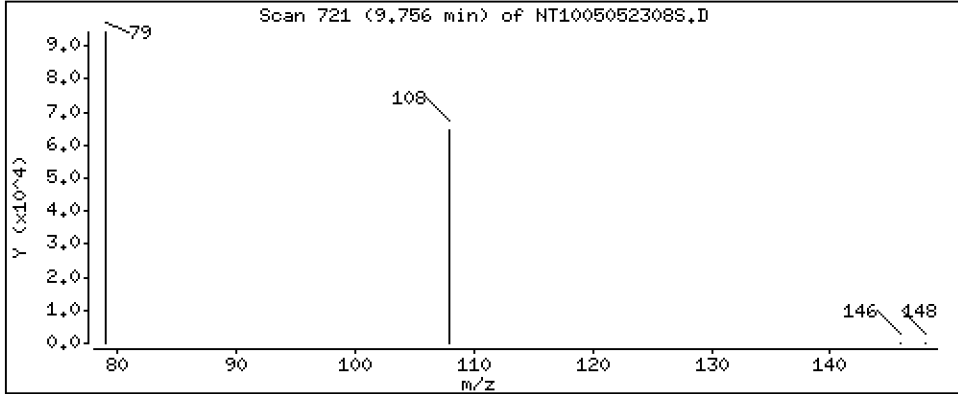
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 3,512 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

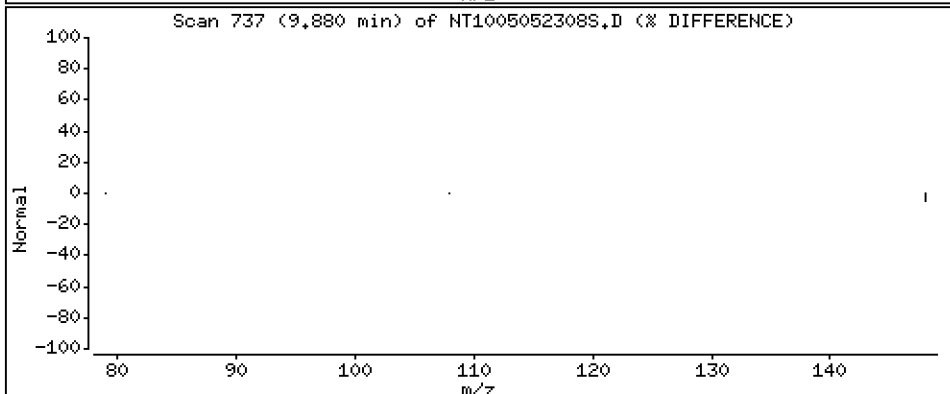
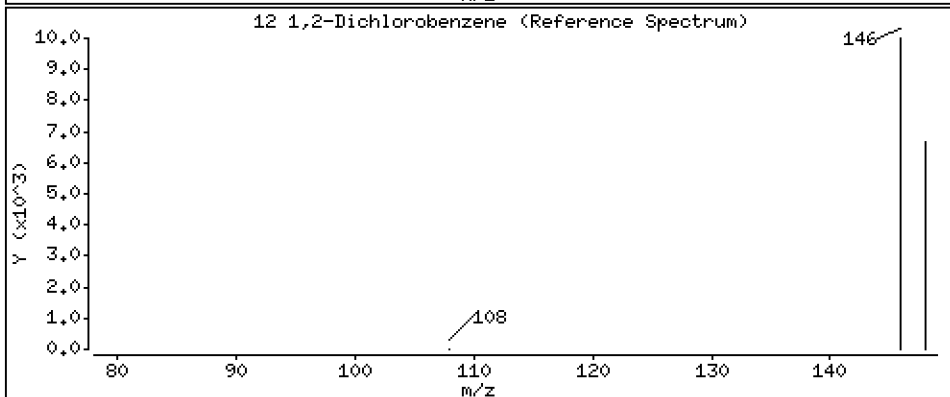
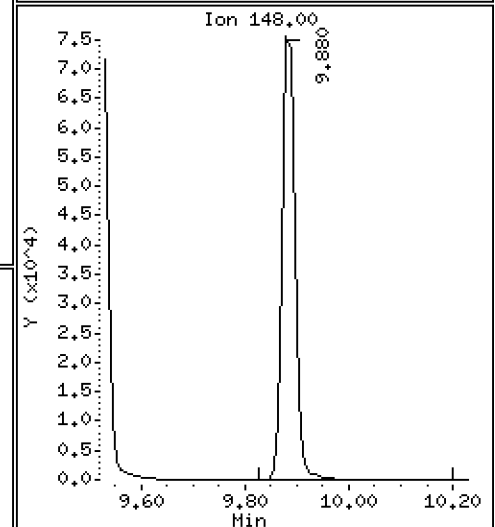
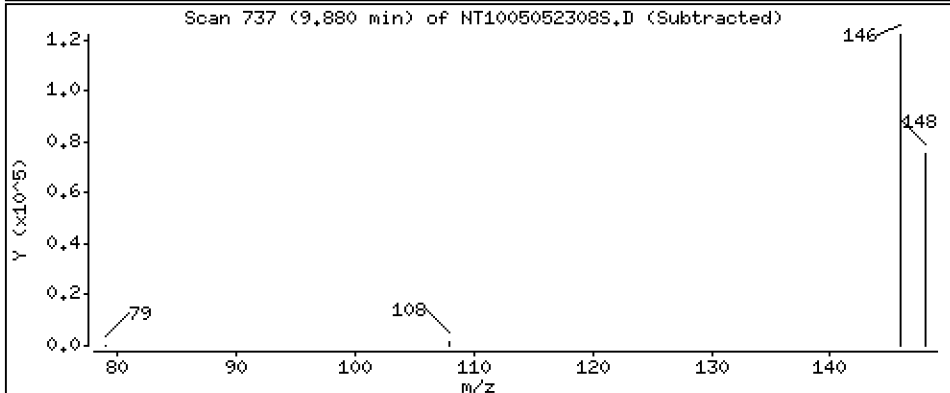
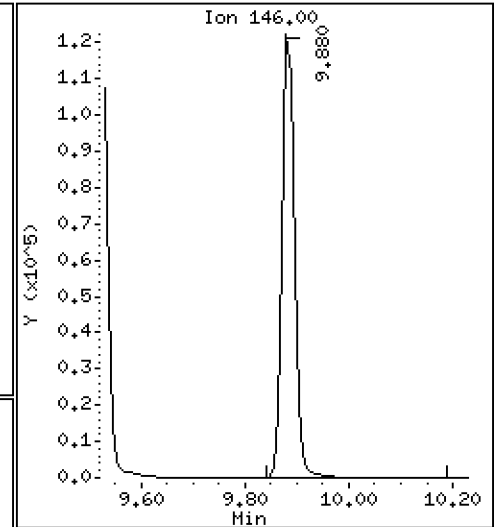
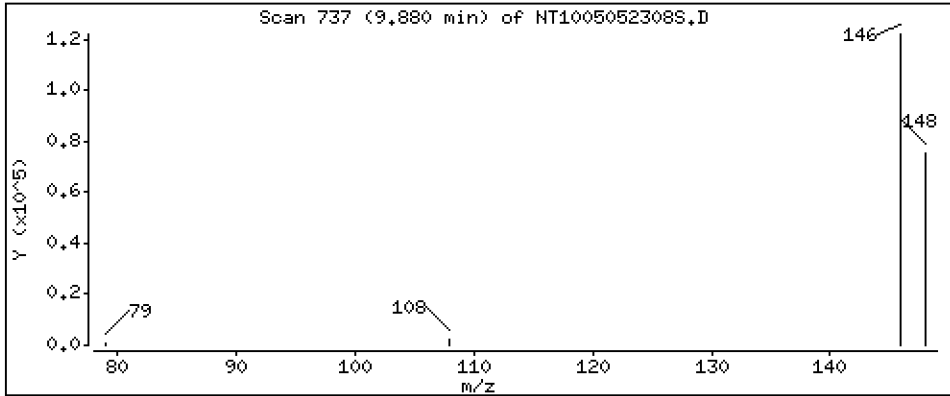
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 3.046 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

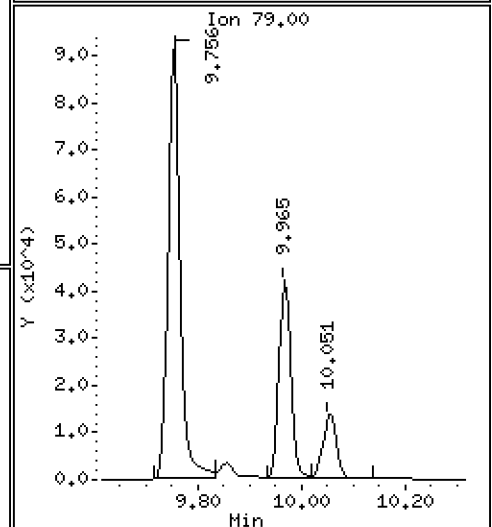
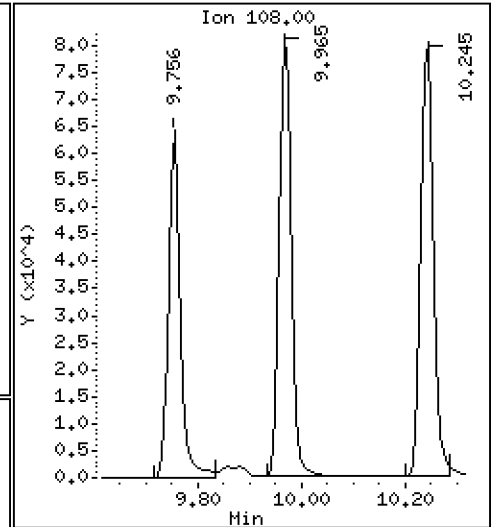
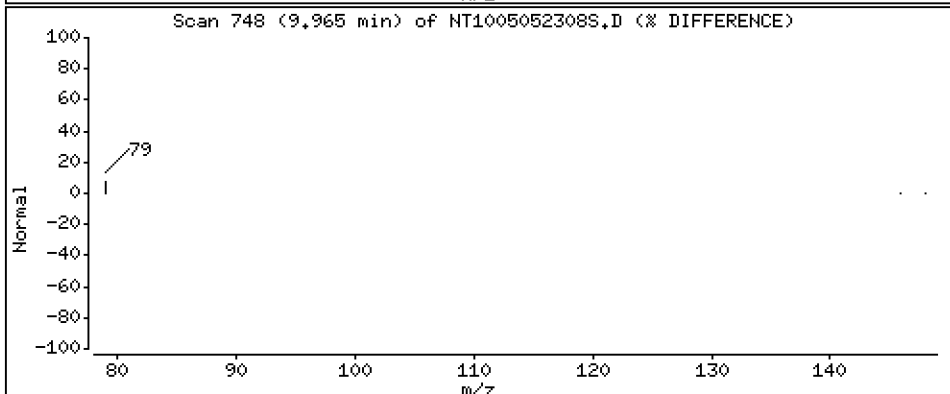
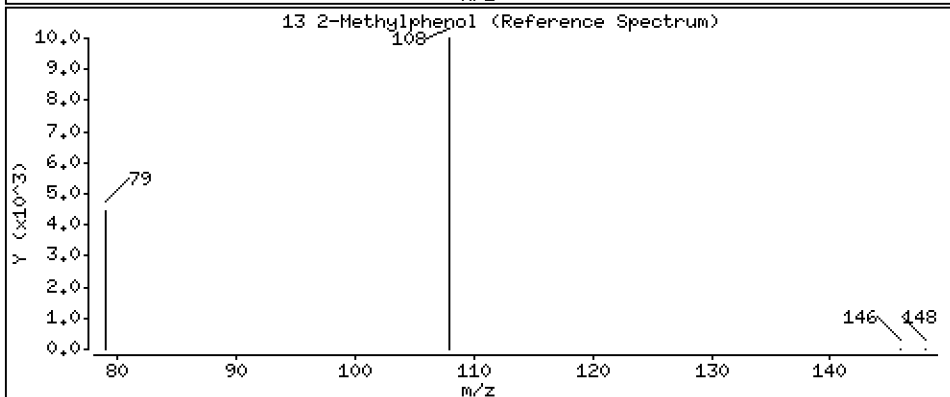
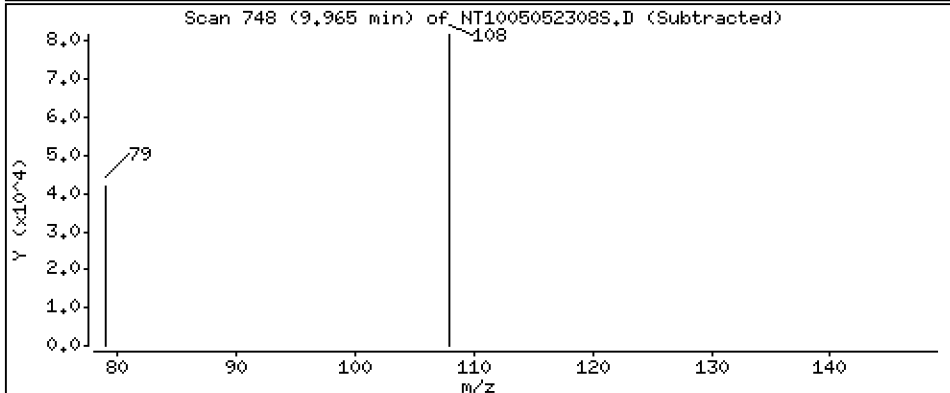
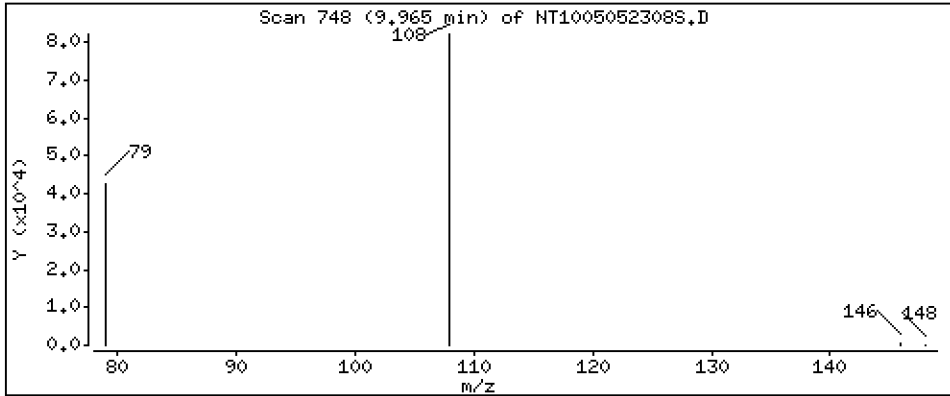
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 2,699 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

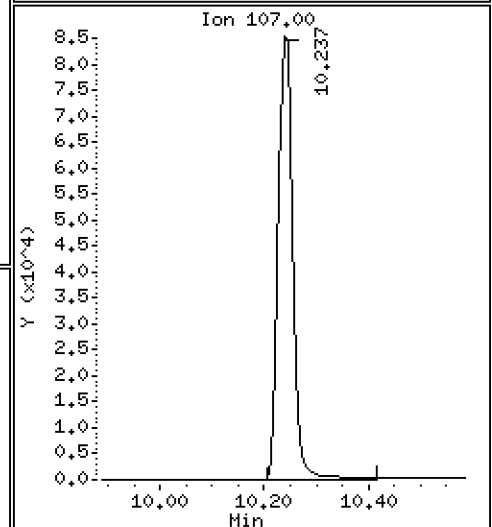
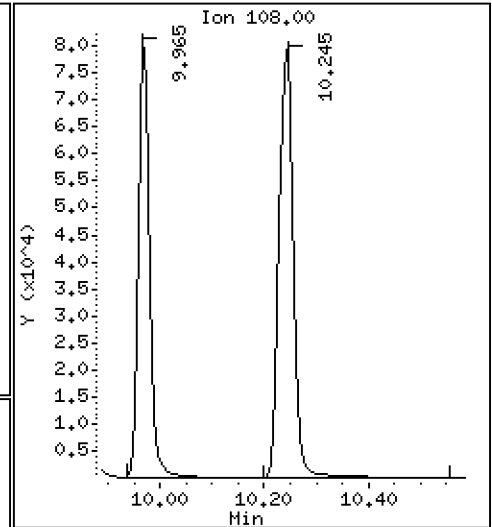
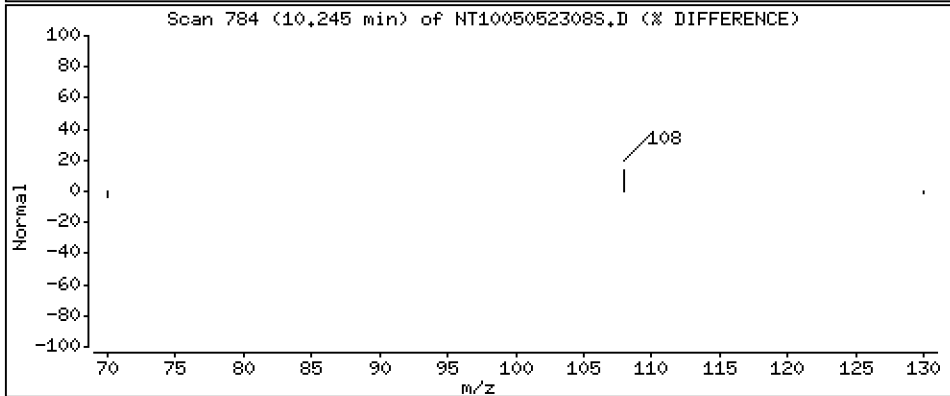
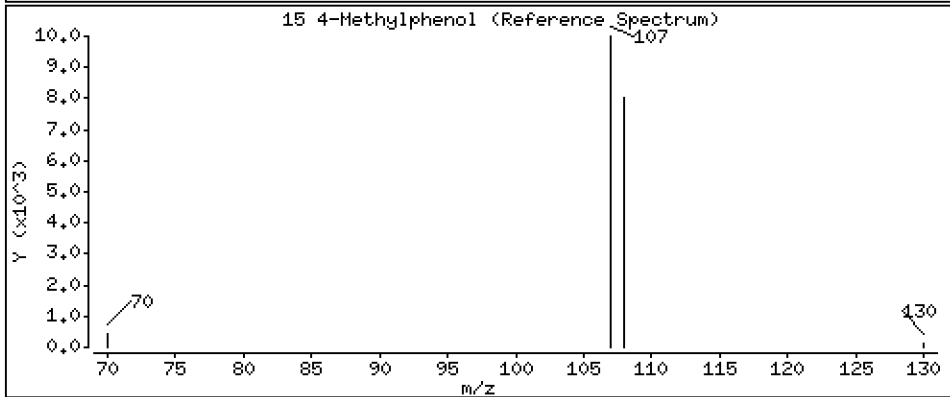
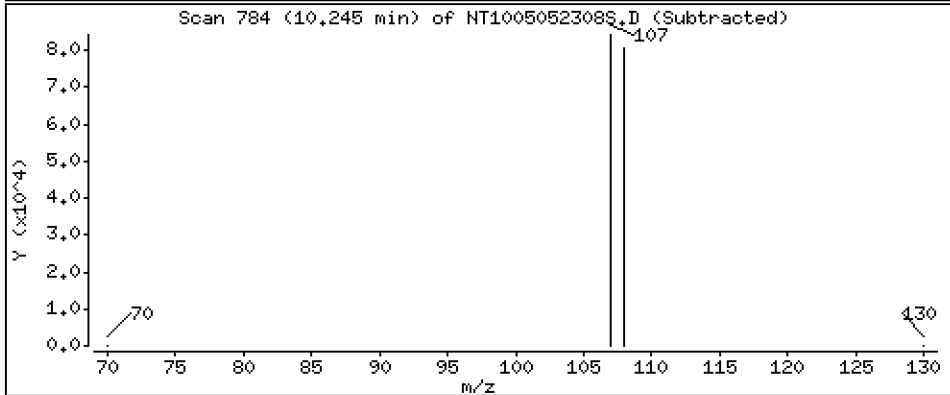
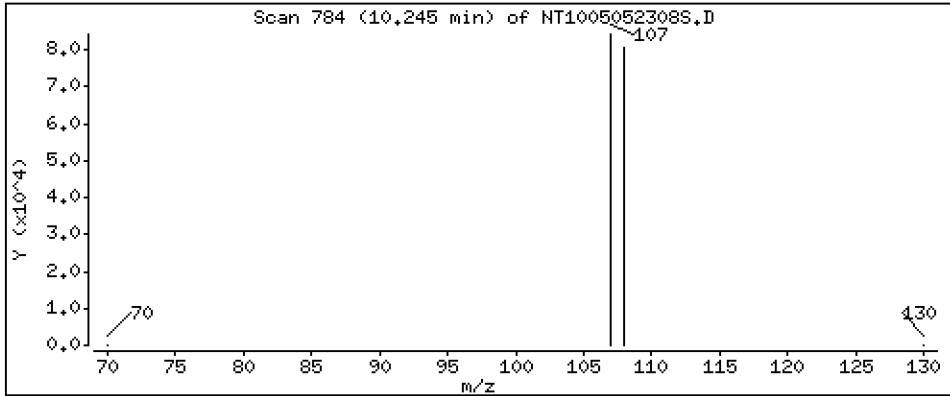
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 2,991 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

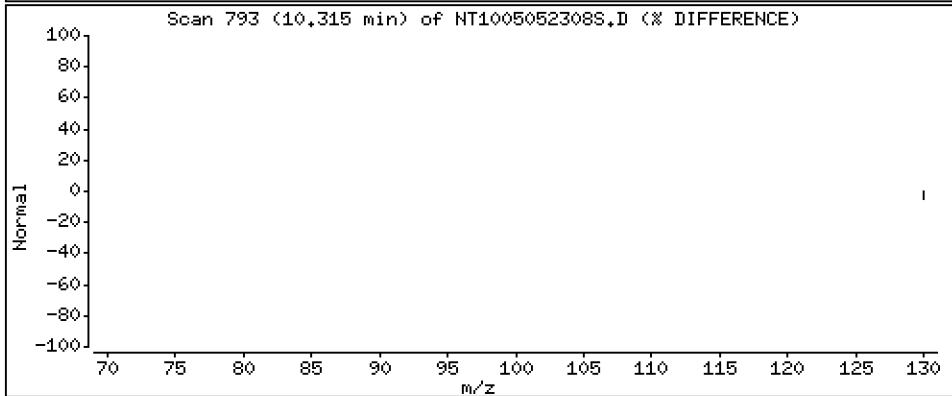
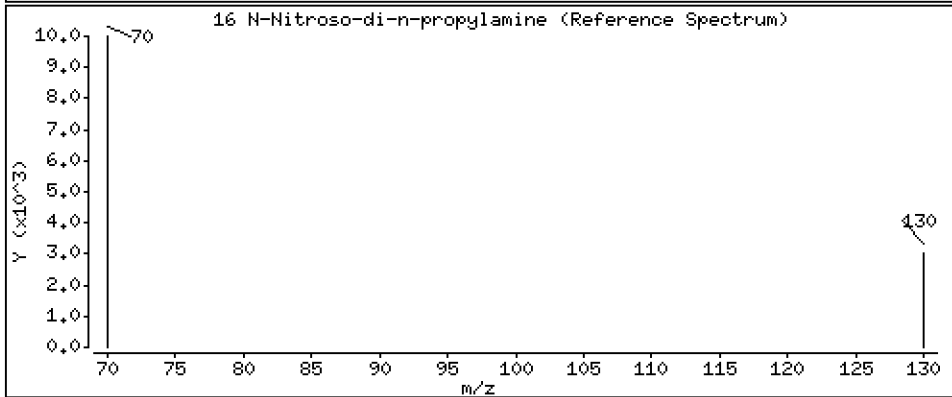
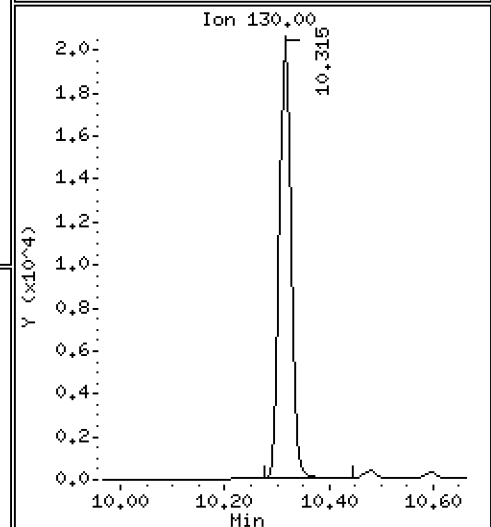
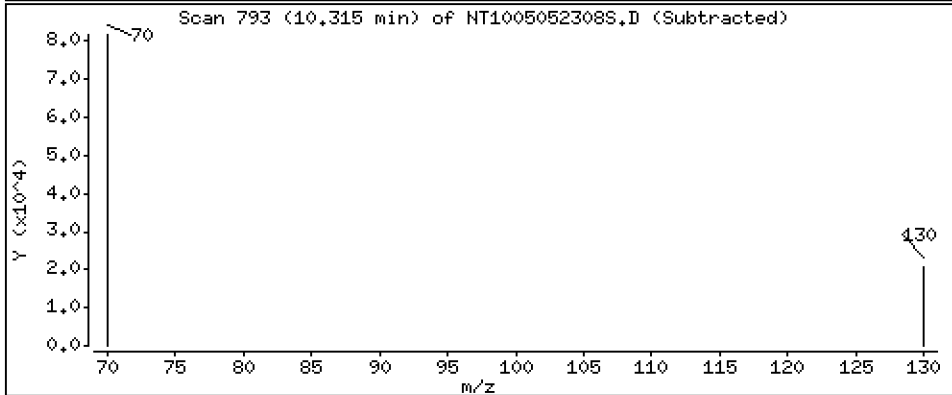
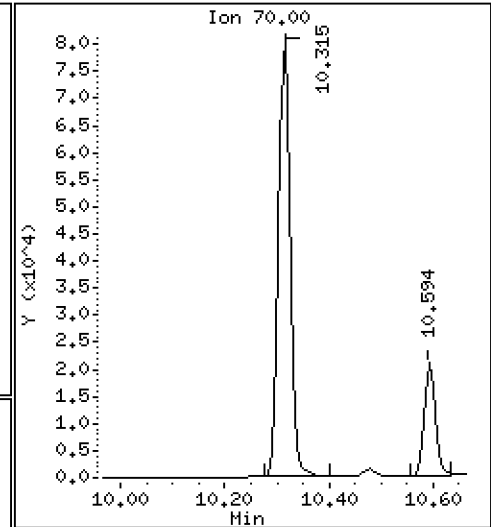
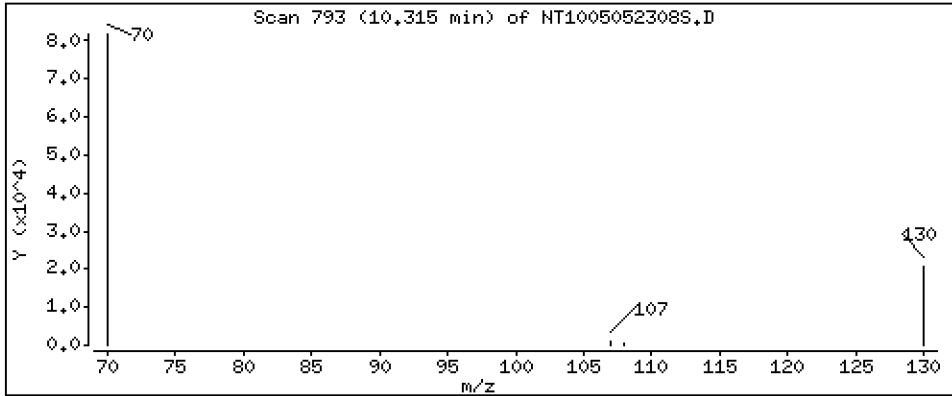
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 3,361 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

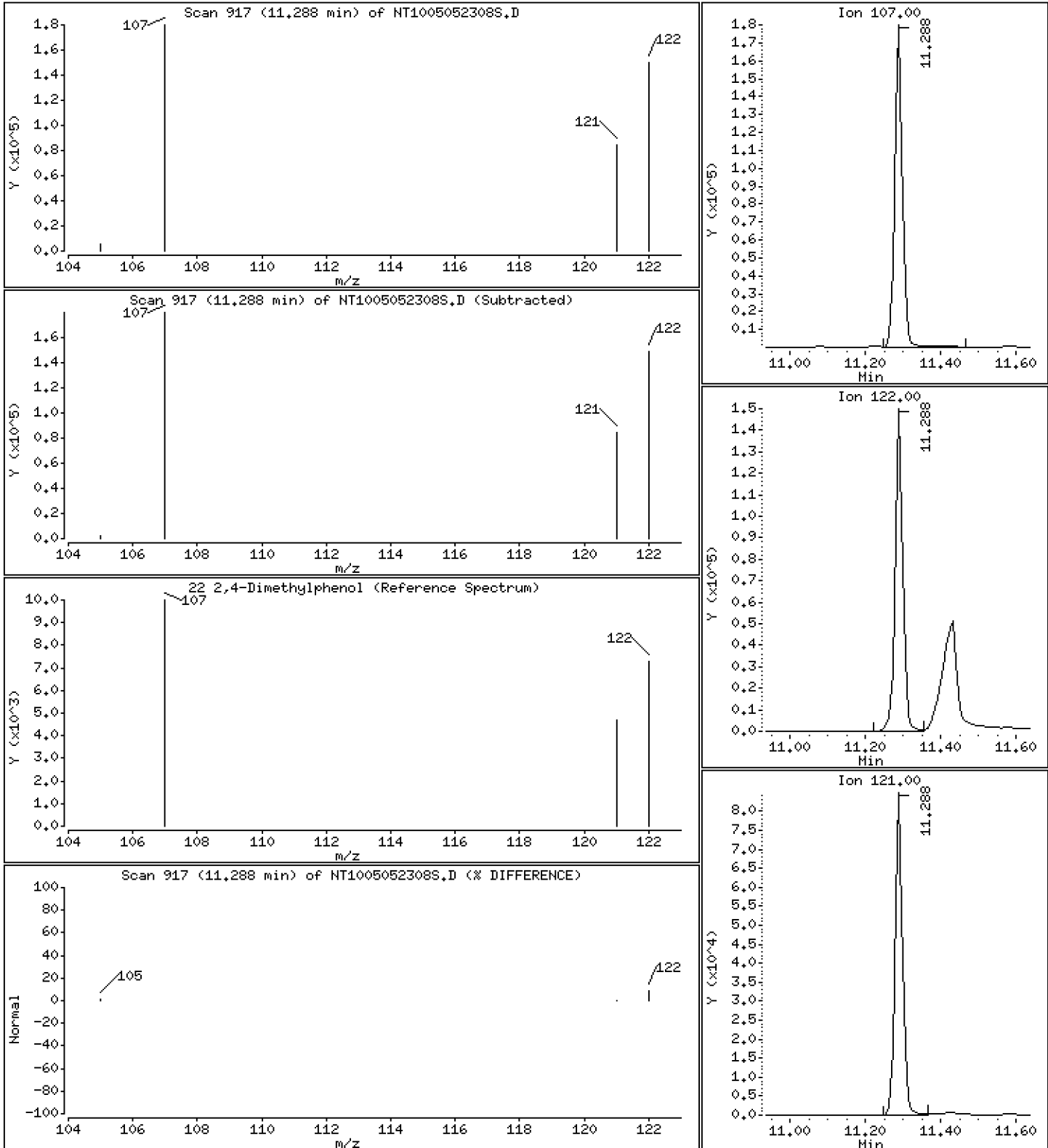
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 4.324 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

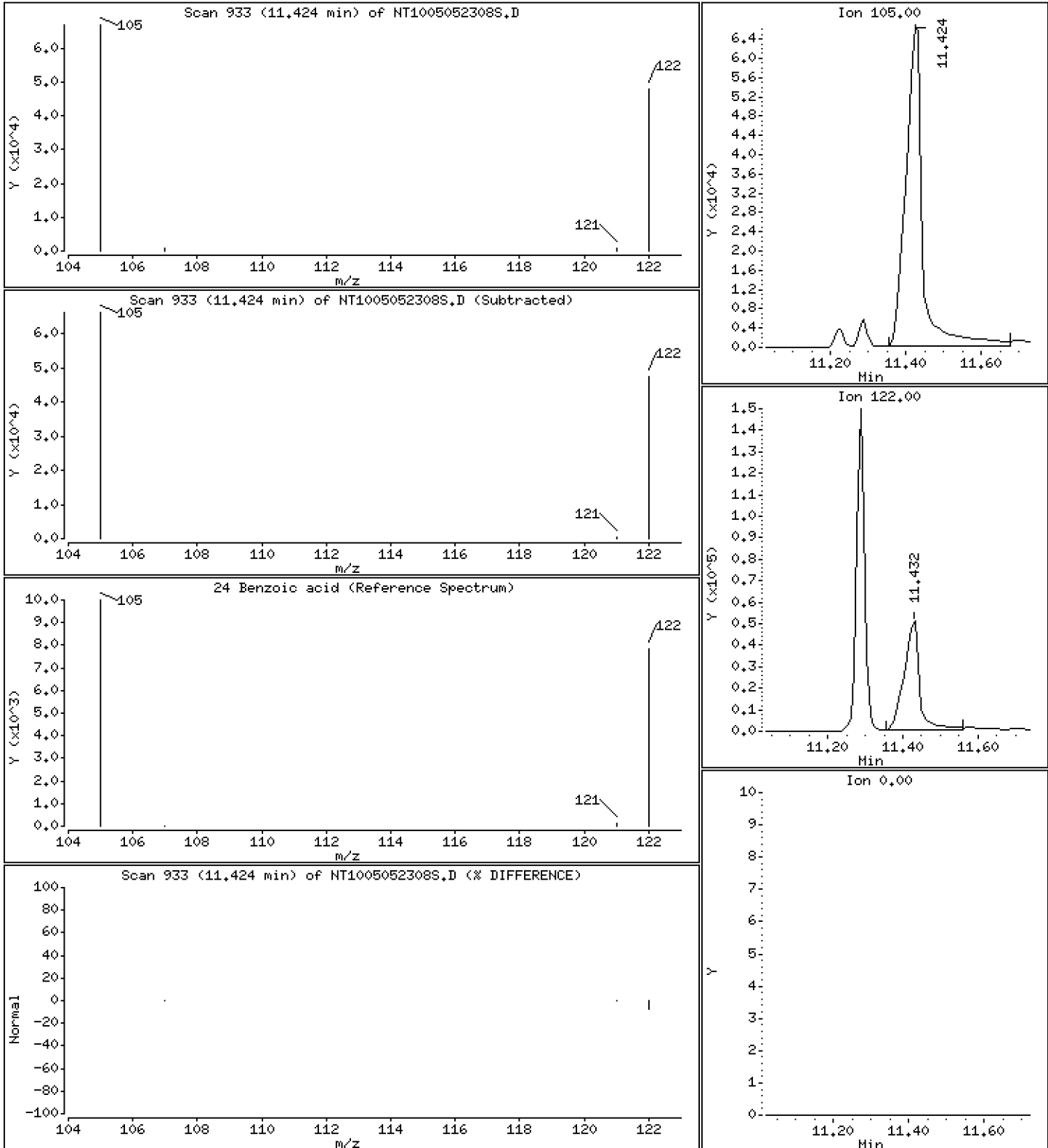
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 5,186 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

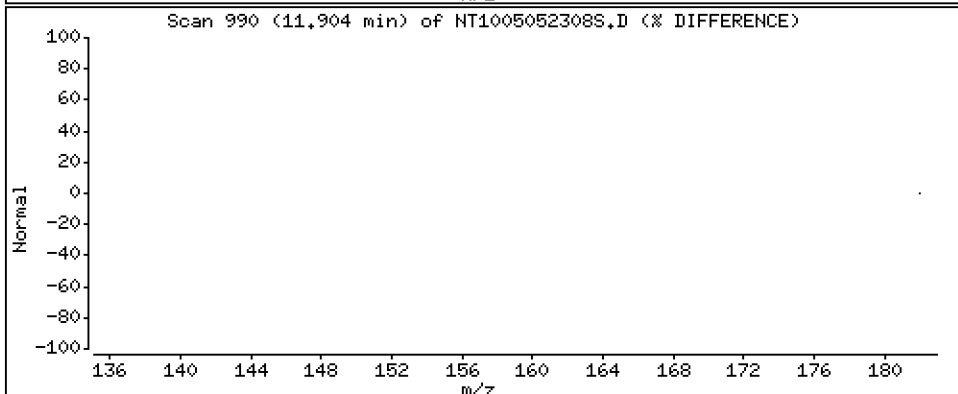
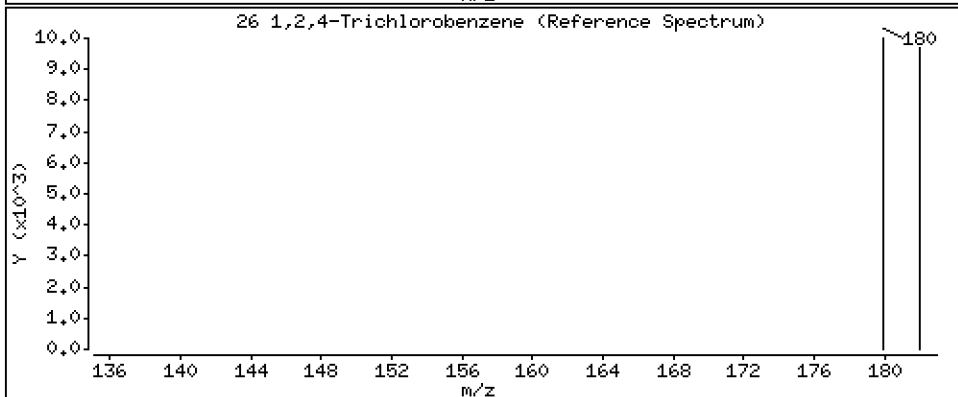
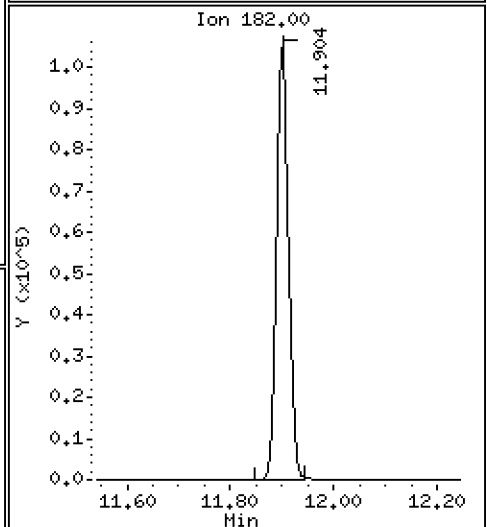
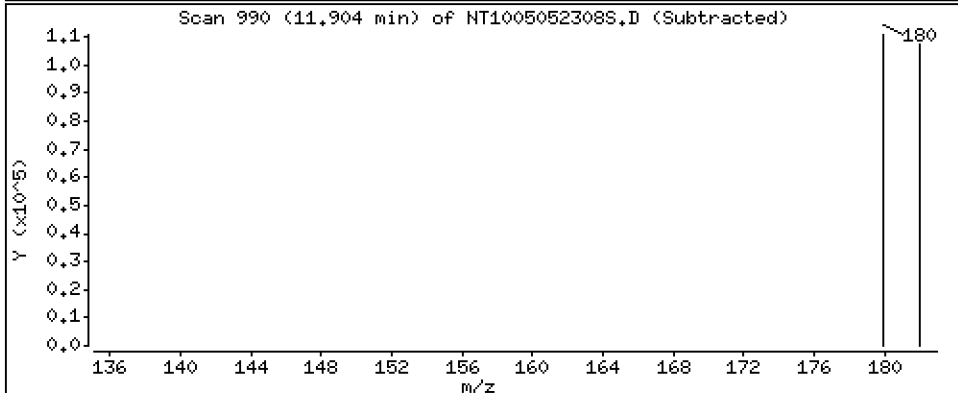
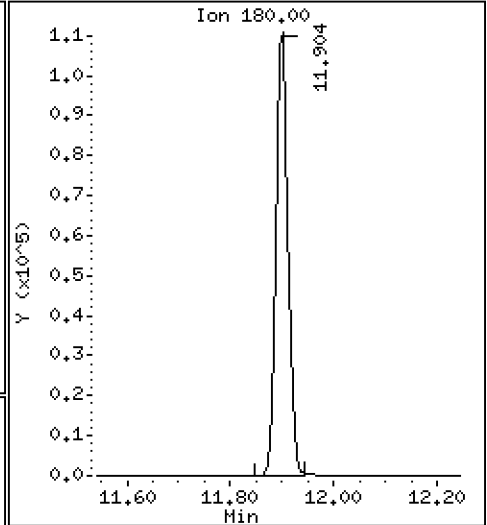
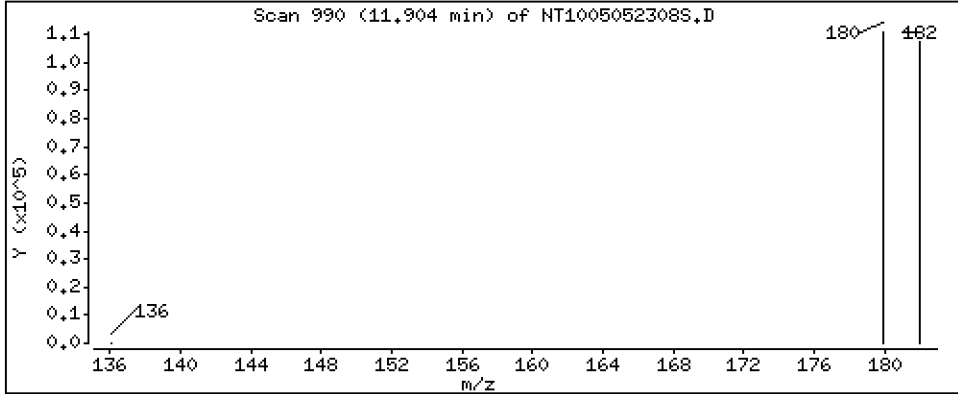
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 2,869 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

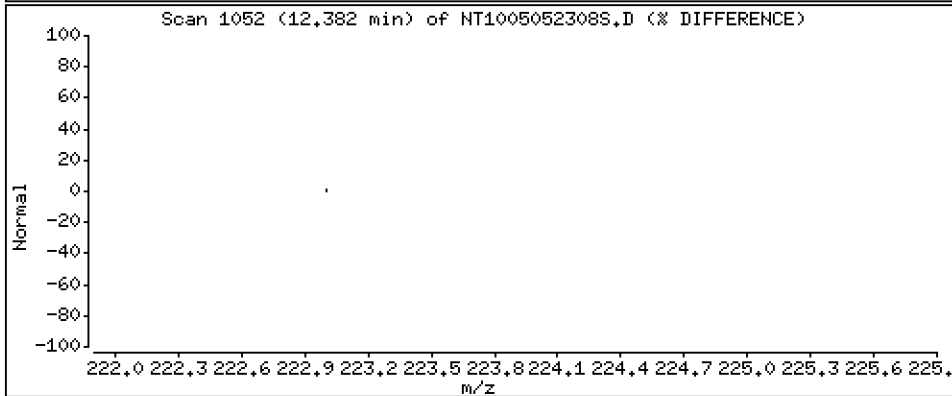
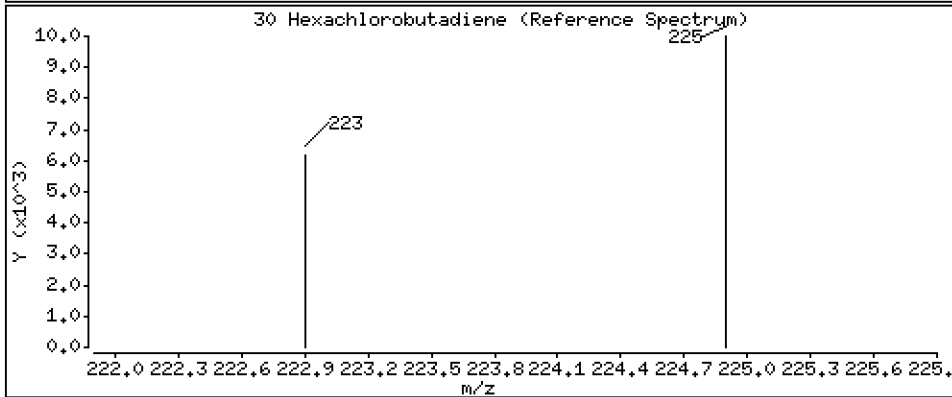
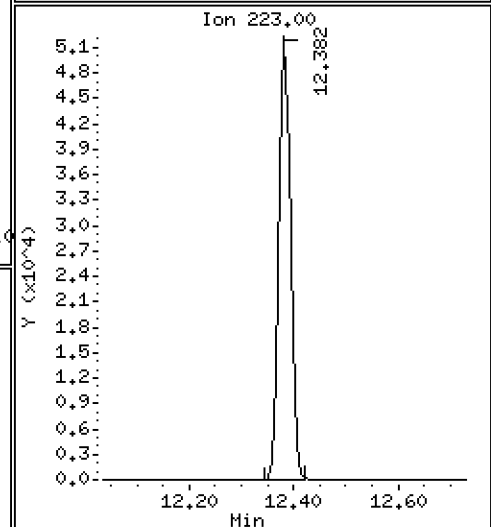
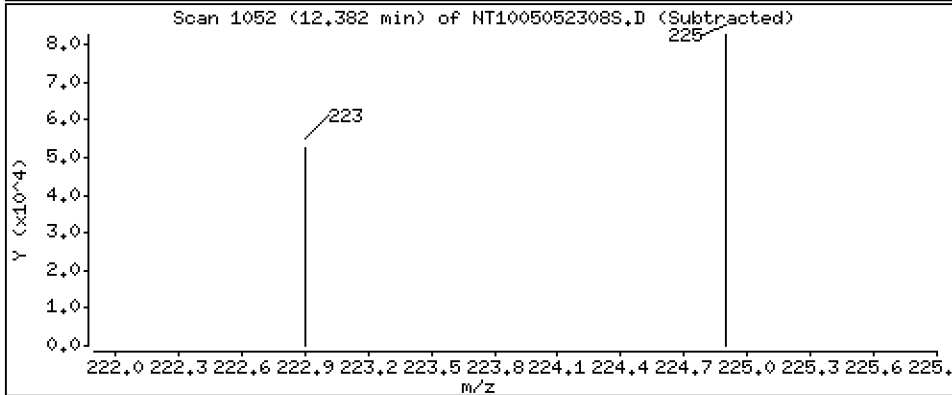
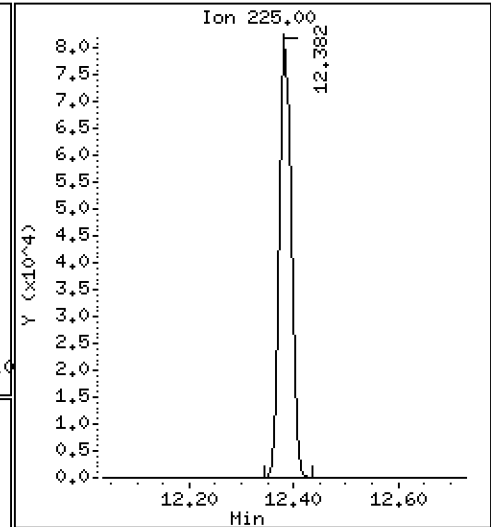
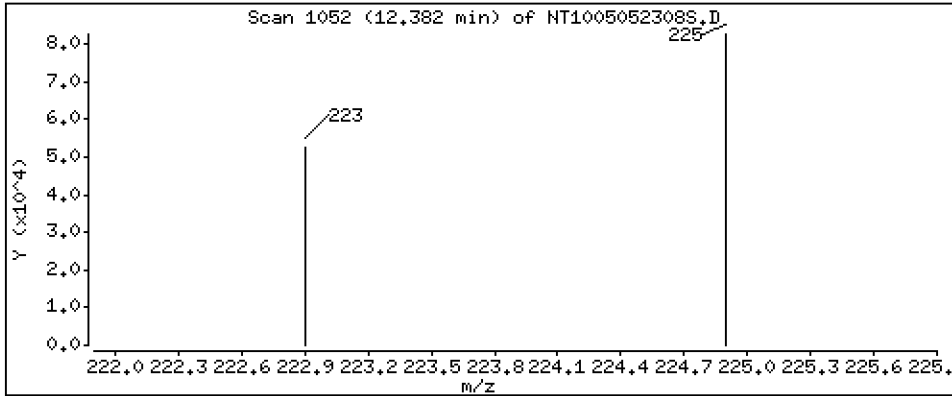
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,050 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

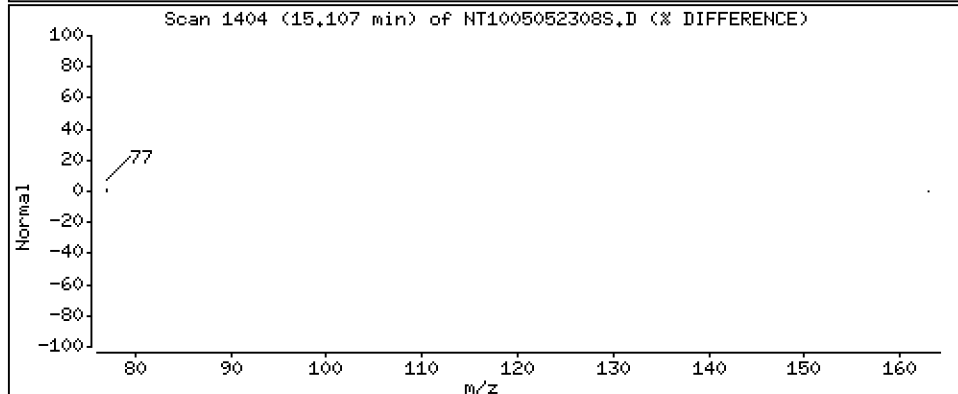
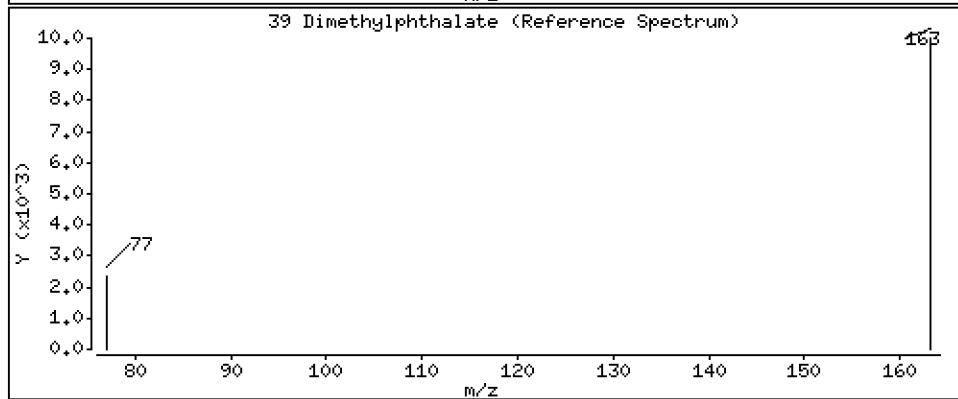
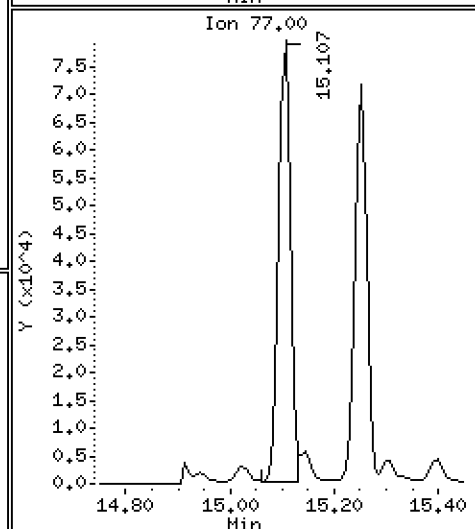
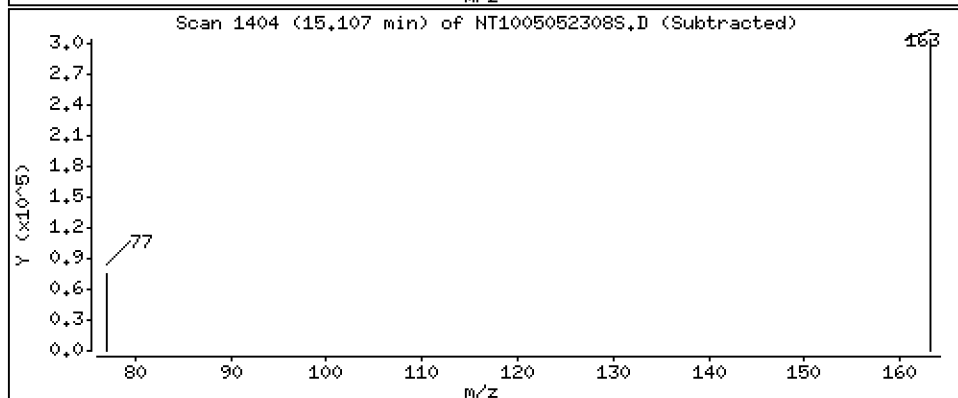
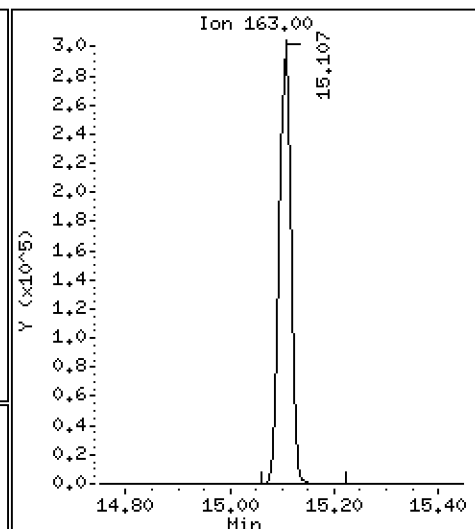
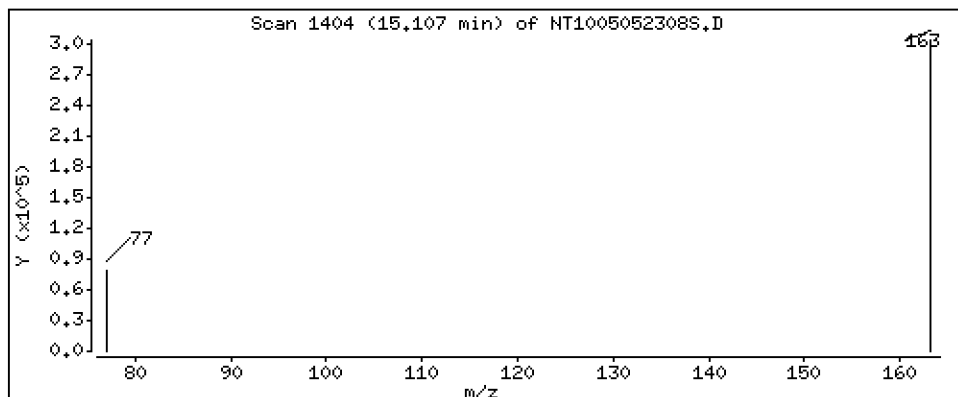
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 3,624 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

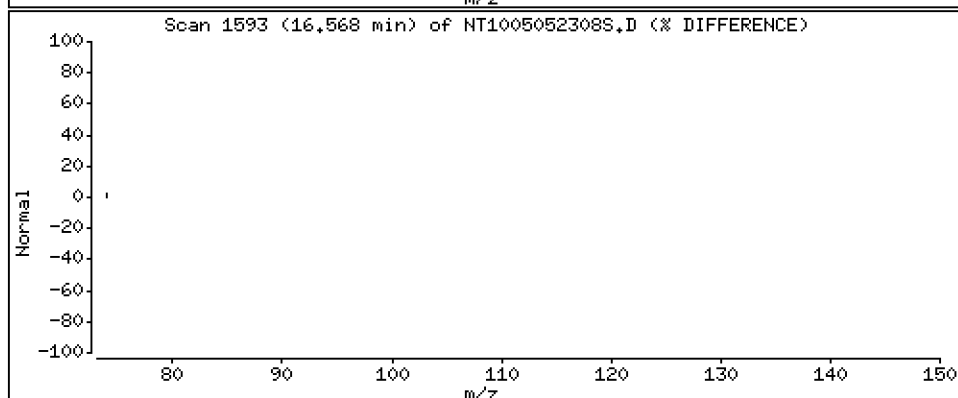
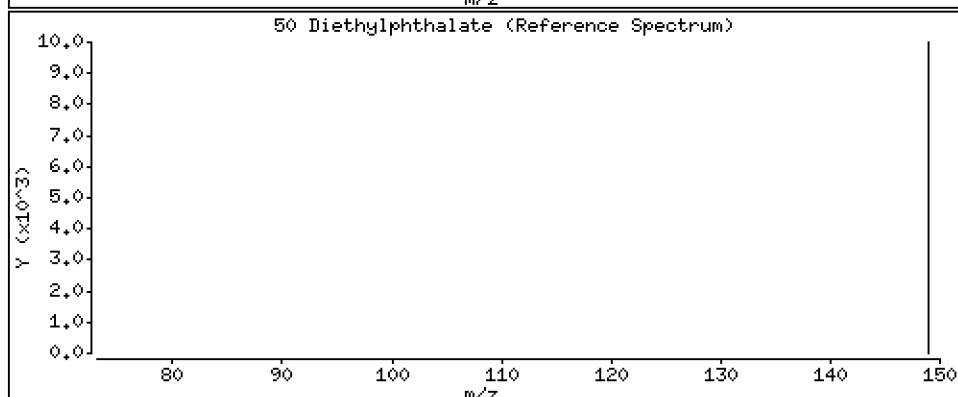
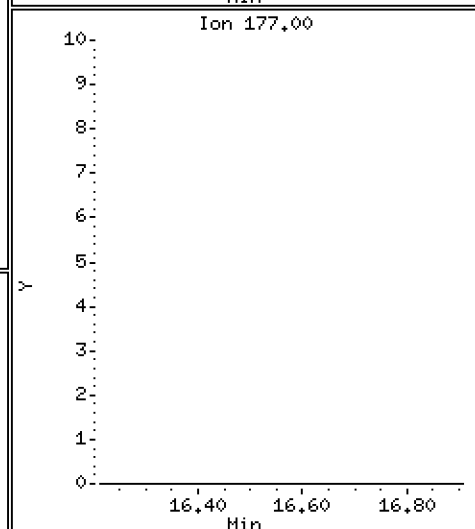
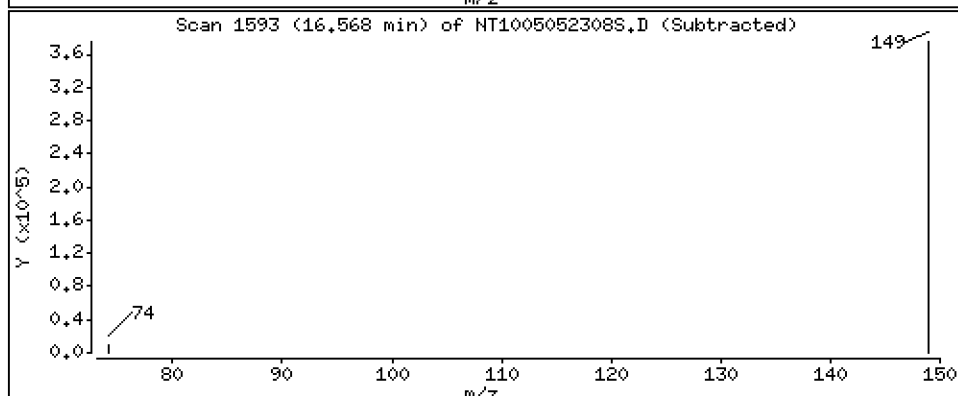
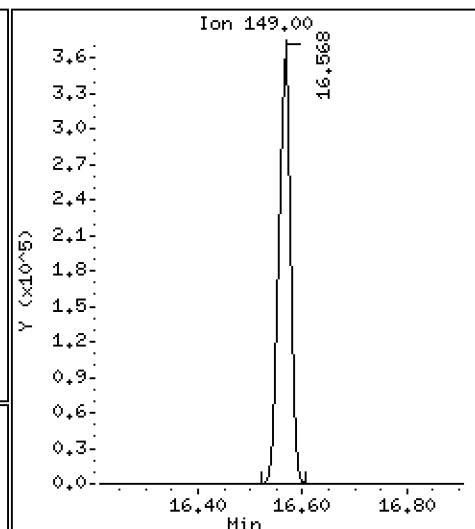
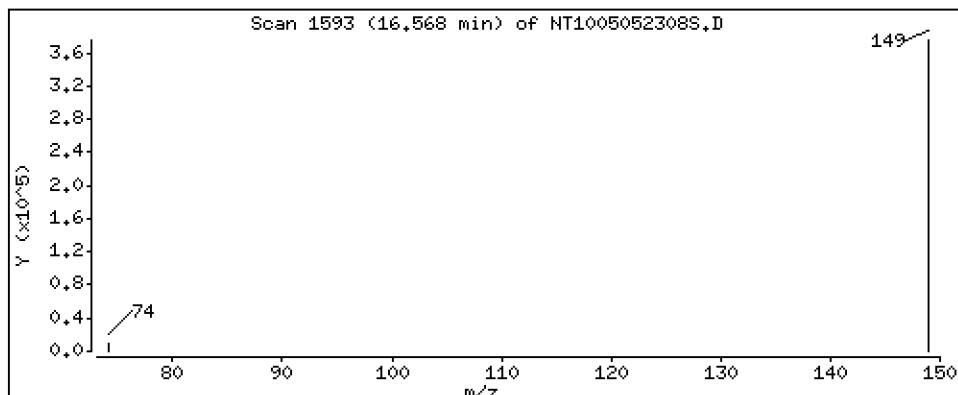
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,239 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

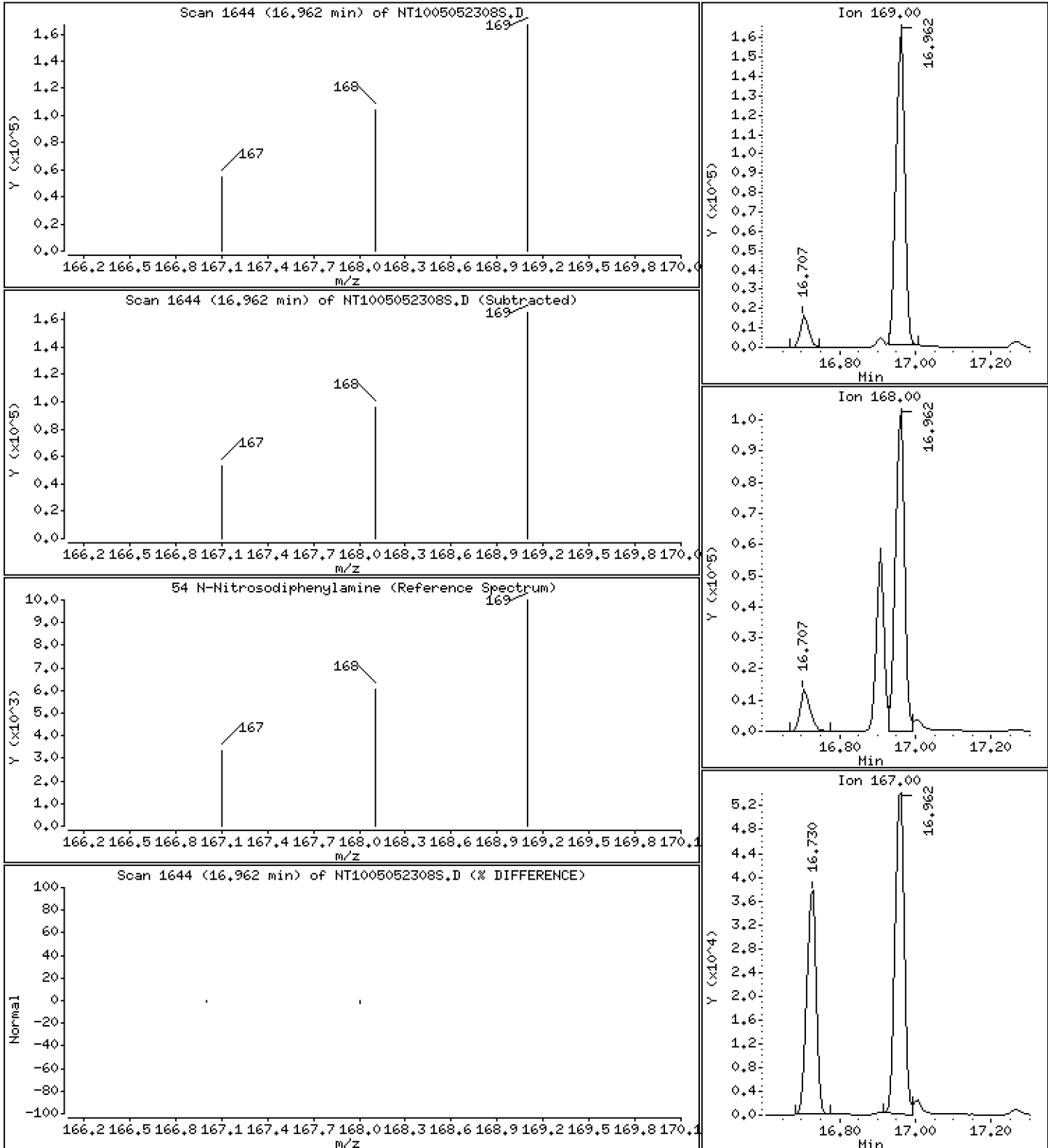
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 3.065 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

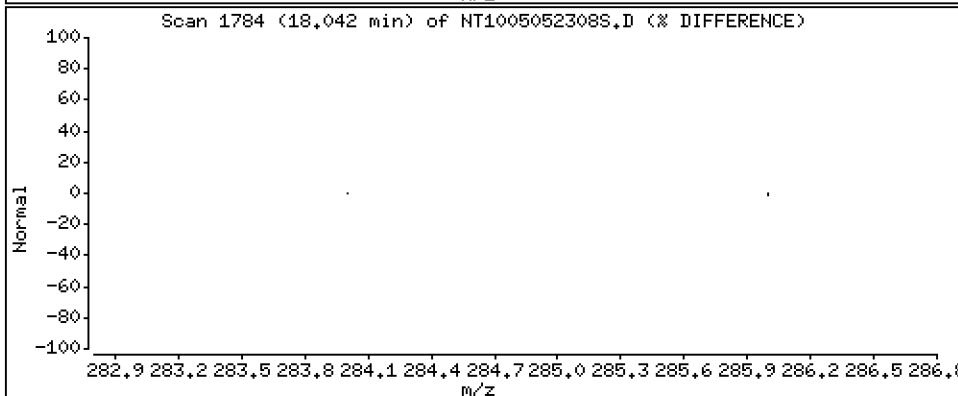
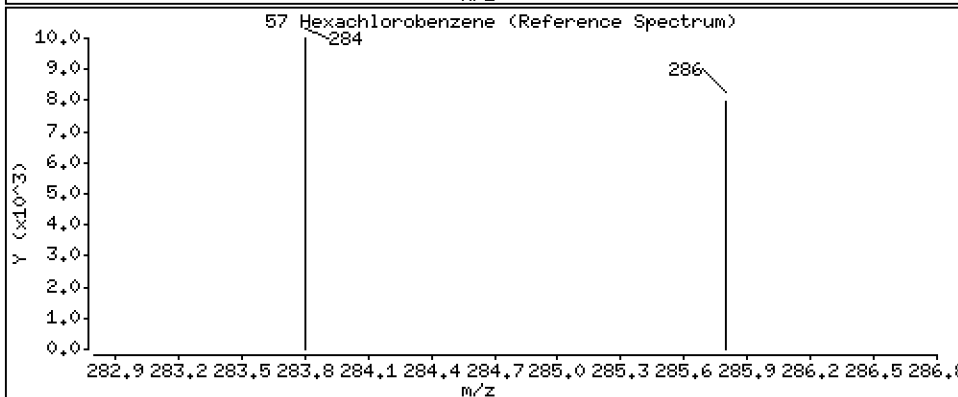
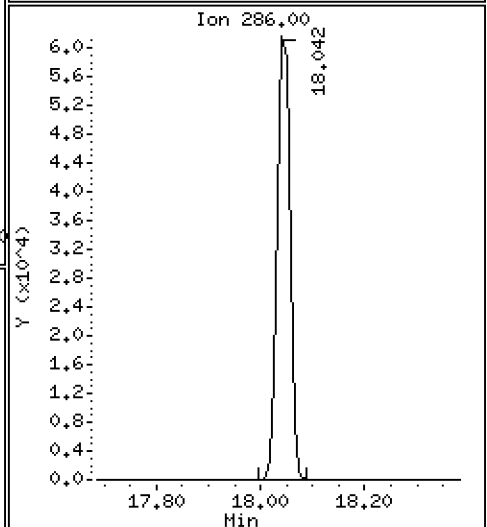
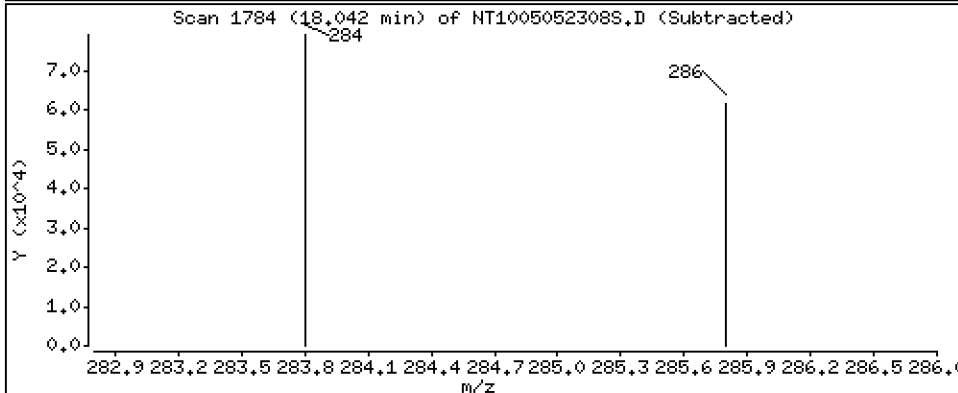
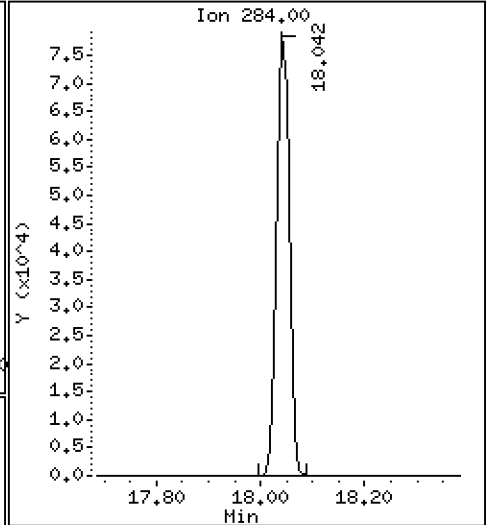
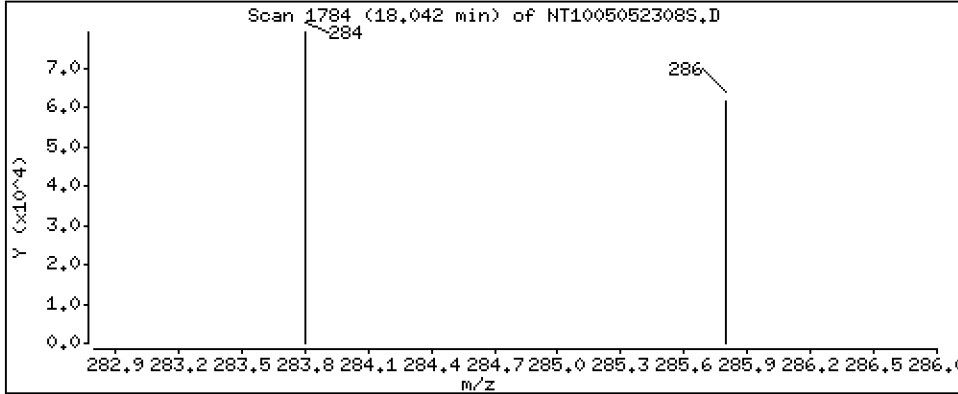
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 3,149 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

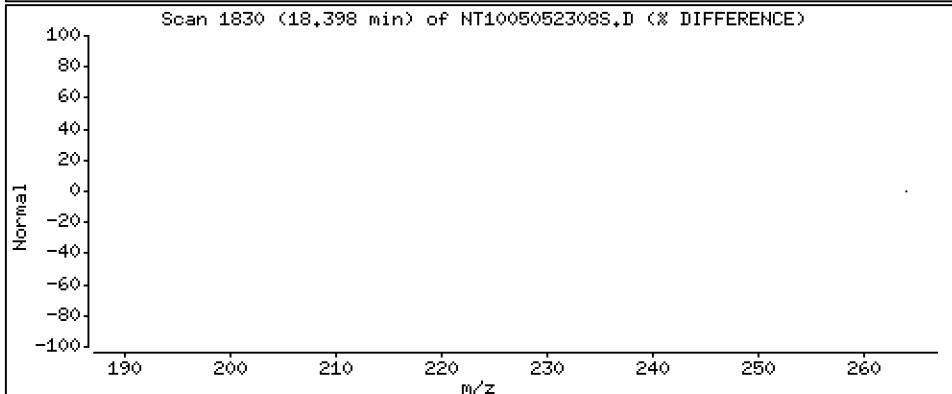
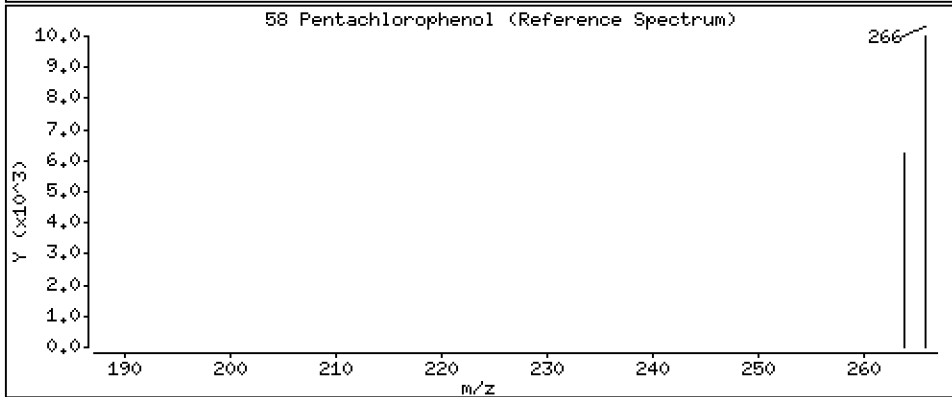
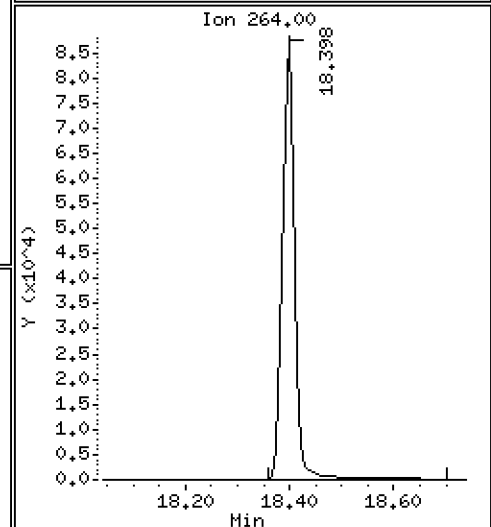
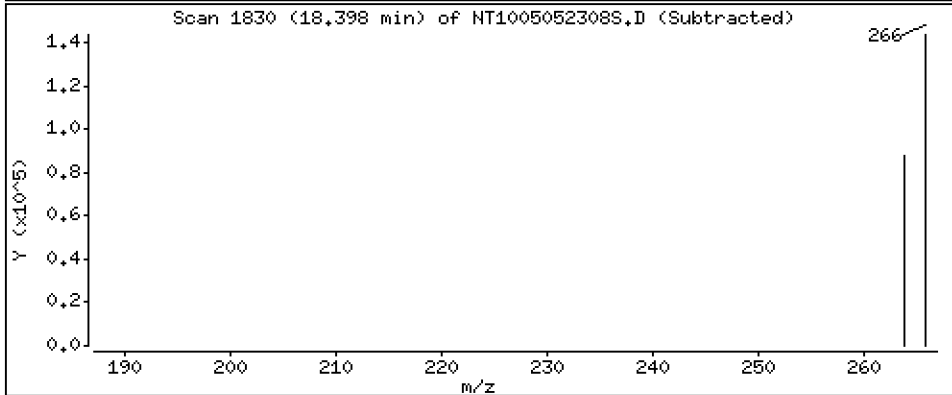
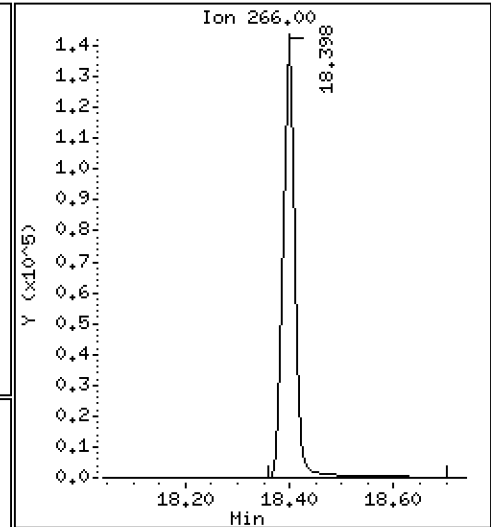
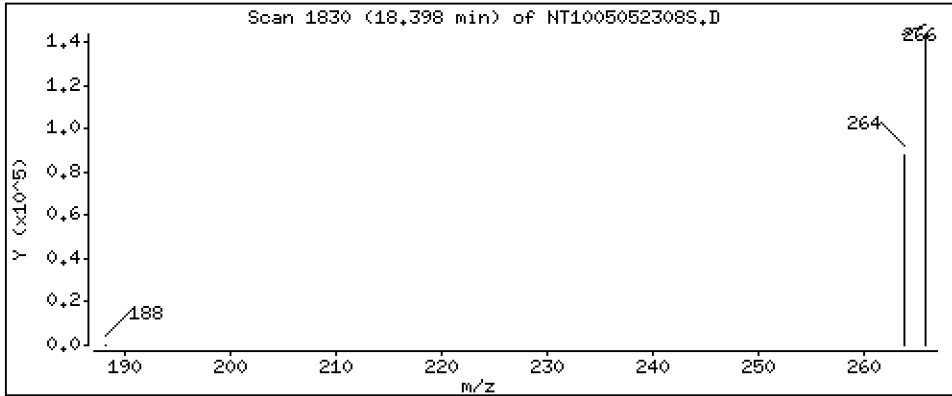
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 8,516 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

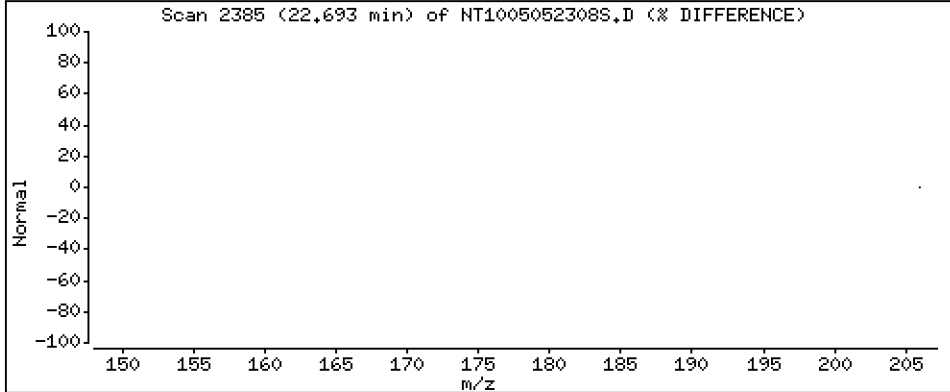
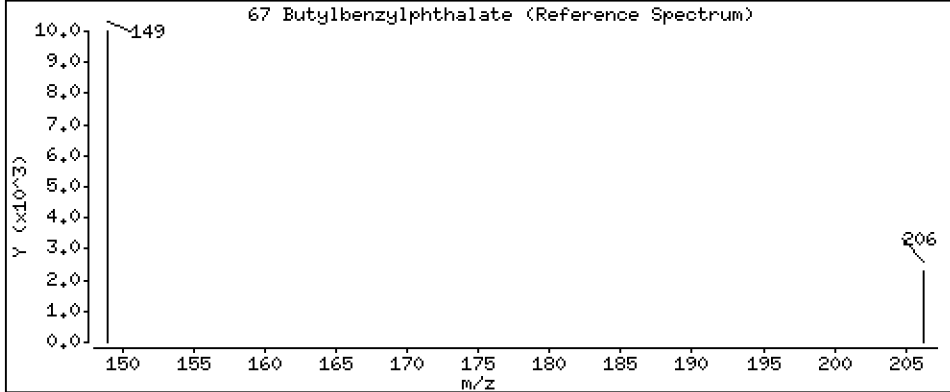
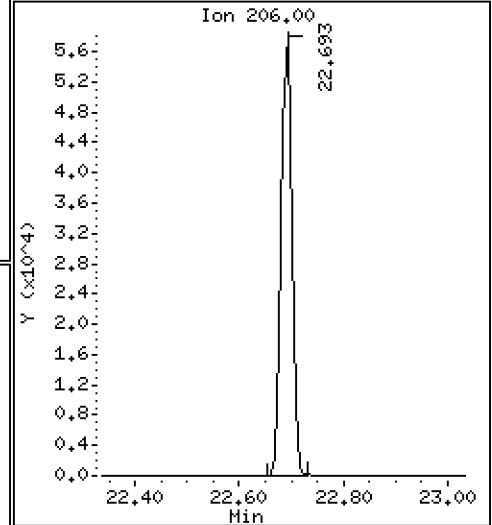
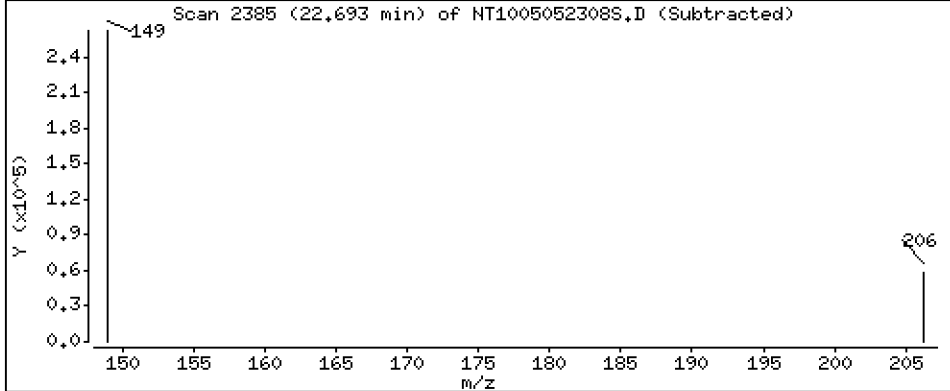
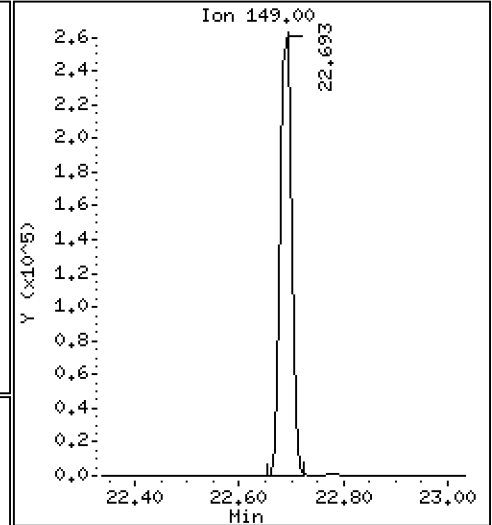
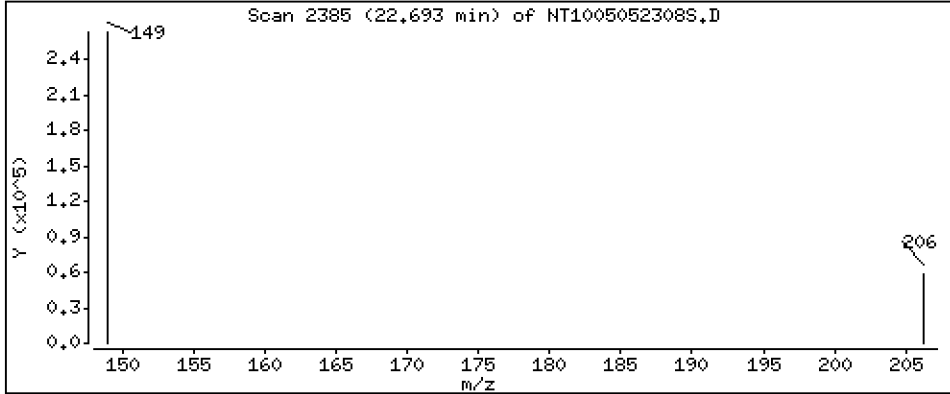
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 3,885 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

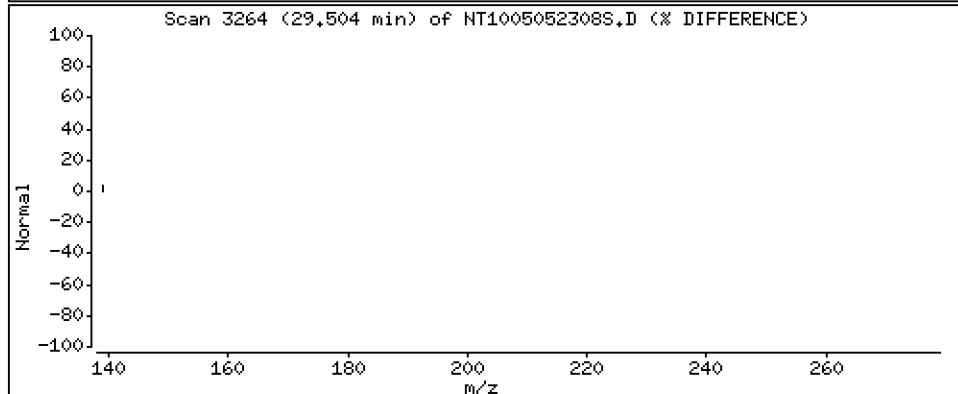
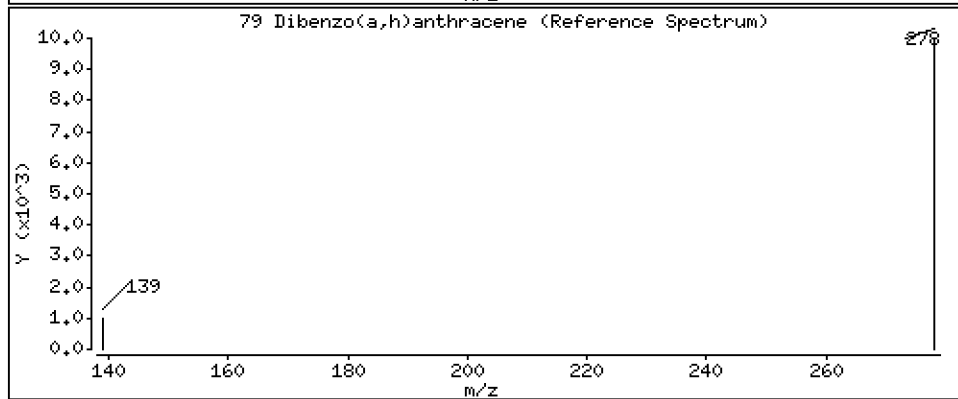
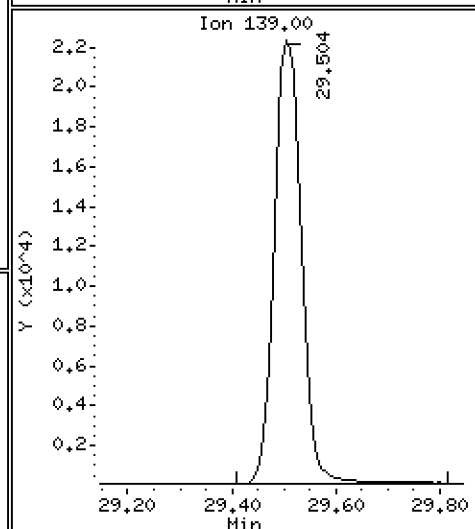
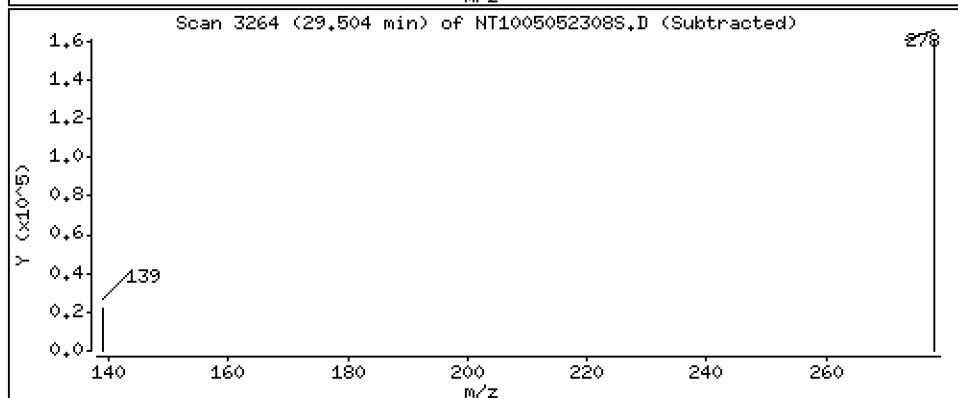
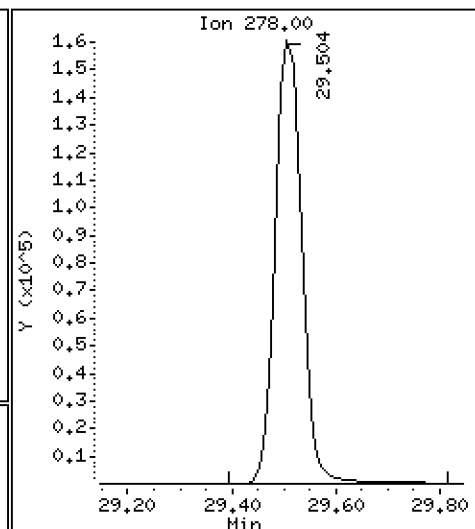
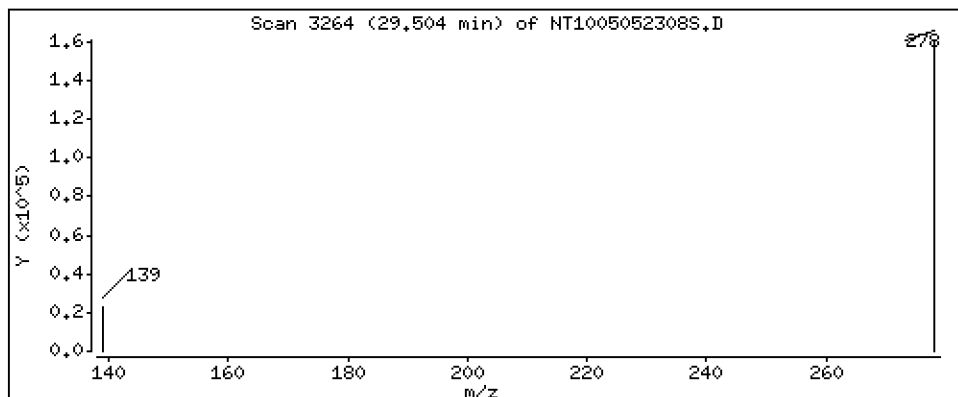
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,880 ug/L



Date : 05-MAY-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BS2

Volume Injected (uL): 1.0

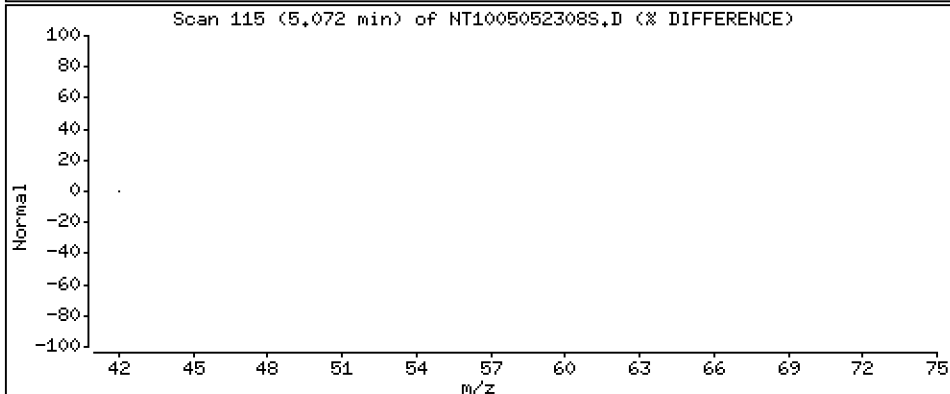
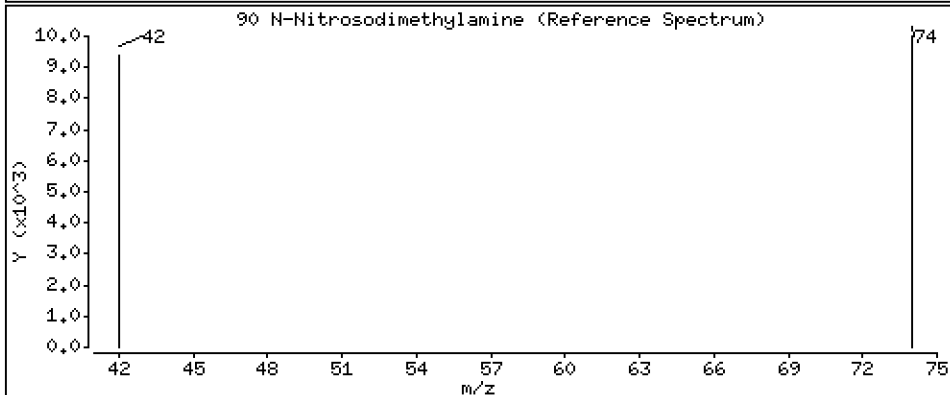
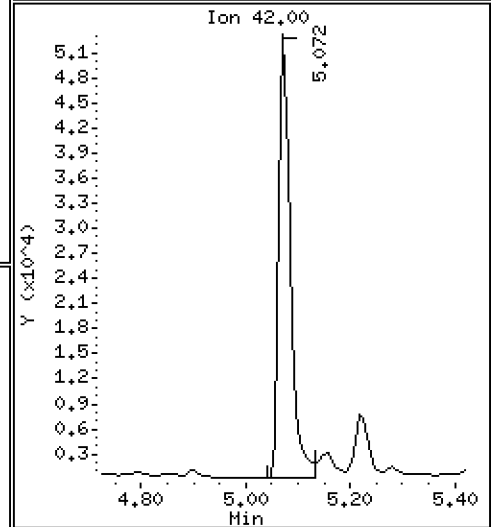
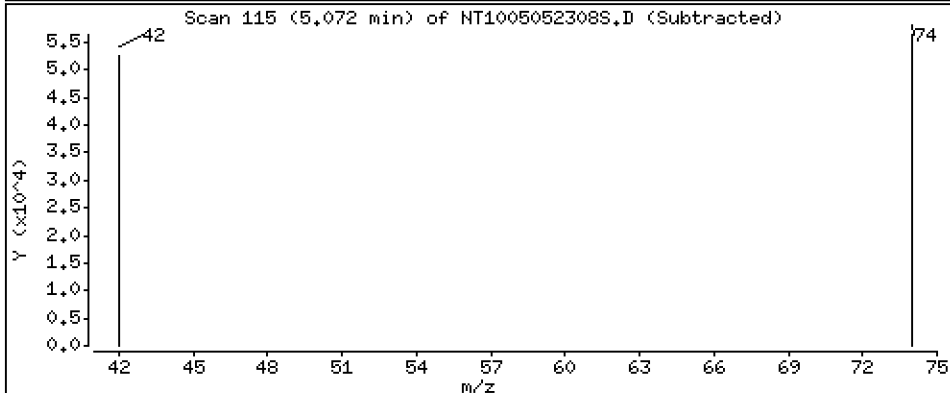
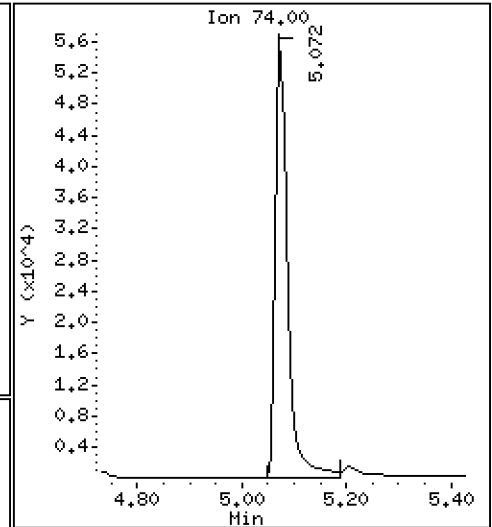
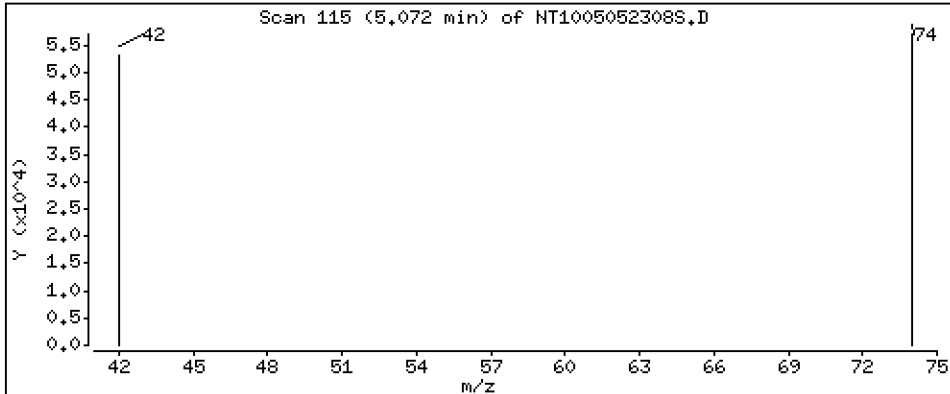
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 3.183 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052308S.D
 Lab Smp Id: BLD0329-BS2
 Inj Date : 05-MAY-2023 15:18 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLD0329-BS2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.763)	196328	3.94860	3.949(R)
3 Phenol	94		8.850	8.842	(0.932)	154312	2.47764	2.478
7 1,3-Dichlorobenzene	146		9.429	9.430	(0.993)	191539	2.92422	2.924
* 8 1,4-Dichlorobenzene-d4	152		9.491	9.492	(1.000)	163221	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	193233	2.97862	2.979
11 Benzyl alcohol	79		9.755	9.756	(1.028)	151245	3.51154	3.512
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	190086	3.04640	3.046
13 2-Methylphenol	108		9.965	9.965	(1.050)	125795	2.69879	2.699
15 4-Methylphenol	108		10.244	10.237	(1.079)	146597	2.99119	2.991
16 N-Nitroso-di-n-propylamine	70		10.314	10.315	(1.087)	118858	3.36114	3.361
22 2,4-Dimethylphenol	107		11.287	11.288	(0.942)	262913	4.32397	4.324
24 Benzoic acid	105		11.423	11.381	(0.953)	209103	5.18560	5.186
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.993)	178944	2.86855	2.869
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	611943	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	121489	3.05019	3.050
39 Dimethylphthalate	163		15.106	15.099	(0.967)	439340	3.62382	3.624
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	319820	4.00000	
50 Diethylphthalate	149		16.568	16.560	(1.061)	551797	4.23887	4.239
54 N-Nitrosodiphenylamine	169		16.961	16.954	(0.909)	249652	3.06531	3.065
57 Hexachlorobenzene	284		18.041	18.034	(0.966)	125580	3.14865	3.149

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.398	18.390	(0.985)	220140	8.51559	8.516
* 59 Phenanthrene-d10	188	18.668	18.669	(1.000)	624505	4.00000	
\$ 66 Terphenyl-d14	244	21.779	21.771	(0.919)	435851	3.89045	3.890 (R)
67 Butylbenzylphthalate	149	22.692	22.685	(0.958)	369521	3.88453	3.885
* 69 Chrysene-d12	240	23.691	23.684	(1.000)	519561	4.00000	
* 77 Perylene-d12	264	26.525	26.517	(1.000)	456900	4.00000	
79 Dibenzo(a,h)anthracene	278	29.503	29.496	(1.112)	572218	3.87987	3.880
90 N-Nitrosodimethylamine	74	5.072	5.080	(0.534)	86346	3.18335	3.183

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052308S.D
 Lab Smp Id: BLD0329-BS2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	163221	-10.66
27 Naphthalene-d8	662220	331110	1324440	611943	-7.59
42 Acenaphthene-d10	335558	167779	671116	319820	-4.69
59 Phenanthrene-d10	678190	339095	1356380	624505	-7.92
69 Chrysene-d12	566969	283485	1133938	519561	-8.36
77 Perylene-d12	522906	261453	1045812	456900	-12.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	-0.00
27 Naphthalene-d8	11.99	11.49	12.49	11.99	-0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	-0.00
59 Phenanthrene-d10	18.67	18.17	19.17	18.67	-0.00
69 Chrysene-d12	23.68	23.18	24.18	23.69	0.03
77 Perylene-d12	26.52	26.02	27.02	26.53	0.03

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

REVIEW SUMMARY FOR FILE - NT1005052308S.D

Lab ID: BLD0329-BS2

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 15:18

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523095.D

Date : 05-May-2023 15:57

Client ID:

Sample Info: BLD0329-BSM2

Volume Injected (uL): 1.0

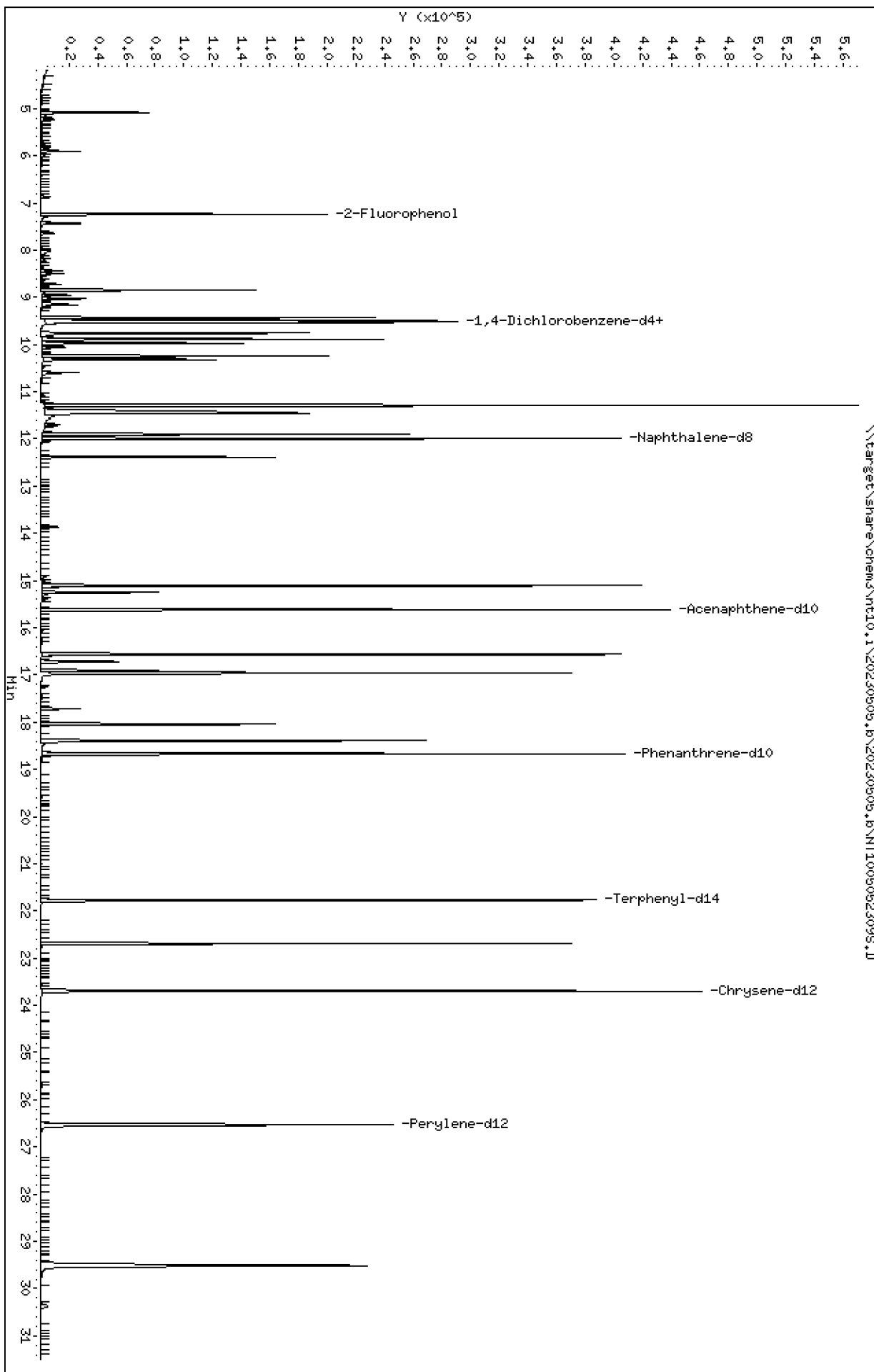
Column phase: ZB-5msi

Instrument: nt10.1

Operator: JSD

Column diameter: 0.25

Page 1



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

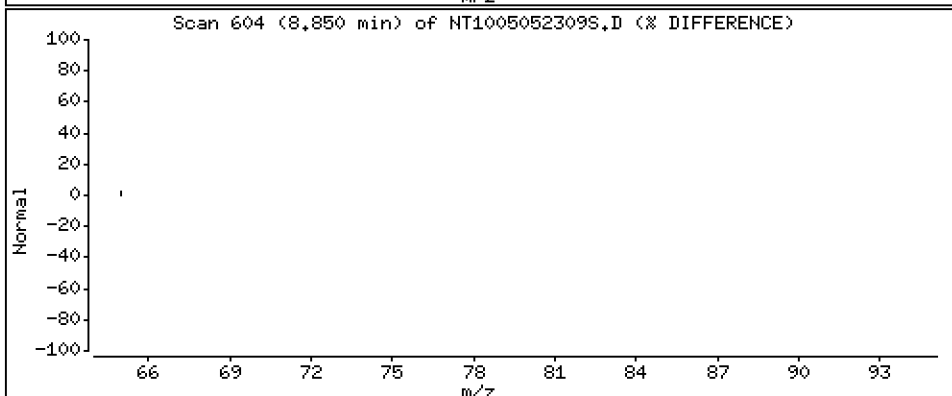
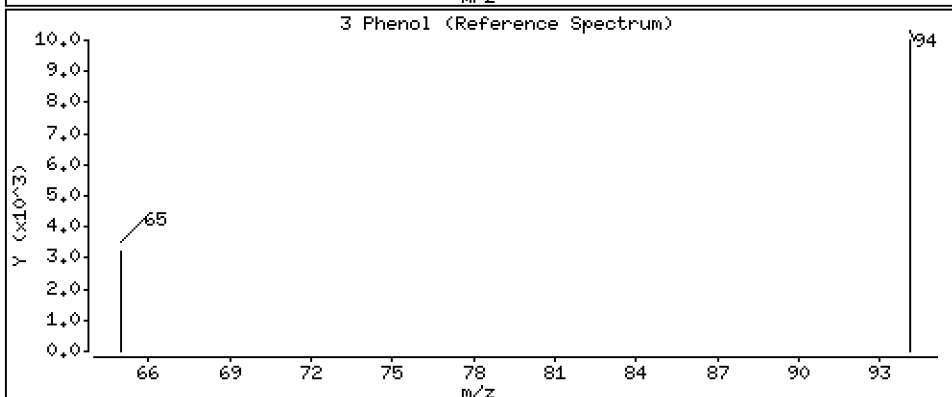
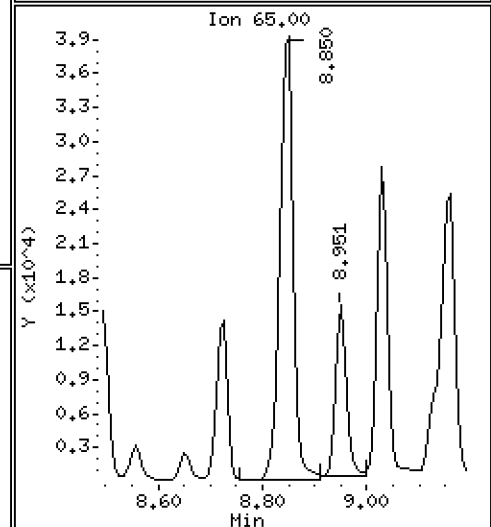
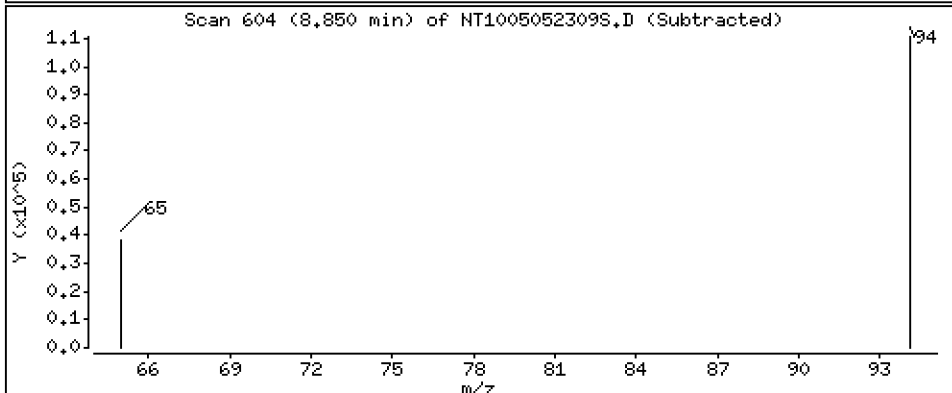
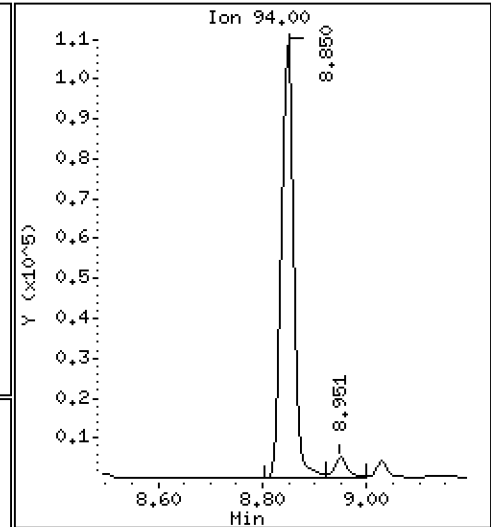
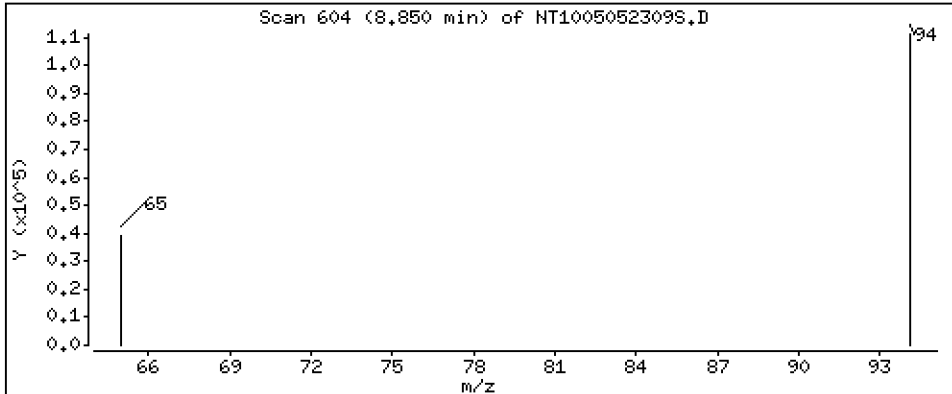
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 2,602 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

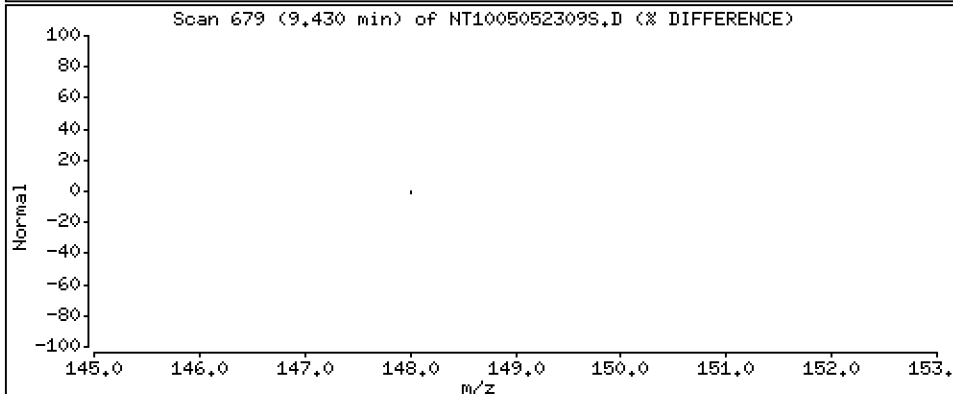
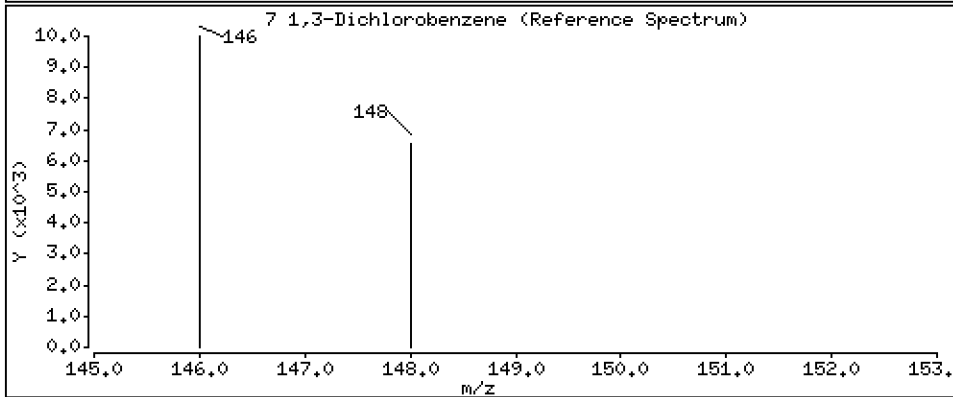
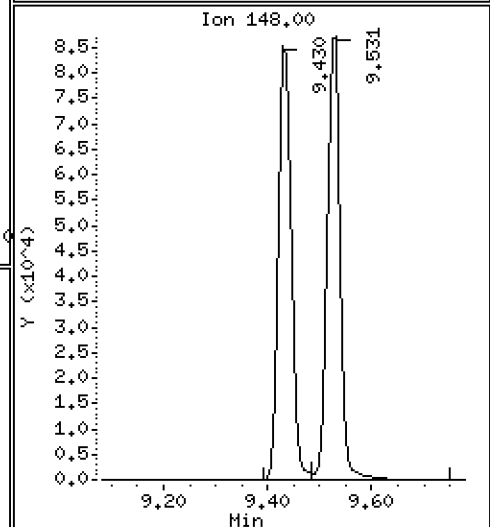
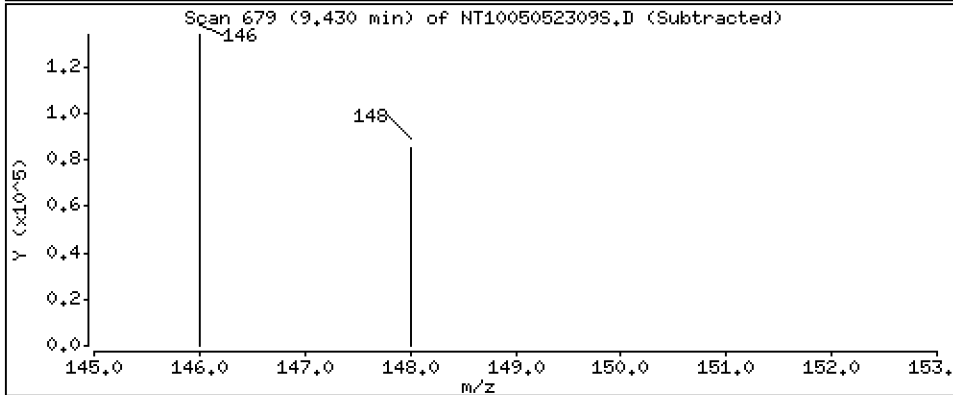
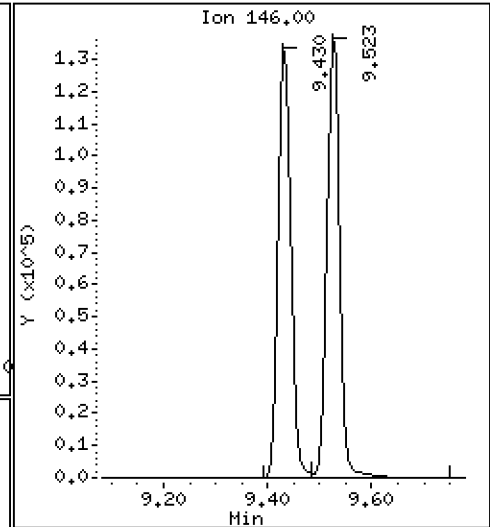
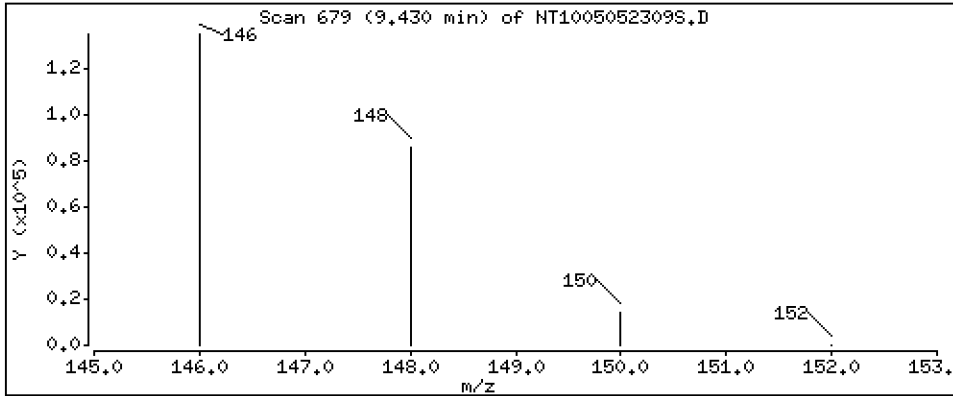
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 3,171 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Operator: DSD

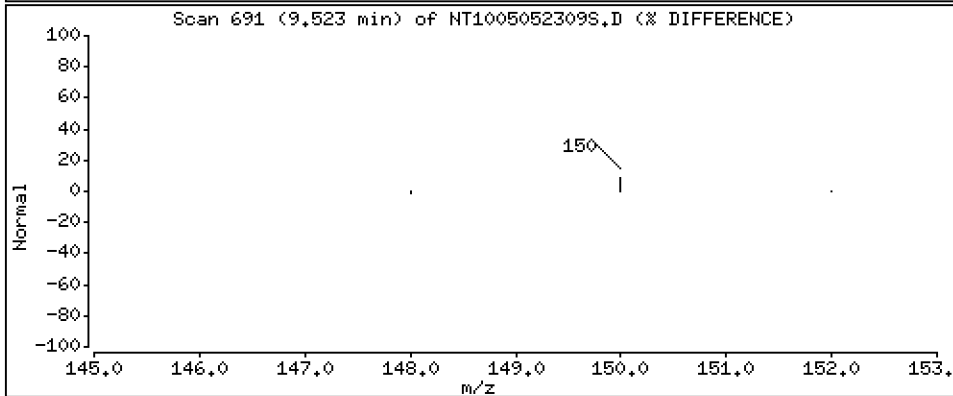
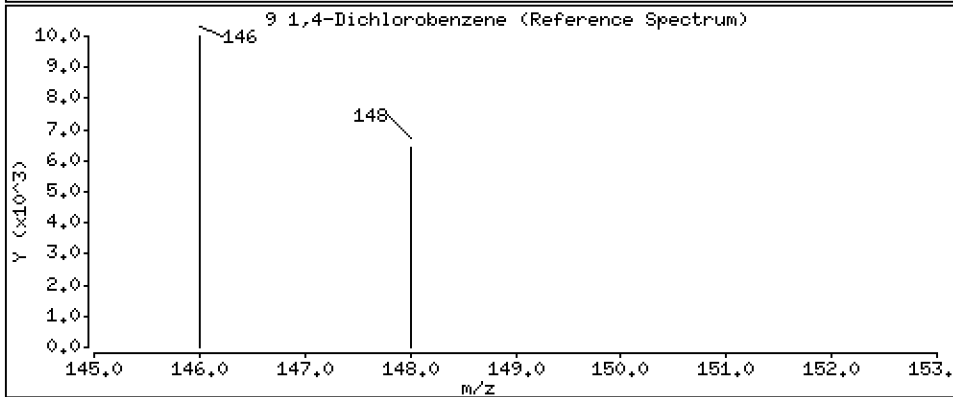
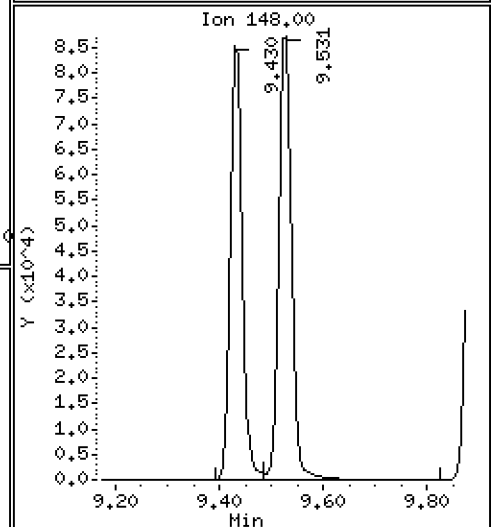
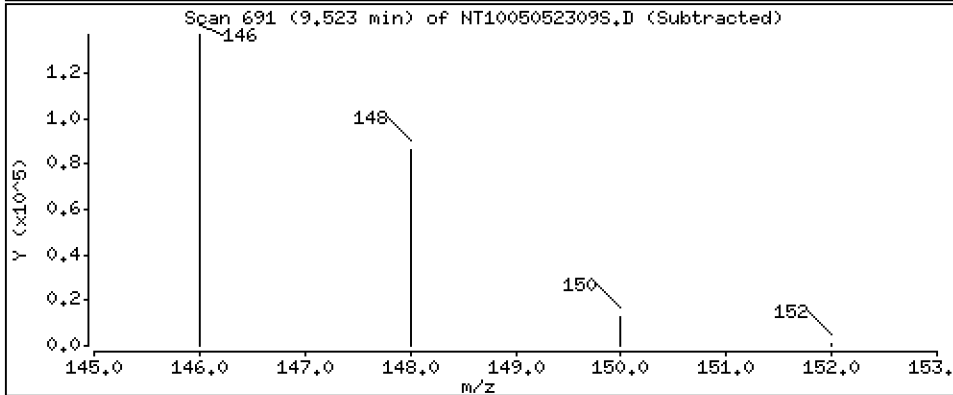
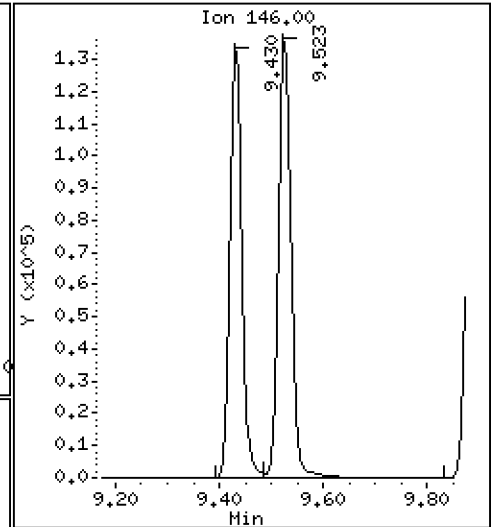
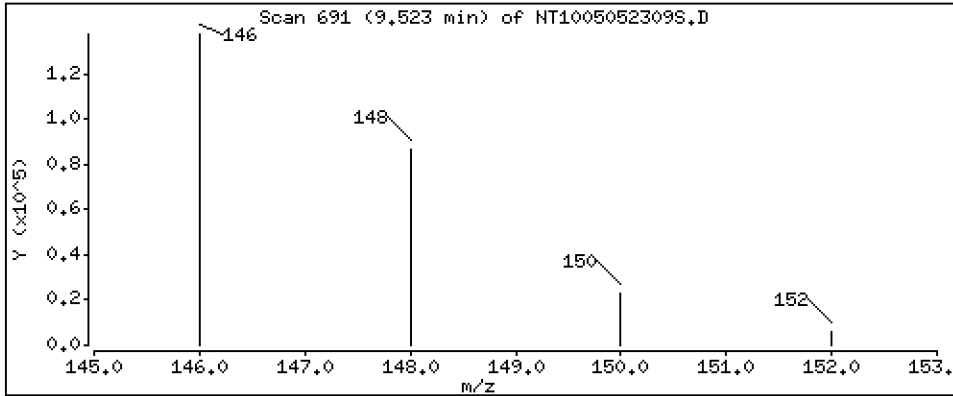
Volume Injected (uL): 1.0

Column diameter: 0.25

Column phase: ZB-5msi

9 1,4-Dichlorobenzene

Concentration: 3,201 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

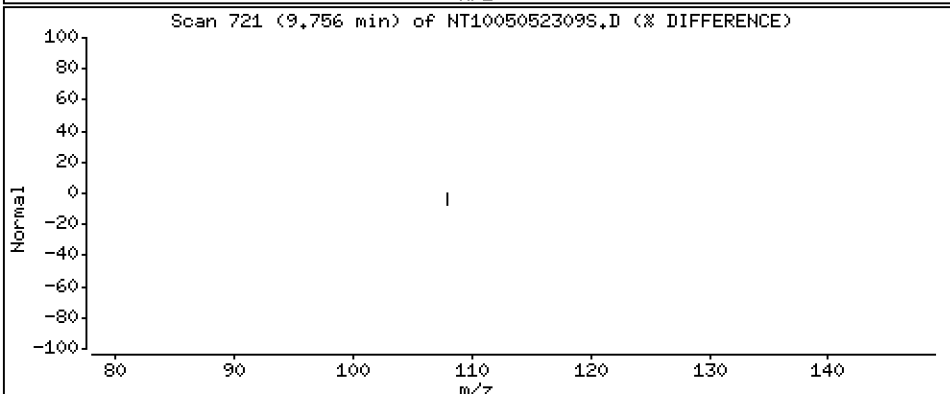
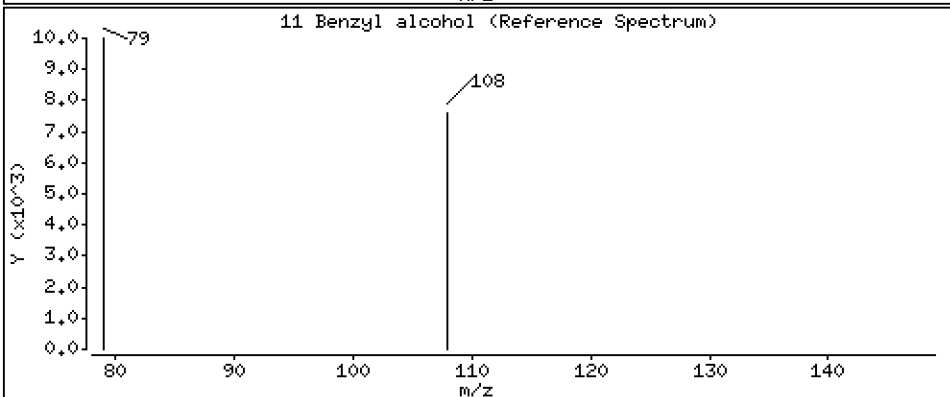
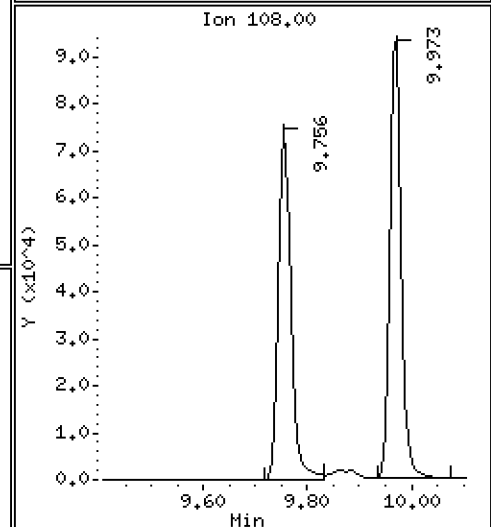
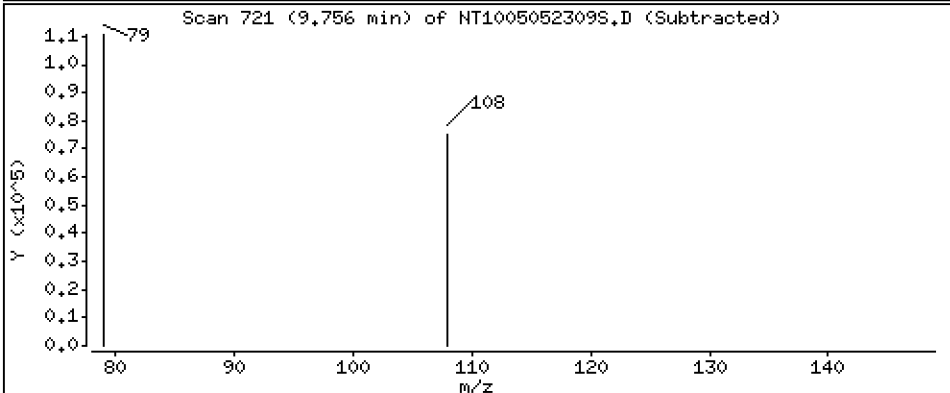
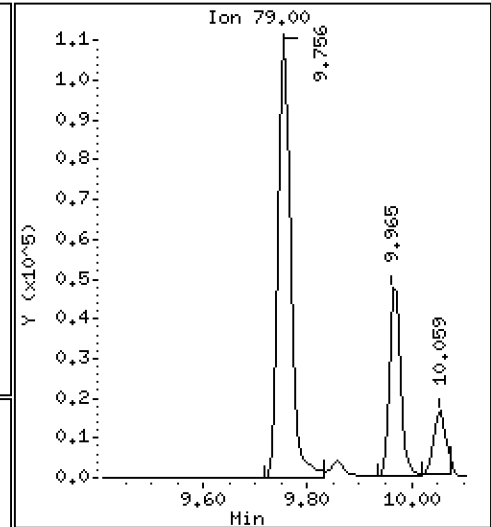
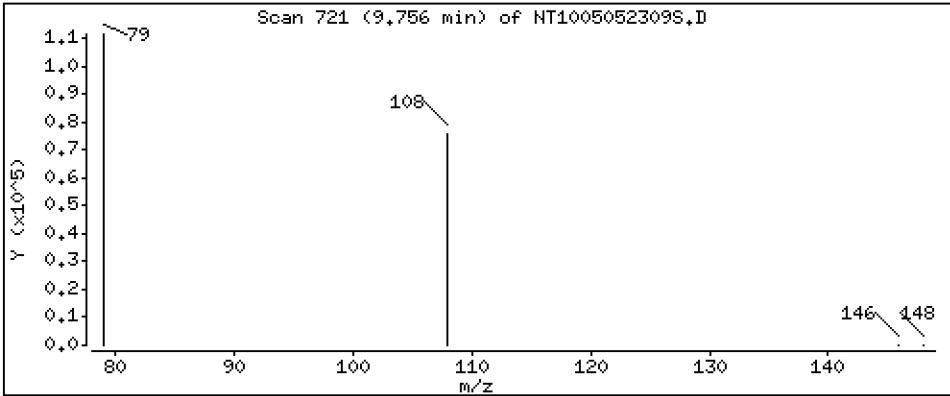
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 3,858 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

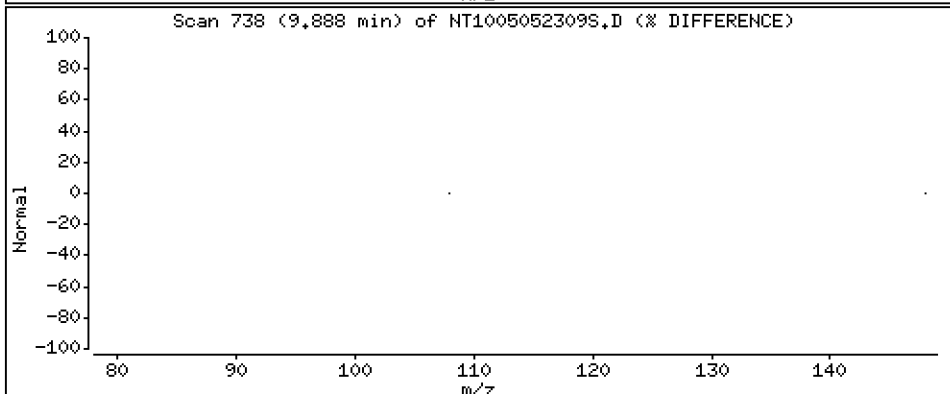
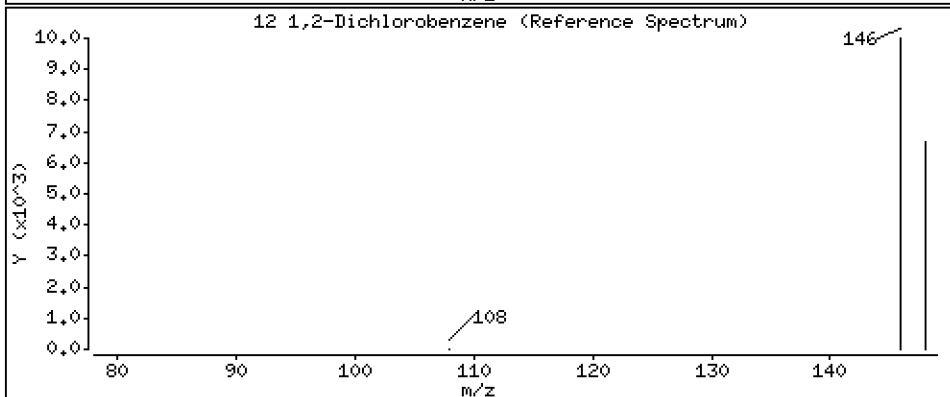
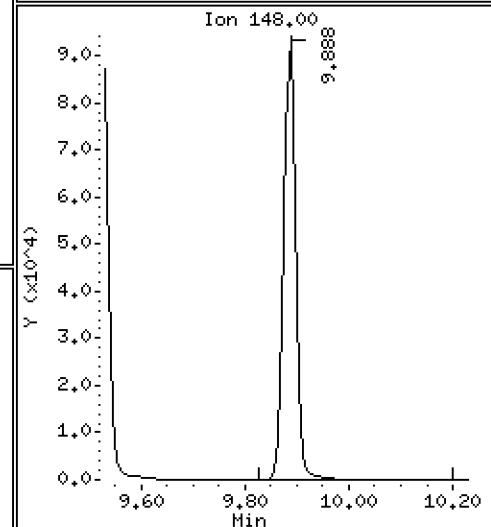
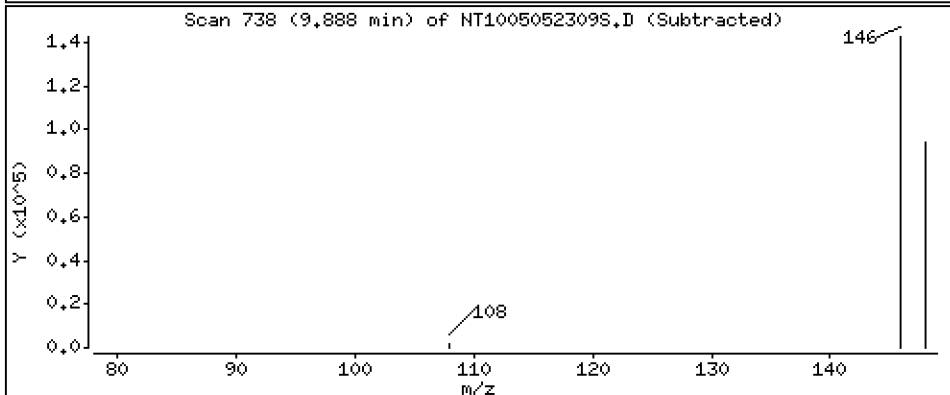
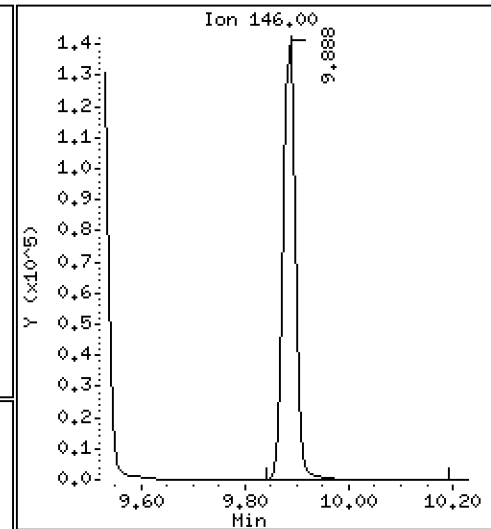
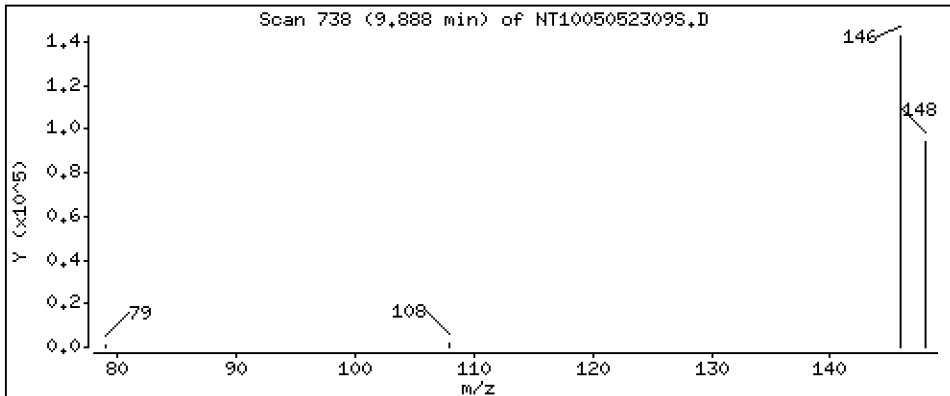
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 3,288 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

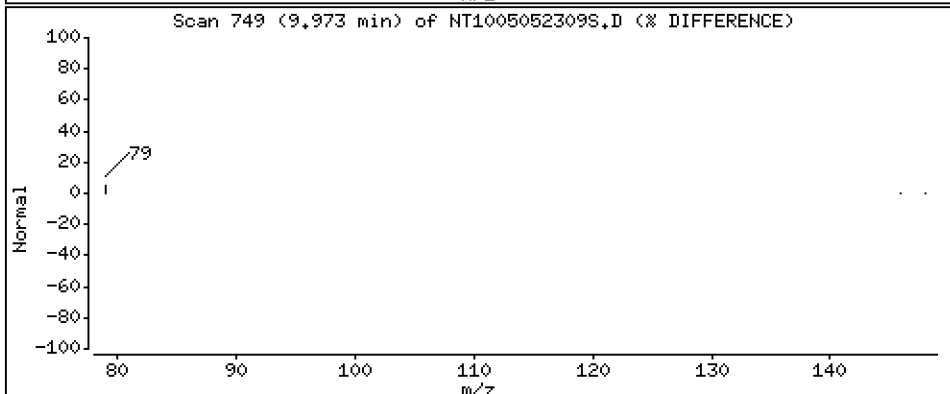
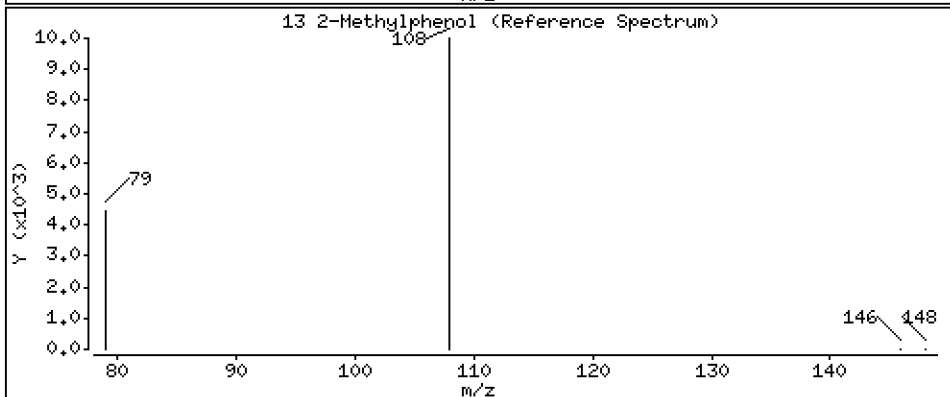
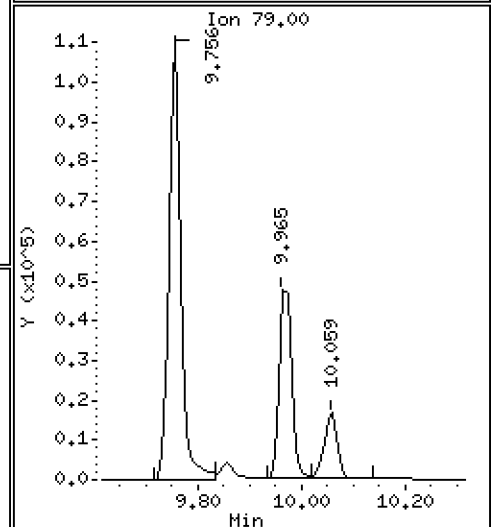
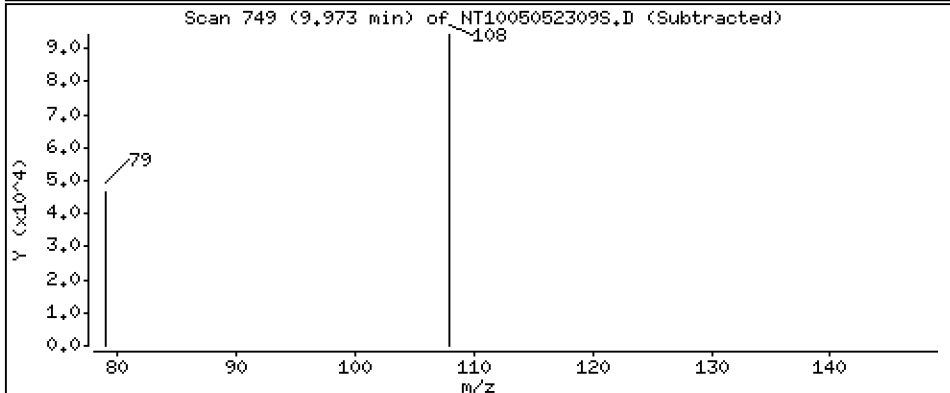
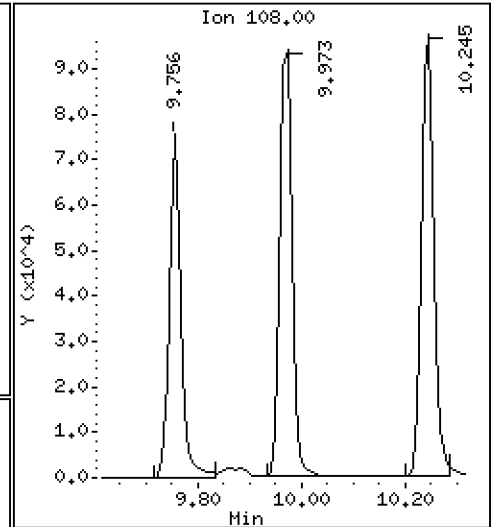
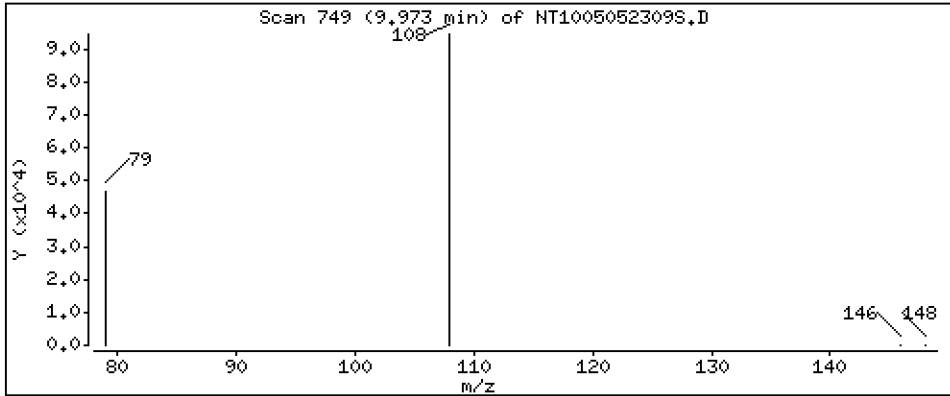
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 2,980 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

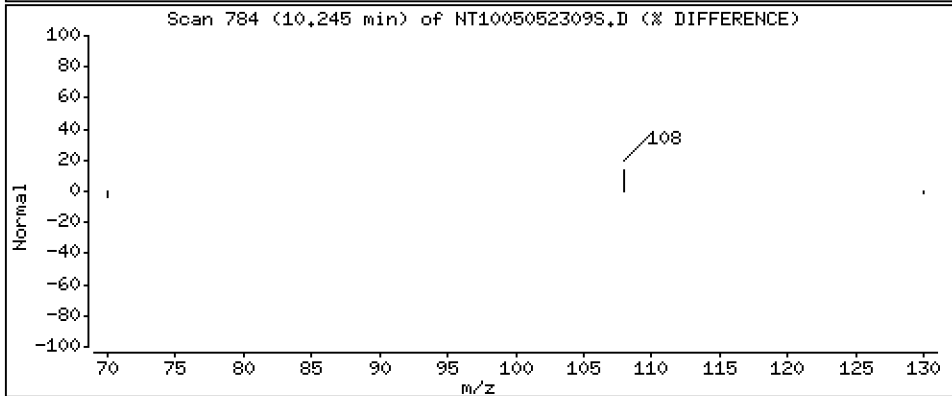
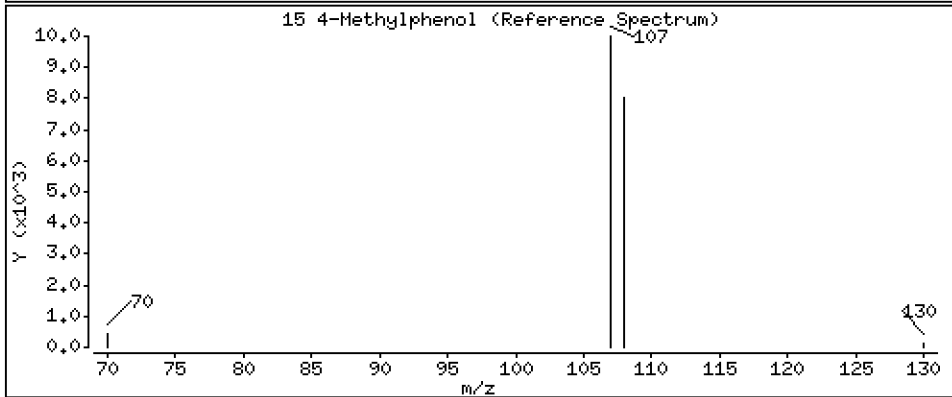
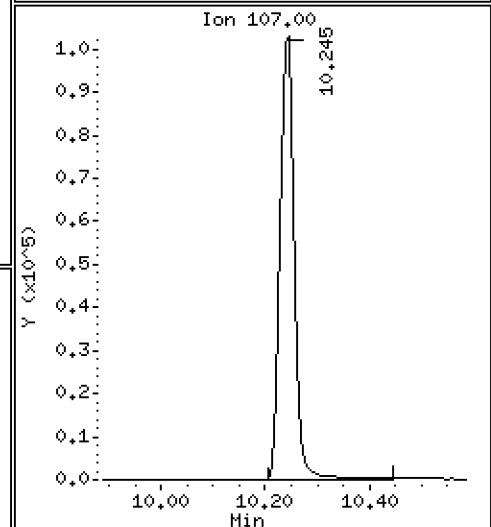
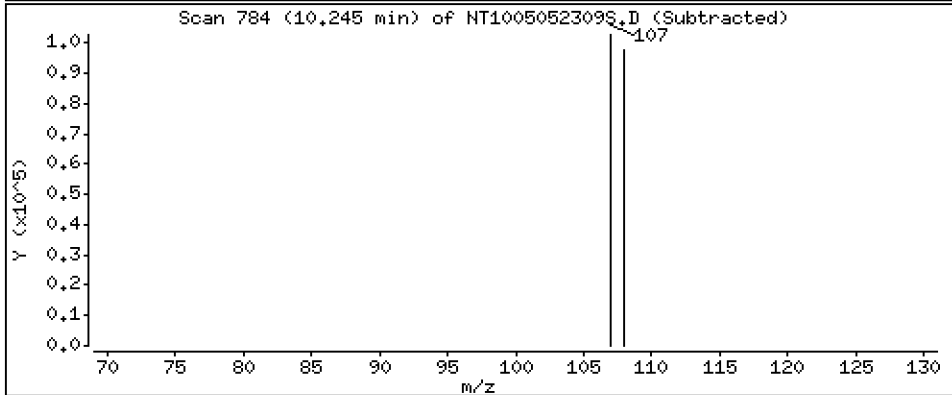
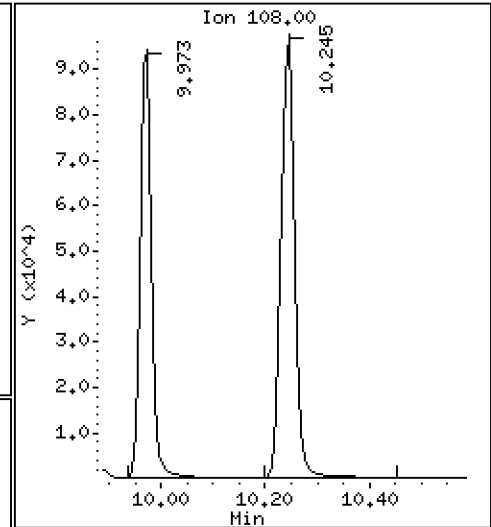
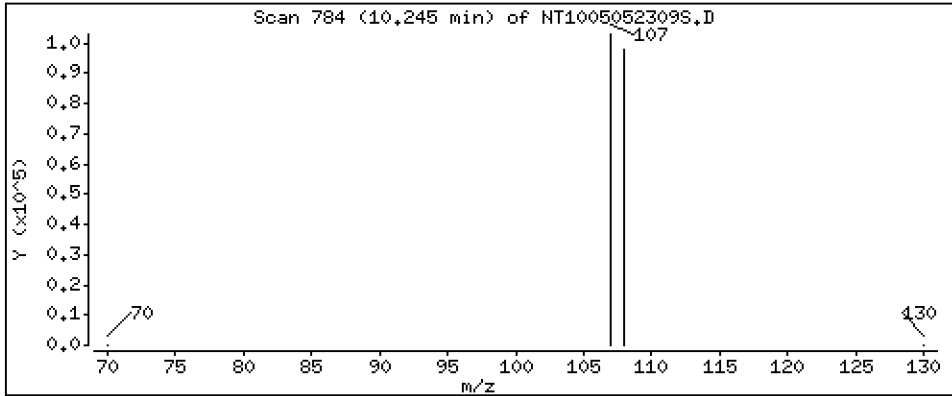
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 3,284 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

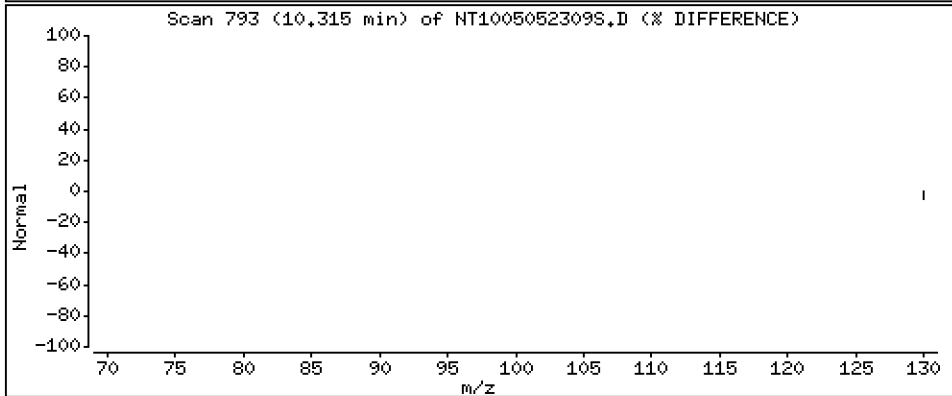
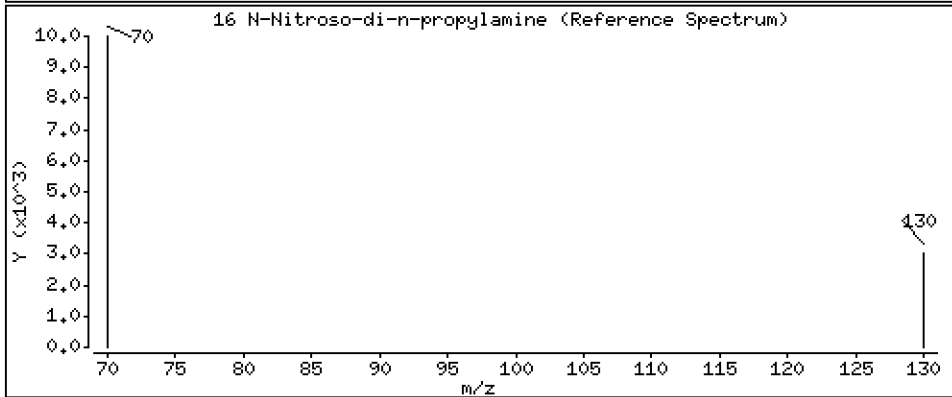
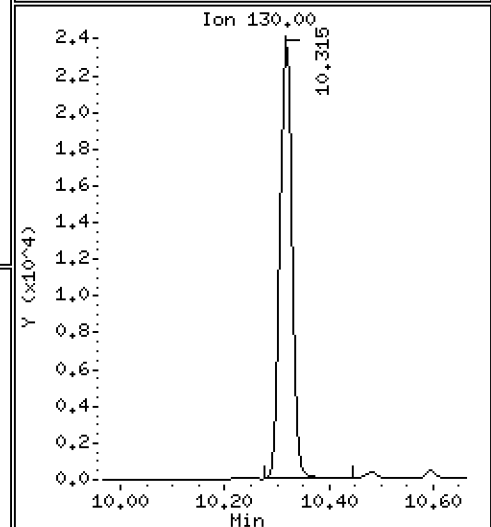
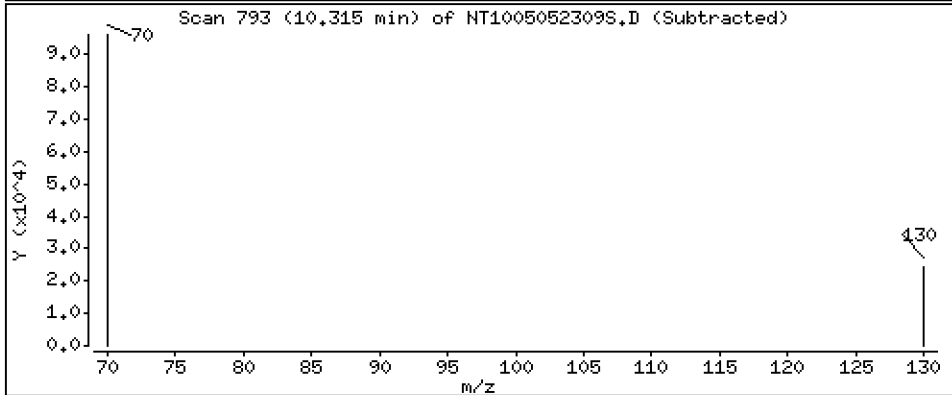
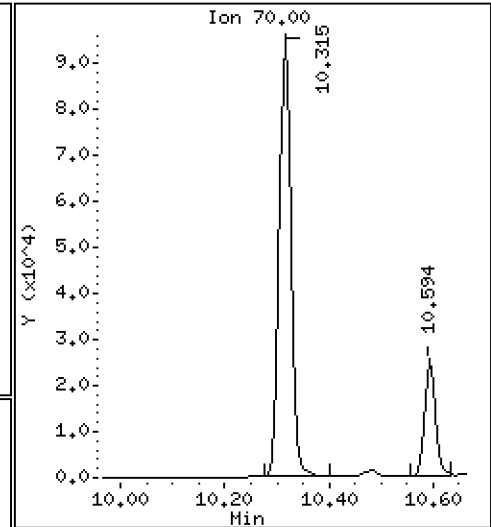
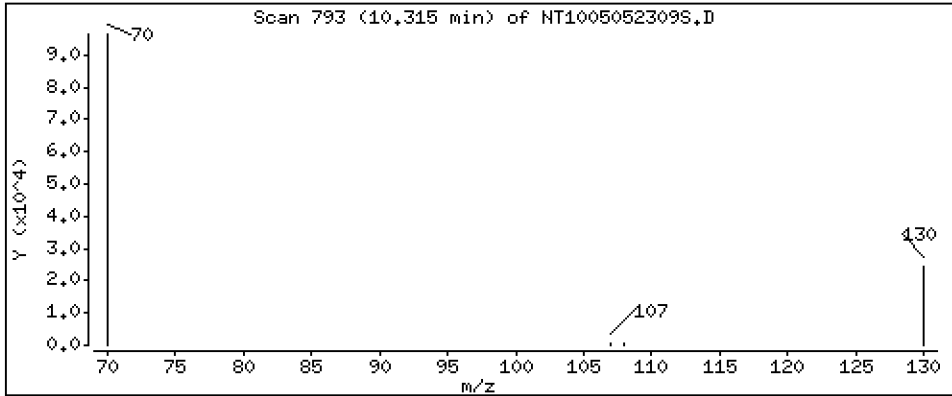
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 3,774 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

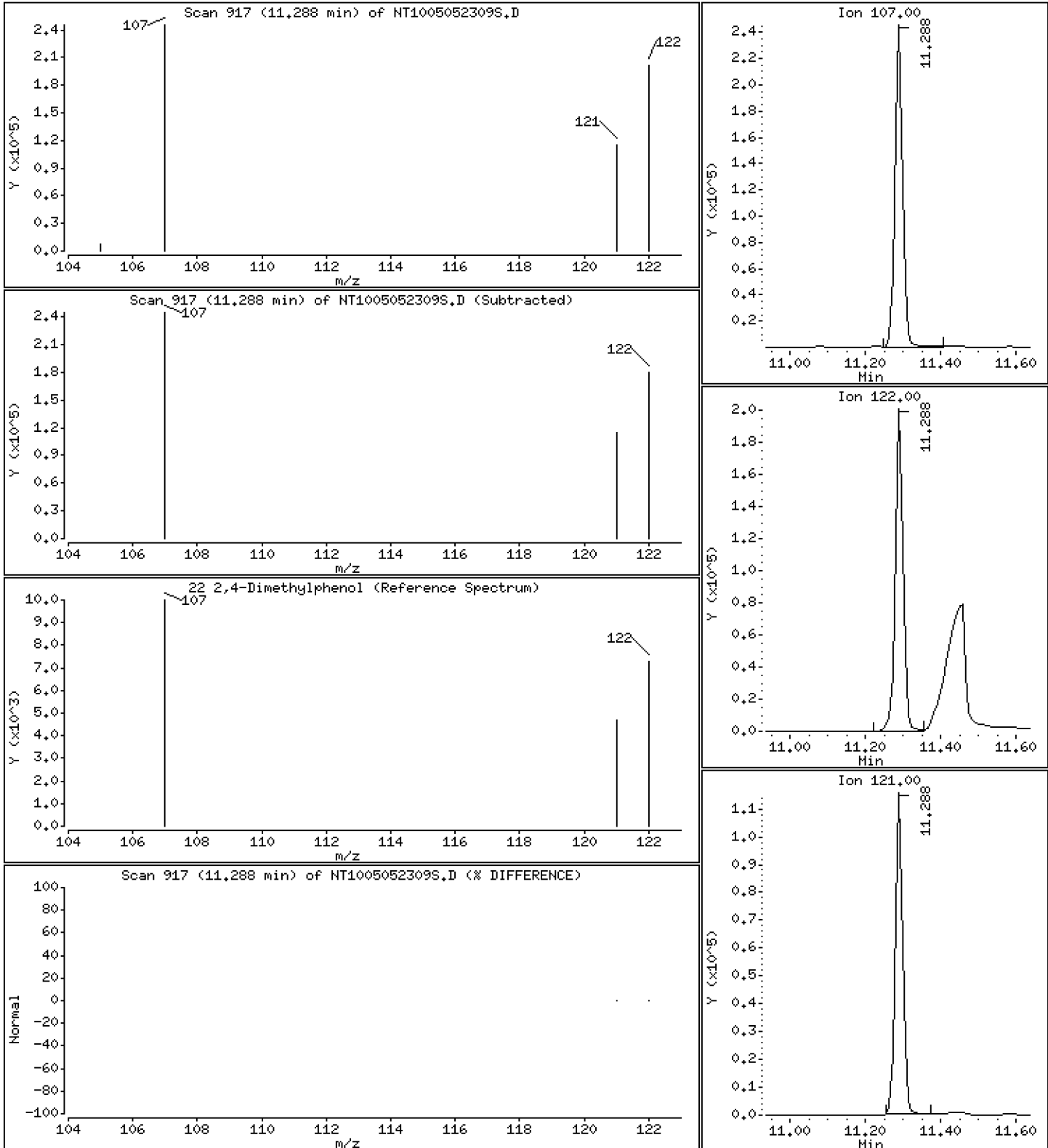
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 5,661 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

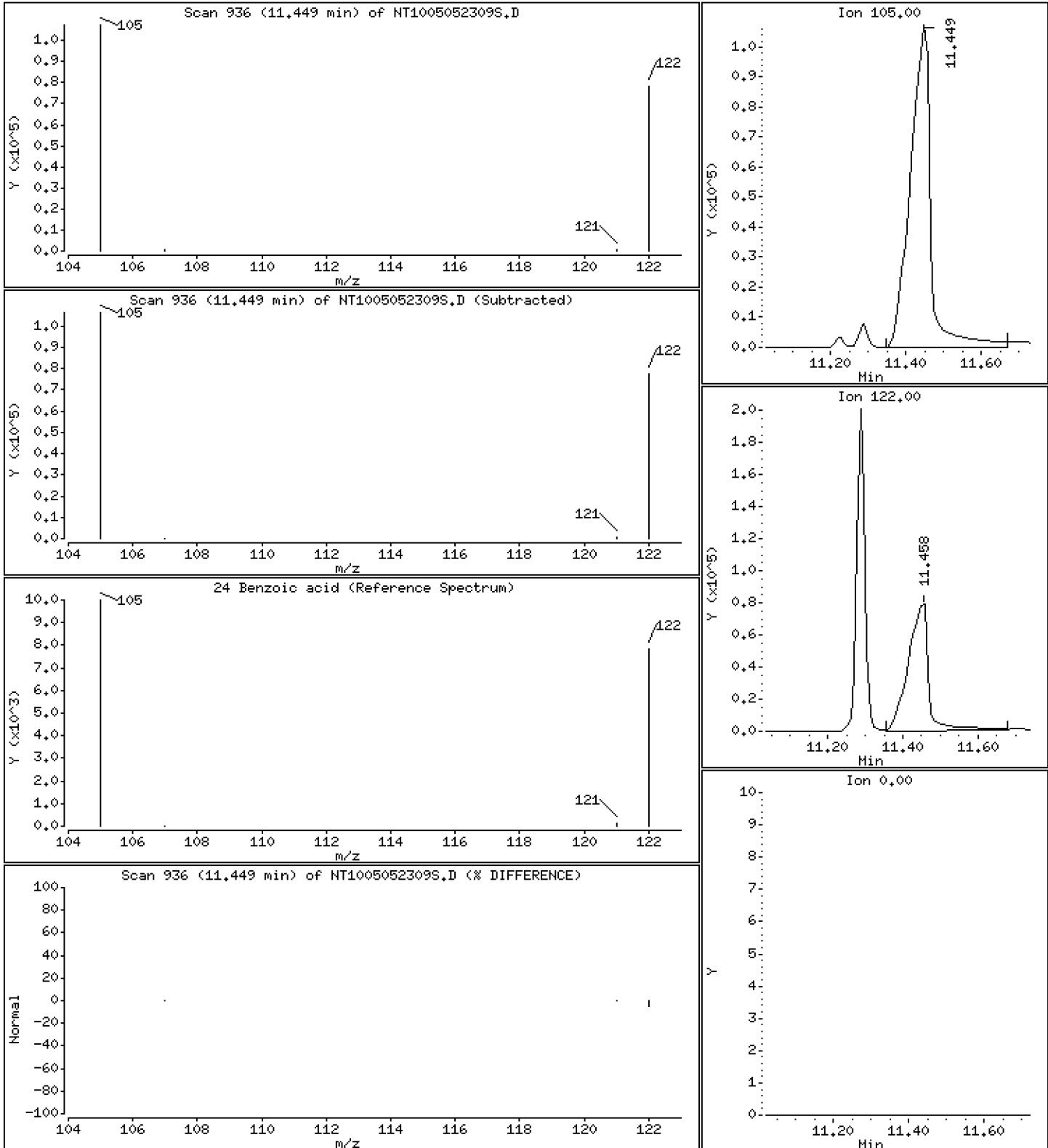
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 9.432 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

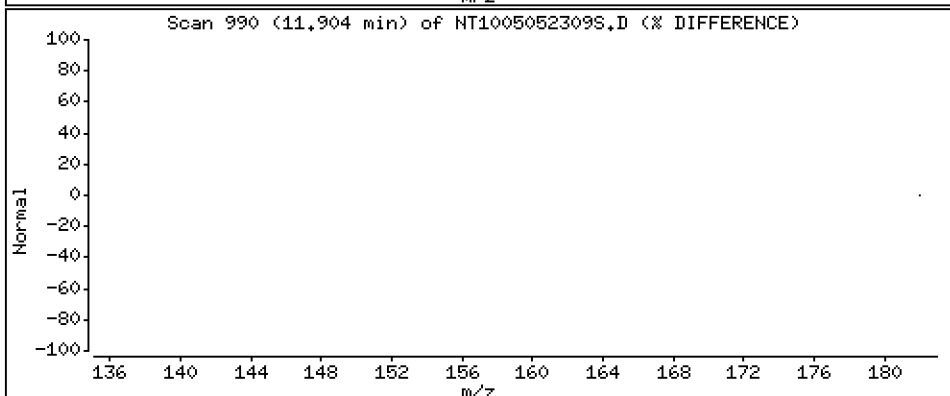
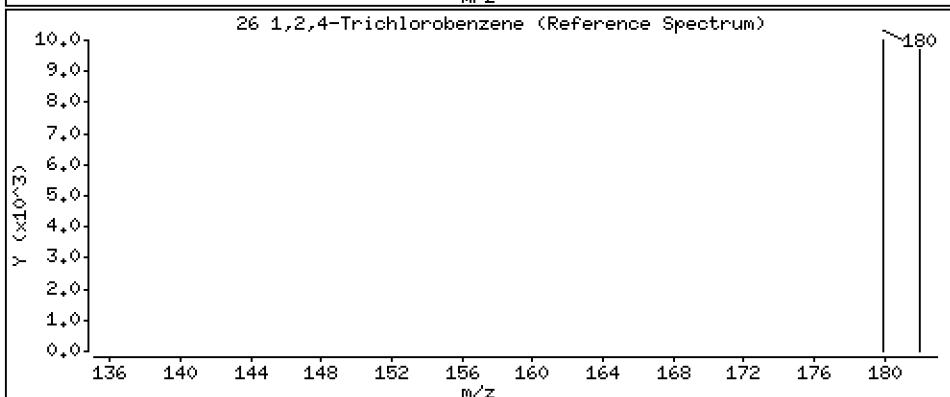
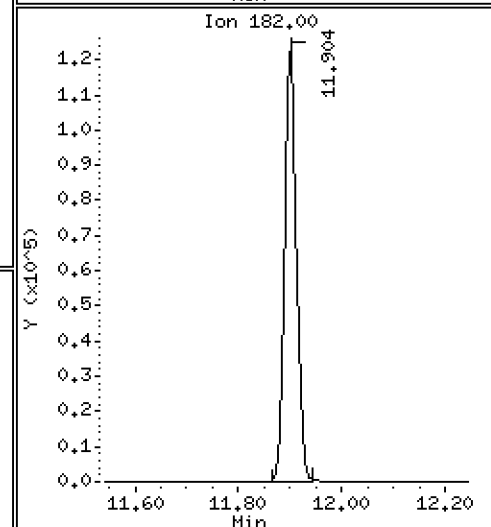
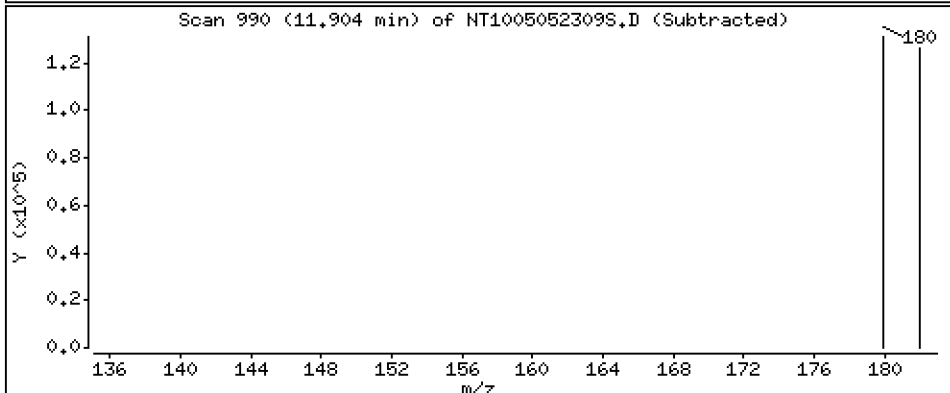
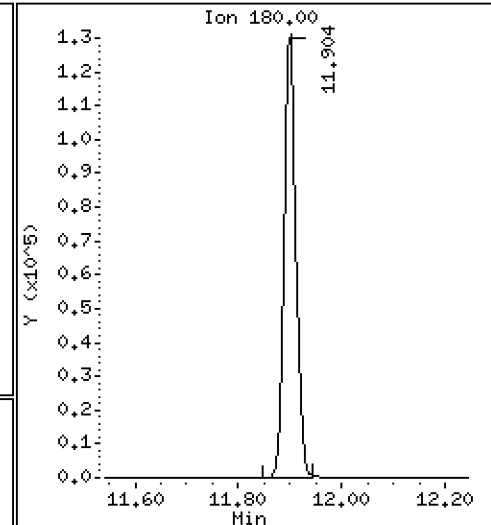
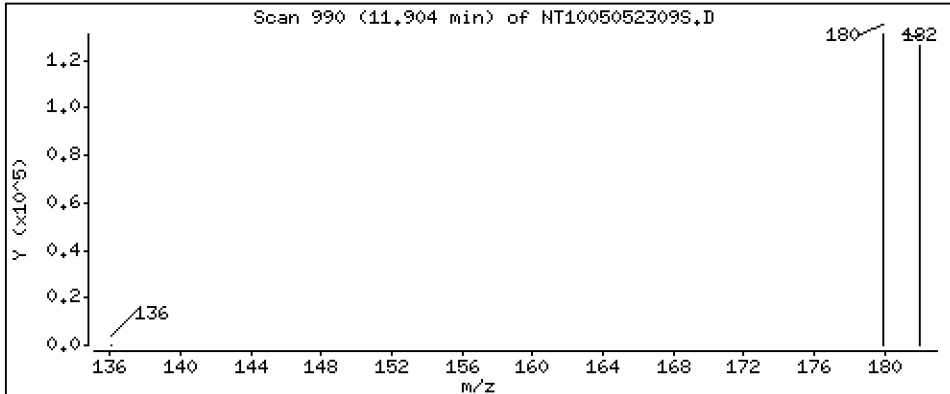
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 3,212 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

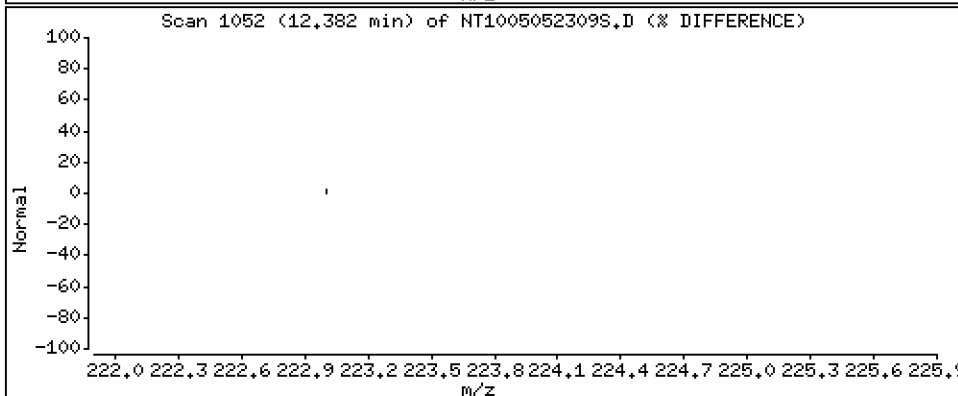
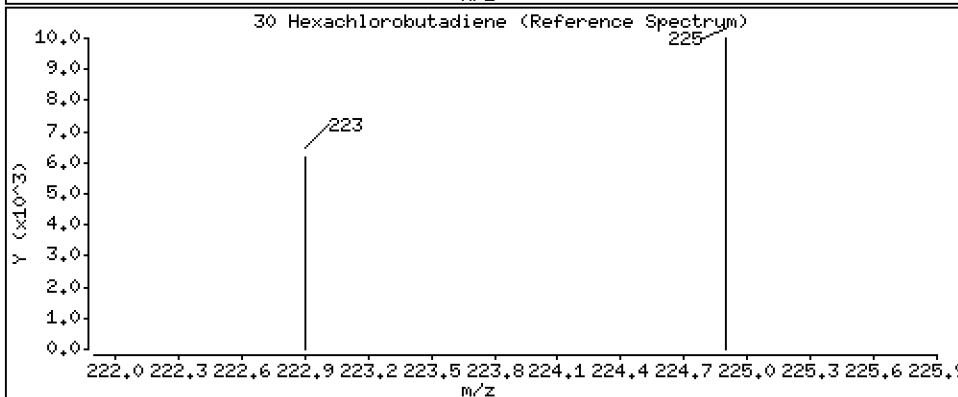
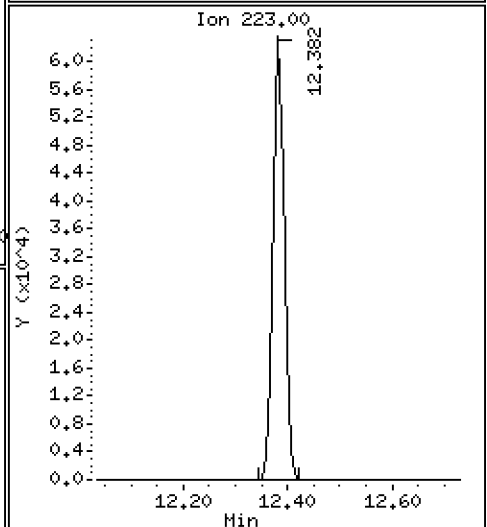
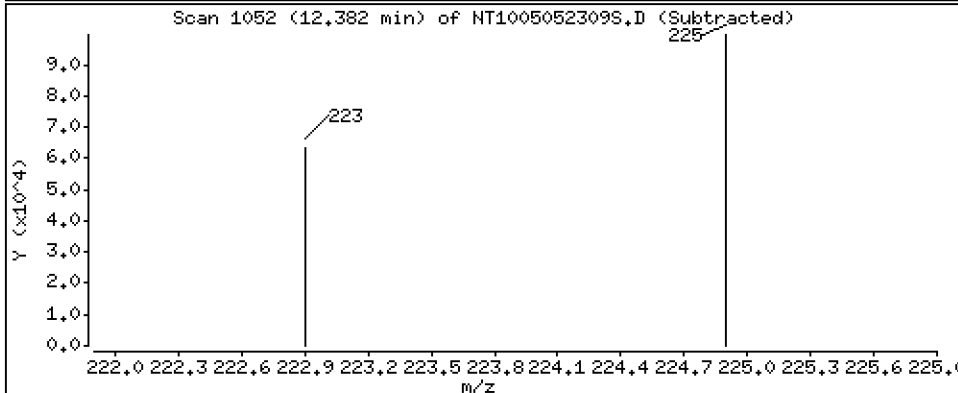
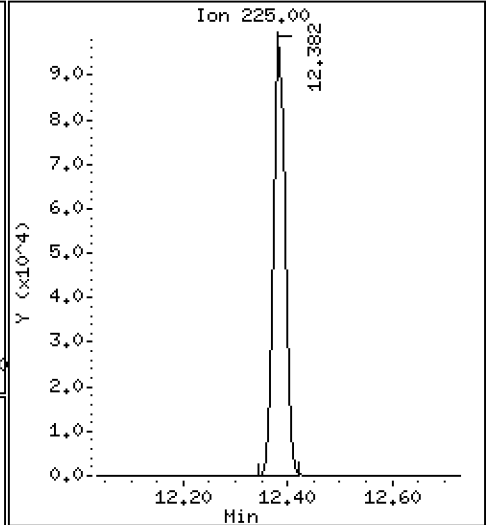
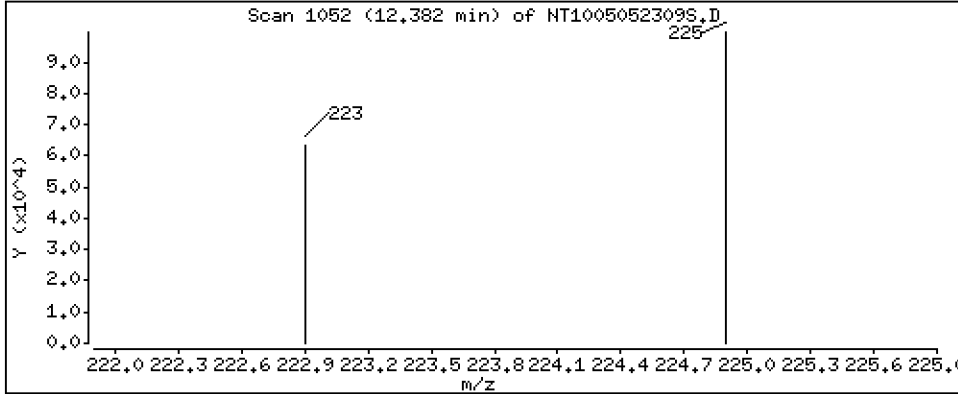
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,405 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

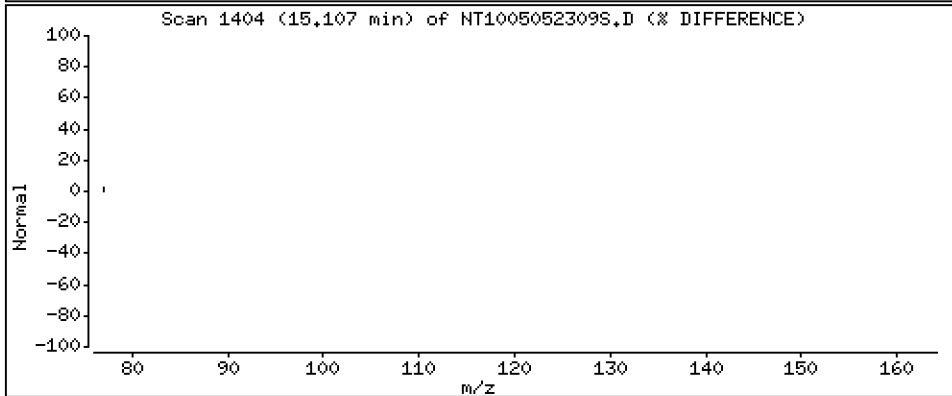
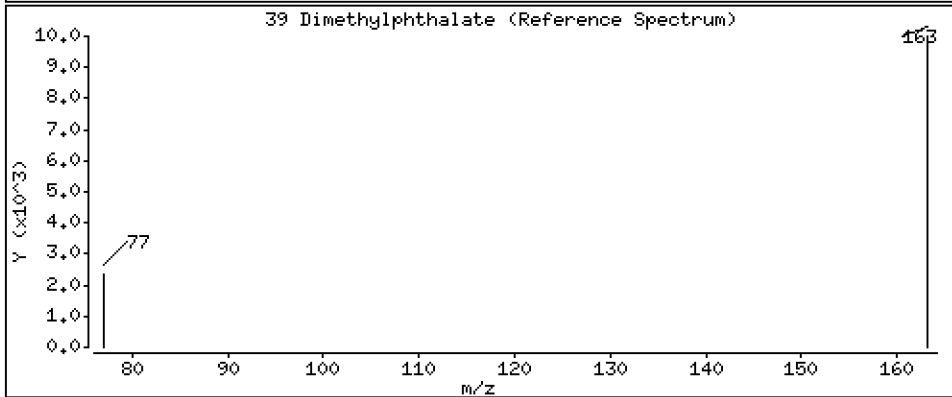
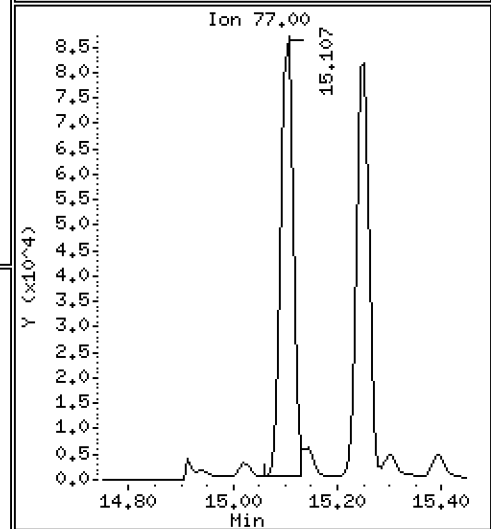
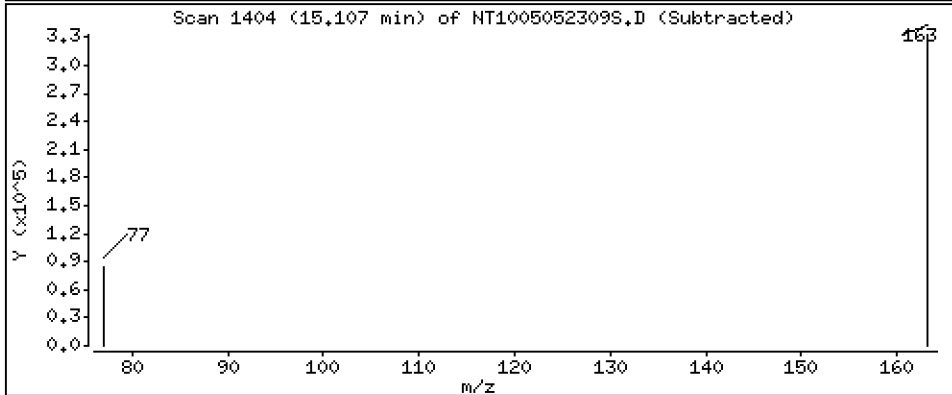
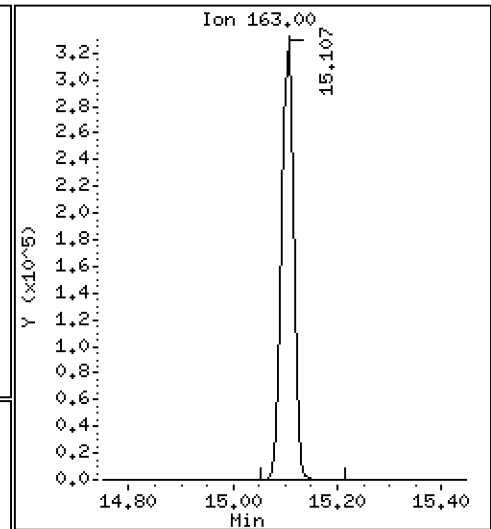
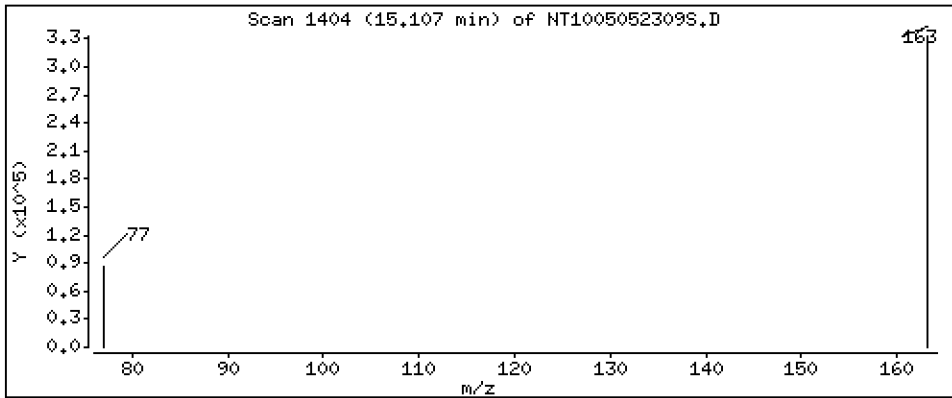
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 3,988 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

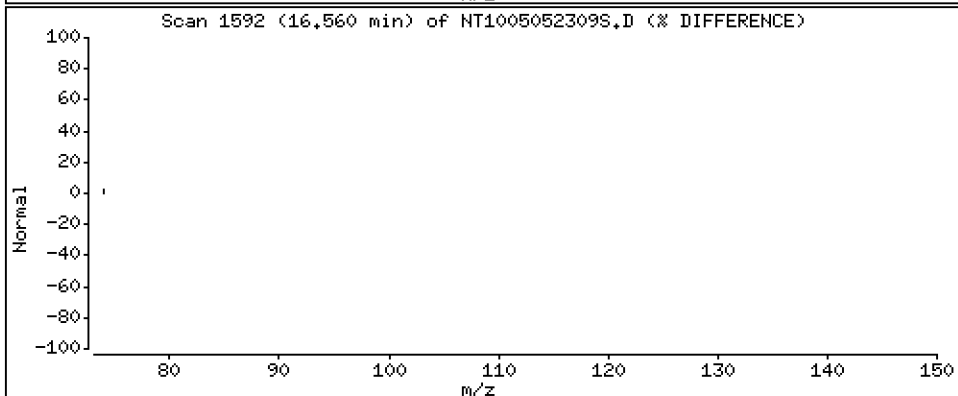
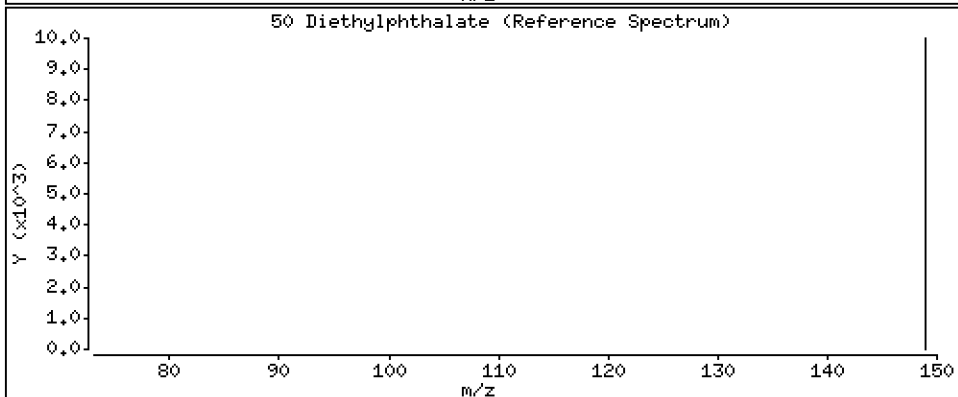
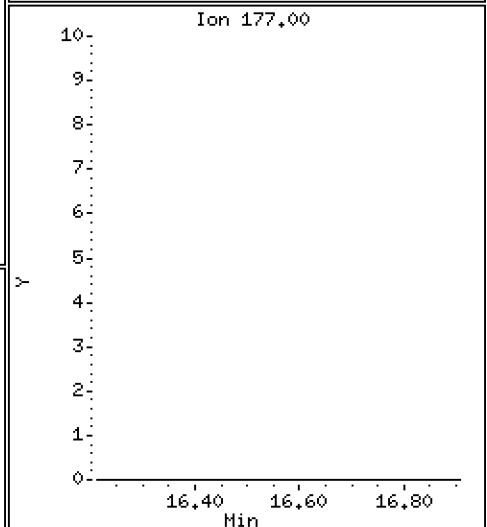
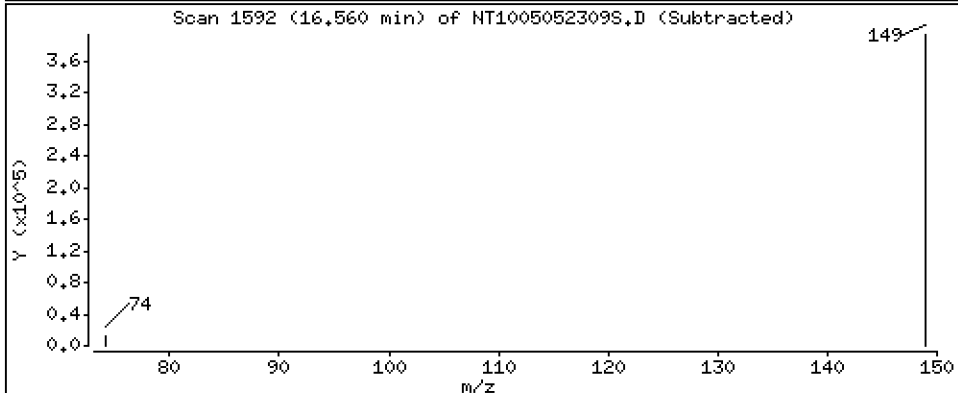
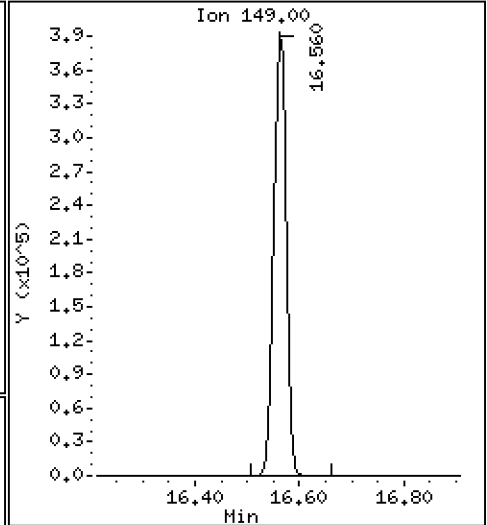
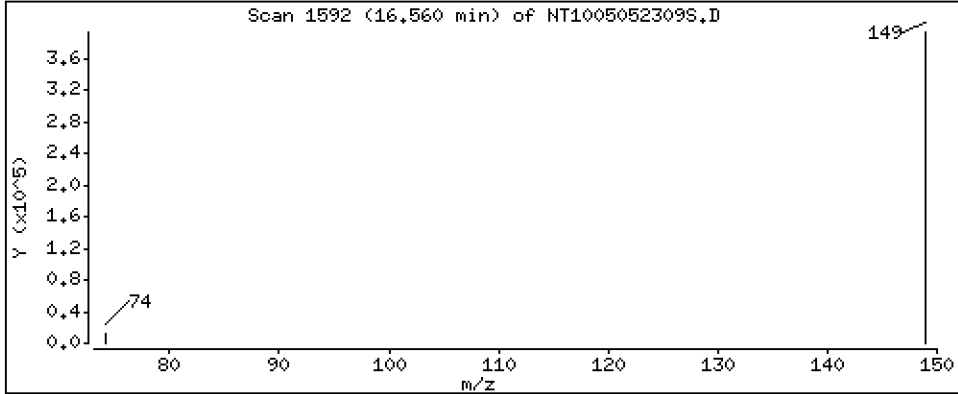
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,589 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

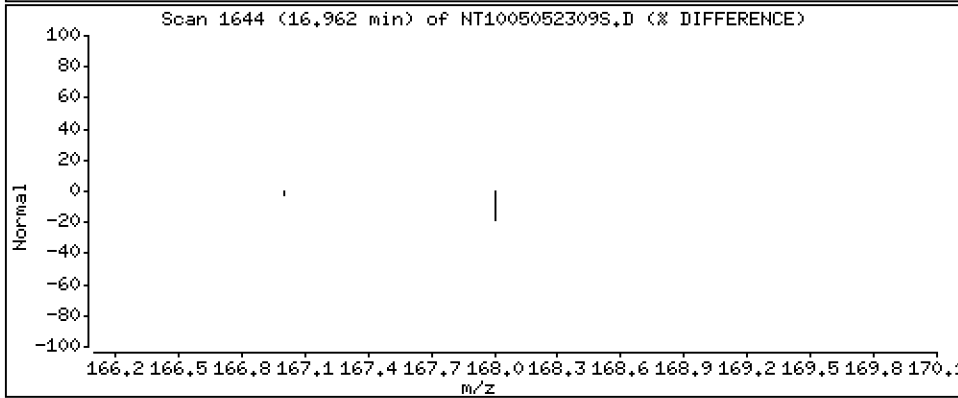
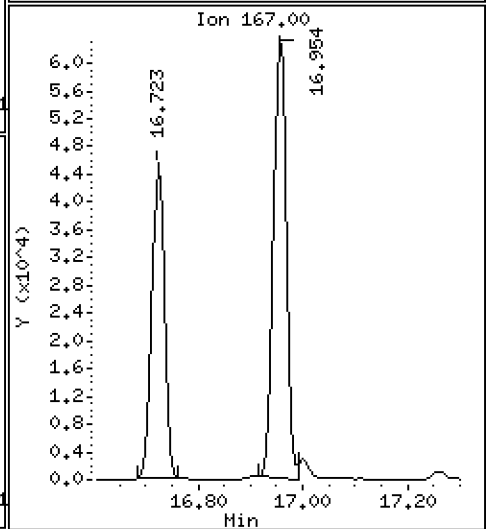
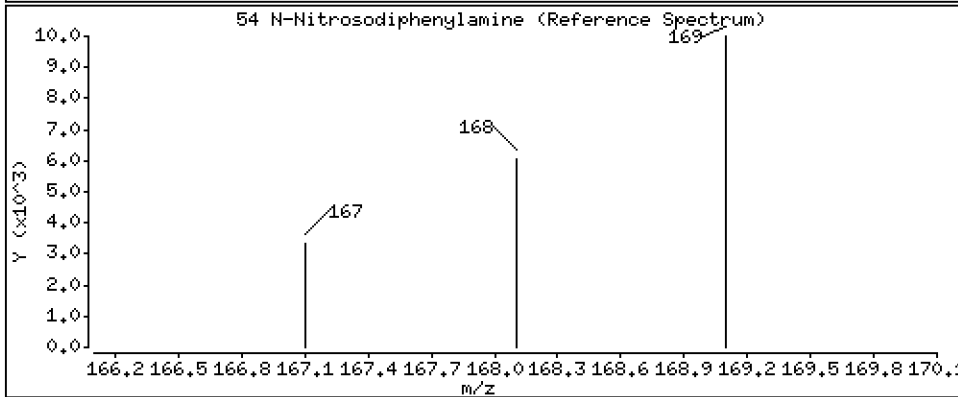
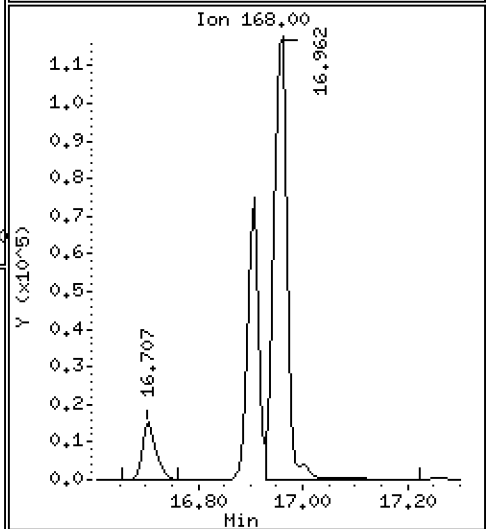
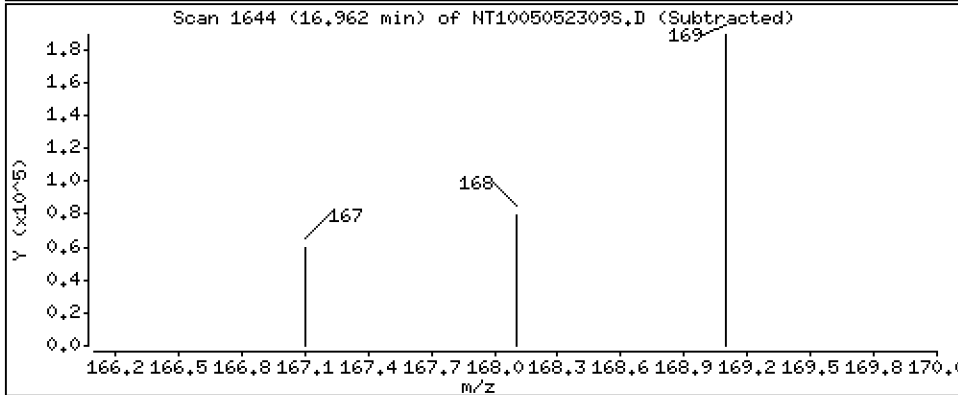
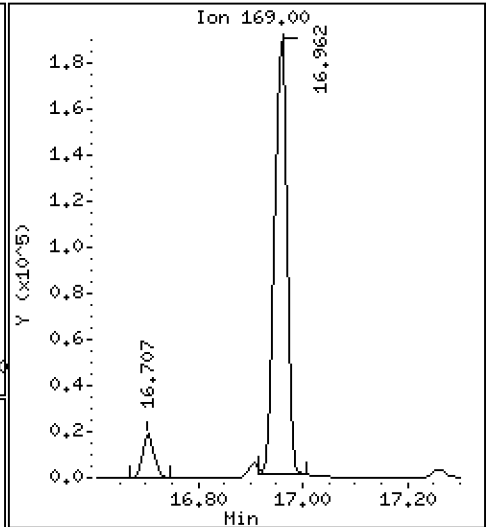
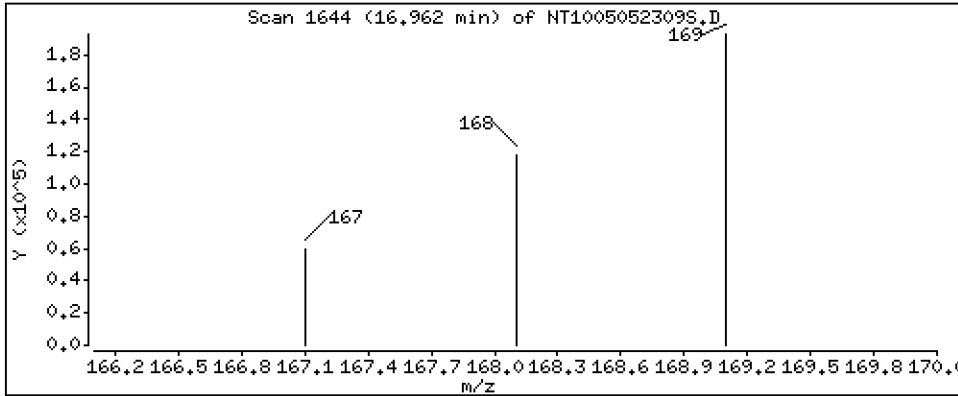
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 3,568 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

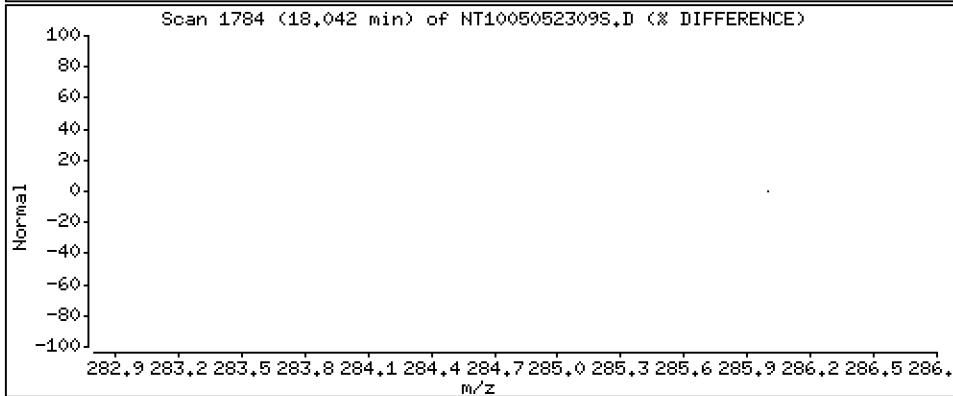
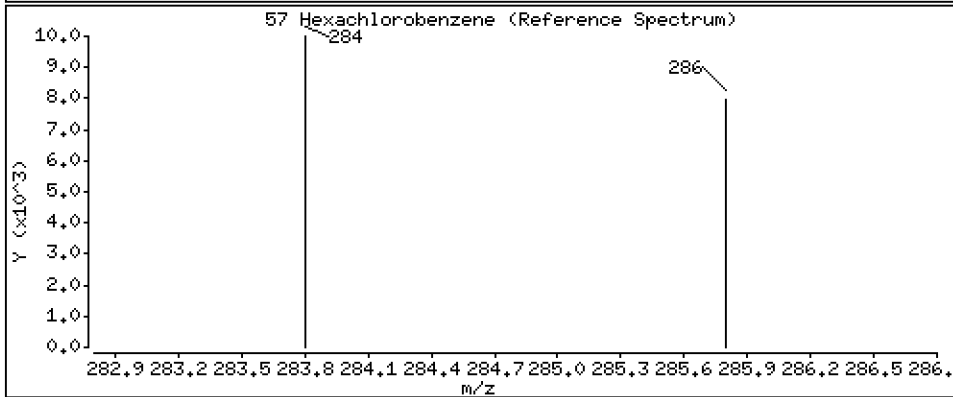
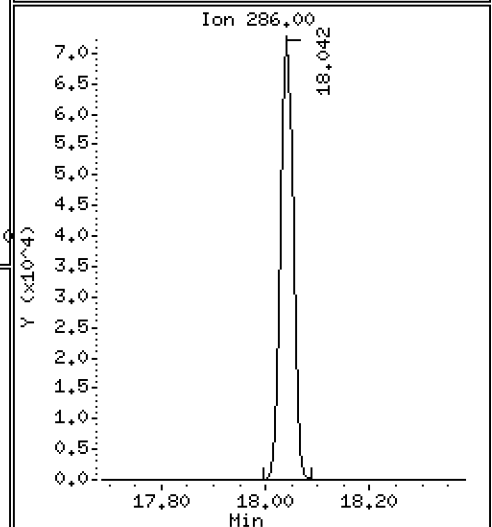
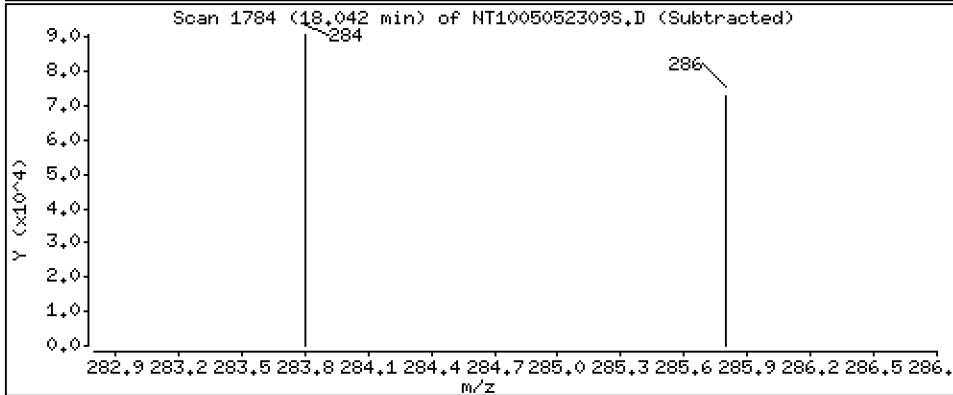
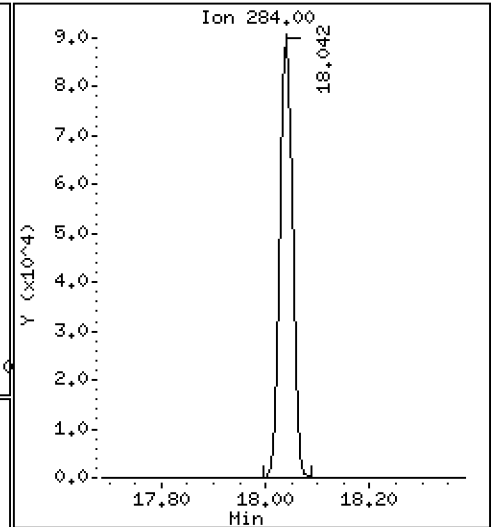
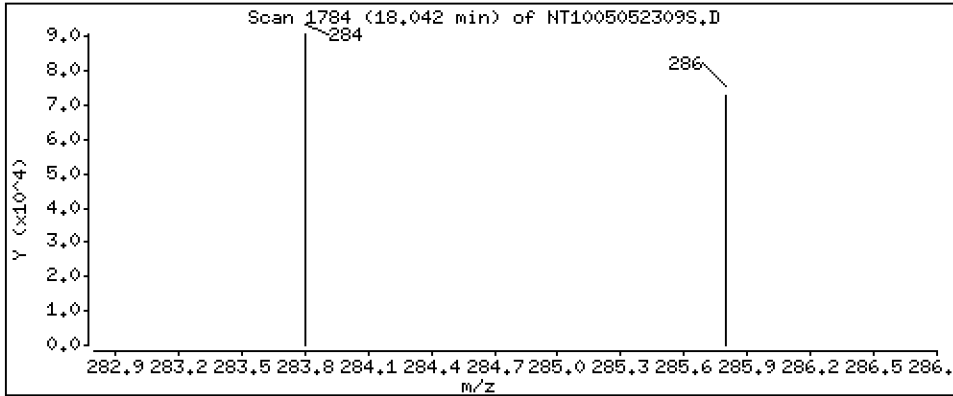
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 3,501 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

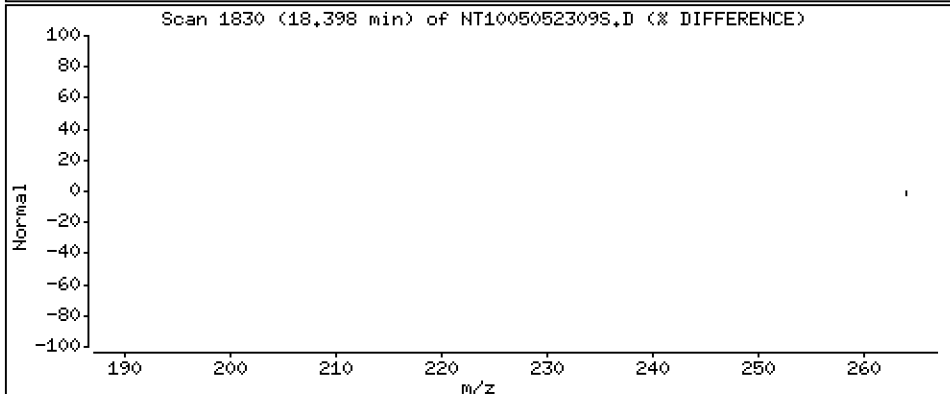
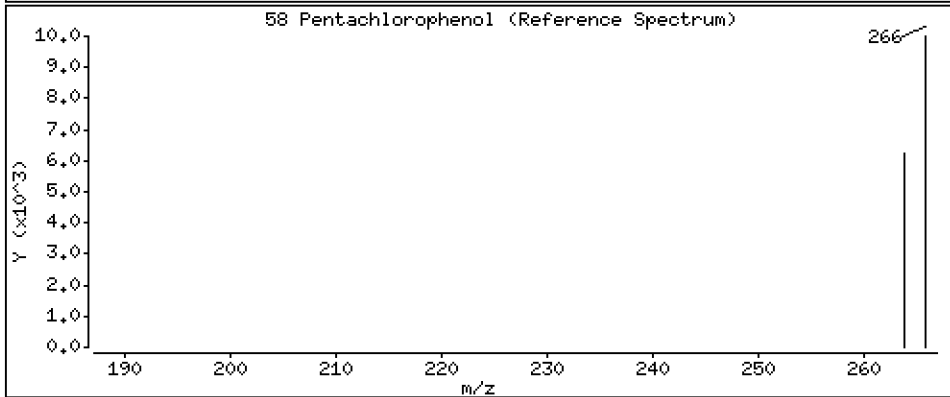
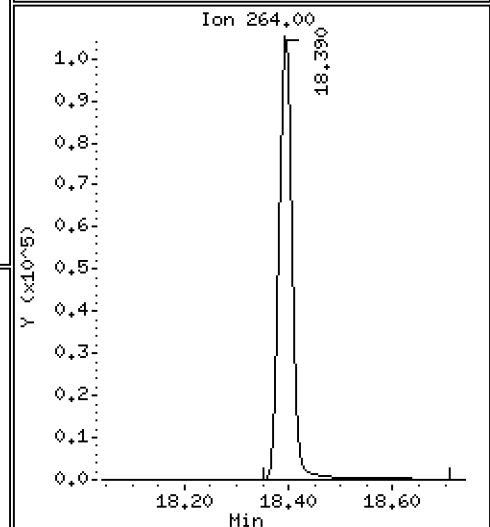
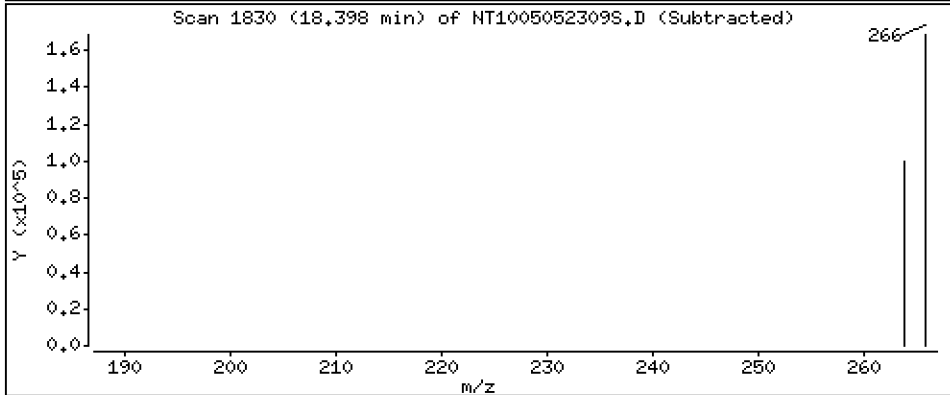
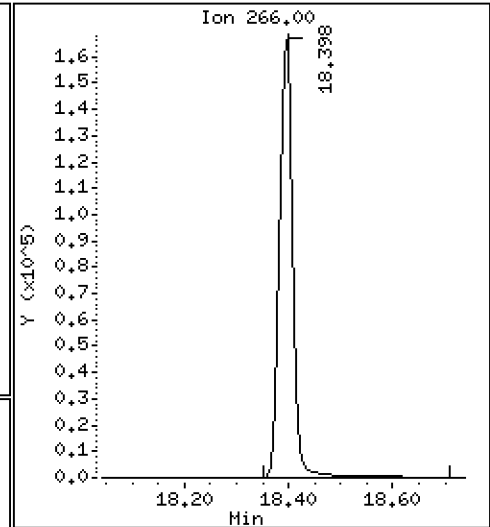
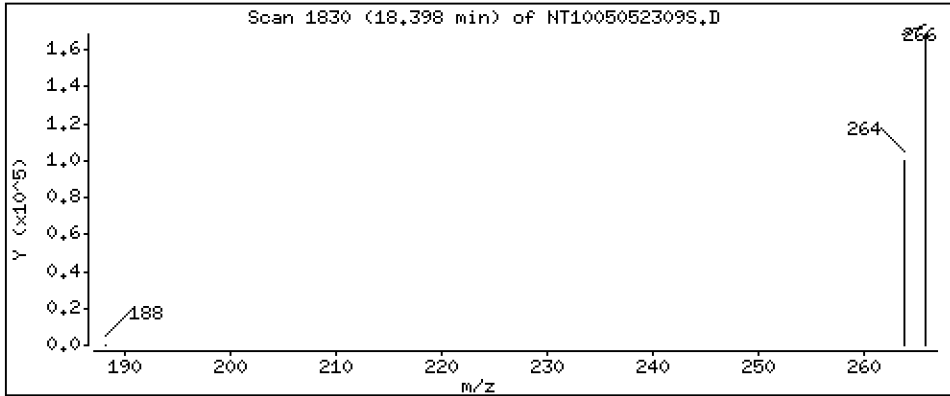
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 10,42 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

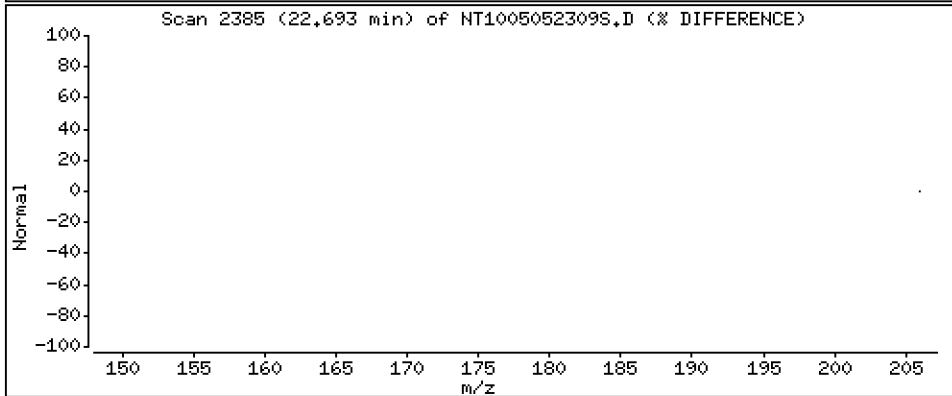
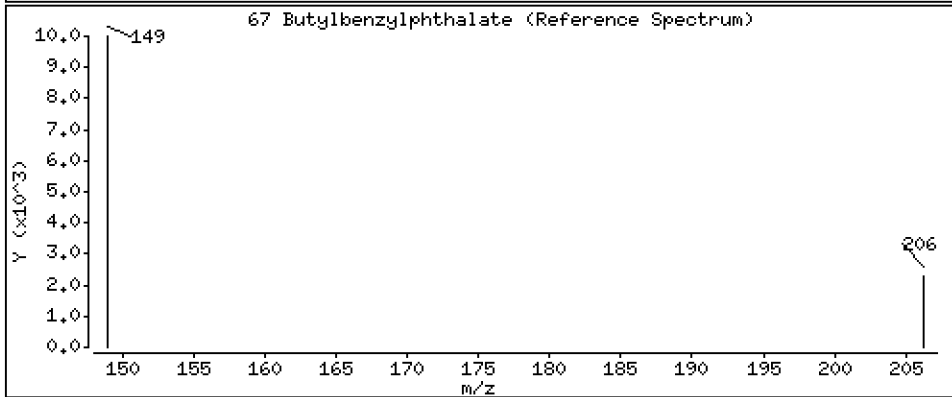
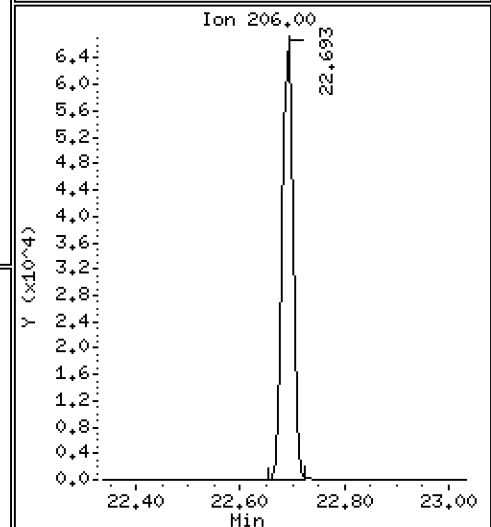
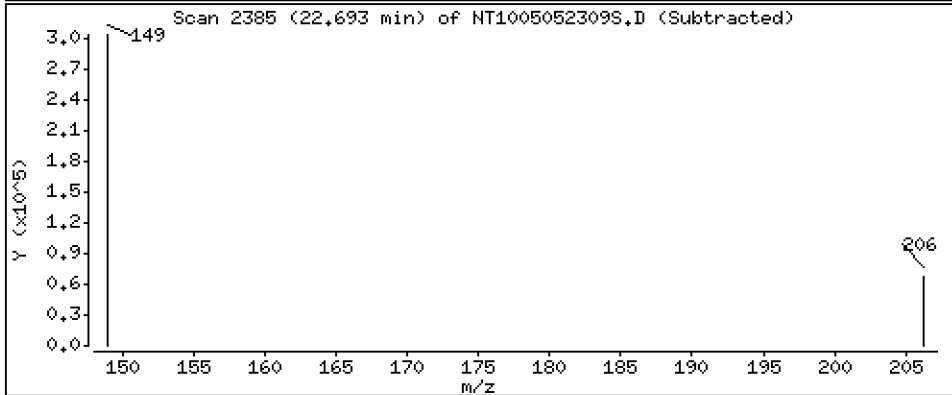
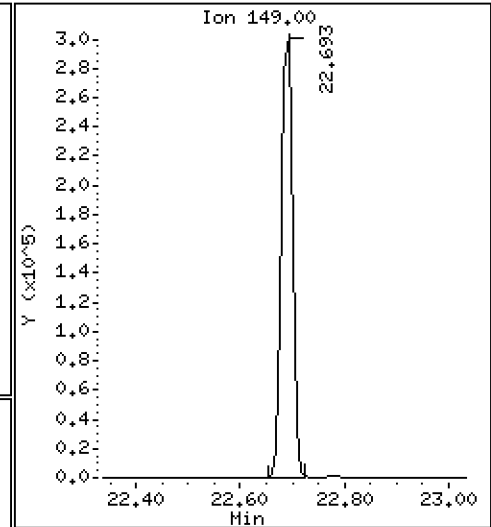
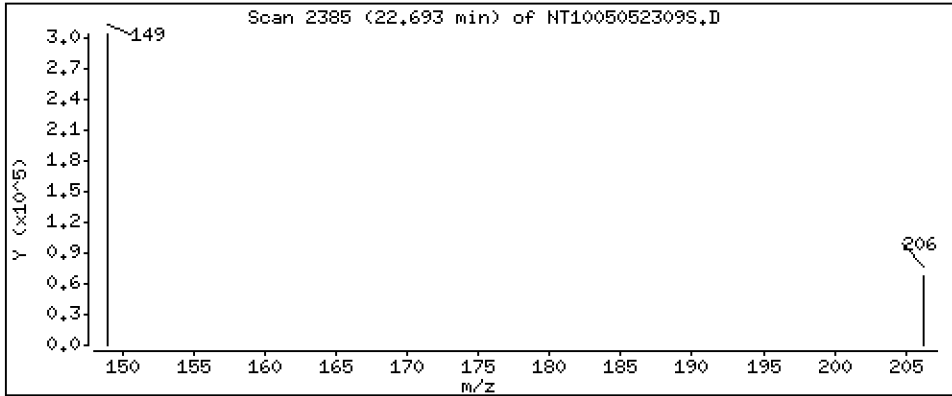
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,244 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

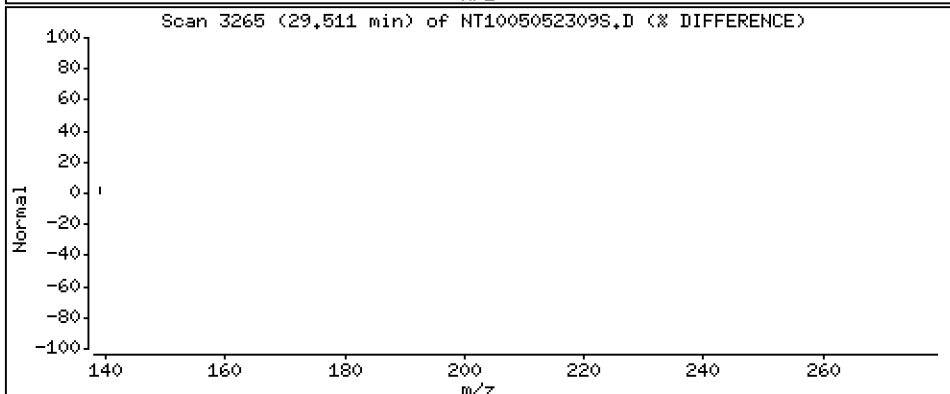
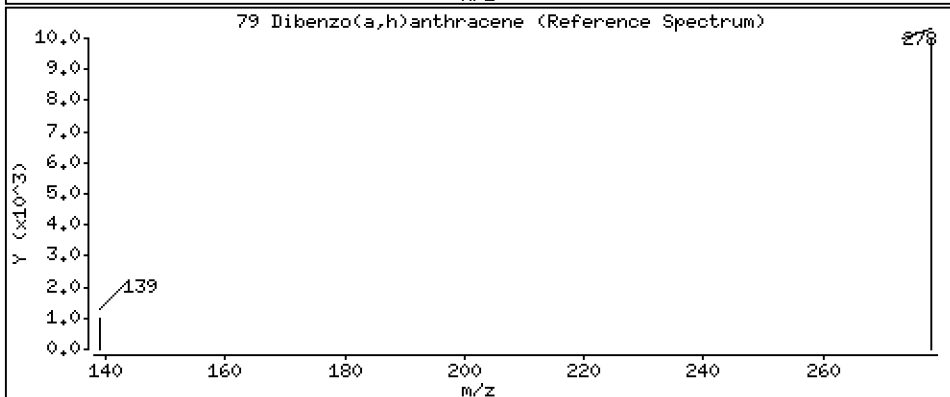
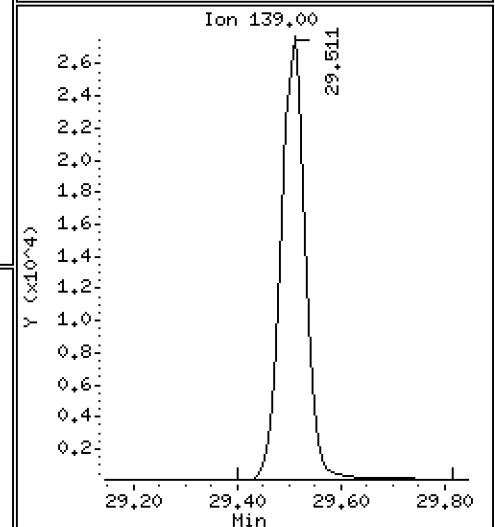
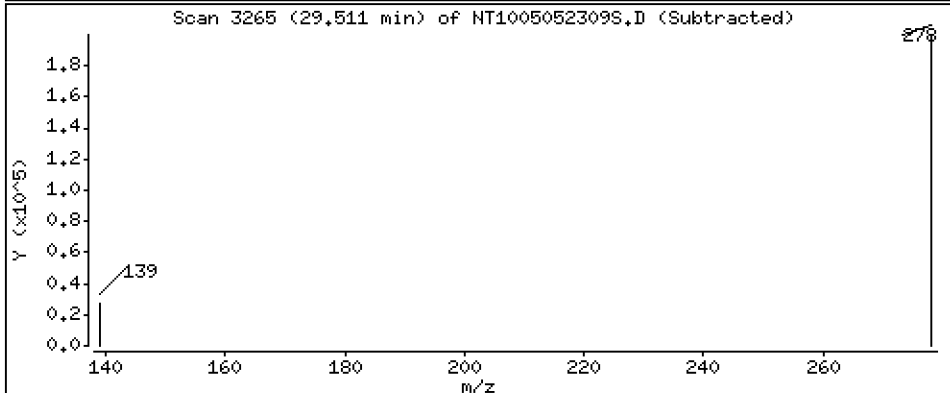
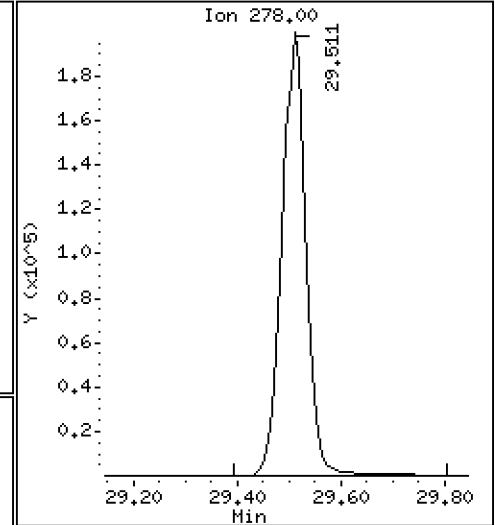
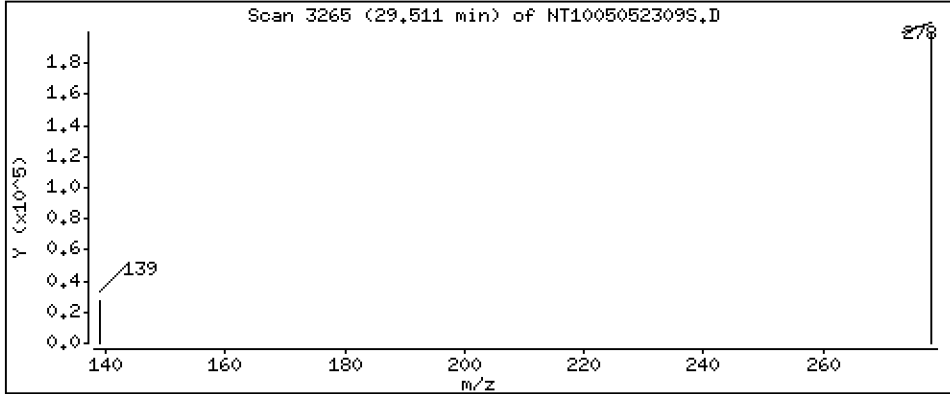
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,280 ug/L



Date : 05-MAY-2023 15:57

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-BSD2

Volume Injected (uL): 1.0

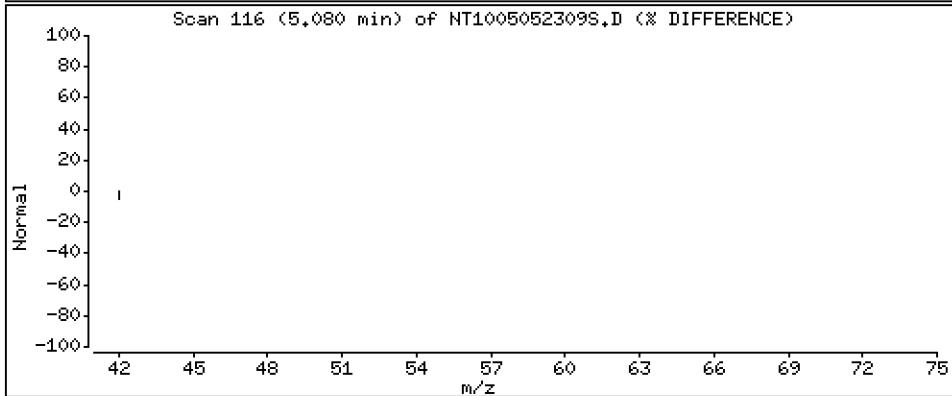
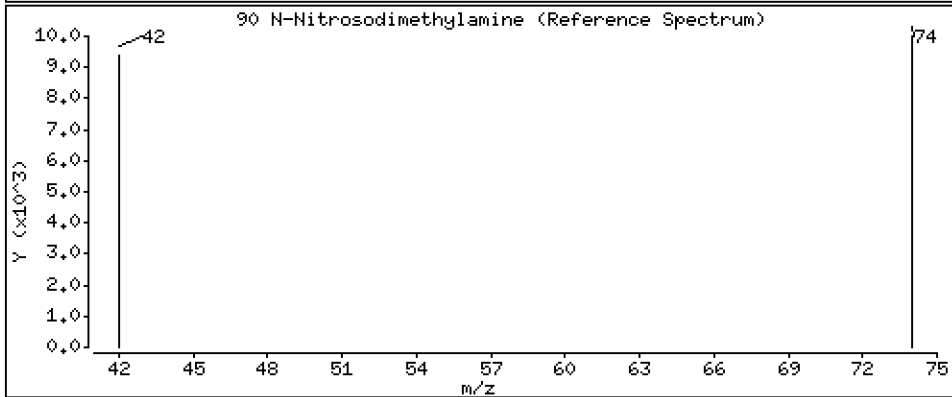
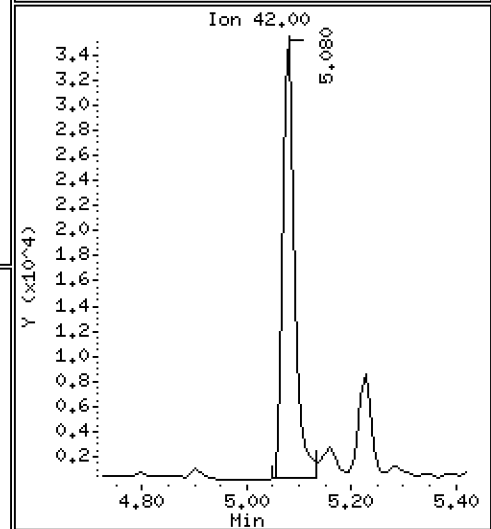
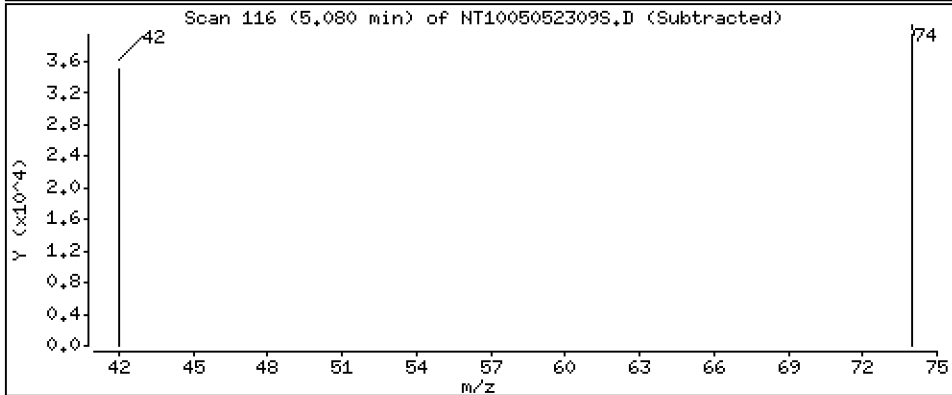
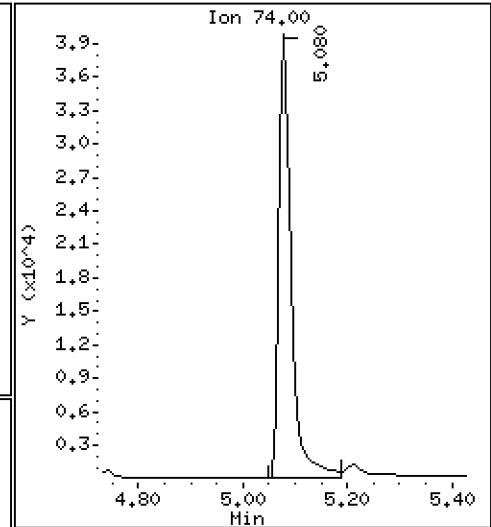
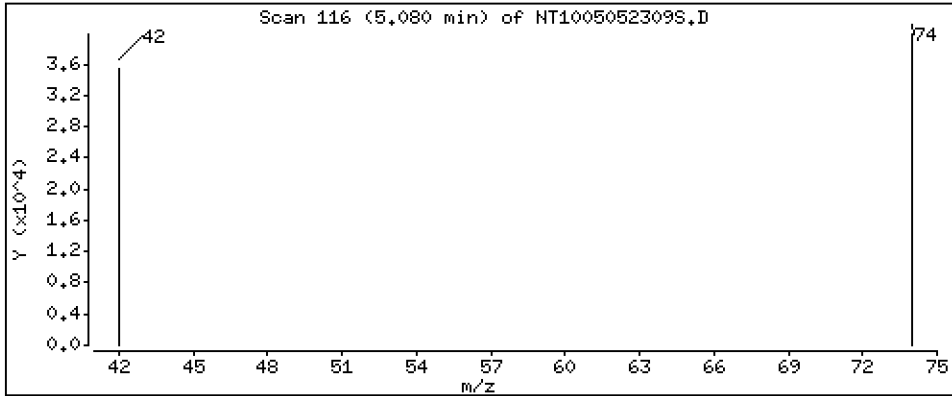
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 2,139 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052309S.D
 Lab Smp Id: BLD0329-BSD2
 Inj Date : 05-MAY-2023 15:57 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLD0329-BSD2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.762)	204120	3.86512	3.865(R)
3 Phenol	94		8.850	8.842	(0.932)	172138	2.60215	2.602
7 1,3-Dichlorobenzene	146		9.429	9.430	(0.993)	220576	3.17050	3.171
* 8 1,4-Dichlorobenzene-d4	152		9.499	9.492	(1.000)	173364	4.00000	
9 1,4-Dichlorobenzene	146		9.522	9.523	(1.002)	220556	3.20088	3.201
11 Benzyl alcohol	79		9.755	9.756	(1.027)	176487	3.85786	3.858
12 1,2-Dichlorobenzene	146		9.887	9.880	(1.041)	217880	3.28754	3.288
13 2-Methylphenol	108		9.973	9.965	(1.050)	147520	2.97970	2.980
15 4-Methylphenol	108		10.244	10.237	(1.078)	170950	3.28401	3.284
16 N-Nitroso-di-n-propylamine	70		10.314	10.315	(1.086)	141760	3.77423	3.774
22 2,4-Dimethylphenol	107		11.287	11.288	(0.942)	357186	5.66129	5.661
24 Benzoic acid	105		11.449	11.381	(0.955)	401778	9.43168	9.432
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.993)	207933	3.21233	3.212
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	634980	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	140729	3.40506	3.405
39 Dimethylphthalate	163		15.106	15.099	(0.967)	500969	3.98761	3.988
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	331413	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	619063	4.58925	4.589
54 N-Nitrosodiphenylamine	169		16.961	16.954	(0.909)	301440	3.56778	3.568
57 Hexachlorobenzene	284		18.041	18.034	(0.966)	144868	3.50134	3.501

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.398	18.390	(0.985)	285295	10.4169	10.42
* 59 Phenanthrene-d10	188	18.668	18.669	(1.000)	647855	4.00000	
\$ 66 Terphenyl-d14	244	21.771	21.771	(0.919)	486892	4.18358	4.184 (R)
67 Butylbenzylphthalate	149	22.692	22.685	(0.958)	421099	4.24372	4.244
* 69 Chrysene-d12	240	23.691	23.684	(1.000)	539738	4.00000	
* 77 Perylene-d12	264	26.532	26.517	(1.000)	462376	4.00000	
79 Dibenzo(a,h)anthracene	278	29.511	29.496	(1.112)	638752	4.27971	4.280
90 N-Nitrosodimethylamine	74	5.080	5.080	(0.535)	61638	2.13948	2.139

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052309S.D
 Lab Smp Id: BLD0329-BSD2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	173364	-5.11
27 Naphthalene-d8	662220	331110	1324440	634980	-4.11
42 Acenaphthene-d10	335558	167779	671116	331413	-1.24
59 Phenanthrene-d10	678190	339095	1356380	647855	-4.47
69 Chrysene-d12	566969	283485	1133938	539738	-4.80
77 Perylene-d12	522906	261453	1045812	462376	-11.58

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.50	0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	-0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	-0.00
59 Phenanthrene-d10	18.67	18.17	19.17	18.67	-0.00
69 Chrysene-d12	23.68	23.18	24.18	23.69	0.03
77 Perylene-d12	26.52	26.02	27.02	26.53	0.06

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

REVIEW SUMMARY FOR FILE - NT1005052309S.D

Lab ID: BLD0329-BSD2

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 15:57

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.949	0.0057	Benzoic acid

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23D0136</u>
Client: <u>Anchor OEA, LLC</u>	Project: <u>AOC5 MR Phase 1</u>
Matrix: <u>Solid</u>	Analyzed: <u>05/05/23 18:32</u>
Batch: <u>BLD0329</u>	Laboratory ID: <u>BLD0329-MS2</u>
Preparation: <u>EPA 3546 (Microwave)</u>	Sequence Name: <u>Matrix Spike</u>
Initial/Final: <u>22.57 g / 1 mL</u>	Source Sample: <u>LDW23-SS1803</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
1,4-Dichlorobenzene	500	2.2	J	283		56.2	36 - 120
1,2-Dichlorobenzene	500	ND	U	288		57.6	36 - 120
Benzyl Alcohol	500	301		582		56.1	25 - 123
Benzoic acid	2300	106	Q, J	955	Q	36.9	10 - 160
2,4-Dimethylphenol	1300	3.1	J	942		72.2	10 - 120
1,2,4-Trichlorobenzene	500	ND	U	294		58.9	35 - 120
N-Nitrosodiphenylamine	500	ND	U	363		72.6	27 - 120
Pentachlorophenol	1300	5.4	J	1090	Q	83.7	26 - 120

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/05/23 19:11</u>
Batch:	<u>BLD0329</u>	Laboratory ID:	<u>BLD0329-MSD2</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>22.57 g / 1 mL</u>	Source Sample:	<u>LDW23-SS1803</u>

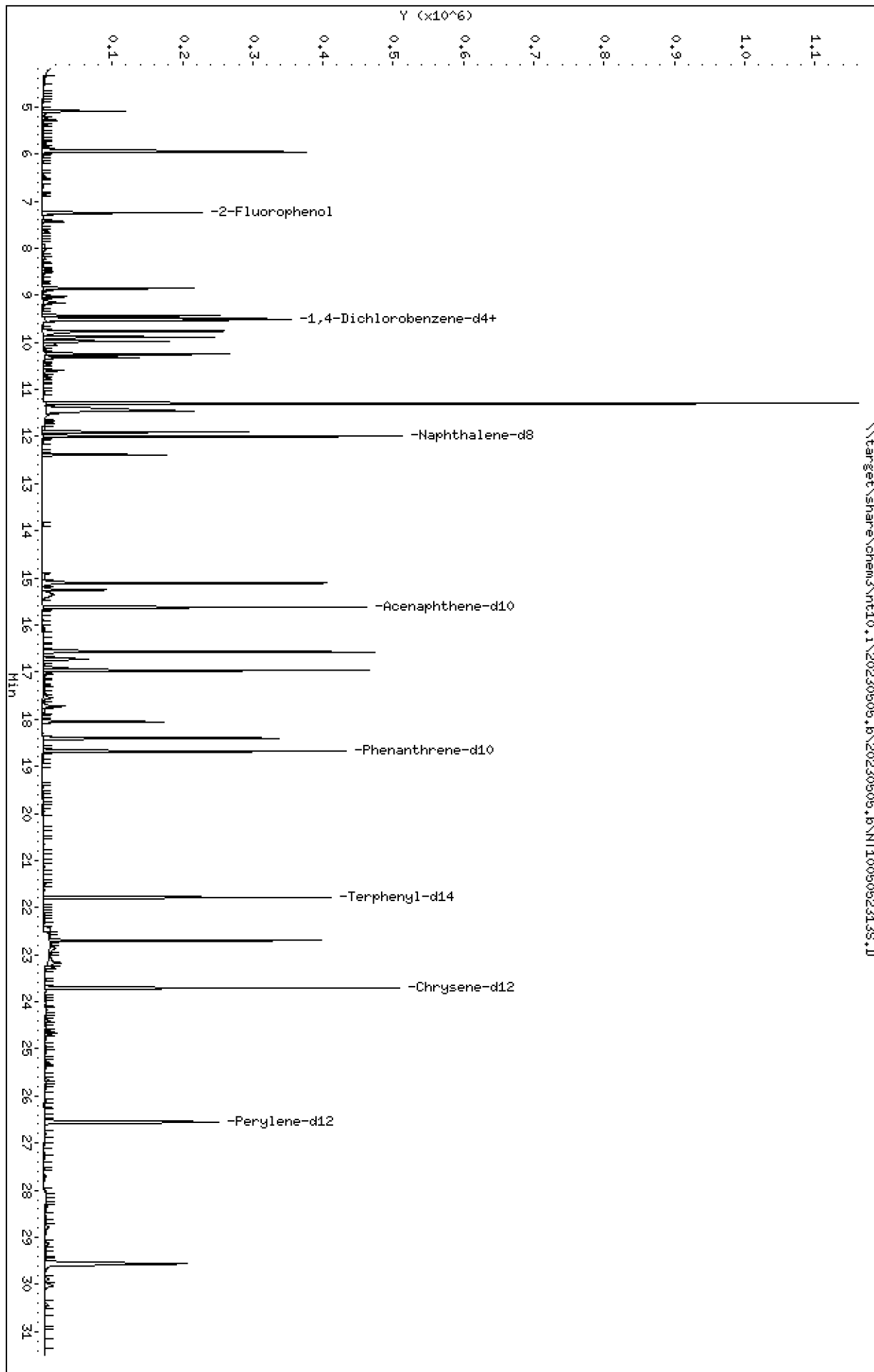
COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
1,4-Dichlorobenzene	500	295		58.5	4.05	30	36 - 120
1,2-Dichlorobenzene	500	300		60.0	4.01	30	36 - 120
Benzyl Alcohol	500	617		63.1	5.87	30	25 - 123
Benzoic acid	2300	987	Q	38.3	3.26	30	10 - 160
2,4-Dimethylphenol	1300	912		70.0	3.19	30	10 - 120
1,2,4-Trichlorobenzene	500	311		62.1	5.38	30	35 - 120
N-Nitrosodiphenylamine	500	390		78.0	7.24	30	27 - 120
Pentachlorophenol	1300	1120	Q	86.1	2.84	30	26 - 120

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523135.D
Date: 05-May-2023 18:32
Client ID:
Sample Info: BLD0329-HS2
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25

\\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523135.D



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

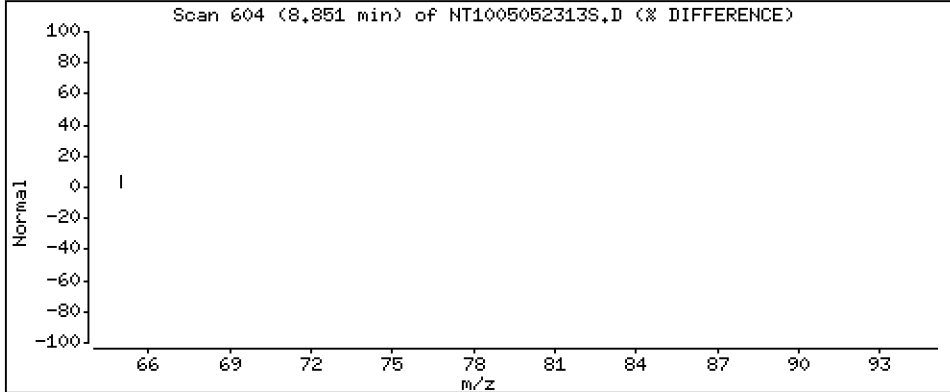
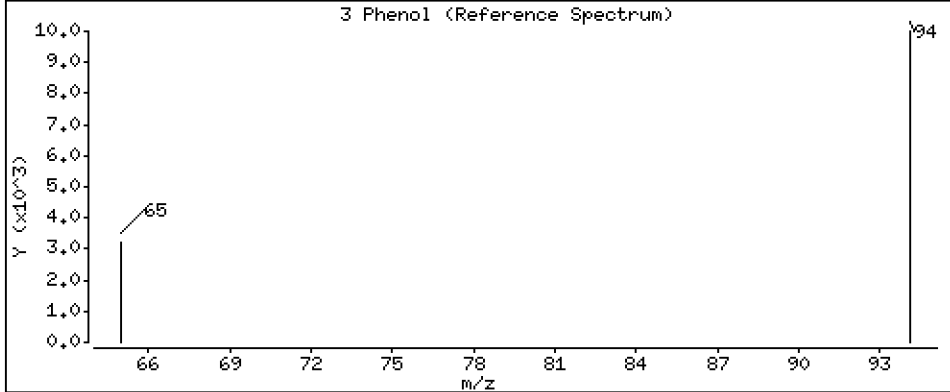
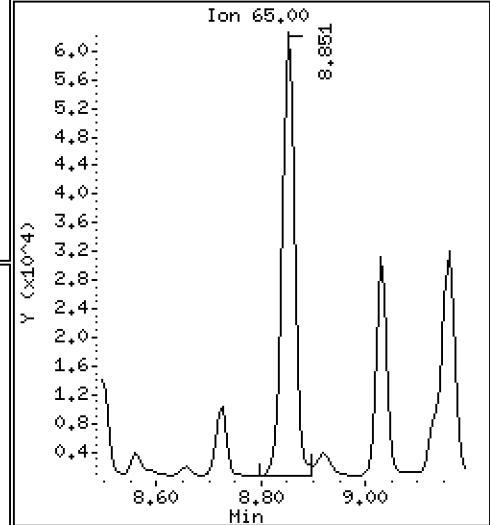
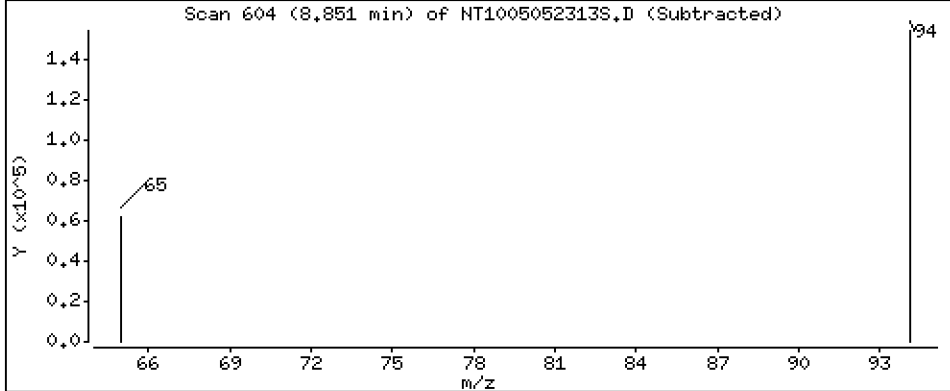
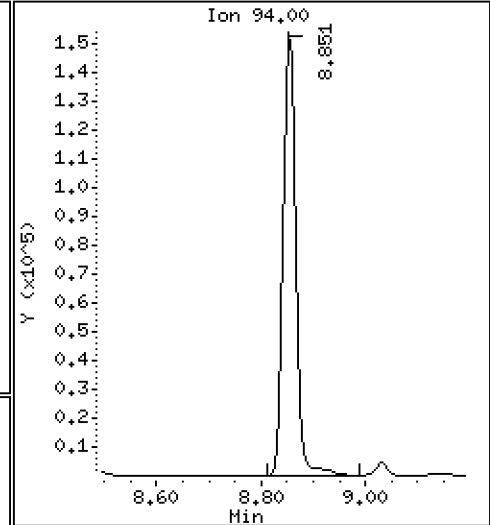
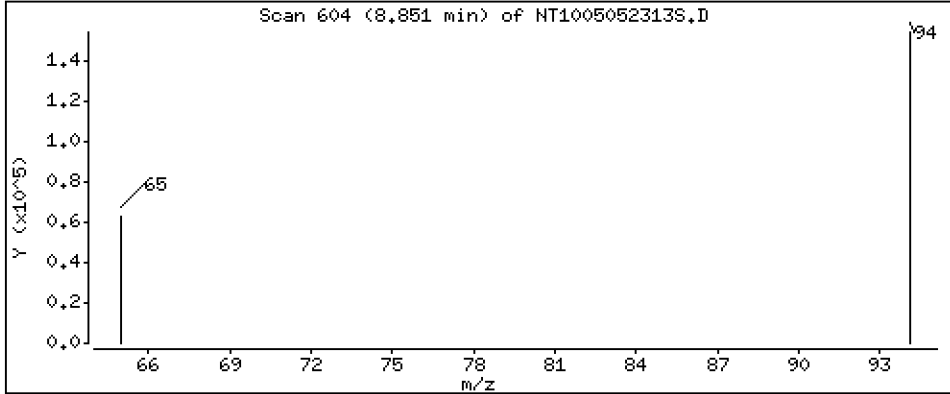
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,125 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

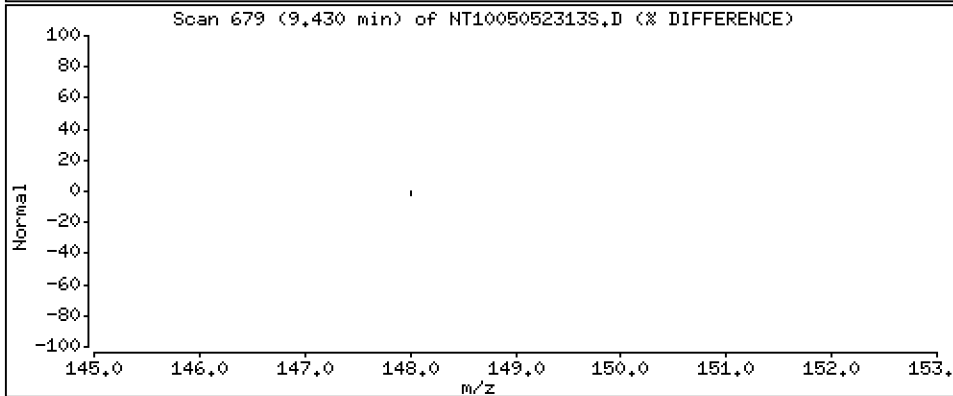
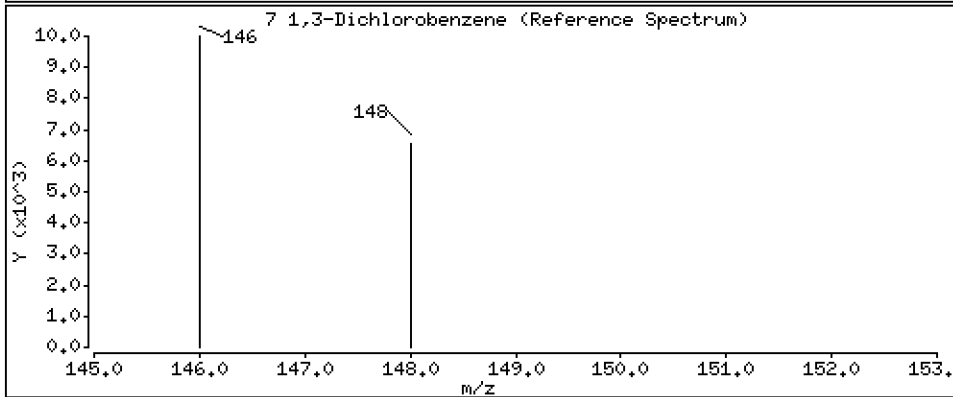
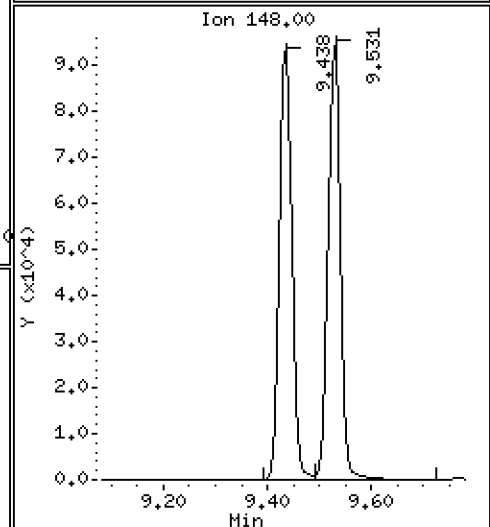
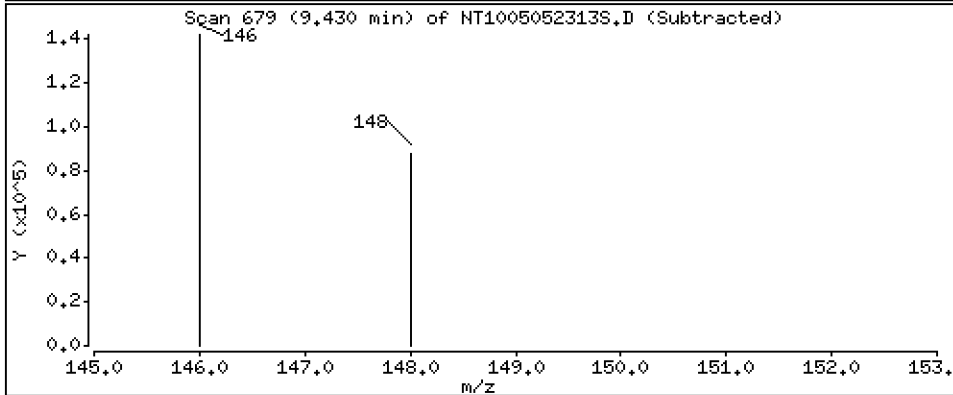
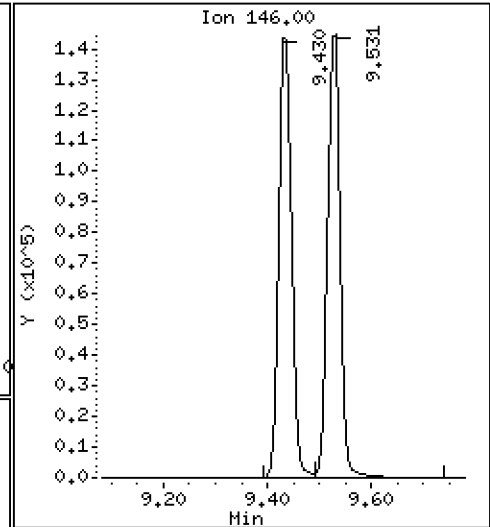
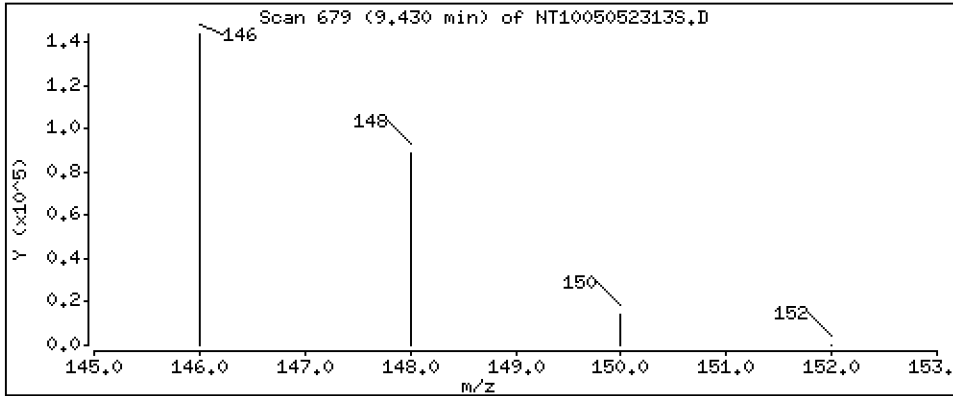
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 2,806 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

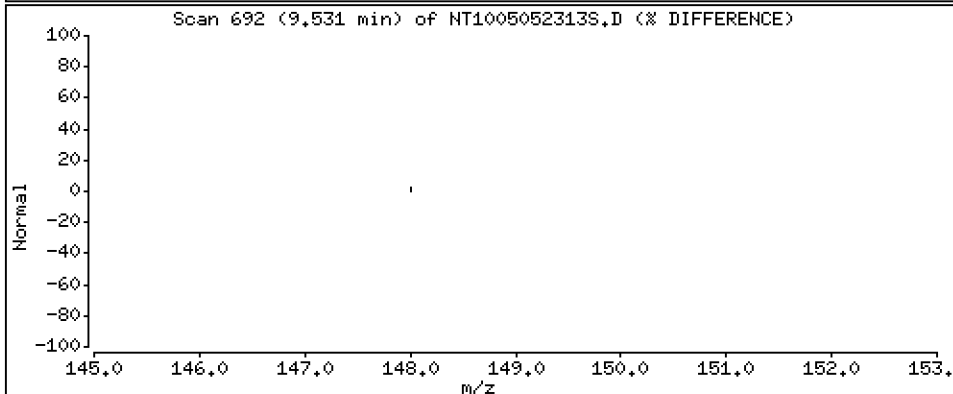
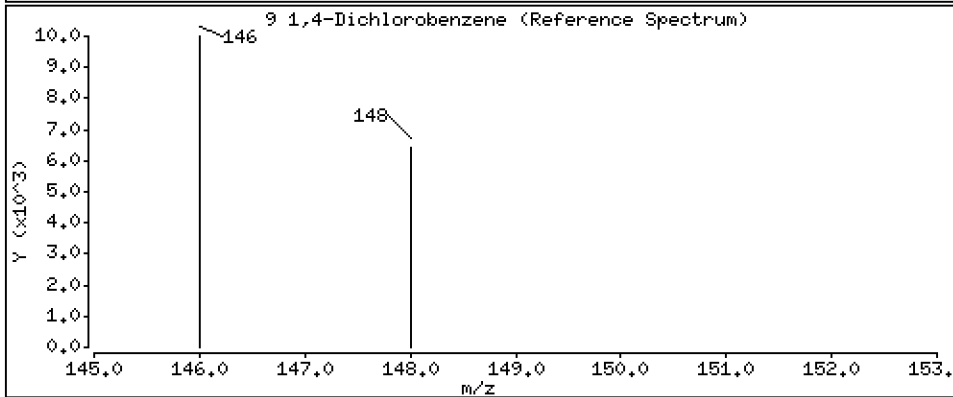
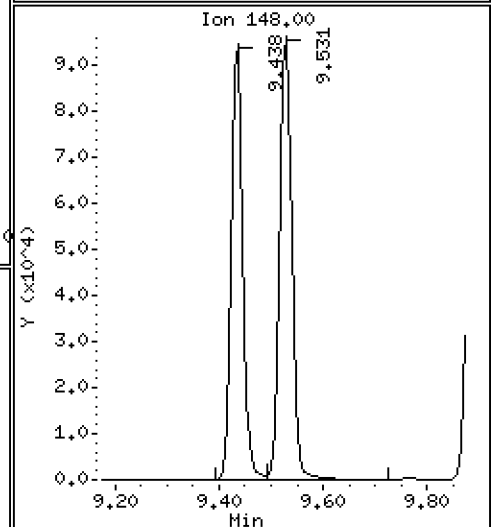
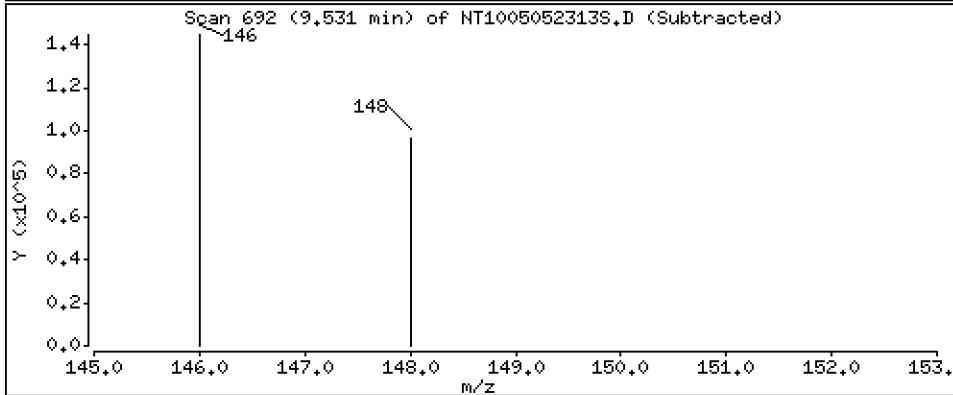
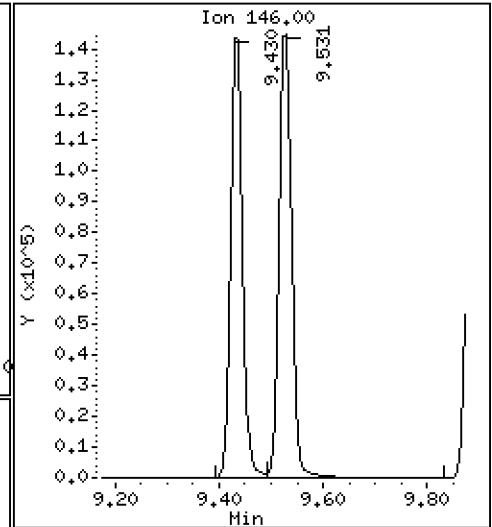
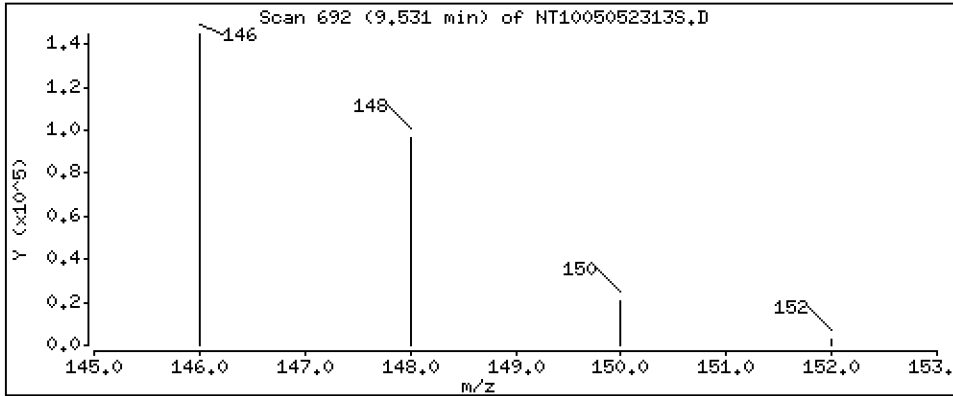
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 2,831 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

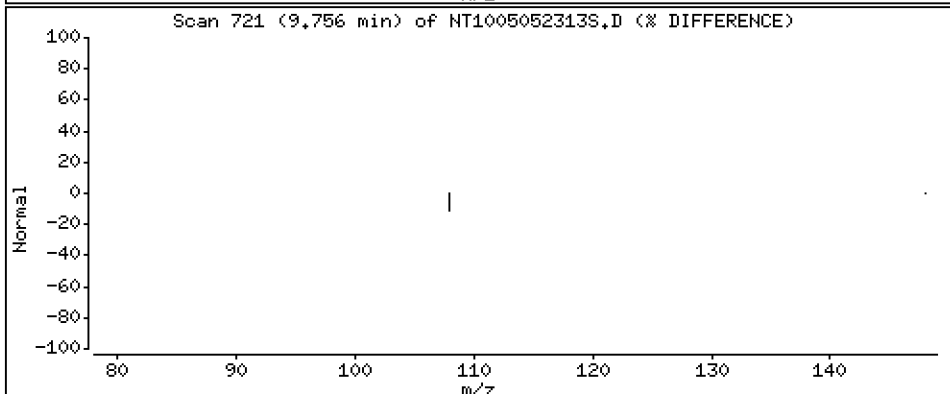
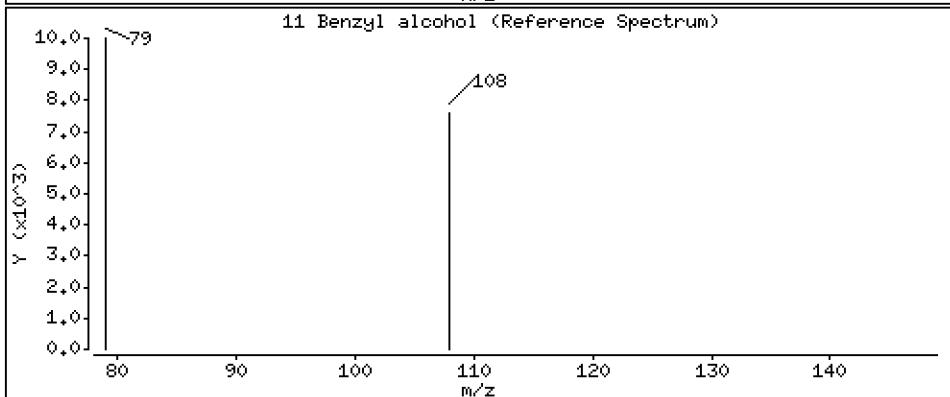
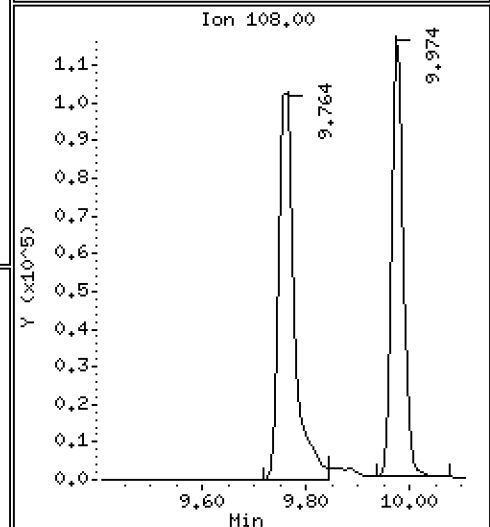
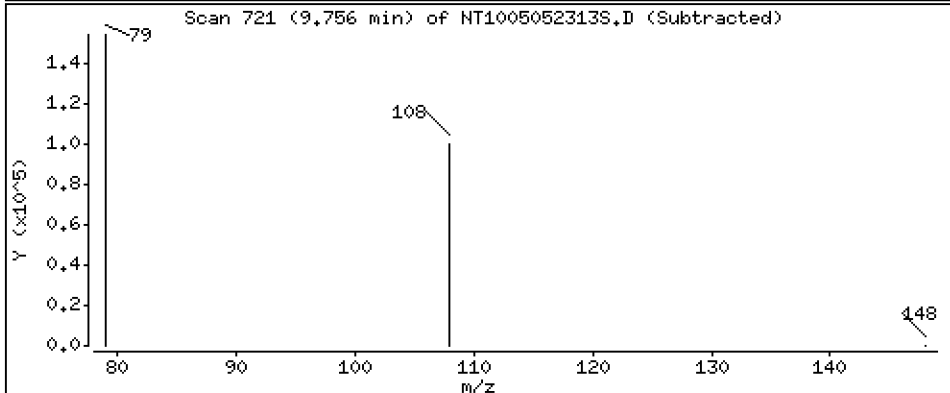
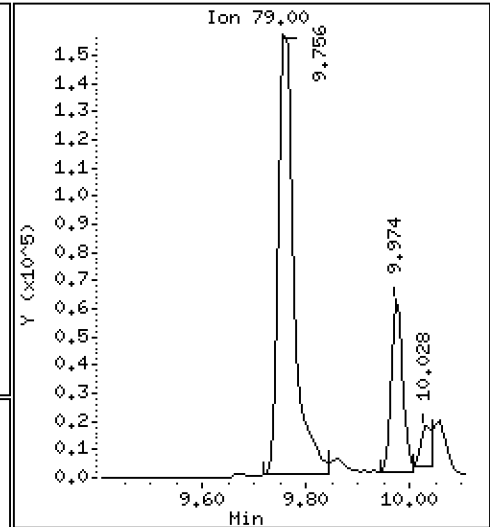
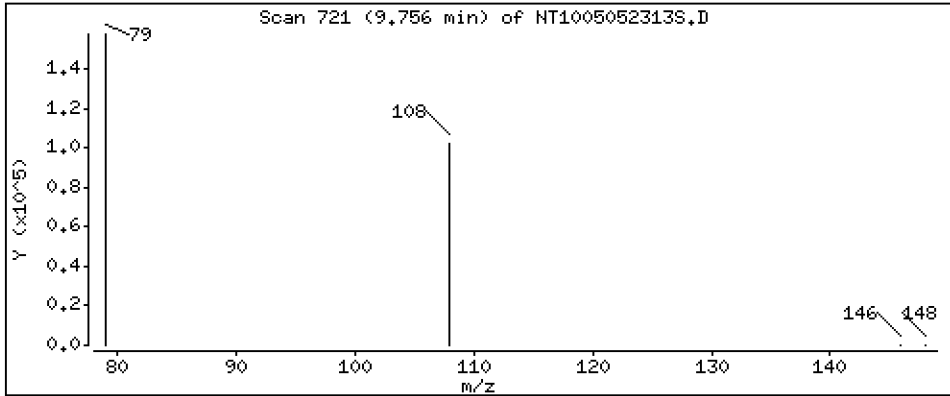
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 5,817 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

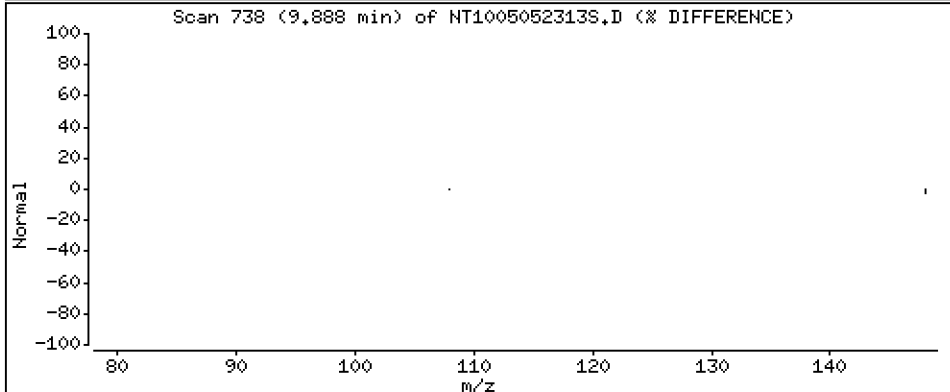
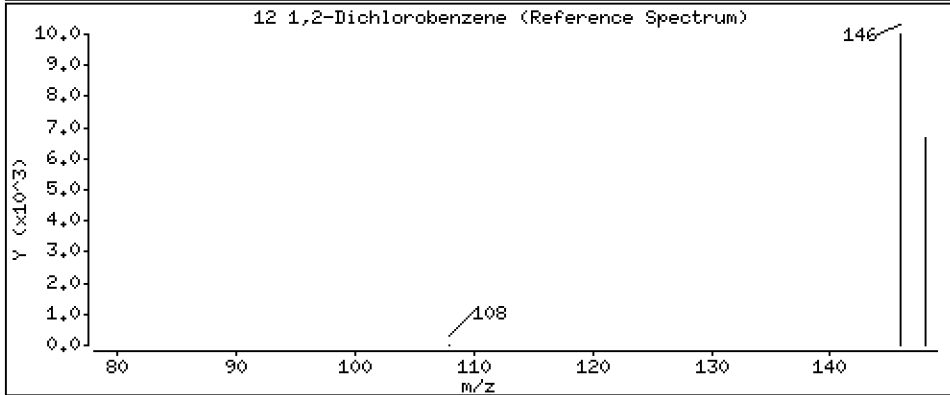
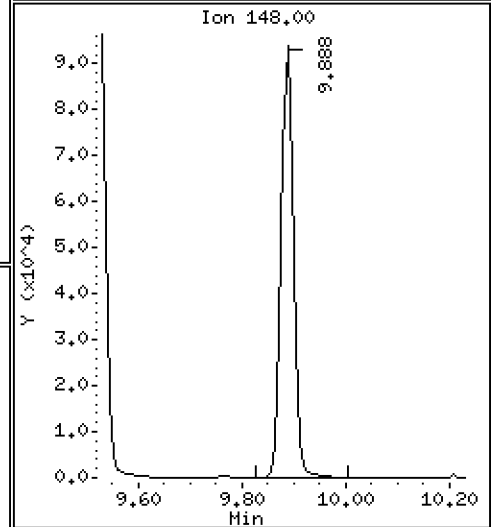
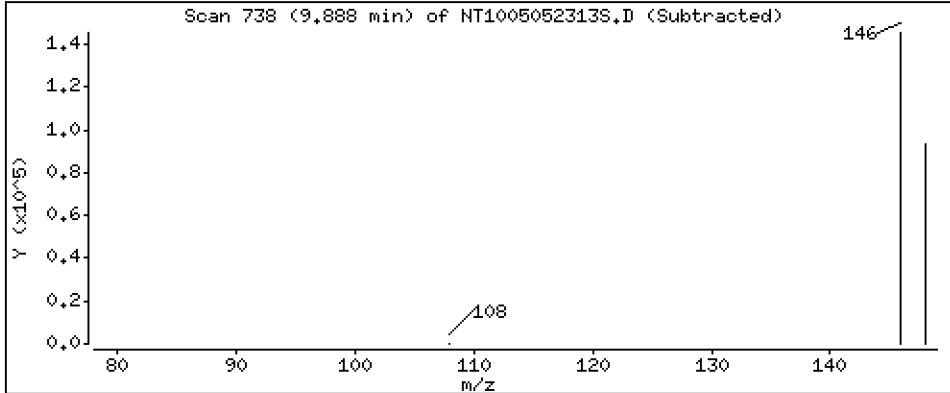
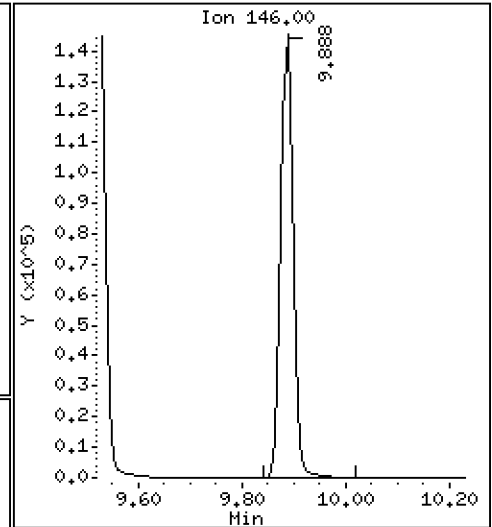
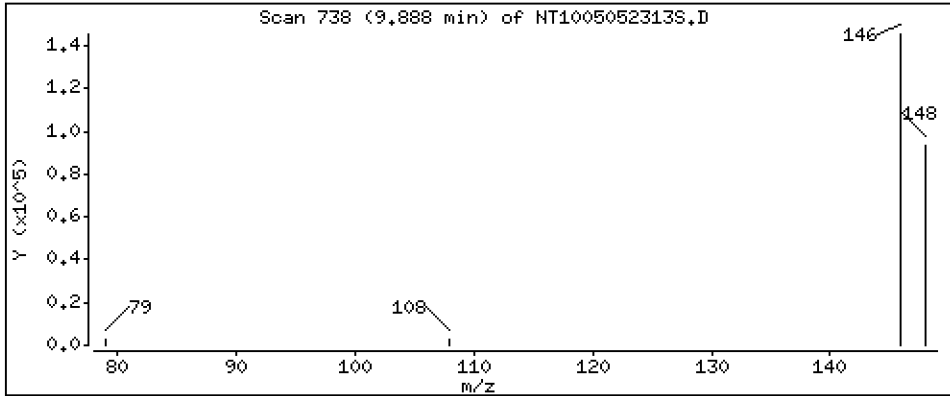
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 2,881 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

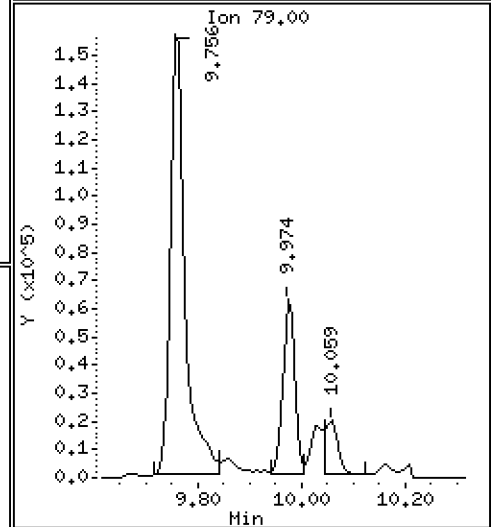
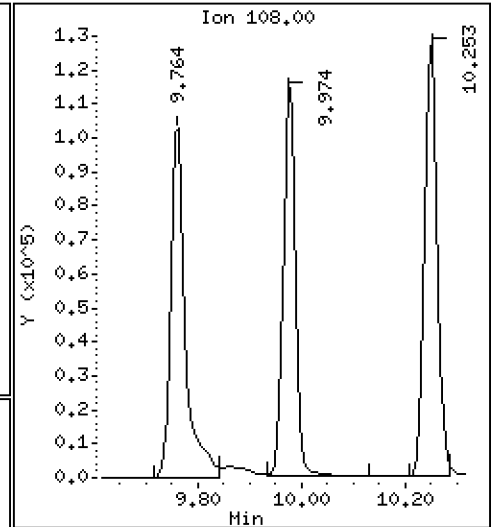
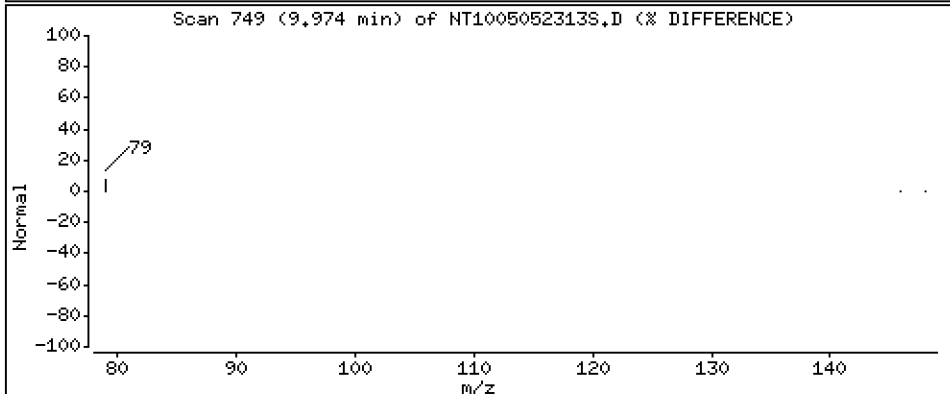
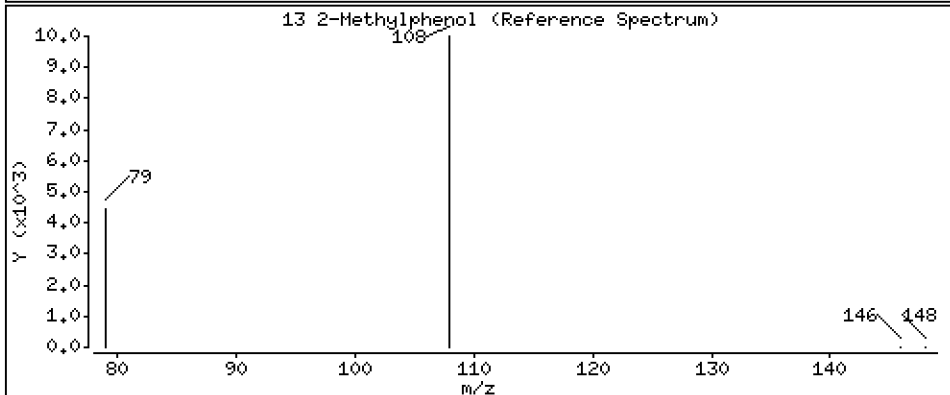
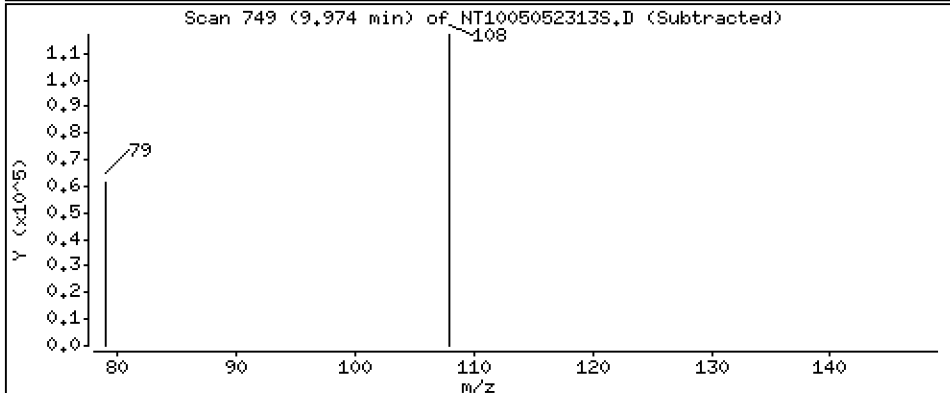
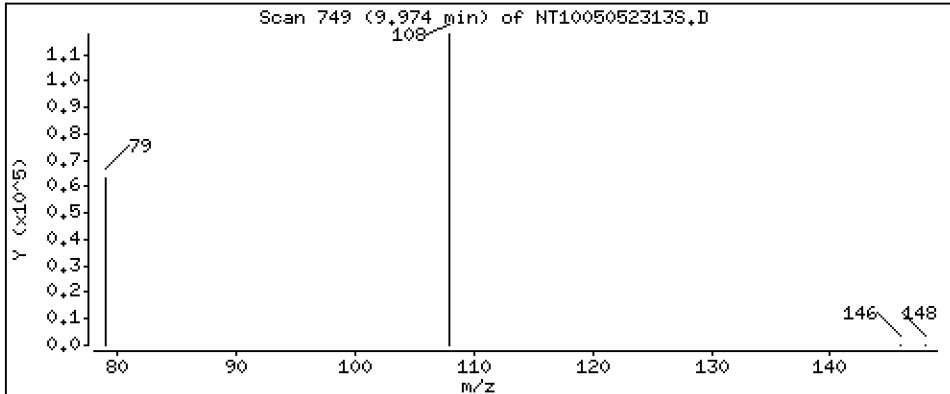
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3,146 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

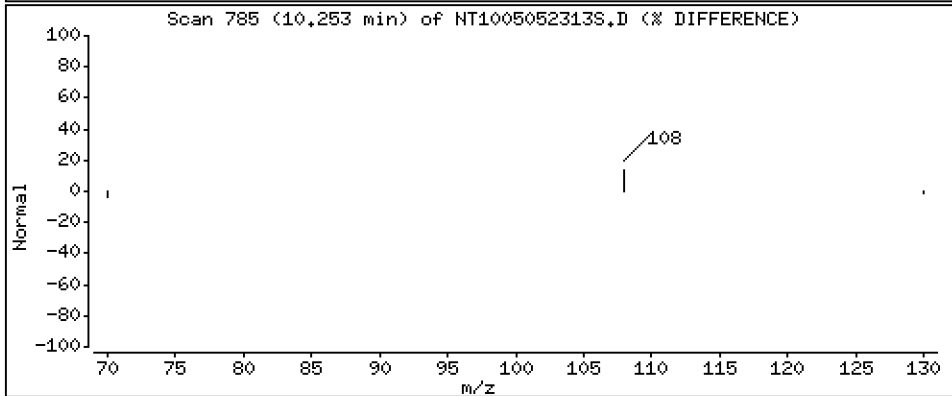
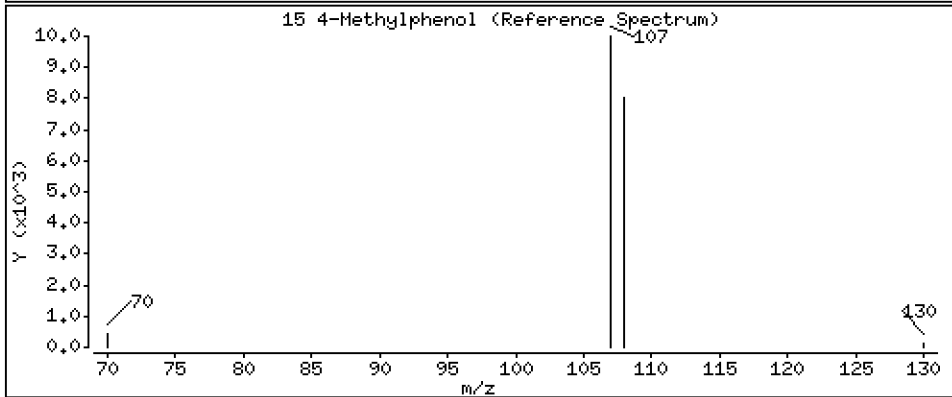
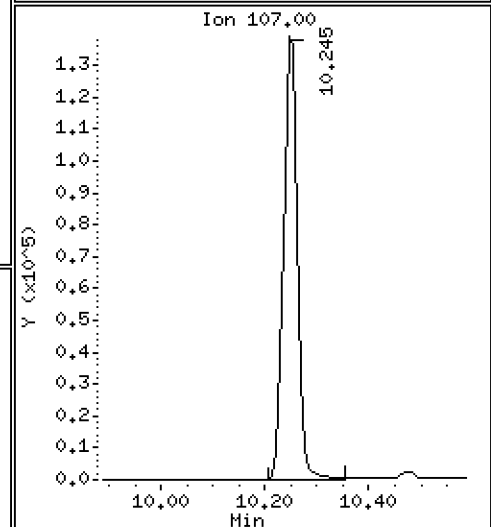
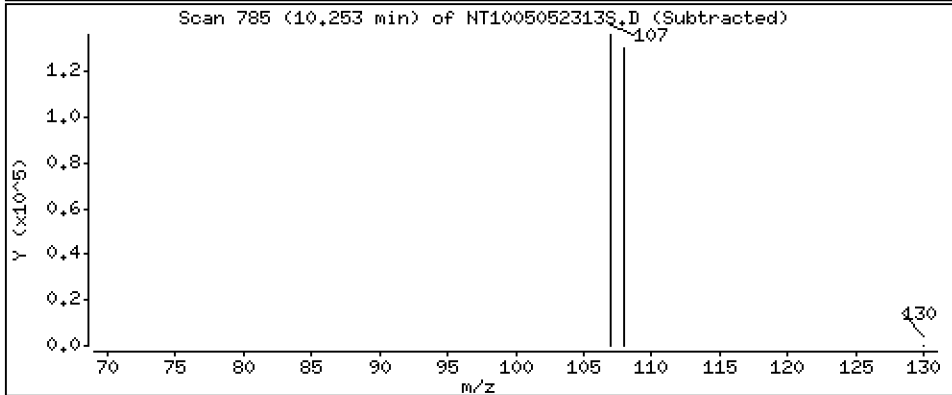
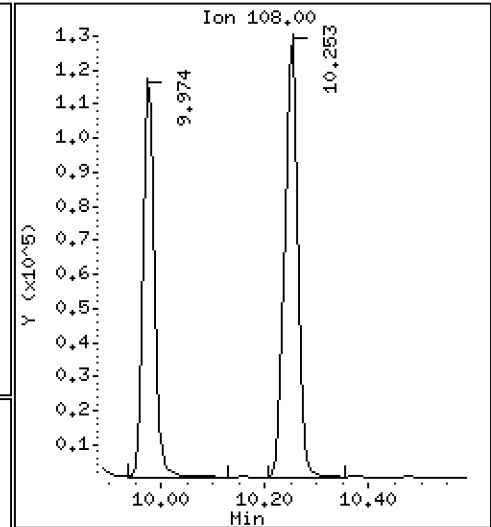
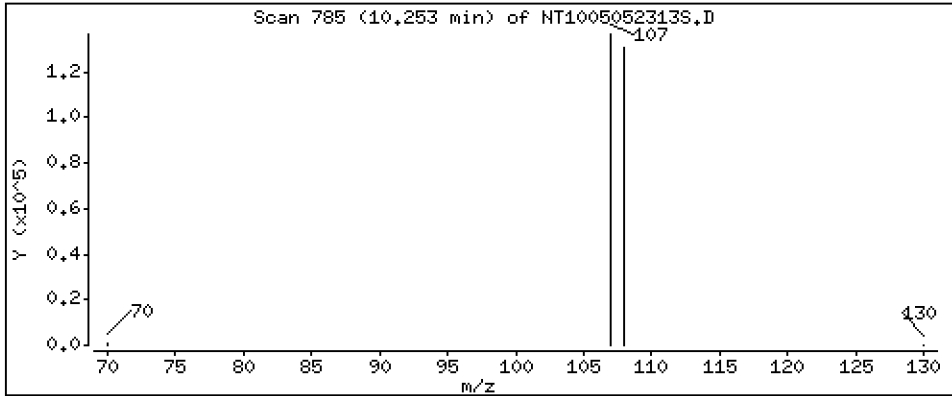
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,636 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

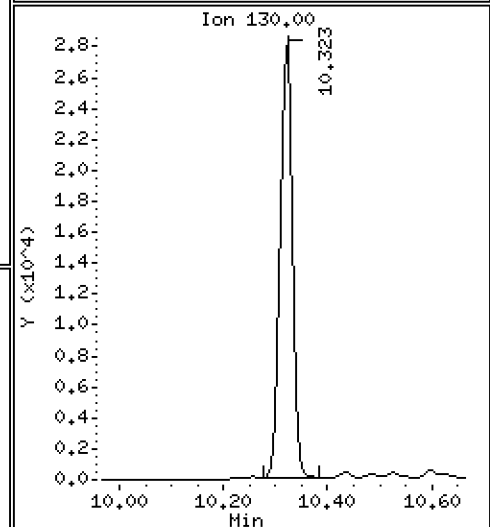
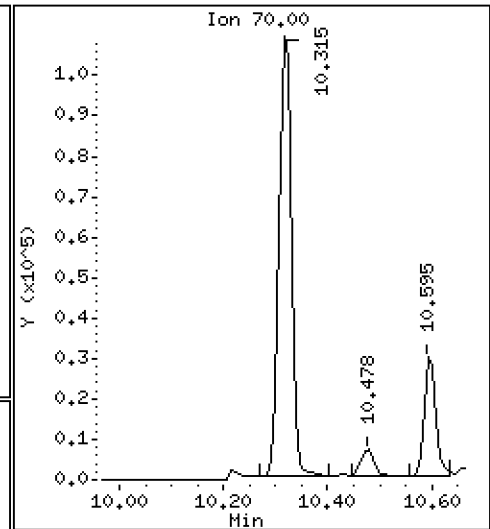
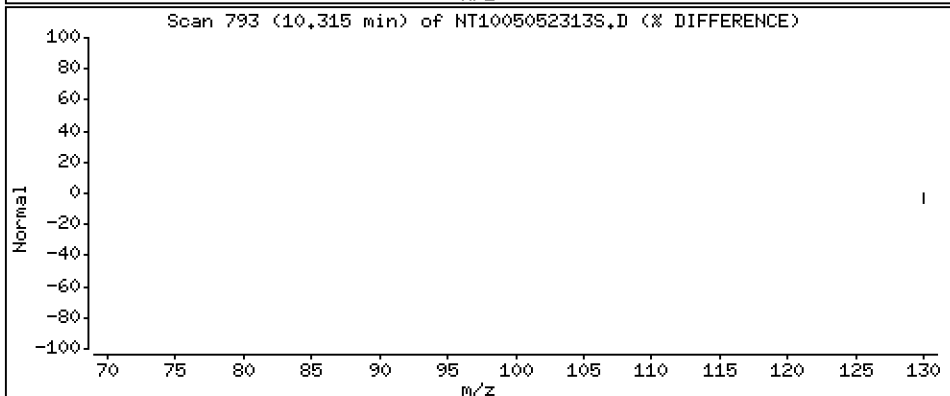
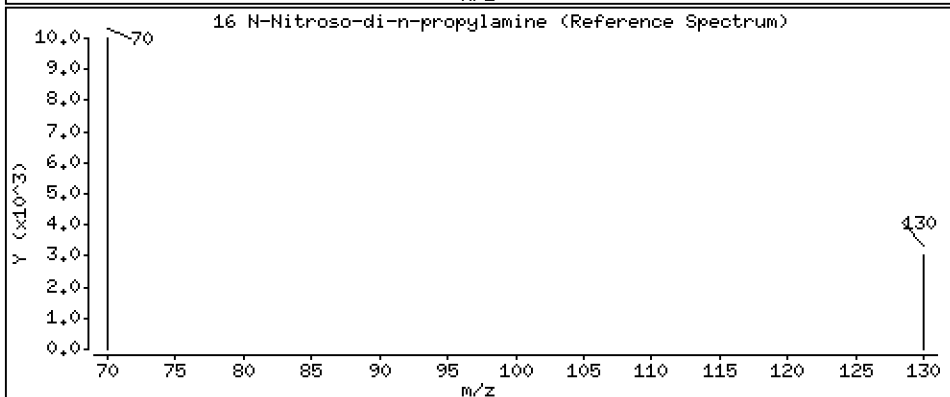
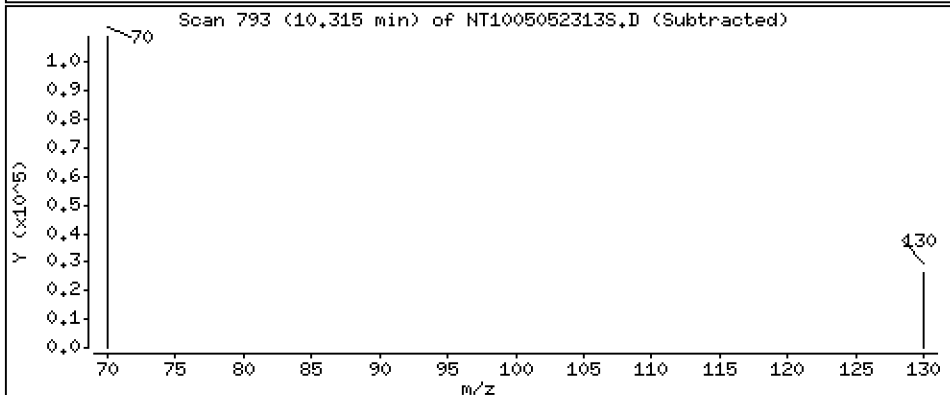
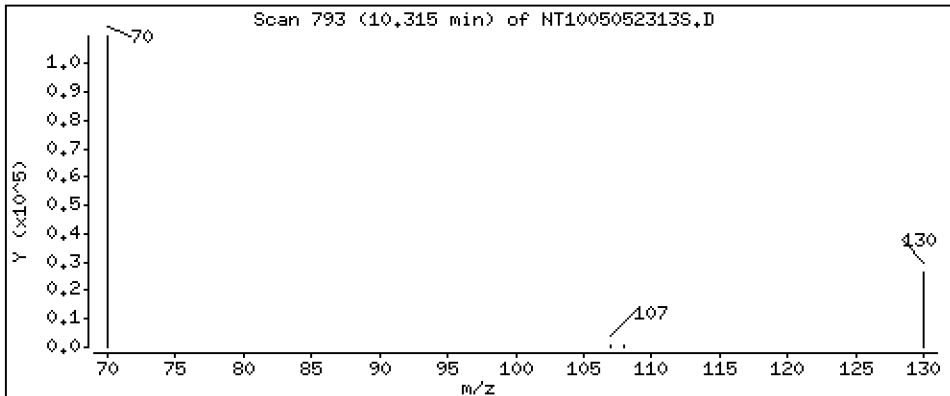
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 3,875 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

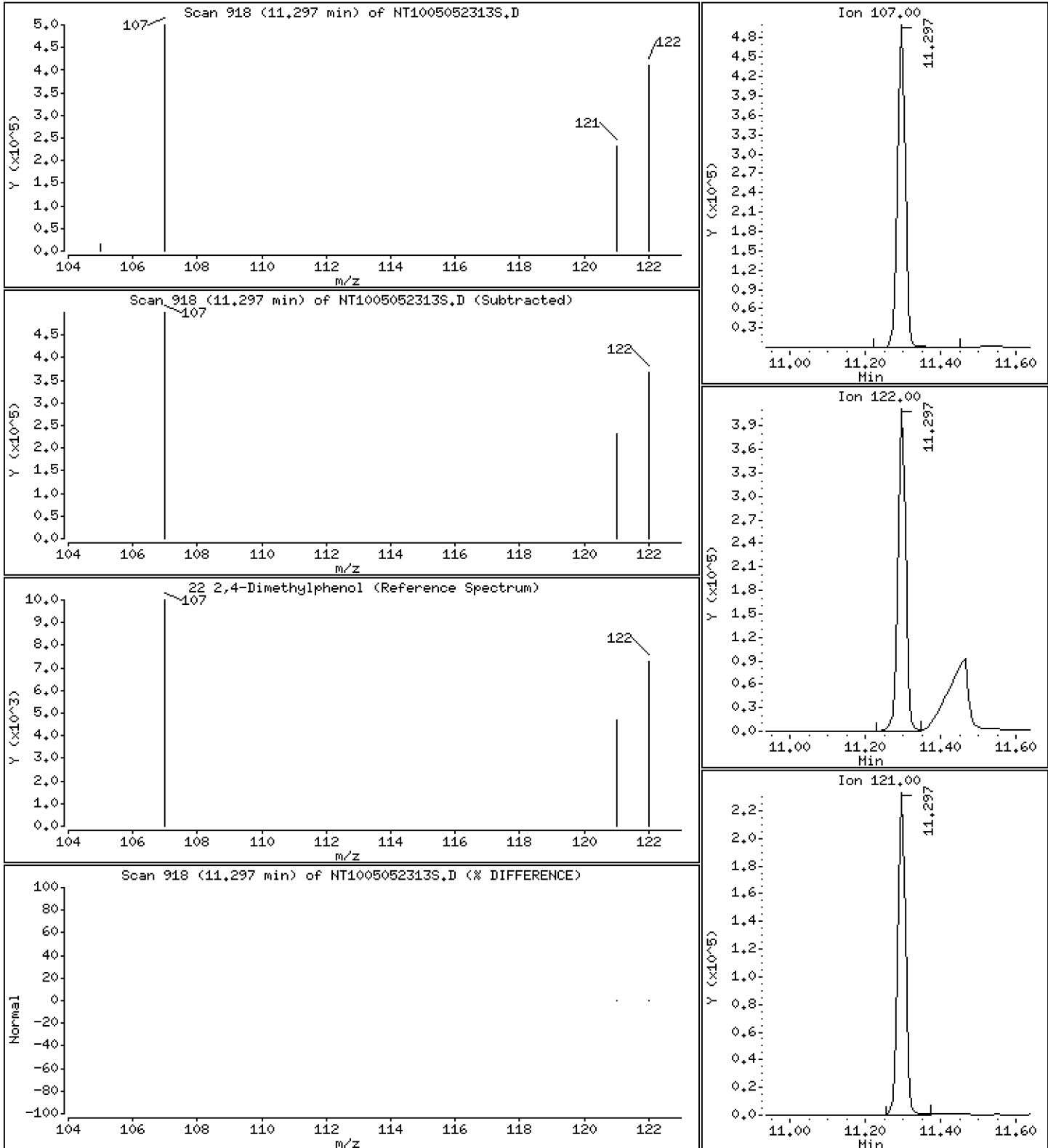
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 9.421 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

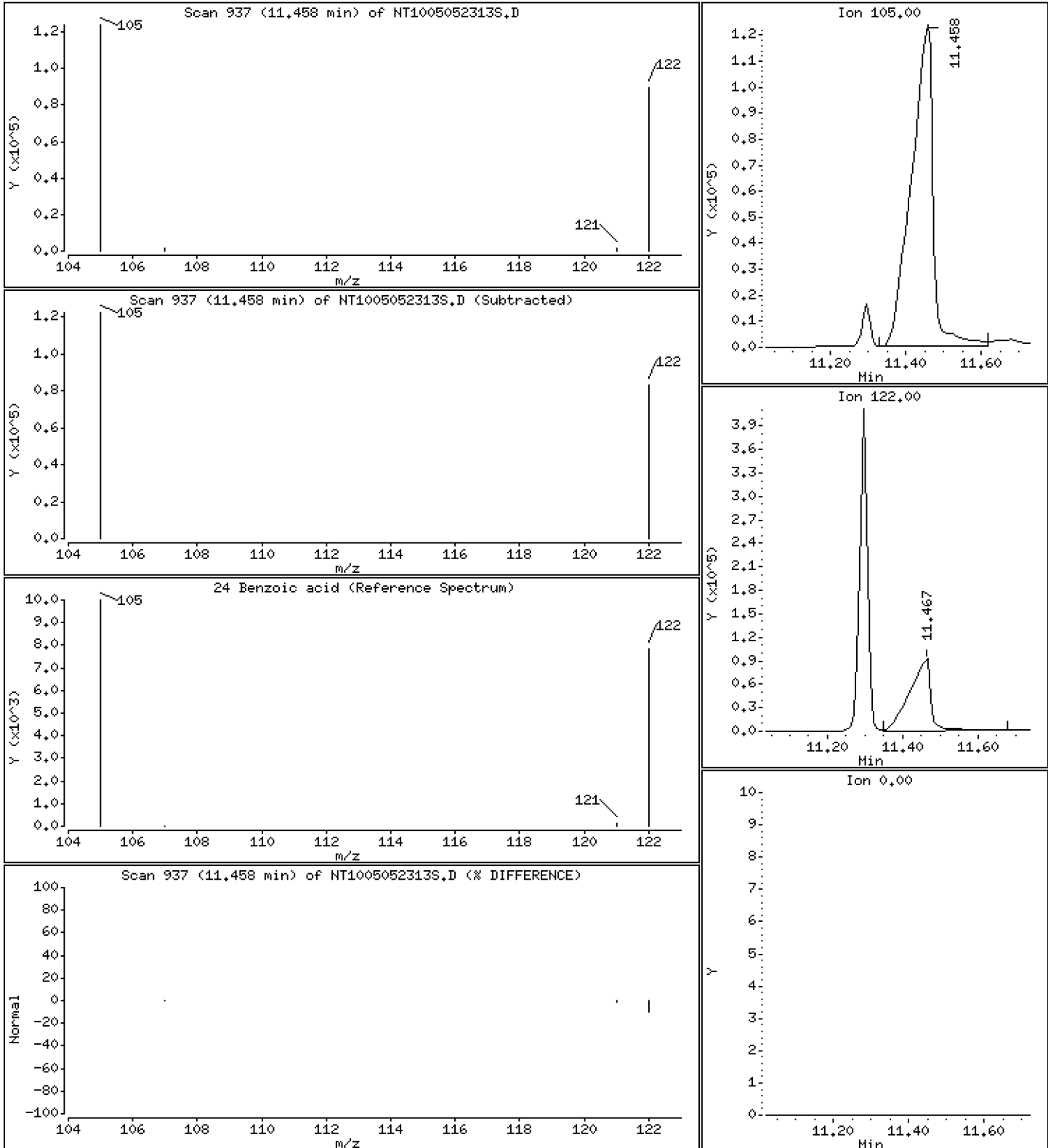
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 9,555 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

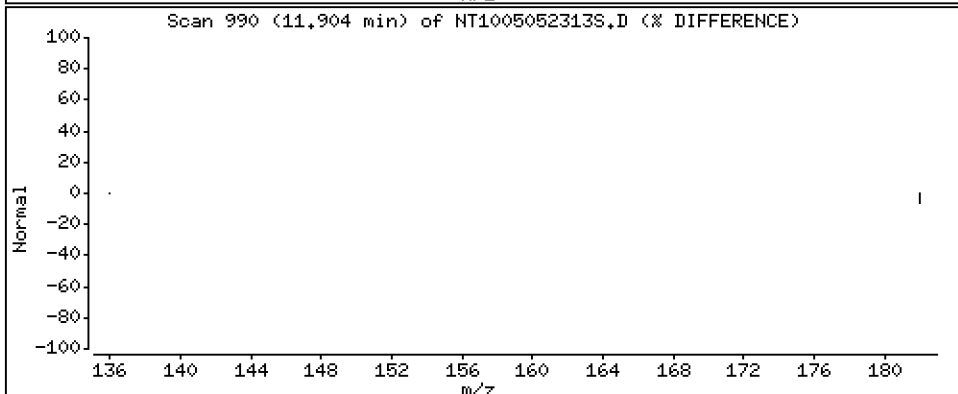
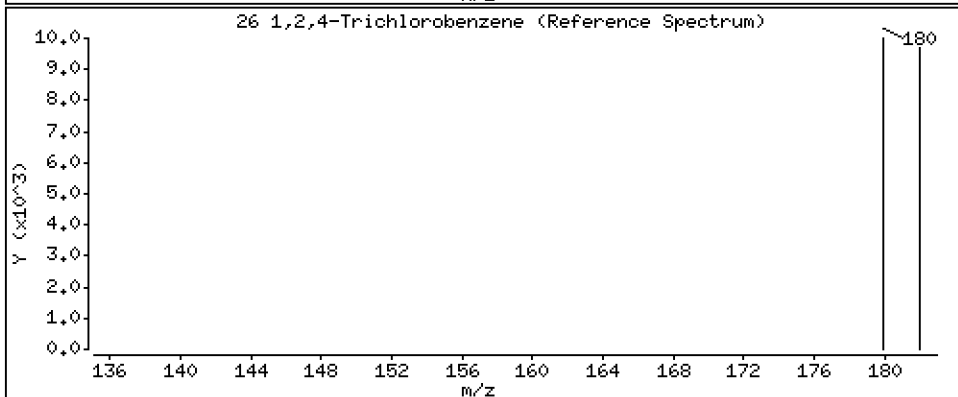
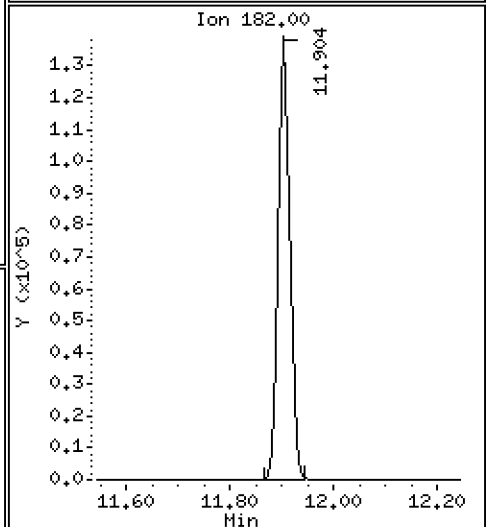
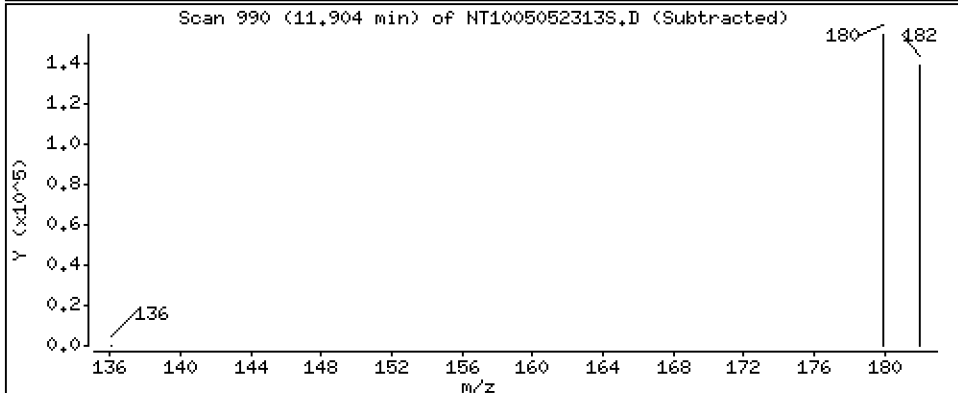
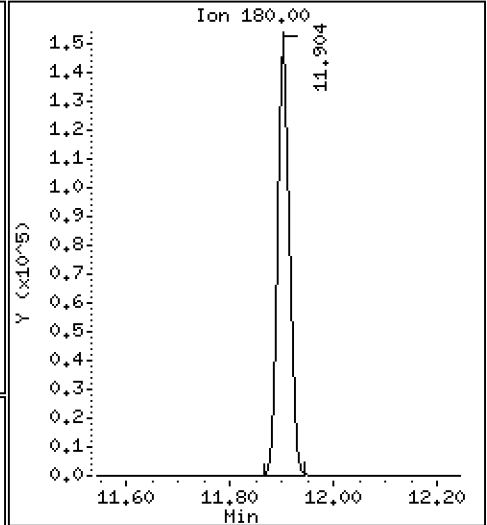
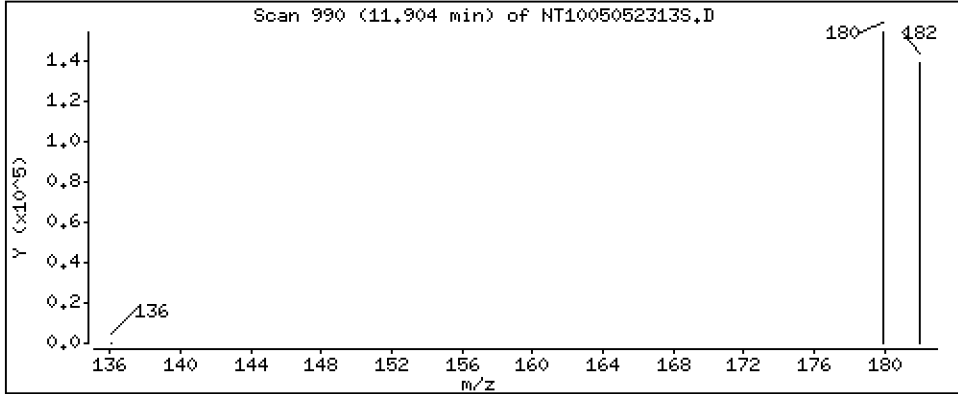
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 2,944 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

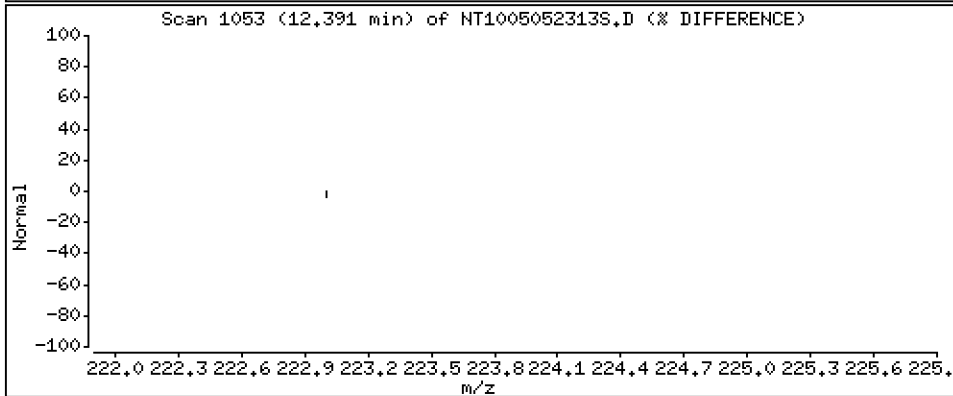
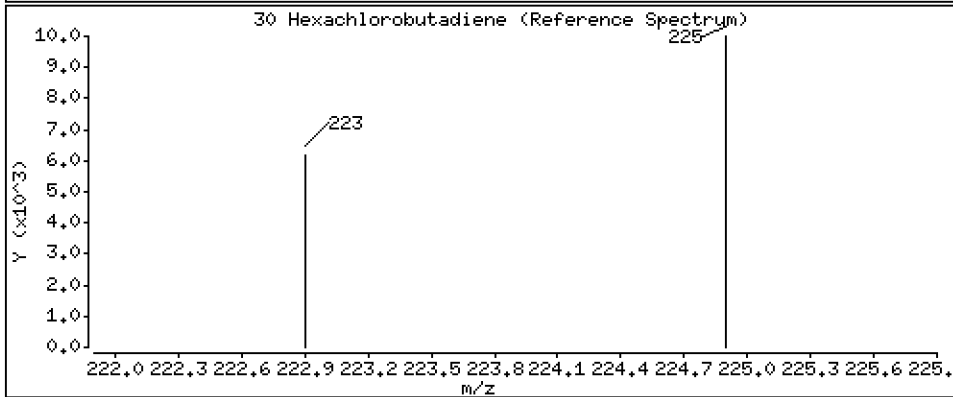
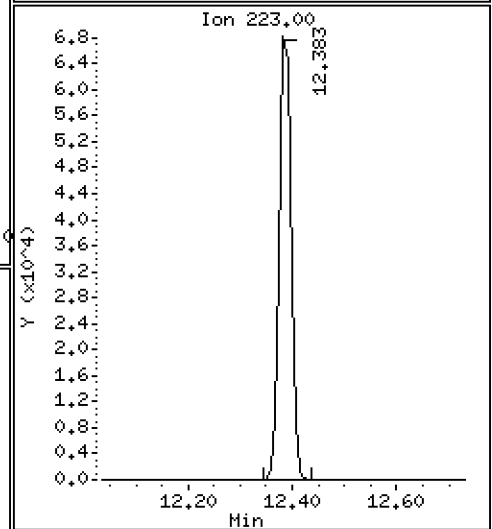
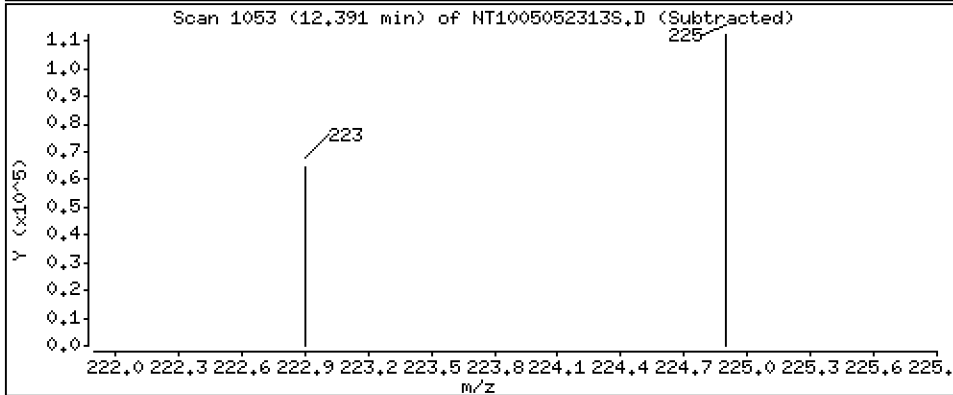
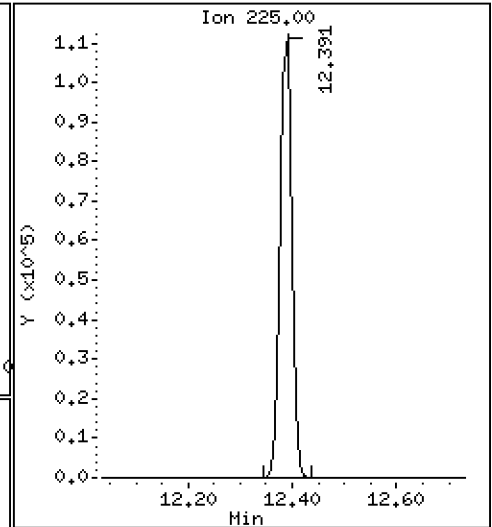
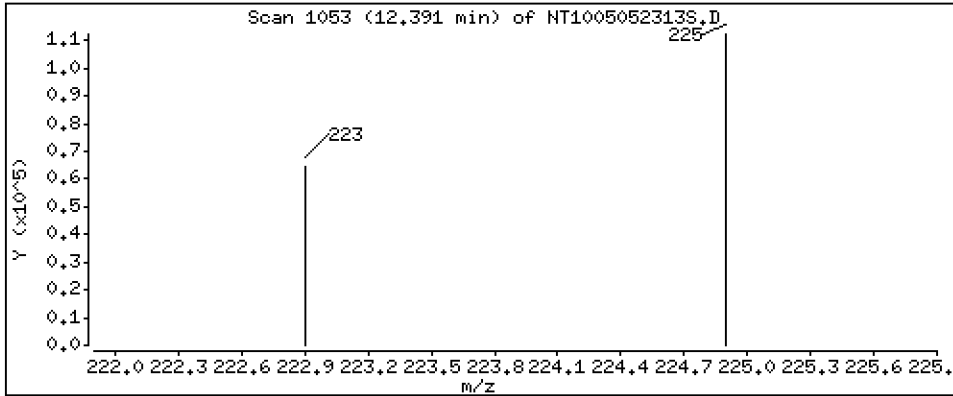
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,224 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

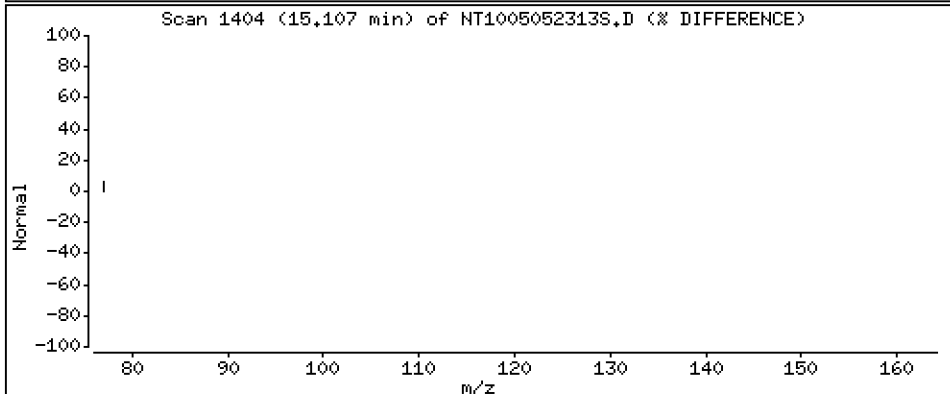
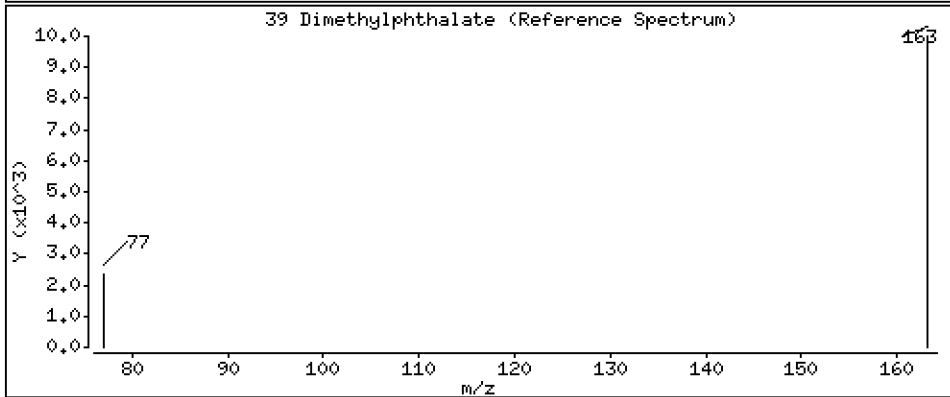
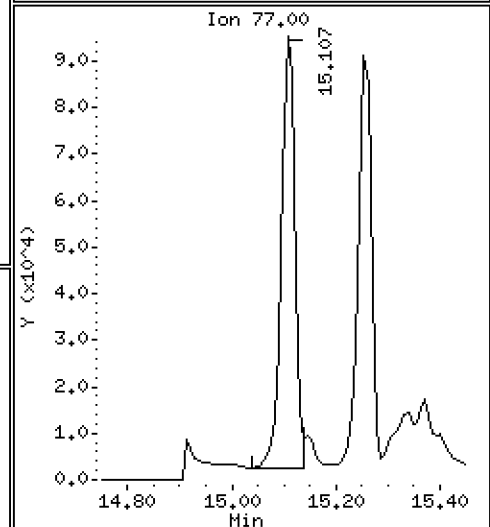
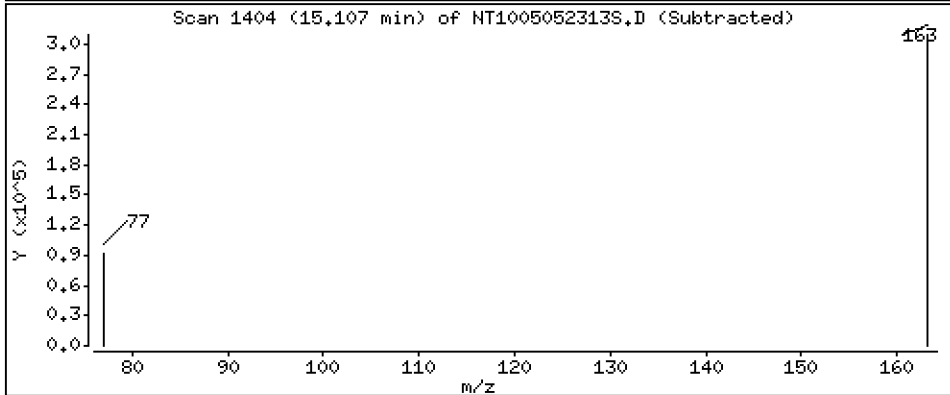
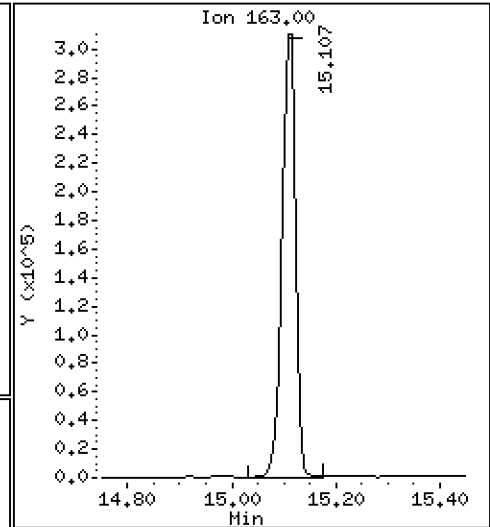
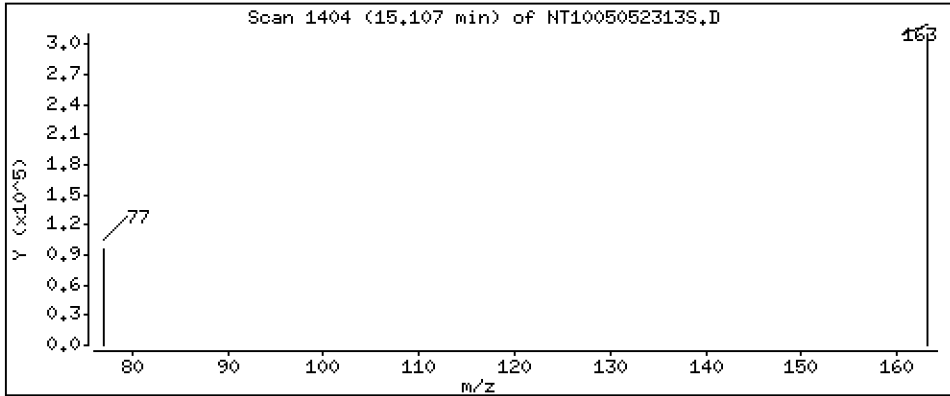
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 3,699 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

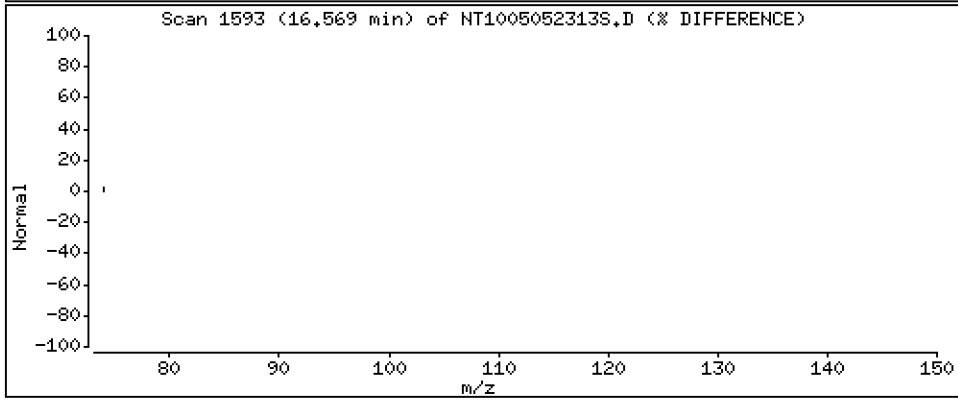
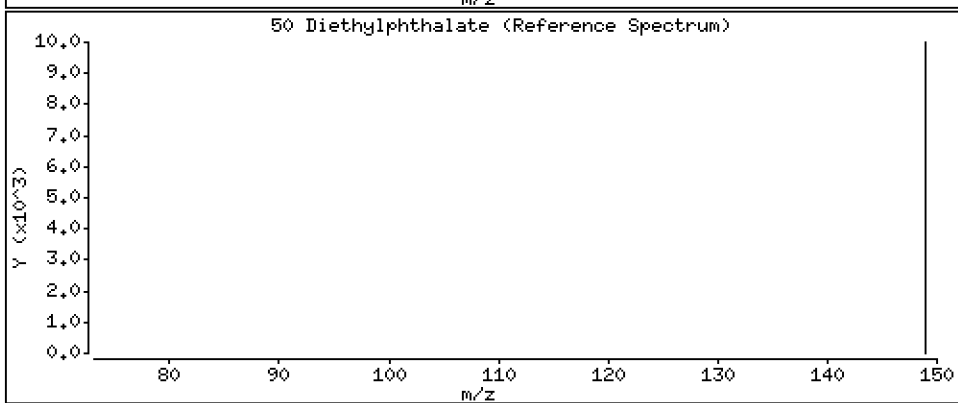
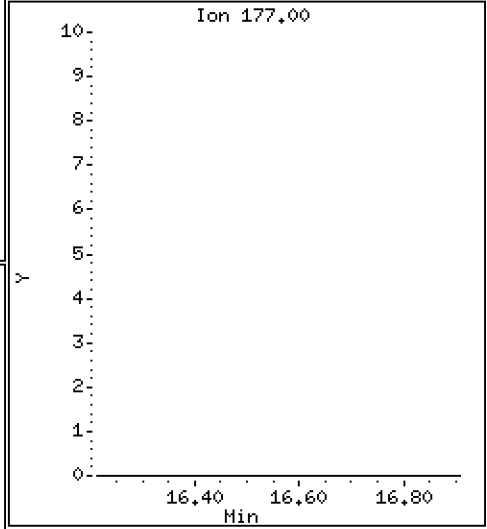
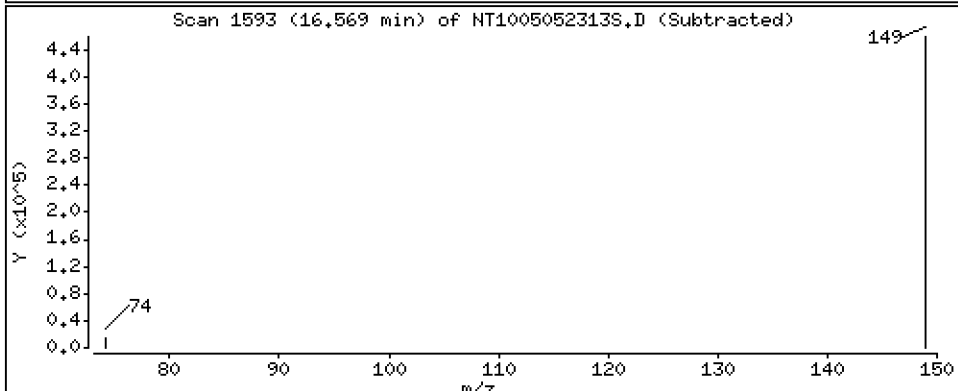
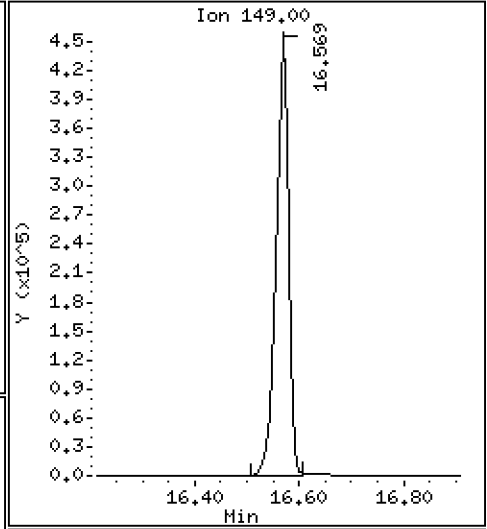
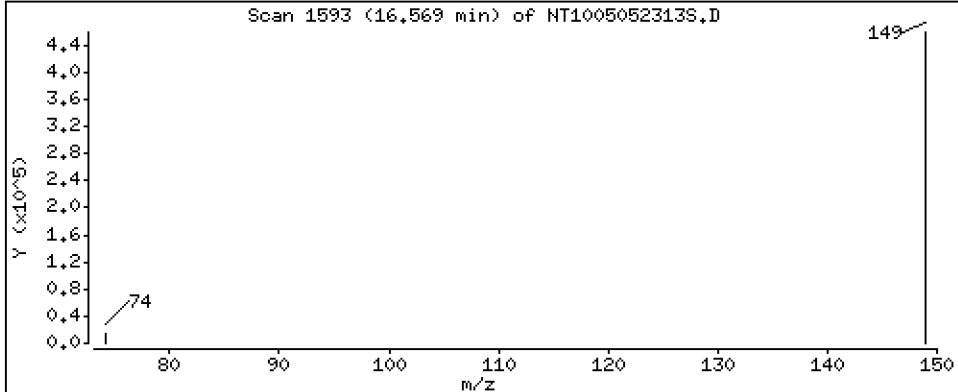
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,763 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

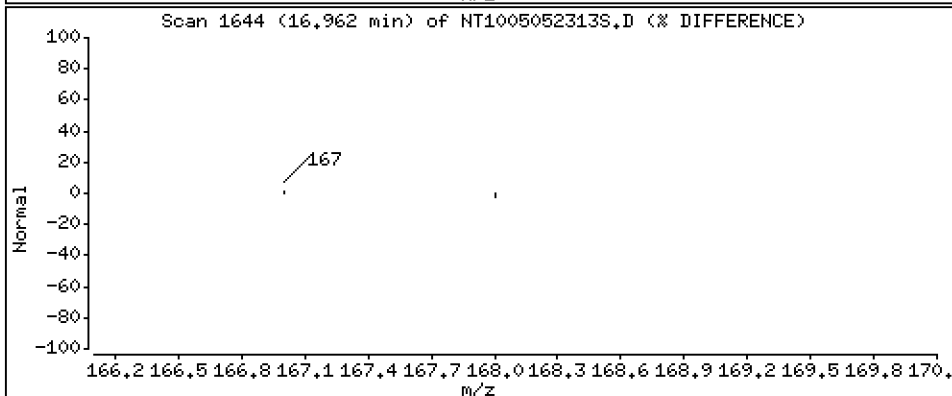
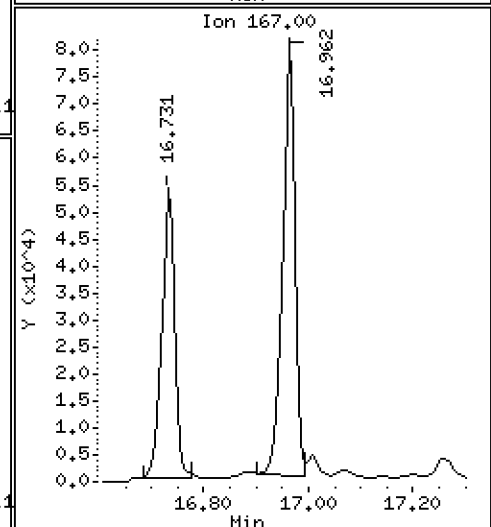
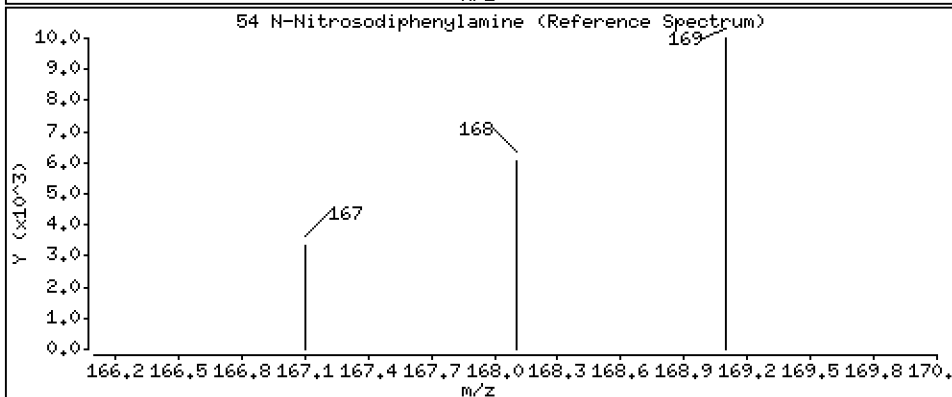
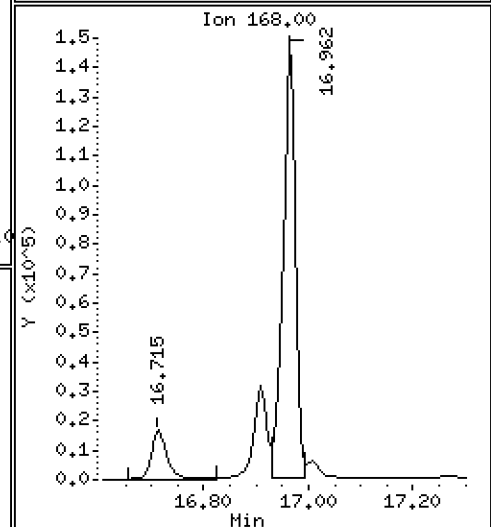
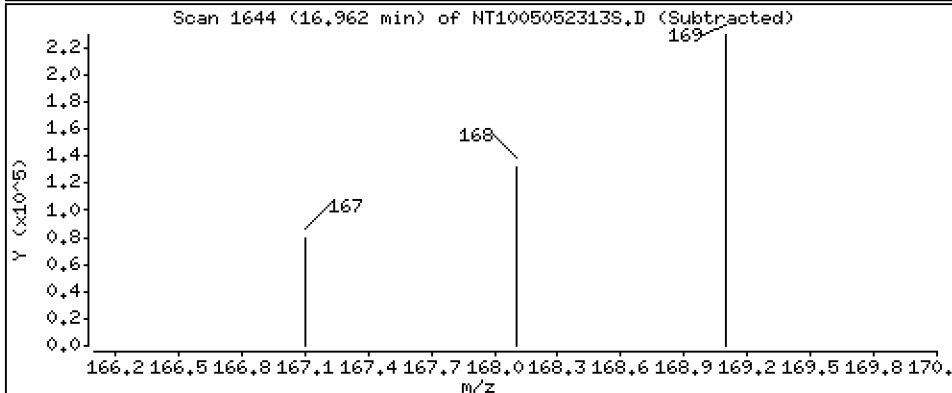
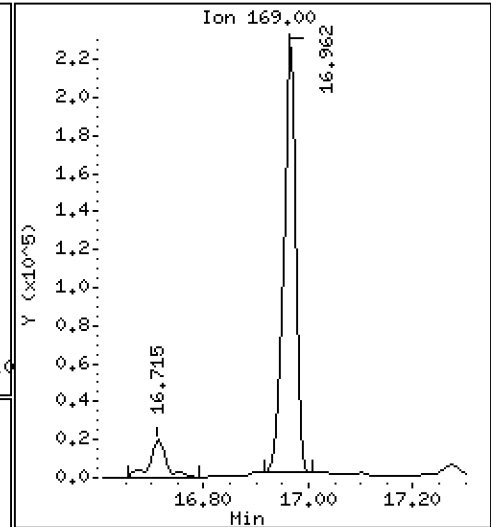
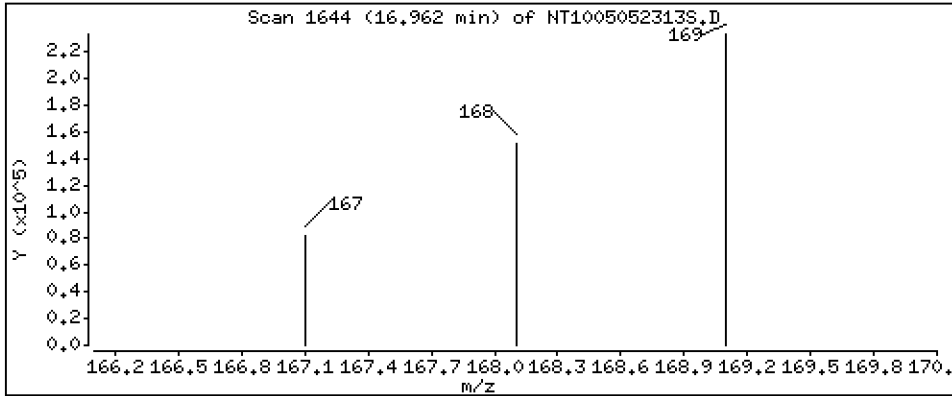
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 3.628 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

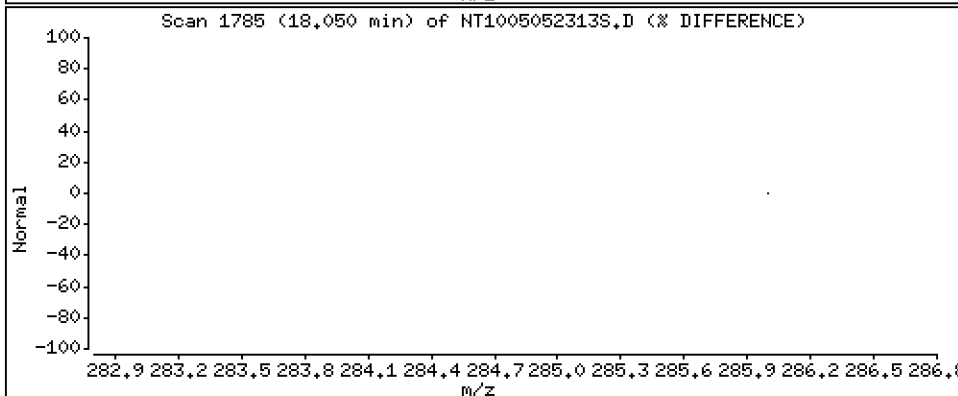
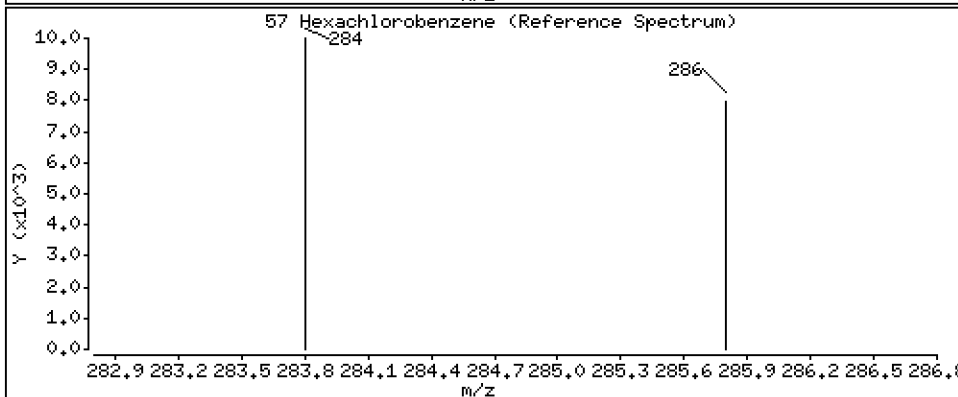
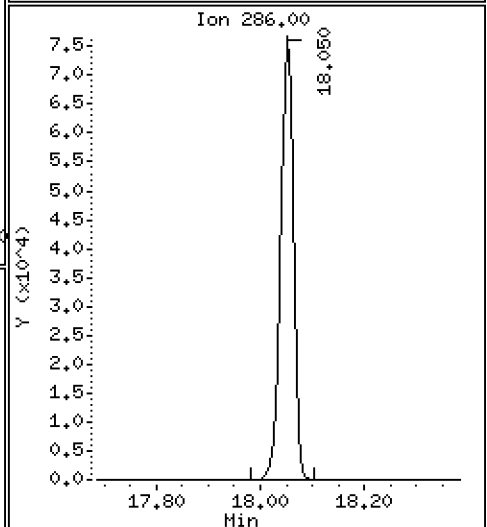
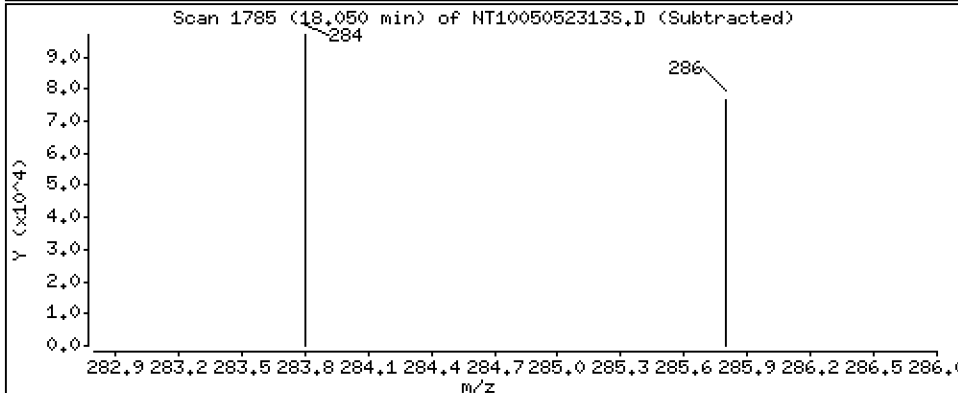
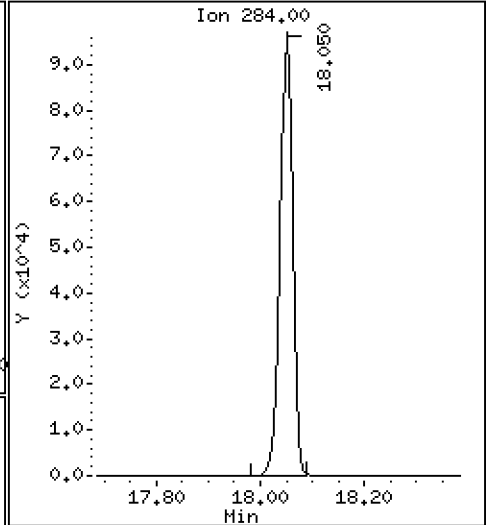
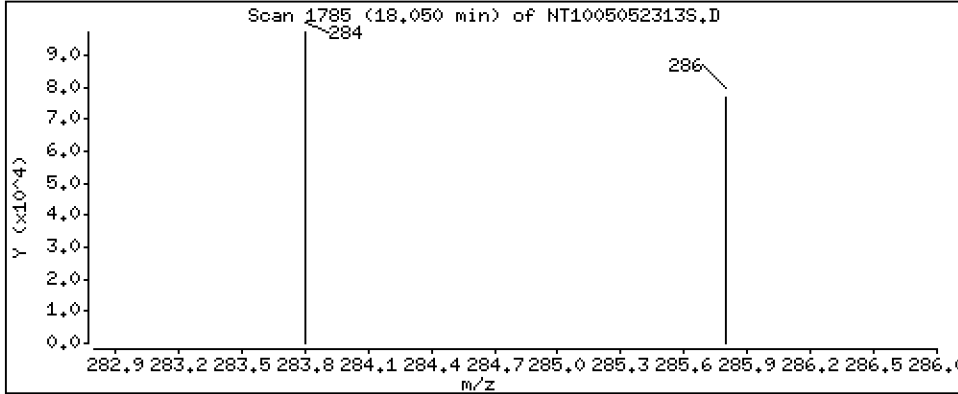
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 3,209 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

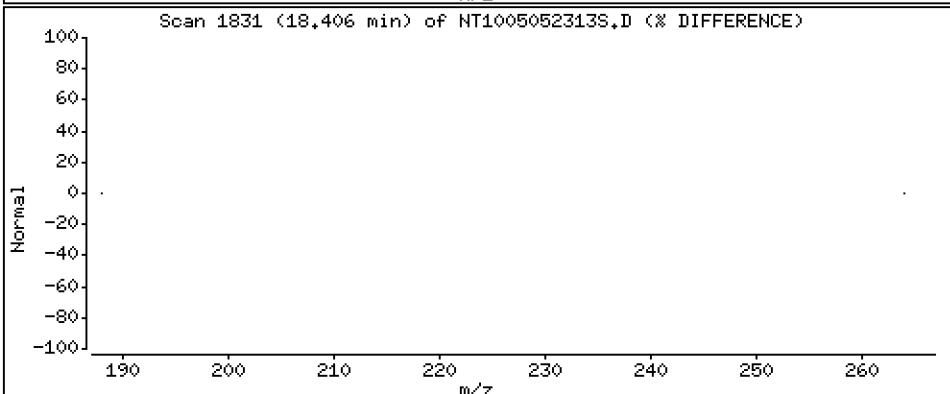
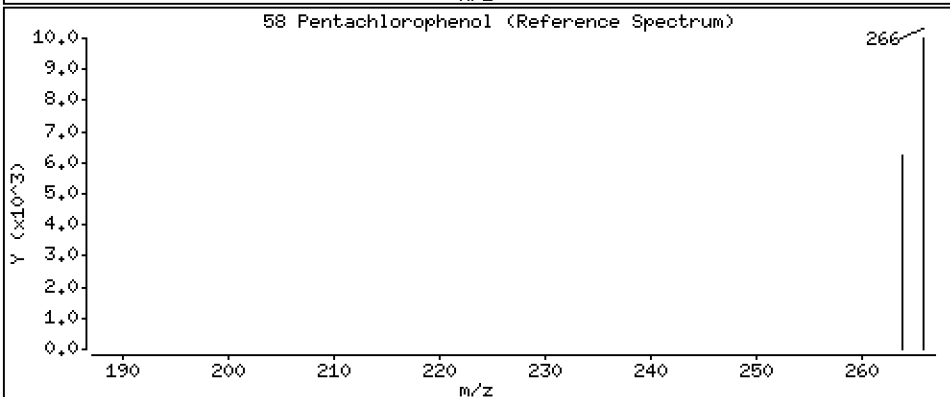
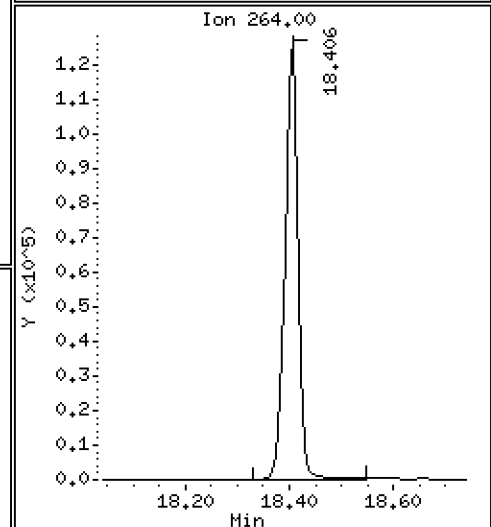
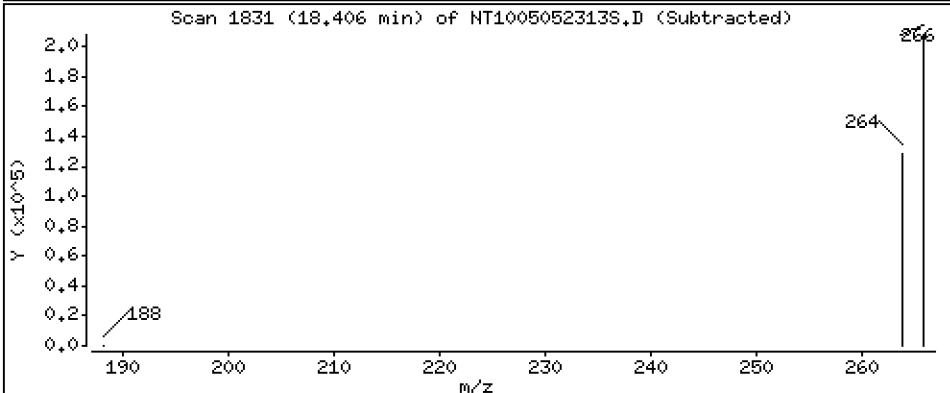
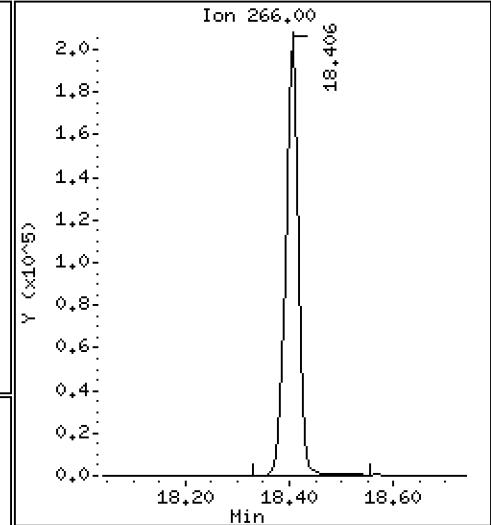
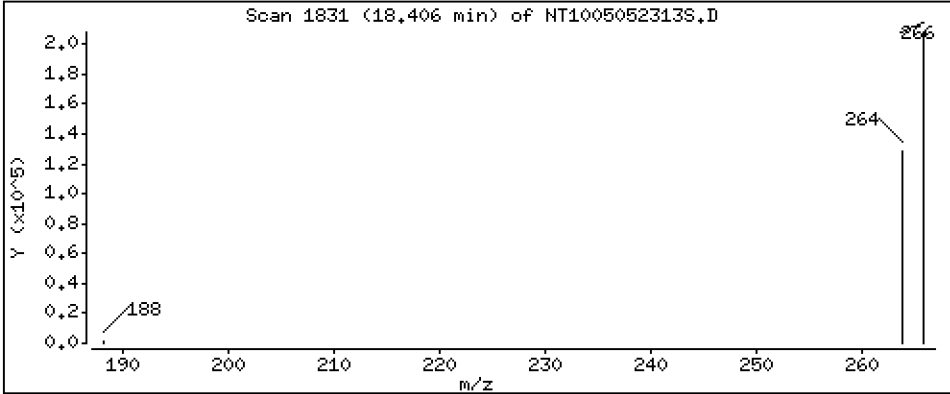
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 10,93 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

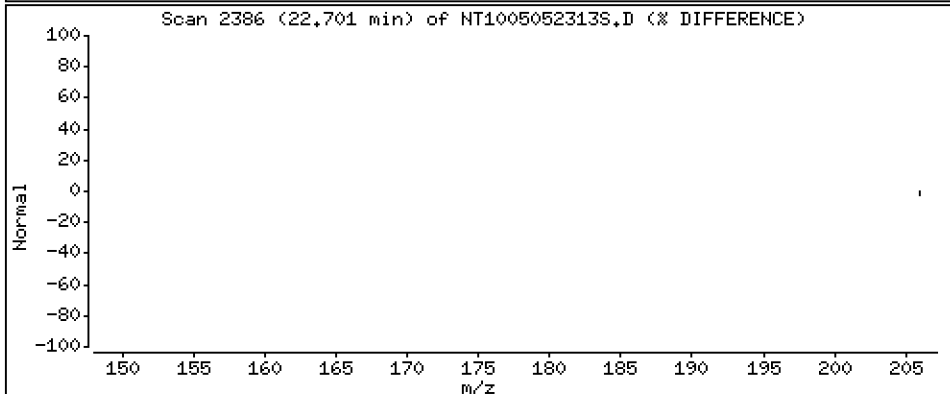
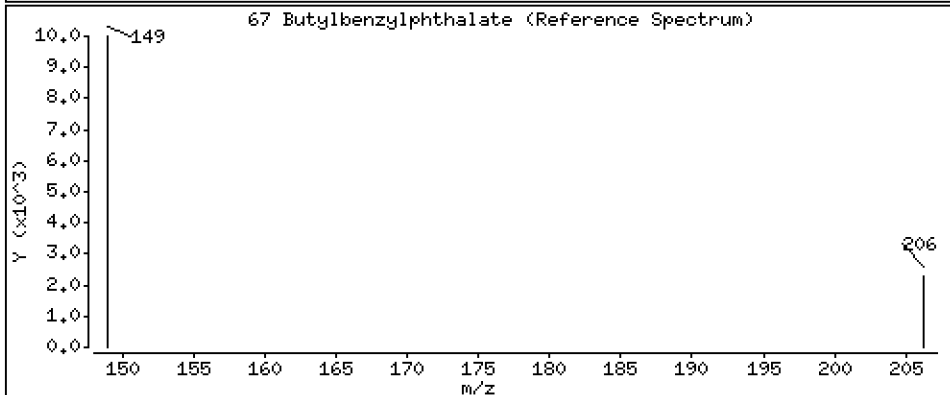
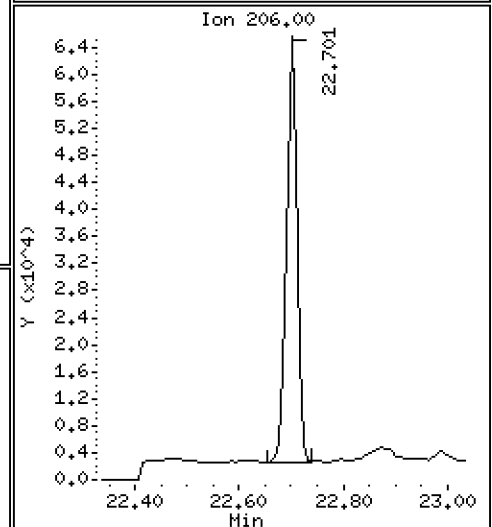
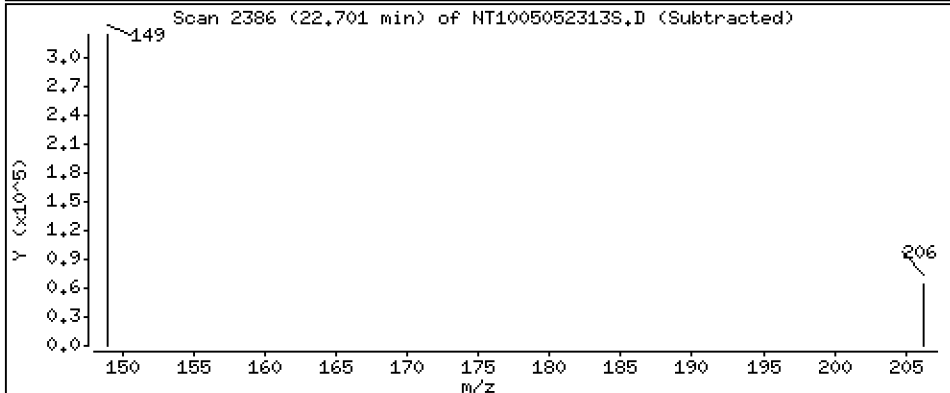
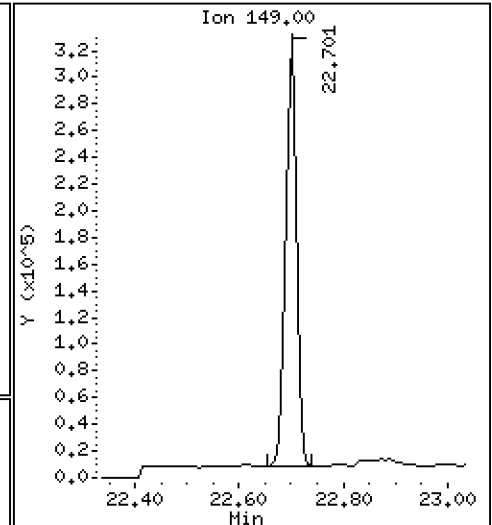
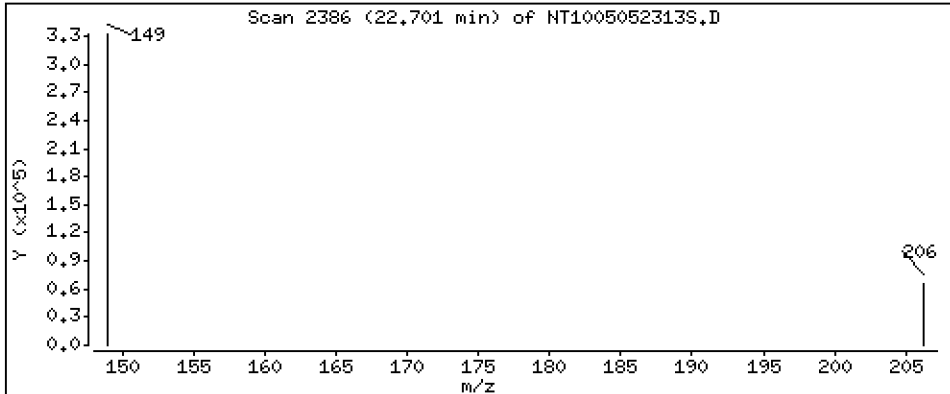
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 4.132 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

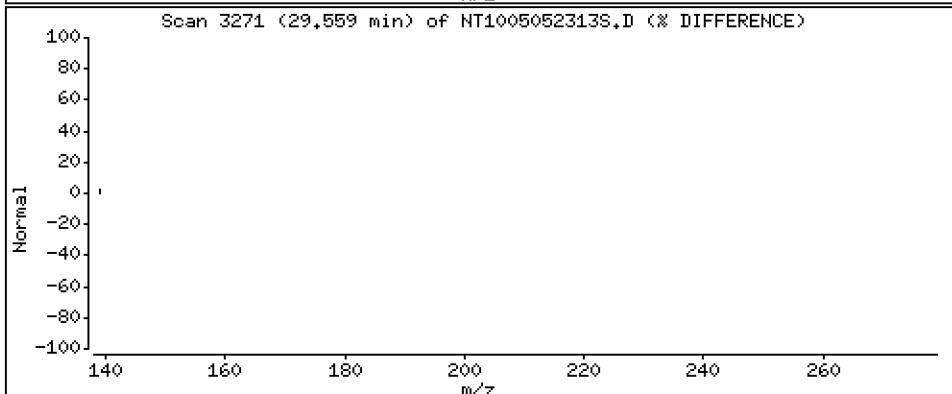
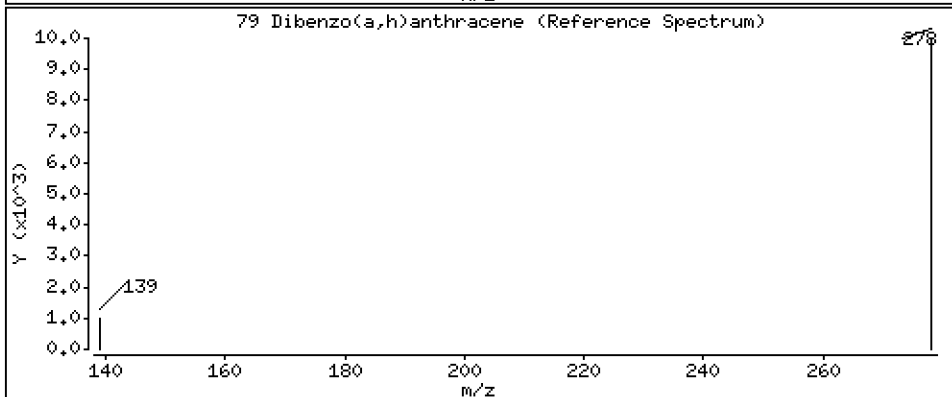
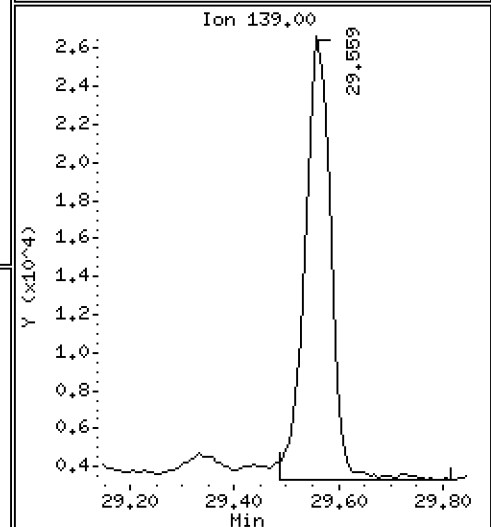
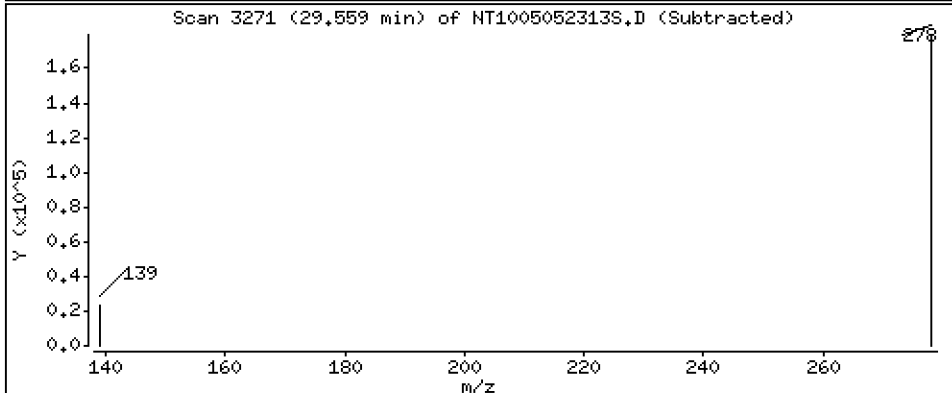
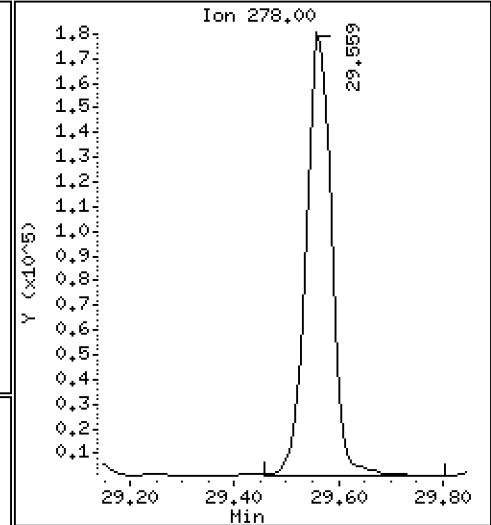
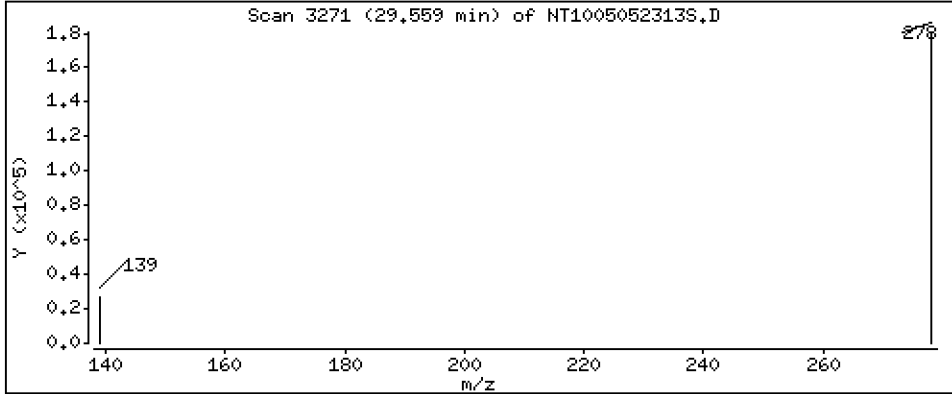
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,827 ug/L



Date : 05-MAY-2023 18:32

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MS2

Volume Injected (uL): 1.0

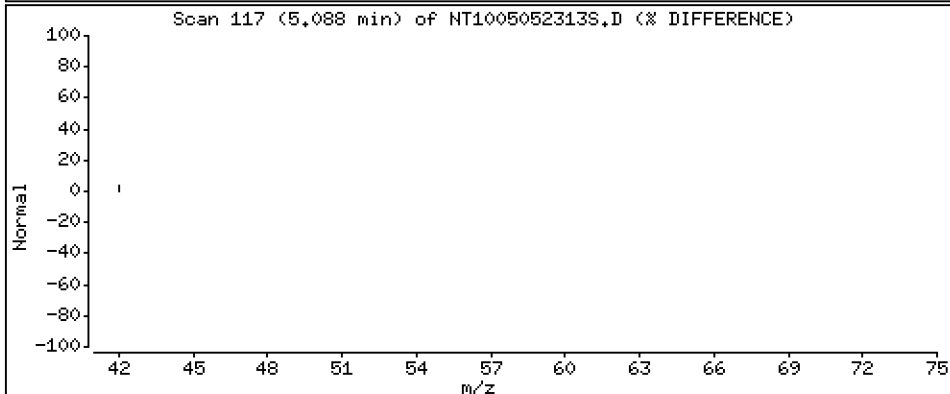
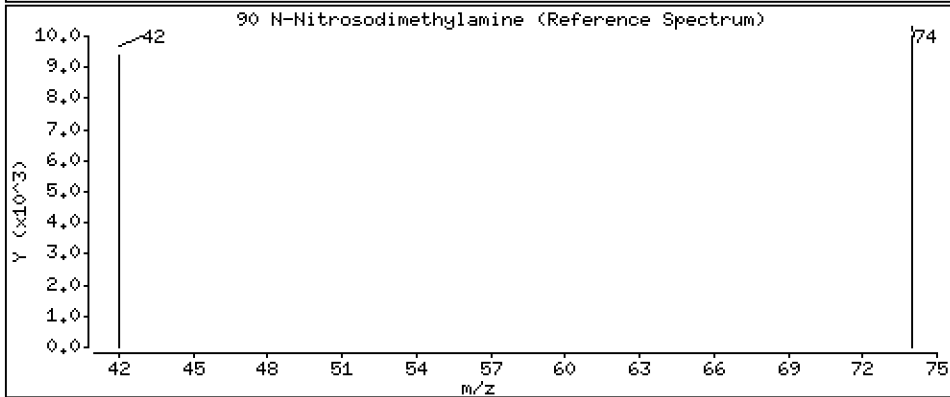
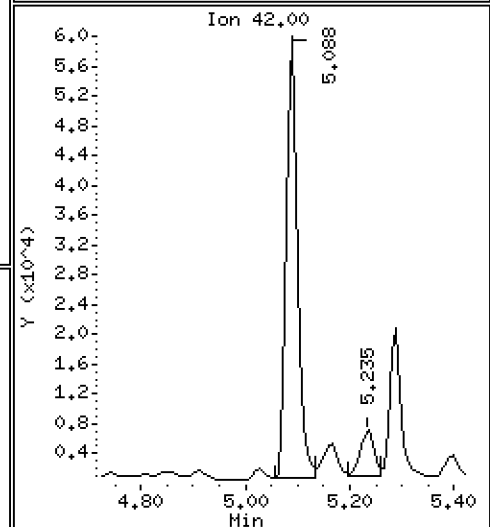
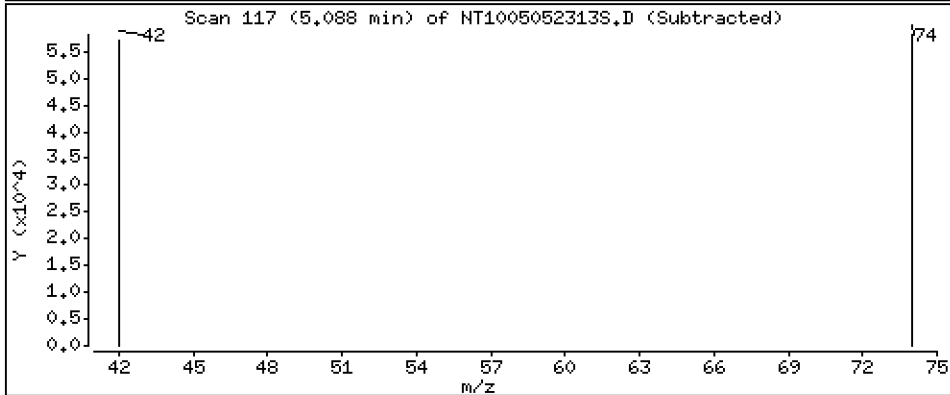
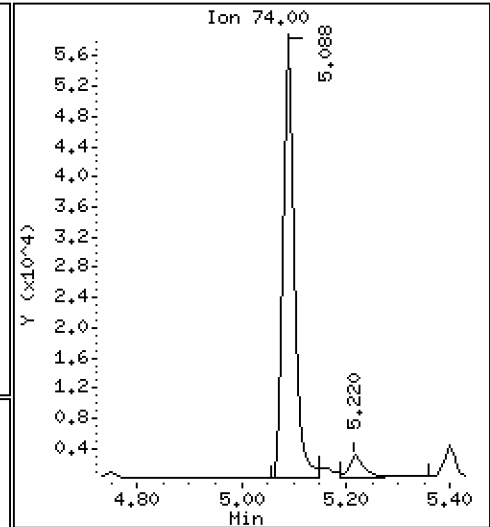
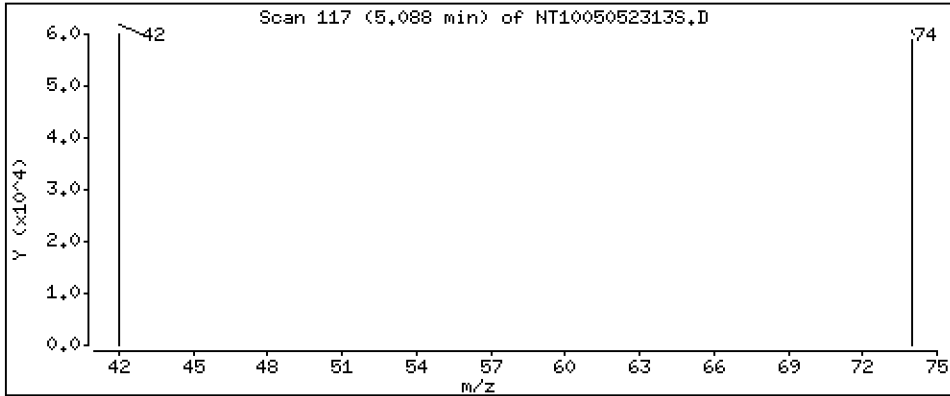
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 2,500 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052313S.D
 Lab Smp Id: BLD0329-MS2
 Inj Date : 05-MAY-2023 18:32 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLD0329-MS2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		7.251	7.243	(0.763)	223230	3.53698	3.537 (R)
3 Phenol	94		8.850	8.842	(0.932)	247077	3.12529	3.125
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	233337	2.80644	2.806
* 8 1,4-Dichlorobenzene-d4	152		9.500	9.492	(1.000)	207184	4.00000	
9 1,4-Dichlorobenzene	146		9.531	9.523	(1.003)	233130	2.83108	2.831
11 Benzyl alcohol	79		9.756	9.756	(1.027)	318033	5.81713	5.817
12 1,2-Dichlorobenzene	146		9.888	9.880	(1.041)	228179	2.88092	2.881
13 2-Methylphenol	108		9.973	9.965	(1.050)	186123	3.14576	3.146
15 4-Methylphenol	108		10.253	10.237	(1.079)	226208	3.63619	3.636
16 N-Nitroso-di-n-propylamine	70		10.315	10.315	(1.086)	173955	3.87538	3.875
22 2,4-Dimethylphenol	107		11.296	11.288	(0.942)	722253	9.42095	9.421
24 Benzoic acid	105		11.458	11.381	(0.955)	494851	9.55496	9.555
26 1,2,4-Trichlorobenzene	180		11.904	11.896	(0.992)	231544	2.94384	2.944
* 27 Naphthalene-d8	136		11.996	11.988	(1.000)	771571	4.00000	
30 Hexachlorobutadiene	225		12.390	12.382	(1.033)	161889	3.22361	3.224
39 Dimethylphthalate	163		15.107	15.099	(0.967)	532589	3.69949	3.699
* 42 Acenaphthene-d10	162		15.625	15.617	(1.000)	379771	4.00000	
50 Diethylphthalate	149		16.568	16.560	(1.060)	736253	4.76301	4.763
54 N-Nitrosodiphenylamine	169		16.962	16.954	(0.908)	356448	3.62755	3.628
57 Hexachlorobenzene	284		18.050	18.034	(0.966)	154430	3.20932	3.209

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.406	18.390	(0.986)	350251	10.9311	10.93
* 59 Phenanthrene-d10	188	18.677	18.669	(1.000)	753456	4.00000	
\$ 66 Terphenyl-d14	244	21.787	21.771	(0.919)	494124	3.86809	3.868 (R)
67 Butylbenzylphthalate	149	22.701	22.685	(0.958)	449426	4.13168	4.132
* 69 Chrysene-d12	240	23.707	23.684	(1.000)	592431	4.00000	
* 77 Perylene-d12	264	26.556	26.517	(1.000)	491005	4.00000	
79 Dibenzo(a,h)anthracene	278	29.558	29.496	(1.113)	606606	3.82735	3.827
90 N-Nitrosodimethylamine	74	5.088	5.080	(0.536)	86086	2.50031	2.500

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052313S.D
 Lab Smp Id: BLD0329-MS2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	207184	13.40
27 Naphthalene-d8	662220	331110	1324440	771571	16.51
42 Acenaphthene-d10	335558	167779	671116	379771	13.18
59 Phenanthrene-d10	678190	339095	1356380	753456	11.10
69 Chrysene-d12	566969	283485	1133938	592431	4.49
77 Perylene-d12	522906	261453	1045812	491005	-6.10

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.50	0.08
27 Naphthalene-d8	11.99	11.49	12.49	12.00	0.07
42 Acenaphthene-d10	15.62	15.12	16.12	15.63	0.05
59 Phenanthrene-d10	18.67	18.17	19.17	18.68	0.04
69 Chrysene-d12	23.68	23.18	24.18	23.71	0.10
77 Perylene-d12	26.52	26.02	27.02	26.56	0.15

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

REVIEW SUMMARY FOR FILE - NT1005052313S.D

Lab ID: BLD0329-MS2

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 18:32

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.949	0.0058	Benzoic acid

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

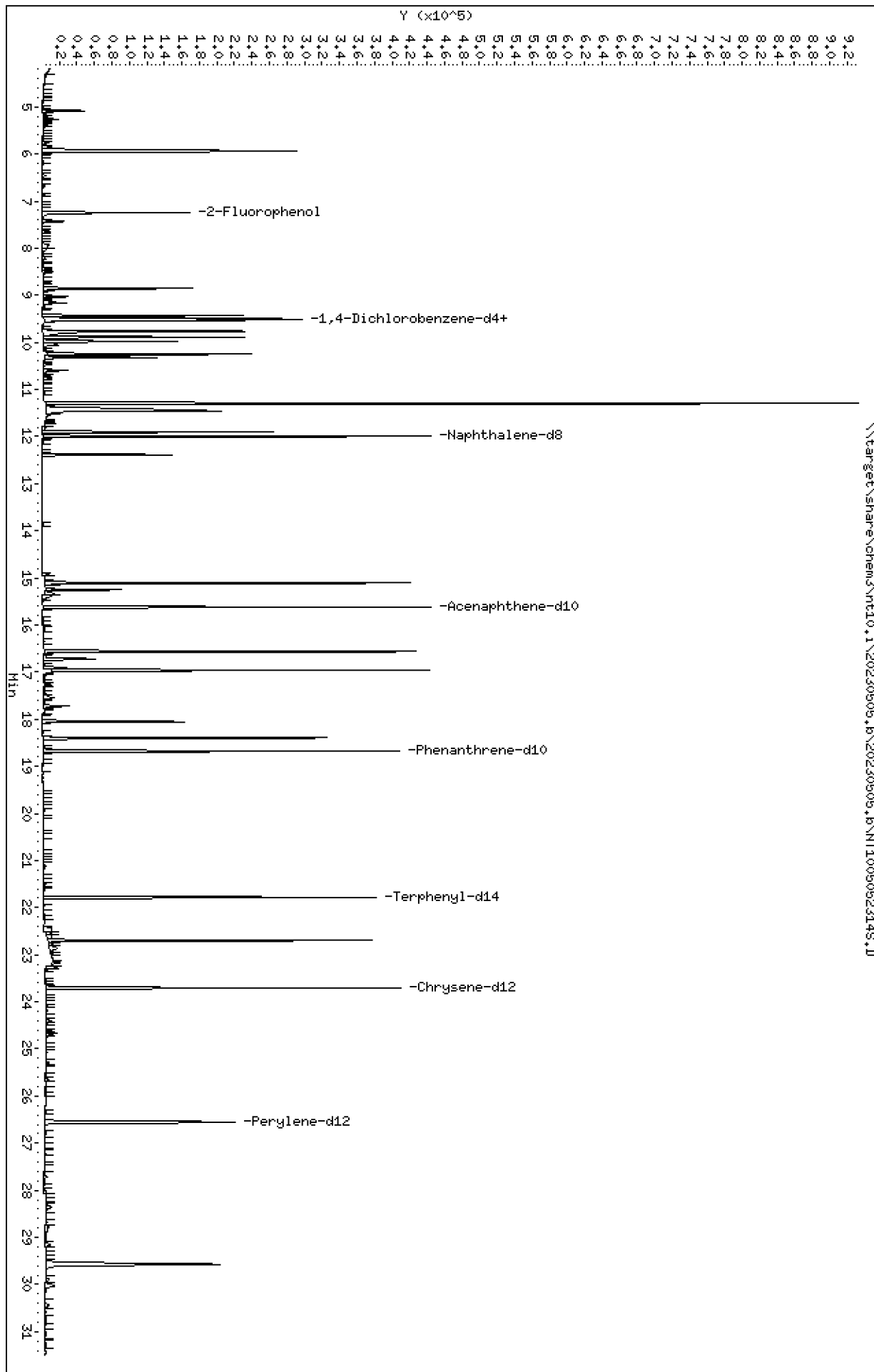
Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523145.D
 Date: 05-May-2023 19:11
 Client ID:
 Sample Info: BLD0329-HSD2
 Volume Injected (uL): 1.0
 Column phase: ZB-5msi

Instrument: nt10.1
 Operator: DSD
 Column diameter: 0.25

\\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523145.D



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

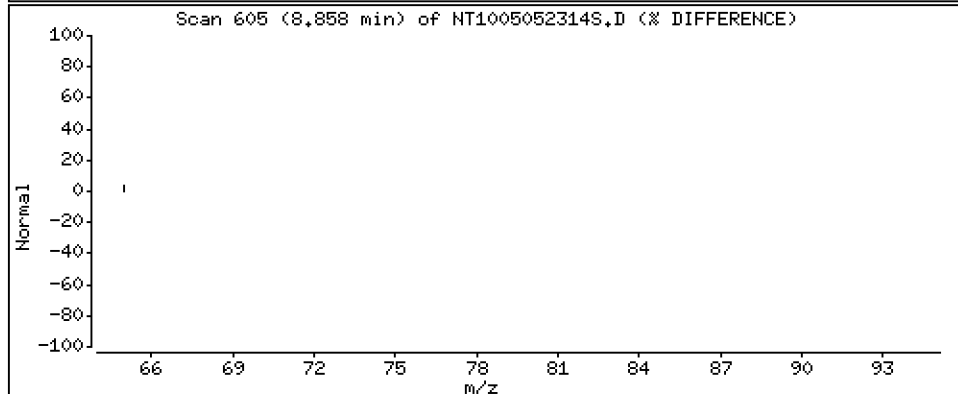
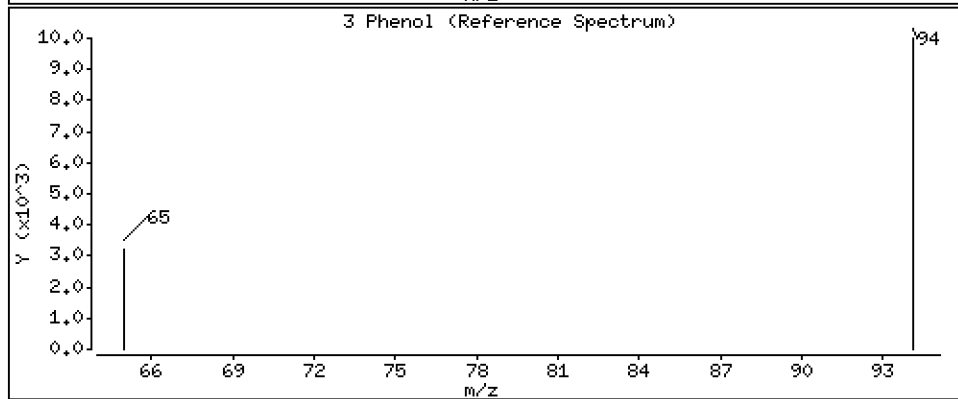
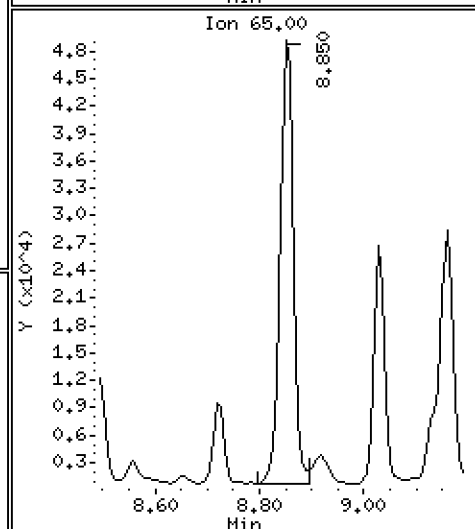
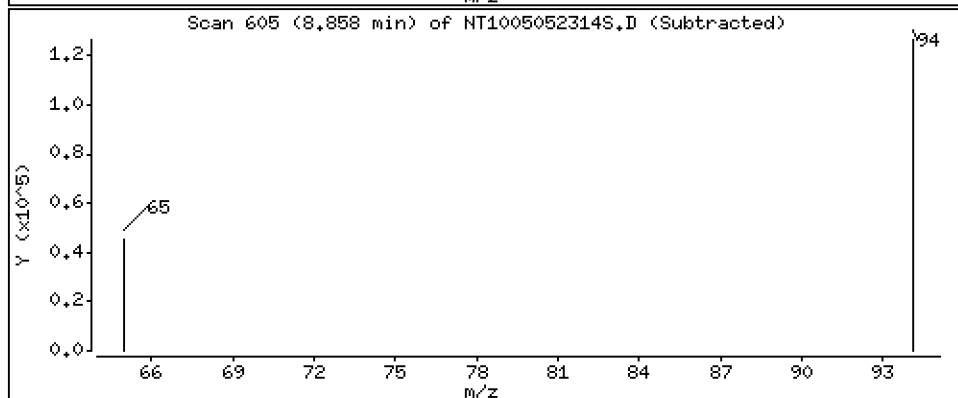
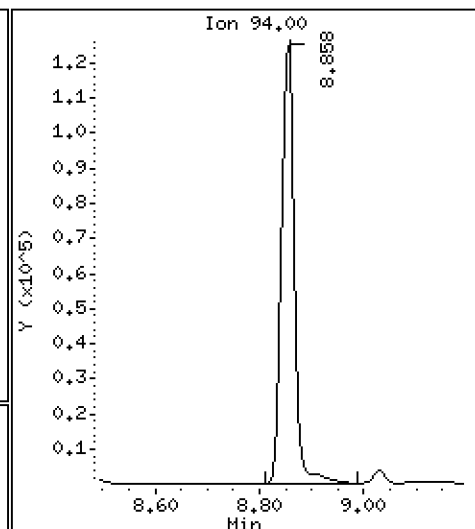
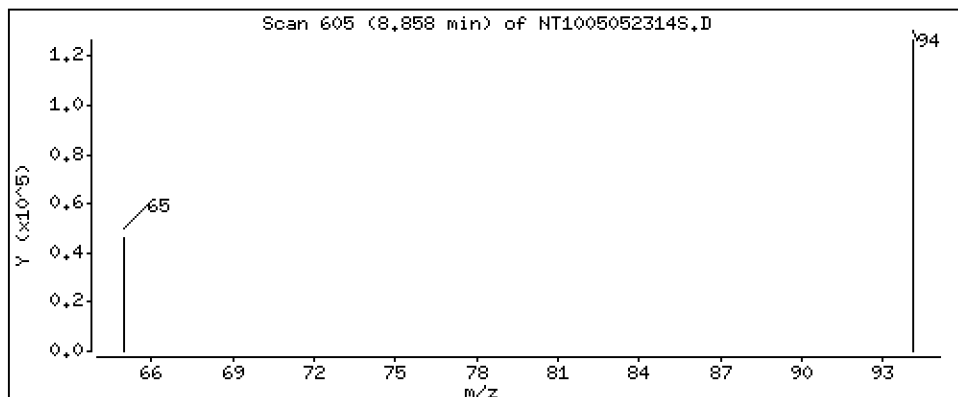
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,046 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

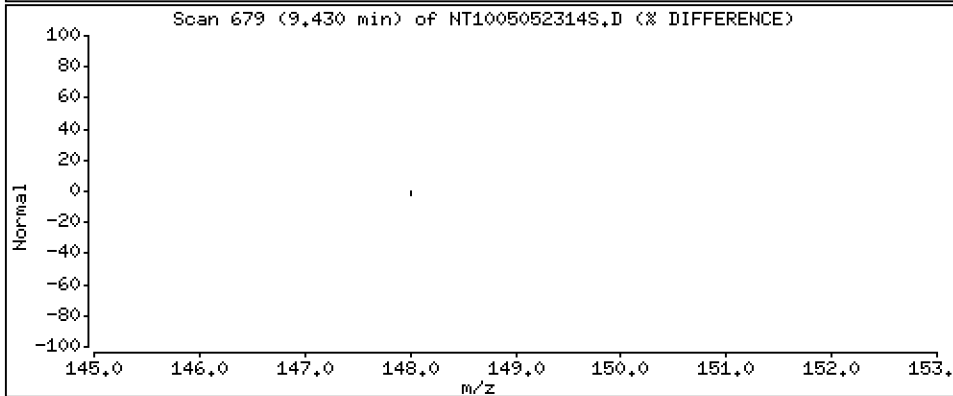
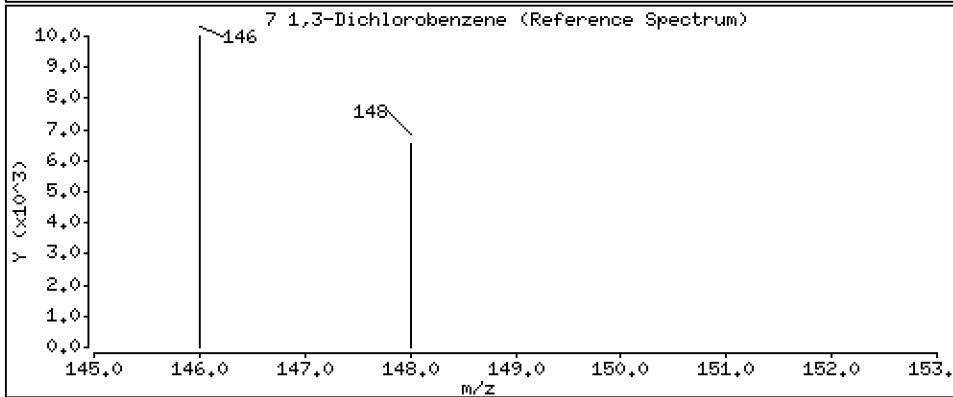
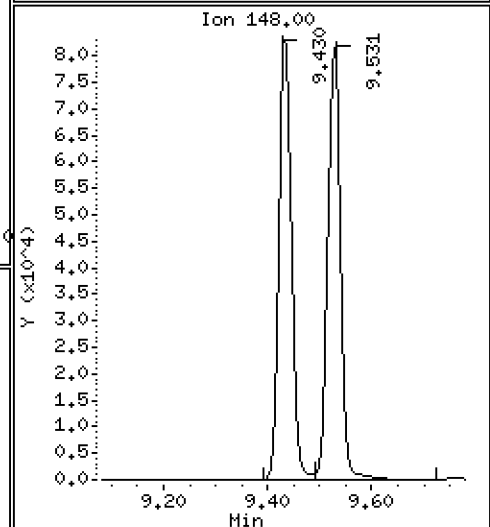
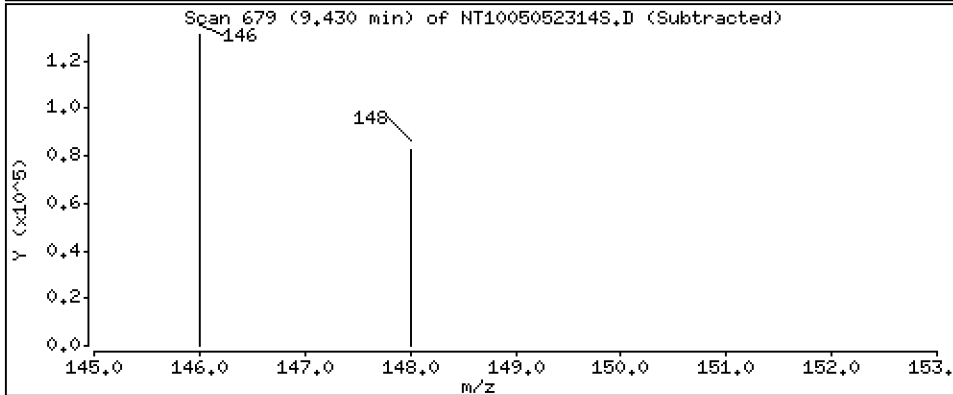
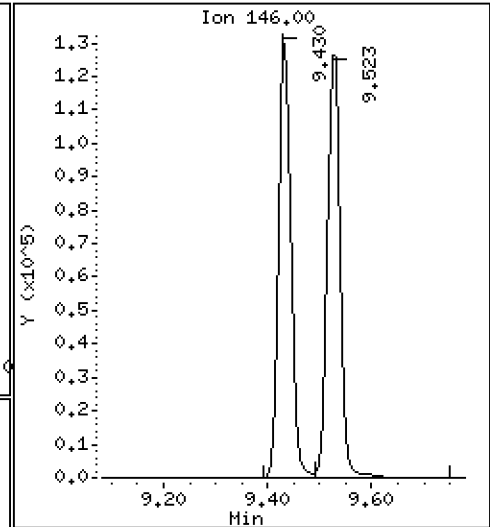
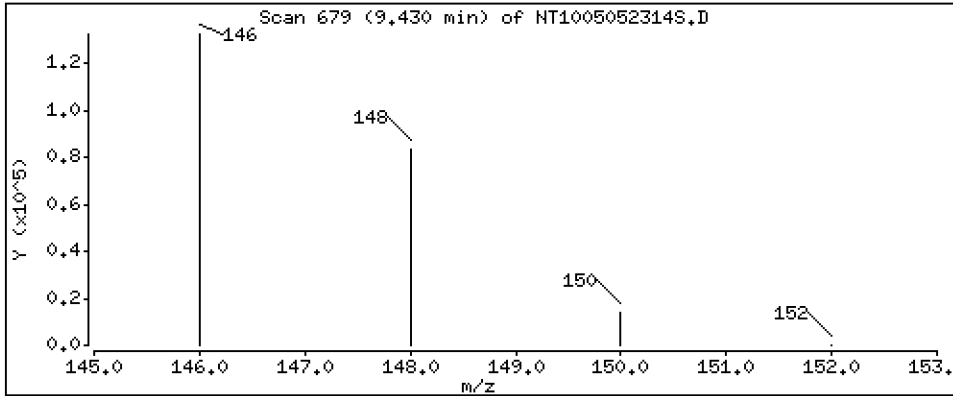
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 2.912 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

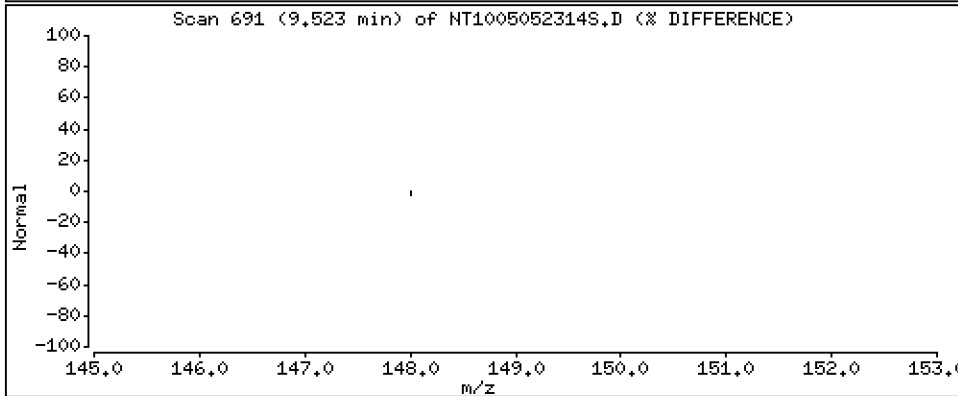
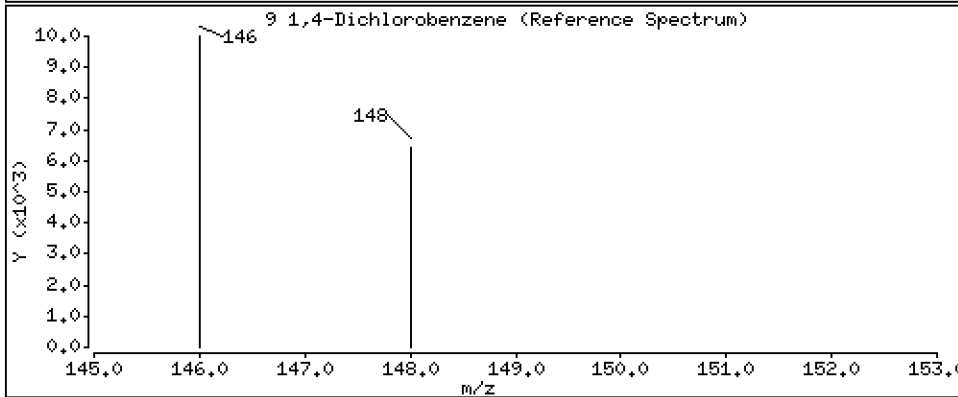
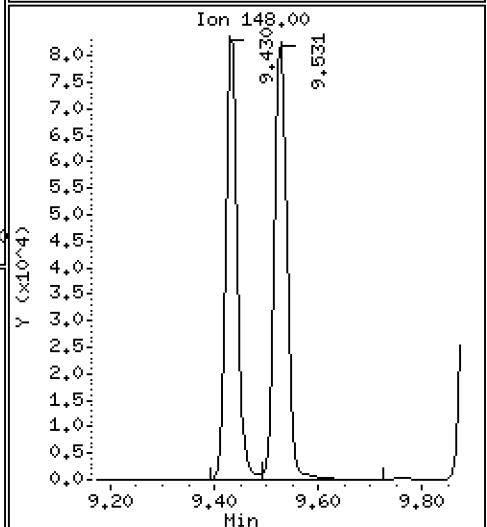
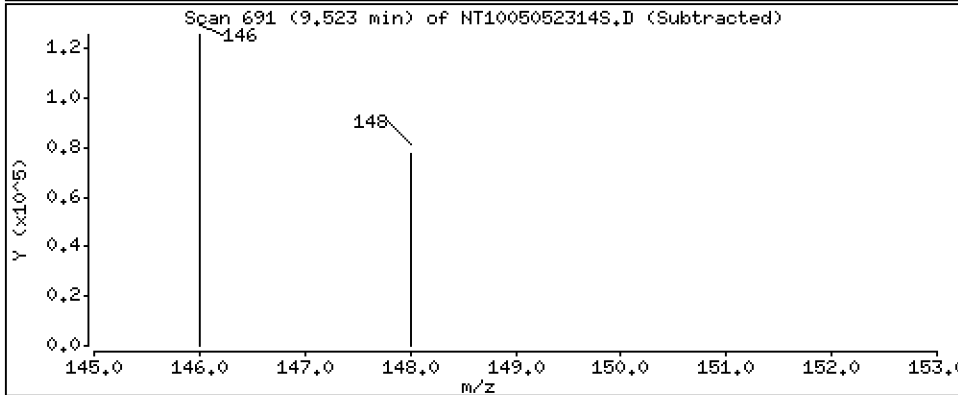
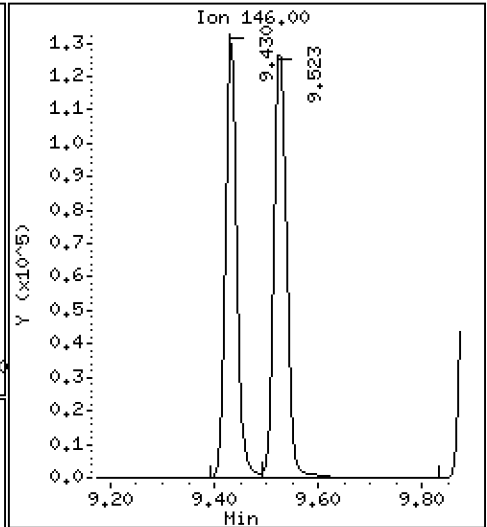
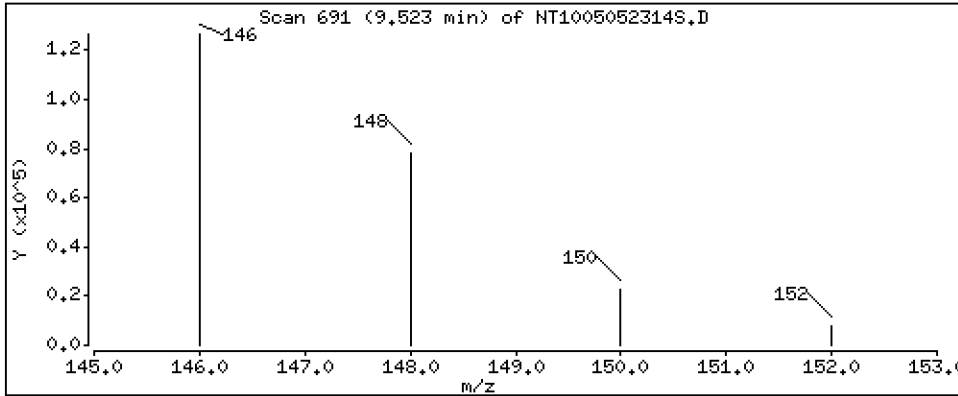
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 2,948 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

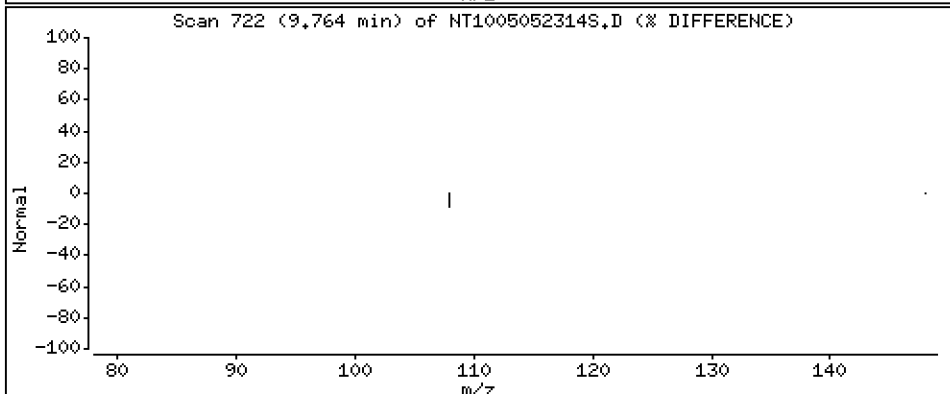
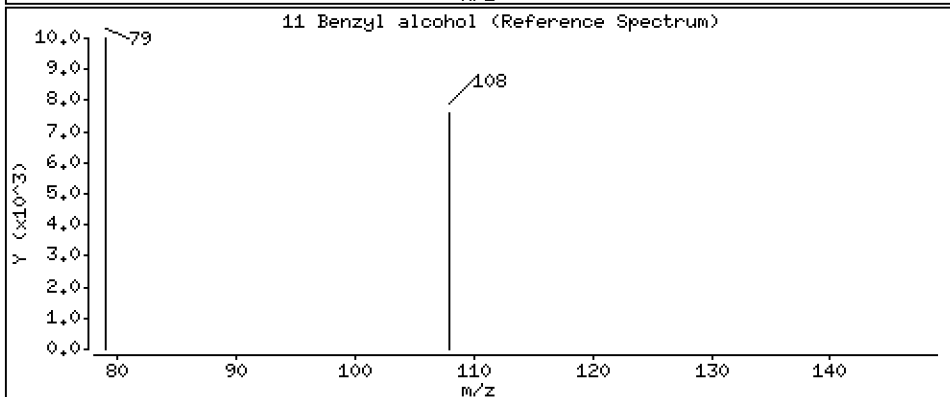
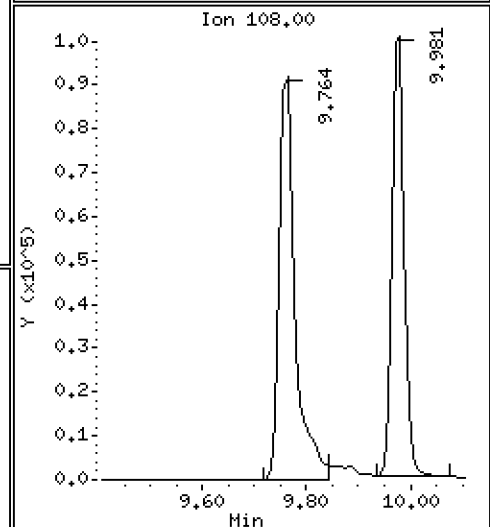
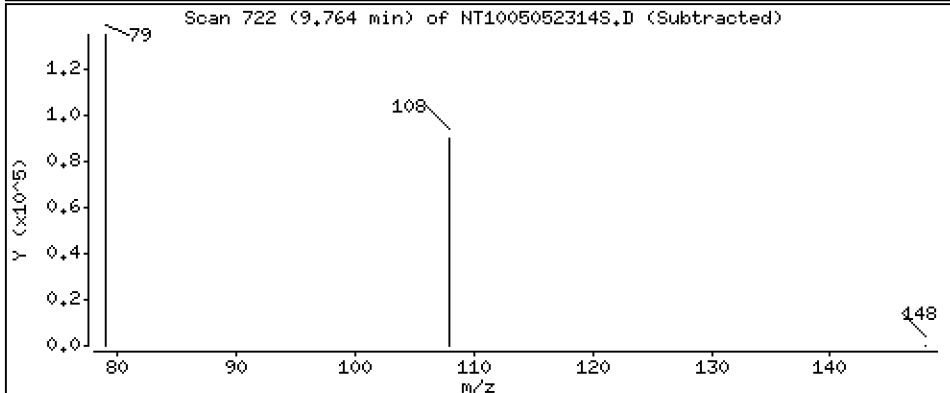
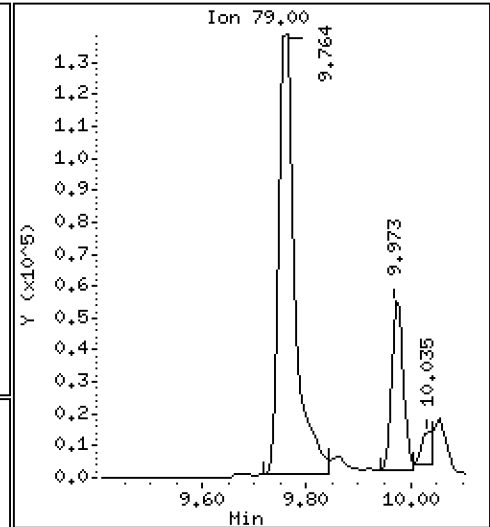
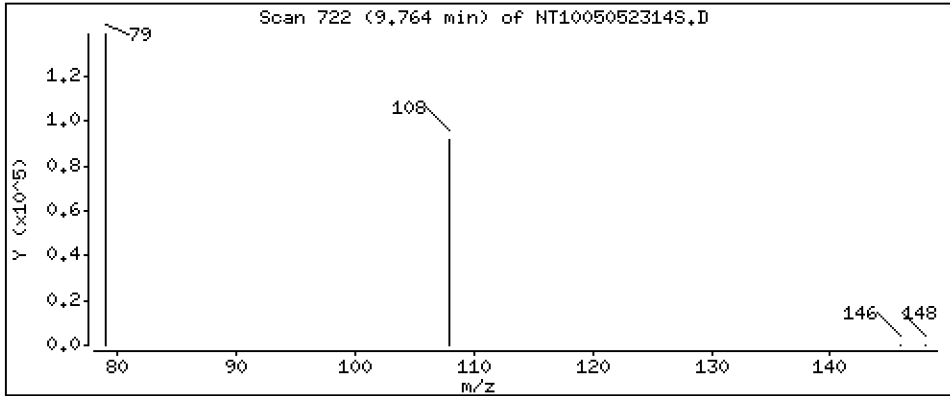
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 6,169 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

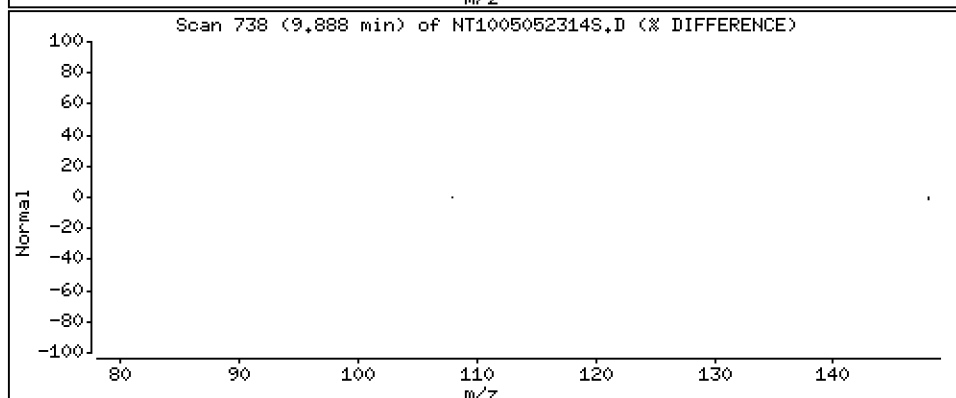
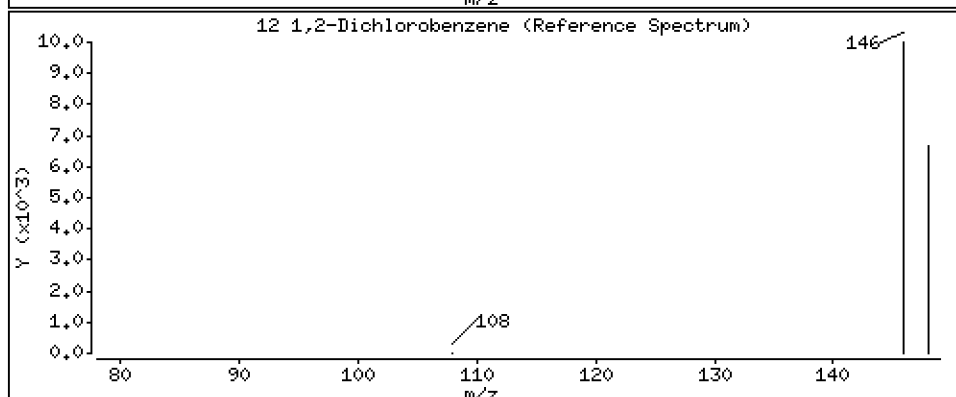
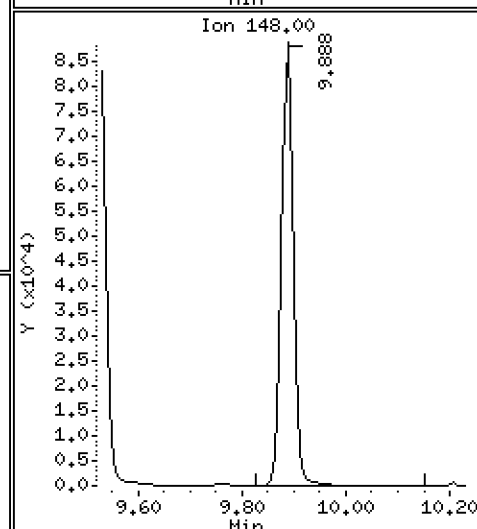
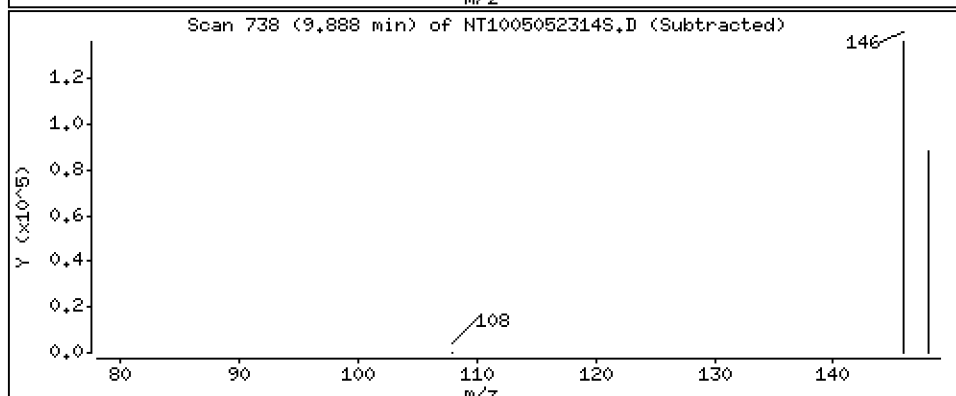
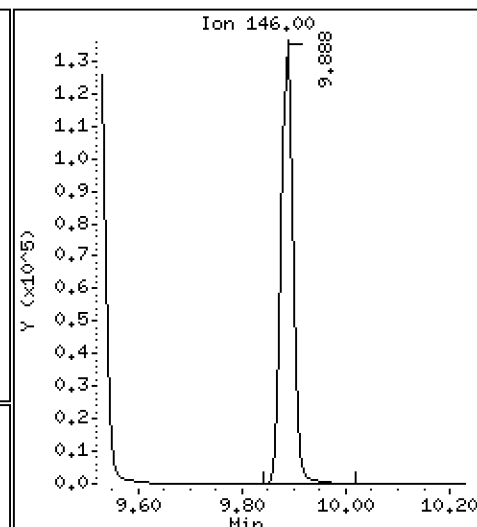
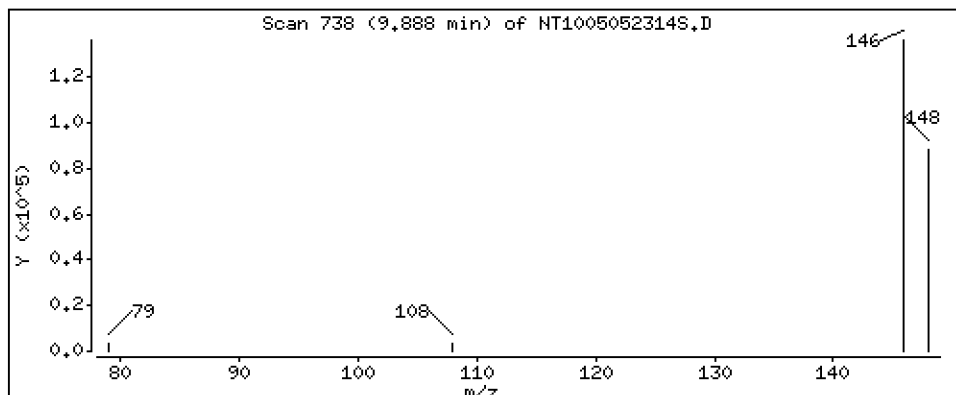
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 2,999 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

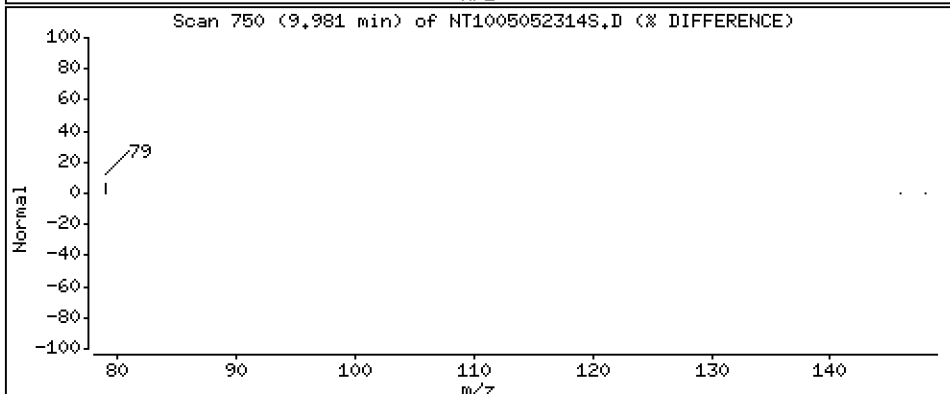
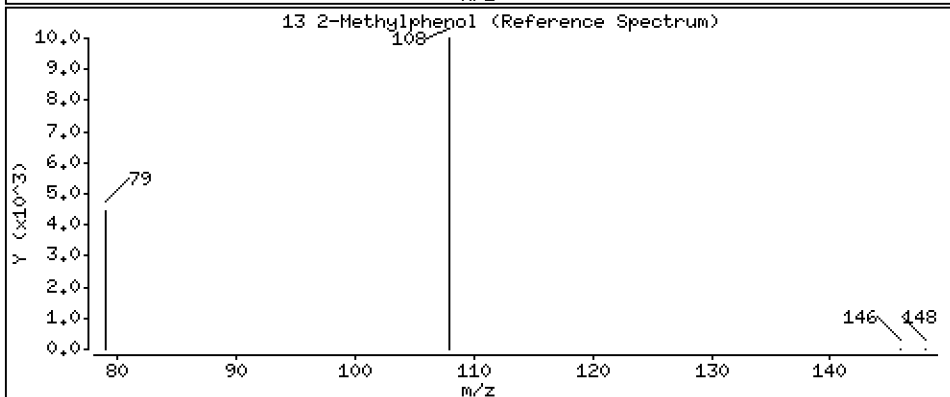
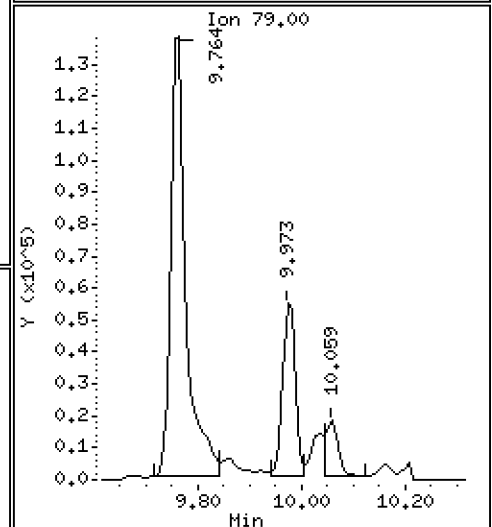
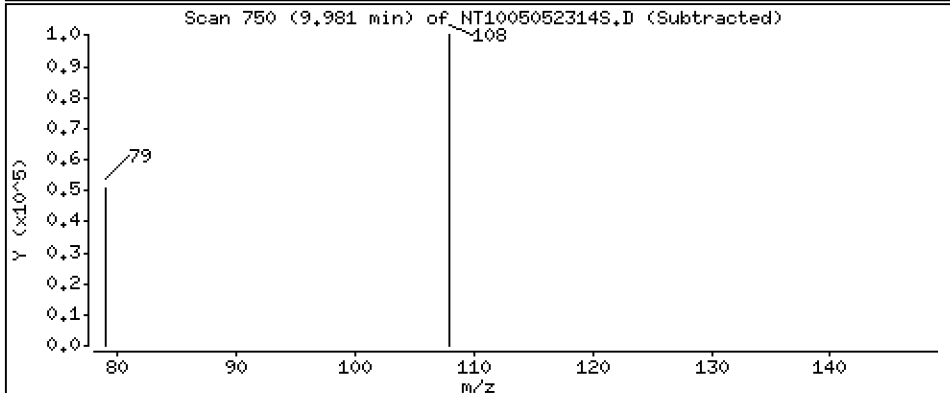
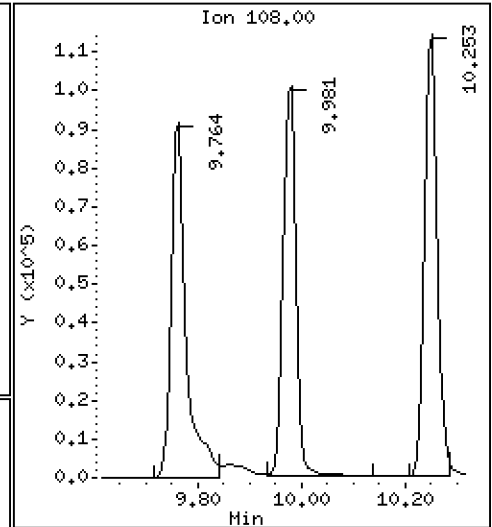
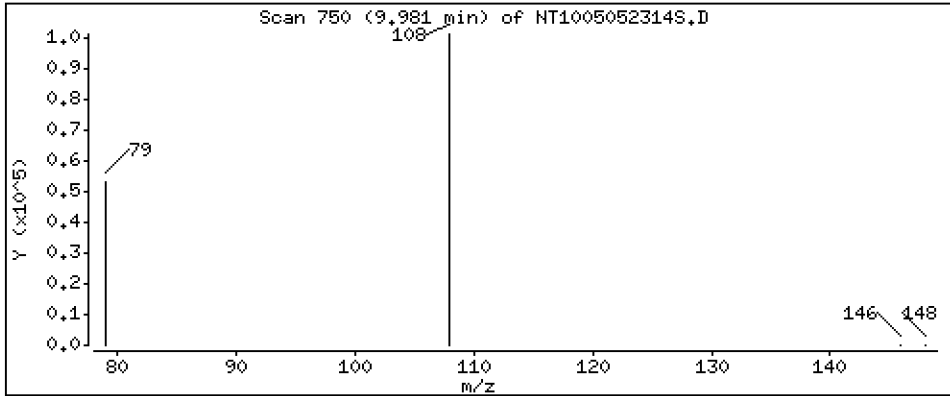
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3.276 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

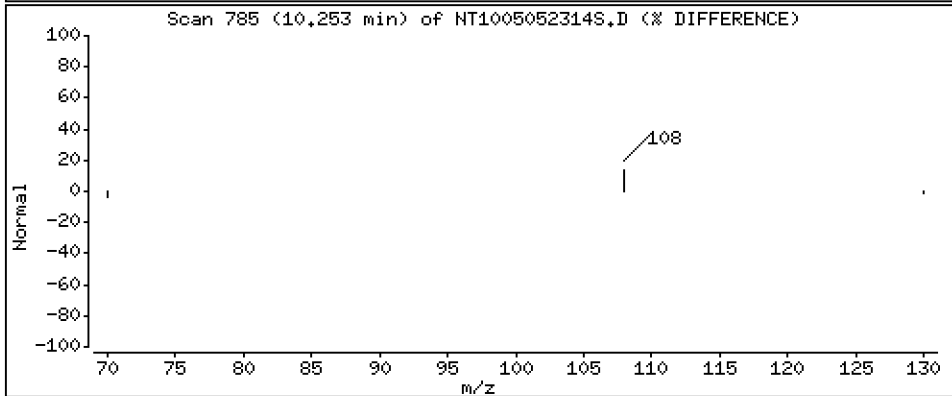
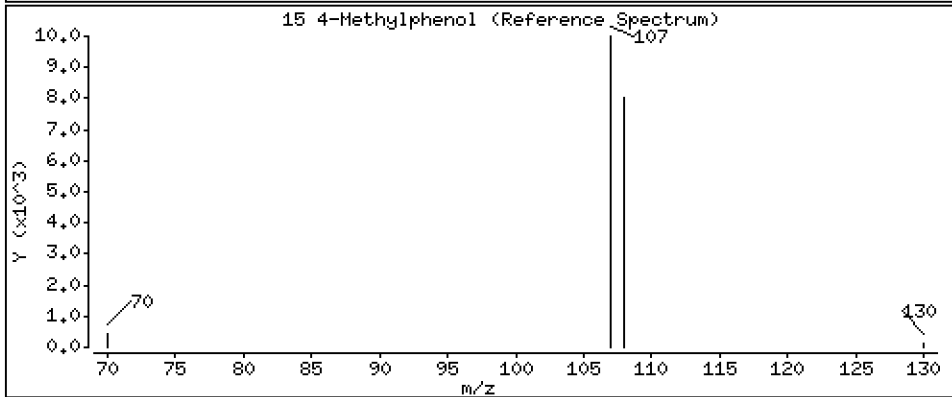
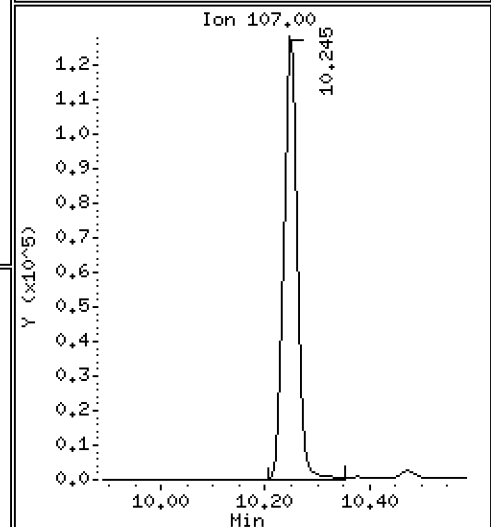
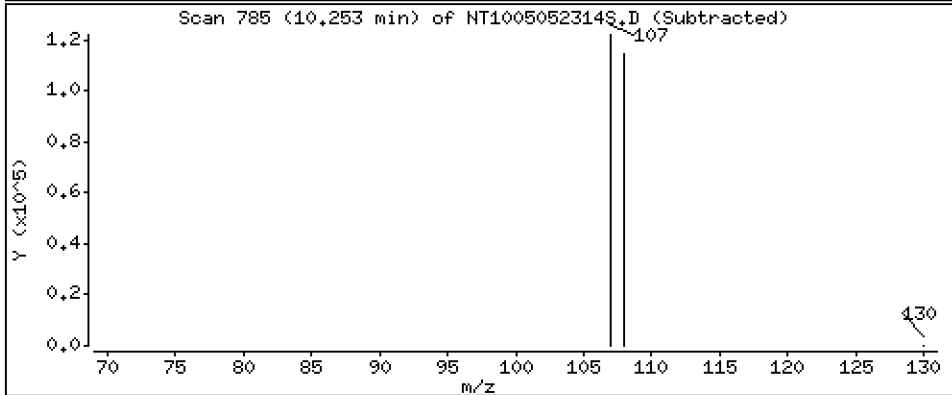
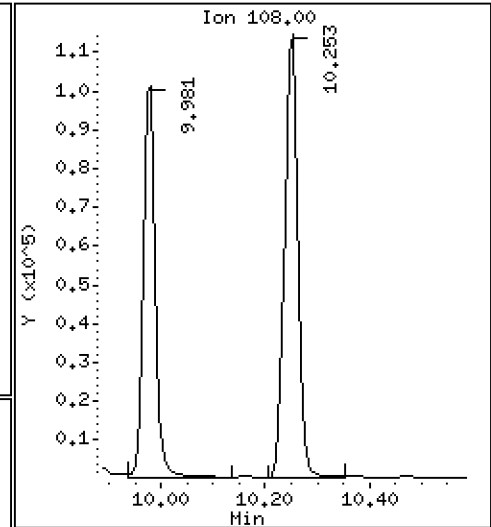
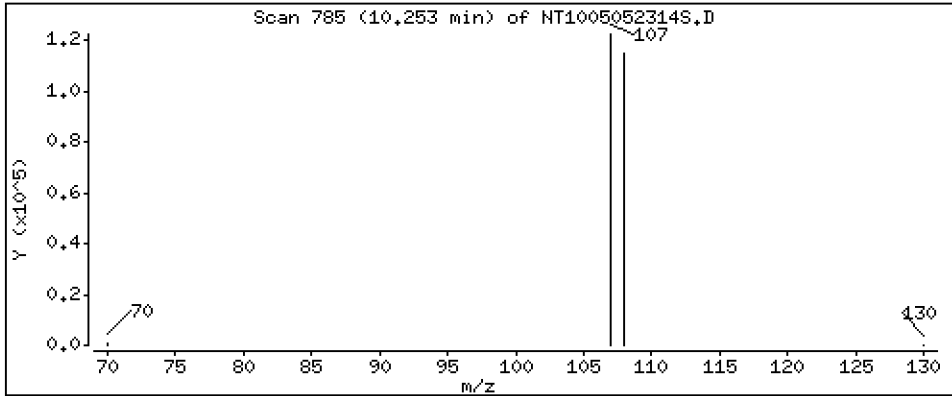
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 3.813 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

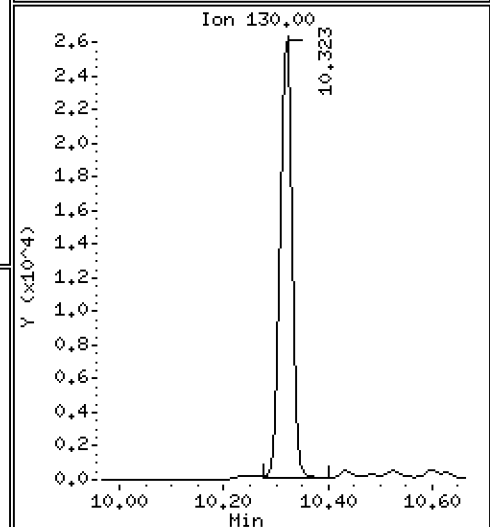
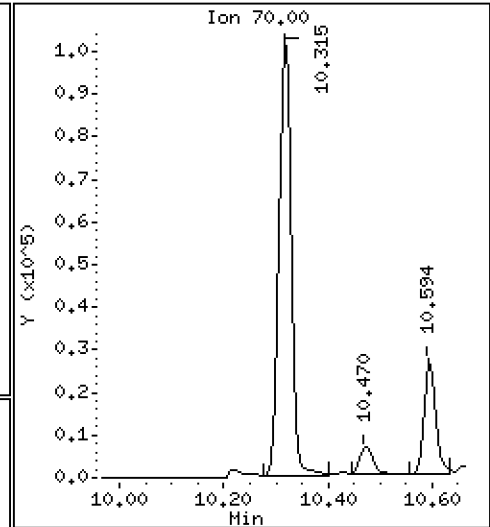
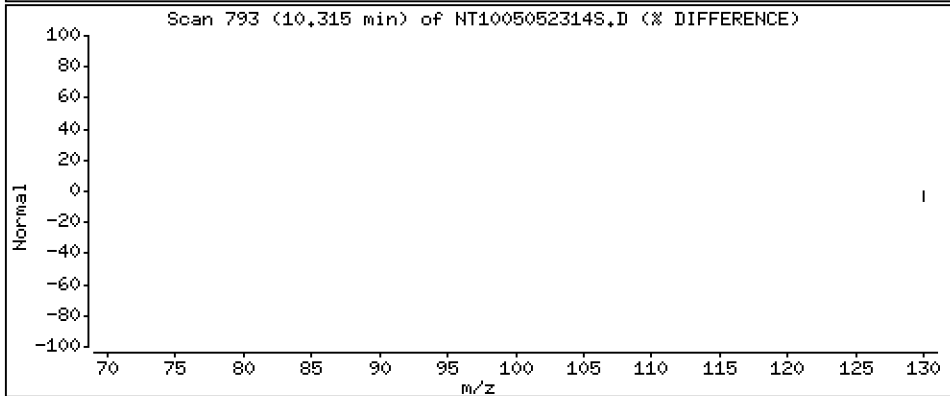
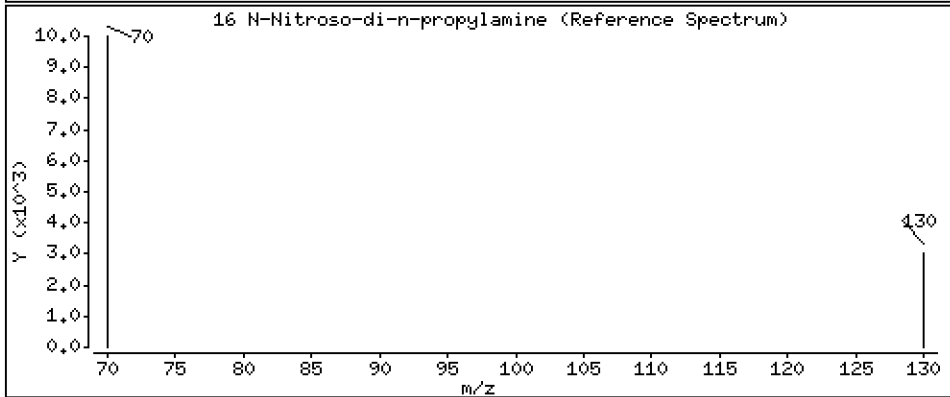
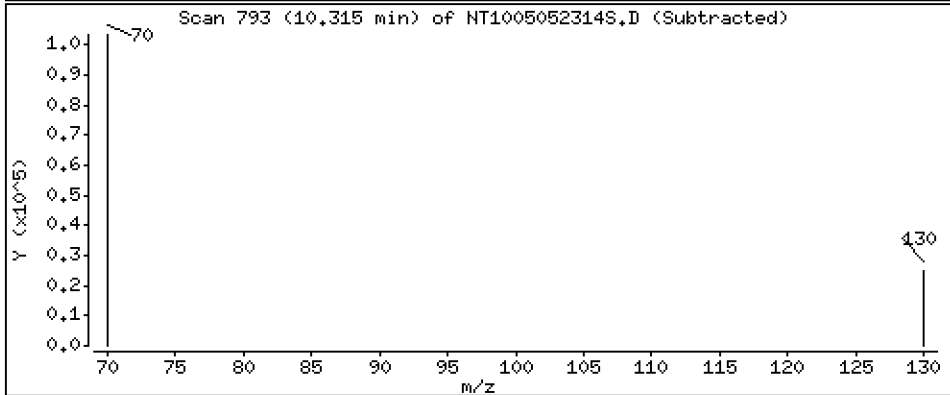
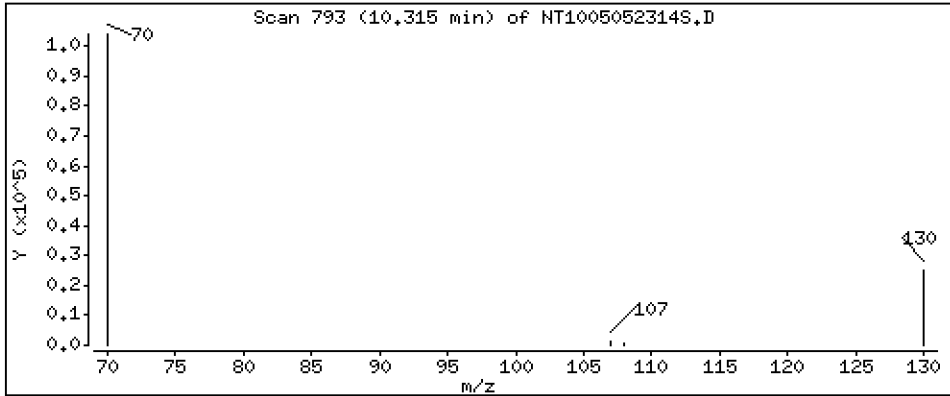
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 4.105 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

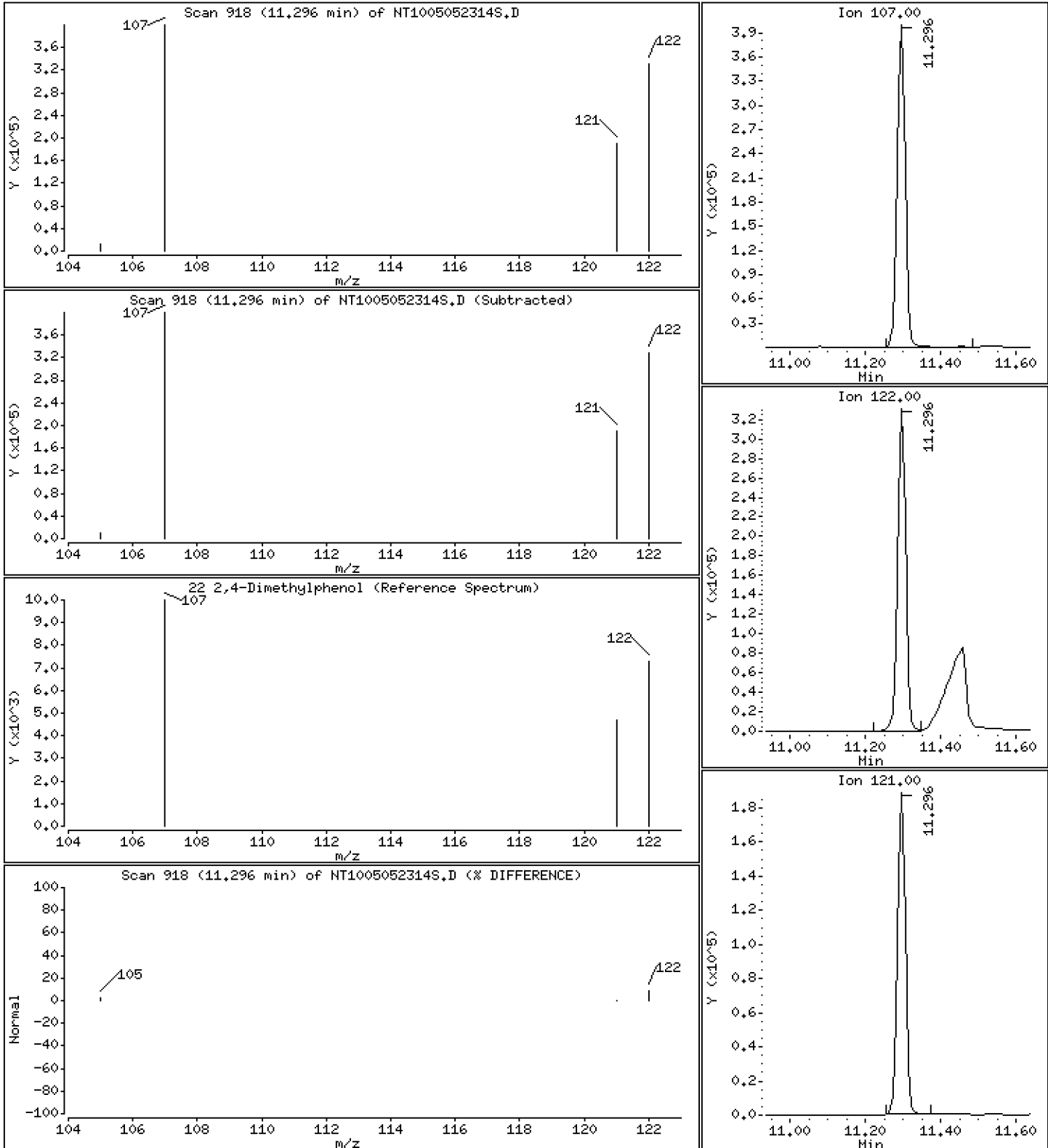
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 9.125 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

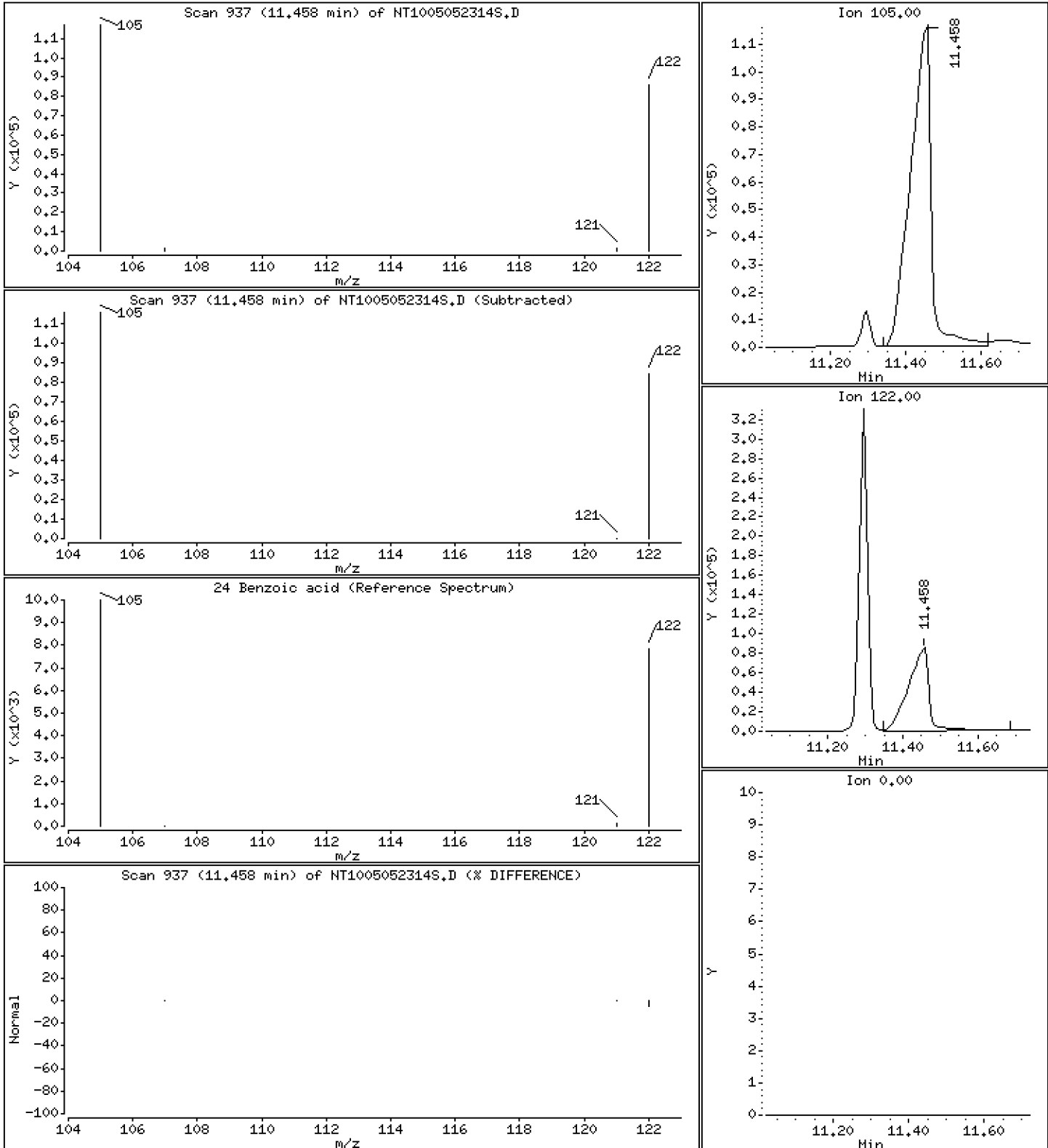
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 9,871 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

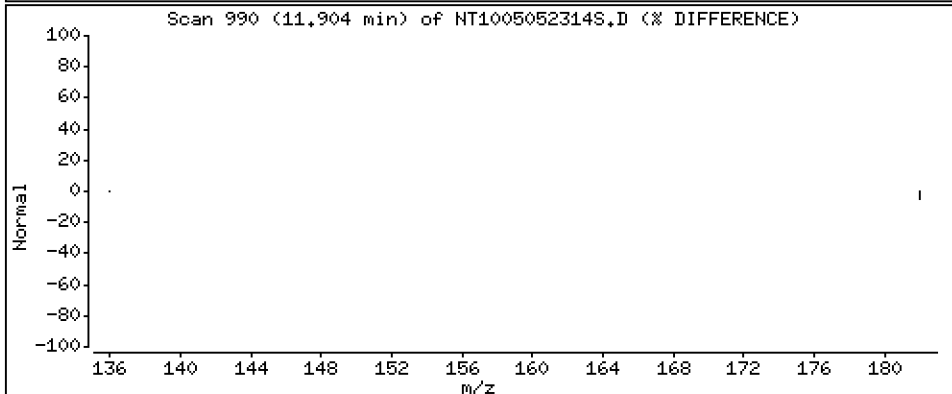
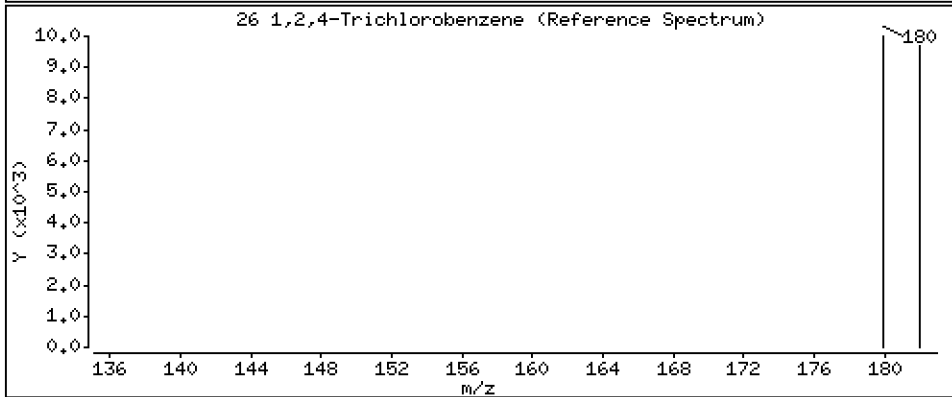
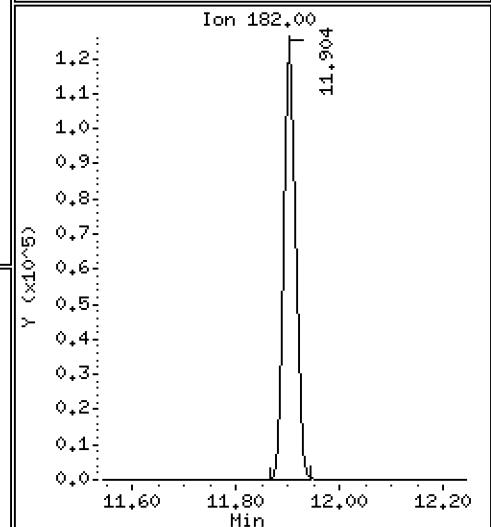
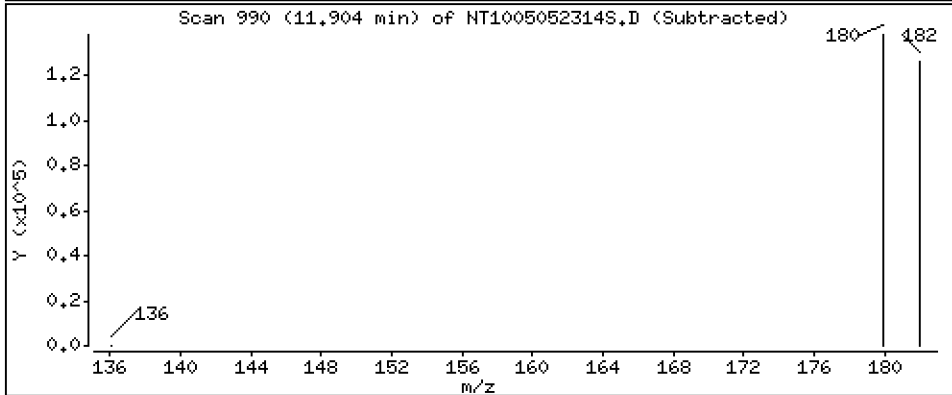
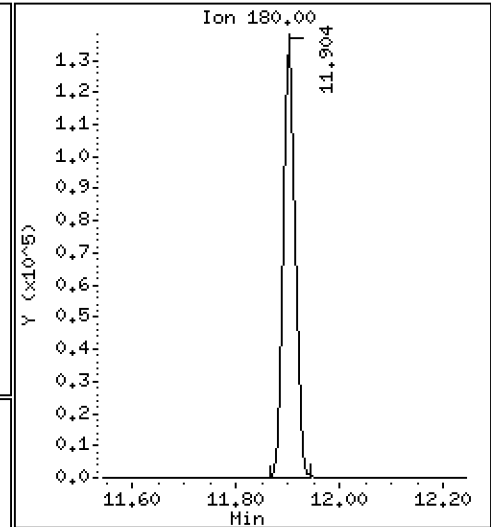
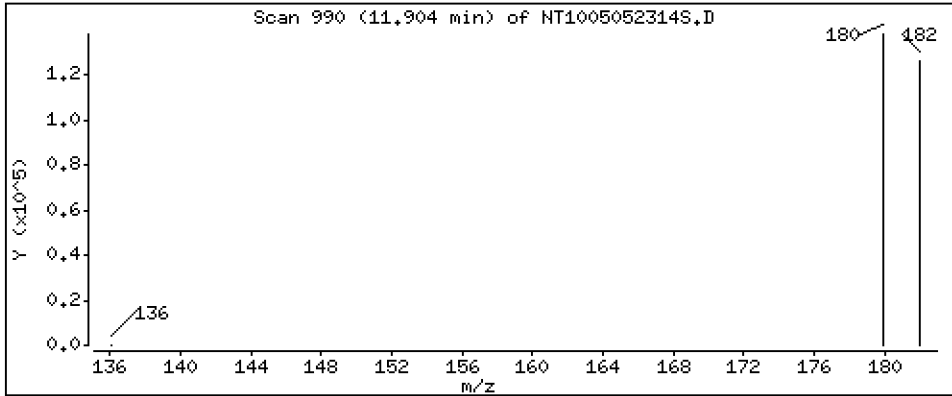
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,107 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

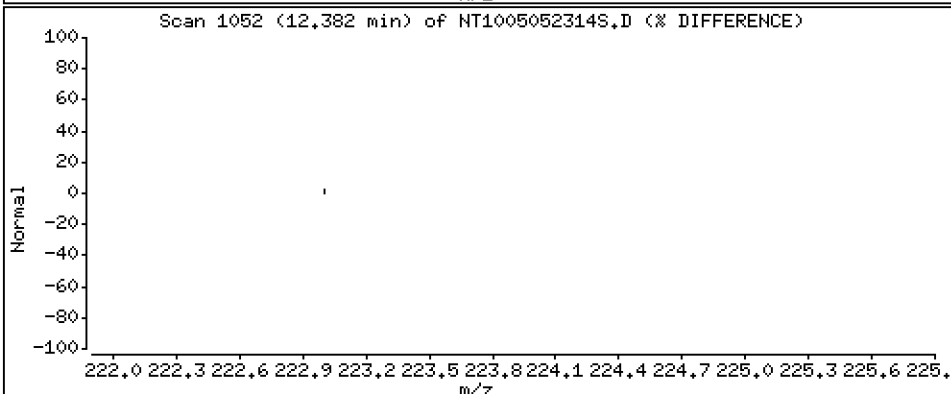
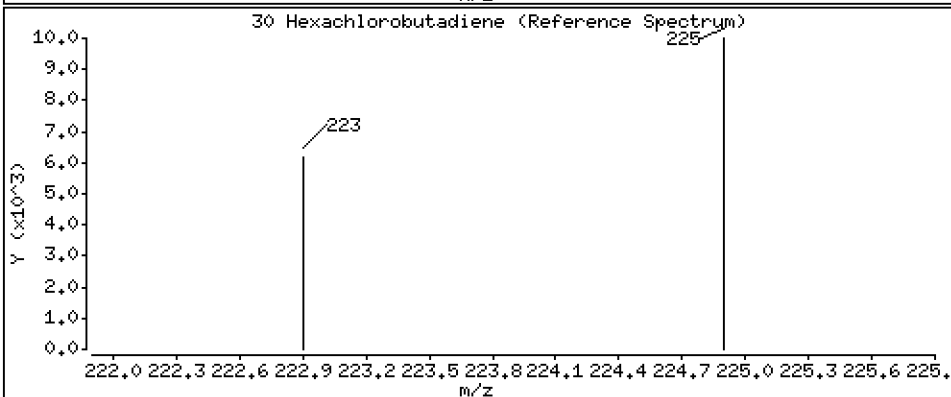
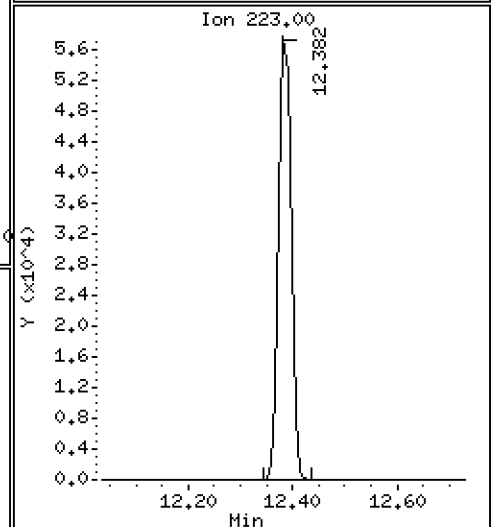
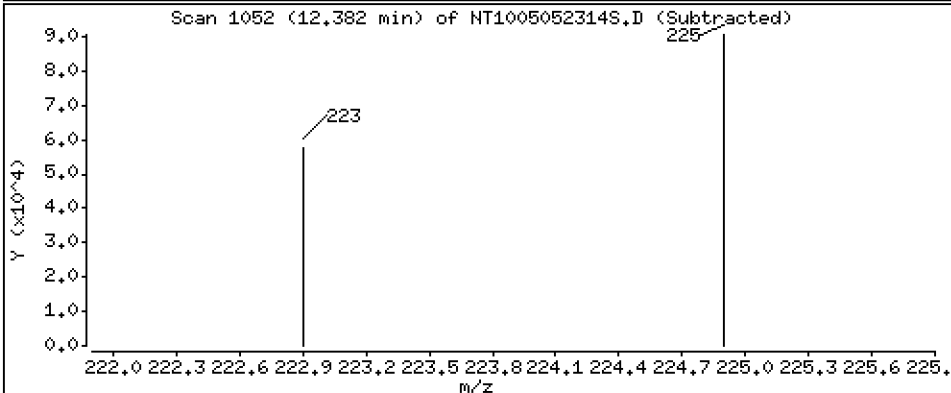
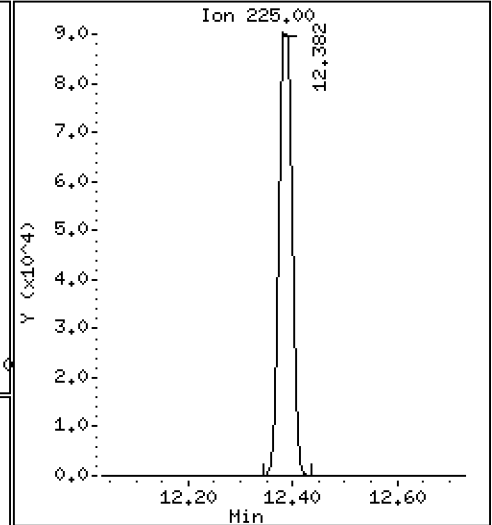
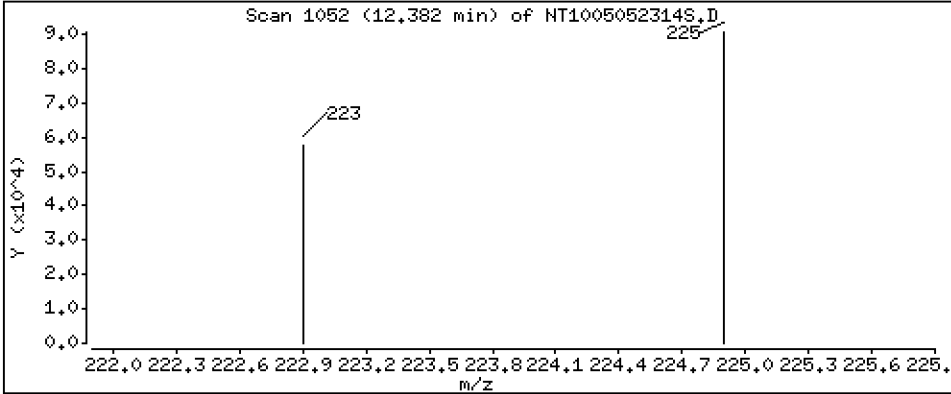
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,420 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

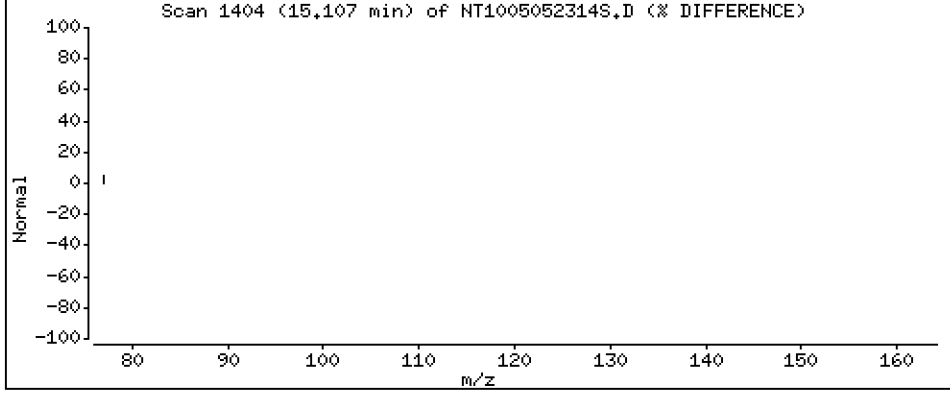
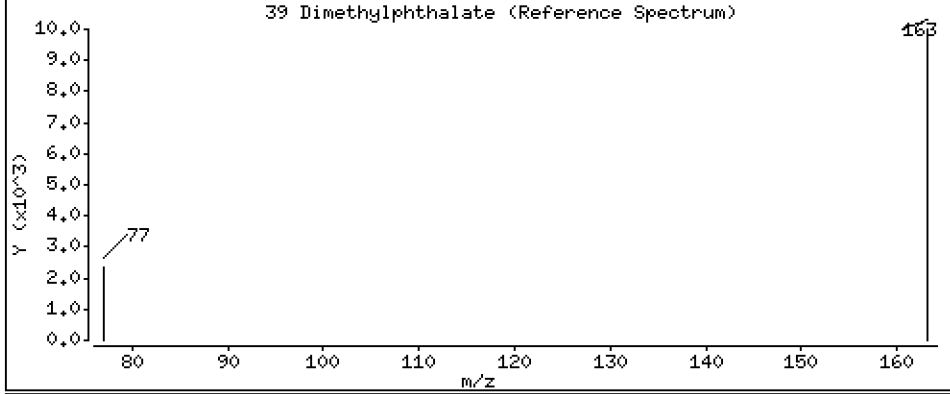
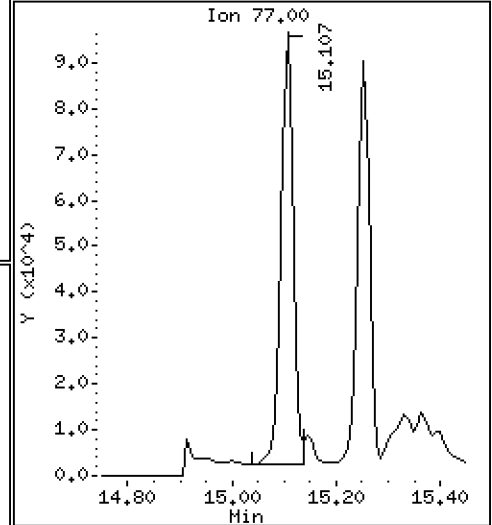
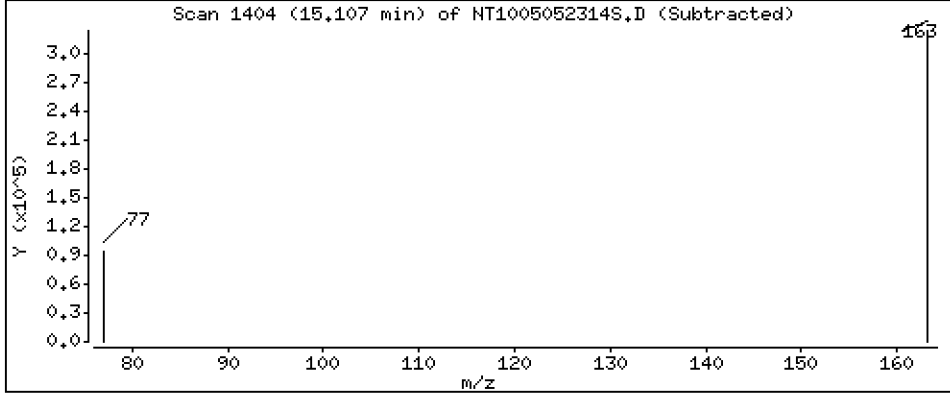
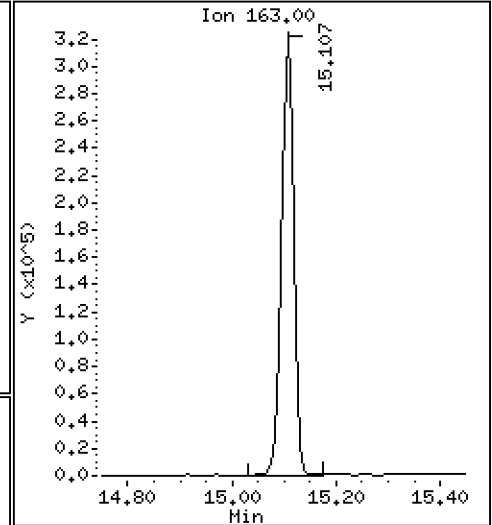
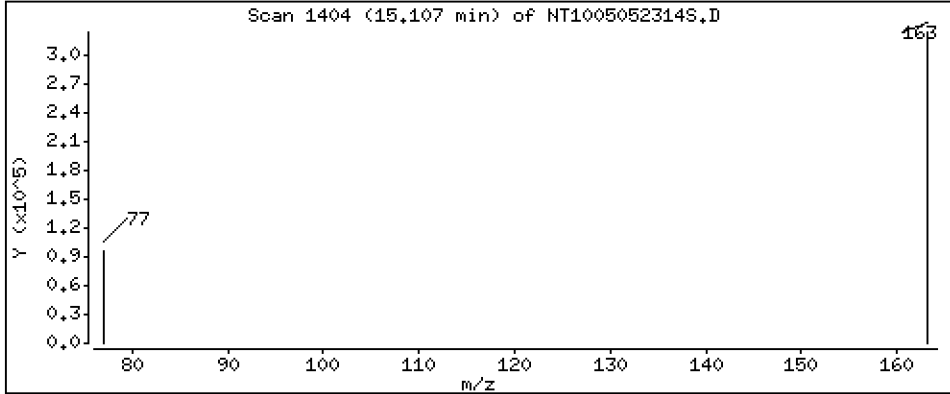
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 3,878 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

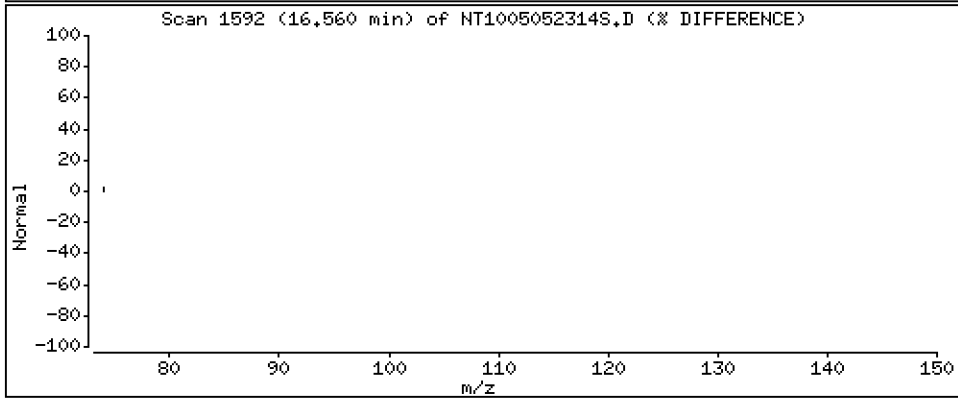
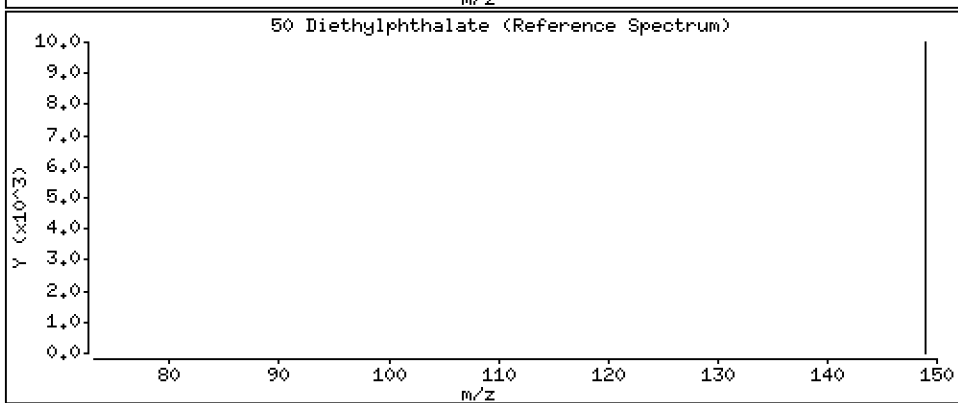
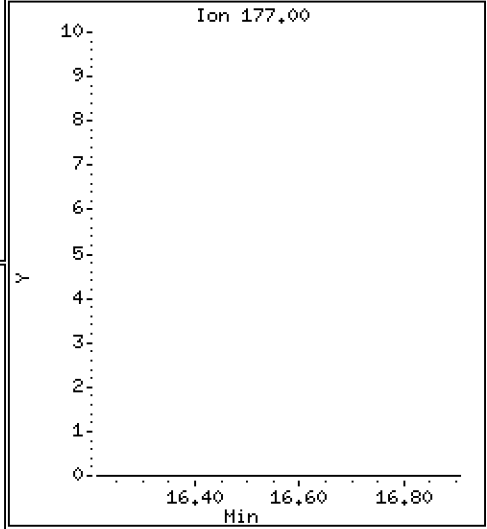
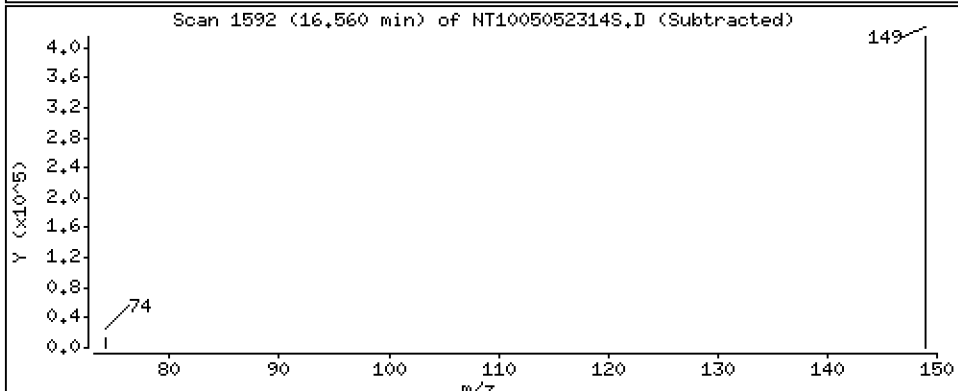
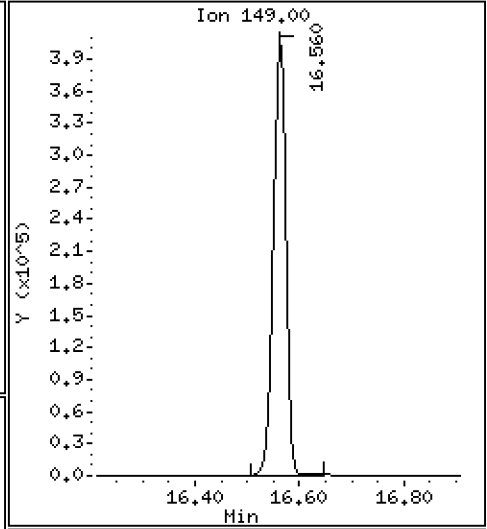
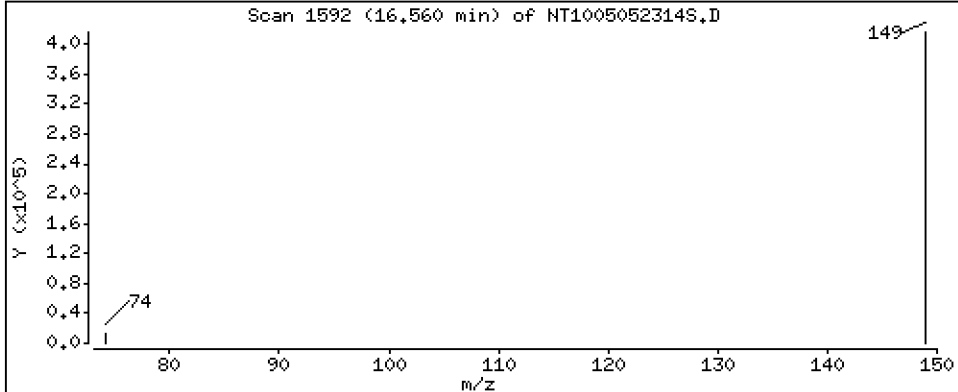
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,803 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

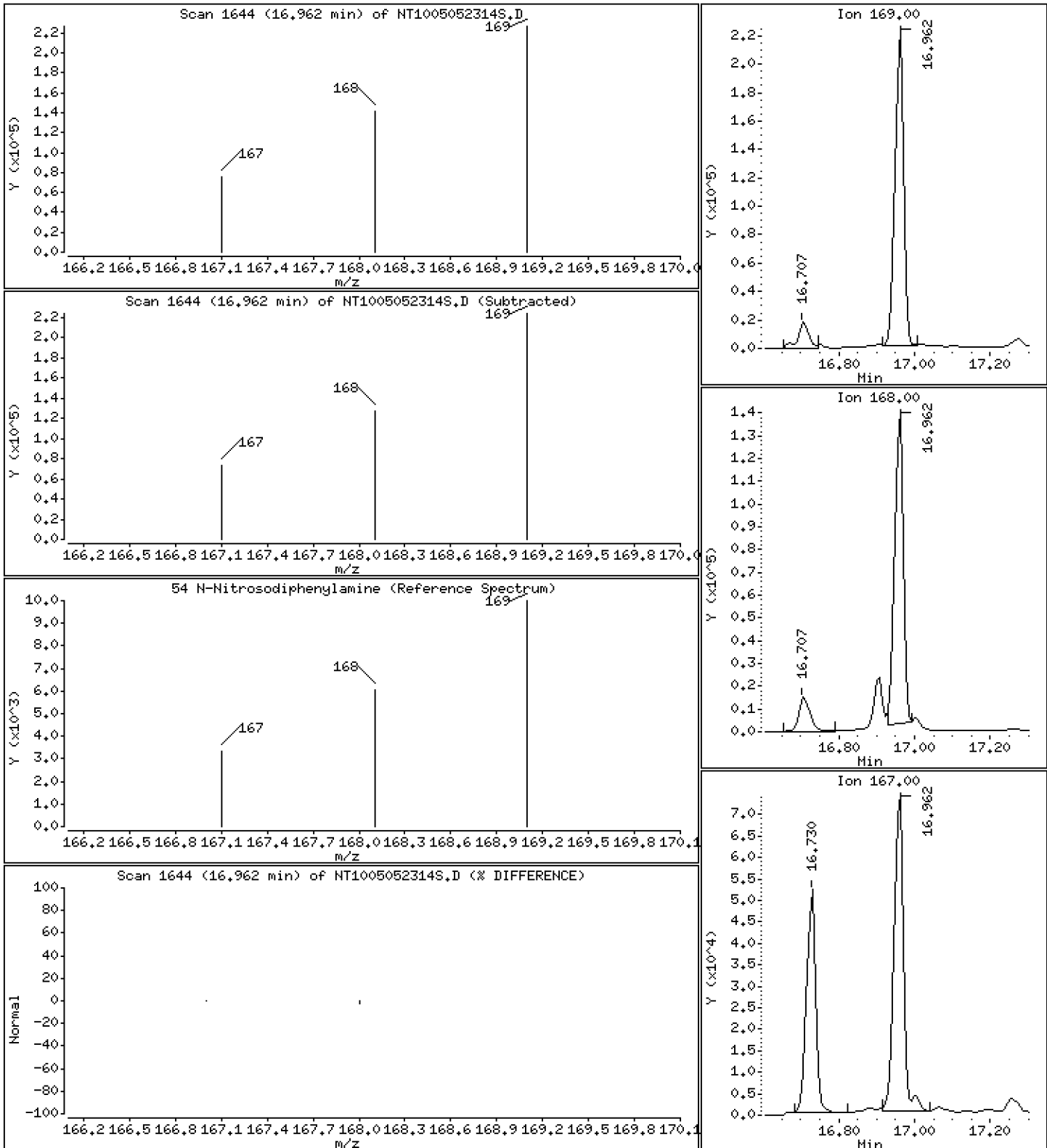
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 3,900 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

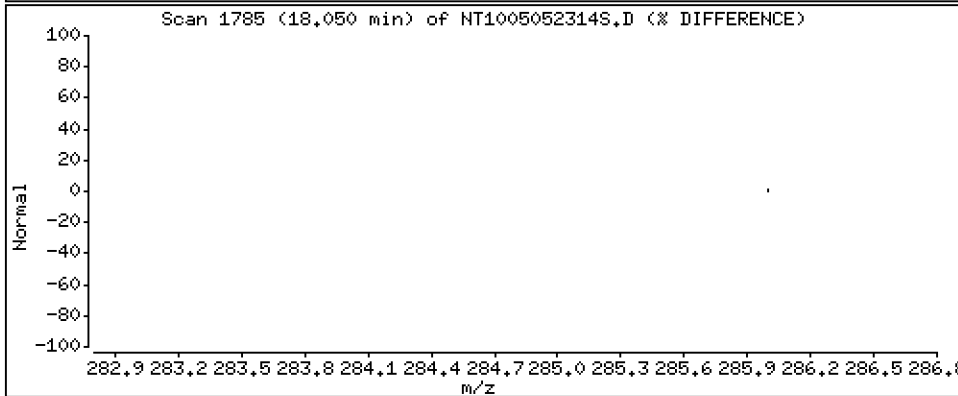
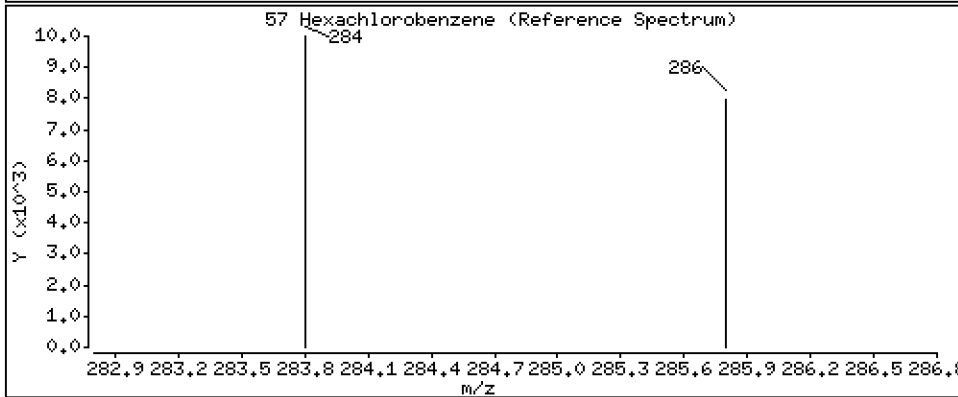
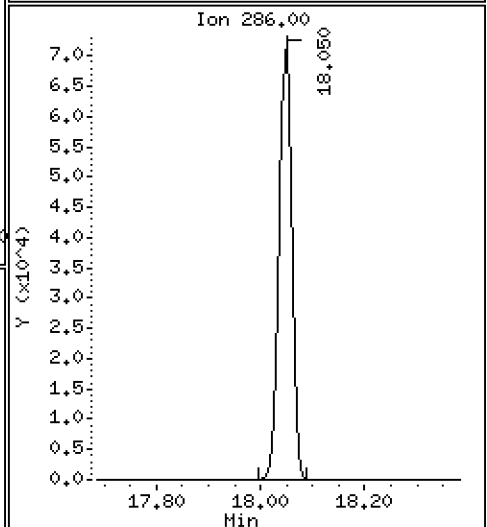
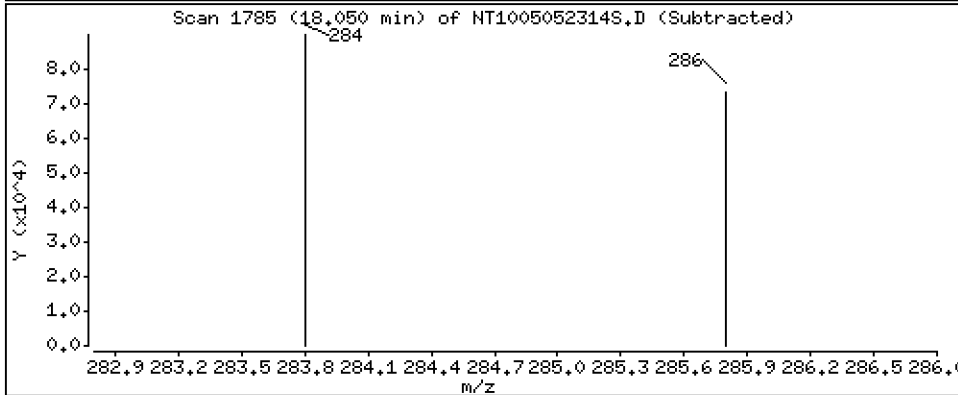
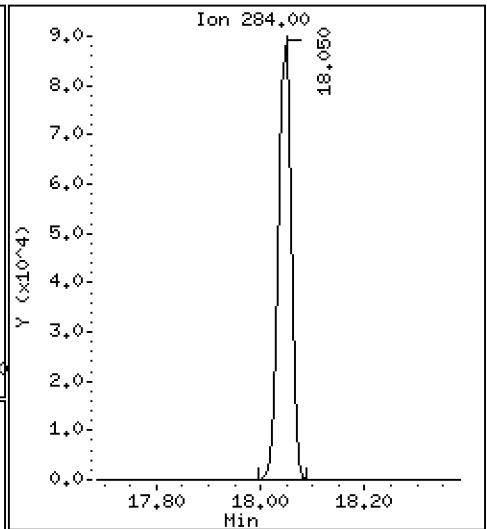
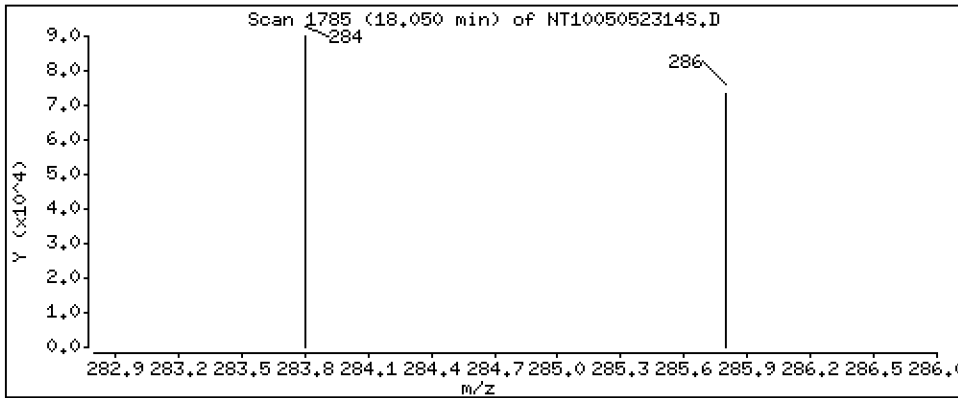
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 3,400 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

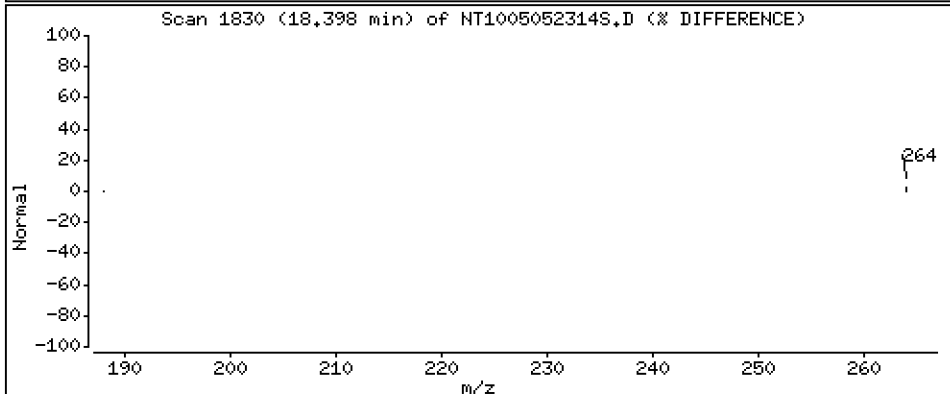
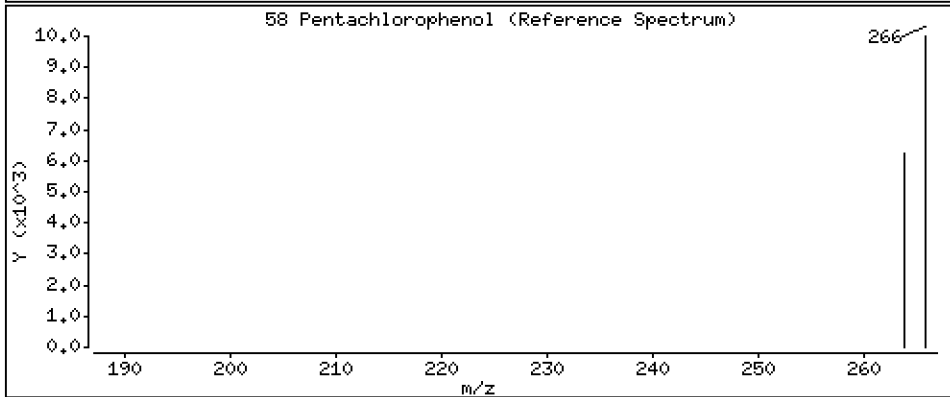
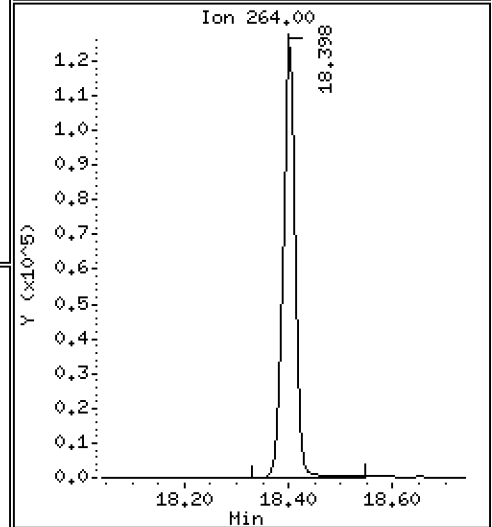
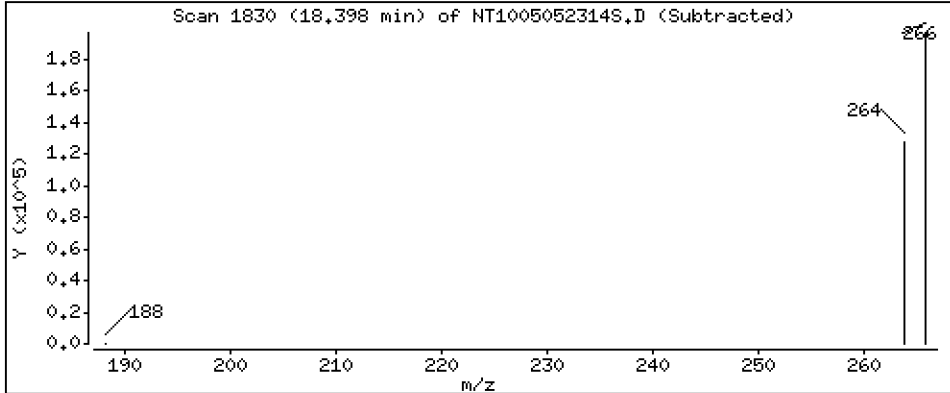
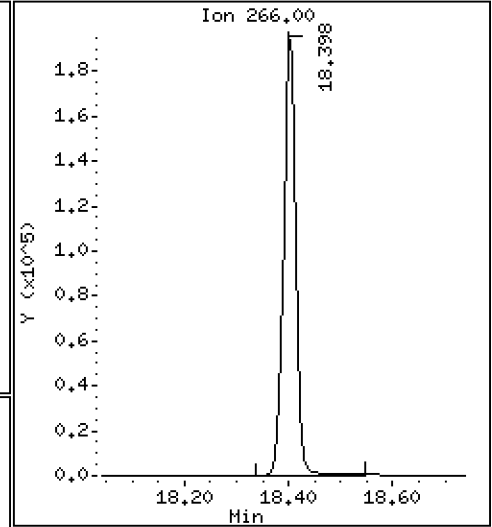
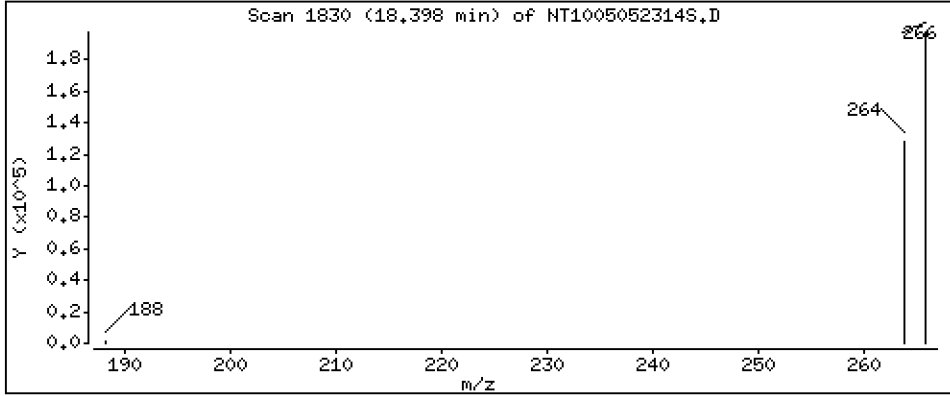
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 11,25 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

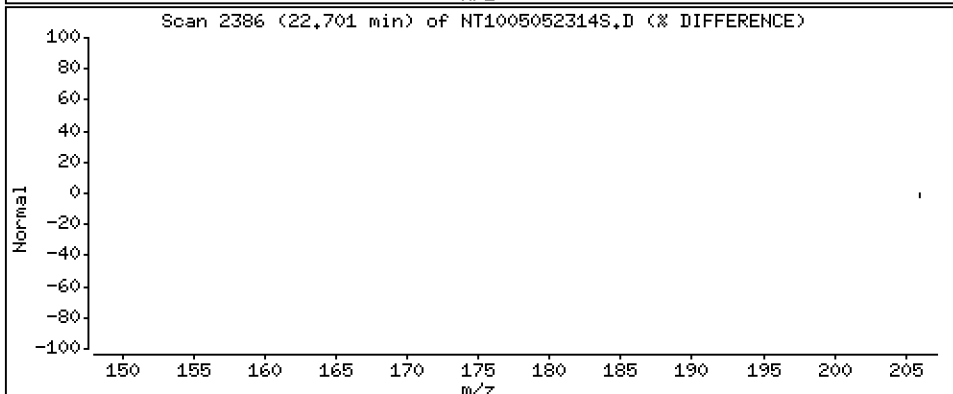
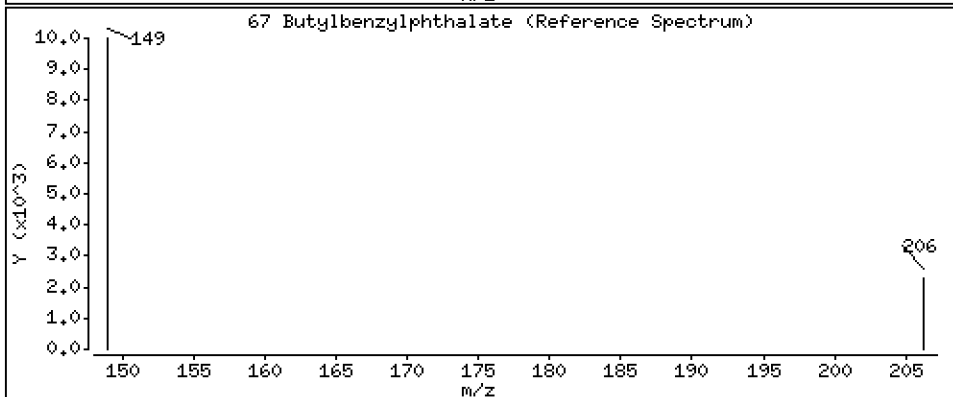
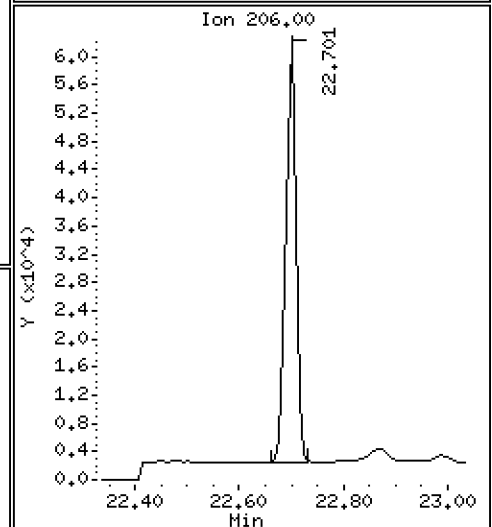
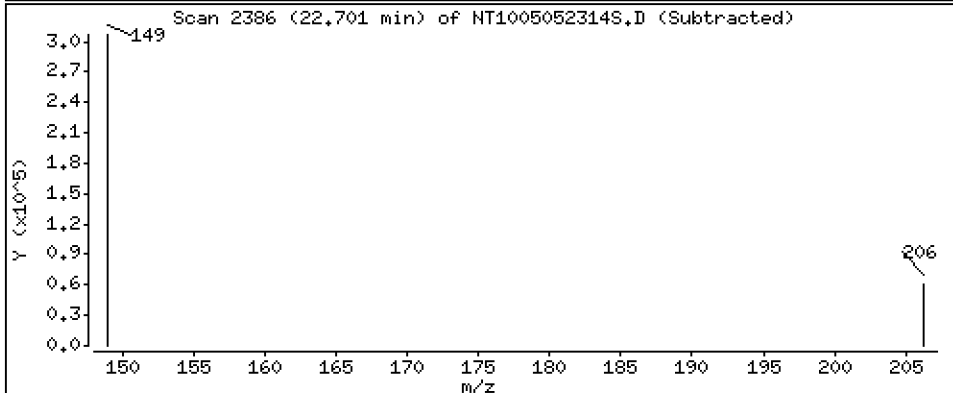
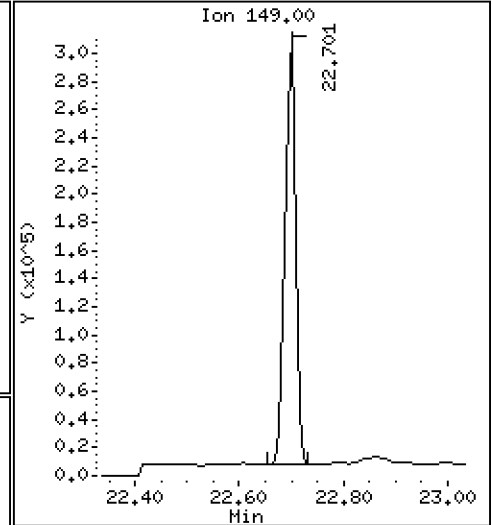
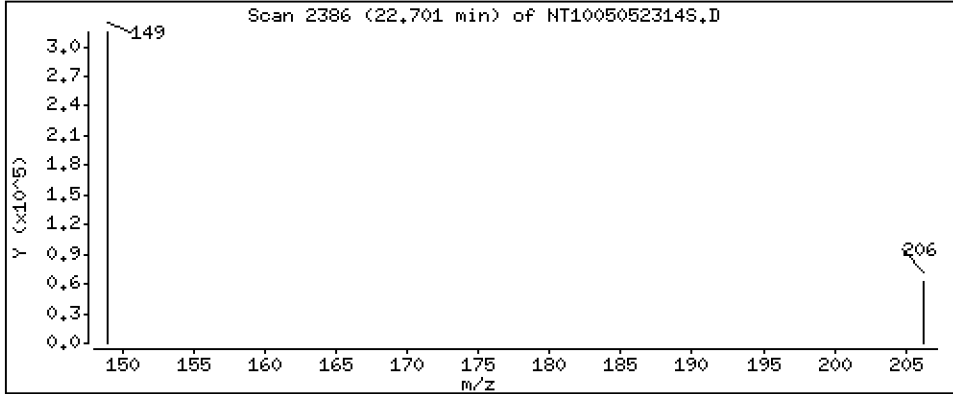
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 4.526 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

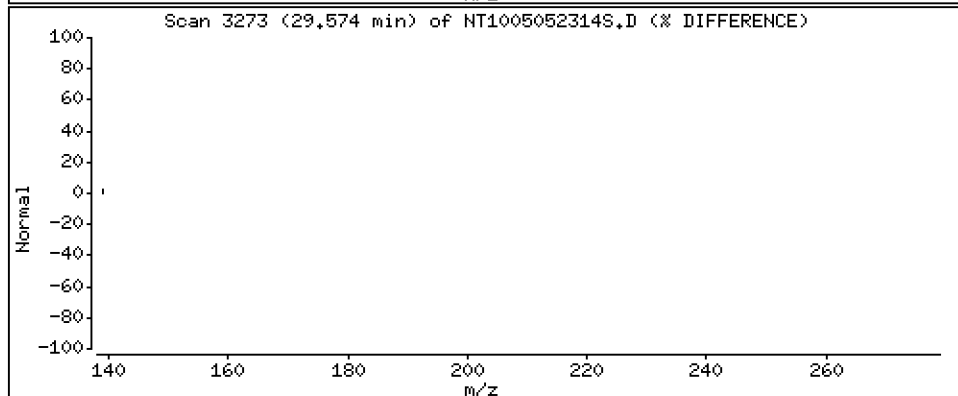
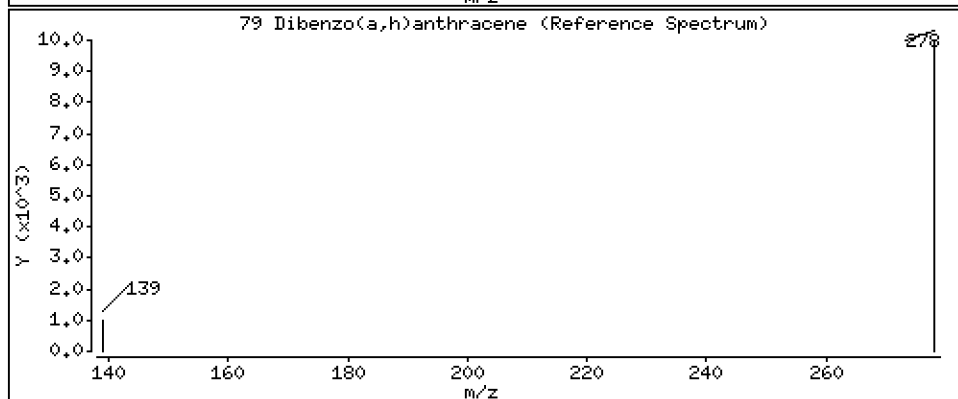
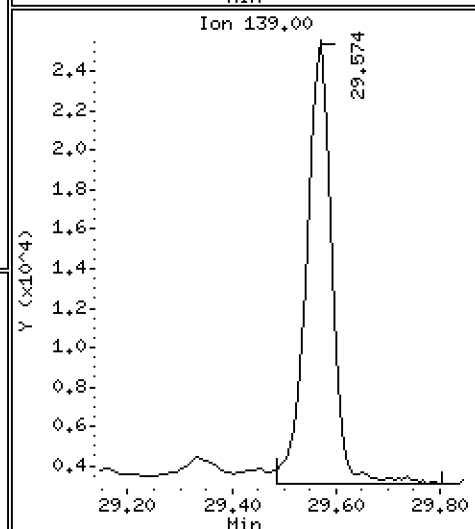
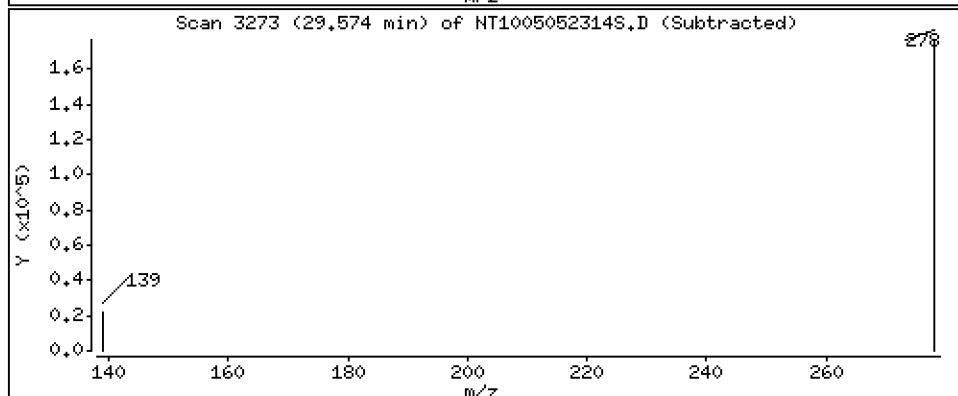
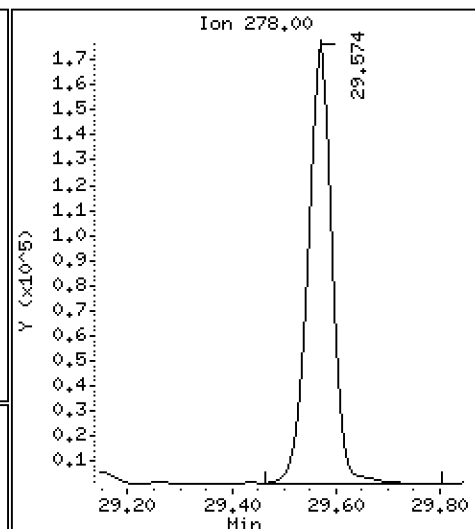
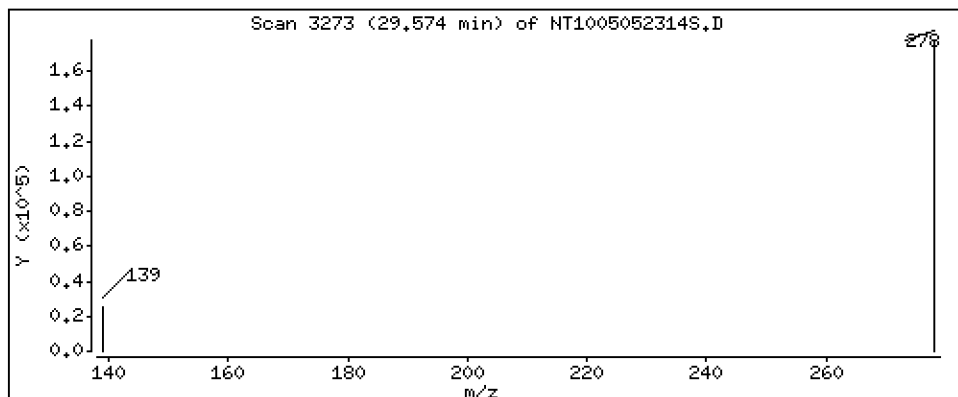
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,017 ug/L



Date : 05-MAY-2023 19:11

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-MSD2

Volume Injected (uL): 1.0

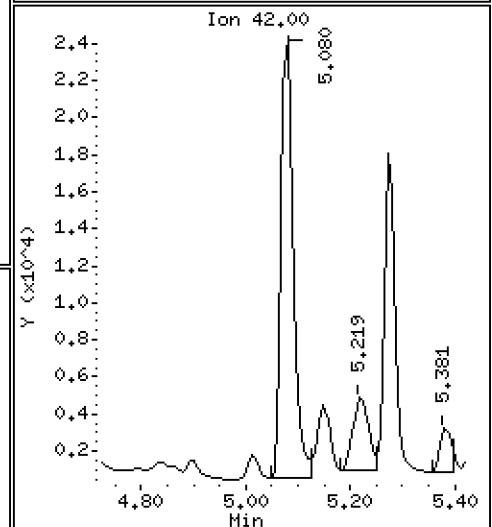
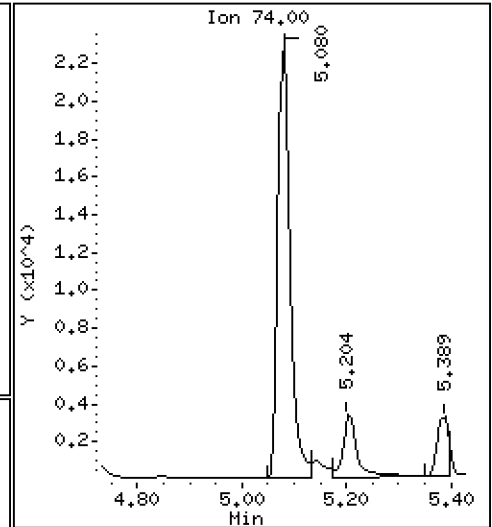
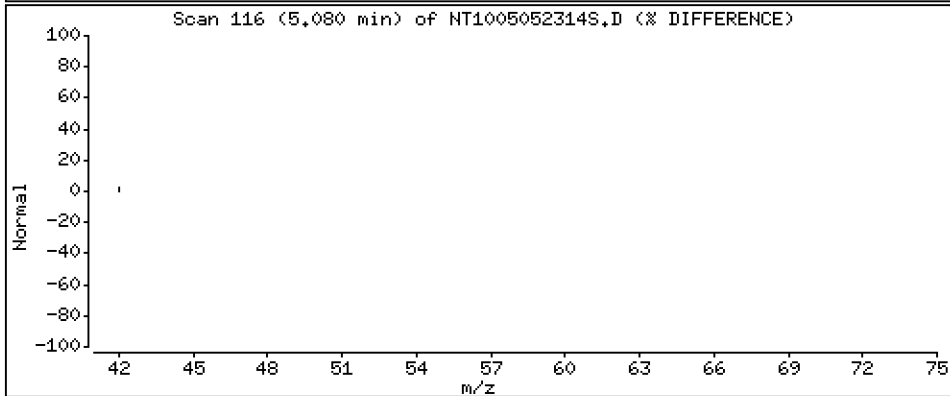
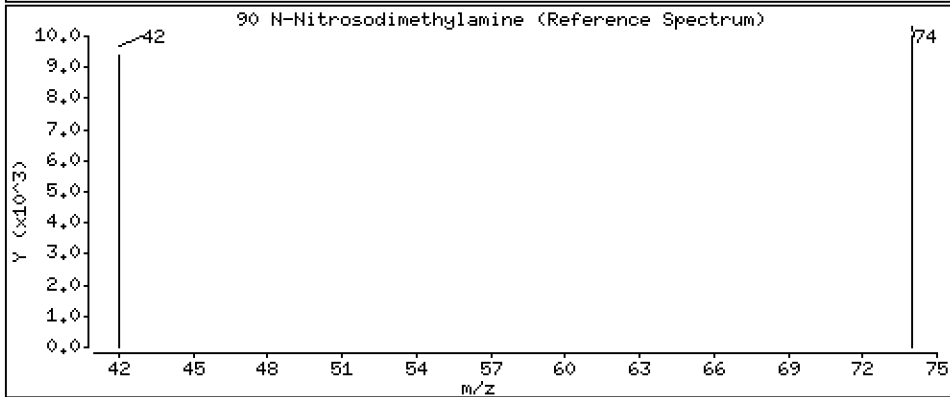
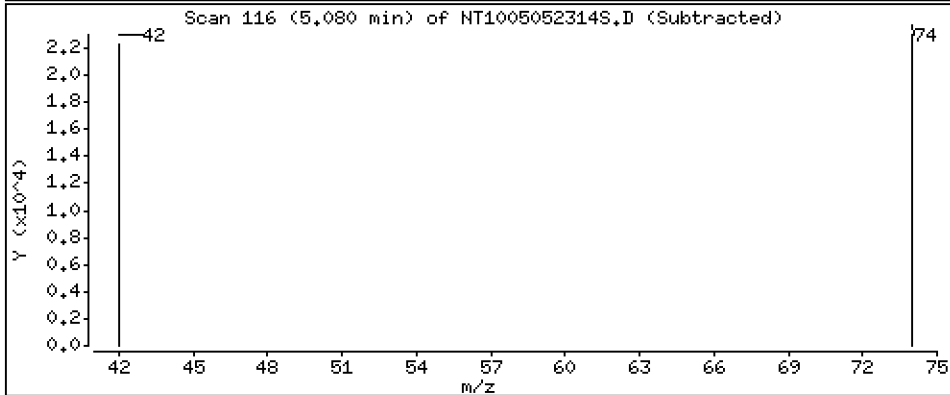
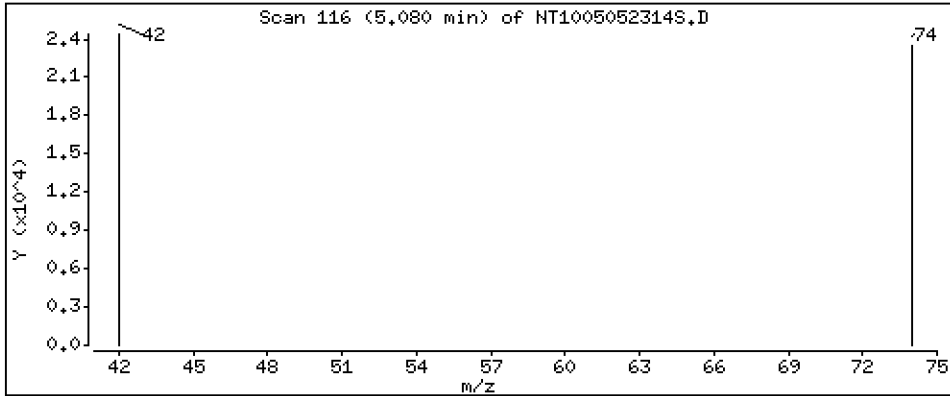
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 1.203 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052314S.D
 Lab Smp Id: BLD0329-MSD2
 Inj Date : 05-MAY-2023 19:11 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLD0329-MSD2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		7.250	7.243	(0.763)	171197	3.17266	3.173 (R)
3 Phenol	94		8.857	8.842	(0.932)	205854	3.04554	3.046
7 1,3-Dichlorobenzene	146		9.429	9.430	(0.993)	207011	2.91214	2.912
* 8 1,4-Dichlorobenzene-d4	152		9.499	9.492	(1.000)	177137	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.002)	207551	2.94799	2.948
11 Benzyl alcohol	79		9.763	9.756	(1.028)	288355	6.16894	6.169
12 1,2-Dichlorobenzene	146		9.887	9.880	(1.041)	203068	2.99878	2.999
13 2-Methylphenol	108		9.980	9.965	(1.051)	165741	3.27644	3.276
15 4-Methylphenol	108		10.252	10.237	(1.079)	202829	3.81342	3.813
16 N-Nitroso-di-n-propylamine	70		10.314	10.315	(1.086)	157551	4.10531	4.105
22 2,4-Dimethylphenol	107		11.296	11.288	(0.942)	604156	9.12531	9.125
24 Benzoic acid	105		11.457	11.381	(0.955)	442097	9.87113	9.871
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.992)	211011	3.10655	3.107
* 27 Naphthalene-d8	136		11.996	11.988	(1.000)	666320	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.032)	148344	3.42049	3.420
39 Dimethylphthalate	163		15.106	15.099	(0.967)	488244	3.87849	3.878
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	332083	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	649195	4.80291	4.803
54 N-Nitrosodiphenylamine	169		16.961	16.954	(0.908)	336720	3.90014	3.900
57 Hexachlorobenzene	284		18.049	18.034	(0.966)	143760	3.40027	3.400

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.398	18.390	(0.985)	317776	11.2460	11.25
* 59 Phenanthrene-d10	188	18.676	18.669	(1.000)	662010	4.00000	
\$ 66 Terphenyl-d14	244	21.786	21.771	(0.919)	461820	4.32480	4.325(R)
67 Butylbenzylphthalate	149	22.700	22.685	(0.958)	413468	4.52644	4.526
* 69 Chrysene-d12	240	23.707	23.684	(1.000)	495228	4.00000	
* 77 Perylene-d12	264	26.556	26.517	(1.000)	426867	4.00000	
79 Dibenzo(a,h)anthracene	278	29.573	29.496	(1.114)	553475	4.01682	4.017
90 N-Nitrosodimethylamine	74	5.080	5.080	(0.535)	35407	1.20281	1.203

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052314S.D
 Lab Smp Id: BLD0329-MSD2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	177137	-3.04
27 Naphthalene-d8	662220	331110	1324440	666320	0.62
42 Acenaphthene-d10	335558	167779	671116	332083	-1.04
59 Phenanthrene-d10	678190	339095	1356380	662010	-2.39
69 Chrysene-d12	566969	283485	1133938	495228	-12.65
77 Perylene-d12	522906	261453	1045812	426867	-18.37

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.50	0.08
27 Naphthalene-d8	11.99	11.49	12.49	12.00	0.06
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	-0.00
59 Phenanthrene-d10	18.67	18.17	19.17	18.68	0.04
69 Chrysene-d12	23.68	23.18	24.18	23.71	0.10
77 Perylene-d12	26.52	26.02	27.02	26.56	0.14

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

REVIEW SUMMARY FOR FILE - NT1005052314S.D

Lab ID: BLD0329-MSD2

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 19:11

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.949	0.0058	Benzoic acid

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



STANDARD REFERENCE MATERIAL RECOVERY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLD0329-SRM2

Batch: BLD0329

Initial/Final: 1 g / 1 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 05/05/2023 16:36

Standard ID: K003477

Expires: 01/31/2024

Standard Lot#: CRM 143 (LRAC8918)

Description: CRM 143 BNAs - Sandy Loam

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
2,4-Dimethylphenol	6357.0	4600	21.7	200		72.3	0 - 220
1,2,4-Trichlorobenzene	1477.0	1130	26.8	50.0		76.7	10 - 193
N-Nitrosodiphenylamine	2854.0	2640	13.1	50.0		92.4	40 - 160
Pentachlorophenol	3411.0	3040	21.3	200	Q	89.2	10 - 206

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523105.D

Date : 05-May-2023 16:36

Client ID:

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

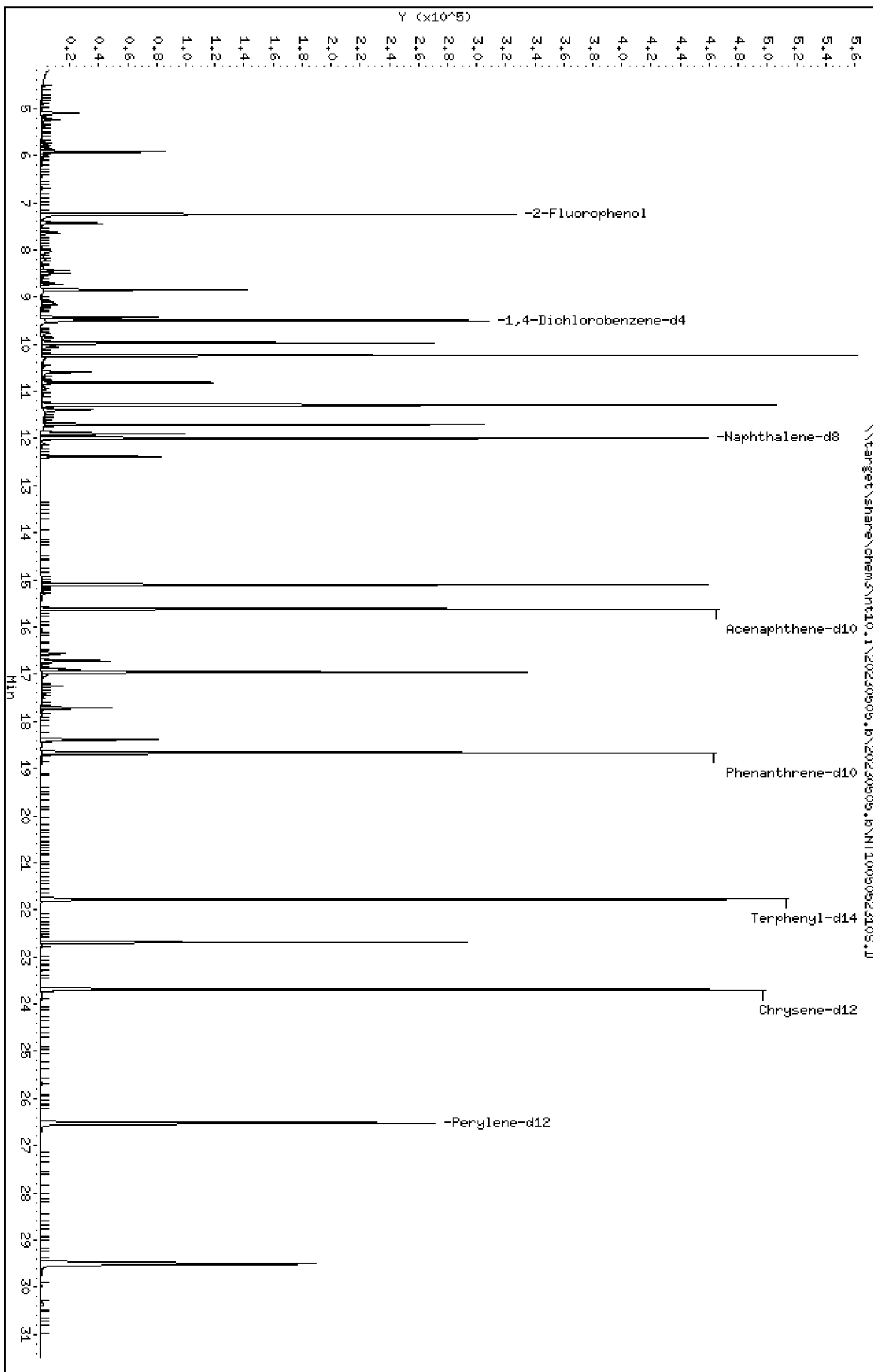
Column phase: ZB-5msi

Instrument: nt10.1

Operator: USD

Column diameter: 0.25

Page 1



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

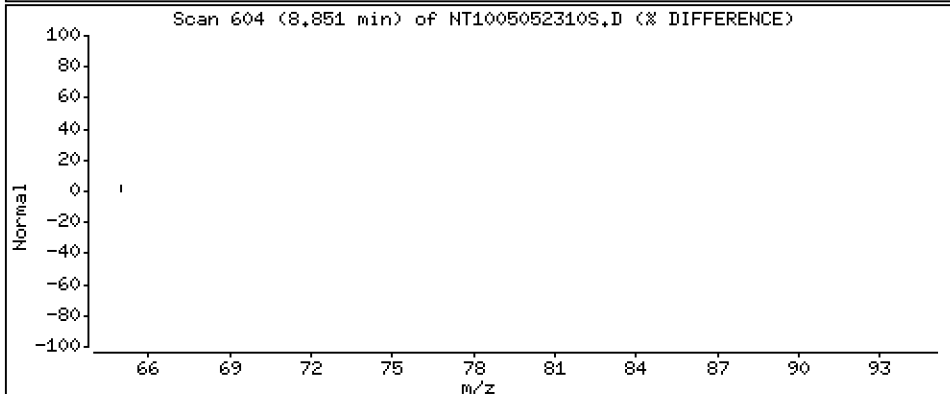
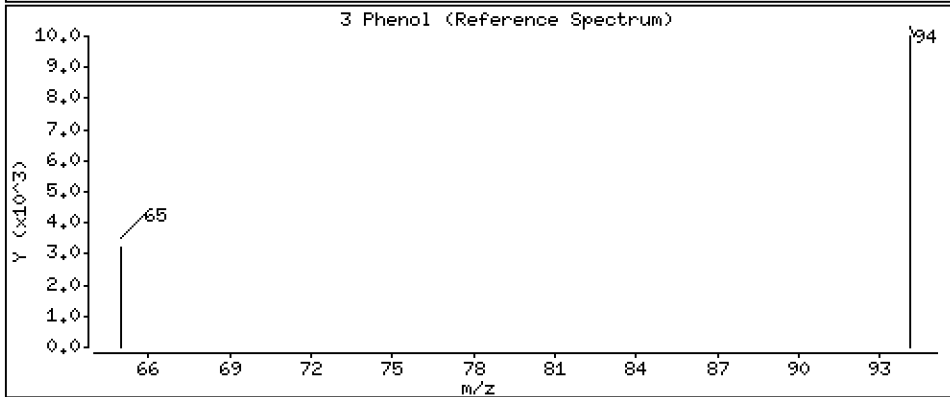
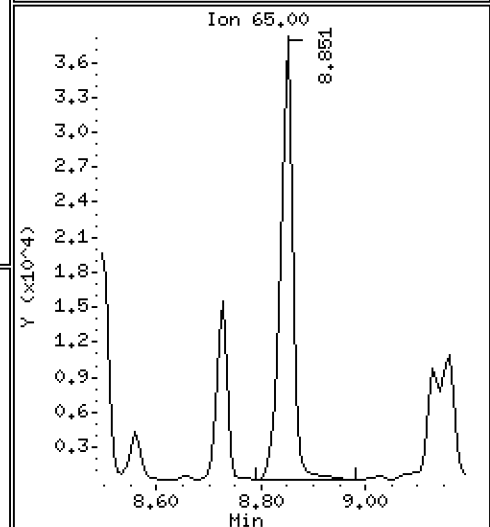
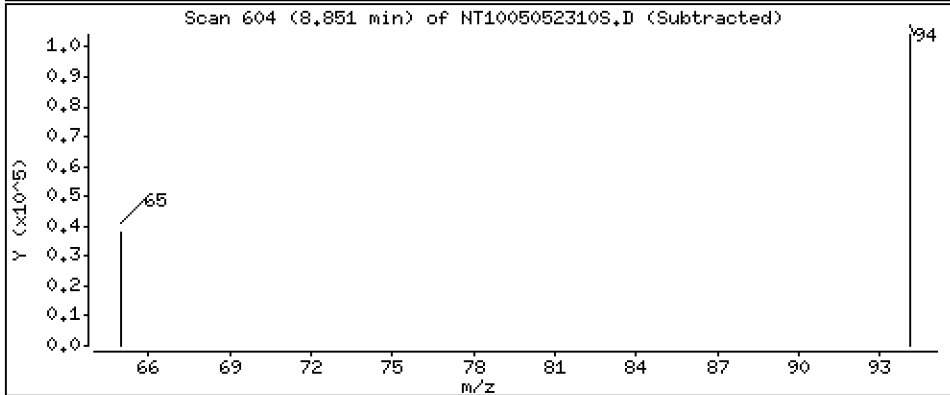
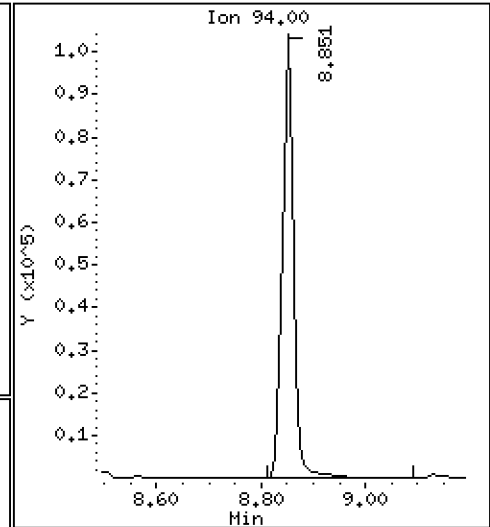
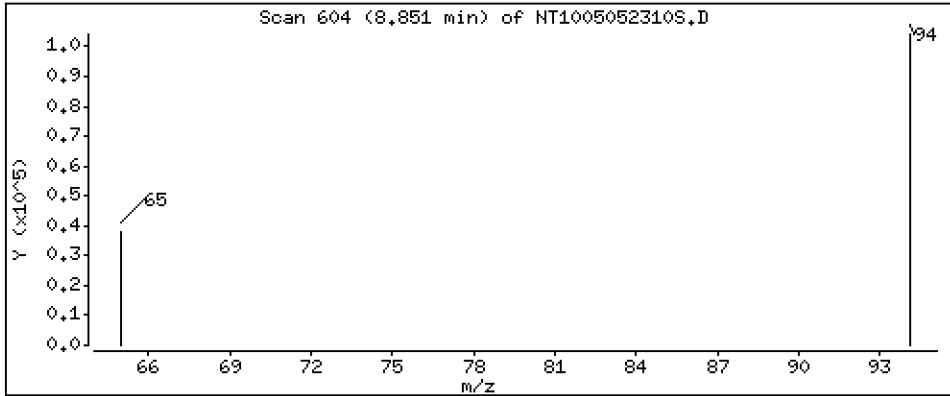
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 2.036 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

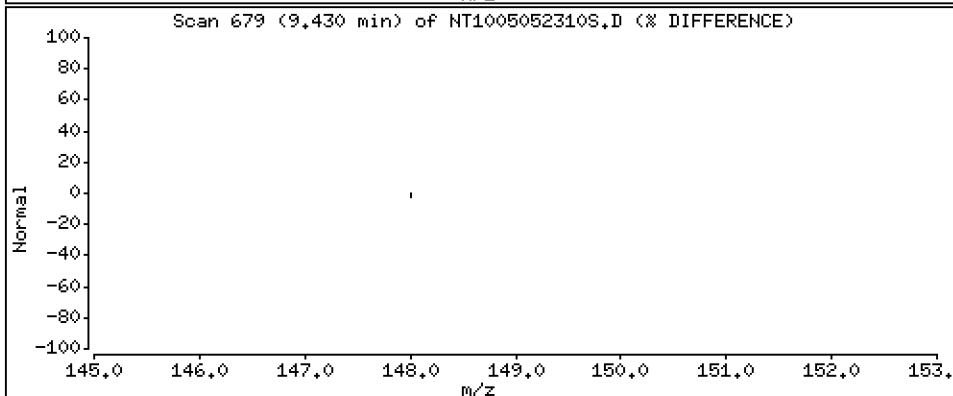
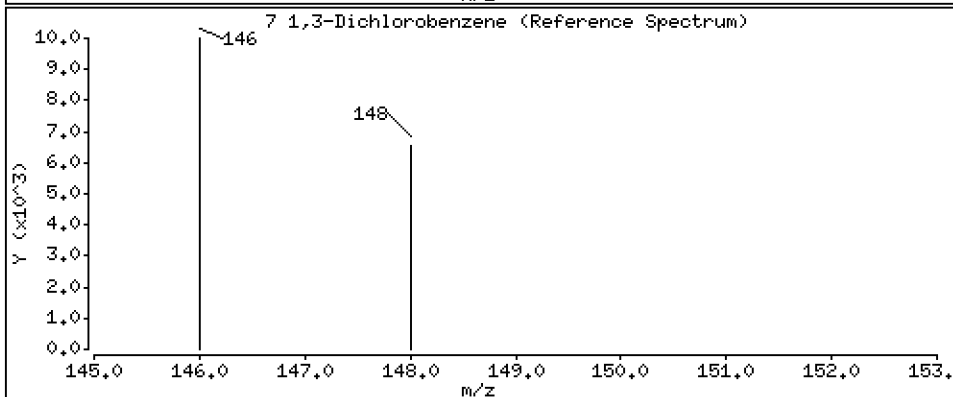
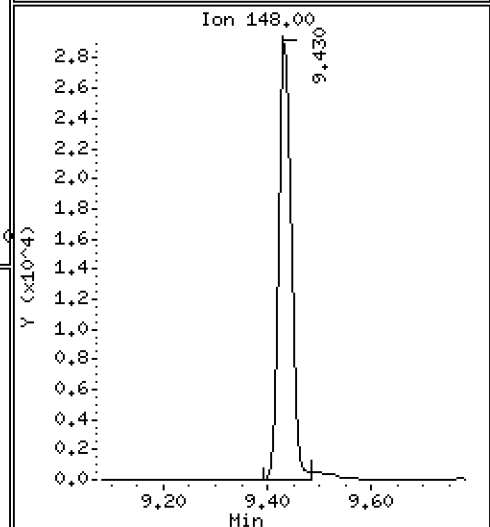
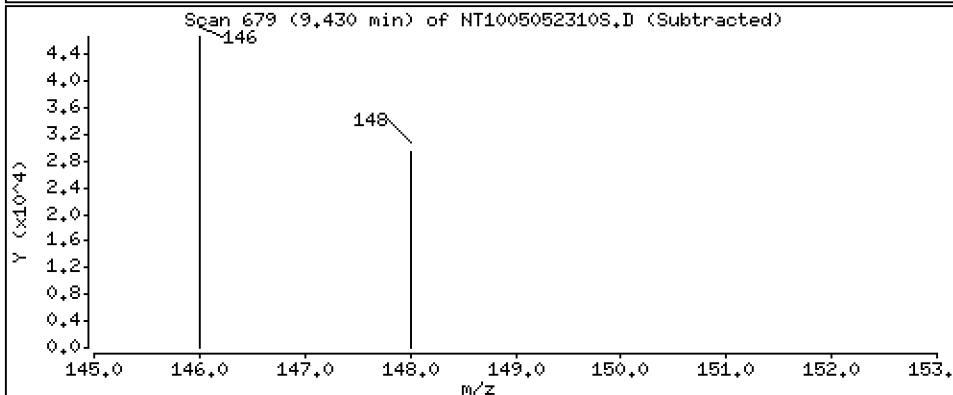
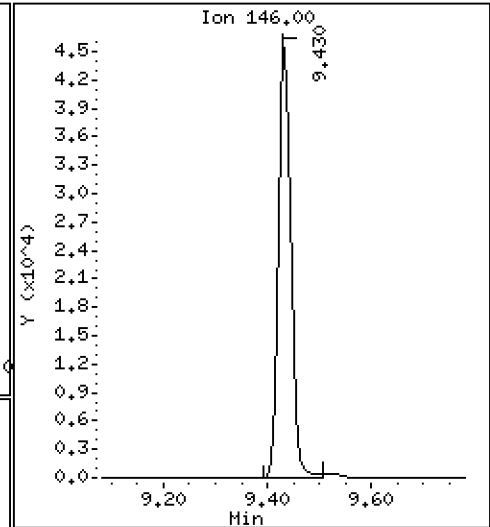
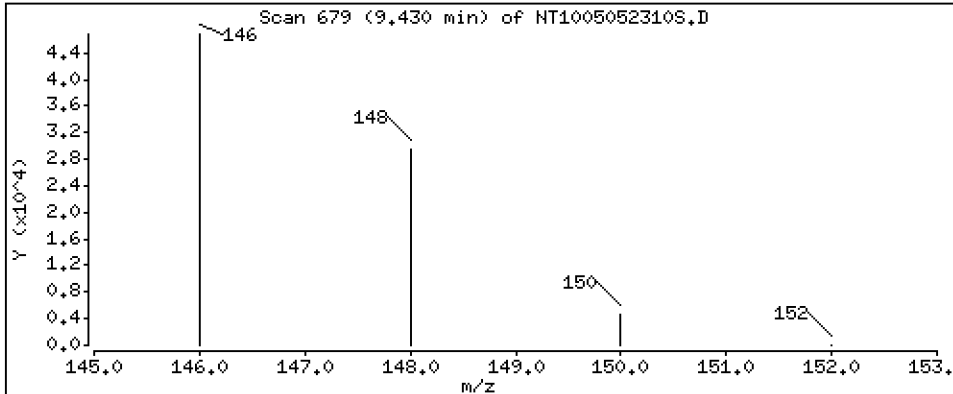
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.9548 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

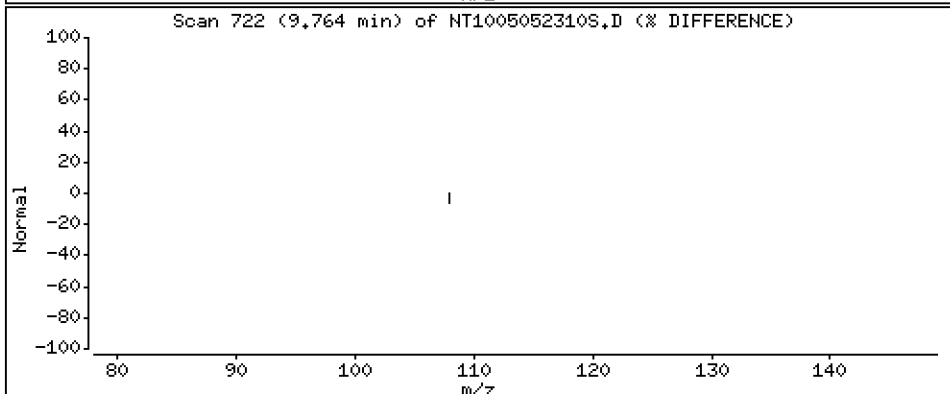
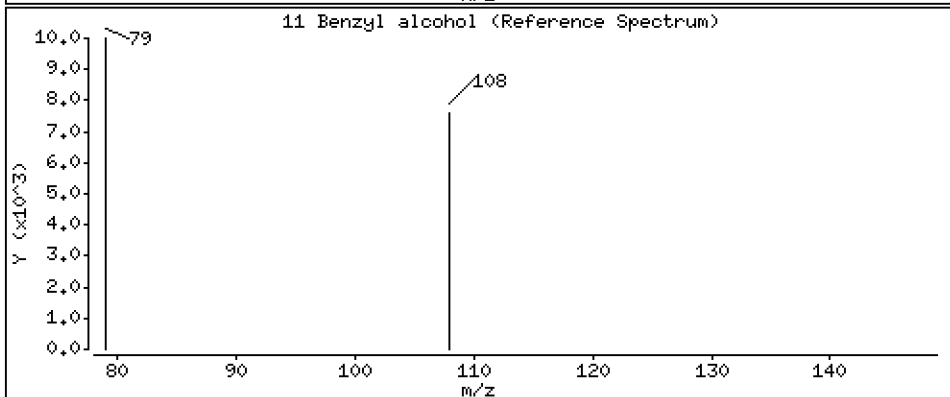
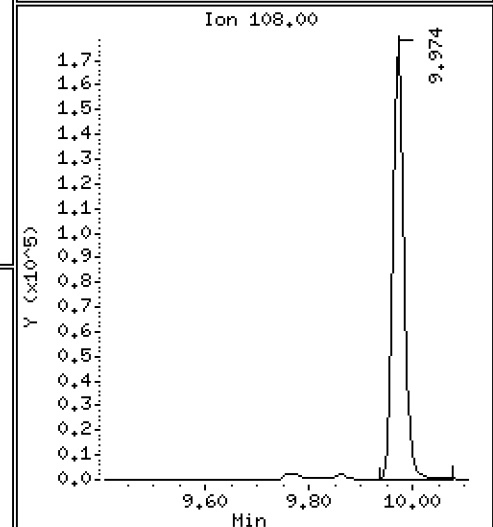
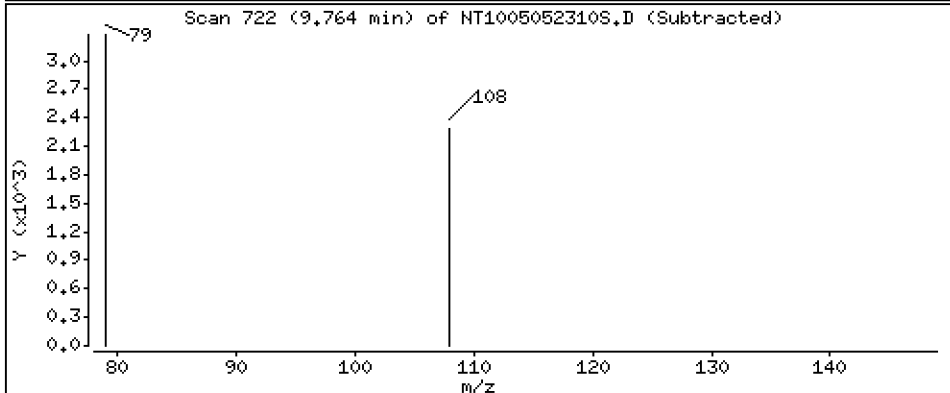
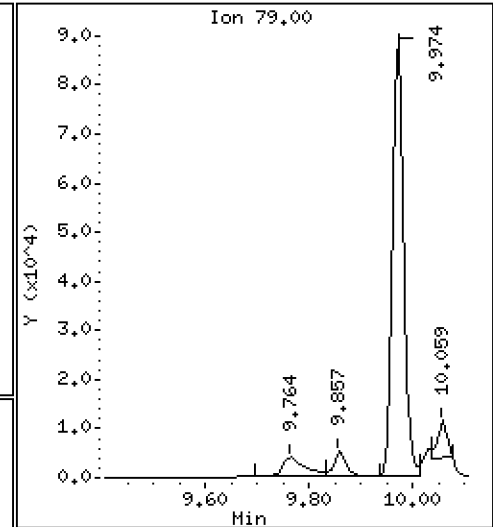
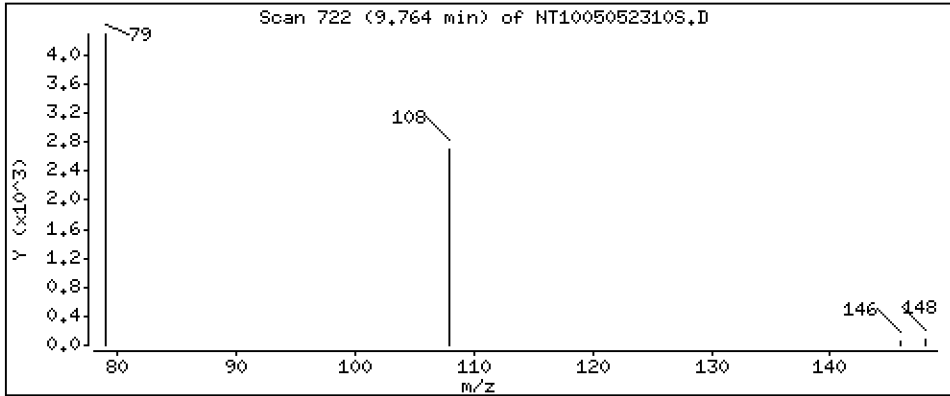
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.2241 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

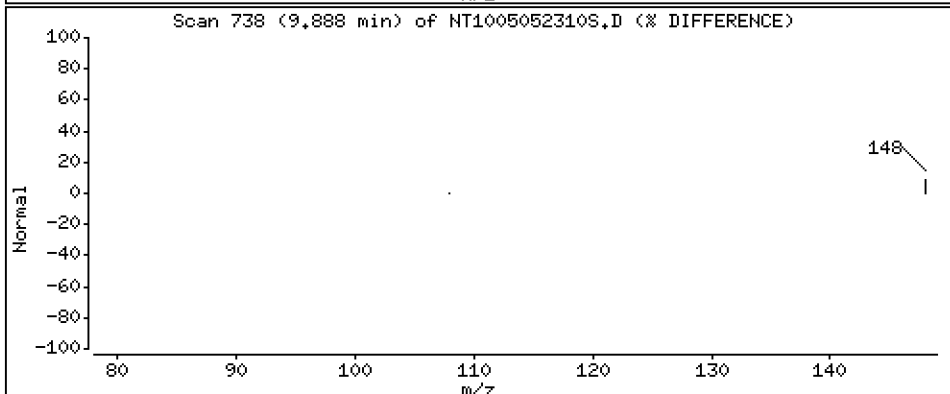
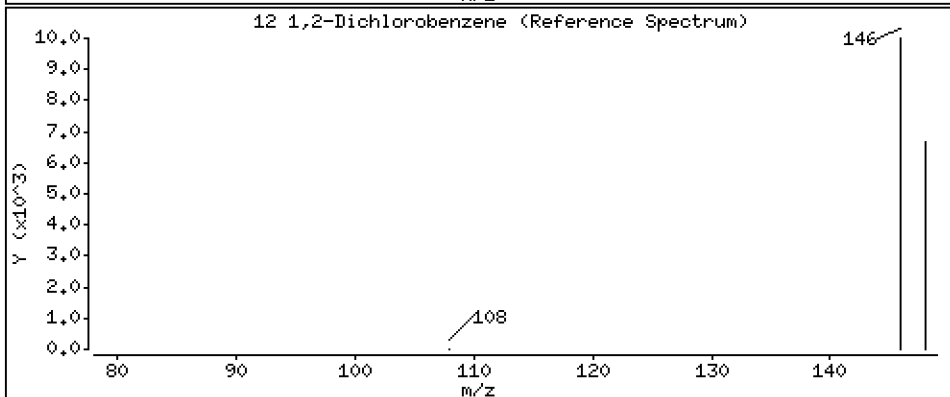
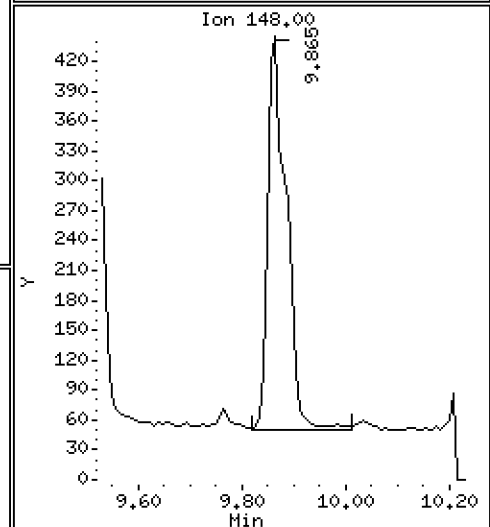
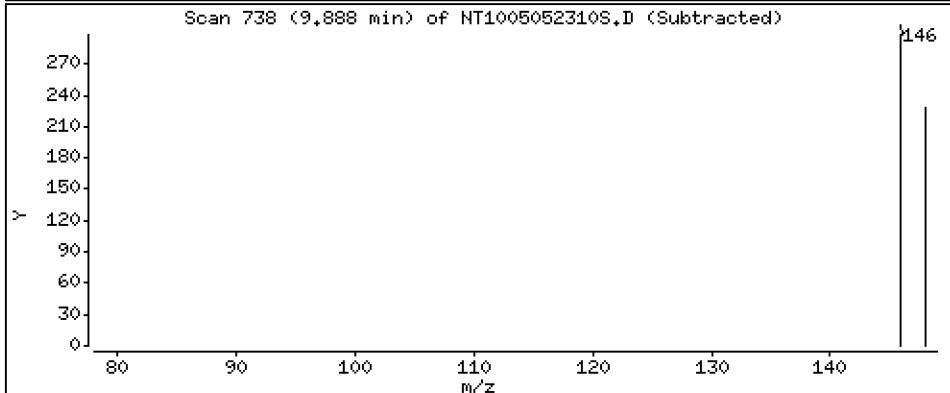
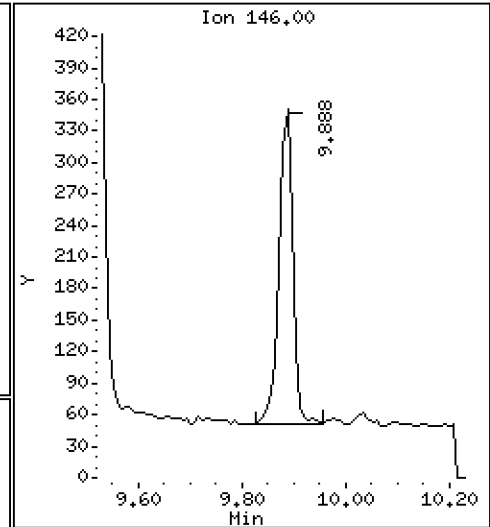
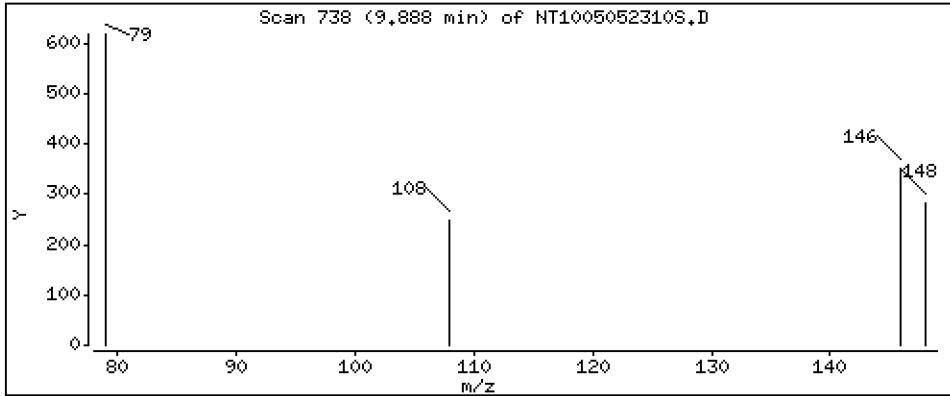
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,007212 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

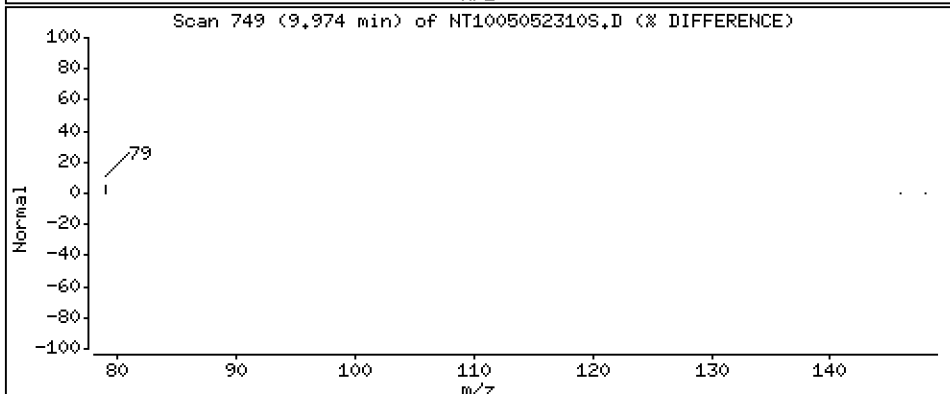
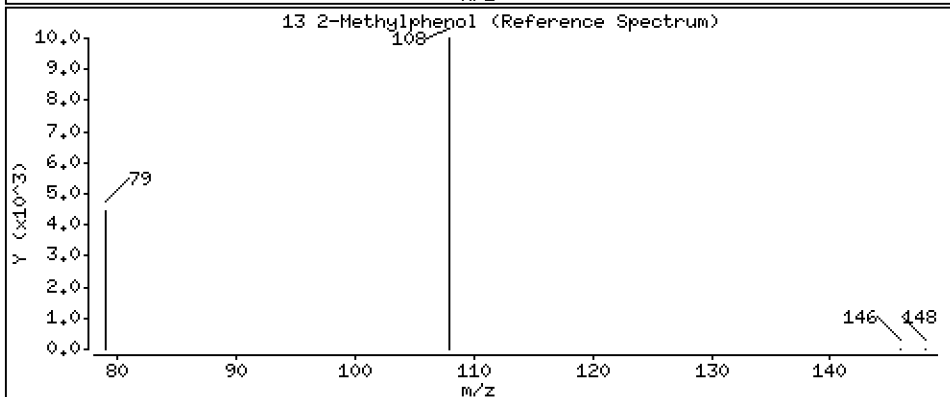
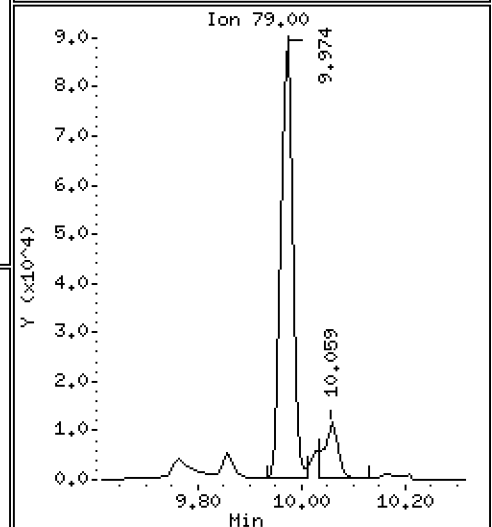
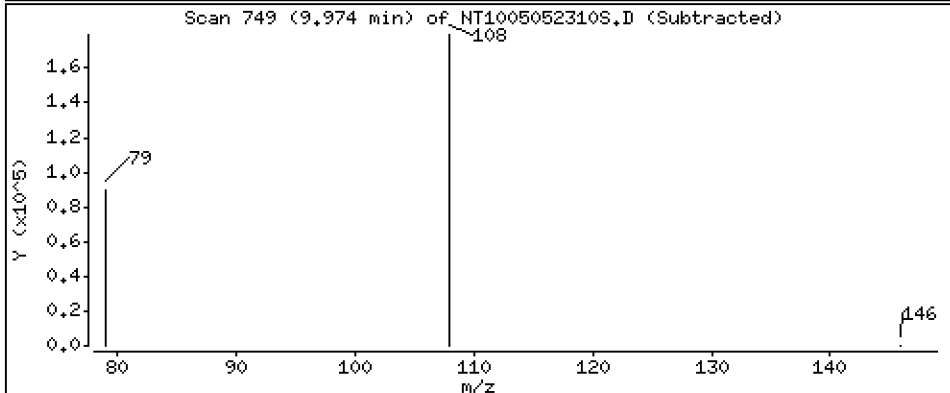
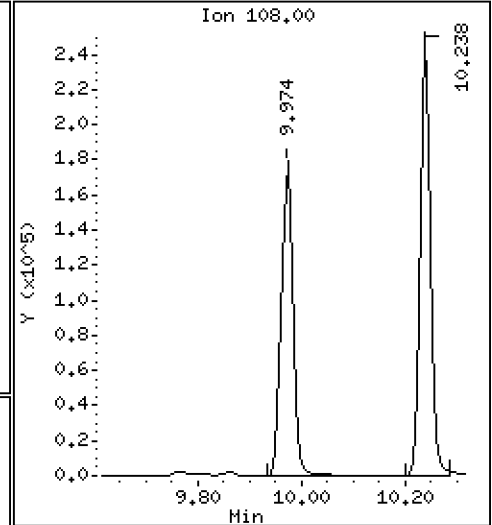
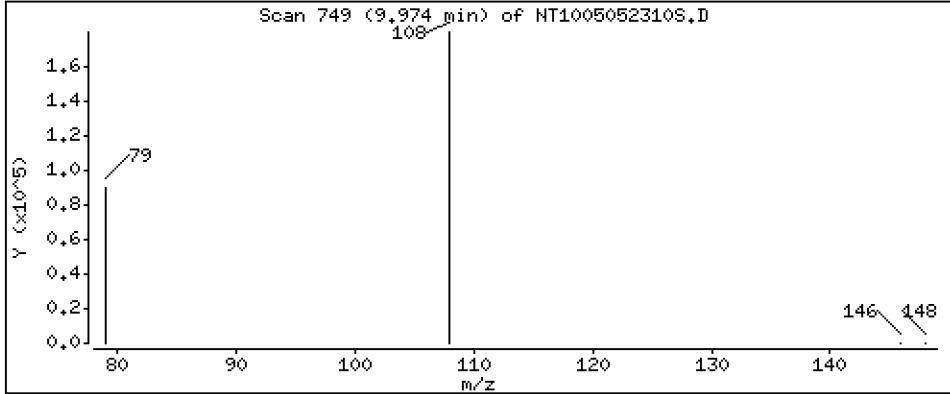
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,937 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

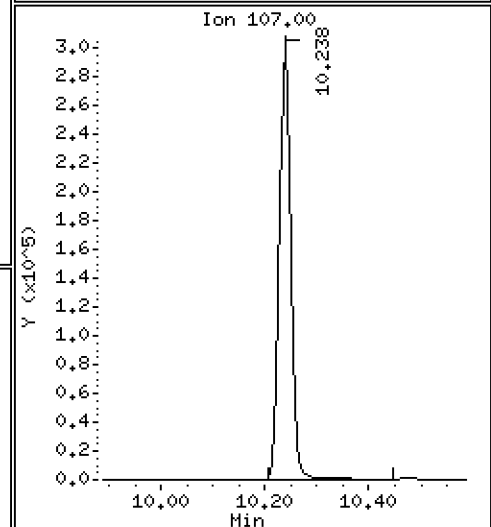
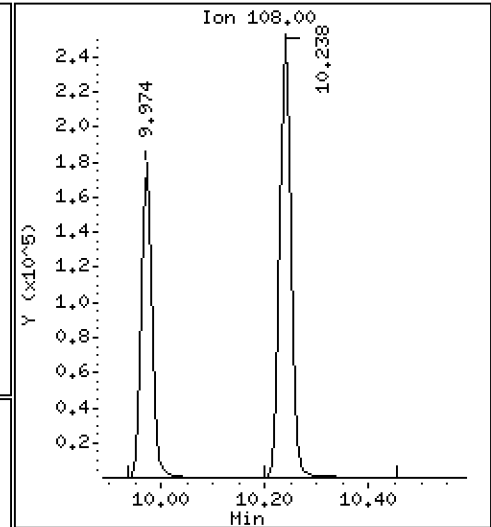
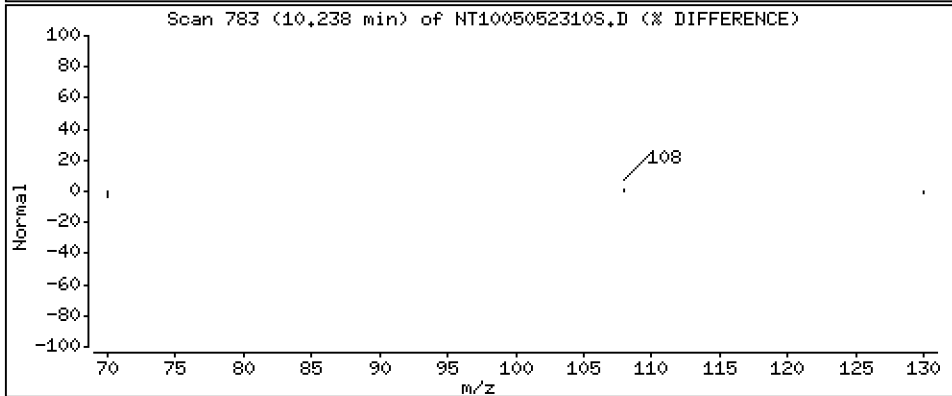
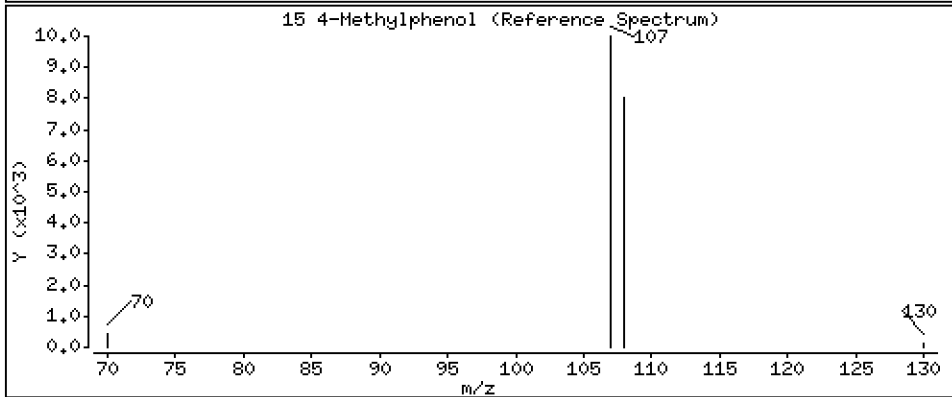
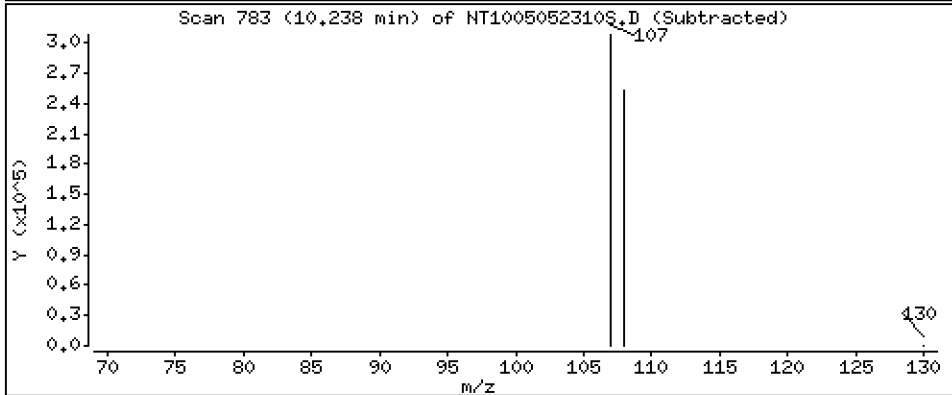
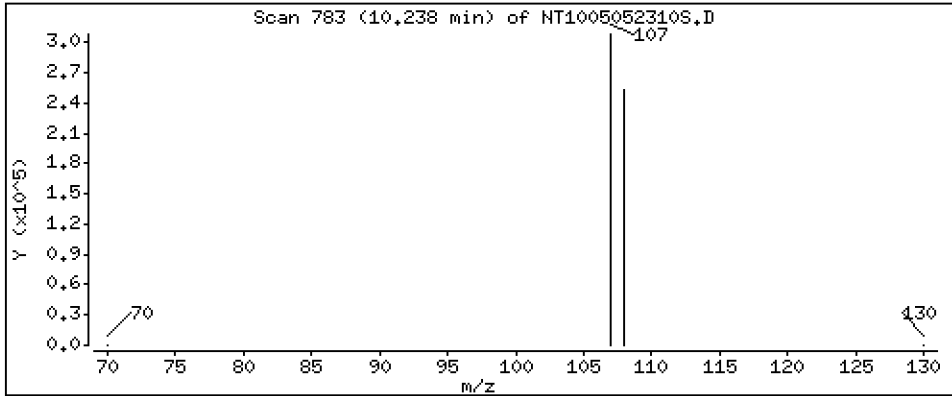
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 6.202 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

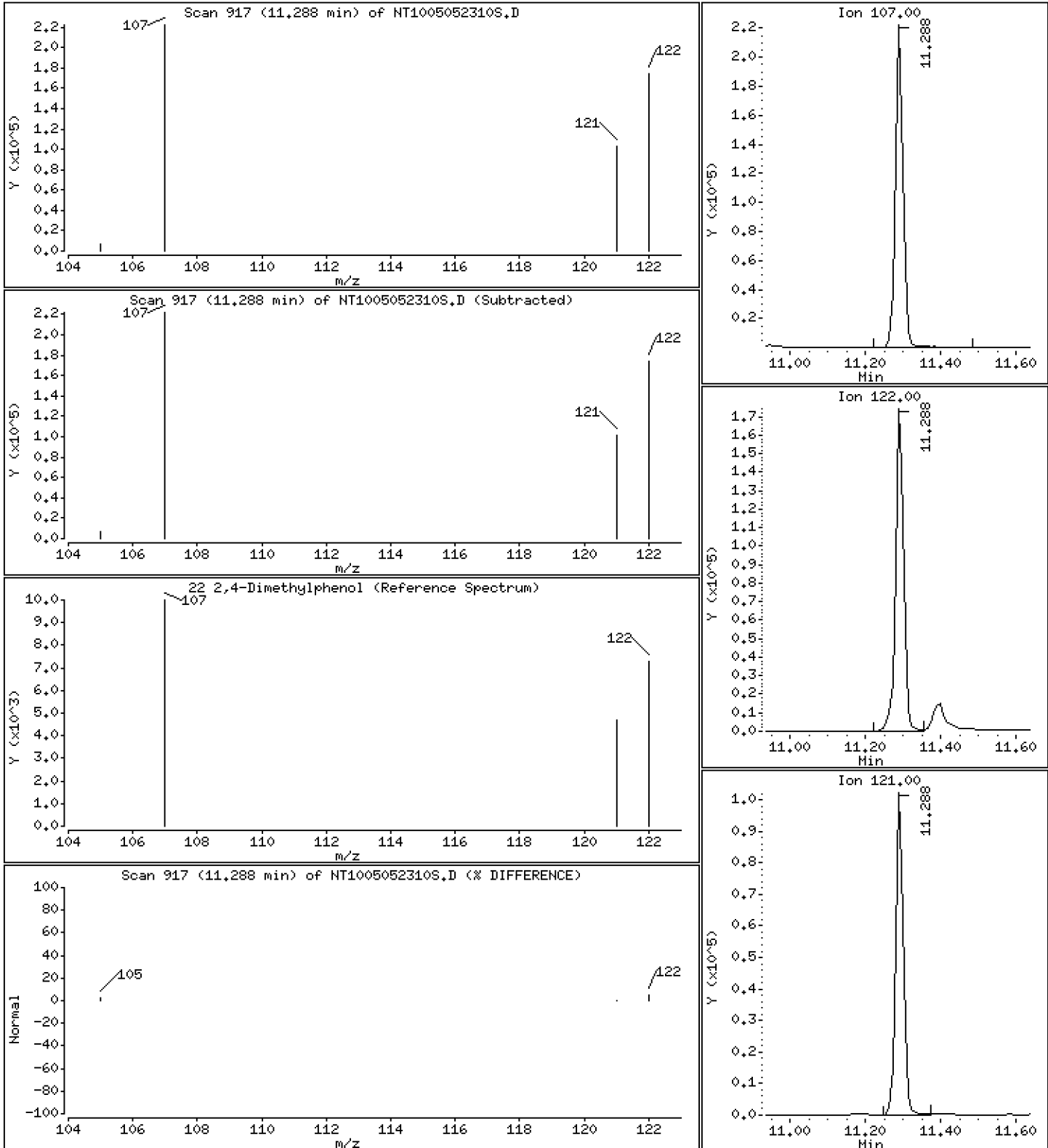
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 4.596 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

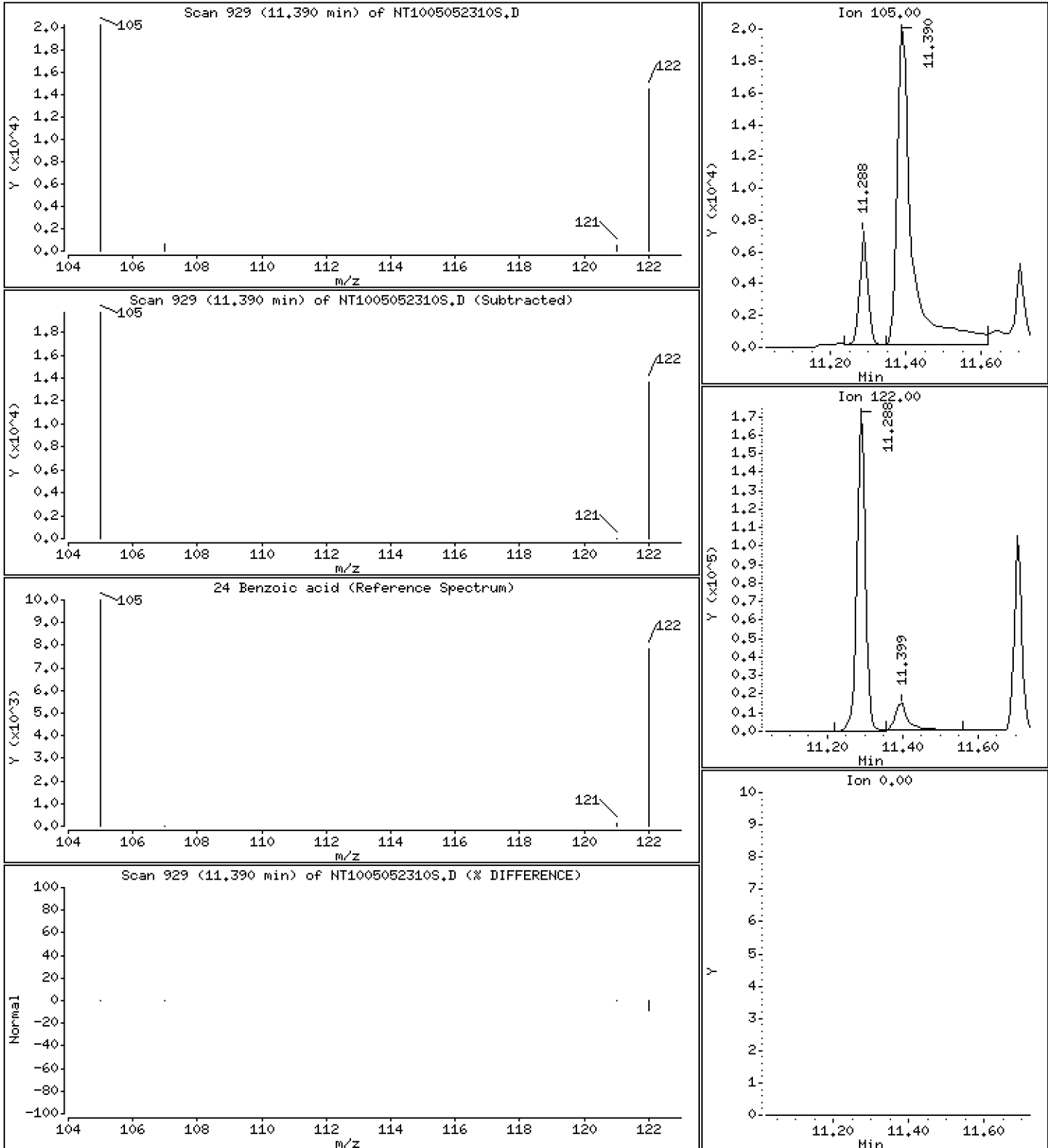
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 1,205 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

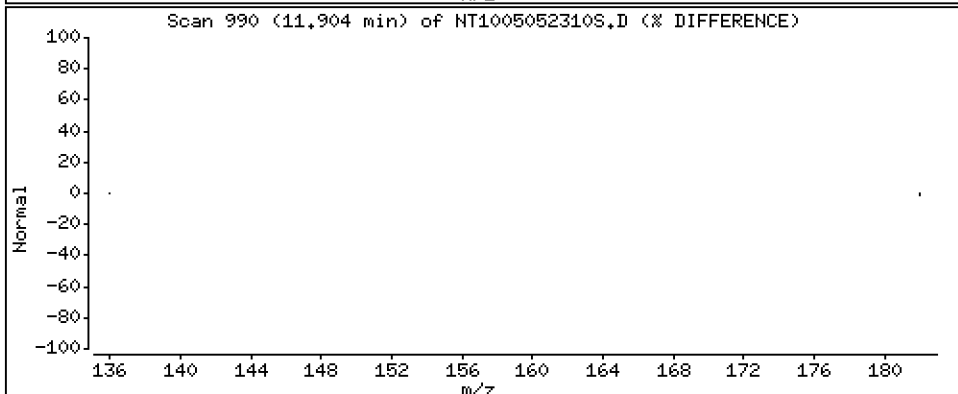
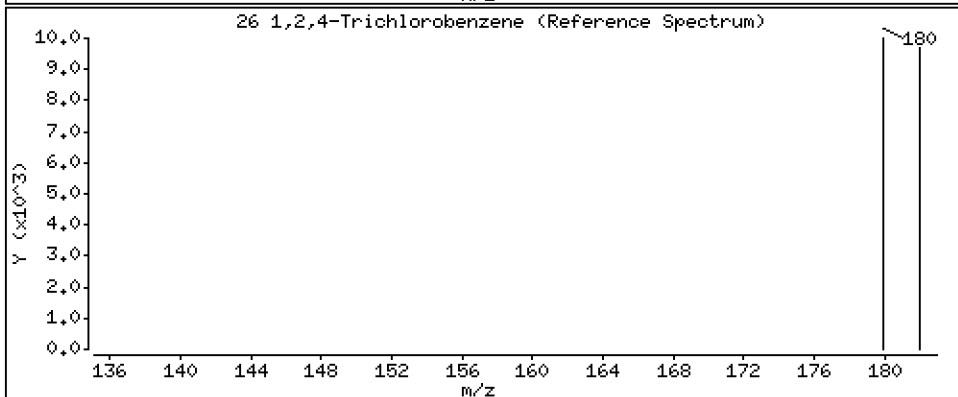
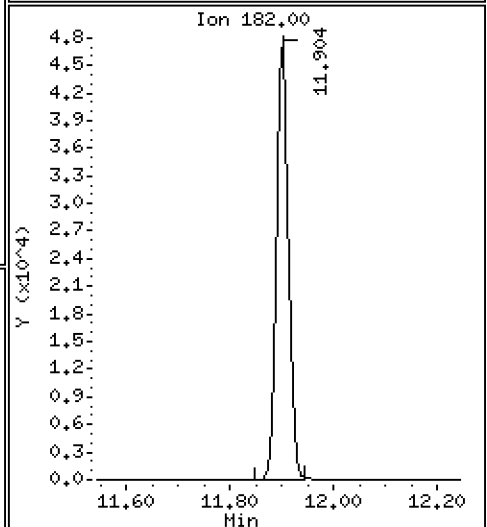
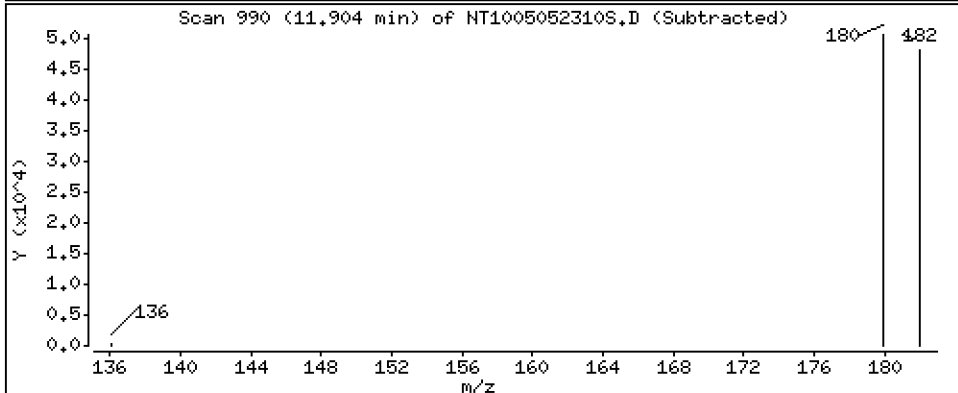
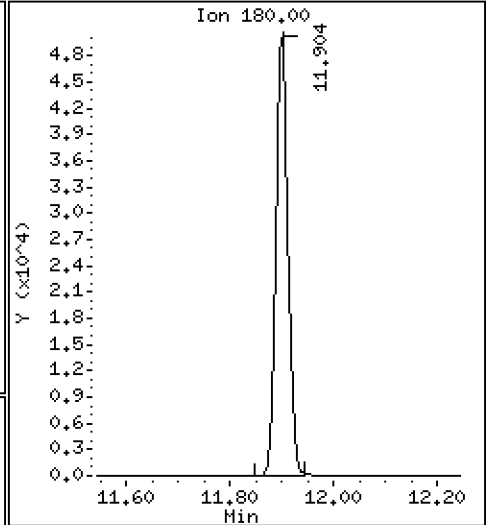
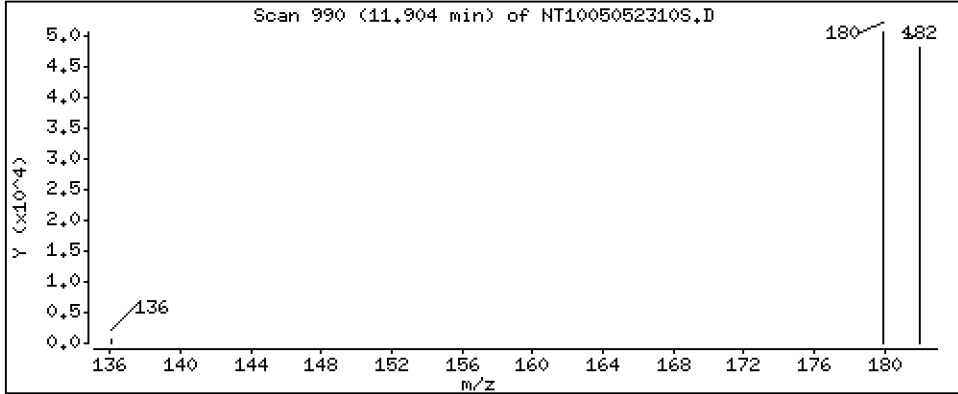
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 1,132 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

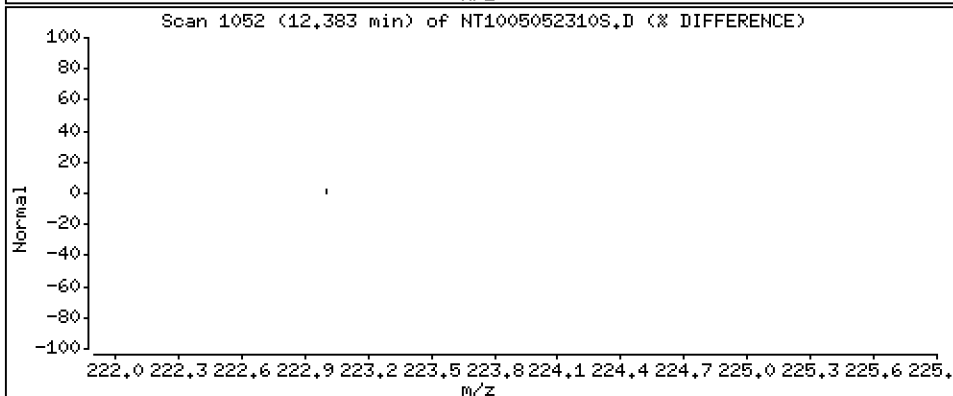
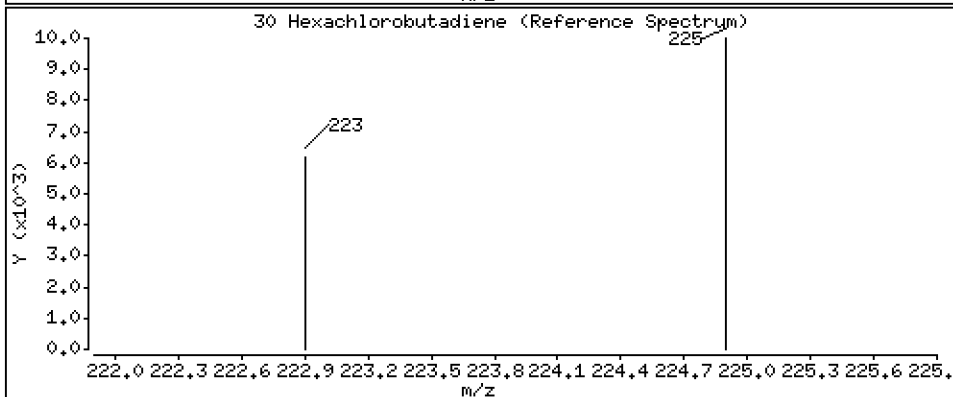
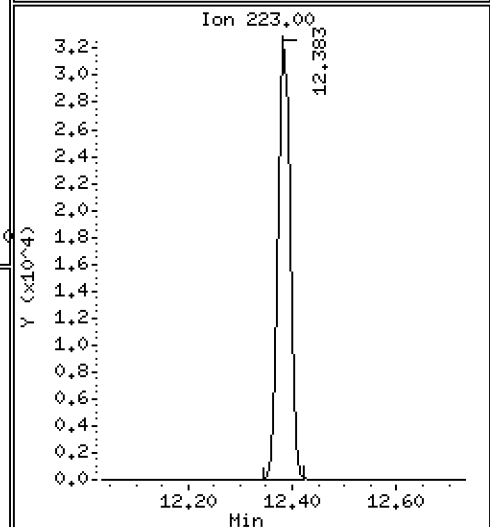
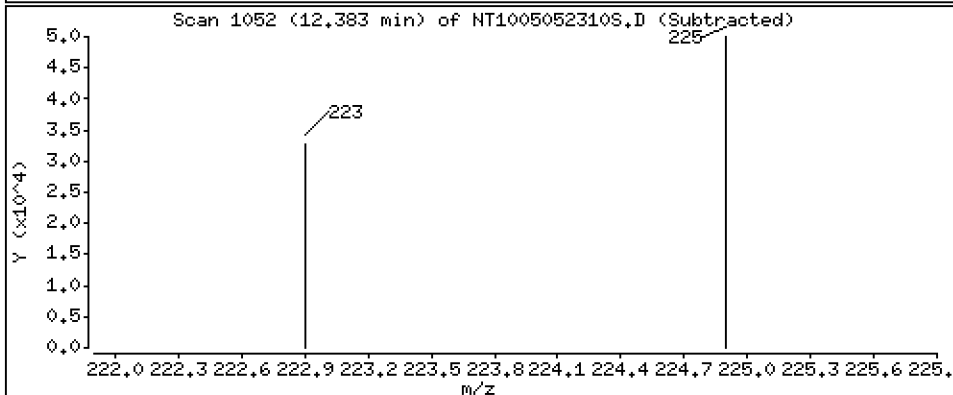
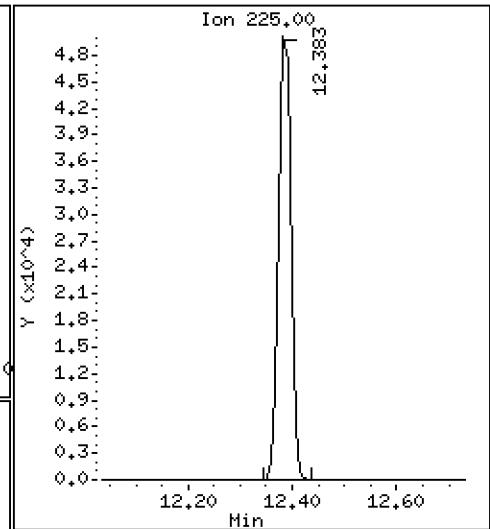
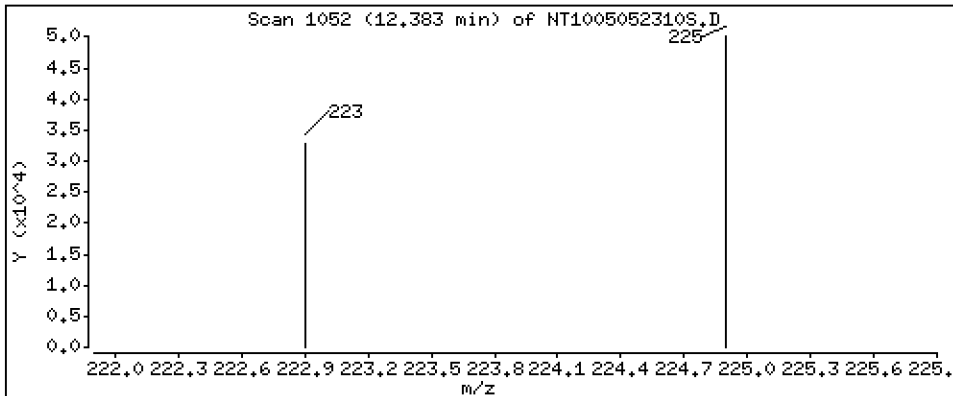
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 1,699 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

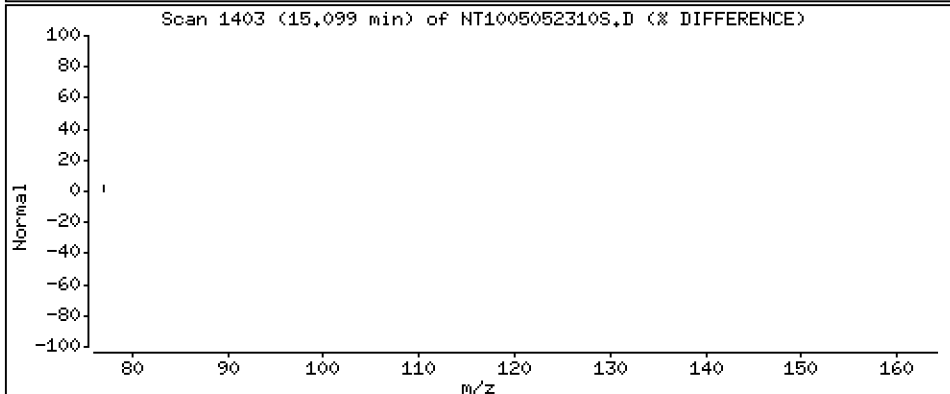
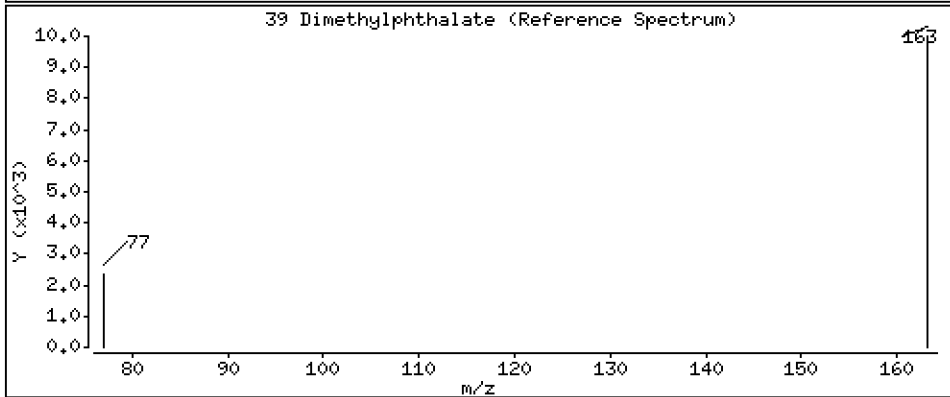
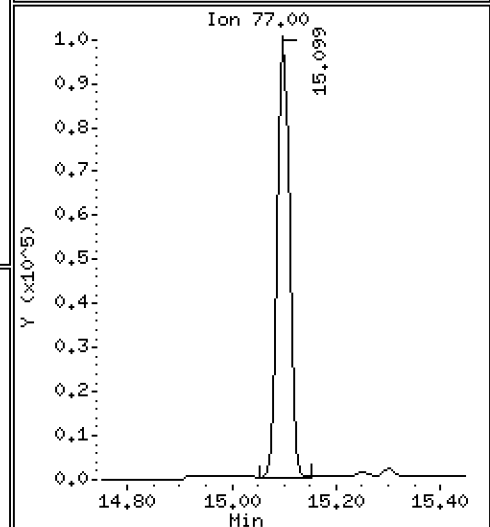
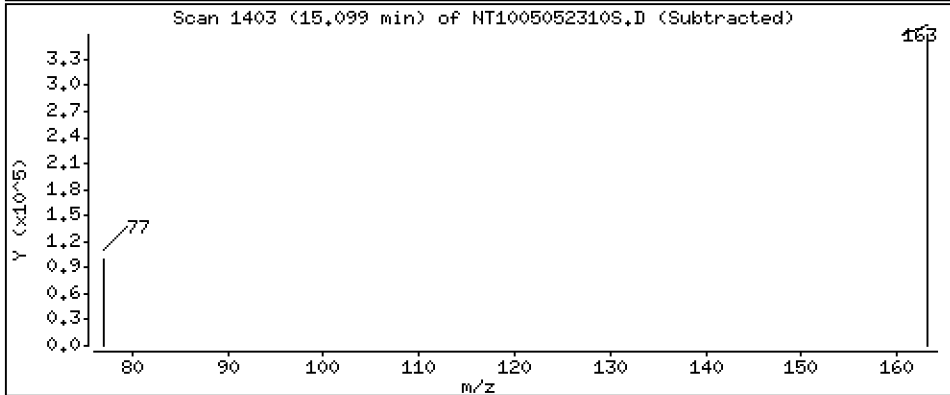
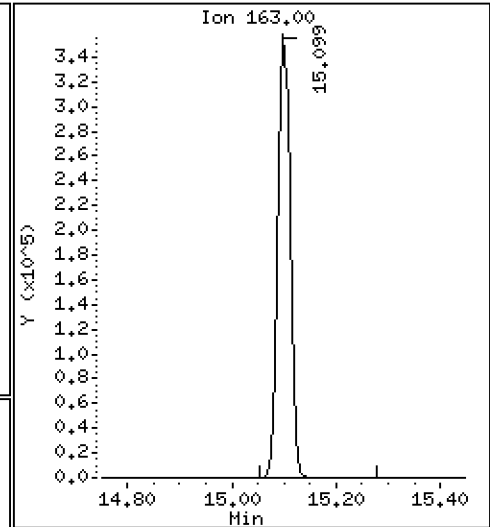
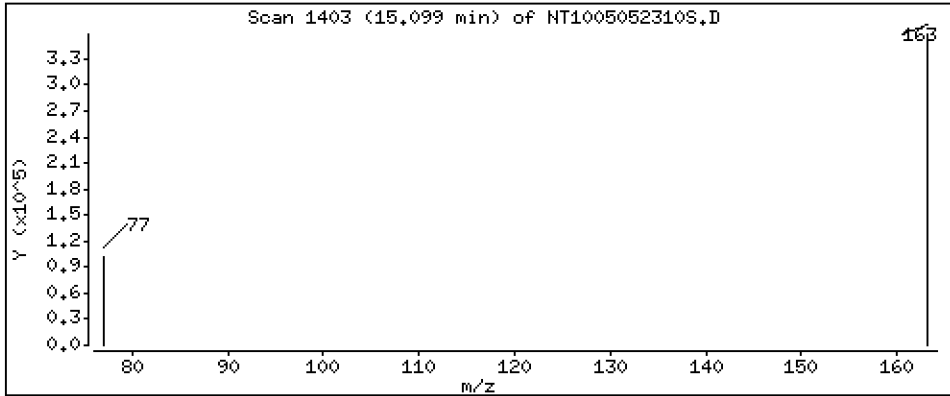
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,105 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

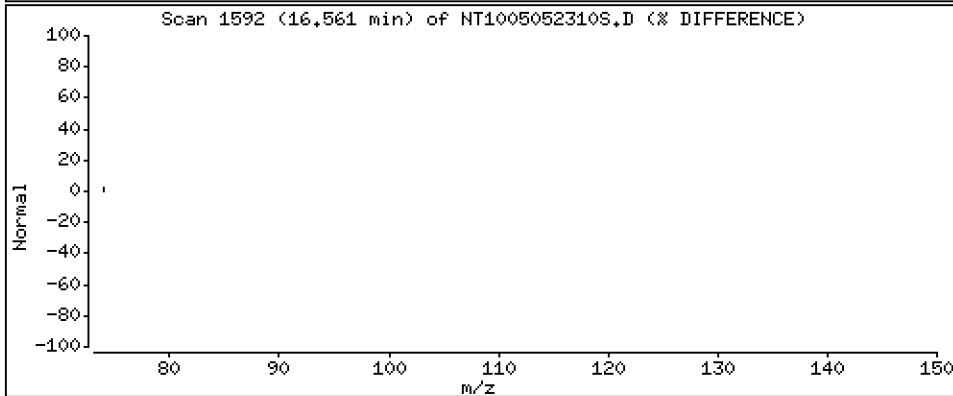
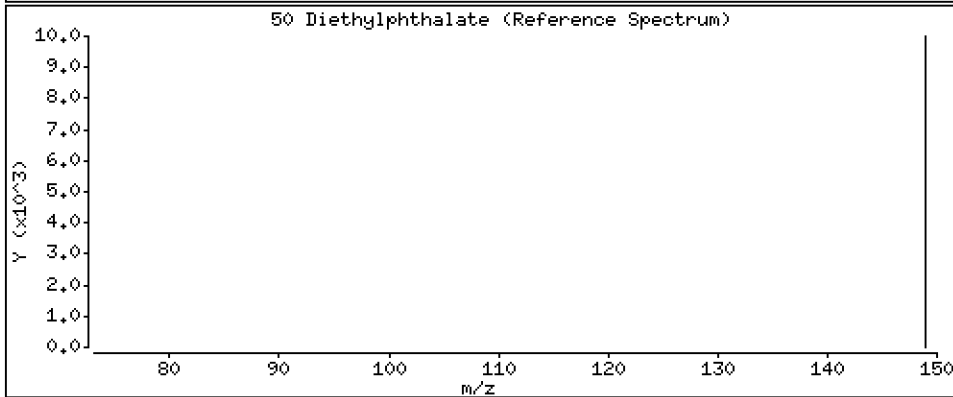
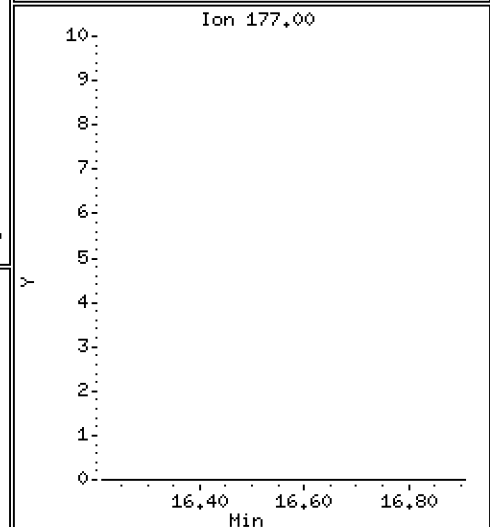
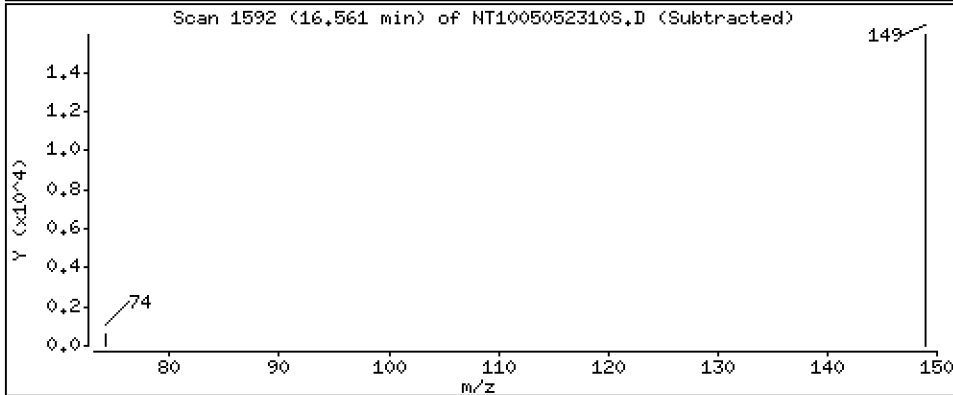
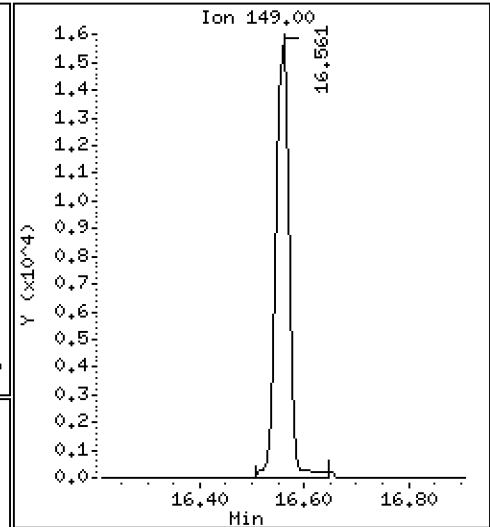
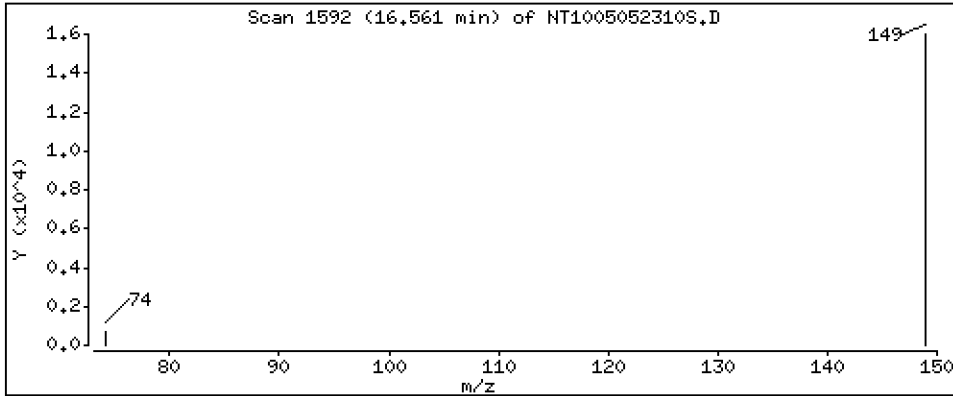
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1821 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

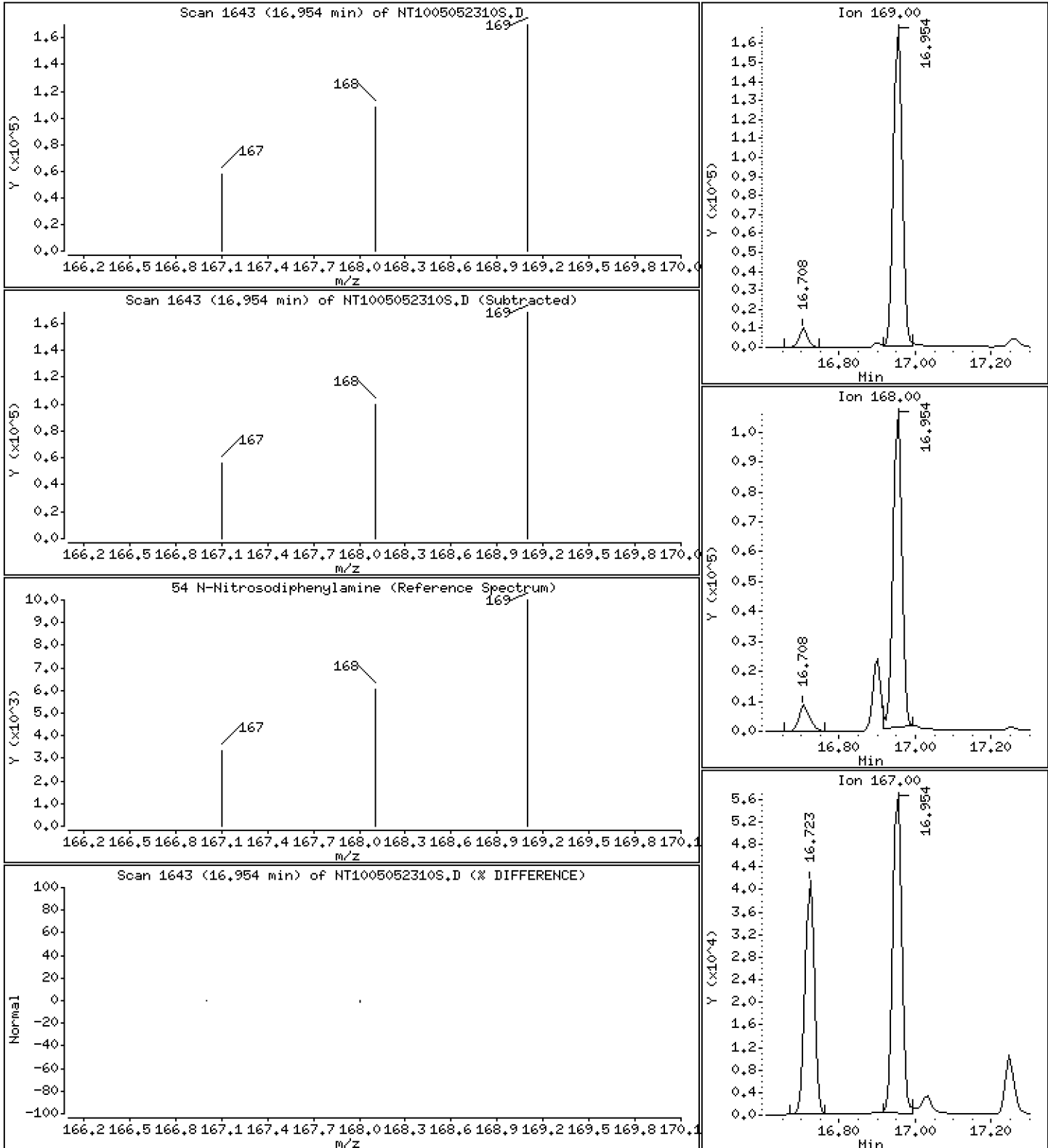
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 2,636 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

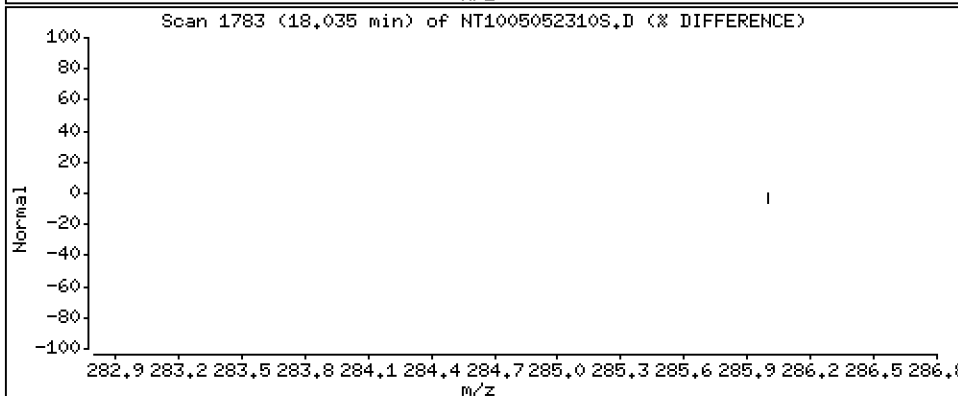
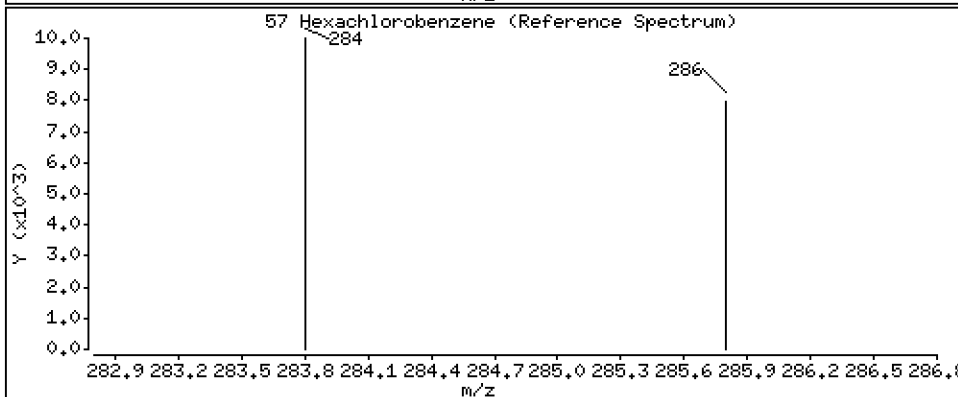
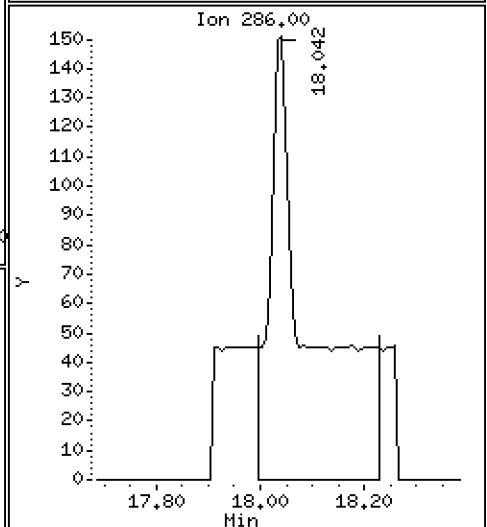
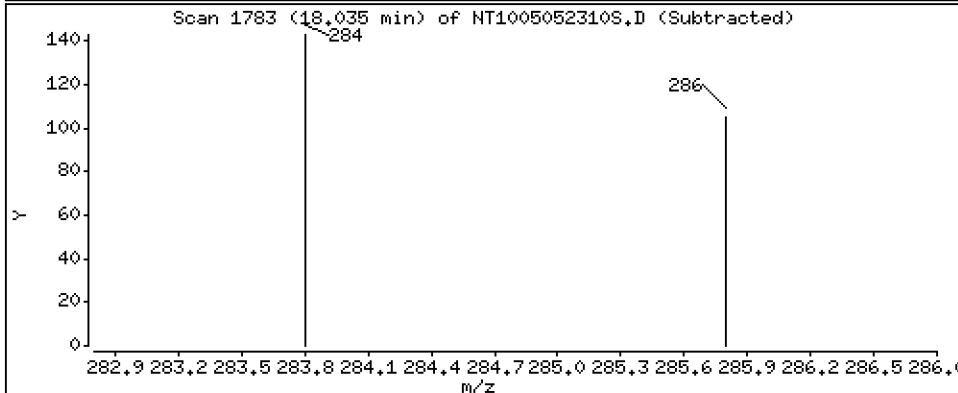
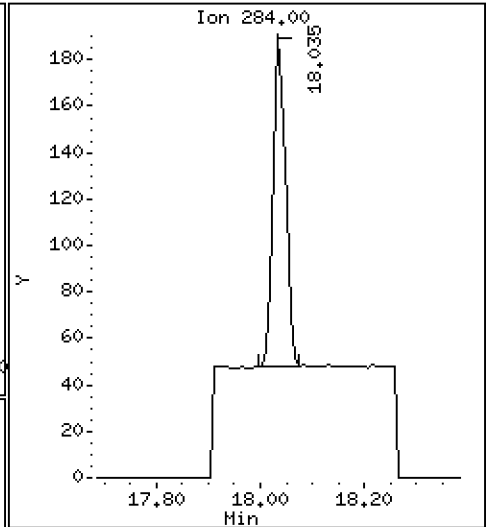
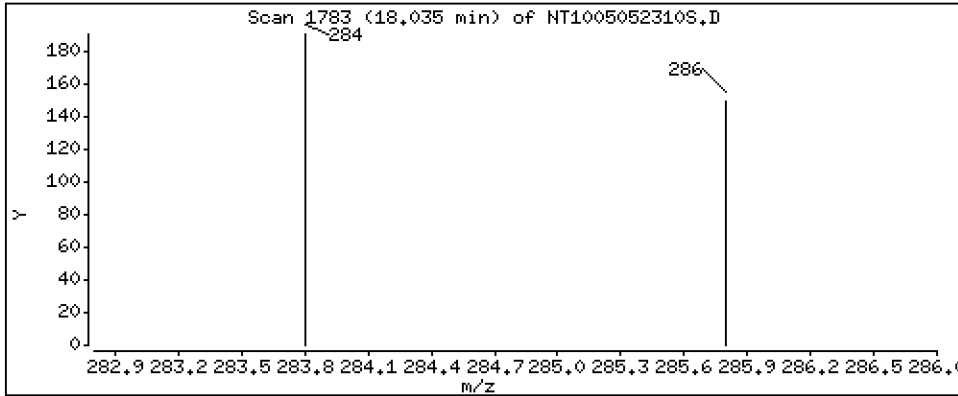
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,004781 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

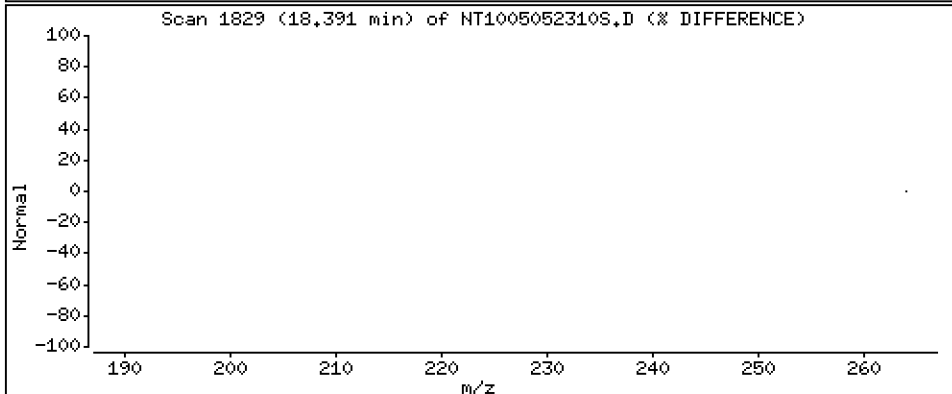
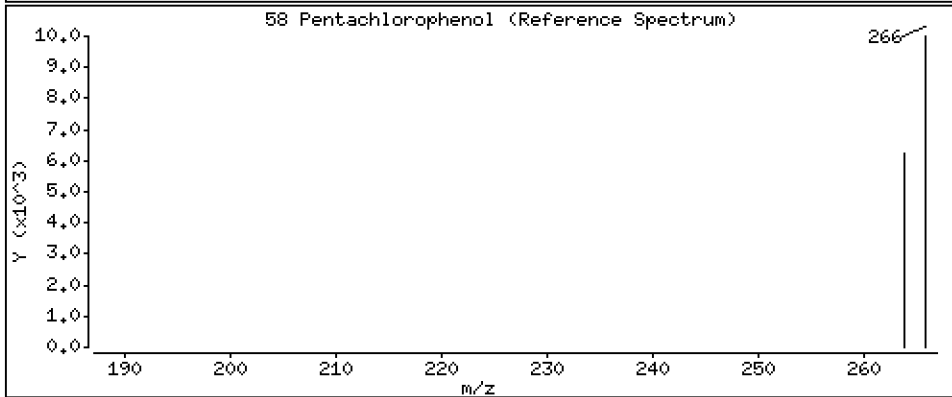
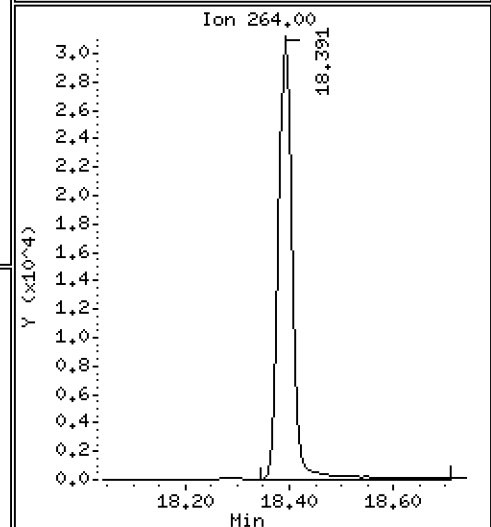
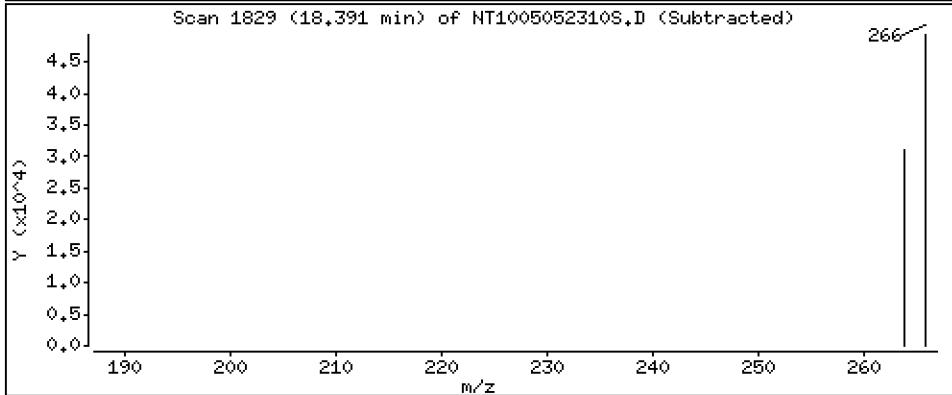
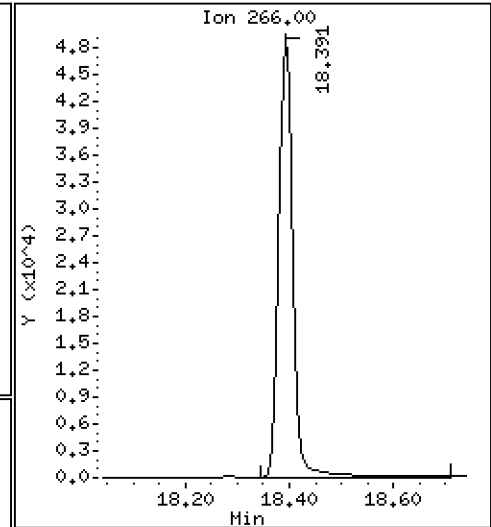
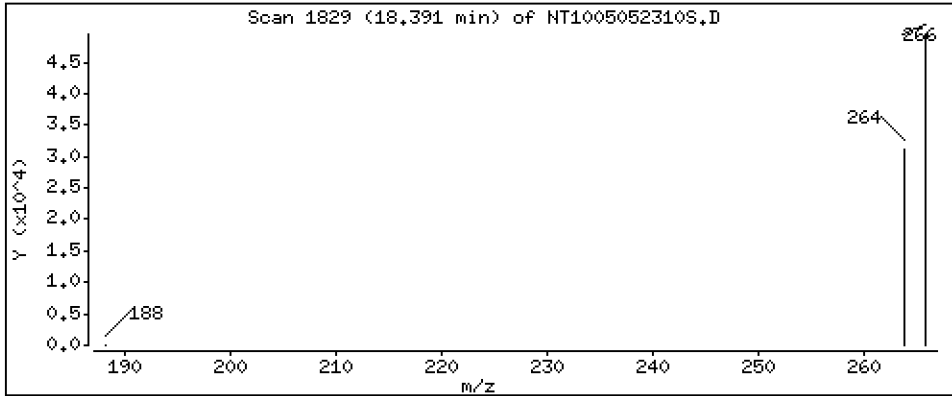
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,043 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

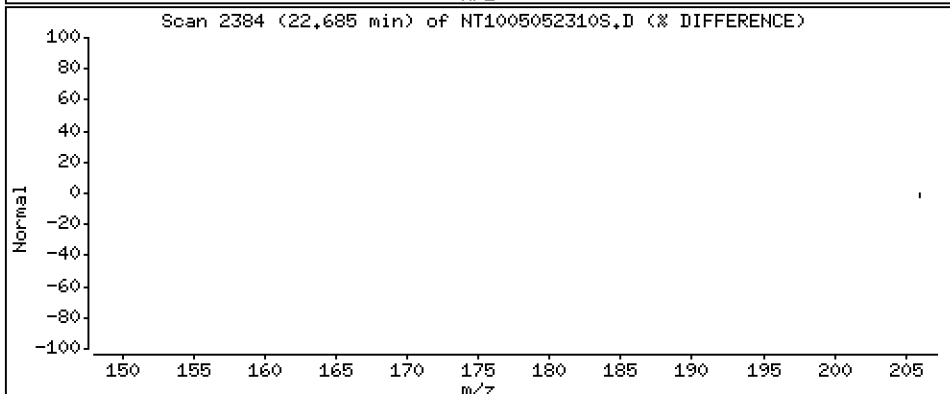
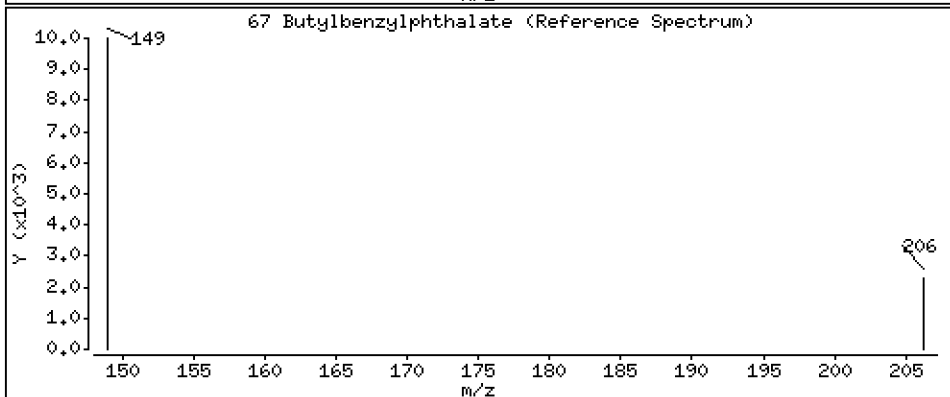
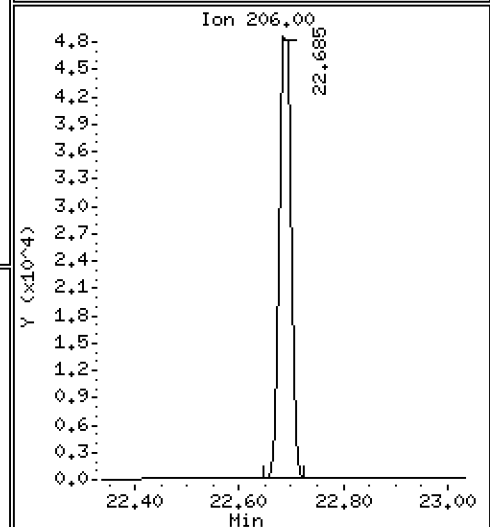
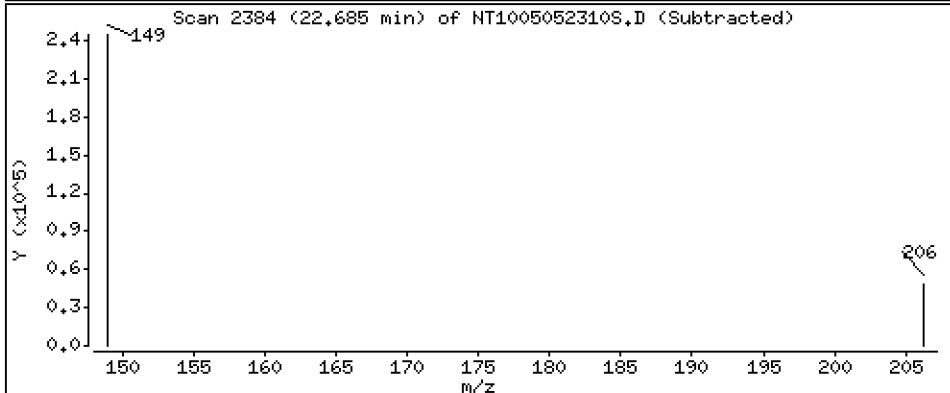
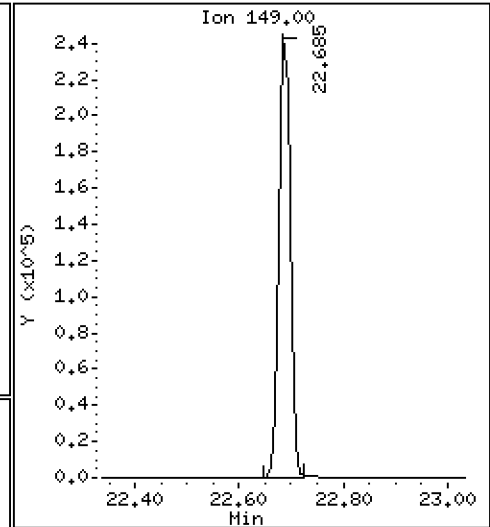
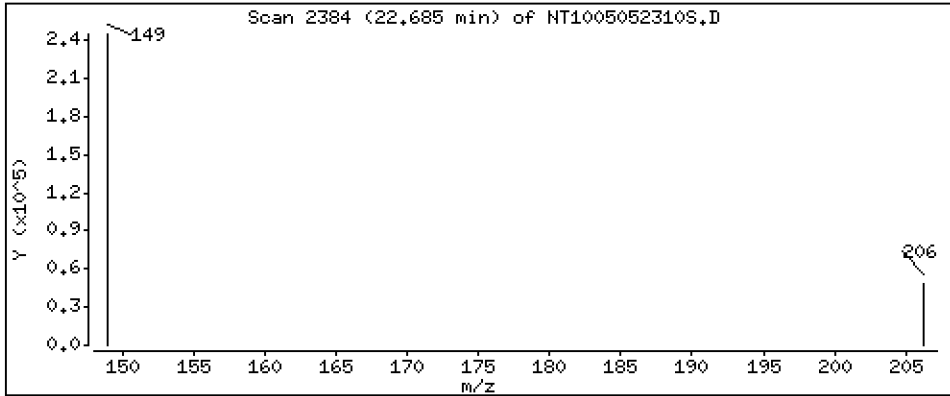
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 3,323 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

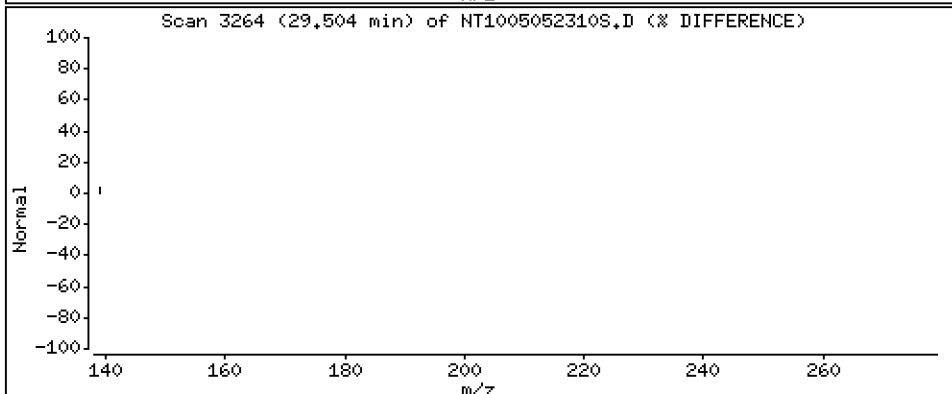
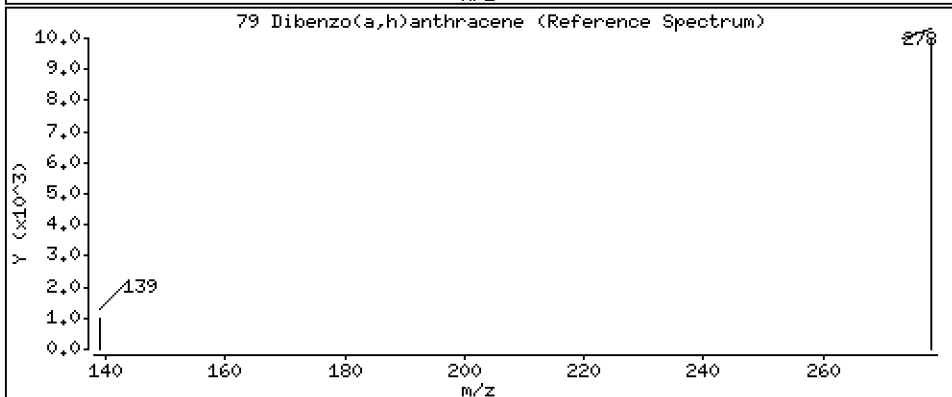
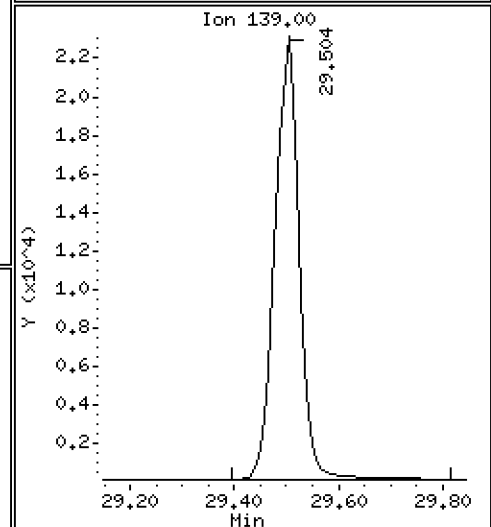
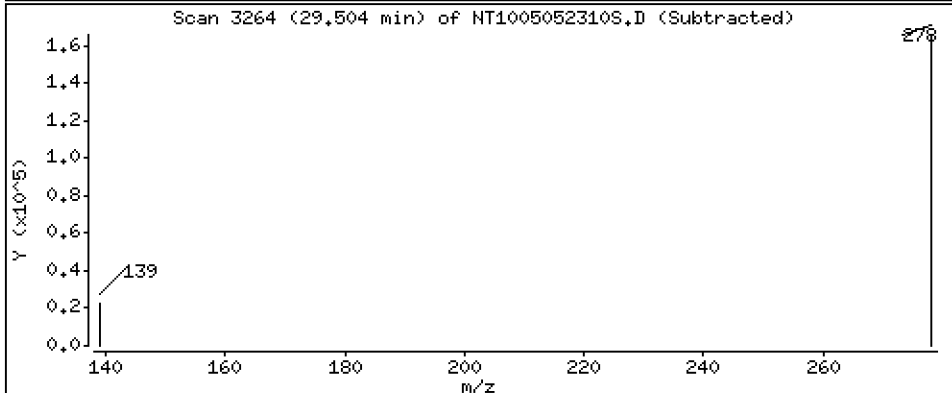
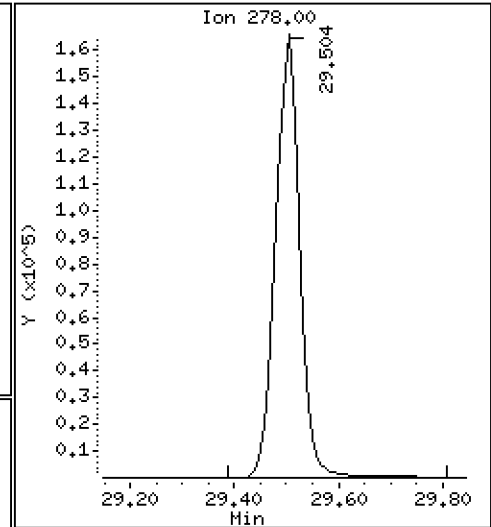
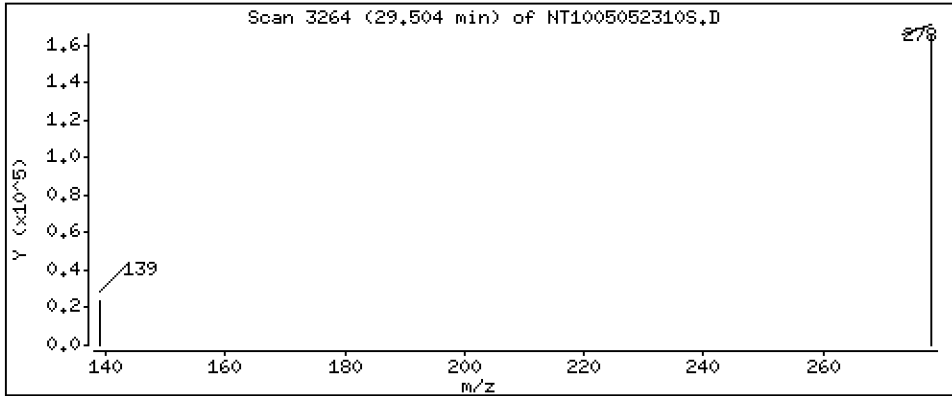
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,197 ug/L



Date : 05-MAY-2023 16:36

Client ID:

Instrument: nt10.i

Sample Info: BLD0329-SRM2

Volume Injected (uL): 1.0

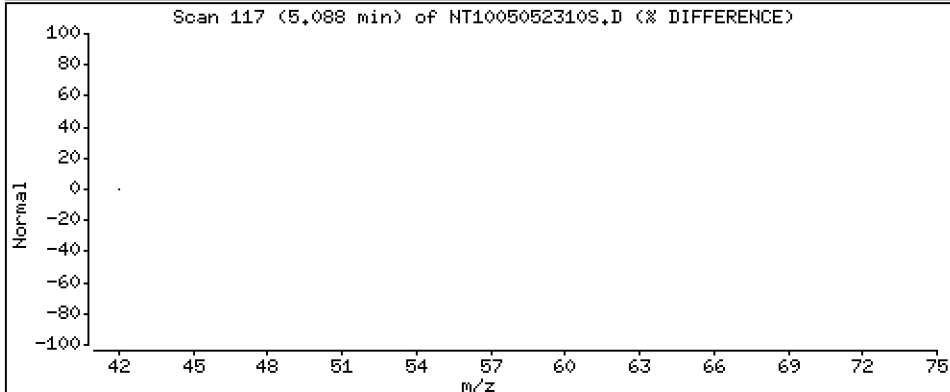
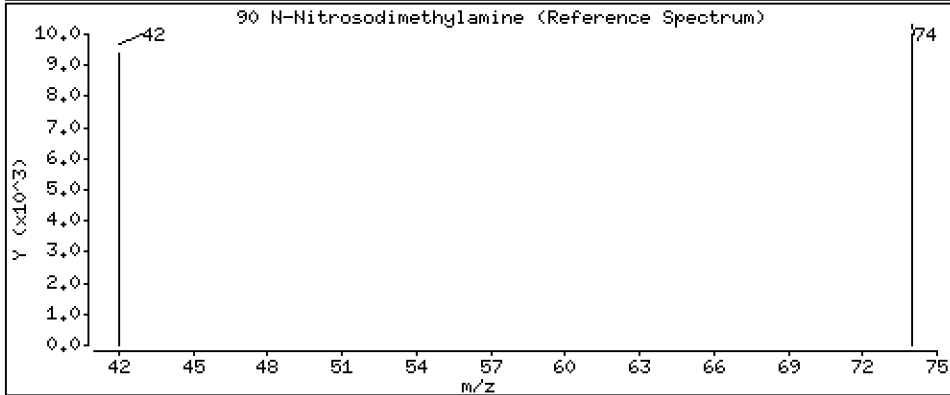
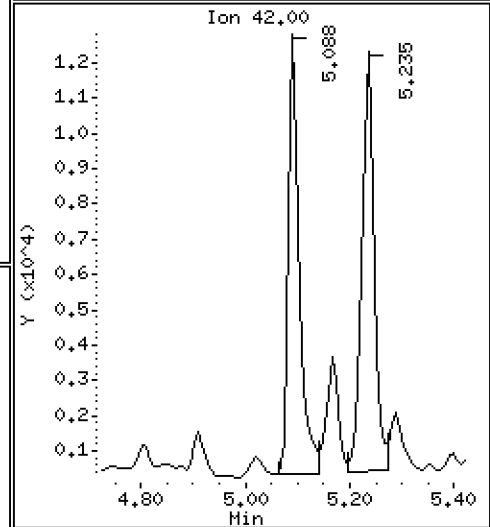
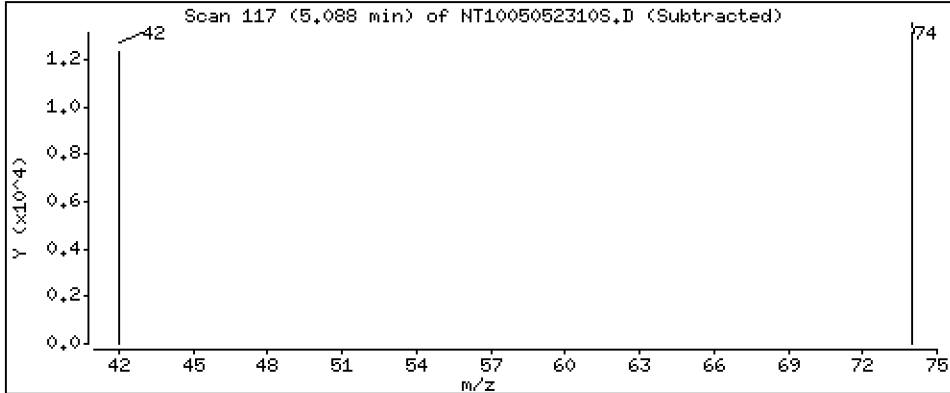
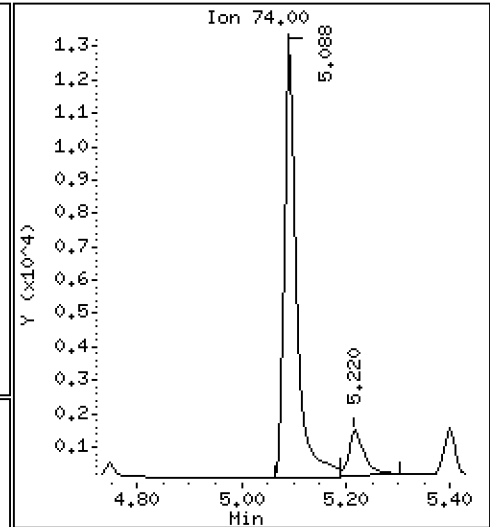
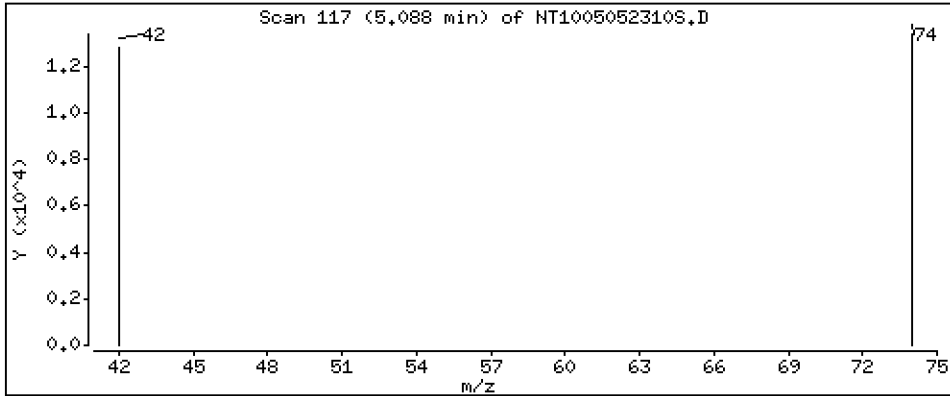
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.6748 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052310S.D
 Lab Smp Id: BLD0329-SRM2
 Inj Date : 05-MAY-2023 16:36 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLD0329-SRM2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.762)	326066	5.57867	5.579 (R)
3 Phenol	94		8.850	8.842	(0.932)	149091	2.03636	2.036
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	73515	0.95476	0.9548
* 8 1,4-Dichlorobenzene-d4	152		9.500	9.492	(1.000)	191872	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	79		9.763	9.756	(1.028)	11346	0.22409	0.2241
12 1,2-Dichlorobenzene	146		9.888	9.880	(1.041)	529	0.00721	0.007212
13 2-Methylphenol	108		9.973	9.965	(1.050)	270492	4.93656	4.937
15 4-Methylphenol	108		10.237	10.237	(1.078)	357287	6.20154	6.202
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		11.288	11.288	(0.942)	322490	4.59633	4.596
24 Benzoic acid	105		11.390	11.381	(0.950)	55199	1.20539	1.205
26 1,2,4-Trichlorobenzene	180		11.904	11.896	(0.993)	81497	1.13217	1.132
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	706133	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	78099	1.69926	1.699
39 Dimethylphthalate	163		15.099	15.099	(0.967)	557180	4.10455	4.105
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	358098	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	26537	0.18206	0.1821
54 N-Nitrosodiphenylamine	169		16.954	16.954	(0.908)	253312	2.63593	2.636
57 Hexachlorobenzene	284		18.034	18.034	(0.966)	225	0.00478	0.004781 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.390	18.390	(0.985)	87957	3.04268	3.043
* 59 Phenanthrene-d10	188	18.669	18.669	(1.000)	736880	4.00000	
\$ 66 Terphenyl-d14	244	21.771	21.771	(0.919)	590845	4.84117	4.841 (R)
67 Butylbenzylphthalate	149	22.685	22.685	(0.958)	342232	3.32344	3.323
* 69 Chrysene-d12	240	23.692	23.684	(1.000)	566007	4.00000	
* 77 Perylene-d12	264	26.525	26.517	(1.000)	516238	4.00000	
79 Dibenzo(a,h)anthracene	278	29.504	29.496	(1.112)	532785	3.19727	3.197
90 N-Nitrosodimethylamine	74	5.088	5.080	(0.536)	21517	0.67482	0.6748

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052310S.D
 Lab Smp Id: BLD0329-SRM2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	191872	5.02
27 Naphthalene-d8	662220	331110	1324440	706133	6.63
42 Acenaphthene-d10	335558	167779	671116	358098	6.72
59 Phenanthrene-d10	678190	339095	1356380	736880	8.65
69 Chrysene-d12	566969	283485	1133938	566007	-0.17
77 Perylene-d12	522906	261453	1045812	516238	-1.28

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.50	0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.67	18.17	19.17	18.67	0.00
69 Chrysene-d12	23.68	23.18	24.18	23.69	0.03
77 Perylene-d12	26.52	26.02	27.02	26.53	0.03

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

REVIEW SUMMARY FOR FILE - NT1005052310S.D

Lab ID: BLD0329-SRM2

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 16:36

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

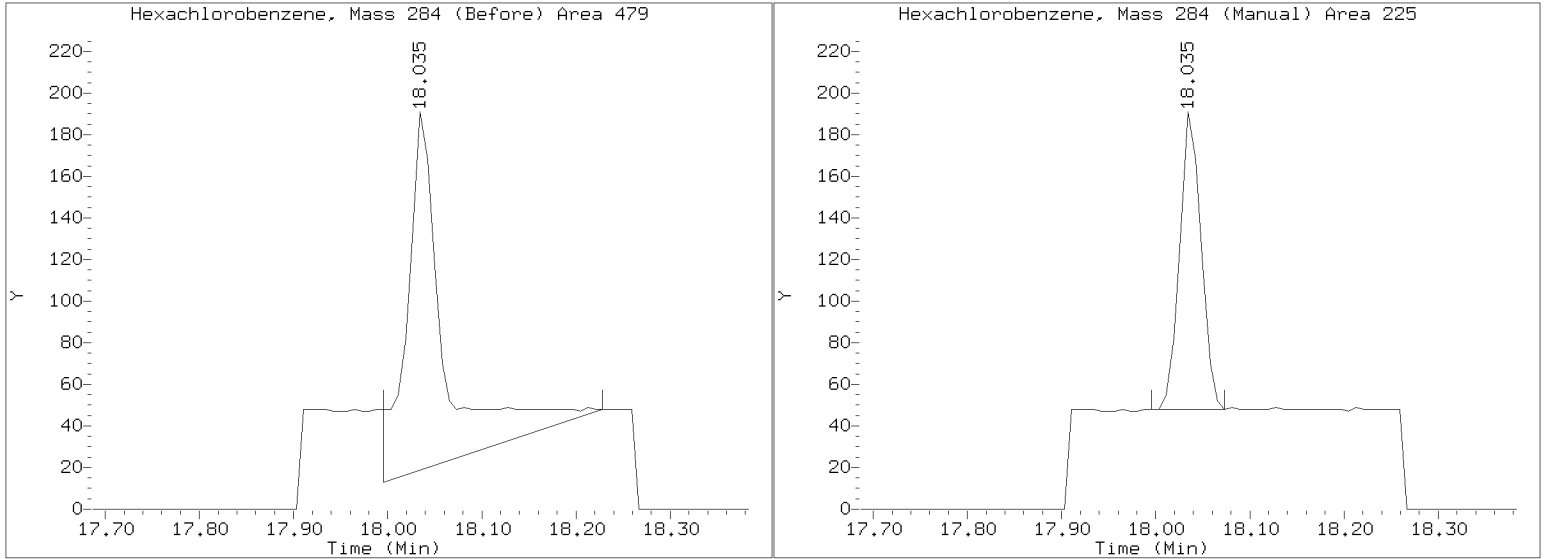
On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052310S.D
Injection Date: 05-MAY-2023 16:36
Lab ID:BLD0329-SRM2 Client ID:
Report Date: 05/31/2023 14:31





**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM**

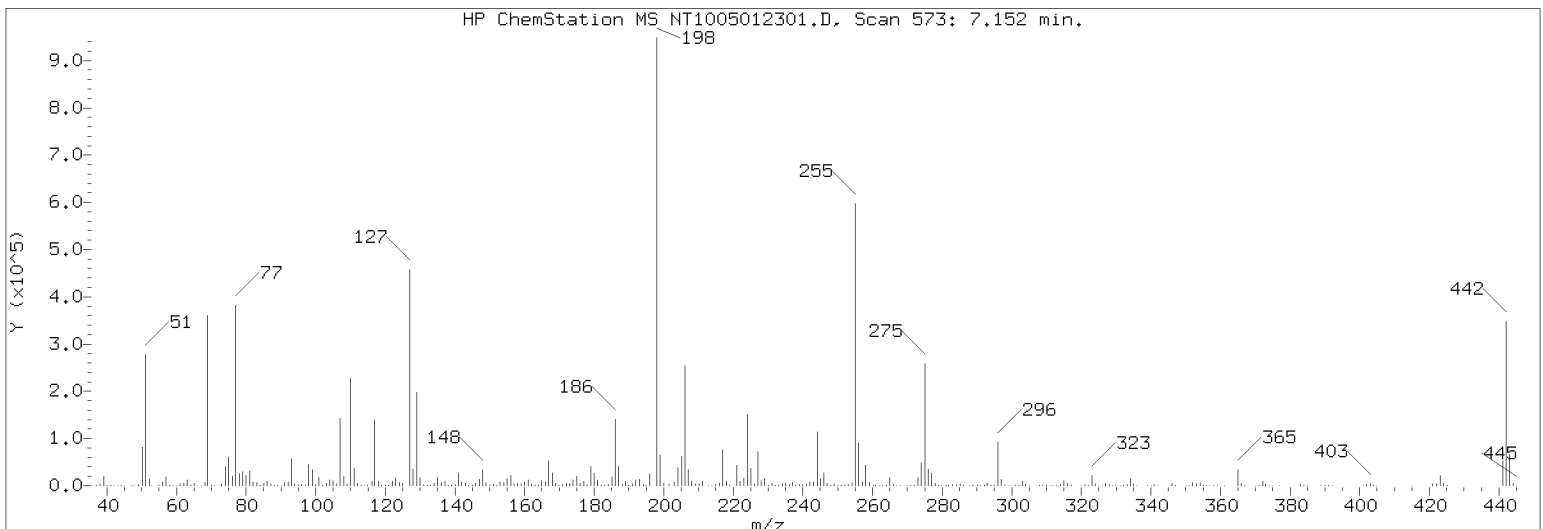
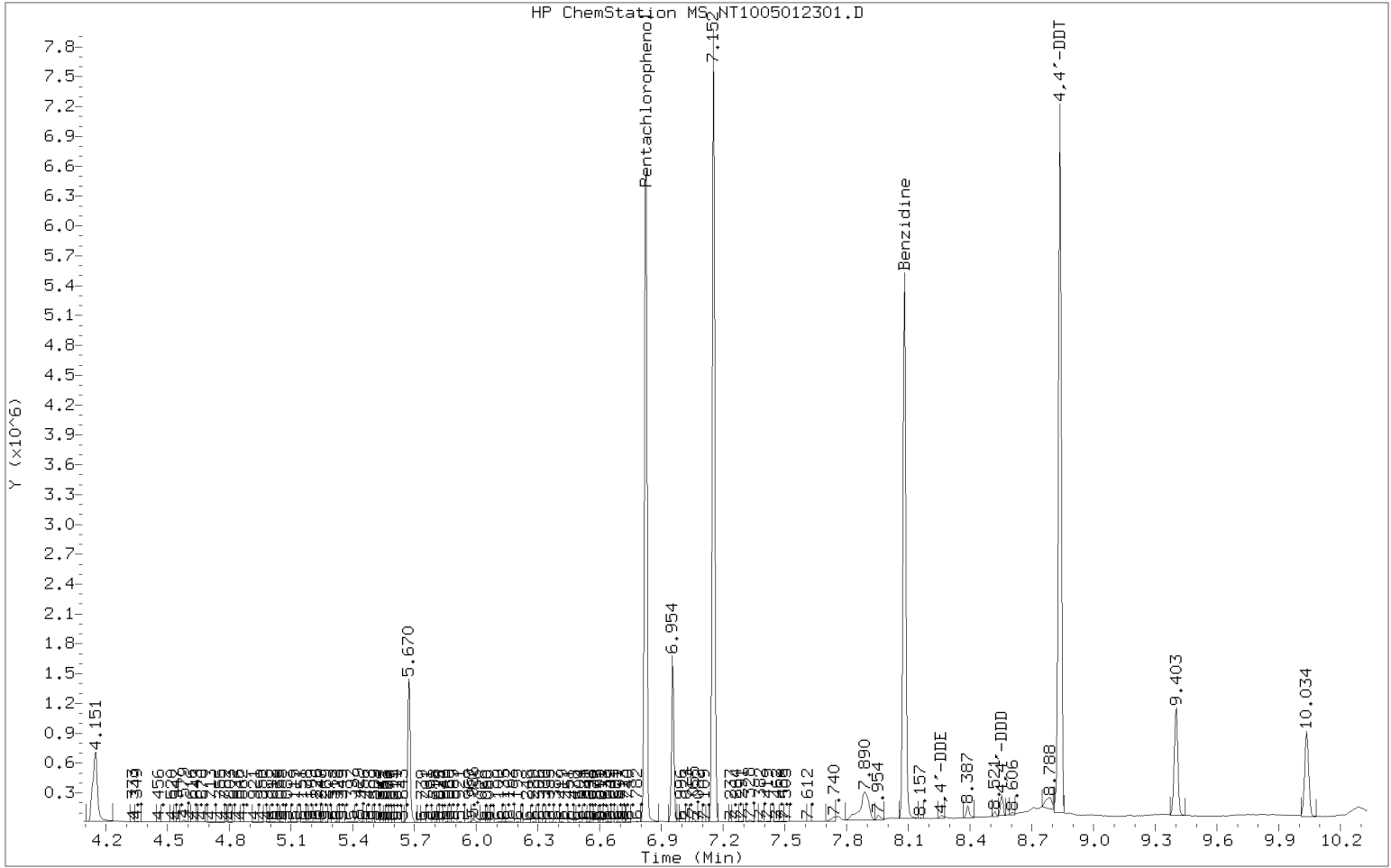
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1005012301S.D</u>	Injection Date:	<u>05/01/23</u>
Instrument ID:	<u>NT10</u>	Injection Time:	<u>14:35</u>
Sequence:	<u>SLE0082</u>	Lab Sample ID:	<u>SLE0082-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	1.96	PASS
69	Less than 100% of 198	36.9	PASS
70	Less than 2% of 69	0.547	PASS
197	Less than 2% of 198	0.109	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.93	PASS
365	1 - 100% of 198	4.09	PASS
441	Less than 150% of 443	80.2	PASS
442	1 - 200% of 198	47.5	PASS
443	15 - 24% of 442	18.5	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of		
4,4'-DDT	Less than 200% of		

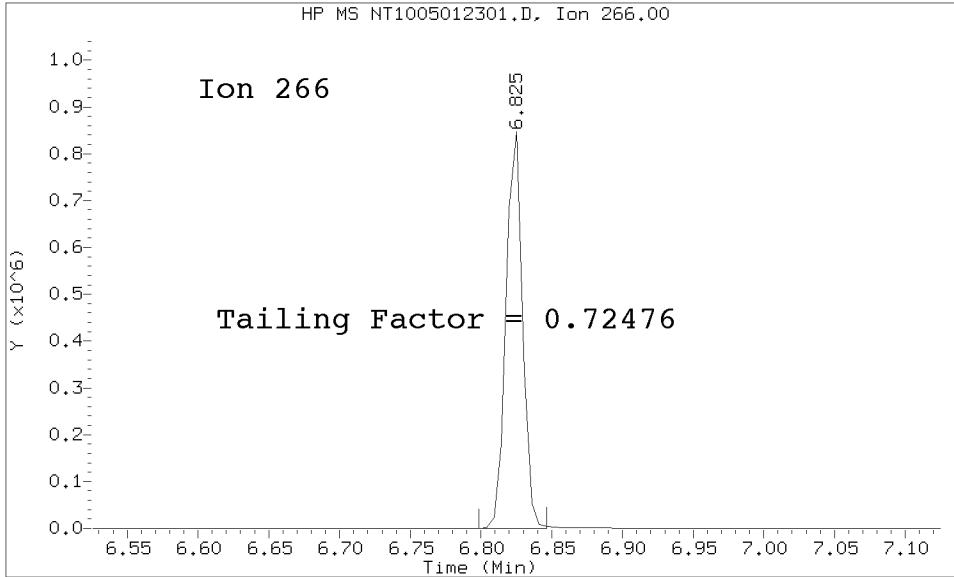
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLE0082-TUN1	NT1005012301S.D	05/01/2023	14:35
Cal Standard	SLE0082-CAL8	NT1005012303S.D	05/01/2023	15:31
Cal Standard	SLE0082-CAL7	NT1005012304S.D	05/01/2023	16:10
Cal Standard	SLE0082-CAL6	NT1005012305S.D	05/01/2023	16:49
Cal Standard	SLE0082-CAL5	NT1005012306S.D	05/01/2023	17:28
Cal Standard	SLE0082-CAL4	NT1005012307S.D	05/01/2023	18:07
Cal Standard	SLE0082-CAL3	NT1005012308S.D	05/01/2023	18:46
Cal Standard	SLE0082-CAL2	NT1005012309S.D	05/01/2023	19:25
Cal Standard	SLE0082-CAL1	NT1005012310S.D	05/01/2023	20:04
Secondary Cal Check	SLE0082-SCV1	NT1005012311S.D	05/01/2023	20:43
Initial Cal Blank	SLE0082-ICB1	NT1005012312S.D	05/01/2023	21:22

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230501.b/NT1005012301.D/NT1005012301.D
Method Used: \20230501.b\DFTPP8270E.m Inst: nt10
Injection Date: 01-MAY-2023 14:35 Operator: JGR
Sample Info: SLE0082-TUN1 SLE0082-TUN1
Report Date: 05/05/2023 12:10



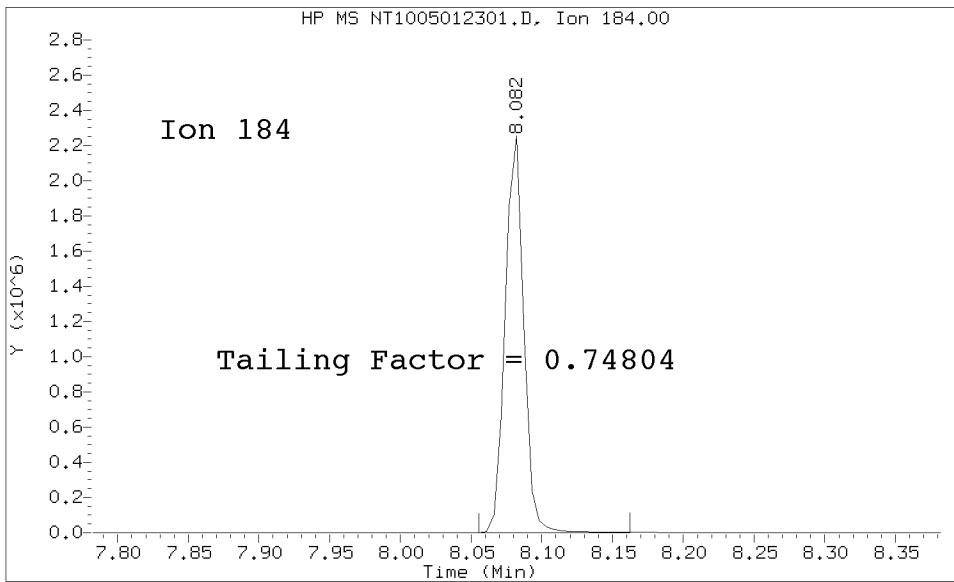
Datafile Analyzed: /20230501.b/NT1005012301.D/NT1005012301.D
Method Used: \20230501.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 01-MAY-2023 14:35 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 05/05/2023 12:10



Pentachlorophenol

=====
Exp. RT = 6.825
Found RT = 6.825

Tail Factor = 0.725 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 8.082
Found RT = 8.082

Tail Factor = 0.748 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.7247596	2.000	PASS
Benzidine	0.7480403	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1164719			N/A
4,4-DDE	2926	0.3	20.0	PASS
4,4-DDD	33911	2.8	20.0	PASS
4,4-DDD + DDE	36837	3.1	20.0	PASS

Tuning Sample, nt10.i/20230501.b/NT1005012301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.72 (1.96)
69	Mass 69 relative abundance	36.88
70	Less than 2.00% of mass 69	0.20 (0.55)
197	Less than 2.00% of mass 198	0.11
199	5.00 - 9.00% of mass 198	6.93
365	1.00 - 100.00% of mass 198	4.09
441	Less than 150.00% of mass 443	7.03 (80.18)
442	Less than 200.00% of mass 198	47.49
443	15.00 - 24.00% of mass 442	8.77 (18.47)

Data File: NT1005012301S.D
 Spectrum: Avg. Scans 572-574 (7.15), Background Scan 568
 Location of Maximum: 198.00
 Number of points: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	266	125.00	4346	212.00	234	301.00	794
37.00	1062	127.00	328512	213.00	499	302.00	1186
38.00	3056	128.00	24936	214.00	141	303.00	6845
39.00	14282	129.00	141504	215.00	2444	304.00	2076
40.00	661	130.00	12474	216.00	4556	305.00	403
41.00	397	131.00	2350	217.00	56176	308.00	947
42.00	221	132.00	1148	218.00	7190	309.00	634
43.00	80	133.00	478	219.00	698	310.00	860
44.00	92	134.00	4546	221.00	32104	311.00	269
45.00	530	135.00	11767	222.00	7235	312.00	310
47.00	208	136.00	4896	223.00	12138	313.00	707
48.00	116	137.00	6769	224.00	109928	314.00	2821
49.00	1662	138.00	1154	225.00	27736	315.00	8040
50.00	56312	139.00	780	226.00	3167	316.00	3993
51.00	192128	140.00	1727	227.00	54120	317.00	727
52.00	10009	141.00	19408	228.00	7820	319.00	76
53.00	358	142.00	5867	229.00	10633	320.00	151
55.00	1147	143.00	4287	230.00	1375	321.00	1907
56.00	6312	144.00	1130	231.00	3934	322.00	960
57.00	13026	145.00	910	232.00	656	323.00	17032
58.00	607	146.00	3437	233.00	991	324.00	3069
59.00	29	147.00	9663	234.00	3296	325.00	361
60.00	264	148.00	25112	235.00	3662	326.00	468
61.00	2852	149.00	5052	236.00	2488	327.00	4017
62.00	3614	150.00	1356	237.00	4890	328.00	1906
63.00	9148	151.00	2266	238.00	672	329.00	512
64.00	1235	152.00	1579	239.00	2237	330.00	120
65.00	4193	153.00	5832	240.00	1719	331.00	144
66.00	314	154.00	4463	241.00	2944	332.00	1493
67.00	446	155.00	10445	242.00	6490	333.00	1743
68.00	4951	156.00	15957	243.00	6227	334.00	11676
69.00	253056	157.00	2760	244.00	84584	335.00	2870
70.00	1385	158.00	3689	245.00	11413	336.00	350
71.00	272	159.00	2681	246.00	20384	339.00	198
73.00	2332	160.00	5980	247.00	4089	340.00	264
74.00	27976	161.00	9017	248.00	961	341.00	2132
75.00	42480	162.00	2681	249.00	2961	342.00	576
76.00	14168	163.00	992	250.00	651	346.00	4092
77.00	268224	164.00	986	251.00	842	347.00	762
78.00	18296	165.00	7696	252.00	860	350.00	110
79.00	21328	166.00	5725	253.00	2012	351.00	381
80.00	15604	167.00	38888	254.00	2343	352.00	5467
81.00	22424	168.00	19968	255.00	444992	353.00	3275
82.00	5265	169.00	3411	256.00	66248	354.00	5320
83.00	4677	170.00	1231	257.00	5829	355.00	1023
84.00	283	171.00	1591	258.00	33176	356.00	112
85.00	3741	172.00	3396	259.00	5397	357.00	124
86.00	6850	173.00	4390	260.00	852	358.00	174
87.00	2927	174.00	8520	261.00	736	359.00	318

88.00	1120	175.00	14893	262.00	111	361.00	131
89.00	591	176.00	3790	263.00	324	365.00	28088
90.00	101	177.00	7147	264.00	910	366.00	3777
91.00	5081	178.00	2450	265.00	12966	367.00	231
92.00	6151	179.00	29704	266.00	1919	370.00	495
93.00	40032	180.00	19936	267.00	184	371.00	1202
94.00	2667	181.00	8798	268.00	259	372.00	8009
95.00	587	182.00	1417	269.00	62	373.00	2002
96.00	1638	183.00	747	270.00	543	374.00	191
97.00	812	184.00	2226	271.00	976	375.00	50
98.00	31360	185.00	13981	272.00	1325	377.00	228
99.00	23592	186.00	102448	273.00	13189	383.00	2046
100.00	1856	187.00	29664	274.00	36512	384.00	449
101.00	12405	188.00	3546	275.00	194176	385.00	208
102.00	722	189.00	7144	276.00	25528	389.00	145
103.00	4260	190.00	1294	277.00	20736	390.00	1030
104.00	8414	191.00	3257	278.00	3713	391.00	705
105.00	7720	192.00	9275	279.00	791	392.00	459
106.00	2783	193.00	10621	280.00	54	395.00	59
107.00	100768	194.00	2025	281.00	351	401.00	403
108.00	14716	195.00	942	282.00	427	402.00	2822
109.00	3117	196.00	18840	283.00	2267	403.00	4000
110.00	161152	197.00	746	284.00	1368	404.00	1422
111.00	26016	198.00	686208	285.00	3442	405.00	290
112.00	3385	199.00	47528	286.00	615	410.00	95
113.00	1238	200.00	3588	288.00	189	415.00	166
114.00	319	201.00	2743	289.00	808	421.00	2808
115.00	590	202.00	87	290.00	702	422.00	2710
116.00	6423	203.00	5944	291.00	490	423.00	19704
117.00	102240	204.00	28184	292.00	872	424.00	5181
118.00	7245	205.00	46720	293.00	4158	425.00	574
119.00	721	206.00	185280	294.00	948	441.00	48248
120.00	1273	207.00	24280	295.00	1174	442.00	325888
121.00	749	208.00	7426	296.00	70416	443.00	60176
122.00	7214	209.00	2446	297.00	10070	444.00	5503
123.00	11141	210.00	3305	298.00	690	445.00	283
124.00	5150	211.00	7375	299.00	220		



INITIAL CALIBRATION DATA EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00018	Instrument:	NT10
Calibration Date:	05/04/2023	Column (1):	ZB-5MSi

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
1,4-Dichlorobenzene	0.05	1.62156	0.1	1.691842	0.2	1.608422	0.5	1.600861	1	1.56058	2.5	1.550049
1,2-Dichlorobenzene	0.05	1.586933	0.1	1.558451	0.2	1.550896	0.5	1.550398	1	1.524191	2.5	1.502128
Benzyl Alcohol	0.05	0.9199016	0.1	0.9166924	0.2	0.9650531	0.5	1.027099	1	1.09923	2.5	1.148426
Benzoic acid	0.2	3.817026E-02	0.4	5.377305E-02	0.8	0.1059193	2	0.1687884	4	0.2285704	10	0.2681328
2,4-Dimethylphenol	0.1	0.3452748	0.2	0.3603042	0.4	0.387202	1	0.4097114	2	0.4172466	5	0.4243033
1,2,4-Trichlorobenzene	0.05	0.4355552	0.1	0.4143251	0.2	0.4122797	0.5	0.4055396	1	0.3998427	2.5	0.4005295
N-Nitrosodiphenylamine	0.05	0.4745207	0.1	0.4873142	0.2	0.519888	0.5	0.5390913	1	0.5540406	2.5	0.5333333
Pentachlorophenol	0.1	8.720474E-02	0.2	9.178048E-02	0.4	0.0906988	1	0.1106036	2	0.1358821	5	0.1544184
2-Fluorophenol	0.075	1.082559	0.15	1.140575	0.3	1.193239	0.75	1.236937	1.5	1.260374	3.75	1.2845
p-Terphenyl-d14	0.05	0.7405004	0.1	0.7713356	0.2	0.8077524	0.5	0.8395384	1	0.9000023	2.5	0.9125655



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00018	Instrument:	NT10
Calibration Date:	05/04/2023	Column (1):	ZB-5MSi

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
1,4-Dichlorobenzene	5	1.509975	10	1.575331								
1,2-Dichlorobenzene	5	1.450707	10	1.50943								
Benzyl Alcohol	5	1.14812	10	1.219659								
Benzoic acid	20	0.2857484	40	0.3186251								
2,4-Dimethylphenol	10	0.4071982	20	0.4283315								
1,2,4-Trichlorobenzene	5	0.3866294	10	0.4073714								
N-Nitrosodiphenylamine	5	0.5302271	10	0.534835								
Pentachlorophenol	10	0.1722223	20	0.1934588								
2-Fluorophenol	7.5	1.245808	15	1.303956								
p-Terphenyl-d14	5	0.9434623	10	0.9848797								



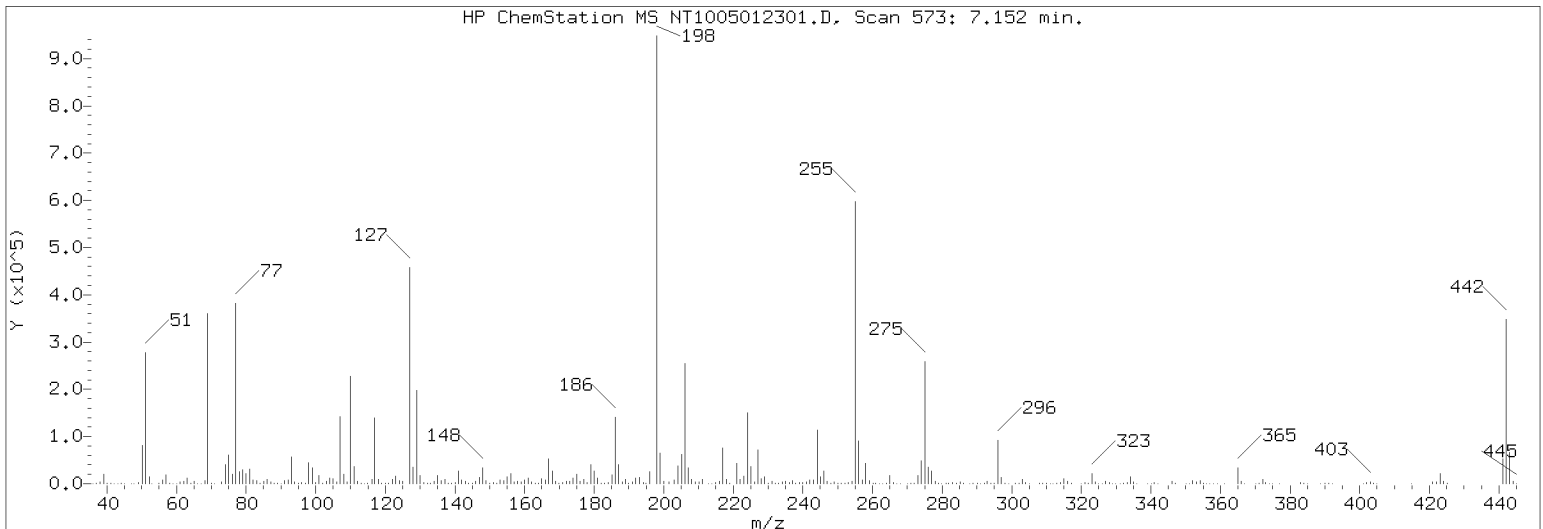
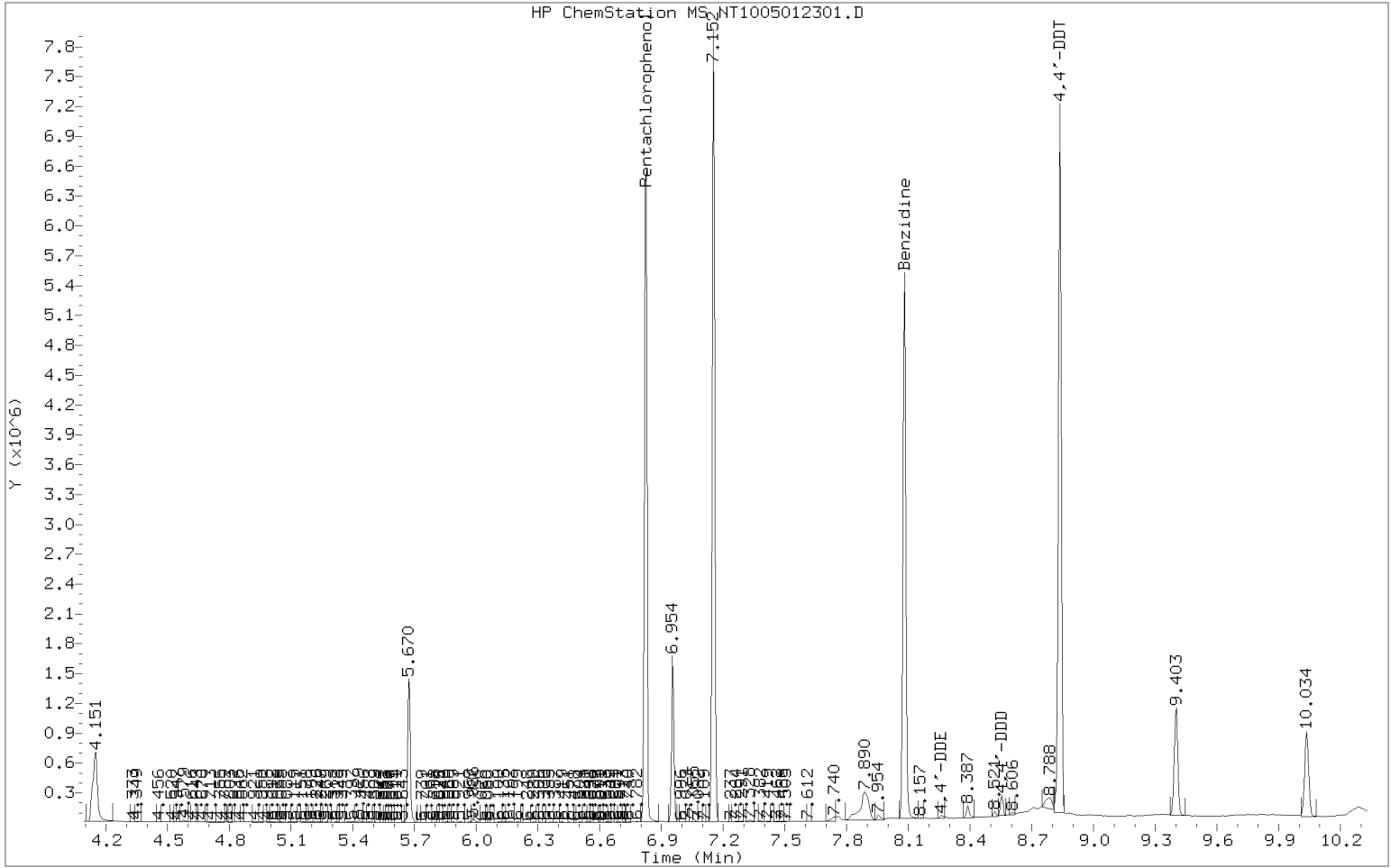
INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00018	Instrument:	NT10
Calibration Date:	05/04/2023	Column (1):	ZB-5MSi

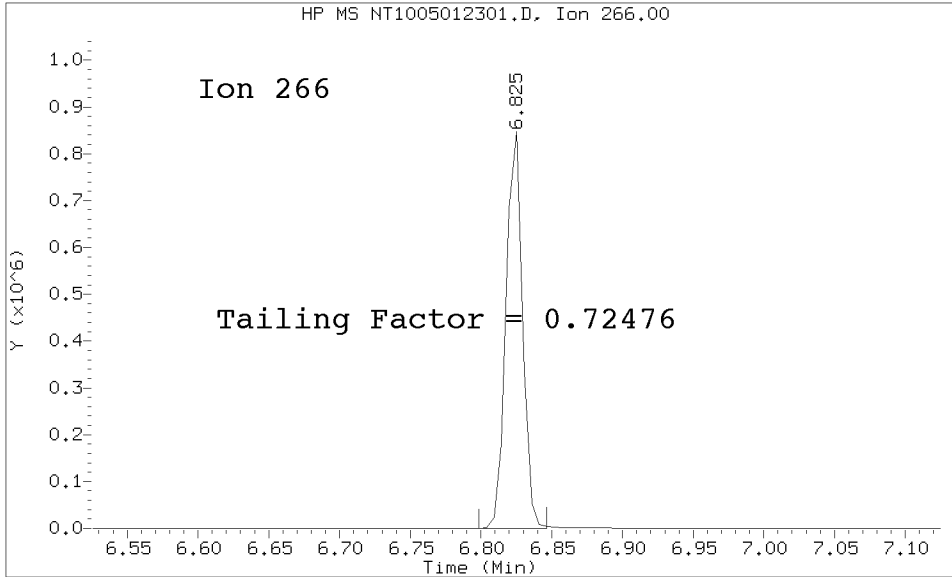
COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
1,4-Dichlorobenzene	1.589827	3.4			RSD (15)	
1,2-Dichlorobenzene	1.529142	2.8			RSD (15)	
Benzyl Alcohol	1.055523	10.9			RSD (15)	
Benzoic acid	0.183466	59.0		0.9992	QCOD (0.99)	
2,4-Dimethylphenol	0.3974465	7.7			RSD (15)	
1,2,4-Trichlorobenzene	0.4077591	3.5			RSD (15)	
N-Nitrosodiphenylamine	0.5216563	5.2			RSD (15)	
Pentachlorophenol	0.1295337	31.5		0.9993	QCOD (0.99)	
2-Fluorophenol	1.218494	6.2			RSD (15)	
p-Terphenyl-d14	0.8625046	10.0			RSD (15)	

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230501.b/NT1005012301.D/NT1005012301.D
 Method Used: \20230501.b\DFTPP8270E.m Inst: nt10
 Injection Date: 01-MAY-2023 14:35 Operator: JGR
 Sample Info: SLE0082-TUN1 SLE0082-TUN1
 Report Date: 05/10/2023 13:03



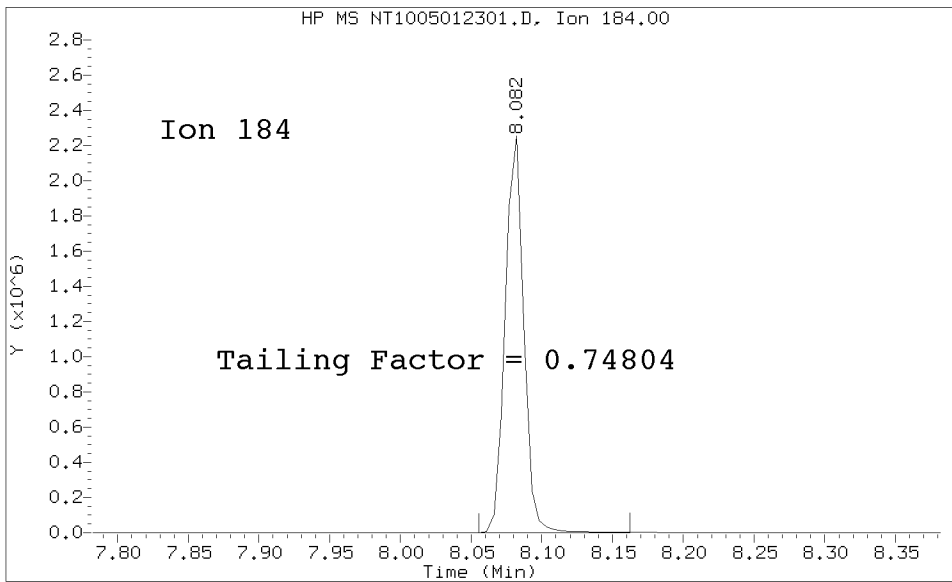
Datafile Analyzed: /20230501.b/NT1005012301.D/NT1005012301.D
Method Used: \20230501.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 01-MAY-2023 14:35 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 05/10/2023 13:03



Pentachlorophenol

=====
Exp. RT = 6.825
Found RT = 6.825

Tail Factor = 0.725 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 8.082
Found RT = 8.082

Tail Factor = 0.748 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.7247596	2.000	PASS
Benzidine	0.7480403	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1164719			N/A
4,4-DDE	2926	0.3	20.0	PASS
4,4-DDD	33911	2.8	20.0	PASS
4,4-DDD + DDE	36837	3.1	20.0	PASS

Tuning Sample, nt10.i/20230501.b/NT1005012301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.72 (1.96)
69	Mass 69 relative abundance	36.88
70	Less than 2.00% of mass 69	0.20 (0.55)
197	Less than 2.00% of mass 198	0.11
199	5.00 - 9.00% of mass 198	6.93
365	1.00 - 100.00% of mass 198	4.09
441	Less than 150.00% of mass 443	7.03 (80.18)
442	Less than 200.00% of mass 198	47.49
443	15.00 - 24.00% of mass 442	8.77 (18.47)

Data File: NT1005012301.D
 Spectrum: Avg. Scans 572-574 (7.15), Background Scan 568
 Location of Maximum: 198.00
 Number of points: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	266	125.00	4346	212.00	234	301.00	794
37.00	1062	127.00	328512	213.00	499	302.00	1186
38.00	3056	128.00	24936	214.00	141	303.00	6845
39.00	14282	129.00	141504	215.00	2444	304.00	2076
40.00	661	130.00	12474	216.00	4556	305.00	403
41.00	397	131.00	2350	217.00	56176	308.00	947
42.00	221	132.00	1148	218.00	7190	309.00	634
43.00	80	133.00	478	219.00	698	310.00	860
44.00	92	134.00	4546	221.00	32104	311.00	269
45.00	530	135.00	11767	222.00	7235	312.00	310
47.00	208	136.00	4896	223.00	12138	313.00	707
48.00	116	137.00	6769	224.00	109928	314.00	2821
49.00	1662	138.00	1154	225.00	27736	315.00	8040
50.00	56312	139.00	780	226.00	3167	316.00	3993
51.00	192128	140.00	1727	227.00	54120	317.00	727
52.00	10009	141.00	19408	228.00	7820	319.00	76
53.00	358	142.00	5867	229.00	10633	320.00	151
55.00	1147	143.00	4287	230.00	1375	321.00	1907
56.00	6312	144.00	1130	231.00	3934	322.00	960
57.00	13026	145.00	910	232.00	656	323.00	17032
58.00	607	146.00	3437	233.00	991	324.00	3069
59.00	29	147.00	9663	234.00	3296	325.00	361
60.00	264	148.00	25112	235.00	3662	326.00	468
61.00	2852	149.00	5052	236.00	2488	327.00	4017
62.00	3614	150.00	1356	237.00	4890	328.00	1906
63.00	9148	151.00	2266	238.00	672	329.00	512
64.00	1235	152.00	1579	239.00	2237	330.00	120
65.00	4193	153.00	5832	240.00	1719	331.00	144
66.00	314	154.00	4463	241.00	2944	332.00	1493
67.00	446	155.00	10445	242.00	6490	333.00	1743
68.00	4951	156.00	15957	243.00	6227	334.00	11676
69.00	253056	157.00	2760	244.00	84584	335.00	2870
70.00	1385	158.00	3689	245.00	11413	336.00	350
71.00	272	159.00	2681	246.00	20384	339.00	198
73.00	2332	160.00	5980	247.00	4089	340.00	264
74.00	27976	161.00	9017	248.00	961	341.00	2132
75.00	42480	162.00	2681	249.00	2961	342.00	576
76.00	14168	163.00	992	250.00	651	346.00	4092
77.00	268224	164.00	986	251.00	842	347.00	762
78.00	18296	165.00	7696	252.00	860	350.00	110
79.00	21328	166.00	5725	253.00	2012	351.00	381
80.00	15604	167.00	38888	254.00	2343	352.00	5467
81.00	22424	168.00	19968	255.00	444992	353.00	3275
82.00	5265	169.00	3411	256.00	66248	354.00	5320
83.00	4677	170.00	1231	257.00	5829	355.00	1023
84.00	283	171.00	1591	258.00	33176	356.00	112
85.00	3741	172.00	3396	259.00	5397	357.00	124
86.00	6850	173.00	4390	260.00	852	358.00	174
87.00	2927	174.00	8520	261.00	736	359.00	318

88.00	1120	175.00	14893	262.00	111	361.00	131
89.00	591	176.00	3790	263.00	324	365.00	28088
90.00	101	177.00	7147	264.00	910	366.00	3777
91.00	5081	178.00	2450	265.00	12966	367.00	231
92.00	6151	179.00	29704	266.00	1919	370.00	495
93.00	40032	180.00	19936	267.00	184	371.00	1202
94.00	2667	181.00	8798	268.00	259	372.00	8009
95.00	587	182.00	1417	269.00	62	373.00	2002
96.00	1638	183.00	747	270.00	543	374.00	191
97.00	812	184.00	2226	271.00	976	375.00	50
98.00	31360	185.00	13981	272.00	1325	377.00	228
99.00	23592	186.00	102448	273.00	13189	383.00	2046
100.00	1856	187.00	29664	274.00	36512	384.00	449
101.00	12405	188.00	3546	275.00	194176	385.00	208
102.00	722	189.00	7144	276.00	25528	389.00	145
103.00	4260	190.00	1294	277.00	20736	390.00	1030
104.00	8414	191.00	3257	278.00	3713	391.00	705
105.00	7720	192.00	9275	279.00	791	392.00	459
106.00	2783	193.00	10621	280.00	54	395.00	59
107.00	100768	194.00	2025	281.00	351	401.00	403
108.00	14716	195.00	942	282.00	427	402.00	2822
109.00	3117	196.00	18840	283.00	2267	403.00	4000
110.00	161152	197.00	746	284.00	1368	404.00	1422
111.00	26016	198.00	686208	285.00	3442	405.00	290
112.00	3385	199.00	47528	286.00	615	410.00	95
113.00	1238	200.00	3588	288.00	189	415.00	166
114.00	319	201.00	2743	289.00	808	421.00	2808
115.00	590	202.00	87	290.00	702	422.00	2710
116.00	6423	203.00	5944	291.00	490	423.00	19704
117.00	102240	204.00	28184	292.00	872	424.00	5181
118.00	7245	205.00	46720	293.00	4158	425.00	574
119.00	721	206.00	185280	294.00	948	441.00	48248
120.00	1273	207.00	24280	295.00	1174	442.00	325888
121.00	749	208.00	7426	296.00	70416	443.00	60176
122.00	7214	209.00	2446	297.00	10070	444.00	5503
123.00	11141	210.00	3305	298.00	690	445.00	283
124.00	5150	211.00	7375	299.00	220		



ANALYSIS SEQUENCE

SLE0082

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GE00018 GCMS Column ID: ZB-5MSi
MS EM Level: EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0082-TUN1	MS Tune	QC		1	L002618		05/01/2023 14:35	NT1005012301S.D	JGR	
SLE0082-CAL1	ABN 0.05	QC		2	L002878	K010831	05/01/2023 20:04	NT1005012310S.D	JGR	
SLE0082-CAL2	ABN 0.1	QC		3	L002877	K010831	05/01/2023 19:25	NT1005012309S.D	JGR	
SLE0082-CAL3	ABN 0.2	QC		4	K011105	K010831	05/01/2023 18:46	NT1005012308S.D	JGR	
SLE0082-CAL4	ABN 0.5	QC		5	K011106	K010831	05/01/2023 18:07	NT1005012307S.D	JGR	
SLE0082-CAL5	ABN 1.0	QC		6	K011107	K010831	05/01/2023 17:28	NT1005012306S.D	JGR	
SLE0082-CAL6	ABN 2.5	QC		7	K011108	K010831	05/01/2023 16:49	NT1005012305S.D	JGR	
SLE0082-CAL7	ABN 5.0	QC		8	K011109	K010831	05/01/2023 16:10	NT1005012304S.D	JGR	
SLE0082-CAL8	ABN 10.0	QC		9	K011110	K010831	05/01/2023 15:31	NT1005012303S.D	JGR	
SLE0082-SCV1	SCV 5.0	QC		10	K010066	K010831	05/01/2023 20:43	NT1005012311S.D	JGR	
SLE0082-ICB1	Initial Cal Blank	QC		11	K005156	K010831	05/01/2023 21:22	NT1005012312S.D	JGR	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230501.b\20230501.b

Time	Filename	LabID	ClientId	DF									
1	1435	NT1005012301S.D	SLE0082-TUN1	1	|	NO ISTDs FOUND|							
2	1531	NT1005012303S.D	SLE0082-CAL8	1	|	9.49	161514||12.00	570419||15.63	292457||18.68	621963||23.71	460111||26.55	359500|	
3	1610	NT1005012304S.D	SLE0082-CAL7	1	|	9.49	152136||12.00	537687||15.63	277062||18.68	559131||23.71	409150||26.56	347622|	
4	1649	NT1005012305S.D	SLE0082-CAL6	1	|	9.49	149844||11.99	519732||15.63	272727||18.68	563850||23.70	418693||26.55	365369|	
5	1728	NT1005012306S.D	SLE0082-CAL5	1	|	9.50	169173||11.99	594924||15.63	304980||18.68	609190||23.70	479061||26.54	427162|	
6	1807	NT1005012307S.D	SLE0082-CAL4	1	|	9.49	154252||11.99	543651||15.63	277425||18.68	552604||23.69	436983||26.53	398475|	
7	1846	NT1005012308S.D	SLE0082-CAL3	1	|	9.49	173835||11.99	608907||15.62	304177||18.67	596590||23.69	484703||26.53	440507|	
8	1925	NT1005012309S.D	SLE0082-CAL2	1	|	9.49	161930||11.99	564967||15.62	276925||18.67	537805||23.68	433067||26.52	402089|	
9	2004	NT1005012310S.D	SLE0082-CAL1	1	|	9.49	175584||11.99	608327||15.62	297084||18.68	579785||23.69	462282||26.53	432429|	
10	2043	NT1005012311S.D	SLE0082-SCV1	1	|	9.49	142531||11.99	510045||15.62	263993||18.68	506239||23.70	402889||26.53	365734|	
11	2122	NT1005012312S.D	SLE0082-ICB1	1	|	9.49	165323||11.99	600558||15.62	293573||18.68	566241||23.70	440951||26.54	417631|	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230501.b\20230501.b

ARI Job No.: SLE0 Method: DFTPP8270E.m Instrument: nt10.i Date: 01-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1435	NT1005012301S.D	SLE0082-TUN1		1	NO MANUAL INTEGRATION
1531	NT1005012303S.D	SLE0082-CAL8		1	NO MANUAL INTEGRATION
1610	NT1005012304S.D	SLE0082-CAL7		1	NO MANUAL INTEGRATION
1649	NT1005012305S.D	SLE0082-CAL6		1	NO MANUAL INTEGRATION
1728	NT1005012306S.D	SLE0082-CAL5		1	NO MANUAL INTEGRATION
1807	NT1005012307S.D	SLE0082-CAL4		1	NO MANUAL INTEGRATION
1846	NT1005012308S.D	SLE0082-CAL3		1	NO MANUAL INTEGRATION
1925	NT1005012309S.D	SLE0082-CAL2		1	NO MANUAL INTEGRATION
2004	NT1005012310S.D	SLE0082-CAL1		1	NO MANUAL INTEGRATION
2043	NT1005012311S.D	SLE0082-SCV1		1	NO MANUAL INTEGRATION
2122	NT1005012312S.D	SLE0082-ICB1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 04-May-2023 15:30

NT1005012301S.D	Data Locked	deenayd, 04-
NT1005012302S.D	Data Locked	deenayd, 04-
NT1005012303S.D	Data Locked	deenayd, 04-
NT1005012304S.D	Data Locked	deenayd, 04-
NT1005012305S.D	Data Locked	deenayd, 04-
NT1005012306S.D	Data Locked	deenayd, 04-
NT1005012307S.D	Data Locked	deenayd, 04-
NT1005012308S.D	Data Locked	deenayd, 04-
NT1005012309S.D	Data Locked	deenayd, 04-
NT1005012310S.D	Data Locked	deenayd, 04-
NT1005012311S.D	Data Locked	deenayd, 04-
NT1005012312S.D	Data Locked	deenayd, 04-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 15:31
 End Cal Date : 01-MAY-2023 20:04
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Last Edit : 04-May-2023 13:53 deenayd

Calibration File Names:

Level 1: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012310S.D
 Level 2: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012309S.D
 Level 3: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012308S.D
 Level 4: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012307S.D
 Level 5: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012306S.D
 Level 6: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012305S.D
 Level 7: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012304S.D
 Level 8: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012303S.D

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 15:31
 End Cal Date : 01-MAY-2023 20:04
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Last Edit : 04-May-2023 13:53 deenayd

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
142 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
137 NewCpnd_131	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
133 Butylatedhydroxytoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 15:31
 End Cal Date : 01-MAY-2023 20:04
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Last Edit : 04-May-2023 13:53 deenayd

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
146 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 15:31
 End Cal Date : 01-MAY-2023 20:04
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Last Edit : 04-May-2023 13:53 deenayd

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 15:31
 End Cal Date : 01-MAY-2023 20:04
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Last Edit : 04-May-2023 13:53 deenayd

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
120 2,3,4,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 15:31
 End Cal Date : 01-MAY-2023 20:04
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Last Edit : 04-May-2023 13:53 deenayd

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
111 Azobenzene (1,2-DP-Hydrazine)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
107 4,5-Dichloro-2-Methoxyphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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 Last Edit : 04-May-2023 13:53 deenayd

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
3 Phenol	1.45025	1.45544	1.53720	1.56020	1.56760	1.56347					
	1.50977	1.56662					AVRG		1.52632		3.23437
4 Bis(2-Chloroethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
7 1,3-Dichlorobenzene	1.66074	1.65849	1.64397	1.62757	1.59262	1.56804					
	1.52352	1.56671					AVRG		1.60521		3.12570
9 1,4-Dichlorobenzene	1.62156	1.69184	1.60842	1.60086	1.56058	1.55005					
	1.50998	1.57533					AVRG		1.58983		3.43742

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
11 Benzyl alcohol	0.91990| 1.14812|	0.91669| 1.21966|	0.96505|	1.02710|	1.09923|	1.14843|	|	|	|	|	|
							|AVRG|	|	|1.05552|	|	|10.90337|
12 1,2-Dichlorobenzene	1.58693| 1.45071|	1.55845| 1.50943|	1.55090|	1.55040|	1.52419|	1.50213|	|	|	|	|	|
							|AVRG|	|	|1.52914|	|	|2.75449|
13 2-Methylphenol	1.11309| 1.17711|	1.04267| 1.22472|	1.07320|	1.15370|	1.17030|	1.18358|	|	|	|	|	|
							|AVRG|	|	|1.14230|	|	|5.35339|
14 2,2'-oxybis(1-Chloropropane)	++++| ++++|	++++| ++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
							|AVRG|	|	|0.000e+000|	|	|0.000e+000|
15 4-Methylphenol	1.04702| 1.27209|	1.08837| 1.33279|	1.13337|	1.20530|	1.24613|	1.28343|	|	|	|	|	|
							|AVRG|	|	|1.20106|	|	|8.45813|
16 N-Nitroso-di-n-propylamine	0.86477 0.88713	0.80282 0.91495	0.81111	0.86176	0.88721	0.90317					
							AVRG		0.86661		4.71656
17 Hexachloroethane	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
22 2,4-Dimethylphenol	0.26407	0.22918	0.21726	0.21904	0.22228	0.22823					
	0.22162	0.22816					AVRG		0.22873		6.54183
23 Bis(2-Chloroethoxy)methane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
24 Benzoic acid	+++++	+++++	12899	45881	135982	348393					
	768216	1817498					QUAD	0.000e+000	3.87309	-0.23165	0.99970
25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
26 1,2,4-Trichlorobenzene	0.43556|	0.41433|	0.41228|	0.40554|	0.39984|	0.40053|					
	0.38663|	0.40737|					|AVRG|		0.40776|		3.47154|
28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
30 Hexachlorobutadiene	0.27143|	0.25417|	0.25580|	0.25555|	0.25653|	0.26329|					
	0.25576|	0.27027|					|AVRG|		0.26035|		2.70582|
31 4-Chloro-3-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
33 Hexachlorocyclopentadiene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
39 Dimethylphthalate	1.51607|	1.49066|	1.45724|	1.50839|	1.55319|	1.53496|					
	1.50848|	1.56149|					|AVRG|		|1.51631|		|2.23238|
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
50 Diethylphthalate	1.48806 1.70962	1.48618 1.78392	1.52510	1.61707	1.68684	1.72809					
							AVRG		1.62811		7.14994
51 4-Chlorophenyl-phenylether	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000
52 4-Nitroaniline	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000
53 4,6-Dinitro-2-methylphenol	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000
54 N-Nitrosodiphenylamine	0.47452 0.53023	0.48731 0.53484	0.51989	0.53909	0.55404	0.53333					
							AVRG		0.52166		5.19480
56 4-Bromophenyl-phenylether	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000
57 Hexachlorobenzene	0.26796 0.24838	0.25995 0.25184	0.25833	0.25610	0.25287	0.24824					
							AVRG		0.25546		2.59298

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
58 Pentachlorophenol	+++++	2468	5411	15280	41389	108836					
	240737	601621					QUAD	0.000e+000	6.54335	-1.42971	0.99965
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2		
	5.0000	10.0000										
	Level 7	Level 8										
67 Butylbenzylphthalate	2187 387291	4388 909576	11132	30054	76654	183179		QUAD	0.000e+000	1.42339	-0.08146	0.99974
68 Benzo(a)anthracene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
70 3,3'-Dichlorobenzidine	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
71 Chrysene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
72 bis(2-Ethylhexyl)phthalate	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
73 Di-n-octylphthalate	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
74 Benzo(b)fluoranthene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
79 Dibenzo(a,h)anthracene	1.17235|	1.21008|	1.25051|	1.27273|	1.31719|	1.28288|					
	1.35100|	1.47259|					AVRG		1.29117|		7.16585|
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
90 N-Nitrosodimethylamine	0.57340	0.63040	0.66195	0.68244	0.69028	0.70488					
	0.67376	0.70070					AVRG		0.66473		6.60200
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 1 2-Fluorophenol	1.08256|	1.14058|	1.19324|	1.23694|	1.26037|	1.28450|					
	1.24581|	1.30396|					|AVRG|		|1.21849|		|6.17959|
\$ 145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
\$ 10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 66 Terphenyl-d14	0.74050|	0.77134|	0.80775|	0.83954|	0.90000|	0.91257|					
	0.94346|	0.98488|					|AVRG|		0.86250|		10.00864|
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 15:31
 End Cal Date : 01-MAY-2023 20:04
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Last Edit : 04-May-2023 13:53 deenayd

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 15:31
End Cal Date : 01-MAY-2023 20:04
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Last Edit : 04-May-2023 13:53 deenayd

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07 RT08
FILENAME: NT1005012303S NT1005012304S NT1005012305S NT1005012306S NT1005012307S NT1005012308S NT1005012309S NT1005012310S
INJ.DATE: 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023
INJ.TIME: 15:31 16:10 16:49 17:28 18:07 18:46 19:25 20:04

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, RT08, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like 2-Fluorophenol, Chlorobenzilate, Isodrin, etc.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.349	22.849-23.849	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.474	21.974-22.974	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.191	10.691-11.691	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.779	17.279-18.279	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.310	15.810-16.810	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.707	17.207-18.207	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.921	8.421-9.421	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.736	3.236-4.236	+++++	+++++
§ 145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.914	2.414-3.414	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.148	19.648-20.648	+++++	+++++
120 2,3,4,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.588	15.088-16.088	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.587	38.087-39.087	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.382	19.882-20.882	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.734	18.234-19.234	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.987	16.487-17.487	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.204	14.704-15.704	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.586	21.086-22.086	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.692	17.192-18.192	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.268	15.768-16.768	+++++	+++++
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.055	17.555-18.555	+++++	+++++
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.228	16.728-17.728	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.517	16.017-17.017	+++++	+++++
107 4,5-Dichloro-2-Methoxy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.803	14.303-15.303	+++++	+++++
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.843	11.343-12.343	+++++	+++++
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.927	12.427-13.427	+++++	+++++
\$ 2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.235	7.735-8.735	+++++	+++++
3 Phenol	8.850	8.842	8.843	8.843	8.835	8.843	8.843	8.843	8.850	8.350-9.350	8.843	0.004
4 Bis(2-Chloroethyl)ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.397	7.897-8.897	+++++	+++++
\$ 5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.490	7.990-8.990	+++++	+++++
6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.521	8.021-9.021	+++++	+++++
7 1,3-Dichlorobenzene	9.430	9.430	9.430	9.430	9.430	9.430	9.430	9.430	9.430	8.930-9.930	9.430	0.000
* 8 1,4-Dichlorobenzene-d4	9.492	9.492	9.492	9.500	9.492	9.492	9.492	9.492	9.492	8.992-9.992	9.493	0.003
9 1,4-Dichlorobenzene	9.523	9.523	9.523	9.523	9.523	9.523	9.523	9.523	9.523	9.023-10.023	9.523	0.000
\$ 10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.500	9.000-10.000	+++++	+++++
11 Benzyl alcohol	9.756	9.756	9.748	9.756	9.748	9.748	9.756	9.756	9.756	9.256-10.256	9.753	0.004
12 1,2-Dichlorobenzene	9.888	9.880	9.880	9.880	9.880	9.880	9.880	9.880	9.888	9.388-10.388	9.881	0.003
13 2-Methylphenol	9.973	9.965	9.966	9.966	9.966	9.966	9.966	9.966	9.973	9.473-10.473	9.967	0.003
14 2,2'-oxybis(1-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.413	8.913-9.913	+++++	+++++
15 4-Methylphenol	10.237	10.237	10.238	10.230	10.230	10.230	10.230	10.238	10.237	9.737-10.737	10.234	0.004
16 N-Nitroso-di-n-propyla	10.323	10.315	10.315	10.315	10.307	10.307	10.307	10.315	10.323	9.823-10.823	10.313	0.005
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.809	9.309-10.309	+++++	+++++
\$ 18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.917	9.417-10.417	+++++	+++++
19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.948	9.448-10.448	+++++	+++++
20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.399	9.899-10.899	+++++	+++++
21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.575	10.075-11.075	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
22 2,4-Dimethylphenol	10.237	10.237	10.230	10.230	10.230	10.230	10.230	10.230	10.237	9.737-10.737	10.232	0.003
23 Bis(2-Chloroethoxy)met	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.830	10.330-11.330	+++++	+++++
24 Benzoic acid	11.551	11.483	11.441	11.398	11.373	11.356	11.356	11.373	11.551	11.051-12.051	11.417	0.070
25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.033	10.533-11.533	+++++	+++++
26 1,2,4-Trichlorobenzene	11.904	11.904	11.904	11.904	11.896	11.896	11.896	11.896	11.904	11.404-12.404	11.900	0.004
* 27 Naphthalene-d8	11.996	11.996	11.989	11.989	11.989	11.989	11.989	11.989	11.996	11.496-12.496	11.991	0.003
28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.326	10.826-11.826	+++++	+++++
29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.457	10.957-11.957	+++++	+++++
30 Hexachlorobutadiene	12.390	12.390	12.390	12.390	12.383	12.383	12.383	12.383	12.390	11.890-12.890	12.387	0.004
31 4-Chloro-3-methylpheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.432	11.932-12.932	+++++	+++++
32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.710	12.210-13.210	+++++	+++++
33 Hexachlorocyclopentadi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.182	12.682-13.682	+++++	+++++
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.330	12.830-13.830	+++++	+++++
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.415	12.915-13.915	+++++	+++++
36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.484	12.984-13.984	+++++	+++++
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.686	13.186-14.186	+++++	+++++
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.941	13.441-14.441	+++++	+++++
39 Dimethylphthalate	15.114	15.114	15.115	15.107	15.107	15.099	15.099	15.107	15.114	14.614-15.614	15.108	0.006
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.545	14.045-15.045	+++++	+++++
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.506	14.006-15.006	+++++	+++++
* 42 Acenaphthene-d10	15.625	15.625	15.625	15.625	15.625	15.618	15.618	15.618	15.625	15.125-16.125	15.622	0.004
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.785	14.285-15.285	+++++	+++++
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.924	14.424-15.424	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.001	14.501-15.501	+++++	+++++
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.248	14.748-15.748	+++++	+++++
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.171	14.671-15.671	+++++	+++++
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.302	14.802-15.802	+++++	+++++
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
50 Diethylphthalate	16.584	16.576	16.568	16.568	16.568	16.561	16.561	16.561	16.584	16.084-17.084	16.568	0.008
51 4-Chlorophenyl-phenyle	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.037	15.537-16.537	+++++	+++++
53 4,6-Dinitro-2-methylph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.145	15.645-16.645	+++++	+++++
54 N-Nitrosodiphenylamine	16.977	16.969	16.970	16.962	16.962	16.954	16.954	16.962	16.977	16.477-17.477	16.964	0.008
55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.477	15.977-16.977	+++++	+++++
56 4-Bromophenyl-phenylet	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.939	16.439-17.439	+++++	+++++
57 Hexachlorobenzene	18.050	18.057	18.050	18.050	18.050	18.042	18.042	18.042	18.050	17.550-18.550	18.048	0.005
58 Pentachlorophenol	18.406	18.406	18.406	18.406	18.406	18.398	18.391	18.399	18.406	17.906-18.906	18.402	0.006
59 Phenanthrene-d10	18.685	18.684	18.685	18.677	18.677	18.669	18.669	18.677	18.685	18.185-19.185	18.678	0.006
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.899	17.399-18.399	+++++	+++++
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.991	17.491-18.491	+++++	+++++
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.324	17.824-18.824	+++++	+++++
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.152	18.652-19.652	+++++	+++++
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.289	19.789-20.789	+++++	+++++
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.715	20.215-21.215	+++++	+++++
66 Terphenyl-d14	21.787	21.787	21.787	21.787	21.780	21.779	21.772	21.780	21.787	21.287-22.287	21.782	0.006
67 Butylbenzylphthalate	22.701	22.701	22.701	22.701	22.693	22.693	22.685	22.693	22.701	22.201-23.201	22.696	0.006
68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.875	22.375-23.375	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 69 Chrysene-d12	23.707	23.707	23.700	23.700	23.692	23.692	23.684	23.692	23.707	23.207-24.207	23.697	0.008
70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.844	22.344-23.344	+++++	+++++
71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.952	22.452-23.452	+++++	+++++
72 bis(2-Ethylhexyl)phtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.701	22.201-23.201	+++++	+++++
73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.990	23.490-24.490	+++++	+++++
74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.687	24.187-25.187	+++++	+++++
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.725	24.225-25.225	+++++	+++++
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.283	24.783-25.783	+++++	+++++
* 77 Perylene-d12	26.549	26.556	26.549	26.541	26.533	26.526	26.518	26.533	26.549	26.049-27.049	26.538	0.013
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.794	27.294-28.294	+++++	+++++
79 Dibenzo(a,h)anthracene	29.558	29.550	29.543	29.527	29.512	29.496	29.488	29.520	29.558	29.058-30.058	29.524	0.025
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.494	27.994-28.994	+++++	+++++
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.238	16.738-17.738	+++++	+++++
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.316	28.816-29.816	+++++	+++++
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.007	25.507-26.507	+++++	+++++
\$ 88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	44.609	44.109-45.109	+++++	+++++
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.066	15.566-16.566	+++++	+++++
90 N-Nitrosodimethylamine	5.088	5.080	5.073	5.088	5.073	5.088	5.088	5.104	5.088	4.588-5.588	5.085	0.010
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.305	7.805-8.805	+++++	+++++
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.615	21.115-22.115	+++++	+++++
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.529	20.029-21.029	+++++	+++++
\$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.686	17.186-18.186	+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.957	26.457-27.457	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
 Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.609	19.109-20.109	+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.438	24.938-25.938	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.384	25.884-26.884	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.881	43.381-44.381	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	45.573	45.073-46.073	+++++	+++++
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.535	4.035-5.035	+++++	+++++

Data File: \\target\share\chem3\nt10.1\20230501_b\20230501_b\NT10050123025.D

Page 1

Date : 01-May-2023 14:52

Client ID:

Instrument: nt10.1

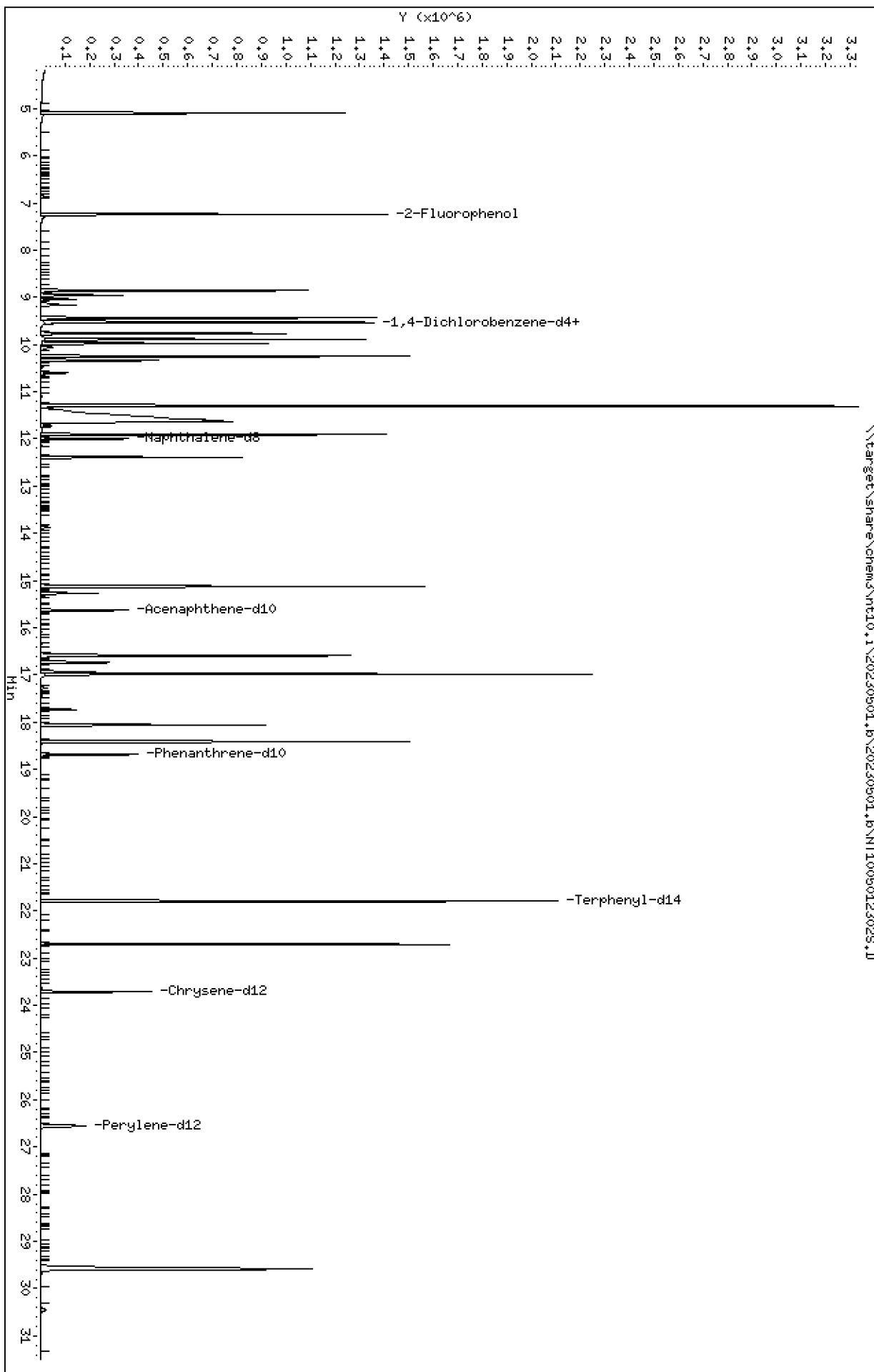
Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

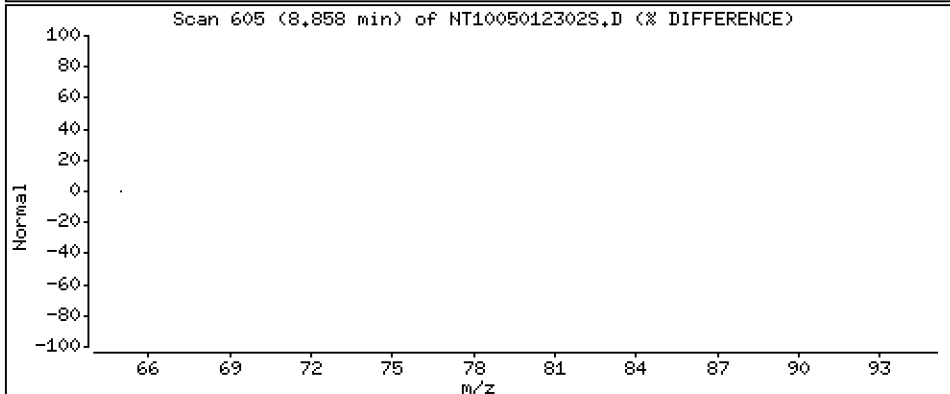
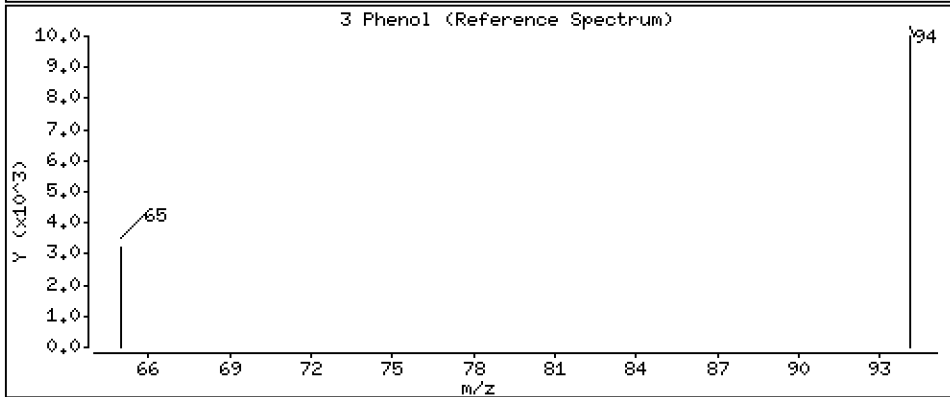
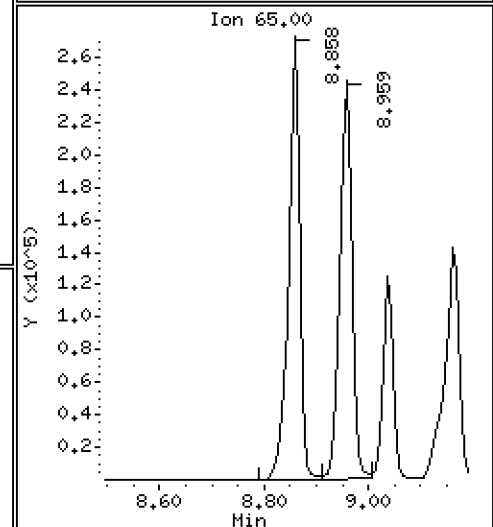
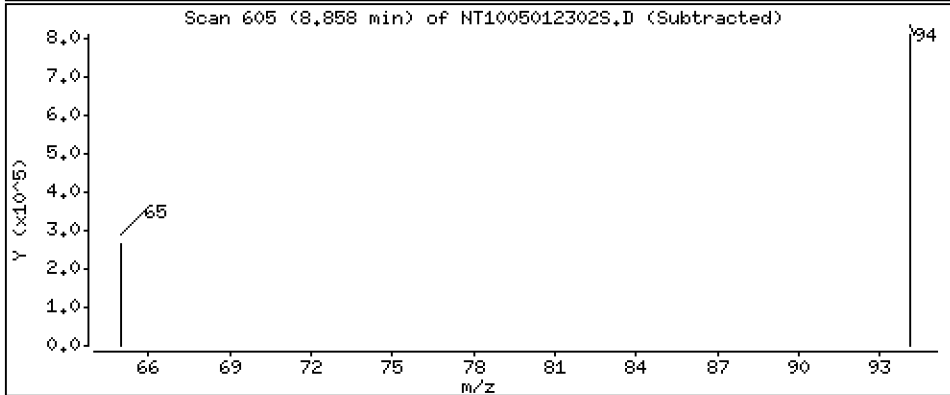
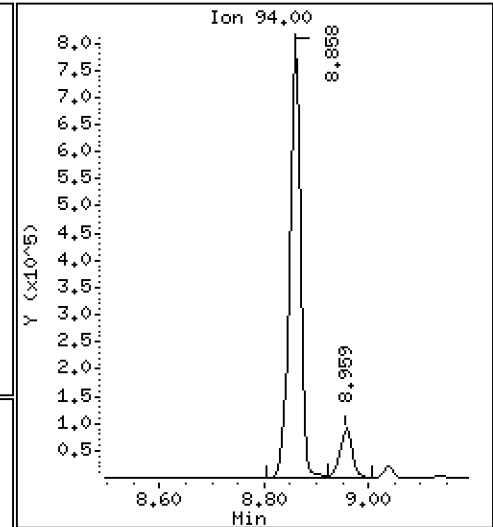
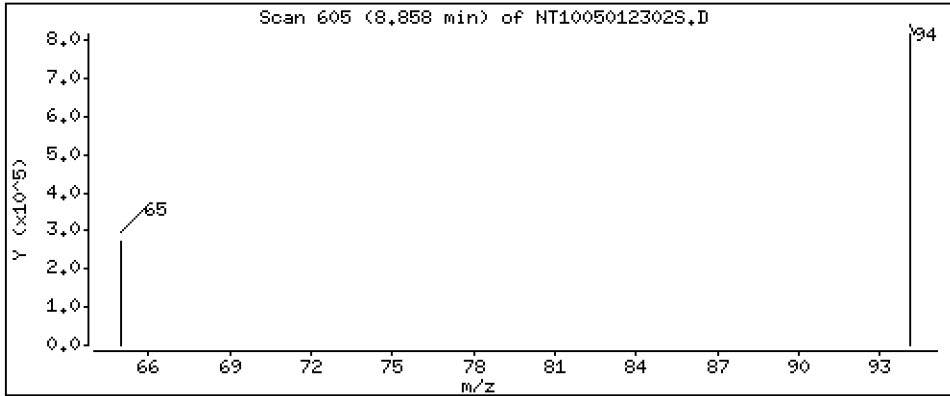
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 19,23 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

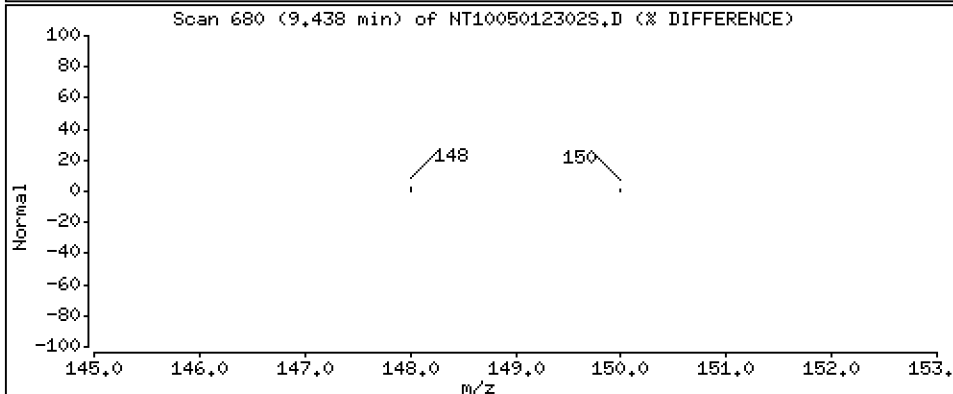
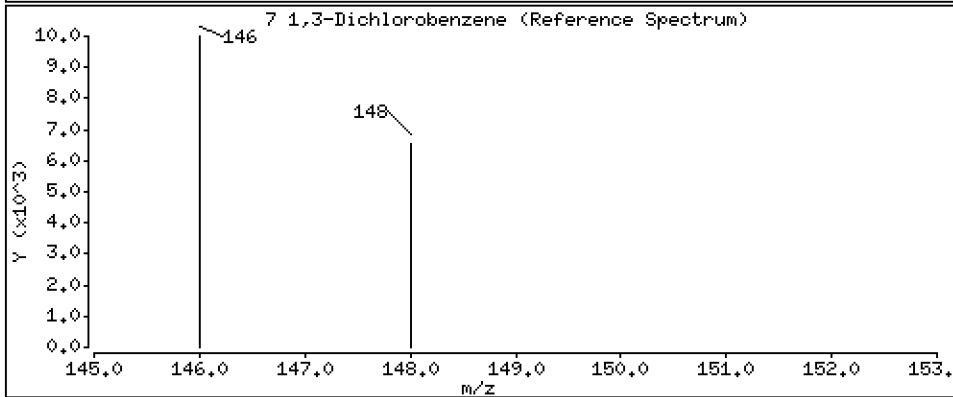
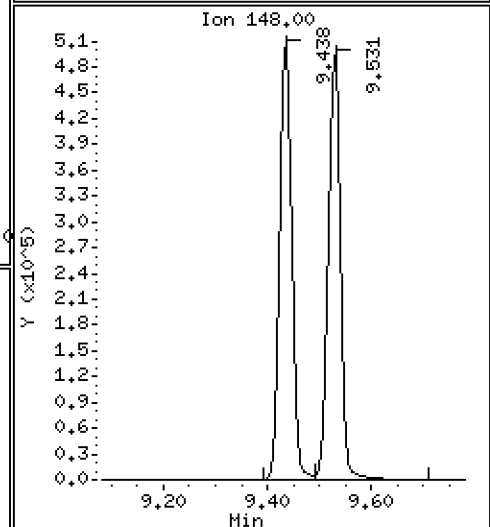
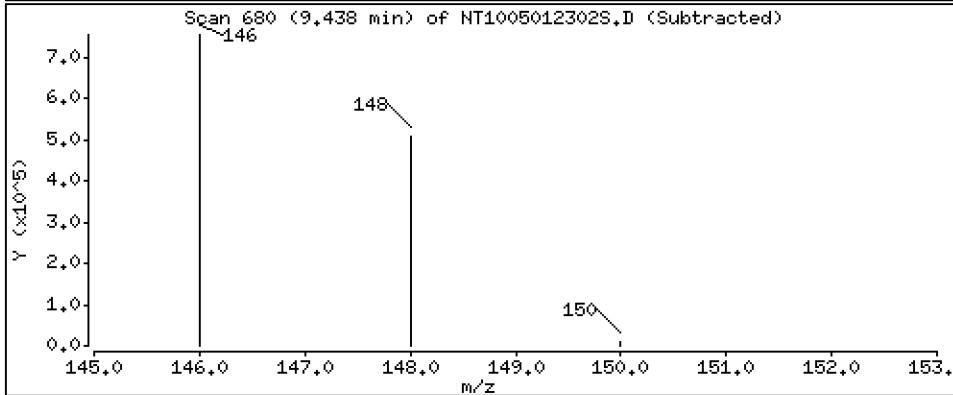
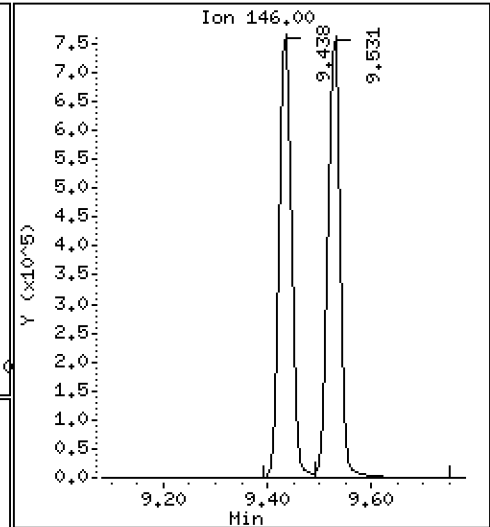
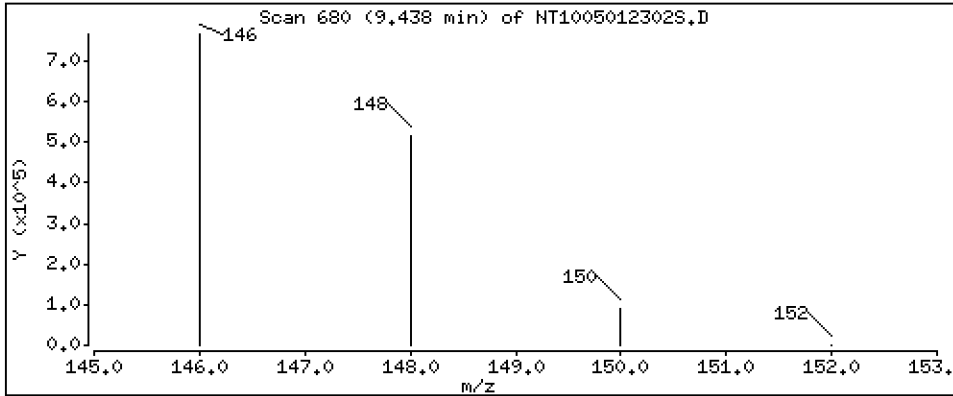
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 18,56 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

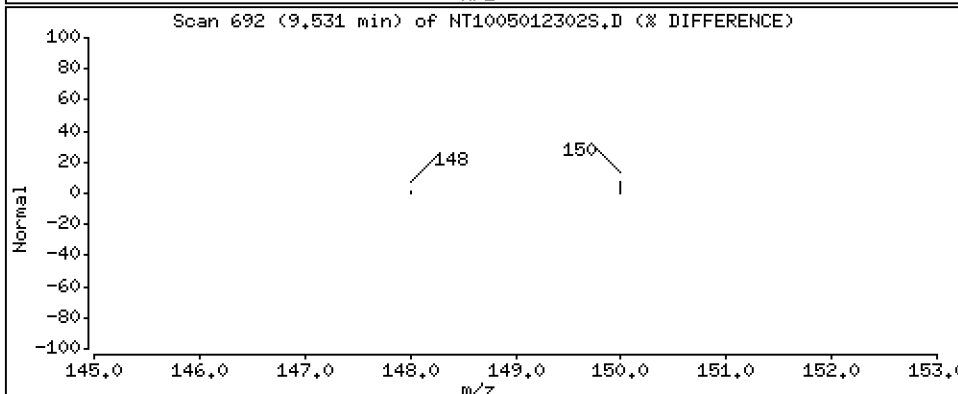
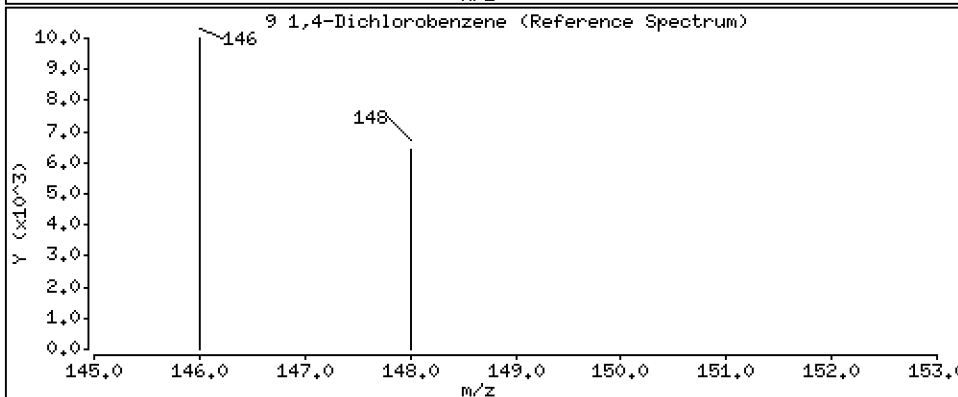
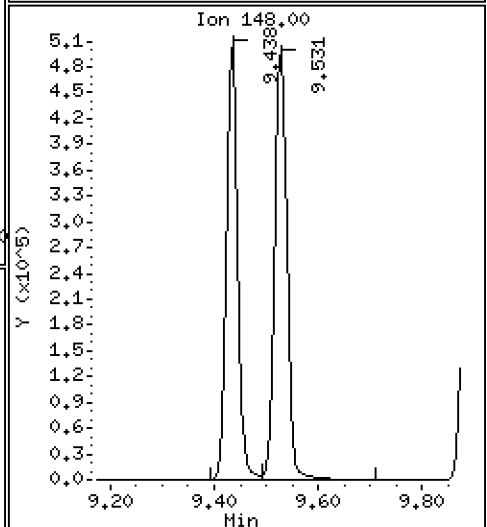
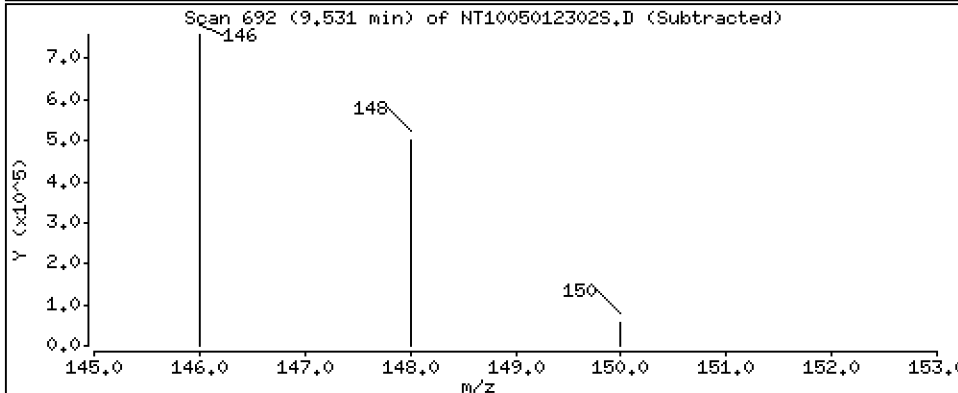
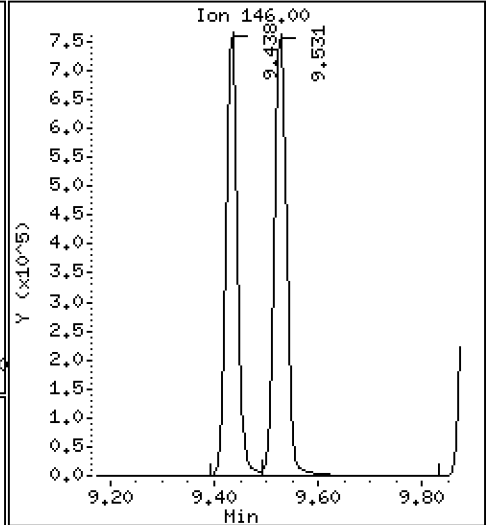
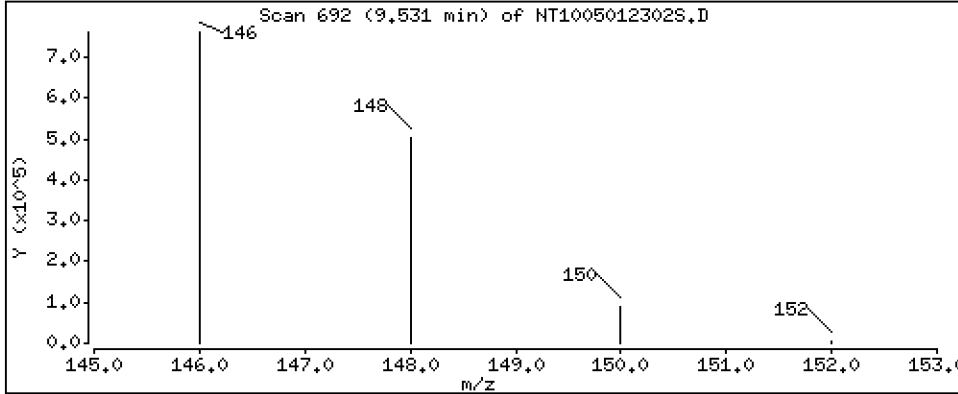
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 18,61 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

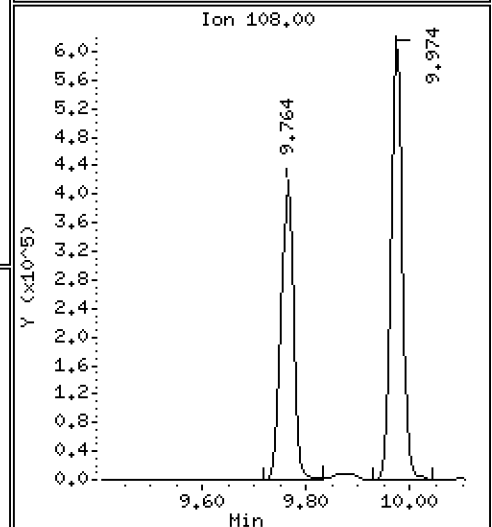
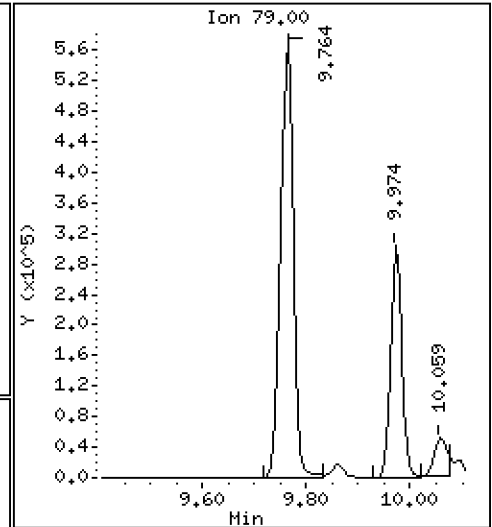
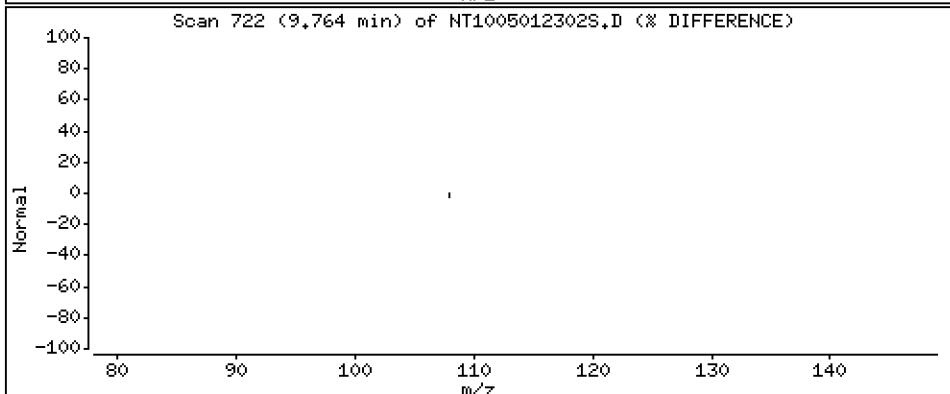
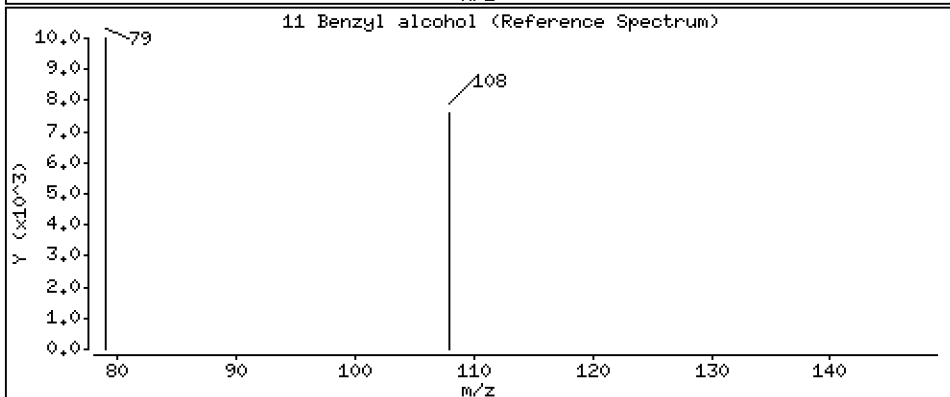
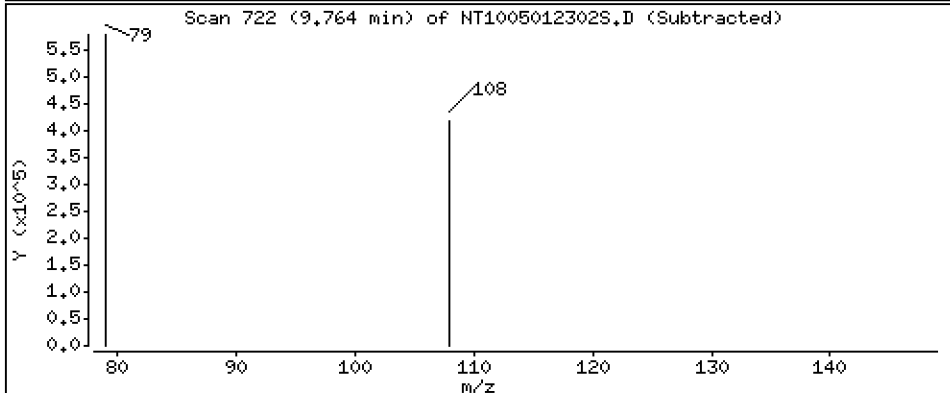
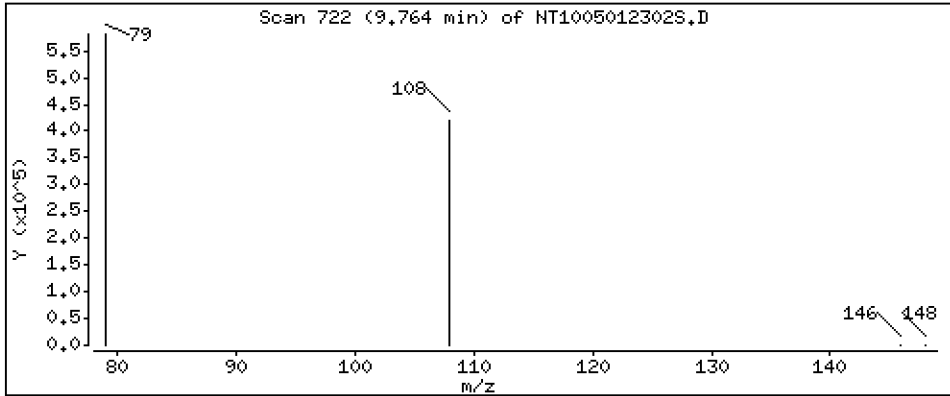
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 21.52 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

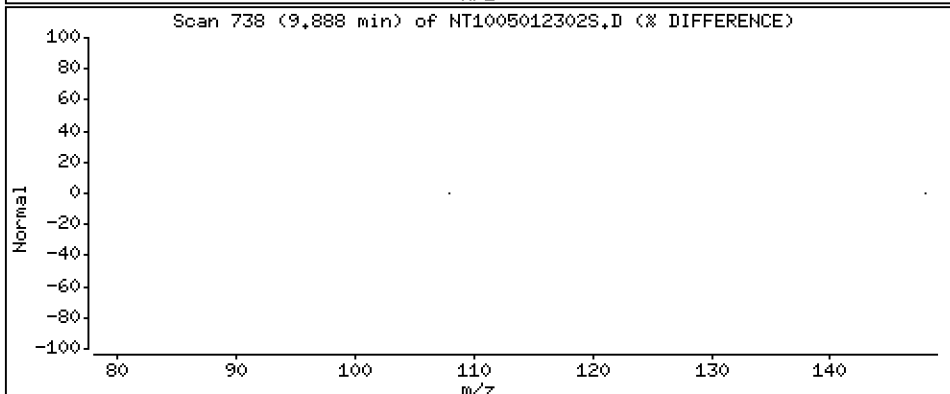
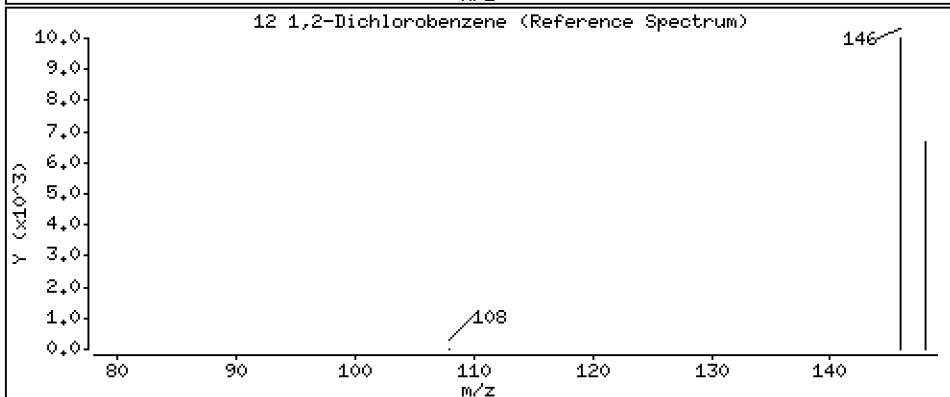
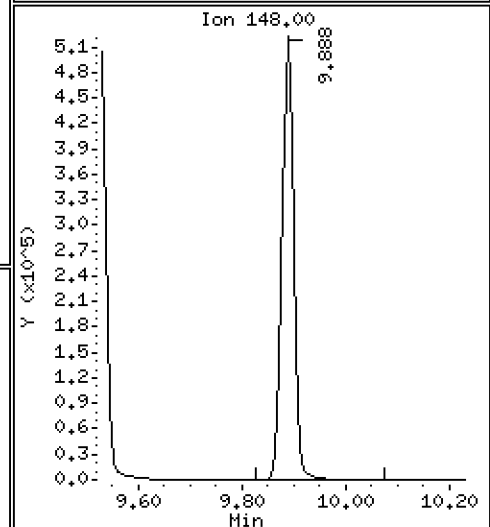
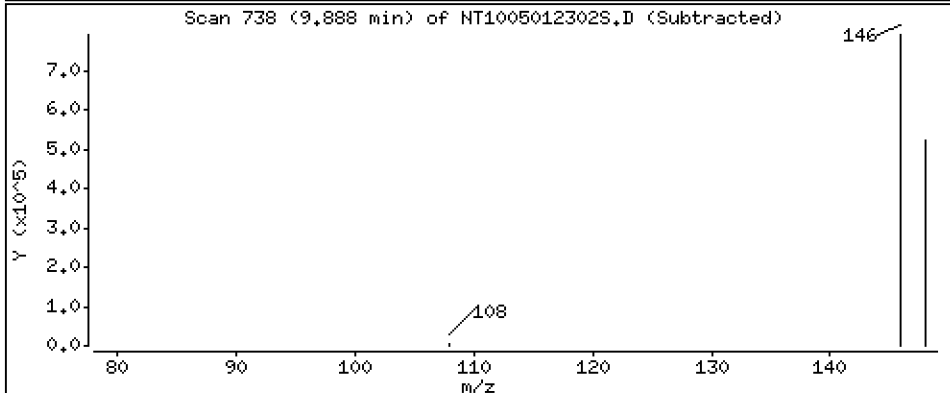
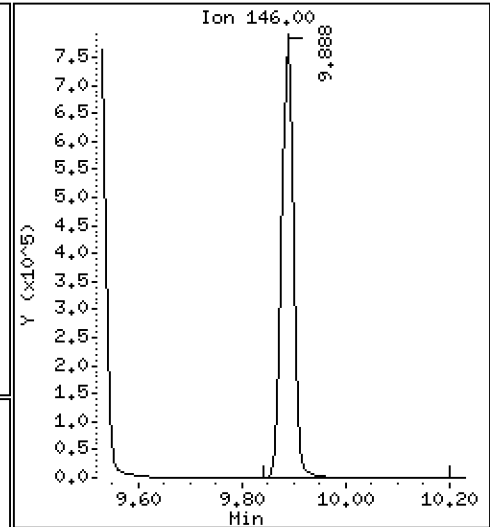
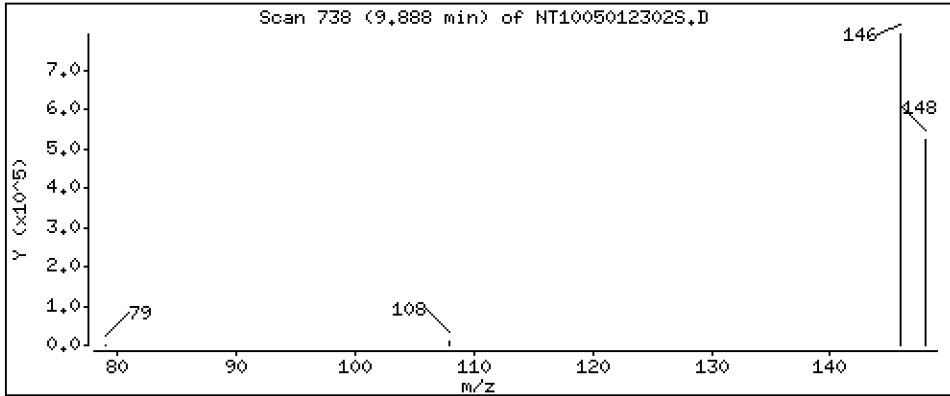
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 18,94 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

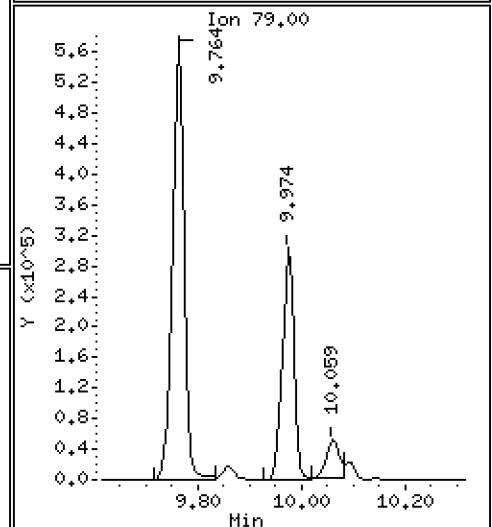
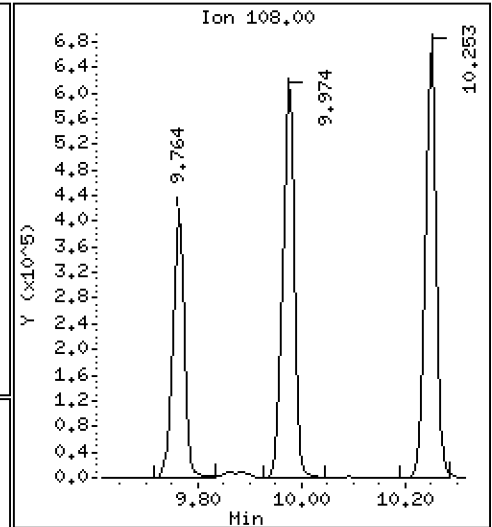
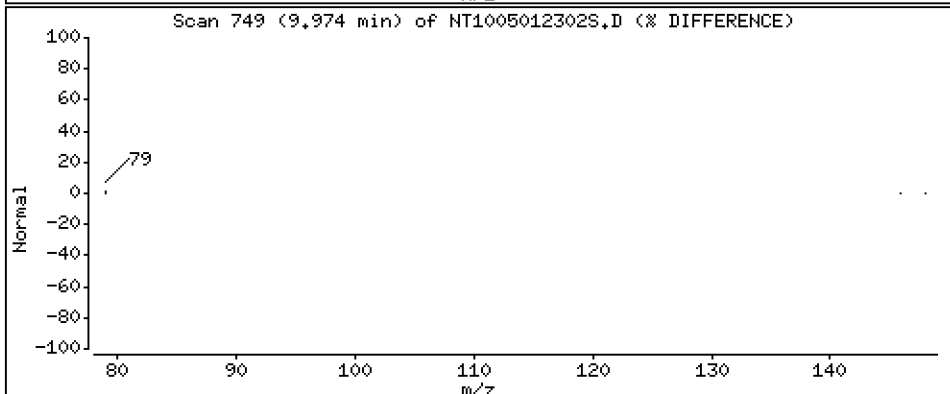
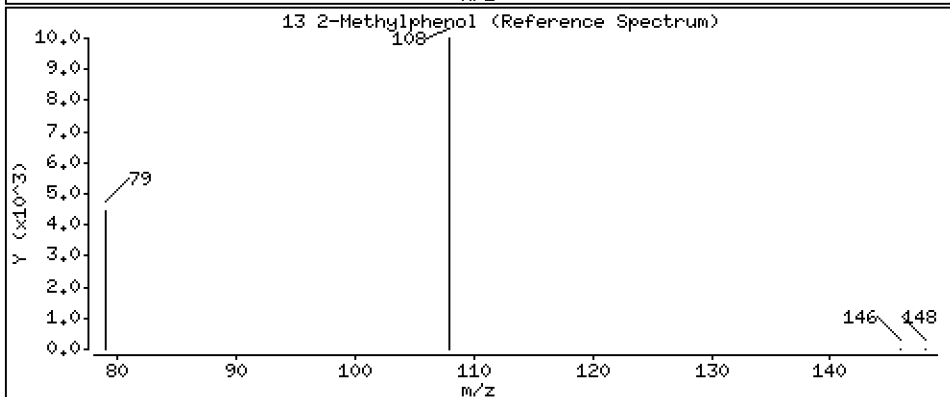
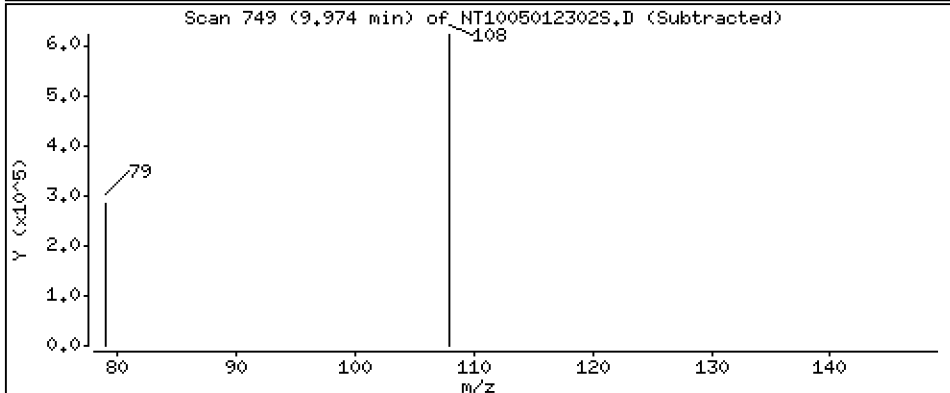
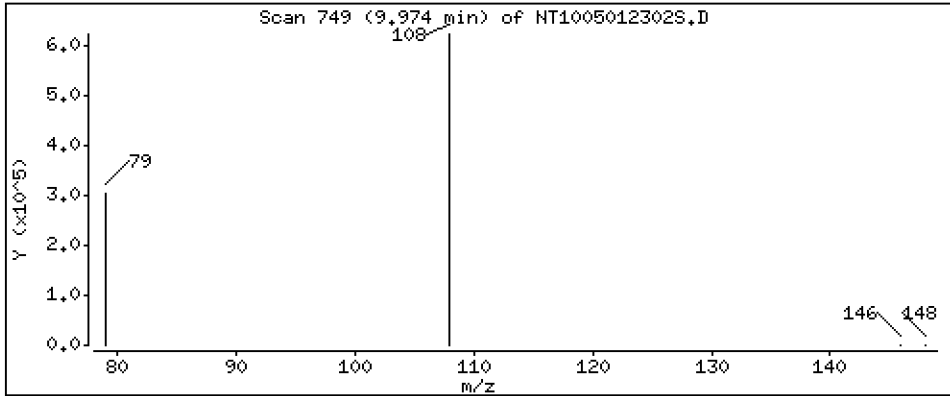
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 20.45 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

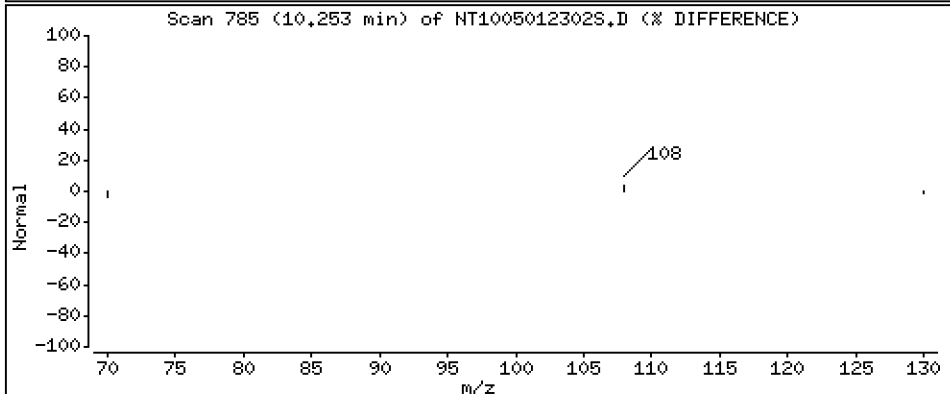
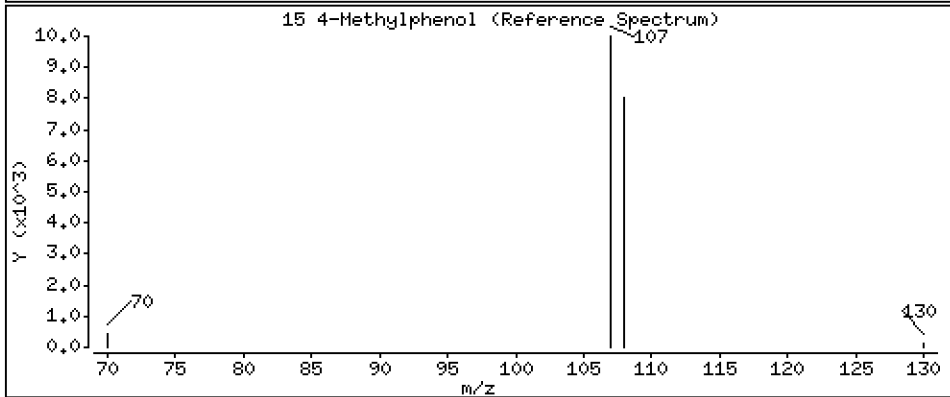
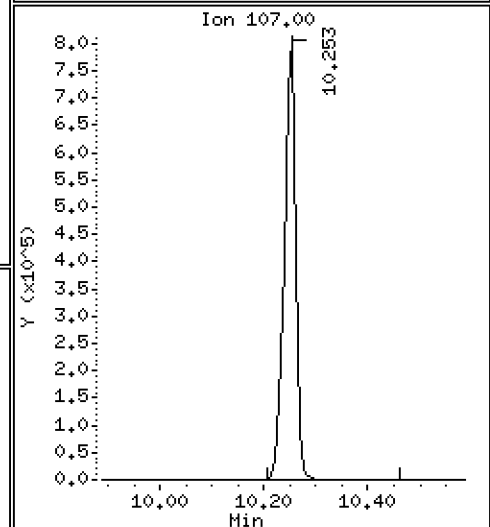
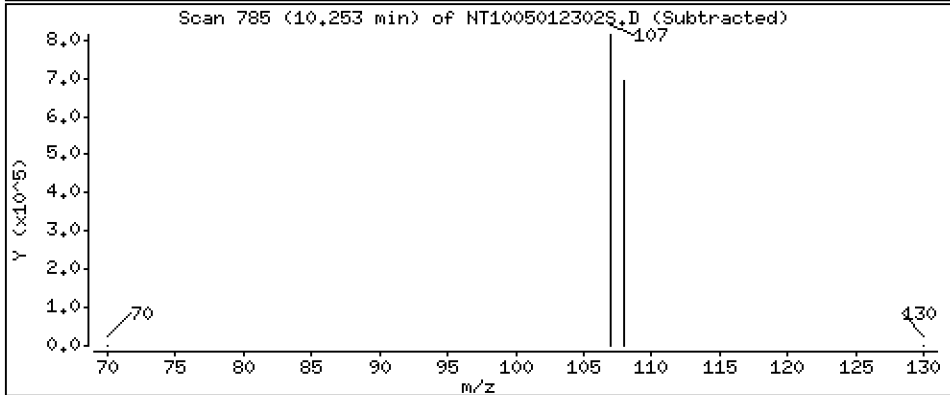
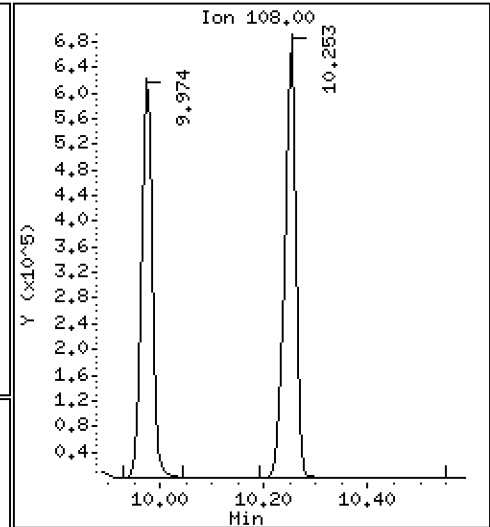
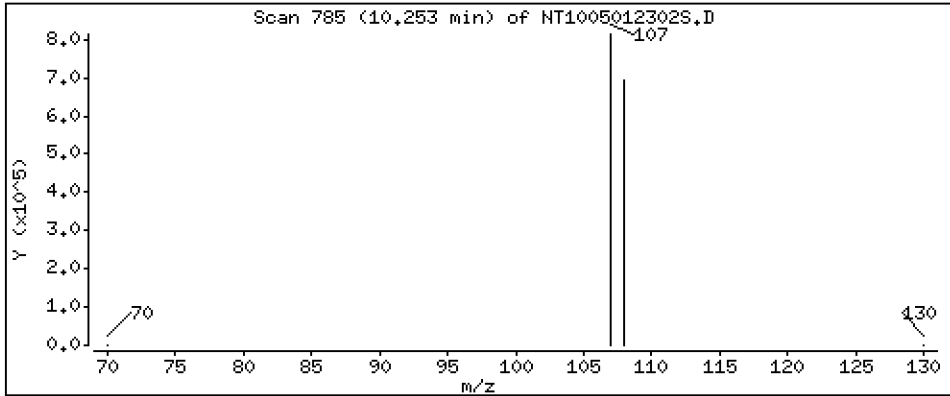
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 21.09 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

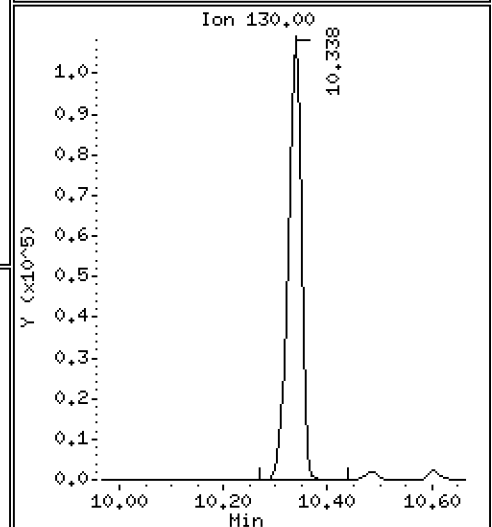
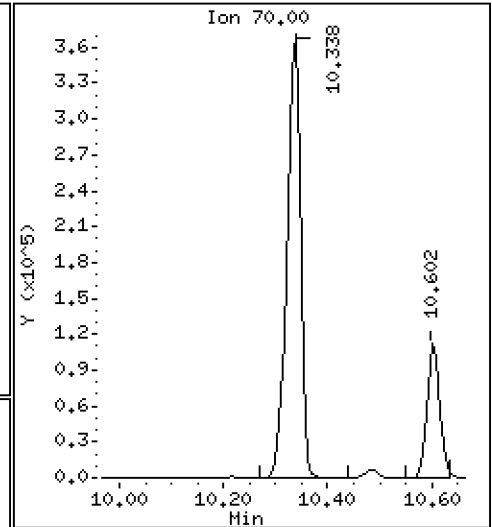
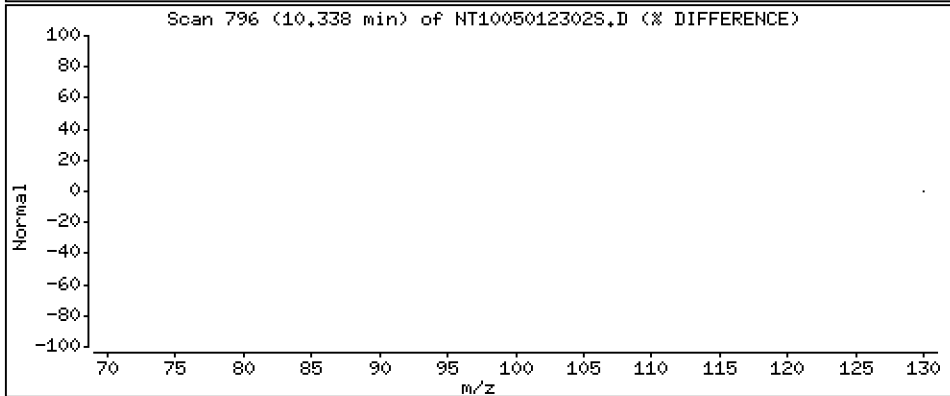
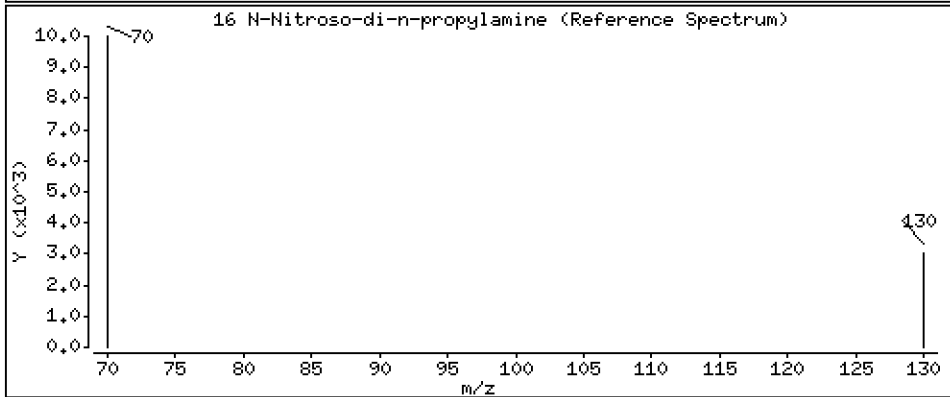
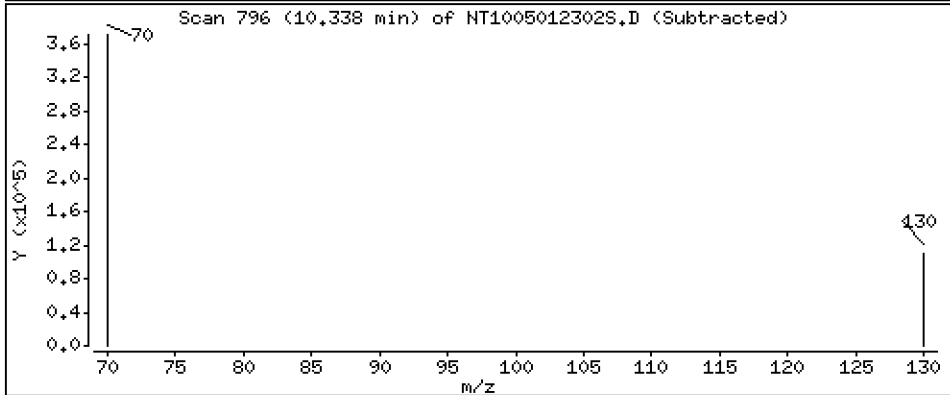
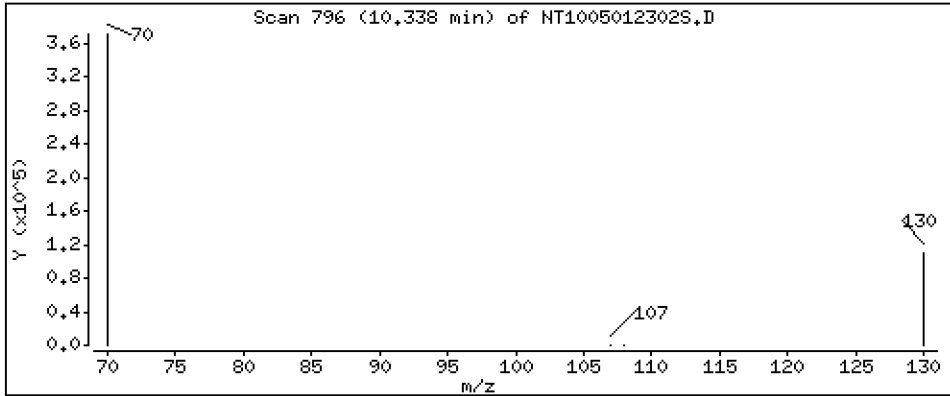
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 19.64 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

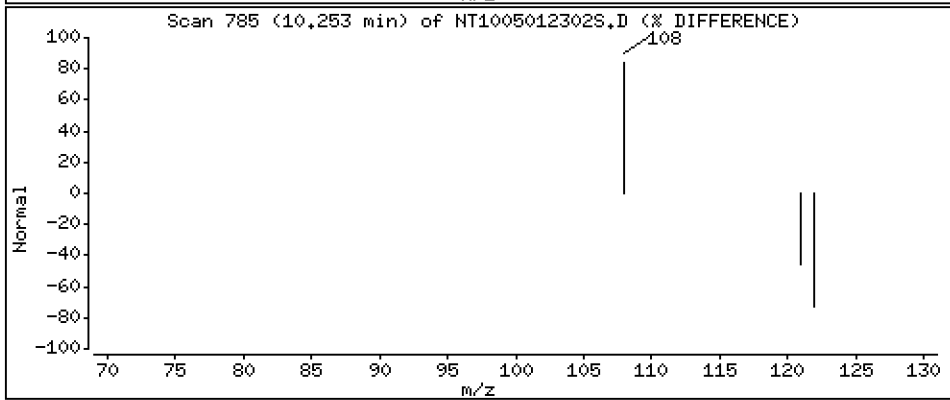
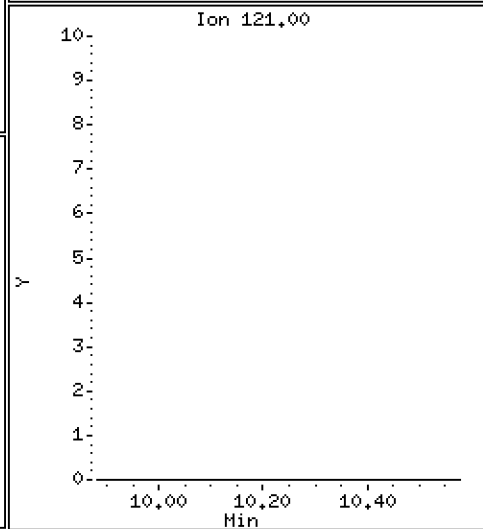
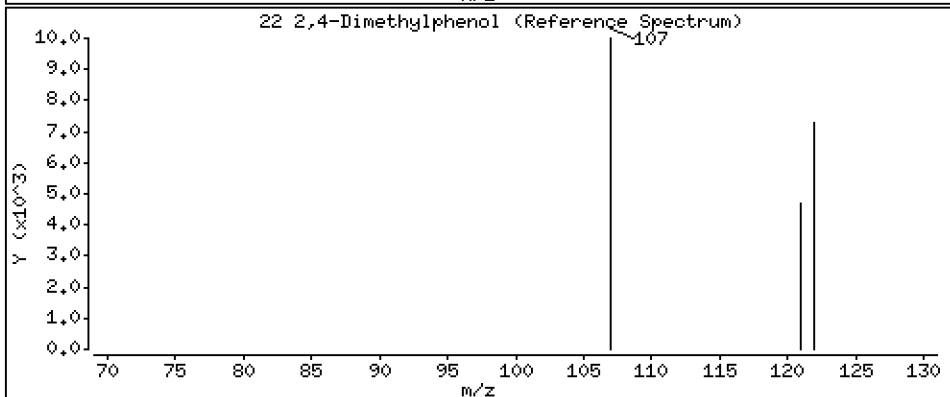
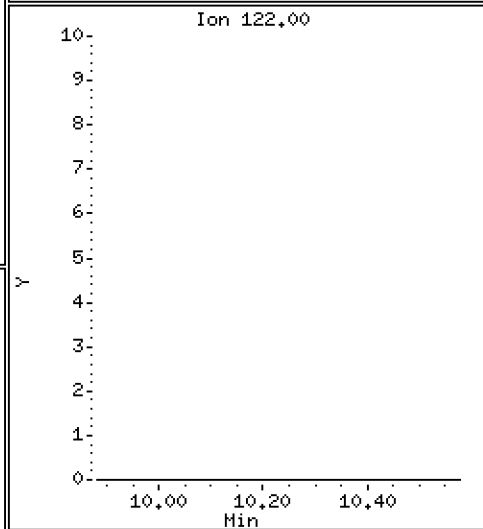
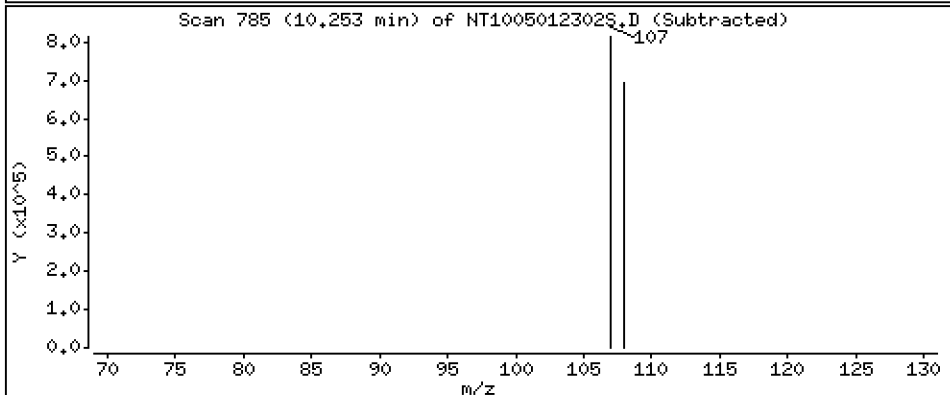
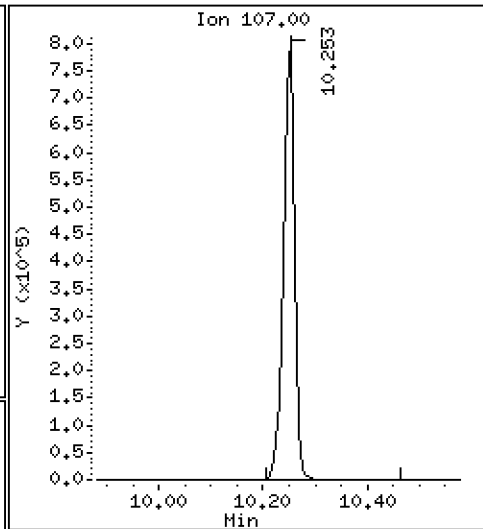
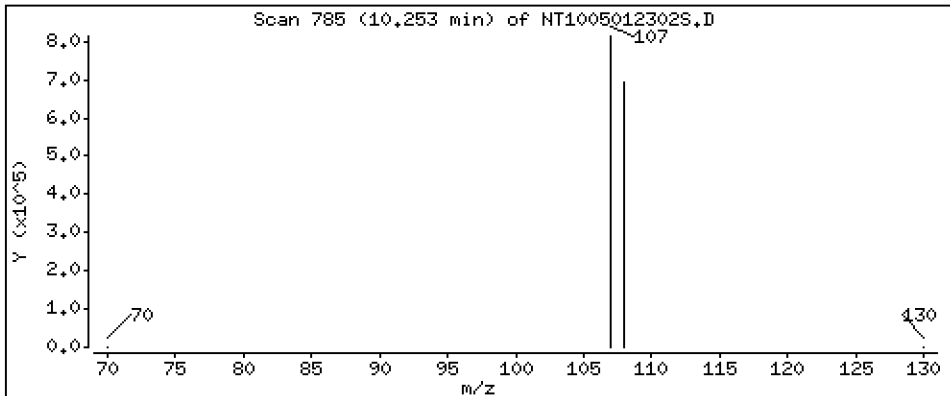
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 36,80 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

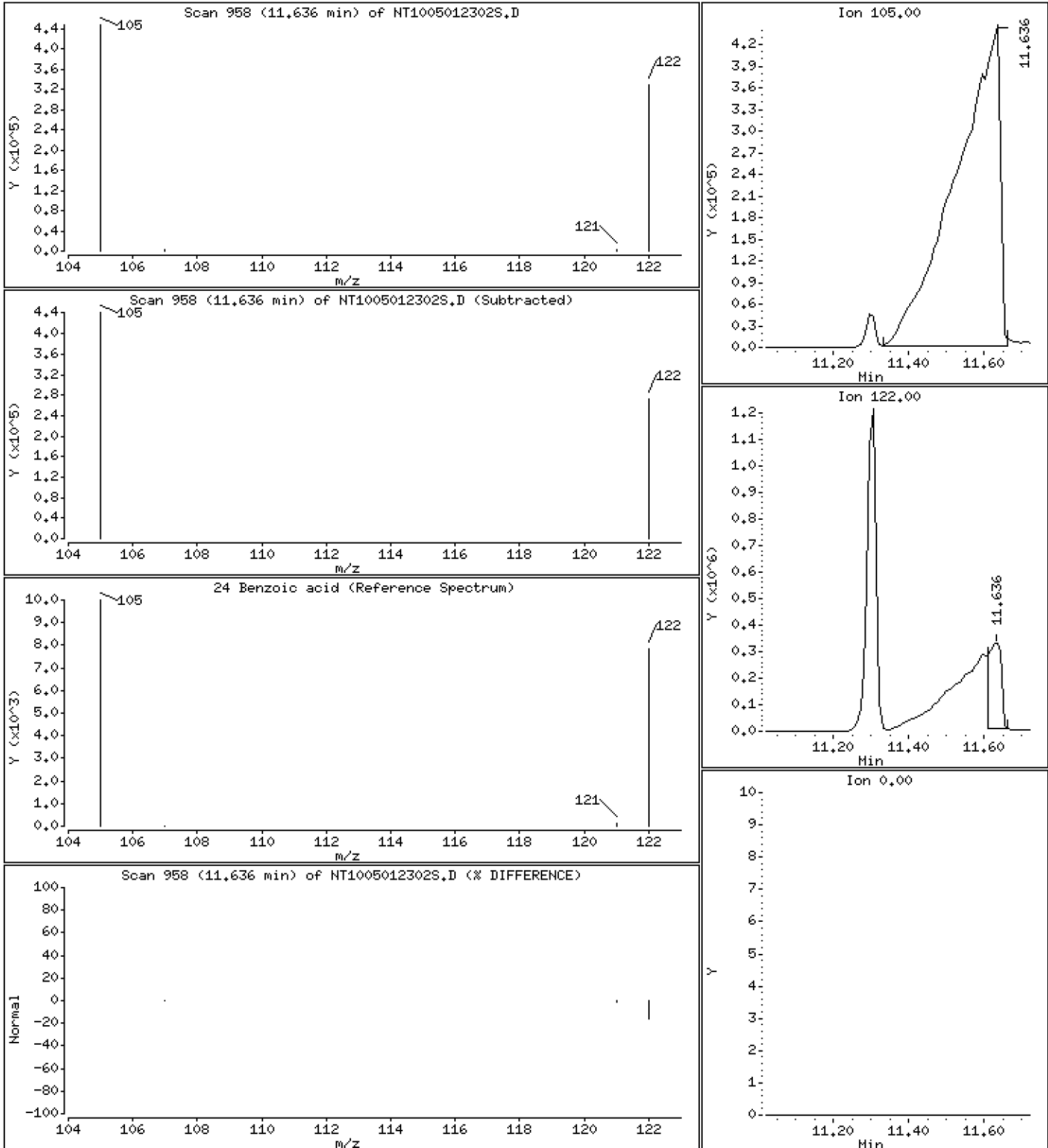
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 60.29 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

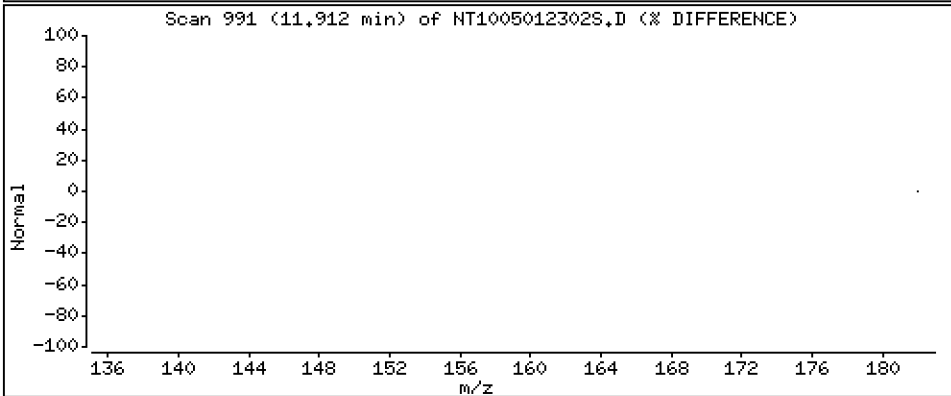
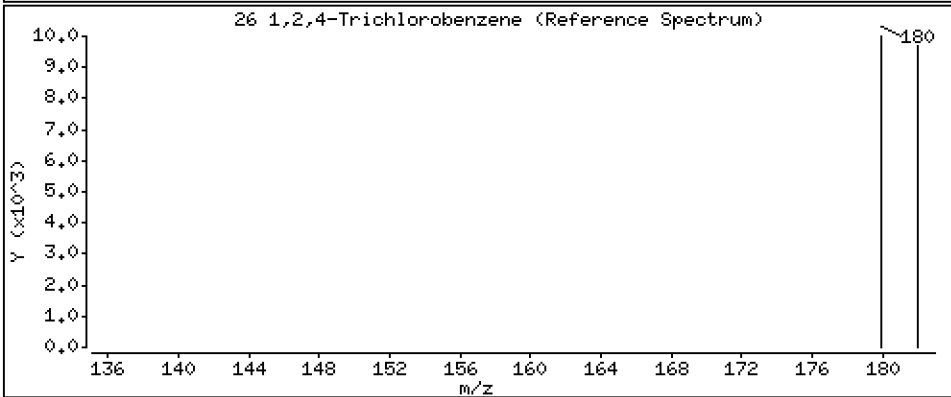
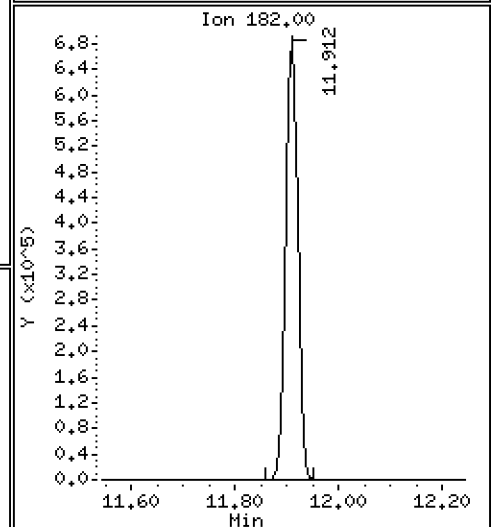
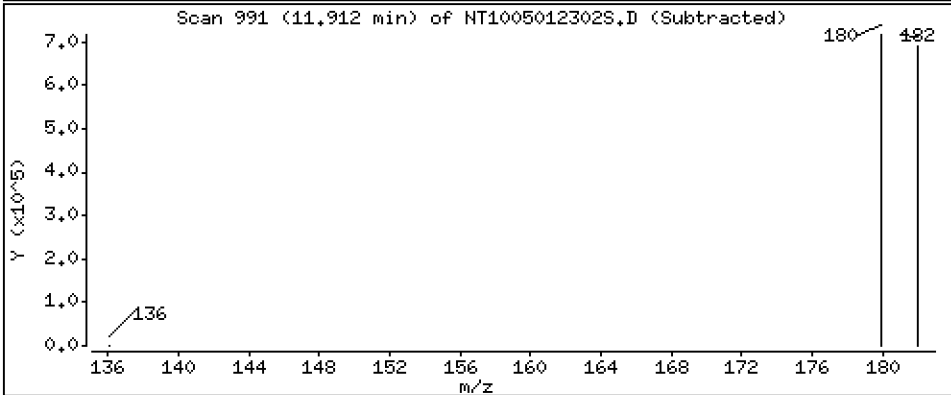
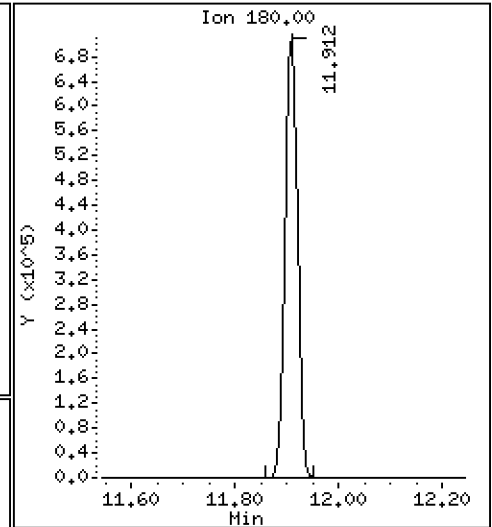
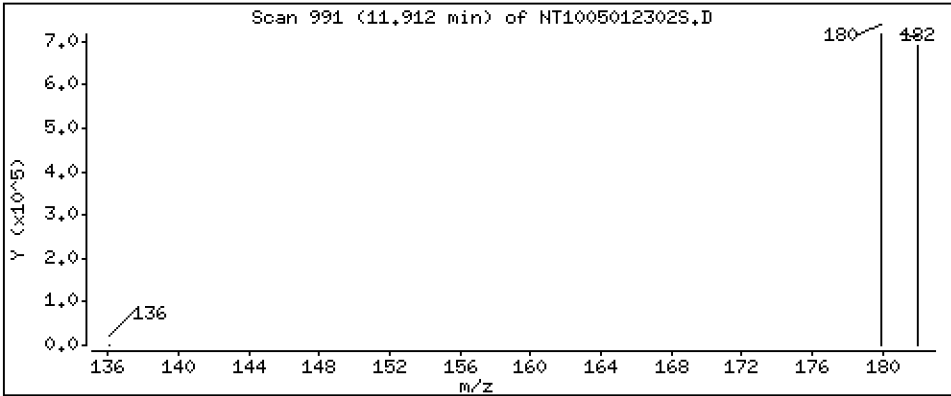
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 19,00 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

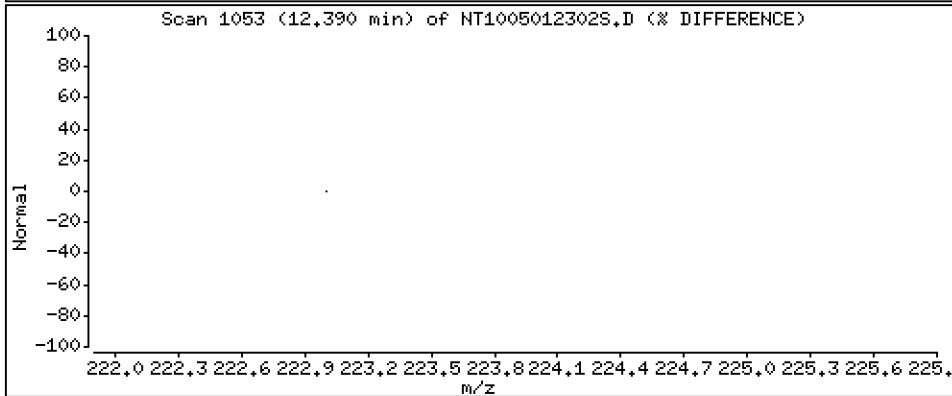
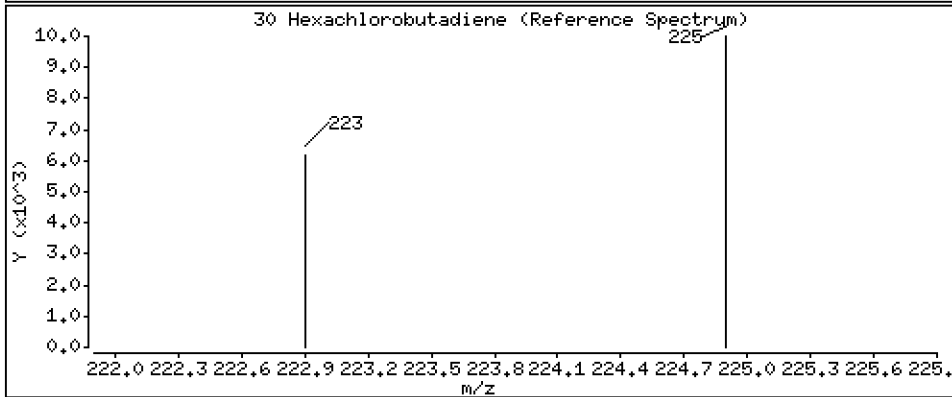
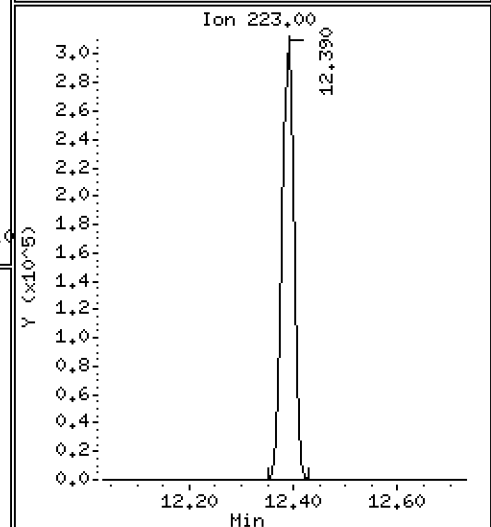
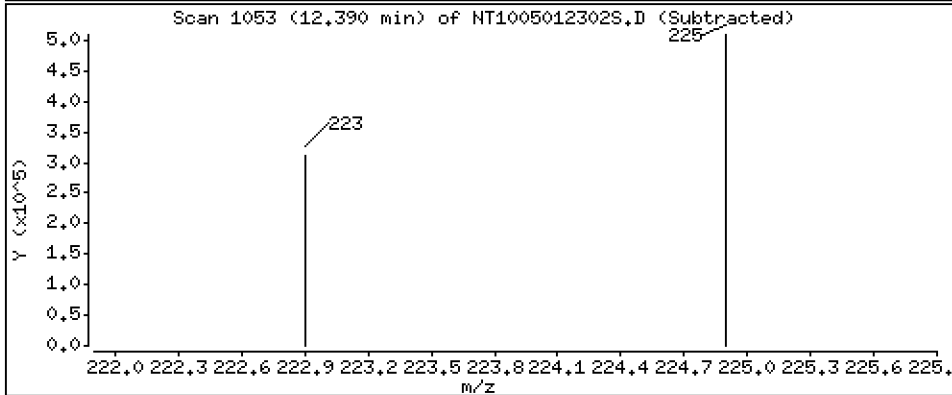
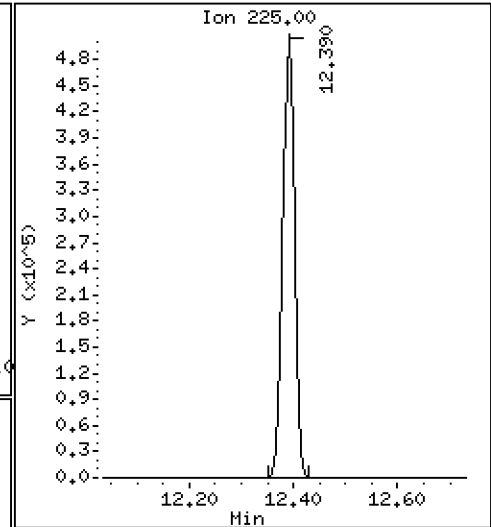
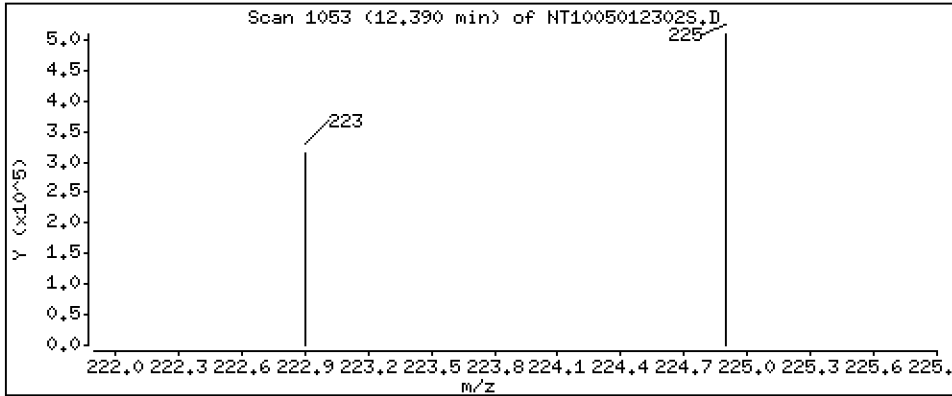
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 19,67 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

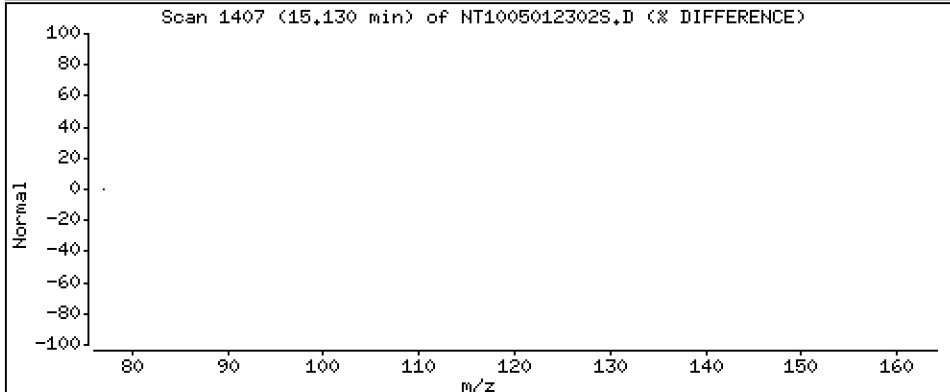
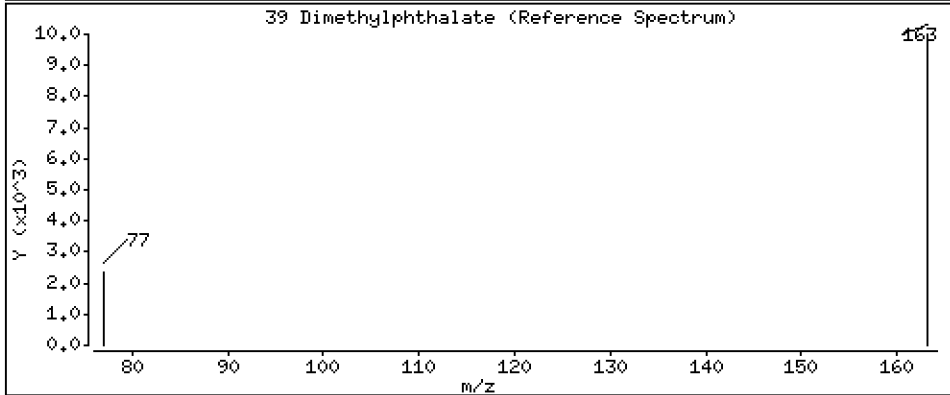
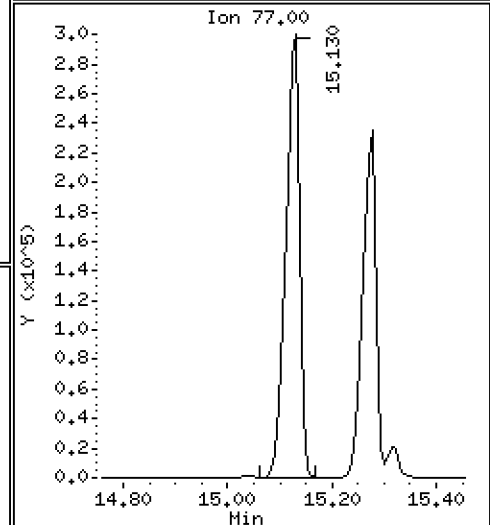
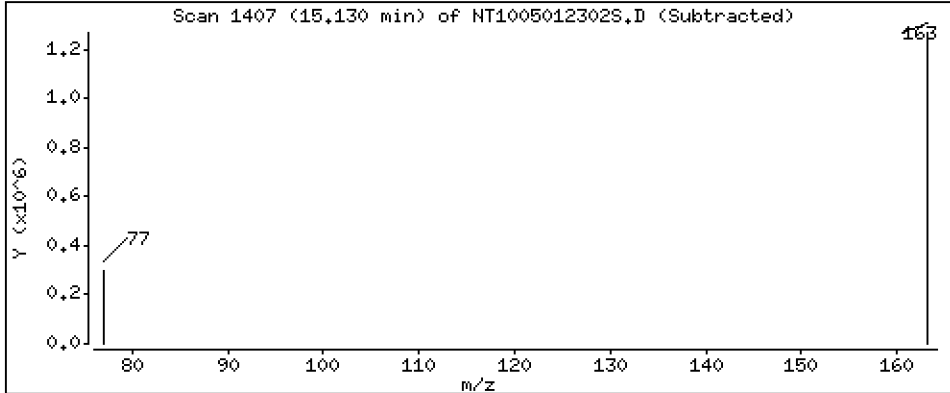
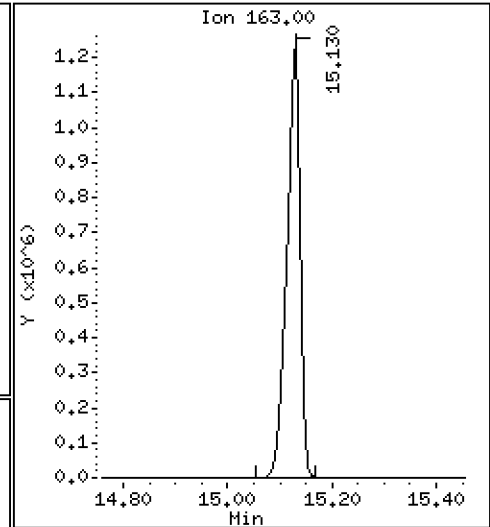
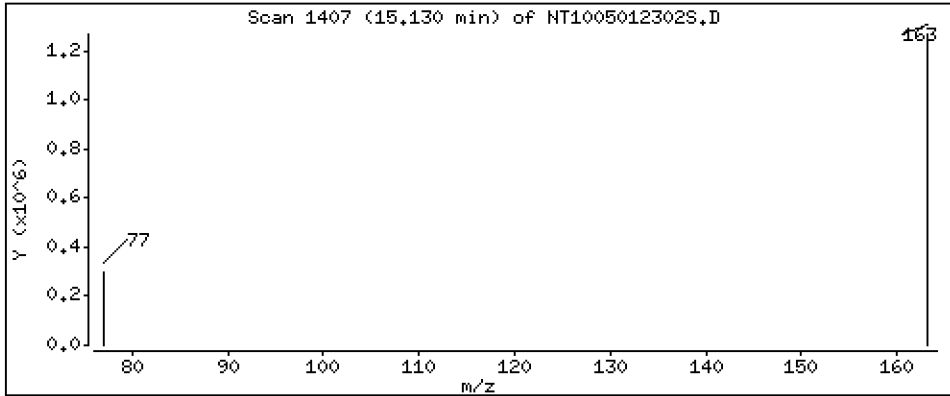
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 19,54 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

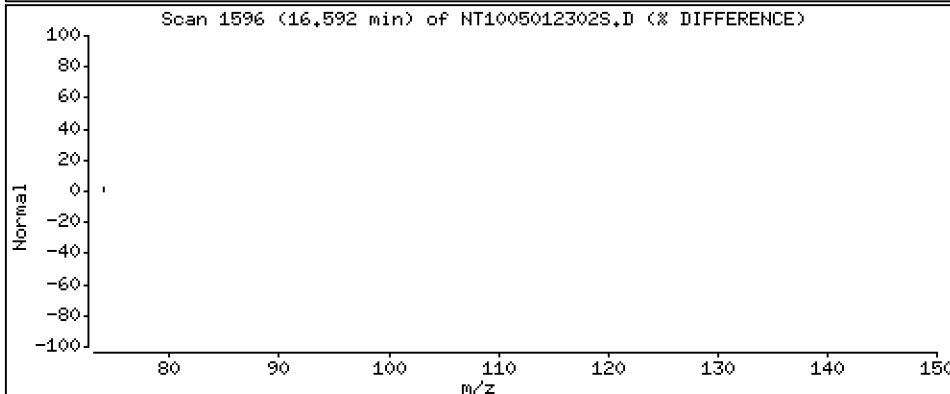
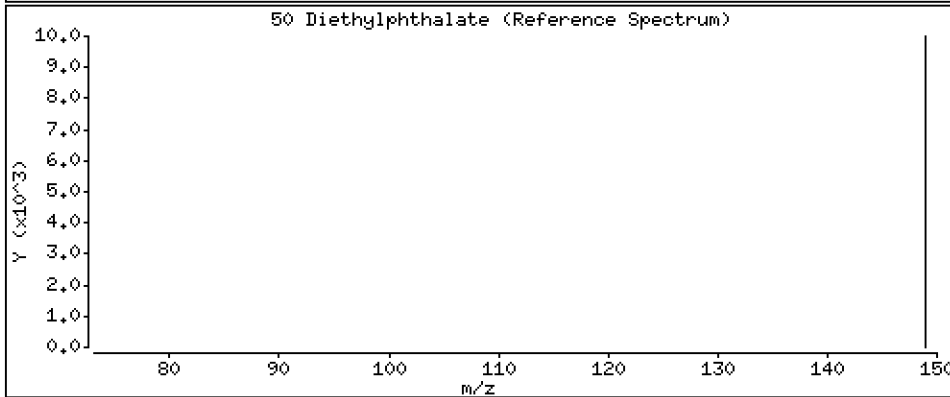
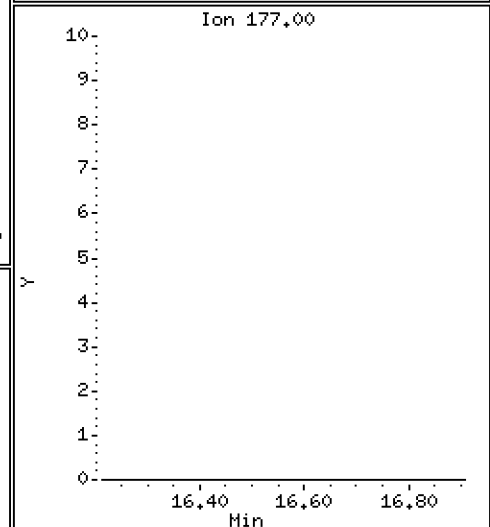
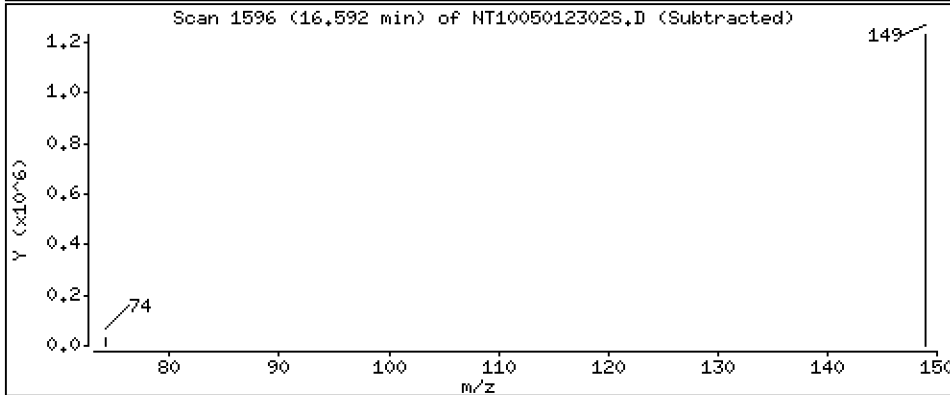
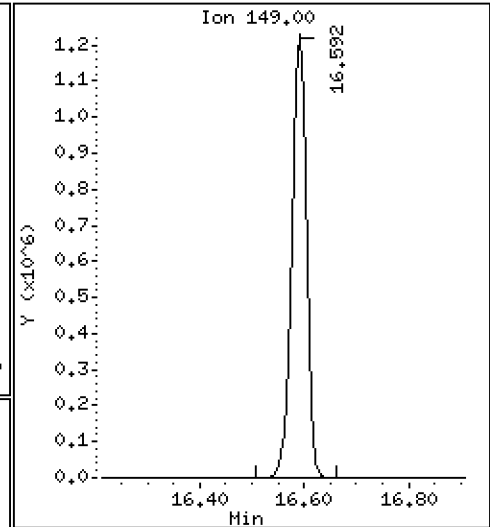
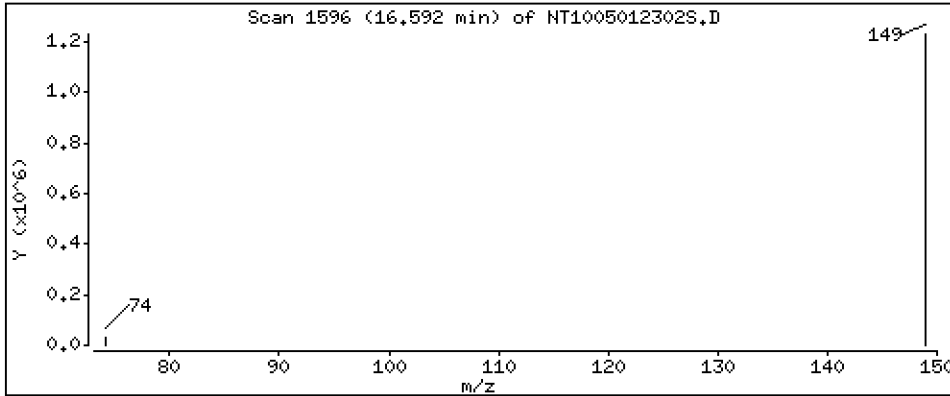
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 20,98 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

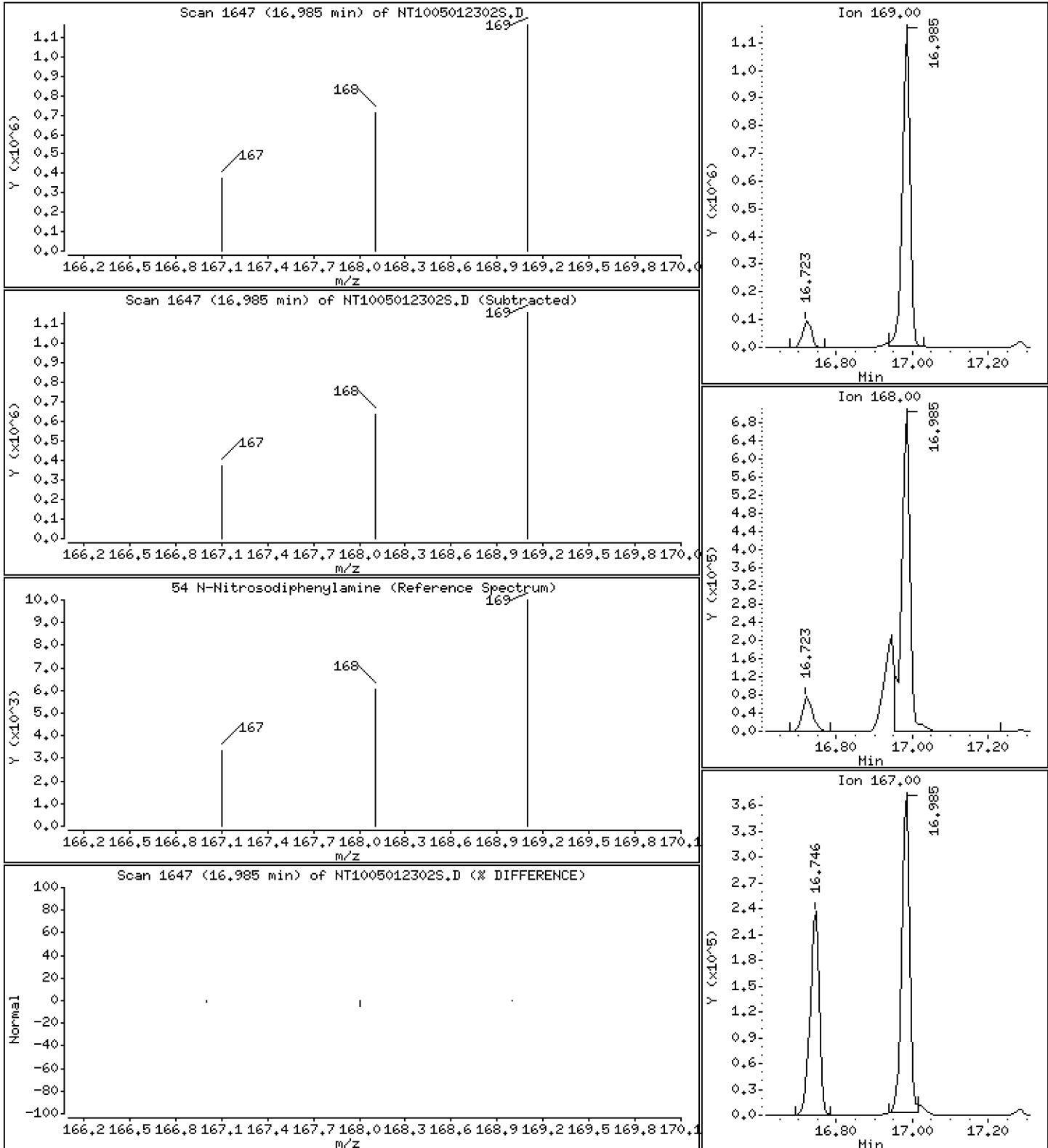
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 20.44 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

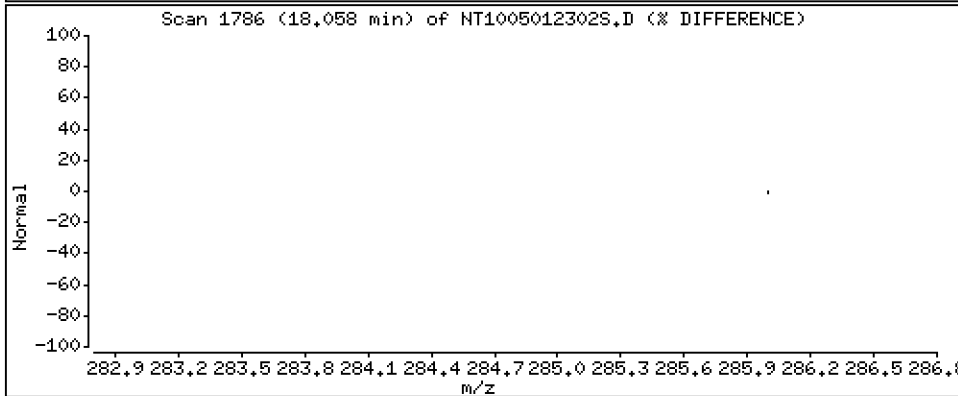
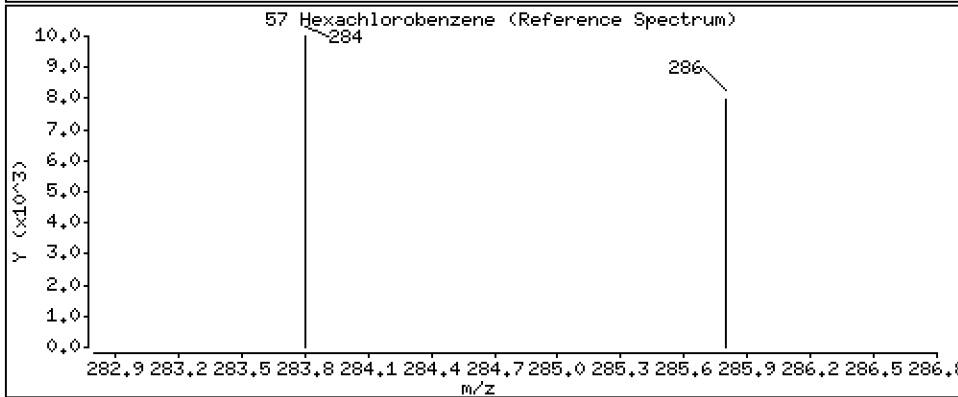
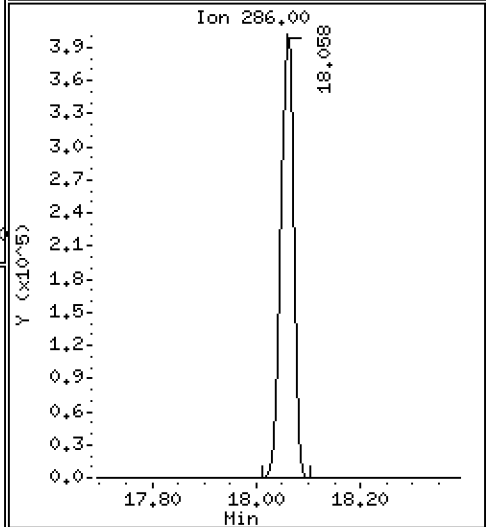
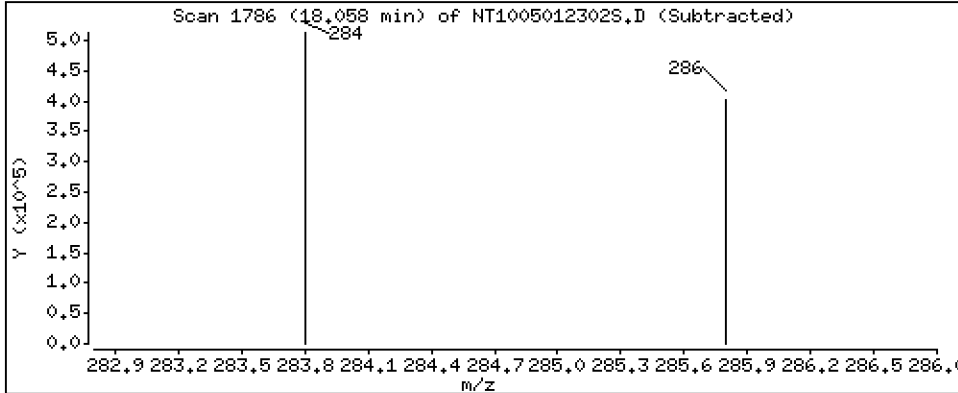
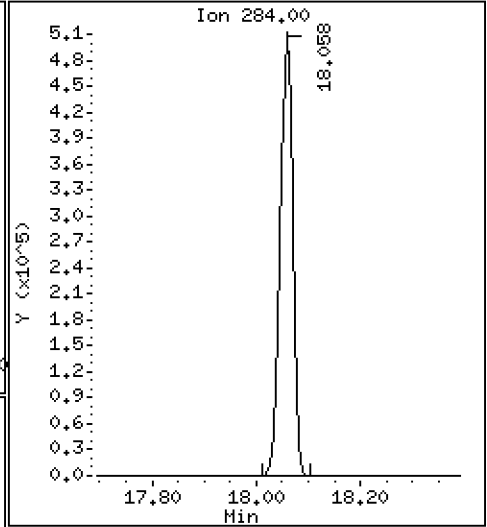
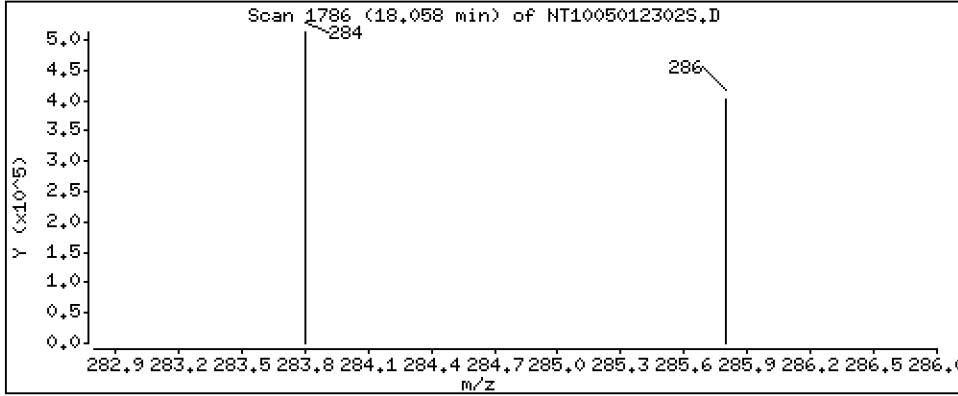
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 20,19 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

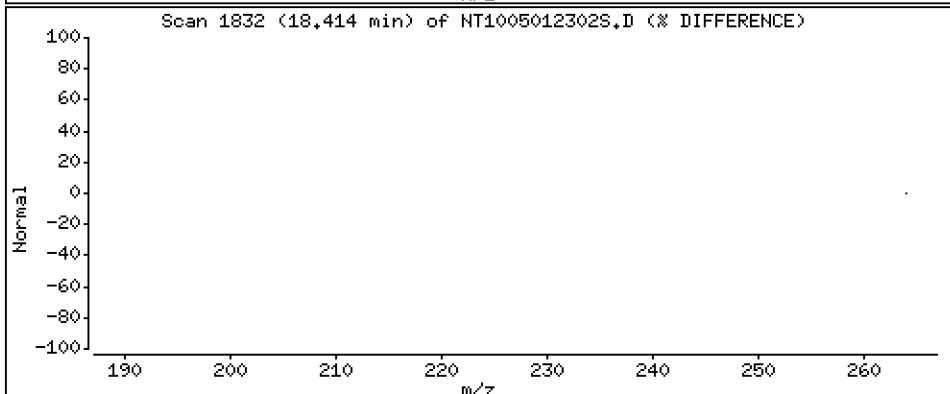
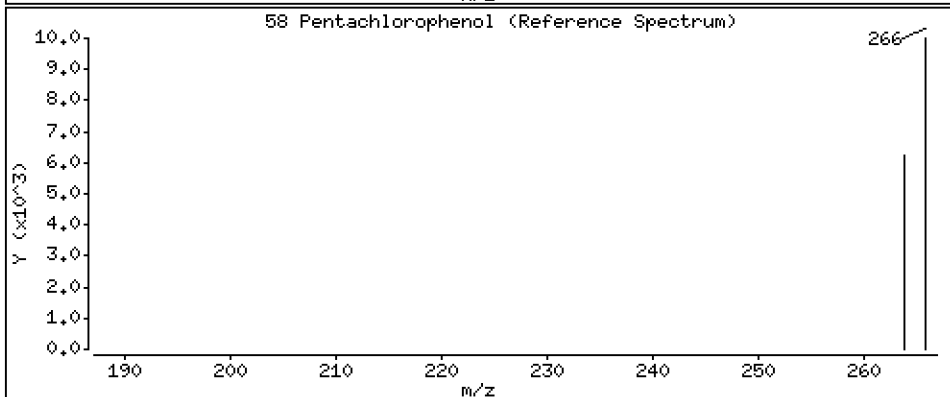
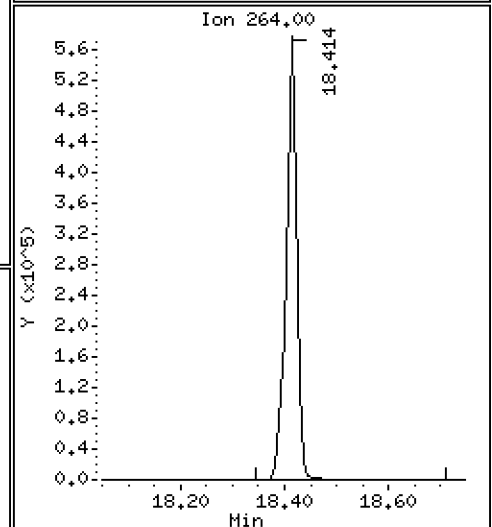
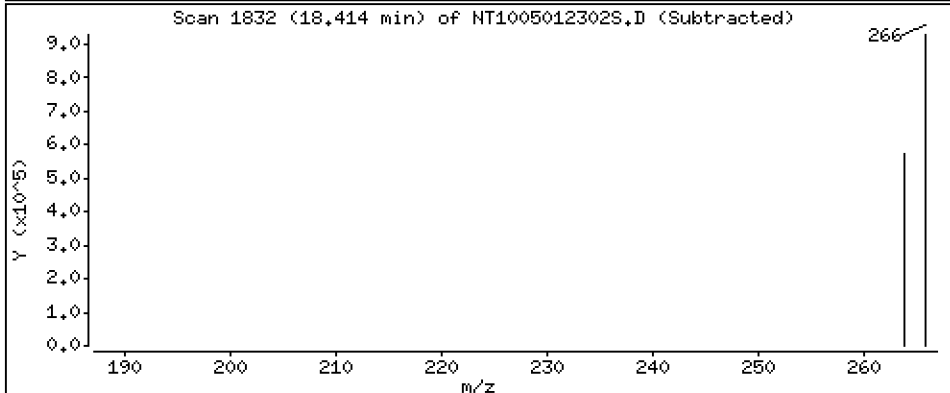
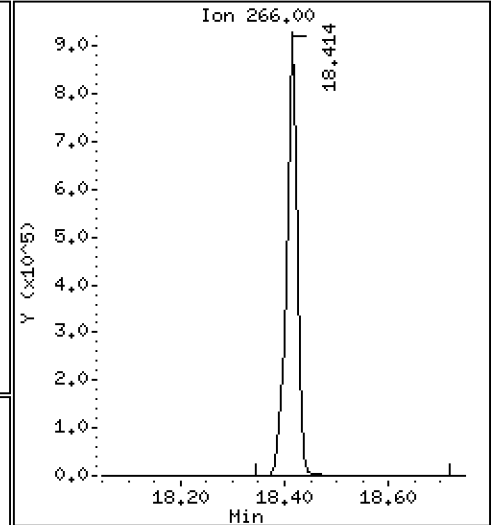
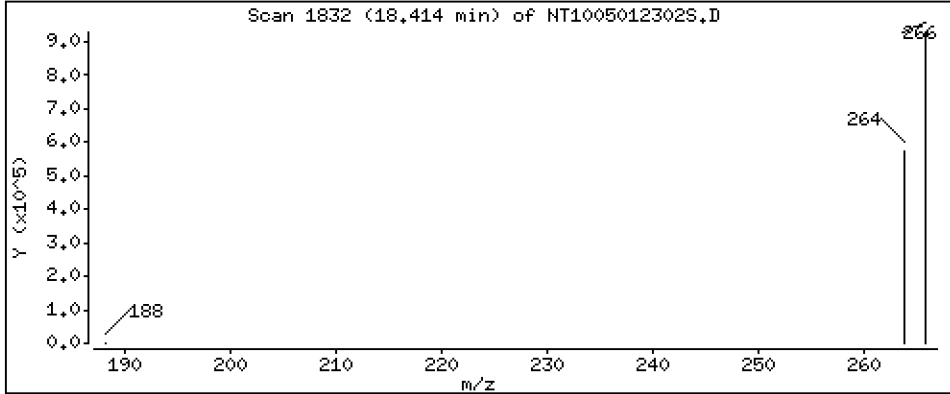
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 29,79 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

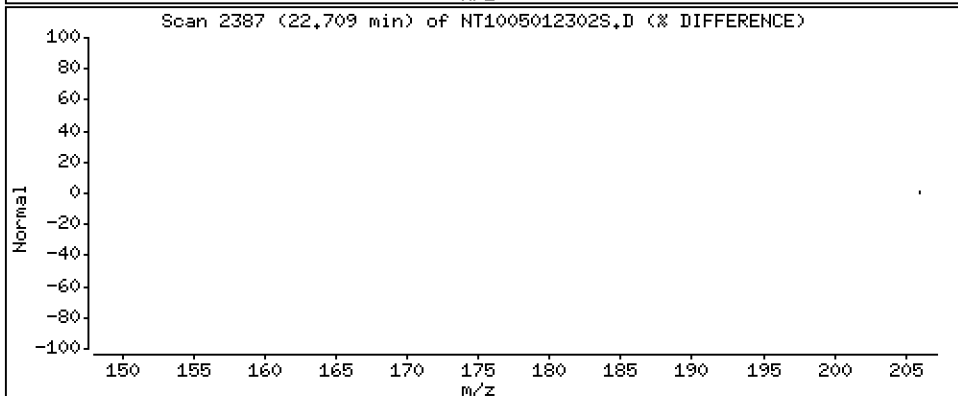
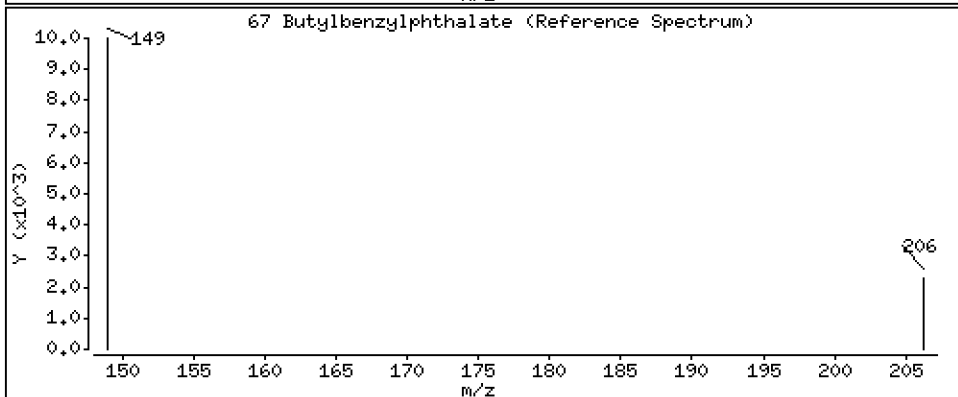
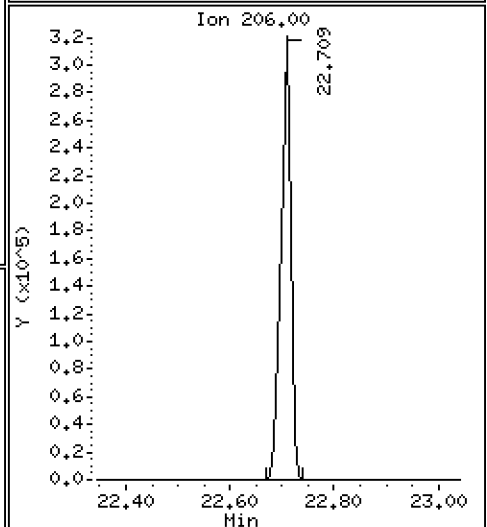
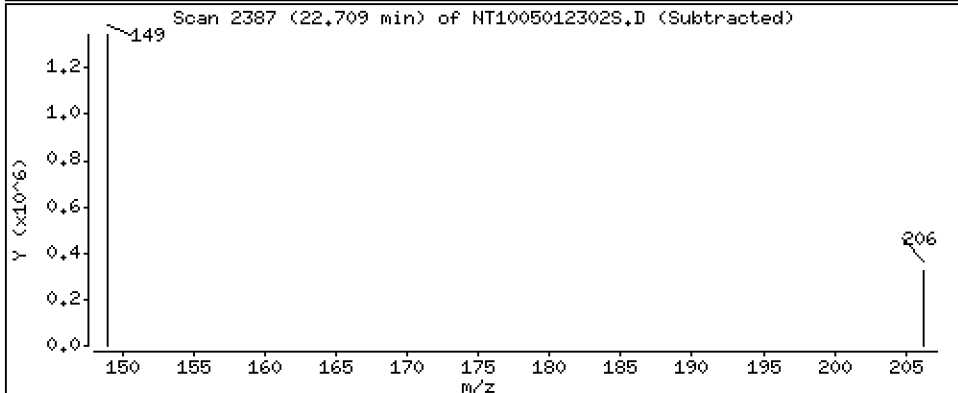
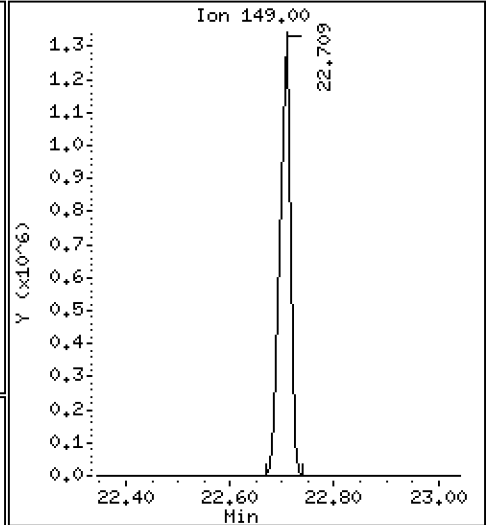
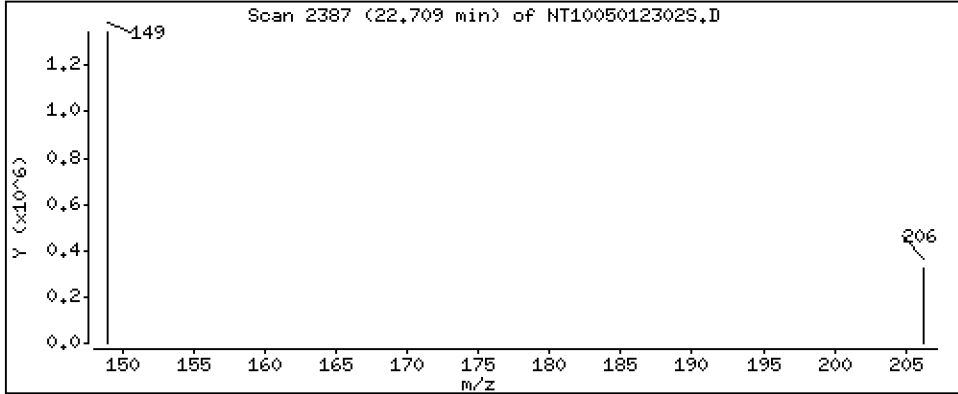
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 15.61 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

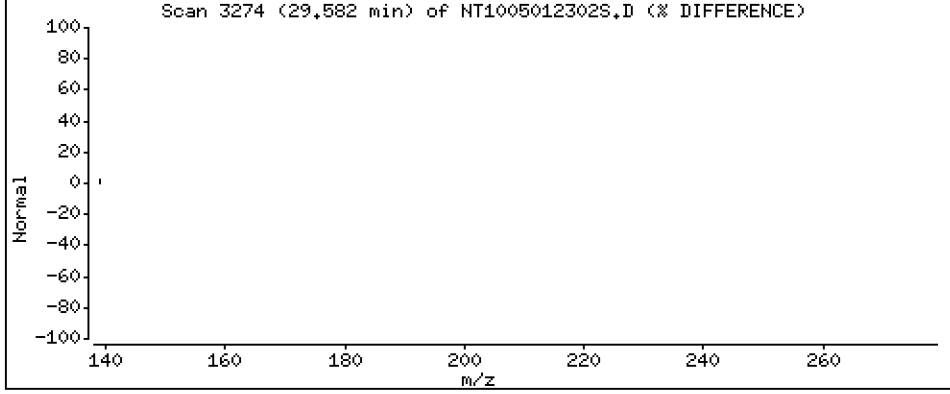
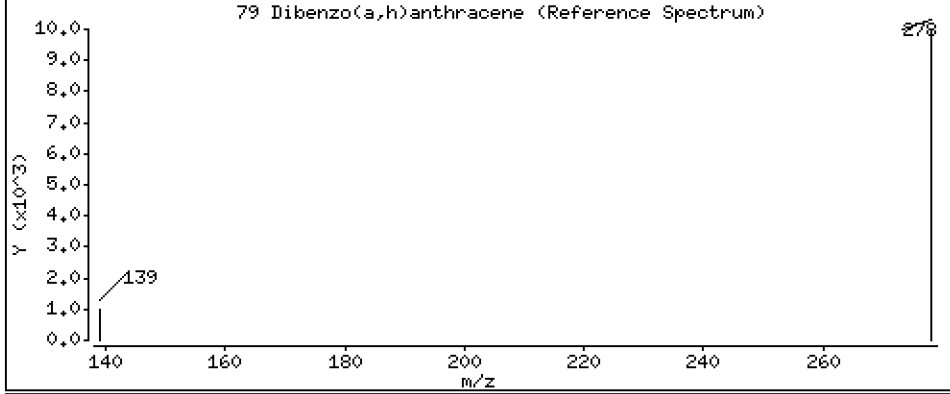
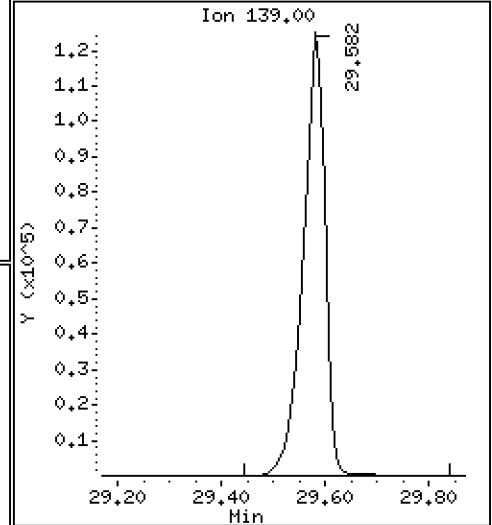
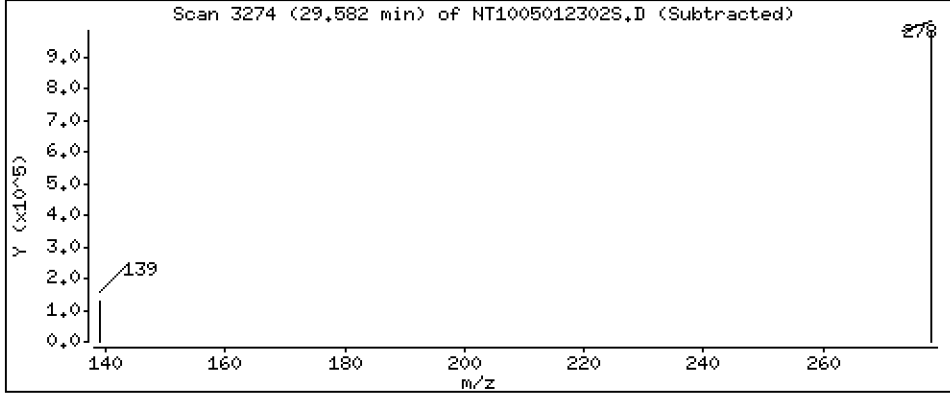
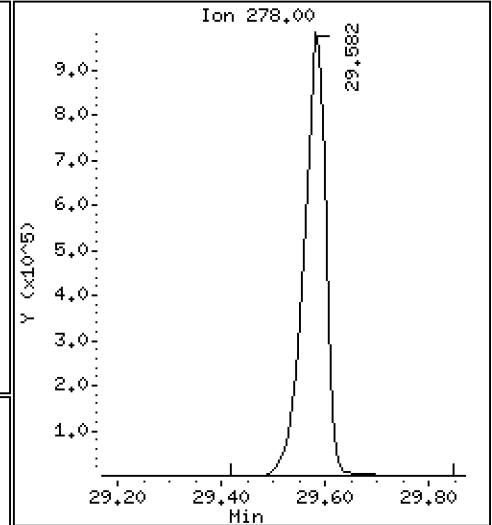
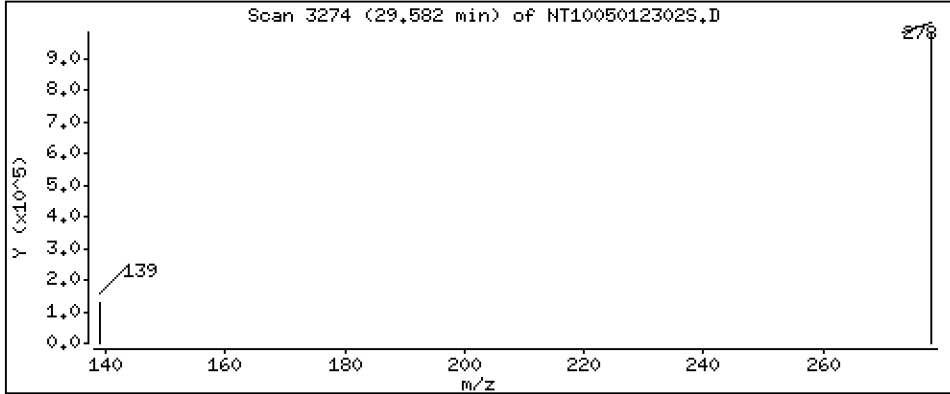
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 25,04 ug/L



Date : 01-MAY-2023 14:52

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

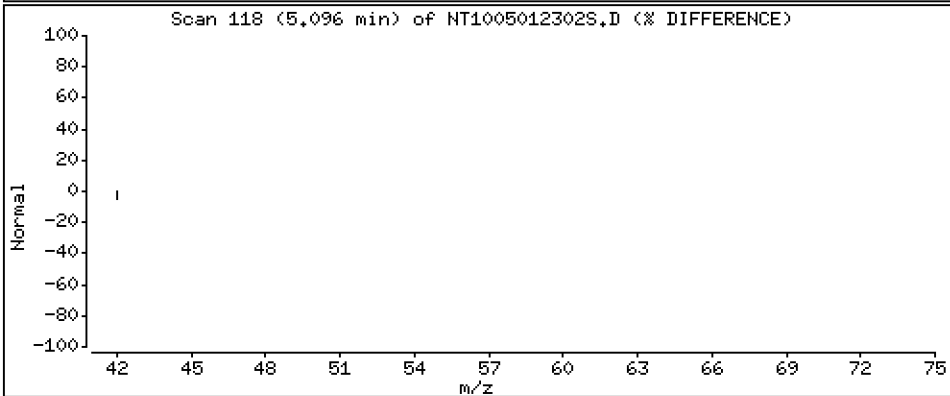
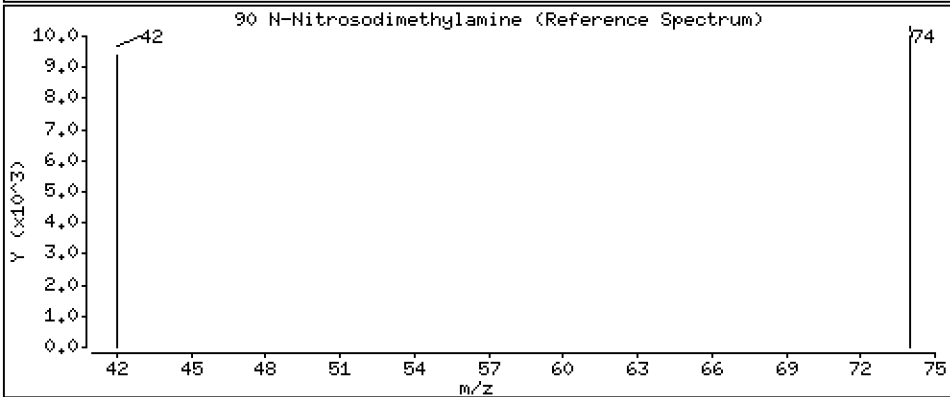
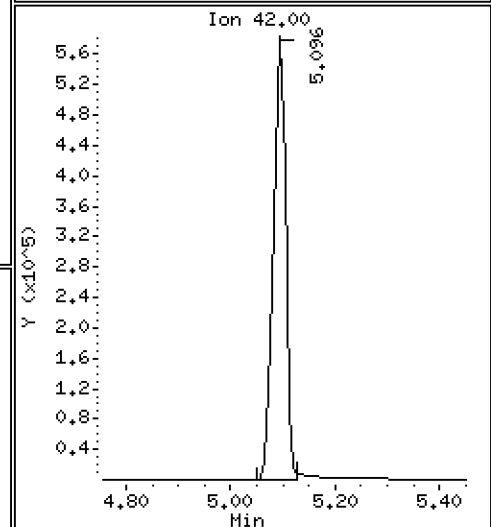
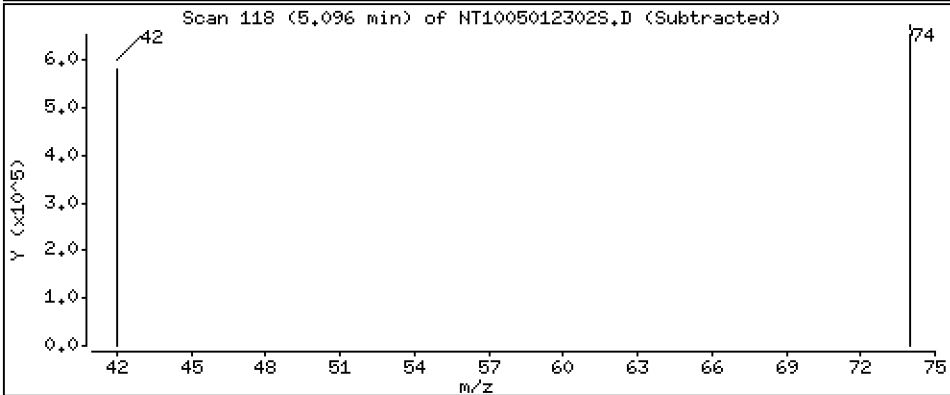
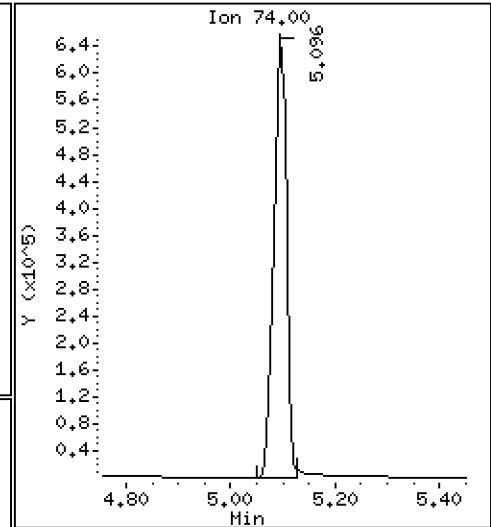
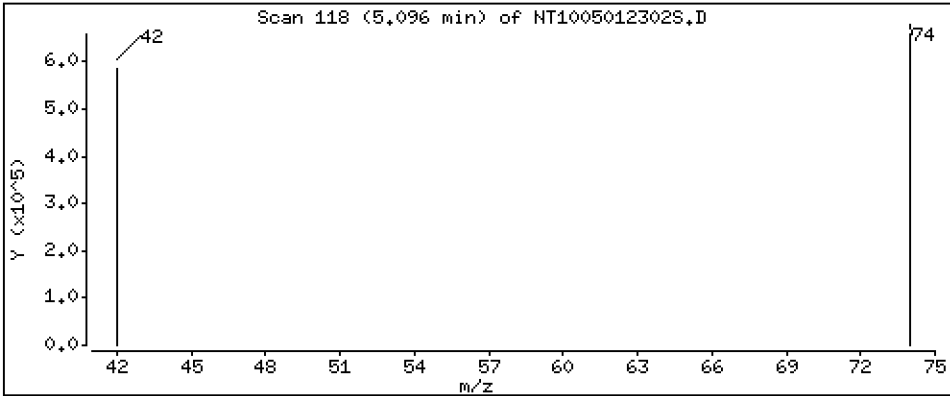
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 38.39 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012302S.D
 Lab Smp Id: SLE0082-CAL7
 Inj Date : 01-MAY-2023 14:52 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-CAL7
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.762)	1463043	29.6579	29.66(R)
3 Phenol	94		8.858	8.842	(0.932)	1188265	19.2297	19.23
7 1,3-Dichlorobenzene	146		9.438	9.430	(0.993)	1206206	18.5608	18.56
* 8 1,4-Dichlorobenzene-d4	152		9.500	9.492	(1.000)	161940	4.00000	
9 1,4-Dichlorobenzene	146		9.531	9.523	(1.003)	1197749	18.6089	18.61
11 Benzyl alcohol	79		9.763	9.756	(1.028)	919720	21.5226	21.52
12 1,2-Dichlorobenzene	146		9.888	9.880	(1.041)	1172234	18.9353	18.94
13 2-Methylphenol	108		9.973	9.965	(1.050)	945690	20.4492	20.45
15 4-Methylphenol	108		10.253	10.237	(1.079)	1025544	21.0909	21.09
16 N-Nitroso-di-n-propylamine	70		10.338	10.315	(1.088)	688959	19.6369	19.64
22 2,4-Dimethylphenol	107		10.253	10.229	(0.855)	1229578	36.8045	36.80
24 Benzoic acid	105		11.636	11.373	(0.970)	3600871	60.2865	60.29
26 1,2,4-Trichlorobenzene	180		11.911	11.896	(0.993)	1131696	19.0018	19.00
* 27 Naphthalene-d8	136		11.996	11.988	(1.000)	584241	4.00000	
30 Hexachlorobutadiene	225		12.390	12.382	(1.033)	747871	19.6669	19.67
39 Dimethylphthalate	163		15.130	15.107	(0.968)	2180710	19.5399	19.54
* 42 Acenaphthene-d10	162		15.633	15.617	(1.000)	294407	4.00000	
50 Diethylphthalate	149		16.591	16.560	(1.061)	2514041	20.9797	20.98
54 N-Nitrosodiphenylamine	169		16.985	16.962	(0.909)	1673298	20.4417	20.44
57 Hexachlorobenzene	284		18.057	18.042	(0.966)	809166	20.1857	20.19

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.413	18.398	(0.986)	1332267	29.7897	29.79
* 59 Phenanthrene-d10	188	18.684	18.677	(1.000)	627672	4.00000	
\$ 66 Terphenyl-d14	244	21.795	21.779	(0.919)	2377769	21.0038	21.00(R)
67 Butylbenzylphthalate	149	22.708	22.693	(0.958)	1787693	15.6087	15.61
* 69 Chrysene-d12	240	23.715	23.692	(1.000)	525013	4.00000	
* 77 Perylene-d12	264	26.556	26.533	(1.000)	352006	4.00000	
79 Dibenzo(a,h)anthracene	278	29.581	29.519	(1.114)	2844643	25.0354	25.04
90 N-Nitrosodimethylamine	74	5.095	5.103	(0.536)	1033038	38.3866	38.39

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012302S.D
 Lab Smp Id: SLE0082-CAL7
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	161940	-4.28
27 Naphthalene-d8	594924	297462	1189848	584241	-1.80
42 Acenaphthene-d10	304980	152490	609960	294407	-3.47
59 Phenanthrene-d10	609190	304595	1218380	627672	3.03
69 Chrysene-d12	479061	239531	958122	525013	9.59
77 Perylene-d12	427162	213581	854324	352006	-17.59

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.50	0.00
27 Naphthalene-d8	11.99	11.49	12.49	12.00	0.07
42 Acenaphthene-d10	15.63	15.13	16.13	15.63	0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.04
69 Chrysene-d12	23.70	23.20	24.20	23.72	0.07
77 Perylene-d12	26.54	26.04	27.04	26.56	0.06

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

REVIEW SUMMARY FOR FILE - NT1005012302S.D

Lab ID: SLE0082-CAL7

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 14:52

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.970	0.949	0.0213	Benzoic acid

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

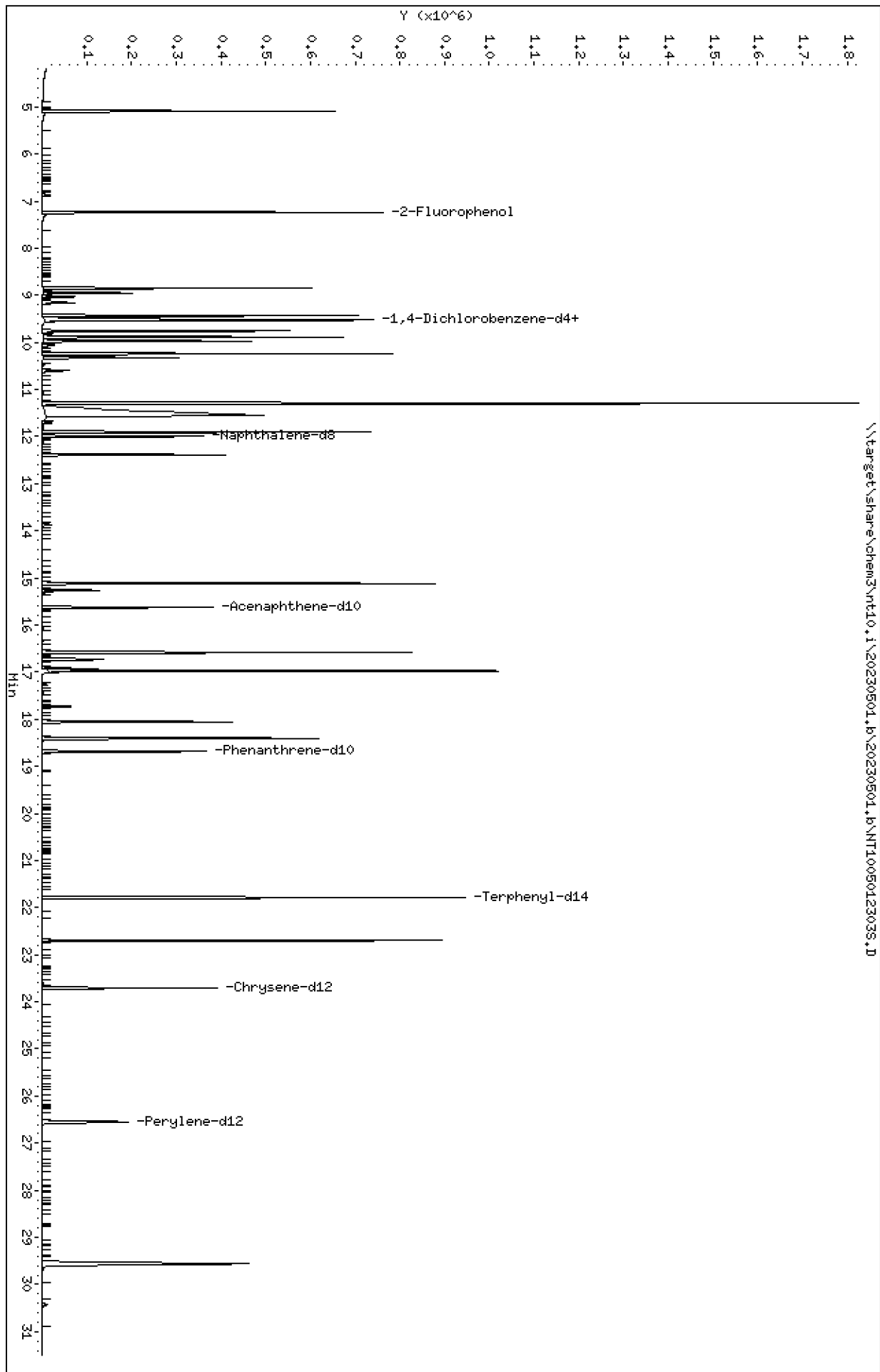
On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230501_b\20230501_b\NT10050123035.D
Date: 01-May-2023 15:31
Client ID:
Sample Info: SLE0082-CAL8
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: JGR
Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012303S.D
 Lab Smp Id: SLE0082-CAL8
 Inj Date : 01-MAY-2023 15:31 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-CAL8
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 15:31 Cal File: NT1005012303S.D
 Als bottle: 3 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.763)	789777	15.0000	16.05
3 Phenol	94		8.850	8.842	(0.932)	632578	10.0000	10.26
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	632614	10.0000	9.760
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	161514	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	636095	10.0000	9.909
11 Benzyl alcohol	79		9.755	9.756	(1.028)	492480	10.0000	11.56
12 1,2-Dichlorobenzene	146		9.887	9.880	(1.042)	609485	10.0000	9.871
13 2-Methylphenol	108		9.973	9.965	(1.051)	494524	10.0000	10.72
15 4-Methylphenol	108		10.237	10.237	(1.079)	538161	10.0000	11.10
16 N-Nitroso-di-n-propylamine	70		10.322	10.315	(1.088)	369443	10.0000	10.56
22 2,4-Dimethylphenol	107		10.237	10.229	(0.853)	650741	20.0000	19.95
24 Benzoic acid	105		11.551	11.373	(0.963)	1817498	40.0000	39.96
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.992)	580931	10.0000	9.990
* 27 Naphthalene-d8	136		11.996	11.988	(1.000)	570419	4.00000	
30 Hexachlorobutadiene	225		12.390	12.382	(1.033)	385415	10.0000	10.38
39 Dimethylphthalate	163		15.114	15.107	(0.967)	1141674	10.0000	10.30
* 42 Acenaphthene-d10	162		15.625	15.617	(1.000)	292457	4.00000	
50 Diethylphthalate	149		16.583	16.560	(1.061)	1304302	10.0000	10.96
54 N-Nitrosodiphenylamine	169		16.977	16.962	(0.909)	831619	10.0000	10.25
57 Hexachlorobenzene	284		18.049	18.042	(0.966)	391591	10.0000	9.858

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
58 Pentachlorophenol	266		18.406	18.398	(0.985)	601621	20.0000	19.97
* 59 Phenanthrene-d10	188		18.684	18.677	(1.000)	621963	4.00000	
\$ 66 Terphenyl-d14	244		21.787	21.779	(0.919)	1132885	10.0000	11.42
67 Butylbenzylphthalate	149		22.700	22.693	(0.958)	909576	10.0000	9.982
* 69 Chrysene-d12	240		23.707	23.692	(1.000)	460111	4.00000	
* 77 Perylene-d12	264		26.548	26.533	(1.000)	359500	4.00000	
79 Dibenzo(a,h)anthracene	278		29.558	29.519	(1.113)	1323489	10.0000	11.41
90 N-Nitrosodimethylamine	74		5.087	5.103	(0.536)	565863	20.0000	21.08

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012303S.D
 Lab Smp Id: SLE0082-CAL8
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	161514	-4.53
27 Naphthalene-d8	594924	297462	1189848	570419	-4.12
42 Acenaphthene-d10	304980	152490	609960	292457	-4.11
59 Phenanthrene-d10	609190	304595	1218380	621963	2.10
69 Chrysene-d12	479061	239531	958122	460111	-3.96
77 Perylene-d12	427162	213581	854324	359500	-15.84

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	12.00	0.06
42 Acenaphthene-d10	15.63	15.13	16.13	15.63	-0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.04
69 Chrysene-d12	23.70	23.20	24.20	23.71	0.03
77 Perylene-d12	26.54	26.04	27.04	26.55	0.03

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

REVIEW SUMMARY FOR FILE - NT1005012303S.D

Lab ID: SLE0082-CAL8

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 15:31

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.963	0.949	0.0142	Benzoic acid

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230501.b\20230501.b\NT10050123045.D

Page 1

Date: 01-May-2023 16:10

Client ID:

Instrument: nt10.1

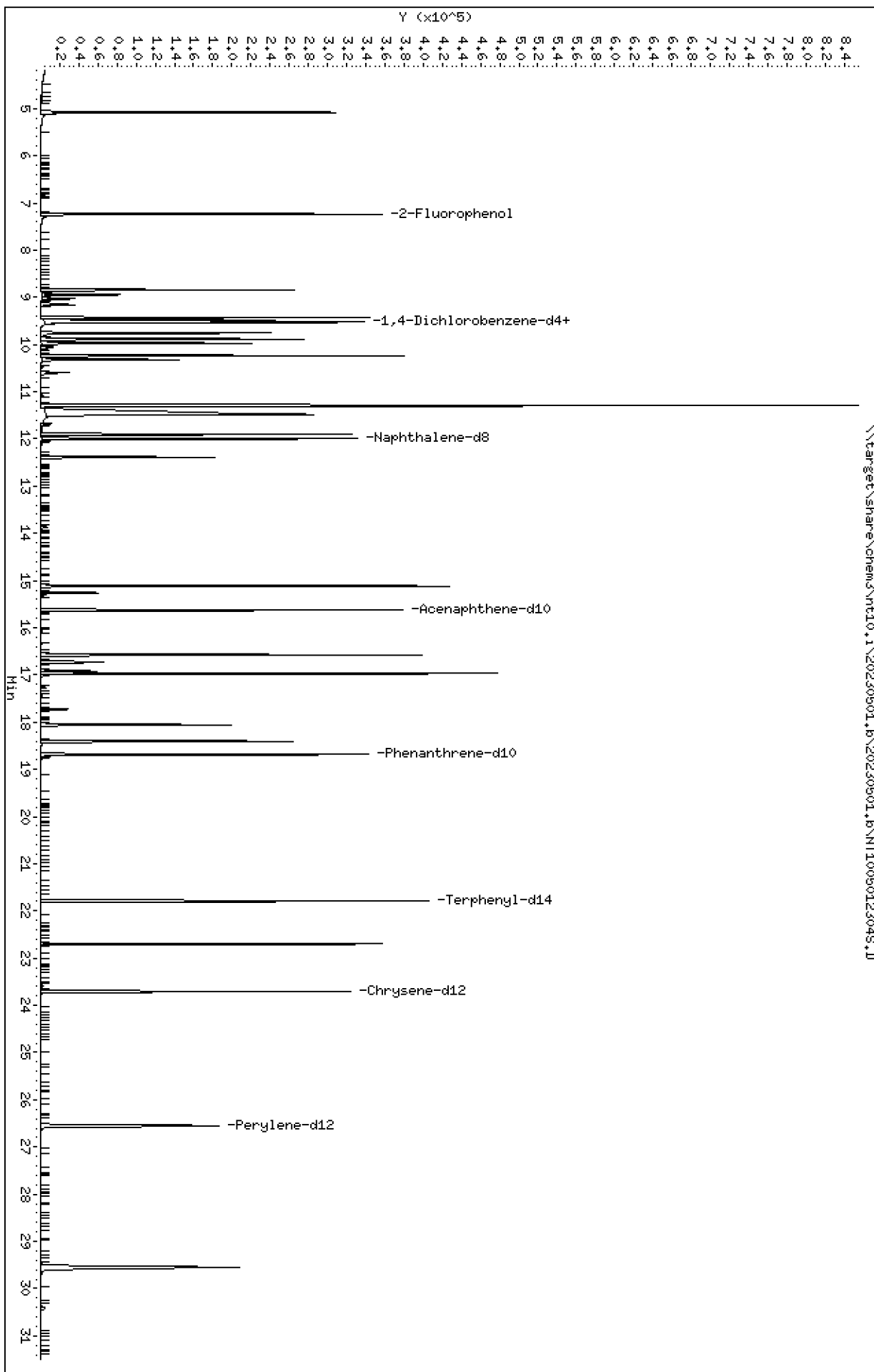
Sample Info: SLE0082-CAL7

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012304S.D
 Lab Smp Id: SLE0082-CAL7
 Inj Date : 01-MAY-2023 16:10 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-CAL7
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 16:10 Cal File: NT1005012304S.D
 Als bottle: 4 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	355373	7.50000	7.668
3 Phenol	94		8.842	8.842	(0.932)	287113	5.00000	4.946
7 1,3-Dichlorobenzene	146		9.429	9.430	(0.993)	289727	5.00000	4.746
* 8 1,4-Dichlorobenzene-d4	152		9.491	9.492	(1.000)	152136	4.00000	
9 1,4-Dichlorobenzene	146		9.522	9.523	(1.003)	287152	5.00000	4.749
11 Benzyl alcohol	79		9.755	9.756	(1.028)	218338	5.00000	5.439
12 1,2-Dichlorobenzene	146		9.879	9.880	(1.041)	275881	5.00000	4.744
13 2-Methylphenol	108		9.965	9.965	(1.050)	223851	5.00000	5.152
15 4-Methylphenol	108		10.237	10.237	(1.079)	241913	5.00000	5.296
16 N-Nitroso-di-n-propylamine	70		10.314	10.315	(1.087)	168705	5.00000	5.118
22 2,4-Dimethylphenol	107		10.237	10.229	(0.853)	297911	10.0000	9.689
24 Benzoic acid	105		11.483	11.373	(0.957)	768216	20.0000	20.24
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.992)	259857	5.00000	4.741
* 27 Naphthalene-d8	136		11.996	11.988	(1.000)	537687	4.00000	
30 Hexachlorobutadiene	225		12.390	12.382	(1.033)	171899	5.00000	4.912
39 Dimethylphthalate	163		15.114	15.107	(0.967)	522429	5.00000	4.974
* 42 Acenaphthene-d10	162		15.625	15.617	(1.000)	277062	4.00000	
50 Diethylphthalate	149		16.575	16.560	(1.061)	592090	5.00000	5.250
54 N-Nitrosodiphenylamine	169		16.969	16.962	(0.908)	370583	5.00000	5.082
57 Hexachlorobenzene	284		18.057	18.042	(0.966)	173597	5.00000	4.861

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		18.405	18.398	(0.985)	240737	10.0000	10.21
* 59 Phenanthrene-d10	188		18.684	18.677	(1.000)	559131	4.00000	
\$ 66 Terphenyl-d14	244		21.786	21.779	(0.919)	482522	5.00000	5.469
67 Butylbenzylphthalate	149		22.700	22.693	(0.958)	387291	5.00000	5.097
* 69 Chrysene-d12	240		23.707	23.692	(1.000)	409150	4.00000	
* 77 Perylene-d12	264		26.556	26.533	(1.000)	347622	4.00000	
79 Dibenzo(a,h)anthracene	278		29.550	29.519	(1.113)	587048	5.00000	5.232
90 N-Nitrosodimethylamine	74		5.080	5.103	(0.535)	256258	10.0000	10.14

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012304S.D
 Lab Smp Id: SLE0082-CAL7
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	152136	-10.07
27 Naphthalene-d8	594924	297462	1189848	537687	-9.62
42 Acenaphthene-d10	304980	152490	609960	277062	-9.15
59 Phenanthrene-d10	609190	304595	1218380	559131	-8.22
69 Chrysene-d12	479061	239531	958122	409150	-14.59
77 Perylene-d12	427162	213581	854324	347622	-18.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	12.00	0.06
42 Acenaphthene-d10	15.63	15.13	16.13	15.63	-0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.04
69 Chrysene-d12	23.70	23.20	24.20	23.71	0.03
77 Perylene-d12	26.54	26.04	27.04	26.56	0.06

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

REVIEW SUMMARY FOR FILE - NT1005012304S.D

Lab ID: SLE0082-CAL7

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 16:10

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.949	0.0086	Benzoic acid

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

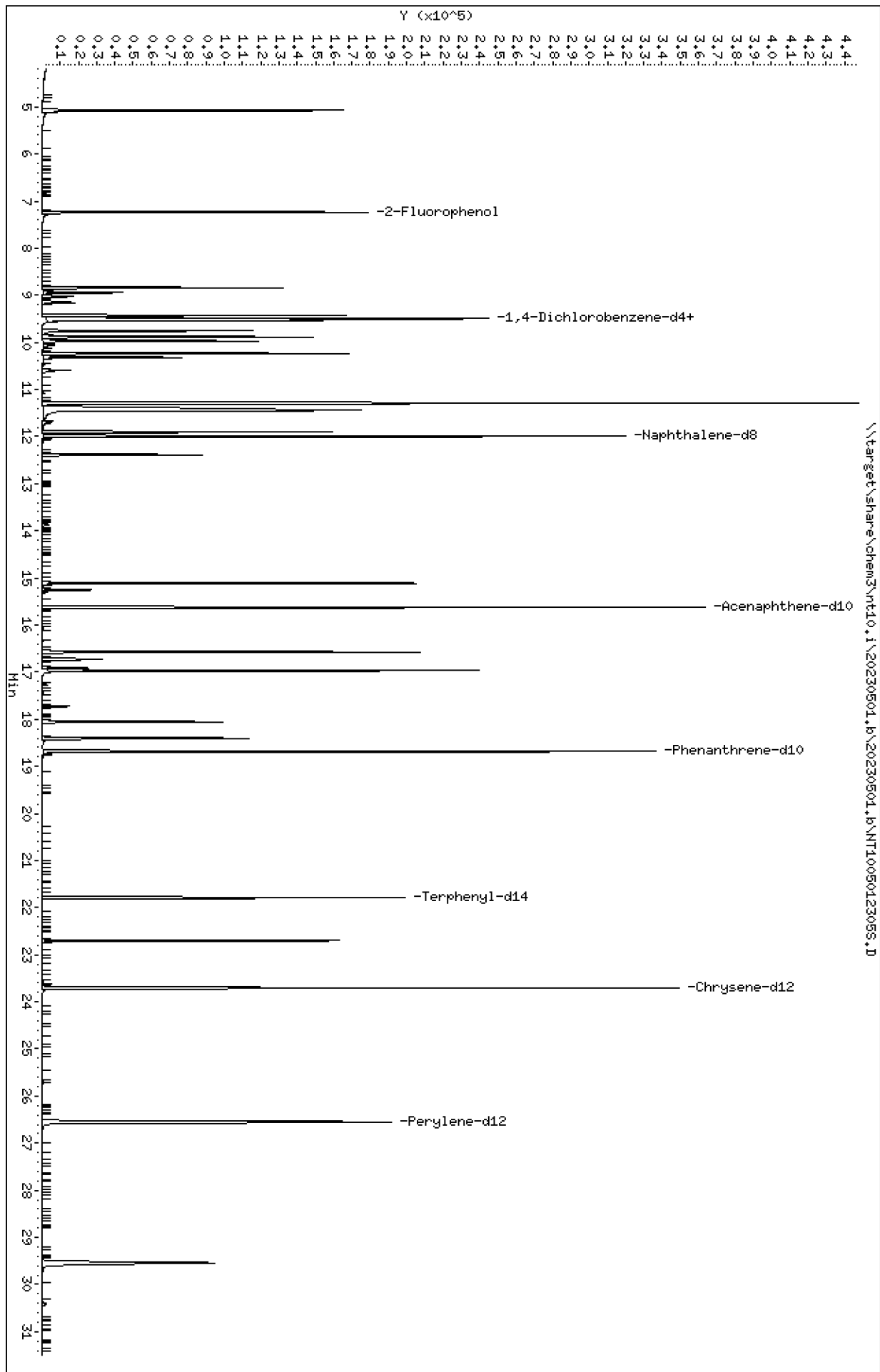
On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230501_b\20230501_b\NT10050123055.D
 Date : 01-May-2023 16:49
 Client ID:
 Sample Info: SLE0082-CAL6
 Volume Injected (uL): 1.0
 Column phase: ZB-5msi

Instrument: nt10.1
 Operator: JGR
 Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012305S.D
 Lab Smp Id: SLE0082-CAL6
 Inj Date : 01-MAY-2023 16:49 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-CAL6
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 16:49 Cal File: NT1005012305S.D
 Als bottle: 5 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	180445	3.75000	3.953
3 Phenol	94		8.842	8.842	(0.932)	146423	2.50000	2.561
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	146851	2.50000	2.442
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	149844	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	145166	2.50000	2.437
11 Benzyl alcohol	79		9.748	9.756	(1.027)	107553	2.50000	2.720
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	140678	2.50000	2.456
13 2-Methylphenol	108		9.965	9.965	(1.050)	110845	2.50000	2.590
15 4-Methylphenol	108		10.237	10.237	(1.079)	120196	2.50000	2.671
16 N-Nitroso-di-n-propylamine	70		10.315	10.315	(1.087)	84584	2.50000	2.605
22 2,4-Dimethylphenol	107		10.229	10.229	(0.853)	148273	5.00000	4.989
24 Benzoic acid	105		11.441	11.373	(0.954)	348393	10.0000	9.969
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.993)	130105	2.50000	2.456
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	519732	4.00000	
30 Hexachlorobutadiene	225		12.390	12.382	(1.033)	85525	2.50000	2.528
39 Dimethylphthalate	163		15.114	15.107	(0.967)	261641	2.50000	2.531
* 42 Acenaphthene-d10	162		15.625	15.617	(1.000)	272727	4.00000	
50 Diethylphthalate	149		16.568	16.560	(1.060)	294560	2.50000	2.654
54 N-Nitrosodiphenylamine	169		16.969	16.962	(0.908)	187950	2.50000	2.556
57 Hexachlorobenzene	284		18.049	18.042	(0.966)	87481	2.50000	2.429

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
58 Pentachlorophenol	266		18.406	18.398	(0.985)	108836	5.00000	4.839
* 59 Phenanthrene-d10	188		18.684	18.677	(1.000)	563850	4.00000	
\$ 66 Terphenyl-d14	244		21.787	21.779	(0.919)	238803	2.50000	2.645
67 Butylbenzylphthalate	149		22.700	22.693	(0.958)	183179	2.50000	2.429
* 69 Chrysene-d12	240		23.699	23.692	(1.000)	418693	4.00000	
* 77 Perylene-d12	264		26.548	26.533	(1.000)	365369	4.00000	
79 Dibenzo(a,h)anthracene	278		29.542	29.519	(1.113)	292954	2.50000	2.484
90 N-Nitrosodimethylamine	74		5.072	5.103	(0.534)	132028	5.00000	5.302

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012305S.D
 Lab Smp Id: SLE0082-CAL6
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	149844	-11.43
27 Naphthalene-d8	594924	297462	1189848	519732	-12.64
42 Acenaphthene-d10	304980	152490	609960	272727	-10.58
59 Phenanthrene-d10	609190	304595	1218380	563850	-7.44
69 Chrysene-d12	479061	239531	958122	418693	-12.60
77 Perylene-d12	427162	213581	854324	365369	-14.47

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.63	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.04
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
77 Perylene-d12	26.54	26.04	27.04	26.55	0.03

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

REVIEW SUMMARY FOR FILE - NT1005012305S.D

Lab ID: SLE0082-CAL6

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 16:49

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.954	0.949	0.0057	Benzoic acid

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

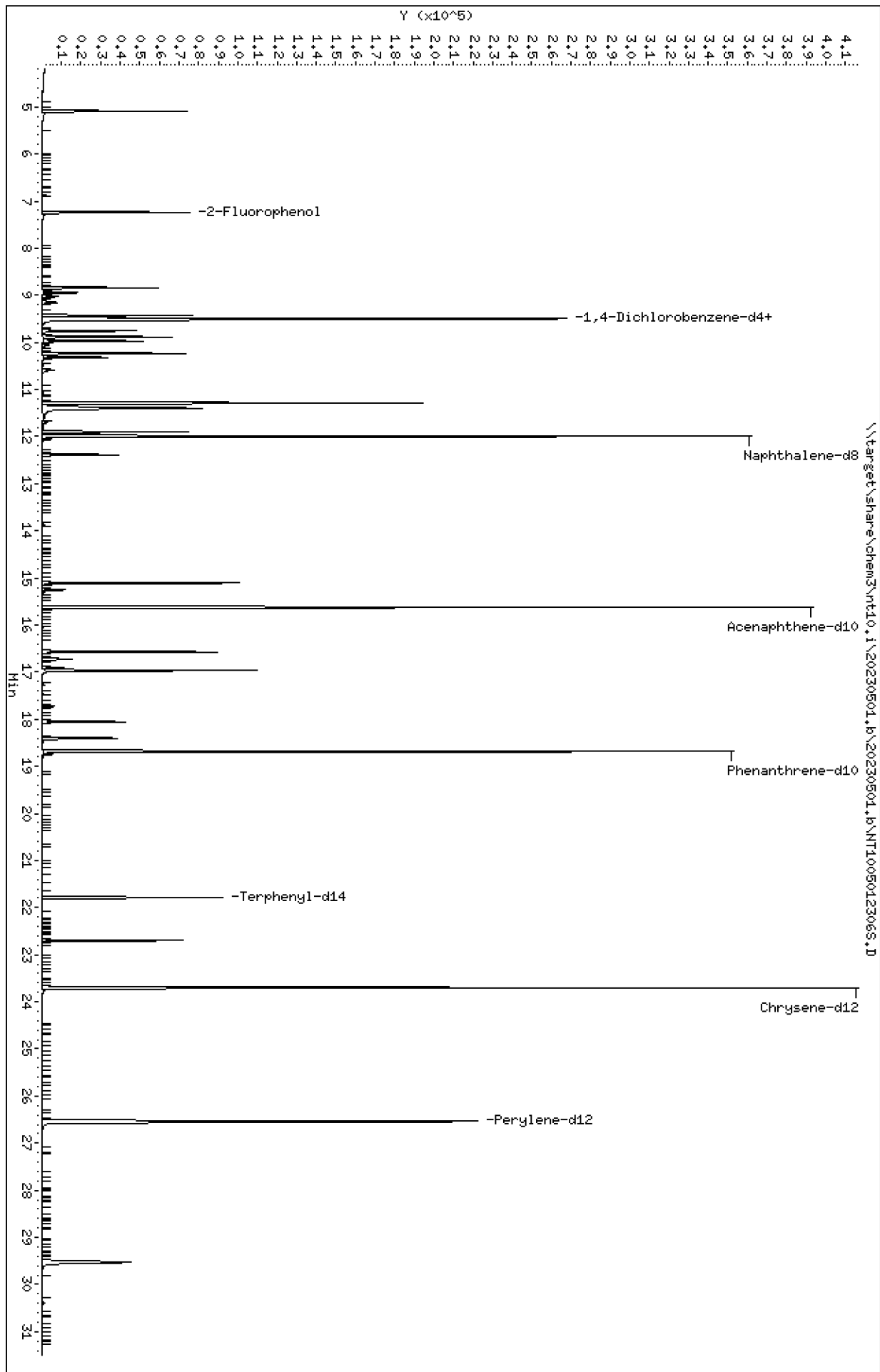
On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230501_b\20230501_b\NT10050123065.D
Date: 01-May-2023 17:28
Client ID:
Sample Info: SLE0082-CAL5
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: JGR
Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012306S.D
 Lab Smp Id: SLE0082-CAL5
 Inj Date : 01-MAY-2023 17:28 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-CAL5
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 17:28 Cal File: NT1005012306S.D
 Als bottle: 6 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	79958	1.50000	1.552
3 Phenol	94		8.842	8.842	(0.931)	66299	1.00000	1.027
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	67357	1.00000	0.9922
* 8 1,4-Dichlorobenzene-d4	152		9.499	9.492	(1.000)	169173	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.002)	66002	1.00000	0.9816
11 Benzyl alcohol	79		9.755	9.756	(1.027)	46490	1.00000	1.041
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.040)	64463	1.00000	0.9968
13 2-Methylphenol	108		9.965	9.965	(1.049)	49496	1.00000	1.025
15 4-Methylphenol	108		10.229	10.237	(1.077)	52703	1.00000	1.038
16 N-Nitroso-di-n-propylamine	70		10.314	10.315	(1.086)	37523	1.00000	1.024
22 2,4-Dimethylphenol	107		10.229	10.229	(0.853)	66119	2.00000	1.944
24 Benzoic acid	105		11.398	11.373	(0.951)	135982	4.00000	3.493
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.993)	59469	1.00000	0.9806
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	594924	4.00000	
30 Hexachlorobutadiene	225		12.390	12.382	(1.033)	38154	1.00000	0.9853
39 Dimethylphthalate	163		15.106	15.107	(0.967)	118423	1.00000	1.024
* 42 Acenaphthene-d10	162		15.625	15.617	(1.000)	304980	4.00000	
50 Diethylphthalate	149		16.568	16.560	(1.060)	128613	1.00000	1.036
54 N-Nitrosodiphenylamine	169		16.961	16.962	(0.908)	84379	1.00000	1.062
57 Hexachlorobenzene	284		18.049	18.042	(0.966)	38511	1.00000	0.9899

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
58 Pentachlorophenol	266		18.406	18.398	(0.986)	41389	2.00000	1.752
* 59 Phenanthrene-d10	188		18.676	18.677	(1.000)	609190	4.00000	
\$ 66 Terphenyl-d14	244		21.787	21.779	(0.919)	107789	1.00000	1.043
67 Butylbenzylphthalate	149		22.700	22.693	(0.958)	76654	1.00000	0.9027
* 69 Chrysene-d12	240		23.699	23.692	(1.000)	479061	4.00000	
* 77 Perylene-d12	264		26.540	26.533	(1.000)	427162	4.00000	
79 Dibenzo(a,h)anthracene	278		29.527	29.519	(1.113)	140663	1.00000	1.020
90 N-Nitrosodimethylamine	74		5.087	5.103	(0.536)	58388	2.00000	2.077

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012306S.D
 Lab Smp Id: SLE0082-CAL5
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	169173	0.00
27 Naphthalene-d8	594924	297462	1189848	594924	0.00
42 Acenaphthene-d10	304980	152490	609960	304980	0.00
59 Phenanthrene-d10	609190	304595	1218380	609190	0.00
69 Chrysene-d12	479061	239531	958122	479061	0.00
77 Perylene-d12	427162	213581	854324	427162	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.50	0.00
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.63	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
77 Perylene-d12	26.54	26.04	27.04	26.54	0.00

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

REVIEW SUMMARY FOR FILE - NT1005012306S.D

Lab ID: SLE0082-CAL5

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 17:28

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230501_b\20230501_b\NT10050123075.D

Date: 01-May-2023 18:07

Client ID:

Sample Info: SLE0082-CAL4

Volume Injected (uL): 1.0

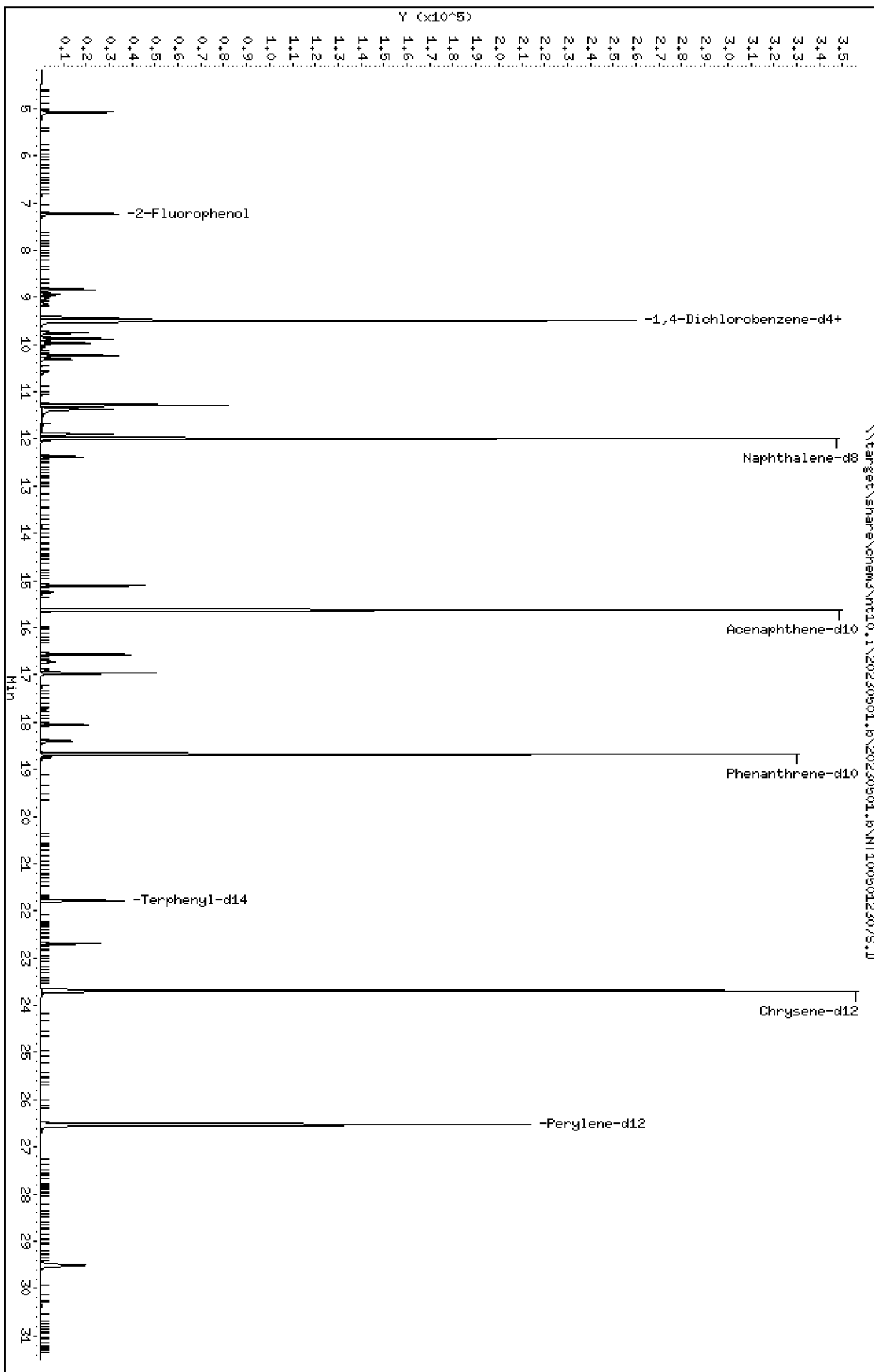
Column phase: ZB-5msi

Instrument: nt10.1

Operator: JGR

Column diameter: 0.25

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ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012307S.D
 Lab Smp Id: SLE0082-CAL4
 Inj Date : 01-MAY-2023 18:07 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-CAL4
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:07 Cal File: NT1005012307S.D
 Als bottle: 7 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	35775	0.75000	0.7614
3 Phenol	94		8.835	8.842	(0.931)	30083	0.50000	0.5111
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	31382	0.50000	0.5070
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	154252	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	30867	0.50000	0.5035
11 Benzyl alcohol	79		9.748	9.756	(1.027)	19804	0.50000	0.4865
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	29894	0.50000	0.5070
13 2-Methylphenol	108		9.965	9.965	(1.050)	22245	0.50000	0.5050
15 4-Methylphenol	108		10.229	10.237	(1.078)	23240	0.50000	0.5018
16 N-Nitroso-di-n-propylamine	70		10.307	10.315	(1.086)	16616	0.50000	0.4972
22 2,4-Dimethylphenol	107		10.229	10.229	(0.853)	29770	1.00000	0.9576
24 Benzoic acid	105		11.373	11.373	(0.949)	45881	2.00000	1.301
26 1,2,4-Trichlorobenzene	180		11.896	11.896	(0.992)	27559	0.50000	0.4973
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	543651	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	17366	0.50000	0.4908
39 Dimethylphthalate	163		15.106	15.107	(0.967)	52308	0.50000	0.4974
* 42 Acenaphthene-d10	162		15.625	15.617	(1.000)	277425	4.00000	
50 Diethylphthalate	149		16.568	16.560	(1.060)	56077	0.50000	0.4966
54 N-Nitrosodiphenylamine	169		16.962	16.962	(0.908)	37238	0.50000	0.5167
57 Hexachlorobenzene	284		18.049	18.042	(0.966)	17690	0.50000	0.5012

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		18.406	18.398	(0.986)	15280	1.00000	0.7193
* 59 Phenanthrene-d10	188		18.676	18.677	(1.000)	552604	4.00000	
\$ 66 Terphenyl-d14	244		21.779	21.779	(0.919)	45858	0.50000	0.4867
67 Butylbenzylphthalate	149		22.693	22.693	(0.958)	30054	0.50000	0.3900
* 69 Chrysene-d12	240		23.692	23.692	(1.000)	436983	4.00000	
* 77 Perylene-d12	264		26.533	26.533	(1.000)	398475	4.00000	
79 Dibenzo(a,h)anthracene	278		29.511	29.519	(1.112)	63394	0.50000	0.4929
90 N-Nitrosodimethylamine	74		5.072	5.103	(0.534)	26317	1.00000	1.027

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012307S.D
 Lab Smp Id: SLE0082-CAL4
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	154252	-8.82
27 Naphthalene-d8	594924	297462	1189848	543651	-8.62
42 Acenaphthene-d10	304980	152490	609960	277425	-9.04
59 Phenanthrene-d10	609190	304595	1218380	552604	-9.29
69 Chrysene-d12	479061	239531	958122	436983	-8.78
77 Perylene-d12	427162	213581	854324	398475	-6.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.63	0.00
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
77 Perylene-d12	26.54	26.04	27.04	26.53	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005012307S.D

Lab ID: SLE0082-CAL4

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 18:07

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

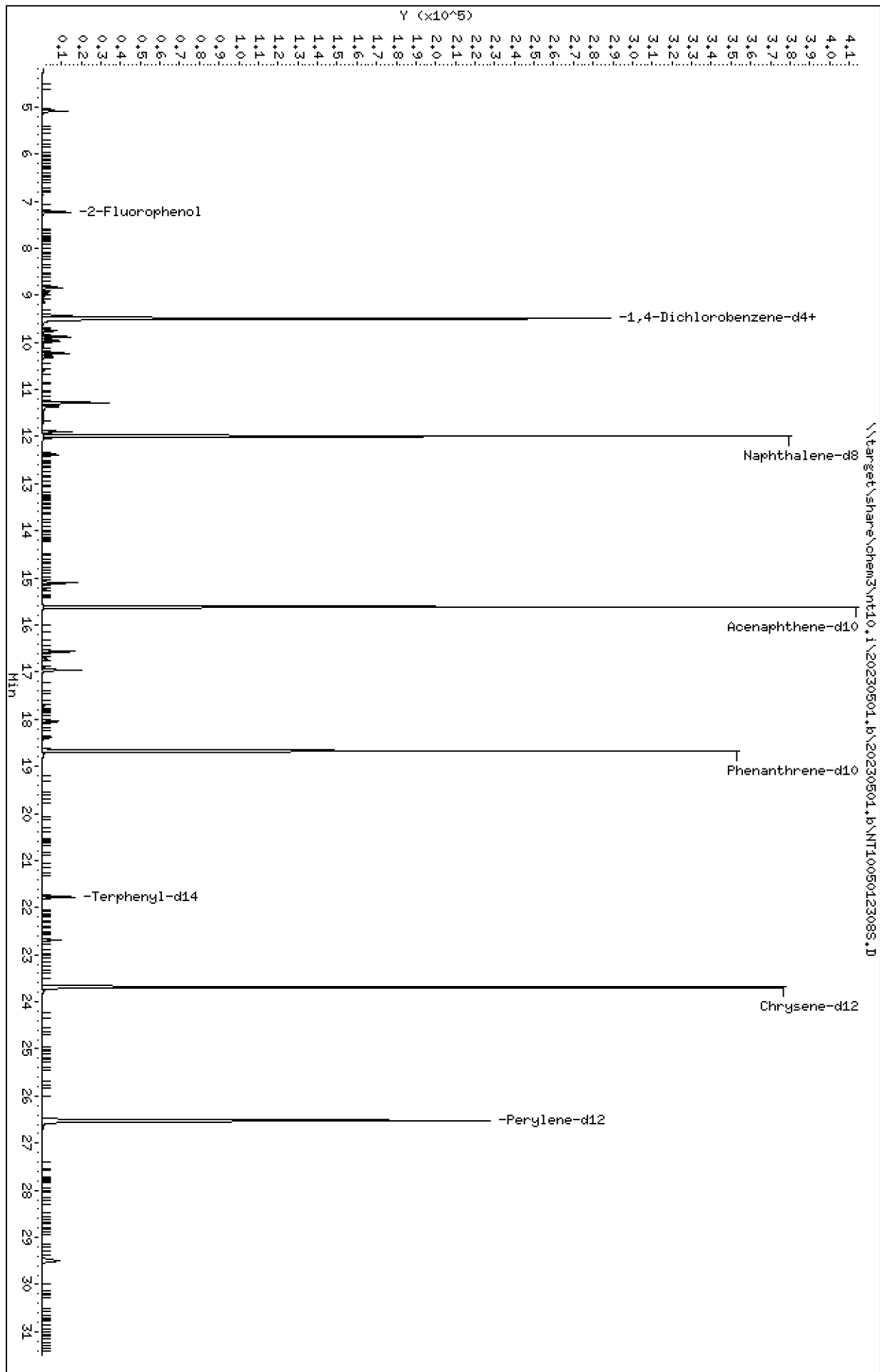
On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230501_b\20230501_b\NT10050123085.D
Date: 01-May-2023 18:46
Client ID:
Sample Info: SLE0082-CAL3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: JGR
Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012308S.D
 Lab Smp Id: SLE0082-CAL3
 Inj Date : 01-MAY-2023 18:46 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-CAL3
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 18:46 Cal File: NT1005012308S.D
 Als bottle: 8 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vo} * \text{Vi}) * \text{CpndVariable}$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	15557	0.30000	0.2938
3 Phenol	94		8.842	8.842	(0.932)	13361	0.20000	0.2014
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	14289	0.20000	0.2048
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	173835	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	13980	0.20000	0.2023
11 Benzyl alcohol	79		9.748	9.756	(1.027)	8388	0.20000	0.1829
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	13480	0.20000	0.2028
13 2-Methylphenol	108		9.965	9.965	(1.050)	9328	0.20000	0.1879
15 4-Methylphenol	108		10.229	10.237	(1.078)	9851	0.20000	0.1887
16 N-Nitroso-di-n-propylamine	70		10.307	10.315	(1.086)	7050	0.20000	0.1872
22 2,4-Dimethylphenol	107		10.229	10.229	(0.853)	13229	0.40000	0.3799
24 Benzoic acid	105		11.356	11.373	(0.947)	12899	0.80000	0.3278
26 1,2,4-Trichlorobenzene	180		11.896	11.896	(0.992)	12552	0.20000	0.2022
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	608907	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	7788	0.20000	0.1965
39 Dimethylphthalate	163		15.099	15.107	(0.967)	22163	0.20000	0.1922
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	304177	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	23195	0.20000	0.1873
54 N-Nitrosodiphenylamine	169		16.954	16.962	(0.908)	15508	0.20000	0.1993
57 Hexachlorobenzene	284		18.042	18.042	(0.966)	7706	0.20000	0.2023

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		18.398	18.398	(0.985)	5411	0.40000	0.2369
* 59 Phenanthrene-d10	188		18.669	18.677	(1.000)	596590	4.00000	
\$ 66 Terphenyl-d14	244		21.779	21.779	(0.919)	19576	0.20000	0.1873
67 Butylbenzylphthalate	149		22.693	22.693	(0.958)	11132	0.20000	0.1306
* 69 Chrysene-d12	240		23.691	23.692	(1.000)	484703	4.00000	
* 77 Perylene-d12	264		26.525	26.533	(1.000)	440507	4.00000	
79 Dibenzo(a,h)anthracene	278		29.496	29.519	(1.112)	27543	0.20000	0.1937
90 N-Nitrosodimethylamine	74		5.088	5.103	(0.536)	11507	0.40000	0.3983

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012308S.D
 Lab Smp Id: SLE0082-CAL3
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	173835	2.76
27 Naphthalene-d8	594924	297462	1189848	608907	2.35
42 Acenaphthene-d10	304980	152490	609960	304177	-0.26
59 Phenanthrene-d10	609190	304595	1218380	596590	-2.07
69 Chrysene-d12	479061	239531	958122	484703	1.18
77 Perylene-d12	427162	213581	854324	440507	3.12

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
77 Perylene-d12	26.54	26.04	27.04	26.53	-0.06

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

REVIEW SUMMARY FOR FILE - NT1005012308S.D

Lab ID: SLE0082-CAL3

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 18:46

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230501.b\20230501.b\NT10050123095.D

Date: 01-May-2023 19:25

Client ID:

Sample Info: SLE0082-CAL2

Volume Injected (uL): 1.0

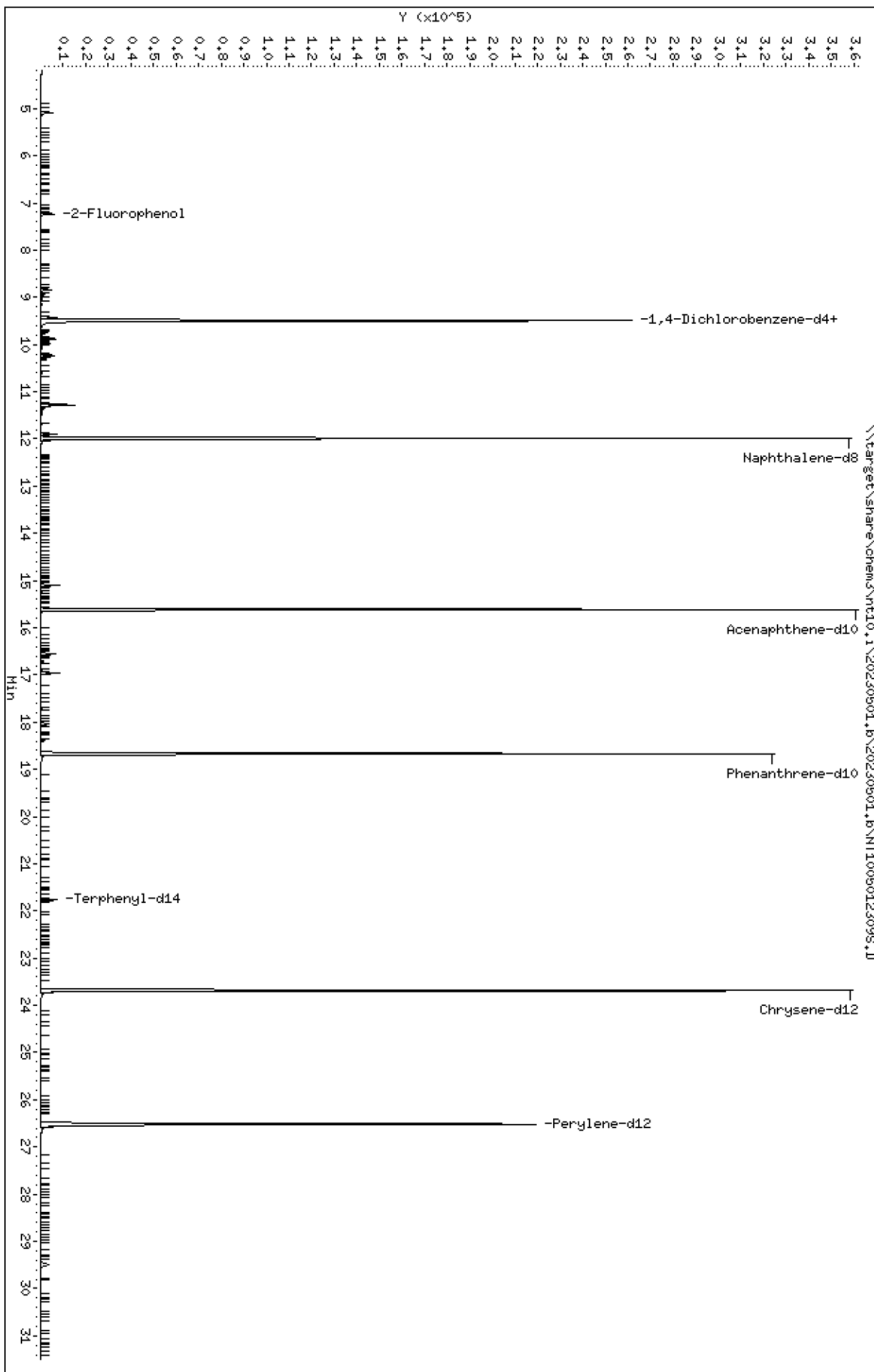
Column phase: ZB-5msi

Instrument: nt10.1

Operator: JGR

Column diameter: 0.25

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ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012309S.D
 Lab Smp Id: SLE0082-CAL2
 Inj Date : 01-MAY-2023 19:25 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-CAL2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 19:25 Cal File: NT1005012309S.D
 Als bottle: 9 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	6926	0.15000	0.1404
3 Phenol	94		8.842	8.842	(0.932)	5892	0.10000	0.09536
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	6714	0.10000	0.1033
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	161930	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	6849	0.10000	0.1064
11 Benzyl alcohol	79		9.756	9.756	(1.028)	3711	0.10000	0.08685
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	6309	0.10000	0.1019
13 2-Methylphenol	108		9.965	9.965	(1.050)	4221	0.10000	0.09128
15 4-Methylphenol	108		10.229	10.237	(1.078)	4406	0.10000	0.09062
16 N-Nitroso-di-n-propylamine	70		10.307	10.315	(1.086)	3250	0.10000	0.09264
22 2,4-Dimethylphenol	107		10.229	10.229	(0.853)	6474	0.20000	0.2004
24 Benzoic acid	105		11.356	11.373	(0.947)	3038	0.40000	0.08328
26 1,2,4-Trichlorobenzene	180		11.896	11.896	(0.992)	5852	0.10000	0.1016
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	564967	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	3590	0.10000	0.09763
39 Dimethylphthalate	163		15.099	15.107	(0.967)	10320	0.10000	0.09831
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	276925	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	10289	0.10000	0.09128
54 N-Nitrosodiphenylamine	169		16.954	16.962	(0.908)	6552	0.10000	0.09342
57 Hexachlorobenzene	284		18.042	18.042	(0.966)	3495	0.10000	0.1018

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		18.390	18.398	(0.985)	2468	0.20000	0.1200
* 59 Phenanthrene-d10	188		18.669	18.677	(1.000)	537805	4.00000	
\$ 66 Terphenyl-d14	244		21.771	21.779	(0.919)	8351	0.10000	0.08943
67 Butylbenzylphthalate	149		22.685	22.693	(0.958)	4388	0.10000	0.05766
* 69 Chrysene-d12	240		23.684	23.692	(1.000)	433067	4.00000	
* 77 Perylene-d12	264		26.517	26.533	(1.000)	402089	4.00000	
79 Dibenzo(a,h)anthracene	278		29.488	29.519	(1.112)	12164	0.10000	0.09372
90 N-Nitrosodimethylamine	74		5.088	5.103	(0.536)	5104	0.20000	0.1897

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012309S.D
 Lab Smp Id: SLE0082-CAL2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	161930	-4.28
27 Naphthalene-d8	594924	297462	1189848	564967	-5.04
42 Acenaphthene-d10	304980	152490	609960	276925	-9.20
59 Phenanthrene-d10	609190	304595	1218380	537805	-11.72
69 Chrysene-d12	479061	239531	958122	433067	-9.60
77 Perylene-d12	427162	213581	854324	402089	-5.87

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.68	-0.06
77 Perylene-d12	26.54	26.04	27.04	26.52	-0.09

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

REVIEW SUMMARY FOR FILE - NT1005012309S.D

Lab ID: SLE0082-CAL2

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 19:25

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230501.b\20230501.b\NT10050123105.D

Date: 01-May-2023 20:04

Client ID:

Sample Info: SLE0082-CAL1

Volume Injected (uL): 1.0

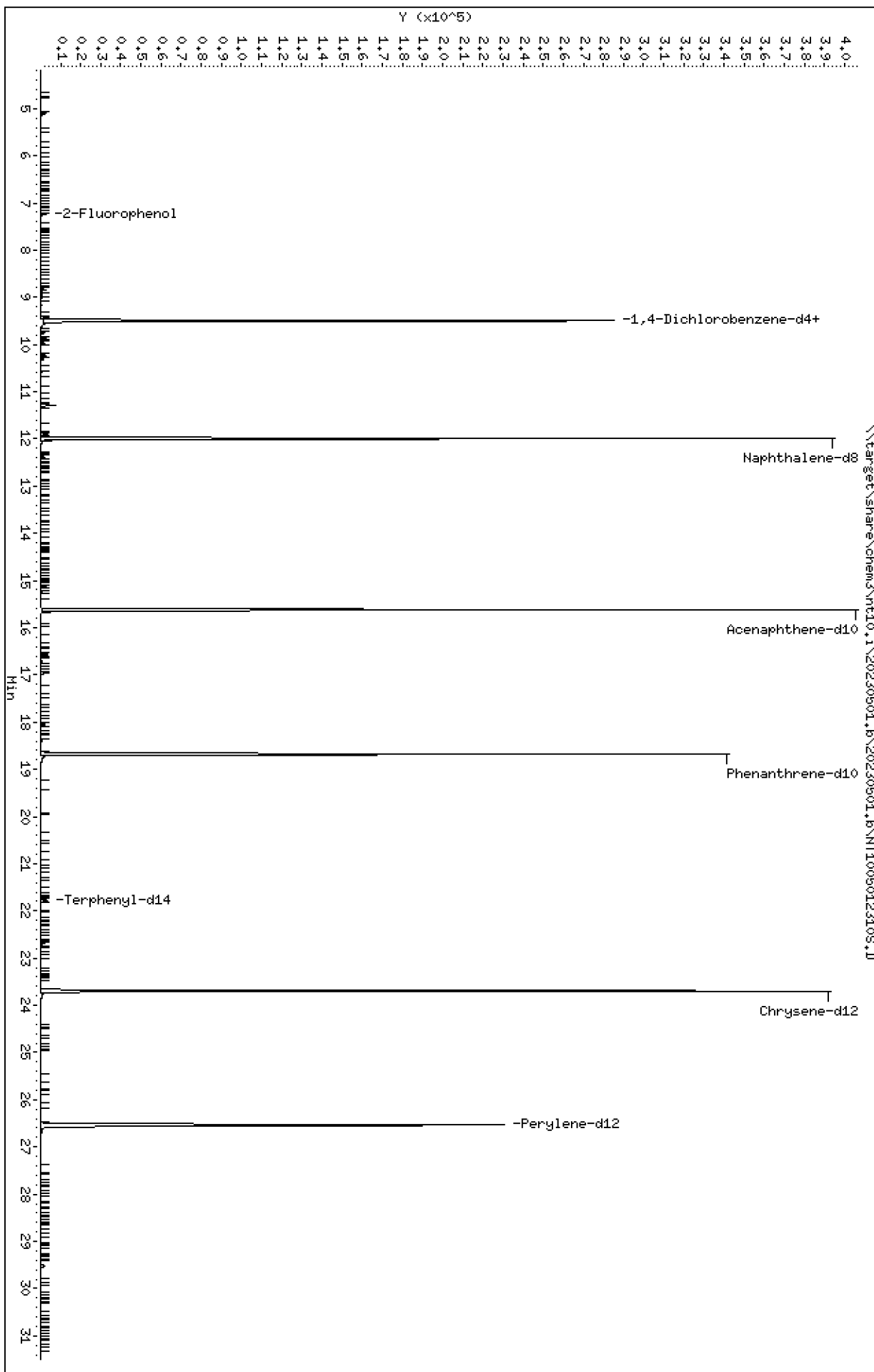
Column phase: ZB-5msi

Instrument: nt10.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012310S.D
 Lab Smp Id: SLE0082-CAL1
 Inj Date : 01-MAY-2023 20:04 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-CAL1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 10 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.763)	3564	0.07500	0.06663
3 Phenol	94		8.842	8.842	(0.932)	3183	0.05000	0.04751
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	3645	0.05000	0.05173
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	175584	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	3559	0.05000	0.05100
11 Benzyl alcohol	79		9.756	9.756	(1.028)	2019	0.05000	0.04358
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	3483	0.05000	0.05189
13 2-Methylphenol	108		9.965	9.965	(1.050)	2443	0.05000	0.04872
15 4-Methylphenol	108		10.237	10.237	(1.079)	2298	0.05000	0.04359
16 N-Nitroso-di-n-propylamine	70		10.315	10.315	(1.087)	1898	0.05000	0.04989
22 2,4-Dimethylphenol	107		10.229	10.229	(0.853)	4016	0.10000	0.1154
24 Benzoic acid	105		11.373	11.373	(0.949)	1161	0.20000	0.02956
26 1,2,4-Trichlorobenzene	180		11.896	11.896	(0.992)	3312	0.05000	0.05341
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	608327	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	2064	0.05000	0.05213
39 Dimethylphthalate	163		15.107	15.107	(0.967)	5630	0.05000	0.04999
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	297084	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	5526	0.05000	0.04570
54 N-Nitrosodiphenylamine	169		16.962	16.962	(0.908)	3439	0.05000	0.04548
57 Hexachlorobenzene	284		18.042	18.042	(0.966)	1942	0.05000	0.05245

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		18.398	18.398	(0.985)	1264	0.10000	0.05703
* 59 Phenanthrene-d10	188		18.677	18.677	(1.000)	579785	4.00000	
\$ 66 Terphenyl-d14	244		21.779	21.779	(0.919)	4279	0.05000	0.04293
67 Butylbenzylphthalate	149		22.693	22.693	(0.958)	2187	0.05000	0.02693
* 69 Chrysene-d12	240		23.692	23.692	(1.000)	462282	4.00000	
* 77 Perylene-d12	264		26.533	26.533	(1.000)	432429	4.00000	
79 Dibenzo(a,h)anthracene	278		29.519	29.519	(1.113)	6337	0.05000	0.04540
90 N-Nitrosodimethylamine	74		5.103	5.103	(0.538)	2517	0.10000	0.08626

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012310S.D
 Lab Smp Id: SLE0082-CAL1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	175584	3.79
27 Naphthalene-d8	594924	297462	1189848	608327	2.25
42 Acenaphthene-d10	304980	152490	609960	297084	-2.59
59 Phenanthrene-d10	609190	304595	1218380	579785	-4.83
69 Chrysene-d12	479061	239531	958122	462282	-3.50
77 Perylene-d12	427162	213581	854324	432429	1.23

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.69	-0.03
77 Perylene-d12	26.54	26.04	27.04	26.53	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005012310S.D

Lab ID: SLE0082-CAL1

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 20:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

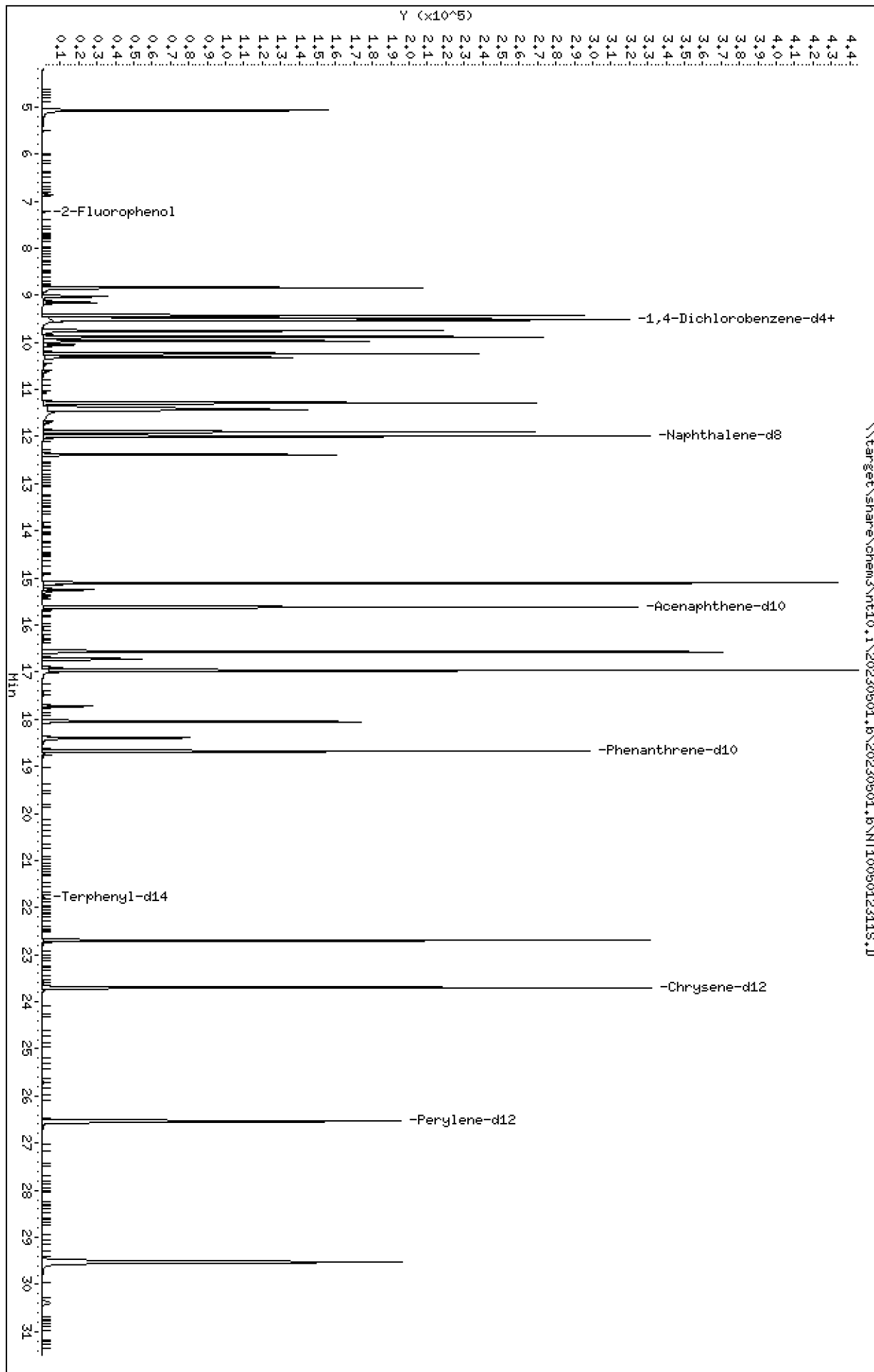
Exception: 1,2,4-Trichlorobenzene 0.0010

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

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 Date : 01-May-2023 20:43
 Client ID:
 Sample Info: SLE0082-SCV1
 Volume Injected (uL): 1.0
 Column phase: ZB-5msi

Instrument: nt10.1
 Operator: JGR
 Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501.b\20230501.b\NT10050123115.D



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

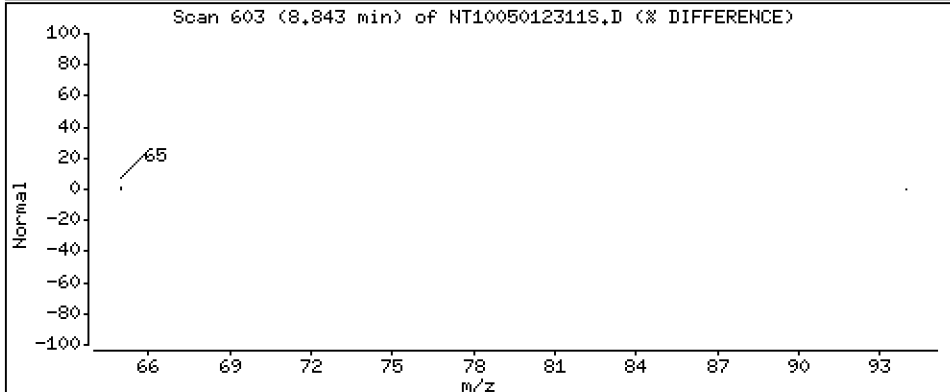
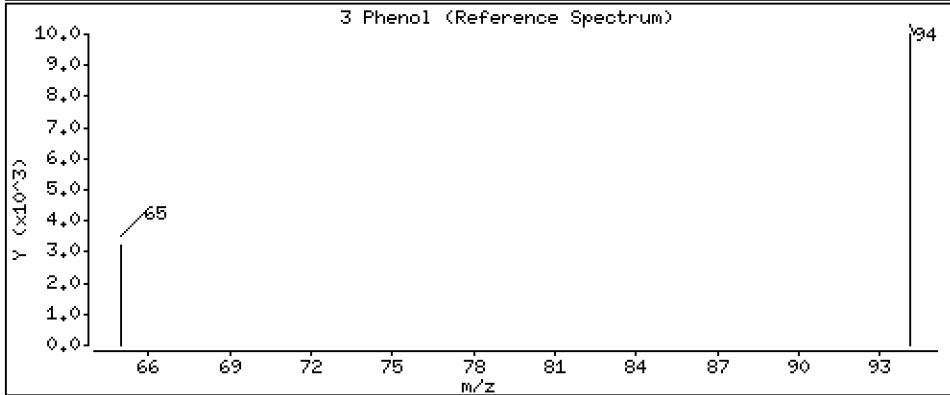
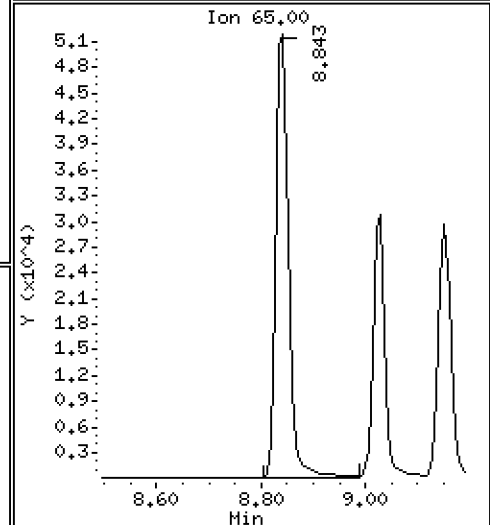
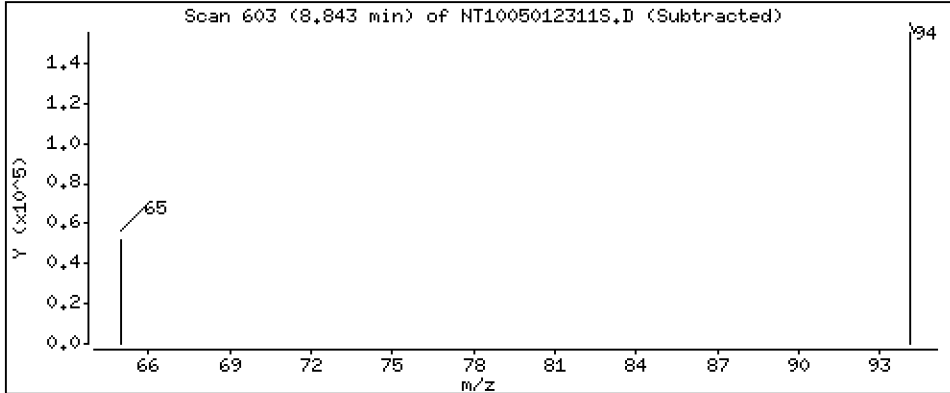
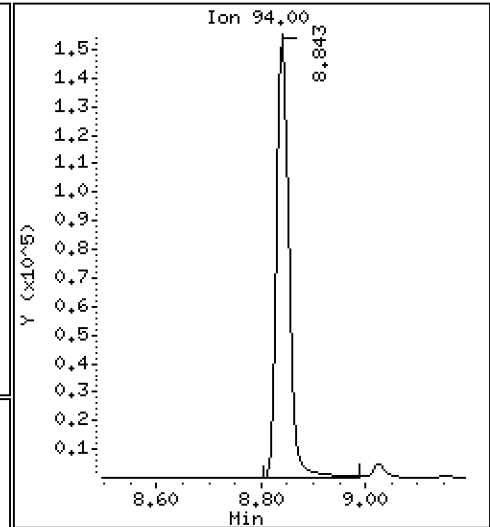
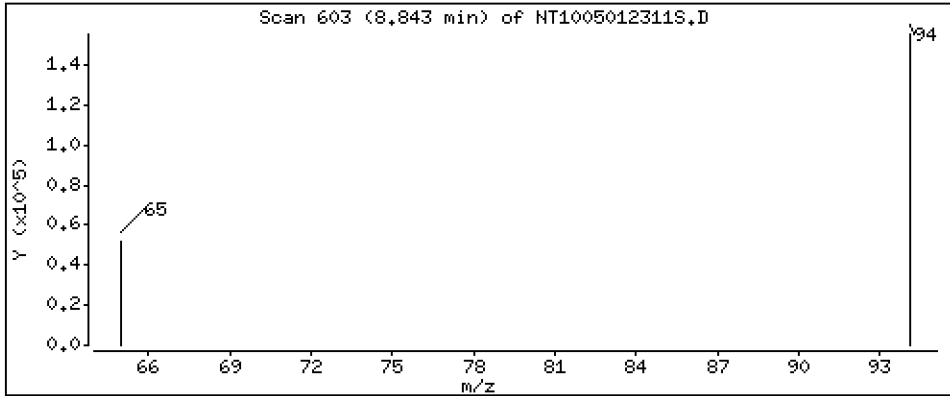
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,436 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

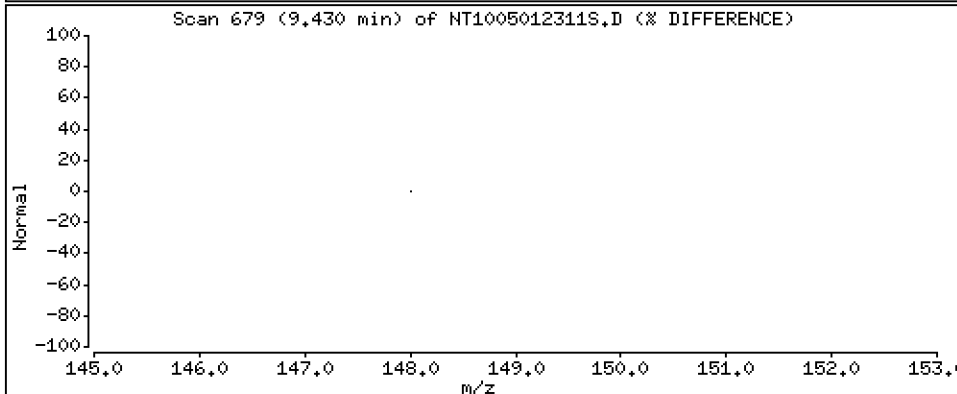
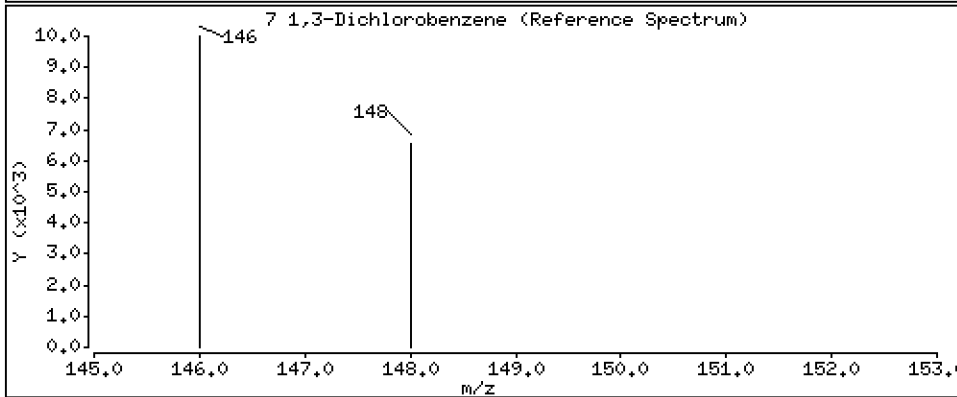
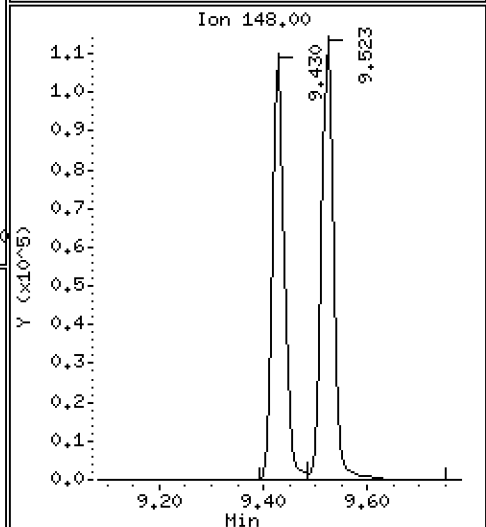
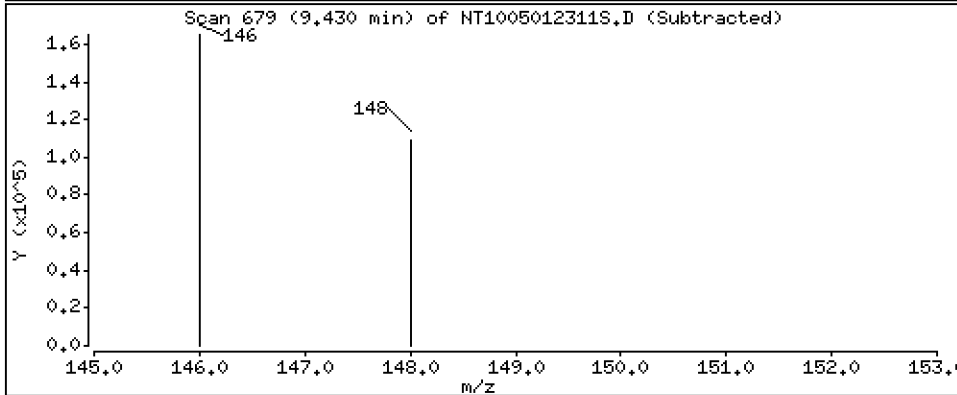
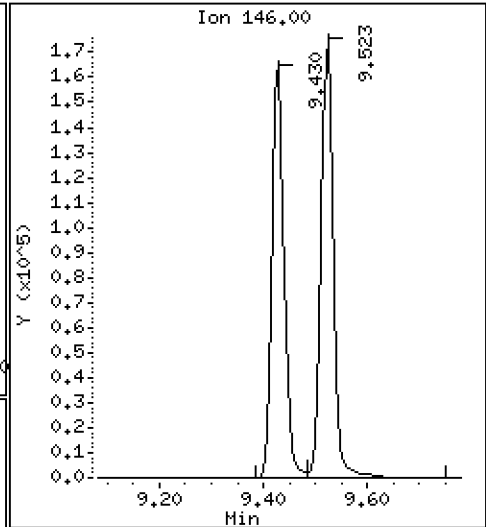
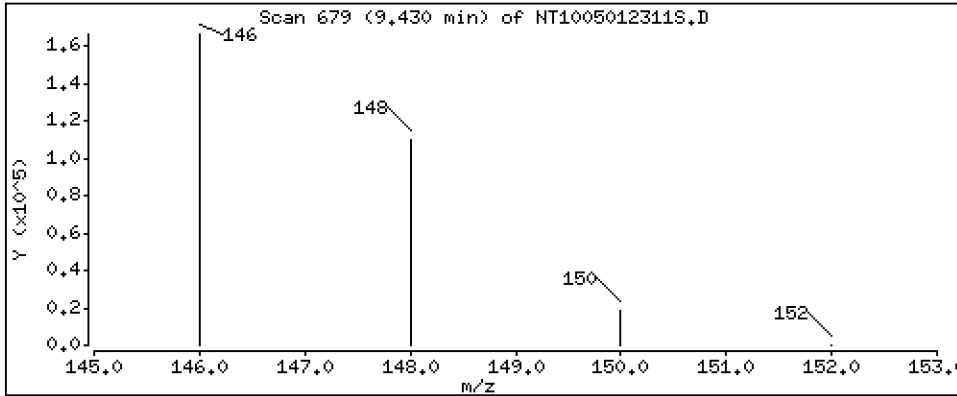
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 4.661 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

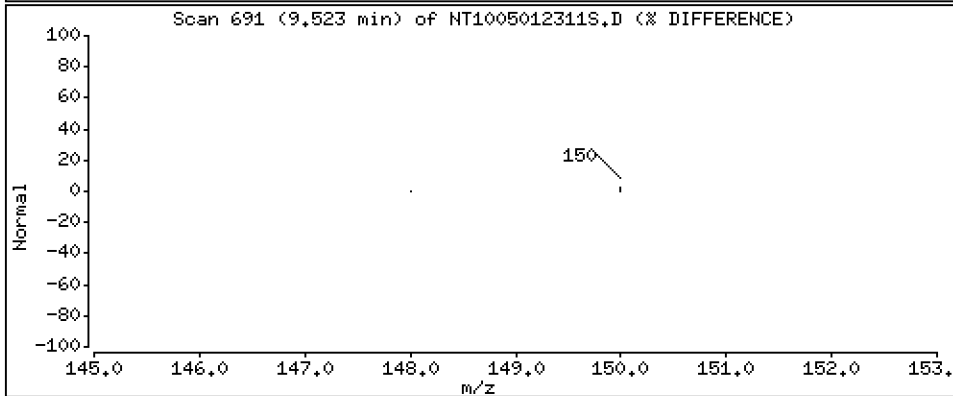
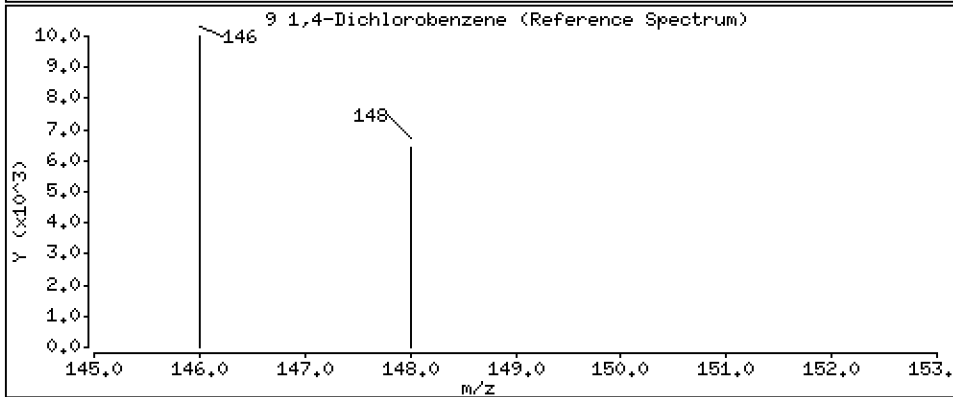
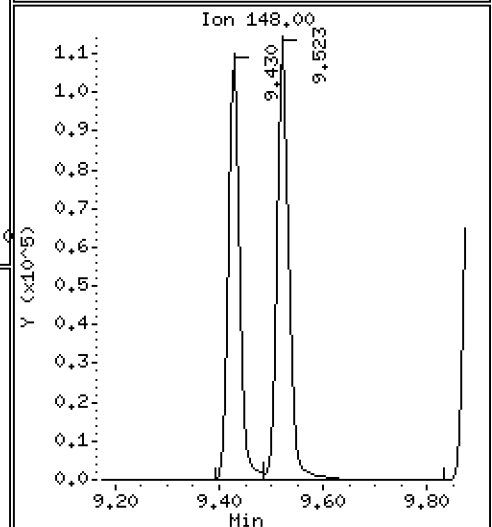
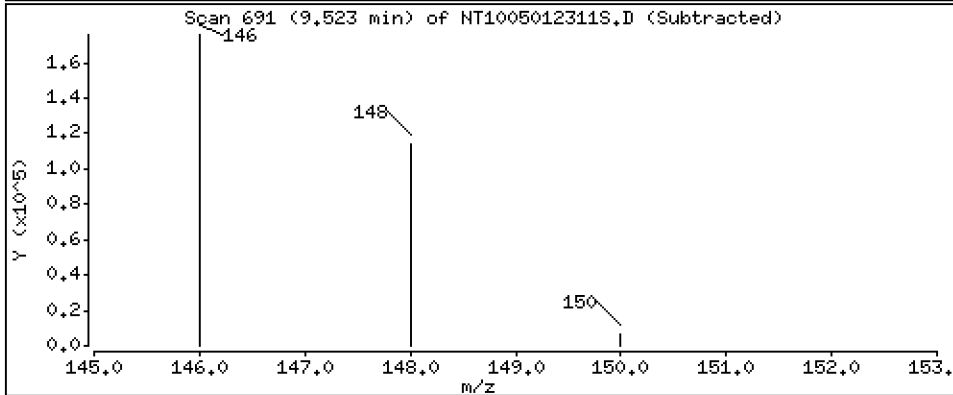
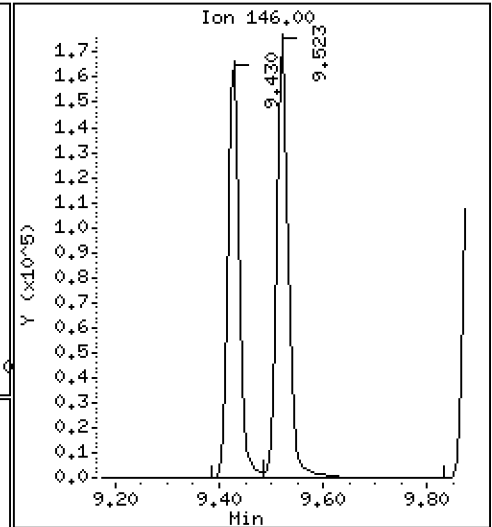
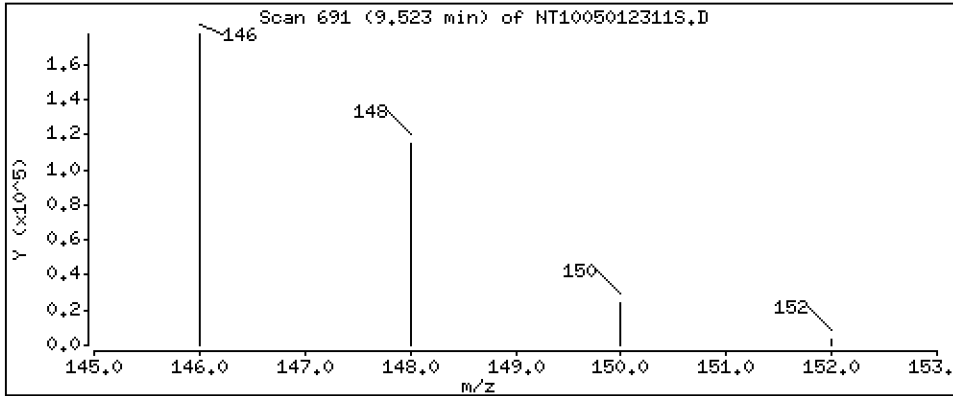
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 4.784 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

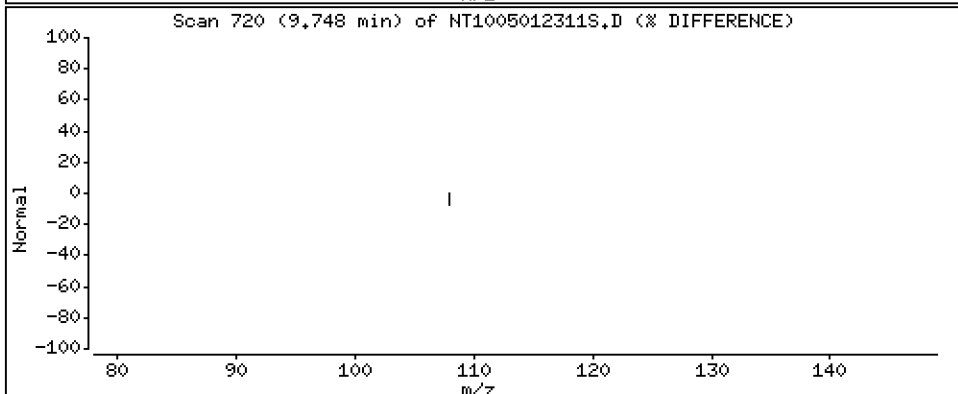
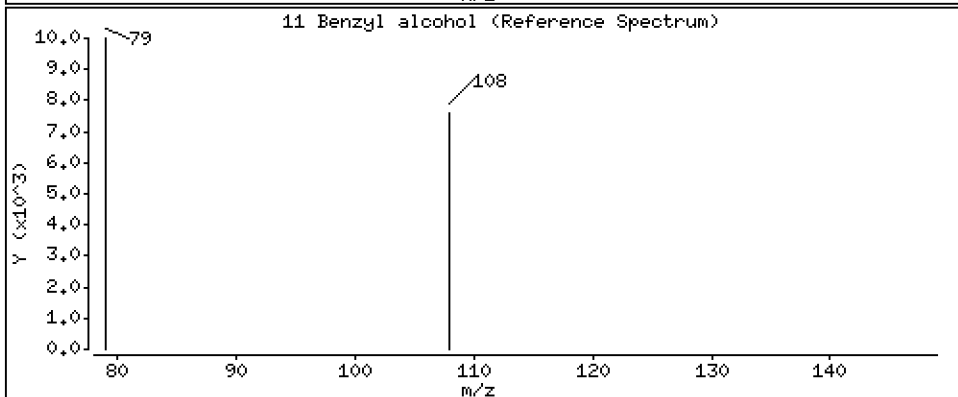
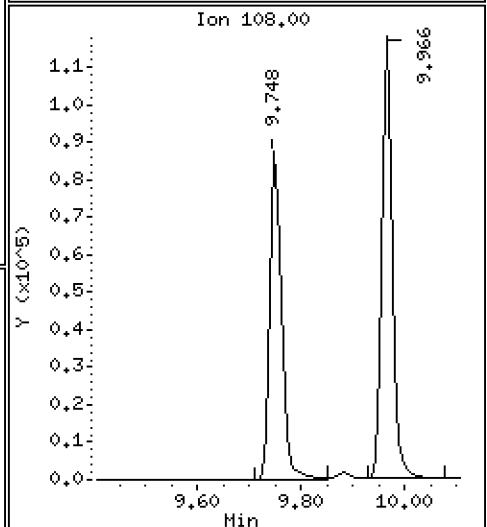
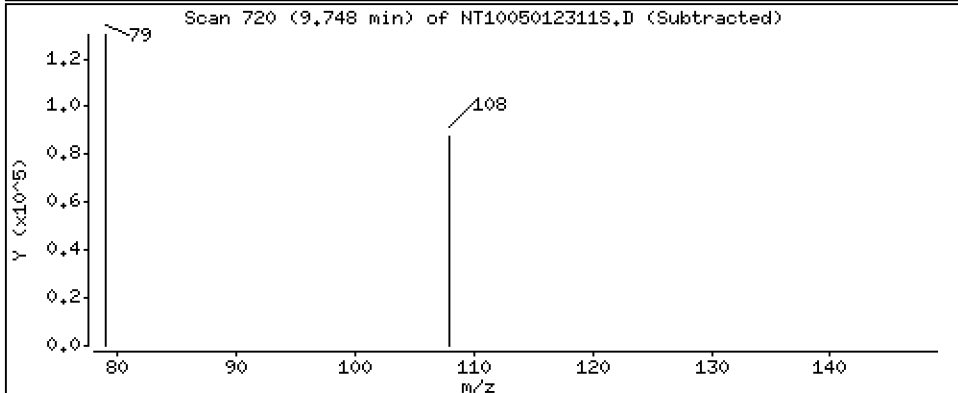
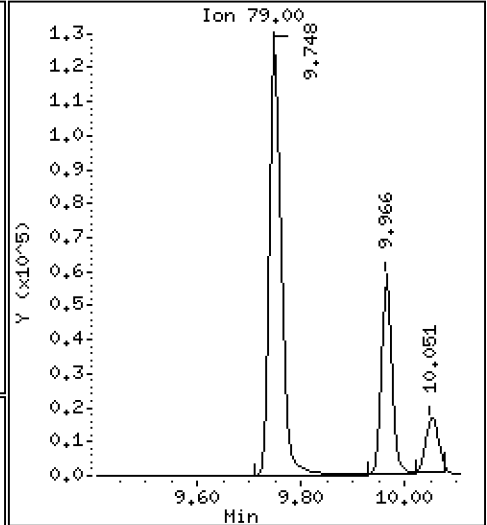
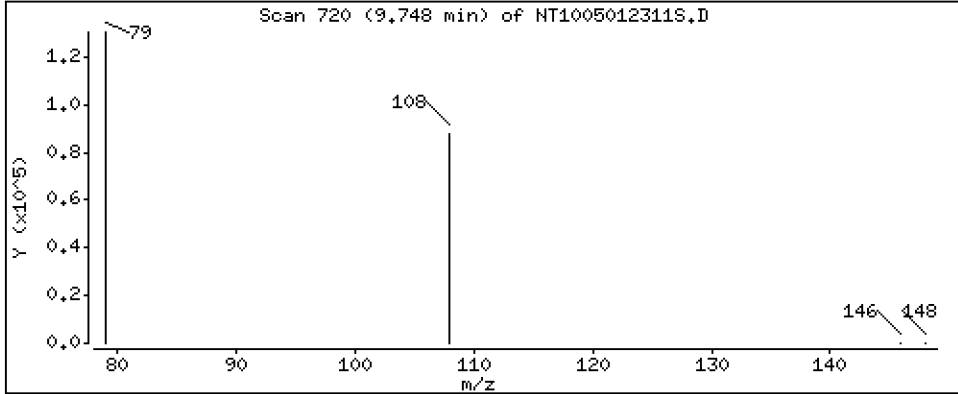
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.272 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

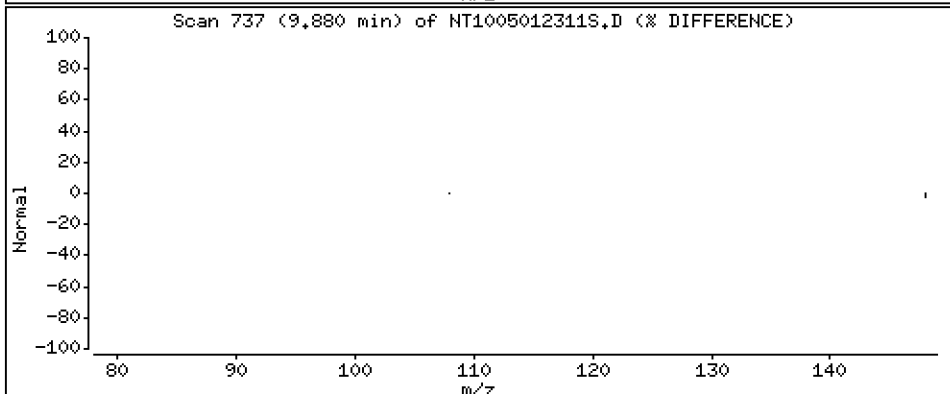
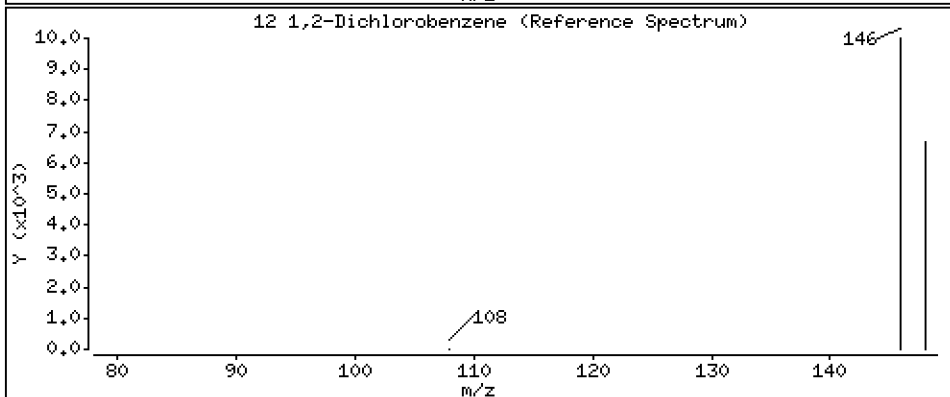
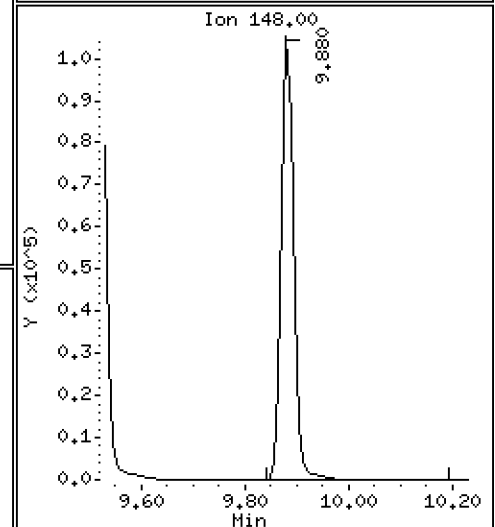
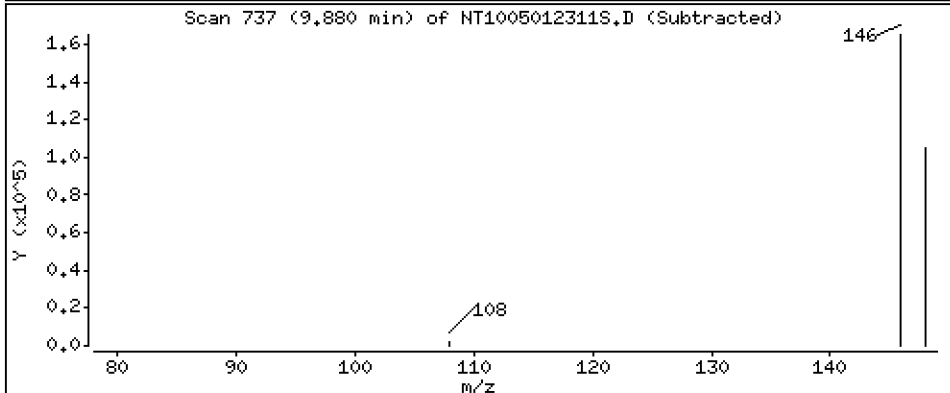
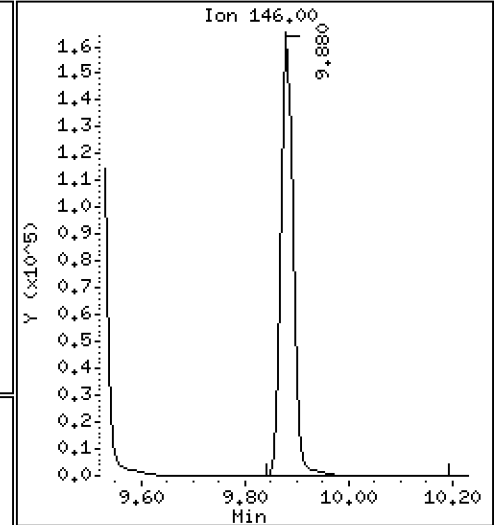
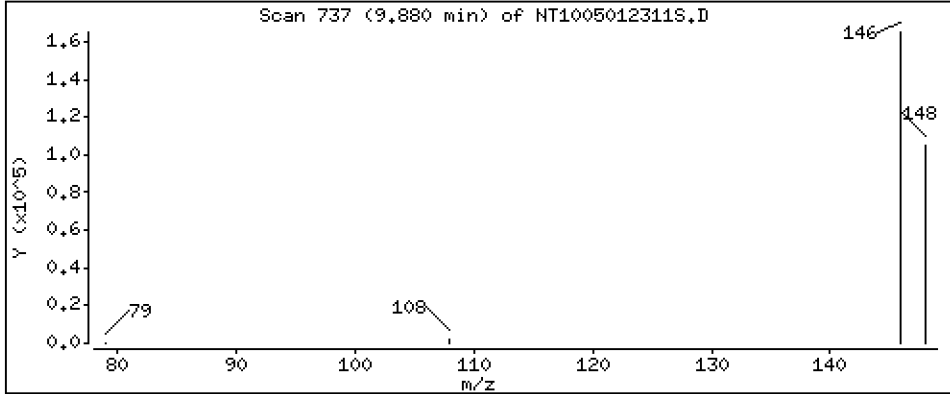
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 4.657 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

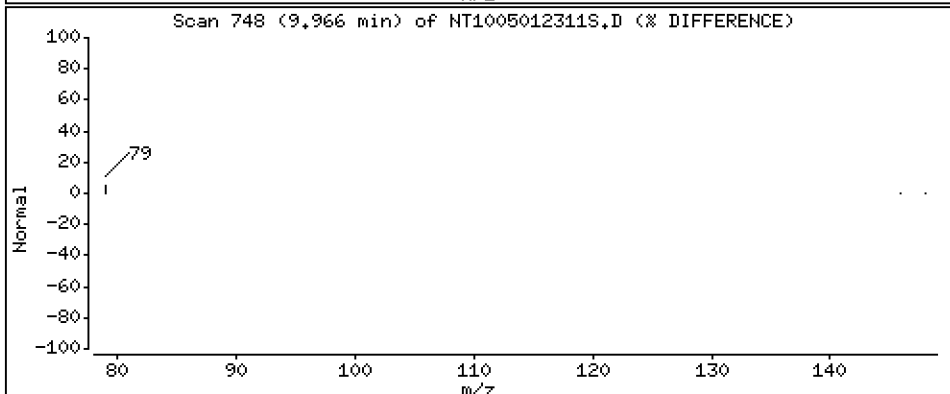
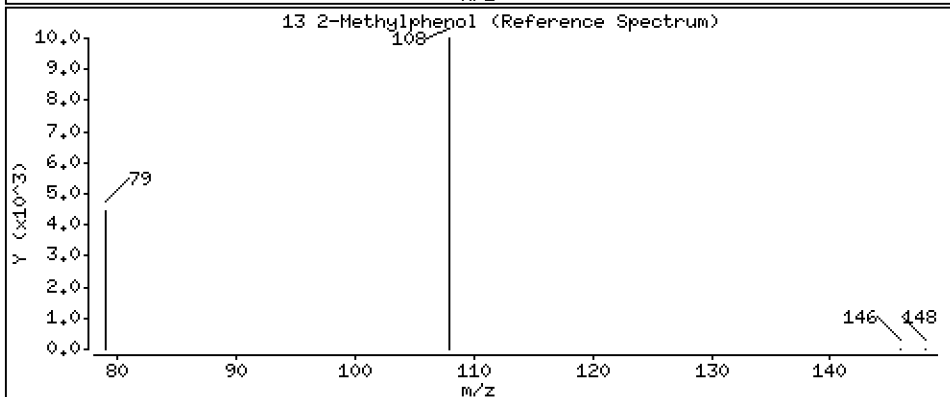
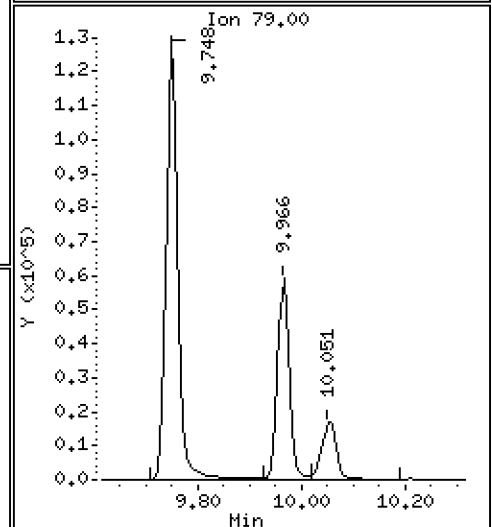
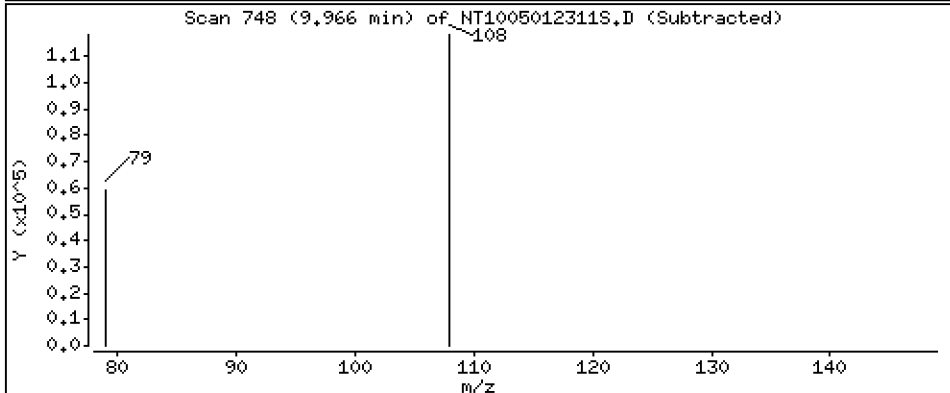
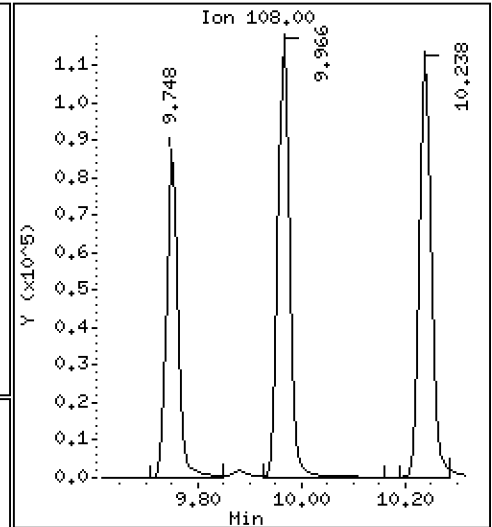
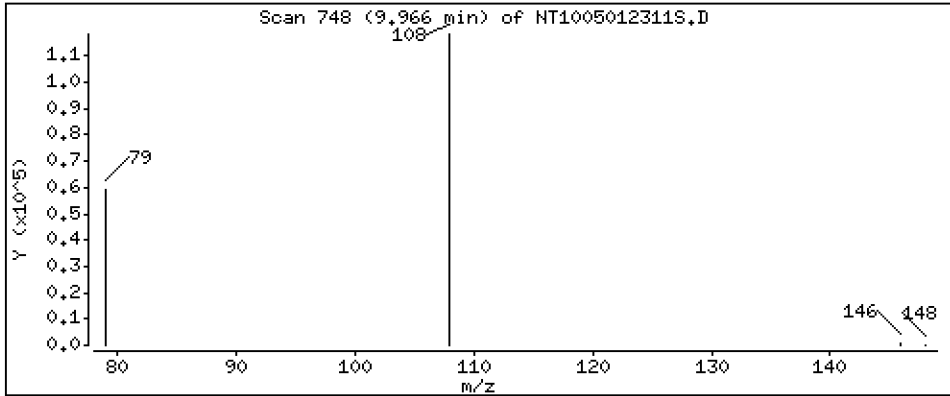
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.243 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

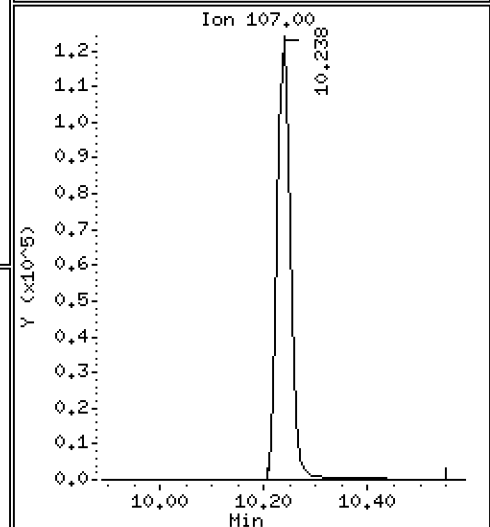
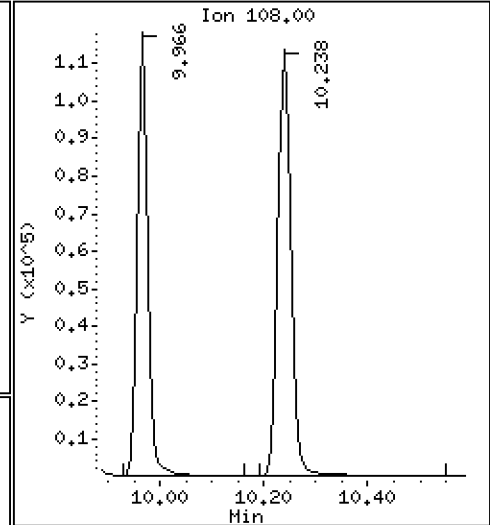
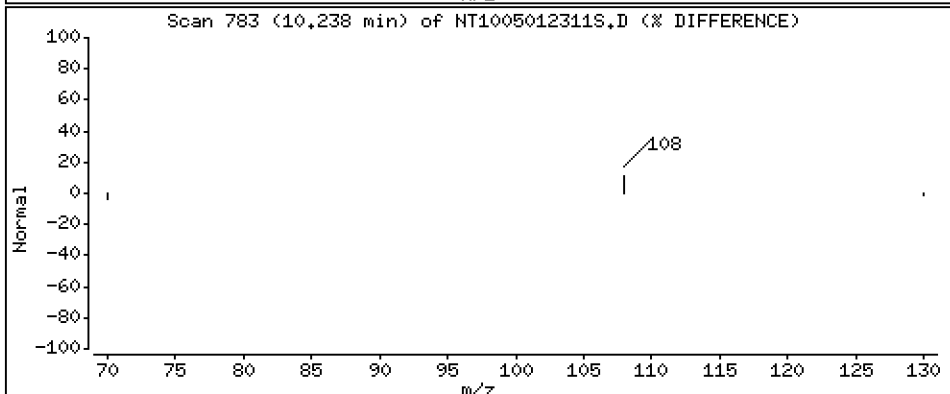
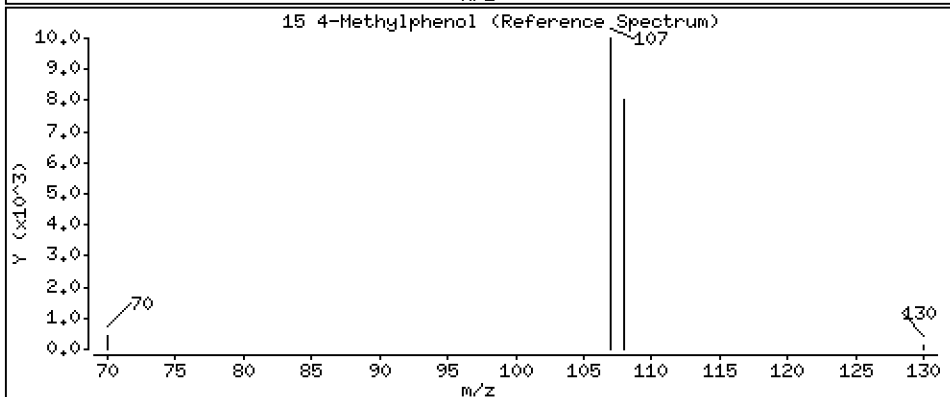
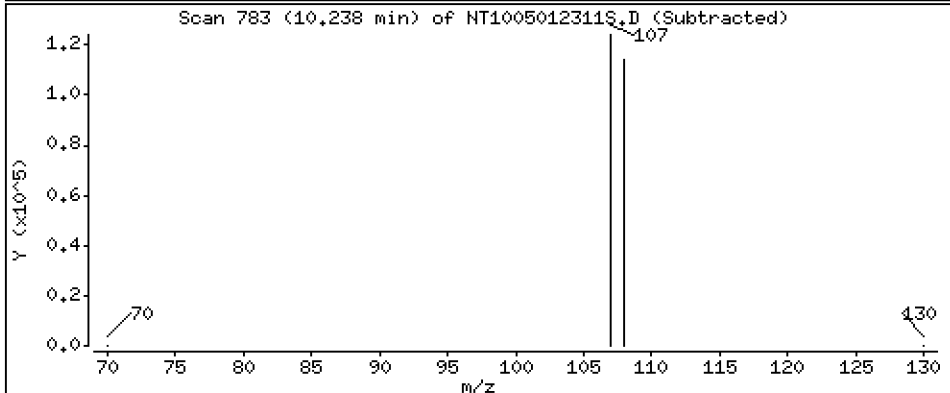
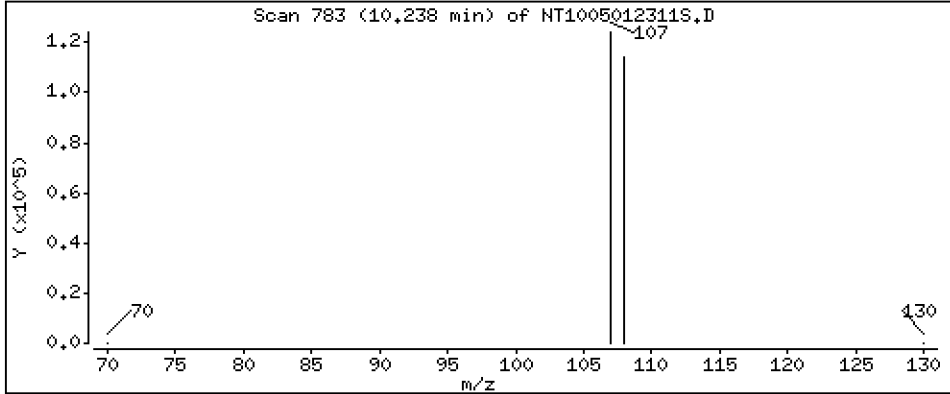
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 4.470 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

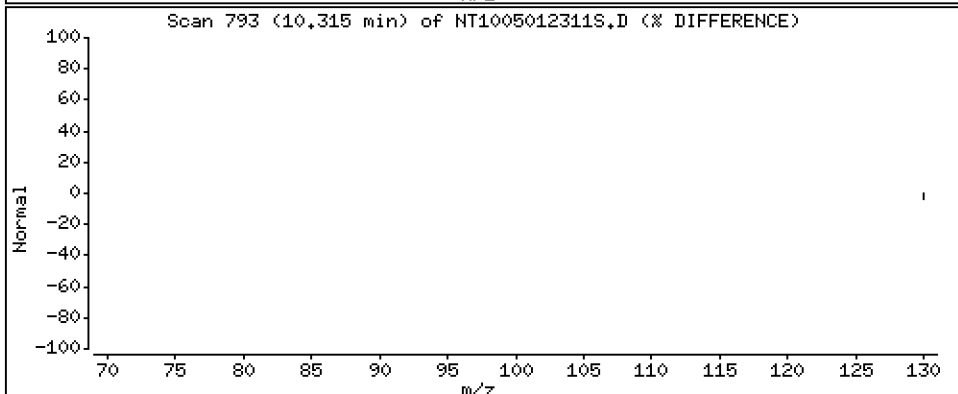
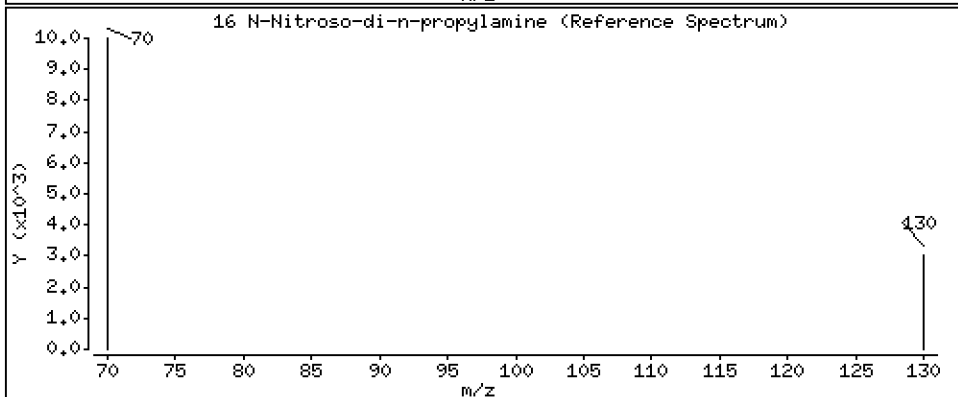
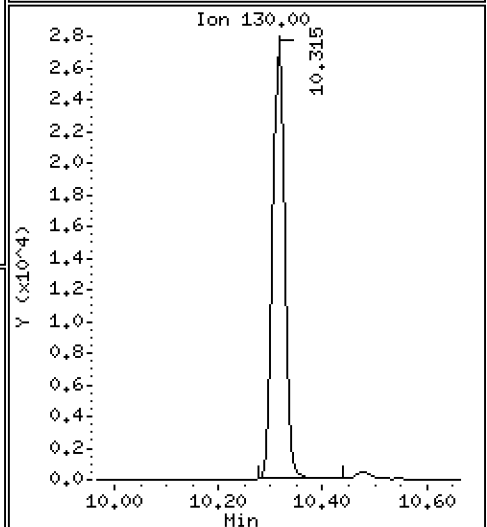
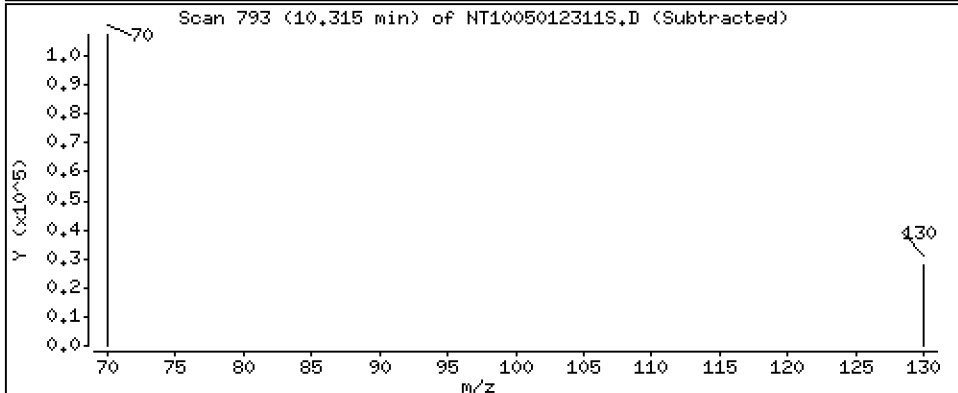
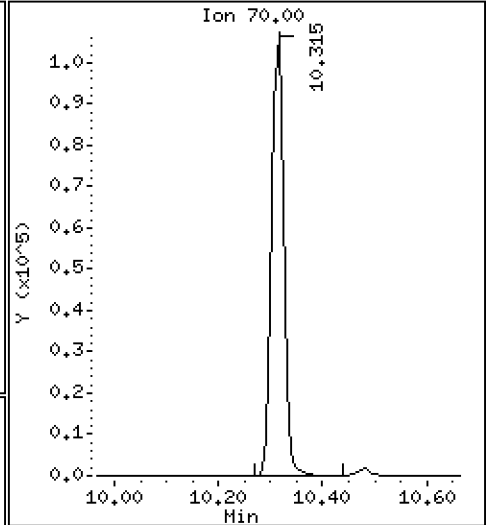
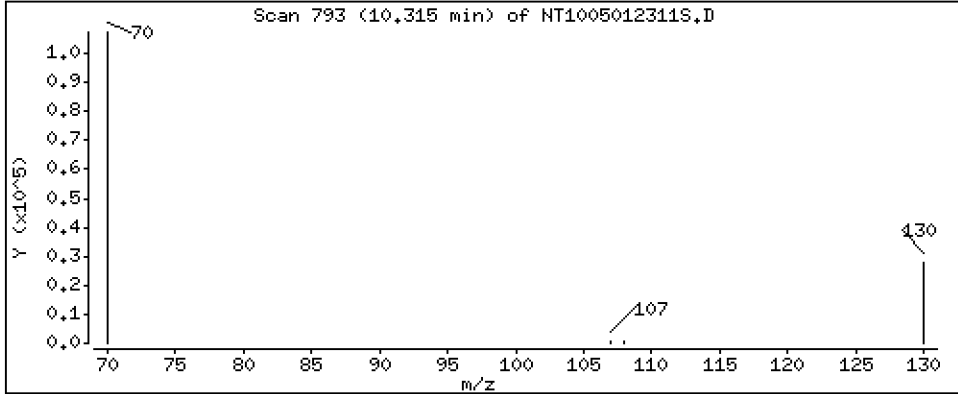
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,268 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

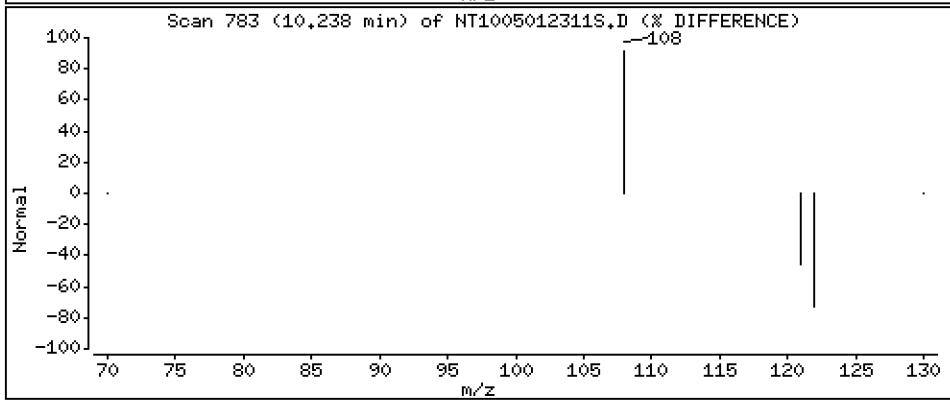
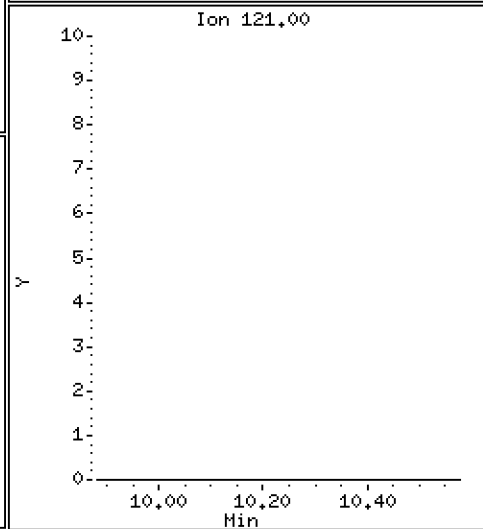
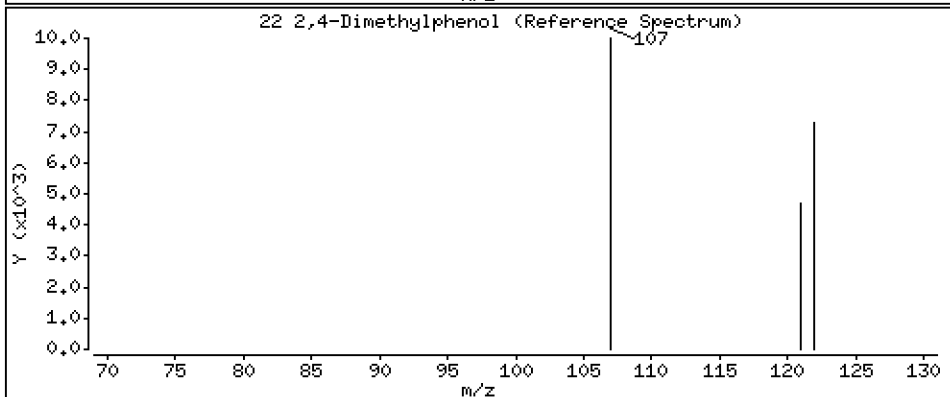
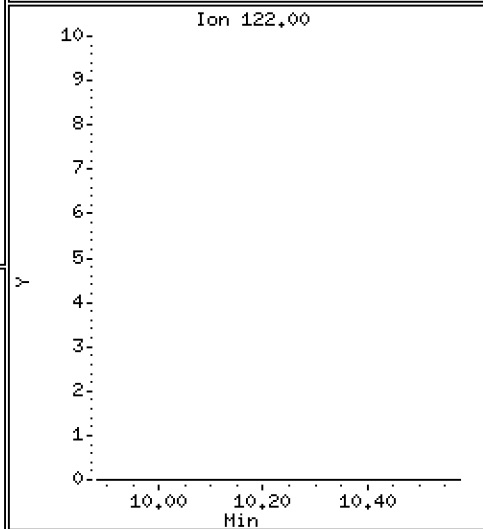
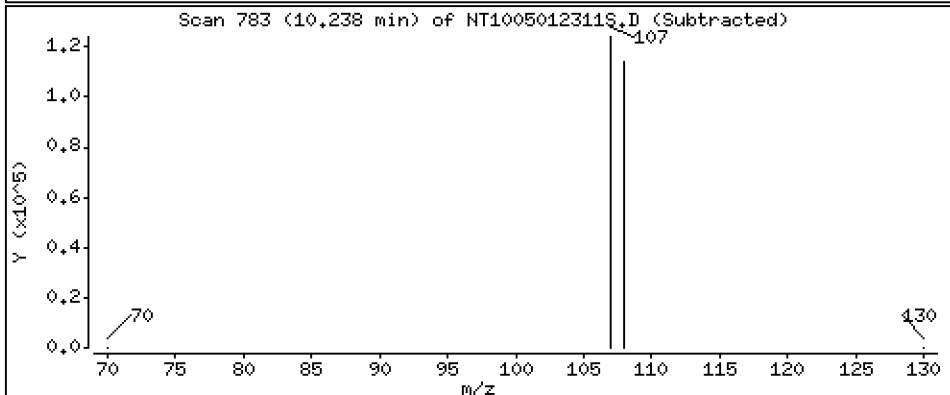
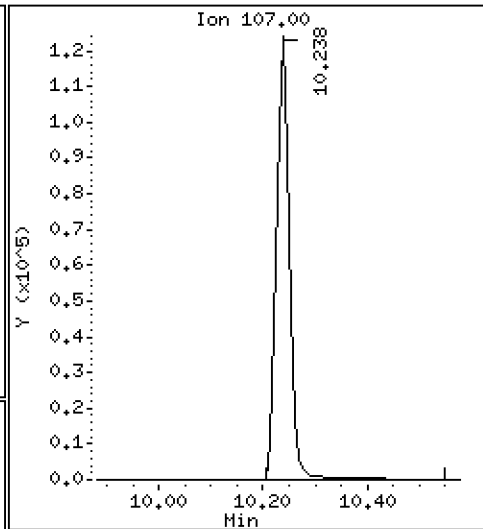
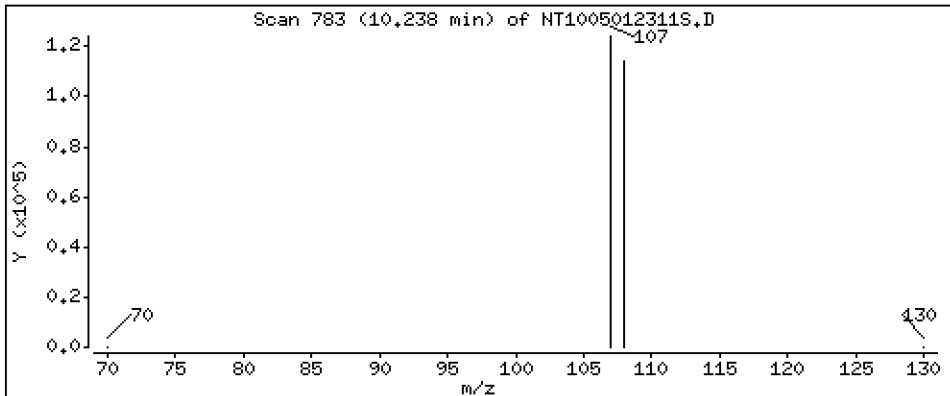
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 7,261 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

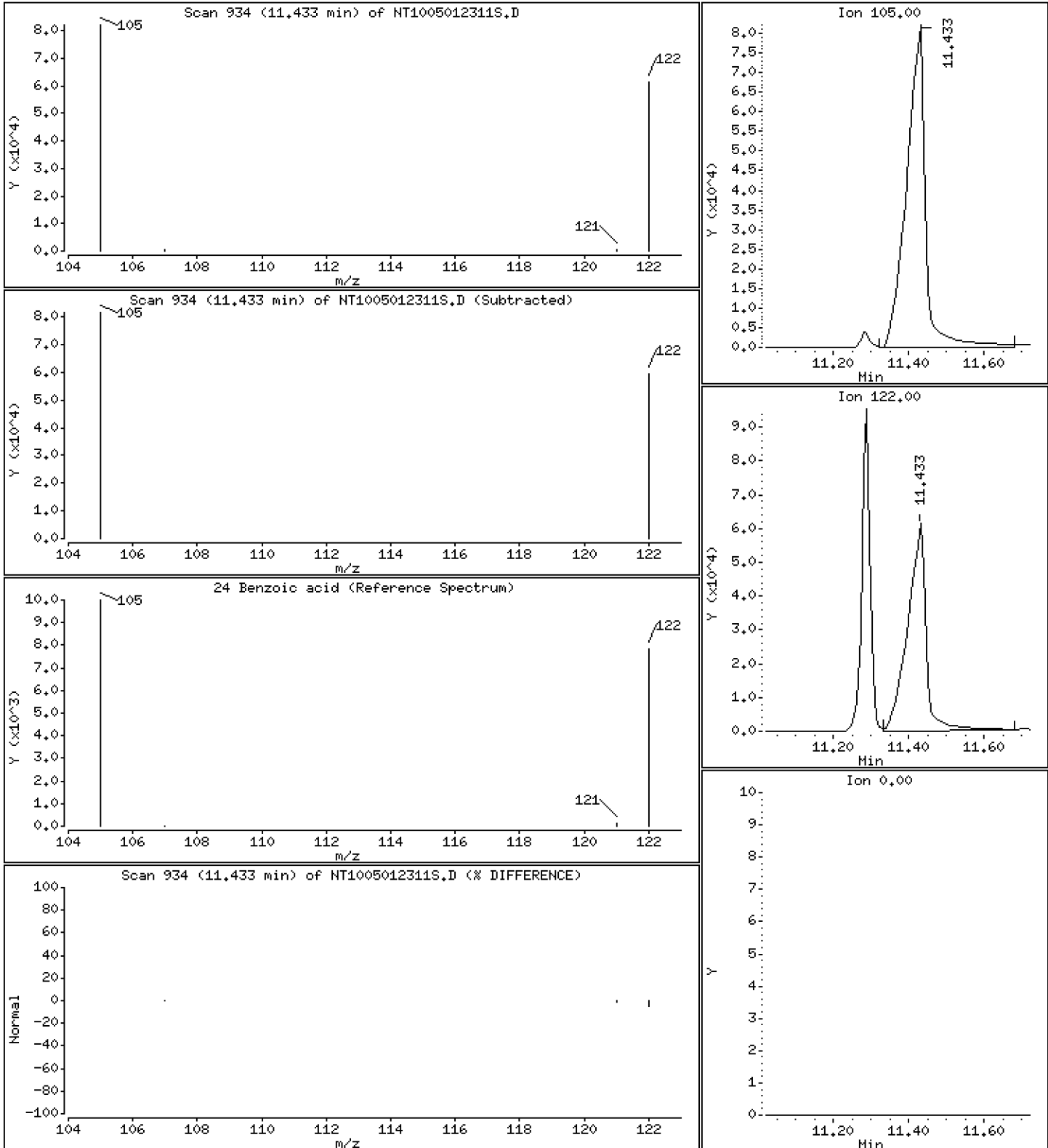
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 8,322 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

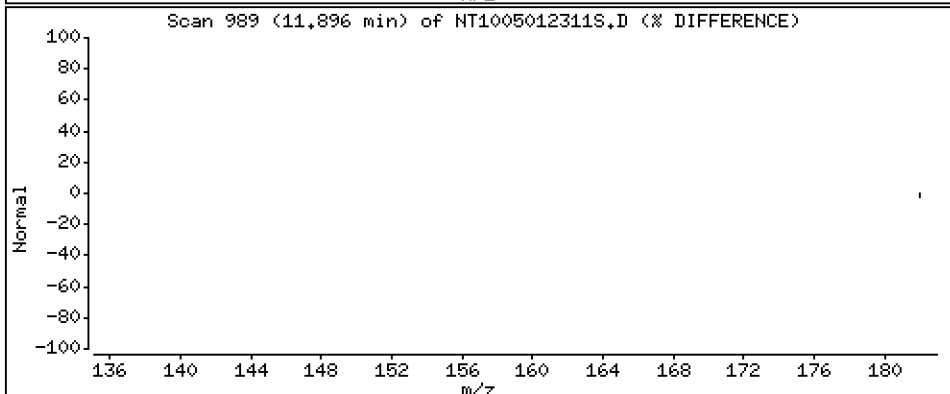
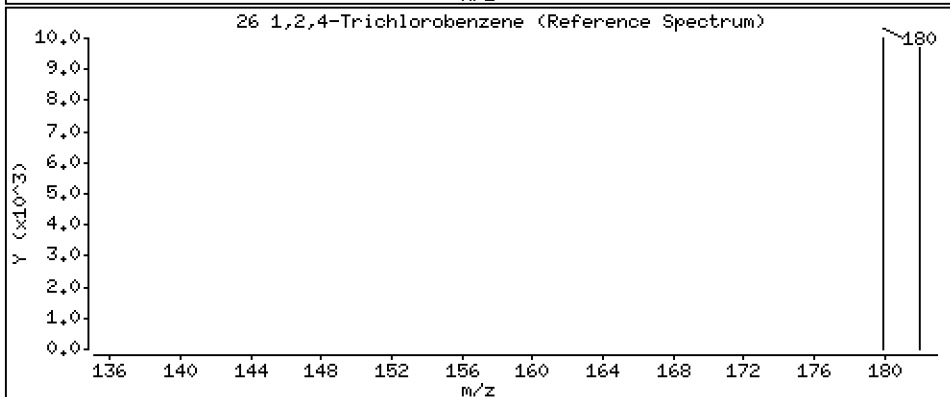
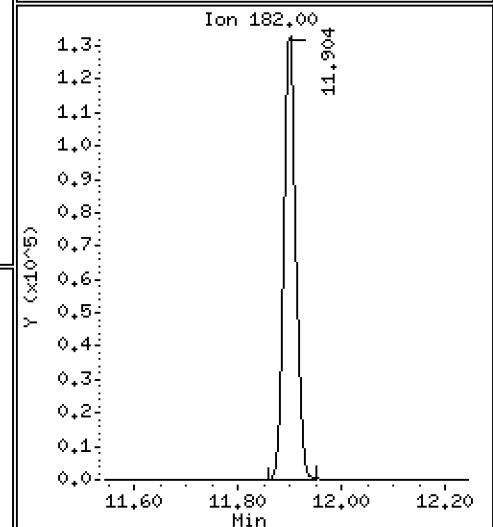
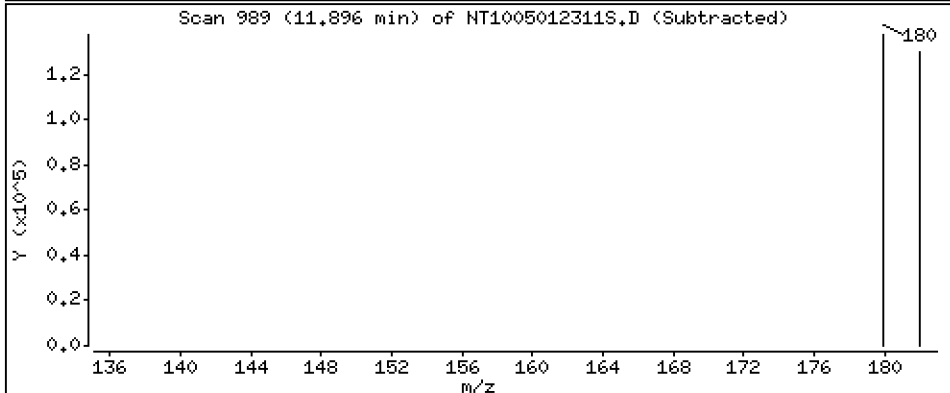
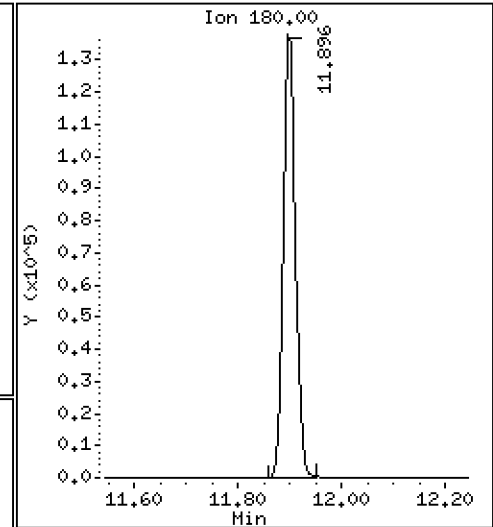
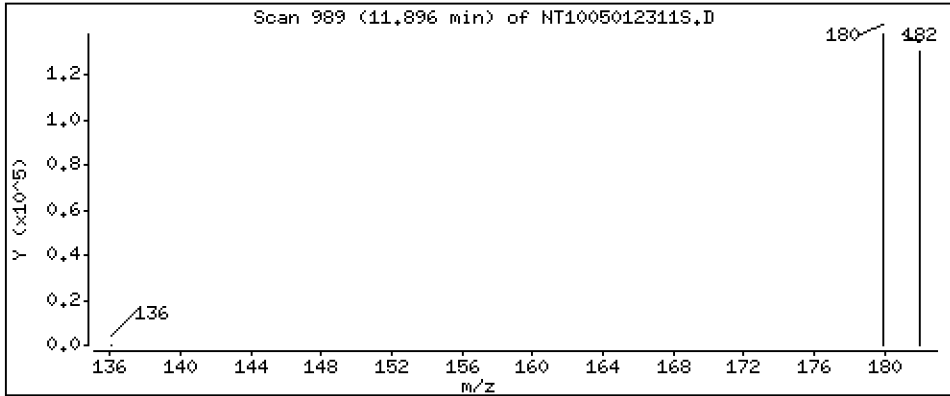
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 4.321 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

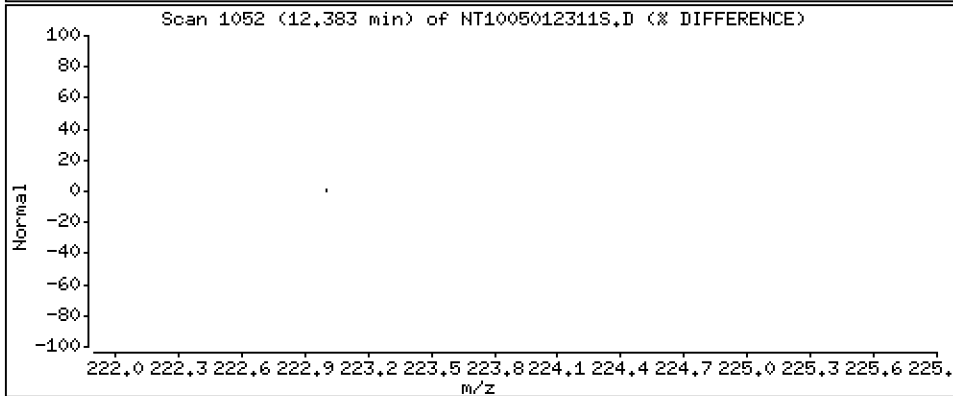
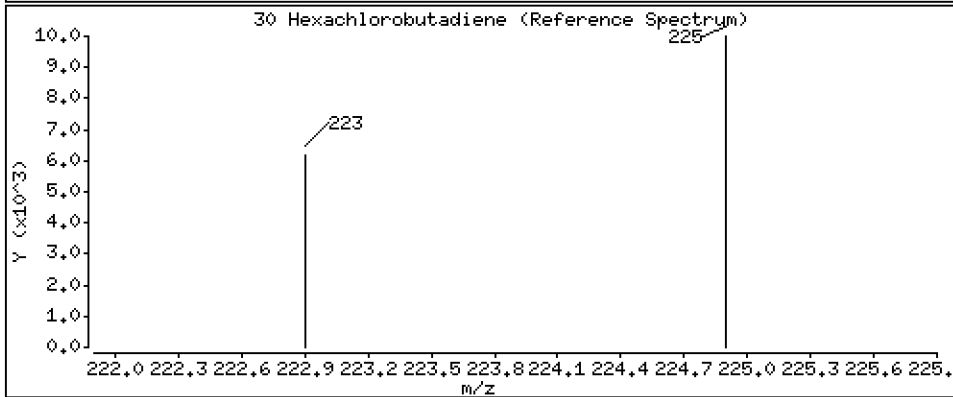
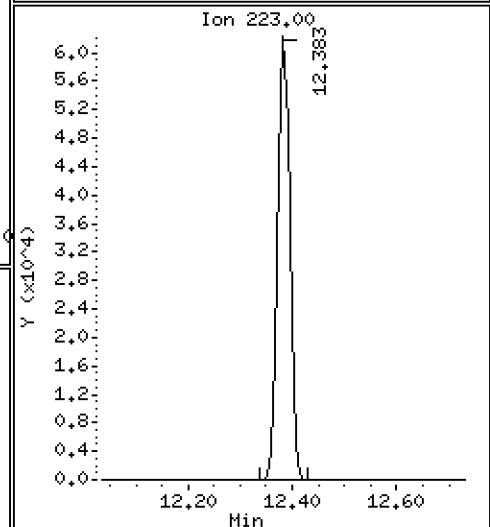
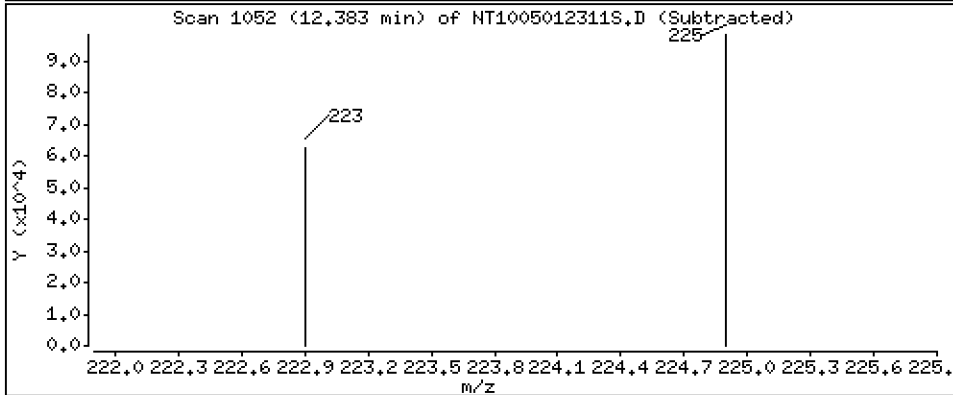
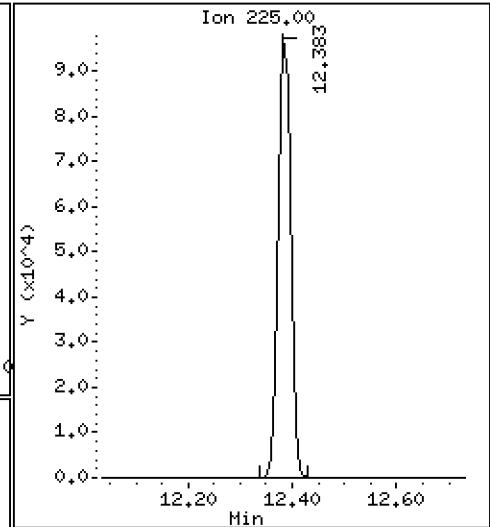
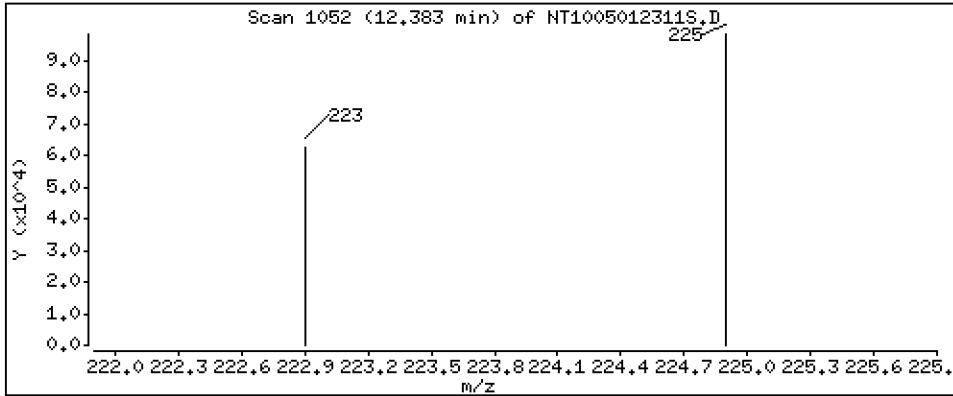
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,632 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

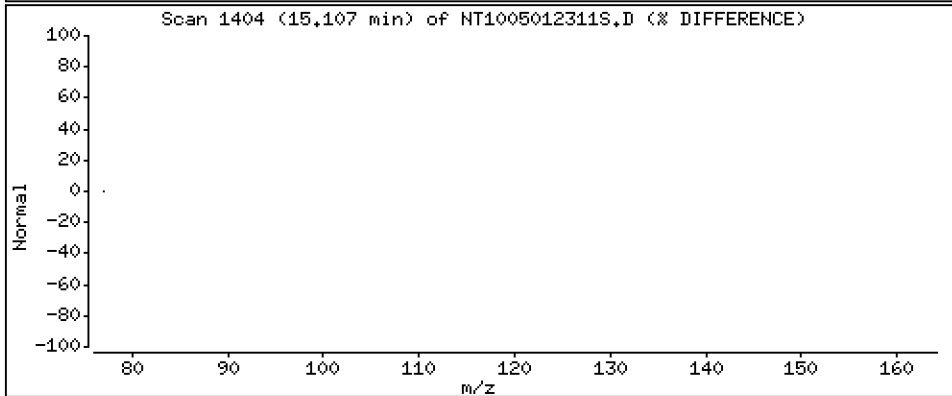
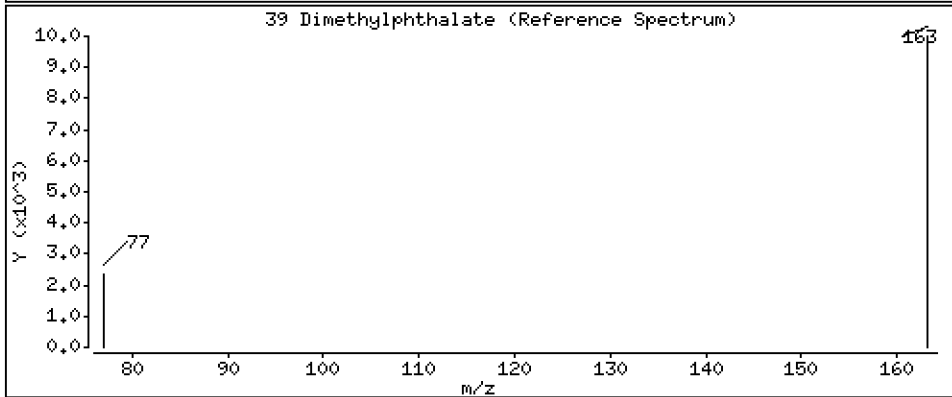
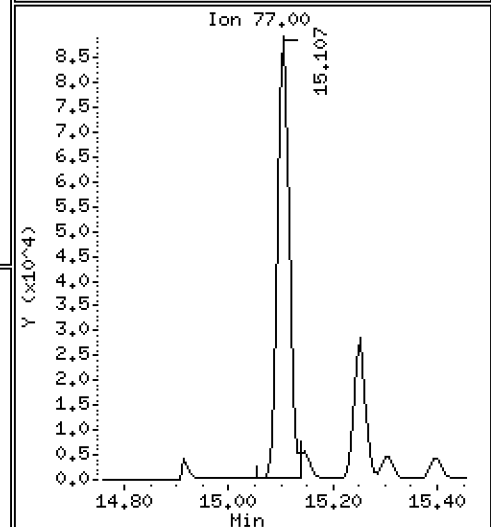
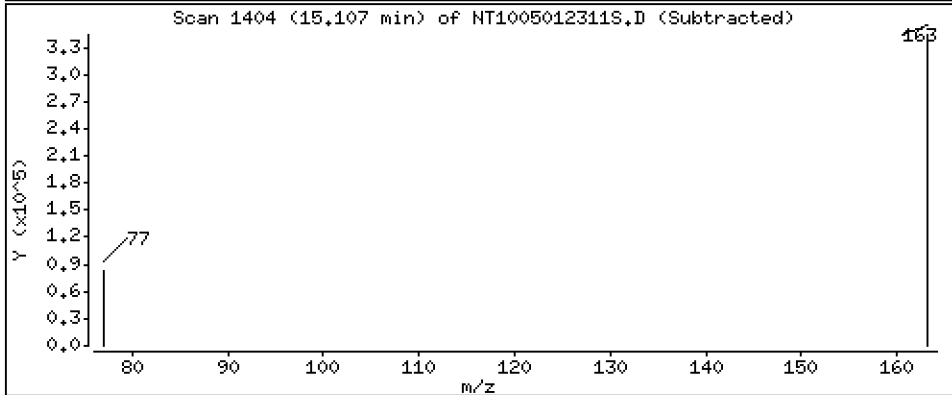
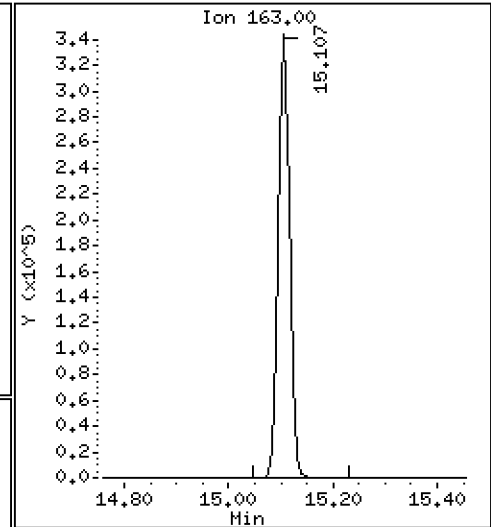
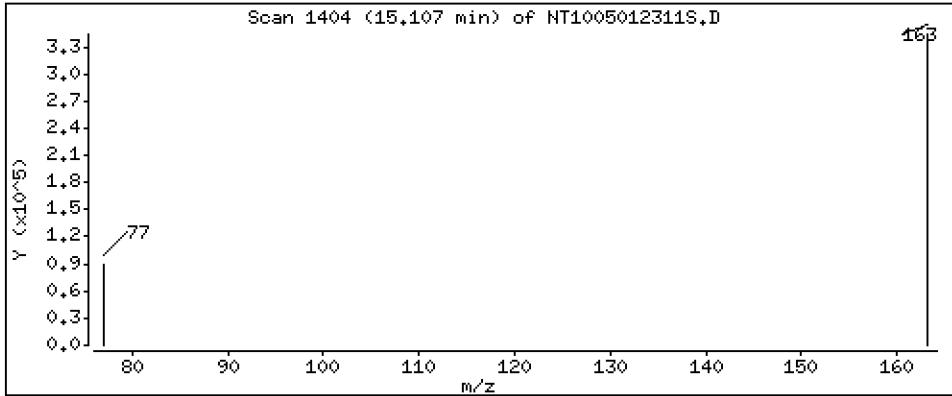
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,875 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

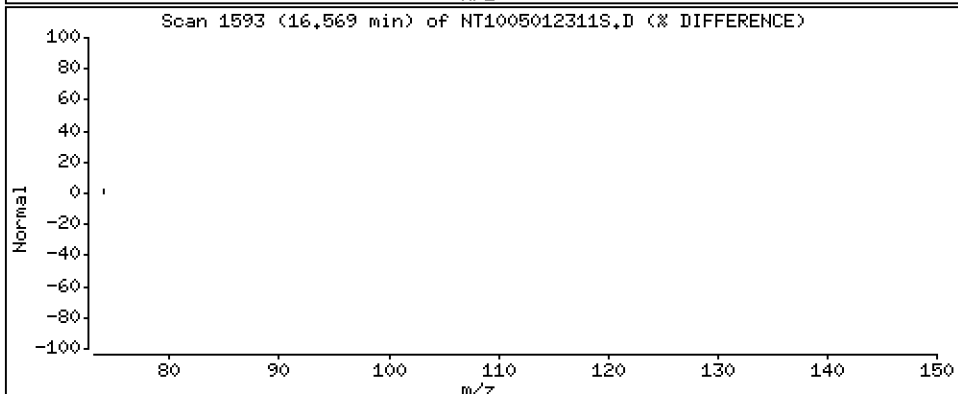
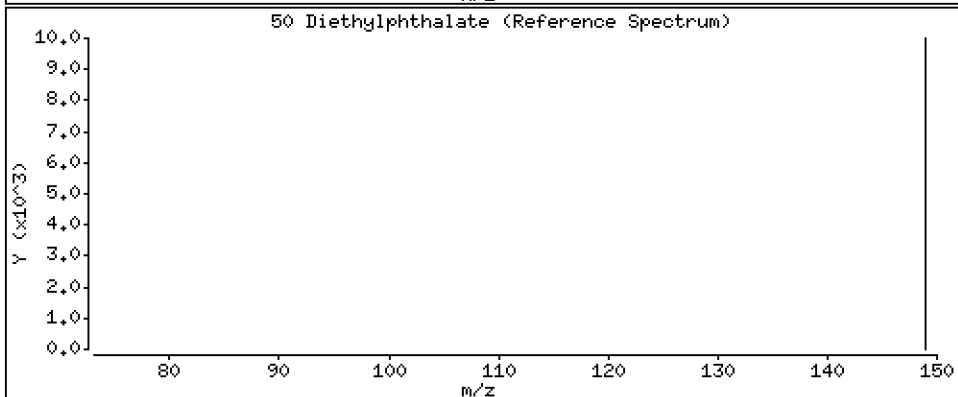
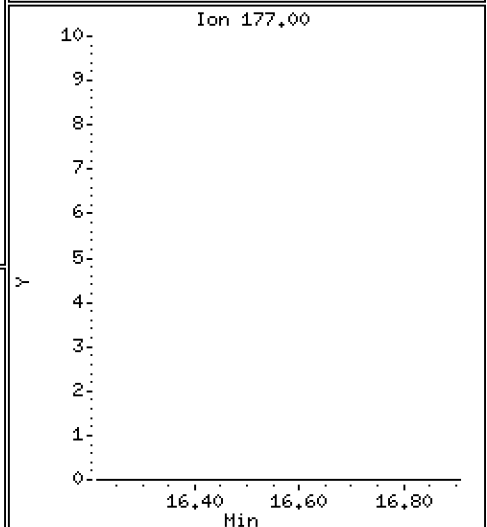
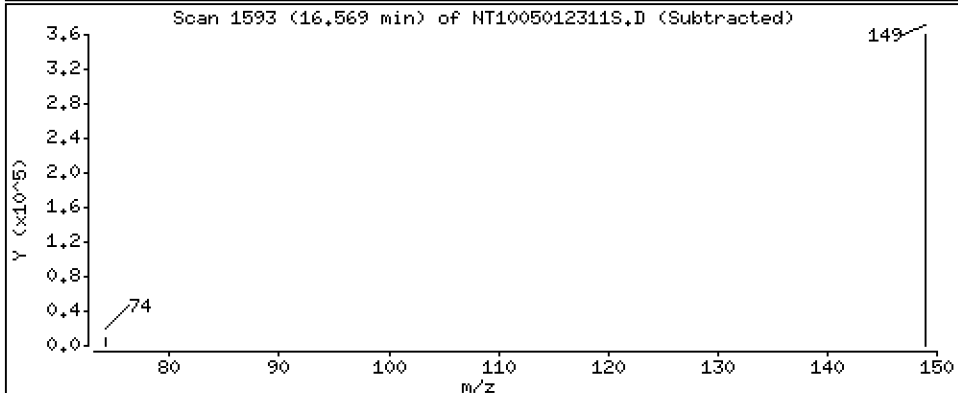
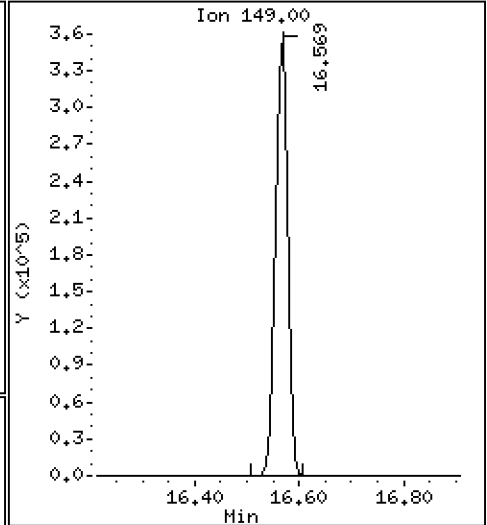
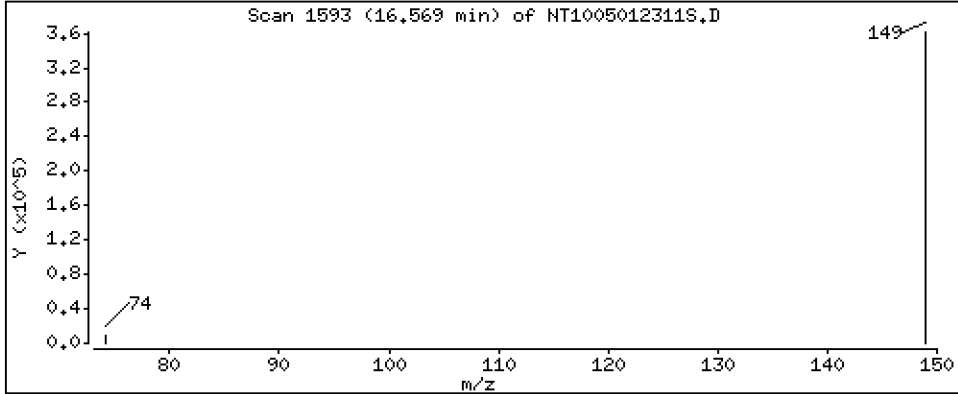
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,253 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

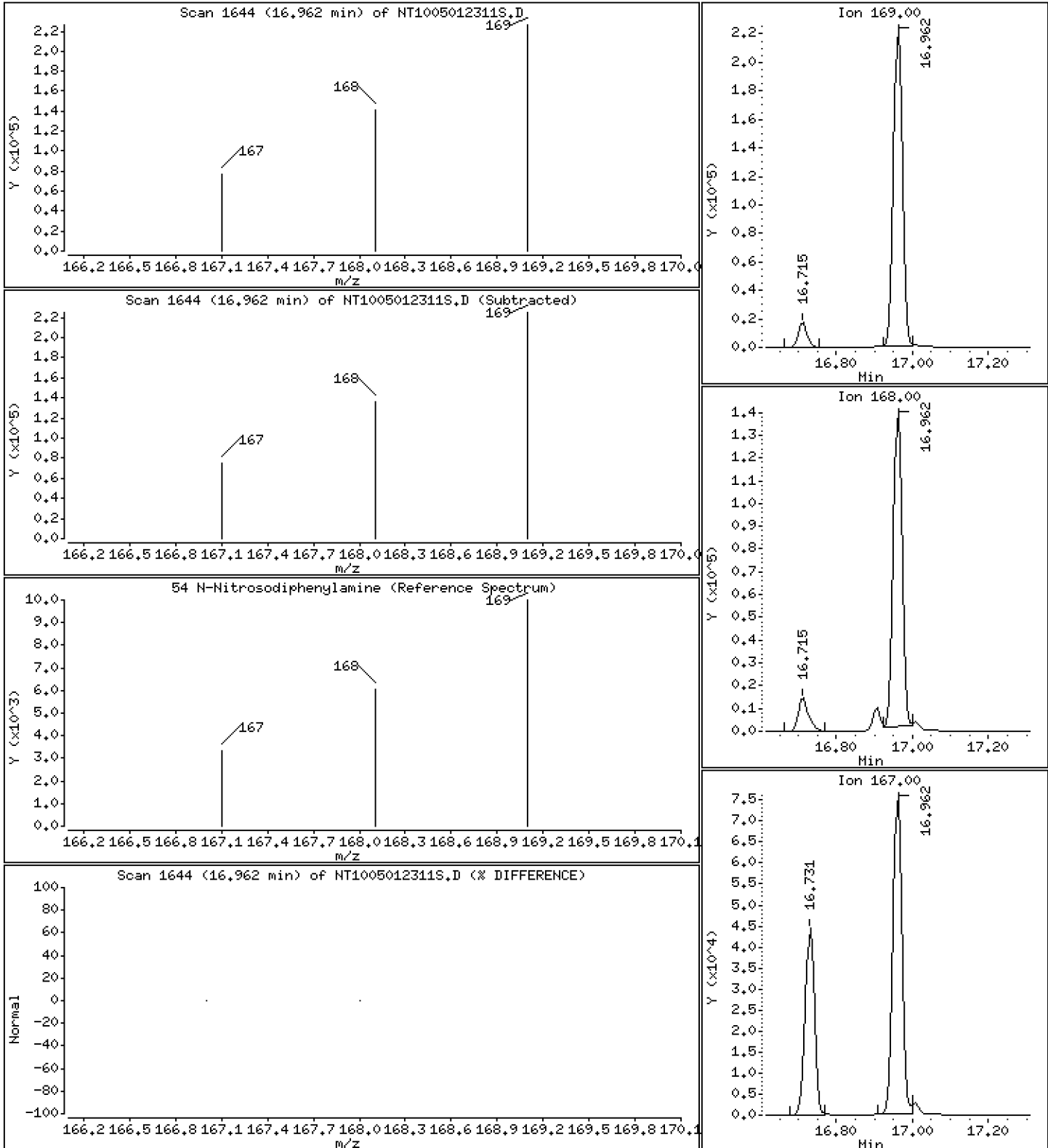
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,289 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

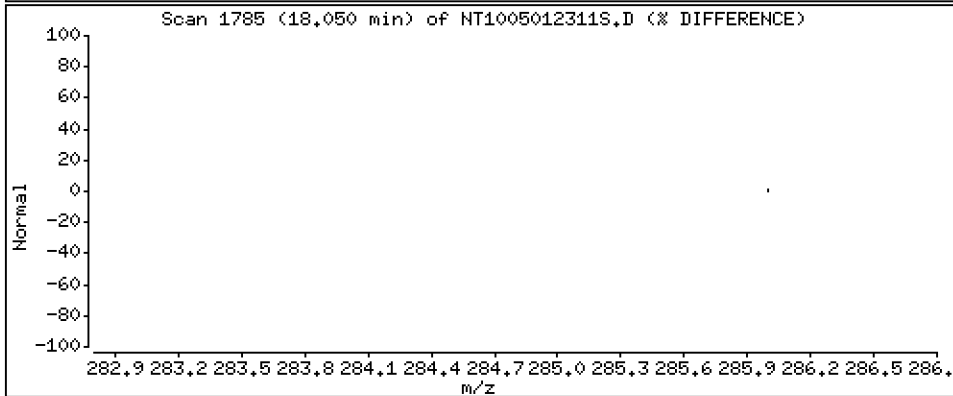
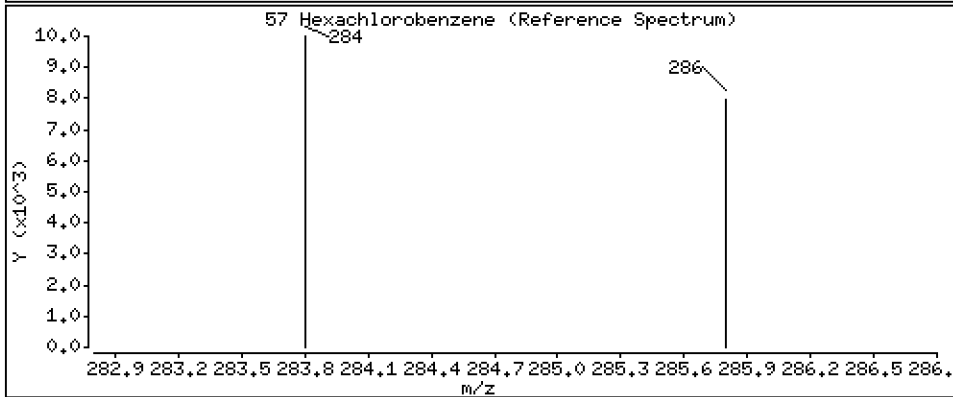
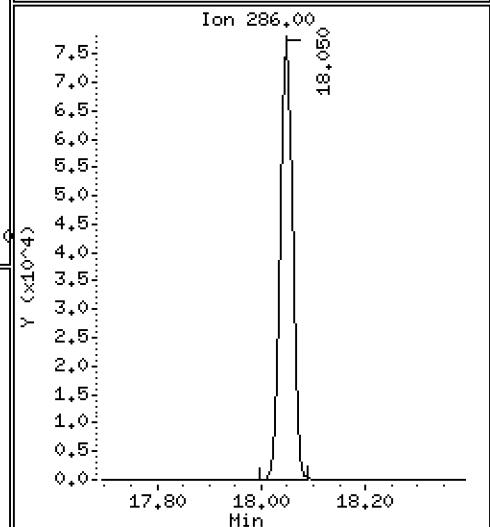
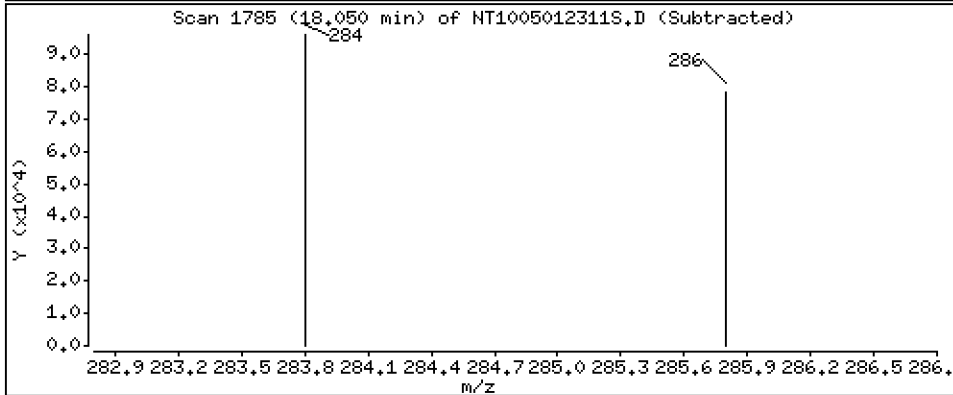
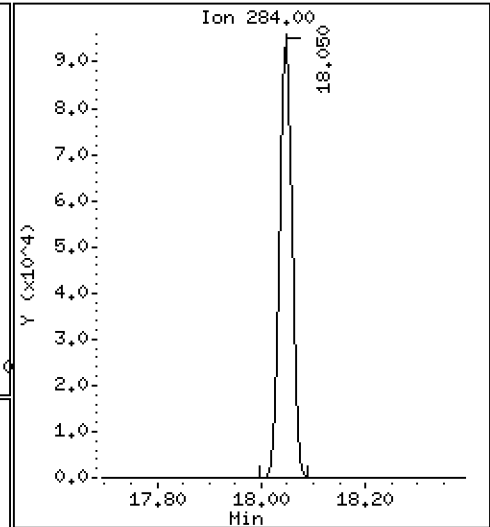
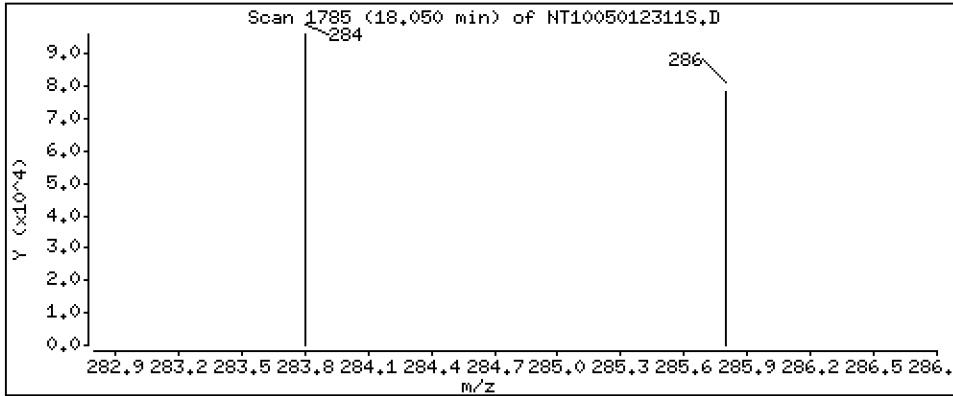
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,640 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

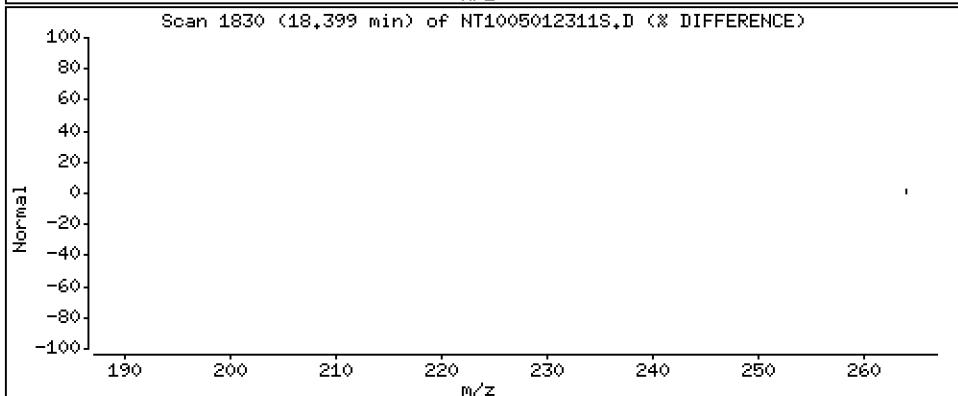
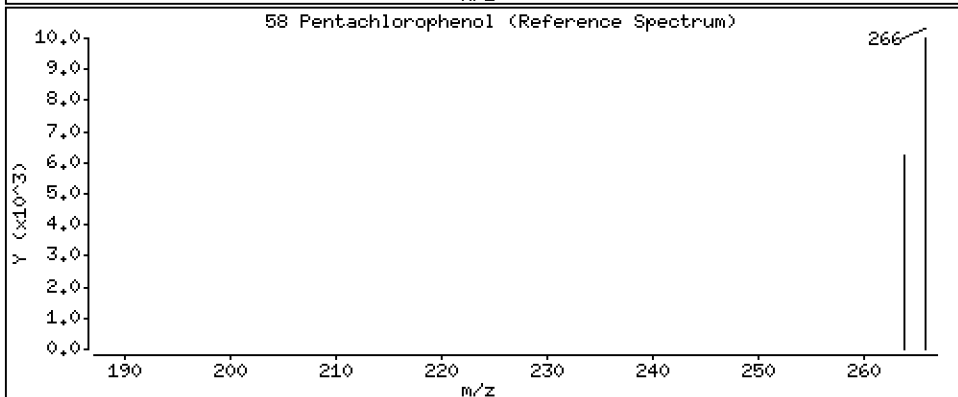
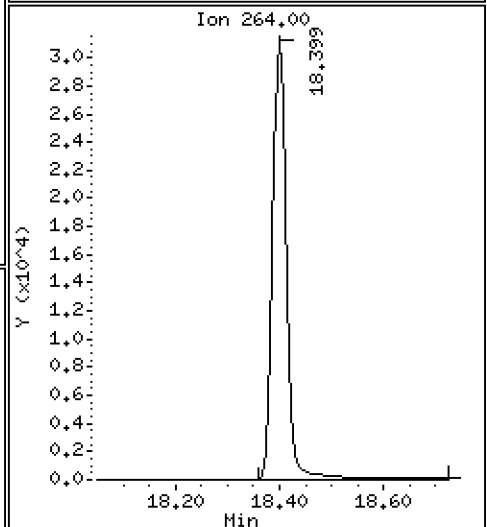
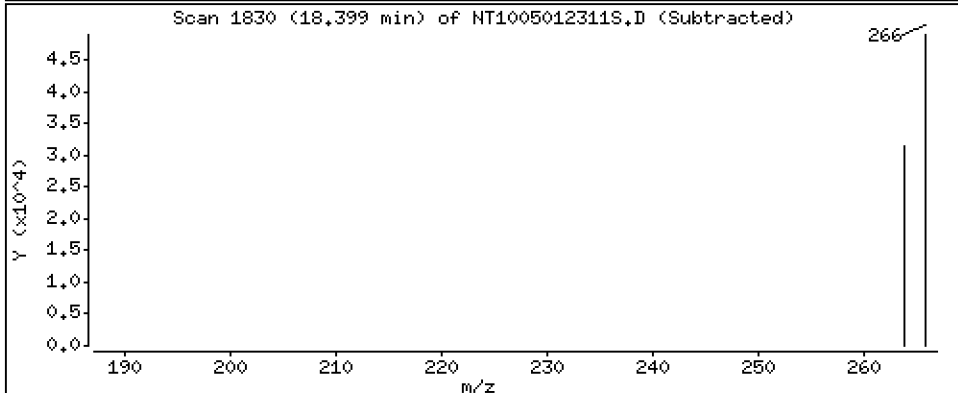
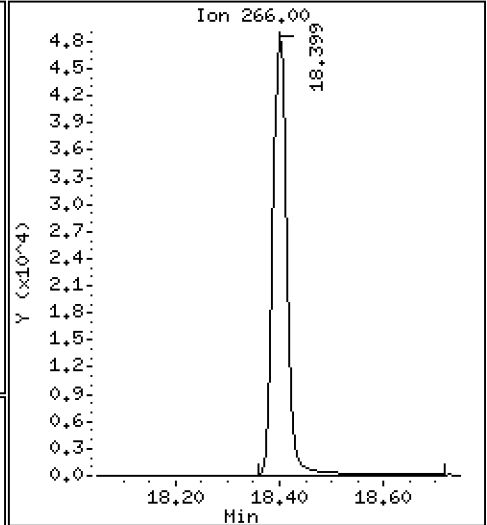
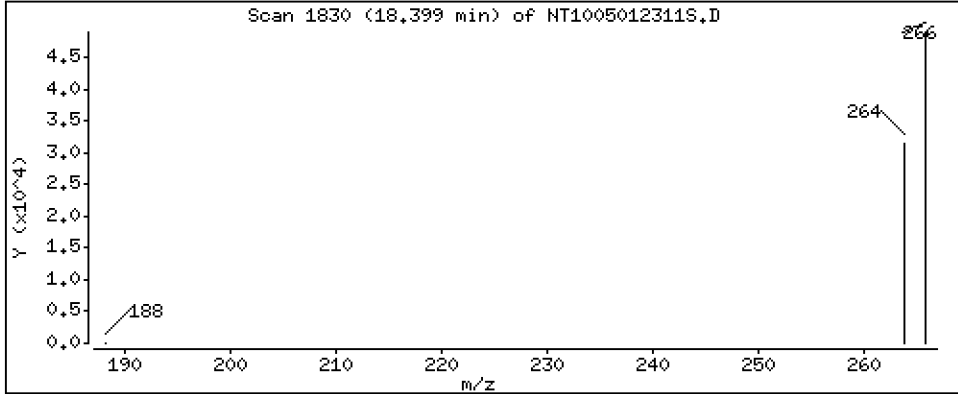
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 4,346 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

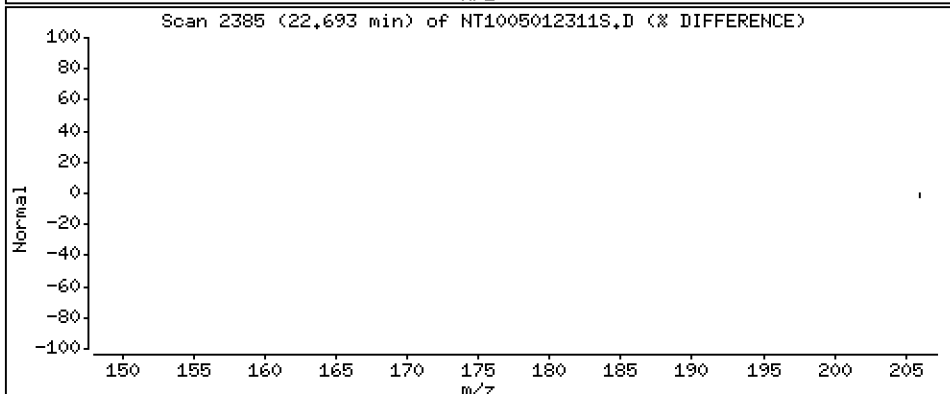
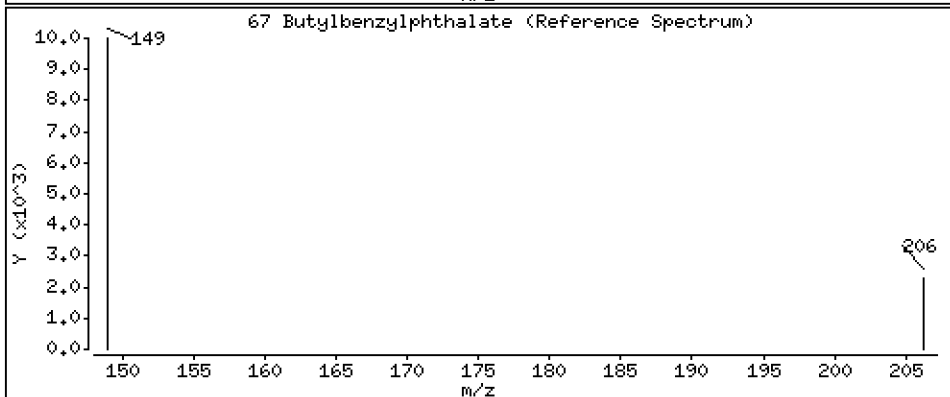
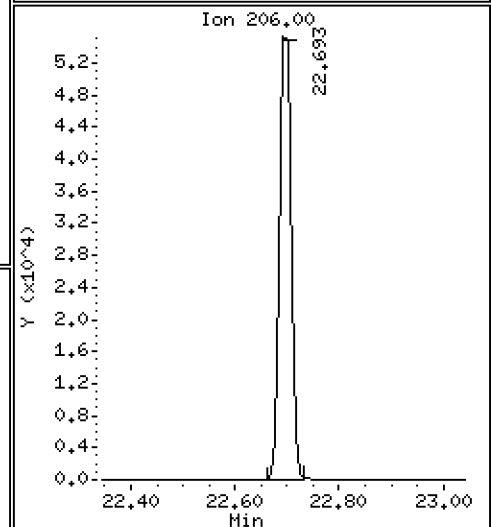
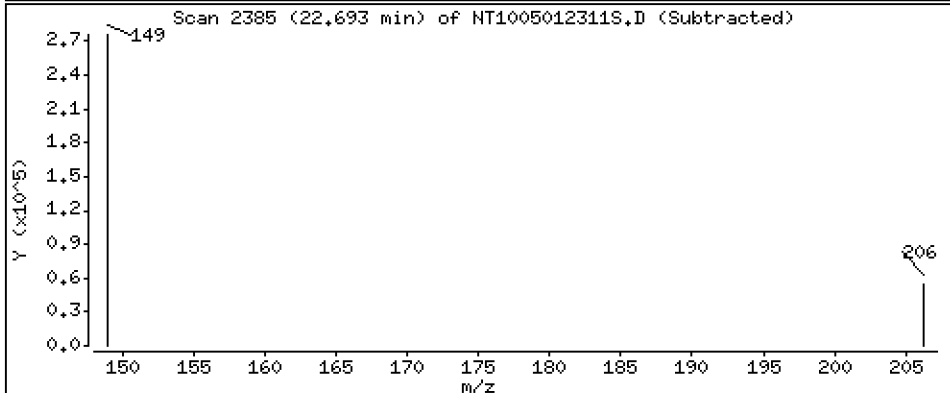
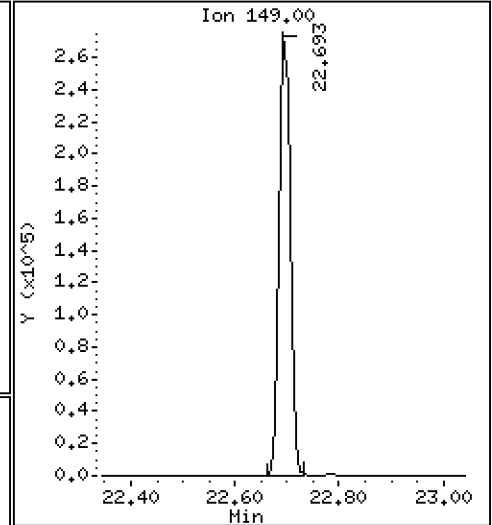
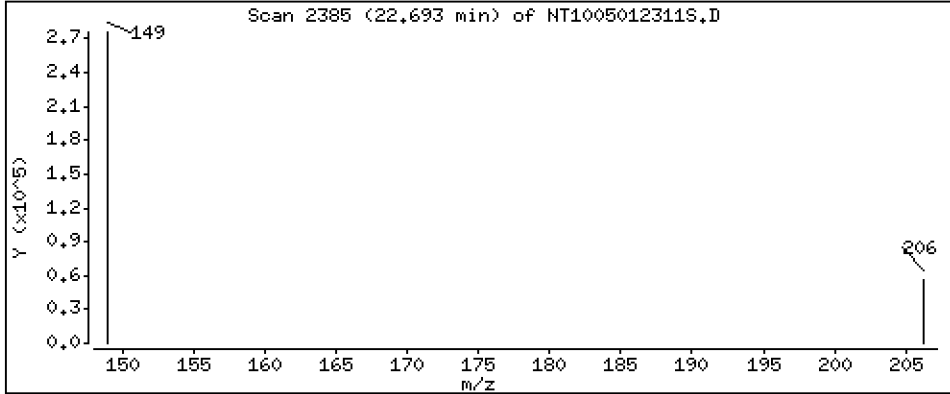
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,065 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

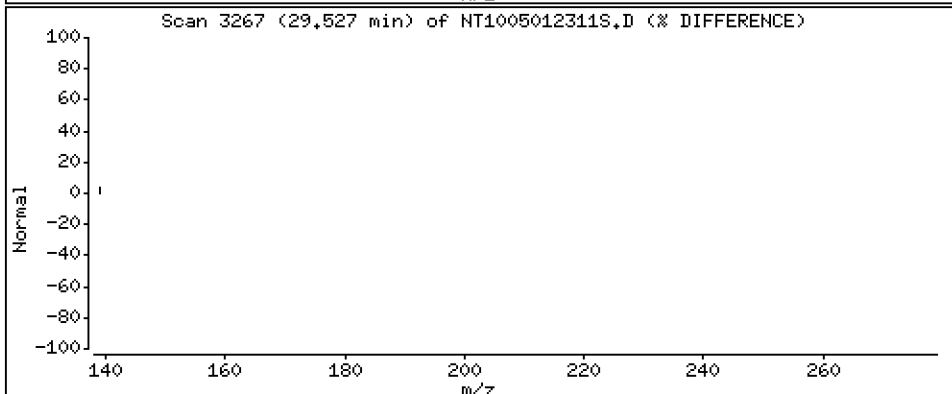
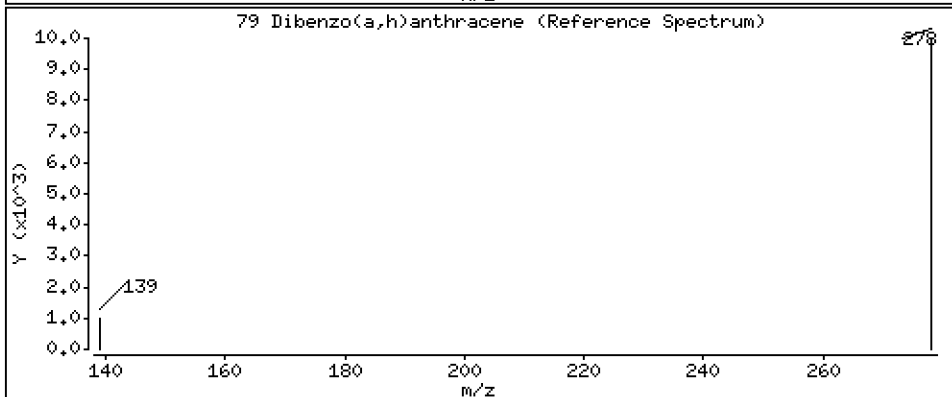
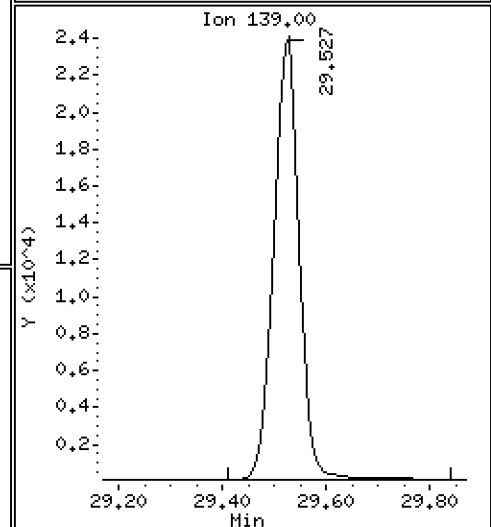
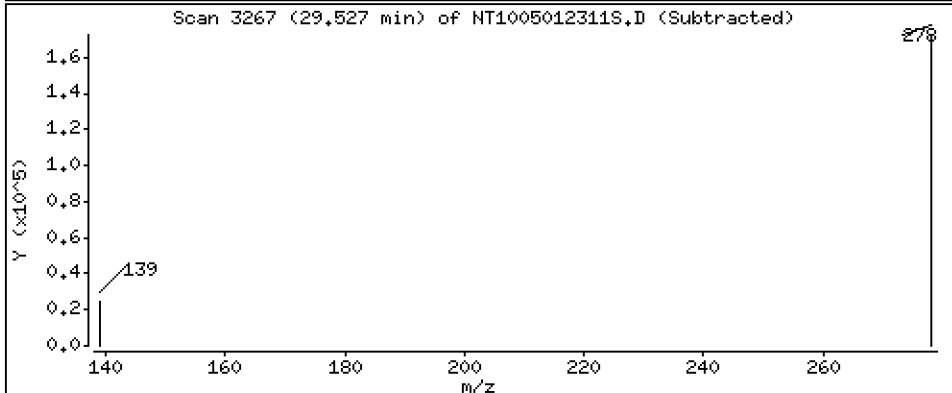
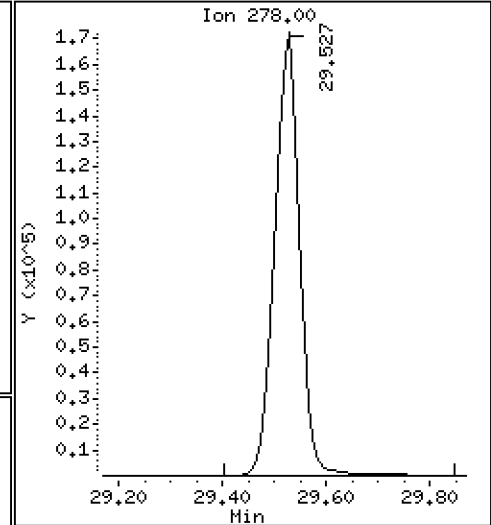
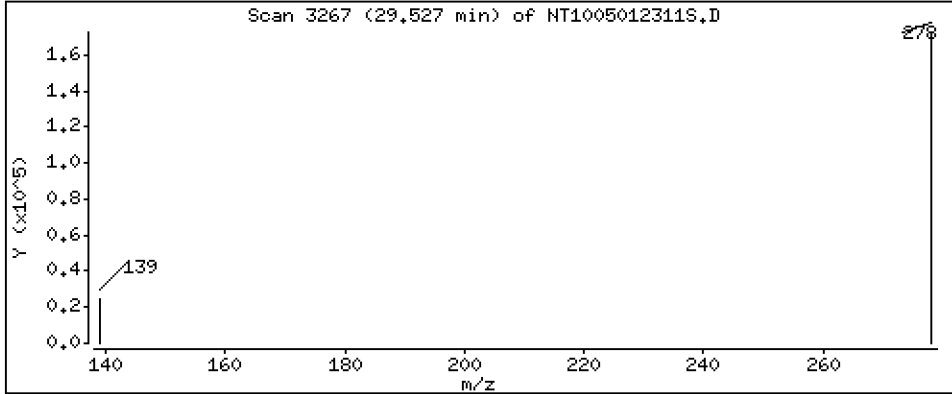
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,815 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

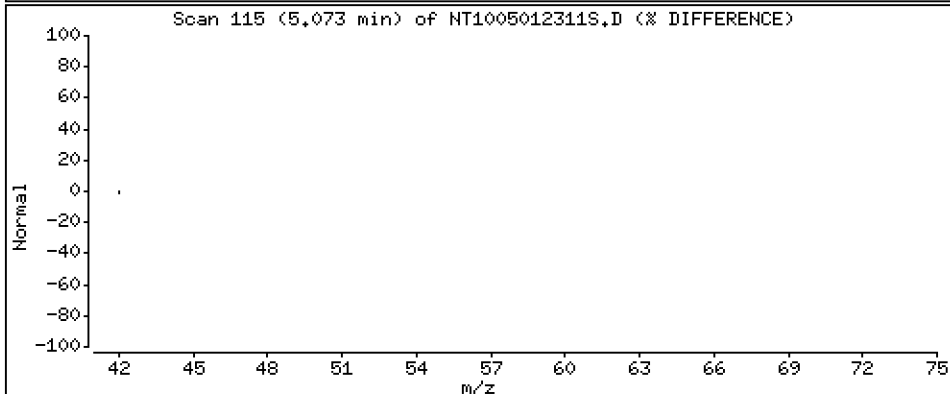
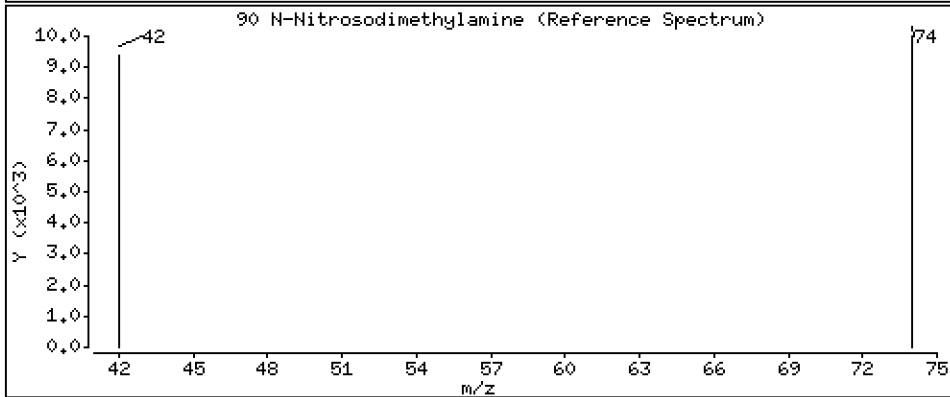
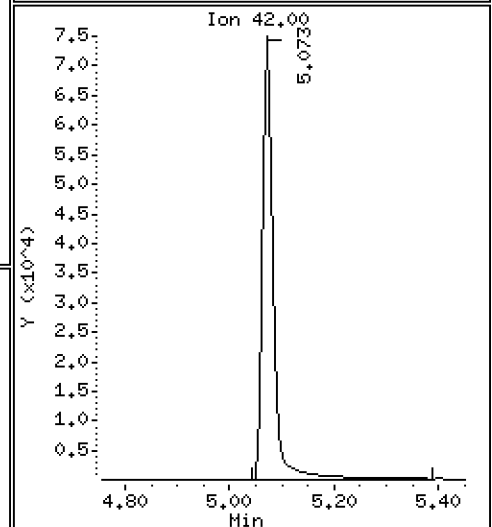
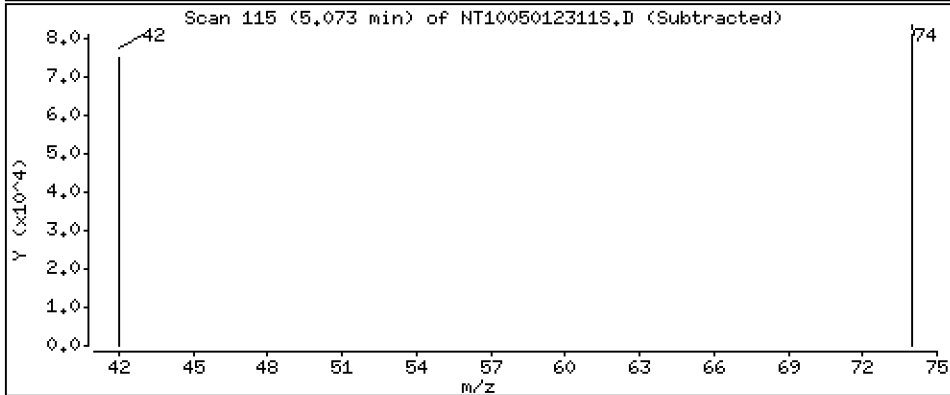
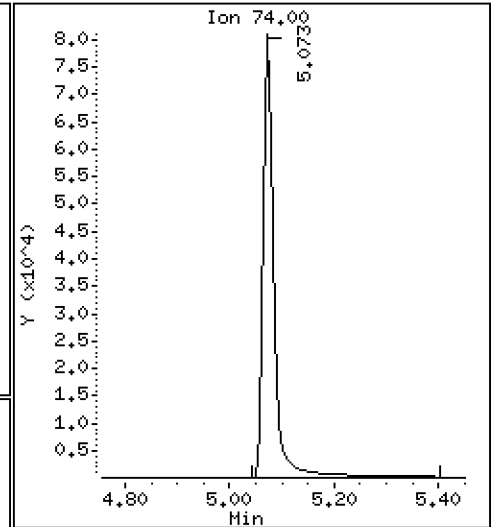
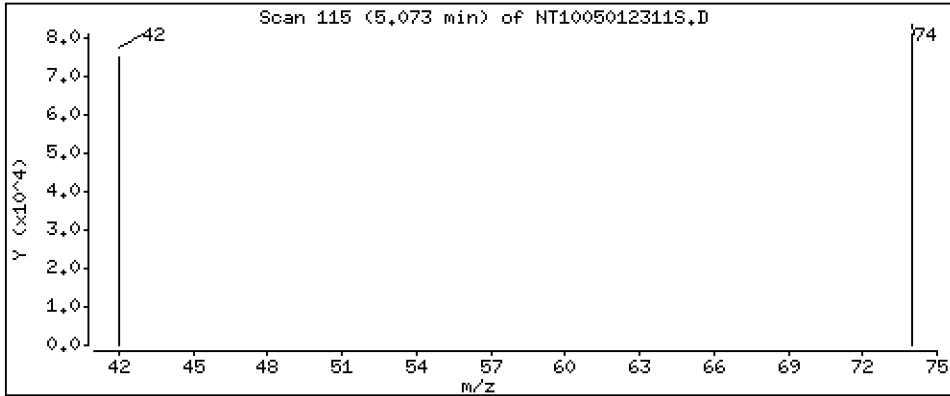
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,213 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012311S.D
 Lab Smp Id: SLE0082-SCV1
 Inj Date : 01-MAY-2023 20:43 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	1569	0.03614	0.03614 (R)
3 Phenol	94		8.842	8.842	(0.932)	241257	4.43593	4.436
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	266593	4.66088	4.661
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	142531	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	271019	4.78410	4.784
11 Benzyl alcohol	79		9.748	9.756	(1.027)	198278	5.27178	5.272
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	253729	4.65664	4.657
13 2-Methylphenol	108		9.965	9.965	(1.050)	172706	4.24306	4.243
15 4-Methylphenol	108		10.237	10.237	(1.079)	191289	4.46966	4.470
16 N-Nitroso-di-n-propylamine	70		10.315	10.315	(1.087)	162670	5.26784	5.268
22 2,4-Dimethylphenol	107		10.237	10.229	(0.854)	211770	7.26094	7.261
24 Benzoic acid	105		11.432	11.373	(0.954)	283387	8.32169	8.322
26 1,2,4-Trichlorobenzene	180		11.896	11.896	(0.992)	224651	4.32072	4.321
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	510045	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	153764	4.63178	4.632
39 Dimethylphthalate	163		15.106	15.107	(0.967)	487893	4.87533	4.875
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	263993	4.00000	
50 Diethylphthalate	149		16.568	16.560	(1.061)	564424	5.25278	5.253
54 N-Nitrosodiphenylamine	169		16.962	16.962	(0.908)	349152	5.28852	5.289
57 Hexachlorobenzene	284		18.050	18.042	(0.966)	150021	4.64019	4.640

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.398	18.398	(0.985)	87352	4.34597	4.346
* 59 Phenanthrene-d10	188	18.677	18.677	(1.000)	506239	4.00000	
\$ 66 Terphenyl-d14	244	21.779	21.779	(0.919)	2121	0.02441	0.02441 (R)
67 Butylbenzylphthalate	149	22.693	22.693	(0.958)	378823	5.06538	5.065
* 69 Chrysene-d12	240	23.699	23.692	(1.000)	402889	4.00000	
* 77 Perylene-d12	264	26.533	26.533	(1.000)	365734	4.00000	
79 Dibenzo(a,h)anthracene	278	29.527	29.519	(1.113)	568400	4.81466	4.815
90 N-Nitrosodimethylamine	74	5.072	5.103	(0.534)	123469	5.21274	5.213

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012311S.D
 Lab Smp Id: SLE0082-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	142531	-15.75
27 Naphthalene-d8	594924	297462	1189848	510045	-14.27
42 Acenaphthene-d10	304980	152490	609960	263993	-13.44
59 Phenanthrene-d10	609190	304595	1218380	506239	-16.90
69 Chrysene-d12	479061	239531	958122	402889	-15.90
77 Perylene-d12	427162	213581	854324	365734	-14.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
77 Perylene-d12	26.54	26.04	27.04	26.53	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005012311S.D

Lab ID: SLE0082-SCV1

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 20:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt10.1\20230501.b\20230501.b\NT10050123125.D

Date: 01-May-2023 21:22

Client ID:

Sample Info: SLE0082-ICB1

Volume Injected (uL): 1.0

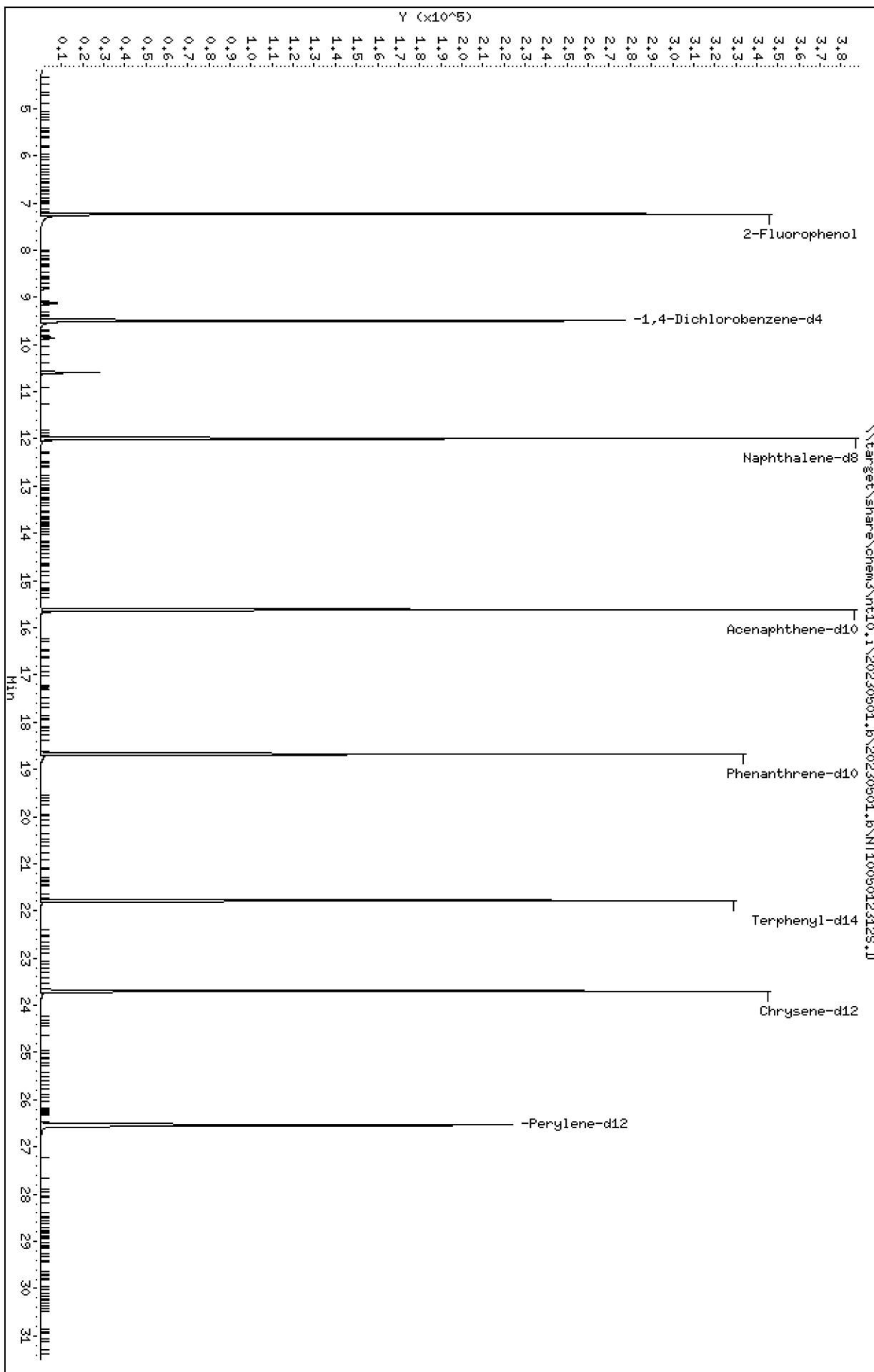
Column phase: ZB-5msi

Instrument: nt10.1

Operator: JGR

Column diameter: 0.25

Page 1



Date : 01-MAY-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-ICB1

Volume Injected (uL): 1.0

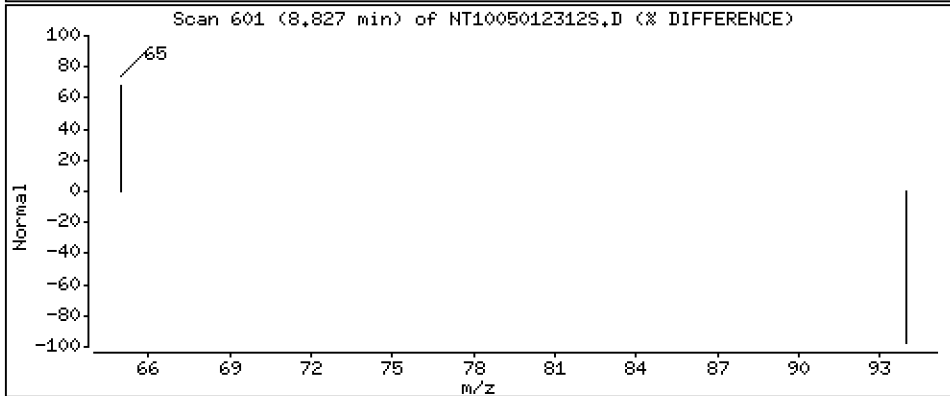
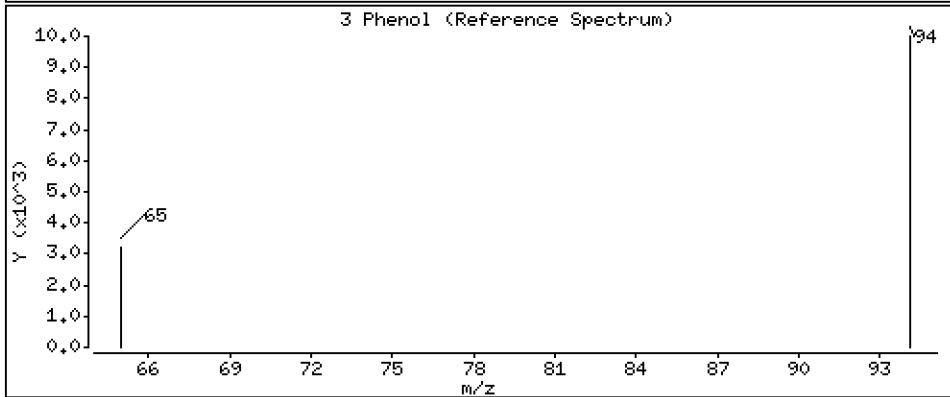
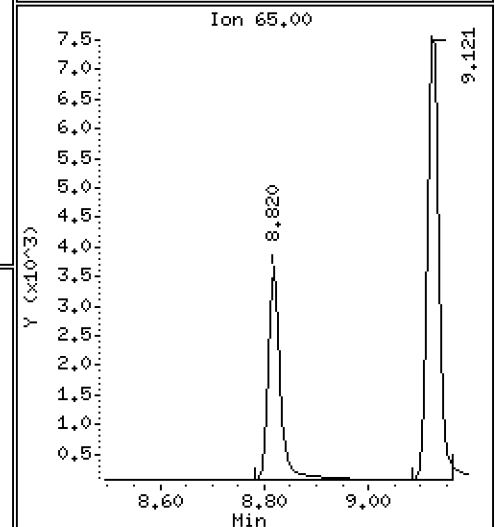
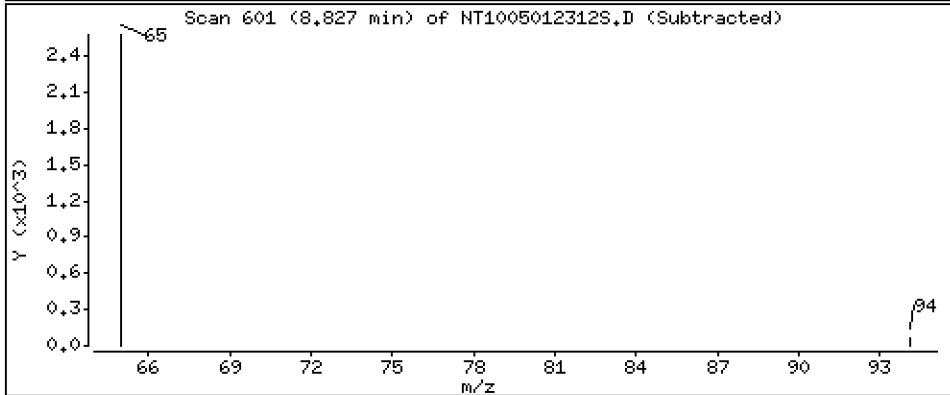
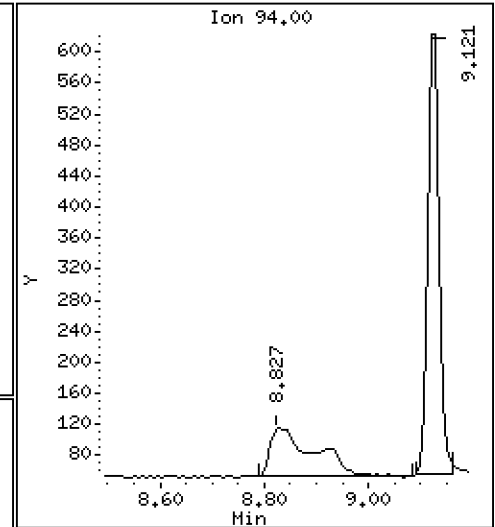
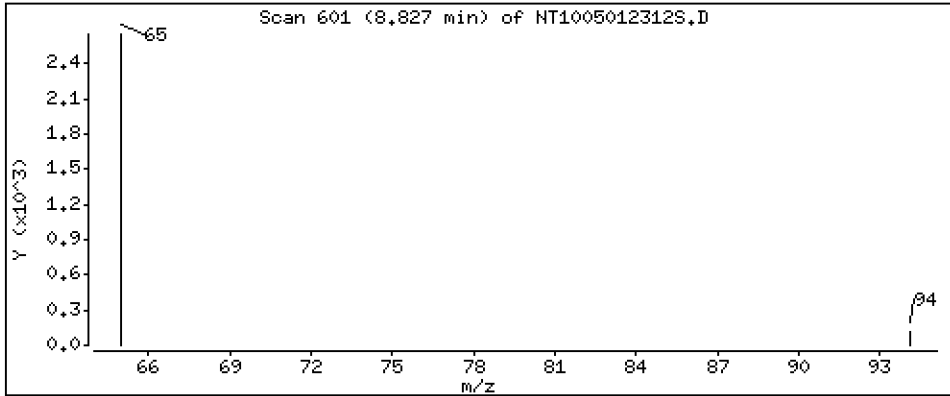
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,005707 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012312S.D
 Lab Smp Id: SLE0082-ICB1
 Inj Date : 01-MAY-2023 21:22 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-ICB1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	339281	6.73694	6.737 (R)
3 Phenol	94		8.827	8.842	(0.930)	360	0.00571	0.005707
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	165323	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	79		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	600558	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		Compound Not Detected.					
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	293573	4.00000	
50 Diethylphthalate	149		Compound Not Detected.					
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		Compound Not Detected.					
* 59 Phenanthrene-d10	188		18.676	18.677	(1.000)	566241	4.00000	
\$ 66 Terphenyl-d14	244		21.787	21.779	(0.919)	412405	4.33743	4.337 (R)
67 Butylbenzylphthalate	149		Compound Not Detected.					
* 69 Chrysene-d12	240		23.699	23.692	(1.000)	440951	4.00000	
* 77 Perylene-d12	264		26.540	26.533	(1.000)	417631	4.00000	
79 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012312S.D
 Lab Smp Id: SLE0082-ICB1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	165323	-2.28
27 Naphthalene-d8	594924	297462	1189848	600558	0.95
42 Acenaphthene-d10	304980	152490	609960	293573	-3.74
59 Phenanthrene-d10	609190	304595	1218380	566241	-7.05
69 Chrysene-d12	479061	239531	958122	440951	-7.96
77 Perylene-d12	427162	213581	854324	417631	-2.23

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
77 Perylene-d12	26.54	26.04	27.04	26.54	0.00

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

REVIEW SUMMARY FOR FILE - NT1005012312S.D

Lab ID: SLE0082-ICB1

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 21:22

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00018

Laboratory ID: SLE0082-SCV1

Sequence: SLE0082

Sequence Name: SCV 5.0

Standard ID: K010066

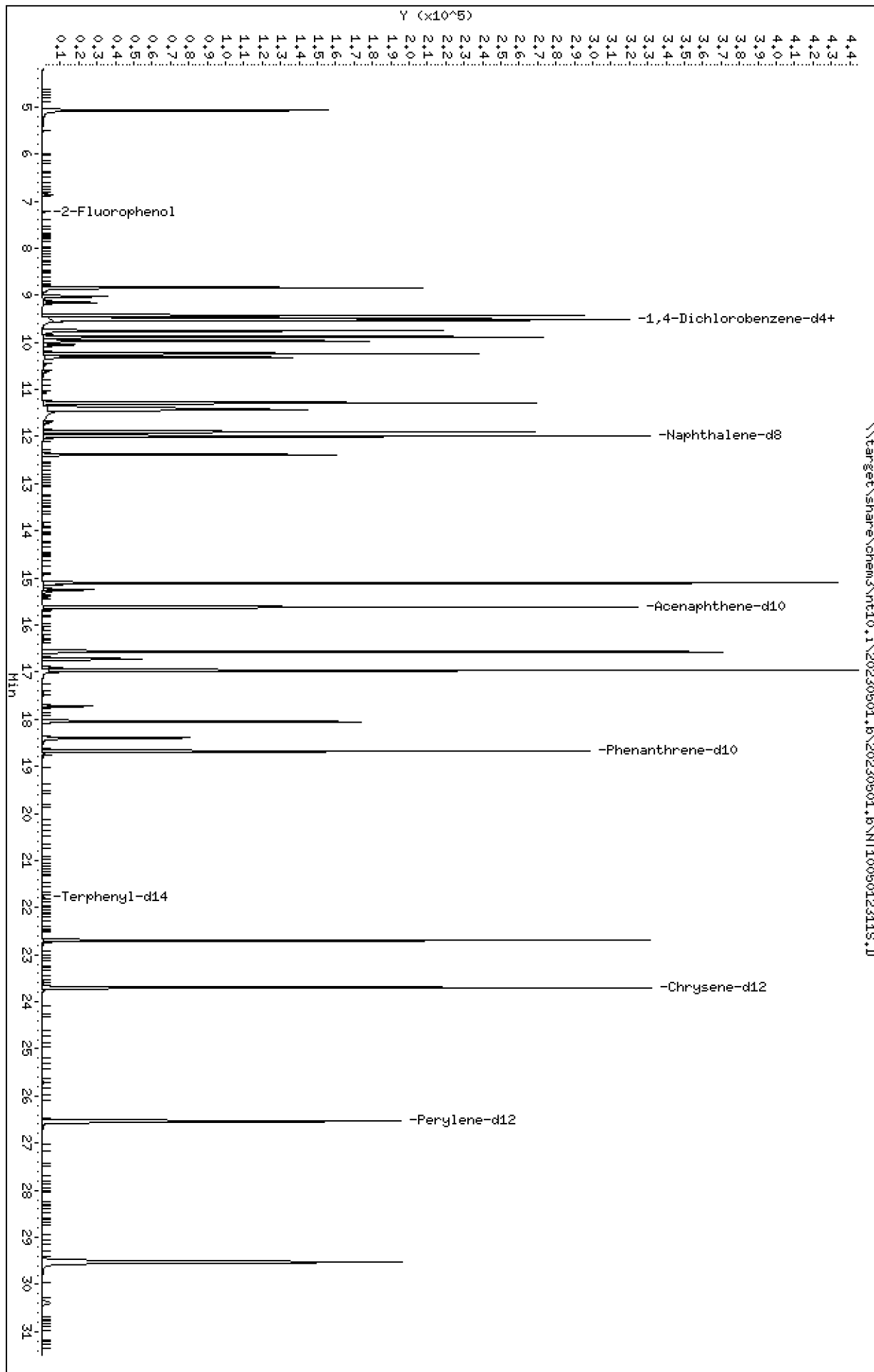
ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
1,4-Dichlorobenzene	5.0000	4.8	-4.3	20.00
1,2-Dichlorobenzene	5.0000	4.7	-6.9	20.00
Benzyl Alcohol	5.0000	5.3	5.4	20.00
Benzoic acid	10.000	8.3	-16.8	20.00
2,4-Dimethylphenol	5.0000	3.5	-30.2 *	20.00
1,2,4-Trichlorobenzene	5.0000	4.3	-13.6	20.00
N-Nitrosodiphenylamine	5.0000	5.3	5.8	20.00
Pentachlorophenol	5.0000	4.3	-13.1	20.00
2-Fluorophenol	7.5000	0.0361	-99.5	
p-Terphenyl-d14	5.0000	0.0244	-99.5	

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230501.b\20230501.b\NT10050123115.D
 Date : 01-May-2023 20:43
 Client ID:
 Sample Info: SLE0082-SCV1
 Volume Injected (uL): 1.0
 Column phase: ZB-5msi

Instrument: nt10.1
 Operator: JGR
 Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501.b\20230501.b\NT10050123115.D



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

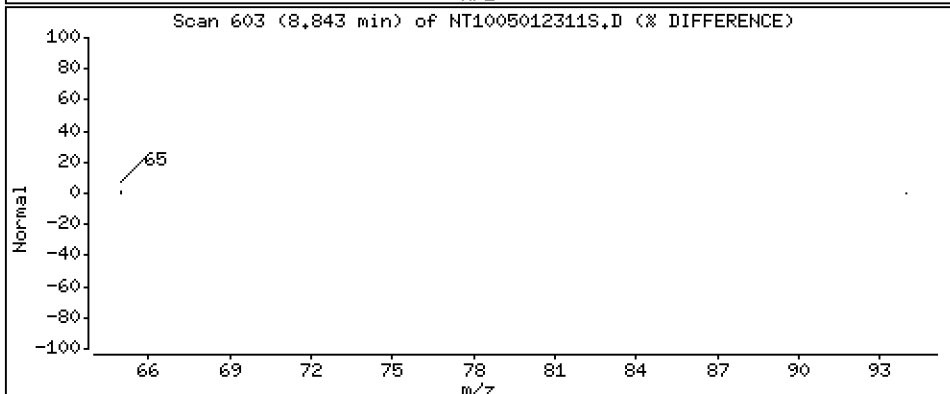
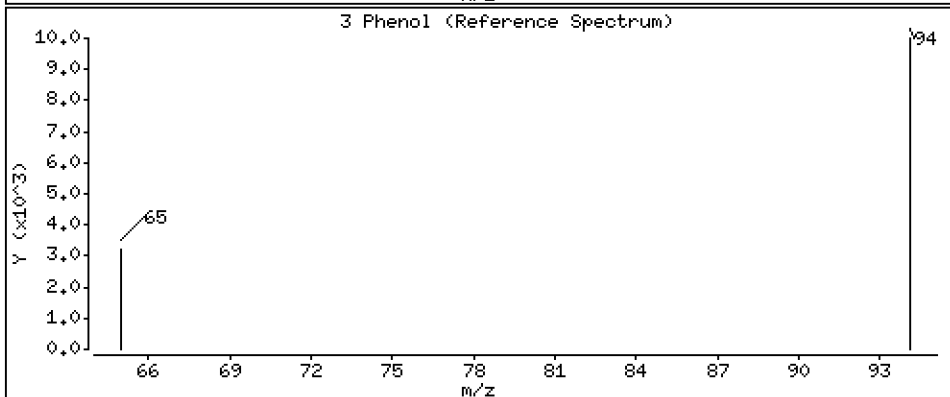
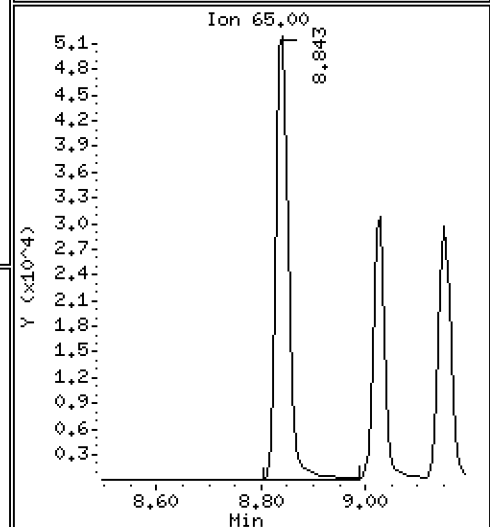
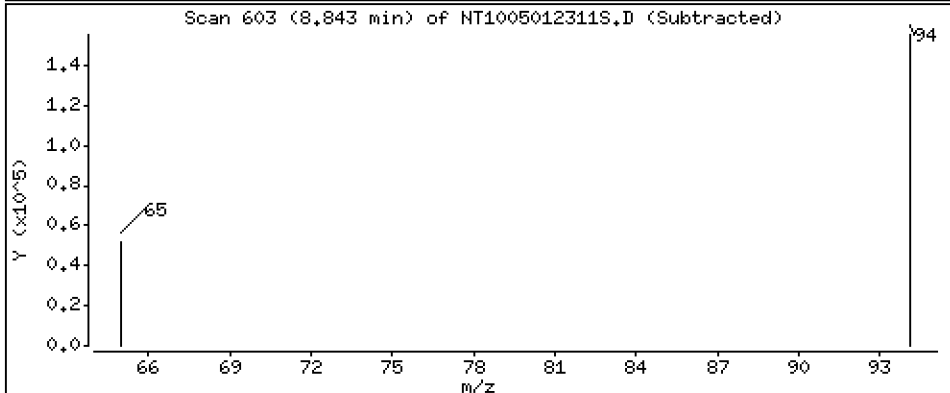
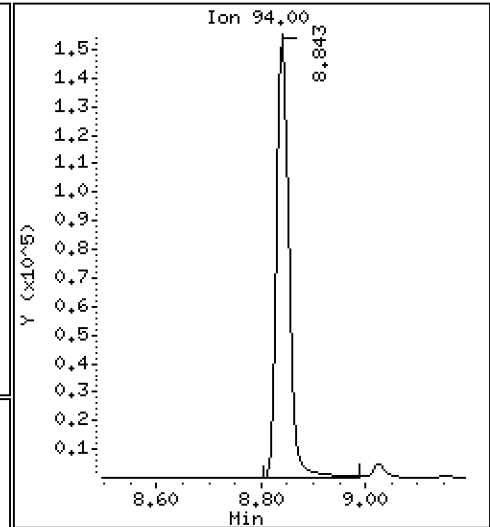
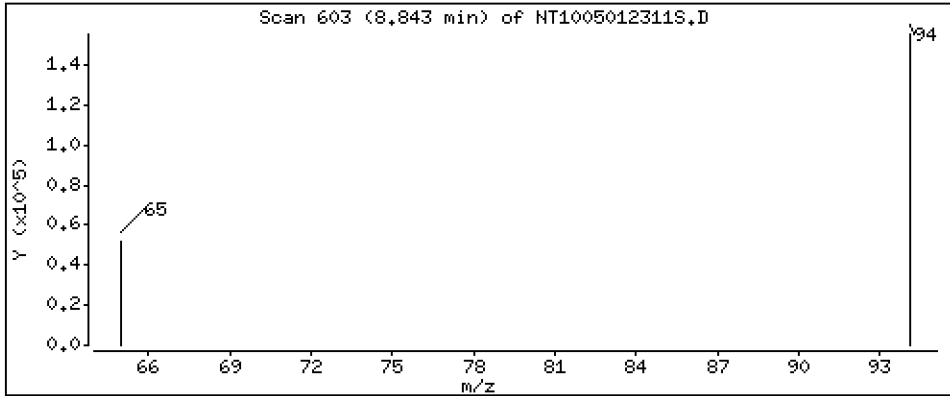
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.436 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

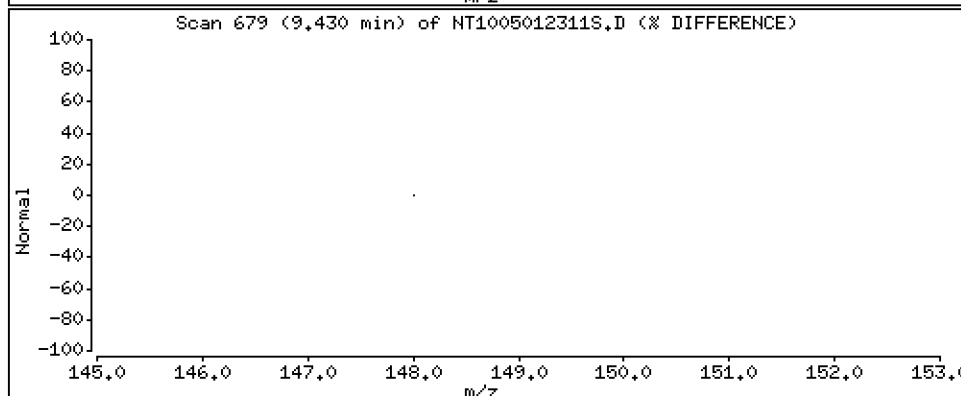
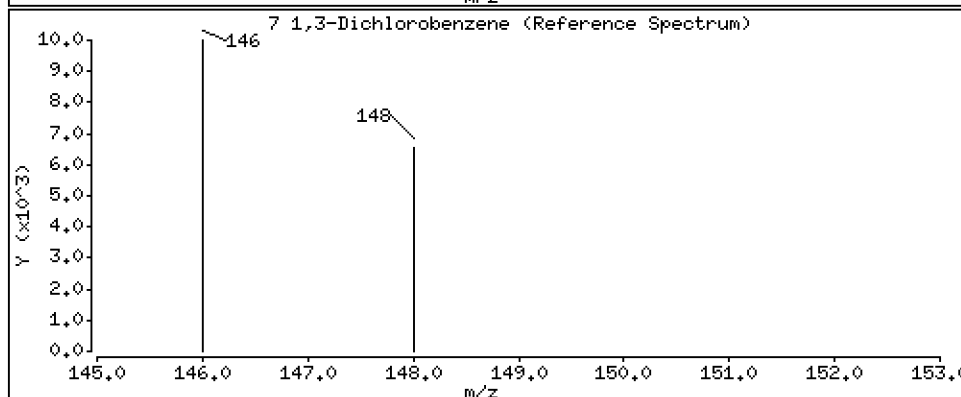
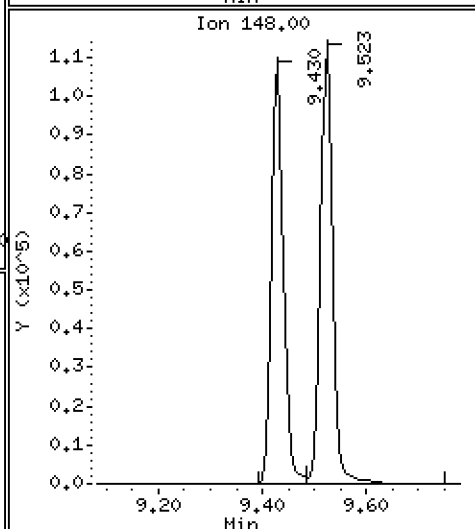
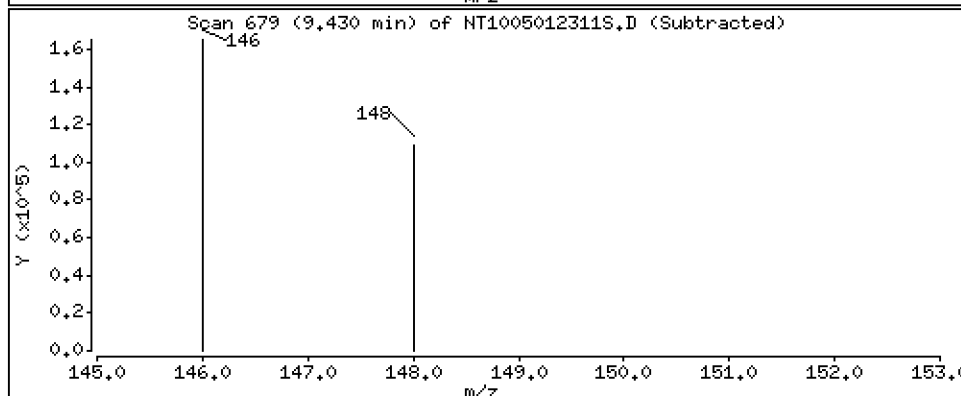
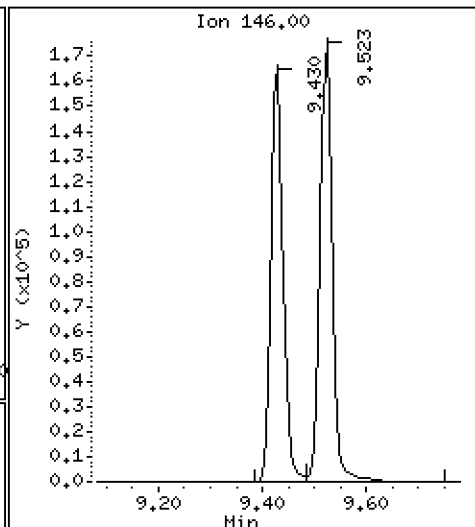
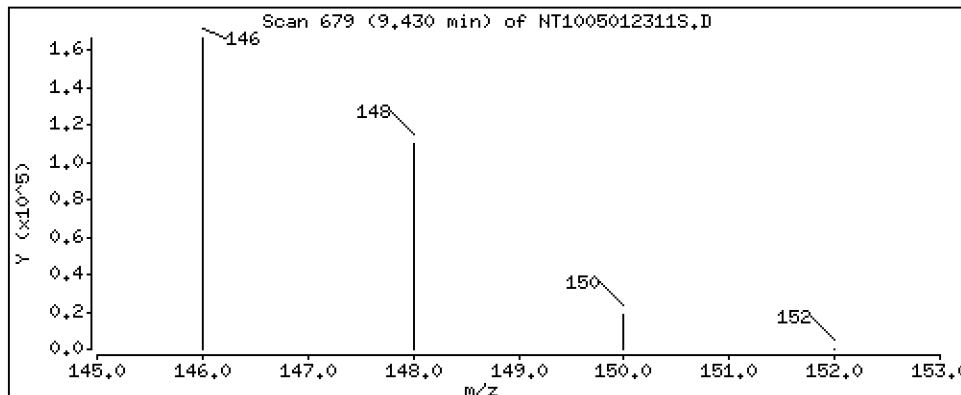
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 4.661 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

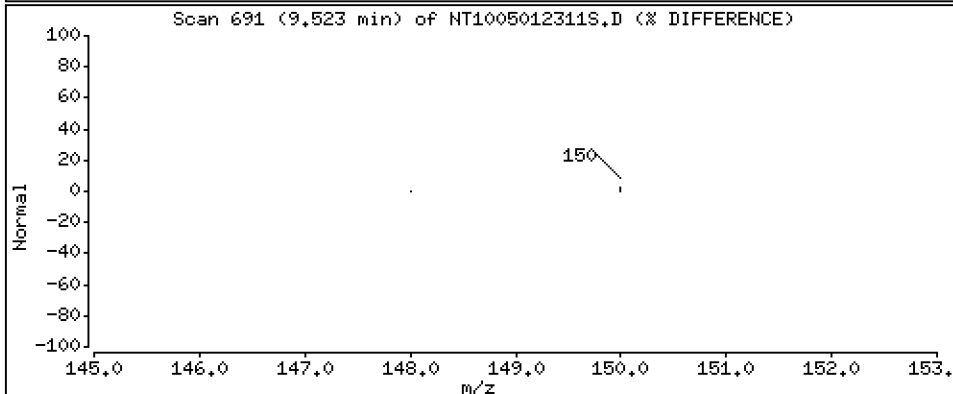
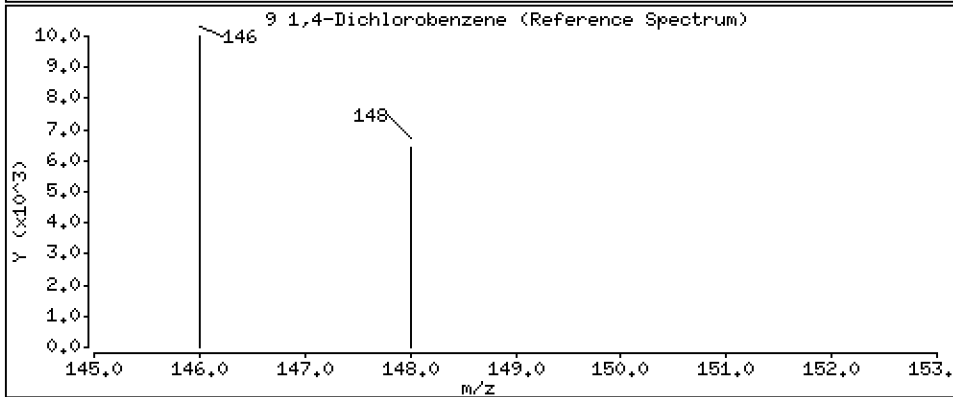
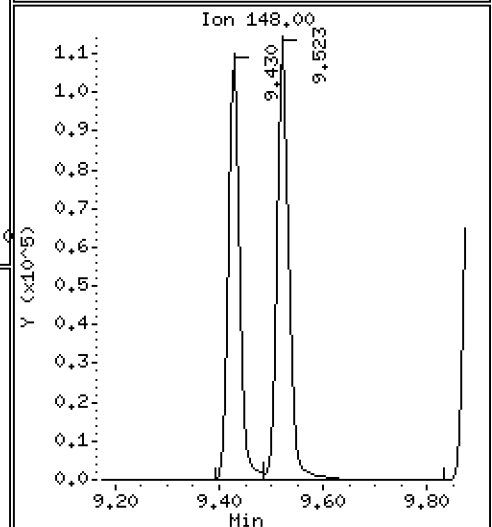
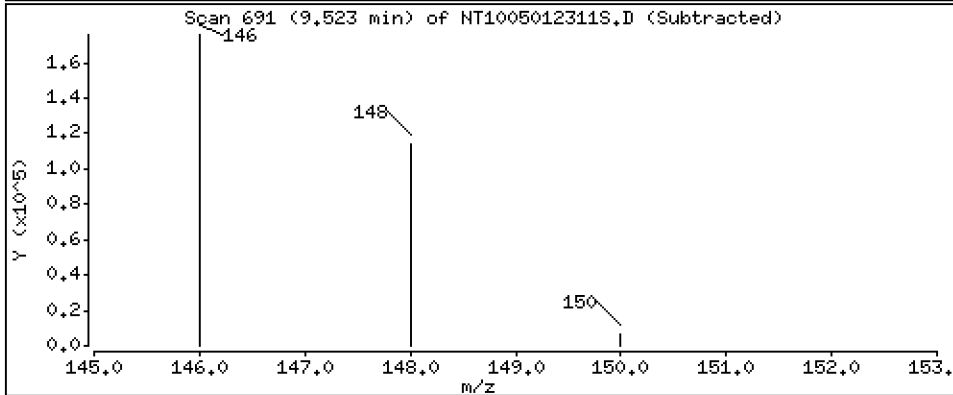
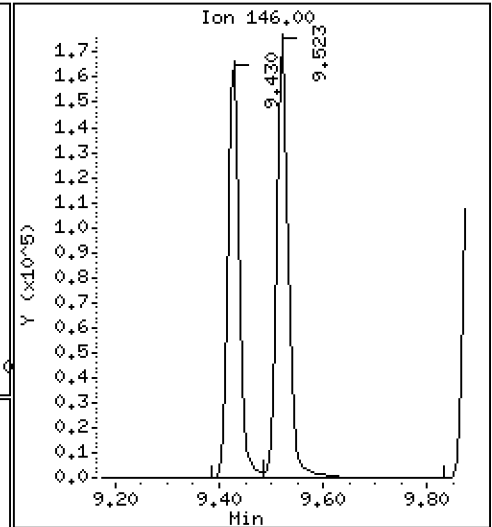
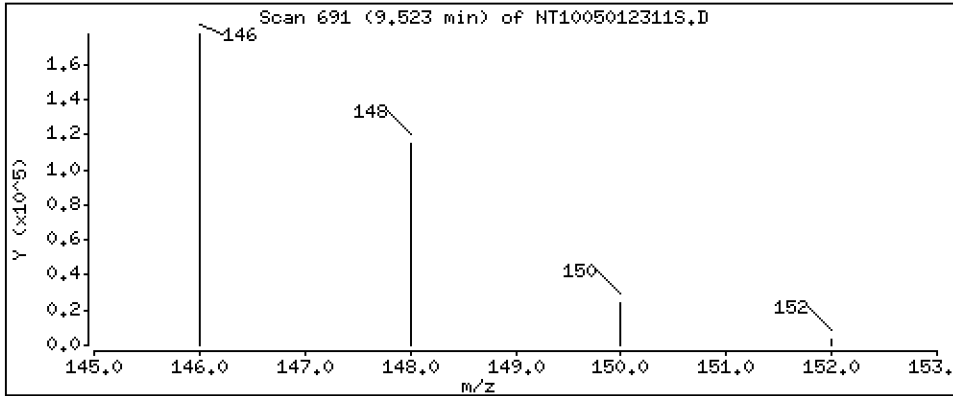
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 4.784 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

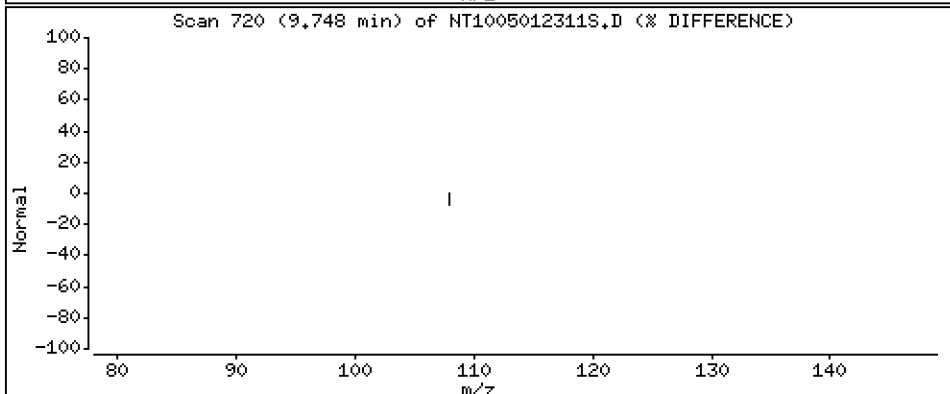
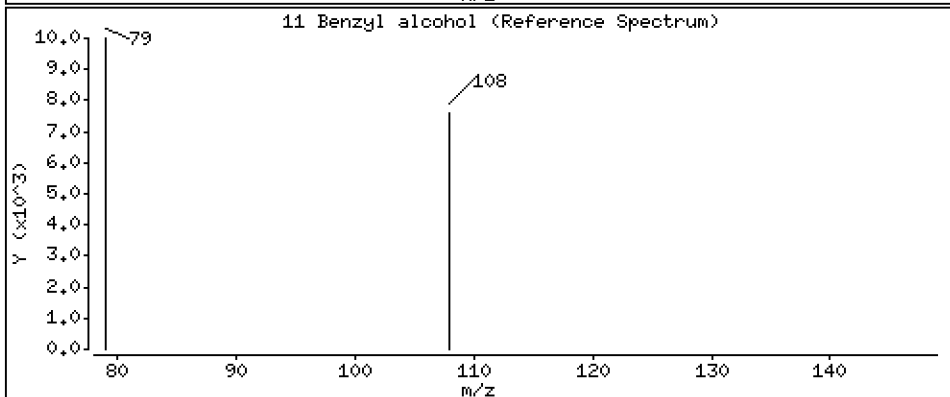
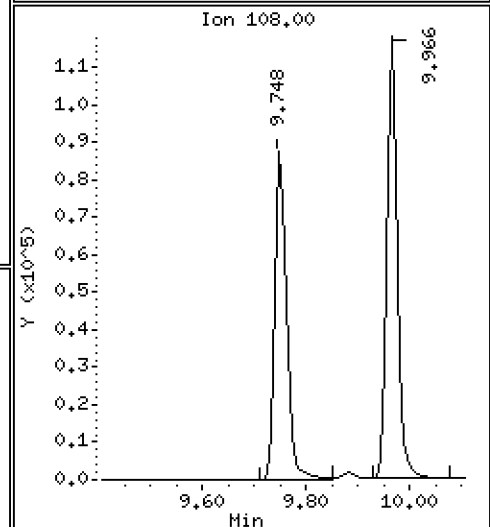
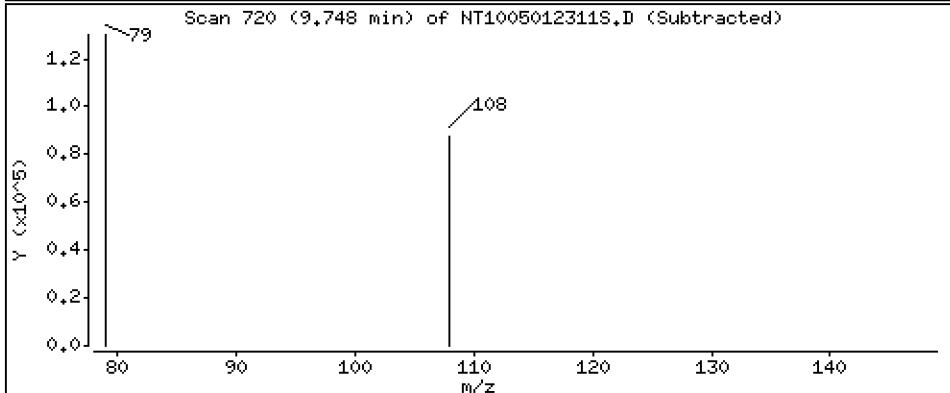
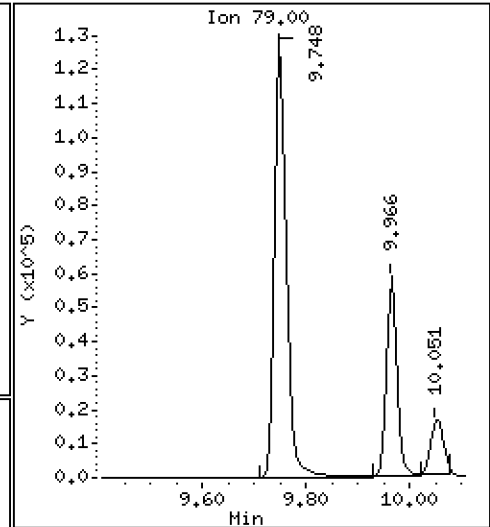
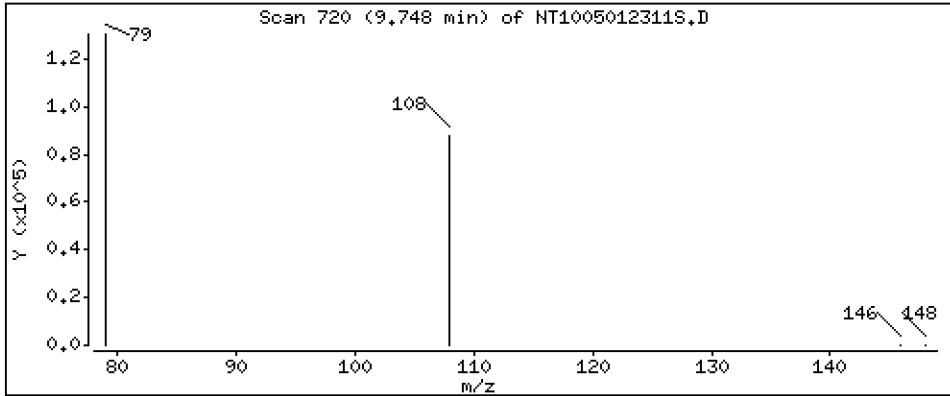
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.272 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

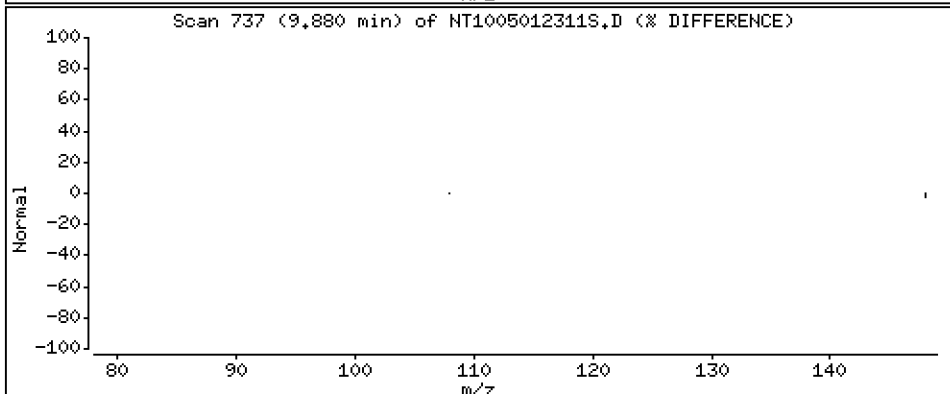
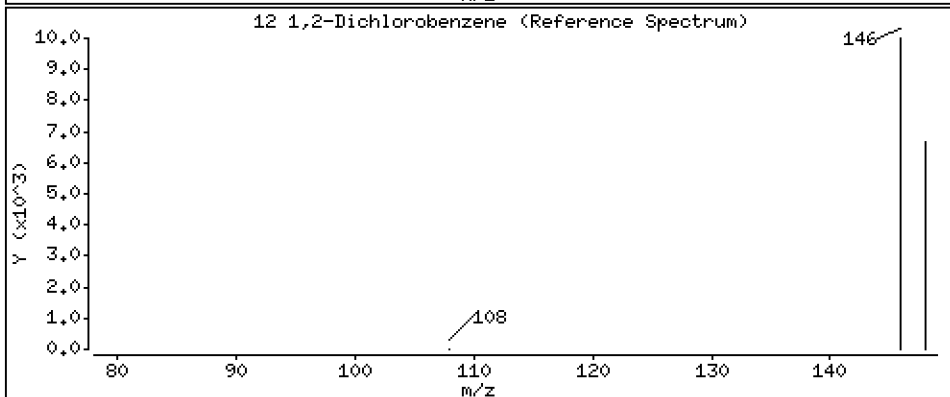
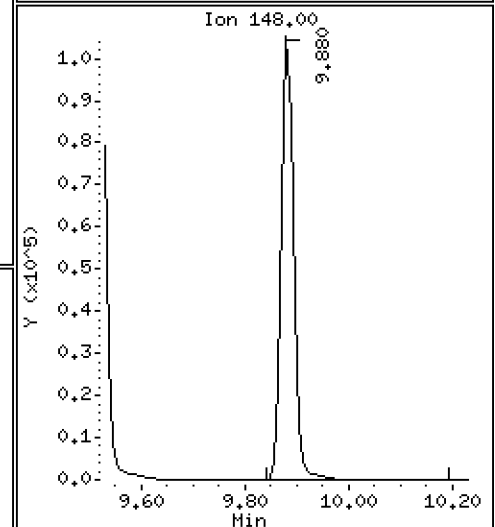
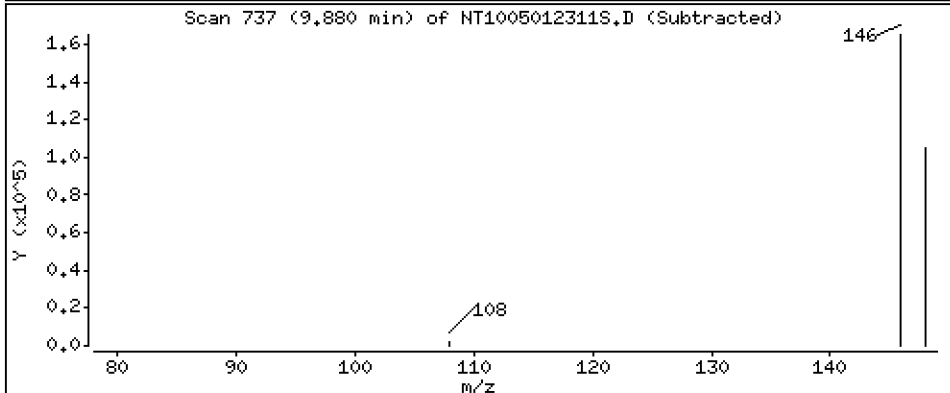
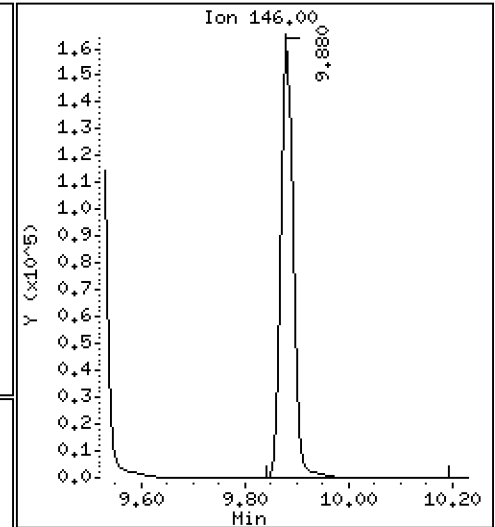
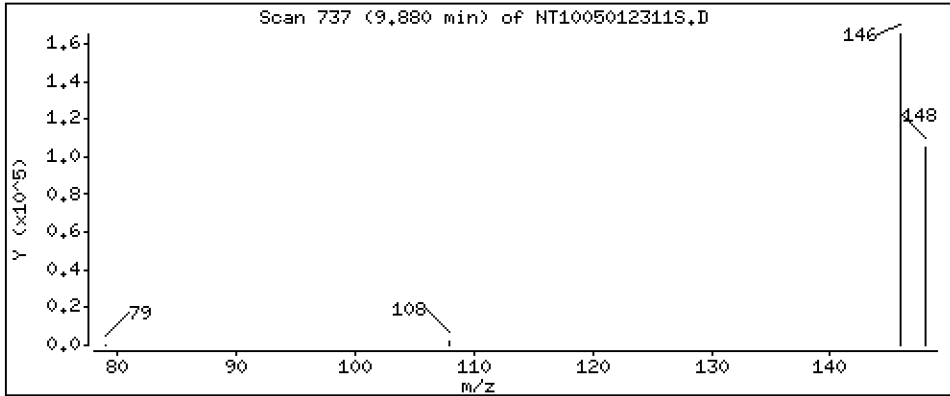
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 4.657 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

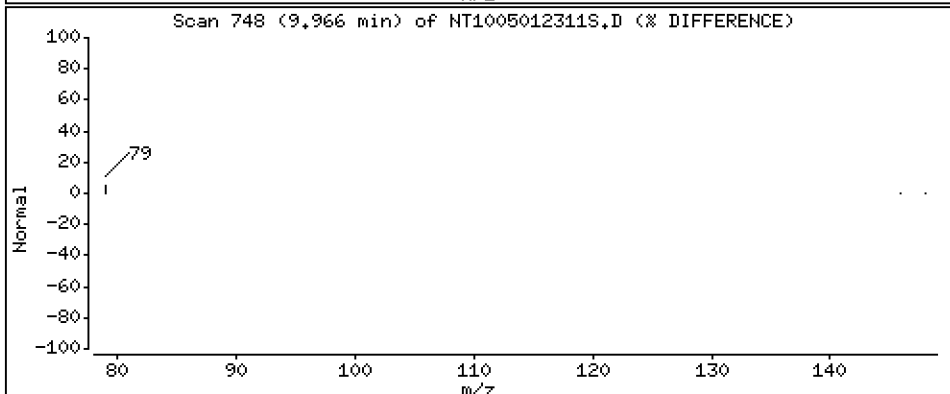
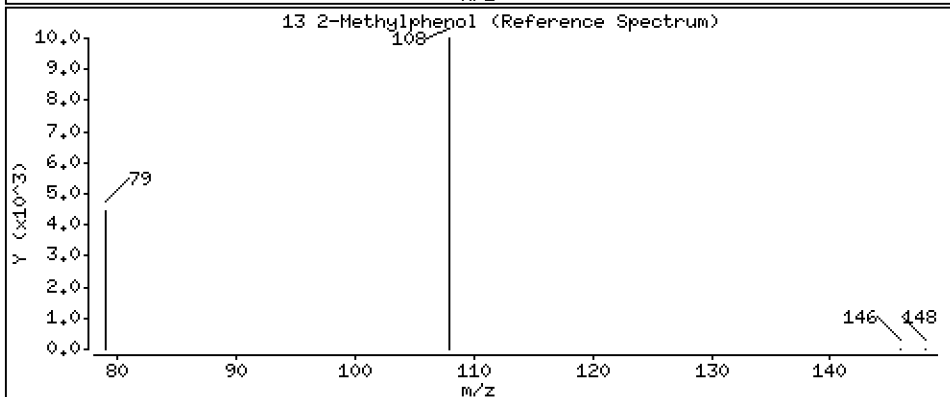
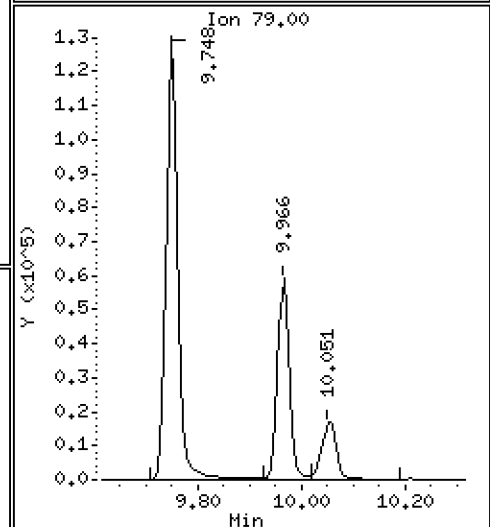
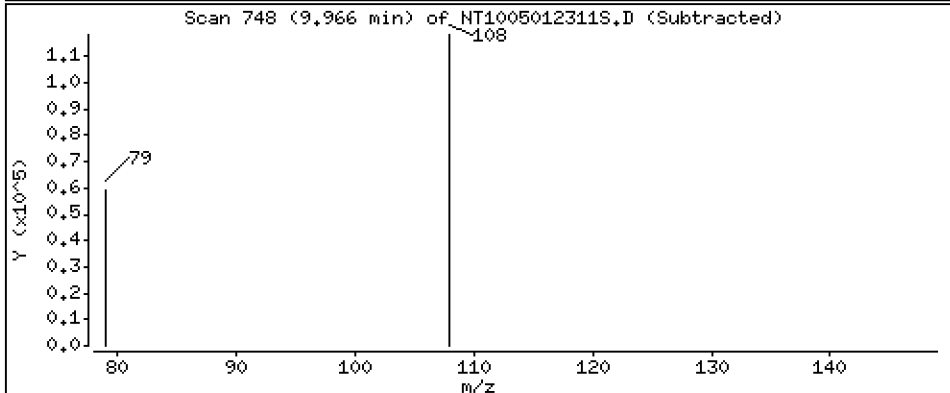
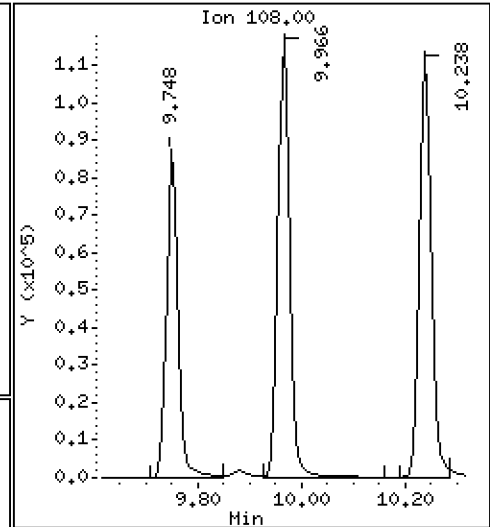
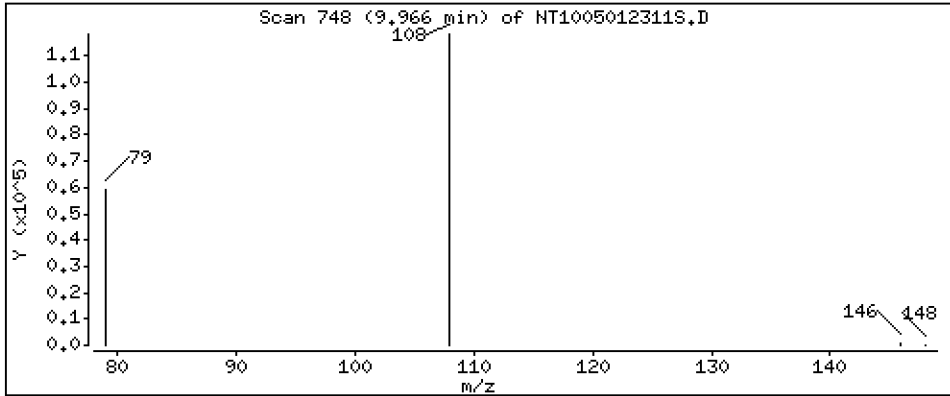
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,243 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

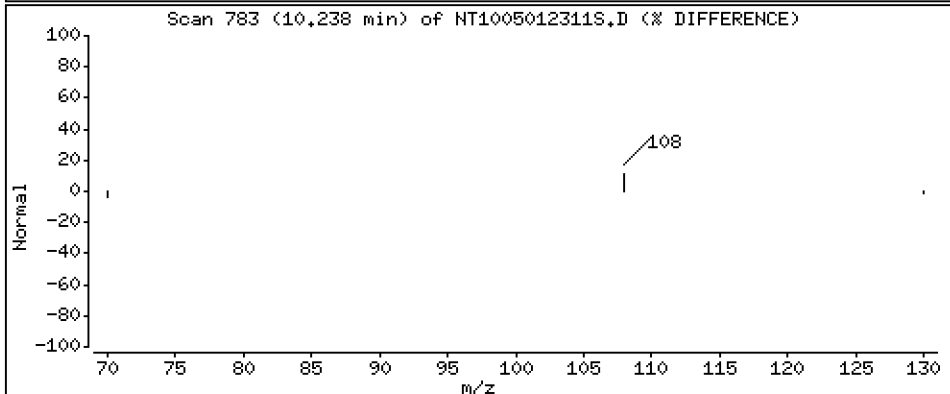
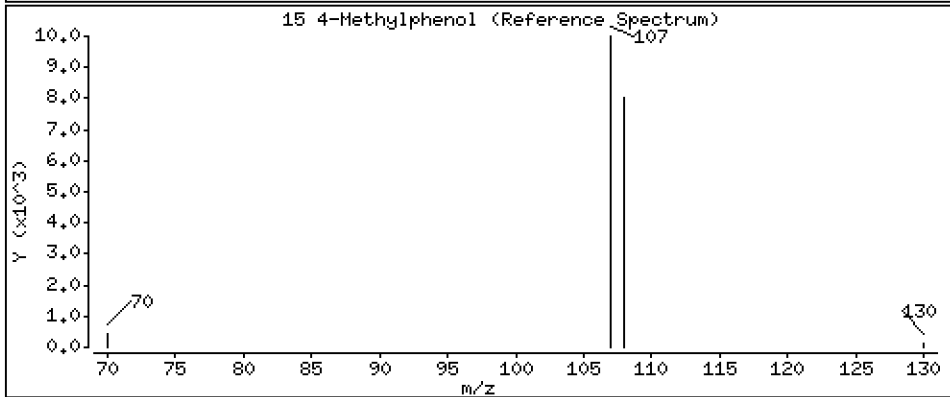
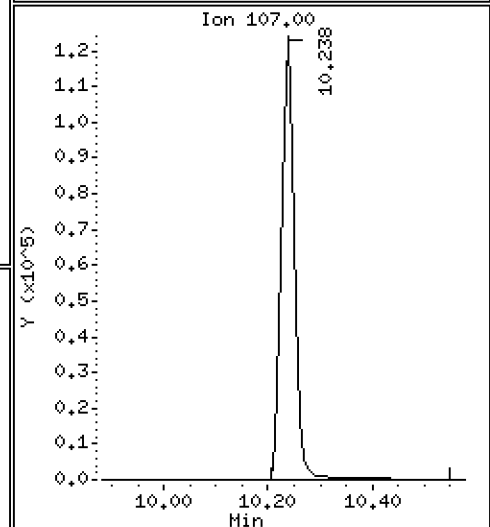
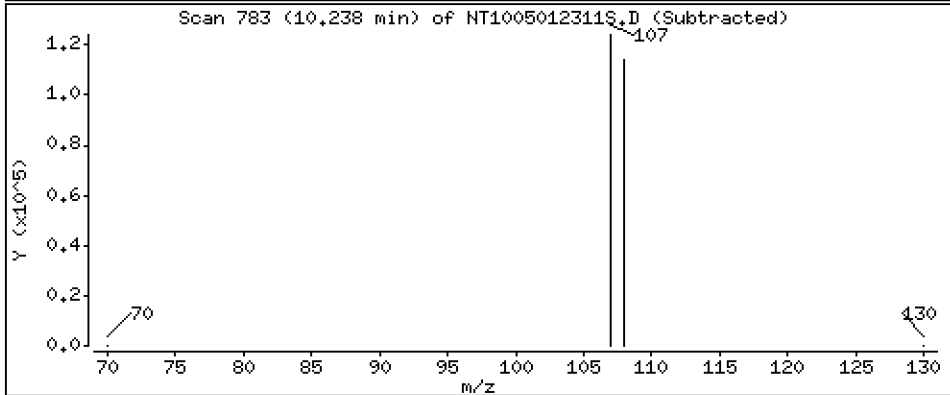
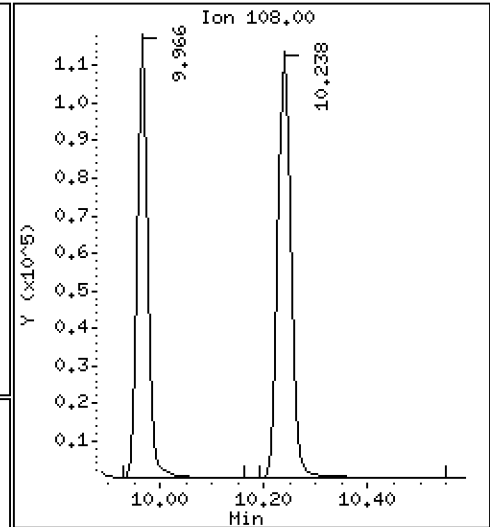
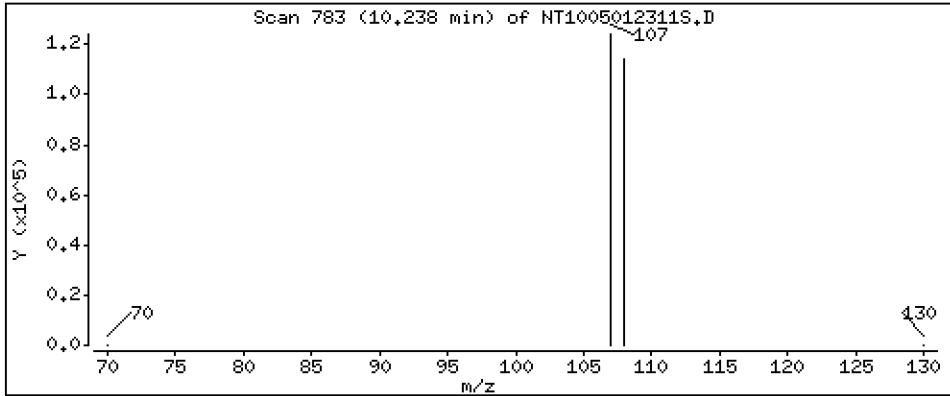
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 4.470 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

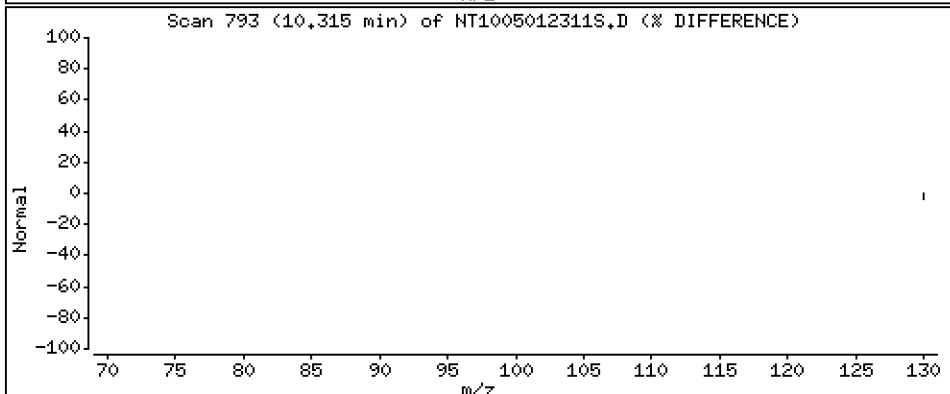
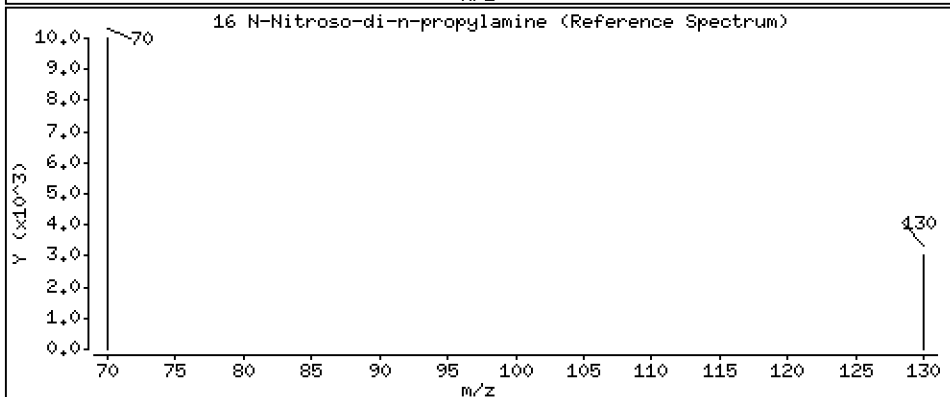
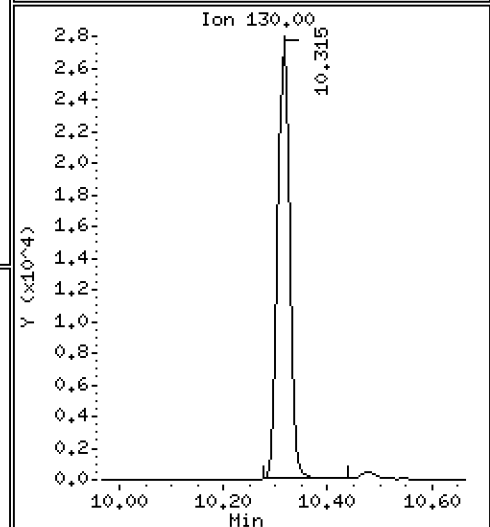
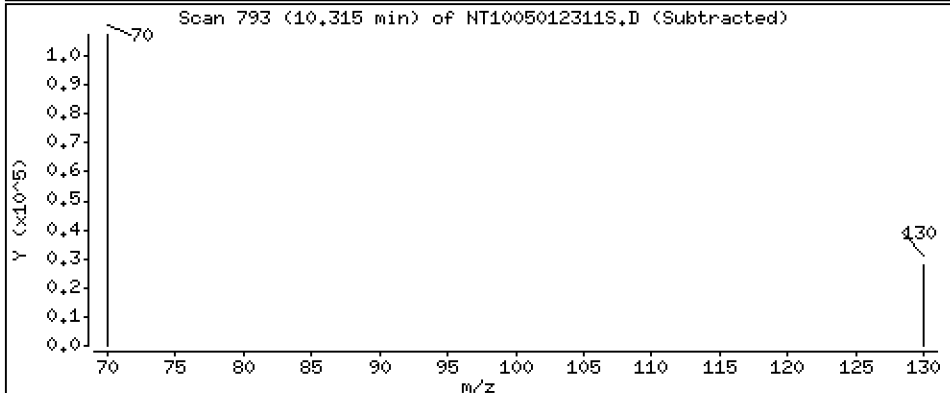
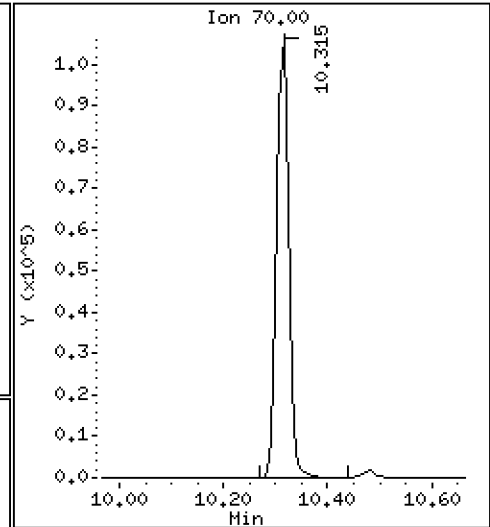
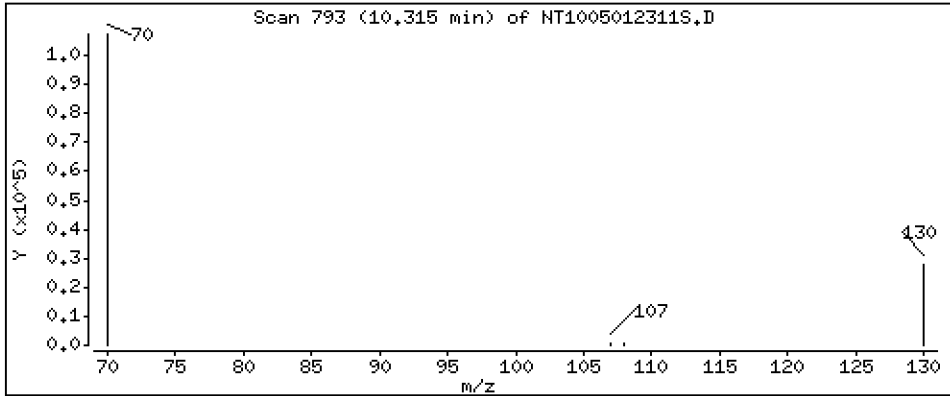
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 5.268 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

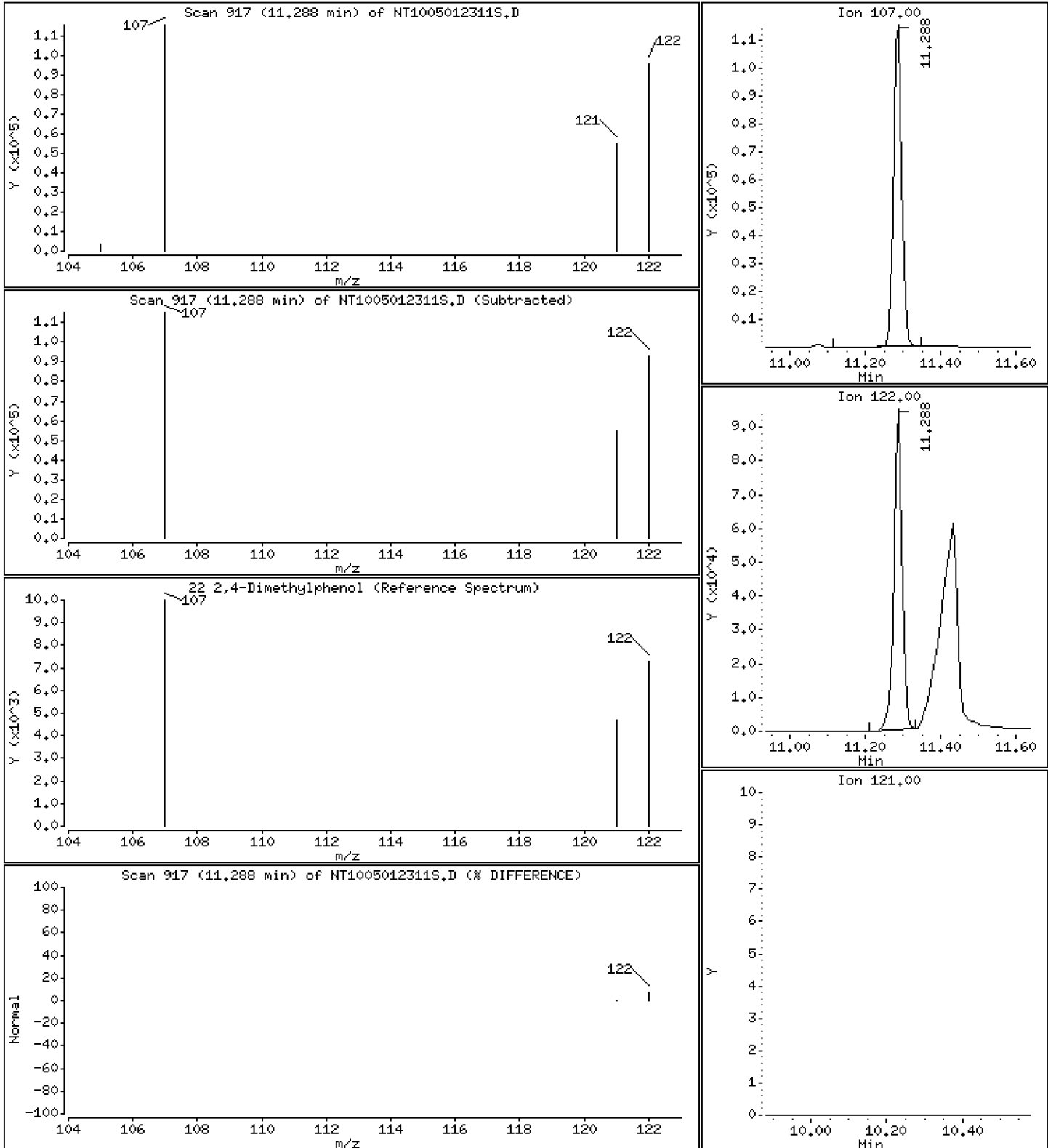
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3,489 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

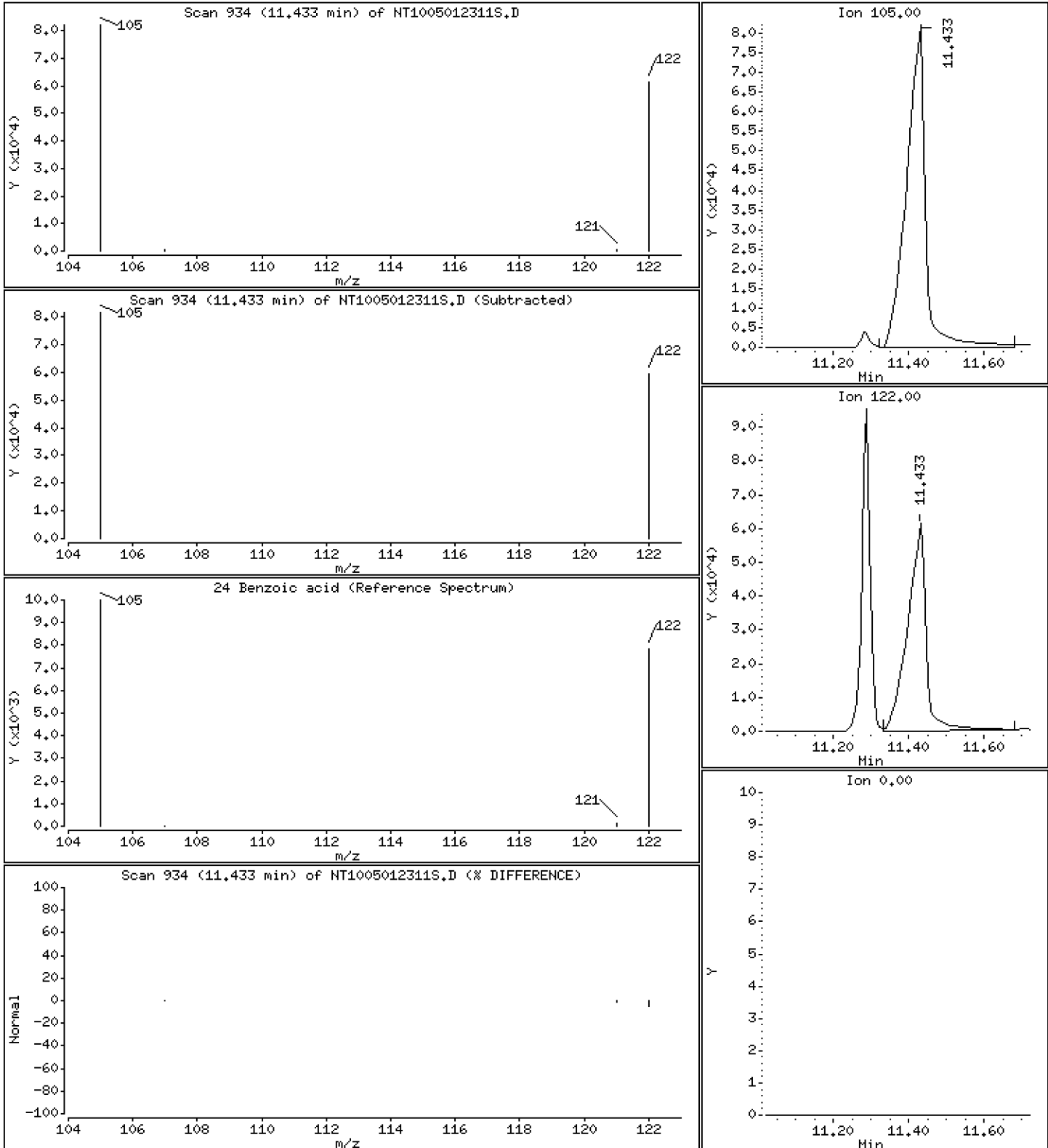
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 8,322 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

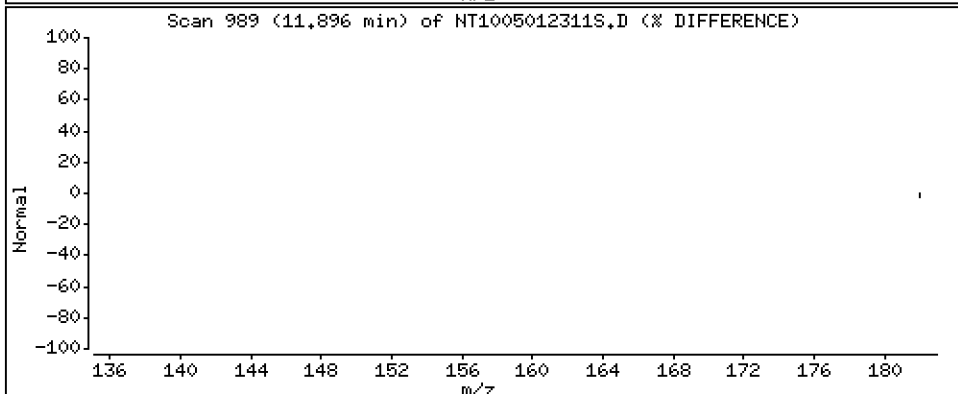
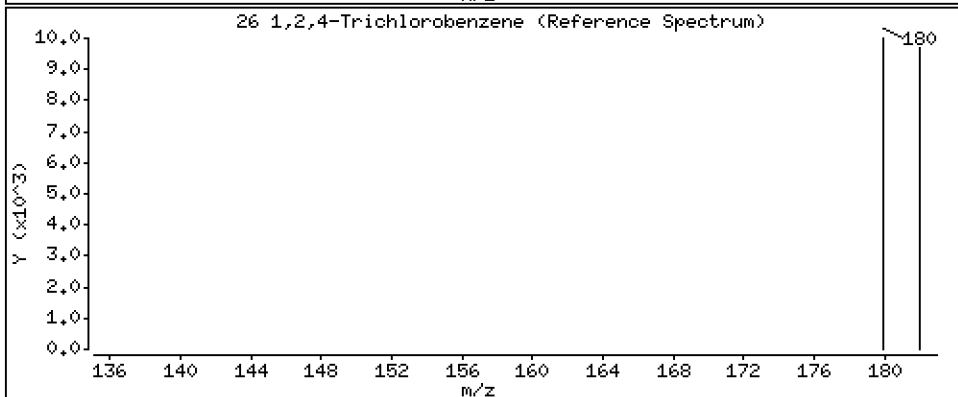
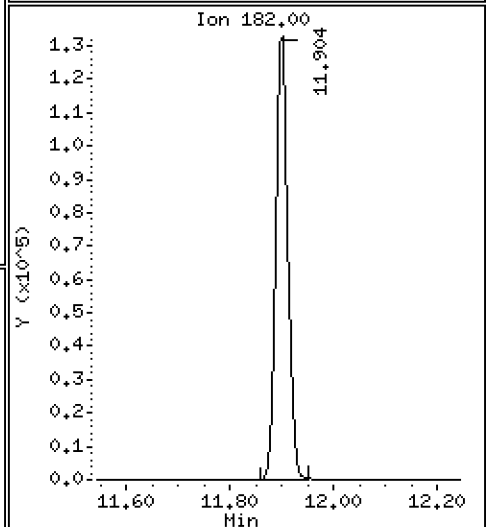
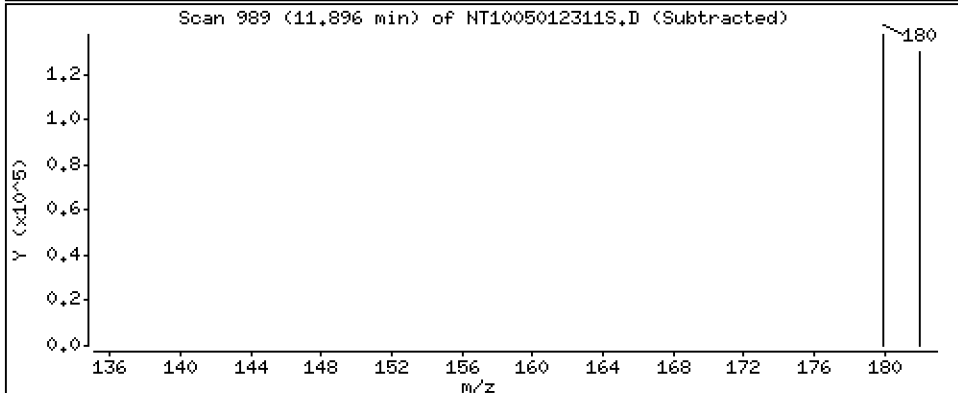
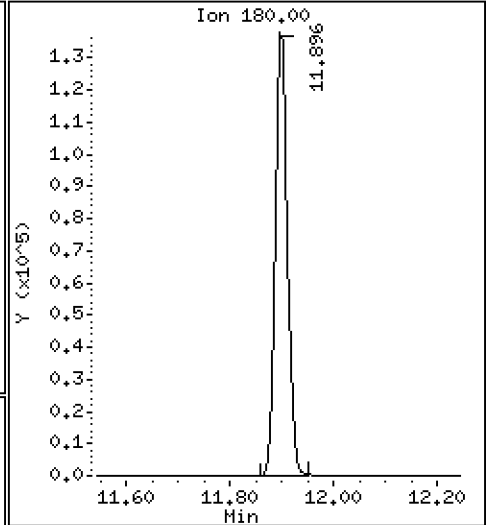
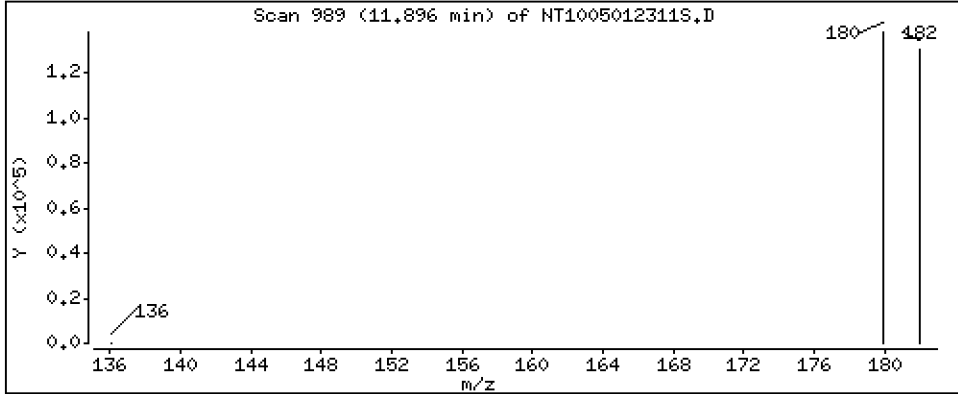
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 4.321 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

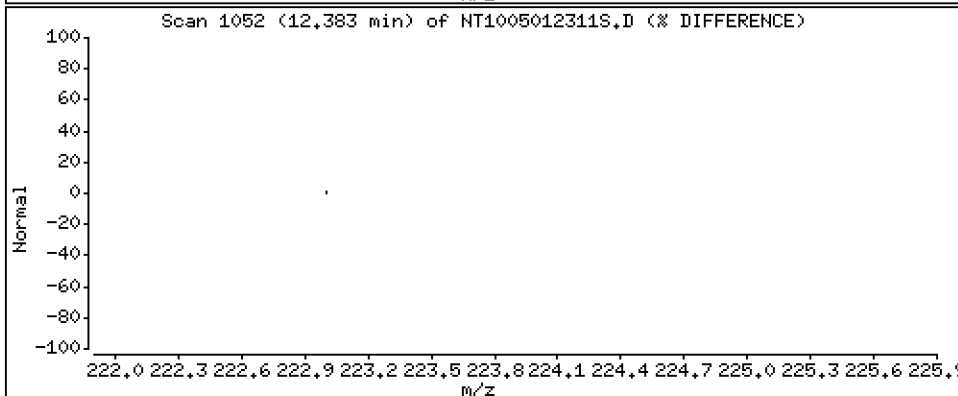
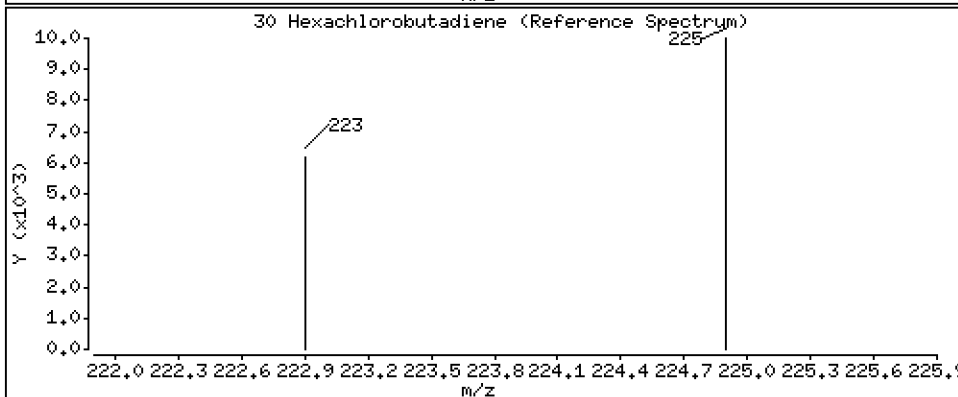
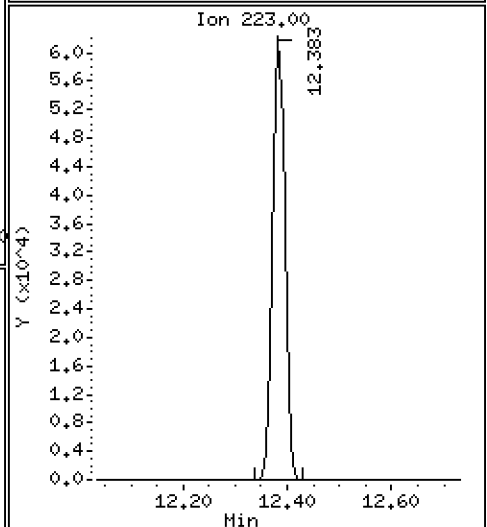
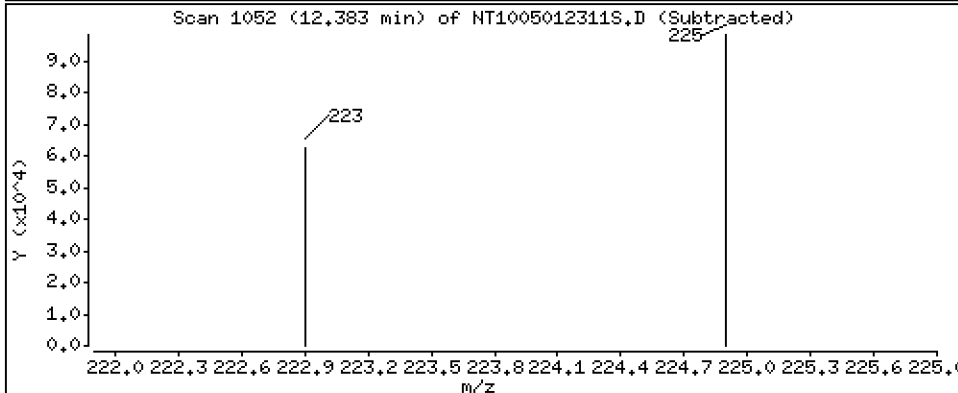
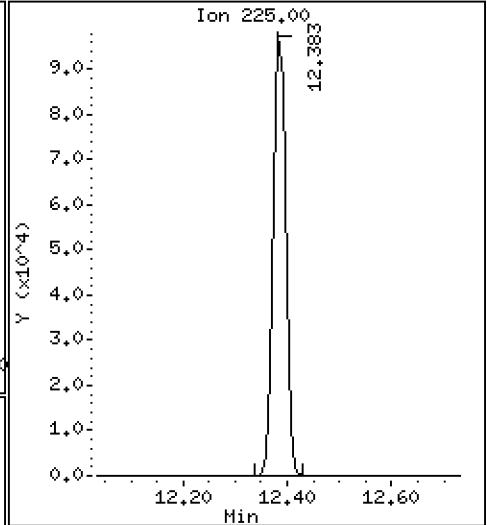
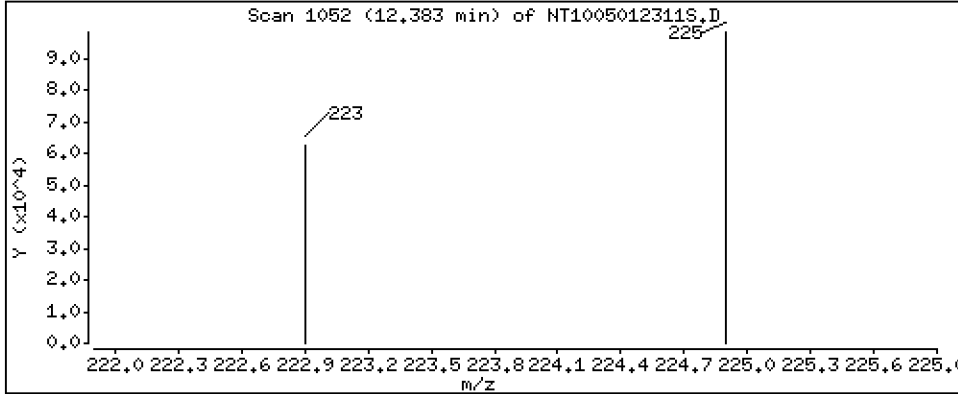
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,632 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

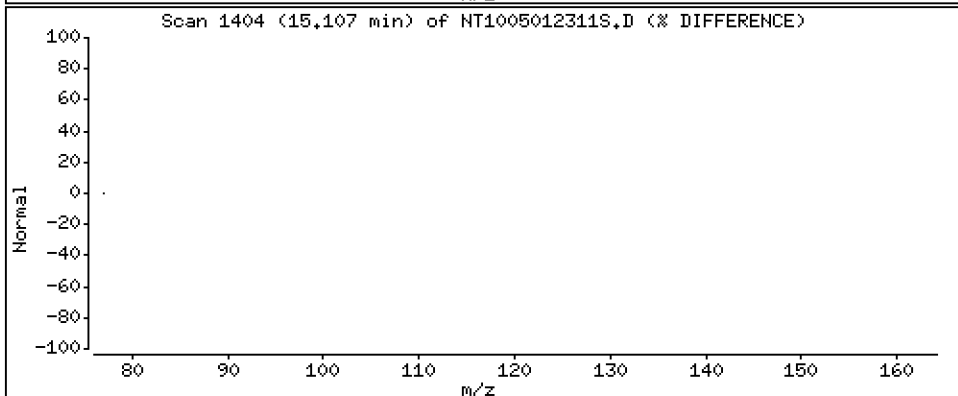
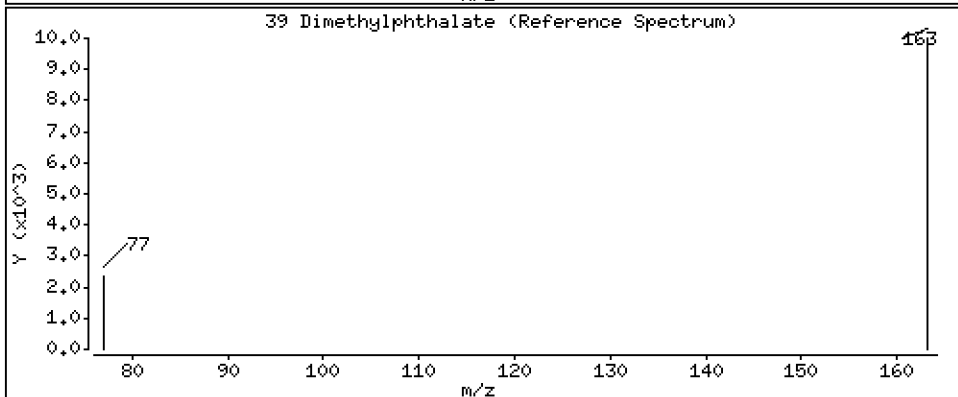
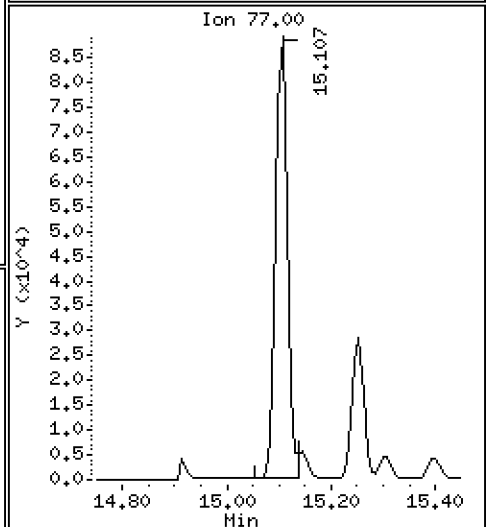
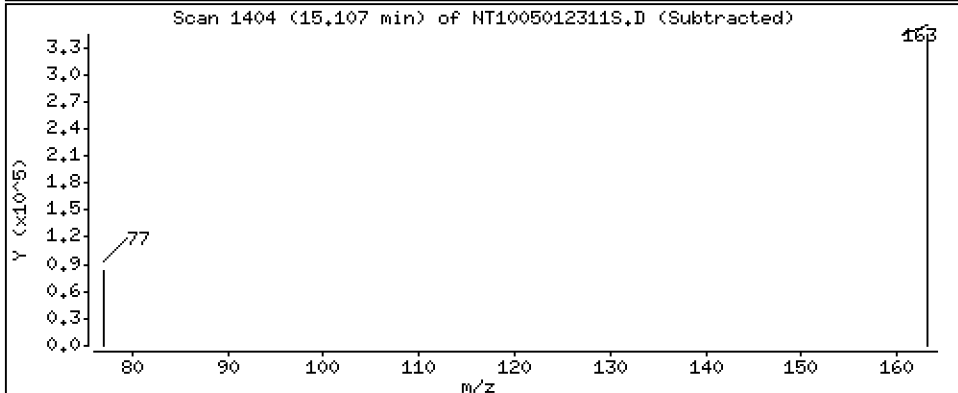
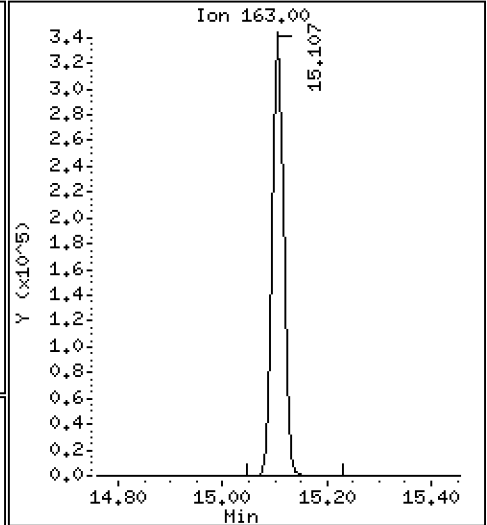
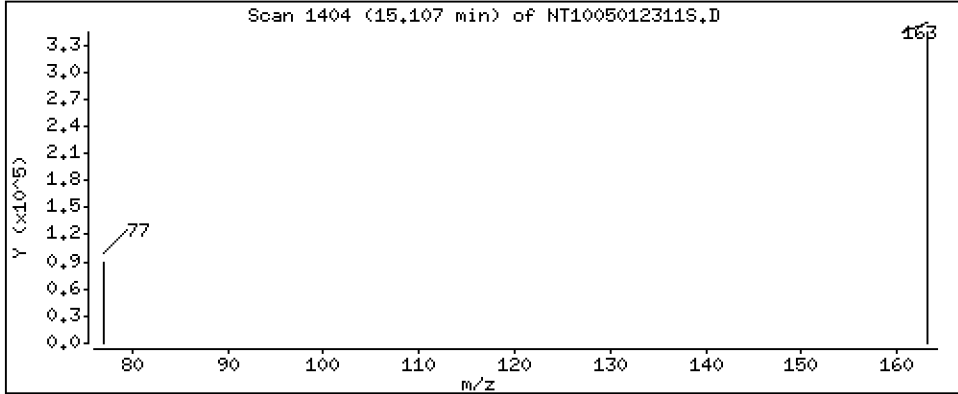
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,875 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

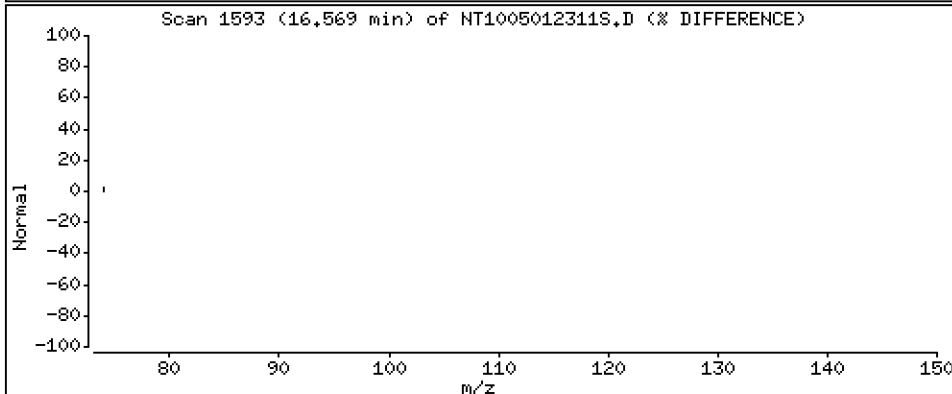
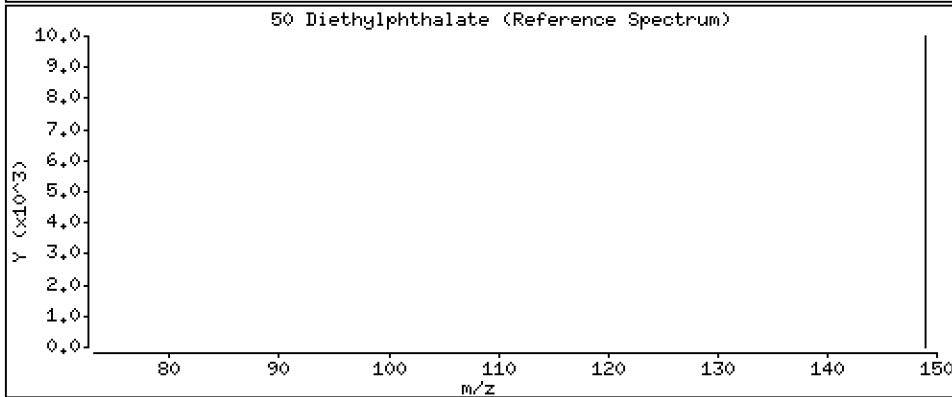
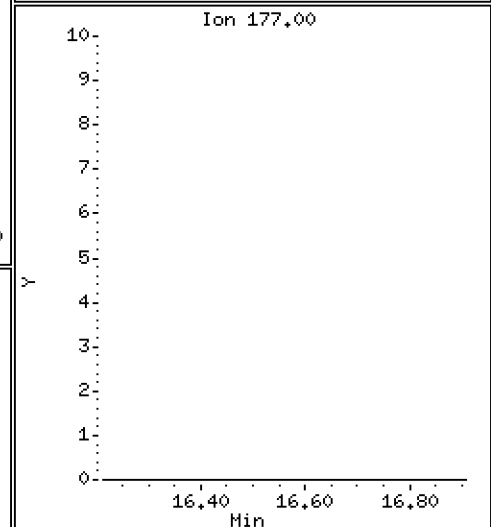
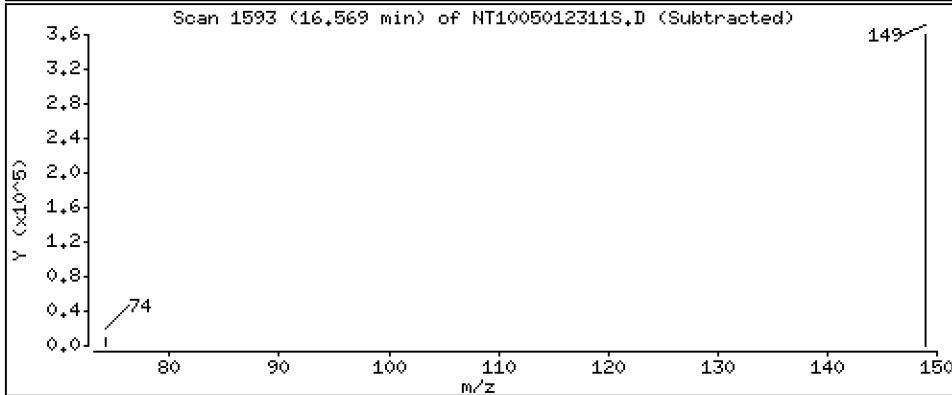
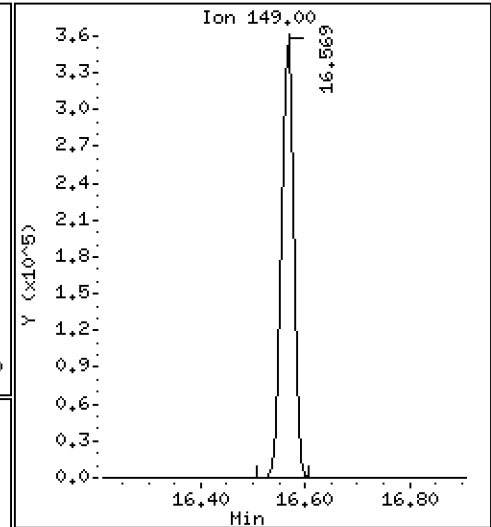
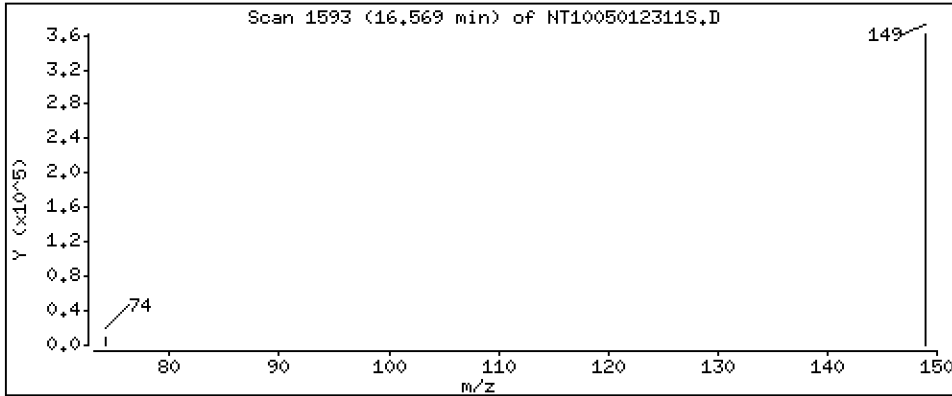
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,253 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

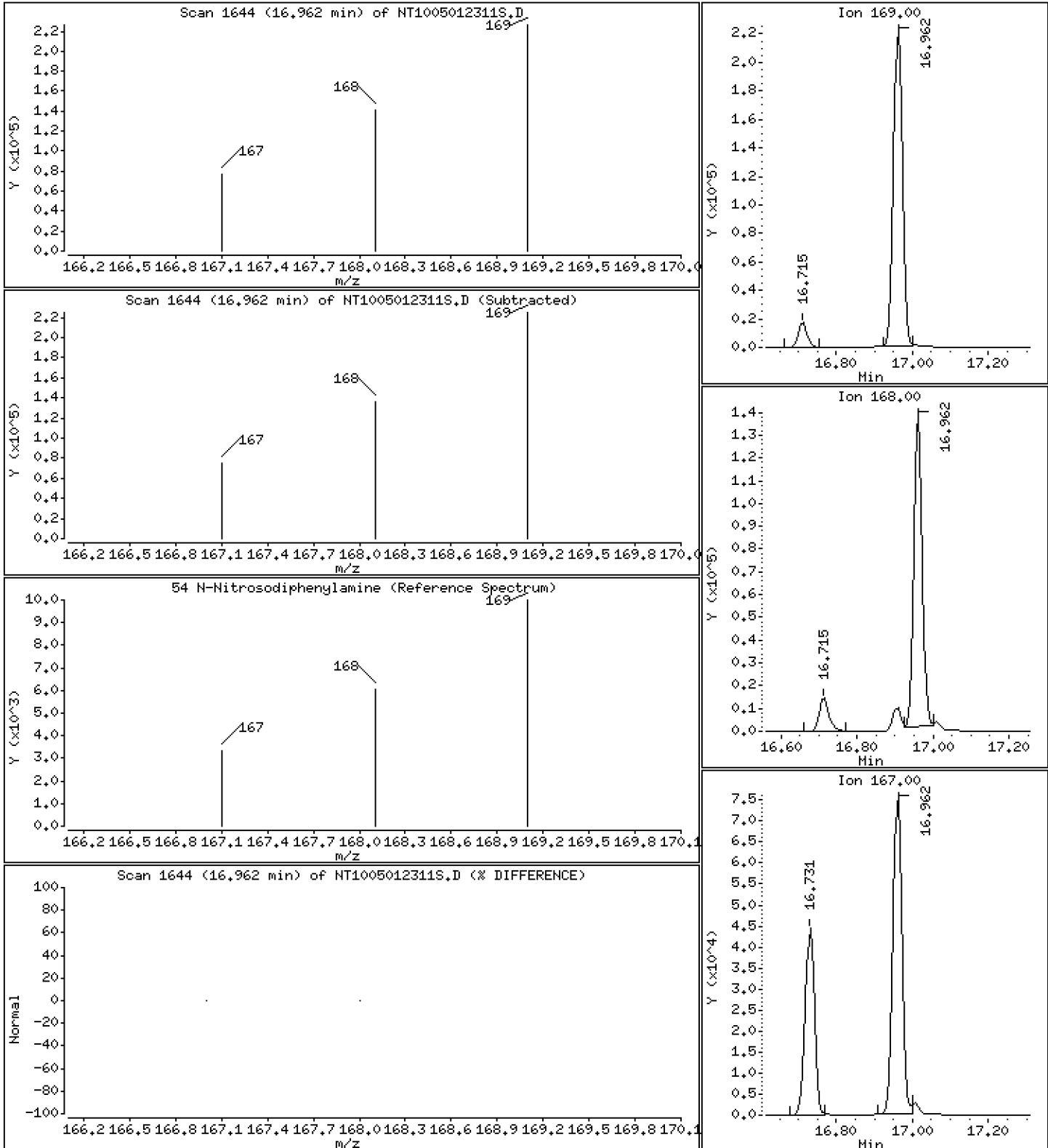
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,289 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

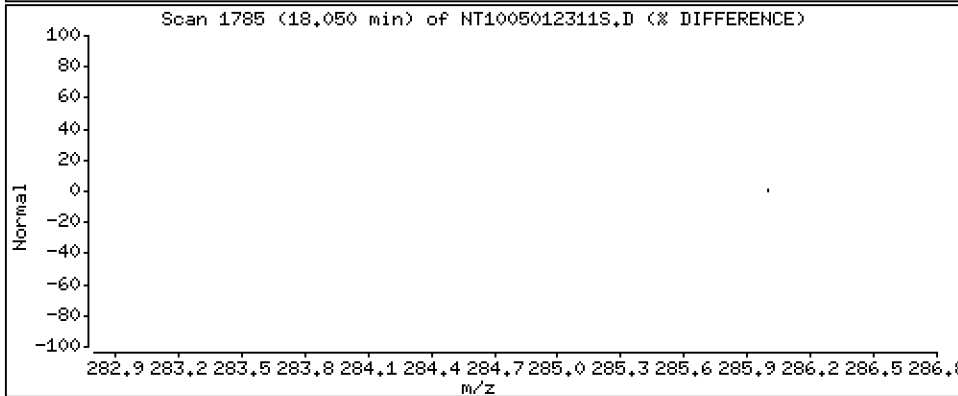
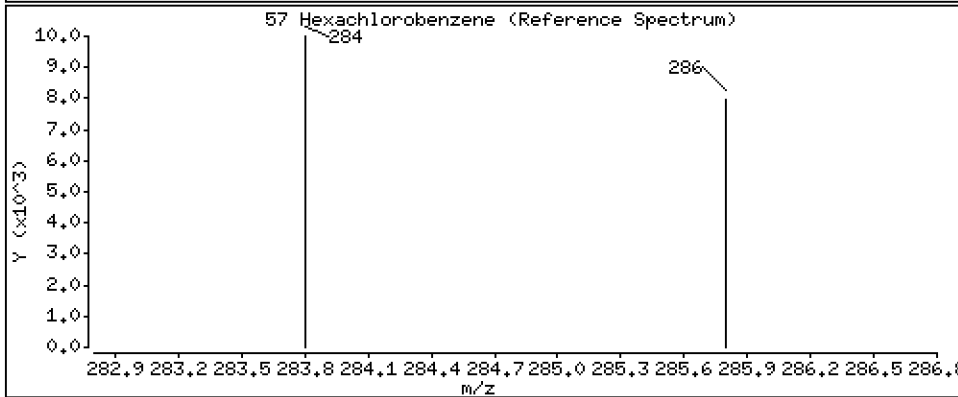
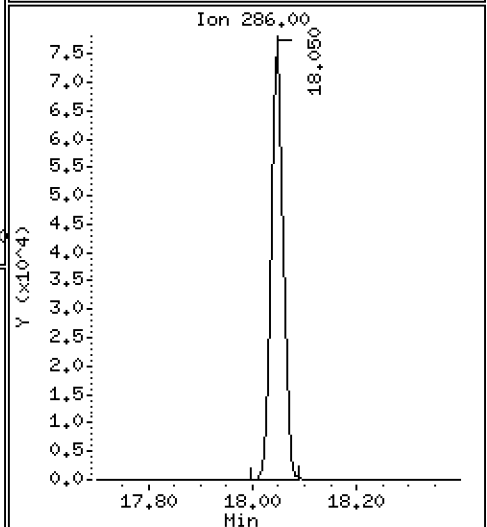
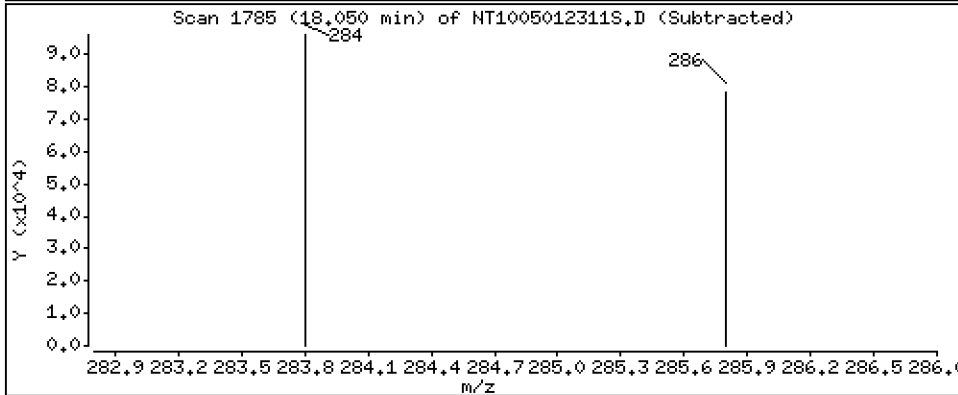
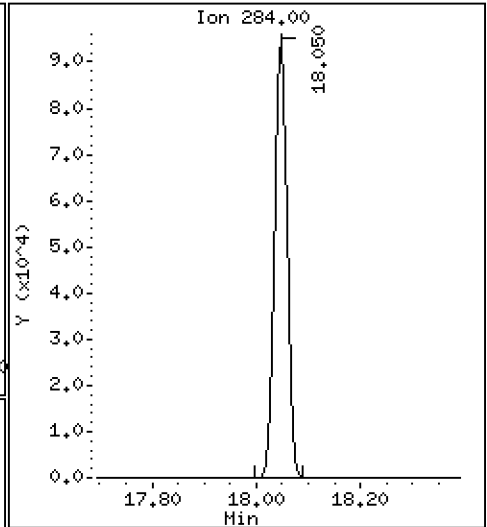
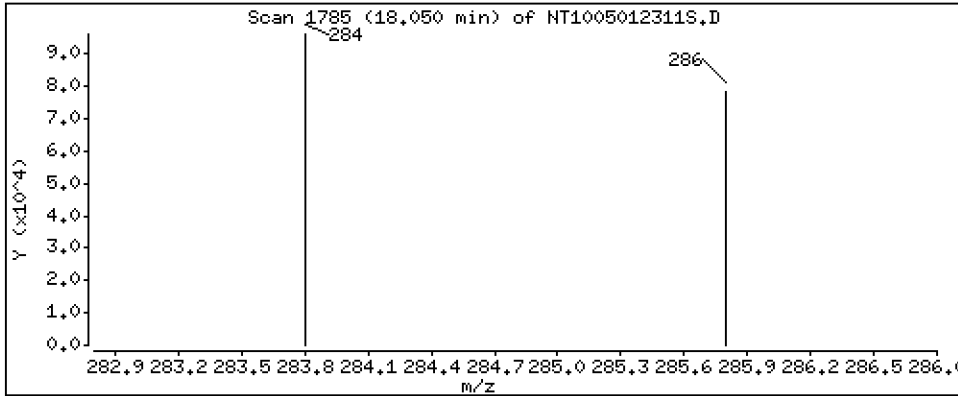
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4,640 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

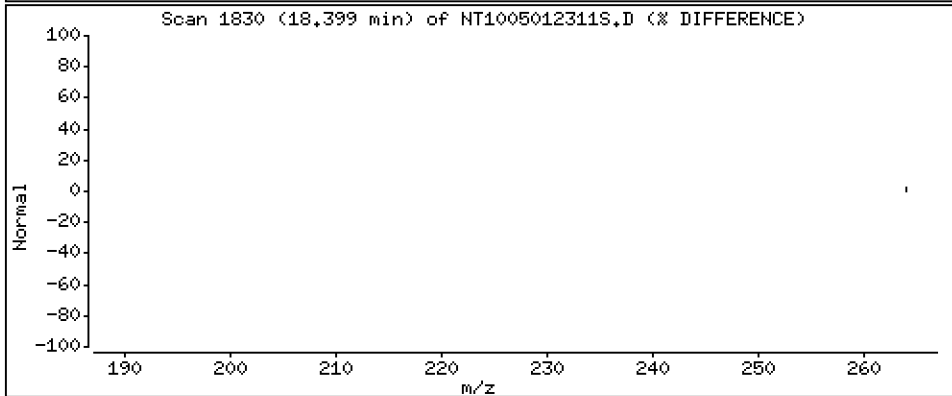
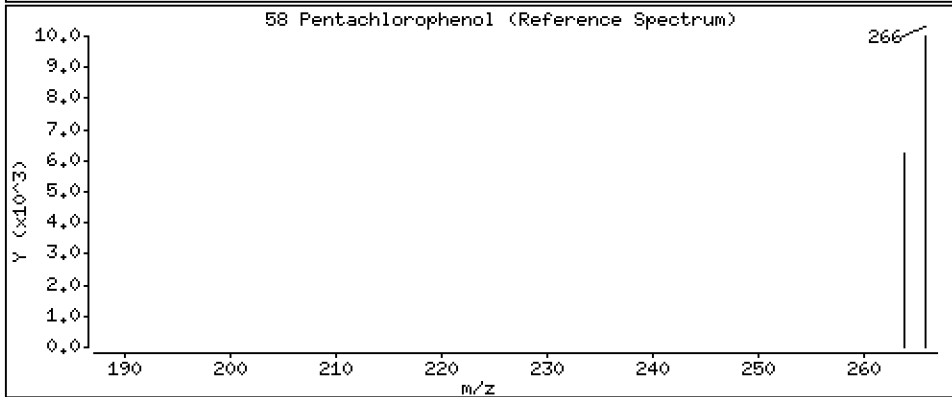
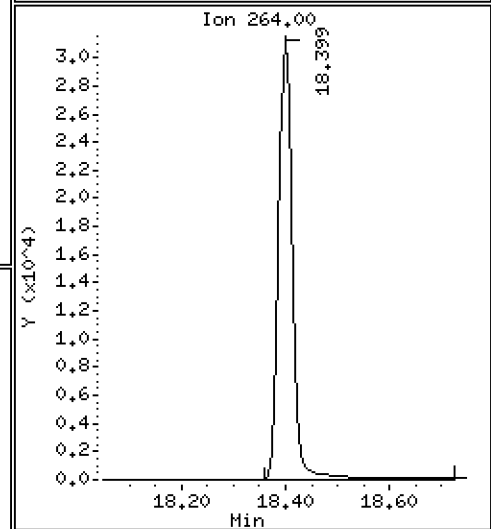
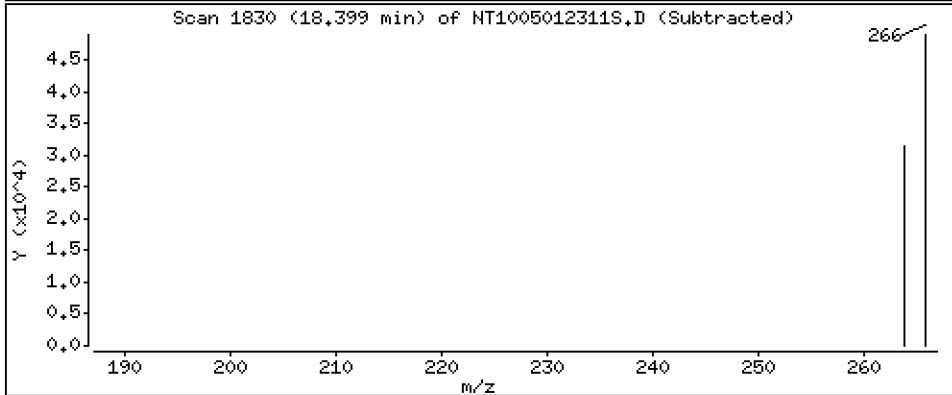
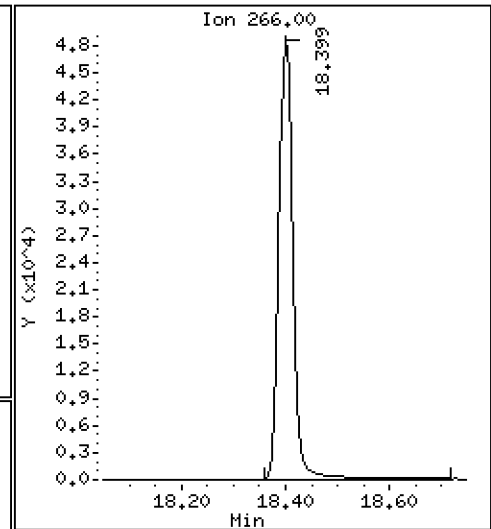
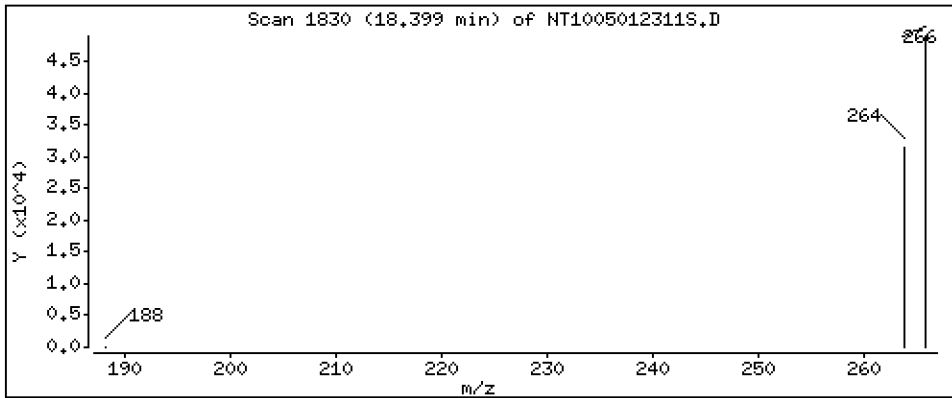
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 4,346 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

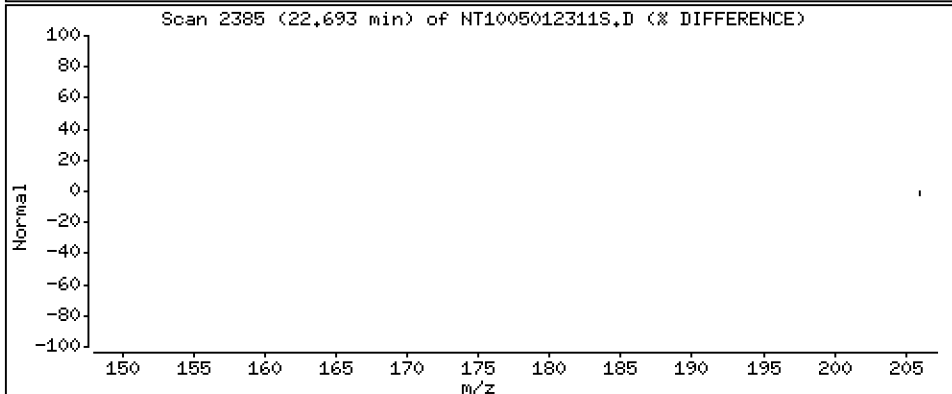
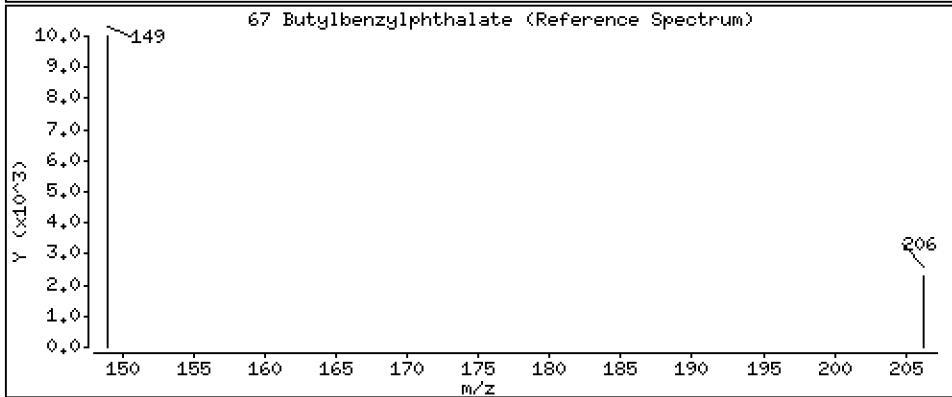
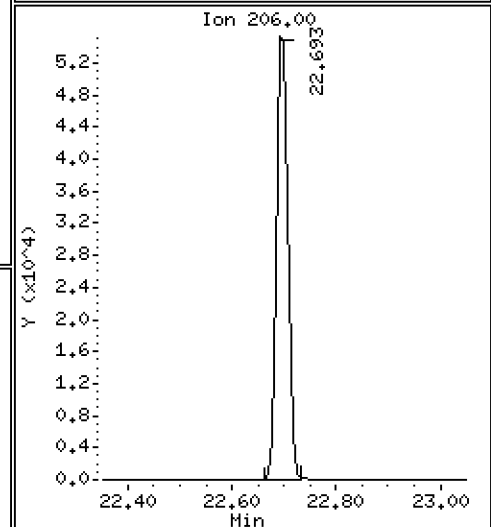
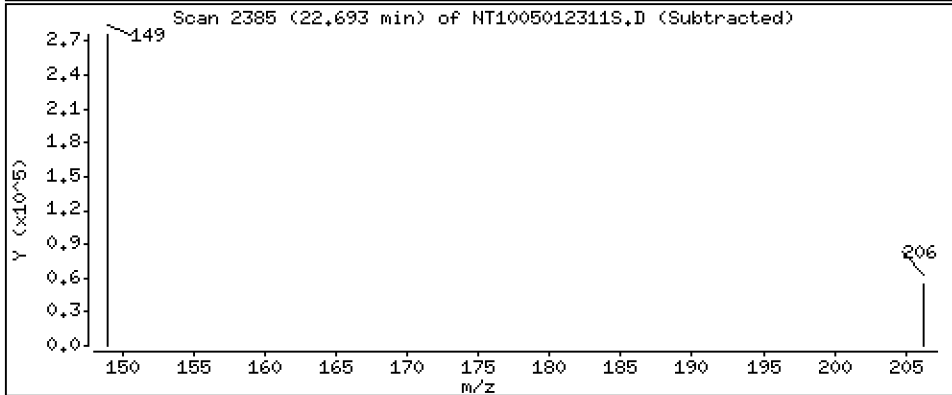
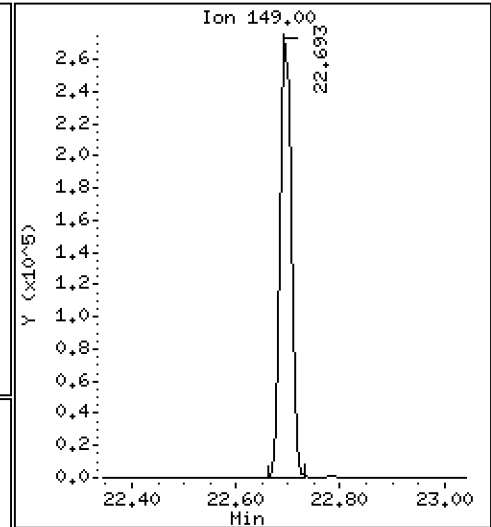
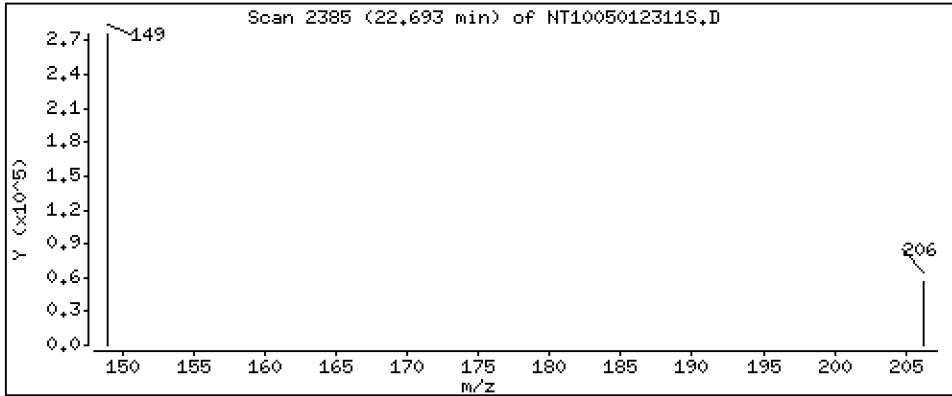
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,065 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

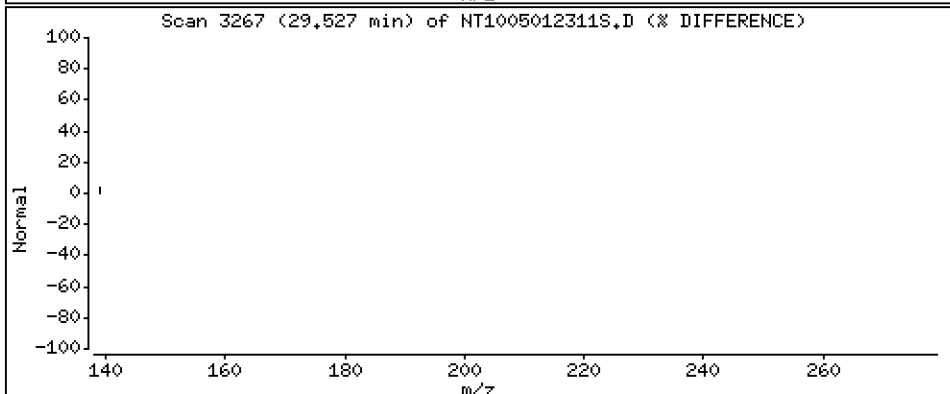
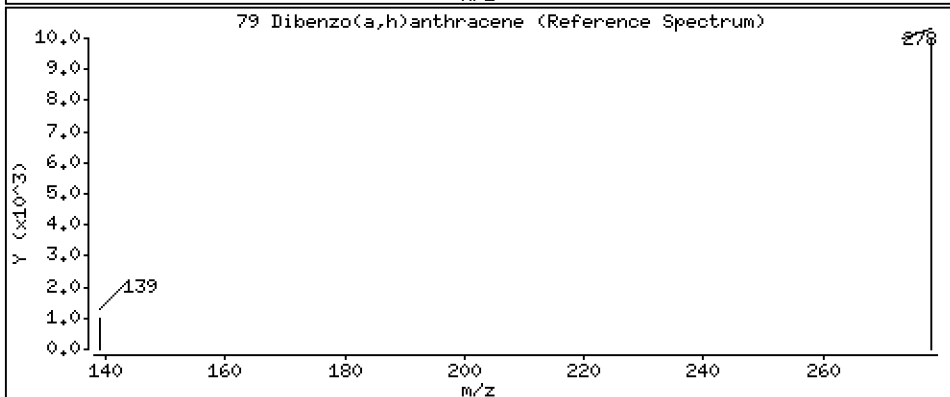
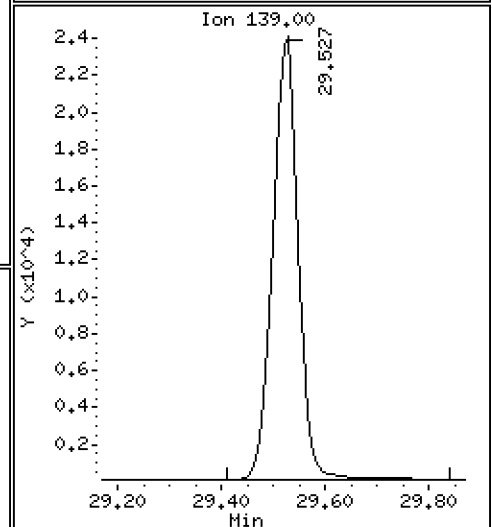
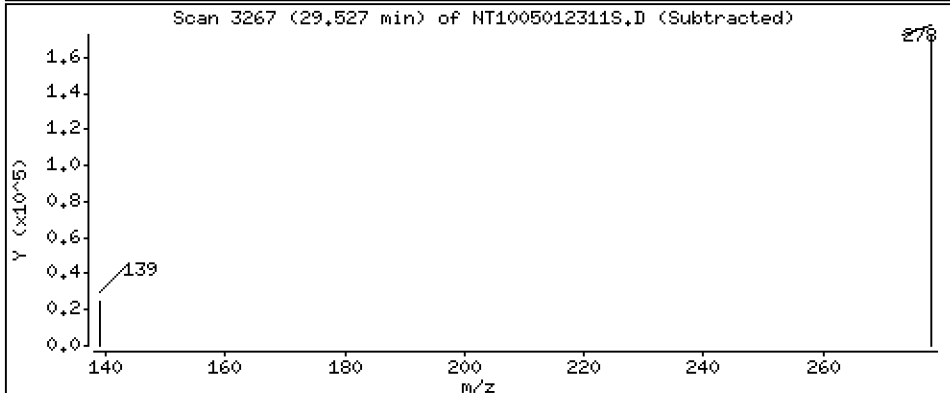
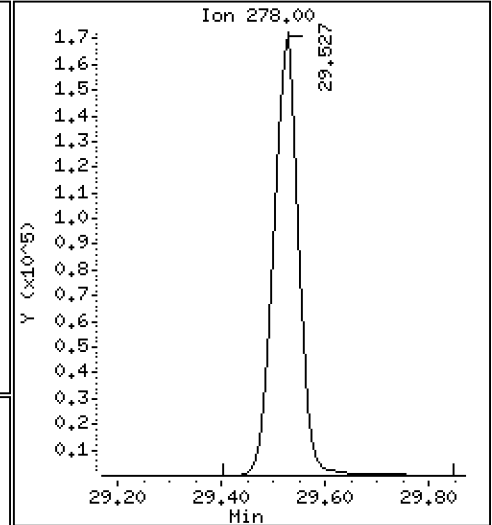
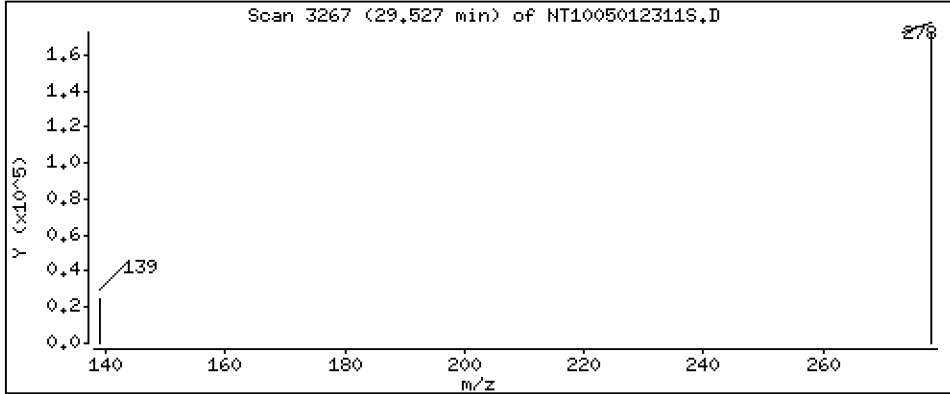
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,815 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

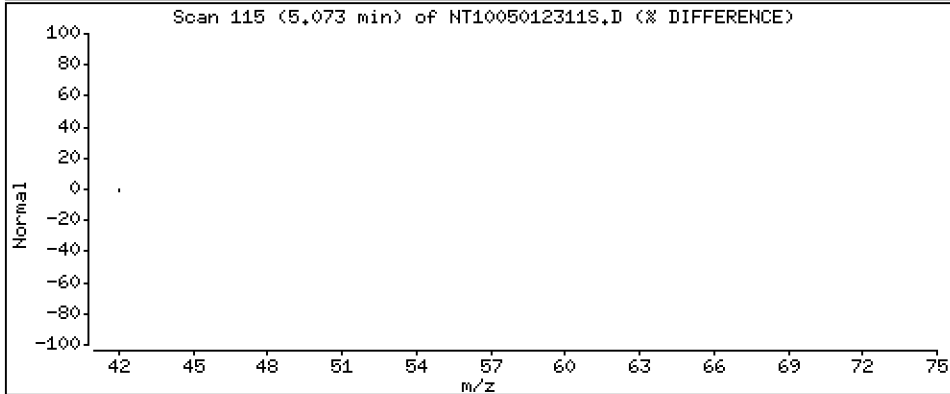
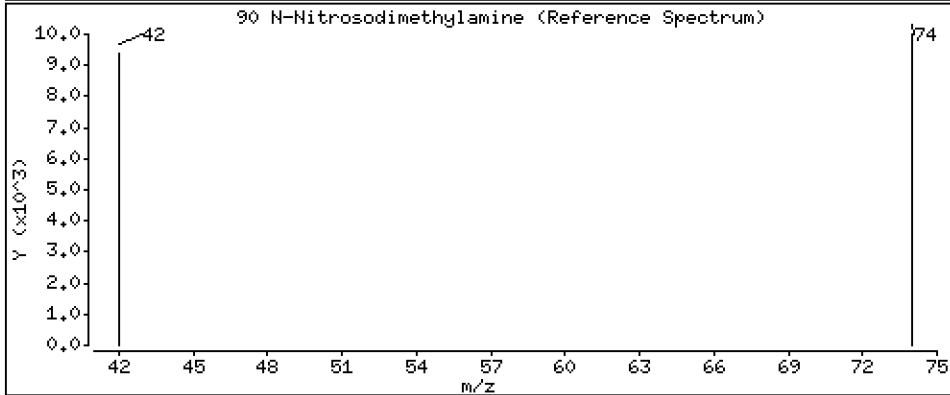
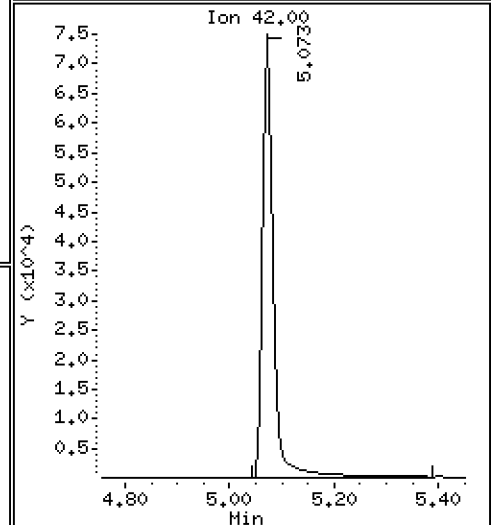
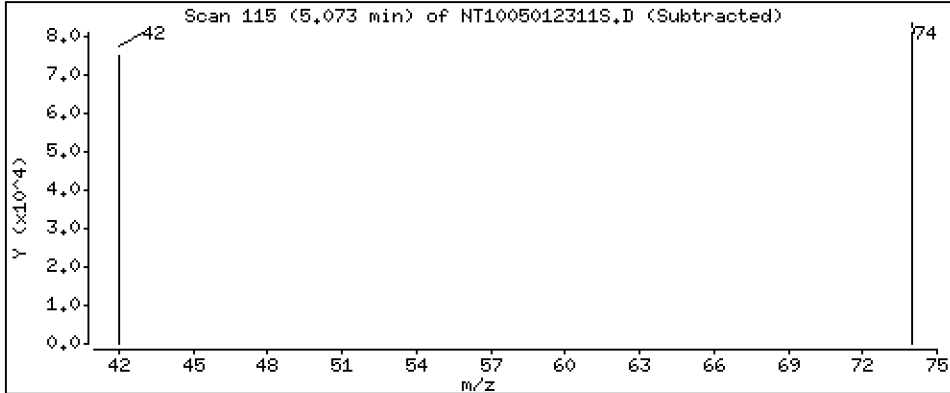
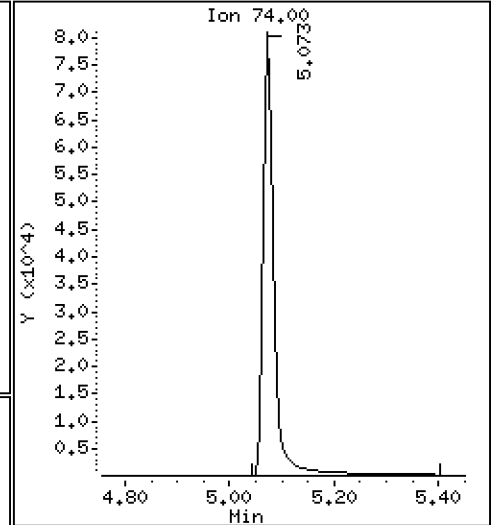
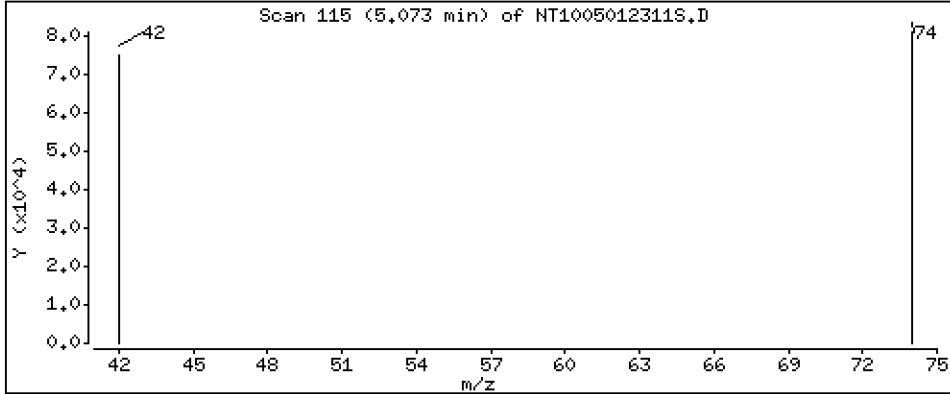
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,213 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012311S.D
 Lab Smp Id: SLE0082-SCV1
 Inj Date : 01-MAY-2023 20:43 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	1569	0.03614	0.03614 (R)
3 Phenol	94		8.842	8.842	(0.932)	241257	4.43593	4.436
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	266593	4.66088	4.661
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	142531	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	271019	4.78410	4.784
11 Benzyl alcohol	79		9.748	9.756	(1.027)	198278	5.27178	5.272
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	253729	4.65664	4.657
13 2-Methylphenol	108		9.965	9.965	(1.050)	172706	4.24306	4.243
15 4-Methylphenol	108		10.237	10.237	(1.079)	191289	4.46966	4.470
16 N-Nitroso-di-n-propylamine	70		10.315	10.315	(1.087)	162670	5.26784	5.268
22 2,4-Dimethylphenol	107		11.288	11.288	(0.942)	176836	3.48934	3.489 (M)
24 Benzoic acid	105		11.432	11.373	(0.954)	283387	8.32169	8.322
26 1,2,4-Trichlorobenzene	180		11.896	11.896	(0.992)	224651	4.32072	4.321
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	510045	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	153764	4.63178	4.632
39 Dimethylphthalate	163		15.106	15.107	(0.967)	487893	4.87533	4.875
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	263993	4.00000	
50 Diethylphthalate	149		16.568	16.560	(1.061)	564424	5.25278	5.253
54 N-Nitrosodiphenylamine	169		16.962	16.962	(0.908)	349152	5.28852	5.289
57 Hexachlorobenzene	284		18.050	18.042	(0.966)	150021	4.64019	4.640

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.398	18.398	(0.985)	87352	4.34597	4.346
* 59 Phenanthrene-d10	188	18.677	18.677	(1.000)	506239	4.00000	
\$ 66 Terphenyl-d14	244	21.779	21.779	(0.919)	2121	0.02441	0.02441 (R)
67 Butylbenzylphthalate	149	22.693	22.693	(0.958)	378823	5.06538	5.065
* 69 Chrysene-d12	240	23.699	23.692	(1.000)	402889	4.00000	
* 77 Perylene-d12	264	26.533	26.533	(1.000)	365734	4.00000	
79 Dibenzo(a,h)anthracene	278	29.527	29.519	(1.113)	568400	4.81466	4.815
90 N-Nitrosodimethylamine	74	5.072	5.103	(0.534)	123469	5.21274	5.213

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012311S.D
 Lab Smp Id: SLE0082-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	142531	-15.75
27 Naphthalene-d8	594924	297462	1189848	510045	-14.27
42 Acenaphthene-d10	304980	152490	609960	263993	-13.44
59 Phenanthrene-d10	609190	304595	1218380	506239	-16.90
69 Chrysene-d12	479061	239531	958122	402889	-15.90
77 Perylene-d12	427162	213581	854324	365734	-14.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
77 Perylene-d12	26.54	26.04	27.04	26.53	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005012311S.D

Lab ID: SLE0082-SCV1

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 20:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

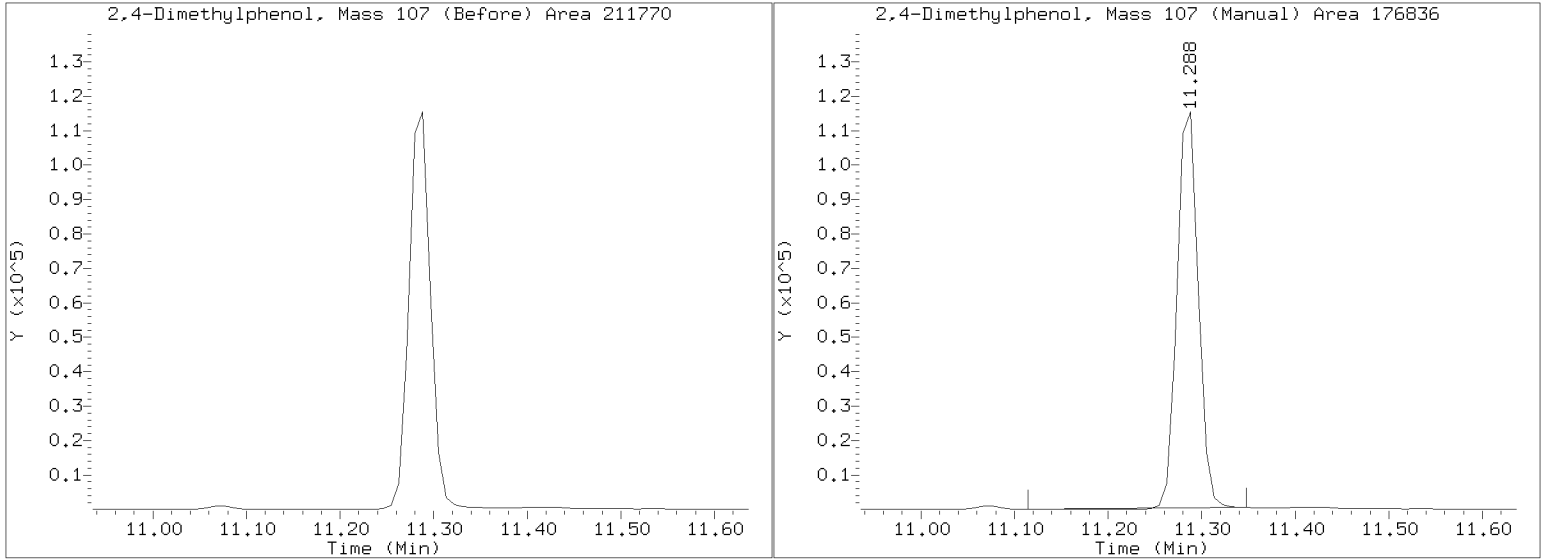
On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/20230501.b/NT1005012311S.D
Injection Date: 01-MAY-2023 20:43
Lab ID: SLE0082-SCV1 Client ID:
Report Date: 05/10/2023 12:32



APPROVED

By Deenay Dunmore at 12:52 pm, May 10, 2023



SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00018

Laboratory ID: SLE0082-SCV1

Sequence: SLE0082

Standard ID: K010066

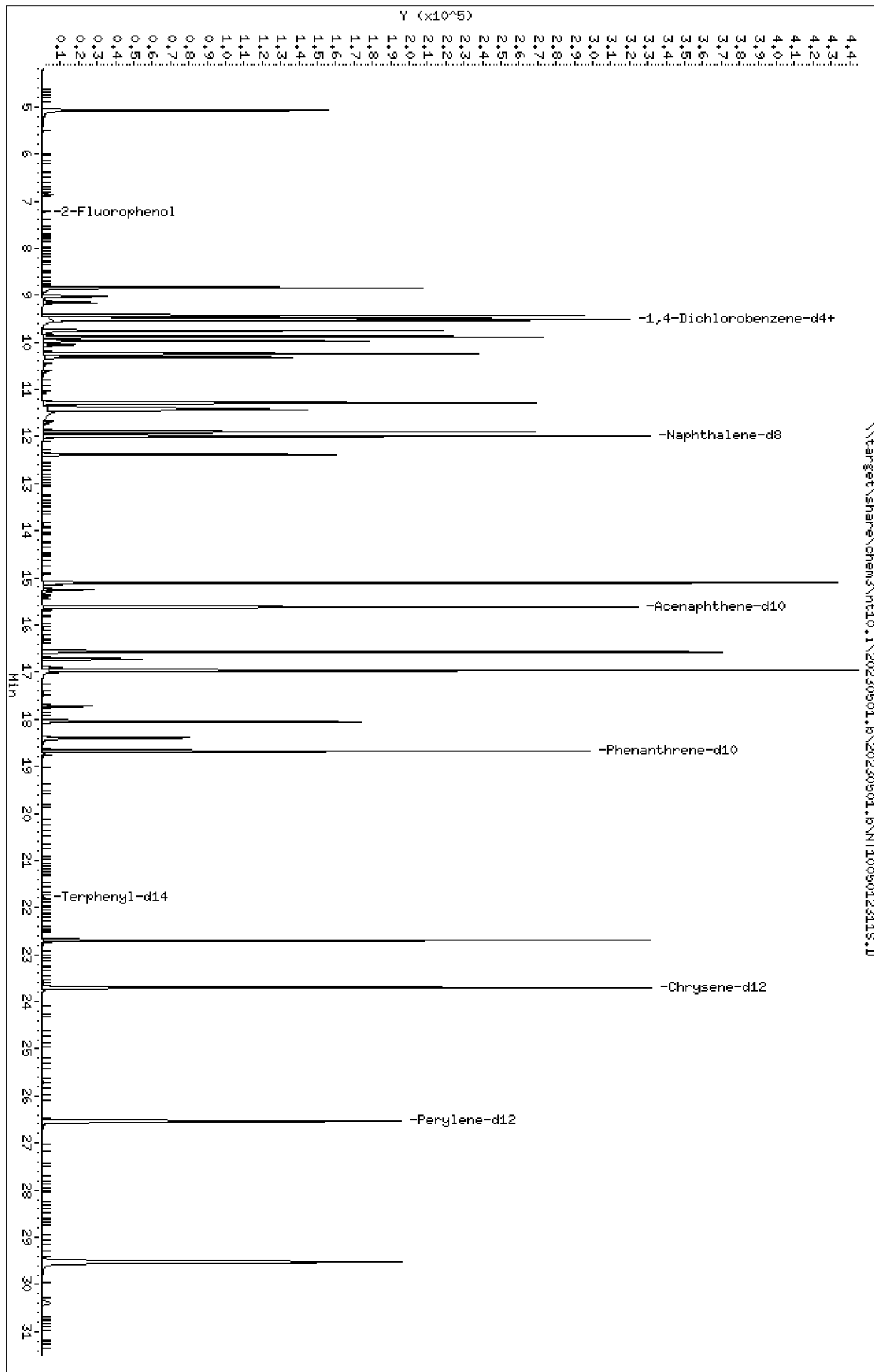
ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
1,4-Dichlorobenzene	5.0000	4.8	-4.3	20.00
1,2-Dichlorobenzene	5.0000	4.7	-6.9	20.00
Benzyl Alcohol	5.0000	5.3	5.4	20.00
Benzoic acid	10.000	8.3	-16.8	20.00
2,4-Dimethylphenol	5.0000	3.5	-30.2 *	20.00
1,2,4-Trichlorobenzene	5.0000	4.3	-13.6	20.00
N-Nitrosodiphenylamine	5.0000	5.3	5.8	20.00
Pentachlorophenol	5.0000	4.3	-13.1	20.00
2-Fluorophenol	7.5000	0.0361	-99.5	
p-Terphenyl-d14	5.0000	0.0244	-99.5	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230501.b\20230501.b\NT10050123115.D
 Date : 01-May-2023 20:43
 Client ID:
 Sample Info: SLE0082-SCV1
 Volume Injected (uL): 1.0
 Column phase: ZB-5msi

Instrument: nt10.1
 Operator: JGR
 Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501.b\20230501.b\NT10050123115.D



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

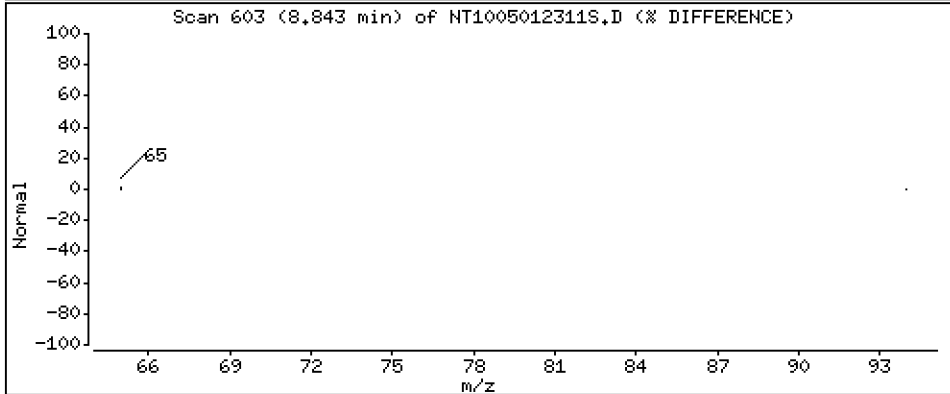
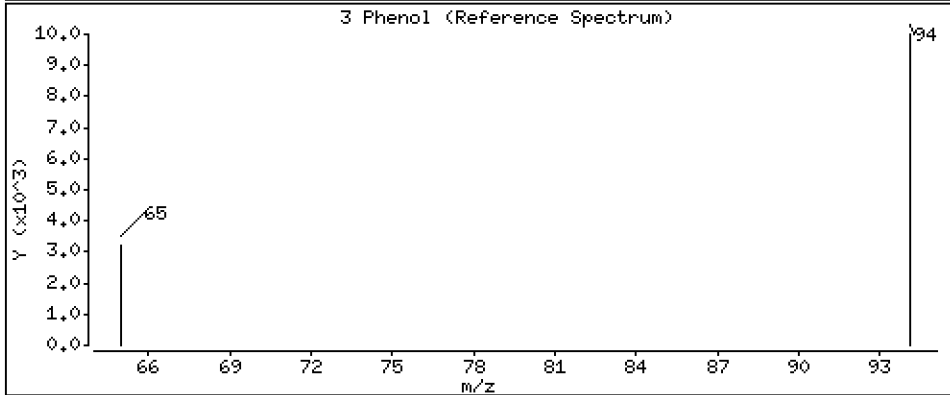
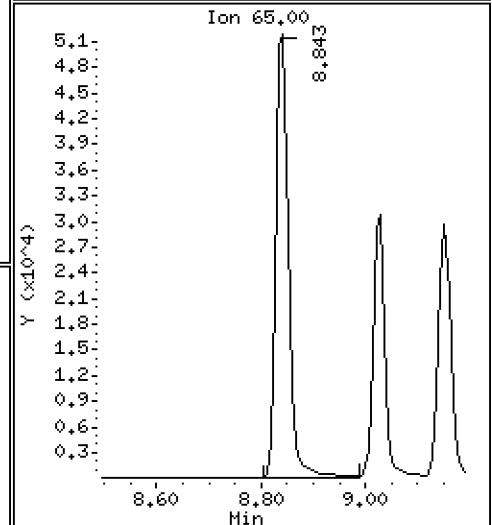
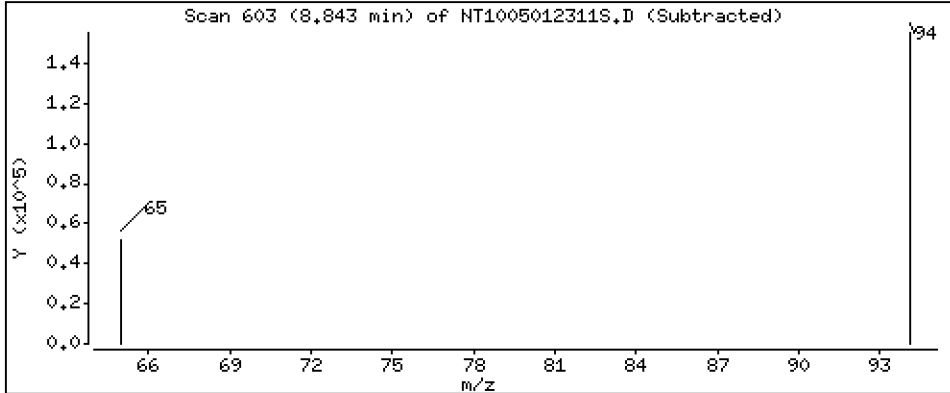
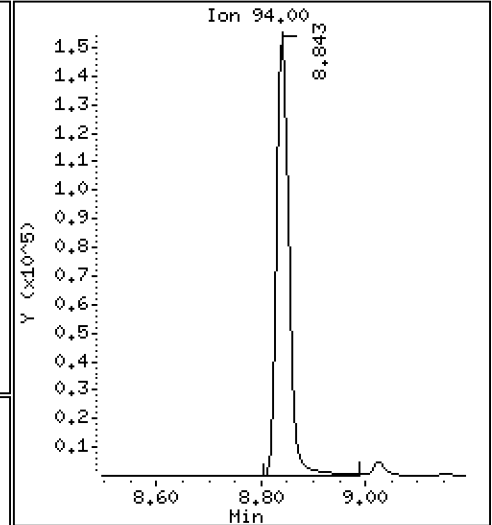
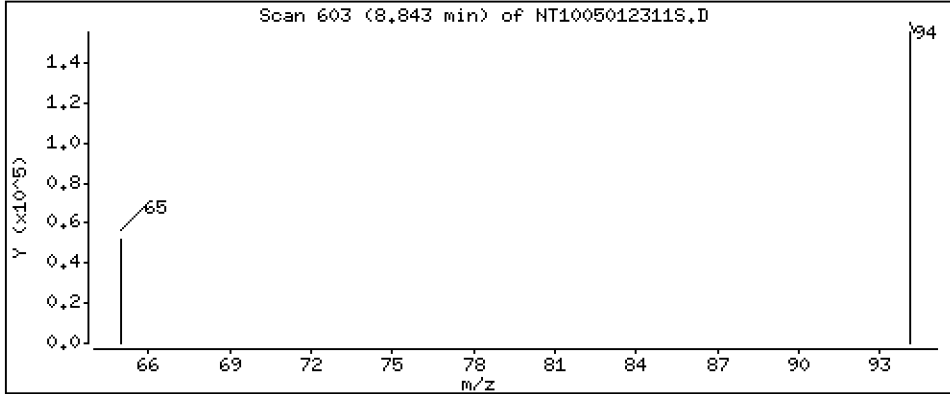
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,436 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

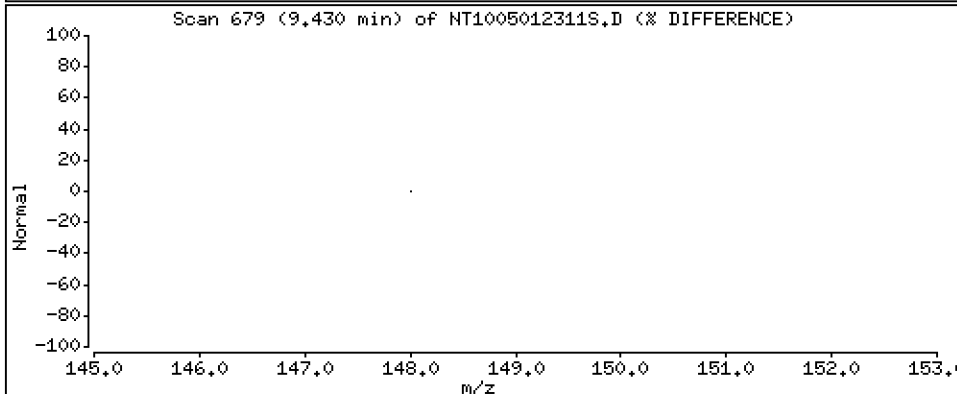
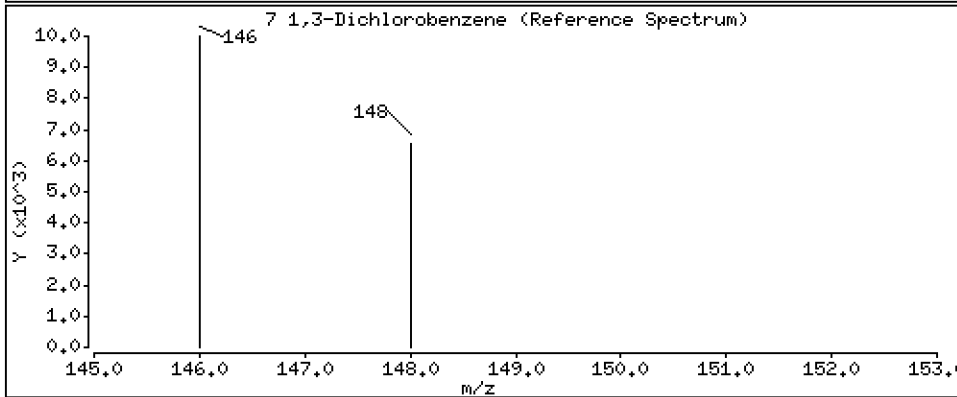
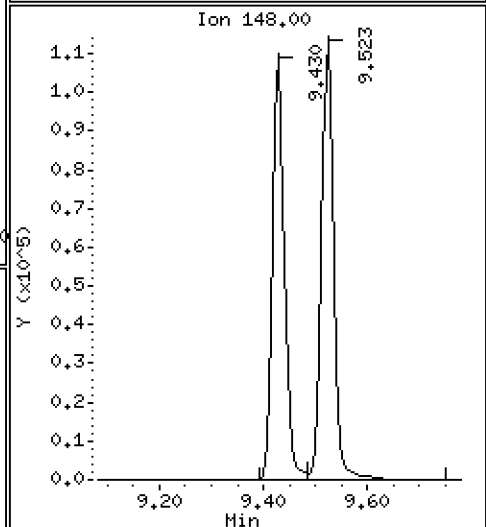
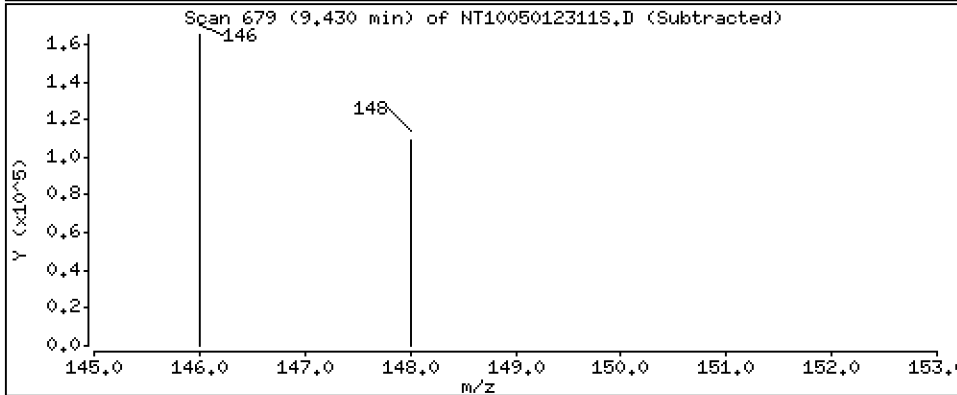
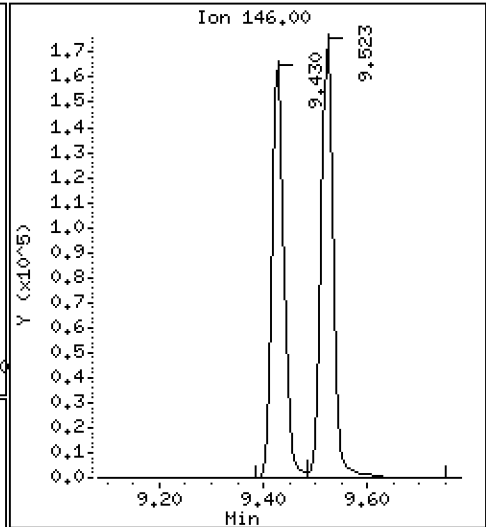
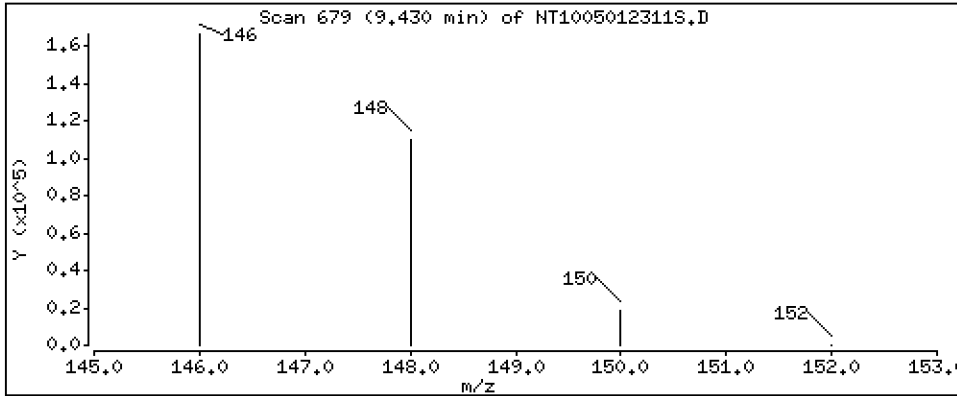
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 4.661 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

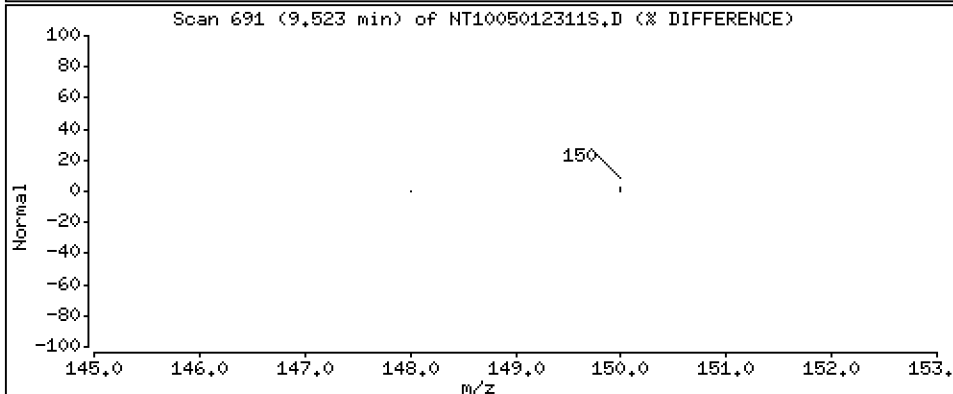
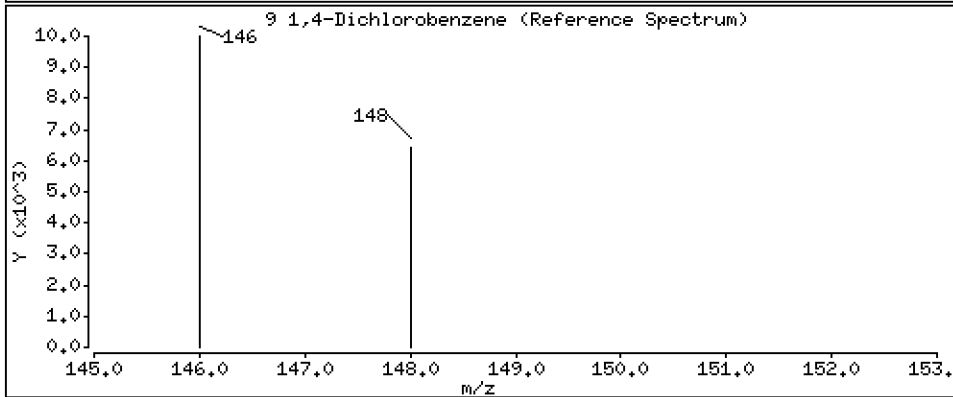
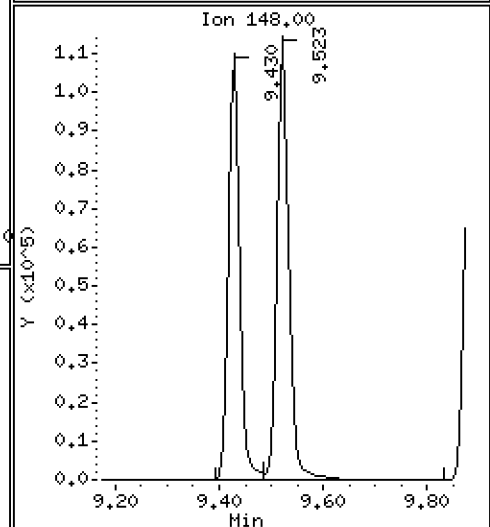
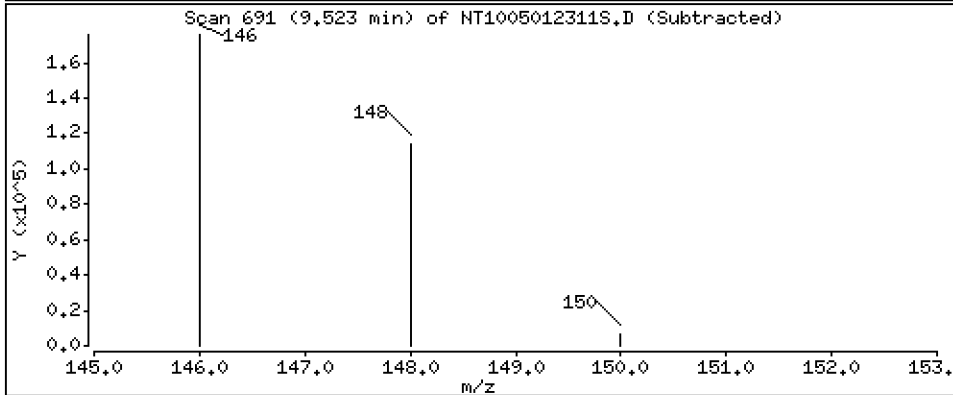
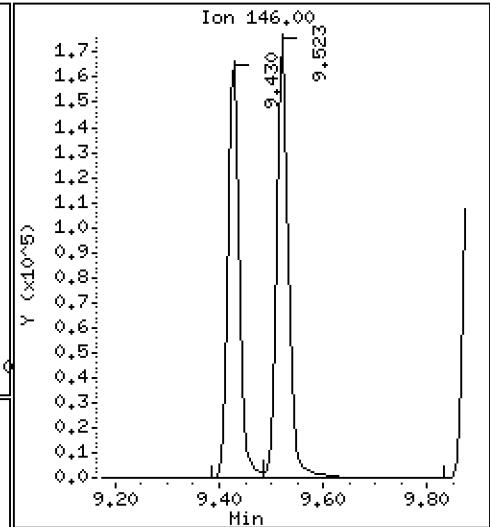
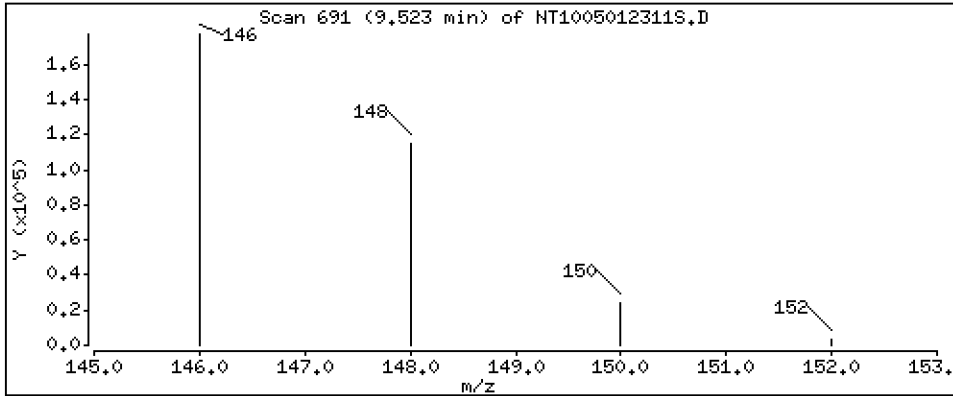
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 4.784 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

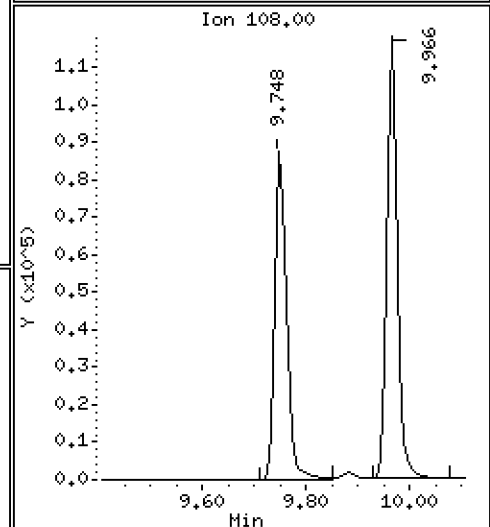
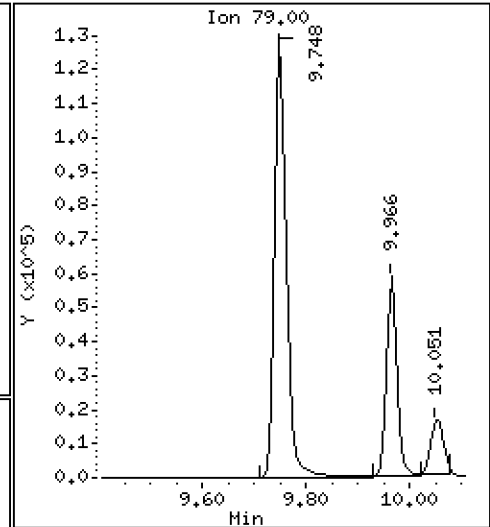
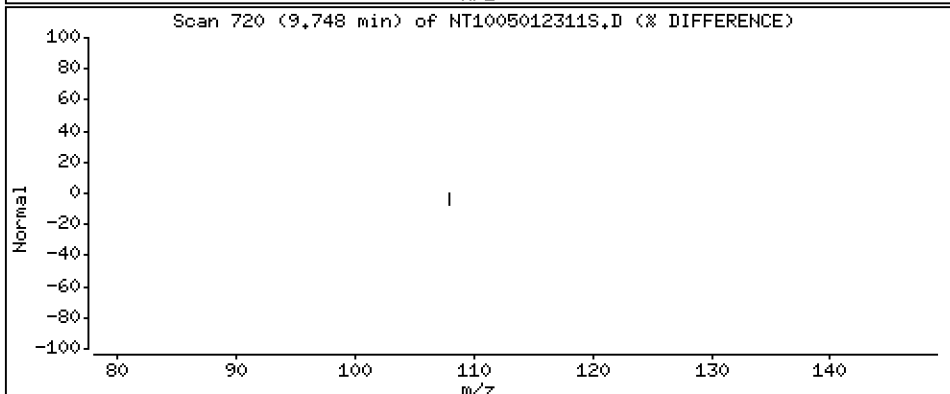
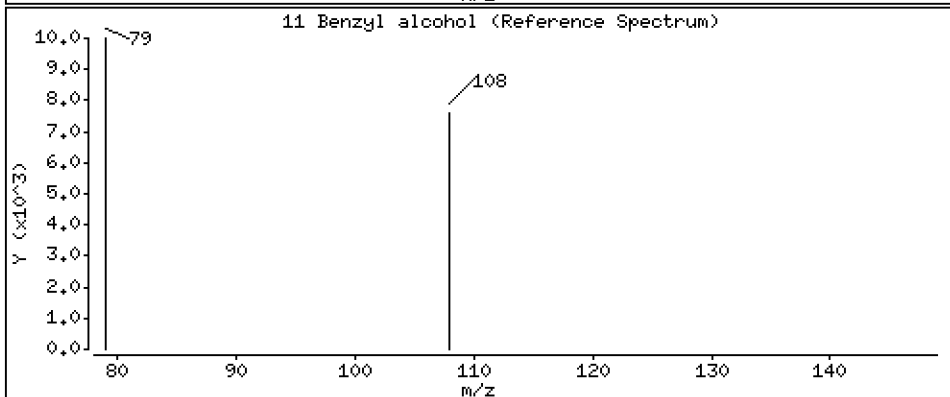
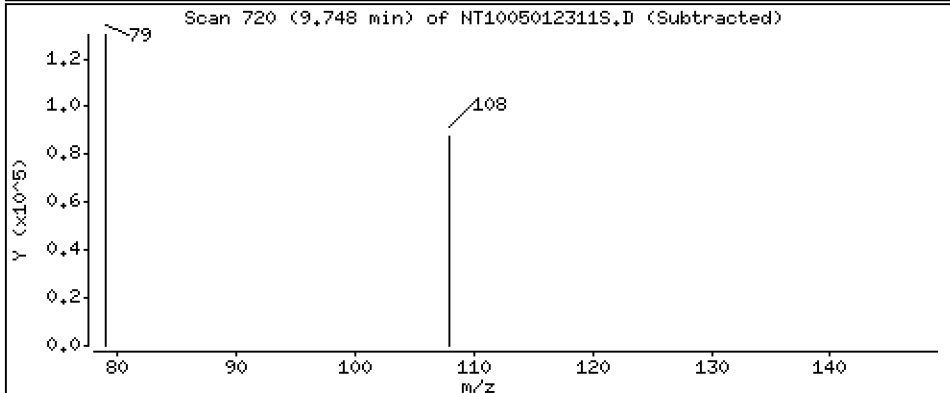
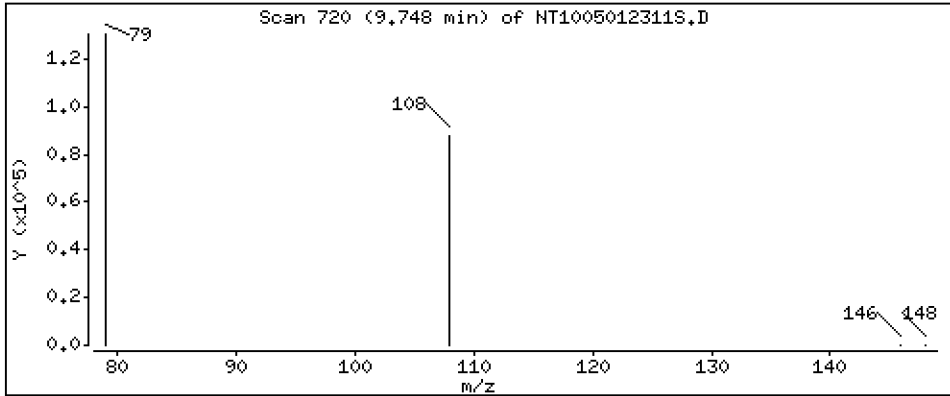
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.272 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

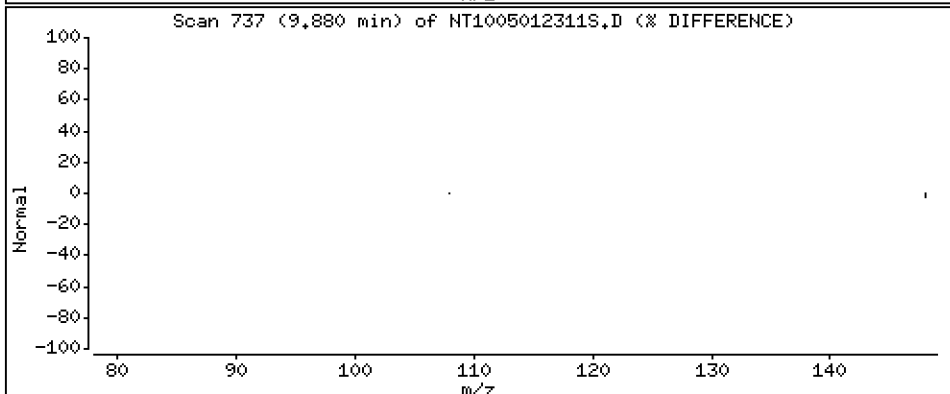
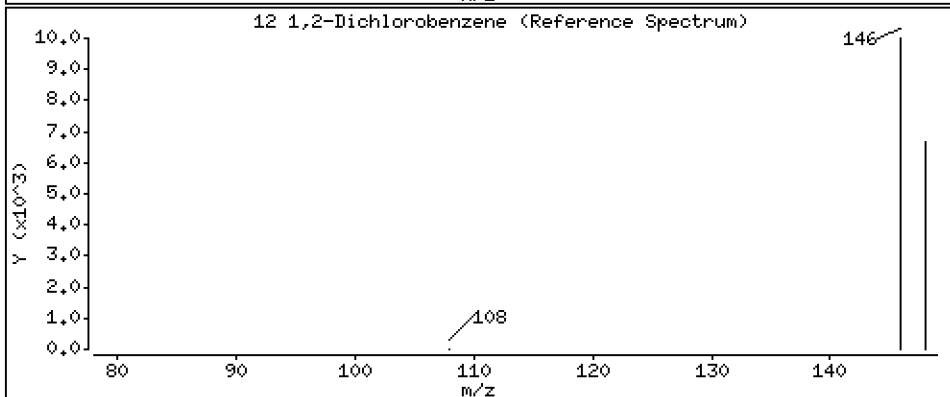
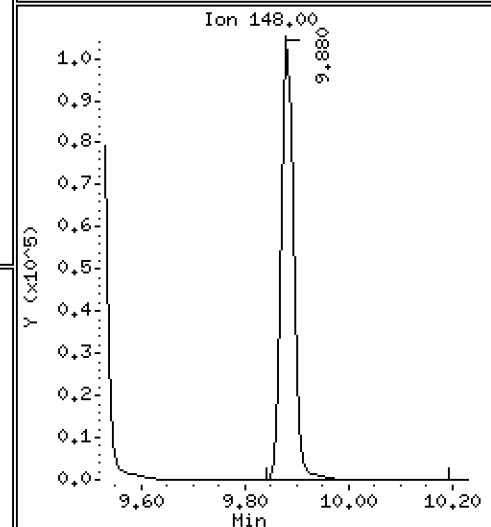
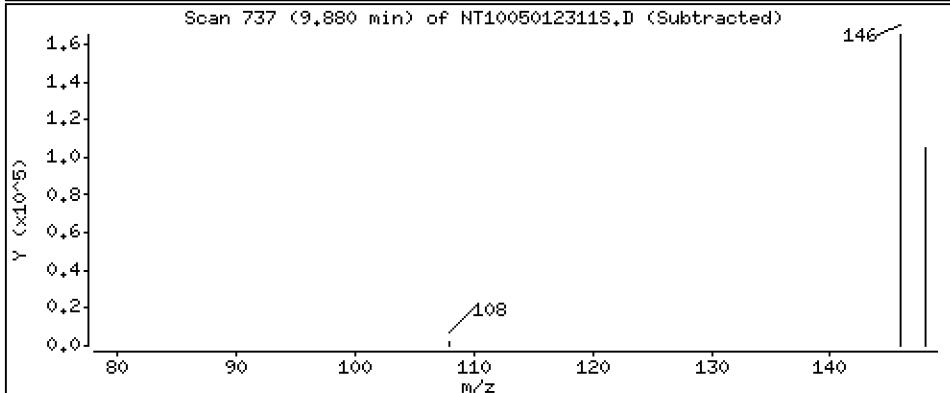
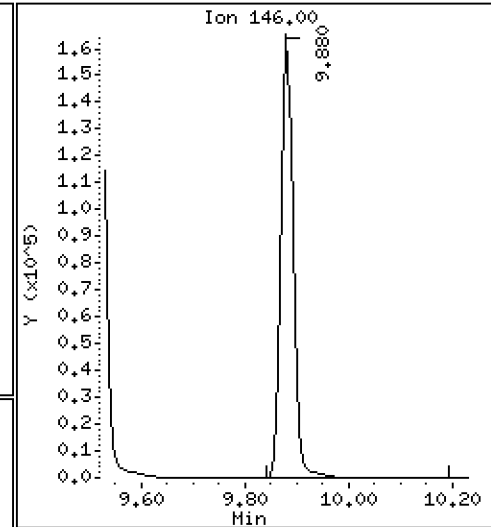
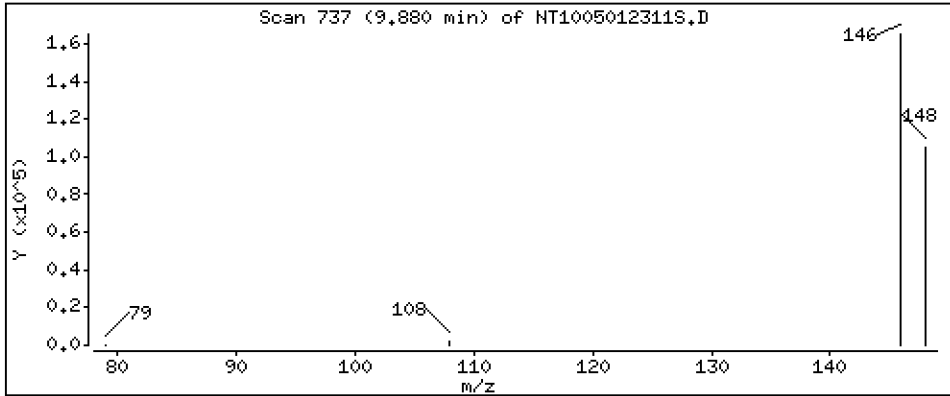
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 4.657 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

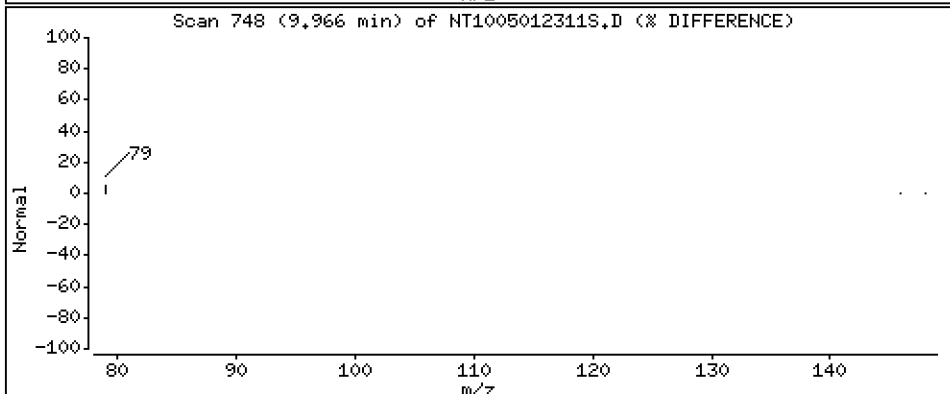
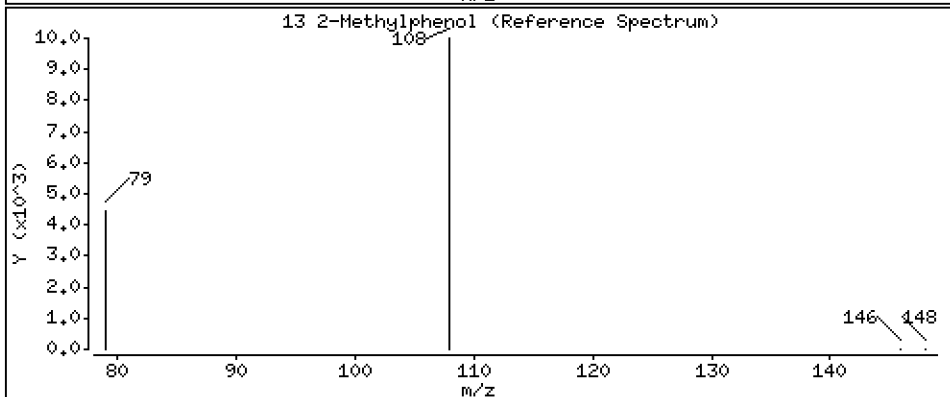
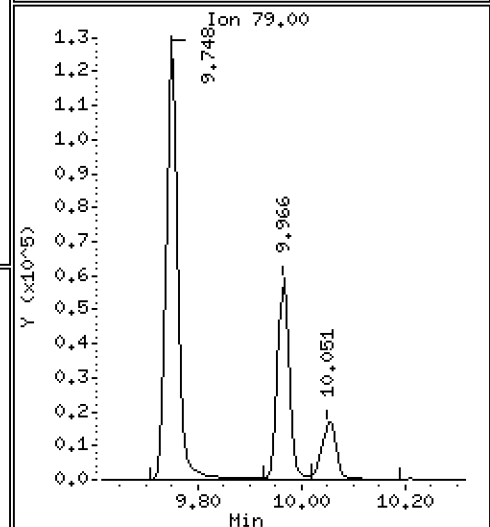
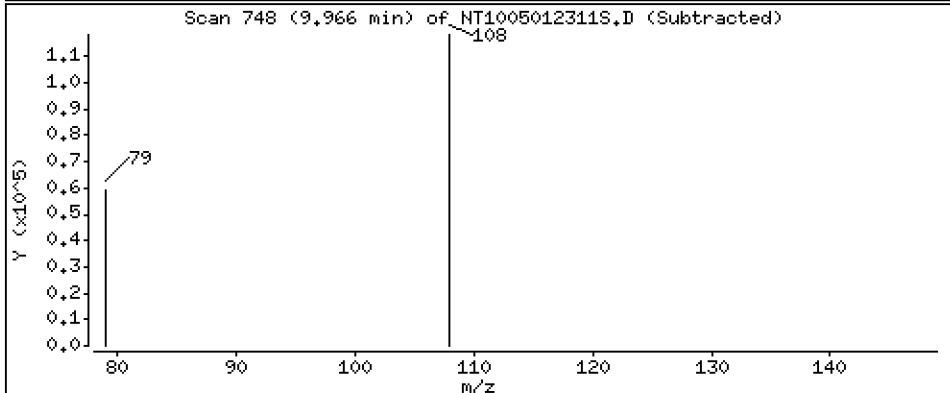
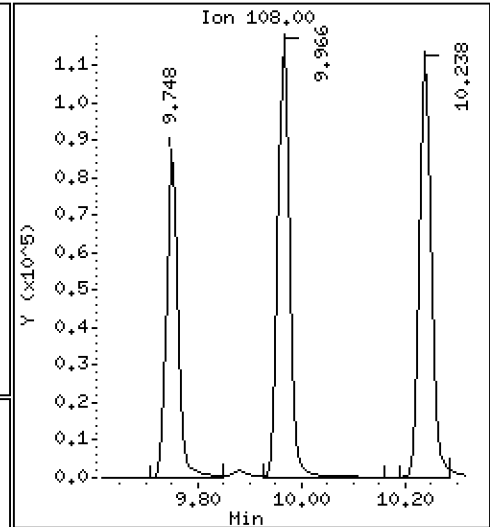
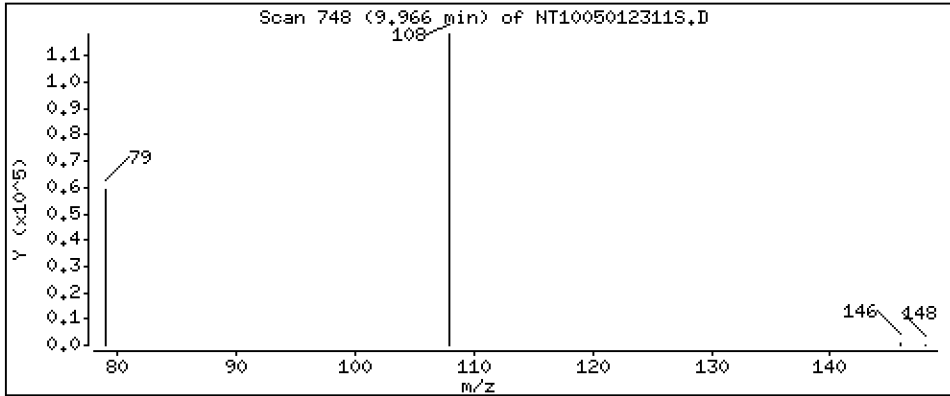
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,243 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

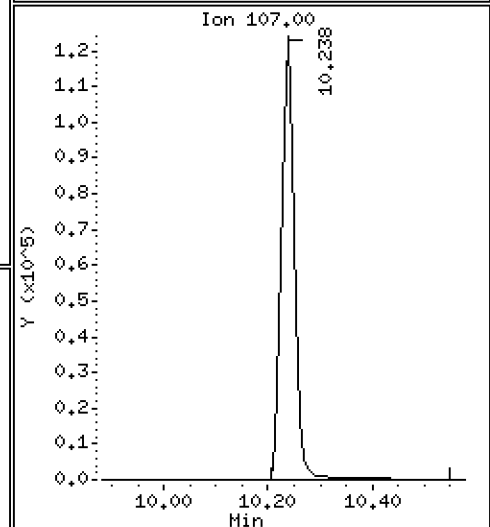
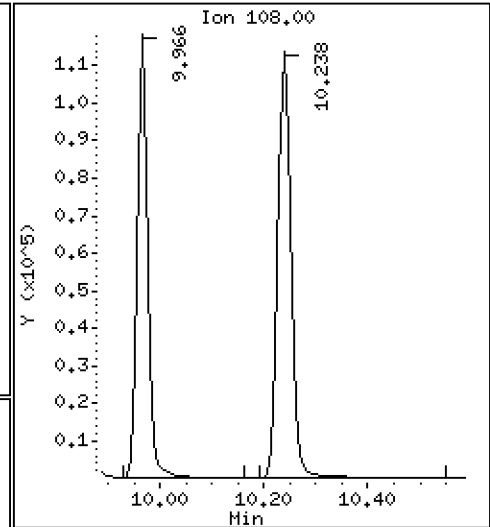
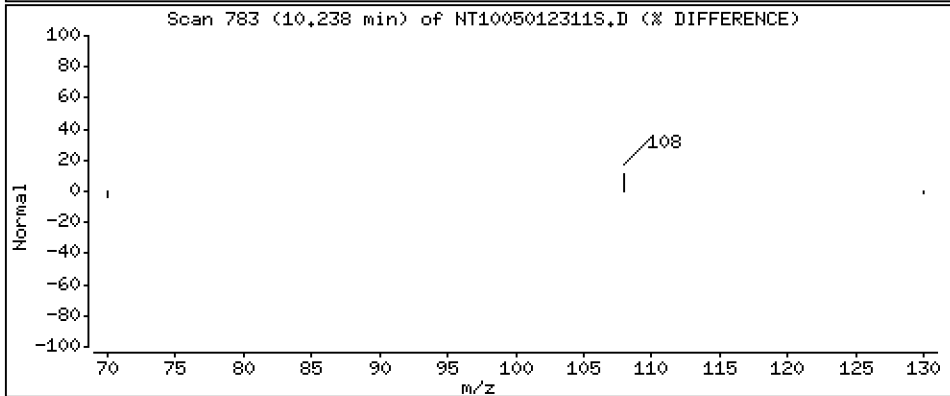
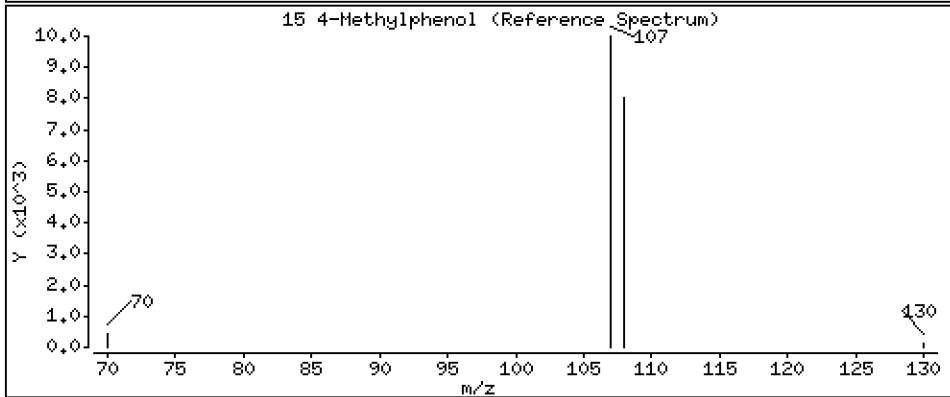
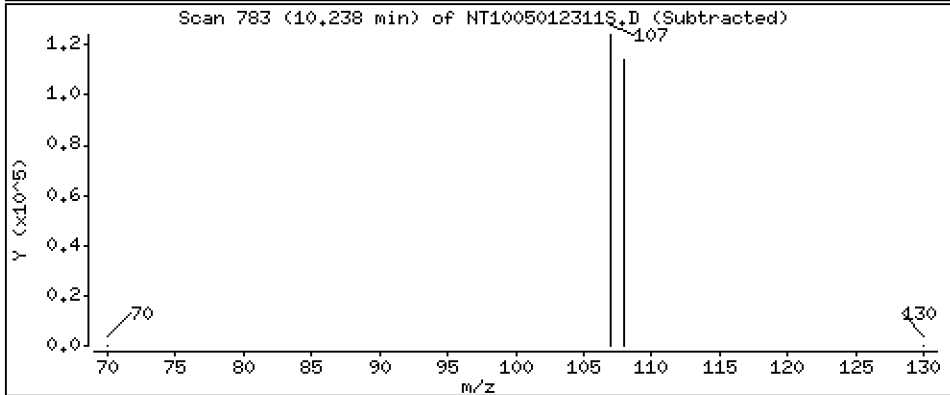
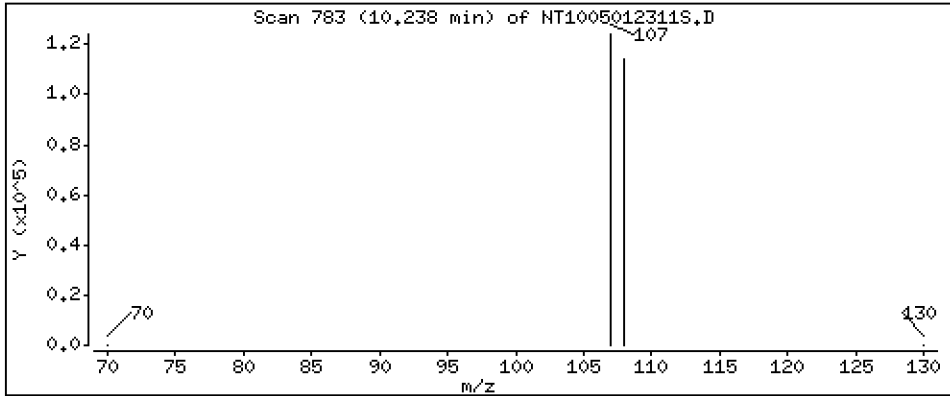
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 4.470 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

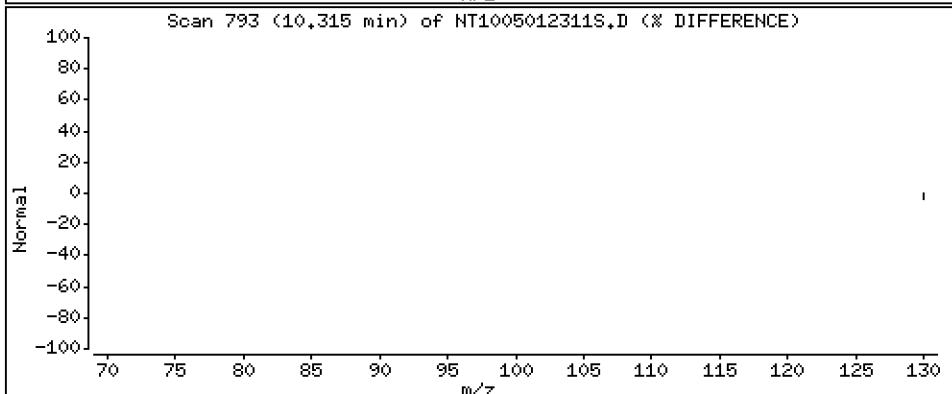
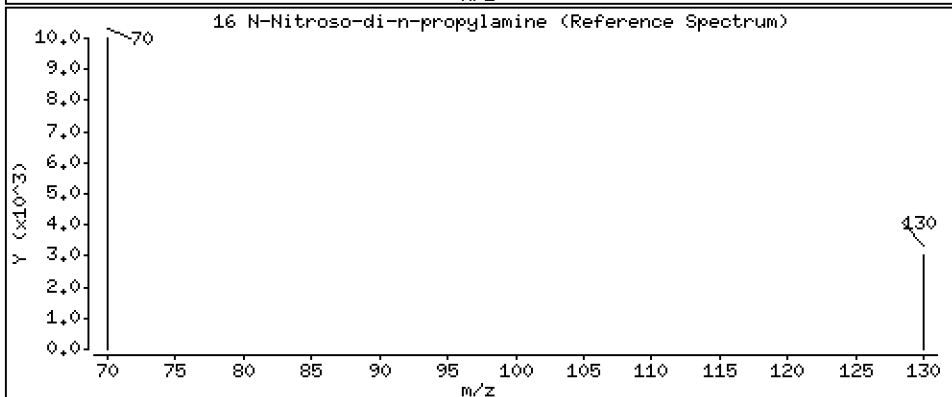
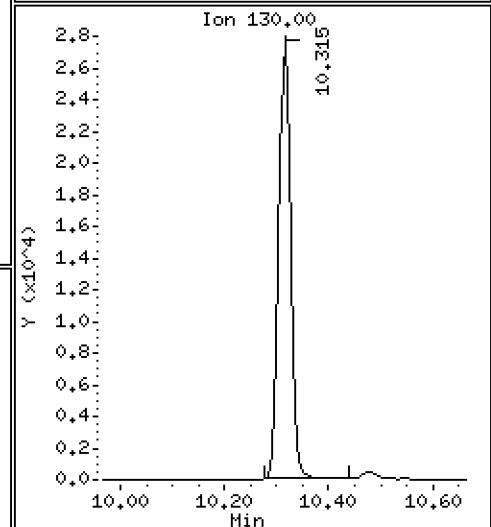
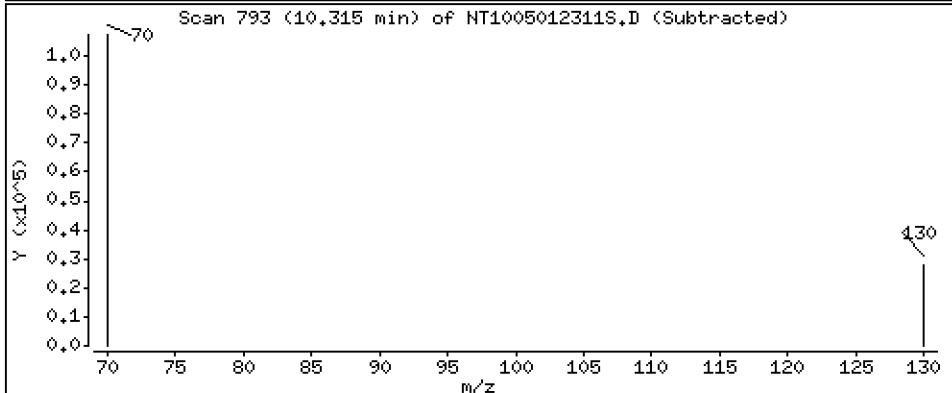
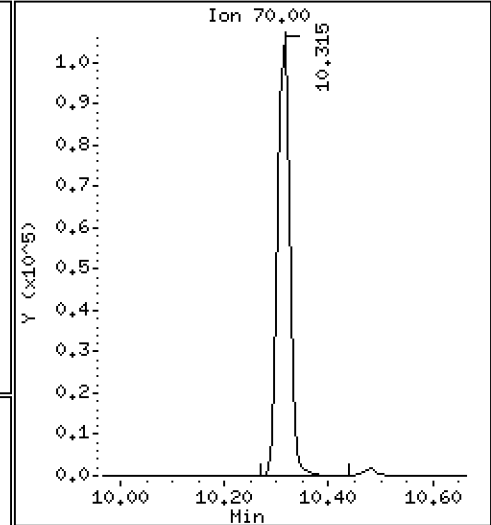
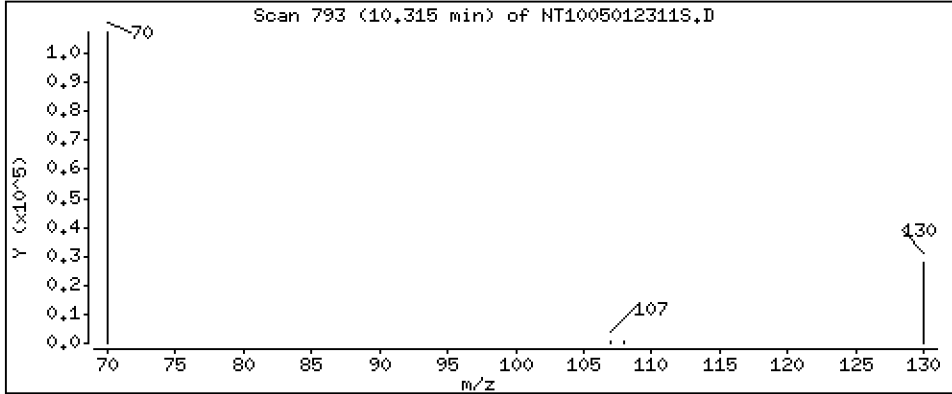
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 5.268 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

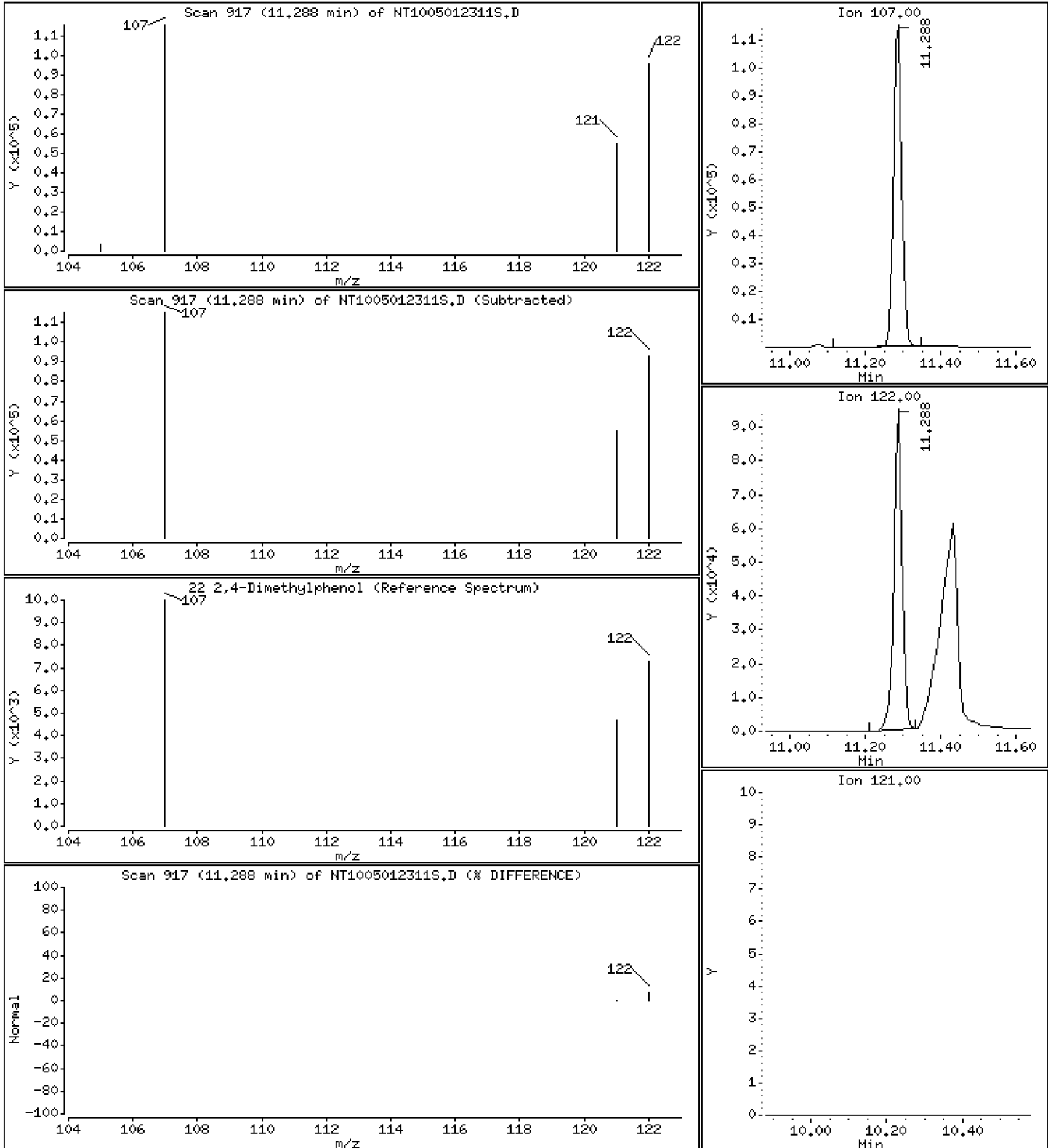
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3,489 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

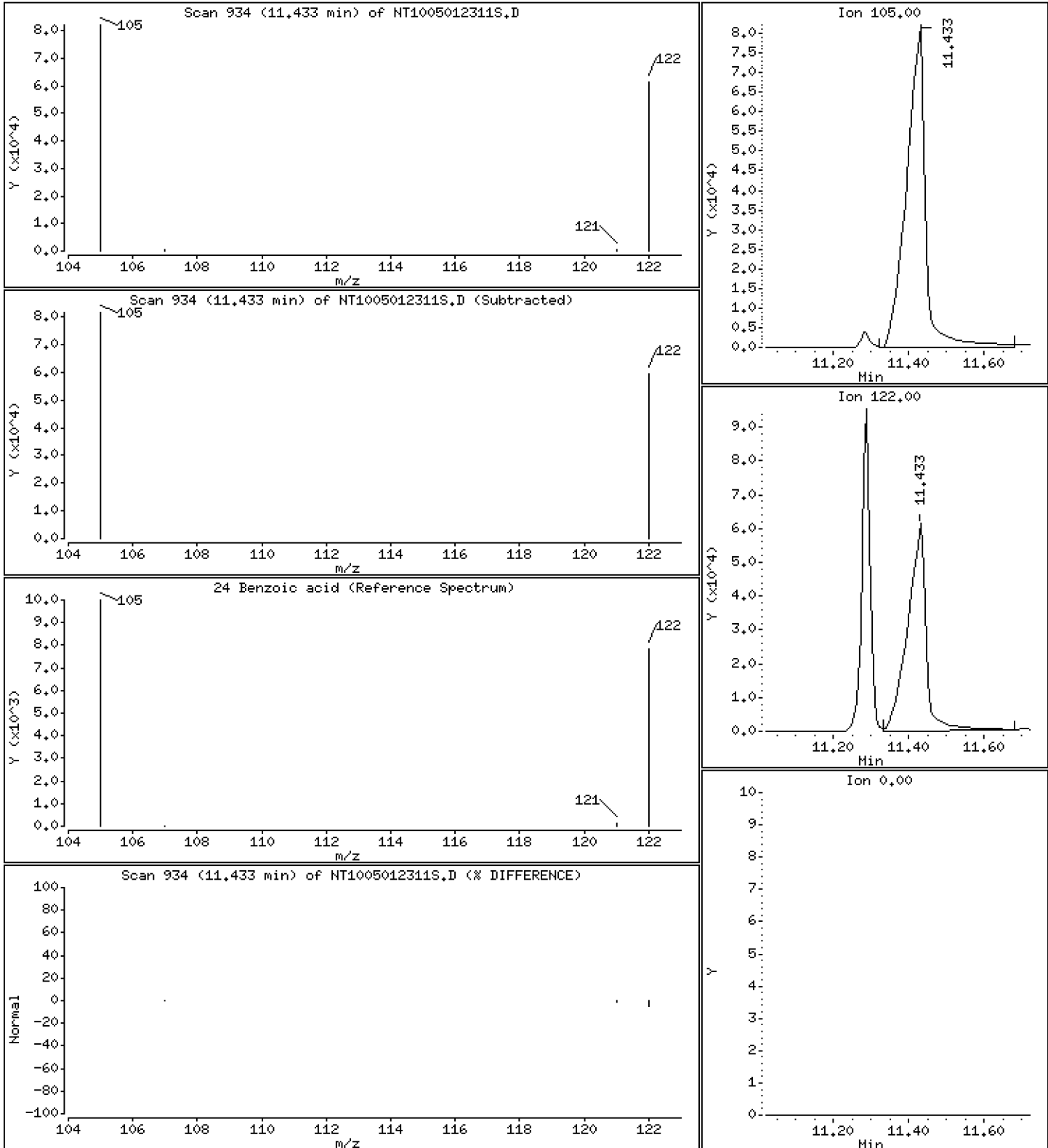
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 8,322 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

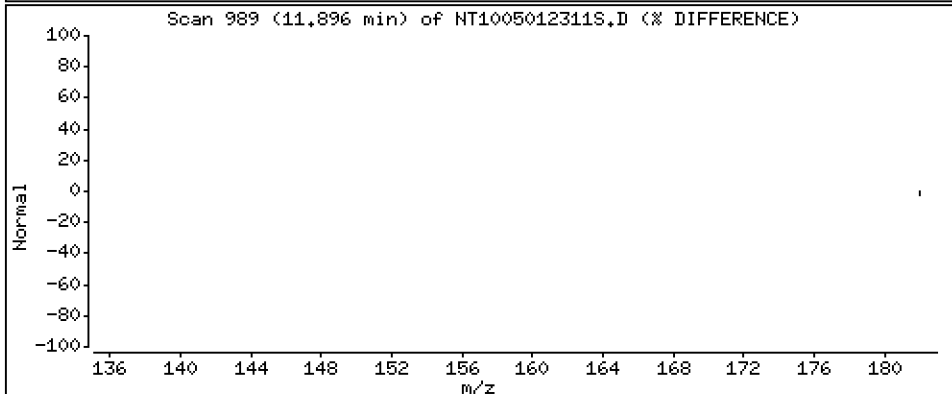
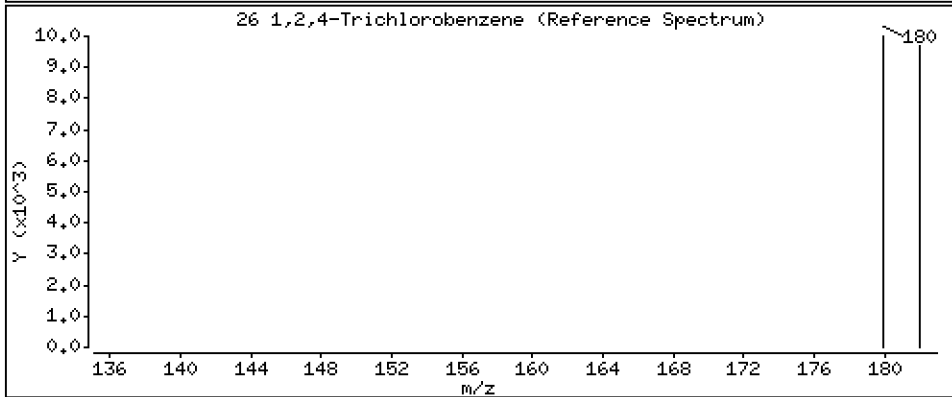
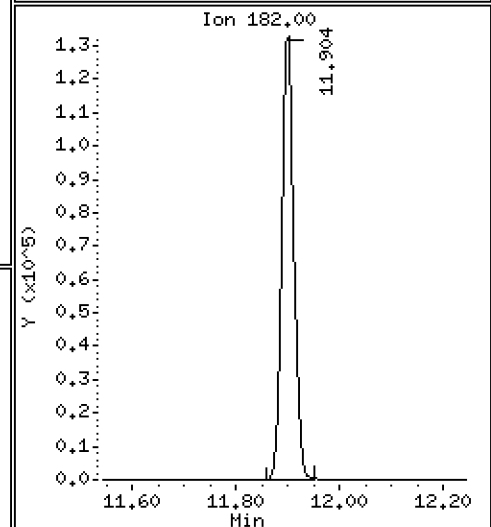
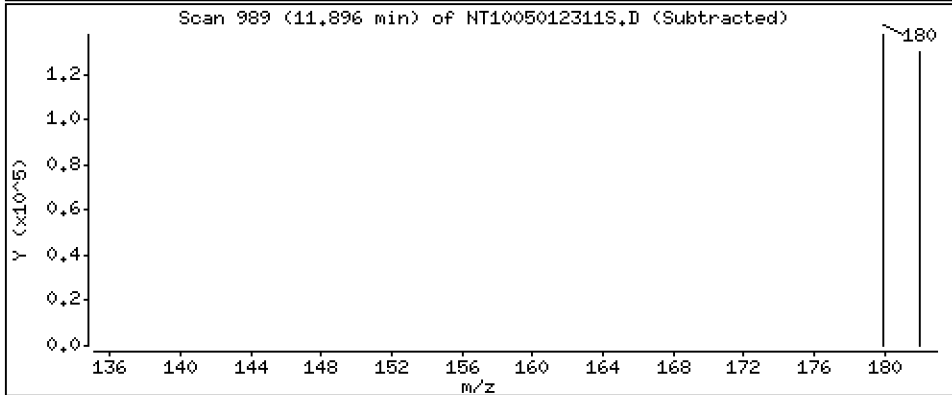
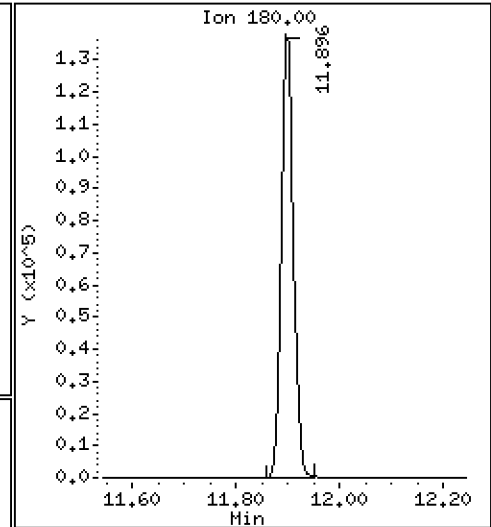
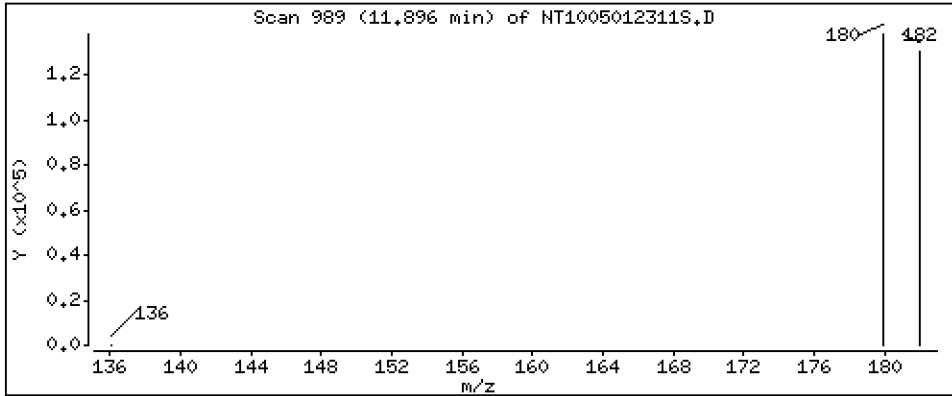
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 4.321 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

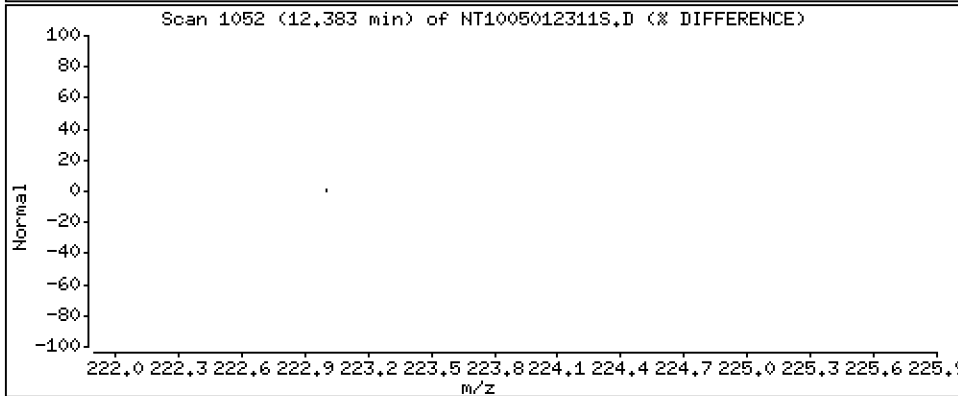
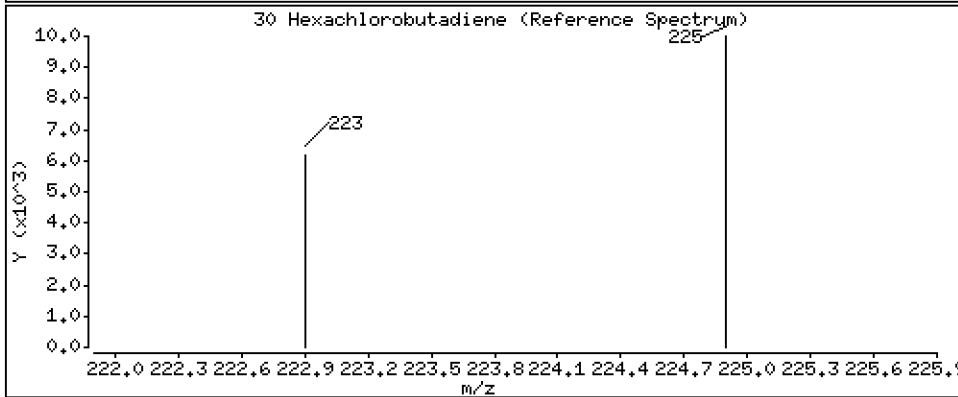
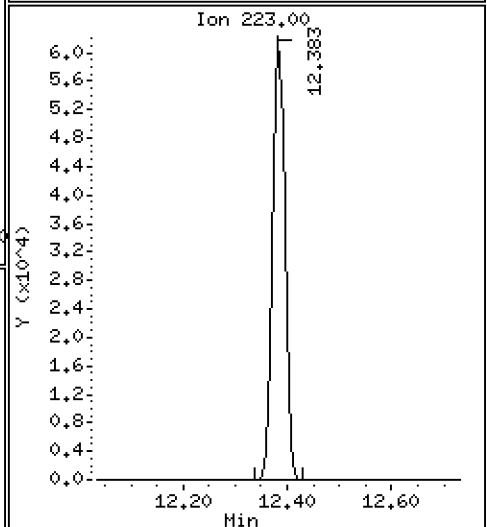
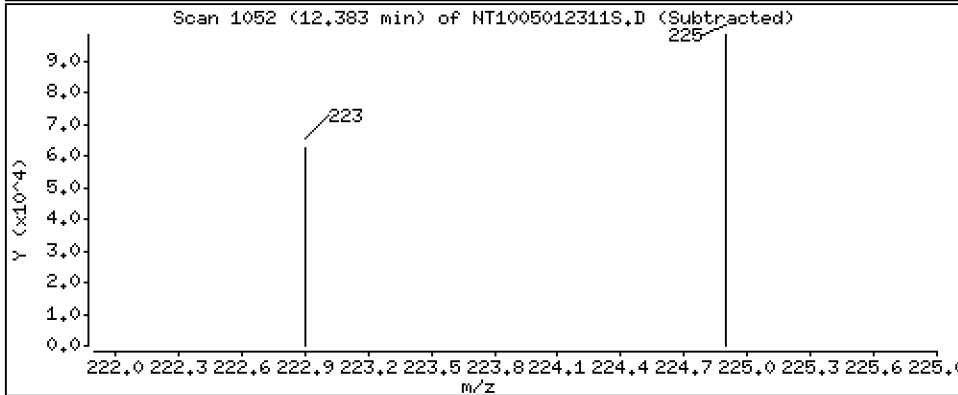
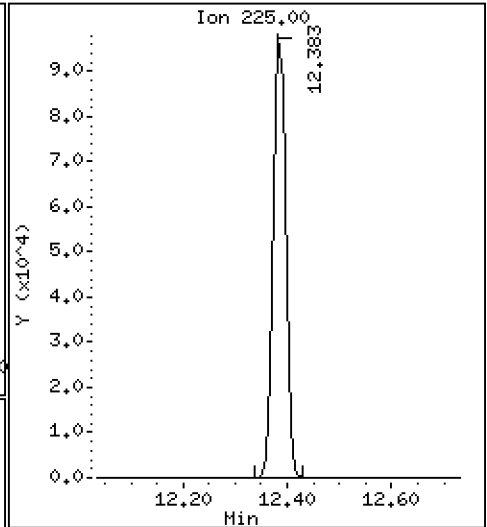
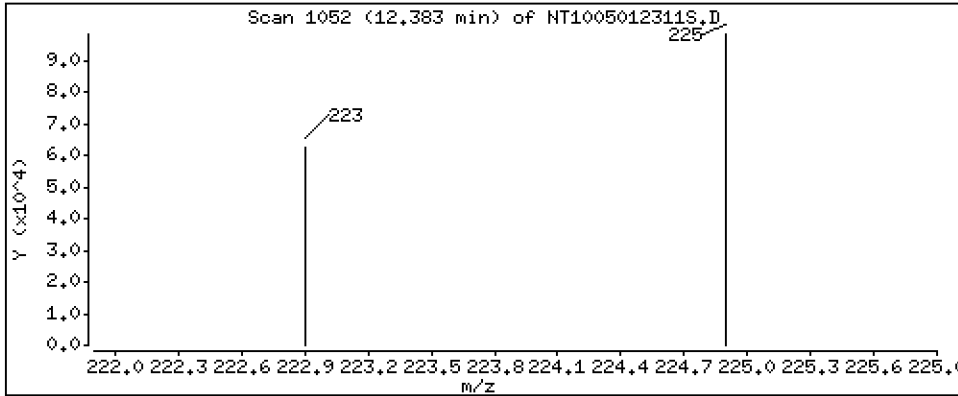
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,632 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

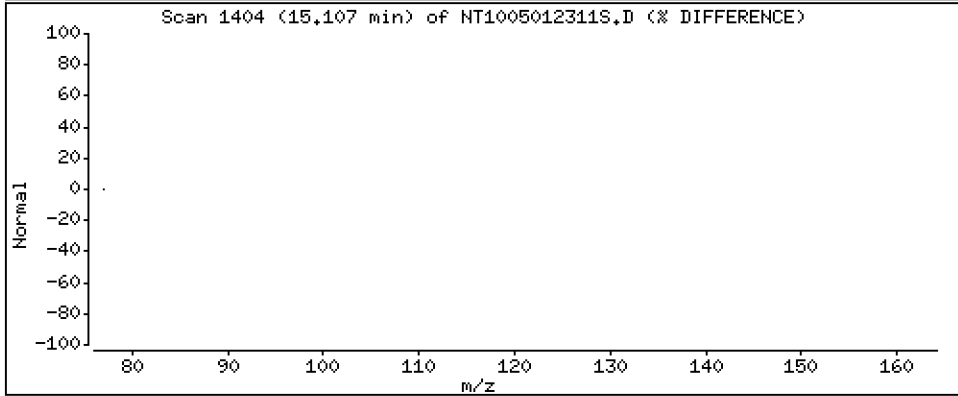
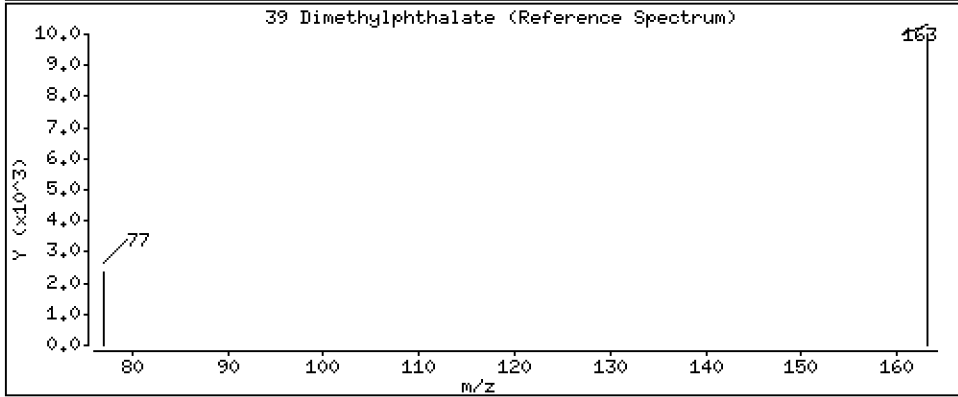
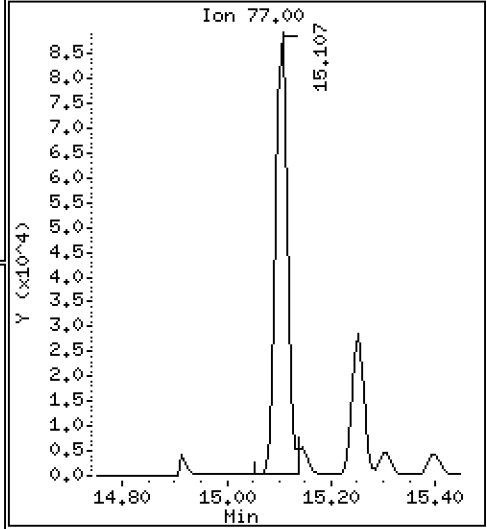
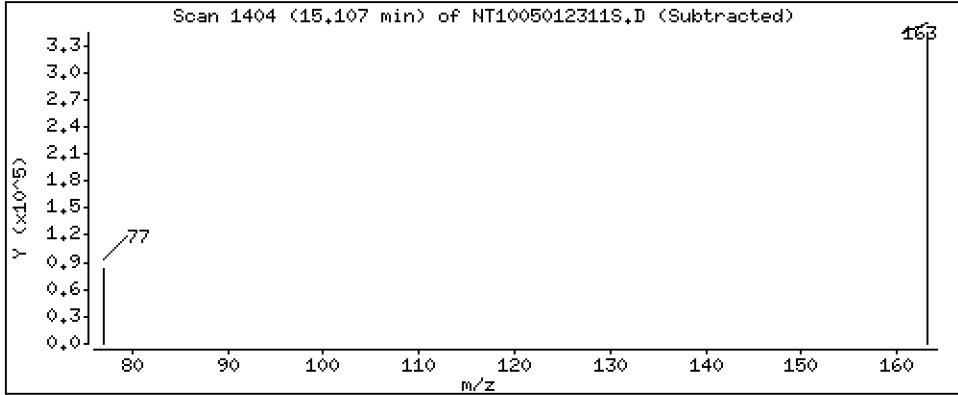
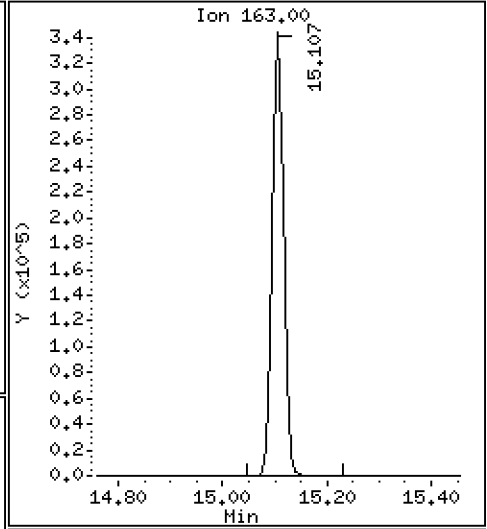
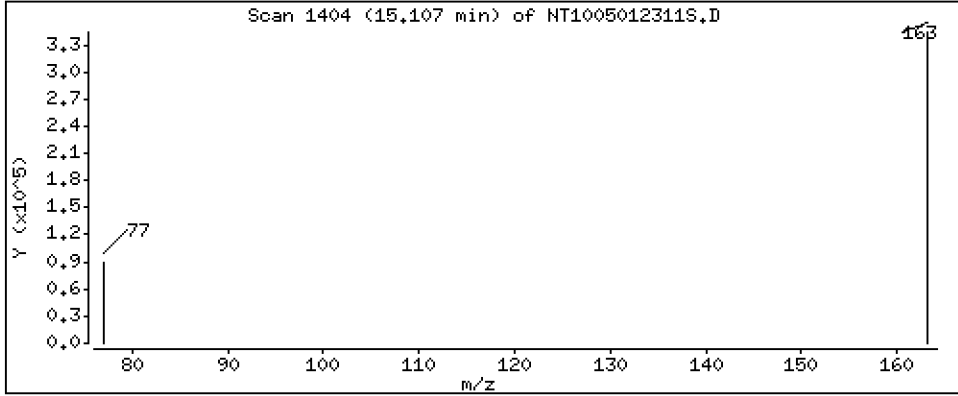
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,875 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

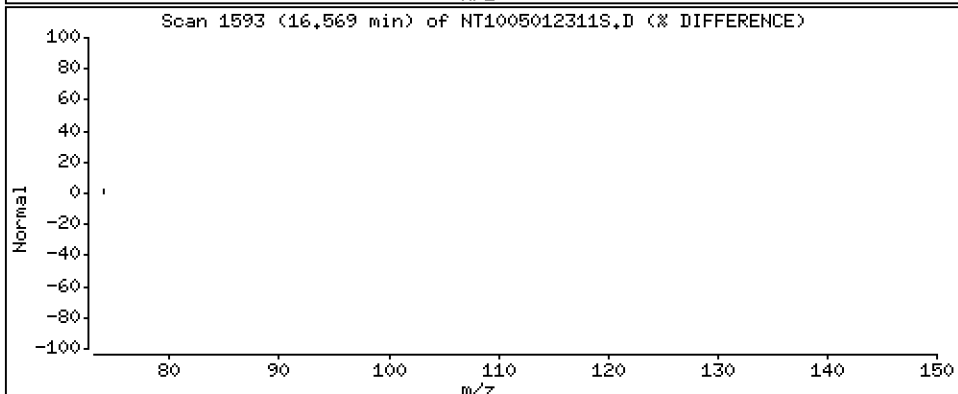
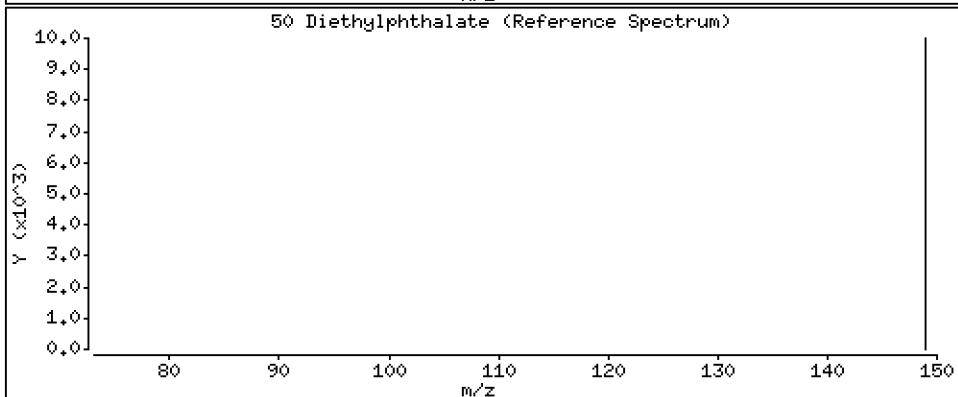
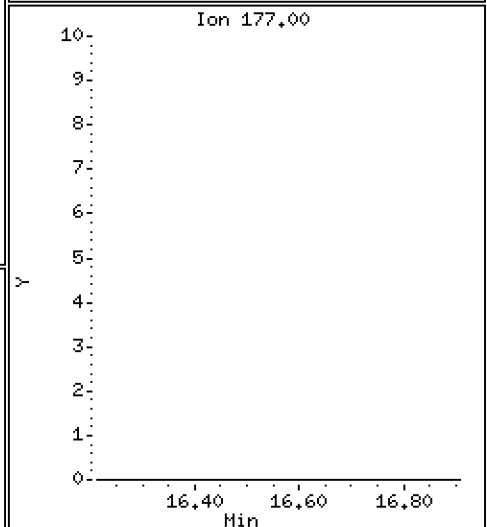
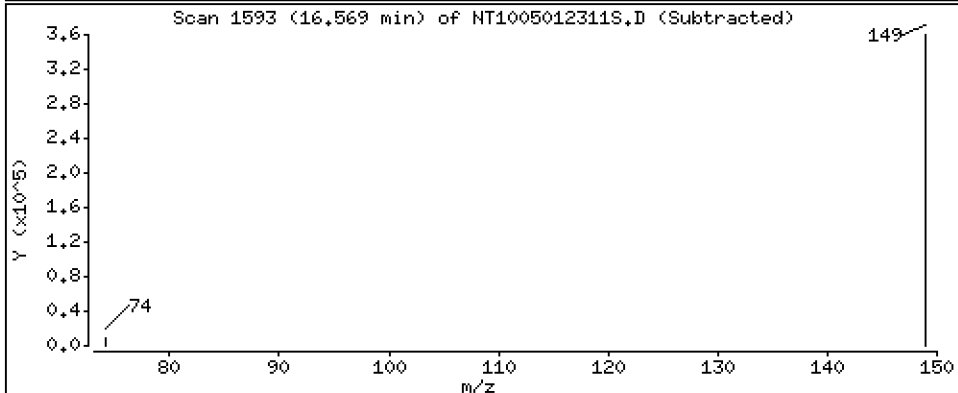
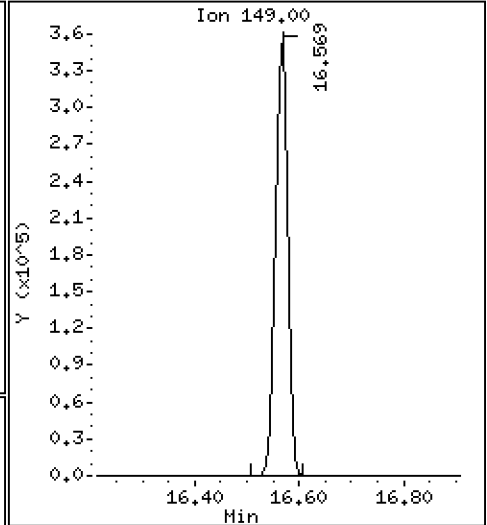
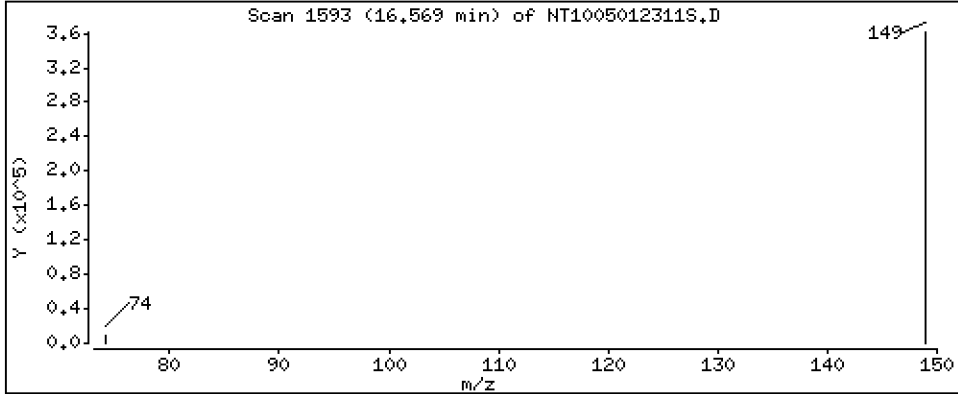
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,253 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

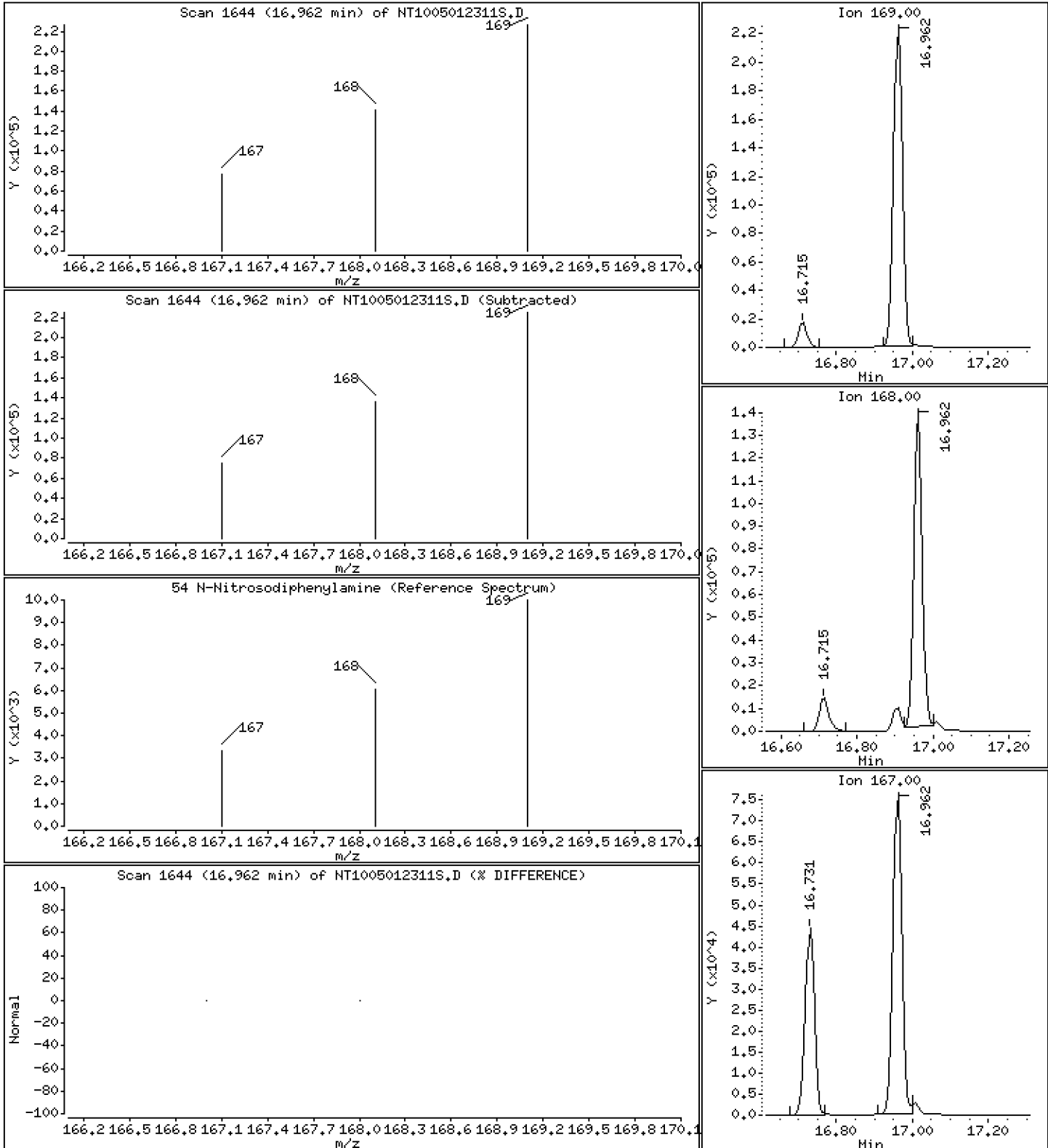
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,289 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

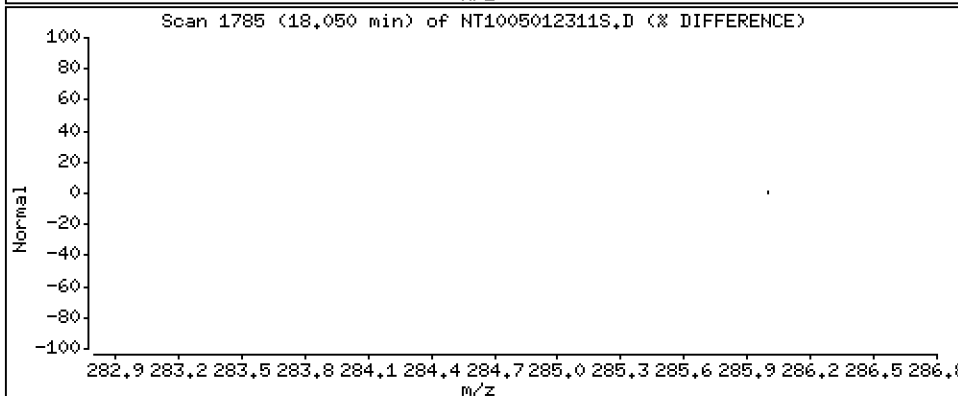
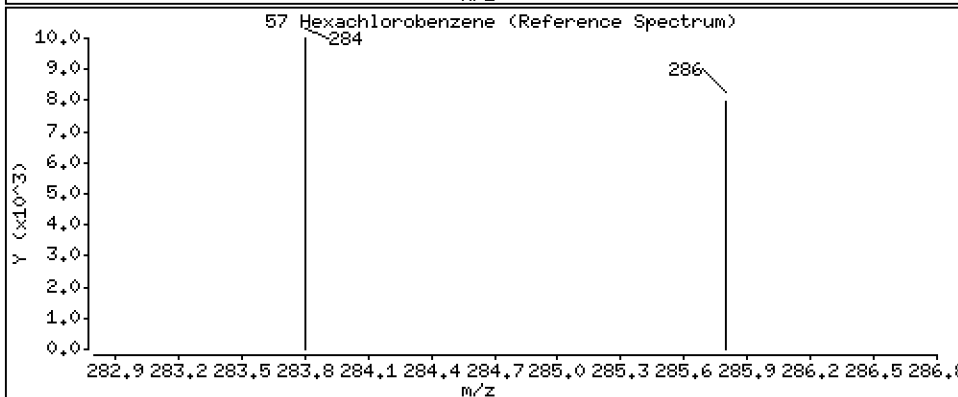
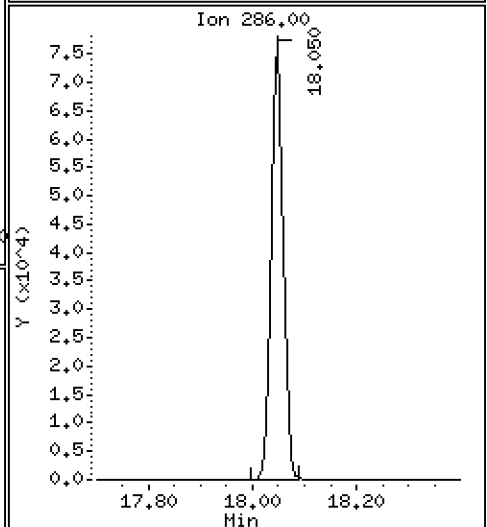
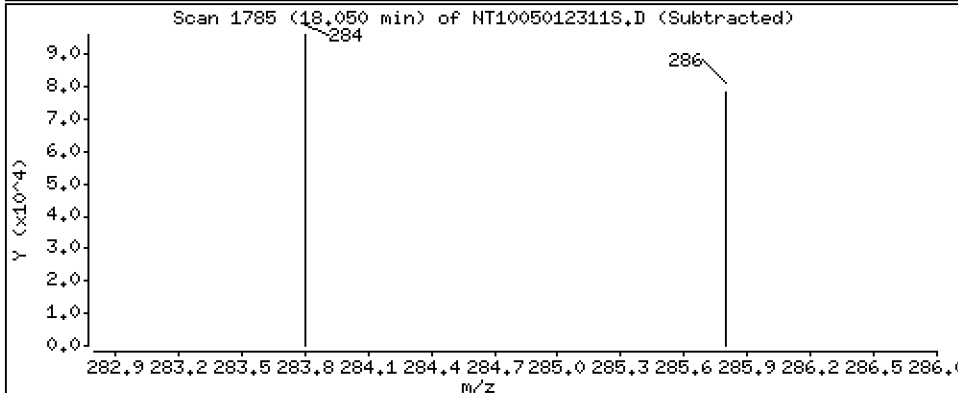
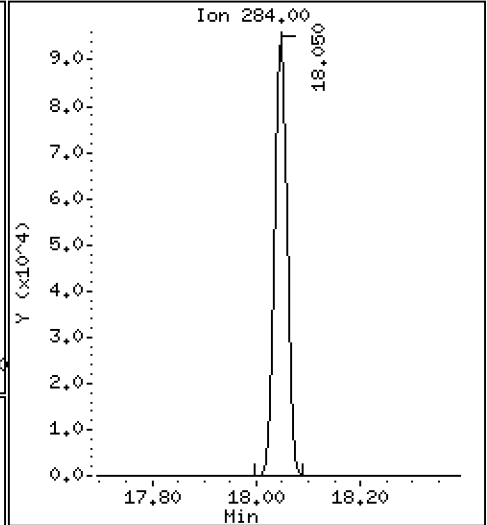
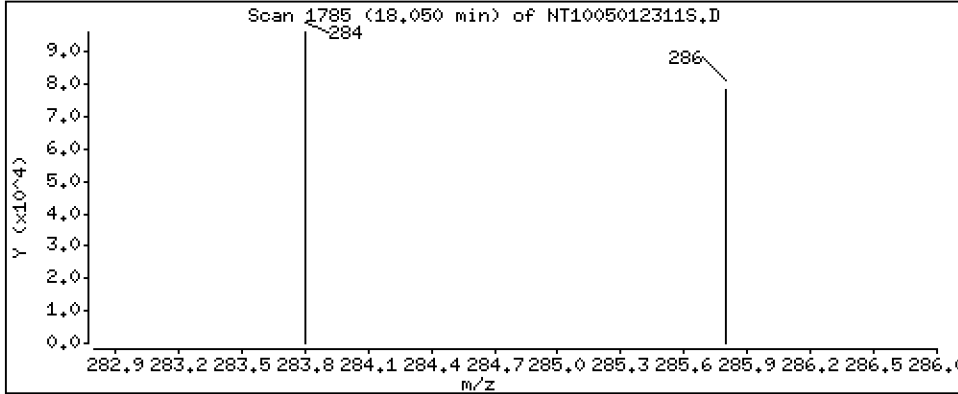
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4,640 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

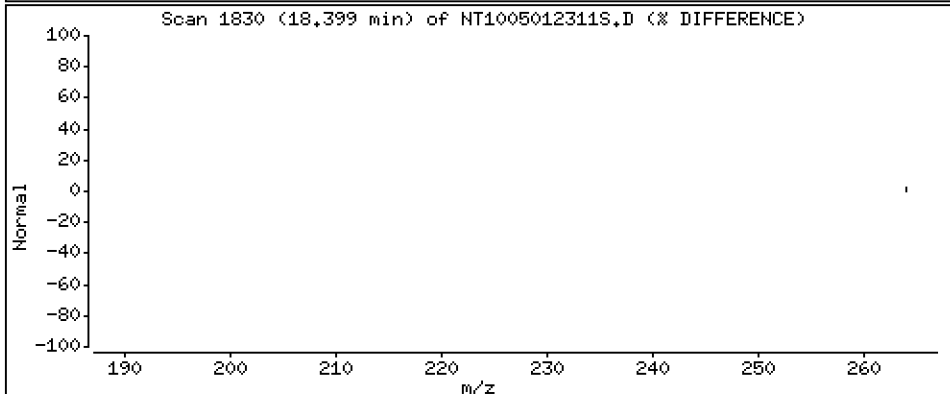
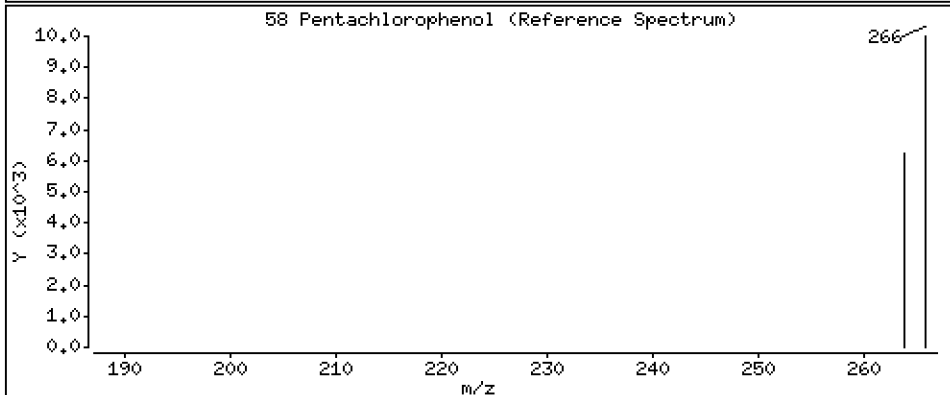
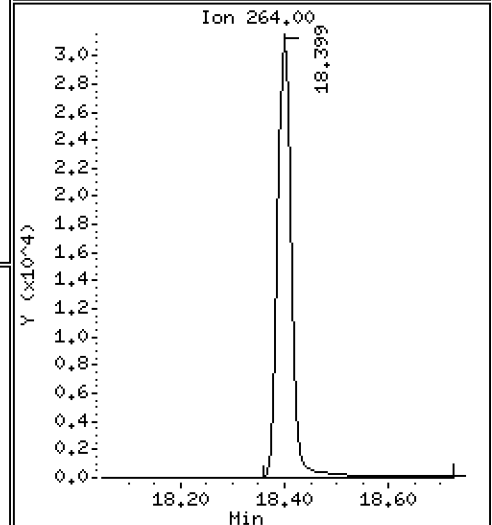
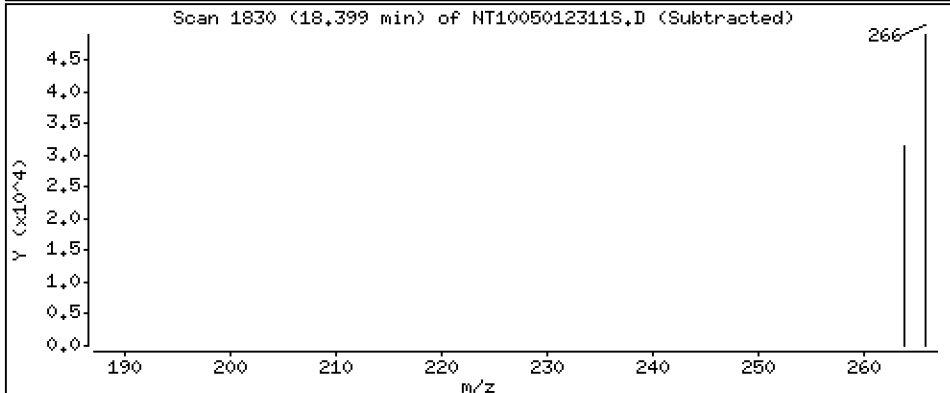
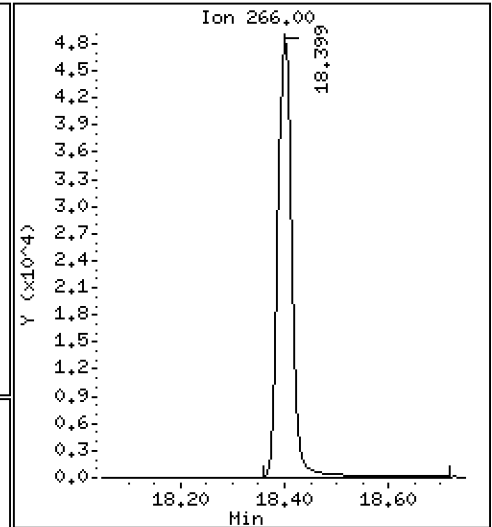
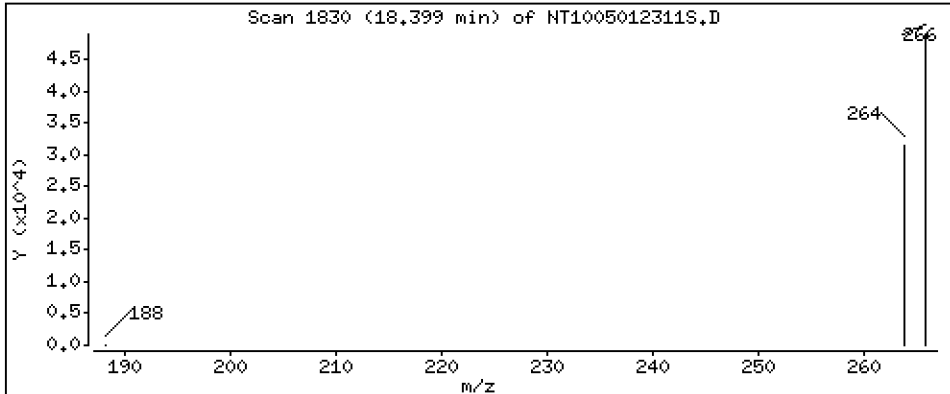
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 4,346 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

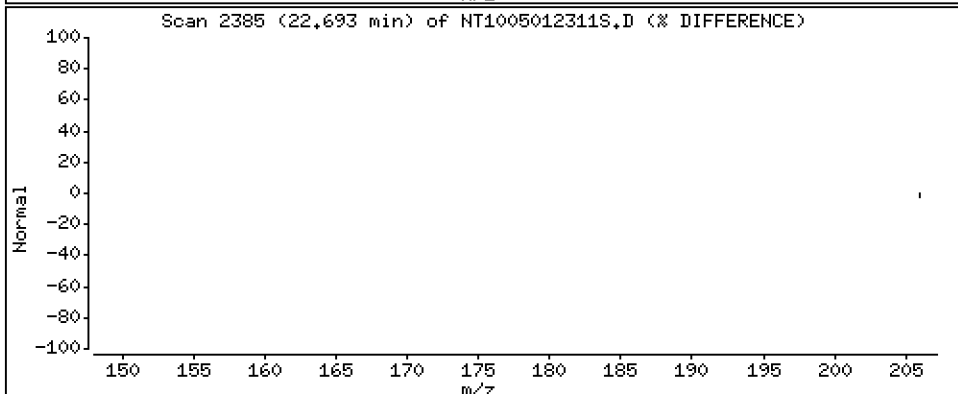
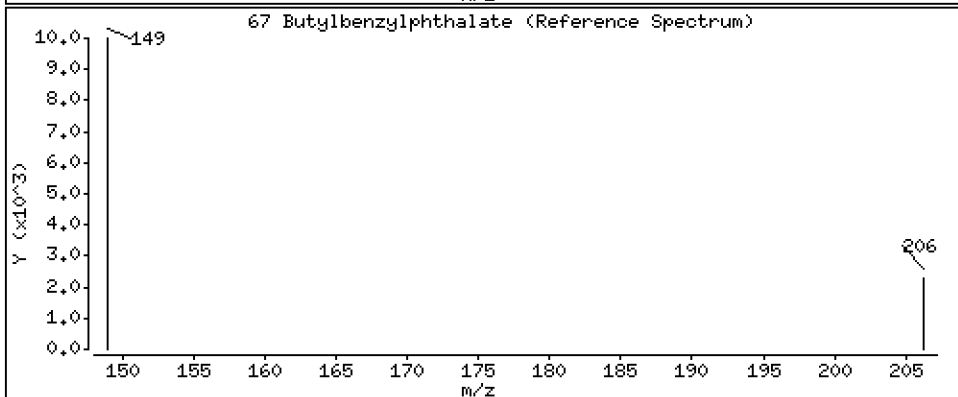
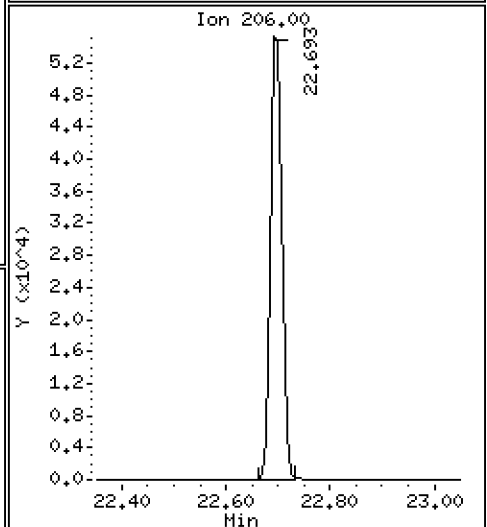
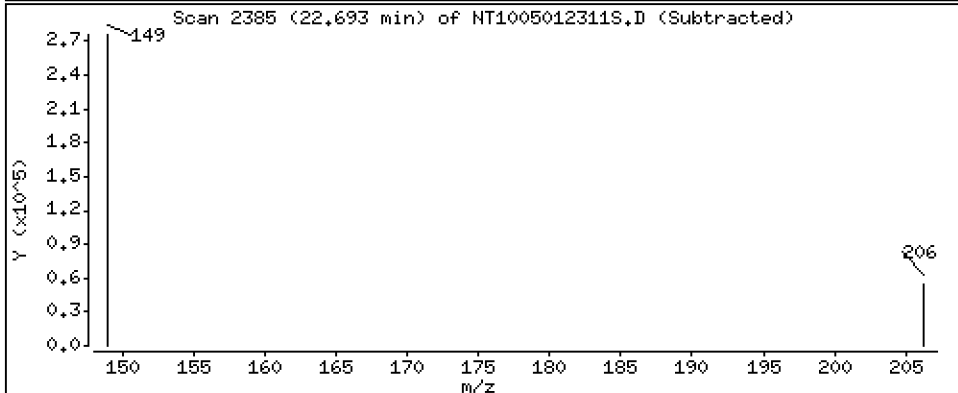
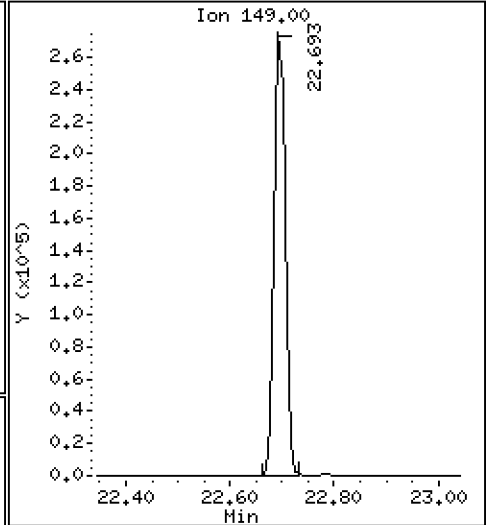
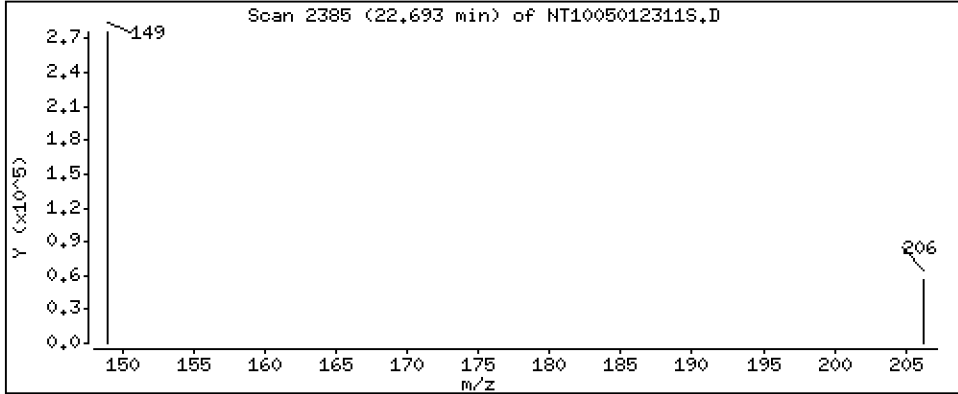
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,065 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

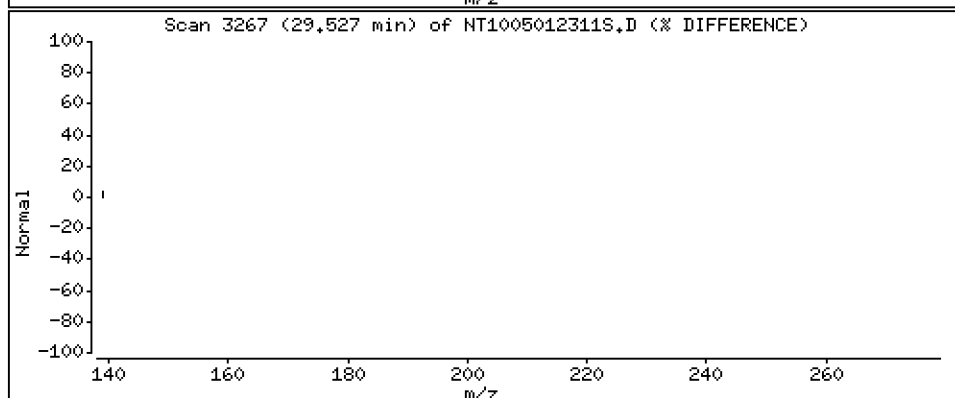
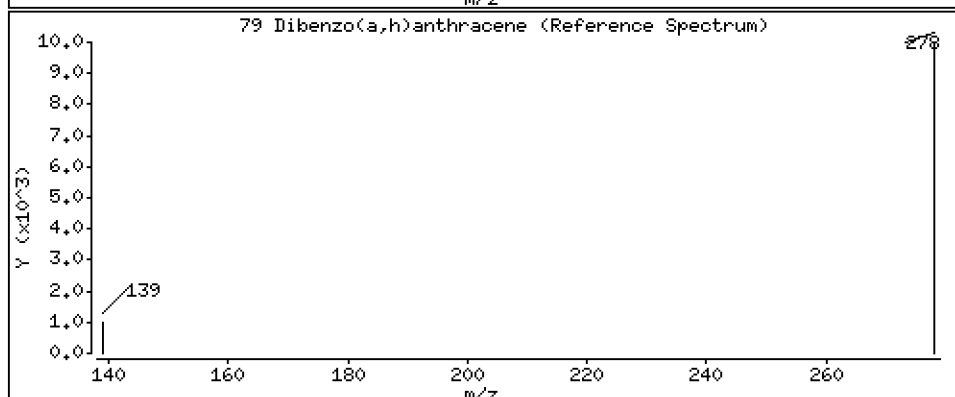
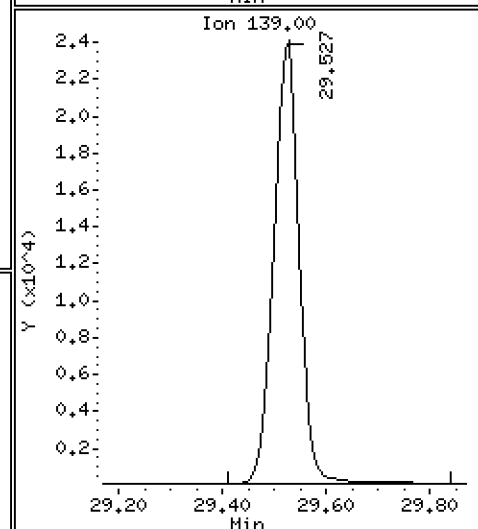
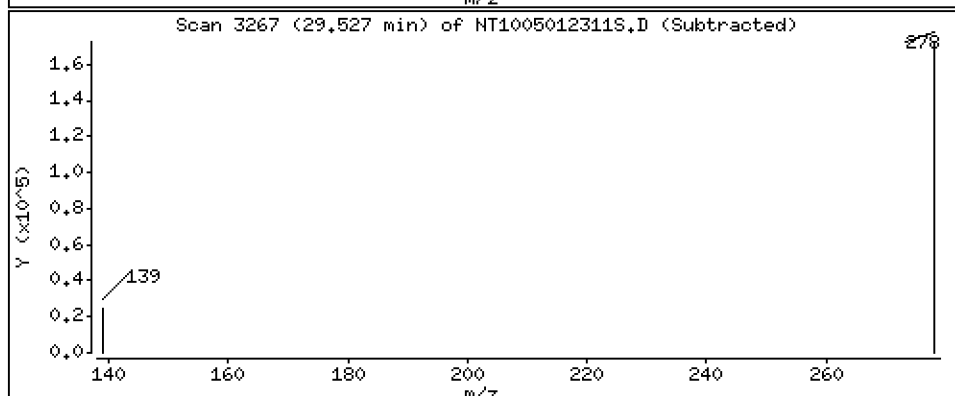
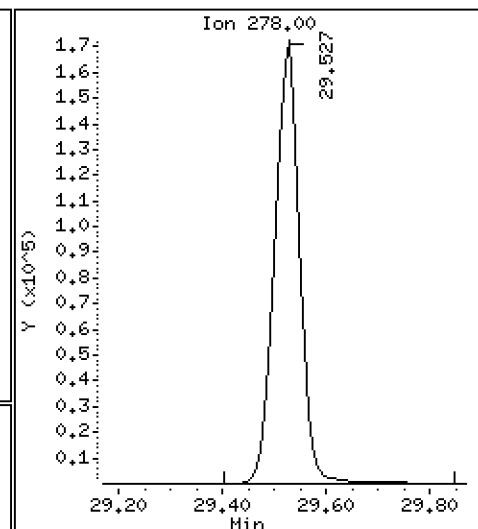
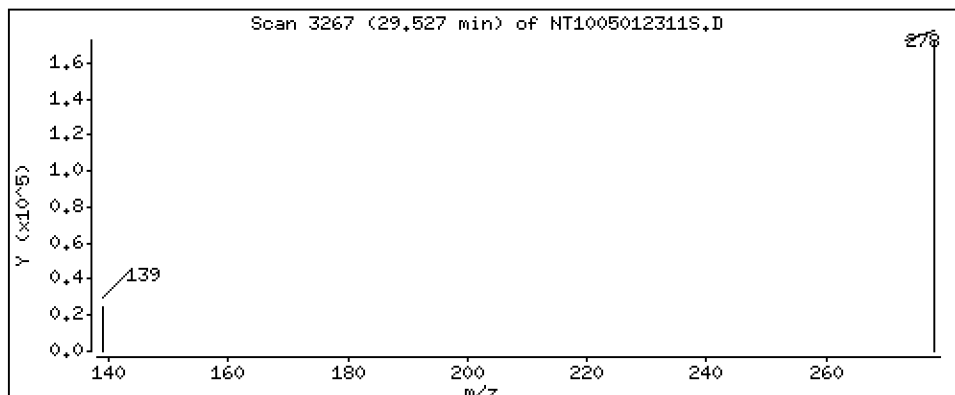
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,815 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

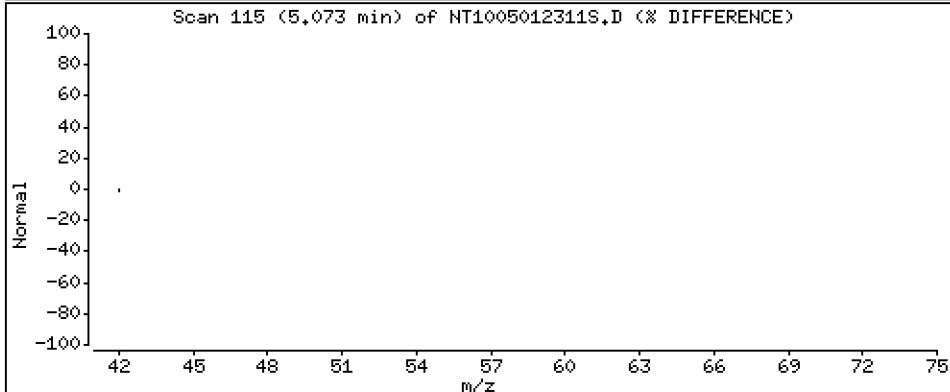
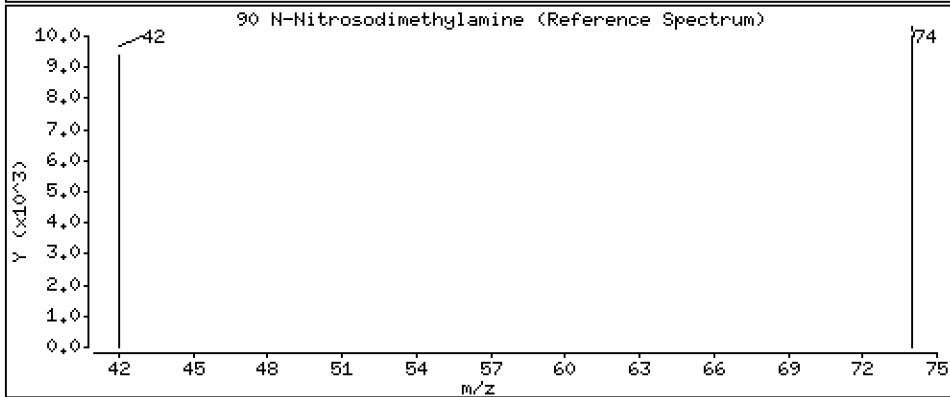
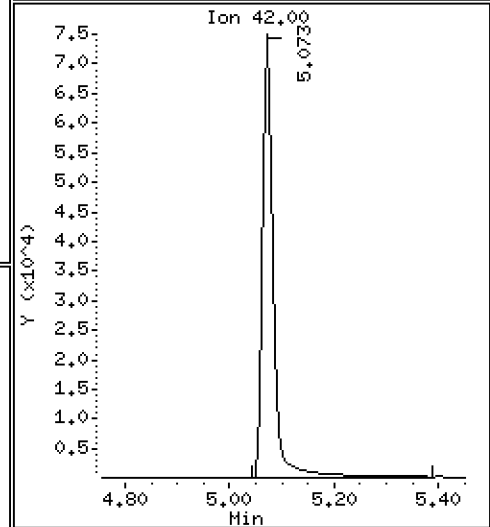
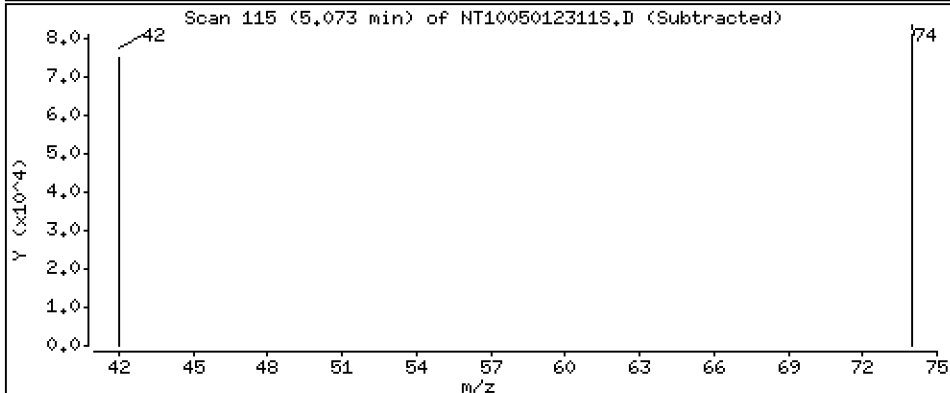
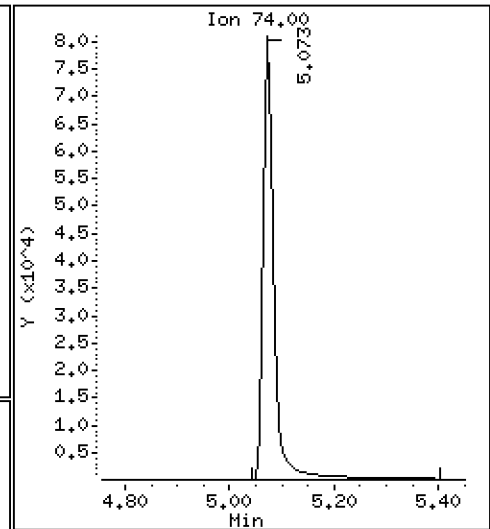
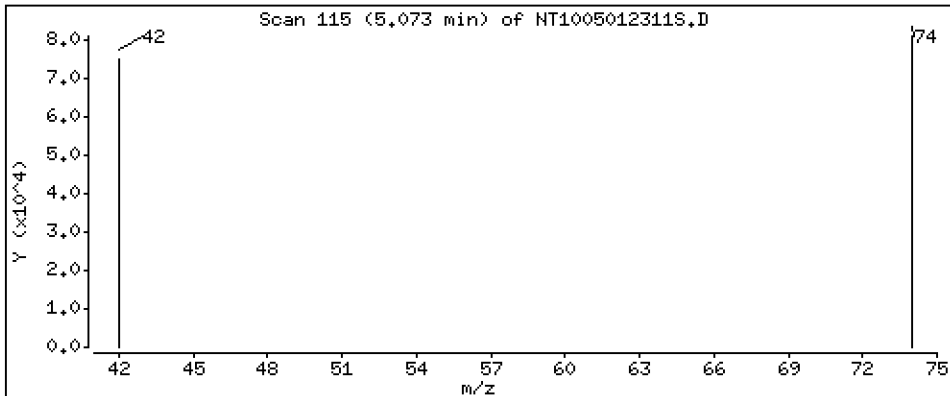
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 5.213 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012311S.D
 Lab Smp Id: SLE0082-SCV1
 Inj Date : 01-MAY-2023 20:43 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	1569	0.03614	0.03614 (R)
3 Phenol	94		8.842	8.842	(0.932)	241257	4.43593	4.436
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	266593	4.66088	4.661
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	142531	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	271019	4.78410	4.784
11 Benzyl alcohol	79		9.748	9.756	(1.027)	198278	5.27178	5.272
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	253729	4.65664	4.657
13 2-Methylphenol	108		9.965	9.965	(1.050)	172706	4.24306	4.243
15 4-Methylphenol	108		10.237	10.237	(1.079)	191289	4.46966	4.470
16 N-Nitroso-di-n-propylamine	70		10.315	10.315	(1.087)	162670	5.26784	5.268
22 2,4-Dimethylphenol	107		11.288	11.288	(0.942)	176836	3.48934	3.489 (M)
24 Benzoic acid	105		11.432	11.373	(0.954)	283387	8.32169	8.322
26 1,2,4-Trichlorobenzene	180		11.896	11.896	(0.992)	224651	4.32072	4.321
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	510045	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	153764	4.63178	4.632
39 Dimethylphthalate	163		15.106	15.107	(0.967)	487893	4.87533	4.875
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	263993	4.00000	
50 Diethylphthalate	149		16.568	16.560	(1.061)	564424	5.25278	5.253
54 N-Nitrosodiphenylamine	169		16.962	16.962	(0.908)	349152	5.28852	5.289
57 Hexachlorobenzene	284		18.050	18.042	(0.966)	150021	4.64019	4.640

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.398	18.398	(0.985)	87352	4.34597	4.346
* 59 Phenanthrene-d10	188	18.677	18.677	(1.000)	506239	4.00000	
\$ 66 Terphenyl-d14	244	21.779	21.779	(0.919)	2121	0.02441	0.02441 (R)
67 Butylbenzylphthalate	149	22.693	22.693	(0.958)	378823	5.06538	5.065
* 69 Chrysene-d12	240	23.699	23.692	(1.000)	402889	4.00000	
* 77 Perylene-d12	264	26.533	26.533	(1.000)	365734	4.00000	
79 Dibenzo(a,h)anthracene	278	29.527	29.519	(1.113)	568400	4.81466	4.815
90 N-Nitrosodimethylamine	74	5.072	5.103	(0.534)	123469	5.21274	5.213

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012311S.D
 Lab Smp Id: SLE0082-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	142531	-15.75
27 Naphthalene-d8	594924	297462	1189848	510045	-14.27
42 Acenaphthene-d10	304980	152490	609960	263993	-13.44
59 Phenanthrene-d10	609190	304595	1218380	506239	-16.90
69 Chrysene-d12	479061	239531	958122	402889	-15.90
77 Perylene-d12	427162	213581	854324	365734	-14.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
77 Perylene-d12	26.54	26.04	27.04	26.53	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005012311S.D

Lab ID: SLE0082-SCV1

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 20:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

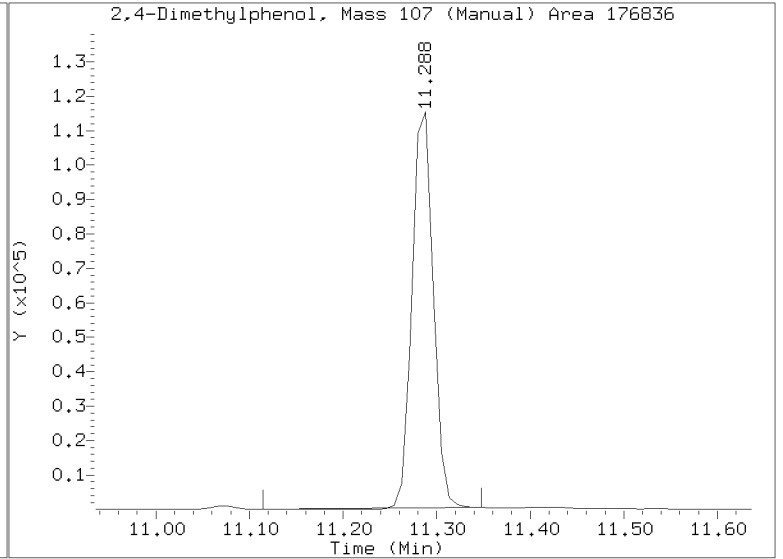
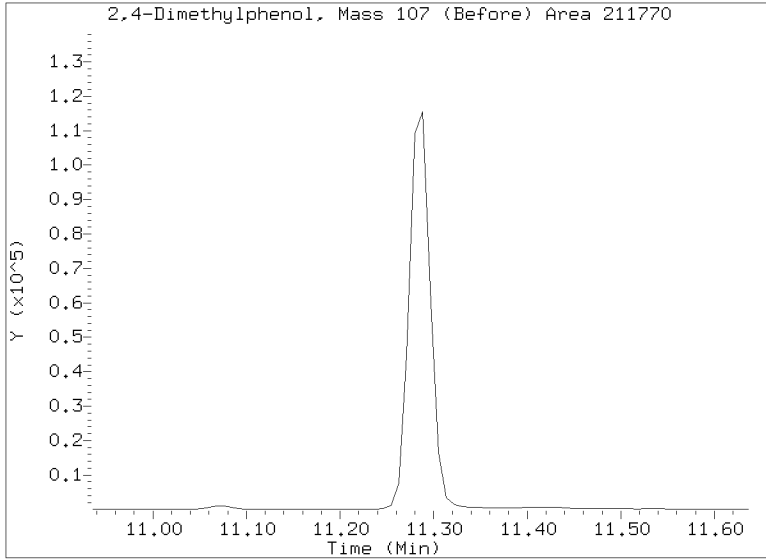
On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/20230501.b/NT1005012311S.D
Injection Date: 01-MAY-2023 20:43
Lab ID: SLE0082-SCV1 Client ID:
Report Date: 05/10/2023 12:32



APPROVED

By Deenay Dunmore at 12:52 pm, May 10, 2023



INITIAL CALIBRATION CHECK
EPA 8270E-SIM

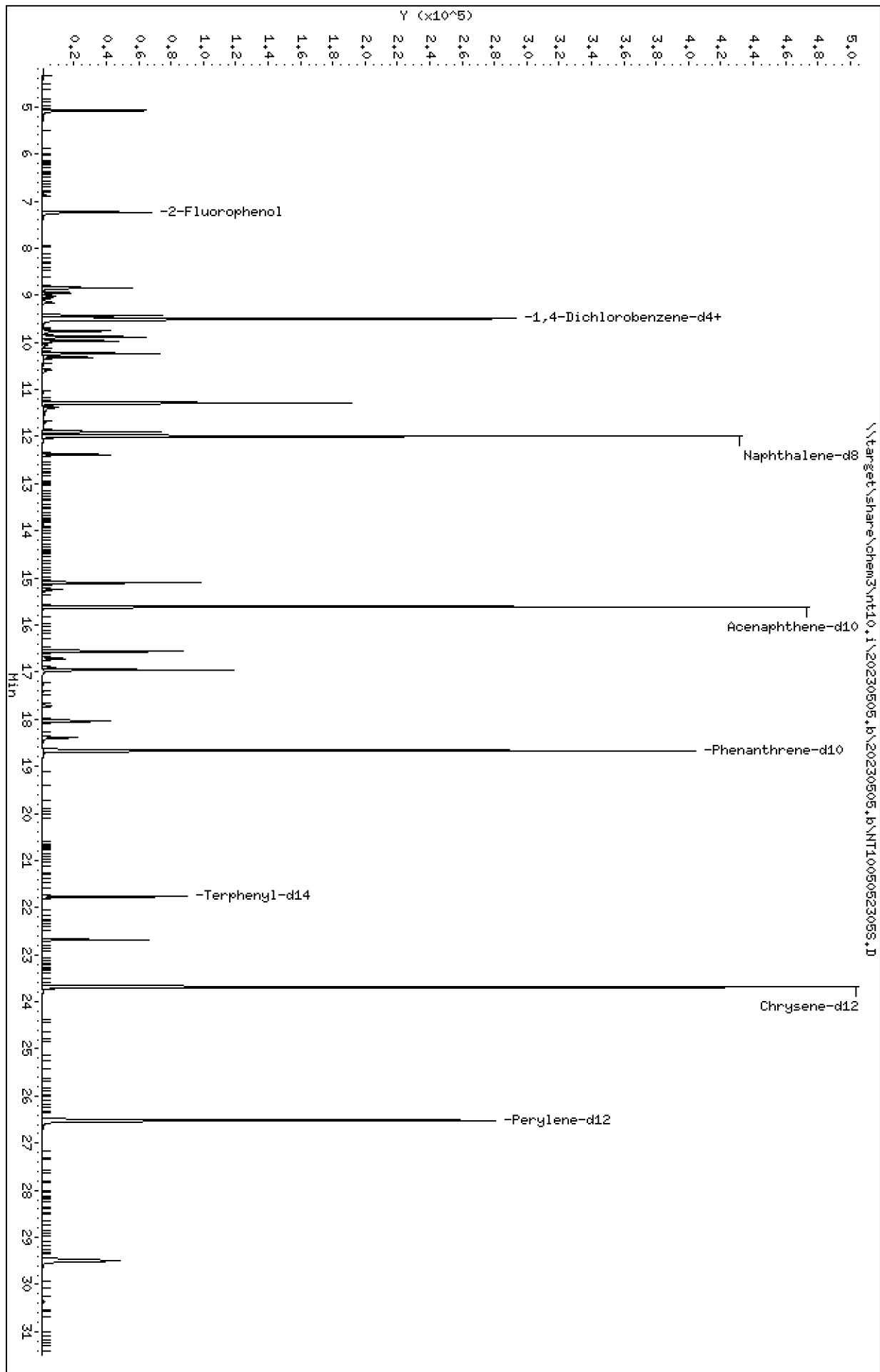
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GE00018</u>
Lab File ID:	<u>NT1005052305S.D</u>	Calibration Date:	<u>05/04/2023</u>
Sequence:	<u>SLE0466</u>	Injection Date:	<u>05/05/23</u>
Lab Sample ID:	<u>SLE0466-ICV1</u>	Injection Time:	<u>13:22</u>
Sequence Name:	<u>Initial Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene	A	1.0000	0.9	1.5898270	1.4637770		-7.9	+/-20
1,2-Dichlorobenzene	A	1.0000	0.9	1.5291420	1.4110560		-7.7	+/-20
Benzyl Alcohol	A	1.0000	0.9	1.0555230	0.9397263		-11.0	+/-20
Benzoic acid	A	4.0000	0.5	0.1834660	0.0298723		-88.5	+/-20 *
2,4-Dimethylphenol	A	2.0000	1.9	0.3974465	0.3733019		-6.1	+/-20
1,2,4-Trichlorobenzene	A	1.0000	0.9	0.4077591	0.3561475		-12.7	+/-20
N-Nitrosodiphenylamine	A	1.0000	1.0	0.5216563	0.4971409		-4.7	+/-20
Pentachlorophenol	A	2.0000	1.0	0.1295337	0.0789248		-48.8	+/-20 *
2-Fluorophenol	A	1.5000	1.36	1.2184940	1.1069800		-9.1	+/-20
p-Terphenyl-d14	A	1.0000	0.850	0.8625046	0.7330912		-15.0	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.0	40570.8800	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	142144.2000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	71963.6600	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	144403.7000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	112001.6000	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	99161.0300	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523055.D
Date: 05-May-2023 13:22
Client ID:
Sample Info: SLE0466-ICV1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052305S.D
 Lab Smp Id: SLE0466-ICV1
 Inj Date : 05-MAY-2023 13:22 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLE0466-ICV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 4 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.763)	75842	1.50000	1.363
3 Phenol	94		8.842	8.842	(0.932)	67137	1.00000	0.9630
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	67056	1.00000	0.9146
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	182700	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	66858	1.00000	0.9207
11 Benzyl alcohol	79		9.756	9.756	(1.028)	42922	1.00000	0.8903
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	64450	1.00000	0.9228
13 2-Methylphenol	108		9.965	9.965	(1.050)	49141	1.00000	0.9419
15 4-Methylphenol	108		10.237	10.237	(1.079)	52276	1.00000	0.9529
16 N-Nitroso-di-n-propylamine	70		10.315	10.315	(1.087)	36287	1.00000	0.9167
22 2,4-Dimethylphenol	107		11.288	11.288	(0.942)	123604	2.00000	1.879 (M)
24 Benzoic acid	105		11.381	11.381	(0.949)	19782	4.00000	0.4620
26 1,2,4-Trichlorobenzene	180		11.896	11.896	(0.992)	58962	1.00000	0.8734
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	662220	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	37796	1.00000	0.8769
39 Dimethylphthalate	163		15.099	15.099	(0.967)	114290	1.00000	0.8985
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	335558	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	125202	1.00000	0.9167
54 N-Nitrosodiphenylamine	169		16.954	16.954	(0.908)	84289	1.00000	0.9530
57 Hexachlorobenzene	284		18.034	18.034	(0.966)	38162	1.00000	0.8811

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
58 Pentachlorophenol	266		18.390	18.390	(0.985)	26763	2.00000	1.024
* 59 Phenanthrene-d10	188		18.669	18.669	(1.000)	678190	4.00000	
\$ 66 Terphenyl-d14	244		21.771	21.771	(0.919)	103910	1.00000	0.8500
67 Butylbenzylphthalate	149		22.685	22.685	(0.958)	67378	1.00000	0.6720
* 69 Chrysene-d12	240		23.684	23.684	(1.000)	566969	4.00000	
* 77 Perylene-d12	264		26.517	26.517	(1.000)	522906	4.00000	
79 Dibenzo(a,h)anthracene	278		29.496	29.496	(1.112)	149146	1.00000	0.8836
90 N-Nitrosodimethylamine	74		5.080	5.080	(0.535)	57893	2.00000	1.907

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052305S.D
 Lab Smp Id: SLE0466-ICV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	182700	8.00
27 Naphthalene-d8	594924	297462	1189848	662220	11.31
42 Acenaphthene-d10	304980	152490	609960	335558	10.03
59 Phenanthrene-d10	609190	304595	1218380	678190	11.33
69 Chrysene-d12	479061	239531	958122	566969	18.35
77 Perylene-d12	427162	213581	854324	522906	22.41

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.67	-0.04
69 Chrysene-d12	23.70	23.20	24.20	23.68	-0.06
77 Perylene-d12	26.54	26.04	27.04	26.52	-0.09

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

REVIEW SUMMARY FOR FILE - NT1005052305S.D

Lab ID: SLE0466-ICV1

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 13:22

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

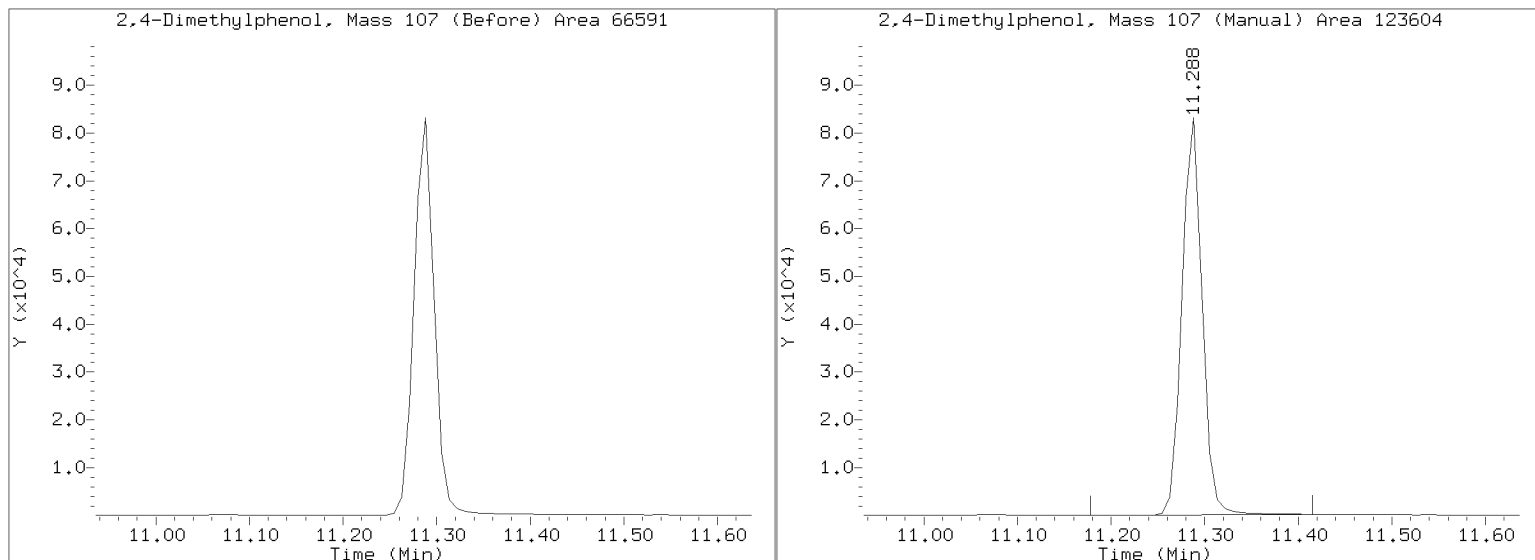
On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052305S.D
Injection Date: 05-MAY-2023 13:22
Lab ID: SLE0466-ICV1 Client ID:
Report Date: 05/31/2023 14:30



Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230505.b\20230505.b

Instrument: nt10.i Date: 05-MAY-2023 Method: 20230505.b\SIMABN2.m

INITIAL CAL: 01-MAY-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1005052305S.D 05-MAY-2023 13:22

Compound	%D

Benzoic acid	-88.5
Pentachlorophenol	-48.8
Butylbenzylphthalate	-32.8



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GE00018</u>
Lab File ID:	<u>NT1005012311S.D</u>	Calibration Date:	<u>05/04/2023</u>
Sequence:	<u>SLE0082</u>	Injection Date:	<u>05/01/23</u>
Lab Sample ID:	<u>SLE0082-SCV1</u>	Injection Time:	<u>20:43</u>
Sequence Name:	<u>SCV 5.0</u>		

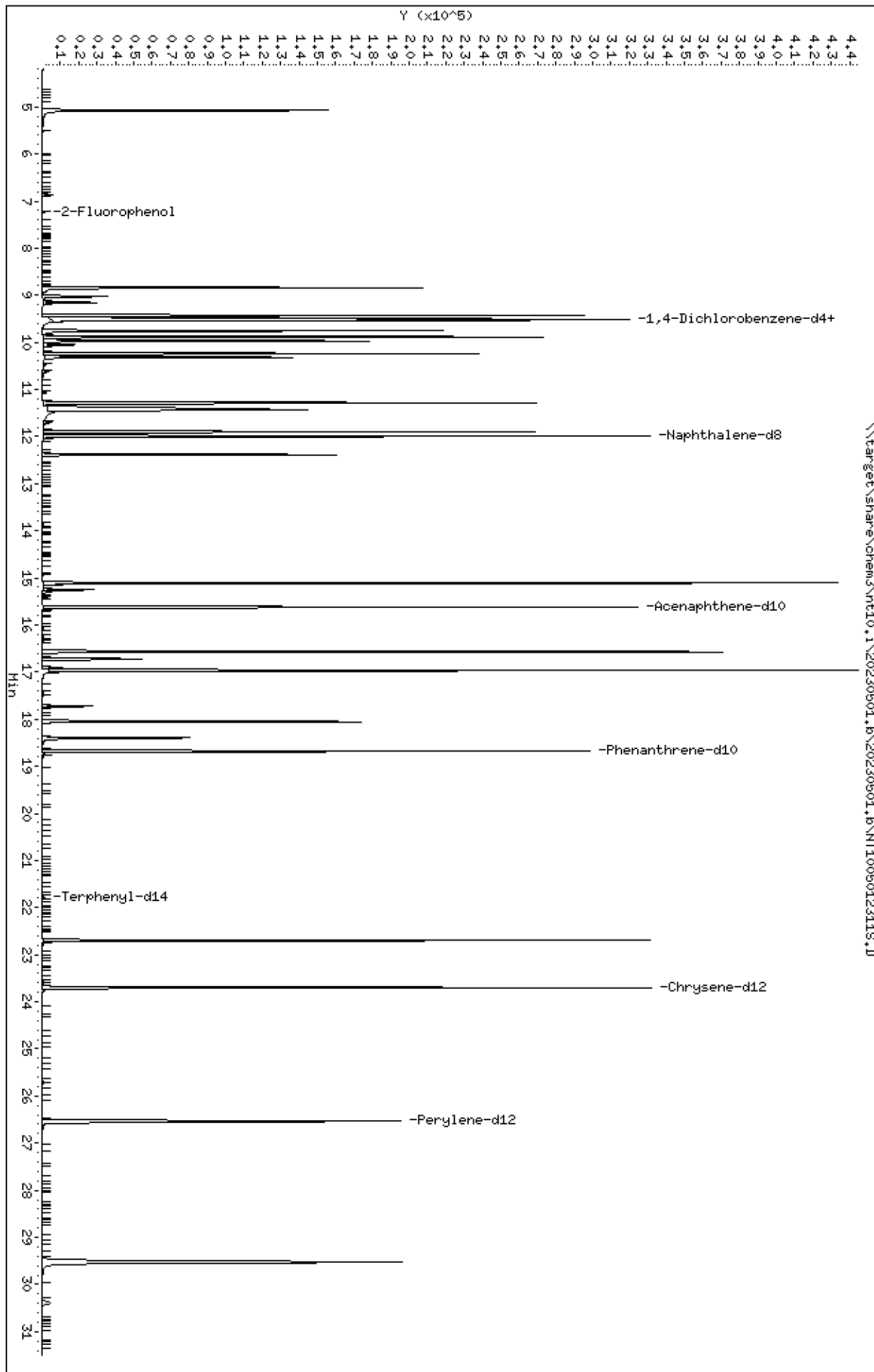
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	5.0000	4.8	1.5898270	1.5211790		-4.3	+/-20
1,2-Dichlorobenzene	A	5.0000	4.7	1.5291420	1.4241340		-6.9	+/-20
Benzyl Alcohol	A	5.0000	5.3	1.0555230	1.1128980		5.4	+/-20
Benzoic acid	A	10.000	8.3	0.1834660	0.2222447		-16.8	+/-20
2,4-Dimethylphenol	A	5.0000	3.5	0.3974465	0.2773653		-30.2	+/-20 *
1,2,4-Trichlorobenzene	A	5.0000	4.3	0.4077591	0.3523626		-13.6	+/-20
N-Nitrosodiphenylamine	A	5.0000	5.3	0.5216563	0.5517584		5.8	+/-20
Pentachlorophenol	A	5.0000	4.3	0.1295337	0.1380407		-13.1	+/-20
2-Fluorophenol	A	7.5000	0.0361	1.2184940	0.0058710		-99.5	
p-Terphenyl-d14	A	5.0000	0.0244	0.8625046	0.0042116		-99.5	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230501_b\20230501_b\NT10050123115.D
 Date : 01-May-2023 20:43
 Client ID:
 Sample Info: SLE0082-SCV1
 Volume Injected (uL): 1.0
 Column phase: ZB-5msi

Instrument: nt10.1
 Operator: JGR
 Column diameter: 0.25

\\target\share\chem3\nt10.1\20230501_b\20230501_b\NT10050123115.D



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

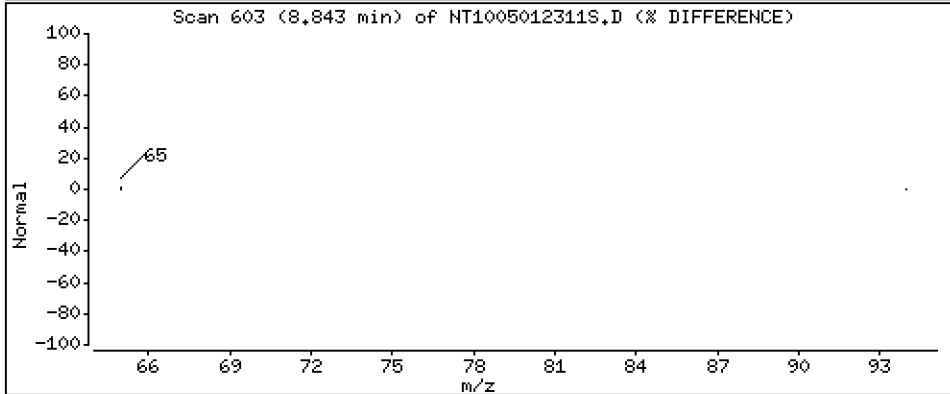
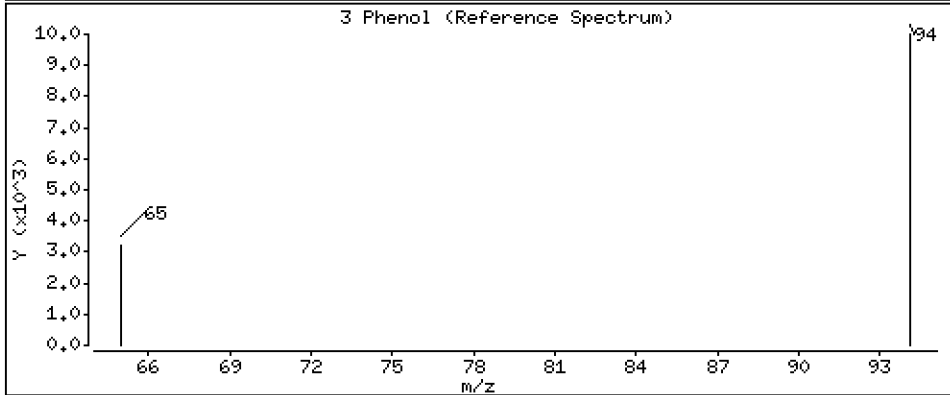
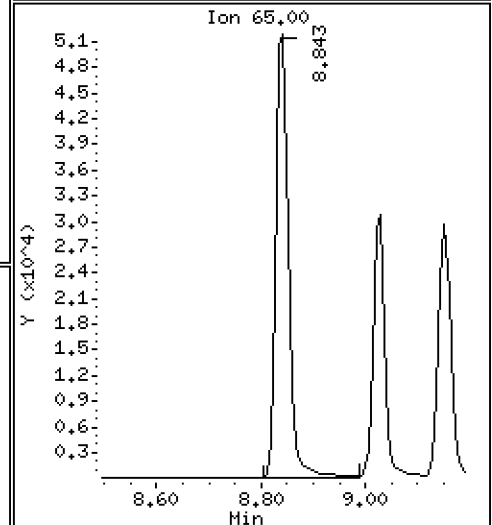
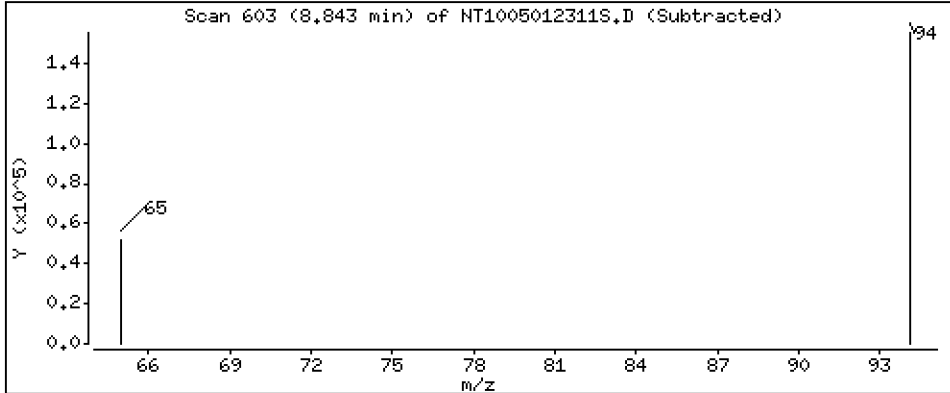
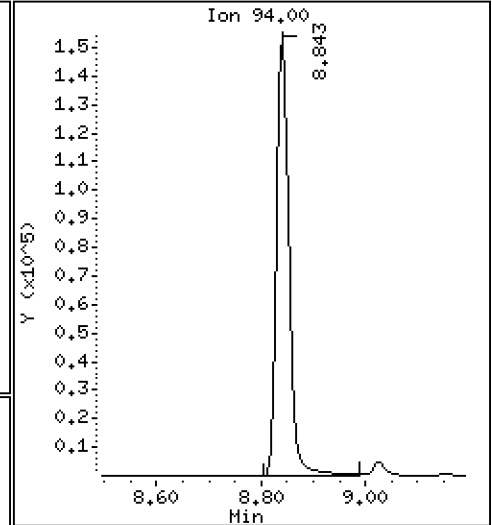
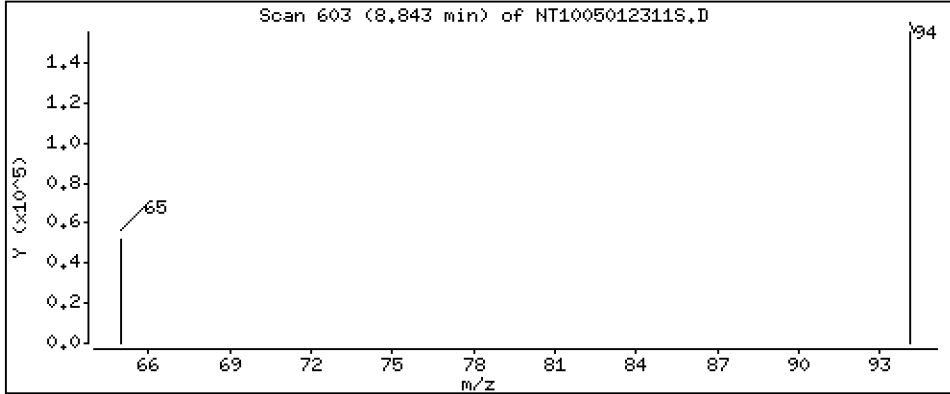
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,436 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

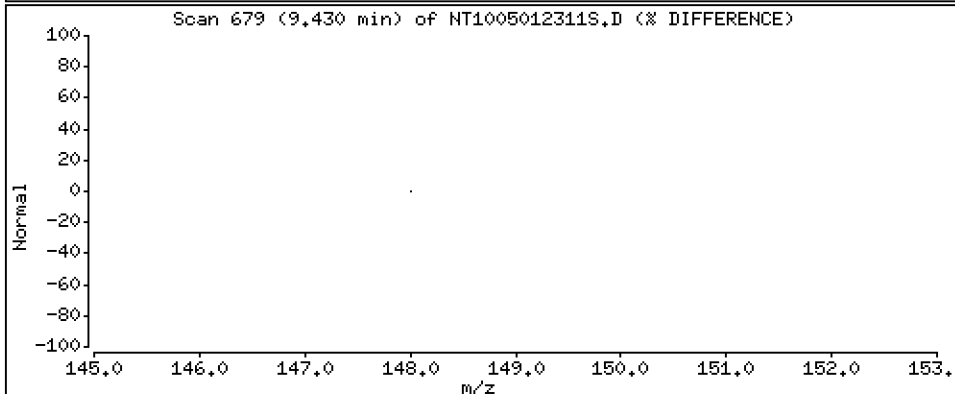
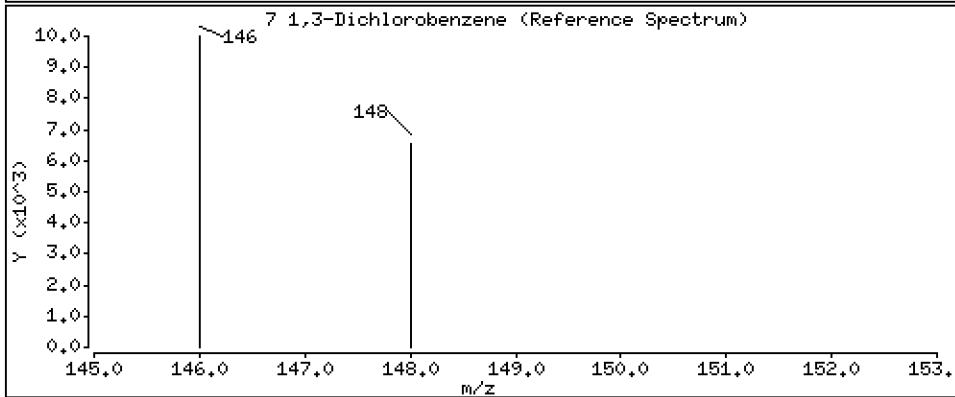
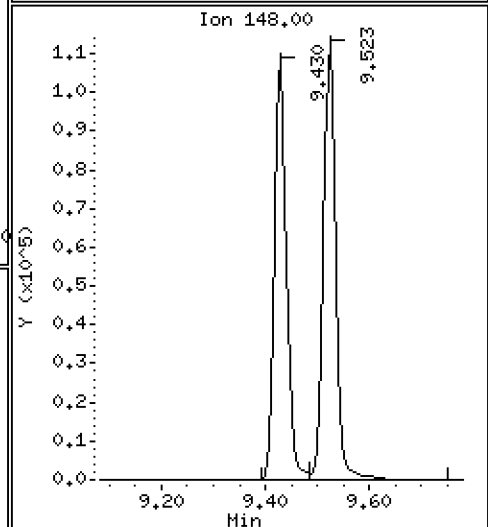
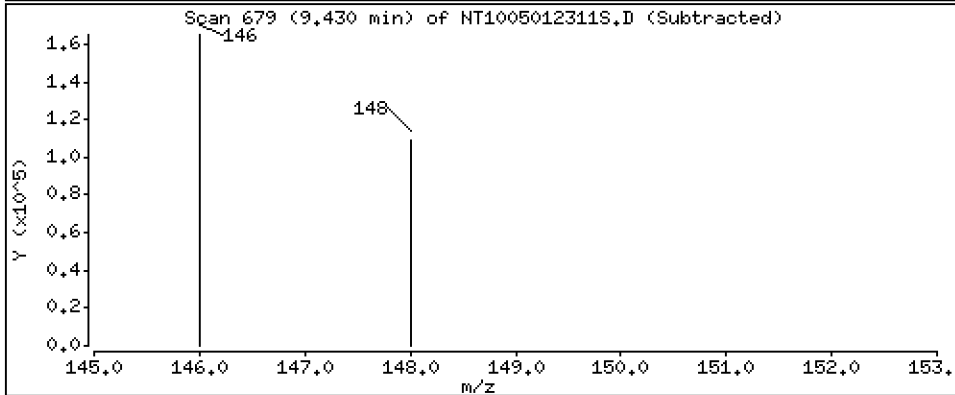
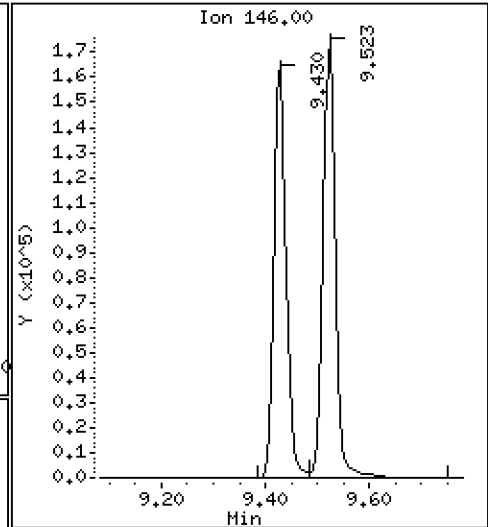
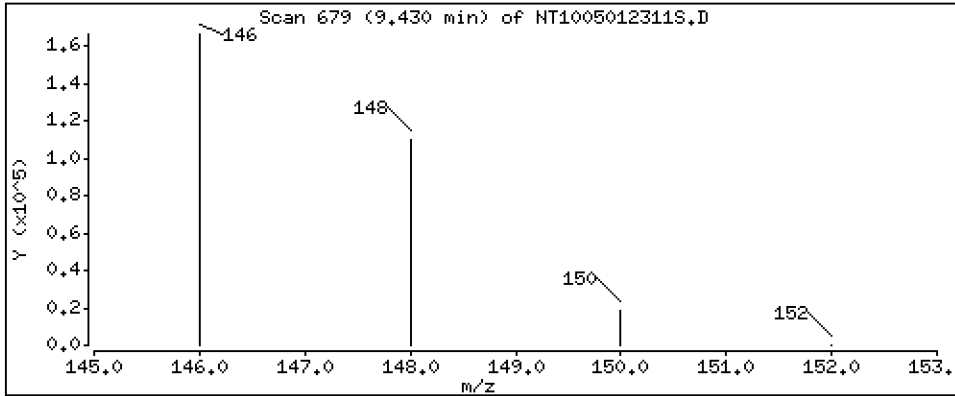
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 4.661 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

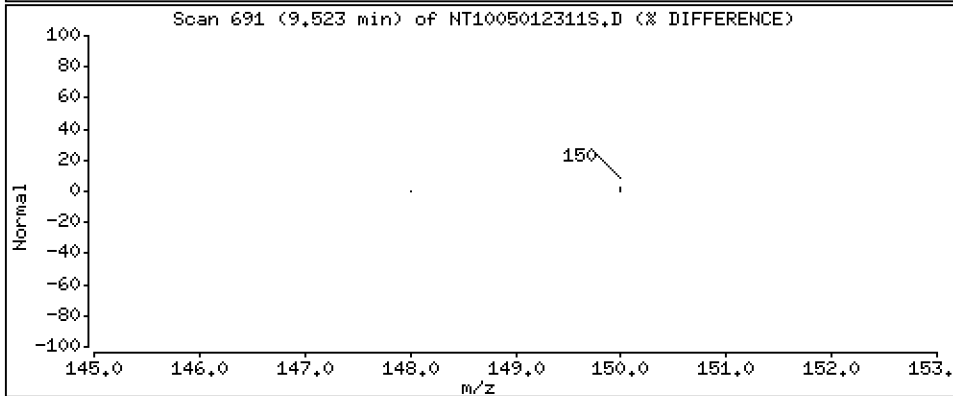
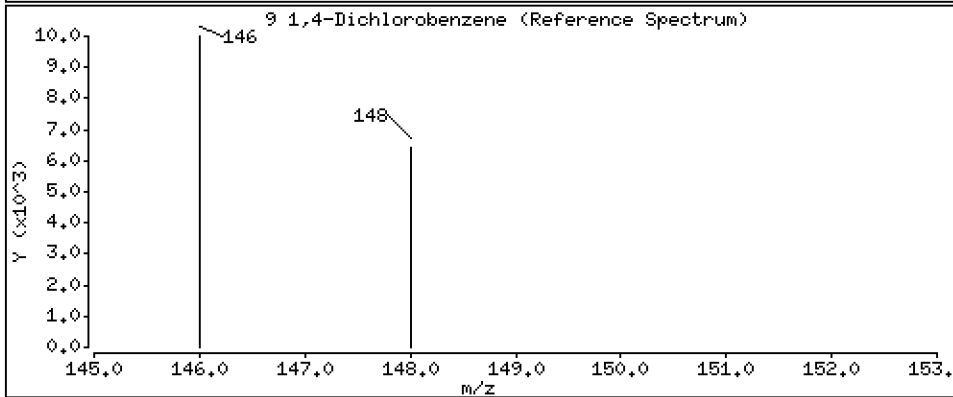
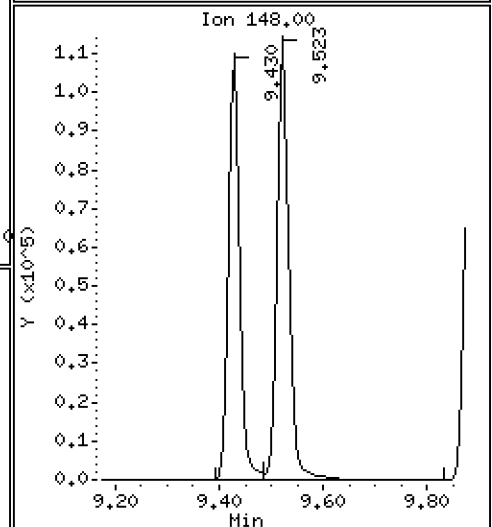
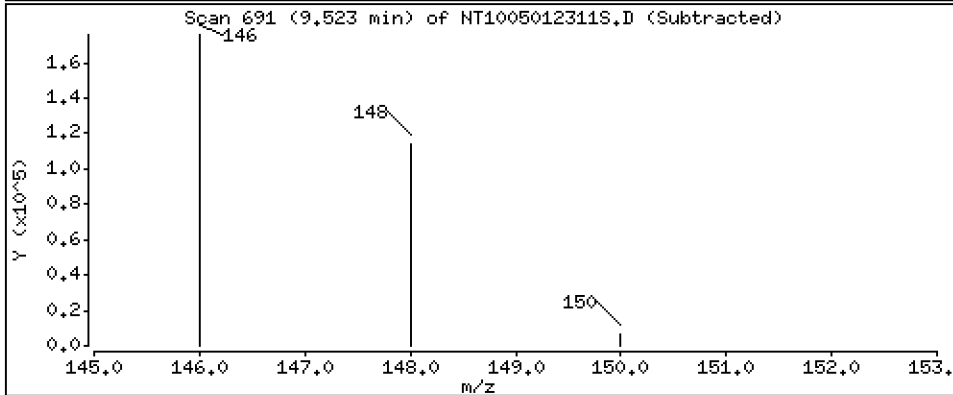
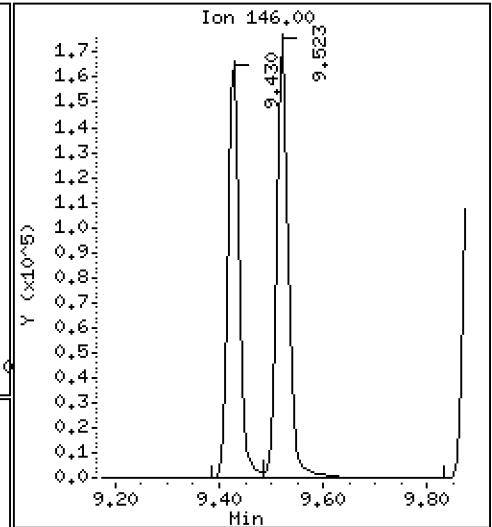
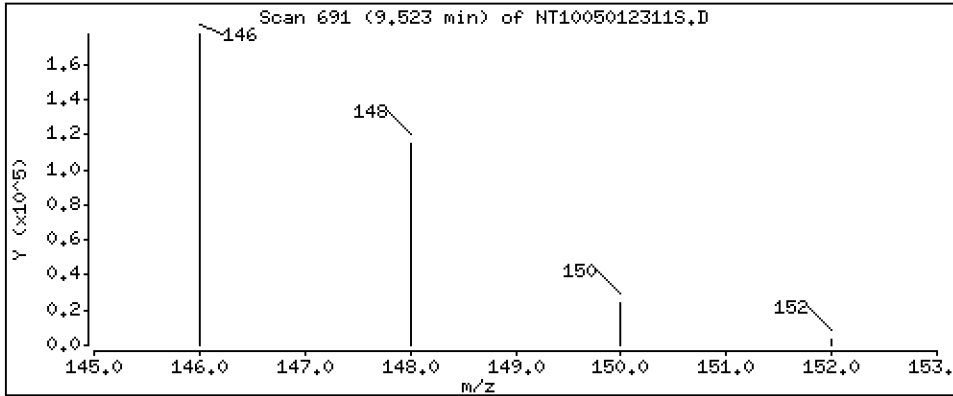
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 4.784 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

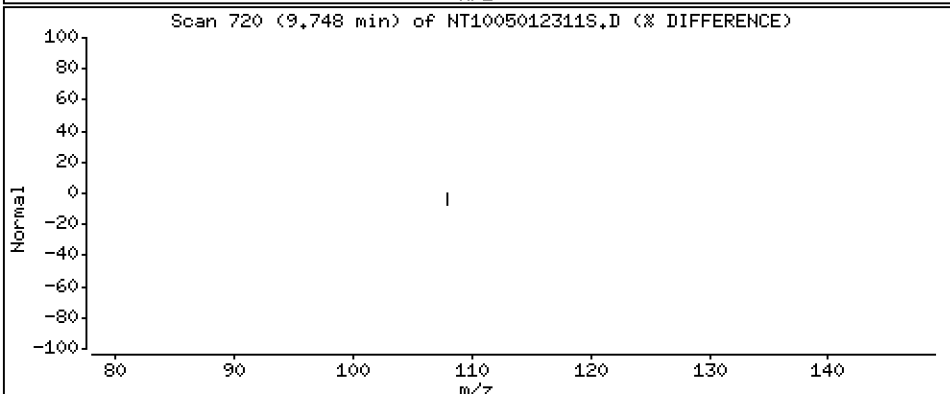
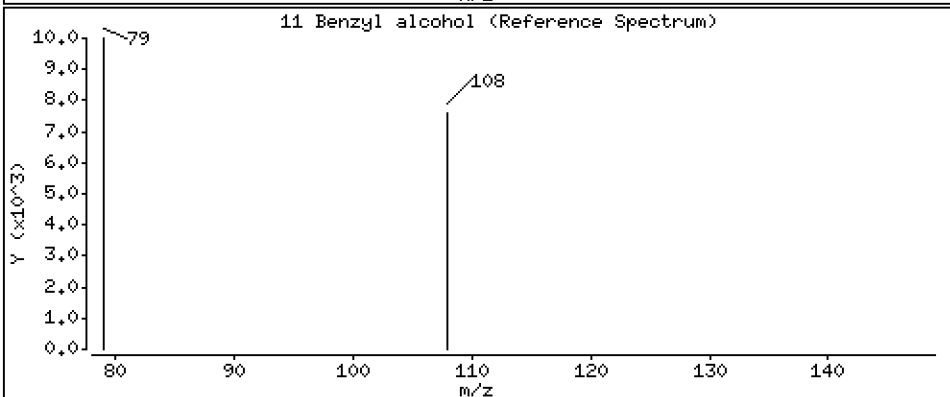
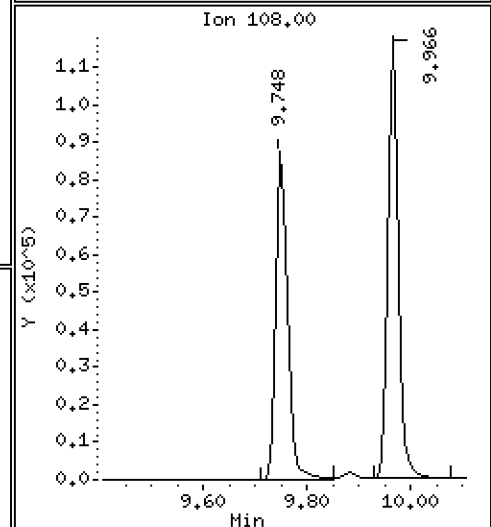
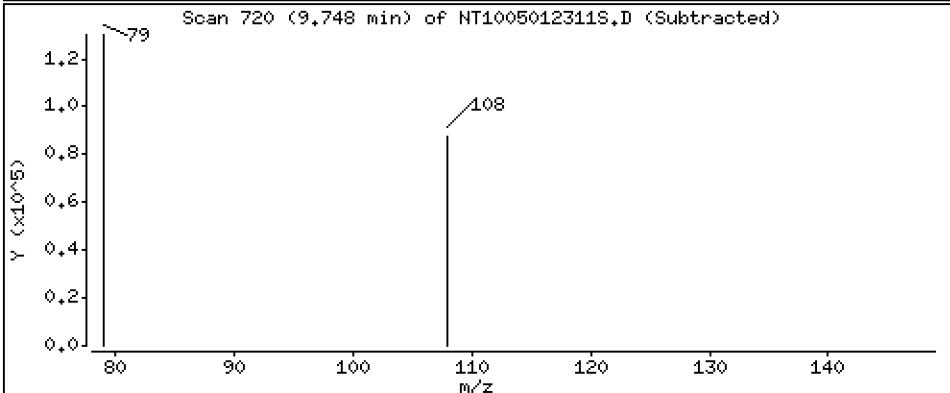
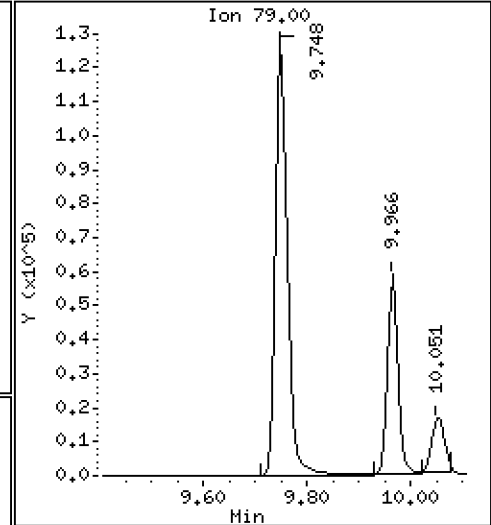
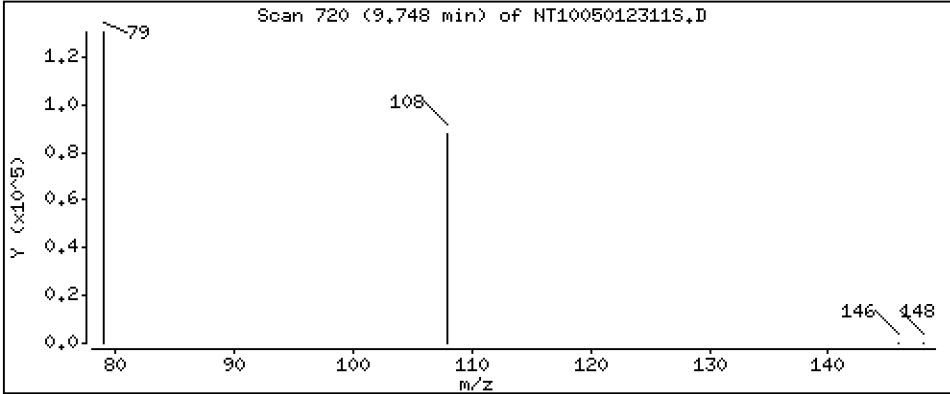
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.272 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

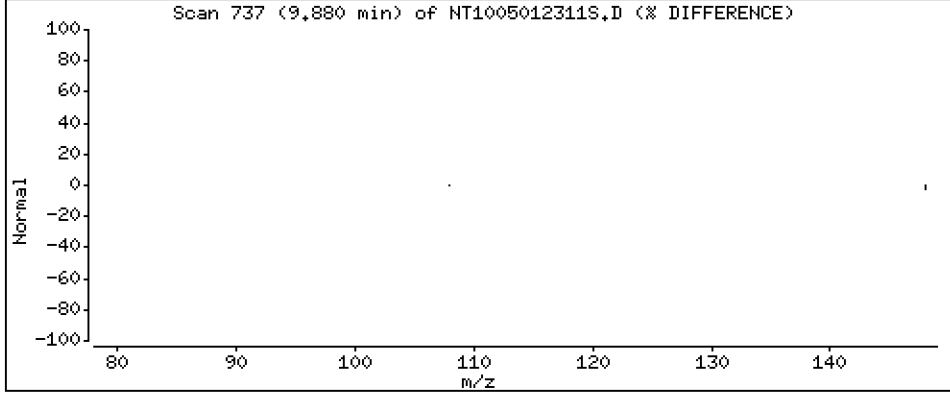
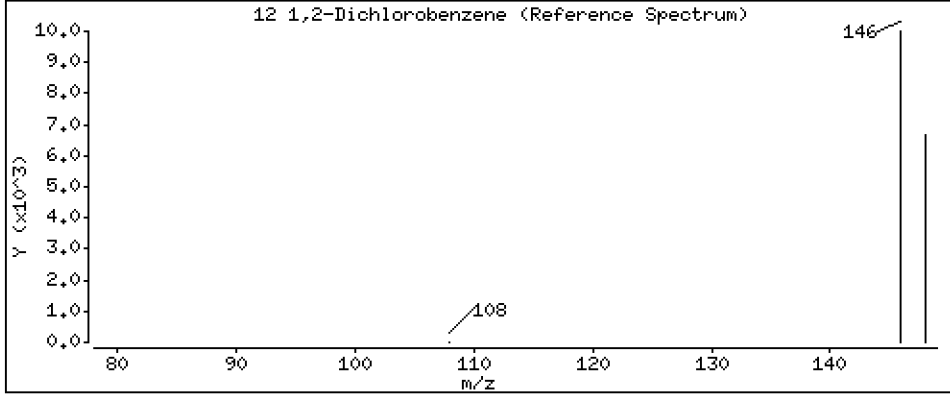
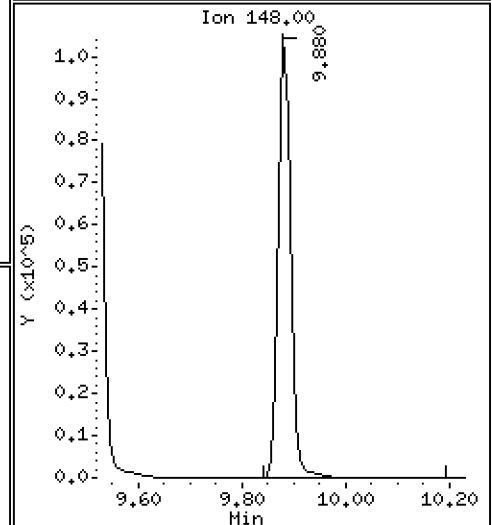
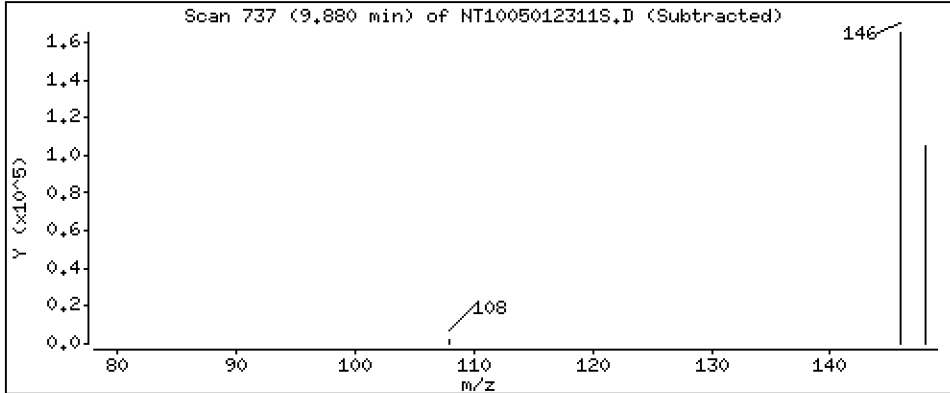
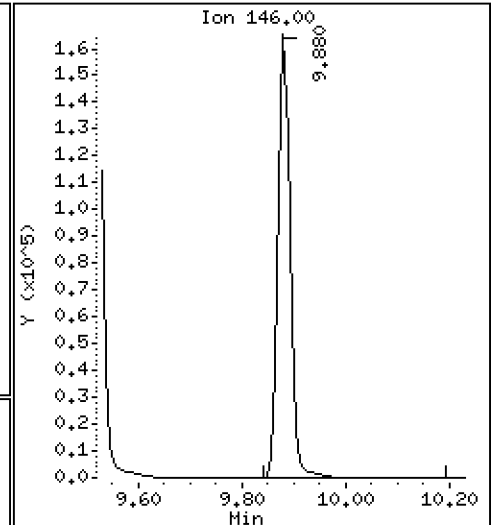
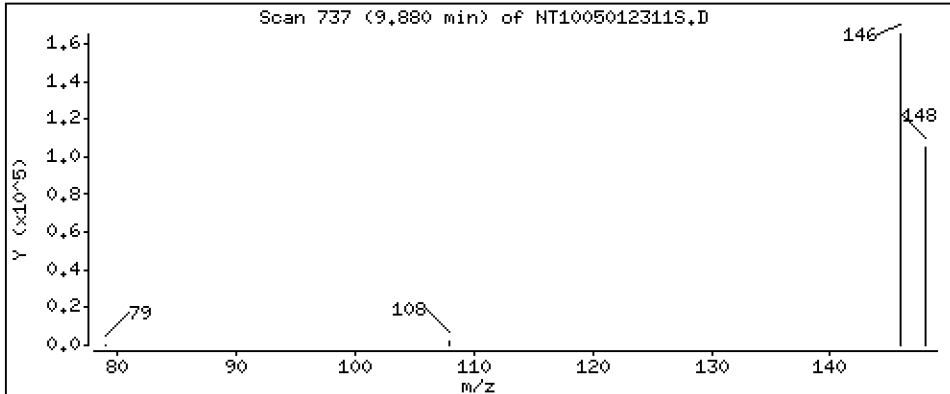
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 4.657 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

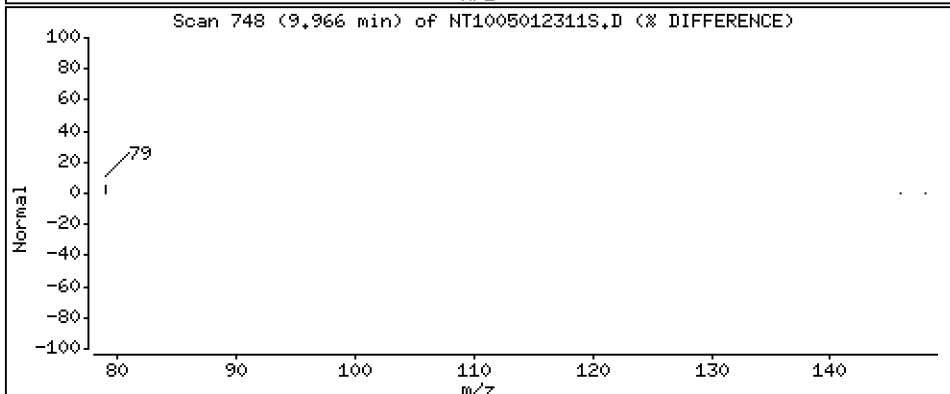
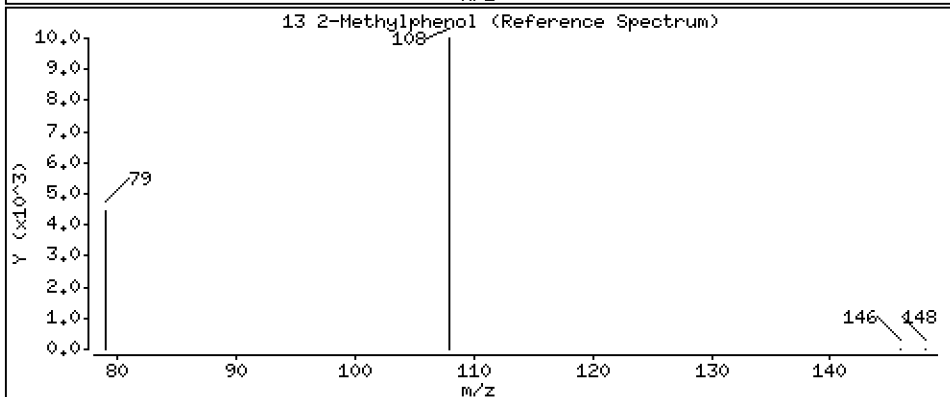
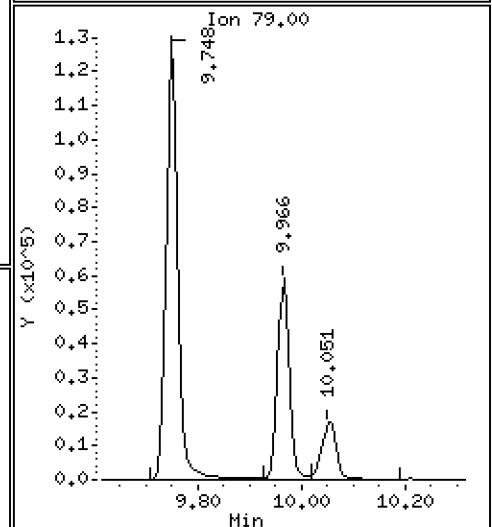
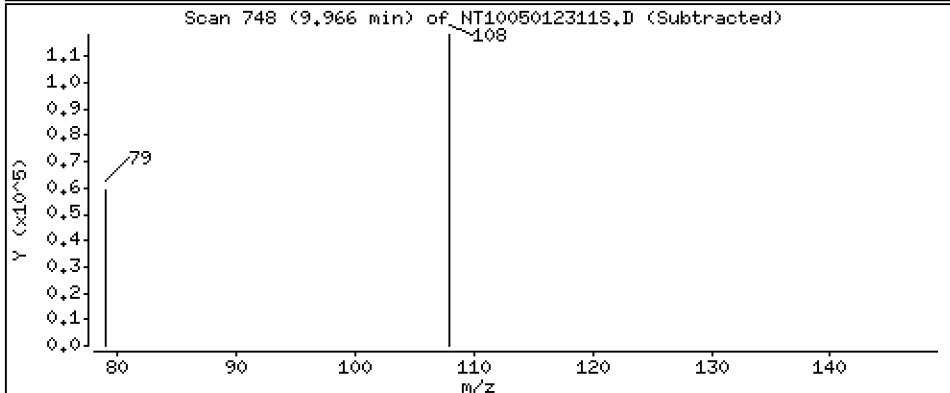
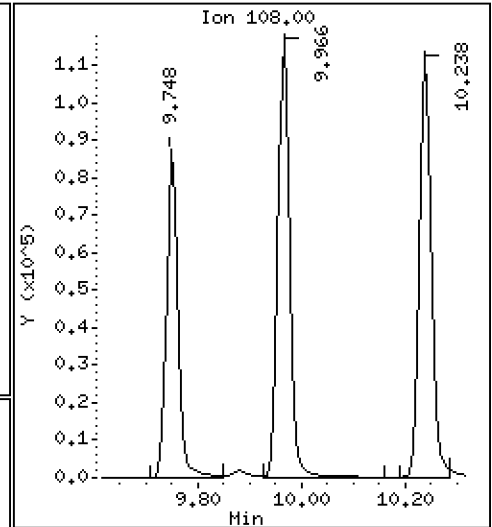
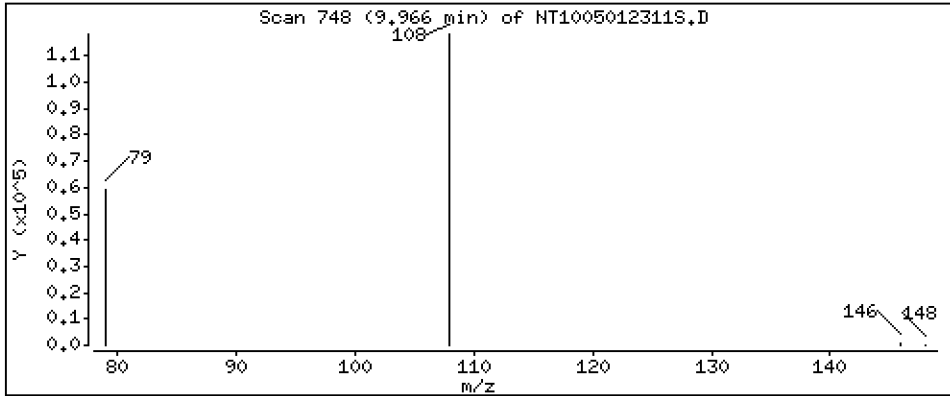
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.243 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

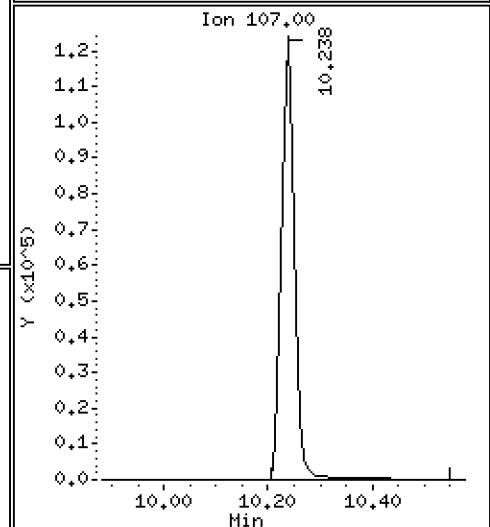
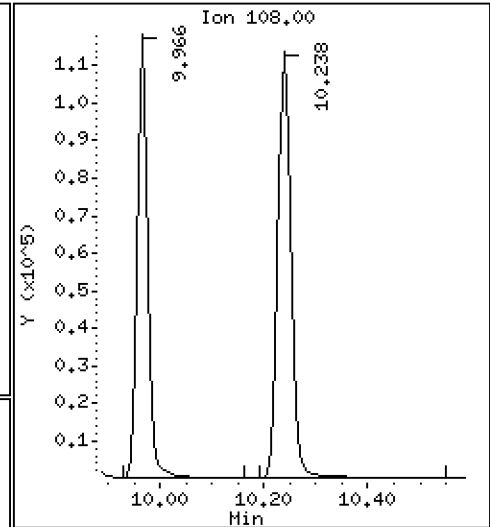
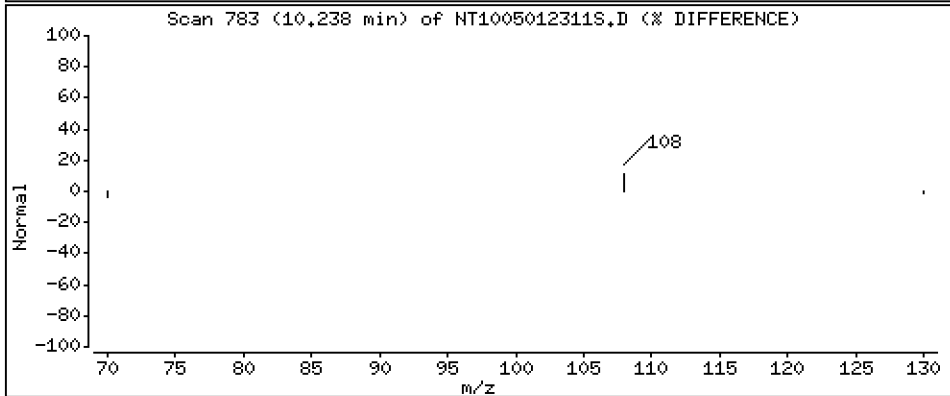
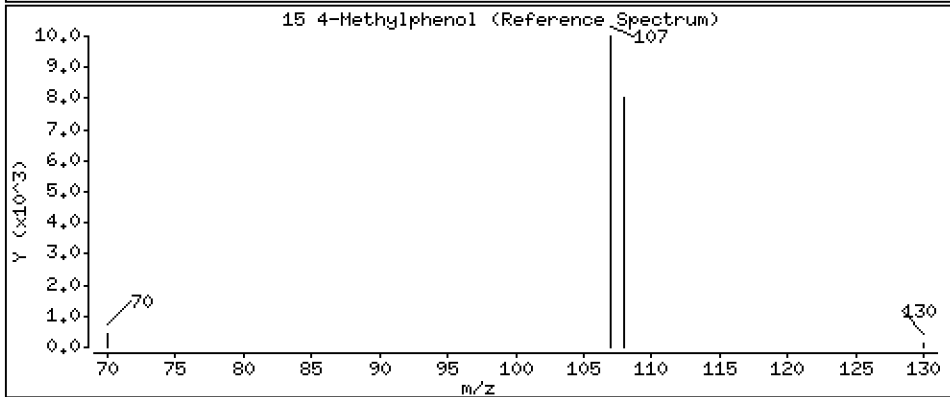
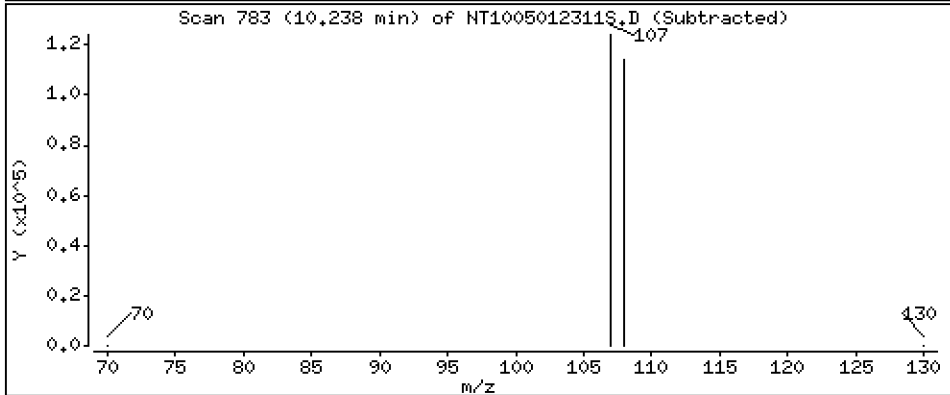
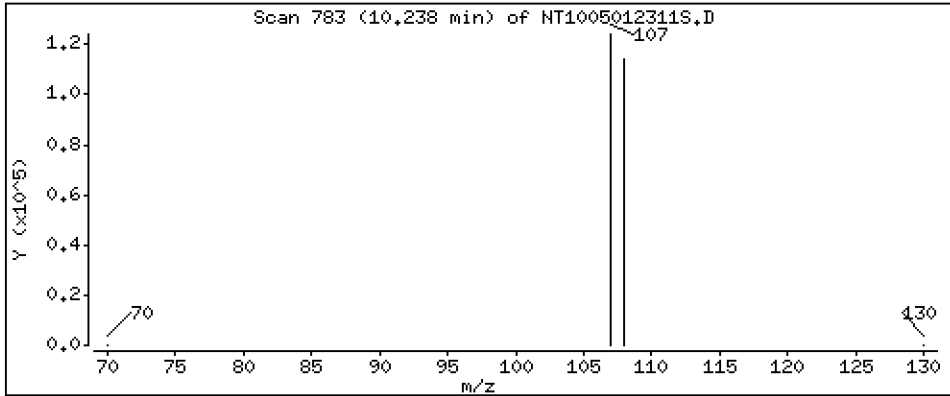
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 4.470 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

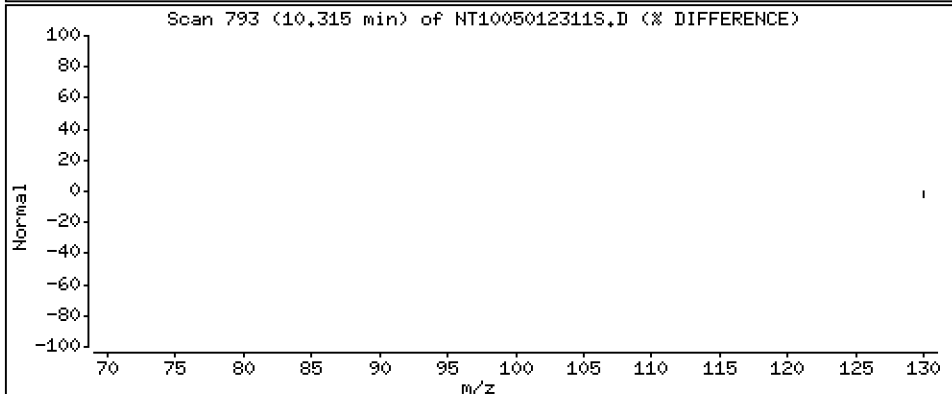
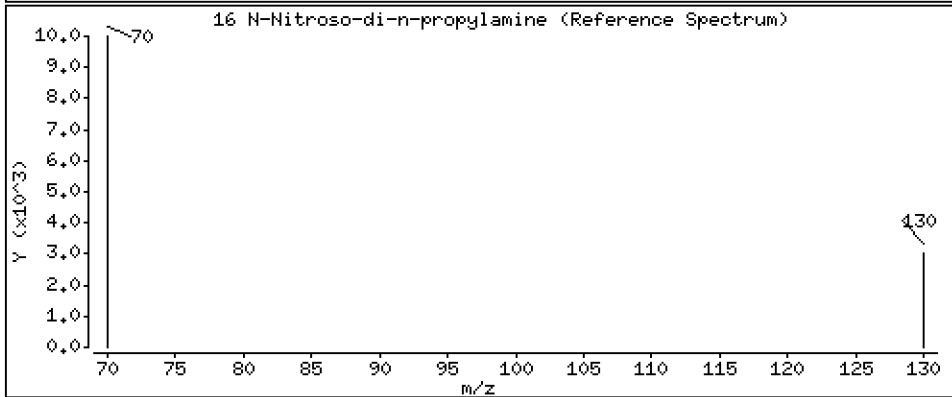
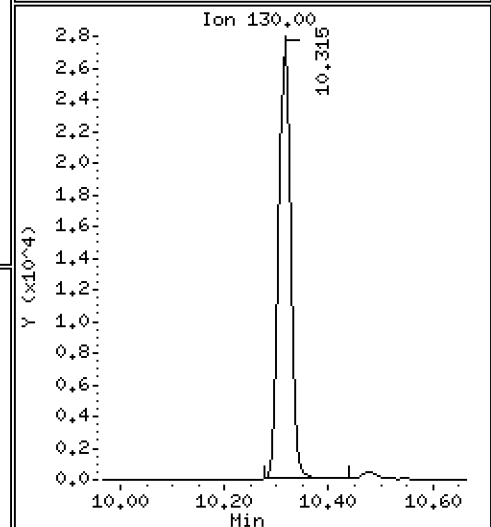
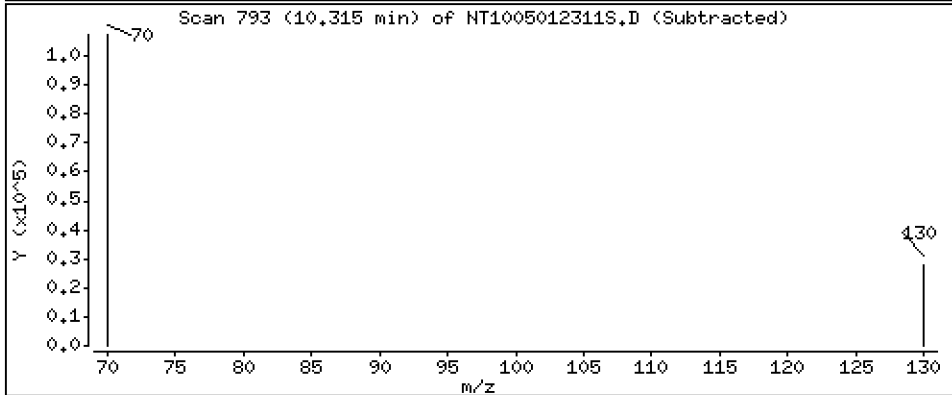
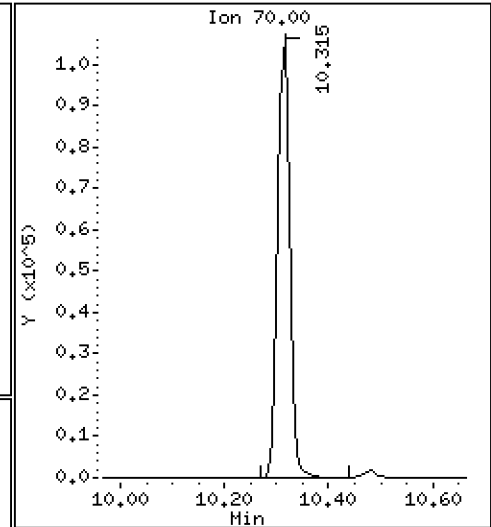
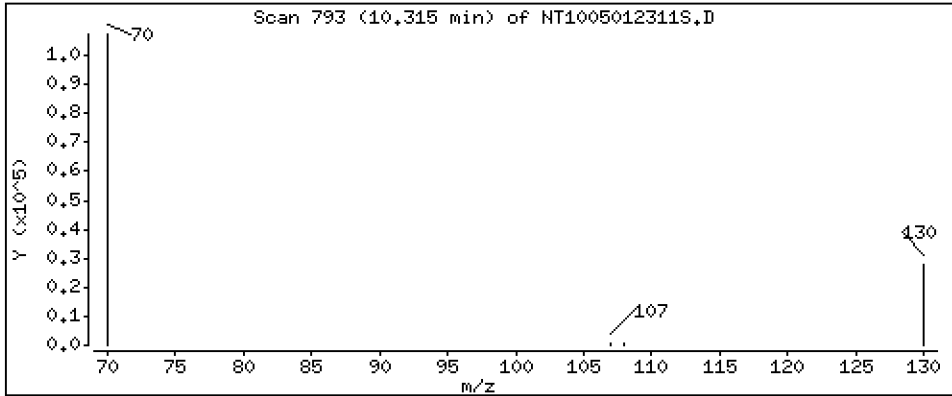
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 5.268 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

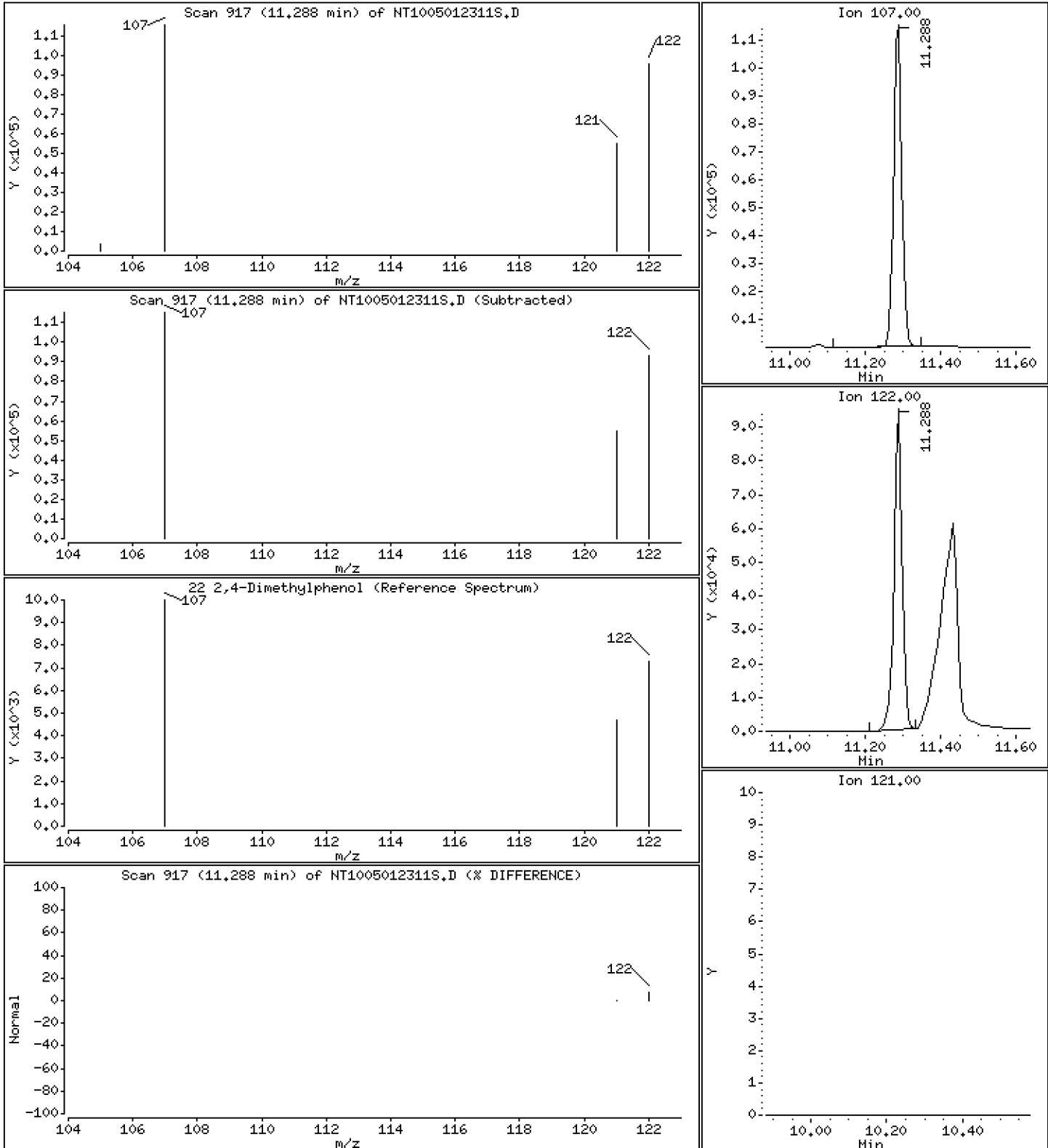
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3,489 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

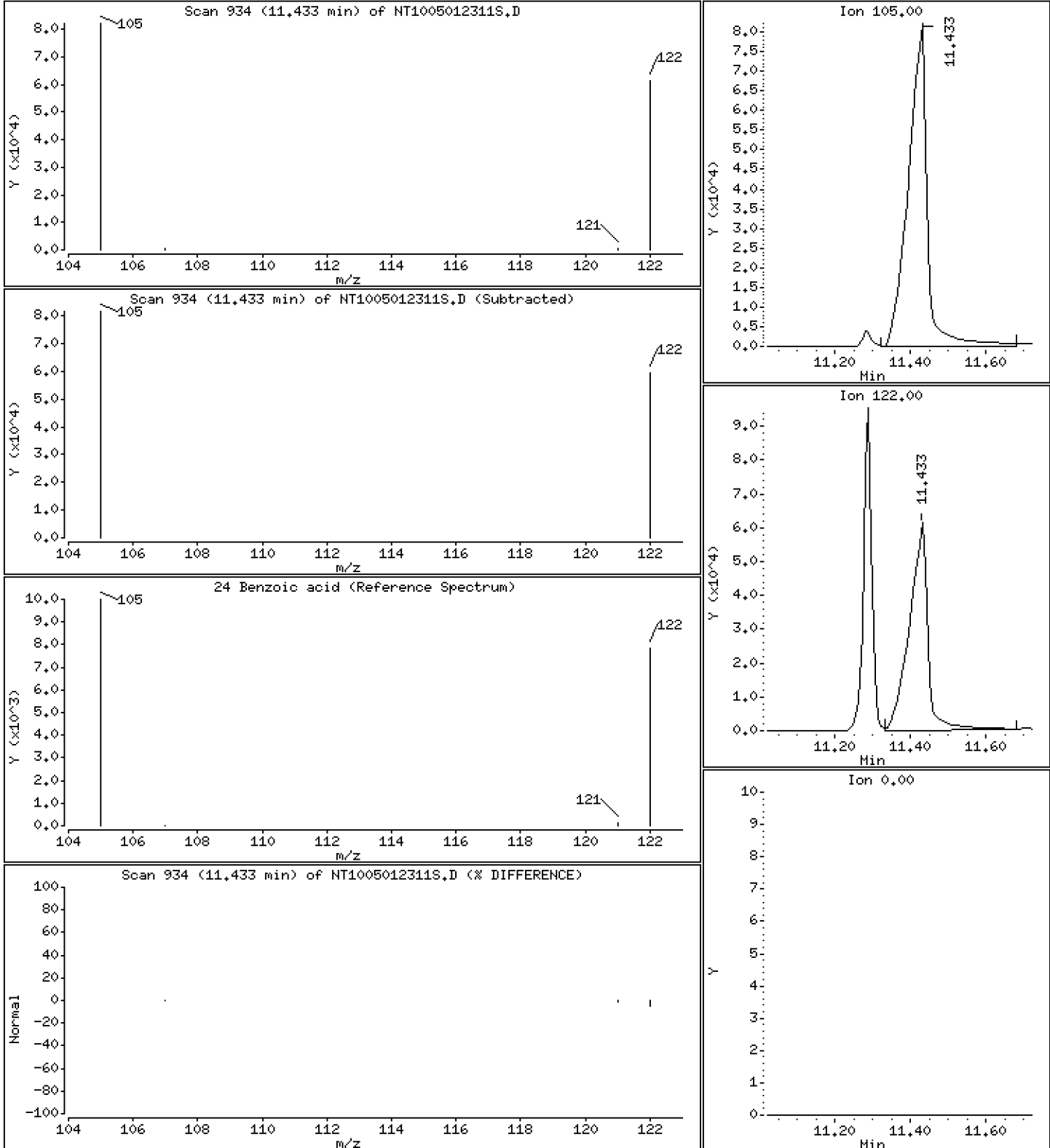
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 8,322 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

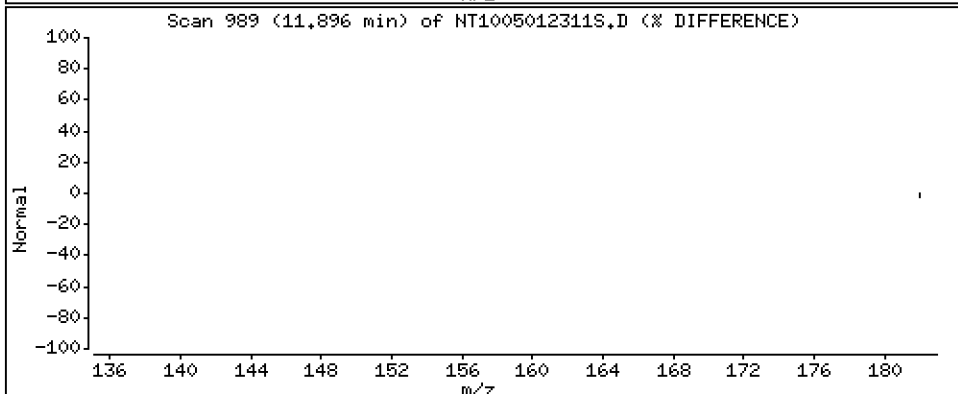
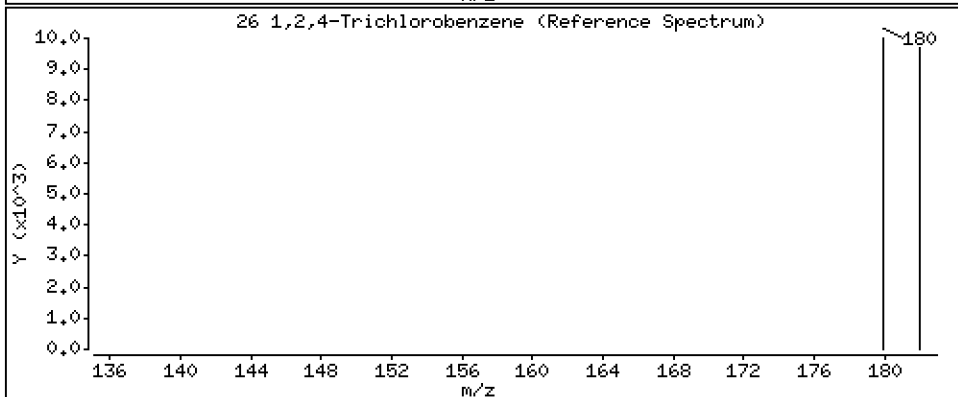
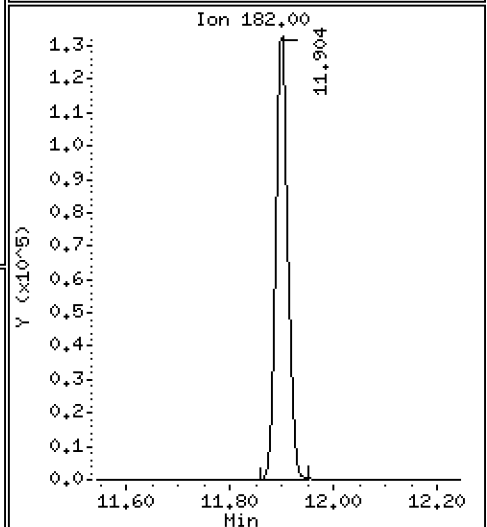
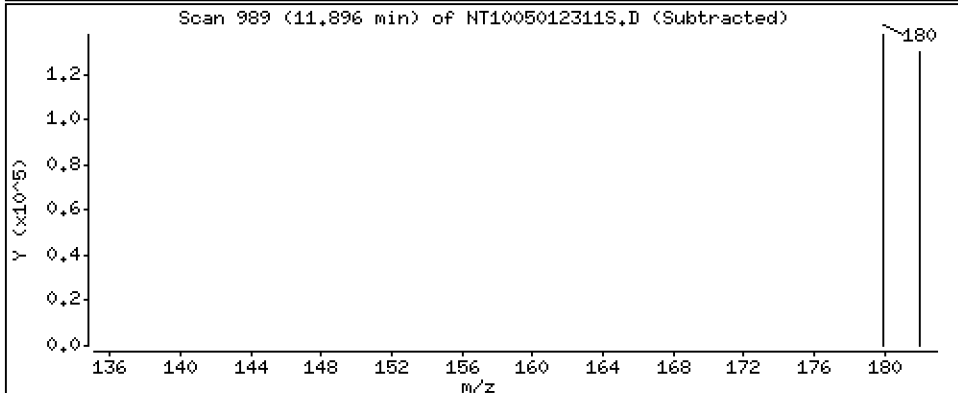
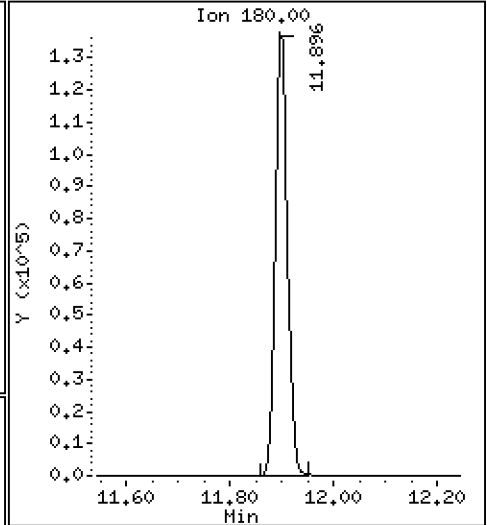
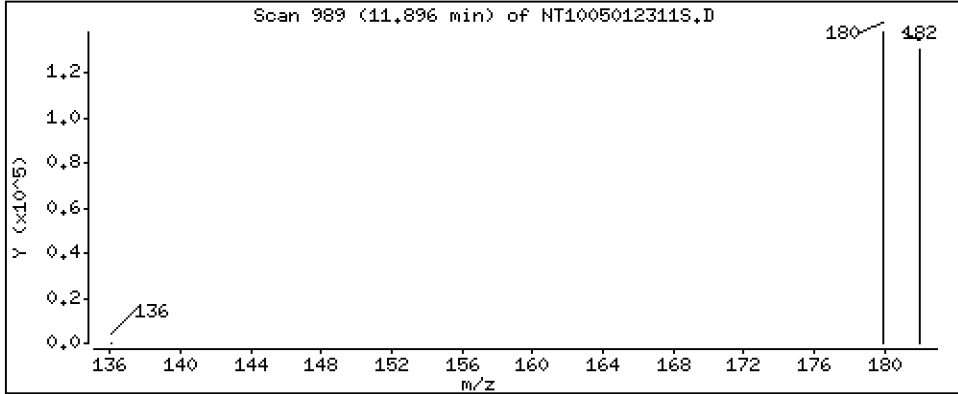
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 4.321 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

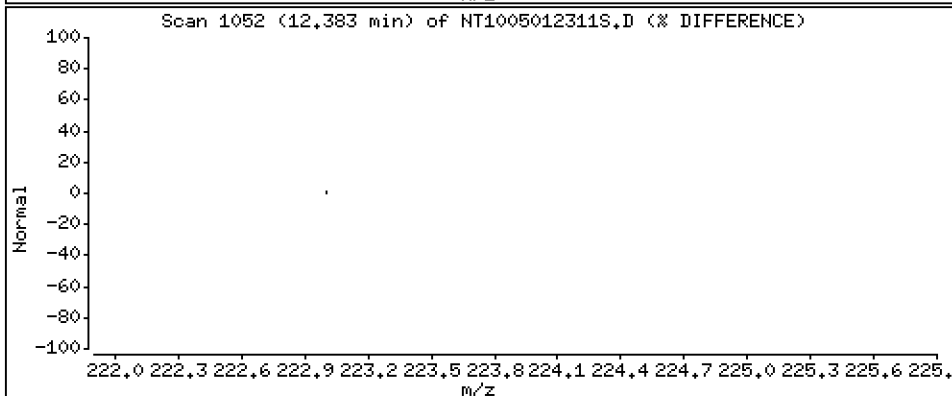
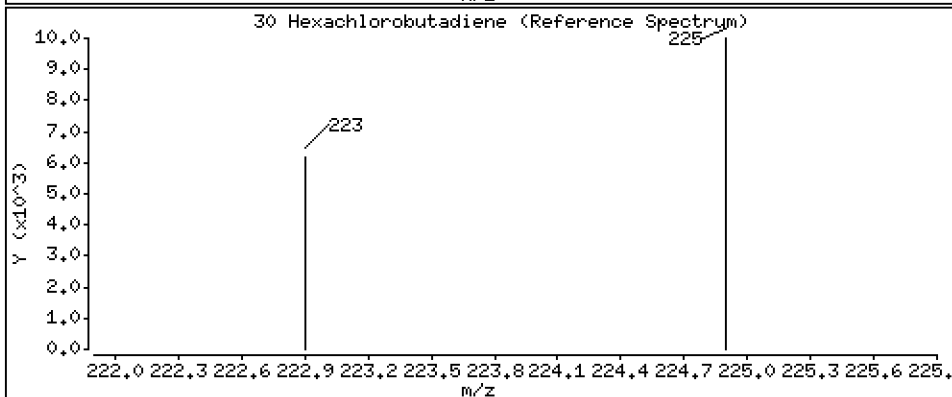
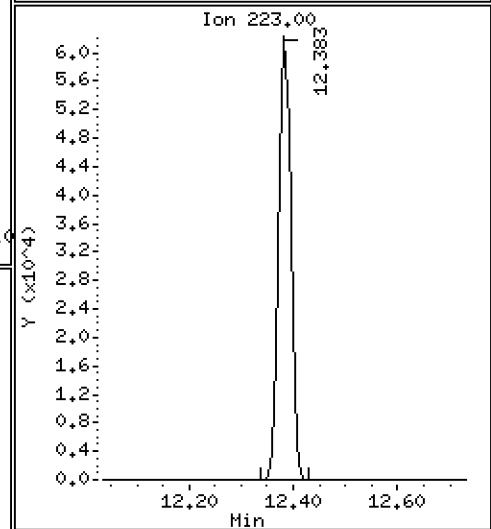
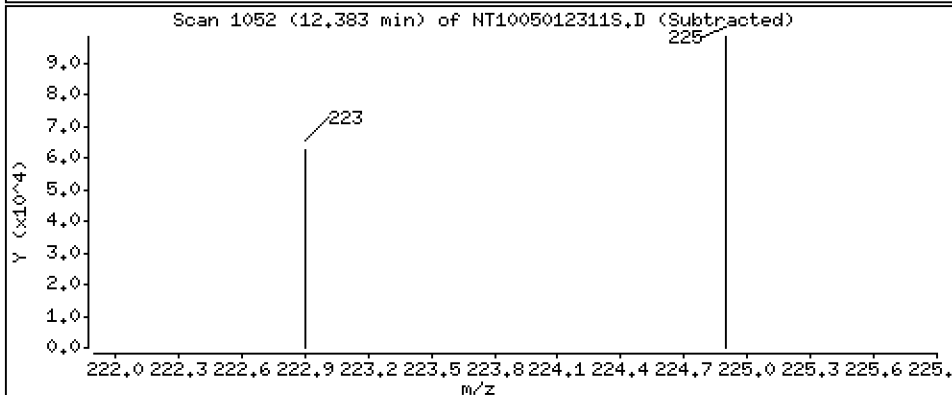
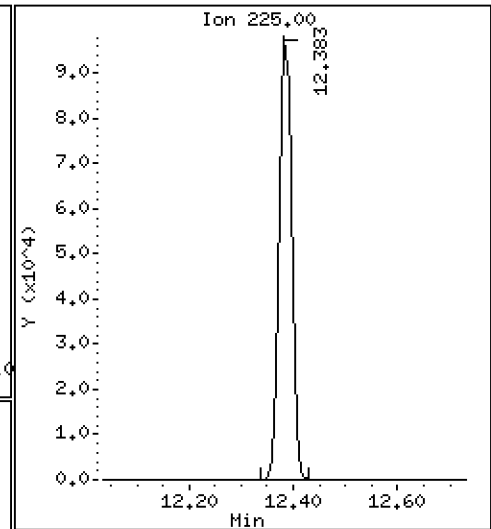
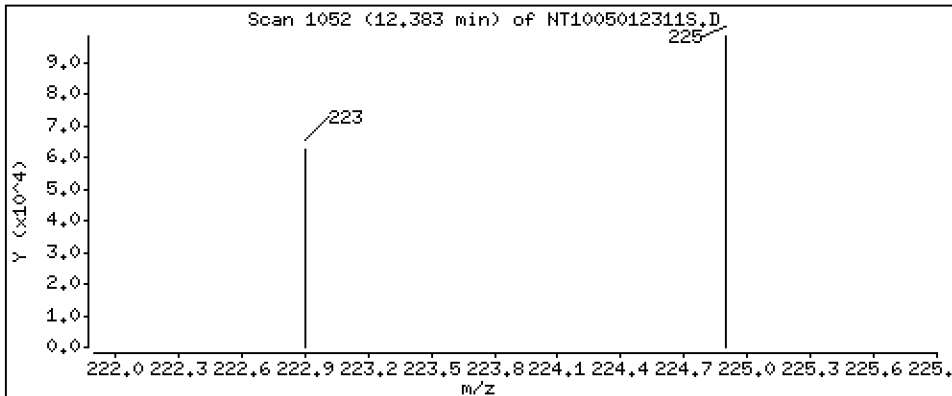
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,632 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

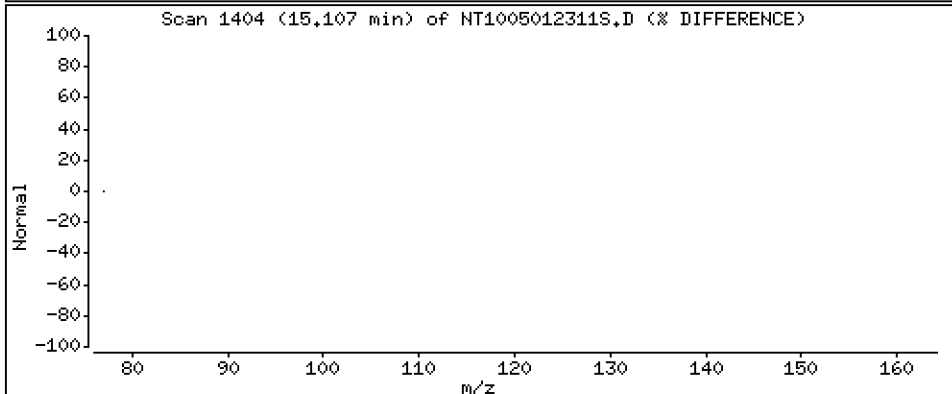
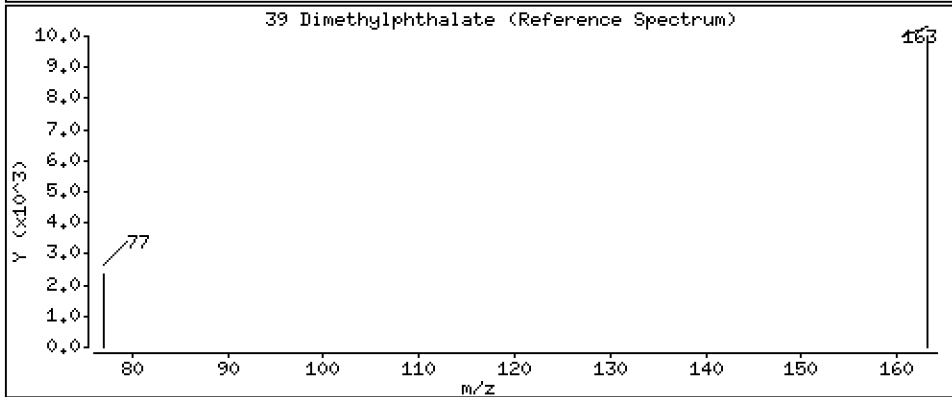
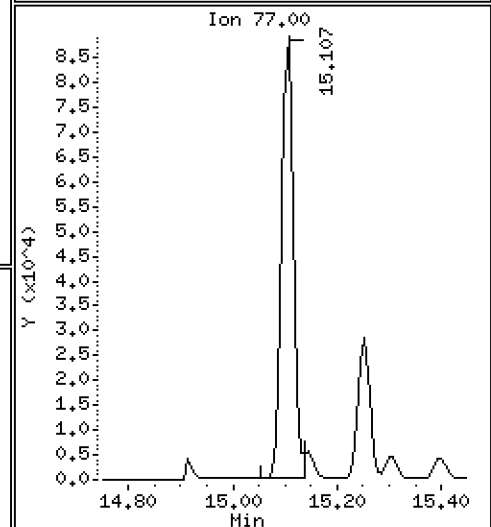
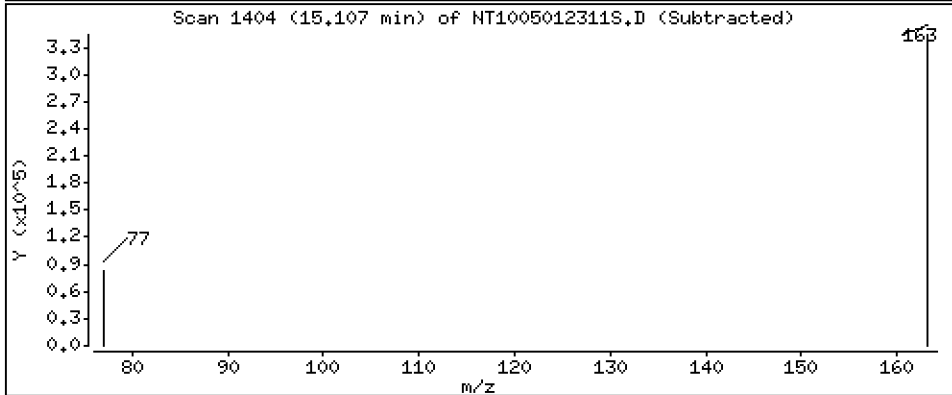
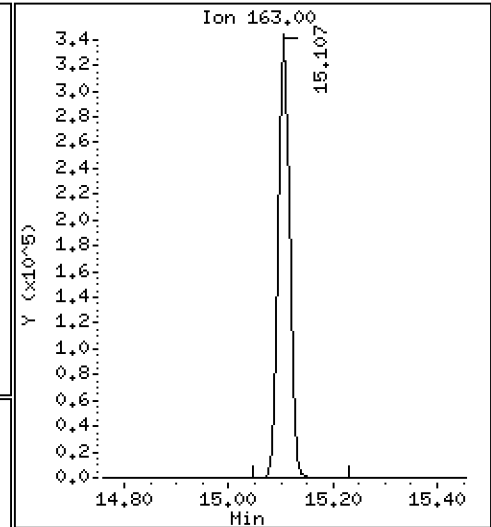
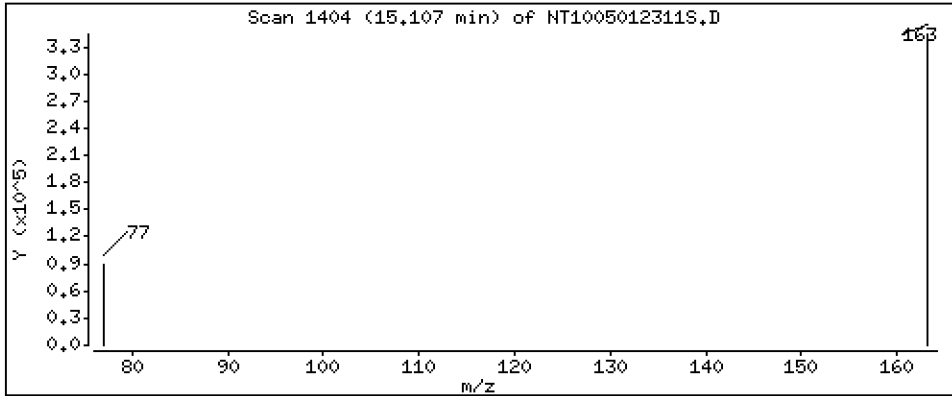
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,875 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

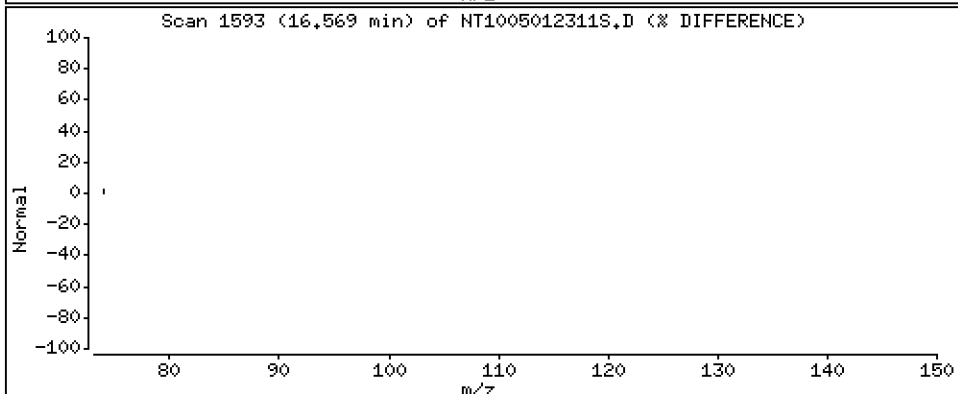
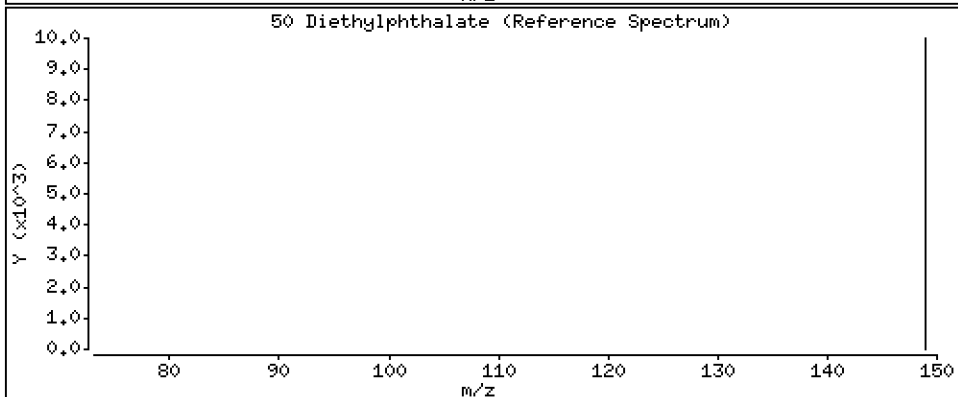
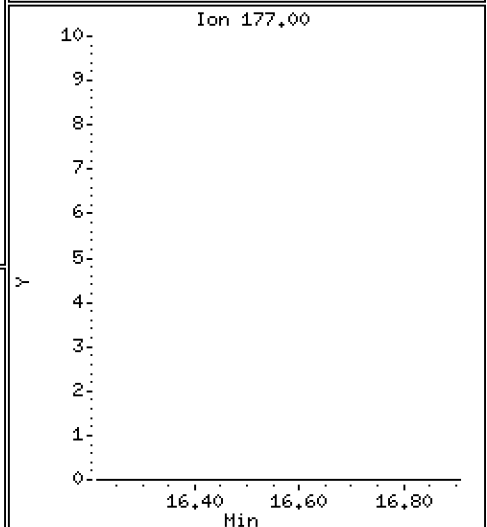
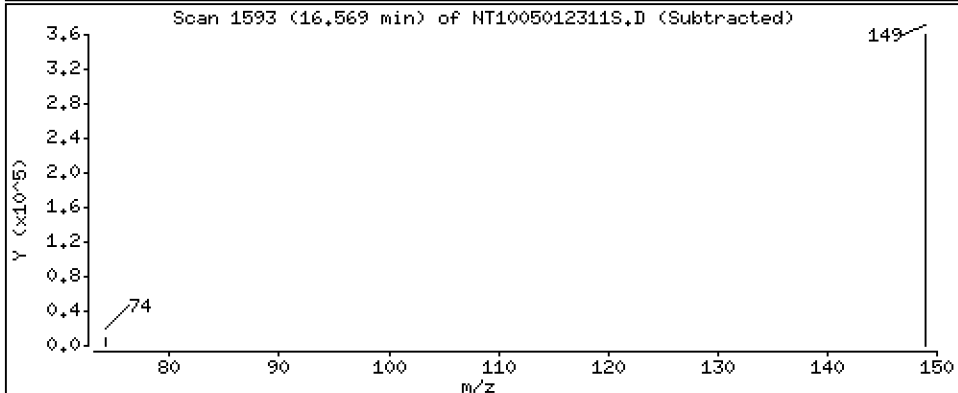
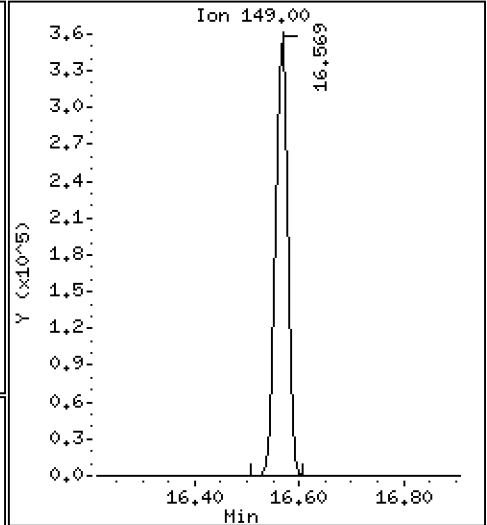
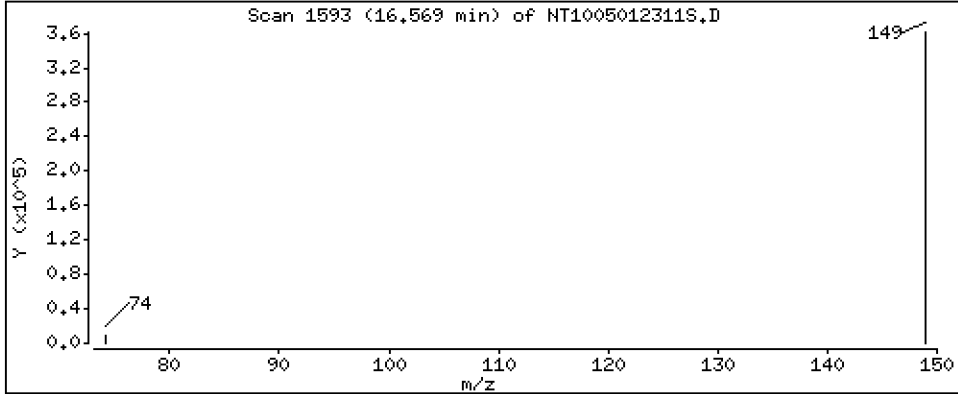
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,253 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

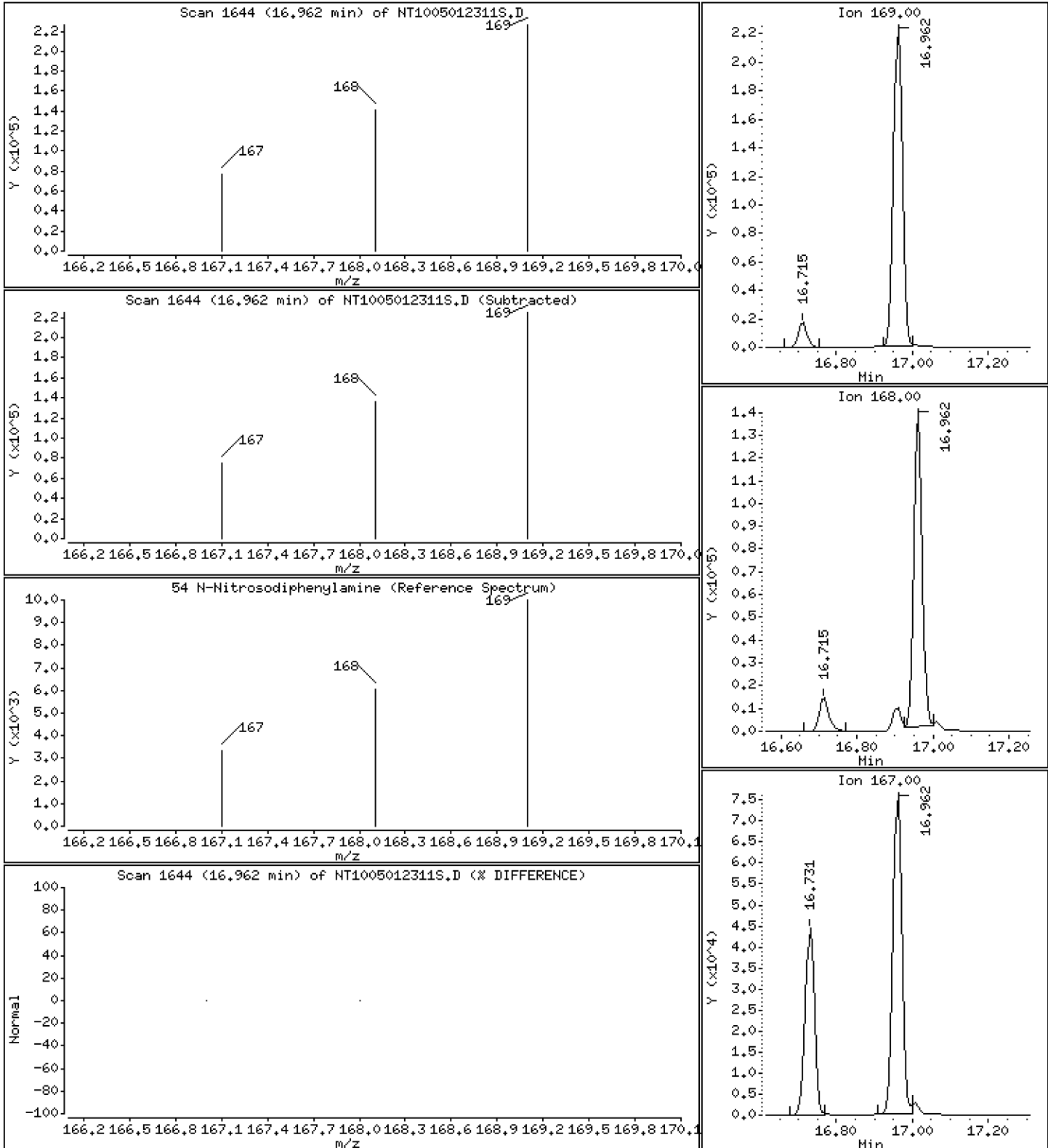
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,289 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

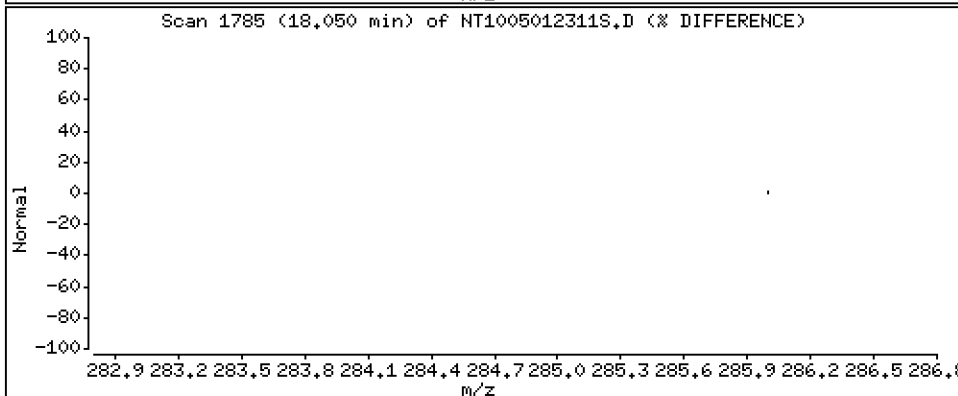
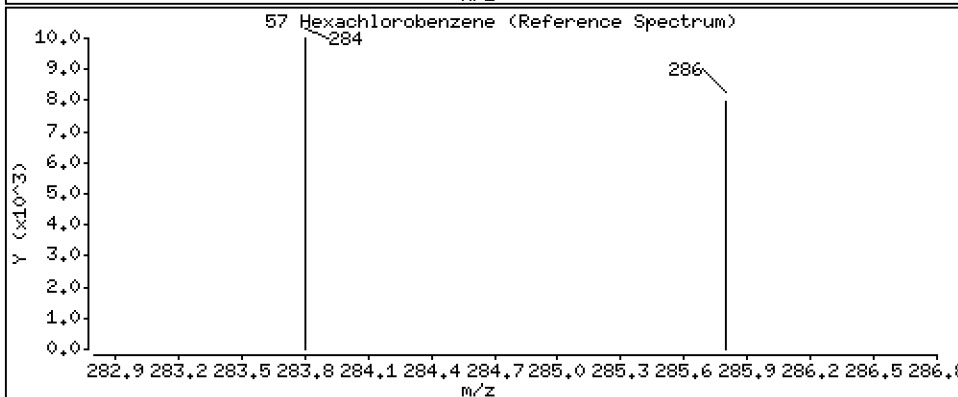
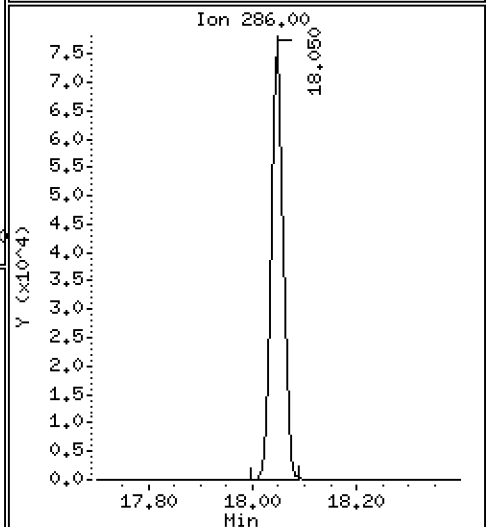
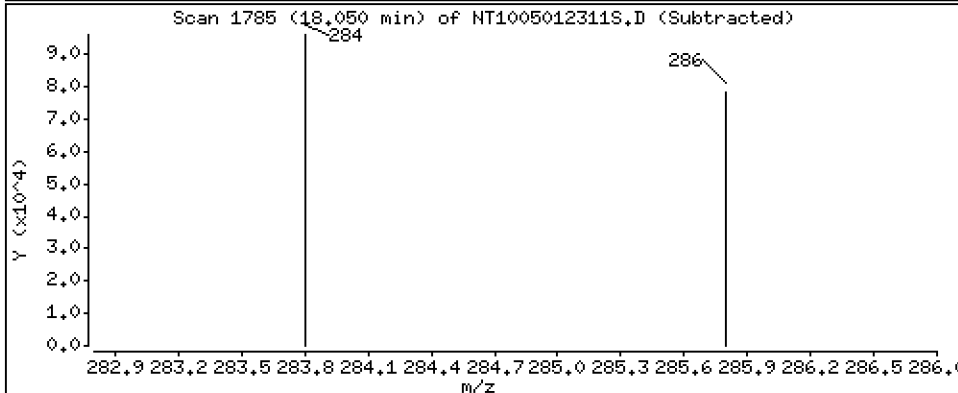
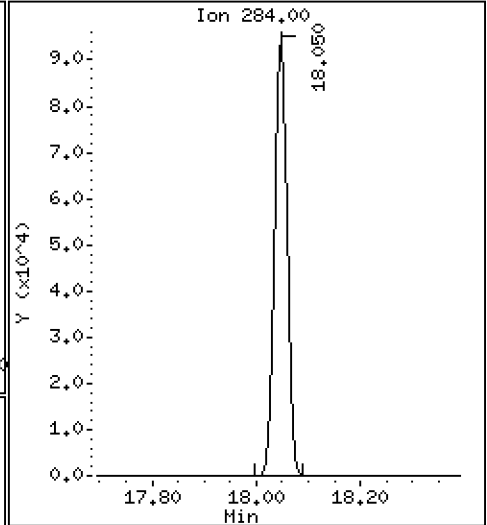
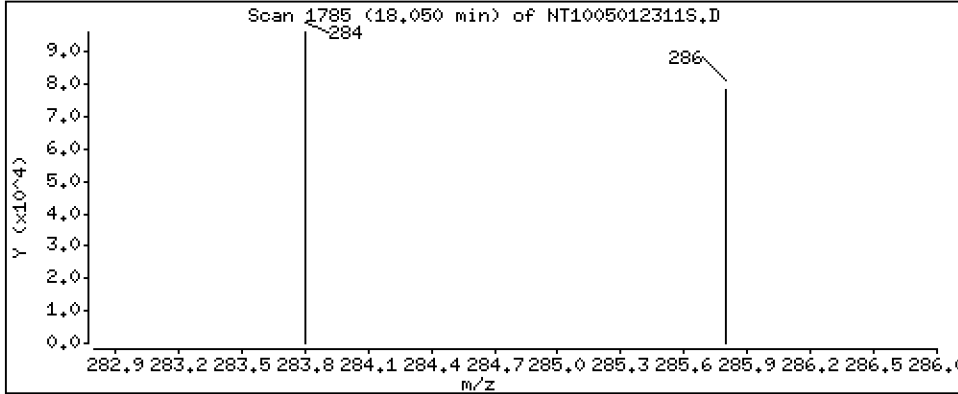
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,640 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

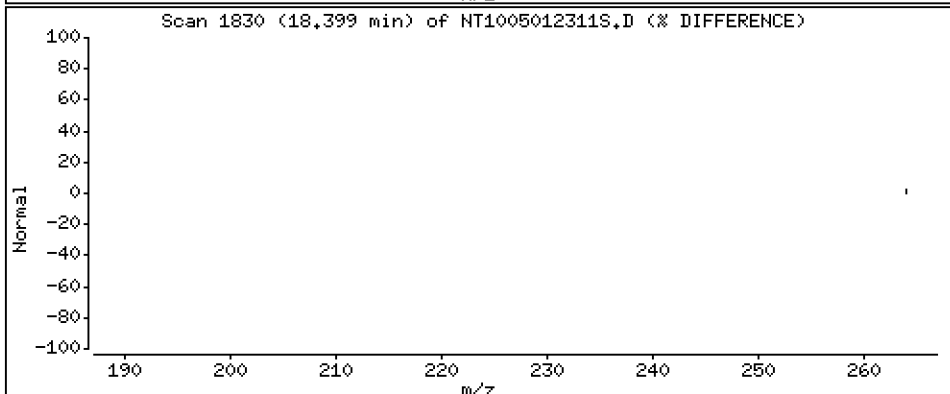
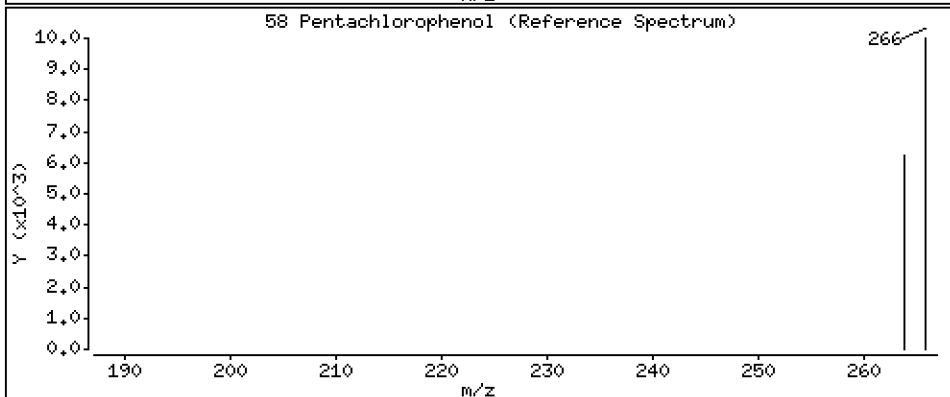
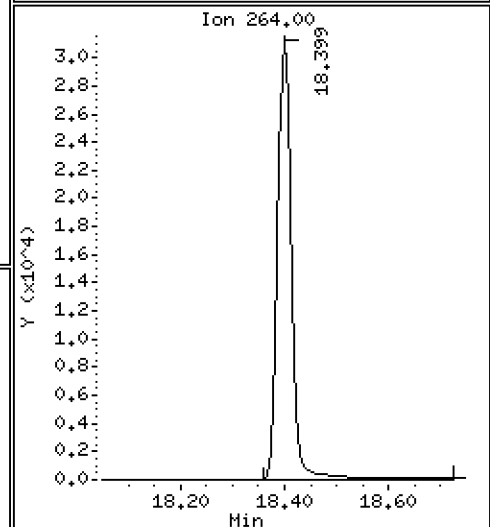
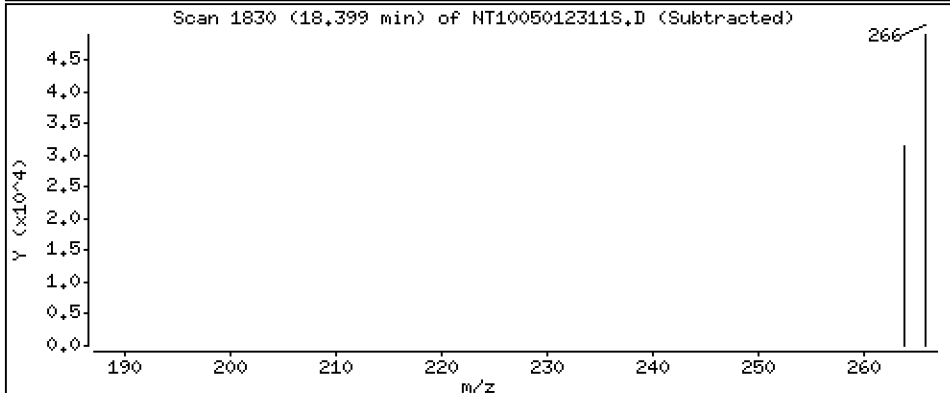
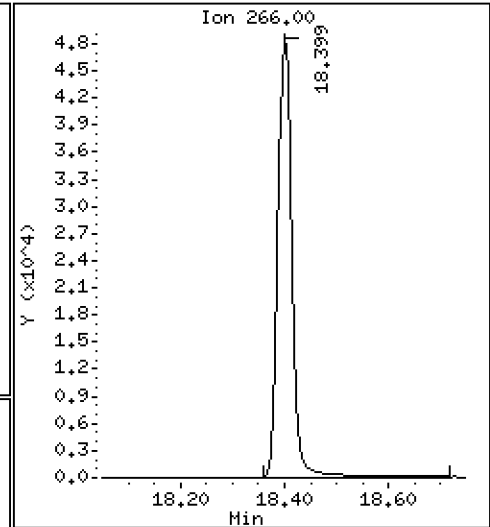
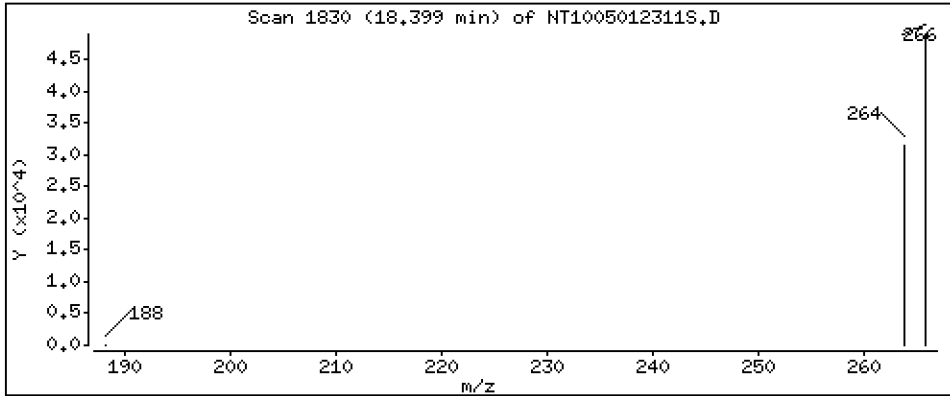
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 4,346 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

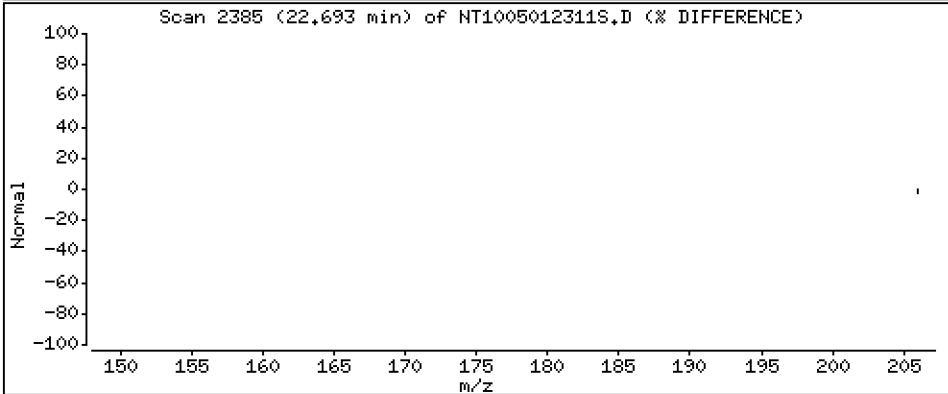
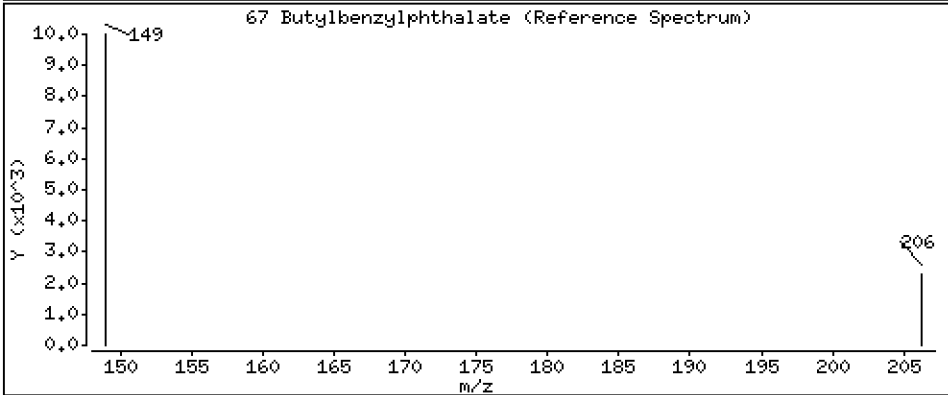
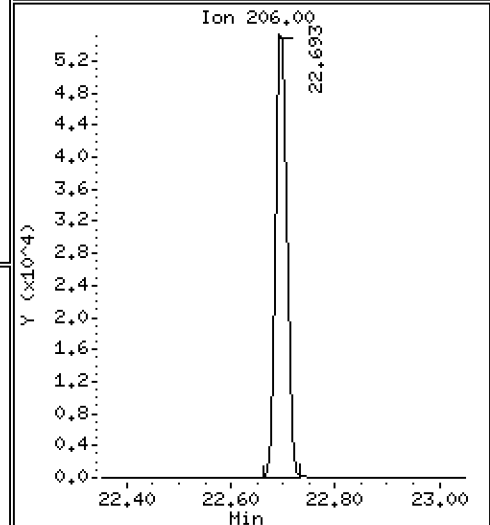
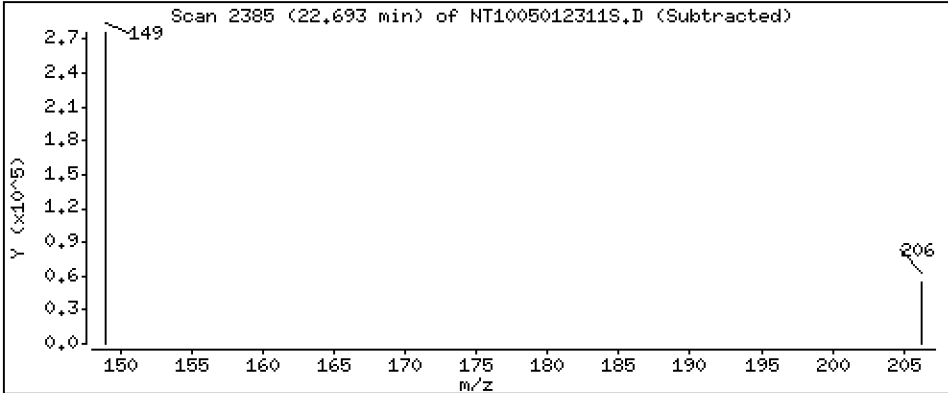
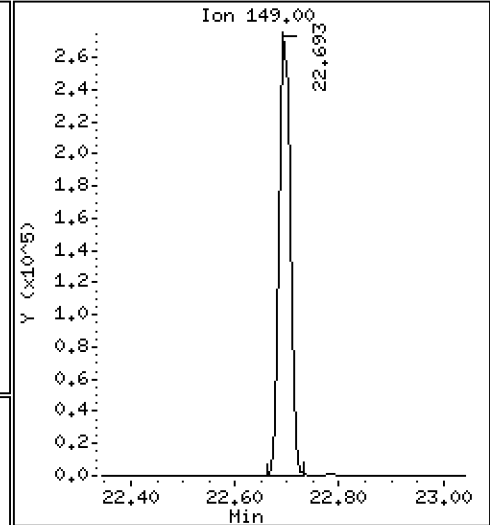
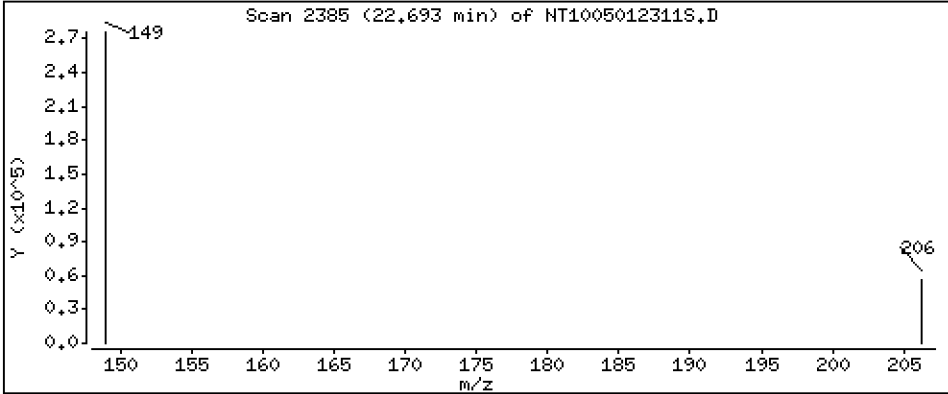
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,065 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

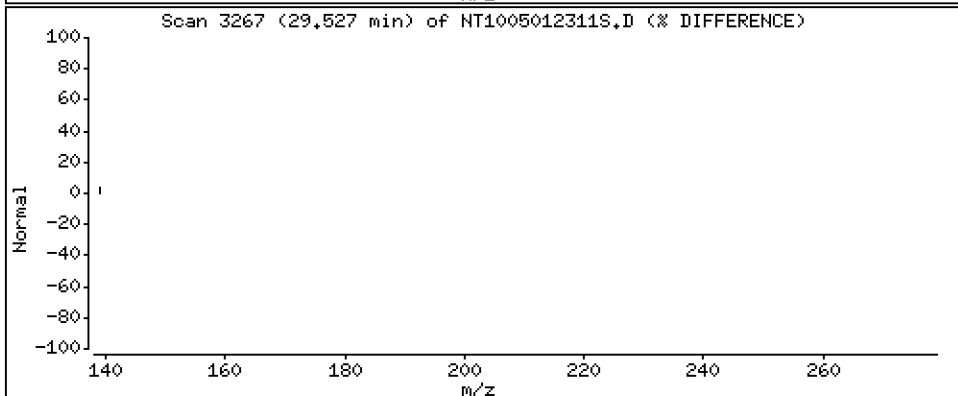
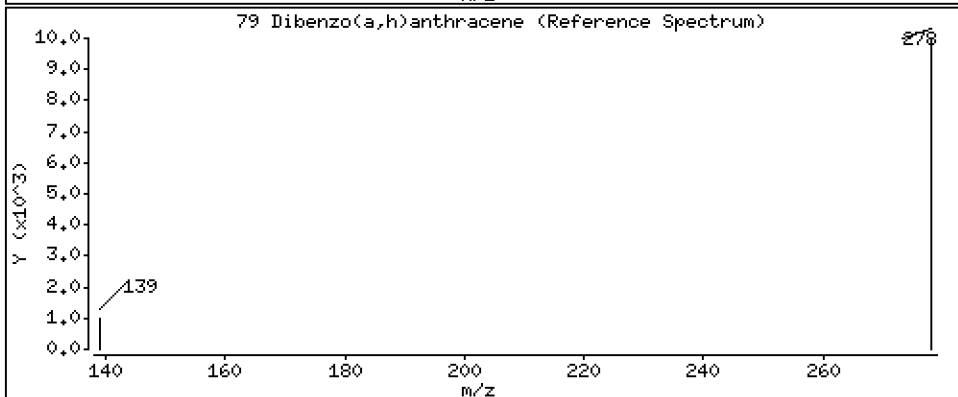
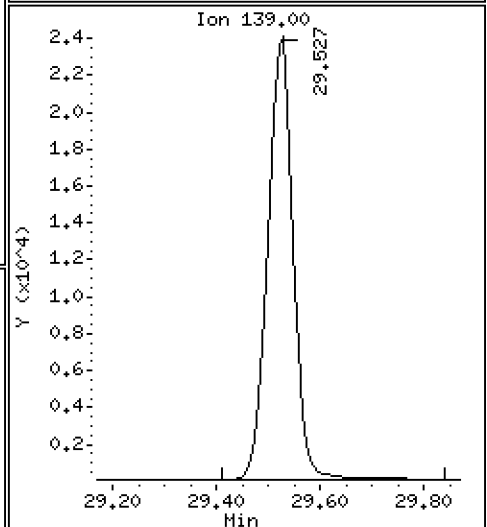
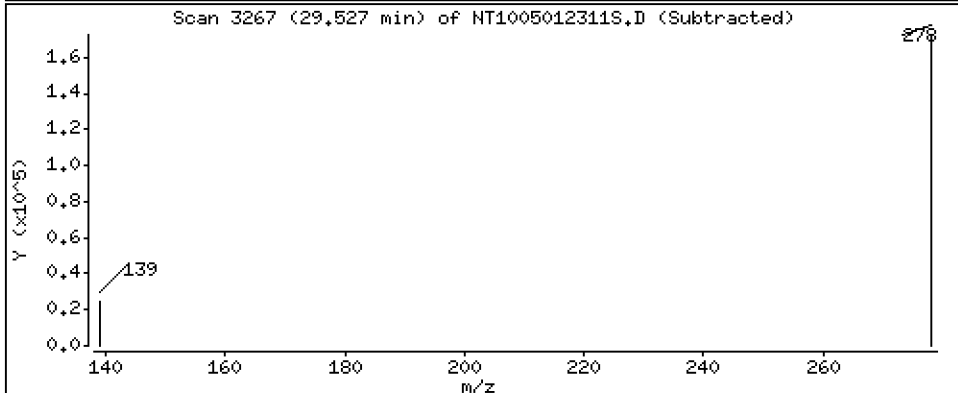
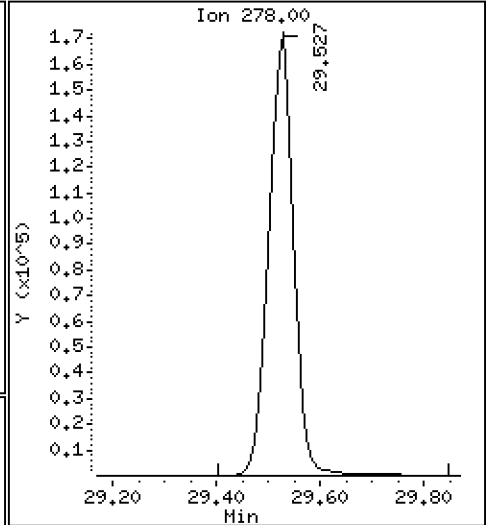
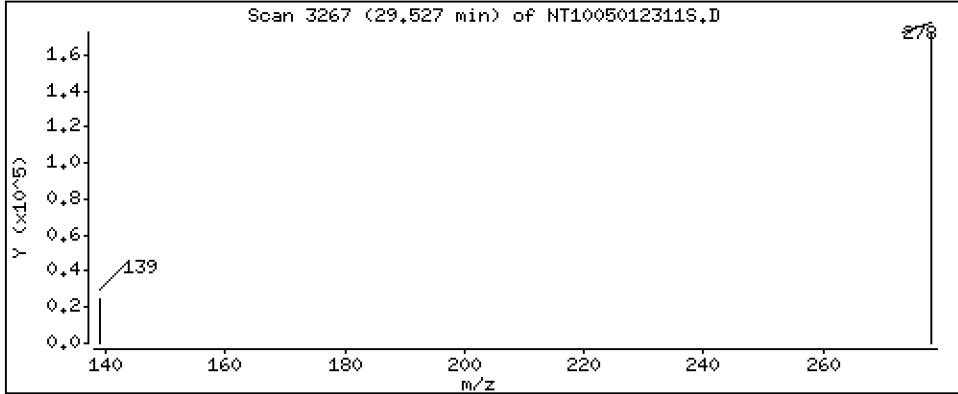
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,815 ug/L



Date : 01-MAY-2023 20:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0082-SCV1

Volume Injected (uL): 1.0

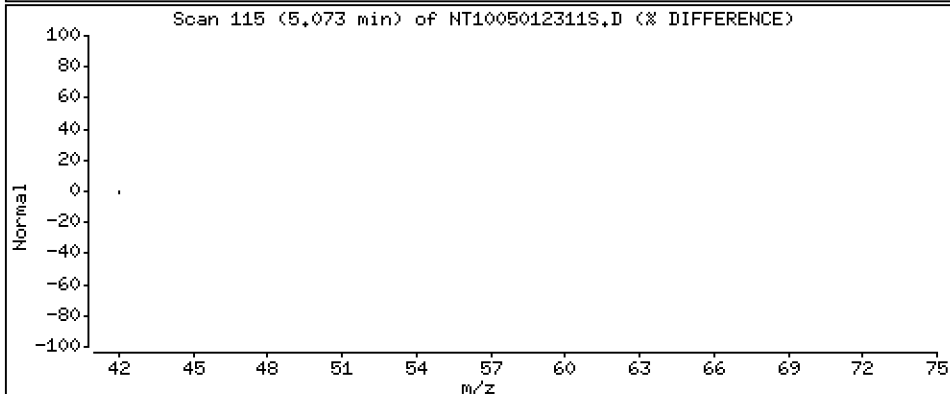
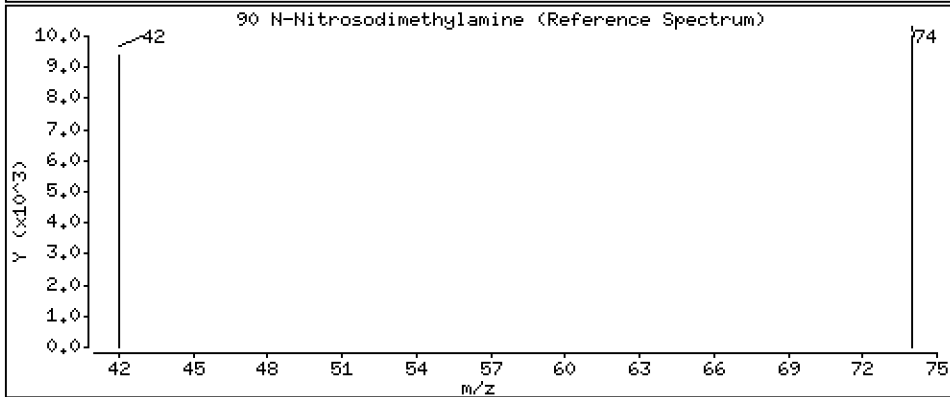
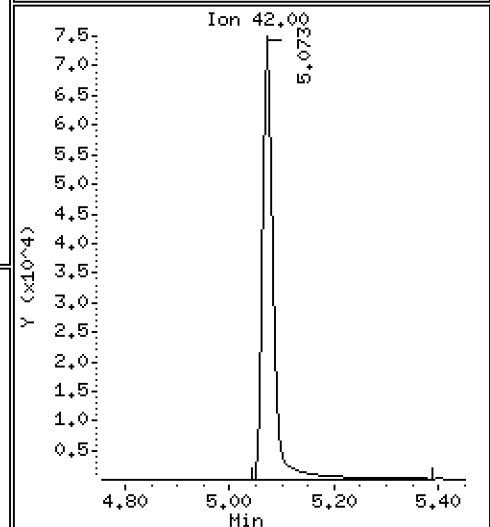
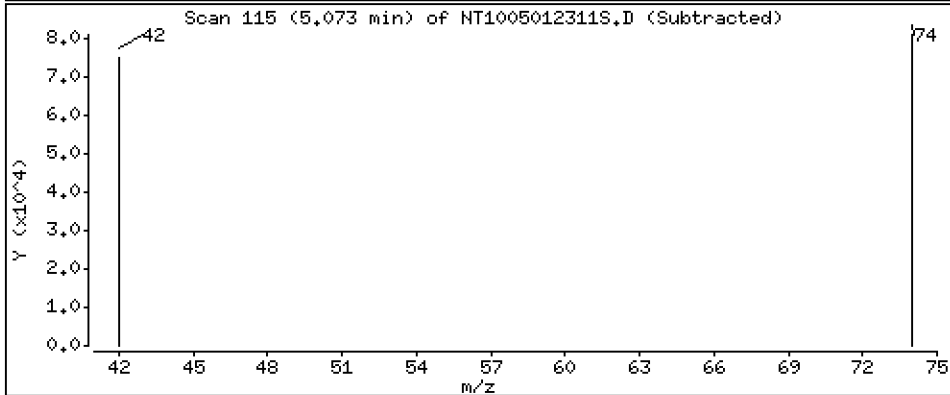
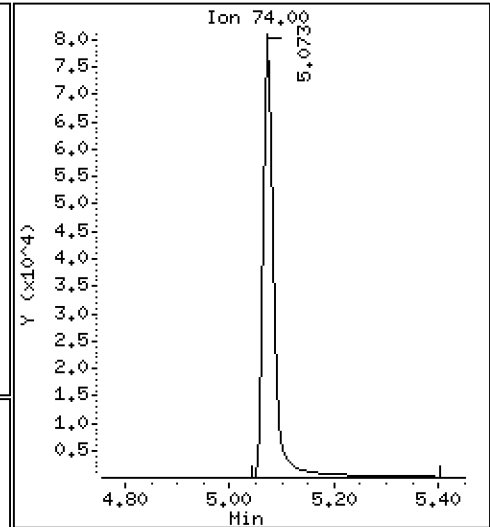
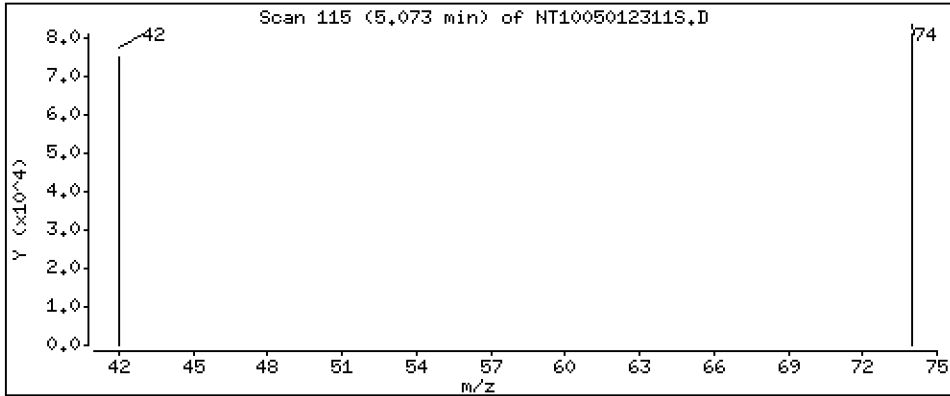
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,213 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012311S.D
 Lab Smp Id: SLE0082-SCV1
 Inj Date : 01-MAY-2023 20:43 MS Autotune Date: 16-JAN-2023 17:42
 Operator : JGR Inst ID: nt10.i
 Smp Info : SLE0082-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Meth Date : 05-May-2023 13:56 deenayd Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: DEENAY-201905

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		7.235	7.243	(0.762)	1569	0.03614	0.03614 (R)
3 Phenol	94		8.842	8.842	(0.932)	241257	4.43593	4.436
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	266593	4.66088	4.661
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	142531	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	271019	4.78410	4.784
11 Benzyl alcohol	79		9.748	9.756	(1.027)	198278	5.27178	5.272
12 1,2-Dichlorobenzene	146		9.880	9.880	(1.041)	253729	4.65664	4.657
13 2-Methylphenol	108		9.965	9.965	(1.050)	172706	4.24306	4.243
15 4-Methylphenol	108		10.237	10.237	(1.079)	191289	4.46966	4.470
16 N-Nitroso-di-n-propylamine	70		10.315	10.315	(1.087)	162670	5.26784	5.268
22 2,4-Dimethylphenol	107		11.288	11.288	(0.942)	176836	3.48934	3.489 (M)
24 Benzoic acid	105		11.432	11.373	(0.954)	283387	8.32169	8.322
26 1,2,4-Trichlorobenzene	180		11.896	11.896	(0.992)	224651	4.32072	4.321
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	510045	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	153764	4.63178	4.632
39 Dimethylphthalate	163		15.106	15.107	(0.967)	487893	4.87533	4.875
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	263993	4.00000	
50 Diethylphthalate	149		16.568	16.560	(1.061)	564424	5.25278	5.253
54 N-Nitrosodiphenylamine	169		16.962	16.962	(0.908)	349152	5.28852	5.289
57 Hexachlorobenzene	284		18.050	18.042	(0.966)	150021	4.64019	4.640

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.398	18.398	(0.985)	87352	4.34597	4.346
* 59 Phenanthrene-d10	188	18.677	18.677	(1.000)	506239	4.00000	
\$ 66 Terphenyl-d14	244	21.779	21.779	(0.919)	2121	0.02441	0.02441 (R)
67 Butylbenzylphthalate	149	22.693	22.693	(0.958)	378823	5.06538	5.065
* 69 Chrysene-d12	240	23.699	23.692	(1.000)	402889	4.00000	
* 77 Perylene-d12	264	26.533	26.533	(1.000)	365734	4.00000	
79 Dibenzo(a,h)anthracene	278	29.527	29.519	(1.113)	568400	4.81466	4.815
90 N-Nitrosodimethylamine	74	5.072	5.103	(0.534)	123469	5.21274	5.213

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005012311S.D
 Lab Smp Id: SLE0082-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Misc Info:

Calibration Date: 01-MAY-2023
 Calibration Time: 17:28
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	169173	84587	338346	142531	-15.75
27 Naphthalene-d8	594924	297462	1189848	510045	-14.27
42 Acenaphthene-d10	304980	152490	609960	263993	-13.44
59 Phenanthrene-d10	609190	304595	1218380	506239	-16.90
69 Chrysene-d12	479061	239531	958122	402889	-15.90
77 Perylene-d12	427162	213581	854324	365734	-14.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.50	9.00	10.00	9.49	-0.08
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.63	15.13	16.13	15.62	-0.05
59 Phenanthrene-d10	18.68	18.18	19.18	18.68	0.00
69 Chrysene-d12	23.70	23.20	24.20	23.70	0.00
77 Perylene-d12	26.54	26.04	27.04	26.53	-0.03

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

REVIEW SUMMARY FOR FILE - NT1005012311S.D

Lab ID: SLE0082-SCV1

nt10.i, 20230501.b\20230501.b\SIMABN2.m,

01-MAY-2023 20:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230501.b/NT1005012310S.D

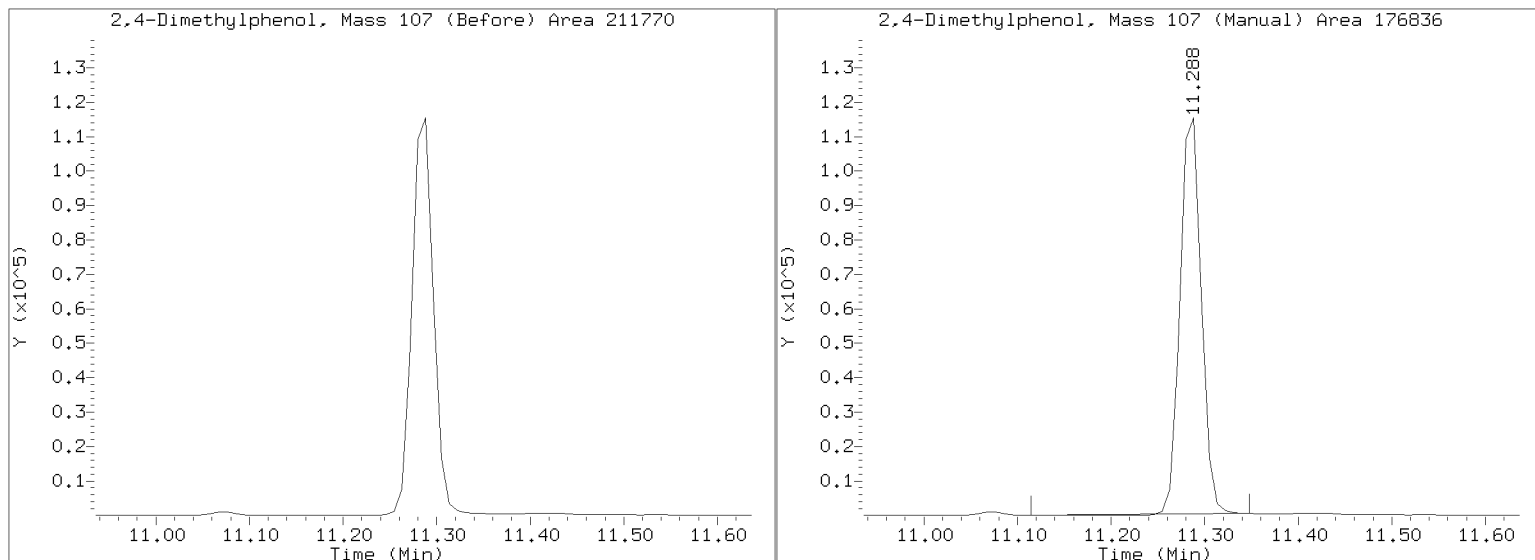
On Column LOD for nt10.i, 20230501.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230501.b/20230501.b/NT1005012311S.D
Injection Date: 01-MAY-2023 20:43
Lab ID: SLE0082-SCV1 Client ID:
Report Date: 05/10/2023 12:32



APPROVED

By Deenay Dunmore at 12:52 pm, May 10, 2023



CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GE00018</u>
Lab File ID:	<u>NT1005052317S.D</u>	Calibration Date:	<u>05/04/2023</u>
Sequence:	<u>SLE0466</u>	Injection Date:	<u>05/05/23</u>
Lab Sample ID:	<u>SLE0466-CCV1</u>	Injection Time:	<u>21:08</u>
Sequence Name:	<u>Calibration Check</u>		

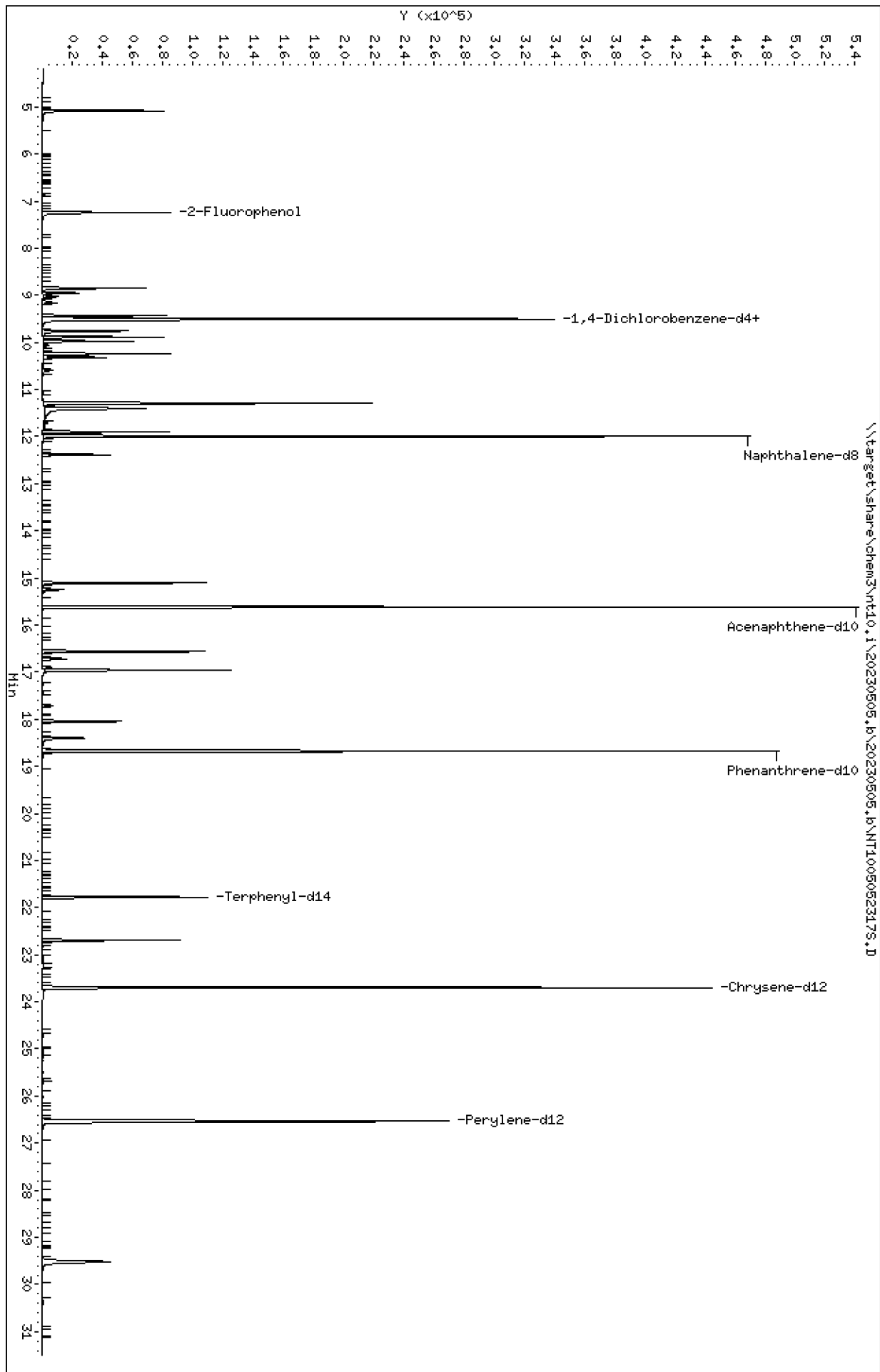
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	1.0000	0.9	1.5898270	1.4294670		-10.1	+/-50
1,2-Dichlorobenzene	A	1.0000	0.9	1.5291420	1.4185090		-7.2	+/-50
Benzyl Alcohol	A	1.0000	1.0	1.0555230	1.1039900		4.6	+/-50
Benzoic acid	A	4.0000	2.2	0.1834660	0.1441922		-44.6	+/-50
2,4-Dimethylphenol	A	2.0000	2.0	0.3974465	0.3905716		-1.7	+/-50
1,2,4-Trichlorobenzene	A	1.0000	0.9	0.4077591	0.3573729		-12.4	+/-50
N-Nitrosodiphenylamine	A	1.0000	0.9	0.5216563	0.4879272		-6.5	+/-50
Pentachlorophenol	A	2.0000	1.1	0.1295337	0.0866625		-43.8	+/-50
2-Fluorophenol	A	1.5000	1.43	1.2184940	1.1619150		-4.6	+/-50
p-Terphenyl-d14	A	1.0000	1.11	0.8625046	0.9584714		11.1	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523175.D
Date : 05-May-2023 21:08
Client ID:
Sample Info: SLE0466-CCV1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: USD
Column diameter: 0.25



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

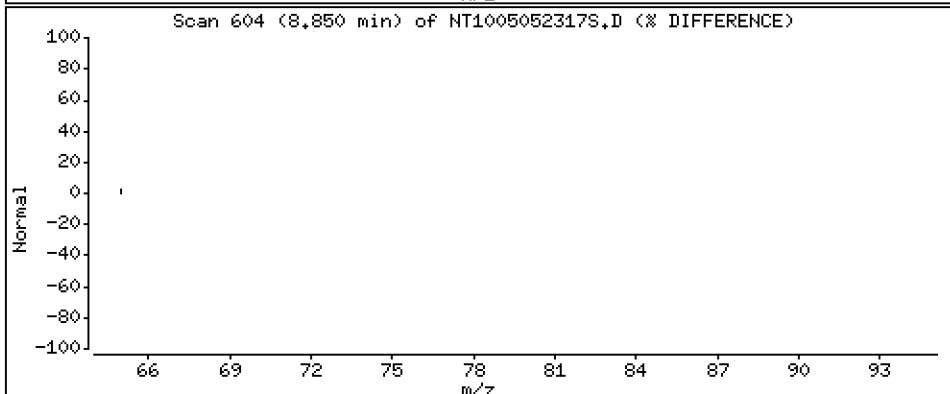
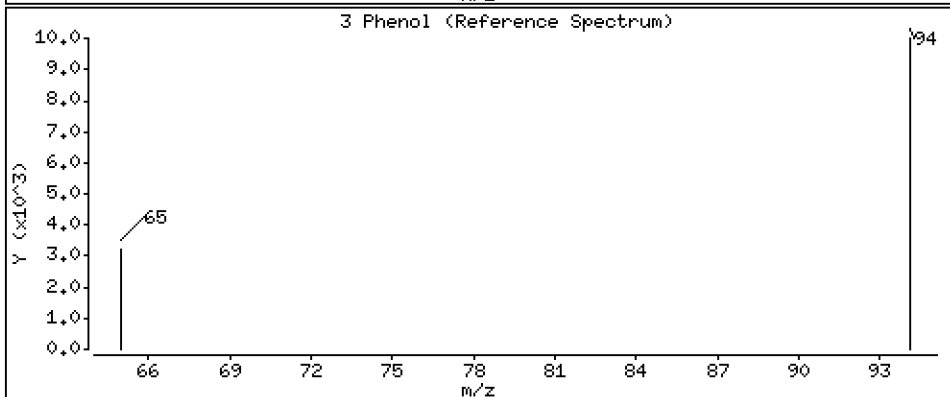
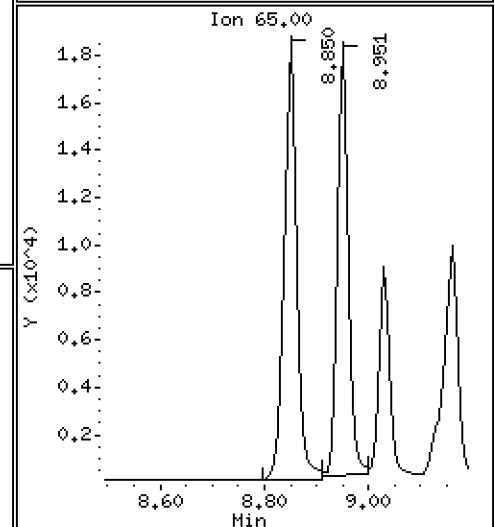
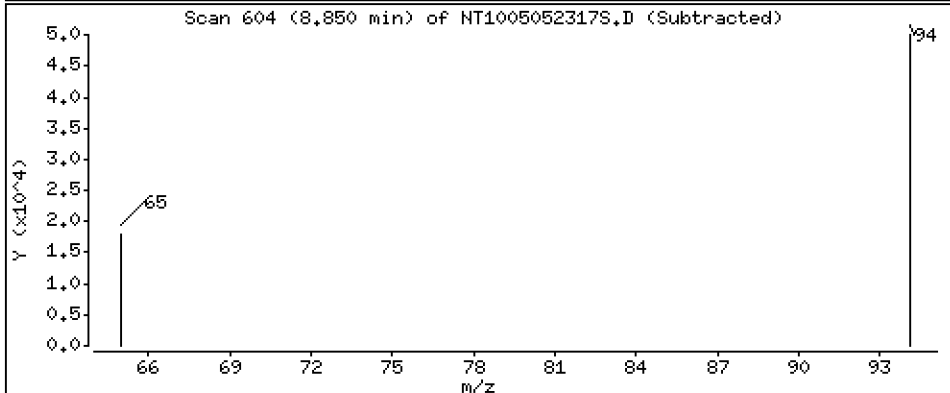
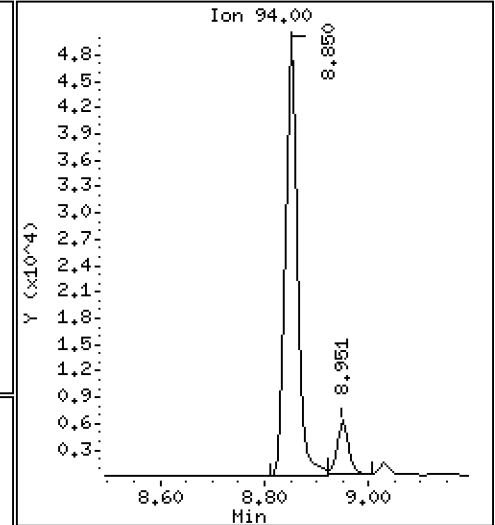
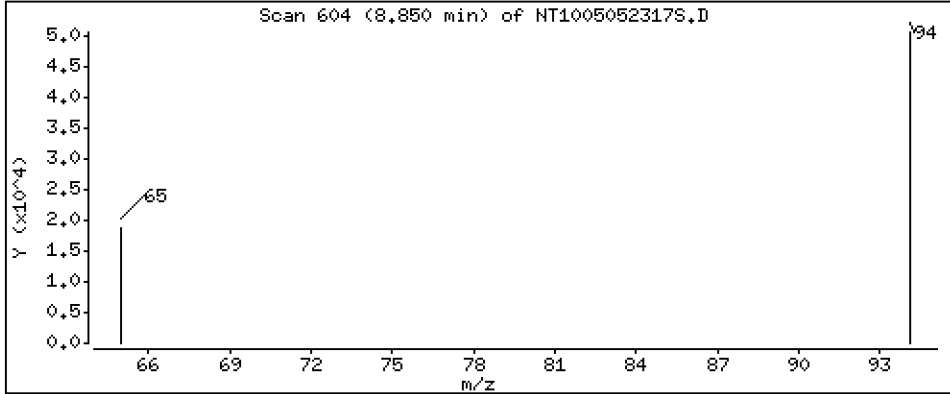
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,9876 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

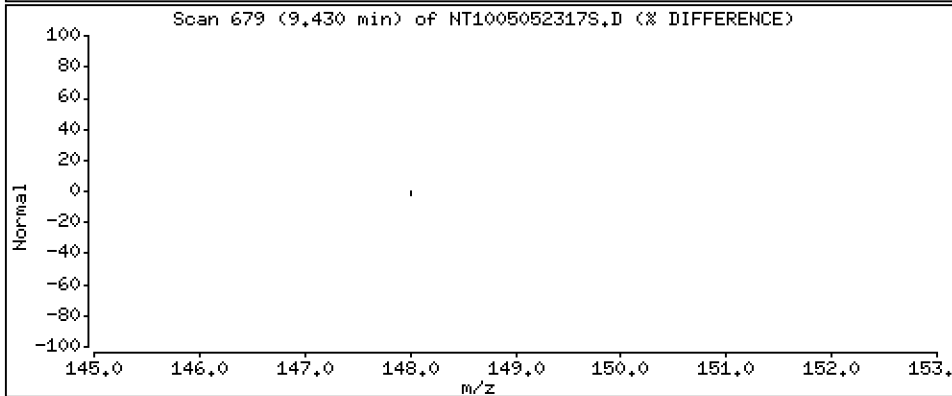
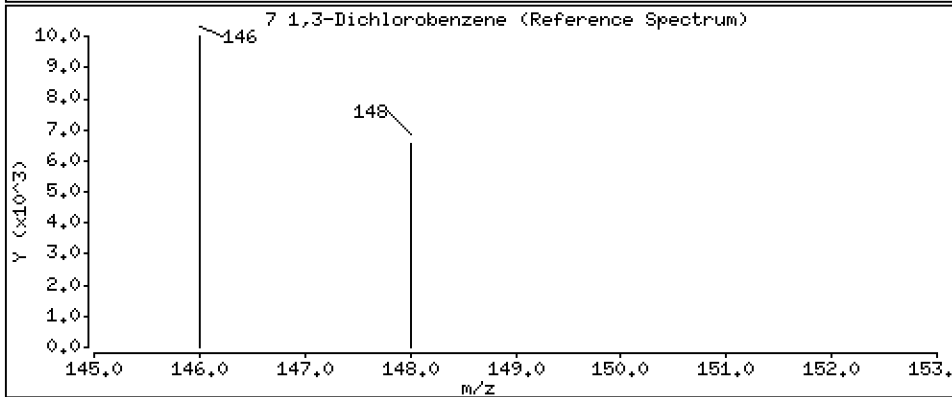
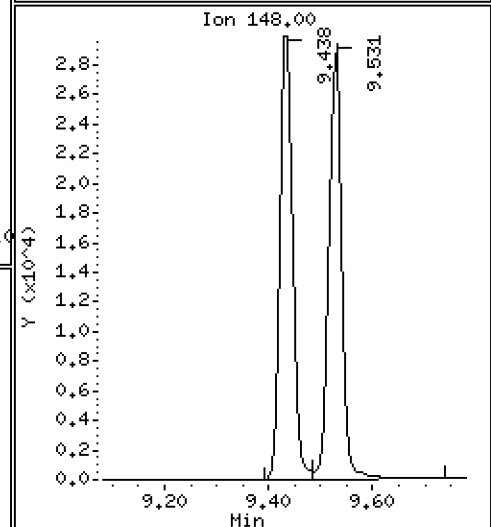
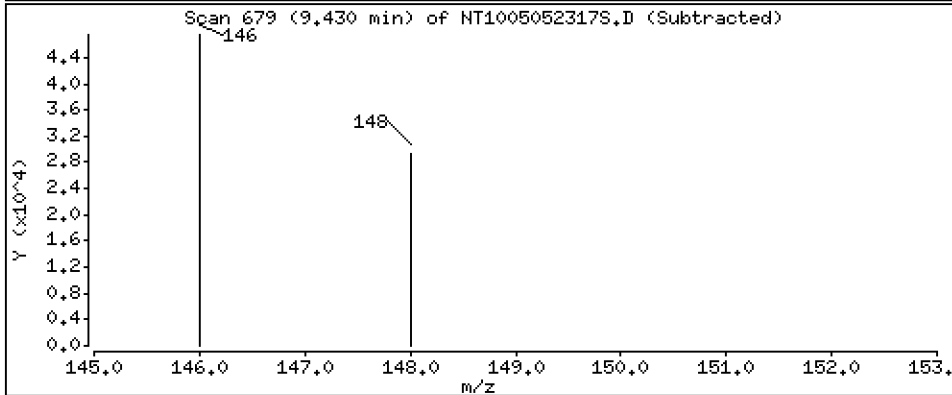
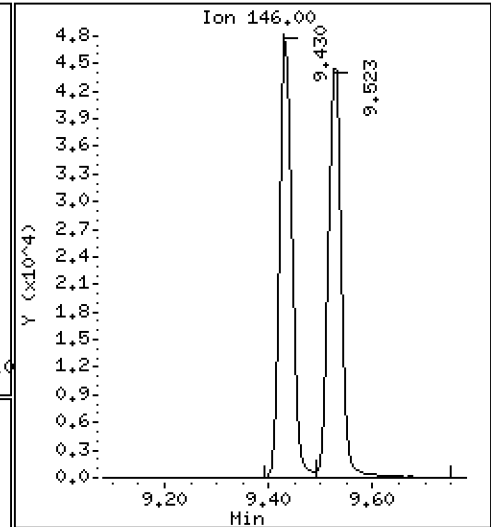
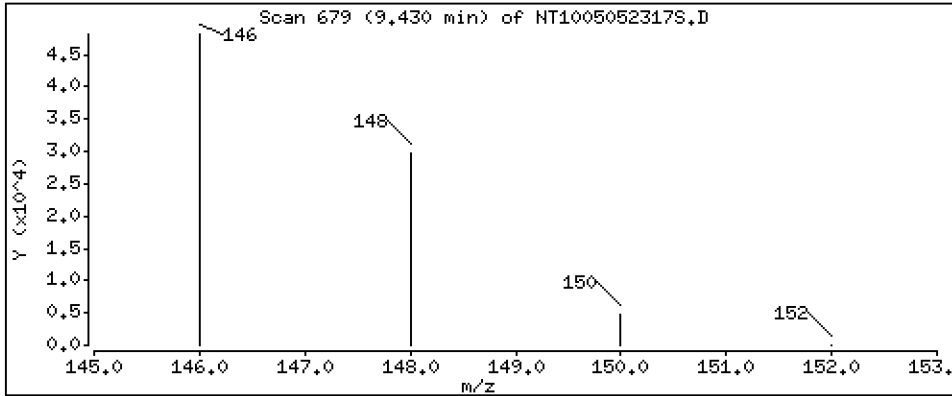
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.9143 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

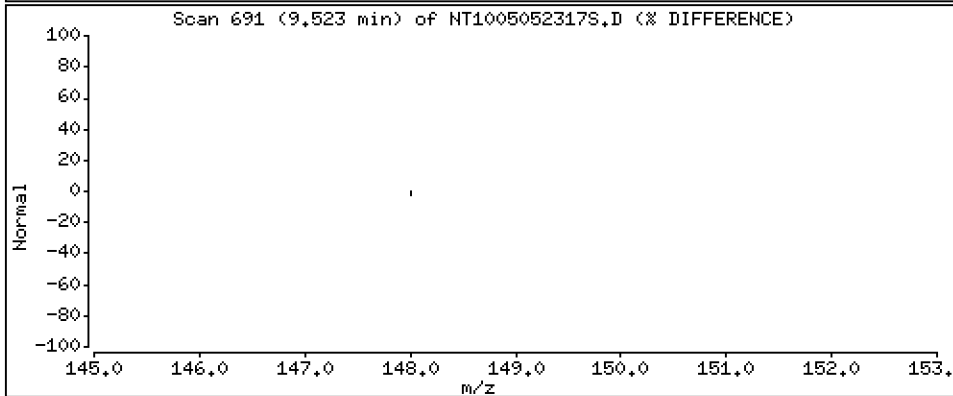
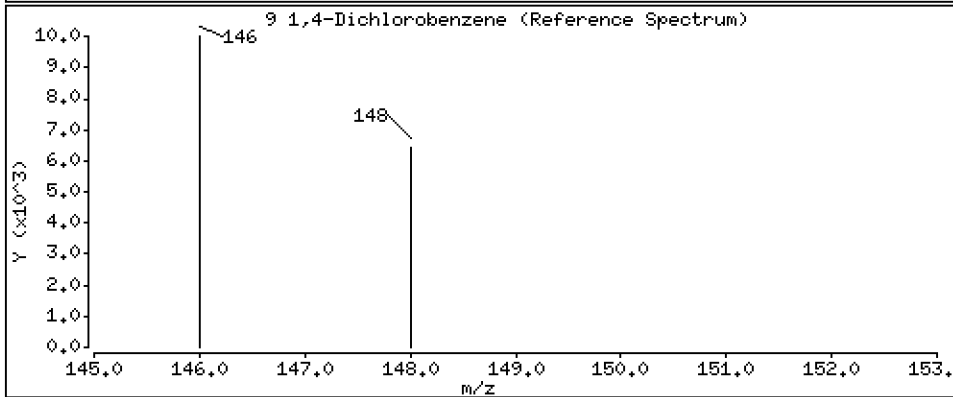
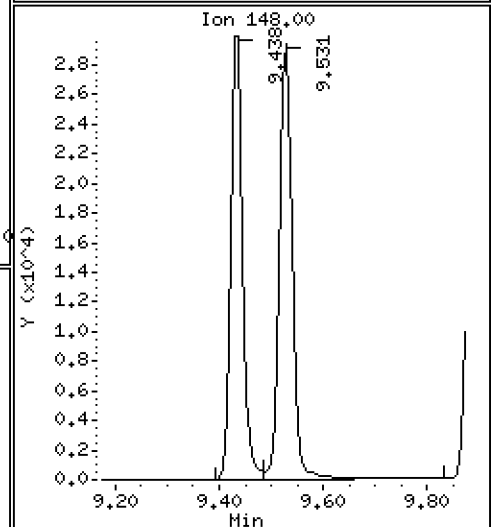
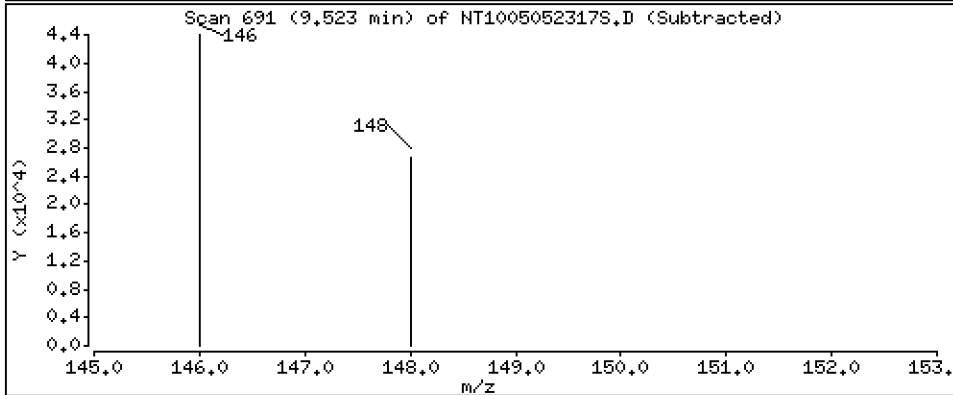
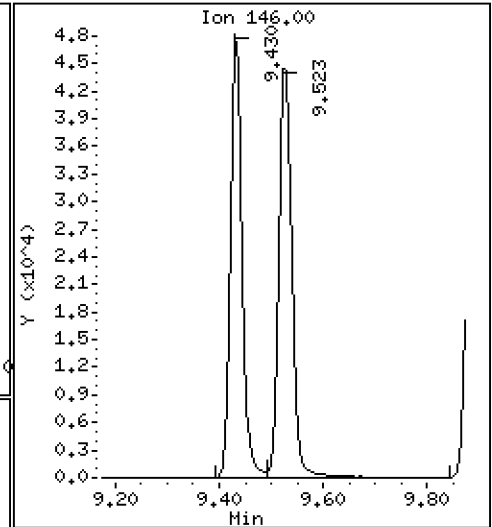
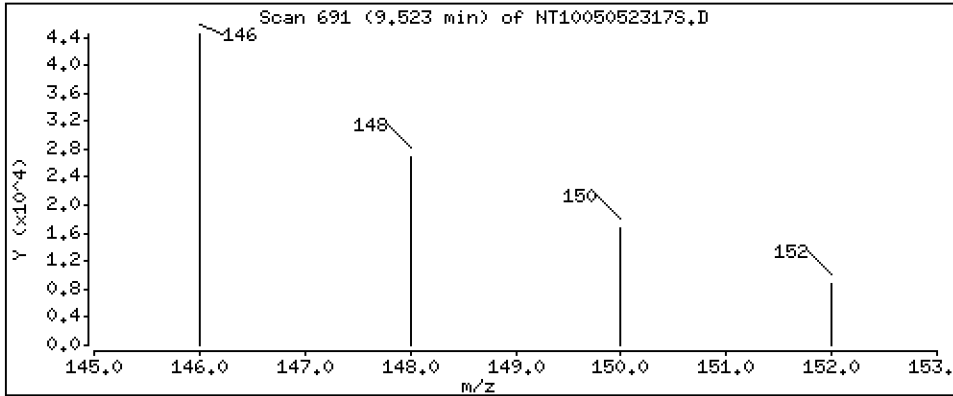
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,8991 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

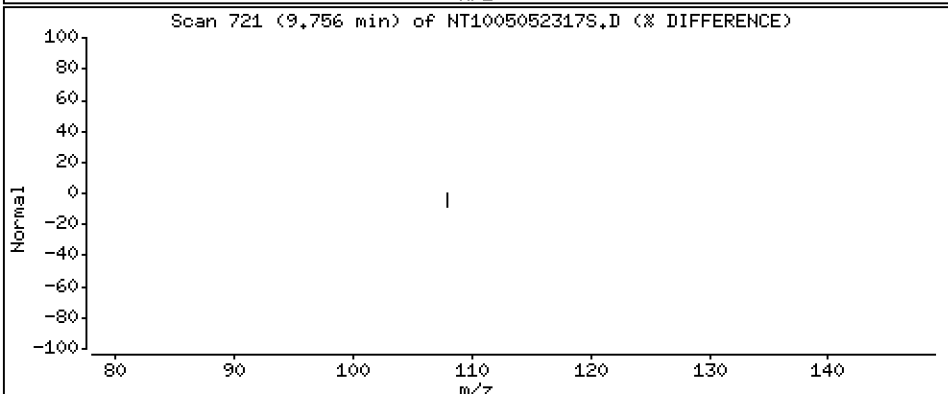
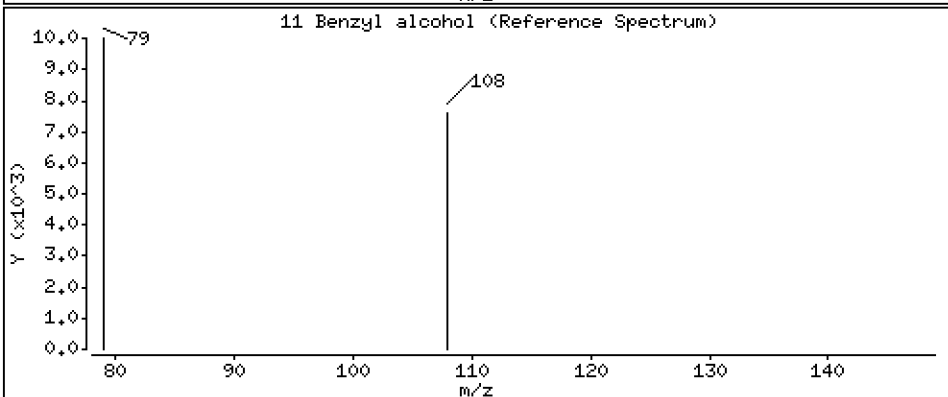
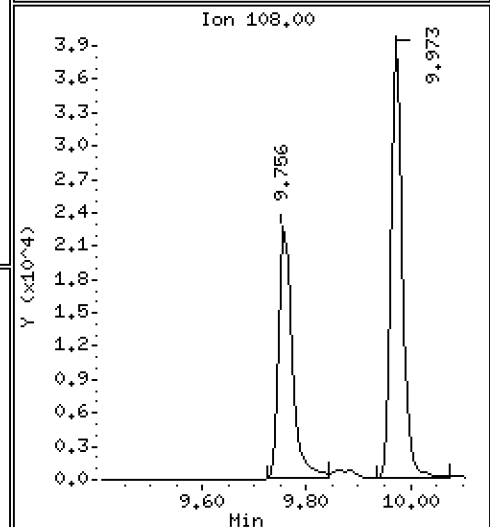
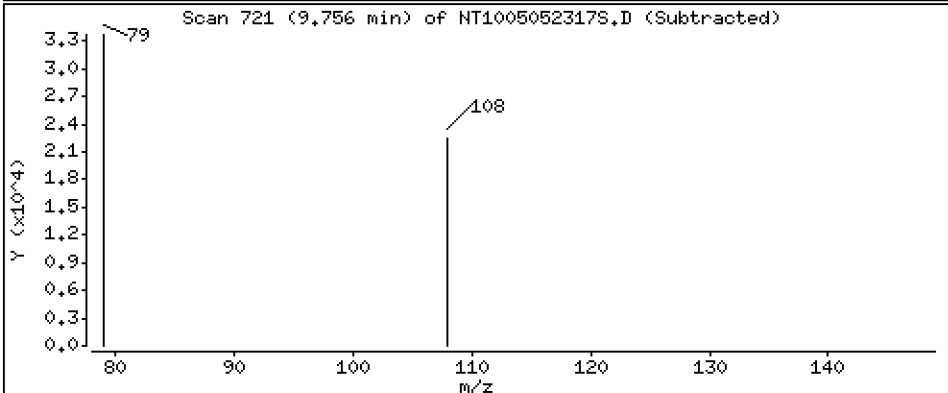
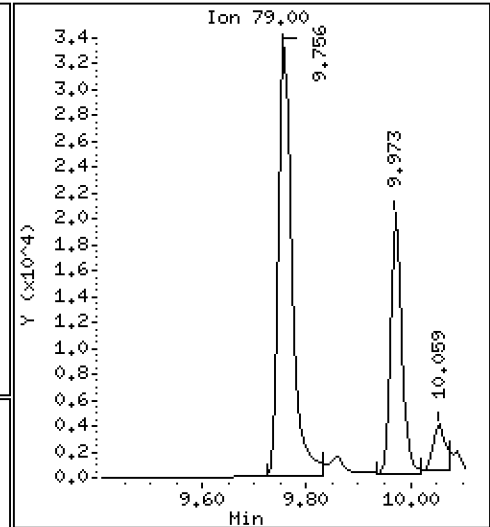
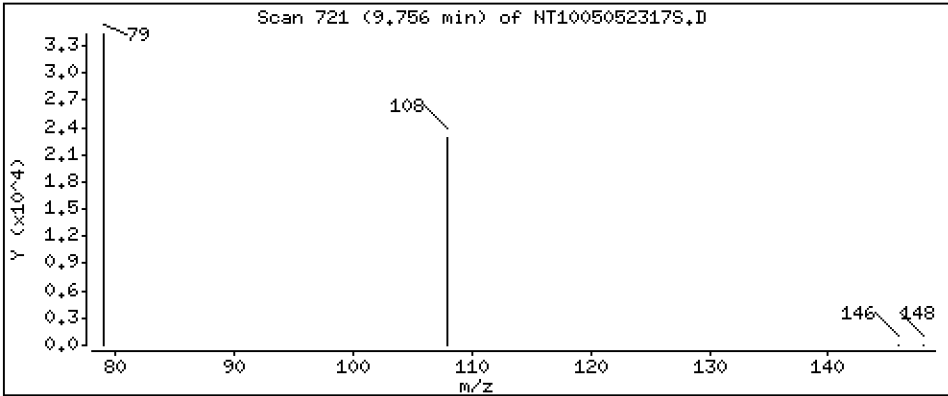
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 1.046 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

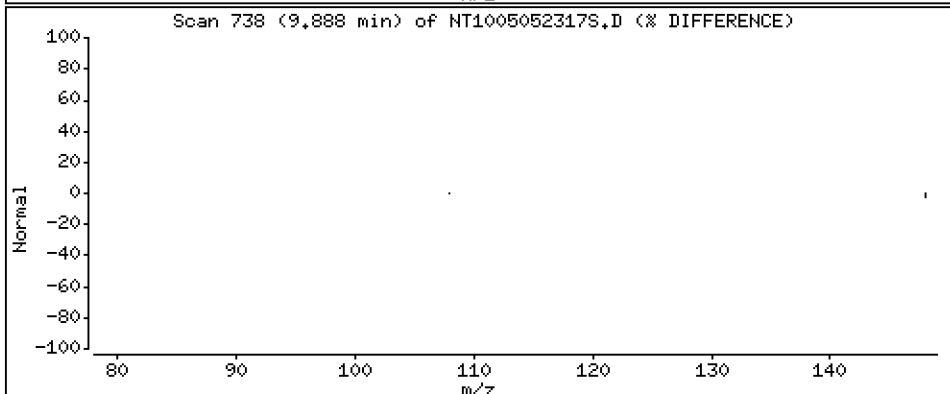
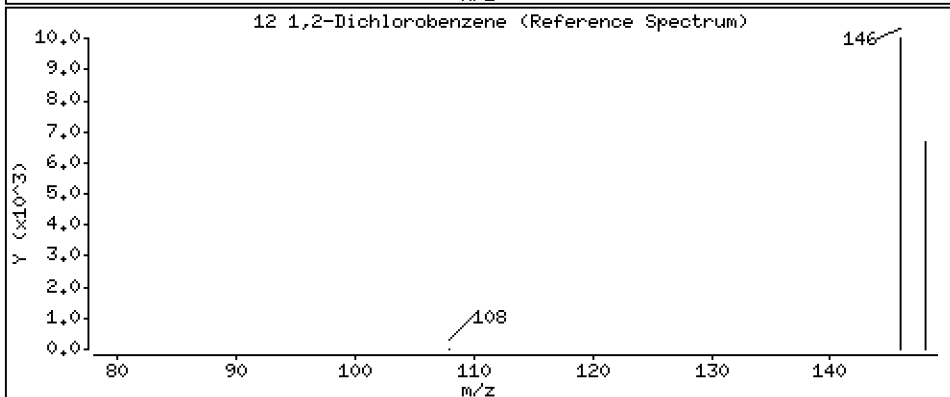
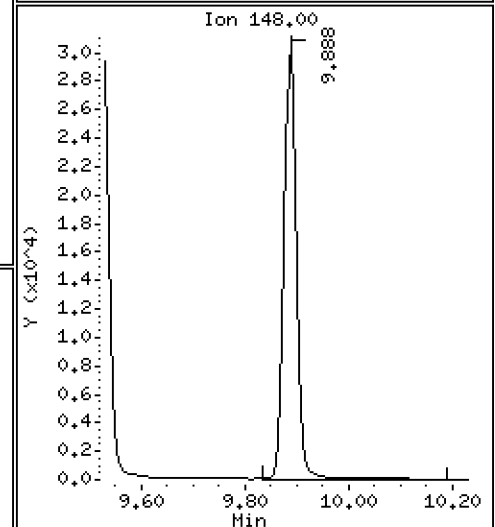
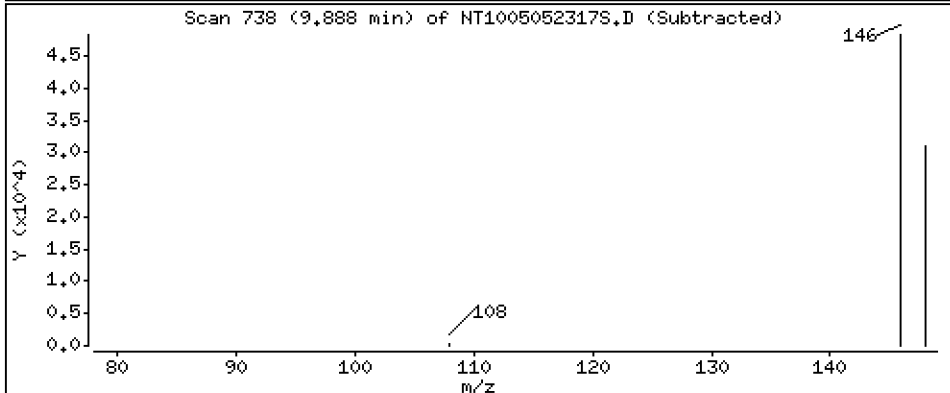
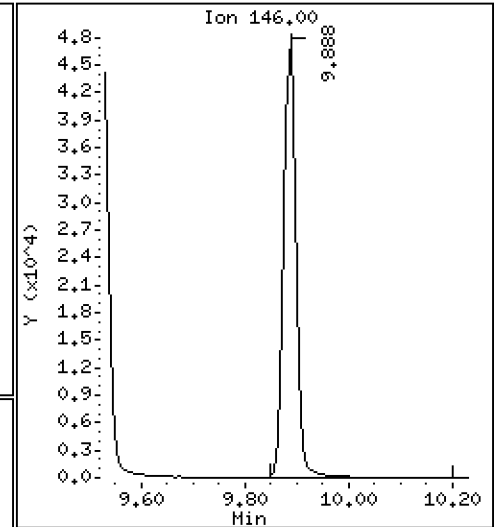
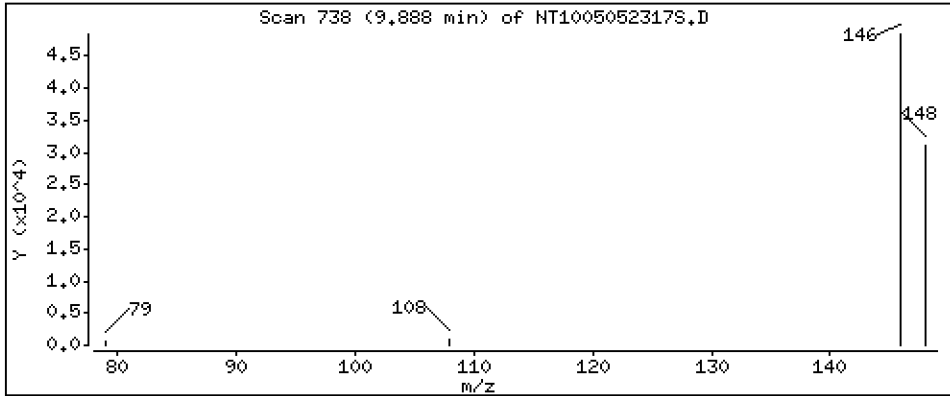
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,9277 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

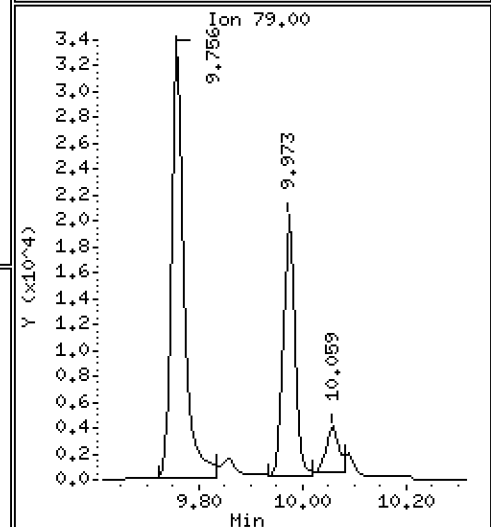
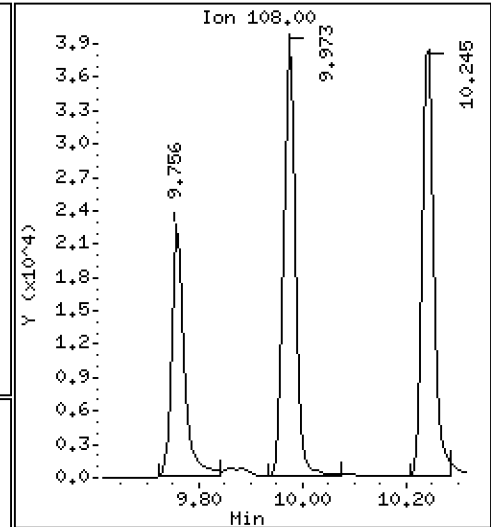
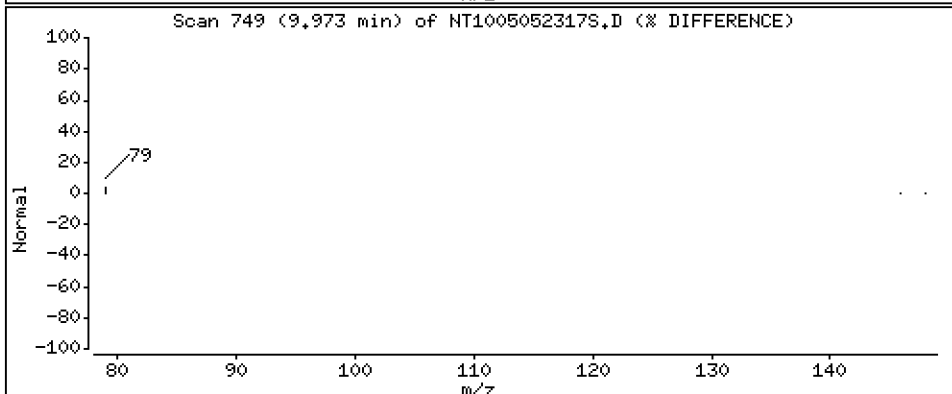
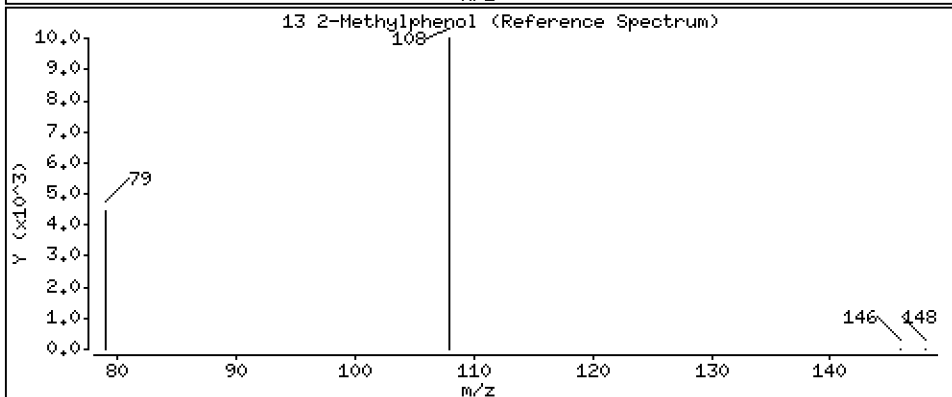
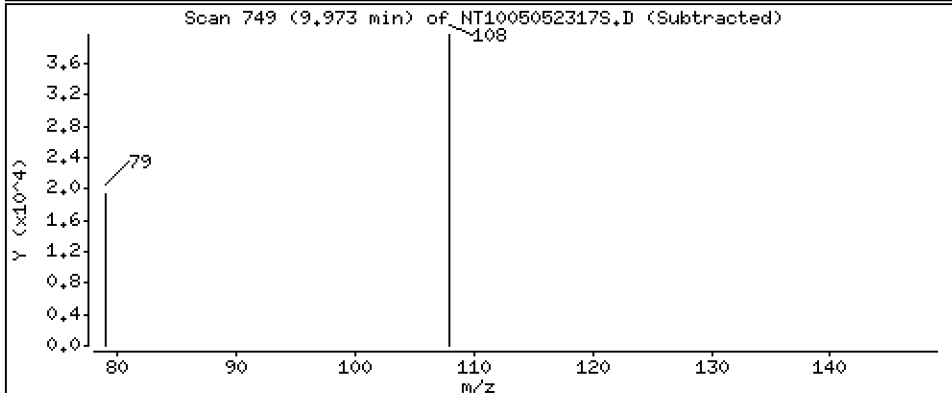
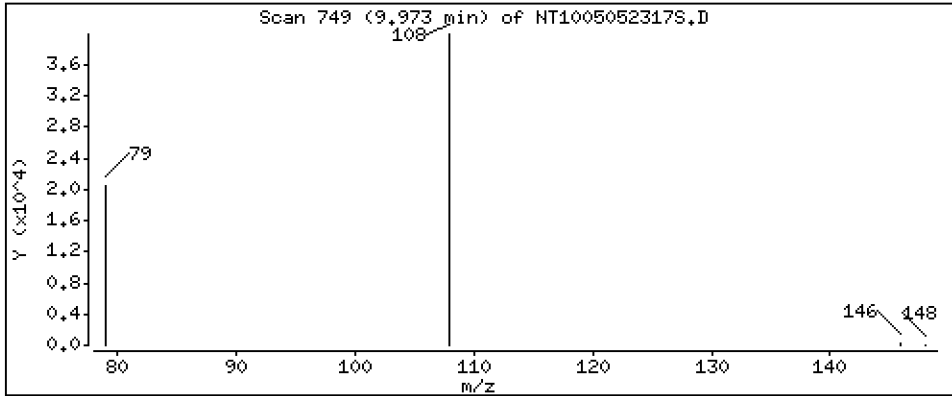
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 1.021 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

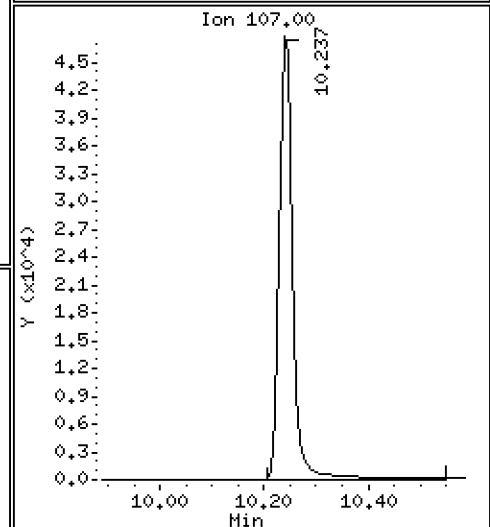
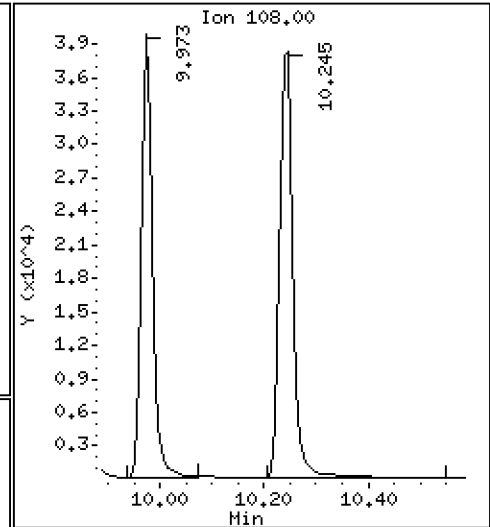
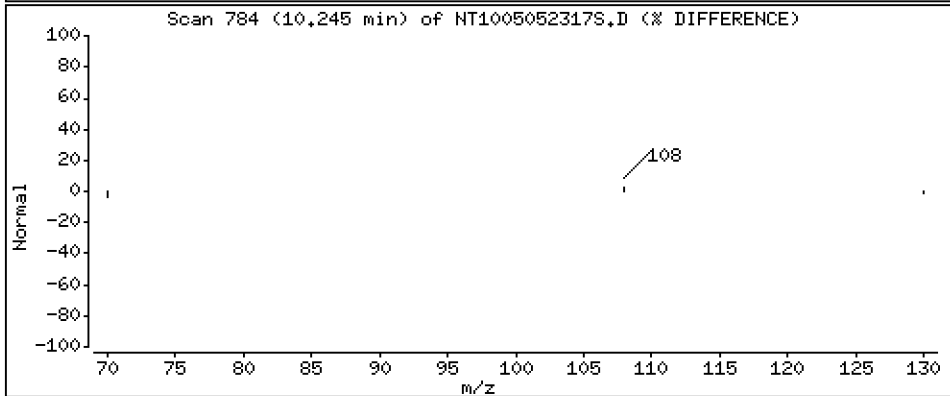
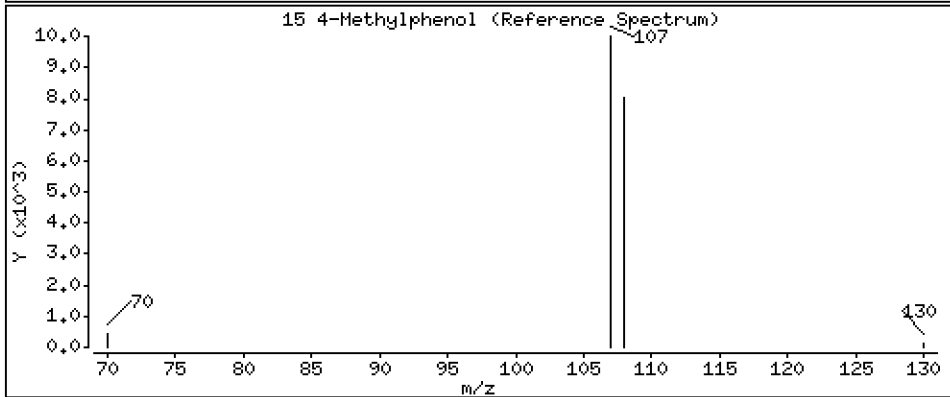
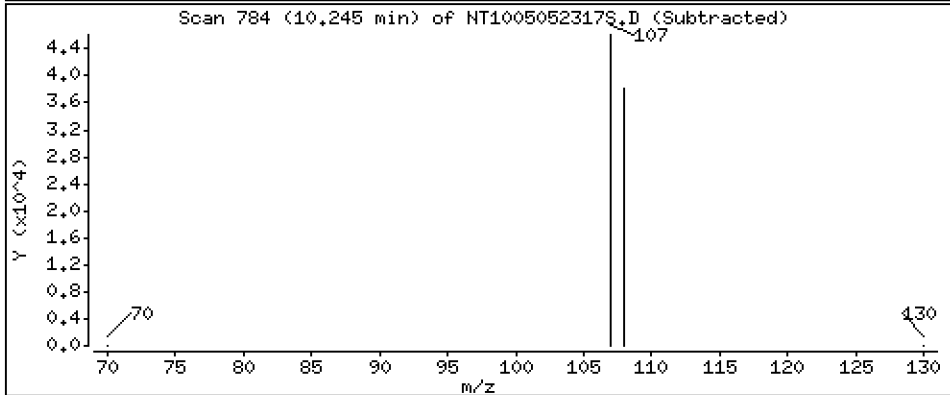
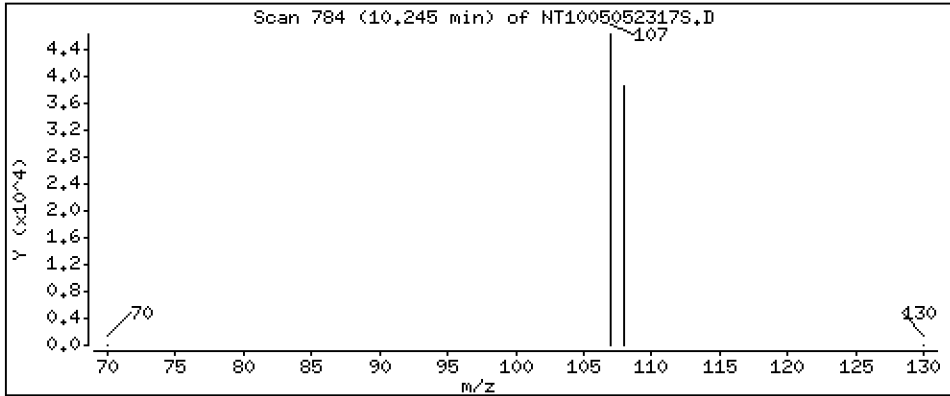
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 1.048 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

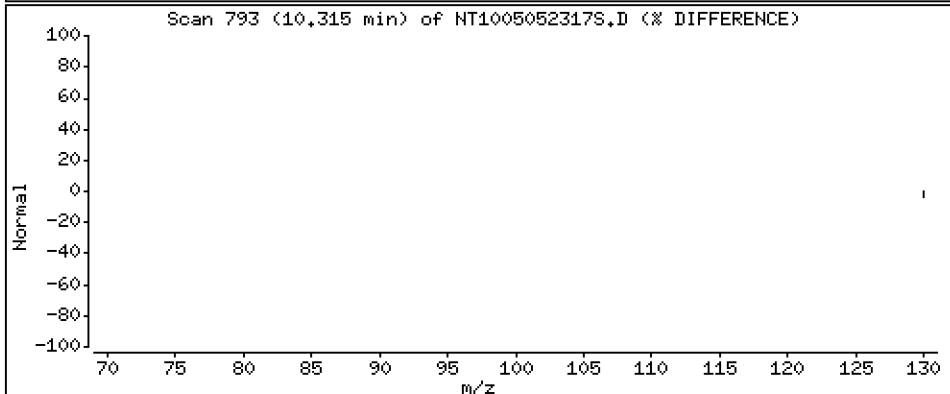
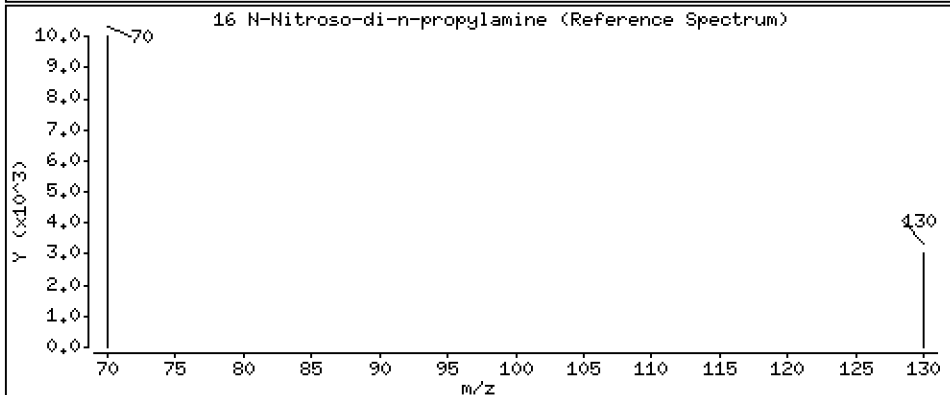
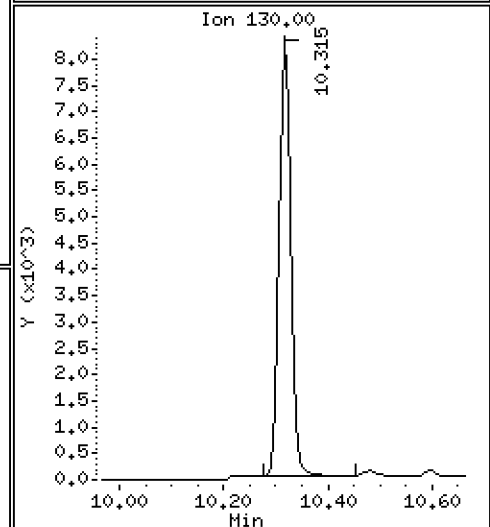
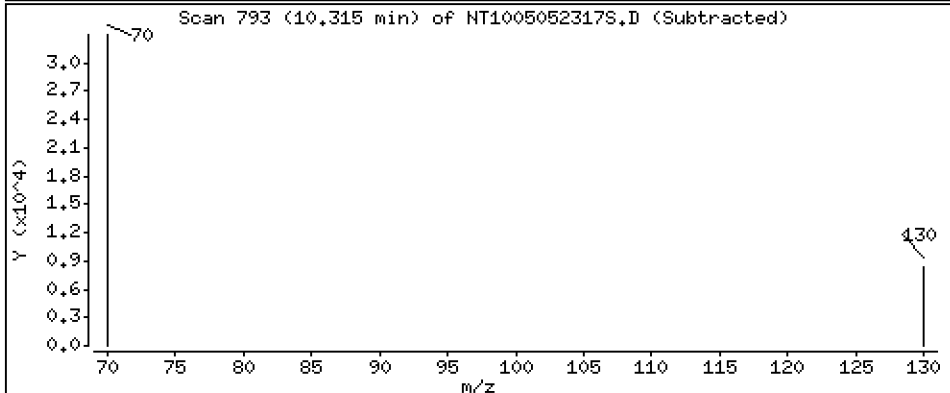
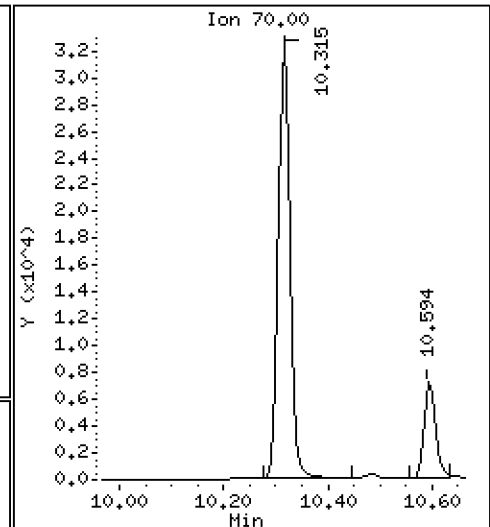
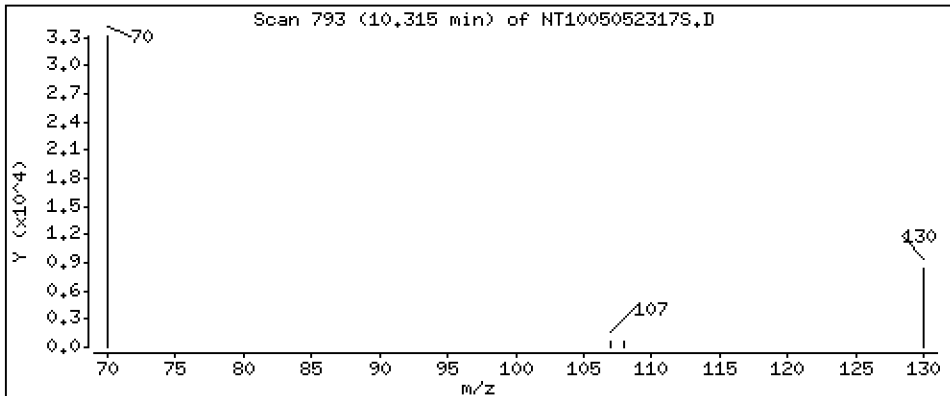
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 1.064 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

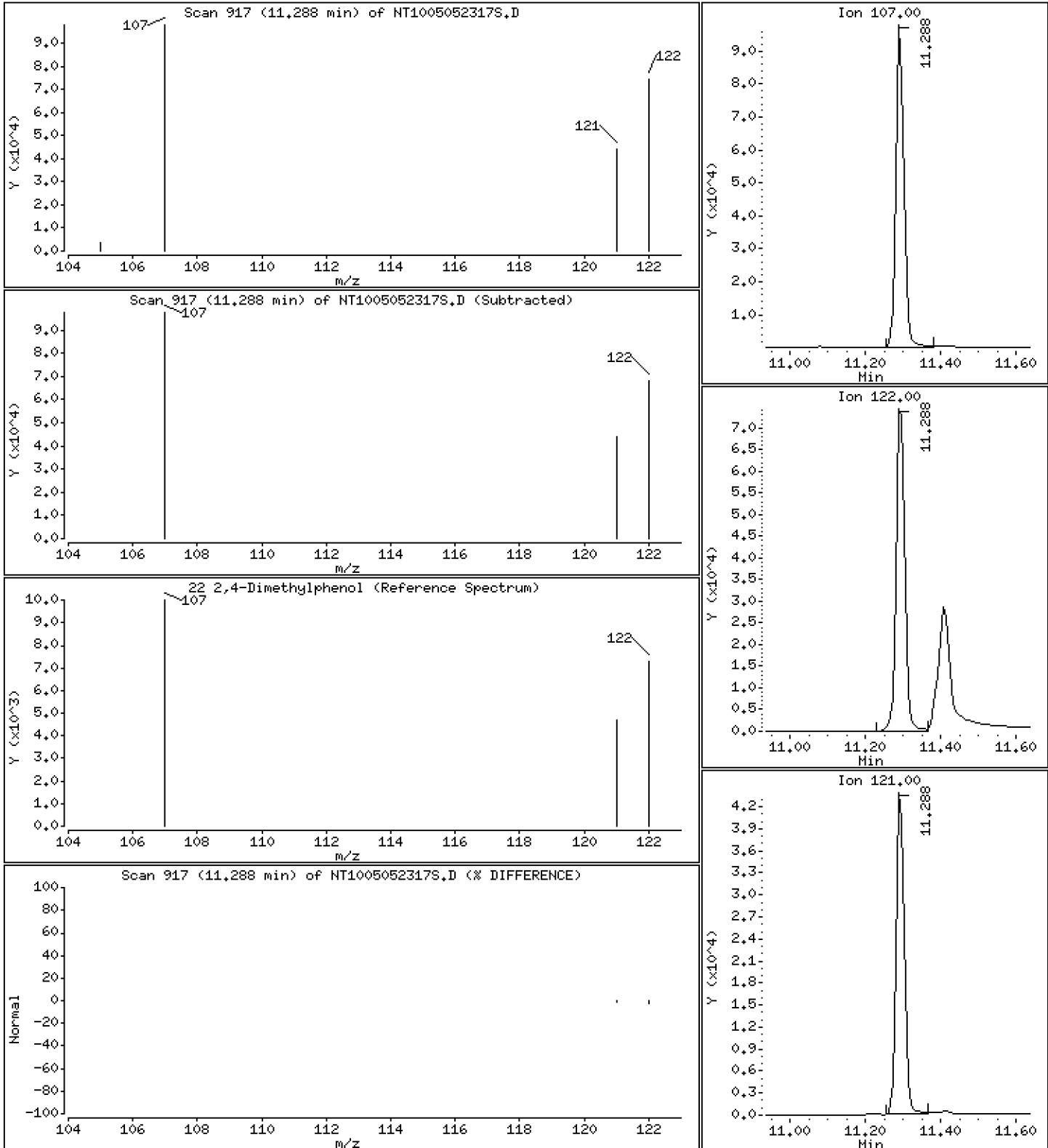
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 1.965 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

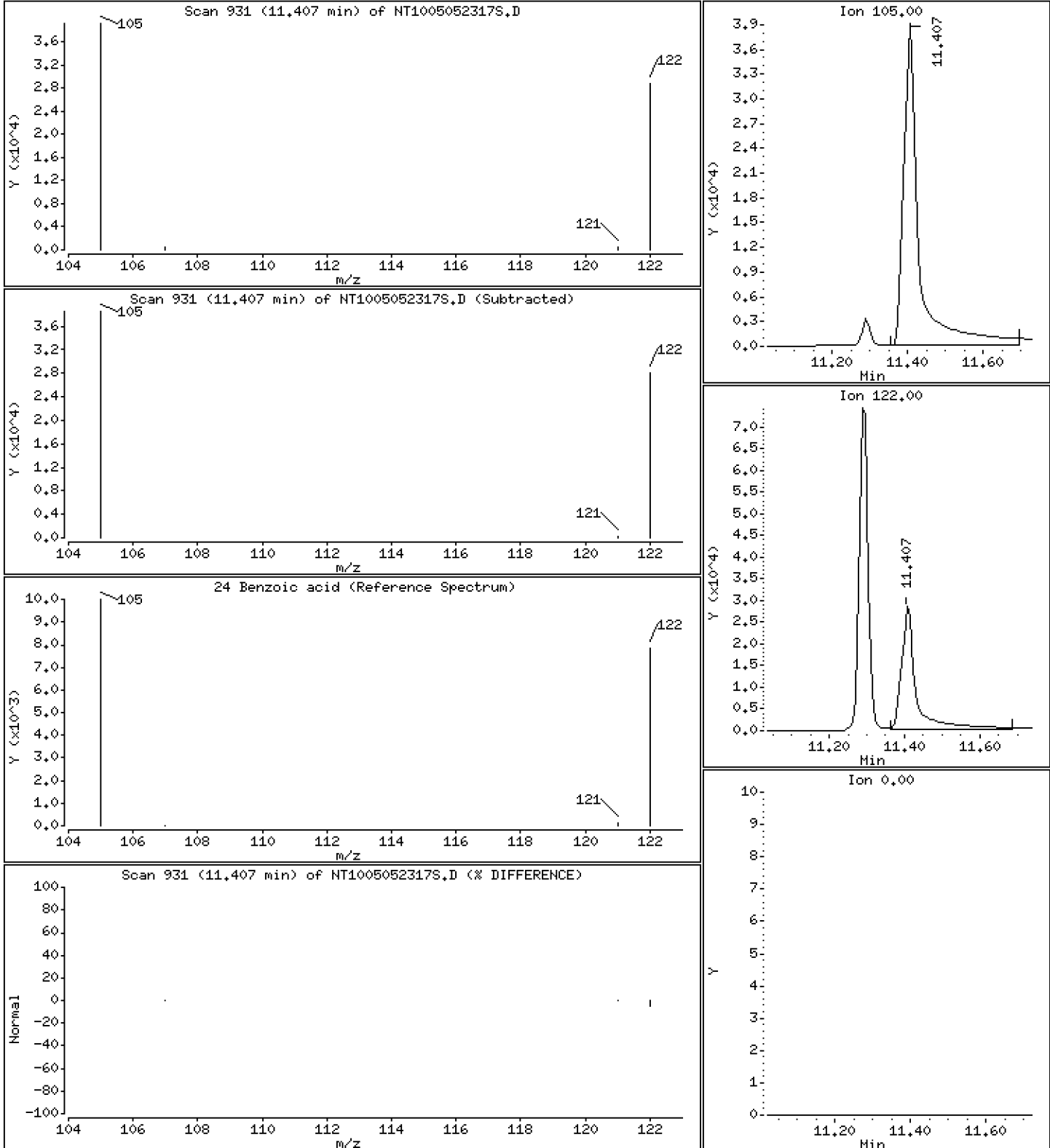
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 2,215 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

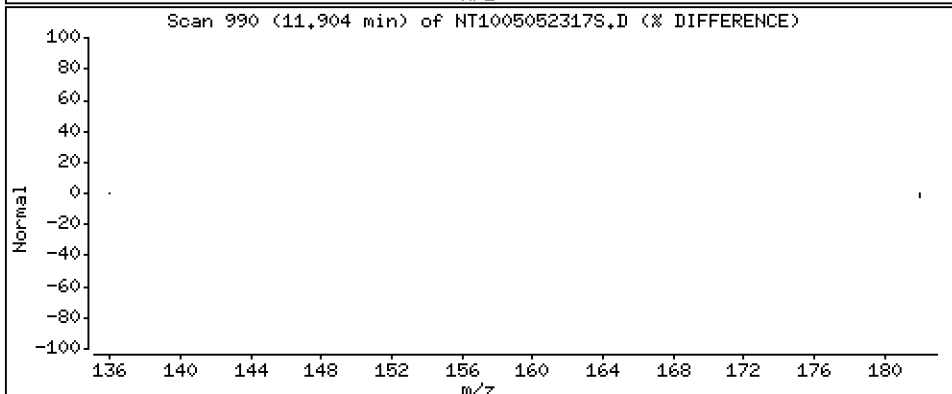
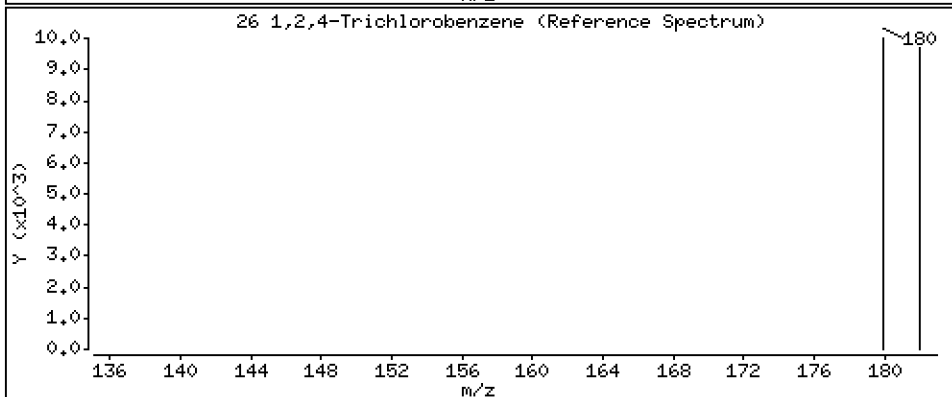
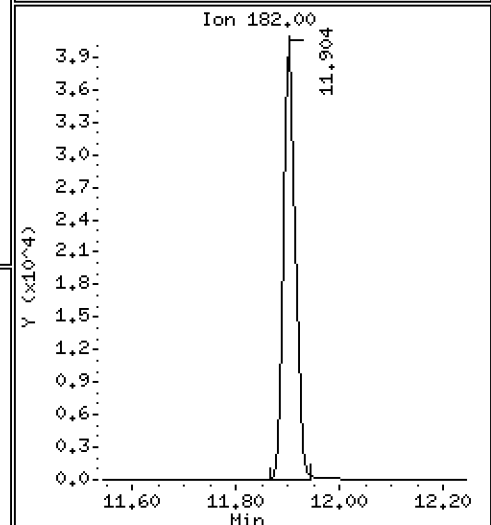
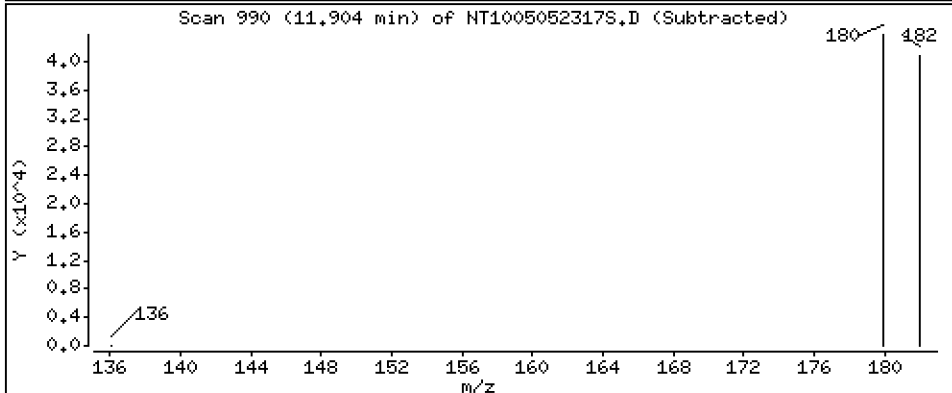
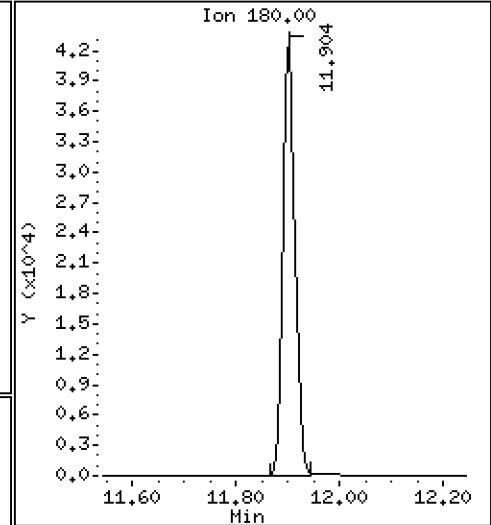
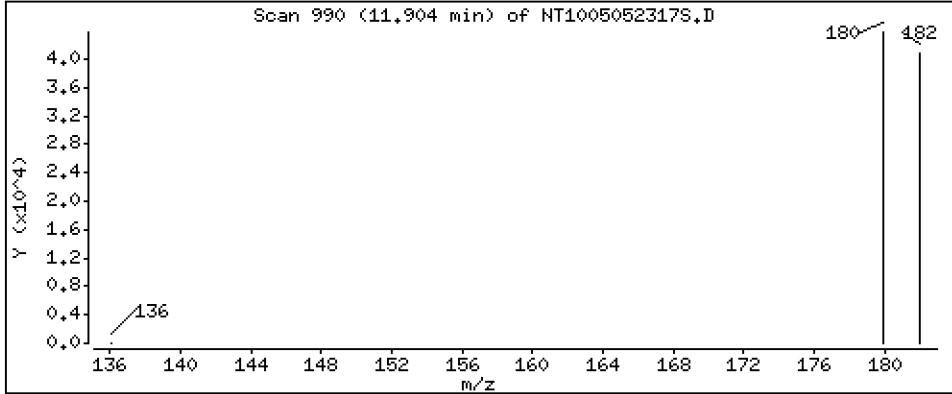
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.8764 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

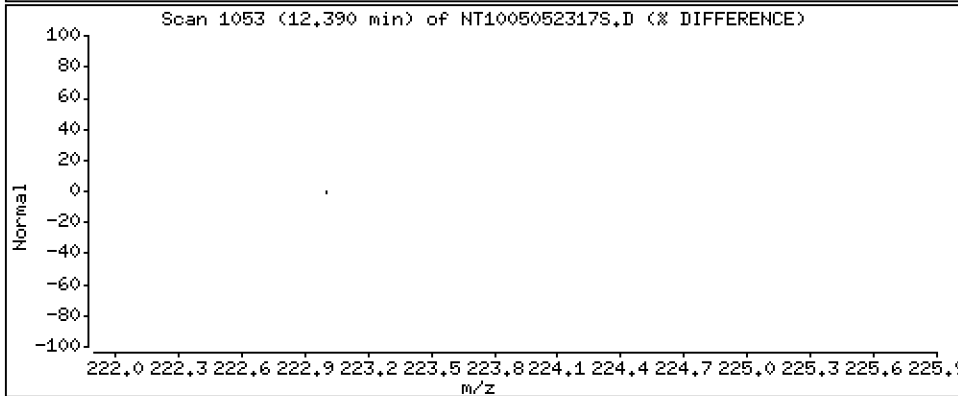
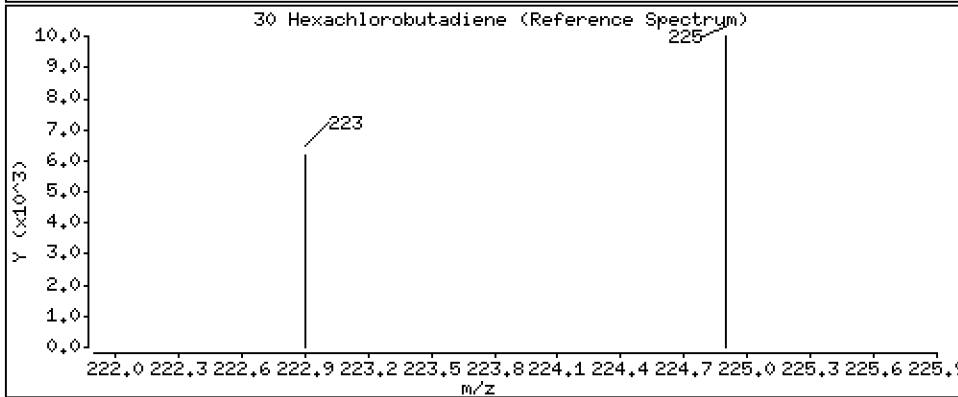
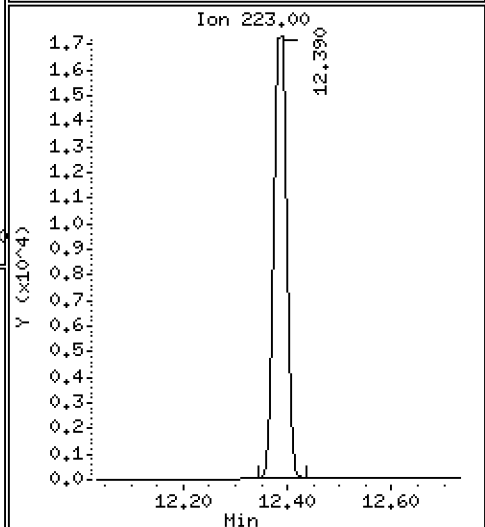
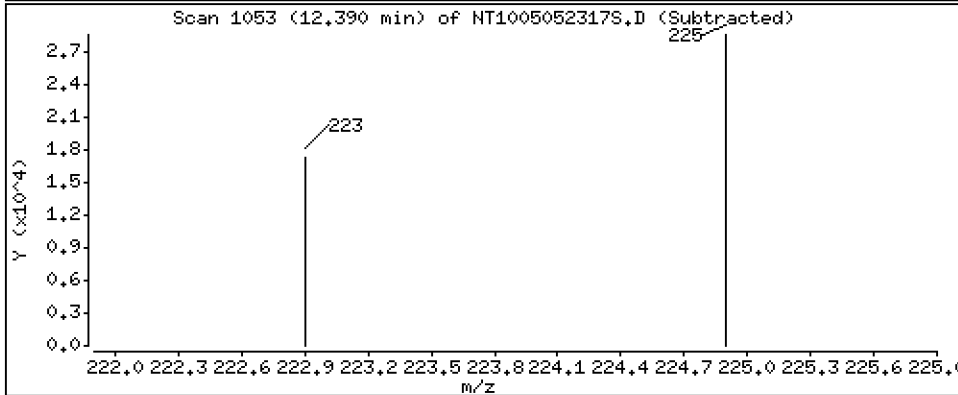
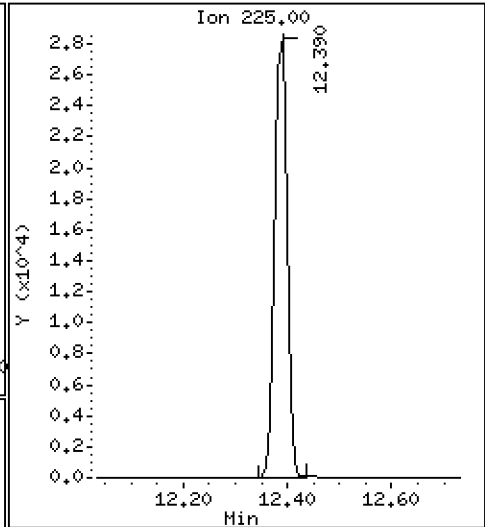
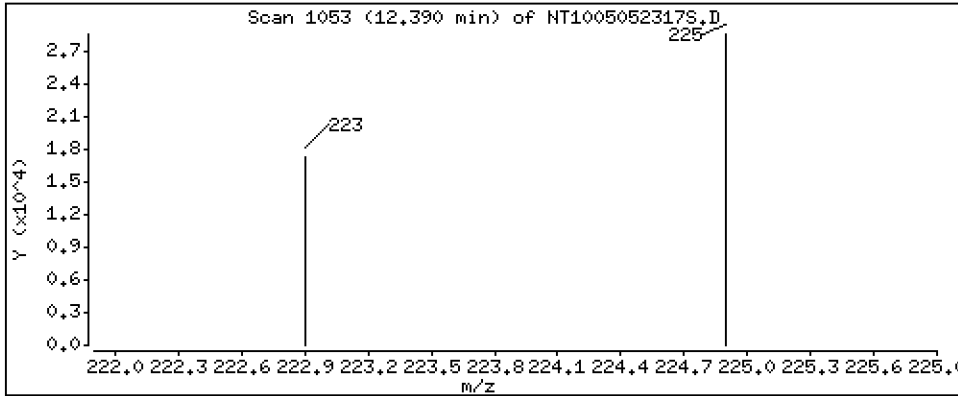
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 0.8994 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

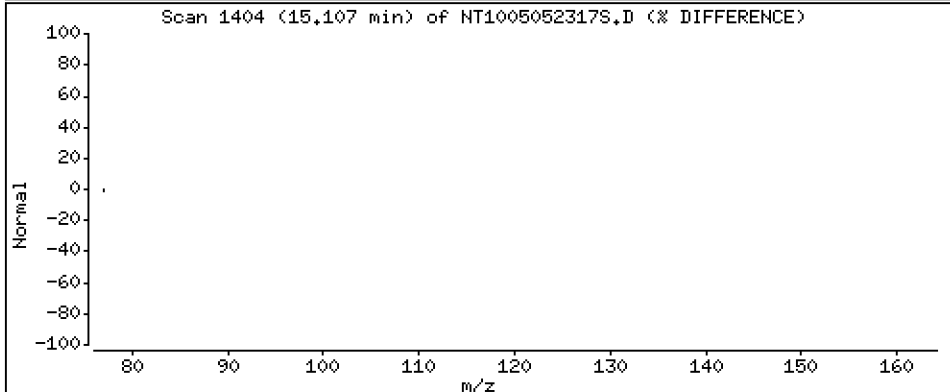
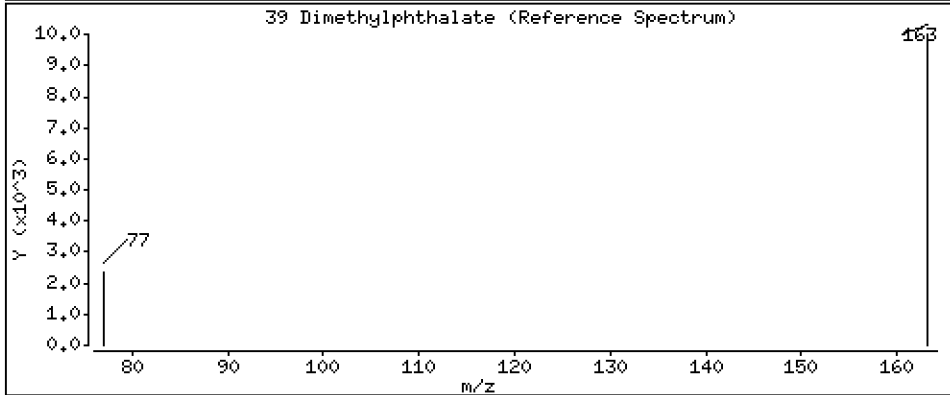
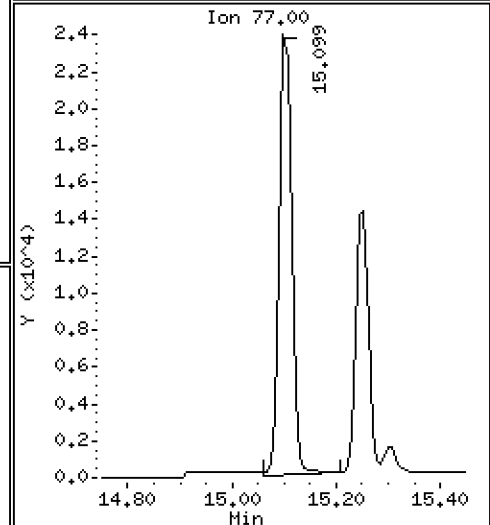
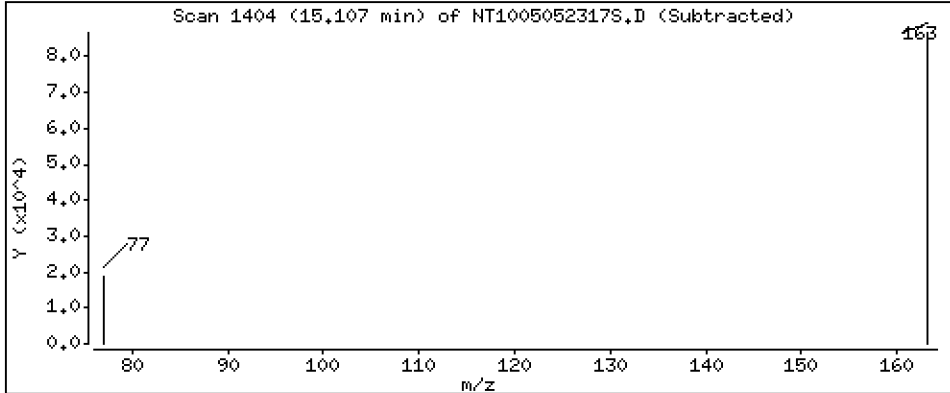
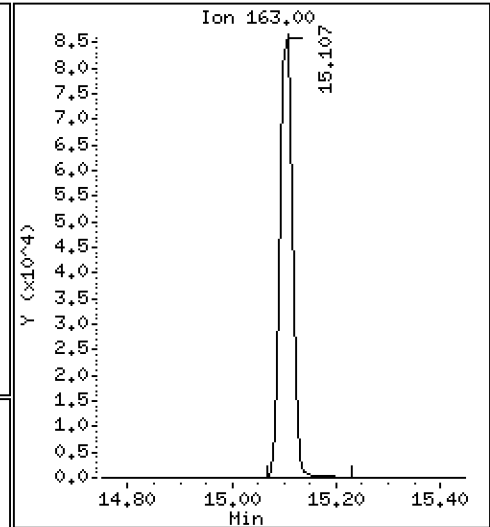
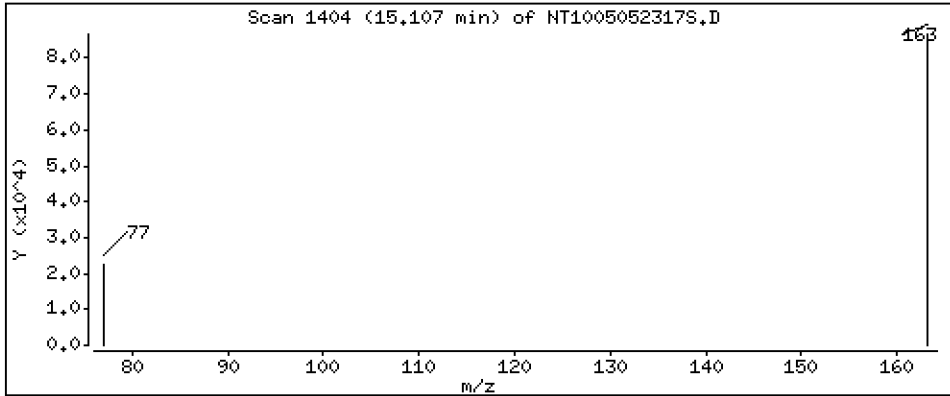
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,9147 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

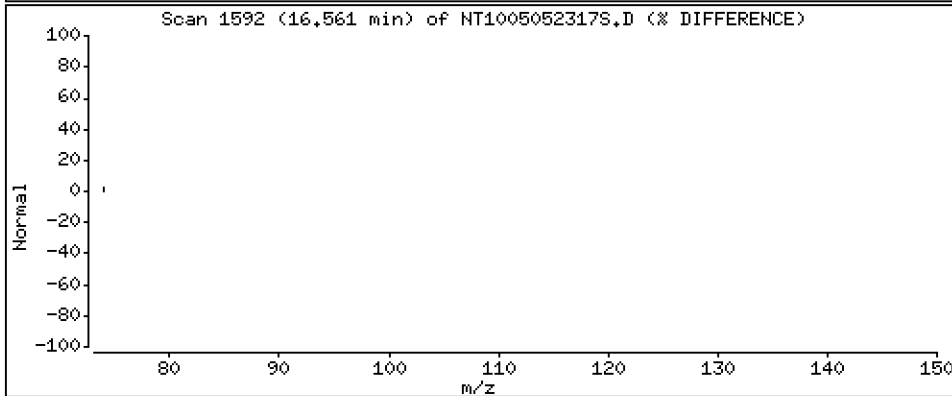
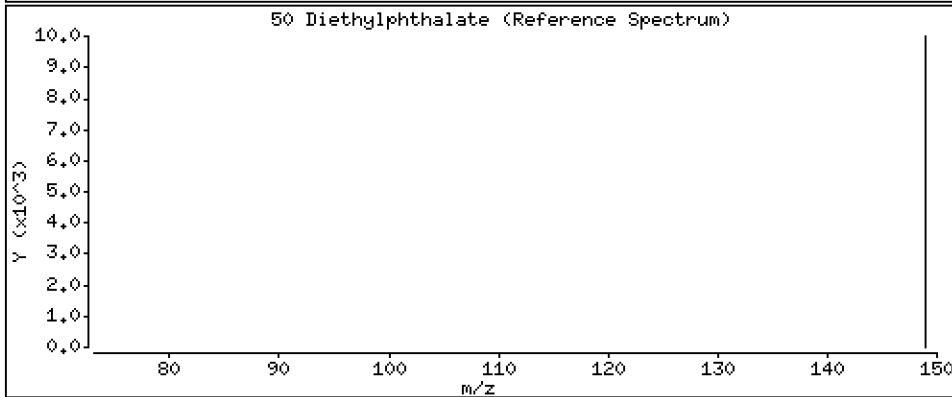
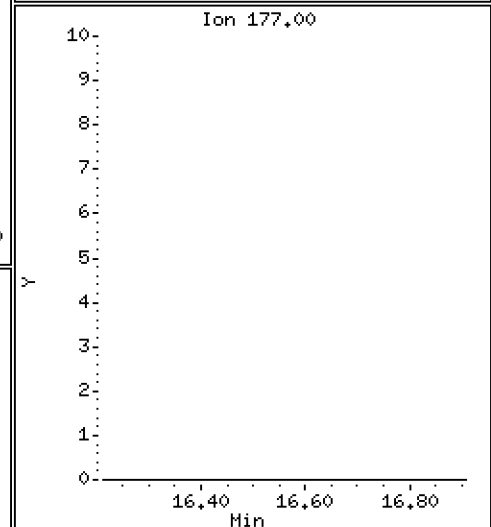
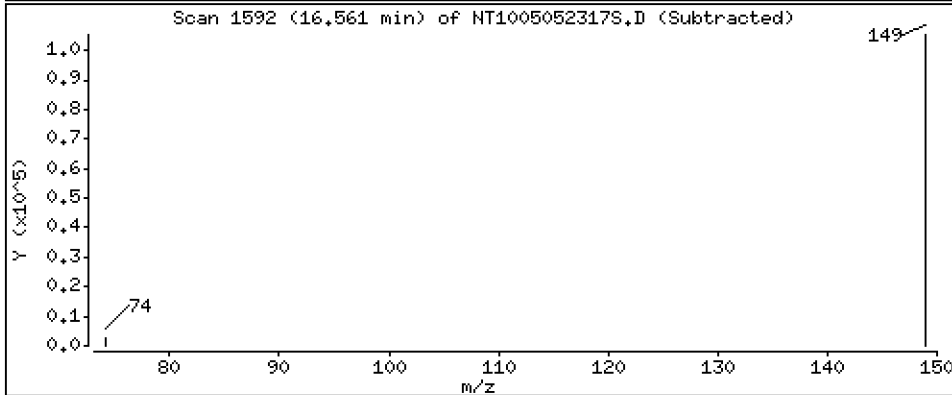
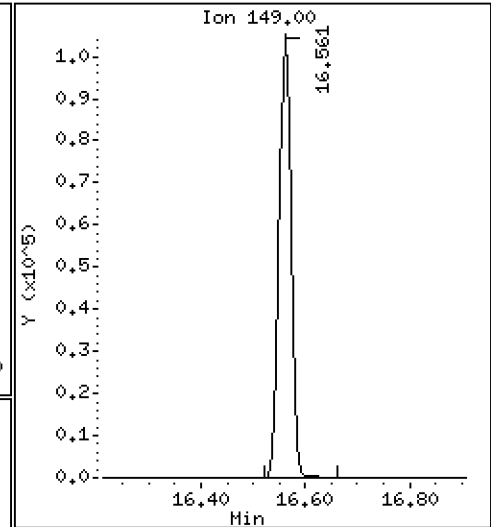
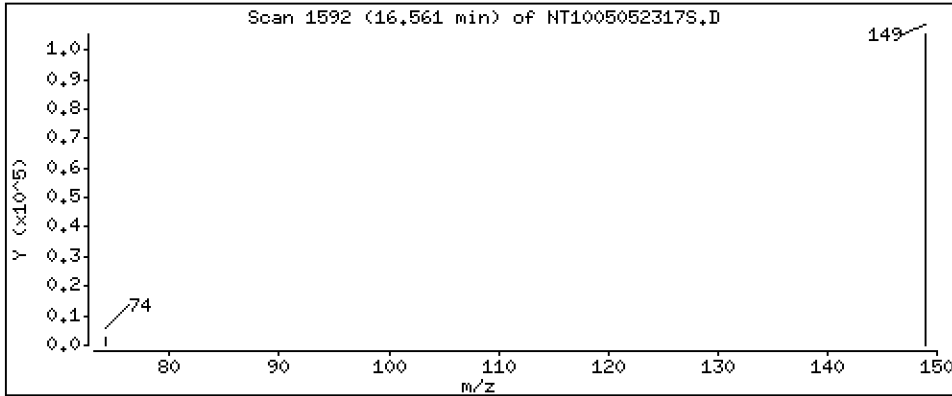
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 1,004 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

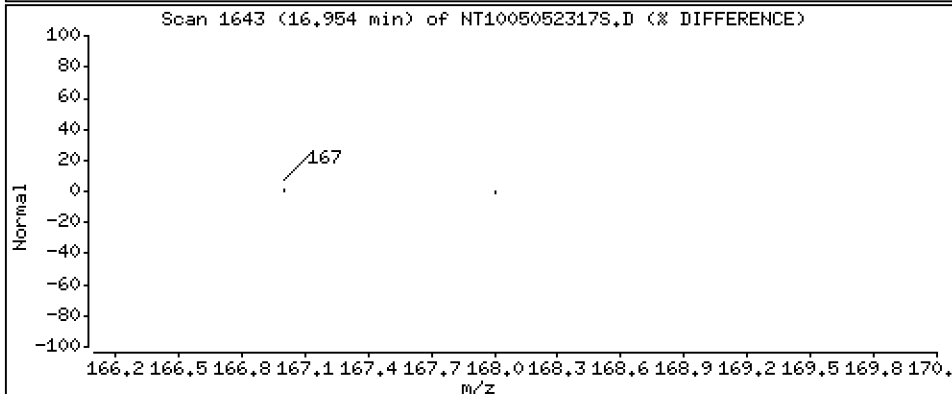
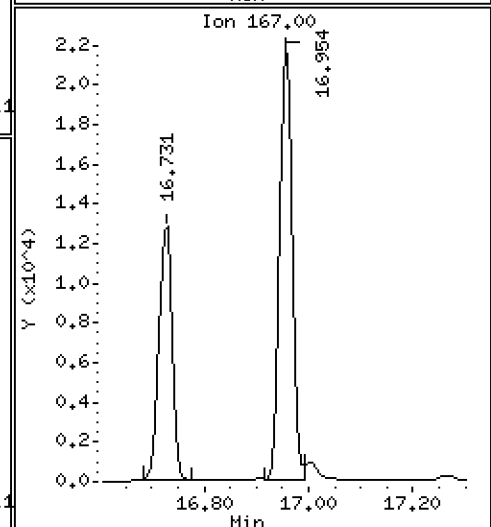
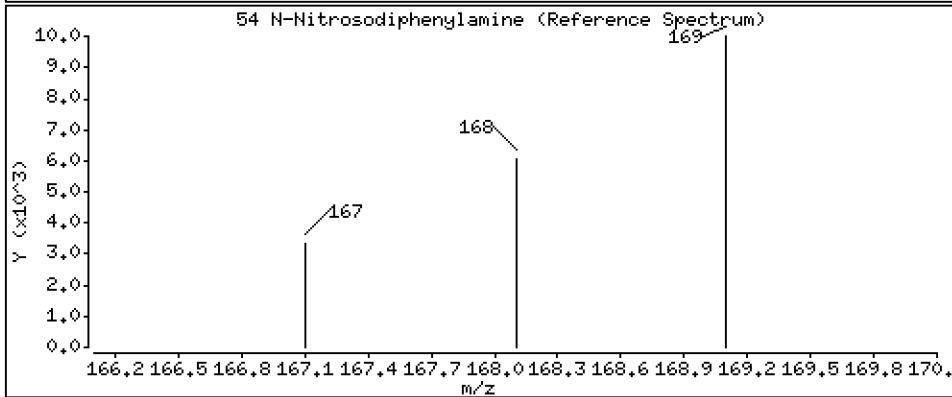
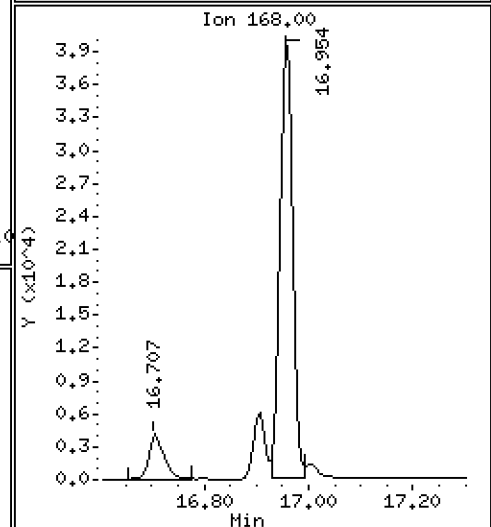
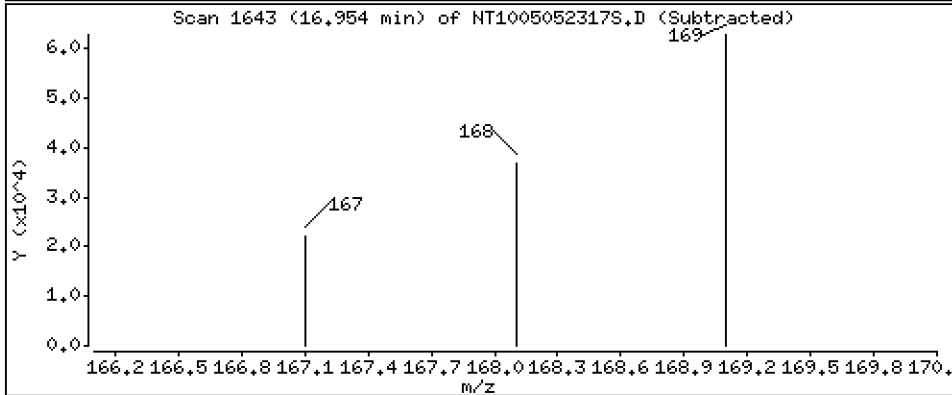
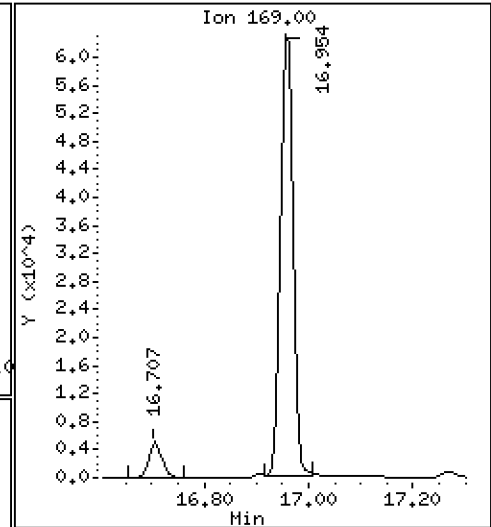
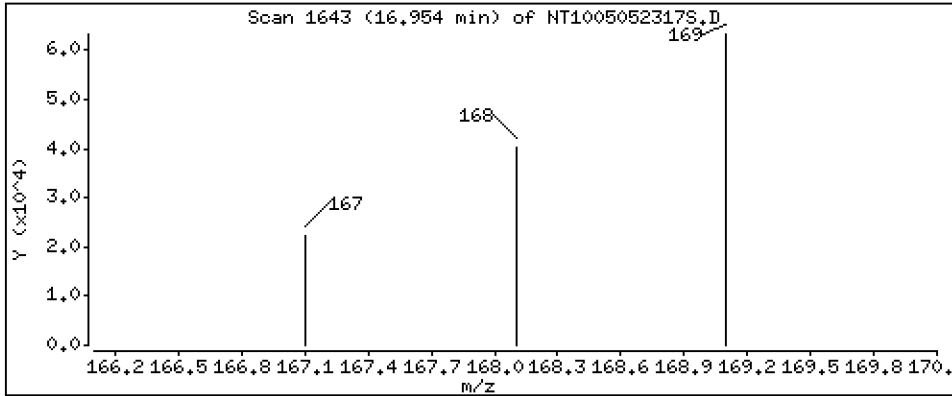
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.9353 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

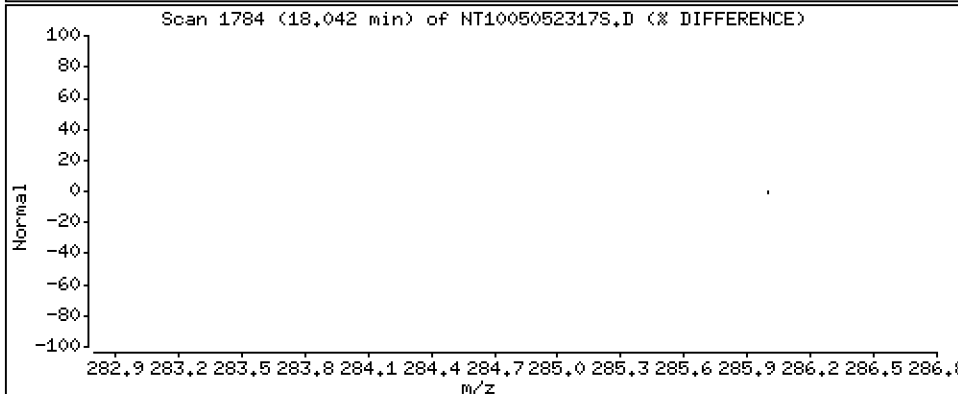
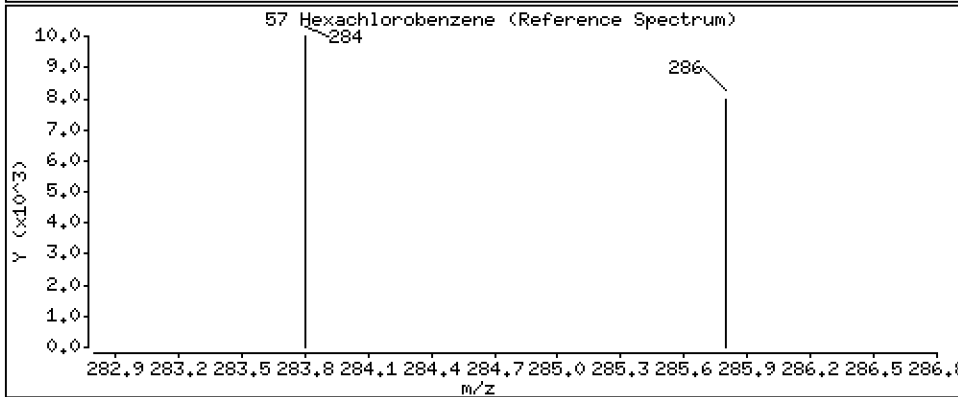
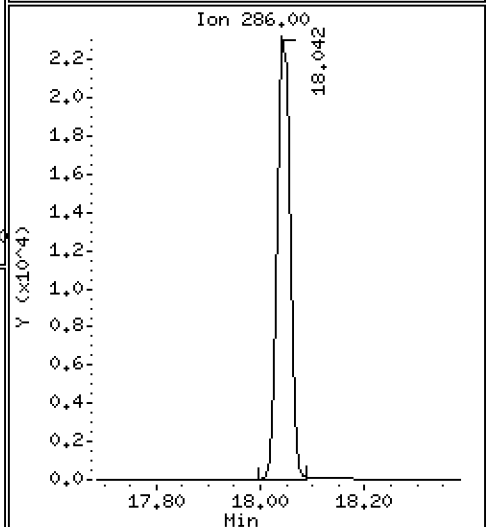
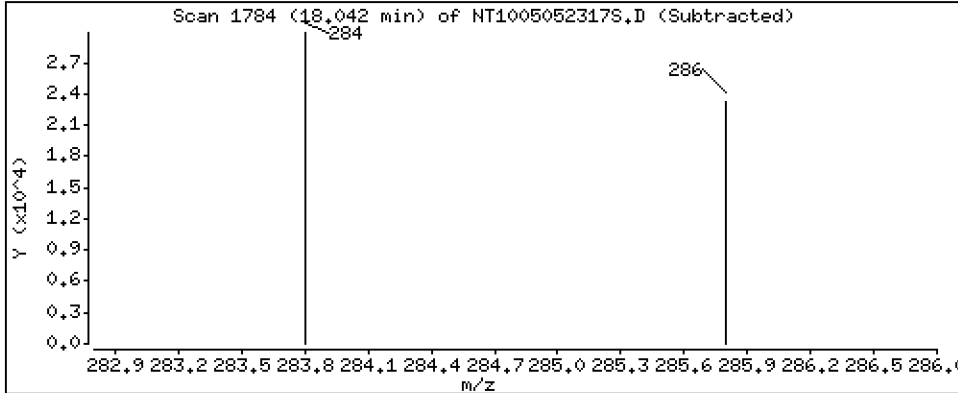
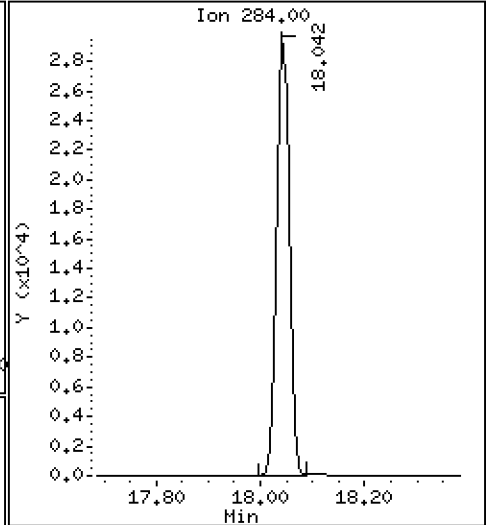
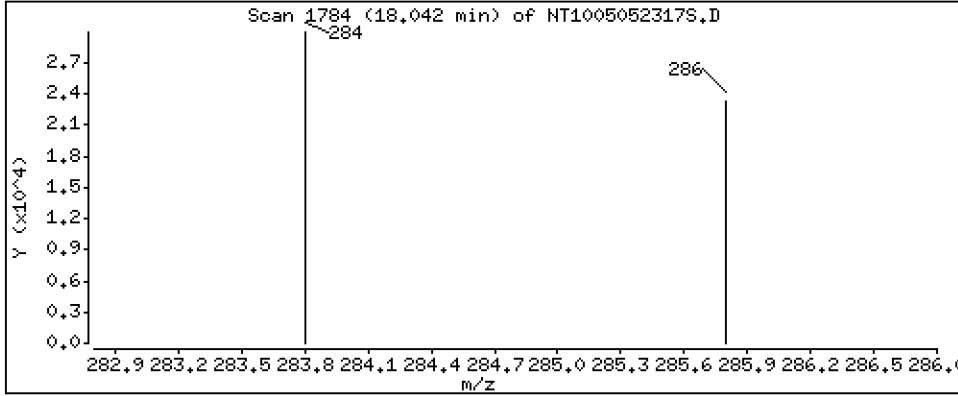
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,9020 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

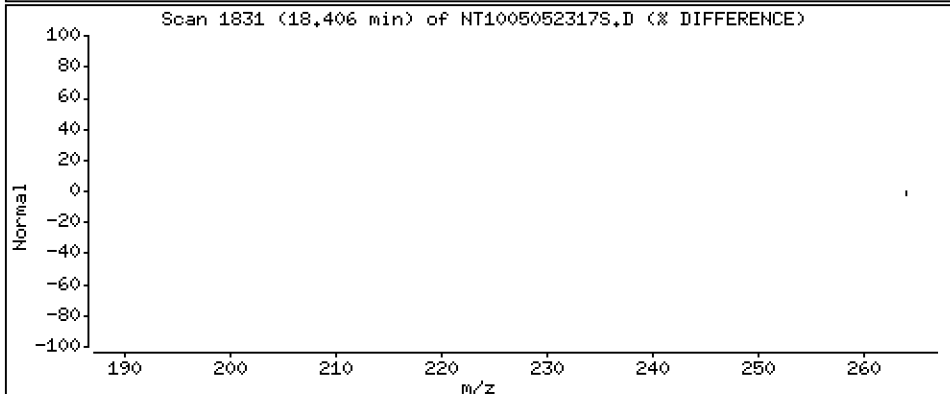
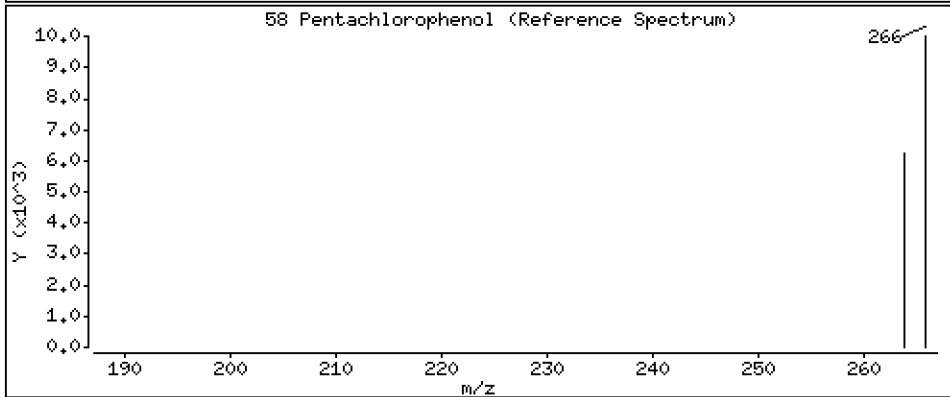
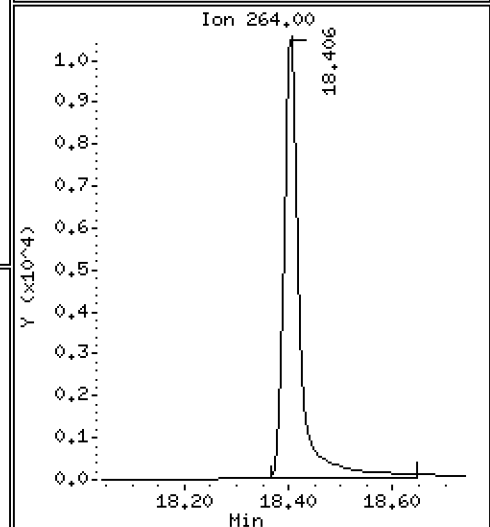
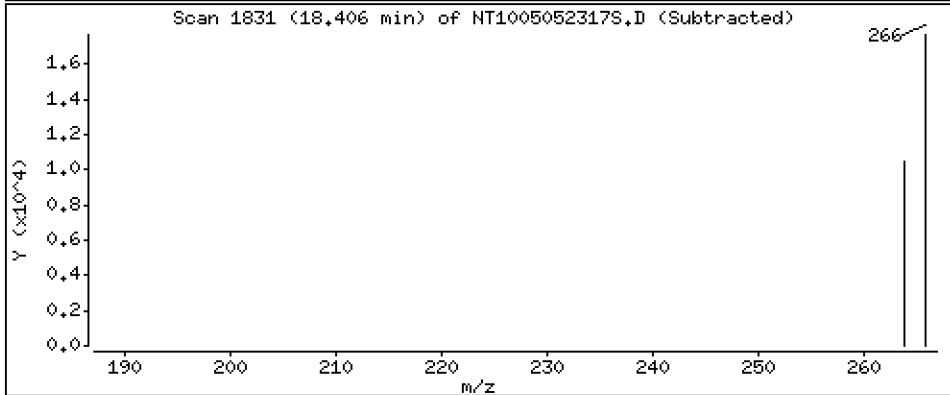
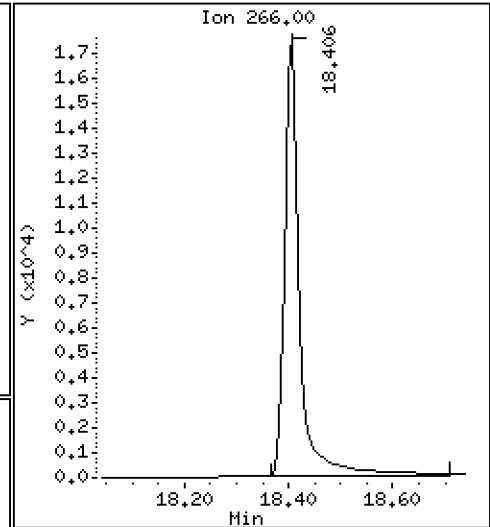
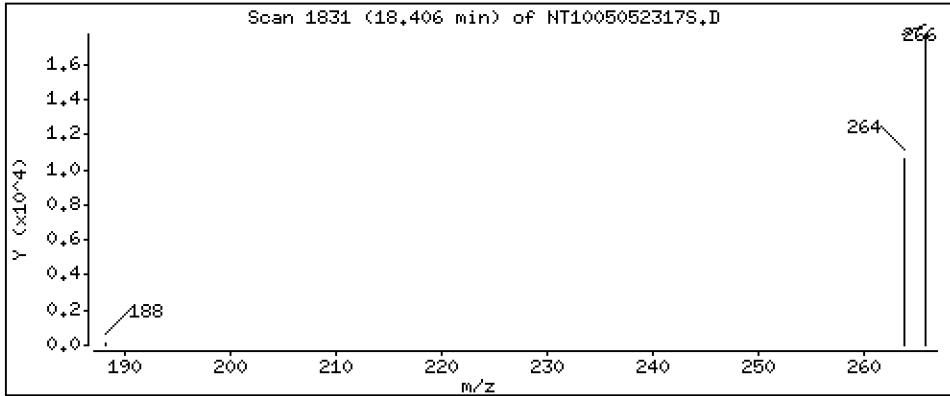
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 1,123 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

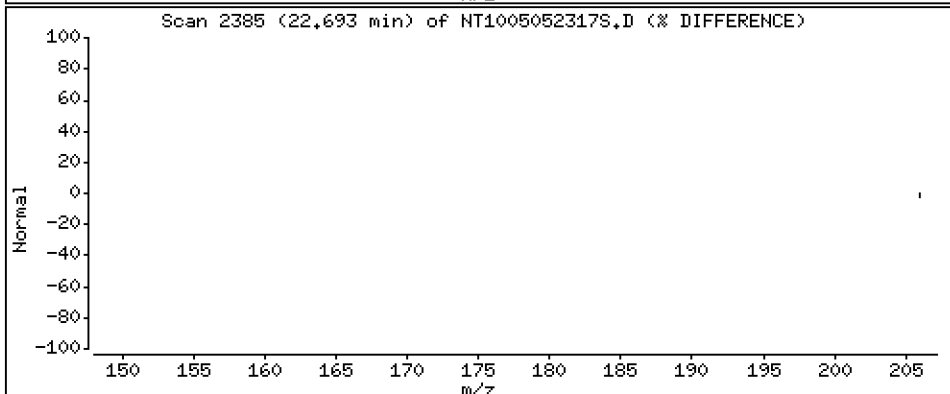
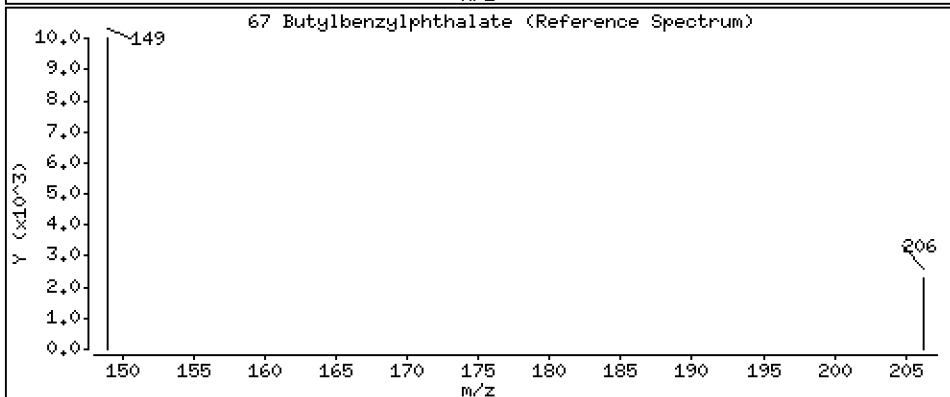
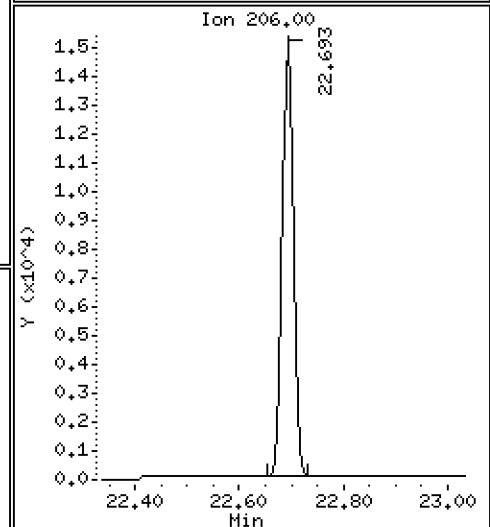
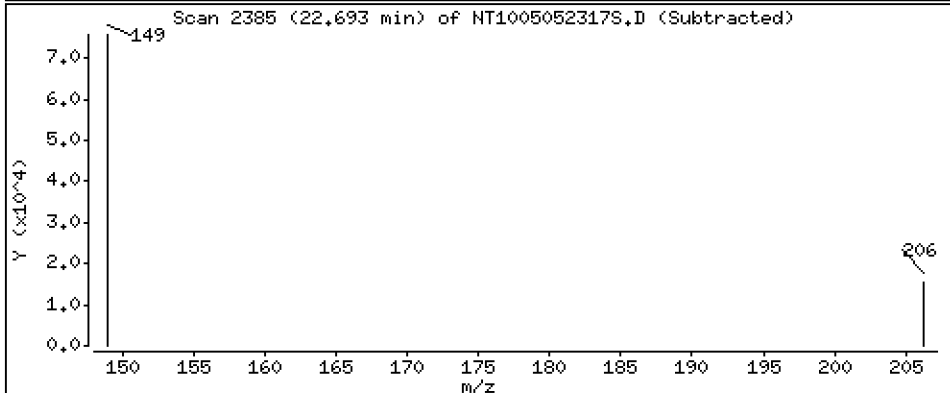
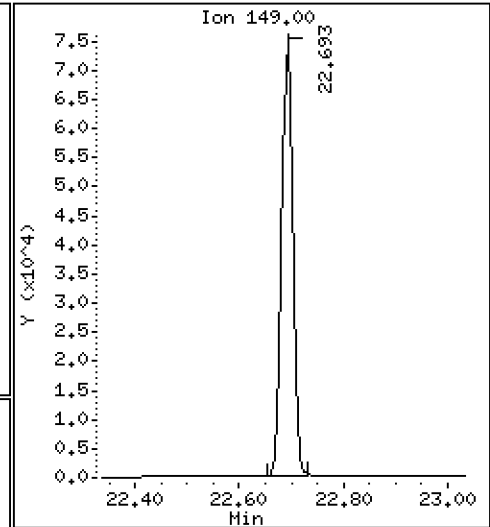
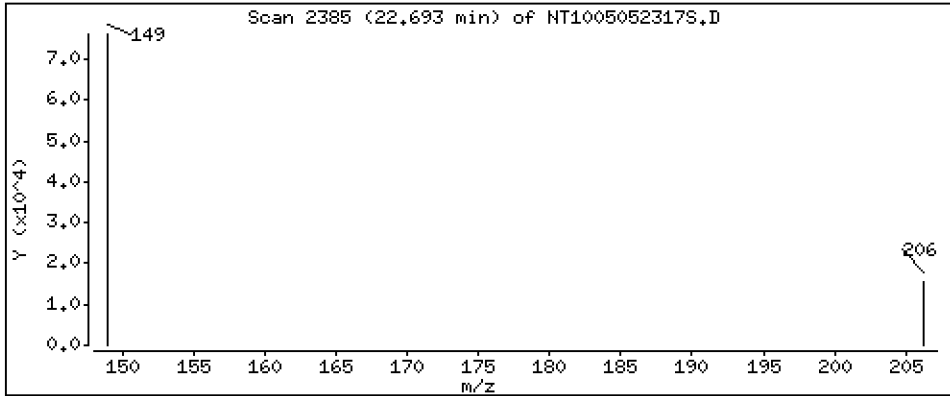
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 1,060 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

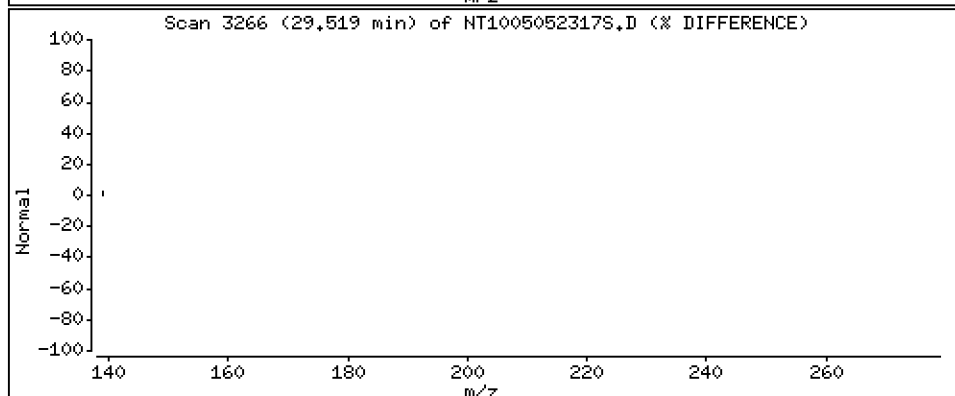
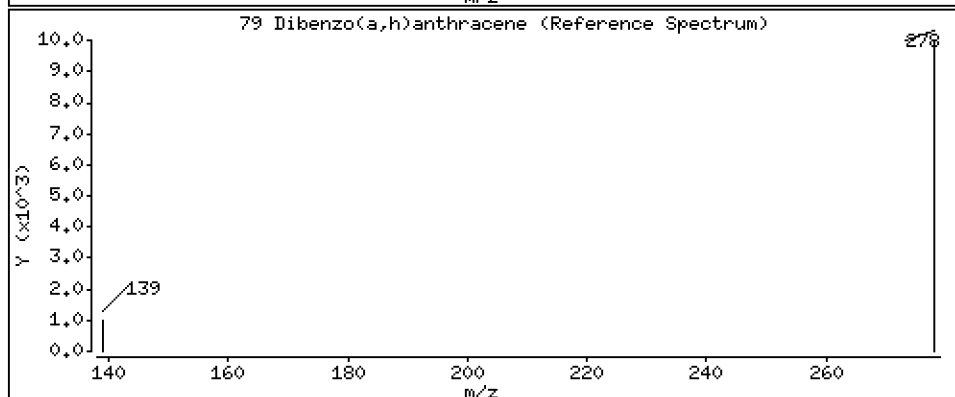
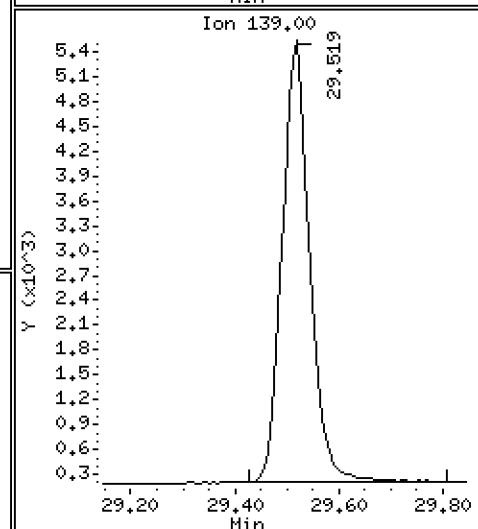
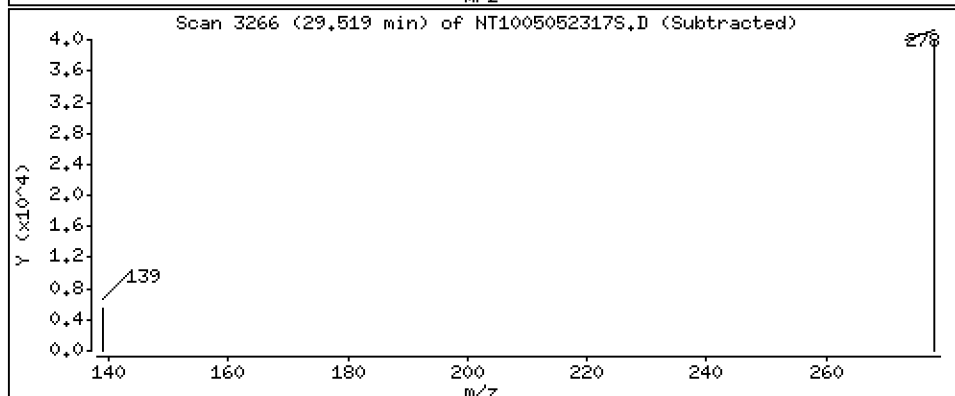
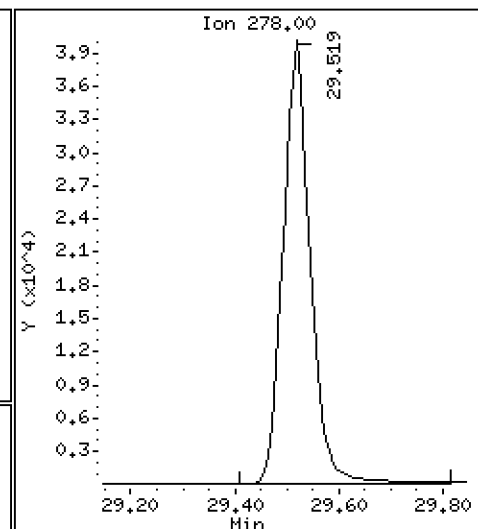
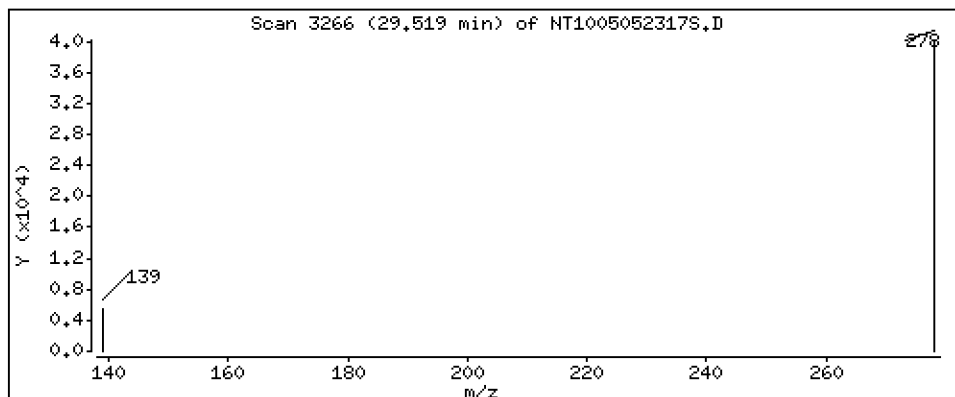
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,8798 ug/L



Date : 05-MAY-2023 21:08

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-CCV1

Volume Injected (uL): 1.0

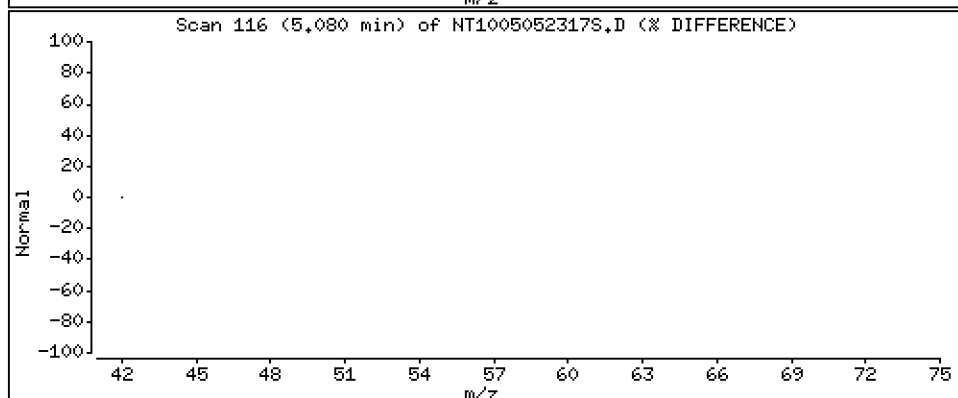
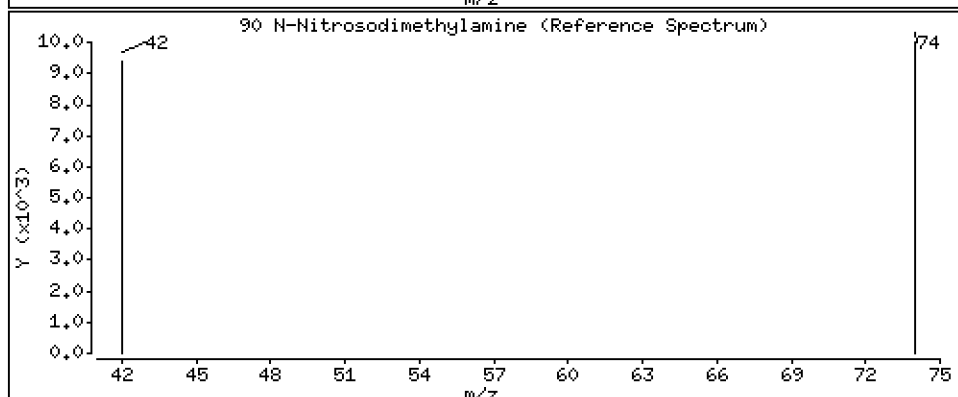
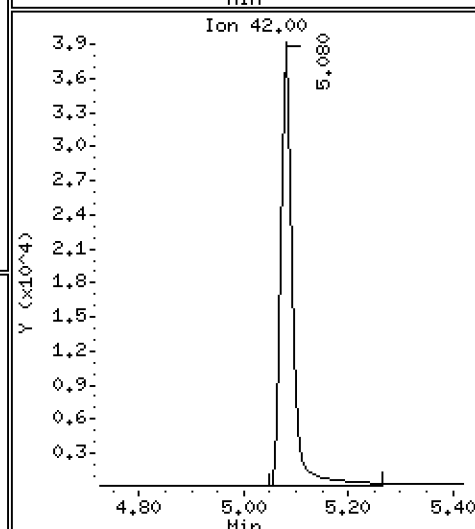
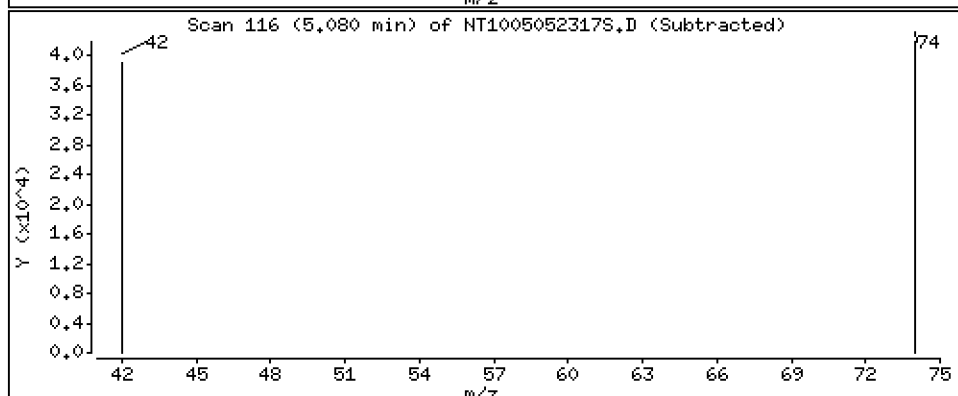
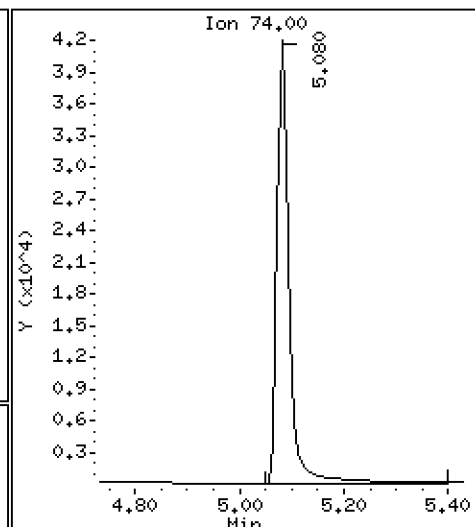
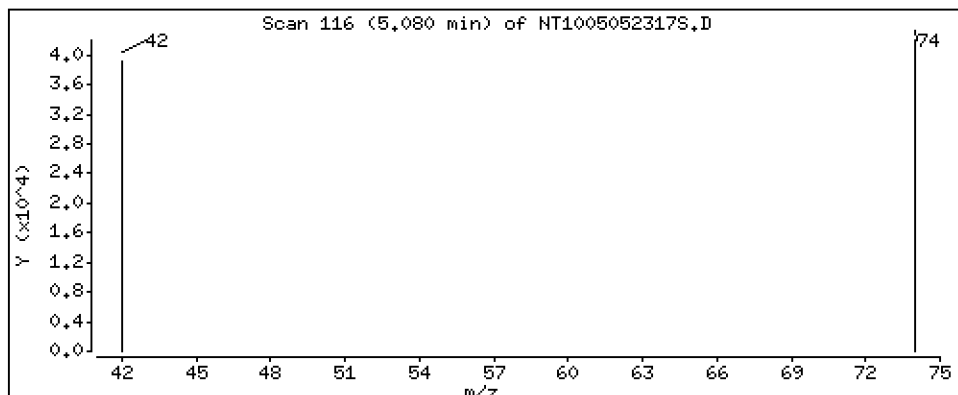
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 1,870 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052317S.D
 Lab Smp Id: SLE0466-CCV1
 Inj Date : 05-MAY-2023 21:08 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLE0466-CCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.762)	90818	1.43035	1.430 (R)
3 Phenol	94		8.850	8.842	(0.932)	78544	0.98755	0.9876
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	76474	0.91427	0.9143
* 8 1,4-Dichlorobenzene-d4	152		9.499	9.492	(1.000)	208433	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.002)	74487	0.89913	0.8991
11 Benzyl alcohol	79		9.755	9.756	(1.027)	57527	1.04592	1.046
12 1,2-Dichlorobenzene	146		9.887	9.880	(1.041)	73916	0.92765	0.9277
13 2-Methylphenol	108		9.973	9.965	(1.050)	60754	1.02068	1.021
15 4-Methylphenol	108		10.245	10.237	(1.078)	65591	1.04803	1.048
16 N-Nitroso-di-n-propylamine	70		10.314	10.315	(1.086)	48032	1.06365	1.064
22 2,4-Dimethylphenol	107		11.288	11.288	(0.941)	147423	1.96540	1.965
24 Benzoic acid	105		11.406	11.381	(0.951)	108852	2.21461	2.215
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.992)	67446	0.87643	0.8764
* 27 Naphthalene-d8	136		11.996	11.988	(1.000)	754909	4.00000	
30 Hexachlorobutadiene	225		12.390	12.382	(1.033)	44192	0.89940	0.8994
39 Dimethylphthalate	163		15.106	15.099	(0.967)	134812	0.91468	0.9147
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	388803	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	158926	1.00425	1.004
54 N-Nitrosodiphenylamine	169		16.954	16.954	(0.908)	99922	0.93534	0.9353
57 Hexachlorobenzene	284		18.042	18.034	(0.966)	47186	0.90196	0.9020

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.405	18.390	(0.986)	35495	1.12339	1.123
* 59 Phenanthrene-d10	188	18.676	18.669	(1.000)	819155	4.00000	
\$ 66 Terphenyl-d14	244	21.779	21.771	(0.919)	132882	1.11127	1.111 (R)
67 Butylbenzylphthalate	149	22.692	22.685	(0.958)	104378	1.06009	1.060
* 69 Chrysene-d12	240	23.699	23.684	(1.000)	554558	4.00000	
* 77 Perylene-d12	264	26.533	26.517	(1.000)	517224	4.00000	
79 Dibenzo(a,h)anthracene	278	29.519	29.496	(1.113)	146893	0.87983	0.8798
90 N-Nitrosodimethylamine	74	5.080	5.080	(0.535)	64788	1.87045	1.870

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052317S.D
 Lab Smp Id: SLE0466-CCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	208433	14.08
27 Naphthalene-d8	662220	331110	1324440	754909	14.00
42 Acenaphthene-d10	335558	167779	671116	388803	15.87
59 Phenanthrene-d10	678190	339095	1356380	819155	20.79
69 Chrysene-d12	566969	283485	1133938	554558	-2.19
77 Perylene-d12	522906	261453	1045812	517224	-1.09

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.50	0.08
27 Naphthalene-d8	11.99	11.49	12.49	12.00	0.06
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	-0.00
59 Phenanthrene-d10	18.67	18.17	19.17	18.68	0.04
69 Chrysene-d12	23.68	23.18	24.18	23.70	0.06
77 Perylene-d12	26.52	26.02	27.02	26.53	0.06

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

REVIEW SUMMARY FOR FILE - NT1005052317S.D

Lab ID: SLE0466-CCV1

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 21:08

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GE00018</u>
Lab File ID:	<u>NT1005052306S.D</u>	Calibration Date:	<u>05/04/2023</u>
Sequence:	<u>SLE0466</u>	Injection Date:	<u>05/05/23</u>
Lab Sample ID:	<u>SLE0466-LCV1</u>	Injection Time:	<u>14:01</u>
Sequence Name:	<u>Low Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.10000	0.09	1.5898270	1.4331360		-9.9	
1,2-Dichlorobenzene	A	0.10000	0.09	1.5291420	1.3856310		-9.4	
Benzyl Alcohol	A	0.10000	0.09	1.0555230	0.9816286		-7.0	
Benzoic acid	A	0.40000	0.0	0.1834660				
2,4-Dimethylphenol	A	0.20000	0.1	0.3974465	0.2933282		-26.2	
1,2,4-Trichlorobenzene	A	0.10000	0.09	0.4077591	0.3724182		-8.7	
N-Nitrosodiphenylamine	A	0.10000	0.08	0.5216563	0.3998017		-23.4	
Pentachlorophenol	A	0.20000	0.009	0.1295337	0.0066991		-95.6	
2-Fluorophenol	A	0.15000	0.115	1.2184940	0.9338434		-23.4	
p-Terphenyl-d14	A	0.10000	0.0734	0.8625046	0.6326167		-26.7	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523065.D

Date : 05-May-2023 14:01

Client ID:

Sample Info: SLE0466-LCW1

Volume Injected (uL): 1.0

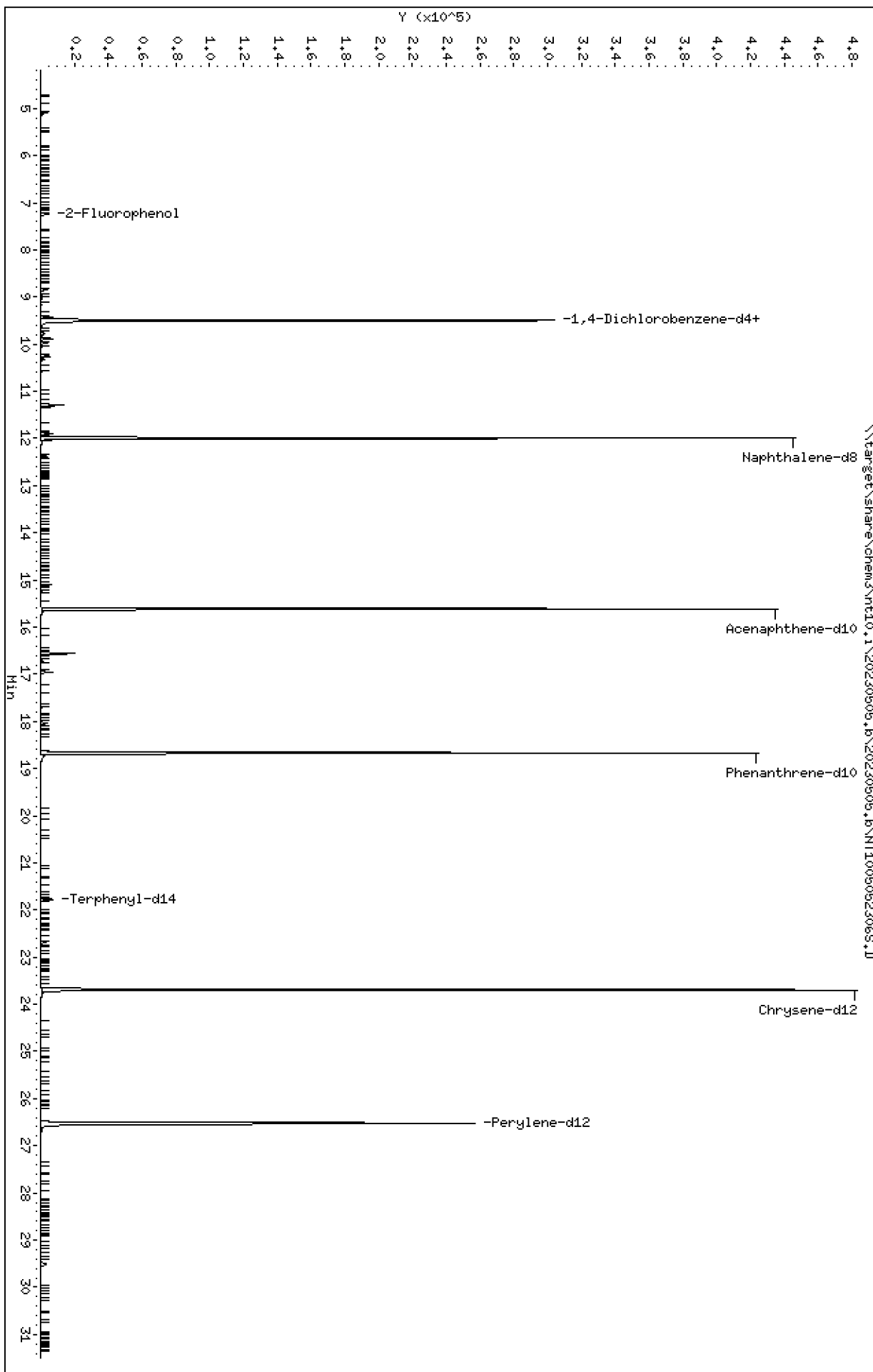
Column phase: ZB-5msi

Instrument: nt10.1

Operator: DSD

Column diameter: 0.25

Page 1



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

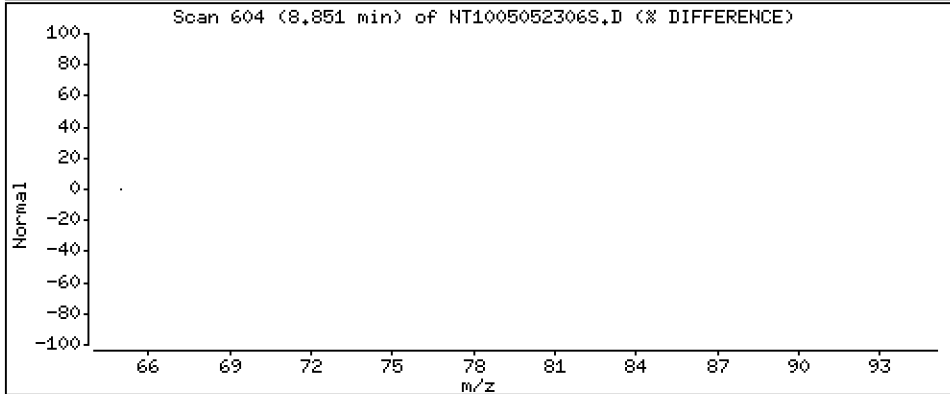
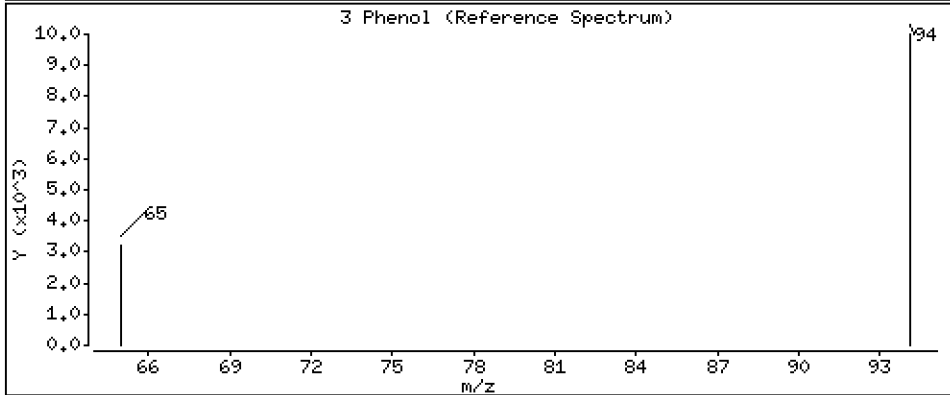
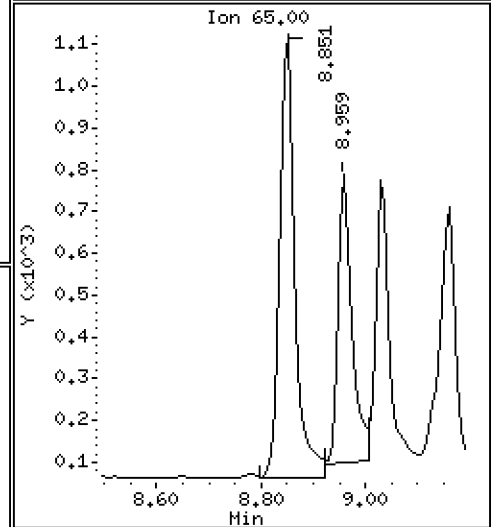
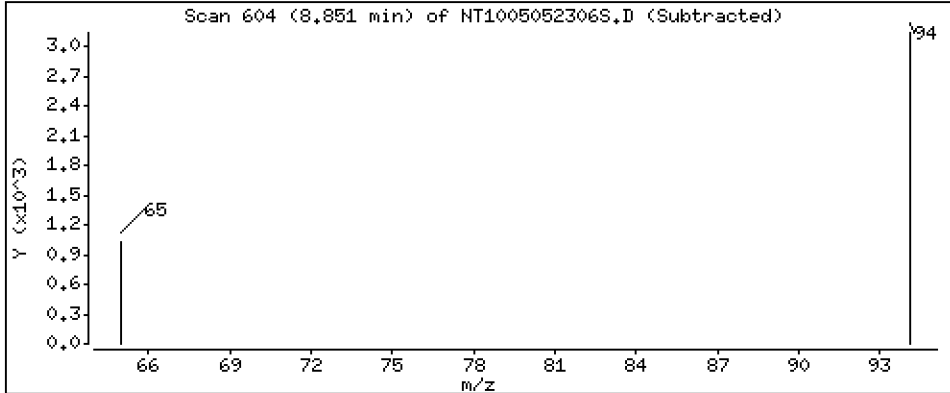
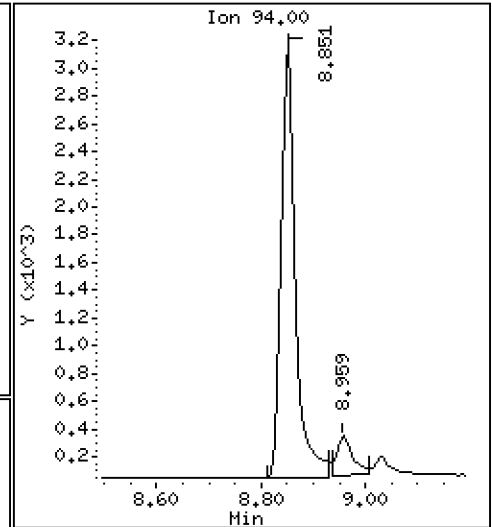
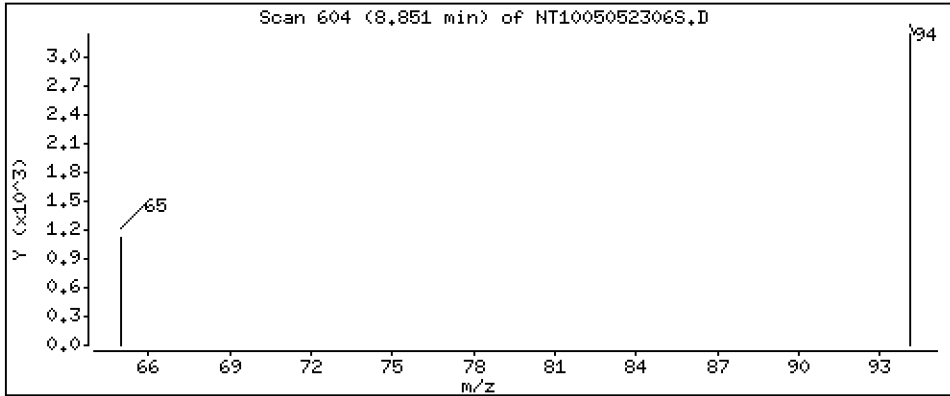
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.07938 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

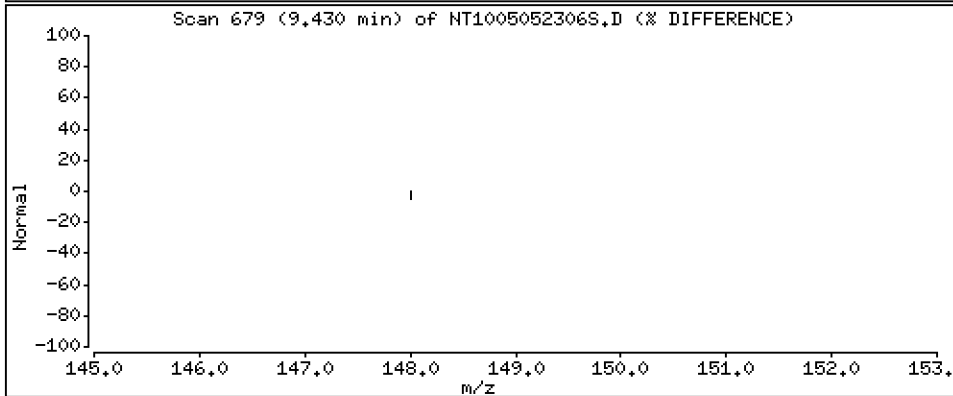
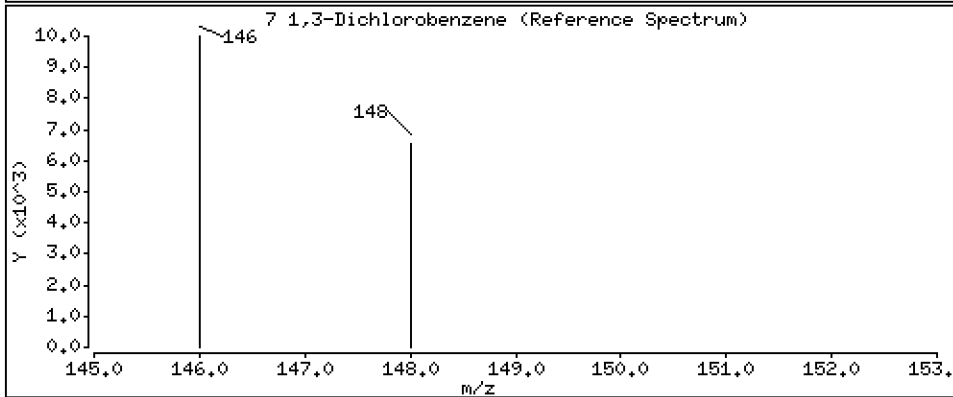
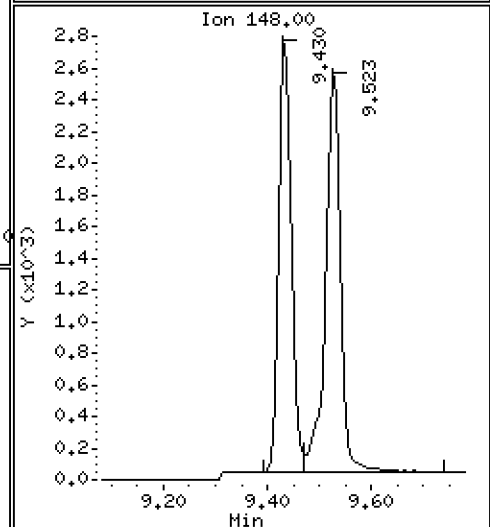
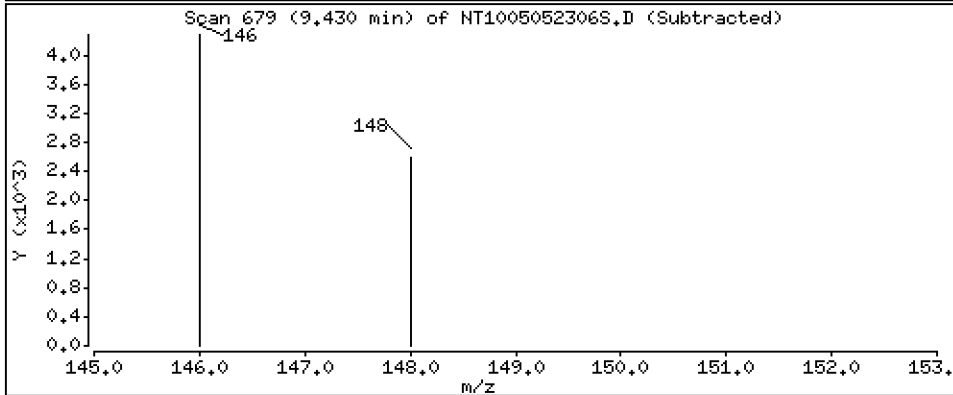
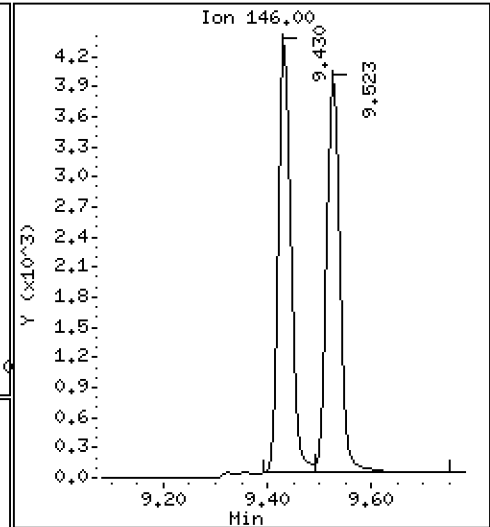
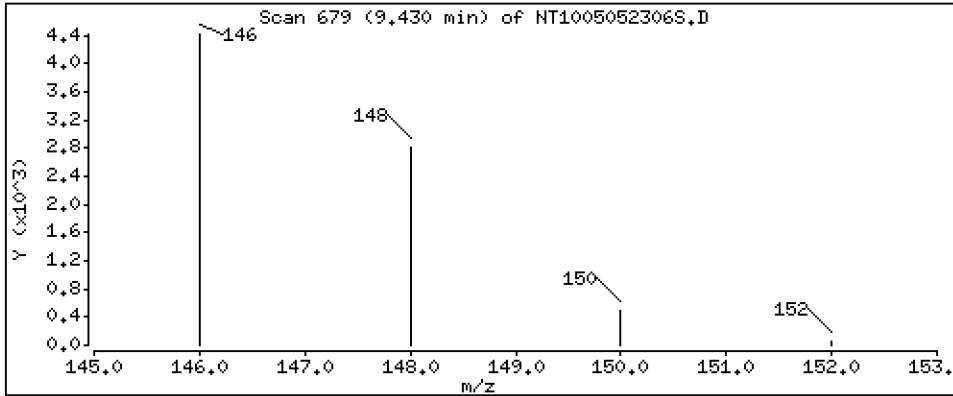
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.09248 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

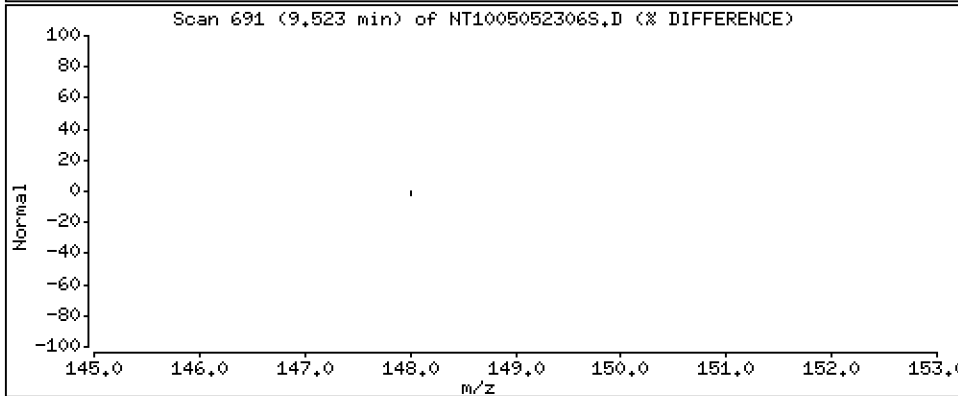
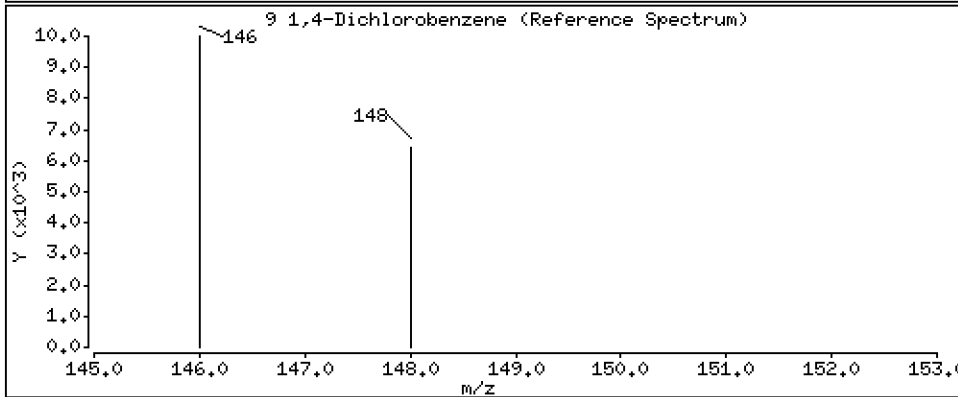
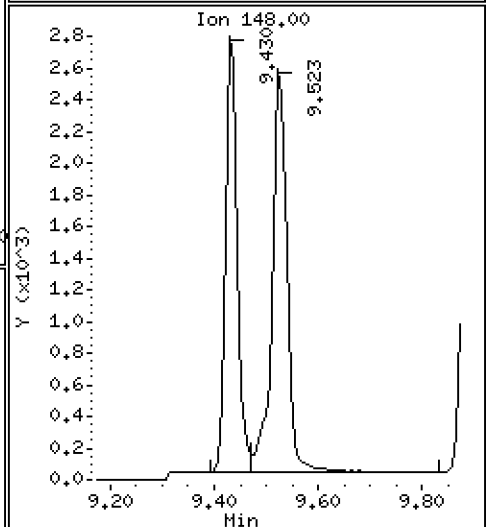
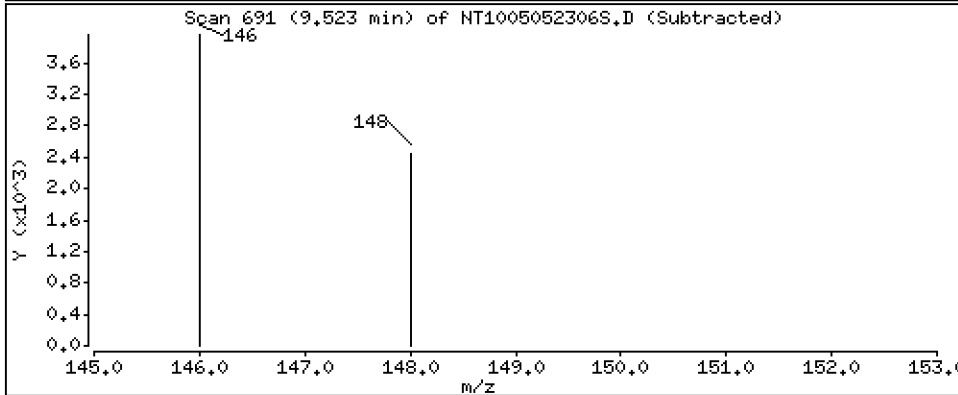
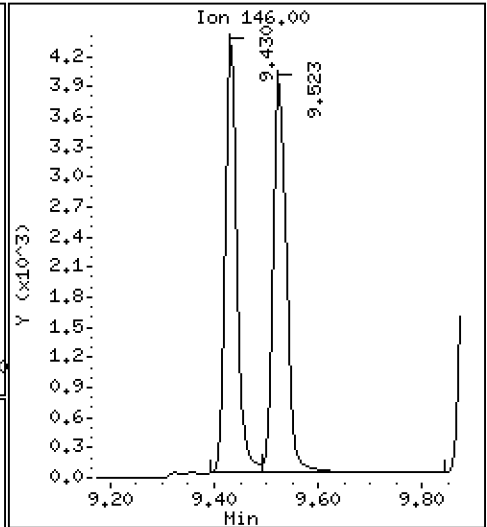
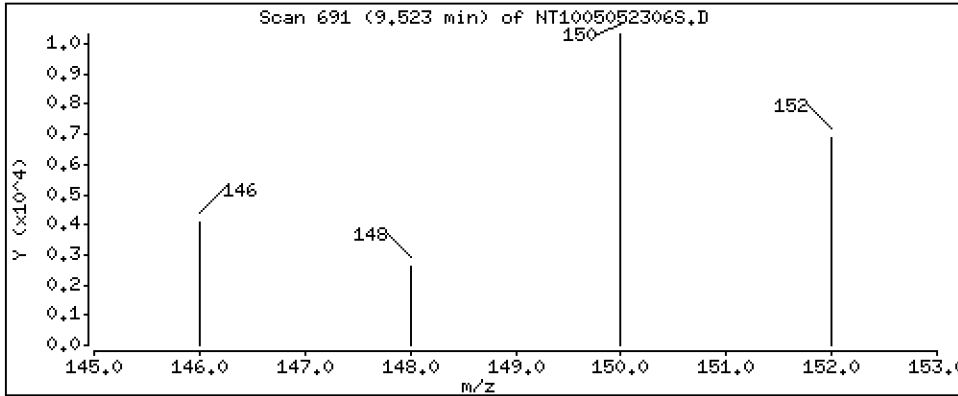
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.09014 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

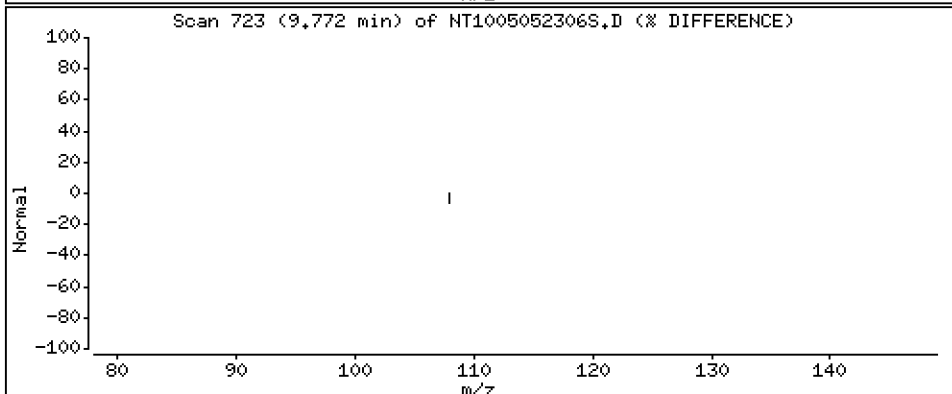
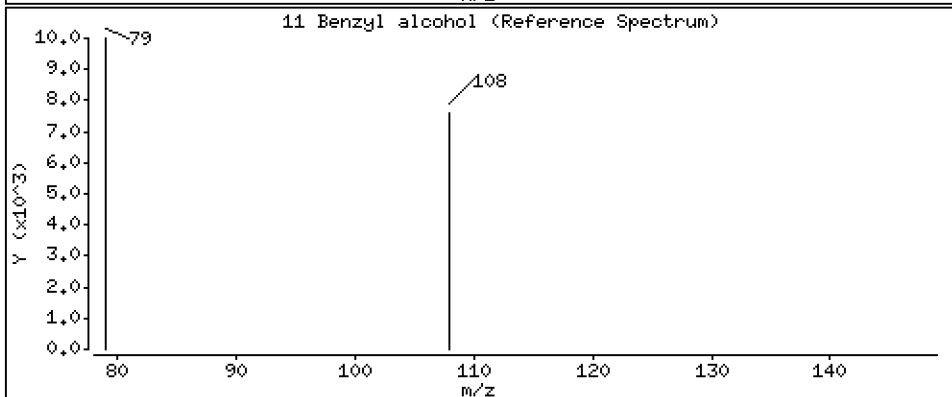
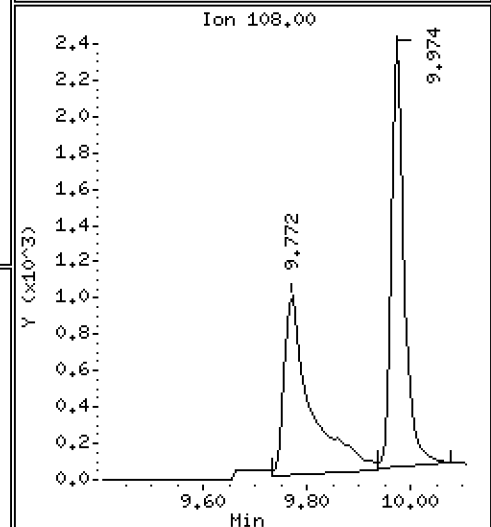
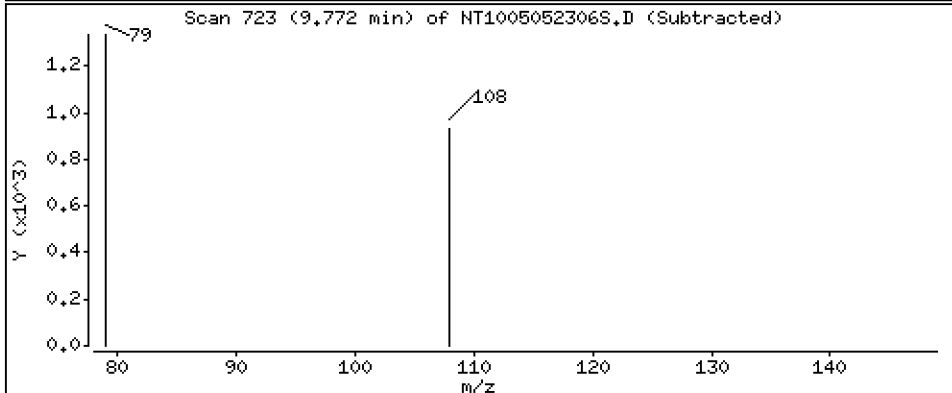
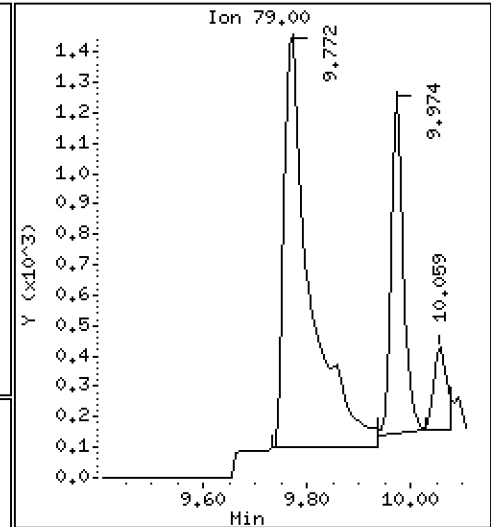
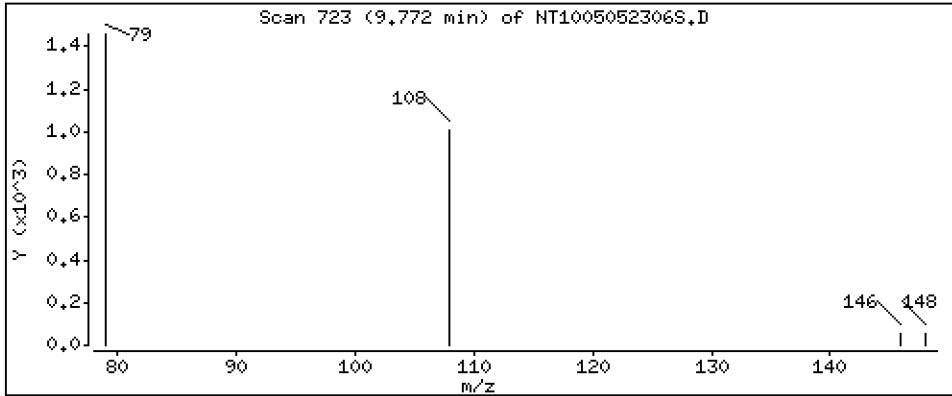
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.09300 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

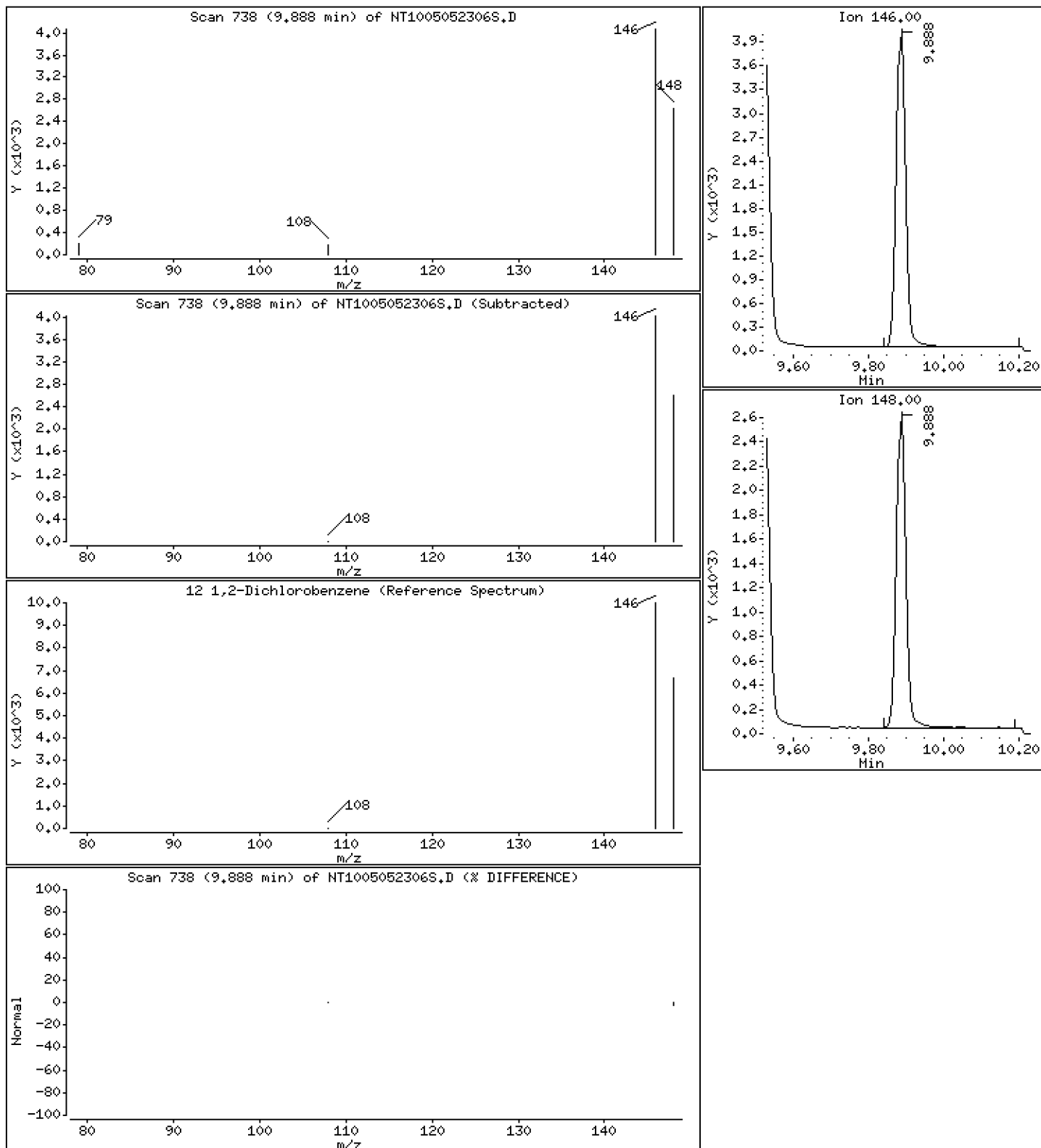
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,09061 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

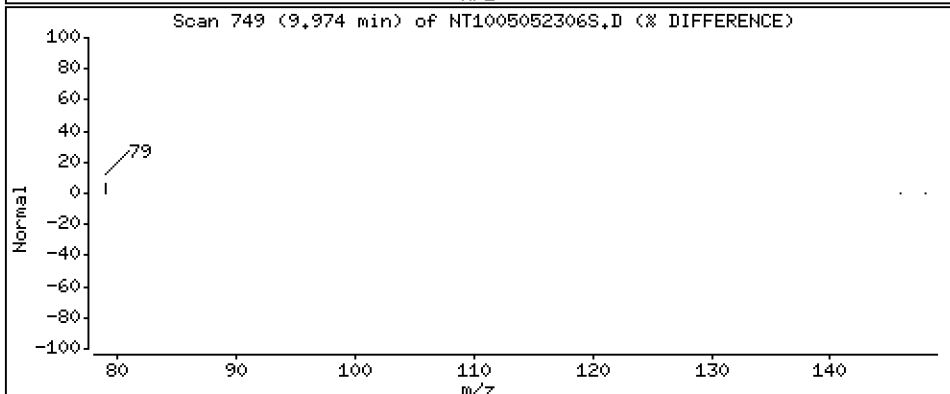
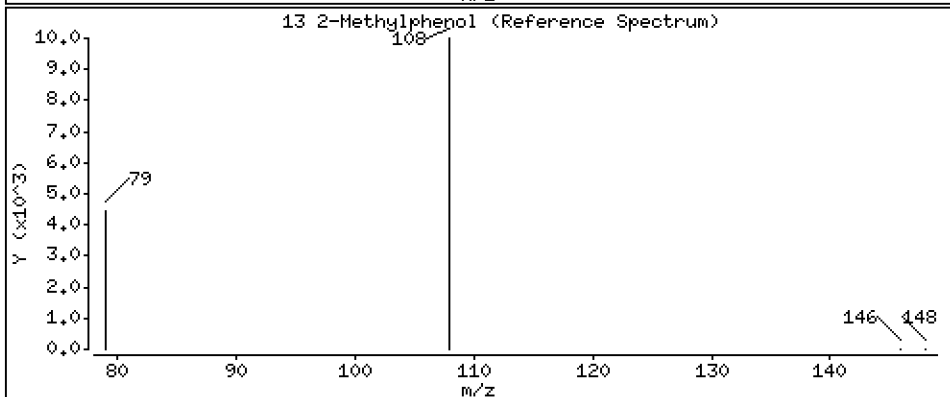
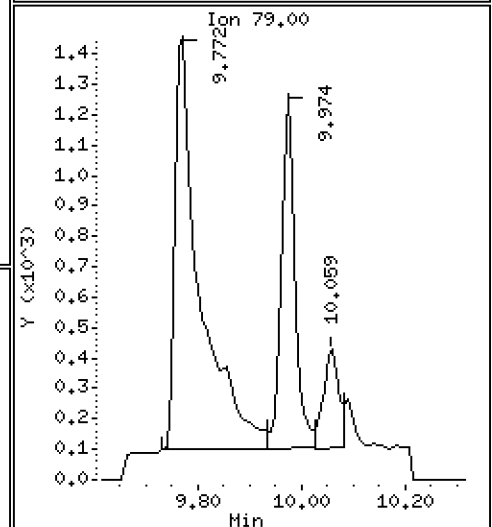
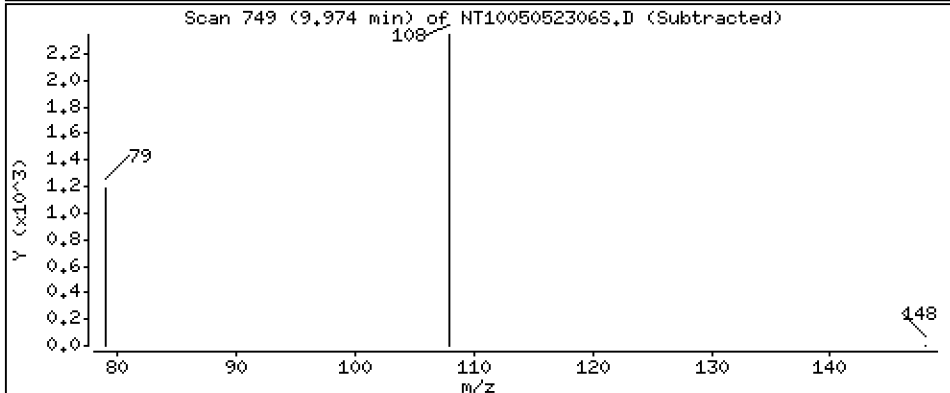
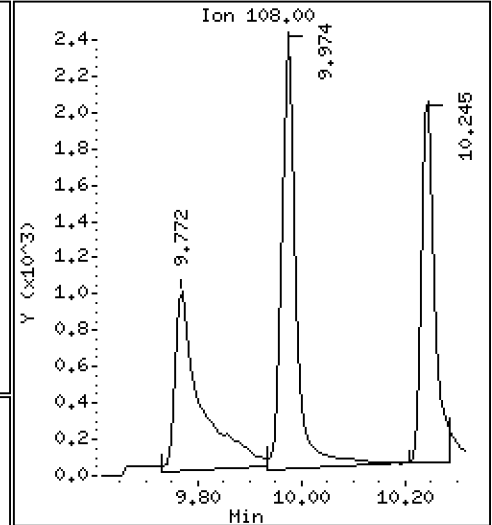
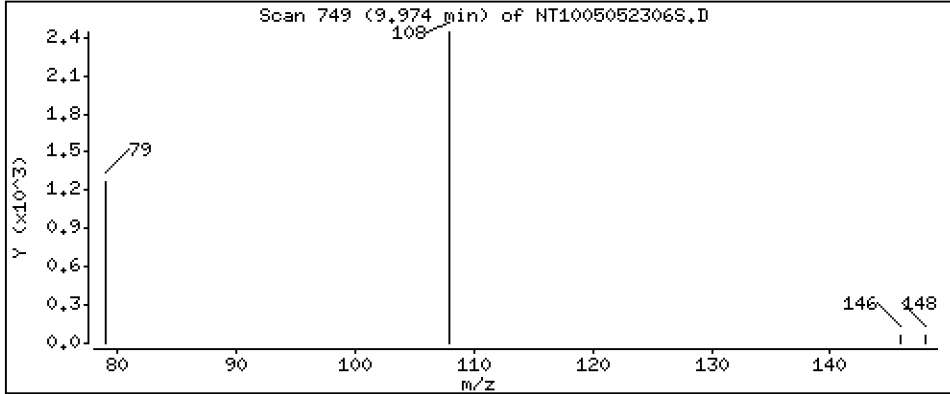
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.08306 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

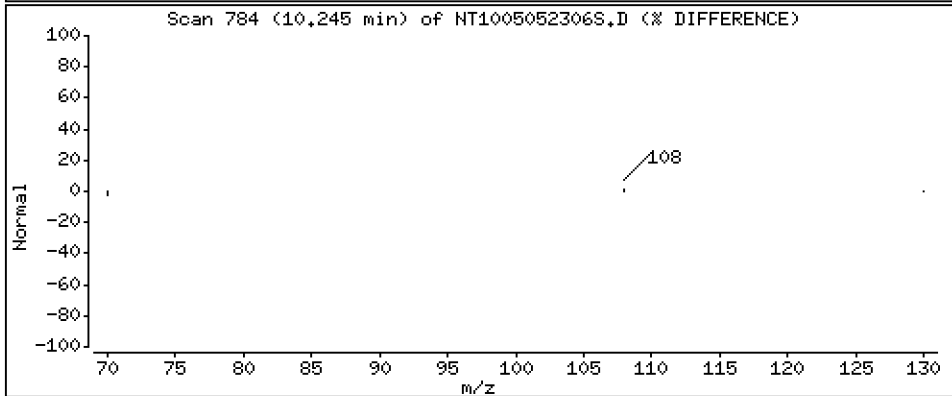
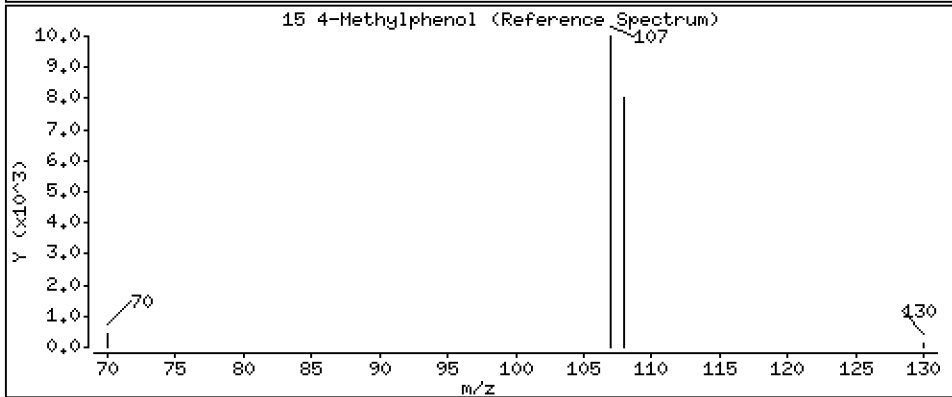
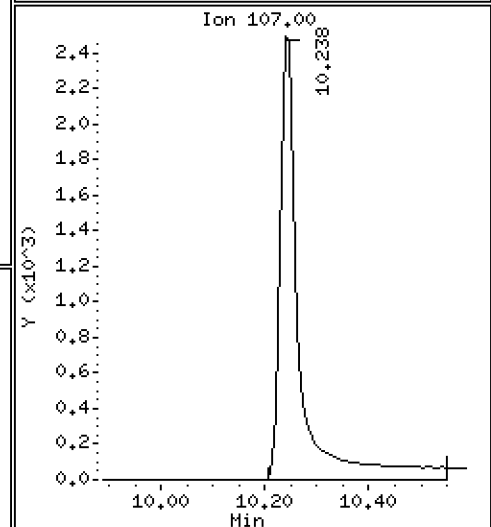
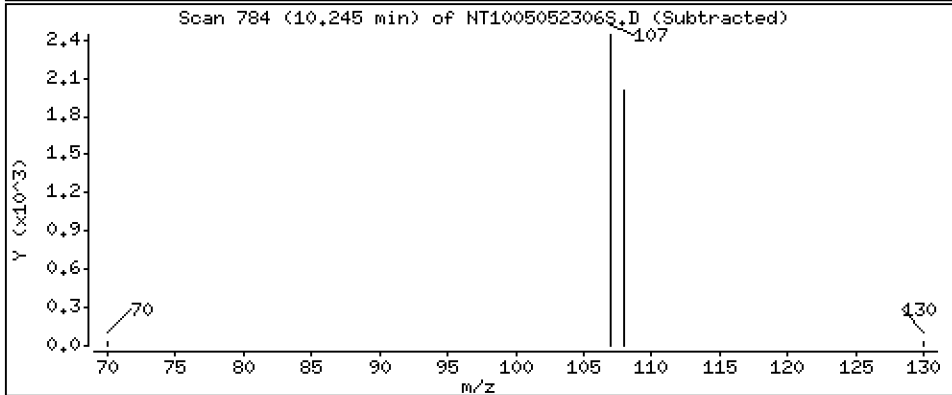
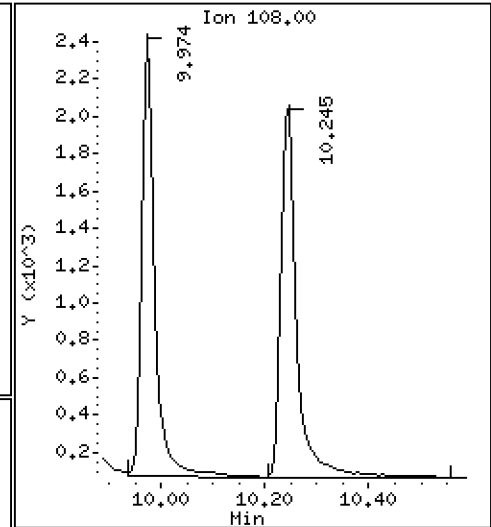
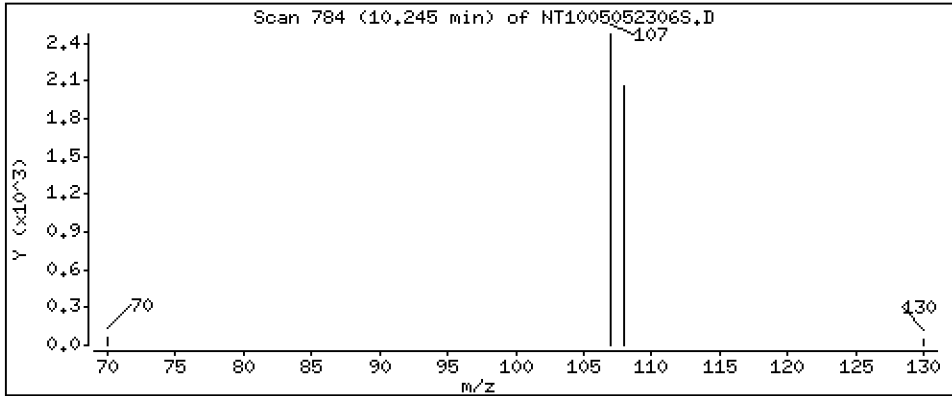
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.07170 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

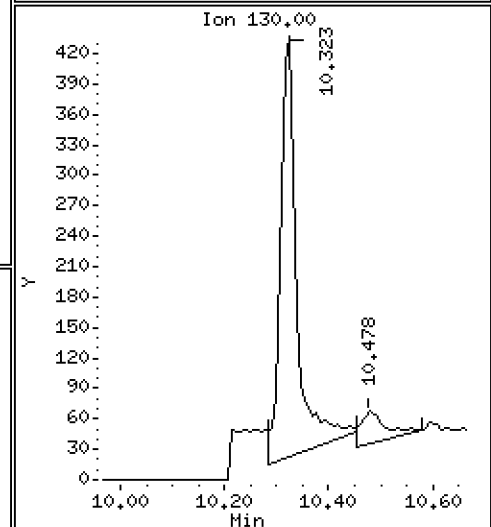
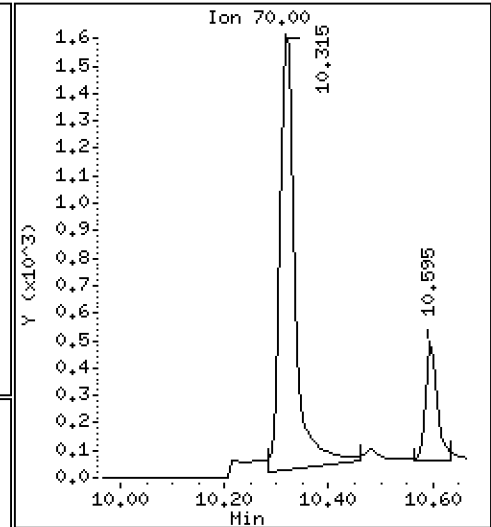
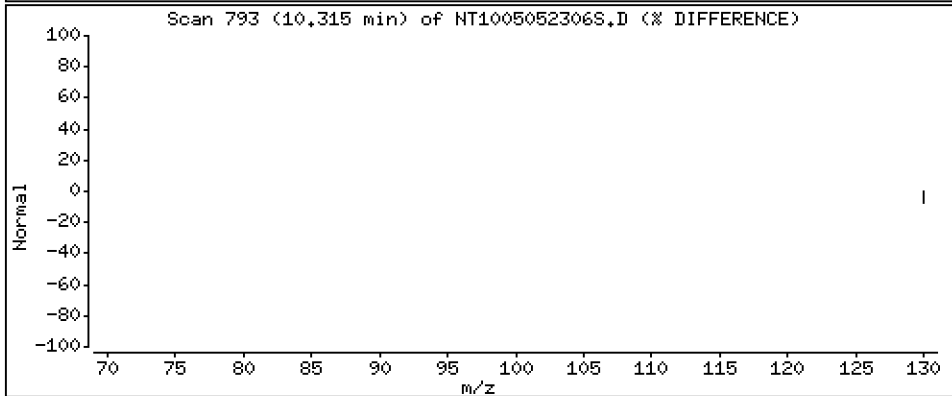
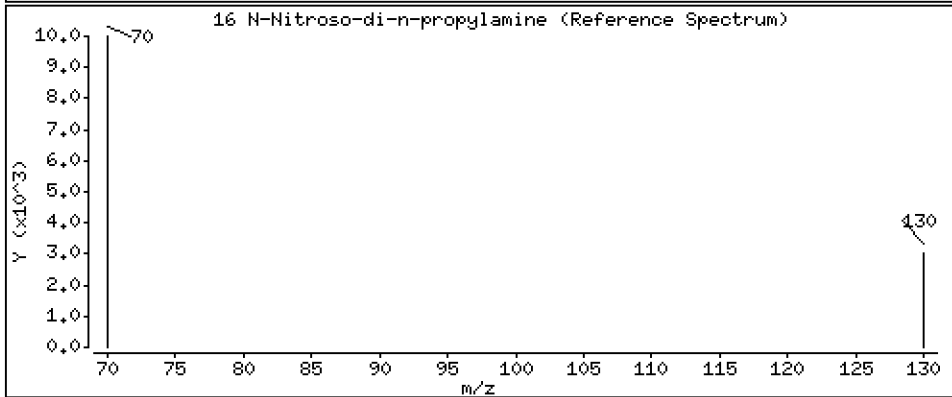
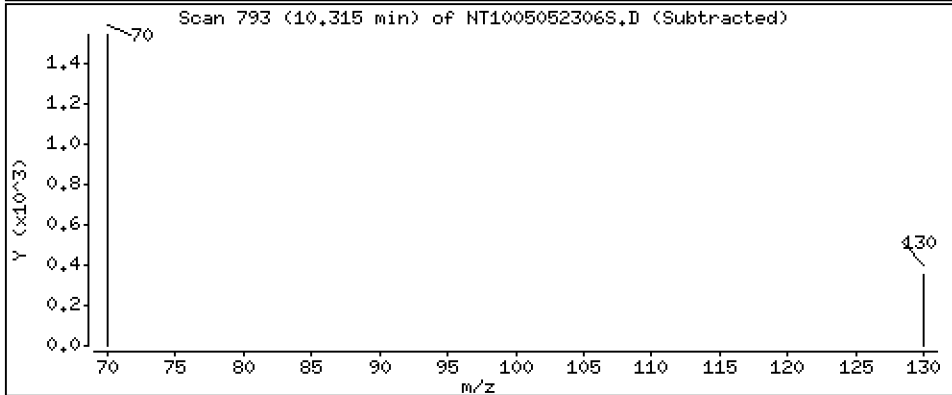
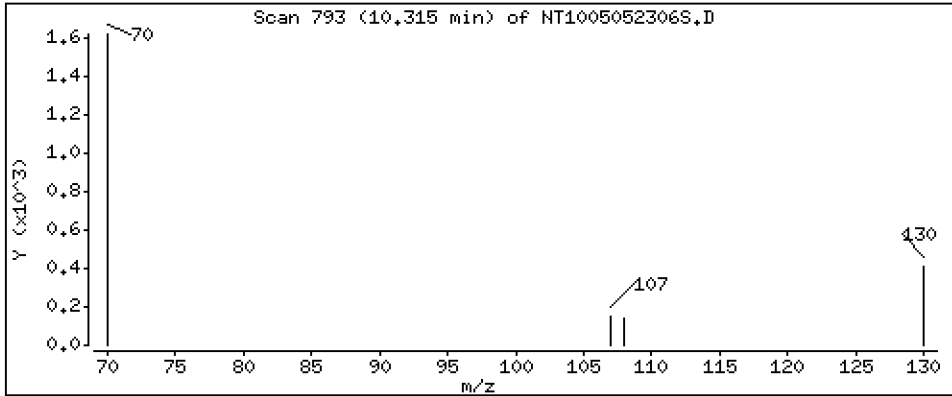
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,07575 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

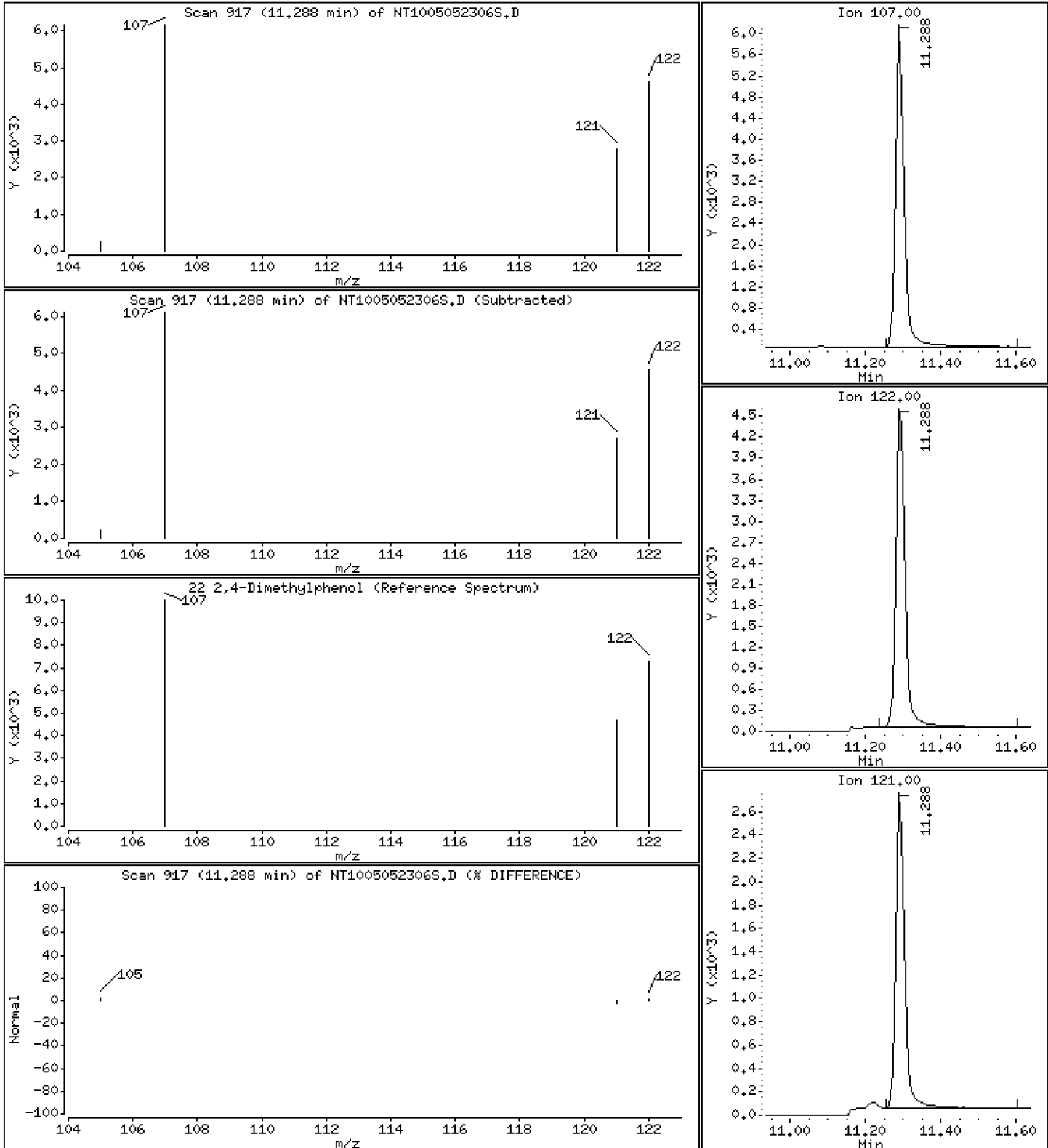
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,1476 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

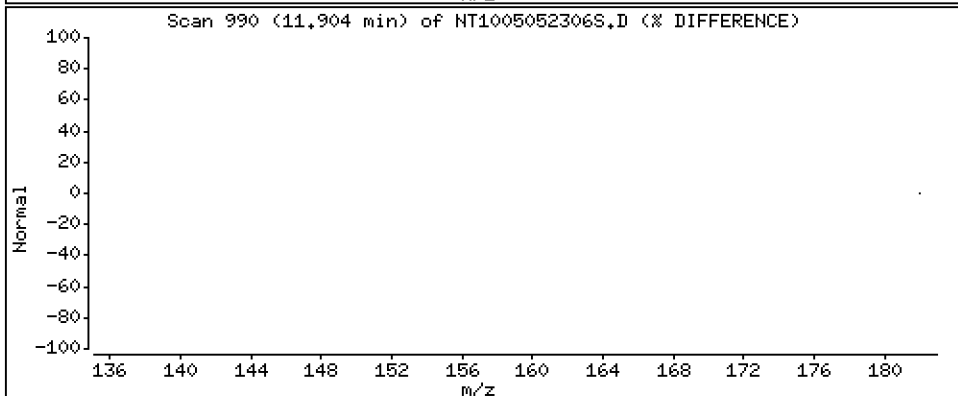
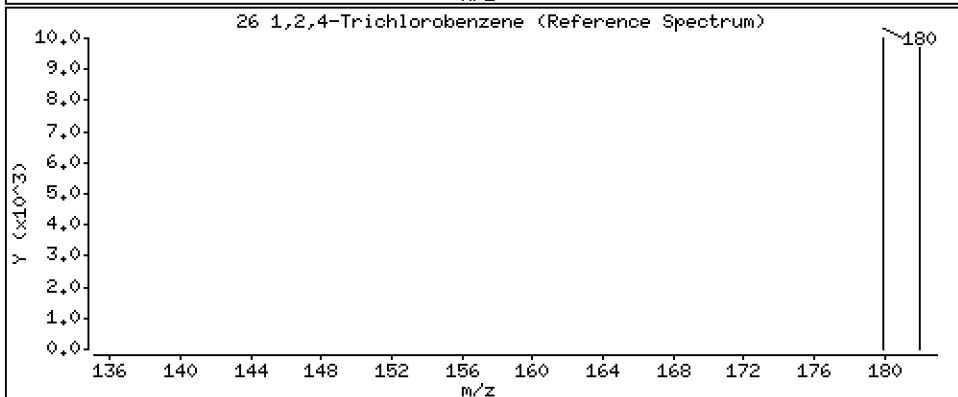
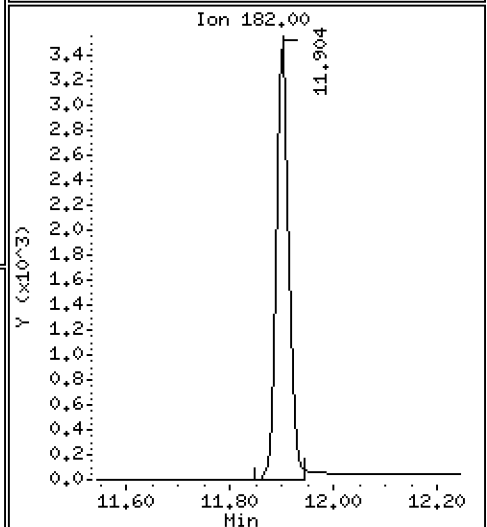
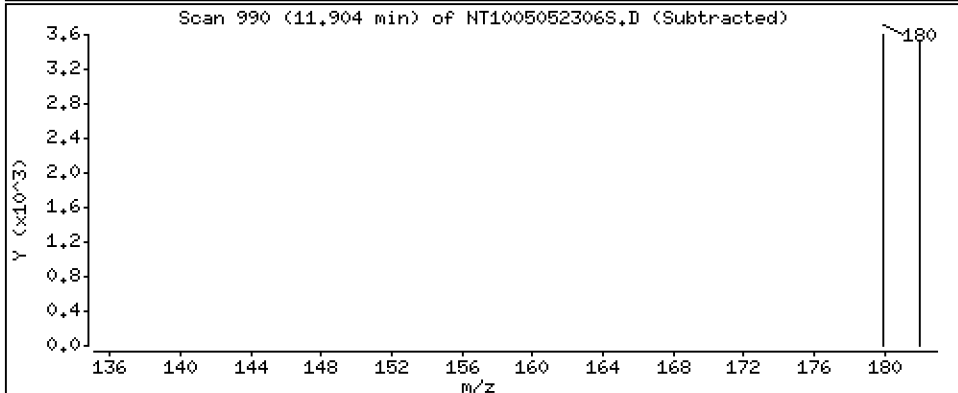
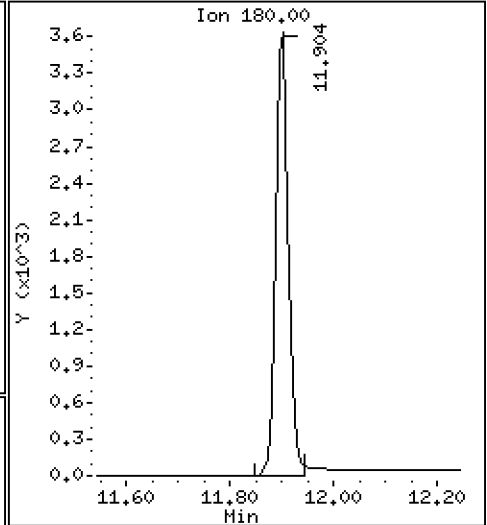
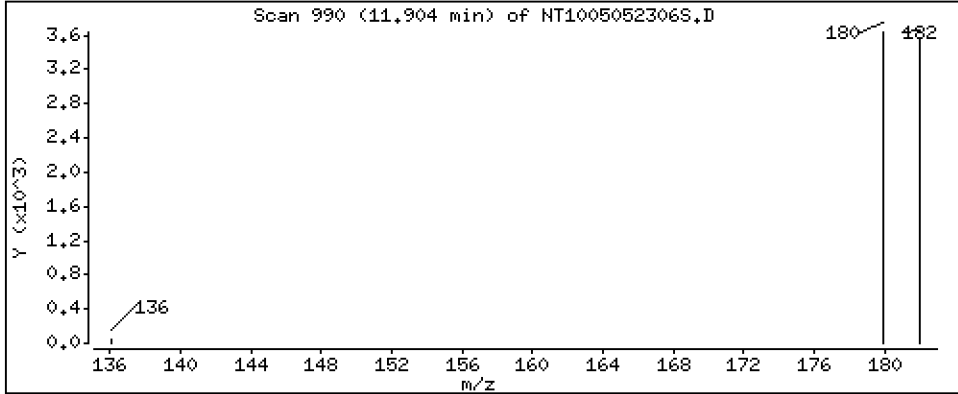
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.09133 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

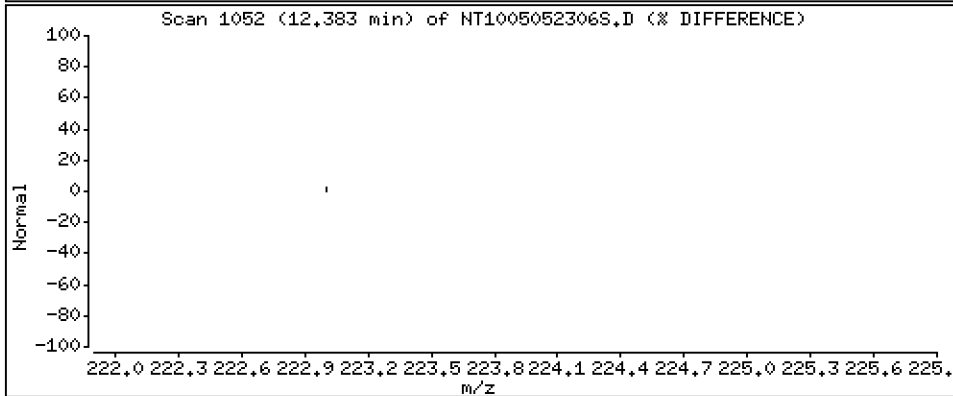
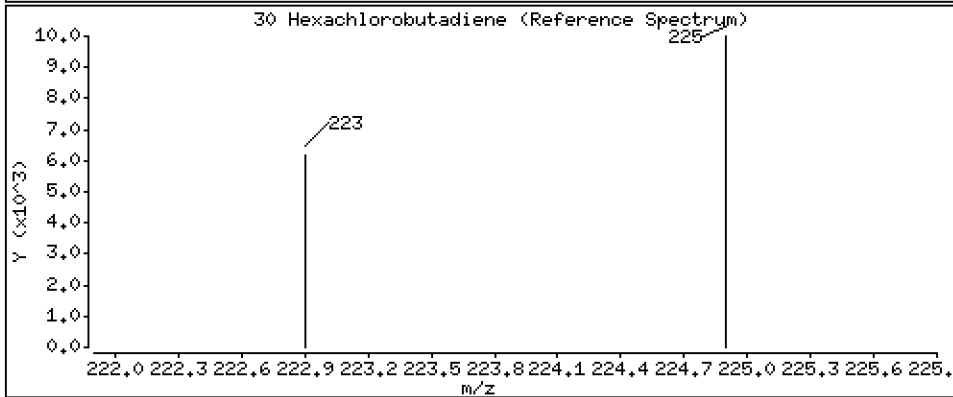
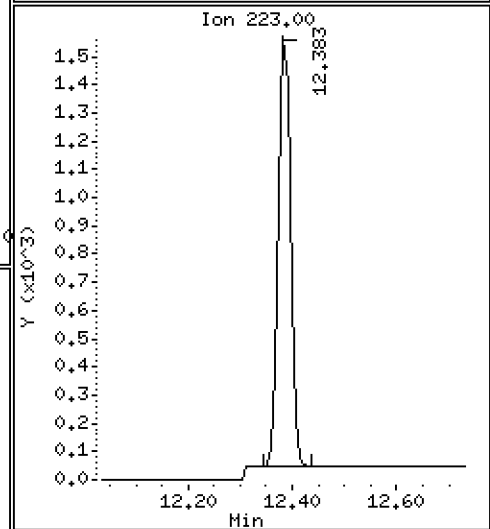
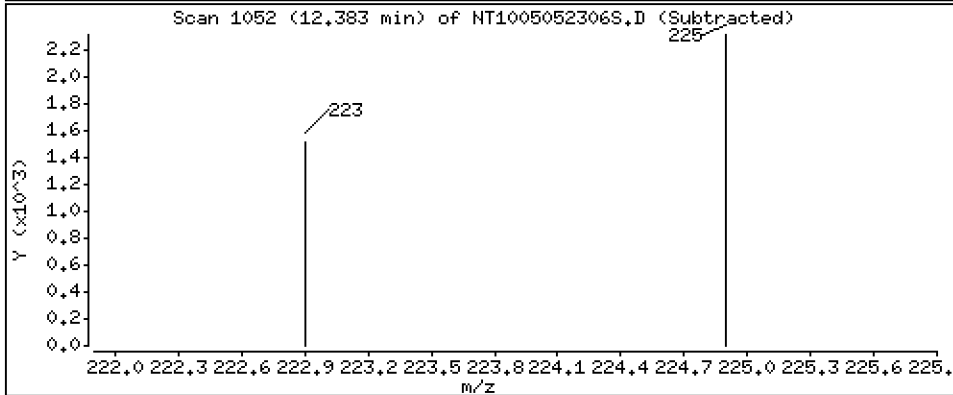
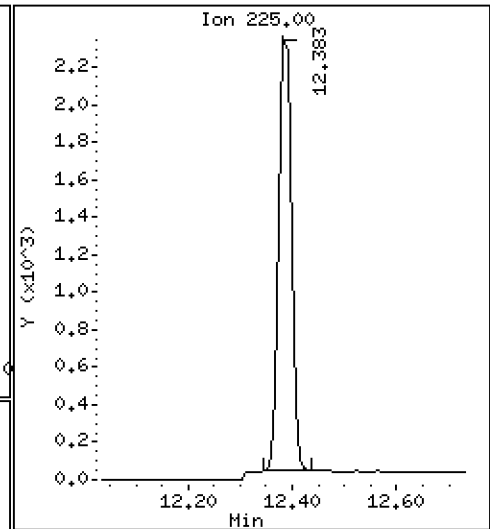
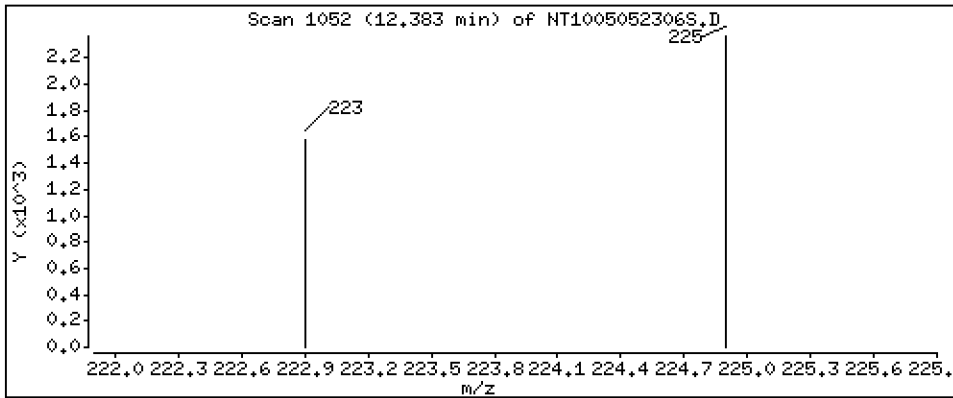
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,08606 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

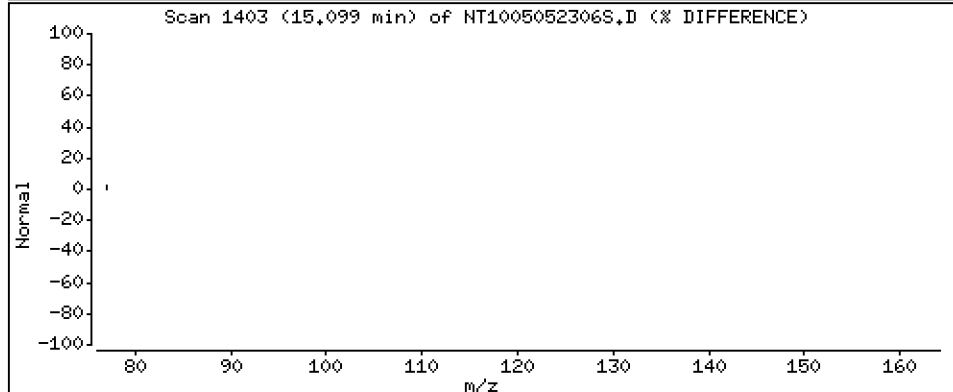
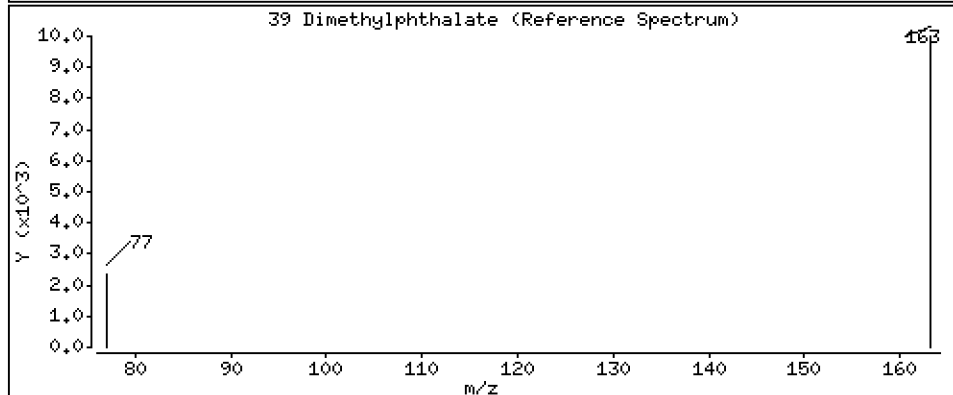
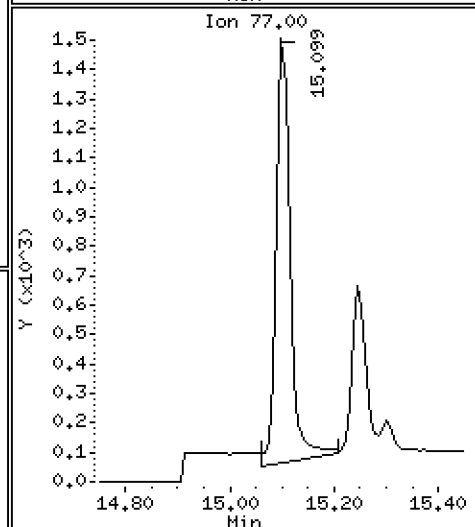
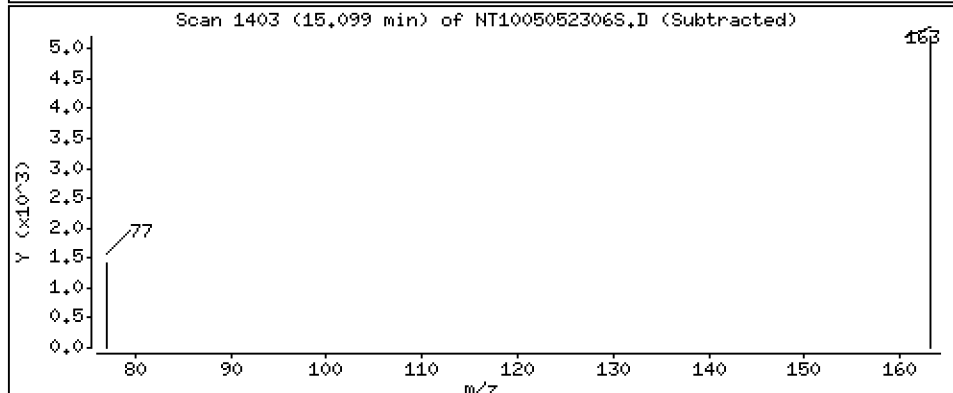
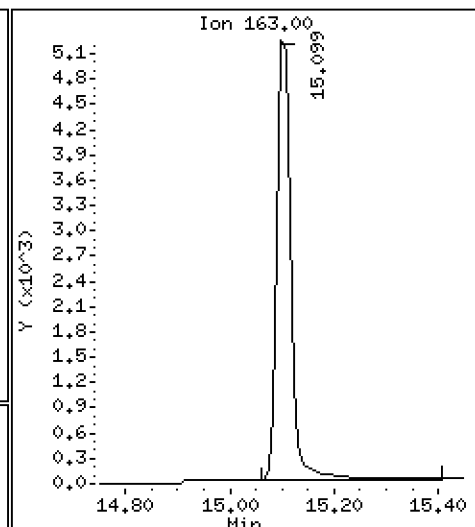
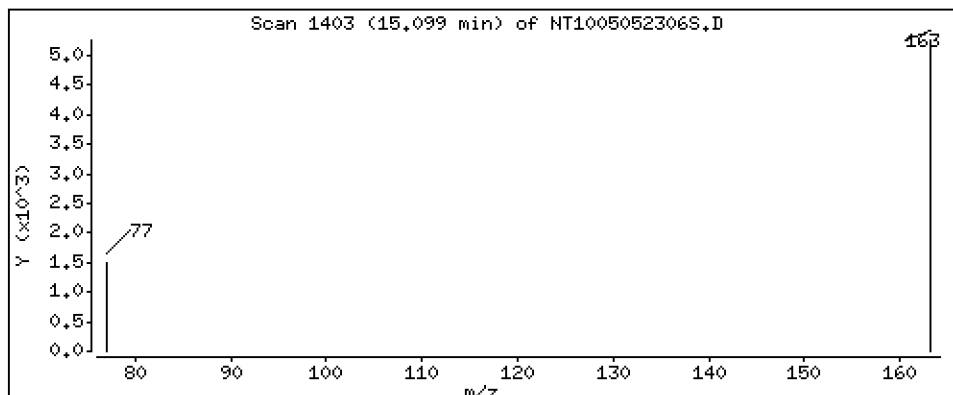
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,07371 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

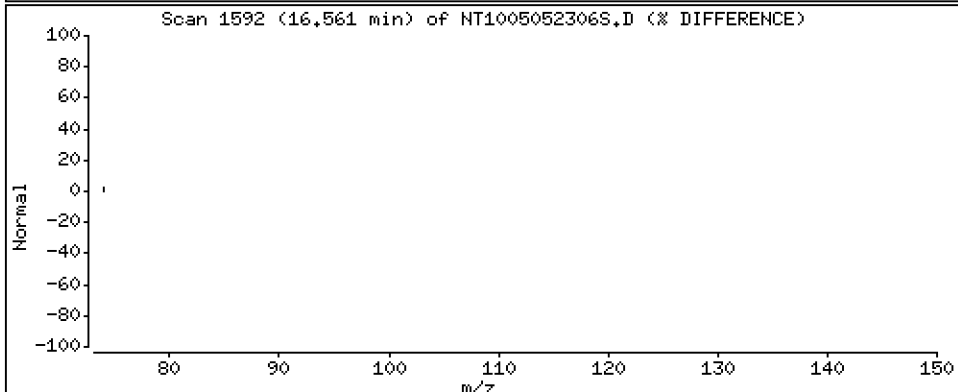
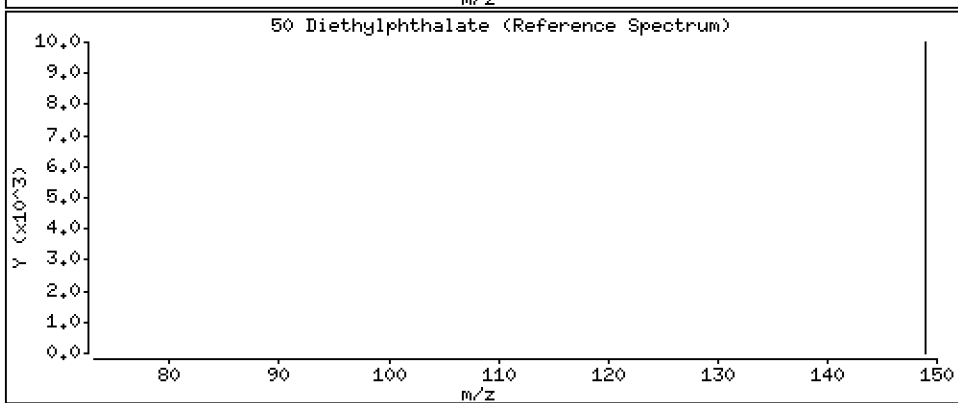
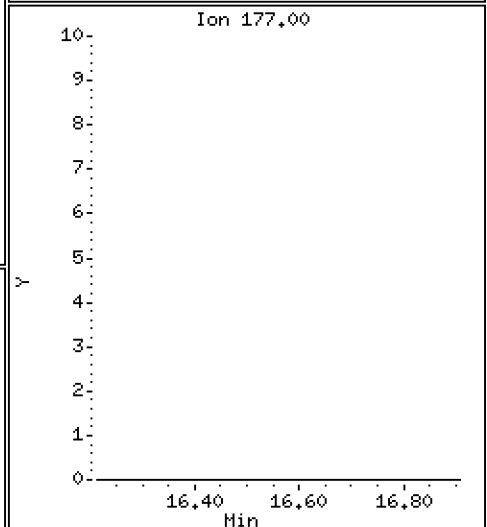
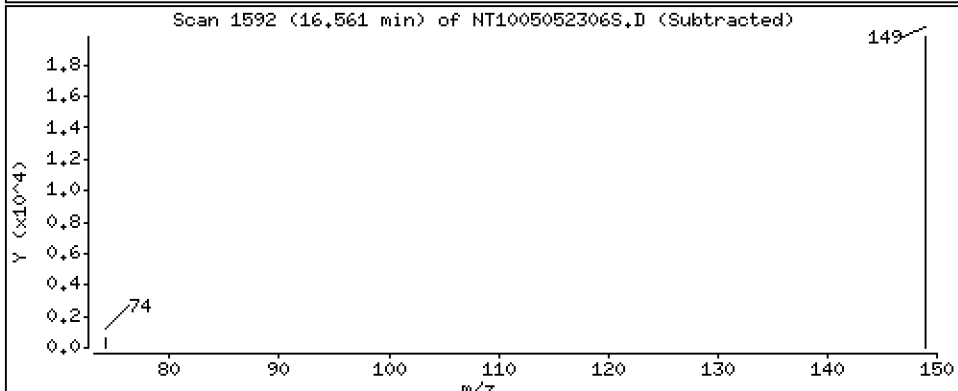
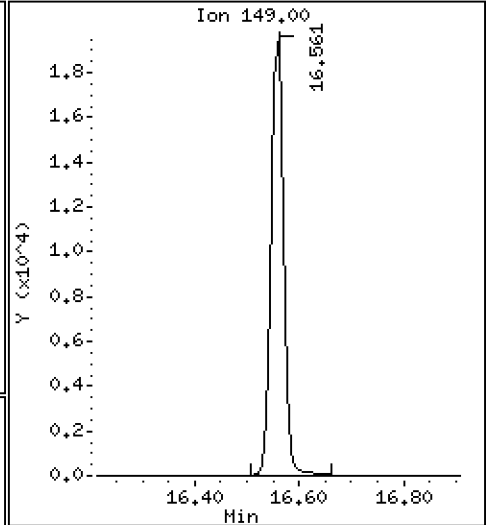
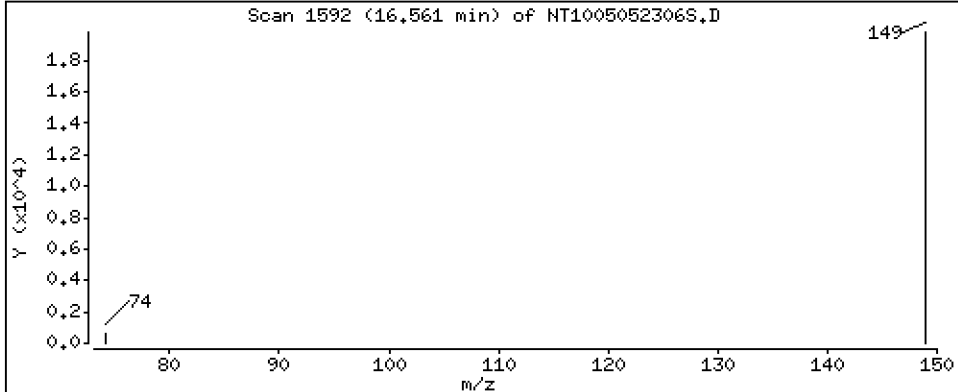
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,2286 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

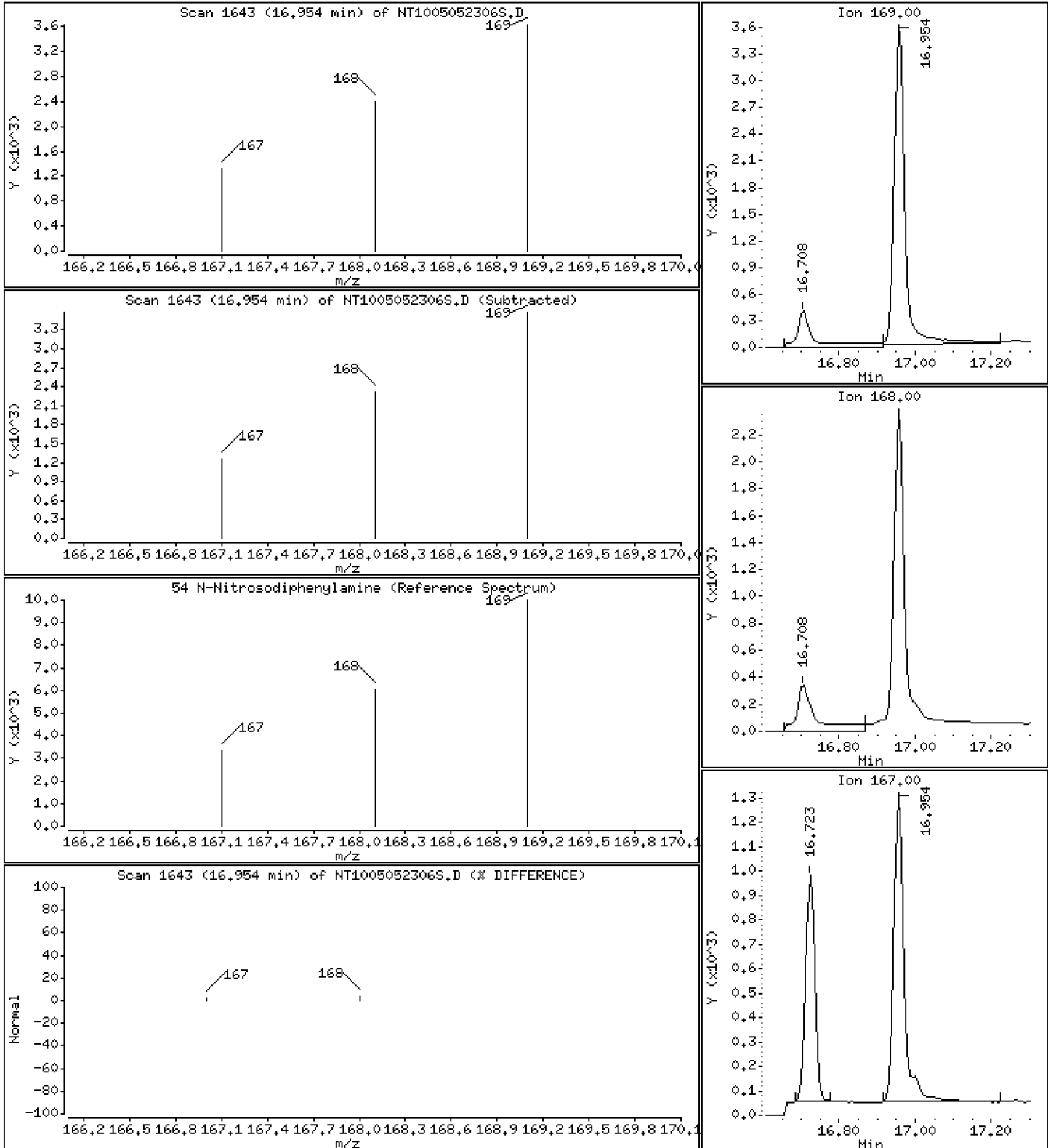
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.07664 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

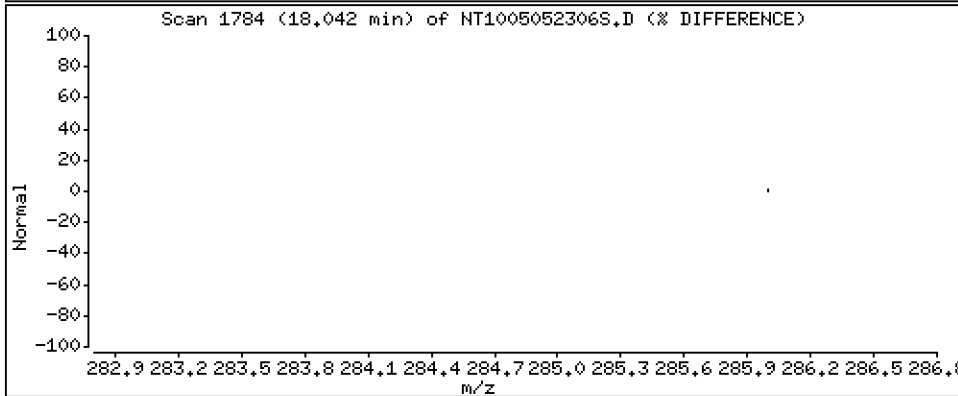
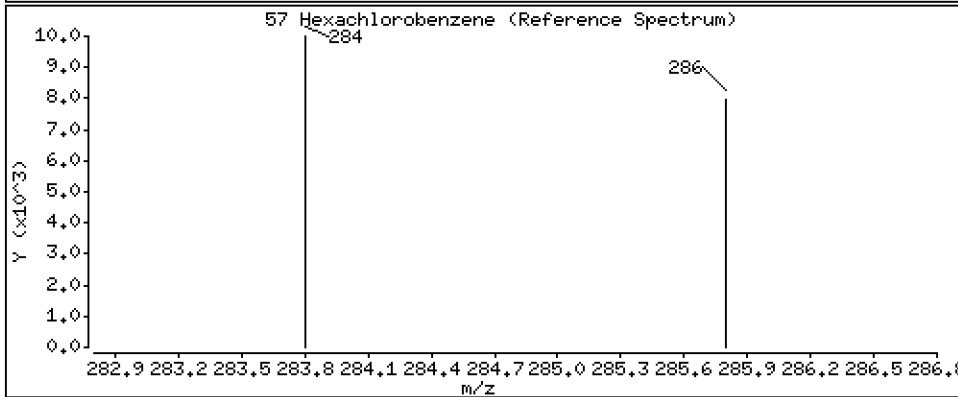
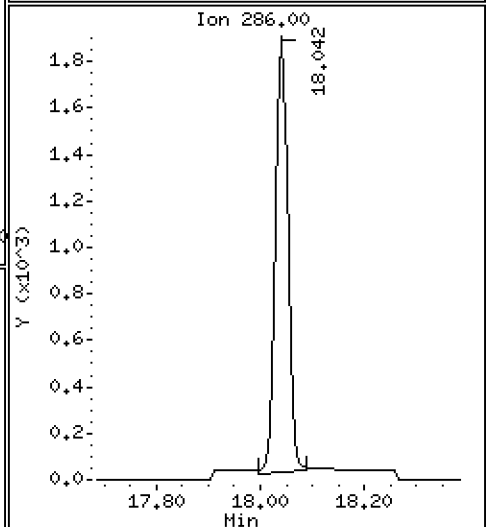
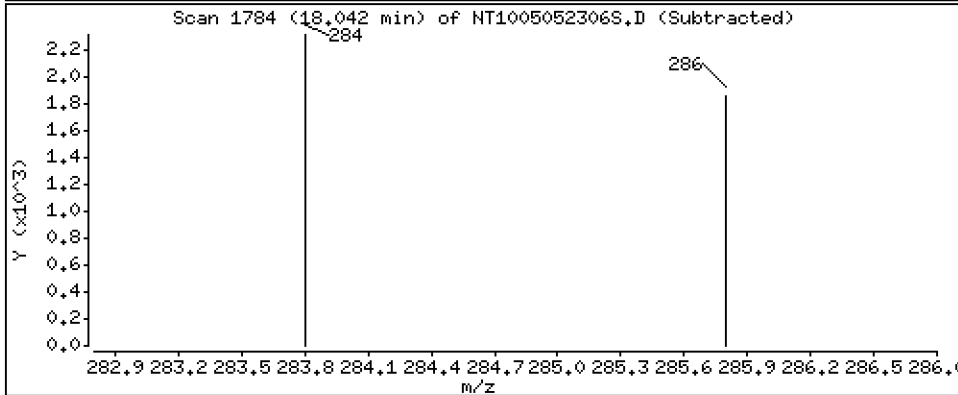
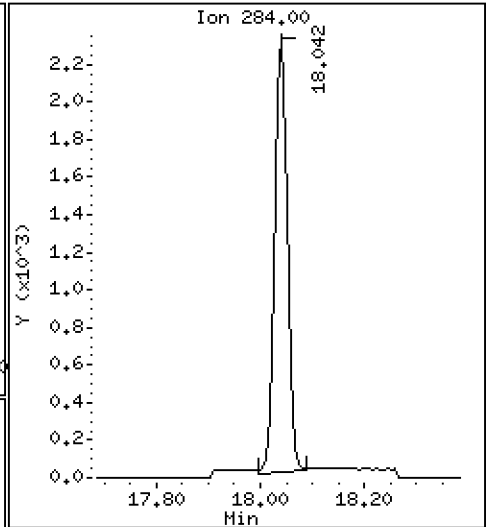
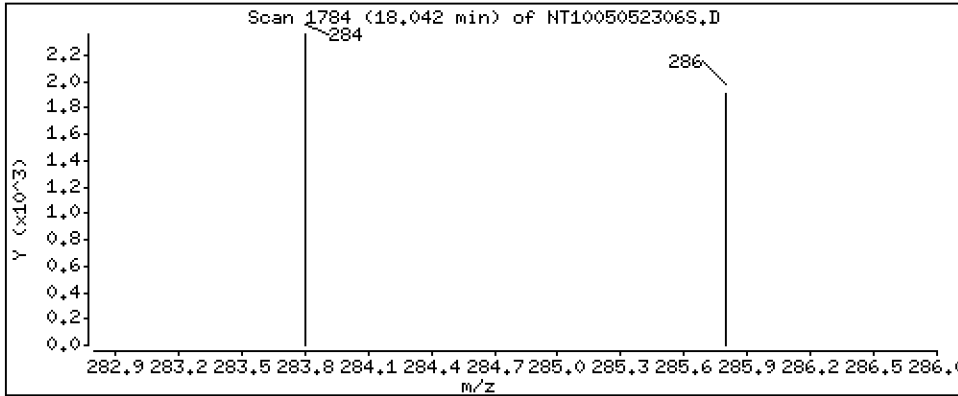
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 0.08571 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

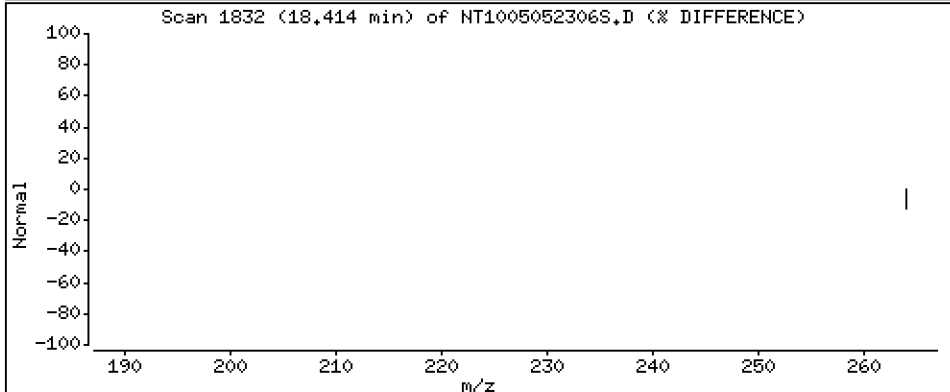
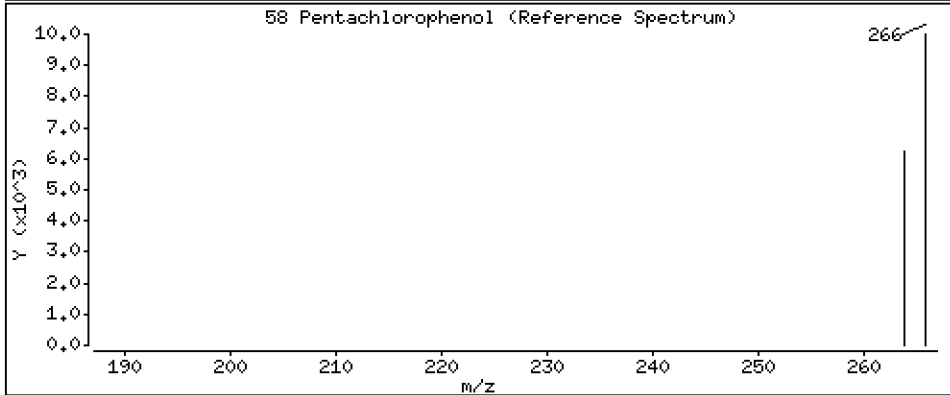
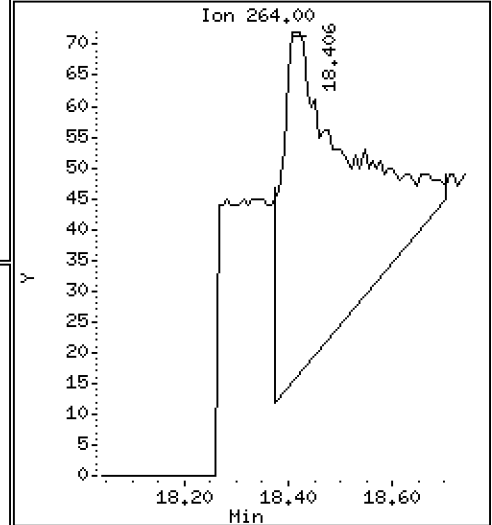
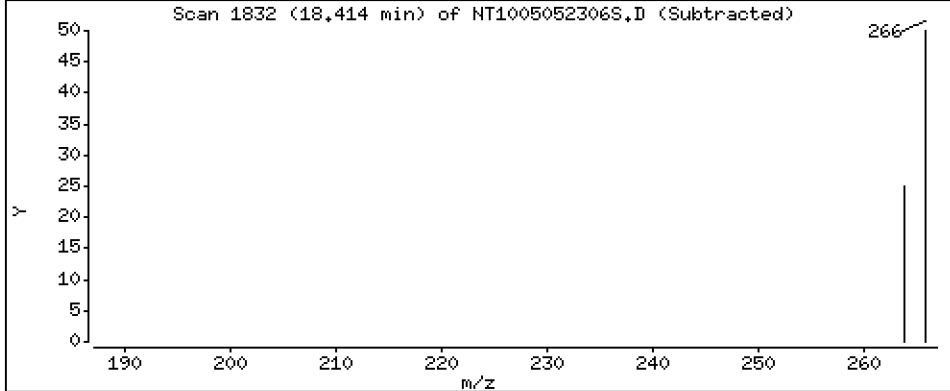
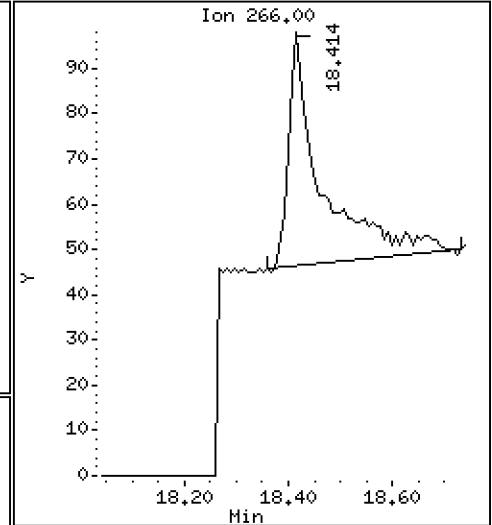
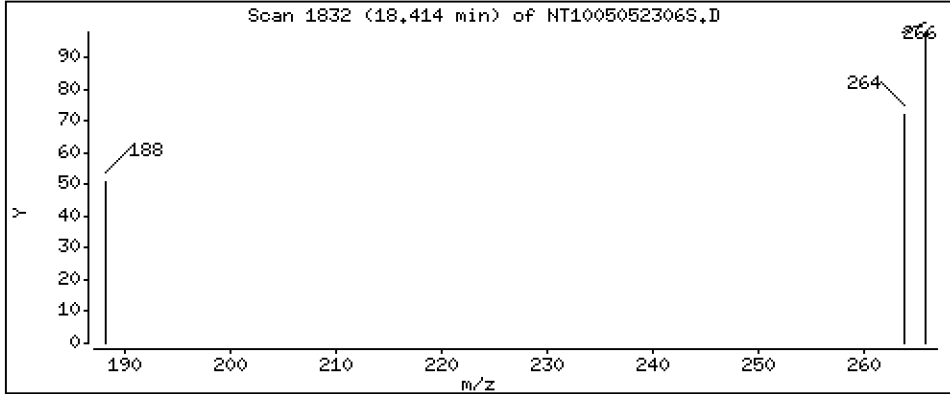
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,008766 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

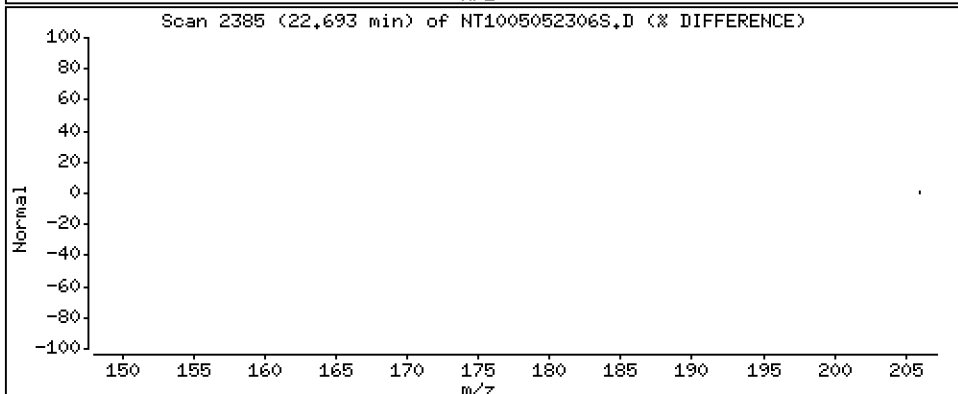
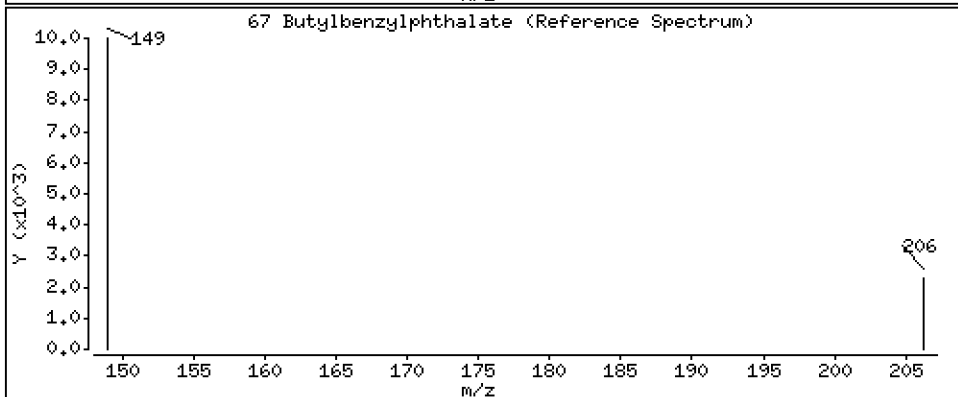
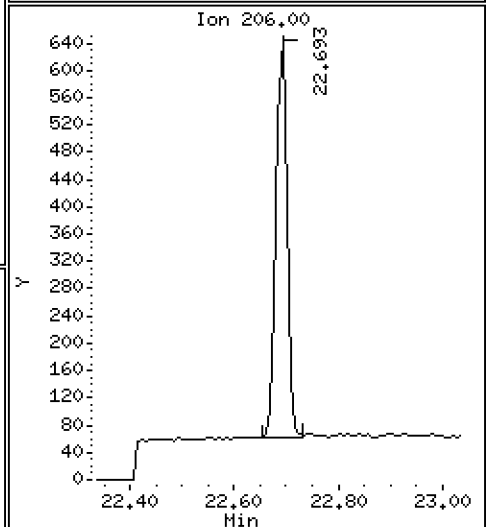
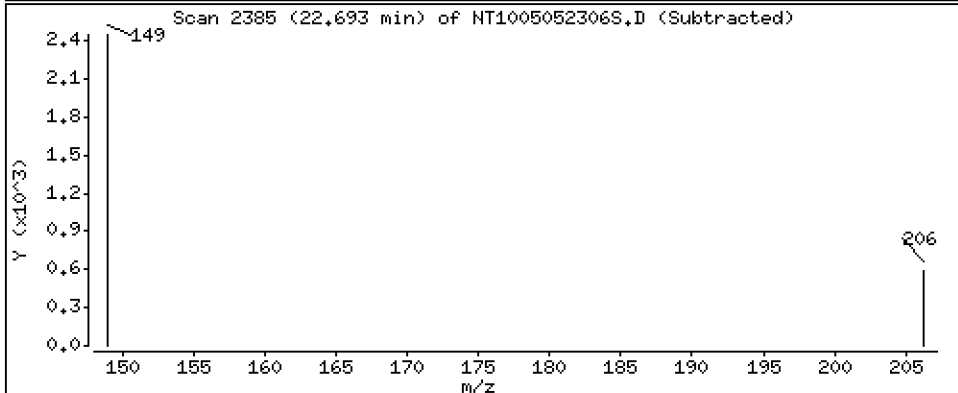
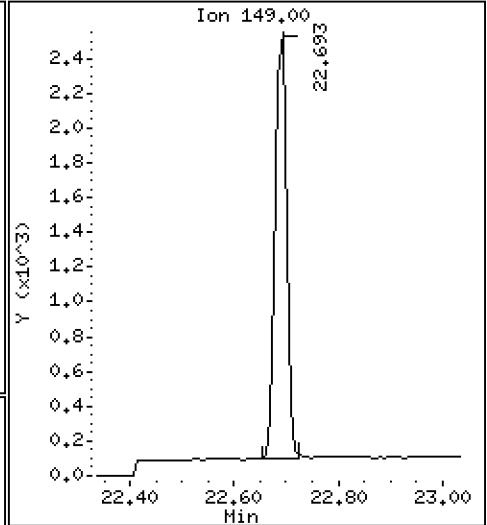
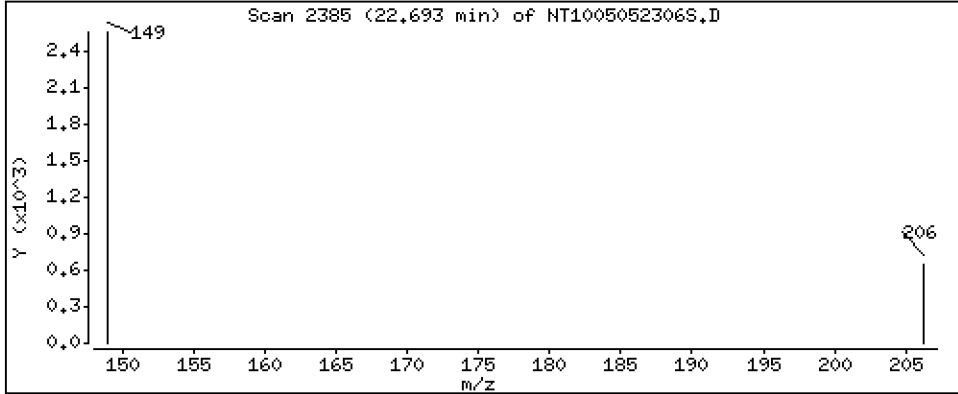
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,03656 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

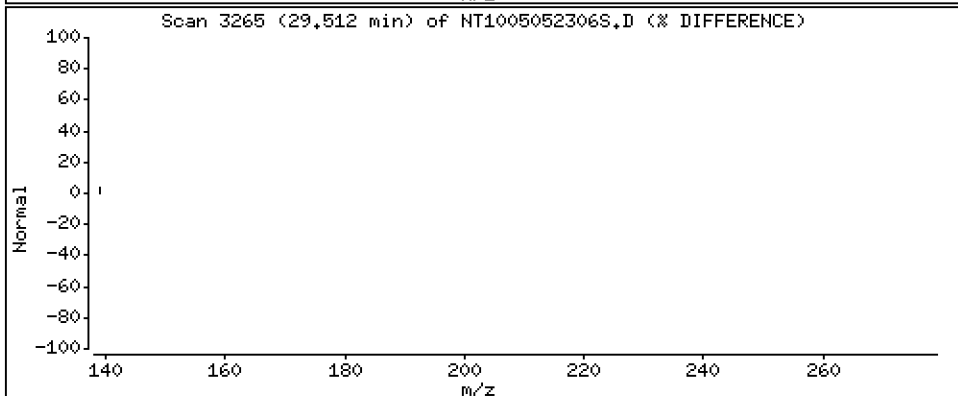
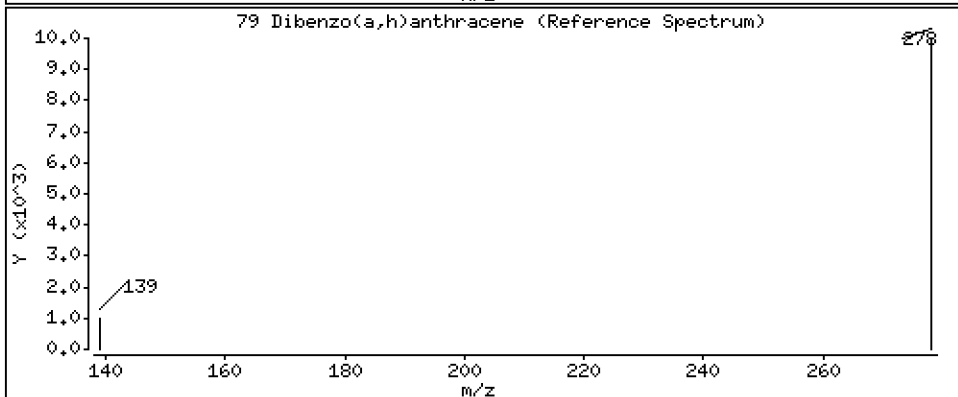
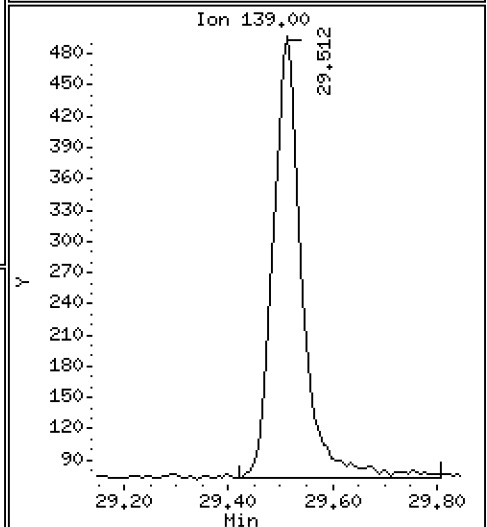
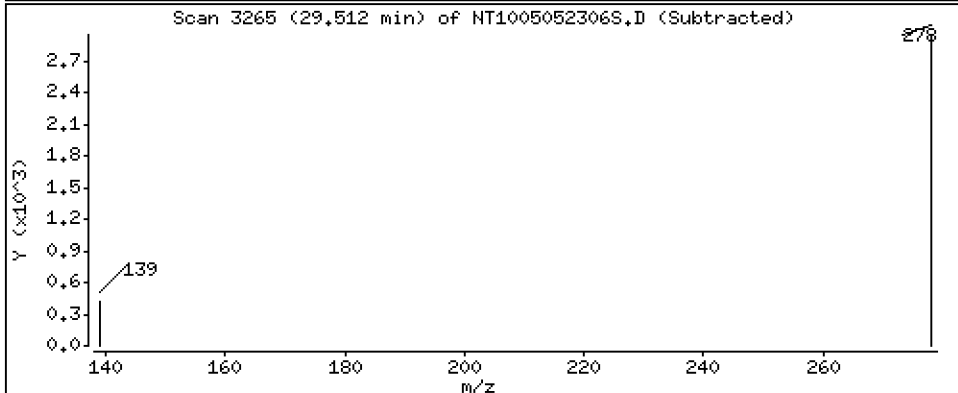
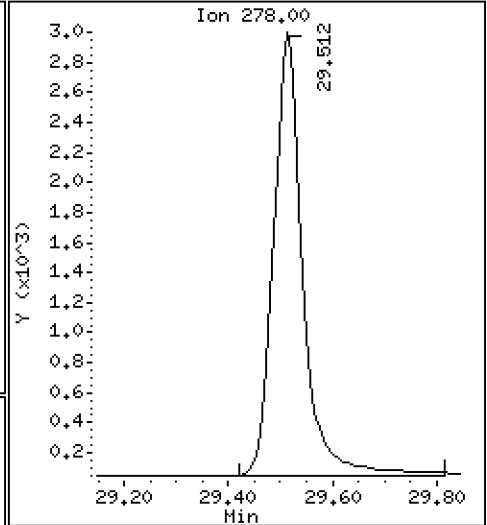
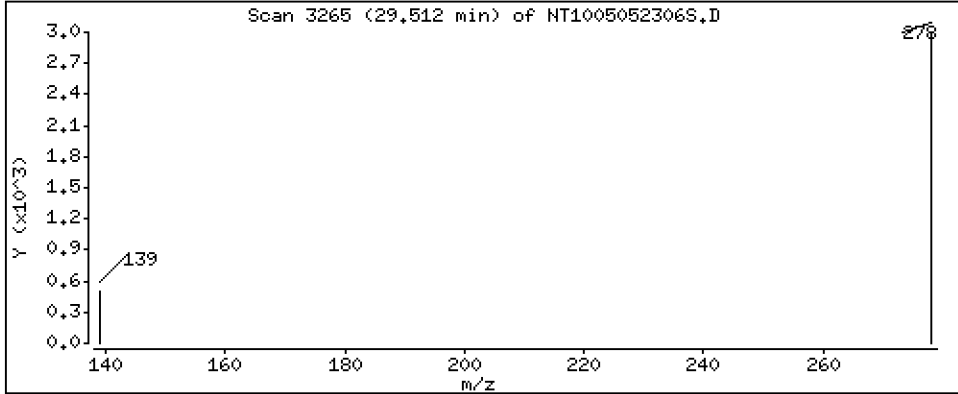
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

79 Dibenzo(a,h)anthracene

Concentration: 0.07195 ug/L



Date : 05-MAY-2023 14:01

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV1

Volume Injected (uL): 1.0

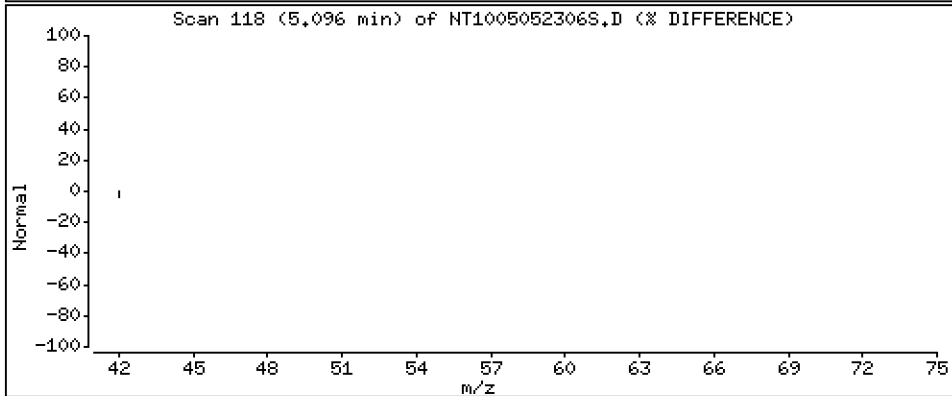
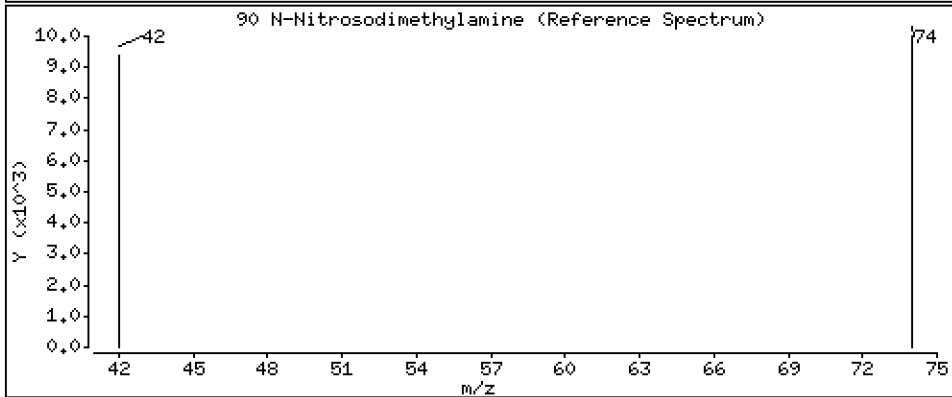
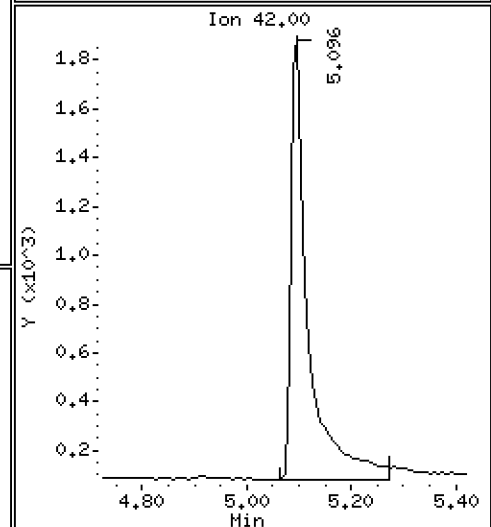
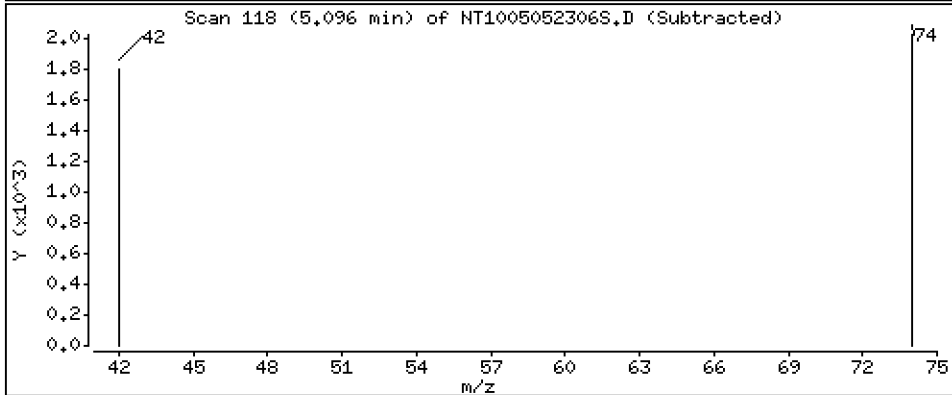
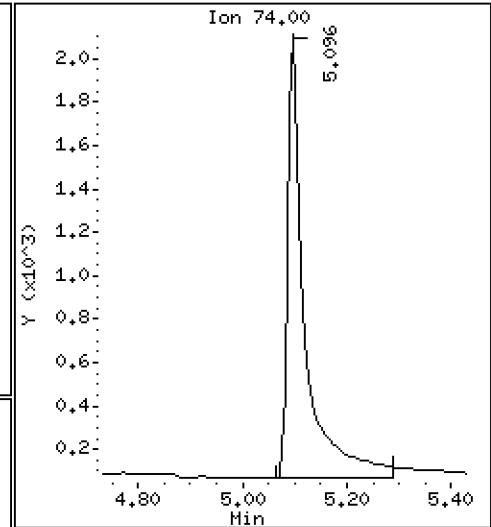
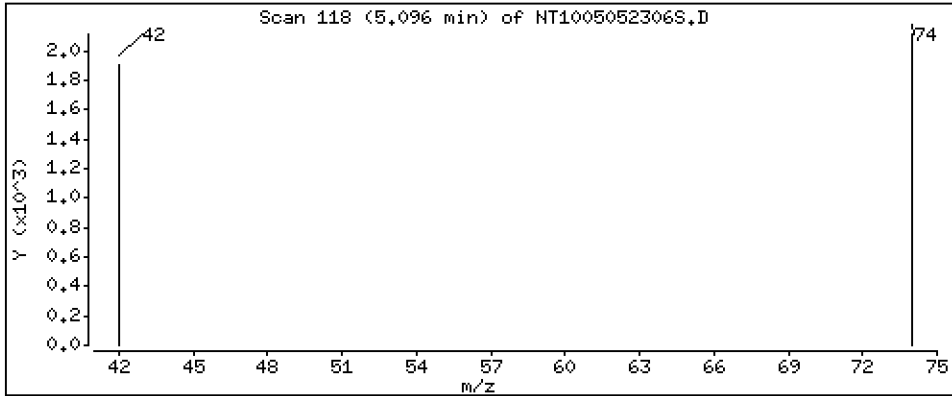
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.1504 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052306S.D
 Lab Smp Id: SLE0466-LCV1
 Inj Date : 05-MAY-2023 14:01 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLE0466-LCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		7.243	7.243	(0.763)	6664	0.11496	0.1150 (R)
3 Phenol	94		8.850	8.842	(0.932)	5764	0.07938	0.07938
7 1,3-Dichlorobenzene	146		9.430	9.430	(0.993)	7062	0.09248	0.09248
* 8 1,4-Dichlorobenzene-d4	152		9.492	9.492	(1.000)	190296	4.00000	
9 1,4-Dichlorobenzene	146		9.523	9.523	(1.003)	6818	0.09014	0.09014
11 Benzyl alcohol	79		9.771	9.756	(1.029)	4670	0.09300	0.09300
12 1,2-Dichlorobenzene	146		9.888	9.880	(1.042)	6592	0.09061	0.09061
13 2-Methylphenol	108		9.973	9.965	(1.051)	4514	0.08306	0.08306
15 4-Methylphenol	108		10.245	10.237	(1.079)	4097	0.07170	0.07170
16 N-Nitroso-di-n-propylamine	70		10.315	10.315	(1.087)	3123	0.07575	0.07575
22 2,4-Dimethylphenol	107		11.288	11.288	(0.942)	9743	0.14761	0.1476
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		11.904	11.896	(0.993)	6185	0.09133	0.09133
* 27 Naphthalene-d8	136		11.988	11.988	(1.000)	664307	4.00000	
30 Hexachlorobutadiene	225		12.382	12.382	(1.033)	3721	0.08606	0.08606
39 Dimethylphthalate	163		15.099	15.099	(0.967)	9261	0.07371	0.07371
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	331419	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	30835	0.22858	0.2286
54 N-Nitrosodiphenylamine	169		16.954	16.954	(0.908)	6714	0.07664	0.07664
57 Hexachlorobenzene	284		18.042	18.034	(0.966)	3677	0.08571	0.08571

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.414	18.390	(0.986)	225	0.00877	0.008766 (M)
* 59 Phenanthrene-d10	188	18.669	18.669	(1.000)	671733	4.00000	
\$ 66 Terphenyl-d14	244	21.779	21.771	(0.919)	8608	0.07335	0.07335 (R)
67 Butylbenzylphthalate	149	22.693	22.685	(0.958)	3496	0.03656	0.03656
* 69 Chrysene-d12	240	23.692	23.684	(1.000)	544279	4.00000	
* 77 Perylene-d12	264	26.525	26.517	(1.000)	495313	4.00000	
79 Dibenzo(a,h)anthracene	278	29.511	29.496	(1.113)	11504	0.07195	0.07195
90 N-Nitrosodimethylamine	74	5.095	5.080	(0.537)	4757	0.15043	0.1504

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052306S.D
 Lab Smp Id: SLE0466-LCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	190296	4.16
27 Naphthalene-d8	662220	331110	1324440	664307	0.32
42 Acenaphthene-d10	335558	167779	671116	331419	-1.23
59 Phenanthrene-d10	678190	339095	1356380	671733	-0.95
69 Chrysene-d12	566969	283485	1133938	544279	-4.00
77 Perylene-d12	522906	261453	1045812	495313	-5.28

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.49	0.00
27 Naphthalene-d8	11.99	11.49	12.49	11.99	0.00
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	0.00
59 Phenanthrene-d10	18.67	18.17	19.17	18.67	0.00
69 Chrysene-d12	23.68	23.18	24.18	23.69	0.03
77 Perylene-d12	26.52	26.02	27.02	26.53	0.03

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

REVIEW SUMMARY FOR FILE - NT1005052306S.D

Lab ID: SLE0466-LCV1

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 14:01

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

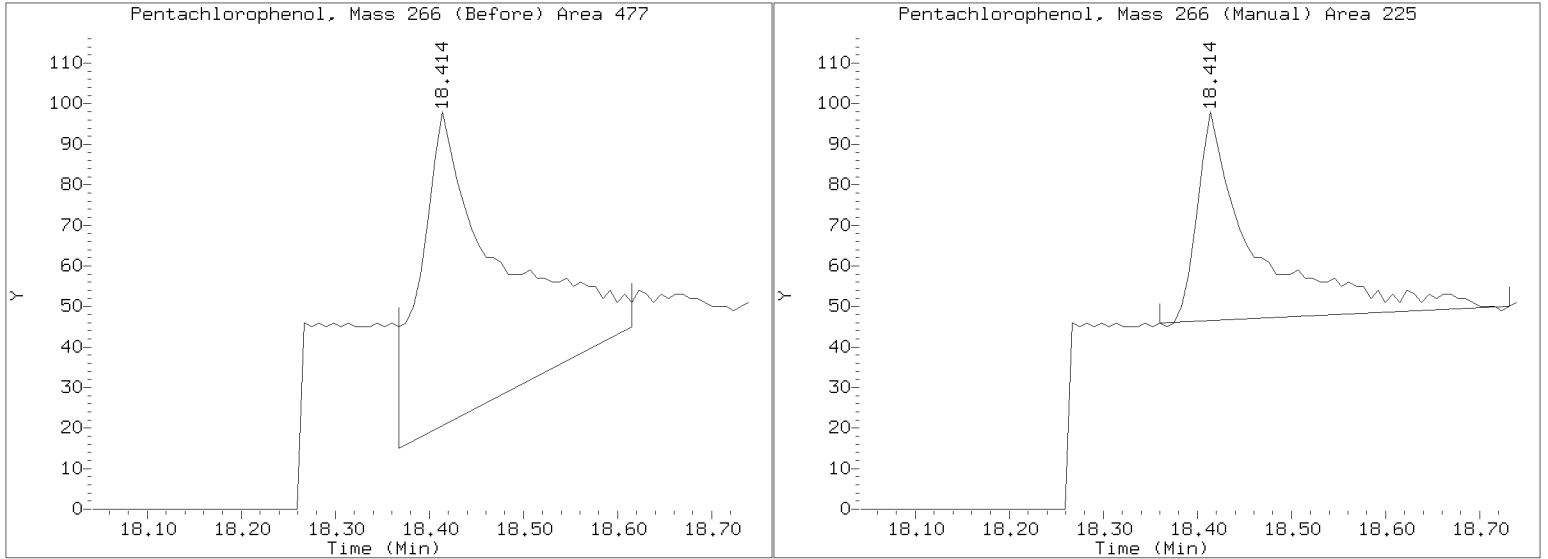
On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052306S.D
Injection Date: 05-MAY-2023 14:01
Lab ID: SLE0466-LCV1 Client ID:
Report Date: 05/31/2023 14:30





**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

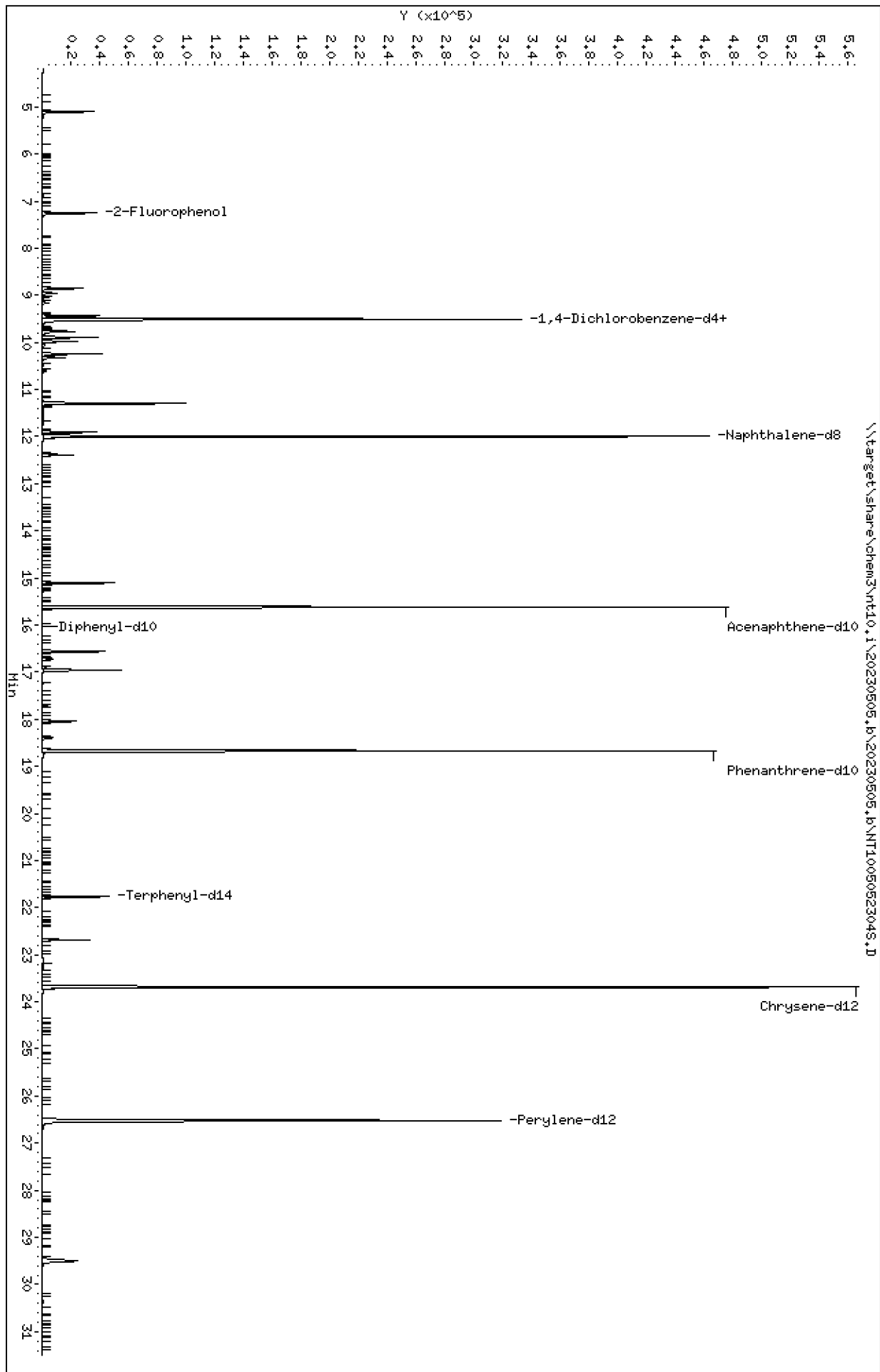
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GE00018</u>
Lab File ID:	<u>NT1005052304S.D</u>	Calibration Date:	<u>05/04/2023</u>
Sequence:	<u>SLE0466</u>	Injection Date:	<u>05/05/23</u>
Lab Sample ID:	<u>SLE0466-LCV2</u>	Injection Time:	<u>12:43</u>
Sequence Name:	<u>ABN 0.5</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.50000	0.5	1.5898270	1.4389890		-9.5	
1,2-Dichlorobenzene	A	0.50000	0.5	1.5291420	1.4011230		-8.4	
Benzyl Alcohol	A	0.50000	0.5	1.0555230	0.9532179		-9.7	
Benzoic acid	A	2.0000	0.08	0.1834660	0.0103434		-96.0	
2,4-Dimethylphenol	A	1.0000	0.9	0.3974465	0.3566811		-10.3	
1,2,4-Trichlorobenzene	A	0.50000	0.4	0.4077591	0.3509372		-13.9	
N-Nitrosodiphenylamine	A	0.50000	0.5	0.5216563	0.4780365		-8.4	
Pentachlorophenol	A	1.0000	0.4	0.1295337	0.0554658		-63.8	
2-Fluorophenol	A	0.75000	0.664	1.2184940	1.0783370		-11.5	
p-Terphenyl-d14	A	0.50000	0.406	0.8625046	0.7004529		-18.8	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230505.1\20230505.1\NT10050523045.D
Date: 05-May-2023 12:43
Client ID:
Sample Info: SLE0466-LCW2
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

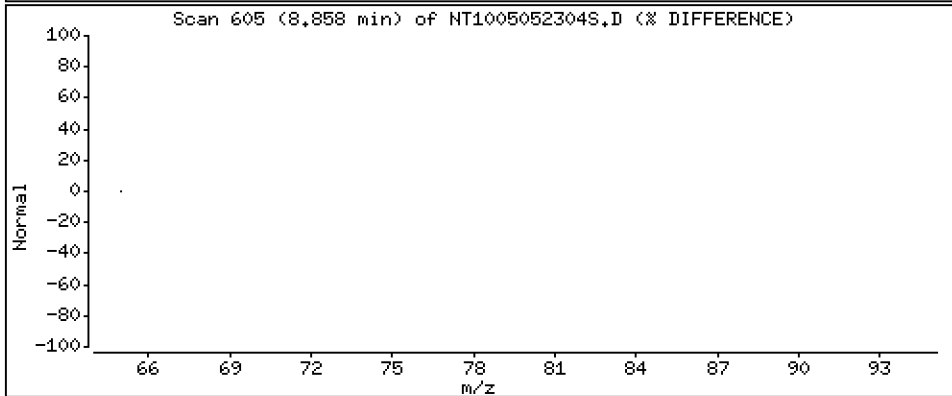
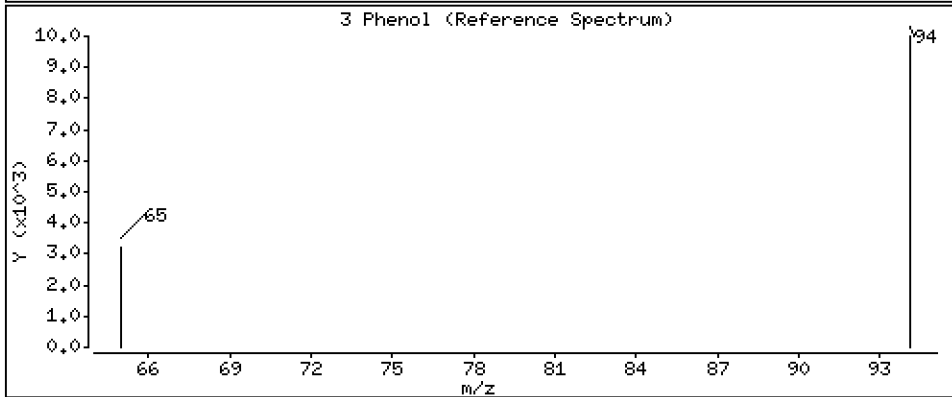
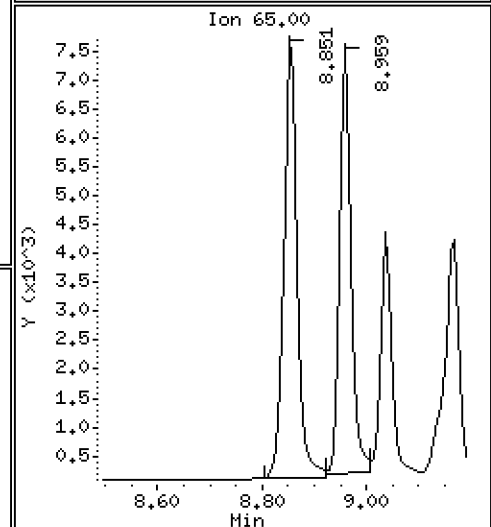
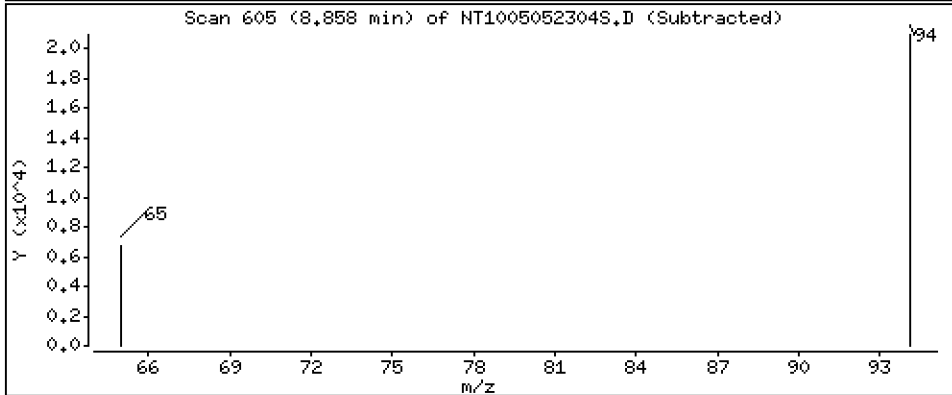
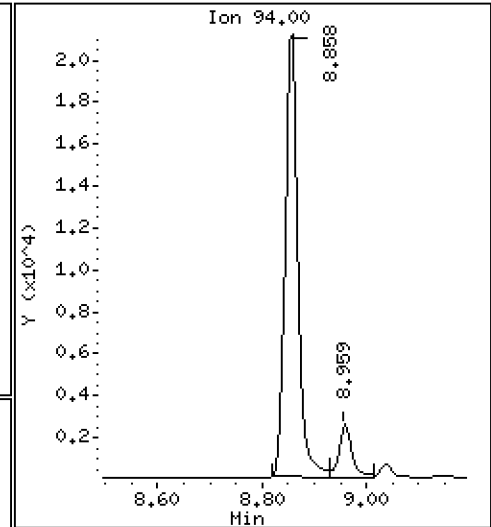
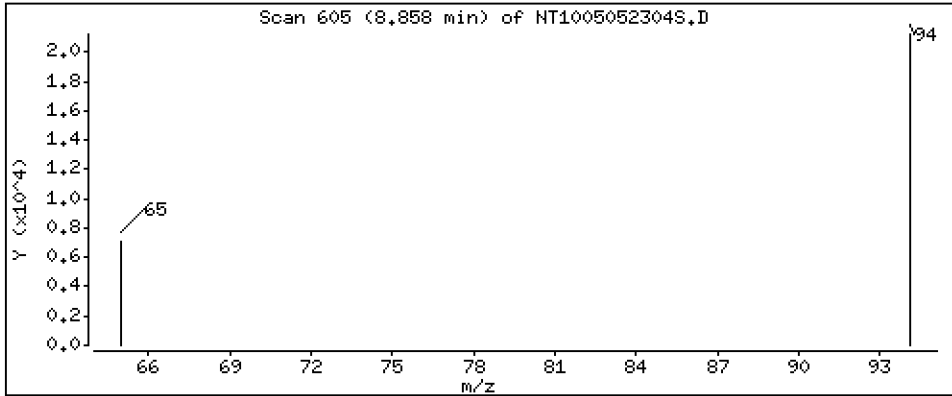
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.4689 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

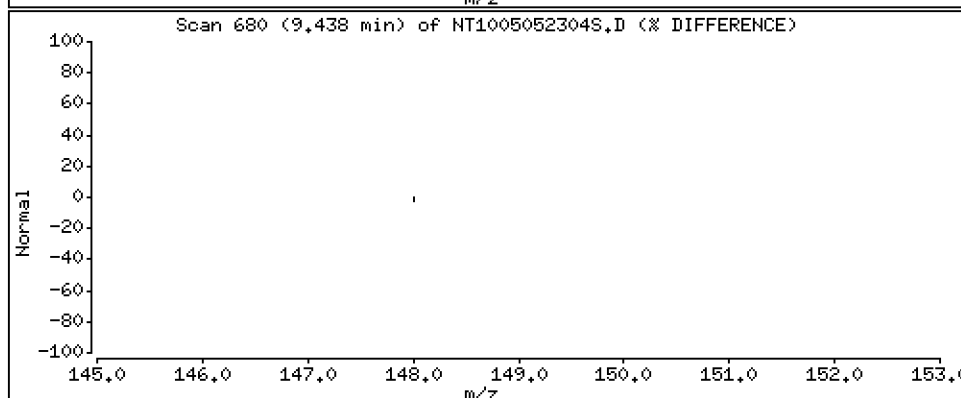
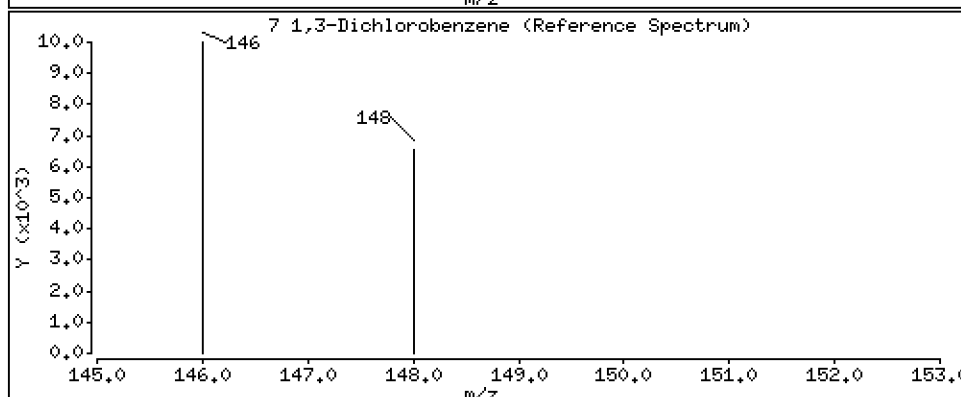
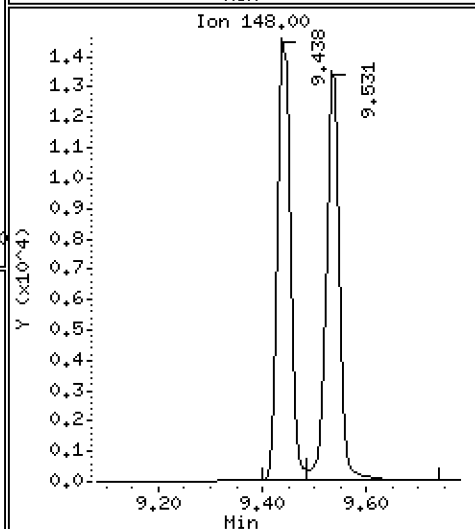
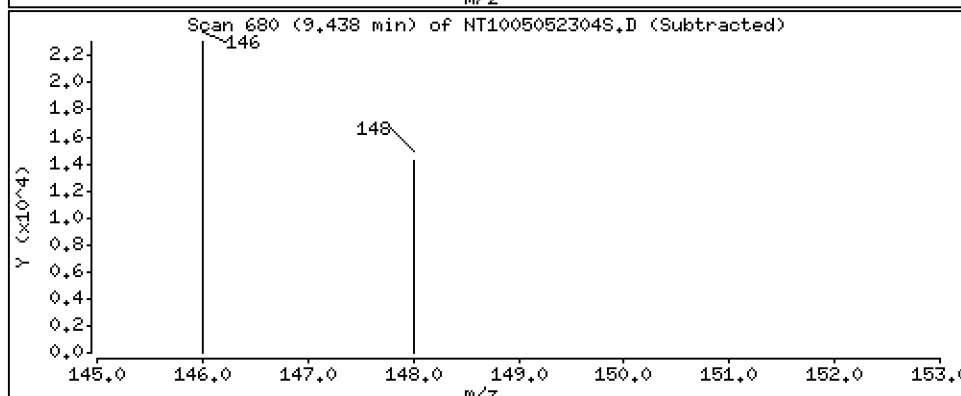
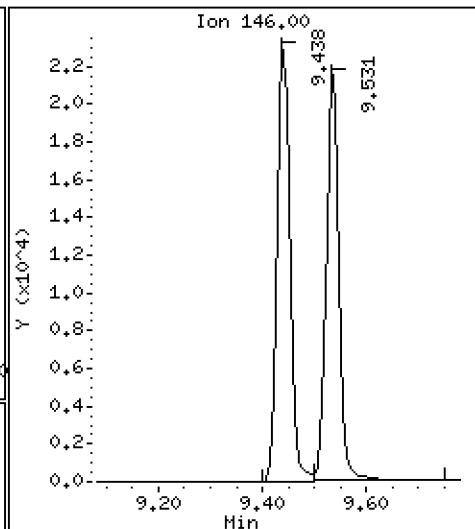
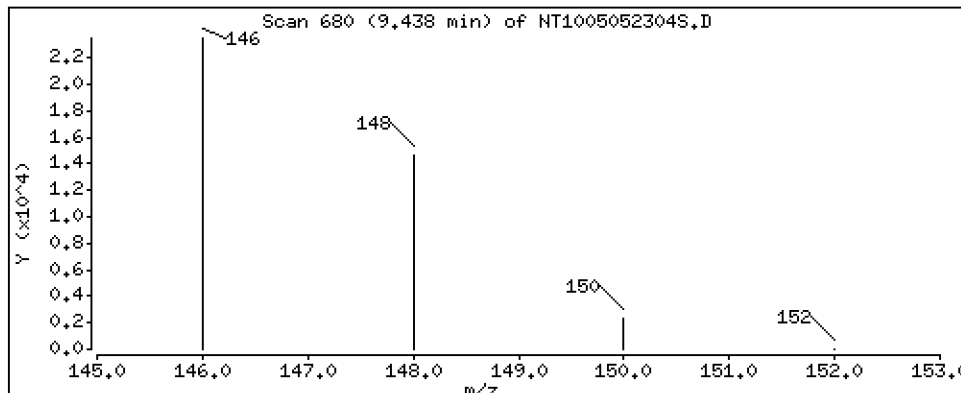
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.4558 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

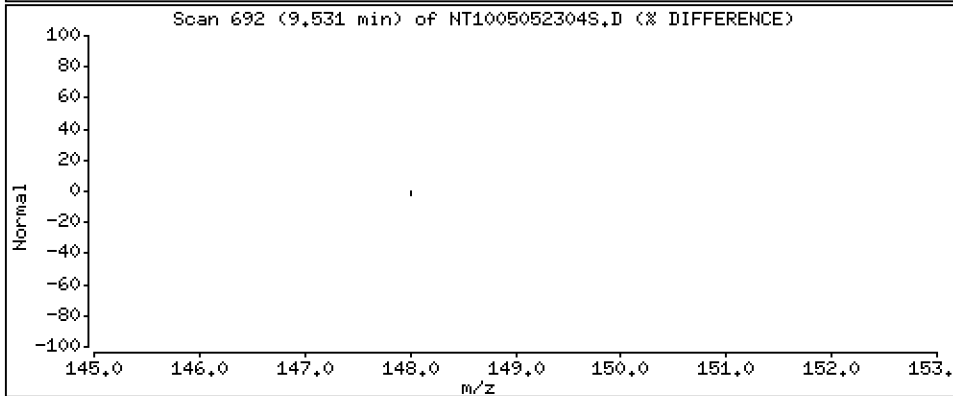
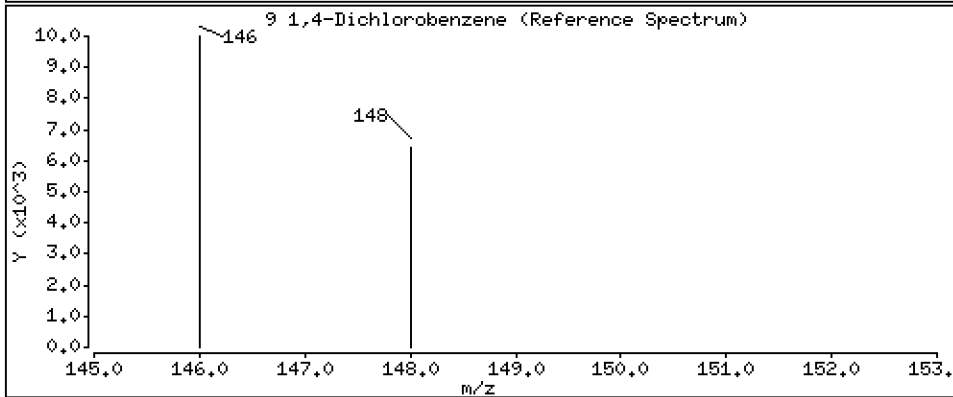
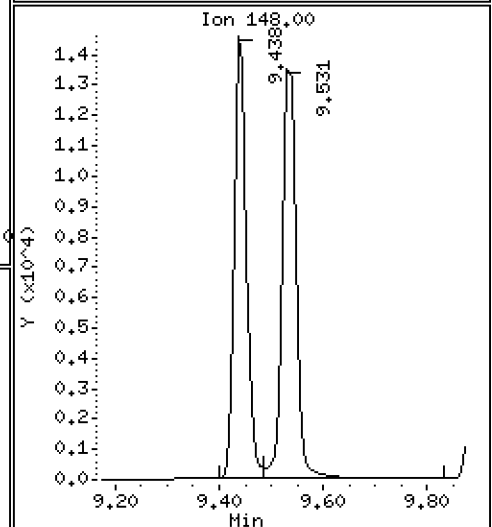
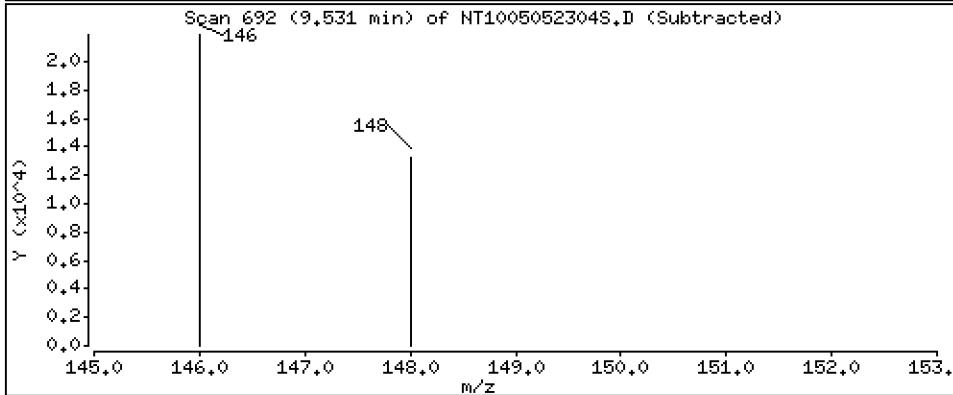
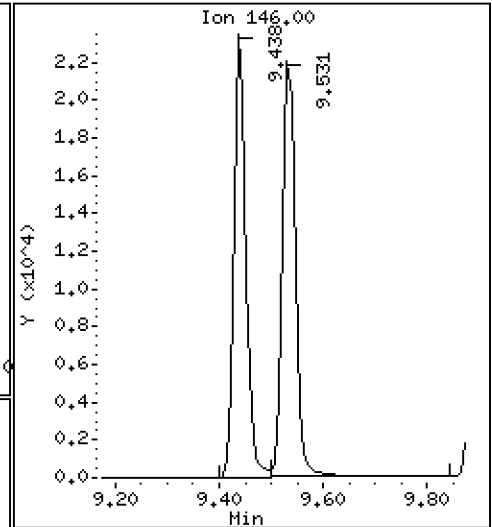
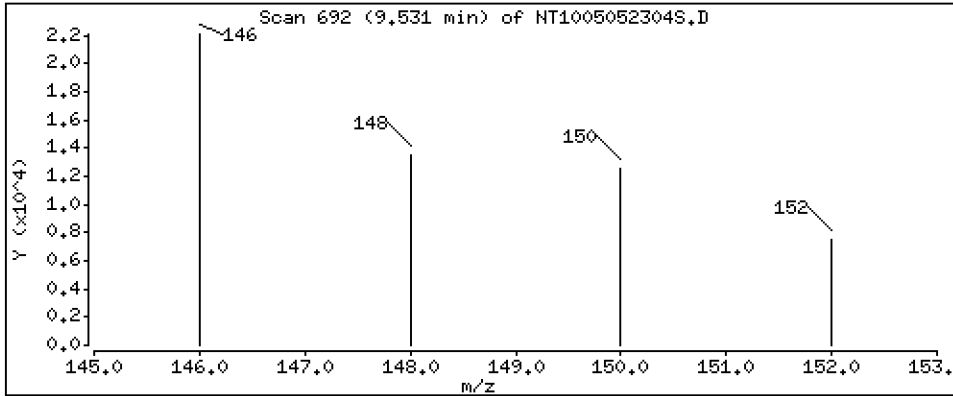
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.4526 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

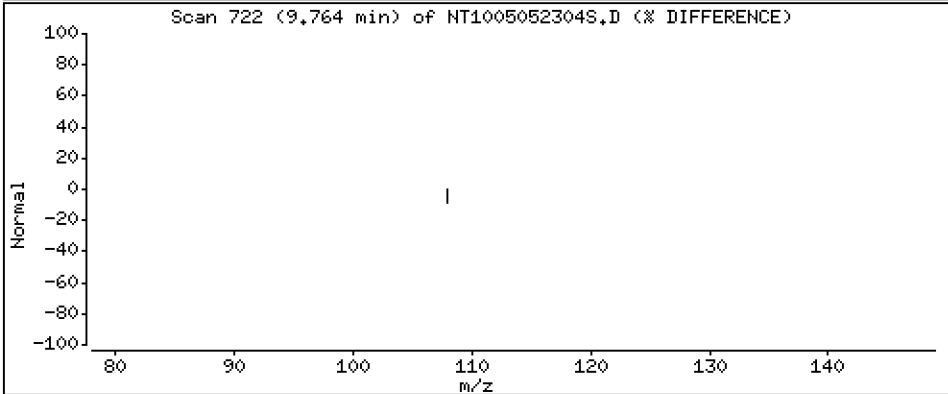
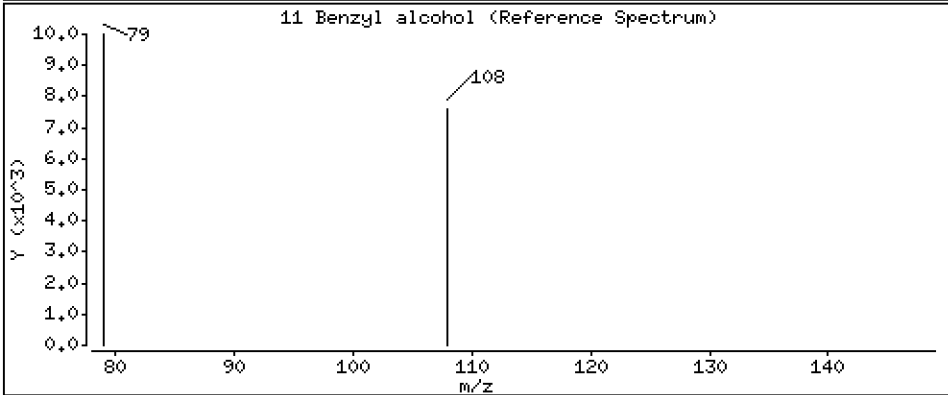
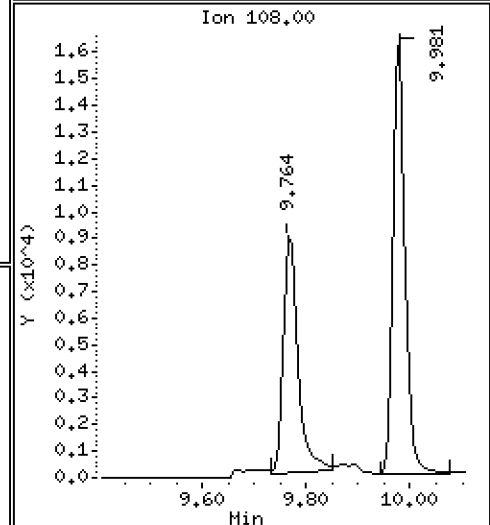
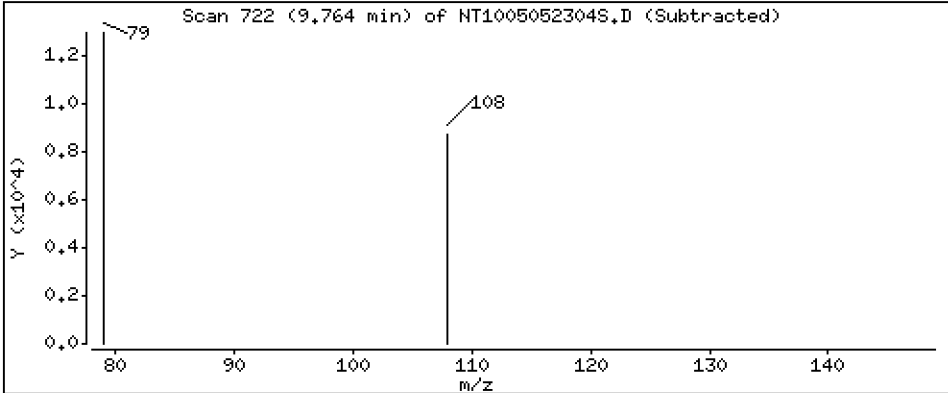
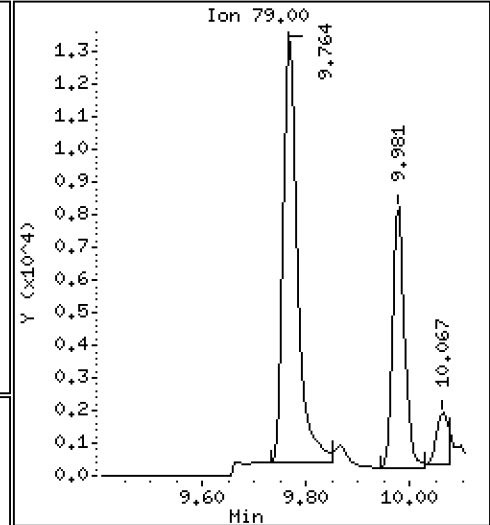
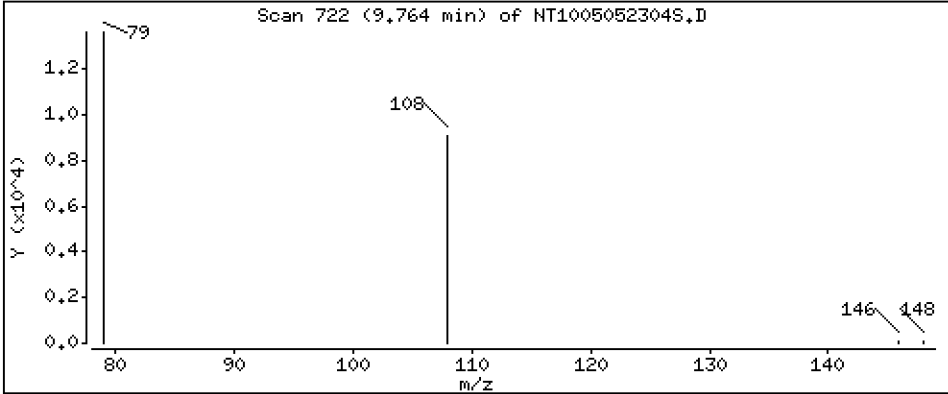
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.4515 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

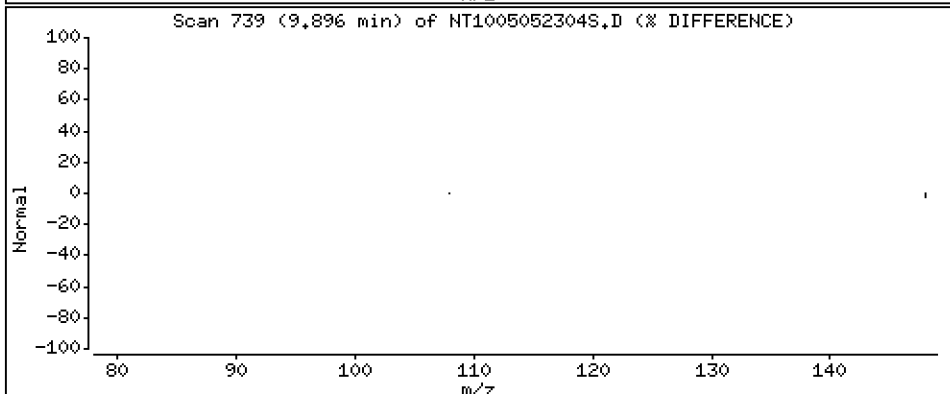
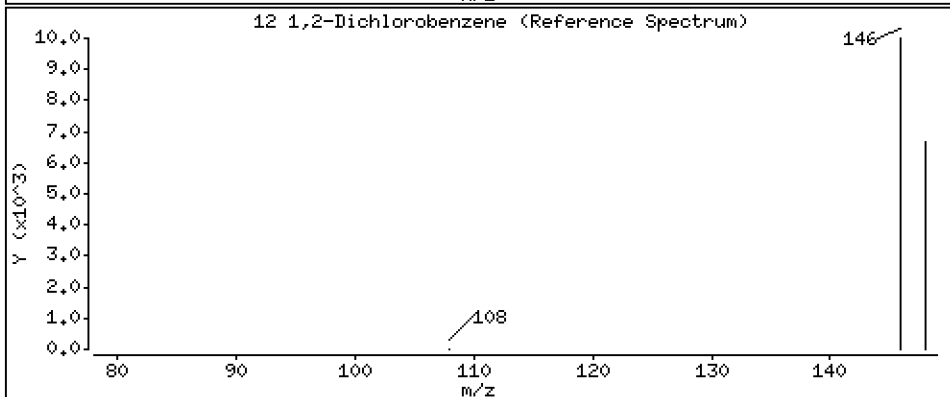
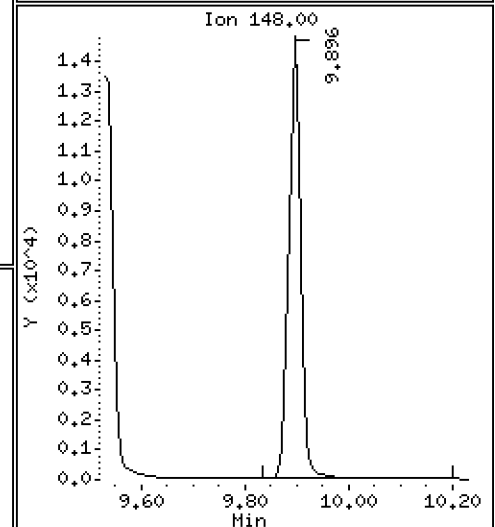
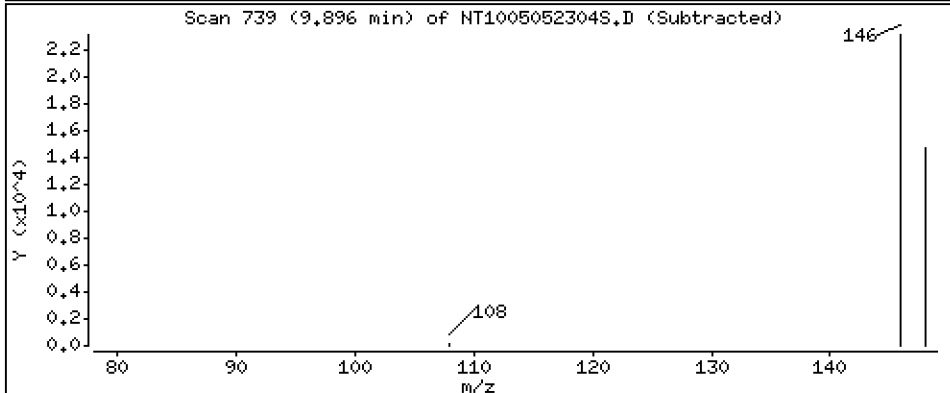
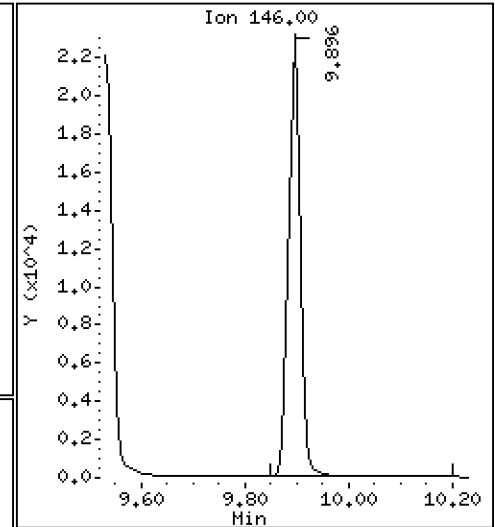
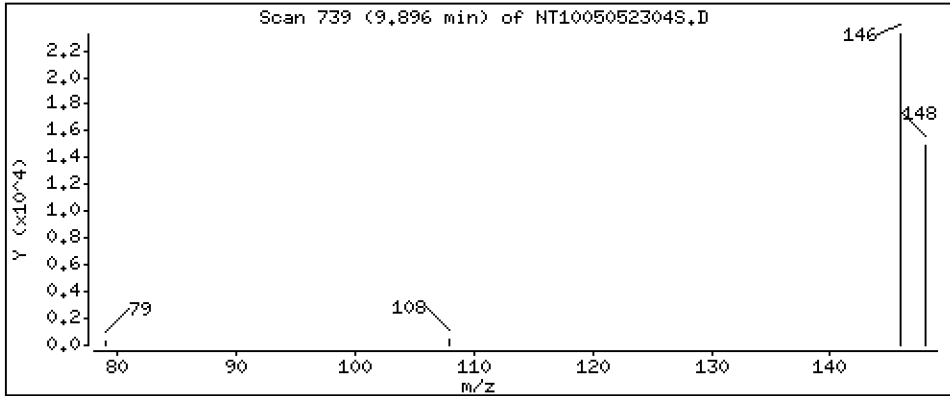
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.4581 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

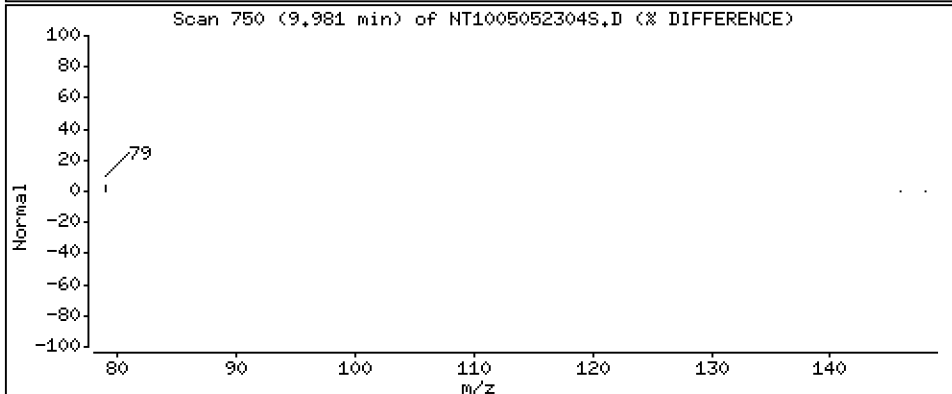
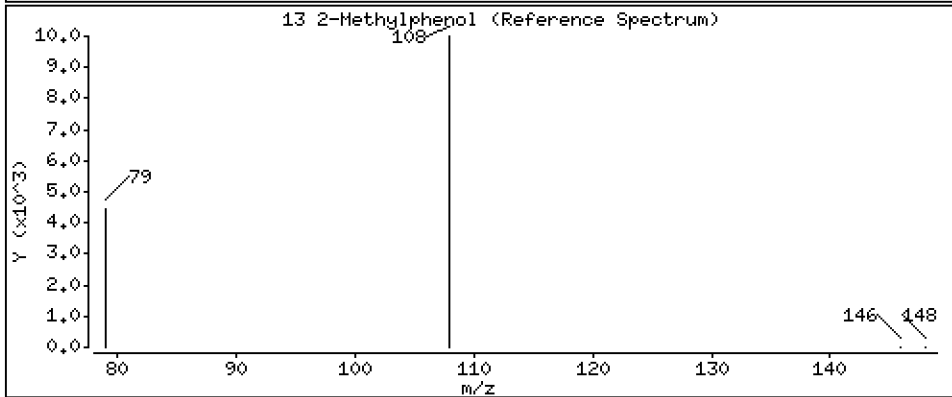
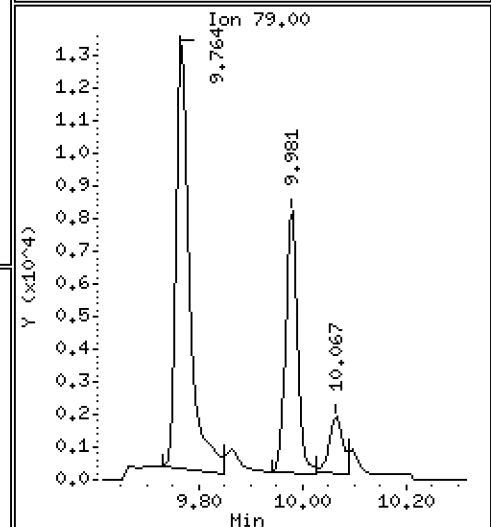
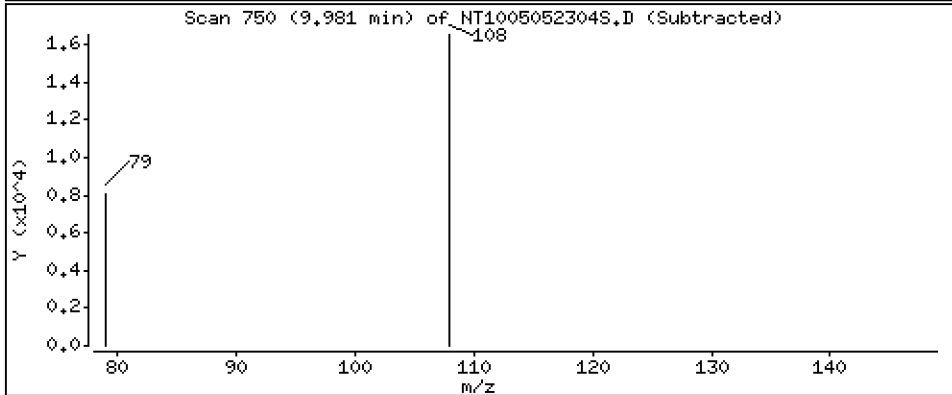
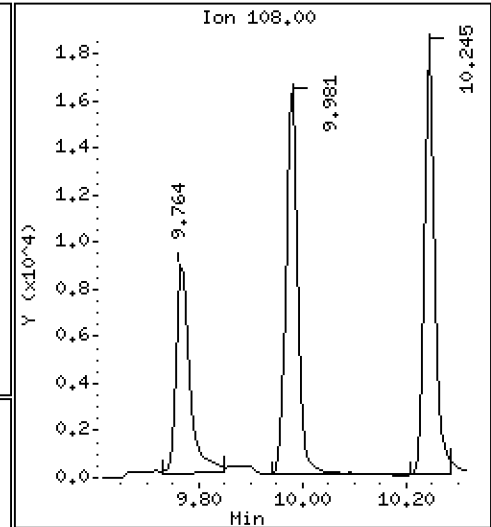
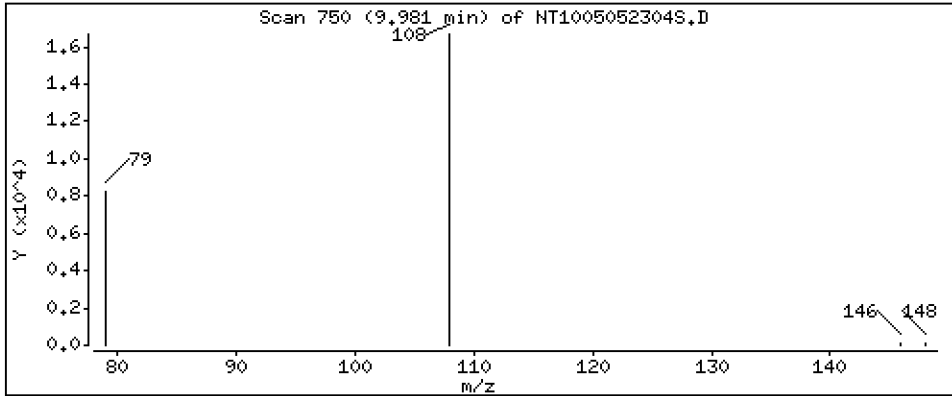
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.4570 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

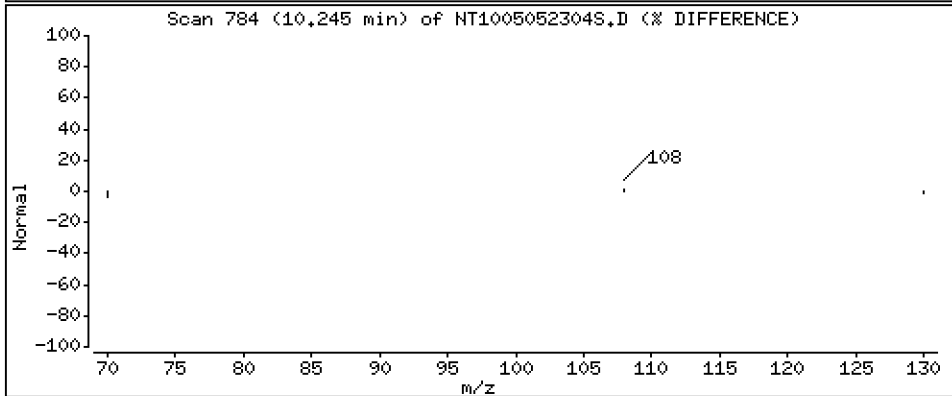
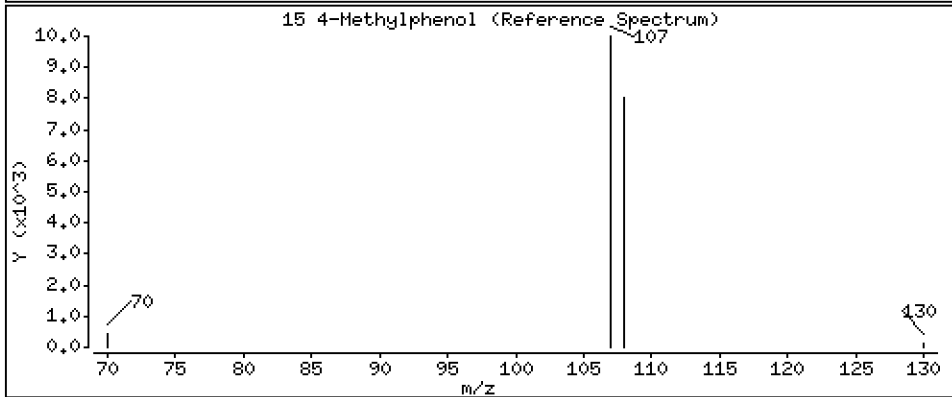
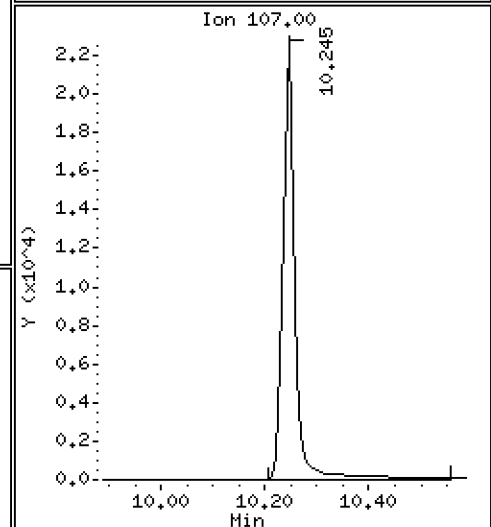
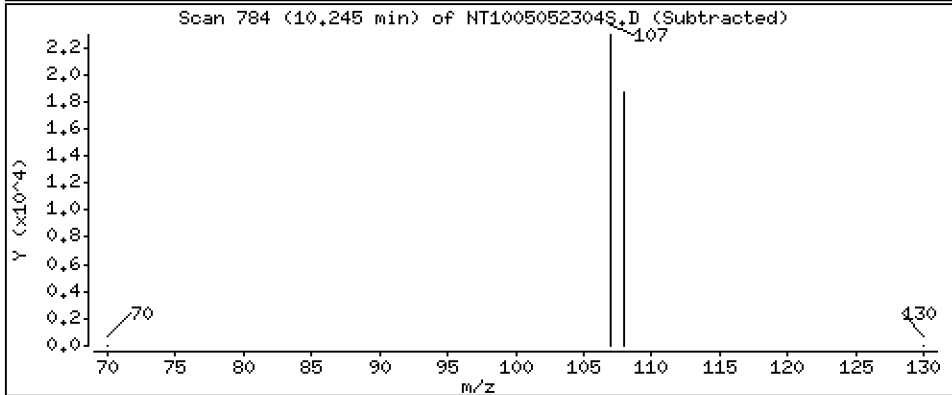
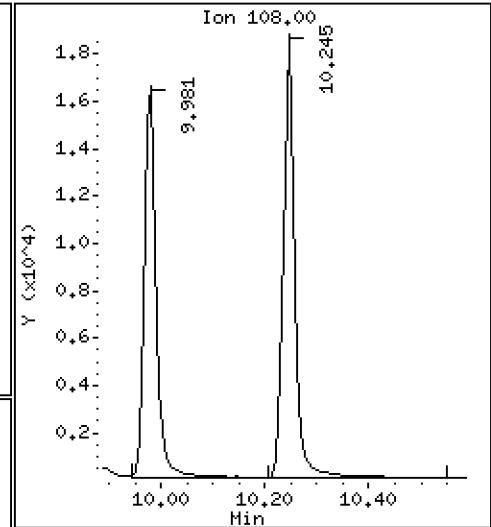
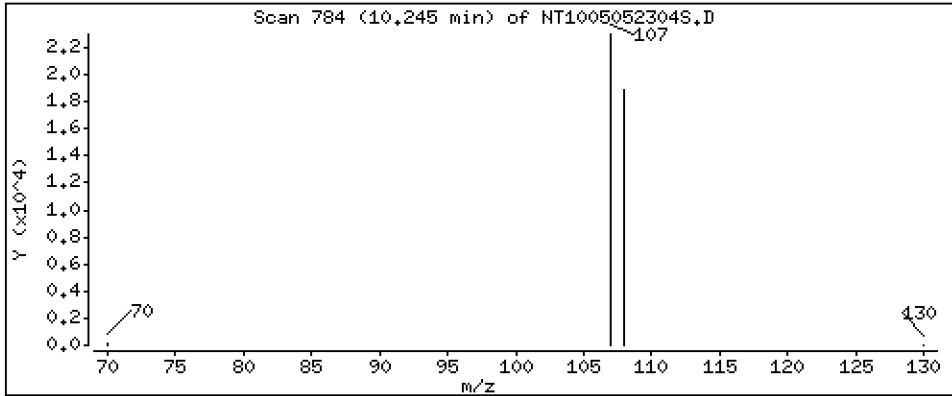
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.4519 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

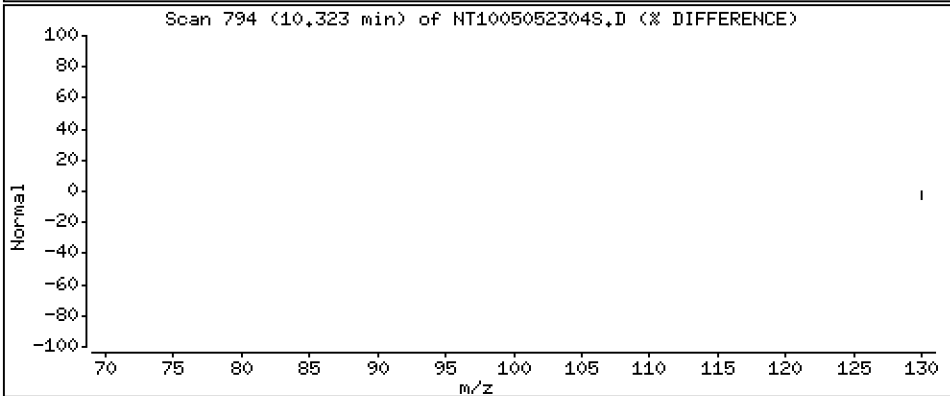
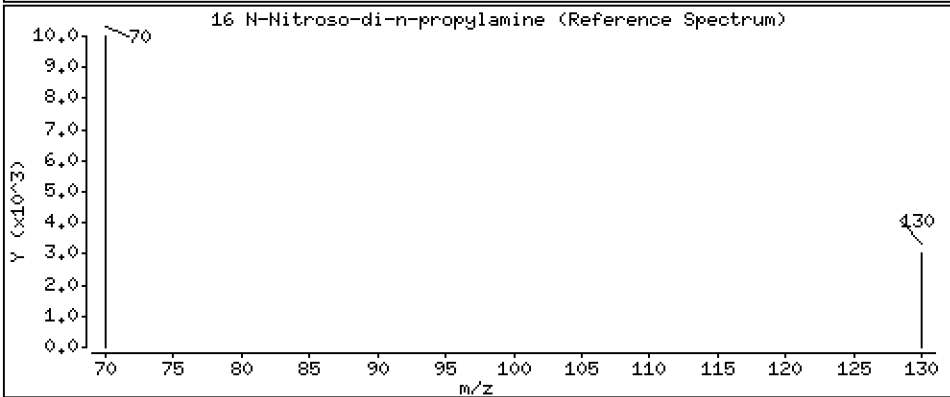
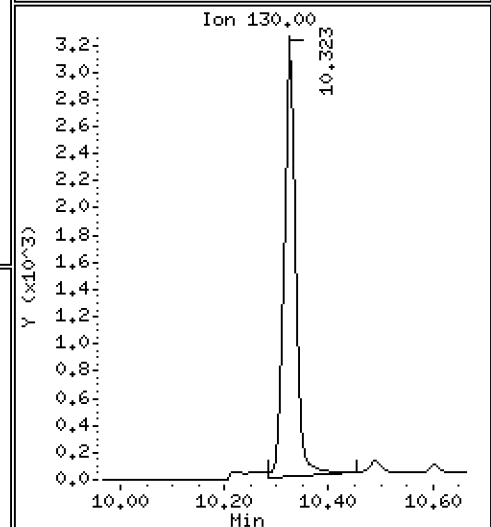
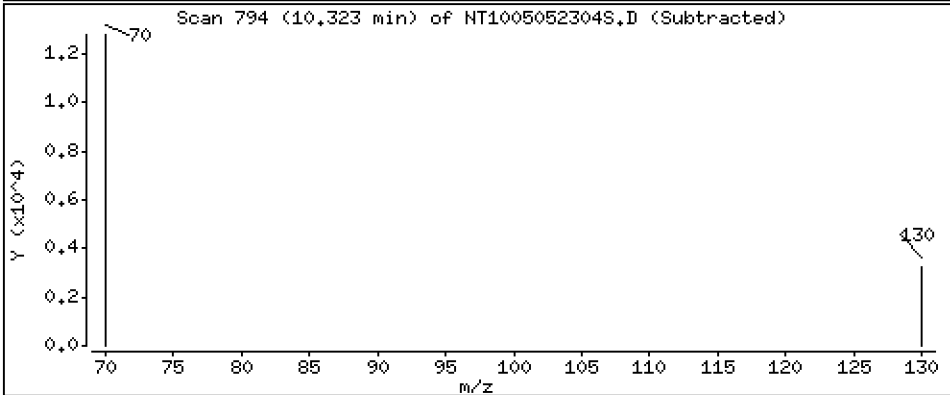
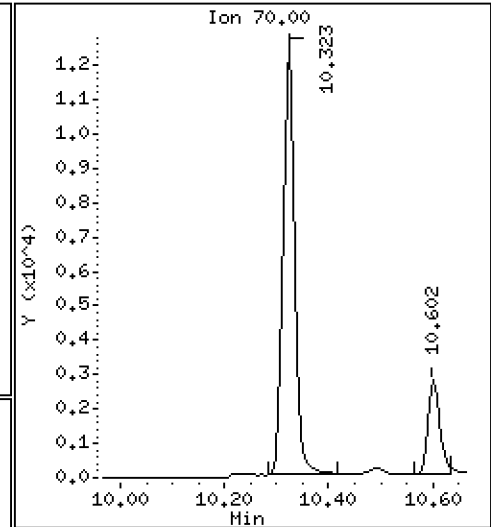
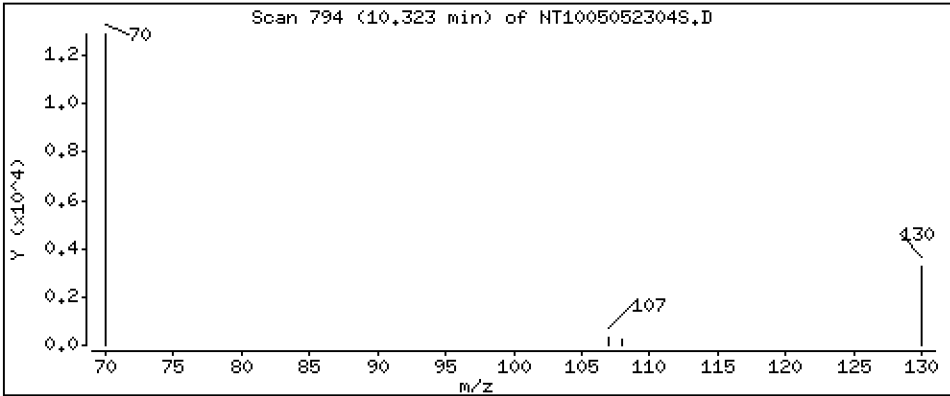
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 0.4315 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

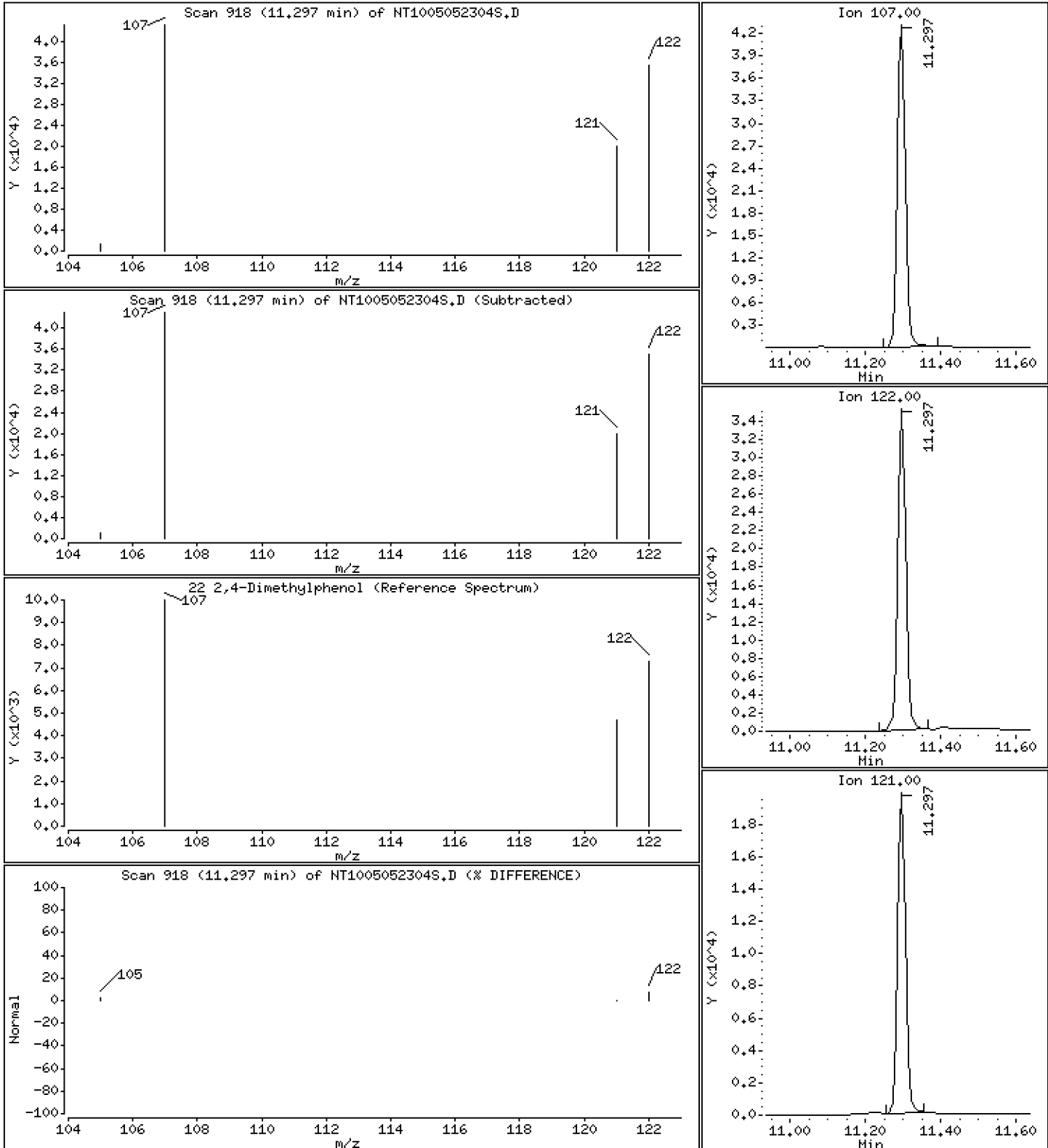
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.8974 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

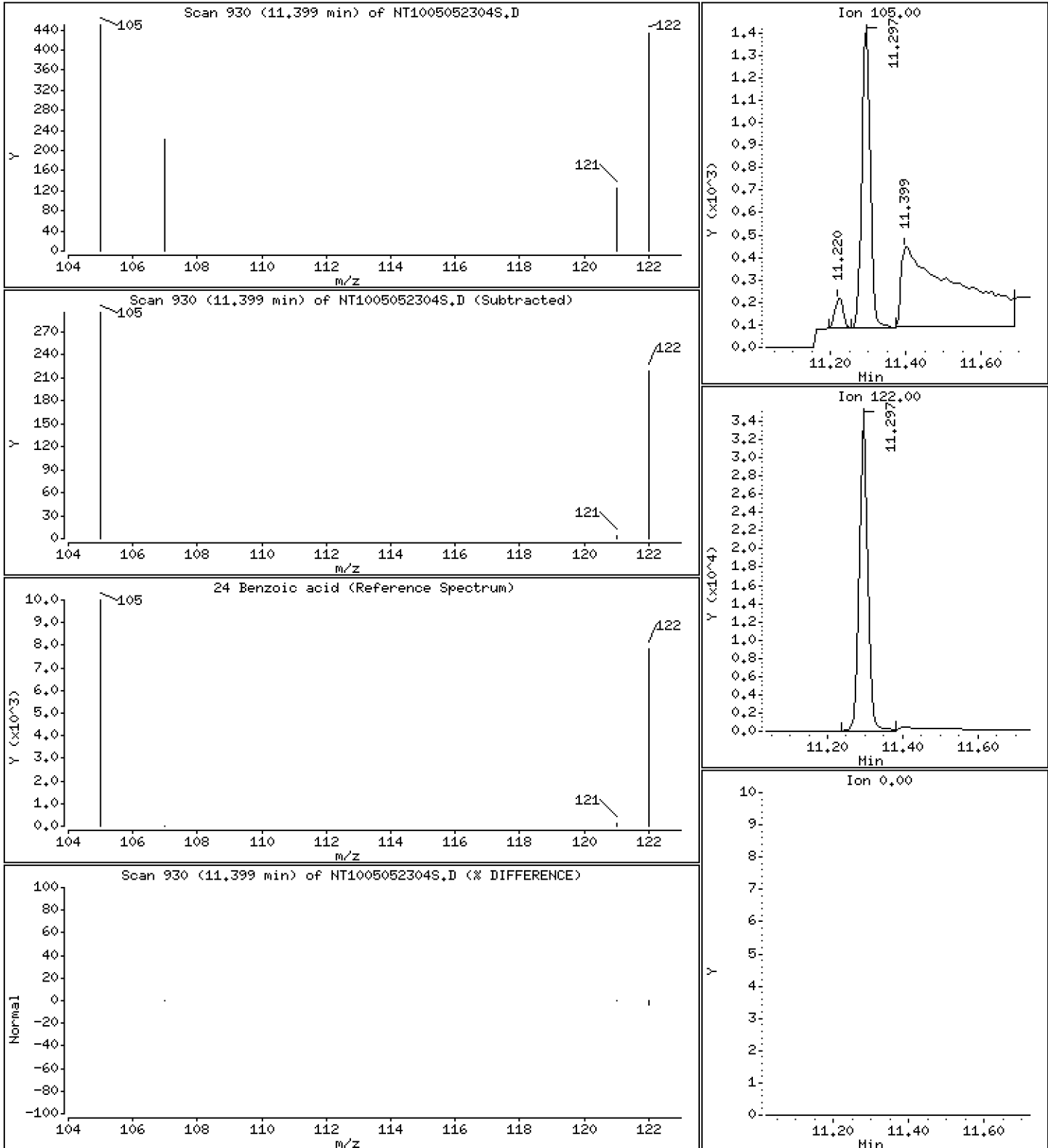
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,08010 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

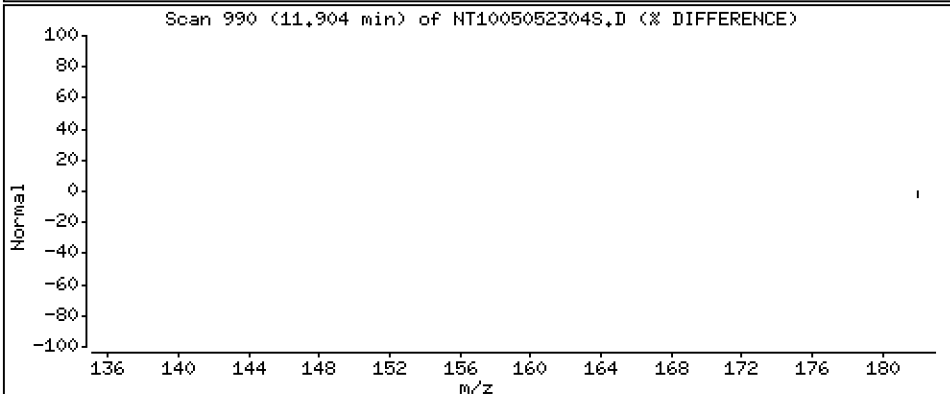
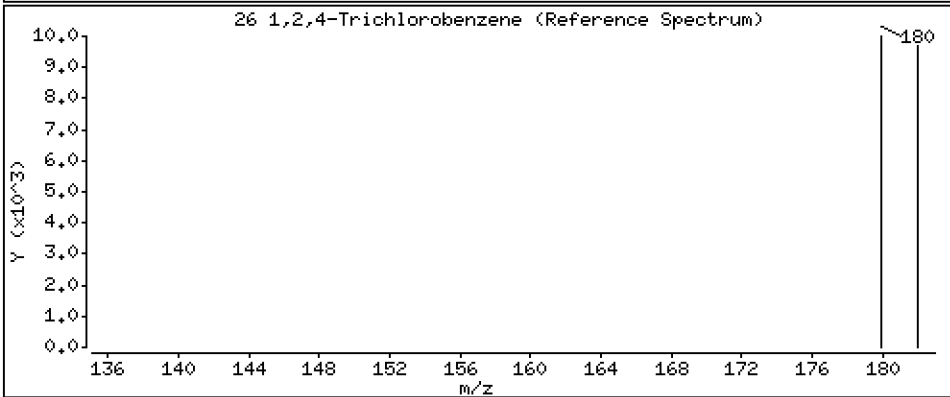
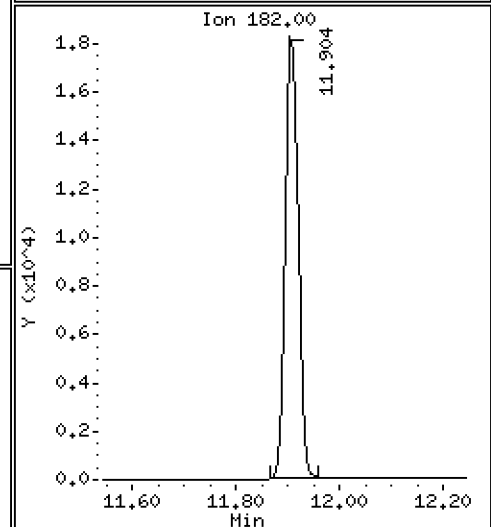
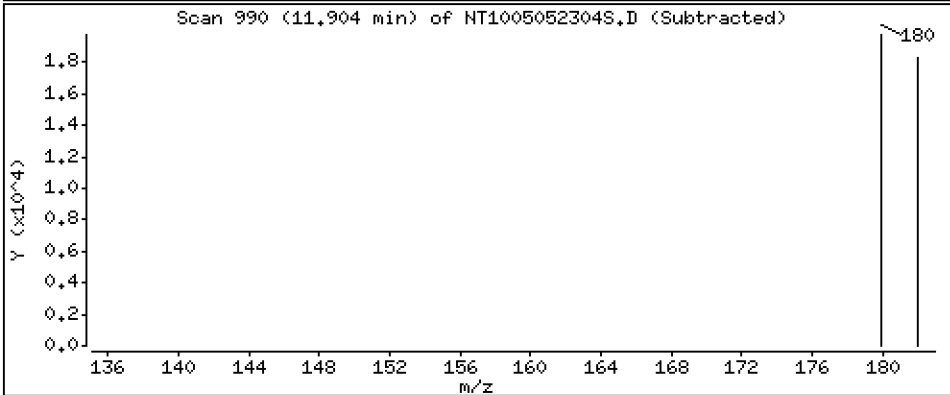
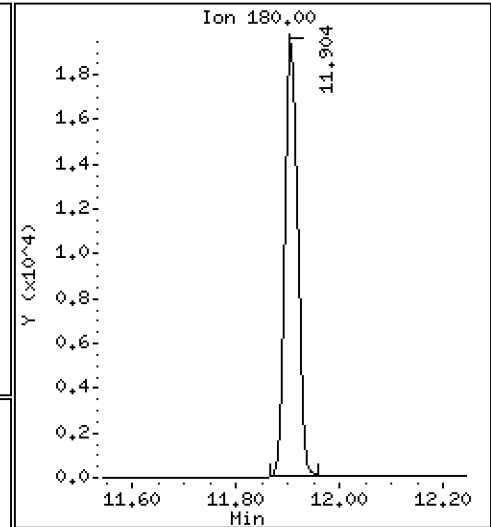
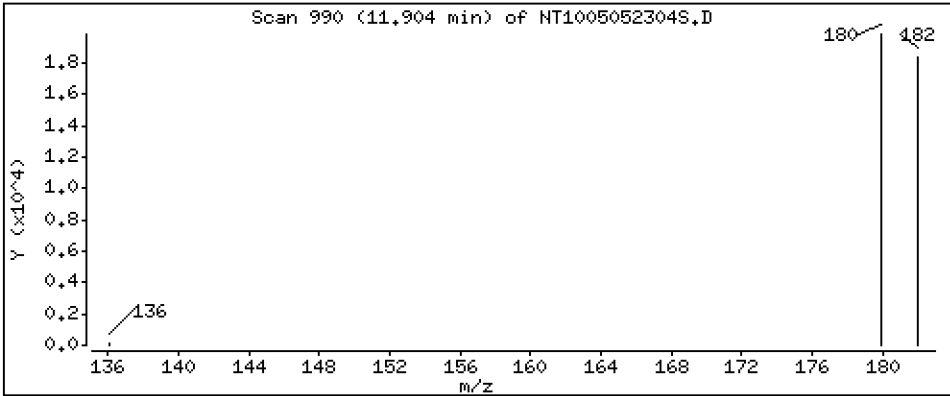
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,4303 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

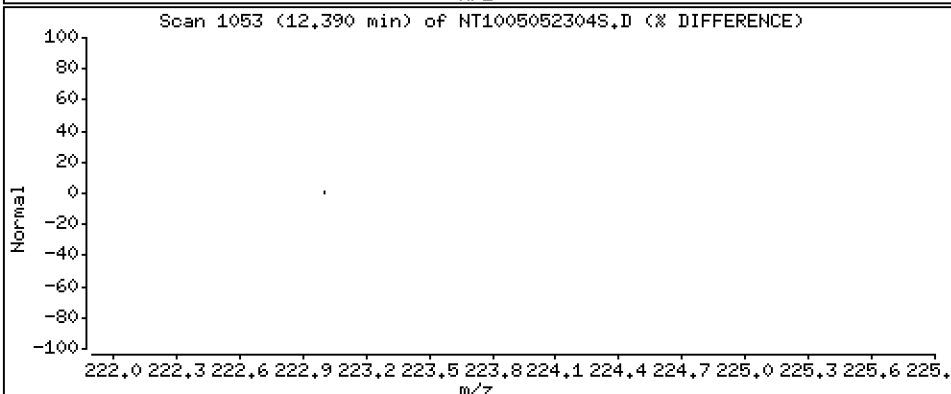
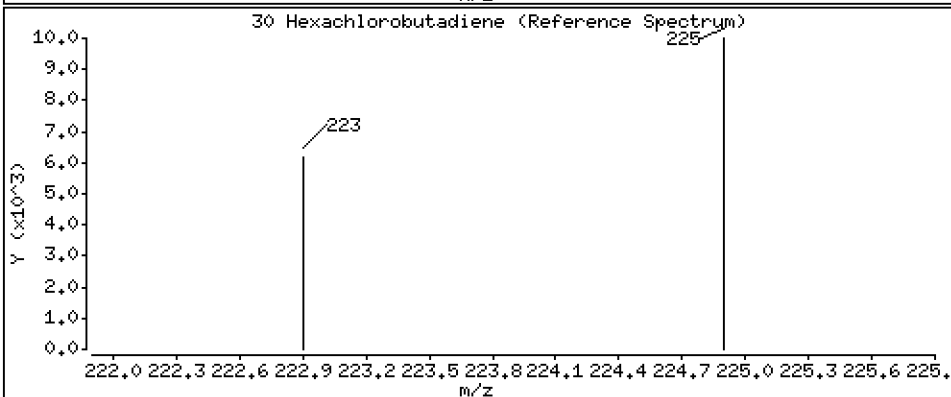
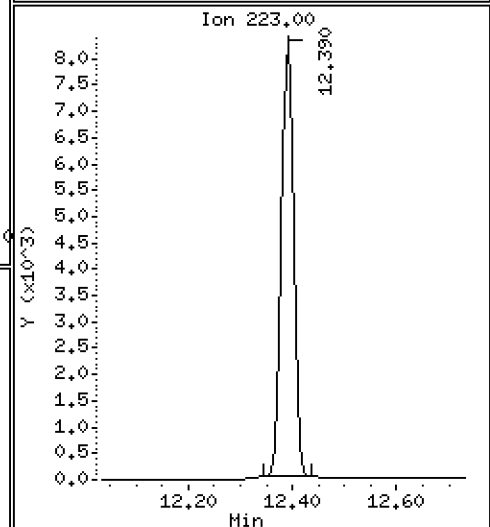
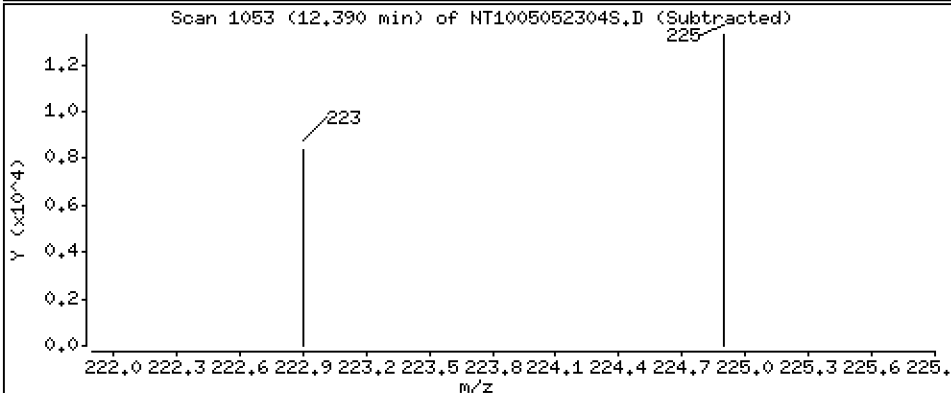
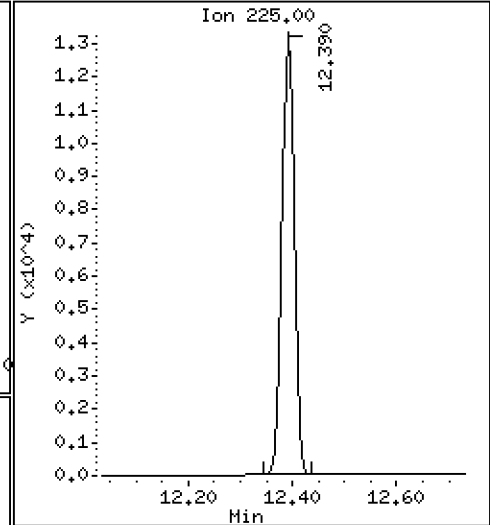
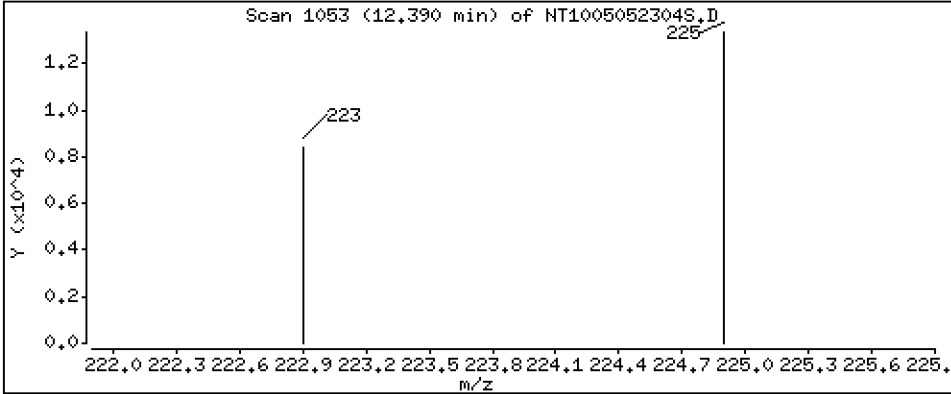
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 0.4346 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

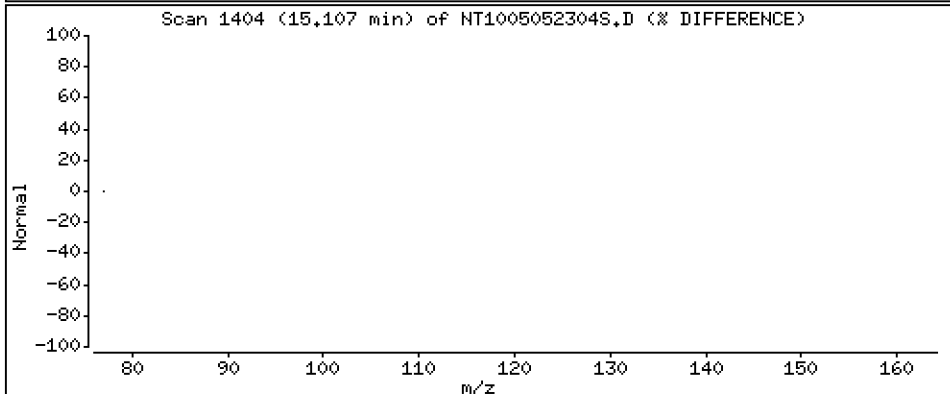
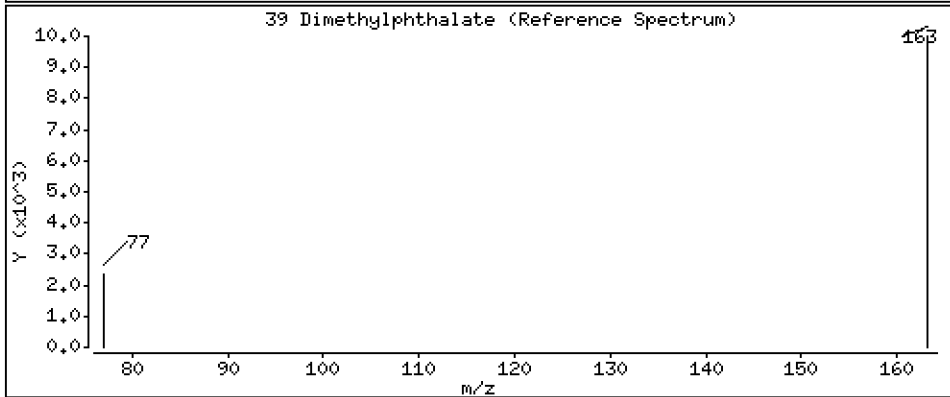
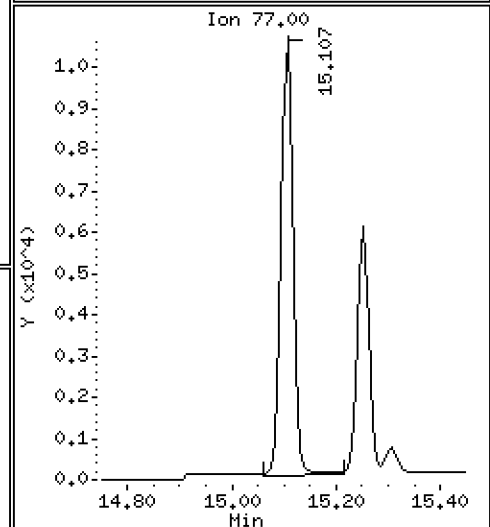
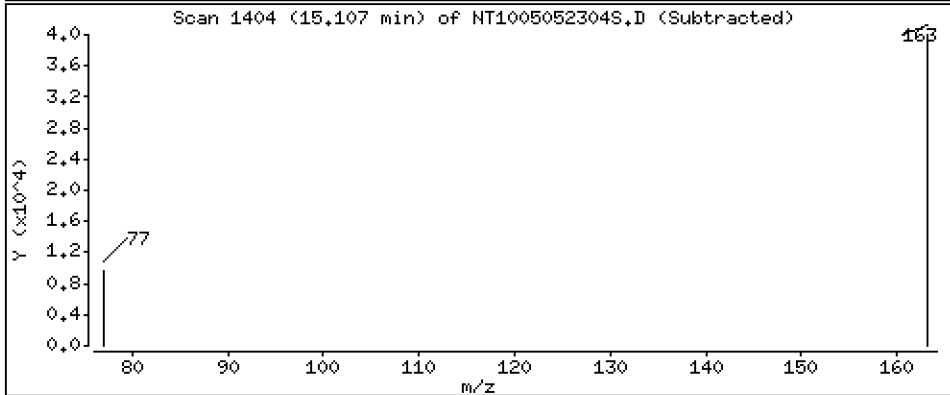
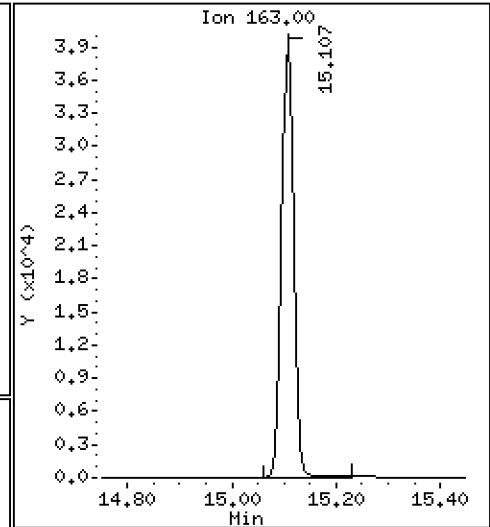
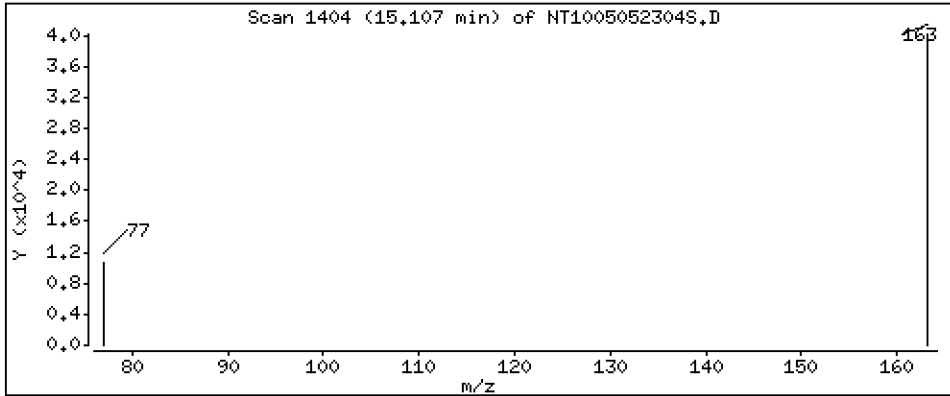
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,4272 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

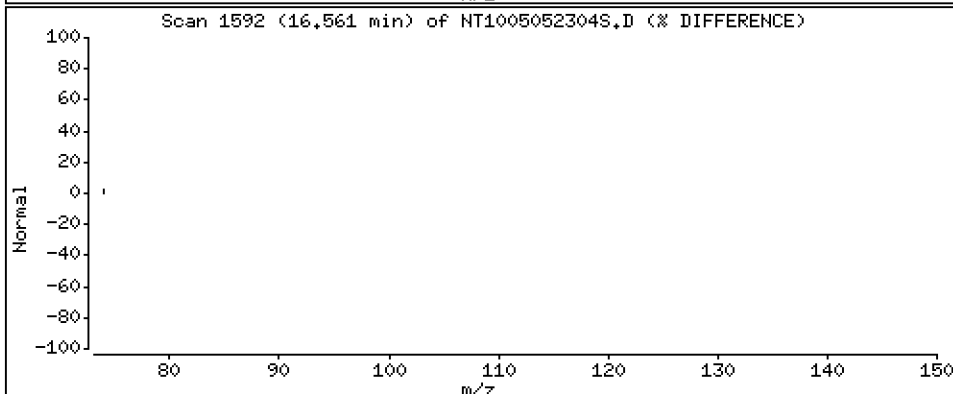
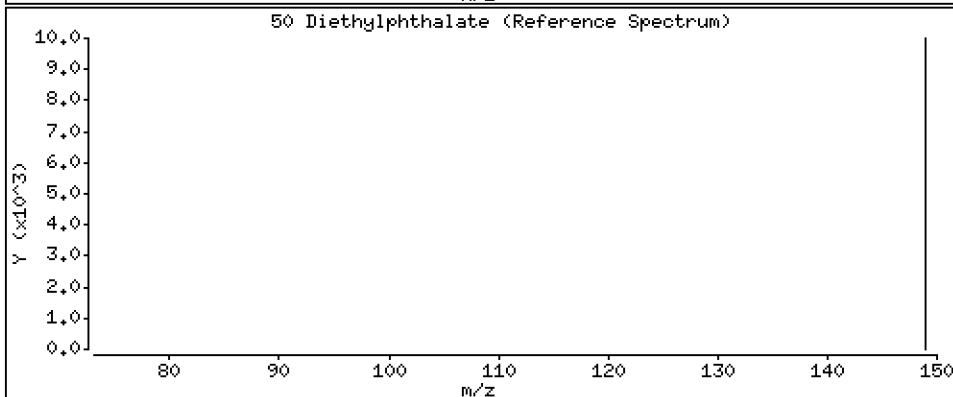
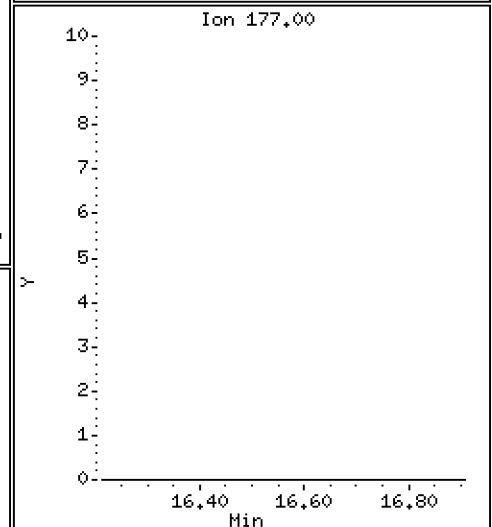
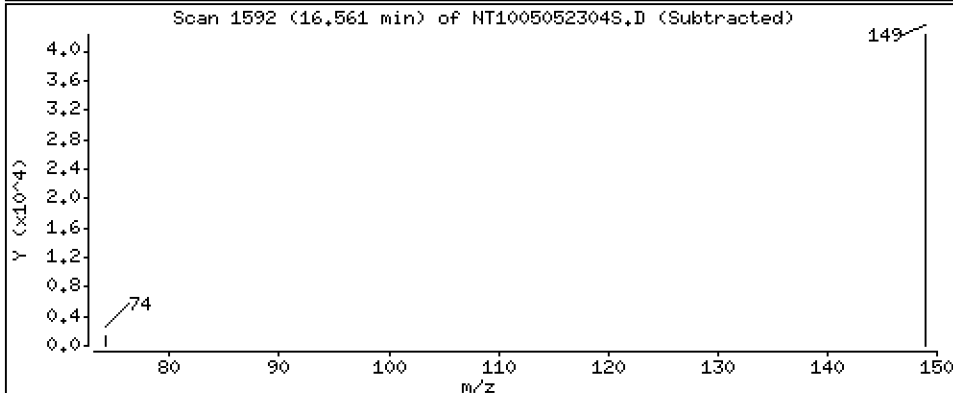
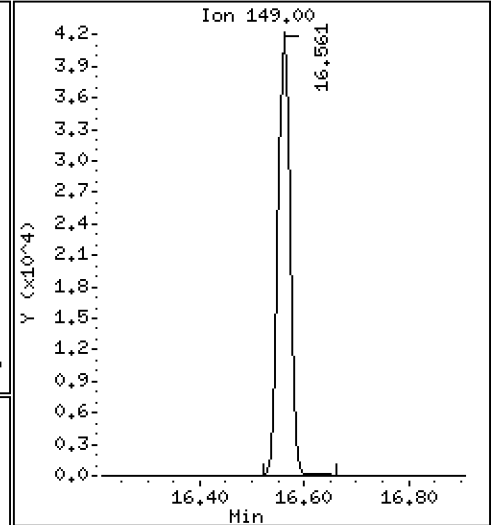
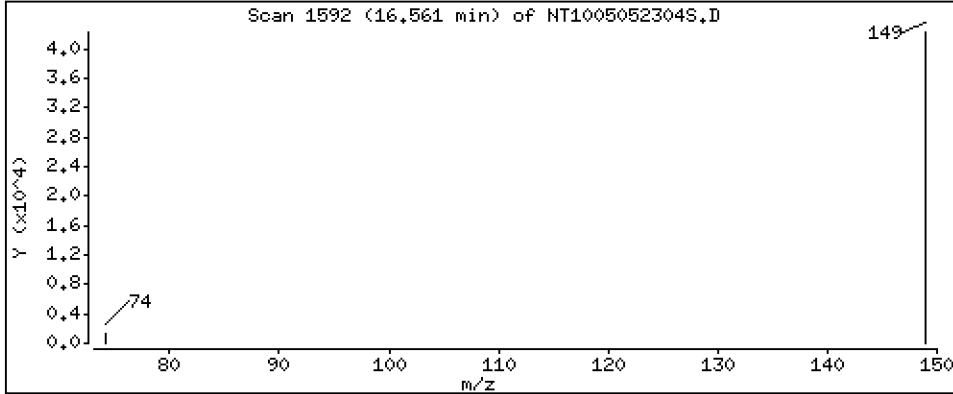
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.4244 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

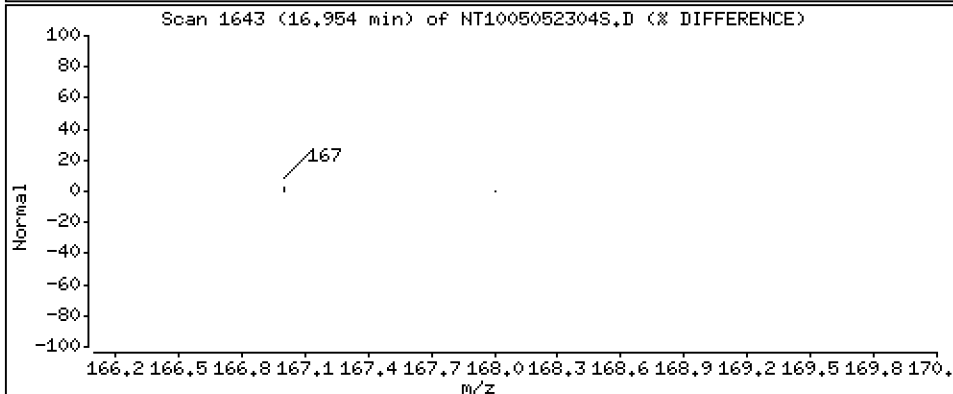
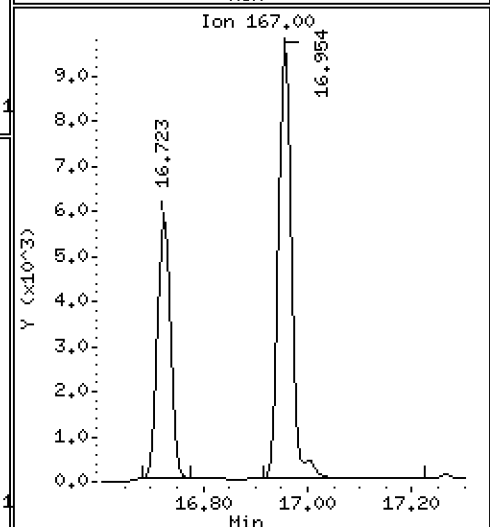
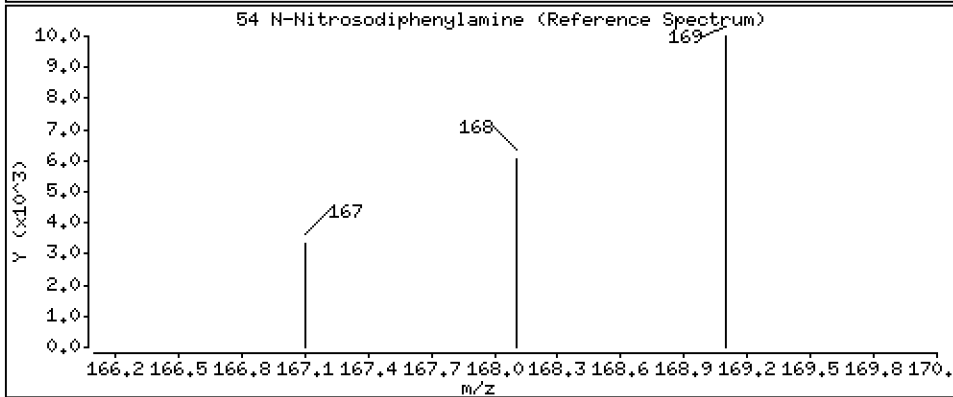
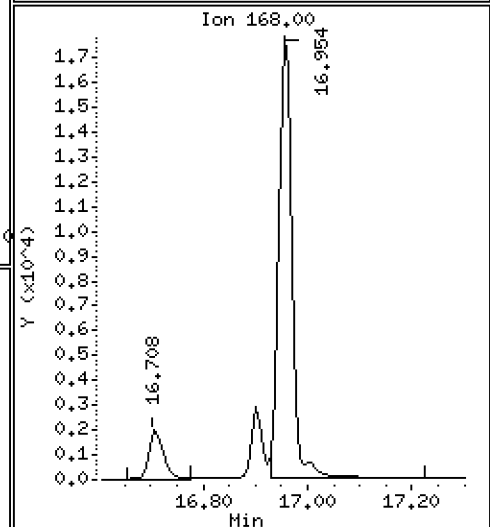
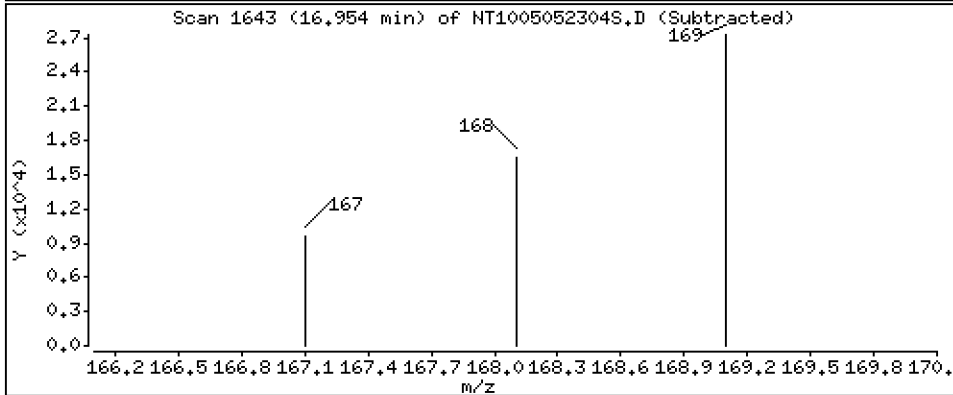
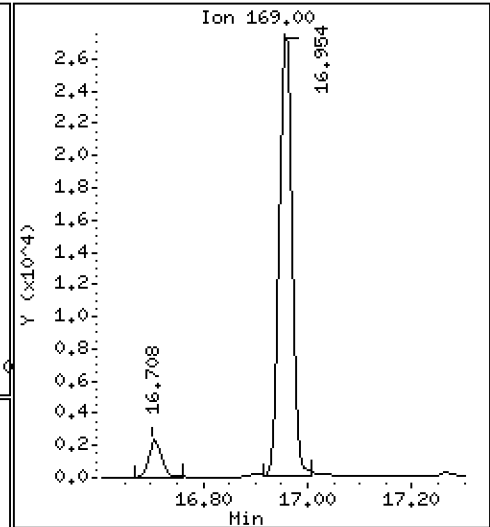
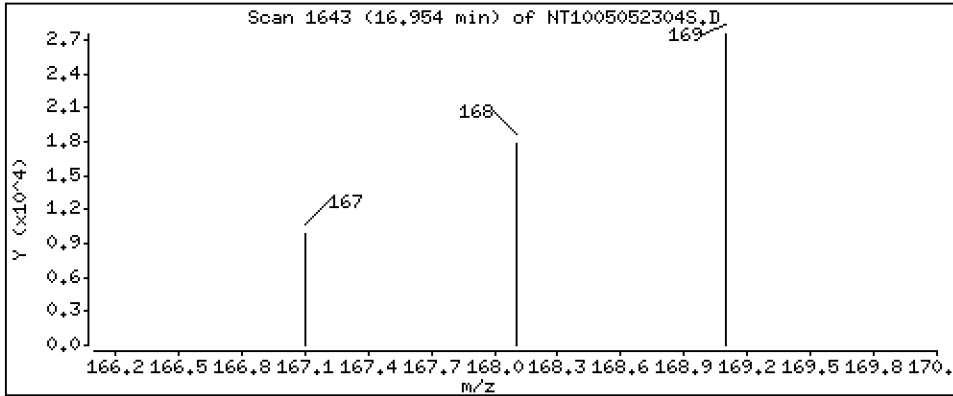
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.4582 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

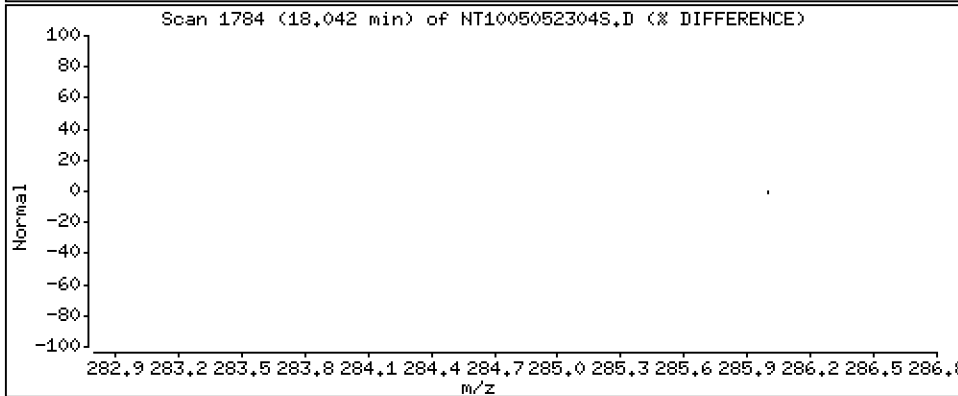
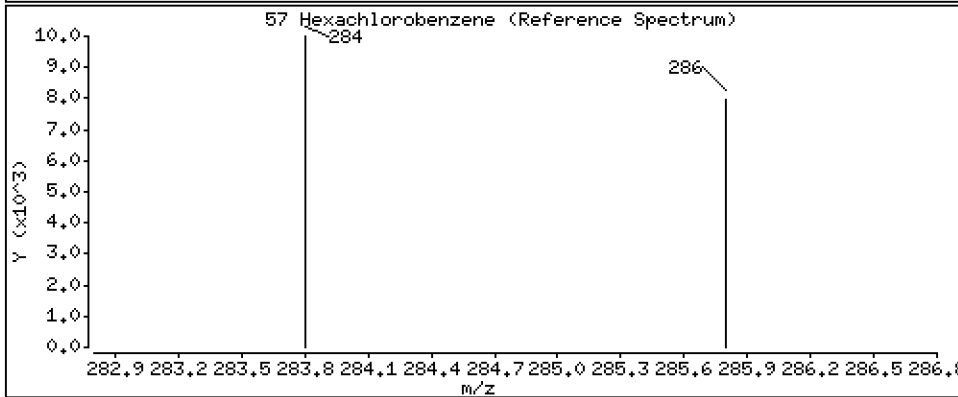
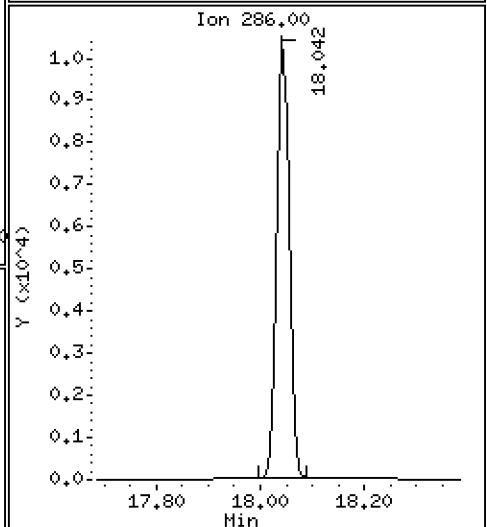
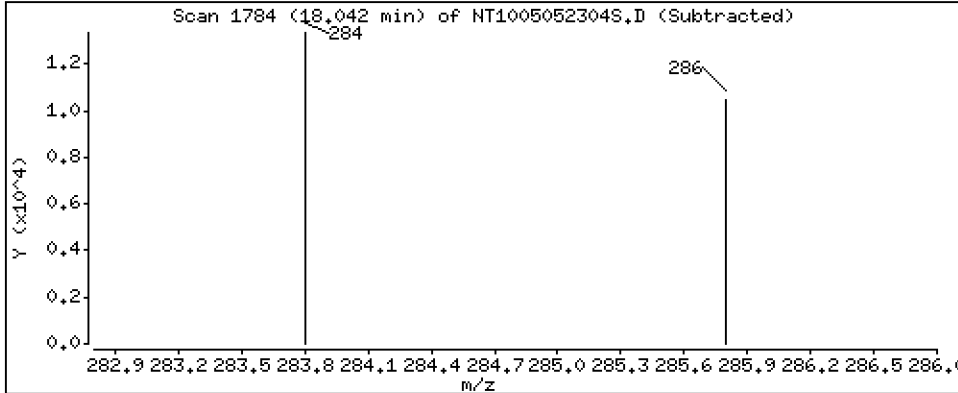
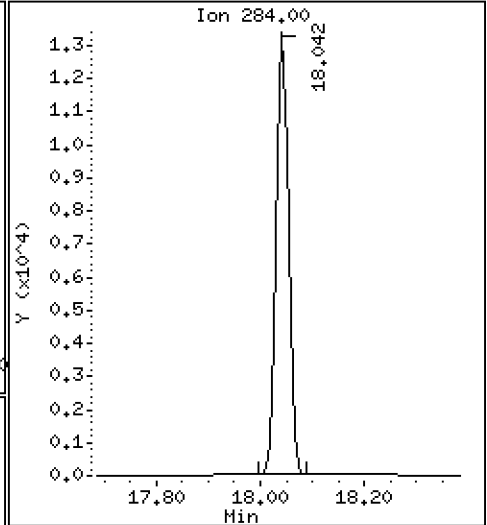
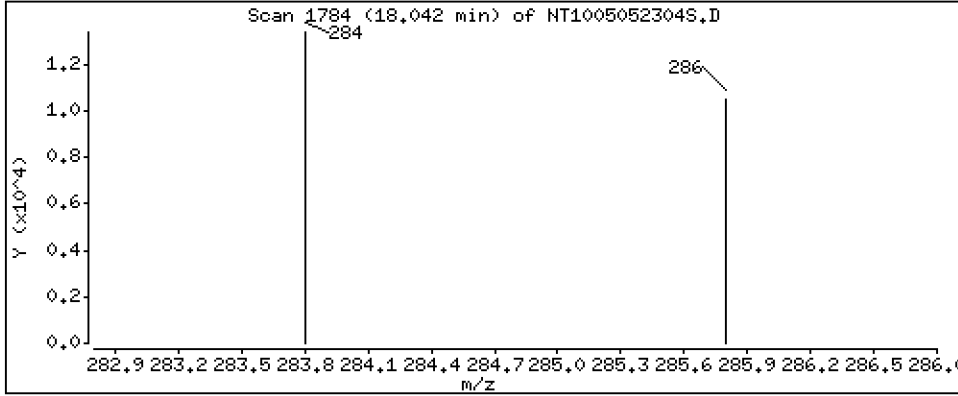
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 0.4353 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

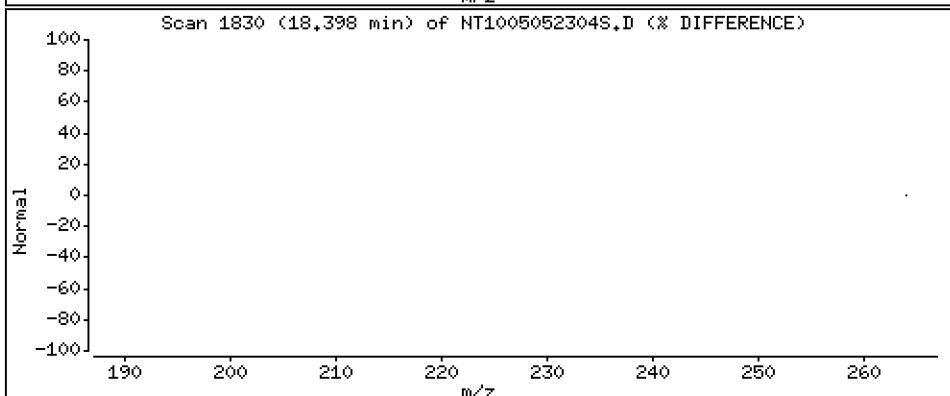
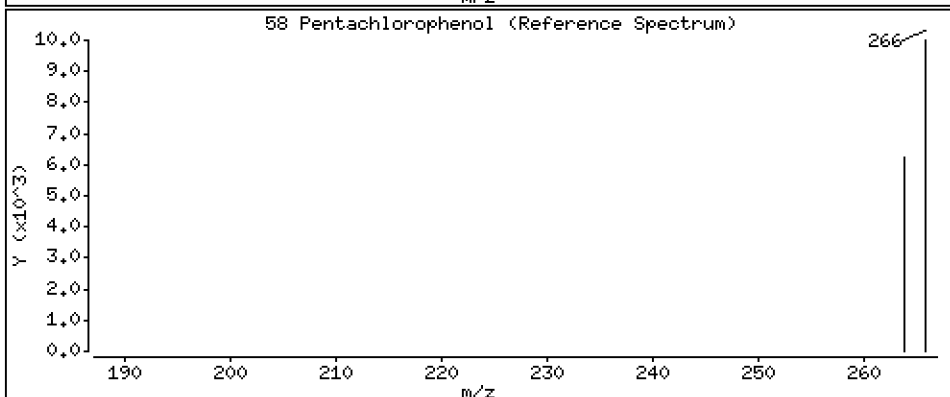
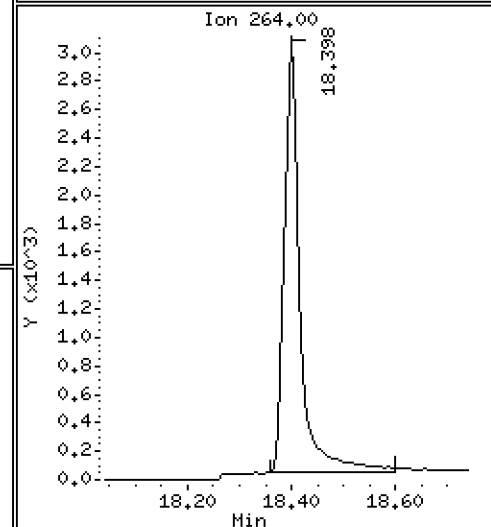
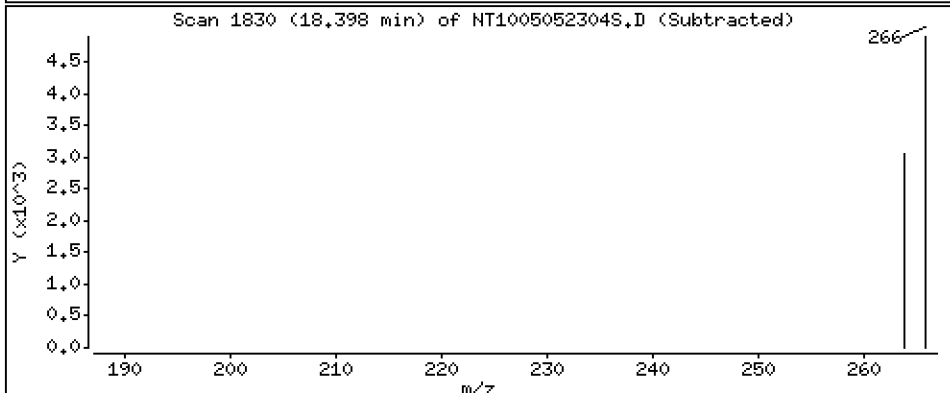
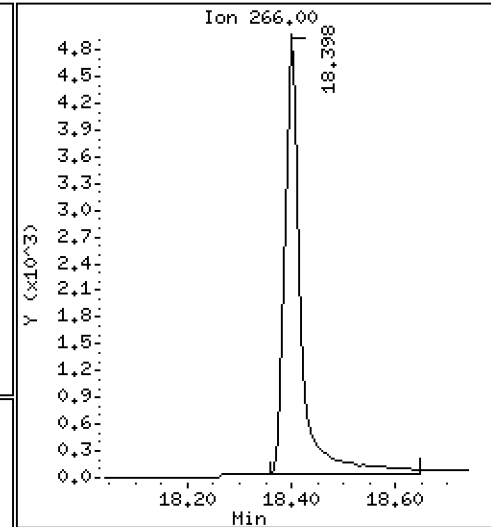
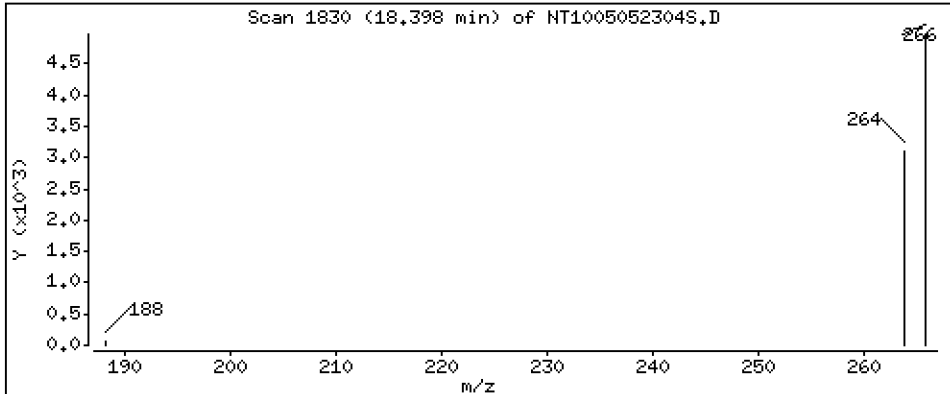
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,3618 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

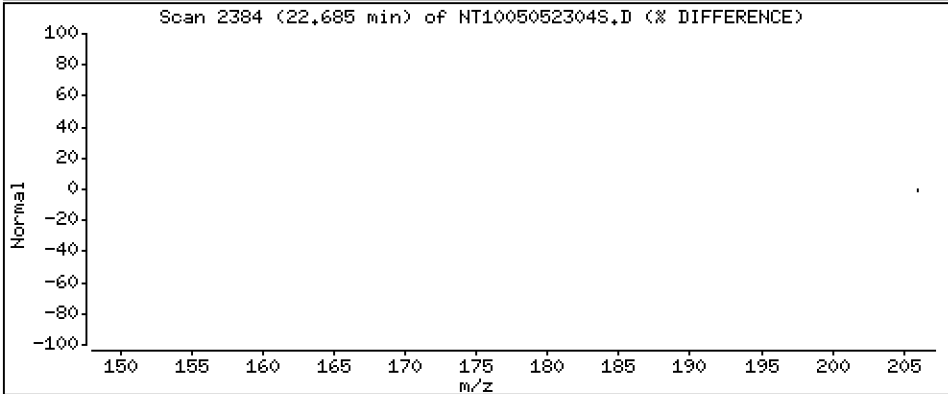
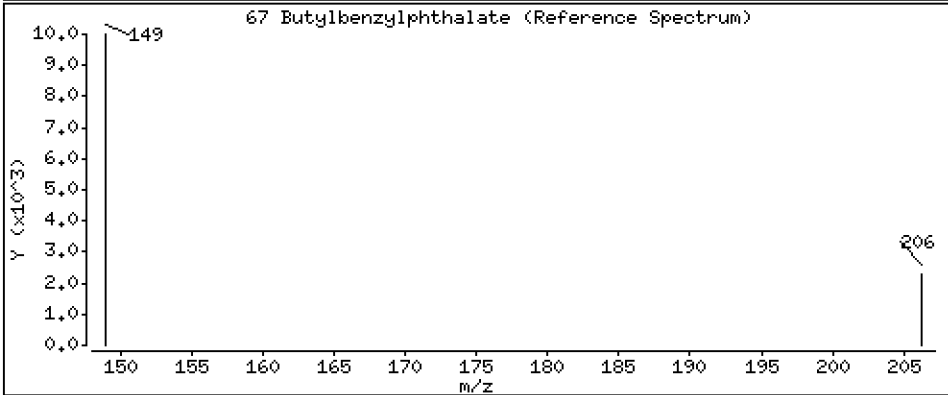
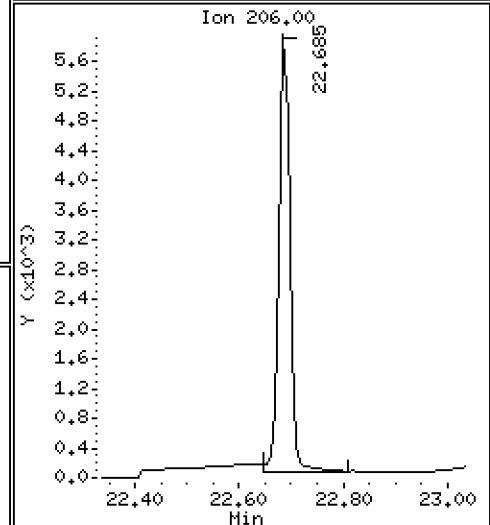
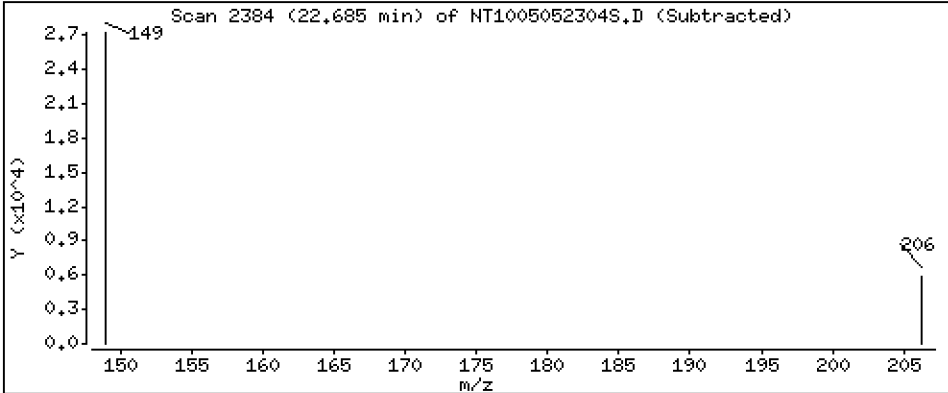
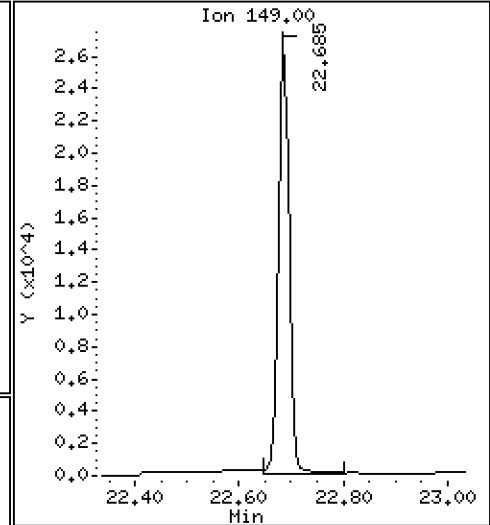
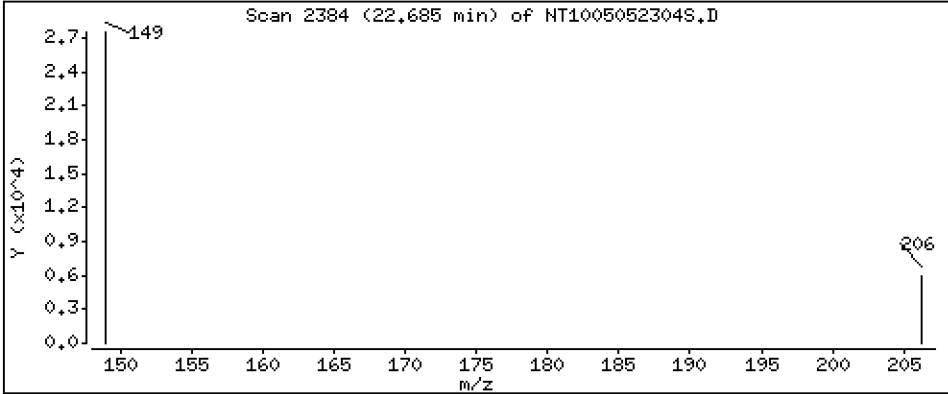
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.3203 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

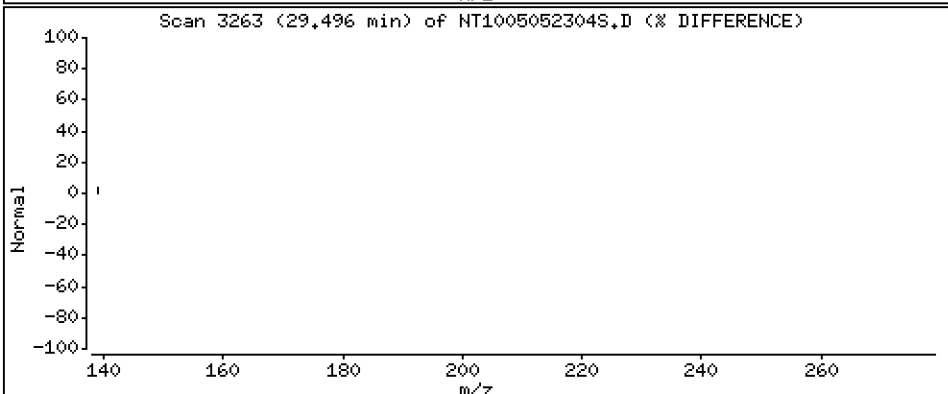
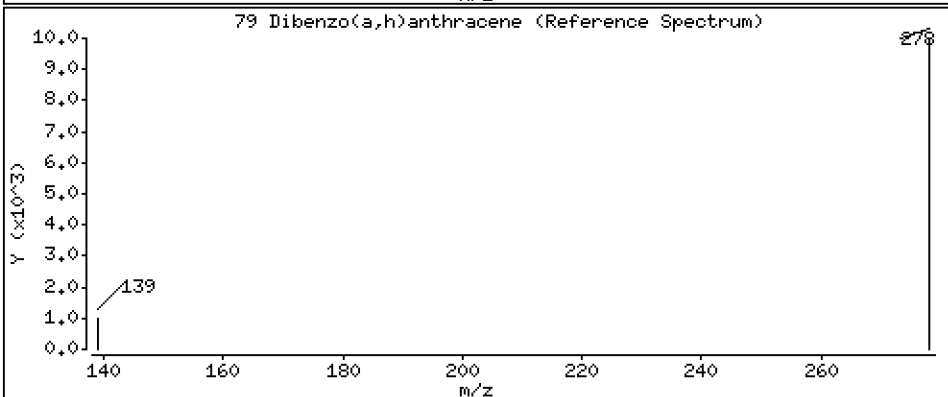
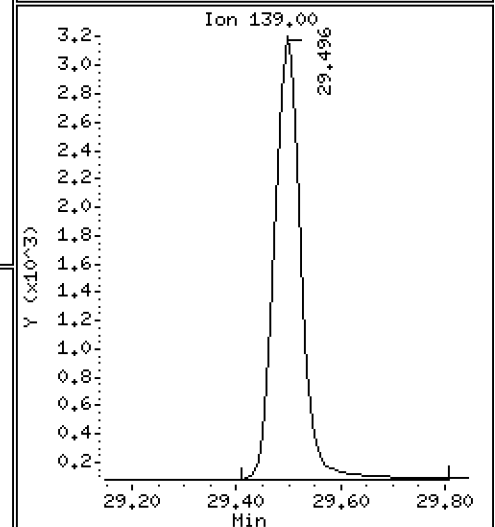
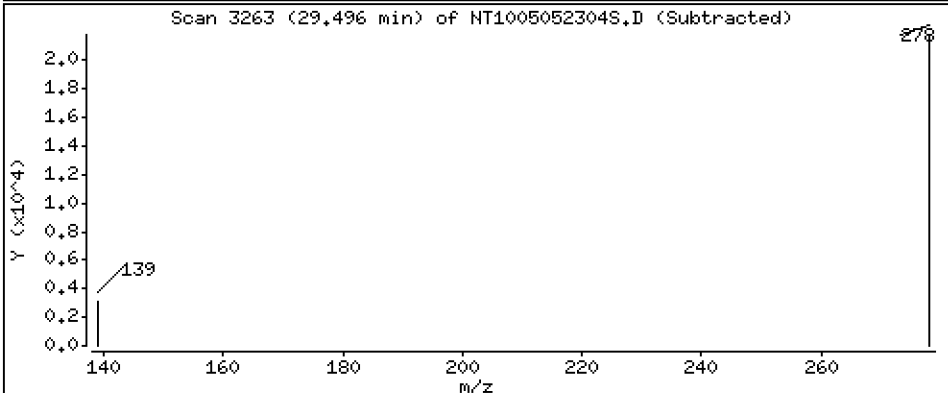
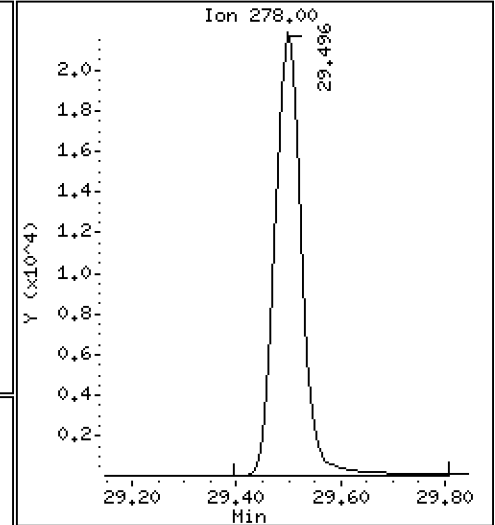
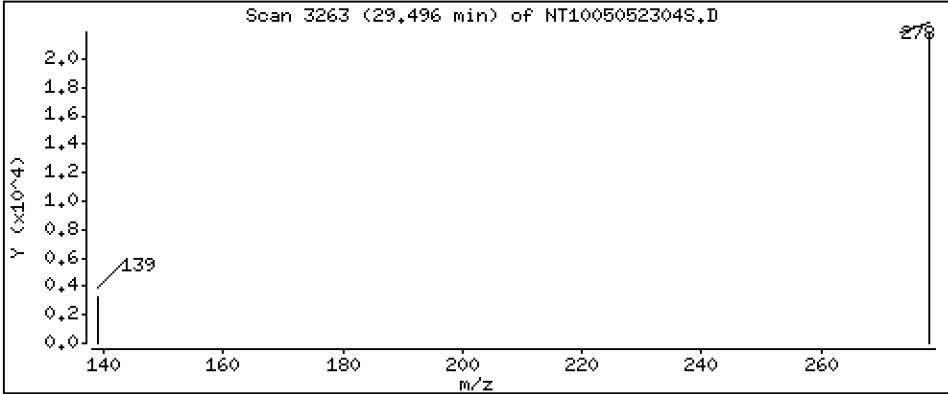
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,4229 ug/L



Date : 05-MAY-2023 12:43

Client ID:

Instrument: nt10.i

Sample Info: SLE0466-LCV2

Volume Injected (uL): 1.0

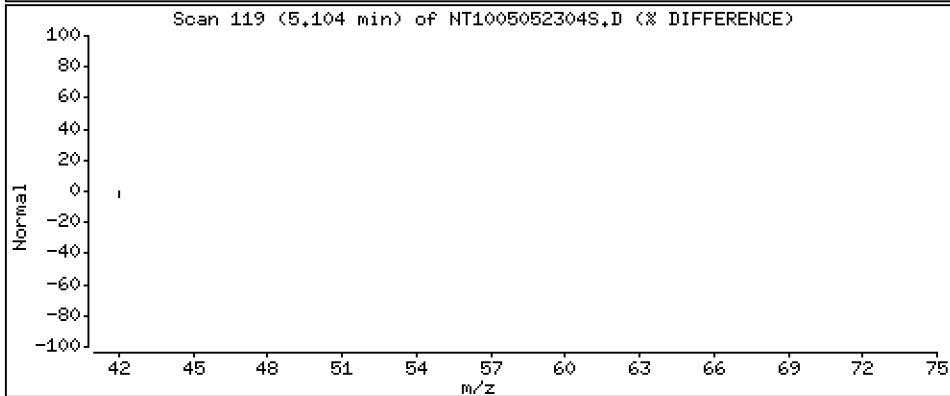
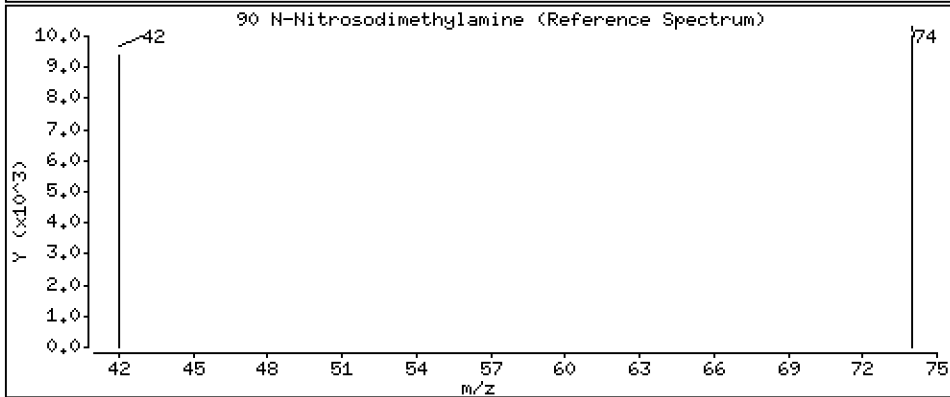
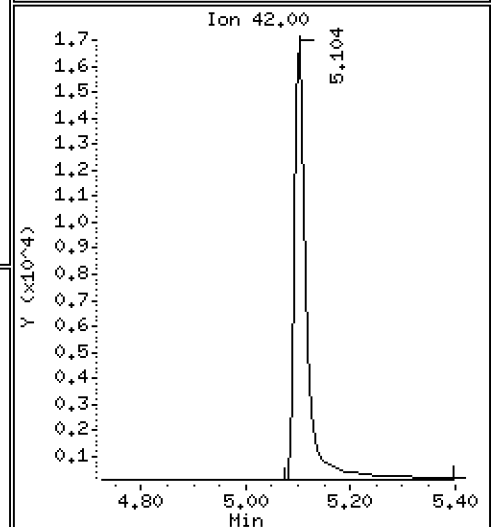
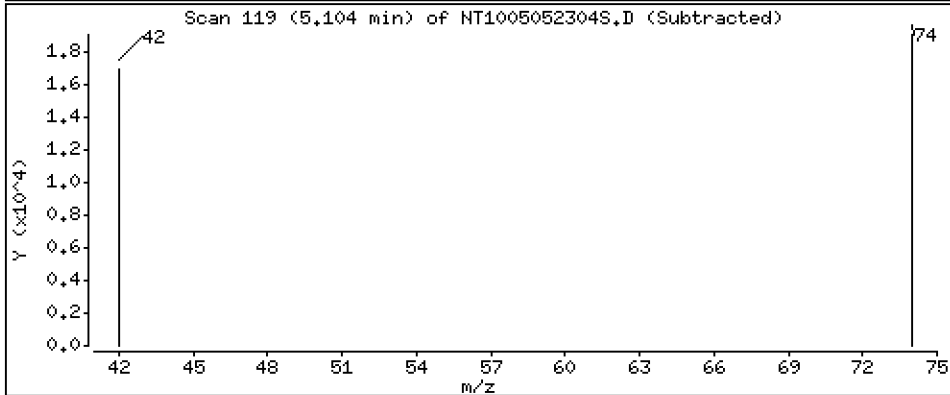
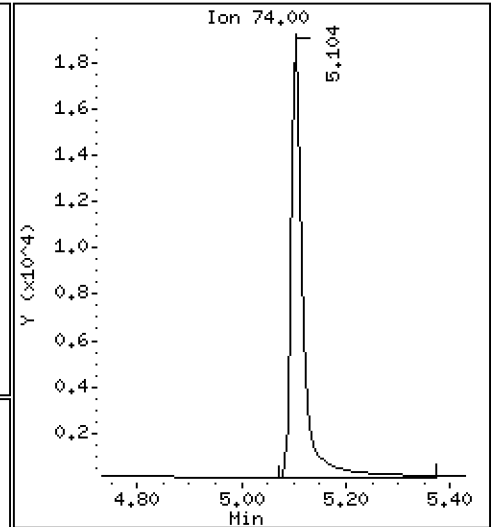
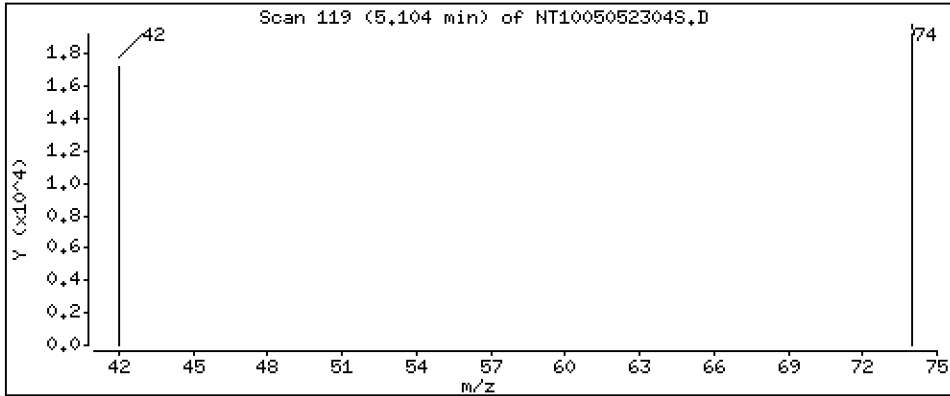
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,9323 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230505.b\20230505.b\NT1005052304S.D
 Lab Smp Id: SLE0466-LCV2
 Inj Date : 05-MAY-2023 12:43 MS Autotune Date: 16-JAN-2023 17:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLE0466-LCV2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Meth Date : 31-May-2023 14:25 van Quant Type: ISTD
 Cal Date : 01-MAY-2023 20:04 Cal File: NT1005012310S.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSSDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		7.258	7.243	(0.763)	41136	0.66373	0.6637 (R)
3 Phenol	94		8.858	8.842	(0.932)	36404	0.46892	0.4689
7 1,3-Dichlorobenzene	146		9.438	9.430	(0.993)	37214	0.45579	0.4558
* 8 1,4-Dichlorobenzene-d4	152		9.507	9.492	(1.000)	203454	4.00000	
9 1,4-Dichlorobenzene	146		9.531	9.523	(1.002)	36596	0.45256	0.4526
11 Benzyl alcohol	79		9.763	9.756	(1.027)	24242	0.45154	0.4515
12 1,2-Dichlorobenzene	146		9.895	9.880	(1.041)	35633	0.45814	0.4581
13 2-Methylphenol	108		9.981	9.965	(1.050)	26551	0.45698	0.4570
15 4-Methylphenol	108		10.245	10.237	(1.078)	27608	0.45192	0.4519
16 N-Nitroso-di-n-propylamine	70		10.322	10.315	(1.086)	19018	0.43145	0.4315
22 2,4-Dimethylphenol	107		11.296	11.288	(0.942)	64830	0.89743	0.8974 (M)
24 Benzoic acid	105		11.398	11.381	(0.950)	3760	0.08010	0.08010
26 1,2,4-Trichlorobenzene	180		11.903	11.896	(0.992)	31893	0.43032	0.4303
* 27 Naphthalene-d8	136		11.996	11.988	(1.000)	727036	4.00000	
30 Hexachlorobutadiene	225		12.390	12.382	(1.033)	20568	0.43465	0.4346
39 Dimethylphthalate	163		15.106	15.099	(0.967)	60459	0.42721	0.4272
* 42 Acenaphthene-d10	162		15.617	15.617	(1.000)	373332	4.00000	
50 Diethylphthalate	149		16.560	16.560	(1.060)	64483	0.42435	0.4244
54 N-Nitrosodiphenylamine	169		16.954	16.954	(0.908)	44334	0.45819	0.4582
57 Hexachlorobenzene	284		18.042	18.034	(0.966)	20624	0.43526	0.4353

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	18.398	18.390	(0.985)	10288	0.36183	0.3618
* 59 Phenanthrene-d10	188	18.669	18.669	(1.000)	741935	4.00000	
\$ 66 Terphenyl-d14	244	21.771	21.771	(0.919)	54715	0.40606	0.4061 (R)
67 Butylbenzylphthalate	149	22.685	22.685	(0.958)	35264	0.32025	0.3203
* 69 Chrysene-d12	240	23.684	23.684	(1.000)	624910	4.00000	
* 77 Perylene-d12	264	26.525	26.517	(1.000)	567354	4.00000	
79 Dibenzo(a,h)anthracene	278	29.496	29.496	(1.112)	77452	0.42292	0.4229
90 N-Nitrosodimethylamine	74	5.103	5.080	(0.537)	31520	0.93226	0.9323

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1005052304S.D
 Lab Smp Id: SLE0466-LCV2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230505.b\20230505.b\SIMABN2.m
 Misc Info:

Calibration Date: 05-MAY-2023
 Calibration Time: 13:22
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	182700	91350	365400	203454	11.36
27 Naphthalene-d8	662220	331110	1324440	727036	9.79
42 Acenaphthene-d10	335558	167779	671116	373332	11.26
59 Phenanthrene-d10	678190	339095	1356380	741935	9.40
69 Chrysene-d12	566969	283485	1133938	624910	10.22
77 Perylene-d12	522906	261453	1045812	567354	8.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.49	8.99	9.99	9.51	0.16
27 Naphthalene-d8	11.99	11.49	12.49	12.00	0.06
42 Acenaphthene-d10	15.62	15.12	16.12	15.62	-0.00
59 Phenanthrene-d10	18.67	18.17	19.17	18.67	-0.00
69 Chrysene-d12	23.68	23.18	24.18	23.68	-0.00
77 Perylene-d12	26.52	26.02	27.02	26.53	0.03

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

REVIEW SUMMARY FOR FILE - NT1005052304S.D

Lab ID: SLE0466-LCV2

nt10.i, 20230505.b\20230505.b\SIMABN2.m,

05-MAY-2023 12:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230505.b/NT1005052305S.D

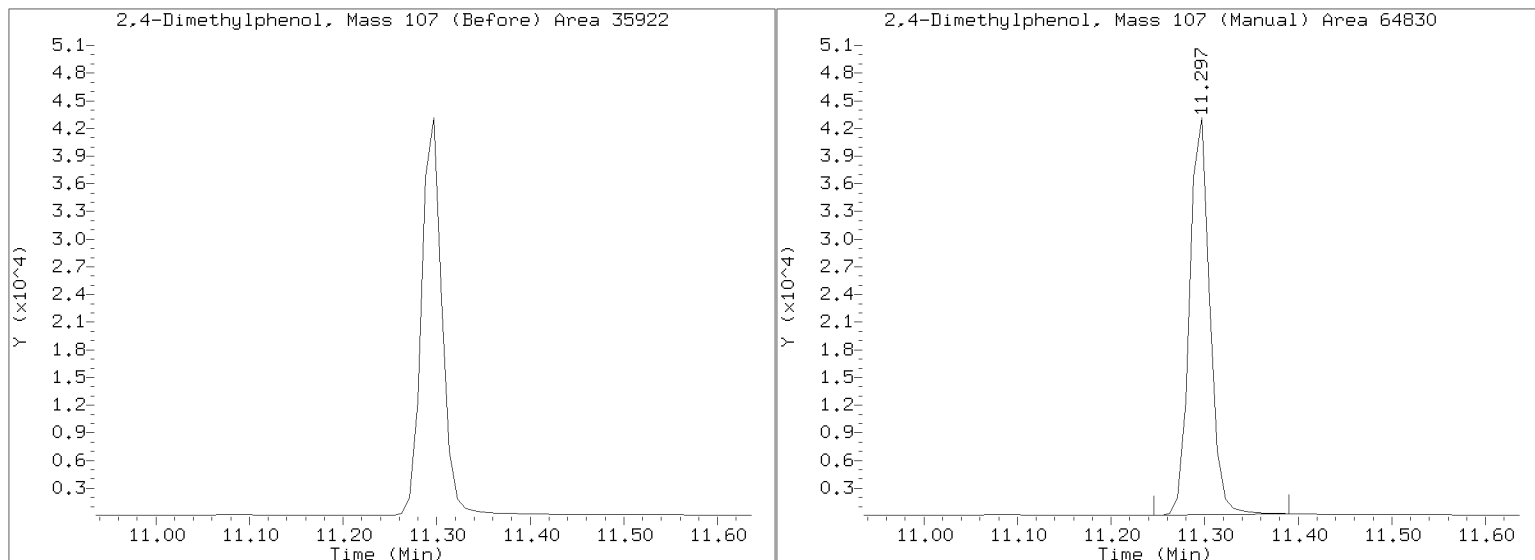
On Column LOD for nt10.i, 20230505.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230505.b/20230505.b/NT1005052304S.D
Injection Date: 05-MAY-2023 12:43
Lab ID: SLE0466-LCV2 Client ID:
Report Date: 05/31/2023 14:30





ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0082

Instrument: NT10

Calibration: GE00018

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLE0082-TUN1	NT1005012301S.D	NA	05/01/23 14:35
ABN 10.0	SLE0082-CAL8	NT1005012303S.D	NA	05/01/23 15:31
ABN 5.0	SLE0082-CAL7	NT1005012304S.D	NA	05/01/23 16:10
ABN 2.5	SLE0082-CAL6	NT1005012305S.D	NA	05/01/23 16:49
ABN 1.0	SLE0082-CAL5	NT1005012306S.D	NA	05/01/23 17:28
ABN 0.5	SLE0082-CAL4	NT1005012307S.D	NA	05/01/23 18:07
ABN 0.2	SLE0082-CAL3	NT1005012308S.D	NA	05/01/23 18:46
ABN 0.1	SLE0082-CAL2	NT1005012309S.D	NA	05/01/23 19:25
ABN 0.05	SLE0082-CAL1	NT1005012310S.D	NA	05/01/23 20:04
SCV 5.0	SLE0082-SCV1	NT1005012311S.D	NA	05/01/23 20:43
Initial Cal Blank	SLE0082-ICB1	NT1005012312S.D	NA	05/01/23 21:22



ANALYSIS SEQUENCE

SLE0082

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GE00018 GCMS Column ID: ZB-5MSi
MS EM Level: EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0082-TUN1	MS Tune	QC		1	L002618		05/01/2023 14:35	NT1005012301S.D	JGR	
SLE0082-CAL1	ABN 0.05	QC		2	L002878	K010831	05/01/2023 20:04	NT1005012310S.D	JGR	
SLE0082-CAL2	ABN 0.1	QC		3	L002877	K010831	05/01/2023 19:25	NT1005012309S.D	JGR	
SLE0082-CAL3	ABN 0.2	QC		4	K011105	K010831	05/01/2023 18:46	NT1005012308S.D	JGR	
SLE0082-CAL4	ABN 0.5	QC		5	K011106	K010831	05/01/2023 18:07	NT1005012307S.D	JGR	
SLE0082-CAL5	ABN 1.0	QC		6	K011107	K010831	05/01/2023 17:28	NT1005012306S.D	JGR	
SLE0082-CAL6	ABN 2.5	QC		7	K011108	K010831	05/01/2023 16:49	NT1005012305S.D	JGR	
SLE0082-CAL7	ABN 5.0	QC		8	K011109	K010831	05/01/2023 16:10	NT1005012304S.D	JGR	
SLE0082-CAL8	ABN 10.0	QC		9	K011110	K010831	05/01/2023 15:31	NT1005012303S.D	JGR	
SLE0082-SCV1	SCV 5.0	QC		10	K010066	K010831	05/01/2023 20:43	NT1005012311S.D	JGR	
SLE0082-ICB1	Initial Cal Blank	QC		11	K005156	K010831	05/01/2023 21:22	NT1005012312S.D	JGR	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230501.b\20230501.b

Time	Filename	LabID	ClientId	DF
1 1435	NT1005012301S.D	SLE0082-TUN1		1 |NO ISTDs FOUND|
2 1531	NT1005012303S.D	SLE0082-CAL8		1 | 9.49 161514||12.00 570419||15.63 292457||18.68 621963||23.71 460111||26.55 359500|
3 1610	NT1005012304S.D	SLE0082-CAL7		1 | 9.49 152136||12.00 537687||15.63 277062||18.68 559131||23.71 409150||26.56 347622|
4 1649	NT1005012305S.D	SLE0082-CAL6		1 | 9.49 149844||11.99 519732||15.63 272727||18.68 563850||23.70 418693||26.55 365369|
5 1728	NT1005012306S.D	SLE0082-CAL5		1 | 9.50 169173||11.99 594924||15.63 304980||18.68 609190||23.70 479061||26.54 427162|
6 1807	NT1005012307S.D	SLE0082-CAL4		1 | 9.49 154252||11.99 543651||15.63 277425||18.68 552604||23.69 436983||26.53 398475|
7 1846	NT1005012308S.D	SLE0082-CAL3		1 | 9.49 173835||11.99 608907||15.62 304177||18.67 596590||23.69 484703||26.53 440507|
8 1925	NT1005012309S.D	SLE0082-CAL2		1 | 9.49 161930||11.99 564967||15.62 276925||18.67 537805||23.68 433067||26.52 402089|
9 2004	NT1005012310S.D	SLE0082-CAL1		1 | 9.49 175584||11.99 608327||15.62 297084||18.68 579785||23.69 462282||26.53 432429|
10 2043	NT1005012311S.D	SLE0082-SCV1		1 | 9.49 142531||11.99 510045||15.62 263993||18.68 506239||23.70 402889||26.53 365734|
11 2122	NT1005012312S.D	SLE0082-ICB1		1 | 9.49 165323||11.99 600558||15.62 293573||18.68 566241||23.70 440951||26.54 417631|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230501.b\20230501.b

ARI Job No.: SLE0 Method: DFTPP8270E.m Instrument: nt10.i Date: 01-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1435	NT1005012301S.D	SLE0082-TUN1		1	NO MANUAL INTEGRATION
1531	NT1005012303S.D	SLE0082-CAL8		1	NO MANUAL INTEGRATION
1610	NT1005012304S.D	SLE0082-CAL7		1	NO MANUAL INTEGRATION
1649	NT1005012305S.D	SLE0082-CAL6		1	NO MANUAL INTEGRATION
1728	NT1005012306S.D	SLE0082-CAL5		1	NO MANUAL INTEGRATION
1807	NT1005012307S.D	SLE0082-CAL4		1	NO MANUAL INTEGRATION
1846	NT1005012308S.D	SLE0082-CAL3		1	NO MANUAL INTEGRATION
1925	NT1005012309S.D	SLE0082-CAL2		1	NO MANUAL INTEGRATION
2004	NT1005012310S.D	SLE0082-CAL1		1	NO MANUAL INTEGRATION
2043	NT1005012311S.D	SLE0082-SCV1		1	NO MANUAL INTEGRATION
2122	NT1005012312S.D	SLE0082-ICB1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 04-May-2023 15:30

NT1005012301S.D	Data Locked	deenayd, 04-
NT1005012302S.D	Data Locked	deenayd, 04-
NT1005012303S.D	Data Locked	deenayd, 04-
NT1005012304S.D	Data Locked	deenayd, 04-
NT1005012305S.D	Data Locked	deenayd, 04-
NT1005012306S.D	Data Locked	deenayd, 04-
NT1005012307S.D	Data Locked	deenayd, 04-
NT1005012308S.D	Data Locked	deenayd, 04-
NT1005012309S.D	Data Locked	deenayd, 04-
NT1005012310S.D	Data Locked	deenayd, 04-
NT1005012311S.D	Data Locked	deenayd, 04-
NT1005012312S.D	Data Locked	deenayd, 04-

ARI Labs, Inc.

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Start Cal Date : 01-MAY-2023 15:31
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 Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Last Edit : 04-May-2023 13:53 deenayd

Calibration File Names:

Level 1: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012310S.D
 Level 2: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012309S.D
 Level 3: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012308S.D
 Level 4: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012307S.D
 Level 5: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012306S.D
 Level 6: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012305S.D
 Level 7: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012304S.D
 Level 8: \\target\share\chem3\nt10.i\20230501.b\20230501.b\NT1005012303S.D

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
142 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
137 NewCpnd_131	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
133 Butylatedhydroxytoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
146 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
120 2,3,4,6-Tetrachlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
119 7,12-Dimethylbenz(a)anthracen	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
118 Triphenyl Phosphate	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
117 Butyl Diphenyl Phosphate	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
116 Dibutyl Phenyl Phosphate	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
115 Tributyl Phosphate	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
114 Beta-Pinene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
111 Azobenzene (1,2-DP-Hydrazine)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
107 4,5-Dichloro-2-Methoxyphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
3 Phenol	1.45025	1.45544	1.53720	1.56020	1.56760	1.56347					
	1.50977	1.56662					AVRG		1.52632		3.23437
4 Bis(2-Chloroethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
7 1,3-Dichlorobenzene	1.66074	1.65849	1.64397	1.62757	1.59262	1.56804					
	1.52352	1.56671					AVRG		1.60521		3.12570
9 1,4-Dichlorobenzene	1.62156	1.69184	1.60842	1.60086	1.56058	1.55005					
	1.50998	1.57533					AVRG		1.58983		3.43742

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
11 Benzyl alcohol	0.91990|	0.91669|	0.96505|	1.02710|	1.09923|	1.14843|					
	1.14812|	1.21966|					|AVRG|		1.05552|		10.90337|
12 1,2-Dichlorobenzene	1.58693|	1.55845|	1.55090|	1.55040|	1.52419|	1.50213|					
	1.45071|	1.50943|					|AVRG|		1.52914|		2.75449|
13 2-Methylphenol	1.11309|	1.04267|	1.07320|	1.15370|	1.17030|	1.18358|					
	1.17711|	1.22472|					|AVRG|		1.14230|		5.35339|
14 2,2'-oxybis(1-Chloropropane)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		0.000e+000|		0.000e+000|
15 4-Methylphenol	1.04702|	1.08837|	1.13337|	1.20530|	1.24613|	1.28343|					
	1.27209|	1.33279|					|AVRG|		1.20106|		8.45813|
16 N-Nitroso-di-n-propylamine	0.86477|	0.80282|	0.81111|	0.86176|	0.88721|	0.90317|					
	0.88713	0.91495					AVRG		0.86661		4.71656
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
22 2,4-Dimethylphenol	0.26407	0.22918	0.21726	0.21904	0.22228	0.22823					
	0.22162	0.22816					AVRG		0.22873		6.54183
23 Bis(2-Chloroethoxy)methane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
24 Benzoic acid	+++++	+++++	12899	45881	135982	348393					
	768216	1817498					QUAD	0.000e+000	3.87309	-0.23165	0.99970
25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
26 1,2,4-Trichlorobenzene	0.43556|	0.41433|	0.41228|	0.40554|	0.39984|	0.40053|					
	0.38663|	0.40737|					|AVRG|		0.40776|		3.47154|
28 Naphthalene	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|	++++|					|AVRG|		|0.000e+000|		|0.000e+000|
29 4-Chloroaniline	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|	++++|					|AVRG|		|0.000e+000|		|0.000e+000|
30 Hexachlorobutadiene	0.27143|	0.25417|	0.25580|	0.25555|	0.25653|	0.26329|					
	0.25576|	0.27027|					|AVRG|		0.26035|		2.70582|
31 4-Chloro-3-methylphenol	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|	++++|					|AVRG|		|0.000e+000|		|0.000e+000|
32 2-Methylnaphthalene	++++|	++++|	++++|	++++|	++++|	++++|					
	++++	++++					AVRG		0.000e+000		0.000e+000
33 Hexachlorocyclopentadiene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
39 Dimethylphthalate	1.51607|	1.49066|	1.45724|	1.50839|	1.55319|	1.53496|					
	1.50848|	1.56149|					|AVRG|		|1.51631|		|2.23238|
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAY-2023 15:31
 End Cal Date : 01-MAY-2023 20:04
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Last Edit : 04-May-2023 13:53 deenayd

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
50 Diethylphthalate	1.48806 1.70962	1.48618 1.78392	1.52510	1.61707	1.68684	1.72809					
							AVRG		1.62811		7.14994
51 4-Chlorophenyl-phenylether	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000
52 4-Nitroaniline	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000
53 4,6-Dinitro-2-methylphenol	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000
54 N-Nitrosodiphenylamine	0.47452 0.53023	0.48731 0.53484	0.51989	0.53909	0.55404	0.53333					
							AVRG		0.52166		5.19480
56 4-Bromophenyl-phenylether	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000
57 Hexachlorobenzene	0.26796 0.24838	0.25995 0.25184	0.25833	0.25610	0.25287	0.24824					
							AVRG		0.25546		2.59298

ARI Labs, Inc.

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
58 Pentachlorophenol	+++++	2468	5411	15280	41389	108836					
	240737	601621					QUAD	0.000e+000	6.54335	-1.42971	0.99965
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000			0.000e+000

ARI Labs, Inc.

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2		
	5.0000	10.0000										
	Level 7	Level 8										
67 Butylbenzylphthalate	2187 387291	4388 909576	11132	30054	76654	183179		QUAD	0.000e+000	1.42339	-0.08146	0.99974
68 Benzo(a)anthracene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
70 3,3'-Dichlorobenzidine	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
71 Chrysene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
72 bis(2-Ethylhexyl)phthalate	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
73 Di-n-octylphthalate	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
74 Benzo(b)fluoranthene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|	|0.000e+000|		|0.000e+000|	
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|	|0.000e+000|		|0.000e+000|	
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|	|0.000e+000|		|0.000e+000|	
79 Dibenzo(a,h)anthracene	1.17235|	1.21008|	1.25051|	1.27273|	1.31719|	1.28288|					
	1.35100|	1.47259|					|AVRG|	|1.29117|		|7.16585|	
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|	|0.000e+000|		|0.000e+000|	
90 N-Nitrosodimethylamine	0.57340	0.63040	0.66195	0.68244	0.69028	0.70488					
	0.67376	0.70070					AVRG	0.66473		6.60200	
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG	0.000e+000		0.000e+000	

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 1 2-Fluorophenol	1.08256|	1.14058|	1.19324|	1.23694|	1.26037|	1.28450|					
	1.24581|	1.30396|					|AVRG|		|1.21849|		|6.17959|
\$ 145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
\$ 10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 66 Terphenyl-d14	0.74050|	0.77134|	0.80775|	0.83954|	0.90000|	0.91257|					
	0.94346|	0.98488|					|AVRG|		0.86250|		10.00864|
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

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 Last Edit : 04-May-2023 13:53 deenayd

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

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Method file : \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Last Edit : 04-May-2023 13:53 deenayd

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07 RT08
FILENAME: NT1005012303S NT1005012304S NT1005012305S NT1005012306S NT1005012307S NT1005012308S NT1005012309S NT1005012310S
INJ.DATE: 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023 01-MAY-2023
INJ.TIME: 15:31 16:10 16:49 17:28 18:07 18:46 19:25 20:04

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, RT08, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like 2-Fluorophenol, Chlorobenzilate, Isodrin, etc.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.349	22.849-23.849	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.474	21.974-22.974	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.191	10.691-11.691	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.779	17.279-18.279	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.310	15.810-16.810	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.707	17.207-18.207	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.921	8.421-9.421	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.736	3.236-4.236	+++++	+++++
§ 145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.914	2.414-3.414	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.148	19.648-20.648	+++++	+++++
120 2,3,4,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.588	15.088-16.088	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.587	38.087-39.087	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.382	19.882-20.882	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.734	18.234-19.234	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.987	16.487-17.487	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.204	14.704-15.704	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.586	21.086-22.086	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.692	17.192-18.192	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.268	15.768-16.768	+++++	+++++
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.055	17.555-18.555	+++++	+++++
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.228	16.728-17.728	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.517	16.017-17.017	+++++	+++++
107 4,5-Dichloro-2-Methoxy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.803	14.303-15.303	+++++	+++++
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.843	11.343-12.343	+++++	+++++
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.927	12.427-13.427	+++++	+++++
\$ 2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.235	7.735-8.735	+++++	+++++
3 Phenol	8.850	8.842	8.843	8.843	8.835	8.843	8.843	8.843	8.850	8.350-9.350	8.843	0.004
4 Bis(2-Chloroethyl)ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.397	7.897-8.897	+++++	+++++
\$ 5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.490	7.990-8.990	+++++	+++++
6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.521	8.021-9.021	+++++	+++++
7 1,3-Dichlorobenzene	9.430	9.430	9.430	9.430	9.430	9.430	9.430	9.430	9.430	8.930-9.930	9.430	0.000
* 8 1,4-Dichlorobenzene-d4	9.492	9.492	9.492	9.500	9.492	9.492	9.492	9.492	9.492	8.992-9.992	9.493	0.003
9 1,4-Dichlorobenzene	9.523	9.523	9.523	9.523	9.523	9.523	9.523	9.523	9.523	9.023-10.023	9.523	0.000
\$ 10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.500	9.000-10.000	+++++	+++++
11 Benzyl alcohol	9.756	9.756	9.748	9.756	9.748	9.748	9.756	9.756	9.756	9.256-10.256	9.753	0.004
12 1,2-Dichlorobenzene	9.888	9.880	9.880	9.880	9.880	9.880	9.880	9.880	9.888	9.388-10.388	9.881	0.003
13 2-Methylphenol	9.973	9.965	9.966	9.966	9.966	9.966	9.966	9.966	9.973	9.473-10.473	9.967	0.003
14 2,2'-oxybis(1-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.413	8.913-9.913	+++++	+++++
15 4-Methylphenol	10.237	10.237	10.238	10.230	10.230	10.230	10.230	10.238	10.237	9.737-10.737	10.234	0.004
16 N-Nitroso-di-n-propyla	10.323	10.315	10.315	10.315	10.307	10.307	10.307	10.315	10.323	9.823-10.823	10.313	0.005
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.809	9.309-10.309	+++++	+++++
\$ 18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.917	9.417-10.417	+++++	+++++
19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.948	9.448-10.448	+++++	+++++
20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.399	9.899-10.899	+++++	+++++
21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.575	10.075-11.075	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
22 2,4-Dimethylphenol	10.237	10.237	10.230	10.230	10.230	10.230	10.230	10.230	10.237	9.737-10.737	10.232	0.003
23 Bis(2-Chloroethoxy)met	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.830	10.330-11.330	+++++	+++++
24 Benzoic acid	11.551	11.483	11.441	11.398	11.373	11.356	11.356	11.373	11.551	11.051-12.051	11.417	0.070
25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.033	10.533-11.533	+++++	+++++
26 1,2,4-Trichlorobenzene	11.904	11.904	11.904	11.904	11.896	11.896	11.896	11.896	11.904	11.404-12.404	11.900	0.004
* 27 Naphthalene-d8	11.996	11.996	11.989	11.989	11.989	11.989	11.989	11.989	11.996	11.496-12.496	11.991	0.003
28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.326	10.826-11.826	+++++	+++++
29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.457	10.957-11.957	+++++	+++++
30 Hexachlorobutadiene	12.390	12.390	12.390	12.390	12.383	12.383	12.383	12.383	12.390	11.890-12.890	12.387	0.004
31 4-Chloro-3-methylpheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.432	11.932-12.932	+++++	+++++
32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.710	12.210-13.210	+++++	+++++
33 Hexachlorocyclopentadi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.182	12.682-13.682	+++++	+++++
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.330	12.830-13.830	+++++	+++++
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.415	12.915-13.915	+++++	+++++
36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.484	12.984-13.984	+++++	+++++
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.686	13.186-14.186	+++++	+++++
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.941	13.441-14.441	+++++	+++++
39 Dimethylphthalate	15.114	15.114	15.115	15.107	15.107	15.099	15.099	15.107	15.114	14.614-15.614	15.108	0.006
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.545	14.045-15.045	+++++	+++++
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.506	14.006-15.006	+++++	+++++
* 42 Acenaphthene-d10	15.625	15.625	15.625	15.625	15.625	15.618	15.618	15.618	15.625	15.125-16.125	15.622	0.004
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.785	14.285-15.285	+++++	+++++
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.924	14.424-15.424	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.001	14.501-15.501	+++++	+++++
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.248	14.748-15.748	+++++	+++++
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.171	14.671-15.671	+++++	+++++
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.302	14.802-15.802	+++++	+++++
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
50 Diethylphthalate	16.584	16.576	16.568	16.568	16.568	16.561	16.561	16.561	16.584	16.084-17.084	16.568	0.008
51 4-Chlorophenyl-phenyle	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.037	15.537-16.537	+++++	+++++
53 4,6-Dinitro-2-methylph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.145	15.645-16.645	+++++	+++++
54 N-Nitrosodiphenylamine	16.977	16.969	16.970	16.962	16.962	16.954	16.954	16.962	16.977	16.477-17.477	16.964	0.008
\$ 55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.477	15.977-16.977	+++++	+++++
56 4-Bromophenyl-phenylet	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.939	16.439-17.439	+++++	+++++
57 Hexachlorobenzene	18.050	18.057	18.050	18.050	18.050	18.042	18.042	18.042	18.050	17.550-18.550	18.048	0.005
58 Pentachlorophenol	18.406	18.406	18.406	18.406	18.406	18.398	18.391	18.399	18.406	17.906-18.906	18.402	0.006
* 59 Phenanthrene-d10	18.685	18.684	18.685	18.677	18.677	18.669	18.669	18.677	18.685	18.185-19.185	18.678	0.006
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.899	17.399-18.399	+++++	+++++
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.991	17.491-18.491	+++++	+++++
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.324	17.824-18.824	+++++	+++++
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.152	18.652-19.652	+++++	+++++
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.289	19.789-20.789	+++++	+++++
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.715	20.215-21.215	+++++	+++++
\$ 66 Terphenyl-d14	21.787	21.787	21.787	21.787	21.780	21.779	21.772	21.780	21.787	21.287-22.287	21.782	0.006
67 Butylbenzylphthalate	22.701	22.701	22.701	22.701	22.693	22.693	22.685	22.693	22.701	22.201-23.201	22.696	0.006
68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.875	22.375-23.375	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 69 Chrysene-d12	23.707	23.707	23.700	23.700	23.692	23.692	23.684	23.692	23.707	23.207-24.207	23.697	0.008
70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.844	22.344-23.344	+++++	+++++
71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.952	22.452-23.452	+++++	+++++
72 bis(2-Ethylhexyl)phtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.701	22.201-23.201	+++++	+++++
73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.990	23.490-24.490	+++++	+++++
74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.687	24.187-25.187	+++++	+++++
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.725	24.225-25.225	+++++	+++++
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.283	24.783-25.783	+++++	+++++
* 77 Perylene-d12	26.549	26.556	26.549	26.541	26.533	26.526	26.518	26.533	26.549	26.049-27.049	26.538	0.013
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.794	27.294-28.294	+++++	+++++
79 Dibenzo(a,h)anthracene	29.558	29.550	29.543	29.527	29.512	29.496	29.488	29.520	29.558	29.058-30.058	29.524	0.025
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.494	27.994-28.994	+++++	+++++
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.238	16.738-17.738	+++++	+++++
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.316	28.816-29.816	+++++	+++++
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.007	25.507-26.507	+++++	+++++
\$ 88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	44.609	44.109-45.109	+++++	+++++
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.066	15.566-16.566	+++++	+++++
90 N-Nitrosodimethylamine	5.088	5.080	5.073	5.088	5.073	5.088	5.088	5.104	5.088	4.588-5.588	5.085	0.010
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.305	7.805-8.805	+++++	+++++
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.615	21.115-22.115	+++++	+++++
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.529	20.029-21.029	+++++	+++++
\$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.686	17.186-18.186	+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.957	26.457-27.457	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230501.b\20230501.b\SIMABN2.m
 Batch File: \\target\share\chem3\nt10.i\20230501.b\20230501.b
 Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.609	19.109-20.109	+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.438	24.938-25.938	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.384	25.884-26.884	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.881	43.381-44.381	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	45.573	45.073-46.073	+++++	+++++
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.535	4.035-5.035	+++++	+++++



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0466

Instrument: NT10

Calibration: GE00018

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLE0466-TUN1	NT1005052301S.D	NA	05/05/23 10:04
ABN 0.5	SLE0466-LCV2	NT1005052304S.D	NA	05/05/23 12:43
Initial Cal Check	SLE0466-ICV1	NT1005052305S.D	NA	05/05/23 13:22
Low Cal Check	SLE0466-LCV1	NT1005052306S.D	NA	05/05/23 14:01
Blank	BLD0329-BLK2	NT1005052307S.D	Solid	05/05/23 14:40
LCS	BLD0329-BS2	NT1005052308S.D	Solid	05/05/23 15:18
LCS Dup	BLD0329-BSD2	NT1005052309S.D	Solid	05/05/23 15:57
Reference	BLD0329-SRM2	NT1005052310S.D	Solid	05/05/23 16:36
LDW23-SS1804	23D0136-01	NT1005052311S.D	Solid	05/05/23 17:15
LDW23-SS1803	23D0136-03	NT1005052312S.D	Solid	05/05/23 17:54
LDW23-SS1803	BLD0329-MS2	NT1005052313S.D	Solid	05/05/23 18:32
LDW23-SS1803	BLD0329-MSD2	NT1005052314S.D	Solid	05/05/23 19:11
Calibration Check	SLE0466-CCV1	NT1005052317S.D	NA	05/05/23 21:08



ANALYSIS SEQUENCE

SLE0466

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GE00018 GCMS Column ID: L004747
MS EM Level: 1400 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0466-TUN1	MS Tune	QC		1	L005516		05/05/2023 10:04	NT1005052301S.D	DSD	
SLE0466-LCV2	ABN 0.5	QC		2	K011106	K010831	05/05/2023 12:43	NT1005052304S.D	DSD	
SLE0466-ICV1	Initial Cal Check	QC		3	L005948	K010831	05/05/2023 13:22	NT1005052305S.D	DSD	
SLE0466-LCV1	Low Cal Check	QC		4	L005953	K010831	05/05/2023 14:01	NT1005052306S.D	DSD	
BLD0329-BLK2	Blank	QC		5		K010831	05/05/2023 14:40	NT1005052307S.D	DSD	
BLD0329-BS2	LCS	QC		6		K010831	05/05/2023 15:18	NT1005052308S.D	DSD	
BLD0329-BSD2	LCS Dup	QC		7		K010831	05/05/2023 15:57	NT1005052309S.D	DSD	
BLD0329-SRM2	Reference	QC		8		K010831	05/05/2023 16:36	NT1005052310S.D	DSD	
23D0136-01	LDW23-SS1804	270E-SIM Dual Scan SVO	A 04	9		K010831	05/05/2023 17:15	NT1005052311S.D	DSD	
23D0136-03	LDW23-SS1803	270E-SIM Dual Scan SVO	A 03	10		K010831	05/05/2023 17:54	NT1005052312S.D	DSD	
BLD0329-MS2	Matrix Spike	QC		11		K010831	05/05/2023 18:32	NT1005052313S.D	DSD	
BLD0329-MSD2	Matrix Spike Dup	QC		12		K010831	05/05/2023 19:11	NT1005052314S.D	DSD	
SLE0466-CCV1	Calibration Check	QC		13	L005948	K010831	05/05/2023 21:08	NT1005052317S.D	DSD	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230505.b\20230505.b

Time	Filename	LabID	ClientId	DF									
1	1004	NT1005052301S.D	SLE0466-TUN1		1	|	NO ISTDS FOUND|						
2	1028	NT1005052302S.D	SEQ-SCV1		1	|	0.00	0|| 0.00	0|| 0.00	0|| 0.00	0|| 0.00	0|| 0.00	0|
3	1137	NT1005052303S.D	SEQ-ICV1		1	|	0.00	0|| 0.00	0|| 0.00	0|| 0.00	0|| 0.00	0|| 0.00	0|
4	1243	NT1005052304S.D	SLE0466-LCV2		1	|	9.51	203454||12.00	727036||15.62	373332||18.67	741935||23.68	624910||26.53	567354|
5	1322	NT1005052305S.D	SLE0466-ICV1		1	|	9.49	182700||11.99	662220||15.62	335558||18.67	678190||23.68	566969||26.52	522906|
6	1401	NT1005052306S.D	SLE0466-LCV1		1	|	9.49	190296||11.99	664307||15.62	331419||18.67	671733||23.69	544279||26.53	495313|
7	1440	NT1005052307S.D	BLD0329-BLK2		1	|	9.50	185339||11.99	684119||15.61	343668||18.66	674902||23.68	560609||26.52	497276|
8	1518	NT1005052308S.D	BLD0329-BS2		1	|	9.49	163221||11.99	611943||15.62	319820||18.67	624505||23.69	519561||26.53	456900|
9	1557	NT1005052309S.D	BLD0329-BSD2		1	|	9.50	173364||11.99	634980||15.62	331413||18.67	647855||23.69	539738||26.53	462376|
10	1636	NT1005052310S.D	BLD0329-SRM2		1	|	9.50	191872||11.99	706133||15.62	358098||18.67	736880||23.69	566007||26.53	516238|
11	1715	NT1005052311S.D	23D0136-01		1	|	9.50	184248||11.99	688156||15.62	342198||18.67	726795||23.70	539399||26.55	475433|
12	1754	NT1005052312S.D	23D0136-03		1	|	9.50	184634||11.99	697055||15.62	343698||18.68	678617||23.70	495685||26.55	444419|
13	1832	NT1005052313S.D	BLD0329-MS2		1	|	9.50	207184||12.00	771571||15.63	379771||18.68	753456||23.71	592431||26.56	491005|
14	1911	NT1005052314S.D	BLD0329-MSD2		1	|	9.50	177137||12.00	666320||15.62	332083||18.68	662010||23.71	495228||26.56	426867|
15	1950	NT1005052315S.D	FULL SCAN-ICV1		1	|	9.50	210938||12.00	775295||15.62	395722||18.68	755599||23.70	559725||26.54	519002|
16	2029	NT1005052316S.D	FULL SCAN-LCV1		1	|	9.50	219712||11.99	793678||15.62	395728||18.67	833391||23.69	511696||26.54	503828|
17	2108	NT1005052317S.D	SLE0466-CCV1		1	|	9.50	208433||12.00	754909||15.62	388803||18.68	819155||23.70	554558||26.53	517224|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230505.b\20230505.b

Instrument: nt10.i Date: 05-MAY-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1004	NT1005052301S.D	SLE0466-TUN1	1	NO MANUAL INTEGRATION
1028	NT1005052302S.D	SEQ-SCV1	1	NO MANUAL INTEGRATION
1137	NT1005052303S.D	SEQ-ICV1	1	NO MANUAL INTEGRATION
1243	NT1005052304S.D	SLE0466-LCV2	1	2,4-Dimethylphenol,
1322	NT1005052305S.D	SLE0466-ICV1	1	2,4-Dimethylphenol,
1401	NT1005052306S.D	SLE0466-LCV1	1	Pentachlorophenol,
1440	NT1005052307S.D	BLD0329-BLK2	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Dibenzo(a,h)anthracene,
1518	NT1005052308S.D	BLD0329-BS2	1	NO MANUAL INTEGRATION
1557	NT1005052309S.D	BLD0329-BSD2	1	NO MANUAL INTEGRATION
1636	NT1005052310S.D	BLD0329-SRM2	1	Hexachlorobenzene,
1715	NT1005052311S.D	23D0136-01	1	2-Methylphenol, 1,2,4-Trichlorobenzene, Dimethylphthalate, Diethylphthalate,
1754	NT1005052312S.D	23D0136-03	1	2-Methylphenol, 1,2,4-Trichlorobenzene, Dimethylphthalate, Diethylphthalate,
1832	NT1005052313S.D	BLD0329-MS2	1	NO MANUAL INTEGRATION
1911	NT1005052314S.D	BLD0329-MSD2	1	NO MANUAL INTEGRATION
1950	NT1005052315S.D	FULL SCAN-ICV1	1	NO MANUAL INTEGRATION
2029	NT1005052316S.D	FULL SCAN-LCV1	1	NO MANUAL INTEGRATION
2108	NT1005052317S.D	SLE0466-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 31-May-2023 14:01

NT1005052301S.D	Data Locked	van, 31-May-2023 14:01
NT1005052302S.D	Data Locked	van, 31-May-2023 14:01
NT1005052303S.D	Data Locked	van, 31-May-2023 14:01
NT1005052304S.D	Data Locked	van, 31-May-2023 14:01
NT1005052305S.D	Data Locked	van, 31-May-2023 14:01
NT1005052306S.D	Data Locked	van, 31-May-2023 14:01
NT1005052307S.D	Data Locked	van, 31-May-2023 14:01
NT1005052308S.D	Data Locked	van, 31-May-2023 14:01
NT1005052309S.D	Data Locked	van, 31-May-2023 14:01
NT1005052310S.D	Data Locked	van, 31-May-2023 14:01
NT1005052311S.D	Data Locked	van, 31-May-2023 14:01
NT1005052312S.D	Data Locked	van, 31-May-2023 14:01
NT1005052313S.D	Data Locked	van, 31-May-2023 14:01
NT1005052314S.D	Data Locked	van, 31-May-2023 14:01
NT1005052315S.D	Data Locked	van, 31-May-2023 14:01
NT1005052316S.D	Data Locked	van, 31-May-2023 14:01
NT1005052317S.D	Data Locked	van, 31-May-2023 14:01



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23D0136</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0082</u>	Instrument:	<u>NT10</u>
Calibration:	<u>GE00018</u>	Calibration Date:	<u>05/01/2023</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLE0082-SCV1 (Solid)		Lab File ID: NT1005012311S.D			Analyzed: 05/01/23 20:43			
2-Fluorophenol	7.5000	0.482	0 - 200	7.235	7.237	-0.0020	N/A	
p-Terphenyl-d14	5.0000	0.488	0 - 200	21.779	21.78187	-0.0029	N/A	
SLE0082-ICB1 (Solid)		Lab File ID: NT1005012312S.D			Analyzed: 05/01/23 21:22			
2-Fluorophenol	7.5000	89.8	27 - 120	7.235	7.237	-0.0020	N/A	
p-Terphenyl-d14	5.0000	86.7	37 - 120	21.787	21.78187	0.0051	N/A	



**SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0466</u>	Instrument:	<u>NT10</u>
Calibration:	<u>GE00018</u>	Calibration Date:	<u>05/01/2023</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLE0466-LCV2 (Solid) Lab File ID: NT1005052304S.D Analyzed: 05/05/23 12:43								
2-Fluorophenol	0.75000	88.5	0 - 200	7.258	7.237	0.0210	N/A	
p-Terphenyl-d14	0.50000	81.2	0 - 200	21.771	21.78187	-0.0109	N/A	
SLE0466-ICV1 (Solid) Lab File ID: NT1005052305S.D Analyzed: 05/05/23 13:22								
2-Fluorophenol	1.5000	90.9	80 - 120	7.243	7.237	0.0060	N/A	
p-Terphenyl-d14	1.0000	85.0	80 - 120	21.771	21.78187	-0.0109	N/A	
SLE0466-LCV1 (Solid) Lab File ID: NT1005052306S.D Analyzed: 05/05/23 14:01								
2-Fluorophenol	0.15000	76.6	0 - 200	7.243	7.237	0.0060	N/A	
p-Terphenyl-d14	0.10000	73.4	0 - 200	21.779	21.78187	-0.0029	N/A	
BLD0329-BLK2 (Solid) Lab File ID: NT1005052307S.D Analyzed: 05/05/23 14:40								
2-Fluorophenol	750.00	37.8	27 - 120	7.243	7.237	0.0060	N/A	
p-Terphenyl-d14	500.00	76.0	37 - 120	21.771	21.78187	-0.0109	N/A	
BLD0329-BS2 (Solid) Lab File ID: NT1005052308S.D Analyzed: 05/05/23 15:18								
2-Fluorophenol	750.00	52.6	27 - 120	7.243	7.237	0.0060	N/A	
p-Terphenyl-d14	500.00	77.8	37 - 120	21.779	21.78187	-0.0029	N/A	
BLD0329-BSD2 (Solid) Lab File ID: NT1005052309S.D Analyzed: 05/05/23 15:57								
2-Fluorophenol	750.00	51.5	27 - 120	7.243	7.237	0.0060	N/A	
p-Terphenyl-d14	500.00	83.7	37 - 120	21.771	21.78187	-0.0109	N/A	
BLD0329-SRM2 (Solid) Lab File ID: NT1005052310S.D Analyzed: 05/05/23 16:36								
2-Fluorophenol	7500.0	74.4	27 - 120	7.243	7.237	0.0060	N/A	
p-Terphenyl-d14	5000.0	96.8	37 - 120	21.771	21.78187	-0.0109	N/A	
23D0136-01 (Solid) Lab File ID: NT1005052311S.D Analyzed: 05/05/23 17:15								
2-Fluorophenol	749.17	50.0	27 - 120	7.243	7.237	0.0060	N/A	
p-Terphenyl-d14	499.45	85.2	37 - 120	21.779	21.78187	-0.0029	N/A	
23D0136-03 (Solid) Lab File ID: NT1005052312S.D Analyzed: 05/05/23 17:54								
2-Fluorophenol	749.61	72.4	27 - 120	7.251	7.237	0.0140	N/A	
p-Terphenyl-d14	499.74	98.7	37 - 120	21.787	21.78187	0.0051	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0082

Instrument: NT10

Calibration: GE00018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLE0082-SCV1)		(Solid)	Lab File ID: NT1005012311S.D			Analyzed: 05/01/23 20:43			
1,4-Dichlorobenzene-d4	142531	9.492	169173	9.499	84	50 - 200	-0.007	+/-0.50	
Naphthalene-d8	510045	11.988	594924	11.988	86	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	263993	15.617	304980	15.625	87	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	506239	18.677	609190	18.676	83	50 - 200	0.001	+/-0.50	
Chrysene-d12	402889	23.699	479061	23.699	84	50 - 200	0.000	+/-0.50	
Perylene-d12	365734	26.533	427162	26.54	86	50 - 200	-0.007	+/-0.50	
Initial Cal Blank (SLE0082-ICB1)		(Solid)	Lab File ID: NT1005012312S.D			Analyzed: 05/01/23 21:22			
1,4-Dichlorobenzene-d4	165323	9.492	169173	9.499	98	50 - 200	-0.007	+/-0.50	
Naphthalene-d8	600558	11.988	594924	11.988	101	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	293573	15.617	304980	15.625	96	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	566241	18.676	609190	18.676	93	50 - 200	0.000	+/-0.50	
Chrysene-d12	440951	23.699	479061	23.699	92	50 - 200	0.000	+/-0.50	
Perylene-d12	417631	26.54	427162	26.54	98	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0466

Instrument: NT10

Calibration: GE00018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Low Cal Check (SLE0466-LCV2)		(Solid)	Lab File ID: NT1005052304S.D			Analyzed: 05/05/23 12:43			
1,4-Dichlorobenzene-d4	203454	9.507	182700	9.492	111	50 - 200	0.015	+/-0.50	
Naphthalene-d8	727036	11.996	662220	11.988	110	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	373332	15.617	335558	15.617	111	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	741935	18.669	678190	18.669	109	50 - 200	0.000	+/-0.50	
Chrysene-d12	624910	23.684	566969	23.684	110	50 - 200	0.000	+/-0.50	
Perylene-d12	567354	26.525	522906	26.517	109	50 - 200	0.008	+/-0.50	
Initial Cal Check (SLE0466-ICV1)		(Solid)	Lab File ID: NT1005052305S.D			Analyzed: 05/05/23 13:22			
1,4-Dichlorobenzene-d4	182700	9.492	182700	9.492	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	662220	11.988	662220	11.988	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	335558	15.617	335558	15.617	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	678190	18.669	678190	18.669	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	566969	23.684	566969	23.684	100	50 - 200	0.000	+/-0.50	
Perylene-d12	522906	26.517	522906	26.517	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLE0466-LCV1)		(Solid)	Lab File ID: NT1005052306S.D			Analyzed: 05/05/23 14:01			
1,4-Dichlorobenzene-d4	190296	9.492	182700	9.492	104	50 - 200	0.000	+/-0.50	
Naphthalene-d8	664307	11.988	662220	11.988	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	331419	15.617	335558	15.617	99	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	671733	18.669	678190	18.669	99	50 - 200	0.000	+/-0.50	
Chrysene-d12	544279	23.692	566969	23.684	96	50 - 200	0.008	+/-0.50	
Perylene-d12	495313	26.525	522906	26.517	95	50 - 200	0.008	+/-0.50	
Blank (BLD0329-BLK2)		(Solid)	Lab File ID: NT1005052307S.D			Analyzed: 05/05/23 14:40			
1,4-Dichlorobenzene-d4	185339	9.499	182700	9.492	101	50 - 200	0.007	+/-0.50	
Naphthalene-d8	684119	11.988	662220	11.988	103	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	343668	15.609	335558	15.617	102	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	674902	18.661	678190	18.669	100	50 - 200	-0.008	+/-0.50	
Chrysene-d12	560609	23.684	566969	23.684	99	50 - 200	0.000	+/-0.50	
Perylene-d12	497276	26.517	522906	26.517	95	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0466

Instrument: NT10

Calibration: GE00018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (BLD0329-BS2)		(Solid)	Lab File ID: NT1005052308S.D			Analyzed: 05/05/23 15:18			
1,4-Dichlorobenzene-d4	163221	9.491	182700	9.492	89	50 - 200	-0.001	+/-0.50	
Naphthalene-d8	611943	11.988	662220	11.988	92	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	319820	15.617	335558	15.617	95	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	624505	18.668	678190	18.669	92	50 - 200	-0.001	+/-0.50	
Chrysene-d12	519561	23.691	566969	23.684	92	50 - 200	0.007	+/-0.50	
Perylene-d12	456900	26.525	522906	26.517	87	50 - 200	0.008	+/-0.50	
LCS Dup (BLD0329-BSD2)		(Solid)	Lab File ID: NT1005052309S.D			Analyzed: 05/05/23 15:57			
1,4-Dichlorobenzene-d4	173364	9.499	182700	9.492	95	50 - 200	0.007	+/-0.50	
Naphthalene-d8	634980	11.988	662220	11.988	96	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	331413	15.617	335558	15.617	99	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	647855	18.668	678190	18.669	96	50 - 200	-0.001	+/-0.50	
Chrysene-d12	539738	23.691	566969	23.684	95	50 - 200	0.007	+/-0.50	
Perylene-d12	462376	26.532	522906	26.517	88	50 - 200	0.015	+/-0.50	
Reference (BLD0329-SRM2)		(Solid)	Lab File ID: NT1005052310S.D			Analyzed: 05/05/23 16:36			
1,4-Dichlorobenzene-d4	191872	9.5	182700	9.492	105	50 - 200	0.008	+/-0.50	
Naphthalene-d8	706133	11.988	662220	11.988	107	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	358098	15.617	335558	15.617	107	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	736880	18.669	678190	18.669	109	50 - 200	0.000	+/-0.50	
Chrysene-d12	566007	23.692	566969	23.684	100	50 - 200	0.008	+/-0.50	
Perylene-d12	516238	26.525	522906	26.517	99	50 - 200	0.008	+/-0.50	
LDW23-SS1804 (23D0136-01)		(Solid)	Lab File ID: NT1005052311S.D			Analyzed: 05/05/23 17:15			
1,4-Dichlorobenzene-d4	184248	9.5	182700	9.492	101	50 - 200	0.008	+/-0.50	
Naphthalene-d8	688156	11.988	662220	11.988	104	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	342198	15.617	335558	15.617	102	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	726795	18.669	678190	18.669	107	50 - 200	0.000	+/-0.50	
Chrysene-d12	539399	23.699	566969	23.684	95	50 - 200	0.015	+/-0.50	
Perylene-d12	475433	26.548	522906	26.517	91	50 - 200	0.031	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0466

Instrument: NT10

Calibration: GE00018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SS1803 (23D0136-03)		(Solid)	Lab File ID: NT1005052312S.D			Analyzed: 05/05/23 17:54			
1,4-Dichlorobenzene-d4	184634	9.499	182700	9.492	101	50 - 200	0.007	+/-0.50	
Naphthalene-d8	697055	11.988	662220	11.988	105	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	343698	15.617	335558	15.617	102	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	678617	18.676	678190	18.669	100	50 - 200	0.007	+/-0.50	
Chrysene-d12	495685	23.699	566969	23.684	87	50 - 200	0.015	+/-0.50	
Perylene-d12	444419	26.548	522906	26.517	85	50 - 200	0.031	+/-0.50	
Matrix Spike (BLD0329-MS2)		(Solid)	Lab File ID: NT1005052313S.D			Analyzed: 05/05/23 18:32			
1,4-Dichlorobenzene-d4	207184	9.5	182700	9.492	113	50 - 200	0.008	+/-0.50	
Naphthalene-d8	771571	11.996	662220	11.988	117	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	379771	15.625	335558	15.617	113	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	753456	18.677	678190	18.669	111	50 - 200	0.008	+/-0.50	
Chrysene-d12	592431	23.707	566969	23.684	104	50 - 200	0.023	+/-0.50	
Perylene-d12	491005	26.556	522906	26.517	94	50 - 200	0.039	+/-0.50	
Matrix Spike Dup (BLD0329-MSD2)		(Solid)	Lab File ID: NT1005052314S.D			Analyzed: 05/05/23 19:11			
1,4-Dichlorobenzene-d4	177137	9.499	182700	9.492	97	50 - 200	0.007	+/-0.50	
Naphthalene-d8	666320	11.996	662220	11.988	101	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	332083	15.617	335558	15.617	99	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	662010	18.676	678190	18.669	98	50 - 200	0.007	+/-0.50	
Chrysene-d12	495228	23.707	566969	23.684	87	50 - 200	0.023	+/-0.50	
Perylene-d12	426867	26.556	522906	26.517	82	50 - 200	0.039	+/-0.50	
Calibration Check (SLE0466-CCV1)		(Solid)	Lab File ID: NT1005052317S.D			Analyzed: 05/05/23 21:08			
1,4-Dichlorobenzene-d4	208433	9.499	182700	9.492	114	50 - 200	0.007	+/-0.50	
Naphthalene-d8	754909	11.996	662220	11.988	114	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	388803	15.617	335558	15.617	116	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	819155	18.676	678190	18.669	121	50 - 200	0.007	+/-0.50	
Chrysene-d12	554558	23.699	566969	23.684	98	50 - 200	0.015	+/-0.50	
Perylene-d12	517224	26.533	522906	26.517	99	50 - 200	0.016	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/18/23 11:16	12	365	05/05/23 17:15	17	40	
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	04/18/23 11:16	12	365	05/05/23 17:54	17	40	
Matrix Spike BLD0329-MS2	04/05/23 16:05	04/06/23 10:30	04/18/23 11:16	12	365	05/05/23 18:32	17	40	
Matrix Spike Dup BLD0329-MSD2	04/05/23 16:05	04/06/23 10:30	04/18/23 11:16	12	365	05/05/23 19:11	17	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: NT10

Analyte	MDL	RL	Units
1,4-Dichlorobenzene	0.6	5.0	ug/kg
1,2-Dichlorobenzene	0.7	5.0	ug/kg
Benzyl Alcohol	2.5	20.0	ug/kg
Benzoic acid	13.4	100	ug/kg
2,4-Dimethylphenol	2.2	20.0	ug/kg
1,2,4-Trichlorobenzene	2.7	5.0	ug/kg
N-Nitrosodiphenylamine	1.3	5.0	ug/kg
Pentachlorophenol	2.1	20.0	ug/kg



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: NA

Chemical: Tributyl Phosphate

Manufacturer: Chemservice

Product #: 0-916

Lot #: 59-57A

Purity: 99%

Analyst: VFB

Element: B000954



Description: SVOC 4,4 DDT Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 23-Sep-13
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 11:46 by JZ
Vendor: Chem Service Lot #: 198-128A
Vendor Catalog #:

Comments

Neat, Purity @ 99.2%. (ARI#: 790A)

Analyte	CAS Number	Concentration	Units
4,4'-DDT	50-29-3	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,4' DDT

Manufacturer: Chem Service

Product #: _____

Lot #: 198-128A

Purity: 99.2%

Analyst: AS



Description: SVOC alpha-Terpineol Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 12:13 by JZ
Vendor: ACROS Organics Lot #: AD16481201
Vendor Catalog #:

Comments

Neat, Purity @ 98%. (ARI#: I1582A)

Analyte	CAS Number	Concentration	Units
alpha-Terpineol	98-55-5	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: alpha-Terpineol

Manufacturer: Acros Organics

Product #: _____

Lot #: AD6481201

Purity: 98%

Analyst: 12



Description: SVOA Dibutyl Phenyl phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:45 by JZ
Vendor: Monsanto Lot #: N/A
Vendor Catalog #:

Comments

Neat, Purity @ 98.9%.

Analyte	CAS Number	Concentration	Units
Dibutyl Phenyl Phosphate	2528-36-1	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Dibutyl Phenyl Phosphate

Manufacturer: Monsanto

Product #: N/A

Lot #: N/A

Purity: 98.9%

Analyst: AD



Description: SVOC Triphenyl Phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:59 by JZ
Vendor: Aldrich Lot #: 04902CM
Vendor Catalog #:

Comments

Neat, Purity @ 99%.

Analyte	CAS Number	Concentration	Units
Triphenyl Phosphate	115-86-6	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Triphenyl phosphate

Manufacturer: Aldrich

Product #: _____

Lot #: 04902CM

Purity: 99%

Analyst: [Signature]



Description: SVOC Butylated Hydroxytoluene Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 16:18 by JZ
Vendor: SIGMA Lot #: 39F-0197
Vendor Catalog #:

Comments

neat,Purity @ 99.9%.

Analyte	CAS Number	Concentration	Units
Butylated Hydroxytoluene	128-37-0	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Bulkyated Hydroxytoluene

Manufacturer: Sigma

Product #: _____

Lot #: 39F-0197

Purity: 99.8%

Analyst: AB



Description: SVOC Butyl Diphenyl Phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 17:02 by JZ
Vendor: Monsanto Lot #: N/A
Vendor Catalog #:

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Butyl Diphenyl Phosphate	2752-95-6	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Butyl Diphenyl Phosphate

Manufacturer: Monsanto

Product #: NA

Lot #: NA

Purity: 99%

Analyst: [Signature]



Description:	SVOC 2,4-Dinitrophenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 13:45 by JZ
Vendor:	SIGMA	Lot #:	65H5021
Vendor Catalog #:			

Comments

Neat, Purity @ 90-95%. (ARI#: 0466)

Analyte	CAS Number	Concentration	Units
2,4-Dinitrophenol	51-28-5	1000000	ug/mL

B001941

SVOA 2,4-Dinitrophenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 2,4-Dinitrophenol

Manufacturer: Sigma

Product #: _____

Lot #: 644 5021

Purity: 90.29%

Analyst: AB



Description:	SVOC Benzoic Acid	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:23 by JZ
Vendor:	ACROS Organics	Lot #:	A0224339
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Benzoic acid	65-85-0	1000000	ug/mL

B001945

SVOC Benzoic Acid
Expires 12/31/2029

Prepared By Jianqing Zhou 12/31/2012

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzoic Acid

Manufacturer: ACROS Organics

Product #: _____

Lot #: A0224339

Purity: 98%

Analyst: AB



Description:	SVOC 4,6-Dinitro-2-Methylphenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:37 by JZ
Vendor:	Chem Service	Lot #:	179-31A
Vendor Catalog #:			

Comments

Neat, Purity @ 99%. (ARI#: 009A)

Analyte	CAS Number	Concentration	Units
4,6-Dinitro-2-methylphenol	534-52-1	1000000	ug/mL

B001948

SVOA 4,6-Dinitro-2-Methylphenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,6-Dinitro-2-Methylphenol

Manufacturer: Chem Service

Product #: _____

Lot #: 179-31A

Purity: 99%

Analyst: RB



Description:	SVOA 1-Methylnaphthalene	Expires:	02-Apr-14
Standard Type:	Analyte Spike	Prepared:	13-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	04-Oct-13 18:32 by JZ
Vendor:	Chem Service	Lot #:	62-5B
Vendor Catalog #:			

Comments

Neat, Purity @ 99%

Analyte	CAS Number	Concentration	Units
1-Methylnaphthalene	90-12-0	1000000	ug/mL



B002054

SVOA 1-Methylnaphthalene
Solvent / Lot: NA
Prep: 12/13/2012 by JZ
Exp: 12/31/2029
Location:



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 1-Methyl naphthalene

Manufacturer: Chem Service

Product #: 0787

Lot #: 62-53

Purity: 99%

Analyst: AB



Description: SVOA Benzidine Expires: 31-Dec-29
Standard Type: Analyte Spike Prepared: 15-Oct-13
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 15-Oct-13 12:07 by JZ
Vendor: SIGMA Lot #: 18C0024
Vendor Catalog #:

Comments

Purity @ 95%. ARI#: 0467.

Analyte	CAS Number	Concentration	Units
Benzidine	92-87-5	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzidine

Manufacturer: Sigma

Product #: B-3503

Lot #: 18C0024

Purity: 95%

Analyst: B.

Certificate of Analysis

Product Name: 1,2,4,5-Tetrachlorobenzene
Product Description: 98%
Product Brand: Sigma-Aldrich
Product Number: 131857
Molecular Weight: 215.89
CAS Number: 95-94-3

TEST

APPEARANCE
INFRARED SPECTRUM

GAS LIQUID

QUALITY CONTROL

SPECIFICATION

WHITE POWDER, CHIPS OR CRYSTALS
CONFORMS TO STRUCTURE.

97.5% (MINIMUM)

LOT 19309JR RESULTS

WHITE CHIPS
CONFORMS TO STRUCTURE AND
STANDARD AS
ILLUSTRATED ON PAGE 1011C OF EDITION
I,
VOLUME 1 OF "THE ALDRICH LIBRARY OF
FT-IR
SPECTRA".
99.9 %
JULY 1997



Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

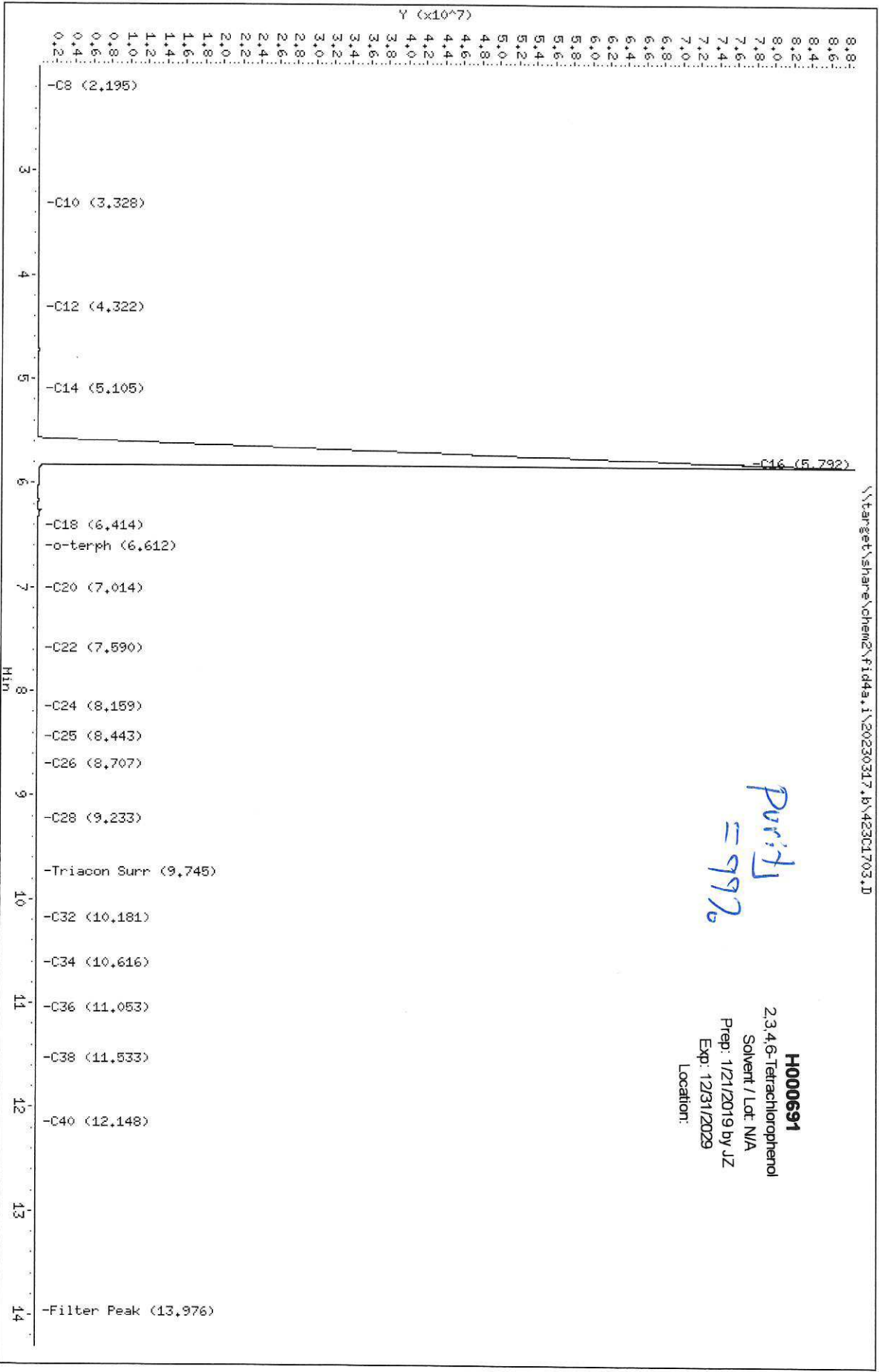
F009172

SVOC 1,2,4,5-Tetrachlorobenzene
Expires 12/31/2079
Prepared By Joshua Rains 10/6/2017

Data File: \\target\share\chem2\fid4a,1\20230317,1\42301703.D
Date: 17-MAR-2023 10:46
Client ID:
Sample Info: K007226

Column phase: RTX-1

Instrument: fid4a.i
Operator: AA
Column diameter: 0.25



Purity = 99%

H000691
2,3,4,6-Tetrachlorophenol
Solvent / Lot: N/A
Prep: 1/21/2019 by JZ
Exp: 12/31/2029
Location:

H000691

ARI Labs, Inc.

Data file : \\target\share\chem2\fid4a.i\20230317.b\423C1703.D
 Lab Smp Id: K007226
 Inj Date : 17-MAR-2023 10:46
 Operator : AA Inst ID: fid4a.i
 Smp Info : K007226
 Misc Info :
 Comment :
 Method : \\target\share\chem2\fid4a.i\20230317.b\FID4TPH.m
 Meth Date : 17-Mar-2023 16:58 alfonso Quant Type: AREA%
 Cal Date : 18-AUG-2022 11:51 Cal File: 422H1803.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: Falcon+ Compound Sublist: tph.sub
 Target Version: 4.14
 Processing Host: ALFONSO-201901

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.043	81395	55677	0.684	0.012	1 Toluene
2.074	68503	39991	0.584	0.010	
2.104	85451	37158	0.435	0.012	
2.146	59381	25207	0.424	0.008	
2.181	11414	22862	2.003	0.001	
2.195	34939	23199	0.664	0.005	2 C8
2.218	8679	21808	2.513	0.001	
2.224	21070	21832	1.036	0.003	
2.243	45086	20191	0.448	0.006	
2.286	3130	15677	5.009	0.000	
2.291	12615	15880	1.259	0.001	
2.313	20979	15888	0.757	0.003	
2.333	7621	15373	2.017	0.001	
2.348	31874	17112	0.537	0.004	
2.373	4619	13267	2.872	0.000	
2.380	12003	13446	1.120	0.001	
2.393	10327	13347	1.292	0.001	
2.408	9963	12697	1.274	0.001	
2.446	24366	11882	0.488	0.003	
2.498	24898	10214	0.410	0.003	
2.557	1592	6395	4.017	0.000	
2.570	4427	6384	1.442	0.000	
2.583	4275	6215	1.454	0.000	
2.595	1208	6068	5.024	0.000	
2.602	3076	6230	2.025	0.000	
2.607	1560	6270	4.019	0.000	
2.631	17195	8933	0.520	0.002	
2.654	17386	7637	0.439	0.002	
2.703	4531	5468	1.207	0.000	
2.717	9156	5741	0.627	0.001	
2.740	3955	5045	1.275	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.768	1029	4134	4.017	0.000	
2.771	830	4189	5.050	0.000	
2.778	1924	4438	2.307	0.000	
2.784	5498	4564	0.830	0.000	
2.846	25970	8400	0.323	0.003	
2.880	939	3165	3.370	0.000	
2.884	1885	3183	1.688	0.000	
2.901	4805	3504	0.729	0.000	
2.938	581	1990	3.423	0.000	
2.944	1450	2016	1.390	0.000	
2.955	449	1816	4.043	0.000	
2.967	1234	2009	1.629	0.000	
2.982	712	2087	2.931	0.000	
2.988	1000	2338	2.337	0.000	
3.001	3475	3541	1.019	0.000	
3.018	3528	3705	1.050	0.000	
3.033	983	2521	2.564	0.000	
3.038	1297	2686	2.070	0.000	
3.044	2547	2541	0.997	0.000	
3.069	389	1330	3.418	0.000	
3.078	728	1545	2.123	0.000	
3.085	1244	1637	1.316	0.000	
3.098	1115	1624	1.457	0.000	
3.108	926	1475	1.593	0.000	
3.119	239	1202	5.036	0.000	
3.125	540	1251	2.315	0.000	
3.133	409	1219	2.978	0.000	
3.144	2600	1886	0.725	0.000	
3.165	620	1604	2.588	0.000	
3.173	554	1647	2.972	0.000	
3.192	2423	2273	0.938	0.000	
3.197	582	2418	4.158	0.000	
3.204	1161	2723	2.346	0.000	
3.208	825	2777	3.364	0.000	
3.228	4472	3391	0.758	0.000	
3.246	1586	2676	1.688	0.000	
3.279	1194	2070	1.734	0.000	
3.293	854	1951	2.285	0.000	
3.298	595	2029	3.408	0.000	
3.315	2640	2597	0.984	0.000	
3.320	1015	2542	2.504	0.000	
3.328	1549	2593	1.674	0.000	3 C10
3.338	1314	2533	1.928	0.000	
3.350	523	2159	4.130	0.000	
3.358	1776	2105	1.185	0.000	
3.371	356	1797	5.043	0.000	
3.378	914	1880	2.057	0.000	
3.383	380	1927	5.068	0.000	
3.387	595	2023	3.399	0.000	
3.395	1390	2270	1.633	0.000	
3.405	1490	1994	1.338	0.000	
3.423	690	1601	2.321	0.000	
3.435	821	1554	1.894	0.000	
3.441	387	1583	4.087	0.000	
3.444	401	1625	4.051	0.000	
3.448	403	1636	4.060	0.000	
3.455	1216	1700	1.398	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
3.478	235	1185	5.047	0.000	
3.482	412	1229	2.986	0.000	
3.488	695	1177	1.694	0.000	
3.501	239	969	4.063	0.000	
3.509	914	1149	1.258	0.000	
3.520	1078	1069	0.992	0.000	
3.540	301	927	3.079	0.000	
3.556	406	849	2.089	0.000	
3.567	370	873	2.359	0.000	
3.572	178	939	5.270	0.000	
3.578	591	1171	1.981	0.000	
3.591	869	1353	1.556	0.000	
3.596	741	1352	1.826	0.000	
3.606	471	1401	2.976	0.000	
3.613	548	1411	2.577	0.000	
3.618	433	1521	3.511	0.000	
3.625	710	1635	2.303	0.000	
3.630	910	1667	1.832	0.000	
3.652	661	1562	2.362	0.000	
3.670	462	1214	2.627	0.000	
3.686	1036	1453	1.403	0.000	
3.690	829	1374	1.658	0.000	
3.702	531	1191	2.241	0.000	
3.712	452	1355	3.001	0.000	
3.716	820	1423	1.736	0.000	
3.736	2685	2093	0.780	0.000	
3.752	689	2030	2.946	0.000	
3.760	4109	2349	0.572	0.000	
3.805	3183	2036	0.640	0.000	
3.823	496	1686	3.401	0.000	
3.835	1641	2314	1.410	0.000	
3.859	9243	4616	0.499	0.001	
3.897	851	1745	2.051	0.000	
3.904	503	1721	3.419	0.000	
3.927	3866	3293	0.852	0.000	
3.941	5520	3558	0.645	0.000	
3.980	573	1715	2.991	0.000	
3.992	1027	1794	1.748	0.000	
3.995	1494	1860	1.245	0.000	
4.010	887	1639	1.847	0.000	
4.021	663	1724	2.602	0.000	
4.026	1380	1776	1.287	0.000	
4.045	306	1546	5.059	0.000	
4.053	1001	1758	1.757	0.000	
4.061	1137	1804	1.586	0.000	
4.072	779	1773	2.275	0.000	
4.080	989	1896	1.917	0.000	
4.087	561	1905	3.396	0.000	
4.098	1956	2156	1.103	0.000	
4.106	1168	2044	1.750	0.000	
4.127	1049	1627	1.551	0.000	
4.142	587	1545	2.633	0.000	
4.148	1155	1572	1.361	0.000	
4.173	3682	2398	0.651	0.000	
4.189	1023	1738	1.700	0.000	
4.204	549	1627	2.961	0.000	
4.213	628	1658	2.641	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
4.221	1039	1830	1.761	0.000	
4.227	447	1814	4.058	0.000	
4.248	2703	2638	0.976	0.000	
4.256	1387	2945	2.123	0.000	
4.260	743	2988	4.022	0.000	
4.265	912	3081	3.378	0.000	
4.268	779	3140	4.031	0.000	
4.275	1736	3217	1.853	0.000	
4.289	2688	3495	1.300	0.000	
4.295	3466	3448	0.995	0.000	
4.322	1054	2680	2.543	0.000	4 C12
4.330	1686	2627	1.558	0.000	
4.358	1066	1974	1.852	0.000	
4.378	434	1758	4.054	0.000	
4.384	1324	1879	1.419	0.000	
4.403	860	1608	1.869	0.000	
4.414	457	1567	3.431	0.000	
4.421	1117	1675	1.499	0.000	
4.433	910	1538	1.690	0.000	
4.439	865	1534	1.774	0.000	
4.449	764	1302	1.705	0.000	
4.471	433	1123	2.593	0.000	
4.476	734	1135	1.546	0.000	
4.490	385	1005	2.610	0.000	
4.498	555	1186	2.137	0.000	
4.502	695	1166	1.677	0.000	
4.518	587	949	1.618	0.000	
4.526	316	925	2.924	0.000	
4.533	560	989	1.765	0.000	
4.543	469	1001	2.135	0.000	
4.548	222	916	4.130	0.000	
4.553	188	980	5.207	0.000	
4.558	255	1038	4.076	0.000	
4.568	652	1157	1.775	0.000	
4.573	338	1151	3.409	0.000	
4.580	487	1283	2.636	0.000	
4.596	3801	1950	0.513	0.000	
4.631	531	1429	2.692	0.000	
4.663	4548	3737	0.822	0.000	
4.667	2815	3822	1.358	0.000	
4.679	2199	3760	1.710	0.000	
4.688	1068	3585	3.356	0.000	
4.694	2166	3742	1.727	0.000	
4.723	372603	172476	0.463	0.055	
4.894	47034	21828	0.464	0.006	
4.956	80510	28154	0.350	0.011	
4.999	54273	16950	0.312	0.008	
5.068	1137	5713	5.027	0.000	
5.072	8415	5792	0.688	0.001	
5.105	4203	4316	1.027	0.000	5 C14
5.146	660	2685	4.070	0.000	
5.153	2524	2649	1.050	0.000	
5.170	1076	2437	2.265	0.000	
5.174	2371	2438	1.028	0.000	
5.201	1013	2011	1.986	0.000	
5.210	2064	2332	1.130	0.000	
5.224	1083	2304	2.127	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
5.228	2027	2354	1.162	0.000	
5.276	4673	2682	0.574	0.000	
5.322	195	844	4.328	0.000	
5.331	977	1203	1.231	0.000	
5.356	490	993	2.027	0.000	
5.361	814	1044	1.283	0.000	
5.382	115	387	3.351	0.000	
5.399	619	960	1.551	0.000	
5.406	402	1035	2.576	0.000	
5.410	378	1122	2.968	0.000	
5.423	1663	1555	0.935	0.000	
5.452	5951	5020	0.844	0.000	
5.501	290	797	2.753	0.000	
5.523	2317	2472	1.067	0.000	
5.538	5946	6823	1.147	0.000	
5.792	501855376	76456669	0.152	74.449	6 C16
5.807	79757019	82319946	1.032	11.775	
5.823	77929961	88539160	1.136	11.505	
5.962	75333	84828	1.126	0.011	
5.986	474748	124326	0.262	0.070	
6.070	17103	57180	3.343	0.002	
6.074	120761	57565	0.477	0.017	
6.113	90233	47140	0.522	0.013	
6.165	407438	218439	0.536	0.060	
6.263	944101	374166	0.396	0.139	
6.414	114839	39498	0.344	0.016	7 C18
6.464	53190	31177	0.586	0.007	
6.523	31509	25870	0.821	0.004	
6.551	4785	23963	5.008	0.000	
6.559	51194	25409	0.496	0.007	
6.590	21354	21666	1.015	0.003	
6.612	35061	21127	0.603	0.005	\$ 8 o-terph
6.638	17712	19934	1.125	0.002	
6.672	22159	19651	0.887	0.003	
6.683	26846	19268	0.718	0.003	
6.708	5413	18142	3.351	0.000	
6.713	24941	18247	0.732	0.003	
6.747	50657	18478	0.365	0.007	
6.795	23973	17444	0.728	0.003	
6.814	28457	17895	0.629	0.004	
6.837	10746	15445	1.437	0.001	
6.871	29974	21406	0.714	0.004	
6.874	4287	21471	5.009	0.000	
6.882	20520	21675	1.056	0.003	
6.944	32864	17445	0.531	0.004	
6.978	9138	15347	1.679	0.001	
7.014	4130	13830	3.348	0.000	9 C20
7.025	12567	14083	1.121	0.001	
7.038	4952	14274	2.882	0.000	
7.044	6508	14578	2.240	0.000	
7.050	25344	14736	0.581	0.003	
7.099	5531	12365	2.236	0.000	
7.108	16440	12371	0.752	0.002	
7.129	9415	11275	1.198	0.001	
7.175	3589	10327	2.878	0.000	
7.182	7285	10474	1.438	0.001	
7.212	11252	10002	0.889	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.227	5193	9506	1.830	0.000	
7.237	5172	9476	1.832	0.000	
7.247	4652	9357	2.011	0.000	
7.254	3258	9369	2.875	0.000	
7.259	7003	9455	1.350	0.001	
7.272	5540	9252	1.670	0.000	
7.283	4511	9087	2.014	0.000	
7.296	5828	9031	1.550	0.000	
7.308	4850	8866	1.828	0.000	
7.318	3111	9014	2.897	0.000	
7.324	3191	9168	2.873	0.000	
7.328	2775	9325	3.360	0.000	
7.339	6190	9713	1.569	0.000	
7.344	2920	9761	3.343	0.000	
7.350	17091	9874	0.578	0.002	
7.379	7217	8616	1.194	0.001	
7.395	5430	8408	1.548	0.000	
7.404	2492	8342	3.348	0.000	
7.409	1666	8354	5.014	0.000	
7.415	2955	8500	2.877	0.000	
7.423	3887	8782	2.259	0.000	
7.465	28160	14253	0.506	0.004	
7.471	6466	14499	2.242	0.000	
7.480	6649	15111	2.273	0.000	
7.484	26595	15197	0.571	0.003	
7.514	13964	13621	0.975	0.002	
7.539	8118	12614	1.554	0.001	
7.553	10540	12495	1.185	0.001	
7.584	2820	11307	4.010	0.000	
7.590	4522	11429	2.527	0.000	10 C22
7.620	16634	10435	0.627	0.002	
7.653	6793	9783	1.440	0.001	
7.663	8606	9666	1.123	0.001	
7.675	2827	9464	3.347	0.000	
7.683	9373	9620	1.026	0.001	
7.699	3657	9205	2.517	0.000	
7.708	5071	9290	1.832	0.000	
7.713	10483	9274	0.885	0.001	
7.735	10686	9257	0.866	0.001	
7.752	4732	8664	1.831	0.000	
7.765	5624	8765	1.558	0.000	
7.773	5614	8686	1.547	0.000	
7.784	3375	8506	2.520	0.000	
7.793	2118	8517	4.021	0.000	
7.799	10086	8544	0.847	0.001	
7.817	7761	8325	1.073	0.001	
7.833	2415	8088	3.350	0.000	
7.838	2838	8160	2.875	0.000	
7.844	3649	8173	2.240	0.000	
7.858	2009	8069	4.017	0.000	
7.864	4482	8197	1.829	0.000	
7.871	3688	8223	2.230	0.000	
7.879	4875	8269	1.696	0.000	
7.889	2009	8061	4.013	0.000	
7.897	4080	8308	2.036	0.000	
7.916	17828	10103	0.567	0.002	
7.935	4052	9086	2.242	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.940	2229	8948	4.015	0.000	
7.945	5765	8973	1.556	0.000	
7.954	6458	8765	1.357	0.000	
7.976	2099	8428	4.016	0.000	
7.984	10213	8807	0.862	0.001	
7.999	4897	8282	1.691	0.000	
8.013	8782	8112	0.924	0.001	
8.028	5860	7858	1.341	0.000	
8.040	3929	7871	2.003	0.000	
8.054	9161	8146	0.889	0.001	
8.067	2701	7766	2.876	0.000	
8.074	3069	7702	2.510	0.000	
8.081	2694	7742	2.874	0.000	
8.088	2705	7793	2.881	0.000	
8.095	5842	7832	1.341	0.000	
8.104	5419	7841	1.447	0.000	
8.119	5740	7735	1.348	0.000	
8.134	4986	7768	1.558	0.000	
8.141	5893	8009	1.359	0.000	
8.159	9098	8027	0.882	0.001	11 C24
8.174	3156	7971	2.526	0.000	
8.185	2376	7967	3.353	0.000	
8.190	4739	7937	1.675	0.000	
8.202	5181	8028	1.549	0.000	
8.212	1994	8027	4.025	0.000	
8.223	6137	8270	1.348	0.000	
8.236	6864	8171	1.190	0.001	
8.248	2383	7986	3.351	0.000	
8.253	2405	8059	3.351	0.000	
8.259	5294	8207	1.550	0.000	
8.268	2866	8235	2.874	0.000	
8.280	6583	8312	1.263	0.000	
8.289	4538	8296	1.828	0.000	
8.295	2060	8300	4.029	0.000	
8.300	2063	8291	4.020	0.000	
8.313	7062	8400	1.189	0.001	
8.318	1667	8375	5.023	0.000	
8.332	11362	9100	0.801	0.001	
8.343	4357	8741	2.006	0.000	
8.358	1267	8458	6.676	0.000	
8.363	2991	8621	2.882	0.000	
8.371	3980	8983	2.257	0.000	
8.379	6330	9083	1.435	0.000	
8.385	3111	8963	2.881	0.000	
8.393	6706	9050	1.349	0.000	
8.404	4903	8943	1.824	0.000	
8.417	8437	8972	1.063	0.001	
8.438	7166	9103	1.270	0.001	
8.443	3211	9227	2.873	0.000	12 C25
8.450	3688	9295	2.521	0.000	
8.455	2313	9276	4.010	0.000	
8.475	30054	13714	0.456	0.004	
8.504	5760	9733	1.690	0.000	
8.519	2799	9376	3.350	0.000	
8.529	4766	9710	2.037	0.000	
8.537	4875	9815	2.013	0.000	
8.543	8411	9973	1.186	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
8.555	2969	9916	3.340	0.000	
8.560	3974	9987	2.513	0.000	
8.568	2483	9997	4.026	0.000	
8.572	5007	10043	2.006	0.000	
8.591	14074	10725	0.762	0.002	
8.602	2648	10665	4.028	0.000	
8.606	2159	10862	5.032	0.000	
8.609	2183	10952	5.017	0.000	
8.633	7361	10561	1.435	0.001	
8.647	6774	10495	1.549	0.001	
8.658	2596	10420	4.014	0.000	
8.663	4723	10573	2.239	0.000	
8.669	3156	10589	3.355	0.000	
8.687	15405	11334	0.736	0.002	
8.699	6103	11158	1.828	0.000	
8.707	2223	11136	5.009	0.000	13 C26
8.730	28697	12536	0.437	0.004	
8.754	8658	11553	1.334	0.001	
8.763	2896	11612	4.010	0.000	
8.780	15029	12352	0.822	0.002	
8.788	1833	12243	6.680	0.000	
8.798	11854	12679	1.070	0.001	
8.806	1873	12509	6.677	0.000	
8.809	3133	12565	4.011	0.000	
8.813	2506	12550	5.008	0.000	
8.819	7588	12757	1.681	0.001	
8.829	4418	12679	2.870	0.000	
8.835	6988	12762	1.826	0.001	
8.848	13711	13258	0.967	0.002	
8.872	26625	13656	0.513	0.003	
8.894	4575	13127	2.869	0.000	
8.898	2631	13188	5.013	0.000	
8.902	5918	13262	2.241	0.000	
8.914	8577	13313	1.552	0.001	
8.922	4011	13433	3.349	0.000	
8.926	4724	13546	2.867	0.000	
8.933	6787	13651	2.011	0.001	
8.946	9614	13923	1.448	0.001	
8.951	6274	14004	2.232	0.000	
8.960	5592	14036	2.510	0.000	
8.966	3513	14090	4.011	0.000	
8.969	2829	14171	5.009	0.000	
8.973	4976	14233	2.860	0.000	
8.980	4289	14365	3.350	0.000	
8.996	27708	16441	0.593	0.004	
9.013	8129	14847	1.827	0.001	
9.025	8129	14840	1.826	0.001	
9.036	7503	15229	2.030	0.001	
9.040	4559	15225	3.340	0.000	
9.057	14920	16251	1.089	0.002	
9.067	9915	16831	1.698	0.001	
9.076	8535	17331	2.031	0.001	
9.081	5250	17596	3.352	0.000	
9.084	10558	17675	1.674	0.001	
9.095	4386	17601	4.013	0.000	
9.111	30564	19262	0.630	0.004	
9.128	8346	18722	2.243	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.139	15095	18986	1.258	0.002	
9.149	6655	19050	2.862	0.000	
9.158	23240	19719	0.848	0.003	
9.171	1903	19042	10.005	0.000	
9.175	4773	19156	4.013	0.000	
9.187	23630	19927	0.843	0.003	
9.199	4925	19763	4.013	0.000	
9.208	14115	20394	1.445	0.002	
9.219	12303	20691	1.682	0.001	
9.226	7266	20831	2.867	0.001	
9.233	15622	21000	1.344	0.002	14 C28
9.247	9280	20714	2.232	0.001	
9.262	45057	27849	0.618	0.006	
9.281	22651	23200	1.024	0.003	
9.304	13489	22820	1.692	0.001	
9.307	18038	22862	1.267	0.002	
9.328	8656	21778	2.516	0.001	
9.334	8635	21650	2.507	0.001	
9.343	16240	21738	1.339	0.002	
9.354	5409	21709	4.013	0.000	
9.367	16481	22234	1.349	0.002	
9.370	6683	22346	3.344	0.000	
9.382	14775	23166	1.568	0.002	
9.390	11679	23531	2.015	0.001	
9.394	12888	23584	1.830	0.001	
9.408	18752	23645	1.261	0.002	
9.416	4675	23396	5.004	0.000	
9.428	25138	24392	0.970	0.003	
9.438	20233	24095	1.191	0.002	
9.468	67429	26696	0.396	0.009	
9.496	8413	24122	2.867	0.001	
9.507	12049	24259	2.013	0.001	
9.527	36362	25771	0.709	0.005	
9.538	12891	25911	2.010	0.001	
9.543	6452	25853	4.007	0.000	
9.551	10420	26202	2.515	0.001	
9.557	29750	26593	0.894	0.004	
9.574	6252	25071	4.010	0.000	
9.593	29143	27655	0.949	0.004	
9.599	40783	27905	0.684	0.006	
9.620	13159	26364	2.004	0.001	
9.632	17259	26799	1.553	0.002	
9.640	13210	26592	2.013	0.001	
9.664	35362	28170	0.797	0.005	
9.672	27890	28134	1.009	0.004	
9.696	26737	28634	1.071	0.003	
9.711	53475	30848	0.577	0.007	
9.745	33266	29504	0.887	0.004	\$ 15 Triacon Surr
9.752	7348	29501	4.015	0.001	
9.756	20542	29565	1.439	0.003	
9.768	7255	29059	4.005	0.001	
9.773	7275	29173	4.010	0.001	
9.785	31543	30611	0.970	0.004	
9.803	46804	32832	0.701	0.006	
9.821	10456	30060	2.875	0.001	
9.833	30772	31156	1.012	0.004	
9.860	77784	33514	0.431	0.011	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.881	12779	32069	2.510	0.001	
9.892	14531	32668	2.248	0.002	
9.896	8201	32902	4.012	0.001	
9.908	23357	33882	1.451	0.003	
9.912	27050	34095	1.260	0.003	
9.939	14585	32570	2.233	0.002	
9.951	23032	33095	1.437	0.003	
9.956	11596	33292	2.871	0.001	
9.966	16544	33271	2.011	0.002	
9.971	11660	33391	2.864	0.001	
9.975	10051	33617	3.345	0.001	
9.983	15209	33983	2.234	0.002	
9.988	15177	33830	2.229	0.002	
9.996	10128	33907	3.348	0.001	
10.018	43348	35629	0.822	0.006	
10.021	7133	35693	5.004	0.001	
10.025	8960	35988	4.016	0.001	
10.034	42064	36944	0.878	0.006	
10.063	65447	38699	0.591	0.009	
10.077	7375	36906	5.004	0.001	
10.083	16743	37428	2.235	0.002	
10.095	34467	38665	1.122	0.005	
10.118	90921	40621	0.447	0.013	
10.151	37738	38047	1.008	0.005	
10.158	11383	38037	3.342	0.001	
10.168	36074	38274	1.061	0.005	
10.181	15072	37809	2.509	0.002	16 C32
10.185	5655	37746	6.675	0.000	
10.198	43905	38471	0.876	0.006	
10.208	24771	38177	1.541	0.003	
10.218	19031	38113	2.003	0.002	
10.228	13353	38279	2.867	0.001	
10.237	21225	38826	1.829	0.003	
10.243	30946	38929	1.258	0.004	
10.266	43064	39733	0.923	0.006	
10.275	11912	39784	3.340	0.001	
10.278	19932	39886	2.001	0.002	
10.293	46366	40725	0.878	0.006	
10.318	46465	41024	0.883	0.006	
10.328	24720	41353	1.673	0.003	
10.334	10308	41278	4.005	0.001	
10.343	29100	41866	1.439	0.004	
10.354	22822	41695	1.827	0.003	
10.360	16568	41490	2.504	0.002	
10.376	31388	42321	1.348	0.004	
10.384	36478	43119	1.182	0.005	
10.393	21427	43144	2.014	0.003	
10.416	82339	44731	0.543	0.012	
10.434	23173	42257	1.824	0.003	
10.455	42801	43684	1.021	0.006	
10.459	19648	44004	2.240	0.002	
10.469	19632	43883	2.235	0.002	
10.492	56113	45807	0.816	0.008	
10.497	20626	45915	2.226	0.003	
10.503	27439	45837	1.671	0.004	
10.513	31833	45842	1.440	0.004	
10.523	6773	45190	6.672	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
10.529	22697	45513	2.005	0.003	
10.543	39087	46432	1.188	0.005	
10.552	16284	46719	2.869	0.002	
10.558	18796	47158	2.509	0.002	
10.576	69878	48769	0.698	0.010	
10.586	12085	48384	4.004	0.001	
10.592	21757	48469	2.228	0.003	
10.609	46960	50482	1.075	0.006	
10.616	40486	50812	1.255	0.005	17 C34
10.628	52392	50284	0.960	0.007	
10.665	99744	52644	0.528	0.014	
10.680	20832	52264	2.509	0.003	
10.699	126137	55939	0.443	0.018	
10.723	18258	52316	2.865	0.002	
10.733	65550	52928	0.807	0.009	
10.751	49102	51903	1.057	0.007	
10.765	10288	51490	5.005	0.001	
10.777	73220	52877	0.722	0.010	
10.791	15621	52150	3.338	0.002	
10.799	46819	52190	1.115	0.006	
10.817	52000	52328	1.006	0.007	
10.828	13014	52167	4.008	0.001	
10.833	18275	52280	2.861	0.002	
10.838	67284	52271	0.777	0.009	
10.860	15395	51401	3.339	0.002	
10.867	15366	51252	3.335	0.002	
10.874	25712	51608	2.007	0.003	
10.885	59363	52064	0.877	0.008	
10.901	33199	51247	1.544	0.004	
10.911	35859	51446	1.435	0.005	
10.925	15150	50526	3.335	0.002	
10.936	27761	50508	1.819	0.004	
10.954	40634	51235	1.261	0.005	
10.958	17973	51428	2.861	0.002	
10.982	101216	54997	0.543	0.014	
10.999	80380	54264	0.675	0.011	
11.022	15822	52869	3.342	0.002	
11.029	23878	53171	2.227	0.003	
11.032	23908	53219	2.226	0.003	
11.044	39793	53228	1.338	0.005	
11.053	13218	52959	4.007	0.001	19 C36
11.057	26491	53088	2.004	0.003	
11.069	47933	53454	1.115	0.007	
11.079	78088	52997	0.679	0.011	
11.132	4853	48537	10.002	0.000	
11.138	21933	48845	2.227	0.003	
11.148	46678	49317	1.057	0.006	
11.158	12248	49060	4.006	0.001	
11.164	14711	49102	3.338	0.002	
11.179	64473	49939	0.775	0.009	
11.192	19751	49439	2.503	0.002	
11.197	14848	49541	3.337	0.002	
11.202	17336	49566	2.859	0.002	
11.206	12400	49639	4.003	0.001	
11.212	56808	49881	0.878	0.008	
11.230	26830	48794	1.819	0.003	
11.263	19014	47590	2.503	0.002	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
11.267	11927	47790	4.007	0.001	
11.285	66432	50042	0.753	0.009	
11.308	17214	49235	2.860	0.002	
11.312	19684	49285	2.504	0.002	
11.322	19740	49570	2.511	0.002	
11.331	27467	50208	1.828	0.004	
11.334	12565	50301	4.003	0.001	
11.338	17617	50367	2.859	0.002	
11.356	50450	50688	1.005	0.007	
11.383	31641	48774	1.541	0.004	
11.392	14562	48589	3.337	0.002	
11.398	14566	48593	3.336	0.002	
11.405	21947	48858	2.226	0.003	
11.418	36961	49602	1.342	0.005	
11.428	52174	49838	0.955	0.007	
11.438	46900	49605	1.058	0.006	
11.456	66003	49218	0.746	0.009	
11.481	84312	48818	0.579	0.012	
11.518	39837	46996	1.180	0.005	
11.533	55836	46822	0.839	0.008	20 C38
11.560	30101	46465	1.544	0.004	
11.568	20916	46512	2.224	0.003	
11.573	11637	46596	4.004	0.001	
11.579	23274	46598	2.002	0.003	
11.586	13953	46531	3.335	0.002	
11.591	9318	46631	5.004	0.001	
11.623	97892	48831	0.499	0.014	
11.631	17107	48984	2.863	0.002	
11.638	22090	49260	2.230	0.003	
11.642	32050	49351	1.540	0.004	
11.669	95446	50981	0.534	0.014	
11.685	95822	49865	0.520	0.014	
11.788	8918	44609	5.002	0.001	
11.791	35704	44768	1.254	0.005	
11.804	11082	44350	4.002	0.001	
11.813	22172	44403	2.003	0.003	
11.823	19993	44543	2.228	0.002	
11.829	13395	44754	3.341	0.001	
11.837	20184	44981	2.228	0.002	
11.852	26933	44942	1.669	0.003	
11.866	36041	45224	1.255	0.005	
11.877	15835	45355	2.864	0.002	
11.883	18222	45726	2.509	0.002	
11.889	15985	45741	2.861	0.002	
11.896	20679	46117	2.230	0.003	
11.905	23259	46896	2.016	0.003	
11.929	70146	49826	0.710	0.010	
11.936	52288	50085	0.958	0.007	
11.951	14787	49369	3.339	0.002	
11.957	17313	49595	2.865	0.002	
11.961	32199	49647	1.542	0.004	
11.971	19578	49063	2.506	0.002	
11.980	34244	49065	1.433	0.005	
12.019	96987	51133	0.527	0.014	
12.025	48685	51499	1.058	0.007	
12.053	38386	51386	1.339	0.005	
12.062	38575	51549	1.336	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
12.070	17923	51300	2.862	0.002	
12.078	45780	51141	1.117	0.006	
12.105	31495	48817	1.550	0.004	
12.118	85510	48295	0.565	0.012	
12.148	55474	46657	0.841	0.008	21 C40
12.172	34299	45899	1.338	0.005	
12.181	18286	45754	2.502	0.002	
12.188	20565	45727	2.223	0.003	
12.198	29701	45787	1.542	0.004	
12.212	11377	45530	4.002	0.001	
12.218	29576	45566	1.541	0.004	
12.237	41054	45750	1.114	0.006	
12.243	13695	45701	3.337	0.002	
12.253	27528	46122	1.675	0.004	
12.260	16149	46201	2.861	0.002	
12.272	32473	46571	1.434	0.004	
12.347	231342	54259	0.235	0.034	
12.355	96470	54322	0.563	0.014	
12.383	13155	52687	4.005	0.001	
12.389	52817	52930	1.002	0.007	
12.434	117936	55204	0.468	0.017	
12.440	19323	55283	2.861	0.002	
12.448	22049	55156	2.502	0.003	
12.460	127044	56114	0.442	0.018	
12.500	63536	55700	0.877	0.009	
12.519	44746	56237	1.257	0.006	
12.523	16928	56556	3.341	0.002	
12.528	14154	56666	4.003	0.002	
12.532	14154	56644	4.002	0.002	
12.538	25607	57089	2.229	0.003	
12.543	31284	57010	1.822	0.004	
12.560	76588	57084	0.745	0.011	
12.574	22463	56167	2.500	0.003	
12.583	192414	56305	0.293	0.028	
12.668	201456	54098	0.269	0.029	
12.722	63529	49368	0.777	0.009	
12.744	14574	48683	3.340	0.002	
12.757	68233	49046	0.719	0.010	
12.777	29106	48653	1.672	0.004	
12.802	69072	49884	0.722	0.010	
12.805	19947	49915	2.502	0.002	
12.813	12457	49907	4.006	0.001	
12.826	42860	50672	1.182	0.006	
12.830	15192	50711	3.338	0.002	
12.835	63121	50727	0.804	0.009	
12.856	30109	50299	1.671	0.004	
12.871	12459	49875	4.003	0.001	
12.876	24950	49913	2.001	0.003	
12.883	12458	49860	4.002	0.001	
12.892	24999	50091	2.004	0.003	
12.904	37682	50442	1.339	0.005	
12.918	60965	51059	0.838	0.009	
12.929	15268	50972	3.338	0.002	
12.950	101236	52476	0.518	0.014	
12.991	32619	50285	1.542	0.004	
13.030	23826	47690	2.002	0.003	
13.047	49429	47410	0.959	0.007	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.072	11668	46709	4.003	0.001	
13.077	14056	46964	3.341	0.002	
13.083	21201	47214	2.227	0.003	
13.092	45034	47490	1.055	0.006	
13.103	33139	47401	1.430	0.004	
13.119	58622	47300	0.807	0.008	
13.136	61979	46406	0.749	0.009	
13.163	36232	45399	1.253	0.005	
13.172	13552	45219	3.337	0.002	
13.178	13550	45211	3.337	0.002	
13.183	13581	45318	3.337	0.002	
13.188	15867	45365	2.859	0.002	
13.193	11350	45433	4.003	0.001	
13.206	54879	45909	0.837	0.008	
13.233	74220	46899	0.632	0.010	
13.246	18724	46923	2.506	0.002	
13.250	14089	47028	3.338	0.002	
13.254	9392	46999	5.004	0.001	
13.261	35241	47103	1.337	0.005	
13.270	21093	46884	2.223	0.003	
13.278	16404	46889	2.858	0.002	
13.284	28108	46937	1.670	0.004	
13.309	27777	46575	1.677	0.004	
13.313	11643	46617	4.004	0.001	
13.323	30391	46938	1.544	0.004	
13.337	49696	47554	0.957	0.007	
13.345	11906	47686	4.005	0.001	
13.352	21499	47921	2.229	0.003	
13.358	14416	48133	3.339	0.002	
13.366	24163	48487	2.007	0.003	
13.391	108474	49842	0.459	0.016	
13.411	39818	49922	1.254	0.005	
13.421	140245	49882	0.356	0.020	
13.468	75433	46221	0.613	0.011	
13.519	59701	44435	0.744	0.008	
13.538	26345	44021	1.671	0.003	
13.553	17475	43727	2.502	0.002	
13.559	19699	43828	2.225	0.002	
13.566	15324	43832	2.860	0.002	
13.574	28519	43956	1.541	0.004	
13.585	21950	43943	2.002	0.003	
13.595	26497	44341	1.673	0.003	
13.603	22230	44574	2.005	0.003	
13.608	11135	44585	4.004	0.001	
13.633	100703	46371	0.460	0.014	
13.650	25255	45974	1.820	0.003	
13.663	20511	45675	2.227	0.003	
13.670	15945	45584	2.859	0.002	
13.677	40973	45642	1.114	0.006	
13.688	4544	45448	10.002	0.000	
13.693	29520	45508	1.542	0.004	
13.718	24720	44995	1.820	0.003	
13.727	11216	44890	4.002	0.001	
13.735	29185	45025	1.543	0.004	
13.752	17874	44782	2.505	0.002	
13.767	35874	45020	1.255	0.005	
13.775	36036	45104	1.252	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.785	11226	44939	4.003	0.001	
13.790	47016	44953	0.956	0.006	
13.813	11118	44516	4.004	0.001	
13.818	37641	44507	1.182	0.005	
13.832	15424	44192	2.865	0.002	
13.838	17564	43967	2.503	0.002	
13.844	26339	43892	1.666	0.003	
13.855	30567	43821	1.434	0.004	
13.865	23854	43526	1.825	0.003	
13.882	28266	43639	1.544	0.004	
13.886	30418	43629	1.434	0.004	
13.901	34702	43472	1.253	0.005	
13.920	48162	44005	0.914	0.007	
13.928	17577	43956	2.501	0.002	
13.941	15410	44084	2.861	0.002	
13.946	11045	44251	4.006	0.001	
13.949	24369	44341	1.820	0.003	
13.959	22103	44264	2.003	0.003	
13.967	22088	44195	2.001	0.003	
13.976	33207	44336	1.335	0.004	18 Filter Peak
13.998	24195	44018	1.819	0.003	
14.007	15335	43888	2.862	0.002	
14.014	17519	43863	2.504	0.002	
14.019	54335	43870	0.807	0.008	
14.046	10722	42915	4.003	0.001	
14.052	19305	42955	2.225	0.002	
14.058	8568	42864	5.003	0.001	
14.067	38739	43159	1.114	0.005	
14.077	15012	42931	2.860	0.002	
14.083	25753	42977	1.669	0.003	
14.102	25682	42913	1.671	0.003	
14.108	19267	42865	2.225	0.002	
14.116	12834	42815	3.336	0.001	
14.126	25874	43369	1.676	0.003	
14.133	56339	43595	0.774	0.008	
14.161	32503	43582	1.341	0.004	
14.165	10909	43696	4.006	0.001	
14.170	15313	43822	2.862	0.002	
14.175	10960	43911	4.007	0.001	
14.178	13176	43945	3.335	0.001	
14.183	19785	43976	2.223	0.002	
14.191	8796	44018	5.005	0.001	
14.197	17636	44177	2.505	0.002	
14.208	28815	44459	1.543	0.004	
14.219	8873	44379	5.002	0.001	
14.223	13318	44445	3.337	0.001	
14.229	28860	44456	1.540	0.004	
14.247	15436	44194	2.863	0.002	
14.260	37147	43758	1.178	0.005	
14.274	45685	43705	0.957	0.006	
===== 677340272	===== 268782821	===== 100.000			

Total unknown % area = 25.478

Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAC9812
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9812.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

J005200
 SVOA-ABN ACID STOCK-200-800ug/ml
 Solvent / Lot: DCM
 Prep: 5/18/2021 by JZ
 Exp: 5/31/2023
 Location:

 5/18/21

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	802	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	802	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	802	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1806	µg/mL	75.9	MKBP5833V
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	803	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	801	µg/mL	99.9	JS00013
4-NITROPHENOL CAS# 100-02-7	801	µg/mL	99.9	LC10889
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1804	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	803	µg/mL	98.7	MKCK8156
BENZOIC ACID CAS# 65-85-0	1805	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.



Certificate of Analysis

J008074

SVOA PAH STD 2000ug/ml
 Expires 6/30/2023
 Prepared By Joshua Rains 8/5/2021

Product Name: PAH Standard

Product Number: US-106N-1

Lot Number: 0006540449

Lot Issue Date: 11-Jun-2020

Expiration Date: 30-Jun-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
acenaphthene	000083-32-9	RM10879	2008 ± 10 µg/mL
acenaphthylene	000208-96-8	RM10891	2003 ± 10 µg/mL
anthracene	000120-12-7	RM14212	2006 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM16072	2006 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM14571	2005 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM14321	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM15761	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM12669	2009 ± 10 µg/mL
chrysene	000218-01-9	RM12260	2009 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2009 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2004 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2009 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM14192	2009 ± 10 µg/mL
naphthalene	000091-20-3	NT00970	2008 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2009 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2008 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/



ISO 17025 Cert
No. AT-1937

Certificate of Analysis

Product Number: US-106N-1

Lot Number: 0006540449

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:



Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 2 of 2

www.agilent.com/quality/



ISO 17025 Cert
No. AT-1937

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL16062

Description: Benzidines Standard

Certification Date: November 19, 2020

Storage: 4 °C

Expiration Date: November 30, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 2.740%
3,3'-Dichlorobenzidine	91-94-1	2000	± 3.229%

J008310

Benzidines std @2000ug/ml
Expires 11/30/2030
Prepared By Van Spohn 8/12/2021

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com

Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

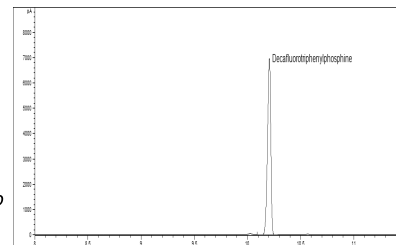


Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis - Certified Reference Material

Decafluorotriphenylphosphine solution

Product no.: 48724-U
Lot no.: LRAD0628
Expiry Date: October 2024
Manufacturing Date: September 2021
Storage: ROOM TEMPERATURE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0628.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
DFTPP CAS# 5074-71-5	25.2 ± 2.6	mg/mL	97.0	10220909

ASSAY Method

METHOD: GC (BELLEFONTE)

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness

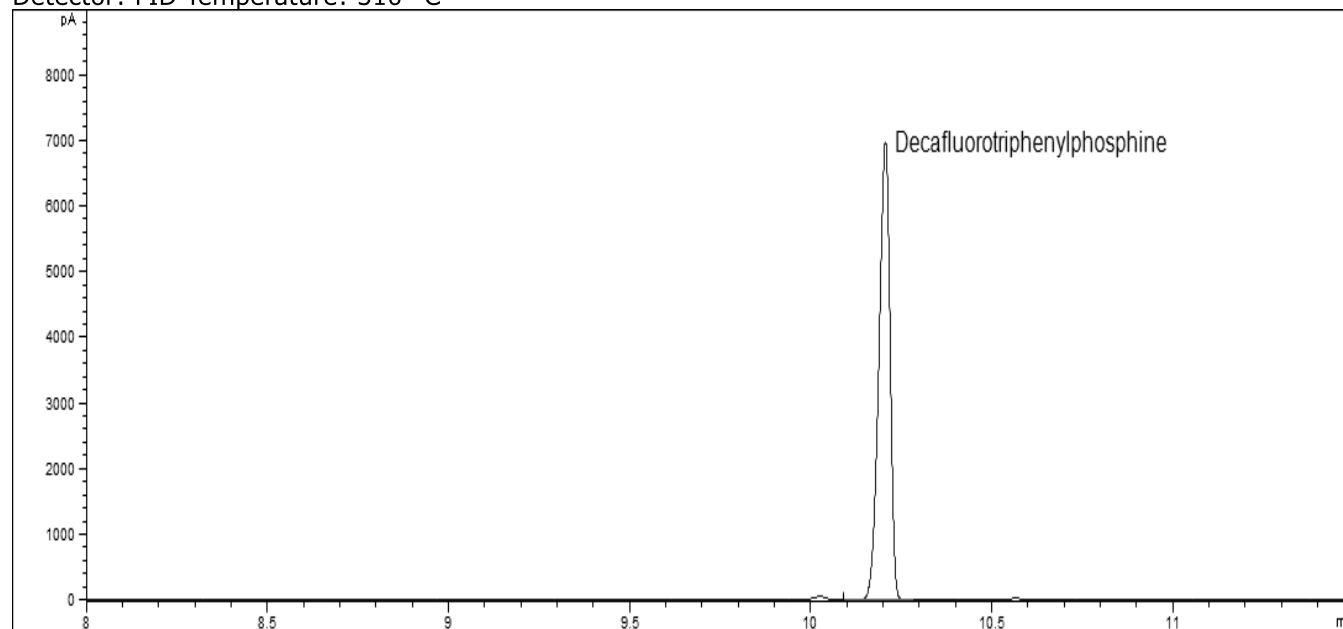
Carrier Gas: H₂ Flow Rate: 4.3 mL/min

Inlet Temperature: 250 °C Injection Volume: 1 µL

Injection Mode: 25:1

Temperature Program: 120 °C (Hold 0 min) @ 12 °C/min to 260 °C (Hold 0 min)

Detector: FID Temperature: 310 °C



Elution details:

EO	RT(MIN)	ANALYTE
1	10.206	Decafluorotriphenylphosphine

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Minimum sample size: 1 µL

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 30-Sep-2021



Andy Ommen - QC Manager

Scott Stetler - QA Manager

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0628.01	30-Sep-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Certified Values

Analyte	Units	Certified ^{1,4} Value
1,2,4-Trichlorobenzene	µg/Kg	1477 ± 181
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	1625 ± 292
1-Chloronaphthalene	µg/Kg	2809 ± 84
2,3-Dimethylphenol	µg/Kg	4552 ± 137
2,4,5-Trichlorophenol	µg/Kg	3438 ± 245
2,4,6-Trichlorophenol	µg/Kg	2194 ± 251
2,4-Dichlorophenol	µg/Kg	6991 ± 394
2,4-Dimethylphenol	µg/Kg	6357 ± 879
2,4-Dinitrophenol	µg/Kg	2922 ± 523
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	3318 ± 442
2,6-Dichlorophenol	µg/Kg	4578 ± 874
2,6-Dimethylphenol	µg/Kg	7582 ± 228
2-Chloronaphthalene	µg/Kg	2223 ± 168
2-Chlorophenol	µg/Kg	1678 ± 202
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	5148 ± 685
2-Methylphenol (o-Cresol)	µg/Kg	6004 ± 573
2-Nitrophenol	µg/Kg	6456 ± 383
3,4-Dimethylphenol	µg/Kg	7185 ± 216
3+4-Methylphenol (m+p-Cresol)	µg/Kg	8033 ± 1613
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	7169 ± 310
4-Chloro-3-methylphenol	µg/Kg	2071 ± 110
4-Chlorophenyl phenylether	µg/Kg	2052 ± 113
4-Methylphenol (p-Cresol)	µg/Kg	6617 ± 1371
4-Nitrophenol	µg/Kg	6812 ± 595
Acenaphthene	µg/Kg	5489 ± 380



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Acenaphthylene	µg/Kg	1948 ± 240
Anthracene	µg/Kg	2866 ± 237
Benzo(a)anthracene	µg/Kg	5751 ± 552
Benzo(a)pyrene	µg/Kg	5902 ± 612
Benzo(b)fluoranthene	µg/Kg	3010 ± 409
Benzo(b+k)fluoranthene	µg/Kg	6534 ± 196
Benzo(g,h,i)perylene	µg/Kg	1380 ± 136
Benzo(k)fluoranthene	µg/Kg	2215 ± 237
Butyl benzyl phthalate	µg/Kg	3511 ± 384
Carbazole	µg/Kg	5412 ± 407
Chrysene	µg/Kg	1477 ± 72
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	2905 ± 321
Dibenzo(a,h)anthracene	µg/Kg	3420 ± 302
Dibenzofuran	µg/Kg	6130 ± 253
Dimethyl phthalate	µg/Kg	4537 ± 250
Di-n-butyl phthalate	µg/Kg	1721 ± 154
Di-n-octyl phthalate	µg/Kg	2744 ± 288
Fluoranthene	µg/Kg	2497 ± 222
Fluorene	µg/Kg	3724 ± 222
Hexachlorobutadiene	µg/Kg	1877 ± 245
Indeno(1,2,3-cd) pyrene	µg/Kg	3914 ± 409
Isophorone	µg/Kg	1615 ± 170
Naphthalene	µg/Kg	4458 ± 480
Nitrobenzene	µg/Kg	3539 ± 266
n-Nitrosodimethylamine	µg/Kg	1580 ± 402
n-Nitrosodiphenylamine	µg/Kg	2854 ± 379
Pentachlorophenol	µg/Kg	3411 ± 358
Phenanthrene	µg/Kg	5052 ± 385
Phenol	µg/Kg	2660 ± 184
Pyrene	µg/Kg	2964 ± 256
Pyridine	µg/Kg	1008 ± 30

Informational Values



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Analyte	Units	Suggested Acceptance Windows	Standard Deviation
1,2,4-Trichlorobenzene	µg/Kg	148 to 2853	459
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	163 to 3440	605
1-Chloronaphthalene	µg/Kg	1123 to 4494	562
2,3-Dimethylphenol	µg/Kg	1821 to 7284	910
2,4,5-Trichlorophenol	µg/Kg	1003 to 5872	811
2,4,6-Trichlorophenol	µg/Kg	640 to 3748	518
2,4-Dichlorophenol	µg/Kg	2391 to 11591	1533
2,4-Dimethylphenol	µg/Kg	0.00 to 13959	2534
2,4-Dinitrophenol	µg/Kg	1169 to 4675	584
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	1248 to 5388	690
2,6-Dichlorophenol	µg/Kg	1831 to 7324	916
2,6-Dimethylphenol	µg/Kg	3033 to 12132	1516
2-Chloronaphthalene	µg/Kg	748 to 3699	492
2-Chlorophenol	µg/Kg	415 to 2942	421
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	0.00 to 10347	1733
2-Methylphenol (o-Cresol)	µg/Kg	1306 to 10702	1566
2-Nitrophenol	µg/Kg	1534 to 11379	1641
3,4-Dimethylphenol	µg/Kg	2874 to 11495	1437
3+4-Methylphenol (m+p-Cresol)	µg/Kg	4054 to 16218	2027
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	2901 to 11437	1423
4-Chloro-3-methylphenol	µg/Kg	677 to 3464	464
4-Chlorophenyl phenylether	µg/Kg	756 to 3348	432
4-Methylphenol (p-Cresol)	µg/Kg	2647 to 10587	1323
4-Nitrophenol	µg/Kg	681 to 14762	2650
Acenaphthene	µg/Kg	2243 to 8736	1082
Acenaphthylene	µg/Kg	712 to 3183	412
Anthracene	µg/Kg	1218 to 4515	550
Benzo(a)anthracene	µg/Kg	2806 to 8696	982
Benzo(a)pyrene	µg/Kg	2512 to 9292	1130
Benzo(b)fluoranthene	µg/Kg	1197 to 4822	604
Benzo(b+k)fluoranthene	µg/Kg	2614 to 10454	1307



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Benzo(g,h,i)perylene	µg/Kg	489 to 2271	297
Benzo(k)fluoranthene	µg/Kg	892 to 3537	441
Butyl benzyl phthalate	µg/Kg	1255 to 5766	752
Carbazole	µg/Kg	2032 to 8792	1127
Chrysene	µg/Kg	669 to 2284	269
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	765 to 5045	713
Dibenzo(a,h)anthracene	µg/Kg	1257 to 5583	721
Dibenzofuran	µg/Kg	2766 to 9493	1121
Dimethyl phthalate	µg/Kg	1842 to 7231	898
Di-n-butyl phthalate	µg/Kg	495 to 2947	409
Di-n-octyl phthalate	µg/Kg	690 to 4798	685
Fluoranthene	µg/Kg	984 to 4009	504
Fluorene	µg/Kg	1638 to 5810	695
Hexachlorobutadiene	µg/Kg	425 to 3329	484
Indeno(1,2,3-cd) pyrene	µg/Kg	870 to 6957	1015
Isophorone	µg/Kg	437 to 2792	392
Naphthalene	µg/Kg	1131 to 7784	1109
Nitrobenzene	µg/Kg	1024 to 6054	838
n-Nitrosodimethylamine	µg/Kg	632 to 2528	316
n-Nitrosodiphenylamine	µg/Kg	1142 to 4567	571
Pentachlorophenol	µg/Kg	341 to 7037	1209
Phenanthrene	µg/Kg	2307 to 7798	915
Phenol	µg/Kg	681 to 4639	660
Pyrene	µg/Kg	1118 to 4810	615
Pyridine	µg/Kg	403 to 1613	202

Additional Information:

DESCRIPTION

The organic sample is a soil containing extractable BNAs for analysis by 8100, 8270, 8310 or equivalent methods.

This product consist of a 5 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested how homogeneity. Only one vial is need for test the remaining vials are to be used for multiple methods or routine testing.

The soil has been sterilized to minimize degradation of the sample.

The sample has been sized to 100 mesh.

Required storage condition is 4°C.

The sample has been intentionally prepared with an apparent headspace.

STORAGE

The sample should be stored at 4°C. It has been determined to be stable for the duration of the expiration date.

After sub-sampling replace cap securely and store remaining sample at 4°C.

The shelf life of the product was determined by historic stability of similar CRM's. The expiration date may be extended based on stock and popularity upon successful stability testing by a 17025 accredited laboratory.

Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Stability and shelf life after opening must be determined by the user, taking into account sampling frequency/volume and all local conditions.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Assume a 10g sample size for all calculations.

Note: Sample extracts and calibration solutions should be in the same solvent.

Report all results on a wet weight basis, do not correct for moisture.

NOTE: For method 8100 and using a packed column gas chromatographic method or cannot adequately resolve the following may coelute in four pairs of compounds: anthracene and phenanthrene; chrysene and benzo(a)anthracene; benzo(b)fluoranthene and benzo(k)fluoranthene; and dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

SCOPE AND APPLICATION

The BNAs in Soil Certified Reference Material (CRM) consists of 5 10mL VOA vials, with a Teflon lined closures containing approximately 10 grams of soil, fortified with BNAs. Being a natural matrix waste sample the analyst is challenged by the same preparation problems, analytical interferences, etc. as is typical for similar matrices received by the laboratory for analysis.



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. K=2 unless specified. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager



Mark Pooler - QA Supervisor

Certification Date January 05, 2021
Version 0-152021





Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-103N-1

Lot Issue Date: 25-May-2021

Lot Number: 0006609664

Expiration Date: 30-Jun-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
benzoic acid	000065-85-0	RM01884	2005 ± 10 µg/mL
o-cresol	000095-48-7	RM12877	2005 ± 10 µg/mL
p-cresol	000106-44-5	RM01988	2005 ± 10 µg/mL
2,4,5-trichlorophenol	000095-95-4	NT00344	2004 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NC SL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

[Handwritten signature]
5/11/22

K004539

toxic sub mix#1

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 6/30/2024

Location:



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Reference Material Certificate

Product Name: Phenols Standard **Lot Number:** 0006648297
Product Number: US-107N-1 **Lot Issue Date:** 17-Nov-2021
Storage Conditions: Store at Room Temperature (15° to 30°C). **Expiration Date:** 31-Dec-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
4-chloro-3-methylphenol	2006	± 10 µg/mL		000059-50-7	RM01885
2-chlorophenol	2007	± 10 µg/mL		000095-57-8	RM01871
2,4-dichlorophenol	2005	± 10 µg/mL		000120-83-2	RM13878
2,4-dimethylphenol	2006	± 10 µg/mL		000105-67-9	RM13009
2,4-dinitrophenol	2006	± 10 µg/mL		000051-28-5	RM02112
2-methyl-4,6-dinitrophenol	2005	± 10 µg/mL		000534-52-1	RM02292
2-nitrophenol	2007	± 10 µg/mL		000088-75-5	RM13445
4-nitrophenol	2006	± 10 µg/mL		000100-02-7	RM03752
pentachlorophenol	2006	± 10 µg/mL		000087-86-5	RM02474
phenol	2006	± 10 µg/mL		000108-95-2	RM11471
2,4,6-trichlorophenol	2006	± 10 µg/mL		000088-06-2	RM18096

Matrix: methylene chloride (dichloromethane)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

JZ 5/11/22

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: PAH Standard

Lot Number: 0006627349

Product Number: US-106N-1

Lot Issue Date: 17-Sep-2021

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 31-Oct-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
acenaphthene	2007	± 10 µg/mL		000083-32-9	RM10879
acenaphthylene	2004	± 10 µg/mL		000208-96-8	RM10891
anthracene	2006	± 10 µg/mL		000120-12-7	RM14212
benz[a]anthracene	2006	± 10 µg/mL		000056-55-3	RM16072
benzo[b]fluoranthene	2006	± 10 µg/mL		000205-99-2	RM14571
benzo[k]fluoranthene	2006	± 10 µg/mL		000207-08-9	RM18376
benzo[ghi]perylene	2006	± 10 µg/mL		000191-24-2	RM15761
benzo[a]pyrene	2006	± 10 µg/mL		000050-32-8	RM17573
chrysene	2007	± 10 µg/mL		000218-01-9	RM13771
dibenz[a,h]anthracene	2006	± 10 µg/mL		000053-70-3	RM06786
fluoranthene	2006	± 10 µg/mL		000206-44-0	RM12277
fluorene	2006	± 10 µg/mL		000086-73-7	RM09441
indeno[1,2,3-cd]pyrene	2006	± 10 µg/mL		000193-39-5	RM14192
naphthalene	2007	± 10 µg/mL		000091-20-3	RM10445
phenanthrene	2005	± 10 µg/mL		000085-01-8	RM10495
pyrene	2005	± 10 µg/mL		000129-00-0	RM16126

Matrix: methylene chloride/benzene (1:1)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

K004541

SVOA PAH STD 2000ug/ml

Solvent / Lot: DCM/BENZENE

Prep: 5/11/2022 by JZ

Exp: 10/31/2024

Location: Fridge 19

Page: 1 of 2

CSD-QA-015.1



Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

Certificate of Reference Material

Catalog Number:	ECS-A-030	Lot No.	AA210126005
Description:	Base/Neutrals Mix 1	Manufactured Date:	1-26-2021
Matrix:	Methylene Chloride	Expiration Date:	1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Mave

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25 µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- $u_c =$ combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

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Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

K004542

Certificate of Reference Material

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Moore

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25 µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

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Certificate of Analysis

Product Name: 1-Methylnaphthalene Standard

Product Number: EPA-1225-1

Lot Issue Date: 19-Jul-2021

Lot Number: 0006624769

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1-methylnaphthalene	000090-12-0	RM07712	999.3 ± 5.0 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

K004543

1-Methylnaphthalene
Solvent / Lot: MEOH
Prep: 5/11/2022 by JZ
Exp: 7/31/2023
Location:

[Handwritten signature]
5/11/22

Sample lot approver:

[Handwritten signature]
Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-104N-1

Lot Issue Date: 02-Jul-2021

Lot Number: 0006620643

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
aniline	000062-53-3	RM12853	2005 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2004 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	2002 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2002 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2006 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2003 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM02424	2003 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2003 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

K004544

toxic sub mix#2

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 7/31/2023

Location:

JZ 05/11/22



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 31493 Lot No.: A0181243
Description: CLP 04.1 BNA Surrogate Mix
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: October 31, 2025 Storage: 10°C or colder
Handling: Sonicate prior to use. Ship: Ambient

Handwritten signature and date: 05/11/22

K004545
CLP 04.1 BNA SURR MIX
Solvent / Lot: AO175316
Prep: 5/11/2022 by JZ
Exp: 10/20/2025
Location:

Table with 7 columns: Elution Order, Compound, CAS #, Purity, Weight, Concentration, and Method. Contains 7 rows of data for various compounds like 2-Fluorophenol, Phenol-d6, 2-Chlorophenol-d4, 1,2-Dichlorobenzene-d4, Nitrobenzene-d5, 2-Fluorobiphenyl, and 2,4,6-Tribromophenol.

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246

Lot Number: CL17953

Description: Benzoic Acid

Certification Date: January 31, 2022

Storage: 4 °C

Expiration Date: January 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 2.714%

K004603

Benzoic Acid @2000ug/ml

Solvent / Lot: N/A

Prep: 5/13/2022 by JZ

Exp: 1/31/2032

Location: GC

⊗ 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL17662

Description: Benzidines Standard

Certification Date: December 2, 2021

Storage: 4 °C

Expiration Date: November 30, 2031

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 0.211%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.305%

K004604

Benzidines std @2000ug/ml
Solvent / Lot: Mecl2
Prep: 5/13/2022 by JZ
Exp: 11/30/2031
Location: GC

JZ 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

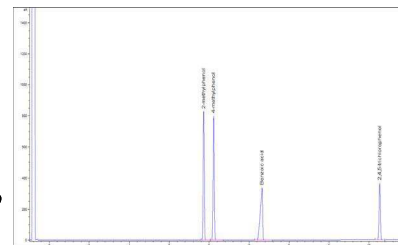


Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis - Certified Reference Material

EPA TCL Hazardous Substances Mix 1

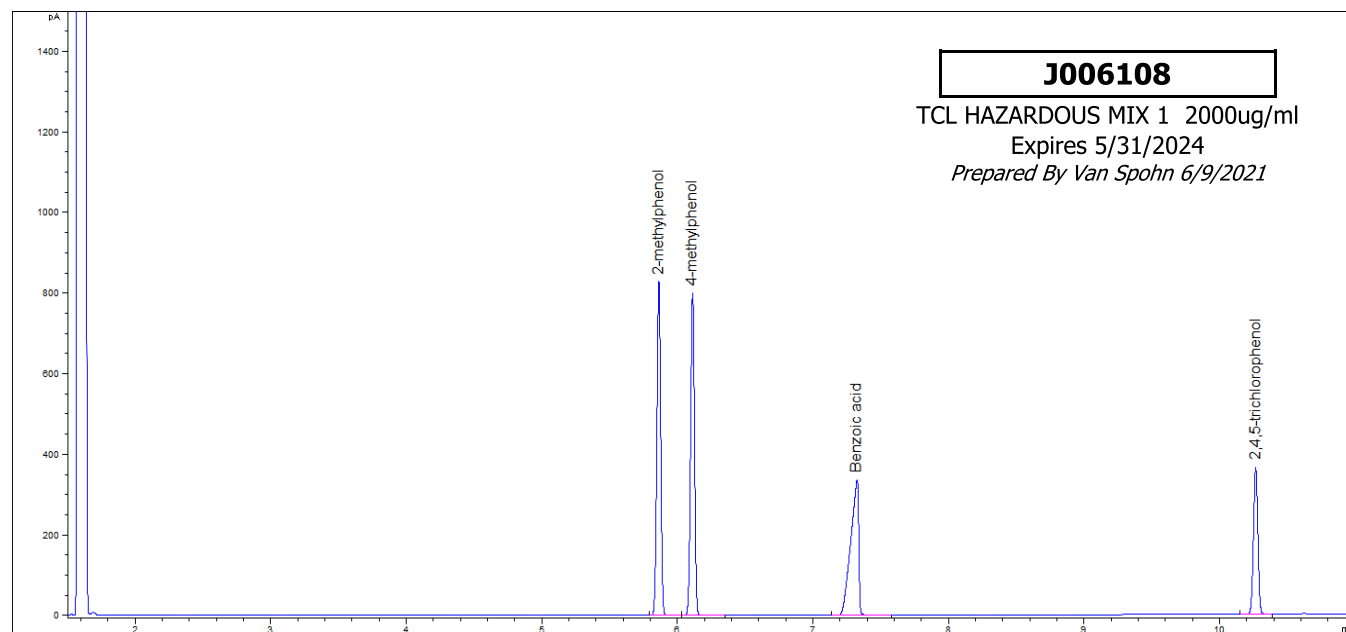
Product no.: 48907
Lot no.: LRAC9610
Expiry Date: May 2024
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAC9610.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Elution order	Raw Material Lot
2-METHYLPHENOL CAS# 95-48-7	2004 ± 9	µg/mL	99.0	1	G1735A
4-METHYLPHENOL CAS# 106-44-5	2004 ± 13	µg/mL	98.9	2	06921MG
BENZOIC ACID CAS# 65-85-0	2012 ± 6	µg/mL	99.9	3	LC16514
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	2003 ± 6	µg/mL	99.9	4	JS00008

Informational Values:



Additional Information:

Analytical Method Parameters:
 Column: Equity-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #98)
 Carrier Gas: H₂, Flow: 4.5 mL/min
 Inlet Temperature: 170 °C, Injection Volume: 1 µL
 Injection Mode: Split, Split Ratio: 20:1



Temperature Program: 80 °C @ 10 °C/min to 190 °C (Hold 5 min)
Detector: FID
Detector Temperature: 310 °C

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 20-May-2021



Handwritten signature of Andy Ommen in black ink.

Andy Ommen - QC Manager

Handwritten signature of Mark Pooler in black ink.

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9610.01	20-May-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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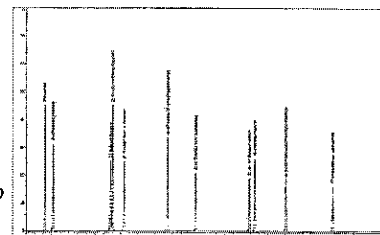
The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis - Certified Reference Material

EPA TCL Phenols Mix

Product no.: 48904
Lot no.: LRAD0139
Expiry Date: July 2024
Manufacturing Date: July 2021
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0139.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigmaaldrich.com for the most current version.)



Certified Values:

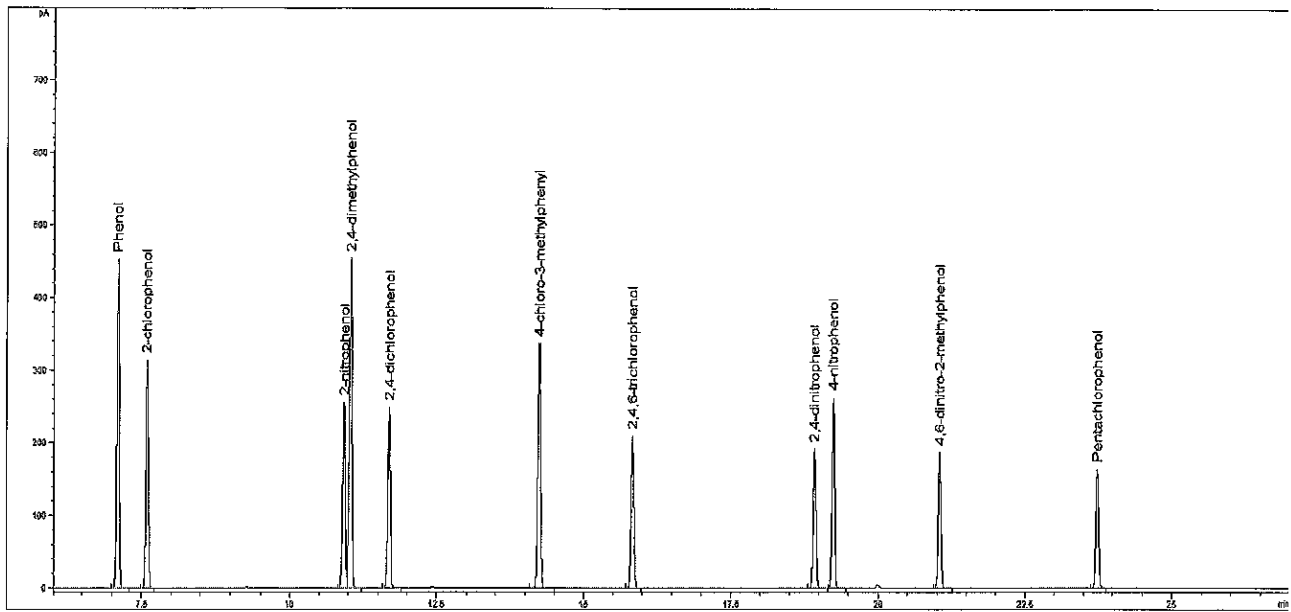
Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
2-CHLOROPHENOL CAS# 95-57-8	2001 ± 25	µg/mL	99.9	STBG3033V
2-NITROPHENOL CAS# 88-75-5	1999 ± 18	µg/mL	99.3	15905BB
2,4-DIMETHYLPHENOL CAS# 105-67-9	2000 ± 14	µg/mL	99.2	05421CO
2,4-DICHLOROPHENOL CAS# 120-83-2	2000 ± 17	µg/mL	99.5	03221TN
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	2000 ± 5	µg/mL	99.9	JS00013
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	2002 ± 5	µg/mL	99.5	04212PS
2,4-DINITROPHENOL CAS# 51-28-5	2000 ± 28	µg/mL	66.9	STBJ5751
4-NITROPHENOL CAS# 100-02-7	2000 ± 33	µg/mL	99.0	04628LT
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	2000 ± 27	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	1999 ± 25	µg/mL	97.9	MKCD2150

ASSAY Method

J013597

TCL Phenols Mix 2000ug/ml
 Solvent / Lot: LRAD0139
 Prep: 12/30/2021 by VS
 Exp: 7/31/2024
 Location:





METHOD: GC (Bellefonte Method)

Column: SPB-5, 30 m x 0.53 mm I.D., 1.5 µm film thickness

Carrier Gas: H₂ Flow Rate: 4.5 mL/min

Inlet Temperature: 200 °C Injection Volume: 1.0 µL

Injection Mode: 25:1

Temperature Program: 80 °C (Hold 2 min) @ 6 °C/min to 260 °C (Hold 5 min)

Detector: FID Temperature: 310 °C

Elution details:

EO	RT(MIN)	ANALYTE
1	7.095	Phenol
2	7.585	2-chlorophenol
3	10.925	2-nitrophenol
4	11.037	2,4-dimethylphenol
5	11.696	2,4-dichlorophenol
6	14.242	4-chloro-3-methylphenol
7	15.842	2,4,6-trichlorophenol
8	18.93	2,4-dinitrophenol
9	19.25	4-nitrophenol
10	21.05	4,6-dinitro-2-methylphenol
11	23.752	Pentachlorophenol

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 12-Jul-2021



Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability:

This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty:

Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment:

Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0139.01	12-Jul-2021	Original Release Date

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.





110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

K007194
 CLP 04.1 BNA SURR MIX
 Solvent / Lot: A0187400
 Prep: 8/5/2022 by VS
 Exp: 4/30/2026
 Location:

IAL



Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0187400
Description : CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2026 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	2-Fluorophenol CAS # 367-12-4 Purity 99% (Lot STBJ3299)	1,508.0 µg/mL	+/-	8.9571	µg/mL Gravimetric
			+/-	44.0466	µg/mL Unstressed
			+/-	53.4340	µg/mL Stressed
2	Phenol-d6 CAS # 13127-88-3 Purity 99% (Lot SL210831)	1,510.0 µg/mL	+/-	8.9689	µg/mL Gravimetric
			+/-	44.1050	µg/mL Unstressed
			+/-	53.5049	µg/mL Stressed
3	2-Chlorophenol-d4 CAS # 93951-73-6 Purity 99% (Lot PR-30568)	1,512.0 µg/mL	+/-	8.9808	µg/mL Gravimetric
			+/-	44.1635	µg/mL Unstressed
			+/-	53.5758	µg/mL Stressed
4	1,2-Dichlorobenzene-d4 CAS # 2199-69-1 Purity 99% (Lot PR-32597)	1,004.0 µg/mL	+/-	5.9635	µg/mL Gravimetric
			+/-	29.3255	µg/mL Unstressed
			+/-	35.5754	µg/mL Stressed
5	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99% (Lot PR-29940A)	1,004.0 µg/mL	+/-	5.9635	µg/mL Gravimetric
			+/-	29.3255	µg/mL Unstressed
			+/-	35.5754	µg/mL Stressed
6	2-Fluorobiphenyl CAS # 321-60-8 Purity 99% (Lot 00021384)	1,004.0 µg/mL	+/-	5.9635	µg/mL Gravimetric
			+/-	29.3255	µg/mL Unstressed
			+/-	35.5754	µg/mL Stressed
7	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	1,502.0 µg/mL	+/-	8.9214	µg/mL Gravimetric
			+/-	43.8714	µg/mL Unstressed
			+/-	53.2214	µg/mL Stressed

8	p-Terphenyl-d14		1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-30504)		+/- 29.2671	µg/mL	Unstressed
	Purity 99%			+/- 35.5046	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

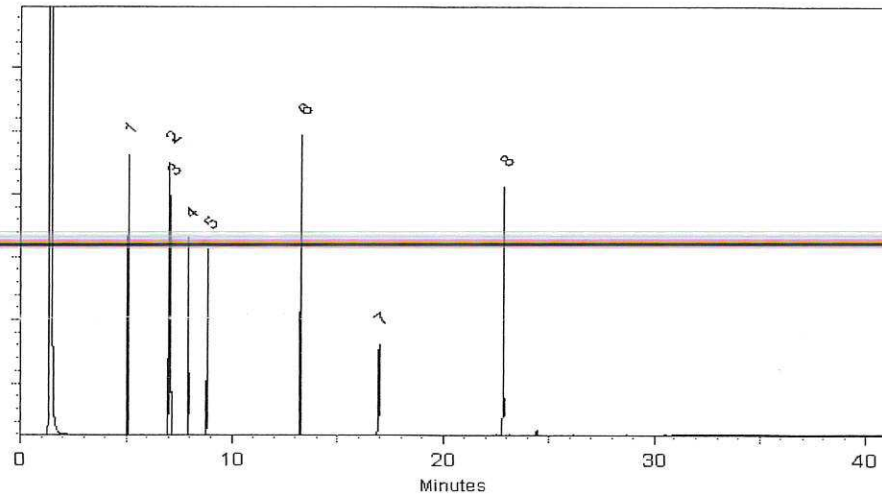
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder
Bryan Snyder - Operations Tech I

Date Mixed: 17-Jul-2022 **Balance:** 1128353505

Christie Mills
Christie Mills - Operations Tech II - ARM QC

Date Passed: 21-Jul-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

K007995

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: N/A

Prep: 8/29/2022 by JZ

Exp: 8/31/2023

Location: FREEZER 44



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 0.300%
Acenaphthylene	208-96-8	1000	± 0.225%
Anthracene	120-12-7	1000	± 6.858%
Azobenzene	103-33-3	1000	± 0.224%
Benzo(a)anthracene	56-55-3	1000	± 0.247%
Benzo(a)pyrene	50-32-8	1000	± 0.270%
Benzo(b)fluoranthene	205-99-2	1000	± 0.635%
Benzo(k)fluoranthene	207-08-9	1000	± 0.682%
Benzo(g,h,i)perylene	191-24-2	1000	± 0.272%
Benzyl alcohol	100-51-6	1000	± 0.231%
Benzyl butyl phthalate	85-68-7	1000	± 0.480%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.479%
bis(2-Chloroethyl) ether	111-44-4	1000	± 0.479%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 0.550%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 0.479%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 0.479%
4-Bromophenyl phenyl ether	101-55-3	1000	± 0.479%
Carbazole	86-74-8	1000	± 0.146%

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Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 0.300%
4-Chloro-3-methylphenol	59-50-7	1000	± 0.545%
2-Chloronaphthalene	91-58-7	1000	± 0.224%
2-Chlorophenol	95-57-8	1000	± 0.507%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 0.479%
Chrysene	218-01-9	1000	± 0.145%
Dibenz(a,h)anthracene	53-70-3	1000	± 1.058%
Dibenzofuran	132-64-9	1000	± 0.302%
Di-n-butyl phthalate	84-74-2	1000	± 0.518%
1,2-Dichlorobenzene	95-50-1	1000	± 0.247%
1,3-Dichlorobenzene	541-73-1	1000	± 0.225%
1,4-Dichlorobenzene	106-46-7	1000	± 0.224%
2,4-Dichlorophenol	120-83-2	1000	± 0.545%
Diethyl phthalate	84-66-2	1000	± 0.518%
2,4-Dimethylphenol	105-67-9	1000	± 0.507%
Dimethyl phthalate	131-11-3	1000	± 0.518%
1,2-Dinitrobenzene	528-29-0	1000	± 0.361%
1,3-Dinitrobenzene	99-65-0	1000	± 0.300%
1,4-Dinitrobenzene	100-25-4	1000	± 0.242%
2,4-Dinitrophenol	51-28-5	1000	± 0.545%
2,4-Dinitrotoluene	121-14-2	1000	± 1.128%

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 0.224%
Di-n-octyl phthalate	117-84-0	1000	± 0.486%
Fluoranthene	206-44-0	1000	± 0.224%
Fluorene	86-73-7	1000	± 0.224%
Hexachlorobenzene	118-74-1	1000	± 0.152%
Hexachlorobutadiene	87-68-3	1000	± 0.746%
Hexachlorocyclopentadiene	77-47-4	1000	± 0.153%
Hexachloroethane	67-72-1	1000	± 0.300%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 0.883%
Isophorone	78-59-1	1000	± 0.145%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 0.508%
1-Methylnaphthalene	90-12-0	1000	± 0.479%
2-Methylnaphthalene	91-57-6	1000	± 0.487%
2-Methylphenol	95-48-7	1000	± 0.545%
3-Methylphenol	108-39-4	500	± 0.279%
4-Methylphenol	106-44-5	500	± 0.399%
Naphthalene	91-20-3	1000	± 0.226%
2-Nitroaniline	88-74-4	1000	± 0.224%
3-Nitroaniline	99-09-2	1000	± 0.235%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 0.300%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444 **Lot Number:** CL18355
Description: 8270 Calibration Standard **Certification Date:** July 25, 2022
Storage: -18 °C **Expiration Date:** August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.514%
4-Nitrophenol	100-02-7	1000	± 0.519%
N-Nitrosodimethylamine	62-75-9	1000	± 0.503%
N-Nitrosodiphenylamine	86-30-6	1000	± 0.476%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.461%
Pentachlorophenol	87-86-5	1000	± 0.202%
Phenanthrene	85-01-8	1000	± 0.145%
Phenol	108-95-2	1000	± 0.545%
Pyrene	129-00-0	1000	± 0.147%
Pyridine	110-86-1	1000	± 0.503%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 0.247%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 0.247%
1,2,4-Trichlorobenzene	120-82-1	1000	± 0.224%
2,4,5-Trichlorophenol	95-95-4	1000	± 0.507%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.509%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

Certificate of Analysis

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAD2751
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2751.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
3,3'-DICHLOROBENZIDINE, 100MG, NEAT CAS# 91-94-1	799	µg/mL	99.8	LRAD2376
2,4-DINITROTOLUENE CAS# 121-14-2	801	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	800	µg/mL	99.2	11231AN
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	800	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	800	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	200	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	800	µg/mL	99.9	LA41596
4-CHLOROANILINE CAS# 106-47-8	800	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	799	µg/mL	99.9	07411KN
3-NITROANILINE CAS# 99-09-2	800	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	800	µg/mL	99.9	15609AA
PYRIDINE (LOW WATER) CAS# 110-86-1	800	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.



Health and safety information:

All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date:

03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2751.01	03 JUN 2022	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAD2750
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2750.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	800	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	800	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	801	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1799	µg/mL	66.9	STBJ5751
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	800	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	800	µg/mL	100.0	BCCD4461
4-NITROPHENOL CAS# 100-02-7	800	µg/mL	100.0	MKCN1089
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1800	µg/mL	100.0	BCBX5762
PENTACHLOROPHENOL CAS# 87-86-5	800	µg/mL	99.0	23614-01
BENZOIC ACID CAS# 65-85-0	1800	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.



Certificate issue date: 03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2750.01	03 JUN 2022	Original Release Date

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.



Certificate of Analysis

Produced by Phenova

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL18939

Description: Benzidines Standard

Certification Date: September 7, 2022

Storage: 4 °C

Expiration Date: August 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 3.812%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.419%

L001288

Benzidines std @2000ug/ml
Solvent / Lot: CL18939
Prep: 2/7/2023 by VS
Exp: 8/31/2032
Location: GC



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Certified Reference Material

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Catalog No.: AL0-101443

Lot Number: CL18741

Description: Aniline

Certification Date: July 21, 2022

Storage: 4 °C

Expiration Date: July 31, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Aaron Duker, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aniline	62-53-3	1000	± 1.719%

L001290

Aniline-1000ug/mL
Solvent / Lot: CL18741
Prep: 2/7/2023 by VS
Exp: 7/31/2030
Location: GC



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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18811

Description: 8270 Calibration Standard

Certification Date: August 9, 2022

Storage: -18 °C

Expiration Date: November 30, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

L001291

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: CL18811

Prep: 2/7/2023 by VS

Exp: 11/30/2023

Location: FREEZER 44



Aaron Duker, Certified Reference Materials Manager

Component	CAS #	µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 1.643%
Acenaphthylene	208-96-8	1000	± 1.317%
Anthracene	120-12-7	1000	± 2.136%
Azobenzene	103-33-3	1000	± 1.630%
Benzo(a)anthracene	56-55-3	1000	± 2.372%
Benzo(a)pyrene	50-32-8	1000	± 3.028%
Benzo(b)fluoranthene	205-99-2	1000	± 2.377%
Benzo(k)fluoranthene	207-08-9	1000	± 2.286%
Benzo(g,h,i)perylene	191-24-2	1000	± 2.561%
Benzyl alcohol	100-51-6	1000	± 1.803%
Benzyl butyl phthalate	85-68-7	1000	± 1.855%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 1.626%
bis(2-Chloroethyl) ether	111-44-4	1000	± 1.776%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 2.406%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 2.415%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 2.350%
4-Bromophenyl phenyl ether	101-55-3	1000	± 1.708%
Carbazole	86-74-8	1000	± 1.844%



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Catalog No.: AL0-101444

Lot Number: CL18811

Description: 8270 Calibration Standard

Certification Date: August 9, 2022

Storage: -18 °C

Expiration Date: November 30, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 2.831%
4-Chloro-3-methylphenol	59-50-7	1000	± 1.571%
2-Chloronaphthalene	91-58-7	1000	± 2.022%
2-Chlorophenol	95-57-8	1000	± 2.001%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 1.634%
Chrysene	218-01-9	1000	± 2.358%
Dibenz(a,h)anthracene	53-70-3	1000	± 2.452%
Dibenzofuran	132-64-9	1000	± 0.310%
Di-n-butyl phthalate	84-74-2	1000	± 2.347%
1,2-Dichlorobenzene	95-50-1	1000	± 1.803%
1,3-Dichlorobenzene	541-73-1	1000	± 1.808%
1,4-Dichlorobenzene	106-46-7	1000	± 1.503%
2,4-Dichlorophenol	120-83-2	1000	± 1.393%
Diethyl phthalate	84-66-2	1000	± 1.870%
2,4-Dimethylphenol	105-67-9	1000	± 2.495%
Dimethyl phthalate	131-11-3	1000	± 2.113%
1,2-Dinitrobenzene	528-29-0	1000	± 0.240%
1,3-Dinitrobenzene	99-65-0	1000	± 1.221%
1,4-Dinitrobenzene	100-25-4	1000	± 0.246%
2,4-Dinitrophenol	51-28-5	1000	± 0.519%
2,4-Dinitrotoluene	121-14-2	1000	± 2.242%



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Catalog No.: AL0-101444 **Lot Number:** CL18811
Description: 8270 Calibration Standard **Certification Date:** August 9, 2022
Storage: -18 °C **Expiration Date:** November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 2.154%
Di-n-octyl phthalate	117-84-0	1000	± 2.670%
Fluoranthene	206-44-0	1000	± 2.103%
Fluorene	86-73-7	1000	± 0.890%
Hexachlorobenzene	118-74-1	1000	± 1.210%
Hexachlorobutadiene	87-68-3	1000	± 1.304%
Hexachlorocyclopentadiene	77-47-4	1000	± 1.510%
Hexachloroethane	67-72-1	1000	± 3.281%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 1.921%
Isophorone	78-59-1	1000	± 2.022%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 1.661%
1-Methylnaphthalene	90-12-0	1000	± 1.929%
2-Methylnaphthalene	91-57-6	1000	± 2.220%
2-Methylphenol	95-48-7	1000	± 2.168%
3-Methylphenol	108-39-4	500	± 1.025%
4-Methylphenol	106-44-5	500	± 1.064%
Naphthalene	91-20-3	1000	± 1.199%
2-Nitroaniline	88-74-4	1000	± 1.874%
3-Nitroaniline	99-09-2	1000	± 2.146%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 1.704%



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Certified Reference Material

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Catalog No.: AL0-101444 **Lot Number:** CL18811
Description: 8270 Calibration Standard **Certification Date:** August 9, 2022
Storage: -18 °C **Expiration Date:** November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 2.051%
4-Nitrophenol	100-02-7	1000	± 1.413%
N-Nitrosodimethylamine	62-75-9	1000	± 0.545%
N-Nitrosodiphenylamine	86-30-6	1000	± 1.669%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.712%
Pentachlorophenol	87-86-5	1000	± 2.454%
Phenanthrene	85-01-8	1000	± 2.072%
Phenol	108-95-2	1000	± 2.140%
Pyrene	129-00-0	1000	± 1.869%
Pyridine	110-86-1	1000	± 0.545%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 2.552%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 2.220%
1,2,4-Trichlorobenzene	120-82-1	1000	± 1.632%
2,4,5-Trichlorophenol	95-95-4	1000	± 1.596%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.481%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.



Reference Material Producer
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Chemical Testing Laboratory
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3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Chemical Testing Laboratory
Certificate No. 2427.03

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230502.b/23050218.D
Data file 2: /20230502.b/B20230502.b/23050218.D
Method: \20230502.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: 23D0136-01
Client ID:
Injection Date: 02-MAY-2023 18:39
Report Date: 05/05/2023 15:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
----			4.765	0.003	12913	0.00	0.90	---	alpha-BHC
----			5.246	0.016	11563	0.00	2.03	---	beta-BHC
----			5.555	-0.022	3421	0.00	0.27	---	delta-BHC
----			5.145	-0.007	8657	0.00	0.69	---	gamma-BHC (Lindane)
----			5.673	0.002	27609	0.00	2.50	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
----			6.751	0.022	4156	0.00	0.41	---	Heptachlor epoxide b
----			7.152	-0.020	6495	0.00	0.76	---	Endosulfan I
----			7.439	-0.027	37259	0.00	3.95	---	Dieldrin
----			7.246	-0.011	39309	0.00	4.38	---	4,4'-DDE
----			7.811	0.021	128609	0.00	20.48	---	Endrin
----			8.002	0.001	56771	0.00	9.57	---	Endosulfan II
----			7.852	-0.010	39059	0.00	6.80	---	4,4'-DDD
----			8.626	0.028	39497	0.00	7.23	---	Endosulfan sulfate
----			8.180	-0.001	220261	0.00	38.03	---	4,4'-DDT
----			8.849	0.027	11209	0.00	4.51	---	Methoxychlor
----			9.131	0.012	86632	0.00	14.52	---	Endrin ketone
----			8.317	-0.014	40733	0.00	9.50	---	Endrin aldehyde
----			6.933	-0.006	13386	0.00	1.38	---	trans-Chlordane
----			7.088	-0.012	11590	0.00	1.22	---	cis-Chlordane
----			2.475	0.022	1027	0.00	0.08	---	Hexachlorobutadiene
4.167	-0.008	13572	----			1.00	0.00	---	Hexachlorobenzene
3.812	-0.007	214770	4.127	-0.009	209806	21.97	22.60	2.9	Tetrachloro-m-xylene M
9.360	-0.006	126240	10.298	-0.008	113035	26.17	30.01	13.7	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

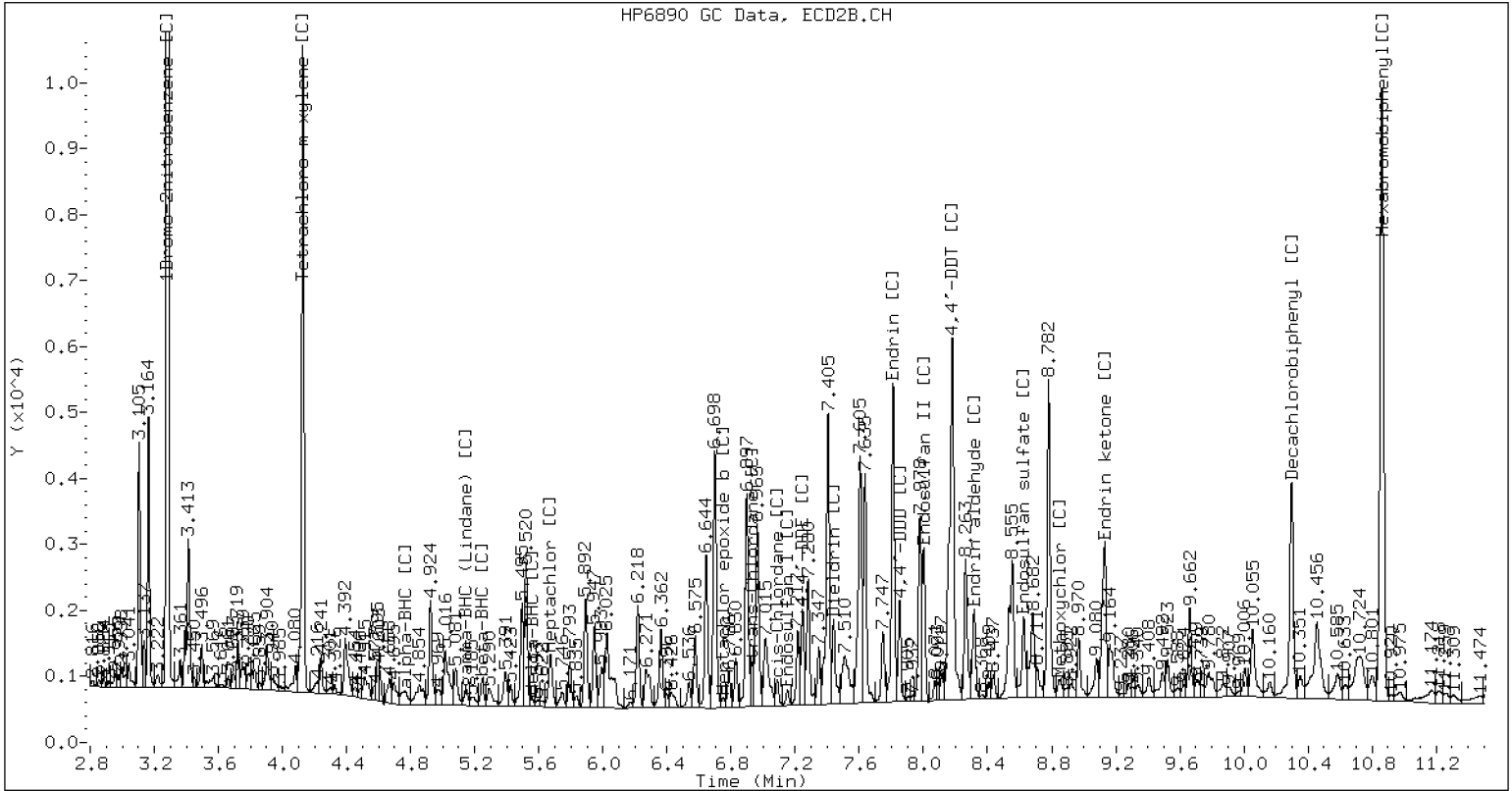
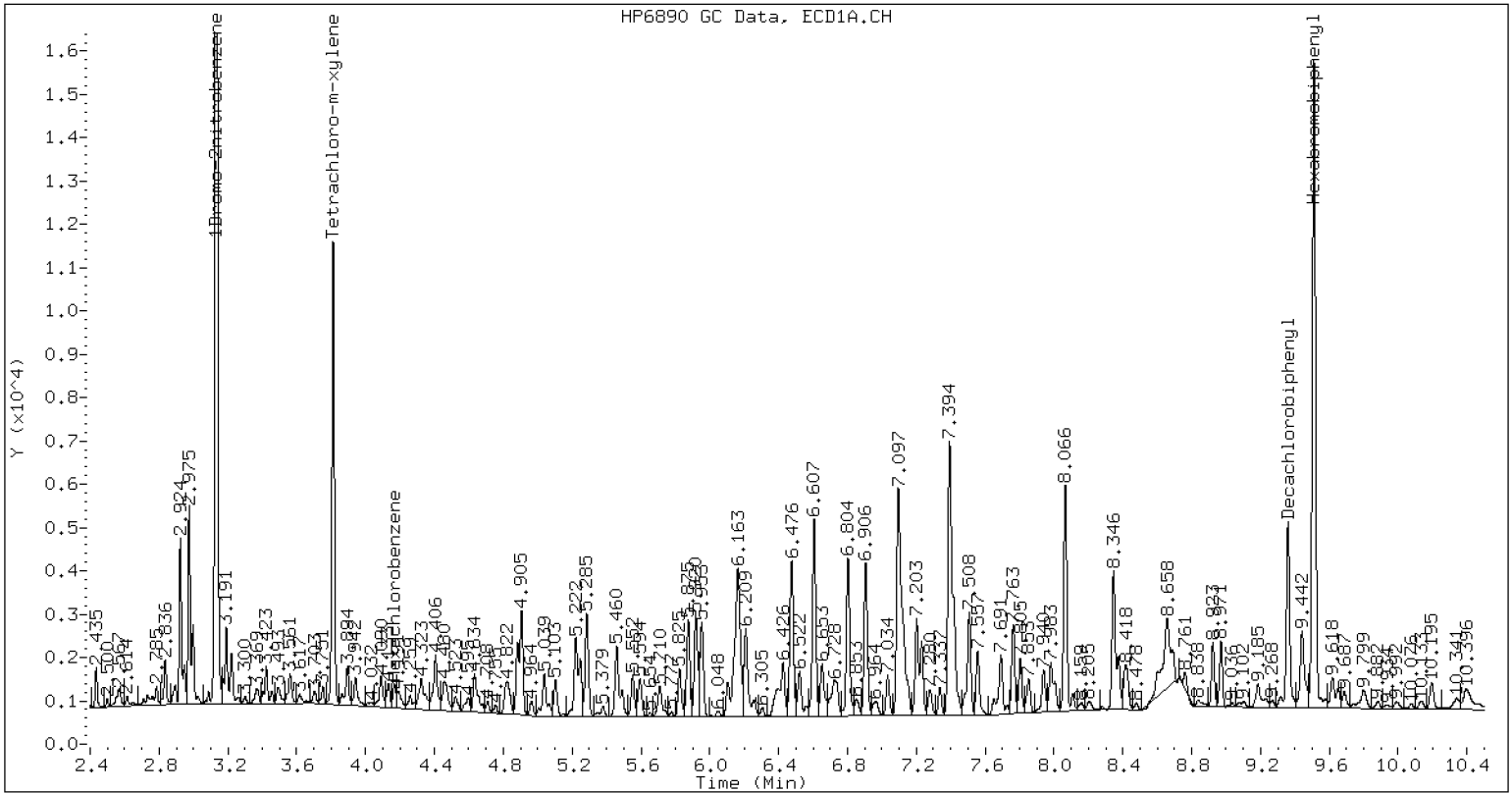
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	698789	-25.1
Hexabromobiphenyl	745426	409047	-45.1

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	675008	-45.9
Hexabromobiphenyl	754634	312046	-58.6 <-

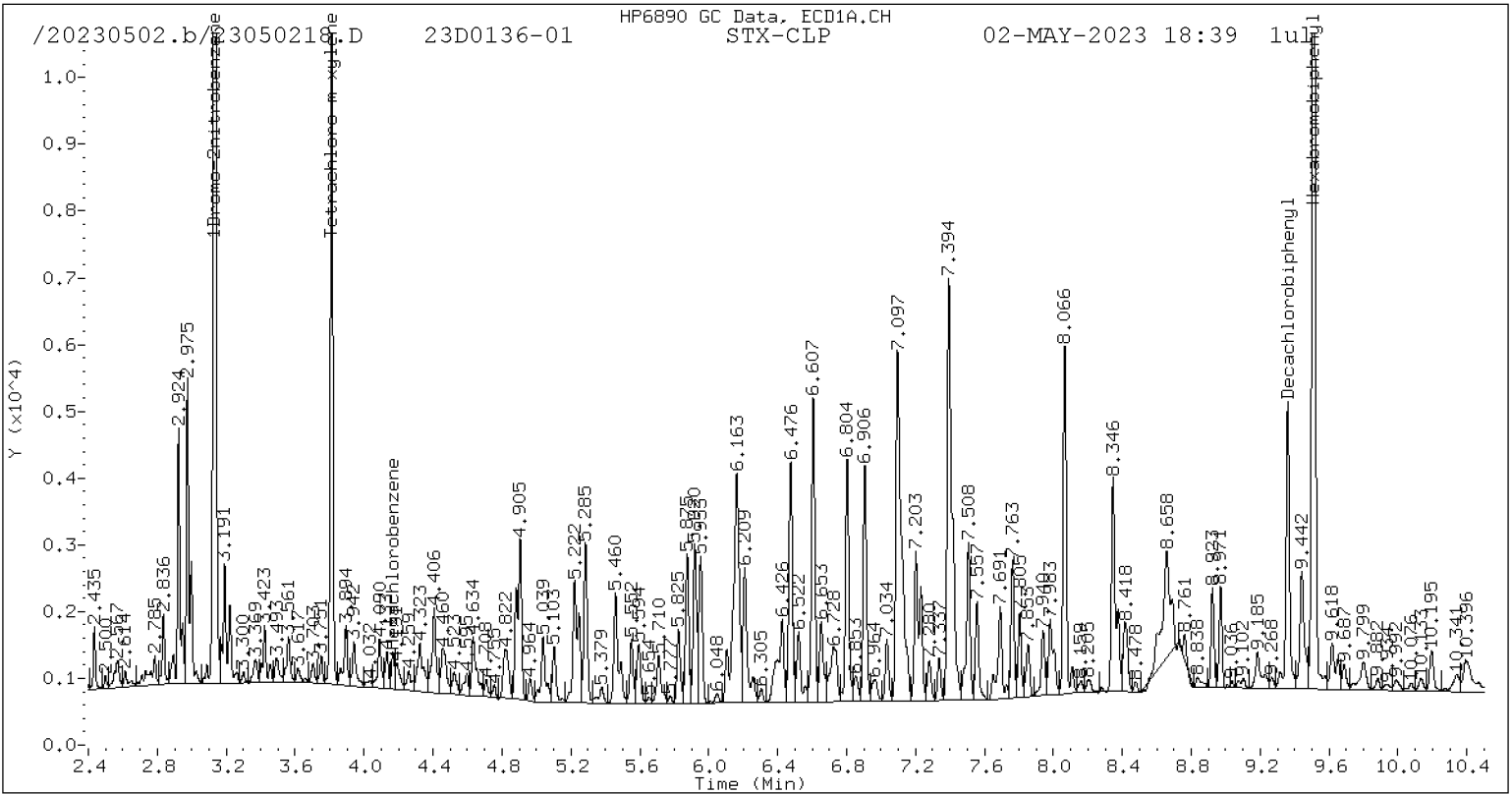
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

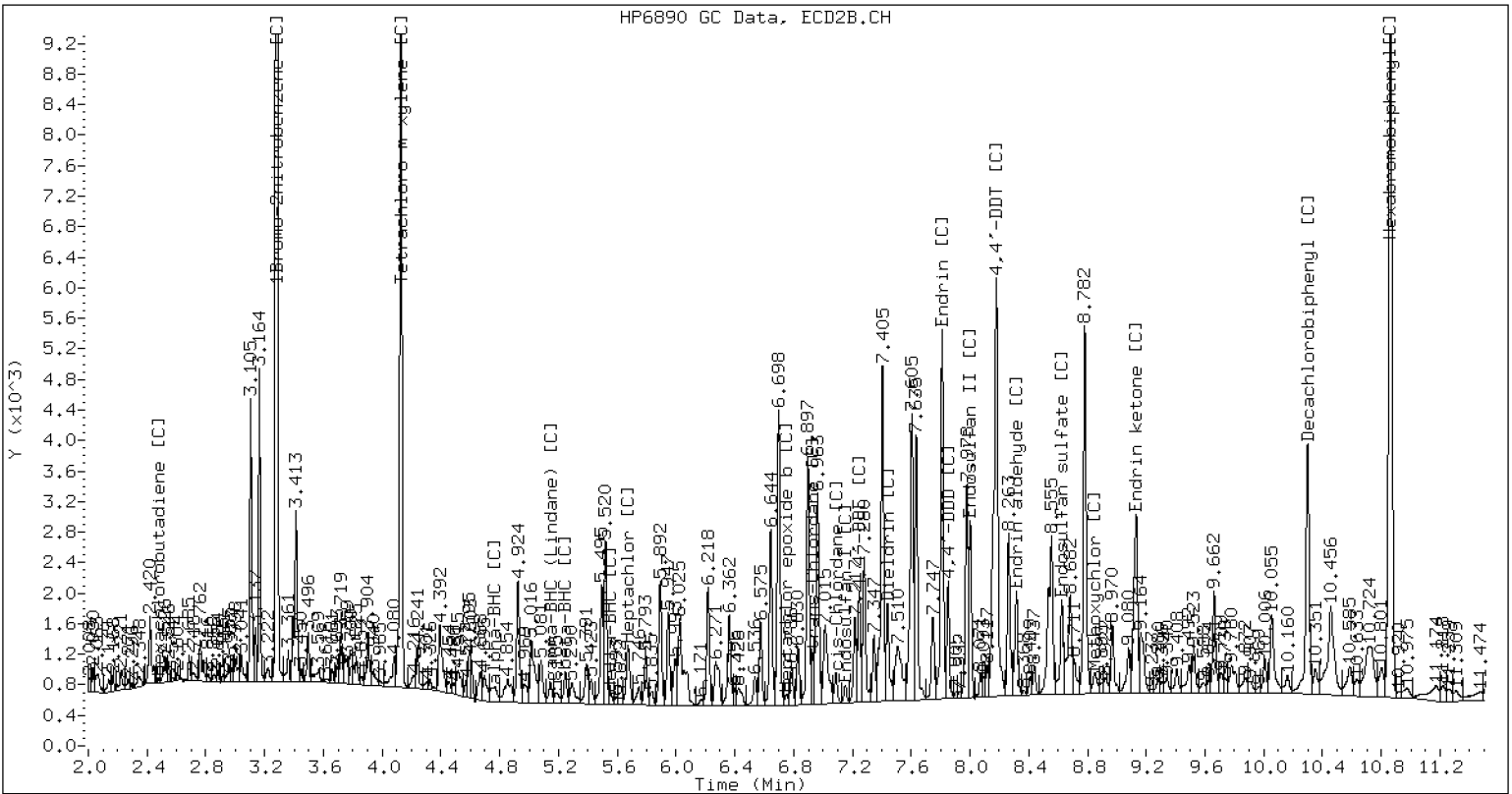


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

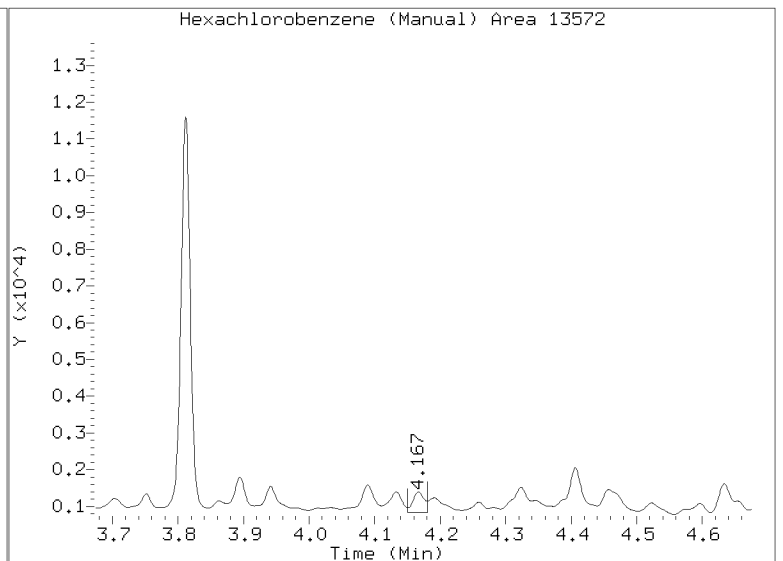
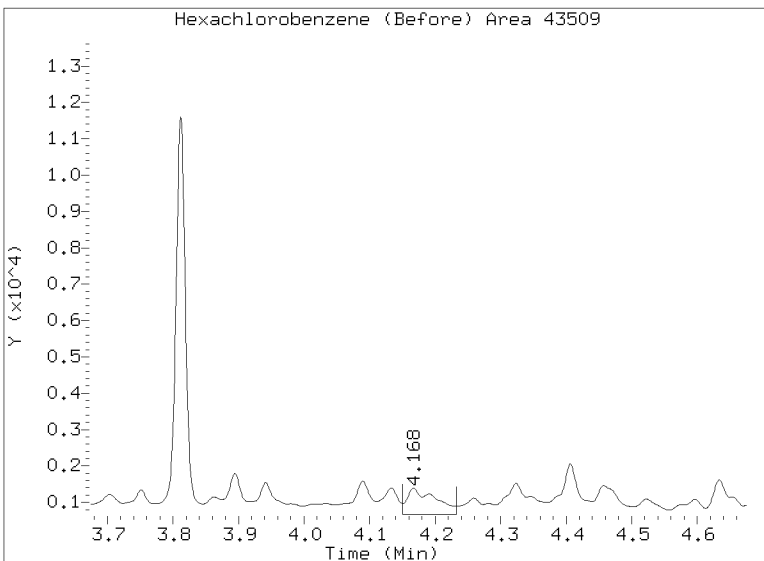
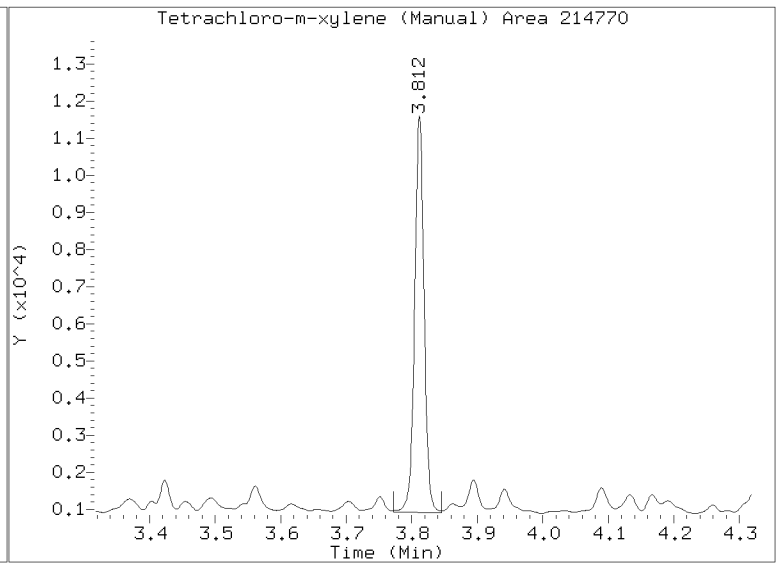
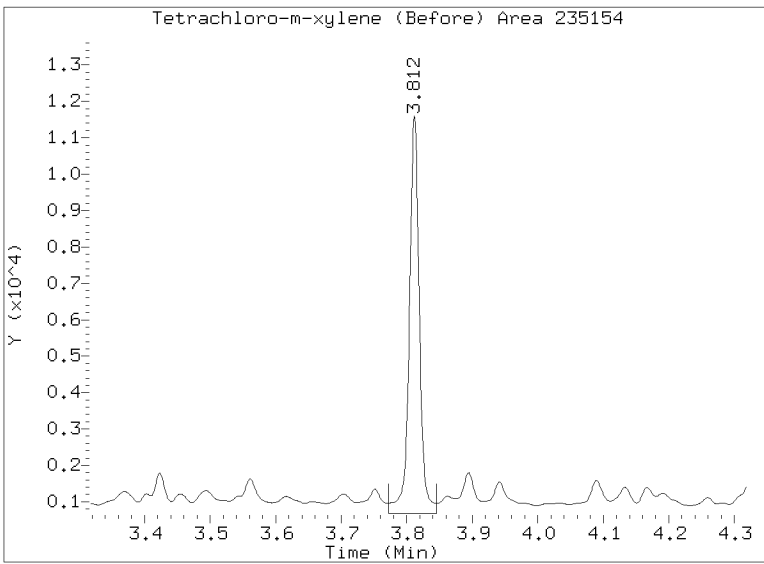
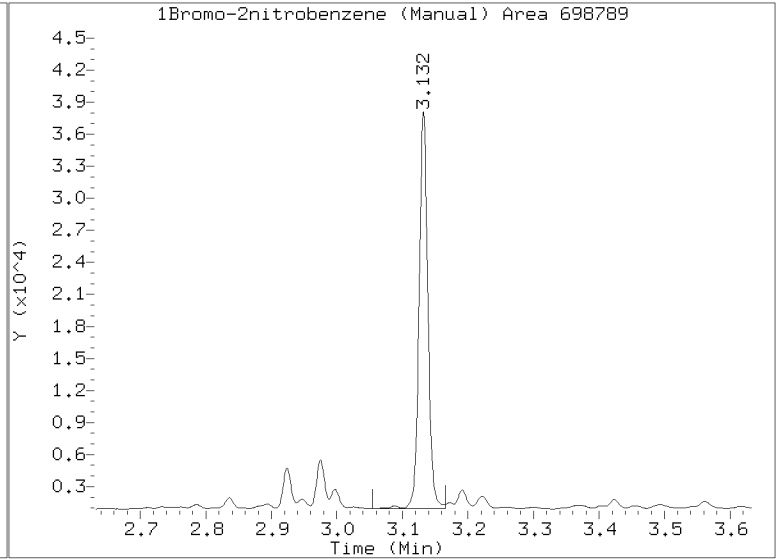
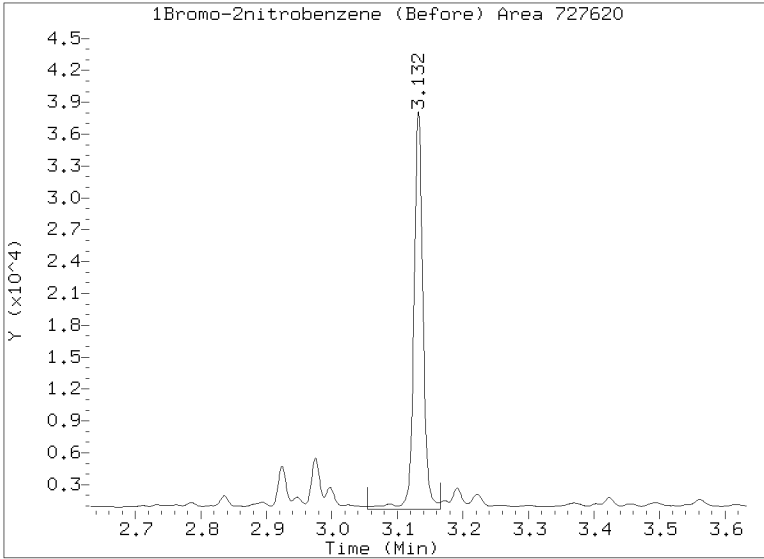
/20230502.b/B20230502.b/23050218.D 23D0136-01 CLP2



CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, STX-CLP

Datafile: /20230502.b/23050218.D
Injection Date: 02-MAY-2023 18:39
Lab ID:23D0136-01 Client ID:
Report Date: 05/05/2023 15:14

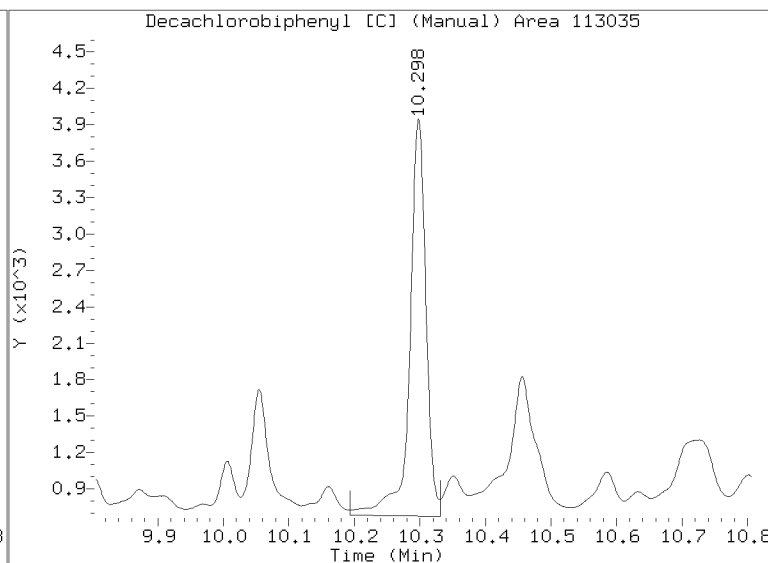
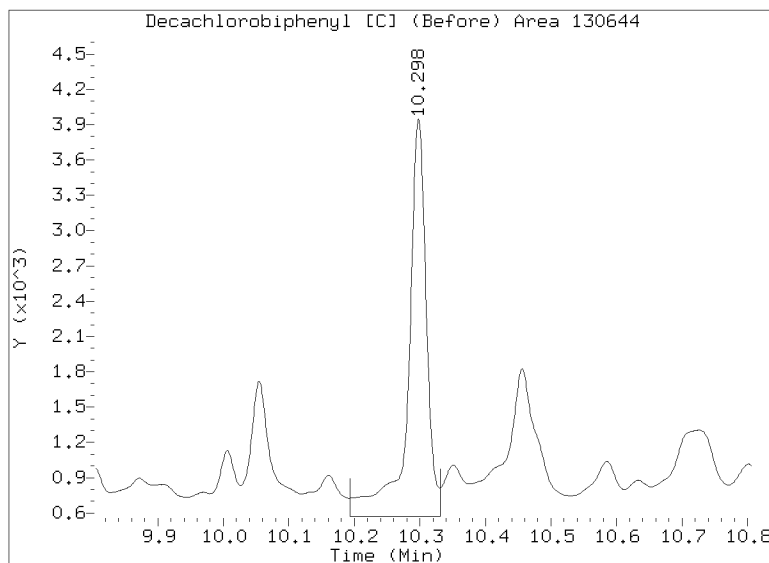
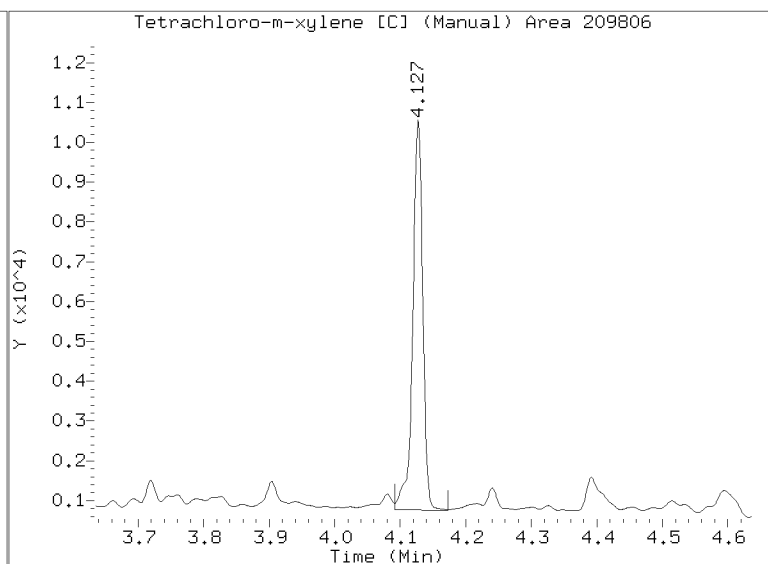
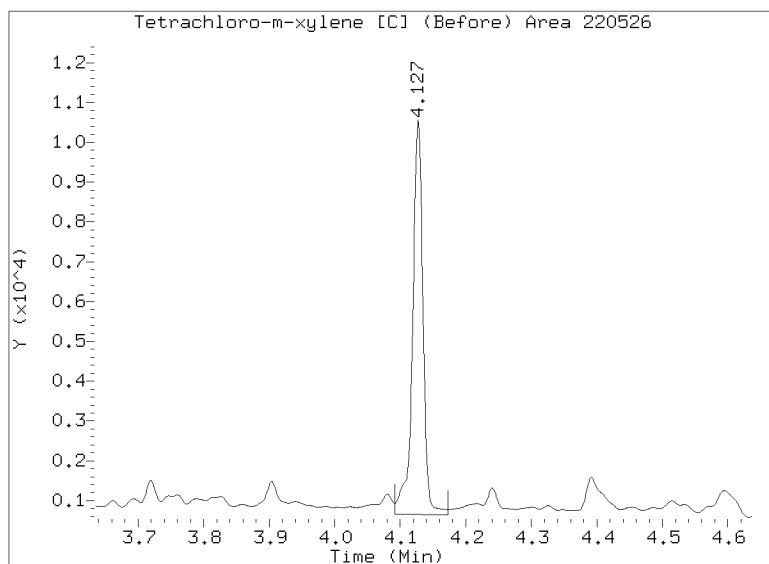
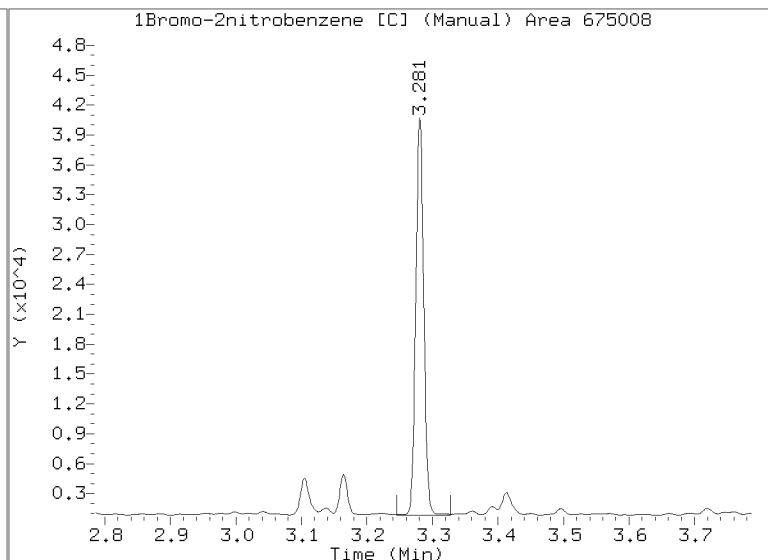
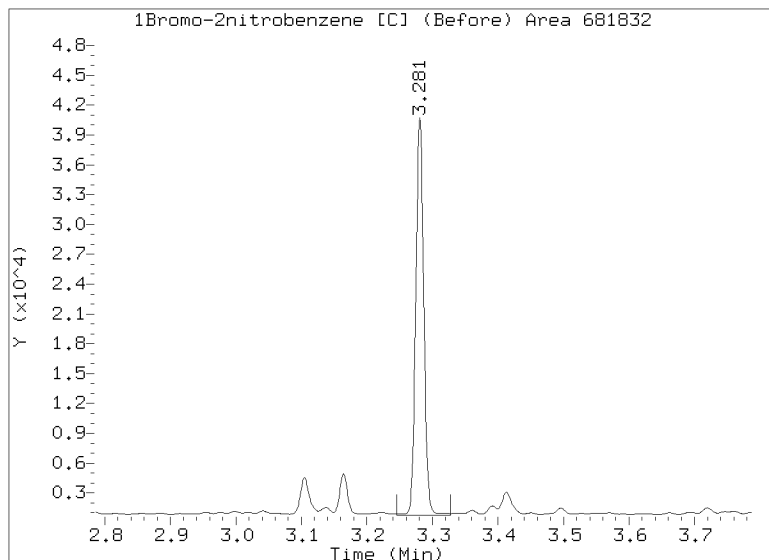


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050218.D

Injection Date: 02-MAY-2023 18:39

Lab ID:23D0136-01 Client ID:

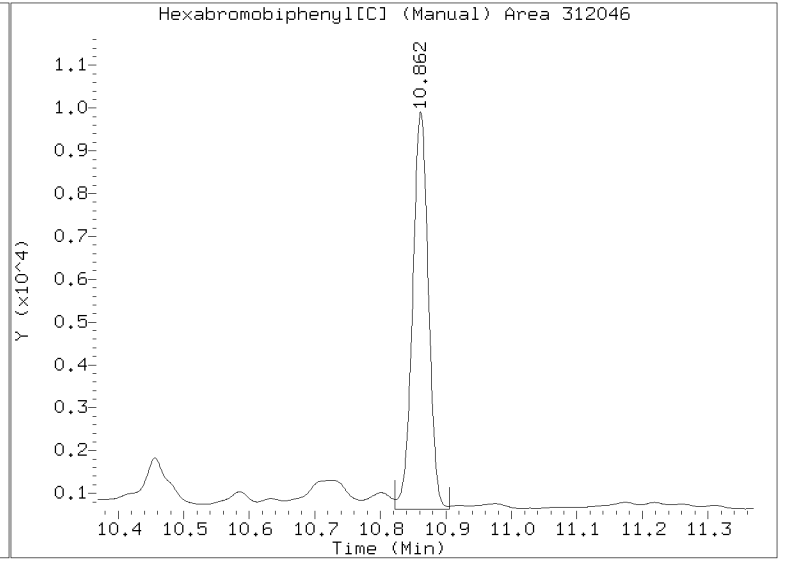
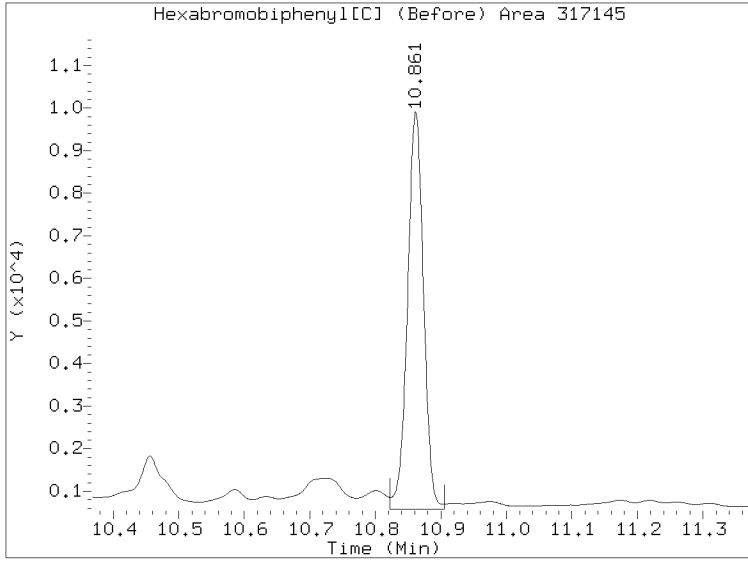


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050218.D

Injection Date: 02-MAY-2023 18:39

Lab ID:23D0136-01 Client ID:





LDW23-SS1803

Dual Column

**ORGANIC ANALYSIS DATA SHEET
EPA 8081B**

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23D0136</u>
Client: <u>Anchor QEA, LLC</u>	
Project: <u>AOC5 MR Phase 1</u>	
Matrix: <u>Solid</u>	Laboratory ID: <u>23D0136-03 A</u>
	File ID: <u>23050219.D</u>
Sampled: <u>04/05/23 16:05</u>	Prepared: <u>04/18/23 11:06</u>
	Analyzed: <u>05/02/23 18:58</u>
% Solids: <u>44.31</u>	Preparation: <u>EPA 3546 (Microwave)</u>
	Initial/Final: <u>28.21 g Wet / 2.5 mL</u>
Batch: <u>BLD0325</u>	Sequence: <u>SLE0106</u>
	Calibration: <u>GD00035</u>
Instrument: <u>ECD6</u>	Column 1: <u>STX-CLP</u>
	Column 2: <u>STX-CLPII</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	0.50	0.15	0.50	U

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	8.0001	5.50	68.7	30 - 160	
<i>Decachlorobiphenyl</i>	2	8.0001	6.20	77.5	30 - 160	
<i>Tetrachlorometaxylene</i>	1	8.0001	4.75	59.3	30 - 160	
<i>Tetrachlorometaxylene</i>	2	8.0001	4.31	53.8	30 - 160	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230502.b/23050219.D
Data file 2: /20230502.b/B20230502.b/23050219.D
Method: \20230502.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: 23D0136-03
Client ID:
Injection Date: 02-MAY-2023 18:58
Report Date: 05/05/2023 15:04
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
----			----		0.00	0.00	---	alpha-BHC	
----			----		0.00	0.00	---	beta-BHC	
----			----		0.00	0.00	---	delta-BHC	
----			----		0.00	0.00	---	gamma-BHC (Lindane)	
----			----		0.00	0.00	---	Heptachlor	
----			----		0.00	0.00	---	Aldrin	
----			----		0.00	0.00	---	Heptachlor epoxide b	
----			----		0.00	0.00	---	Endosulfan I	
----			----		0.00	0.00	---	Dieldrin	
----			----		0.00	0.00	---	4,4'-DDE	
----			----		0.00	0.00	---	Endrin	
----			----		0.00	0.00	---	Endosulfan II	
----			----		0.00	0.00	---	4,4'-DDD	
----			----		0.00	0.00	---	Endosulfan sulfate	
----			----		0.00	0.00	---	4,4'-DDT	
----			----		0.00	0.00	---	Methoxychlor	
----			----		0.00	0.00	---	Endrin ketone	
----			----		0.00	0.00	---	Endrin aldehyde	
----			----		0.00	0.00	---	trans-Chlordane	
----			----		0.00	0.00	---	cis-Chlordane	
----			----		0.00	0.00	---	Hexachlorobutadiene	
4.166	-0.009	14247	----		1.11	0.00	---	Hexachlorobenzene	
3.812	-0.007	220973	4.127	-0.009	200524	23.73	21.53	9.7	Tetrachloro-m-xylene MN
9.360	-0.006	129998	10.298	-0.008	112441	27.49	30.99	12.0	Decachlorobiphenyl N

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

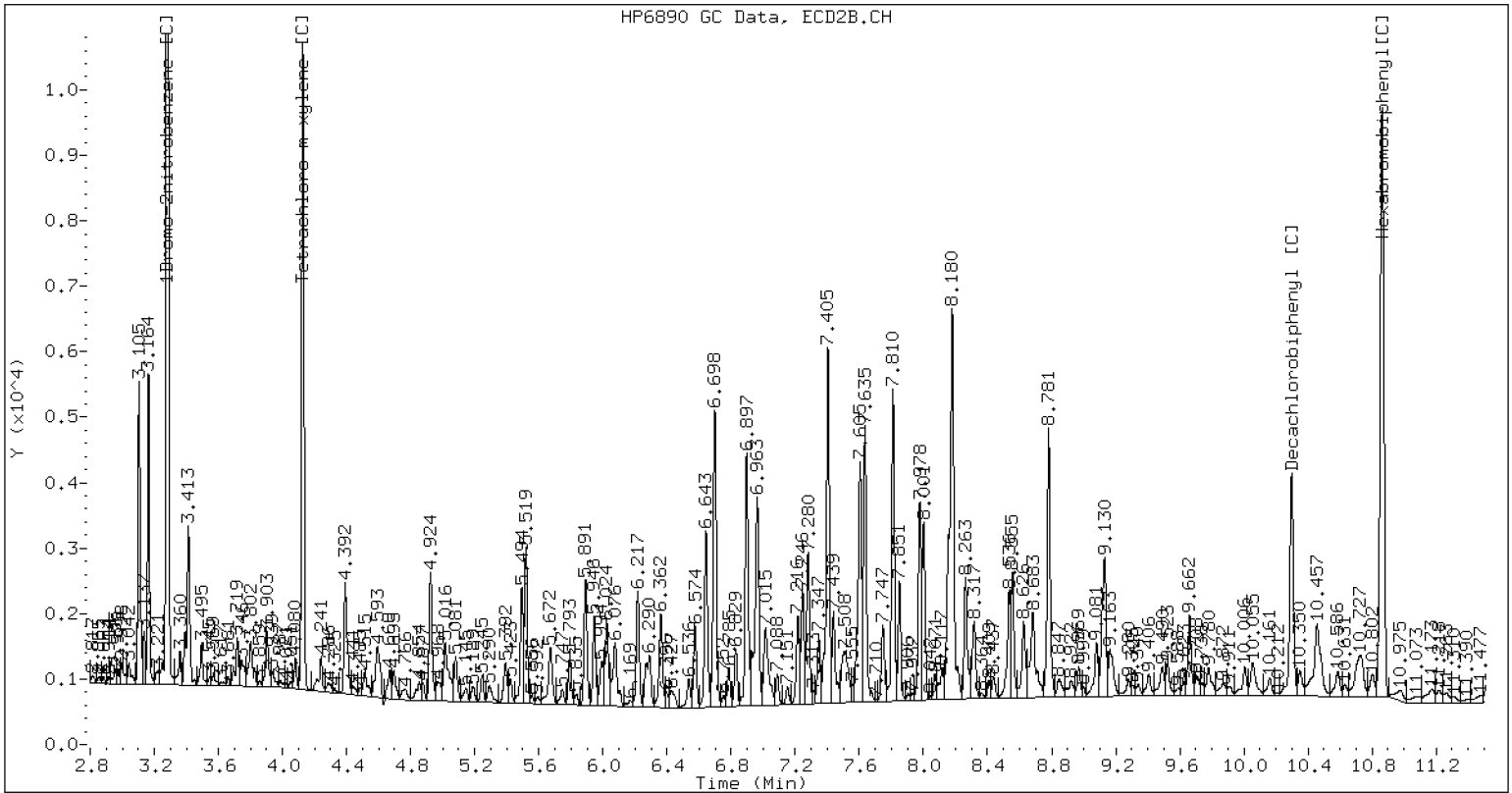
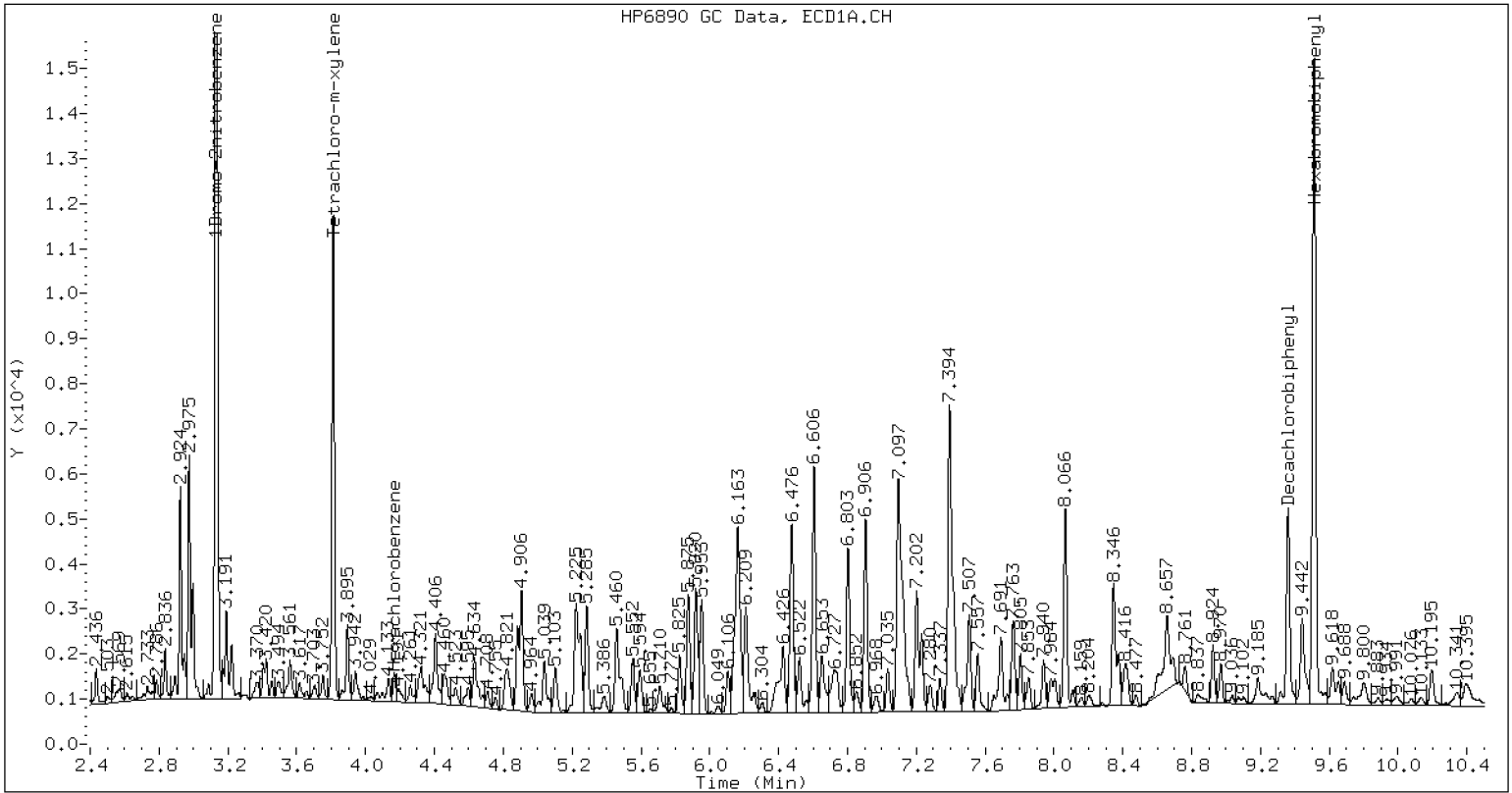
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	665574	-28.6
Hexabromobiphenyl	745426	400928	-46.2

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	677395	-45.8
Hexabromobiphenyl	754634	300599	-60.2 <-

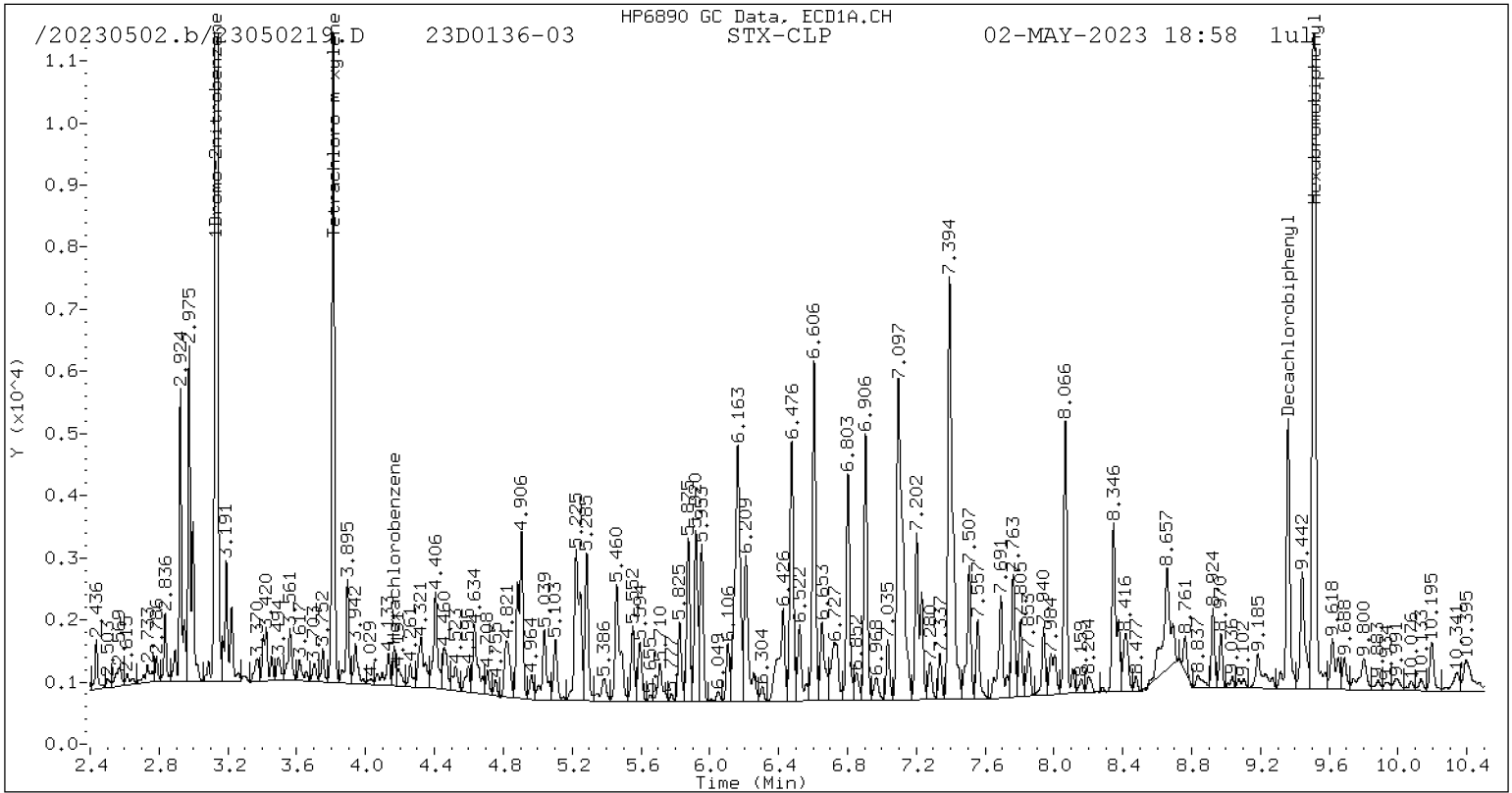
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

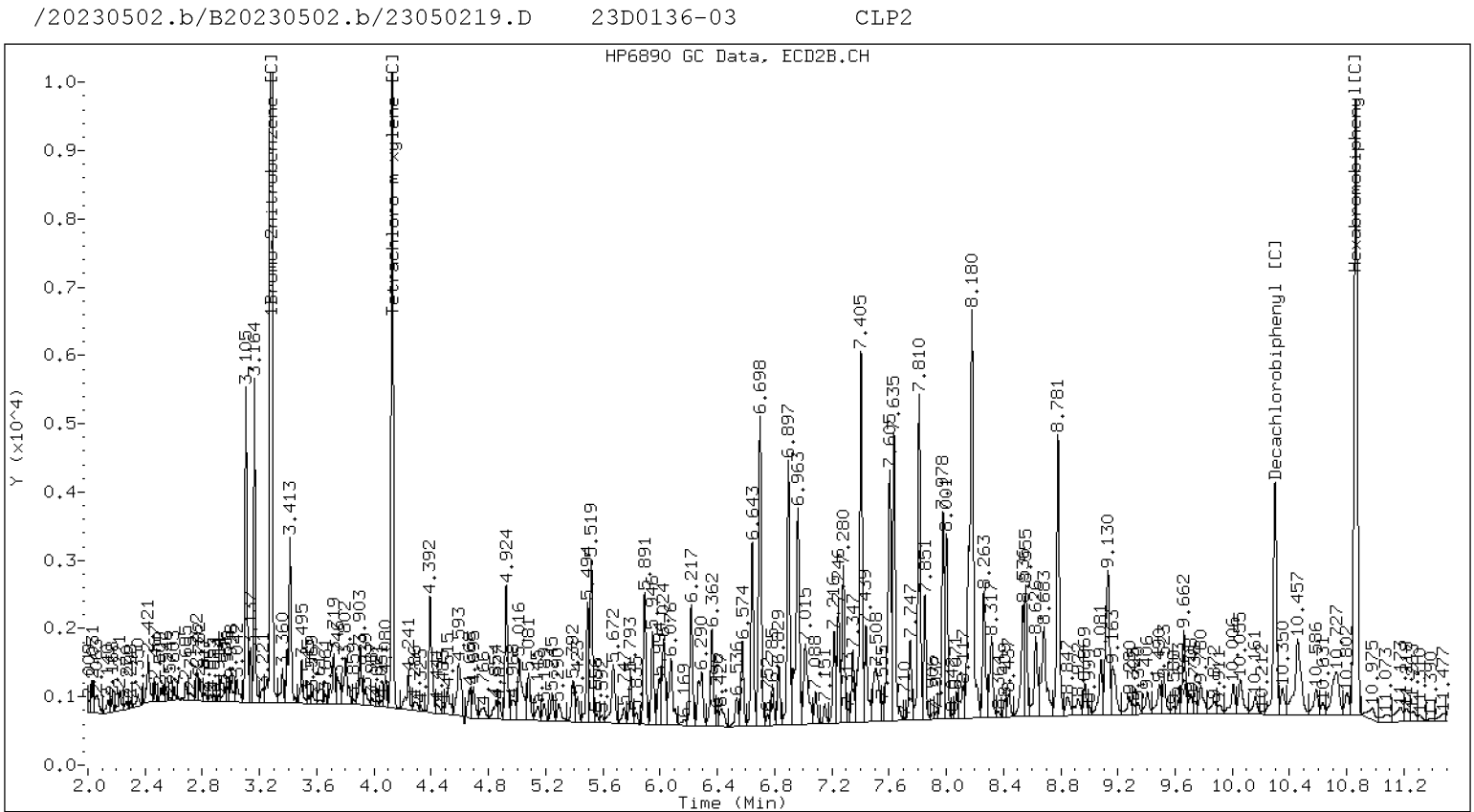
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



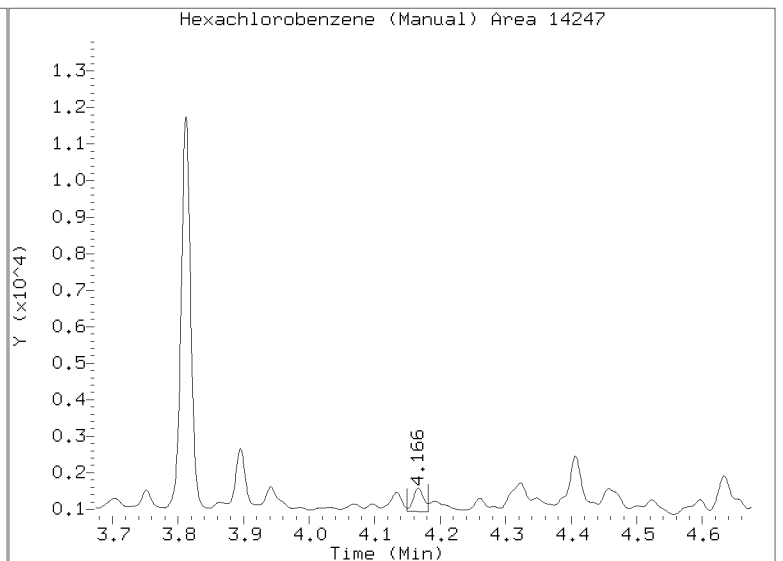
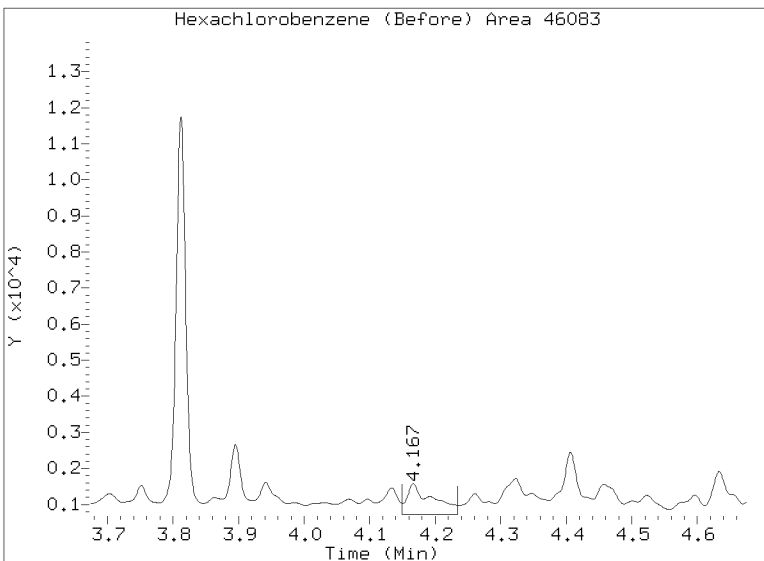
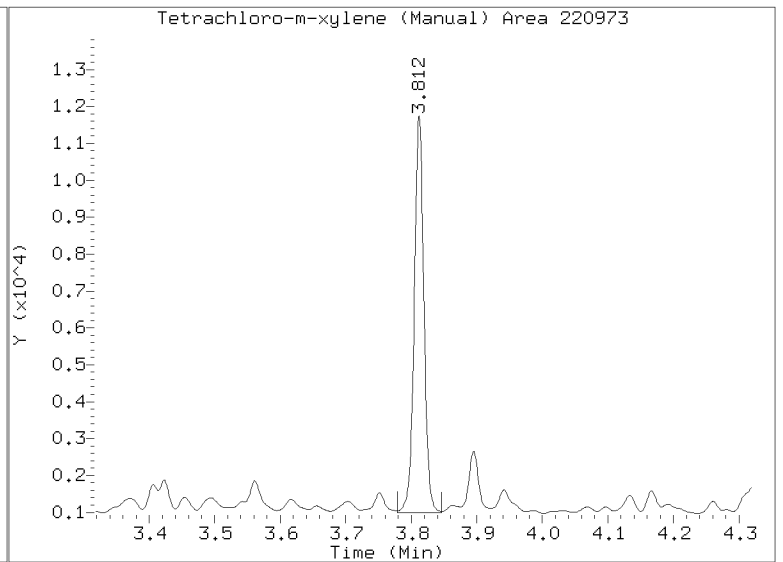
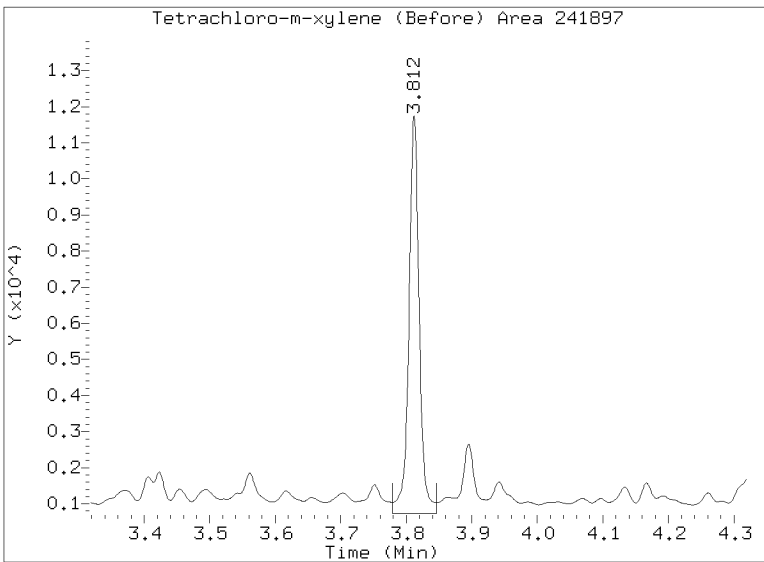
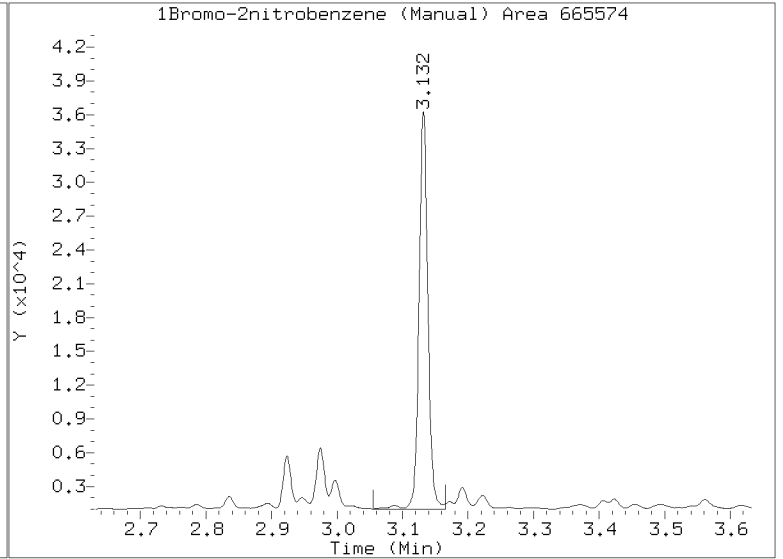
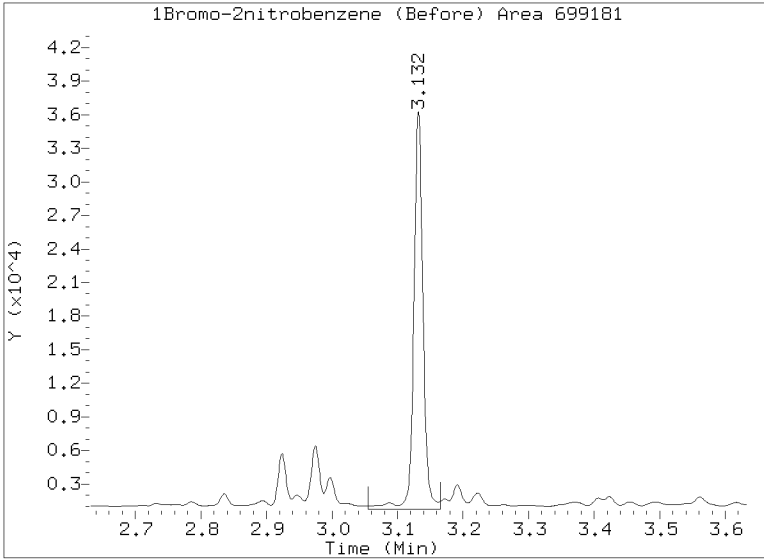
STX-CLP Manual Integration: YES



CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, STX-CLP

Datafile: /20230502.b/23050219.D
Injection Date: 02-MAY-2023 18:58
Lab ID:23D0136-03 Client ID:
Report Date: 05/05/2023 15:04

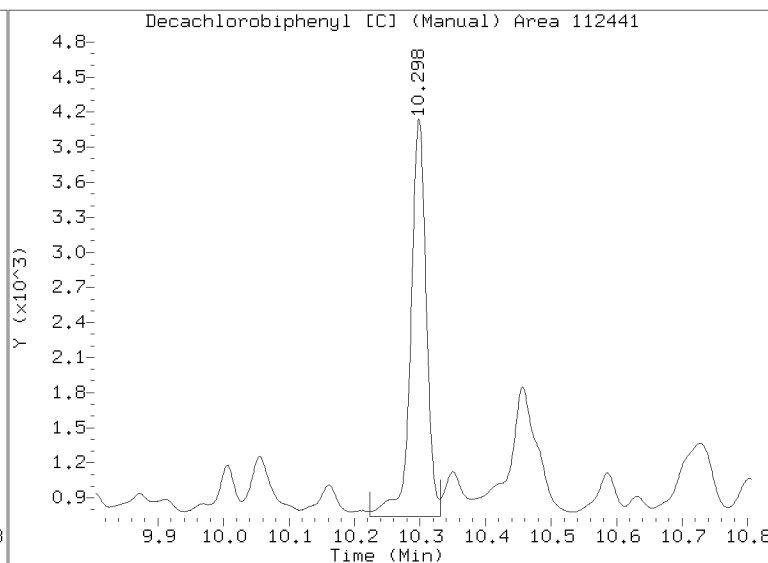
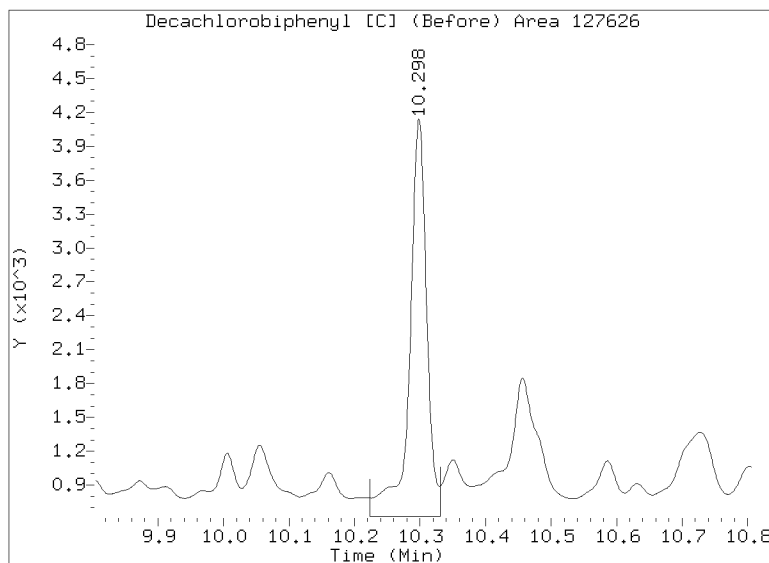
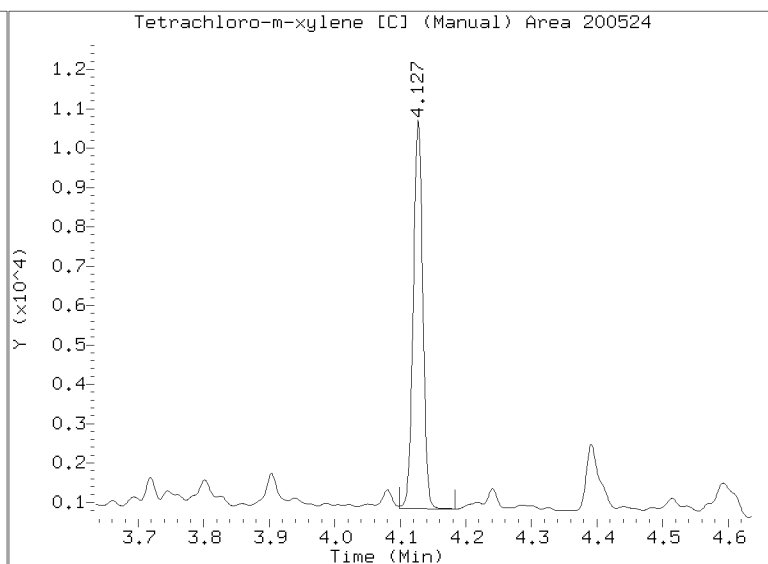
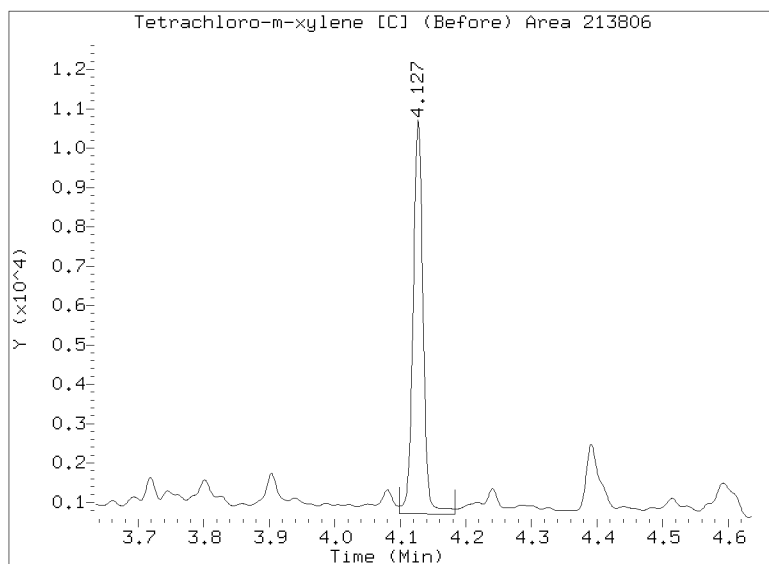
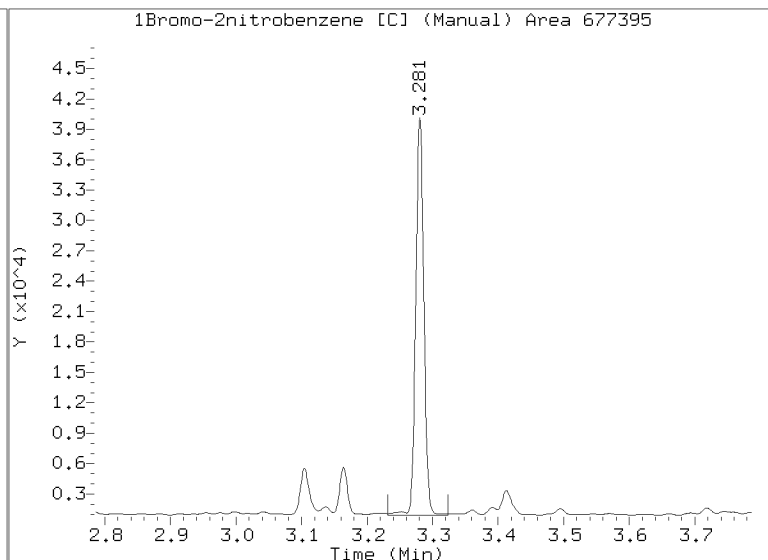
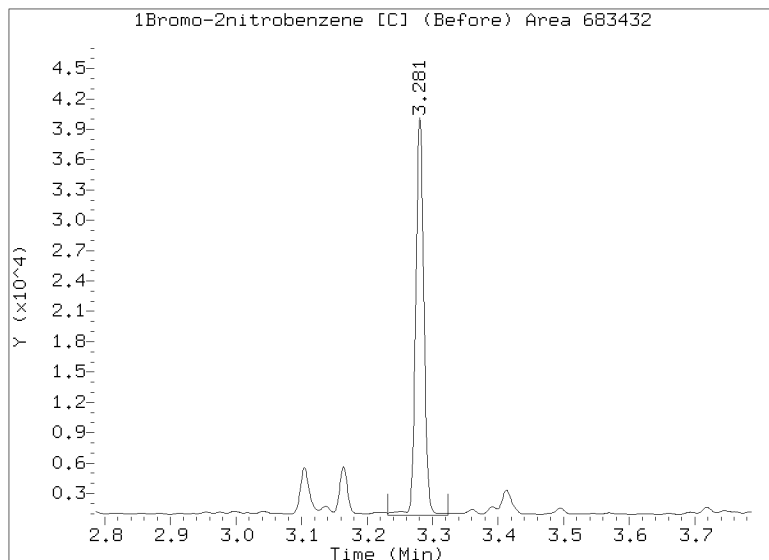


Manual Peak Adjustment Report, CLP-2

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Injection Date: 02-MAY-2023 18:58

Lab ID:23D0136-03 Client ID:

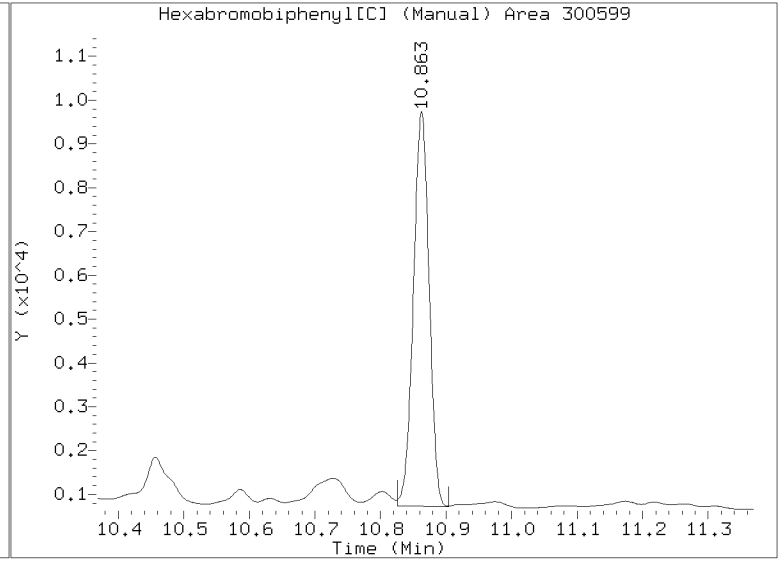
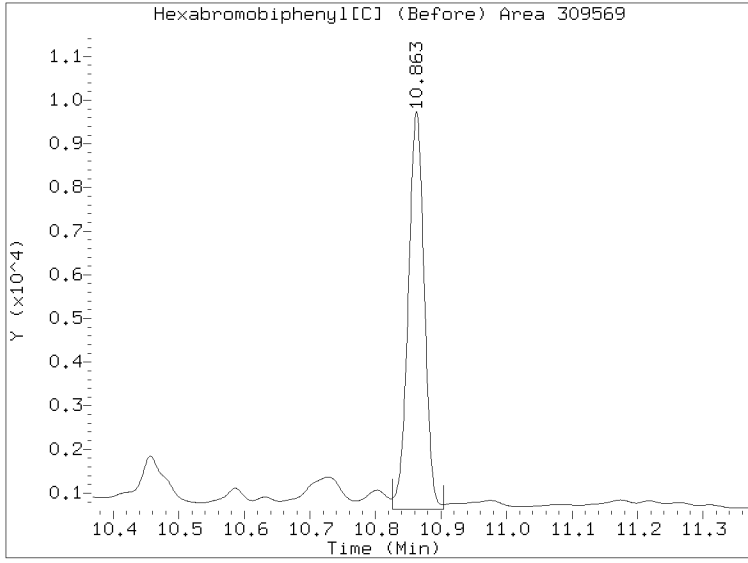


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050219.D

Injection Date: 02-MAY-2023 18:58

Lab ID:23D0136-03 Client ID:





PREPARATION BATCH SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC SDG: 23D0136
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLD0325 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	23050218.D	04/18/23 11:06	
LDW23-SS1803	23D0136-03	23050219.D	04/18/23 11:06	
Blank	BLD0325-BLK1	23050213.D	04/18/23 11:06	
LCS	BLD0325-BS1	23050214.D	04/18/23 11:06	
LCS Dup	BLD0325-BSD1	23050215.D	04/18/23 11:06	
LDW23-SS1804	BLD0325-MS1	23050216.D	04/18/23 11:06	
LDW23-SS1804	BLD0325-MSD1	23050217.D	04/18/23 11:06	



Batch: BLD0325

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSDDA) in Solid (Version: HCB Only)

Matrix: Solid Date Prepared: 4/18/23 Balance ID: 3146462614 Set Up By: 970 4/13/23

WO Comments
23D0136: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E> Sample ID for -03 and -04 changed by client

The following standards may be missing from this batch!

Designator	Description
62	Toxaphene
44	WND
QLS 10	QLS Spike

Analysis: 8081B Pest (PSDDA)

Lab Number & Container	% Solids	Initial (g)		(REQ) GPC (1:1)	<input checked="" type="checkbox"/> (Yes) / No Acid Clean 5mL	(REQ) Sulfur C/U 4.5mL+0.5 mL Ethyl Acetate	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual							
23D0136-01 A	49.3	(25.33)	<u>25.38</u>	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23D0136-03 A	44.3	(28.21)	<u>28.21</u>	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) GPC (1:1)	<input checked="" type="checkbox"/> (Yes) / No Acid Clean 5mL	(REQ) Sulfur C/U 4.5mL+0.5 mL Ethyl Acetate	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual							
BLD0325-BLK1	100.0	(12.50)	<u>12.50</u>	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLD0325-BS1	100.0	(12.50)	<u>12.50</u>	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLD0325-BSD1	100.0	(12.50)	<u>12.50</u>	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLD0325-MS1	49.3	(25.33)	<u>25.33</u>	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	Use 23D0136-01
BLD0325-MSD1	49.3	(25.33)	<u>25.33</u>	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	Use 23D0136-01

Client ID: 4/18/23 Date: _____ Preparation Reviewed By: NRB Date: 5/2/23 Extraction Date and Time: 4/18/23 11:46



Batch: BLD0325

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSDDA) in Solid (Version: HCB Only)

WO Comments
23D0136: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E> Sample ID for -03 and -04 changed by client

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"> 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessels. 3. Add 1:1 Hex/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 15 min in cold water. Re-homogenize while cool. 7. Decant 1:1 Hex/ACE into Erlenmeyer flask using a funnel containing neutral glasswool. 8. Rinse with Hexane. 9. Microwave a 2nd time using 8:2 Hex/Ace (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with Hexane. 11. KD to 5mL at 100°C. (NO HEXANE EXCHANGE). 12. TurboVap 13. GPC 14. After GPC: KD at 80 - 85°C 15. Exchange to Hexane at 100°C 2 x 20 mL). 16. TurboVap. 17. Cleanups, if Acid cleaning do not add Ethyl Acetate for Sulfur Clean. Do Not Acid Clean if Acid liable compounds are requested. 18. Vial in Hexane. <p>A. Need Total Solids Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>B. Archive/Freeze Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p>	



Extraction Parameter: PEST Extraction Batch BLD0325

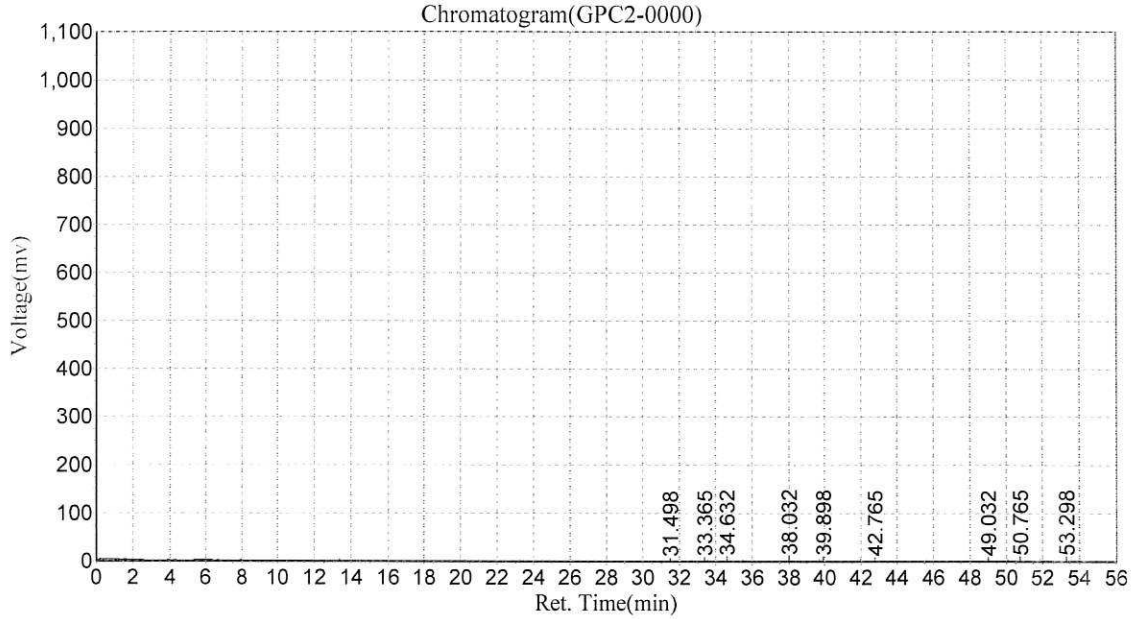
Total Solids Batch: BLD0208 Work Order(s): 23D0136

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>01-04</u>	<u>CR 4/12/23</u>
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / <u>N</u>	<u>CR 4/12/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y / <u>N</u>	<u>CR 4/12/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

BLK1
BLD0325/411 23D0136/247

Date:2023-04-24,1:50:23 PM
Data File:c:\n2000\data\gpc2\042423\GPC2-0000
Method File:E:\GPC2_InHouse.mtd

Analyst:NRB
Date/Time:2023-04-24,1:50:24 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		31.498	1517.593	104434.195	3.9475
2		33.365	2685.458	117056.477	4.4246
3		34.632	3562.509	320688.281	12.1217
4		38.032	5619.119	1034233.250	39.0931
5		39.898	3250.983	330742.469	12.5018
6		42.765	2014.203	159597.047	6.0326
7		49.032	1652.507	238105.188	9.0002
8		50.765	2526.760	176161.375	6.6588
9		53.298	1871.053	164543.703	6.2196
Total			24700.184	2645561.984	100.000

Ingredient Table

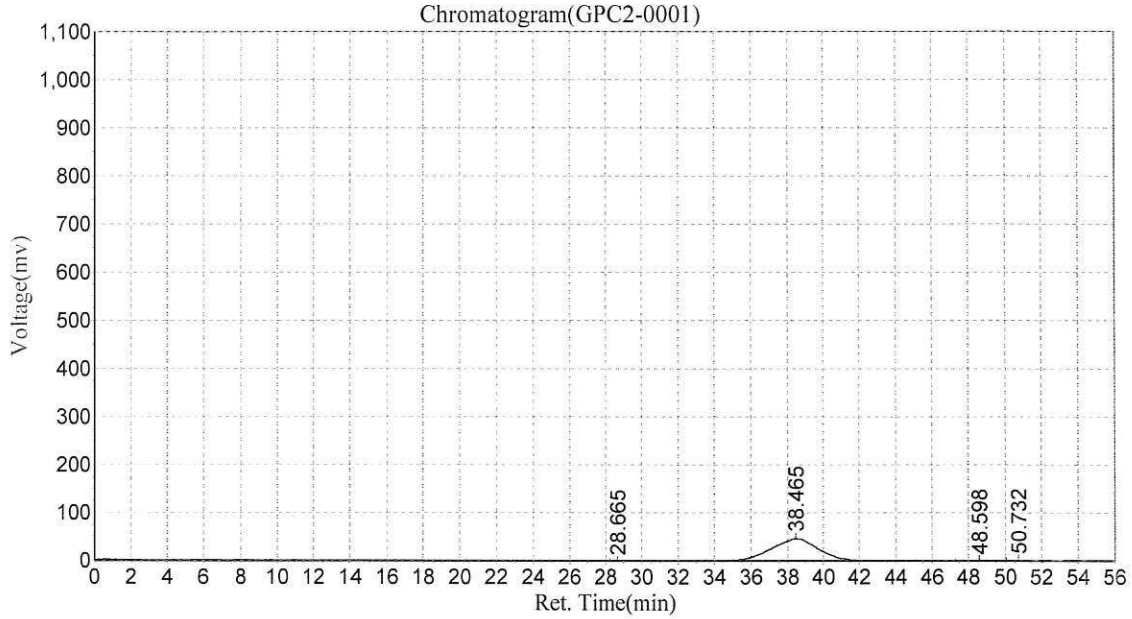
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BS1

BLD0325/411 23D0136/247

Date:2023-04-24,2:48:11 PM
 Data File:c:\n2000\data\gpc2\042423\GPC2-0001
 Method File:E:\GPC2_InHouse.mtd

Analyst:°NRB
 Date/Time:2023-04-24,2:48:11 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		28.665	1835.395	101828.258	0.9302
2		38.465	50167.727	10490726.000	95.8290
3		48.598	1790.500	164880.813	1.5061
4		50.732	2119.136	189901.281	1.7347
Total			55912.758	10947336.352	100.000

Ingredient Table

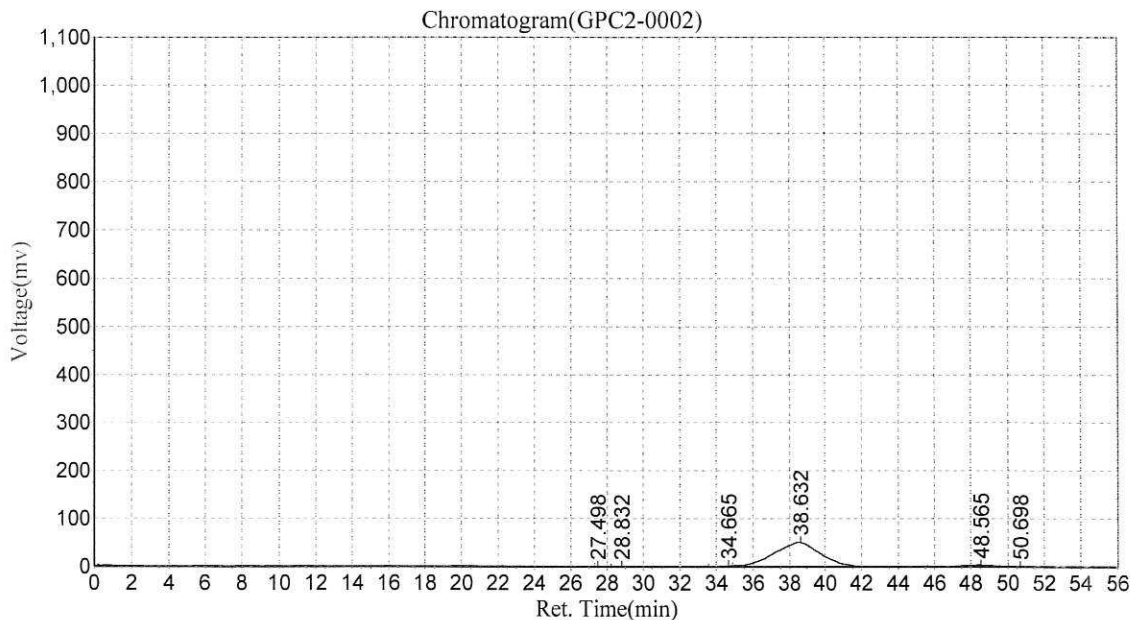
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BSD1

BLD0325/411 23D0136/247

Date:2023-04-24,3:45:54 PM
 Data File:c:\n2000\data\gpc2\042423\GPC2-0002
 Method File:E:\GPC2_InHouse.mtd

Analyst:NRB
 Date/Time:2023-04-24,3:45:54 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		27.498	3011.011	125690.391	1.0021
2		28.832	2871.978	168277.734	1.3417
3		34.665	5012.752	282738.938	2.2542
4		38.632	53900.215	10612422.000	84.6117
5		48.565	6683.397	1072177.625	8.5484
6		50.698	3013.798	281186.031	2.2419
Total			74493.151	12542492.719	100.000

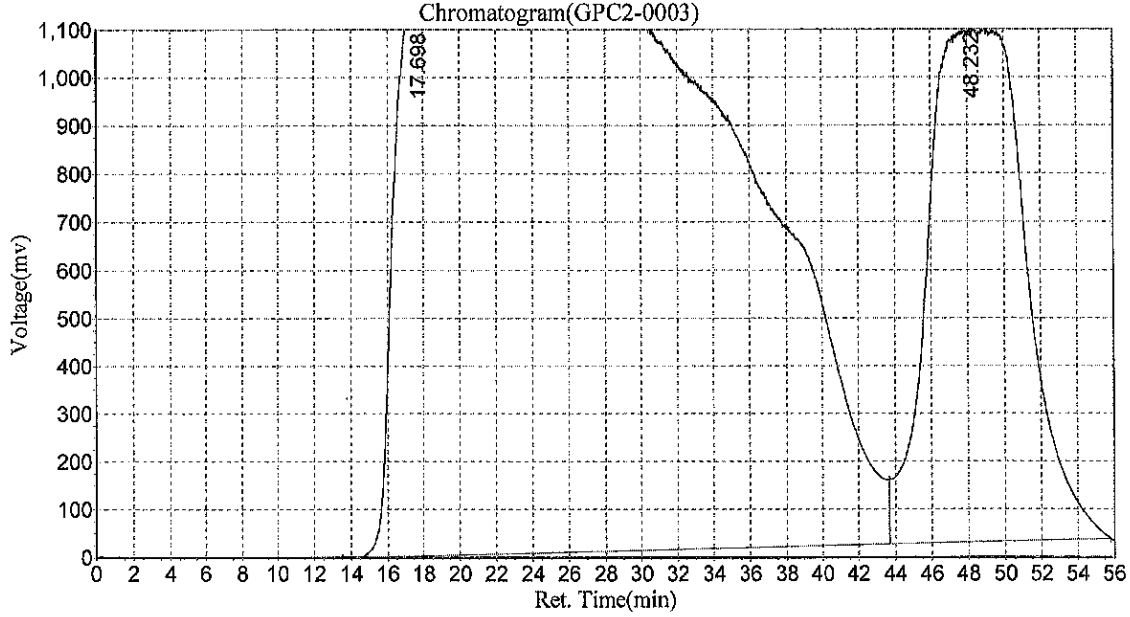
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

M31
BLD0325/411 23D0136/247

Date:2023-04-24,4:43:37 PM
 Data File:c:\n2000\data\gpc2\042423\GPC2-0003
 Method File:E:\GPC2_InHouse.mtd

Analyst:NRB
 Date/Time:2023-04-24,4:43:37 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.698	1170998.250	1518036096.000	79.3884
2		48.232	1063564.875	394128352.000	20.6116
Total			2234563.125	1912164448.000	100.000

Ingredient Table

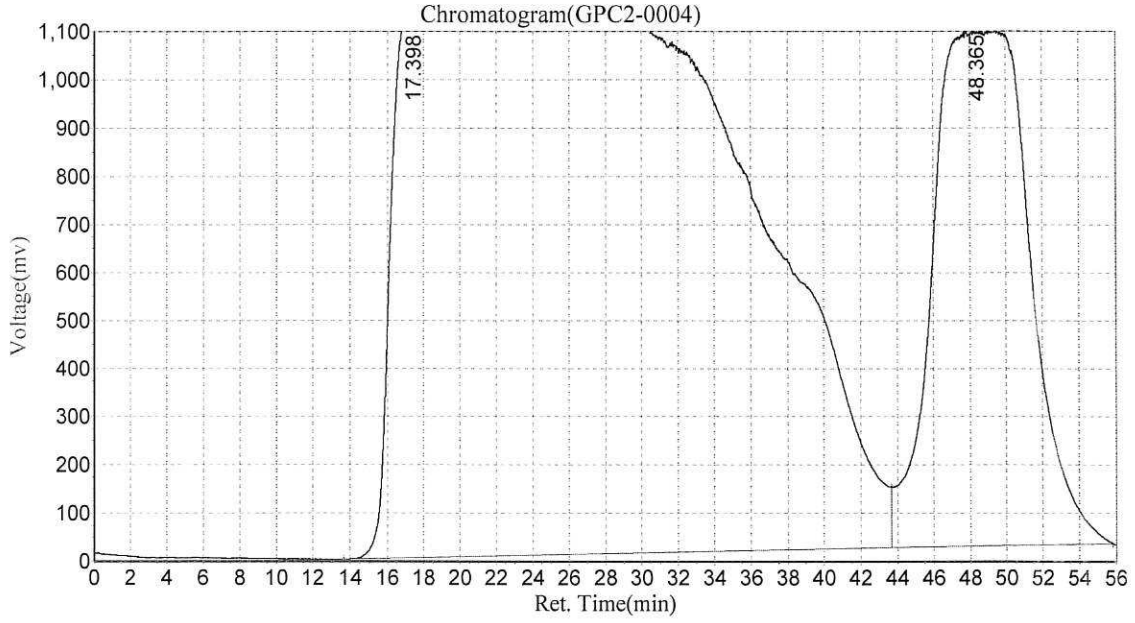
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

MS01

BLD0325/411 23D0136/247

Date:2023-04-24,5:41:19 PM
Data File:c:\n2000\data\gpc2\042423\GPC2-0004
Method File:E:\GPC2_InHouse.mtd

Analyst:°NRB
Date/Time:2023-04-24,5:41:19 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.398	1163073.500	1503123072.000	79.2906
2		48.365	1064711.875	392590560.000	20.7094
Total			2227785.375	1895713632.000	100.000

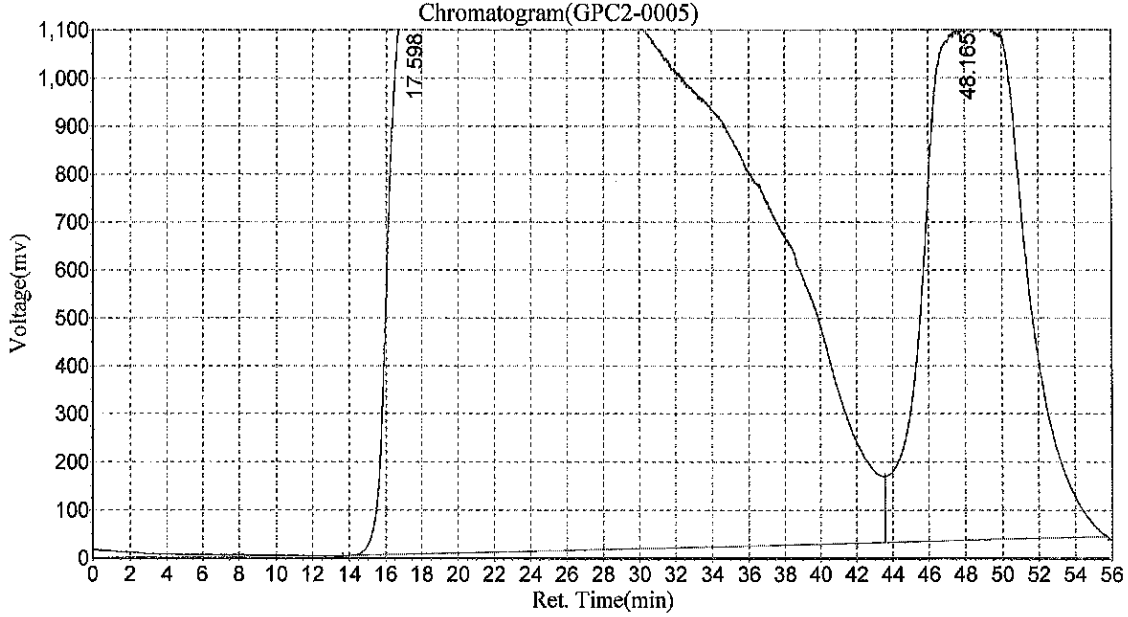
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLD0325/411 23D0136/247

Date:2023-04-24,6:39:06 PM
 Data File:c:\n2000\data\gpc2\042423\GPC2-0005
 Method File:E:\GPC2_InHouse.mtd

Analyst:°NRB
 Date/Time:2023-04-24,6:39:06 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.598	1168533.125	1502913536.000	78.8181
2		48.165	1064417.500	403900256.000	21.1819
Total			2232950.625	1906813792.000	100.000

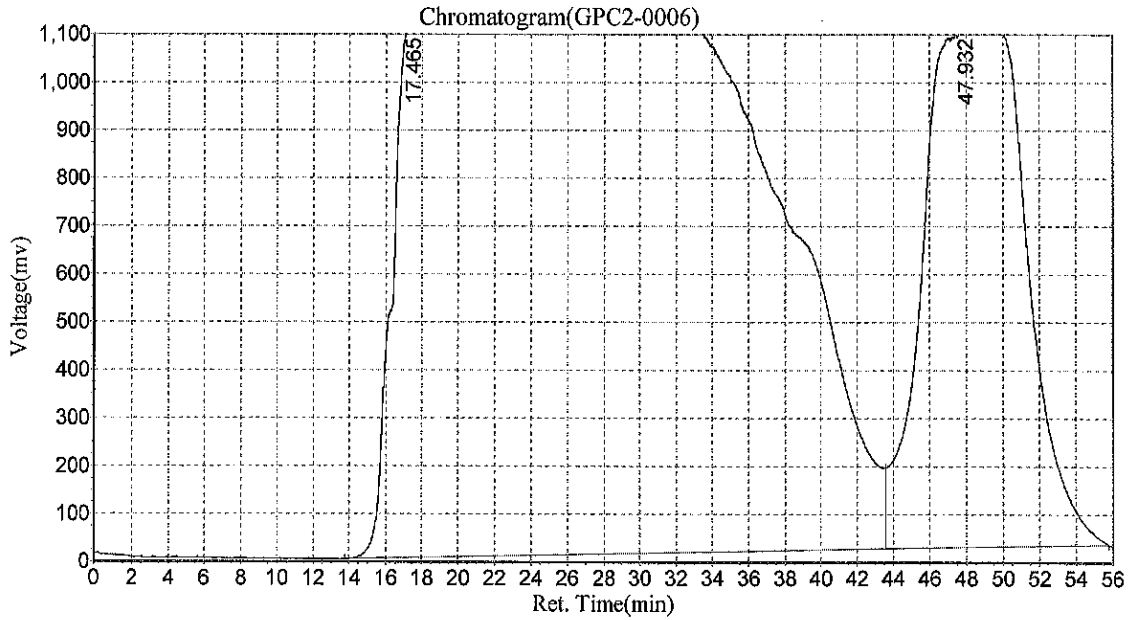
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

03
BLD0325/411 23D0136/247

Date:2023-04-24,7:36:48 PM
Data File:c:\n2000\data\gpc2\042423\GPC2-0006
Method File:E:\GPC2_InHouse.mtd

Analyst:°NRB
Date/Time:2023-04-24,7:36:48 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.465	1133895.500	1586771712.000	79.0778
2		47.932	1077951.500	419824064.000	20.9222
Total			2211847.000	2006595776.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000



Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0013

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Matrix Spike	BLD0325-MS1	23050216.D	05/02/2023	
Matrix Spike Dup	BLD0325-MSD1	23050217.D	05/02/2023	
LDW23-SS1803	23D0136-03	23050219.D	05/02/2023	
Blank	BLD0325-BLK1	23050213.D	05/02/2023	
LCS	BLD0325-BS1	23050214.D	05/02/2023	
LCS Dup	BLD0325-BSD1	23050215.D	05/02/2023	
LDW23-SS1804	23D0136-01	23050218.D	05/02/2023	



CLEANUP BENCH SHEET

CLE0013

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLB0132-GPC2 Printed: 5/2/2023 10:40:25AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0136-01	A	LDW23-SS1804	A 02	2.5	2.5	8081B Pest (PSDDA)	5/2/2023	NRB	
23D0136-03	A	LDW23-SS1803	A 01	2.5	2.5	8081B Pest (PSDDA)	5/2/2023	NRB	
BLD0325-BLK1	-	Blank	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-BS1	-	LCS	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-BSD1	-	LCS Dup	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-MS1	-	Matrix Spike	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	5/2/2023	NRB	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0014

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1803	23D0136-03	23050219.D	05/02/2023	
Matrix Spike Dup	BLD0325-MSD1	23050217.D	05/02/2023	
LDW23-SS1804	23D0136-01	23050218.D	05/02/2023	
Blank	BLD0325-BLK1	23050213.D	05/02/2023	
LCS	BLD0325-BS1	23050214.D	05/02/2023	
Matrix Spike	BLD0325-MS1	23050216.D	05/02/2023	
LCS Dup	BLD0325-BSD1	23050215.D	05/02/2023	



CLEANUP BENCH SHEET

CLE0014

Matrix: Solid

Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 5/2/2023 10:40:57AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0136-01	A	LDW23-SS1804	A 02	2.5	2.5	8081B Pest (PSDDA)	5/2/2023	NRB	
23D0136-03	A	LDW23-SS1803	A 01	2.5	2.5	8081B Pest (PSDDA)	5/2/2023	NRB	
BLD0325-BLK1	-	Blank	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-BS1	-	LCS	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-BSD1	-	LCS Dup	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-MS1	-	Matrix Spike	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	5/2/2023	NRB	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0015

Cleanup Type: Sulfur

Cleanup Method: EPA 3660B Sulfur Cleanup - uL

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS	BLD0325-BS1	23050214.D	05/02/2023	
Blank	BLD0325-BLK1	23050213.D	05/02/2023	
LDW23-SS1803	23D0136-03	23050219.D	05/02/2023	
LCS Dup	BLD0325-BSD1	23050215.D	05/02/2023	
Matrix Spike	BLD0325-MS1	23050216.D	05/02/2023	
Matrix Spike Dup	BLD0325-MSD1	23050217.D	05/02/2023	
LDW23-SS1804	23D0136-01	23050218.D	05/02/2023	



CLEANUP BENCH SHEET

CLE0015

Matrix: Solid

Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL

Printed: 5/2/2023 10:41:25AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0136-01	A	LDW23-SS1804	A 02	2.5	2.5	8081B Pest (PSDDA)	5/2/2023	NRB	
23D0136-03	A	LDW23-SS1803	A 01	2.5	2.5	8081B Pest (PSDDA)	5/2/2023	NRB	
BLD0325-BLK1	-	Blank	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-BS1	-	LCS	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-BSD1	-	LCS Dup	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-MS1	-	Matrix Spike	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	5/2/2023	NRB	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0016

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	23050218.D	05/02/2023	
Matrix Spike	BLD0325-MS1	23050216.D	05/02/2023	
LDW23-SS1803	23D0136-03	23050219.D	05/02/2023	
Blank	BLD0325-BLK1	23050213.D	05/02/2023	
Matrix Spike Dup	BLD0325-MSD1	23050217.D	05/02/2023	
LCS	BLD0325-BS1	23050214.D	05/02/2023	
LCS Dup	BLD0325-BSD1	23050215.D	05/02/2023	



CLEANUP BENCH SHEET

CLE0016

Matrix: Solid

Cleanup using: Organics - EPA 3630C Silica Gel Cleanup - uL

Printed: 5/2/2023 10:41:51AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0136-01	A	LDW23-SS1804	A 02	2.5	2.5	8081B Pest (PSDDA)	5/2/2023	NRB	
23D0136-03	A	LDW23-SS1803	A 01	2.5	2.5	8081B Pest (PSDDA)	5/2/2023	NRB	
BLD0325-BLK1	-	Blank	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-BS1	-	LCS	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-BSD1	-	LCS Dup	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-MS1	-	Matrix Spike	-	2.5	2.5	-	5/2/2023	NRB	
BLD0325-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	5/2/2023	NRB	



Form I
METHOD BLANK DATA SHEET
EPA 8081B

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLD0325-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/18/23 11:06</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLD0325</u>	Sequence:	<u>SLE0106</u>
Instrument:	<u>ECD6</u>	Column:	<u>STX-CLP</u>
		File ID:	<u>23050213.D</u>
		Analyzed:	<u>05/02/23 17:06</u>
		Initial/Final:	<u>12.5 g / 2.5 mL</u>
		Calibration:	<u>GD00035</u>
		Cleanups:	<u>GPC, Silica Gel, Sulfur, Sulfuric Acid</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
118-74-1	Hexachlorobenzene	1	0.50	U	0.15	0.50
SURROGATES		ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl		8.0000	4.73	59.2	30 - 160	
Decachlorobiphenyl [2C]		8.0000	5.79	72.3	30 - 160	
Tetrachlorometaxylene		8.0000	3.84	48.0	30 - 160	
Tetrachlorometaxylene [2C]		8.0000	4.25	53.1	30 - 160	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230502.b/23050213.D
Data file 2: /20230502.b/B20230502.b/23050213.D
Method: \20230502.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BLD0325-BLK1
Client ID:
Injection Date: 02-MAY-2023 17:06
Report Date: 05/05/2023 15:04
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
----			----		0.00	0.00	---	alpha-BHC	
----			----		0.00	0.00	---	beta-BHC	
----			----		0.00	0.00	---	delta-BHC	
----			----		0.00	0.00	---	gamma-BHC (Lindane)	
----			----		0.00	0.00	---	Heptachlor	
----			----		0.00	0.00	---	Aldrin	
----			----		0.00	0.00	---	Heptachlor epoxide b	
----			----		0.00	0.00	---	Endosulfan I	
----			----		0.00	0.00	---	Dieldrin	
----			----		0.00	0.00	---	4,4'-DDE	
----			----		0.00	0.00	---	Endrin	
----			----		0.00	0.00	---	Endosulfan II	
----			----		0.00	0.00	---	4,4'-DDD	
----			----		0.00	0.00	---	Endosulfan sulfate	
----			----		0.00	0.00	---	4,4'-DDT	
----			----		0.00	0.00	---	Methoxychlor	
----			----		0.00	0.00	---	Endrin ketone	
----			----		0.00	0.00	---	Endrin aldehyde	
----			----		0.00	0.00	---	trans-Chlordane	
----			----		0.00	0.00	---	cis-Chlordane	
----			----		0.00	0.00	---	Hexachlorobutadiene	
----			----		0.00	0.00	---	Hexachlorobenzene	
3.812	-0.007	186605	4.128	-0.008	187513	19.20	21.25	10.1	Tetrachloro-m-xylene M
9.358	-0.008	112351	10.297	-0.009	110102	23.67	28.93	20.0	Decachlorobiphenyl N

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

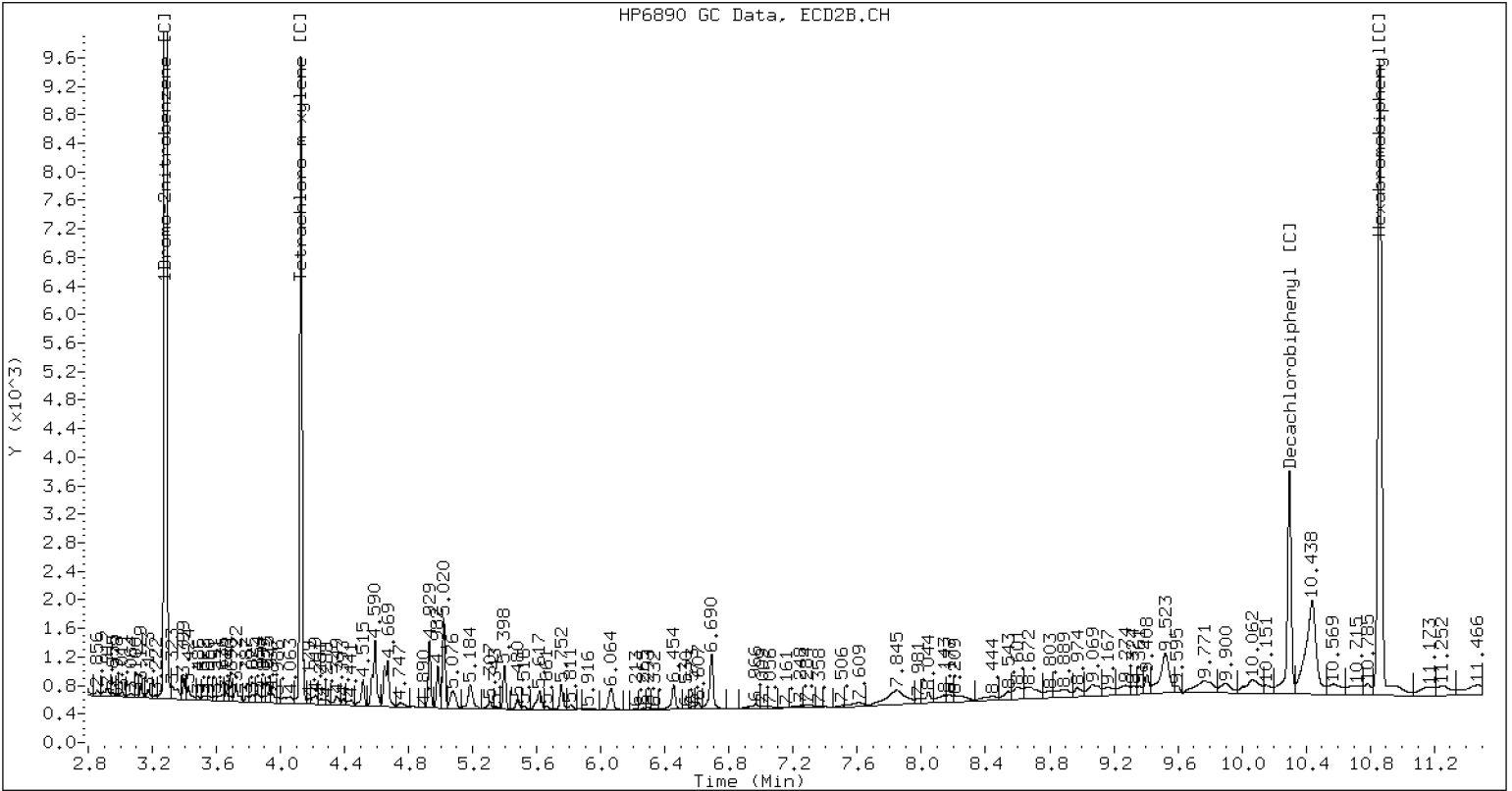
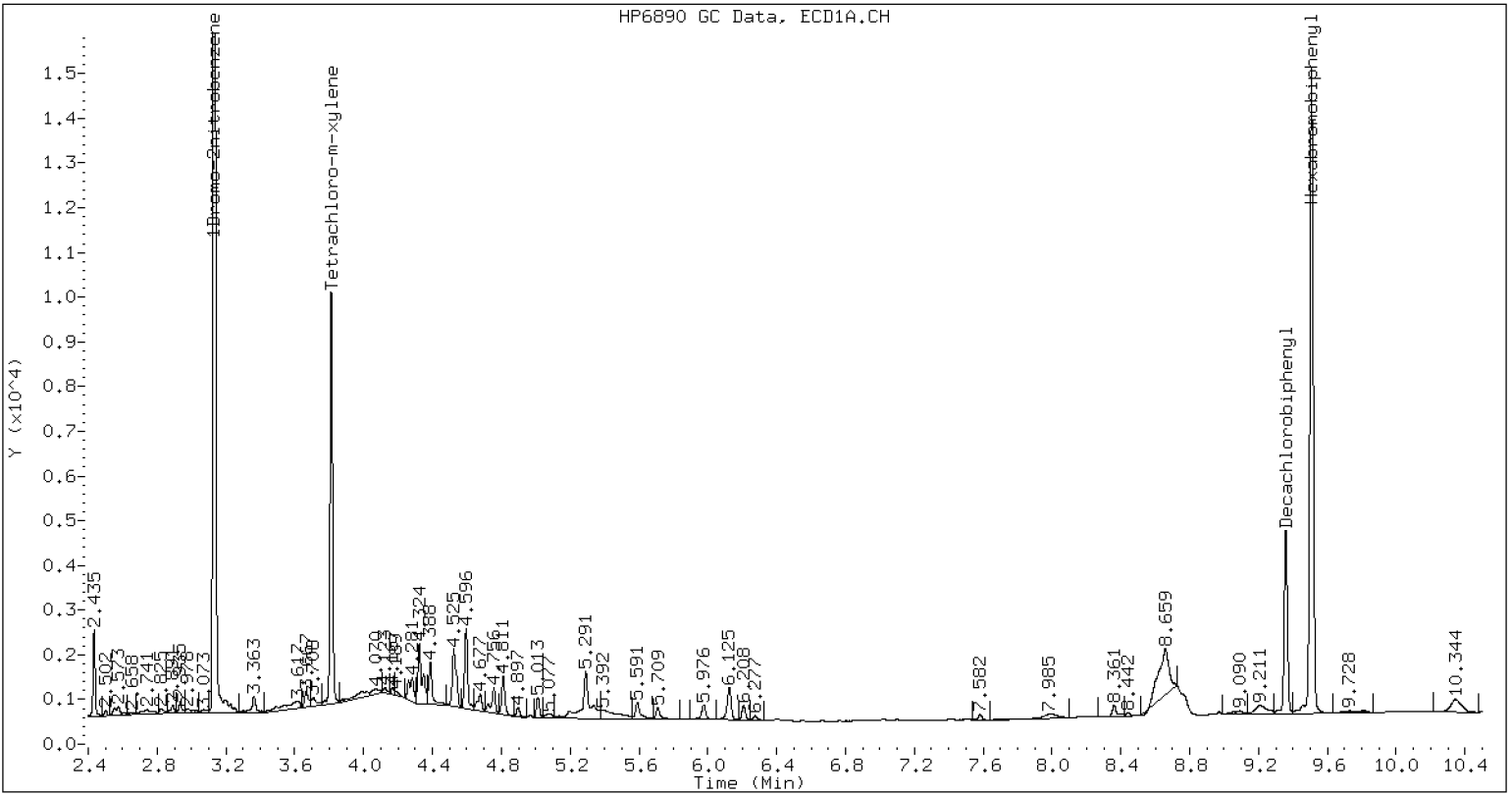
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	694640	-25.5
Hexabromobiphenyl	745426	402432	-46.0

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	641715	-48.6
Hexabromobiphenyl	754634	315265	-58.2 <-

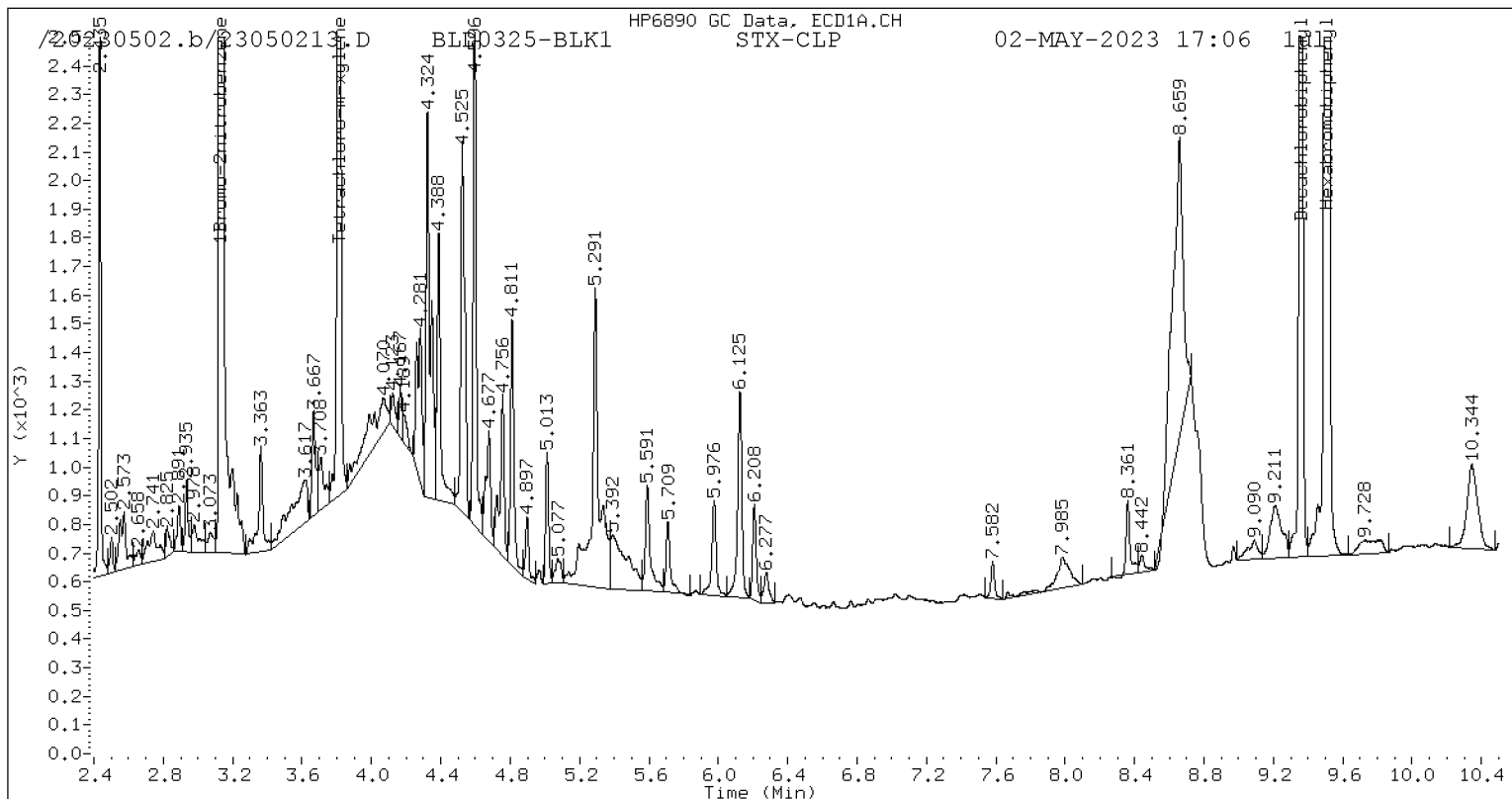
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

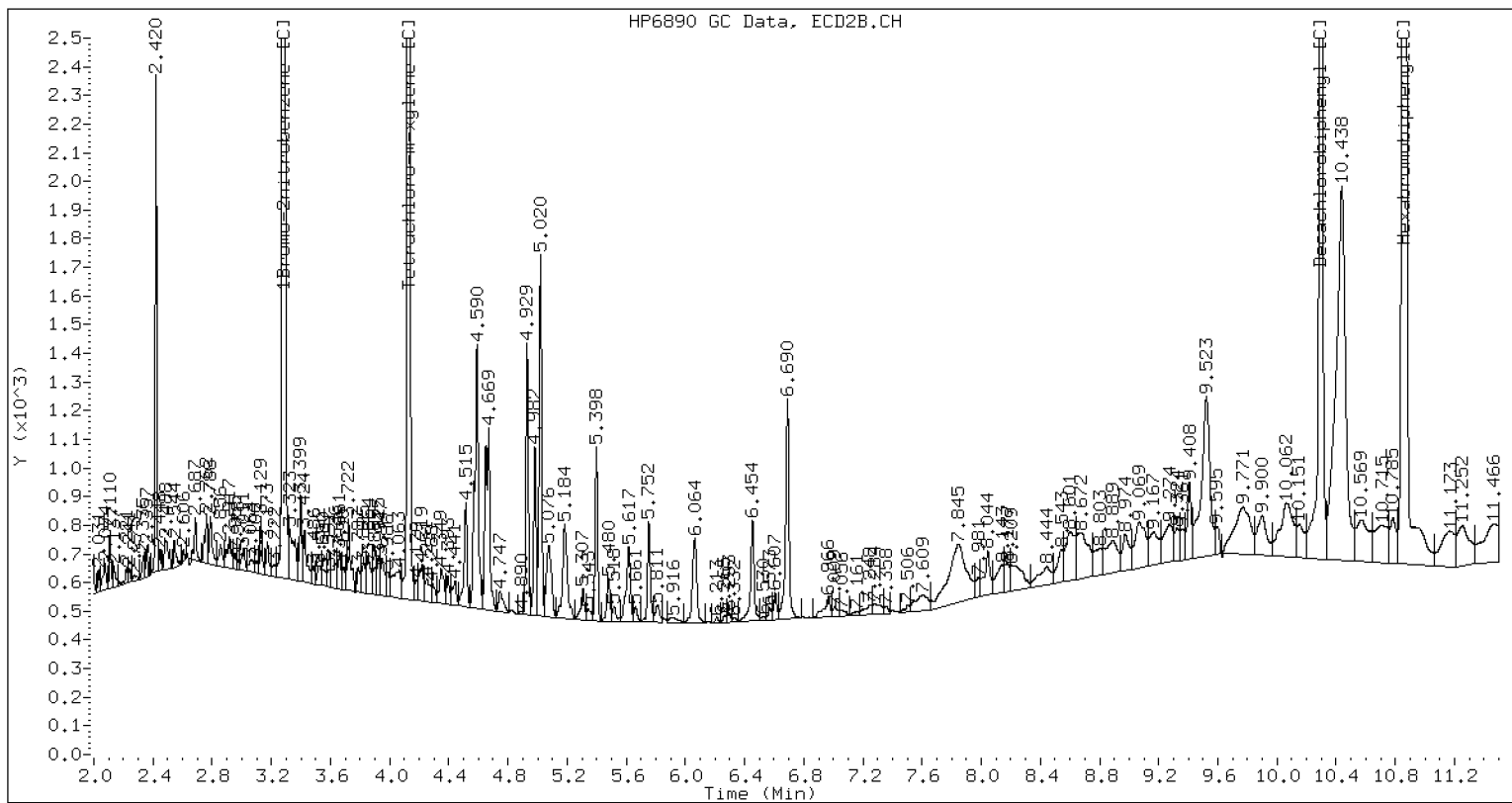


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

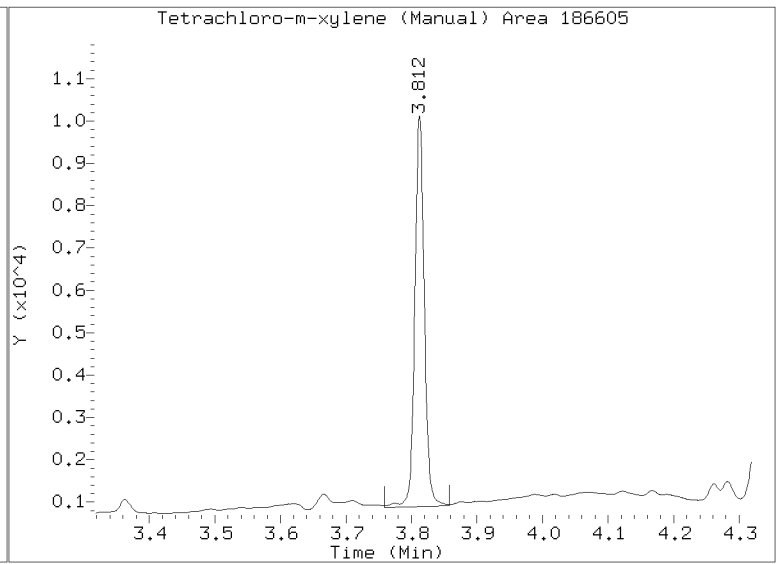
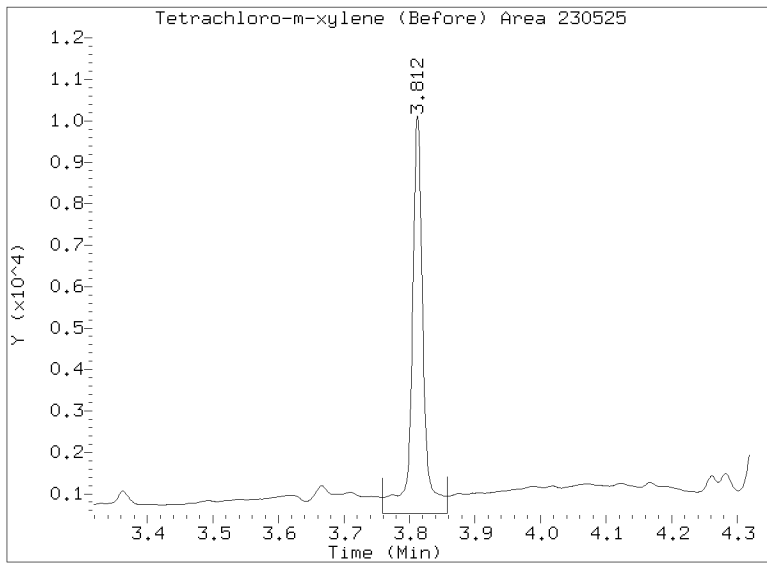
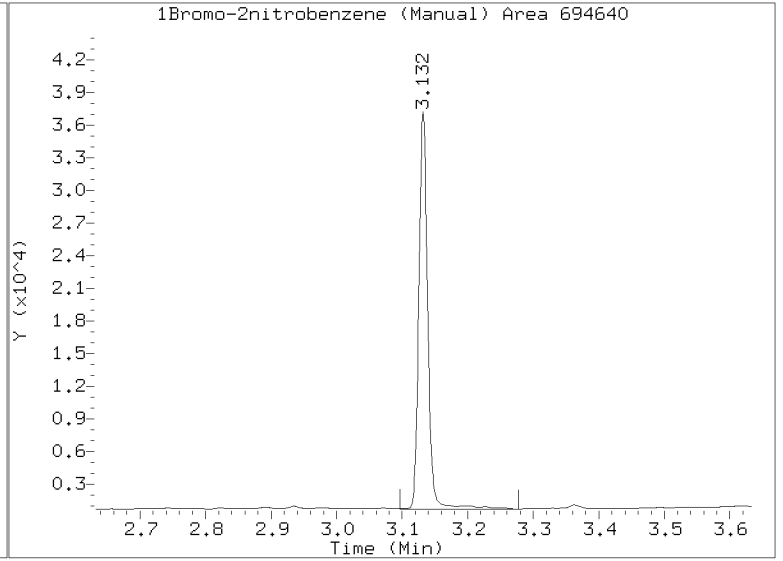
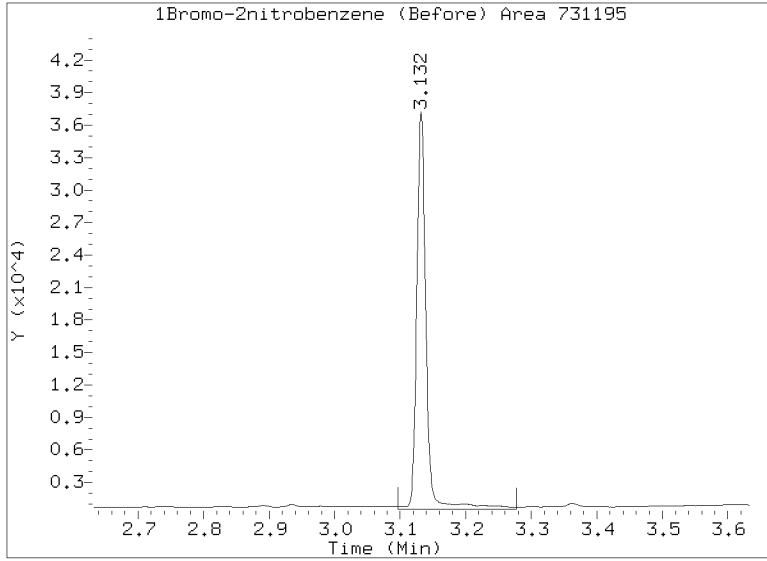
/20230502.b/B20230502.b/23050213.D BLD0325-BLK1 CLP2



CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, STX-CLP

Datafile: /20230502.b/23050213.D
Injection Date: 02-MAY-2023 17:06
Lab ID:BLD0325-BLK1 Client ID:
Report Date: 05/05/2023 15:04

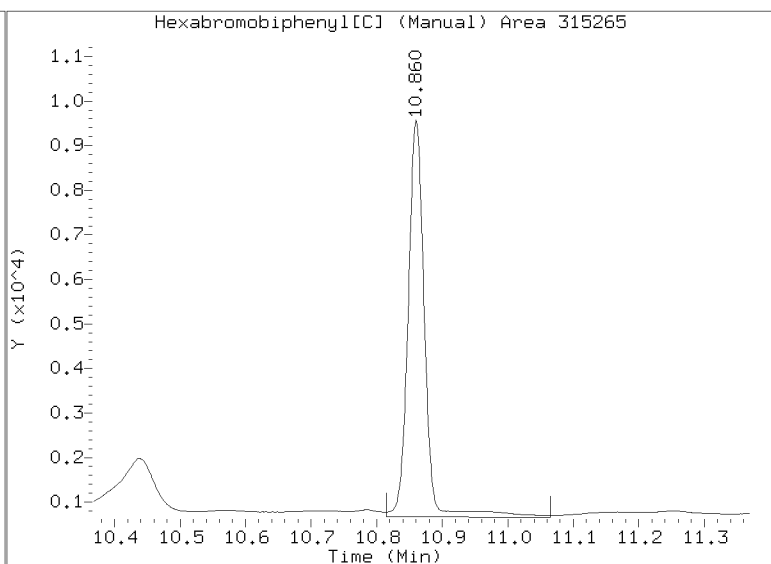
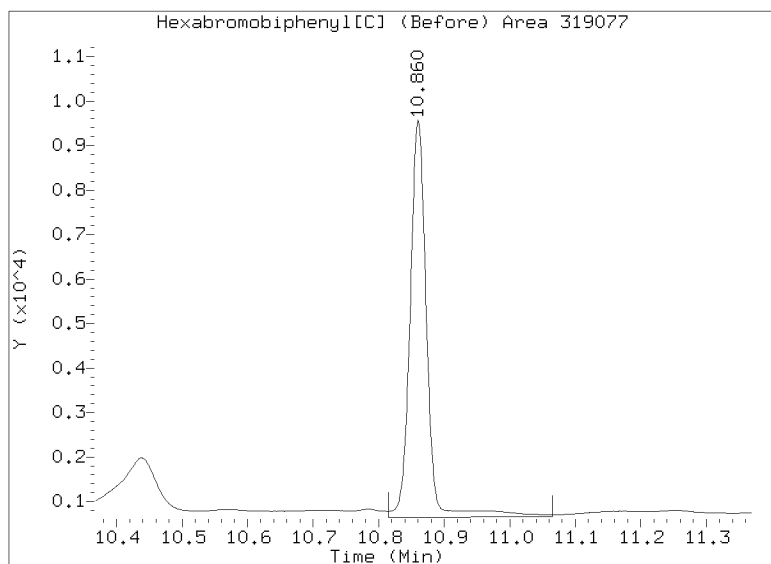
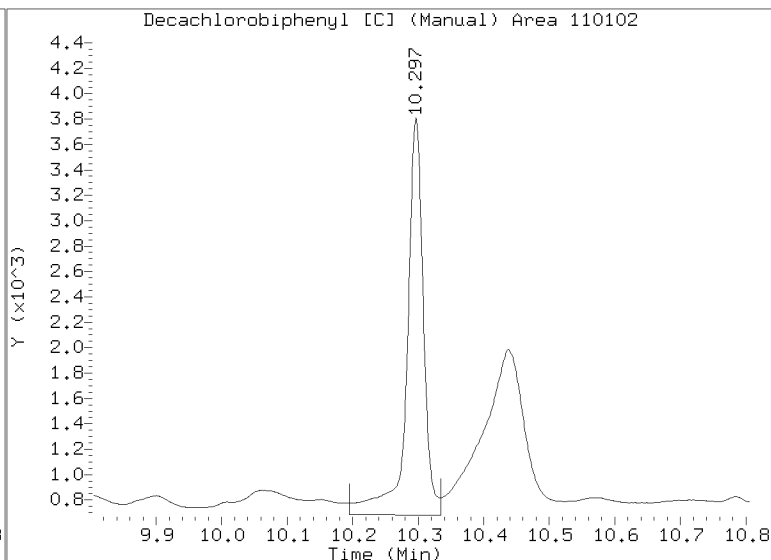
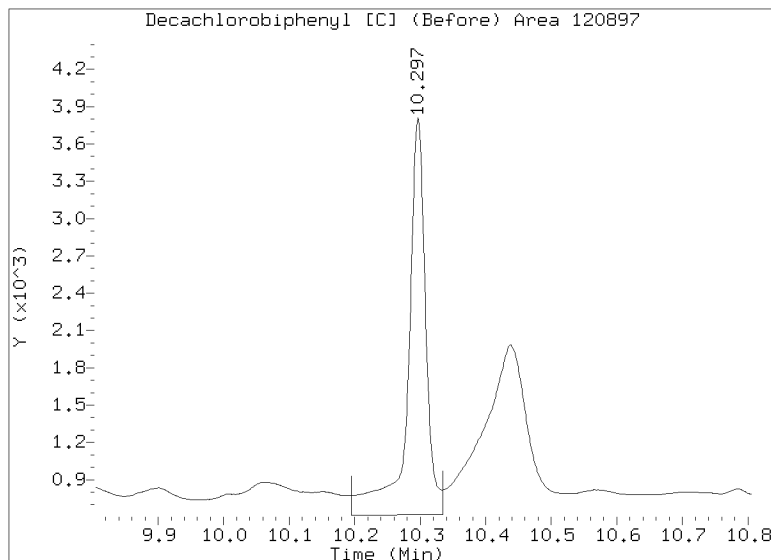


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050213.D

Injection Date: 02-MAY-2023 17:06

Lab ID:BLD0325-BLK1 Client ID:





LCS / LCS DUPLICATE RECOVERY
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/02/23 17:25</u>
Batch:	<u>BLD0325</u>	Laboratory ID:	<u>BLD0325-BS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>12.5 g / 2.5 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Hexachlorobenzene	4.00	2.12		53.0	26 - 128

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Hexachlorobenzene	4.00	2.36		59.0	10.6	30	26 - 128

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230502.b/23050214.D
Data file 2: /20230502.b/B20230502.b/23050214.D
Method: \20230502.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BLD03259-BS1
Client ID:
Injection Date: 02-MAY-2023 17:25
Report Date: 05/05/2023 15:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.325	-0.008	163429	4.752	-0.010	160292	10.45	10.58	1.3	alpha-BHC
4.710	-0.007	72795	5.220	-0.011	68044	11.65	11.31	3.0	beta-BHC
4.893	-0.008	167425	5.566	-0.011	144485	11.82	10.72	9.8	delta-BHC
4.629	-0.008	158742	5.141	-0.011	143769	11.55	10.80	6.7	gamma-BHC (Lindane)
5.116	-0.008	155187	5.660	-0.011	116437	12.20	9.97	20.1	Heptachlor
5.440	-0.008	141411	6.058	-0.013	110787	10.93	9.14	17.8	Aldrin
6.116	-0.009	136116	6.717	-0.012	108399	11.65	10.16	13.7	Heptachlor epoxide b
6.558	-0.009	183349	7.161	-0.011	142302	17.61	15.65	11.7	Endosulfan I
----			----			0.00	0.00	---	Dieldrin
6.480	-0.009	233480	7.246	-0.011	179903	22.47	18.97	16.9	4,4'-DDE
----			7.787	-0.003	1937	0.00	0.29	---	Endrin
7.305	-0.009	77942	7.989	-0.012	50258	11.53	8.08	35.2	Endosulfan II
7.127	-0.009	201869	7.851	-0.011	143584	31.15	23.86	26.5	4,4'-DDD
8.168	-0.009	137317	8.588	-0.010	112856	21.54	19.71	8.9	Endosulfan sulfate
7.422	-0.009	203672	8.171	-0.010	151673	29.18	24.98	15.5	4,4'-DDT
7.911	-0.009	24167	8.811	-0.011	24094	8.08	9.25	13.5	Methoxychlor
8.443	-0.009	143177	9.110	-0.009	114911	19.69	18.37	6.9	Endrin ketone
7.737	-0.006	3959	8.321	-0.010	8061	0.77	1.79	80.1*	Endrin aldehyde
6.257	-0.009	130925	6.928	-0.011	96026	11.45	9.39	19.8	trans-Chlordane
6.405	-0.008	121084	7.088	-0.012	90193	10.55	8.95	16.4	cis-Chlordane
2.304	-0.005	159111	2.448	-0.005	128093	9.86	9.32	5.7	Hexachlorobutadiene
4.167	-0.008	146840	4.613	-0.009	134899	10.61	10.20	3.9	Hexachlorobenzene
3.812	-0.007	235957	4.127	-0.009	221845	23.57	22.60	4.2	Tetrachloro-m-xylene
9.358	-0.008	117376	10.296	-0.010	113002	23.82	28.62	18.3	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

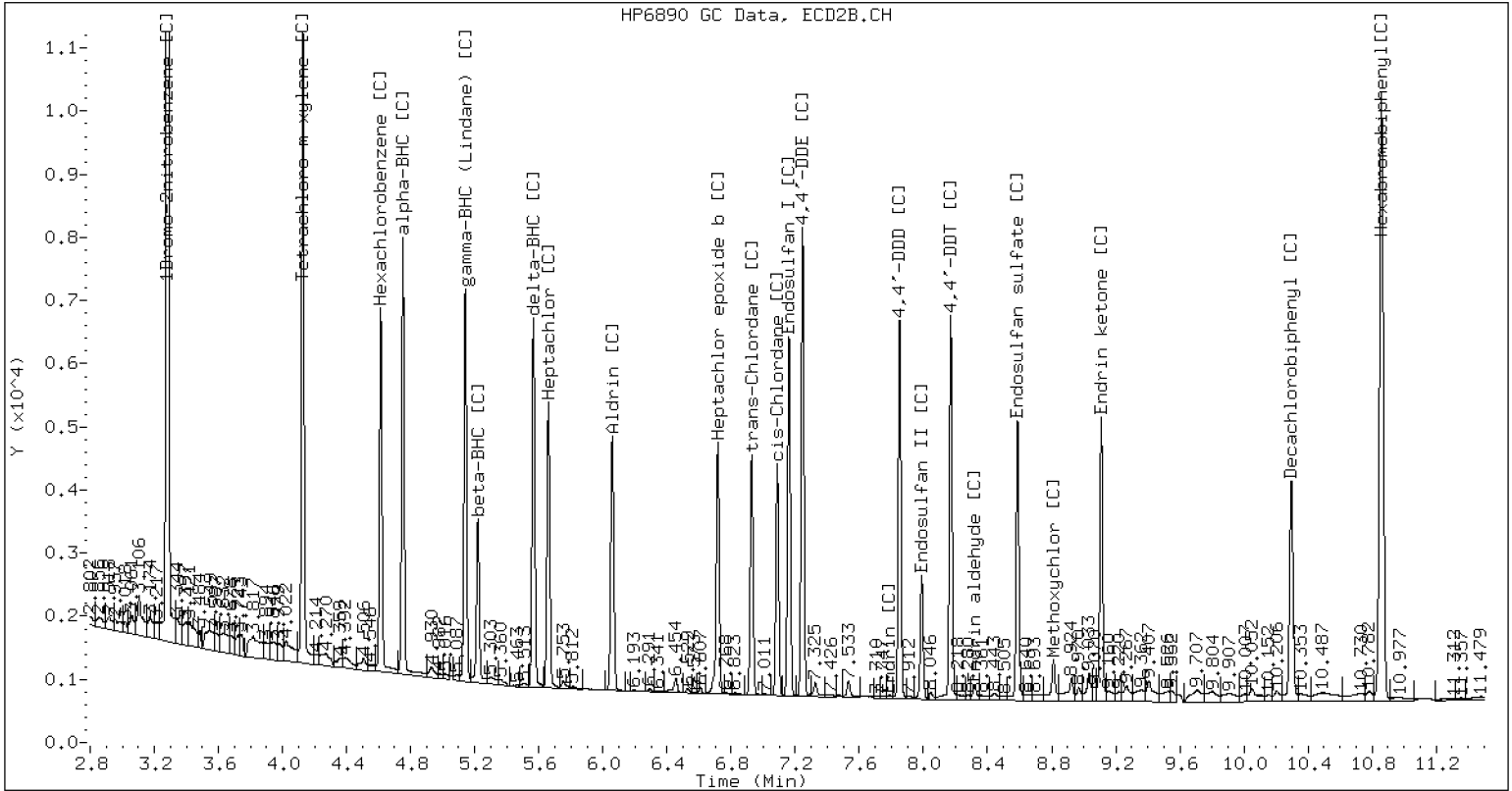
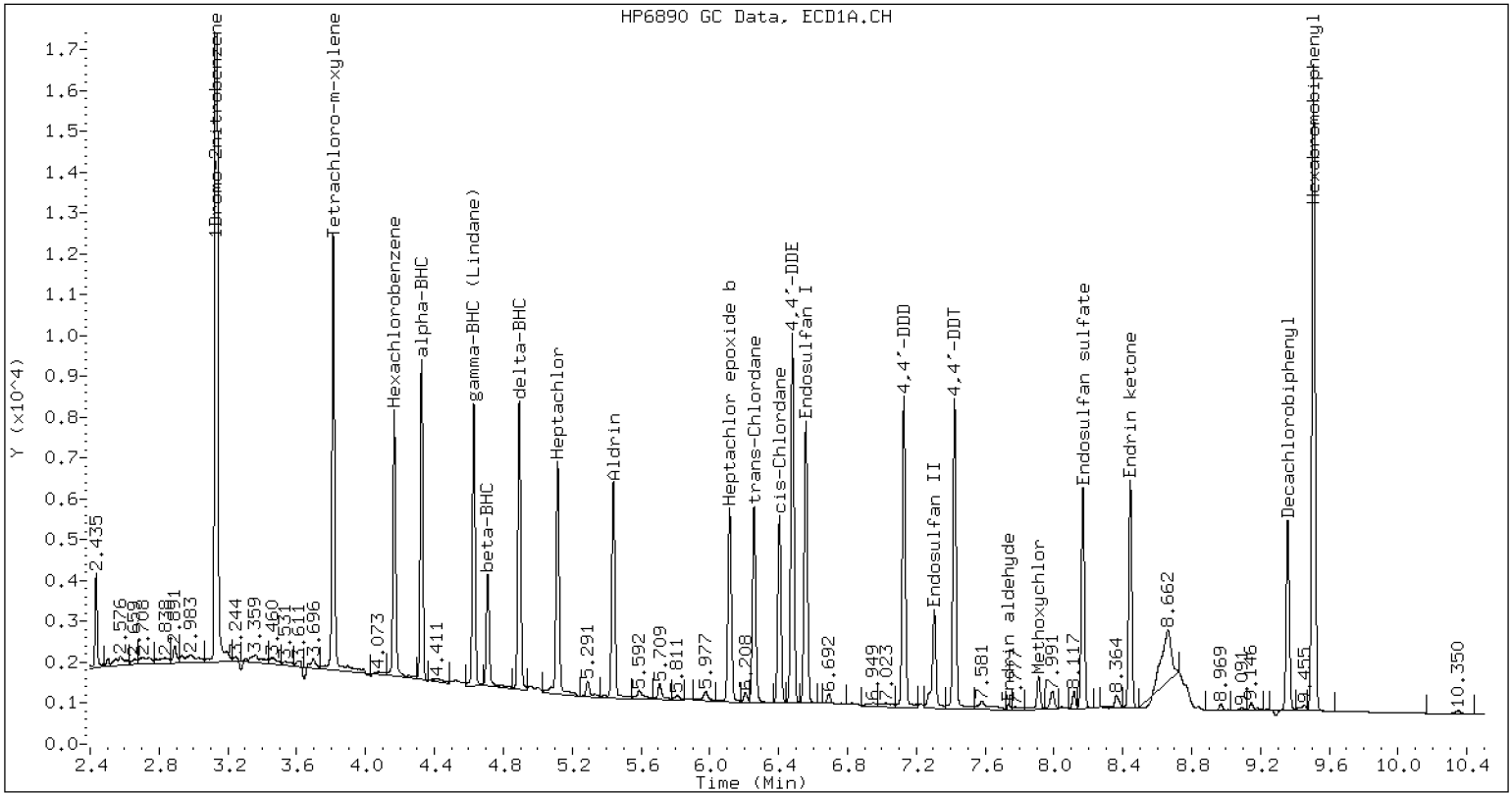
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	715431	-23.3
Hexabromobiphenyl	745426	417768	-44.0

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	713832	-42.8
Hexabromobiphenyl	754634	327100	-56.7 <-

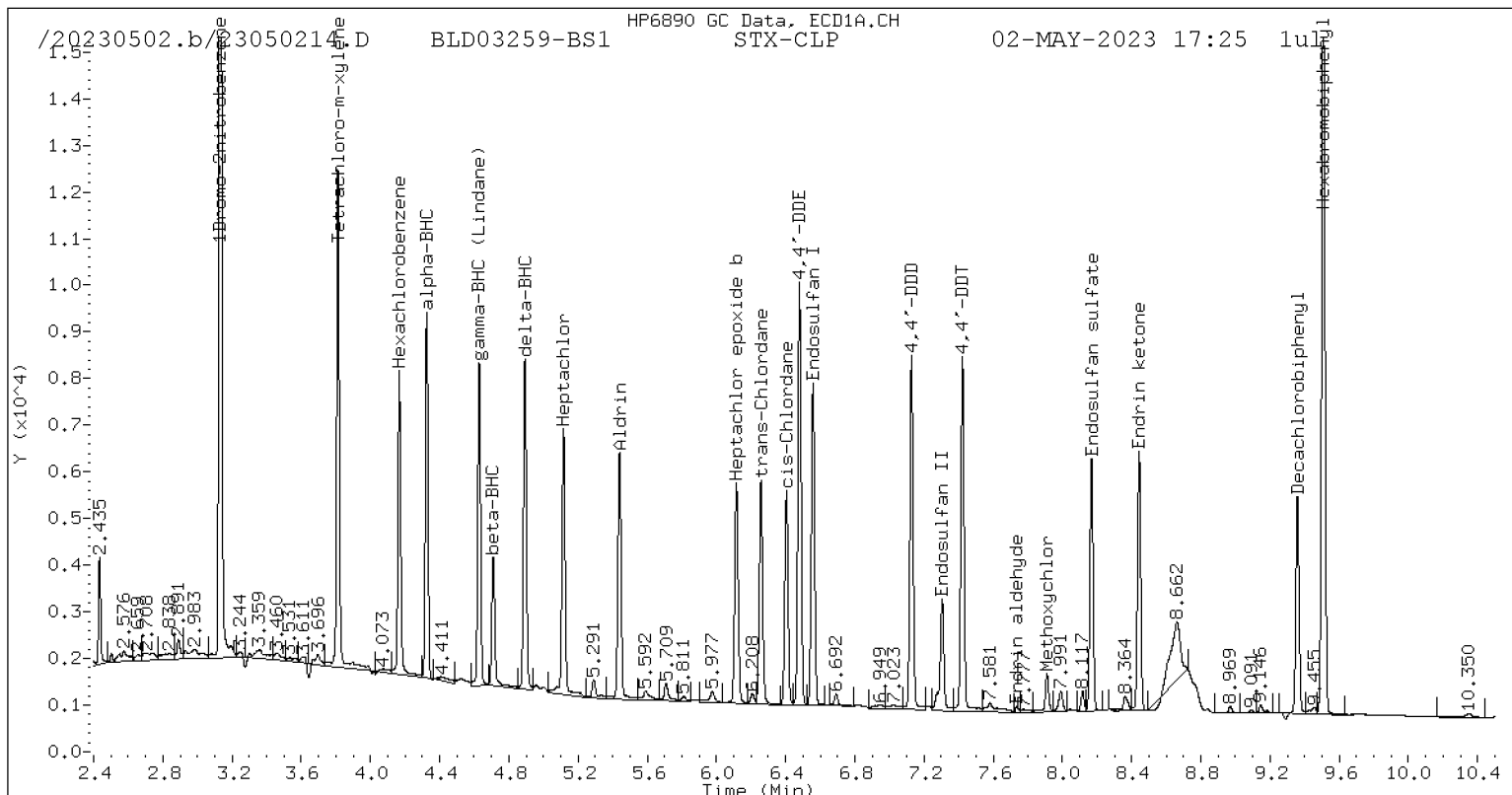
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

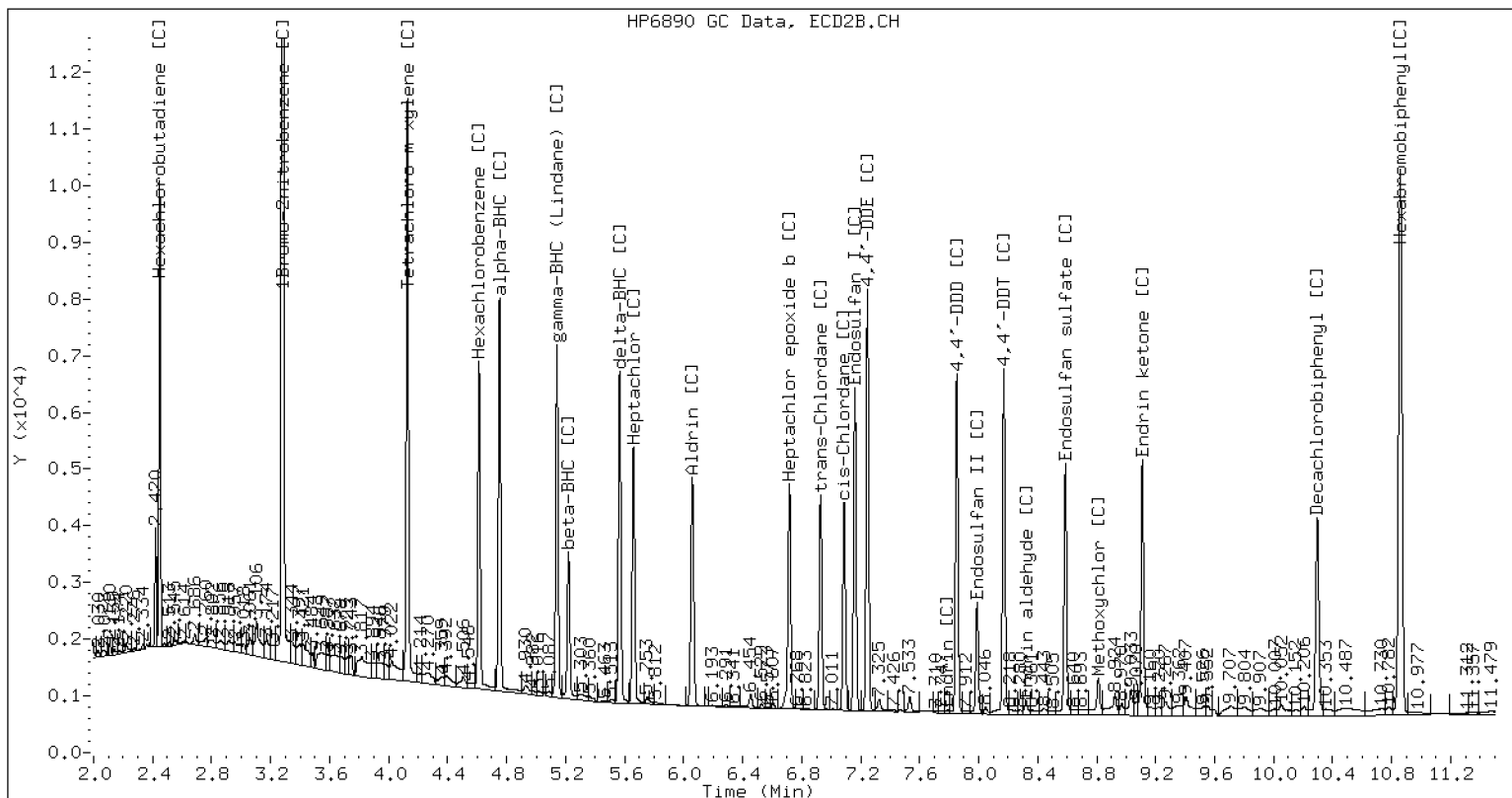


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230502.b/B20230502.b/23050214.D BLD03259-BS1 CLP2



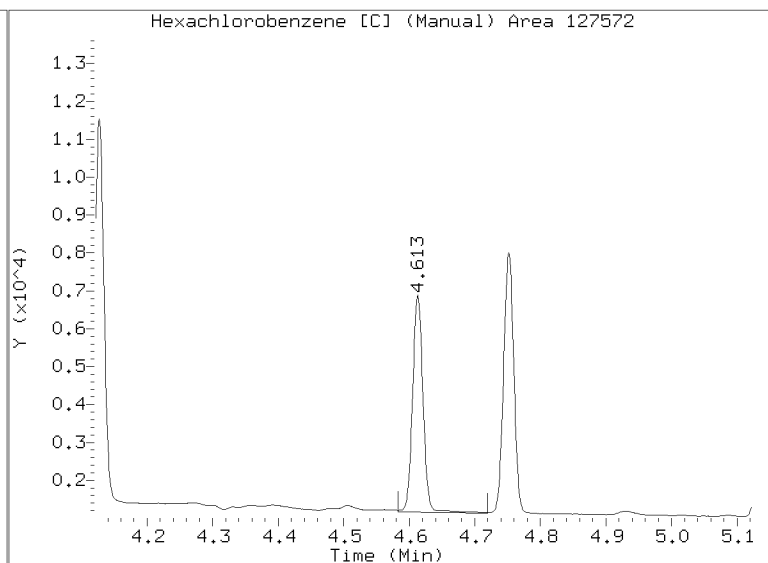
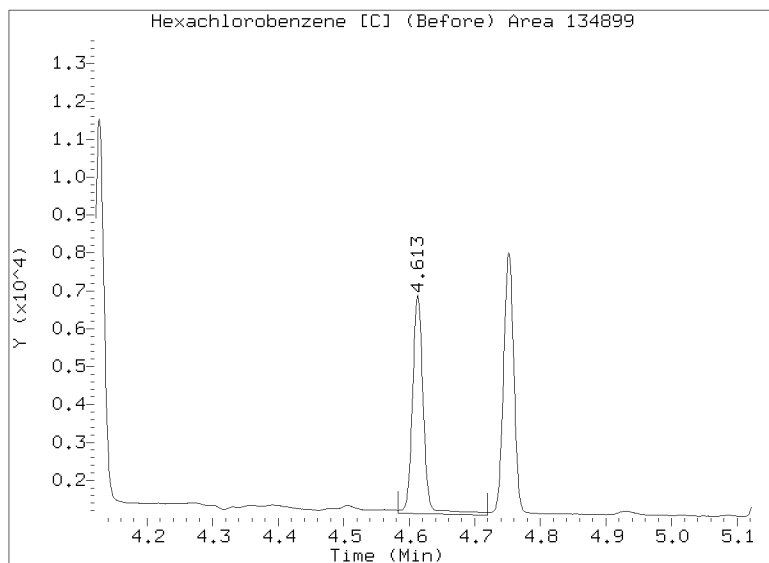
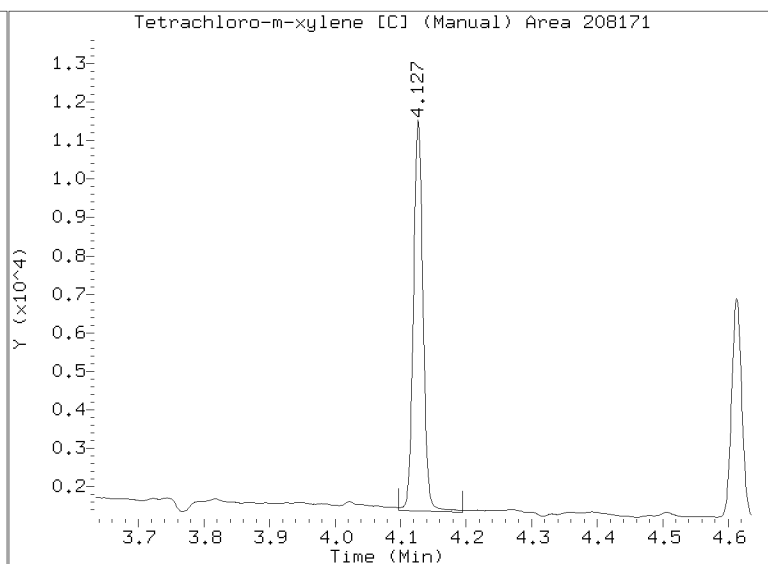
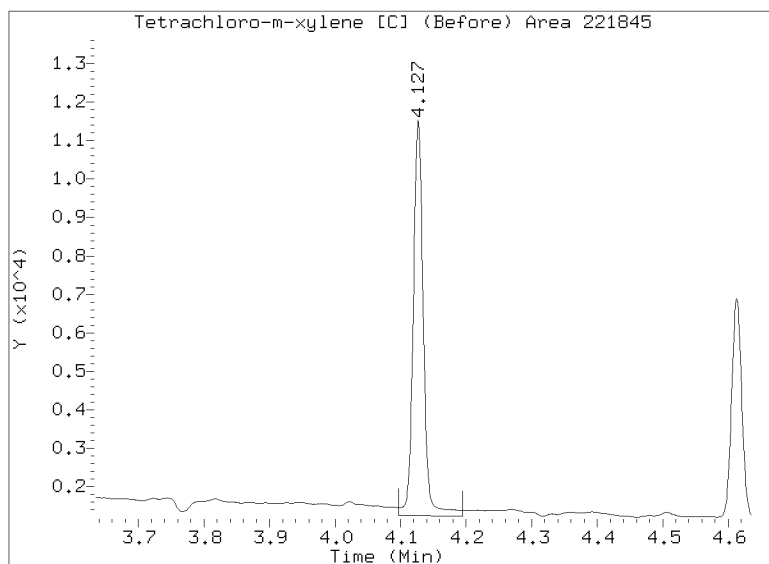
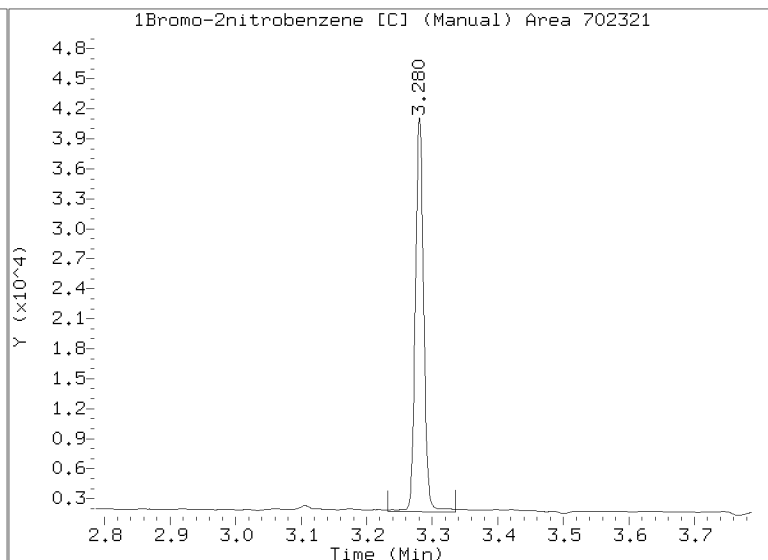
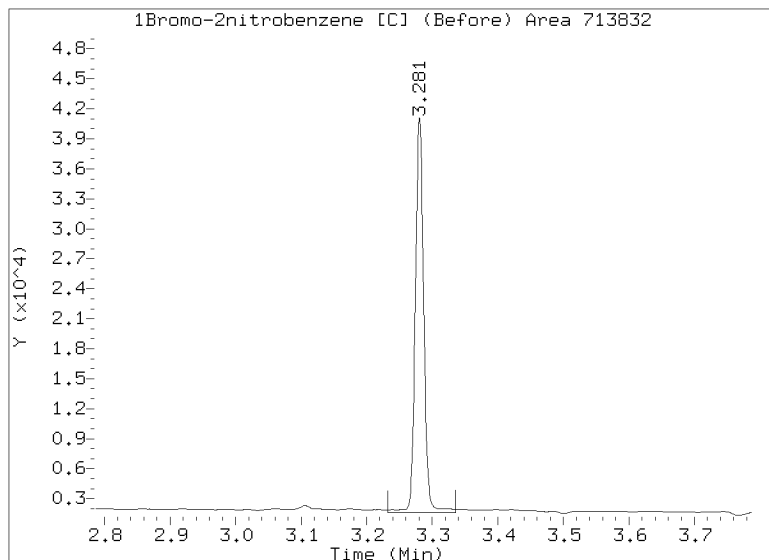
CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050214.D

Injection Date: 02-MAY-2023 17:25

Lab ID:BLD0299-BS1 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230502.b/23050215.D
Data file 2: /20230502.b/B20230502.b/23050215.D
Method: \20230502.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BLD0325-BSD1
Client ID:
Injection Date: 02-MAY-2023 17:43
Report Date: 05/05/2023 15:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.325	-0.008	181387	4.752	-0.010	178399	11.79	11.86	0.6	alpha-BHC
4.709	-0.008	75262	5.219	-0.011	75131	12.25	12.57	2.6	beta-BHC
4.893	-0.008	174777	5.566	-0.011	150819	12.55	11.26	10.8	delta-BHC
4.629	-0.008	157968	5.140	-0.012	155820	11.68	11.78	0.8	gamma-BHC (Lindane)
5.116	-0.008	163909	5.660	-0.011	128727	13.10	11.10	16.5	Heptachlor
5.440	-0.008	155707	6.058	-0.013	121653	12.23	10.10	19.1	Aldrin
6.115	-0.010	138657	6.717	-0.012	111477	12.07	10.52	13.7	Heptachlor epoxide b
6.558	-0.009	199056	7.161	-0.011	158158	19.43	17.51	10.4	Endosulfan I
----			7.464	-0.002	415	0.00	0.04	---	Dieldrin
6.480	-0.009	253717	7.246	-0.011	199129	24.83	21.13	16.1	4,4'-DDE
----			7.787	-0.003	1730	0.00	0.26	---	Endrin
7.304	-0.010	69035	7.989	-0.012	43138	9.46	6.79	32.8	Endosulfan II
7.128	-0.008	202801	7.852	-0.010	158411	28.98	25.78	11.7	4,4'-DDD
8.168	-0.009	148018	8.588	-0.010	116064	21.51	19.85	8.0	Endosulfan sulfate
7.422	-0.009	213554	8.170	-0.011	157995	28.34	25.48	10.6	4,4'-DDT
7.911	-0.009	18158	8.811	-0.011	21087	5.62	7.93	34.0	Methoxychlor
8.443	-0.009	149123	9.109	-0.010	112897	18.99	17.68	7.2	Endrin ketone
7.734	-0.009	4134	8.321	-0.010	7772	0.74	1.69	78.1*	Endrin aldehyde
6.257	-0.009	132575	6.928	-0.011	108077	11.79	10.63	10.3	trans-Chlordane
6.404	-0.009	130735	7.088	-0.012	105438	11.58	10.53	9.5	cis-Chlordane
2.304	-0.005	173914	2.448	-0.005	123755	10.96	9.06	19.0	Hexachlorobutadiene
4.167	-0.008	160537	4.612	-0.010	134166	11.79	10.21	14.4	Hexachlorobenzene
3.813	-0.006	223812	4.128	-0.008	236393	22.73	24.24	6.4	Tetrachloro-m-xylene
9.358	-0.008	127850	10.297	-0.009	113219	24.03	28.08	15.6	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

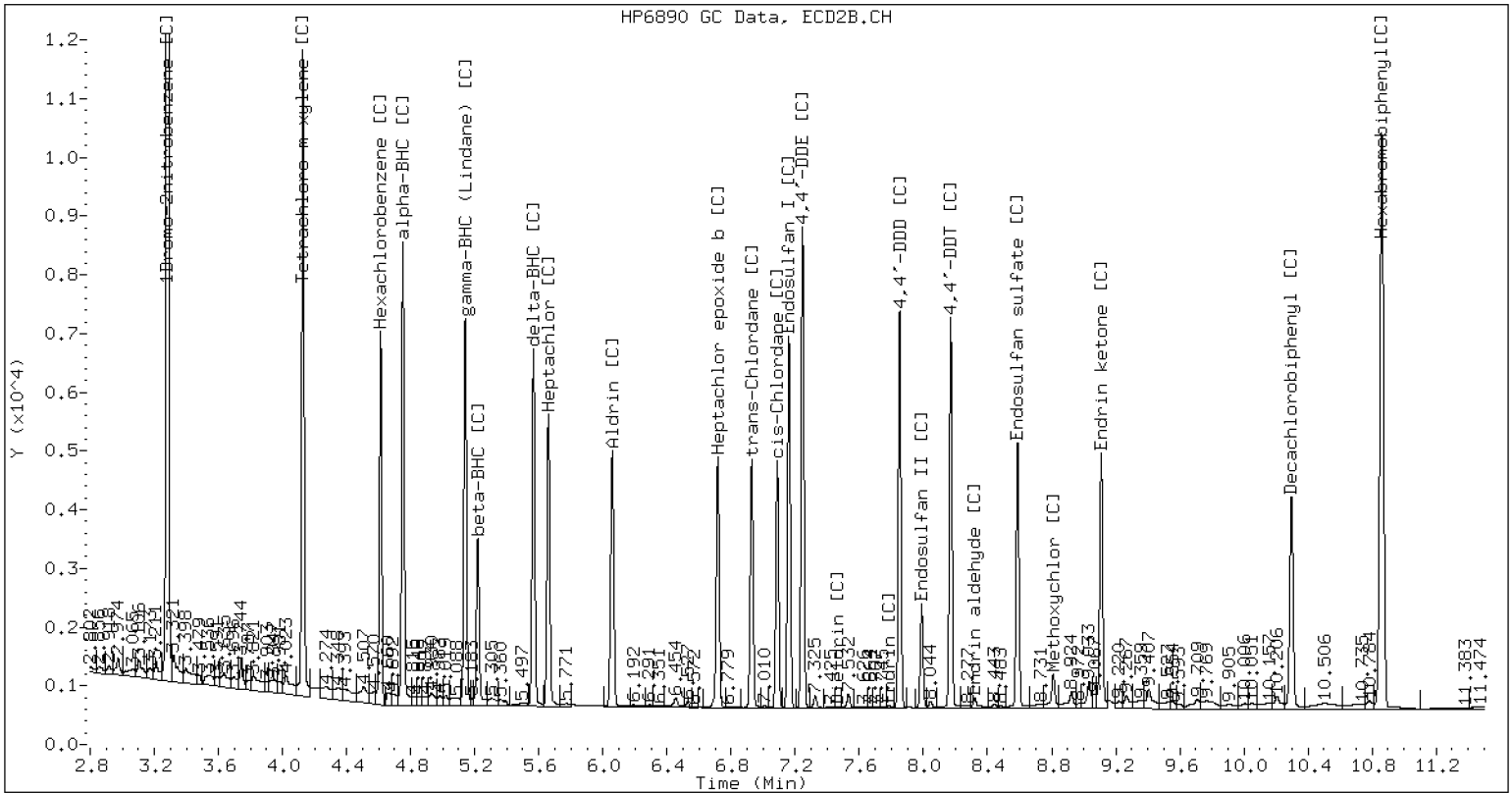
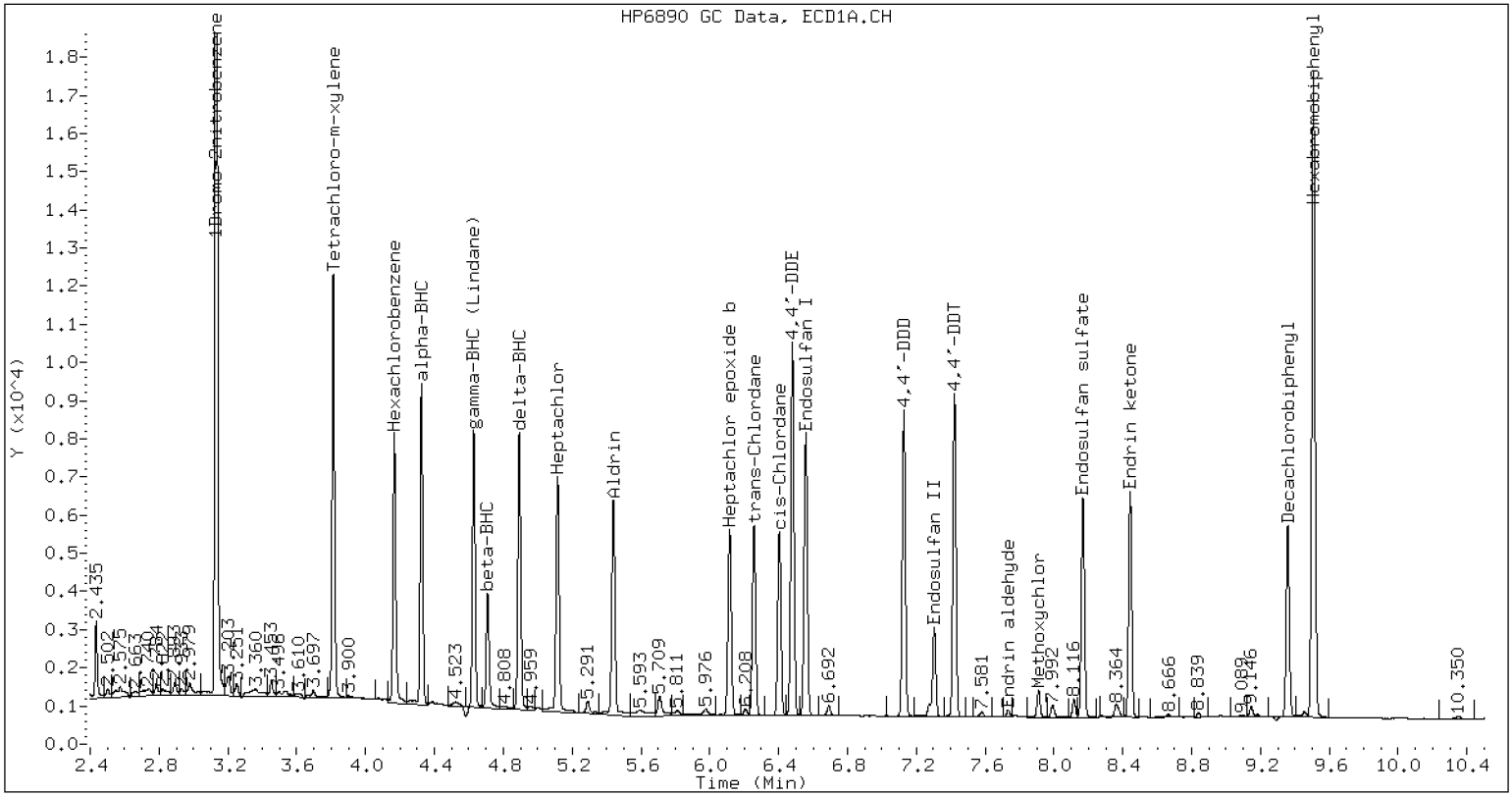
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	703657	-24.6
Hexabromobiphenyl	745426	451092	-39.5

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	709244	-43.2
Hexabromobiphenyl	754634	334037	-55.7 <-

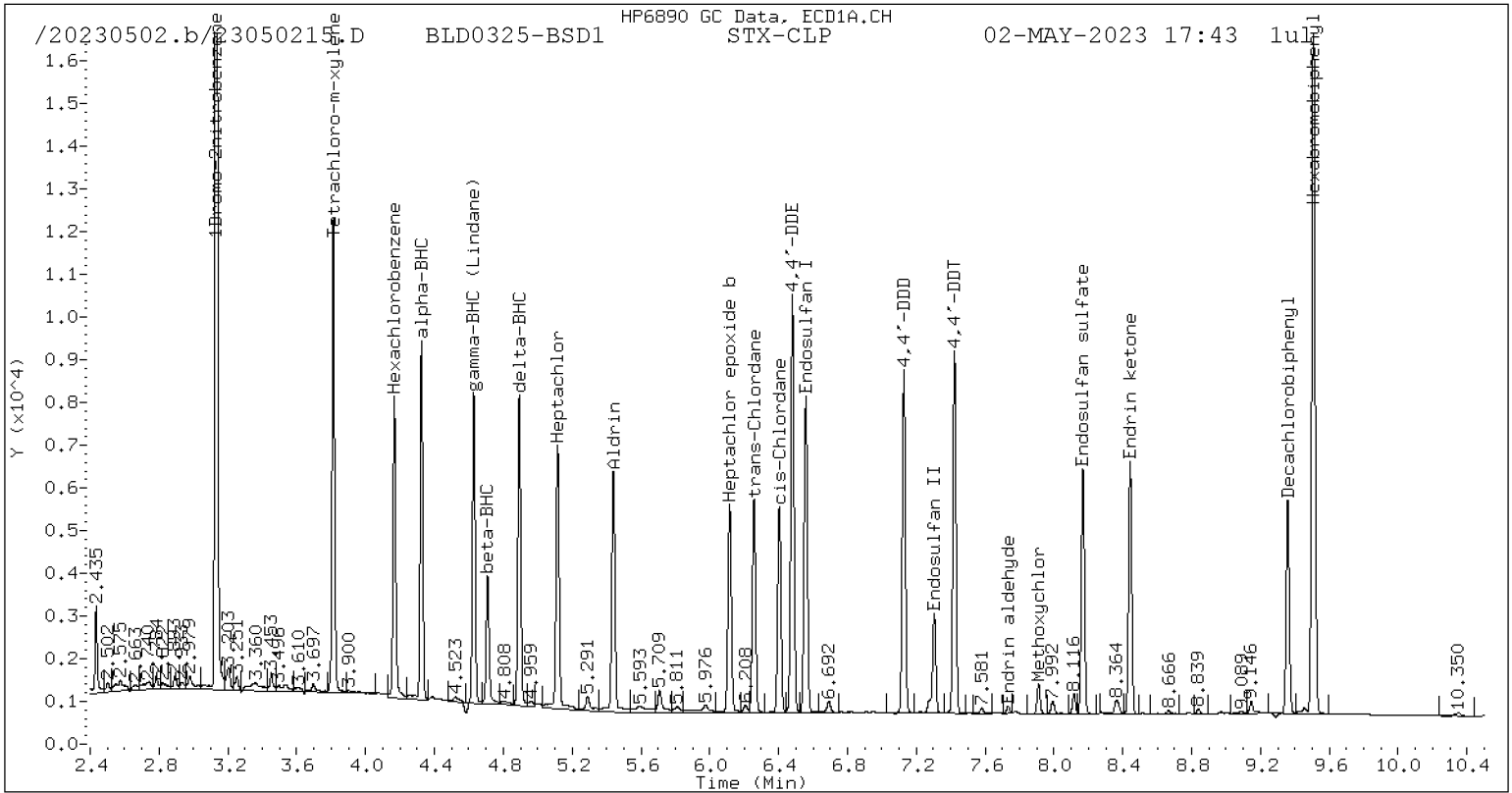
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

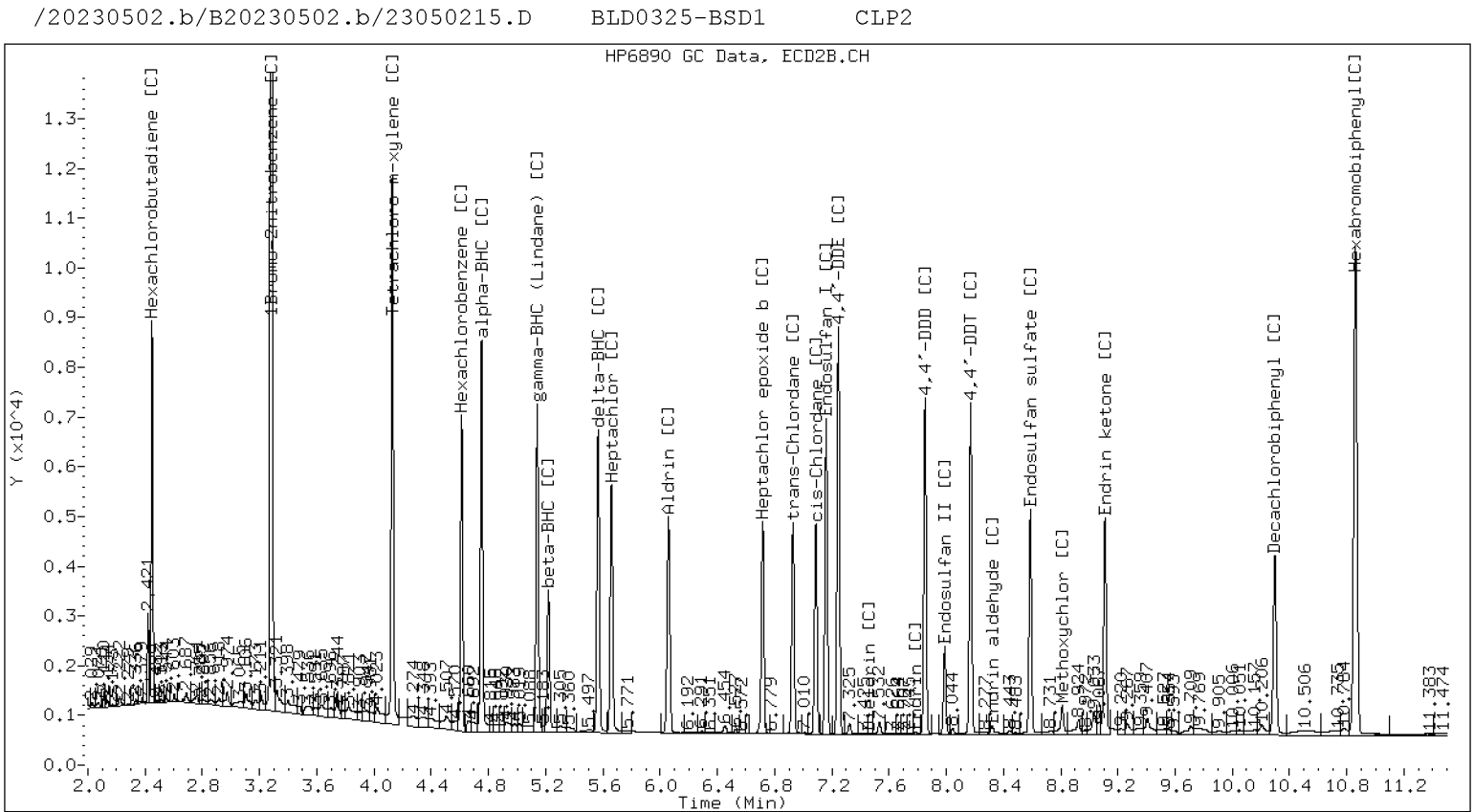
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO



MS / MS DUPLICATE RECOVERY
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/02/23 18:02</u>
Batch:	<u>BLD0325</u>	Laboratory ID:	<u>BLD0325-MS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>25.33 g / 2.5 mL</u>	Source Sample:	<u>LDW23-SS1804</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Hexachlorobenzene	4.00	ND	U	2.53		63.3	26 - 128

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.



MS / MS DUPLICATE RECOVERY
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/02/23 18:21</u>
Batch:	<u>BLD0325</u>	Laboratory ID:	<u>BLD0325-MSD1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>25.33 g / 2.5 mL</u>	Source Sample:	<u>LDW23-SS1804</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Hexachlorobenzene	4.00	2.63		65.8	3.57	30	26 - 128

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230502.b/23050216.D
Data file 2: /20230502.b/B20230502.b/23050216.D
Method: \20230502.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BLD0325-MS1
Client ID:
Injection Date: 02-MAY-2023 18:02
Report Date: 05/05/2023 15:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.324	-0.009	183600	4.751	-0.011	143861	11.98	9.60	22.1	alpha-BHC
4.709	-0.008	63692	5.219	-0.011	65564	10.40	11.01	5.7	beta-BHC
4.892	-0.009	215911	5.566	-0.011	120941	15.56	9.06	52.7*	delta-BHC
4.628	-0.009	178426	5.141	-0.011	123635	13.24	9.38	34.2	gamma-BHC (Lindane)
5.115	-0.009	138118	5.660	-0.011	128792	11.08	11.14	0.6	Heptachlor
5.441	-0.007	168006	6.058	-0.013	135688	13.25	11.31	15.8	Aldrin
6.114	-0.011	127797	6.703	-0.026	198309	11.16	18.78	50.9*	Heptachlor epoxide b
6.558	-0.009	159024	7.161	-0.011	135249	15.58	15.03	3.6	Endosulfan I
6.804	-0.024	89374	7.439	-0.027	37542	8.28	3.81	74.0*	Dieldrin
6.479	-0.010	328547	7.246	-0.011	243788	32.26	25.96	21.6	4,4'-DDE
----			7.811	0.021	109457	0.00	17.29	---	Endrin
7.304	-0.010	54773	7.981	-0.020	165584	8.25	27.69	108.2*	Endosulfan II
7.127	-0.009	375851	7.852	-0.010	176396	59.05	30.48	63.8*	4,4'-DDD
8.169	-0.008	126345	8.588	-0.010	102168	20.18	18.55	8.4	Endosulfan sulfate
7.421	-0.010	381168	8.174	-0.007	334407	55.60	57.27	3.0	4,4'-DDT
7.939	0.019	39851	8.849	0.027	13738	13.57	5.49	84.8*	Methoxychlor
8.443	-0.009	151146	9.112	-0.007	200553	21.16	33.35	44.7*	Endrin ketone
7.763	0.020	49634	8.317	-0.014	38133	9.79	8.82	10.5	Endrin aldehyde
6.257	-0.009	118382	6.929	-0.010	100100	10.57	9.88	6.7	trans-Chlordane
6.405	-0.008	162278	7.089	-0.011	98405	14.43	9.87	37.6	cis-Chlordane
2.304	-0.005	140102	2.448	-0.005	115005	8.86	8.45	4.7	Hexachlorobutadiene
4.167	-0.008	171785	4.612	-0.010	151422	12.66	11.57	9.1	Hexachlorobenzene
3.812	-0.007	221608	4.128	-0.008	213063	22.59	21.93	3.0	Tetrachloro-m-xylene
9.360	-0.006	130959	10.299	-0.007	107885	27.06	28.42	4.9	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	701102	-24.8
Hexabromobiphenyl	745426	410383	-44.9

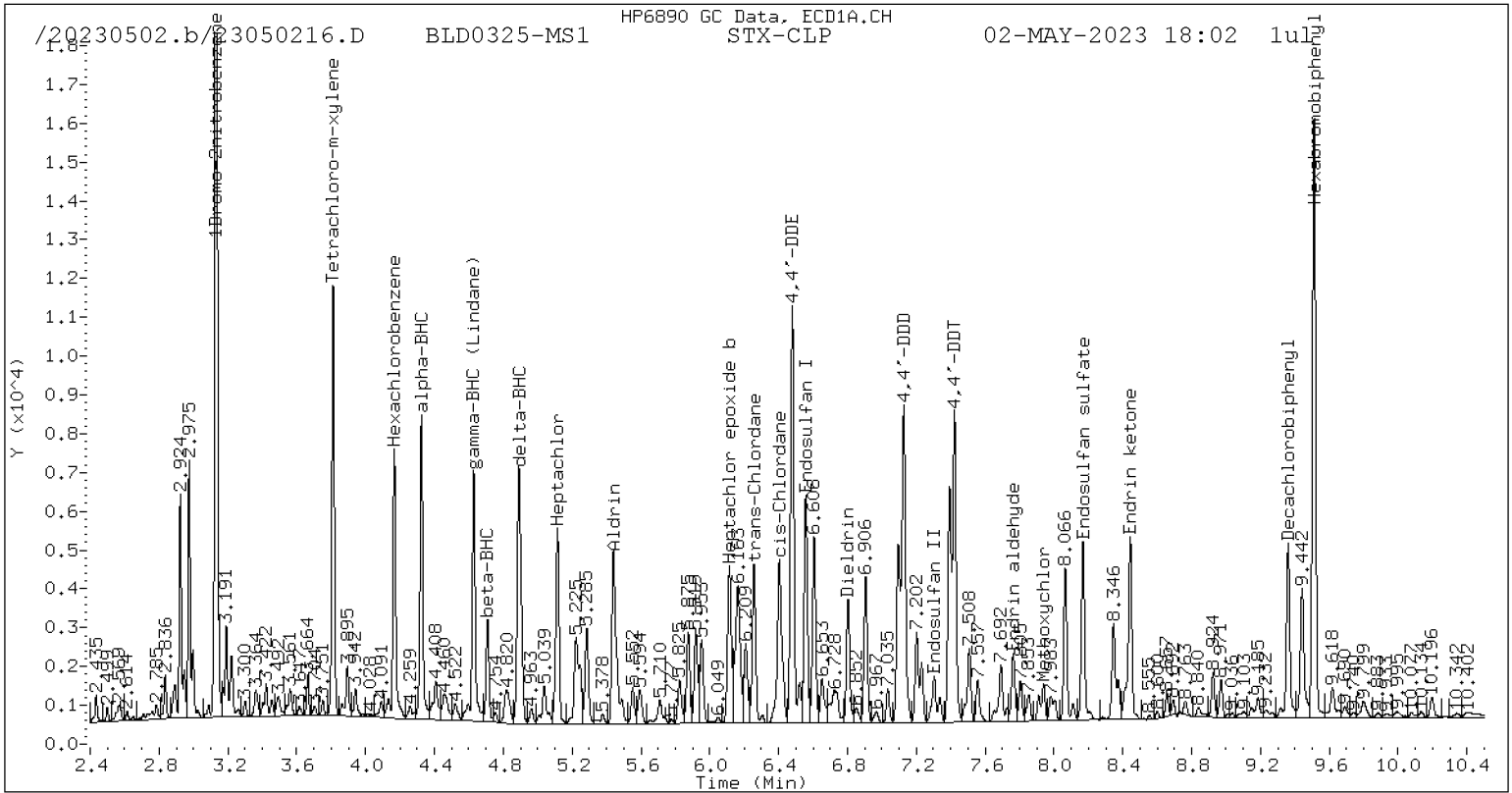
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	706666	-43.4
Hexabromobiphenyl	754634	314558	-58.3 <-

* Standard Areas taken from Initial Cal Level 5

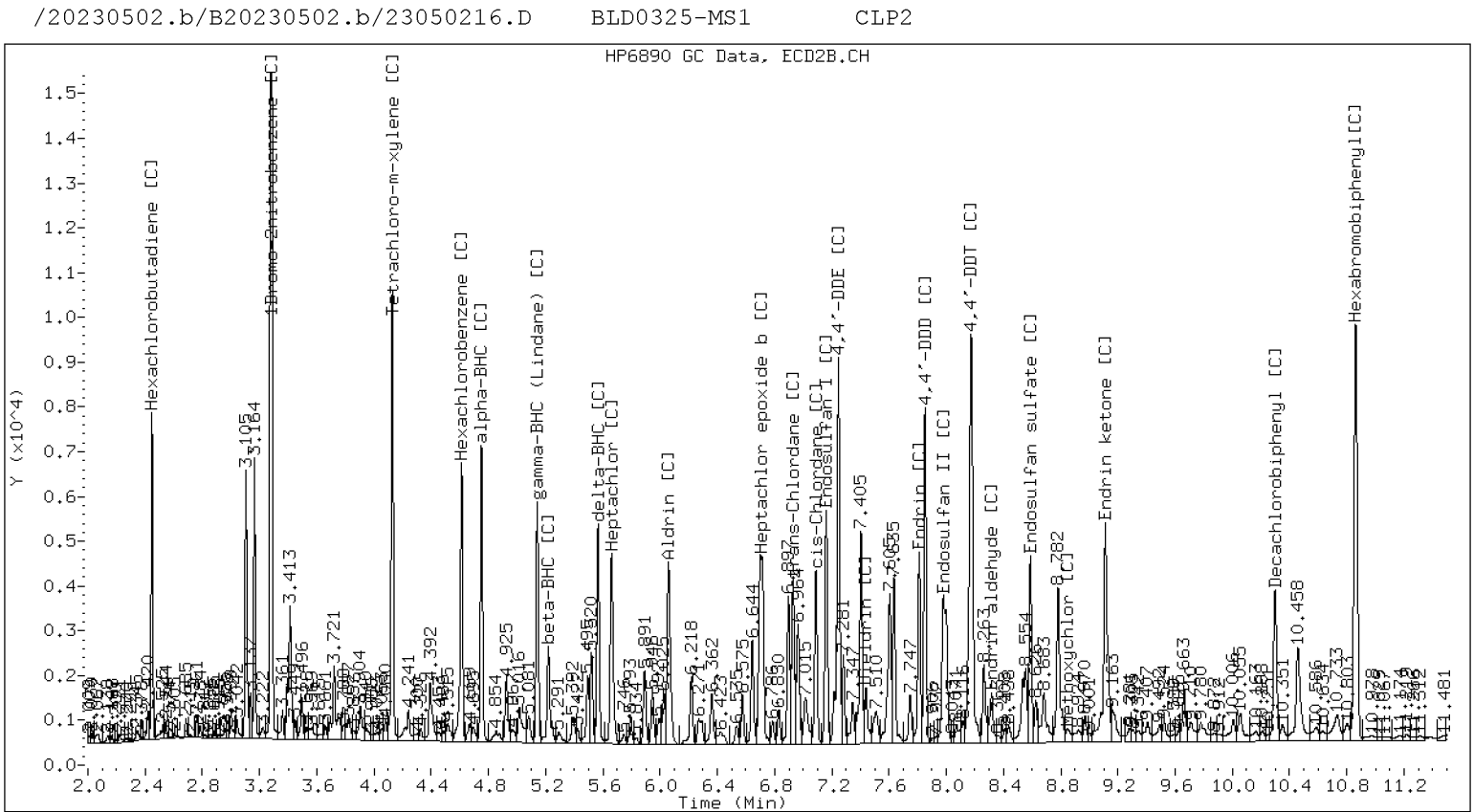
Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



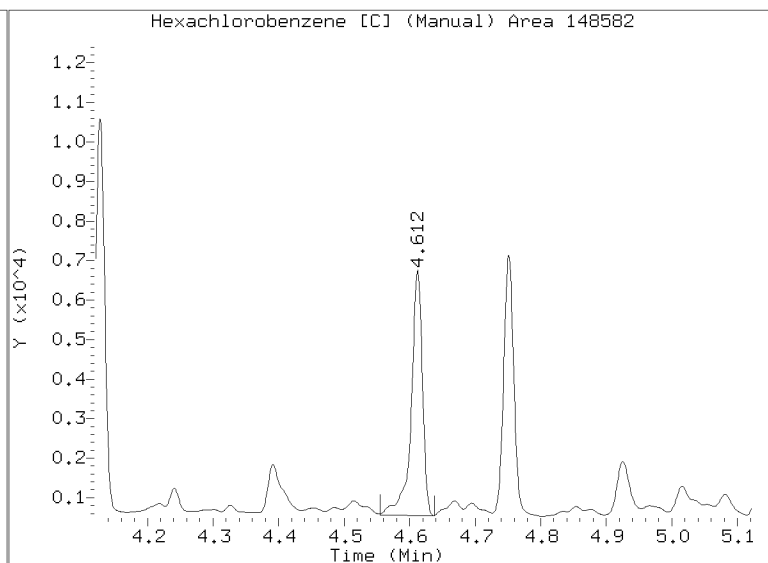
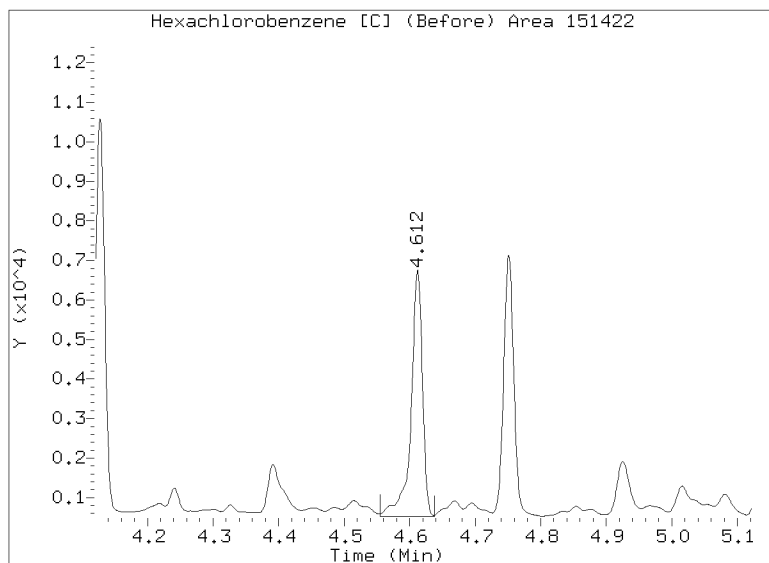
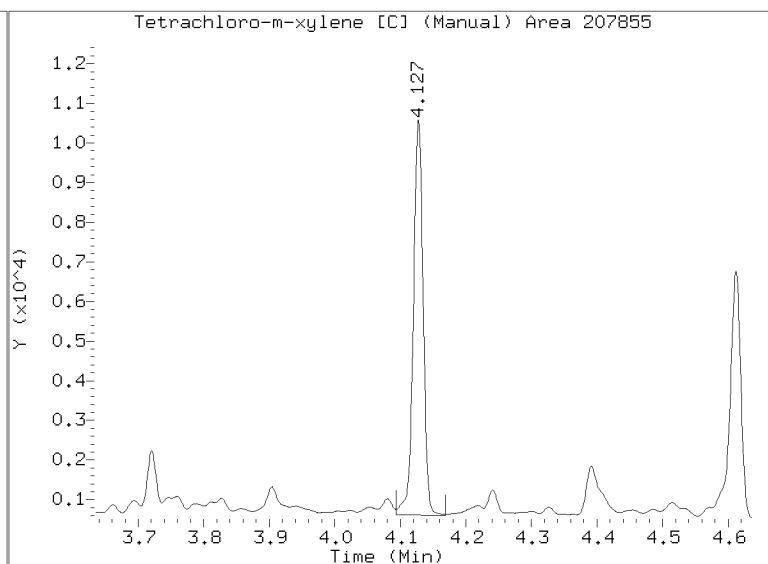
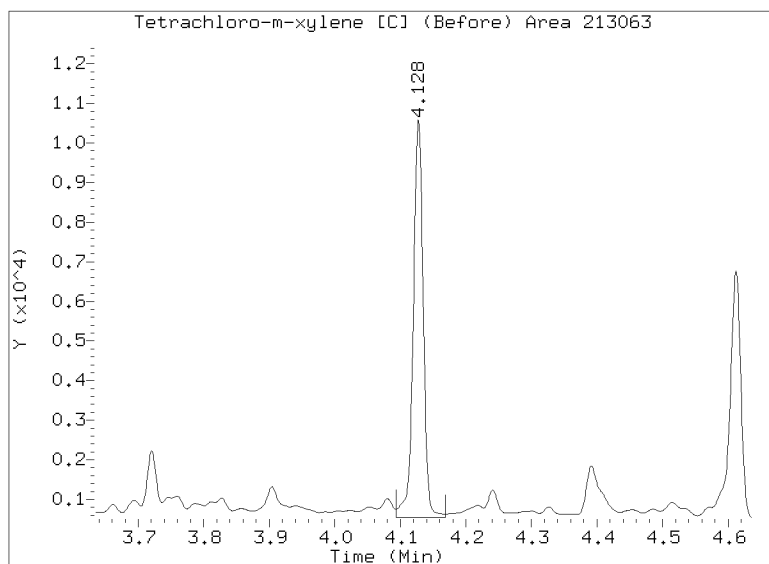
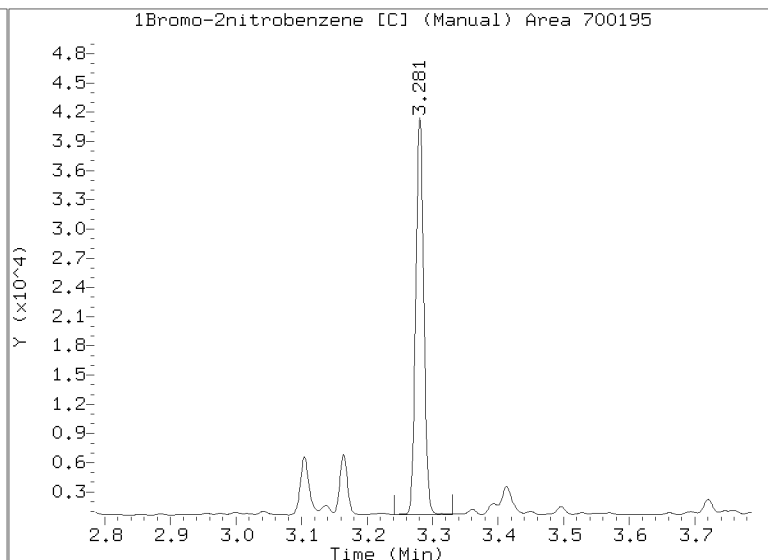
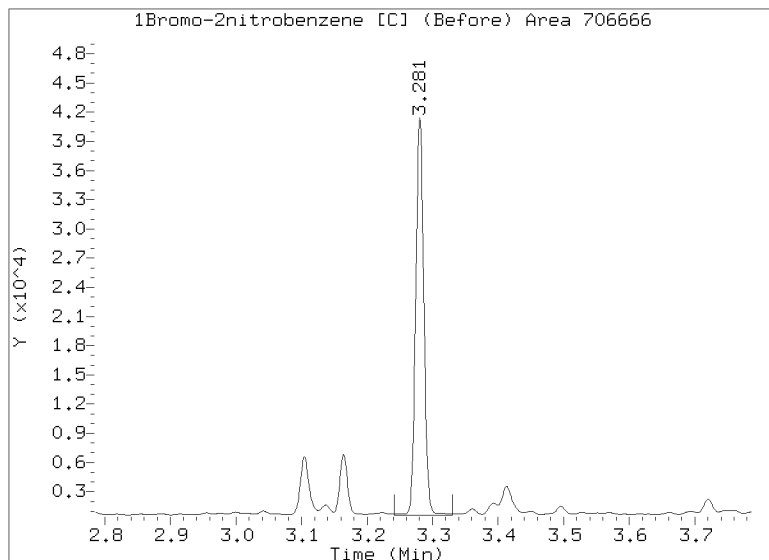
CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050216.D

Injection Date: 02-MAY-2023 18:02

Lab ID:BLD0299-MS1 Client ID:

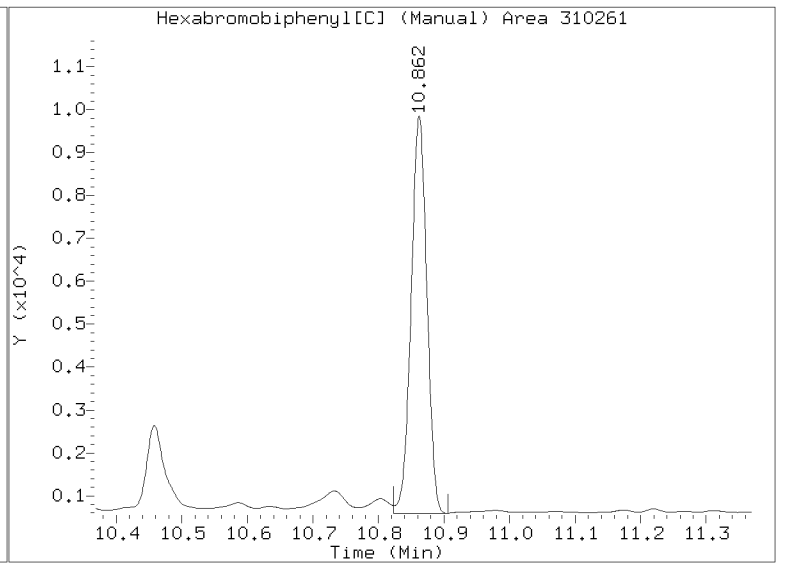
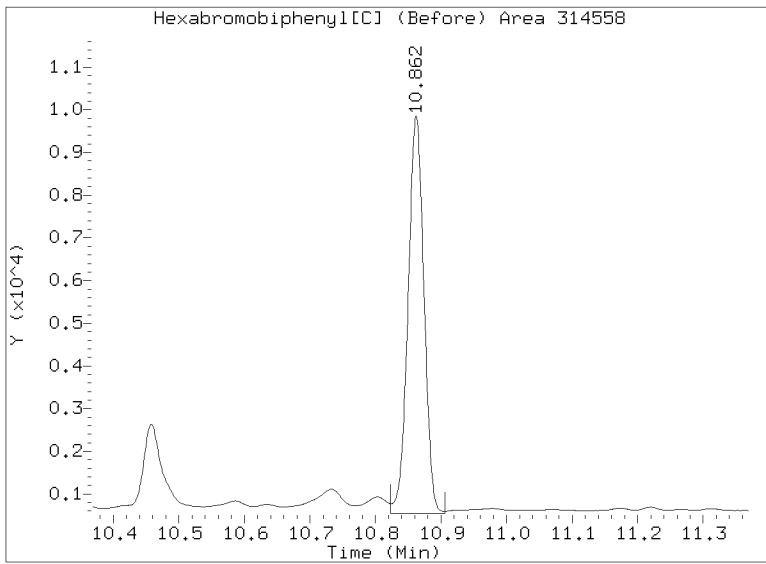
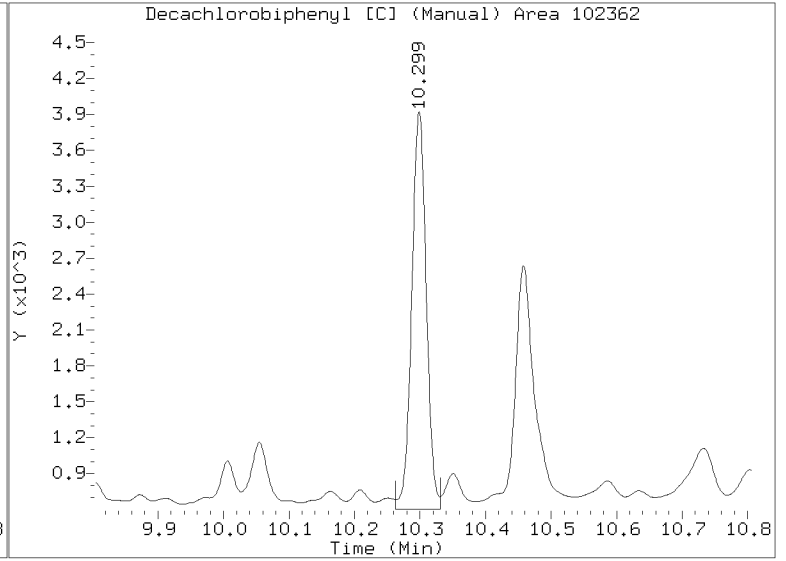
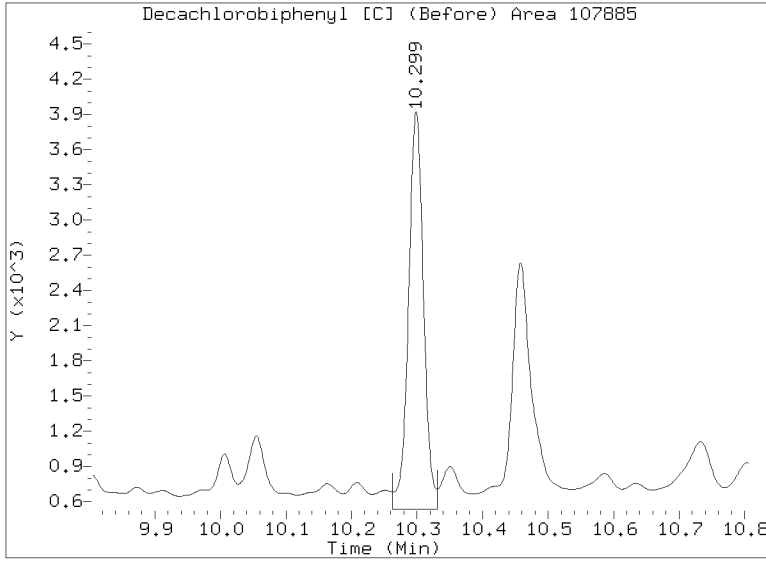


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050216.D

Injection Date: 02-MAY-2023 18:02

Lab ID:BLD0299-MS1 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230502.b/23050217.D
Data file 2: /20230502.b/B20230502.b/23050217.D
Method: \20230502.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BLD0325-MSD1
Client ID:
Injection Date: 02-MAY-2023 18:21
Report Date: 05/05/2023 15:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.325	-0.008	176523	4.752	-0.010	144270	11.64	10.28	12.4	alpha-BHC
4.709	-0.008	60844	5.219	-0.011	60464	10.05	10.85	7.7	beta-BHC
4.893	-0.008	219739	5.566	-0.011	122381	16.00	9.80	48.1*	delta-BHC
4.629	-0.008	173402	5.141	-0.011	123833	13.01	10.04	25.8	gamma-BHC (Lindane)
5.116	-0.008	145109	5.660	-0.011	133778	11.77	12.37	5.0	Heptachlor
5.441	-0.007	169826	6.059	-0.012	126114	13.54	11.23	18.6	Aldrin
6.115	-0.010	128977	6.703	-0.026	210921	11.39	21.34	60.8*	Heptachlor epoxide b
6.559	-0.008	164811	7.161	-0.011	139851	16.33	16.61	1.7	Endosulfan I
6.804	-0.024	95583	7.440	-0.026	39648	8.95	4.29	70.3*	Dieldrin
6.480	-0.009	343728	7.247	-0.010	250971	34.12	28.56	17.8	4,4'-DDE
----			7.811	0.021	119388	0.00	18.71	---	Endrin
7.304	-0.010	67115	7.981	-0.020	176073	9.89	29.20	98.8*	Endosulfan II
7.127	-0.009	392974	7.852	-0.010	181595	60.39	31.13	64.0*	4,4'-DDD
8.169	-0.008	127209	8.588	-0.010	111855	19.87	20.15	1.4	Endosulfan sulfate
7.421	-0.010	431118	8.175	-0.006	371575	61.51	63.13	2.6	4,4'-DDT
7.940	0.020	43570	8.847	0.025	15018	14.51	5.95	83.7*	Methoxychlor
8.443	-0.009	161843	9.111	-0.008	201784	22.16	33.28	40.1*	Endrin ketone
7.763	0.020	60117	8.315	-0.016	48923	11.60	11.22	3.3	Endrin aldehyde
6.257	-0.009	124776	6.929	-0.010	105880	11.26	11.17	0.8	trans-Chlordane
6.405	-0.008	173675	7.089	-0.011	100985	15.61	10.82	36.3	cis-Chlordane
2.304	-0.005	149079	2.448	-0.005	122748	9.53	9.64	1.1	Hexachlorobutadiene
4.167	-0.008	176109	4.613	-0.009	150845	13.12	12.31	6.4	Hexachlorobenzene
3.812	-0.007	220412	4.127	-0.009	229430	22.71	25.23	10.5	Tetrachloro-m-xylene
9.361	-0.005	141060	10.298	-0.008	122786	28.51	32.08	11.8	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

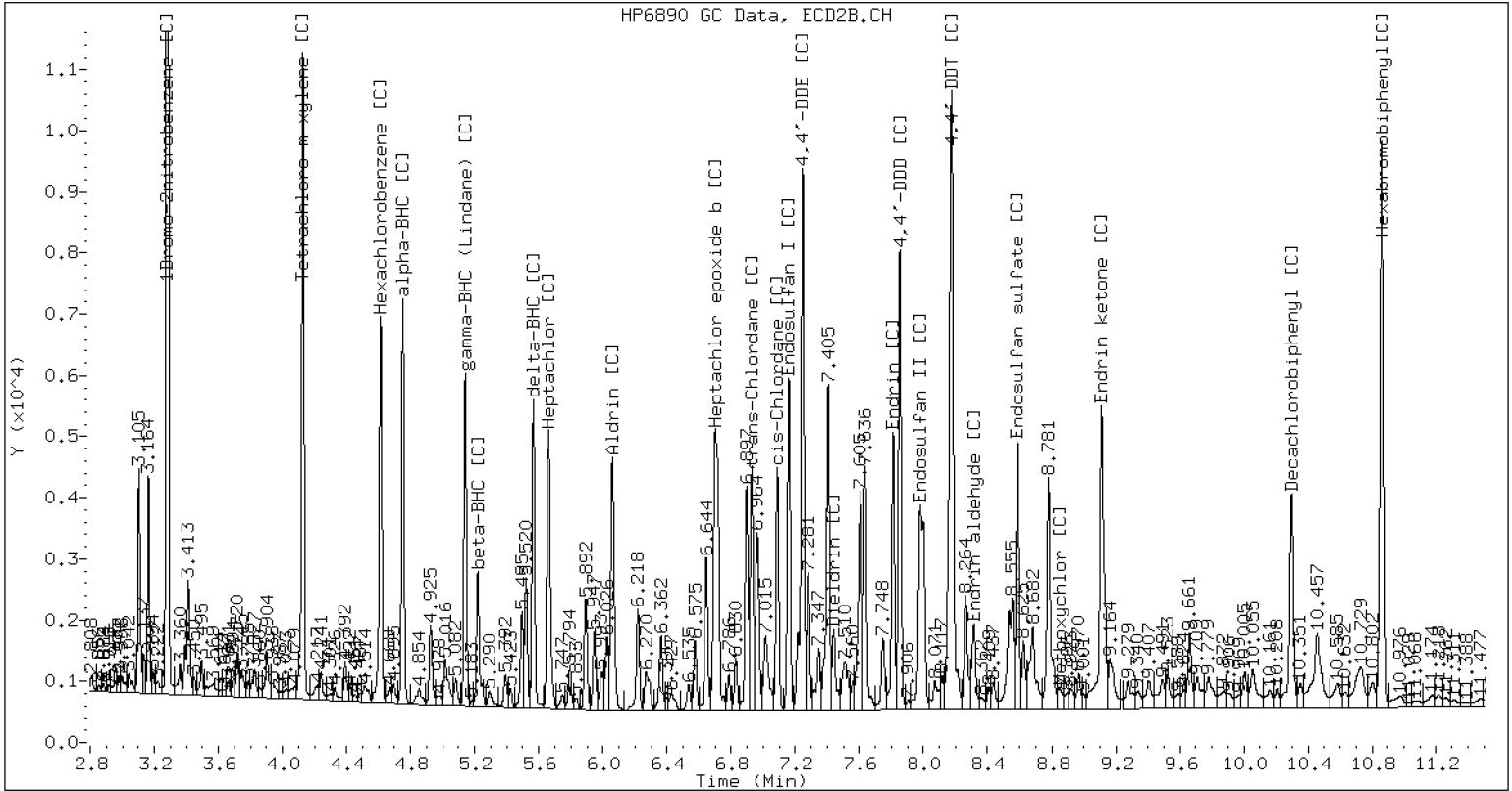
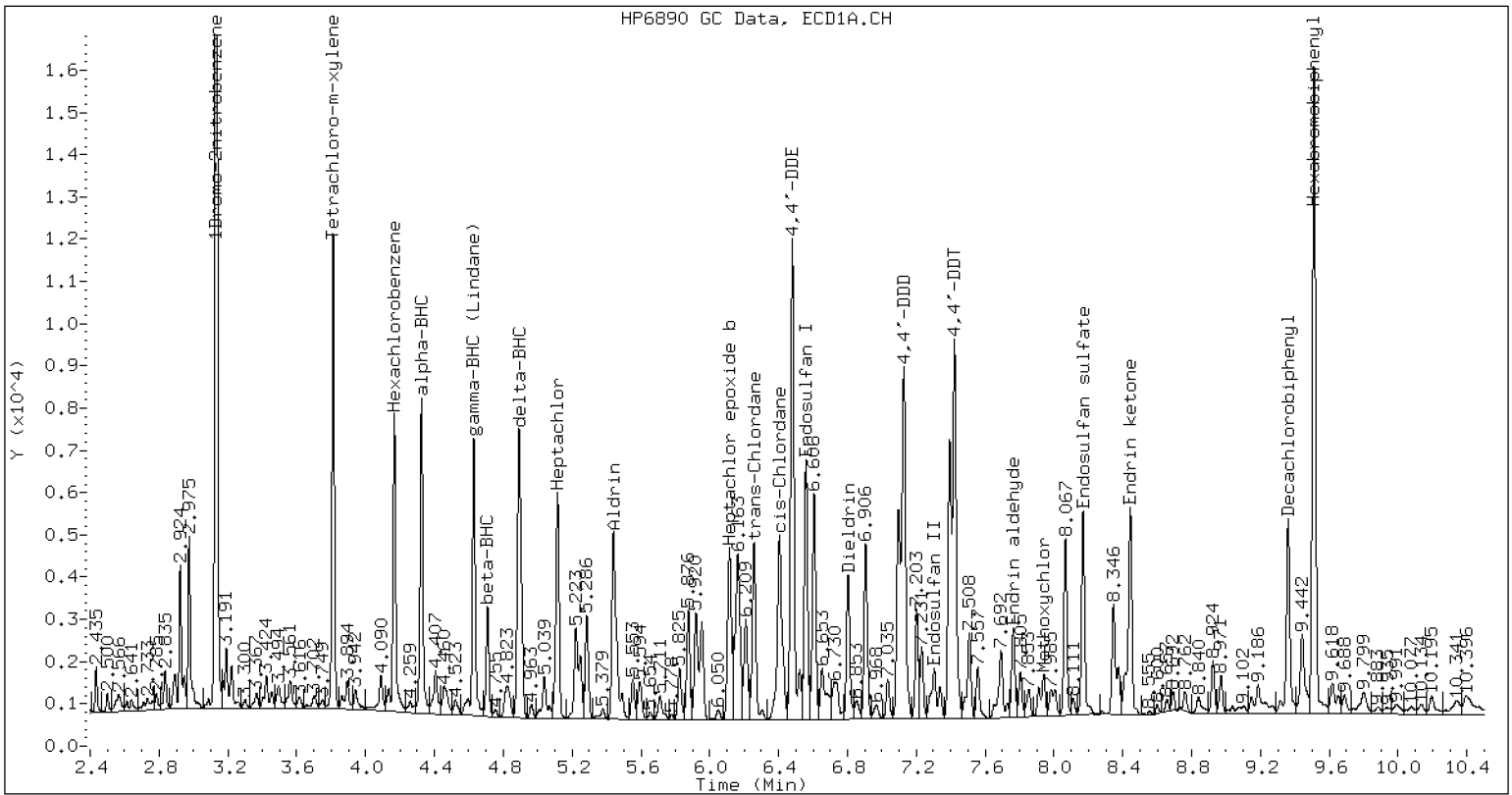
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	693510	-25.6
Hexabromobiphenyl	745426	419542	-43.7

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	661354	-47.0
Hexabromobiphenyl	754634	317098	-58.0 <-

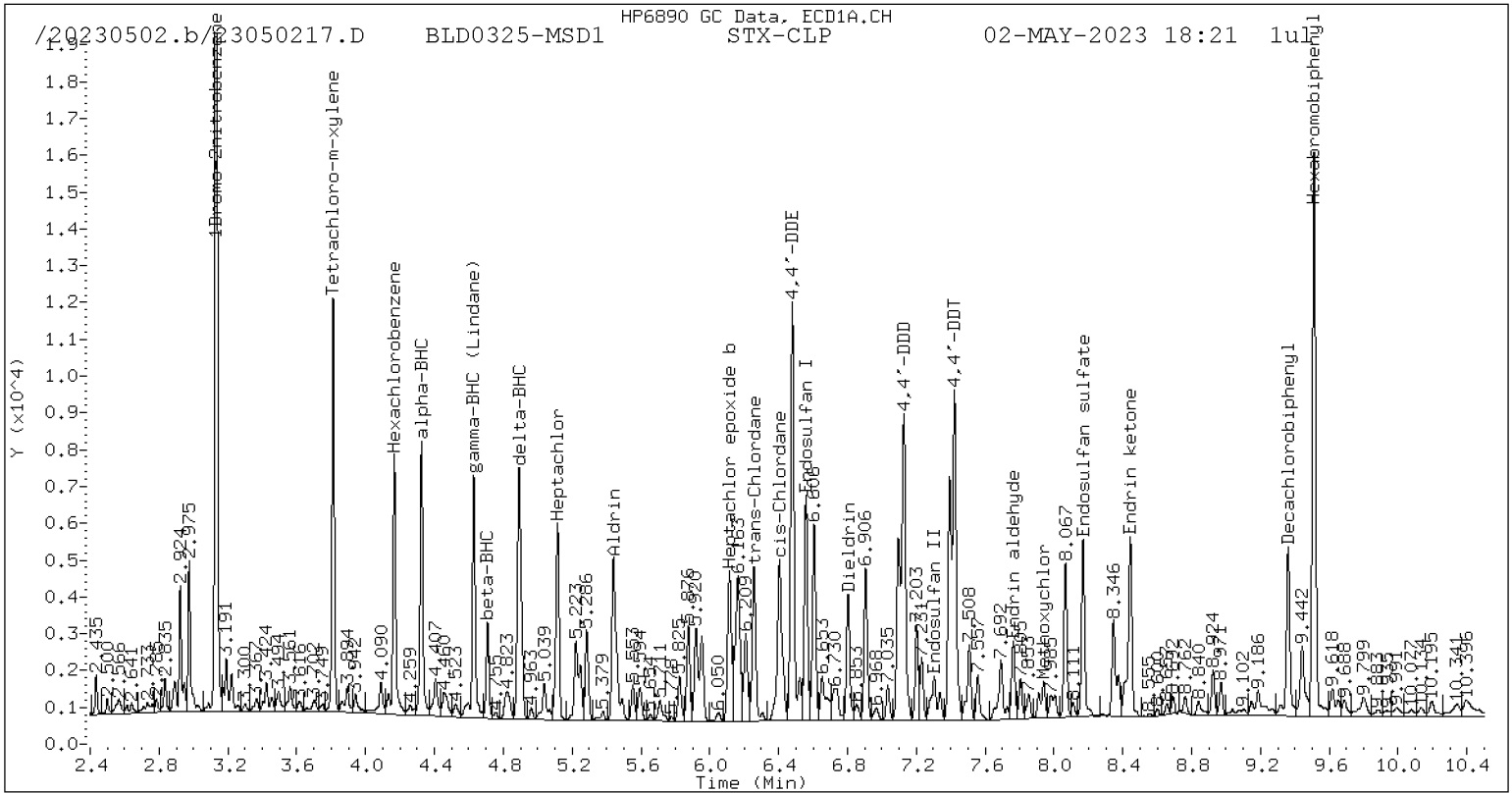
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

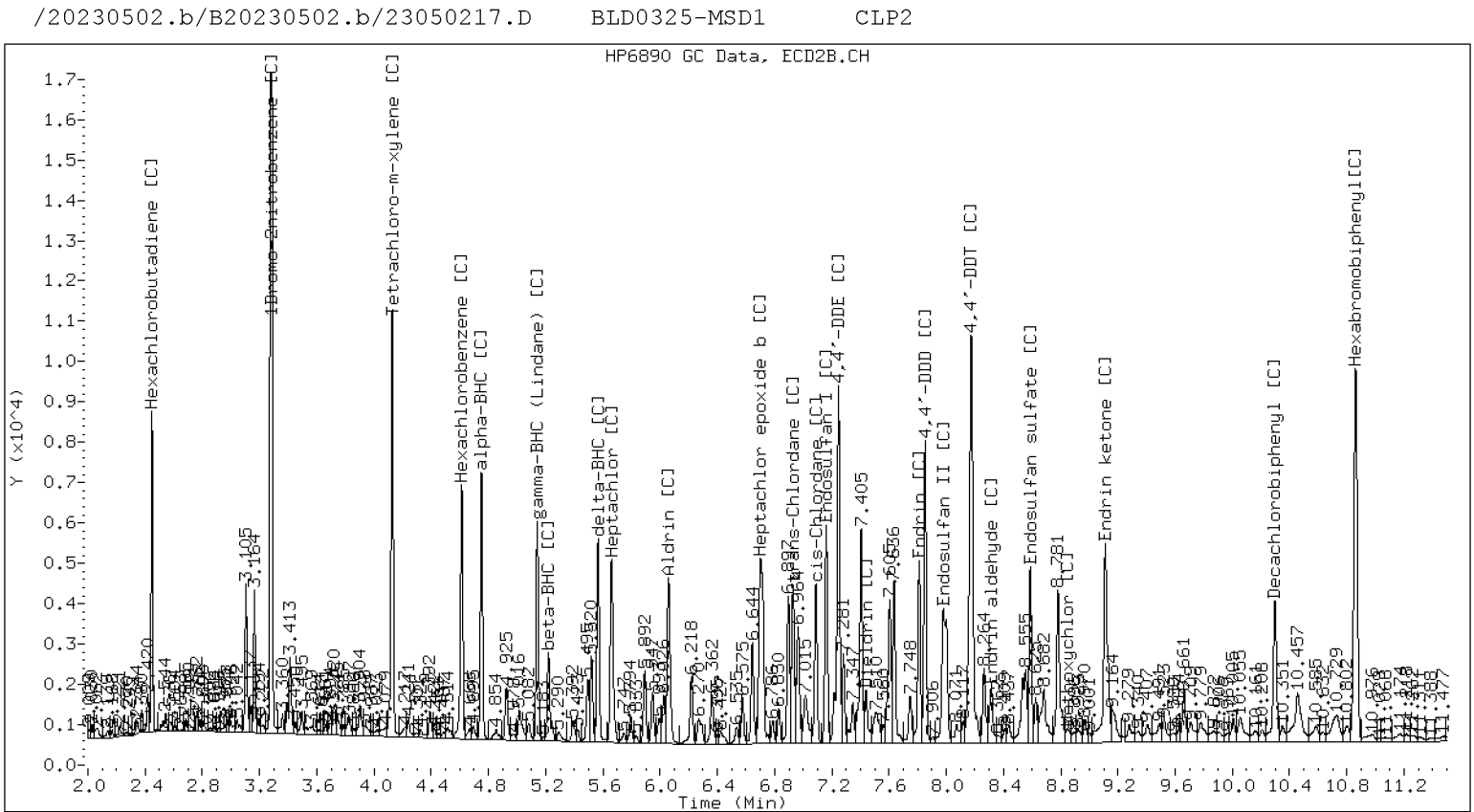
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO



INITIAL CALIBRATION DATA EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00035	Instrument:	ECD6
Calibration Date:	04/12/2023	Column (1):	STX-CLP

Calibration Comments: PEST

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
alpha-BHC	1.25	1.758446	2.5	1.793034	5	1.787921	10	1.820149	20	1.746397	40	1.716797
beta-BHC	1.25	0.788793	2.5	0.7569771	5	0.7155102	10	0.7014976	20	0.6678267	40	0.6501742
gamma-BHC (Lindane)	1.25	1.559693	2.5	1.583923	5	1.58235	10	1.598676	20	1.529273	40	1.499019
delta-BHC	1.25	1.59762	2.5	1.626931	5	1.624749	10	1.653082	20	1.588864	40	1.541049
Heptachlor	1.25	1.554443	2.5	1.531351	5	1.497087	10	1.483843	20	1.384618	40	1.315267
Aldrin	1.25	1.529504	2.5	1.520296	5	1.511018	10	1.51498	20	1.427755	40	1.370617
Heptachlor Epoxide	1.25	1.774611	2.5	1.354332	5	1.322607	10	1.304654	20	1.210437	40	1.144735
trans-Chlordane (beta-Chlordane)	1.25	1.354102	2.5	1.330731	5	1.314787	10	1.32467	20	1.257661	40	1.225936
cis-Chlordane (alpha-chlordane)	1.25	1.38132	2.5	1.354747	5	1.327406	10	1.32583	20	1.252433	40	1.214494
Endosulfan I	1.25	1.28039	2.5	1.251682	5	1.221496	10	1.216764	20	1.133363	40	1.073676
4,4'-DDE	2.5	1.241703	5	1.249274	10	1.223171	20	1.217063	40	1.137758	80	1.080812
Dieldrin	2.5	1.347435	5	1.34643	10	1.304895	20	1.291644	40	1.193947	80	1.121507
Endrin	2.5	1.575682	5	1.512382	10	1.454305	20	1.423573	40	1.325891	80	1.256508
Endosulfan II	2.5	1.477278	5	1.431992	10	1.365849	20	1.33268	40	1.230636	80	1.175313
4,4'-DDD	2.5	1.356339	5	1.32763	10	1.293997	20	1.288722	40	1.208436	80	1.161216
Endrin Aldehyde	2.5	1.143957	5	1.081014	10	1.040379	20	1.009159	40	0.9323716	80	0.8993666
4,4'-DDT	2.5	1.4624	5	1.433181	10	1.389521	20	1.379129	40	1.292845	80	1.257281
Endosulfan Sulfate	2.5	1.38827	5	1.353634	10	1.280025	20	1.24749	40	1.153021	80	1.114537
Endrin Ketone	2.5	1.700623	5	1.575155	10	1.435306	20	1.38817	40	1.277962	80	1.241808
Methoxychlor	12.5	0.7088741	25	0.6538653	50	0.600962	100	0.5634784	200	0.512559	400	0.4973477
Hexachlorobutadiene	1.25	2.066765	2.5	1.98551	5	1.84558	10	1.819375	20	1.706219	40	1.655525
Hexachlorobenzene	1.25	1.762453	2.5	1.689934	5	1.607175	10	1.570994	20	1.468142	40	1.417979
Decachlorobiphenyl	2.5	1.222654	5	1.128374	10	0.9768294	20	0.9096561	40	0.8271431	80	0.8027704
Tetrachlorometaxylene	2.5	1.255658	5	1.227805	10	1.182654	20	1.158038	40	1.071055	80	1.01536



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00035	Instrument:	ECD6
Calibration Date:	04/12/2023	Column (1):	STX-CLP

Calibration Comments: PEST

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
alpha-BHC	80	1.622443										
beta-BHC	80	0.6090197										
gamma-BHC (Lindane)	80	1.407841										
delta-BHC	80	1.454462										
Heptachlor	80	1.192761										
Aldrin	80	1.256117										
Heptachlor Epoxide	80	1.032478										
trans-Chlordane (beta-Chlordane)	80	1.139256										
cis-Chlordane (alpha-chlordane)	80	1.125338										
Endosulfan I	80	0.9739344										
4,4'-DDE	160	0.9837787										
Dieldrin	160	1.020371										
Endrin	160	1.12944										
Endosulfan II	160	1.048725										
4,4'-DDD	160	1.049731										
Endrin Aldehyde	160	0.8100832										
4,4'-DDT	160	1.140812										
Endosulfan Sulfate	160	1.00702										
Endrin Ketone	160	1.130226										
Methoxychlor	800	0.4708452										
Hexachlorobutadiene	80	1.550879										
Hexachlorobenzene	80	1.319539										
Decachlorobiphenyl	160	0.7377625										
Tetrachlorometaxylene	160	0.9251255										



INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00035	Instrument:	ECD6
Calibration Date:	04/12/2023	Column (1):	STX-CLP
Calibration Comments:	PEST		

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
alpha-BHC	1.749312	3.7			RSD ()	
beta-BHC	0.6985426	8.9			RSD ()	
gamma-BHC (Lindane)	1.537254	4.3			RSD ()	
delta-BHC	1.583822	4.2			RSD ()	
Heptachlor	1.422767	9.3			RSD ()	
Aldrin	1.447184	7.1			RSD ()	
Heptachlor Epoxide	1.306265	18.0			RSD ()	
trans-Chlordane (beta-Chlordane)	1.278163	5.9			RSD ()	
cis-Chlordane (alpha-chlordane)	1.283081	7.1			RSD ()	
Endosulfan I	1.164472	9.4			RSD ()	
4,4'-DDE	1.161937	8.6			RSD ()	
Dieldrin	1.232318	10.1			RSD ()	
Endrin	1.38254	11.2			RSD ()	
Endosulfan II	1.294639	11.7			RSD ()	
4,4'-DDD	1.240867	8.7			RSD ()	
Endrin Aldehyde	0.9880472	11.6			RSD ()	
4,4'-DDT	1.336453	8.4			RSD ()	
Endosulfan Sulfate	1.220571	11.2			RSD ()	
Endrin Ketone	1.39275	14.2			RSD ()	
Methoxychlor	0.5725617	15.2			RSD ()	
Hexachlorobutadiene	1.804265	10.1			RSD ()	
Hexachlorobenzene	1.548031	10.1			RSD ()	
Decachlorobiphenyl	0.9435985	18.9			RSD ()	
Tetrachlorometaxylene	1.119385	10.7			RSD ()	



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00035	Instrument:	ECD6
Calibration Date:	04/12/2023	Column (2):	STX-CLPII

Calibration Comments: PEST

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
alpha-BHC [2C]	80	1.64801										
beta-BHC [2C]	80	0.6083869										
gamma-BHC (Lindane) [2C]	80	1.419847										
delta-BHC [2C]	80	1.440628										
Heptachlor [2C]	80	1.152015										
Aldrin [2C]	80	1.223094										
Heptachlor Epoxide [2C]	80	0.9993275										
trans-Chlordane (beta-Chlordane) [2C]	80	1.05677										
cis-Chlordane (alpha-chlordane) [2C]	80	1.029771										
Endosulfan I [2C]	80	0.8963787										
4,4'-DDE [2C]	160	0.9086734										
Dieldrin [2C]	160	0.9646339										
Endrin [2C]	160	1.363992										
Endosulfan II [2C]	160	1.332182										
4,4'-DDD [2C]	160	1.319055										
Endrin Aldehyde [2C]	160	0.9507641										
4,4'-DDT [2C]	160	1.341072										
Endosulfan Sulfate [2C]	160	1.231965										
Endrin Ketone [2C]	160	1.326225										
Methoxychlor [2C]	800	0.5618064										
Hexachlorobutadiene [2C]	80	1.339018										
Hexachlorobenzene [2C]	80	1.294186										
Decachlorobiphenyl [2C]	160	0.8227871										
Tetrachlorometaxylene [2C]	160	0.9200768										



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00035	Instrument:	ECD6
Calibration Date:	04/12/2023	Column (2):	STX-CLPII
Calibration Comments:	PEST		

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
alpha-BHC [2C]	1.697132	2.8			RSD ()	
beta-BHC [2C]	0.6741427	6.8			RSD ()	
gamma-BHC (Lindane) [2C]	1.4921	2.7			RSD ()	
delta-BHC [2C]	1.510781	2.8			RSD ()	
Heptachlor [2C]	1.308521	6.2			RSD ()	
Aldrin [2C]	1.358332	5.0			RSD ()	
Heptachlor Epoxide [2C]	1.195694	14.9			RSD ()	
trans-Chlordane (beta-Chlordane) [2C]	1.146512	4.1			RSD ()	
cis-Chlordane (alpha-chlordane) [2C]	1.129016	5.0			RSD ()	
Endosulfan I [2C]	1.01878	6.5			RSD ()	
4,4'-DDE [2C]	1.062934	8.0			RSD ()	
Dieldrin [2C]	1.11666	7.9			RSD ()	
Endrin [2C]	1.610157	9.4			RSD ()	
Endosulfan II [2C]	1.521076	8.2			RSD ()	
4,4'-DDD [2C]	1.471886	6.3			RSD ()	
Endrin Aldehyde [2C]	1.099808	9.4			RSD ()	
4,4'-DDT [2C]	1.484993	6.1			RSD ()	
Endosulfan Sulfate [2C]	1.400615	8.0			RSD ()	
Endrin Ketone [2C]	1.529495	10.0			RSD ()	
Methoxychlor [2C]	0.6367416	11.7			RSD ()	
Hexachlorobutadiene [2C]	1.540827	7.5			RSD ()	
Hexachlorobenzene [2C]	1.482121	8.1			RSD ()	
Decachlorobiphenyl [2C]	0.9656083	11.4			RSD ()	
Tetrachlorometaxylene [2C]	1.100056	9.8			RSD ()	



ANALYSIS SEQUENCE

SLD0187

Instrument: ECD6
Calibration ID: UNASSIGNED

Printed: 4/14/2023 8:38:57AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLD0187-PEM1	QC		1		L002116	L000844		
SLD0187-CAL1	QC		2		L003348	L000844		
SLD0187-CAL2	QC		3		L003347	L000844		
SLD0187-CAL3	QC		4		L003346	L000844		
SLD0187-CAL4	QC		5		L003345	L000844		
SLD0187-CAL5	QC		6		L003344	L000844		
SLD0187-CAL6	QC		7		L003343	L000844		
SLD0187-CAL7	QC		8		L000560	L000844		
SLD0187-CAL8	QC		9		L003342	L000844		
SLD0187-CAL9	QC		10		L003341	L000844		
SLD0187-CALA	QC		11		L003340	L000844		
SLD0187-CALB	QC		12		L003339	L000844		
SLD0187-CALC	QC		13		L003338	L000844		
SLD0187-CALD	QC		14		L003337	L000844		
SLD0187-CALE	QC		15		L000377	L000844		
SLD0187-CALF	QC		16		L003398	L000844		
SLD0187-CALG	QC		17		L003397	L000844		
SLD0187-CALH	QC		18		L003396	L000844		
SLD0187-CALI	QC		19		L003395	L000844		
SLD0187-CALJ	QC		20		L003394	L000844		
SLD0187-CALK	QC		21		L003393	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SLD0187

Instrument: ECD6
Calibration ID: UNASSIGNED

Printed: 4/14/2023 8:38:57AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLD0187-CALL	QC		22		L000559	L000844		
SLD0187-SCV1	QC		23		L003155	L000844		
SLD0187-SCV2	QC		24		L003156	L000844		
SLD0187-PEM2	QC		25		L002116	L000844		
SLD0187-ICV1	QC		26		L003344	L000844		
SLD0187-ICV2	QC		27		L003338	L000844		
BLD0075-BLK1	QC		28			L000844		
BLD0075-BS1	QC		29			L000844		
BLD0075-MRL1	QC		30			L000844		
23D0028-01	8081B Pest	E 01	31			L000844	Associated Earth Sciences, Inc	
SLD0187-PEM3	QC		32		L002116	L000844		
SLD0187-CCV1	QC		33		L003344	L000844		
SLD0187-CCV2	QC		34		L003338	L000844		
BLD0009-BLK1	QC		35			L000844		
BLD0009-BS1	QC		36			L000844		
BLD0009-BSD1	QC		37			L000844		
BLD0009-MS1	QC		38			L000844		
BLD0009-MSD1	QC		39			L000844		
23C0752-01	8081B Pest (PSDDA)	A 03	40			L000844	Anchor QEA, LLC	
23C0752-02	8081B Pest (PSDDA)	A 03	41			L000844	Anchor QEA, LLC	
23C0752-03	8081B Pest (PSDDA)	A 03	42			L000844	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	12-APR-2023	14:57	23041202.D	1	SEQ-IB	
2	12-APR-2023	15:16	23041203.D	1	SEQ-PEM1	
3	12-APR-2023	15:34	23041204.D	1	SEQ-CAL1	
4	12-APR-2023	15:53	23041205.D	1	SEQ-CAL2	
5	12-APR-2023	16:11	23041206.D	1	SEQ-CAL3	
6	12-APR-2023	16:30	23041207.D	1	SEQ-CAL5	
7	12-APR-2023	16:48	23041208.D	1	SEQ-CAL4	
8	12-APR-2023	17:06	23041209.D	1	SEQ-CAL6	
9	12-APR-2023	17:25	23041210.D	1	SEQ-CAL7	
10	12-APR-2023	17:43	23041211.D	1	SEQ-CAL8	
11	12-APR-2023	18:02	23041212.D	1	SEQ-CAL9	
12	12-APR-2023	18:20	23041213.D	1	SEQ-CALA	
13	12-APR-2023	18:38	23041214.D	1	SEQ-CALB	
14	12-APR-2023	18:57	23041215.D	1	SEQ-CALC	
15	12-APR-2023	19:15	23041216.D	1	SEQ-CALD	
16	12-APR-2023	19:34	23041217.D	1	SEQ-CALE	
17	12-APR-2023	19:52	23041218.D	1	SEQ-CALF	
18	12-APR-2023	20:10	23041219.D	1	SEQ-CALG	
19	12-APR-2023	20:29	23041220.D	1	SEQ-CALH	
20	12-APR-2023	20:47	23041221.D	1	SEQ-CALI	
21	12-APR-2023	21:05	23041222.D	1	SEQ-CALJ	
22	12-APR-2023	21:24	23041223.D	1	SEQ-CALK	
23	12-APR-2023	21:42	23041224.D	1	SEQ-CALL	
24	12-APR-2023	22:00	23041225.D	1	SEQ-SCV1	
25	12-APR-2023	22:19	23041226.D	1	SEQ-SCV2	
26	12-APR-2023	22:37	23041227.D	1	SEQ-PEM2	
27	12-APR-2023	22:55	23041228.D	1	SEQ-ICV1	
28	12-APR-2023	23:14	23041229.D	1	SEQ-ICV2	
29	12-APR-2023	23:32	23041230.D	1	BLD0075-BLK1	
30	12-APR-2023	23:50	23041231.D	1	BLD0075-BS1	
31	13-APR-2023	00:09	23041232.D	1	BLD0075-MRL1	
32	13-APR-2023	00:27	23041233.D	1	23D0028-01	
33	13-APR-2023	00:45	23041234.D	1	SEQ-PEM3	
34	13-APR-2023	01:04	23041235.D	1	SEQ-CCV1	
35	13-APR-2023	01:22	23041236.D	1	SEQ-CCV2	
36	13-APR-2023	01:40	23041237.D	1	BLD0009-BLK1	
37	13-APR-2023	01:59	23041238.D	1	BLD0009-BS1	
38	13-APR-2023	02:17	23041239.D	1	BLD0009-BSD1	
39	13-APR-2023	02:35	23041240.D	1	BLD0009-MS1	
40	13-APR-2023	02:53	23041241.D	1	BLD0009-MSD1	
41	13-APR-2023	03:12	23041242.D	1	23C0752-01	
42	13-APR-2023	03:30	23041243.D	1	23C0752-02	
43	13-APR-2023	03:48	23041244.D	1	23C0752-03	
44	13-APR-2023	04:07	23041245.D	1	23C0752-04	
45	13-APR-2023	04:25	23041246.D	1	23C0752-06	
46	13-APR-2023	04:43	23041247.D	1	SEQ-PEM4	
47	13-APR-2023	05:02	23041248.D	1	SEQ-CCV3	
48	13-APR-2023	05:20	23041249.D	1	SEQ-CCV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

ARI Job No.: SEQ- Method: PEST.m Instrument: ecd6.i Date: 12-APR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1457	23041202.D	SEQ-IB		1	NO MANUAL INTEGRATION
1516	23041203.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
1534	23041204.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
1553	23041205.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
1611	23041206.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
1630	23041207.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
1648	23041208.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
1706	23041209.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
1725	23041210.D	SEQ-CAL7		1	alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Endosulfan I, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, 4,4'-DDD, Endosulfan sulfate, 4,4'-DDT, Methoxychlor, Endrin ketone, Endrin aldehyde, trans-Chlordane, cis-Chlordane, Hexachlorob
1743	23041211.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
1802	23041212.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
1820	23041213.D	SEQ-CALA		1	NO MANUAL INTEGRATION
1838	23041214.D	SEQ-CALB		1	NO MANUAL INTEGRATION
1857	23041215.D	SEQ-CALC		1	NO MANUAL INTEGRATION
1915	23041216.D	SEQ-CALD		1	NO MANUAL INTEGRATION
1934	23041217.D	SEQ-CALE		1	Oxychlordane, 2,4-DDE, trans-Nonachlor, 2,4-DDD, 2,4-DDT, cis-Nonachlor, Mirex,
1952	23041218.D	SEQ-CALF		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2010	23041219.D	SEQ-CALG	1		NO MANUAL INTEGRATION
2029	23041220.D	SEQ-CALH	1		NO MANUAL INTEGRATION
2047	23041221.D	SEQ-CALI	1		NO MANUAL INTEGRATION
2105	23041222.D	SEQ-CALJ	1		NO MANUAL INTEGRATION
2124	23041223.D	SEQ-CALK	1		NO MANUAL INTEGRATION
2142	23041224.D	SEQ-CALL	1		NO MANUAL INTEGRATION
2200	23041225.D	SEQ-SCV1	1		NO MANUAL INTEGRATION
2219	23041226.D	SEQ-SCV2	1		NO MANUAL INTEGRATION
2237	23041227.D	SEQ-PEM2	1		NO MANUAL INTEGRATION
2255	23041228.D	SEQ-ICV1	1		NO MANUAL INTEGRATION
2314	23041229.D	SEQ-ICV2	1		NO MANUAL INTEGRATION
2332	23041230.D	BLD0075-BLK1	1		NO MANUAL INTEGRATION
2350	23041231.D	BLD0075-BS1	1		NO MANUAL INTEGRATION
0009	23041232.D	BLD0075-MRL1	1		NO MANUAL INTEGRATION
0027	23041233.D	23D0028-01	1		NO MANUAL INTEGRATION
0045	23041234.D	SEQ-PEM3	1		Endrin, 4,4'-DDD,
0104	23041235.D	SEQ-CCV1	1		NO MANUAL INTEGRATION
0122	23041236.D	SEQ-CCV2	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0140	23041237.D	BLD0009-BLK1		1	NO MANUAL INTEGRATION
0159	23041238.D	BLD0009-BS1		1	NO MANUAL INTEGRATION
0217	23041239.D	BLD0009-BSD1		1	NO MANUAL INTEGRATION
0235	23041240.D	BLD0009-MS1		1	Endrin, 4,4'-DDD, 4,4'-DDT,
0253	23041241.D	BLD0009-MSD1		1	Aldrin,
0312	23041242.D	23C0752-01		1	delta-BHC, gamma-BHC (Lindane), Endrin, 4,4'-DDD, 4,4'-DDT, Endrin aldehyde, Toxaphene, cis-Nonachlor,
0330	23041243.D	23C0752-02		1	Endrin, 4,4'-DDD, 4,4'-DDT, trans-Chlordane, cis-Chlordane, Toxaphene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0348	23041244.D	23C0752-03		1	Dieldrin, 4,4'-DDD, cis-Chlordane, Hexachlorobenzene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0407	23041245.D	23C0752-04		1	delta-BHC, Endrin, 4,4'-DDD, 4,4'-DDT, trans-Chlordane, cis-Chlordane, Toxaphene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0425	23041246.D	23C0752-06		1	Endrin, 4,4'-DDT, cis-Chlordane, Toxaphene, cis-Nonachlor, Mirex, Chlordane (NOS),
0443	23041247.D	SEQ-PEM4		1	Endrin, 4,4'-DDD,
0502	23041248.D	SEQ-CCV3		1	Hexabromobiphenyl,
0520	23041249.D	SEQ-CCV4		1	NO MANUAL INTEGRATION

Security Status Report

Date: 14-Apr-2023 08:24

23041202.D	Data Locked	yev, 14-
23041203.D	Data Locked	yev, 14-
23041204.D	Data Locked	yev, 14-
23041205.D	Data Locked	yev, 14-
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23041244.D	Data Locked	yev, 14-
23041245.D	Data Locked	yev, 14-
23041246.D	Data Locked	yev, 14-
23041247.D	Data Locked	yev, 14-
23041248.D	Data Locked	yev, 14-
23041249.D	Data Locked	yev, 14-

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

Table with 7 columns: ID, RT01, RT02, RT03, RT04, RT05, RT06, RT07. Rows include FILENAME, INJ. DATE, and INJ. TIME for each RT column.

Main data table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Lists 17 compounds with their respective retention times and standard deviations.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE	6.491	6.490	6.489	6.490	6.490	6.489	6.489	6.491	6.461-6.521	6.490	0.001
19 Dieldrin	6.828	6.828	6.828	6.828	6.828	6.829	6.828	6.828	6.798-6.858	6.828	0.000
20 Endrin	7.079	7.079	7.078	7.078	7.078	7.078	7.078	7.079	7.049-7.109	7.078	0.000
21 4,4'-DDD	7.138	7.138	7.137	7.137	7.137	7.137	7.136	7.138	7.108-7.168	7.137	0.001
22 Endosulfan II	7.315	7.315	7.315	7.315	7.314	7.314	7.314	7.315	7.285-7.345	7.315	0.000
23 4,4'-DDT	7.431	7.431	7.431	7.431	7.431	7.431	7.431	7.431	7.401-7.461	7.431	0.000
24 Endrin aldehyde	7.744	7.743	7.743	7.743	7.743	7.743	7.743	7.744	7.714-7.774	7.743	0.000
25 Methoxychlor	7.920	7.920	7.919	7.920	7.920	7.920	7.920	7.920	7.890-7.950	7.920	0.000
26 Endosulfan sulfate	8.178	8.178	8.177	8.177	8.178	8.178	8.177	8.178	8.148-8.208	8.178	0.000
27 Endrin ketone	8.453	8.453	8.452	8.452	8.452	8.452	8.452	8.453	8.423-8.482	8.452	0.000
28 Decachlorobiphenyl	9.367	9.367	9.366	9.366	9.366	9.367	9.366	9.367	9.337-9.397	9.366	0.000
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.430	7.400-7.460	+++++	+++++
39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.106	6.076-6.136	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.682	6.652-6.712	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.959	6.929-6.989	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlorane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.010	5.980-6.040	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.396	6.366-6.426	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.112	7.082-7.142	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.086	8.056-8.116	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

Table with 7 columns: ID, RT01, RT02, RT03, RT04, RT05, RT06, RT07. Rows include FILENAME, INJ. DATE, and INJ. TIME for each RT column.

Main data table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Lists 17 compounds with their retention times and associated values.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.489	6.459-6.519	+++++	+++++
19 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.828	6.798-6.858	+++++	+++++
20 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.078	7.048-7.108	+++++	+++++
21 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.136	7.106-7.166	+++++	+++++
22 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.314	7.284-7.344	+++++	+++++
23 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.431	7.401-7.461	+++++	+++++
24 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.743	7.713-7.773	+++++	+++++
25 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.920	7.890-7.950	+++++	+++++
26 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.177	8.147-8.207	+++++	+++++
27 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.452	8.422-8.482	+++++	+++++
28 Decachlorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.366	9.336-9.396	+++++	+++++
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.430	7.400-7.460	+++++	+++++
39 2,4-DDE	+++++	6.106	6.106	6.106	6.106	6.106	6.105	6.106	6.076-6.136	6.106	0.001

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Batch File: \\target\share\chem4\ecd6.i\20230412.b
 Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	6.682	6.682	6.682	6.681	6.681	6.681	6.682	6.652-6.712	6.681	0.000
41 2,4-DDT	+++++	6.959	6.959	6.960	6.959	6.958	6.959	6.959	6.929-6.989	6.959	0.000
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlorane	+++++	6.010	6.009	6.010	6.010	6.010	6.009	6.010	5.980-6.040	6.010	0.000
44 trans-Nonachlor	+++++	6.396	6.396	6.396	6.396	6.395	6.395	6.396	6.366-6.426	6.395	0.000
45 cis-Nonachlor	+++++	7.112	7.112	7.112	7.112	7.112	7.112	7.112	7.082-7.142	7.112	0.000
46 Mirex	+++++	8.086	8.086	8.086	8.086	8.086	8.086	8.086	8.056-8.116	8.086	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: 23041204 23041205 23041206 23041207 23041208 23041209 23041210
INJ. DATE: 12-APR-2023 12-APR-2023 12-APR-2023 12-APR-2023 12-APR-2023 12-APR-2023 12-APR-2023
INJ. TIME: 15:34 15:53 16:11 16:30 16:48 17:06 17:25

Table with 12 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include compounds like Hexachlorobutadiene, 1Bromo-2nitrobenzene, Hexabromobiphenyl, Tetrachloro-m-xylene, Hexachlorobenzene, alpha-BHC, gamma-BHC (Lindane), beta-BHC, delta-BHC, Heptachlor, Chlorthalonil, Aldrin, Heptachlor Epoxide a, Heptachlor epoxide b, cis-Chlordane, trans-Chlordane, and Endosulfan I.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE [C]	7.257	7.257	7.257	7.257	7.257	7.257	7.257	7.257	7.227-7.287	7.257	0.000
19 Dieldrin [C]	7.466	7.466	7.465	7.466	7.466	7.466	7.466	7.466	7.436-7.496	7.466	0.000
20 Endrin [C]	7.789	7.790	7.789	7.790	7.789	7.790	7.790	7.790	7.760-7.820	7.790	0.000
21 4,4'-DDD [C]	7.862	7.862	7.862	7.862	7.862	7.862	7.862	7.862	7.832-7.892	7.862	0.000
22 Endosulfan II [C]	8.001	8.000	8.000	8.000	8.000	8.001	8.001	8.001	7.971-8.031	8.000	0.000
23 4,4'-DDT [C]	8.180	8.180	8.180	8.180	8.181	8.181	8.181	8.181	8.151-8.211	8.180	0.000
24 Endrin aldehyde [C]	8.331	8.331	8.330	8.331	8.331	8.332	8.331	8.331	8.301-8.361	8.331	0.000
25 Endosulfan sulfate [C]	8.598	8.598	8.597	8.598	8.598	8.598	8.598	8.598	8.568-8.628	8.598	0.000
26 Methoxychlor [C]	8.820	8.821	8.820	8.821	8.821	8.821	8.822	8.822	8.792-8.852	8.821	0.001
27 Endrin ketone [C]	9.119	9.119	9.119	9.119	9.119	9.120	9.119	9.119	9.089-9.149	9.119	0.000
28 Decachlorobiphenyl [C]	10.306	10.306	10.305	10.305	10.306	10.306	10.306	10.306	10.276-10.336	10.306	0.000
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.440	7.410-7.470	+++++	+++++
39 2,4-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.921	6.891-6.951	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
 Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.477	7.447-7.507	+++++	+++++
41 2,4-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.799	7.769-7.829	+++++	+++++
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlorane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.624	6.594-6.654	+++++	+++++
44 trans-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.039	7.009-7.069	+++++	+++++
45 cis-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.859	7.829-7.889	+++++	+++++
46 Mirex [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.101	9.071-9.131	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

Table with 7 columns: ID, RT01, RT02, RT03, RT04, RT05, RT06, RT07. Rows include FILENAME, INJ. DATE, and INJ. TIME for each RT column.

Main data table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPECT RT, RT WINDOW, AVG RT, STD DEV. Lists 17 compounds with their retention times and associated values.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
 Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.257	7.227-7.287	+++++	+++++
19 Dieldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.466	7.436-7.496	+++++	+++++
20 Endrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.790	7.760-7.820	+++++	+++++
21 4,4'-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.862	7.832-7.892	+++++	+++++
22 Endosulfan II [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.001	7.971-8.031	+++++	+++++
23 4,4'-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.181	8.151-8.211	+++++	+++++
24 Endrin aldehyde [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.331	8.301-8.361	+++++	+++++
25 Endosulfan sulfate [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.598	8.568-8.628	+++++	+++++
26 Methoxychlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.822	8.792-8.852	+++++	+++++
27 Endrin ketone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.119	9.089-9.149	+++++	+++++
28 Decachlorobiphenyl [C]	+++++	+++++	+++++	10.309	10.309	10.309	10.308	10.306	10.276-10.336	10.309	0.001
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.440	7.410-7.470	+++++	+++++
39 2,4-DDE [C]	6.922	6.921	6.921	6.922	6.921	6.921	6.921	6.921	6.891-6.951	6.921	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	7.477	7.477	7.477	7.476	7.476	7.476	7.477	7.477	7.447-7.507	7.476	0.000
41 2,4-DDT [C]	7.799	7.798	7.799	7.799	7.799	7.798	7.799	7.799	7.769-7.829	7.799	0.000
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlordane [C]	6.624	6.624	6.624	6.624	6.624	6.624	6.624	6.624	6.594-6.654	6.624	0.000
44 trans-Nonachlor [C]	7.039	7.038	7.039	7.039	7.039	7.039	7.039	7.039	7.009-7.069	7.039	0.000
45 cis-Nonachlor [C]	7.859	7.858	7.859	7.859	7.859	7.858	7.859	7.859	7.829-7.889	7.859	0.000
46 Mirex [C]	9.102	9.101	9.101	9.101	9.101	9.101	9.101	9.101	9.071-9.131	9.101	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd6.i\20230412.b\23041218.D
 Level 2: \\target\share\chem4\ecd6.i\20230412.b\23041219.D
 Level 3: \\target\share\chem4\ecd6.i\20230412.b\23041220.D
 Level 4: \\target\share\chem4\ecd6.i\20230412.b\23041221.D
 Level 5: \\target\share\chem4\ecd6.i\20230412.b\23041222.D
 Level 6: \\target\share\chem4\ecd6.i\20230412.b\23041223.D
 Level 7: \\target\share\chem4\ecd6.i\20230412.b\23041224.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
1 Hexachlorobutadiene	2.06676 1.55088	1.98551	1.84558	1.81938	1.70622	1.65553	1.80426	10.110
5 Hexachlorobenzene	1.76245 1.31954	1.68993	1.60717	1.57099	1.46814	1.41798	1.54803	10.064
6 alpha-BHC	1.75845 1.62244	1.79303	1.78792	1.82015	1.74640	1.71680	1.74931	3.739
7 gamma-BHC (Lindane)	1.55969 1.40784	1.58392	1.58235	1.59868	1.52927	1.49902	1.53725	4.344
8 beta-BHC	0.78879 0.60902	0.75698	0.71551	0.70150	0.66783	0.65017	0.69854	8.893
9 delta-BHC	1.59762 1.45446	1.62693	1.62475	1.65308	1.58886	1.54105	1.58382	4.244
10 Heptachlor	1.55444 1.19276	1.53135	1.49709	1.48384	1.38462	1.31527	1.42277	9.267
11 Aldrin	1.52950 1.25612	1.52030	1.51102	1.51498	1.42775	1.37062	1.44718	7.111

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
12 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Heptachlor epoxide b	1.77461 1.03248	1.35433	1.32261	1.30465	1.21044	1.14473	1.30626	18.012
15 cis-Chlordane	1.38132 1.12534	1.35475	1.32741	1.32583	1.25243	1.21449	1.28308	7.051
16 trans-Chlordane	1.35410 1.13926	1.33073	1.31479	1.32467	1.25766	1.22594	1.27816	5.931
17 Endosulfan I	1.28039 0.97393	1.25168	1.22150	1.21676	1.13336	1.07368	1.16447	9.443
18 4,4'-DDE	1.24170 0.98378	1.24927	1.22317	1.21706	1.13776	1.08081	1.16194	8.584
19 Dieldrin	1.34743 1.02037	1.34643	1.30489	1.29164	1.19395	1.12151	1.23232	10.143
20 Endrin	1.57568 1.12944	1.51238	1.45431	1.42357	1.32589	1.25651	1.38254	11.211
21 4,4'-DDD	1.35634 1.04973	1.32763	1.29400	1.28872	1.20844	1.16122	1.24087	8.699
22 Endosulfan II	1.47728 1.04873	1.43199	1.36585	1.33268	1.23064	1.17531	1.29464	11.695

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
23 4,4'-DDT	1.46240 1.14081	1.43318	1.38952	1.37913	1.29284	1.25728	1.33645	8.438
24 Endrin aldehyde	1.14396 0.81008	1.08101	1.04038	1.00916	0.93237	0.89937	0.98805	11.597
25 Methoxychlor	0.70887 0.47085	0.65387	0.60096	0.56348	0.51256	0.49735	0.57256	15.240
26 Endosulfan sulfate	1.38827 1.00702	1.35363	1.28002	1.24749	1.15302	1.11454	1.22057	11.169
27 Endrin ketone	1.70062 1.13023	1.57515	1.43531	1.38817	1.27796	1.24181	1.39275	14.203
29 Aroclor-1016(1)	++++ ++++	++++	++++	++++	++++	++++	++++	++++
(2)	++++ ++++	++++	++++	++++	++++	++++	++++	++++
(3)	++++ ++++	++++	++++	++++	++++	++++	++++	++++
(4)	++++ ++++	++++	++++	++++	++++	++++	++++	++++
(5)	++++ ++++	++++	++++	++++	++++	++++	++++	++++
30 Aroclor-1221(1)	++++ ++++	++++	++++	++++	++++	++++	++++	++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
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 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
31 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
32 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(6)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

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 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

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 Integrator : HP Genie
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 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Toxaphene(1)	0.02964 0.02076	0.03226	0.03521	0.03252	0.03126	0.02556	0.02960	16.566
(2)	0.04237 0.02651	0.04244	0.04595	0.04487	0.04047	0.03477	0.03962	17.214
(3)	0.05862 0.03584	0.05791	0.06487	0.06029	0.05391	0.04678	0.05403	18.141
(4)	0.04172 0.03028	0.04045	0.05069	0.04873	0.04618	0.04013	0.04260	16.014
(5)	0.02406 0.01877	0.02417	0.03063	0.02984	0.02781	0.02427	0.02565	15.995

ARI Labs, Inc.

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 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
39 2,4-DDE	80.000 Level 7	0.96271	0.96579	0.91868	0.86843	0.79752	0.87025	11.664
40 2,4-DDD	0.67816	0.88281	0.89873	0.85426	0.81245	0.75323	0.81327	10.387
41 2,4-DDT	0.81933	1.07731	1.07494	1.02816	0.97817	0.90679	0.98078	10.395
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Oxychlordane	1.02406	1.26894	1.32532	1.26543	1.20607	1.12176	1.20193	9.252
44 trans-Nonachlor	1.23122	1.54141	1.51800	1.46473	1.41186	1.32985	1.41618	8.360
45 cis-Nonachlor	1.29610	1.59233	1.57870	1.52677	1.47421	1.39620	1.47739	7.740
46 Mirex	0.78527	0.99781	0.99695	0.94201	0.89770	0.84639	0.91102	9.320
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Chlordane (NOS) (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

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 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(3)	++++	++++	++++	++++	++++	++++	++++	++++
49 Trifluralin	++++	++++	++++	++++	++++	++++	++++	++++
50 Dacthal	++++	++++	++++	++++	++++	++++	++++	++++
51 Oxadiazon	++++	++++	++++	++++	++++	++++	++++	++++
52 Kelthane	++++	++++	++++	++++	++++	++++	++++	++++
53 Chlorpyrifos	++++	++++	++++	++++	++++	++++	++++	++++
54 Methyl Parathion	++++	++++	++++	++++	++++	++++	++++	++++
55 Ethyl Parathion	++++	++++	++++	++++	++++	++++	++++	++++
56 Kepone	++++	++++	++++	++++	++++	++++	++++	++++
57 1-Chloropyrene	++++	++++	++++	++++	++++	++++	++++	++++
4 Tetrachloro-m-xylene	1.25566 0.92513	1.22780	1.18265	1.15804	1.07105	1.01536	1.11939	10.740

ARI Labs, Inc.

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 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
\$ 28 Decachlorobiphenyl	1.22265	1.12837	0.97683	0.90966	0.82714	0.80277	0.94360	18.860

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041218.D
 Level 2: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041219.D
 Level 3: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041220.D
 Level 4: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041221.D
 Level 5: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041222.D
 Level 6: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041223.D
 Level 7: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041224.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
1 Hexachlorobutadiene [C]	1.68175 1.33902	1.59096	1.60748	1.61038	1.49696	1.45925	1.54083	7.539
5 Hexachlorobenzene [C]	1.63765 1.29419	1.58192	1.53225	1.52323	1.42721	1.37840	1.48212	8.145
6 alpha-BHC [C]	1.63462 1.64801	1.67867	1.71056	1.77219	1.71975	1.71612	1.69713	2.779
7 gamma-BHC (Lindane) [C]	1.48009 1.41985	1.48711	1.51015	1.55733	1.49836	1.49181	1.49210	2.737
8 beta-BHC [C]	0.74714 0.60839	0.70583	0.68405	0.68422	0.64813	0.64123	0.67414	6.802
9 delta-BHC [C]	1.48755 1.44063	1.49763	1.52471	1.57911	1.52554	1.52030	1.51078	2.809
10 Heptachlor [C]	1.37389 1.15202	1.35320	1.35361	1.37453	1.29676	1.25563	1.30852	6.247
11 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

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 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
12 Aldrin [C]	1.39523 1.22309	1.38135	1.39556	1.42793	1.36125	1.32392	1.35833	4.993
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Heptachlor epoxide b [C]	1.56323 0.99933	1.20249	1.18929	1.19890	1.12726	1.08936	1.19569	14.872
15 cis-Chlordane [C]	1.19498 1.02977	1.16010	1.15172	1.16525	1.10932	1.09197	1.12902	4.952
16 trans-Chlordane [C]	1.19368 1.05677	1.16300	1.16384	1.18747	1.13804	1.12279	1.14651	4.085
17 Endosulfan I [C]	1.08731 0.89638	1.05822	1.05274	1.06193	1.00305	0.97183	1.01878	6.548
18 4,4'-DDE [C]	1.12212 0.90867	1.12143	1.12052	1.12760	1.04668	0.99351	1.06293	7.992
19 Dieldrin [C]	1.19866 0.96463	1.18503	1.16992	1.16774	1.08900	1.04163	1.11666	7.871
20 Endrin [C]	1.78067 1.36399	1.74471	1.68317	1.66518	1.56413	1.46925	1.61016	9.423
21 4,4'-DDD [C]	1.57958 1.31906	1.54965	1.50467	1.51523	1.44353	1.39149	1.47189	6.277
22 Endosulfan II [C]	1.67704 1.33218	1.62917	1.57040	1.56415	1.47191	1.40267	1.52108	8.159

ARI Labs, Inc.

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 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
23 4,4'-DDT [C]	1.60092 1.34107	1.55757	1.51411	1.52351	1.44879	1.40898	1.48499	6.076
24 Endrin aldehyde [C]	1.25337 0.95076	1.18287	1.12863	1.11827	1.05217	1.01258	1.09981	9.372
25 Endosulfan sulfate [C]	1.55683 1.23196	1.49557	1.43410	1.42713	1.35325	1.30546	1.40062	7.982
26 Methoxychlor [C]	0.75597 0.56181	0.70472	0.65874	0.63180	0.58097	0.56318	0.63674	11.732
27 Endrin ketone [C]	1.75477 1.32623	1.67216	1.56779	1.54355	1.44756	1.39441	1.52949	9.953
29 Aroclor-1016(1)	++++	++++	++++	++++	++++	++++	++++	++++
(2)	++++	++++	++++	++++	++++	++++	++++	++++
(3)	++++	++++	++++	++++	++++	++++	++++	++++
(4)	++++	++++	++++	++++	++++	++++	++++	++++
(5)	++++	++++	++++	++++	++++	++++	++++	++++
30 Aroclor-1221(1)	++++	++++	++++	++++	++++	++++	++++	++++

ARI Labs, Inc.

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 Integrator : HP Genie
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 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

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 Integrator : HP Genie
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 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
33 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
34 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

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 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
37 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
38 Toxaphene [C] (1)	0.02960 0.01995	0.02897	0.02869	0.02664	0.02372	0.02271		0.02576	14.316
(2)	0.08918 0.05881	0.08648	0.08486	0.07864	0.06865	0.06553		0.07602	15.453
(3)	0.06792 0.04648	0.06646	0.06603	0.06172	0.05457	0.05229		0.05935	13.972
(4)	0.07276 0.05156	0.07135	0.06974	0.06542	0.05866	0.05671		0.06374	12.837
(5)	0.03882 0.02918	0.03832	0.03789	0.03573	0.03246	0.03203		0.03492	10.684
39 2,4-DDE [C]	0.75845 0.53401	0.72899	0.70778	0.69440	0.65651	0.59759		0.66825	11.787

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

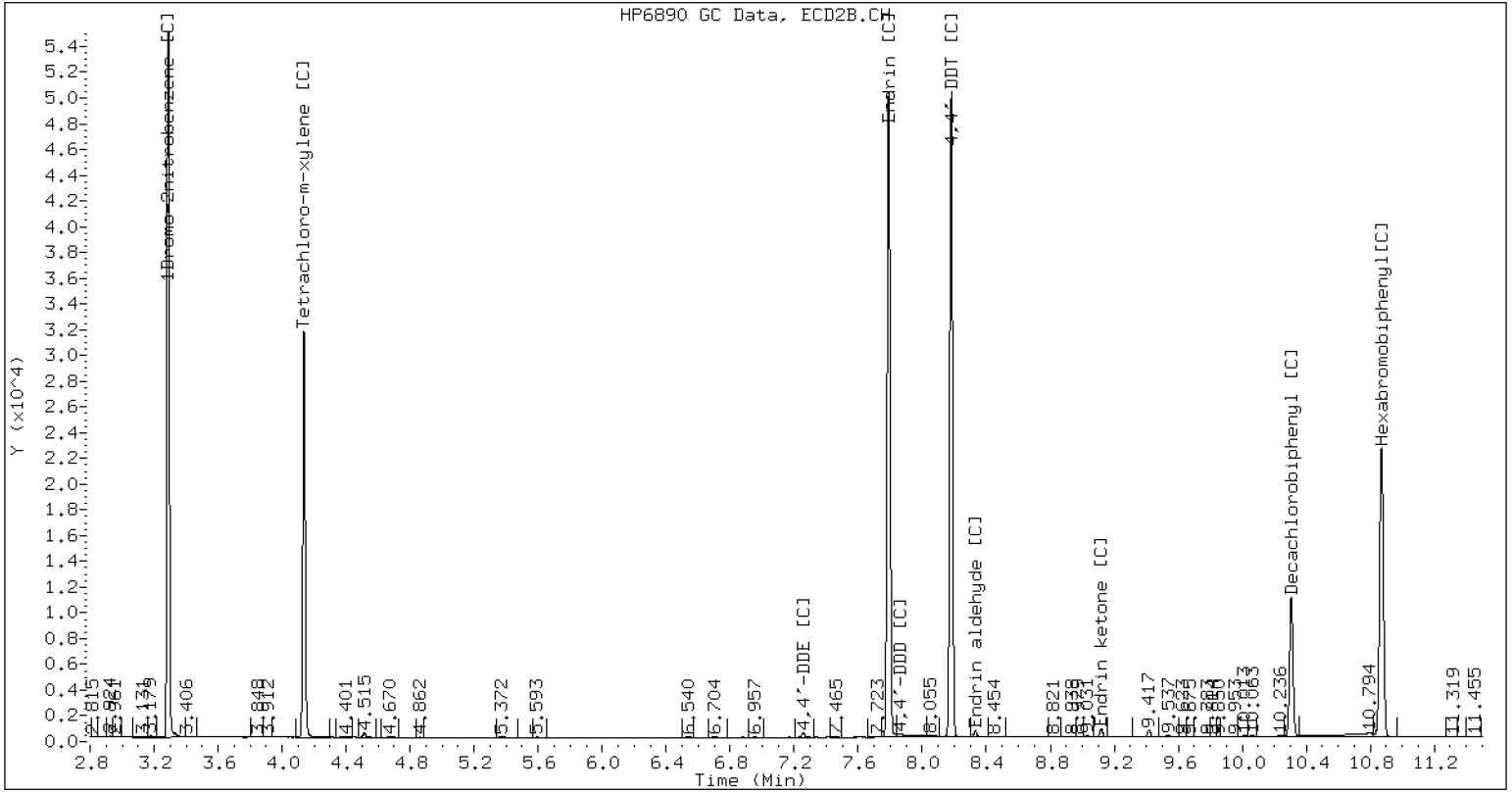
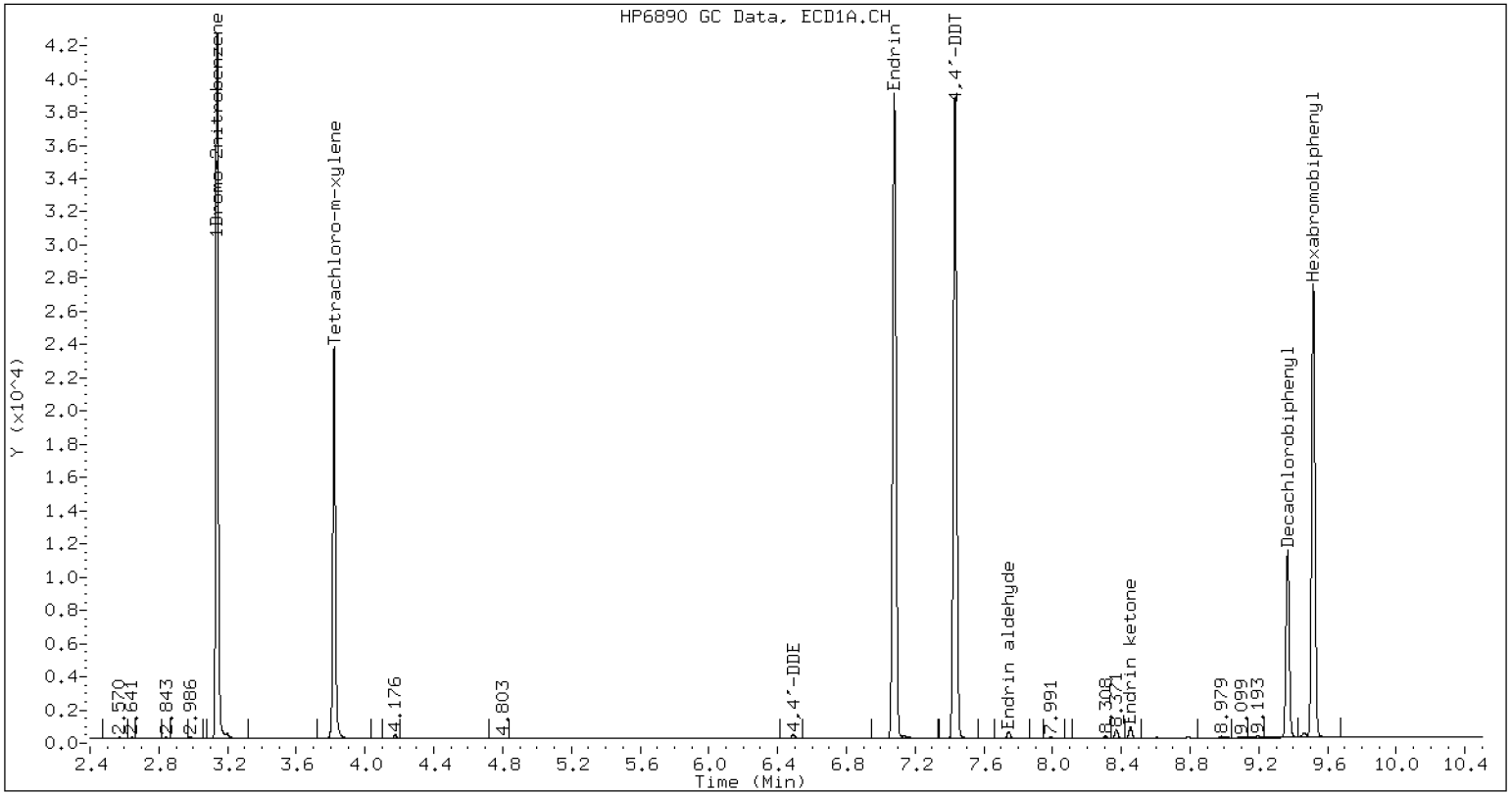
Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
40 2,4-DDD [C]	1.12937 0.84627	1.06142	1.05101	1.01695	0.98327	0.92485	1.00188	9.375
41 2,4-DDT [C]	1.28576 0.96934	1.20894	1.19812	1.16271	1.12721	1.06684	1.14556	9.038
42 Hexachloroethane [C]	++++ ++++	++++	++++	++++	++++	++++	++++	++++
43 Oxychlordan [C]	0.99553 0.78529	0.97475	0.94837	0.94350	0.90717	0.84779	0.91463	8.155
44 trans-Nonachlor [C]	1.85055 1.46338	1.66441	1.77907	1.73821	1.69126	1.60386	1.68439	7.480
45 cis-Nonachlor [C]	1.87416 1.53301	1.79479	1.80526	1.78076	1.73947	1.66348	1.74156	6.446
46 Mirex [C]	1.14525 0.87240	1.09368	1.04777	0.99189	0.96224	0.92321	1.00520	9.580
47 bis-(2-ethylhexyl) Phthalate	++++ ++++	++++	++++	++++	++++	++++	++++	++++
48 Chlordane (NOS) [C] (1)	++++ ++++	++++	++++	++++	++++	++++	++++	++++
(2)	++++ ++++	++++	++++	++++	++++	++++	++++	++++
(3)	++++ ++++	++++	++++	++++	++++	++++	++++	++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
49 Trifluralin	++++	++++	++++	++++	++++	++++		++++	++++
50 Dacthal	++++	++++	++++	++++	++++	++++		++++	++++
51 Oxadiazon	++++	++++	++++	++++	++++	++++		++++	++++
52 Kelthane	++++	++++	++++	++++	++++	++++		++++	++++
53 Chlorpyrifos	++++	++++	++++	++++	++++	++++		++++	++++
54 Methyl Parathion	++++	++++	++++	++++	++++	++++		++++	++++
55 Ethyl Parathion	++++	++++	++++	++++	++++	++++		++++	++++
56 Kepone [C]	++++	++++	++++	++++	++++	++++		++++	++++
57 1-Chloropyrene	++++	++++	++++	++++	++++	++++		++++	++++
\$ 4 Tetrachloro-m-xylene [C]	1.21095|	1.18796|	1.16281|	1.15216|	1.06273|	1.00371|		1.10006|	9.801|
\$ 28 Decachlorobiphenyl [C]	1.11095|	1.06919|	1.03174|	0.97149|	0.89134|	0.86176|		0.96561|	11.420|



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041204.D
Data file 2: /20230412.b/B20230412.b/23041204.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1
Client ID:
Injection Date: 12-APR-2023 15:34
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.333	0.000	25454	4.761	-0.001	31321	1.26	1.20	4.3	alpha-BHC
4.718	0.000	11418	5.230	-0.000	14316	1.41	1.39	1.9	beta-BHC
4.902	0.000	23126	5.578	0.001	28503	1.26	1.23	2.4	delta-BHC
4.637	0.000	22577	5.152	-0.000	28360	1.27	1.24	2.3	gamma-BHC (Lindane)
5.125	0.000	22501	5.671	0.000	26325	1.37	1.31	4.0	Heptachlor
5.449	0.000	22140	6.070	-0.001	26734	1.32	1.28	2.9	Aldrin
6.127	0.000	25688	6.728	-0.001	29953	1.70	1.63	3.8	Heptachlor epoxide b
6.568	0.000	18534	7.172	0.000	20834	1.37	1.33	3.0	Endosulfan I
6.828	0.000	39009	7.466	0.000	45935	2.73	2.68	1.8	Dieldrin
6.491	0.000	35948	7.257	-0.000	43002	2.67	2.64	1.2	4,4'-DDE
7.079	0.000	36220	7.789	-0.001	40635	2.85	2.76	3.0	Endrin
7.315	0.000	33958	8.001	-0.000	38270	2.85	2.76	3.4	Endosulfan II
7.138	0.000	31178	7.862	0.000	36046	2.73	2.68	1.8	4,4'-DDD
8.178	0.000	31912	8.598	0.000	35527	2.84	2.78	2.3	Endosulfan sulfate
7.431	0.000	33616	8.180	-0.001	36533	2.74	2.70	1.5	4,4'-DDT
7.920	0.000	81474	8.820	-0.002	86256	15.48	14.84	4.2	Methoxychlor
8.453	0.000	39092	9.119	0.000	40044	3.05	2.87	6.2	Endrin ketone
7.744	0.000	26296	8.331	0.000	28602	2.89	2.85	1.6	Endrin aldehyde
6.267	0.000	19601	6.939	0.000	22872	1.32	1.30	1.7	trans-Chlordane
6.414	0.000	19995	7.099	-0.001	22897	1.35	1.32	1.7	cis-Chlordane
2.308	0.000	29917	2.452	-0.001	32224	1.43	1.36	4.8	Hexachlorobutadiene
4.175	0.000	25512	4.622	0.000	31379	1.42	1.38	3.0	Hexachlorobenzene
3.819	0.000	36352	4.136	-0.000	46406	2.80	2.75	1.9	Tetrachloro-m-xylene
9.367	0.000	28105	10.307	0.000	25352	3.24	2.88	11.9	Decachlorobiphenyl N

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

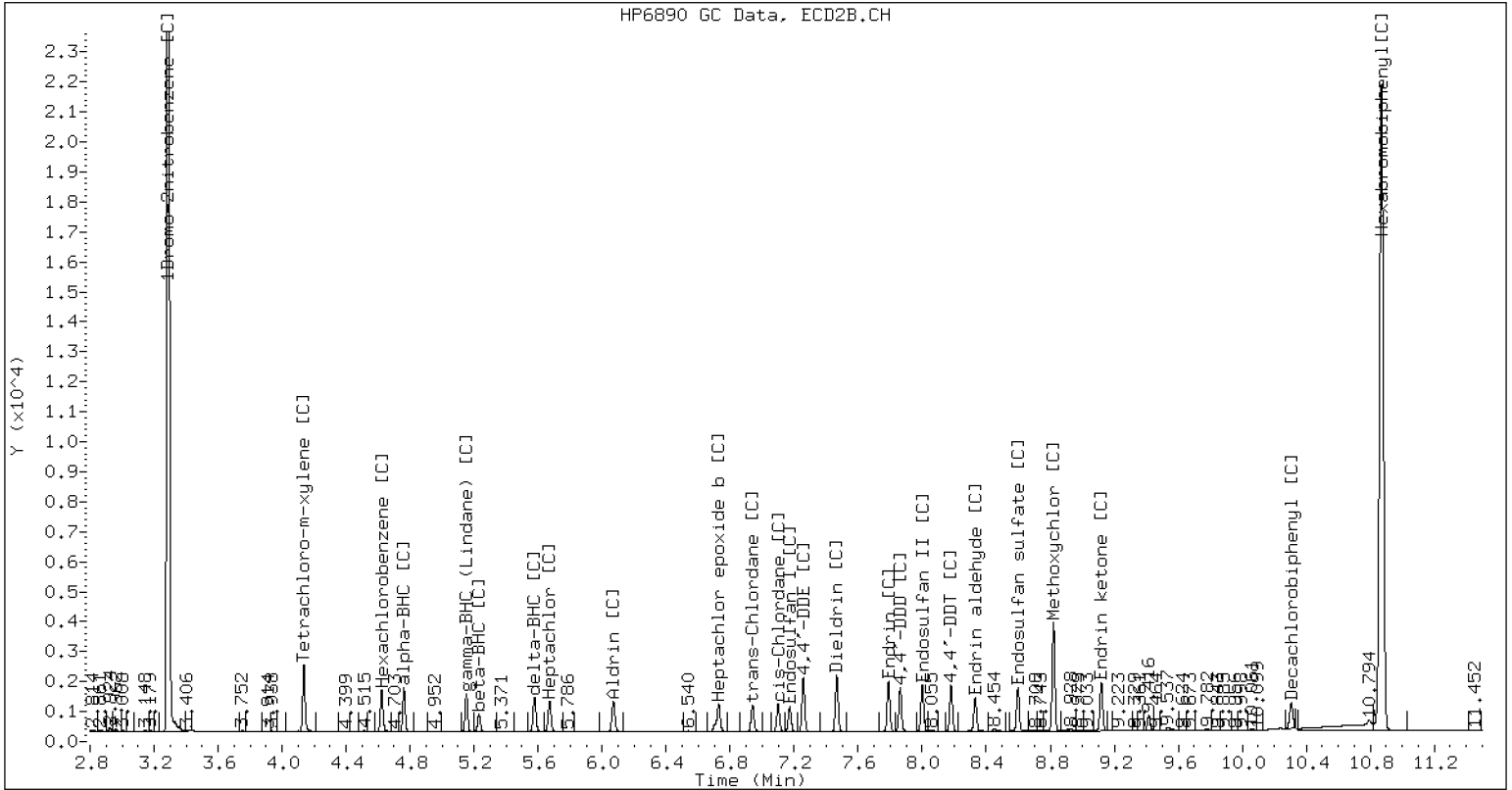
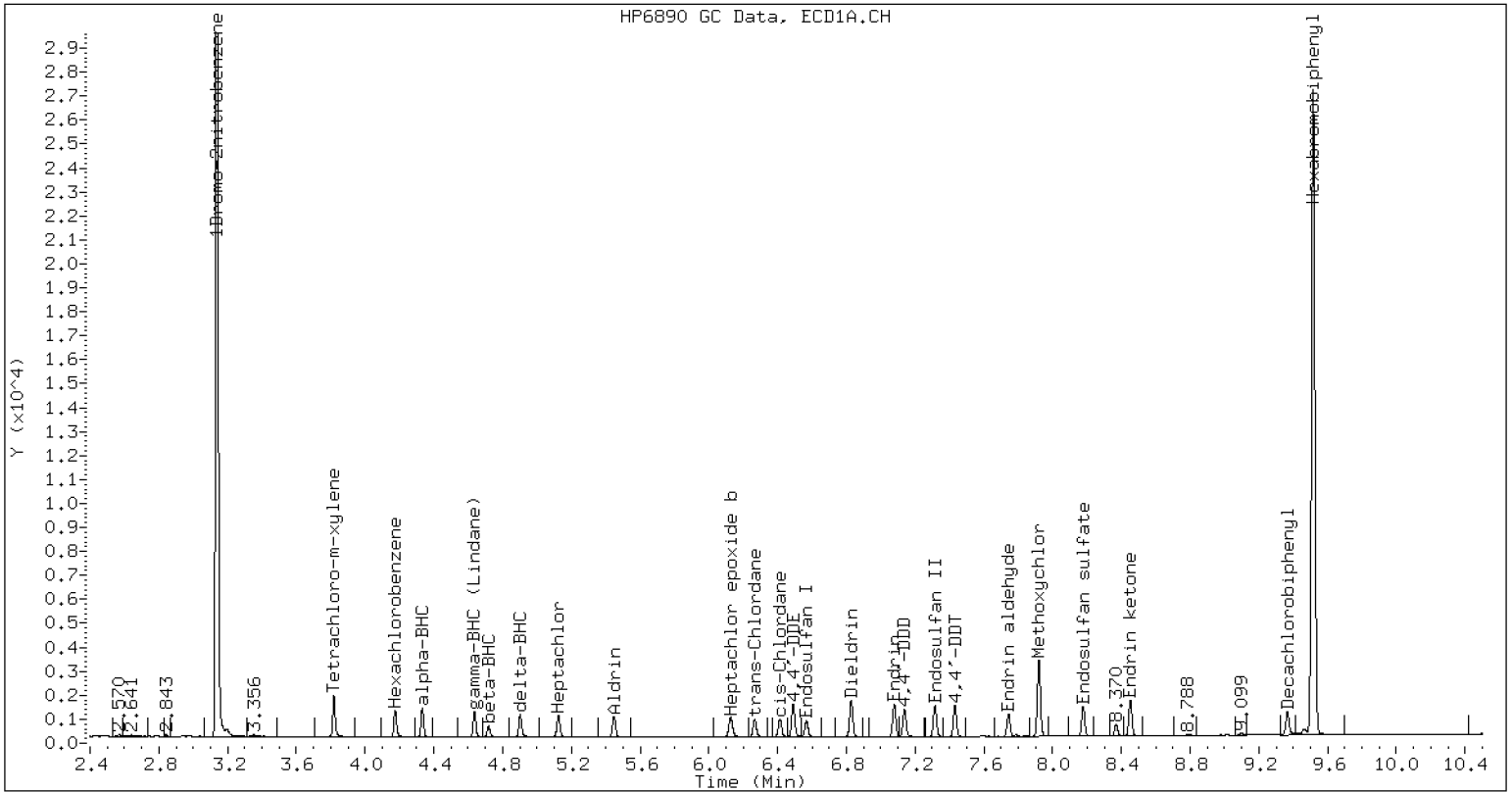
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	926418	7.2
Hexabromobiphenyl	663237	735580	10.9

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1226303	-17.2
Hexabromobiphenyl	870561	730241	-16.1

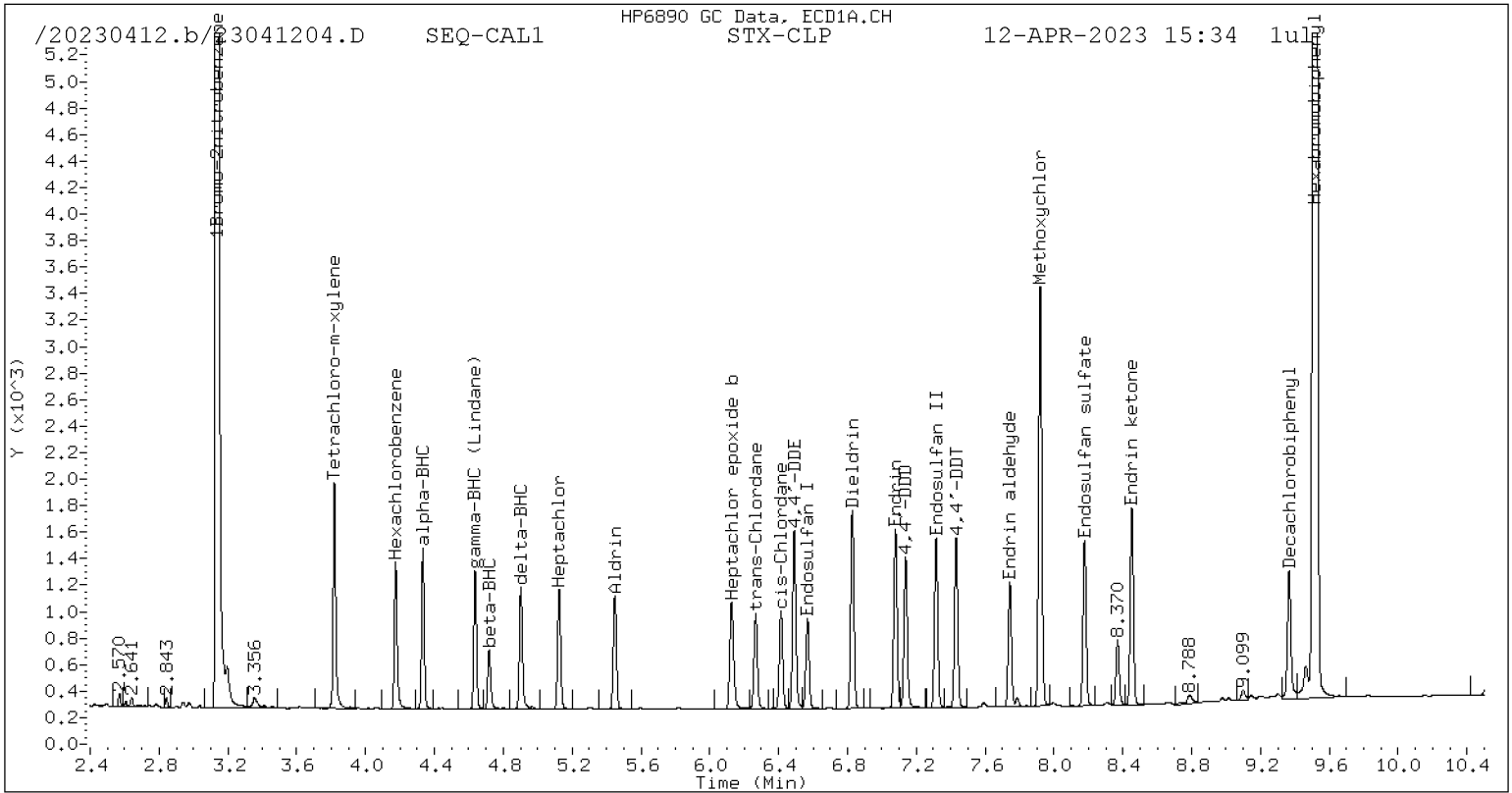
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

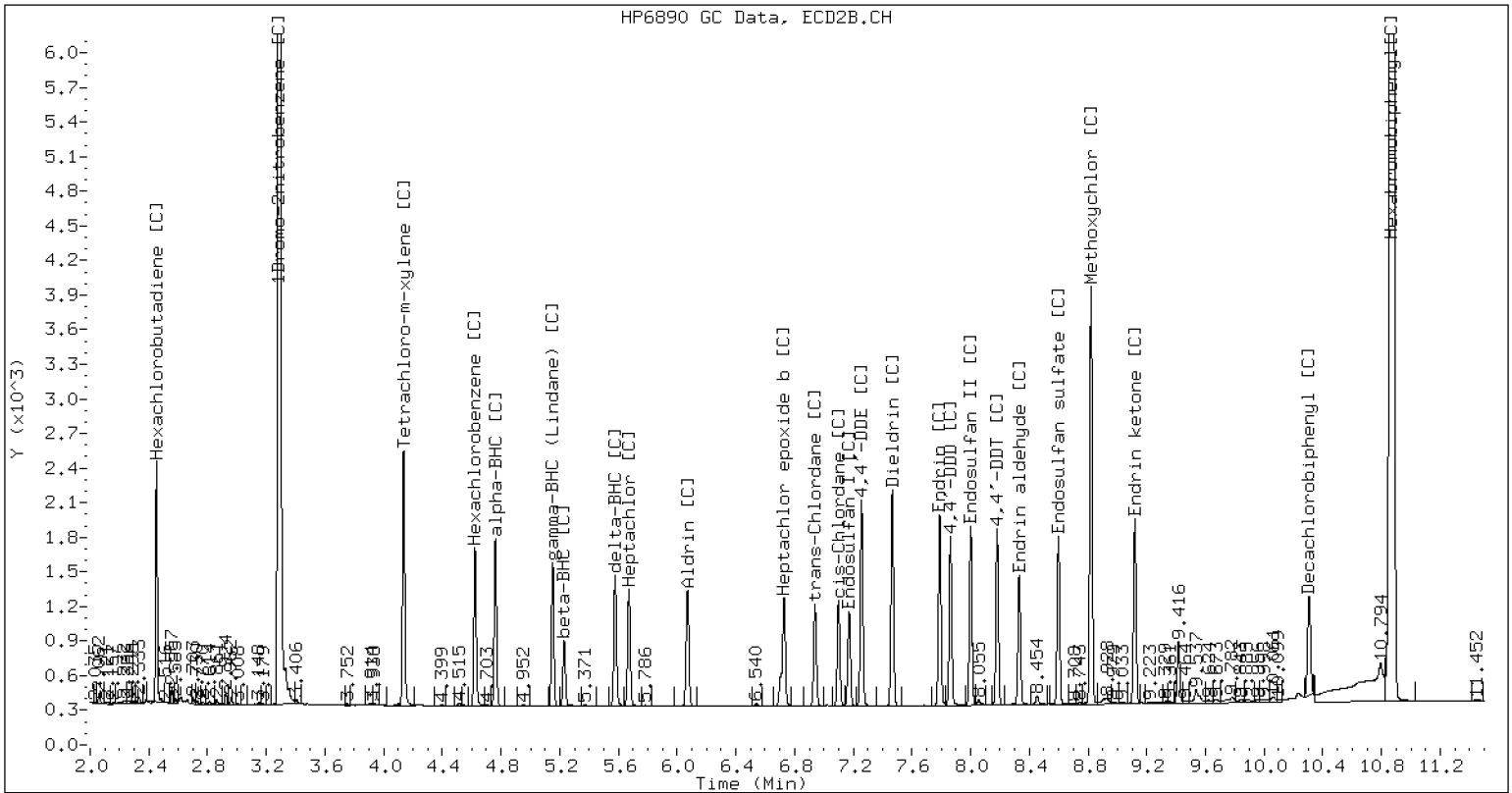


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

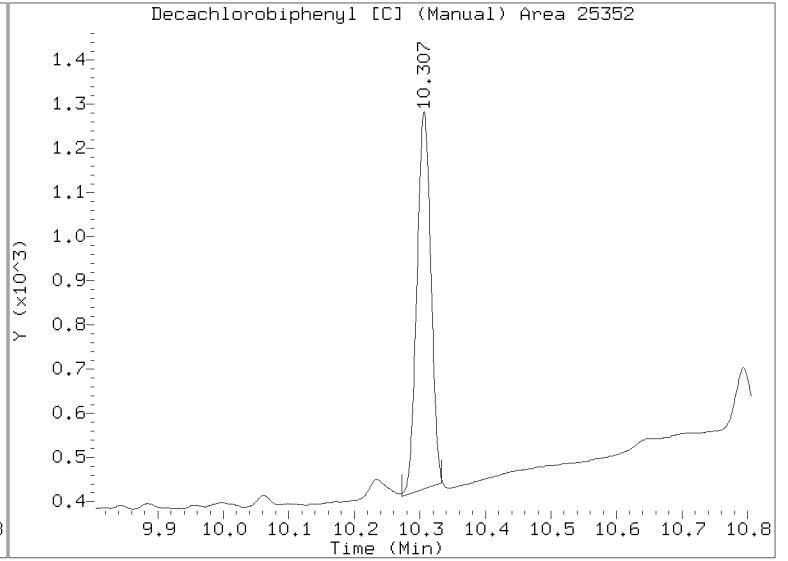
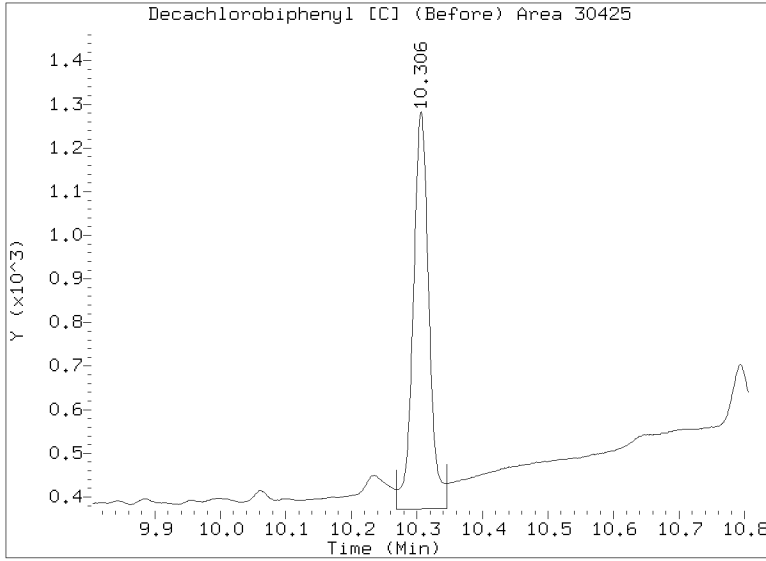
/20230412.b/B20230412.b/23041204.D SEQ-CAL1 CLP2



CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041204.D
Injection Date: 12-APR-2023 15:34
Lab ID:SEQ-CAL1 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041205.D
Data file 2: /20230412.b/B20230412.b/23041205.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2
Client ID:
Injection Date: 12-APR-2023 15:53
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
4.334	0.000	51739	4.762	-0.000	64823	2.56	2.47	3.6	alpha-BHC
4.718	-0.000	21843	5.230	-0.000	27256	2.71	2.62	3.4	beta-BHC
4.902	-0.001	46946	5.577	0.000	57832	2.57	2.48	3.6	delta-BHC
4.637	0.000	45705	5.152	-0.000	57426	2.58	2.49	3.3	gamma-BHC (Lindane)
5.125	0.000	44188	5.671	0.000	52255	2.69	2.59	4.0	Heptachlor
5.449	-0.000	43869	6.070	-0.001	53342	2.63	2.54	3.2	Aldrin
6.125	-0.002	39080	6.728	-0.001	46435	2.59	2.51	3.0	Heptachlor epoxide b
6.567	-0.001	36118	7.172	0.000	40864	2.69	2.60	3.4	Endosulfan I
6.828	-0.000	77704	7.466	0.000	91522	5.46	5.31	2.9	Dieldrin
6.490	-0.001	72097	7.257	0.000	86610	5.38	5.28	1.9	4,4'-DDE
7.079	-0.000	69966	7.790	-0.000	80652	5.47	5.42	1.0	Endrin
7.315	-0.000	66247	8.000	-0.001	75311	5.53	5.36	3.2	Endosulfan II
7.138	-0.000	61419	7.862	-0.000	71635	5.35	5.26	1.6	4,4'-DDD
8.178	0.000	62622	8.598	0.000	69135	5.55	5.34	3.8	Endosulfan sulfate
7.431	-0.000	66302	8.180	-0.001	72001	5.36	5.24	2.2	4,4'-DDT
7.920	-0.000	151246	8.821	-0.001	162884	28.55	27.67	3.1	Methoxychlor
8.453	0.000	72870	9.119	0.000	77298	5.65	5.47	3.4	Endrin ketone
7.743	-0.000	50010	8.331	0.000	54680	5.47	5.38	1.7	Endrin aldehyde
6.267	-0.000	38399	6.940	0.001	44910	2.60	2.54	2.6	trans-Chlordane
6.414	0.000	39092	7.100	-0.000	44798	2.64	2.57	2.7	cis-Chlordane
2.308	0.000	57293	2.452	-0.001	61436	2.75	2.58	6.4	Hexachlorobutadiene
4.175	-0.000	48764	4.622	0.000	61087	2.73	2.67	2.3	Hexachlorobenzene
3.820	0.000	70858	4.136	0.000	91748	5.48	5.40	1.6	Tetrachloro-m-xylene
9.367	-0.000	52201	10.306	-0.000	49425	5.98	5.54	7.7	Decachlorobiphenyl N

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

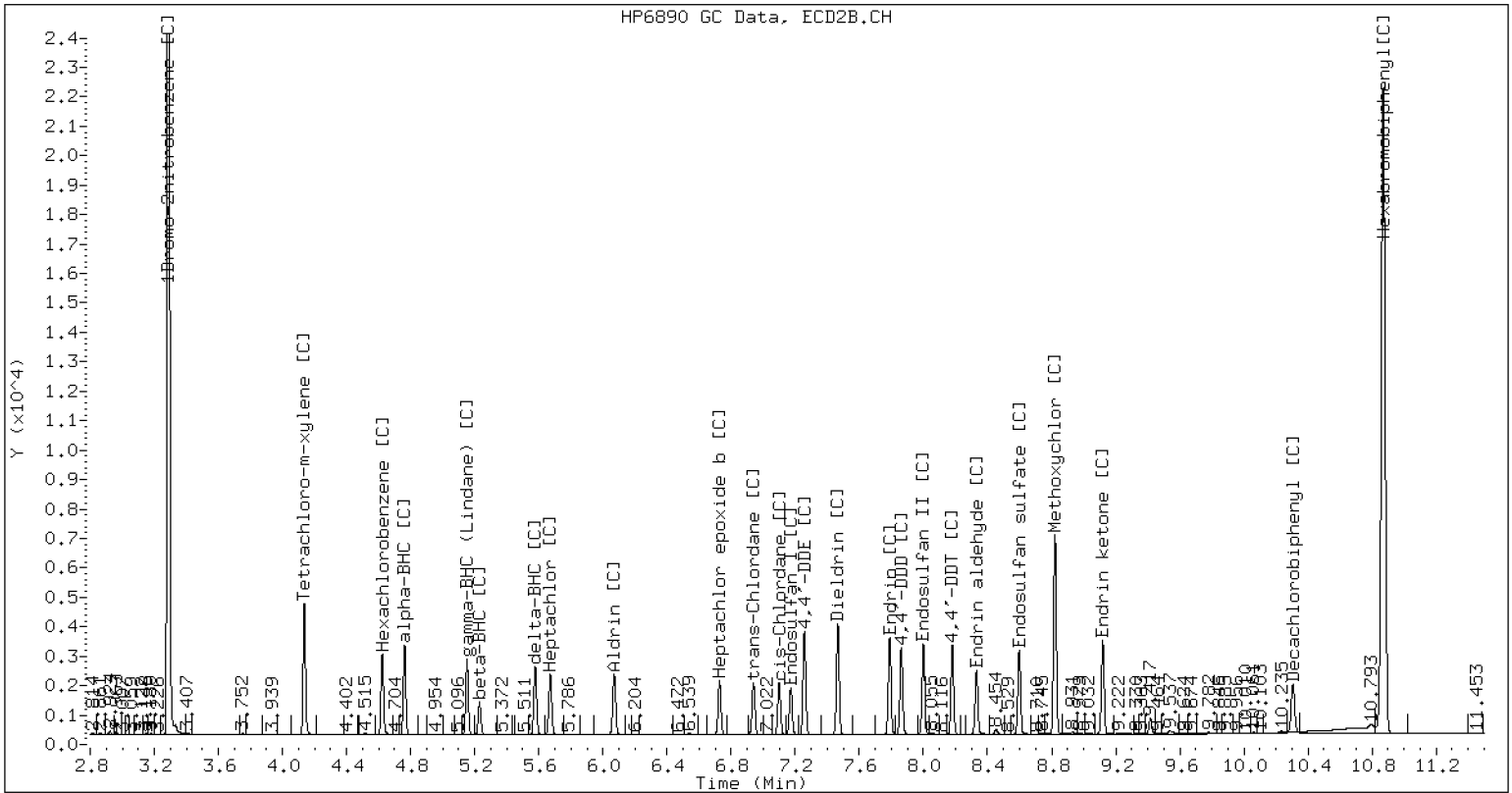
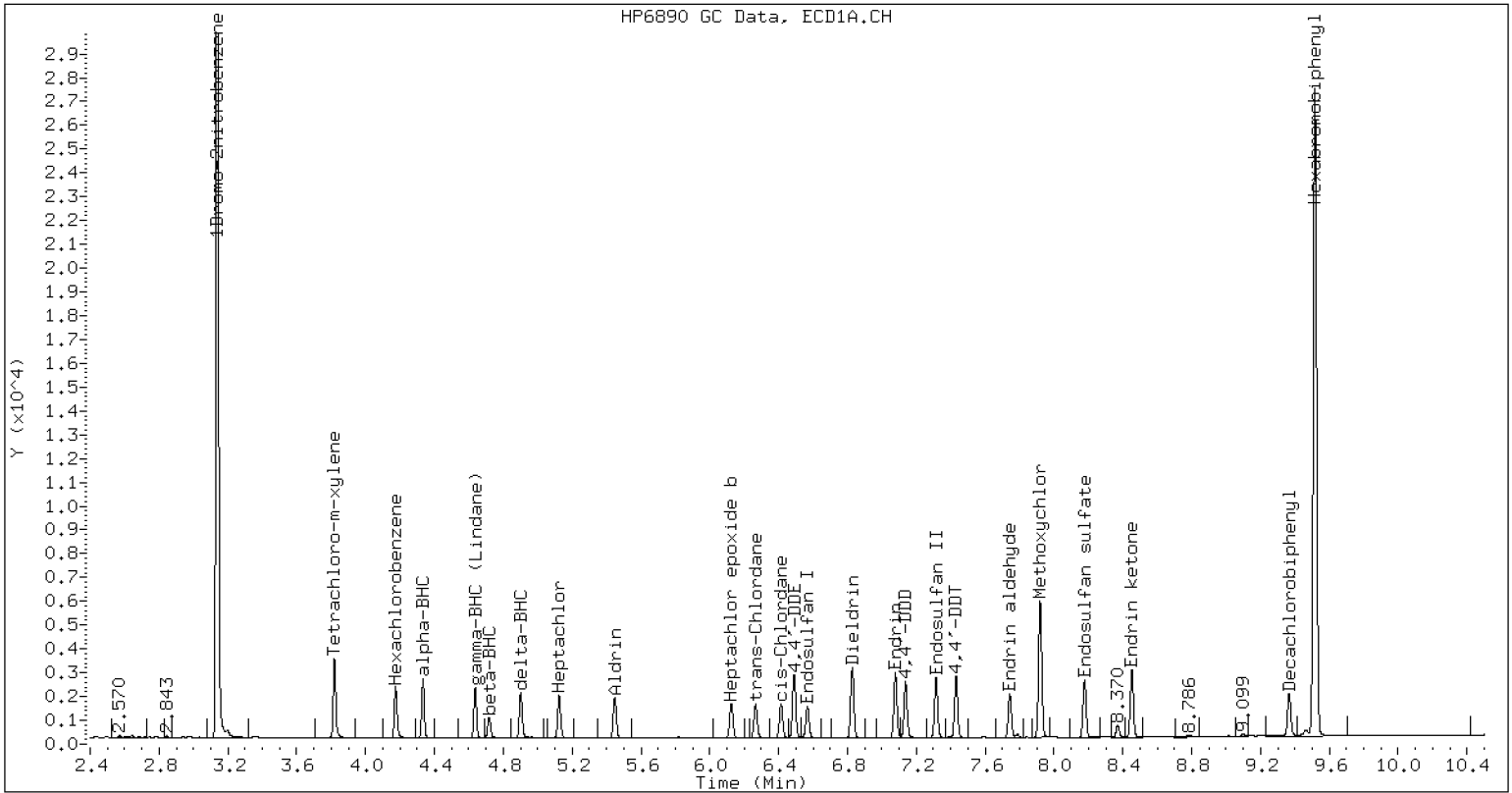
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	923378	6.8
Hexabromobiphenyl	663237	740194	11.6

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1235705	-16.6
Hexabromobiphenyl	870561	739625	-15.0

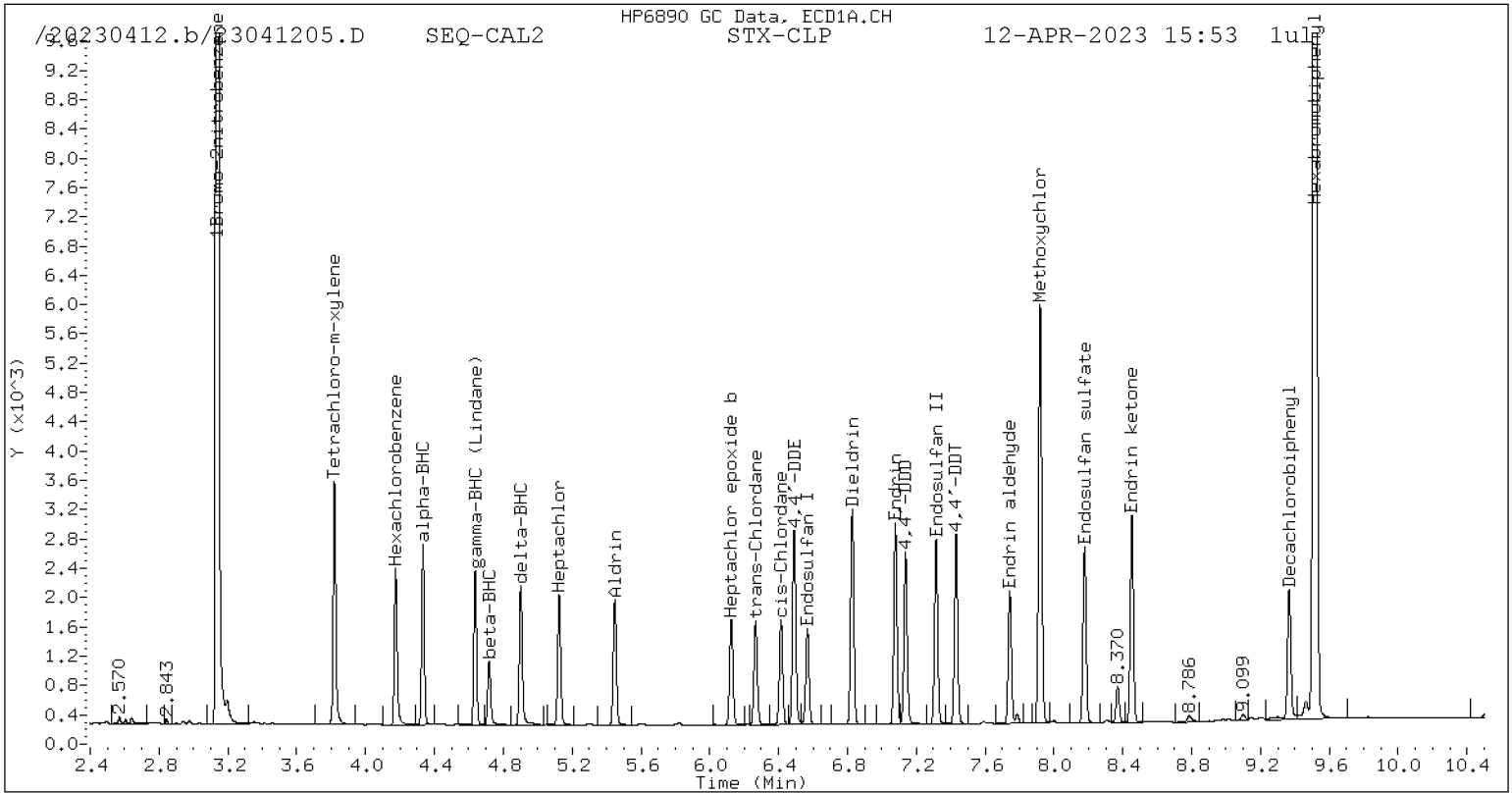
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

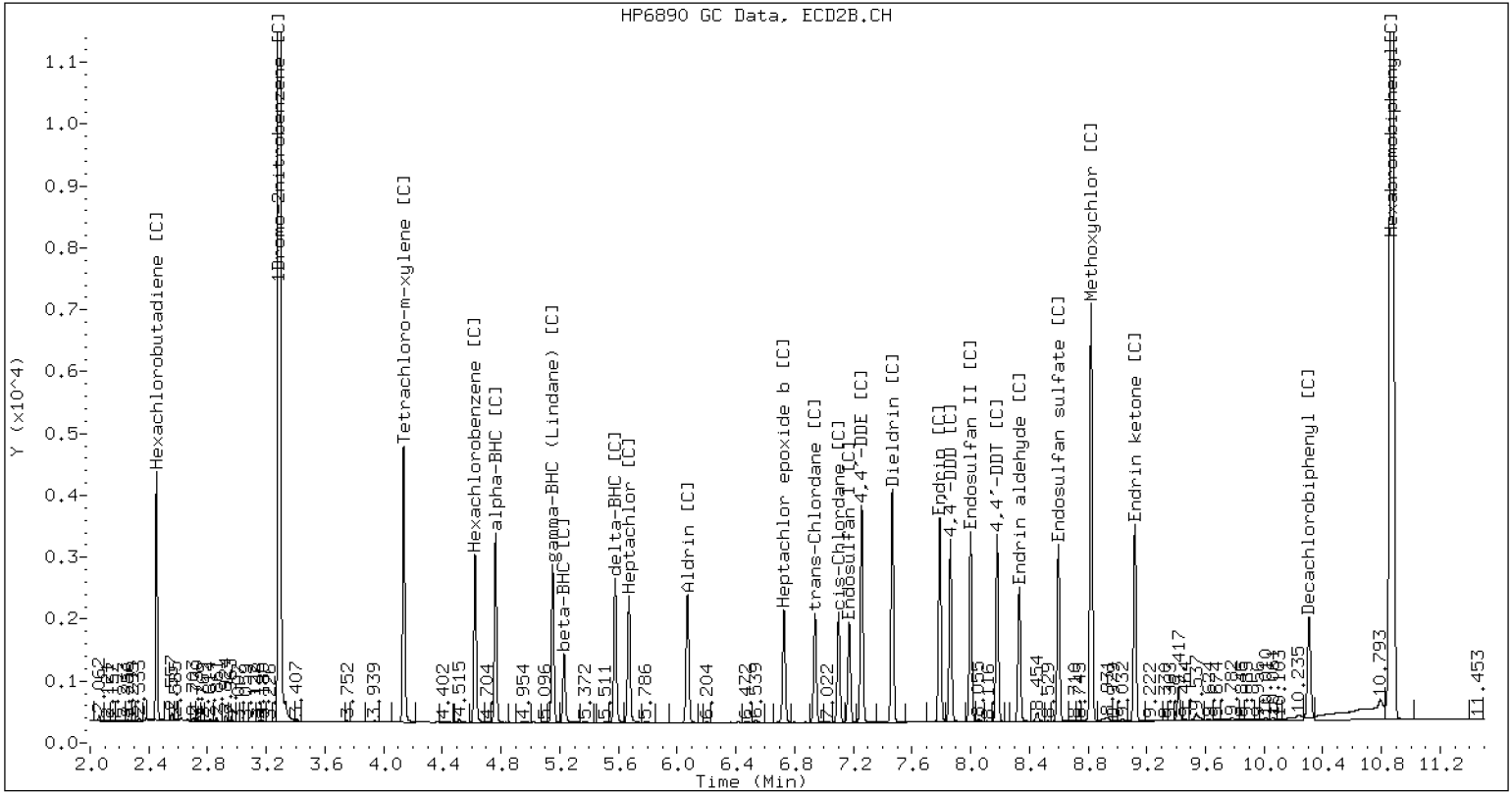


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

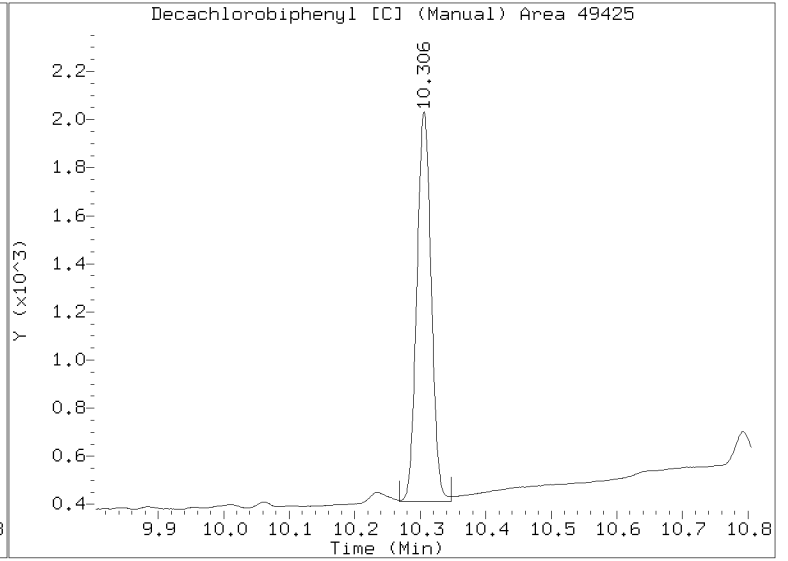
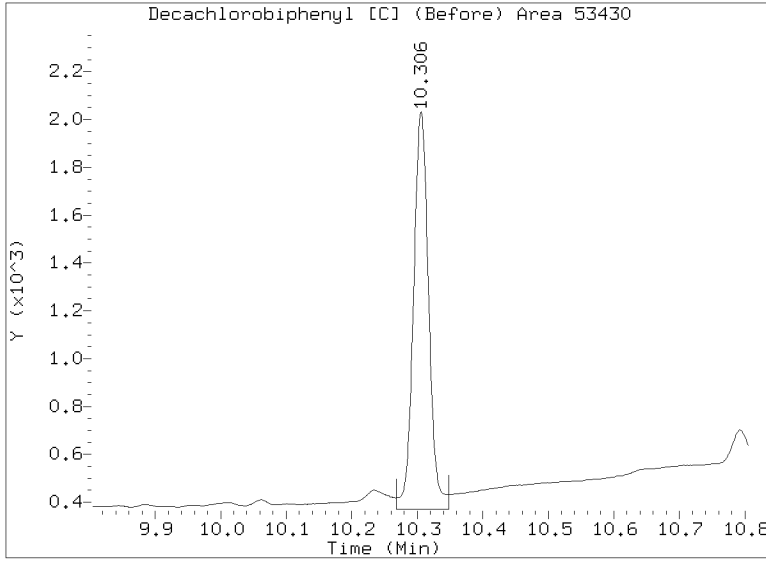
/20230412.b/B20230412.b/23041205.D SEQ-CAL2 CLP2



CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041205.D
Injection Date: 12-APR-2023 15:53
Lab ID:SEQ-CAL2 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041206.D
Data file 2: /20230412.b/B20230412.b/23041206.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL3
Client ID:
Injection Date: 12-APR-2023 16:11
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.333	0.000	103568	4.761	-0.001	131810	5.11	5.04	1.4	alpha-BHC
4.717	-0.001	41447	5.229	-0.001	52711	5.12	5.07	0.9	beta-BHC
4.902	-0.001	94116	5.576	-0.001	117489	5.13	5.05	1.6	delta-BHC
4.637	0.000	91660	5.151	-0.001	116367	5.15	5.06	1.7	gamma-BHC (Lindane)
5.125	-0.000	86721	5.670	-0.001	104305	5.26	5.17	1.7	Heptachlor
5.449	-0.000	87528	6.070	-0.001	107537	5.22	5.14	1.6	Aldrin
6.125	-0.002	76614	6.728	-0.001	91643	5.06	4.97	1.8	Heptachlor epoxide b
6.567	-0.001	70757	7.171	-0.001	81121	5.24	5.17	1.5	Endosulfan I
6.828	-0.000	151176	7.465	-0.001	180300	10.59	10.48	1.1	Dieldrin
6.489	-0.001	141708	7.257	-0.000	172687	10.53	10.54	0.1	4,4'-DDE
7.078	-0.001	135408	7.789	-0.001	157942	10.52	10.45	0.6	Endrin
7.315	-0.001	127172	8.000	-0.001	147360	10.55	10.32	2.2	Endosulfan II
7.137	-0.001	120482	7.862	-0.000	141192	10.43	10.22	2.0	4,4'-DDD
8.177	-0.001	119181	8.597	-0.001	134570	10.49	10.24	2.4	Endosulfan sulfate
7.431	-0.001	129376	8.180	-0.001	142078	10.40	10.20	2.0	4,4'-DDT
7.919	-0.001	279773	8.820	-0.002	309068	52.48	51.73	1.4	Methoxychlor
8.452	-0.000	133639	9.119	-0.000	147115	10.31	10.25	0.5	Endrin ketone
7.743	-0.001	96868	8.330	-0.001	105906	10.53	10.26	2.6	Endrin aldehyde
6.267	-0.000	76161	6.939	-0.000	89682	5.14	5.08	1.3	trans-Chlordane
6.414	-0.000	76892	7.099	-0.001	88748	5.17	5.10	1.4	cis-Chlordane
2.308	0.000	106908	2.452	-0.001	123867	5.11	5.22	2.0	Hexachlorobutadiene
4.175	-0.000	93098	4.622	-0.000	118070	5.19	5.17	0.4	Hexachlorobenzene
3.819	-0.000	137014	4.136	-0.000	179204	10.57	10.57	0.0	Tetrachloro-m-xylene
9.366	-0.001	90951	10.305	-0.001	96814	10.35	10.68	3.2	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

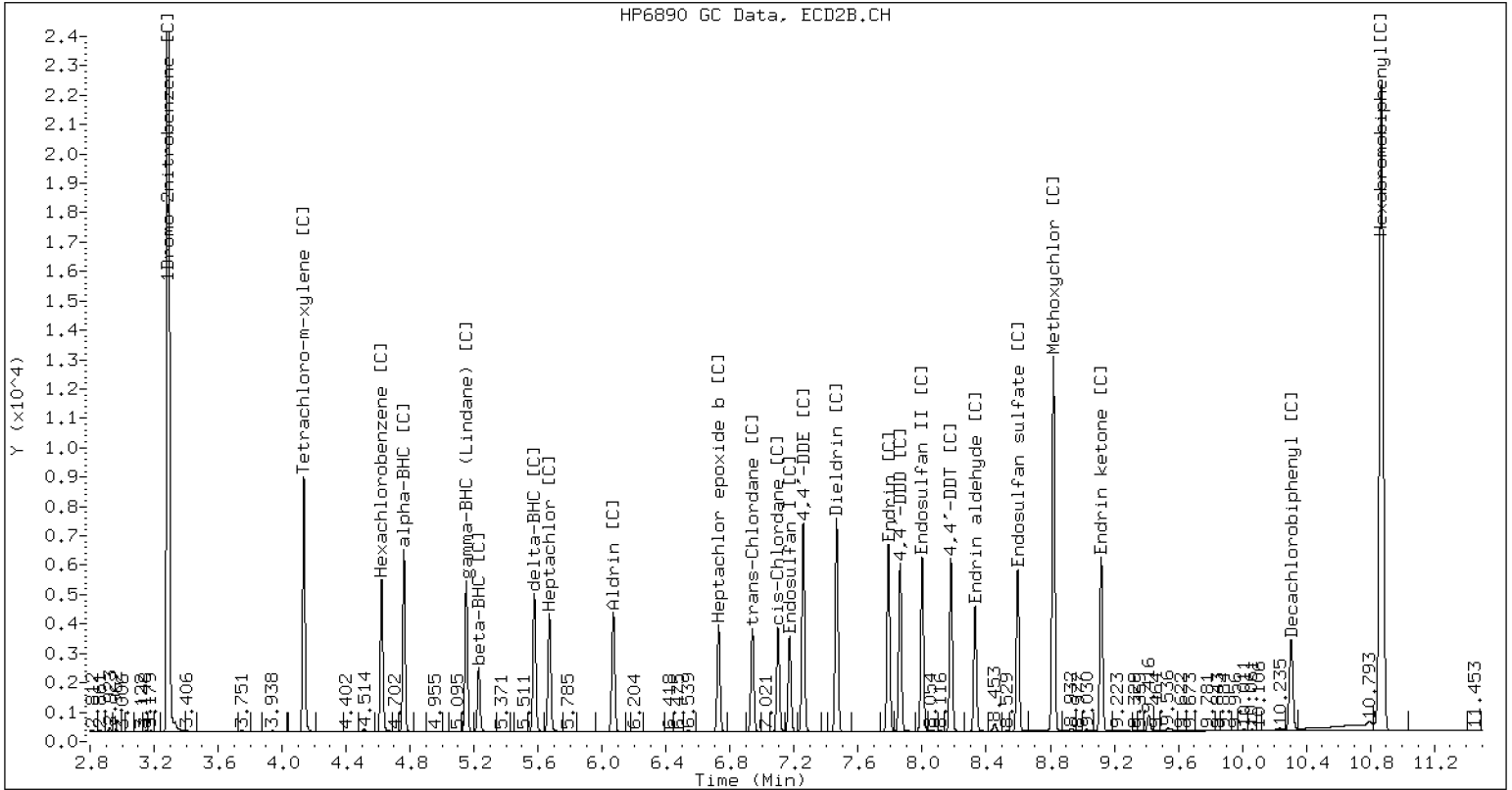
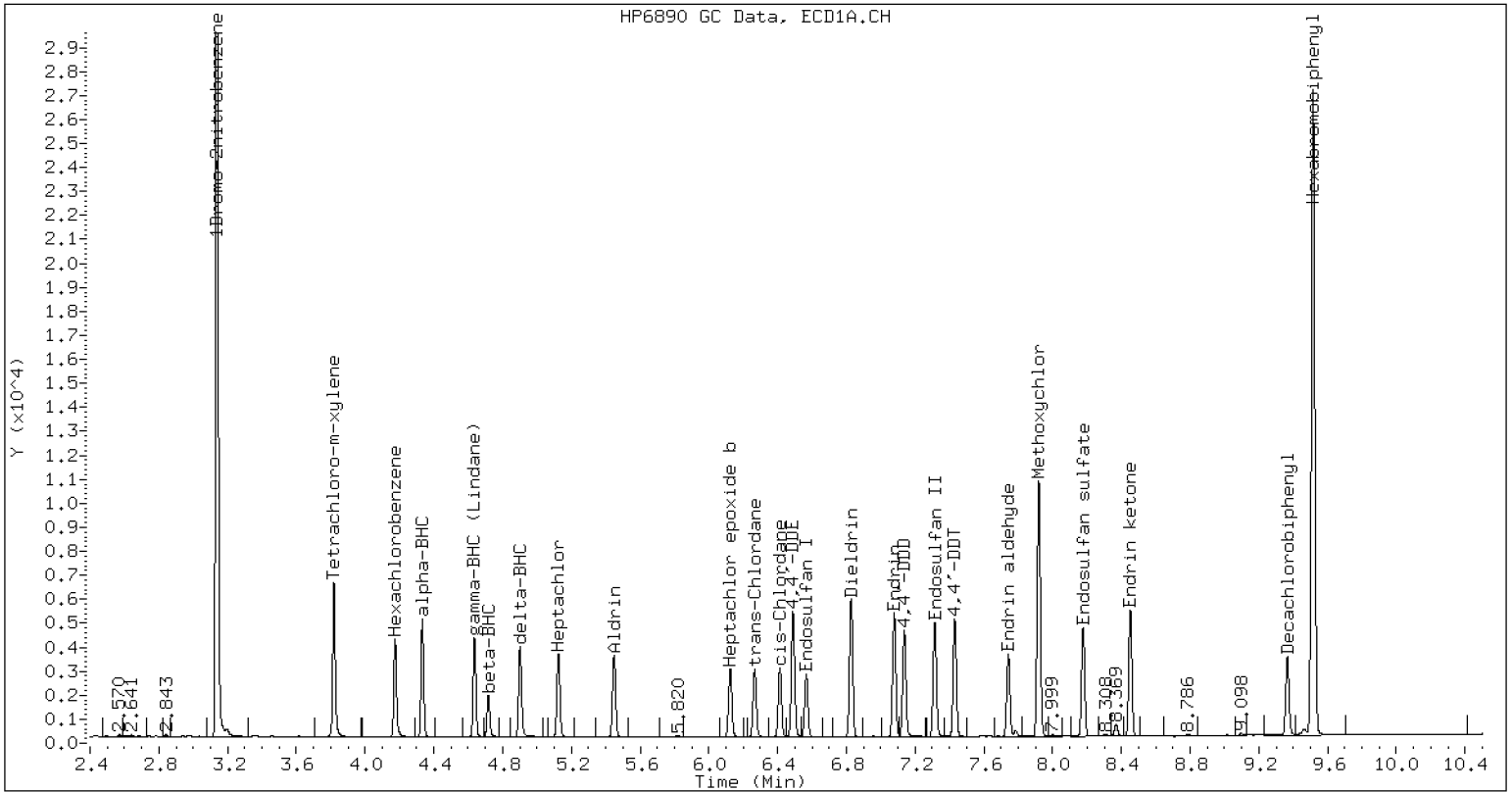
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	926824	7.2
Hexabromobiphenyl	663237	744867	12.3

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1232907	-16.7
Hexabromobiphenyl	870561	750687	-13.8

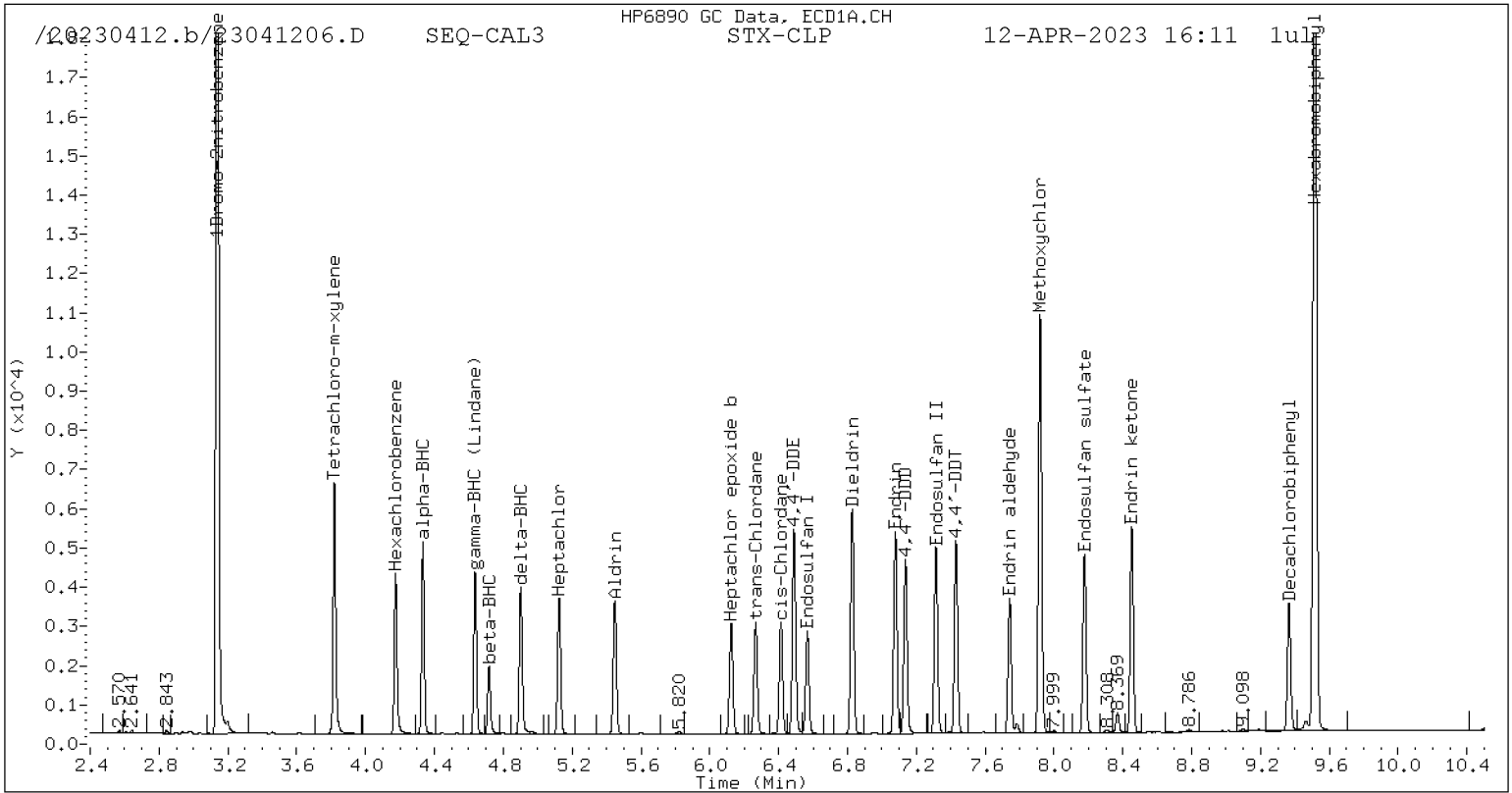
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

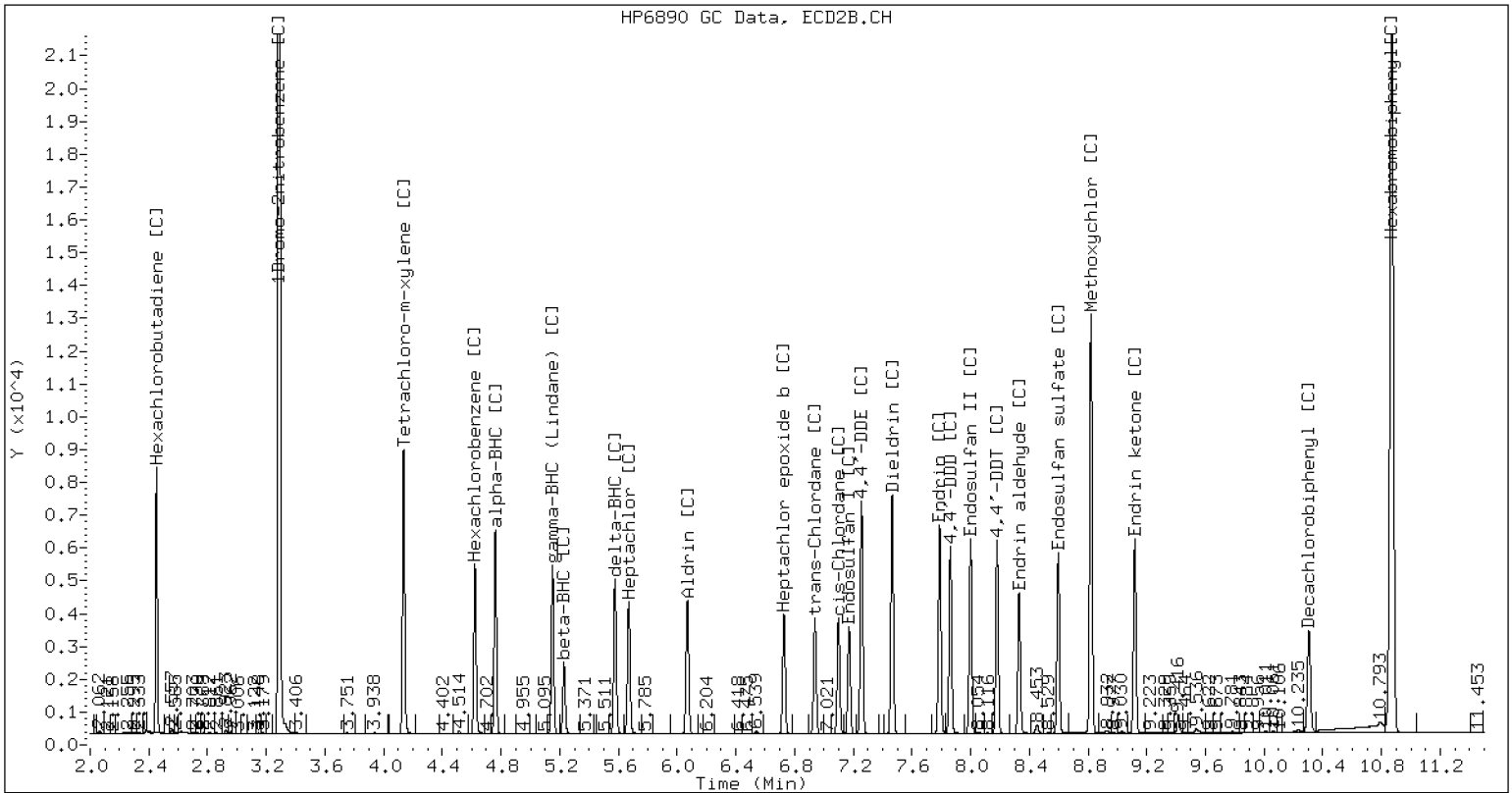


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041206.D SEQ-CAL3 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041207.D
Data file 2: /20230412.b/B20230412.b/23041207.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5
Client ID:
Injection Date: 12-APR-2023 16:30
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.334	0.001	407241	4.762	0.000	536848	19.97	20.27	1.5	alpha-BHC
4.717	-0.001	155730	5.230	-0.000	202325	19.12	19.23	0.6	beta-BHC
4.902	-0.001	370506	5.577	-0.000	476223	20.06	20.20	0.7	delta-BHC
4.637	0.000	356610	5.152	-0.000	467736	19.90	20.08	0.9	gamma-BHC (Lindane)
5.125	0.000	322878	5.671	-0.000	404806	19.46	19.82	1.8	Heptachlor
5.449	0.000	332937	6.070	-0.001	424935	19.73	20.04	1.6	Aldrin
6.125	-0.002	282261	6.728	-0.001	351893	18.53	18.86	1.7	Heptachlor epoxide b
6.568	-0.000	264288	7.172	-0.000	313117	19.47	19.69	1.2	Endosulfan I
6.828	0.000	556831	7.466	-0.000	679897	38.75	39.01	0.7	Dieldrin
6.490	-0.001	530626	7.257	-0.000	653476	39.17	39.39	0.6	4,4'-DDE
7.078	-0.000	494177	7.790	-0.000	590171	38.36	38.86	1.3	Endrin
7.315	-0.001	458674	8.000	-0.001	555378	38.02	38.71	1.8	Endosulfan II
7.137	-0.001	450400	7.862	0.000	544668	38.95	39.23	0.7	4,4'-DDD
8.177	-0.001	429746	8.598	-0.000	510603	37.79	38.65	2.3	Endosulfan sulfate
7.431	-0.000	481860	8.180	-0.001	546653	38.69	39.02	0.8	4,4'-DDT
7.920	-0.001	955187	8.821	-0.001	1096057	179.04	182.48	1.9	Methoxychlor
8.452	-0.000	476313	9.119	-0.000	546190	36.70	37.86	3.1	Endrin ketone
7.743	-0.000	347507	8.331	0.000	397001	37.75	38.27	1.4	Endrin aldehyde
6.267	-0.000	293273	6.939	0.000	355259	19.68	19.85	0.9	trans-Chlordane
6.413	-0.001	292054	7.099	-0.001	346293	19.52	19.65	0.7	cis-Chlordane
2.309	0.001	397872	2.452	-0.001	467299	18.91	19.43	2.7	Hexachlorobutadiene
4.175	0.000	342355	4.623	0.001	445526	18.97	19.26	1.5	Hexachlorobenzene
3.819	0.000	499517	4.136	0.000	663494	38.27	38.64	1.0	Tetrachloro-m-xylene
9.366	-0.001	308287	10.305	-0.001	336318	35.06	36.92	5.2	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

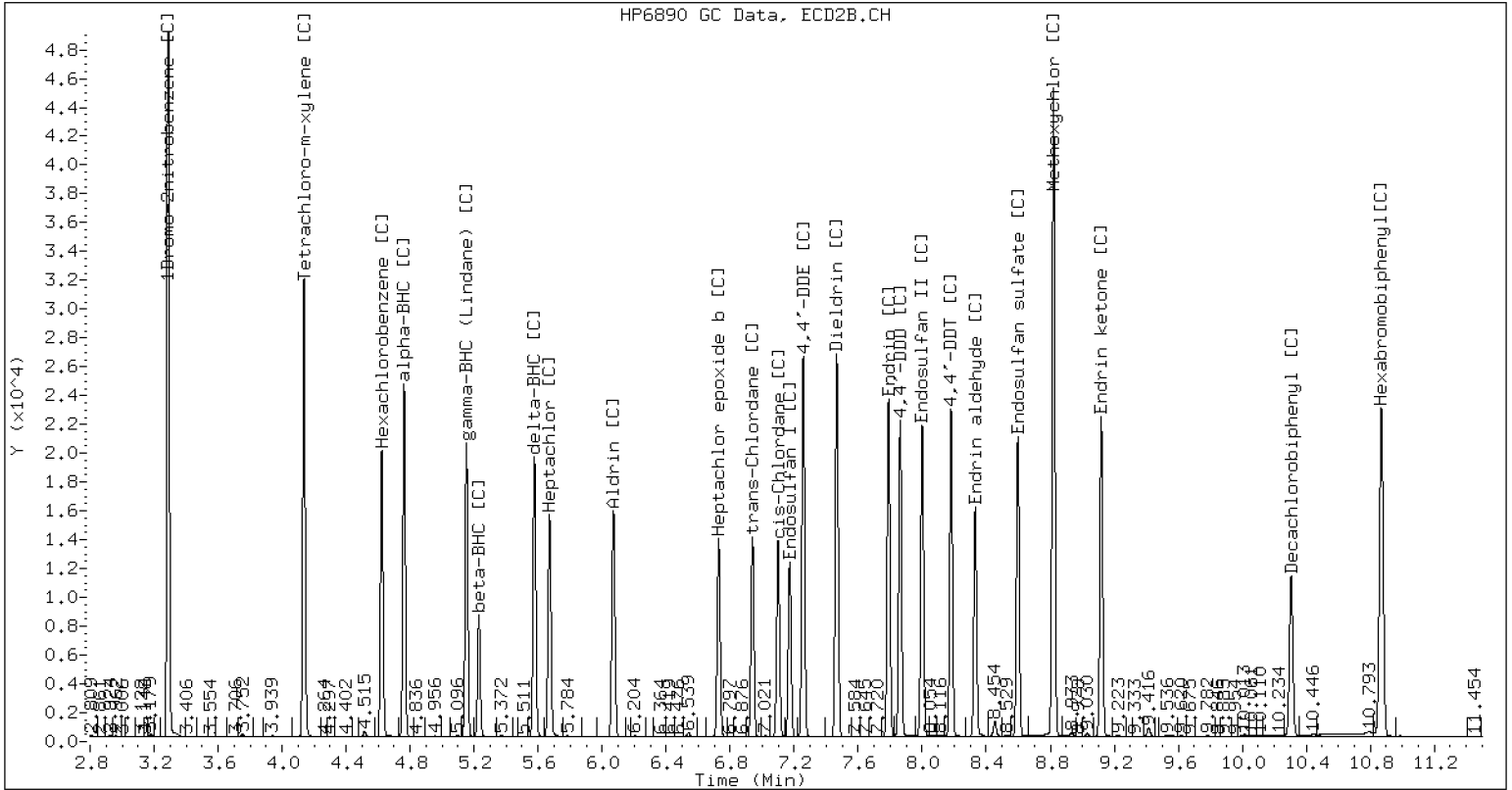
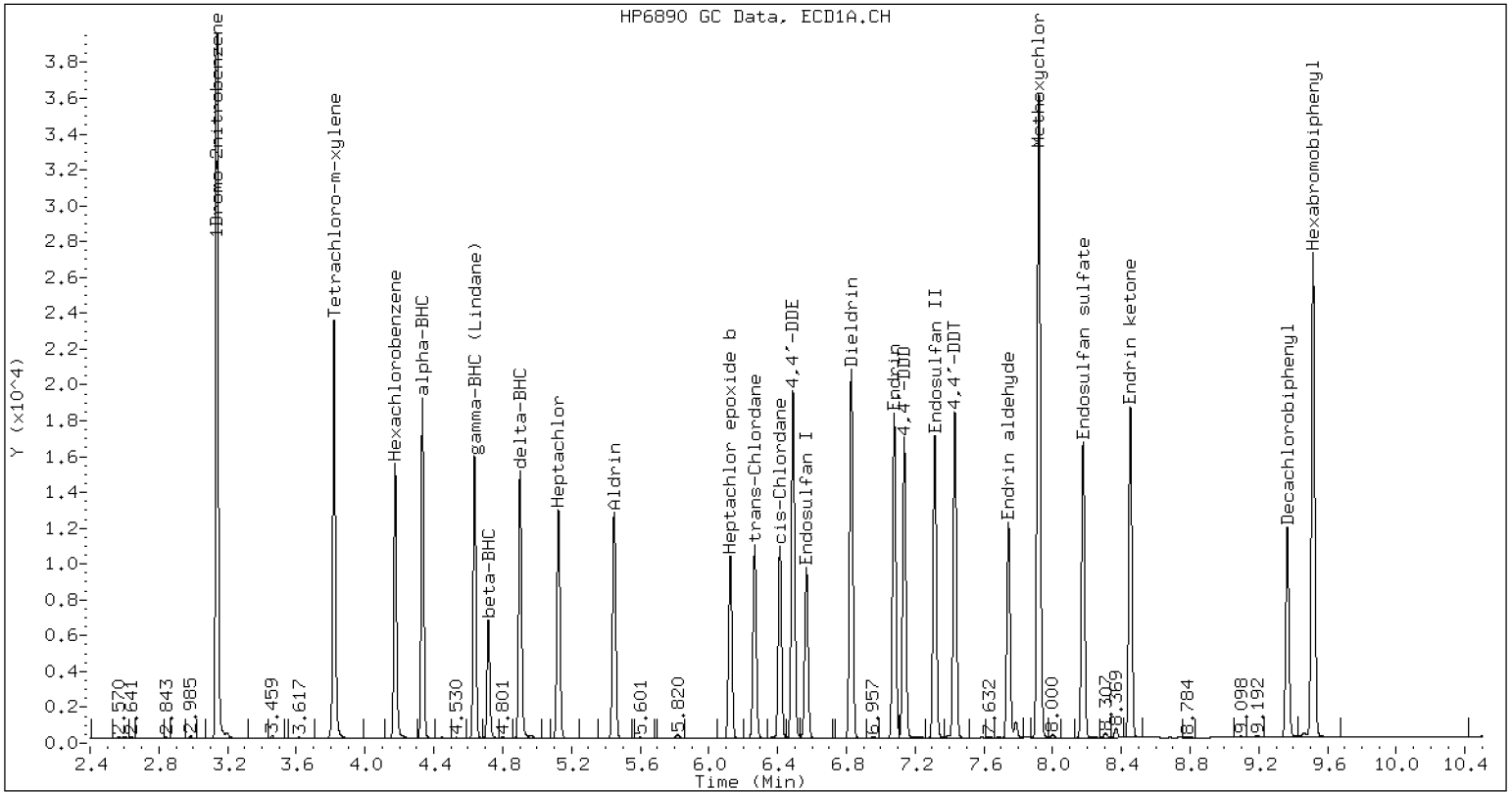
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	932757	7.9
Hexabromobiphenyl	663237	745426	12.4

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1248665	-15.7
Hexabromobiphenyl	870561	754634	-13.3

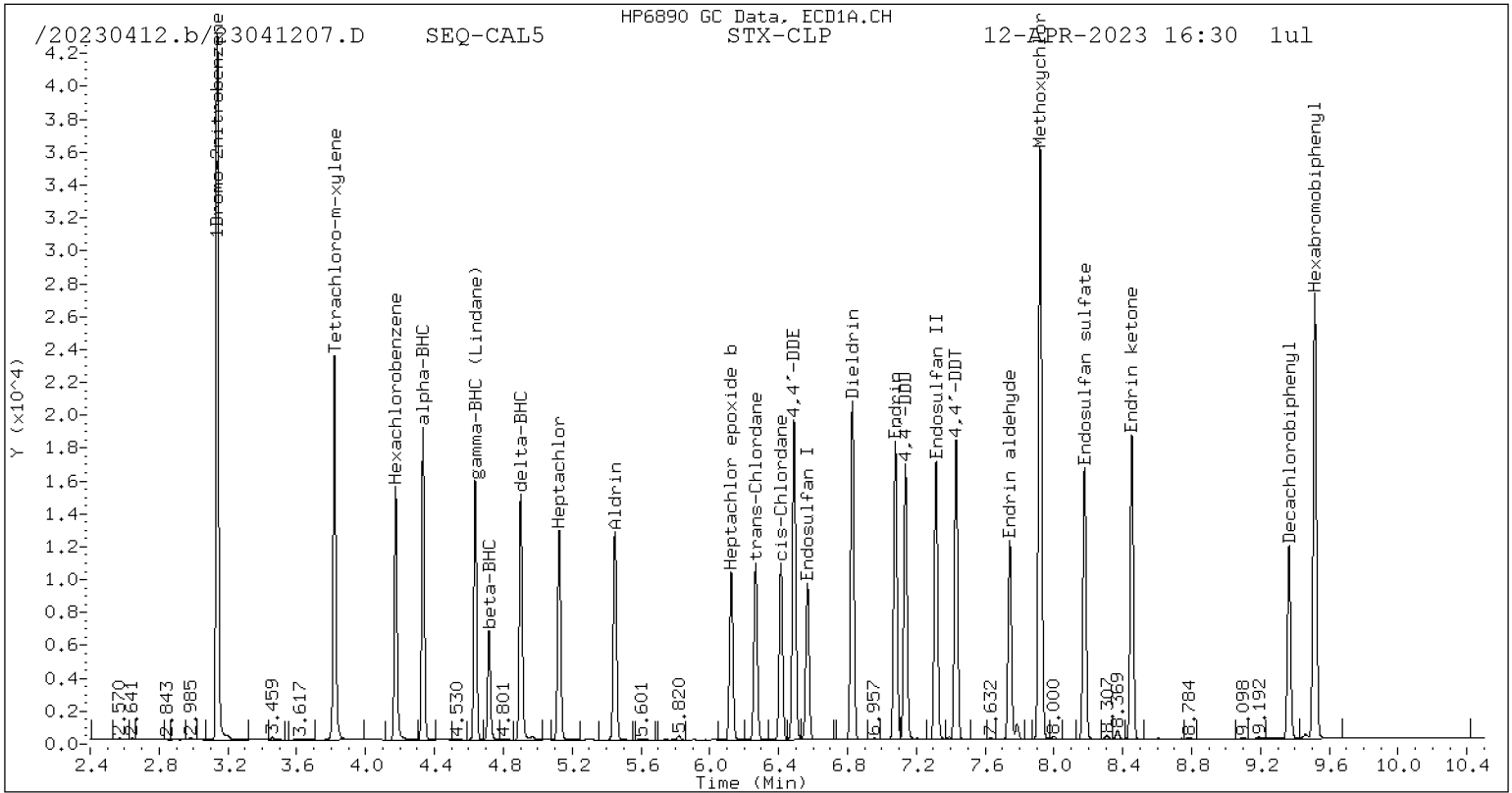
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

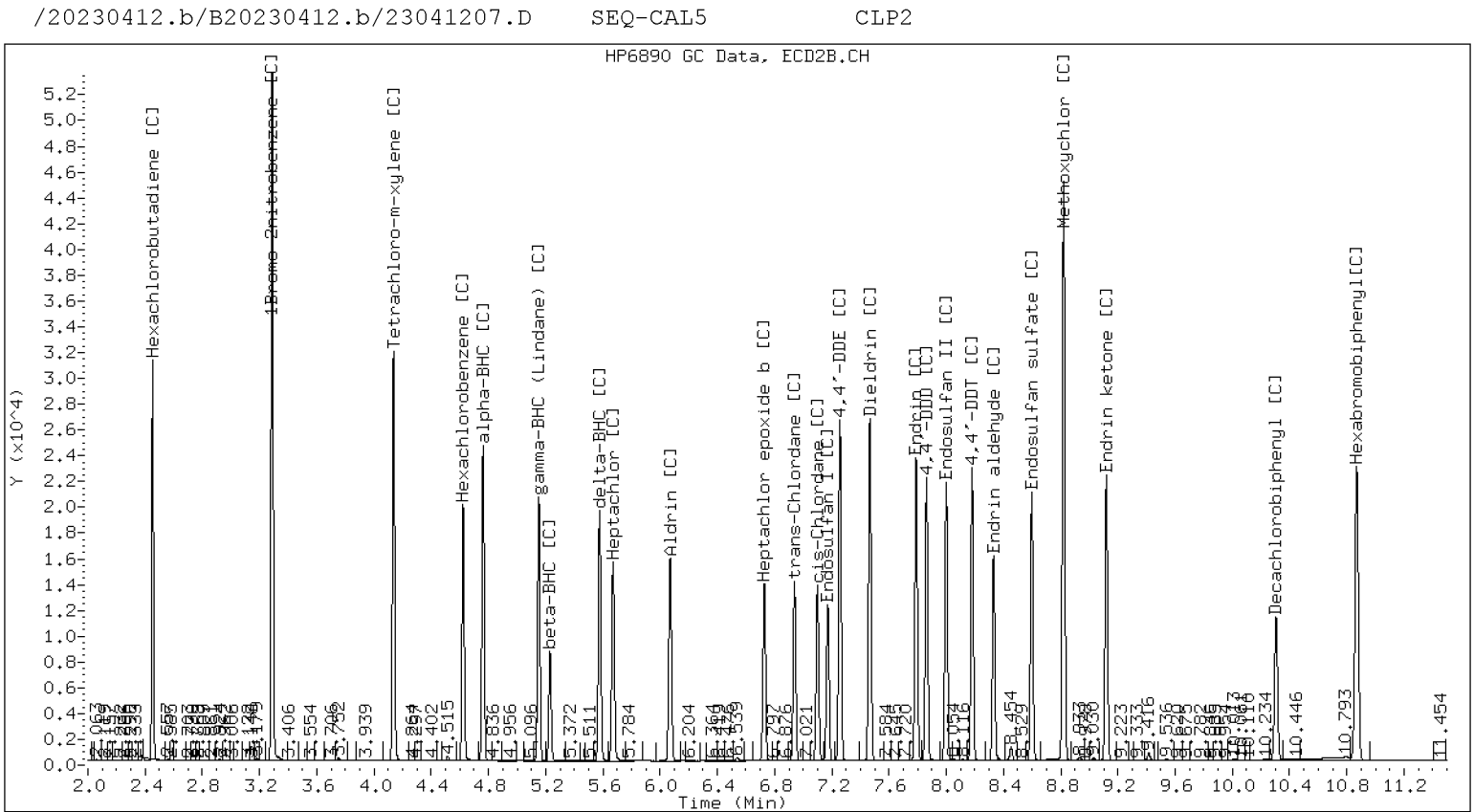
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041208.D
Data file 2: /20230412.b/B20230412.b/23041208.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4
Client ID:
Injection Date: 12-APR-2023 16:48
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.333	0.000	207054	4.762	-0.000	269032	10.40	10.44	0.4	alpha-BHC
4.717	-0.001	79800	5.230	-0.000	103870	10.04	10.15	1.1	beta-BHC
4.901	-0.001	188049	5.577	0.000	239720	10.44	10.45	0.1	delta-BHC
4.637	0.000	181860	5.152	-0.000	236414	10.40	10.44	0.4	gamma-BHC (Lindane)
5.125	0.000	168797	5.672	0.001	208664	10.43	10.50	0.7	Heptachlor
5.449	0.000	172339	6.070	-0.001	216770	10.47	10.51	0.4	Aldrin
6.125	-0.002	148413	6.728	-0.001	182002	9.99	10.03	0.4	Heptachlor epoxide b
6.567	-0.001	138415	7.172	0.000	161209	10.45	10.42	0.2	Endosulfan I
6.828	-0.000	293866	7.466	0.000	354543	20.96	20.91	0.2	Dieldrin
6.490	-0.001	276898	7.257	0.000	342356	20.95	21.22	1.3	4,4'-DDE
7.078	-0.001	260570	7.789	-0.001	308995	20.59	20.68	0.4	Endrin
7.314	-0.001	243933	8.000	-0.001	290249	20.59	20.57	0.1	Endosulfan II
7.137	-0.001	235887	7.862	0.000	281171	20.77	20.59	0.9	4,4'-DDD
8.178	-0.000	228340	8.598	-0.000	264823	20.44	20.38	0.3	Endosulfan sulfate
7.431	-0.001	252435	8.181	-0.000	282707	20.64	20.52	0.6	4,4'-DDT
7.920	-0.000	515694	8.821	-0.001	586198	98.41	99.22	0.8	Methoxychlor
8.452	-0.000	254090	9.119	-0.000	286425	19.93	20.18	1.2	Endrin ketone
7.743	-0.001	184716	8.331	0.000	207509	20.43	20.34	0.4	Endrin aldehyde
6.267	-0.000	150690	6.939	0.000	180266	10.36	10.36	0.1	trans-Chlordane
6.413	-0.001	150822	7.100	-0.000	176894	10.33	10.32	0.1	cis-Chlordane
2.308	0.000	206966	2.452	-0.001	244467	10.08	10.45	3.6	Hexachlorobutadiene
4.175	-0.000	178711	4.622	-0.000	231238	10.15	10.28	1.3	Hexachlorobenzene
3.819	0.000	263469	4.136	-0.000	349814	20.69	20.95	1.2	Tetrachloro-m-xylene
9.366	-0.001	166503	10.306	-0.000	180273	19.28	20.12	4.3	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

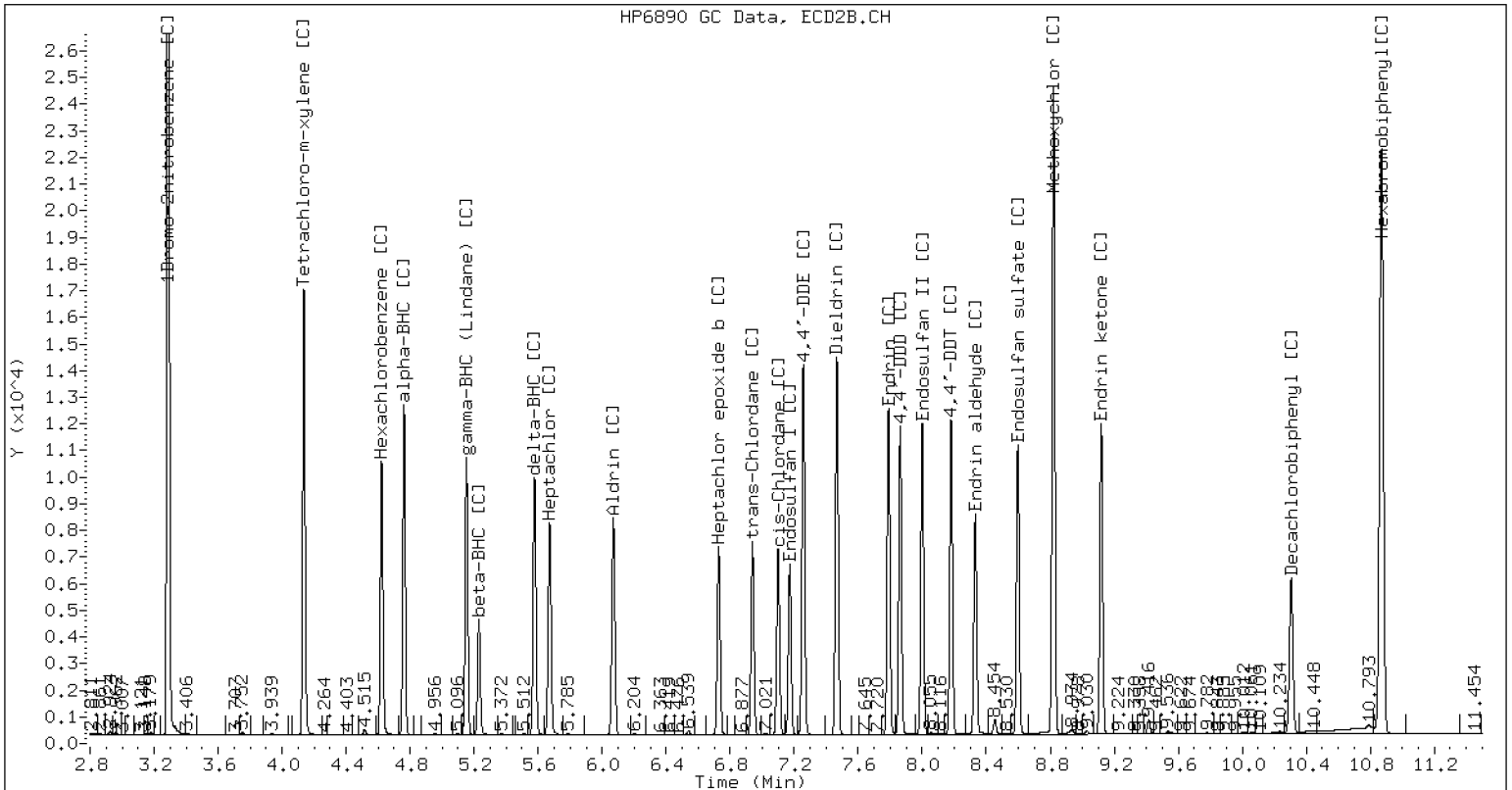
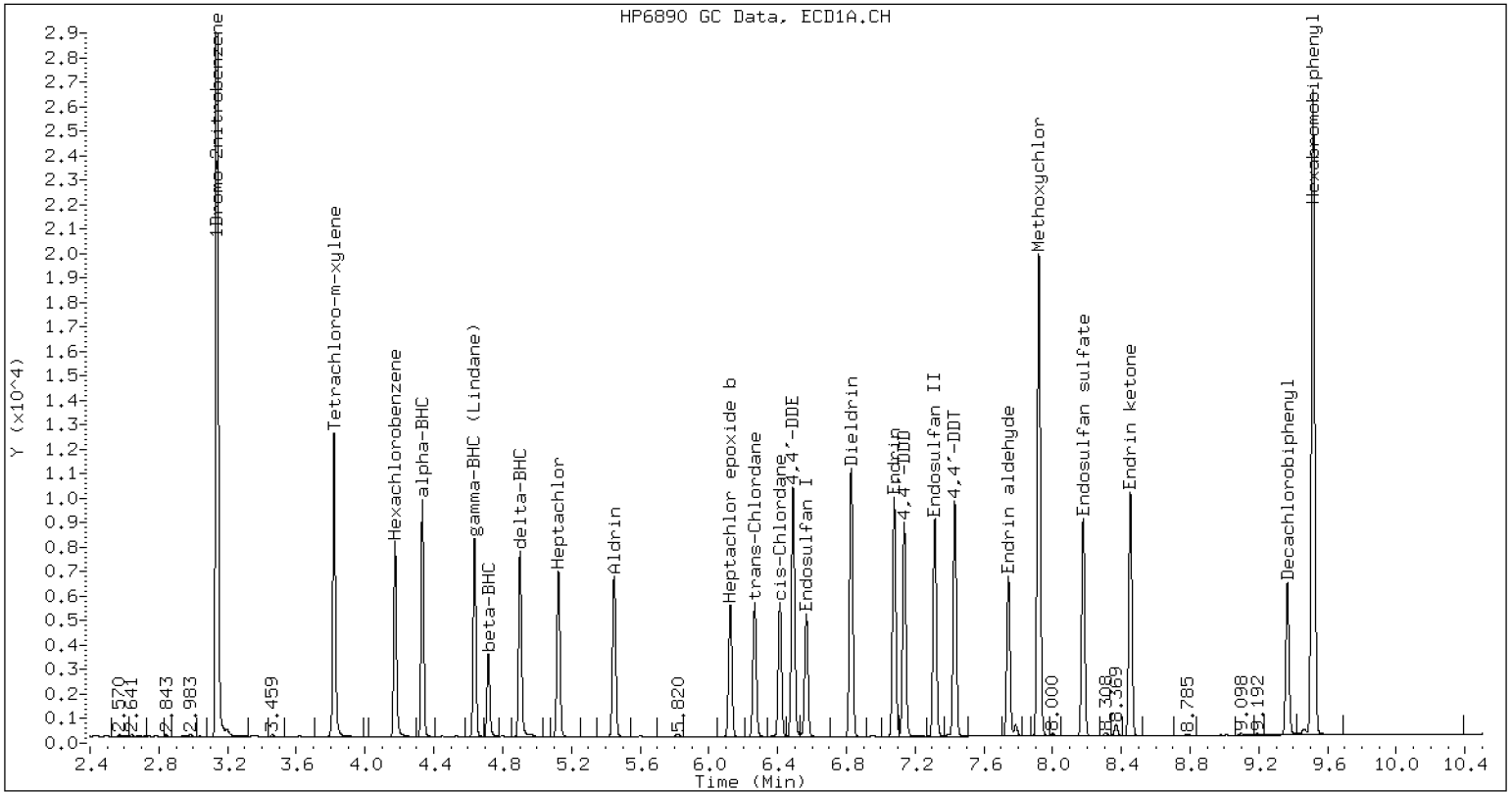
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	910053	5.3
Hexabromobiphenyl	663237	732158	10.4

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1214458	-18.0
Hexabromobiphenyl	870561	742252	-14.7

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041209.D
 Data file 2: /20230412.b/B20230412.b/23041209.D
 Method: \20230412.b\PEST.m
 Compound Sublist: INDA.sub
 Instrument, Inj. Vol.: ecd6.i, 1ul
 Operator: JGR

ARI ID: SEQ-CAL6
 Client ID:
 Injection Date: 12-APR-2023 17:06
 Report Date: 04/13/2023 12:57
 Units: ng/mL
 Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.333	0.000	789082	4.762	0.000	1053745	39.26	40.45	3.0	alpha-BHC
4.717	-0.001	298836	5.230	-0.000	393735	37.23	38.05	2.2	beta-BHC
4.901	-0.001	708304	5.577	0.000	933504	38.92	40.25	3.4	delta-BHC
4.637	0.000	688986	5.152	-0.000	916016	39.01	39.99	2.5	gamma-BHC (Lindane)
5.125	-0.000	604529	5.671	0.000	770994	36.98	38.38	3.7	Heptachlor
5.448	-0.000	629969	6.071	-0.000	812922	37.88	38.99	2.9	Aldrin
6.125	-0.002	526148	6.729	-0.000	668897	35.05	36.44	3.9	Heptachlor epoxide b
6.567	-0.001	493488	7.173	0.001	596729	36.88	38.16	3.4	Endosulfan I
6.829	0.000	1030944	7.466	0.000	1279184	72.81	74.62	2.5	Dieldrin
6.489	-0.001	993535	7.257	0.000	1220084	74.41	74.77	0.5	4,4'-DDE
7.078	-0.001	907557	7.790	-0.000	1098211	72.71	73.00	0.4	Endrin
7.314	-0.001	848911	8.001	-0.000	1048450	72.63	73.77	1.6	Endosulfan II
7.137	-0.001	838729	7.862	0.000	1040087	74.86	75.63	1.0	4,4'-DDD
8.178	-0.000	805013	8.598	0.000	975785	73.05	74.56	2.1	Endosulfan sulfate
7.431	-0.000	908115	8.181	0.000	1053162	75.26	75.90	0.9	4,4'-DDT
7.920	-0.001	1796134	8.821	-0.001	2104774	347.45	353.79	1.8	Methoxychlor
8.452	-0.000	896939	9.120	0.001	1042272	71.33	72.93	2.2	Endrin ketone
7.743	-0.001	649599	8.332	0.001	756869	72.82	73.66	1.1	Endrin aldehyde
6.266	-0.000	563470	6.940	0.001	689422	38.37	39.17	2.1	trans-Chlordane
6.414	-0.000	558211	7.100	-0.000	670499	37.86	38.69	2.2	cis-Chlordane
2.309	0.001	760920	2.453	-0.000	896023	36.70	37.88	3.2	Hexachlorobutadiene
4.175	-0.000	651738	4.623	0.001	846379	36.64	37.20	1.5	Hexachlorobenzene
3.819	-0.000	933369	4.136	0.000	1232611	72.57	72.99	0.6	Tetrachloro-m-xylene
9.367	0.000	579829	10.306	0.000	644132	68.06	71.40	4.8	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

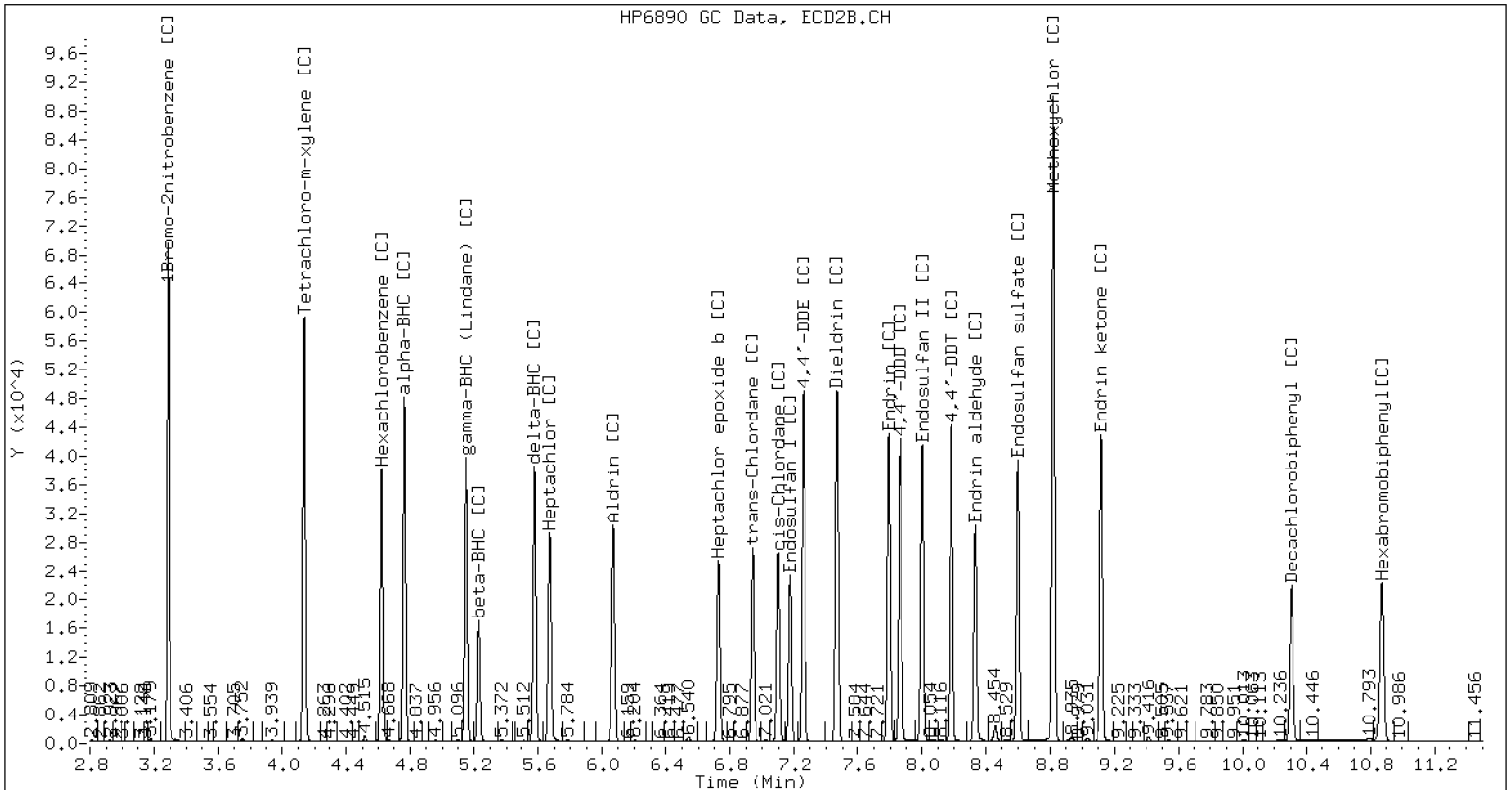
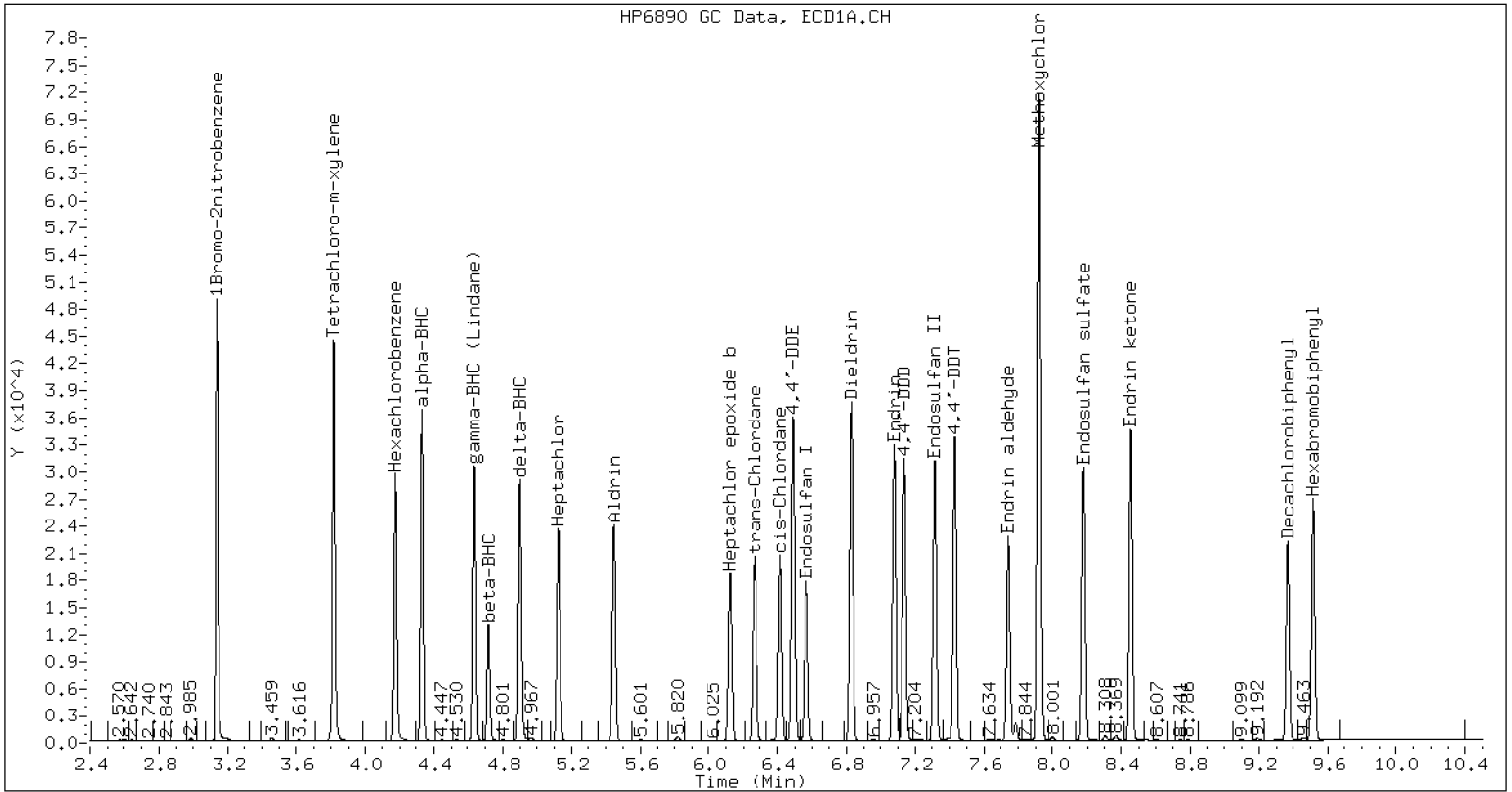
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	919249	6.4
Hexabromobiphenyl	663237	722285	8.9

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1228056	-17.1
Hexabromobiphenyl	870561	747465	-14.1

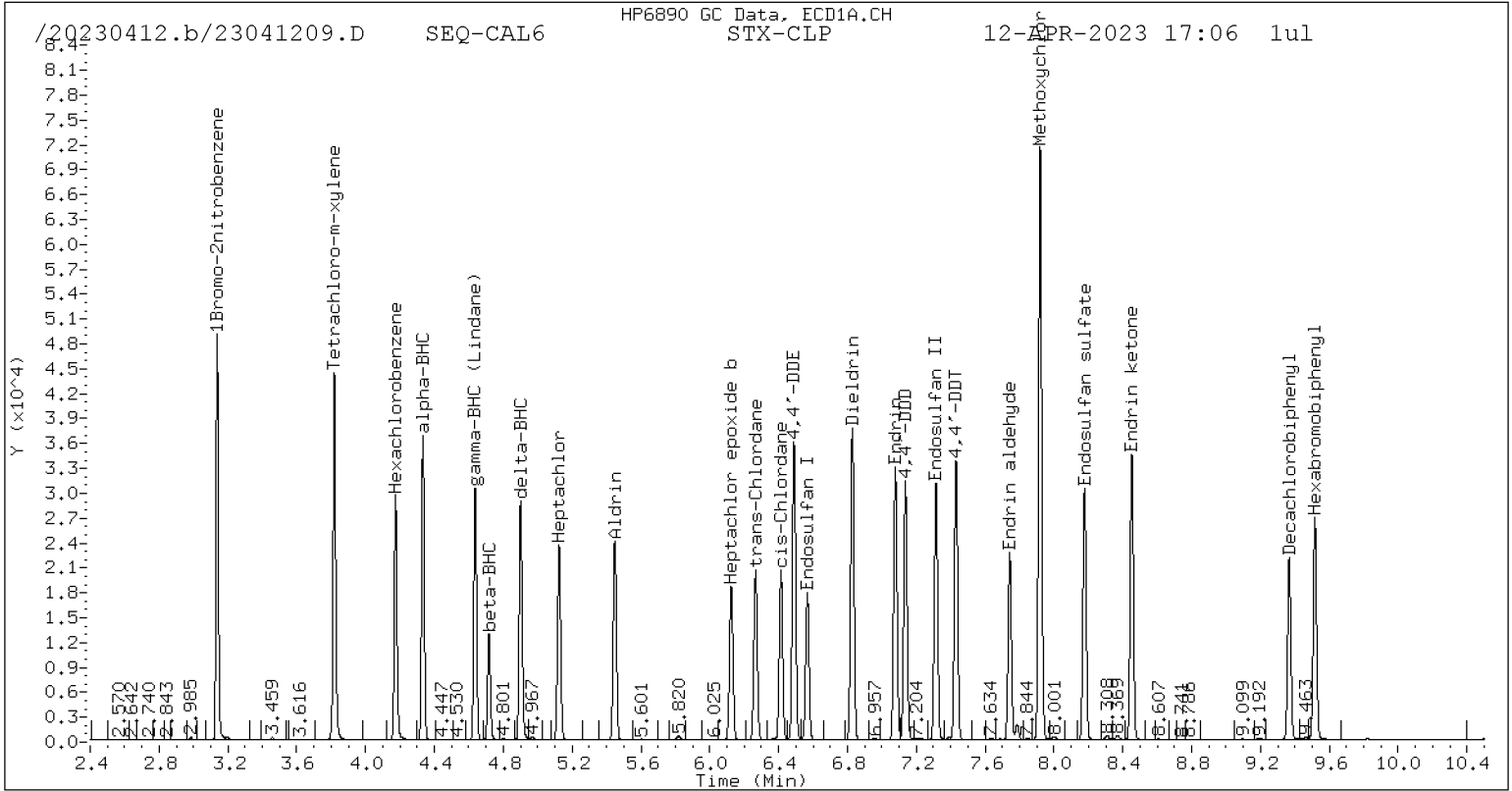
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

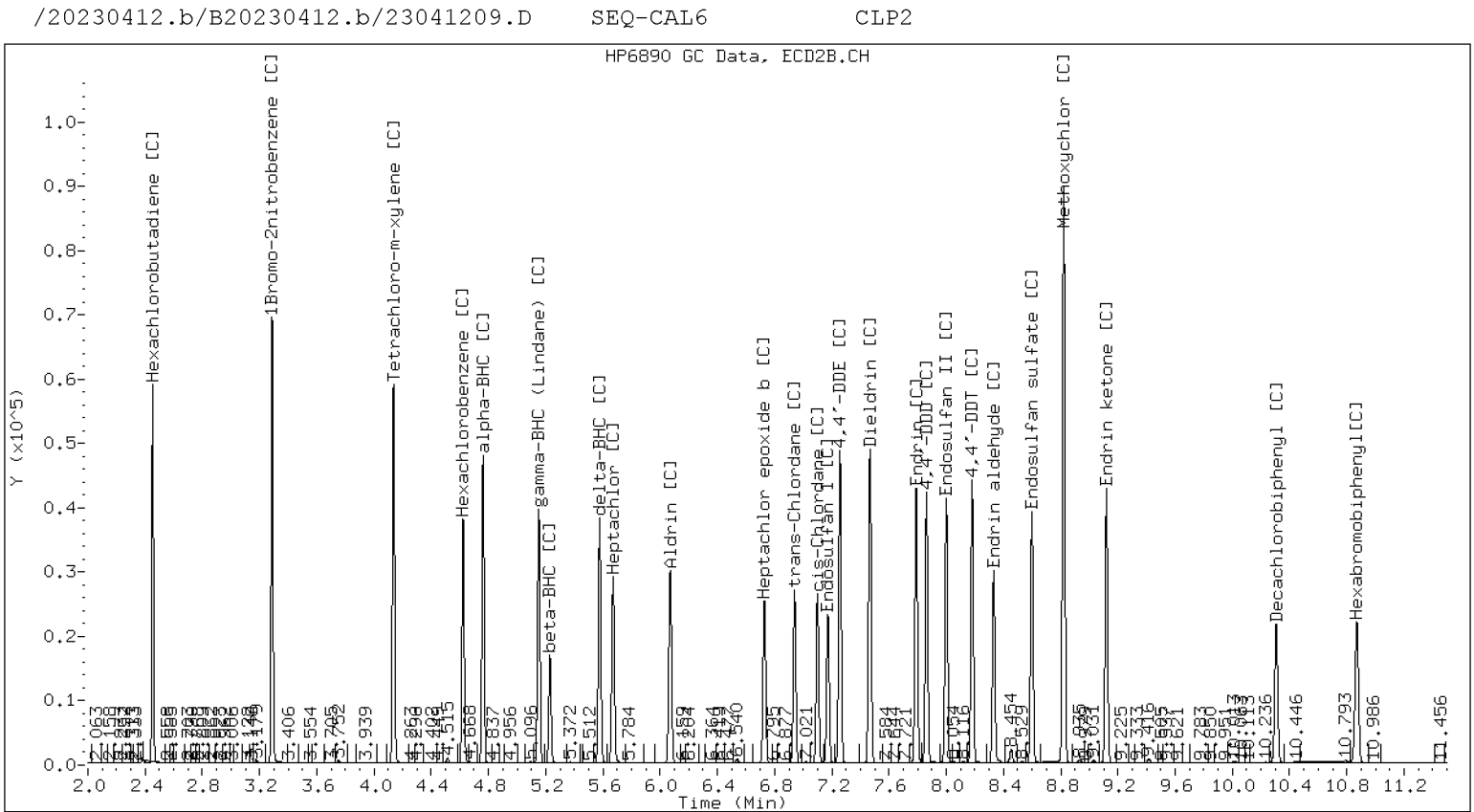
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041210.D
Data file 2: /20230412.b/B20230412.b/23041210.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7
Client ID:
Injection Date: 12-APR-2023 17:25
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag			
4.333	0.000	1504143	4.762	0.000	2036495	74.20	77.68	4.6	alpha-BHC	M
4.717	-0.001	564613	5.230	-0.000	751802	69.75	72.20	3.5	beta-BHC	M
4.901	-0.002	1348410	5.577	-0.000	1780227	73.47	76.29	3.8	delta-BHC	M
4.637	-0.000	1305188	5.152	-0.000	1754548	73.27	76.13	3.8	gamma-BHC (Lindane)	M
5.124	-0.001	1105791	5.671	-0.000	1423580	67.07	70.43	4.9	Heptachlor	M
5.448	-0.000	1164527	6.071	-0.000	1511414	69.44	72.04	3.7	Aldrin	M
6.125	-0.002	957195	6.729	-0.000	1234899	63.23	66.86	5.6	Heptachlor epoxide b	M
6.567	-0.001	902920	7.172	0.000	1107682	66.91	70.39	5.1	Endosulfan I	M
6.828	-0.000	1891941	7.466	0.000	2384054	132.48	138.22	4.2	Dieldrin	M
6.489	-0.001	1824093	7.257	0.000	2245750	135.47	136.78	1.0	4,4'-DDE	M
7.078	-0.001	1667189	7.790	0.000	2038096	130.71	135.54	3.6	Endrin	M
7.314	-0.001	1548044	8.001	-0.000	1990565	129.61	140.13	7.8	Endosulfan II	M
7.136	-0.002	1549529	7.862	0.000	1970951	135.35	143.39	5.8	4,4'-DDD	M
8.177	-0.001	1486482	8.598	-0.000	1840819	132.01	140.73	6.4	Endosulfan sulfate	M
7.431	-0.001	1683975	8.181	-0.000	2003848	136.58	144.49	5.6	4,4'-DDT	M
7.920	-0.000	3475120	8.822	-0.000	4197295	657.88	705.85	7.0	Methoxychlor	M
8.452	-0.001	1668350	9.119	0.000	1981664	129.84	138.74	6.6	Endrin ketone	M
7.743	-0.001	1195780	8.331	0.000	1420645	131.18	138.32	5.3	Endrin aldehyde	M
6.266	-0.001	1056187	6.939	0.000	1305882	71.31	73.74	3.4	trans-Chlordane	M
6.413	-0.001	1043284	7.100	-0.000	1272519	70.16	72.97	3.9	cis-Chlordane	M
2.309	0.001	1437797	2.453	0.000	1654665	68.77	69.52	1.1	Hexachlorobutadiene	
4.175	-0.001	1223325	4.622	0.000	1599265	68.19	69.86	2.4	Hexachlorobenzene	M
3.819	0.000	1715340	4.136	0.000	2273933	132.23	133.82	1.2	Tetrachloro-m-xylene	M
9.366	-0.000	1089026	10.306	-0.000	1229420	125.10	136.33	8.6	Decachlorobiphenyl	M

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

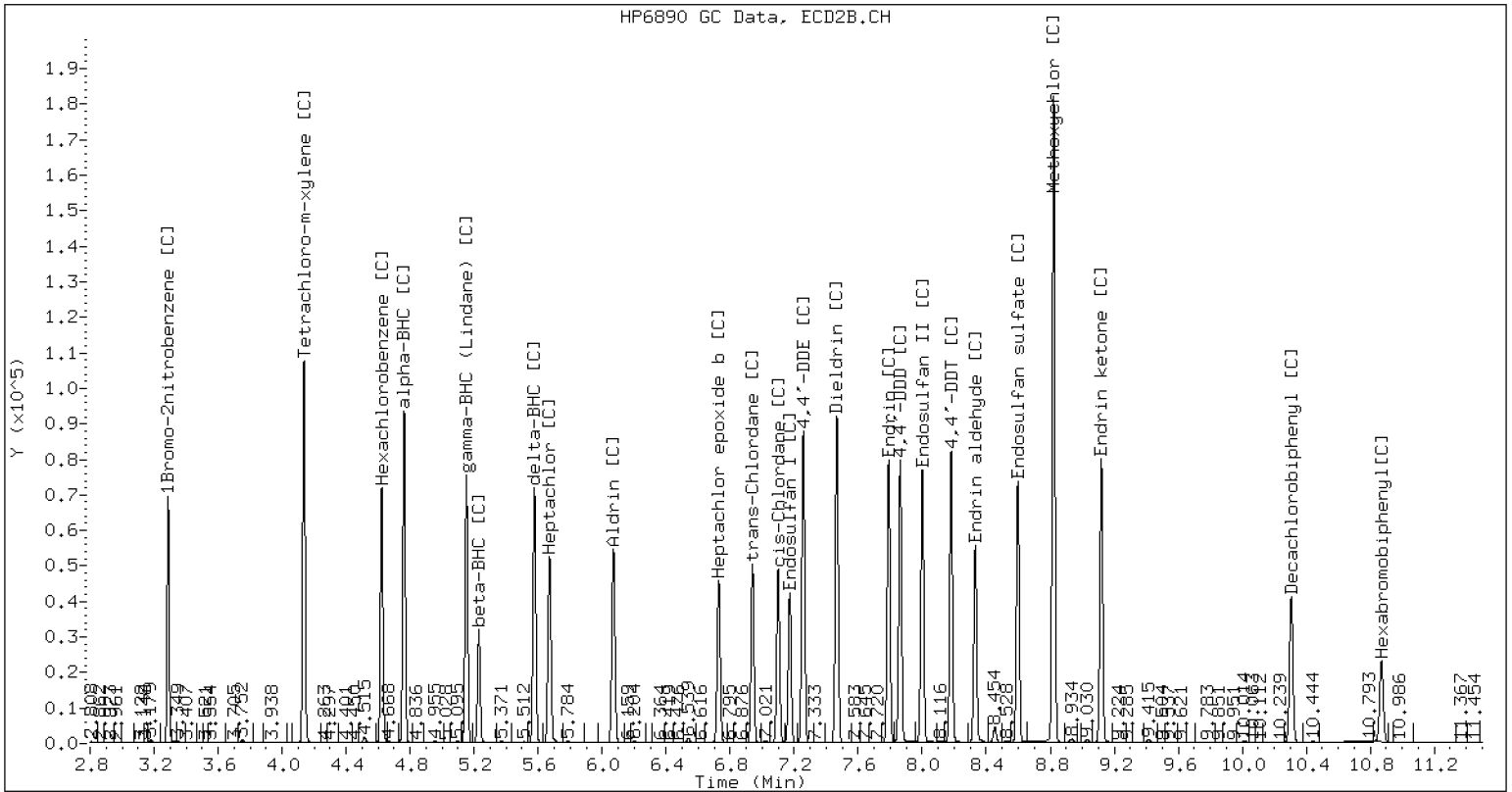
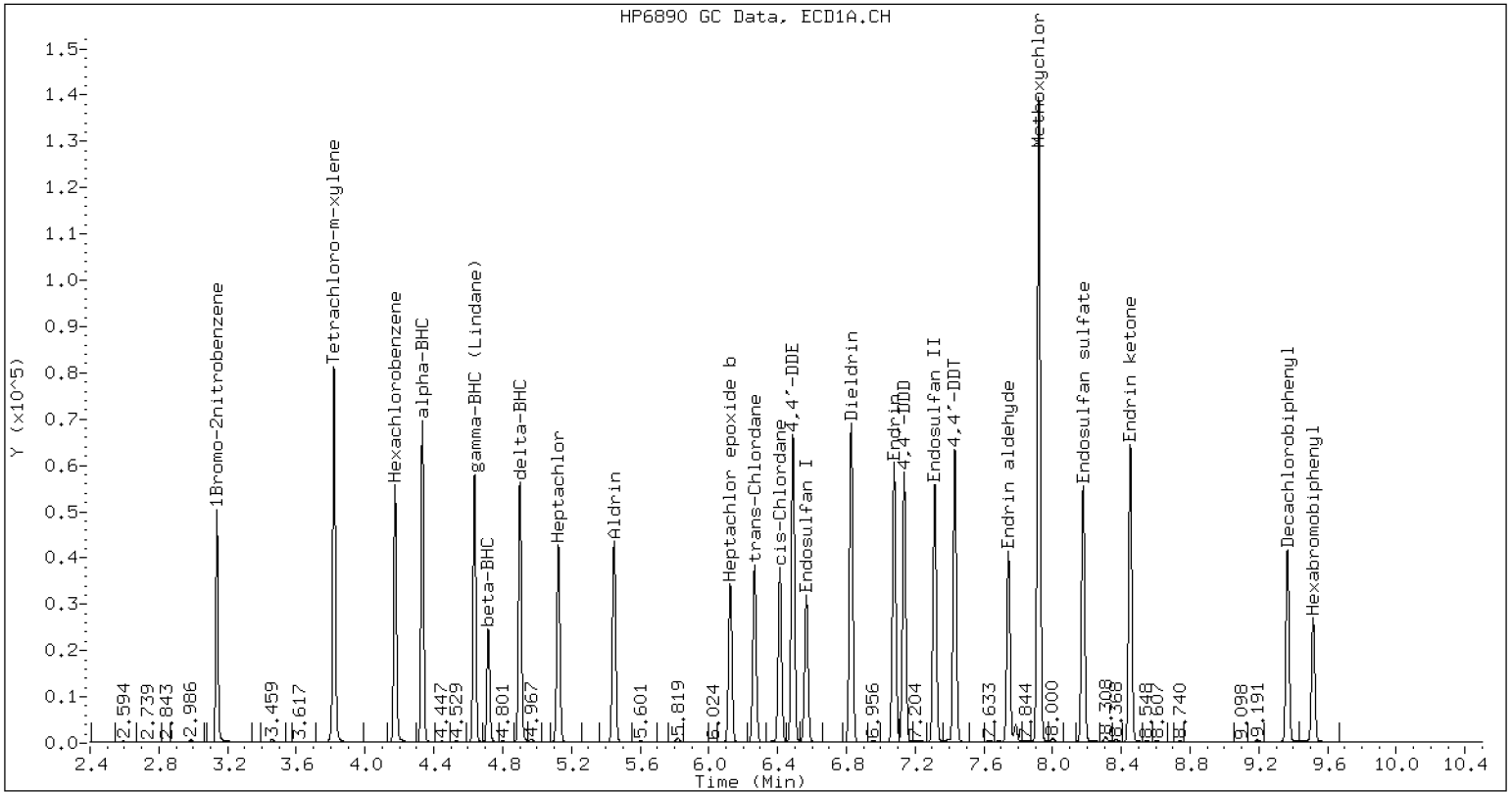
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	927085	7.3
Hexabromobiphenyl	663237	738060	11.3

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1235730	-16.6
Hexabromobiphenyl	870561	747107	-14.2

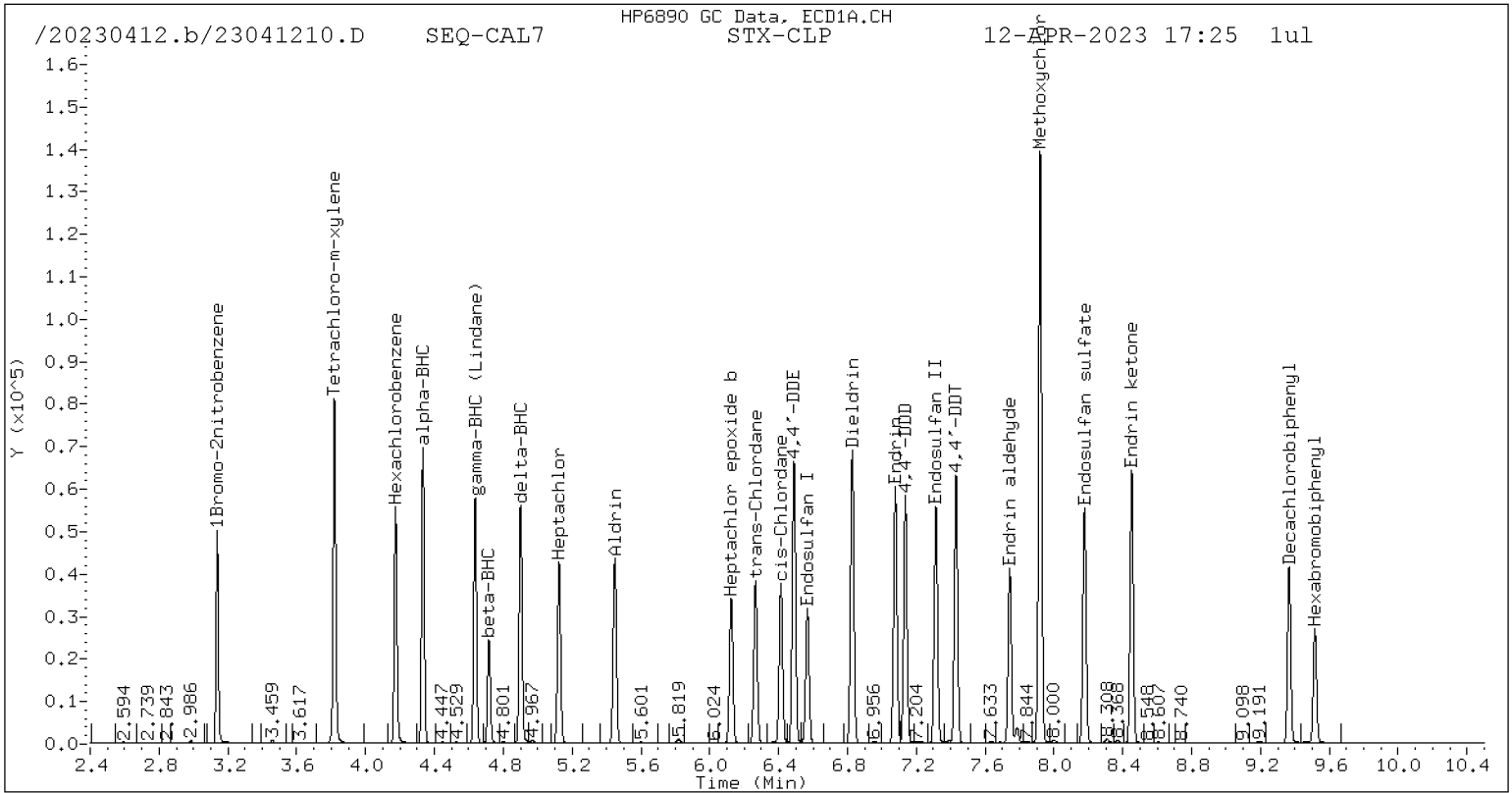
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

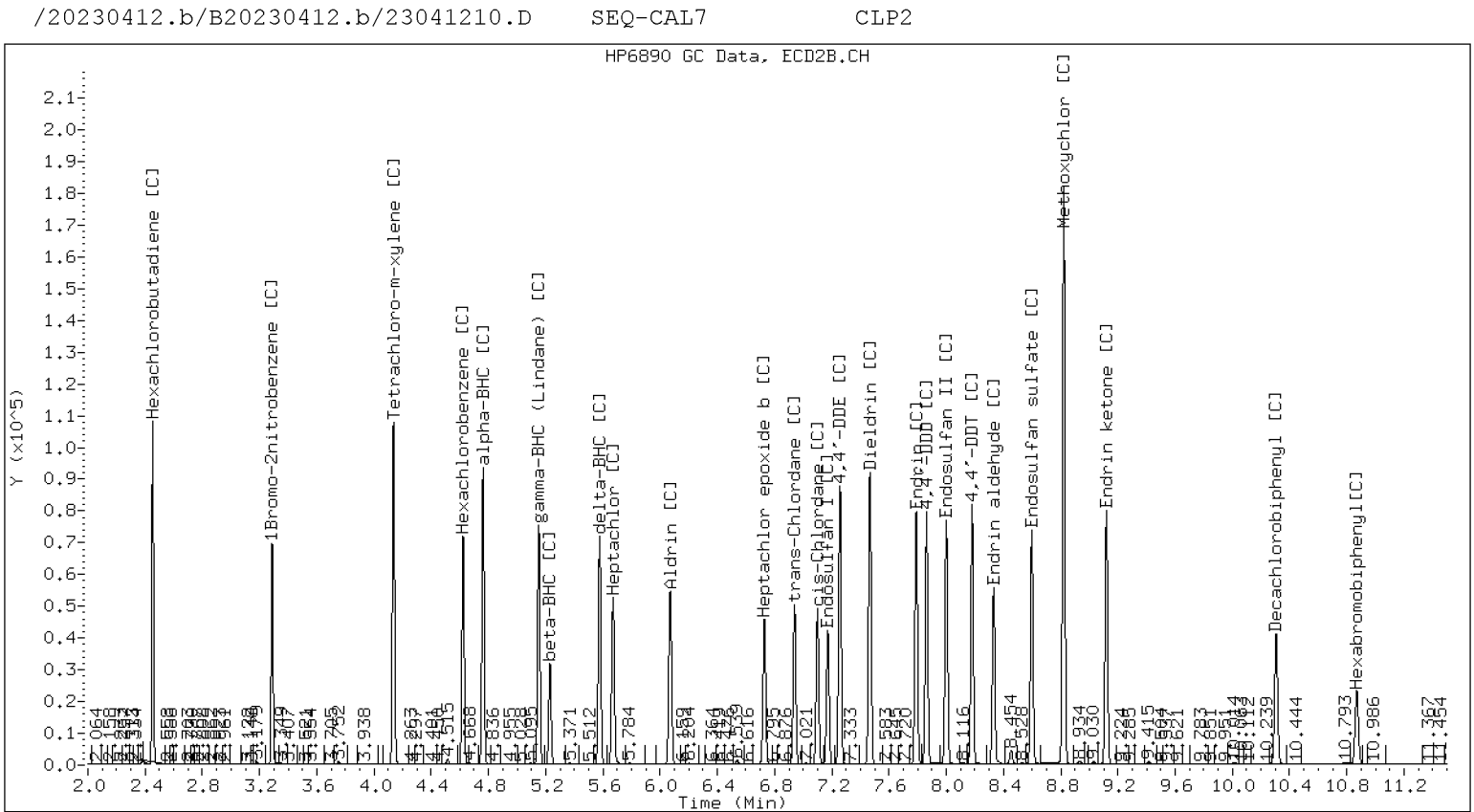
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



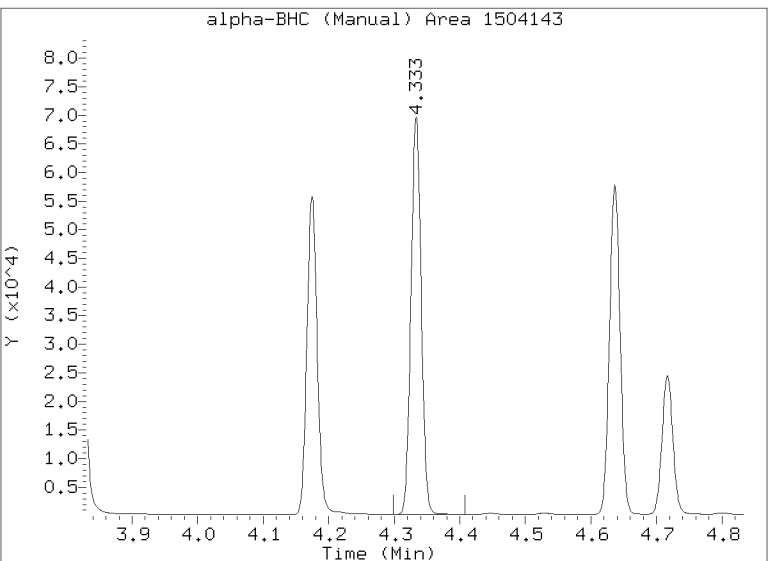
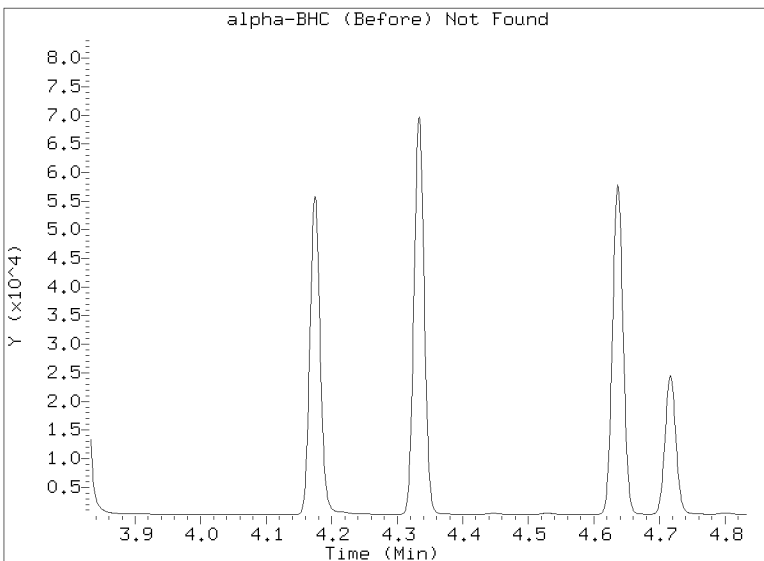
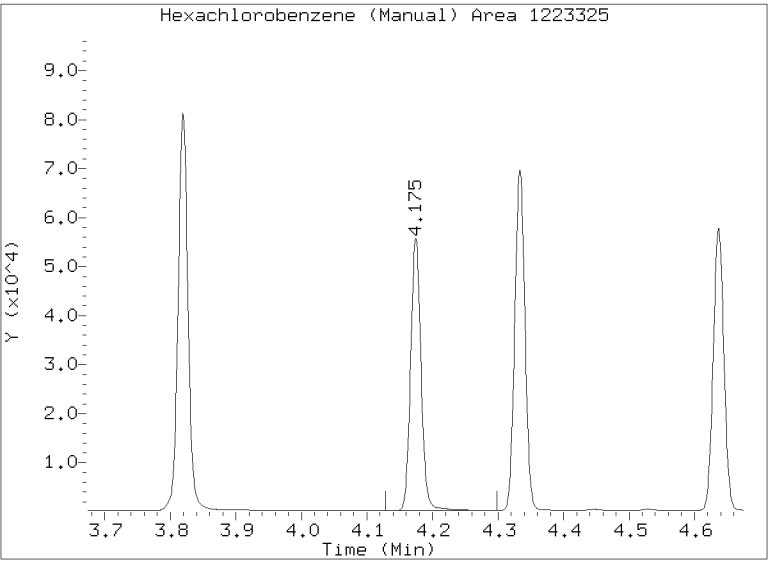
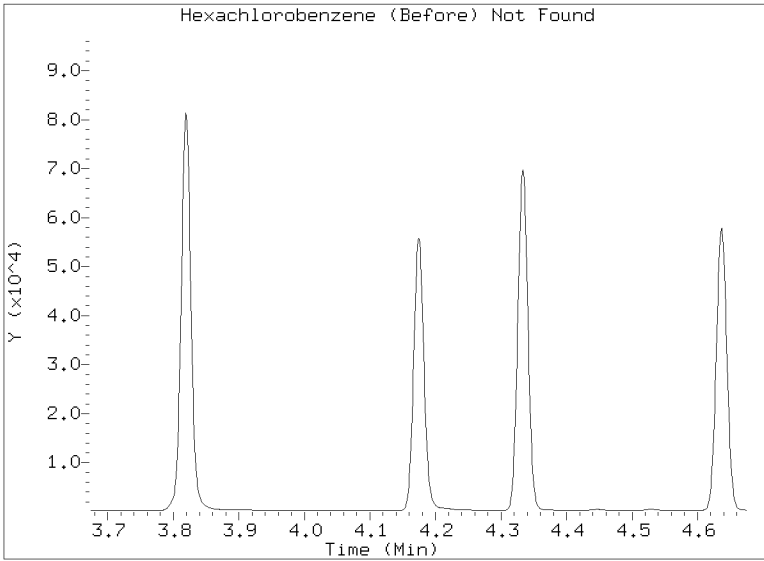
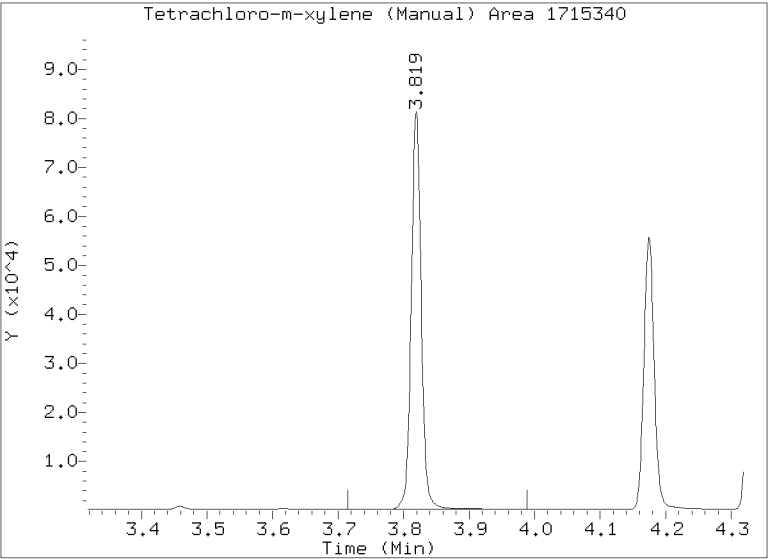
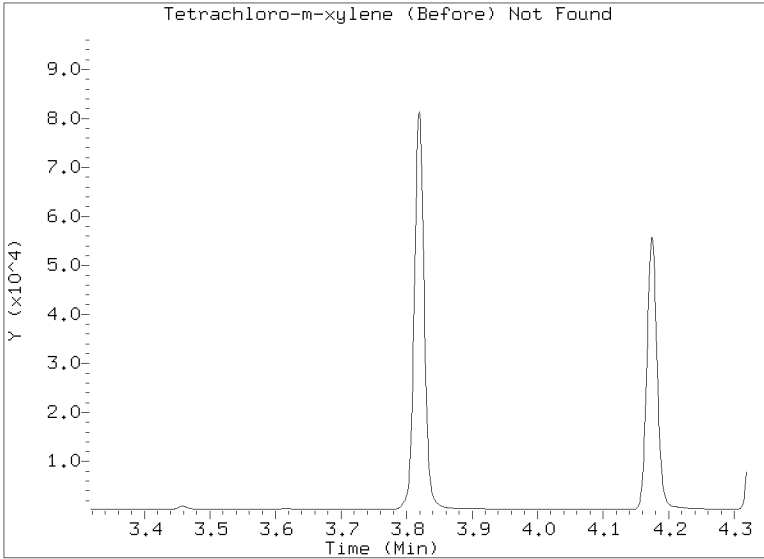
STX-CLP Manual Integration: YES



CLP-2 Manual Integration: YES

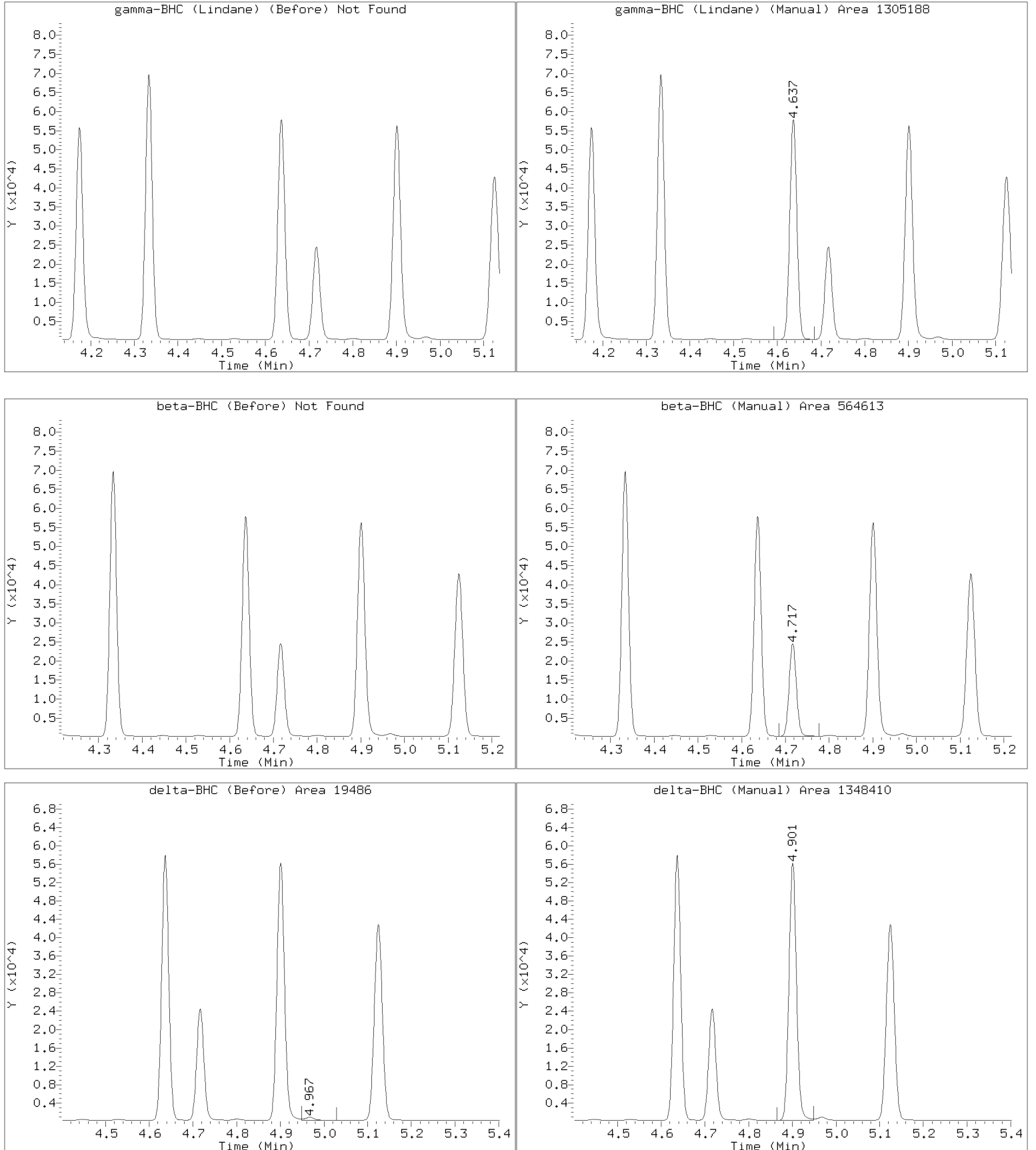
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



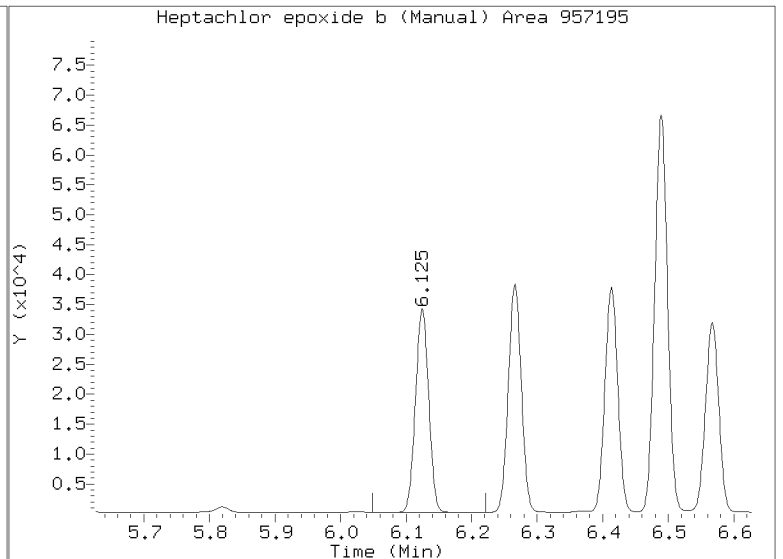
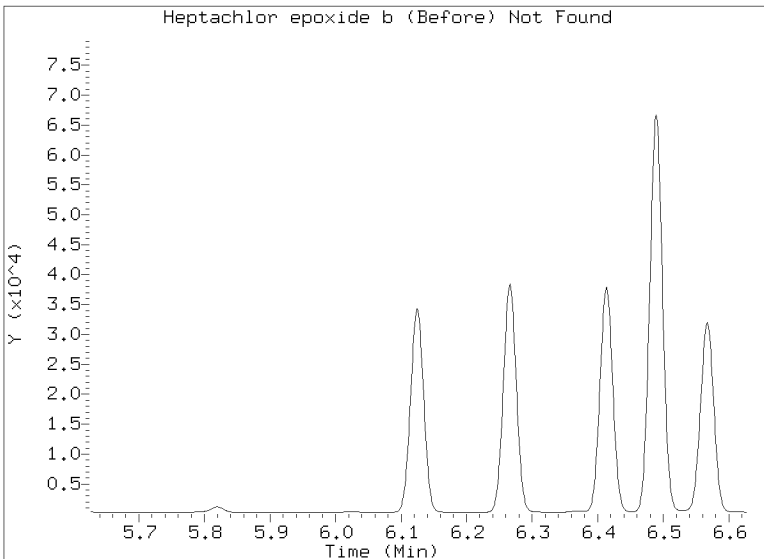
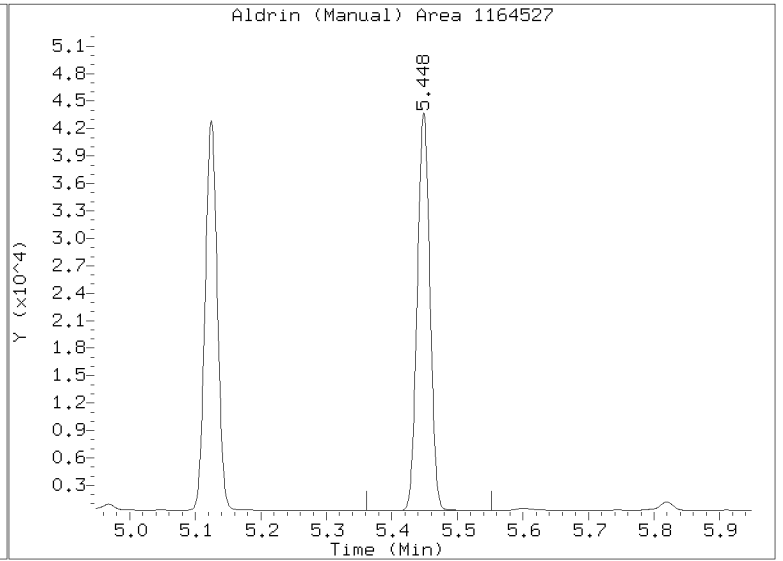
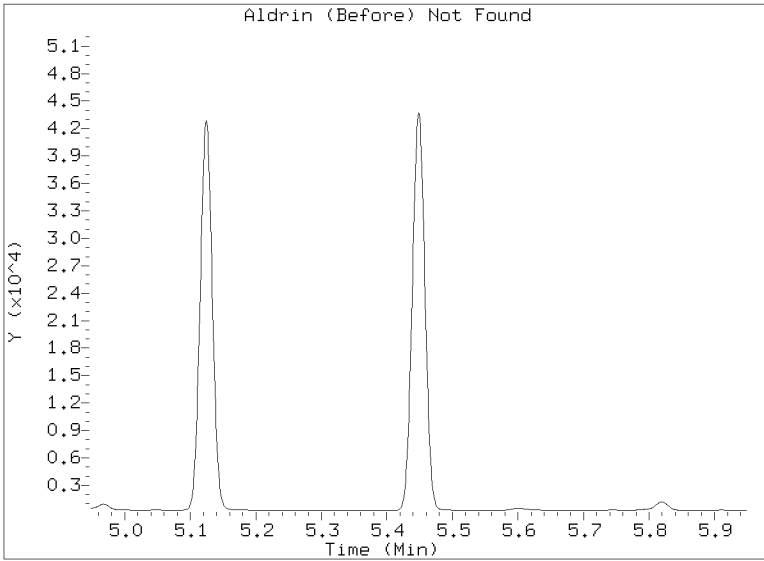
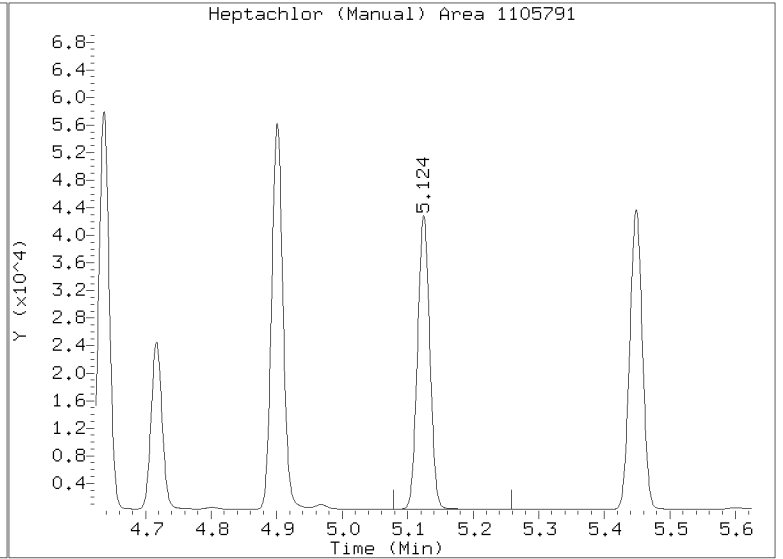
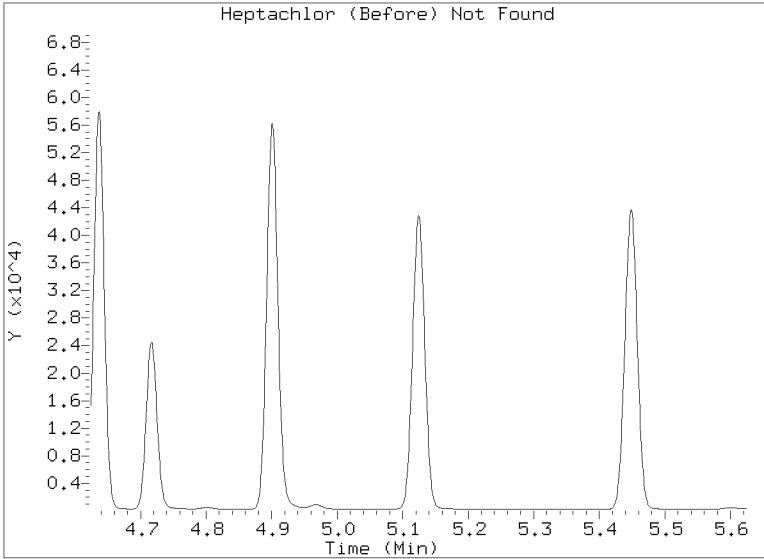
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



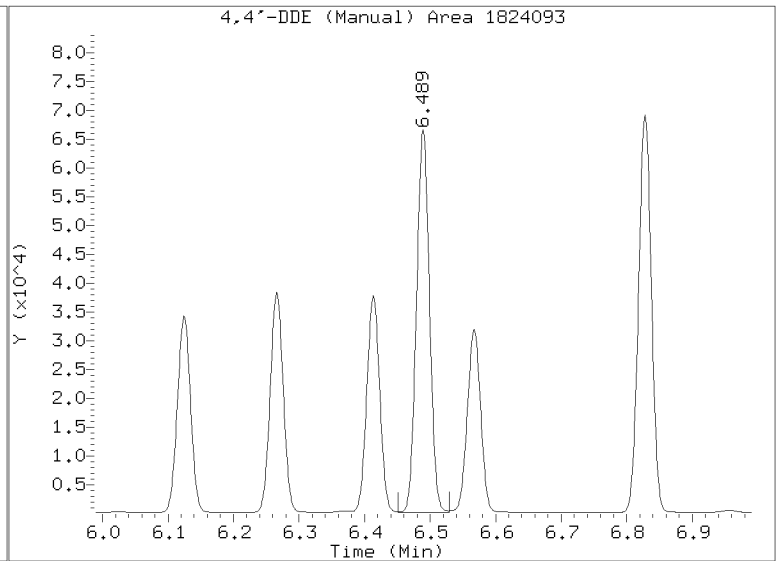
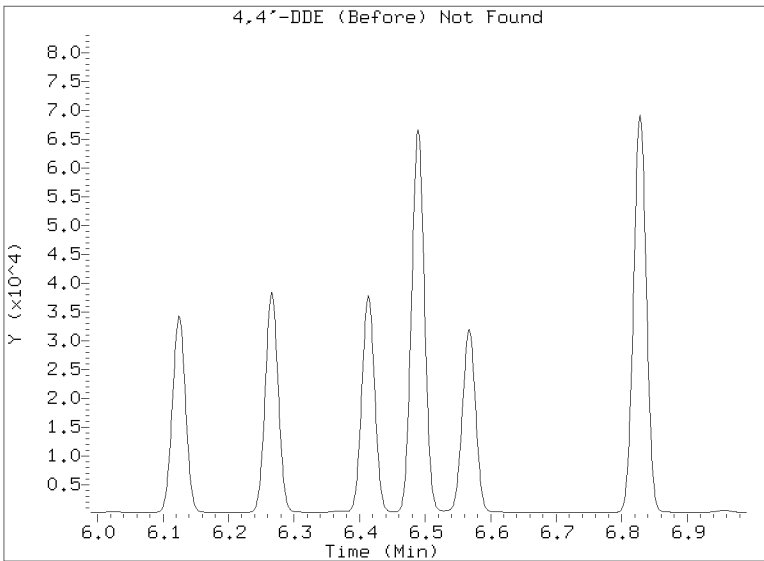
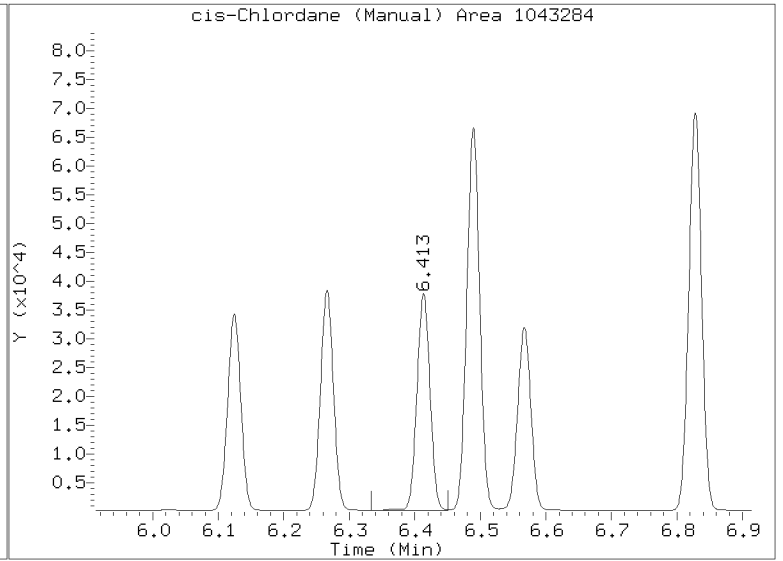
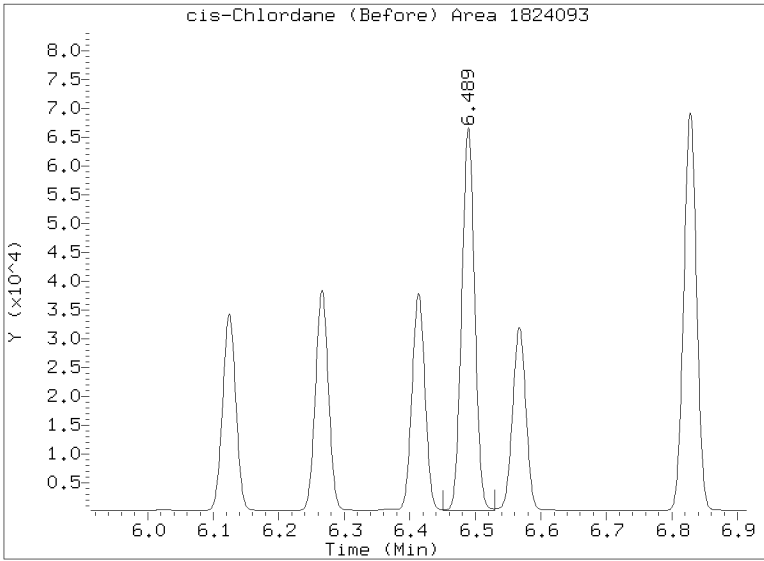
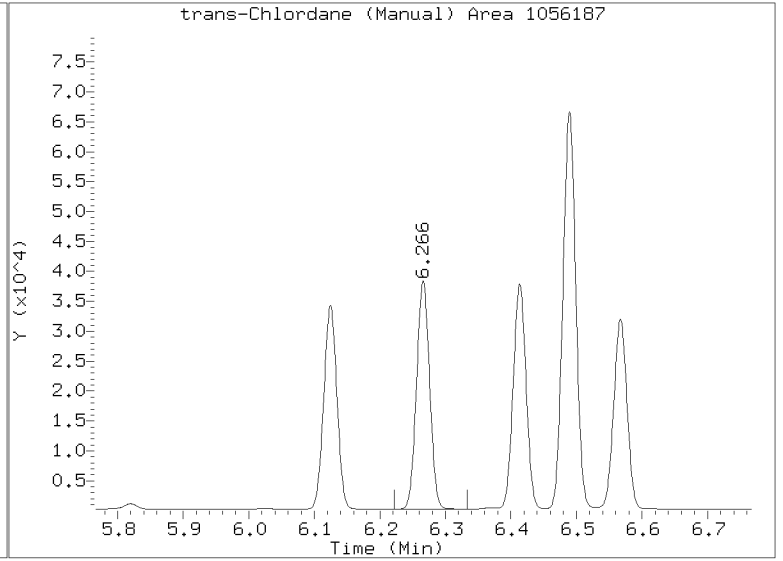
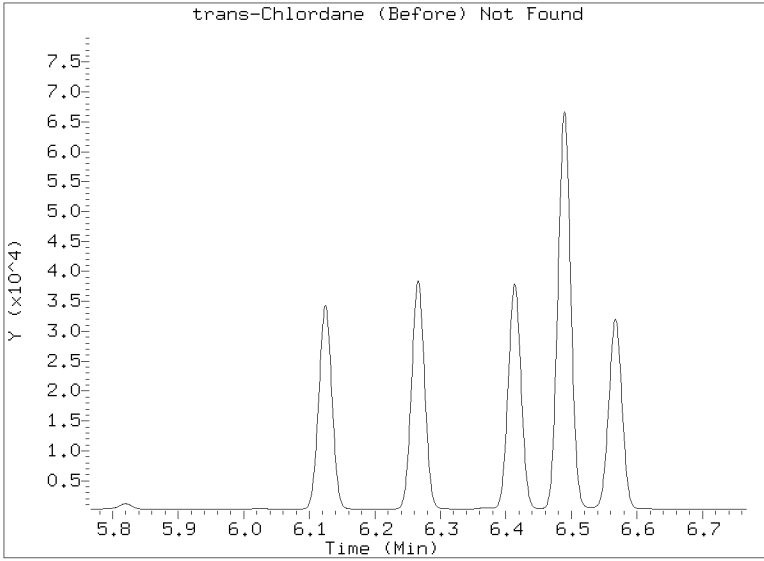
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



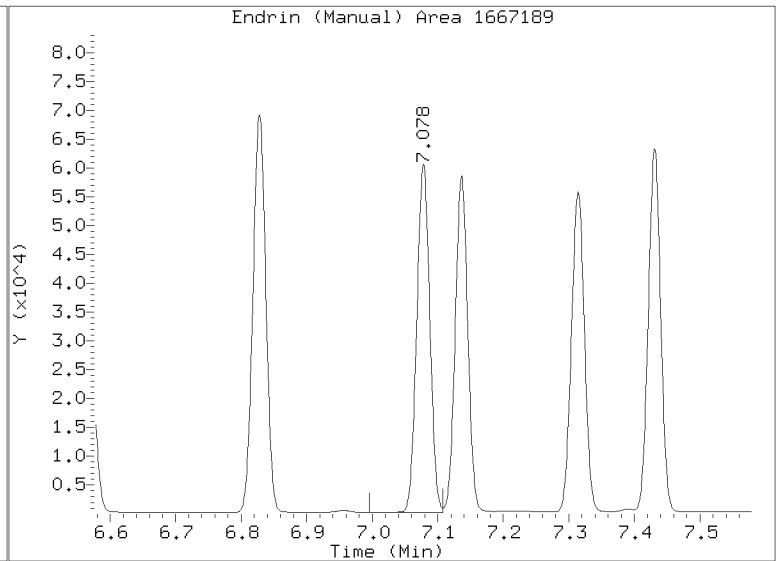
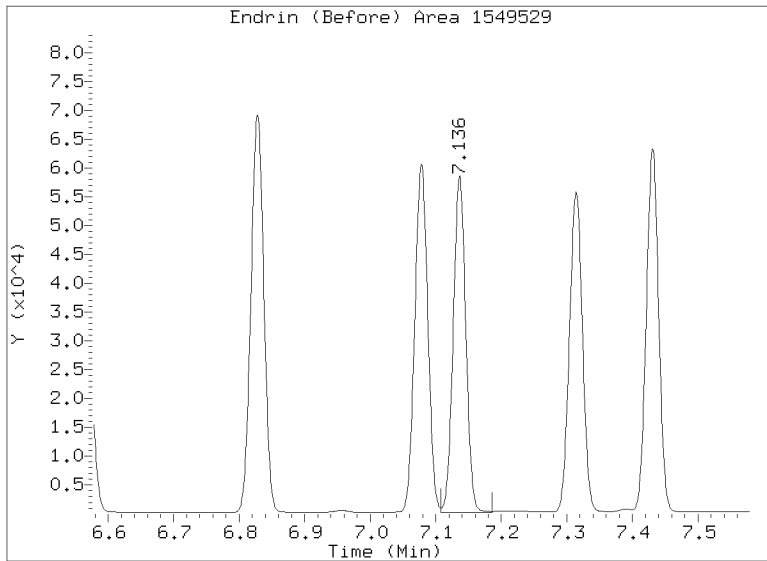
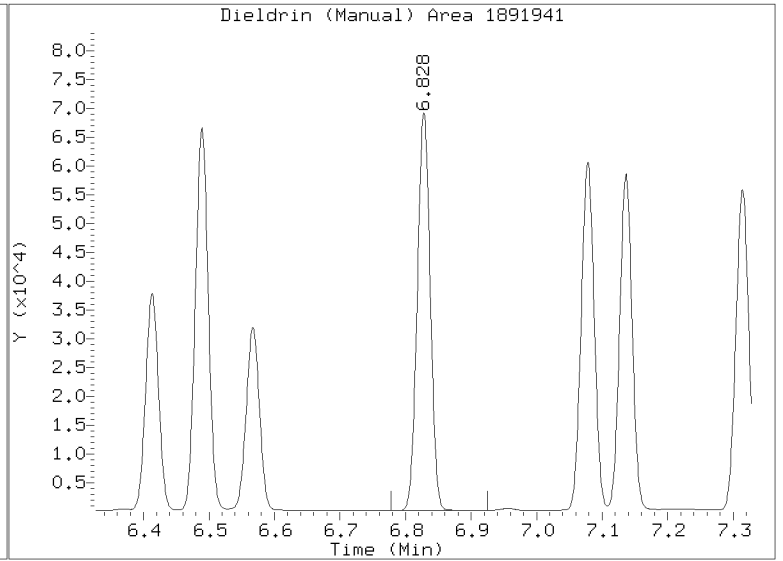
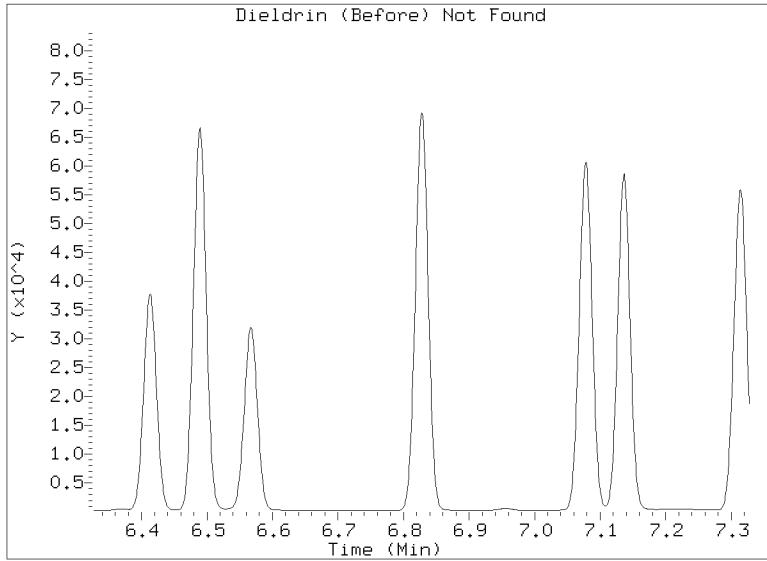
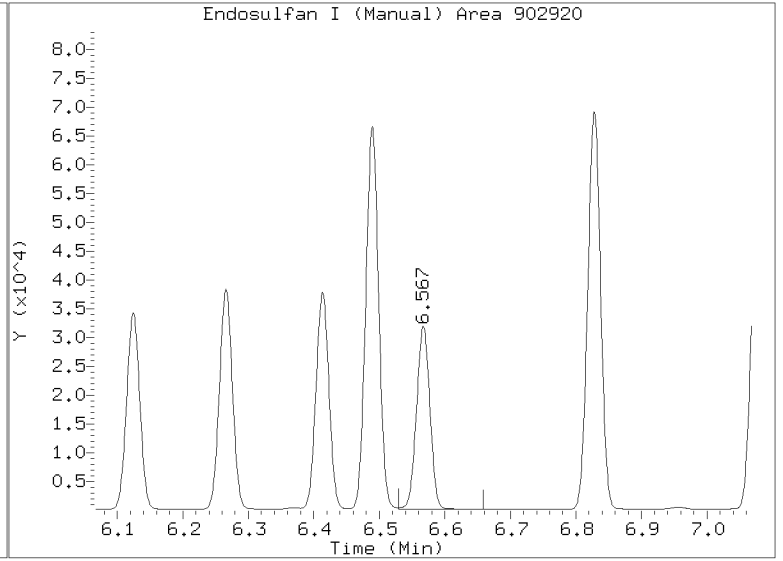
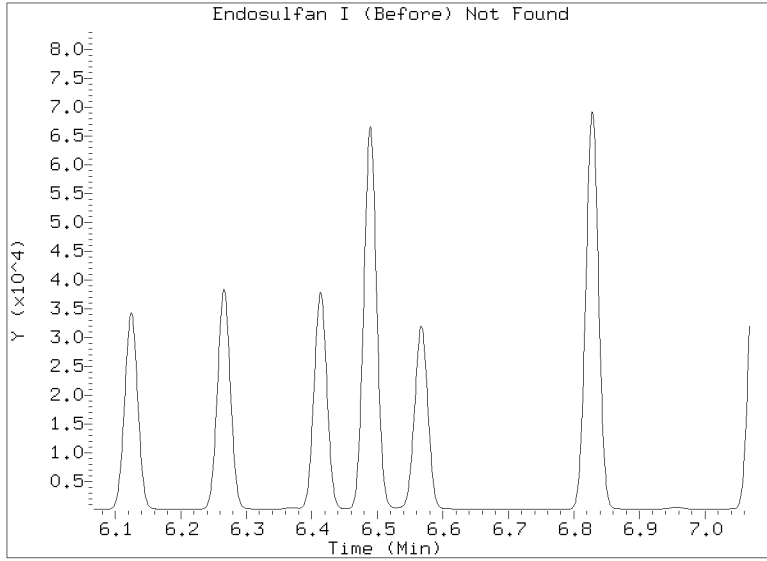
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



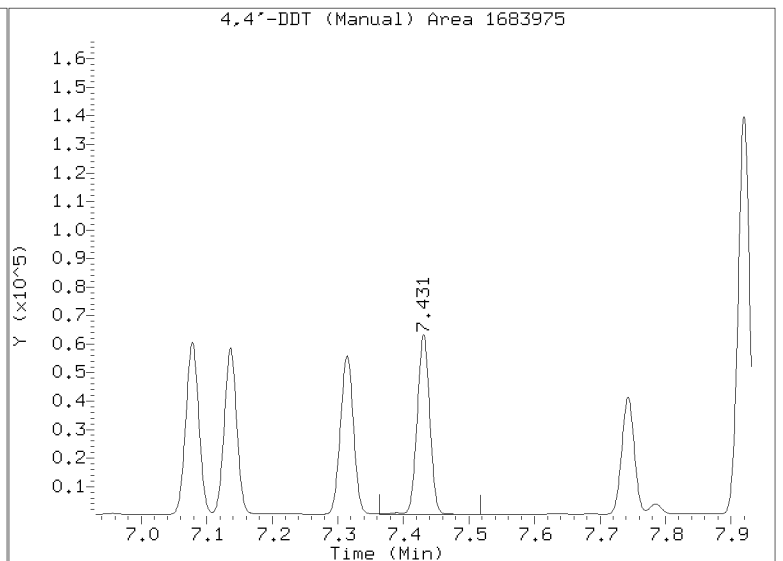
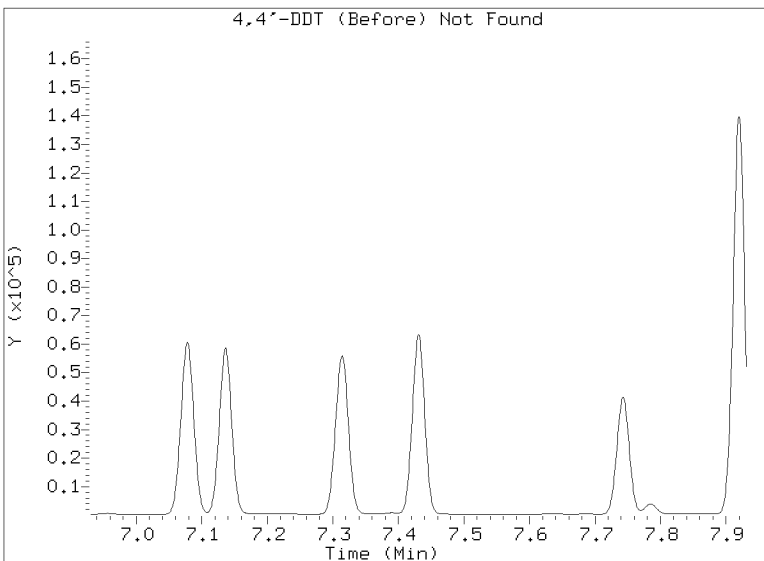
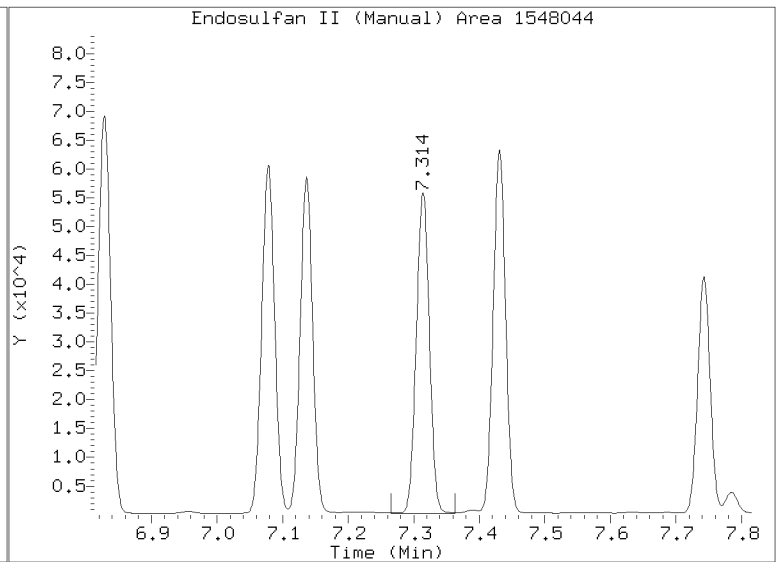
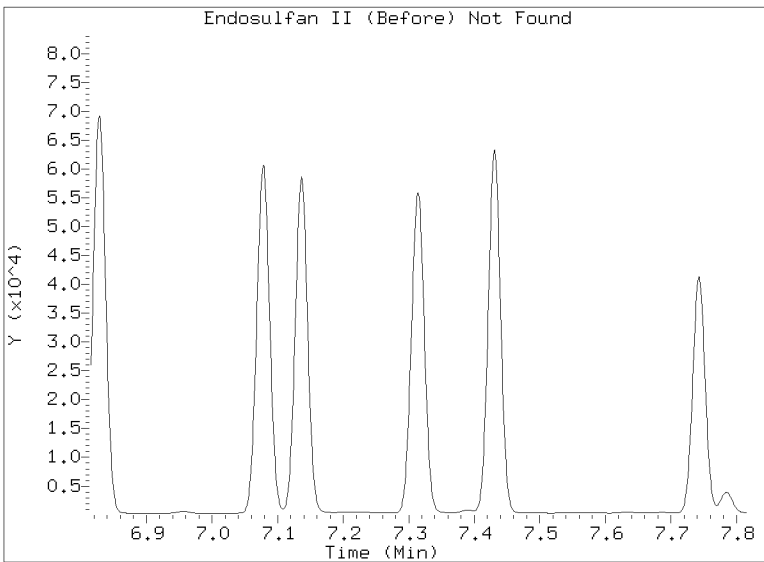
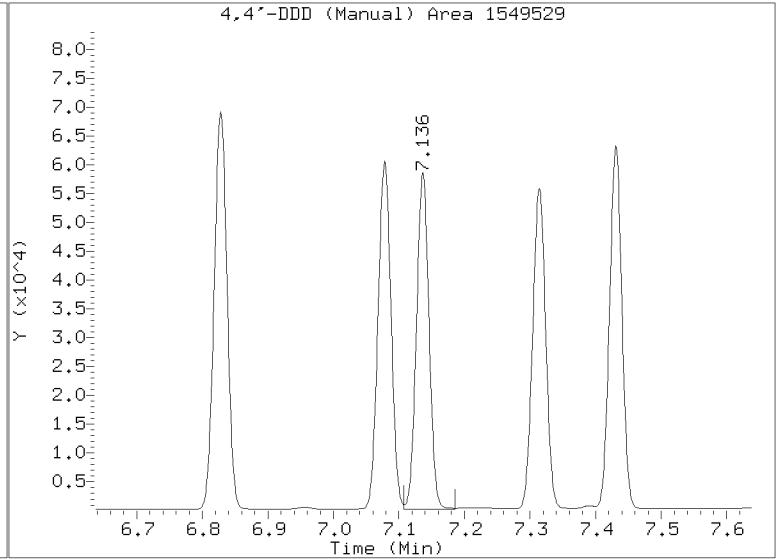
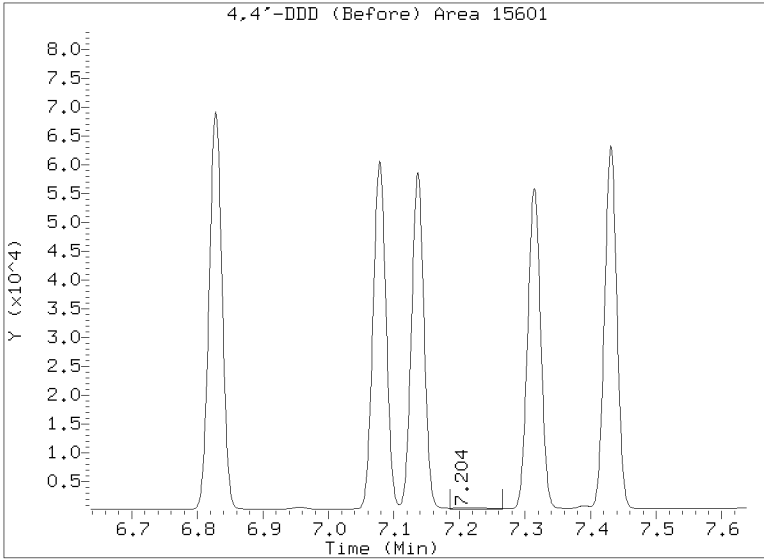
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



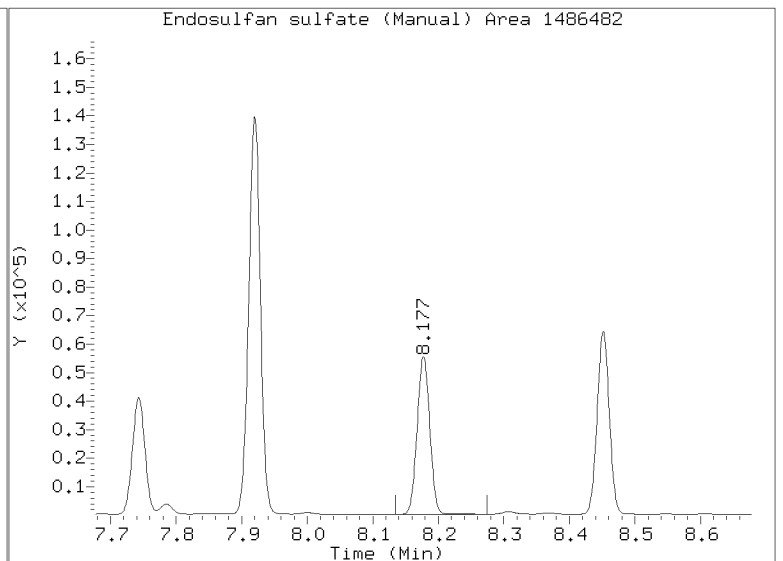
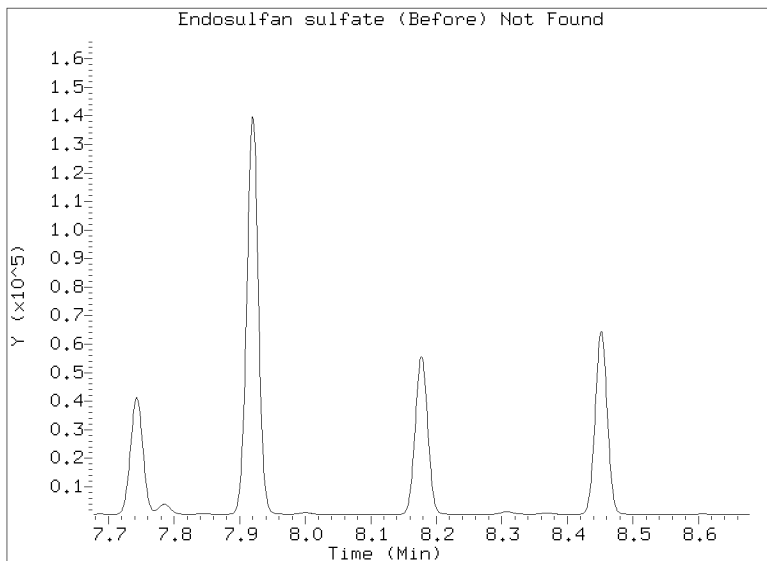
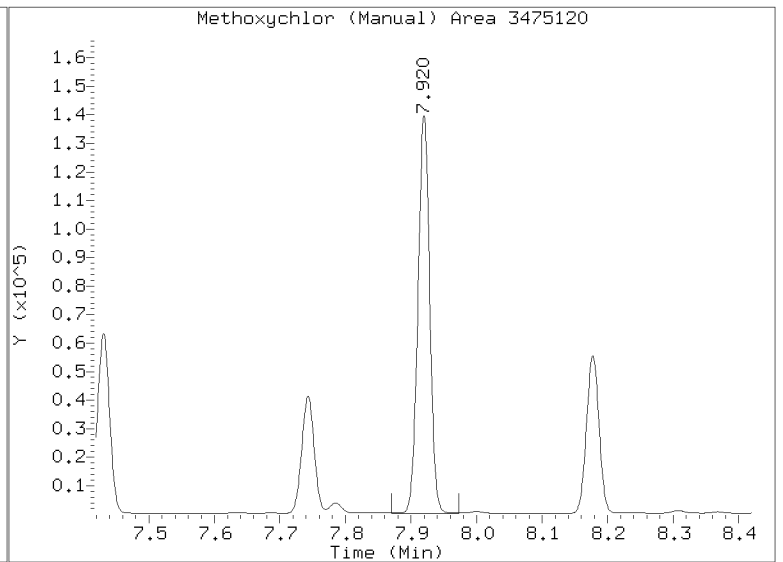
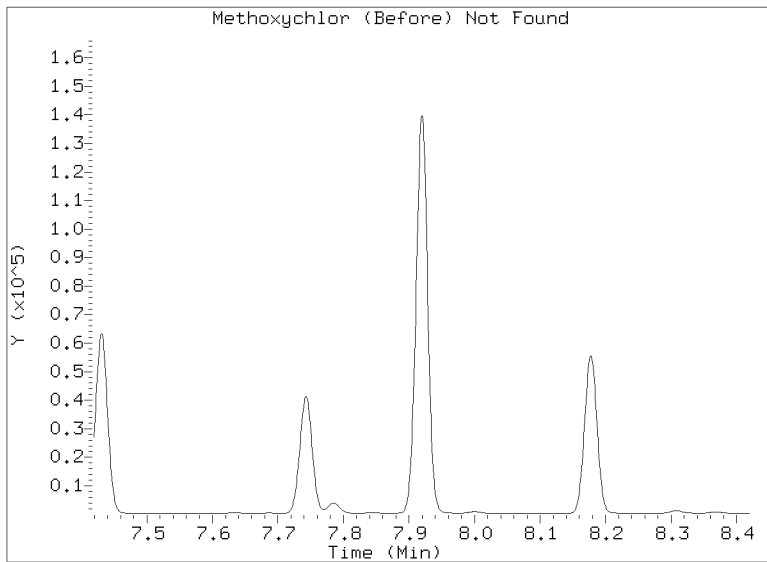
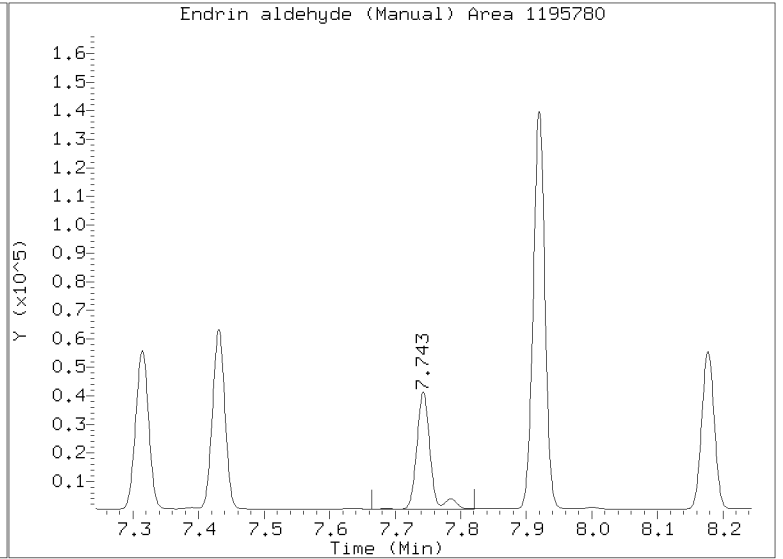
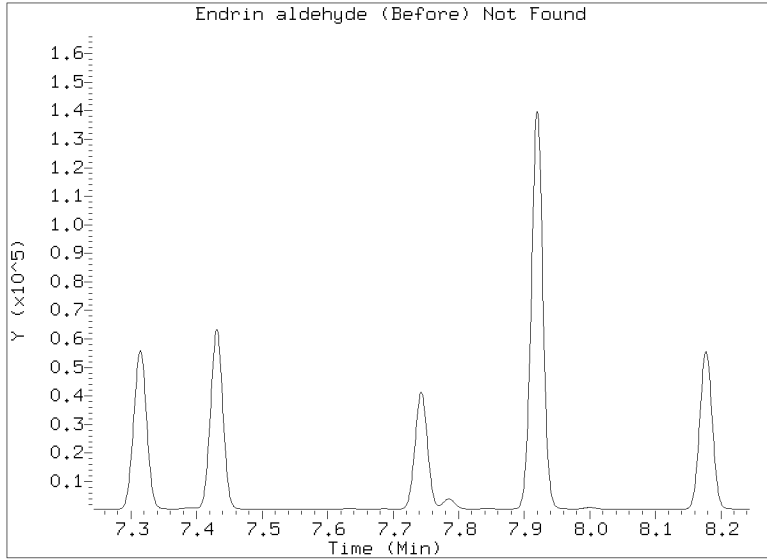
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



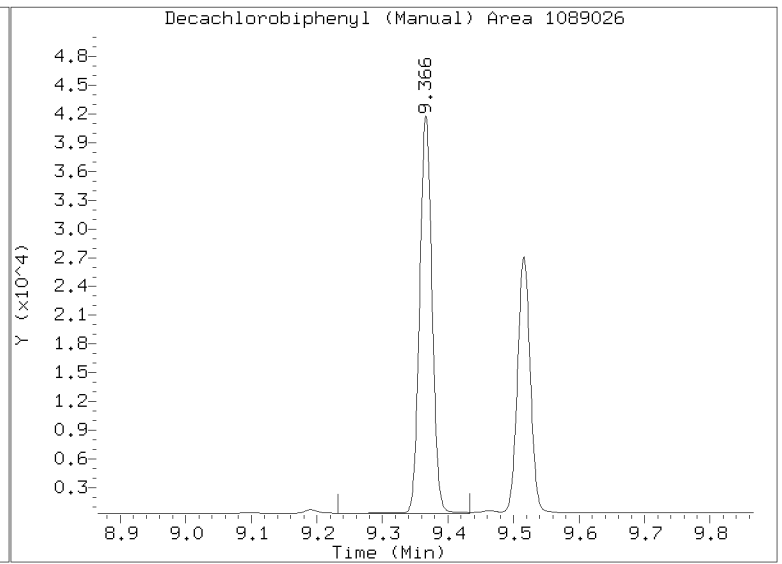
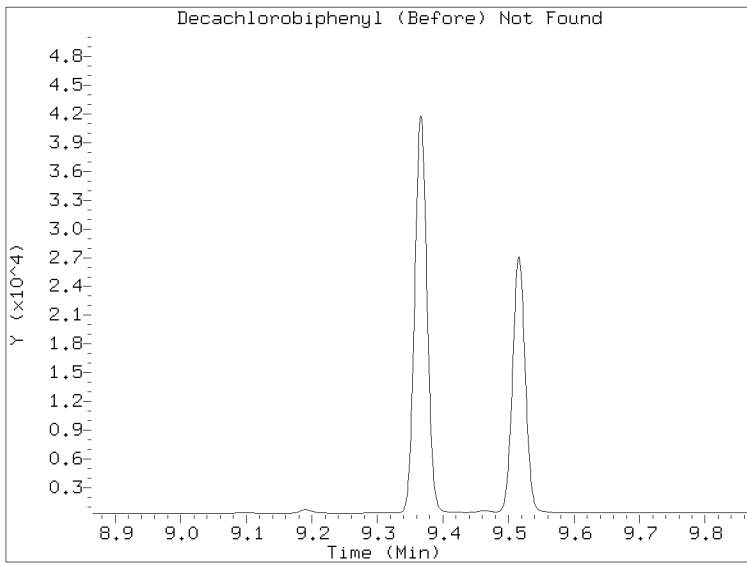
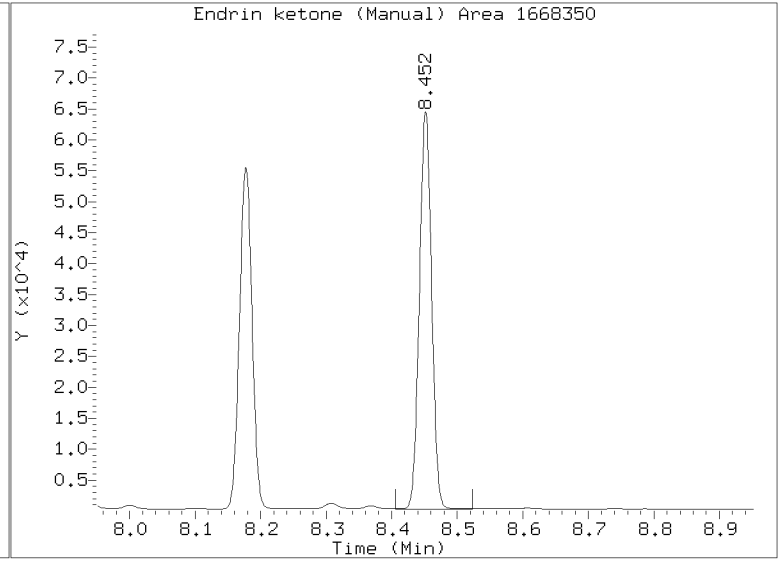
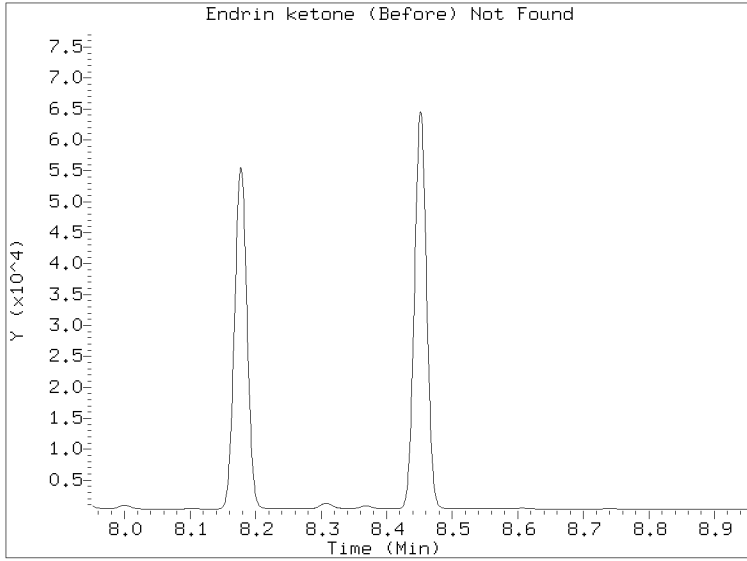
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57

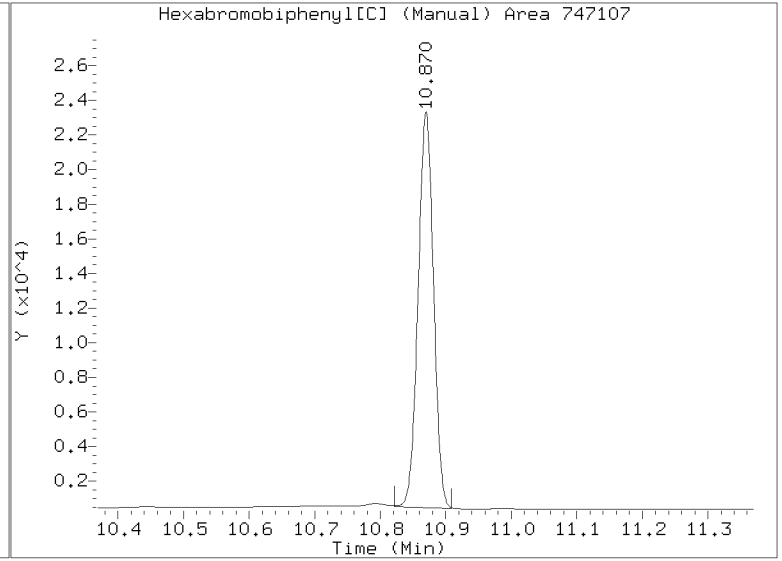
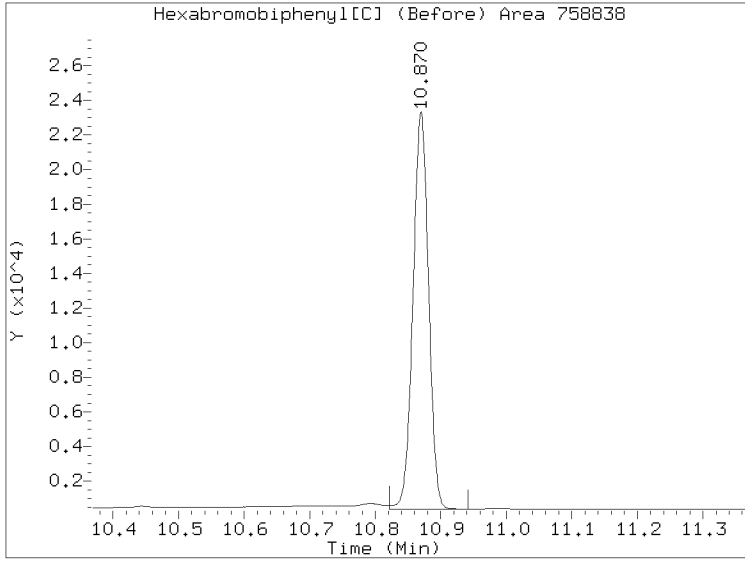


Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041210.D

Injection Date: 12-APR-2023 17:25

Lab ID:SEQ-CAL7 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041211.D
Data file 2: /20230412.b/B20230412.b/23041211.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL8
Client ID:
Injection Date: 12-APR-2023 17:43
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.010	0.001 32738	6.624 -0.000 38532	6.624	2.95	2.72	8.2	Oxychlorane
6.106	0.001 23612	6.922 0.001 29356	6.922	2.94	2.84	3.6	2,4-DDE
6.396	0.001 37432	7.039 -0.000 43568	7.039	2.87	2.75	4.3	trans-Nonachlor
6.682	0.001 21548	7.477 -0.000 26589	7.477	2.87	2.82	2.0	2,4-DDD
6.959	0.001 26208	7.799 -0.000 30271	7.799	2.90	2.81	3.2	2,4-DDT
7.112	0.001 38299	7.859 -0.000 44124	7.859	2.81	2.69	4.4	cis-Nonachlor
8.086	0.001 25731	9.101 0.000 26963	9.101	3.06	2.85	7.3	Mirex N
----		----		0.00	0.00	---	Tetrachloro-m-xylene
----		----		0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

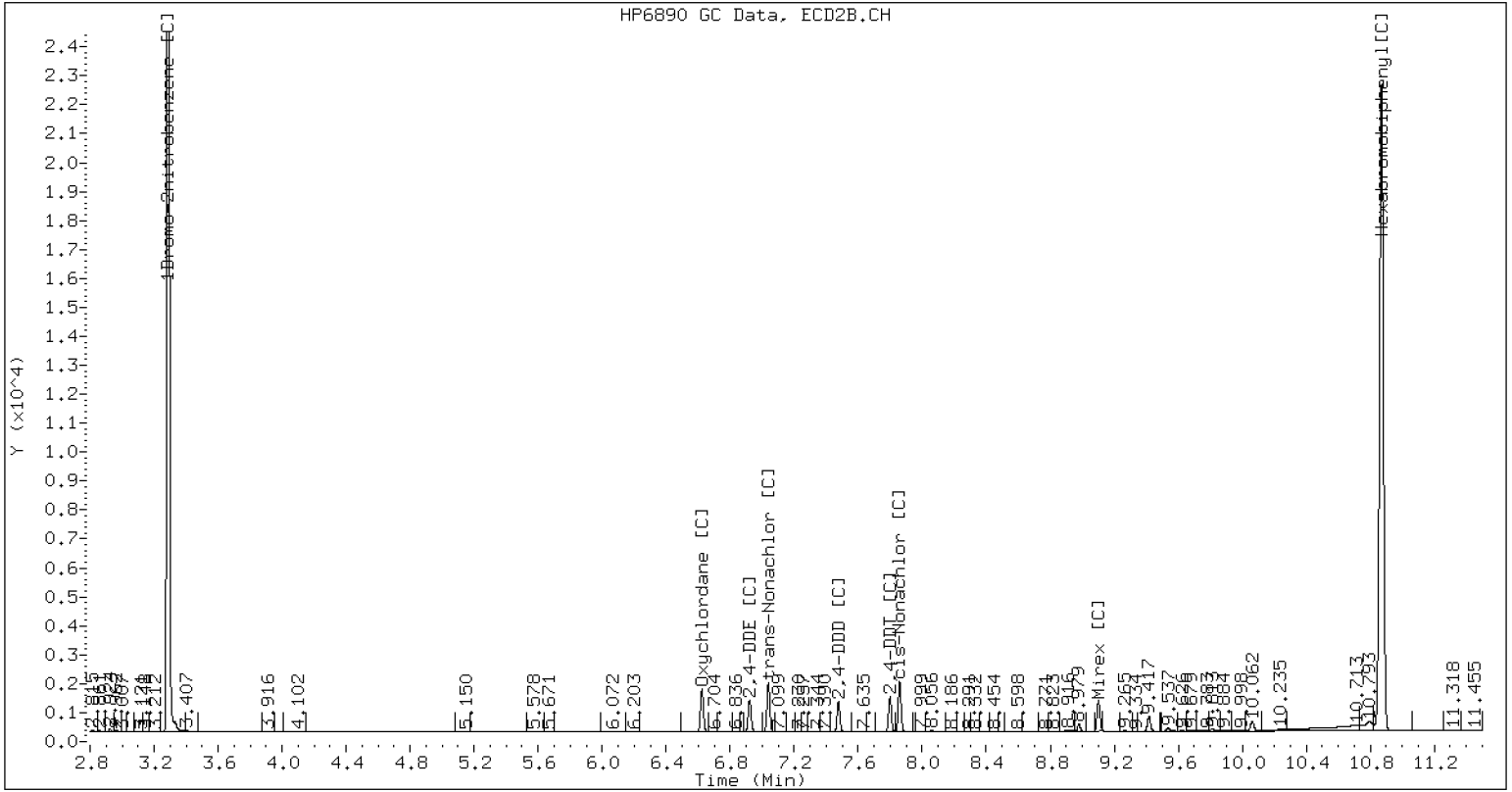
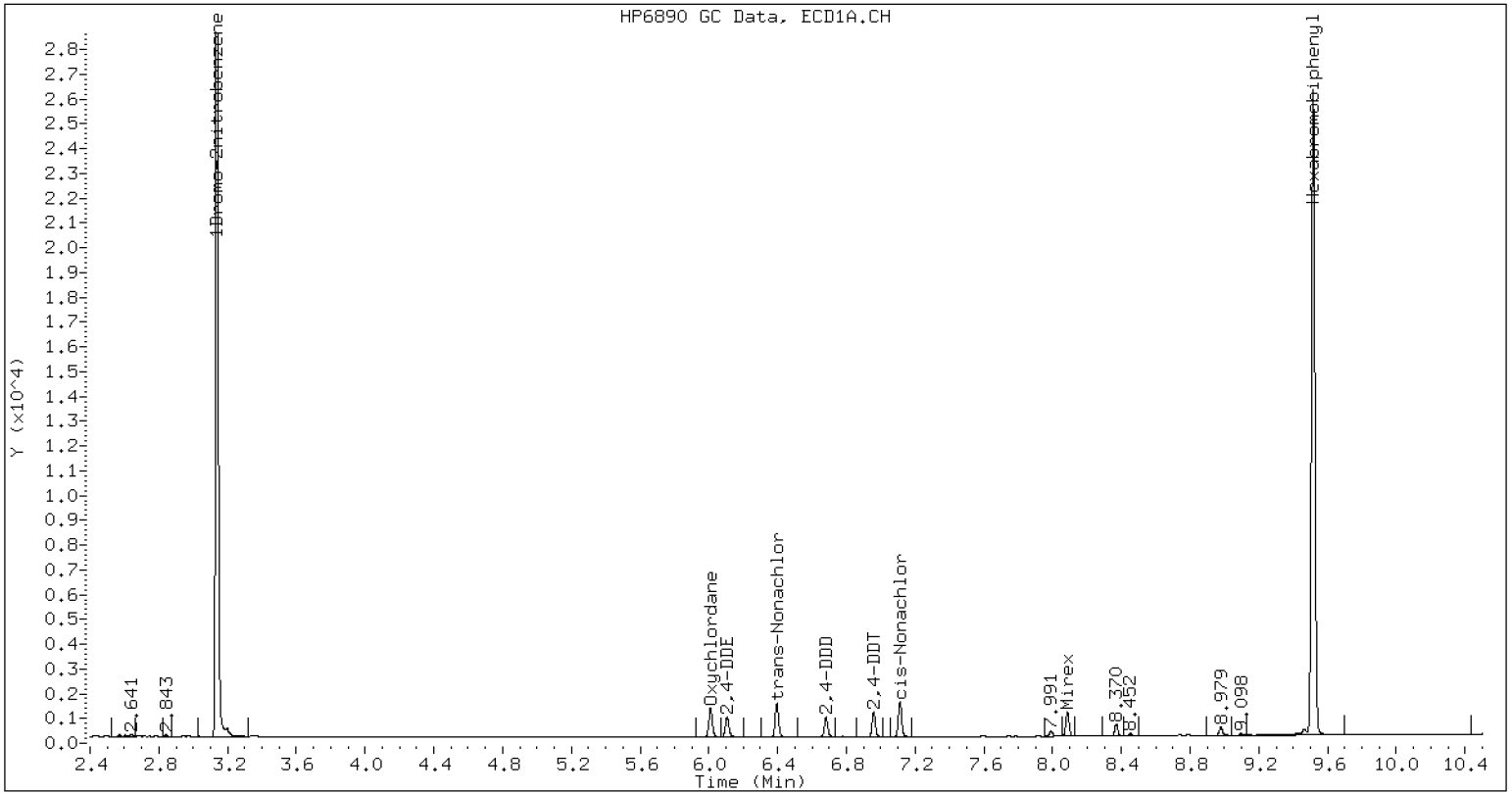
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	913523	5.7
Hexabromobiphenyl	663237	737594	11.2

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1238562	-16.4
Hexabromobiphenyl	870561	753386	-13.5

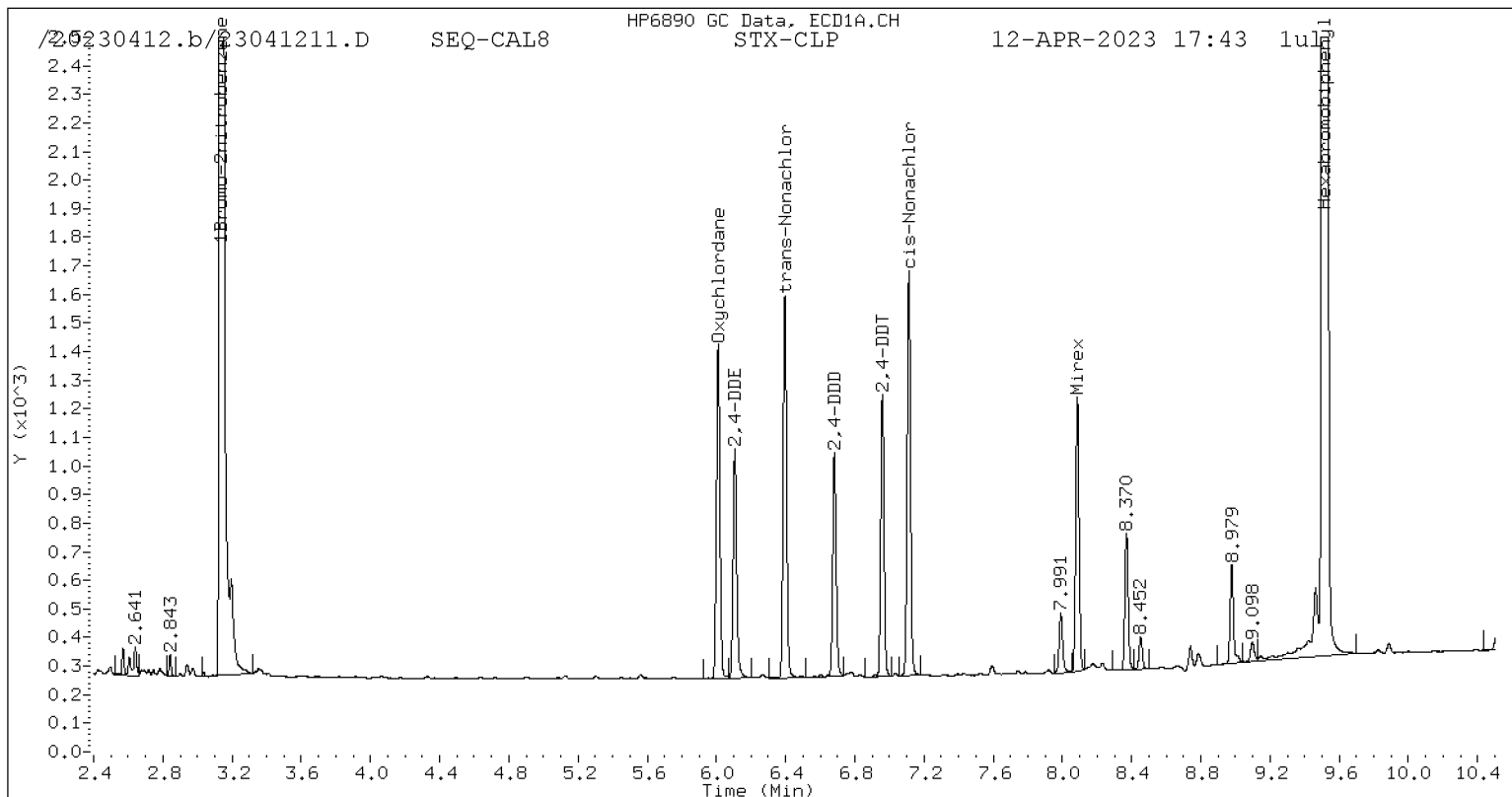
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

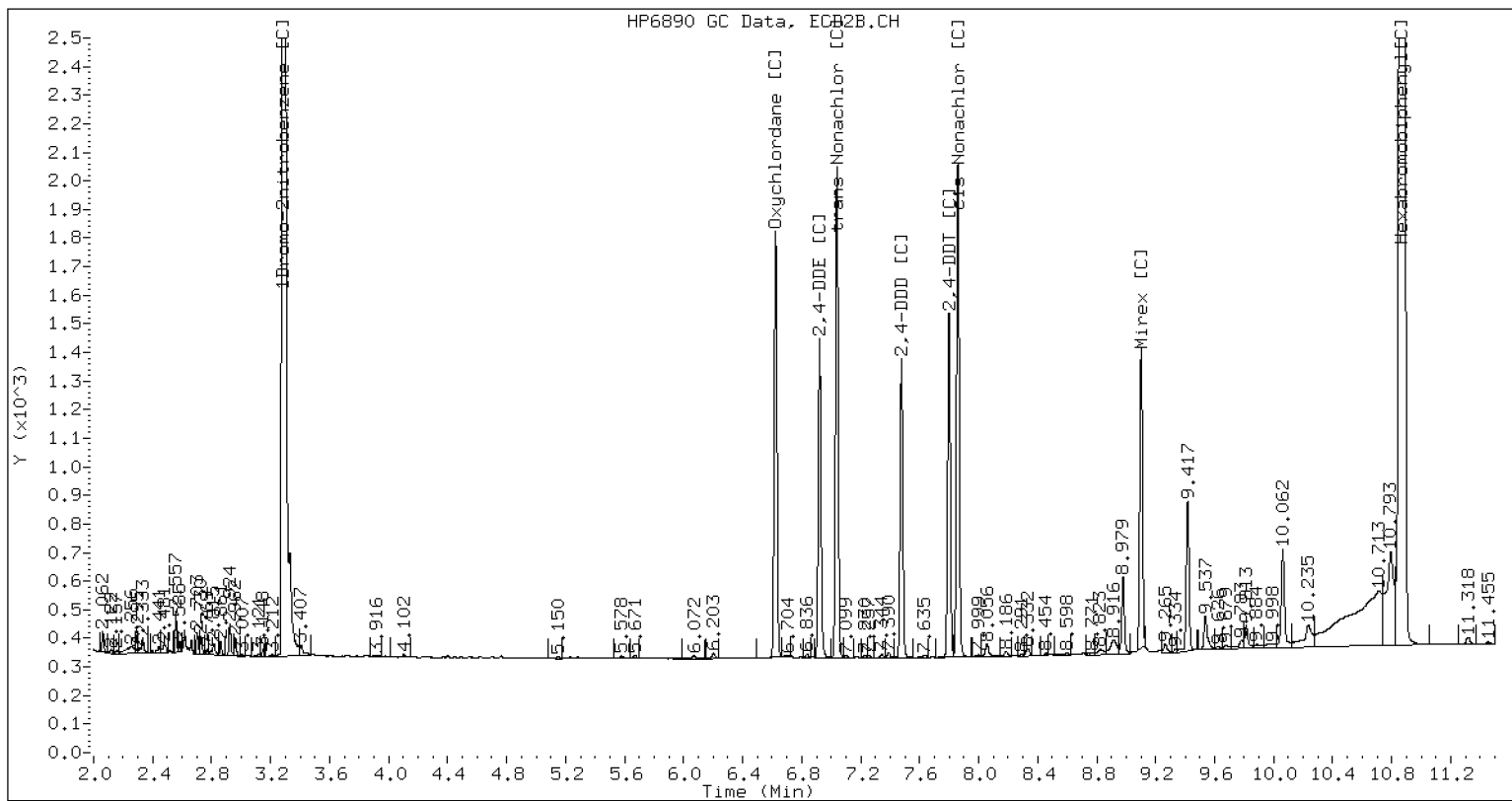


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

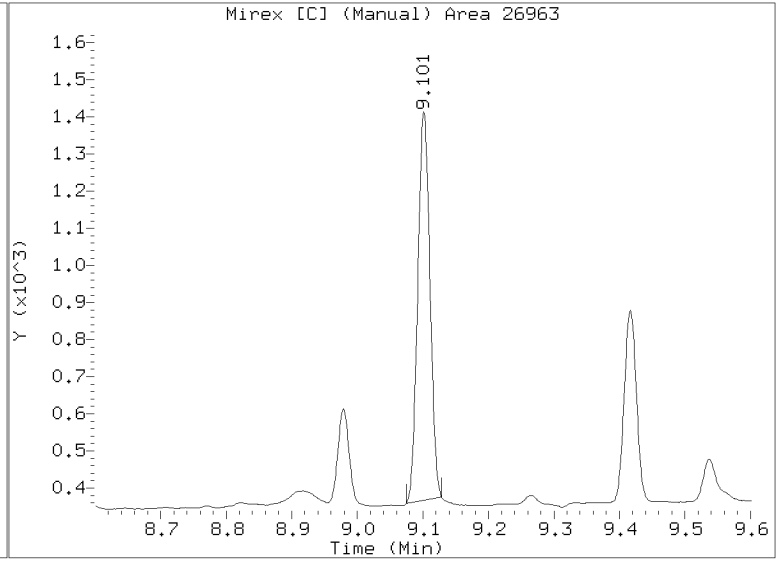
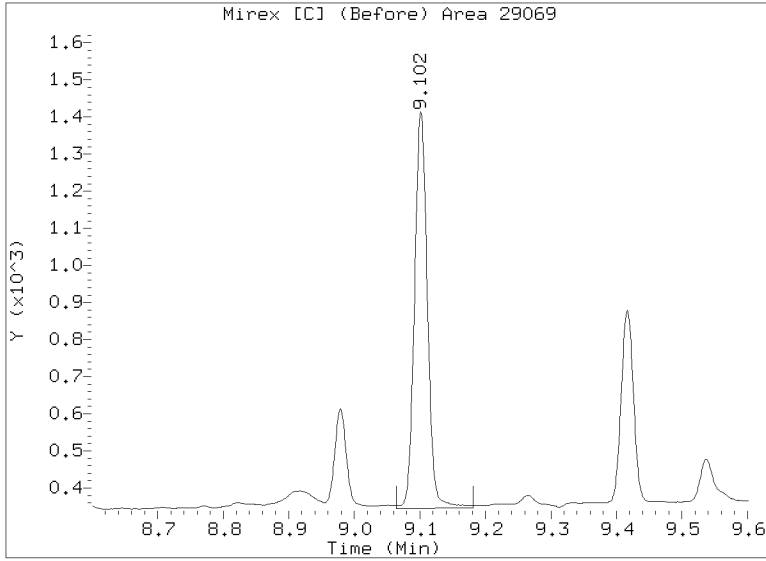
/20230412.b/B20230412.b/23041211.D SEQ-CAL8 CLP2



CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041211.D
Injection Date: 12-APR-2023 17:43
Lab ID:SEQ-CAL8 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041212.D
Data file 2: /20230412.b/B20230412.b/23041212.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9
Client ID:
Injection Date: 12-APR-2023 18:02
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.010	0.001 60226	6.624 -0.000	77029	5.15	5.33	3.5	Oxychlorthane	
6.106	0.001 45692	6.921 0.000	57608	5.39	5.45	1.1	2,4-DDE	
6.396	0.001 73158	7.038 -0.001	81213	5.33	4.94	7.6	trans-Nonachlor	
6.682	0.001 41900	7.477 -0.000	51791	5.31	5.30	0.3	2,4-DDD	
6.959	0.000 51131	7.798 -0.001	58989	5.37	5.28	1.8	2,4-DDT	
7.112	0.000 75575	7.858 -0.001	87575	5.29	5.15	2.7	cis-Nonachlor	
8.086	0.001 47358	9.101 0.000	53365	5.31	5.44	2.5	Mirex	
----		----		0.00	0.00	---	Tetrachloro-m-xylene	
----		----		0.00	0.00	---	Decachlorobiphenyl	

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

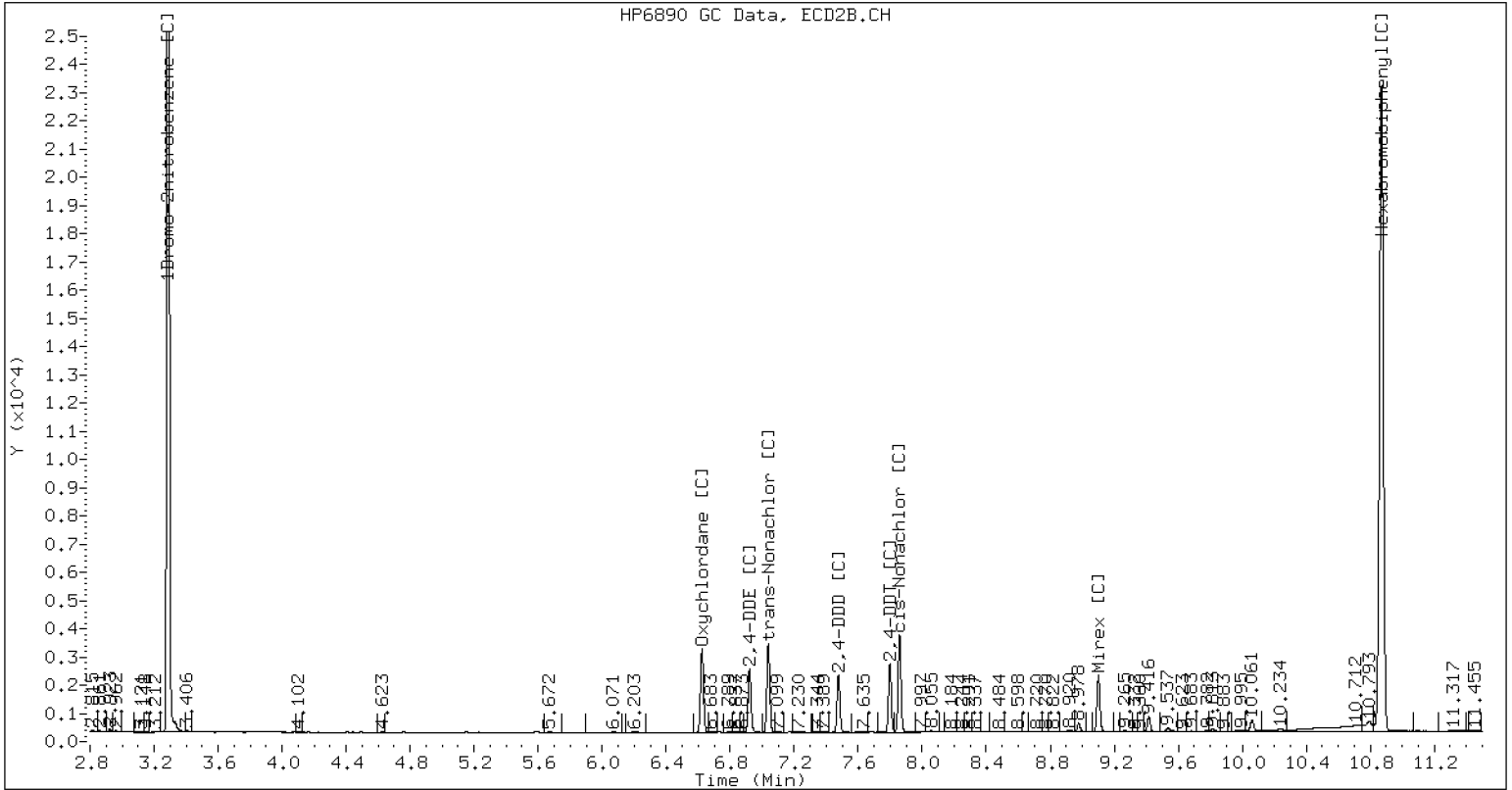
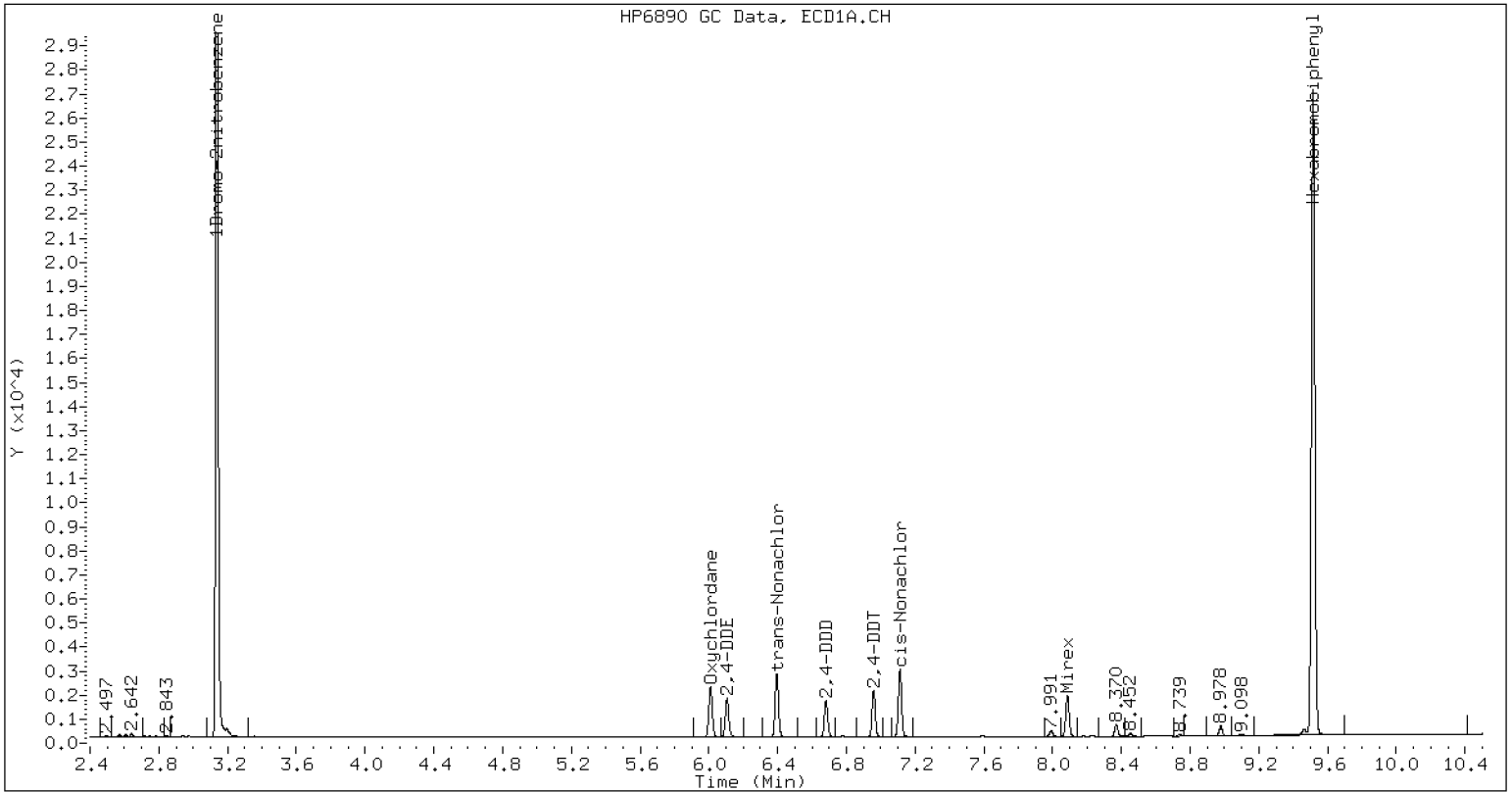
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	930904	7.7
Hexabromobiphenyl	663237	759389	14.5

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1264392	-14.6
Hexabromobiphenyl	870561	780703	-10.3

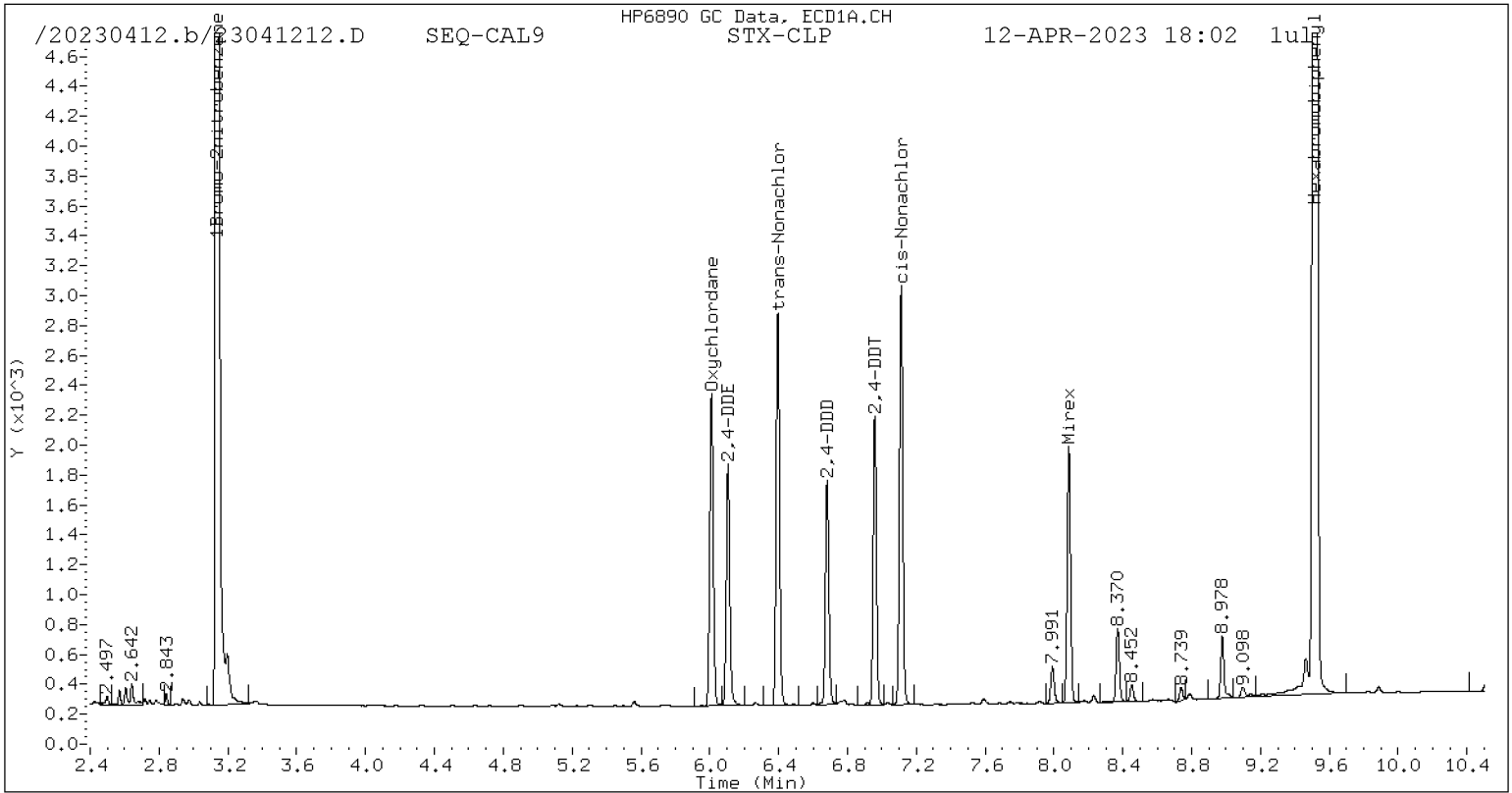
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

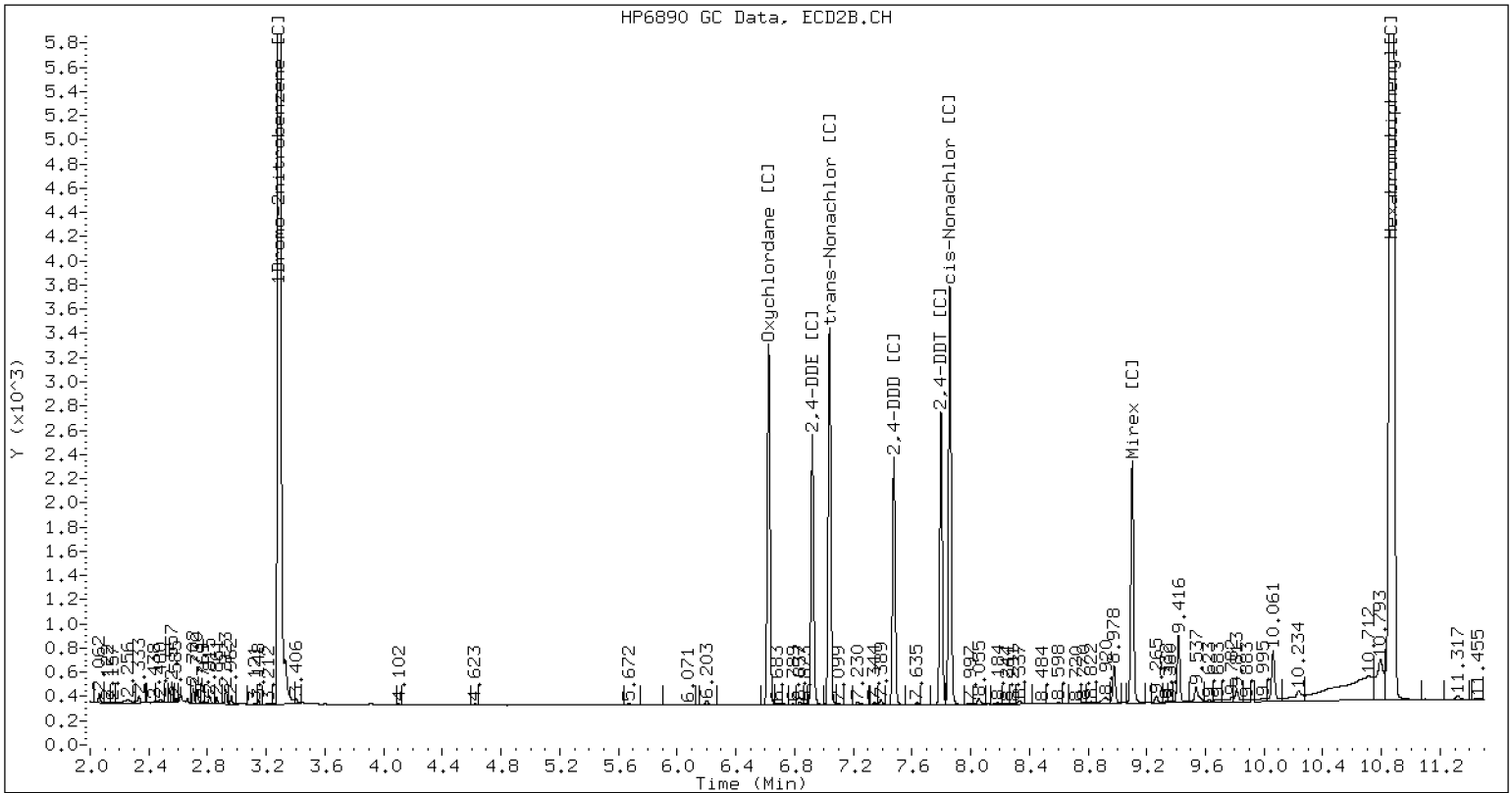


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041212.D SEQ-CAL9 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041213.D
Data file 2: /20230412.b/B20230412.b/23041213.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALA
Client ID:
Injection Date: 12-APR-2023 18:20
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
6.009	-0.000	123278	6.624	0.000	151270	10.75	10.37	3.6	Oxychlorane
6.106	0.001	89835	6.921	0.000	112895	10.82	10.59	2.2	2,4-DDE
6.396	0.001	141201	7.039	-0.000	170866	10.50	10.56	0.6	trans-Nonachlor
6.682	0.001	83598	7.477	-0.000	100942	10.82	10.49	3.1	2,4-DDD
6.959	0.000	99988	7.799	-0.000	115070	10.72	10.46	2.4	2,4-DDT
7.112	0.000	146847	7.859	0.000	173382	10.50	10.37	1.3	cis-Nonachlor
8.086	0.001	92734	9.101	0.000	100630	10.60	10.42	1.7	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

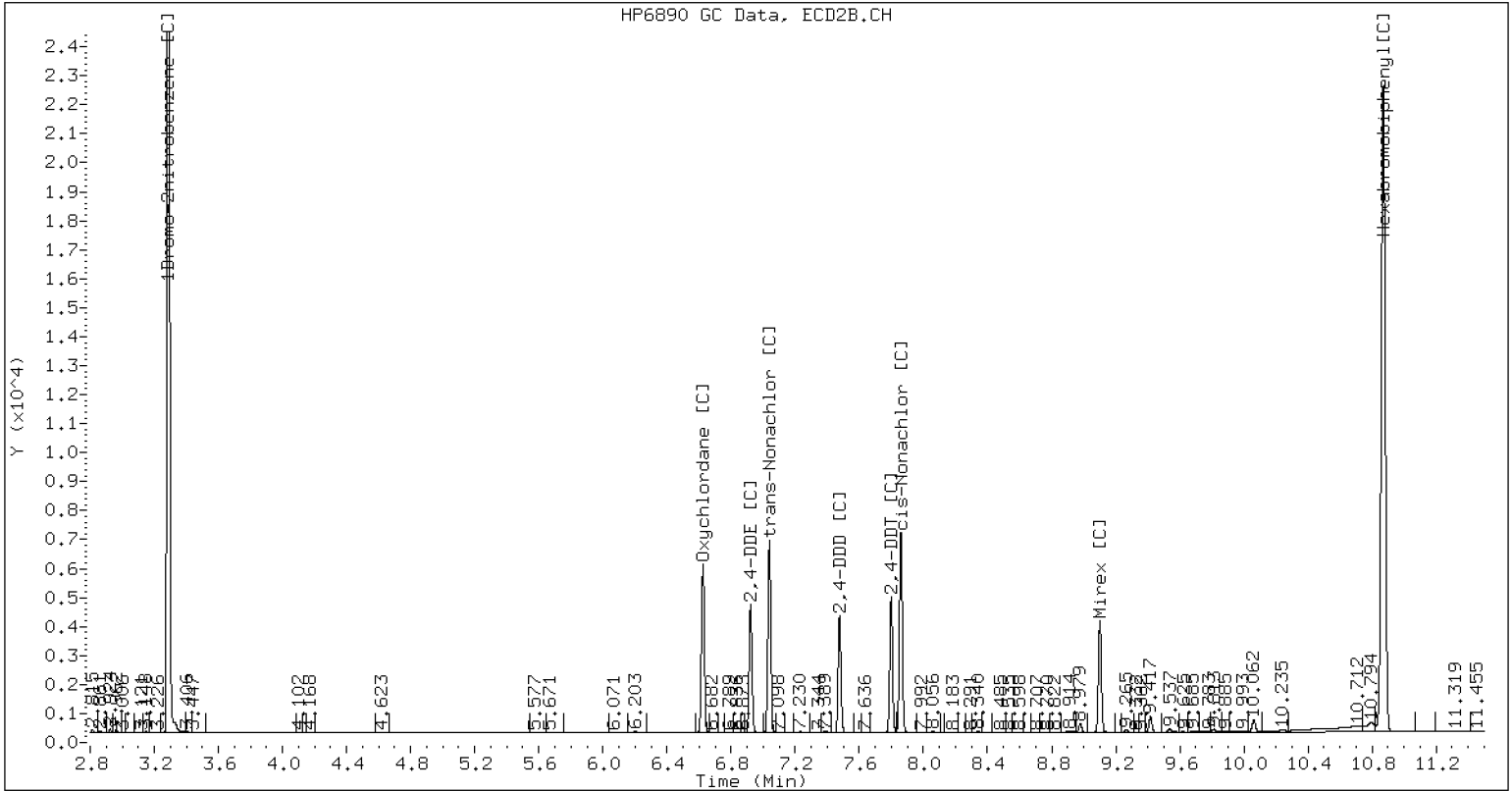
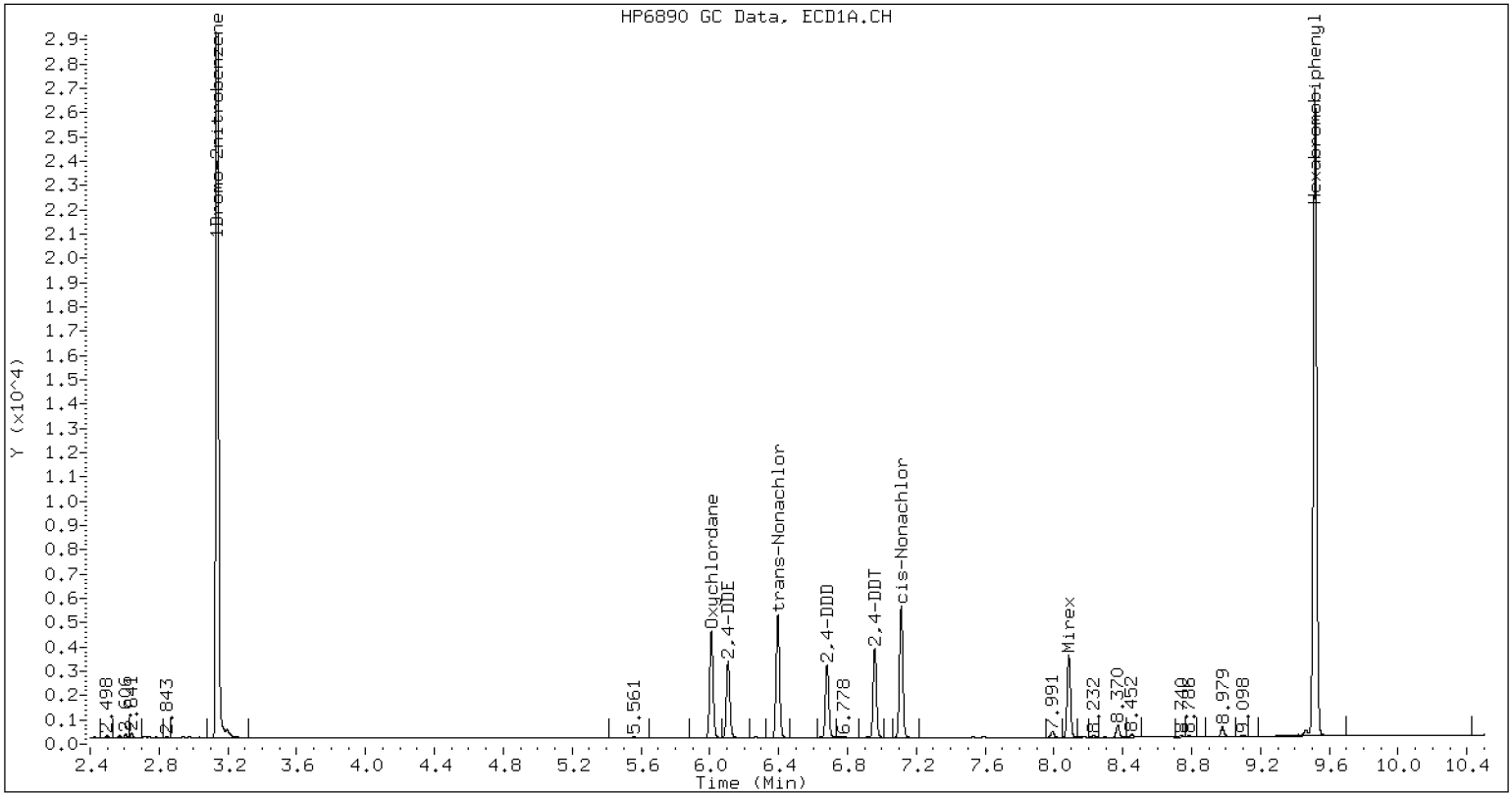
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	924798	7.0
Hexabromobiphenyl	663237	744140	12.2

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1276044	-13.8
Hexabromobiphenyl	870561	768340	-11.7

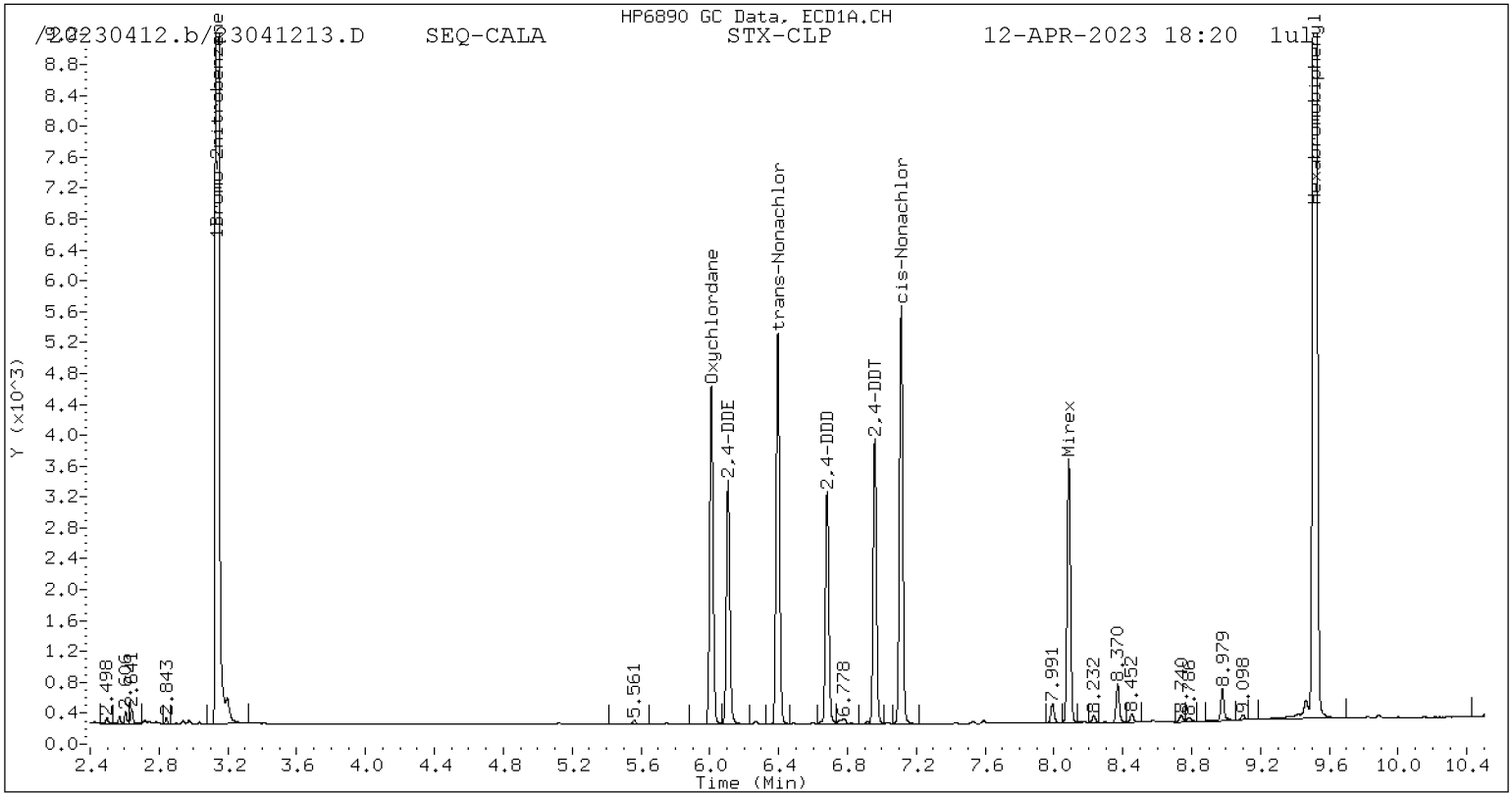
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

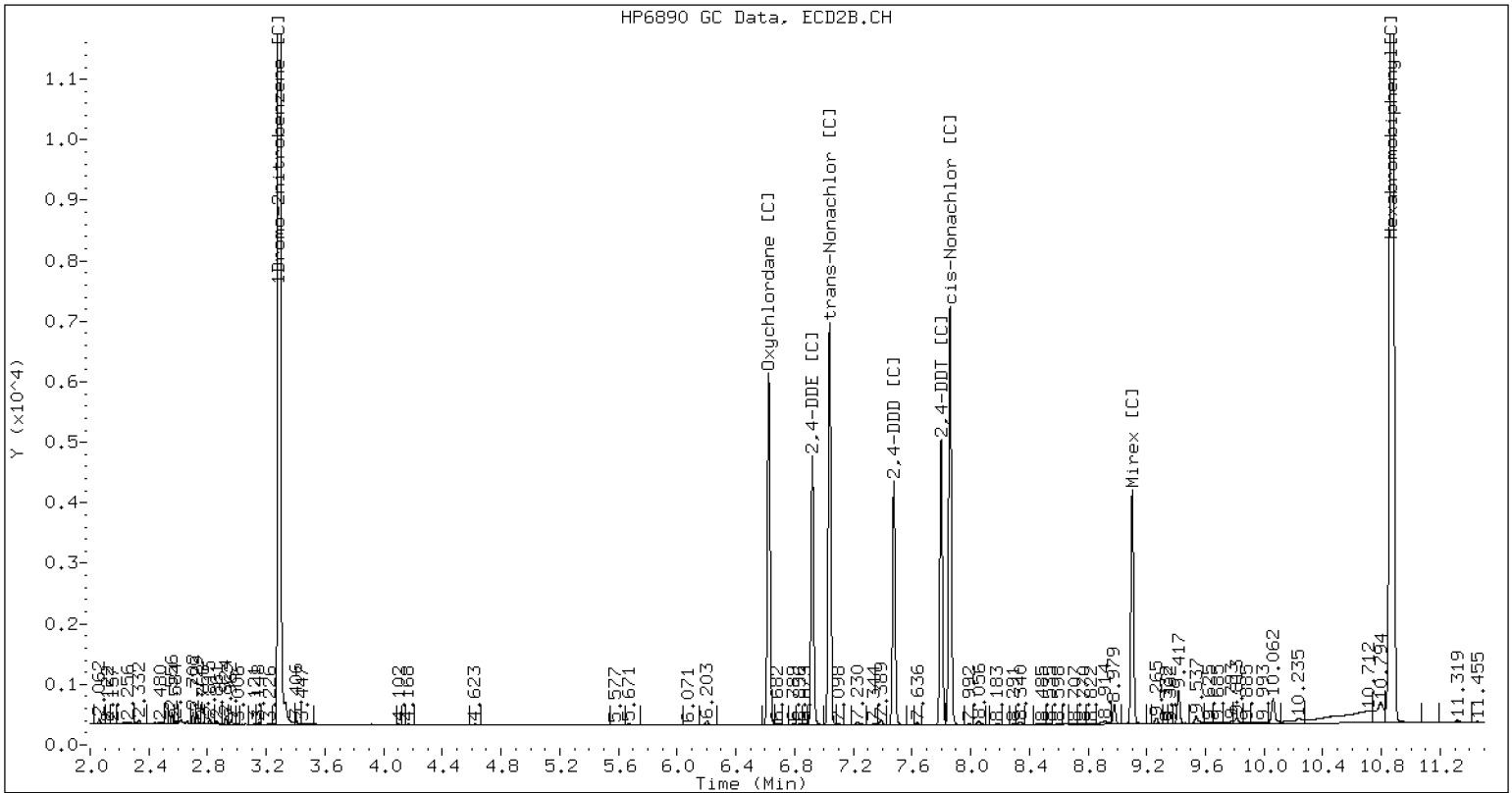


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041213.D SEQ-CALA CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041214.D
Data file 2: /20230412.b/B20230412.b/23041214.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALB
Client ID:
Injection Date: 12-APR-2023 18:38
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.010	0.000 234579	6.624 0.000 293794	6.624	20.52	20.63	0.5	Oxychlorane
6.106	0.001 170299	6.922 0.001 216226	6.922	20.59	20.78	0.9	2,4-DDE
6.396	0.001 271524	7.039 0.000 333381	7.039	20.26	20.64	1.8	trans-Nonachlor
6.682	0.000 158357	7.476 -0.001 195047	7.476	20.57	20.30	1.3	2,4-DDD
6.960	0.001 190595	7.799 -0.000 223003	7.799	20.50	20.30	1.0	2,4-DDT
7.112	0.001 283023	7.859 0.000 341543	7.859	20.31	20.45	0.7	cis-Nonachlor
8.086	0.000 174624	9.101 0.000 190241	9.101	20.04	19.74	1.5	Mirex
----		----	----	0.00	0.00	---	Tetrachloro-m-xylene
----		10.309 0.003 2954	10.309	0.00	0.32	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

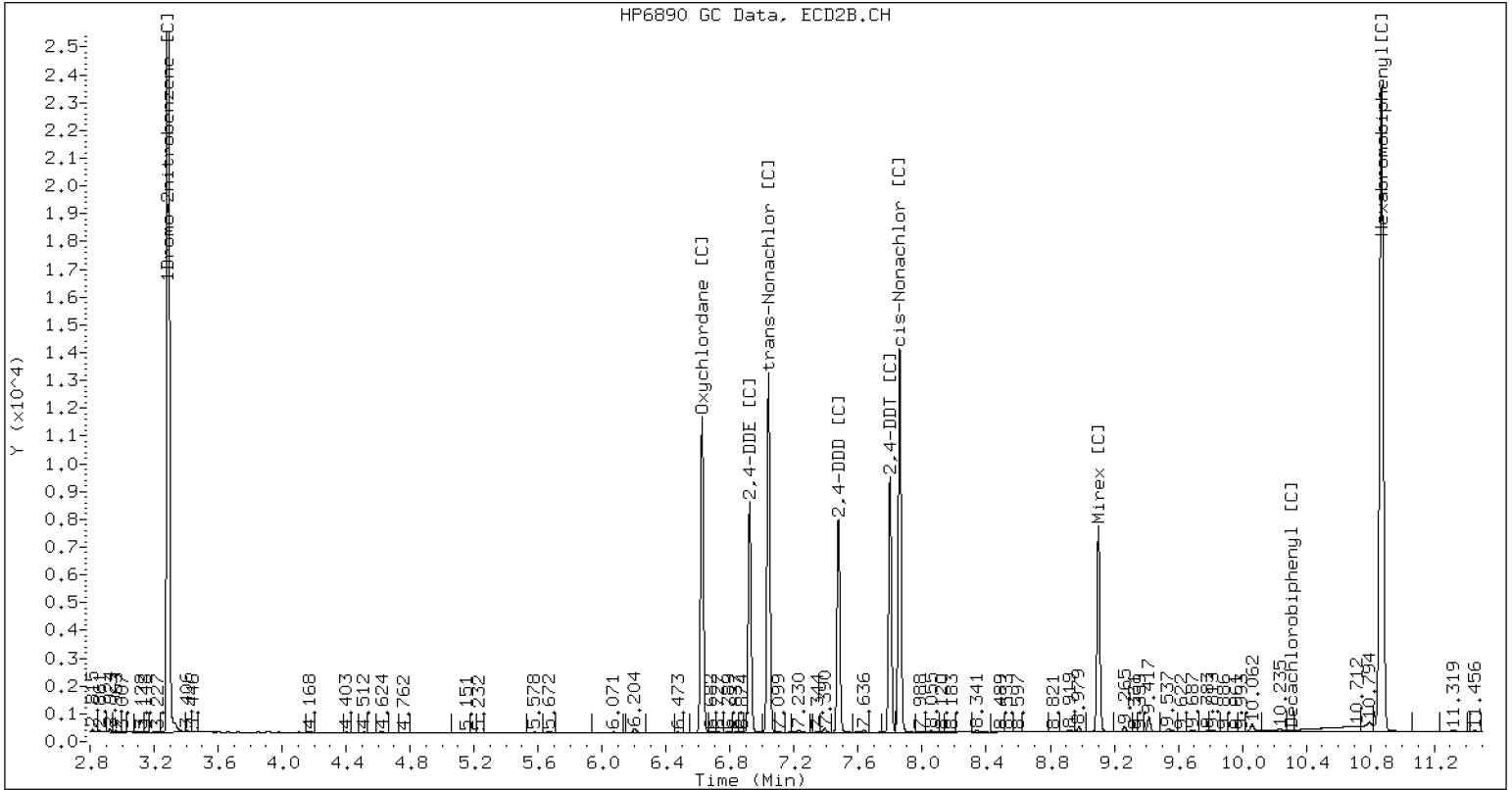
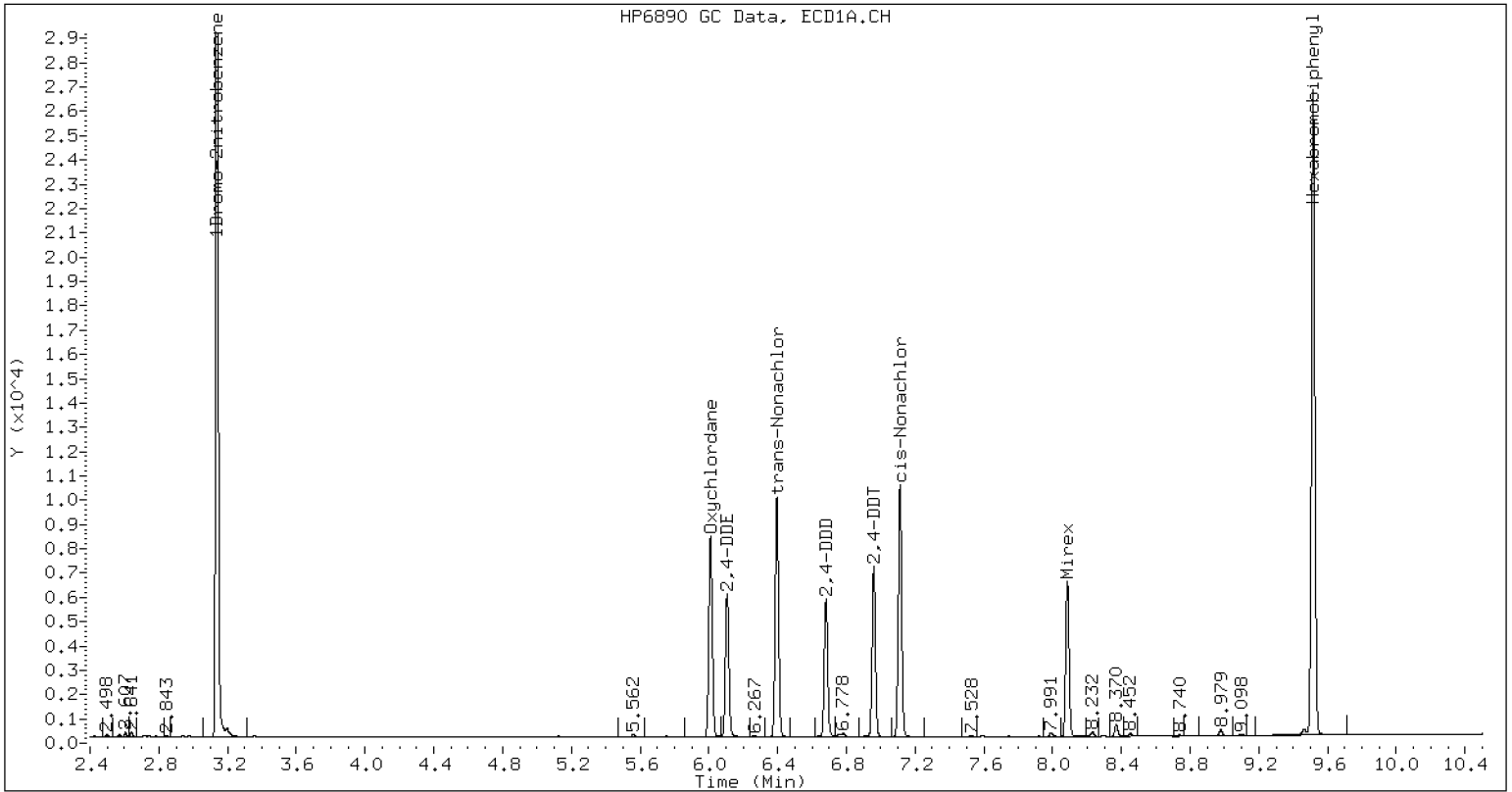
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	899601	4.1
Hexabromobiphenyl	663237	741497	11.8

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1245547	-15.9
Hexabromobiphenyl	870561	767183	-11.9

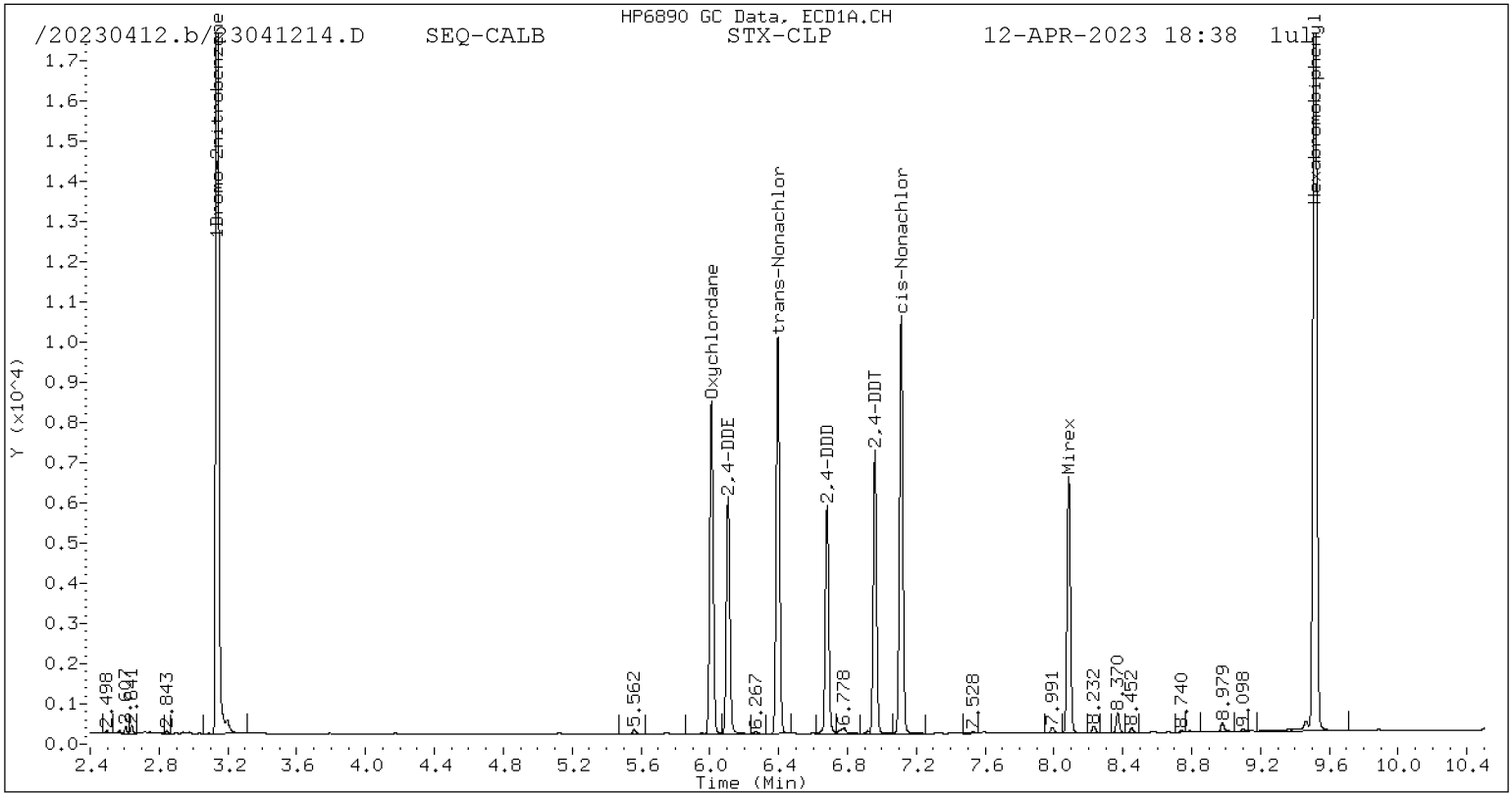
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

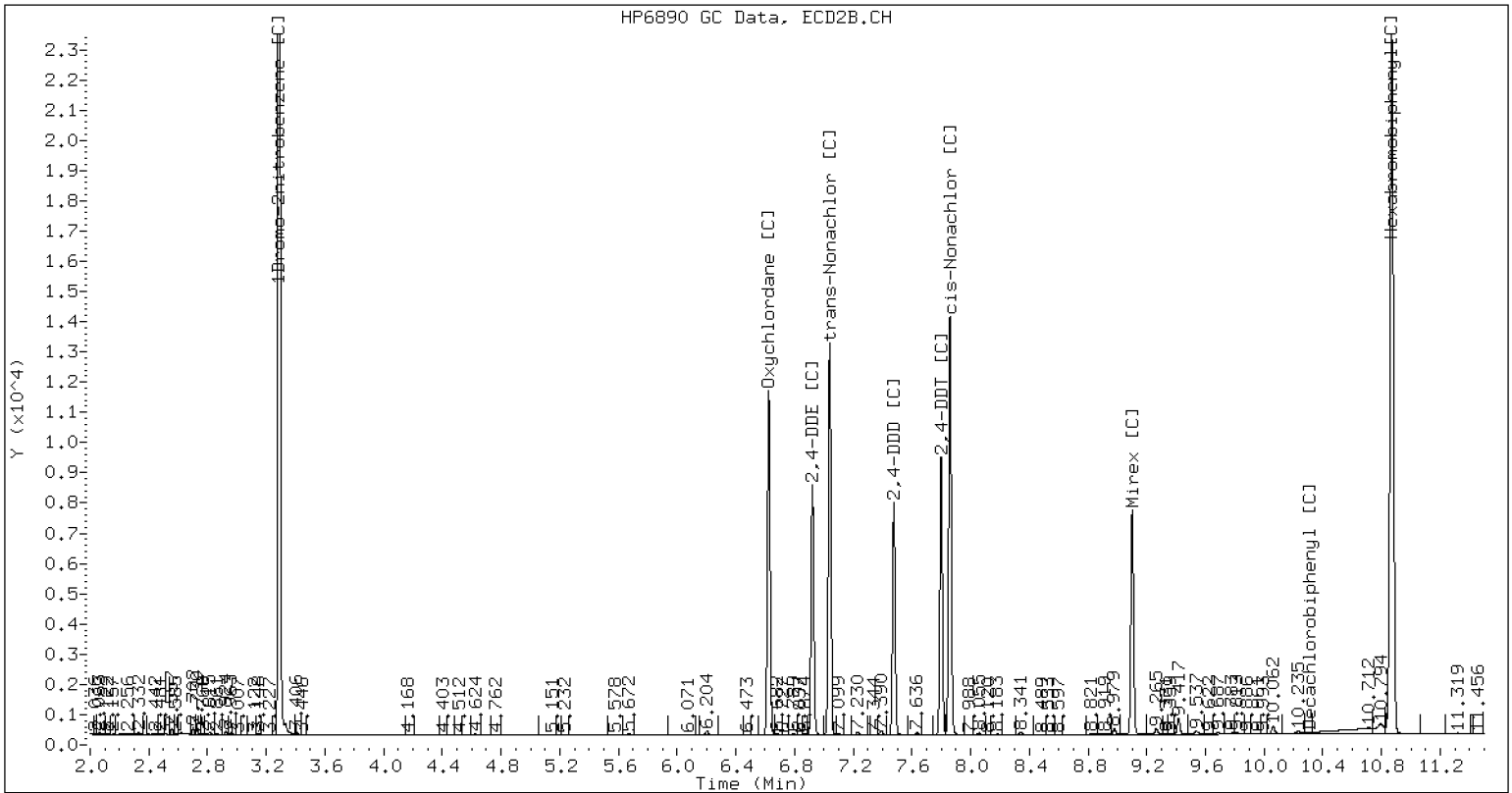


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041214.D SEQ-CALB CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041215.D
 Data file 2: /20230412.b/B20230412.b/23041215.D
 Method: \20230412.b\PEST.m
 Compound Sublist: WND.sub
 Instrument, Inj. Vol.: ecd6.i, 1ul
 Operator: JGR

ARI ID: SEQ-CALC
 Client ID:
 Injection Date: 12-APR-2023 18:57
 Report Date: 04/14/2023 09:40
 Units: ng/mL
 Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.010	0.001 441791	6.624 0.000 561341	39.12	39.67	1.4	Oxychlorthane		
6.106	0.001 318110	6.921 0.000 406232	38.93	39.30	0.9	2,4-DDE		
6.396	0.001 517172	7.039 -0.000 640936	39.06	40.16	2.8	trans-Nonachlor		
6.681	-0.000 297604	7.476 -0.001 372629	39.12	39.26	0.3	2,4-DDD		
6.959	0.001 358310	7.799 -0.000 427178	39.01	39.36	0.9	2,4-DDT		
7.112	0.000 540011	7.859 -0.000 659204	39.22	39.95	1.9	cis-Nonachlor		
8.086	0.000 328833	9.101 -0.000 364657	38.19	38.29	0.3	Mirex		
----		----	0.00	0.00	---	Tetrachloro-m-xylene		
----		|10.309 0.003 2755	0.00	0.30	---	Decachlorobiphenyl		

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

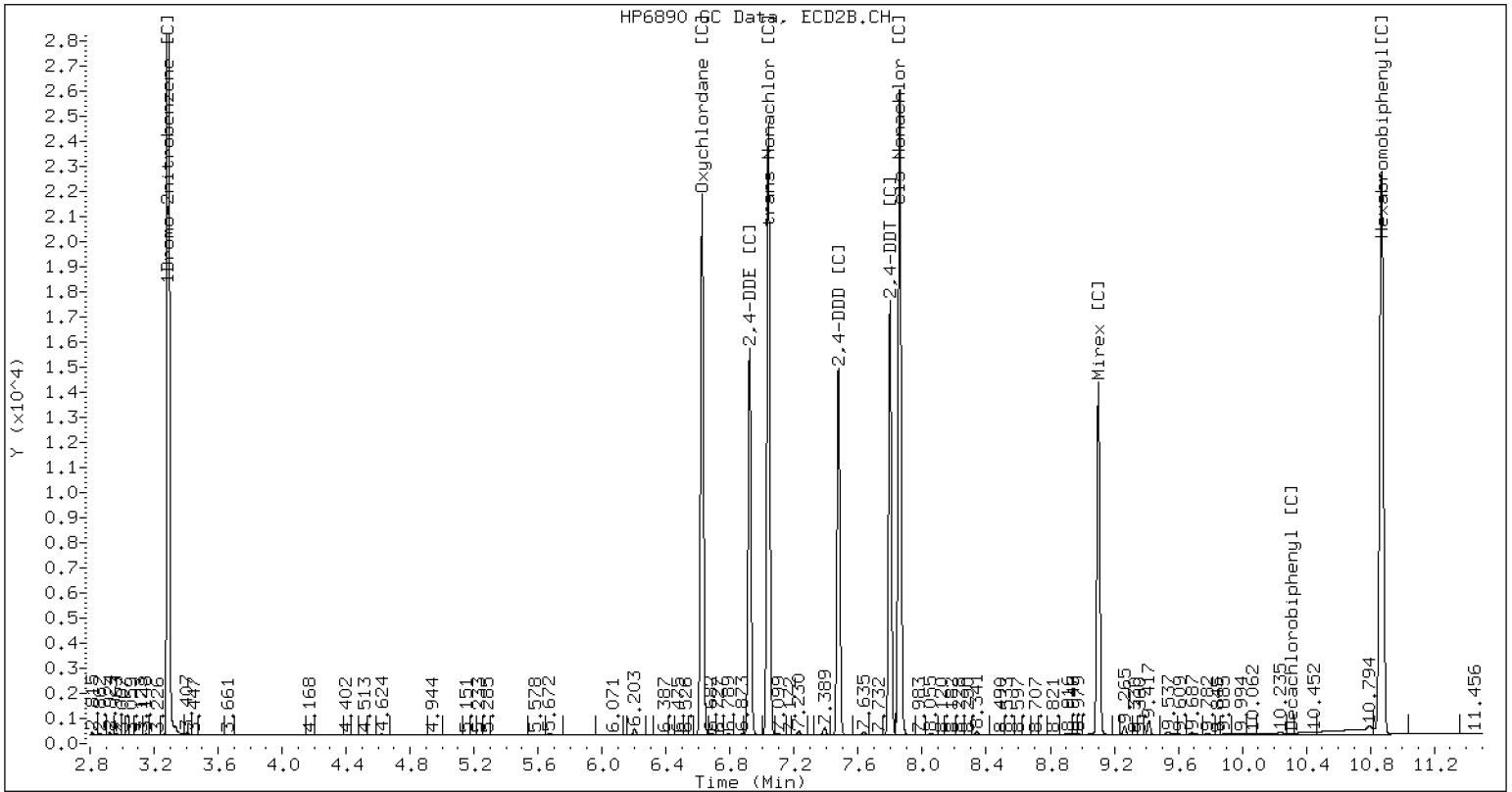
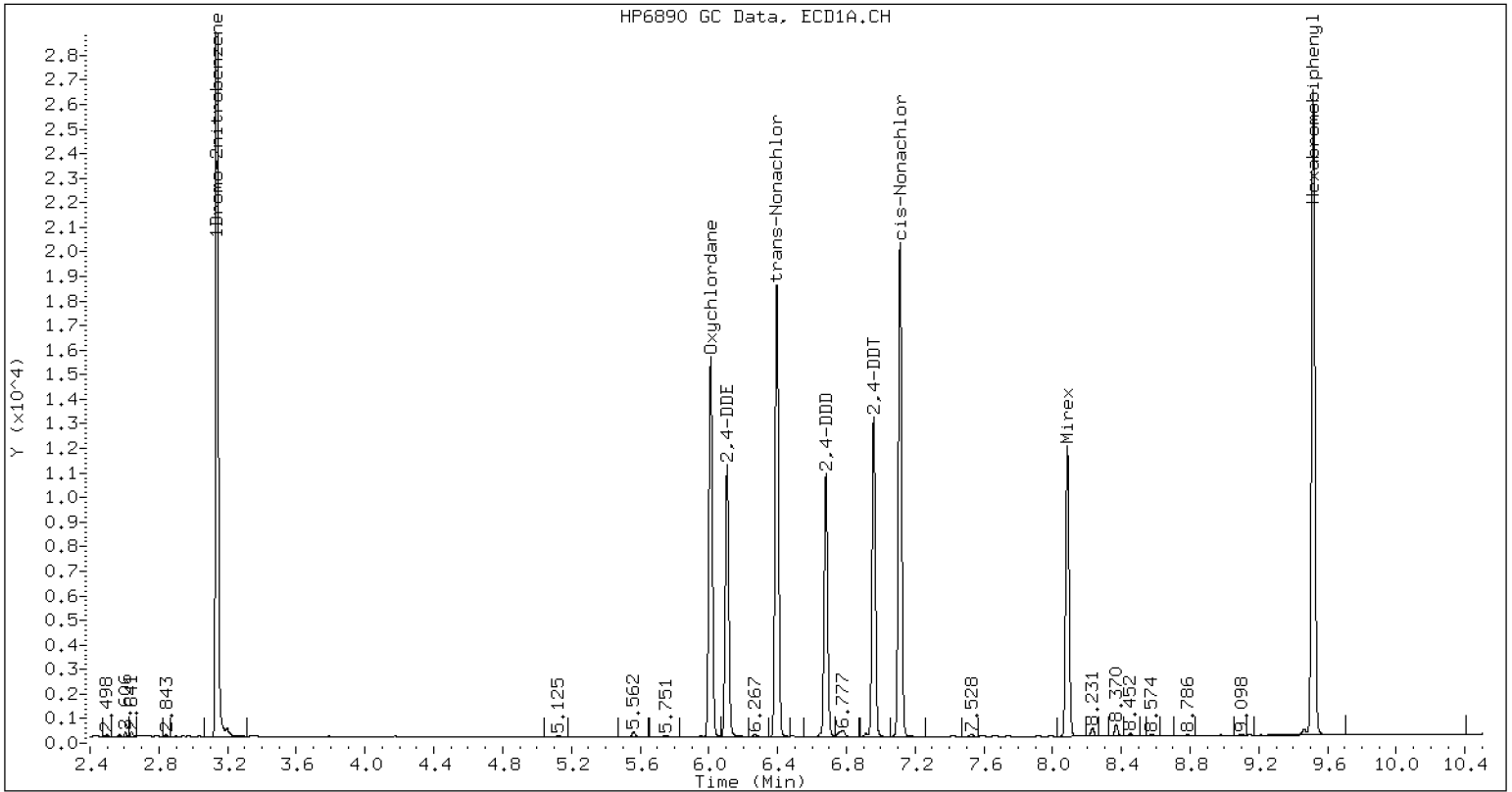
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	887506	2.7
Hexabromobiphenyl	663237	732612	10.5

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1237559	-16.4
Hexabromobiphenyl	870561	757937	-12.9

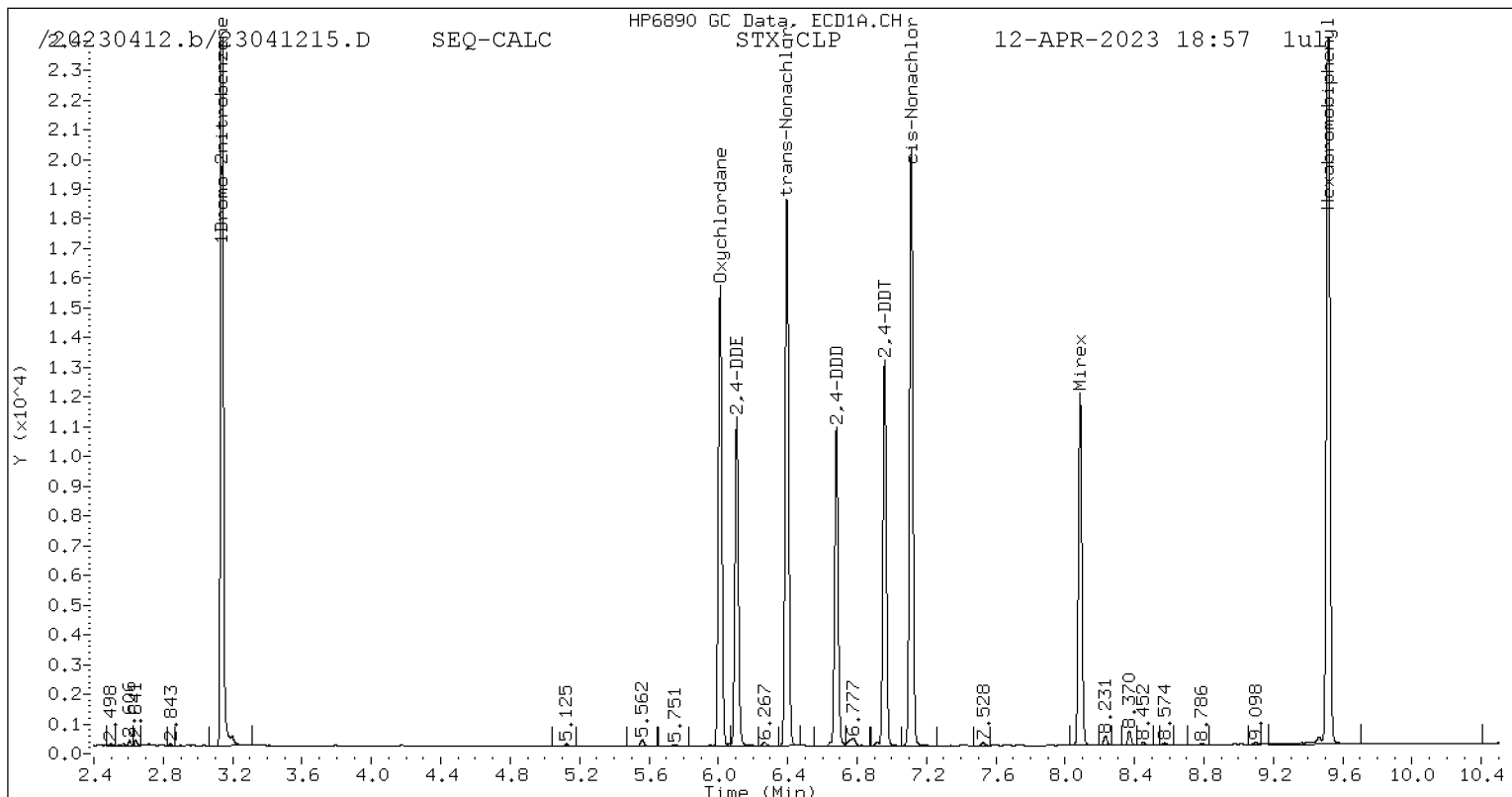
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

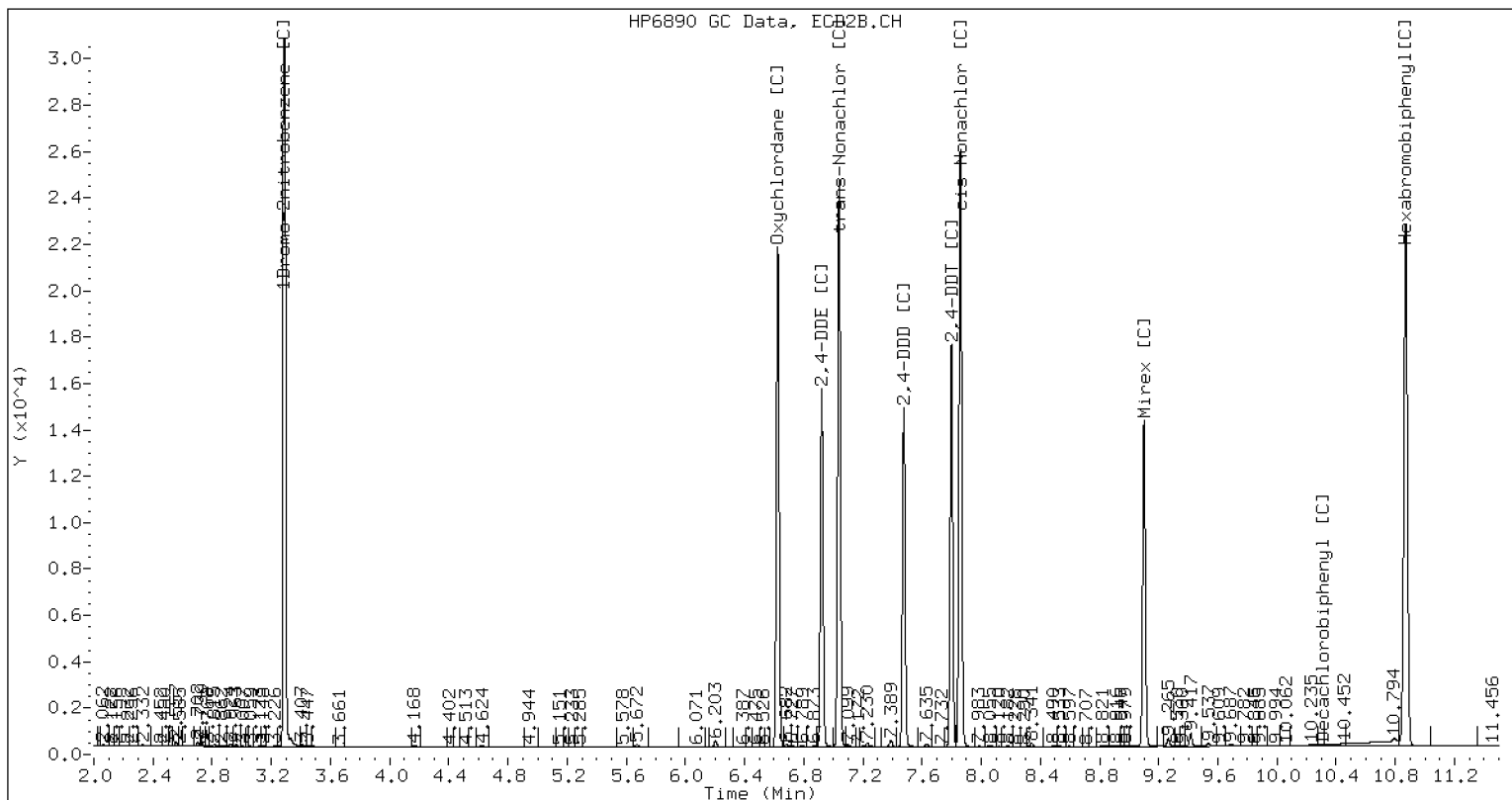


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041215.D SEQ-CALC CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041216.D
Data file 2: /20230412.b/B20230412.b/23041216.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALD
Client ID:
Injection Date: 12-APR-2023 19:15
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag		
6.010	0.000	817171	6.624	-0.000	1054911	72.77	74.15	1.9	Oxychlorane
6.106	0.001	580973	6.921	-0.000	743589	71.50	71.54	0.1	2,4-DDE
6.395	0.001	968759	7.039	-0.001	1211298	73.58	76.18	3.5	trans-Nonachlor
6.681	-0.000	548708	7.476	-0.001	698482	72.54	73.85	1.8	2,4-DDD
6.958	-0.000	660572	7.798	-0.001	805720	72.32	74.50	3.0	2,4-DDT
7.112	-0.000	1017099	7.858	-0.001	1256322	74.28	76.41	2.8	cis-Nonachlor
8.086	0.000	616577	9.101	0.000	697240	72.01	73.47	2.0	Mirex
----			4.135	-0.001	186	0.00	0.01	---	Tetrachloro-m-xylene
----			10.309	0.003	3002	0.00	0.33	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	901377	4.3
Hexabromobiphenyl	663237	728475	9.8

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1244306	-16.0
Hexabromobiphenyl	870561	755238	-13.2

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041217.D
Data file 2: /20230412.b/B20230412.b/23041217.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALE
Client ID:
Injection Date: 12-APR-2023 19:34
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.009	0.000 1520737	6.624 -0.000 1976637	6.624	132.87	137.37	3.3	Oxychlorane M
6.105	-0.000 1051945	6.921 -0.000 1344143	6.921	127.02	127.86	0.7	2,4-DDE M
6.395	0.000 1828376	7.039 -0.000 2280597	7.039	136.25	139.01	2.0	trans-Nonachlor M
6.681	0.000 1007071	7.477 -0.000 1318871	7.477	130.63	135.15	3.4	2,4-DDD M
6.959	0.000 1216718	7.799 -0.000 1510661	7.799	130.69	135.39	3.5	2,4-DDT M
7.112	0.000 1924725	7.859 0.000 2389114	7.859	137.91	140.84	2.1	cis-Nonachlor M
8.086	0.000 1166143	9.101 0.000 1359594	9.101	133.61	138.86	3.9	Mirex M
----		4.136 0.000 307	4.136	0.00	0.02	---	Tetrachloro-m-xylene
----		10.308 0.002 3667	10.308	0.00	0.39	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

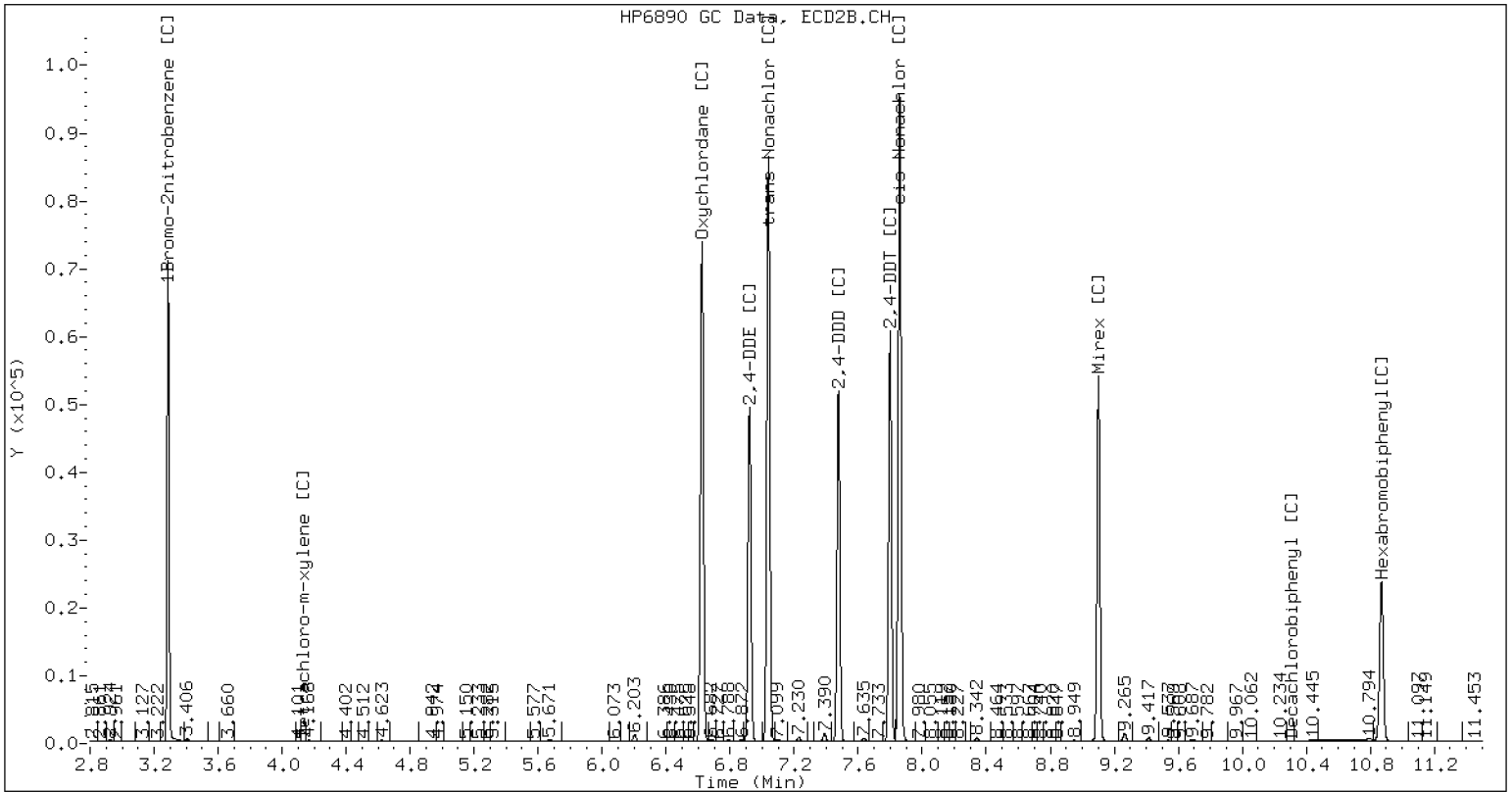
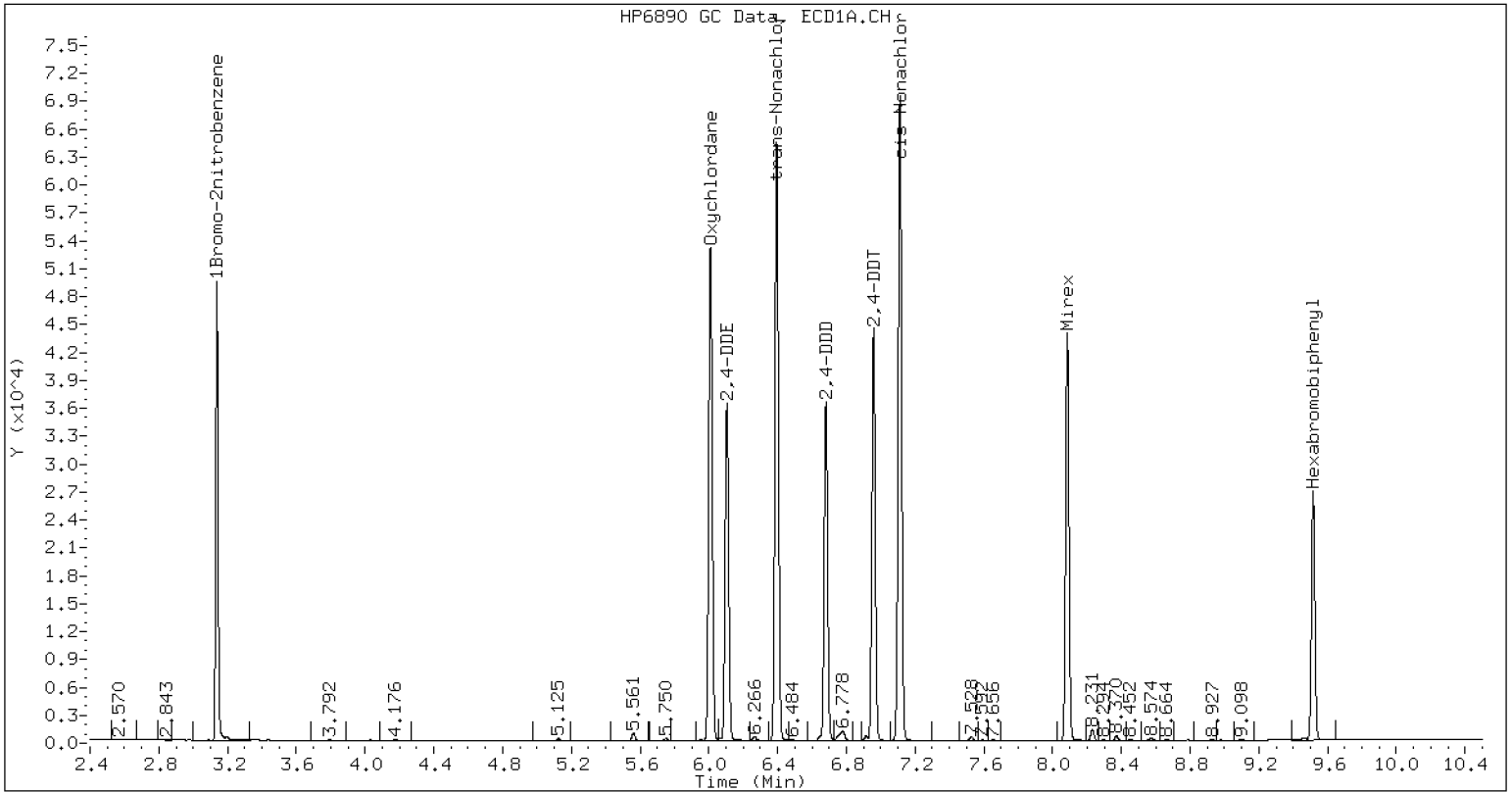
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	923493	6.8
Hexabromobiphenyl	663237	742507	12.0

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1258546	-15.0
Hexabromobiphenyl	870561	779225	-10.5

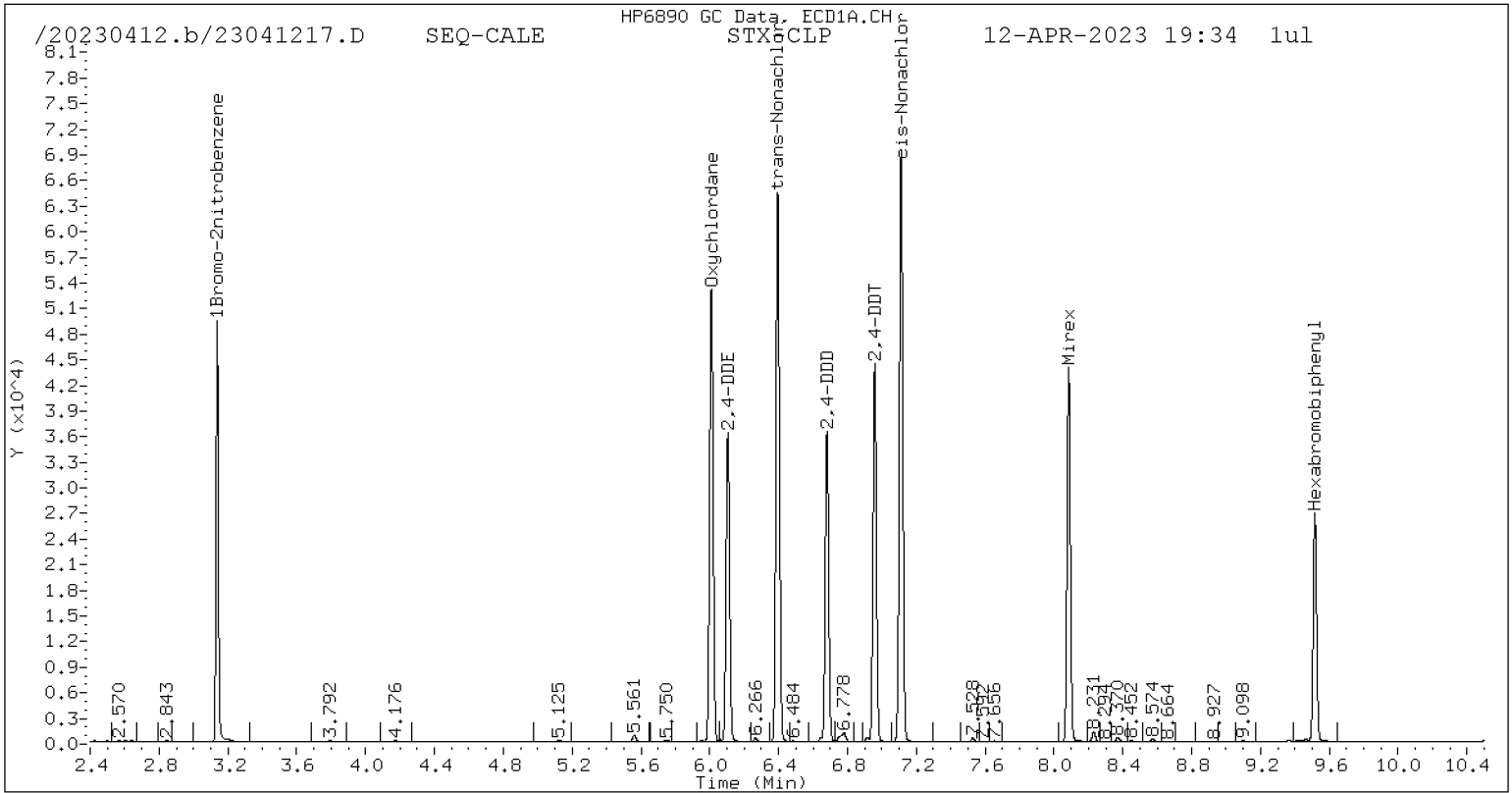
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

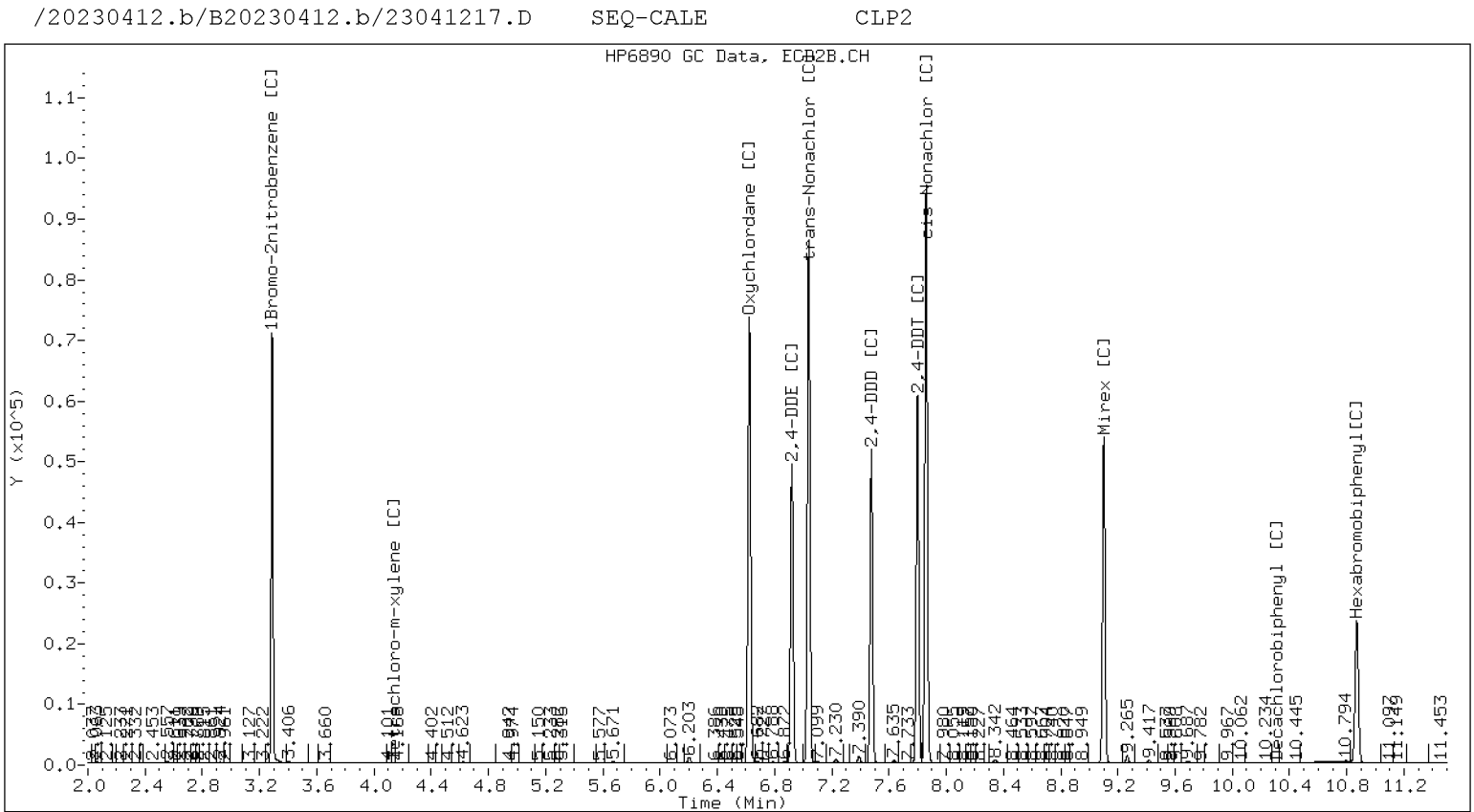
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



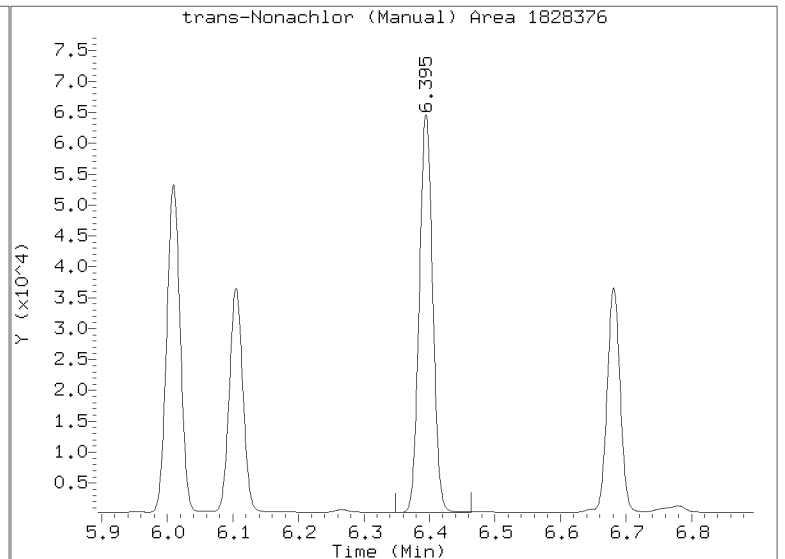
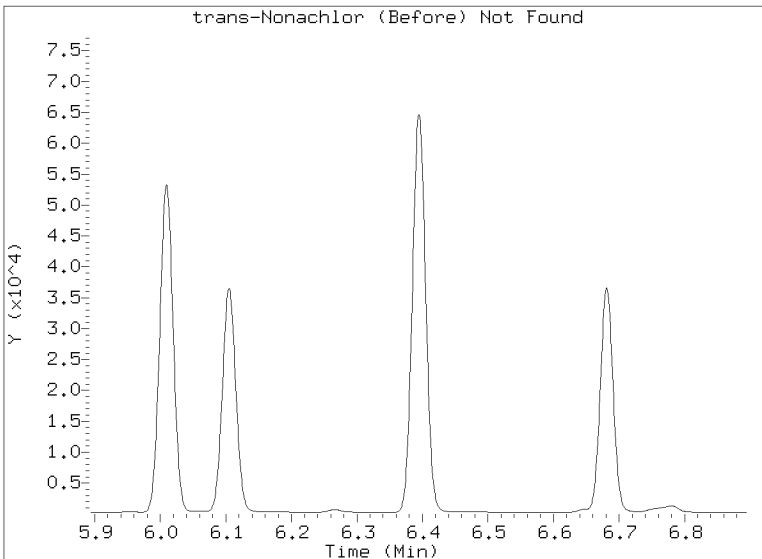
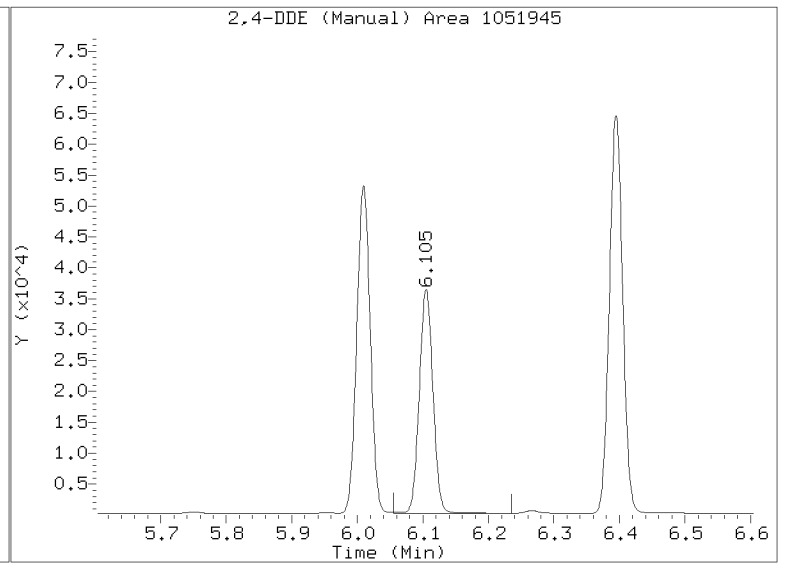
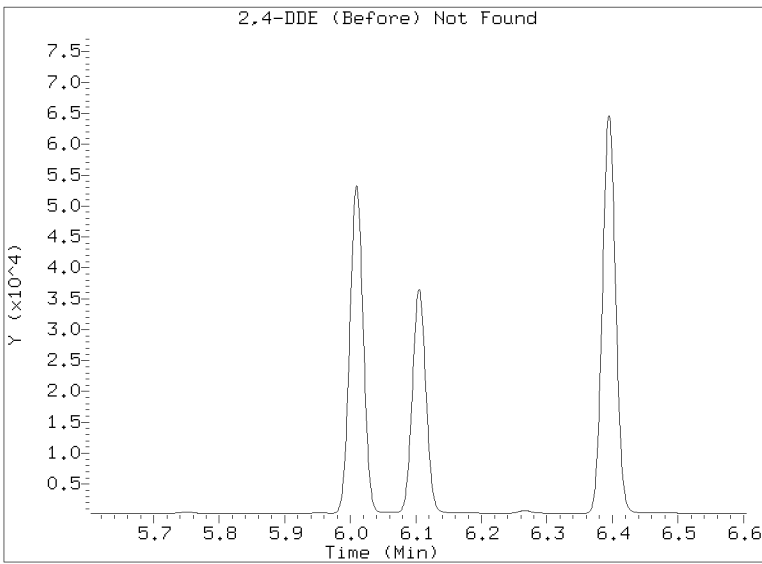
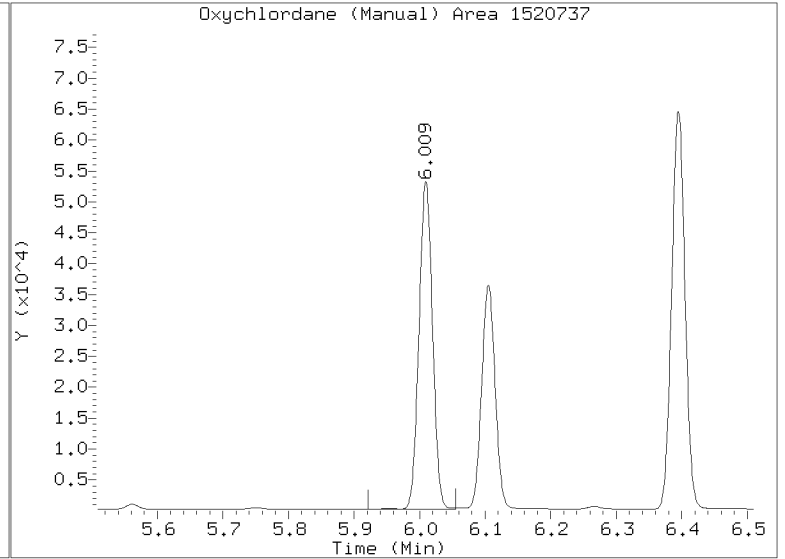
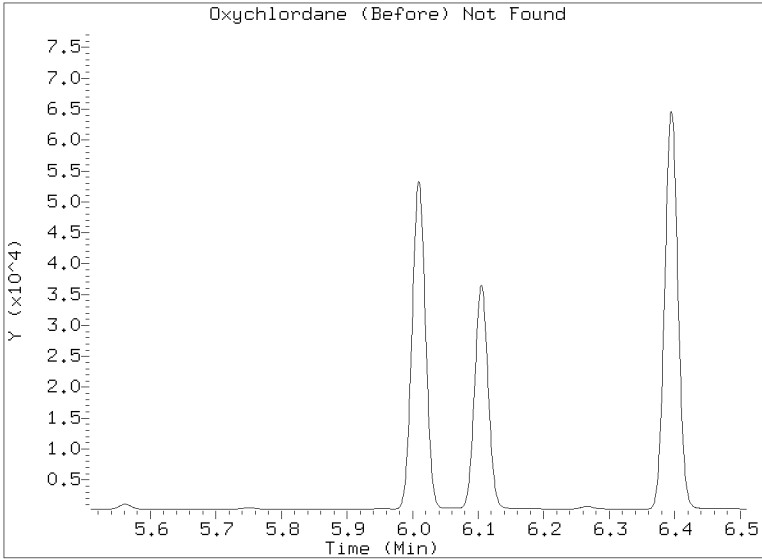
STX-CLP Manual Integration: YES



CLP-2 Manual Integration: NO

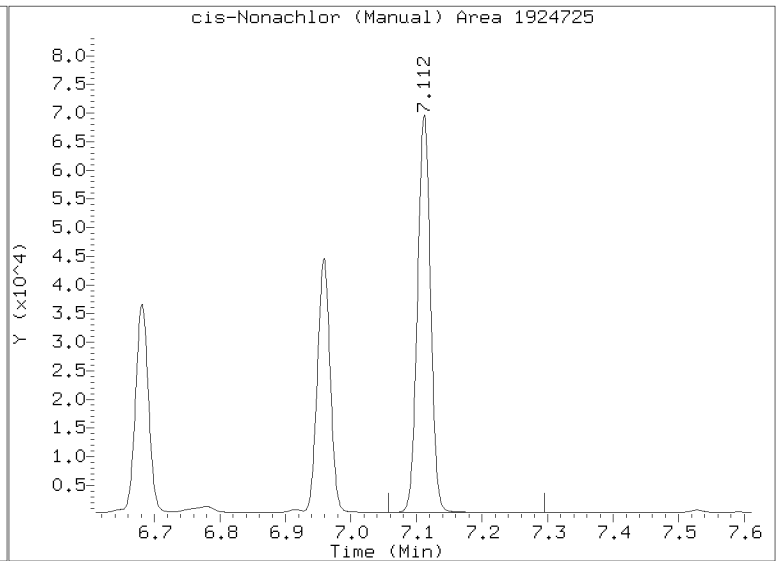
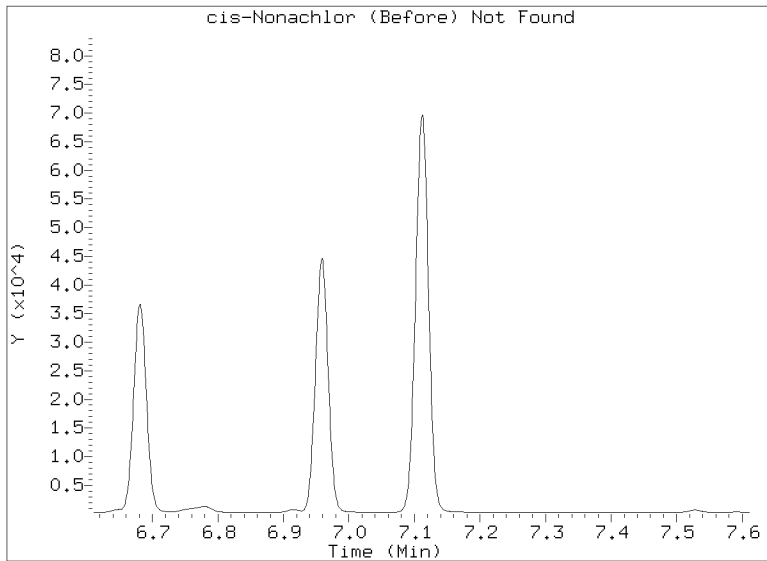
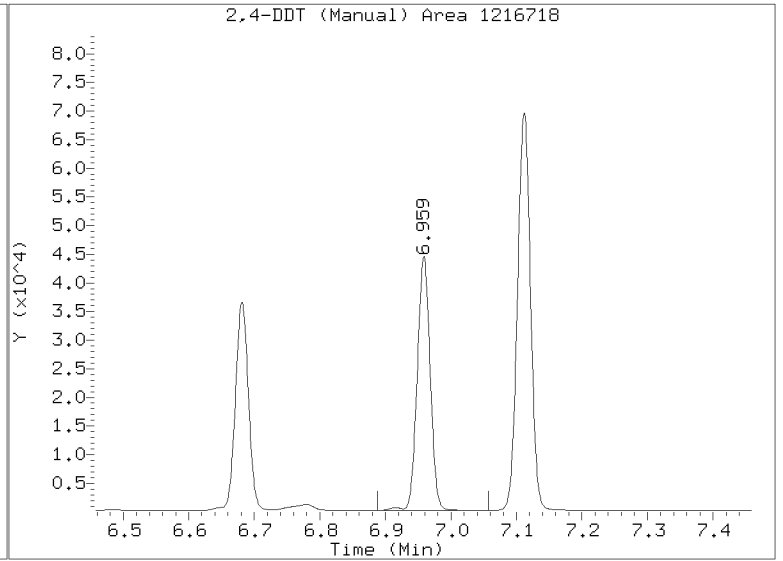
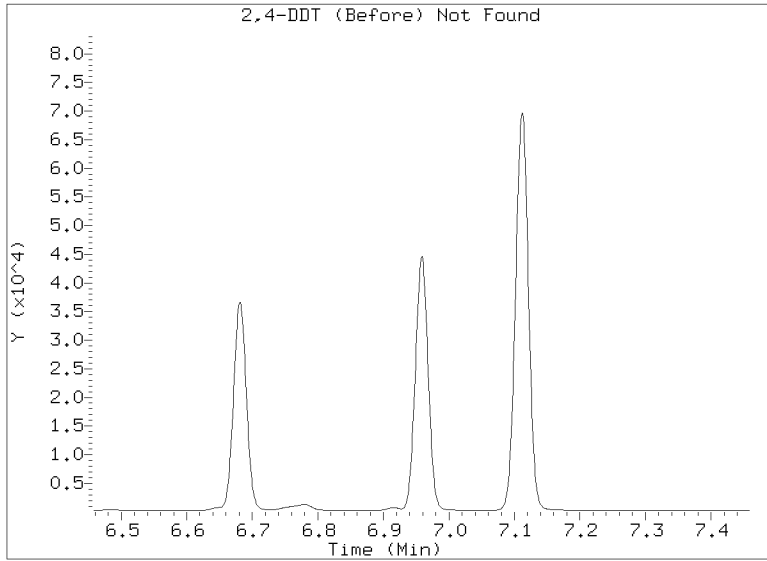
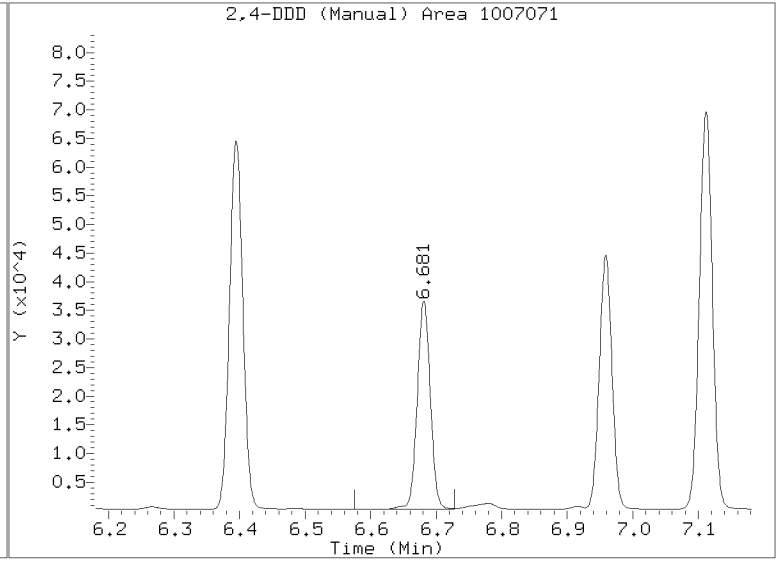
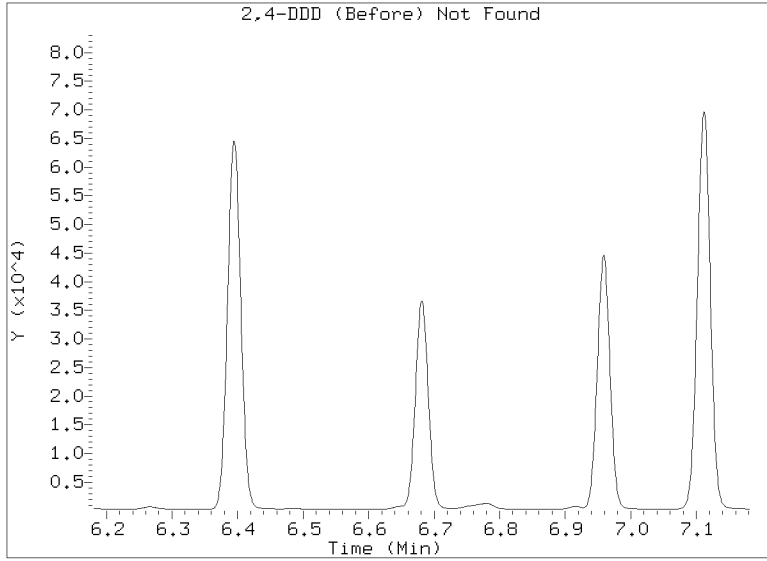
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041217.D
Injection Date: 12-APR-2023 19:34
Lab ID:SEQ-CALE Client ID:
Report Date: 04/14/2023 09:40



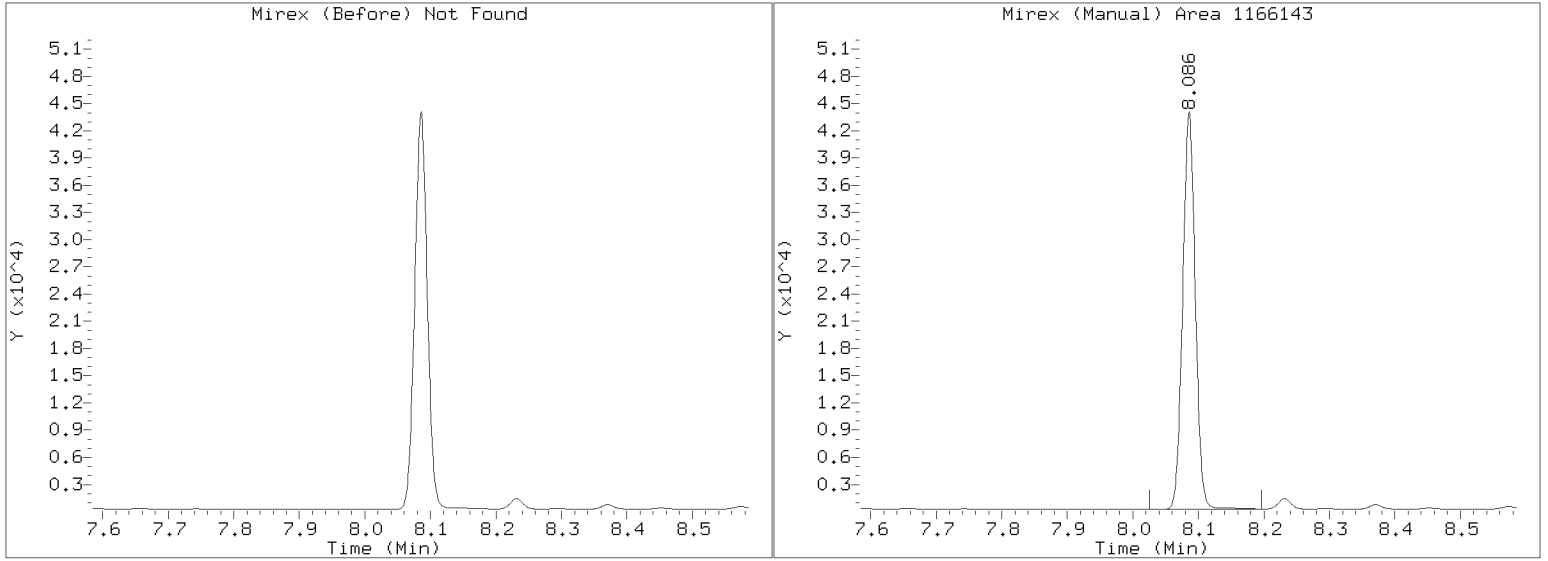
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041217.D
Injection Date: 12-APR-2023 19:34
Lab ID:SEQ-CALE Client ID:
Report Date: 04/14/2023 09:40



Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041217.D
Injection Date: 12-APR-2023 19:34
Lab ID:SEQ-CALE Client ID:
Report Date: 04/14/2023 09:40

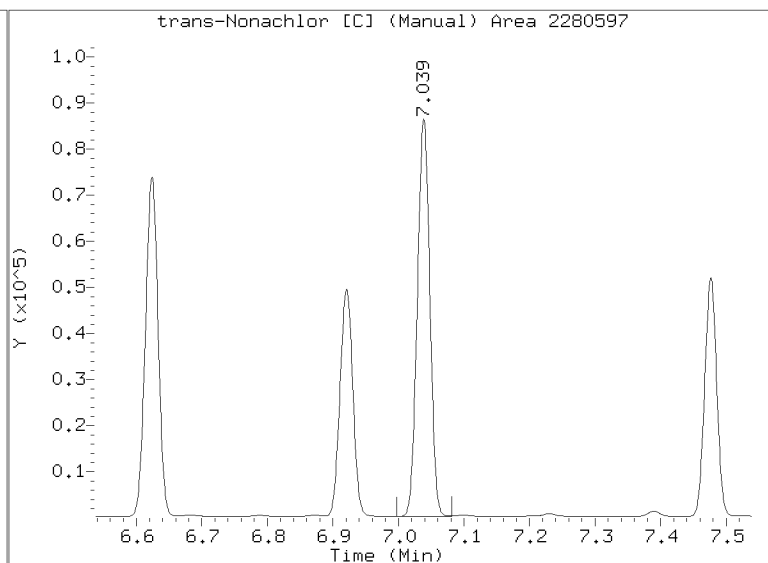
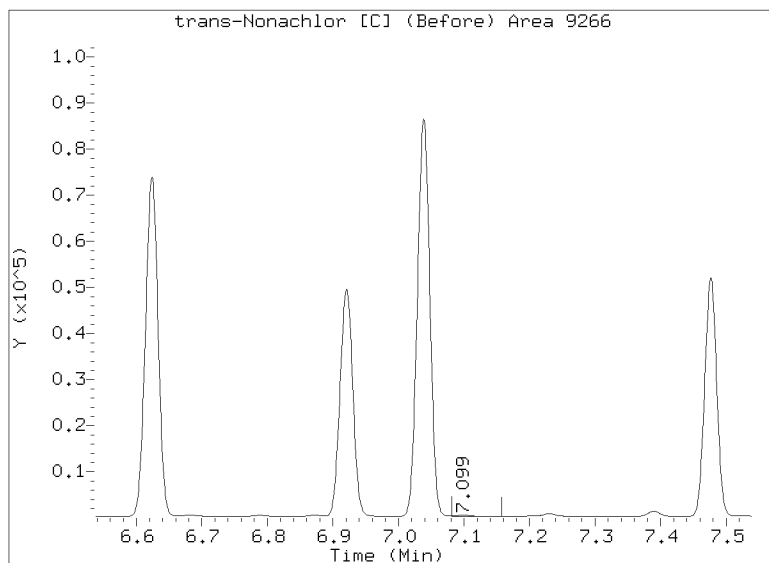
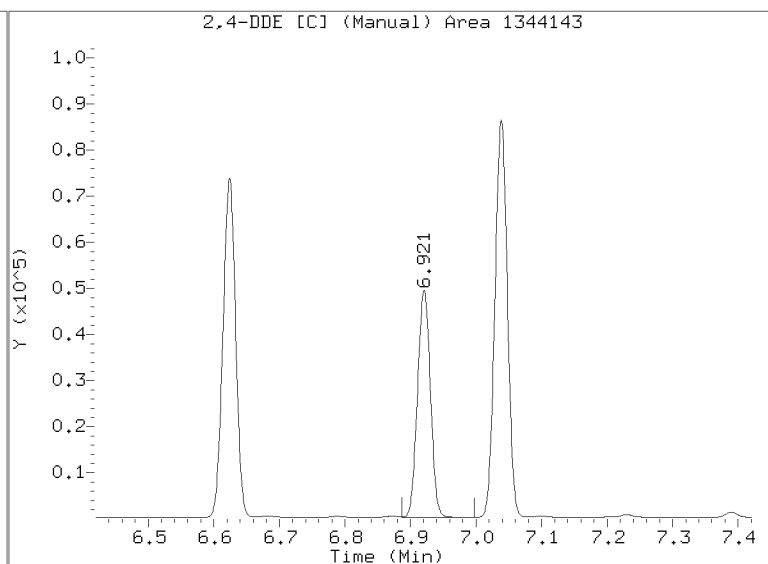
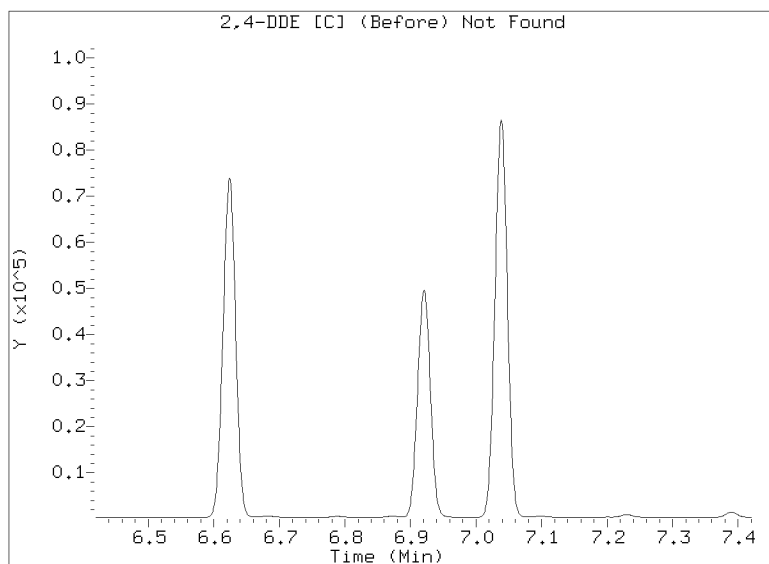
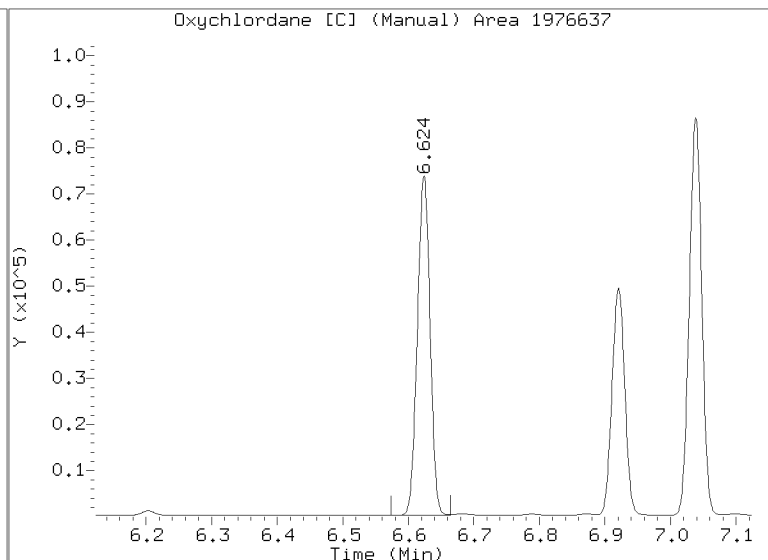
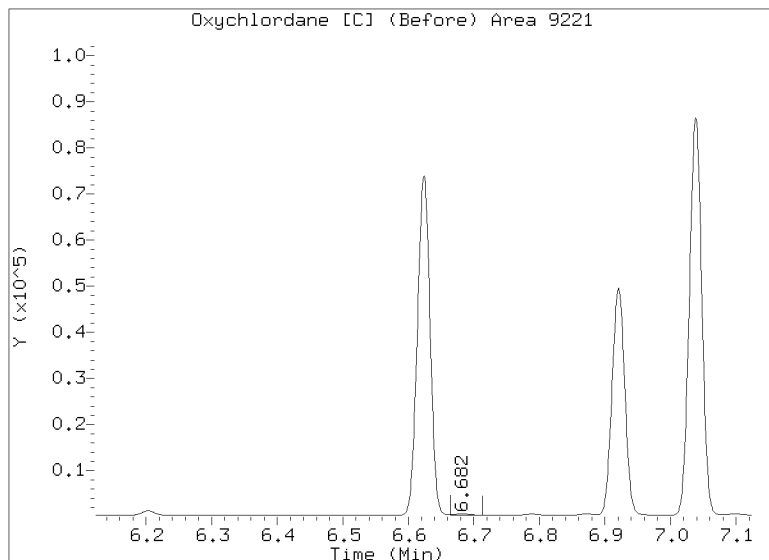


Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041217.D

Injection Date: 12-APR-2023 19:34

Lab ID:SEQ-CALE Client ID:

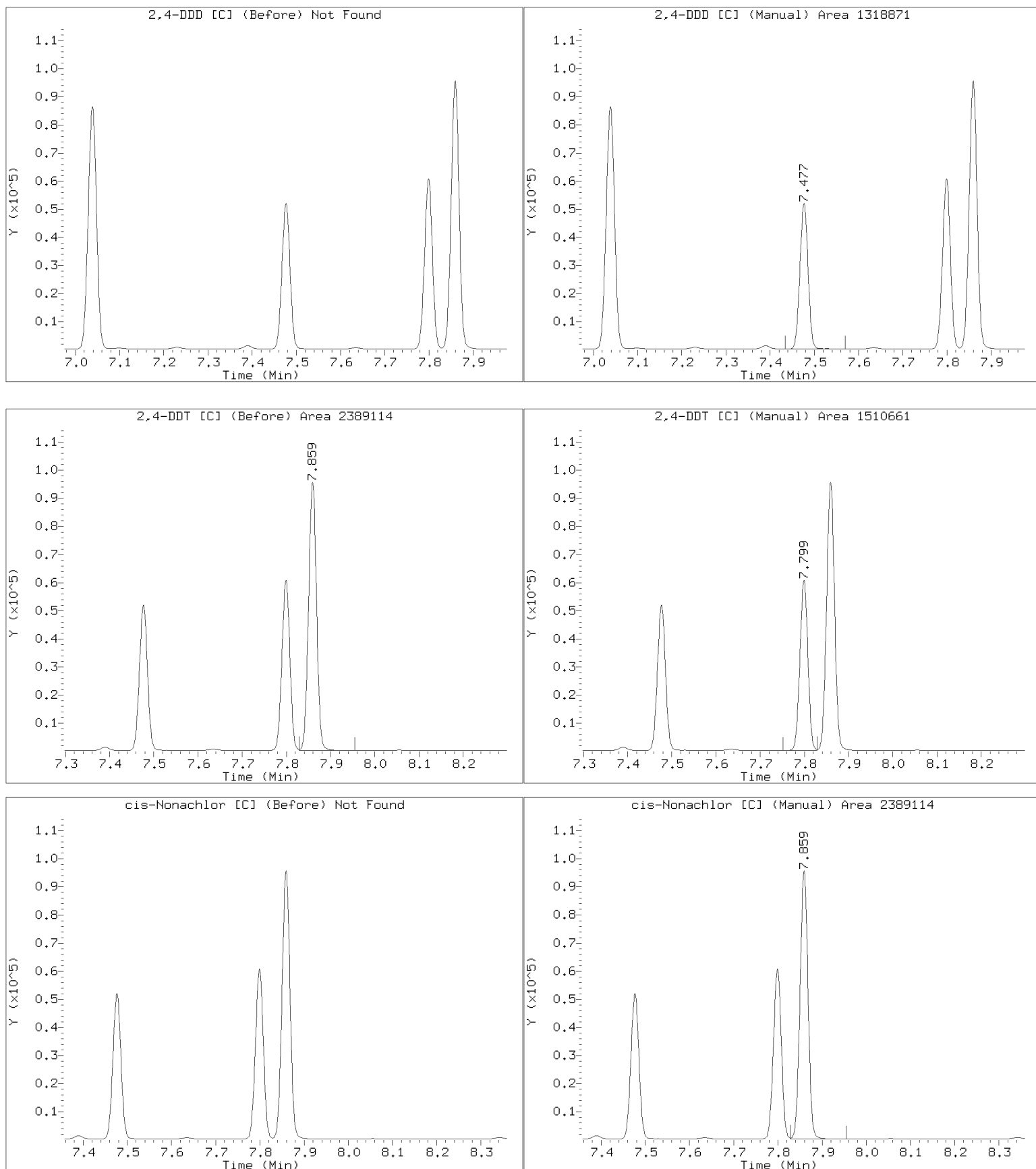


Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041217.D

Injection Date: 12-APR-2023 19:34

Lab ID:SEQ-CALE Client ID:

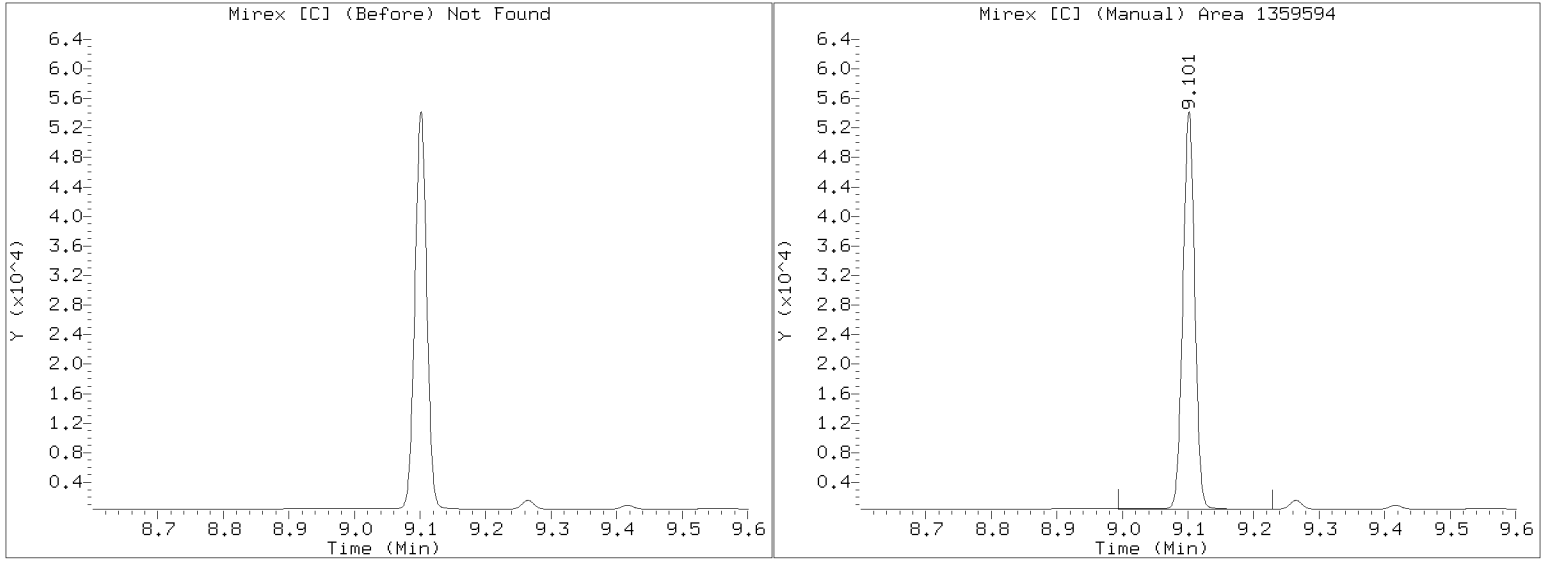


Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041217.D

Injection Date: 12-APR-2023 19:34

Lab ID:SEQ-CALE Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041218.D
Data file 2: /20230412.b/B20230412.b/23041218.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALF
Client ID:
Injection Date: 12-APR-2023 19:52
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.820	0.001	13904	4.136	0.000	18748	1.09	1.07	1.1	Tetrachloro-m-xylene
9.367	0.001	24477	10.306	-0.000	31773	2.82	3.41	19.2	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

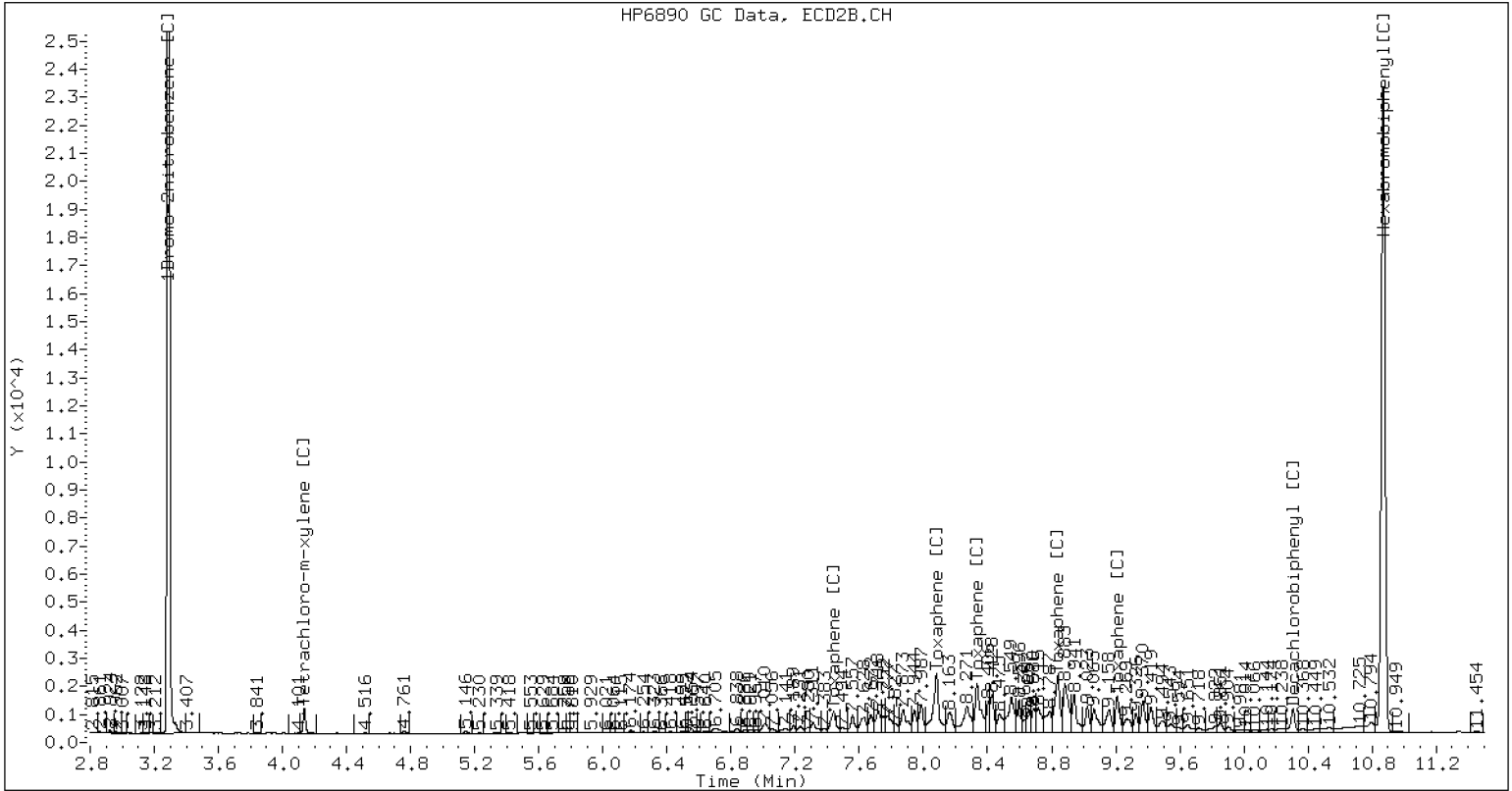
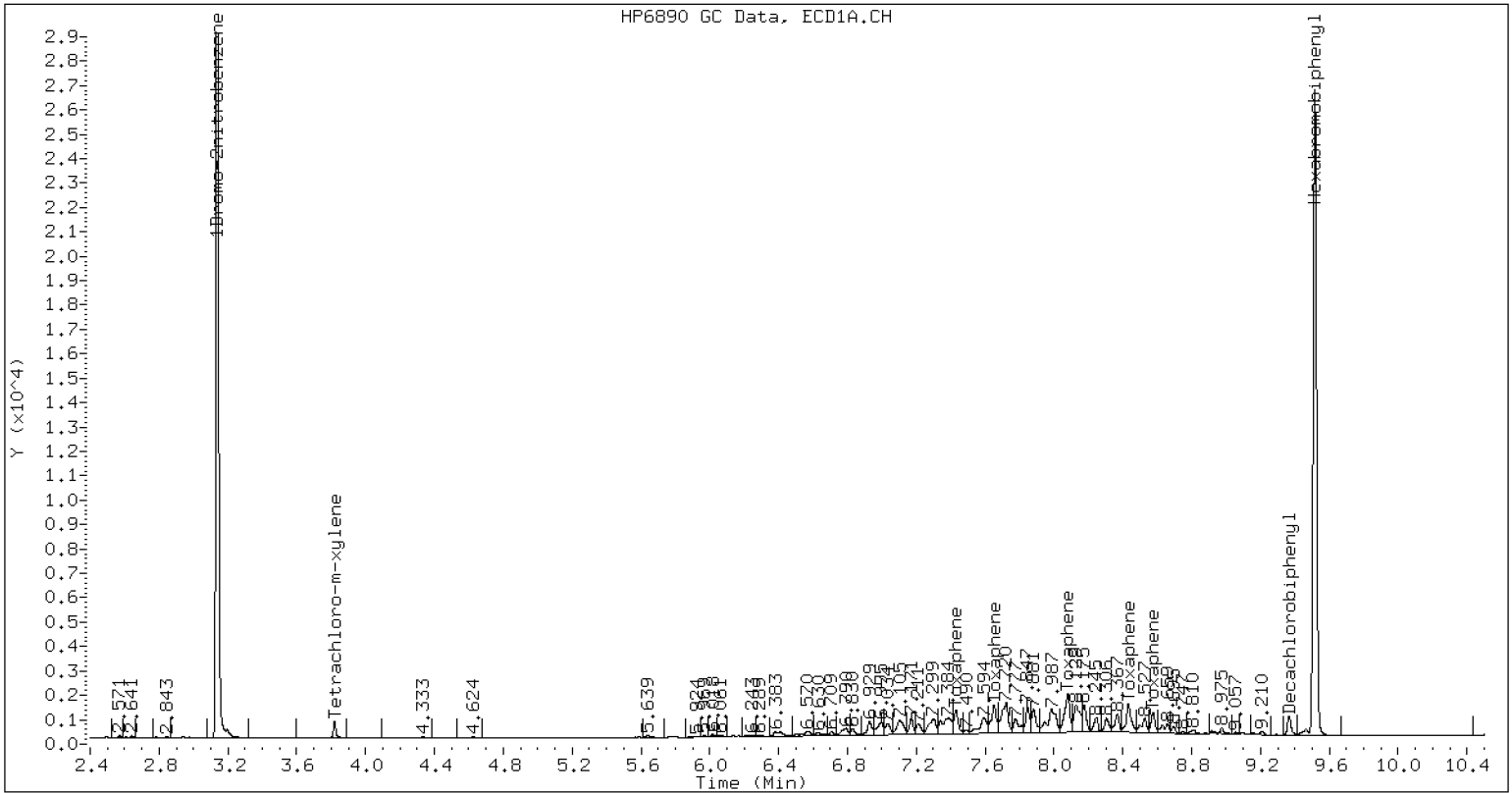
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	914711	5.8
Hexabromobiphenyl	663237	736746	11.1

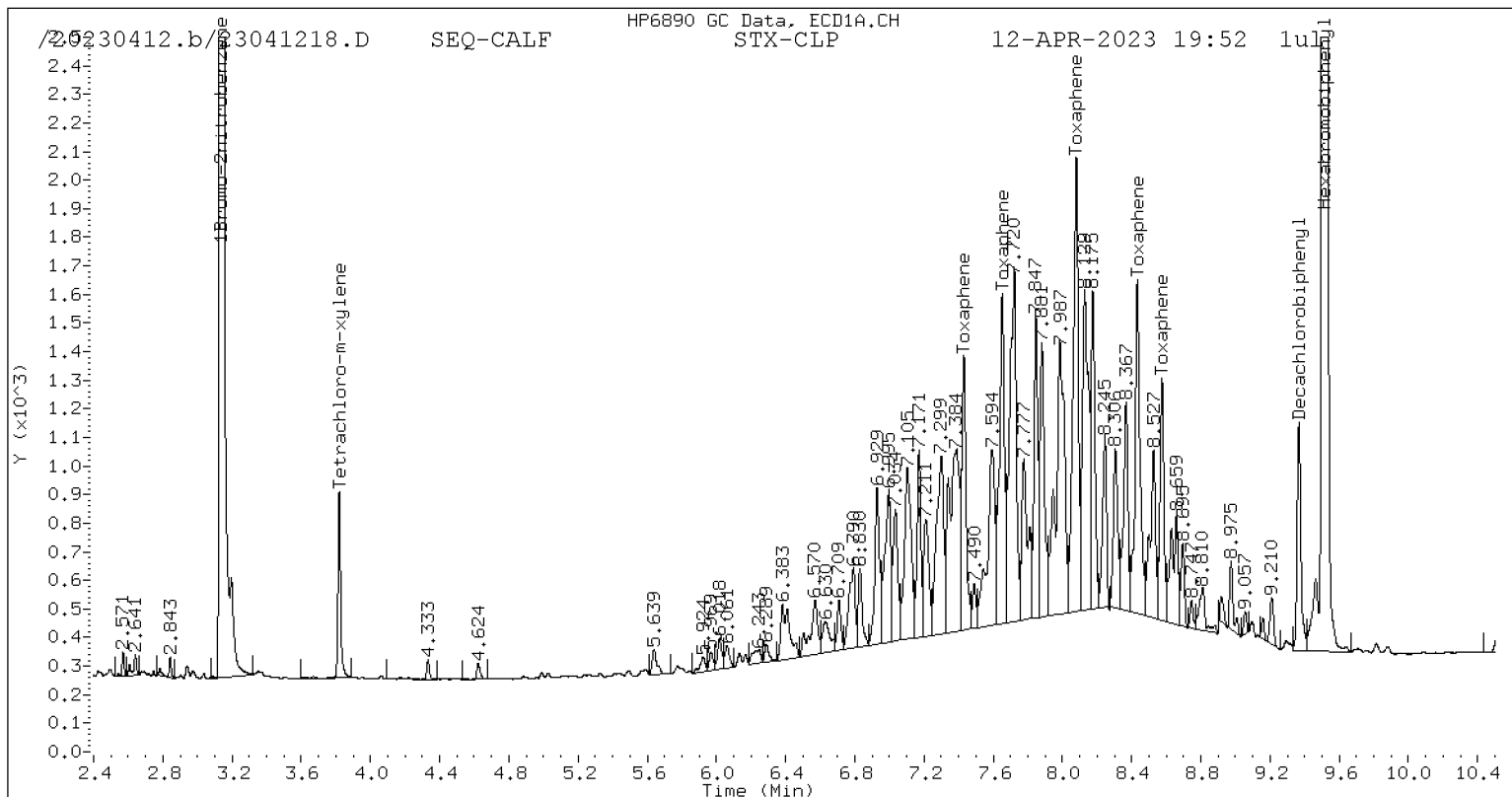
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1268733	-14.3
Hexabromobiphenyl	870561	770830	-11.5

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col			Amount	
			Shift	Height	Amount			Shift	Height			
Toxaphene	1	7.430	-0.000	34115	125.1	1	7.440	0.000	35652	143.7		
Toxaphene	2	7.652	-0.001	48770	133.6	2	8.082	-0.001	107411	146.6		
Toxaphene	3	8.080	0.000	67485	135.6	3	8.335	-0.001	81808	143.0		
Toxaphene	4	8.433	0.000	48028	122.4	4	8.838	-0.001	87639	142.7		
Toxaphene	5	8.575	-0.000	27697	117.3	5	9.209	-0.001	46750	139.0		
Total STX-CLPAve (5 peaks):					126.820	Total CLP2Ave (5 peaks):					142.998	RPD = 12
Corrected Ave (5 peaks):					126.820	Corrected Ave (5 peaks):					142.998	RPD = 12

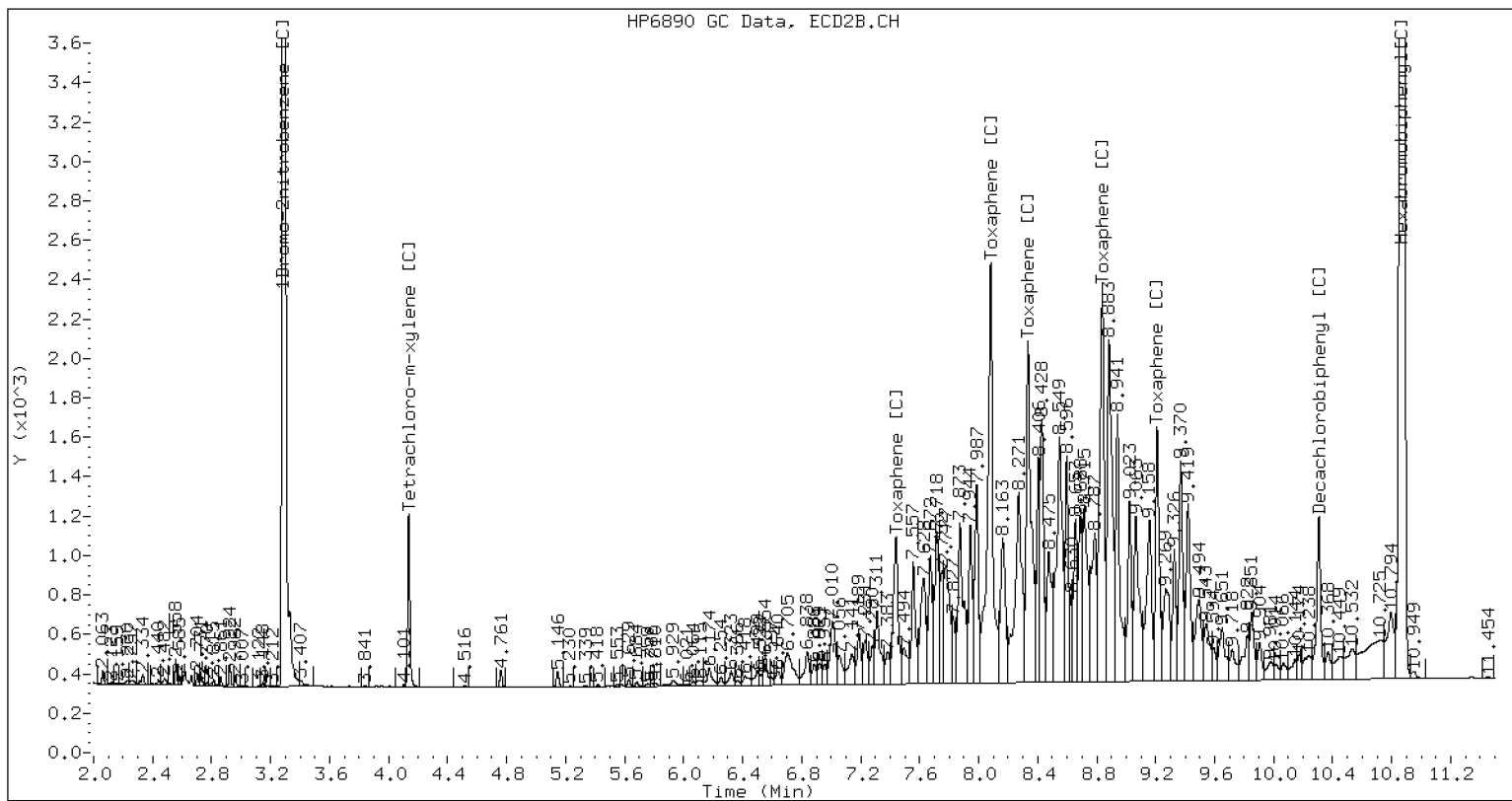


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041218.D SEQ-CALF CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041219.D
Data file 2: /20230412.b/B20230412.b/23041219.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALG
Client ID:
Injection Date: 12-APR-2023 20:10
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.820	0.001 27648	4.136 0.000 36736	4.136	2.17	2.11	2.6	Tetrachloro-m-xylene
9.367	0.001 43538	10.306 -0.000 56135	10.306	5.17	6.10	16.5	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

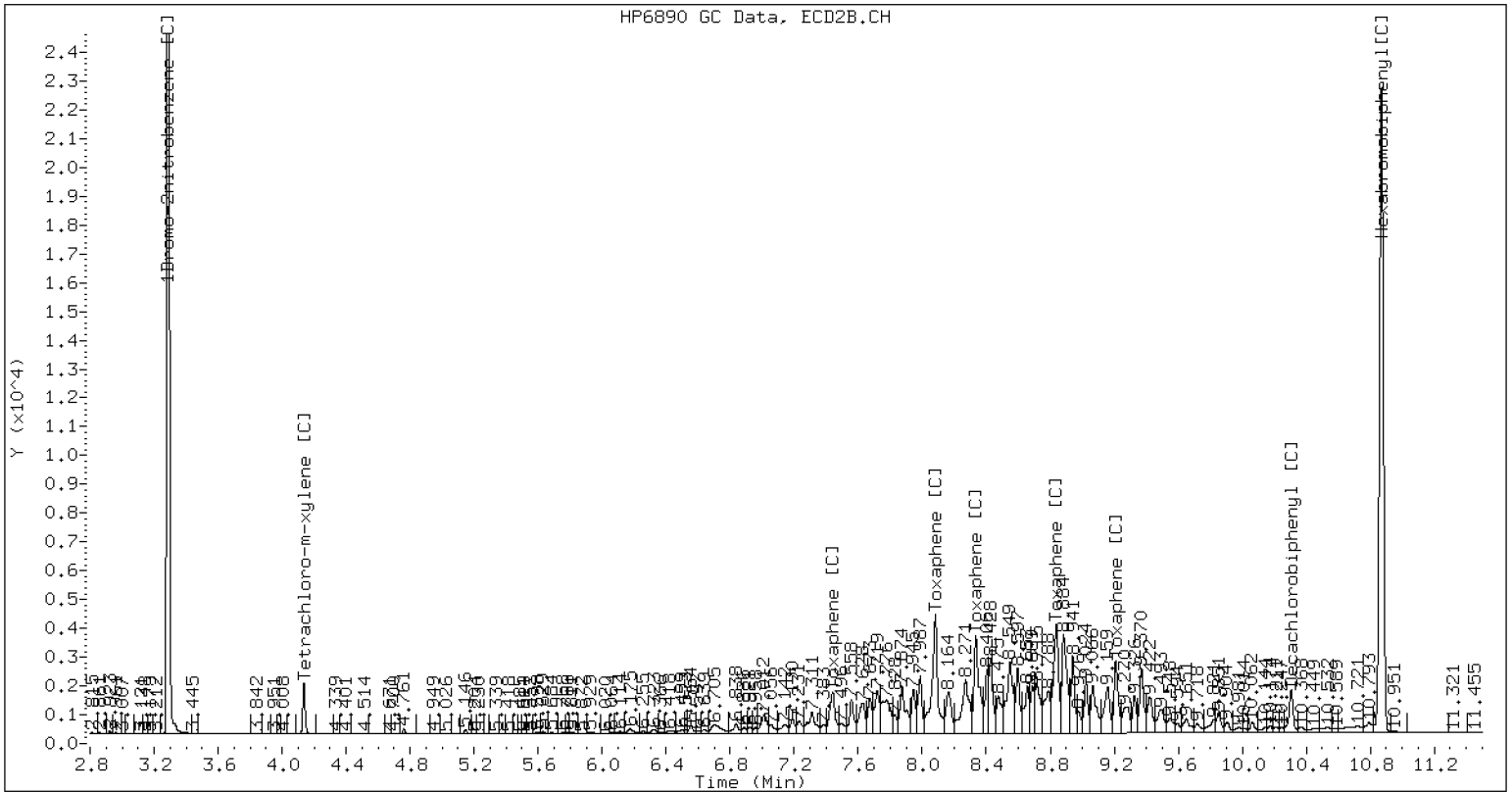
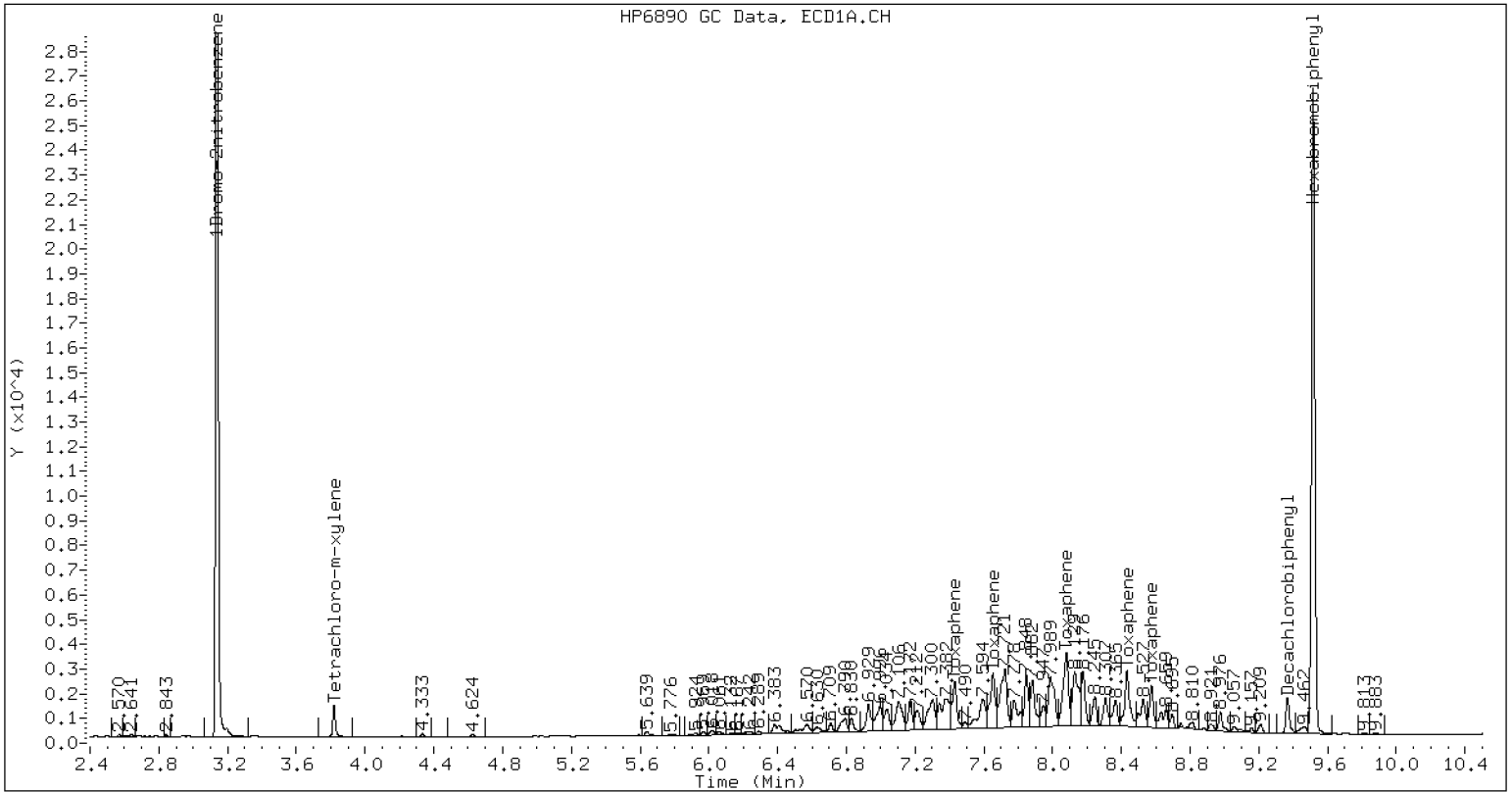
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	911122	5.4
Hexabromobiphenyl	663237	714377	7.7

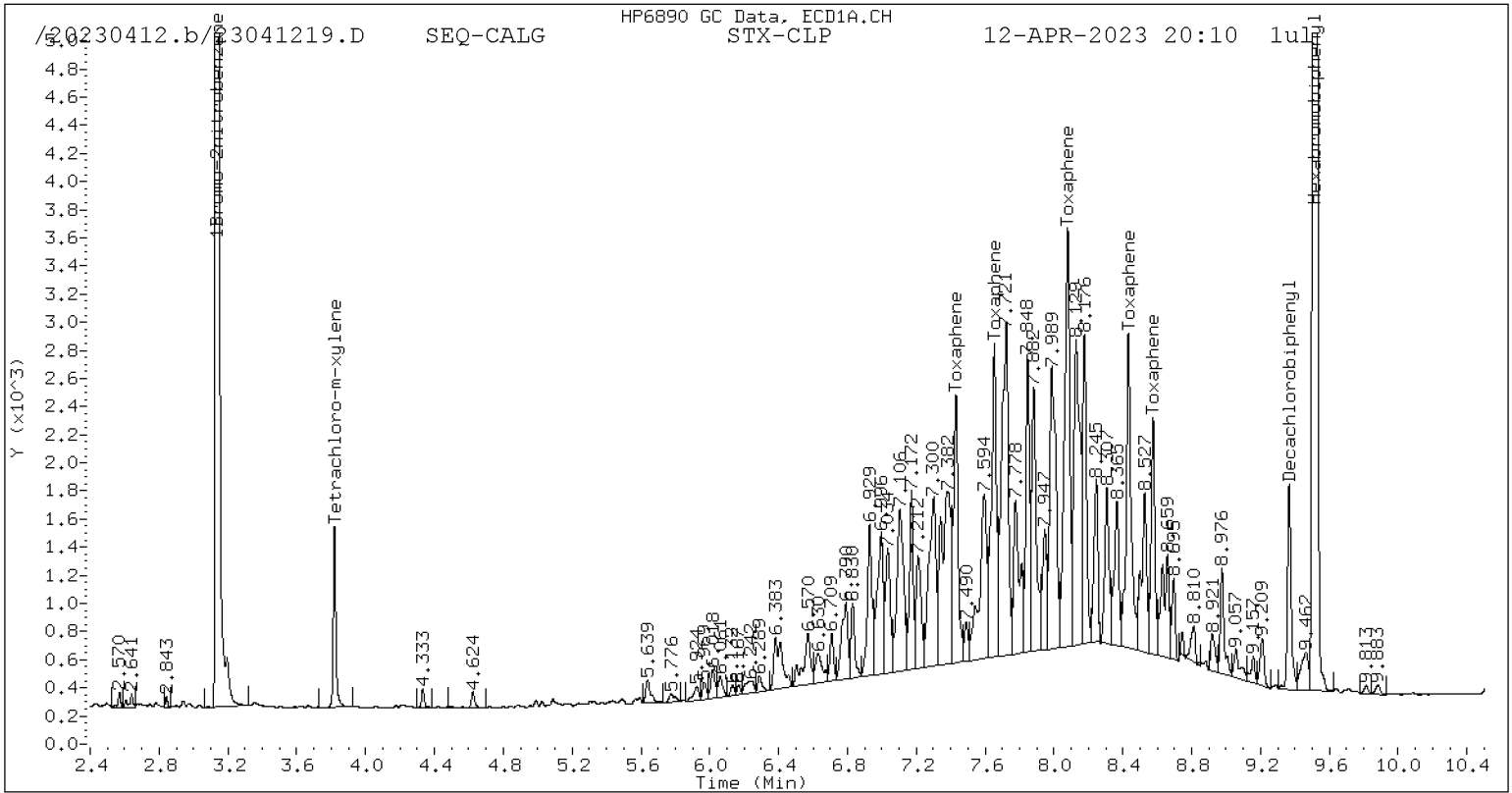
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1263997	-14.6
Hexabromobiphenyl	870561	762676	-12.4

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col			Amount
			Shift	Height	Amount			Shift	Height	Amount	
Toxaphene	1	7.430	0.000	72029	272.5	1	7.440	0.000	69042	281.2	
Toxaphene	2	7.653	0.000	94737	267.7	2	8.082	-0.001	206105	284.4	
Toxaphene	3	8.079	0.000	129282	268.0	3	8.335	-0.001	158407	279.9	
Toxaphene	4	8.433	0.000	90301	237.4	4	8.838	-0.001	170052	279.8	
Toxaphene	5	8.575	0.000	53948	235.5	5	9.209	-0.001	91320	274.3	
Total STX-CLPAve (5 peaks): 256.226					Total CLP2Ave (5 peaks): 279.934					RPD = 9	
Corrected Ave (5 peaks): 256.226					Corrected Ave (5 peaks): 279.934					RPD = 9	

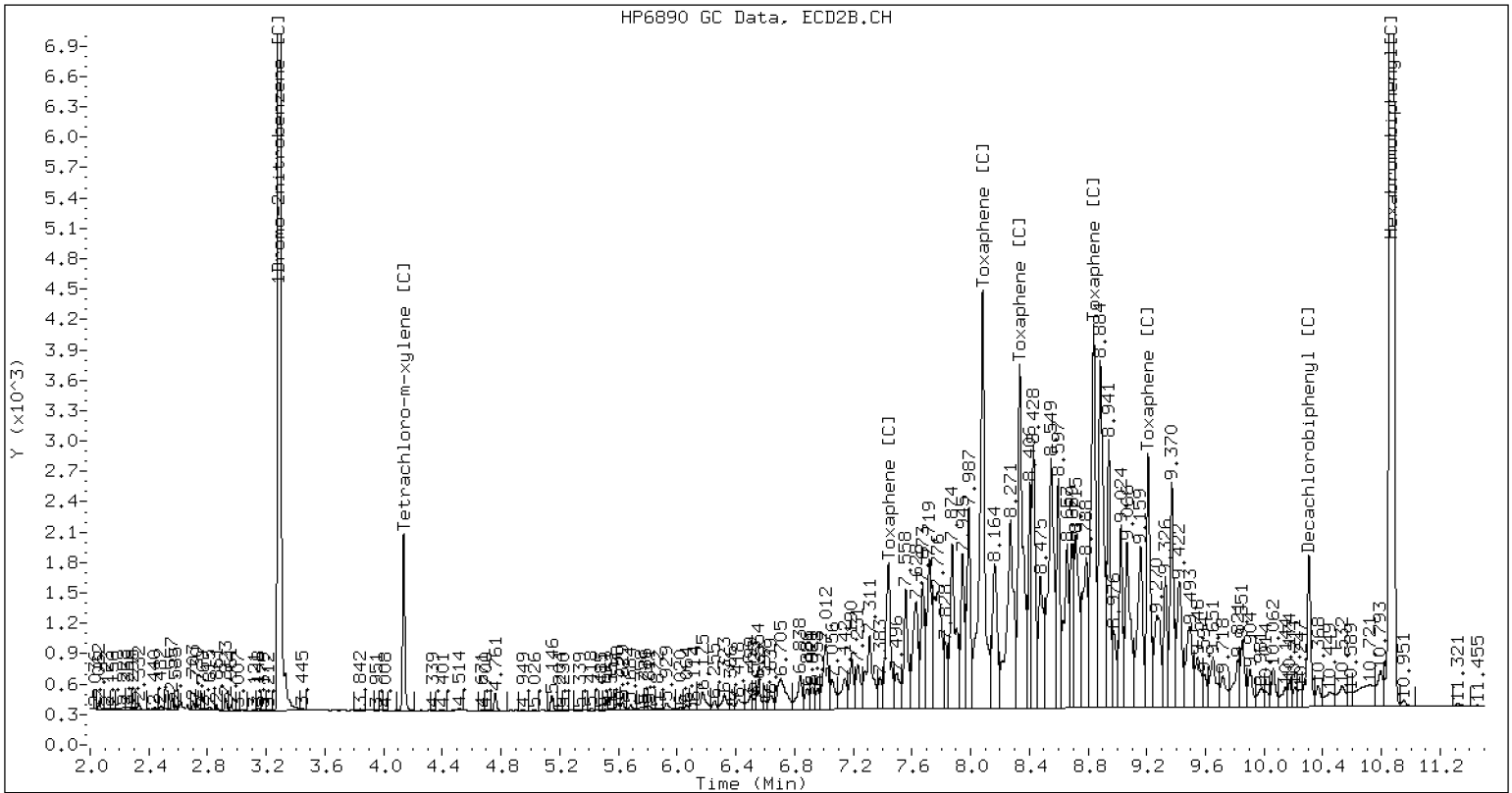


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041219.D SEQ-CALG CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041220.D
Data file 2: /20230412.b/B20230412.b/23041220.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALH
Client ID:
Injection Date: 12-APR-2023 20:29
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.819	0.000	54190	4.136	-0.000	72947	4.30	4.19	2.4	Tetrachloro-m-xylene
9.367	0.001	84057	10.306	-0.000	112592	9.95	12.27	20.8	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

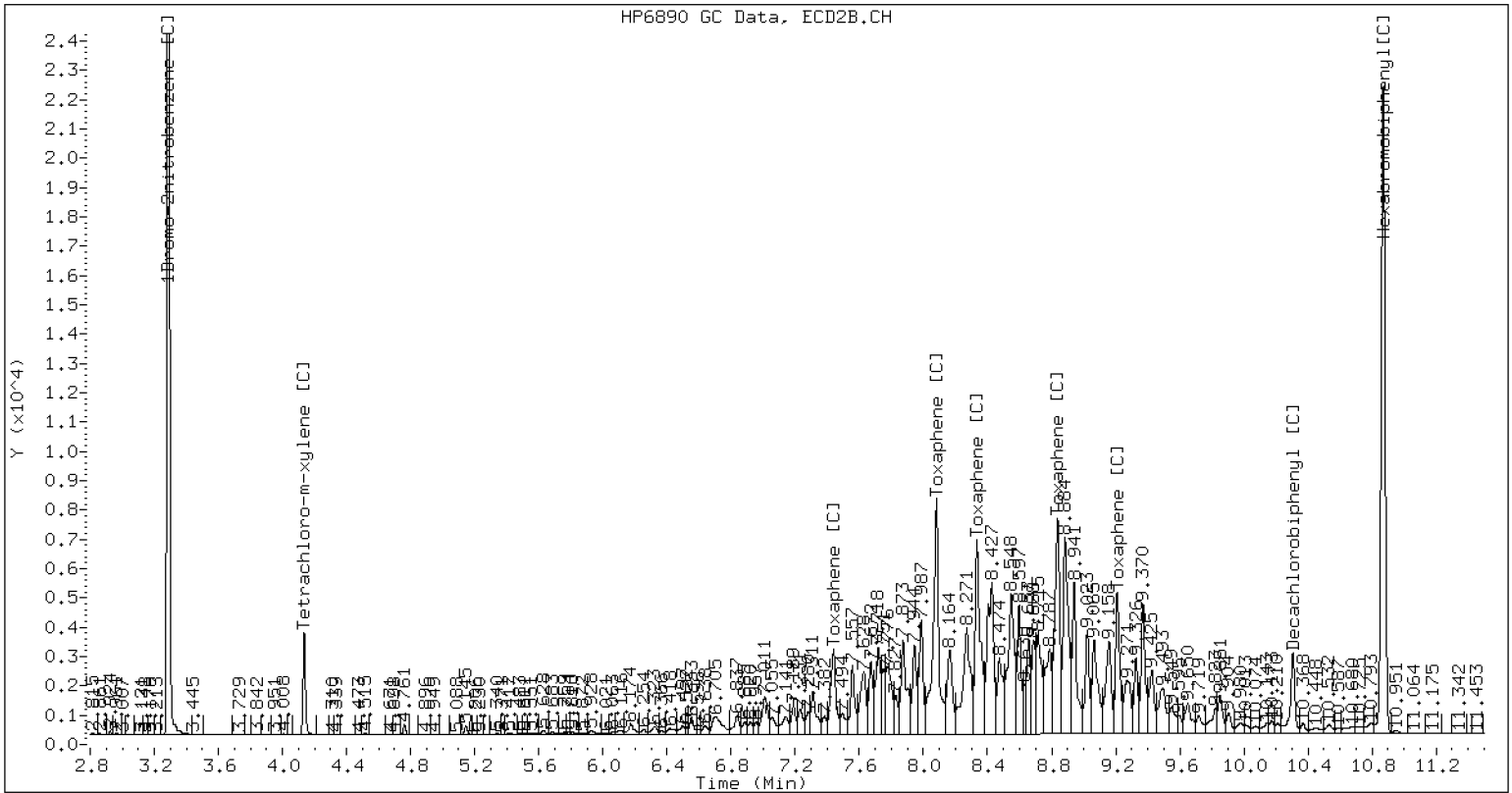
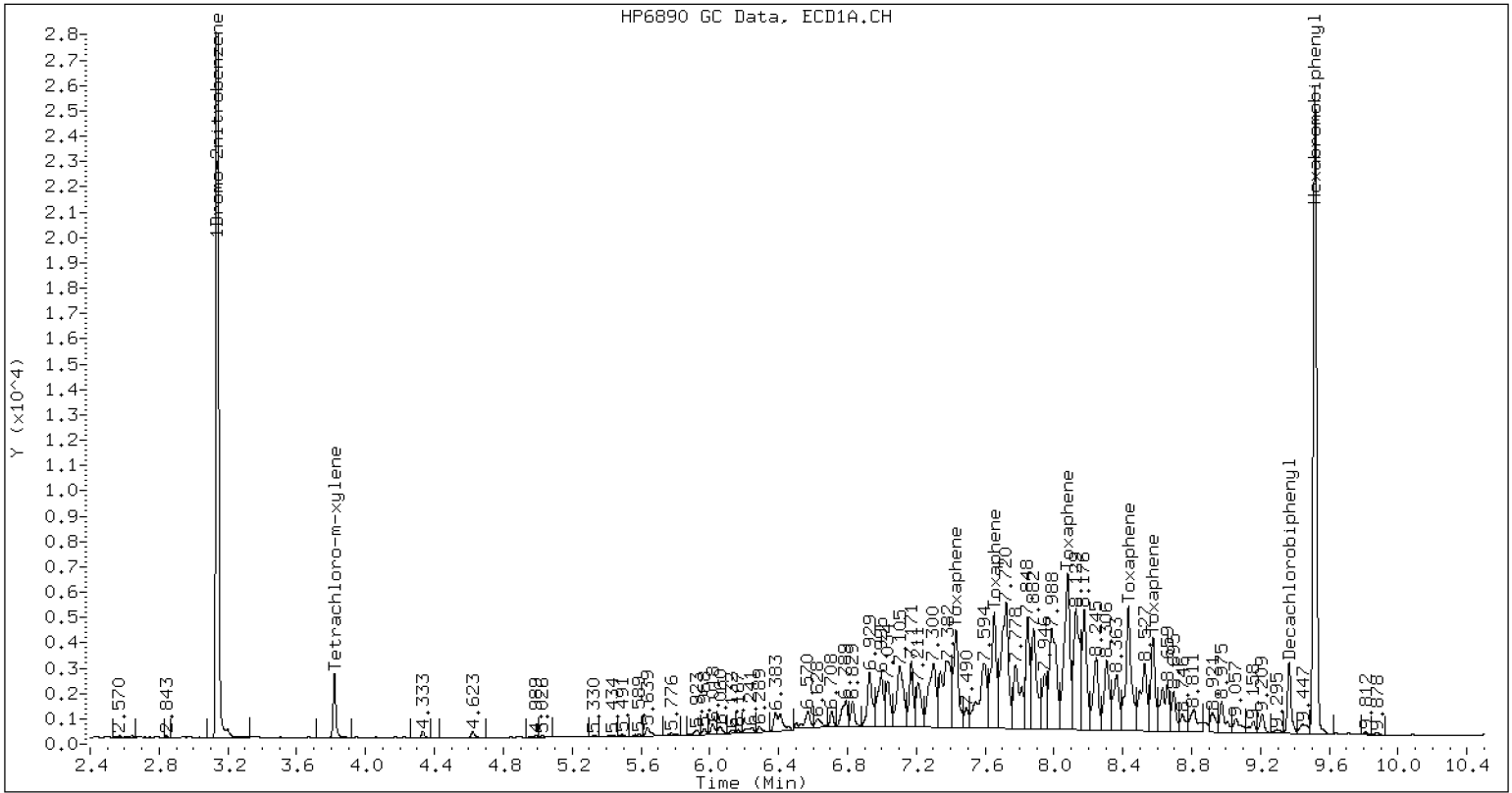
INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	864333	901082	4.3
Hexabromobiphenyl	663237	716024	8.0

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1480846	1264745	-14.6
Hexabromobiphenyl	870561	760374	-12.7

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.430	0.000	157592	594.8	1	7.440	-0.000	136366	557.1		
Toxaphene	2	7.652	-0.001	205637	579.8	2	8.082	-0.001	403294	558.1		
Toxaphene	3	8.079	-0.000	290301	600.3	3	8.334	-0.002	313799	556.2		
Toxaphene	4	8.433	-0.000	226845	595.0	4	8.838	-0.001	331417	547.0		
Toxaphene	5	8.575	-0.000	137082	597.1	5	9.209	-0.001	180073	542.6		
Total STX-CLPAve (5 peaks):					593.415	Total CLP2Ave (5 peaks):					552.208	RPD = 7
Corrected Ave (5 peaks):					593.415	Corrected Ave (5 peaks):					552.208	RPD = 7



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041221.D
Data file 2: /20230412.b/B20230412.b/23041221.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALI
Client ID:
Injection Date: 12-APR-2023 20:47
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.819	0.000	105882	4.136	-0.000	143630	8.24	8.18	0.8	Tetrachloro-m-xylene
9.367	0.001	153784	10.306	0.000	209053	17.55	21.94	22.3	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

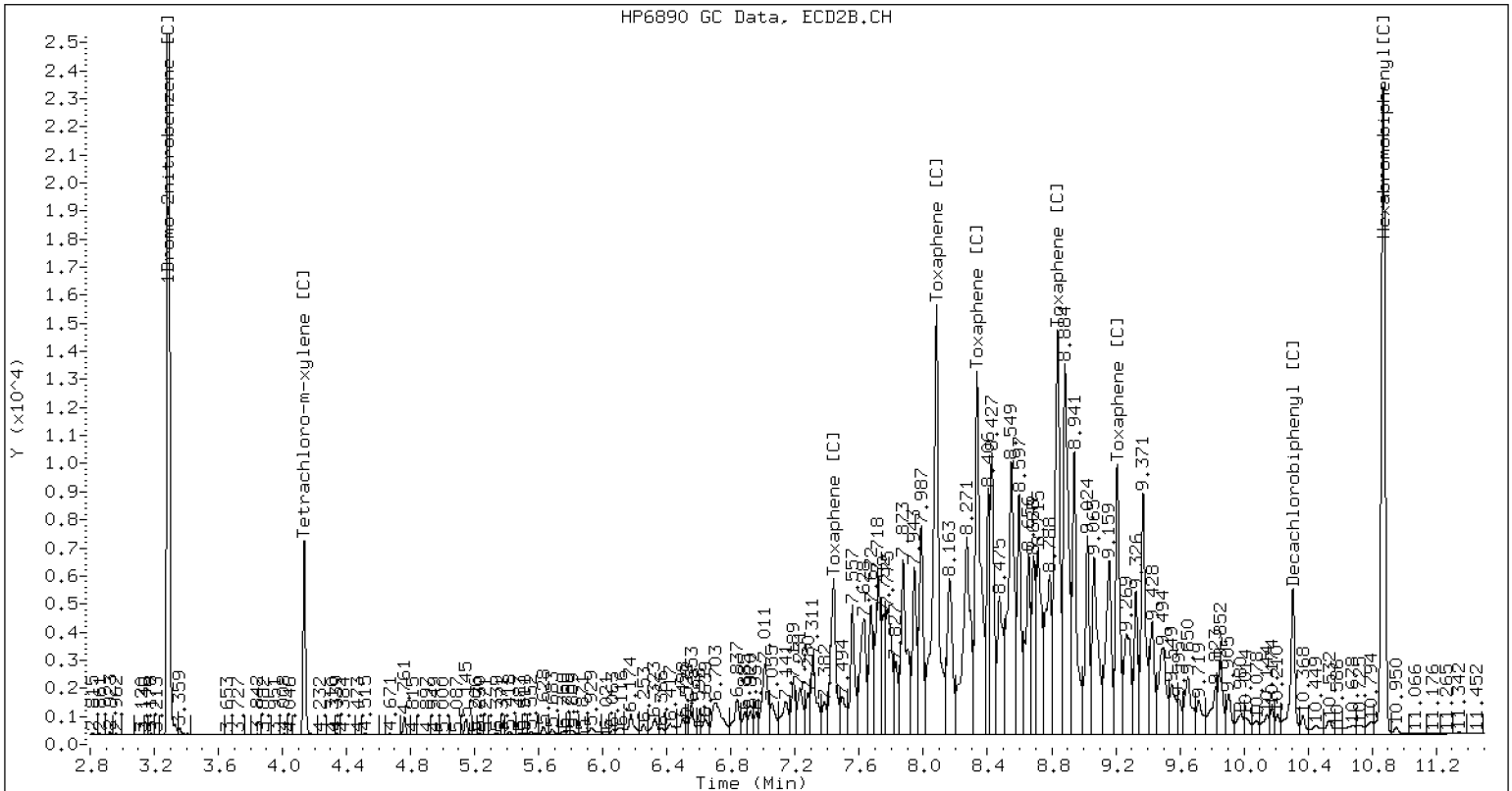
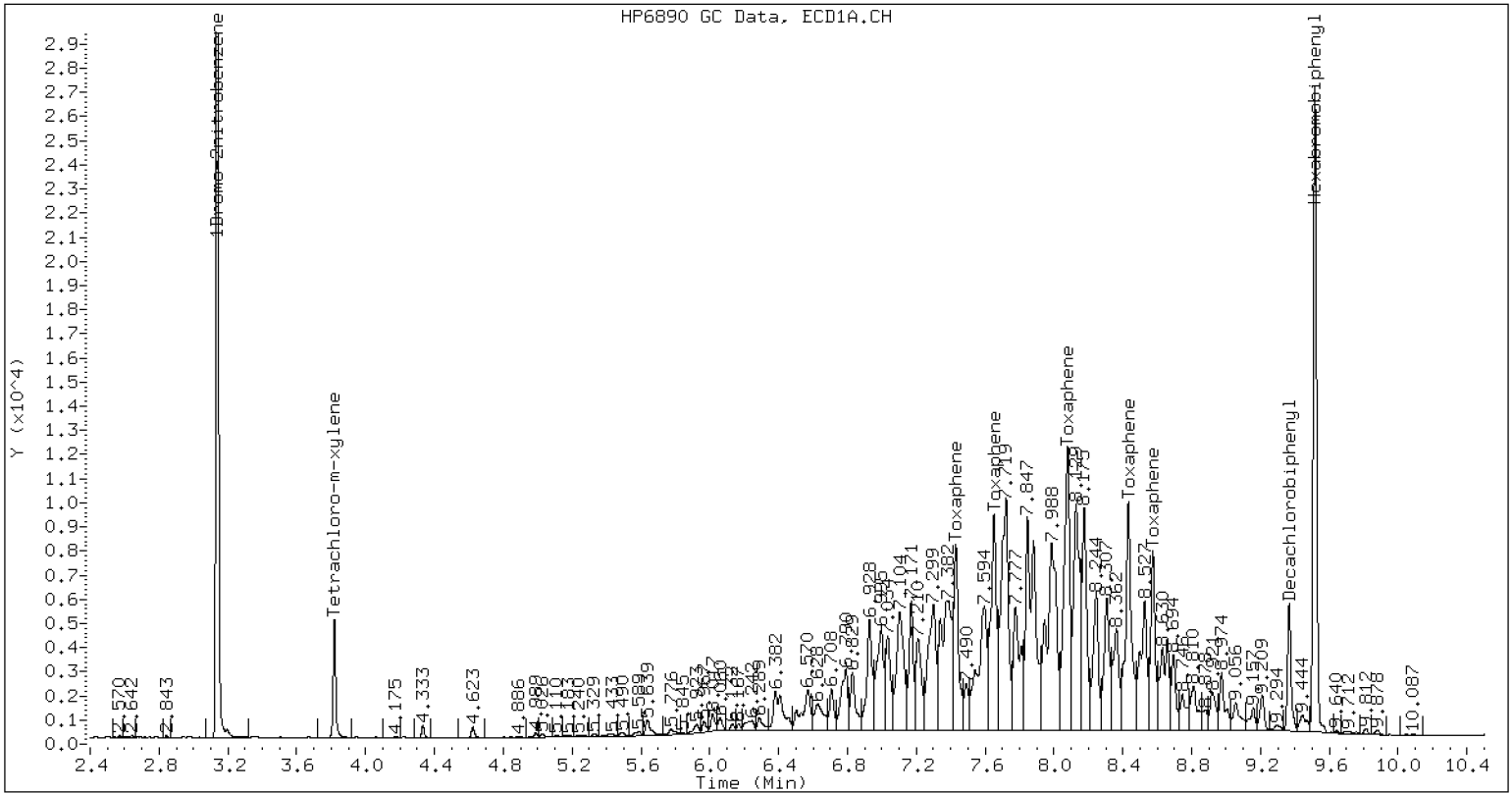
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	864333	918194	6.2
Hexabromobiphenyl	663237	742986	12.0

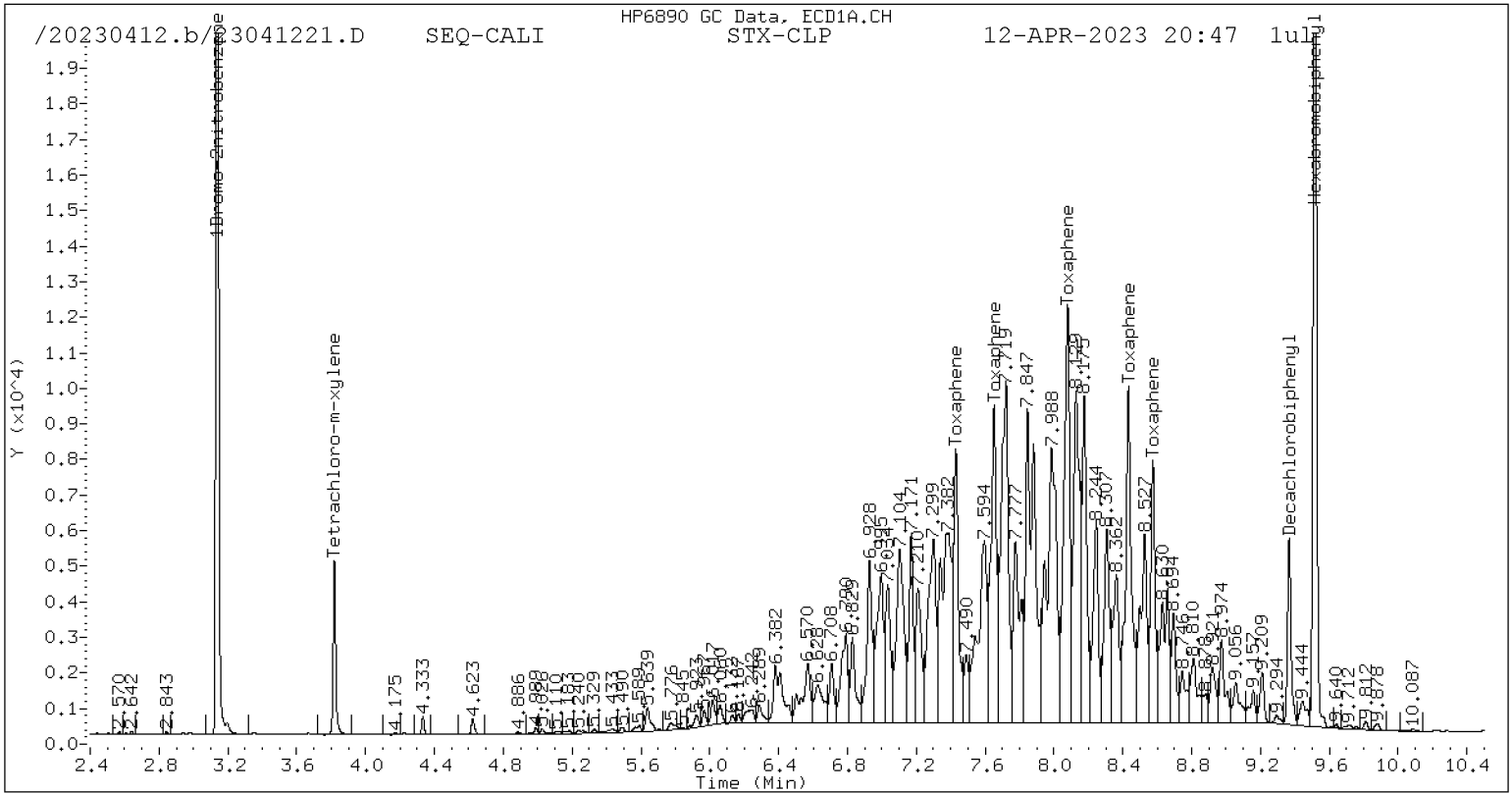
Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1480846	1277652	-13.7
Hexabromobiphenyl	870561	789338	-9.3

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.429	-0.001	301979	1098.4	1	7.440	-0.000	262813	1034.2		
Toxaphene	2	7.652	-0.001	416680	1132.3	2	8.081	-0.002	775904	1034.4		
Toxaphene	3	8.078	-0.001	559891	1115.8	3	8.335	-0.001	609018	1039.9		
Toxaphene	4	8.433	-0.000	452584	1144.0	4	8.838	-0.001	645519	1026.4		
Toxaphene	5	8.574	-0.001	277122	1163.4	5	9.210	-0.000	352517	1023.2		
Total STX-CLPAve (5 peaks):					1130.762	Total CLP2Ave (5 peaks):					1031.622	RPD = 9
Corrected Ave (5 peaks):					1130.762	Corrected Ave (5 peaks):					1031.622	RPD = 9

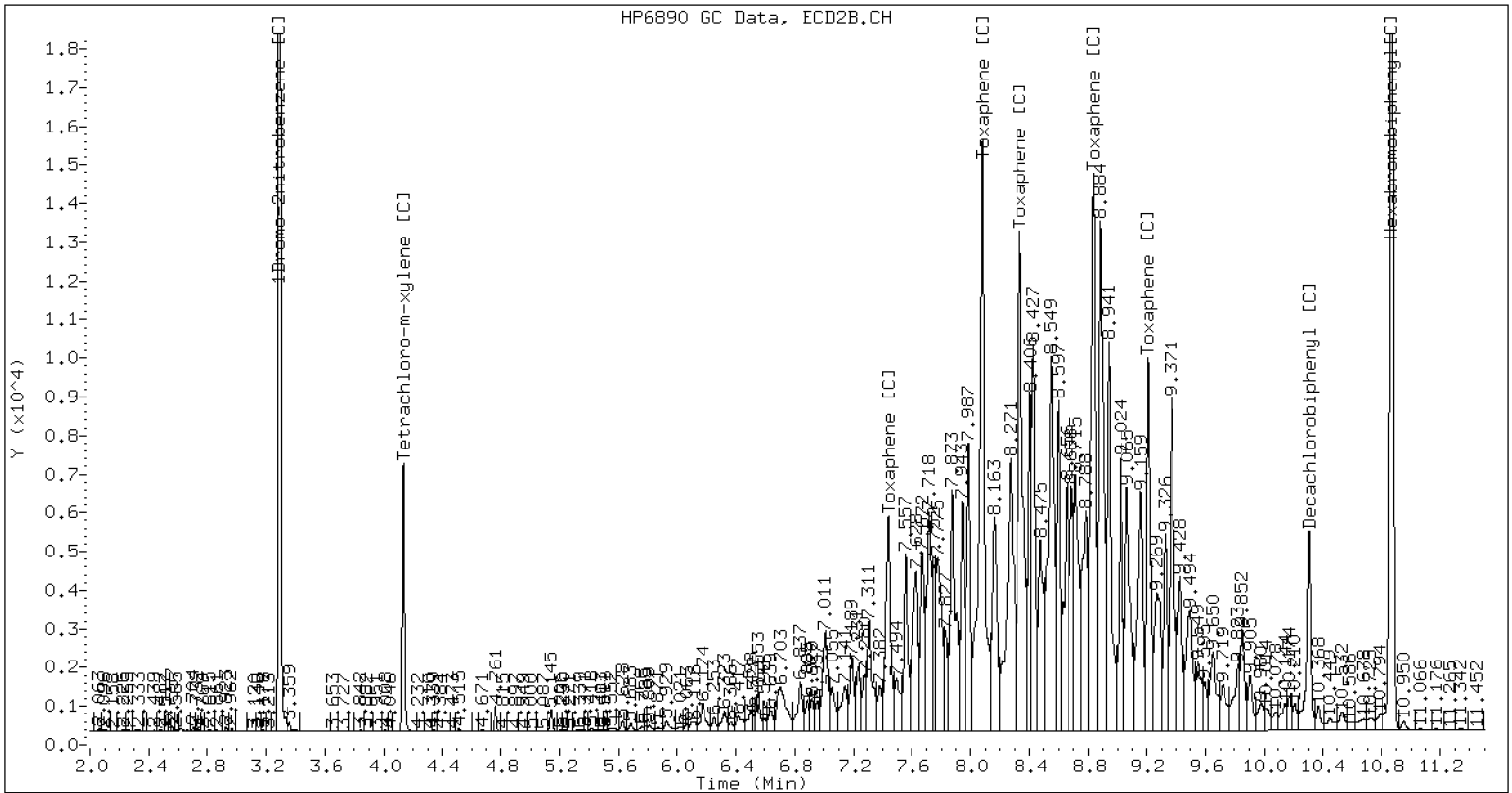


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041221.D SEQ-CALI CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041222.D
Data file 2: /20230412.b/B20230412.b/23041222.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALJ
Client ID:
Injection Date: 12-APR-2023 21:05
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.819	0.000	252501	4.136	-0.000	349014	19.37	19.72	1.8	Tetrachloro-m-xylene
9.367	0.001	411141	10.306	-0.000	491352	42.72	47.90	11.4	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

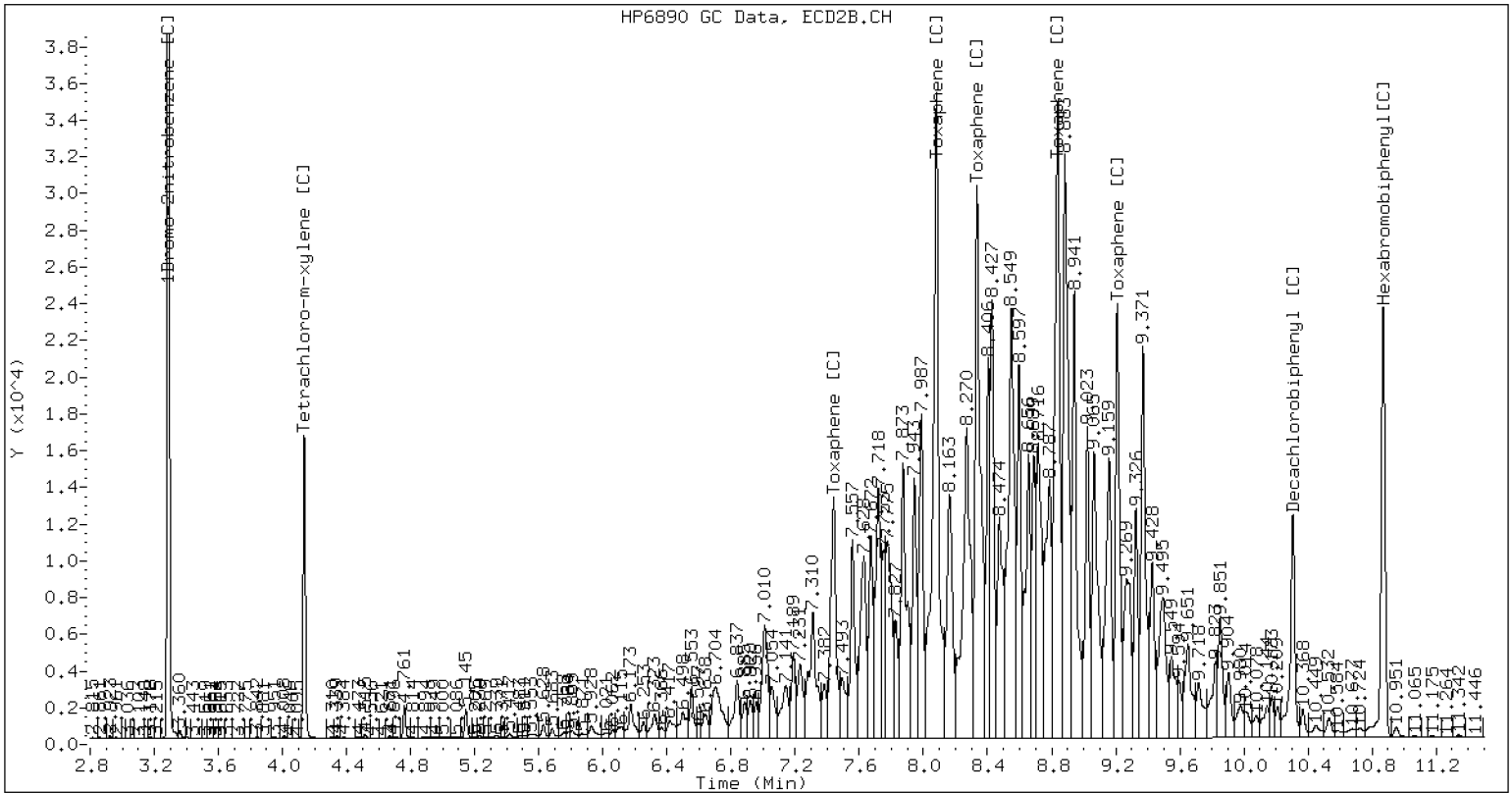
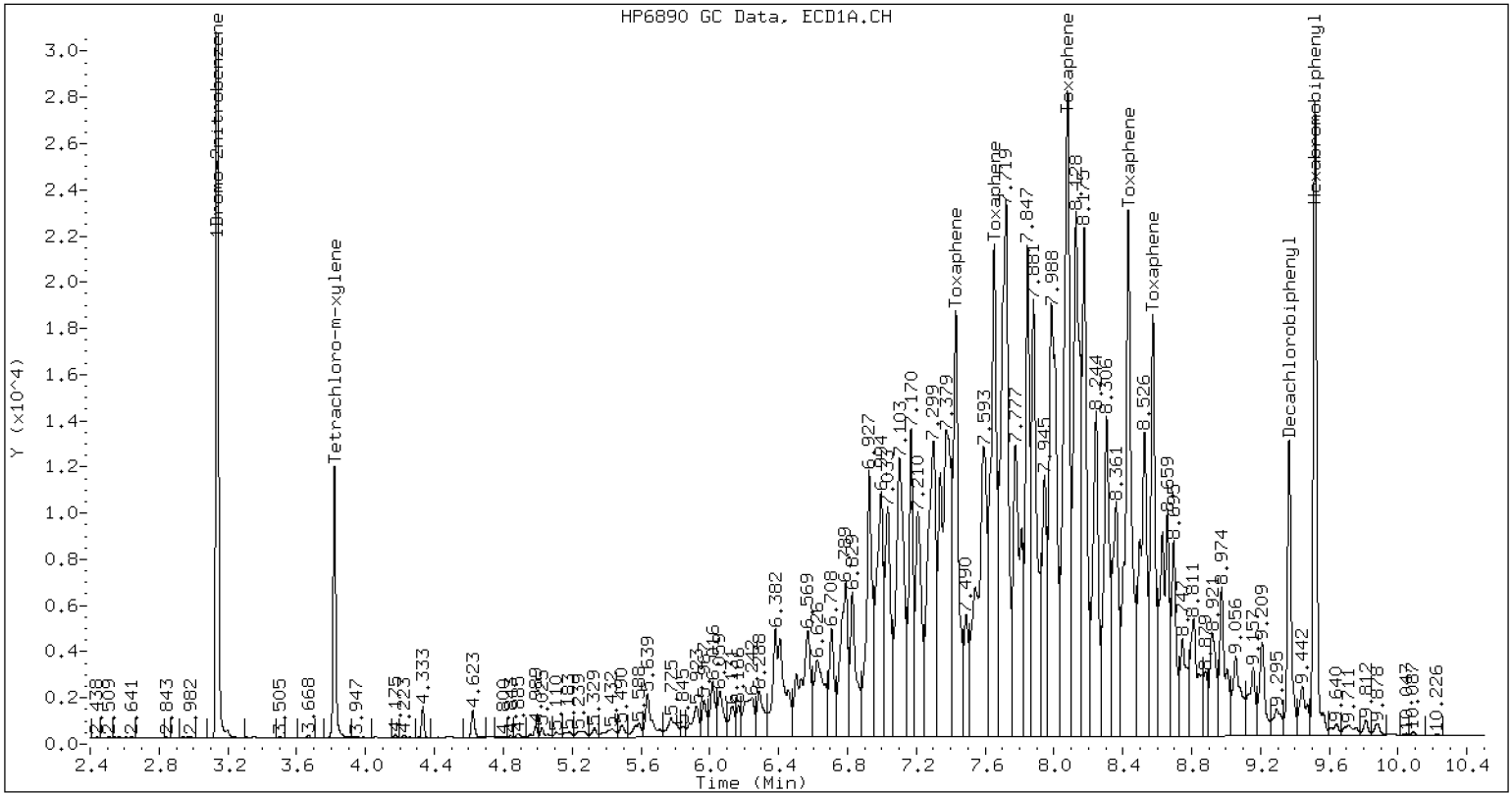
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	864333	931444	7.8
Hexabromobiphenyl	663237	816041	23.0

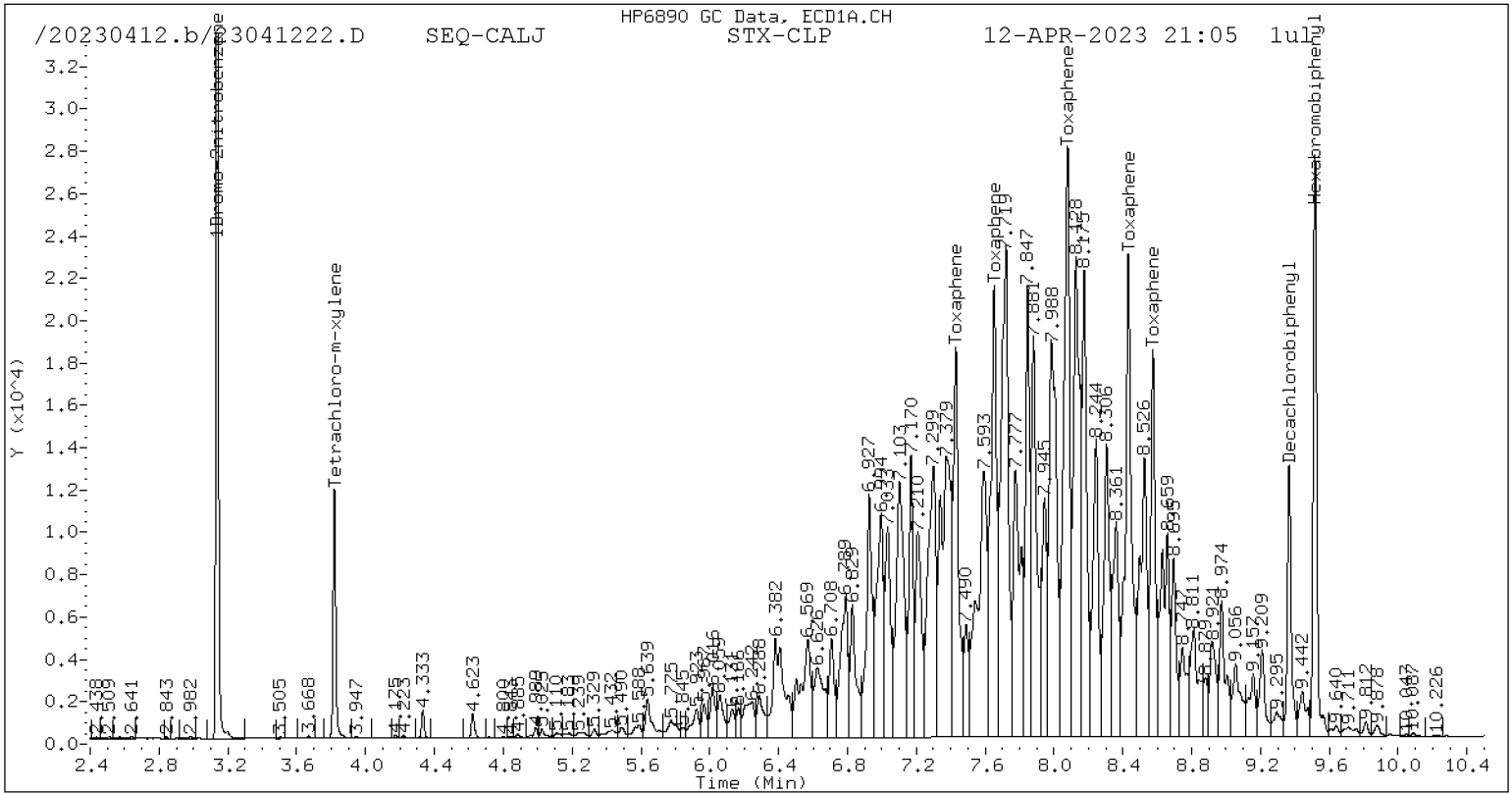
Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1480846	1287009	-13.1
Hexabromobiphenyl	870561	849848	-2.4

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

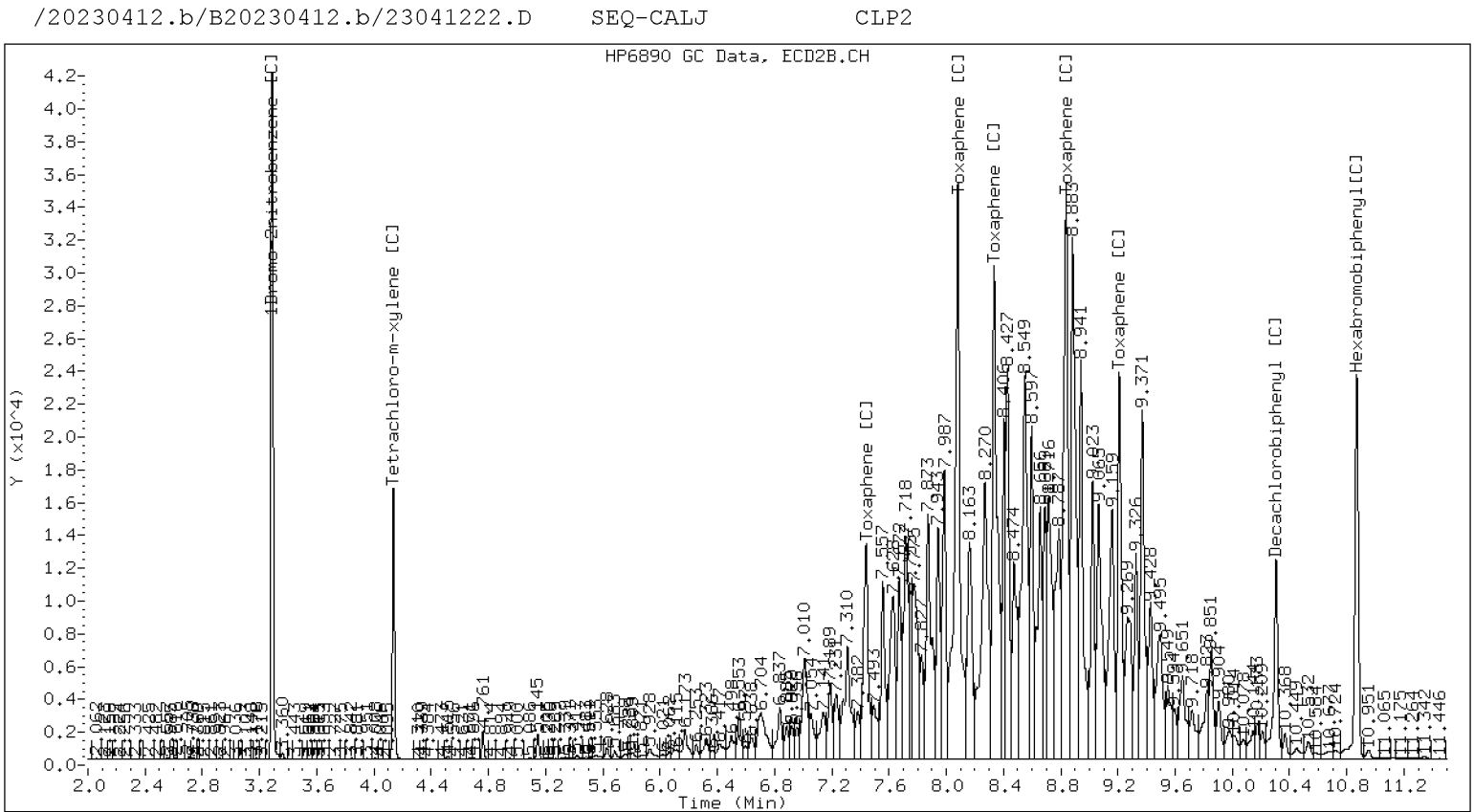
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.429	-0.001	797088	2639.8	1	7.440	-0.000	629948	2302.4		
Toxaphene	2	7.652	-0.001	1032073	2553.4	2	8.081	-0.002	1823289	2257.7		
Toxaphene	3	8.078	-0.001	1374882	2494.6	3	8.335	-0.001	1449258	2298.5		
Toxaphene	4	8.432	-0.001	1177736	2710.5	4	8.838	-0.001	1557874	2300.6		
Toxaphene	5	8.575	-0.001	709132	2710.4	5	9.210	-0.001	862039	2324.0		
Total STX-CLPAve (5 peaks):					2621.744	Total CLP2Ave (5 peaks):					2296.637	RPD = 13
Corrected Ave (5 peaks):					2621.744	Corrected Ave (5 peaks):					2296.637	RPD = 13



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041223.D
Data file 2: /20230412.b/B20230412.b/23041223.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALK
Client ID:
Injection Date: 12-APR-2023 21:24
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.820	0.001	478616	4.136	-0.000	664045	37.29	37.94	1.7	Tetrachloro-m-xylene
9.367	0.001	786481	10.307	0.001	944710	75.08	93.37	21.7	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

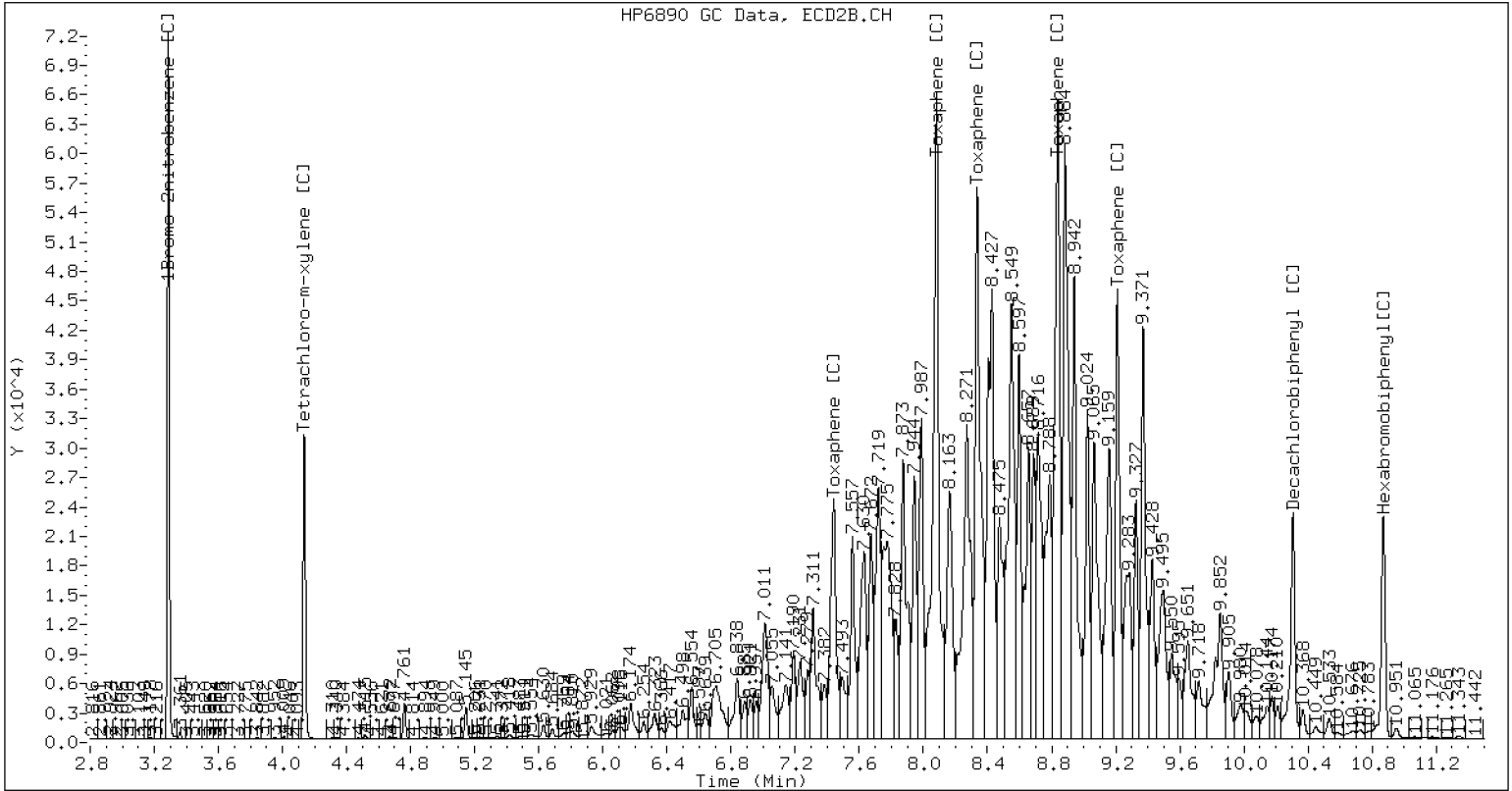
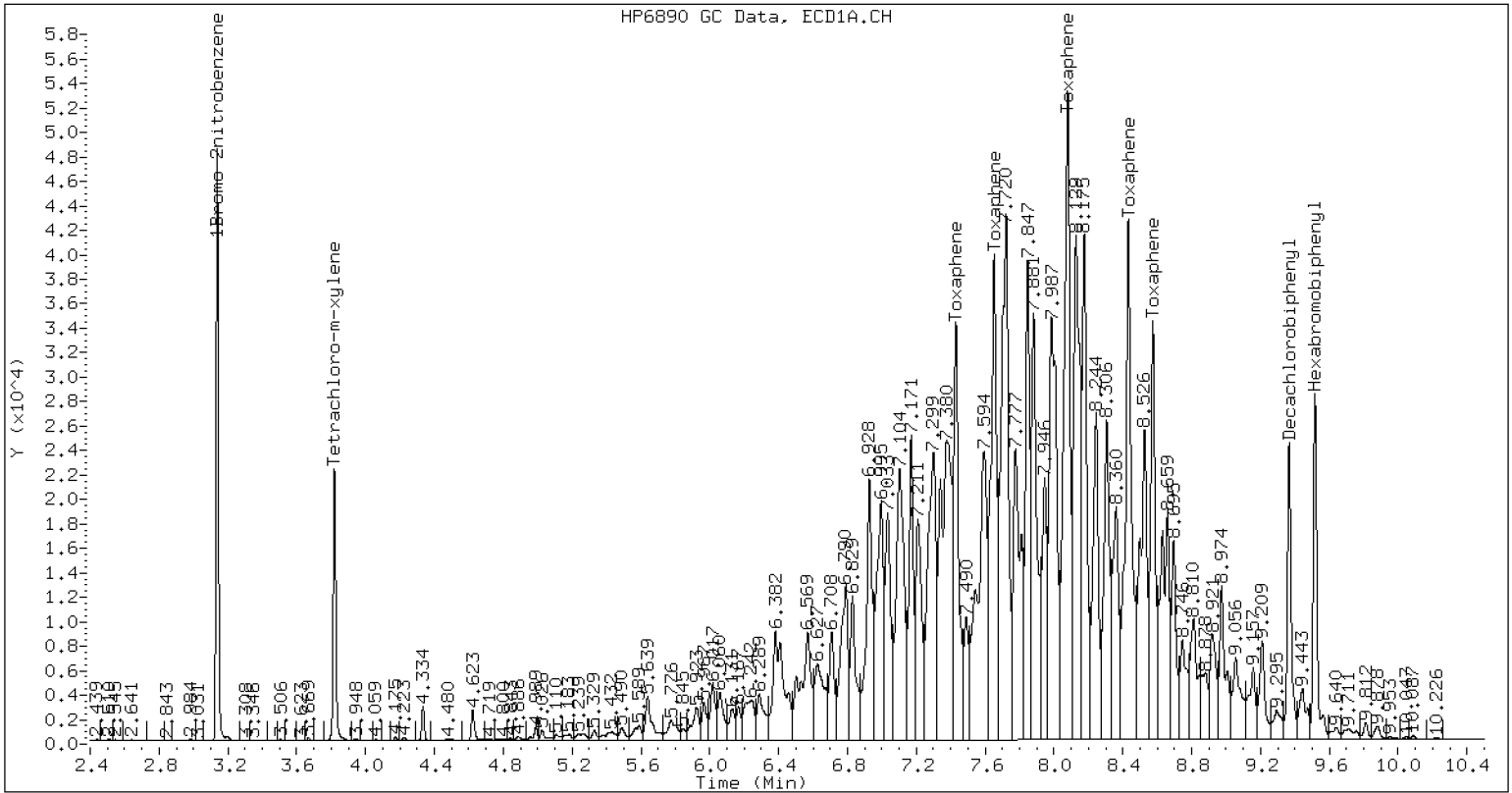
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	917226	6.1
Hexabromobiphenyl	663237	888107	33.9

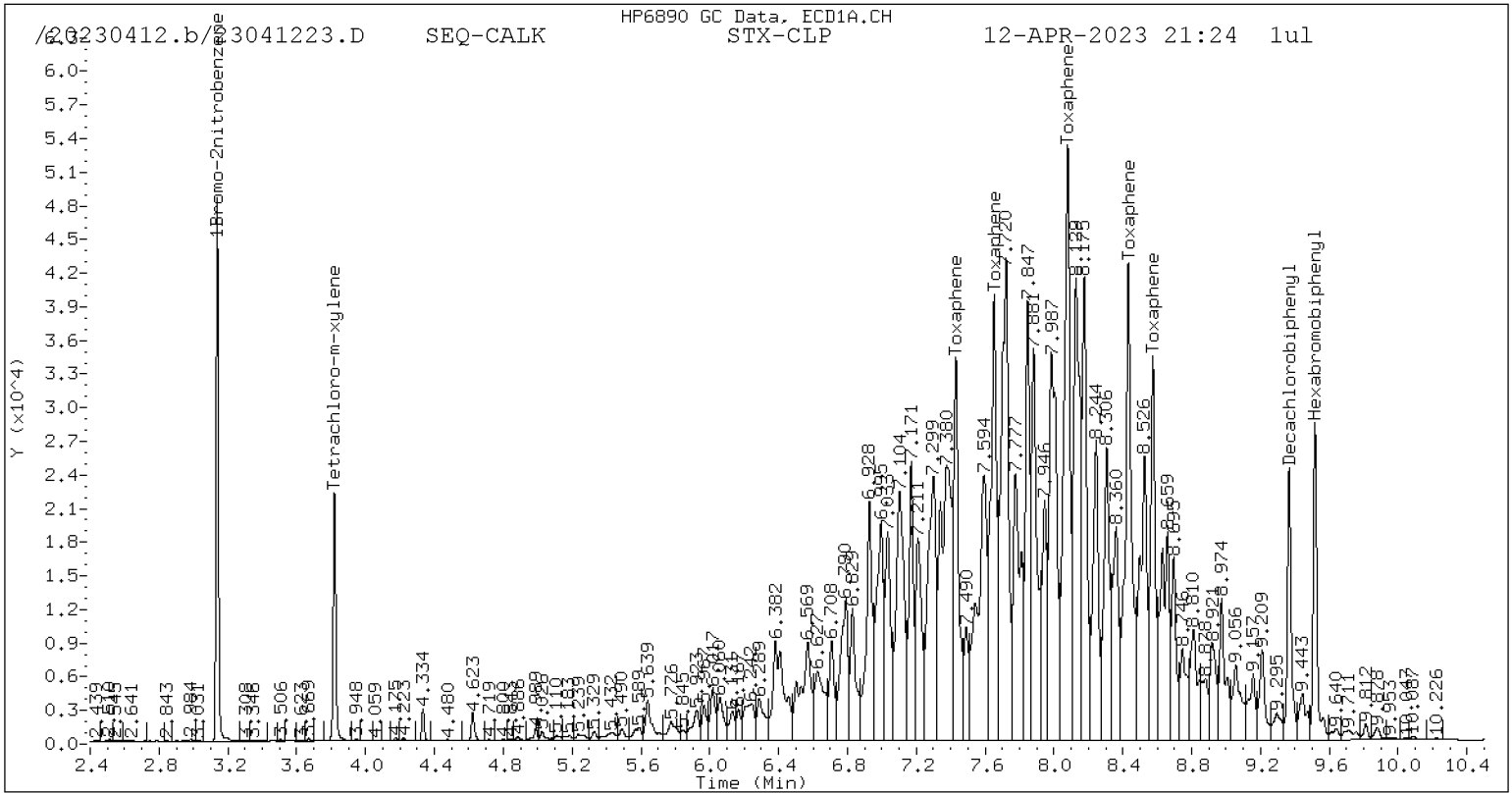
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1272946	-14.0
Hexabromobiphenyl	870561	838283	-3.7

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.429	-0.001	1418710	4317.2	1	7.440	0.000	1190021	4409.5		
Toxaphene	2	7.652	-0.001	1929987	4387.5	2	8.082	-0.001	3433292	4309.9		
Toxaphene	3	8.079	-0.000	2596396	4328.7	3	8.335	-0.001	2739705	4405.0		
Toxaphene	4	8.432	-0.000	2227368	4710.1	4	8.839	-0.000	2971015	4448.0		
Toxaphene	5	8.575	-0.001	1346952	4730.5	5	9.210	-0.000	1678180	4586.6		
Total STX-CLPAve (5 peaks):					4494.806	Total CLP2Ave (5 peaks):					4431.818	RPD = 1
Corrected Ave (5 peaks):					4494.806	Corrected Ave (5 peaks):					4431.818	RPD = 1



Pesticide Dual Column Chromatograms



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041224.D
Data file 2: /20230412.b/B20230412.b/23041224.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALL
Client ID:
Injection Date: 12-APR-2023 21:42
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.819	0.000	895380	4.136	-0.000	1216061	70.47	70.31	0.2	Tetrachloro-m-xylene
9.366	0.000	1481211	10.306	-0.000	1790917	116.97	168.24	36.0	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

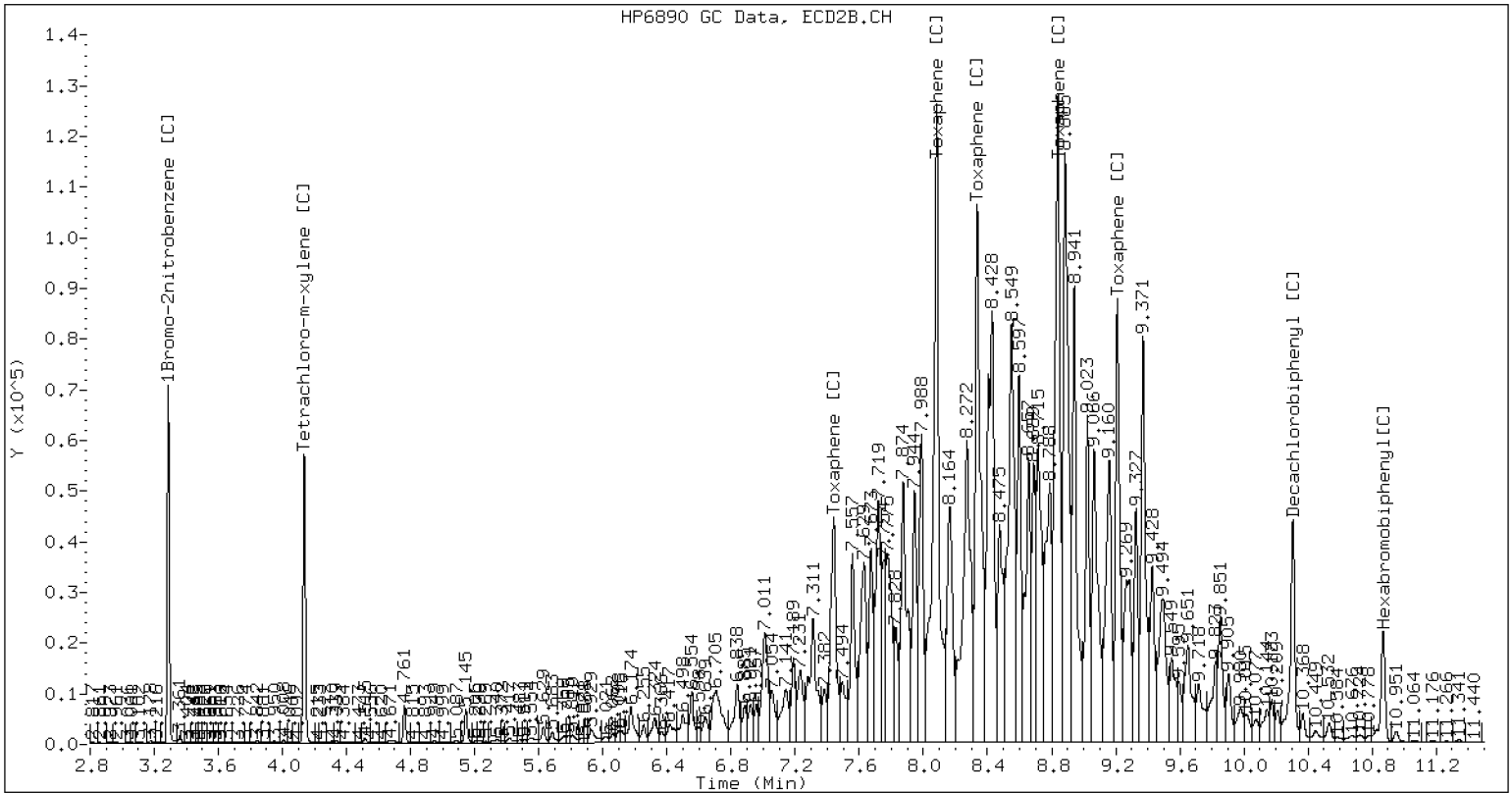
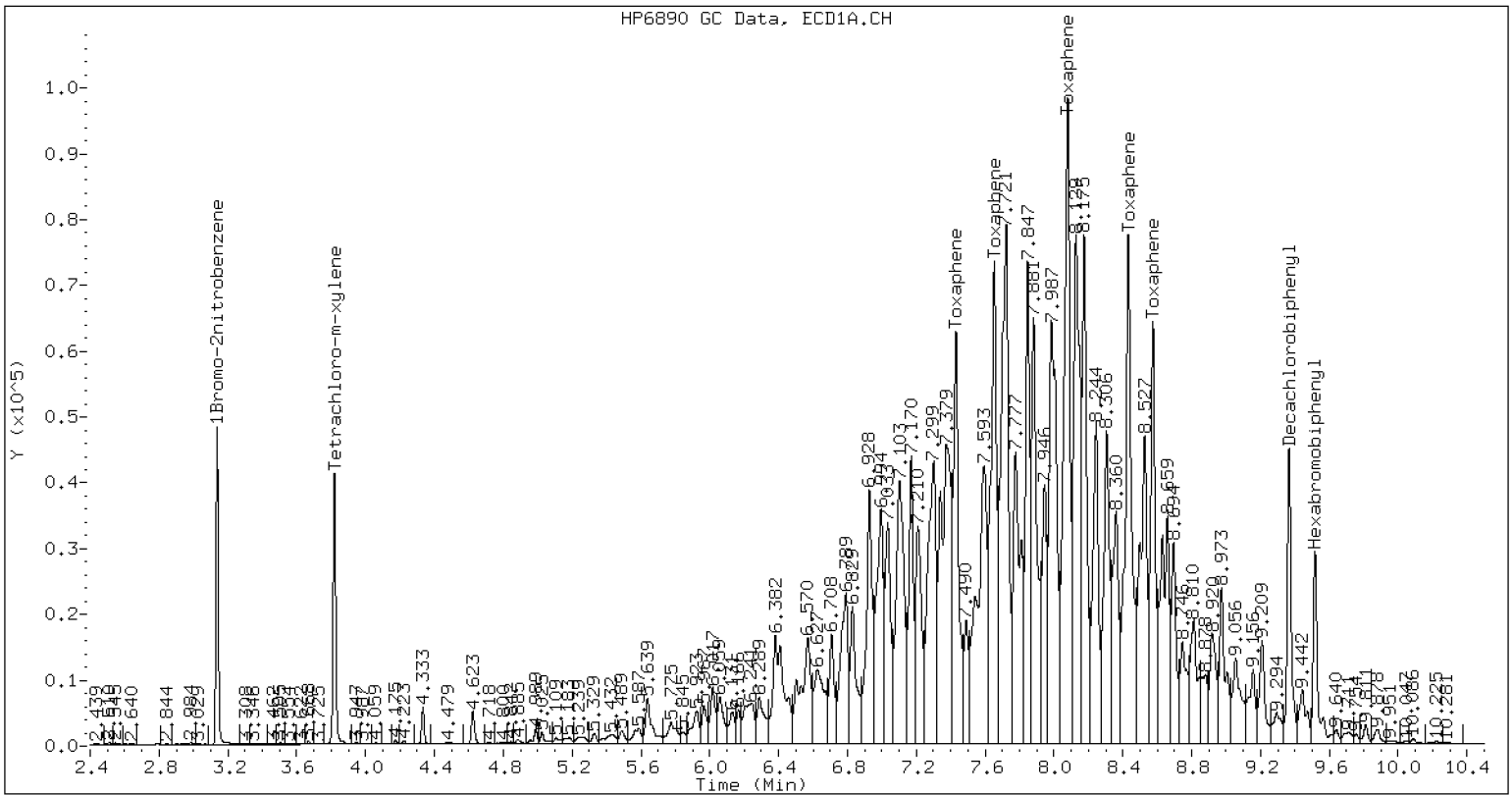
INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	864333	908010	5.1
Hexabromobiphenyl	663237	1073617	61.9

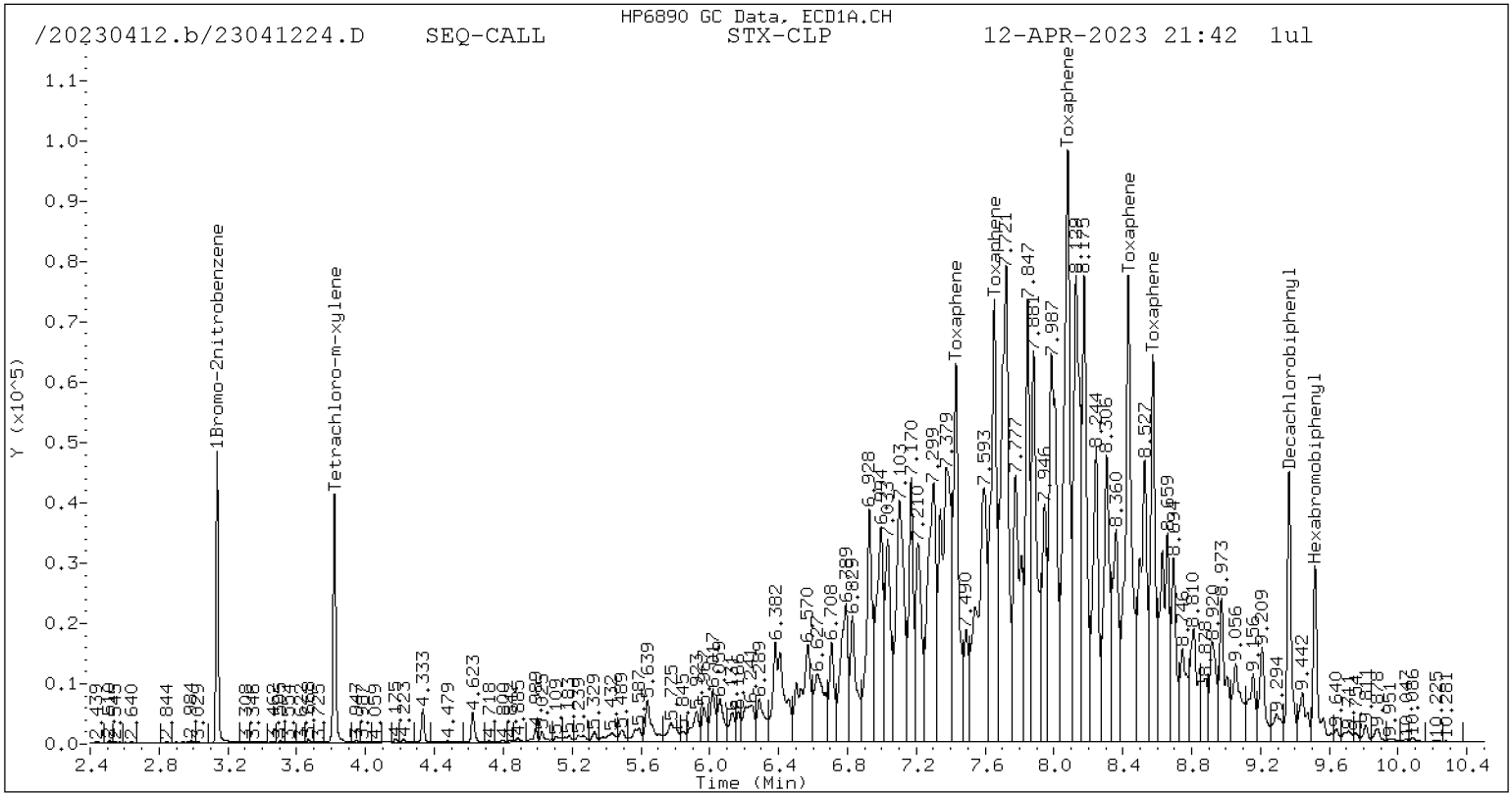
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1480846	1257770	-15.1
Hexabromobiphenyl	870561	881950	1.3

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

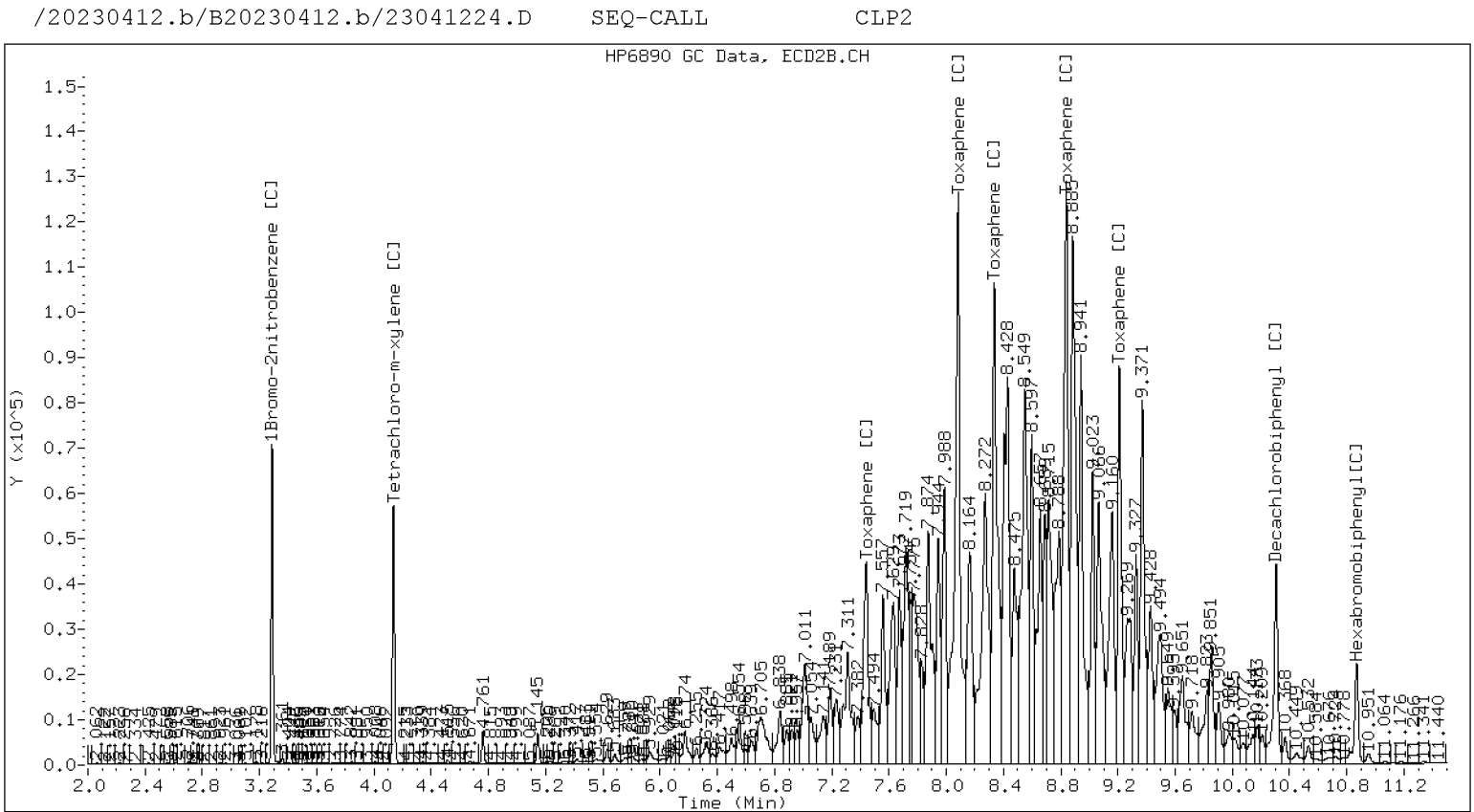
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.430	-0.000	2786527	7014.4	1	7.440	0.000	2199872	7747.7		
Toxaphene	2	7.652	-0.001	3557899	6690.7	2	8.083	0.000	6483577	7736.1		
Toxaphene	3	8.079	-0.000	4809205	6632.4	3	8.336	-0.000	5124179	7830.9		
Toxaphene	4	8.432	-0.001	4063530	7108.2	4	8.839	0.000	5684314	8088.9		
Toxaphene	5	8.575	-0.001	2519164	7318.6	5	9.210	0.000	3217244	8357.7		
Total STX-CLPAve (5 peaks):					6952.870	Total CLP2Ave (5 peaks):					7952.272	RPD = 13
Corrected Ave (5 peaks):					6952.870	Corrected Ave (5 peaks):					7952.272	RPD = 13



Pesticide Dual Column Chromatograms



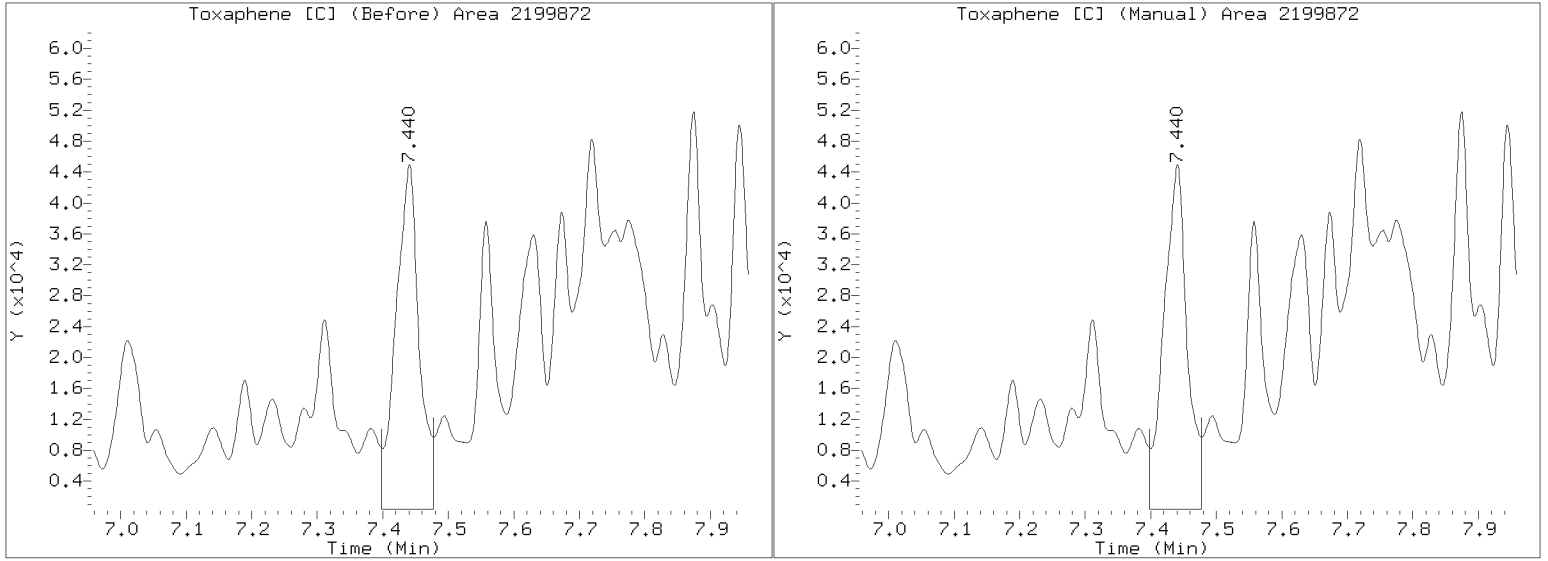
STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041224.D
Injection Date: 12-APR-2023 21:42
Lab ID:SEQ-CALL Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041228.D
Data file 2: /20230412.b/B20230412.b/23041228.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-ICV1
Client ID:
Injection Date: 12-APR-2023 22:55
Report Date: 04/14/2023 08:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.334	0.001	207474	4.761	-0.001	284638	17.97	18.02	0.3	alpha-BHC
4.718	0.001	79749	5.229	-0.001	108826	17.30	17.35	0.3	beta-BHC
4.902	0.001	188168	5.577	-0.000	236979	18.00	16.85	6.6	delta-BHC
4.637	0.000	181942	5.151	-0.001	248772	17.93	17.92	0.1	gamma-BHC (Lindane)
5.125	0.001	169303	5.671	-0.000	221956	18.03	18.23	1.1	Heptachlor
5.449	0.001	171374	6.070	-0.001	227085	17.94	17.96	0.1	Aldrin
6.125	0.000	147922	6.728	-0.001	191017	17.16	17.17	0.0	Heptachlor epoxide b
6.568	0.001	138197	7.172	-0.000	168955	17.98	17.82	0.9	Endosulfan I
6.828	0.000	292815	7.466	0.000	372477	36.01	35.84	0.5	Dieldrin
6.490	0.001	275927	7.257	0.000	356702	35.98	36.06	0.2	4,4'-DDE
7.079	0.001	245544	7.789	-0.001	306841	33.13	32.56	1.7	Endrin
7.314	0.000	244805	8.000	-0.001	303230	35.28	34.06	3.5	Endosulfan II
7.137	0.001	235742	7.862	-0.000	294896	35.44	34.23	3.5	4,4'-DDD
8.178	0.001	226658	8.597	-0.001	277723	34.64	33.88	2.2	Endosulfan sulfate
7.431	0.000	252763	8.180	-0.001	301143	35.28	34.65	1.8	4,4'-DDT
7.920	-0.000	503445	8.820	-0.002	607472	164.03	163.00	0.6	Methoxychlor
8.452	0.000	256795	9.119	-0.000	304196	34.40	33.98	1.2	Endrin ketone
7.743	-0.000	185676	8.331	-0.000	217531	35.06	33.79	3.7	Endrin aldehyde
6.267	0.001	150498	6.939	0.000	188905	17.84	17.70	0.8	trans-Chlordane
6.414	0.001	150678	7.099	-0.001	185516	17.79	17.66	0.8	cis-Chlordane
2.309	-0.000	207080	2.453	-0.000	181778	17.39	12.68	31.4	Hexachlorobutadiene
4.175	0.000	180316	4.622	0.000	242905	17.65	17.61	0.2	Hexachlorobenzene
3.820	0.001	261785	4.136	-0.000	366112	35.44	35.76	0.9	Tetrachloro-m-xylene
9.366	0.000	161464	10.306	0.000	189508	31.92	33.53	4.9	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

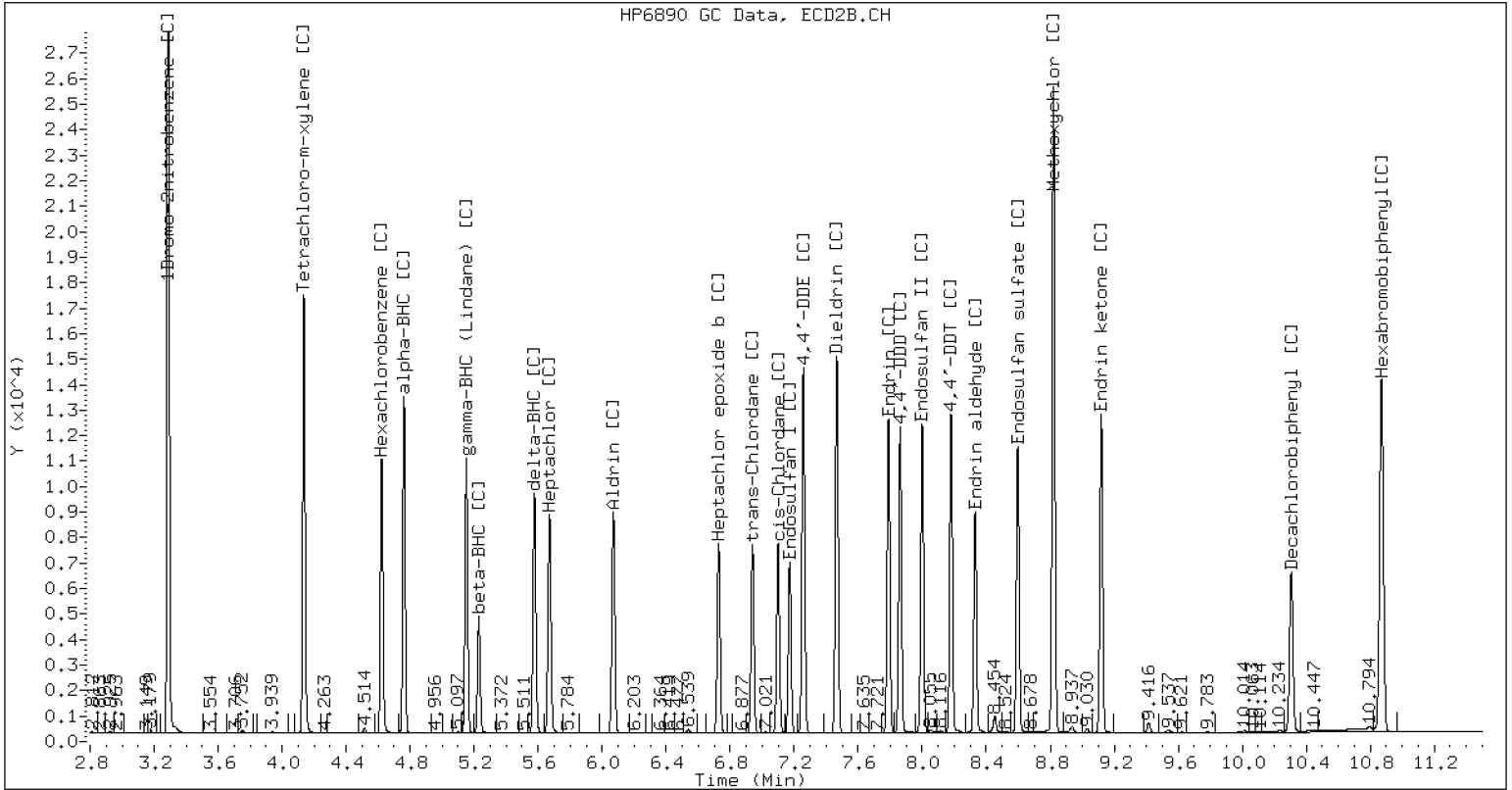
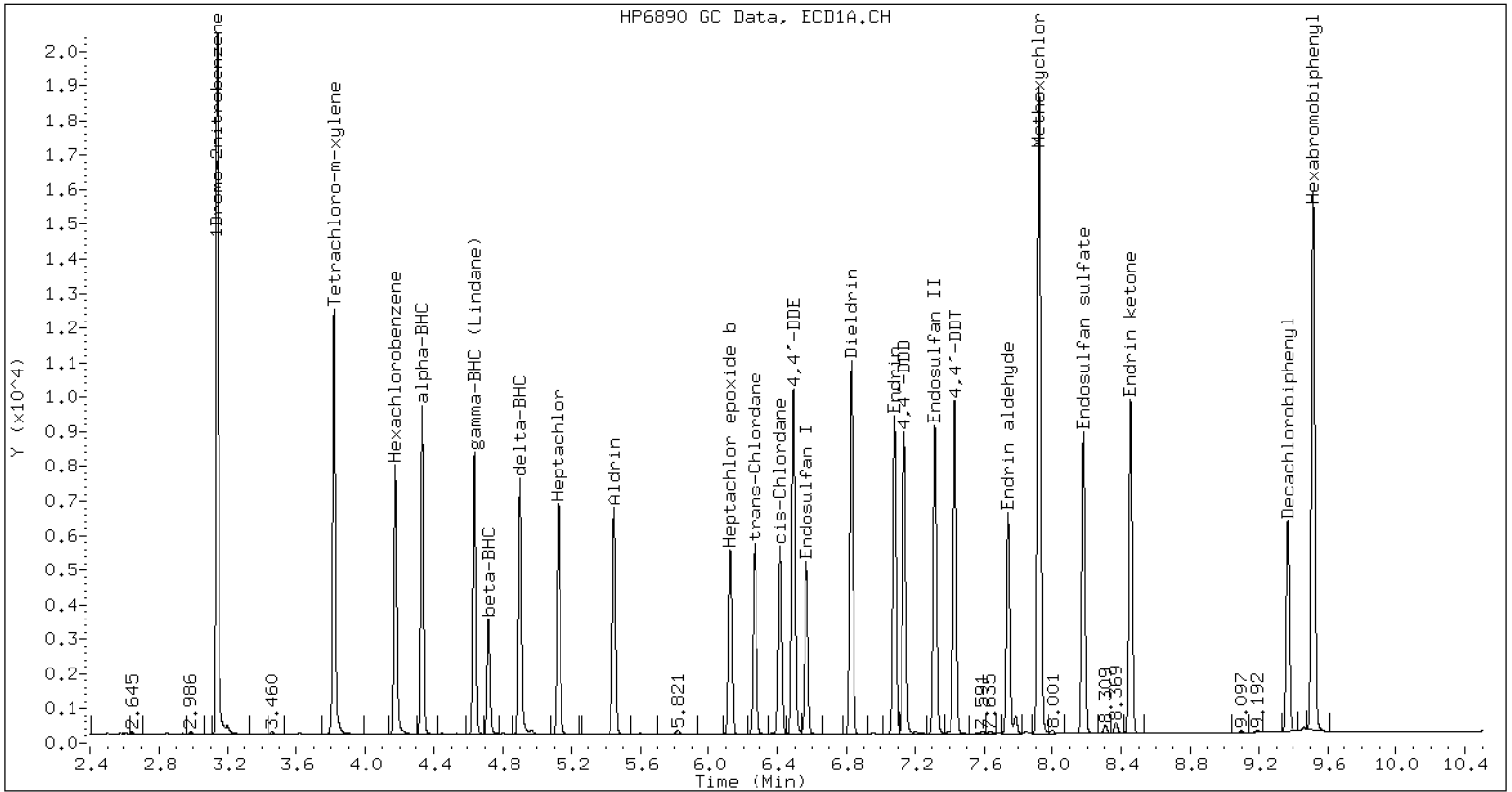
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	527944	-38.9
Hexabromobiphenyl	663237	428829	-35.3

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	744512	-49.7
Hexabromobiphenyl	870561	468235	-46.2

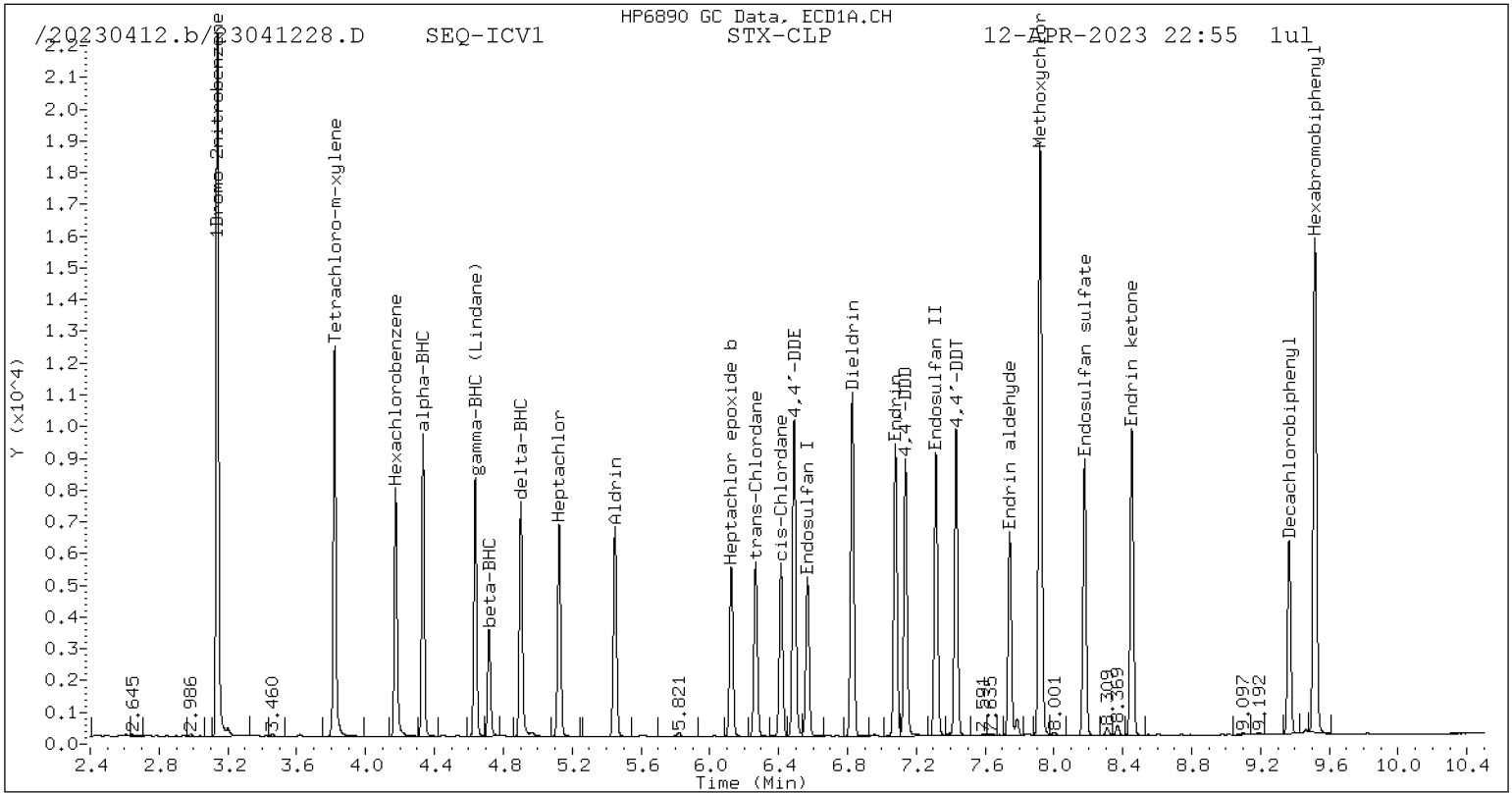
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

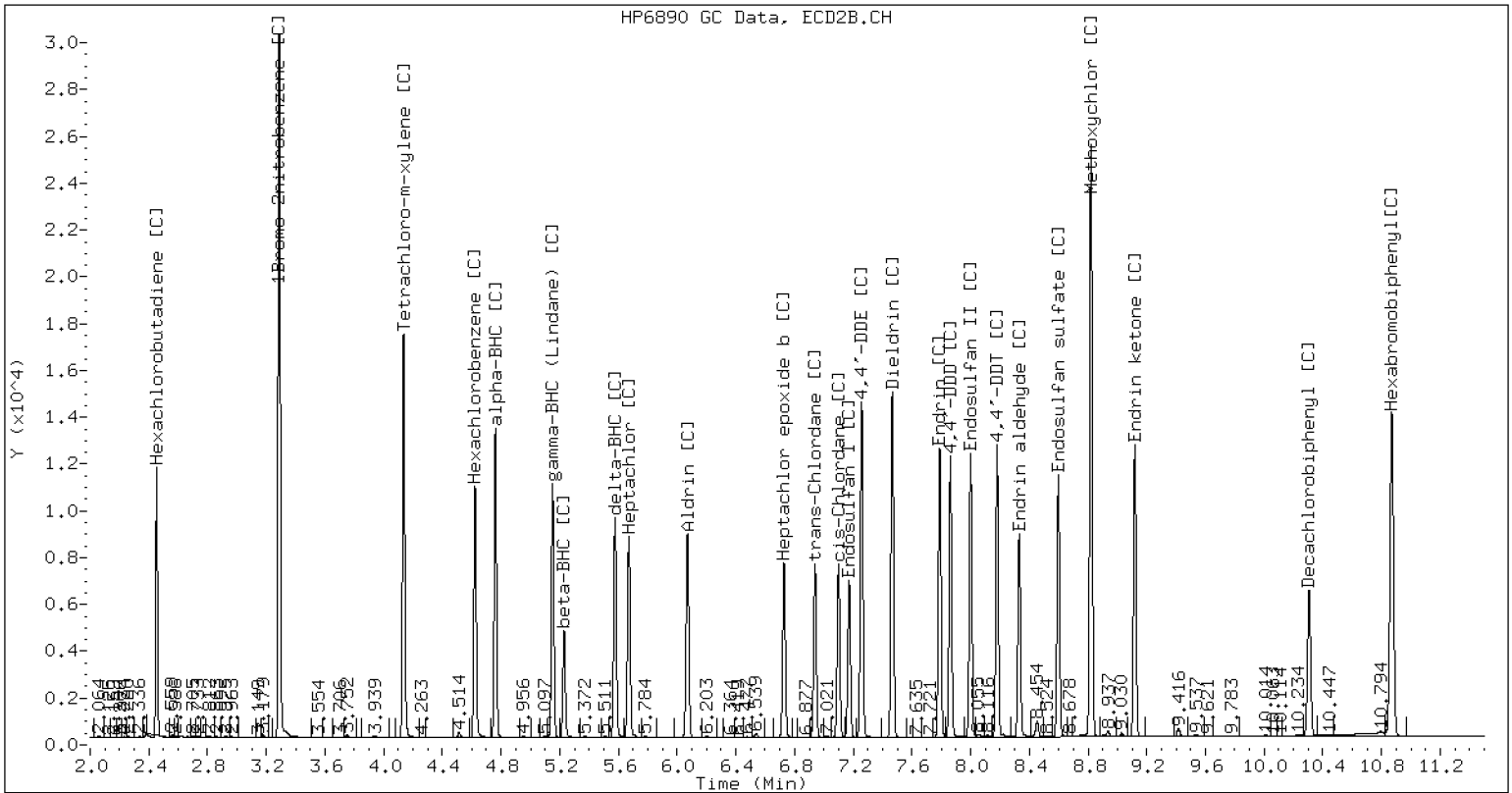


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041228.D SEQ-ICV1 CLP2



CLP-2 Manual Integration: NO



INITIAL CALIBRATION CHECK
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD6

Calibration: GD00035

Lab File ID: 23050203.D

Calibration Date: 04/12/2023

Sequence: SLE0106

Injection Date: 05/02/23

Lab Sample ID: SLE0106-ICV1

Injection Time: 14:00

Sequence Name: INDA

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
alpha-BHC	A	20.000	17.9	1.7493120	1.5659650		-10.5	+/-20
alpha-BHC [2C]	A	20.000	17.8	1.6971320	1.5127530		-10.9	+/-20
beta-BHC	A	20.000	17.2	0.6985426	0.6007490		-14.0	+/-20
beta-BHC [2C]	A	20.000	17.3	0.6741427	0.5834104		-13.5	+/-20
gamma-BHC (Lindane)	A	20.000	17.7	1.5372540	1.3633120		-11.3	+/-20
gamma-BHC (Lindane) [2C]	A	20.000	17.8	1.4921	1.3293490		-10.9	+/-20
delta-BHC	A	20.000	17.8	1.5838220	1.4133620		-10.8	+/-20
delta-BHC [2C]	A	20.000	17.4	1.5107810	1.3118500		-13.2	+/-20
Heptachlor	A	20.000	18.0	1.4227670	1.2801400		-10.0	+/-20
Heptachlor [2C]	A	20.000	17.9	1.3085210	1.1724450		-10.4	+/-20
Aldrin	A	20.000	18.1	1.4471840	1.3090880		-9.5	+/-20
Aldrin [2C]	A	20.000	18.0	1.3583320	1.2253600		-9.8	+/-20
Heptachlor Epoxide	A	20.000	17.2	1.3062650	1.1246540		-13.9	+/-20
Heptachlor Epoxide [2C]	A	20.000	17.2	1.1956940	1.0308100		-13.8	+/-20
trans-Chlordane (beta-Chlordane)	A	20.000	18.0	1.2781630	1.1472420		-10.2	+/-20
trans-Chlordane (beta-Chlordane) [2C]	A	20.000	17.8	1.1465120	1.0207280		-11.0	+/-20
cis-Chlordane (alpha-chlordane)	A	20.000	17.9	1.2830810	1.1488840		-10.5	+/-20
cis-Chlordane (alpha-chlordane) [2C]	A	20.000	17.8	1.1290160	1.0043400		-11.0	+/-20
Endosulfan I	A	20.000	18.2	1.1644720	1.0585270		-9.1	+/-20
Endosulfan I [2C]	A	20.000	17.9	1.0187800	0.9109591		-10.6	+/-20
4,4'-DDE	A	40.000	36.6	1.1619370	1.0618010		-8.6	+/-20
4,4'-DDE [2C]	A	40.000	36.5	1.0629340	0.9698446		-8.8	+/-20
Dieldrin	A	40.000	36.5	1.2323180	1.1233560		-8.8	+/-20
Dieldrin [2C]	A	40.000	35.8	1.1166600	1.0007490		-10.4	+/-20
Endrin	A	40.000	31.3	1.3825400	1.0804070		-21.9	+/-20 *
Endrin [2C]	A	40.000	31.3	1.6101570	1.2590140		-21.8	+/-20 *
Endosulfan II	A	40.000	34.3	1.2946390	1.1103320		-14.2	+/-20
Endosulfan II [2C]	A	40.000	34.2	1.5210760	1.3014530		-14.4	+/-20
4,4'-DDD	A	40.000	35.1	1.2408670	1.0882740		-12.3	+/-20
4,4'-DDD [2C]	A	40.000	34.0	1.4718860	1.2514160		-15.0	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD6

Calibration: GD00035

Lab File ID: 23050203.D

Calibration Date: 04/12/2023

Sequence: SLE0106

Injection Date: 05/02/23

Lab Sample ID: SLE0106-ICV1

Injection Time: 14:00

Sequence Name: INDA

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Endrin Aldehyde	A	40.000	34.3	0.9880472	0.8466115		-14.3	+/-20
Endrin Aldehyde [2C]	A	40.000	34.4	1.0998080	0.9445699		-14.1	+/-20
4,4'-DDT	A	40.000	34.4	1.3364530	1.1481980		-14.1	+/-20
4,4'-DDT [2C]	A	40.000	34.2	1.4849930	1.2696620		-14.5	+/-20
Endosulfan Sulfate	A	40.000	33.4	1.2205710	1.0181090		-16.6	+/-20
Endosulfan Sulfate [2C]	A	40.000	33.8	1.4006150	1.1825270		-15.6	+/-20
Endrin Ketone	A	40.000	33.7	1.3927500	1.1738660		-15.7	+/-20
Endrin Ketone [2C]	A	40.000	34.3	1.5294950	1.3100730		-14.3	+/-20
Methoxychlor	A	200.00	159	0.5725617	0.4552460		-20.5	+/-20 *
Methoxychlor [2C]	A	200.00	157	0.6367416	0.4983234		-21.7	+/-20 *
Hexachlorobutadiene	A	20.000	17.4	1.8042650	1.5675810		-13.1	+/-20
Hexachlorobutadiene [2C]	A	20.000	17.3	1.5408270	1.3361080		-13.3	+/-20
Hexachlorobenzene	A	20.000	17.2	1.5480310	1.3295080		-14.1	+/-20
Hexachlorobenzene [2C]	A	20.000	17.6	1.4821210	1.3044330		-12.0	+/-20
Decachlorobiphenyl	A	40.000	31.6	0.9435985	0.7446219		-21.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	33.8	0.9656083	0.8148908		-15.6	+/-20
Tetrachlorometaxylene	A	40.000	35.6	1.1193850	0.9964366		-11.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	35.8	1.1000560	0.9857508		-10.4	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230502.b/23050203.D
Data file 2: /20230502.b/B20230502.b/23050203.D
Method: \20230502.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SLE0106-ICV1
Client ID:
Injection Date: 02-MAY-2023 14:00
Report Date: 05/05/2023 15:03
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.327	-0.006	241262	4.752	-0.010	253121	17.90	17.83	0.4	alpha-BHC N
4.711	-0.006	92555	5.219	-0.011	97619	17.20	17.31	0.6	beta-BHC N
4.895	-0.006	217751	5.566	-0.011	219505	17.85	17.37	2.7	delta-BHC N
4.630	-0.007	210040	5.141	-0.011	222433	17.74	17.82	0.5	gamma-BHC (Lindane) N
5.118	-0.006	197226	5.660	-0.011	196179	18.00	17.92	0.4	Heptachlor N
5.441	-0.007	201686	6.059	-0.013	205033	18.09	18.04	0.3	Aldrin N
6.117	-0.008	173271	6.716	-0.013	172480	17.22	17.24	0.1	Heptachlor epoxide b N
6.559	-0.008	163083	7.160	-0.012	152426	18.18	17.88	1.6	Endosulfan I N
6.819	-0.009	346142	7.455	-0.011	334900	36.46	35.85	1.7	Dieldrin N
6.482	-0.007	327175	7.246	-0.011	324558	36.55	36.50	0.2	4,4'-DDE N
7.070	-0.008	278106	7.778	-0.012	263795	31.26	31.28	0.1	Endrin N
7.306	-0.008	285809	7.989	-0.012	272687	34.31	34.22	0.2	Endosulfan II N
7.129	-0.007	280131	7.851	-0.011	262203	35.08	34.01	3.1	4,4'-DDD N
8.168	-0.009	262070	8.588	-0.010	247769	33.37	33.77	1.2	Endosulfan sulfate N
7.423	-0.008	295556	8.170	-0.011	266026	34.37	34.20	0.5	4,4'-DDT N
7.912	-0.008	585921	8.810	-0.012	522056	159.02	156.52	1.6	Methoxychlor N
8.443	-0.009	302163	9.109	-0.010	274493	33.71	34.26	1.6	Endrin ketone N
7.734	-0.009	217925	8.321	-0.010	197911	34.27	34.35	0.2	Endrin aldehyde N
6.259	-0.007	176751	6.928	-0.011	170793	17.95	17.81	0.8	trans-Chlordane N
6.405	-0.008	177004	7.088	-0.012	168051	17.91	17.79	0.7	cis-Chlordane N
2.304	-0.005	241511	2.448	-0.005	223564	17.38	17.34	0.2	Hexachlorobutadiene N
4.168	-0.007	204832	4.613	-0.009	218264	17.18	17.60	2.4	Hexachlorobenzene
3.813	-0.006	307034	4.128	-0.008	329881	35.61	35.84	0.7	Tetrachloro-m-xylene
9.359	-0.007	191672	10.296	-0.010	170740	31.57	33.76	6.7	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

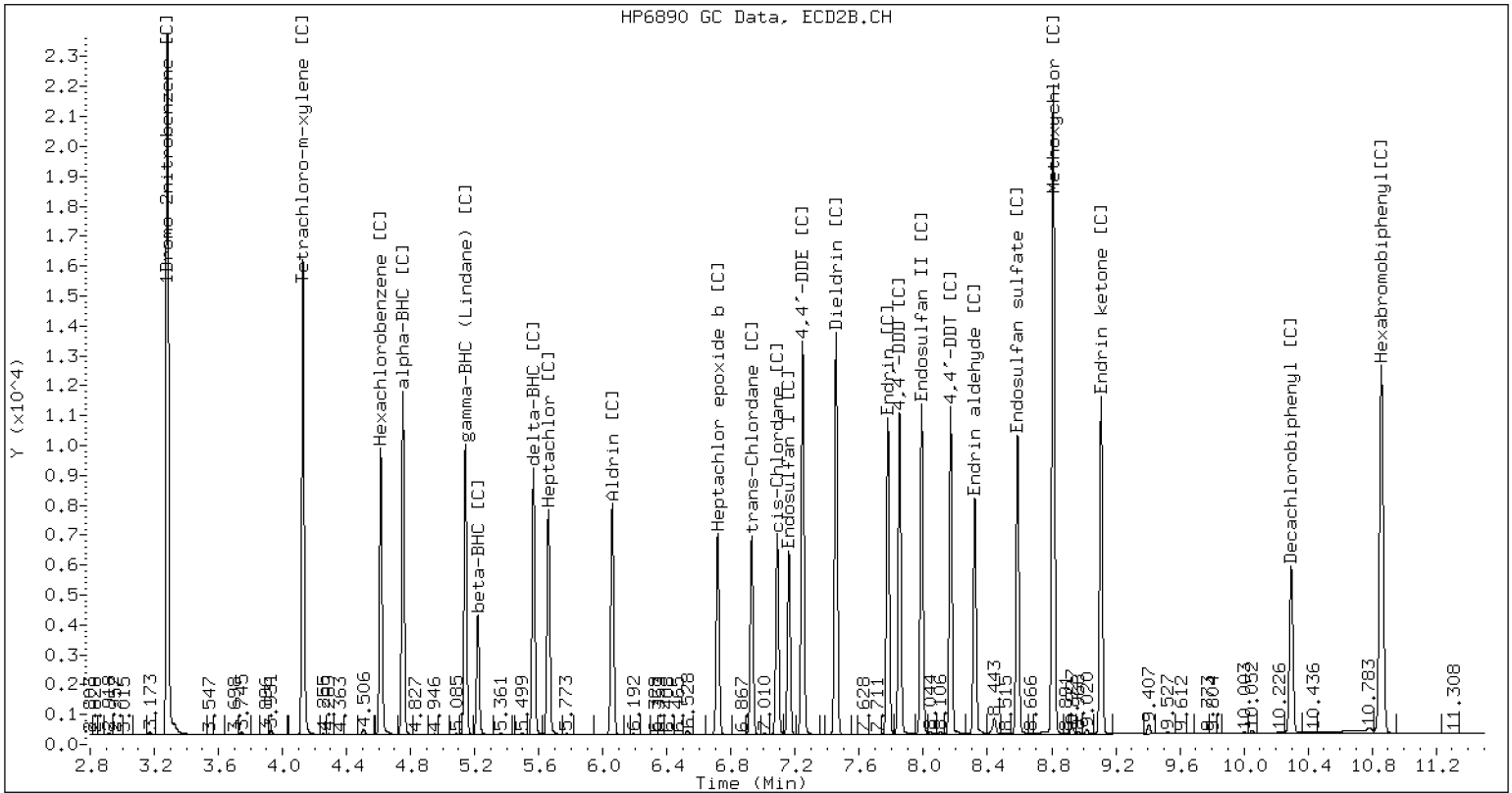
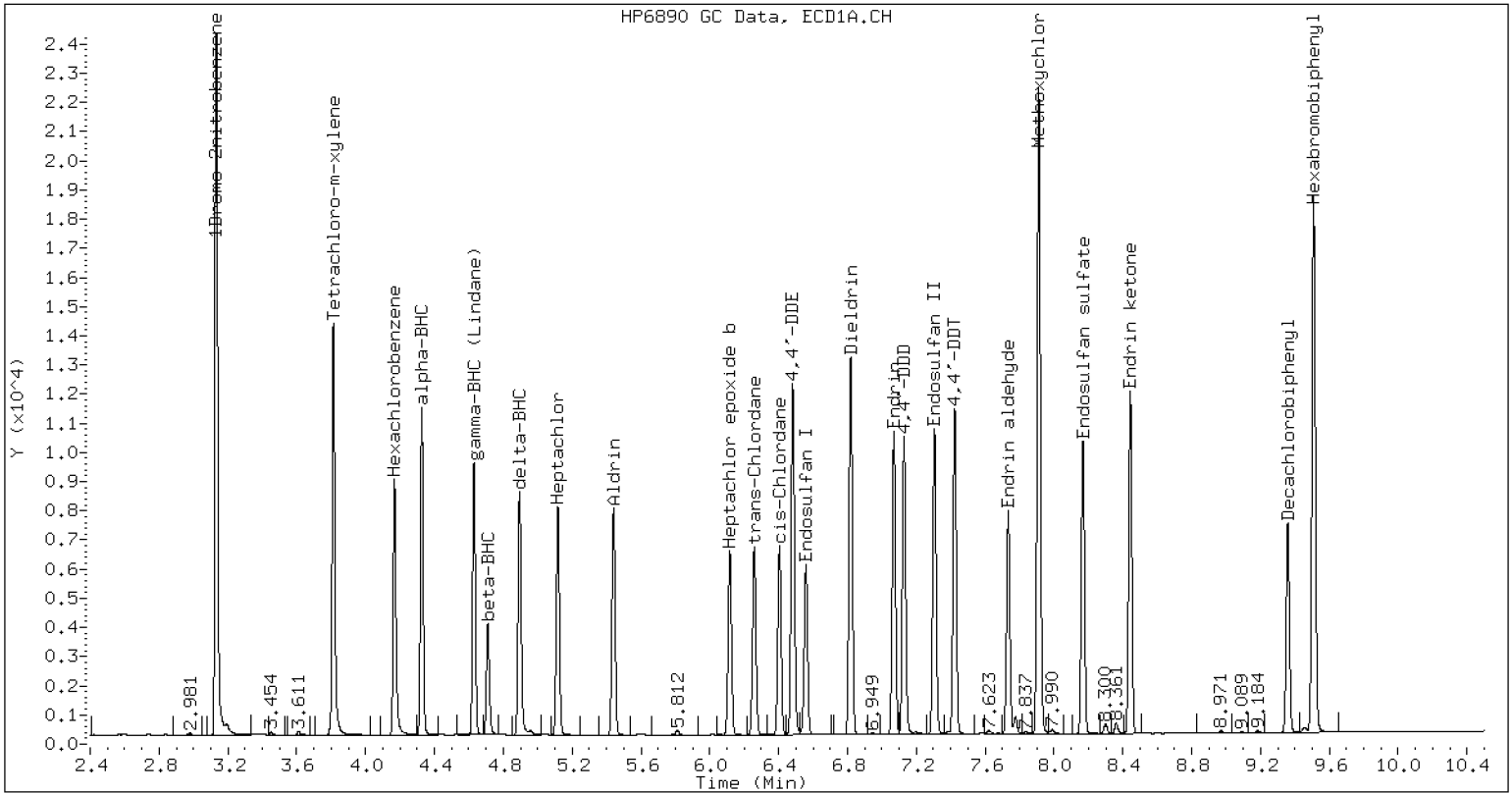
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	616264	-33.9
Hexabromobiphenyl	745426	514817	-30.9

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	669299	-46.4
Hexabromobiphenyl	754634	419050	-44.5

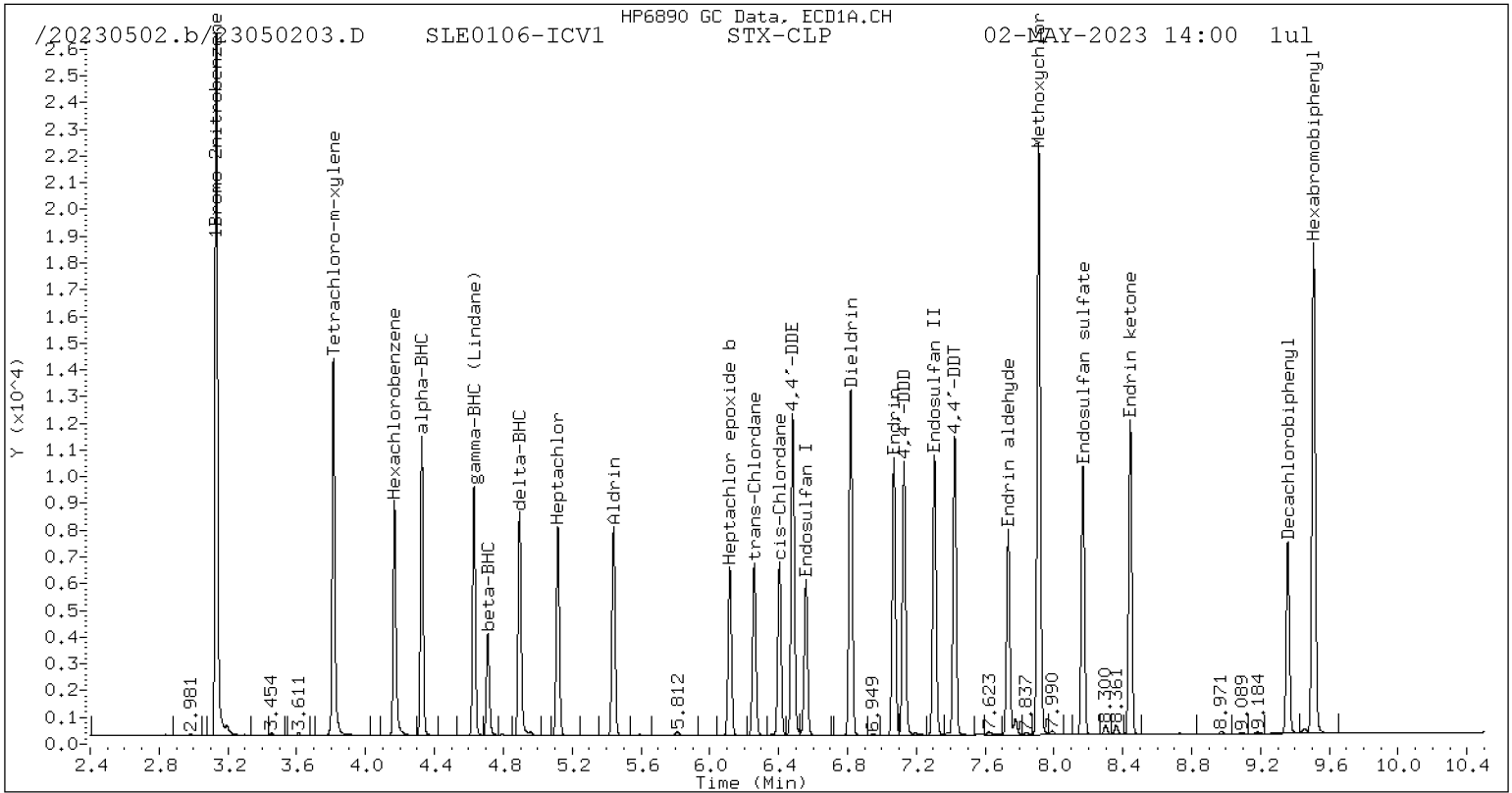
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

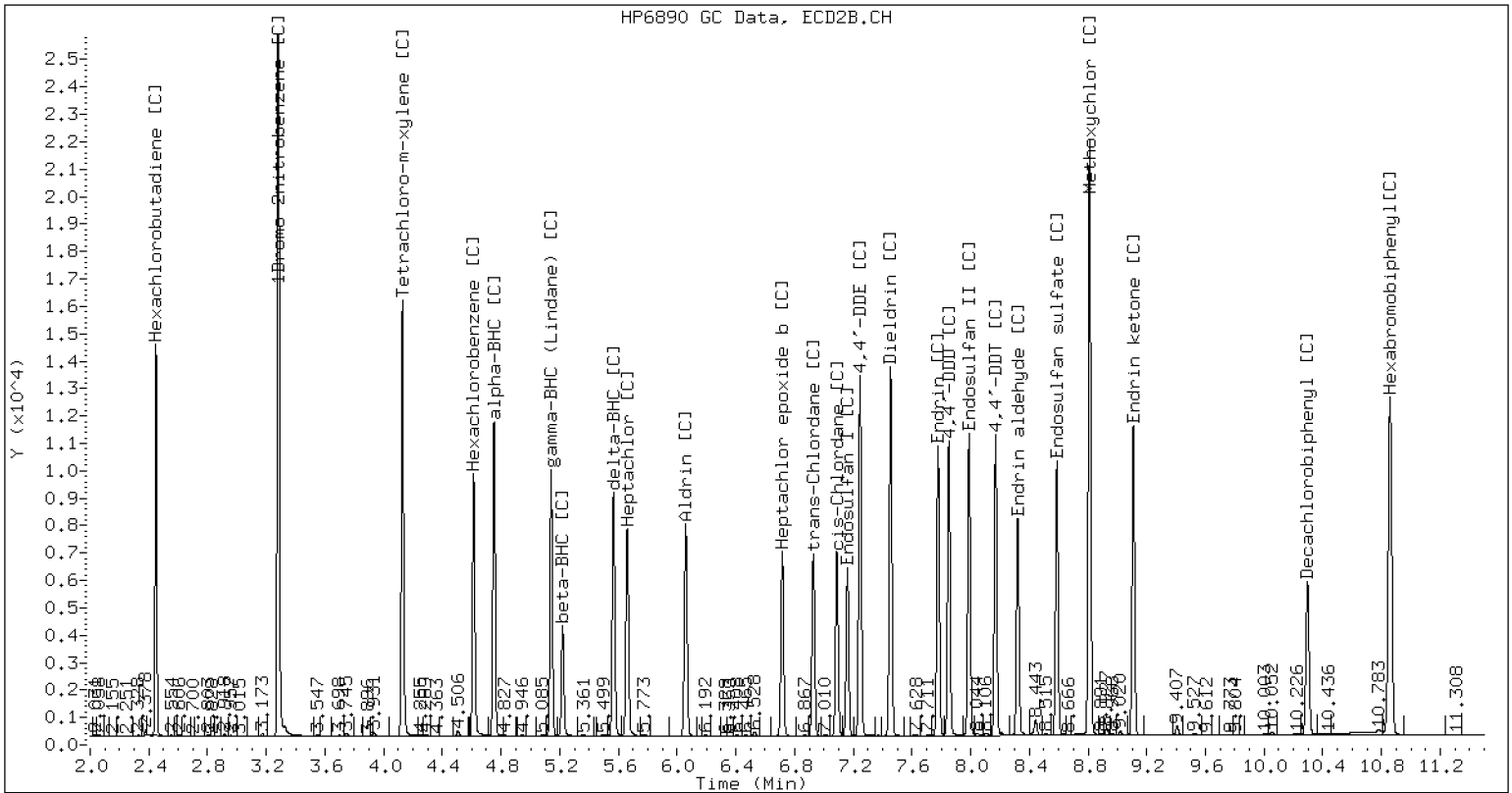


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230502.b/B20230502.b/23050203.D SLE0106-ICV1 CLP2



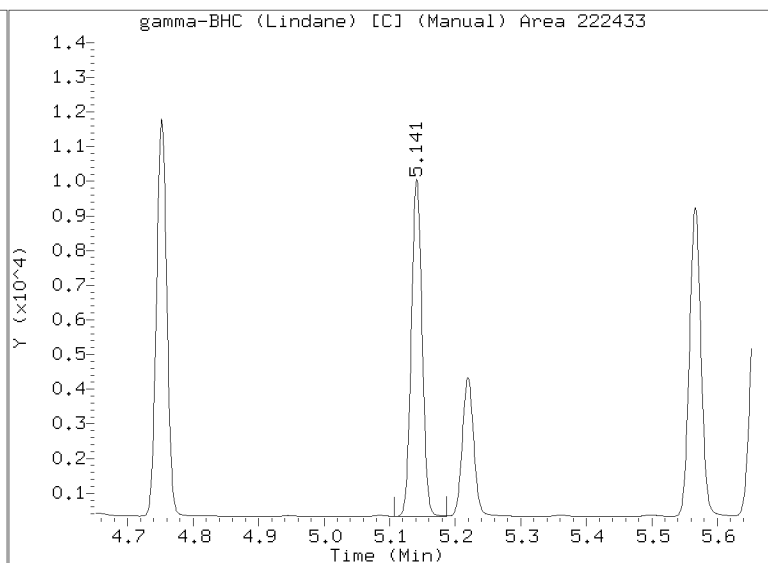
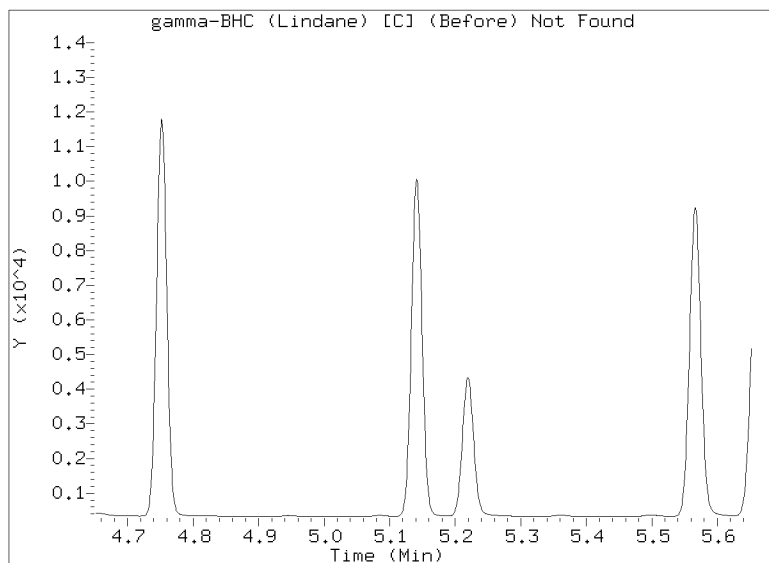
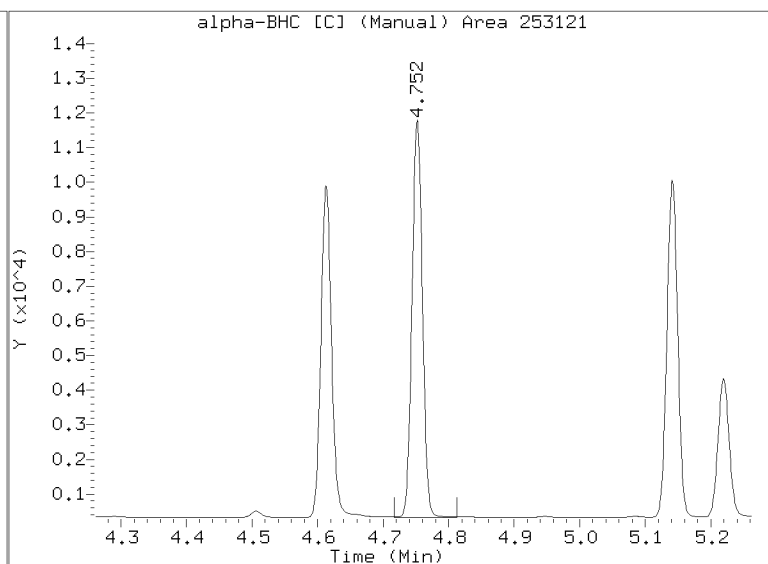
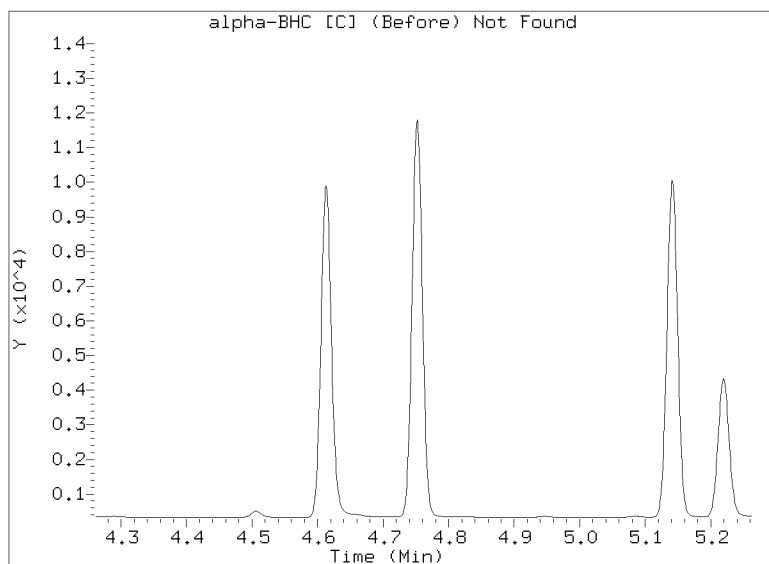
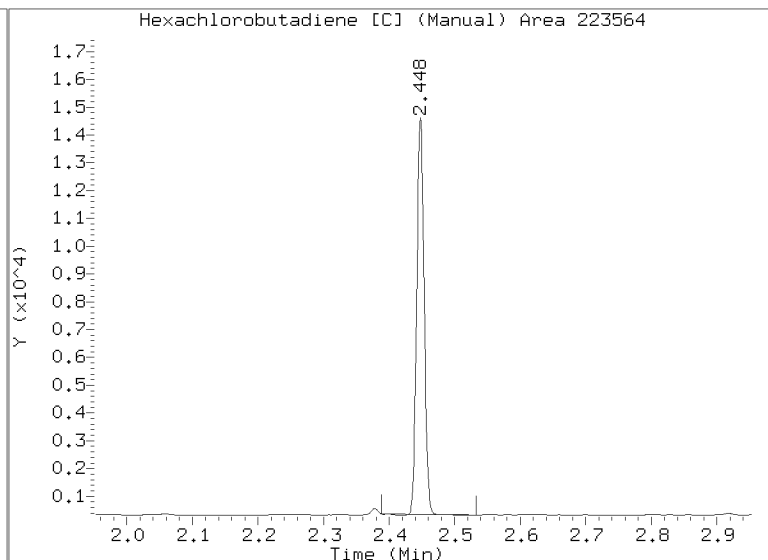
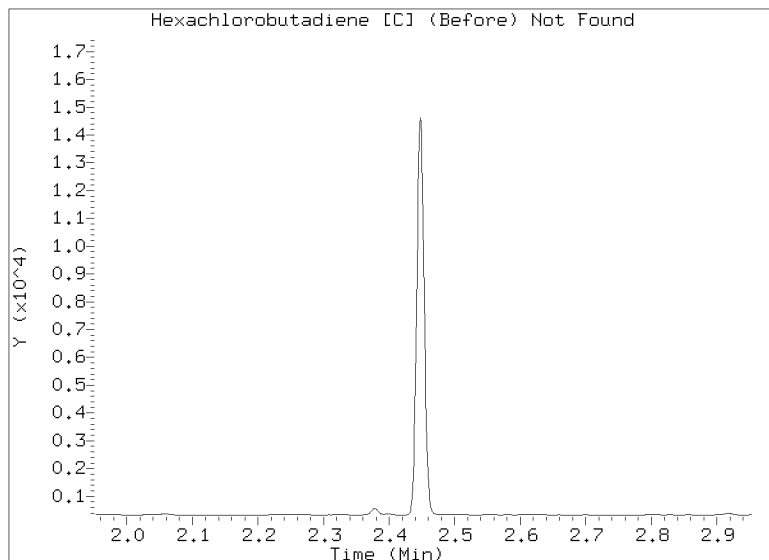
CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050203.D

Injection Date: 02-MAY-2023 14:00

Lab ID: SLE0106-ICV1 Client ID:

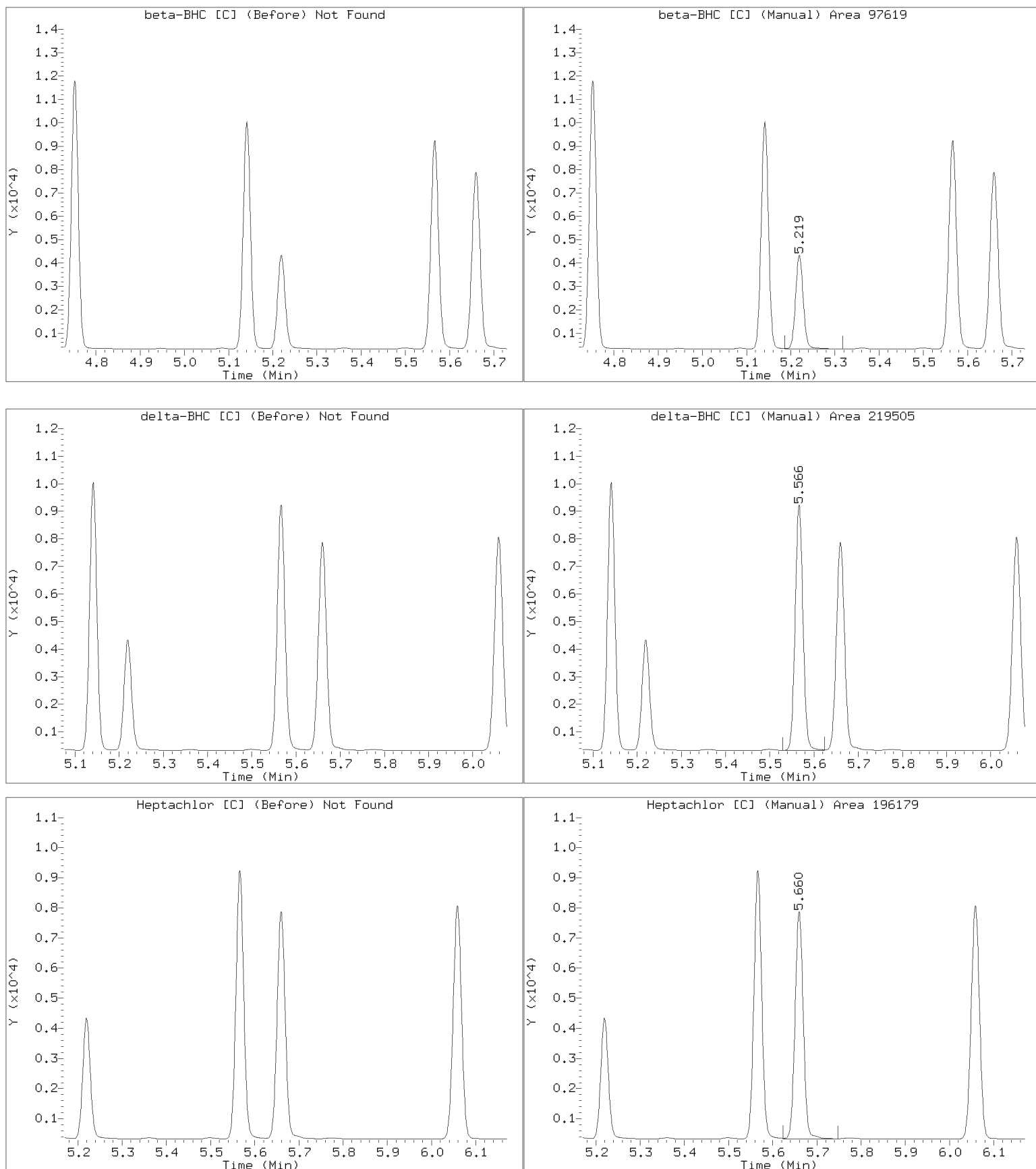


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050203.D

Injection Date: 02-MAY-2023 14:00

Lab ID:SLE0106-ICV1 Client ID:

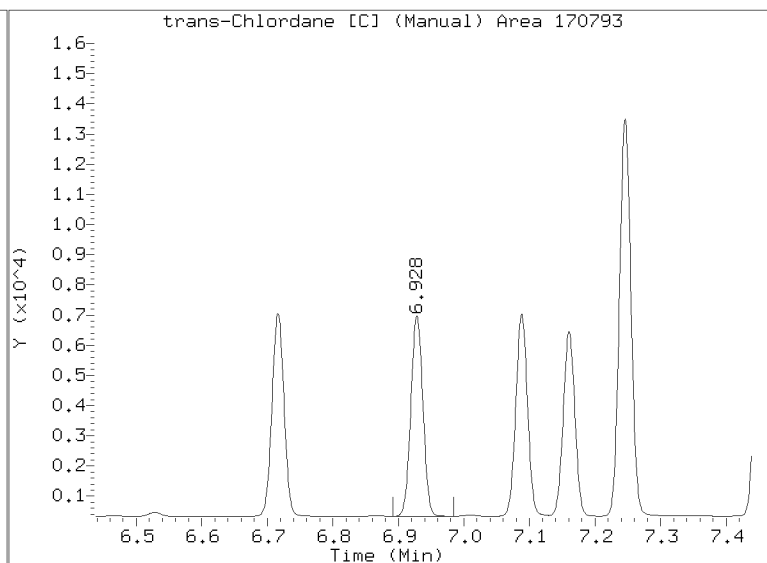
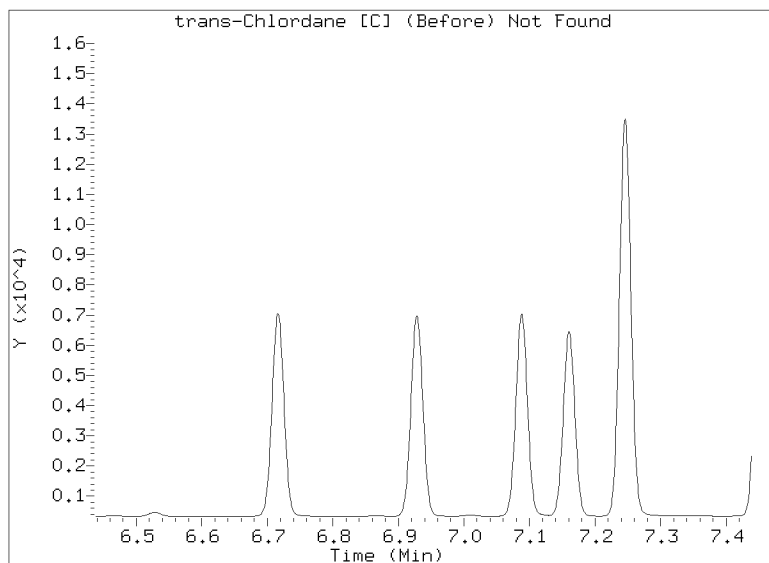
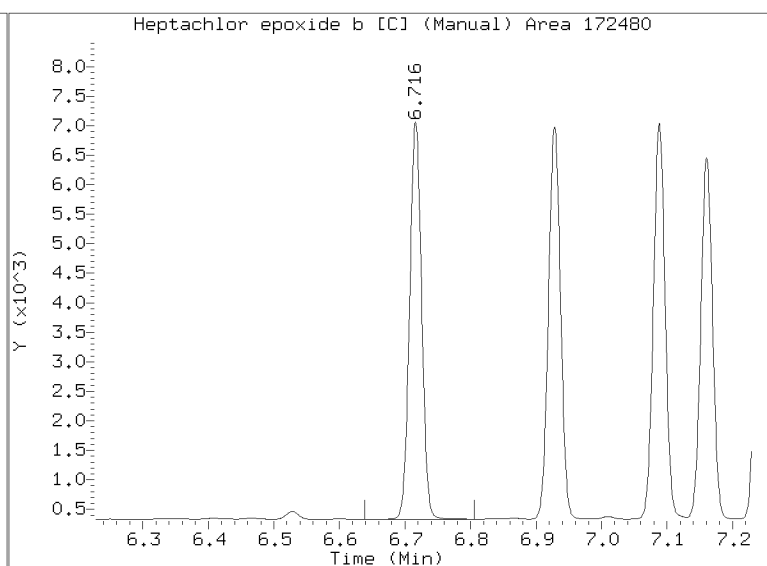
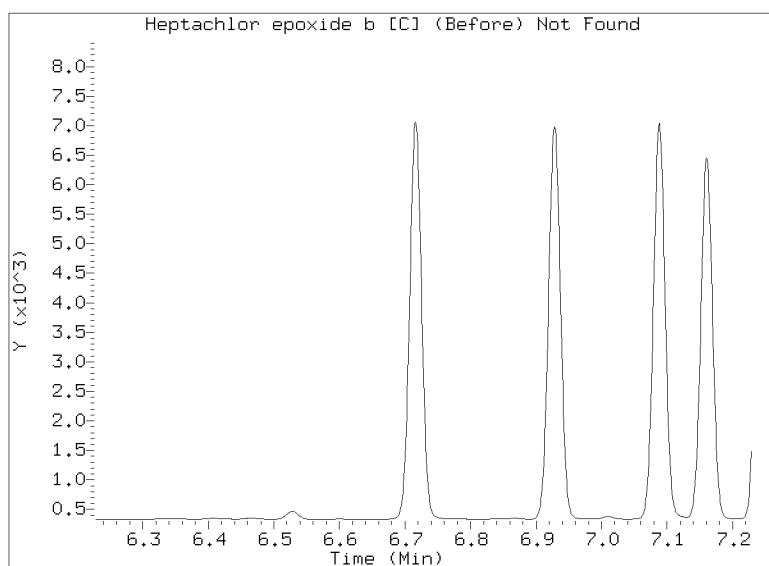
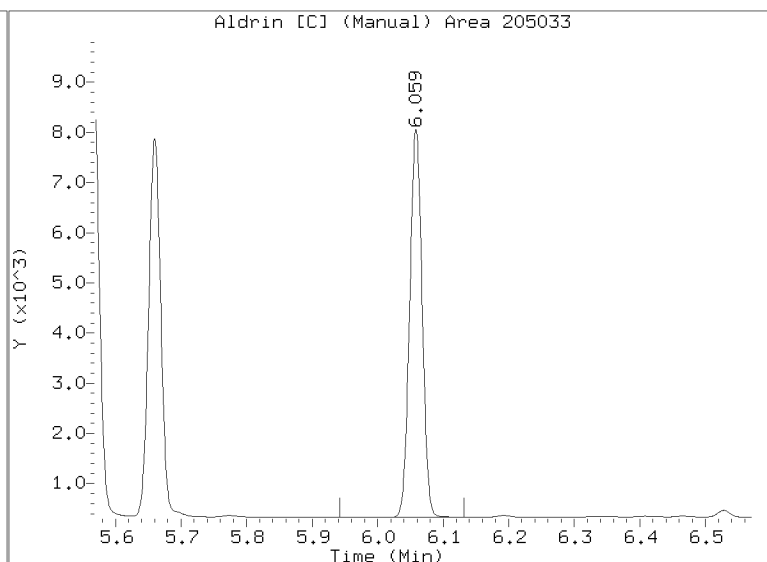
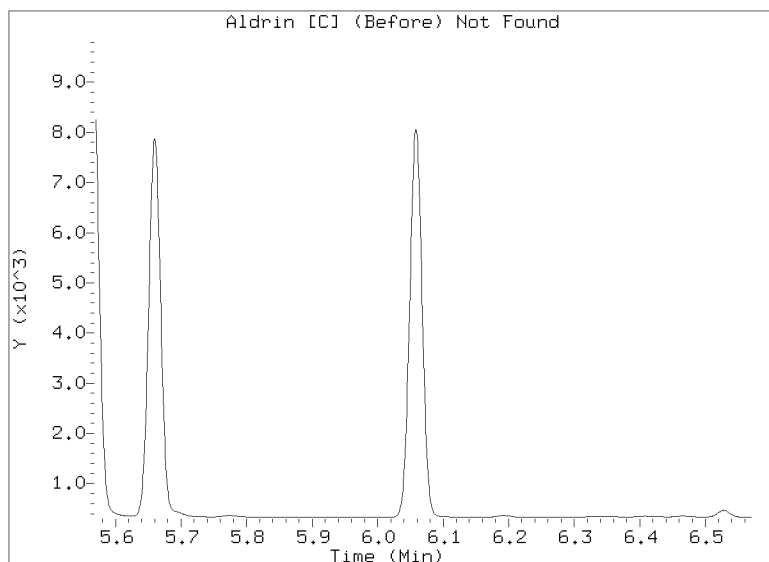


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050203.D

Injection Date: 02-MAY-2023 14:00

Lab ID:SLE0106-ICV1 Client ID:

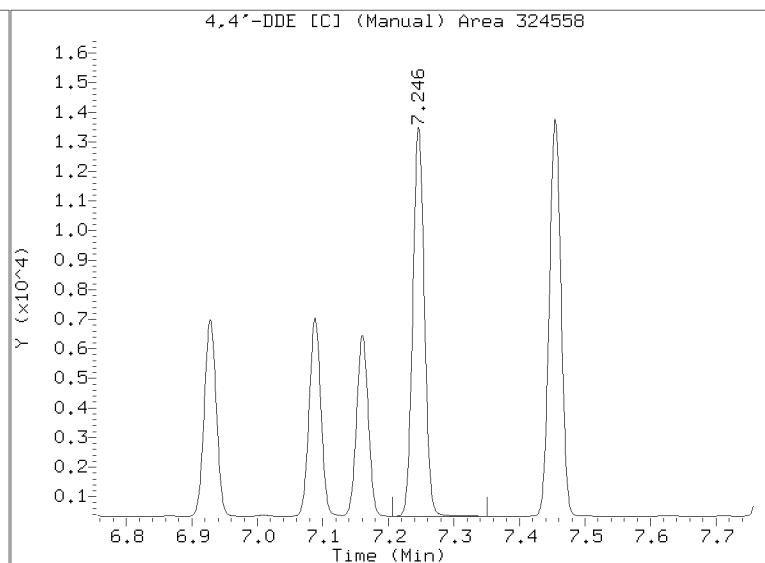
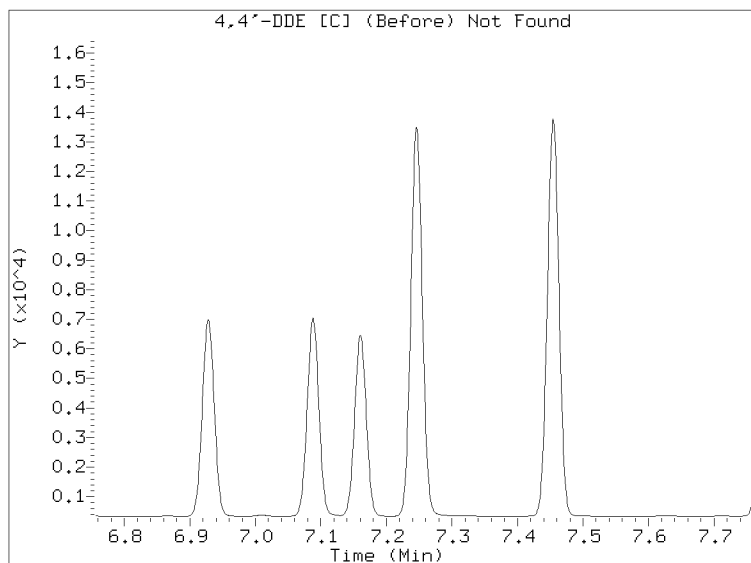
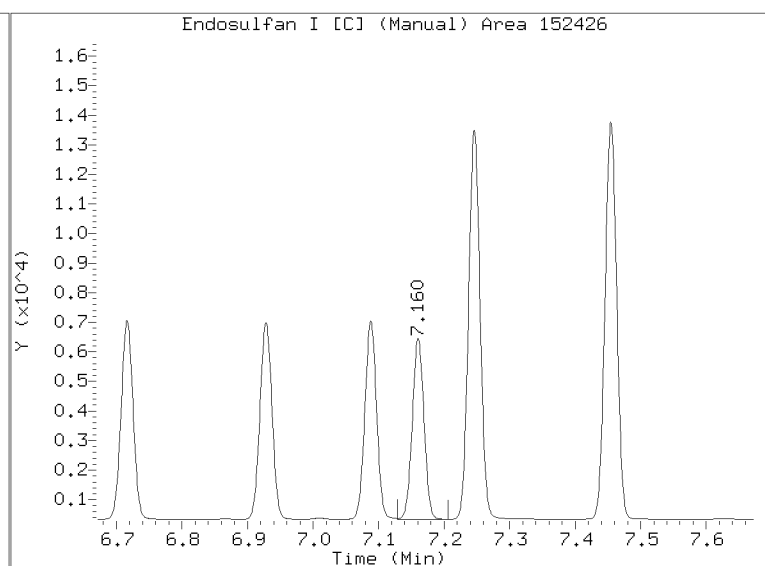
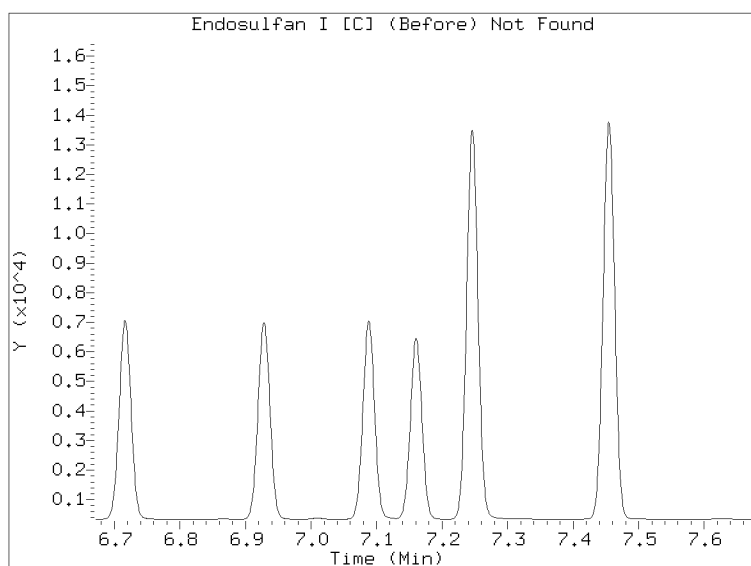
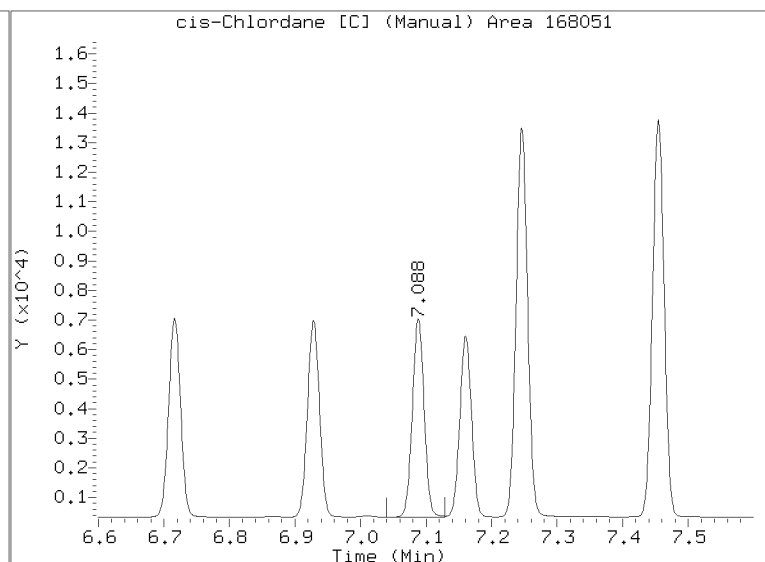
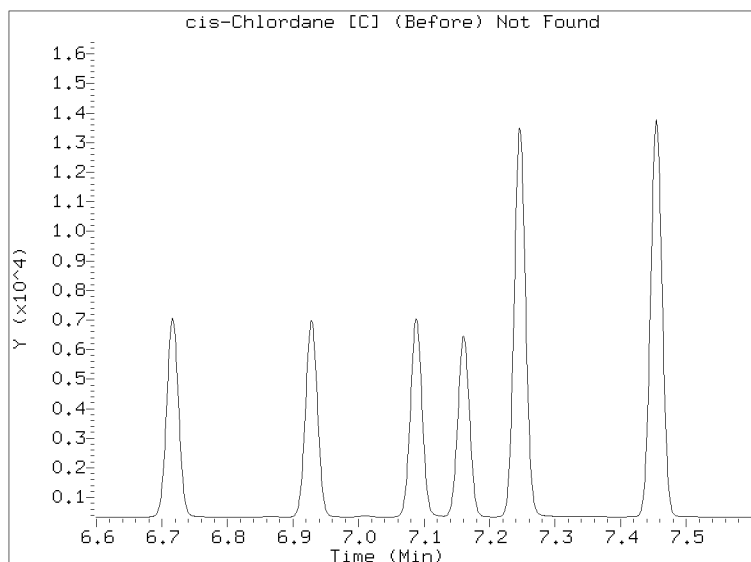


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050203.D

Injection Date: 02-MAY-2023 14:00

Lab ID: SLE0106-ICV1 Client ID:

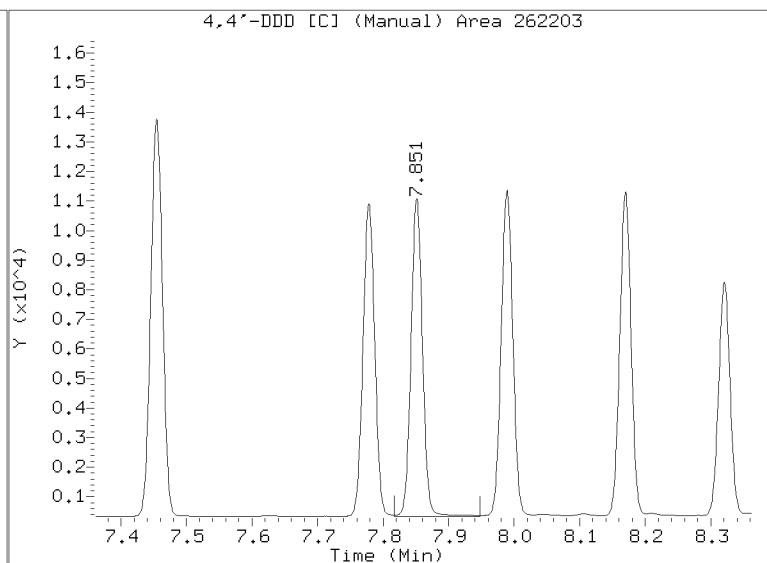
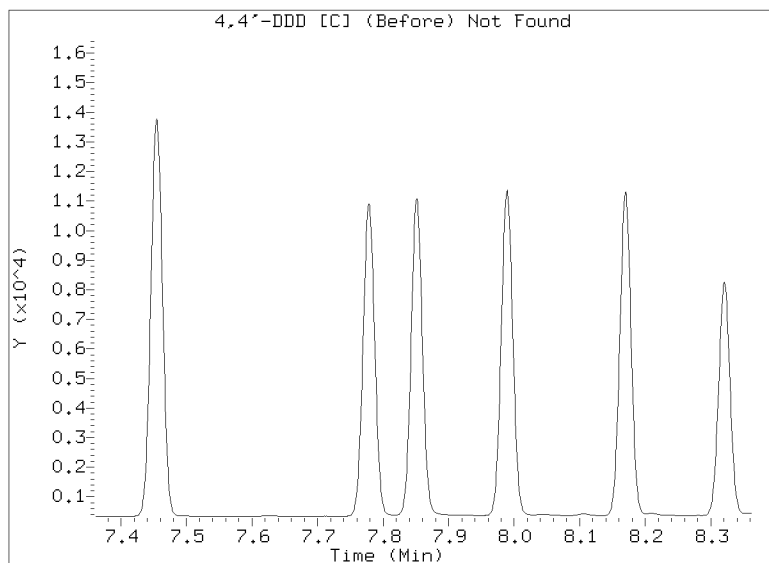
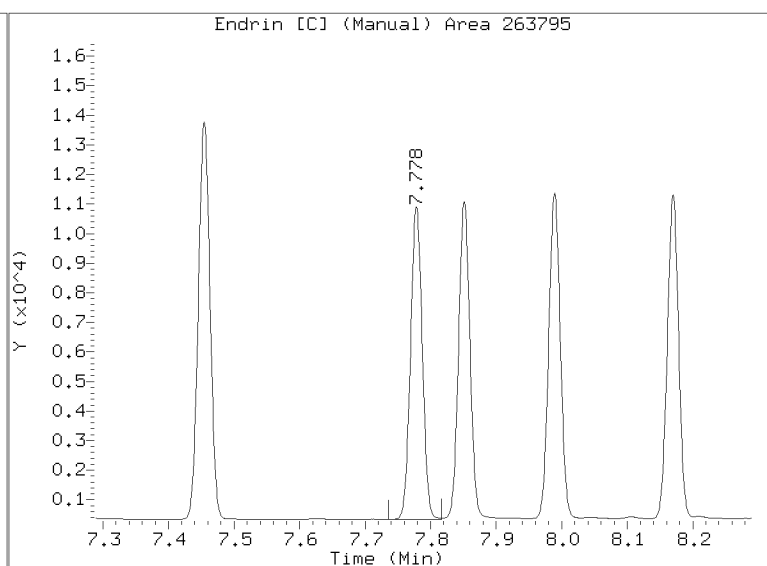
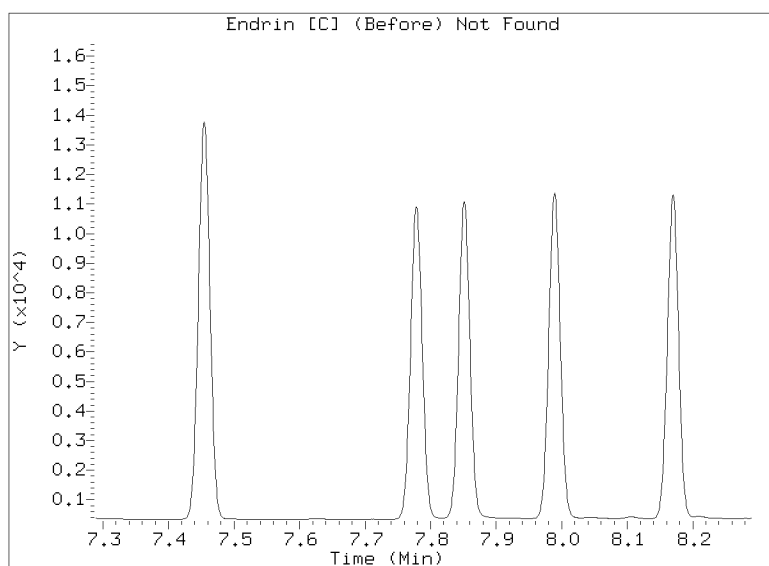
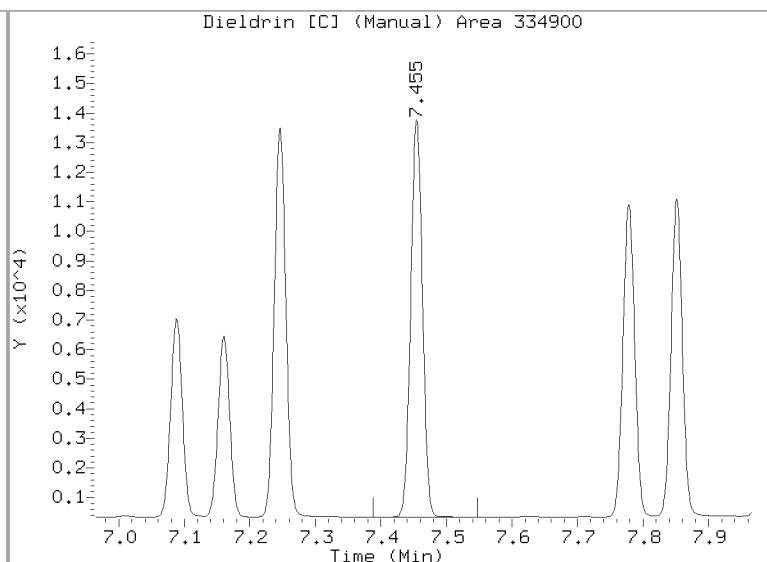
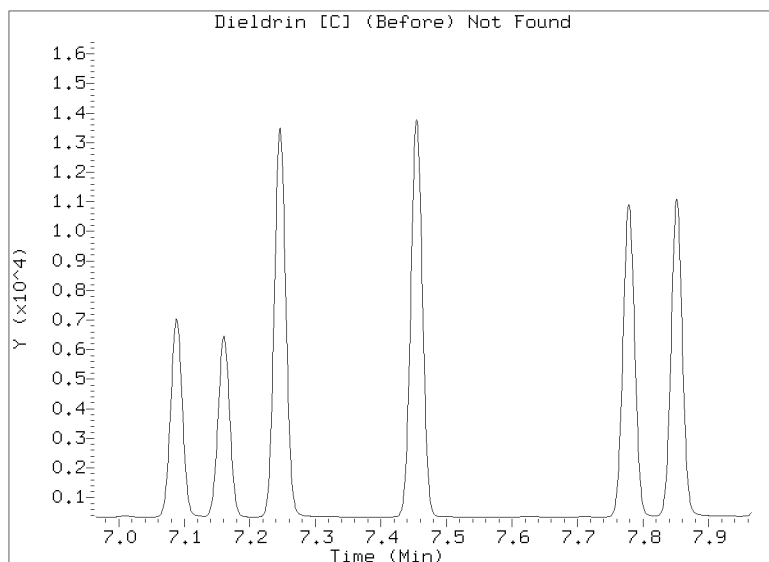


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050203.D

Injection Date: 02-MAY-2023 14:00

Lab ID:SLE0106-ICV1 Client ID:

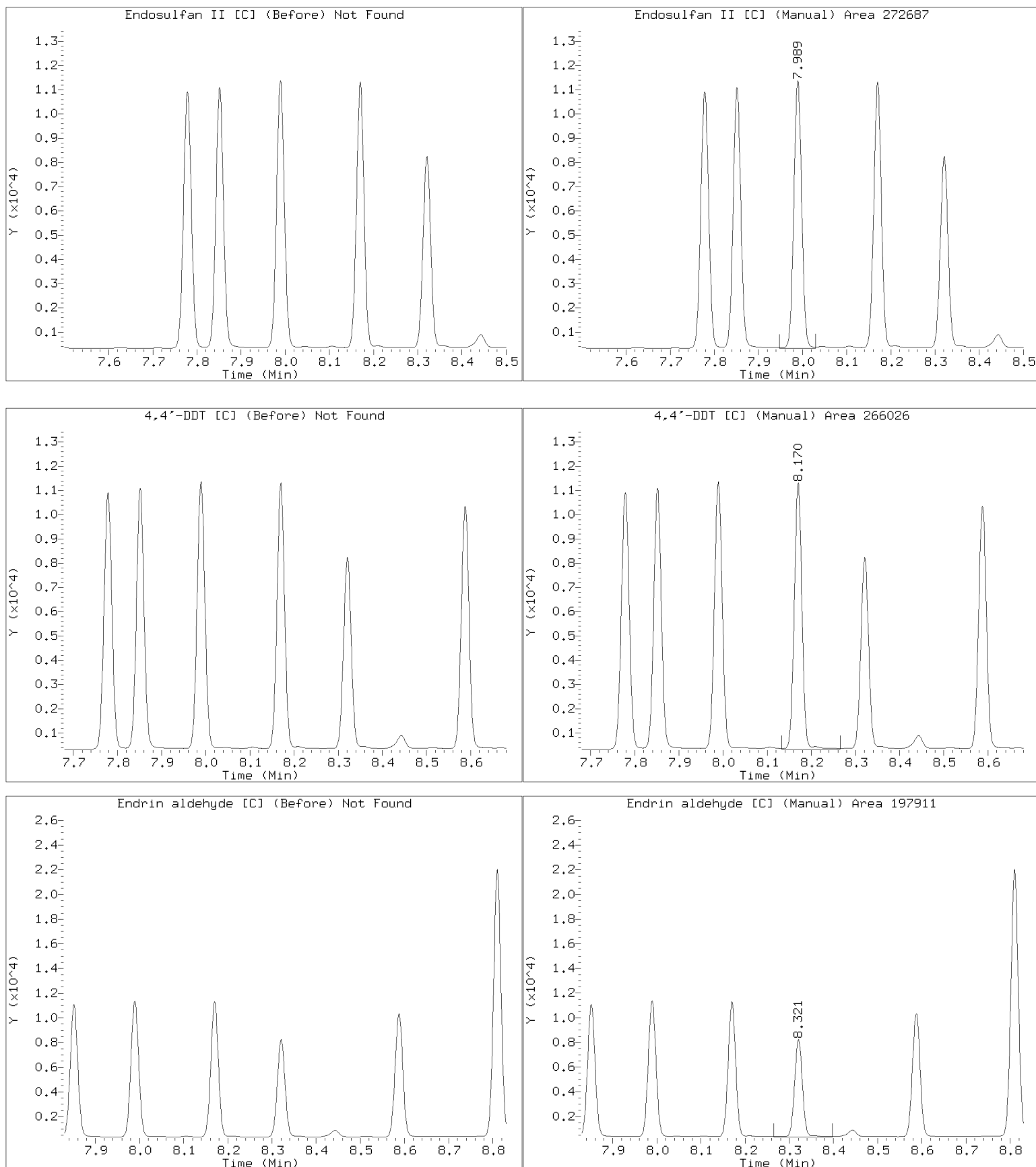


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050203.D

Injection Date: 02-MAY-2023 14:00

Lab ID:SLE0106-ICV1 Client ID:

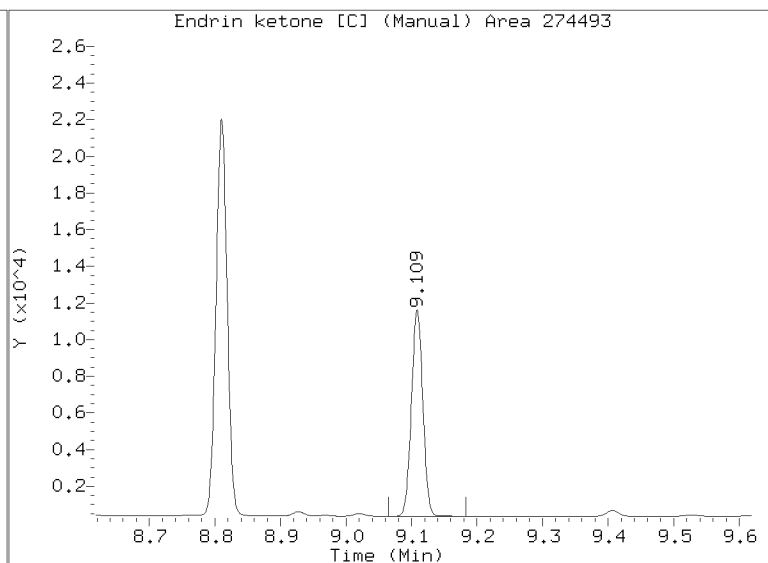
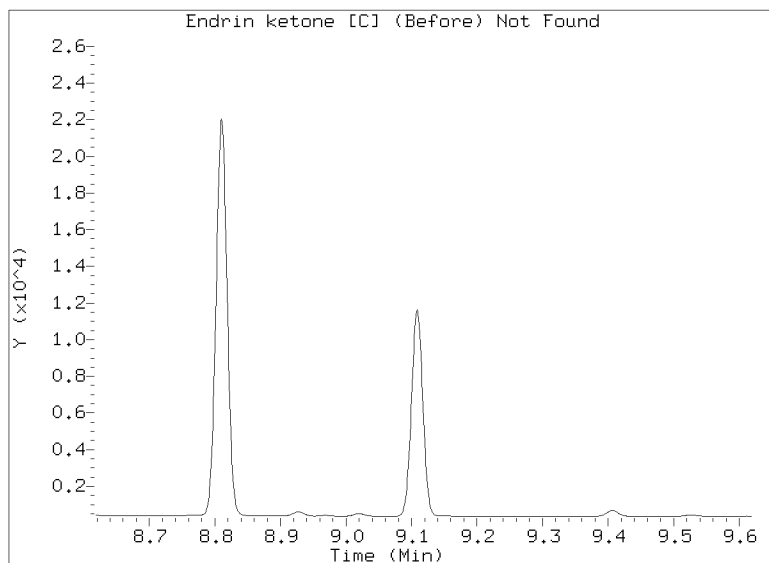
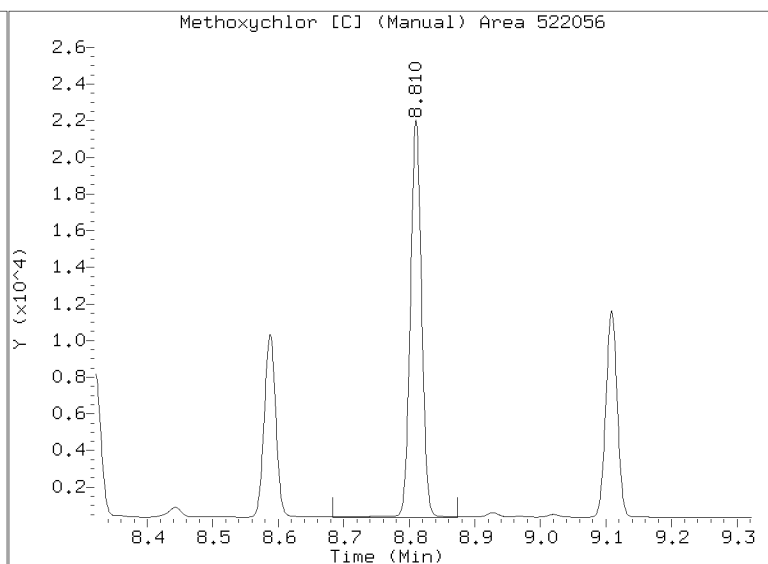
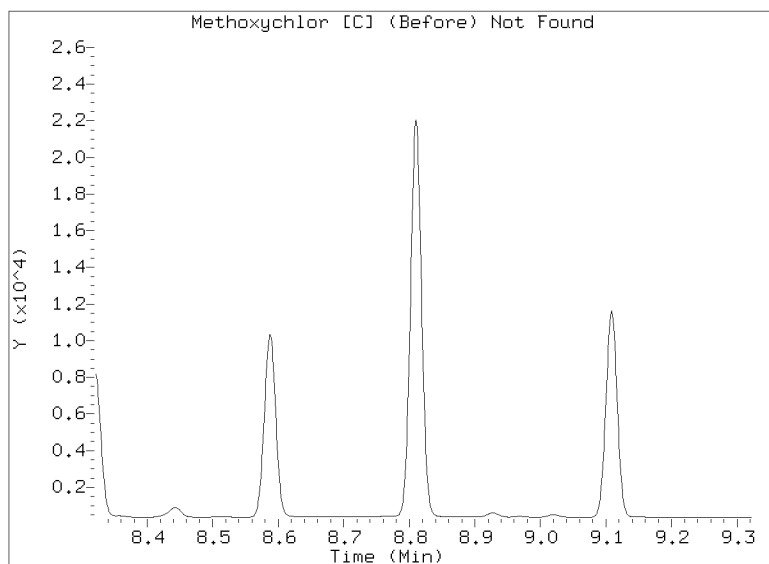
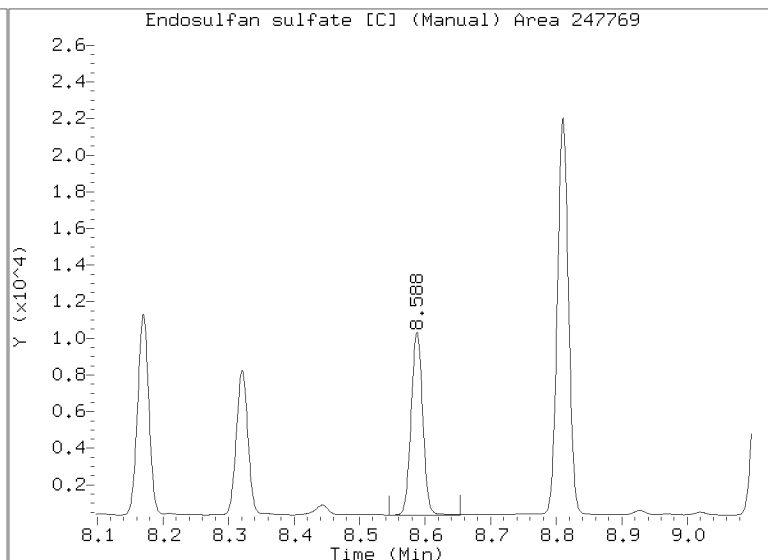
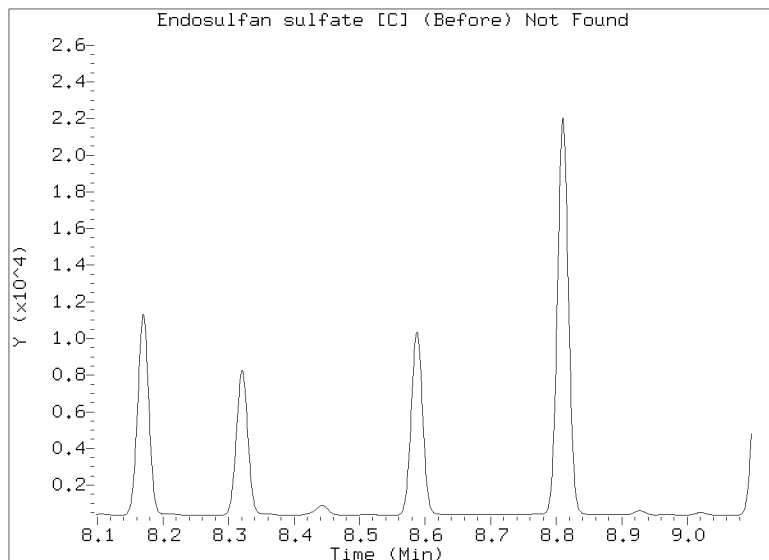


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050203.D

Injection Date: 02-MAY-2023 14:00

Lab ID:SLE0106-ICV1 Client ID:





CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD6</u>	Calibration:	<u>GD00035</u>
Lab File ID:	<u>23041235.D</u>	Calibration Date:	<u>04/12/2023</u>
Sequence:	<u>SLD0187</u>	Injection Date:	<u>04/13/23</u>
Lab Sample ID:	<u>SLD0187-CCV1</u>	Injection Time:	<u>01:04</u>
Sequence Name:	<u>INDA</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Hexachlorobenzene	A	20.000	17.7	1.5480310	1.3705910		-11.5	+/-20
Hexachlorobenzene [2C]	A	20.000	17.6	1.4821210	1.3041330		-12.0	+/-20
Decachlorobiphenyl	A	40.000	31.5	0.9435985	0.7437408		-21.2	+/-20 *
Decachlorobiphenyl [2C]	A	40.000	33.7	0.9656083	0.8132911		-15.8	+/-20
Tetrachlorometaxylene	A	40.000	35.5	1.1193850	0.9929160		-11.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	35.7	1.1000560	0.9804321		-10.9	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041235.D
Data file 2: /20230412.b/B20230412.b/23041235.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CCV1
Client ID:
Injection Date: 13-APR-2023 01:04
Report Date: 04/14/2023 08:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
4.333	0.000	208008	4.761	-0.001	287888	18.06	18.02	0.2	alpha-BHC
4.717	0.000	79862	5.229	-0.001	109669	17.36	17.28	0.5	beta-BHC
4.902	0.001	188433	5.576	-0.001	237187	18.07	16.67	8.0	delta-BHC
4.636	-0.001	182247	5.151	-0.001	252117	18.00	17.94	0.3	gamma-BHC (Lindane)
5.124	0.000	169287	5.670	-0.001	224742	18.07	18.24	0.9	Heptachlor
5.448	0.000	171419	6.070	-0.001	229274	17.99	17.93	0.3	Aldrin
6.124	-0.001	148660	6.728	-0.001	192857	17.28	17.13	0.9	Heptachlor epoxide b
6.566	-0.001	138285	7.171	-0.001	170414	18.03	17.76	1.5	Endosulfan I
6.827	-0.001	293527	7.465	-0.001	375070	36.17	35.67	1.4	Dieldrin
6.489	-0.000	275619	7.256	-0.001	359780	36.02	35.95	0.2	4,4'-DDE
7.078	-0.000	245317	7.788	-0.002	307967	32.47	32.73	0.8	Endrin
7.313	-0.001	244401	7.999	-0.002	305137	34.55	34.32	0.6	Endosulfan II
7.136	0.000	235703	7.861	-0.001	297615	34.76	34.60	0.5	4,4'-DDD
8.177	-0.000	226454	8.596	-0.002	280518	33.95	34.27	0.9	Endosulfan sulfate
7.430	-0.001	252702	8.179	-0.002	304879	34.60	35.13	1.5	4,4'-DDT
7.918	-0.002	503978	8.819	-0.003	618699	161.08	166.25	3.2	Methoxychlor
8.451	-0.001	257108	9.118	-0.001	308074	33.78	34.46	2.0	Endrin ketone
7.742	-0.001	185692	8.330	-0.001	219950	34.39	34.22	0.5	Endrin aldehyde
6.266	-0.000	150597	6.938	-0.001	190549	17.89	17.65	1.4	trans-Chlordane
6.413	-0.000	150637	7.099	-0.001	186807	17.83	17.57	1.4	cis-Chlordane
2.309	-0.000	206970	2.453	-0.000	178864	17.42	12.33	34.2	Hexachlorobutadiene
4.175	-0.000	180515	4.622	-0.000	245593	17.71	17.60	0.6	Hexachlorobenzene
3.820	0.001	261546	4.136	-0.000	369268	35.48	35.65	0.5	Tetrachloro-m-xylene
9.366	-0.000	162565	10.304	-0.002	190132	31.53	33.69	6.6	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

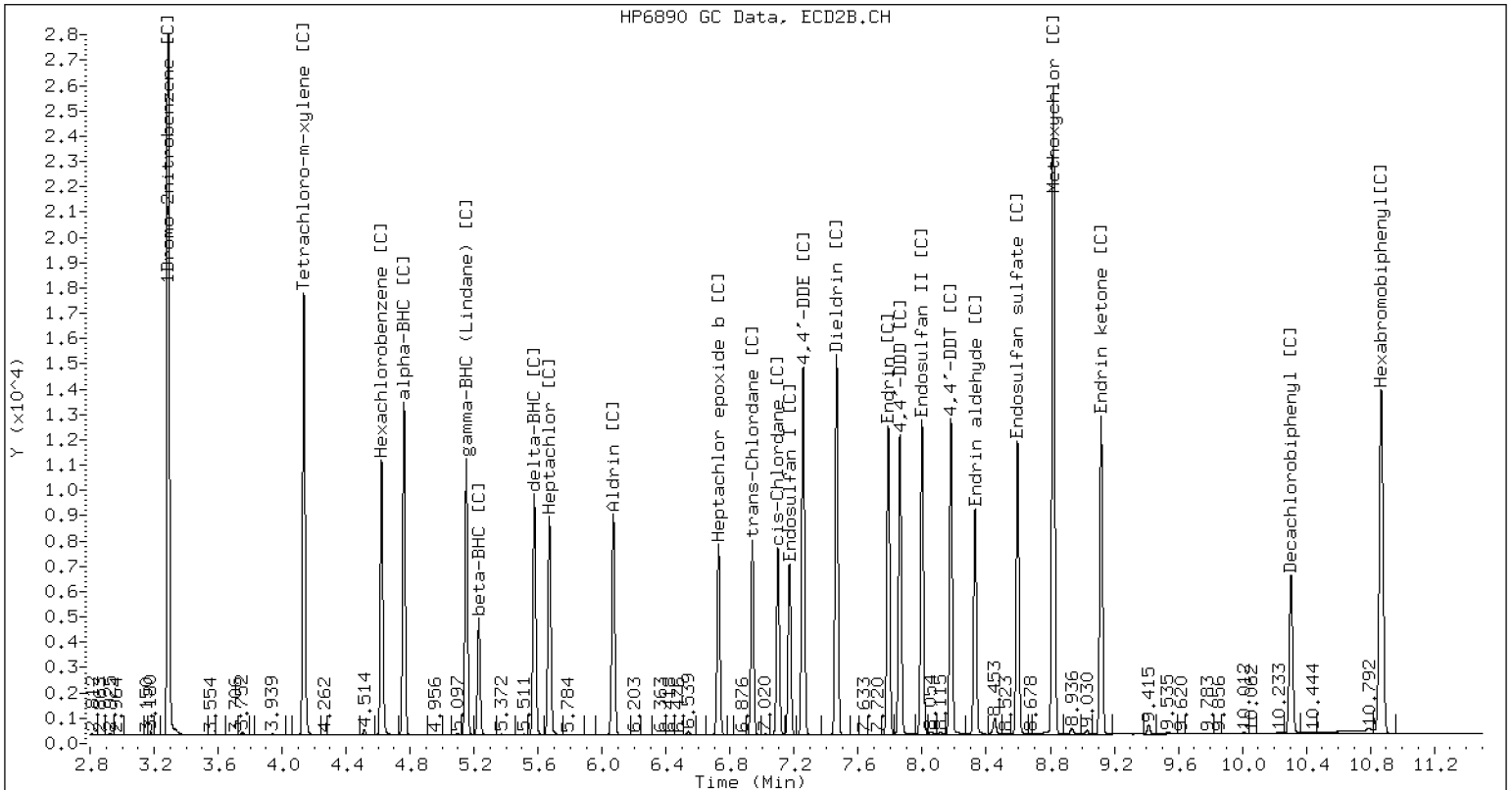
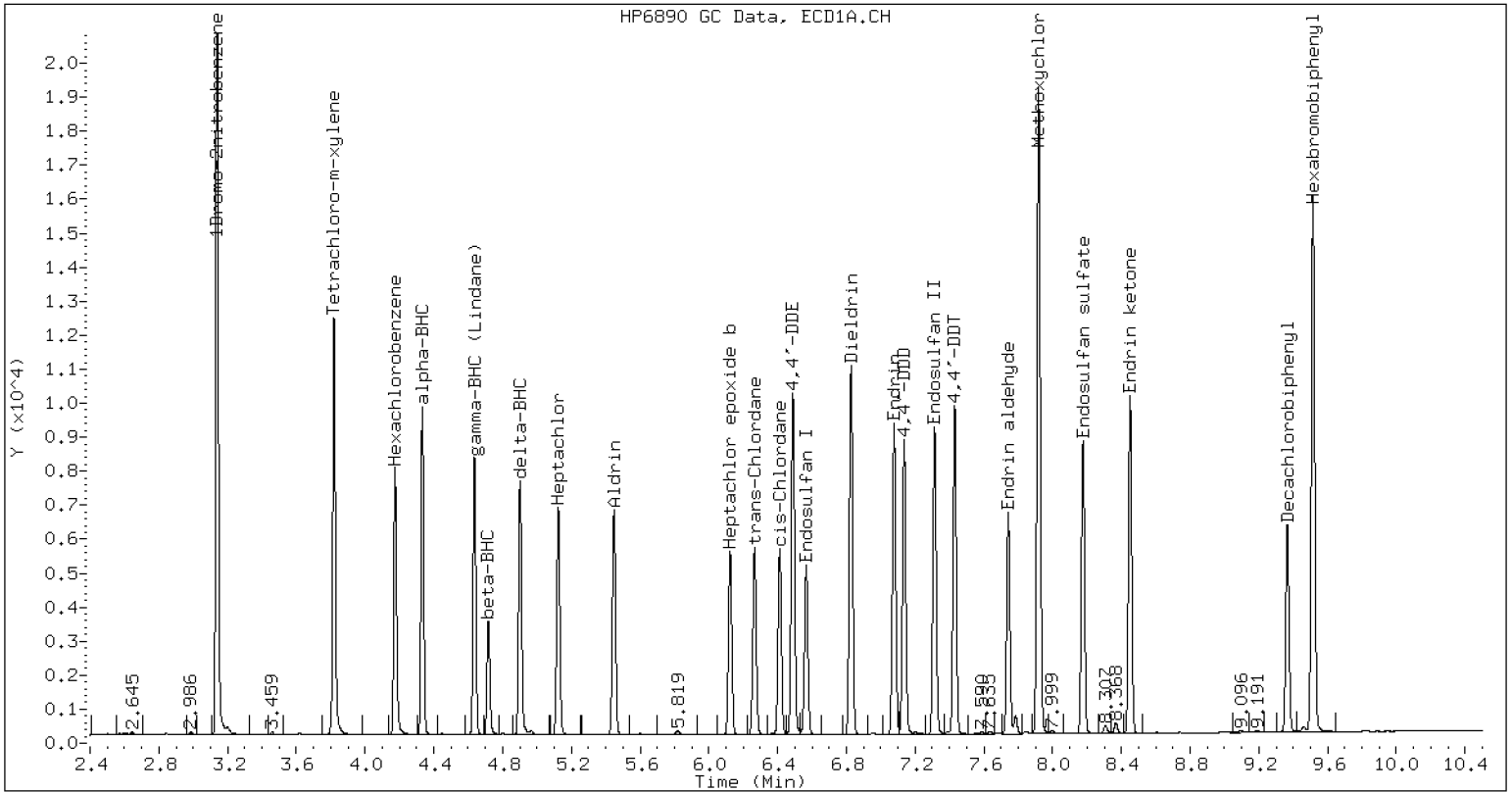
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	526824	-39.0
Hexabromobiphenyl	663237	437155	-34.1

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	753276	-49.1
Hexabromobiphenyl	870561	467562	-46.3

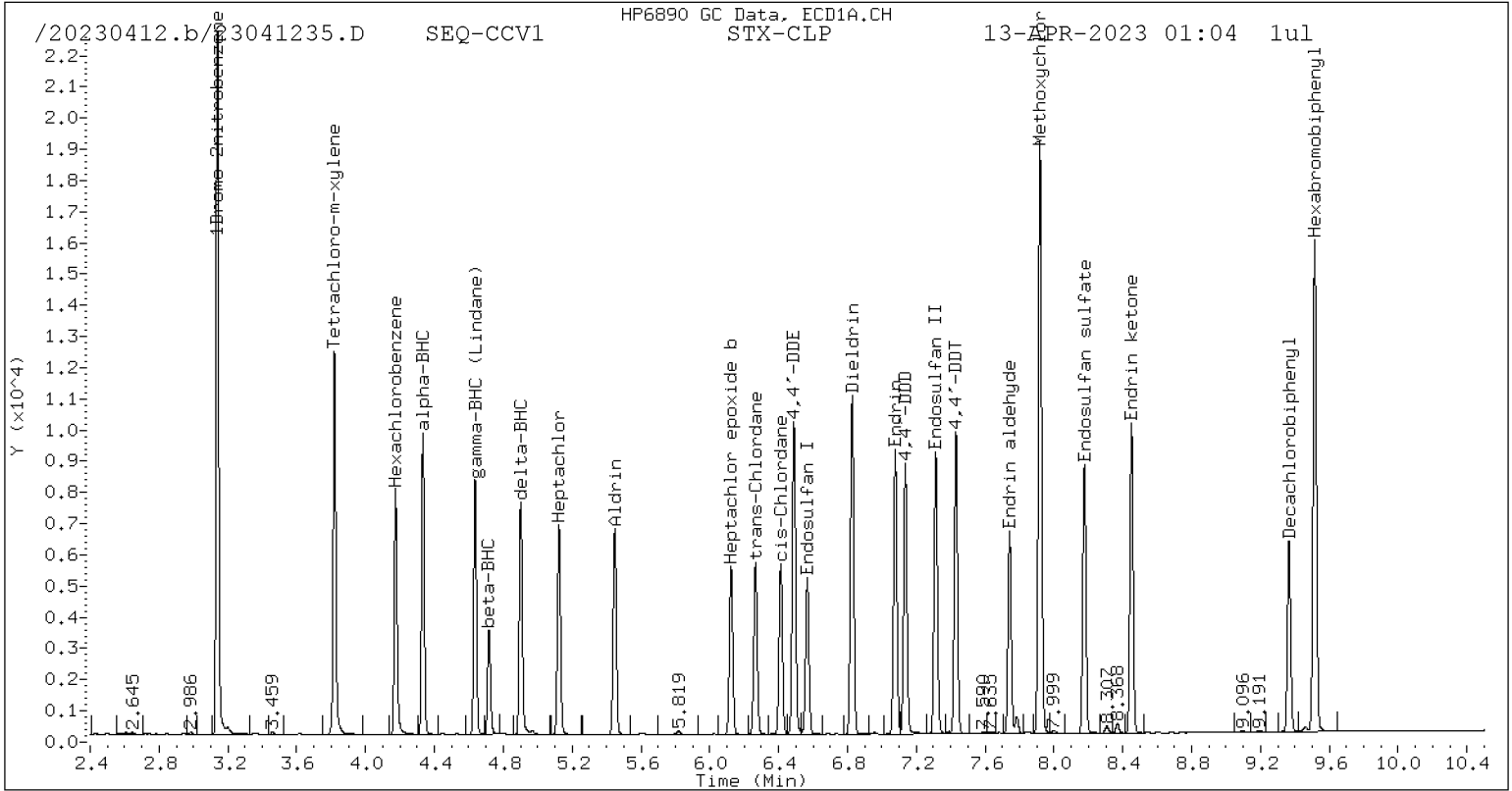
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

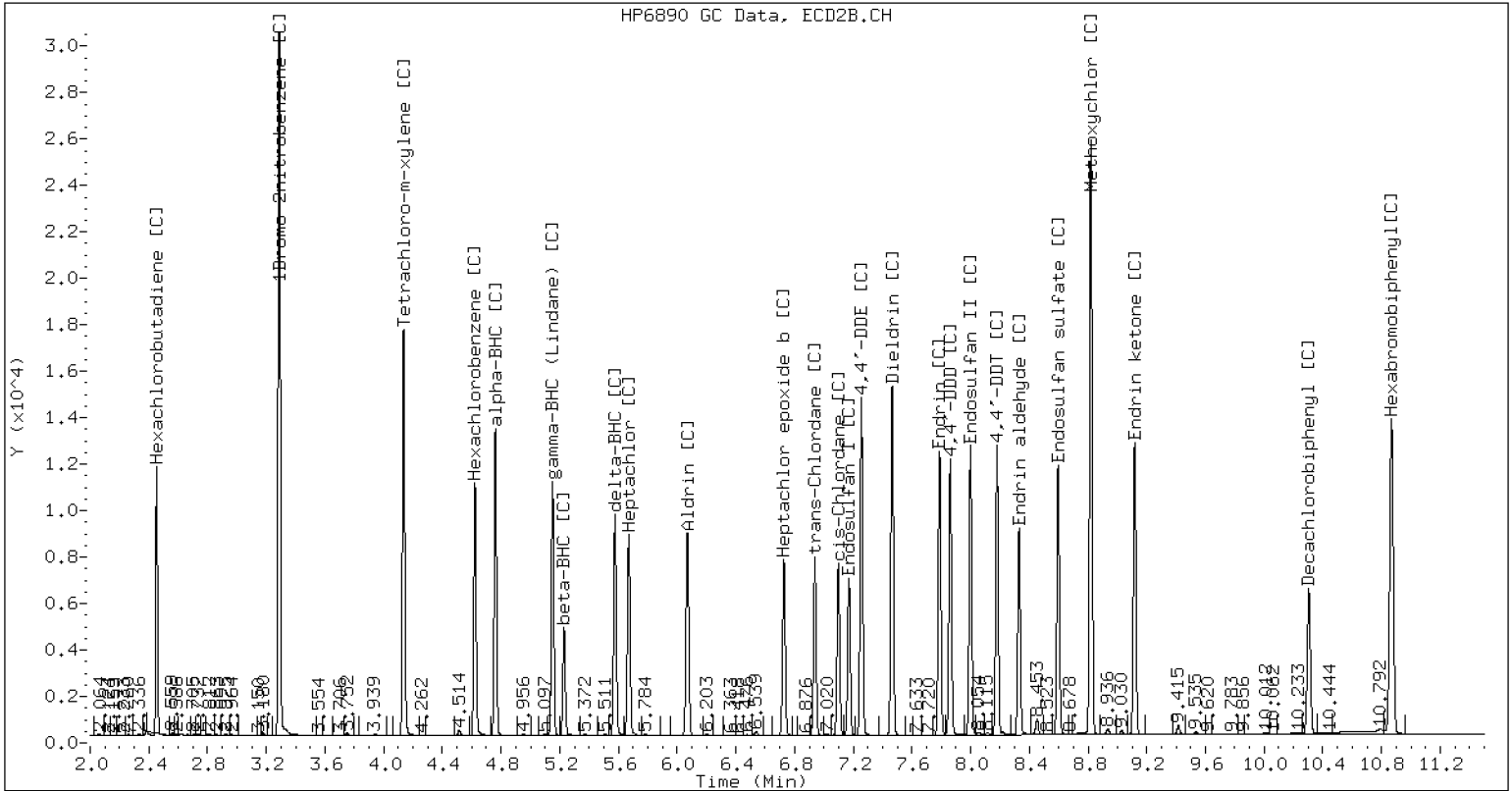


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041235.D SEQ-CCV1 CLP2



CLP-2 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD6

Calibration: GD00035

Lab File ID: 23050221.D

Calibration Date: 04/12/2023

Sequence: SLE0106

Injection Date: 05/02/23

Lab Sample ID: SLE0106-CCV1

Injection Time: 19:35

Sequence Name: INDA

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
alpha-BHC	A	20.000	18.7	1.7493120	1.6374360		-6.4	+/-20
alpha-BHC [2C]	A	20.000	18.5	1.6971320	1.5732490		-7.3	+/-20
beta-BHC	A	20.000	17.8	0.6985426	0.6210694		-11.1	+/-20
beta-BHC [2C]	A	20.000	17.7	0.6741427	0.5965688		-11.5	+/-20
gamma-BHC (Lindane)	A	20.000	18.6	1.5372540	1.4304800		-6.9	+/-20
gamma-BHC (Lindane) [2C]	A	20.000	18.6	1.4921000	1.3883390		-7.0	+/-20
delta-BHC	A	20.000	18.4	1.5838220	1.4558120		-8.1	+/-20
delta-BHC [2C]	A	20.000	18.1	1.5107810	1.3641380		-9.7	+/-20
Heptachlor	A	20.000	18.2	1.4227670	1.2927420		-9.1	+/-20
Heptachlor [2C]	A	20.000	18.5	1.3085210	1.2104570		-7.5	+/-20
Aldrin	A	20.000	18.2	1.4471840	1.3172100		-9.0	+/-20
Aldrin [2C]	A	20.000	18.2	1.3583320	1.2377240		-8.9	+/-20
Heptachlor Epoxide	A	20.000	16.7	1.3062650	1.0920230		-16.4	+/-20
Heptachlor Epoxide [2C]	A	20.000	16.6	1.1956940	0.9899554		-17.2	+/-20
trans-Chlordane (beta-Chlordane)	A	20.000	17.7	1.2781630	1.1312860		-11.5	+/-20
trans-Chlordane (beta-Chlordane) [2C]	A	20.000	17.2	1.1465120	0.9858511		-14.0	+/-20
cis-Chlordane (alpha-chlordane)	A	20.000	17.4	1.2830810	1.1163020		-13.0	+/-20
cis-Chlordane (alpha-chlordane) [2C]	A	20.000	16.8	1.1290160	0.9465719		-16.2	+/-20
Endosulfan I	A	20.000	17.3	1.1644720	1.0064600		-13.6	+/-20
Endosulfan I [2C]	A	20.000	16.6	1.0187800	0.8481224		-16.8	+/-20
4,4'-DDE	A	40.000	35.8	1.1619370	1.0385900		-10.6	+/-20
4,4'-DDE [2C]	A	40.000	33.2	1.0629340	0.8828142		-16.9	+/-20
Dieldrin	A	40.000	34.5	1.2323180	1.0619980		-13.8	+/-20
Dieldrin [2C]	A	40.000	31.8	1.1166600	0.8888187		-20.4	+/-20 *
Endrin	A	40.000	37.7	1.3825400	1.3017190		-5.8	+/-20
Endrin [2C]	A	40.000	33.4	1.6101570	1.3438670		-16.5	+/-20
Endosulfan II	A	40.000	37.8	1.2946390	1.2247560		-5.4	+/-20
Endosulfan II [2C]	A	40.000	34.8	1.5210760	1.3237810		-13.0	+/-20
4,4'-DDD	A	40.000	39.7	1.2408670	1.2311980		-0.8	+/-20
4,4'-DDD [2C]	A	40.000	35.2	1.4718860	1.2964970		-11.9	+/-20
Endrin Aldehyde	A	40.000	36.5	0.9880472	0.9005362		-8.9	+/-20
Endrin Aldehyde [2C]	A	40.000	34.2	1.0998080	0.9409909		-14.4	+/-20
4,4'-DDT	A	40.000	38.8	1.3364530	1.2951250		-3.1	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230502.b/23050221.D
Data file 2: /20230502.b/B20230502.b/23050221.D
Method: \20230502.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SLE0106-CCV1
Client ID:
Injection Date: 02-MAY-2023 19:35
Report Date: 05/05/2023 15:04
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.325	-0.008	494366	4.751	-0.011	496778	18.72	18.54	1.0	alpha-BHC
4.709	-0.008	187510	5.219	-0.011	188376	17.78	17.70	0.5	beta-BHC
4.893	-0.008	439531	5.566	-0.011	430748	18.38	18.06	1.8	delta-BHC
4.628	-0.009	431883	5.141	-0.011	438390	18.61	18.61	0.0	gamma-BHC (Lindane)
5.116	-0.008	390298	5.660	-0.011	382221	18.17	18.50	1.8	Heptachlor
5.440	-0.008	397685	6.059	-0.012	390831	18.20	18.22	0.1	Aldrin
6.116	-0.009	329698	6.717	-0.012	312594	16.72	16.56	1.0	Heptachlor epoxide b
6.558	-0.009	303865	7.162	-0.010	267808	17.29	16.65	3.8	Endosulfan I
6.819	-0.009	641266	7.455	-0.011	561317	34.47	31.84	7.9	Dieldrin
6.481	-0.008	627131	7.246	-0.011	557525	35.75	33.22	7.3	4,4'-DDE
7.069	-0.009	533624	7.779	-0.011	440584	37.66	33.38	12.0	Endrin
7.305	-0.009	502074	7.990	-0.011	433999	37.84	34.81	8.3	Endosulfan II
7.128	-0.008	504715	7.852	-0.010	425054	39.69	35.23	11.9	4,4'-DDD
8.168	-0.009	449520	8.588	-0.010	400899	35.94	34.92	2.9	Endosulfan sulfate
7.422	-0.009	530921	8.171	-0.010	438072	38.76	35.99	7.4	4,4'-DDT
7.911	-0.009	1080867	8.812	-0.011	899534	184.20	172.36	6.6	Methoxychlor
8.443	-0.009	502696	9.109	-0.010	423138	35.22	33.75	4.2	Endrin ketone
7.733	-0.010	369164	8.321	-0.010	308502	36.46	34.22	6.3	Endrin aldehyde
6.258	-0.008	341552	6.928	-0.011	311298	17.70	17.20	2.9	trans-Chlordane
6.404	-0.009	337028	7.089	-0.011	298895	17.40	16.77	3.7	cis-Chlordane
2.304	-0.005	486268	2.447	-0.006	398330	17.85	16.37	8.6	Hexachlorobutadiene
4.167	-0.008	400915	4.613	-0.009	412726	17.16	17.64	2.8	Hexachlorobenzene
3.812	-0.007	601097	4.127	-0.009	620467	35.57	35.72	0.4	Tetrachloro-m-xylene
9.358	-0.008	300161	10.295	-0.011	254821	31.04	32.20	3.7	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

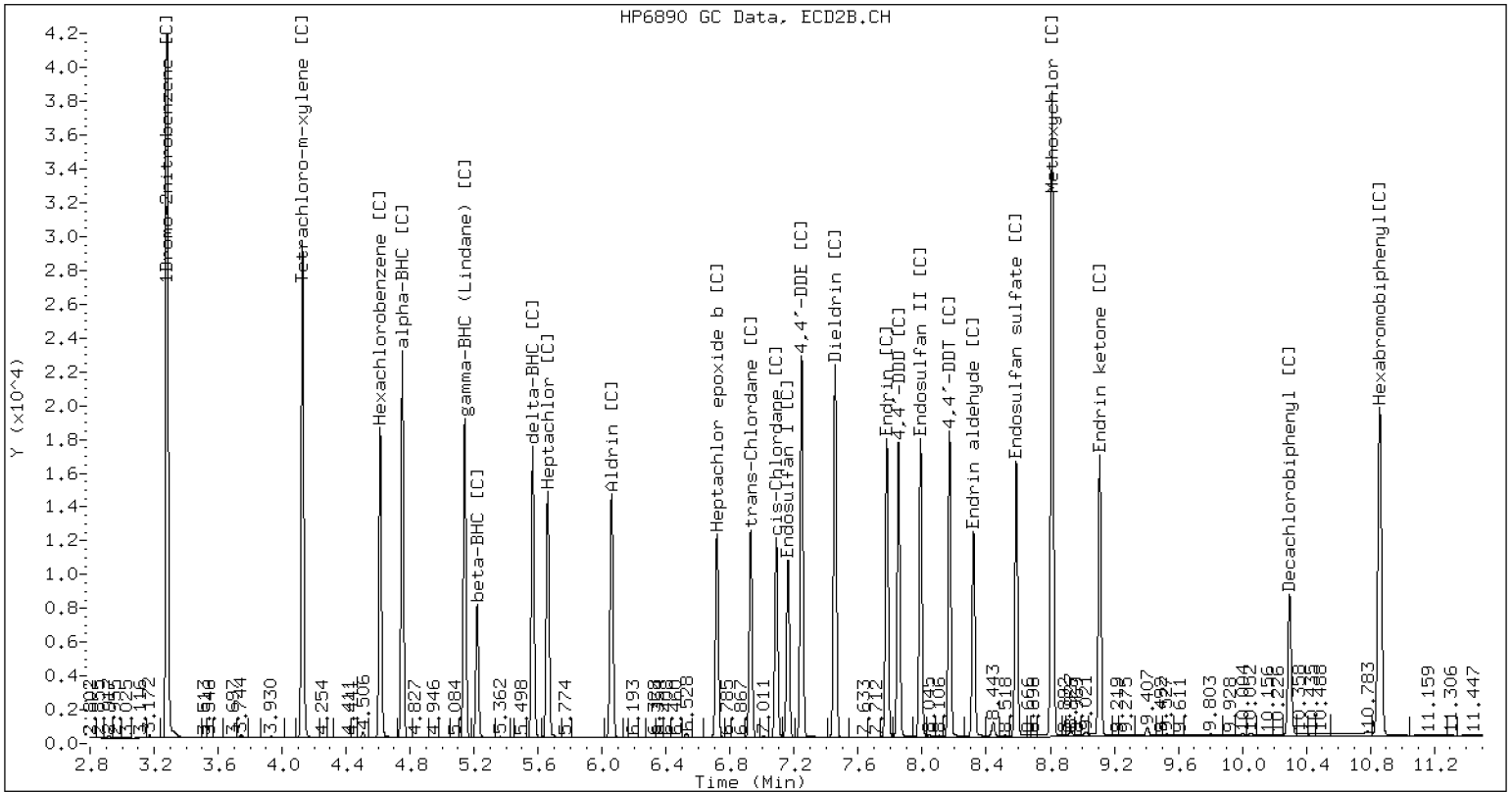
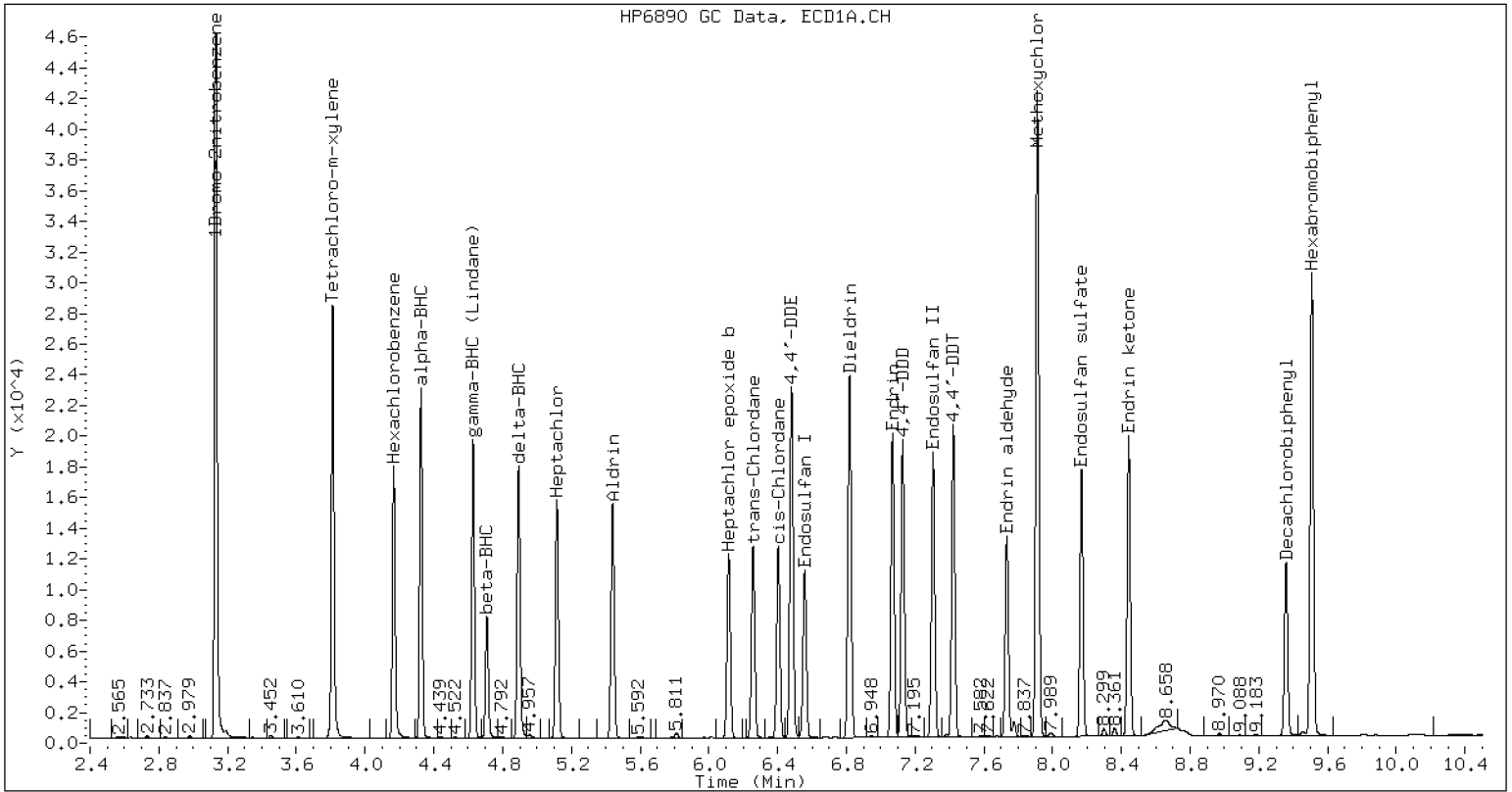
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	1207659	29.5
Hexabromobiphenyl	745426	819876	10.0

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	1263063	1.2
Hexabromobiphenyl	754634	655696	-13.1

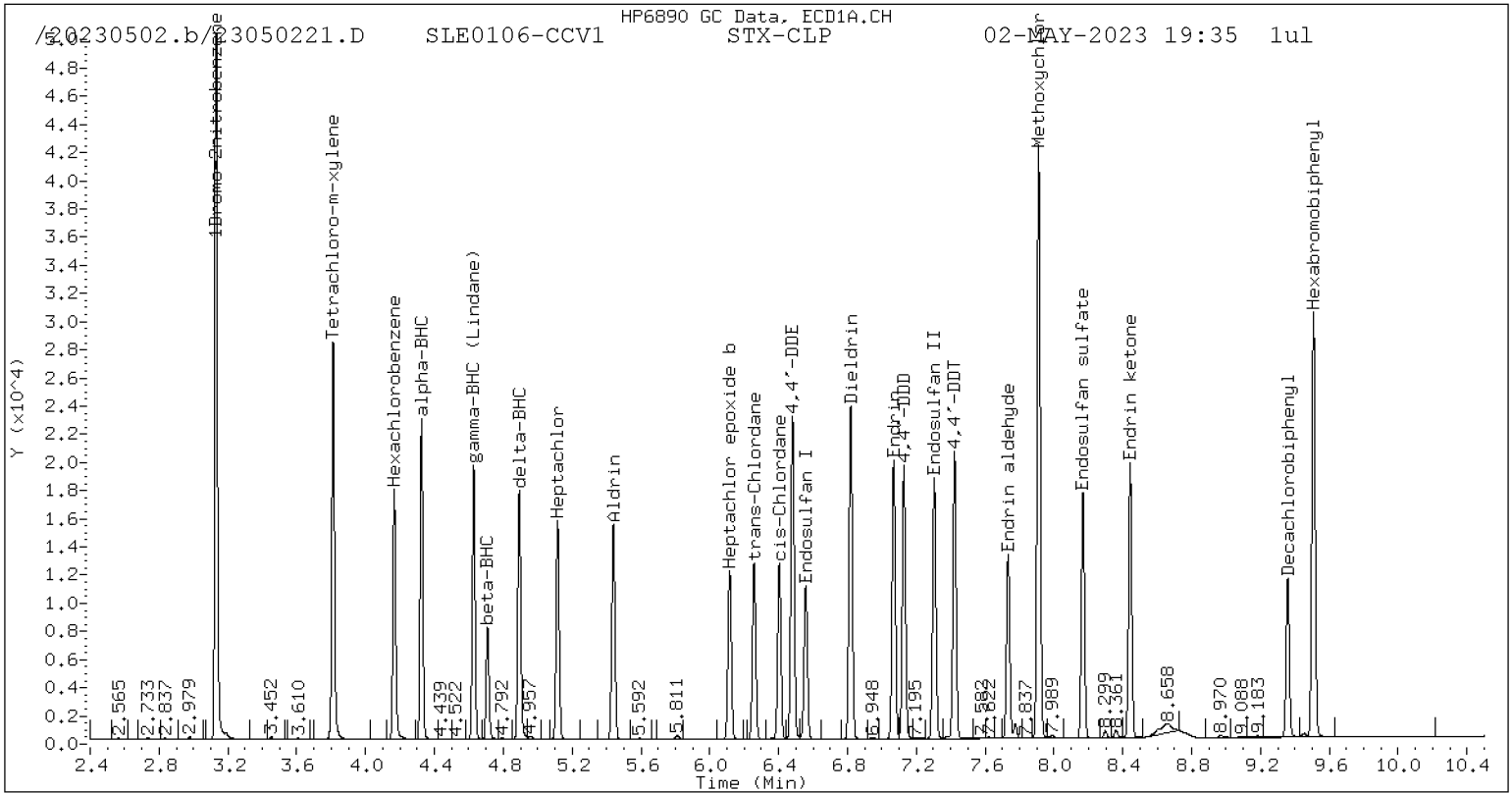
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

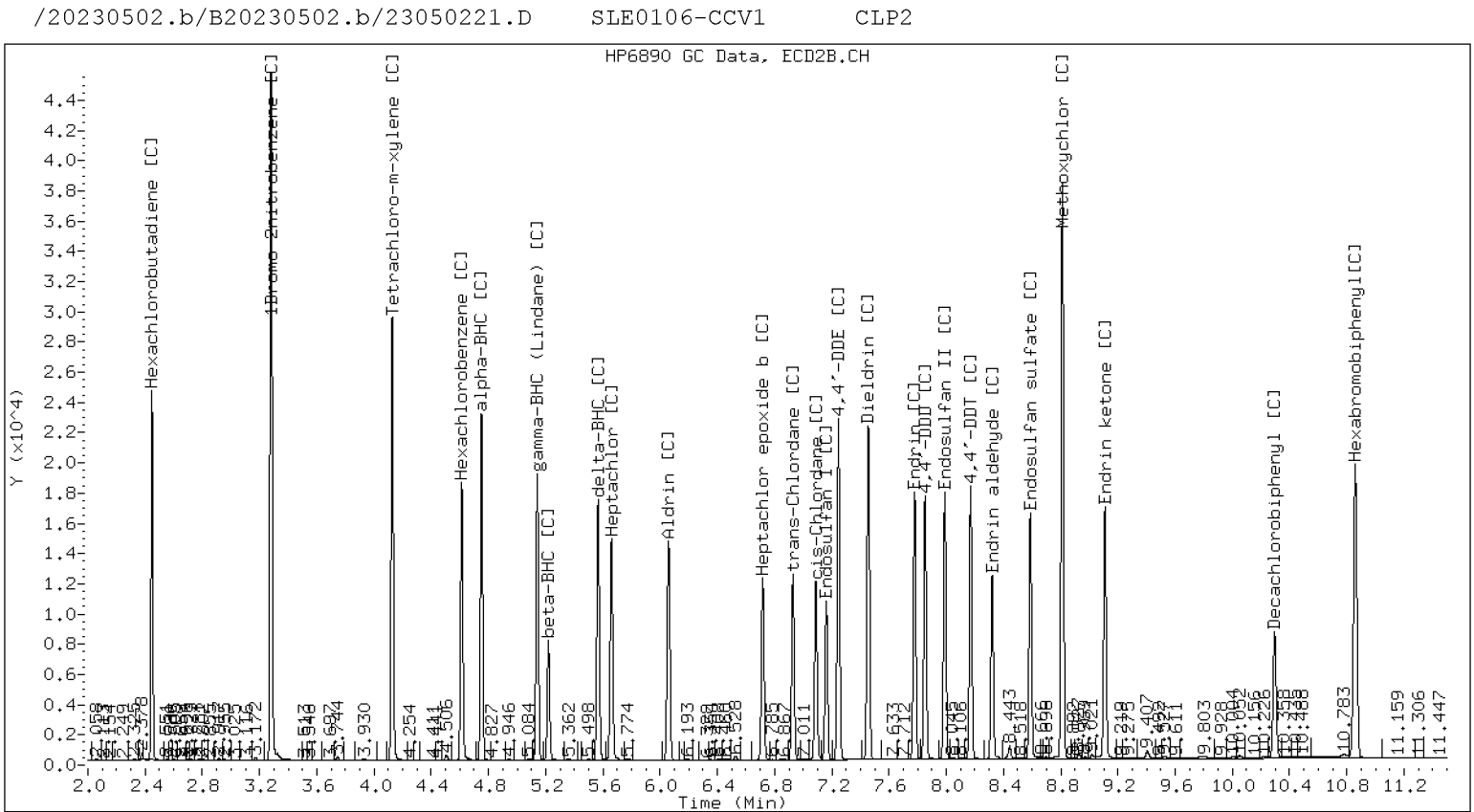
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO



PERFORMANCE EVALUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, LLC

Laboratory ID: SLE0106-PEM1

File ID: 23050202.D

Client: Anchor QEA, LLC

Matrix: Water

Instrument: ECD6

Project: AOC5 MR Phase 1

Analyzed: 05/02/2023

Sequence: SLE0106

SDG: 23D0136

Calibration: GD00035

Column: 1

PEM COMPOUND	RT	Response
4,4'-DDE	6.48	5647
Endrin	7.07	609412
4,4'-DDD	7.13	7121
Endrin Aldehyde	7.74	34081
4,4'-DDT	7.42	643246
Endrin Ketone	8.44	39601

4,4'-DDT %Breakdown (1): 1.9

Endrin %Breakdown (1): 10.8



PERFORMANCE EVALUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, LLC

Laboratory ID: SLE0106-PEM1

File ID: 23050202.D

Client: Anchor QEA, LLC

Matrix: Water

Instrument: ECD6

Project: AOC5 MR Phase 1

Analyzed: 05/02/2023

Sequence: SLE0106

SDG: 23D0136

Calibration: GD00035

Column: 2

PEM COMPOUND	RT	Response
4,4'-DDE	7.25	6110
Endrin	7.78	618580
4,4'-DDD	7.85	15708
Endrin Aldehyde	8.32	27938
4,4'-DDT	8.17	617027
Endrin Ketone	9.11	32518

4,4'-DDT %Breakdown (1): 3.4

Endrin %Breakdown (1): 8.9

7E
8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SLE0106-PEM1

InstID,Data File: ecd6.i, 23050202.D

Analysis Date: 02-MAY-2023 13:42

Init. Calib. Date: 12-APR-2023

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene	3.133	597294
4,4'-DDE	6.485	5647
Endrin	7.071	609412
4,4'-DDD	7.131	7121
4,4'-DDT	7.424	643246
Endrin ketone	8.444	39601
Endrin aldehyde	7.736	34081
Hexabromobiphenyl	9.509	490924
Tetrachloro-m-xylene	3.814	304900
Decachlorobiphenyl	9.359	182157

DDT Percent Breakdown = 1.9 %
 $((5647+7121) * 100)/(5647+7121+643246)$

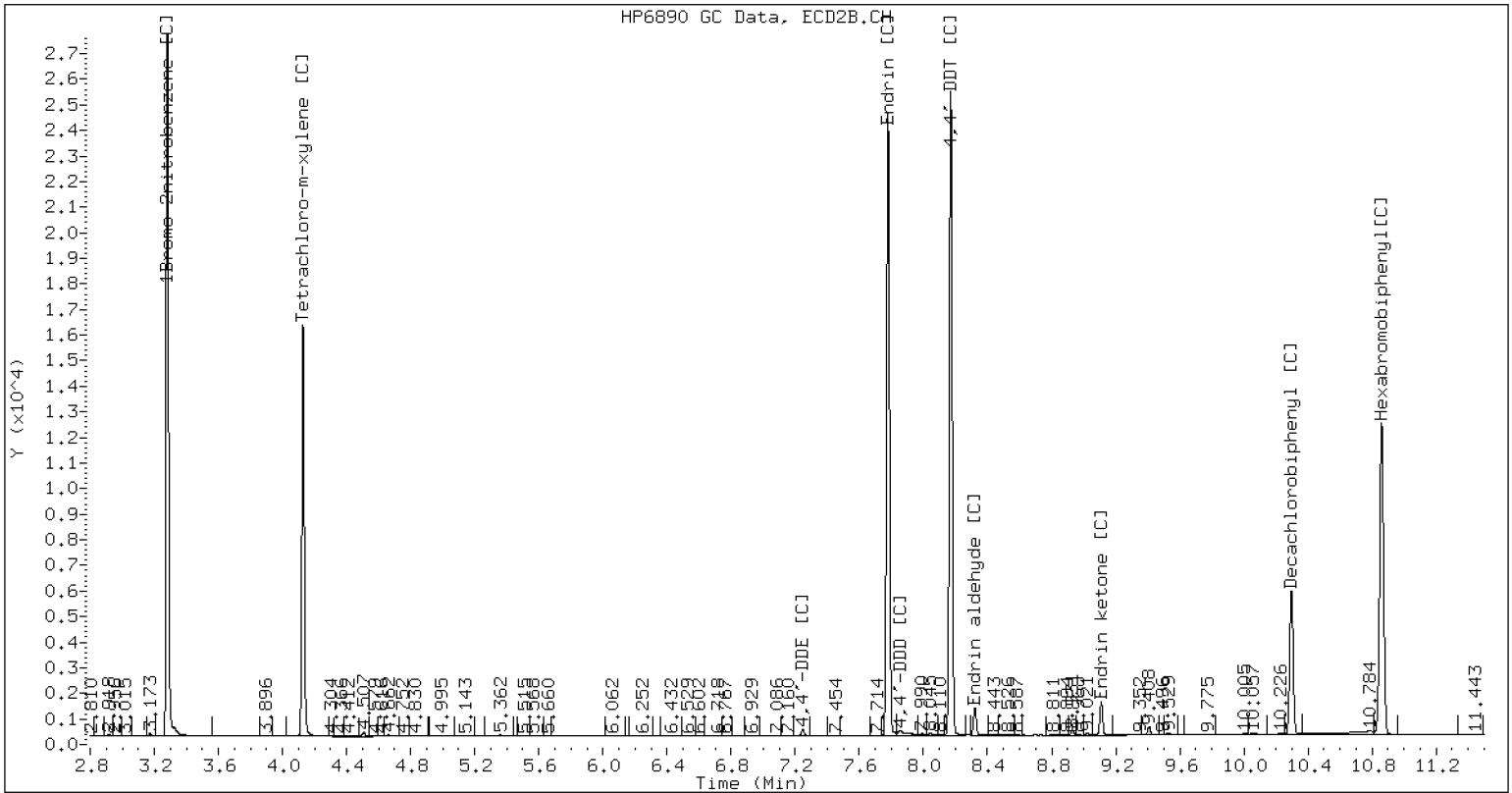
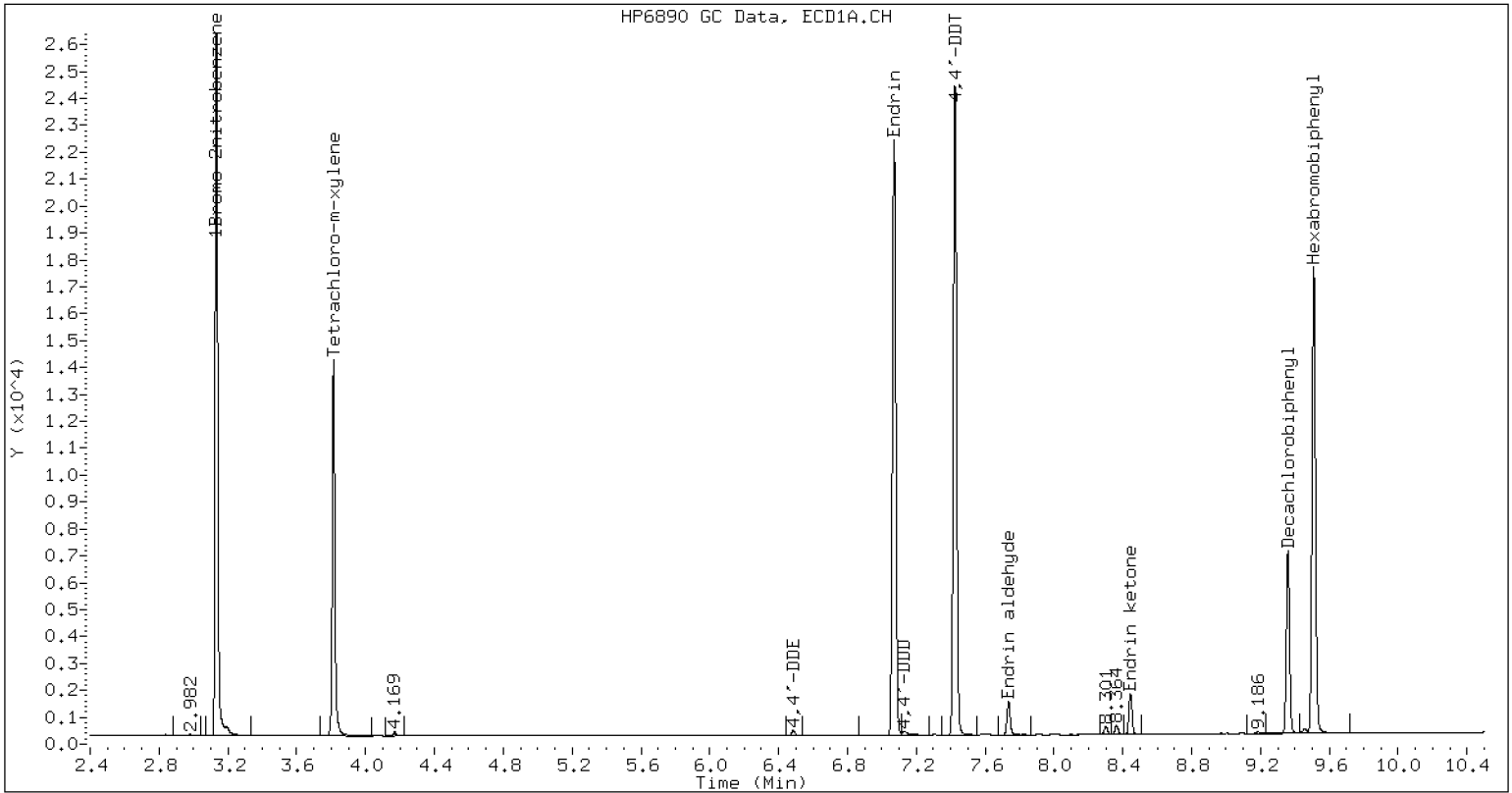
Endrin Percent Breakdown = 10.8 %
 $((34081+39601) * 100)/(34081+39601+609412)$

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene [C]	3.281	675241
4,4'-DDE [C]	7.246	6110
Endrin [C]	7.779	618580
4,4'-DDD [C]	7.852	15708
4,4'-DDT [C]	8.171	617027
Endrin ketone [C]	9.110	32518
Endrin aldehyde [C]	8.321	27938
Hexabromobiphenyl [C]	10.860	416374
Tetrachloro-m-xylene [C]	4.128	339380
Decachlorobiphenyl [C]	10.297	172946

DDT Percent Breakdown = 3.4 %
 $((6110+15708) * 100)/(6110+15708+617027)$

Endrin Percent Breakdown = 8.9 %
 $((27938+32518) * 100)/(27938+32518+618580)$





PERFORMANCE EVALUATION DATA SHEET

DS2

EPA 8081B

Laboratory: Analytical Resources, LLC

Laboratory ID: SLE0106-PEM2

File ID: 23050220.D

Client: Anchor QEA, LLC

Matrix: Water

Instrument: ECD6

Project: AOC5 MR Phase 1

Analyzed: 05/02/2023

Sequence: SLE0106

SDG: 23D0136

Calibration: GD00035

Column: 1

PEM COMPOUND	RT	Response
4,4'-DDE	6.48	9965
Endrin	7.07	573954
4,4'-DDD	7.13	10951
Endrin Aldehyde	7.73	23833
4,4'-DDT	7.42	551555
Endrin Ketone	8.44	29512

4,4'-DDT %Breakdown (1): 3.7

Endrin %Breakdown (1): 8.5



PERFORMANCE EVALUATION DATA SHEET

DS2

EPA 8081B

Laboratory: Analytical Resources, LLC

Laboratory ID: SLE0106-PEM2

File ID: 23050220.D

Client: Anchor QEA, LLC

Matrix: Water

Instrument: ECD6

Project: AOC5 MR Phase 1

Analyzed: 05/02/2023

Sequence: SLE0106

SDG: 23D0136

Calibration: GD00035

Column: 2

PEM COMPOUND	RT	Response
4,4'-DDE	7.25	10781
Endrin	7.78	480478
4,4'-DDD	7.85	20281
Endrin Aldehyde	8.32	15773
4,4'-DDT	8.17	467277
Endrin Ketone	9.11	20035

4,4'-DDT %Breakdown (1): 6.2

Endrin %Breakdown (1): 6.9

7E
8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SLE0106-PEM2

InstID,Data File: ecd6.i, 23050220.D

Analysis Date: 02-MAY-2023 19:16

Init. Calib. Date: 12-APR-2023

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene	3.133	617069
4,4'-DDE	6.482	9965
Endrin	7.069	573954
4,4'-DDD	7.129	10951
4,4'-DDT	7.423	551555
Endrin ketone	8.443	29512
Endrin aldehyde	7.735	23833
Hexabromobiphenyl	9.509	402314
Tetrachloro-m-xylene	3.813	299220
Decachlorobiphenyl	9.359	149088

DDT Percent Breakdown = 3.7 %
 $((9965+10951) * 100)/(9965+10951+551555)$

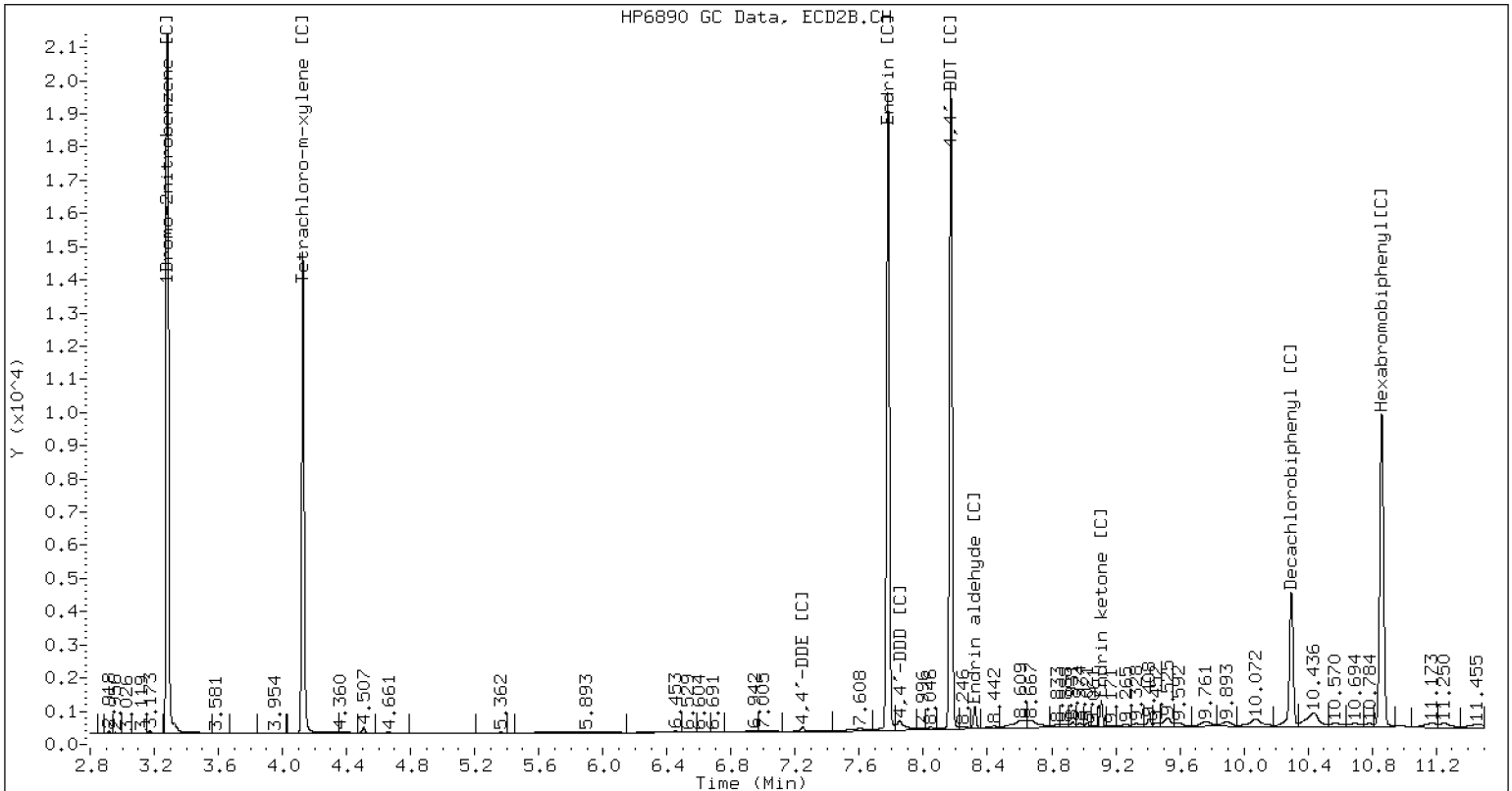
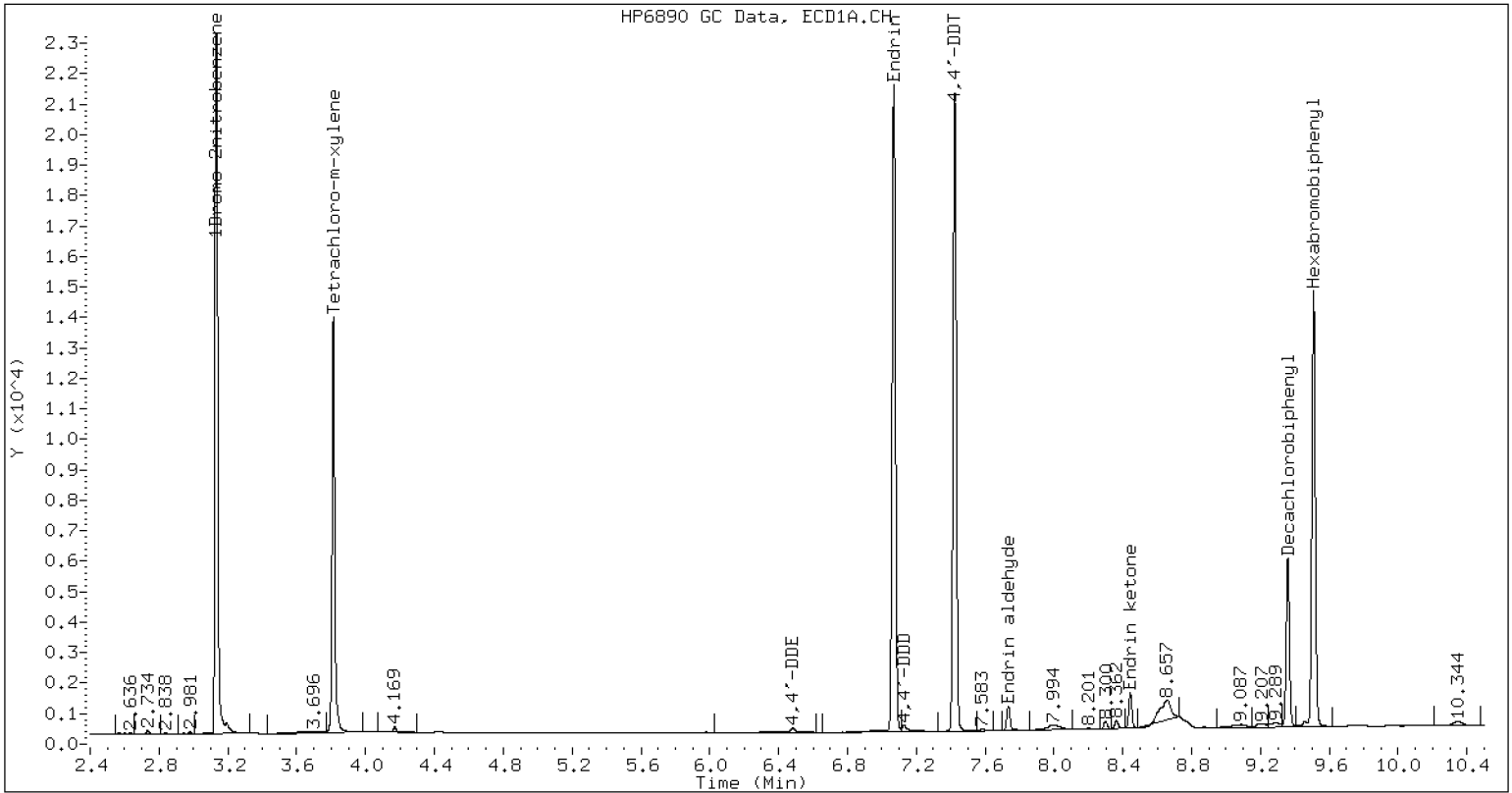
Endrin Percent Breakdown = 8.5 %
 $((23833+29512) * 100)/(23833+29512+573954)$

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene [C]	3.281	620110
4,4'-DDE [C]	7.246	10781
Endrin [C]	7.779	480478
4,4'-DDD [C]	7.852	20281
4,4'-DDT [C]	8.172	467277
Endrin ketone [C]	9.110	20035
Endrin aldehyde [C]	8.322	15773
Hexabromobiphenyl [C]	10.861	324379
Tetrachloro-m-xylene [C]	4.128	312277
Decachlorobiphenyl [C]	10.297	138786

DDT Percent Breakdown = 6.2 %
 $((10781+20281) * 100)/(10781+20281+467277)$

Endrin Percent Breakdown = 6.9 %
 $((15773+20035) * 100)/(15773+20035+480478)$

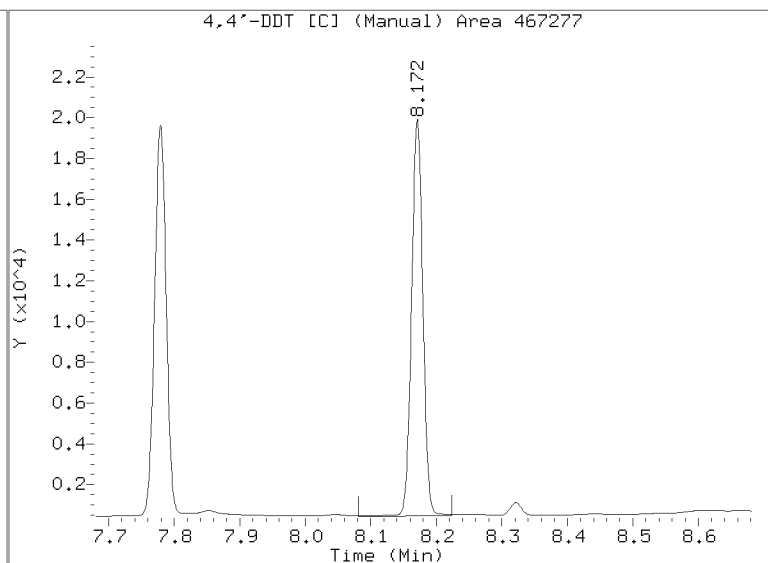
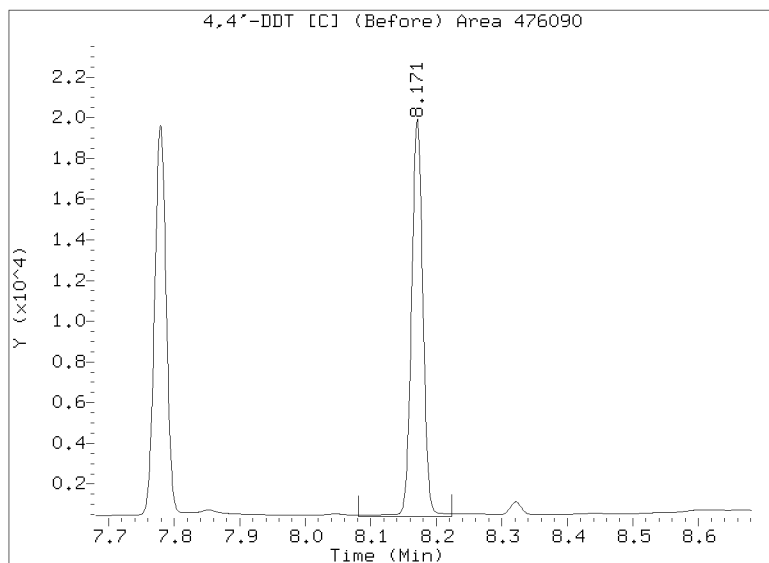
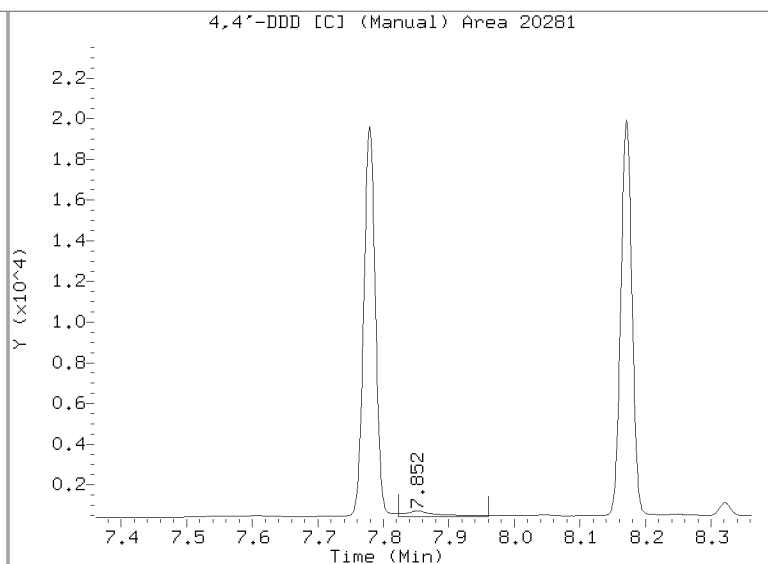
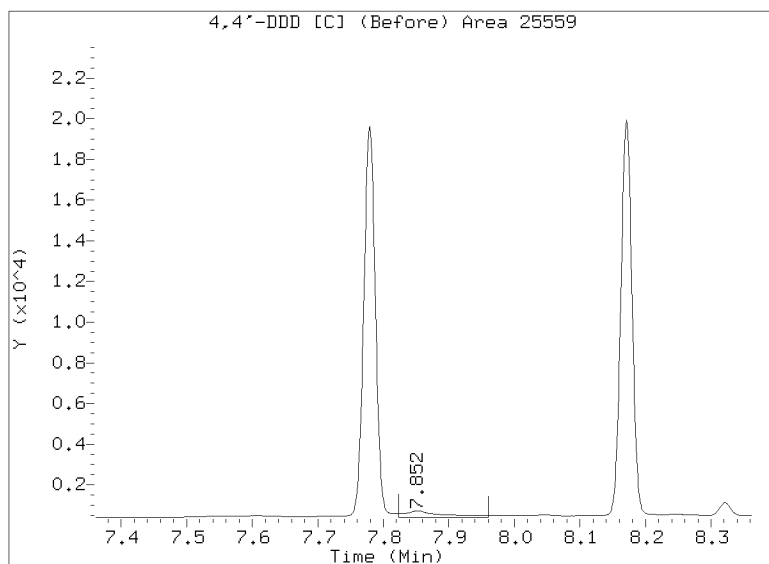
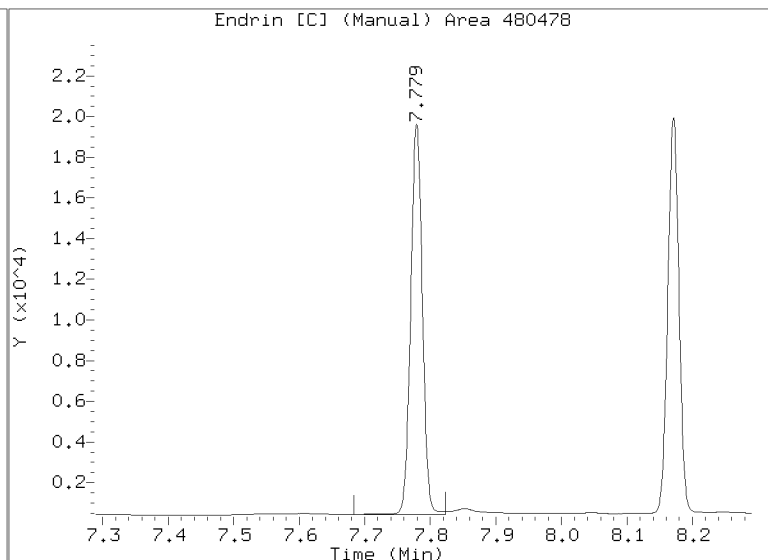
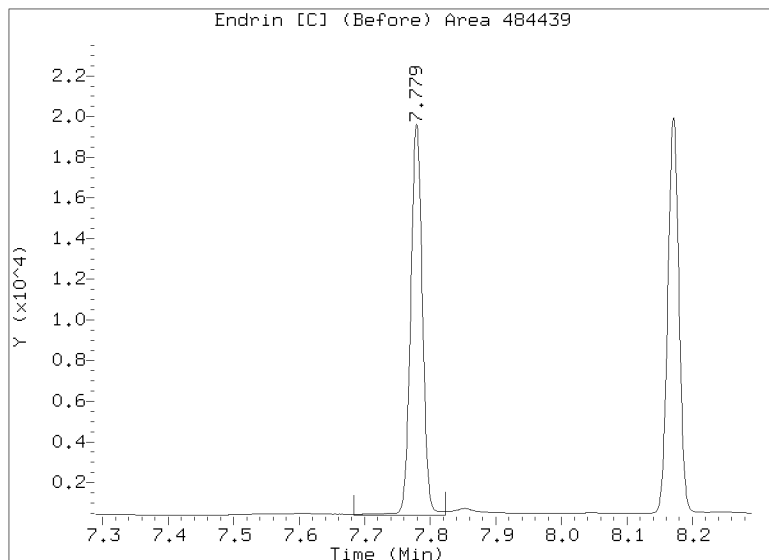


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050220.D

Injection Date: 02-MAY-2023 19:16

Lab ID: SLE0106-PEM2 Client ID:

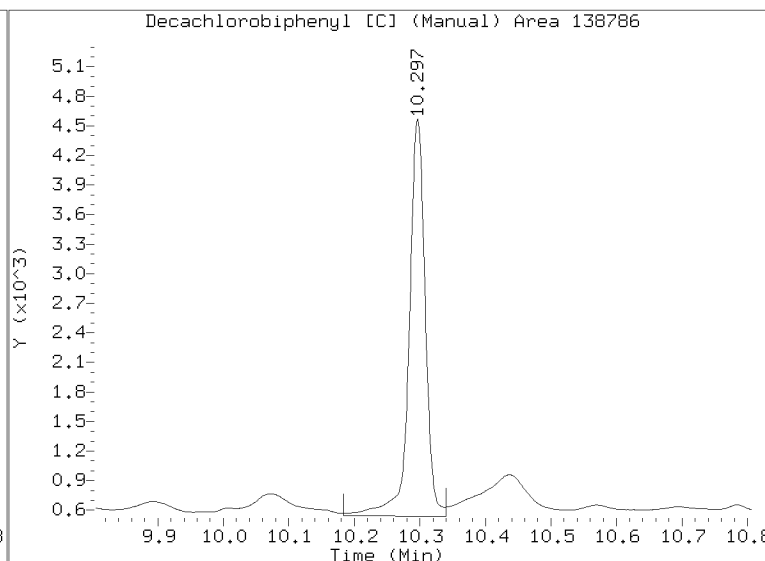
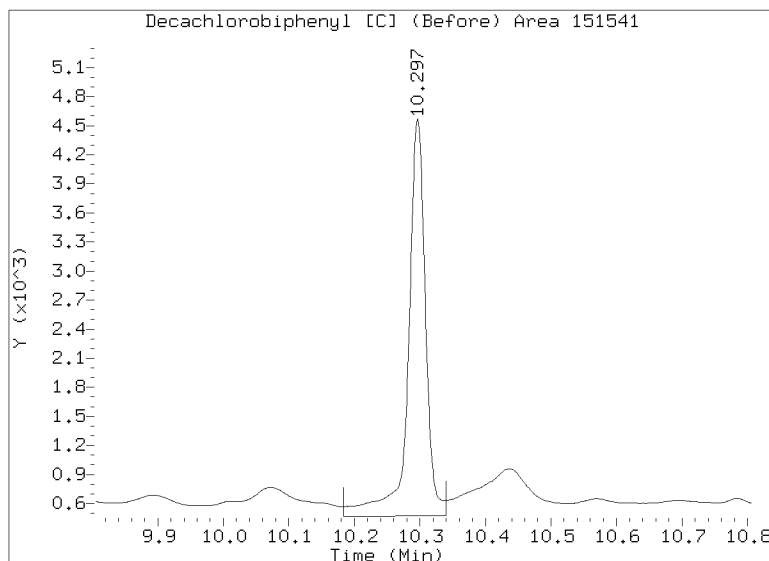
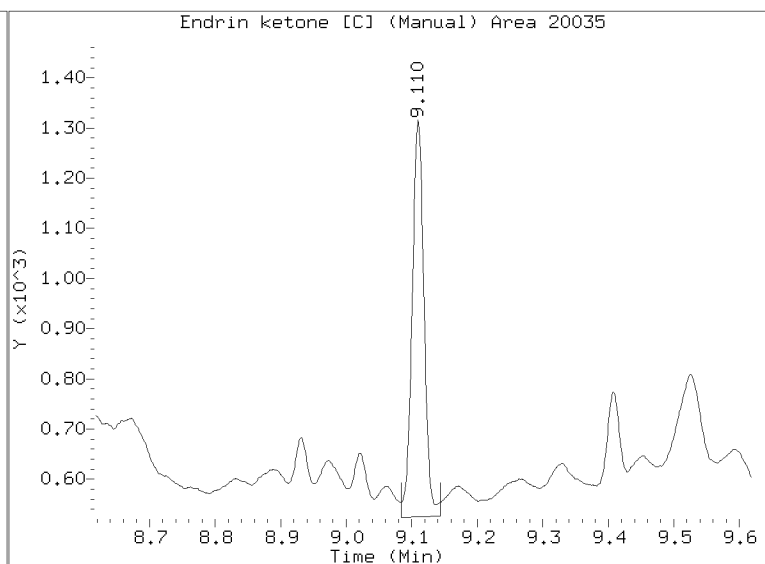
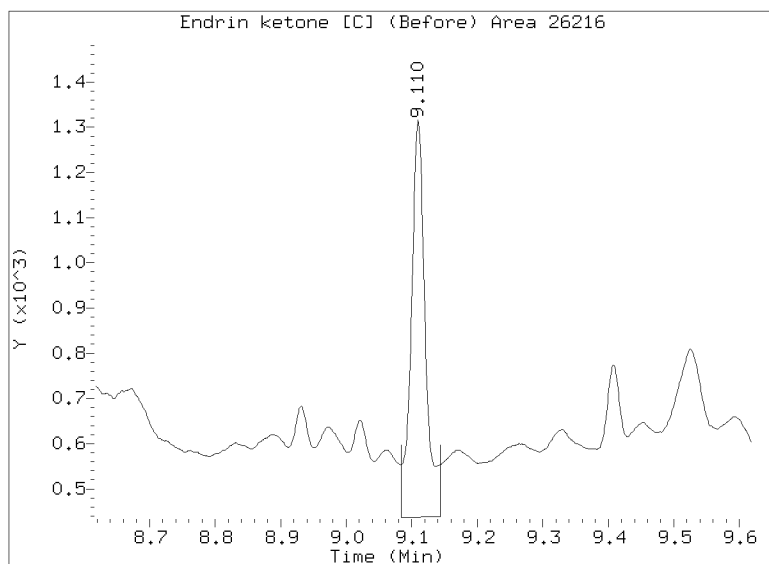
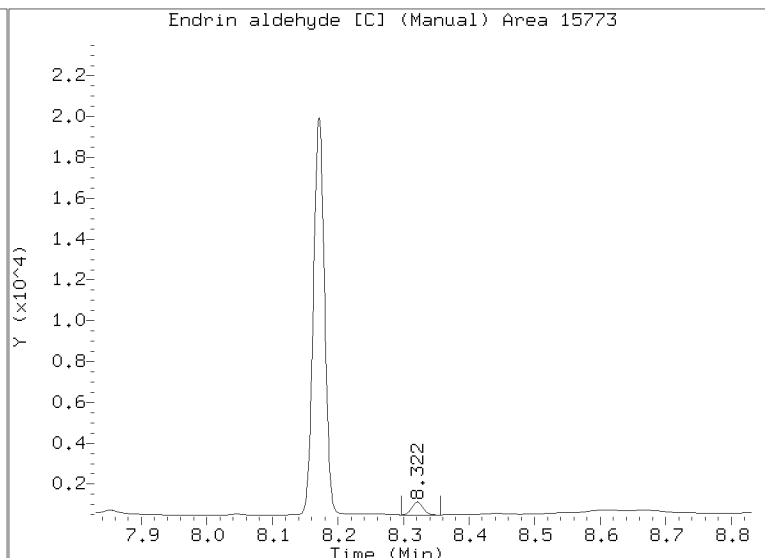
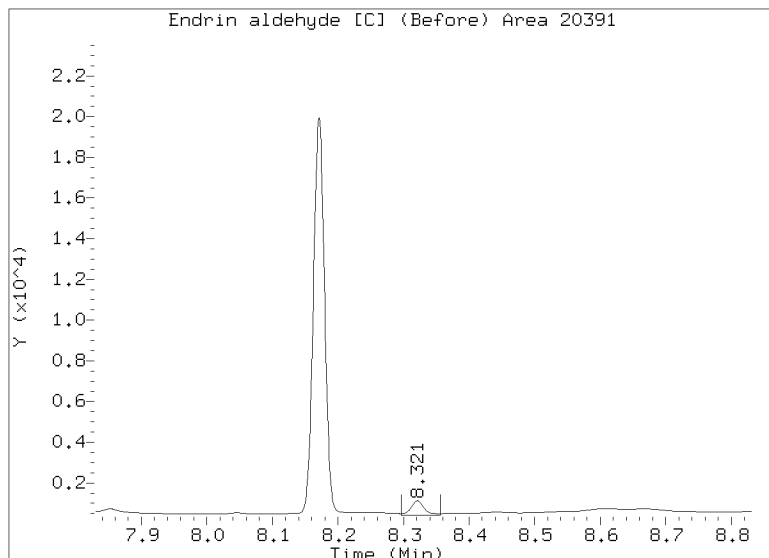


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050220.D

Injection Date: 02-MAY-2023 19:16

Lab ID: SLE0106-PEM2 Client ID:

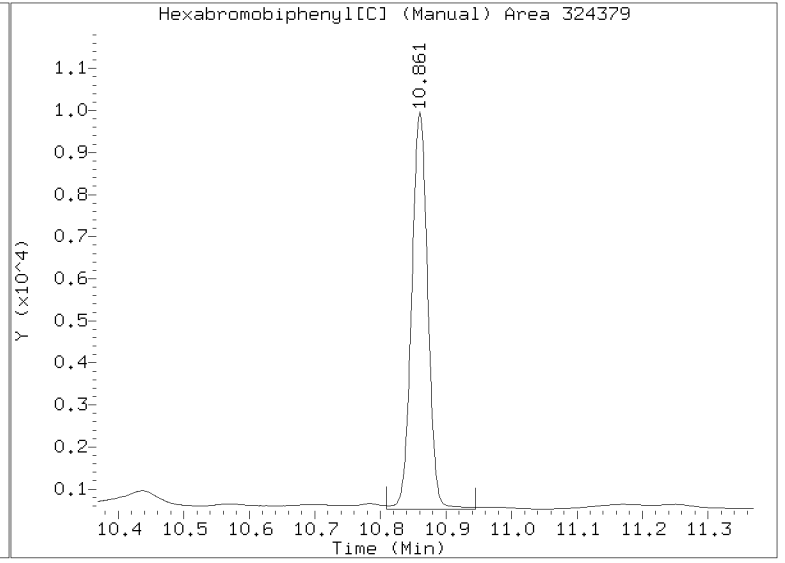
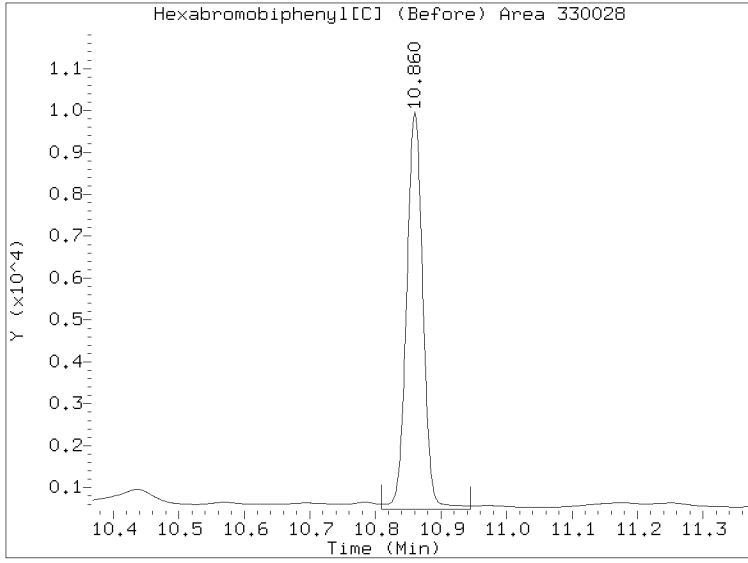


Manual Peak Adjustment Report, CLP-2

Datafile: /20230502.b/B20230502.b/23050220.D

Injection Date: 02-MAY-2023 19:16

Lab ID: SLE0106-PEM2 Client ID:





ANALYSIS SEQUENCE

SLD0187

Instrument: ECD6
Calibration ID: UNASSIGNED

Printed: 4/14/2023 8:38:57AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLD0187-PEM1	QC		1		L002116	L000844		
SLD0187-CAL1	QC		2		L003348	L000844		
SLD0187-CAL2	QC		3		L003347	L000844		
SLD0187-CAL3	QC		4		L003346	L000844		
SLD0187-CAL4	QC		5		L003345	L000844		
SLD0187-CAL5	QC		6		L003344	L000844		
SLD0187-CAL6	QC		7		L003343	L000844		
SLD0187-CAL7	QC		8		L000560	L000844		
SLD0187-CAL8	QC		9		L003342	L000844		
SLD0187-CAL9	QC		10		L003341	L000844		
SLD0187-CALA	QC		11		L003340	L000844		
SLD0187-CALB	QC		12		L003339	L000844		
SLD0187-CALC	QC		13		L003338	L000844		
SLD0187-CALD	QC		14		L003337	L000844		
SLD0187-CALE	QC		15		L000377	L000844		
SLD0187-CALF	QC		16		L003398	L000844		
SLD0187-CALG	QC		17		L003397	L000844		
SLD0187-CALH	QC		18		L003396	L000844		
SLD0187-CALI	QC		19		L003395	L000844		
SLD0187-CALJ	QC		20		L003394	L000844		
SLD0187-CALK	QC		21		L003393	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SLD0187

Instrument: ECD6
Calibration ID: UNASSIGNED

Printed: 4/14/2023 8:38:57AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLD0187-CALL	QC		22		L000559	L000844		
SLD0187-SCV1	QC		23		L003155	L000844		
SLD0187-SCV2	QC		24		L003156	L000844		
SLD0187-PEM2	QC		25		L002116	L000844		
SLD0187-ICV1	QC		26		L003344	L000844		
SLD0187-ICV2	QC		27		L003338	L000844		
BLD0075-BLK1	QC		28			L000844		
BLD0075-BS1	QC		29			L000844		
BLD0075-MRL1	QC		30			L000844		
23D0028-01	8081B Pest	E 01	31			L000844	Associated Earth Sciences, Inc	
SLD0187-PEM3	QC		32		L002116	L000844		
SLD0187-CCV1	QC		33		L003344	L000844		
SLD0187-CCV2	QC		34		L003338	L000844		
BLD0009-BLK1	QC		35			L000844		
BLD0009-BS1	QC		36			L000844		
BLD0009-BSD1	QC		37			L000844		
BLD0009-MS1	QC		38			L000844		
BLD0009-MSD1	QC		39			L000844		
23C0752-01	8081B Pest (PSDDA)	A 03	40			L000844	Anchor QEA, LLC	
23C0752-02	8081B Pest (PSDDA)	A 03	41			L000844	Anchor QEA, LLC	
23C0752-03	8081B Pest (PSDDA)	A 03	42			L000844	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

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1	12-APR-2023	14:57	23041202.D	1	SEQ-IB	
2	12-APR-2023	15:16	23041203.D	1	SEQ-PEM1	
3	12-APR-2023	15:34	23041204.D	1	SEQ-CAL1	
4	12-APR-2023	15:53	23041205.D	1	SEQ-CAL2	
5	12-APR-2023	16:11	23041206.D	1	SEQ-CAL3	
6	12-APR-2023	16:30	23041207.D	1	SEQ-CAL5	
7	12-APR-2023	16:48	23041208.D	1	SEQ-CAL4	
8	12-APR-2023	17:06	23041209.D	1	SEQ-CAL6	
9	12-APR-2023	17:25	23041210.D	1	SEQ-CAL7	
10	12-APR-2023	17:43	23041211.D	1	SEQ-CAL8	
11	12-APR-2023	18:02	23041212.D	1	SEQ-CAL9	
12	12-APR-2023	18:20	23041213.D	1	SEQ-CALA	
13	12-APR-2023	18:38	23041214.D	1	SEQ-CALB	
14	12-APR-2023	18:57	23041215.D	1	SEQ-CALC	
15	12-APR-2023	19:15	23041216.D	1	SEQ-CALD	
16	12-APR-2023	19:34	23041217.D	1	SEQ-CALE	
17	12-APR-2023	19:52	23041218.D	1	SEQ-CALF	
18	12-APR-2023	20:10	23041219.D	1	SEQ-CALG	
19	12-APR-2023	20:29	23041220.D	1	SEQ-CALH	
20	12-APR-2023	20:47	23041221.D	1	SEQ-CALI	
21	12-APR-2023	21:05	23041222.D	1	SEQ-CALJ	
22	12-APR-2023	21:24	23041223.D	1	SEQ-CALK	
23	12-APR-2023	21:42	23041224.D	1	SEQ-CALL	
24	12-APR-2023	22:00	23041225.D	1	SEQ-SCV1	
25	12-APR-2023	22:19	23041226.D	1	SEQ-SCV2	
26	12-APR-2023	22:37	23041227.D	1	SEQ-PEM2	
27	12-APR-2023	22:55	23041228.D	1	SEQ-ICV1	
28	12-APR-2023	23:14	23041229.D	1	SEQ-ICV2	
29	12-APR-2023	23:32	23041230.D	1	BLD0075-BLK1	
30	12-APR-2023	23:50	23041231.D	1	BLD0075-BS1	
31	13-APR-2023	00:09	23041232.D	1	BLD0075-MRL1	
32	13-APR-2023	00:27	23041233.D	1	23D0028-01	
33	13-APR-2023	00:45	23041234.D	1	SEQ-PEM3	
34	13-APR-2023	01:04	23041235.D	1	SEQ-CCV1	
35	13-APR-2023	01:22	23041236.D	1	SEQ-CCV2	
36	13-APR-2023	01:40	23041237.D	1	BLD0009-BLK1	
37	13-APR-2023	01:59	23041238.D	1	BLD0009-BS1	
38	13-APR-2023	02:17	23041239.D	1	BLD0009-BSD1	
39	13-APR-2023	02:35	23041240.D	1	BLD0009-MS1	
40	13-APR-2023	02:53	23041241.D	1	BLD0009-MSD1	
41	13-APR-2023	03:12	23041242.D	1	23C0752-01	
42	13-APR-2023	03:30	23041243.D	1	23C0752-02	
43	13-APR-2023	03:48	23041244.D	1	23C0752-03	
44	13-APR-2023	04:07	23041245.D	1	23C0752-04	
45	13-APR-2023	04:25	23041246.D	1	23C0752-06	
46	13-APR-2023	04:43	23041247.D	1	SEQ-PEM4	
47	13-APR-2023	05:02	23041248.D	1	SEQ-CCV3	
48	13-APR-2023	05:20	23041249.D	1	SEQ-CCV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

ARI Job No.: SEQ- Method: PEST.m Instrument: ecd6.i Date: 12-APR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1457	23041202.D	SEQ-IB		1	NO MANUAL INTEGRATION
1516	23041203.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
1534	23041204.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
1553	23041205.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
1611	23041206.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
1630	23041207.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
1648	23041208.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
1706	23041209.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
1725	23041210.D	SEQ-CAL7		1	alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Endosulfan I, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, 4,4'-DDD, Endosulfan sulfate, 4,4'-DDT, Methoxychlor, Endrin ketone, Endrin aldehyde, trans-Chlordane, cis-Chlordane, Hexachlorob
1743	23041211.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
1802	23041212.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
1820	23041213.D	SEQ-CALA		1	NO MANUAL INTEGRATION
1838	23041214.D	SEQ-CALB		1	NO MANUAL INTEGRATION
1857	23041215.D	SEQ-CALC		1	NO MANUAL INTEGRATION
1915	23041216.D	SEQ-CALD		1	NO MANUAL INTEGRATION
1934	23041217.D	SEQ-CALE		1	Oxychlordane, 2,4-DDE, trans-Nonachlor, 2,4-DDD, 2,4-DDT, cis-Nonachlor, Mirex,
1952	23041218.D	SEQ-CALF		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2010	23041219.D	SEQ-CALG	1		NO MANUAL INTEGRATION
2029	23041220.D	SEQ-CALH	1		NO MANUAL INTEGRATION
2047	23041221.D	SEQ-CALI	1		NO MANUAL INTEGRATION
2105	23041222.D	SEQ-CALJ	1		NO MANUAL INTEGRATION
2124	23041223.D	SEQ-CALK	1		NO MANUAL INTEGRATION
2142	23041224.D	SEQ-CALL	1		NO MANUAL INTEGRATION
2200	23041225.D	SEQ-SCV1	1		NO MANUAL INTEGRATION
2219	23041226.D	SEQ-SCV2	1		NO MANUAL INTEGRATION
2237	23041227.D	SEQ-PEM2	1		NO MANUAL INTEGRATION
2255	23041228.D	SEQ-ICV1	1		NO MANUAL INTEGRATION
2314	23041229.D	SEQ-ICV2	1		NO MANUAL INTEGRATION
2332	23041230.D	BLD0075-BLK1	1		NO MANUAL INTEGRATION
2350	23041231.D	BLD0075-BS1	1		NO MANUAL INTEGRATION
0009	23041232.D	BLD0075-MRL1	1		NO MANUAL INTEGRATION
0027	23041233.D	23D0028-01	1		NO MANUAL INTEGRATION
0045	23041234.D	SEQ-PEM3	1		Endrin, 4,4'-DDD,
0104	23041235.D	SEQ-CCV1	1		NO MANUAL INTEGRATION
0122	23041236.D	SEQ-CCV2	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0140	23041237.D	BLD0009-BLK1		1	NO MANUAL INTEGRATION
0159	23041238.D	BLD0009-BS1		1	NO MANUAL INTEGRATION
0217	23041239.D	BLD0009-BSD1		1	NO MANUAL INTEGRATION
0235	23041240.D	BLD0009-MS1		1	Endrin, 4,4'-DDD, 4,4'-DDT,
0253	23041241.D	BLD0009-MSD1		1	Aldrin,
0312	23041242.D	23C0752-01		1	delta-BHC, gamma-BHC (Lindane), Endrin, 4,4'-DDD, 4,4'-DDT, Endrin aldehyde, Toxaphene, cis-Nonachlor,
0330	23041243.D	23C0752-02		1	Endrin, 4,4'-DDD, 4,4'-DDT, trans-Chlordane, cis-Chlordane, Toxaphene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0348	23041244.D	23C0752-03		1	Dieldrin, 4,4'-DDD, cis-Chlordane, Hexachlorobenzene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0407	23041245.D	23C0752-04		1	delta-BHC, Endrin, 4,4'-DDD, 4,4'-DDT, trans-Chlordane, cis-Chlordane, Toxaphene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0425	23041246.D	23C0752-06		1	Endrin, 4,4'-DDT, cis-Chlordane, Toxaphene, cis-Nonachlor, Mirex, Chlordane (NOS),
0443	23041247.D	SEQ-PEM4		1	Endrin, 4,4'-DDD,
0502	23041248.D	SEQ-CCV3		1	Hexabromobiphenyl,
0520	23041249.D	SEQ-CCV4		1	NO MANUAL INTEGRATION

Security Status Report

Date: 14-Apr-2023 08:24

23041202.D	Data Locked	yev, 14-
23041203.D	Data Locked	yev, 14-
23041204.D	Data Locked	yev, 14-
23041205.D	Data Locked	yev, 14-
23041206.D	Data Locked	yev, 14-
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23041219.D	Data Locked	yev, 14-
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23041232.D	Data Locked	yev, 14-
23041233.D	Data Locked	yev, 14-
23041234.D	Data Locked	yev, 14-
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23041236.D	Data Locked	yev, 14-
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23041238.D	Data Locked	yev, 14-
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23041245.D	Data Locked	yev, 14-
23041246.D	Data Locked	yev, 14-
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23041249.D	Data Locked	yev, 14-



ANALYSIS SEQUENCE

SLE0106

Instrument: ECD6
Calibration ID: GD00035

Printed: 5/5/2023 2:31:30PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLE0106-PEM1	QC		1		L002116	L000844		
SLE0106-ICV1	QC		2		L003344	L000844		
BLD0299-BLK1	QC		3			L000844		
BLD0299-BS1	QC		4			L000844		
BLD0299-BSD1	QC		5			L000844		
BLD0299-MS1	QC		6			L000844		
BLD0299-MSD1	QC		7			L000844		
23D0037-01	8081B Pest (PSDDA)	A 02	8			L000844	Anchor QEA, LLC	
23D0037-03	8081B Pest (PSDDA)	A 02	9			L000844	Anchor QEA, LLC	
23D0063-01	8081B Pest (PSDDA)	A 02	10			L000844	Anchor QEA, LLC	
23D0063-03	8081B Pest (PSDDA)	A 02	11			L000844	Anchor QEA, LLC	
BLD0325-BLK1	QC		12			L000844		
BLD0325-BS1	QC		13			L000844		
BLD0325-BSD1	QC		14			L000844		
BLD0325-MS1	QC		15			L000844		
BLD0325-MSD1	QC		16			L000844		
23D0136-01	8081B Pest (PSDDA)	A 02	17			L000844	Anchor QEA, LLC	
23D0136-03	8081B Pest (PSDDA)	A 01	18			L000844	Anchor QEA, LLC	
SLE0106-PEM2	QC		19		L002116	L000844		
SLE0106-CCV1	QC		20		L003344	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230502.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	02-MAY-2023	13:42	23050202.D	1	SLE0106-PEM1	
2	02-MAY-2023	14:00	23050203.D	1	SLE0106-ICV1	
3	02-MAY-2023	14:19	23050204.D	1	BLD0299-BLK1	
4	02-MAY-2023	14:37	23050205.D	1	BLD0299-BS1	
5	02-MAY-2023	14:56	23050206.D	1	BLD0299-BSD1	
6	02-MAY-2023	15:14	23050207.D	1	BLD0299-MS1	
7	02-MAY-2023	15:33	23050208.D	1	BLD0299-MSD1	
8	02-MAY-2023	15:52	23050209.D	1	23D0037-01	
9	02-MAY-2023	16:10	23050210.D	1	23D0037-03	
10	02-MAY-2023	16:29	23050211.D	1	23D0063-01	
11	02-MAY-2023	16:48	23050212.D	1	23D0063-03	
12	02-MAY-2023	17:06	23050213.D	1	BLD0325-BLK1	
13	02-MAY-2023	17:25	23050214.D	1	BLD03259-BS1	
14	02-MAY-2023	17:43	23050215.D	1	BLD0325-BSD1	
15	02-MAY-2023	18:02	23050216.D	1	BLD0325-MS1	
16	02-MAY-2023	18:21	23050217.D	1	BLD0325-MSD1	
17	02-MAY-2023	18:39	23050218.D	1	23D0136-01	
18	02-MAY-2023	18:58	23050219.D	1	23D0136-03	
19	02-MAY-2023	19:16	23050220.D	1	SLE0106-PEM2	
20	02-MAY-2023	19:35	23050221.D	1	SLE0106-CCV1	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230502.b

ARI Job No.: SLE0 Method: PEST.m Instrument: ecd6.i Date: 02-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1342	23050202.D	SLE0106-PEM1		1	NO MANUAL INTEGRATION
1400	23050203.D	SLE0106-ICV1		1	NO MANUAL INTEGRATION
1419	23050204.D	BLD0299-BLK1		1	Hexachlorobenzene,
1437	23050205.D	BLD0299-BS1		1	NO MANUAL INTEGRATION
1456	23050206.D	BLD0299-BSD1		1	NO MANUAL INTEGRATION
1514	23050207.D	BLD0299-MS1		1	NO MANUAL INTEGRATION
1533	23050208.D	BLD0299-MSD1		1	NO MANUAL INTEGRATION
1552	23050209.D	23D0037-01		1	Hexachlorobutadiene, Hexachlorobenzene,
1610	23050210.D	23D0037-03		1	1Bromo-2nitrobenzene, Hexachlorobenzene, Tetrachloro-m-xylene,
1629	23050211.D	23D0063-01		1	1Bromo-2nitrobenzene, Hexachlorobenzene, Tetrachloro-m-xylene,
1648	23050212.D	23D0063-03		1	Hexachlorobenzene,
1706	23050213.D	BLD0325-BLK1		1	1Bromo-2nitrobenzene, Tetrachloro-m-xylene,
1725	23050214.D	BLD03259-BS1		1	NO MANUAL INTEGRATION
1743	23050215.D	BLD0325-BSD1		1	NO MANUAL INTEGRATION
1802	23050216.D	BLD0325-MS1		1	NO MANUAL INTEGRATION
1821	23050217.D	BLD0325-MSD1		1	NO MANUAL INTEGRATION
1839	23050218.D	23D0136-01		1	1Bromo-2nitrobenzene, Hexachlorobenzene, Tetrachloro-m-xylene,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230502.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1858	23050219.D	23D0136-03	1		1Bromo-2nitrobenzene, Hexachlorobenzene, Tetrachloro-m-xylene,
1916	23050220.D	SLE0106-PEM2	1		NO MANUAL INTEGRATION
1935	23050221.D	SLE0106-CCV1	1		NO MANUAL INTEGRATION

Security Status Report

Date: 05-May-2023 15:15

23050202.D	Data Locked	yev, 05-
23050203.D	Data Locked	yev, 05-
23050204.D	Data Locked	yev, 05-
23050205.D	Data Locked	yev, 05-
23050206.D	Data Locked	yev, 05-
23050207.D	Data Locked	yev, 05-
23050208.D	Data Locked	yev, 05-
23050209.D	Data Locked	yev, 05-
23050210.D	Data Locked	yev, 05-
23050211.D	Data Locked	yev, 05-
23050212.D	Data Locked	yev, 05-
23050213.D	Data Locked	yev, 05-
23050214.D	Data Locked	yev, 05-
23050215.D	Data Locked	yev, 05-
23050216.D	Data Locked	yev, 05-
23050217.D	Data Locked	yev, 05-
23050218.D	Data Locked	yev, 05-
23050219.D	Data Locked	yev, 05-
23050220.D	Data Locked	yev, 05-
23050221.D	Data Locked	yev, 05-



SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23D0136</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLD0187</u>	Instrument:	<u>ECD6</u>
Calibration:	<u>GD00035</u>	Calibration Date:	<u>04/12/2023</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLD0187-ICV1 (Solid)			Lab File ID: 23041228.D			Analyzed: 04/12/23 22:55		
Decachlorobiphenyl	40.000	79.8	80 - 120	9.366	9.365571	0.0004	+/-0.1	*
Decachlorobiphenyl [2C]	40.000	83.8	80 - 120	10.306	10.30529	0.0007	+/-0.1	
Tetrachlorometaxylene	40.000	88.6	80 - 120	3.82	3.819	0.0010	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	89.4	80 - 120	4.135	4.135572	-0.0006	+/-0.1	
SLD0187-CCV1 (Solid)			Lab File ID: 23041235.D			Analyzed: 04/13/23 01:04		
Decachlorobiphenyl	40.000	78.8	80 - 120	9.365	9.365571	-0.0006	+/-0.1	*
Decachlorobiphenyl [2C]	40.000	84.2	80 - 120	10.304	10.30529	-0.0013	+/-0.1	
Tetrachlorometaxylene	40.000	88.7	80 - 120	3.819	3.819	0.0000	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	89.1	80 - 120	4.135	4.135572	-0.0006	+/-0.1	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0106
Calibration: GD00035

SDG/WO: 23D0136
Project: AOC5 MR Phase 1
Instrument: ECD6
Calibration Date: 04/12/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLD0325-MSD1 (Solid)			Lab File ID: 23050217.D		Analyzed: 05/02/23 18:21			
Decachlorobiphenyl	8.0014	71.3	30 - 160	9.36	9.365571	-0.0056	+/-0.1	
Decachlorobiphenyl [2C]	8.0014	80.2	30 - 160	10.297	10.30529	-0.0083	+/-0.1	
Tetrachlorometaxylene	8.0014	56.8	30 - 160	3.811	3.819	-0.0080	+/-0.1	
Tetrachlorometaxylene [2C]	8.0014	63.1	30 - 160	4.127	4.135572	-0.0086	+/-0.1	
23D0136-01 (Solid)			Lab File ID: 23050218.D		Analyzed: 05/02/23 18:39			
Decachlorobiphenyl	7.9856	65.4	30 - 160	9.359	9.365571	-0.0066	+/-0.1	
Decachlorobiphenyl [2C]	7.9856	75.0	30 - 160	10.297	10.30529	-0.0083	+/-0.1	
Tetrachlorometaxylene	7.9856	54.9	30 - 160	3.811	3.819	-0.0080	+/-0.1	
Tetrachlorometaxylene [2C]	7.9856	56.5	30 - 160	4.127	4.135572	-0.0086	+/-0.1	
23D0136-03 (Solid)			Lab File ID: 23050219.D		Analyzed: 05/02/23 18:58			
Decachlorobiphenyl	8.0001	68.7	30 - 160	9.36	9.365571	-0.0056	+/-0.1	
Decachlorobiphenyl [2C]	8.0001	77.5	30 - 160	10.298	10.30529	-0.0073	+/-0.1	
Tetrachlorometaxylene	8.0001	59.3	30 - 160	3.812	3.819	-0.0070	+/-0.1	
Tetrachlorometaxylene [2C]	8.0001	53.8	30 - 160	4.127	4.135572	-0.0086	+/-0.1	
SLE0106-PEM2 (Water)			Lab File ID: 23050220.D		Analyzed: 05/02/23 19:16			
Decachlorobiphenyl	40.000	78.5	0 - 200	9.358	9.365571	-0.0076	+/-0.1	
Decachlorobiphenyl [2C]	40.000	88.6	0 - 200	10.296	10.30529	-0.0093	+/-0.1	
Tetrachlorometaxylene	40.000	86.6	0 - 200	3.813	3.819	-0.0060	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	91.6	0 - 200	4.127	4.135572	-0.0086	+/-0.1	
SLE0106-CCV1 (Water)			Lab File ID: 23050221.D		Analyzed: 05/02/23 19:35			
Decachlorobiphenyl	40.000	77.6	80 - 120	9.358	9.365571	-0.0076	+/-0.1	
Decachlorobiphenyl [2C]	40.000	80.5	80 - 120	10.295	10.30529	-0.0103	+/-0.1	
Tetrachlorometaxylene	40.000	88.9	80 - 120	3.811	3.819	-0.0080	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	89.3	80 - 120	4.127	4.135572	-0.0086	+/-0.1	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLD0187

Instrument: ECD6

Calibration: GD00035

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLD0187-ICV1)		(Solid)	Lab File ID: 23041228.D			Analyzed: 04/12/23 22:55			
1-Bromo-2-Nitrobenzene	527944	3.138	527944	3.138	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	428829	9.515	428829	9.515	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	744512	3.287	744512	3.287	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	468235	10.869	468235	10.869	100	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0106

SDG: 23D0136
Project: AOC5 MR Phase 1
Instrument: ECD6
Calibration: GD00035

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Performance Mix (SLE0106-PEM1)		(Water)	Lab File ID: 23050202.D			Analyzed: 05/02/23 13:42			
1-Bromo-2-Nitrobenzene	597294	3.133	616264	3.132	97	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	490924	9.509	514817	9.508	95	50 - 200	0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	675241	3.281	669299	3.281	101	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	416374	10.859	419050	10.857	99	50 - 200	0.002	+/-0.50	
Initial Cal Check (SLE0106-ICV1)		(Water)	Lab File ID: 23050203.D			Analyzed: 05/02/23 14:00			
1-Bromo-2-Nitrobenzene	616264	3.132	616264	3.132	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	514817	9.508	514817	9.508	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	669299	3.281	669299	3.281	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	419050	10.857	419050	10.857	100	50 - 200	0.000	+/-0.50	
Blank (BLD0325-BLK1)		(Solid)	Lab File ID: 23050213.D			Analyzed: 05/02/23 17:06			
1-Bromo-2-Nitrobenzene	694640	3.131	616264	3.132	113	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	402432	9.507	514817	9.508	78	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	641715	3.281	669299	3.281	96	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	315265	10.86	419050	10.857	75	50 - 200	0.003	+/-0.50	
LCS (BLD0325-BS1)		(Solid)	Lab File ID: 23050214.D			Analyzed: 05/02/23 17:25			
1-Bromo-2-Nitrobenzene	715431	3.131	616264	3.132	116	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	417768	9.507	514817	9.508	81	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	713832	3.28	669299	3.281	107	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	327100	10.858	419050	10.857	78	50 - 200	0.001	+/-0.50	
LCS Dup (BLD0325-BSD1)		(Solid)	Lab File ID: 23050215.D			Analyzed: 05/02/23 17:43			
1-Bromo-2-Nitrobenzene	703657	3.131	616264	3.132	114	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	451092	9.507	514817	9.508	88	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	709244	3.28	669299	3.281	106	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	334037	10.86	419050	10.857	80	50 - 200	0.003	+/-0.50	
Matrix Spike (BLD0325-MS1)		(Solid)	Lab File ID: 23050216.D			Analyzed: 05/02/23 18:02			
1-Bromo-2-Nitrobenzene	701102	3.131	616264	3.132	114	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	410383	9.511	514817	9.508	80	50 - 200	0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	706666	3.28	669299	3.281	106	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	314558	10.861	419050	10.857	75	50 - 200	0.004	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0106

Instrument: ECD6

Calibration: GD00035

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike Dup (BLD0325-MSD1)		(Solid)	Lab File ID: 23050217.D		Analyzed: 05/02/23 18:21				
1-Bromo-2-Nitrobenzene	693510	3.131	616264	3.132	113	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	419542	9.511	514817	9.508	81	50 - 200	0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	661354	3.28	669299	3.281	99	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	317098	10.861	419050	10.857	76	50 - 200	0.004	+/-0.50	
LDW23-SS1804 (23D0136-01)		(Solid)	Lab File ID: 23050218.D		Analyzed: 05/02/23 18:39				
1-Bromo-2-Nitrobenzene	698789	3.132	616264	3.132	113	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	409047	9.51	514817	9.508	79	50 - 200	0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	675008	3.28	669299	3.281	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	312046	10.861	419050	10.857	74	50 - 200	0.004	+/-0.50	
LDW23-SS1803 (23D0136-03)		(Solid)	Lab File ID: 23050219.D		Analyzed: 05/02/23 18:58				
1-Bromo-2-Nitrobenzene	665574	3.132	616264	3.132	108	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	400928	9.511	514817	9.508	78	50 - 200	0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	677395	3.28	669299	3.281	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	300599	10.863	419050	10.857	72	50 - 200	0.006	+/-0.50	
Performance Mix (SLE0106-PEM2)		(Water)	Lab File ID: 23050220.D		Analyzed: 05/02/23 19:16				
1-Bromo-2-Nitrobenzene	617069	3.132	616264	3.132	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	402314	9.508	514817	9.508	78	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	620110	3.281	669299	3.281	93	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	324379	10.86	419050	10.857	77	50 - 200	0.003	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/18/23 11:06	12	365	05/02/23 18:39	14	40	
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	04/18/23 11:06	12	365	05/02/23 18:58	14	40	
Matrix Spike BLD0325-MS1	04/05/23 11:45	04/06/23 10:30	04/18/23 11:06	12	365	05/02/23 18:02	14	40	
Matrix Spike Dup BLD0325-MSD1	04/05/23 11:45	04/06/23 10:30	04/18/23 11:06	12	365	05/02/23 18:21	14	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ECD6

Analyte	MDL	RL	Units
Hexachlorobenzene	0.15	0.50	ug/kg
Hexachlorobenzene [2C]	0.15	0.50	ug/kg

CERTIFICATE OF ANALYSIS

Catalog No: S-279N
Description: Tetrachloro-m-xylene
Lot: 0052481B-1
Solvent: N/A
Hazards: Refer to SDS for complete safety information

Date Certified: Jul 28, 2005
Expiration: Jul 28, 2015
Sample Size: 100 mg
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Warning

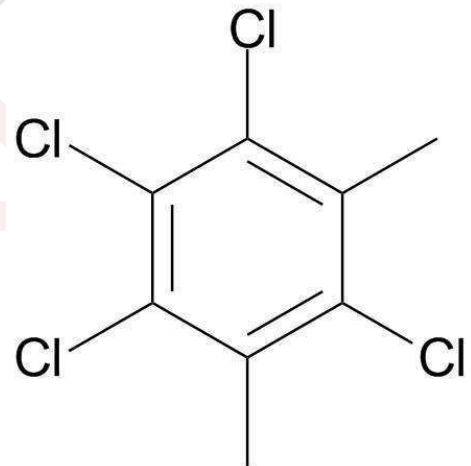
Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration	Certified Analyte Concentration ¹
Tetrachloro-meta-xylene	877-09-8	96.0	N/A	N/A

Identification:

Molecular formula: C₈H₆Cl₄
Molecular weight: 243.94



C000147

tetrachlorometaxylene

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ The Uncertainty calculated for this product is ±2.4%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Metrological traceability is established through in-house validated methods.

Purity, if stated, is equal to 100% minus found impurity components. Impurity components have not been identified.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager



AccuStandard

125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N

EXPIRATION: Jul 28, 2015

DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl

LOT #: 990521LB-AC

SOLVENT: N/A

This product is guaranteed accurate to $\pm 0.5\%$ of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration ¹	Certified Analyte Concentration ²
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

2;

C000148

decachlorobiphenyl

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

** I 1768 A*

Certified by:

R. Cooper

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
 2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is $\pm 0.5\%$ which is the Combined Uncertainty $U_c(y)$. It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is $U_c(y) * K$ where K is the coverage factor at the 95% confidence level ($K=2$).
 3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

** Recertified ~ 4-6-09 (S)*



Analytical Standard Record
Standard ID: C000148

Printed: 4/23/2015 11:54:44AM

Description:	decachlorobiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	9905211b-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By

Date

CERTIFICATE OF ANALYSIS

Catalog No: APP-9-112-D-20X
Description: Hexachlorobenzene in Dichloromethane
Lot: 219051389
Solvent: Dichloromethane
Hazards: Refer to SDS for complete safety information

Date Certified: May 13, 2019
Expiration: May 13, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Hexachlorobenzene	118-74-1	99.0	2002	1982



J006504

Hexachlorobenzene
Solvent / Lot: Dichloromethane
Prep: 6/21/2021 by YZ
Exp: 5/13/2029
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2 Intended Use: The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7

3 Manufacturing: All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this

4 Homogeneity: This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5 Stability: The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6 Uncertainty: The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7 Legal Notice and Limit of Liability: This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: M-8081-DS
Description: 4,4'-DDT & Endrin
Lot: 221031488-04
Solvent: Hexane
Hazards: Refer to SDS for complete safety information

Date Certified: Apr 8, 2022
Expiration: May 8, 2023
Sample Size: 1 mL
Components: 2
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
4,4'-DDT	50-29-3	100.0	200.9	200.9
Endrin	72-20-8	99.8	200.0	199.6

K7002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:



Larry Decker, Organic QC Manager



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32292 **Lot No.:** A0185477

Description : Organochlorine Pesticide Mix AB # 2
Organochlorine Pesticide Mix AB # 2 8-80 µg/mL, Hexane/Toluene(1:1), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	alpha-BHC	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 319-84-6 (Lot 12307600)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed
2	gamma-BHC (Lindane)	8.0 µg/mL	+/-	0.0654	µg/mL	Gravimetric
	CAS # 58-89-9 (Lot 13087200)		+/-	0.3672	µg/mL	Unstressed
	Purity 99%		+/-	0.5281	µg/mL	Stressed
3	beta-BHC	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 319-85-7 (Lot 0588007-4)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed
4	delta-BHC	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 319-86-8 (Lot 13112400)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed
5	Heptachlor	8.0 µg/mL	+/-	0.0654	µg/mL	Gravimetric
	CAS # 76-44-8 (Lot 803759)		+/-	0.3672	µg/mL	Unstressed
	Purity 99%		+/-	0.5281	µg/mL	Stressed
6	Aldrin	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 309-00-2 (Lot 12983100)		+/-	0.3702	µg/mL	Unstressed
	Purity 96%		+/-	0.5323	µg/mL	Stressed
7	Heptachlor epoxide (isomer B)	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 1024-57-3 (Lot 13168200)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed

8	trans-Chlordane CAS # 5103-74-2 Purity 98%	(Lot 32943)	8.0 µg/mL	+/- 0.0657 +/- 0.3689 +/- 0.5305	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	cis-Chlordane CAS # 5103-71-9 Purity 98%	(Lot 31766)	8.0 µg/mL	+/- 0.0657 +/- 0.3689 +/- 0.5305	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Endosulfan I CAS # 959-98-8 Purity 99%	(Lot BCCF4060)	8.0 µg/mL	+/- 0.0654 +/- 0.3672 +/- 0.5281	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	4,4'-DDE CAS # 72-55-9 Purity 99%	(Lot GHYQG)	16.1 µg/mL	+/- 0.1314 +/- 0.7375 +/- 1.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Dieldrin CAS # 60-57-1 Purity 98%	(Lot 11129900)	16.1 µg/mL	+/- 0.1320 +/- 0.7408 +/- 1.0653	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Endrin CAS # 72-20-8 Purity 99%	(Lot 13157400)	16.1 µg/mL	+/- 0.1320 +/- 0.7406 +/- 1.0650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	4,4'-DDD CAS # 72-54-8 Purity 99%	(Lot HAN02)	16.1 µg/mL	+/- 0.1320 +/- 0.7406 +/- 1.0650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Endosulfan II CAS # 33213-65-9 Purity 99%	(Lot 12448900)	16.0 µg/mL	+/- 0.1309 +/- 0.7345 +/- 1.0562	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	4,4'-DDT CAS # 50-29-3 Purity 98%	(Lot 220428JLM)	16.1 µg/mL	+/- 0.1315 +/- 0.7378 +/- 1.0610	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Endrin aldehyde CAS # 7421-93-4 Purity 99%	(Lot 30720)	16.1 µg/mL	+/- 0.1314 +/- 0.7375 +/- 1.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Endosulfan sulfate CAS # 1031-07-8 Purity 99%	(Lot BCCB0424)	16.1 µg/mL	+/- 0.1320 +/- 0.7406 +/- 1.0650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Methoxychlor CAS # 72-43-5 Purity 98%	(Lot 13027000)	80.2 µg/mL	+/- 0.5781 +/- 3.6697 +/- 5.2871	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Endrin ketone CAS # 53494-70-5 Purity 99%	(Lot 13026800)	16.1 µg/mL	+/- 0.1314 +/- 0.7375 +/- 1.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane/Toluene (50:50)
CAS # 110-54-3/108-88-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

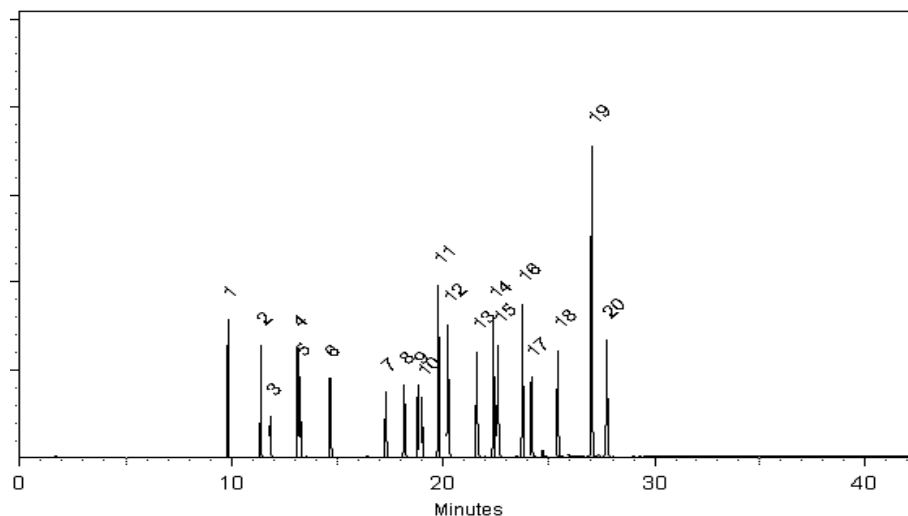
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
300°C

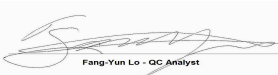
Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Morgan Craighead - Mix Technician

Date Mixed: 19-May-2022 **Balance:** B442140311


Fang-Yun Lo - GC Analyst

Date Passed: 26-May-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

CERTIFICATE OF ANALYSIS

Catalog No: M-502-36-10X
Description: Hexachlorobutadiene
Lot: 222031188
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Mar 11, 2022
Expiration: Apr 11, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Hexachlorobutadiene	87-68-3	98.0	2002	1962

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.


The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations

- 2. Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.
- 3. Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.
- 4. Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.
- 5. Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label
- 6. Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of $k=2$ is chosen using approximately a 95% confidence level.
- 7. Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: M-502-36-10X

Description: Hexachlorobutadiene

Lot: 222031188

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: Mar 11, 2022

Expiration: Apr 11, 2024

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Hexachlorobutadiene	87-68-3	98.0	2002	1962

K011468

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022336ECD7.D ARI ID: 23D0136-01RE1
Data file 2: /230502.b/230502.b/05022336ECD7.D Client ID:
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m Injection Date: 02-MAY-2023 23:28
Compound Sublist: PCB.sub Report Date: 05/03/2023 09:34
Instrument, Inj. Vol.: ecd7.i, 2ul Matrix: NONE
Quant Method: Internal Std Dilution Factor: 5.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag		
RT	Shift Response	RT	Shift Response	on col	on col				
5.763	-0.003	50721	5.645	-0.004	30835	6.0	6.3	4.4	Tetrachloro-m-xylene
13.851	-0.011	46721	14.073	-0.009	40558	6.9	6.0	14.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	577525	3.8
Hexabromobiphenyl	745660	620746	-16.8

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	349684	0.3
Hexabromobiphenyl	429949	415531	-3.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.365	-0.013	13315	30.1	1	8.268	-0.014	8059	43.9	
Aroclor-1248	2	8.536	-0.020	12640	34.2	2	8.675	-0.013	7069	43.8	
Aroclor-1248	3	8.954	-0.006	29305	26.5	3	9.117	-0.039	11226	56.7	
Aroclor-1248	4	9.255	-0.013	34730	59.9	4	9.539	-0.044	12465	59.0	
Total CollAve (4 peaks):				37.7	Total Col2Ave (4 peaks):				50.8	RPD = 30	
Corrected Ave (3 peaks):				30.3	Corrected Ave (3 peaks):				48.1	RPD = 46*	
Aroclor-1254	1	9.255	-0.017	34730	55.7	1	9.409	-0.019	20620	78.9	
Aroclor-1254	2	9.332	-0.025	18868	63.8	2	9.539	0.013	12465	78.2	
Aroclor-1254	3	9.629	-0.017	28999	73.5	3	9.926	-0.022	12299	58.1	
Aroclor-1254	4	9.758	-0.028	47451	59.2	4	10.078	-0.028	33984	74.2	
Aroclor-1254	5	10.098	-0.062	32506	54.9	5	10.324	-0.029	42097	79.9	
Total CollAve (5 peaks):				61.4	Total Col2Ave (5 peaks):				73.9	RPD = 18	
Corrected Ave (4 peaks):				58.4	Corrected Ave (4 peaks):				72.3	RPD = 21	
63.05											
Aroclor-1260	1	11.001	-0.015	18051	51.5	1	11.611	-0.014	18552	62.8	
Aroclor-1260	2	11.316	-0.018	15064	42.4	2	11.871	-0.020	28674	37.0	
Aroclor-1260	3	11.689	-0.023	43508	47.2	3	12.387	-0.019	13333	75.5	
Aroclor-1260	4	12.089	-0.029	20852	45.6	4	12.454	-0.021	20685	39.1	
Aroclor-1260	5	12.202	-0.014	8637	41.1	NS	---			----	
Total CollAve (5 peaks):				45.6	Total Col2Ave (4 peaks):				53.6	RPD = 16	
Corrected Ave (4 peaks):				44.1	Corrected Ave (3 peaks):				46.3	RPD = 5	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.866 - 13.762) = 946258 Col1 Total PCB = 0.1 ppm*
Total PCB Area Col2 (5.749 - 13.983) = 611613 Col2 Total PCB = 0.2 ppm*

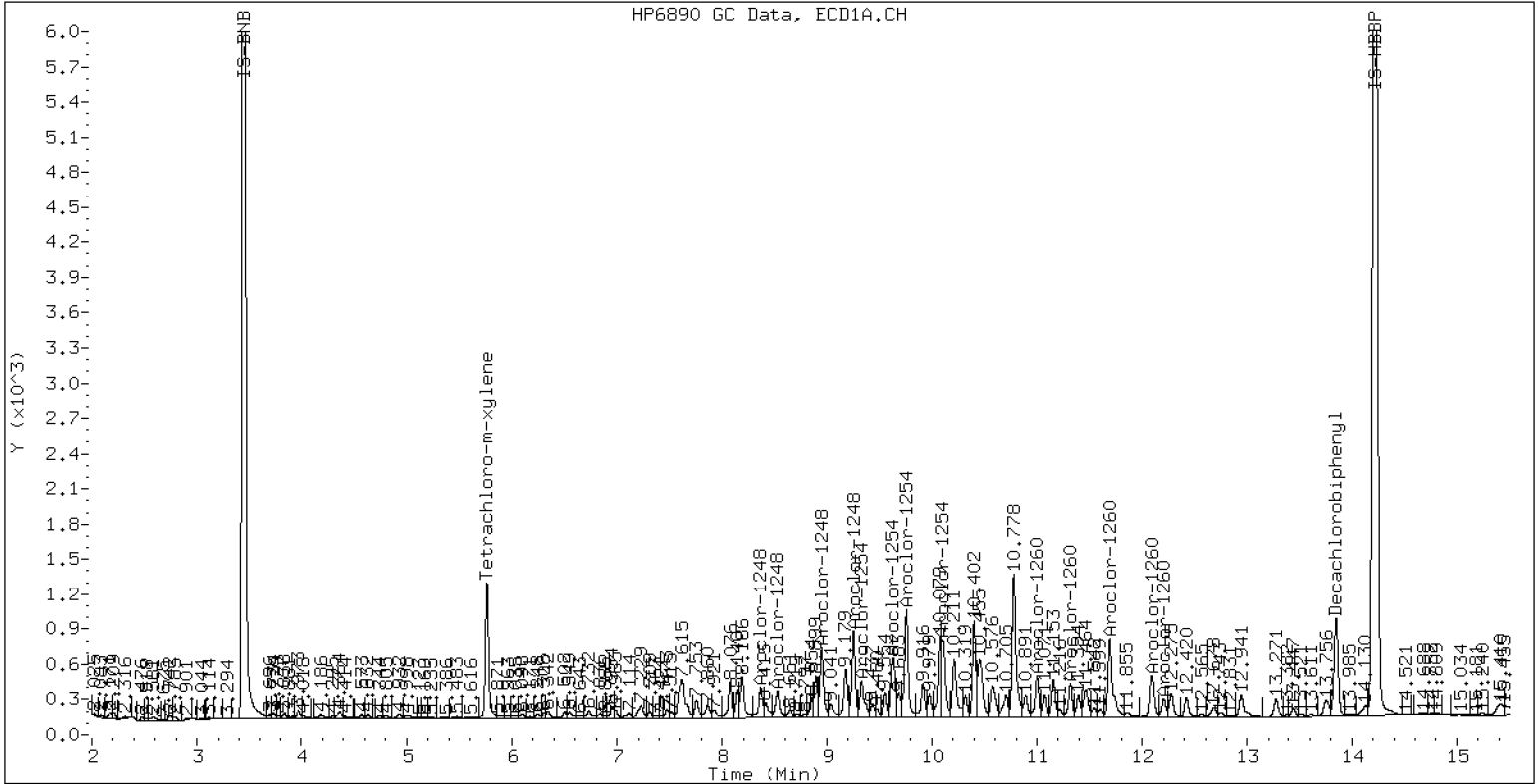
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23D0136-01RE1

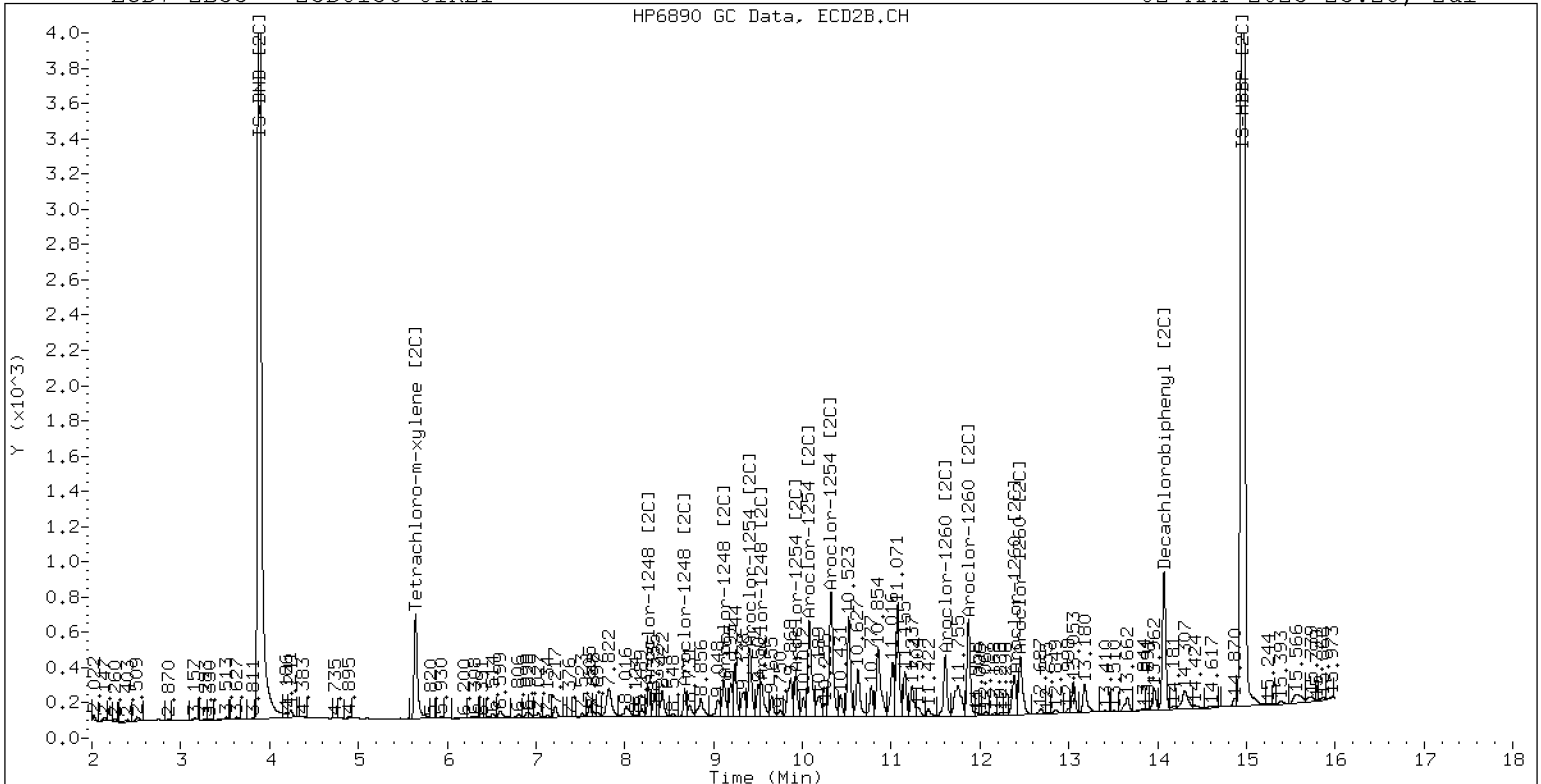
02-MAY-2023 23:28, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 23D0136-01RE1

02-MAY-2023 23:28, 2ul

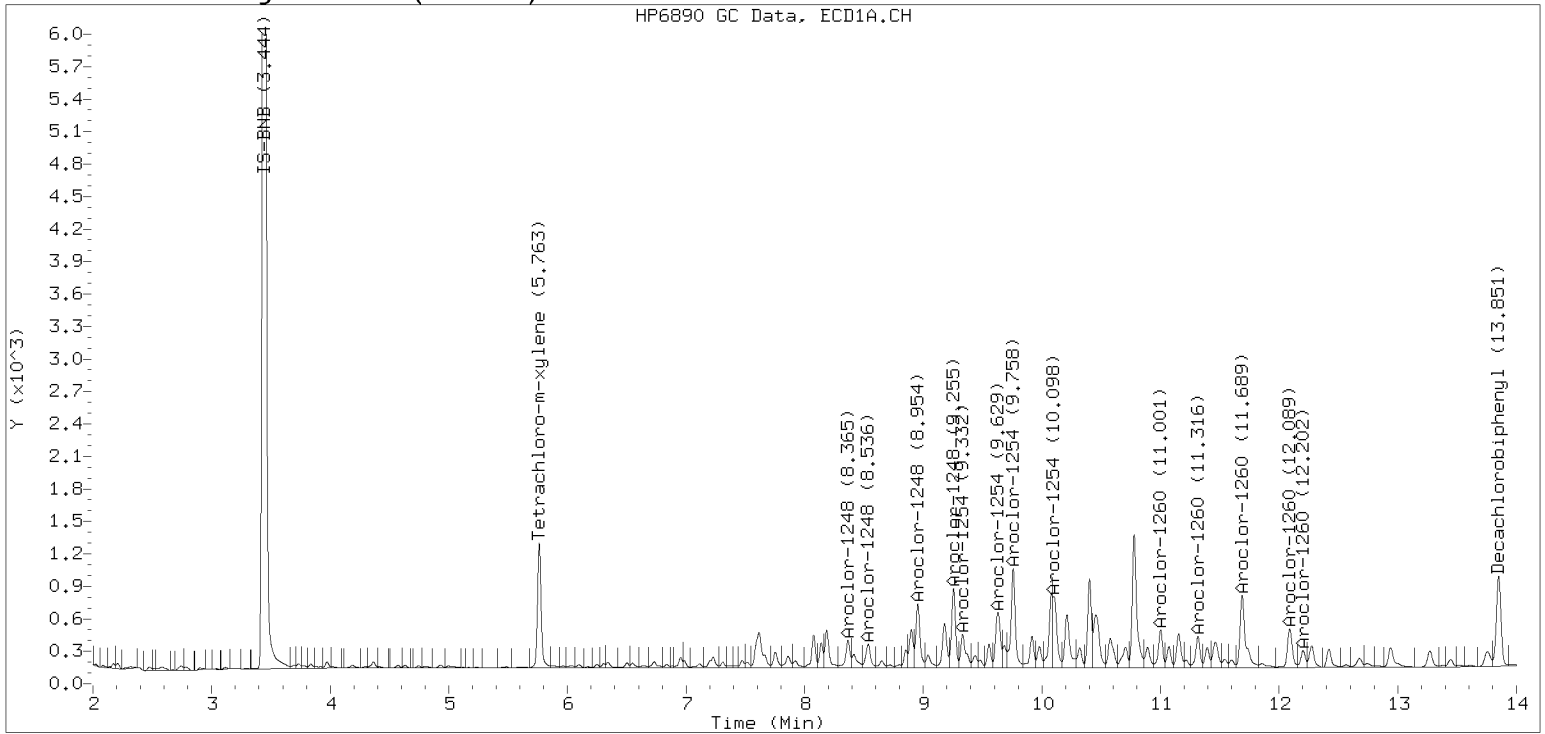


ZB-35 Manual Integration: NO

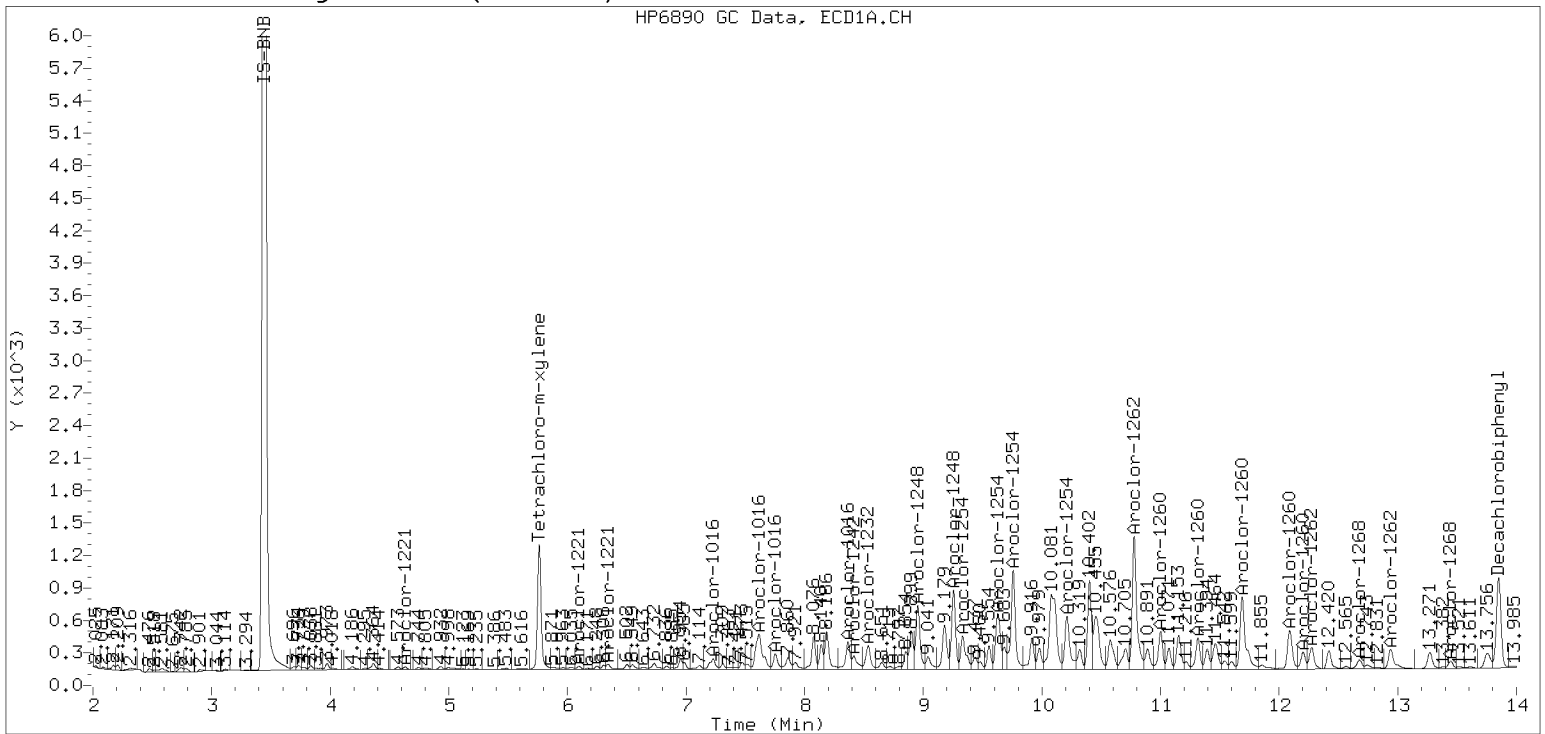
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230502.b/05022336ECD7.D Injection Date: 02-MAY-2023 23:28

Manual Integration (After)



Processed Integration (Before)





ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23D0136</u>	
Client: <u>Anchor QEA, LLC</u>		
Project: <u>AOC5 MR Phase 1</u>		
Matrix: <u>Solid</u>	Laboratory ID: <u>23D0136-02 A</u>	File ID: <u>05022337ECD7.D</u>
Sampled: <u>04/05/23 12:15</u>	Prepared: <u>04/18/23 11:37</u>	Analyzed: <u>05/02/23 23:49</u>
% Solids: <u>49.62</u>	Preparation: <u>EPA 3546 (Microwave)</u>	Initial/Final: <u>25.2 g Wet / 2.5 mL</u>
Batch: <u>BLD0328</u>	Sequence: <u>SLE0029</u>	Calibration: <u>GE00002</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	5	20.0	7.8	20.0	U
11104-28-2	Aroclor 1221	1	5	20.0	7.8	20.0	U
11141-16-5	Aroclor 1232	1	5	20.0	7.8	20.0	U
53469-21-9	Aroclor 1242	1	5	20.0	7.8	20.0	U
12672-29-6	Aroclor 1248	2	5	43.2	7.8	20.0	D
11097-69-1	Aroclor 1254	2	5	61.9	7.8	20.0	D
11096-82-5	Aroclor 1260	2	5	42.1	2.9	20.0	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9973	7.49	93.6	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9973	6.14	76.8	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9973	6.07	75.8	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9973	6.21	77.6	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022337ECD7.D
Data file 2: /230502.b/230502.b/05022337ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23D0136-02RE1
Client ID:
Injection Date: 02-MAY-2023 23:49
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.763	-0.002	52365	5.645	-0.004	30965	6.1	6.2	1.0	Tetrachloro-m-xylene
13.852	-0.010	50756	14.074	-0.008	41195	7.5	6.1	21.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	583001	4.8
Hexabromobiphenyl	745660	625284	-16.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	355322	2.0
Hexabromobiphenyl	429949	419266	-2.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.366	-0.012	9805	22.0	1	8.269	-0.013	7252	38.9	
Aroclor-1248	2	8.536	-0.020	9629	25.8	2	8.675	-0.013	6419	39.1	
Aroclor-1248	3	8.955	-0.005	24854	22.3	3	9.117	-0.039	9531	47.4	
Aroclor-1248	4	9.256	-0.012	29189	49.9	4	9.538	-0.045	10214	47.6	
Total CollAve (4 peaks):				30.0	Total Col2Ave (4 peaks):				43.2	RPD = 36	
Corrected Ave (3 peaks):				23.4	Corrected Ave (3 peaks):				41.8	RPD = 57*	
Aroclor-1254	1	9.256	-0.016	29189	46.4	1	9.409	-0.019	17398	65.5	
Aroclor-1254	2	9.333	-0.024	14290	47.9	2	9.538	0.012	10214	63.1	
Aroclor-1254	3	9.631	-0.015	24475	61.5	3	9.927	-0.022	10402	48.4	
Aroclor-1254	4	9.759	-0.027	40813	50.5	4	10.078	-0.027	29799	64.0	
Aroclor-1254	5	10.096	-0.064	23285	39.0	5	10.324	-0.029	36736	68.7	
Total CollAve (5 peaks):				49.0	Total Col2Ave (5 peaks):				61.9	RPD = 23	
Corrected Ave (4 peaks):				45.9	Corrected Ave (4 peaks):				60.2	RPD = 27	
				51.575							
Aroclor-1260	1	11.002	-0.015	14925	42.3	1	11.611	-0.014	16356	54.8	
Aroclor-1260	2	11.315	-0.018	11254	31.4	2	11.872	-0.019	27455	35.1	
Aroclor-1260	3	11.689	-0.023	28562	30.7	3	12.377	-0.029	20364	114.2	
Aroclor-1260	4	12.089	-0.029	17349	37.6	4	12.455	-0.020	19386	36.3	
Aroclor-1260	5	12.203	-0.013	7540	35.7	NS	---			---	
Total CollAve (5 peaks):				35.5	Total Col2Ave (4 peaks):				60.1	RPD = 51*	
Corrected Ave (4 peaks):				33.9	Corrected Ave (3 peaks):				42.1	RPD = 22	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.866 - 13.762) = 782799 Col1 Total PCB = 0.1 ppm*
Total PCB Area Col2 (5.749 - 13.983) = 551608 Col2 Total PCB = 0.1 ppm*

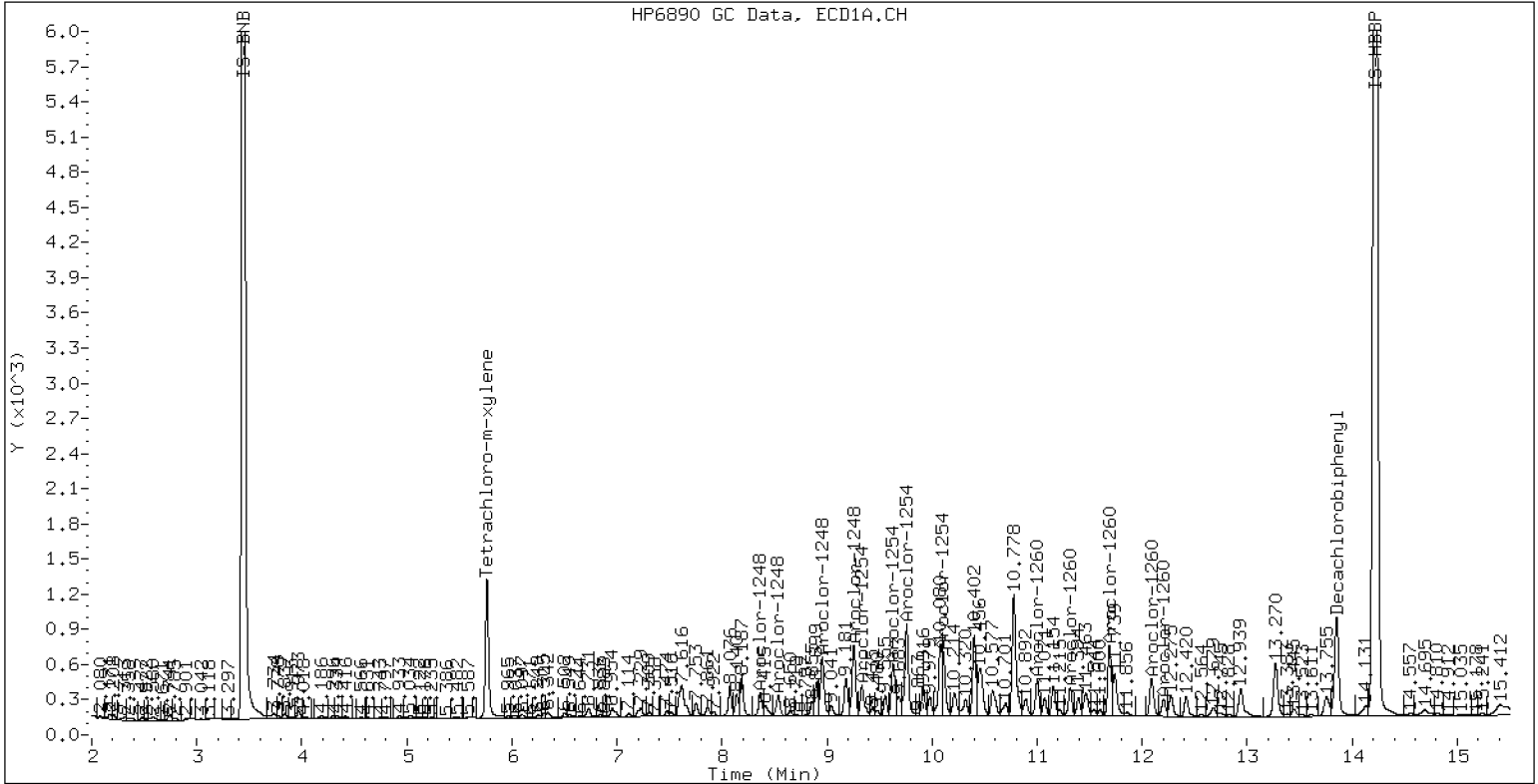
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23D0136-02RE1

02-MAY-2023 23:49, 2ul

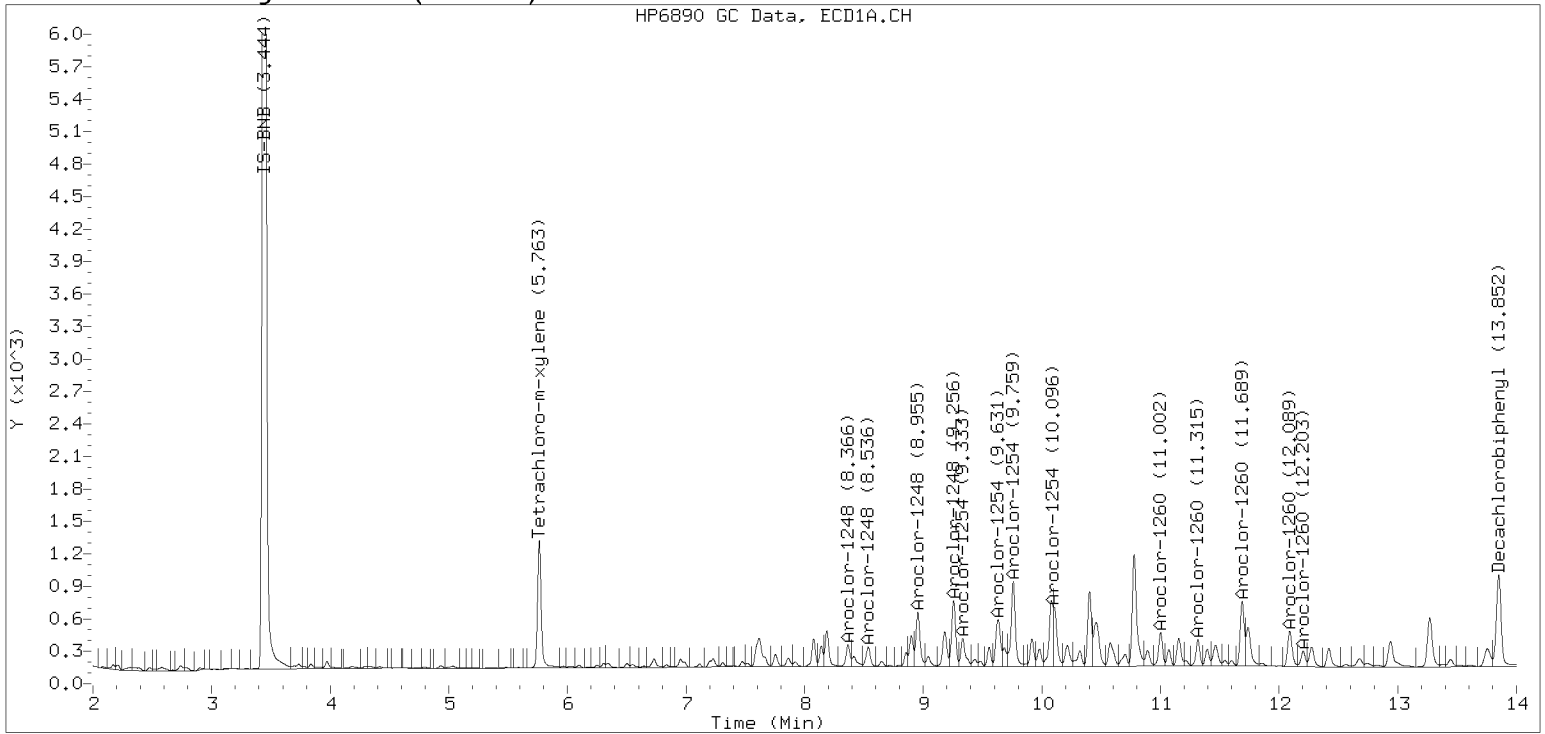


Manual Peak Adjustment, ZB-5

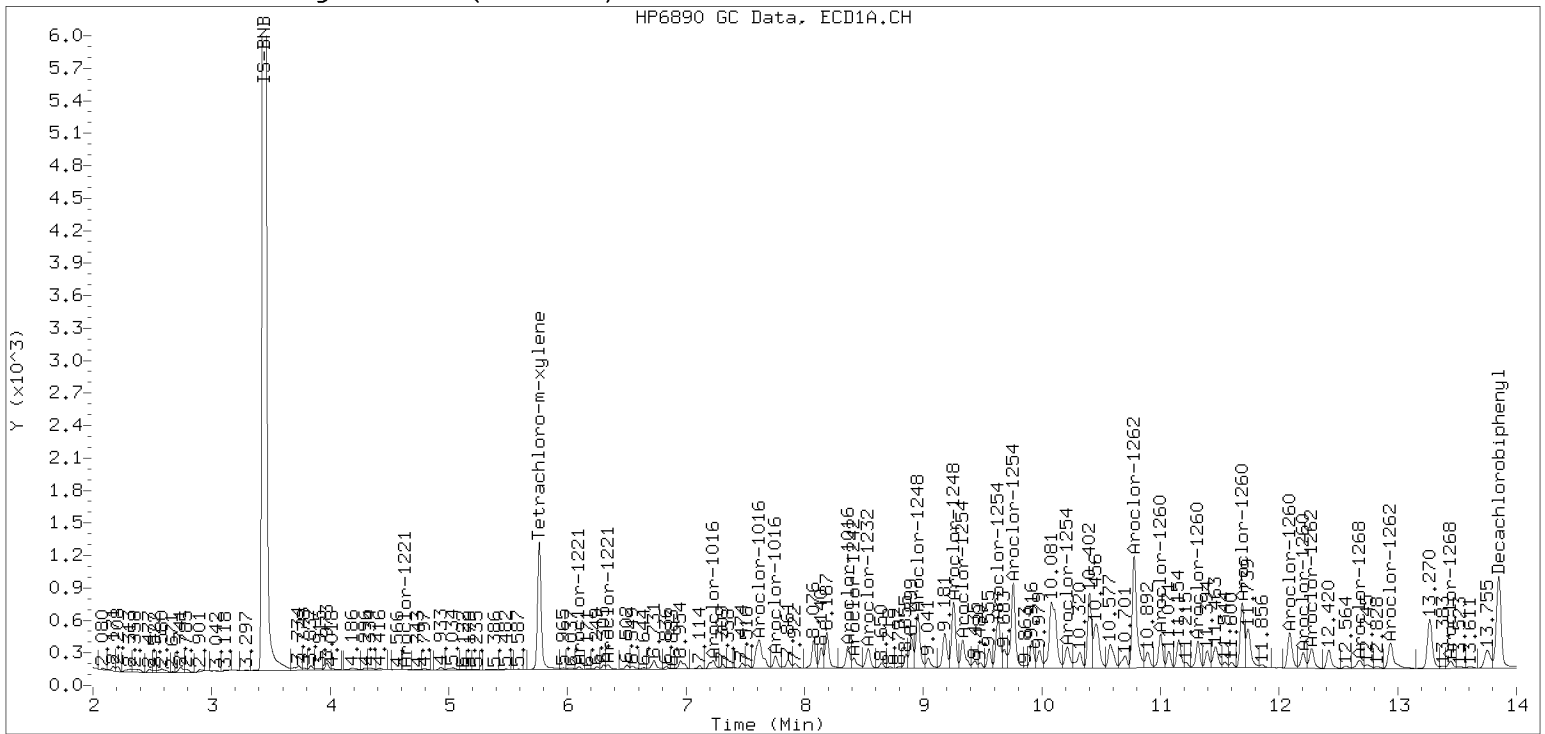
Datafile: ecd7.i/230502.b/05022337ECD7.D

Injection Date: 02-MAY-2023 23:49

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022340ECD7.D
Data file 2: /230502.b/230502.b/05022340ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23D0136-03RE1
Client ID:
Injection Date: 03-MAY-2023 00:51
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.763	-0.003	45243	5.645	-0.004	27247	5.3	5.5	3.3	Tetrachloro-m-xylene
13.852	-0.010	41833	14.073	-0.009	36632	6.3	5.5	13.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	580285	4.3
Hexabromobiphenyl	745660	614670	-17.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	351909	1.0
Hexabromobiphenyl	429949	410688	-4.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.366	-0.012	11877	26.8	1	8.269	-0.013	9125	49.4	
Aroclor-1248	2	8.536	-0.020	11576	31.1	2	8.675	-0.013	8222	50.6	
Aroclor-1248	3	8.954	-0.006	29819	26.9	3	9.117	-0.039	12215	61.3	
Aroclor-1248	4	9.256	-0.012	35366	60.7	4	9.537	-0.046	12500	58.8	
Total CollAve (4 peaks):				36.4	Total Col2Ave (4 peaks):				55.0	RPD = 41*	
Corrected Ave (3 peaks):				28.3	Corrected Ave (3 peaks):				52.9	RPD = 61*	
Aroclor-1254	1	9.256	-0.017	35366	56.4	1	9.408	-0.019	21368	81.2	
Aroclor-1254	2	9.332	-0.024	17141	57.7	2	9.537	0.011	12500	78.0	
Aroclor-1254	3	9.629	-0.016	29147	73.5	3	9.926	-0.022	13323	62.6	
Aroclor-1254	4	9.758	-0.028	48261	59.9	4	10.078	-0.027	35799	77.6	
Aroclor-1254	5	10.104	-0.057	29225	49.1	5	10.324	-0.029	44306	83.6	
Total CollAve (5 peaks):				59.4	Total Col2Ave (5 peaks):				76.6	RPD = 25	
Corrected Ave (4 peaks):				55.8	Corrected Ave (4 peaks):				74.8	RPD = 29	
				61.875							
Aroclor-1260	1	11.002	-0.014	17579	50.7	1	11.611	-0.014	19323	66.1	
Aroclor-1260	2	11.316	-0.018	14859	42.2	2	11.872	-0.019	29400	38.3	
Aroclor-1260	3	11.689	-0.022	43436	47.5	3	12.386	-0.020	13445	77.0	
Aroclor-1260	4	12.089	-0.029	21262	46.9	4	12.455	-0.020	21329	40.8	
Aroclor-1260	5	12.203	-0.013	8802	42.3	NS	---			----	
Total CollAve (5 peaks):				45.9	Total Col2Ave (4 peaks):				55.6	RPD = 19	
Corrected Ave (4 peaks):				44.8	Corrected Ave (3 peaks):				48.4	RPD = 8	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.866 - 13.762) = 909093 Col1 Total PCB = 0.1 ppm*
Total PCB Area Col2 (5.749 - 13.983) = 660314 Col2 Total PCB = 0.2 ppm*

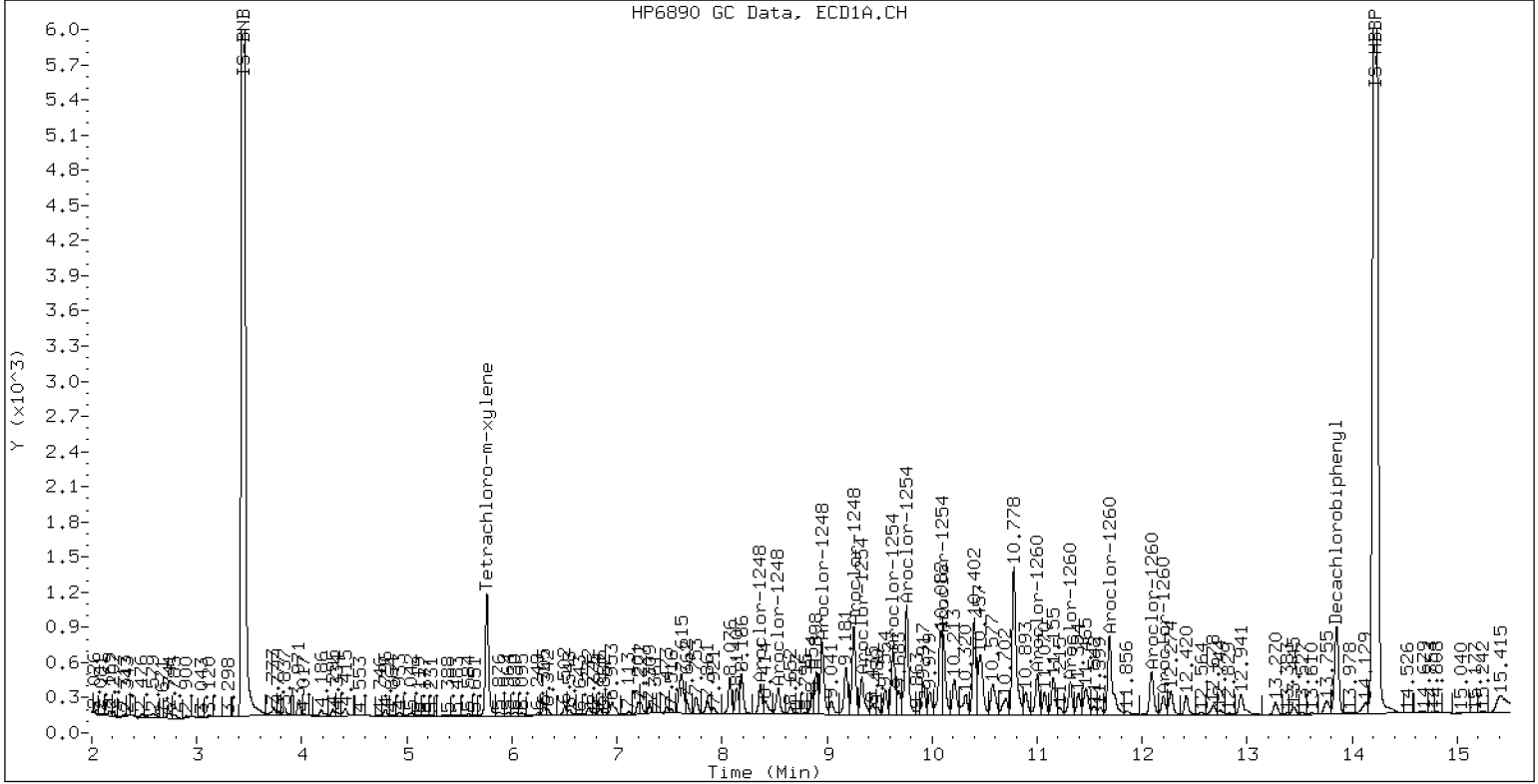
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23D0136-03RE1

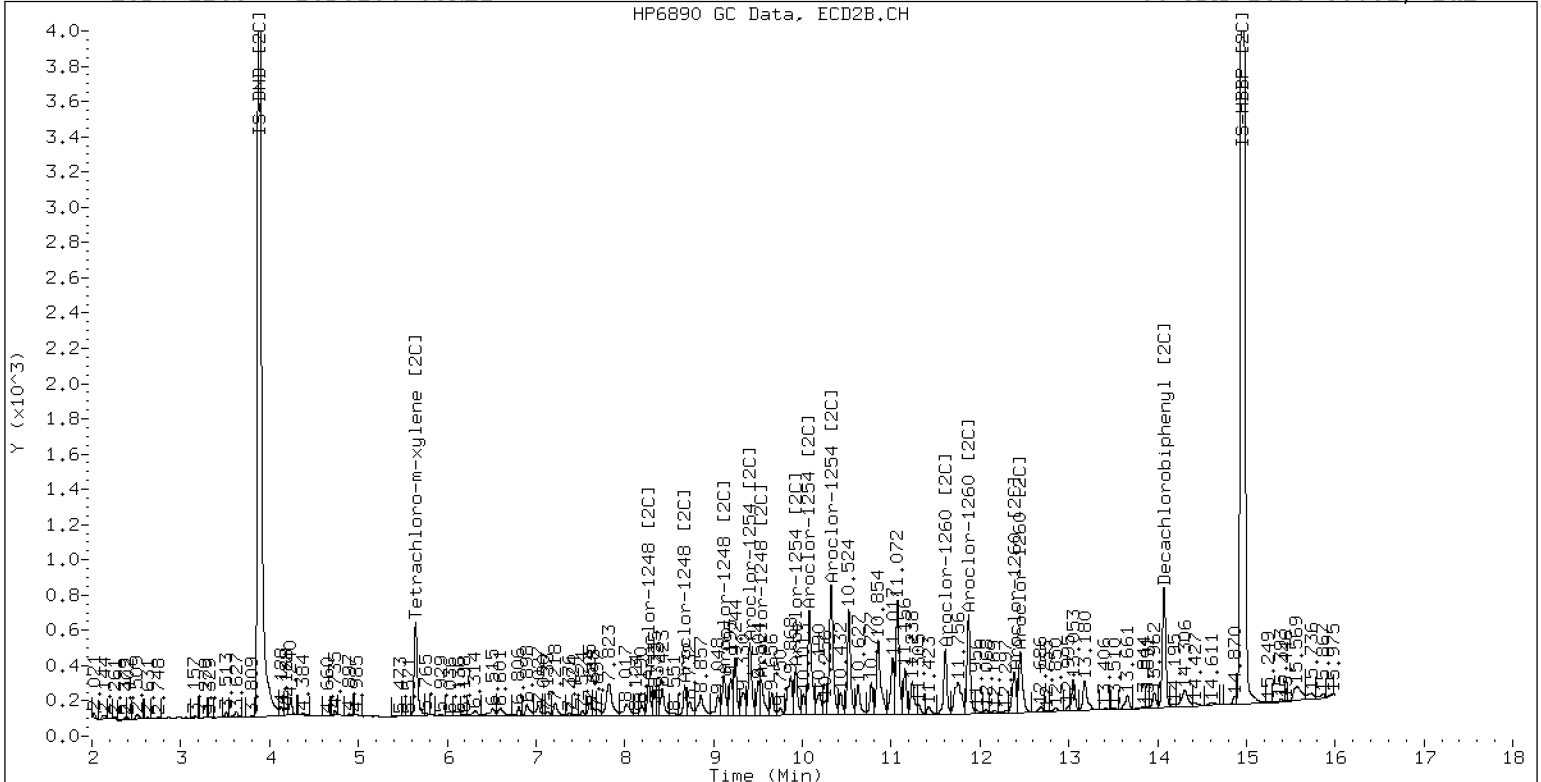
03-MAY-2023 00:51, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 23D0136-03RE1

03-MAY-2023 00:51, 2ul

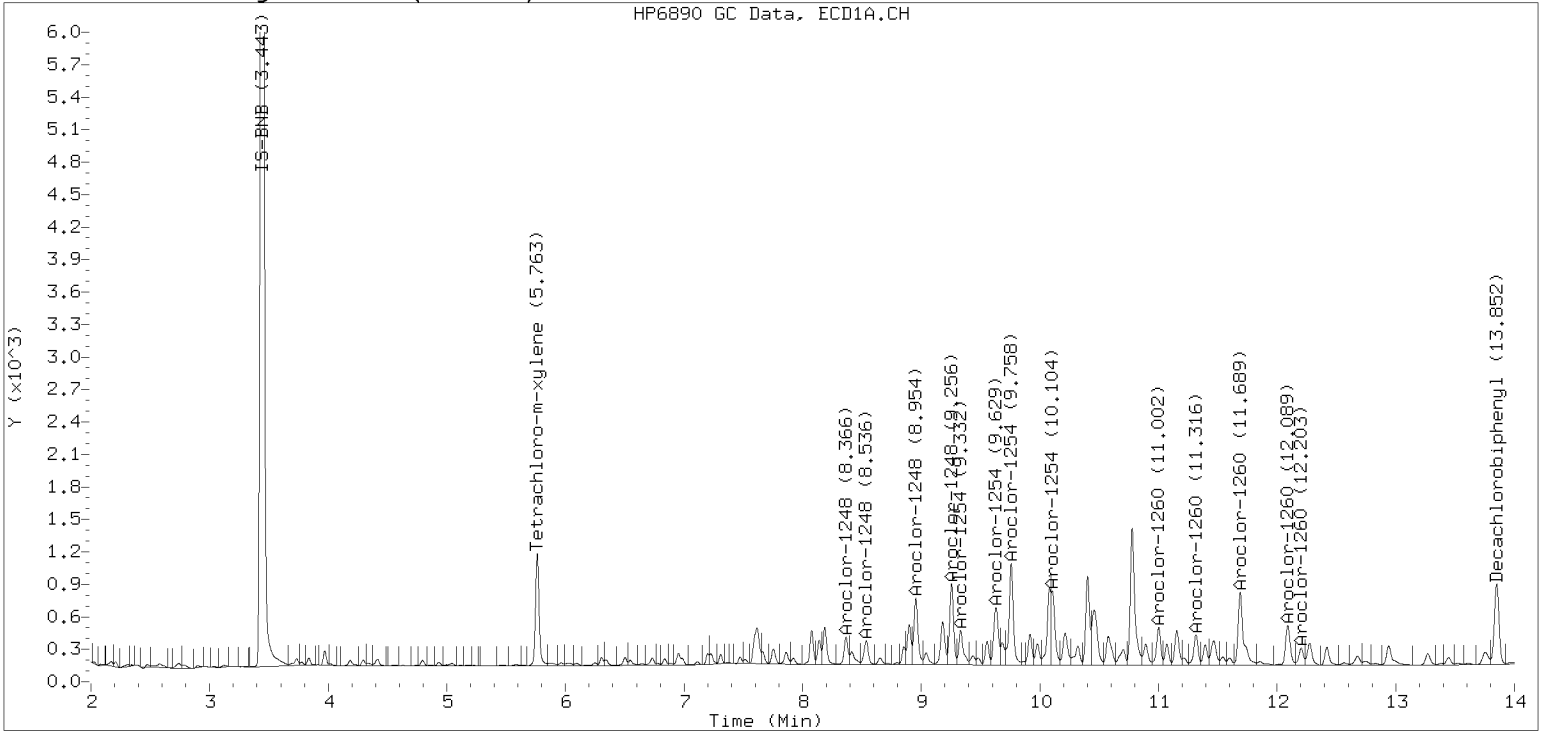


Manual Peak Adjustment, ZB-5

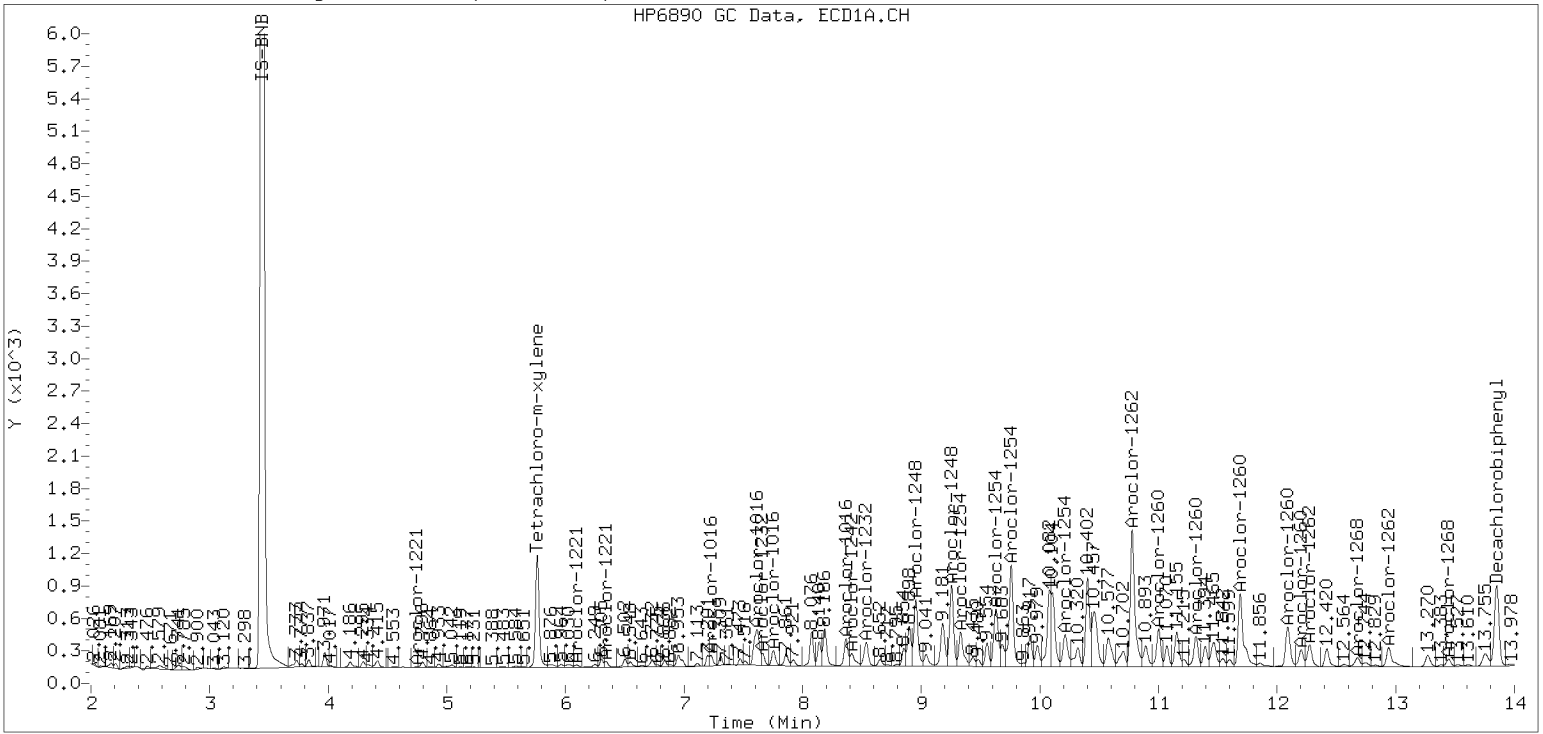
Datafile: ecd7.i/230502.b/05022340ECD7.D

Injection Date: 03-MAY-2023 00:51

Manual Integration (After)



Processed Integration (Before)





ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: 23D0136-04 A

File ID: 05022341ECD7.D

Sampled: 04/05/23 16:30

Prepared: 04/18/23 11:37

Analyzed: 05/03/23 01:12

% Solids: 49.02

Preparation: EPA 3546 (Microwave)

Initial/Final: 25.5 g Wet / 2.5 mL

Batch: BLD0328

Sequence: SLE0029

Calibration: GE00002

Instrument: ECD7

Column 1: ZB5

Column 2: ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	5	20.0	7.8	20.0	U
11104-28-2	Aroclor 1221	1	5	20.0	7.8	20.0	U
11141-16-5	Aroclor 1232	1	5	20.0	7.8	20.0	U
53469-21-9	Aroclor 1242	1	5	20.0	7.8	20.0	U
12672-29-6	Aroclor 1248	2	5	41.9	7.8	20.0	D
11097-69-1	Aroclor 1254	2	5	62.5	7.8	20.0	D
11096-82-5	Aroclor 1260	2	5	51.5	2.9	20.0	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9999	6.12	76.6	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9999	5.46	68.2	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9999	5.42	67.7	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9999	5.54	69.3	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022341ECD7.D
Data file 2: /230502.b/230502.b/05022341ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23D0136-04RE1
Client ID:
Injection Date: 03-MAY-2023 01:12
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.763	-0.003	46172	5.645	-0.004	27461	5.5	5.5	1.5	Tetrachloro-m-xylene
13.852	-0.009	41285	14.073	-0.009	35698	6.1	5.4	12.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	578926	4.1
Hexabromobiphenyl	745660	621847	-16.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	352942	1.3
Hexabromobiphenyl	429949	406912	-5.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.367	-0.011	10758	24.3	1	8.270	-0.012	7336	39.6	
Aroclor-1248	2	8.537	-0.019	10971	29.6	2	8.677	-0.011	5945	36.5	
Aroclor-1248	3	8.955	-0.005	27544	24.9	3	9.120	-0.036	9402	47.0	
Aroclor-1248	4	9.257	-0.011	31755	54.6	4	9.538	-0.045	9474	44.4	
Total CollAve (4 peaks):				33.3	Total Col2Ave (4 peaks):				41.9	RPD = 23	
Corrected Ave (3 peaks):				26.3	Corrected Ave (3 peaks):				40.2	RPD = 42*	
Aroclor-1254	1	9.257	-0.015	31755	50.8	1	9.410	-0.018	17467	66.2	
Aroclor-1254	2	9.333	-0.023	15918	53.7	2	9.538	0.012	9474	58.9	
Aroclor-1254	3	9.631	-0.015	25257	63.9	3	9.927	-0.021	10538	49.3	
Aroclor-1254	4	9.759	-0.026	43896	54.7	4	10.080	-0.026	30813	66.6	
Aroclor-1254	5	10.106	-0.055	25641	49.2	5	10.326	-0.028	37905	71.3	
Total CollAve (5 peaks):				53.2	Total Col2Ave (5 peaks):				62.5	RPD = 16	
Corrected Ave (4 peaks):				50.6	Corrected Ave (4 peaks):				60.3	RPD = 17	
				55.775							
Aroclor-1260	1	11.002	-0.014	17665	50.3	1	11.611	-0.014	17444	60.3	
Aroclor-1260	2	11.317	-0.017	13286	37.3	2	11.873	-0.018	27946	36.8	
Aroclor-1260	3	11.690	-0.021	39171	42.4	3	12.389	-0.016	11907	68.8	
Aroclor-1260	4	12.091	-0.028	19896	43.4	4	12.455	-0.019	20848	40.3	
Aroclor-1260	5	12.203	-0.013	8764	41.7	NS	---			----	
Total CollAve (5 peaks):				43.0	Total Col2Ave (4 peaks):				51.5	RPD = 18	
Corrected Ave (4 peaks):				41.2	Corrected Ave (3 peaks):				45.8	RPD = 11	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.866 - 13.762) = 842388 Col1 Total PCB = 0.1 ppm*
Total PCB Area Col2 (5.749 - 13.983) = 547806 Col2 Total PCB = 0.1 ppm*

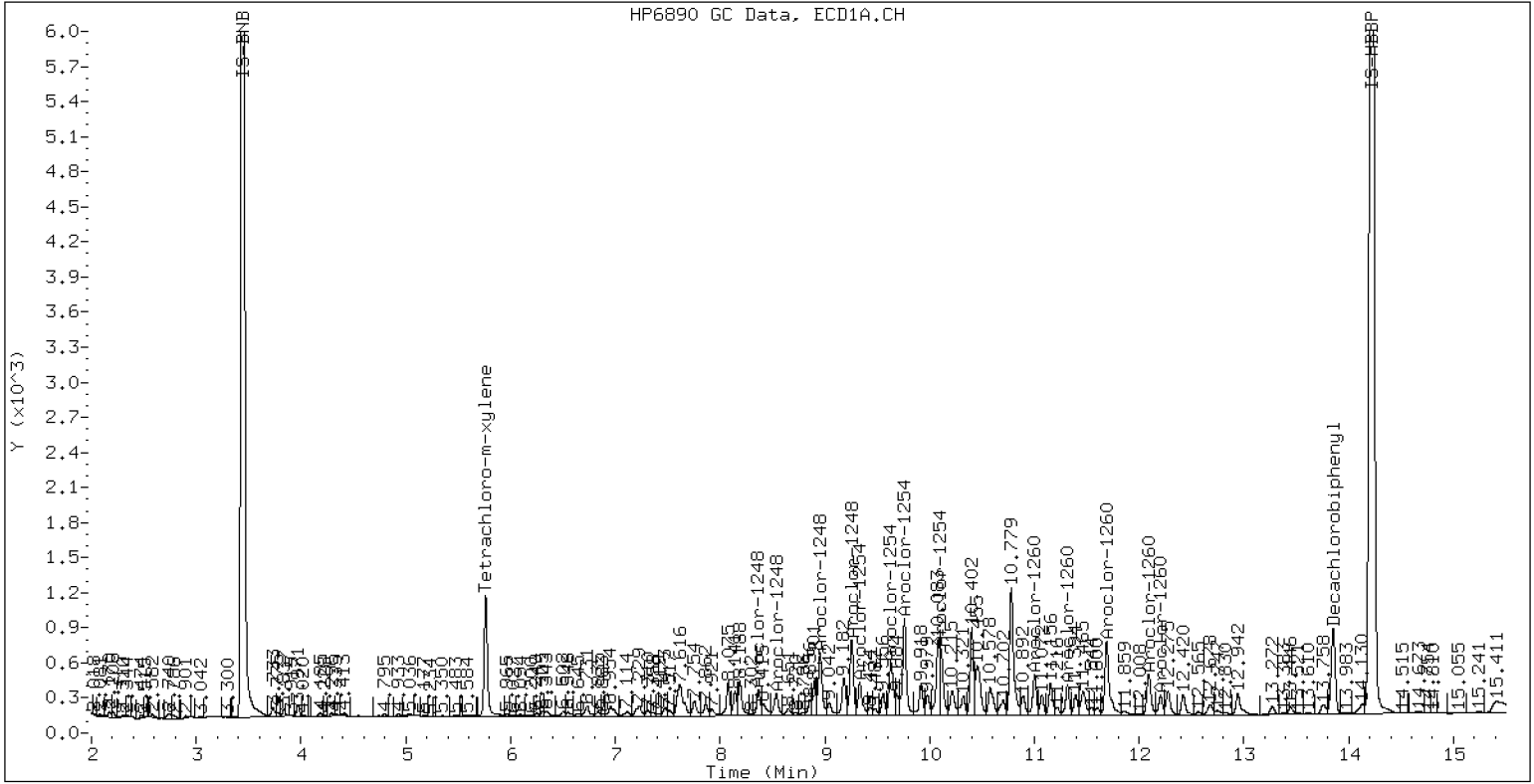
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23D0136-04RE1

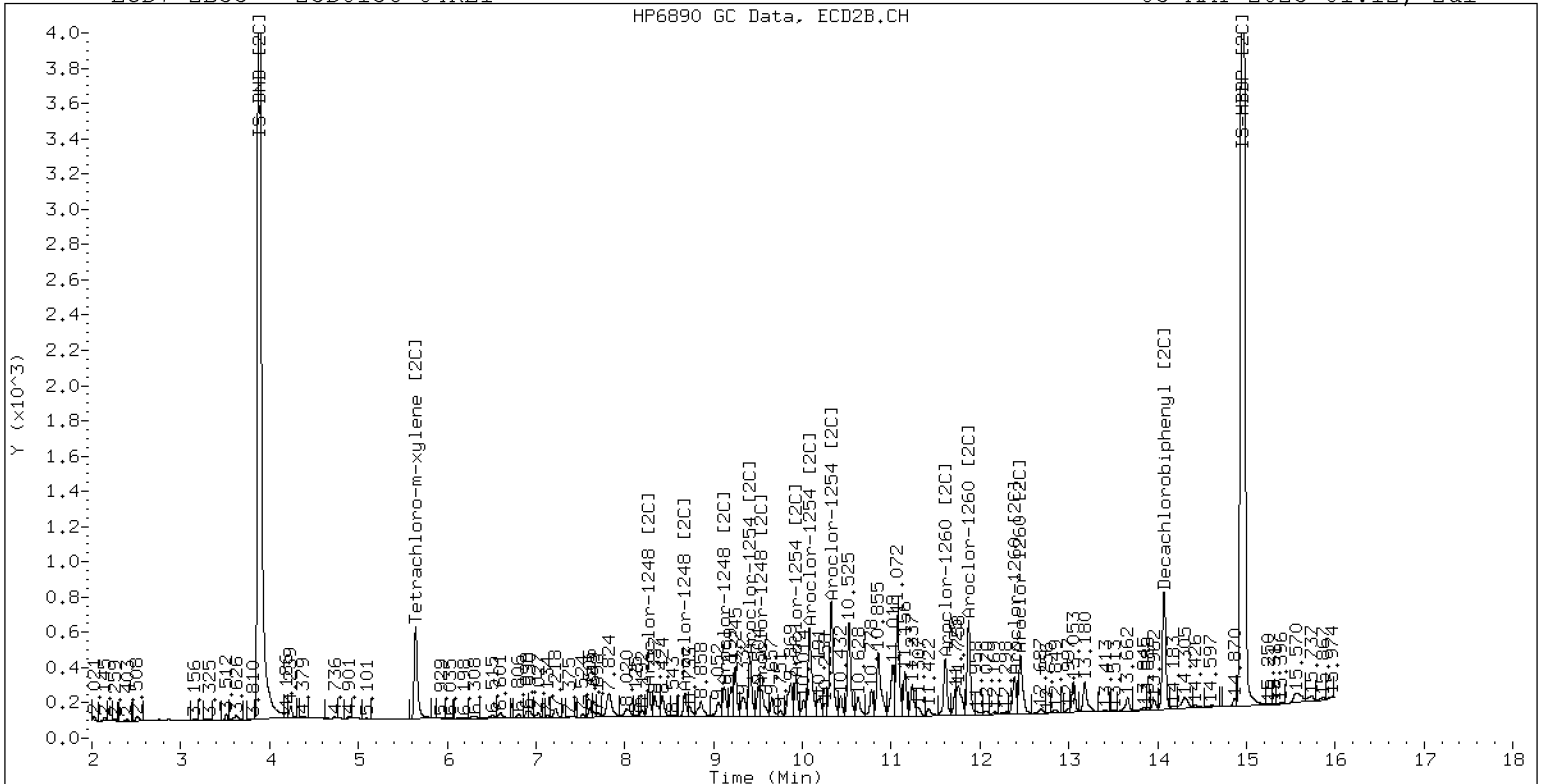
03-MAY-2023 01:12, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 23D0136-04RE1

03-MAY-2023 01:12, 2ul



ZB-35 Manual Integration: NO



Batch: BLD0328

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

Matrix: Solid Date Prepared: 4/18/23 Balance ID: B146462614 Set Up By: CTO 4/13/23

WO Comments
23D0136: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43,
7935-36,K011477-79, MS/MSD <E> Sample ID for -03 and -04 changed by client

The following standards may be missing from this batch!

Designator	Description
QLS 5	QLS Spike

Analysis: 8082A PCB Solid 4

Lab Number & Container	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
23D0136-01 A	49.3	(25.33)	<u>25.34</u>	5mL	5mL	2mL	2.5	1.0	
23D0136-02 A	49.6	(25.19)	<u>25.24</u>	5mL	5mL	2mL	2.5	1.0	
23D0136-03 A	44.3	(28.21)	<u>28.24</u>	5mL	5mL	2mL	2.5	1.0	
23D0136-04 A	49.0	(25.50)	<u>25.54</u>	5mL	5mL	2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
BLD0328-BLK1	100.0	(12.50)	<u>12.54</u>	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLD0328-BS1	100.0	(12.50)	<u>12.54</u>	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLD0328-BSD1	100.0	(12.50)	<u>12.54</u>	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLD0328-MS1	49.6	(25.19)	<u>25.19</u>	5mL	5mL	2mL	2.5	1.0	Use 23D0136-02
BLD0328-MSD1	49.6	(25.19)	<u>25.19</u>	5mL	5mL	2mL	2.5	1.0	Use 23D0136-02
BLD0328-SRM1	100.0	(12.50)	<u>12.54</u>	5mL	5mL	2mL	2.5	1.0	Use K00366 4/18/23

+1g DI WATER

Client Verified By: [Signature] Date: 4/18/23
Preparation Reviewed By: [Signature] Date: 4/26/23
Extraction Date and Time: 4/18/23 11:37



Batch: BLD0328

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments
23D0136: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43,
7935-36,K011477-79, MS/MSD </E> Sample ID for -03 and -04 changed by client

Prep Steps	Reagents Used	Surrogates & Spike Standards Used																									
Microwave 1 2 3 Analyst/Date: <i>CT 4/18/23</i>	Station/Reagent Standard ID Microwave Analyst: <i>CT</i> Date: <i>4/18/23</i> Neutral Glass Wool <i>L002037</i> 1:1 Hexane/Acetone <i>L003045</i> Hexane <i>L001957</i> Anhydrous Sodium Sulfate <i>L003657</i>	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>N L000773 <i>L003667</i></td> <td>50µL</td> <td><i>CT</i></td> <td><i>Y</i></td> </tr> <tr> <td>2µg/mL</td> <td>Exp Date: <i>4/18/23</i></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Spike</td> <td>1 L001587</td> <td>63µL</td> <td><i>CT</i></td> <td><i>Y</i></td> </tr> <tr> <td>20µg/mL</td> <td>Exp Date: <i>2/13/2023</i></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	N L000773 <i>L003667</i>	50µL	<i>CT</i>	<i>Y</i>	2µg/mL	Exp Date: <i>4/18/23</i>				Spike	1 L001587	63µL	<i>CT</i>	<i>Y</i>	20µg/mL	Exp Date: <i>2/13/2023</i>			
Type	Vial ID / Standard ID	Vol uL	Analyst	Witness																							
Surrogate	N L000773 <i>L003667</i>	50µL	<i>CT</i>	<i>Y</i>																							
2µg/mL	Exp Date: <i>4/18/23</i>																										
Spike	1 L001587	63µL	<i>CT</i>	<i>Y</i>																							
20µg/mL	Exp Date: <i>2/13/2023</i>																										
KD 100°C Hexane Exchange (2 X 20 mL) 1 2 3 4 5 6 Analyst/Date: <i>OR 4/24/23</i>	KD Analyst: <i>OR</i> Date: <i>4/24/23</i> Anhydrous Sodium Sulfate																										
TurboVap Pre Cleanups 1 2 3 4 5 Analyst/Date: <i>ZH 4/26/23</i>	Hexane <i>L003500</i> Vialing Analyst: <i>ZH</i> Date: <i>4/26/23</i> Hexane <i>L003500</i> Concentrated Sulfuric Acid <i>L001033</i>																										
TurboVap Post Cleanups 1 2 3 4 5 Analyst/Date: <i>ZH 4/26/23</i>	Silica Gel (SPE) Darts <i>L003399</i> Sodium Sulfite <i>L002437</i> Tetrabutylammonium hydrogensulfate (TBAS) <i>L003024</i>																										
Vialing Analyst/Date: <i>ZH 4/26/23</i>																											

MANUALLY ENTER EXPIRATION DATES!

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

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



Batch: BLD0328

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments

23D0136: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E> Sample ID for -03 and -04 changed by client

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"> 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3 inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in R-05 15 minutes. Re-homogenize while cool. 7. Decant 1:1 Hex/Ace into Erlenmeyer flask with sodium sulfate in bottom and funnel with neutral glasswool plug. 8. Re-homogenize and rinse with 1:1 Hexane/Acetone. 9. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 10. KD on 100° bath. 11. Exchange (2 X with 20mL) Hexane. 12. TurboVap. 13. Clean-ups. 14. TurboVap. 15. Vial with Hexane. <p>A. Need Total Solids Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>B. Archive/Freeze <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p>	



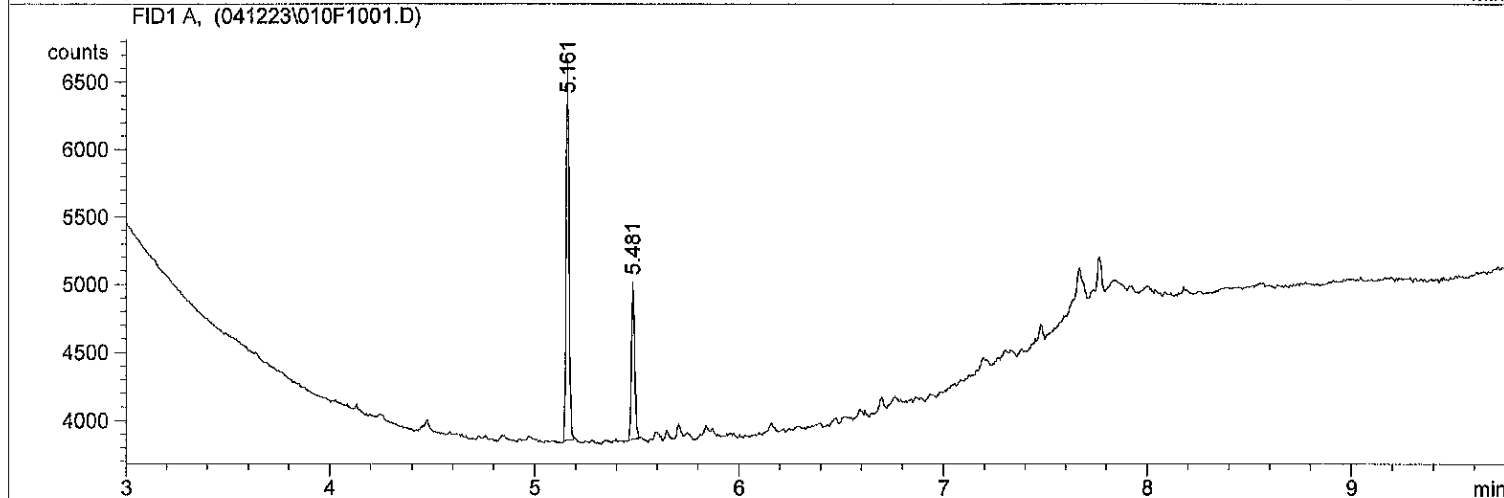
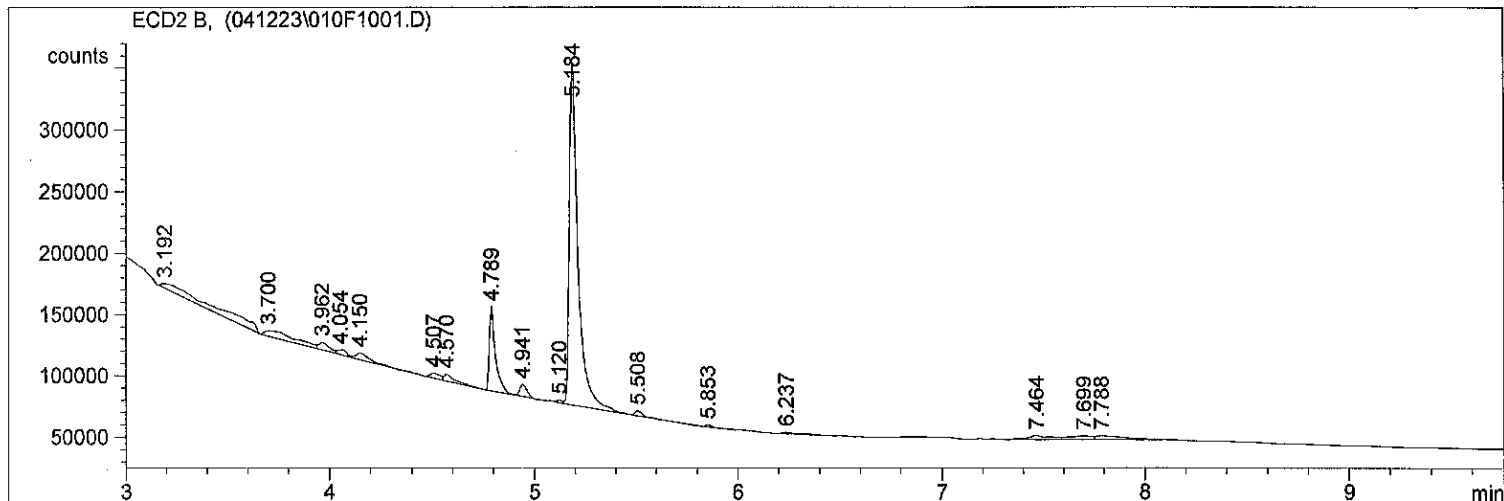
Extraction Parameter: PCB Extraction Batch BLD0208

Total Solids Batch: BLD0208 Work Order(s): 23D0136

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>01-04</u>	<u>CR 4/12/23</u>
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / (N)	<u>CR 4/12/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y / (N)	<u>CR 4/12/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

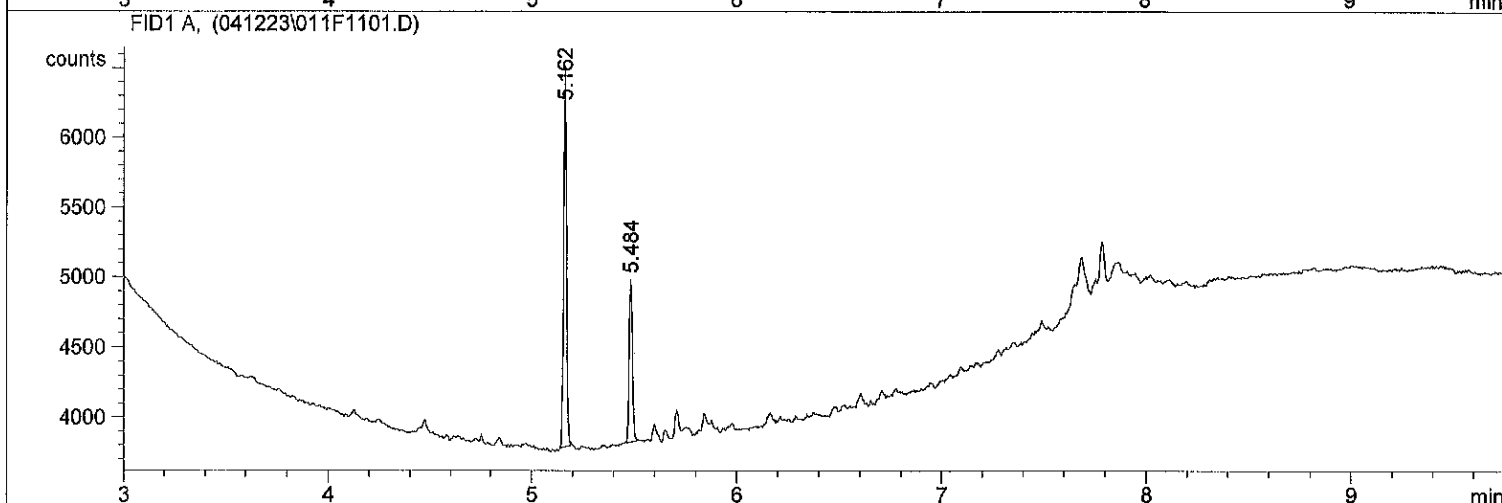
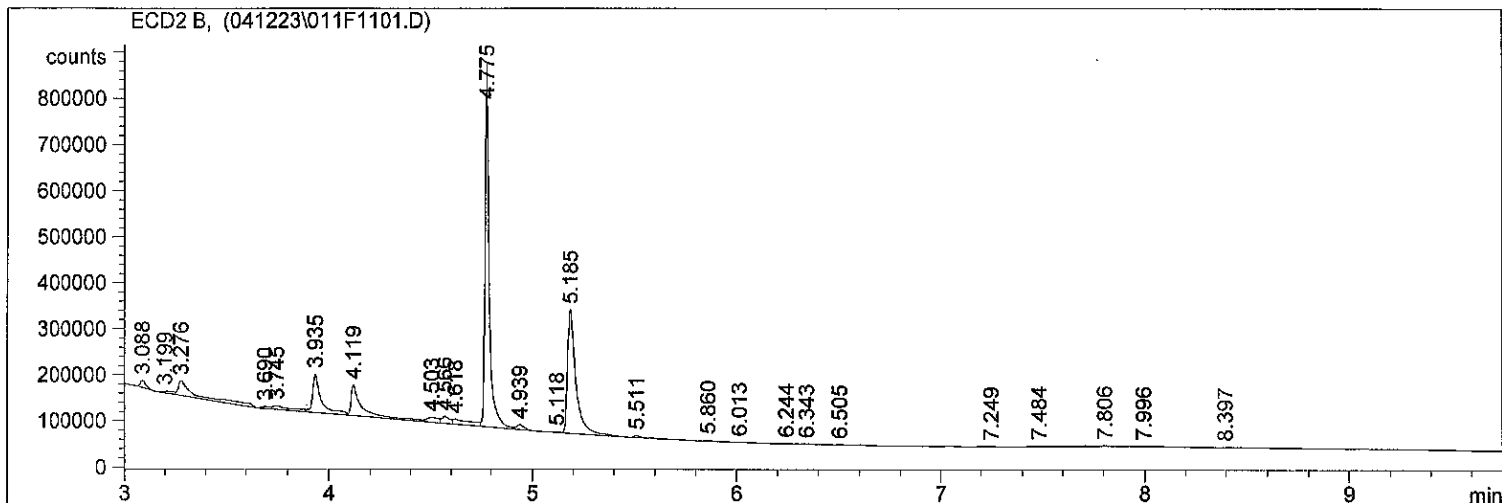
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Injection Date : 4/12/2023 4:44:26 PM Seq. Line : 10
Sample Name : 23D0136 03 Location : Vial 10
Acq. Operator : CR Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\041223.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

=====
Injection Date : 4/12/2023 4:58:57 PM Seq. Line : 11
Sample Name : 23D0136 04 Location : Vial 11
Acq. Operator : CR Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\041223.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLD0178

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1803	23D0136-04	05022341ECD7.D	04/26/2023	
LDW23-SC1804	23D0136-02	05022337ECD7.D	04/26/2023	
LDW23-SS1803	23D0136-03	05022340ECD7.D	04/26/2023	
LDW23-SS1804	23D0136-01	05022336ECD7.D	04/26/2023	
LCS	BLD0328-BS1	05022333ECD7.D	04/26/2023	
LCS Dup	BLD0328-BSD1	05022334ECD7.D	04/26/2023	
Matrix Spike	BLD0328-MS1	05022338ECD7.D	04/26/2023	
Matrix Spike Dup	BLD0328-MSD1	05022339ECD7.D	04/26/2023	
Reference	BLD0328-SRM1	05022335ECD7.D	04/26/2023	
Blank	BLD0328-BLK1	05022332ECD7.D	04/26/2023	



CLEANUP BENCH SHEET

CLD0178

Matrix: Solid Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL Printed: 4/26/2023 12:57:05PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0136-01	A	LDW23-SS1804	A 03	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
23D0136-02	A	LDW23-SC1804	A 02	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
23D0136-03	A	LDW23-SS1803	A 02	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
23D0136-04	A	LDW23-SC1803	A 01	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
BLD0328-BLK1	-	Blank	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-BS1	-	LCS	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-BSD1	-	LCS Dup	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-MS1	-	Matrix Spike	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-SRM1	-	Reference	-	2.5	2.5	-	4/26/2023	ZH	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLD0179

Cleanup Type: Sulfur

Cleanup Method: EPA 3660B Sulfur Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	05022336ECD7.D	04/26/2023	
Matrix Spike	BLD0328-MS1	05022338ECD7.D	04/26/2023	
LCS Dup	BLD0328-BSD1	05022334ECD7.D	04/26/2023	
LCS	BLD0328-BS1	05022333ECD7.D	04/26/2023	
Blank	BLD0328-BLK1	05022332ECD7.D	04/26/2023	
LDW23-SC1803	23D0136-04	05022341ECD7.D	04/26/2023	
Matrix Spike Dup	BLD0328-MSD1	05022339ECD7.D	04/26/2023	
LDW23-SC1804	23D0136-02	05022337ECD7.D	04/26/2023	
Reference	BLD0328-SRM1	05022335ECD7.D	04/26/2023	
LDW23-SS1803	23D0136-03	05022340ECD7.D	04/26/2023	



CLEANUP BENCH SHEET

CLD0179

Matrix: Solid

Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL

Printed: 4/26/2023 12:57:47PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0136-01	A	LDW23-SS1804	A 03	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
23D0136-02	A	LDW23-SC1804	A 02	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
23D0136-03	A	LDW23-SS1803	A 02	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
23D0136-04	A	LDW23-SC1803	A 01	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
BLD0328-BLK1	-	Blank	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-BS1	-	LCS	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-BSD1	-	LCS Dup	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-MS1	-	Matrix Spike	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-SRM1	-	Reference	-	2.5	2.5	-	4/26/2023	ZH	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLD0180

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS	BLD0328-BS1	05022333ECD7.D	04/26/2023	
Reference	BLD0328-SRM1	05022335ECD7.D	04/26/2023	
Matrix Spike Dup	BLD0328-MSD1	05022339ECD7.D	04/26/2023	
LCS Dup	BLD0328-BSD1	05022334ECD7.D	04/26/2023	
LDW23-SC1803	23D0136-04	05022341ECD7.D	04/26/2023	
Blank	BLD0328-BLK1	05022332ECD7.D	04/26/2023	
LDW23-SC1804	23D0136-02	05022337ECD7.D	04/26/2023	
LDW23-SS1803	23D0136-03	05022340ECD7.D	04/26/2023	
LDW23-SS1804	23D0136-01	05022336ECD7.D	04/26/2023	
Matrix Spike	BLD0328-MS1	05022338ECD7.D	04/26/2023	



CLEANUP BENCH SHEET

CLD0180

Matrix: Solid

Cleanup using: Organics - EPA 3630C Silica Gel Cleanup - uL

Printed: 4/26/2023 12:58:15PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0136-01	A	LDW23-SS1804	A 03	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
23D0136-02	A	LDW23-SC1804	A 02	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
23D0136-03	A	LDW23-SS1803	A 02	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
23D0136-04	A	LDW23-SC1803	A 01	2.5	2.5	8082A PCB Solid 4	4/26/2023	ZH	
BLD0328-BLK1	-	Blank	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-BS1	-	LCS	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-BSD1	-	LCS Dup	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-MS1	-	Matrix Spike	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	4/26/2023	ZH	
BLD0328-SRM1	-	Reference	-	2.5	2.5	-	4/26/2023	ZH	



Form I
METHOD BLANK DATA SHEET
EPA 8082A

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLD0328-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/18/23 11:37</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLD0328</u>	Sequence:	<u>SLE0029</u>
Instrument:	<u>ECD7</u>	Column:	<u>ZB5</u>
		File ID:	<u>05022332ECD7.D</u>
		Analyzed:	<u>05/02/23 22:05</u>
		Initial/Final:	<u>12.5 g / 2.5 mL</u>
		Calibration:	<u>GE00002</u>
		Cleanups:	<u>Silica Gel, Sulfur, Sulfuric Acid</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
12674-11-2	Aroclor 1016	1	4.0	U	1.6	4.0
11104-28-2	Aroclor 1221	1	4.0	U	1.6	4.0
11141-16-5	Aroclor 1232	1	4.0	U	1.6	4.0
53469-21-9	Aroclor 1242	1	4.0	U	1.6	4.0
12672-29-6	Aroclor 1248	1	4.0	U	1.6	4.0
11097-69-1	Aroclor 1254	1	4.0	U	1.6	4.0
11096-82-5	Aroclor 1260	1	4.0	U	0.6	4.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl	8.0000	6.96	87.0	40 - 126	
Tetrachlorometaxylene	8.0000	6.17	77.1	44 - 120	
Decachlorobiphenyl [2C]	8.0000	7.19	89.9	40 - 126	
Tetrachlorometaxylene [2C]	8.0000	6.01	75.2	44 - 120	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022332ECD7.D
Data file 2: /230502.b/230502.b/05022332ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0328-BLK1
Client ID:
Injection Date: 02-MAY-2023 22:05
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.765	-0.000	264675	5.648	-0.001	147990	30.8	30.1	2.5	Tetrachloro-m-xylene
13.859	-0.002	336885	14.080	-0.002	258142	34.8	36.0	3.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	587428	5.6
Hexabromobiphenyl	745660	892849	19.7
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	350622	0.6
Hexabromobiphenyl	429949	443216	3.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Coll (5.866 - 13.762) = 149363

Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.749 - 13.983) = 15958 Col2 Total PCB = 0.0 ppm*

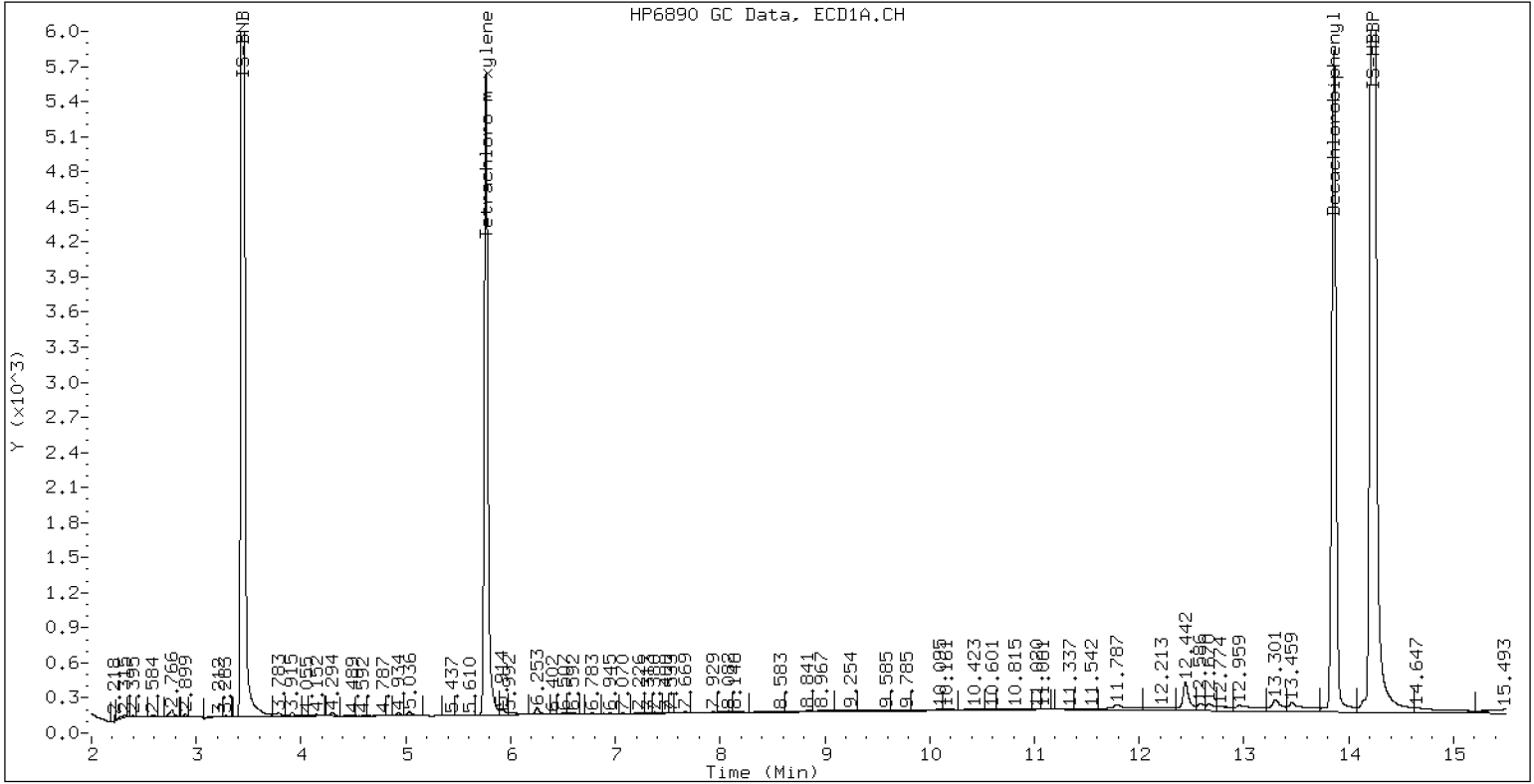
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLD0328-BLK1

02-MAY-2023 22:05, 2u1





LCS / LCS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/02/23 22:25</u>
Batch:	<u>BLD0328</u>	Laboratory ID:	<u>BLD0328-BS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>12.5 g / 2.5 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	101	88.2		87.5	56 - 120
Aroclor 1260 [2C]	101	92.1		91.3	58 - 120

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016	101	89.0		88.3	0.900	30	56 - 120
Aroclor 1260 [2C]	101	87.9		87.2	4.69	30	58 - 120

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022333ECD7.D
Data file 2: /230502.b/230502.b/05022333ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0328-BS1
Client ID:
Injection Date: 02-MAY-2023 22:25
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	-0.000	287701	5.649	-0.000	152291	32.8	31.0	5.5	Tetrachloro-m-xylene
13.860	-0.002	376000	14.081	-0.002	271984	35.9	36.1	0.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	601022	8.0
Hexabromobiphenyl	745660	966904	29.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	349925	0.4
Hexabromobiphenyl	429949	465538	8.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.234	-0.002	97391	435.5	1	7.219	-0.003	78018	411.7	
Aroclor-1016	2	7.622	-0.010	315009	511.2	2	7.833	-0.015	181467	484.5	
Aroclor-1016	3	7.759	-0.006	151290	358.8	3	8.030	-0.028	87931	381.5	
Aroclor-1016	4	8.373	-0.006	99461	458.6	4	8.276	-0.007	61968	360.9	
Total CollAve (4 peaks):				441.0	Total Col2Ave (4 peaks):				409.6	RPD = 7	
Corrected Ave (3 peaks):				417.6	Corrected Ave (3 peaks):				384.7	RPD = 8	
Aroclor-1221	1	4.684	0.002	593	12.9	1	---			0.0	
Aroclor-1221	2	6.091	-0.002	13480	146.1	2	6.263	-0.003	6708	120.9	
Aroclor-1221	3	6.345	-0.001	60898	278.2	3	6.590	-0.004	34010	267.8	
Total CollAve (3 peaks):				145.7	Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	4.684	0.001	593	20.3	1	---			0.0	
Aroclor-1232	2	6.091	-0.002	13480	208.3	2	7.219	-0.005	78018	931.3	
Aroclor-1232	3	7.622	-0.029	315009	1227.6	3	7.833	-0.029	181467	1097.6	
Aroclor-1232	4	8.548	-0.016	128913	1078.6	4	8.683	-0.011	57450	1128.5	
Total CollAve (4 peaks):				633.7	Total Col2Ave (3 peaks):				1052.5	RPD = 50*	
Corrected Ave (3 peaks):				435.7	Corrected Ave: < 3 Peaks						
Aroclor-1242	1	7.234	-0.002	97391	519.3	1	7.219	-0.003	78018	513.2	
Aroclor-1242	2	7.622	-0.009	315009	614.5	2	7.833	-0.013	181467	596.7	
Aroclor-1242	3	8.420	-0.005	60791	496.1	3	9.139	-0.019	12408	118.0	
Aroclor-1242	4	8.548	-0.008	128913	505.3	4	9.562	-0.028	4867	45.1	
Total CollAve (4 peaks):				533.8	Total Col2Ave (4 peaks):				318.2	RPD = 51*	
Corrected Ave (3 peaks):				506.9	Corrected Ave (3 peaks):				225.4	RPD = 77*	
Aroclor-1248	1	8.373	-0.005	99461	216.3	1	8.276	-0.005	61968	337.5	
Aroclor-1248	2	8.548	-0.009	128913	334.8	2	8.683	-0.005	57450	355.5	
Aroclor-1248	3	8.961	0.001	152280	132.5	3	9.139	-0.017	12408	62.6	
Aroclor-1248	4	9.269	0.001	120062	198.9	4	9.562	-0.021	4867	23.0	
Total CollAve (4 peaks):				220.6	Total Col2Ave (4 peaks):				194.7	RPD = 13	
Corrected Ave (3 peaks):				182.6	Corrected Ave (3 peaks):				141.1	RPD = 26	
Aroclor-1254	1	9.269	-0.004	120062	184.9	1	9.421	-0.007	55058	210.4	
Aroclor-1254	2	---			0.0	2	9.562	0.036	4867	30.5	
Aroclor-1254	3	9.638	-0.007	24406	59.5	3	9.942	-0.007	12622	59.6	
Aroclor-1254	4	9.777	-0.009	66214	79.4	4	10.115	0.010	114468	249.7	
Aroclor-1254	5	10.088	-0.073	297200	482.6	5	10.338	-0.015	150707	286.0	
Total CollAve (4 peaks):				201.6	Total Col2Ave (5 peaks):				167.2	RPD = 19	
Corrected Ave (3 peaks):				107.9	Corrected Ave (4 peaks):				137.6	RPD = 24	
Aroclor-1260	1	11.013	-0.004	231816	424.6	1	11.620	-0.004	149784	452.2	
Aroclor-1260	2	11.329	-0.005	233514	421.7	2	11.886	-0.005	390627	449.4	
Aroclor-1260	3	11.705	-0.006	598678	416.6	3	12.402	-0.004	99064	500.5	
Aroclor-1260	4	12.108	-0.010	306322	429.8	4	12.469	-0.006	260184	439.3	
Aroclor-1260	5	12.213	-0.004	134916	412.6	NS	---			----	
Total CollAve (5 peaks):				421.1	Total Col2Ave (4 peaks):				460.4	RPD = 9	
Corrected Ave (4 peaks):				418.9	Corrected Ave (3 peaks):				447.0	RPD = 6	
Aroclor-1262	1	10.796	-0.013	453808	1202.7	1	11.167	-0.006	146161	314.1	
Aroclor-1262	2	12.213	-0.004	134916	204.8	2	11.620	-0.004	149784	382.1	
Aroclor-1262	3	12.287	-0.005	168715	233.0	3	12.402	-0.002	99064	240.0	
Aroclor-1262	4	12.956	-0.006	178692	305.9	4	12.469	-0.007	260184	364.6	
Total CollAve (4 peaks):				486.6	Total Col2Ave (4 peaks):				325.2	RPD = 40	
Corrected Ave (3 peaks):				247.9	Corrected Ave (3 peaks):				306.2	RPD = 21	
Aroclor-1268	1	12.213	-0.006	134916	81.3	1	12.402	-0.002	99064	92.1	
Aroclor-1268	2	12.287	-0.004	168715	97.6	2	12.469	-0.003	260184	213.1	
Aroclor-1268	3	12.693	0.024	80796	56.2	3	12.856	-0.002	8524	8.5	
Aroclor-1268	4	13.457	-0.004	68689	16.5	4	13.673	-0.004	27978	9.1	
Total CollAve (4 peaks):				62.9	Total Col2Ave (4 peaks):				80.7	RPD = 25	
Corrected Ave (3 peaks):				51.3	Corrected Ave (3 peaks):				36.5	RPD = 34	

Total PCB Area Col1 (5.866 - 13.762) = 6580348 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (5.749 - 13.983) = 3598856 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022334ECD7.D
Data file 2: /230502.b/230502.b/05022334ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0328-BSD1
Client ID:
Injection Date: 02-MAY-2023 22:46
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.765	-0.000	295192	5.648	-0.001	156360	34.5	32.0	7.7	Tetrachloro-m-xylene
13.859	-0.003	385466	14.080	-0.002	277334	36.3	35.9	1.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	584721	5.1
Hexabromobiphenyl	745660	978758	31.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	348110	-0.1
Hexabromobiphenyl	429949	477486	11.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.233	-0.003	96972	445.7	1	7.219	-0.004	77408	410.6
Aroclor-1016	2	7.621	-0.012	312386	521.1	2	7.832	-0.016	178344	478.6
Aroclor-1016	3	7.758	-0.007	147057	358.5	3	8.029	-0.029	86702	378.1
Aroclor-1016	4	8.372	-0.007	95957	454.8	4	8.276	-0.007	60808	356.0
Total CollAve (4 peaks):				445.0		Total Col2Ave (4 peaks):				405.8 RPD = 9
Corrected Ave (3 peaks):				419.7		Corrected Ave (3 peaks):				381.6 RPD = 10
Aroclor-1221	1	4.682	-0.001	438	9.8	1	---			0.0
Aroclor-1221	2	6.090	-0.003	13521	150.6	2	6.262	-0.004	7303	132.3
Aroclor-1221	3	6.344	-0.002	60621	284.6	3	6.589	-0.005	34280	271.3
Total CollAve (3 peaks):				148.3		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.682	-0.001	438	15.4	1	---			0.0
Aroclor-1232	2	6.090	-0.003	13521	214.8	2	7.219	-0.006	77408	928.8
Aroclor-1232	3	7.621	-0.031	312386	1251.3	3	7.832	-0.031	178344	1084.3
Aroclor-1232	4	8.546	-0.017	125581	1080.0	4	8.682	-0.011	55337	1092.6
Total CollAve (4 peaks):				640.4		Total Col2Ave (3 peaks):				1035.3 RPD = 47*
Corrected Ave (3 peaks):				436.7		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.233	-0.002	96972	531.5	1	7.219	-0.004	77408	511.8
Aroclor-1242	2	7.621	-0.011	312386	626.4	2	7.832	-0.015	178344	589.5
Aroclor-1242	3	8.419	-0.006	59483	499.0	3	9.138	-0.019	12301	117.6
Aroclor-1242	4	8.546	-0.010	125581	506.0	4	9.562	-0.027	4491	41.8
Total CollAve (4 peaks):				540.7		Total Col2Ave (4 peaks):				315.2 RPD = 53*
Corrected Ave (3 peaks):				512.2		Corrected Ave (3 peaks):				223.7 RPD = 78*
Aroclor-1248	1	8.372	-0.006	95957	214.5	1	8.276	-0.006	60808	332.9
Aroclor-1248	2	8.546	-0.011	125581	335.2	2	8.682	-0.006	55337	344.2
Aroclor-1248	3	8.960	-0.000	149833	134.0	3	9.138	-0.018	12301	62.4
Aroclor-1248	4	9.267	-0.001	118548	201.9	4	9.562	-0.021	4491	21.4
Total CollAve (4 peaks):				221.4		Total Col2Ave (4 peaks):				190.2 RPD = 15
Corrected Ave (3 peaks):				183.5		Corrected Ave (3 peaks):				138.9 RPD = 28
Aroclor-1254	1	9.267	-0.005	118548	187.7	1	9.419	-0.009	54017	207.5
Aroclor-1254	2	---			0.0	2	9.562	0.037	4491	28.3
Aroclor-1254	3	9.637	-0.009	23415	58.6	3	9.941	-0.008	12092	57.4
Aroclor-1254	4	9.775	-0.011	63484	78.3	4	10.113	0.008	110986	243.3
Aroclor-1254	5	10.237	0.077	28542	47.6	5	10.337	-0.016	146064	278.6
Total CollAve (4 peaks):				93.1		Total Col2Ave (5 peaks):				163.0 RPD = 55*
Corrected Ave (3 peaks):				61.5		Corrected Ave (4 peaks):				134.1 RPD = 74*
Aroclor-1260	1	11.012	-0.005	227168	411.1	1	11.618	-0.006	146266	430.6
Aroclor-1260	2	11.329	-0.005	230586	411.3	2	11.883	-0.008	382069	428.6
Aroclor-1260	3	11.703	-0.008	586136	402.9	3	12.400	-0.005	97057	478.1
Aroclor-1260	4	12.108	-0.011	294575	408.3	4	12.468	-0.007	255006	419.8
Aroclor-1260	5	12.211	-0.005	127959	386.6	NS	---			----
Total CollAve (5 peaks):				404.1		Total Col2Ave (4 peaks):				439.3 RPD = 8
Corrected Ave (4 peaks):				402.2		Corrected Ave (3 peaks):				426.3 RPD = 6
Aroclor-1262	1	10.795	-0.014	446650	1169.4	1	11.166	-0.007	141994	297.5
Aroclor-1262	2	12.211	-0.005	127959	191.8	2	11.618	-0.006	146266	363.8
Aroclor-1262	3	12.287	-0.005	159359	217.4	3	12.400	-0.003	97057	229.2
Aroclor-1262	4	12.955	-0.007	178000	301.0	4	12.468	-0.008	255006	348.4
Total CollAve (4 peaks):				469.9		Total Col2Ave (4 peaks):				309.7 RPD = 41*
Corrected Ave (3 peaks):				236.7		Corrected Ave (3 peaks):				291.7 RPD = 21
Aroclor-1268	1	12.211	-0.007	127959	76.2	1	12.400	-0.003	97057	87.9
Aroclor-1268	2	12.287	-0.004	159359	91.1	2	12.468	-0.004	255006	203.6
Aroclor-1268	3	12.692	0.023	78520	54.0	3	12.854	-0.004	8127	7.9
Aroclor-1268	4	13.455	-0.005	69428	16.5	4	13.673	-0.004	27624	8.8
Total CollAve (4 peaks):				59.4		Total Col2Ave (4 peaks):				77.0 RPD = 26
Corrected Ave (3 peaks):				48.9		Corrected Ave (3 peaks):				34.9 RPD = 33

Total PCB Area Col1 (5.866 - 13.762) = 6433583 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (5.749 - 13.983) = 3520684 Col2 Total PCB = 0.9 ppm*

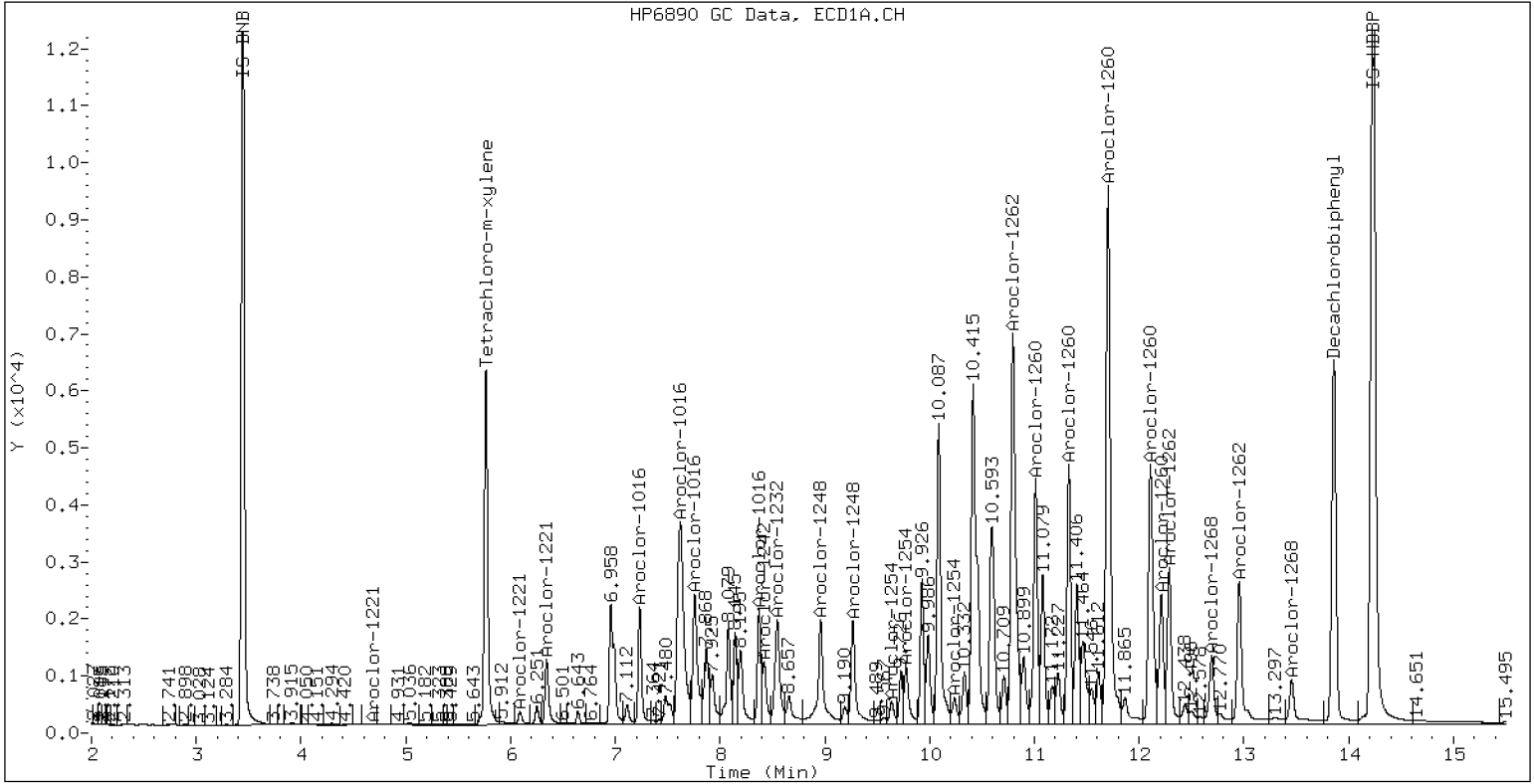
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLD0328-BSD1

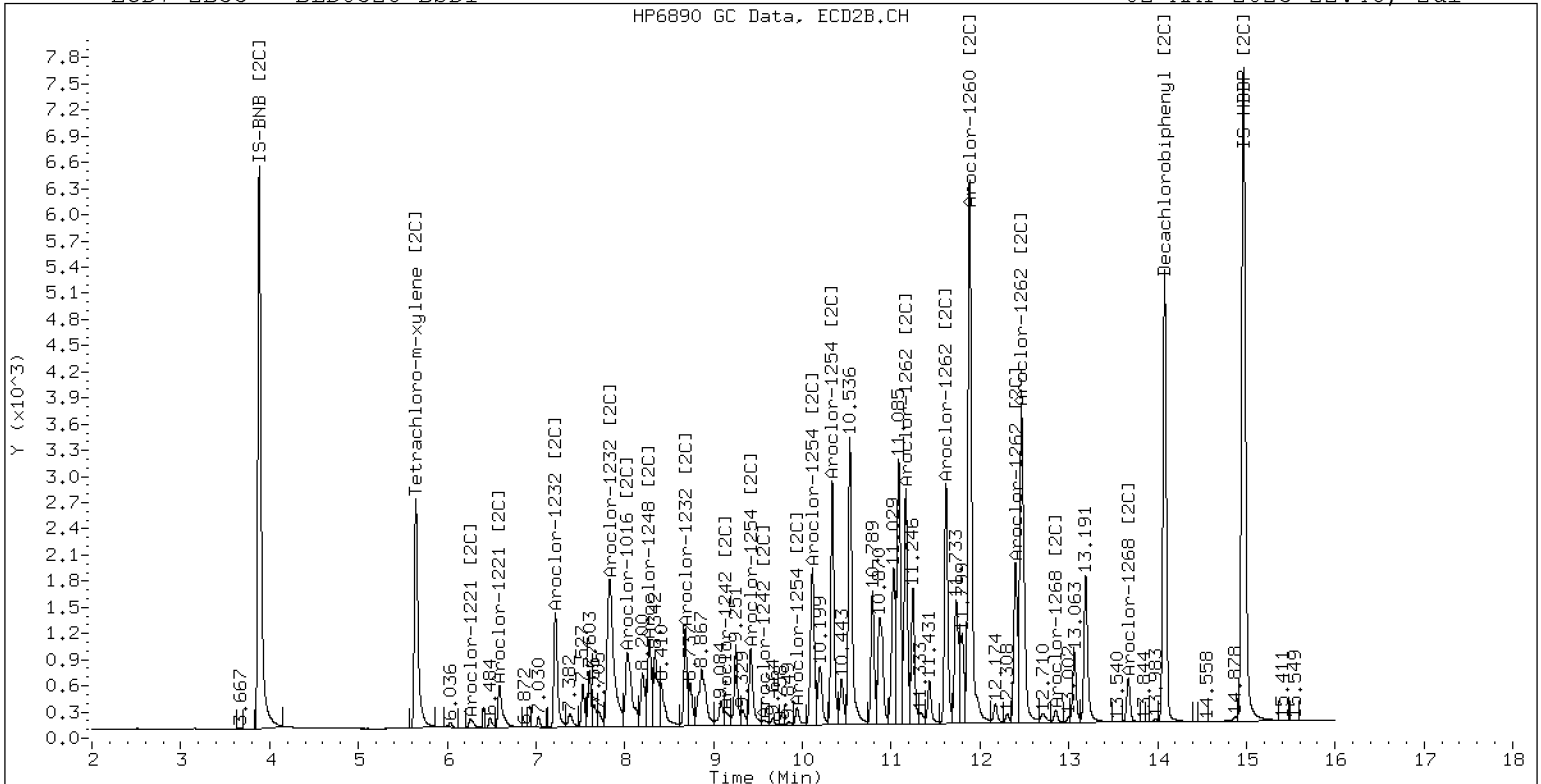
02-MAY-2023 22:46, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BLD0328-BSD1

02-MAY-2023 22:46, 2u1



ZB-35 Manual Integration: NO



MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/03/23 00:10</u>
Batch:	<u>BLD0328</u>	Laboratory ID:	<u>BLD0328-MS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>25.19 g / 2.5 mL</u>	Source Sample:	<u>LDW23-SC1804</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Aroclor 1016	101	ND	U	97.3	D	96.3	56 - 120
Aroclor 1260 [2C]	101	42.1	D	109	D	66.2	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.



MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/03/23 00:31</u>
Batch:	<u>BLD0328</u>	Laboratory ID:	<u>BLD0328-MSD1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>25.19 g / 2.5 mL</u>	Source Sample:	<u>LDW23-SC1804</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016	101	91.3	D	90.4	6.37	30	56 - 120
Aroclor 1260 [2C]	101	111	D	68.2	1.48	30	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022338ECD7.D
Data file 2: /230502.b/230502.b/05022338ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0328-MS1RE1
Client ID:
Injection Date: 03-MAY-2023 00:10
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.763	-0.003	51078	5.645	-0.004	28883	5.9	5.8	2.3	Tetrachloro-m-xylene
13.852	-0.009	45187	14.072	-0.010	38541	6.6	5.7	15.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	593414	6.7
Hexabromobiphenyl	745660	630407	-15.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	357546	2.6
Hexabromobiphenyl	429949	420968	-2.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.230	-0.006	21021	95.2	1	7.216	-0.006	16423	84.8	
Aroclor-1016	2	7.616	-0.017	70204	115.4	2	7.821	-0.027	40603	106.1	
Aroclor-1016	3	7.752	-0.013	25957	62.4	3	8.019	-0.039	16560	70.3	
Aroclor-1016	4	8.366	-0.013	24867	116.1	4	8.269	-0.014	15998	91.2	
Total CollAve (4 peaks):				97.3	Total Col2Ave (4 peaks):				88.1	RPD = 10	
Corrected Ave (3 peaks):				91.0	Corrected Ave (3 peaks):				82.1	RPD = 10	
Aroclor-1221	1	4.742	0.060	246	5.4	1	4.900	-0.010	493	18.6	
Aroclor-1221	2	6.091	-0.003	2912	32.0	2	6.260	-0.005	405	7.1	
Aroclor-1221	3	6.342	-0.005	14011	64.8	3	6.587	-0.007	8040	62.0	
Total CollAve (3 peaks):				34.1	Total Col2Ave (3 peaks):				29.2	RPD = 15	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.742	0.060	246	8.5	1	4.900	-0.011	493	32.0	
Aroclor-1232	2	6.091	-0.003	2912	45.6	2	7.216	-0.008	16423	191.9	
Aroclor-1232	3	7.616	-0.036	70204	277.1	3	7.821	-0.041	40603	240.4	
Aroclor-1232	4	8.537	-0.027	26627	225.6	4	8.675	-0.018	14485	278.5	
Total CollAve (4 peaks):				139.2	Total Col2Ave (4 peaks):				185.7	RPD = 29	
Corrected Ave (3 peaks):				93.2	Corrected Ave (3 peaks):				154.8	RPD = 50*	
Aroclor-1242	1	7.230	-0.005	21021	113.5	1	7.216	-0.006	16423	105.7	
Aroclor-1242	2	7.616	-0.016	70204	138.7	2	7.821	-0.025	40603	130.7	
Aroclor-1242	3	8.414	-0.011	15080	124.6	3	9.196	0.038	8483	78.9	
Aroclor-1242	4	8.537	-0.019	26627	105.7	4	9.656	0.067	5742	52.0	
Total CollAve (4 peaks):				120.6	Total Col2Ave (4 peaks):				91.8	RPD = 27	
Corrected Ave (3 peaks):				114.6	Corrected Ave (3 peaks):				78.9	RPD = 37	
Aroclor-1248	1	8.366	-0.012	24867	54.8	1	8.269	-0.013	15998	85.3	
Aroclor-1248	2	8.537	-0.020	26627	70.0	2	8.675	-0.013	14485	87.7	
Aroclor-1248	3	8.954	-0.006	35324	31.1	3	9.117	-0.038	10994	54.3	
Aroclor-1248	4	9.256	-0.012	41684	70.0	4	9.538	-0.045	10190	47.2	
Total CollAve (4 peaks):				56.5	Total Col2Ave (4 peaks):				68.6	RPD = 19	
Corrected Ave (3 peaks):				52.0	Corrected Ave (3 peaks):				62.2	RPD = 18	
Aroclor-1254	1	9.256	-0.017	41684	65.0	1	9.408	-0.019	23997	89.8	
Aroclor-1254	2	9.332	-0.024	16106	53.0	2	9.538	0.012	10190	62.5	
Aroclor-1254	3	9.629	-0.017	27861	68.7	3	9.926	-0.022	11977	55.3	
Aroclor-1254	4	9.758	-0.028	55502	67.4	4	10.081	-0.025	43616	93.1	
Aroclor-1254	5	10.079	-0.082	83384	137.1	5	10.326	-0.027	56227	104.4	
Total CollAve (5 peaks):				78.3	Total Col2Ave (5 peaks):				81.0	RPD = 3	
Corrected Ave (4 peaks):				63.6	Corrected Ave (4 peaks):				75.2	RPD = 17	
Aroclor-1260	1	11.001	-0.015	39534	111.1	1	11.609	-0.015	34344	114.7	
Aroclor-1260	2	11.316	-0.018	34106	94.5	2	11.871	-0.020	72244	91.9	
Aroclor-1260	3	11.689	-0.023	96830	103.3	3	12.388	-0.017	24946	139.4	
Aroclor-1260	4	12.090	-0.028	47046	101.3	4	12.454	-0.021	48665	90.9	
Aroclor-1260	5	12.202	-0.014	18940	88.8	NS	---			----	
Total CollAve (5 peaks):				99.8	Total Col2Ave (4 peaks):				109.2	RPD = 9	
Corrected Ave (4 peaks):				97.0	Corrected Ave (3 peaks):				99.2	RPD = 2	
Aroclor-1262	1	10.778	-0.030	105244	427.8	1	11.156	-0.017	27269	64.8	
Aroclor-1262	2	12.202	-0.015	18940	44.1	2	11.609	-0.015	34344	96.9	
Aroclor-1262	3	12.273	-0.019	24353	51.6	3	12.388	-0.015	24946	66.8	
Aroclor-1262	4	12.942	-0.021	24664	64.8	4	12.454	-0.022	48665	75.4	
Total CollAve (4 peaks):				147.1	Total Col2Ave (4 peaks):				76.0	RPD = 64*	
Corrected Ave (3 peaks):				53.5	Corrected Ave (3 peaks):				69.0	RPD = 25	
Aroclor-1268	1	12.202	-0.016	18940	17.5	1	12.388	-0.015	24946	25.6	
Aroclor-1268	2	12.273	-0.018	24353	21.6	2	12.454	-0.018	48665	44.1	
Aroclor-1268	3	12.679	0.010	11403	12.2	3	12.848	-0.011	1877	2.1	
Aroclor-1268	4	13.446	-0.015	6916	2.6	4	13.662	-0.015	8578	3.1	
Total CollAve (4 peaks):				13.5	Total Col2Ave (4 peaks):				18.7	RPD = 33	

Corrected Ave (3 peaks): 10.7 Corrected Ave (3 peaks): 10.3 RPD = 5

Total PCB Area Col1 (5.866 - 13.762) = 1502311 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.749 - 13.983) = 996990 Col2 Total PCB = 0.2 ppm*

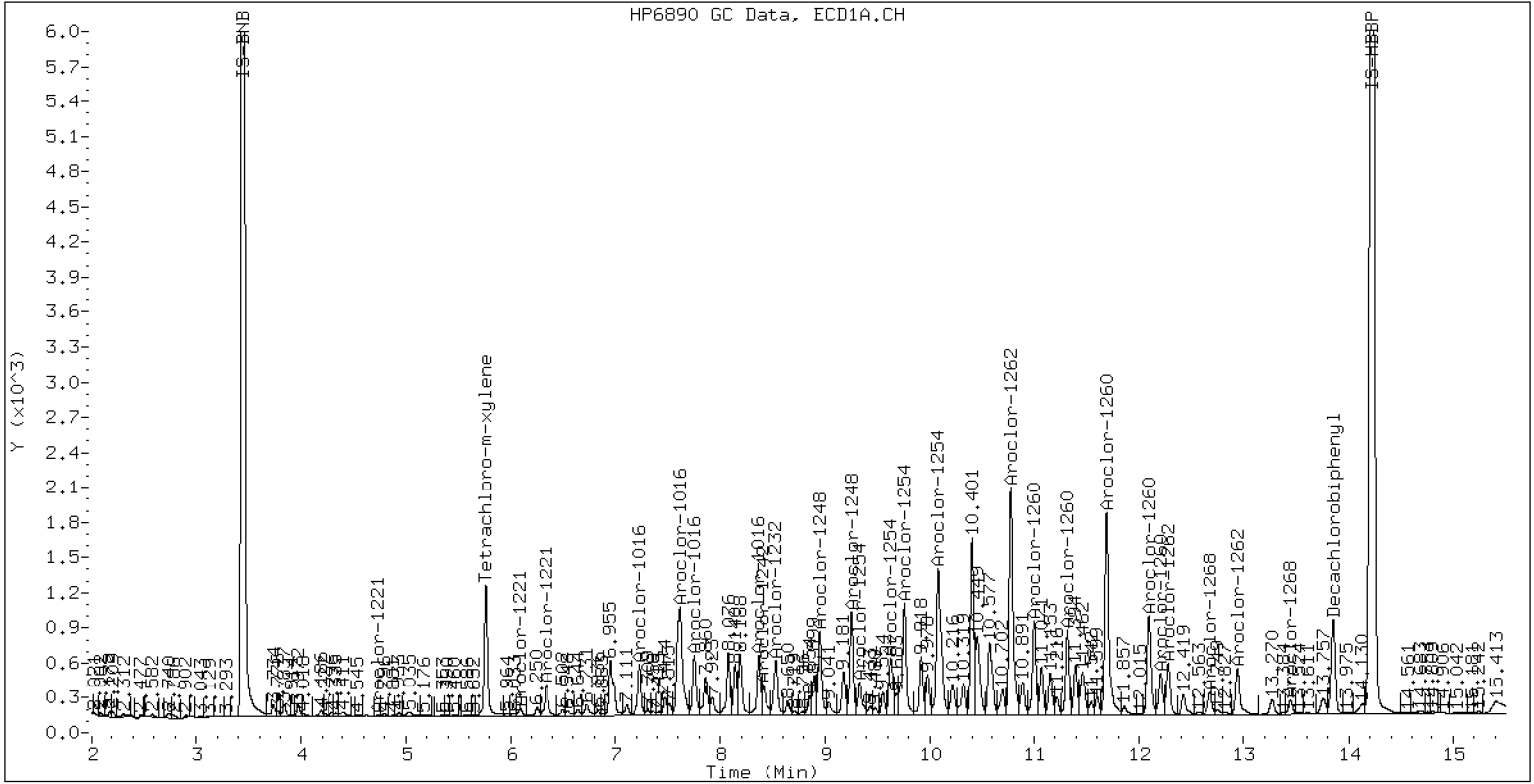
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLD0328-MS1RE1

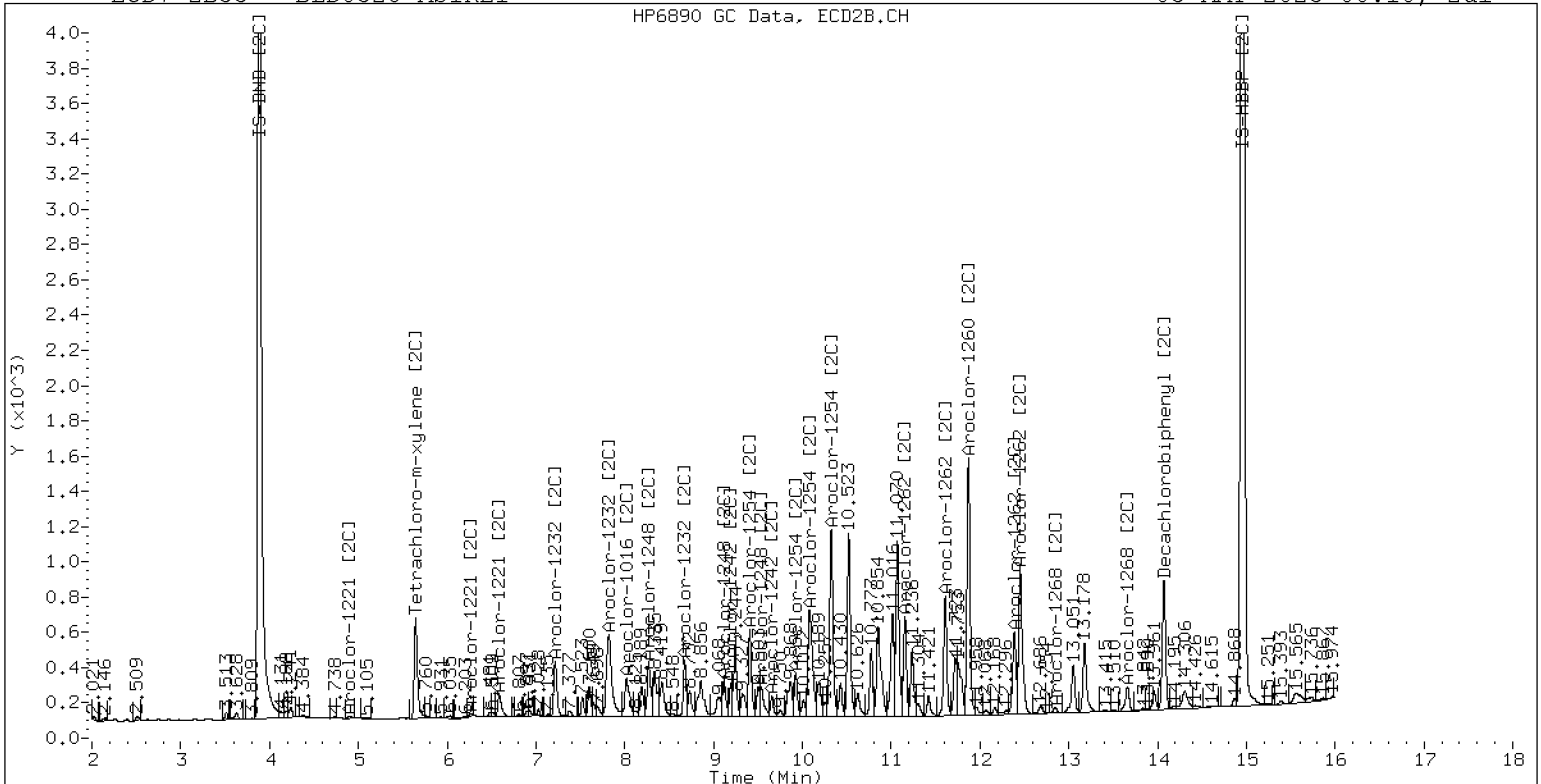
03-MAY-2023 00:10, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BLD0328-MS1RE1

03-MAY-2023 00:10, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022339ECD7.D
Data file 2: /230502.b/230502.b/05022339ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0328-MSD1RE
Client ID:
Injection Date: 03-MAY-2023 00:31
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.763	-0.003	45878	5.645	-0.004	27455	5.4	5.5	2.6	Tetrachloro-m-xylene
13.852	-0.010	42599	14.074	-0.009	36068	6.3	5.4	14.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	583991	5.0
Hexabromobiphenyl	745660	624434	-16.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	354377	1.7
Hexabromobiphenyl	429949	410587	-4.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.230	-0.006	19396	89.3	1	7.216	-0.006	15516	80.8
Aroclor-1016	2	7.615	-0.017	64995	108.6	2	7.822	-0.026	38252	100.8
Aroclor-1016	3	7.752	-0.012	24397	59.5	3	8.020	-0.039	15394	66.0
Aroclor-1016	4	8.366	-0.012	22691	107.7	4	8.270	-0.013	15016	86.3
Total CollAve (4 peaks):				91.3	Total Col2Ave (4 peaks):				83.5	RPD = 9
Corrected Ave (3 peaks):				85.5	Corrected Ave (3 peaks):				77.7	RPD = 10
Aroclor-1221	1	4.742	0.060	128	2.9	1	4.900	-0.010	388	14.7
Aroclor-1221	2	6.092	-0.002	2776	31.0	2	6.261	-0.004	600	10.7
Aroclor-1221	3	6.342	-0.004	12386	58.2	3	6.587	-0.007	7362	57.2
Total CollAve (3 peaks):				30.7	Total Col2Ave (3 peaks):				27.6	RPD = 11
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	4.742	0.060	128	4.5	1	4.900	-0.011	388	25.4
Aroclor-1232	2	6.092	-0.001	2776	44.1	2	7.216	-0.008	15516	182.9
Aroclor-1232	3	7.615	-0.036	64995	260.7	3	7.822	-0.040	38252	228.5
Aroclor-1232	4	8.537	-0.026	25059	215.8	4	8.675	-0.018	13588	263.5
Total CollAve (4 peaks):				131.3	Total Col2Ave (4 peaks):				175.1	RPD = 29
Corrected Ave (3 peaks):				88.1	Corrected Ave (3 peaks):				145.6	RPD = 49*
Aroclor-1242	1	7.230	-0.005	19396	106.4	1	7.216	-0.006	15516	100.8
Aroclor-1242	2	7.615	-0.016	64995	130.5	2	7.822	-0.024	38252	124.2
Aroclor-1242	3	8.414	-0.011	13804	115.9	3	9.198	0.041	7629	71.6
Aroclor-1242	4	8.537	-0.018	25059	101.1	4	9.657	0.067	5480	50.1
Total CollAve (4 peaks):				113.5	Total Col2Ave (4 peaks):				86.7	RPD = 27
Corrected Ave (3 peaks):				107.8	Corrected Ave (3 peaks):				74.2	RPD = 37
Aroclor-1248	1	8.366	-0.011	22691	50.8	1	8.270	-0.012	15016	80.8
Aroclor-1248	2	8.537	-0.019	25059	67.0	2	8.675	-0.013	13588	83.0
Aroclor-1248	3	8.955	-0.005	33011	29.6	3	9.119	-0.037	10077	50.2
Aroclor-1248	4	9.257	-0.011	38809	66.2	4	9.539	-0.044	9578	44.7
Total CollAve (4 peaks):				53.4	Total Col2Ave (4 peaks):				64.7	RPD = 19
Corrected Ave (3 peaks):				48.8	Corrected Ave (3 peaks):				58.6	RPD = 18
Aroclor-1254	1	9.257	-0.016	38809	61.5	1	9.409	-0.019	22441	84.7
Aroclor-1254	2	9.332	-0.024	15022	50.2	2	9.539	0.013	9578	59.3
Aroclor-1254	3	9.630	-0.016	25355	63.6	3	9.927	-0.022	11033	51.4
Aroclor-1254	4	9.758	-0.028	51993	64.2	4	10.083	-0.023	41229	88.8
Aroclor-1254	5	10.080	-0.081	77703	129.8	5	10.326	-0.027	52215	97.8
Total CollAve (5 peaks):				73.9	Total Col2Ave (5 peaks):				76.4	RPD = 3
Corrected Ave (4 peaks):				59.9	Corrected Ave (4 peaks):				71.1	RPD = 17
Aroclor-1260	1	11.002	-0.014	37978	107.7	1	11.610	-0.015	32439	111.1
Aroclor-1260	2	11.316	-0.018	32250	90.2	2	11.871	-0.020	68743	89.7
Aroclor-1260	3	11.688	-0.023	96192	103.6	3	12.388	-0.018	26710	153.0
Aroclor-1260	4	12.091	-0.027	44451	96.6	4	12.455	-0.020	46819	89.6
Aroclor-1260	5	12.202	-0.014	18998	90.0	NS	---			----
Total CollAve (5 peaks):				97.6	Total Col2Ave (4 peaks):				110.8	RPD = 13
Corrected Ave (4 peaks):				95.1	Corrected Ave (3 peaks):				96.8	RPD = 2
Aroclor-1262	1	10.779	-0.030	97131	398.6	1	11.155	-0.018	26260	64.0
Aroclor-1262	2	12.202	-0.015	18998	44.6	2	11.610	-0.014	32439	93.8
Aroclor-1262	3	12.275	-0.017	23944	51.2	3	12.388	-0.016	26710	73.4
Aroclor-1262	4	12.942	-0.020	24695	65.5	4	12.455	-0.021	46819	74.4
Total CollAve (4 peaks):				140.0	Total Col2Ave (4 peaks):				76.4	RPD = 59*
Corrected Ave (3 peaks):				53.8	Corrected Ave (3 peaks):				70.6	RPD = 27
Aroclor-1268	1	12.202	-0.016	18998	17.7	1	12.388	-0.016	26710	28.1
Aroclor-1268	2	12.275	-0.016	23944	21.5	2	12.455	-0.017	46819	43.5
Aroclor-1268	3	12.677	0.008	11299	12.2	3	12.847	-0.011	2181	2.5
Aroclor-1268	4	13.447	-0.014	7617	2.8	4	13.662	-0.015	9562	3.5
Total CollAve (4 peaks):				13.5	Total Col2Ave (4 peaks):				19.4	RPD = 36

Corrected Ave (3 peaks): 10.9 Corrected Ave (3 peaks): 11.4 RPD = 4

Total PCB Area Col1 (5.866 - 13.762) = 1415186 Col1 Total PCB = 0.2 ppm*
Total PCB Area Col2 (5.749 - 13.983) = 944407 Col2 Total PCB = 0.2 ppm*

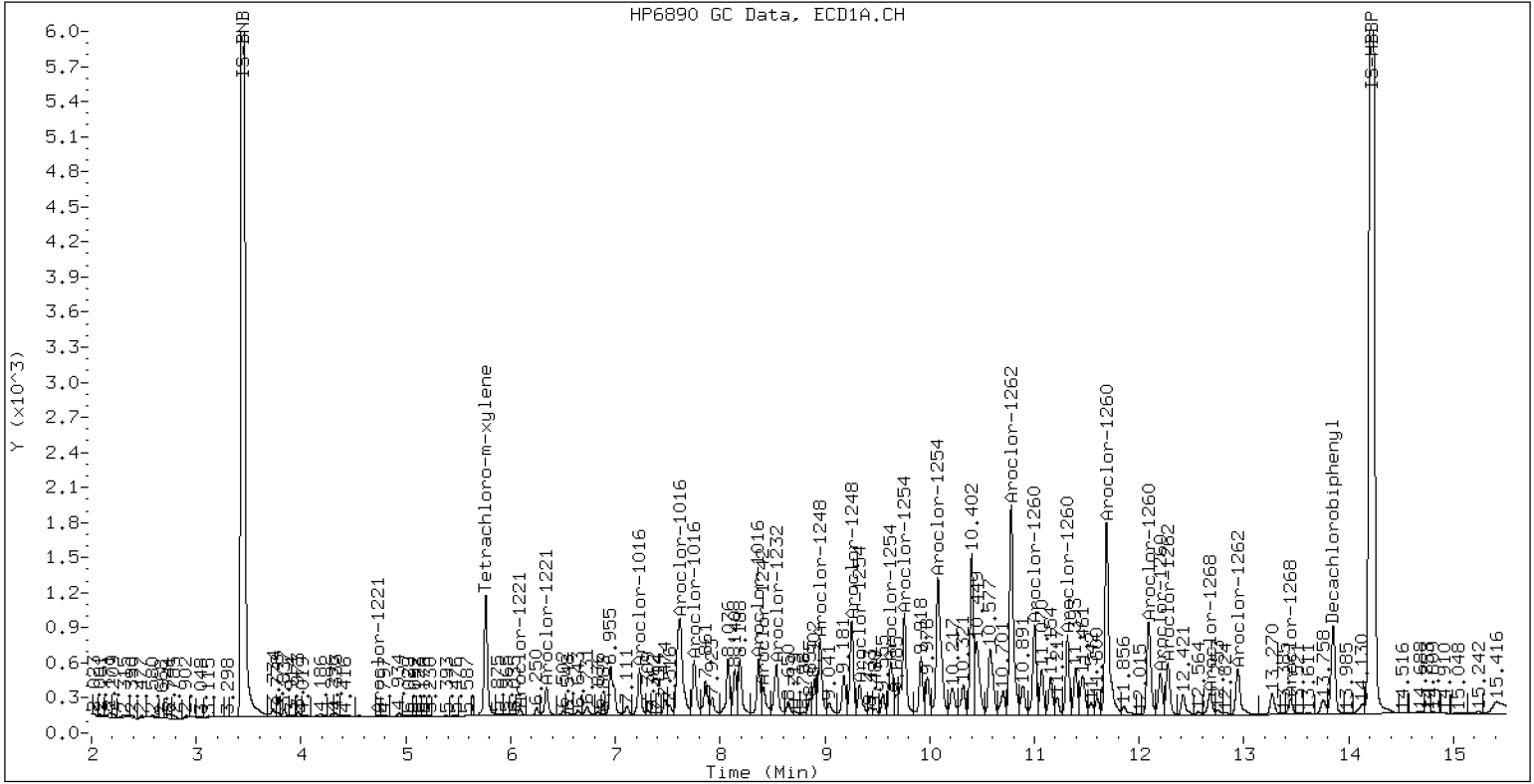
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLD0328-MSD1RE

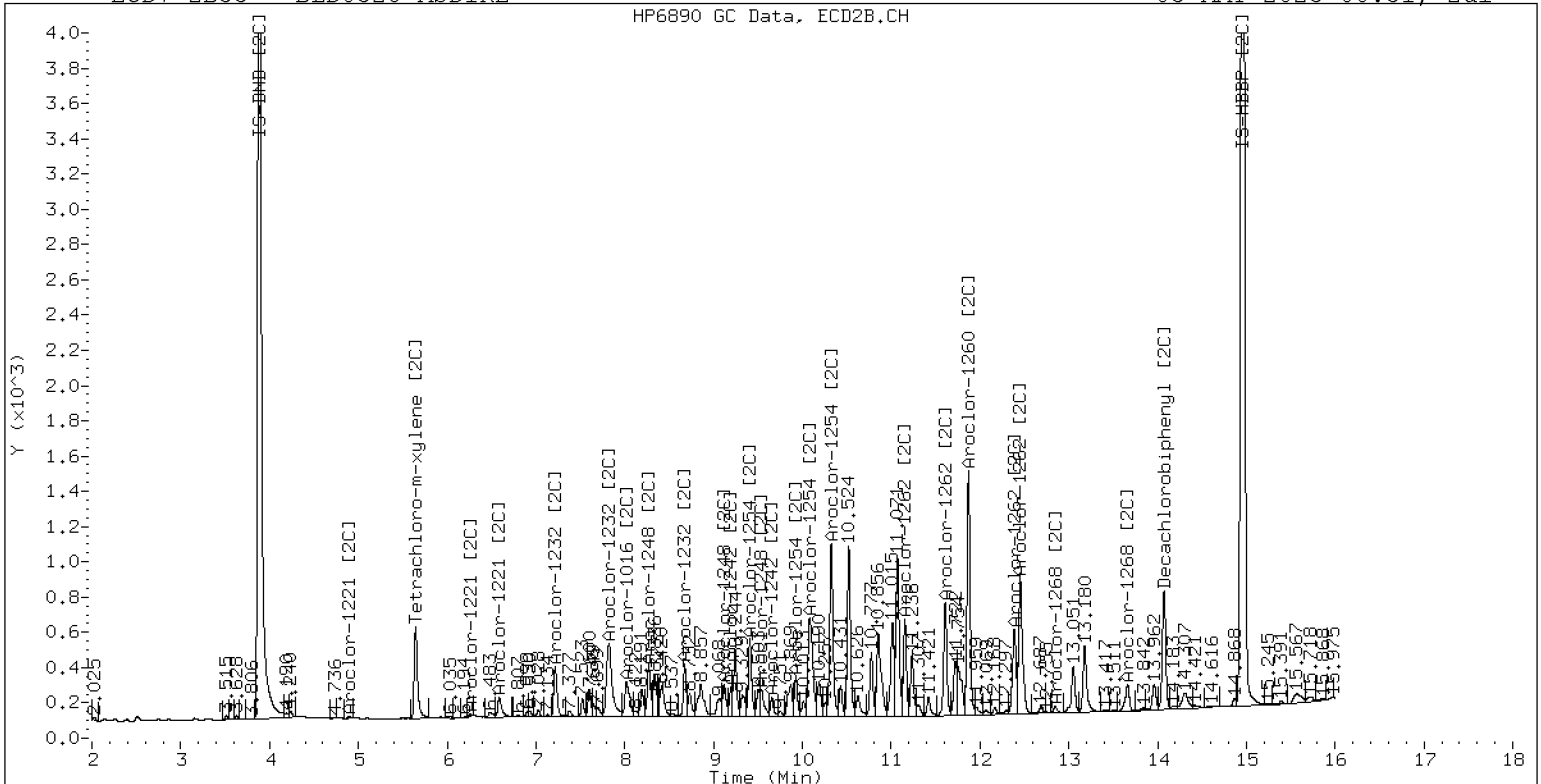
03-MAY-2023 00:31, 2u1



ZB-5 Manual Integration: YES

ECD7-ZB35 BLD0328-MSD1RE

03-MAY-2023 00:31, 2u1



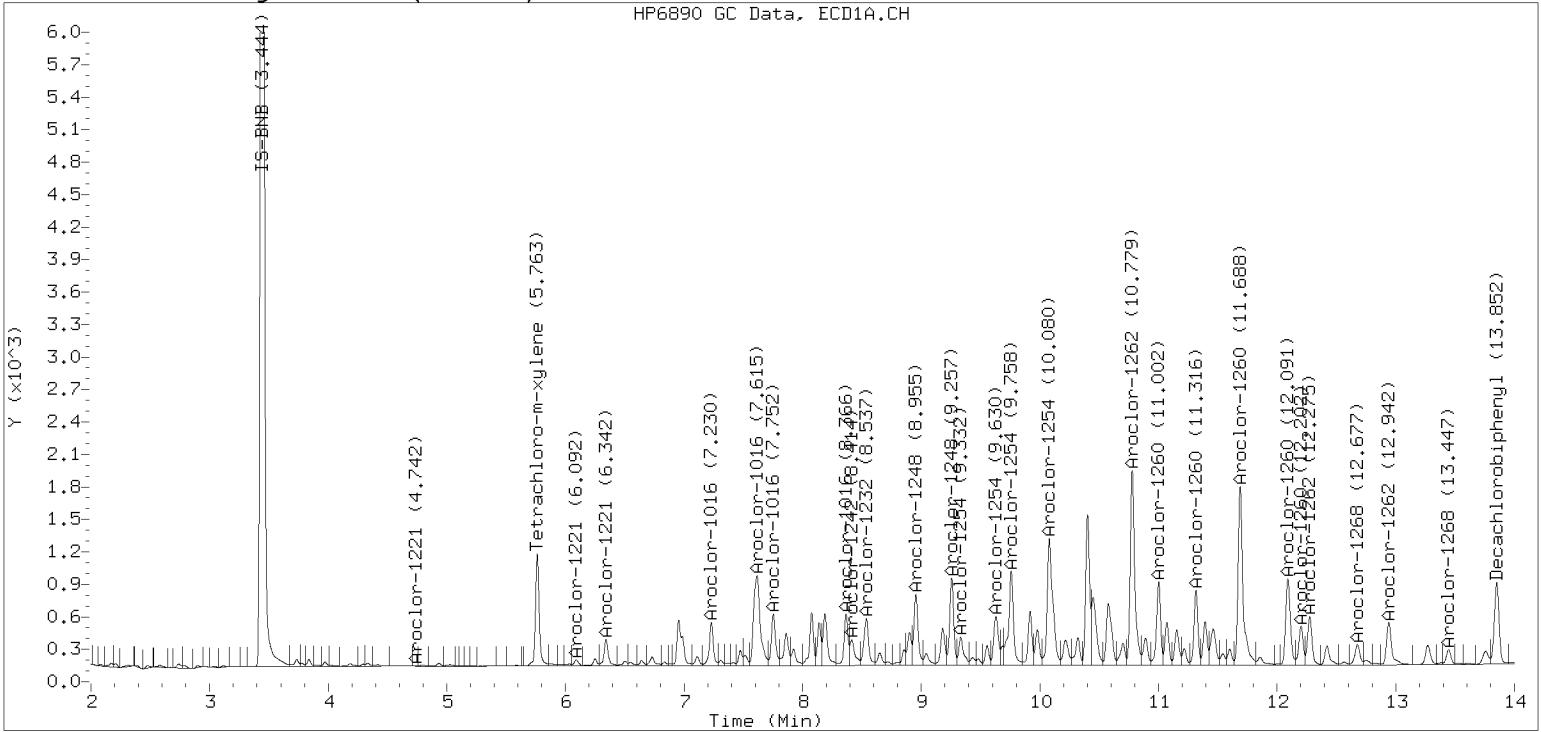
ZB-35 Manual Integration: NO

Manual Peak Adjustment, ZB-5

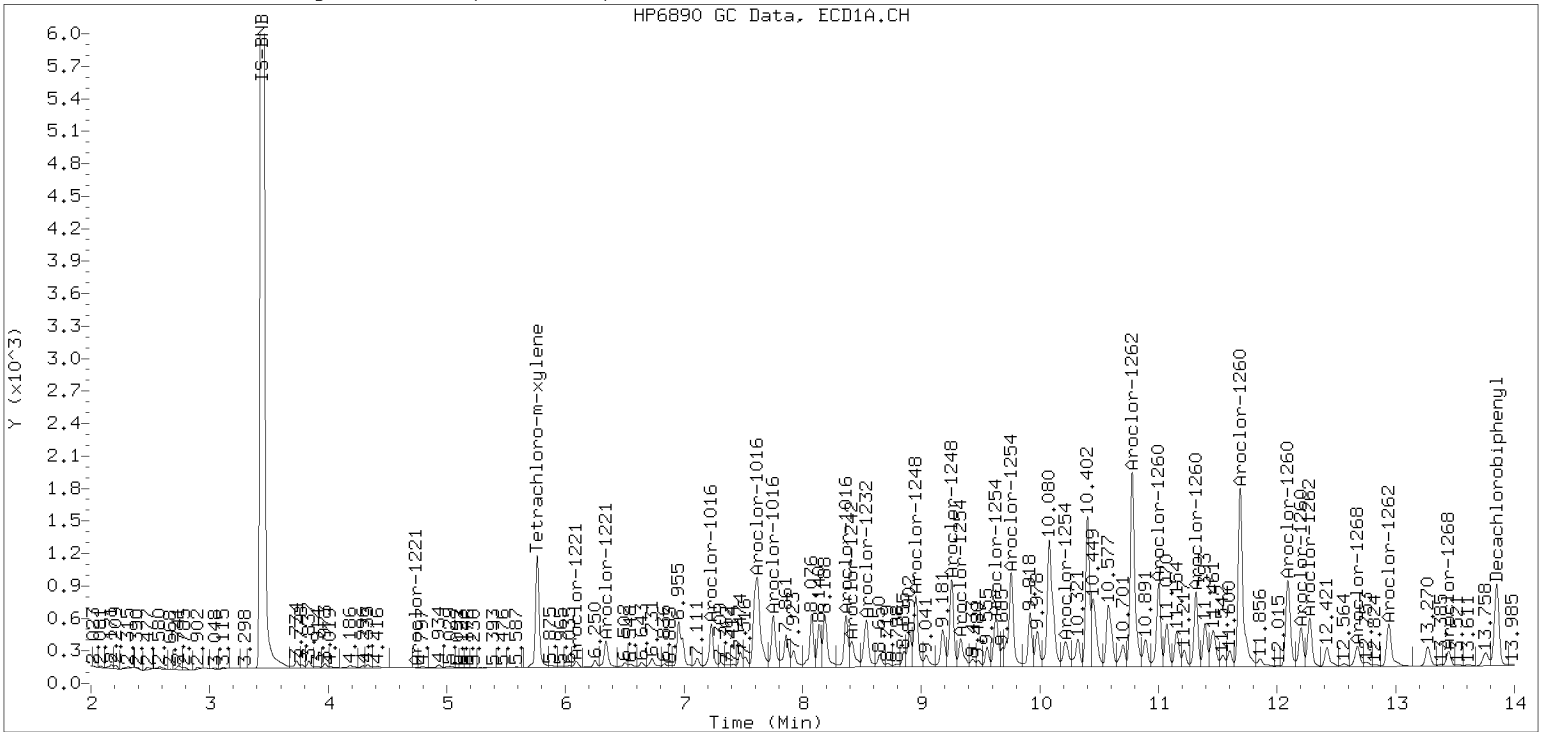
Datafile: ecd7.i/230502.b/05022339ECD7.D

Injection Date: 03-MAY-2023 00:31

Manual Integration (After)



Processed Integration (Before)





STANDARD REFERENCE MATERIAL RECOVERY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLD0328-SRM1

Batch: BLD0328

Initial/Final: 2.5 g / 2.5 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 05/02/2023 23:07

Standard ID: K003636

Expires: 04/15/2023

Standard Lot#: PSRM0153

Description: Puget Sound reference-SRM

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Aroclor 1260	108.00	100	2.9	20.0		93.0	38 - 167
Aroclor 1260 [2C]	108.00	114	2.9	20.0		106	38 - 167

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022335ECD7.D
Data file 2: /230502.b/230502.b/05022335ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0328-SRM1
Client ID:
Injection Date: 02-MAY-2023 23:07
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.763	-0.002	252969	5.645	-0.004	146596	29.8	30.3	1.5	Tetrachloro-m-xylene
13.854	-0.008	249867	14.075	-0.008	218099	32.0	30.6	4.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	580399	4.3
Hexabromobiphenyl	745660	721339	-3.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	344991	-1.0
Hexabromobiphenyl	429949	440401	2.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.201	-0.035	7161	33.2	1	7.221	-0.001	3700	19.8	
Aroclor-1016	2	7.616	-0.016	8658	14.6	2	7.826	-0.023	7400	20.0	
Aroclor-1016	3	7.757	-0.007	3905	9.6	3	8.054	-0.004	2484	10.9	
Aroclor-1016	4	8.367	-0.011	7635	36.5	4	8.270	-0.013	6960	41.1	
Total CollAve (4 peaks):				23.4	Total Col2Ave (4 peaks):				23.0	RPD = 2	
Corrected Ave (3 peaks):				19.1	Corrected Ave (3 peaks):				16.9	RPD = 12	
Aroclor-1221	1	4.612	-0.070	168	3.8	1	4.895	-0.015	670	26.2	
Aroclor-1221	2	6.040	-0.053	4158	46.7	2	6.305	0.040	5132	93.8	
Aroclor-1221	3	6.347	0.001	822	3.9	3	6.601	0.007	3309	26.4	
Total CollAve (3 peaks):				18.1	Total Col2Ave (3 peaks):				48.8	RPD = 92*	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.612	-0.070	168	5.9	1	4.895	-0.016	670	45.1	
Aroclor-1232	2	6.040	-0.053	4158	66.5	2	7.221	-0.004	3700	44.8	
Aroclor-1232	3	7.665	0.014	3547	14.3	3	7.826	-0.037	7400	45.4	
Aroclor-1232	4	8.539	-0.024	6994	60.6	4	8.677	-0.017	5334	106.3	
Total CollAve (4 peaks):				36.8	Total Col2Ave (4 peaks):				60.4	RPD = 48*	
Corrected Ave (3 peaks):				27.0	Corrected Ave (3 peaks):				45.1	RPD = 50*	
Aroclor-1242	1	7.201	-0.034	7161	39.5	1	7.221	-0.001	3700	24.7	
Aroclor-1242	2	7.616	-0.015	8658	17.5	2	7.826	-0.021	7400	24.7	
Aroclor-1242	3	8.415	-0.010	3770	31.9	3	9.201	0.044	3716	35.8	
Aroclor-1242	4	8.539	-0.016	6994	28.4	4	9.658	0.068	5737	53.9	
Total CollAve (4 peaks):				29.3	Total Col2Ave (4 peaks):				34.8	RPD = 17	
Corrected Ave (3 peaks):				25.9	Corrected Ave (3 peaks):				28.4	RPD = 9	
Aroclor-1248	1	8.367	-0.010	7635	17.2	1	8.270	-0.012	6960	38.5	
Aroclor-1248	2	8.539	-0.017	6994	18.8	2	8.677	-0.011	5334	33.5	
Aroclor-1248	3	8.957	-0.003	22552	20.3	3	9.122	-0.034	6769	34.6	
Aroclor-1248	4	9.259	-0.009	35639	61.1	4	9.542	-0.041	6554	31.4	
Total CollAve (4 peaks):				29.4	Total Col2Ave (4 peaks):				34.5	RPD = 16	
Corrected Ave (3 peaks):				18.8	Corrected Ave (3 peaks):				33.2	RPD = 55*	
Aroclor-1254	1	9.259	-0.014	35639	56.8	1	9.411	-0.016	21283	82.5	
Aroclor-1254	2	9.334	-0.022	14492	48.8	2	9.542	0.016	6554	41.7	
Aroclor-1254	3	9.629	-0.016	21479	54.2	3	9.930	-0.019	10632	50.9	
Aroclor-1254	4	9.762	-0.024	54277	67.4	4	10.088	-0.018	40013	88.5	
Aroclor-1254	5	10.220	0.060	15885	26.7	5	10.330	-0.023	51191	98.5	
Total CollAve (5 peaks):				50.8	Total Col2Ave (5 peaks):				72.4	RPD = 35	
Corrected Ave (4 peaks):				46.6	Corrected Ave (4 peaks):				65.9	RPD = 34	
Aroclor-1260	1	11.004	-0.013	44129	108.4	1	11.613	-0.012	36443	116.3	
Aroclor-1260	2	11.317	-0.016	35706	86.4	2	11.874	-0.017	81592	99.2	
Aroclor-1260	3	11.691	-0.020	116347	108.5	3	12.391	-0.015	27137	144.9	
Aroclor-1260	4	12.094	-0.024	56505	106.3	4	12.457	-0.017	54141	96.6	
Aroclor-1260	5	12.204	-0.013	22637	92.8	NS	---			----	
Total CollAve (5 peaks):				100.5	Total Col2Ave (4 peaks):				114.3	RPD = 13	
Corrected Ave (4 peaks):				98.5	Corrected Ave (3 peaks):				104.1	RPD = 6	
Aroclor-1262	1	10.782	-0.027	104312	370.6	1	11.158	-0.015	32289	73.3	
Aroclor-1262	2	12.204	-0.013	22637	46.0	2	11.613	-0.011	36443	98.3	
Aroclor-1262	3	12.278	-0.014	28045	51.9	3	12.391	-0.012	27137	69.5	
Aroclor-1262	4	12.945	-0.018	30520	70.0	4	12.457	-0.018	54141	80.2	
Total CollAve (4 peaks):				134.6	Total Col2Ave (4 peaks):				80.3	RPD = 51*	
Corrected Ave (3 peaks):				56.0	Corrected Ave (3 peaks):				74.3	RPD = 28	
Aroclor-1268	1	12.204	-0.015	22637	18.3	1	12.391	-0.012	27137	26.7	
Aroclor-1268	2	12.278	-0.012	28045	21.8	2	12.457	-0.014	54141	46.9	
Aroclor-1268	3	12.683	0.014	13804	12.9	3	12.850	-0.008	1542	1.6	
Aroclor-1268	4	13.448	-0.013	6871	2.2	4	13.664	-0.013	8197	2.8	
Total CollAve (4 peaks):				13.8	Total Col2Ave (4 peaks):				19.5	RPD = 34	

Corrected Ave (3 peaks): 11.1 Corrected Ave (3 peaks): 10.4 RPD = 7

Total PCB Area Col1 (5.866 - 13.762) = 1243029 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.749 - 13.983) = 870520 Col2 Total PCB = 0.2 ppm*

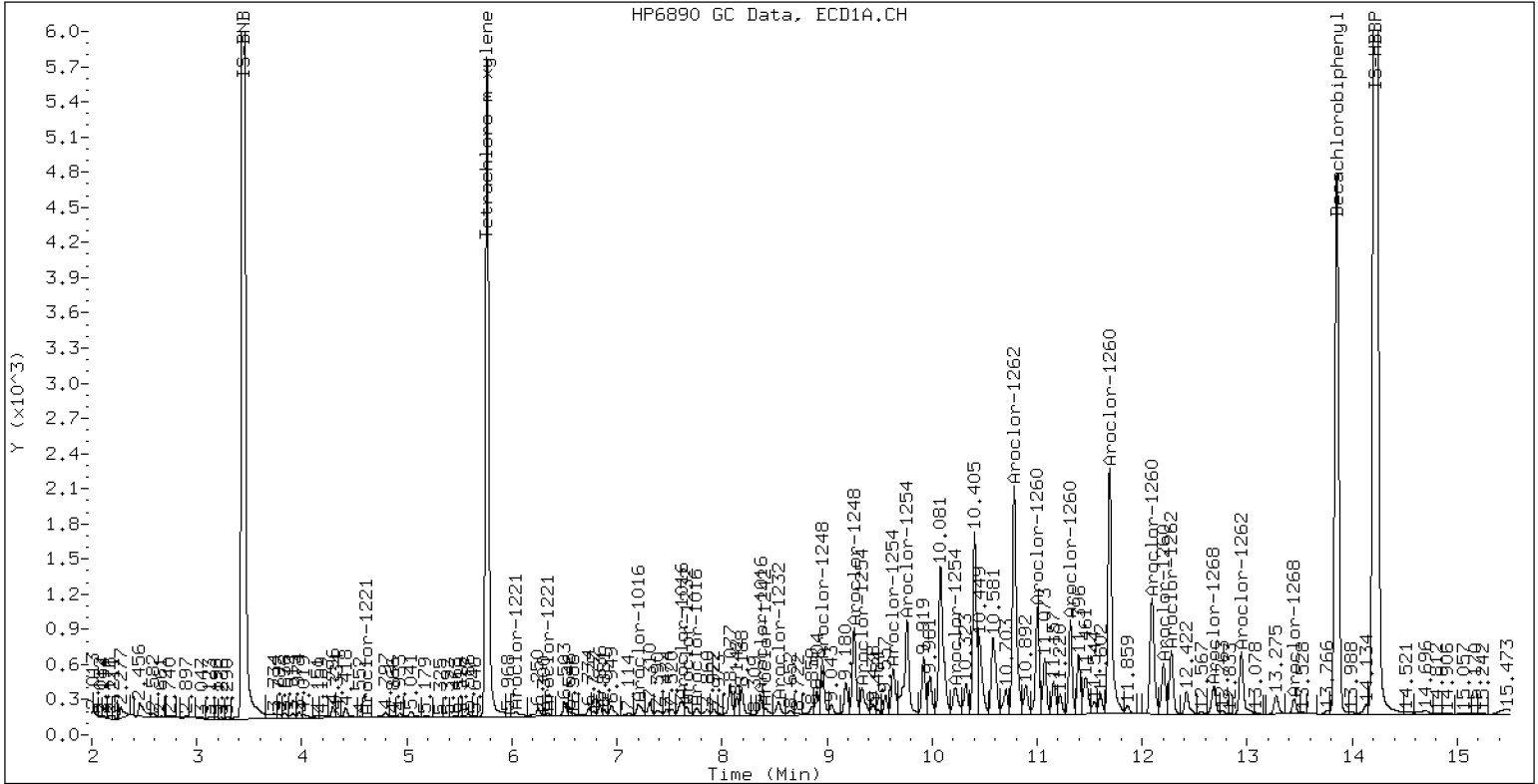
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLD0328-SRM1

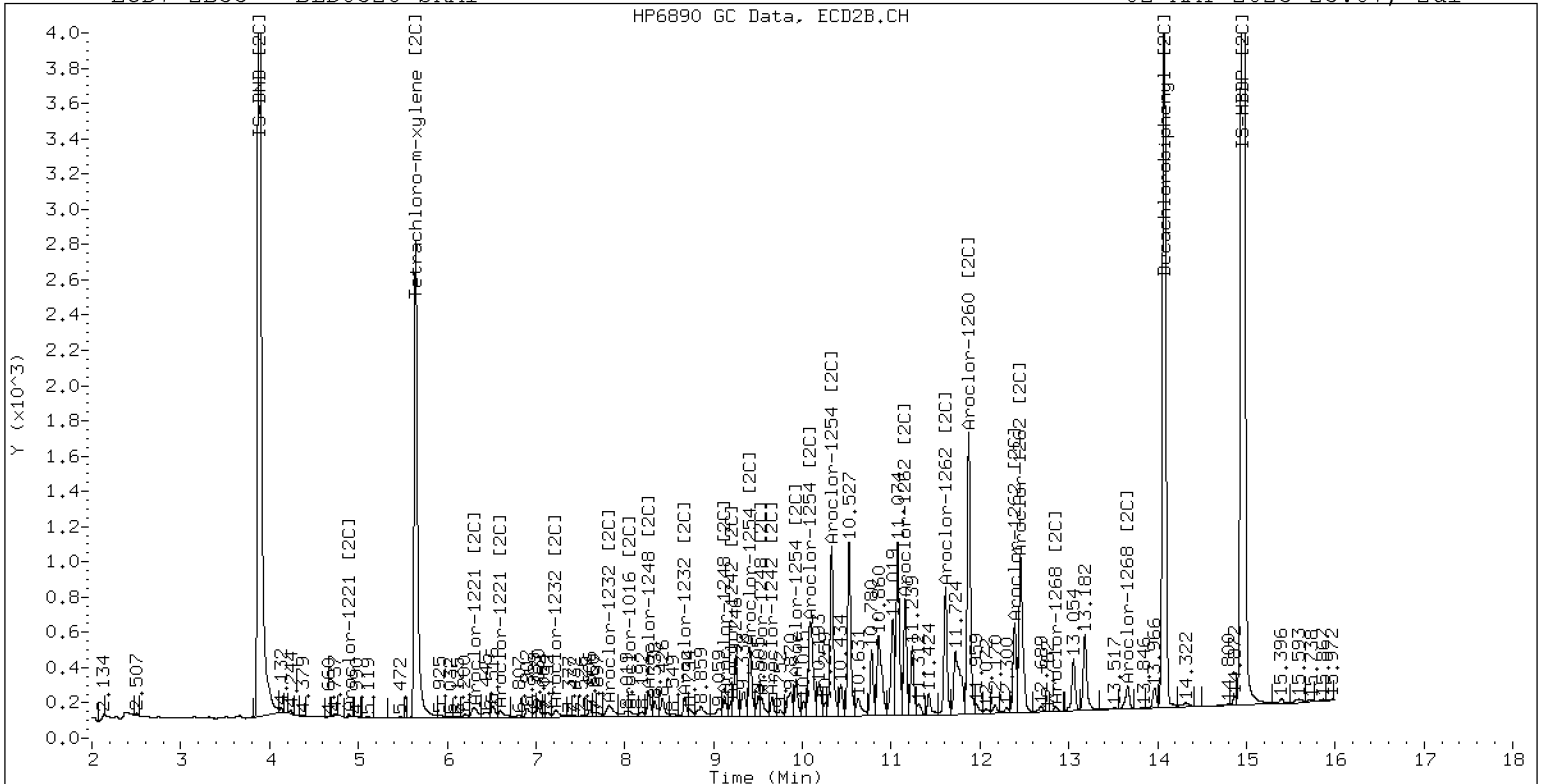
02-MAY-2023 23:07, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BLD0328-SRM1

02-MAY-2023 23:07, 2u1





INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00002	Instrument:	ECD7
Calibration Date:	04/28/2023	Column (1):	ZB5

Calibration Comments: ECD7 PCB ICAL

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1016	250	5.056783E-02	20	4.721433E-02	50	0.0513125	1000	0.0466938	100	5.060817E-02	500	4.975368E-02
Aroclor-1016 (1)	250	3.263958E-02	20	2.818093E-02	50	3.456732E-02	1000	2.658949E-02	100	3.409616E-02	500	2.953707E-02
Aroclor-1016 (2)	250	8.726708E-02	20	6.830245E-02	50	7.643699E-02	1000	8.946717E-02	100	7.961956E-02	500	9.101418E-02
Aroclor-1016 (3)	250	0.0530806	20	6.490495E-02	50	6.485228E-02	1000	0.0429376	100	0.0582397	500	4.902967E-02
Aroclor-1016 (4)	250	2.928404E-02	20	0.027469	50	0.0293934	1000	2.778089E-02	100	3.047728E-02	500	2.943378E-02
Aroclor 1260	250	6.484954E-02	20	6.161974E-02	50	5.943495E-02	1000	5.513393E-02	100	0.0583577	500	5.569976E-02
Aroclor-1260 (1)	250	5.025046E-02	20	0.048291	50	4.640952E-02	1000	4.085685E-02	100	4.364709E-02	500	4.155521E-02
Aroclor-1260 (2)	250	5.079248E-02	20	0.0475396	50	4.625285E-02	1000	4.287829E-02	100	4.464574E-02	500	0.0428166
Aroclor-1260 (3)	250	0.1317499	20	0.121439	50	0.1205215	1000	0.1104033	100	0.1178843	500	0.1114432
Aroclor-1260 (4)	250	6.305458E-02	20	6.180665E-02	50	5.678142E-02	1000	5.671439E-02	100	5.824422E-02	500	5.717673E-02
Aroclor-1260 (5)	250	2.840029E-02	20	0.0290225	50	2.720953E-02	1000	2.481678E-02	100	2.736718E-02	500	2.550705E-02
Decachlorobiphenyl	40	0.8620444	3.2	0.9311091	8	0.9494266	160	0.7622335	16	0.8909056	80	0.807456
Tetrachlorometaxylene	40	1.205885	3.2	1.142339	8	1.245982	160	1.091444	16	1.176406	80	1.152149



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00002	Instrument:	ECD7
Calibration Date:	04/28/2023	Column (1):	ZB5

Calibration Comments: ECD7 PCB ICAL

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor-1262 (2)							250	5.451848E-02				
Aroclor-1262 (3)							250	5.992317E-02				
Aroclor-1262 (4)							250	0.0483361				
Aroclor 1268									250	0.1857986		
Aroclor-1268 (1)									250	0.1373364		
Aroclor-1268 (2)									250	0.1429928		
Aroclor-1268 (3)									250	0.1189357		
Aroclor-1268 (4)									250	0.3439297		



INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00002	Instrument:	ECD7
Calibration Date:	04/28/2023	Column (1):	ZB5

Calibration Comments: ECD7 PCB ICAL

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016	4.935838E-02	3.9			RSD (20)	
Aroclor-1016 (1)	3.093509E-02	10.7			RSD (20)	
Aroclor-1016 (2)	0.0820179	10.8			RSD (20)	
Aroclor-1016 (3)	5.550747E-02	15.9			RSD (20)	
Aroclor-1016 (4)	2.897306E-02	3.9			RSD (20)	
Aroclor 1221		0.0			RSD (20)	
Aroclor-1221 (1)		0.0			RSD (20)	
Aroclor-1221 (2)		0.0			RSD (20)	
Aroclor-1221 (3)		0.0			RSD (20)	
Aroclor 1232		0.0			RSD (20)	
Aroclor-1232 (1)		0.0			RSD (20)	
Aroclor-1232 (2)		0.0			RSD (20)	
Aroclor-1232 (3)		0.0			RSD (20)	
Aroclor-1232 (4)		0.0			RSD (20)	
Aroclor 1242		0.0			RSD (20)	
Aroclor-1242 (1)		0.0			RSD (20)	
Aroclor-1242 (2)		0.0			RSD (20)	
Aroclor-1242 (3)		0.0			RSD (20)	
Aroclor-1242 (4)		0.0			RSD (20)	
Aroclor 1248		0.0			RSD (20)	
Aroclor-1248 (1)		0.0			RSD (20)	
Aroclor-1248 (2)		0.0			RSD (20)	
Aroclor-1248 (3)		0.0			RSD (20)	
Aroclor-1248 (4)		0.0			RSD (20)	
Aroclor 1254		0.0			RSD (20)	
Aroclor-1254 (1)		0.0			RSD (20)	
Aroclor-1254 (2)		0.0			RSD (20)	
Aroclor-1254 (3)		0.0			RSD (20)	
Aroclor-1254 (4)		0.0			RSD (20)	
Aroclor-1254 (5)		0.0			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00002	Instrument:	ECD7
Calibration Date:	04/28/2023	Column (2):	ZB35

Calibration Comments: ECD7 PCB ICAL

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1016 [2C]	250	5.505636E-02	20	6.107309E-02	50	6.002524E-02	1000	4.921421E-02	100	5.518314E-02	500	0.0523458
Aroclor-1016 (1) [2C]	250	4.342049E-02	20	4.739614E-02	50	4.740637E-02	1000	3.722123E-02	100	4.387657E-02	500	4.062668E-02
Aroclor-1016 (2) [2C]	250	8.935883E-02	20	7.387129E-02	50	9.113975E-02	1000	8.675969E-02	100	8.360505E-02	500	8.908324E-02
Aroclor-1016 (3) [2C]	250	5.114483E-02	20	7.122377E-02	50	5.809185E-02	1000	4.282698E-02	100	0.0525844	500	4.639808E-02
Aroclor-1016 (4) [2C]	250	3.630128E-02	20	5.180115E-02	50	4.346298E-02	1000	3.004894E-02	100	4.066653E-02	500	3.327522E-02
Aroclor 1260 [2C]	250	9.086845E-02	20	8.891759E-02	50	9.133645E-02	1000	7.819496E-02	100	8.344865E-02	500	8.032869E-02
Aroclor-1260 (1) [2C]	250	6.037032E-02	20	0.0608685	50	6.124292E-02	1000	0.0508431	100	5.563162E-02	500	0.0525359
Aroclor-1260 (2) [2C]	250	0.1599066	20	0.1527289	50	0.1595204	1000	0.1367161	100	0.1473203	500	0.139962
Aroclor-1260 (3) [2C]	250	3.558897E-02	20	3.459903E-02	50	0.0353228	1000	3.355193E-02	100	3.170584E-02	500	3.330675E-02
Aroclor-1260 (4) [2C]	250	0.1076079	20	0.1074739	50	0.1092597	1000	0.0916687	100	9.913688E-02	500	9.551002E-02
Decachlorobiphenyl [2C]	40	1.350649	3.2	1.229339	8	1.342633	160	1.273092	16	1.288975	80	1.288255
Tetrachlorometaxylene [2C]	40	1.132033	3.2	1.135685	8	1.232705	160	1.052431	16	1.100134	80	1.085933



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00002	Instrument:	ECD7
Calibration Date:	04/28/2023	Column (2):	ZB35

Calibration Comments: ECD7 PCB ICAL

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor-1262 (2) [2C]							250	6.736027E-02				
Aroclor-1262 (3) [2C]							250	7.094302E-02				
Aroclor-1262 (4) [2C]							250	0.1226143				
Aroclor 1268 [2C]									250	0.2740532		
Aroclor-1268 (1) [2C]									250	0.1849198		
Aroclor-1268 (2) [2C]									250	0.2098056		
Aroclor-1268 (3) [2C]									250	0.1733282		
Aroclor-1268 (4) [2C]									250	0.5281591		



ANALYSIS SEQUENCE

SLD0427

Instrument: ECD7
Calibration ID: GE00002

Printed: 5/1/2023 12:46:09PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLD0427-CAL1	QC		1		L000856	L000844		
SLD0427-CAL2	QC		2		L000859	L000844		
SLD0427-CAL3	QC		3		L000858	L000844		
SLD0427-CAL4	QC		4		L000731	L000844		
SLD0427-CAL5	QC		5		L000857	L000844		
SLD0427-CAL6	QC		6		L000855	L000844		
SLD0427-CAL7	QC		7		L000860	L000844		
SLD0427-CAL8	QC		8		L000861	L000844		
SLD0427-CAL9	QC		9		L000862	L000844		
SLD0427-CALA	QC		10		L000863	L000844		
SLD0427-CALB	QC		11		L000864	L000844		
SLD0427-SCV1	QC		12		L002065	L000844		
SLD0427-SCV2	QC		13		L003970	L000844		
SLD0427-SCV3	QC		14		L002066	L000844		
SLD0427-SCV4	QC		15		L002067	L000844		
SLD0427-SCV5	QC		16		L002068	L000844		
SLD0427-SCV6	QC		17		L002069	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230428.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	28-APR-2023	09:39	04282301ECD7.D	1	AR1660	
2	28-APR-2023	11:28	04282302ECD7.D	1		
3	28-APR-2023	11:59	04282303ECD7.D	1	IB	
4	28-APR-2023	12:20	04282304ECD7.D	1	0.25PPMAR1660	
5	28-APR-2023	12:41	04282305ECD7.D	1	0.02PPMAR1660	
6	28-APR-2023	13:02	04282306ECD7.D	1	0.05PPMAR1660	
7	28-APR-2023	13:23	04282307ECD7.D	1	1.0PPMAR1660	
8	28-APR-2023	13:43	04282308ECD7.D	1	0.1PPMAR1660	
9	28-APR-2023	14:04	04282309ECD7.D	1	0.5PPMAR1660	
10	28-APR-2023	14:25	04282310ECD7.D	1	0.25PPMAR1242	
11	28-APR-2023	14:46	04282311ECD7.D	1	0.25PPMAR1248	
12	28-APR-2023	15:07	04282312ECD7.D	1	0.25PPMAR1254	
13	28-APR-2023	15:28	04282313ECD7.D	1	0.25PPMAR2162	
14	28-APR-2023	15:49	04282314ECD7.D	1	0.25PPMAR3268	
15	28-APR-2023	16:09	04282315ECD7.D	1	AR1660SCV	
16	28-APR-2023	16:30	04282316ECD7.D	1	AR1242SCV	
17	28-APR-2023	16:51	04282317ECD7.D	1	AR1248SCV	
18	28-APR-2023	17:12	04282318ECD7.D	1	AR1254SCV	
19	28-APR-2023	17:33	04282319ECD7.D	1	AR2162SCV	
20	28-APR-2023	17:54	04282320ECD7.D	1	AR3268SCV	
21	28-APR-2023	18:15	04282321ECD7.D	1	DDTS	
22	28-APR-2023	18:35	04282322ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230428.b

ARI Job No.: AR16 Method: PCB.m Instrument: ecd7.i Date: 28-APR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0939	04282301ECD7.D	AR1660		1	NO MANUAL INTEGRATION
1128	04282302ECD7.D			1	NO MANUAL INTEGRATION
1159	04282303ECD7.D	IB		1	NO MANUAL INTEGRATION
1220	04282304ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
1241	04282305ECD7.D	0.02PPMAR1660		1	Aroclor-1016,
1302	04282306ECD7.D	0.05PPMAR1660		1	Aroclor-1016,
1323	04282307ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1343	04282308ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1404	04282309ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1425	04282310ECD7.D	0.25PPMAR1242		1	Aroclor-1242,
1446	04282311ECD7.D	0.25PPMAR1248		1	Aroclor-1248,
1507	04282312ECD7.D	0.25PPMAR1254		1	Aroclor-1254,
1528	04282313ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION
1549	04282314ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1609	04282315ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1630	04282316ECD7.D	AR1242SCV		1	Aroclor-1242,
1651	04282317ECD7.D	AR1248SCV		1	Aroclor-1016, Aroclor-1242, Aroclor-1248,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230428.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1712	04282318ECD7.D	AR1254SCV		1	Aroclor-1254,
1733	04282319ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
1754	04282320ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1815	04282321ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1835	04282322ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
0939	04282301ECD7.D	AR1660		1	NO MANUAL INTEGRATION
1128	04282302ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1159	04282303ECD7.D	IB		1	NO MANUAL INTEGRATION
1220	04282304ECD7.D	0.25PPMAR1660		1	IS-BNB [2C],
1241	04282305ECD7.D	0.02PPMAR1660		1	Aroclor-1016 [2C], IS-BNB [2C], Tetrachloro-m-xylene [2C],
1302	04282306ECD7.D	0.05PPMAR1660		1	Aroclor-1016 [2C], IS-BNB [2C], Tetrachloro-m-xylene [2C],
1323	04282307ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1343	04282308ECD7.D	0.1PPMAR1660		1	Aroclor-1016 [2C], IS-BNB [2C], Tetrachloro-m-xylene [2C],
1404	04282309ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1425	04282310ECD7.D	0.25PPMAR1242		1	Aroclor-1242 [2C], IS-BNB [2C], Tetrachloro-m-xylene [2C],
1446	04282311ECD7.D	0.25PPMAR1248		1	Aroclor-1248 [2C],
1507	04282312ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1528	04282313ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230428.b\230428.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1549	04282314ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1609	04282315ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1630	04282316ECD7.D	AR1242SCV		1	Aroclor-1242 [2C],
1651	04282317ECD7.D	AR1248SCV		1	Aroclor-1248 [2C],
1712	04282318ECD7.D	AR1254SCV		1	Aroclor-1254 [2C],
1733	04282319ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
1754	04282320ECD7.D	AR3268SCV		1	Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C],
1815	04282321ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1835	04282322ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

Security Status Report

Date: 01-May-2023 12:34

04282301ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282302ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282303ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282304ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282305ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282306ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282307ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282308ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282309ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282310ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282311ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282312ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282313ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282314ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282315ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282316ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282317ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282318ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282319ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282320ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282321ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282322ECD7.D	Data Locked	richardl, 01-May-2023 12:34

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m
 Last Edit : 01-May-2023 12:04 richardl
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd7.i\230428.b\04282305ECD7.D
 Level 2: \\target\share\chem4\ecd7.i\230428.b\04282306ECD7.D
 Level 3: \\target\share\chem4\ecd7.i\230428.b\04282308ECD7.D
 Level 4: \\target\share\chem4\ecd7.i\230428.b\04282304ECD7.D
 Level 5: \\target\share\chem4\ecd7.i\230428.b\04282309ECD7.D
 Level 6: \\target\share\chem4\ecd7.i\230428.b\04282307ECD7.D
 Level 7: \\target\share\chem4\ecd7.i\230428.b\04282314ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
2 Aroclor-1221 (1)	+++++ 0.00612	+++++	+++++	+++++	+++++	+++++	0.00612	0.000
(2)	+++++ 0.01228	+++++	+++++	+++++	+++++	+++++	0.01228	0.000
(3)	+++++ 0.02914	+++++	+++++	+++++	+++++	+++++	0.02914	0.000
3 Aroclor-1242 (1)	+++++ 0.02496	+++++	+++++	+++++	+++++	+++++	0.02496	0.000
(2)	+++++ 0.06823	+++++	+++++	+++++	+++++	+++++	0.06823	0.000
(3)	+++++ 0.02295	+++++	+++++	+++++	+++++	+++++	0.02295	0.000
(4)	+++++ 0.03396	+++++	+++++	+++++	+++++	+++++	0.03396	0.000
4 Aroclor-1232 (1)	+++++ 0.00389	+++++	+++++	+++++	+++++	+++++	0.00389	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
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 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m
 Last Edit : 01-May-2023 12:04 richardl
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
(2)	++++ 0.00861	++++	++++	++++	++++	++++	0.00861	0.000
(3)	++++ 0.03416	++++	++++	++++	++++	++++	0.03416	0.000
(4)	++++ 0.01591	++++	++++	++++	++++	++++	0.01591	0.000
7 Aroclor-1016(1)	0.02818 ++++	0.03457	0.03410	0.03264	0.02954	0.02659	0.03094	10.674
(2)	0.06830 ++++	0.07644	0.07962	0.08727	0.09101	0.08947	0.08202	10.754
(3)	0.06455 ++++	0.06485	0.05824	0.05308	0.04903	0.04294	0.05545	15.773
(4)	0.02747 ++++	0.02939	0.03048	0.02928	0.02943	0.02778	0.02897	3.915
6 Aroclor-1248(1)	++++ 0.03865	++++	++++	++++	++++	++++	0.03865	0.000
(2)	++++ 0.05125	++++	++++	++++	++++	++++	0.05125	0.000
(3)	++++ 0.15297	++++	++++	++++	++++	++++	0.15297	0.000
(4)	++++ 0.08033	++++	++++	++++	++++	++++	0.08033	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m
 Last Edit : 01-May-2023 12:04 richardl
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
8 Aroclor-1254 (1)	++++ 0.08641	++++	++++	++++	++++	++++	0.08641	0.000
(2)	++++ 0.04096	++++	++++	++++	++++	++++	0.04096	0.000
(3)	++++ 0.05463	++++	++++	++++	++++	++++	0.05463	0.000
(4)	++++ 0.11098	++++	++++	++++	++++	++++	0.11098	0.000
(5)	++++ 0.05834	++++	++++	++++	++++	++++	0.05834	0.000
9 Aroclor-1260 (1)	0.04829 ++++	0.04641	0.04365	0.05025	0.04156	0.04086	0.04517	8.347
(2)	0.04754 ++++	0.04625	0.04465	0.05079	0.04282	0.04288	0.04582	6.686
(3)	0.12144 ++++	0.12052	0.11788	0.13175	0.11144	0.11040	0.11891	6.547
(4)	0.06181 ++++	0.05678	0.05824	0.06305	0.05718	0.05671	0.05896	4.697
(5)	0.02902 ++++	0.02721	0.02737	0.02840	0.02551	0.02482	0.02705	6.008
10 Aroclor-1262 (1)	++++ 0.03122	++++	++++	++++	++++	++++	0.03122	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m
 Last Edit : 01-May-2023 12:04 richardl
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
(2)	++++ 0.05452	++++	++++	++++	++++	++++	0.05452	0.000
(3)	++++ 0.05992	++++	++++	++++	++++	++++	0.05992	0.000
(4)	++++ 0.04834	++++	++++	++++	++++	++++	0.04834	0.000
11 Aroclor-1268(1)	++++ 0.13734	++++	++++	++++	++++	++++	0.13734	0.000
(2)	++++ 0.14299	++++	++++	++++	++++	++++	0.14299	0.000
(3)	++++ 0.11894	++++	++++	++++	++++	++++	0.11894	0.000
(4)	++++ 0.34393	++++	++++	++++	++++	++++	0.34393	0.000
42 2,4-DDE	++++ ++++	++++	++++	++++	++++	++++	++++	++++
43 2,4-DDD	++++ ++++	++++	++++	++++	++++	++++	++++	++++
44 2,4-DDT	++++ ++++	++++	++++	++++	++++	++++	++++	++++
46 4,4-DDE	++++ ++++	++++	++++	++++	++++	++++	++++	++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m
 Last Edit : 01-May-2023 12:04 richardl
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
1 Tetrachloro-m-xylene	1.14234	1.24598	1.17641	1.20588	1.15215	1.09144		1.16903	4.583
13 Decachlorobiphenyl	0.93111	0.94943	0.89091	0.86204	0.80746	0.76223		0.86720	8.319

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m\PCB2.m
 Last Edit : 01-May-2023 12:08 richardl
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd7.i\230428.b\230428.b\04282305ECD7.D
 Level 2: \\target\share\chem4\ecd7.i\230428.b\230428.b\04282306ECD7.D
 Level 3: \\target\share\chem4\ecd7.i\230428.b\230428.b\04282308ECD7.D
 Level 4: \\target\share\chem4\ecd7.i\230428.b\230428.b\04282304ECD7.D
 Level 5: \\target\share\chem4\ecd7.i\230428.b\230428.b\04282309ECD7.D
 Level 6: \\target\share\chem4\ecd7.i\230428.b\230428.b\04282307ECD7.D
 Level 7: \\target\share\chem4\ecd7.i\230428.b\230428.b\04282314ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
1 Aroclor-1221 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00594	0.000
(2)	0.00594						0.00594	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01269	0.000
	0.01269						0.01269	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02903	0.000
	0.02903						0.02903	0.000
4 Aroclor-1232 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00344	0.000
(2)	0.00344						0.00344	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01915	0.000
	0.01915						0.01915	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03780	0.000
	0.03780						0.03780	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.01164	0.000
	0.01164						0.01164	0.000
3 Aroclor-1242 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03476	0.000
	0.03476						0.03476	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m\PCB2.m
 Last Edit : 01-May-2023 12:08 richardl
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06953	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02405	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02468	0.000
6 Aroclor-1248 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.04197	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03694	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04531	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.04834	0.000
7 Aroclor-1016 [2C] (1)	0.04740	0.04741	0.04388	0.04342	0.04063	0.03722	0.04332	9.121
(2)	0.07387	0.09114	0.08361	0.08936	0.08908	0.08676	0.08564	7.382
(3)	0.06512	0.05809	0.05258	0.05114	0.04640	0.04283	0.05269	15.250
(4)	0.05180	0.04346	0.04067	0.03630	0.03328	0.03005	0.03926	19.938

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m\PCB2.m
 Last Edit : 01-May-2023 12:08 richardl
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
8 Aroclor-1254 [2C] (1)	++++ 0.05981	++++	++++	++++	++++	++++	0.05981	0.000
(2)	++++ 0.03645	++++	++++	++++	++++	++++	0.03645	0.000
(3)	++++ 0.04842	++++	++++	++++	++++	++++	0.04842	0.000
(4)	++++ 0.10482	++++	++++	++++	++++	++++	0.10482	0.000
(5)	++++ 0.12047	++++	++++	++++	++++	++++	0.12047	0.000
10 Aroclor-1262 [2C] (1)	++++ 0.07997	++++	++++	++++	++++	++++	0.07997	0.000
(2)	++++ 0.06736	++++	++++	++++	++++	++++	0.06736	0.000
(3)	++++ 0.07094	++++	++++	++++	++++	++++	0.07094	0.000
(4)	++++ 0.12261	++++	++++	++++	++++	++++	0.12261	0.000
9 Aroclor-1260 [2C] (1)	0.06087 ++++	0.06124	0.05563	0.06037	0.05254	0.05084	0.05692	8.013
(2)	0.15273 ++++	0.15952	0.14732	0.15991	0.13996	0.13672	0.14936	6.547

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m\PCB2.m
 Last Edit : 01-May-2023 12:08 richardl
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
(3)	0.03460 +++++	0.03532	0.03171	0.03559	0.03331	0.03355	0.03401	4.276
(4)	0.10747 +++++	0.10926	0.09914	0.10761	0.09551	0.09167	0.10178	7.232
11 Aroclor-1268 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.18492	0.000
(2)	0.20981 +++++	+++++	+++++	+++++	+++++	+++++	0.20981	0.000
(3)	0.17333 +++++	+++++	+++++	+++++	+++++	+++++	0.17333	0.000
(4)	0.52816 +++++	+++++	+++++	+++++	+++++	+++++	0.52816	0.000
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 28-APR-2023 12:20
 End Cal Date : 28-APR-2023 15:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230428.b\PCB.m\PCB2.m
 Last Edit : 01-May-2023 12:08 richardl
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 2 Tetrachloro-m-xylene [2C]	1.13569 +++++	1.23271	1.10013	1.13203	1.08593	1.05243	1.12315	5.511
\$ 13 Decachlorobiphenyl [2C]	1.22934 +++++	1.34263	1.28898	1.35065	1.28826	1.27309	1.29549	3.493

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230428.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	04282304ECD7	04282305ECD7	04282306ECD7	04282307ECD7	04282308ECD7	04282309ECD7
INJ. DATE:	28-APR-2023	28-APR-2023	28-APR-2023	28-APR-2023	28-APR-2023	28-APR-2023
INJ. TIME:	12:20	12:41	13:02	13:23	13:43	14:04

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	3.444	3.443	3.444	3.443	3.444	3.443	3.444	3.344-3.544	3.443	0.000
§ 1 Tetrachloro-m-xylene	5.767	5.766	5.766	5.767	5.766	5.766	5.766	5.666-5.866	5.766	0.000
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.682	4.582-4.782	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	7.236	7.136-7.336	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	4.682	4.582-4.782	+++++	+++++
7 Aroclor-1016	7.238	7.237	7.238	7.235	7.237	7.235	7.235	7.135-7.335	7.237	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	8.379	8.279-8.479	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	9.276	9.176-9.376	+++++	+++++
9 Aroclor-1260	11.020	11.025	11.023	11.015	11.021	11.017	11.017	10.917-11.117	11.020	0.003
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.809	10.709-10.909	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	12.218	12.118-12.318	+++++	+++++
§ 13 Decachlorobiphenyl	13.861	13.862	13.864	13.863	13.863	13.862	13.862	13.762-13.962	13.862	0.001
* 12 IS-HBBP	14.240	14.239	14.239	14.238	14.238	14.238	14.239	14.139-14.339	14.238	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.237	9.187-9.287	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.779	9.729-9.829	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.293	10.243-10.343	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.665	9.565-9.765	+++++	+++++

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230428.b\PCB.m
 Batch File: \\target\share\chem4\ecd7.i\230428.b
 Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.242	10.142-10.342	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.731	10.631-10.831	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230428.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230428.b\230428.b
Inst ID: ecd7.i

ID: RT01 RT02 RT03 RT04 RT05 RT06
FILENAME: 04282304ECD7 04282305ECD7 04282306ECD7 04282307ECD7 04282308ECD7 04282309ECD7
INJ. DATE: 28-APR-2023 28-APR-2023 28-APR-2023 28-APR-2023 28-APR-2023 28-APR-2023
INJ. TIME: 12:20 12:41 13:02 13:23 13:43 14:04

Table with 11 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like IS-BNB, Tetrachloro-m-xylene, Aroclor-1221, etc.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230428.b\PCB.m\PCB2.m
 Batch File: \\target\share\chem4\ecd7.i\230428.b\230428.b
 Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.093	10.993-11.193	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282303ECD7.D
Data file 2: /230428.b/230428.b/04282303ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 28-APR-2023 11:59
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.781	0.015	295586	5.649	-0.001	171130	36.4	35.5	2.5	Tetrachloro-m-xylene
13.867	0.006	243867	14.084	0.000	230484	35.5	37.0	4.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	555978	-0.1
Hexabromobiphenyl	745660	632957	-15.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	343614	-1.4
Hexabromobiphenyl	429949	384923	-10.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.298	0.033	1567	28.8
Aroclor-1221	3	---			0.0	3	6.608	0.014	415	3.3
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	11.072	0.054	359	1.0	1	---			0.0
Aroclor-1260	2	11.347	0.013	290	0.8	2	---			0.0
Aroclor-1260	3	11.661	-0.049	563	0.6	3	---			0.0
Aroclor-1260	4	12.133	0.018	348	0.7	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
Total CollAve (4 peaks): 0.8						Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	12.133	-0.083	348	0.8	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	13.029	0.067	476	1.2	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	12.133	-0.085	348	0.3	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.673	0.004	1144	1.2	3	12.862	0.004	682	0.8
Aroclor-1268	4	13.471	0.011	5377	2.0	4	13.681	0.004	1376	0.5
Total CollAve (3 peaks): 1.2						Col2Ave: <3 Quant Peaks				
Total PCB Area Coll1 (5.866 - 13.762) =					29258	Coll1 Total PCB = 0.0 ppm*				

Total PCB Area Col2 (5.751 - 13.984) = 12580 Col2 Total PCB = 0.0 ppm*

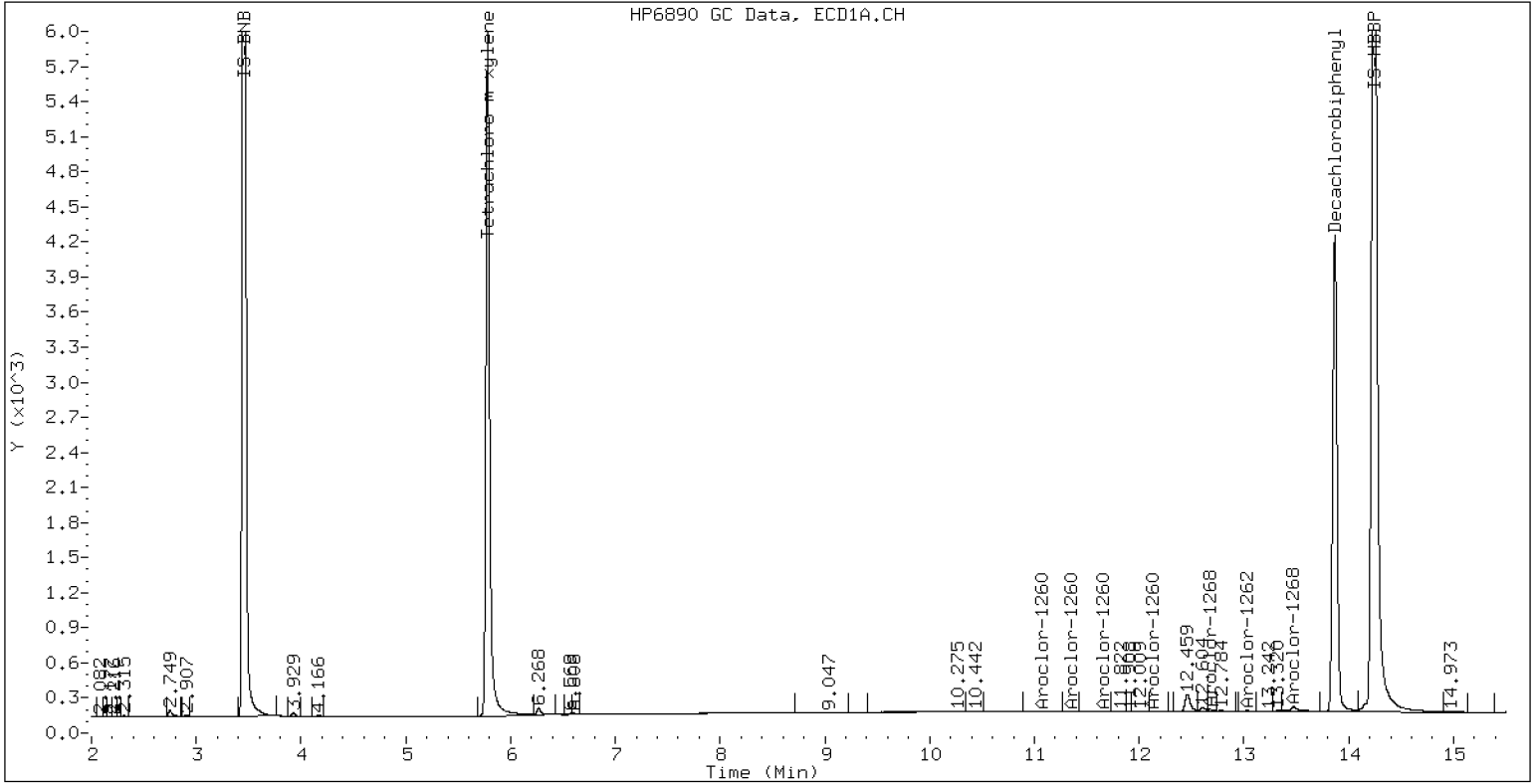
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 IB

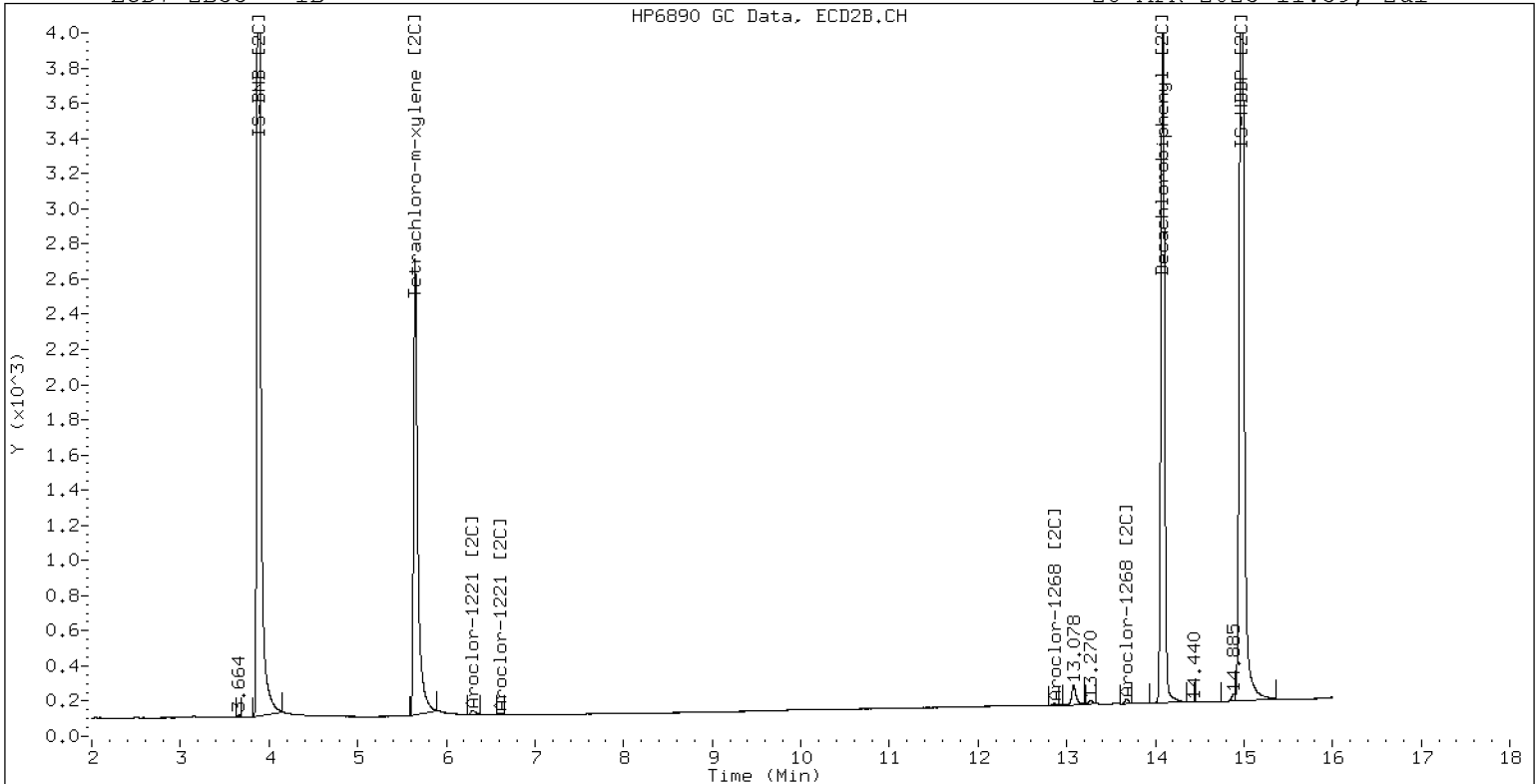
28-APR-2023 11:59, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 IB

28-APR-2023 11:59, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282304ECD7.D
 Data file 2: /230428.b/230428.b/04282304ECD7.D
 Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
 Client ID:
 Injection Date: 28-APR-2023 12:20
 Report Date: 05/01/2023 12:24
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.767	0.001	335394	5.650	-0.001	197250	41.3	40.3	2.3	Tetrachloro-m-xylene
13.861	-0.001	321396	14.085	0.001	290355	39.8	41.7	4.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	556262	0.0
Hexabromobiphenyl	745660	745660	0.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	348488	0.0
Hexabromobiphenyl	429949	429949	0.0

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 28-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.238	0.002	56738	263.8	1	7.224	0.003	47286	250.6	
Aroclor-1016	2	7.636	0.008	151698	266.0	2	7.857	0.013	97314	260.9	
Aroclor-1016	3	7.769	0.006	92271	239.1	3	8.062	0.007	55698	238.1	
Aroclor-1016	4	8.381	0.005	50905	252.7	4	8.286	0.005	39533	231.2	
Total CollAve (4 peaks):				255.4	Total Col2Ave (4 peaks):				245.2	RPD = 4	
Corrected Ave (3 peaks):				251.8	Corrected Ave (3 peaks):				239.9	RPD = 5	
CalAmt %D:				2.2	CalAmt %D:				-1.9		
Aroclor-1260	1	11.020	0.003	117093	278.1	1	11.626	0.002	81113	265.2	
Aroclor-1260	2	11.337	0.003	118356	277.1	2	11.895	0.003	214849	267.7	
Aroclor-1260	3	11.714	0.004	307002	277.0	3	12.408	0.001	47817	261.6	
Aroclor-1260	4	12.121	0.005	146929	267.3	4	12.477	0.002	144581	264.3	
Aroclor-1260	5	12.218	0.002	66178	262.4	NS	---			----	
Total CollAve (5 peaks):				272.4	Total Col2Ave (4 peaks):				264.7	RPD = 3	
Corrected Ave (4 peaks):				271.0	Corrected Ave (3 peaks):				263.7	RPD = 3	
CalAmt %D:				9.0	CalAmt %D:				5.9		

Total PCB Area Coll (5.866 - 13.762) = 3329205 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 1991771 Col2 Total PCB = 0.5 ppm*

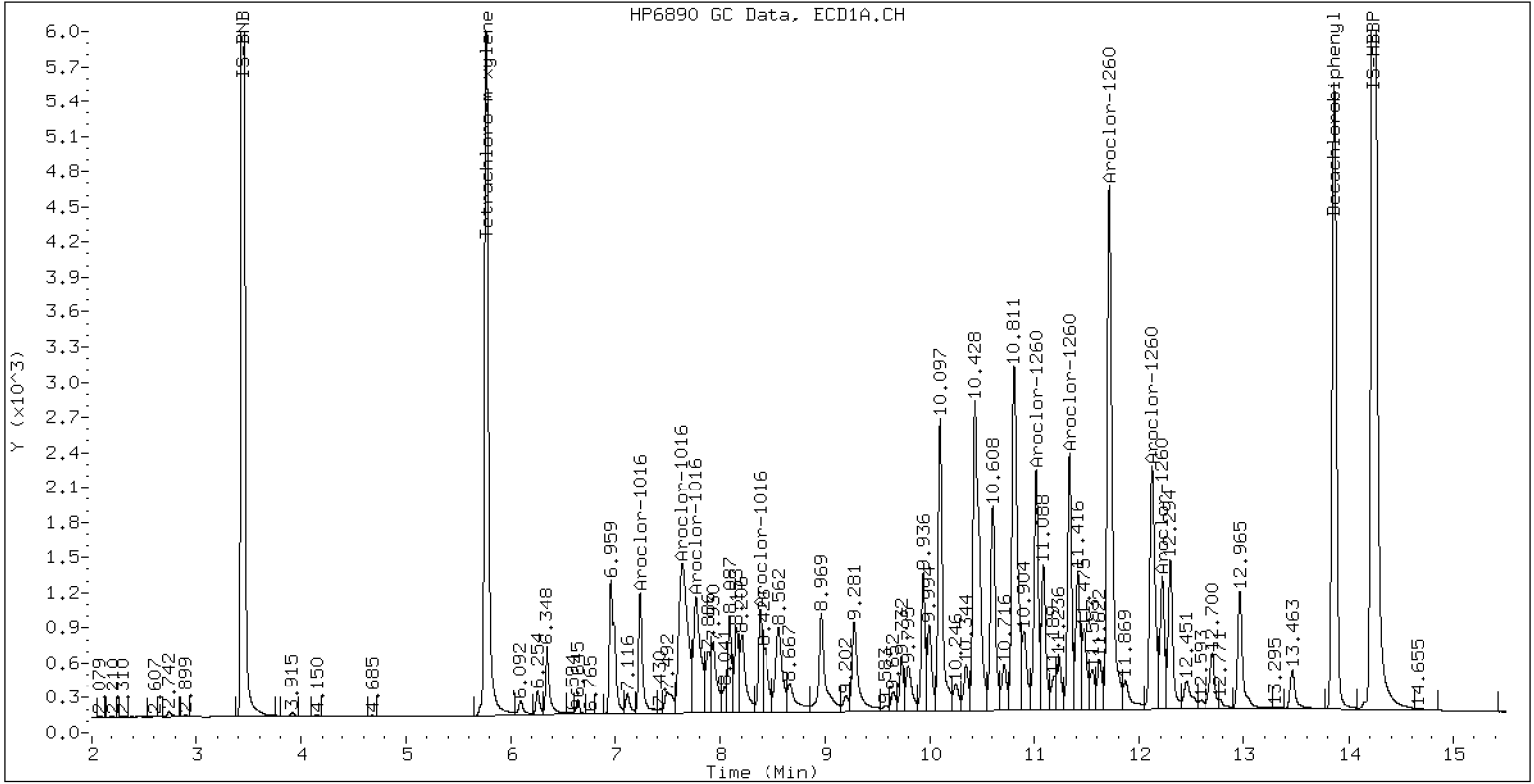
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1660

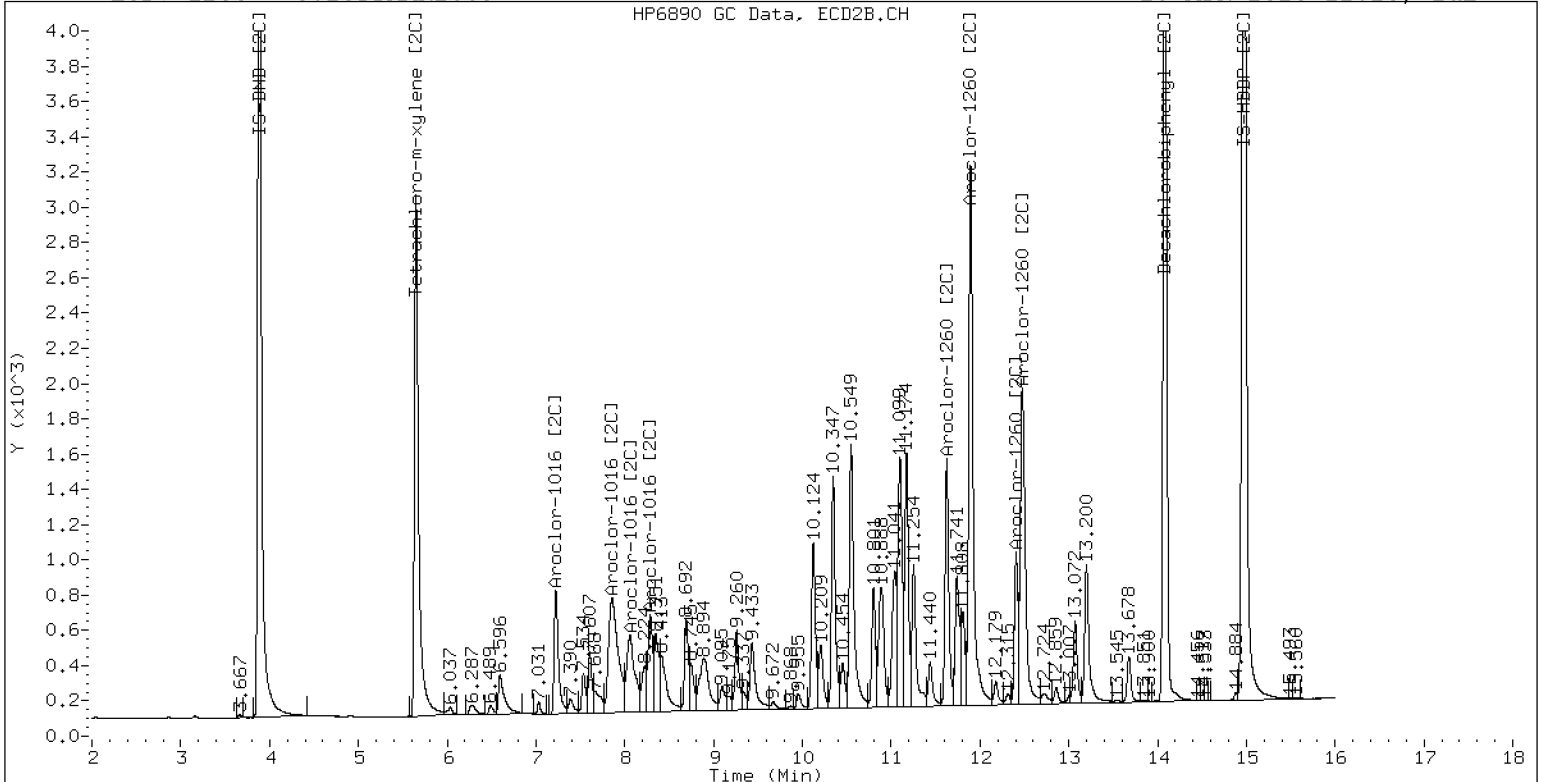
28-APR-2023 12:20, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1660

28-APR-2023 12:20, 2u1

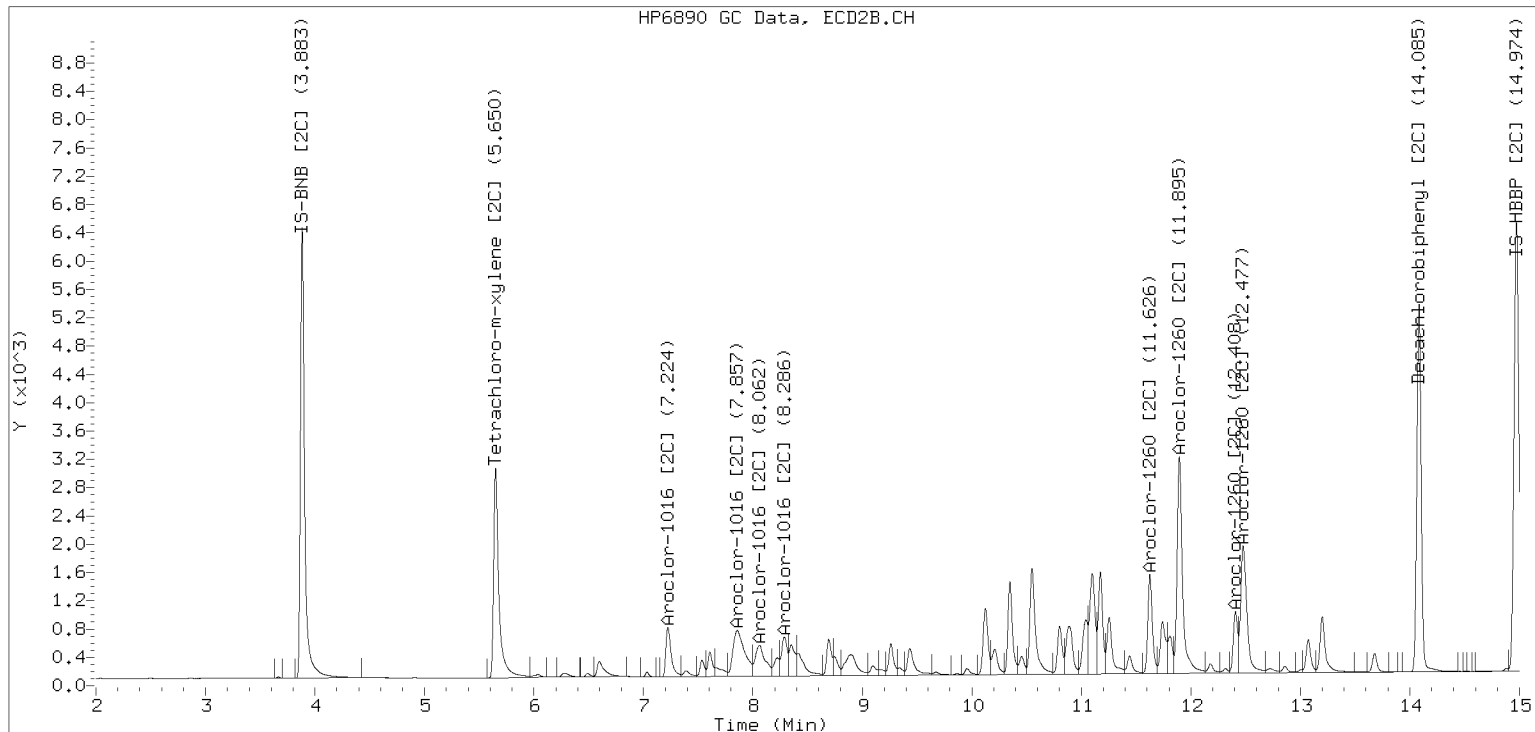


ZB-35 Manual Integration: YES

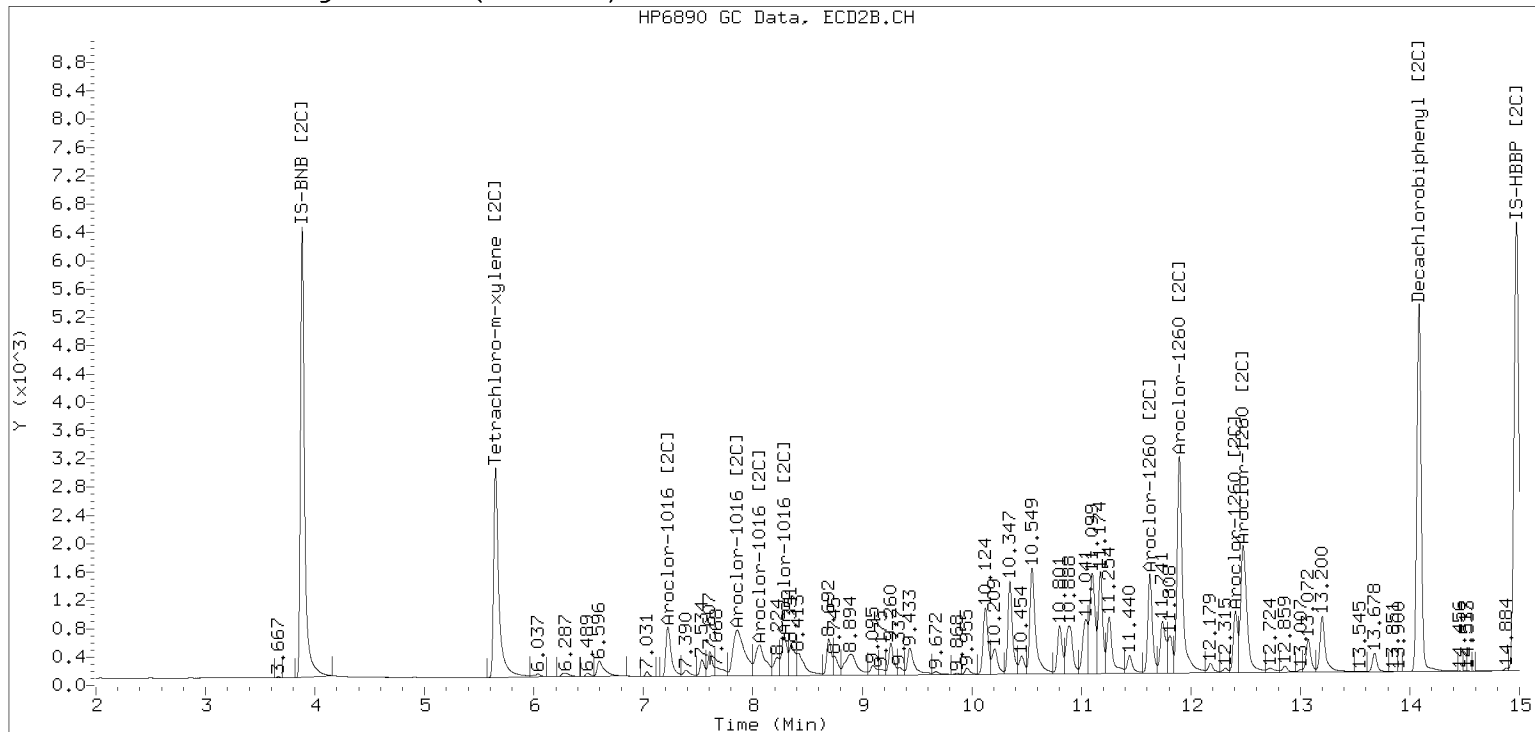
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282304ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282305ECD7.D ARI ID: 0.02PPMAR1660
 Data file 2: /230428.b/230428.b/04282305ECD7.D Client ID:
 Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m Injection Date: 28-APR-2023 12:41
 Compound Sublist: AR1660.sub Report Date: 05/01/2023 12:24
 Instrument, Inj. Vol.: ecd7.i, 2ul Matrix: NONE
 Quant Method: Internal Std Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	25930	5.651	0.000	16129	3.1	3.2	3.4	Tetrachloro-m-xylene
13.862	0.000	31723	14.084	0.000	22575	3.4	3.0	12.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	567476	2.0
Hexabromobiphenyl	745660	851753	14.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	355050	1.9
Hexabromobiphenyl	429949	459088	6.8

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 28-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.237	0.002	3998	18.2	1	7.227	0.005	4207	21.9	
Aroclor-1016	2	7.679	0.052	9690	16.7	2	7.887	0.043	6557	17.3	
Aroclor-1016	3	7.764	0.001	9208	23.4	3	8.065	0.010	6322	26.5	
Aroclor-1016	4	8.386	0.010	3897	19.0	4	8.294	0.013	4598	26.4	
Total CollAve (4 peaks):				19.3	Total Col2Ave (4 peaks):				23.0	RPD = 18	
Corrected Ave (3 peaks):				17.9	Corrected Ave (3 peaks):				21.8	RPD = 20	
CalAmt %D:				-3.5	CalAmt %D:				15.1		
Aroclor-1260	1	11.025	0.008	10283	21.4	1	11.630	0.006	6986	21.4	
Aroclor-1260	2	11.342	0.008	10123	20.8	2	11.901	0.009	17529	20.5	
Aroclor-1260	3	11.723	0.013	25859	20.4	3	12.412	0.005	3971	20.3	
Aroclor-1260	4	12.126	0.010	13161	21.0	4	12.484	0.009	12335	21.1	
Aroclor-1260	5	12.221	0.005	6180	21.5	NS	---			----	
Total CollAve (5 peaks):				21.0	Total Col2Ave (4 peaks):				20.8	RPD = 1	
Corrected Ave (4 peaks):				20.9	Corrected Ave (3 peaks):				20.6	RPD = 1	
CalAmt %D:				5.0	CalAmt %D:				4.1		

Total PCB Area Coll (5.866 - 13.762) = 306607 Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 173055 Col2 Total PCB = 0.0 ppm*

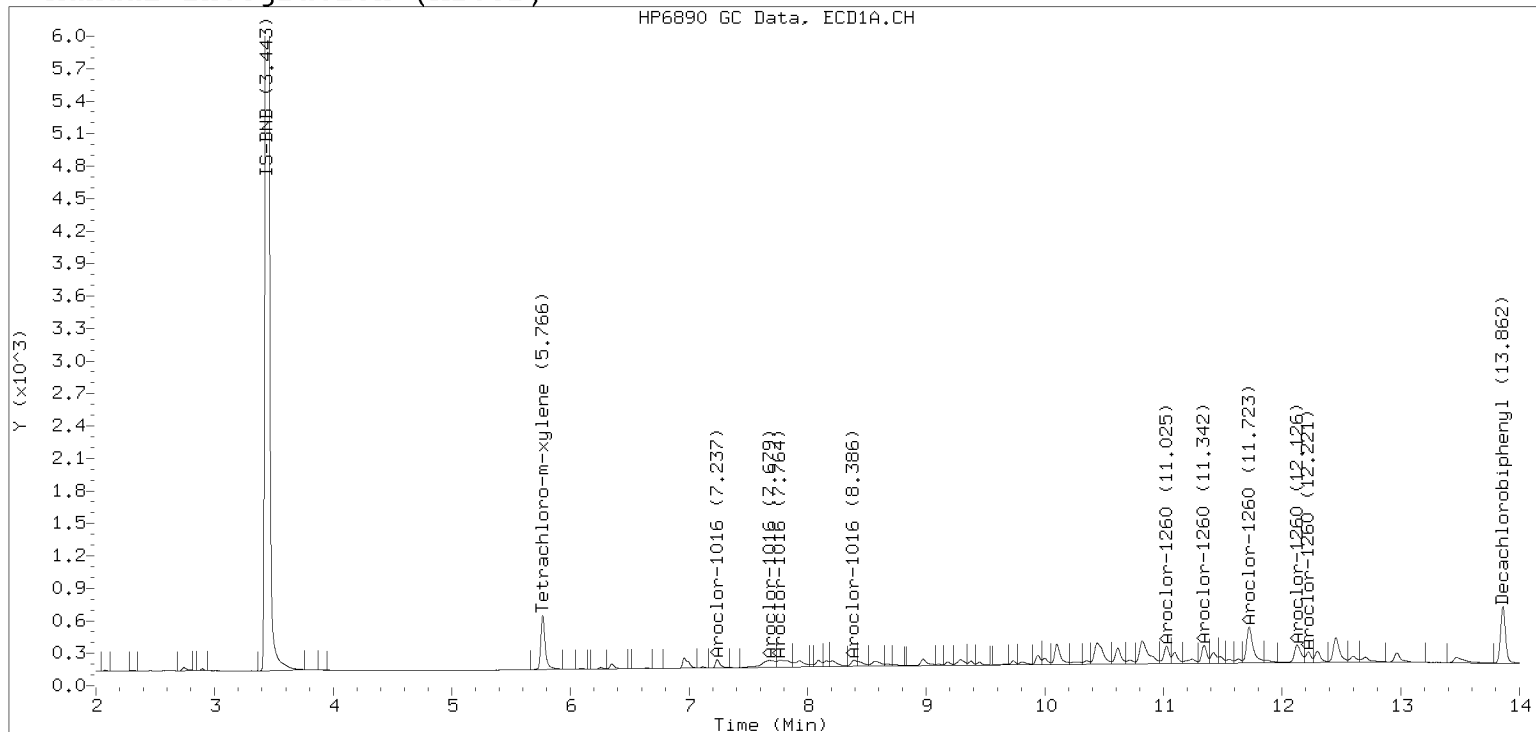
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

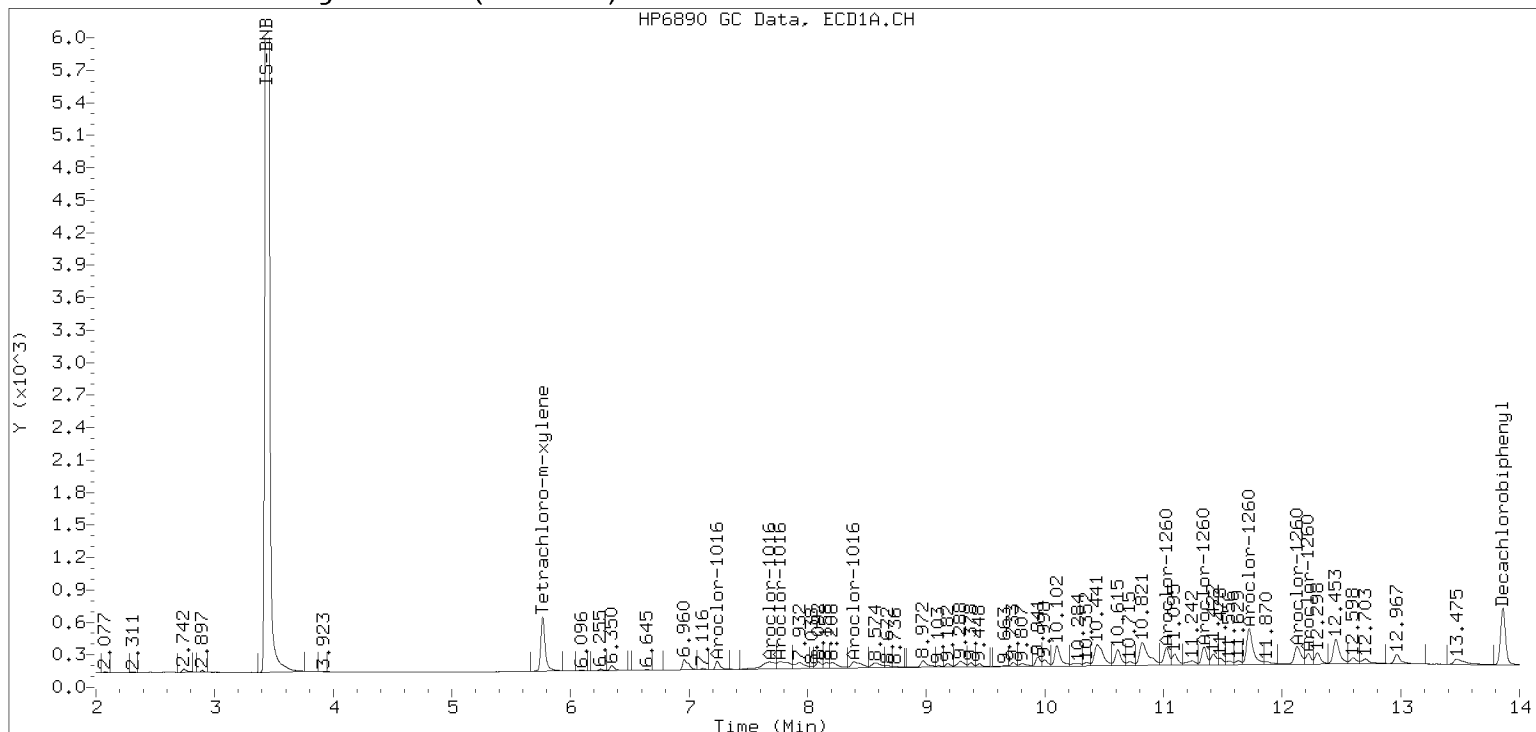
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230428.b/04282305ECD7.D Injection Date: 28-APR-2023 12:41

Manual Integration (After)



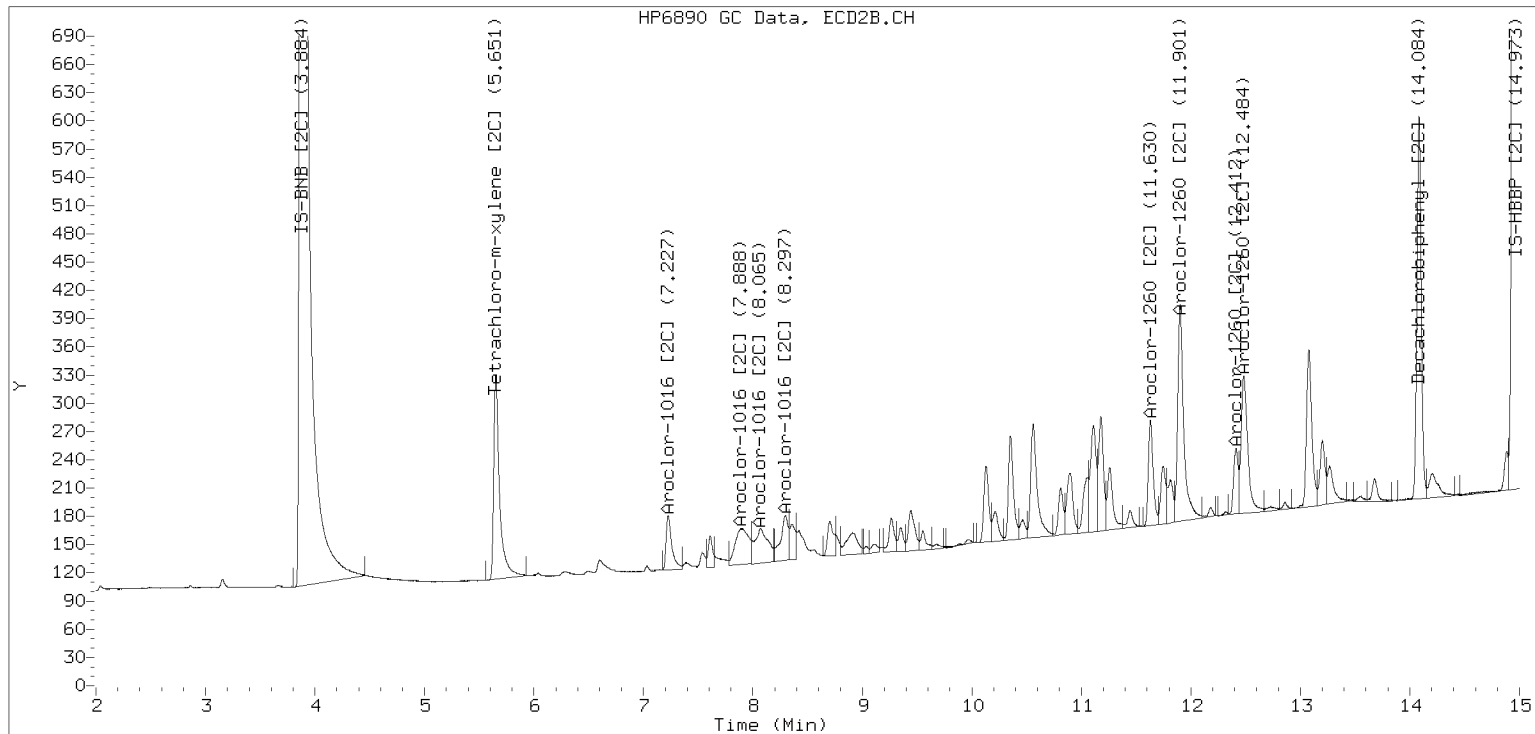
Processed Integration (Before)



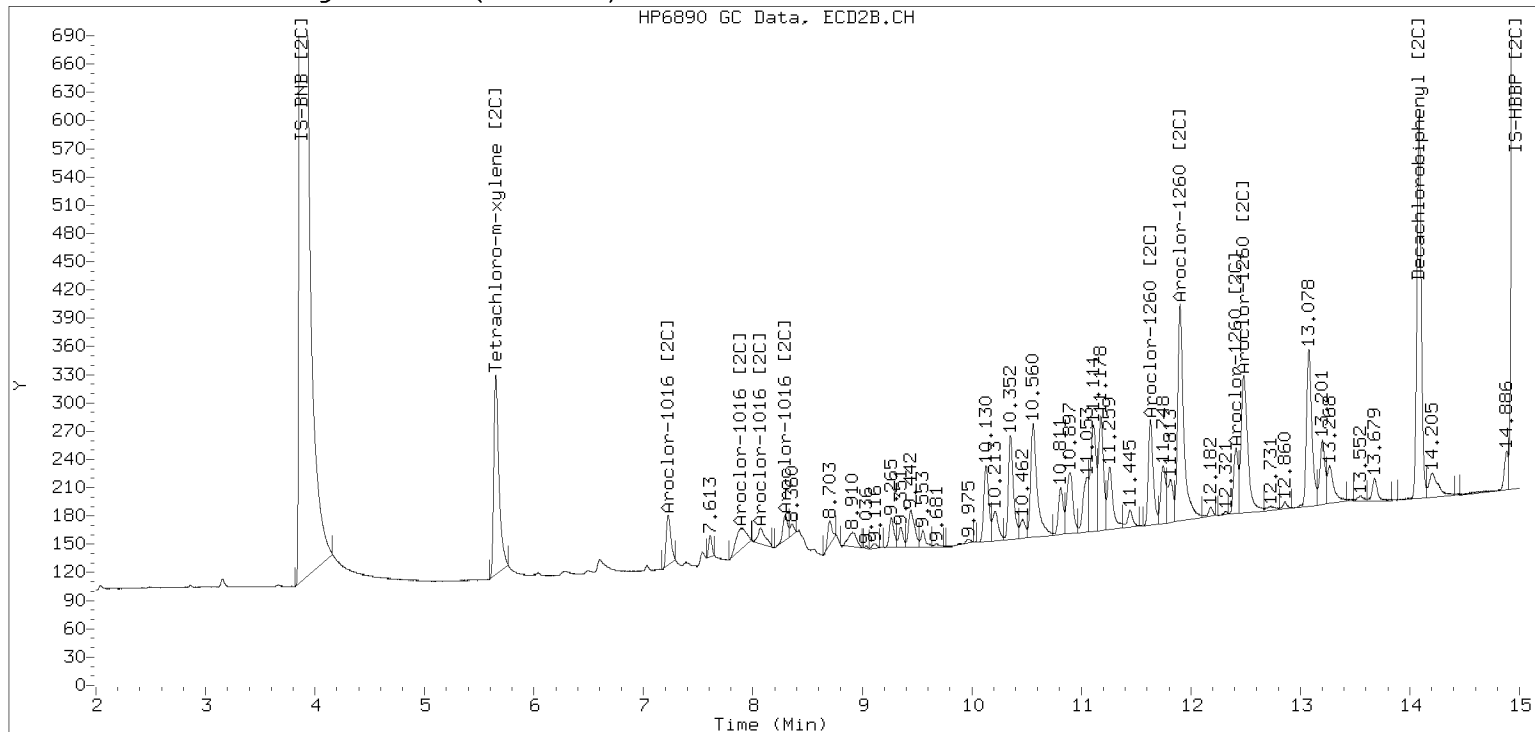
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282305ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282306ECD7.D
Data file 2: /230428.b/230428.b/04282306ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
Client ID:
Injection Date: 28-APR-2023 13:02
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.001	70435	5.651	-0.000	43764	8.5	8.8	2.9	Tetrachloro-m-xylene
13.864	0.002	86295	14.084	0.001	63377	8.8	8.3	5.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	565297	1.6
Hexabromobiphenyl	745660	908917	21.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	355024	1.9
Hexabromobiphenyl	429949	472035	9.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col ZB35 Col

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.238	0.002	12213	55.9	1	7.227	0.006	10519	54.7	
Aroclor-1016	2	7.665	0.037	27006	46.6	2	7.886	0.041	20223	53.2	
Aroclor-1016	3	7.771	0.008	22913	58.4	3	8.068	0.013	12890	54.1	
Aroclor-1016	4	8.384	0.008	10385	50.7	4	8.291	0.010	9644	55.4	
Total CollAve (4 peaks):				52.9	Total Col2Ave (4 peaks):				54.3	RPD = 3	
Corrected Ave (3 peaks):				51.1	Corrected Ave (3 peaks):				54.0	RPD = 6	

CalAmt %D: 5.8

CalAmt %D: 8.7

Aroclor-1260	1	11.023	0.005	26364	51.4	1	11.629	0.005	18068	53.8	
Aroclor-1260	2	11.340	0.006	26275	50.5	2	11.899	0.007	47062	53.4	
Aroclor-1260	3	11.719	0.009	68465	50.7	3	12.411	0.004	10421	51.9	
Aroclor-1260	4	12.124	0.008	32256	48.2	4	12.482	0.007	32234	53.7	
Aroclor-1260	5	12.220	0.004	15457	50.3	NS	---			----	
Total CollAve (5 peaks):				50.2	Total Col2Ave (4 peaks):				53.2	RPD = 6	
Corrected Ave (4 peaks):				49.9	Corrected Ave (3 peaks):				53.0	RPD = 6	

CalAmt %D: 0.4

CalAmt %D: 6.4

Total PCB Area Coll (5.866 - 13.762) = 736093 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 450761 Col2 Total PCB = 0.1 ppm*

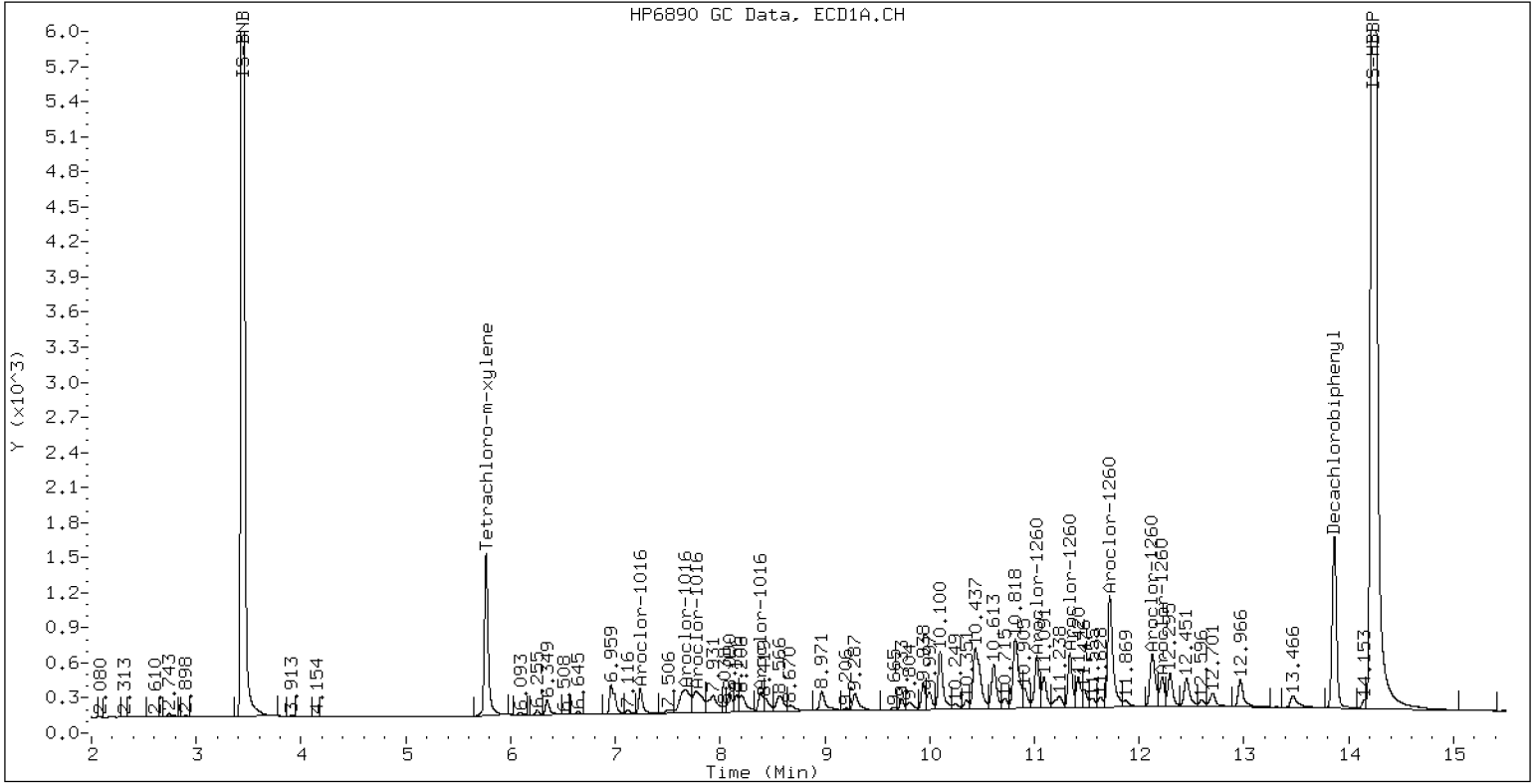
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.05PPMAR1660

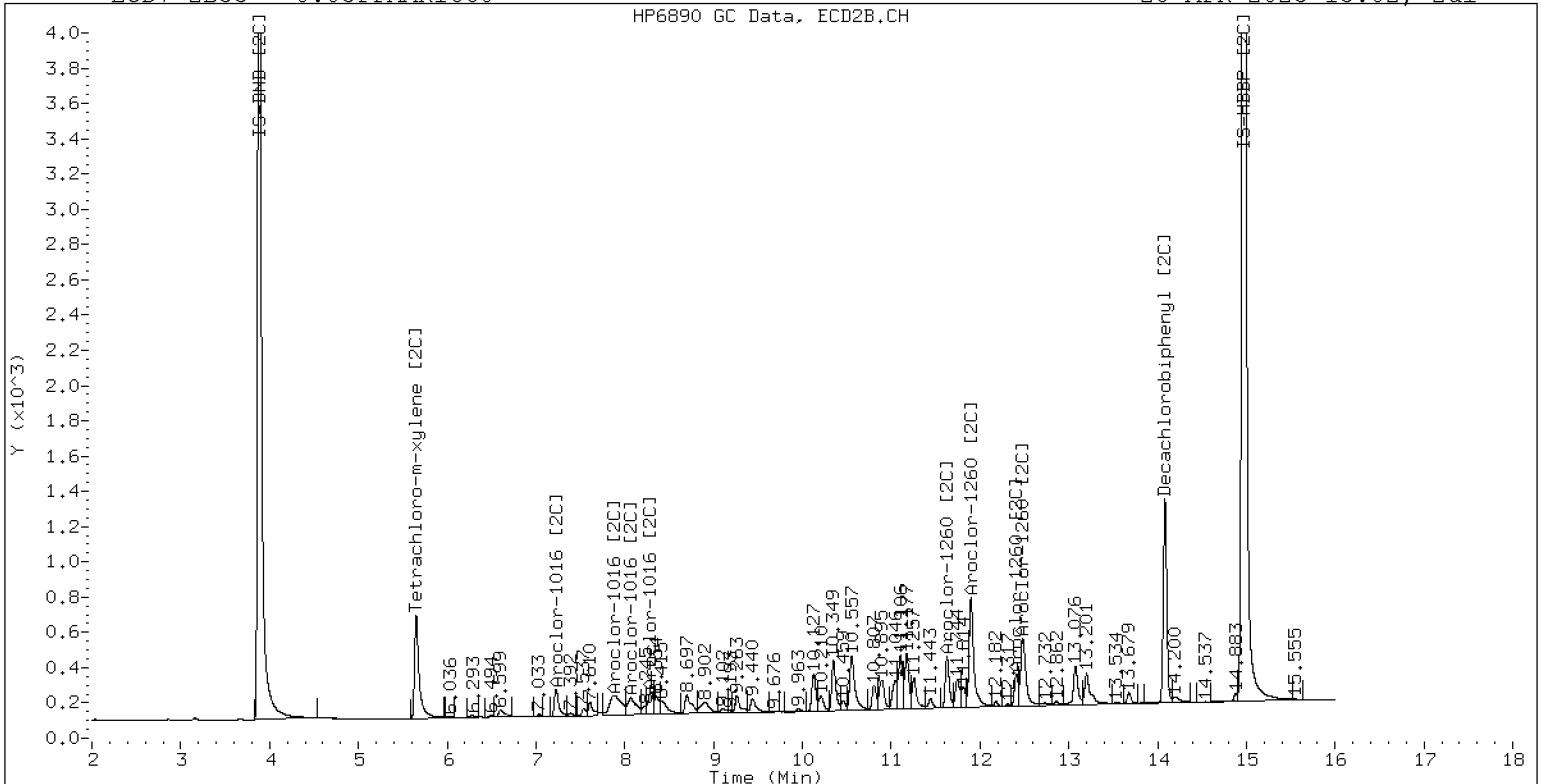
28-APR-2023 13:02, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 0.05PPMAR1660

28-APR-2023 13:02, 2ul

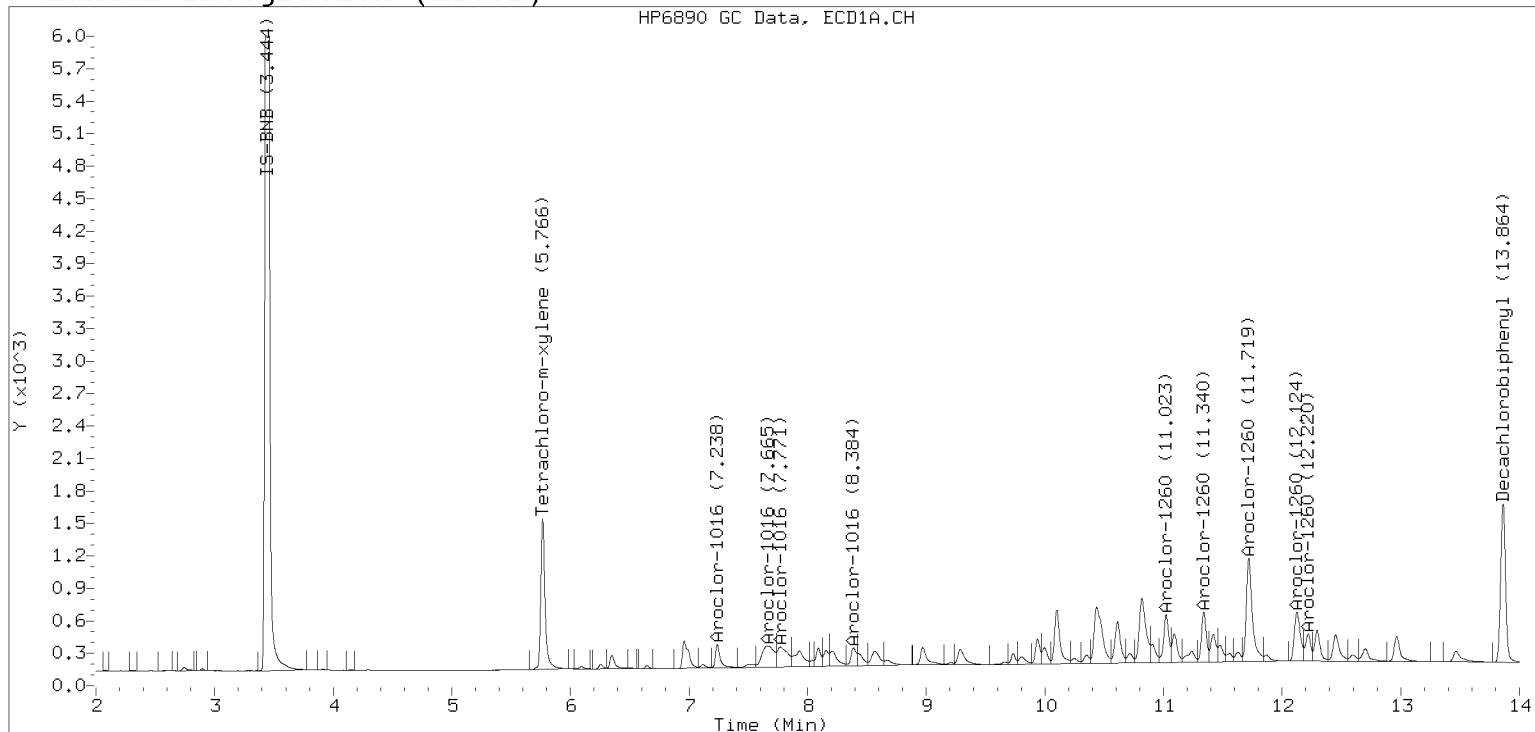


ZB-35 Manual Integration: YES

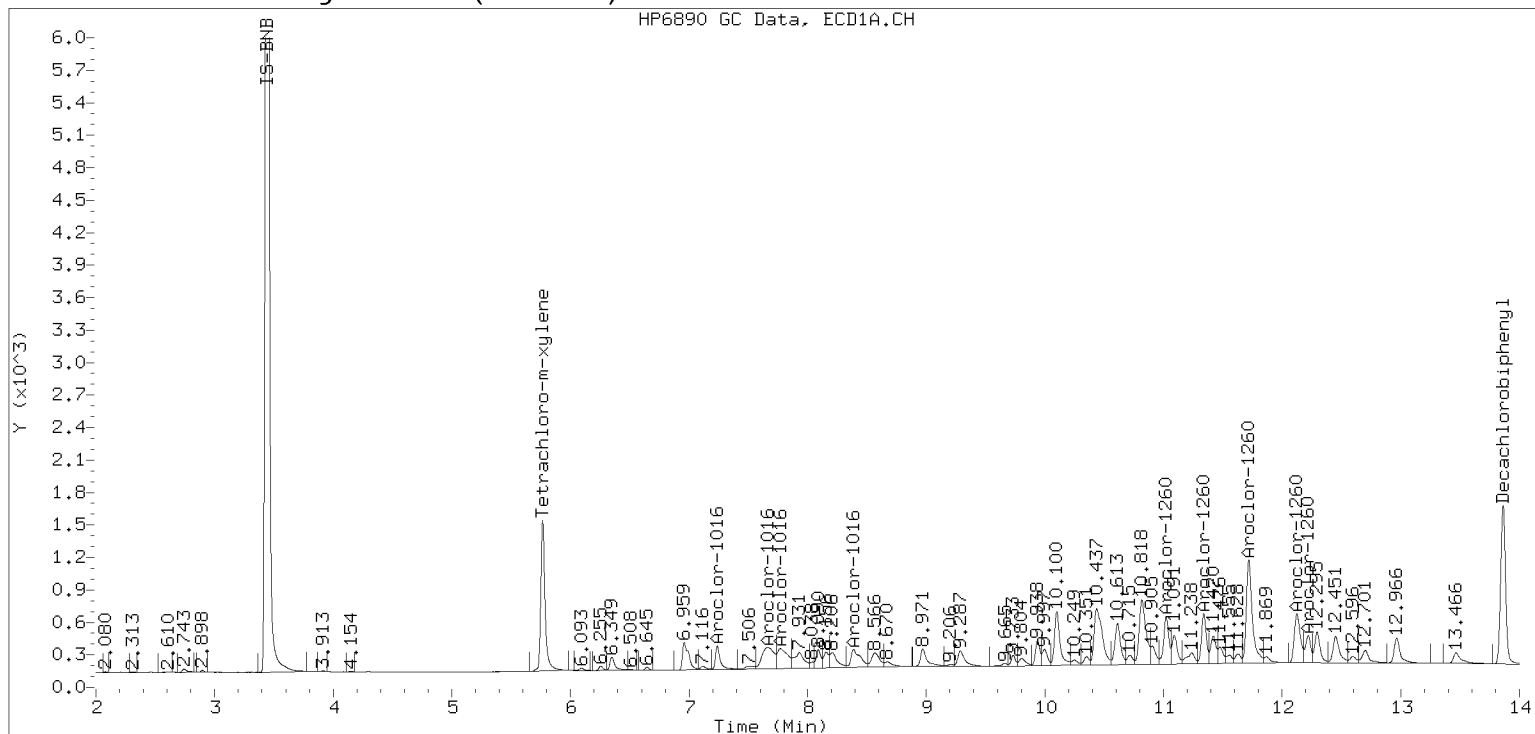
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230428.b/04282306ECD7.D Injection Date: 28-APR-2023 13:02

Manual Integration (After)



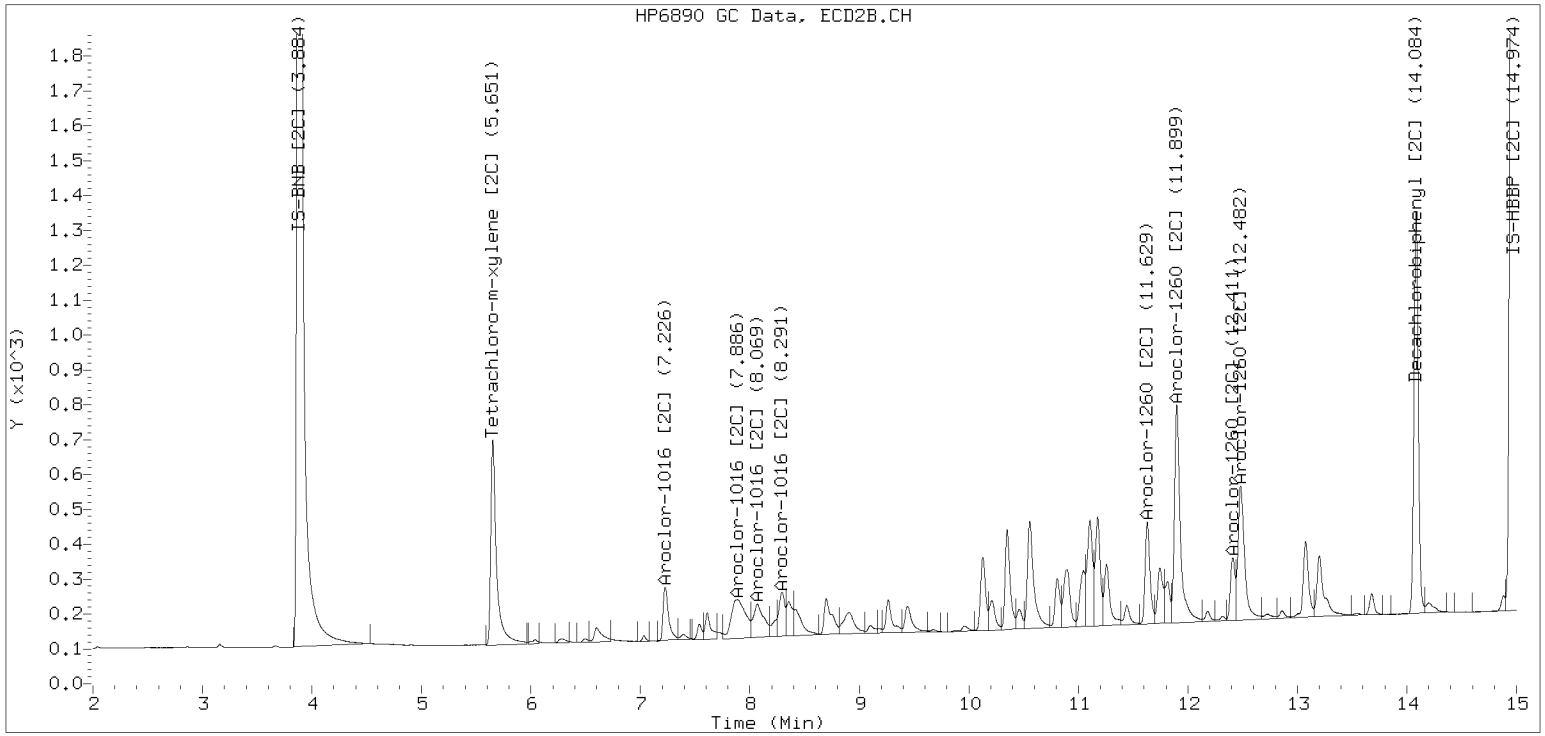
Processed Integration (Before)



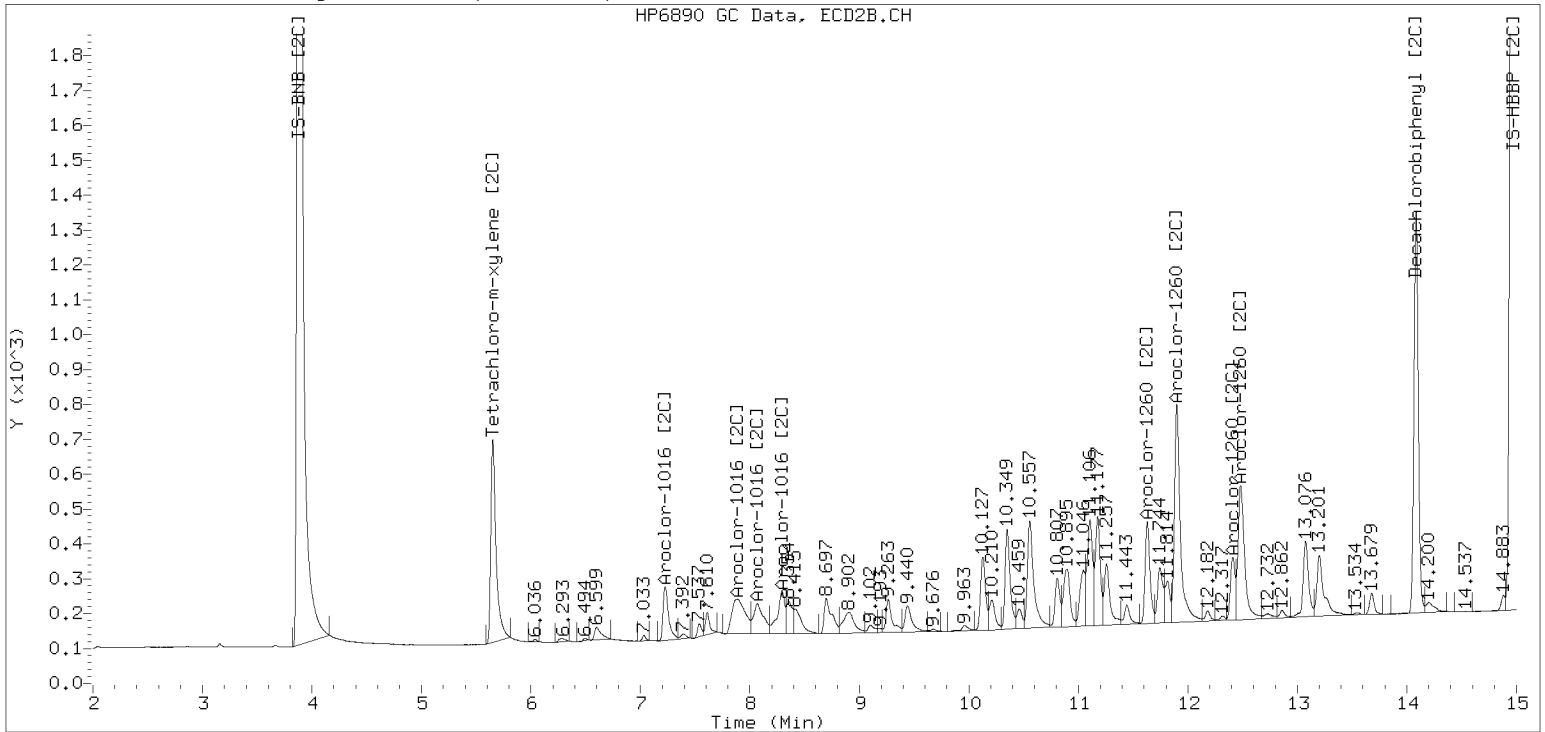
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282306ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282307ECD7.D
Data file 2: /230428.b/230428.b/04282307ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1.0PPMAR1660
Client ID:
Injection Date: 28-APR-2023 13:23
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.767	0.001	1267882	5.649	-0.002	750935	149.4	149.9	0.4	Tetrachloro-m-xylene
13.863	0.001	1438551	14.084	0.000	1240651	140.6	157.2	11.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	580828	4.4
Hexabromobiphenyl	745660	943642	26.6
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	356762	2.4
Hexabromobiphenyl	429949	487259	13.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.235	-0.000	193049	859.5	1	7.222	0.001	165989	859.1
Aroclor-1016	2	7.626	-0.002	649563	1090.8	2	7.834	-0.010	386907	1013.1
Aroclor-1016	3	7.760	-0.003	311742	773.5	3	8.031	-0.024	190988	797.3
Aroclor-1016	4	8.374	-0.002	201699	958.9	4	8.279	-0.002	134004	765.4
Total CollAve (4 peaks):				920.7		Total Col2Ave (4 peaks):				858.7 RPD = 7
Corrected Ave (3 peaks):				864.0		Corrected Ave (3 peaks):				807.3 RPD = 7
CalAmt %D:				-7.9		CalAmt %D:				-14.1
Aroclor-1260	1	11.015	-0.002	481928	904.5	1	11.623	-0.001	309672	893.3
Aroclor-1260	2	11.333	-0.001	505772	935.8	2	11.892	-0.000	832702	915.4
Aroclor-1260	3	11.708	-0.001	1302265	928.5	3	12.405	-0.002	204356	986.5
Aroclor-1260	4	12.113	-0.003	668976	961.9	4	12.474	-0.001	558330	900.7
Aroclor-1260	5	12.215	-0.001	292727	917.3	NS	---			----
Total CollAve (5 peaks):				929.6		Total Col2Ave (4 peaks):				924.0 RPD = 1
Corrected Ave (4 peaks):				921.5		Corrected Ave (3 peaks):				903.1 RPD = 2
CalAmt %D:				-7.0		CalAmt %D:				-7.6

Total PCB Area Coll (5.866 - 13.762) = 13445417 Coll Total PCB = 1.9 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 7592155 Col2 Total PCB = 1.9 ppm*

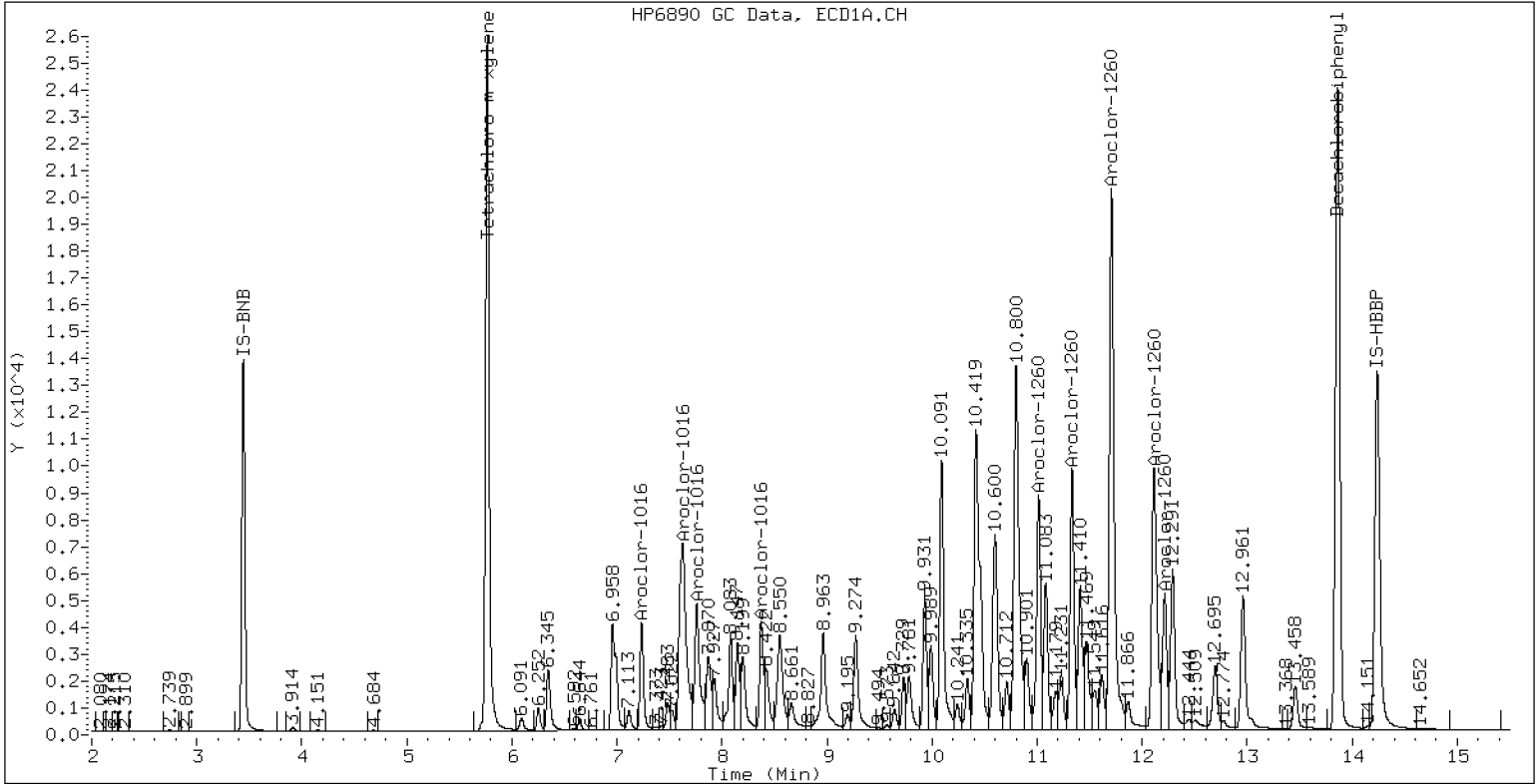
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 1.0PPMAR1660

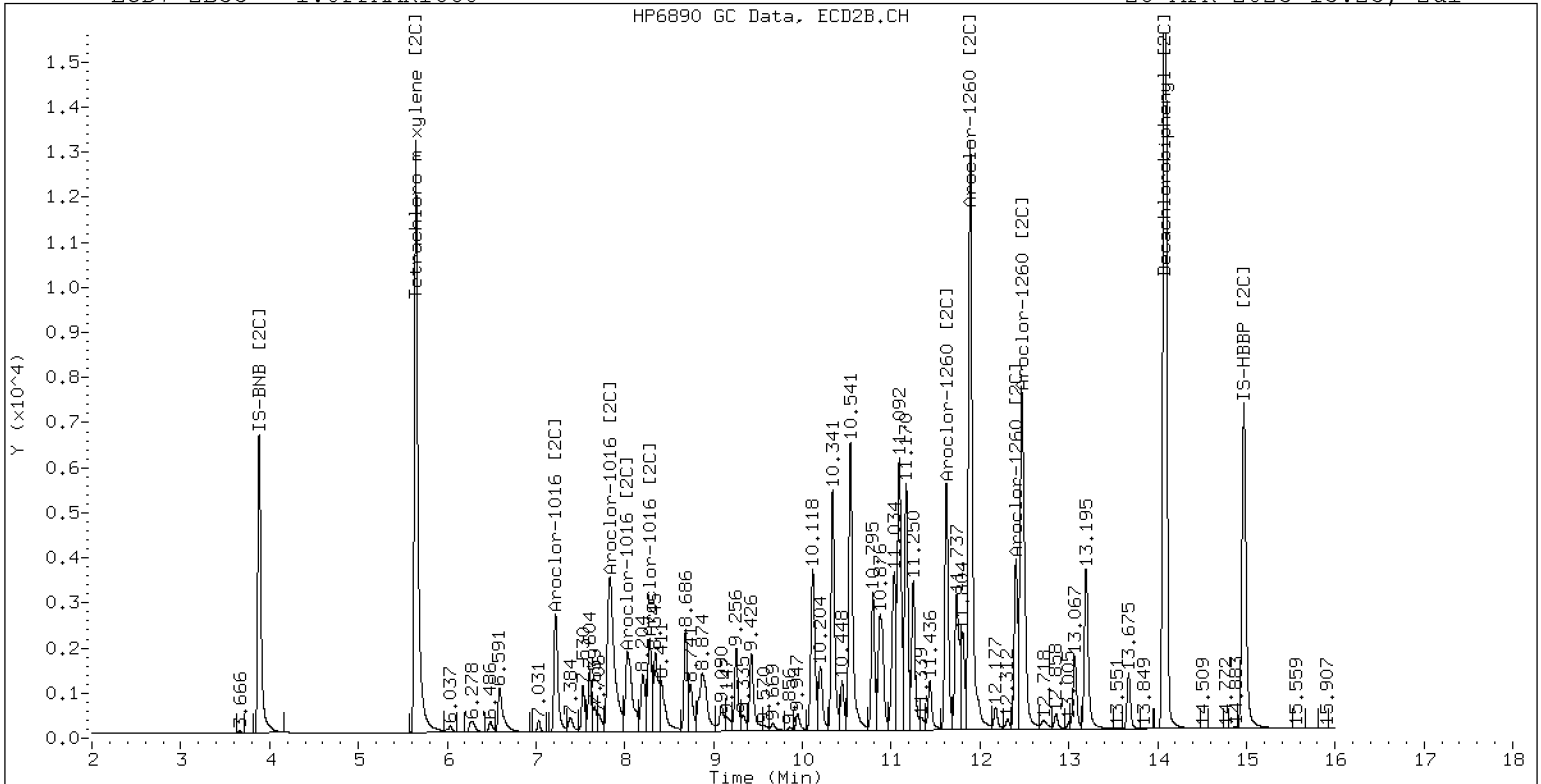
28-APR-2023 13:23, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 1.0PPMAR1660

28-APR-2023 13:23, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282308ECD7.D
Data file 2: /230428.b/230428.b/04282308ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 28-APR-2023 13:43
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	134919	5.650	-0.000	78249	16.1	15.7	2.7	Tetrachloro-m-xylene
13.863	0.001	175853	14.084	0.001	126789	16.4	15.9	3.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	573437	3.1
Hexabromobiphenyl	745660	986934	32.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	355634	2.1
Hexabromobiphenyl	429949	491821	14.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col ZB35 Col

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.237	0.001	24440	110.2	1	7.225	0.004	19505	101.3
Aroclor-1016	2	7.647	0.019	57071	97.1	2	7.872	0.027	37166	97.6
Aroclor-1016	3	7.769	0.007	41746	104.9	3	8.064	0.010	23376	97.9
Aroclor-1016	4	8.384	0.008	21846	105.2	4	8.290	0.010	18078	103.6
Total CollAve (4 peaks):				104.4		Total Col2Ave (4 peaks):				100.1 RPD = 4
Corrected Ave (3 peaks):				102.4		Corrected Ave (3 peaks):				98.9 RPD = 3

CalAmt %D: 4.4 CalAmt %D: 0.1

Aroclor-1260	1	11.021	0.004	53846	96.6	1	11.627	0.003	34201	97.7
Aroclor-1260	2	11.338	0.004	55078	97.4	2	11.897	0.005	90569	98.6
Aroclor-1260	3	11.717	0.007	145430	99.1	3	12.408	0.002	19492	93.2
Aroclor-1260	4	12.123	0.008	71854	98.8	4	12.480	0.005	60947	97.4
Aroclor-1260	5	12.220	0.004	33762	101.2	NS	---			----
Total CollAve (5 peaks):				98.6		Total Col2Ave (4 peaks):				96.8 RPD = 2
Corrected Ave (4 peaks):				98.0		Corrected Ave (3 peaks):				96.1 RPD = 2

CalAmt %D: -1.4 CalAmt %D: -3.2

Total PCB Area Coll (5.866 - 13.762) = 1625145 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 833910 Col2 Total PCB = 0.2 ppm*

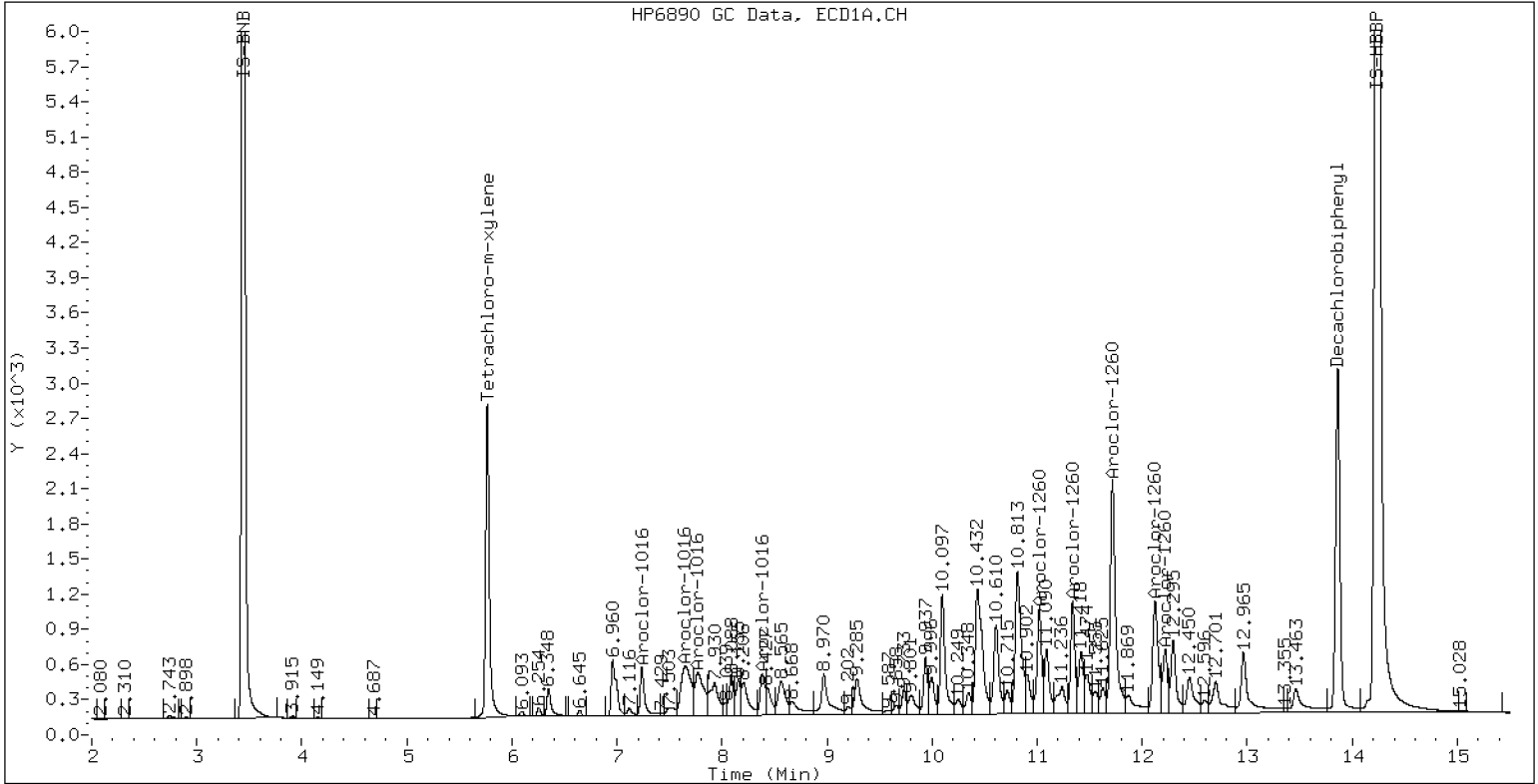
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.1PPMAR1660

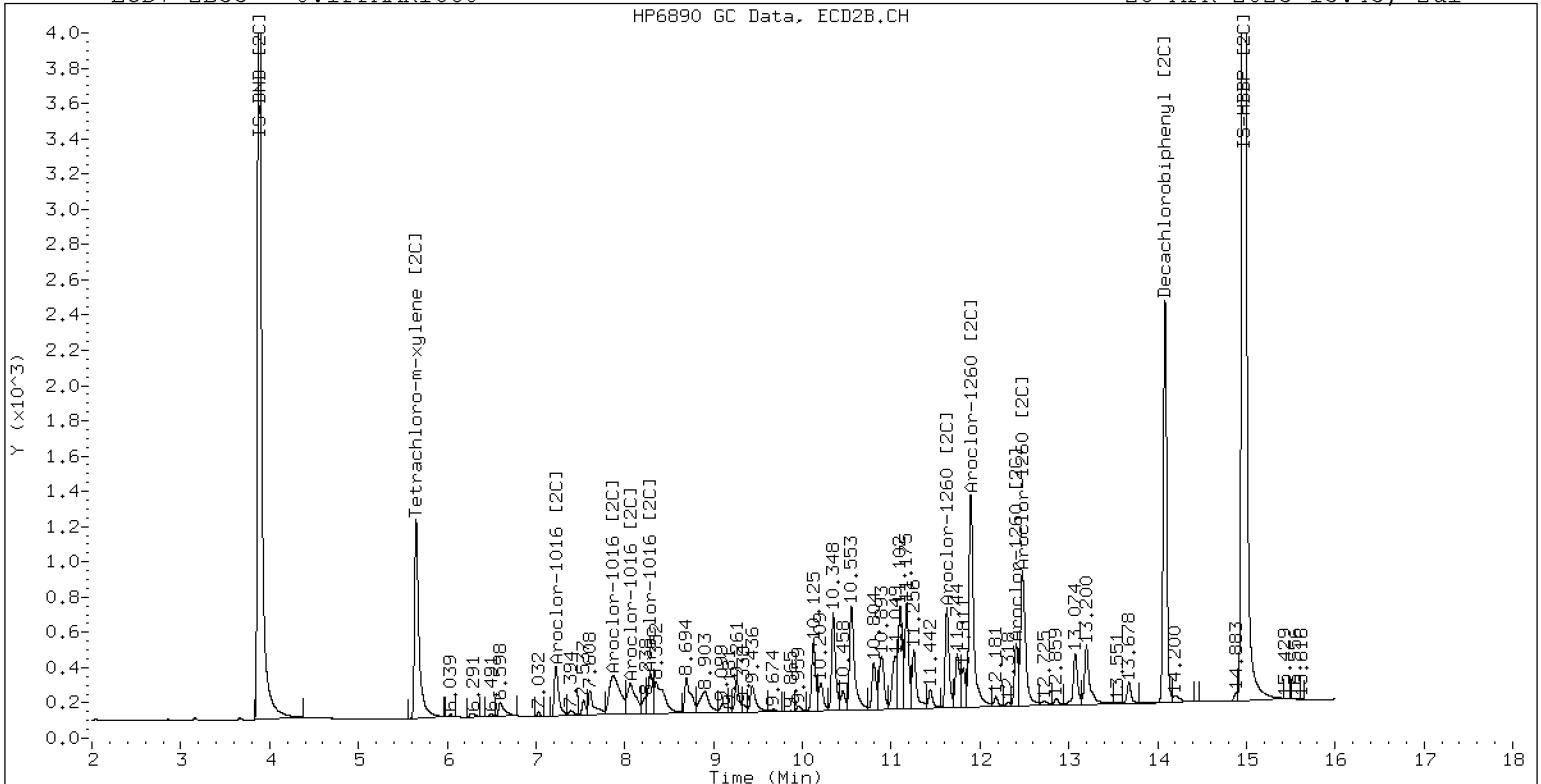
28-APR-2023 13:43, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.1PPMAR1660

28-APR-2023 13:43, 2u1

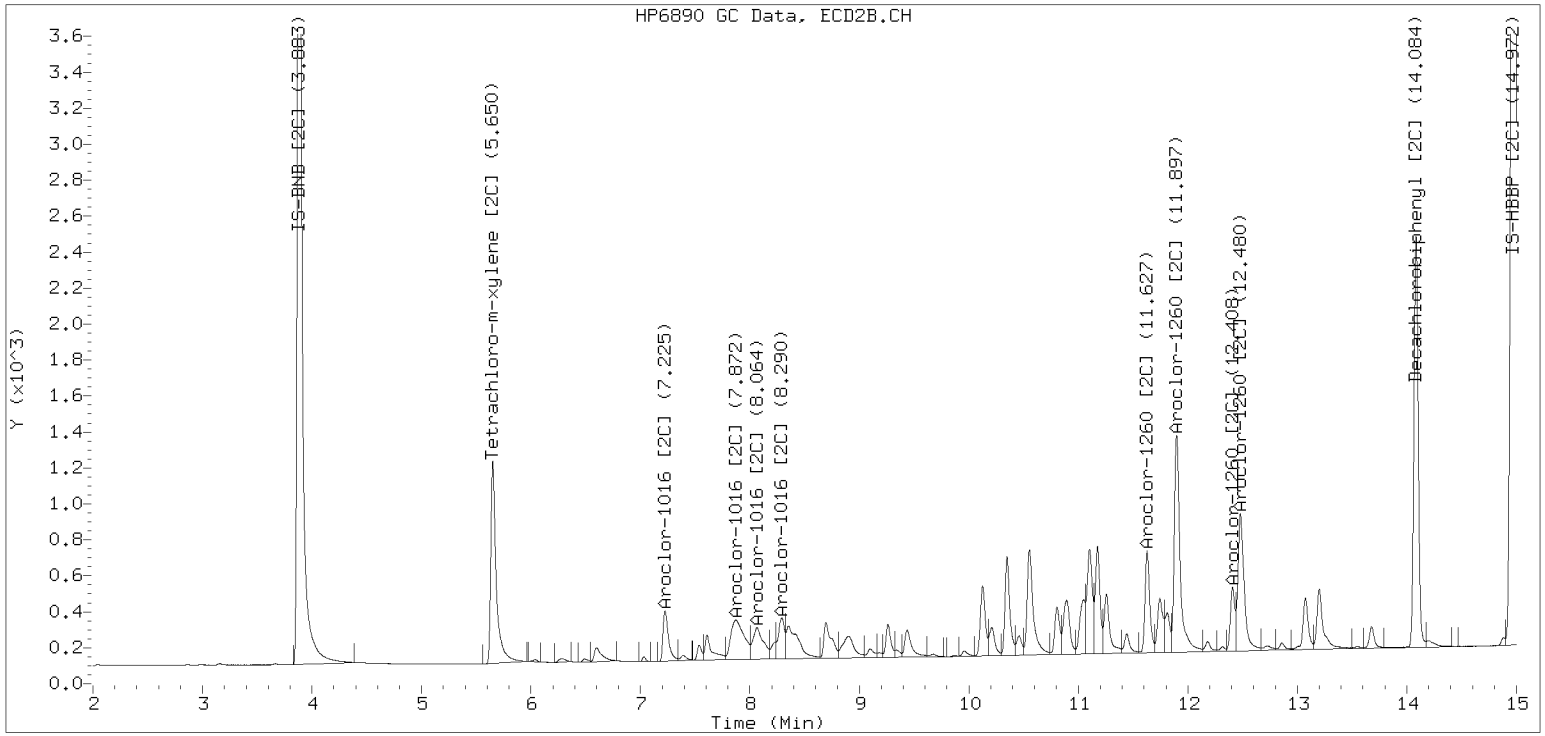


ZB-35 Manual Integration: YES

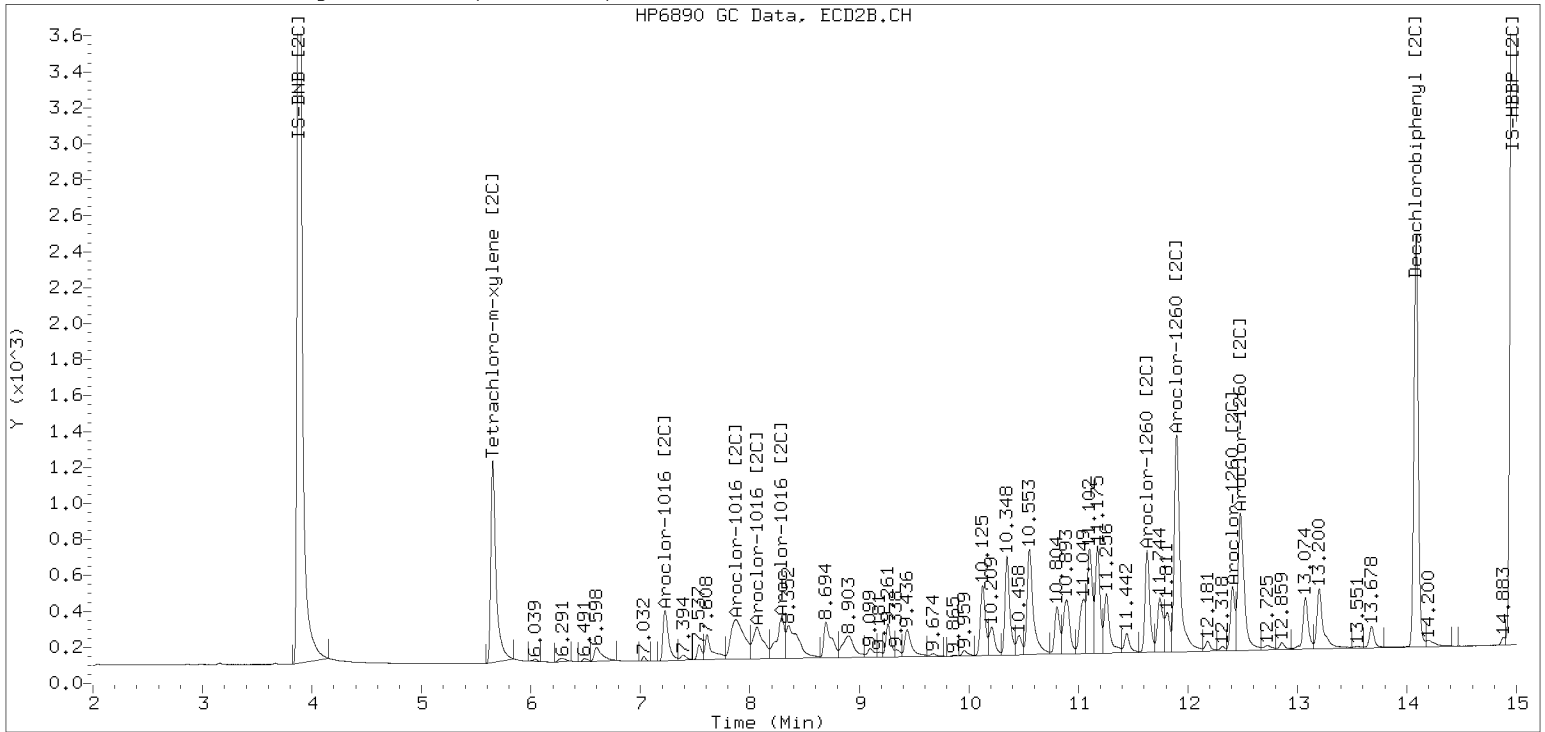
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282308ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282309ECD7.D
 Data file 2: /230428.b/230428.b/04282309ECD7.D
 Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
 Client ID:
 Injection Date: 28-APR-2023 14:04
 Report Date: 05/01/2023 12:24
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	-0.000	662131	5.650	-0.001	385316	78.8	77.3	1.9	Tetrachloro-m-xylene
13.862	-0.000	801241	14.083	-0.001	644223	74.5	79.6	6.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	574692	3.3
Hexabromobiphenyl	745660	992303	33.1

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	354825	1.8
Hexabromobiphenyl	429949	500074	16.3

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 28-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.235	0.000	106092	477.4	1	7.221	0.000	90096	468.9
Aroclor-1016	2	7.628	0.000	326907	554.8	2	7.844	0.000	197556	520.1
Aroclor-1016	3	7.763	0.000	176106	441.6	3	8.055	0.000	102895	431.9
Aroclor-1016	4	8.376	0.000	105721	508.0	4	8.281	0.000	73793	423.8
Total CollAve (4 peaks):				495.5		Total Col2Ave (4 peaks):				461.2 RPD = 7
Corrected Ave (3 peaks):				475.7		Corrected Ave (3 peaks):				441.5 RPD = 7

CalAmt %D: -0.9

CalAmt %D: -7.8

Aroclor-1260	1	11.017	0.000	257721	460.0	1	11.624	0.000	164199	461.5
Aroclor-1260	2	11.333	0.000	265544	467.2	2	11.892	0.000	437446	468.5
Aroclor-1260	3	11.710	0.000	691159	468.6	3	12.407	0.000	104099	489.6
Aroclor-1260	4	12.116	0.000	354604	484.9	4	12.475	0.000	298513	469.2
Aroclor-1260	5	12.216	0.000	158192	471.4	NS	---			----
Total CollAve (5 peaks):				470.4		Total Col2Ave (4 peaks):				472.2 RPD = 0
Corrected Ave (4 peaks):				466.8		Corrected Ave (3 peaks):				466.4 RPD = 0

CalAmt %D: -5.9

CalAmt %D: -5.6

Total PCB Area Coll (5.866 - 13.762) = 7184678 Coll Total PCB = 1.0 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 3991357 Col2 Total PCB = 1.0 ppm*

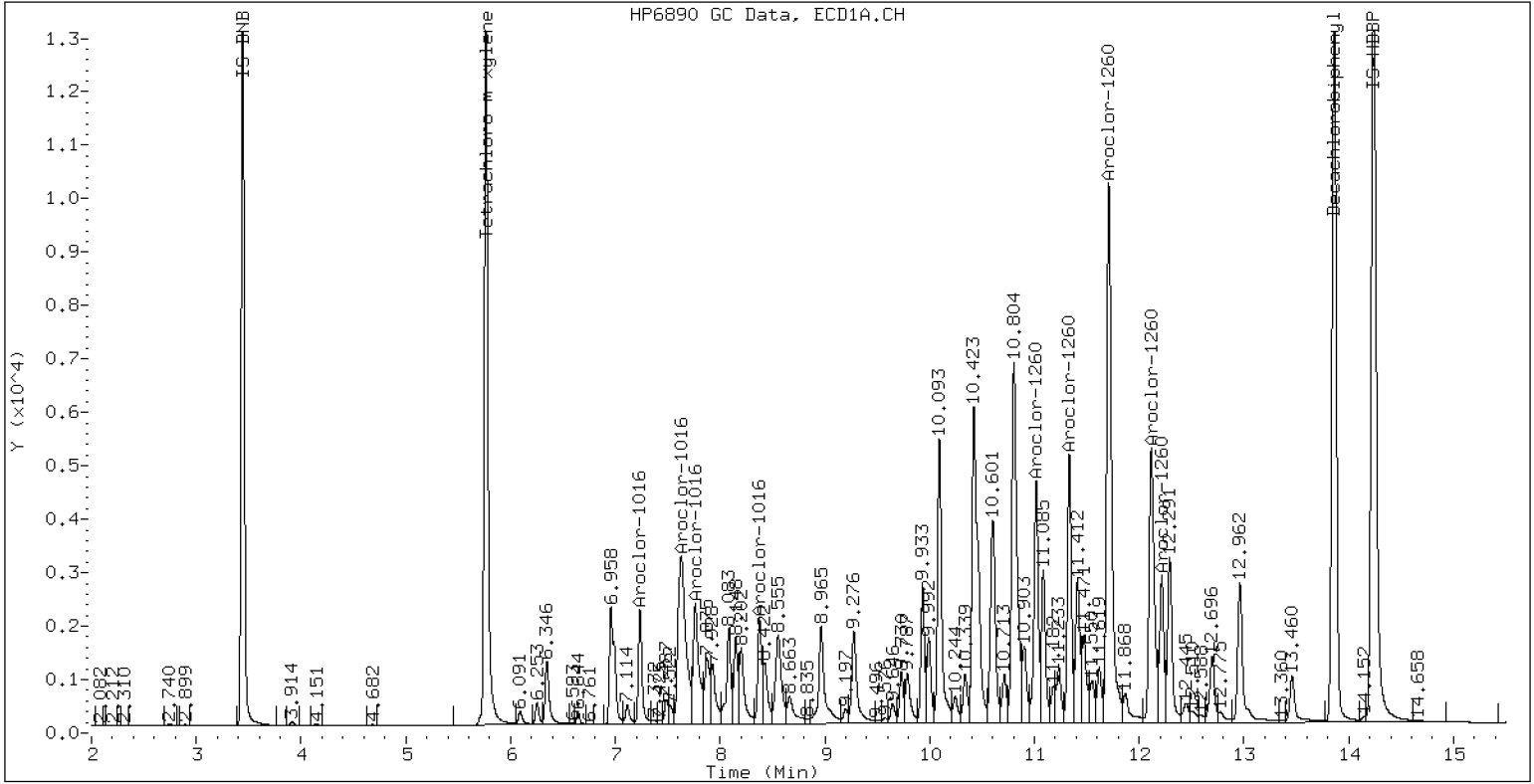
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPMAR1660

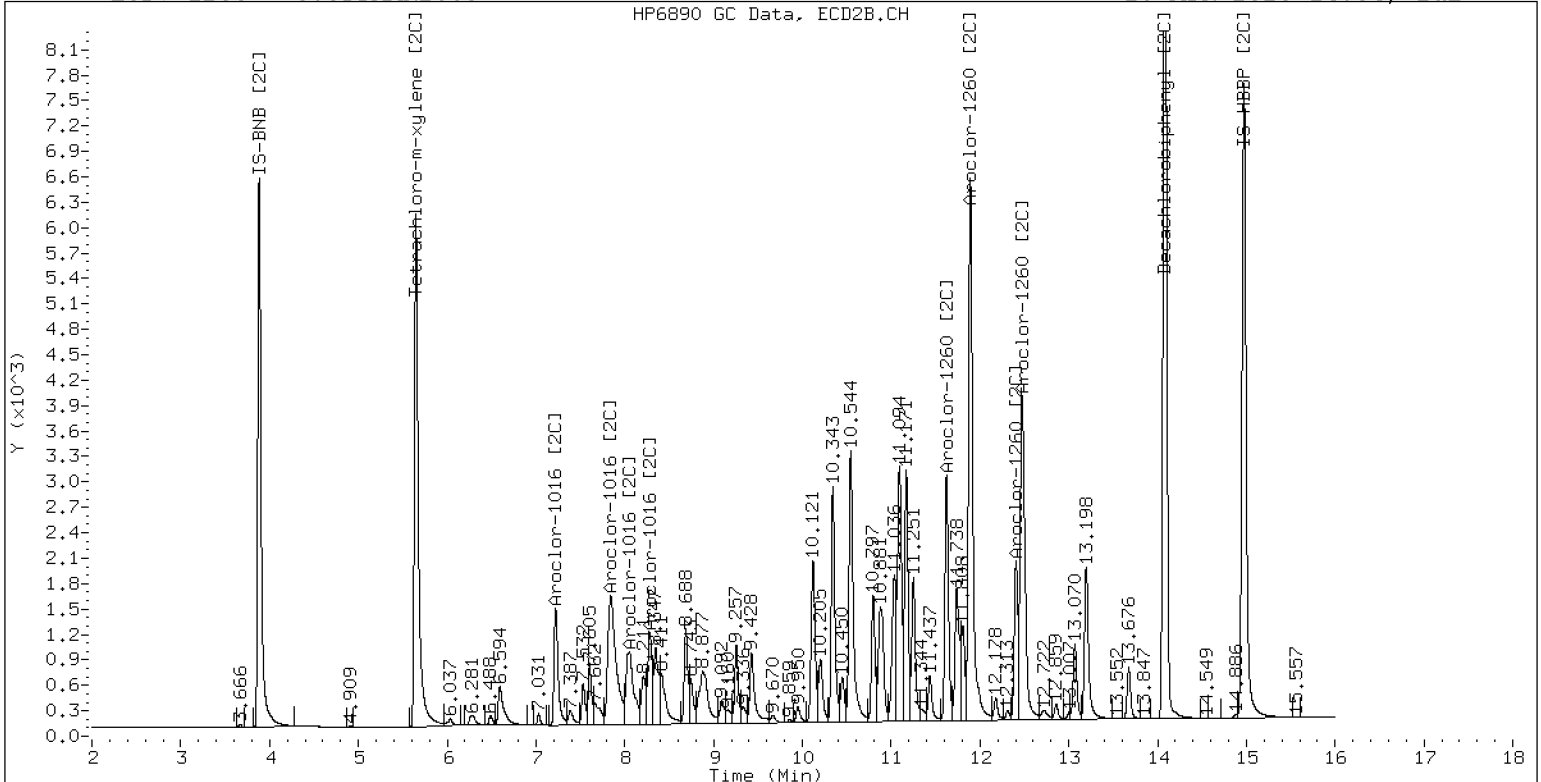
28-APR-2023 14:04, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPMAR1660

28-APR-2023 14:04, 2u1

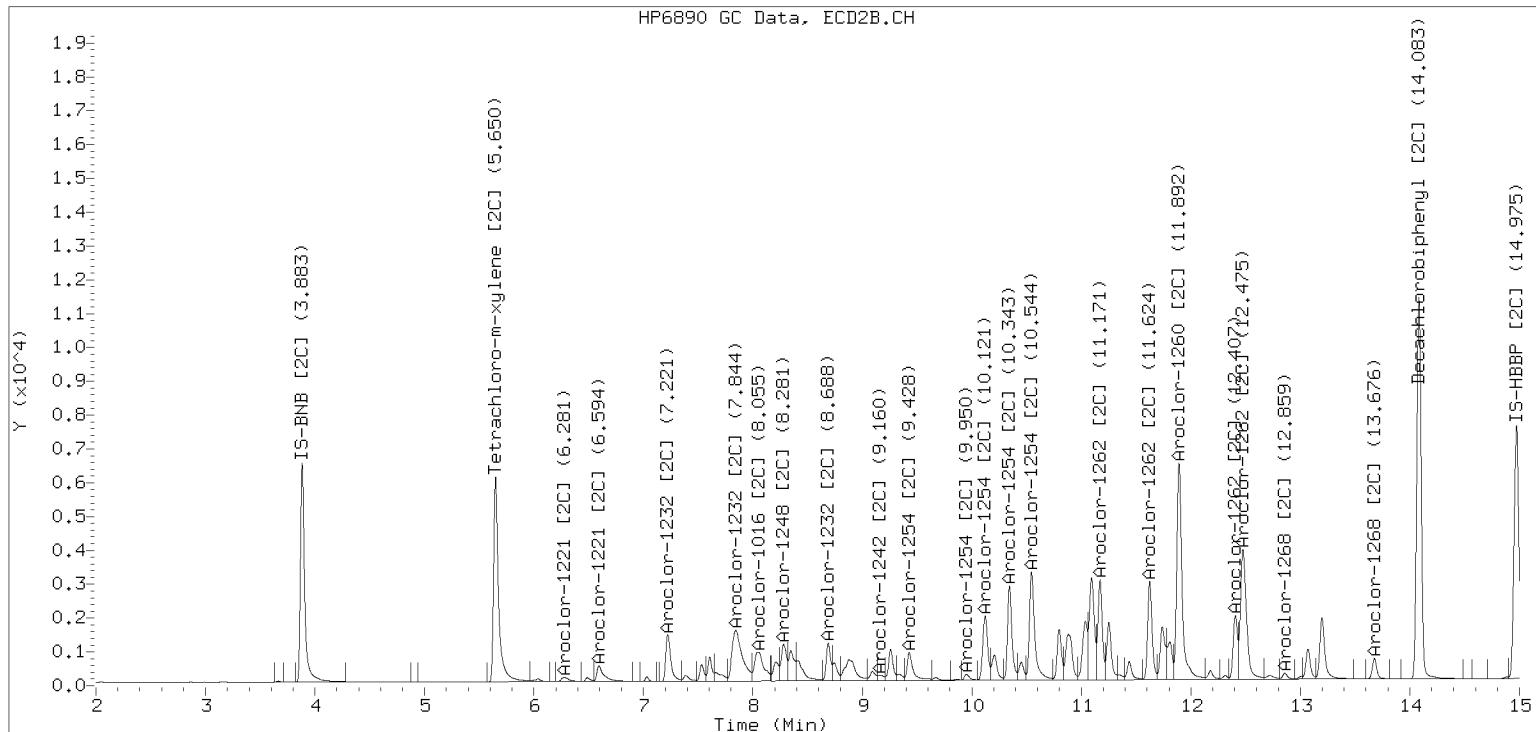


ZB-35 Manual Integration: NO

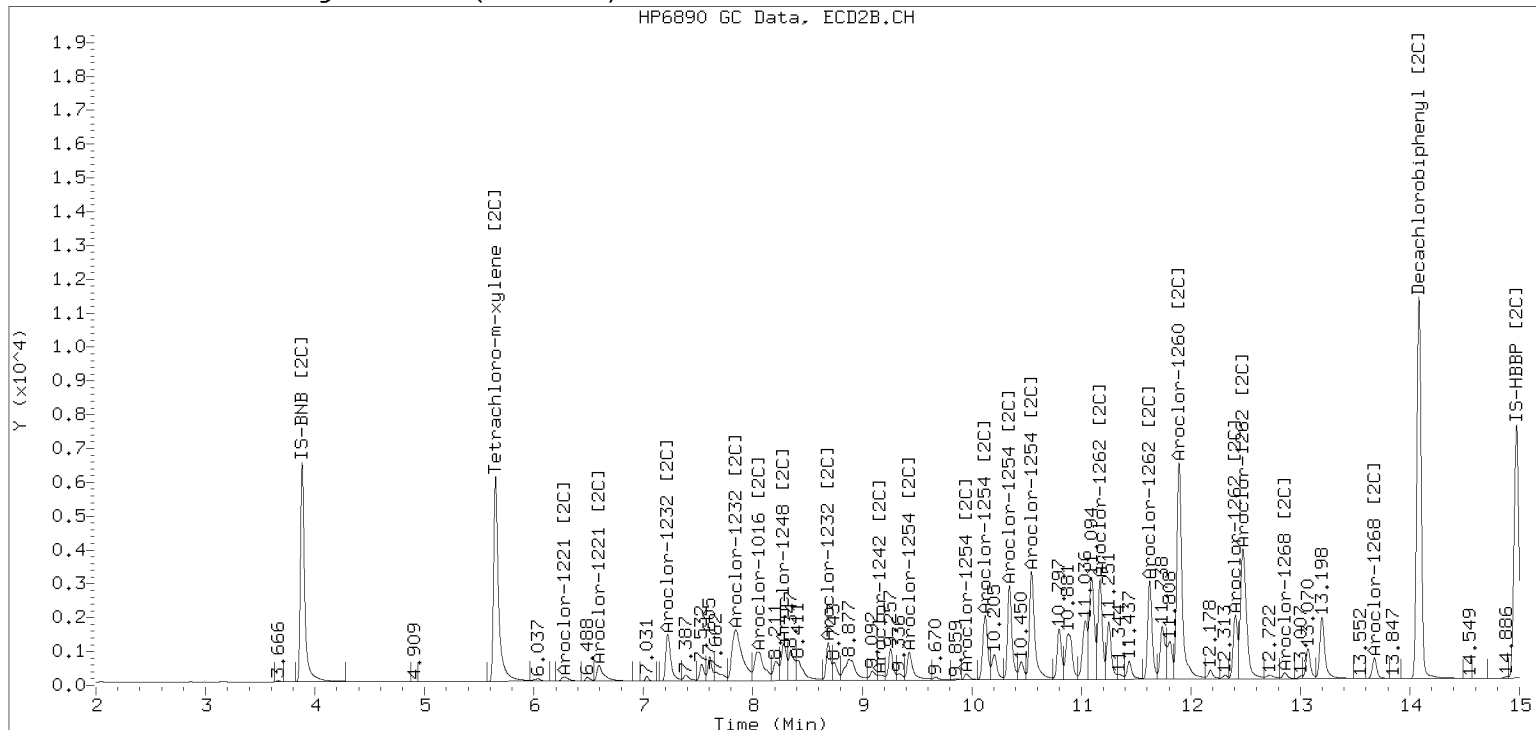
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282309ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282310ECD7.D
 Data file 2: /230428.b/230428.b/04282310ECD7.D
 Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
 Compound Sublist: AR1242.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.25PPMAR1242
 Client ID:
 Injection Date: 28-APR-2023 14:25
 Report Date: 05/01/2023 12:24
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	402017	5.650	-0.000	234482	47.7	46.8	1.8	Tetrachloro-m-xylene
13.862	0.000	418478	14.083	-0.000	317420	35.9	38.5	7.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	577026	3.7
Hexabromobiphenyl	745660	1074625	44.1

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	356744	2.4
Hexabromobiphenyl	429949	508972	18.4

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 28-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col ZB35 Col

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.236	0.000	45012	250.0	1	7.222	0.000	38749	250.0
Aroclor-1242	2	7.639	0.000	123039	250.0	2	7.859	0.000	77516	250.0
Aroclor-1242	3	8.381	0.000	41377	250.0	3	9.167	0.000	26808	250.0
Aroclor-1242	4	8.560	0.000	61228	250.0	4	9.603	0.000	27519	250.0
Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Col1 (5.866 - 13.762) = 1181918 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 622927 Col2 Total PCB = 0.2 ppm*

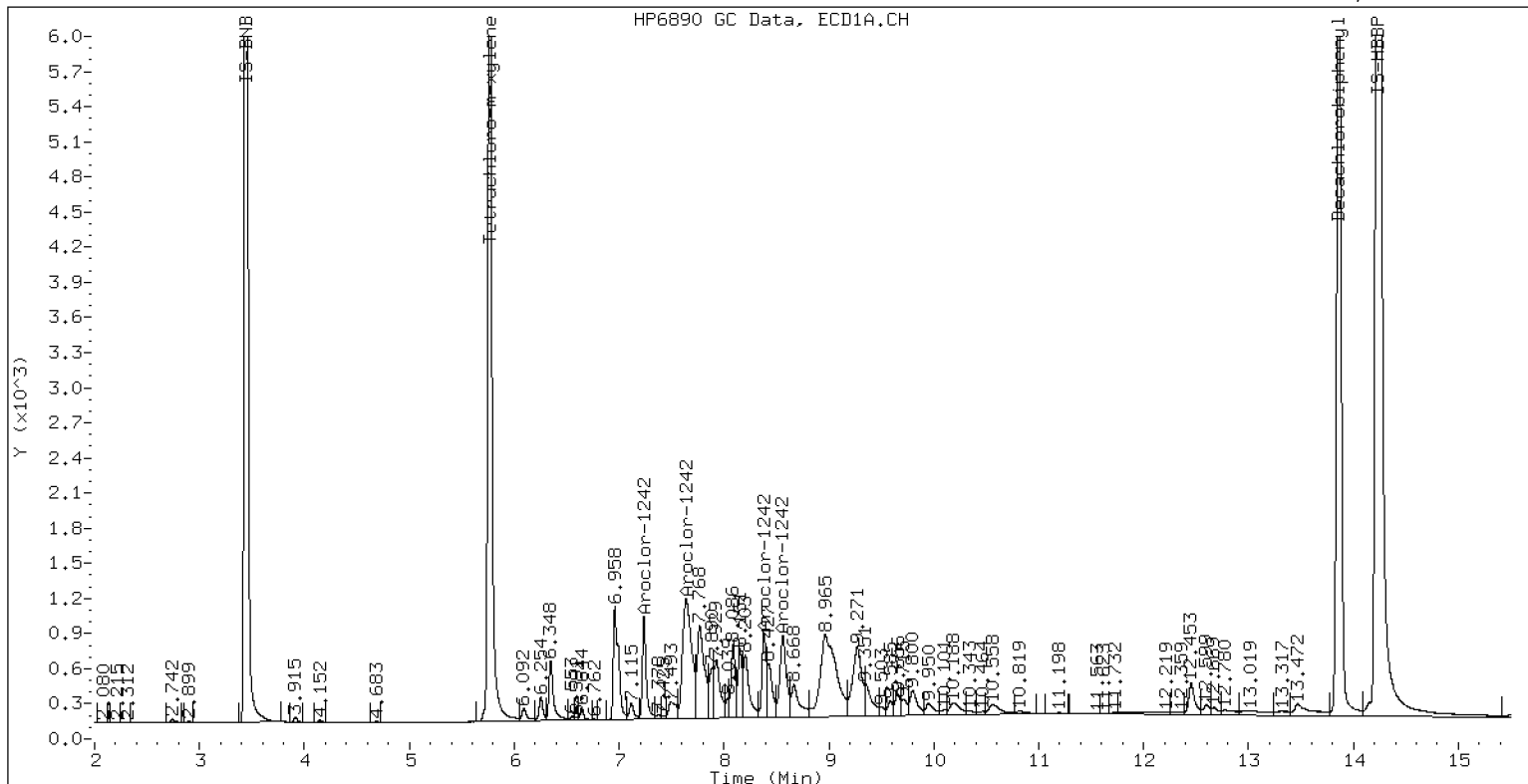
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1242

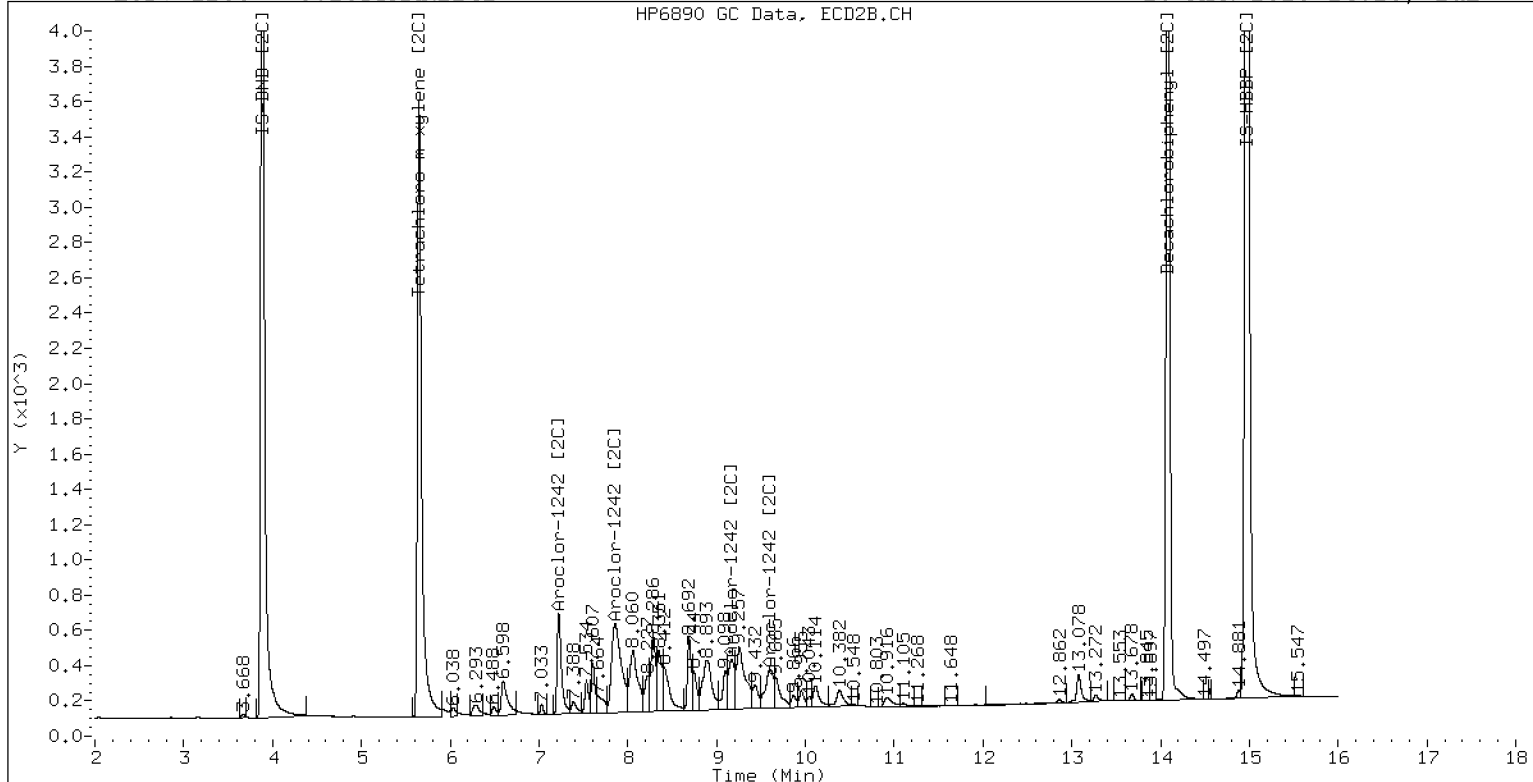
28-APR-2023 14:25, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 0.25PPMAR1242

28-APR-2023 14:25, 2ul



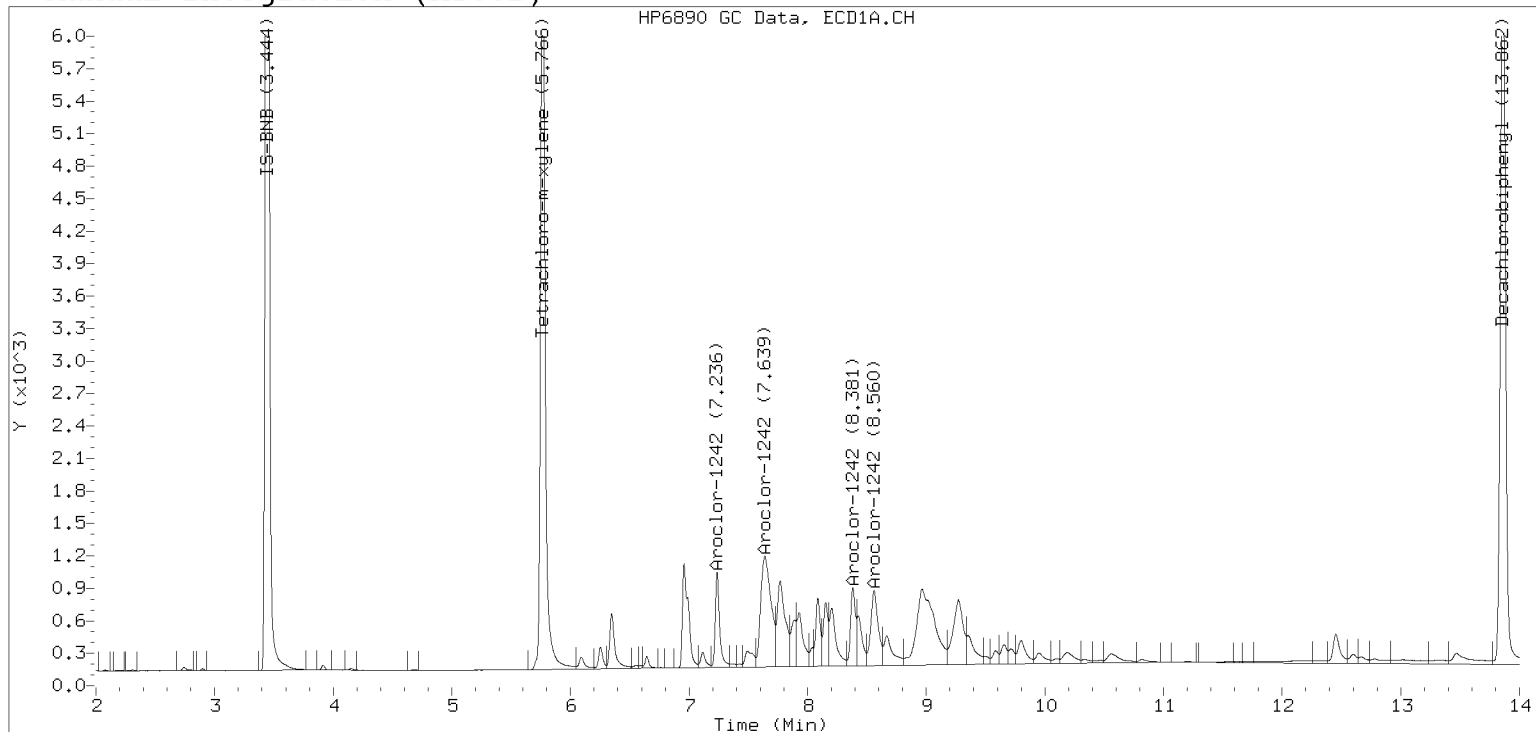
ZB-35 Manual Integration: YES

Manual Peak Adjustment, ZB-5

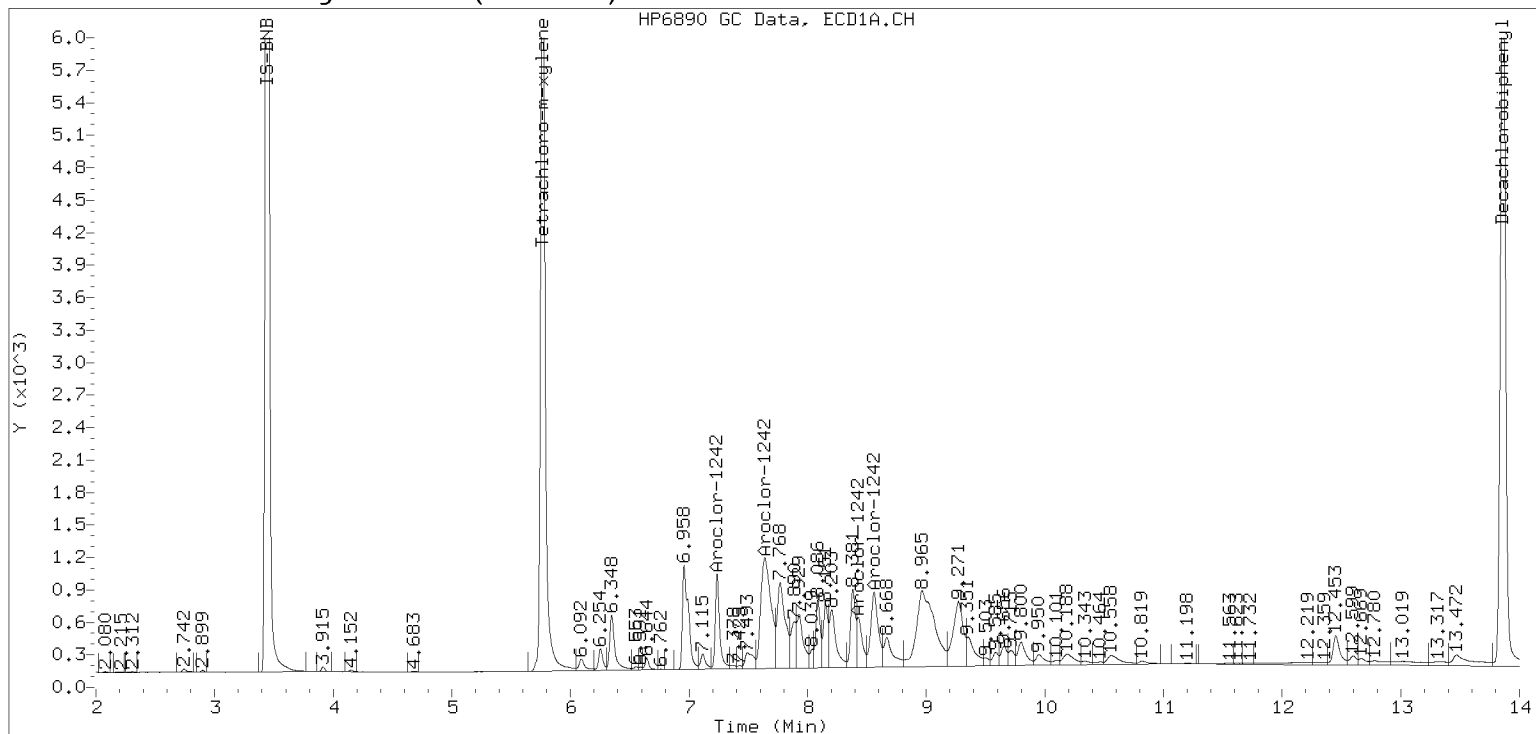
Datafile: ecd7.i/230428.b/04282310ECD7.D

Injection Date: 28-APR-2023 14:25

Manual Integration (After)



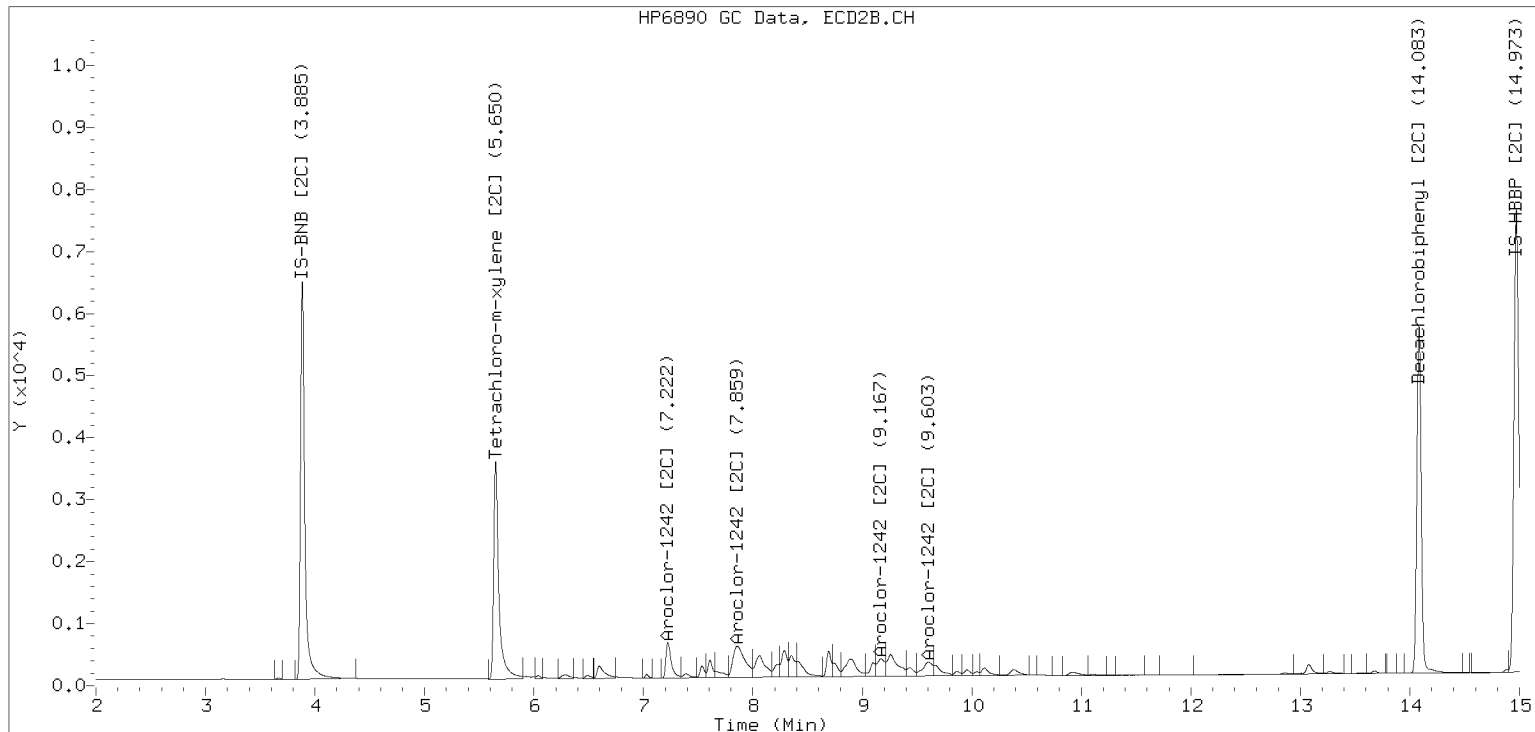
Processed Integration (Before)



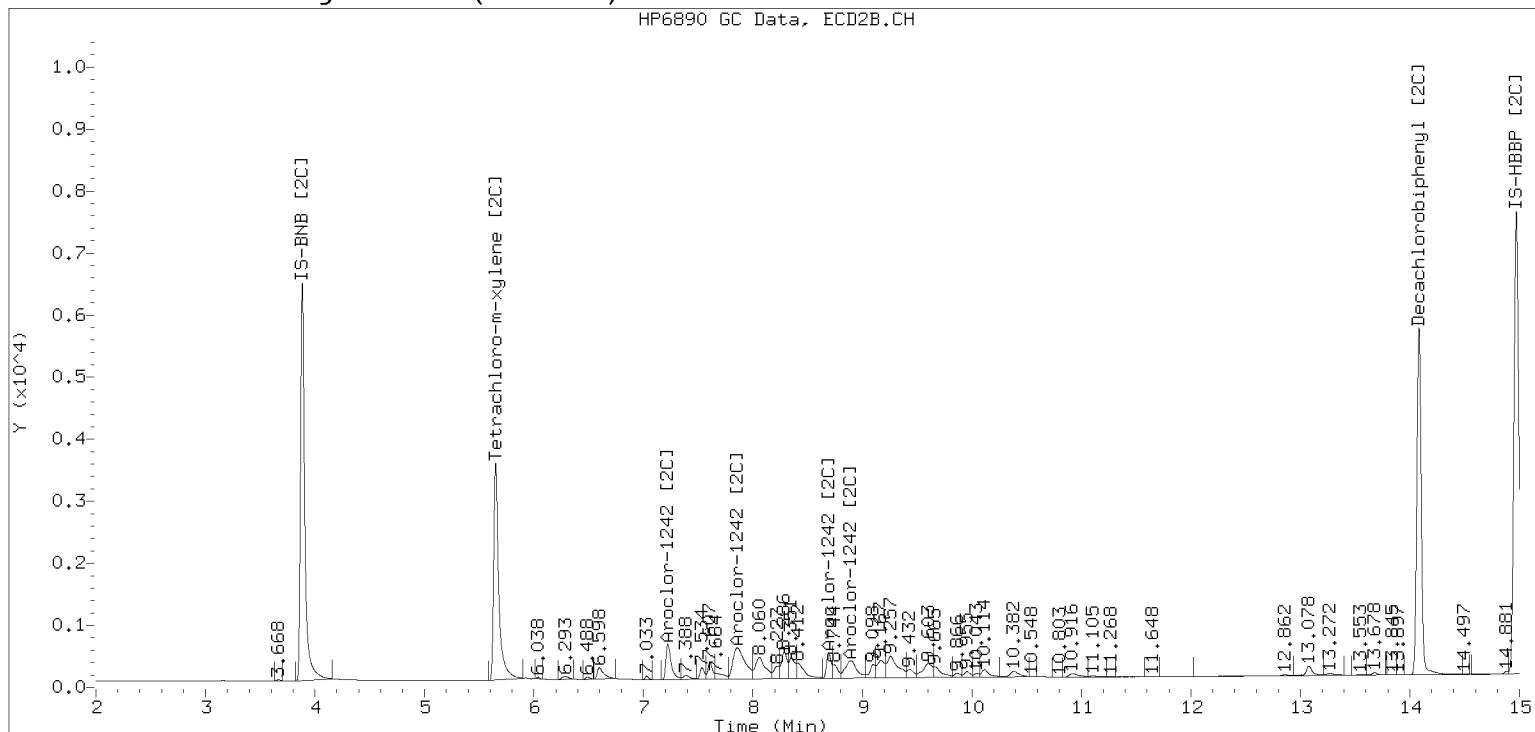
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282310ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282311ECD7.D
Data file 2: /230428.b/230428.b/04282311ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1248
Client ID:
Injection Date: 28-APR-2023 14:46
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	327875	5.650	-0.001	186683	38.8	38.0	2.1	Tetrachloro-m-xylene
13.862	0.000	430037	14.083	-0.001	329800	37.0	39.2	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	578229	3.9
Hexabromobiphenyl	745660	1073041	43.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	350006	0.4
Hexabromobiphenyl	429949	519197	20.8

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 28-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.379	0.000	69843	250.0	1	8.285	0.000	45908	250.0
Aroclor-1248	2	8.559	0.000	92613	250.0	2	8.691	0.000	40408	250.0
Aroclor-1248	3	8.964	0.000	276416	250.0	3	9.164	0.000	49564	250.0
Aroclor-1248	4	9.271	0.000	145162	250.0	4	9.594	0.000	52871	250.0
Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Col1 (5.866 - 13.762) = 1492838 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 815809 Col2 Total PCB = 0.2 ppm*

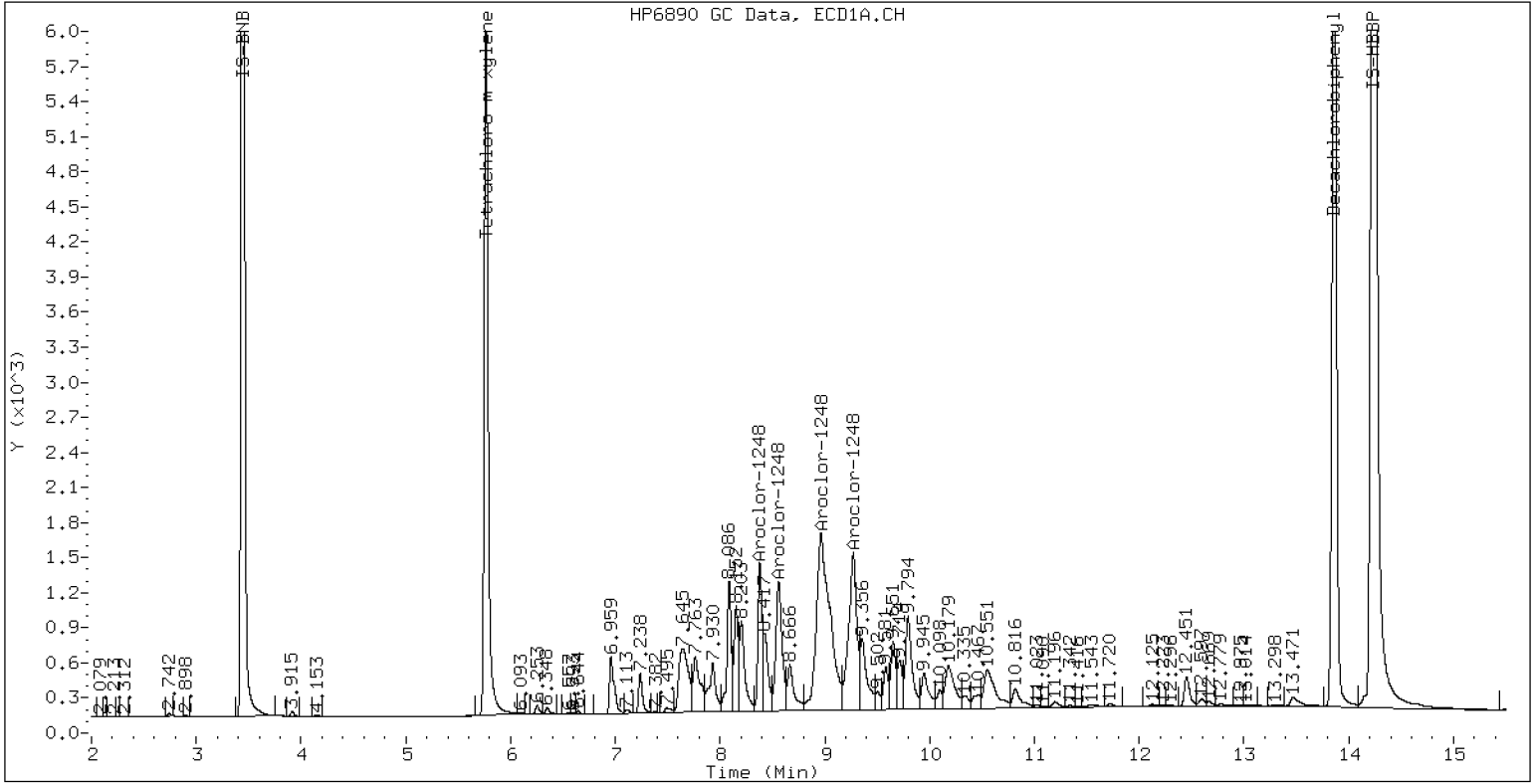
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1248

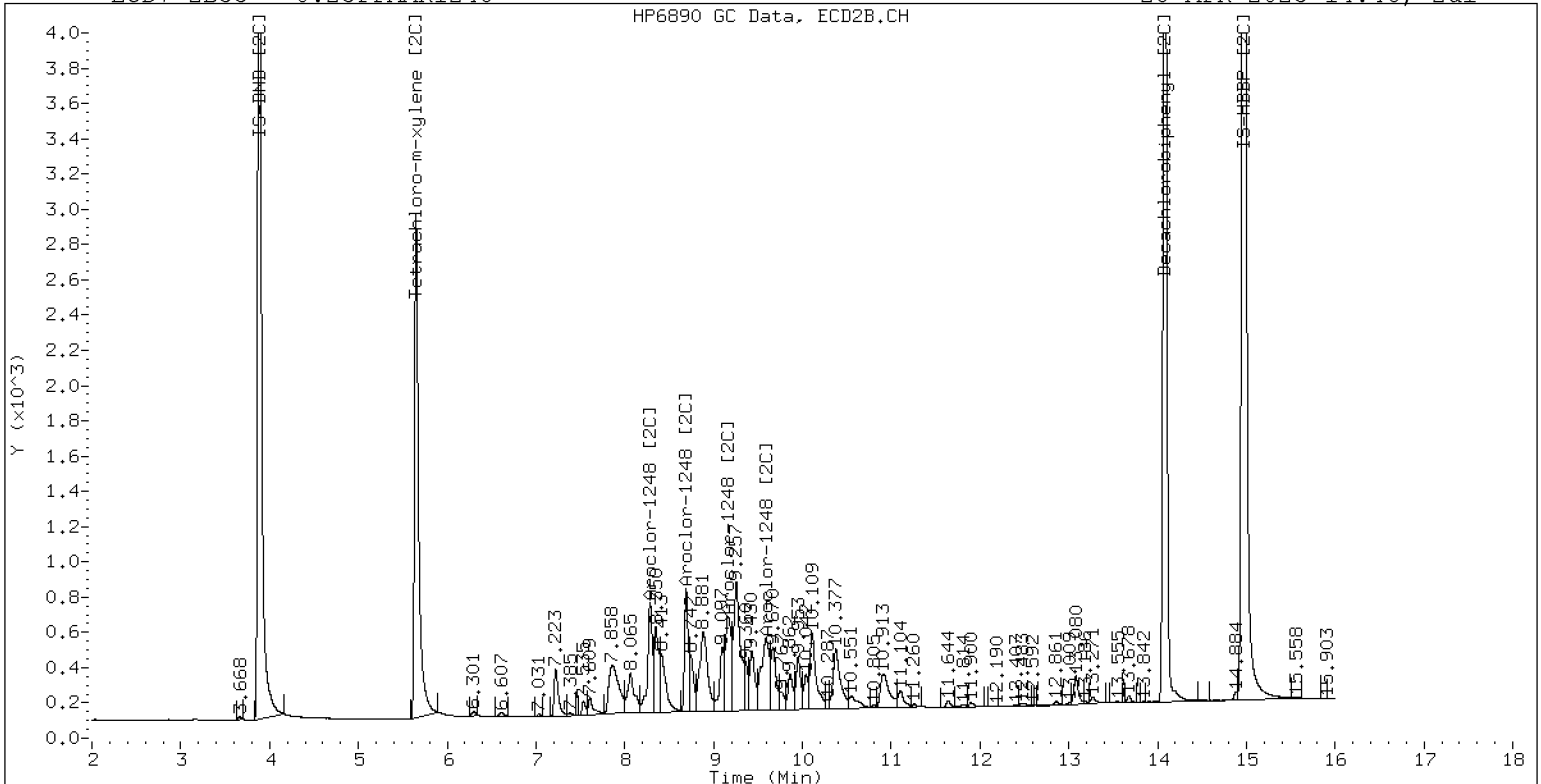
28-APR-2023 14:46, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 0.25PPMAR1248

28-APR-2023 14:46, 2ul



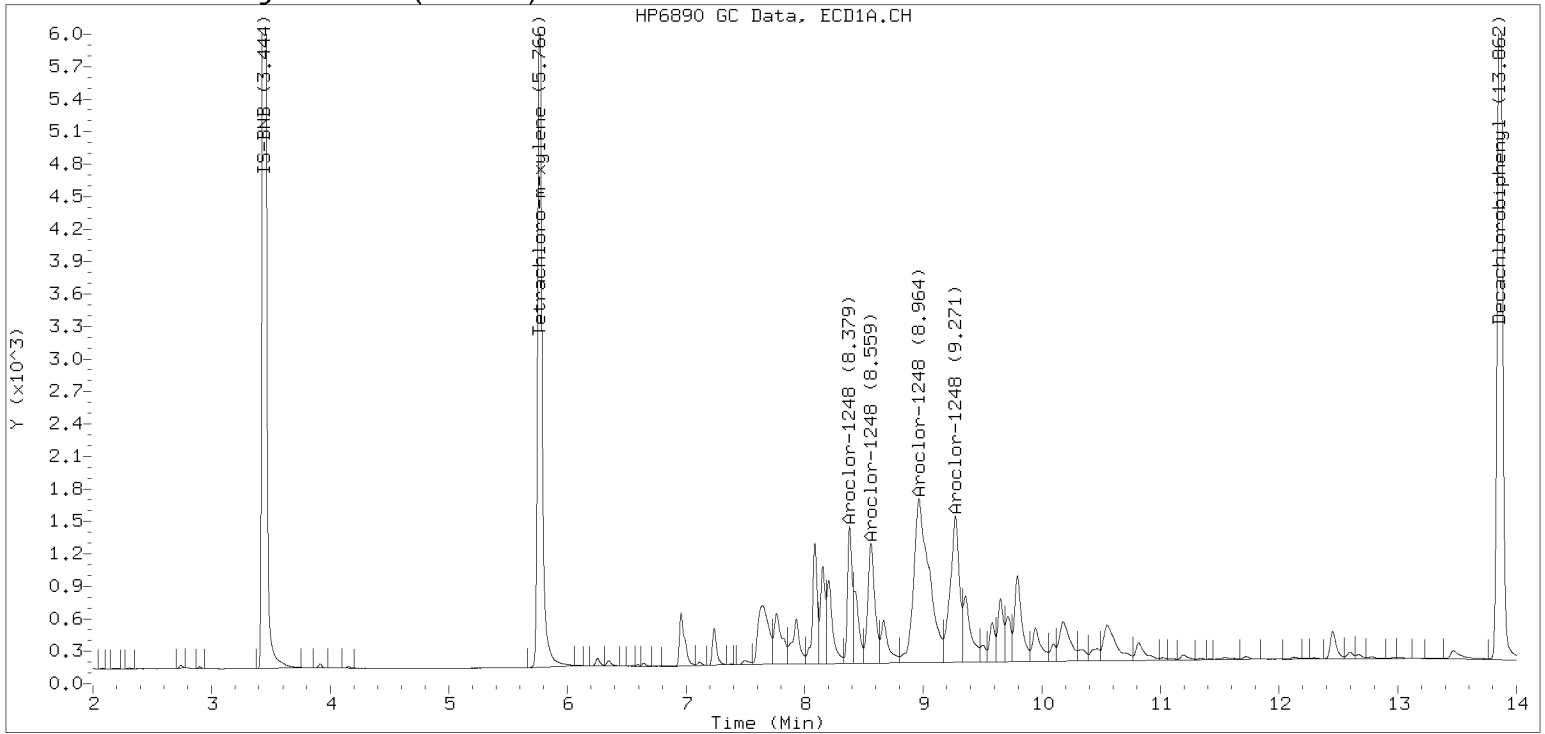
ZB-35 Manual Integration: YES

Manual Peak Adjustment, ZB-5

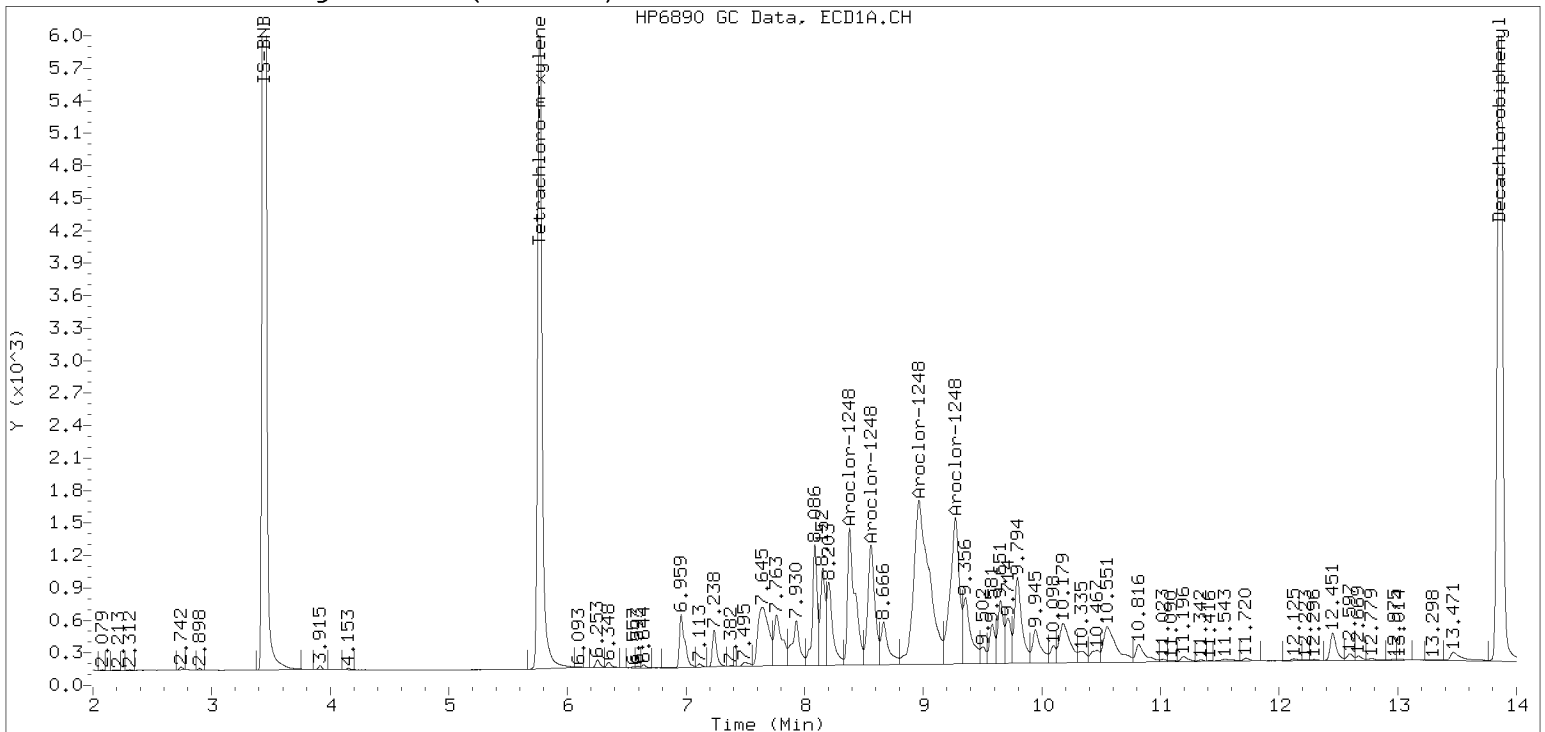
Datafile: ecd7.i/230428.b/04282311ECD7.D

Injection Date: 28-APR-2023 14:46

Manual Integration (After)



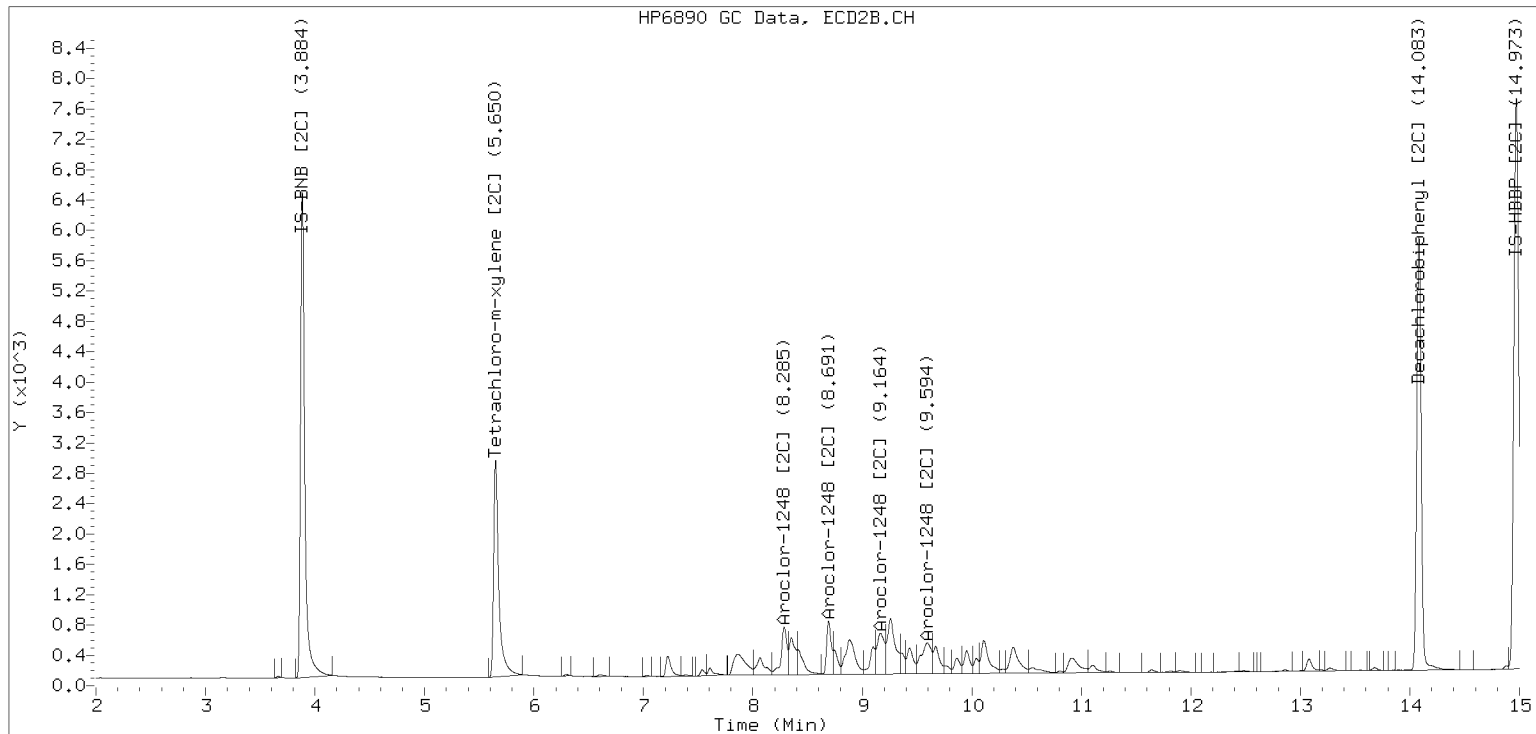
Processed Integration (Before)



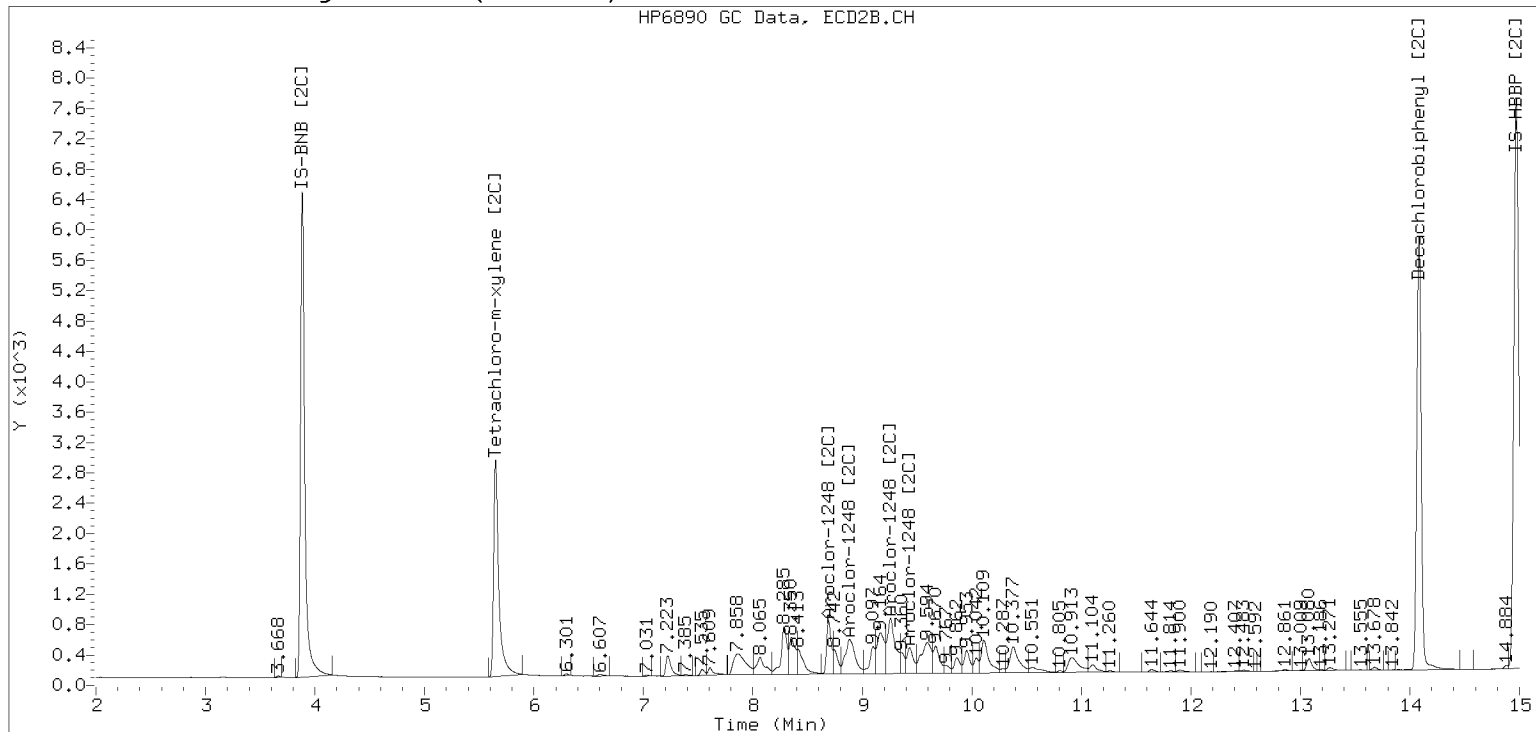
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282311ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282312ECD7.D
Data file 2: /230428.b/230428.b/04282312ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1254
Client ID:
Injection Date: 28-APR-2023 15:07
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.767	0.001	328655	5.650	-0.000	184993	38.9	37.6	3.4	Tetrachloro-m-xylene
13.863	0.001	429537	14.084	0.000	334681	36.9	39.3	6.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	578576	4.0
Hexabromobiphenyl	745660	1074201	44.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	350778	0.7
Hexabromobiphenyl	429949	525817	22.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col ZB35 Col

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.276	0.000	156242	250.0	1	9.430	0.000	65566	250.0
Aroclor-1254	2	9.358	0.000	74054	250.0	2	9.528	0.000	39960	250.0
Aroclor-1254	3	9.648	0.000	98781	250.0	3	9.950	0.000	53074	250.0
Aroclor-1254	4	9.790	0.000	200665	250.0	4	10.110	0.000	114903	250.0
Aroclor-1254	5	10.168	0.000	105479	250.0	5	10.356	0.000	132058	250.0
Total CollAve (5 peaks):				250.0		Total Col2Ave (5 peaks):				250.0 RPD = 0
Corrected Ave (4 peaks):				250.0		Corrected Ave (4 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.866 - 13.762) = 2118035 Coll Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 1140217 Col2 Total PCB = 0.3 ppm*

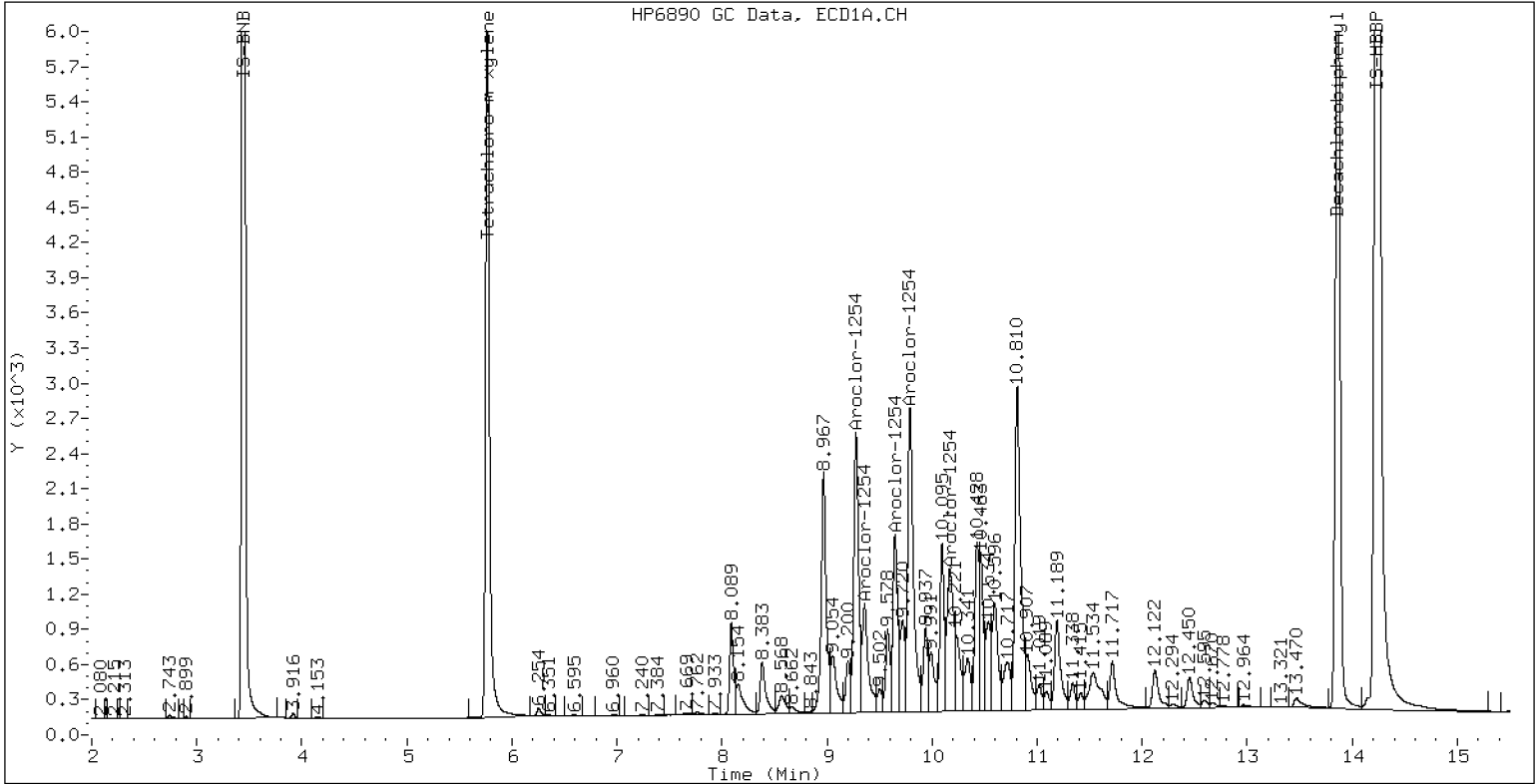
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1254

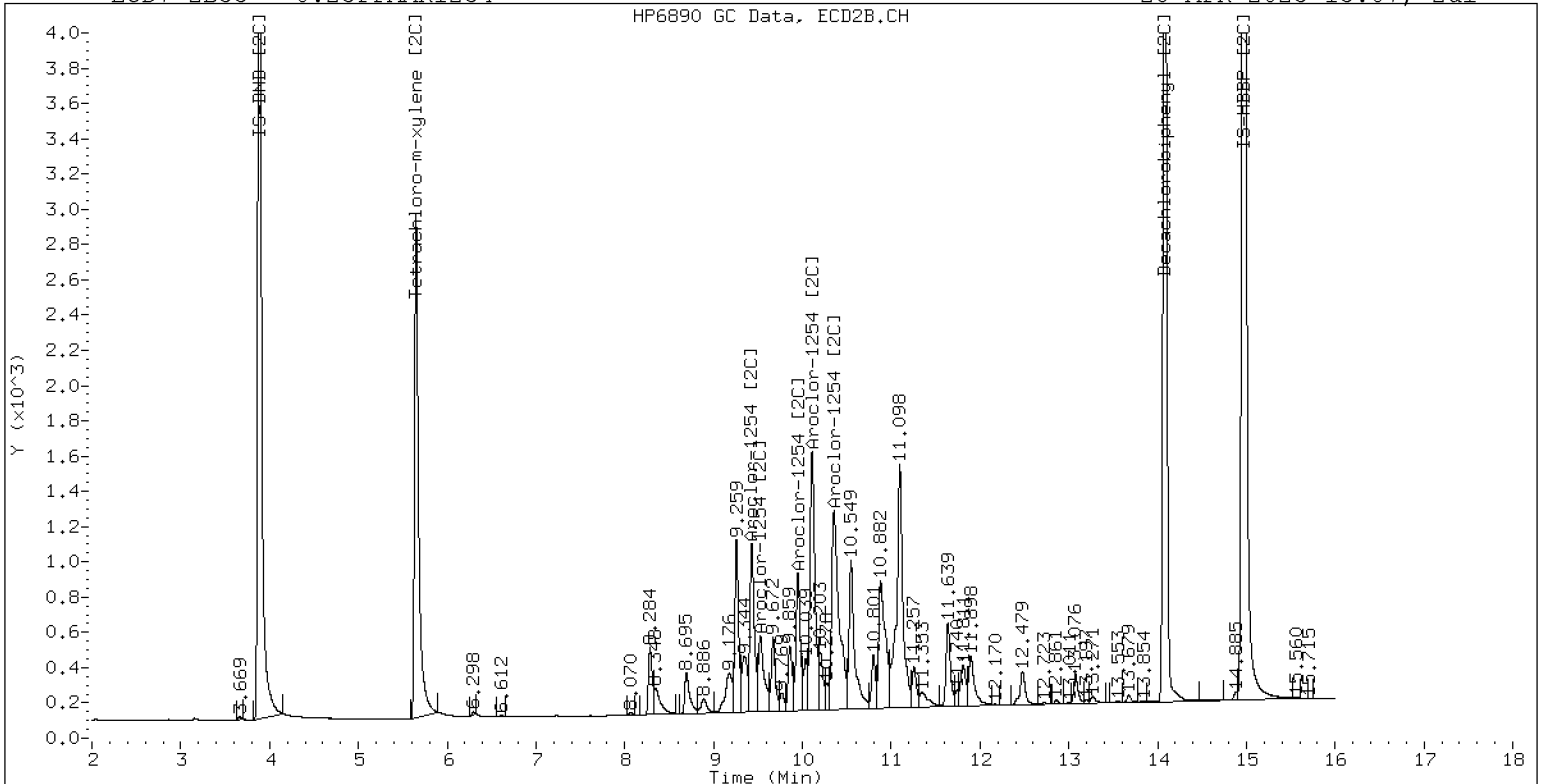
28-APR-2023 15:07, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 0.25PPMAR1254

28-APR-2023 15:07, 2ul



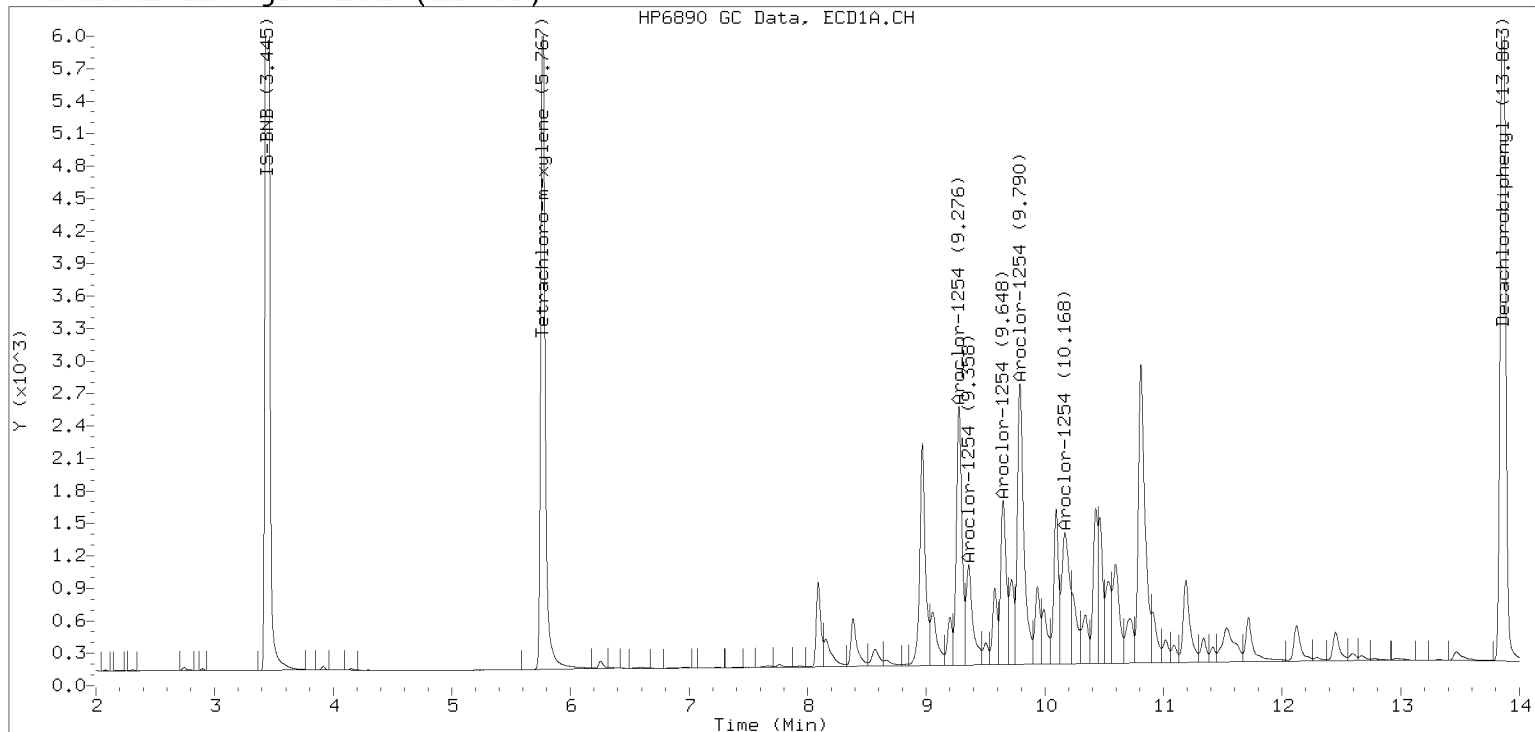
ZB-35 Manual Integration: NO

Manual Peak Adjustment, ZB-5

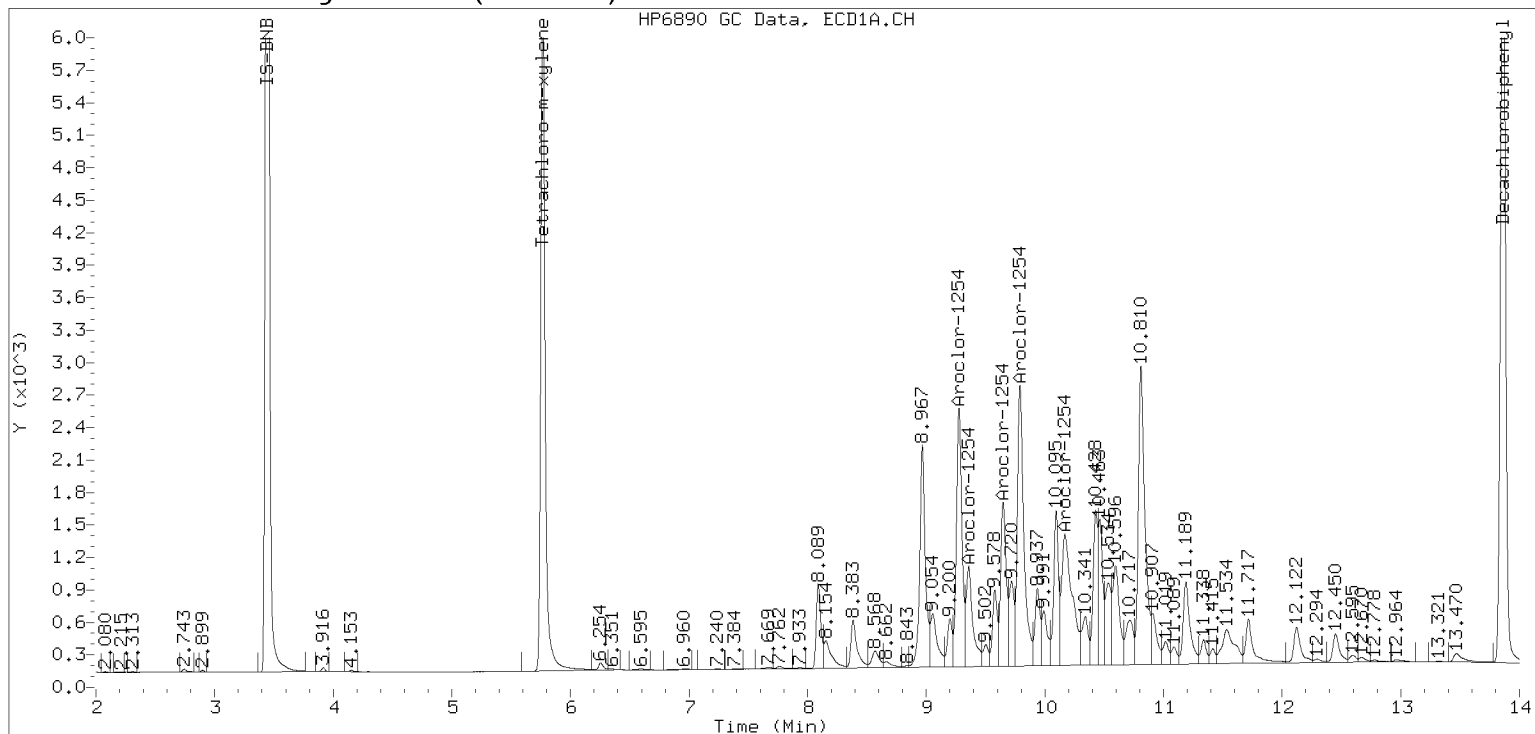
Datafile: ecd7.i/230428.b/04282312ECD7.D

Injection Date: 28-APR-2023 15:07

Manual Integration (After)



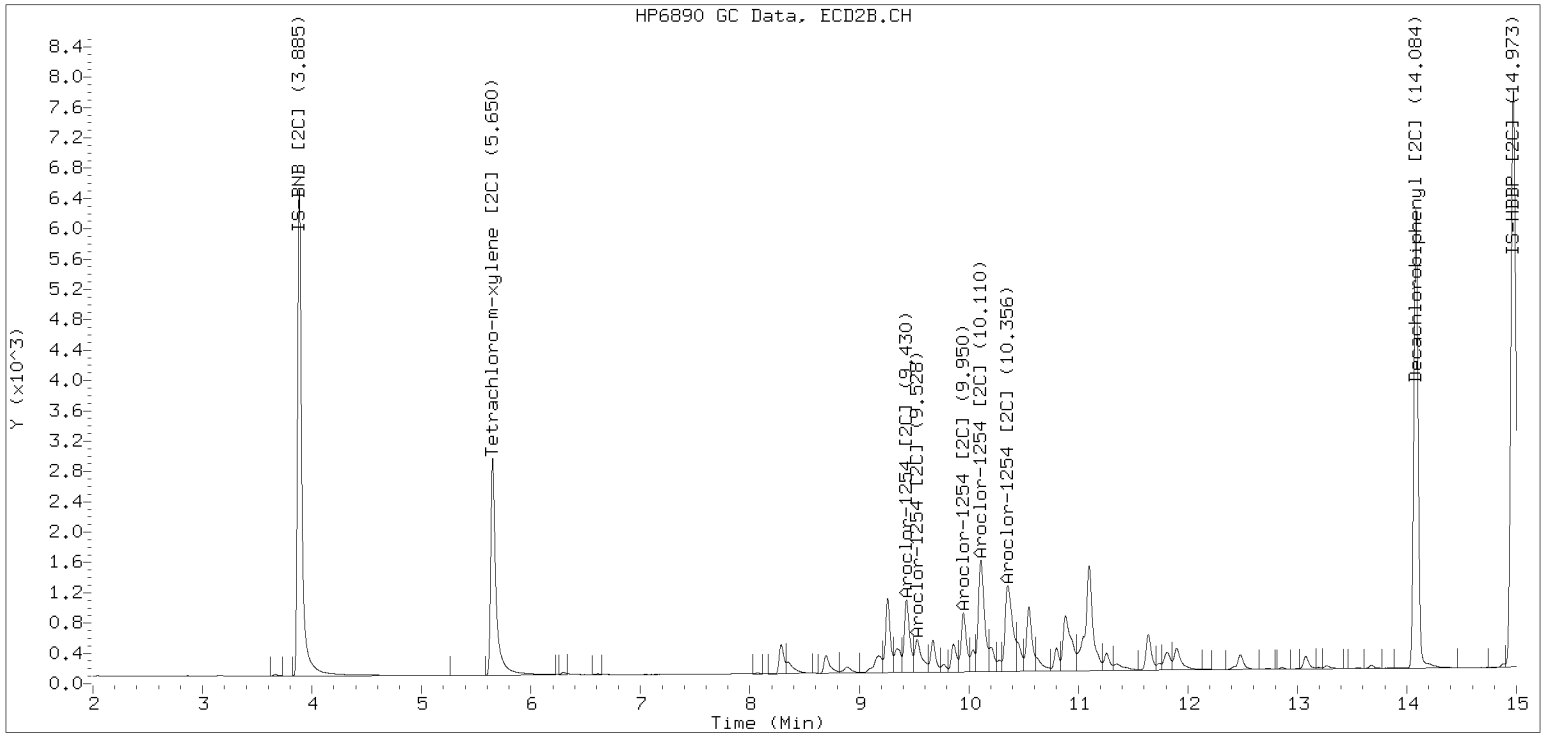
Processed Integration (Before)



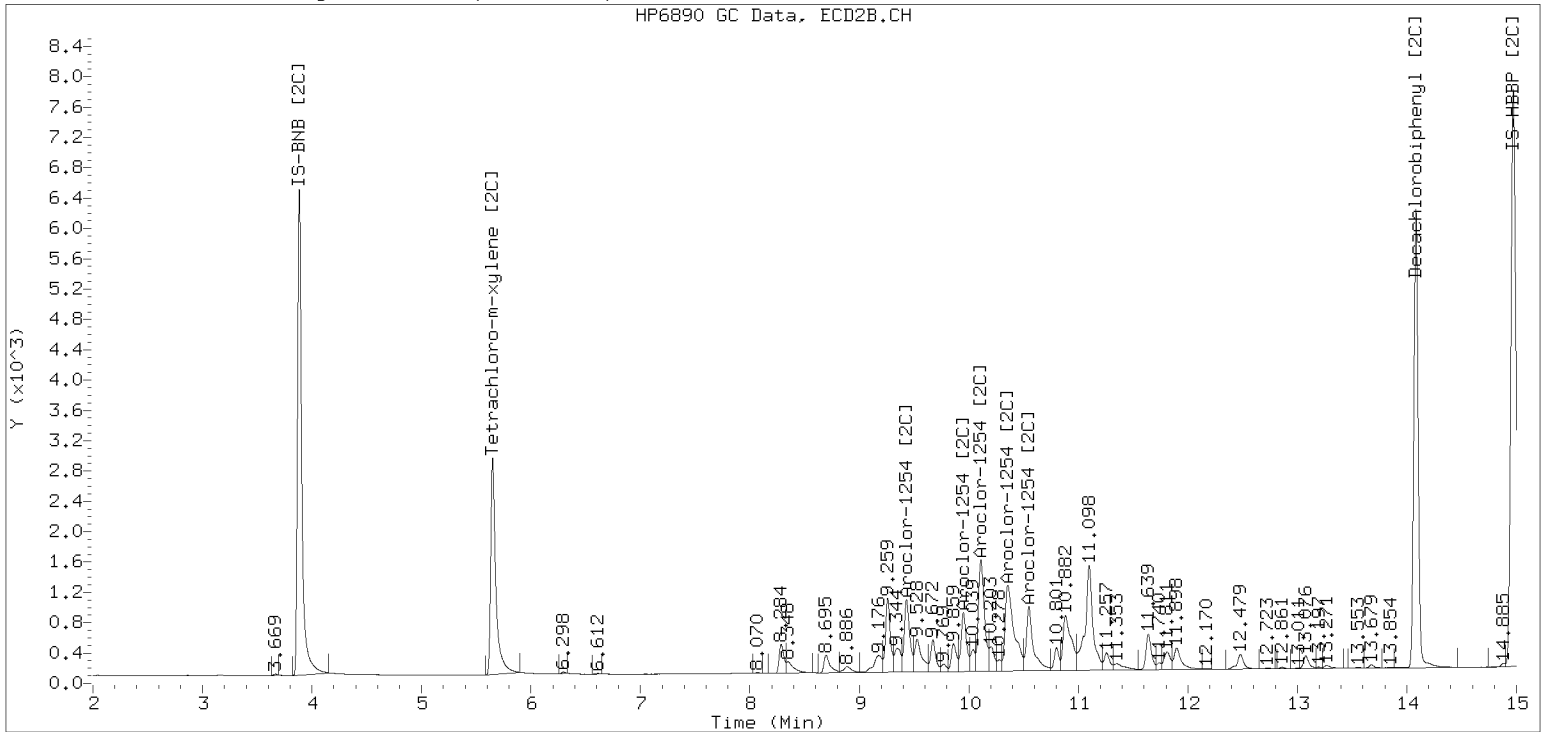
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282312ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282313ECD7.D
Data file 2: /230428.b/230428.b/04282313ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR2162
Client ID:
Injection Date: 28-APR-2023 15:28
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	332246	5.650	-0.000	190089	39.1	38.8	0.8	Tetrachloro-m-xylene
13.862	0.001	427054	14.084	0.000	328530	36.3	38.2	5.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	581811	4.6
Hexabromobiphenyl	745660	1086287	45.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	349098	0.2
Hexabromobiphenyl	429949	531347	23.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1221	1	4.682	0.000	11133	250.0	1	4.910	0.000	6479	250.0	
Aroclor-1221	2	6.093	0.000	22335	250.0	2	6.265	0.000	13840	250.0	
Aroclor-1221	3	6.346	0.000	52982	250.0	3	6.594	0.000	31675	250.0	
Total CollAve (3 peaks):				250.0		Total Col2Ave (3 peaks):				250.0	RPD = 0
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks					

Aroclor-1262	1	10.809	0.000	105977	250.0	1	11.173	0.000	132795	250.0	
Aroclor-1262	2	12.217	0.000	185071	250.0	2	11.624	0.000	111849	250.0	
Aroclor-1262	3	12.292	0.000	203418	250.0	3	12.403	0.000	117798	250.0	
Aroclor-1262	4	12.963	0.000	164084	250.0	4	12.475	0.000	203596	250.0	
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Coll (5.866 - 13.762) = 2989194 Coll Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 1770720 Col2 Total PCB = 0.4 ppm*

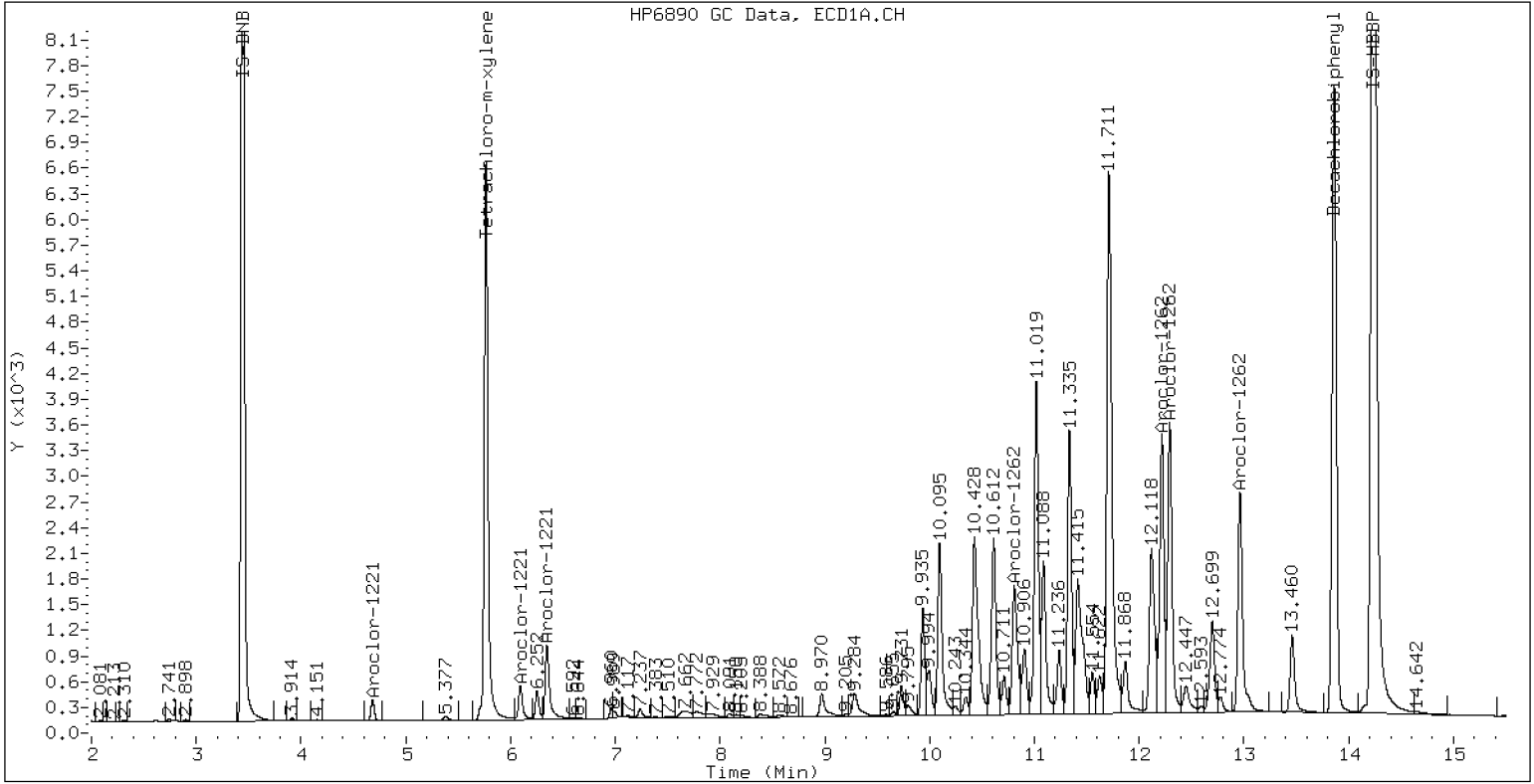
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR2162

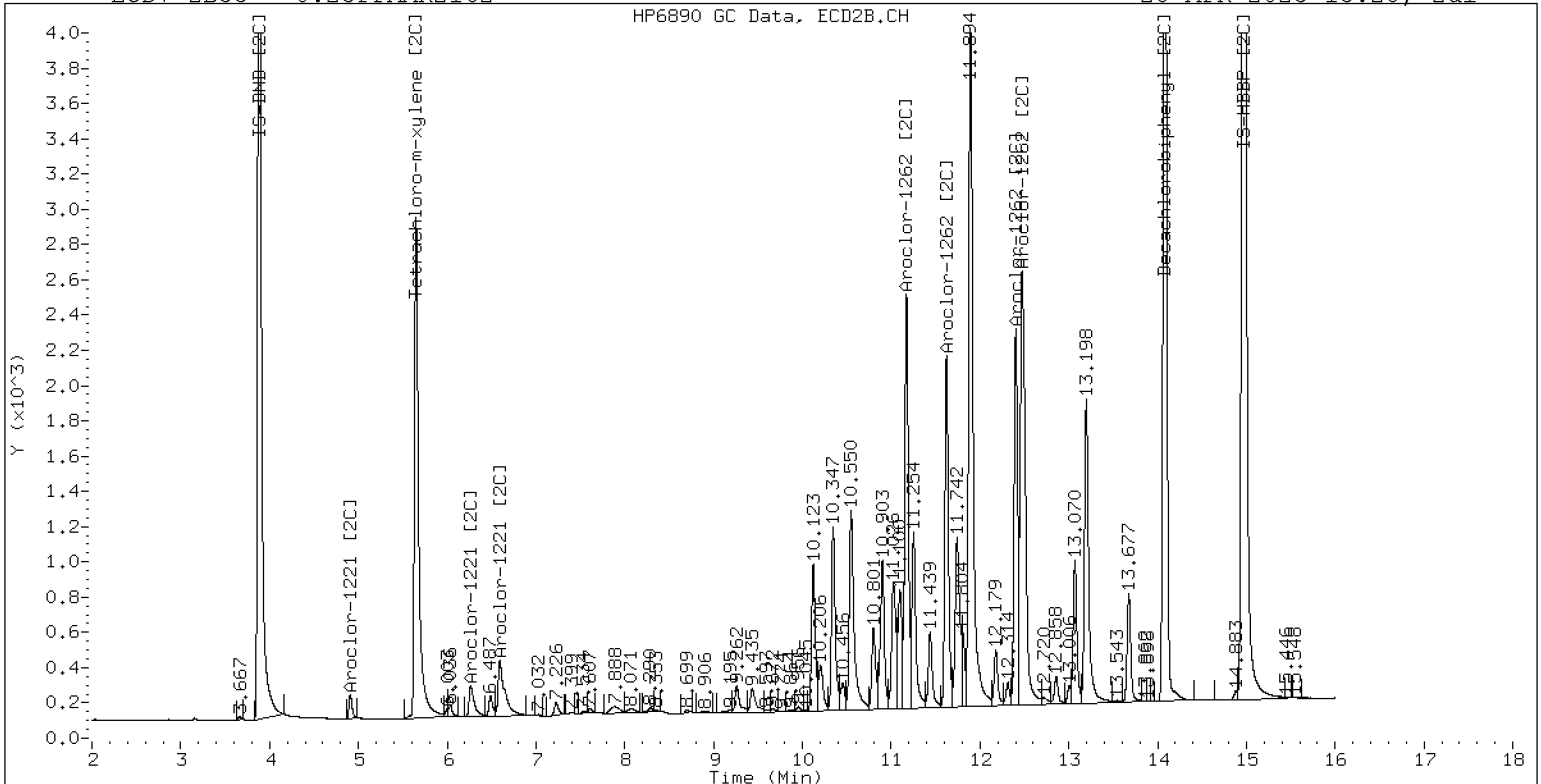
28-APR-2023 15:28, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR2162

28-APR-2023 15:28, 2ul

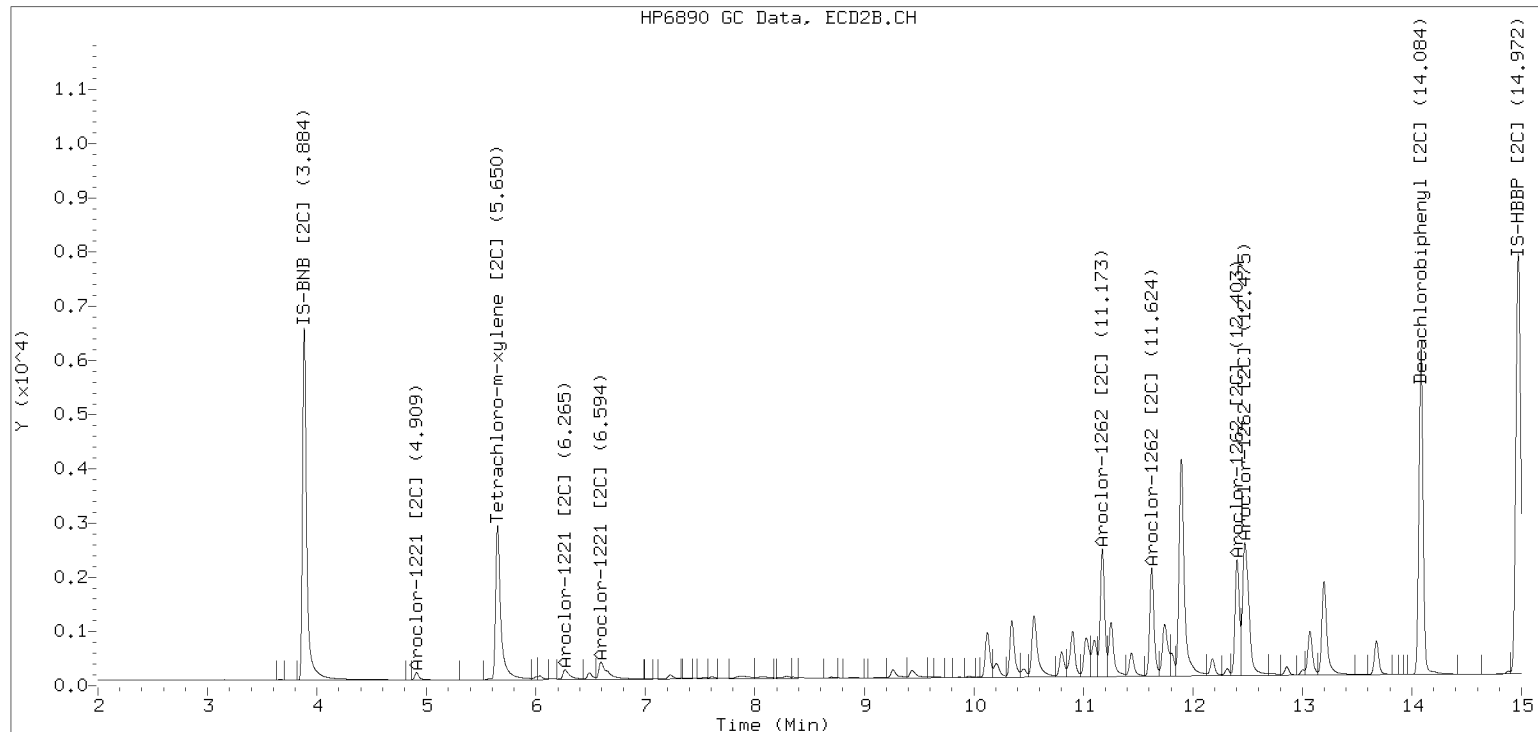


ZB-35 Manual Integration: NO

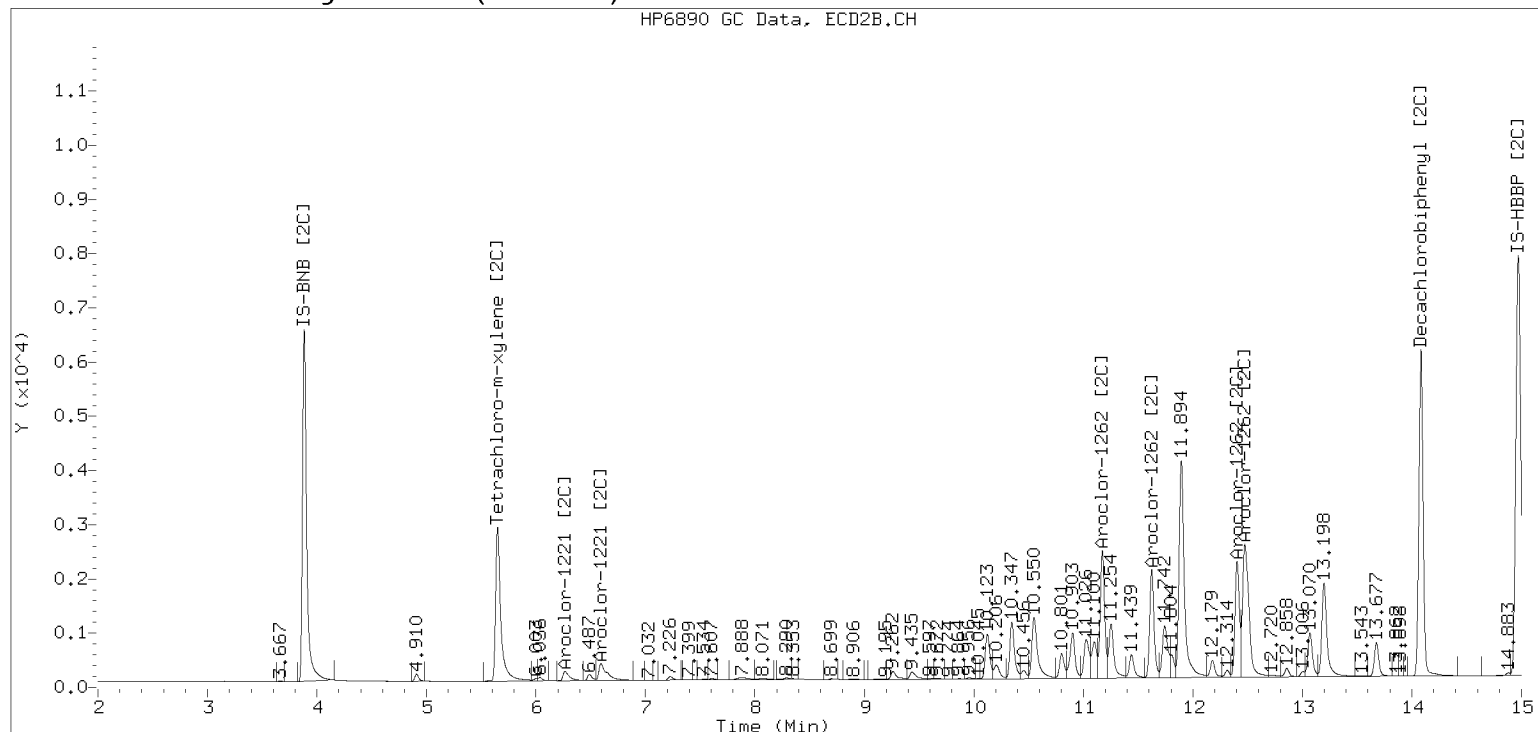
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282313ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282314ECD7.D
Data file 2: /230428.b/230428.b/04282314ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR3268
Client ID:
Injection Date: 28-APR-2023 15:49
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	-0.000	337763	5.651	0.000	194138	39.8	39.5	0.9	Tetrachloro-m-xylene
13.860	-0.001	643123	14.084	0.000	501139	53.6	57.6	7.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	580156	4.3
Hexabromobiphenyl	745660	1107258	48.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	350186	0.5
Hexabromobiphenyl	429949	537160	24.9

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 28-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col ZB35 Col

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.682	0.000	7059	250.0	1	4.911	0.000	3768	250.0
Aroclor-1232	2	6.093	0.000	15616	250.0	2	7.225	0.000	20959	250.0
Aroclor-1232	3	7.651	0.000	61924	250.0	3	7.863	0.000	41363	250.0
Aroclor-1232	4	8.563	0.000	28843	250.0	4	8.694	0.000	12737	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.218	0.000	475209	250.0	1	12.403	0.000	310411	250.0
Aroclor-1268	2	12.291	0.000	494781	250.0	2	12.472	0.000	352185	250.0
Aroclor-1268	3	12.669	0.000	411539	250.0	3	12.858	0.000	290953	250.0
Aroclor-1268	4	13.461	0.000	1190059	250.0	4	13.677	0.000	886581	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.866 - 13.762) = 3795737 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 2603857 Col2 Total PCB = 0.7 ppm*

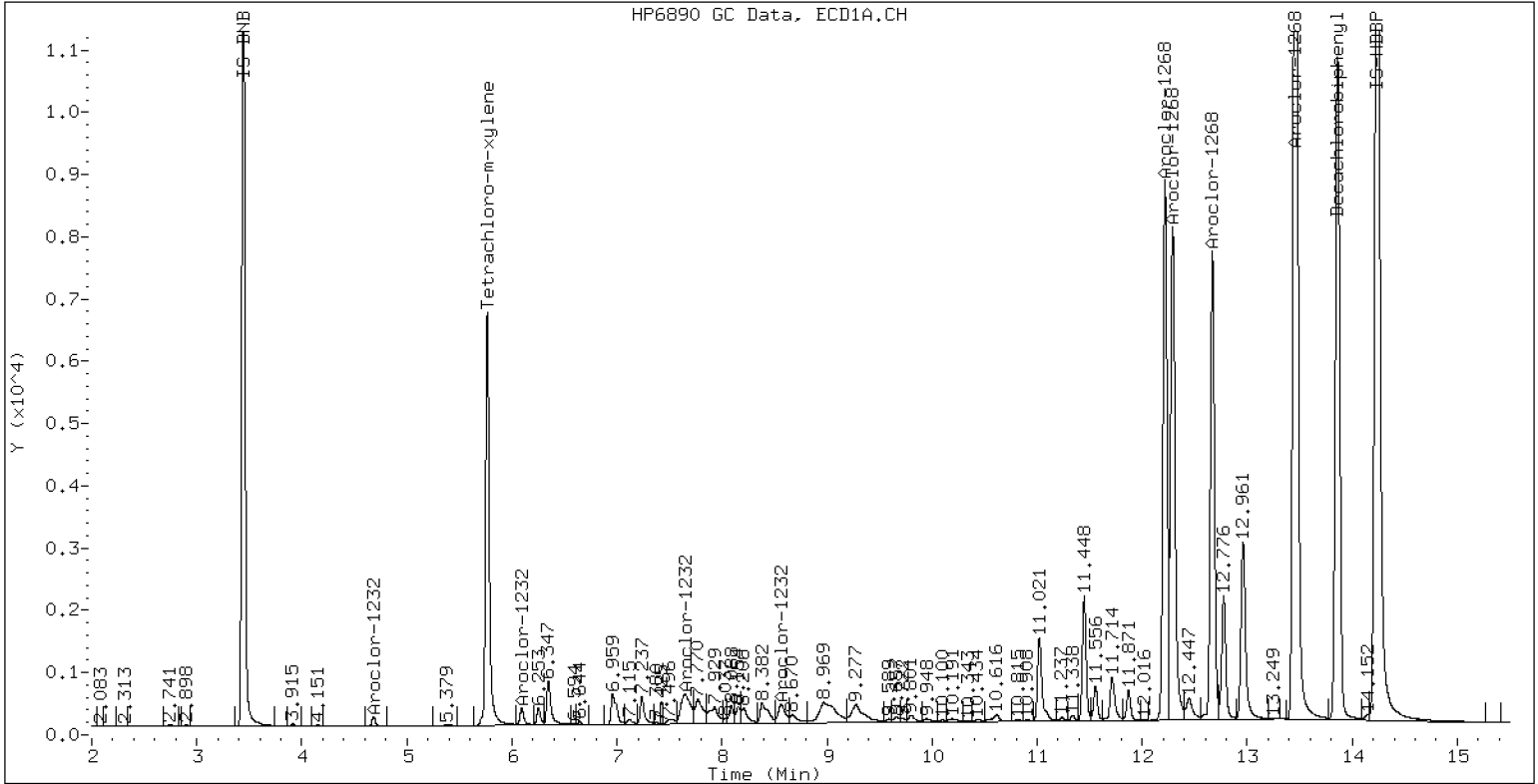
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR3268

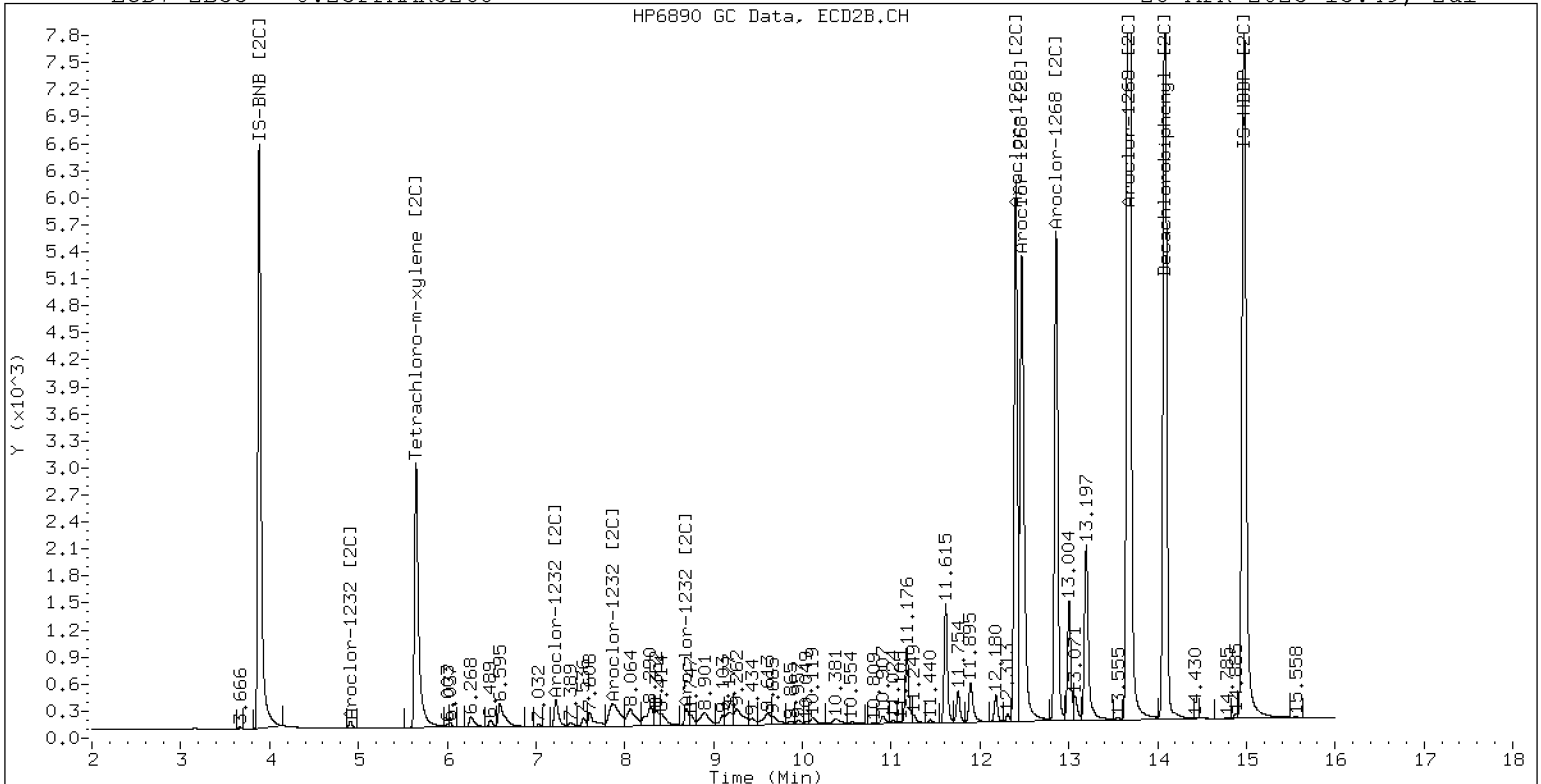
28-APR-2023 15:49, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR3268

28-APR-2023 15:49, 2ul

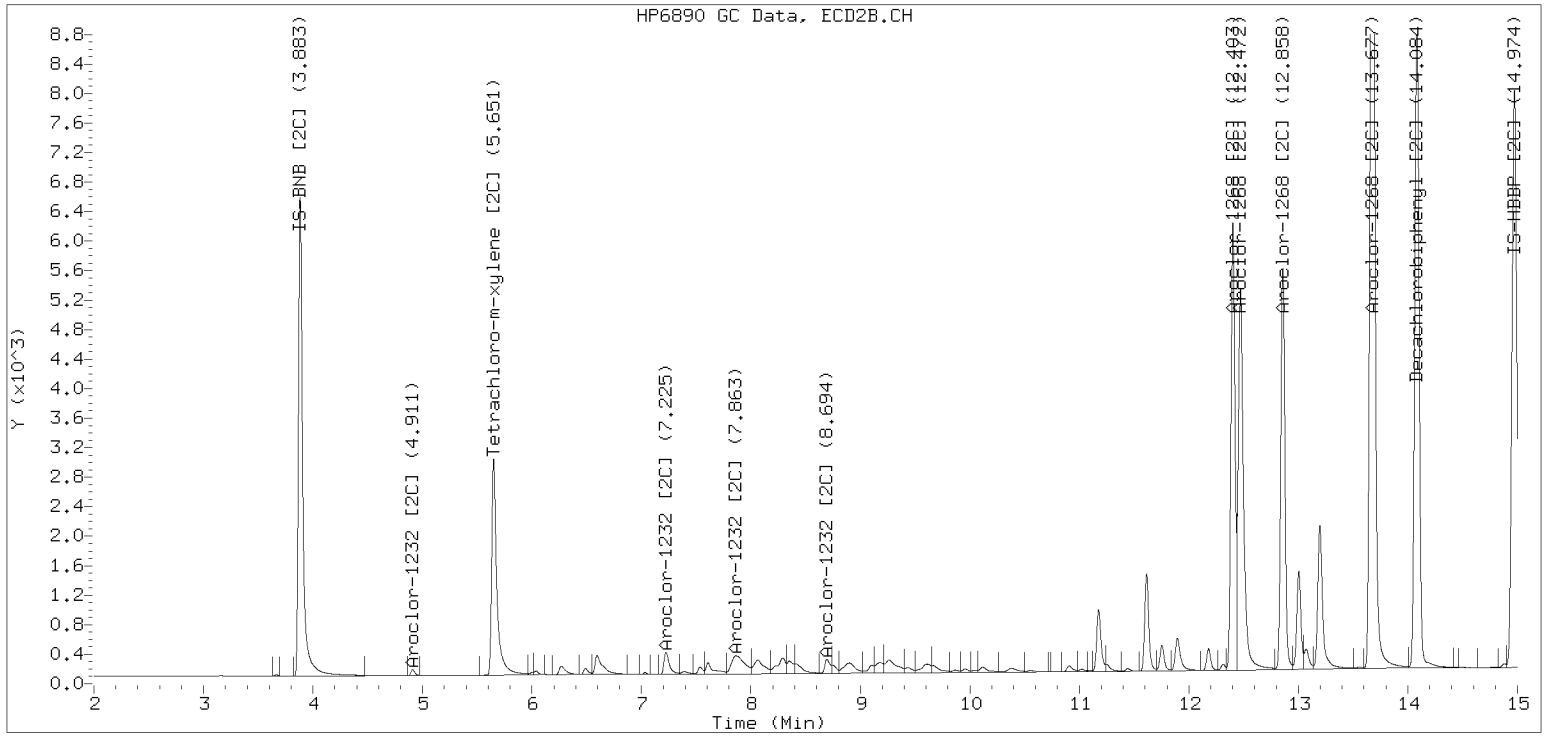


ZB-35 Manual Integration: NO

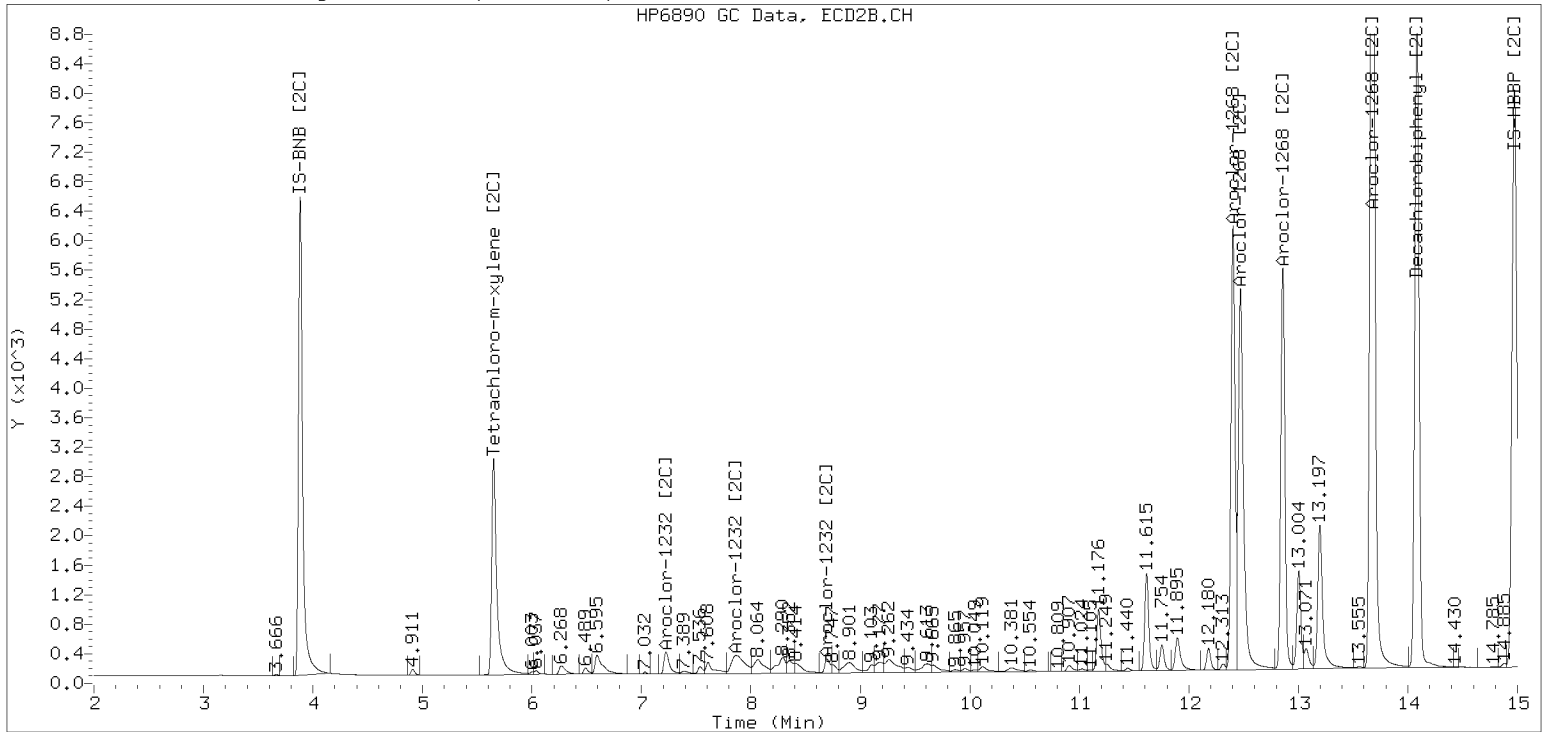
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282314ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282315ECD7.D
Data file 2: /230428.b/230428.b/04282315ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 28-APR-2023 16:09
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.766	-0.000	328442	5.650	-0.000	184023	37.6	36.1	4.0	Tetrachloro-m-xylene
13.862	0.000	457973	14.083	-0.001	349905	36.6	38.9	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	597924	7.5
Hexabromobiphenyl	745660	1154377	54.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	362828	4.1
Hexabromobiphenyl	429949	555238	29.1

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 28-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.236	0.001	58167	251.6	1	7.223	0.002	49868	253.8
Aroclor-1016	2	7.636	0.008	162832	265.6	2	7.853	0.009	102116	262.9
Aroclor-1016	3	7.766	0.003	98114	236.5	3	8.060	0.005	57971	242.6
Aroclor-1016	4	8.378	0.002	55690	257.2	4	8.285	0.005	41472	232.9
Total CollAve (4 peaks):				252.7		Total Col2Ave (4 peaks):				248.1 RPD = 2
Corrected Ave (3 peaks):				248.4		Corrected Ave (3 peaks):				243.1 RPD = 2
Aroclor-1221	1	4.683	0.001	327	7.1	1	---			0.0
Aroclor-1221	2	6.092	-0.001	8500	92.6	2	6.279	0.013	4329	75.2
Aroclor-1221	3	6.347	0.001	39437	181.1	3	6.596	0.002	22951	174.3
Total CollAve (3 peaks):				93.6		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.683	0.001	327	11.2	1	---			0.0
Aroclor-1232	2	6.092	-0.001	8500	132.0	2	7.223	-0.002	49868	574.1
Aroclor-1232	3	7.636	-0.015	162832	637.9	3	7.853	-0.010	102116	595.7
Aroclor-1232	4	8.559	-0.004	77917	655.3	4	8.690	-0.003	33380	632.3
Total CollAve (4 peaks):				359.1		Total Col2Ave (3 peaks):				600.7 RPD = 50*
Corrected Ave (3 peaks):				260.4		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.236	-0.000	58167	311.8	1	7.223	0.001	49868	316.3
Aroclor-1242	2	7.636	-0.002	162832	319.3	2	7.853	-0.006	102116	323.8
Aroclor-1242	3	8.423	0.042	38520	224.6	3	8.690	-0.477	33380	306.1
Aroclor-1242	4	8.559	-0.002	77917	307.0	4	8.889	-0.714	53314	476.2
Total CollAve (4 peaks):				290.7		Total Col2Ave (4 peaks):				355.6 RPD = 20
Corrected Ave (3 peaks):				281.1		Corrected Ave (3 peaks):				315.4 RPD = 11
Aroclor-1248	1	8.378	-0.001	55690	192.8	1	8.690	0.406	33380	175.4
Aroclor-1248	2	8.559	-0.000	77917	203.4	2	8.889	0.198	53314	318.2
Aroclor-1248	3	8.966	0.002	73557	64.3	3	9.258	0.095	27563	134.1
Aroclor-1248	4	9.279	0.008	51235	85.3	4	9.431	-0.163	27687	126.3
Total CollAve (4 peaks):				136.5		Total Col2Ave (4 peaks):				188.5 RPD = 32
Corrected Ave (3 peaks):				114.1		Corrected Ave (3 peaks):				145.3 RPD = 24
Aroclor-1254	1	9.279	0.004	51235	79.3	1	9.431	0.001	27687	102.1
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	9.649	0.001	5569	13.6	3	9.953	0.003	2877	13.1
Aroclor-1254	4	9.790	0.001	20622	24.9	4	10.122	0.013	59350	124.8
Aroclor-1254	5	10.094	-0.074	163613	375.2	5	10.345	-0.011	83726	153.2
Total CollAve (4 peaks):				123.3		Total Col2Ave (4 peaks):				98.3 RPD = 23
Corrected Ave (3 peaks):				39.3		Corrected Ave (3 peaks):				80.0 RPD = 68*
Aroclor-1260	1	11.018	0.001	162373	249.1	1	11.624	0.000	96769	245.0
Aroclor-1260	2	11.335	0.002	163247	246.9	2	11.893	0.001	269412	259.9
Aroclor-1260	3	11.711	0.001	430555	250.9	3	12.406	-0.001	64881	274.8
Aroclor-1260	4	12.118	0.002	188077	221.1	4	12.476	0.001	182024	257.7
Aroclor-1260	5	12.216	0.000	99127	253.9	NS	---			----
Total CollAve (5 peaks):				244.4		Total Col2Ave (4 peaks):				259.3 RPD = 6
Corrected Ave (4 peaks):				242.0		Corrected Ave (3 peaks):				254.2 RPD = 5
Aroclor-1262	1	10.808	-0.000	229421	509.3	1	11.172	-0.001	104566	188.4
Aroclor-1262	2	12.216	-0.000	99127	126.0	2	11.624	0.000	96769	207.0
Aroclor-1262	3	12.292	0.000	123787	143.2	3	12.406	0.002	64881	131.8
Aroclor-1262	4	12.963	0.001	107216	153.7	4	12.476	0.001	182024	213.9
Total CollAve (4 peaks):				233.0		Total Col2Ave (4 peaks):				185.3 RPD = 23
Corrected Ave (3 peaks):				141.0		Corrected Ave (3 peaks):				175.7 RPD = 22
Aroclor-1268	1	12.216	-0.002	99127	50.0	1	12.406	0.002	64881	50.6
Aroclor-1268	2	12.292	0.002	123787	60.0	2	12.476	0.005	182024	125.0
Aroclor-1268	3	12.700	0.030	49518	28.9	3	12.859	0.000	4065	3.4
Aroclor-1268	4	13.461	0.000	25958	5.2	4	13.677	-0.000	14756	4.0
Total CollAve (4 peaks):				36.0		Total Col2Ave (4 peaks):				45.7 RPD = 24
Corrected Ave (3 peaks):				28.0		Corrected Ave (3 peaks):				19.3 RPD = 37

Total PCB Area Col1 (5.866 - 13.762) = 3921238 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 2234032 Col2 Total PCB = 0.5 ppm*

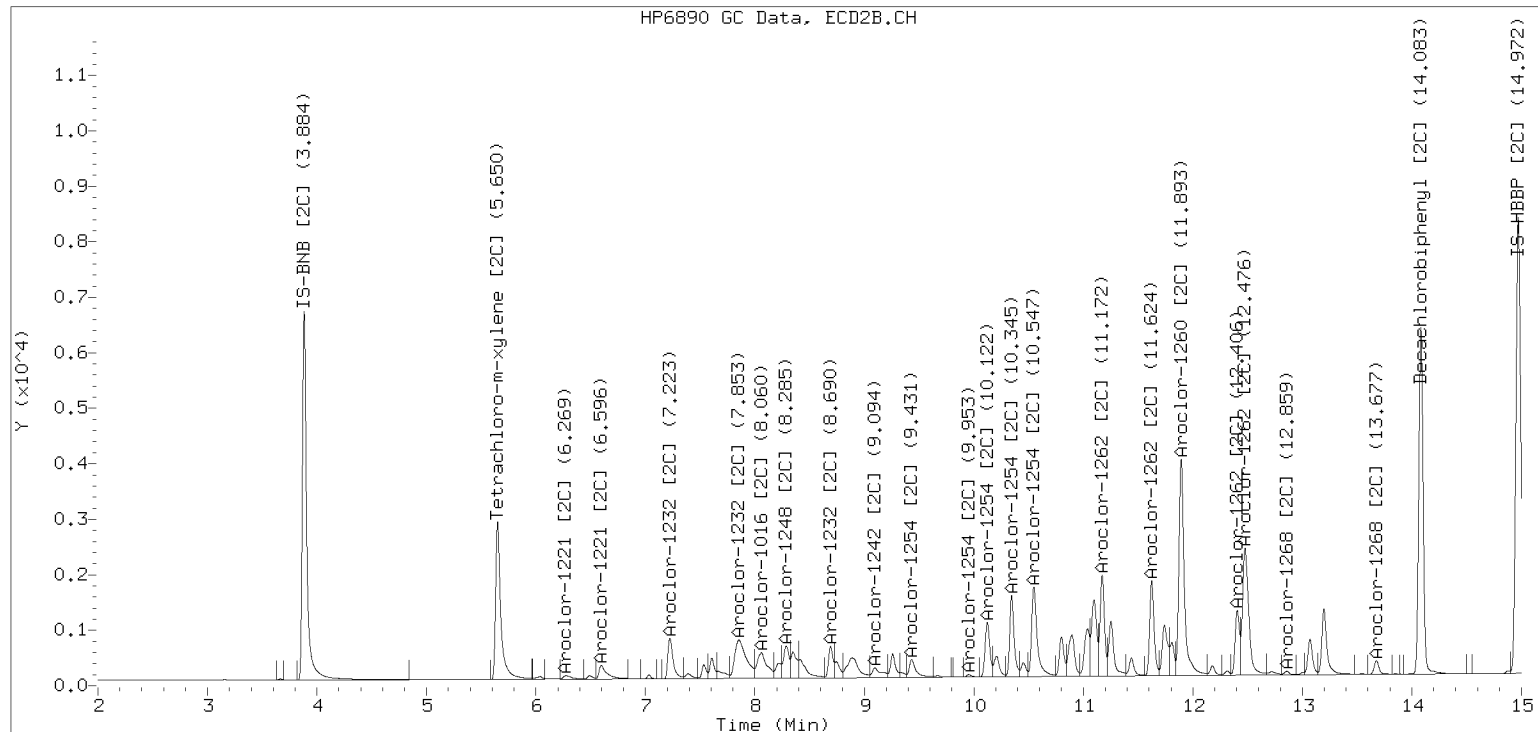
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

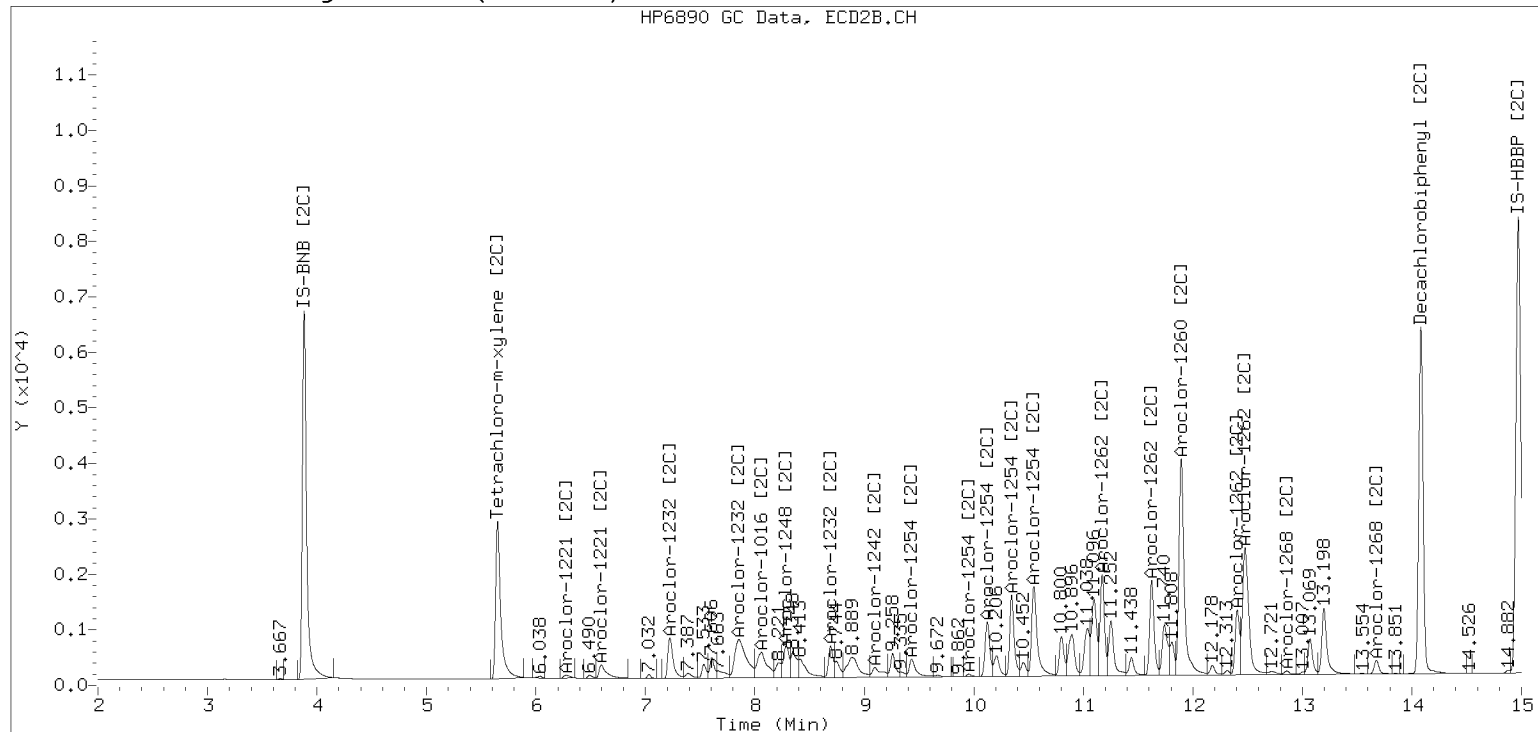
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282315ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282316ECD7.D
Data file 2: /230428.b/230428.b/04282316ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 28-APR-2023 16:30
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	292500	5.650	-0.001	164326	33.9	32.6	3.7	Tetrachloro-m-xylene
13.864	0.002	517644	14.083	-0.001	393716	40.7	43.6	6.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	591263	6.3
Hexabromobiphenyl	745660	1174114	57.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	358789	3.0
Hexabromobiphenyl	429949	558275	29.8

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 28-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.237	0.001	42869	187.5	1	7.224	0.002	36830	189.5
Aroclor-1016	2	7.642	0.014	116563	192.3	2	7.859	0.015	74679	194.4
Aroclor-1016	3	7.767	0.004	72620	177.0	3	8.061	0.007	42627	180.4
Aroclor-1016	4	8.381	0.005	41808	195.2	4	8.287	0.006	31937	181.4
Total CollAve (4 peaks):				188.0		Total Col2Ave (4 peaks):				186.4 RPD = 1
Corrected Ave (3 peaks):				185.6		Corrected Ave (3 peaks):				183.8 RPD = 1
Aroclor-1221	1	4.687	0.005	261	5.8	1	---			0.0
Aroclor-1221	2	6.092	-0.002	5439	59.9	2	6.288	0.022	3034	53.3
Aroclor-1221	3	6.348	0.002	27795	129.1	3	6.597	0.003	16171	124.2
Total CollAve (3 peaks):				64.9		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.687	0.004	261	9.1	1	---			0.0
Aroclor-1232	2	6.092	-0.002	5439	85.4	2	7.224	-0.001	36830	428.8
Aroclor-1232	3	7.642	-0.009	116563	461.7	3	7.859	-0.003	74679	440.5
Aroclor-1232	4	8.560	-0.004	60506	514.6	4	8.693	-0.001	25516	488.8
Total CollAve (4 peaks):				267.7		Total Col2Ave (3 peaks):				452.7 RPD = 51*
Corrected Ave (3 peaks):				185.4		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.237	0.000	42869	232.4	1	7.224	0.002	36830	236.3
Aroclor-1242	2	7.642	0.003	116563	231.1	2	7.859	0.001	74679	239.5
Aroclor-1242	3	8.381	-0.000	41808	246.5	3	9.173	0.005	27704	256.9
Aroclor-1242	4	8.560	-0.001	60506	241.1	4	9.602	-0.001	29247	264.2
Total CollAve (4 peaks):				237.8		Total Col2Ave (4 peaks):				249.2 RPD = 5
Corrected Ave (3 peaks):				234.9		Corrected Ave (3 peaks):				244.2 RPD = 4
Aroclor-1248	1	8.381	0.002	41808	146.4	1	8.693	0.408	25516	135.6
Aroclor-1248	2	8.560	0.000	60506	159.7	2	8.890	0.199	41427	250.0
Aroclor-1248	3	8.967	0.003	153088	135.4	3	9.258	0.094	51085	251.4
Aroclor-1248	4	9.276	0.004	79463	133.8	4	9.433	-0.160	16032	74.0
Total CollAve (4 peaks):				143.8		Total Col2Ave (4 peaks):				177.7 RPD = 21
Corrected Ave (3 peaks):				138.5		Corrected Ave (3 peaks):				153.2 RPD = 10
Aroclor-1254	1	9.276	-0.000	79463	124.4	1	9.433	0.004	16032	59.8
Aroclor-1254	2	9.354	-0.004	29048	96.0	2	9.602	0.074	29247	178.9
Aroclor-1254	3	9.654	0.006	18218	45.1	3	9.955	0.005	10890	50.2
Aroclor-1254	4	9.799	0.009	31107	37.9	4	10.114	0.004	21158	45.0
Aroclor-1254	5	10.188	0.019	22524	52.2	5	10.380	0.024	20273	37.5
Total CollAve (5 peaks):				71.1		Total Col2Ave (5 peaks):				74.3 RPD = 4
Corrected Ave (4 peaks):				57.8		Corrected Ave (4 peaks):				48.1 RPD = 18
Aroclor-1260	1	11.022	0.005	1107	1.7	1	11.645	0.021	2082	5.2
Aroclor-1260	2	11.341	0.007	839	1.2	2	11.903	0.011	1433	1.4
Aroclor-1260	3	11.721	0.011	1240	0.7	3	12.477	0.071	1326	5.6
Aroclor-1260	4	12.127	0.011	1362	1.6	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			---
Total CollAve (4 peaks):				1.3		Total Col2Ave (3 peaks):				4.1 RPD = 103*
Corrected Ave (3 peaks):				1.2		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.818	0.009	16810	36.7	1	11.105	-0.068	10045	18.0
Aroclor-1262	2	12.127	-0.090	1362	1.7	2	11.645	0.021	2082	4.4
Aroclor-1262	3	12.308	0.016	110	0.1	3	12.477	0.074	1326	2.7
Aroclor-1262	4	13.018	0.056	1070	1.5	4	---			0.0
Total CollAve (4 peaks):				10.0		Total Col2Ave (3 peaks):				8.4 RPD = 18
Corrected Ave (3 peaks):				1.1		Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.308	0.090	110	0.1	1	12.477	0.074	1326	1.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.671	0.001	2482	1.4	3	12.861	0.003	1233	1.0
Aroclor-1268	4	13.468	0.007	10976	2.2	4	13.676	-0.000	2739	0.7
Total CollAve (3 peaks):				1.2		Total Col2Ave (3 peaks):				0.9 RPD = 27
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.866 - 13.762) = 1193104 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 682890 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

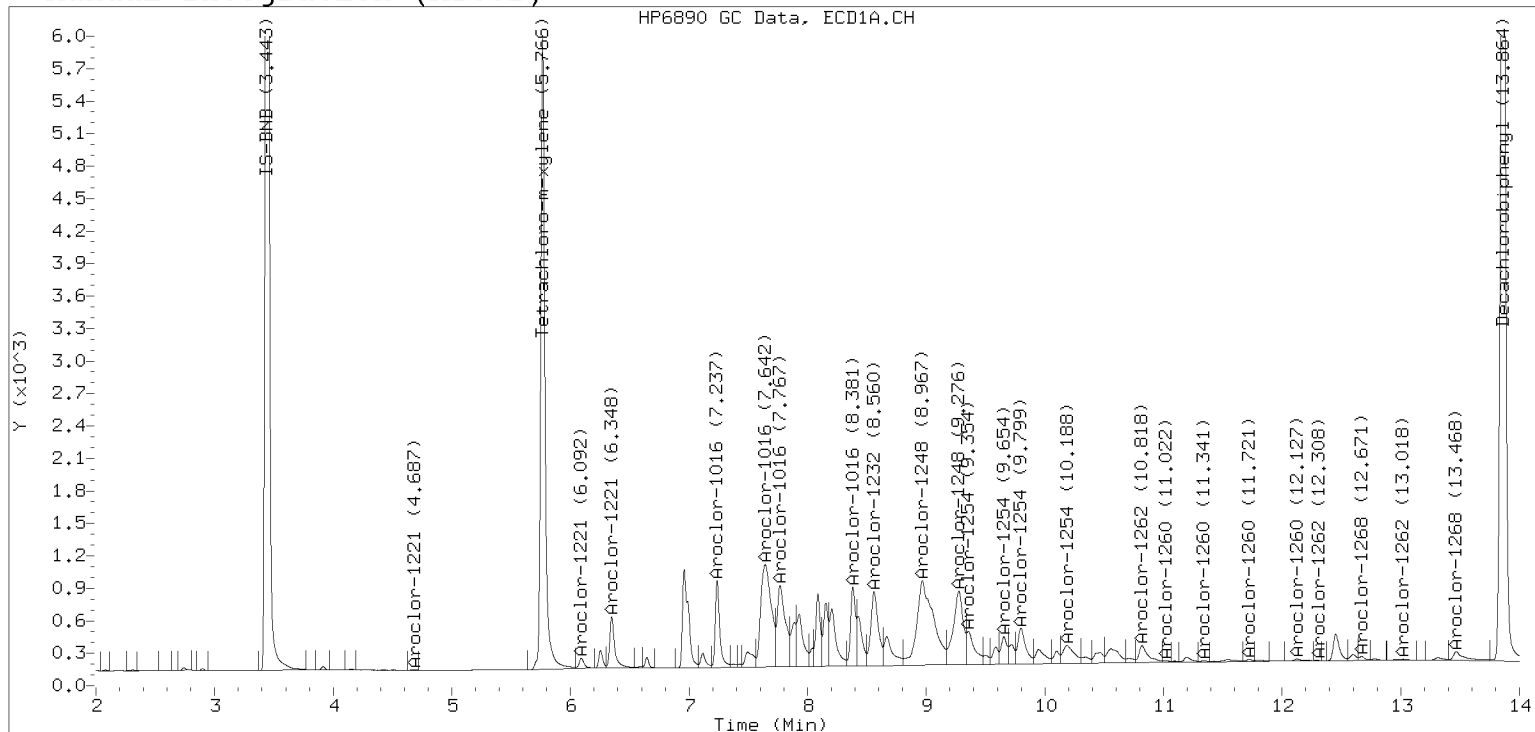
PCB-Form 10 Mod.

Manual Peak Adjustment, ZB-5

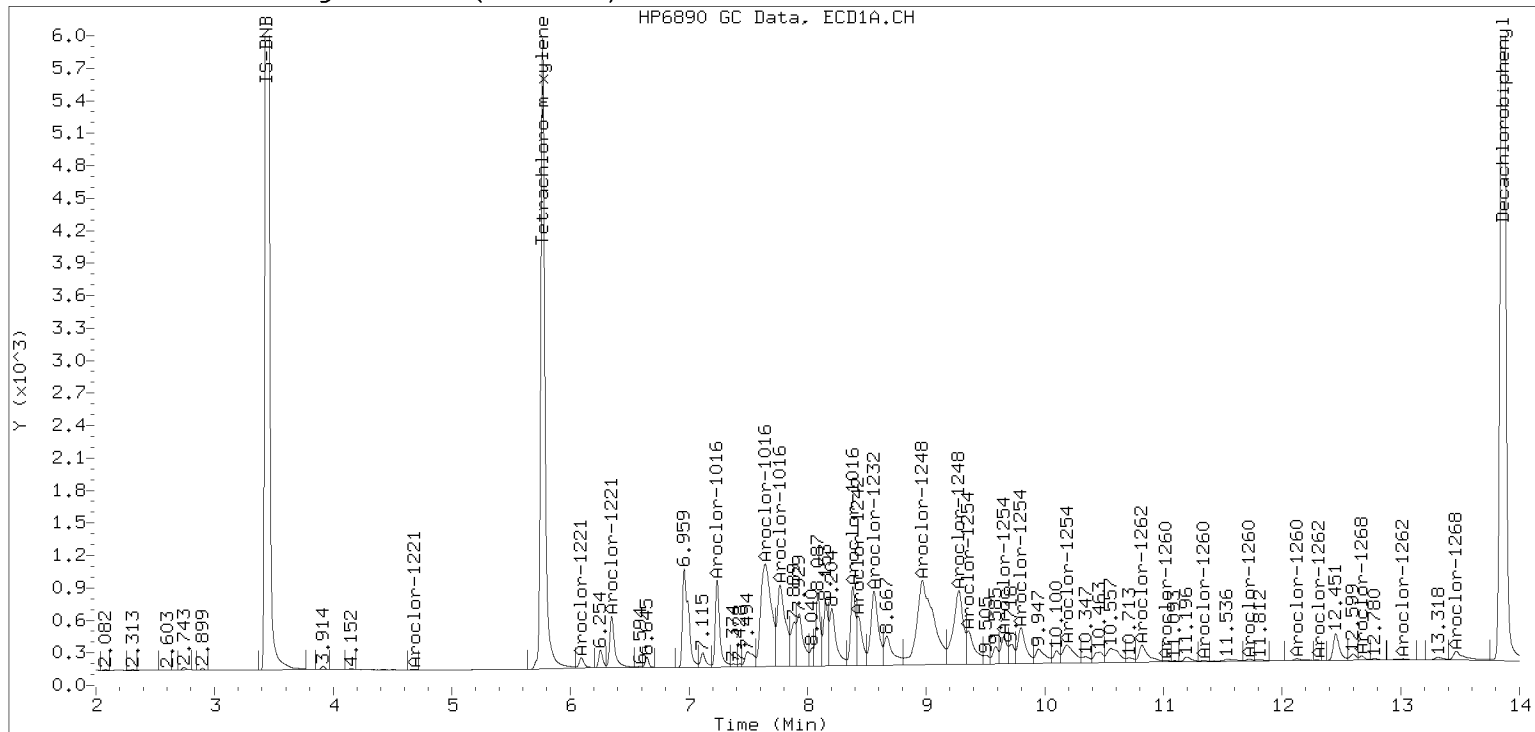
Datafile: ecd7.i/230428.b/04282316ECD7.D

Injection Date: 28-APR-2023 16:30

Manual Integration (After)



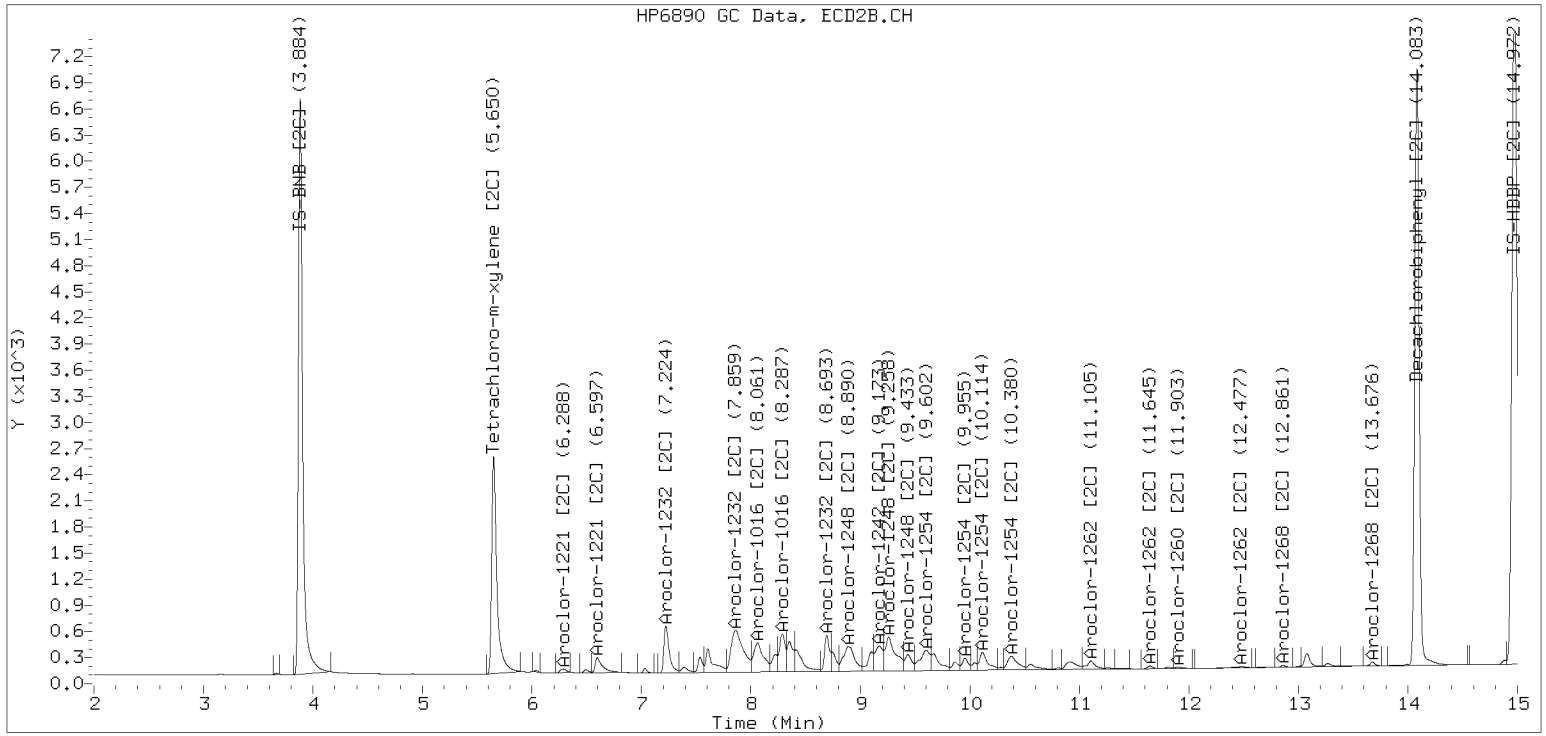
Processed Integration (Before)



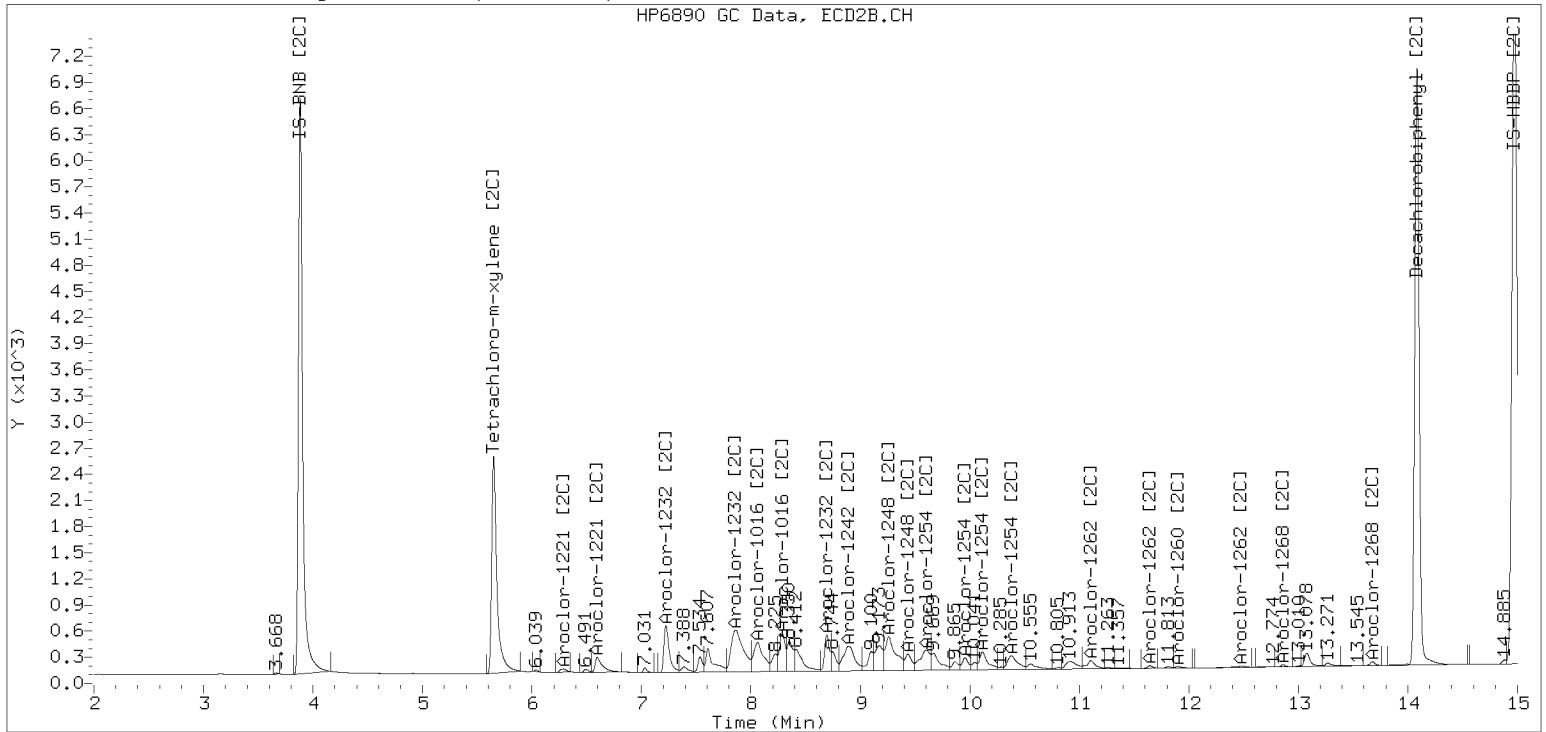
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282316ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282317ECD7.D
Data file 2: /230428.b/230428.b/04282317ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 28-APR-2023 16:51
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	329945	5.650	-0.001	187741	37.4	36.7	1.8	Tetrachloro-m-xylene
13.863	0.002	459099	14.084	0.000	349285	34.9	38.0	8.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	604265	8.6
Hexabromobiphenyl	745660	1214161	62.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	364434	4.6
Hexabromobiphenyl	429949	568134	32.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.237	0.002	19001	81.3	1	7.223	0.002	18808	95.3
Aroclor-1016	2	7.640	0.012	74331	120.0	2	7.860	0.016	45610	116.9
Aroclor-1016	3	7.763	0.000	48390	115.4	3	8.066	0.011	19913	83.0
Aroclor-1016	4	8.380	0.004	75928	347.0	4	8.285	0.004	48388	270.6
Total CollAve (4 peaks):				165.9		Total Col2Ave (4 peaks):				141.4 RPD = 16
Corrected Ave (3 peaks):				105.6		Corrected Ave (3 peaks):				98.4 RPD = 7
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.088	-0.005	1143	12.3	2	6.298	0.033	1993	34.5
Aroclor-1221	3	6.349	0.002	3172	14.4	3	6.608	0.014	1326	10.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.088	-0.005	1143	17.6	2	7.223	-0.002	18808	215.6
Aroclor-1232	3	7.640	-0.012	74331	288.1	3	7.860	-0.003	45610	264.9
Aroclor-1232	4	8.559	-0.004	98972	823.6	4	8.691	-0.002	42787	807.0
Total CollAve (3 peaks):				376.4		Total Col2Ave (3 peaks):				429.1 RPD = 13
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.237	0.001	19001	100.8	1	7.223	0.001	18808	118.8
Aroclor-1242	2	7.640	0.001	74331	144.2	2	7.860	0.001	45610	144.0
Aroclor-1242	3	8.380	-0.001	75928	438.1	3	8.691	-0.476	42787	390.6
Aroclor-1242	4	8.559	-0.001	98972	385.9	4	8.885	-0.718	60719	540.0
Total CollAve (4 peaks):				267.2		Total Col2Ave (4 peaks):				298.3 RPD = 11
Corrected Ave (3 peaks):				210.3		Corrected Ave (3 peaks):				217.8 RPD = 4
Aroclor-1248	1	8.380	0.002	75928	260.1	1	8.285	0.000	48388	253.1
Aroclor-1248	2	8.559	0.000	98972	255.7	2	8.691	0.000	42787	254.2
Aroclor-1248	3	8.963	-0.001	294362	254.8	3	9.165	0.001	53988	261.5
Aroclor-1248	4	9.271	0.000	156668	258.2	4	9.587	-0.007	55820	253.5
Total CollAve (4 peaks):				257.2		Total Col2Ave (4 peaks):				255.6 RPD = 1
Corrected Ave (3 peaks):				256.2		Corrected Ave (3 peaks):				253.6 RPD = 1
Aroclor-1254	1	9.271	-0.004	156668	240.0	1	9.430	0.001	28754	105.5
Aroclor-1254	2	9.355	-0.004	60054	194.1	2	9.587	0.059	55820	336.1
Aroclor-1254	3	9.651	0.003	41060	99.5	3	9.952	0.002	23054	104.5
Aroclor-1254	4	9.793	0.004	73186	87.3	4	10.109	-0.001	44343	92.9
Aroclor-1254	5	10.182	0.013	49460	112.2	5	10.379	0.023	41423	75.5
Total CollAve (5 peaks):				146.6		Total Col2Ave (5 peaks):				142.9 RPD = 3
Corrected Ave (4 peaks):				123.3		Corrected Ave (4 peaks):				94.6 RPD = 26
Aroclor-1260	1	11.026	0.009	2009	2.9	1	11.643	0.019	2501	6.2
Aroclor-1260	2	11.340	0.006	1228	1.8	2	11.901	0.009	2130	2.0
Aroclor-1260	3	11.721	0.011	1976	1.1	3	12.414	0.007	826	3.4
Aroclor-1260	4	12.127	0.011	1326	1.5	4	12.479	0.004	1478	2.0
Aroclor-1260	5	12.220	0.004	573	1.4	NS	---			----
Total CollAve (5 peaks):				1.7		Total Col2Ave (4 peaks):				3.4 RPD = 65*
Corrected Ave (4 peaks):				1.4		Corrected Ave (3 peaks):				2.5 RPD = 54*
Aroclor-1262	1	10.818	0.009	19667	41.5	1	11.104	-0.069	9341	16.4
Aroclor-1262	2	12.220	0.003	573	0.7	2	11.643	0.019	2501	5.2
Aroclor-1262	3	12.296	0.004	674	0.7	3	12.414	0.010	826	1.6
Aroclor-1262	4	12.967	0.005	1383	1.9	4	12.479	0.004	1478	1.7
Total CollAve (4 peaks):				11.2		Total Col2Ave (4 peaks):				6.3 RPD = 57*
Corrected Ave (3 peaks):				1.1		Corrected Ave (3 peaks):				2.9 RPD = 88*
Aroclor-1268	1	12.220	0.002	573	0.3	1	12.414	0.011	826	0.6
Aroclor-1268	2	12.296	0.005	674	0.3	2	12.479	0.008	1478	1.0
Aroclor-1268	3	12.671	0.002	2312	1.3	3	12.861	0.002	1020	0.8
Aroclor-1268	4	13.469	0.008	7516	1.4	4	13.678	0.001	2531	0.7
Total CollAve (4 peaks):				0.8		Total Col2Ave (4 peaks):				0.8 RPD = 6
Corrected Ave (3 peaks):				0.6		Corrected Ave (3 peaks):				0.7 RPD = 13

Total PCB Area Col1 (5.866 - 13.762) = 1600602 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 860562 Col2 Total PCB = 0.2 ppm*

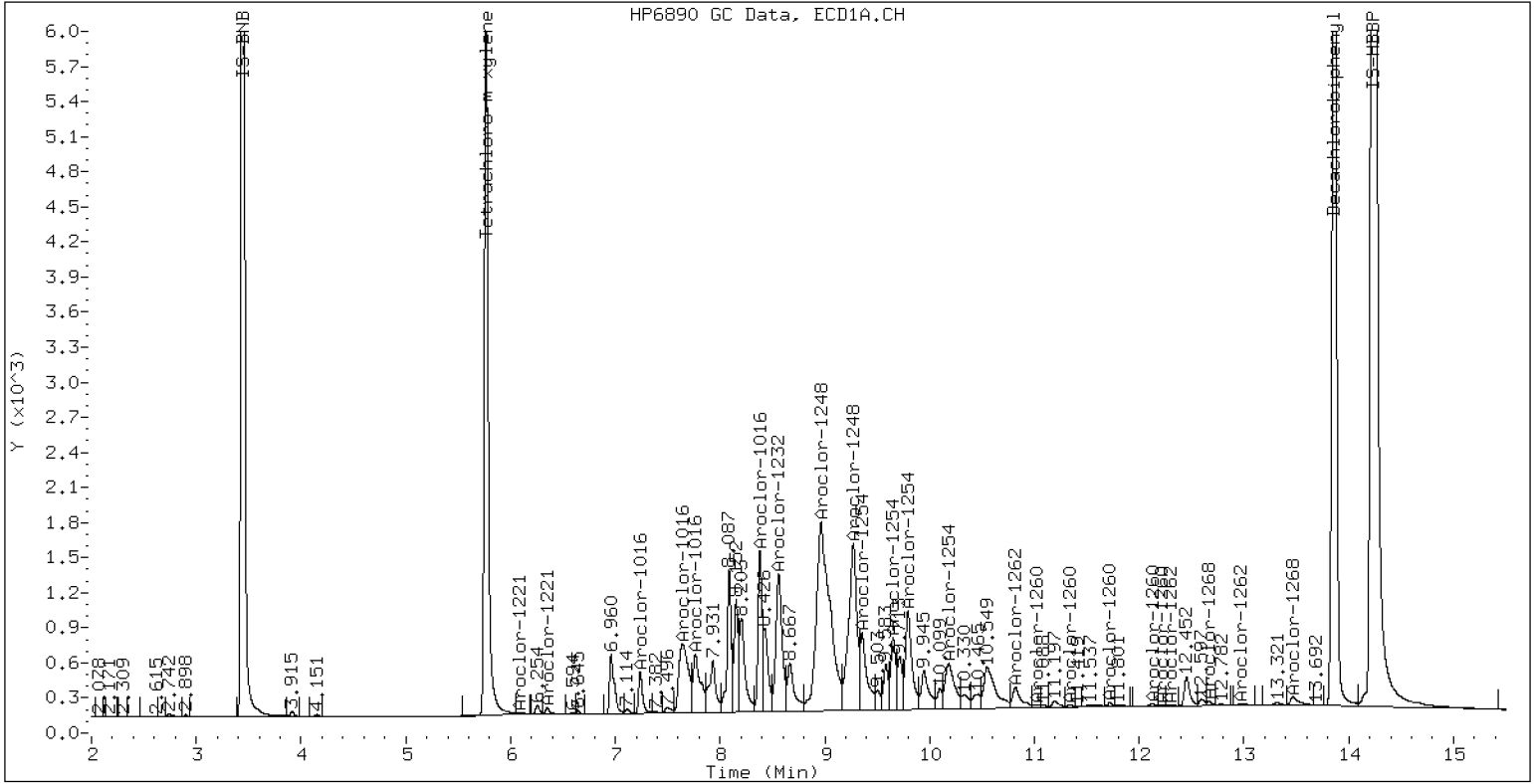
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV

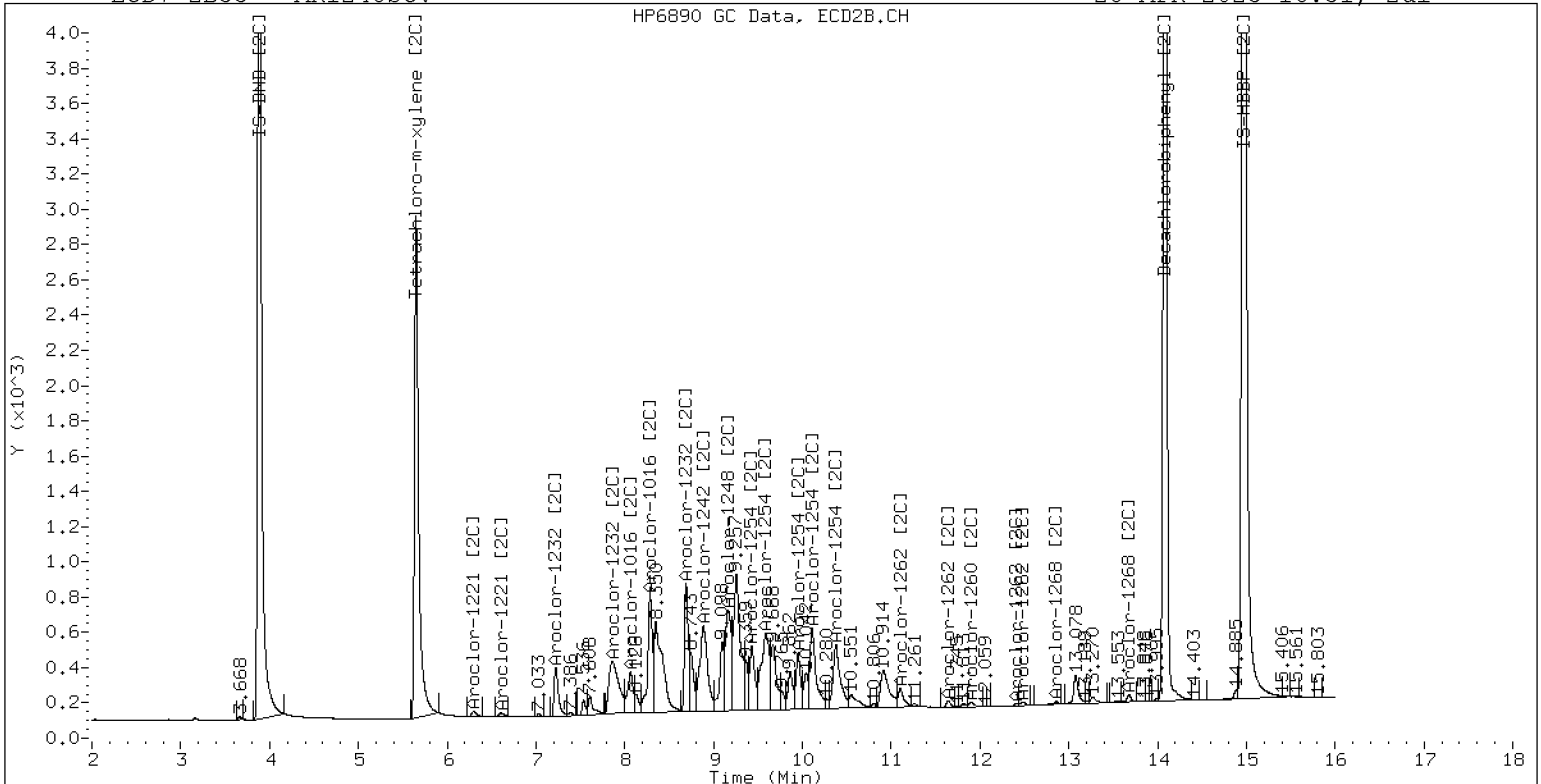
28-APR-2023 16:51, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1248SCV

28-APR-2023 16:51, 2ul



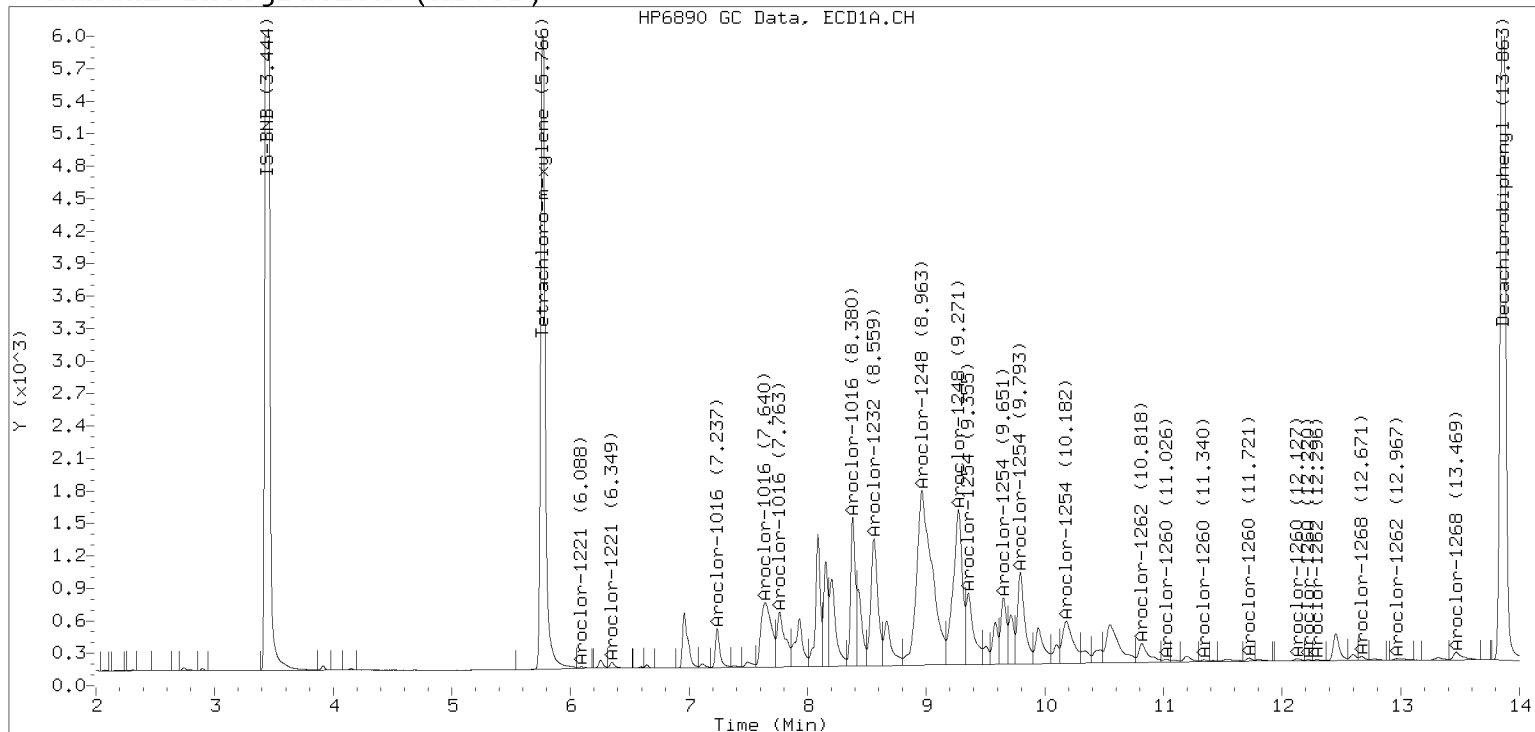
ZB-35 Manual Integration: YES

Manual Peak Adjustment, ZB-5

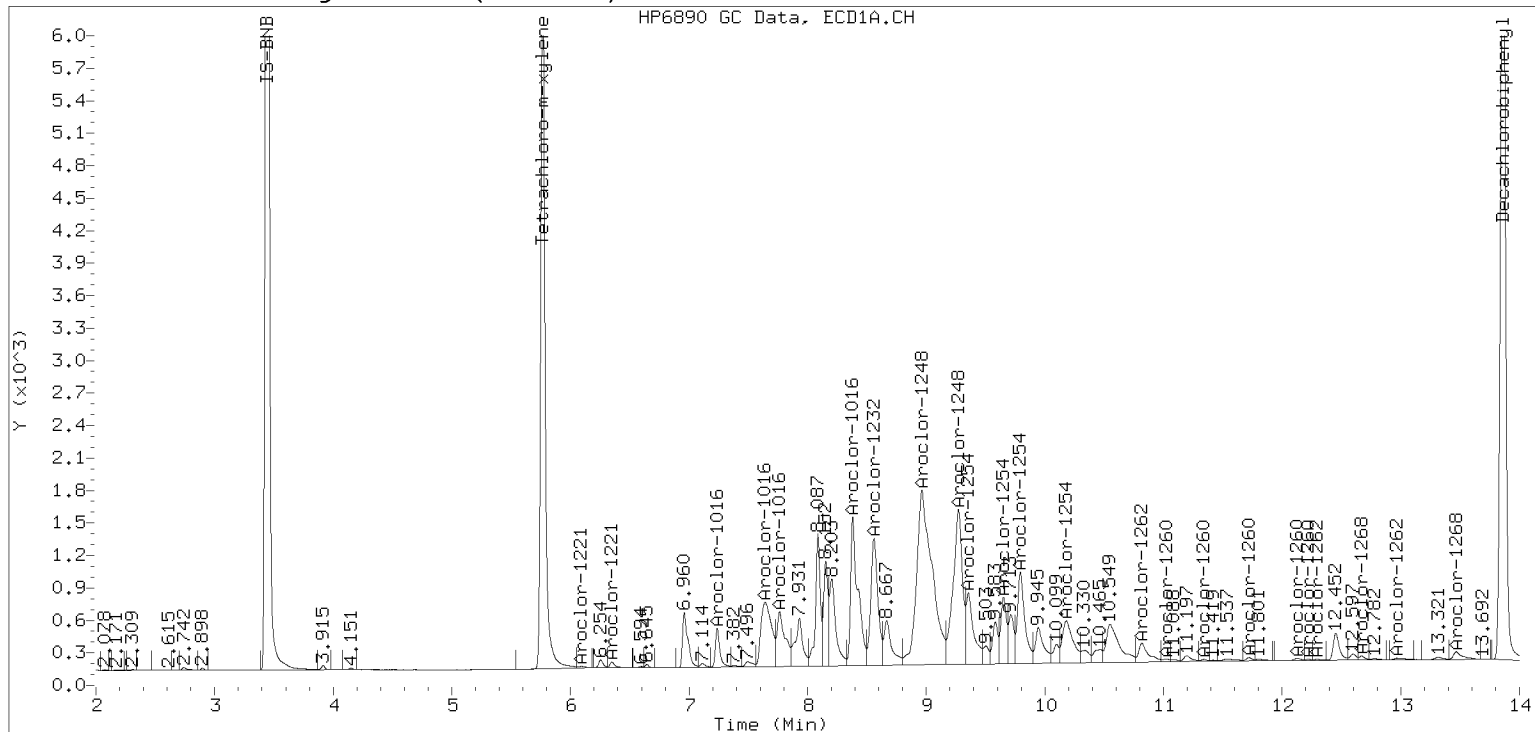
Datafile: ecd7.i/230428.b/04282317ECD7.D

Injection Date: 28-APR-2023 16:51

Manual Integration (After)



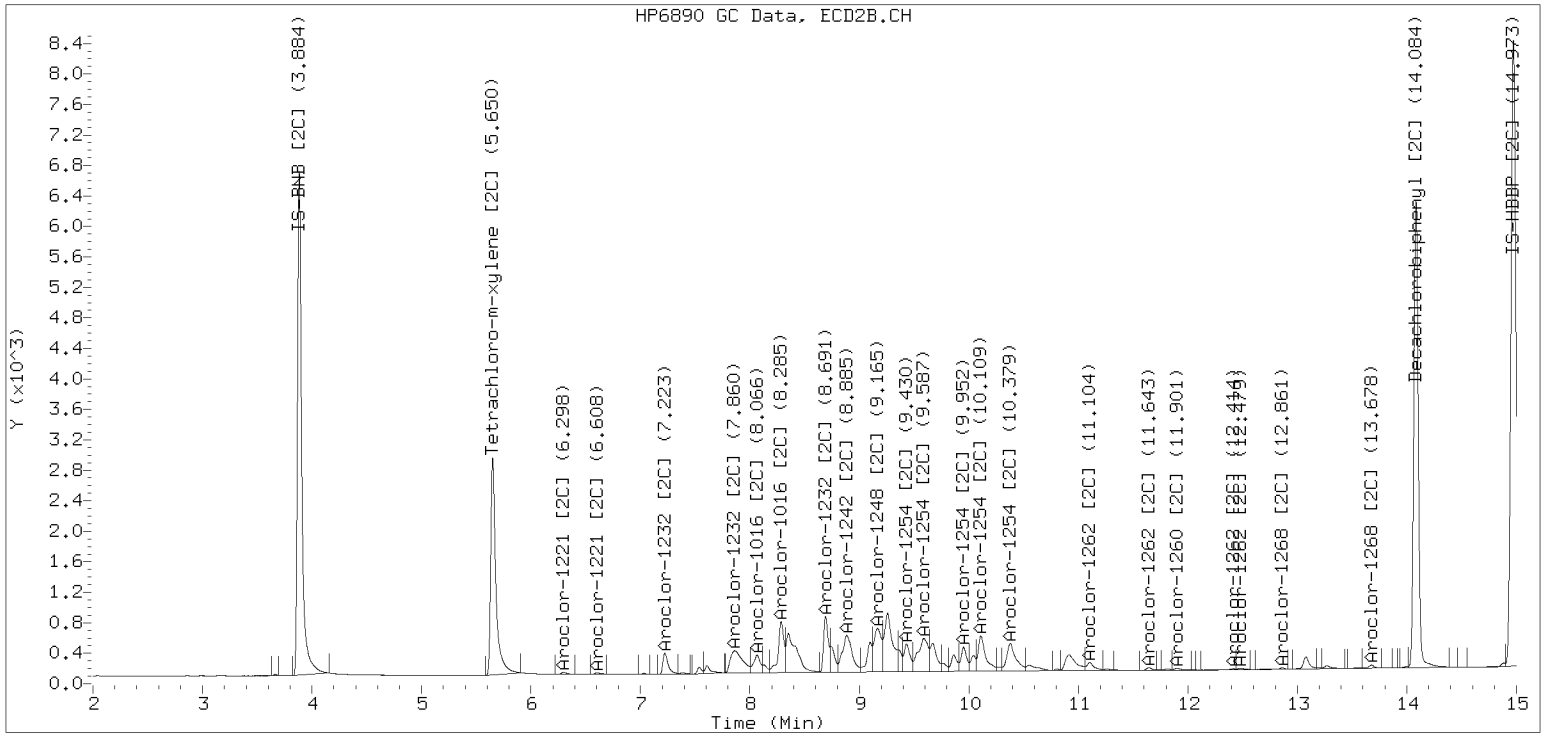
Processed Integration (Before)



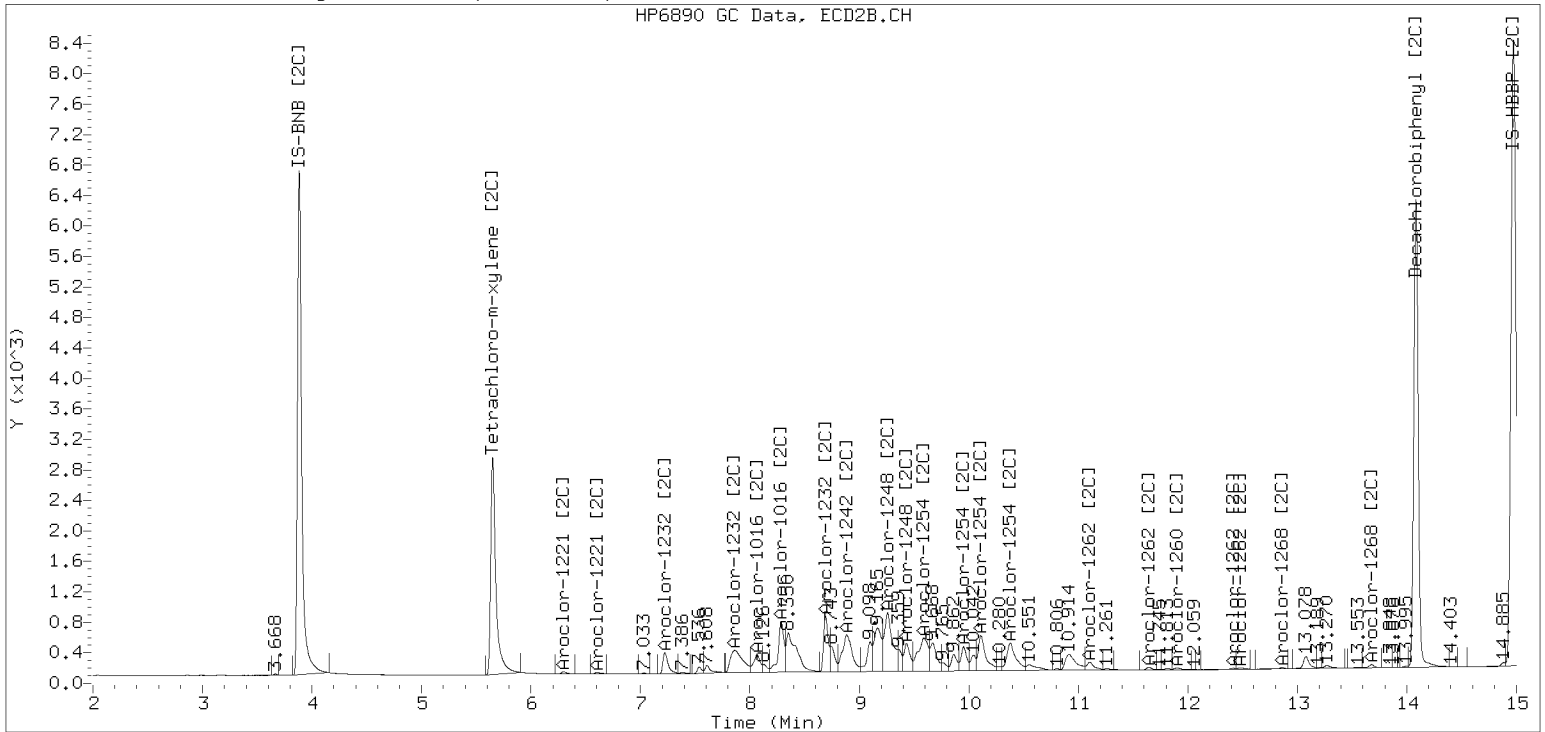
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282317ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282318ECD7.D
Data file 2: /230428.b/230428.b/04282318ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 28-APR-2023 17:12
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	338365	5.650	-0.001	190789	38.3	37.3	2.7	Tetrachloro-m-xylene
13.863	0.001	478757	14.083	-0.001	359021	34.8	38.3	9.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	604006	8.6
Hexabromobiphenyl	745660	1269568	70.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	364366	4.6
Hexabromobiphenyl	429949	578129	34.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.239	0.004	417	1.8	1	7.234	0.013	203	1.0	
Aroclor-1016	2	7.672	0.044	1503	2.4	2	---			0.0	
Aroclor-1016	3	7.760	-0.003	1975	4.7	3	8.071	0.016	434	1.8	
Aroclor-1016	4	8.383	0.006	29140	133.2	4	8.285	0.004	22382	125.2	
Total CollAve (4 peaks):				35.5	Total Col2Ave (3 peaks):				42.7	RPD = 18	
Corrected Ave (3 peaks):				3.0	Corrected Ave: < 3 Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	6.297	0.032	1765	30.5	
Aroclor-1221	3	---			0.0	3	6.613	0.019	308	2.3	
CollAve: <3 Quant Peaks				Col2Ave: <3 Quant Peaks							
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	7.234	0.010	203	2.3	
Aroclor-1232	3	7.672	0.020	1503	5.8	3	---			0.0	
Aroclor-1232	4	8.568	0.004	12422	103.4	4	8.695	0.001	16356	308.5	
CollAve: <3 Quant Peaks				Col2Ave: <3 Quant Peaks							
Aroclor-1242	1	7.239	0.002	417	2.2	1	7.234	0.012	203	1.3	
Aroclor-1242	2	7.672	0.033	1503	2.9	2	---			0.0	
Aroclor-1242	3	8.383	0.001	29140	168.2	3	8.695	-0.473	16356	149.3	
Aroclor-1242	4	8.568	0.007	12422	48.5	4	8.889	-0.714	7125	63.4	
Total CollAve (4 peaks):				55.4	Total Col2Ave (3 peaks):				71.3	RPD = 25	
Corrected Ave (3 peaks):				17.9	Corrected Ave: < 3 Peaks						
Aroclor-1248	1	8.383	0.004	29140	99.9	1	8.695	0.410	16356	85.6	
Aroclor-1248	2	8.568	0.008	12422	32.1	2	8.889	0.198	7125	42.3	
Aroclor-1248	3	8.967	0.003	131799	114.1	3	9.259	0.095	58924	285.5	
Aroclor-1248	4	9.276	0.005	155956	257.1	4	9.430	-0.164	67213	305.3	
Total CollAve (4 peaks):				125.8	Total Col2Ave (4 peaks):				179.7	RPD = 35	
Corrected Ave (3 peaks):				82.0	Corrected Ave (3 peaks):				137.8	RPD = 51*	
Aroclor-1254	1	9.276	0.000	155956	239.0	1	9.430	0.000	67213	246.7	
Aroclor-1254	2	9.356	-0.002	75626	244.6	2	9.527	-0.001	39667	238.9	
Aroclor-1254	3	9.648	0.001	99996	242.4	3	9.950	-0.000	53621	243.2	
Aroclor-1254	4	9.788	-0.001	198294	236.6	4	10.109	-0.001	114263	239.3	
Aroclor-1254	5	10.164	-0.004	108093	245.4	5	10.355	-0.001	111846	203.8	
Total CollAve (5 peaks):				241.6	Total Col2Ave (5 peaks):				234.4	RPD = 3	
Corrected Ave (4 peaks):				240.7	Corrected Ave (4 peaks):				231.3	RPD = 4	
Aroclor-1260	1	11.018	0.001	14792	20.6	1	11.639	0.015	34047	82.8	
Aroclor-1260	2	11.338	0.005	15335	21.1	2	11.896	0.004	28313	26.2	
Aroclor-1260	3	11.716	0.006	37253	19.7	3	12.479	0.072	16654	67.8	
Aroclor-1260	4	12.122	0.006	28154	30.1	4	---			0.0	
Aroclor-1260	5	12.293	0.077	2641	6.2	NS	---			---	
Total CollAve (5 peaks):				19.5	Total Col2Ave (3 peaks):				58.9	RPD = 100*	
Corrected Ave (4 peaks):				16.9	Corrected Ave: < 3 Peaks						
Aroclor-1262	1	10.810	0.002	229213	462.7	1	11.097	-0.076	148180	256.4	
Aroclor-1262	2	12.293	0.076	2641	3.1	2	11.639	0.015	34047	69.9	
Aroclor-1262	3	---			0.0	3	12.479	0.076	16654	32.5	
Aroclor-1262	4	12.965	0.003	1702	2.2	4	---			0.0	
Total CollAve (3 peaks):				156.0	Total Col2Ave (3 peaks):				119.6	RPD = 26	
Corrected Ave: < 3 Peaks				Corrected Ave: < 3 Peaks							
Aroclor-1268	1	12.293	0.075	2641	1.2	1	12.479	0.076	16654	12.5	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	12.672	0.003	2924	1.5	3	12.859	0.000	1168	0.9	
Aroclor-1268	4	13.468	0.007	11477	2.1	4	13.677	0.000	2357	0.6	
Total CollAve (3 peaks):				1.6	Total Col2Ave (3 peaks):				4.7	RPD = 97*	
Corrected Ave: < 3 Peaks				Corrected Ave: < 3 Peaks							

Total PCB Area Col1 (5.866 - 13.762) = 2154735 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 1162346 Col2 Total PCB = 0.3 ppm*

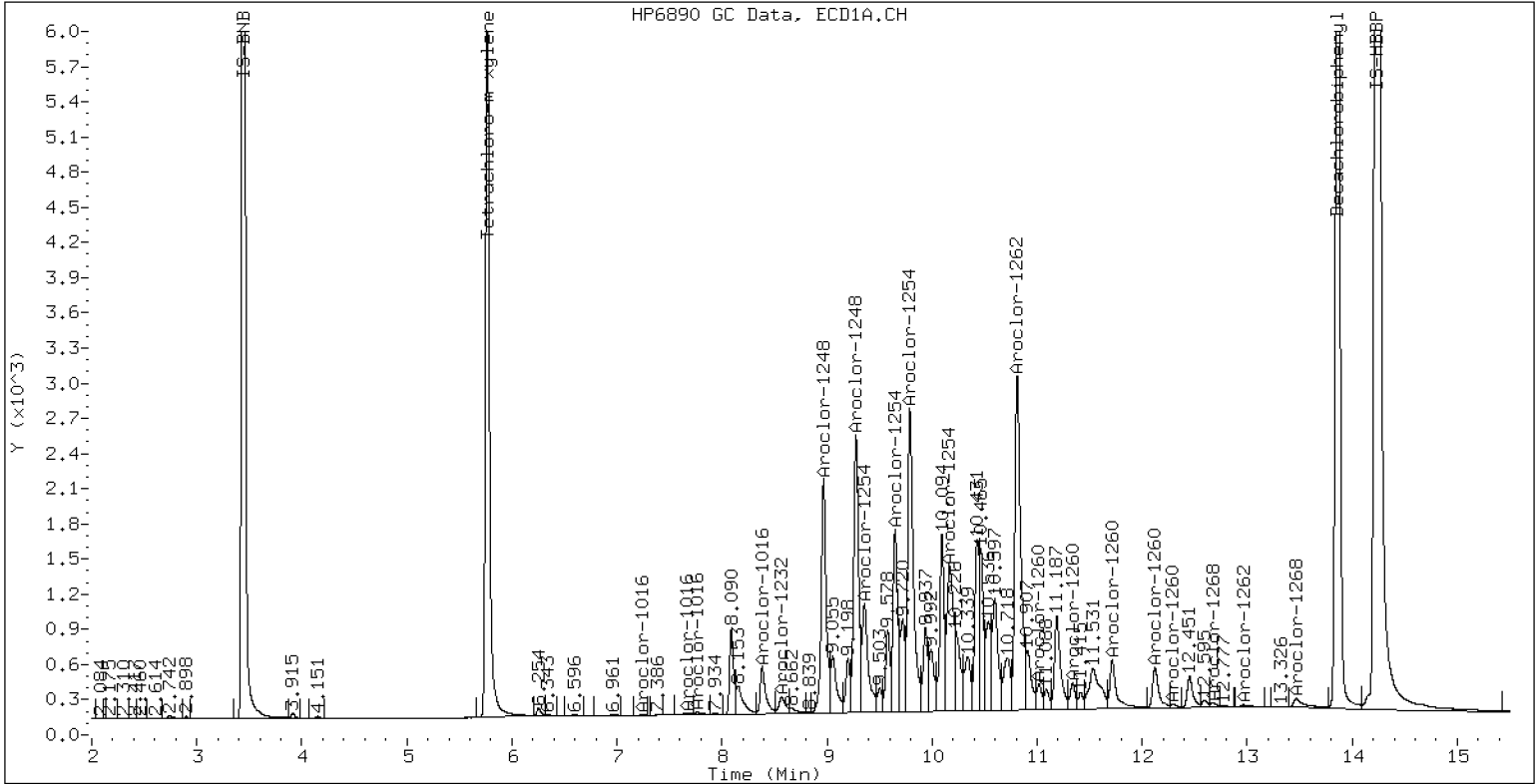
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254SCV

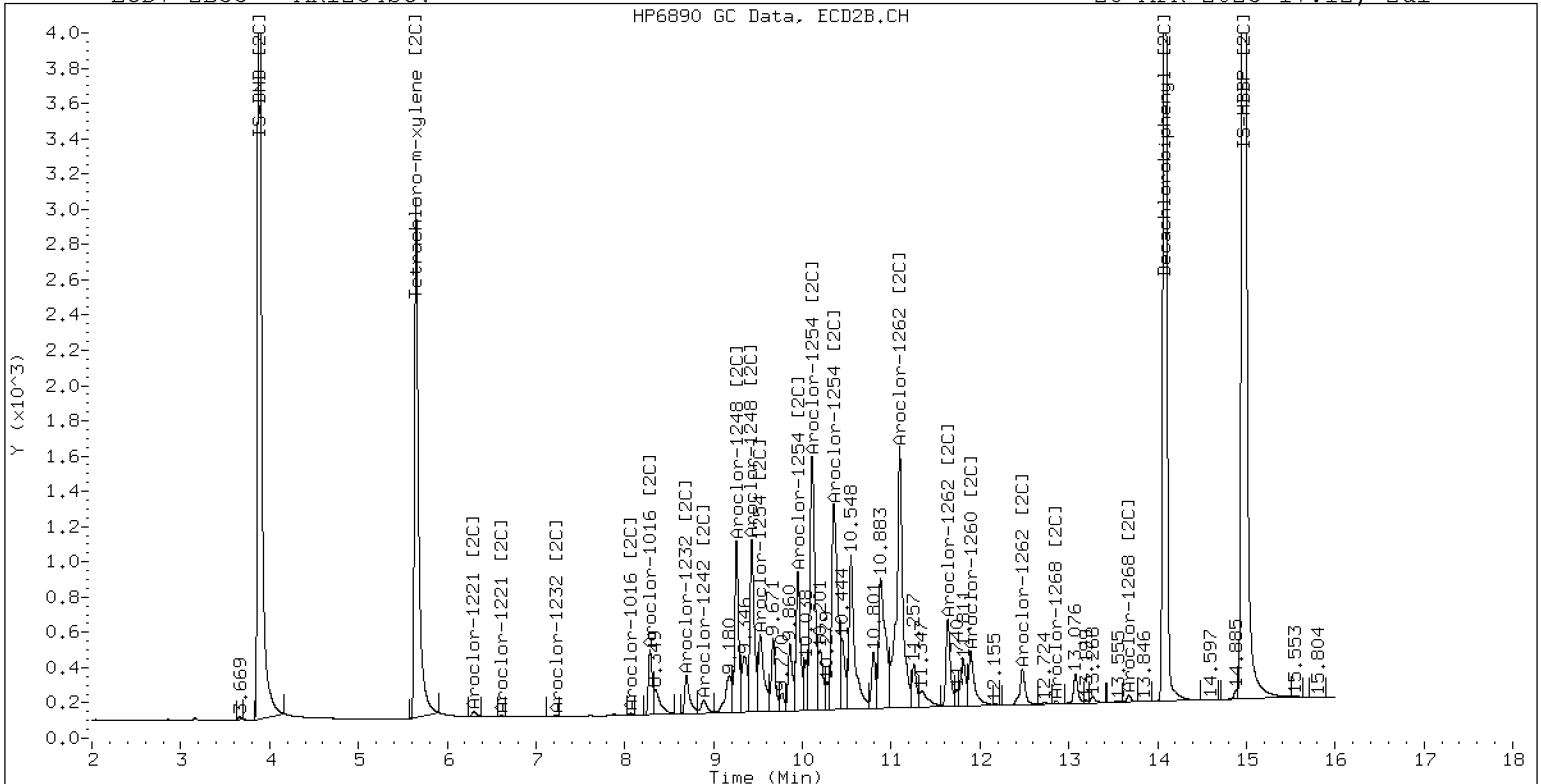
28-APR-2023 17:12, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1254SCV

28-APR-2023 17:12, 2ul



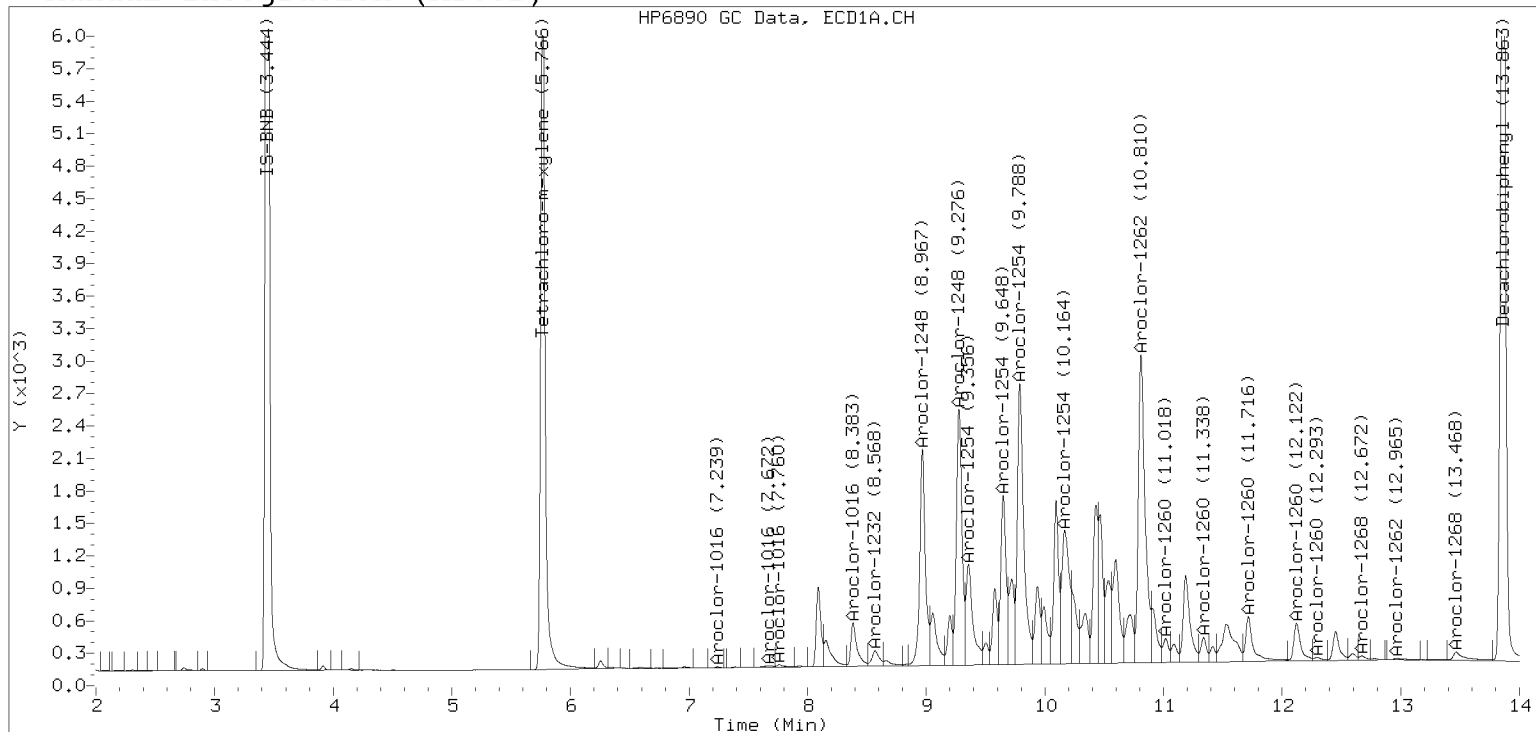
ZB-35 Manual Integration: YES

Manual Peak Adjustment, ZB-5

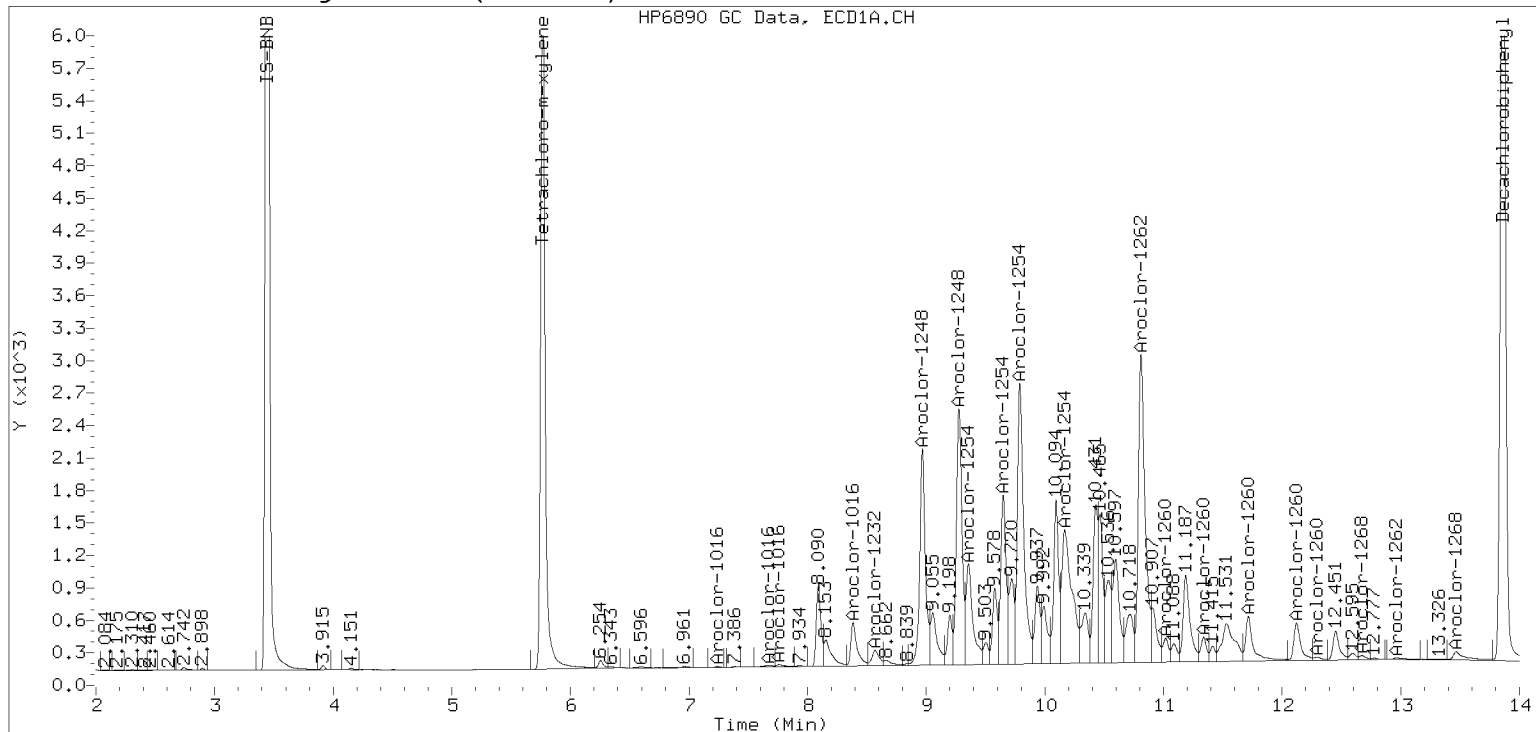
Datafile: ecd7.i/230428.b/04282318ECD7.D

Injection Date: 28-APR-2023 17:12

Manual Integration (After)



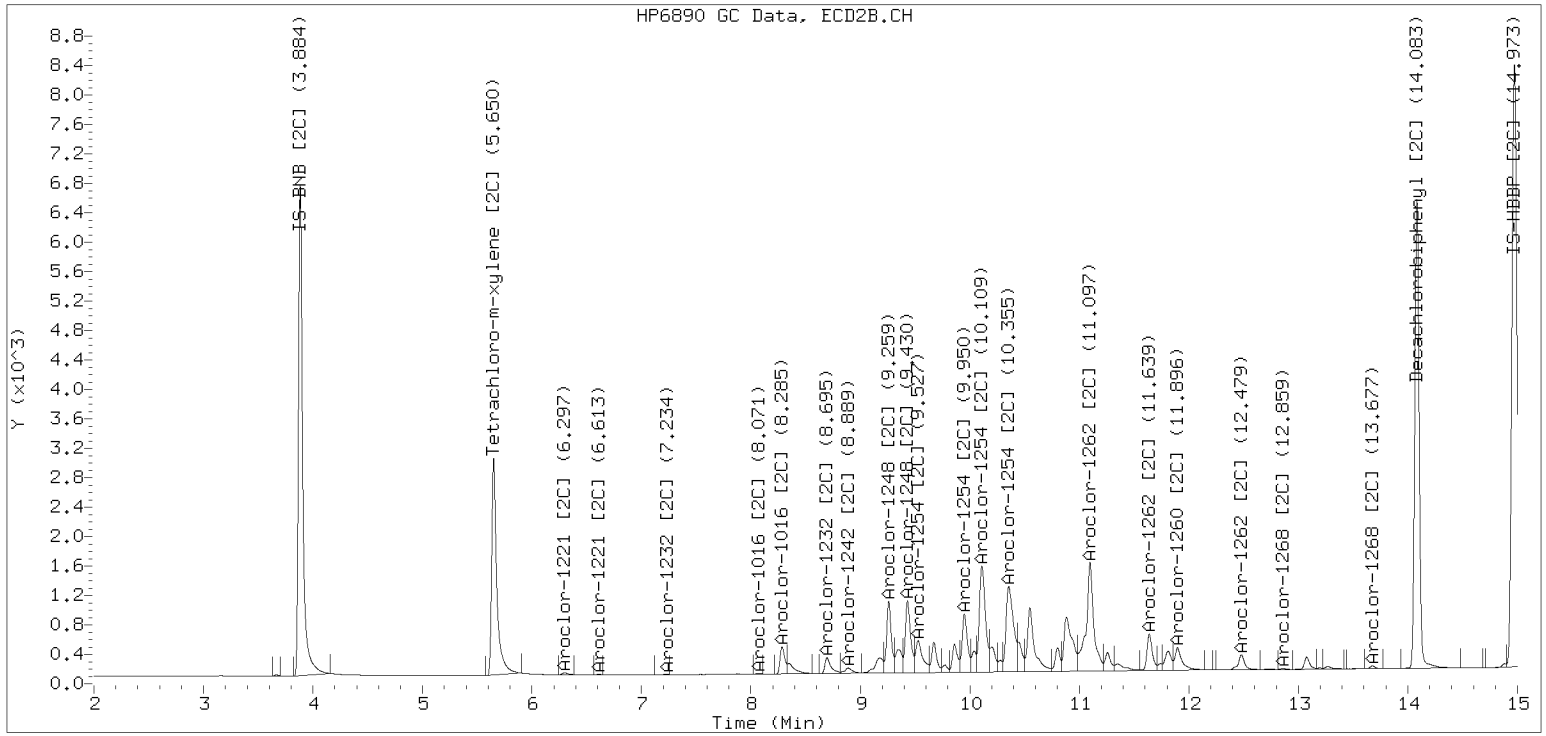
Processed Integration (Before)



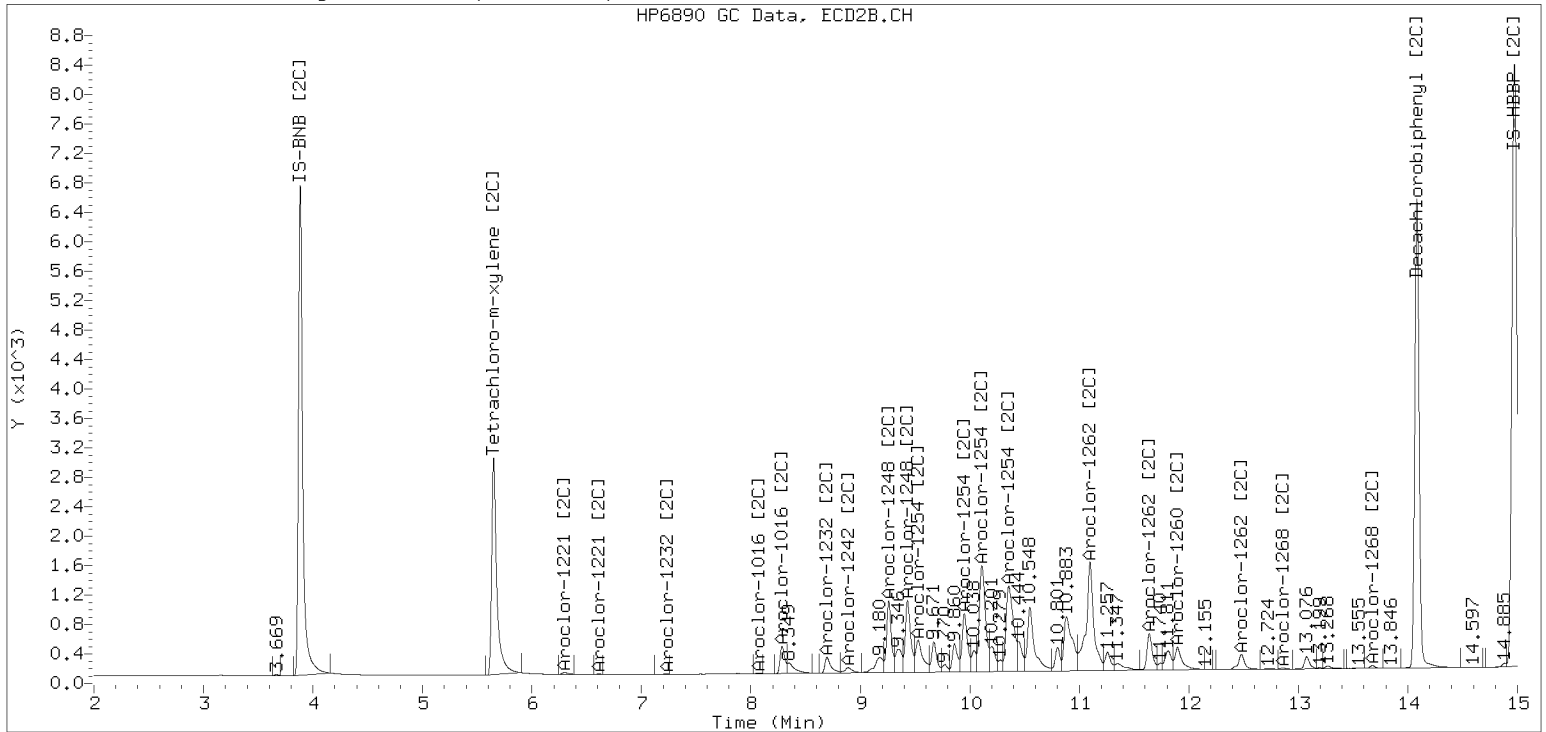
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282318ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282319ECD7.D
Data file 2: /230428.b/230428.b/04282319ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 28-APR-2023 17:33
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.767	0.001	336477	5.650	-0.001	192040	38.3	38.0	0.7	Tetrachloro-m-xylene
13.862	0.001	499246	14.084	-0.000	363267	35.9	38.9	8.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	601660	8.2
Hexabromobiphenyl	745660	1282462	72.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	359781	3.2
Hexabromobiphenyl	429949	576077	34.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.237	0.002	5001	21.5	1	7.227	0.005	3885	19.9	
Aroclor-1016	2	7.665	0.037	8647	14.0	2	7.887	0.043	4451	11.6	
Aroclor-1016	3	7.777	0.014	6495	15.6	3	8.066	0.012	2267	9.6	
Aroclor-1016	4	8.388	0.012	2933	13.5	4	8.290	0.009	1849	10.5	
Total CollAve (4 peaks):				16.1	Total Col2Ave (4 peaks):				12.9	RPD = 22	
Corrected Ave (3 peaks):				14.3	Corrected Ave (3 peaks):				10.5	RPD = 31	
Aroclor-1221	1	4.683	0.001	12932	280.8	1	4.911	0.000	7988	299.1	
Aroclor-1221	2	6.094	0.000	24389	264.0	2	6.265	-0.001	15133	265.2	
Aroclor-1221	3	6.348	0.002	57578	262.7	3	6.593	-0.000	34566	264.7	
Total CollAve (3 peaks):				269.2	Total Col2Ave (3 peaks):				276.3	RPD = 3	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.683	0.001	12932	441.6	1	4.911	-0.001	7988	515.9	
Aroclor-1232	2	6.094	0.001	24389	376.5	2	7.227	0.002	3885	45.1	
Aroclor-1232	3	7.665	0.013	8647	33.7	3	7.887	0.025	4451	26.2	
Aroclor-1232	4	8.569	0.006	1975	16.5	4	8.699	0.005	1706	32.6	
Total CollAve (4 peaks):				217.1	Total Col2Ave (4 peaks):				154.9	RPD = 33	
Corrected Ave (3 peaks):				142.2	Corrected Ave (3 peaks):				34.6	RPD = 122*	
Aroclor-1242	1	7.237	0.001	5001	26.6	1	7.227	0.005	3885	24.9	
Aroclor-1242	2	7.665	0.026	8647	16.9	2	7.887	0.029	4451	14.2	
Aroclor-1242	3	8.388	0.006	2933	17.0	3	8.699	-0.469	1706	15.8	
Aroclor-1242	4	8.569	0.009	1975	7.7	4	8.906	-0.697	1208	10.9	
Total CollAve (4 peaks):				17.1	Total Col2Ave (4 peaks):				16.4	RPD = 4	
Corrected Ave (3 peaks):				13.9	Corrected Ave (3 peaks):				13.6	RPD = 2	
Aroclor-1248	1	8.388	0.009	2933	10.1	1	8.699	0.414	1706	9.0	
Aroclor-1248	2	8.569	0.010	1975	5.1	2	8.906	0.215	1208	7.3	
Aroclor-1248	3	8.970	0.006	23869	20.7	3	9.261	0.098	12638	62.0	
Aroclor-1248	4	9.284	0.013	28188	46.7	4	9.437	-0.157	13948	64.2	
Total CollAve (4 peaks):				20.7	Total Col2Ave (4 peaks):				35.6	RPD = 53*	
Corrected Ave (3 peaks):				12.0	Corrected Ave (3 peaks):				26.1	RPD = 74*	
Aroclor-1254	1	9.284	0.009	28188	43.4	1	9.437	0.007	13948	51.9	
Aroclor-1254	2	---			0.0	2	---			0.0	
Aroclor-1254	3	9.654	0.006	4038	9.8	3	9.958	0.008	1791	8.2	
Aroclor-1254	4	9.795	0.005	11586	13.9	4	10.124	0.014	55476	117.7	
Aroclor-1254	5	10.096	-0.072	138022	314.6	5	10.346	-0.010	70184	129.5	
Total CollAve (4 peaks):				95.4	Total Col2Ave (4 peaks):				76.8	RPD = 22	
Corrected Ave (3 peaks):				22.4	Corrected Ave (3 peaks):				59.3	RPD = 90*	
Aroclor-1260	1	11.019	0.002	240553	332.2	1	11.623	-0.001	124057	302.7	
Aroclor-1260	2	11.335	0.002	202728	276.0	2	11.893	0.001	303878	282.5	
Aroclor-1260	3	11.713	0.003	494200	259.3	3	12.405	-0.002	129175	527.4	
Aroclor-1260	4	12.118	0.002	155139	164.1	4	12.475	0.000	226410	308.9	
Aroclor-1260	5	12.217	0.001	214340	494.2	NS	---			----	
Total CollAve (5 peaks):				305.2	Total Col2Ave (4 peaks):				355.4	RPD = 15	
Corrected Ave (4 peaks):				257.9	Corrected Ave (3 peaks):				298.1	RPD = 14	
Aroclor-1262	1	10.809	0.000	123367	246.5	1	11.173	-0.000	146790	254.9	
Aroclor-1262	2	12.217	0.001	214340	245.2	2	11.623	-0.001	124057	255.8	
Aroclor-1262	3	12.293	0.001	236304	246.0	3	12.405	0.001	129175	252.9	
Aroclor-1262	4	12.963	0.001	216573	279.5	4	12.475	-0.000	226410	256.4	
Total CollAve (4 peaks):				254.3	Total Col2Ave (4 peaks):				255.0	RPD = 0	
Corrected Ave (3 peaks):				245.9	Corrected Ave (3 peaks):				254.5	RPD = 3	
Aroclor-1268	1	12.217	-0.001	214340	97.4	1	12.405	0.001	129175	97.0	
Aroclor-1268	2	12.293	0.002	236304	103.1	2	12.475	0.004	226410	149.9	
Aroclor-1268	3	12.700	0.031	85797	45.0	3	12.859	0.001	9727	7.8	
Aroclor-1268	4	13.461	0.001	83654	15.2	4	13.678	0.001	40997	10.8	
Total CollAve (4 peaks):				65.2	Total Col2Ave (4 peaks):				66.4	RPD = 2	

Corrected Ave (3 peaks): 52.5 Corrected Ave (3 peaks): 38.5 RPD = 31

Total PCB Area Col1 (5.866 - 13.762) = 3513270 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 1957095 Col2 Total PCB = 0.5 ppm*

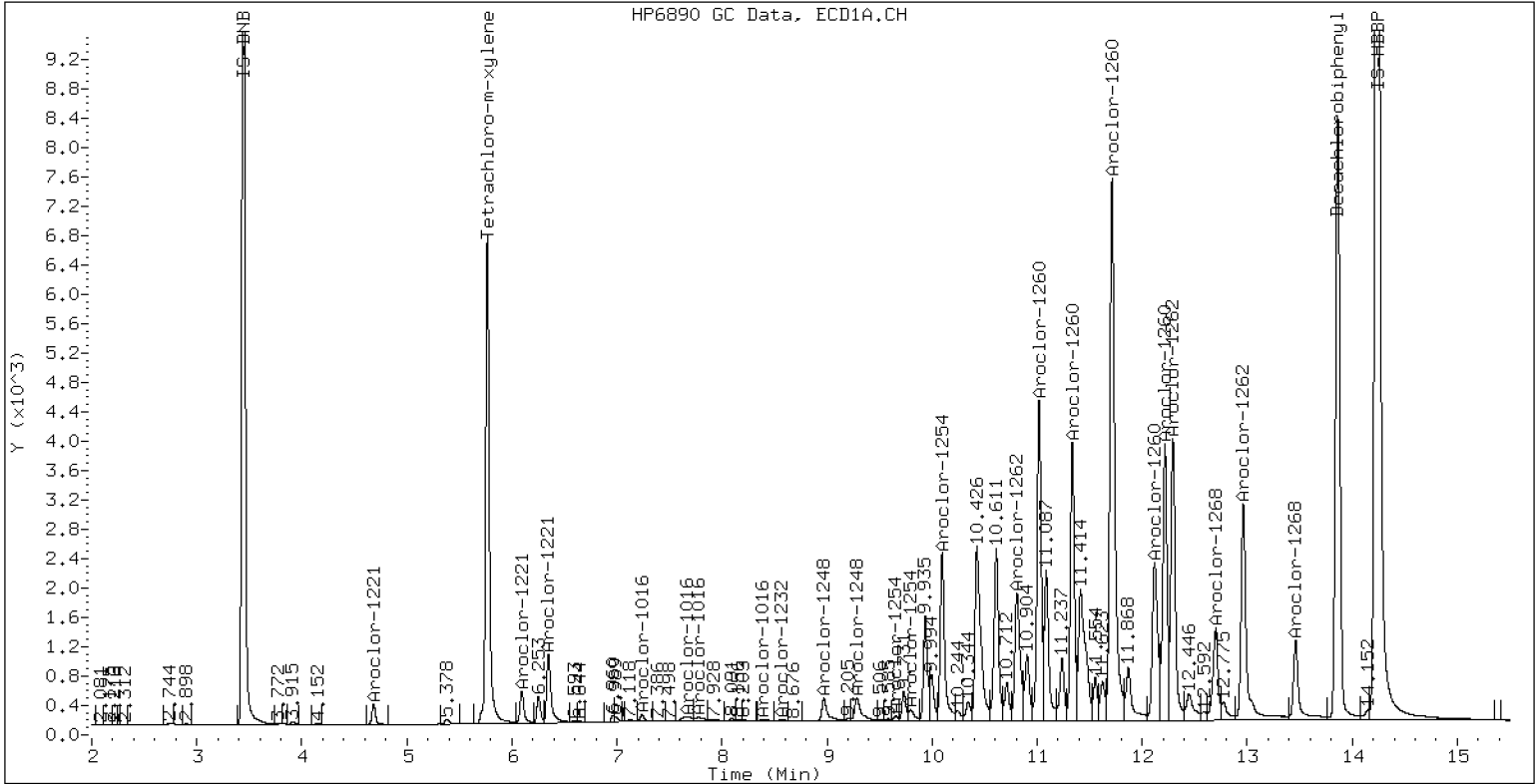
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV

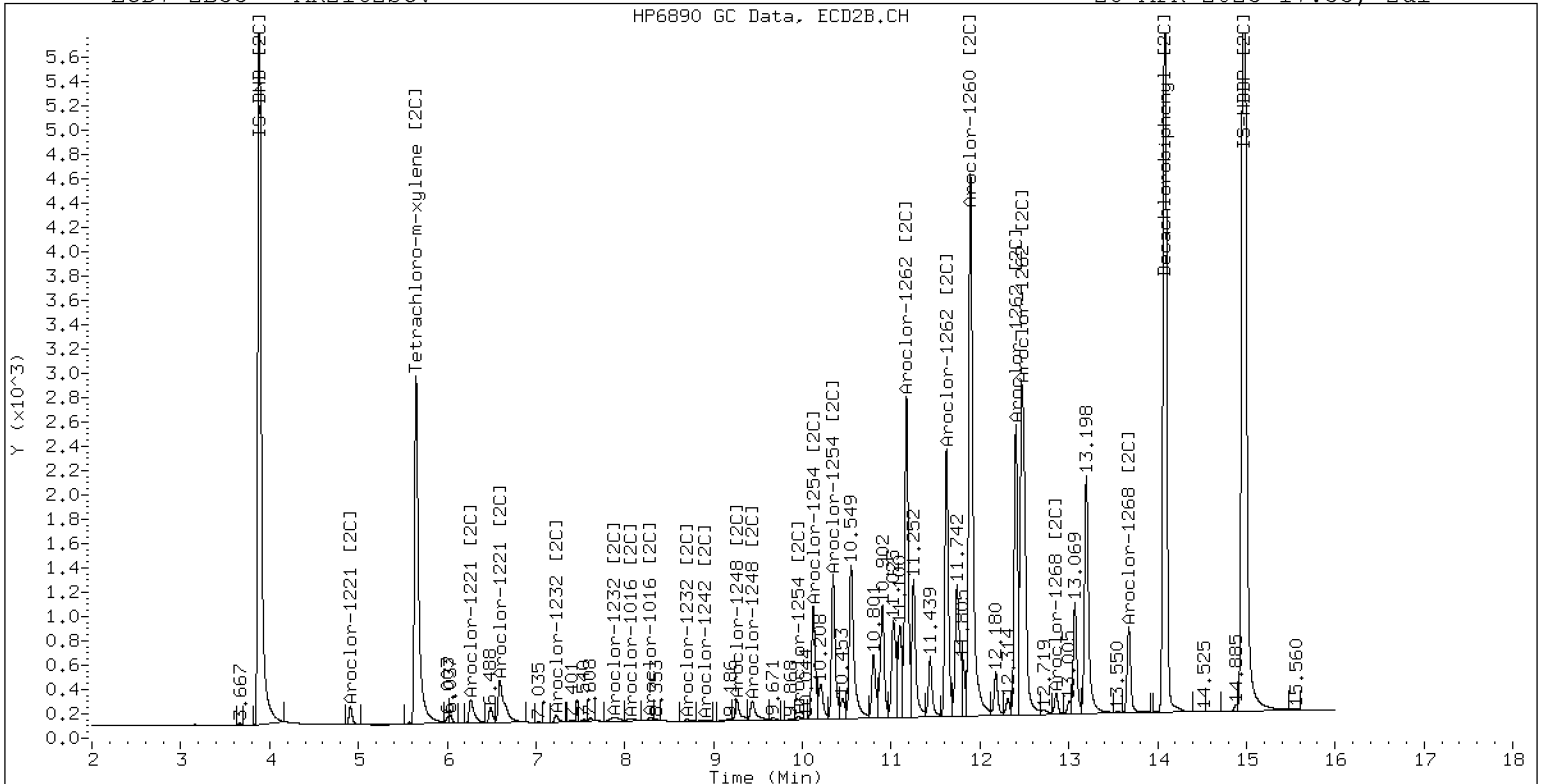
28-APR-2023 17:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV

28-APR-2023 17:33, 2ul

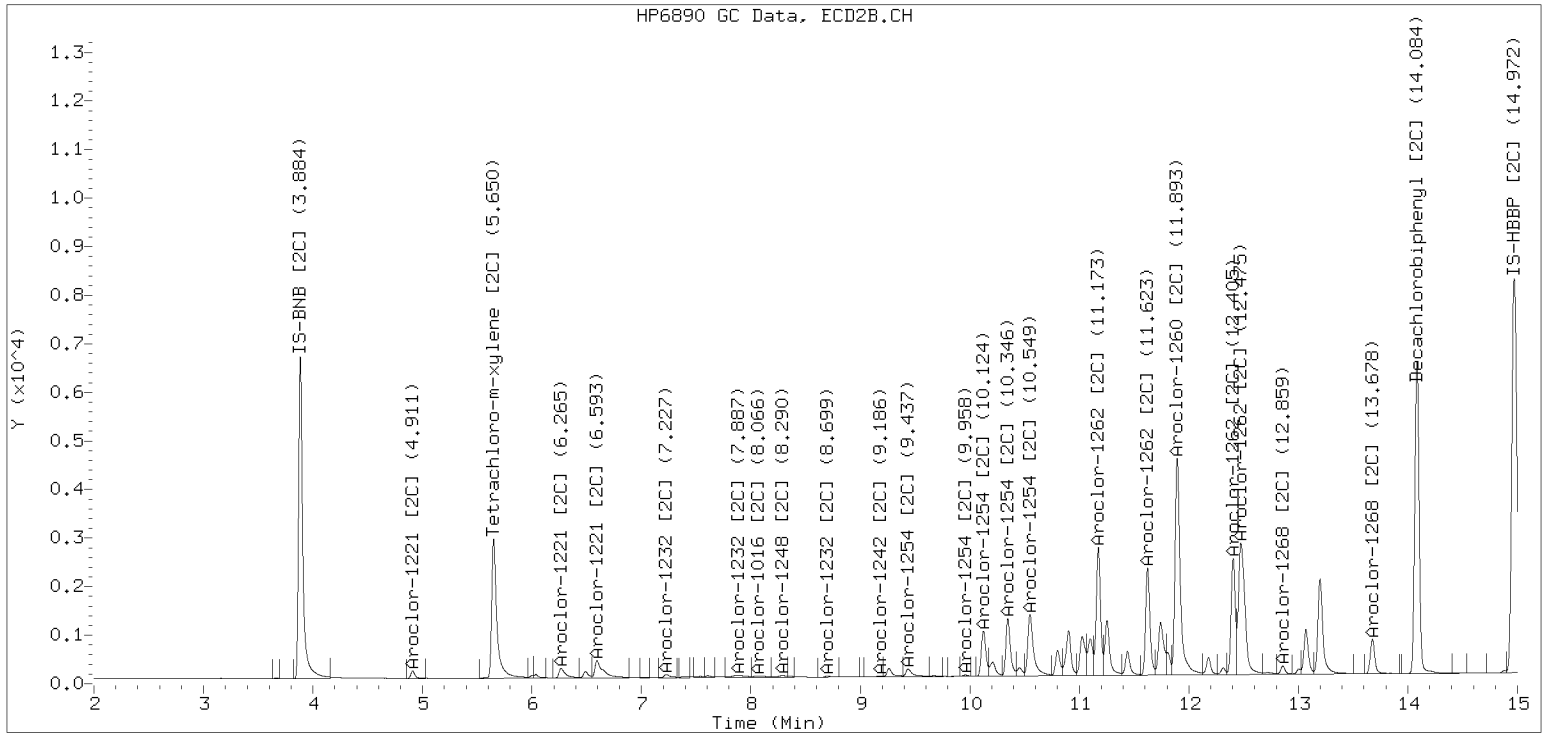


ZB-35 Manual Integration: NO

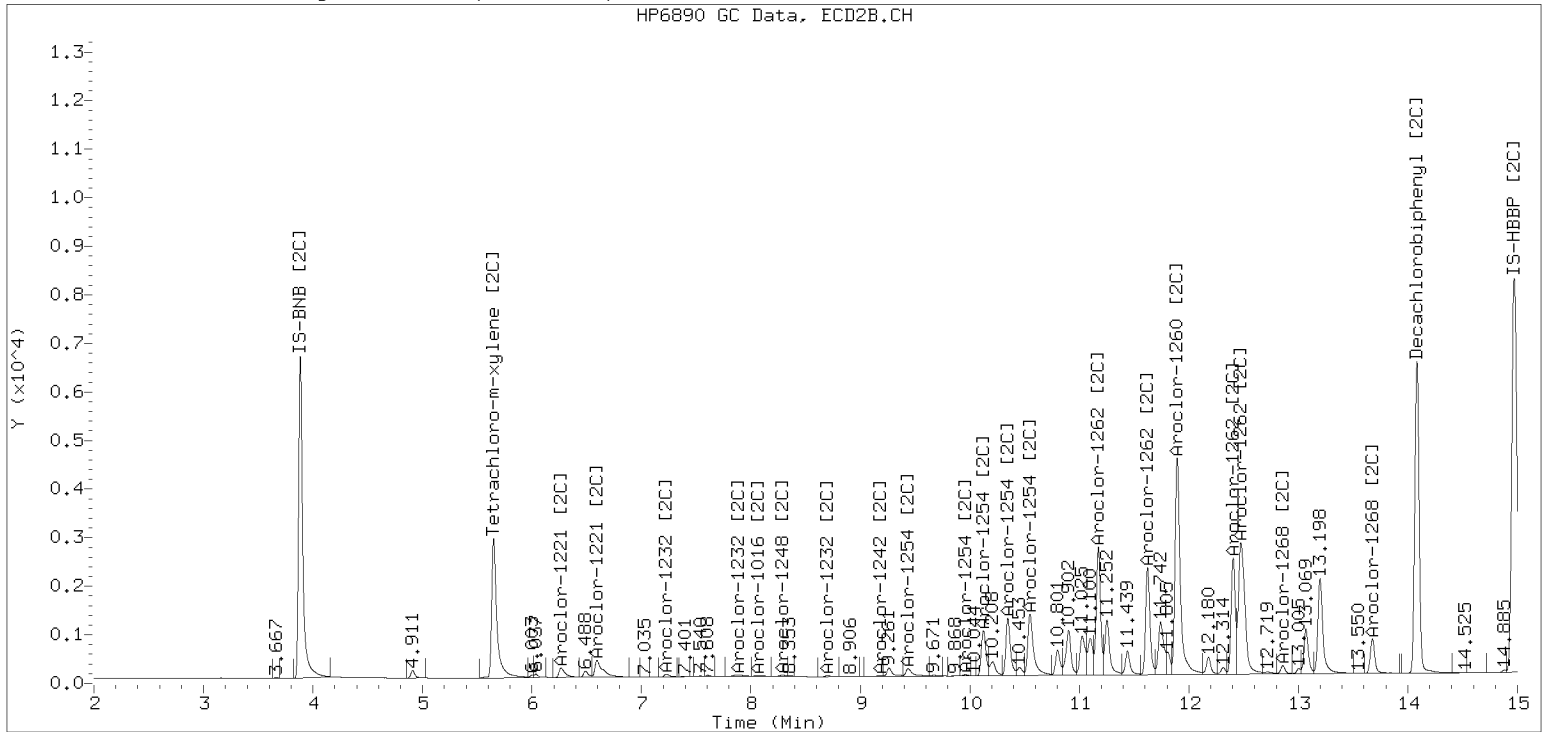
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282319ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282320ECD7.D
Data file 2: /230428.b/230428.b/04282320ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 28-APR-2023 17:54
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.767	0.001	344701	5.650	-0.000	190884	39.7	38.1	4.2	Tetrachloro-m-xylene
13.863	0.002	748678	14.083	-0.001	556825	54.3	60.0	10.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	594267	6.8
Hexabromobiphenyl	745660	1272651	70.7
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	357253	2.5
Hexabromobiphenyl	429949	572751	33.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.238	0.002	27428	119.4	1	7.224	0.003	22212	114.8	
Aroclor-1016	2	7.645	0.018	67306	110.5	2	7.864	0.020	43795	114.5	
Aroclor-1016	3	7.770	0.007	44634	108.2	3	8.063	0.009	25689	109.2	
Aroclor-1016	4	8.384	0.008	23868	110.9	4	8.289	0.008	18313	104.5	
Total CollAve (4 peaks):				112.2	Total Col2Ave (4 peaks):				110.7	RPD = 1	
Corrected Ave (3 peaks):				109.9	Corrected Ave (3 peaks):				109.4	RPD = 0	
Aroclor-1221	1	4.684	0.002	6934	152.4	1	4.912	0.002	3754	141.5	
Aroclor-1221	2	6.095	0.001	14371	157.5	2	6.267	0.002	8987	158.6	
Aroclor-1221	3	6.348	0.002	41876	193.5	3	6.596	0.002	24420	188.3	
Total CollAve (3 peaks):				167.8	Total Col2Ave (3 peaks):				162.8	RPD = 3	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.684	0.002	6934	239.7	1	4.912	0.001	3754	244.1	
Aroclor-1232	2	6.095	0.001	14371	224.6	2	7.224	-0.001	22212	259.7	
Aroclor-1232	3	7.645	-0.006	67306	265.3	3	7.864	0.002	43795	259.5	
Aroclor-1232	4	8.564	0.001	33203	281.0	4	8.693	-0.001	13696	263.5	
Total CollAve (4 peaks):				252.6	Total Col2Ave (4 peaks):				256.7	RPD = 2	
Corrected Ave (3 peaks):				243.2	Corrected Ave (3 peaks):				254.4	RPD = 5	
Aroclor-1242	1	7.238	0.001	27428	147.9	1	7.224	0.002	22212	143.1	
Aroclor-1242	2	7.645	0.007	67306	132.8	2	7.864	0.006	43795	141.0	
Aroclor-1242	3	8.428	0.047	16206	95.1	3	8.693	-0.475	13696	127.5	
Aroclor-1242	4	8.564	0.004	33203	131.6	4	8.897	-0.706	21265	192.9	
Total CollAve (4 peaks):				126.9	Total Col2Ave (4 peaks):				151.1	RPD = 17	
Corrected Ave (3 peaks):				119.8	Corrected Ave (3 peaks):				137.2	RPD = 14	
Aroclor-1248	1	8.384	0.005	23868	83.1	1	8.693	0.408	13696	73.1	
Aroclor-1248	2	8.564	0.005	33203	87.2	2	8.897	0.206	21265	128.9	
Aroclor-1248	3	8.968	0.004	84096	74.0	3	9.261	0.097	25621	126.6	
Aroclor-1248	4	9.276	0.005	56986	95.5	4	9.433	-0.160	6057	28.1	
Total CollAve (4 peaks):				85.0	Total Col2Ave (4 peaks):				89.2	RPD = 5	
Corrected Ave (3 peaks):				81.4	Corrected Ave (3 peaks):				75.9	RPD = 7	
Aroclor-1254	1	9.276	0.000	56986	88.8	1	9.433	0.004	6057	22.7	
Aroclor-1254	2	---			0.0	2	9.609	0.081	13368	82.1	
Aroclor-1254	3	9.660	0.012	7875	19.4	3	9.958	0.008	2781	12.9	
Aroclor-1254	4	9.800	0.010	12771	15.5	4	10.117	0.007	5502	11.8	
Aroclor-1254	5	10.183	0.015	9957	23.0	5	10.379	0.024	5042	9.4	
Total CollAve (4 peaks):				36.7	Total Col2Ave (5 peaks):				27.8	RPD = 28	
Corrected Ave (3 peaks):				19.3	Corrected Ave (4 peaks):				14.2	RPD = 31	
Aroclor-1260	1	11.023	0.005	98362	136.9	1	11.614	-0.010	74582	183.0	
Aroclor-1260	2	11.337	0.004	8979	12.3	2	11.895	0.003	33641	31.5	
Aroclor-1260	3	11.714	0.004	59413	31.4	3	12.402	-0.005	335038	1375.9	
Aroclor-1260	4	---			0.0	4	12.470	-0.005	380342	522.0	
Aroclor-1260	5	12.219	0.003	530793	1233.3	NS	---			---	
Total CollAve (4 peaks):				353.5	Total Col2Ave (4 peaks):				528.1	RPD = 40	
Corrected Ave (3 peaks):				60.2	Corrected Ave (3 peaks):				245.5	RPD = 121*	
Aroclor-1262	1	10.815	0.006	5713	11.5	1	11.176	0.003	58379	102.0	
Aroclor-1262	2	12.219	0.002	530793	612.0	2	11.614	-0.010	74582	154.7	
Aroclor-1262	3	12.291	-0.001	548779	575.7	3	12.402	-0.002	335038	659.6	
Aroclor-1262	4	12.960	-0.003	218981	284.8	4	12.470	-0.005	380342	433.3	
Total CollAve (4 peaks):				371.0	Total Col2Ave (4 peaks):				337.4	RPD = 9	
Corrected Ave (3 peaks):				290.7	Corrected Ave (3 peaks):				230.0	RPD = 23	
Aroclor-1268	1	12.219	0.000	530793	243.0	1	12.402	-0.001	335038	253.1	
Aroclor-1268	2	12.291	0.000	548779	241.2	2	12.470	-0.001	380342	253.2	
Aroclor-1268	3	12.669	0.000	449251	237.4	3	12.859	0.001	314079	253.1	
Aroclor-1268	4	13.461	-0.000	1338158	244.6	4	13.676	-0.001	976802	258.3	
Total CollAve (4 peaks):				241.6	Total Col2Ave (4 peaks):				254.4	RPD = 5	

Corrected Ave (3 peaks): 240.5 Corrected Ave (3 peaks): 253.1 RPD = 5

Total PCB Area Col1 (5.866 - 13.762) = 4336494 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 2807426 Col2 Total PCB = 0.7 ppm*

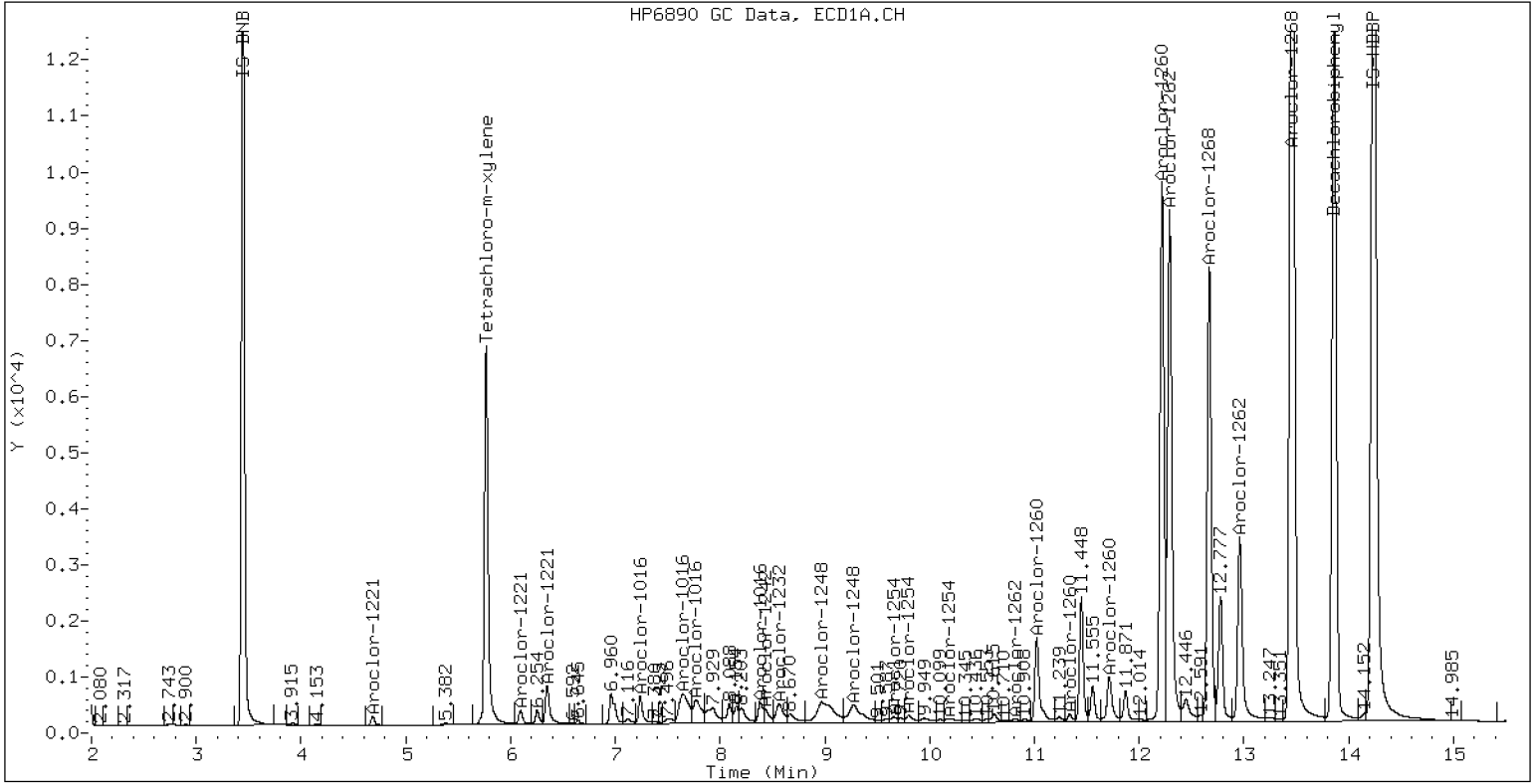
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV

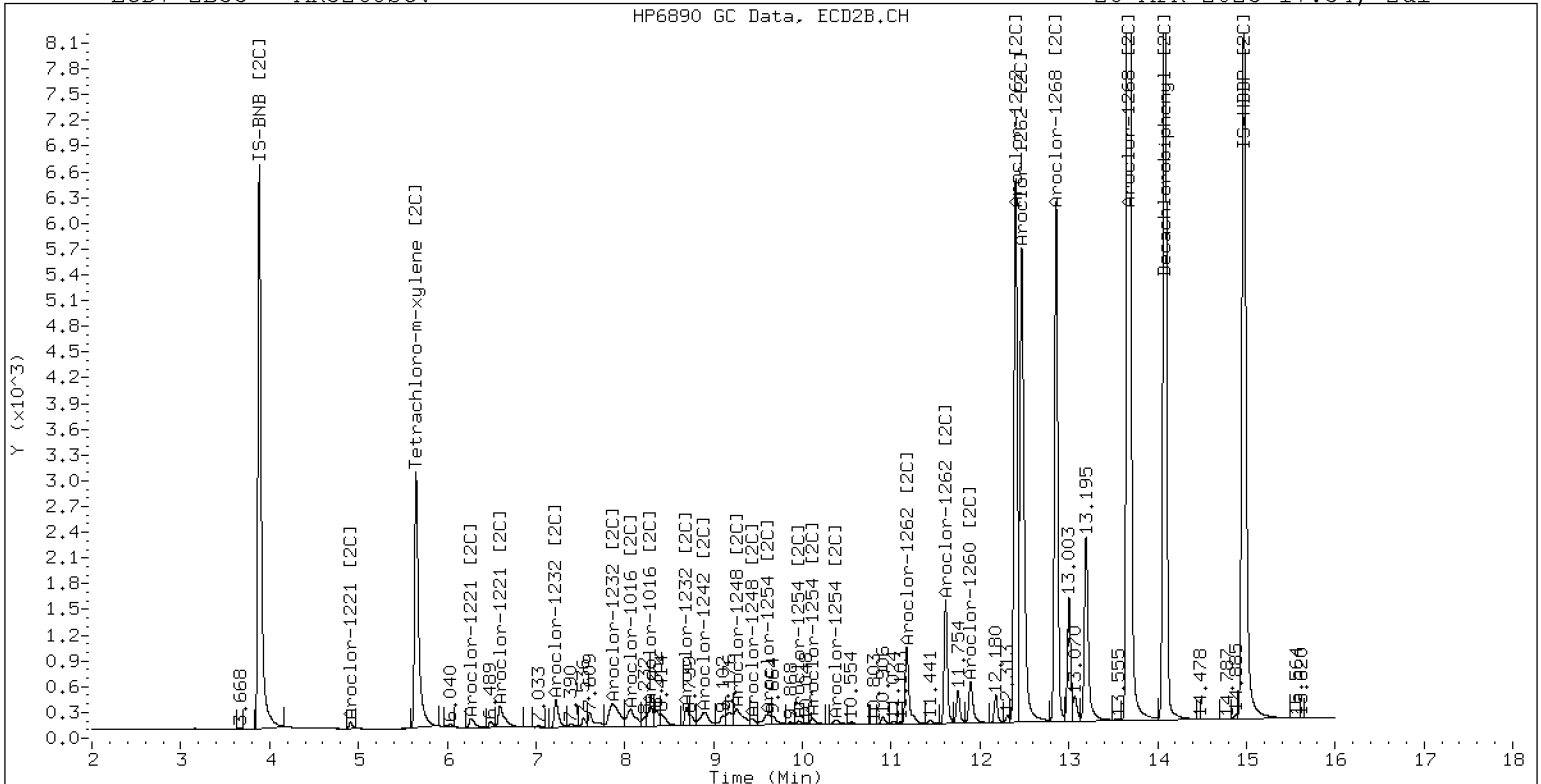
28-APR-2023 17:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV

28-APR-2023 17:54, 2ul

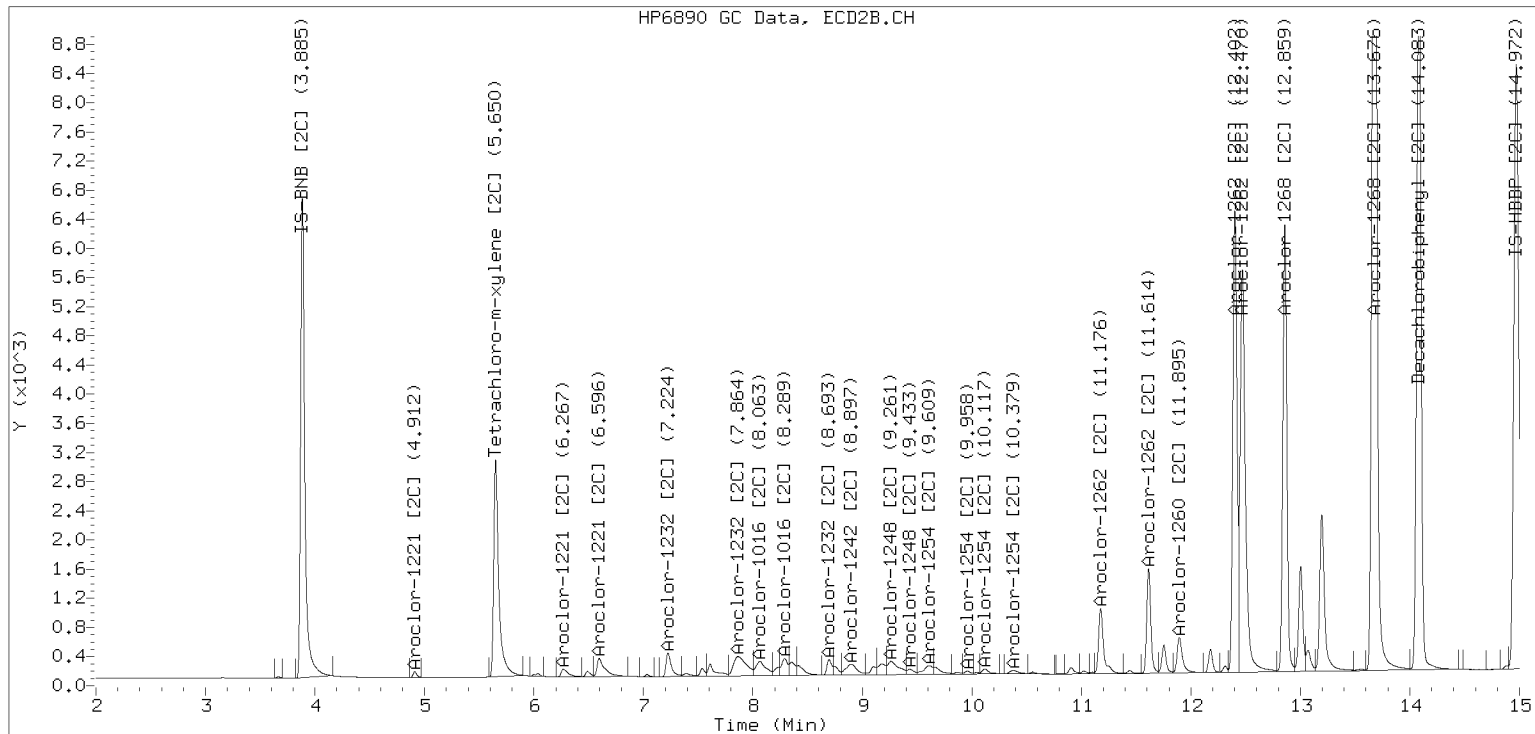


ZB-35 Manual Integration: YES

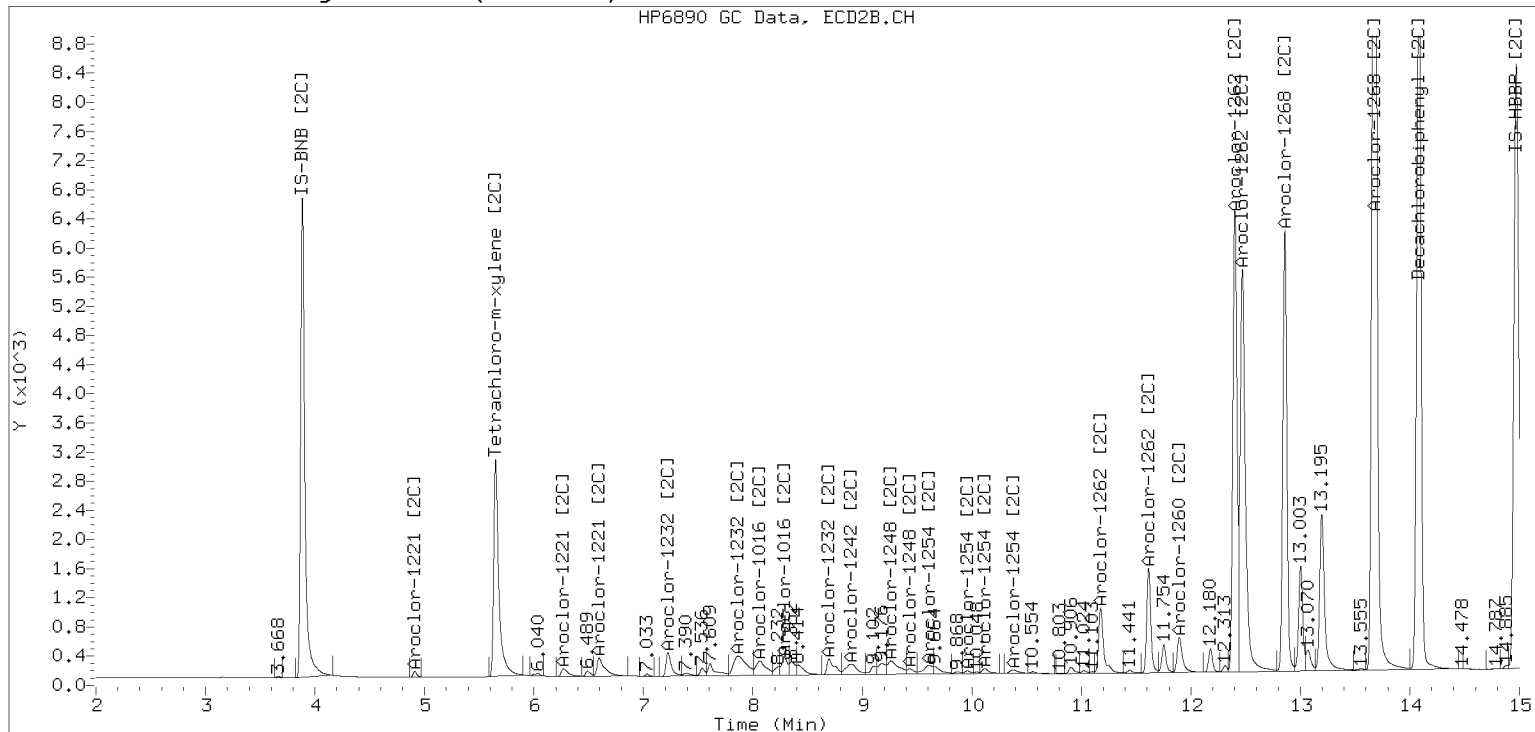
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282320ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230428.b/04282321ECD7.D

ARI ID: DDTS

RT	ZB5 Col Shift Response	|	ZB35 Col Shift Response	|	ZB5 on col	ZB35 on col	RPD	Compound/Flag	
9.237	0.000	691585|	9.891	0.000	694558|	0.000	0.000	----	2,4-DDE
0.000	-10.293	0|	10.655	0.000	754211|	0.000	0.000#	----	2,4-DDT
9.665	0.000	1165023|	10.187	0.000	529858|	0.000	0.000	----	4,4-DDE
10.242	0.000	1836599|	10.655	0.000	754211|	0.000	0.000#	----	4,4-DDD

Indicates value is from co-eluting peaks

* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230428.b/04282322ECD7.D

ARI ID: DDT BD

RT	ZB5 Col Shift Response		RT	ZB35 Col Shift Response		ZB5 on col	ZB35 on col	RPD	Compound/Flag
9.256	0.019	5776	9.913	0.023	12156	0.000	0.000	----	2,4-DDE
0.000	-10.293	0	10.662	0.007	305670	0.000	0.000#	----	2,4-DDT
9.682	0.017	14639	10.110	-0.077	600	0.000	0.000	----	4,4-DDE
10.250	0.007	480371	10.662	0.007	305670	0.000	0.000#	----	4,4-DDD

Indicates value is from co-eluting peaks

* Indicates RPD > 40%



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00002

Laboratory ID: SLD0427-SCV1

Sequence: SLD0427

Sequence Name: AR1660SCV1

Standard ID: L002065

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1016	250.00	253	1.1	20.00
Aroclor 1016 [2C]	250.00	248	-0.8	20.00
Aroclor 1260	250.00	244	-2.2	20.00
Aroclor 1260 [2C]	250.00	259	3.7	20.00
Decachlorobiphenyl	40.000	36.6	-8.5	20.00
Tetrachlorometaxylene	40.000	37.6	-6.0	20.00
Decachlorobiphenyl [2C]	40.000	38.9	-2.7	20.00
Tetrachlorometaxylene [2C]	40.000	36.1	-9.7	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282315ECD7.D
Data file 2: /230428.b/230428.b/04282315ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 28-APR-2023 16:09
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.766	-0.000	328442	5.650	-0.000	184023	37.6	36.1	4.0	Tetrachloro-m-xylene
13.862	0.000	457973	14.083	-0.001	349905	36.6	38.9	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	597924	7.5
Hexabromobiphenyl	745660	1154377	54.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	362828	4.1
Hexabromobiphenyl	429949	555238	29.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.236	0.001	58167	251.6	1	7.223	0.002	49868	253.8
Aroclor-1016	2	7.636	0.008	162832	265.6	2	7.853	0.009	102116	262.9
Aroclor-1016	3	7.766	0.003	98114	236.5	3	8.060	0.005	57971	242.6
Aroclor-1016	4	8.378	0.002	55690	257.2	4	8.285	0.005	41472	232.9
Total CollAve (4 peaks):				252.7		Total Col2Ave (4 peaks):				248.1 RPD = 2
Corrected Ave (3 peaks):				248.4		Corrected Ave (3 peaks):				243.1 RPD = 2
Aroclor-1221	1	4.683	0.001	327	7.1	1	---			0.0
Aroclor-1221	2	6.092	-0.001	8500	92.6	2	6.279	0.013	4329	75.2
Aroclor-1221	3	6.347	0.001	39437	181.1	3	6.596	0.002	22951	174.3
Total CollAve (3 peaks):				93.6		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.683	0.001	327	11.2	1	---			0.0
Aroclor-1232	2	6.092	-0.001	8500	132.0	2	7.223	-0.002	49868	574.1
Aroclor-1232	3	7.636	-0.015	162832	637.9	3	7.853	-0.010	102116	595.7
Aroclor-1232	4	8.559	-0.004	77917	655.3	4	8.690	-0.003	33380	632.3
Total CollAve (4 peaks):				359.1		Total Col2Ave (3 peaks):				600.7 RPD = 50*
Corrected Ave (3 peaks):				260.4		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.236	-0.000	58167	311.8	1	7.223	0.001	49868	316.3
Aroclor-1242	2	7.636	-0.002	162832	319.3	2	7.853	-0.006	102116	323.8
Aroclor-1242	3	8.423	0.042	38520	224.6	3	8.690	-0.477	33380	306.1
Aroclor-1242	4	8.559	-0.002	77917	307.0	4	8.889	-0.714	53314	476.2
Total CollAve (4 peaks):				290.7		Total Col2Ave (4 peaks):				355.6 RPD = 20
Corrected Ave (3 peaks):				281.1		Corrected Ave (3 peaks):				315.4 RPD = 11
Aroclor-1248	1	8.378	-0.001	55690	192.8	1	8.690	0.406	33380	175.4
Aroclor-1248	2	8.559	-0.000	77917	203.4	2	8.889	0.198	53314	318.2
Aroclor-1248	3	8.966	0.002	73557	64.3	3	9.258	0.095	27563	134.1
Aroclor-1248	4	9.279	0.008	51235	85.3	4	9.431	-0.163	27687	126.3
Total CollAve (4 peaks):				136.5		Total Col2Ave (4 peaks):				188.5 RPD = 32
Corrected Ave (3 peaks):				114.1		Corrected Ave (3 peaks):				145.3 RPD = 24
Aroclor-1254	1	9.279	0.004	51235	79.3	1	9.431	0.001	27687	102.1
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	9.649	0.001	5569	13.6	3	9.953	0.003	2877	13.1
Aroclor-1254	4	9.790	0.001	20622	24.9	4	10.122	0.013	59350	124.8
Aroclor-1254	5	10.094	-0.074	163613	375.2	5	10.345	-0.011	83726	153.2
Total CollAve (4 peaks):				123.3		Total Col2Ave (4 peaks):				98.3 RPD = 23
Corrected Ave (3 peaks):				39.3		Corrected Ave (3 peaks):				80.0 RPD = 68*
Aroclor-1260	1	11.018	0.001	162373	249.1	1	11.624	0.000	96769	245.0
Aroclor-1260	2	11.335	0.002	163247	246.9	2	11.893	0.001	269412	259.9
Aroclor-1260	3	11.711	0.001	430555	250.9	3	12.406	-0.001	64881	274.8
Aroclor-1260	4	12.118	0.002	188077	221.1	4	12.476	0.001	182024	257.7
Aroclor-1260	5	12.216	0.000	99127	253.9	NS	---			----
Total CollAve (5 peaks):				244.4		Total Col2Ave (4 peaks):				259.3 RPD = 6
Corrected Ave (4 peaks):				242.0		Corrected Ave (3 peaks):				254.2 RPD = 5
Aroclor-1262	1	10.808	-0.000	229421	509.3	1	11.172	-0.001	104566	188.4
Aroclor-1262	2	12.216	-0.000	99127	126.0	2	11.624	0.000	96769	207.0
Aroclor-1262	3	12.292	0.000	123787	143.2	3	12.406	0.002	64881	131.8
Aroclor-1262	4	12.963	0.001	107216	153.7	4	12.476	0.001	182024	213.9
Total CollAve (4 peaks):				233.0		Total Col2Ave (4 peaks):				185.3 RPD = 23
Corrected Ave (3 peaks):				141.0		Corrected Ave (3 peaks):				175.7 RPD = 22
Aroclor-1268	1	12.216	-0.002	99127	50.0	1	12.406	0.002	64881	50.6
Aroclor-1268	2	12.292	0.002	123787	60.0	2	12.476	0.005	182024	125.0
Aroclor-1268	3	12.700	0.030	49518	28.9	3	12.859	0.000	4065	3.4
Aroclor-1268	4	13.461	0.000	25958	5.2	4	13.677	-0.000	14756	4.0
Total CollAve (4 peaks):				36.0		Total Col2Ave (4 peaks):				45.7 RPD = 24
Corrected Ave (3 peaks):				28.0		Corrected Ave (3 peaks):				19.3 RPD = 37

Total PCB Area Col1 (5.866 - 13.762) = 3921238 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 2234032 Col2 Total PCB = 0.5 ppm*

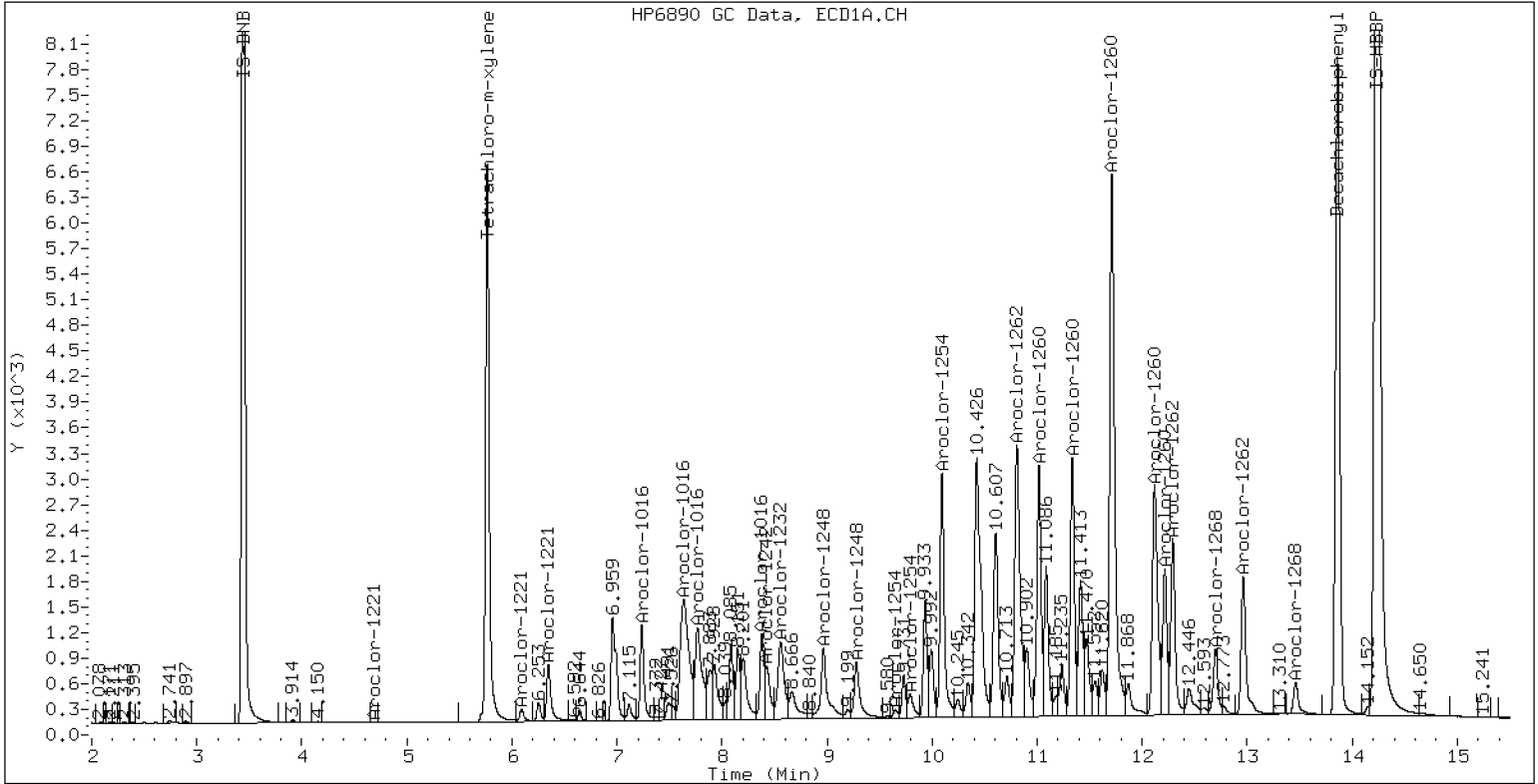
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV

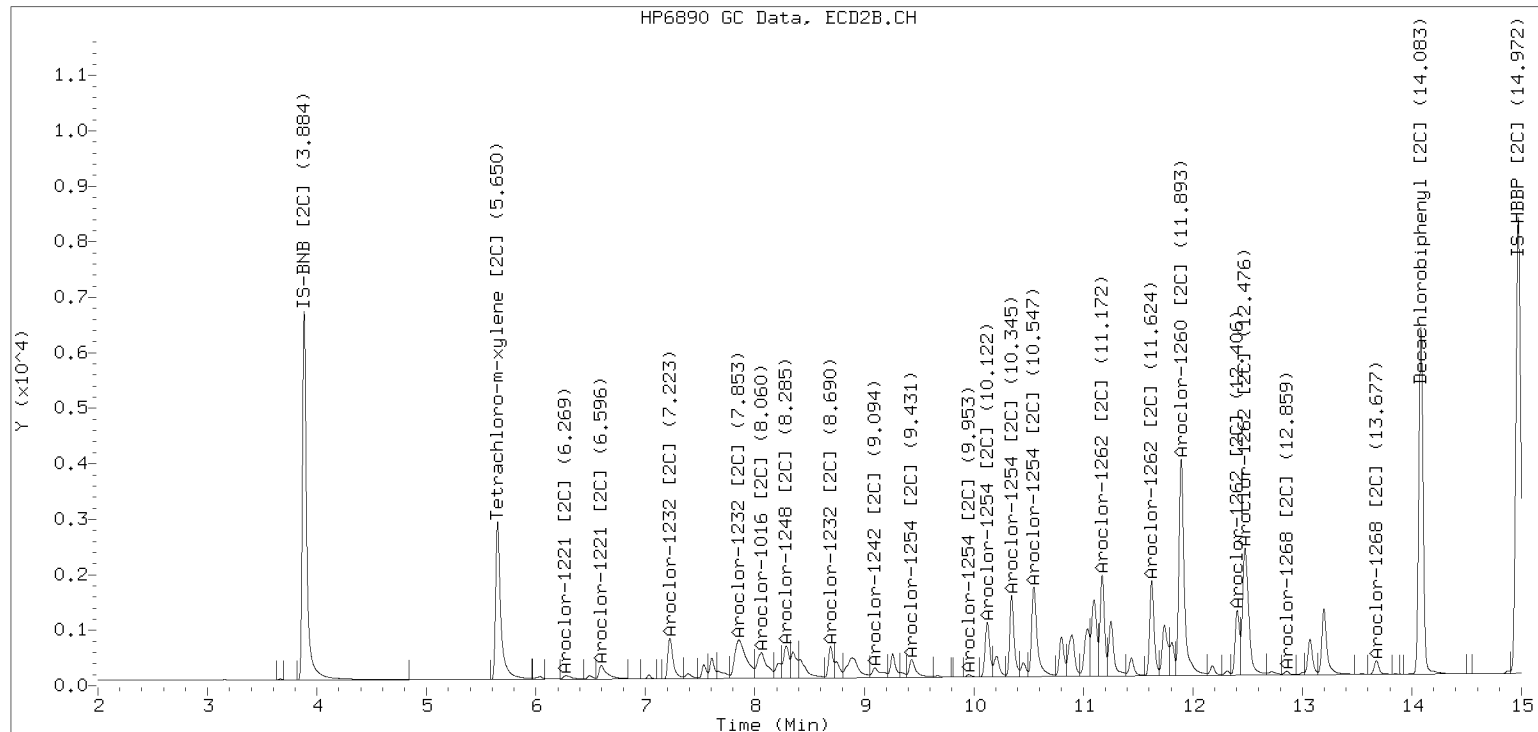
28-APR-2023 16:09, 2ul



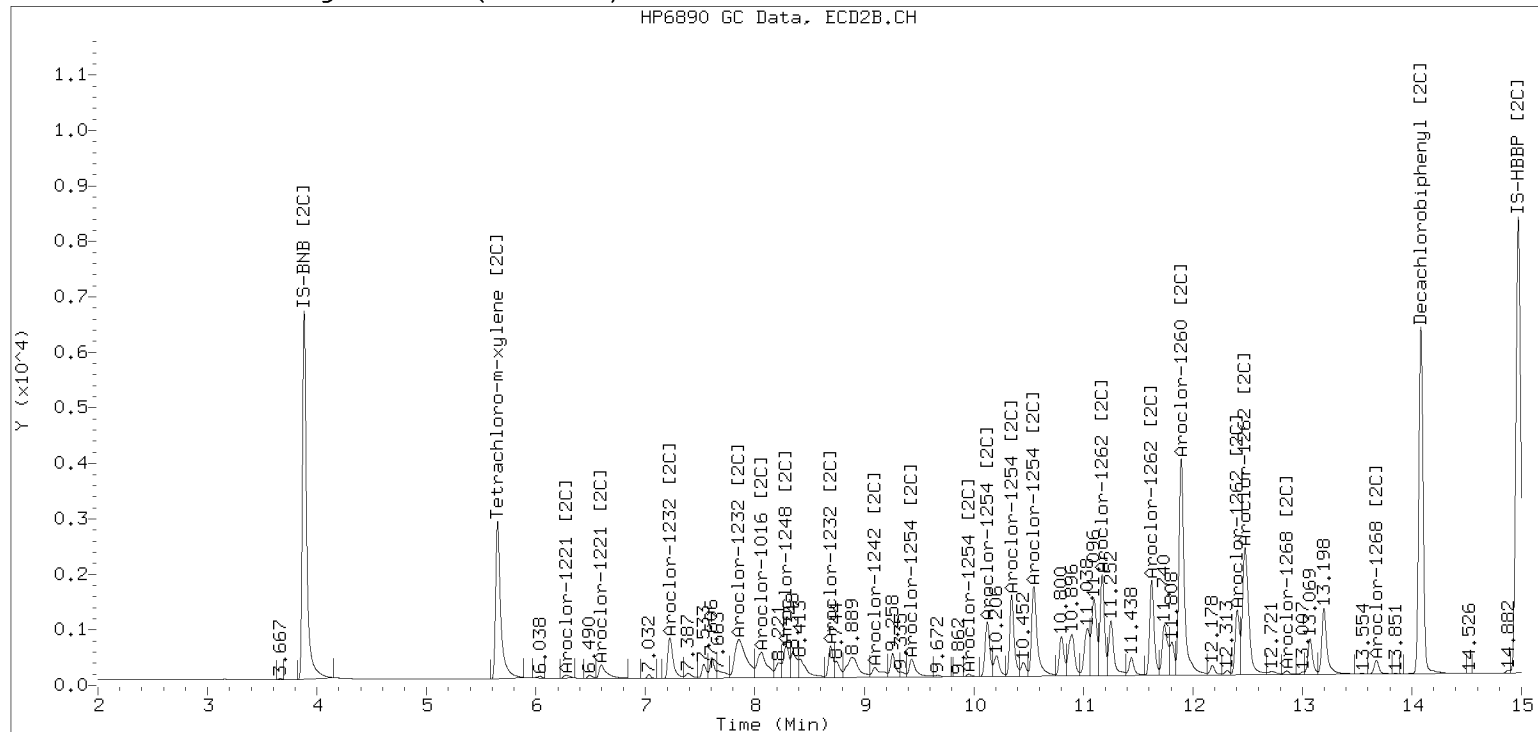
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282315ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00002

Laboratory ID: SLD0427-SCV2

Sequence: SLD0427

Sequence Name: AR1242SCV2

Standard ID: L003970

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1242	250.00	238	-4.9	20.00
Aroclor 1242 [2C]	250.00	249	-0.3	20.00
Decachlorobiphenyl	40.000	40.7	1.7	20.00
Tetrachlorometaxylene	40.000	33.9	-15.4	20.00
Decachlorobiphenyl [2C]	40.000	43.6	8.9	20.00
Tetrachlorometaxylene [2C]	40.000	32.6	-18.4	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282316ECD7.D
Data file 2: /230428.b/230428.b/04282316ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 28-APR-2023 16:30
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	292500	5.650	-0.001	164326	33.9	32.6	3.7	Tetrachloro-m-xylene
13.864	0.002	517644	14.083	-0.001	393716	40.7	43.6	6.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	591263	6.3
Hexabromobiphenyl	745660	1174114	57.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	358789	3.0
Hexabromobiphenyl	429949	558275	29.8

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 28-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.237	0.001	42869	187.5	1	7.224	0.002	36830	189.5
Aroclor-1016	2	7.642	0.014	116563	192.3	2	7.859	0.015	74679	194.4
Aroclor-1016	3	7.767	0.004	72620	177.0	3	8.061	0.007	42627	180.4
Aroclor-1016	4	8.381	0.005	41808	195.2	4	8.287	0.006	31937	181.4
Total CollAve (4 peaks):				188.0		Total Col2Ave (4 peaks):				186.4 RPD = 1
Corrected Ave (3 peaks):				185.6		Corrected Ave (3 peaks):				183.8 RPD = 1
Aroclor-1221	1	4.687	0.005	261	5.8	1	---			0.0
Aroclor-1221	2	6.092	-0.002	5439	59.9	2	6.288	0.022	3034	53.3
Aroclor-1221	3	6.348	0.002	27795	129.1	3	6.597	0.003	16171	124.2
Total CollAve (3 peaks):				64.9		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.687	0.004	261	9.1	1	---			0.0
Aroclor-1232	2	6.092	-0.002	5439	85.4	2	7.224	-0.001	36830	428.8
Aroclor-1232	3	7.642	-0.009	116563	461.7	3	7.859	-0.003	74679	440.5
Aroclor-1232	4	8.560	-0.004	60506	514.6	4	8.693	-0.001	25516	488.8
Total CollAve (4 peaks):				267.7		Total Col2Ave (3 peaks):				452.7 RPD = 51*
Corrected Ave (3 peaks):				185.4		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.237	0.000	42869	232.4	1	7.224	0.002	36830	236.3
Aroclor-1242	2	7.642	0.003	116563	231.1	2	7.859	0.001	74679	239.5
Aroclor-1242	3	8.381	-0.000	41808	246.5	3	9.173	0.005	27704	256.9
Aroclor-1242	4	8.560	-0.001	60506	241.1	4	9.602	-0.001	29247	264.2
Total CollAve (4 peaks):				237.8		Total Col2Ave (4 peaks):				249.2 RPD = 5
Corrected Ave (3 peaks):				234.9		Corrected Ave (3 peaks):				244.2 RPD = 4
Aroclor-1248	1	8.381	0.002	41808	146.4	1	8.693	0.408	25516	135.6
Aroclor-1248	2	8.560	0.000	60506	159.7	2	8.890	0.199	41427	250.0
Aroclor-1248	3	8.967	0.003	153088	135.4	3	9.258	0.094	51085	251.4
Aroclor-1248	4	9.276	0.004	79463	133.8	4	9.433	-0.160	16032	74.0
Total CollAve (4 peaks):				143.8		Total Col2Ave (4 peaks):				177.7 RPD = 21
Corrected Ave (3 peaks):				138.5		Corrected Ave (3 peaks):				153.2 RPD = 10
Aroclor-1254	1	9.276	-0.000	79463	124.4	1	9.433	0.004	16032	59.8
Aroclor-1254	2	9.354	-0.004	29048	96.0	2	9.602	0.074	29247	178.9
Aroclor-1254	3	9.654	0.006	18218	45.1	3	9.955	0.005	10890	50.2
Aroclor-1254	4	9.799	0.009	31107	37.9	4	10.114	0.004	21158	45.0
Aroclor-1254	5	10.188	0.019	22524	52.2	5	10.380	0.024	20273	37.5
Total CollAve (5 peaks):				71.1		Total Col2Ave (5 peaks):				74.3 RPD = 4
Corrected Ave (4 peaks):				57.8		Corrected Ave (4 peaks):				48.1 RPD = 18
Aroclor-1260	1	11.022	0.005	1107	1.7	1	11.645	0.021	2082	5.2
Aroclor-1260	2	11.341	0.007	839	1.2	2	11.903	0.011	1433	1.4
Aroclor-1260	3	11.721	0.011	1240	0.7	3	12.477	0.071	1326	5.6
Aroclor-1260	4	12.127	0.011	1362	1.6	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			---
Total CollAve (4 peaks):				1.3		Total Col2Ave (3 peaks):				4.1 RPD = 103*
Corrected Ave (3 peaks):				1.2		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.818	0.009	16810	36.7	1	11.105	-0.068	10045	18.0
Aroclor-1262	2	12.127	-0.090	1362	1.7	2	11.645	0.021	2082	4.4
Aroclor-1262	3	12.308	0.016	110	0.1	3	12.477	0.074	1326	2.7
Aroclor-1262	4	13.018	0.056	1070	1.5	4	---			0.0
Total CollAve (4 peaks):				10.0		Total Col2Ave (3 peaks):				8.4 RPD = 18
Corrected Ave (3 peaks):				1.1		Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.308	0.090	110	0.1	1	12.477	0.074	1326	1.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.671	0.001	2482	1.4	3	12.861	0.003	1233	1.0
Aroclor-1268	4	13.468	0.007	10976	2.2	4	13.676	-0.000	2739	0.7
Total CollAve (3 peaks):				1.2		Total Col2Ave (3 peaks):				0.9 RPD = 27
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.866 - 13.762) = 1193104 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 682890 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

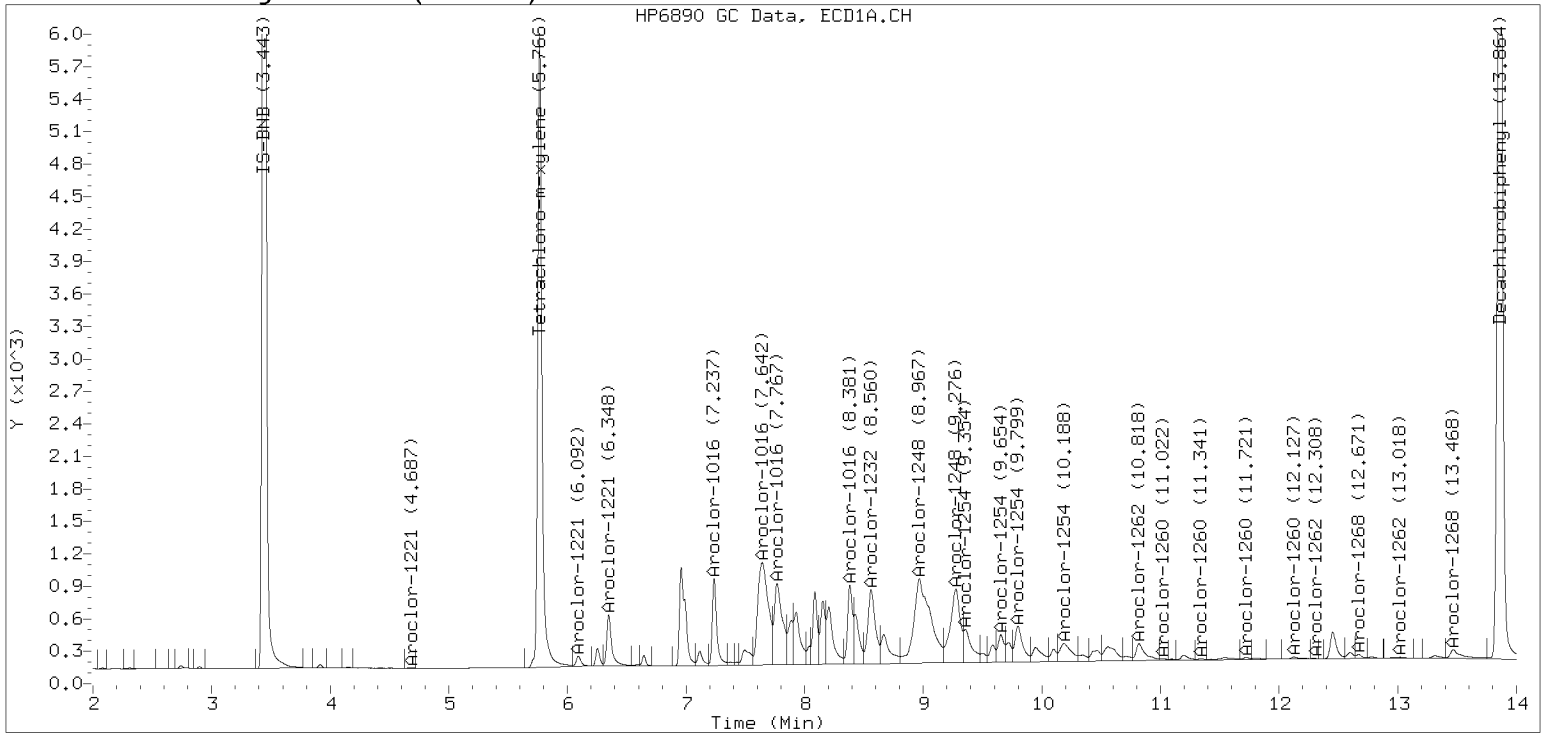
PCB-Form 10 Mod.

Manual Peak Adjustment, ZB-5

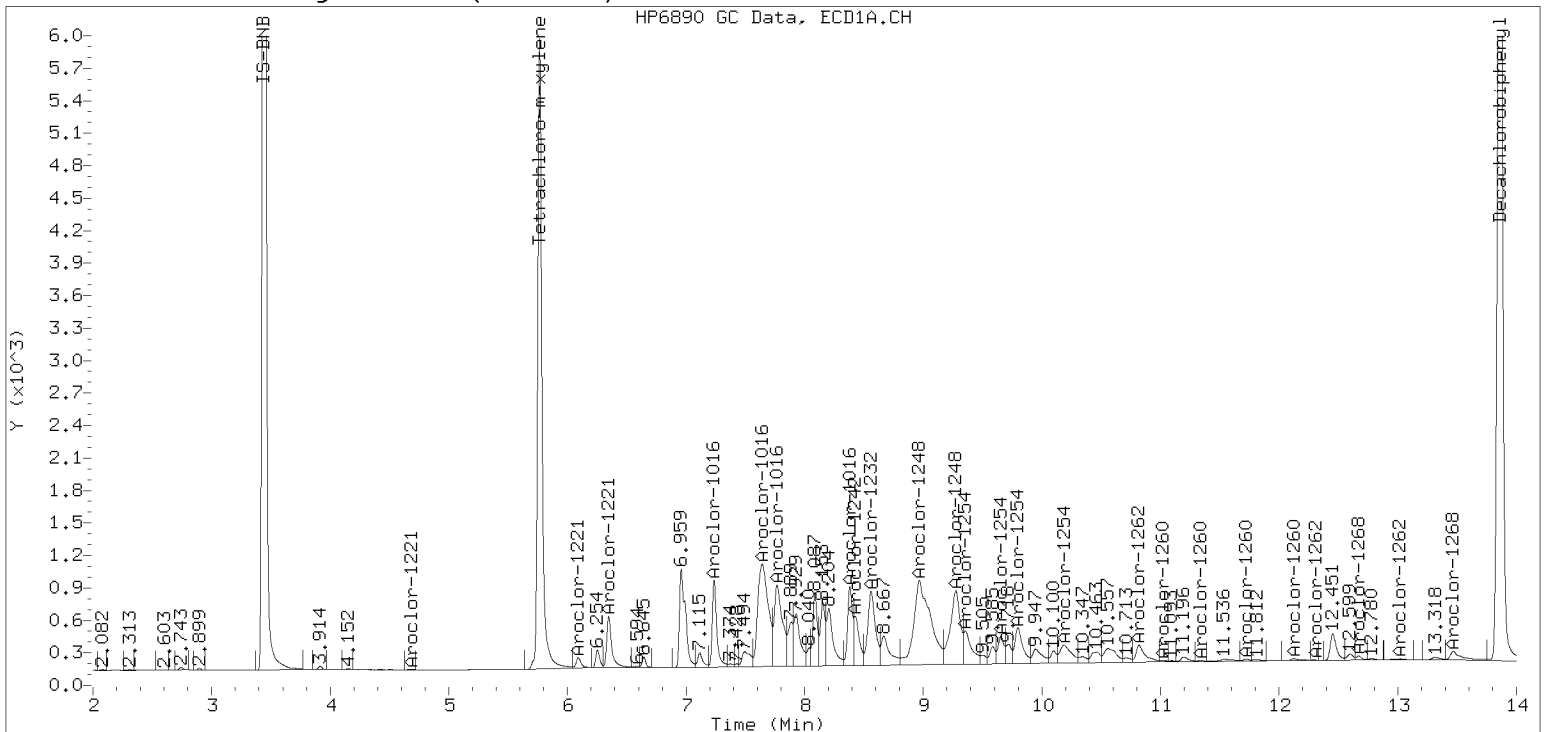
Datafile: ecd7.i/230428.b/04282316ECD7.D

Injection Date: 28-APR-2023 16:30

Manual Integration (After)



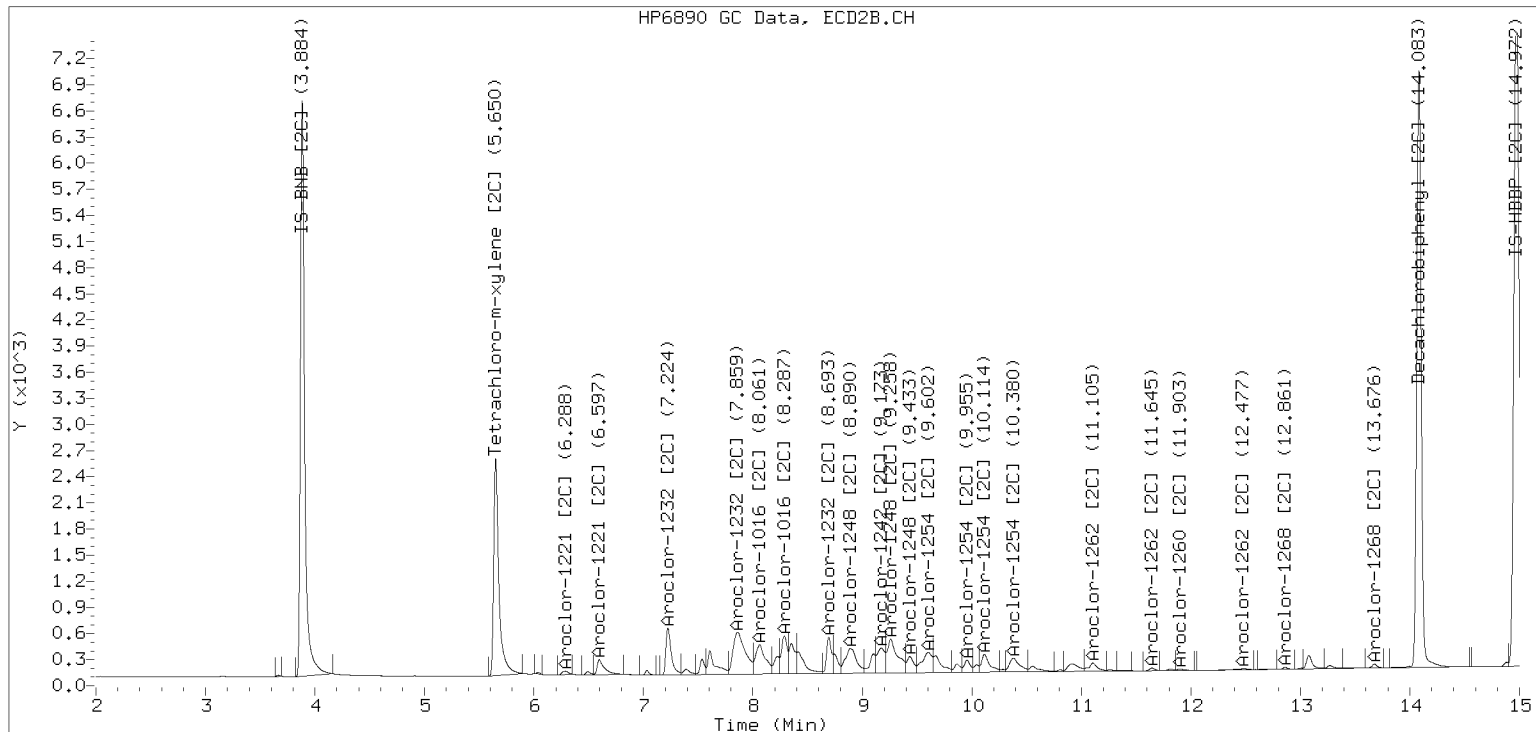
Processed Integration (Before)



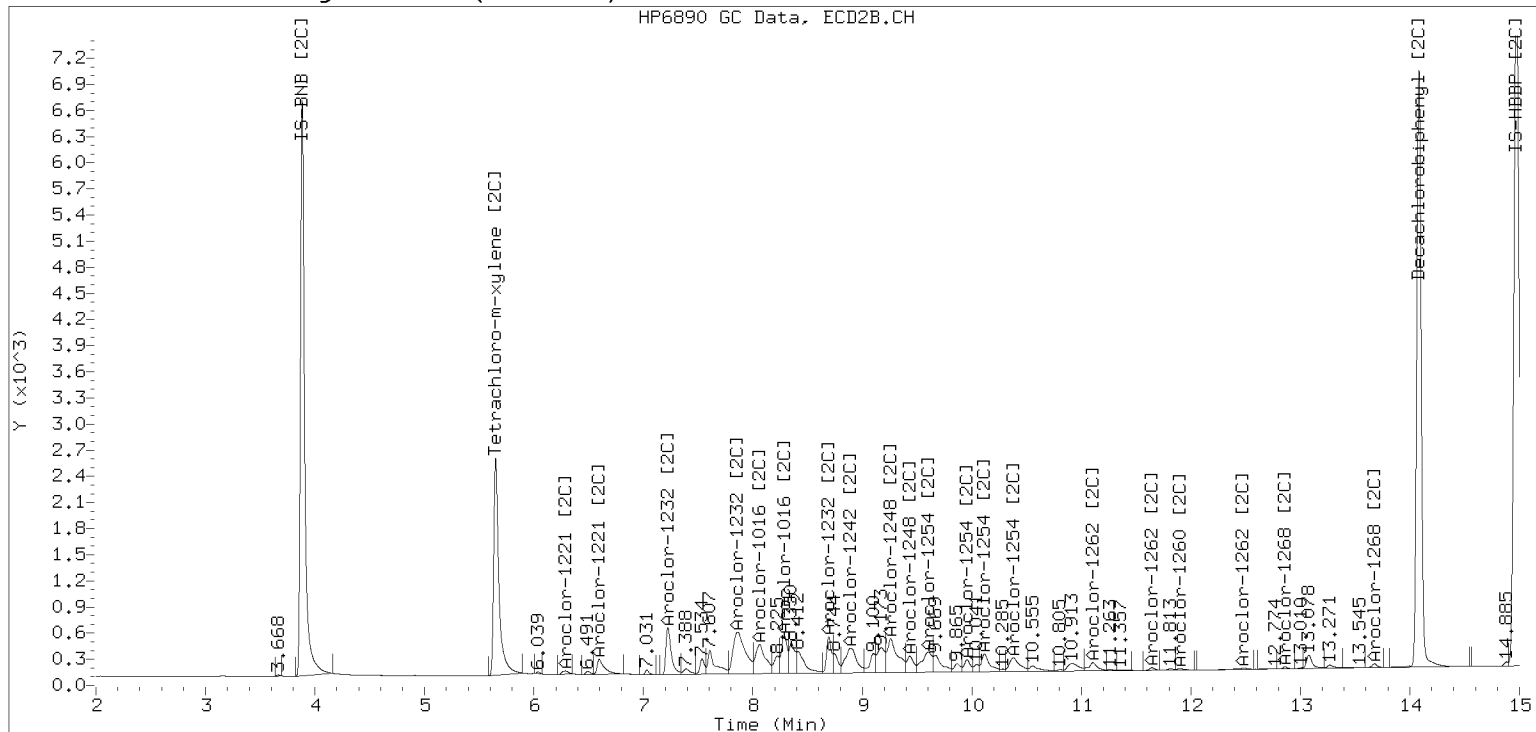
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282316ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00002

Laboratory ID: SLD0427-SCV3

Sequence: SLD0427

Sequence Name: AR1248SCV3

Standard ID: L002066

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1248	250.00	257	2.9	20.00
Aroclor 1248 [2C]	250.00	256	2.2	20.00
Decachlorobiphenyl	40.000	34.9	-12.8	20.00
Tetrachlorometaxylene	40.000	37.4	-6.6	20.00
Decachlorobiphenyl [2C]	40.000	38.0	-5.1	20.00
Tetrachlorometaxylene [2C]	40.000	36.7	-8.3	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282317ECD7.D
Data file 2: /230428.b/230428.b/04282317ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 28-APR-2023 16:51
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	329945	5.650	-0.001	187741	37.4	36.7	1.8	Tetrachloro-m-xylene
13.863	0.002	459099	14.084	0.000	349285	34.9	38.0	8.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	604265	8.6
Hexabromobiphenyl	745660	1214161	62.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	364434	4.6
Hexabromobiphenyl	429949	568134	32.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.237	0.002	19001	81.3	1	7.223	0.002	18808	95.3
Aroclor-1016	2	7.640	0.012	74331	120.0	2	7.860	0.016	45610	116.9
Aroclor-1016	3	7.763	0.000	48390	115.4	3	8.066	0.011	19913	83.0
Aroclor-1016	4	8.380	0.004	75928	347.0	4	8.285	0.004	48388	270.6
Total CollAve (4 peaks):				165.9		Total Col2Ave (4 peaks):				141.4 RPD = 16
Corrected Ave (3 peaks):				105.6		Corrected Ave (3 peaks):				98.4 RPD = 7
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.088	-0.005	1143	12.3	2	6.298	0.033	1993	34.5
Aroclor-1221	3	6.349	0.002	3172	14.4	3	6.608	0.014	1326	10.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.088	-0.005	1143	17.6	2	7.223	-0.002	18808	215.6
Aroclor-1232	3	7.640	-0.012	74331	288.1	3	7.860	-0.003	45610	264.9
Aroclor-1232	4	8.559	-0.004	98972	823.6	4	8.691	-0.002	42787	807.0
Total CollAve (3 peaks):				376.4		Total Col2Ave (3 peaks):				429.1 RPD = 13
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.237	0.001	19001	100.8	1	7.223	0.001	18808	118.8
Aroclor-1242	2	7.640	0.001	74331	144.2	2	7.860	0.001	45610	144.0
Aroclor-1242	3	8.380	-0.001	75928	438.1	3	8.691	-0.476	42787	390.6
Aroclor-1242	4	8.559	-0.001	98972	385.9	4	8.885	-0.718	60719	540.0
Total CollAve (4 peaks):				267.2		Total Col2Ave (4 peaks):				298.3 RPD = 11
Corrected Ave (3 peaks):				210.3		Corrected Ave (3 peaks):				217.8 RPD = 4
Aroclor-1248	1	8.380	0.002	75928	260.1	1	8.285	0.000	48388	253.1
Aroclor-1248	2	8.559	0.000	98972	255.7	2	8.691	0.000	42787	254.2
Aroclor-1248	3	8.963	-0.001	294362	254.8	3	9.165	0.001	53988	261.5
Aroclor-1248	4	9.271	0.000	156668	258.2	4	9.587	-0.007	55820	253.5
Total CollAve (4 peaks):				257.2		Total Col2Ave (4 peaks):				255.6 RPD = 1
Corrected Ave (3 peaks):				256.2		Corrected Ave (3 peaks):				253.6 RPD = 1
Aroclor-1254	1	9.271	-0.004	156668	240.0	1	9.430	0.001	28754	105.5
Aroclor-1254	2	9.355	-0.004	60054	194.1	2	9.587	0.059	55820	336.1
Aroclor-1254	3	9.651	0.003	41060	99.5	3	9.952	0.002	23054	104.5
Aroclor-1254	4	9.793	0.004	73186	87.3	4	10.109	-0.001	44343	92.9
Aroclor-1254	5	10.182	0.013	49460	112.2	5	10.379	0.023	41423	75.5
Total CollAve (5 peaks):				146.6		Total Col2Ave (5 peaks):				142.9 RPD = 3
Corrected Ave (4 peaks):				123.3		Corrected Ave (4 peaks):				94.6 RPD = 26
Aroclor-1260	1	11.026	0.009	2009	2.9	1	11.643	0.019	2501	6.2
Aroclor-1260	2	11.340	0.006	1228	1.8	2	11.901	0.009	2130	2.0
Aroclor-1260	3	11.721	0.011	1976	1.1	3	12.414	0.007	826	3.4
Aroclor-1260	4	12.127	0.011	1326	1.5	4	12.479	0.004	1478	2.0
Aroclor-1260	5	12.220	0.004	573	1.4	NS	---			----
Total CollAve (5 peaks):				1.7		Total Col2Ave (4 peaks):				3.4 RPD = 65*
Corrected Ave (4 peaks):				1.4		Corrected Ave (3 peaks):				2.5 RPD = 54*
Aroclor-1262	1	10.818	0.009	19667	41.5	1	11.104	-0.069	9341	16.4
Aroclor-1262	2	12.220	0.003	573	0.7	2	11.643	0.019	2501	5.2
Aroclor-1262	3	12.296	0.004	674	0.7	3	12.414	0.010	826	1.6
Aroclor-1262	4	12.967	0.005	1383	1.9	4	12.479	0.004	1478	1.7
Total CollAve (4 peaks):				11.2		Total Col2Ave (4 peaks):				6.3 RPD = 57*
Corrected Ave (3 peaks):				1.1		Corrected Ave (3 peaks):				2.9 RPD = 88*
Aroclor-1268	1	12.220	0.002	573	0.3	1	12.414	0.011	826	0.6
Aroclor-1268	2	12.296	0.005	674	0.3	2	12.479	0.008	1478	1.0
Aroclor-1268	3	12.671	0.002	2312	1.3	3	12.861	0.002	1020	0.8
Aroclor-1268	4	13.469	0.008	7516	1.4	4	13.678	0.001	2531	0.7
Total CollAve (4 peaks):				0.8		Total Col2Ave (4 peaks):				0.8 RPD = 6
Corrected Ave (3 peaks):				0.6		Corrected Ave (3 peaks):				0.7 RPD = 13

Total PCB Area Col1 (5.866 - 13.762) = 1600602 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 860562 Col2 Total PCB = 0.2 ppm*

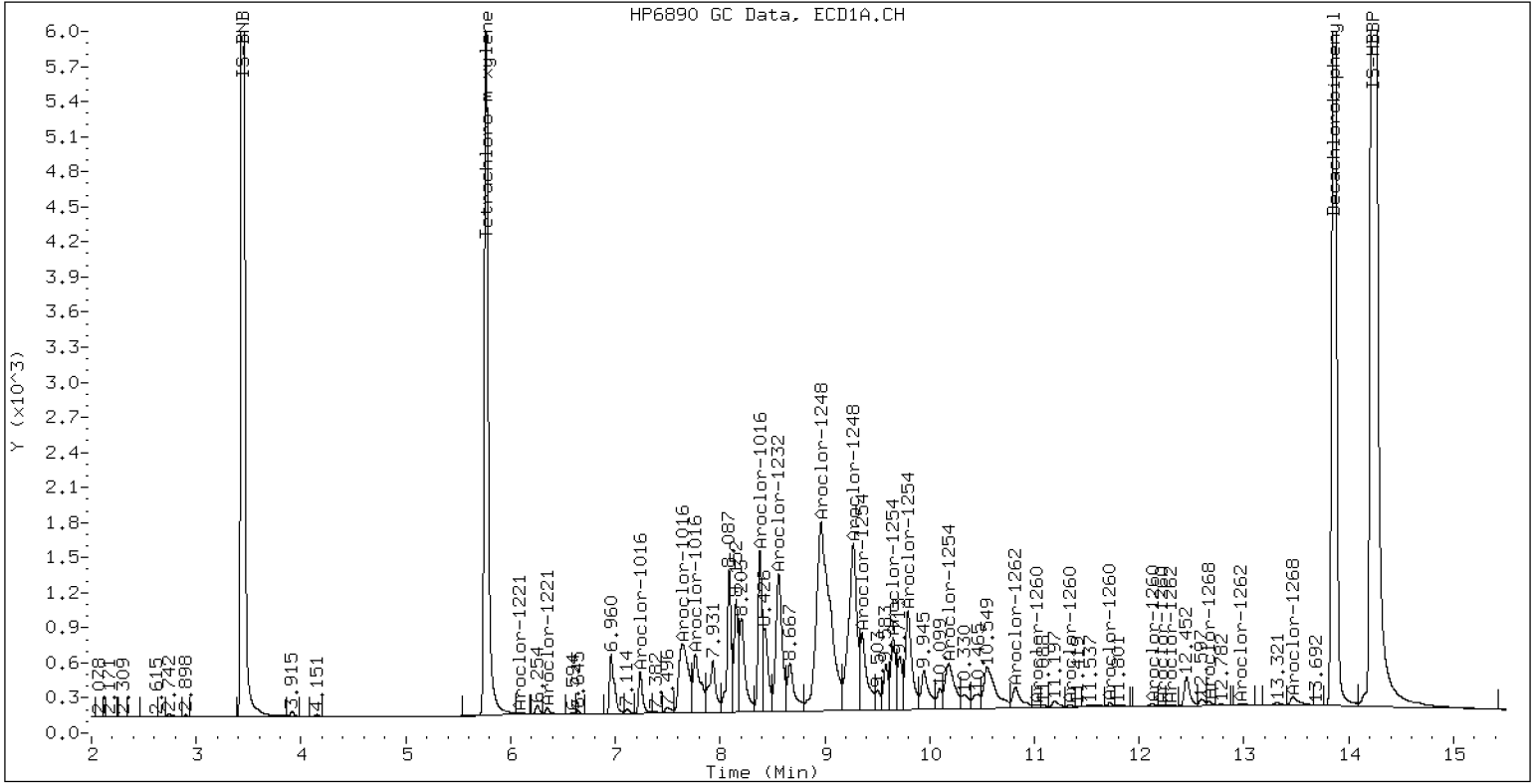
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV

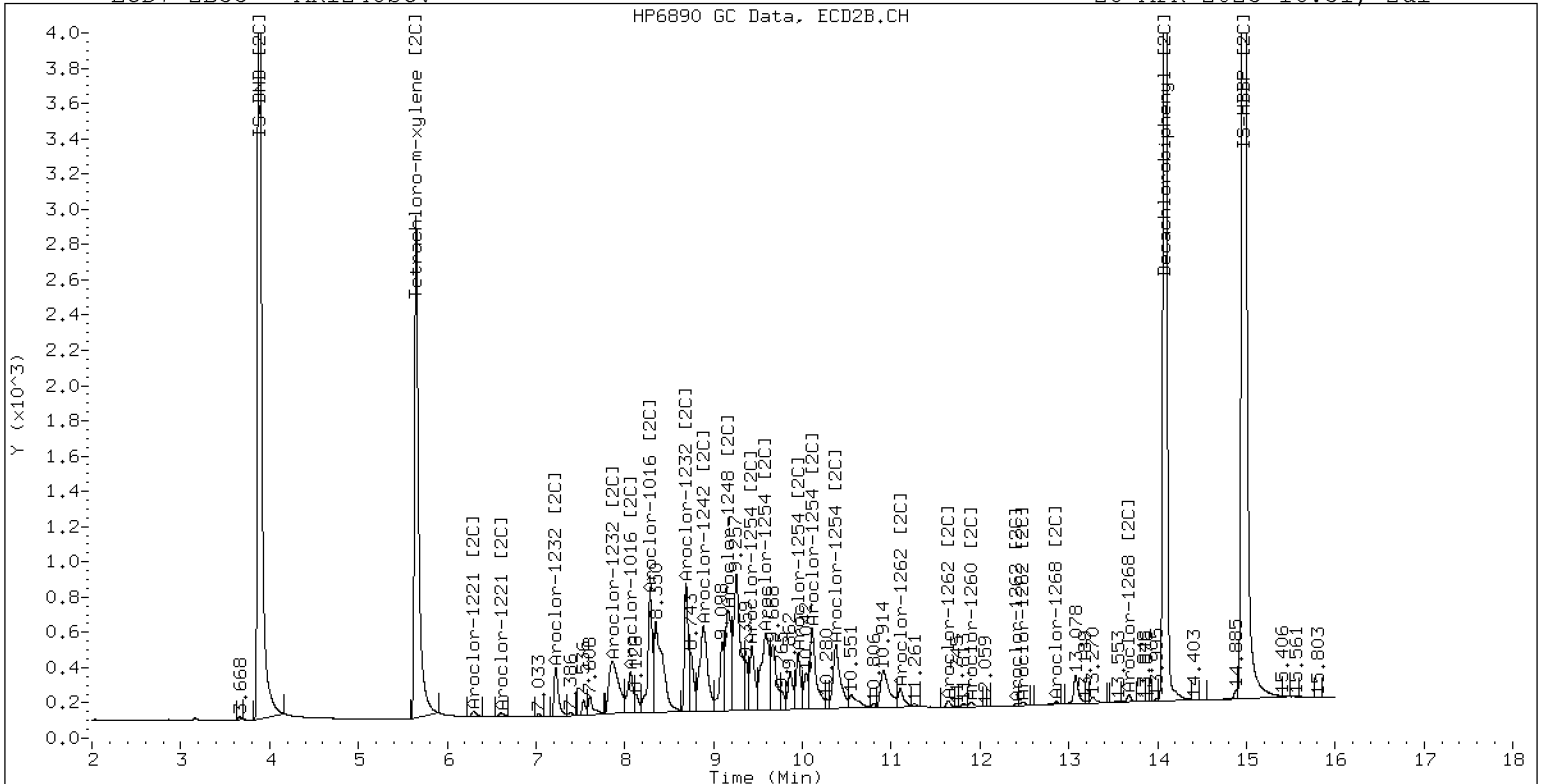
28-APR-2023 16:51, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1248SCV

28-APR-2023 16:51, 2ul



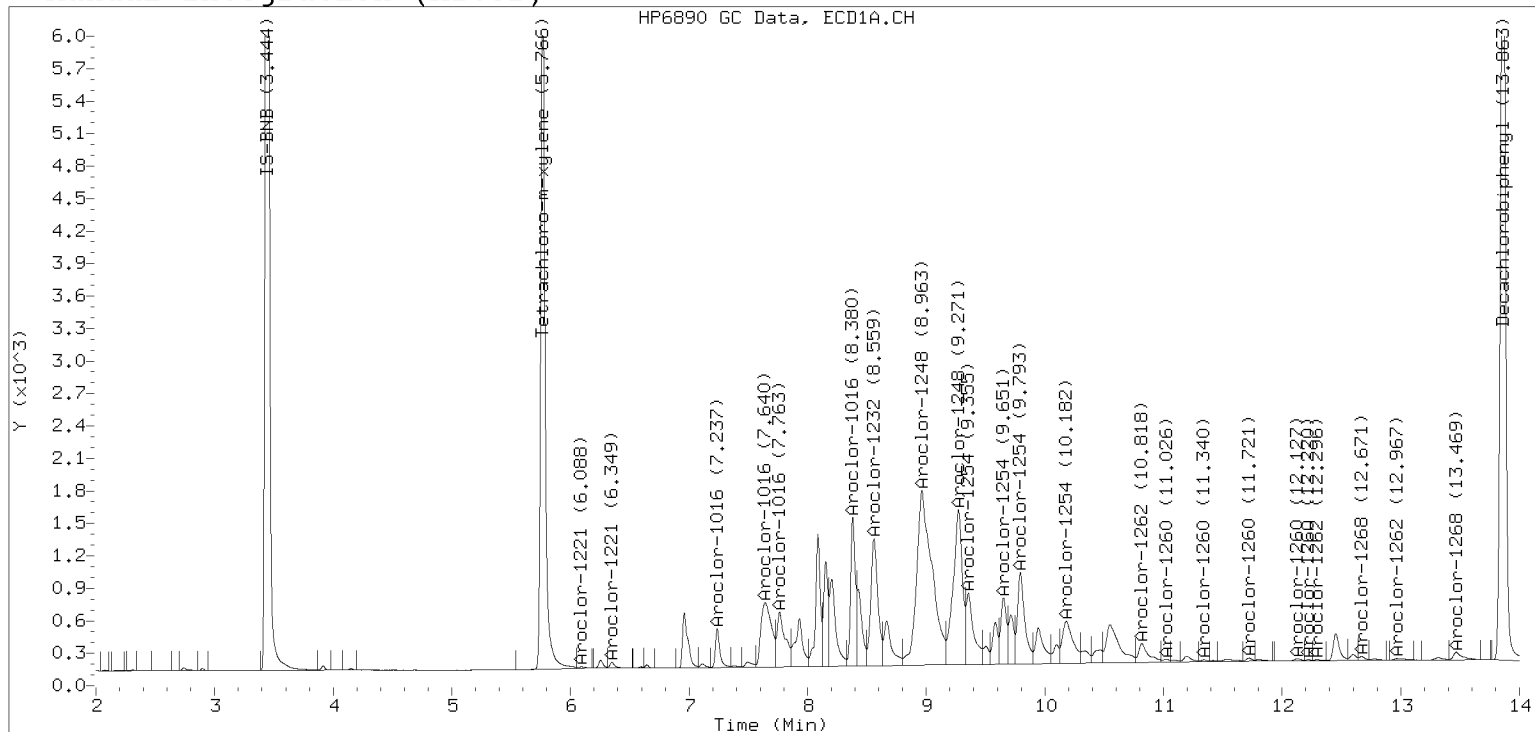
ZB-35 Manual Integration: YES

Manual Peak Adjustment, ZB-5

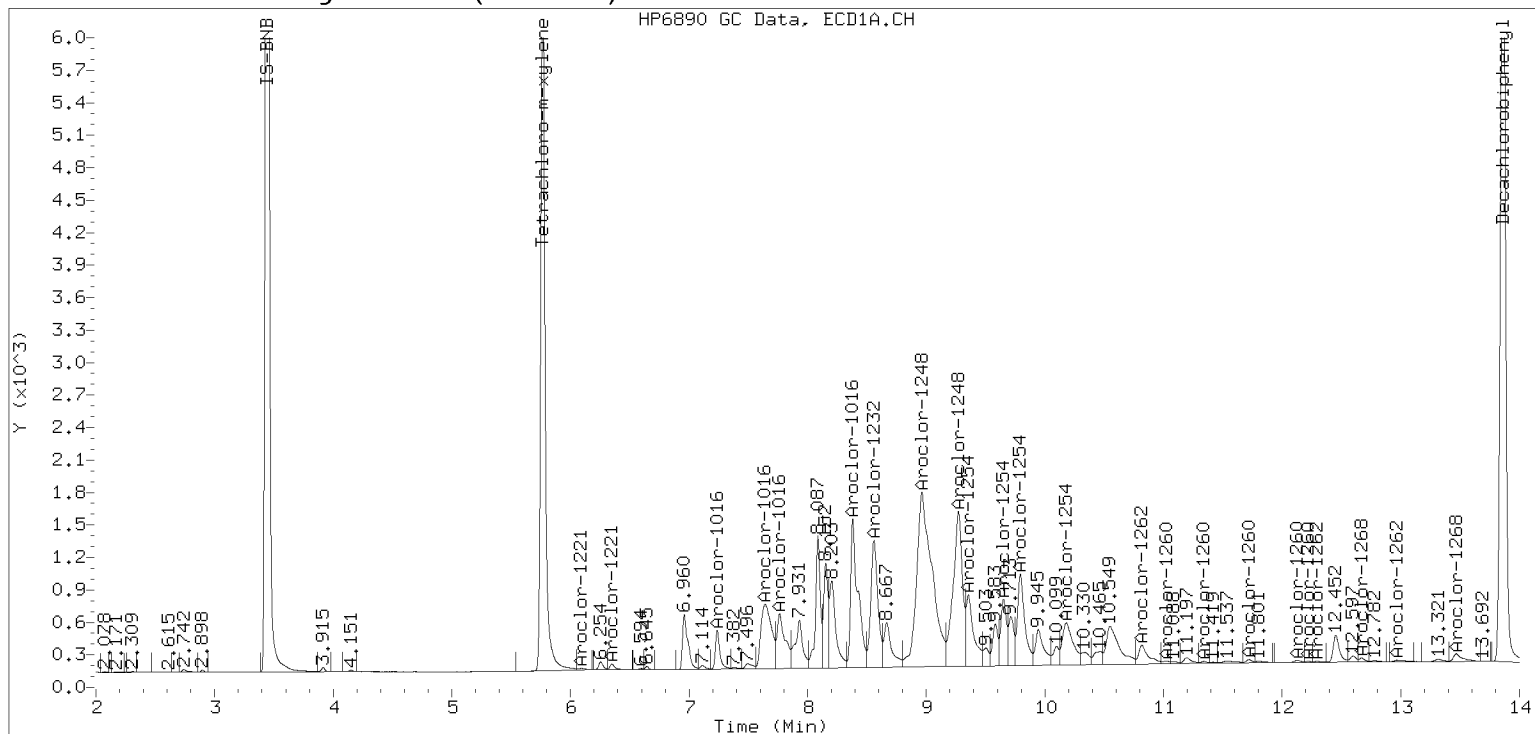
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Injection Date: 28-APR-2023 16:51

Manual Integration (After)



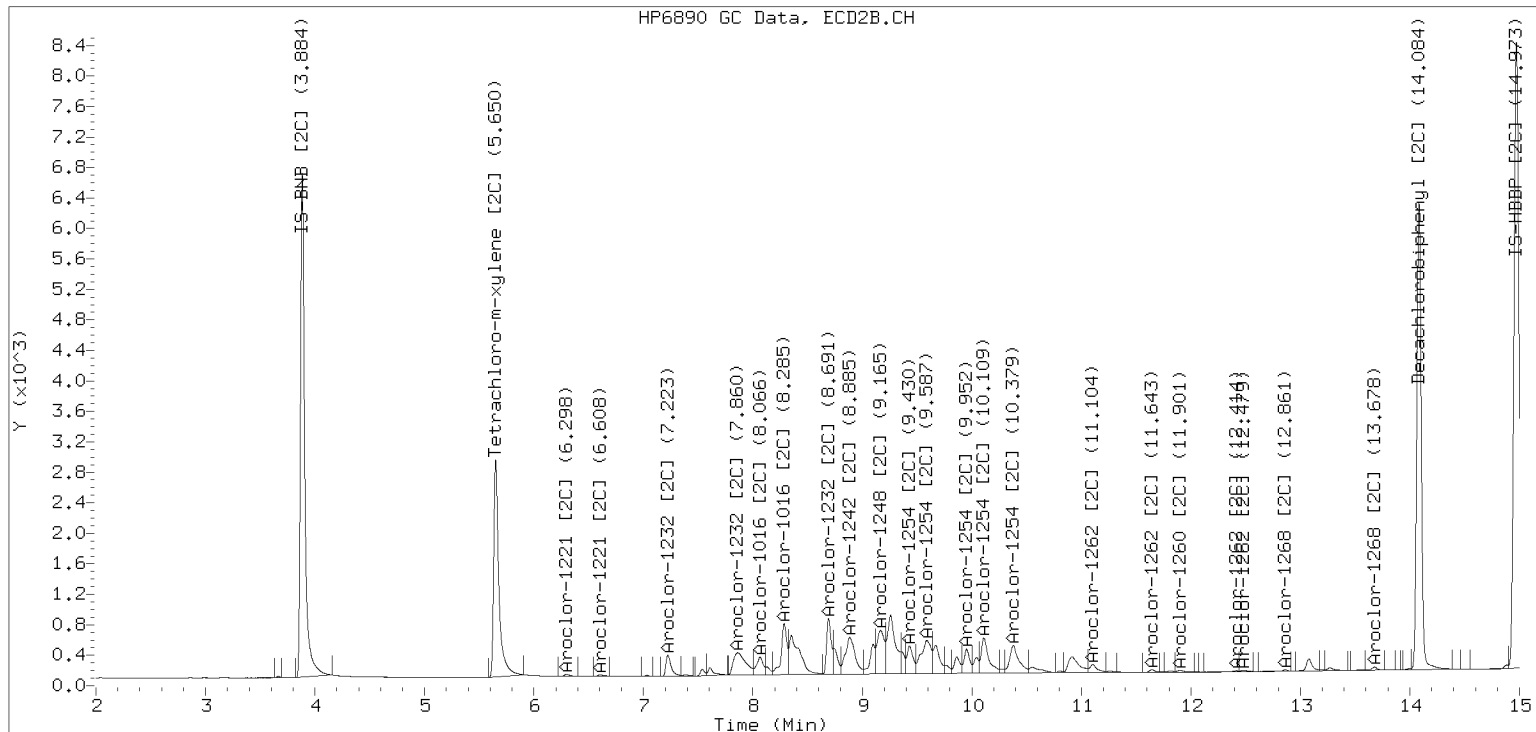
Processed Integration (Before)



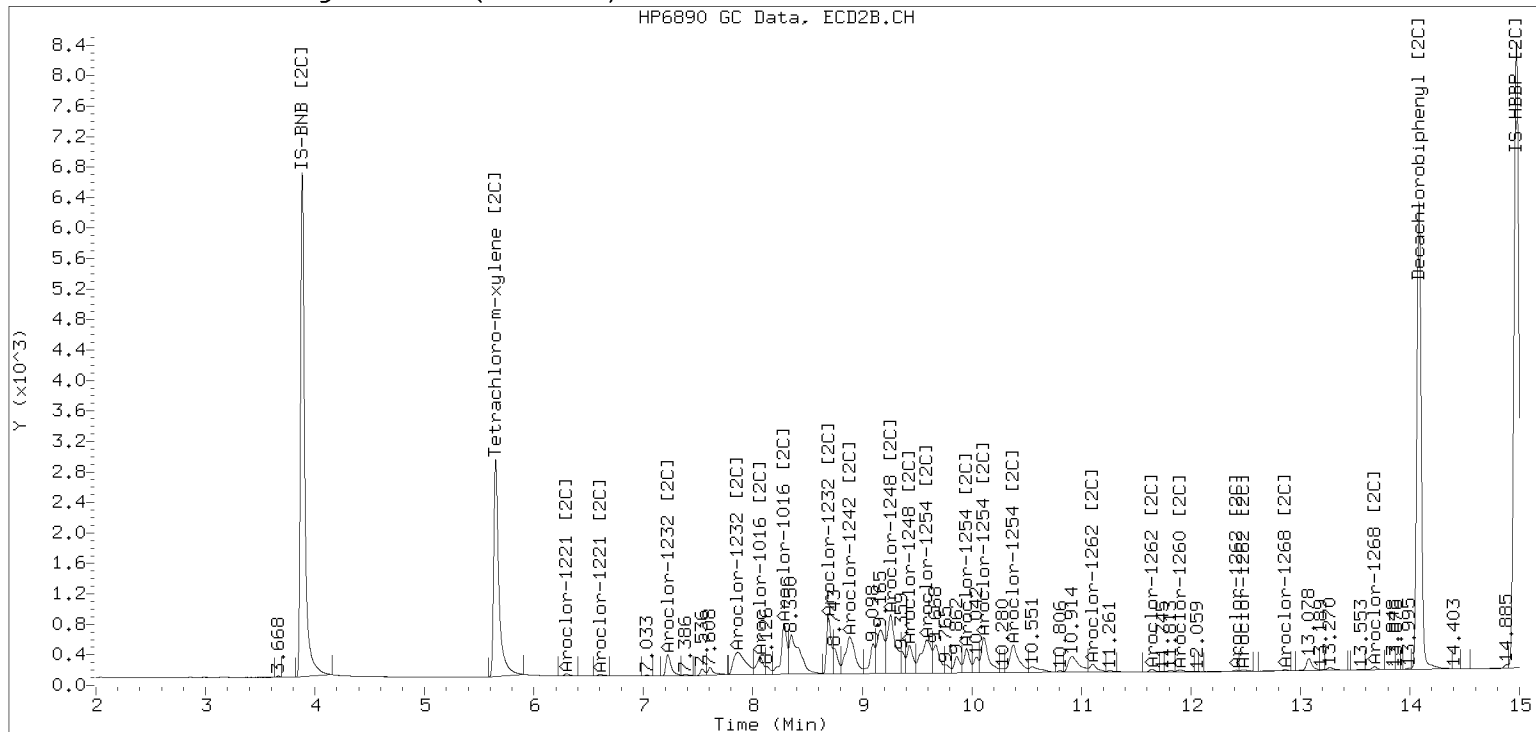
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282317ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00002

Laboratory ID: SLD0427-SCV4

Sequence: SLD0427

Sequence Name: AR1254SCV4

Standard ID: L002067

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1254	250.00	242	-3.4	20.00
Aroclor 1254 [2C]	250.00	234	-6.2	20.00
Decachlorobiphenyl	40.000	34.8	-13.0	20.00
Tetrachlorometaxylene	40.000	38.3	-4.2	20.00
Decachlorobiphenyl [2C]	40.000	38.3	-4.1	20.00
Tetrachlorometaxylene [2C]	40.000	37.3	-6.8	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282318ECD7.D
Data file 2: /230428.b/230428.b/04282318ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 28-APR-2023 17:12
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	338365	5.650	-0.001	190789	38.3	37.3	2.7	Tetrachloro-m-xylene
13.863	0.001	478757	14.083	-0.001	359021	34.8	38.3	9.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	604006	8.6
Hexabromobiphenyl	745660	1269568	70.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	364366	4.6
Hexabromobiphenyl	429949	578129	34.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.239	0.004	417	1.8	1	7.234	0.013	203	1.0	
Aroclor-1016	2	7.672	0.044	1503	2.4	2	---			0.0	
Aroclor-1016	3	7.760	-0.003	1975	4.7	3	8.071	0.016	434	1.8	
Aroclor-1016	4	8.383	0.006	29140	133.2	4	8.285	0.004	22382	125.2	
Total CollAve (4 peaks):				35.5	Total Col2Ave (3 peaks):				42.7	RPD = 18	
Corrected Ave (3 peaks):				3.0	Corrected Ave: < 3 Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	6.297	0.032	1765	30.5	
Aroclor-1221	3	---			0.0	3	6.613	0.019	308	2.3	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	7.234	0.010	203	2.3	
Aroclor-1232	3	7.672	0.020	1503	5.8	3	---			0.0	
Aroclor-1232	4	8.568	0.004	12422	103.4	4	8.695	0.001	16356	308.5	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	7.239	0.002	417	2.2	1	7.234	0.012	203	1.3	
Aroclor-1242	2	7.672	0.033	1503	2.9	2	---			0.0	
Aroclor-1242	3	8.383	0.001	29140	168.2	3	8.695	-0.473	16356	149.3	
Aroclor-1242	4	8.568	0.007	12422	48.5	4	8.889	-0.714	7125	63.4	
Total CollAve (4 peaks):				55.4	Total Col2Ave (3 peaks):				71.3	RPD = 25	
Corrected Ave (3 peaks):				17.9	Corrected Ave: < 3 Peaks						
Aroclor-1248	1	8.383	0.004	29140	99.9	1	8.695	0.410	16356	85.6	
Aroclor-1248	2	8.568	0.008	12422	32.1	2	8.889	0.198	7125	42.3	
Aroclor-1248	3	8.967	0.003	131799	114.1	3	9.259	0.095	58924	285.5	
Aroclor-1248	4	9.276	0.005	155956	257.1	4	9.430	-0.164	67213	305.3	
Total CollAve (4 peaks):				125.8	Total Col2Ave (4 peaks):				179.7	RPD = 35	
Corrected Ave (3 peaks):				82.0	Corrected Ave (3 peaks): 137.8 RPD = 51*						
Aroclor-1254	1	9.276	0.000	155956	239.0	1	9.430	0.000	67213	246.7	
Aroclor-1254	2	9.356	-0.002	75626	244.6	2	9.527	-0.001	39667	238.9	
Aroclor-1254	3	9.648	0.001	99996	242.4	3	9.950	-0.000	53621	243.2	
Aroclor-1254	4	9.788	-0.001	198294	236.6	4	10.109	-0.001	114263	239.3	
Aroclor-1254	5	10.164	-0.004	108093	245.4	5	10.355	-0.001	111846	203.8	
Total CollAve (5 peaks):				241.6	Total Col2Ave (5 peaks):				234.4	RPD = 3	
Corrected Ave (4 peaks):				240.7	Corrected Ave (4 peaks): 231.3 RPD = 4						
Aroclor-1260	1	11.018	0.001	14792	20.6	1	11.639	0.015	34047	82.8	
Aroclor-1260	2	11.338	0.005	15335	21.1	2	11.896	0.004	28313	26.2	
Aroclor-1260	3	11.716	0.006	37253	19.7	3	12.479	0.072	16654	67.8	
Aroclor-1260	4	12.122	0.006	28154	30.1	4	---			0.0	
Aroclor-1260	5	12.293	0.077	2641	6.2	NS	---			---	
Total CollAve (5 peaks):				19.5	Total Col2Ave (3 peaks):				58.9	RPD = 100*	
Corrected Ave (4 peaks):				16.9	Corrected Ave: < 3 Peaks						
Aroclor-1262	1	10.810	0.002	229213	462.7	1	11.097	-0.076	148180	256.4	
Aroclor-1262	2	12.293	0.076	2641	3.1	2	11.639	0.015	34047	69.9	
Aroclor-1262	3	---			0.0	3	12.479	0.076	16654	32.5	
Aroclor-1262	4	12.965	0.003	1702	2.2	4	---			0.0	
Total CollAve (3 peaks):				156.0	Total Col2Ave (3 peaks):				119.6	RPD = 26	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1268	1	12.293	0.075	2641	1.2	1	12.479	0.076	16654	12.5	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	12.672	0.003	2924	1.5	3	12.859	0.000	1168	0.9	
Aroclor-1268	4	13.468	0.007	11477	2.1	4	13.677	0.000	2357	0.6	
Total CollAve (3 peaks):				1.6	Total Col2Ave (3 peaks):				4.7	RPD = 97*	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Total PCB Area Col1 (5.866 - 13.762) = 2154735 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 1162346 Col2 Total PCB = 0.3 ppm*

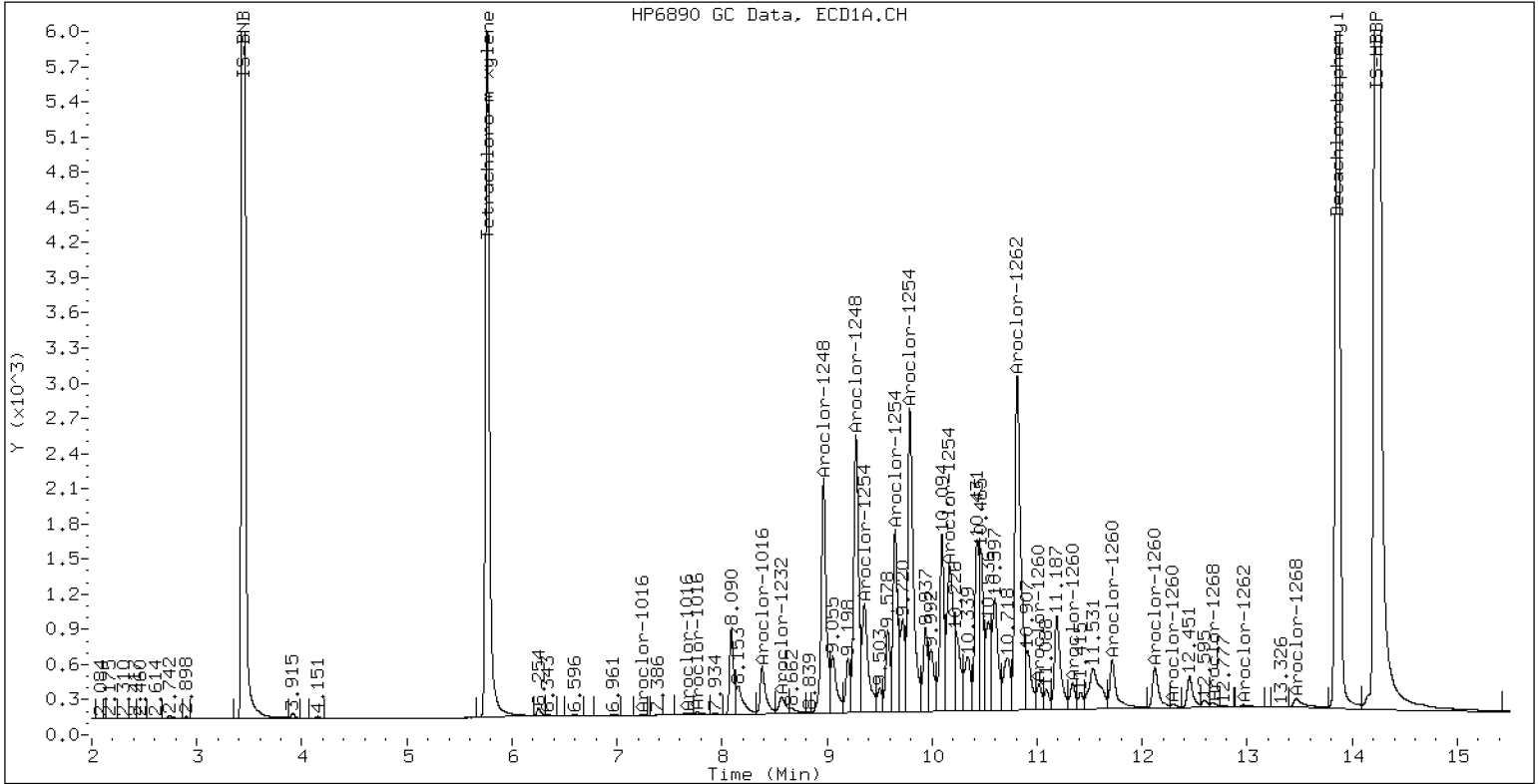
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254SCV

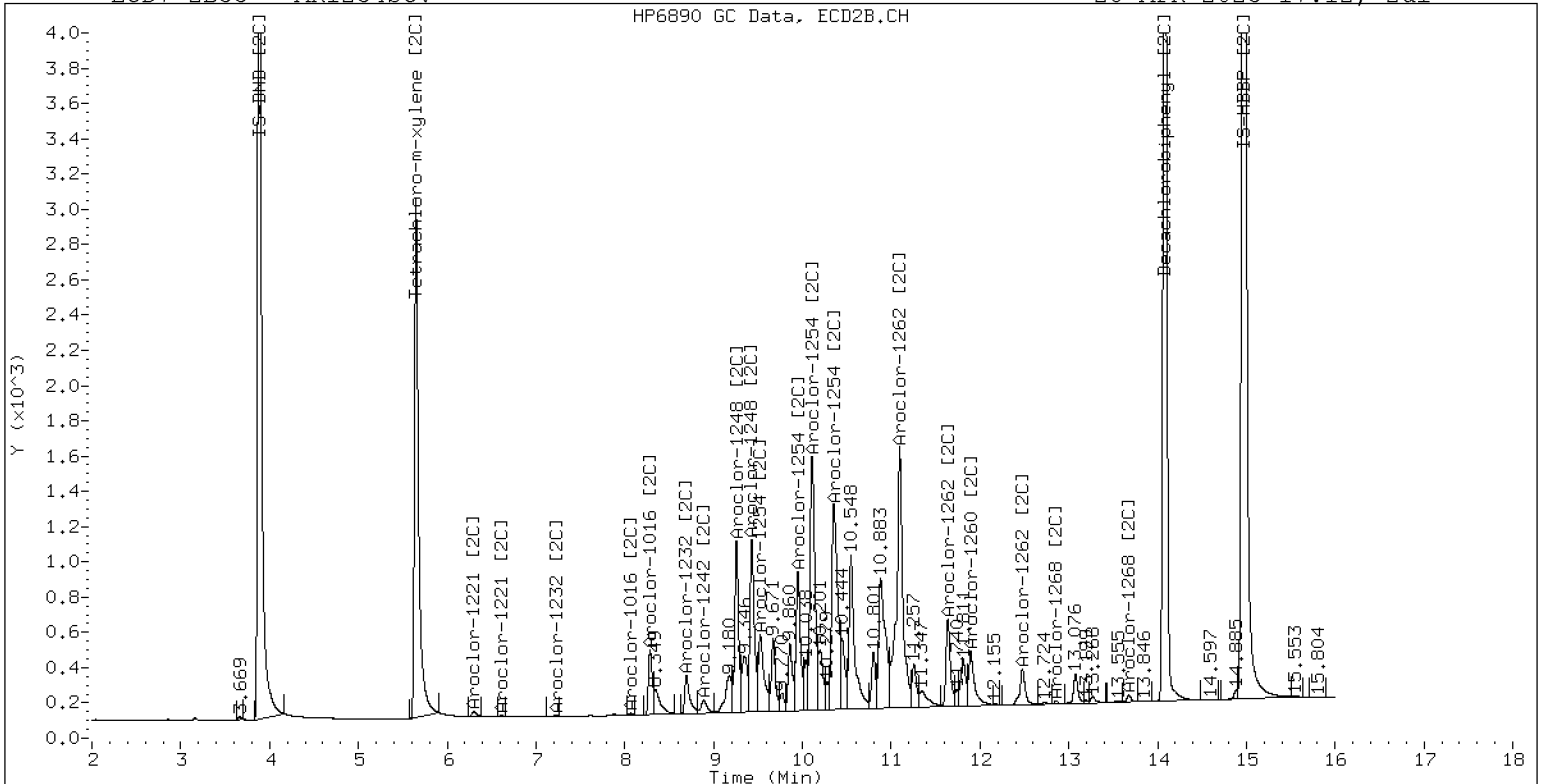
28-APR-2023 17:12, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1254SCV

28-APR-2023 17:12, 2ul



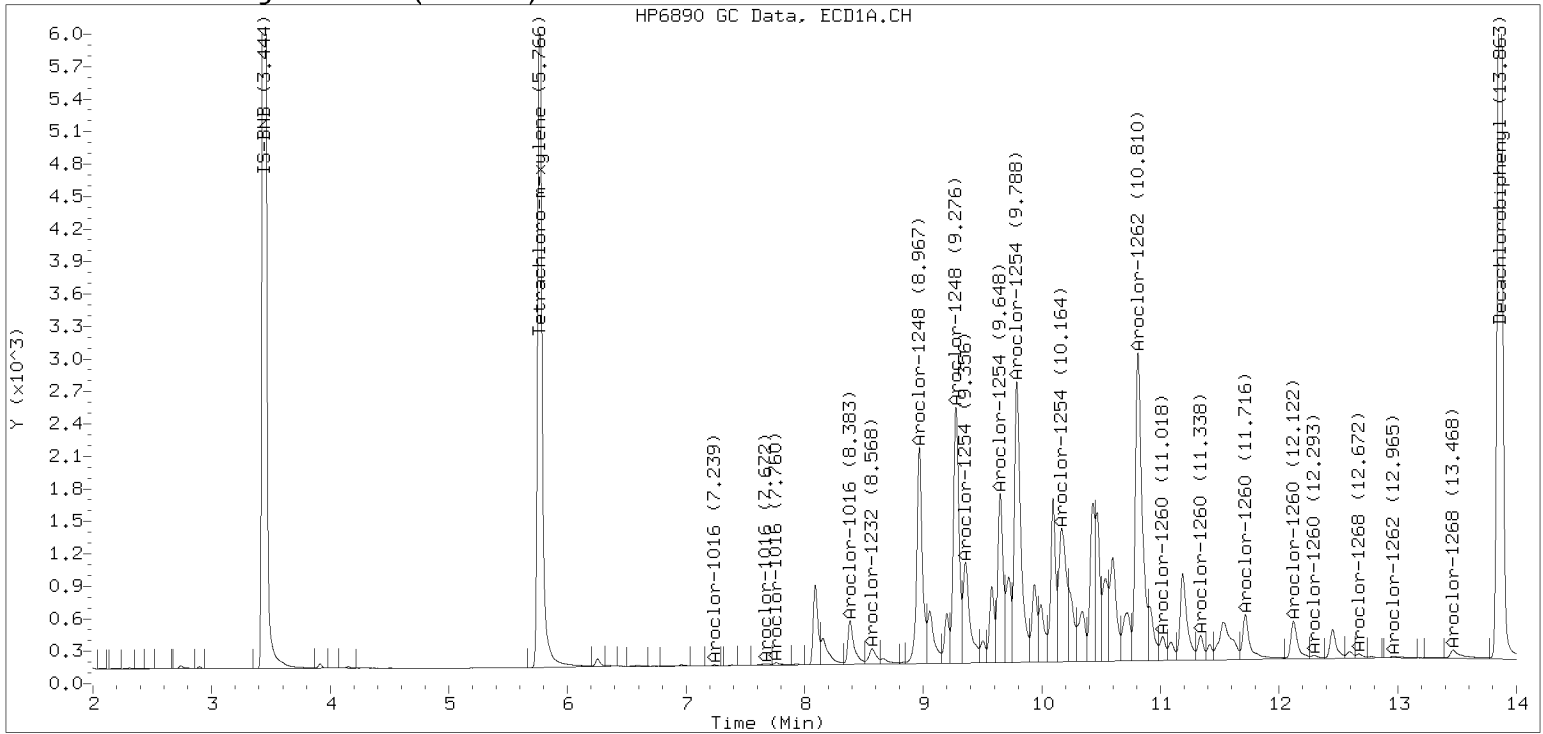
ZB-35 Manual Integration: YES

Manual Peak Adjustment, ZB-5

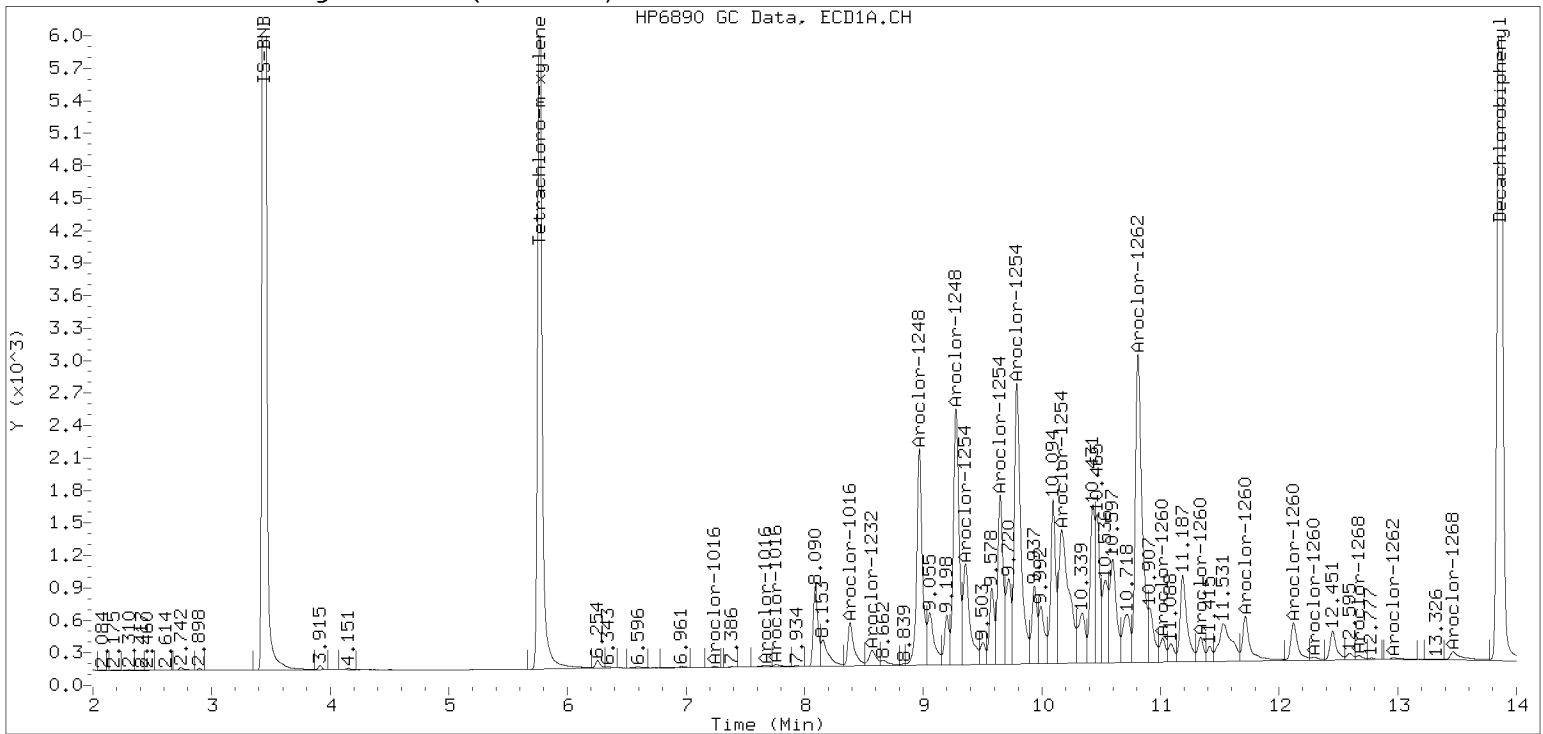
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Injection Date: 28-APR-2023 17:12

Manual Integration (After)



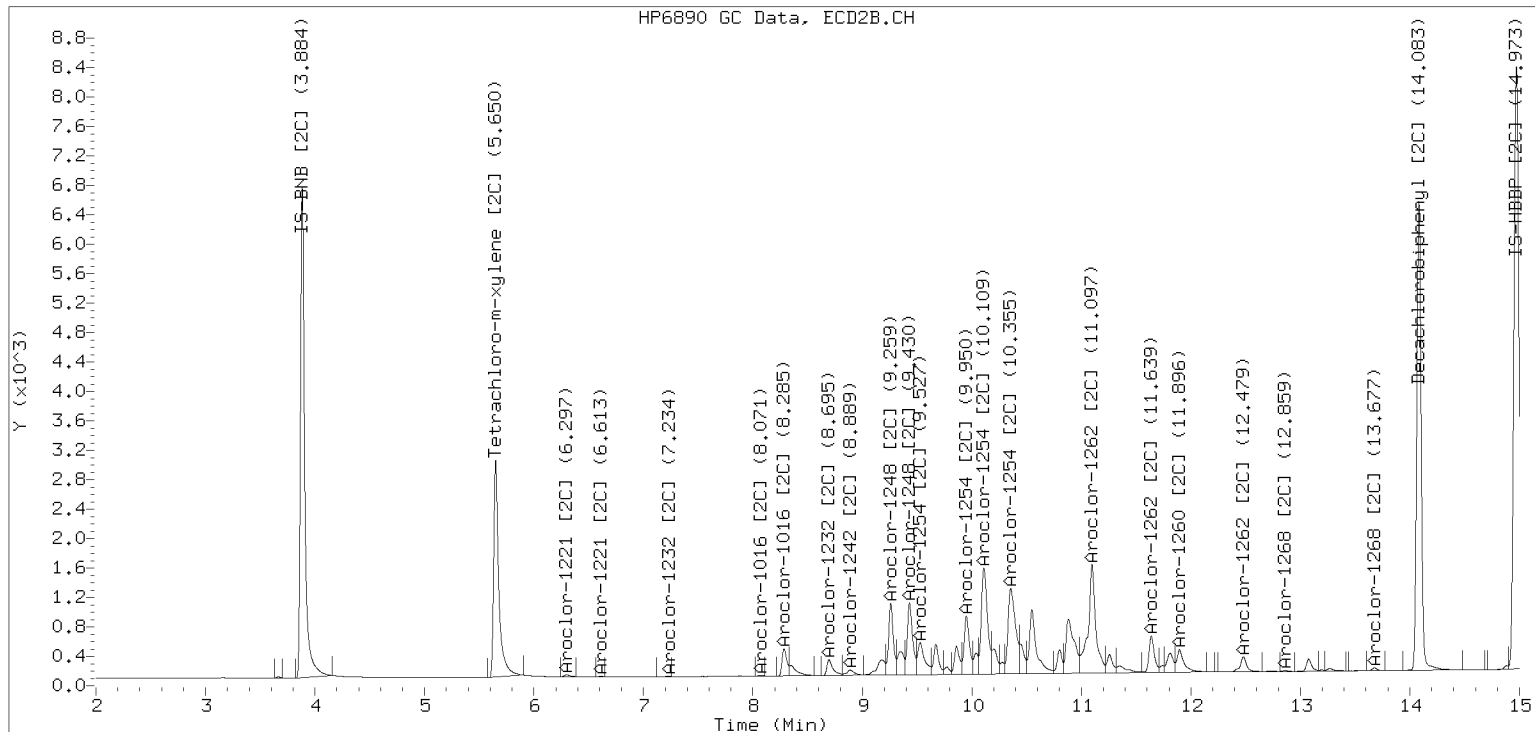
Processed Integration (Before)



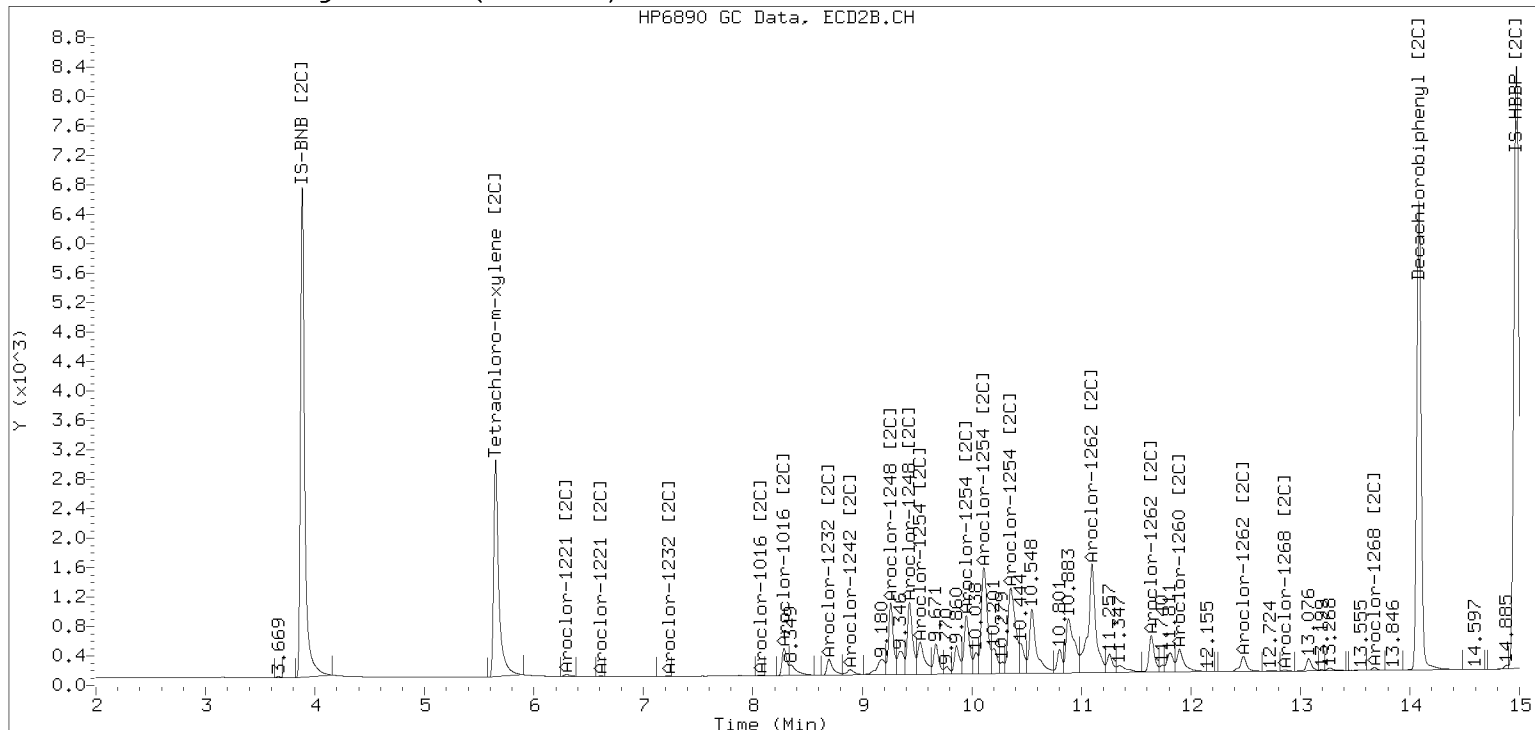
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282318ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00002

Laboratory ID: SLD0427-SCV5

Sequence: SLD0427

Sequence Name: AR2162SCV5

Standard ID: L002068

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1221	250.00	269	7.7	20.00
Aroclor 1221 [2C]	250.00	276	10.5	20.00
Aroclor 1262	250.00	254	1.7	20.00
Aroclor 1262 [2C]	250.00	255	2.0	20.00
Decachlorobiphenyl	40.000	35.9	-10.2	20.00
Tetrachlorometaxylene	40.000	38.3	-4.3	20.00
Decachlorobiphenyl [2C]	40.000	38.9	-2.6	20.00
Tetrachlorometaxylene [2C]	40.000	38.0	-5.0	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282319ECD7.D
Data file 2: /230428.b/230428.b/04282319ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 28-APR-2023 17:33
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.767	0.001	336477	5.650	-0.001	192040	38.3	38.0	0.7	Tetrachloro-m-xylene
13.862	0.001	499246	14.084	-0.000	363267	35.9	38.9	8.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	601660	8.2
Hexabromobiphenyl	745660	1282462	72.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	359781	3.2
Hexabromobiphenyl	429949	576077	34.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.237	0.002	5001	21.5	1	7.227	0.005	3885	19.9	
Aroclor-1016	2	7.665	0.037	8647	14.0	2	7.887	0.043	4451	11.6	
Aroclor-1016	3	7.777	0.014	6495	15.6	3	8.066	0.012	2267	9.6	
Aroclor-1016	4	8.388	0.012	2933	13.5	4	8.290	0.009	1849	10.5	
Total CollAve (4 peaks):				16.1	Total Col2Ave (4 peaks):				12.9	RPD = 22	
Corrected Ave (3 peaks):				14.3	Corrected Ave (3 peaks):				10.5	RPD = 31	
Aroclor-1221	1	4.683	0.001	12932	280.8	1	4.911	0.000	7988	299.1	
Aroclor-1221	2	6.094	0.000	24389	264.0	2	6.265	-0.001	15133	265.2	
Aroclor-1221	3	6.348	0.002	57578	262.7	3	6.593	-0.000	34566	264.7	
Total CollAve (3 peaks):				269.2	Total Col2Ave (3 peaks):				276.3	RPD = 3	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.683	0.001	12932	441.6	1	4.911	-0.001	7988	515.9	
Aroclor-1232	2	6.094	0.001	24389	376.5	2	7.227	0.002	3885	45.1	
Aroclor-1232	3	7.665	0.013	8647	33.7	3	7.887	0.025	4451	26.2	
Aroclor-1232	4	8.569	0.006	1975	16.5	4	8.699	0.005	1706	32.6	
Total CollAve (4 peaks):				217.1	Total Col2Ave (4 peaks):				154.9	RPD = 33	
Corrected Ave (3 peaks):				142.2	Corrected Ave (3 peaks):				34.6	RPD = 122*	
Aroclor-1242	1	7.237	0.001	5001	26.6	1	7.227	0.005	3885	24.9	
Aroclor-1242	2	7.665	0.026	8647	16.9	2	7.887	0.029	4451	14.2	
Aroclor-1242	3	8.388	0.006	2933	17.0	3	8.699	-0.469	1706	15.8	
Aroclor-1242	4	8.569	0.009	1975	7.7	4	8.906	-0.697	1208	10.9	
Total CollAve (4 peaks):				17.1	Total Col2Ave (4 peaks):				16.4	RPD = 4	
Corrected Ave (3 peaks):				13.9	Corrected Ave (3 peaks):				13.6	RPD = 2	
Aroclor-1248	1	8.388	0.009	2933	10.1	1	8.699	0.414	1706	9.0	
Aroclor-1248	2	8.569	0.010	1975	5.1	2	8.906	0.215	1208	7.3	
Aroclor-1248	3	8.970	0.006	23869	20.7	3	9.261	0.098	12638	62.0	
Aroclor-1248	4	9.284	0.013	28188	46.7	4	9.437	-0.157	13948	64.2	
Total CollAve (4 peaks):				20.7	Total Col2Ave (4 peaks):				35.6	RPD = 53*	
Corrected Ave (3 peaks):				12.0	Corrected Ave (3 peaks):				26.1	RPD = 74*	
Aroclor-1254	1	9.284	0.009	28188	43.4	1	9.437	0.007	13948	51.9	
Aroclor-1254	2	---			0.0	2	---			0.0	
Aroclor-1254	3	9.654	0.006	4038	9.8	3	9.958	0.008	1791	8.2	
Aroclor-1254	4	9.795	0.005	11586	13.9	4	10.124	0.014	55476	117.7	
Aroclor-1254	5	10.096	-0.072	138022	314.6	5	10.346	-0.010	70184	129.5	
Total CollAve (4 peaks):				95.4	Total Col2Ave (4 peaks):				76.8	RPD = 22	
Corrected Ave (3 peaks):				22.4	Corrected Ave (3 peaks):				59.3	RPD = 90*	
Aroclor-1260	1	11.019	0.002	240553	332.2	1	11.623	-0.001	124057	302.7	
Aroclor-1260	2	11.335	0.002	202728	276.0	2	11.893	0.001	303878	282.5	
Aroclor-1260	3	11.713	0.003	494200	259.3	3	12.405	-0.002	129175	527.4	
Aroclor-1260	4	12.118	0.002	155139	164.1	4	12.475	0.000	226410	308.9	
Aroclor-1260	5	12.217	0.001	214340	494.2	NS	---			----	
Total CollAve (5 peaks):				305.2	Total Col2Ave (4 peaks):				355.4	RPD = 15	
Corrected Ave (4 peaks):				257.9	Corrected Ave (3 peaks):				298.1	RPD = 14	
Aroclor-1262	1	10.809	0.000	123367	246.5	1	11.173	-0.000	146790	254.9	
Aroclor-1262	2	12.217	0.001	214340	245.2	2	11.623	-0.001	124057	255.8	
Aroclor-1262	3	12.293	0.001	236304	246.0	3	12.405	0.001	129175	252.9	
Aroclor-1262	4	12.963	0.001	216573	279.5	4	12.475	-0.000	226410	256.4	
Total CollAve (4 peaks):				254.3	Total Col2Ave (4 peaks):				255.0	RPD = 0	
Corrected Ave (3 peaks):				245.9	Corrected Ave (3 peaks):				254.5	RPD = 3	
Aroclor-1268	1	12.217	-0.001	214340	97.4	1	12.405	0.001	129175	97.0	
Aroclor-1268	2	12.293	0.002	236304	103.1	2	12.475	0.004	226410	149.9	
Aroclor-1268	3	12.700	0.031	85797	45.0	3	12.859	0.001	9727	7.8	
Aroclor-1268	4	13.461	0.001	83654	15.2	4	13.678	0.001	40997	10.8	
Total CollAve (4 peaks):				65.2	Total Col2Ave (4 peaks):				66.4	RPD = 2	

Corrected Ave (3 peaks): 52.5 Corrected Ave (3 peaks): 38.5 RPD = 31

Total PCB Area Col1 (5.866 - 13.762) = 3513270 Col1 Total PCB = 0.5 ppm*
Total PCB Area Col2 (5.751 - 13.984) = 1957095 Col2 Total PCB = 0.5 ppm*

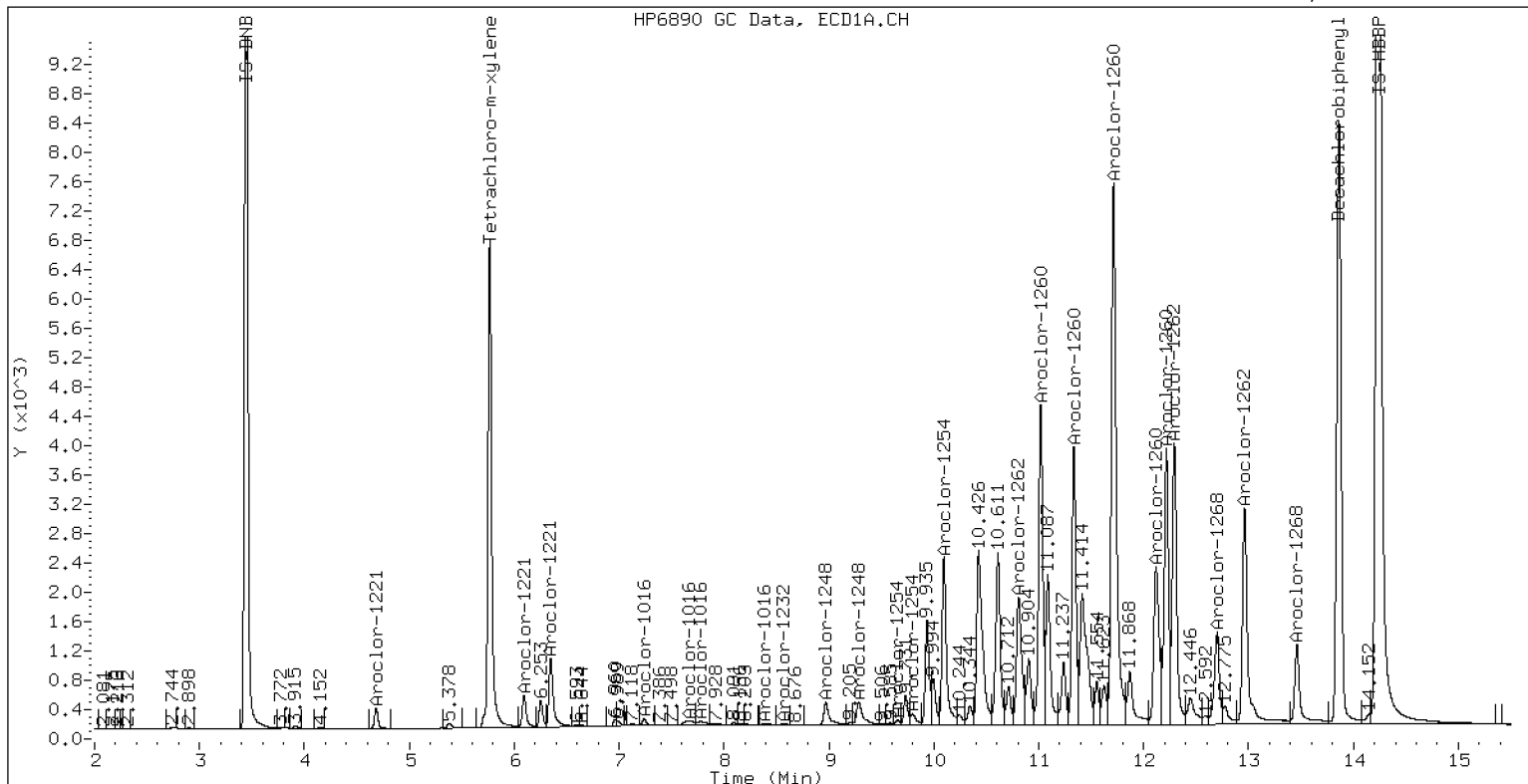
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV

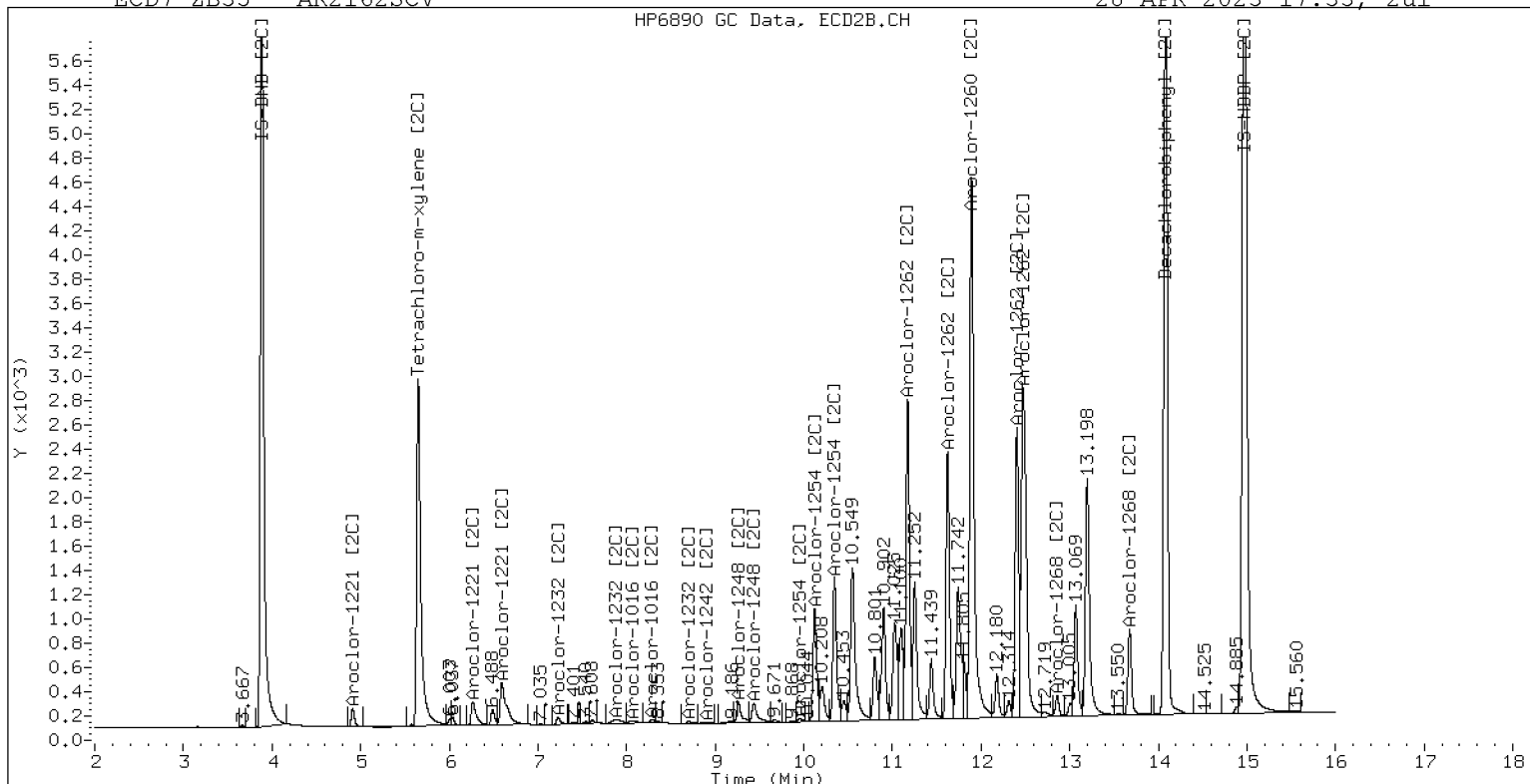
28-APR-2023 17:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV

28-APR-2023 17:33, 2ul

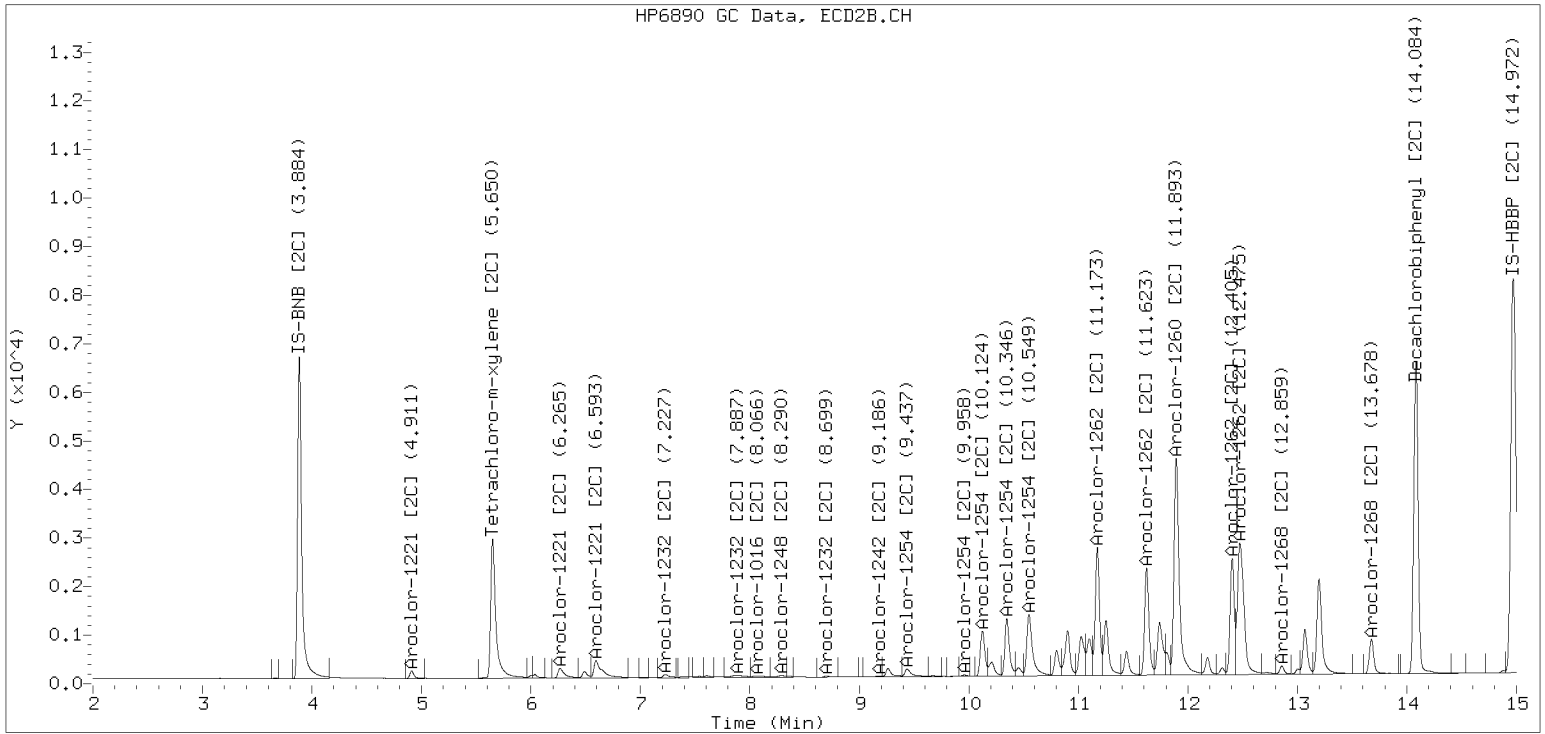


ZB-35 Manual Integration: NO

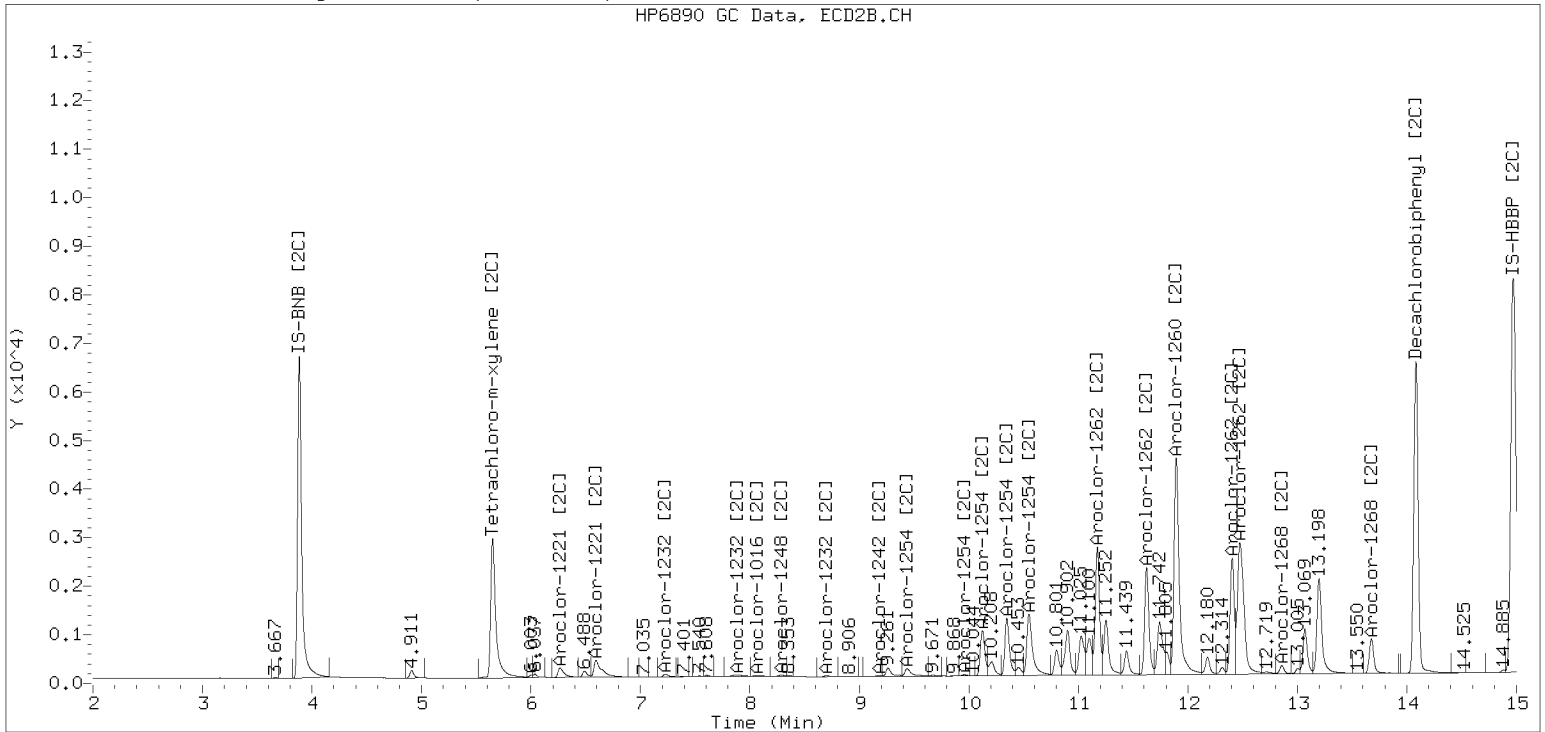
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282319ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00002

Laboratory ID: SLD0427-SCV6

Sequence: SLD0427

Sequence Name: AR3268SCV6

Standard ID: L002069

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1232	250.00	253	1.1	20.00
Aroclor 1232 [2C]	250.00	257	2.7	20.00
Aroclor 1268	250.00	242	-3.4	20.00
Aroclor 1268 [2C]	250.00	254	1.8	20.00
Decachlorobiphenyl	40.000	54.3	35.7	20.00
Tetrachlorometaxylene	40.000	39.7	-0.8	20.00
Decachlorobiphenyl [2C]	40.000	60.0	50.1	20.00
Tetrachlorometaxylene [2C]	40.000	38.1	-4.9	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282320ECD7.D
Data file 2: /230428.b/230428.b/04282320ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 28-APR-2023 17:54
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.767	0.001	344701	5.650	-0.000	190884	39.7	38.1	4.2	Tetrachloro-m-xylene
13.863	0.002	748678	14.083	-0.001	556825	54.3	60.0	10.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	594267	6.8
Hexabromobiphenyl	745660	1272651	70.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	357253	2.5
Hexabromobiphenyl	429949	572751	33.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.238	0.002	27428	119.4	1	7.224	0.003	22212	114.8
Aroclor-1016	2	7.645	0.018	67306	110.5	2	7.864	0.020	43795	114.5
Aroclor-1016	3	7.770	0.007	44634	108.2	3	8.063	0.009	25689	109.2
Aroclor-1016	4	8.384	0.008	23868	110.9	4	8.289	0.008	18313	104.5
Total CollAve (4 peaks):				112.2		Total Col2Ave (4 peaks):				110.7 RPD = 1
Corrected Ave (3 peaks):				109.9		Corrected Ave (3 peaks):				109.4 RPD = 0
Aroclor-1221	1	4.684	0.002	6934	152.4	1	4.912	0.002	3754	141.5
Aroclor-1221	2	6.095	0.001	14371	157.5	2	6.267	0.002	8987	158.6
Aroclor-1221	3	6.348	0.002	41876	193.5	3	6.596	0.002	24420	188.3
Total CollAve (3 peaks):				167.8		Total Col2Ave (3 peaks):				162.8 RPD = 3
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.684	0.002	6934	239.7	1	4.912	0.001	3754	244.1
Aroclor-1232	2	6.095	0.001	14371	224.6	2	7.224	-0.001	22212	259.7
Aroclor-1232	3	7.645	-0.006	67306	265.3	3	7.864	0.002	43795	259.5
Aroclor-1232	4	8.564	0.001	33203	281.0	4	8.693	-0.001	13696	263.5
Total CollAve (4 peaks):				252.6		Total Col2Ave (4 peaks):				256.7 RPD = 2
Corrected Ave (3 peaks):				243.2		Corrected Ave (3 peaks):				254.4 RPD = 5
Aroclor-1242	1	7.238	0.001	27428	147.9	1	7.224	0.002	22212	143.1
Aroclor-1242	2	7.645	0.007	67306	132.8	2	7.864	0.006	43795	141.0
Aroclor-1242	3	8.428	0.047	16206	95.1	3	8.693	-0.475	13696	127.5
Aroclor-1242	4	8.564	0.004	33203	131.6	4	8.897	-0.706	21265	192.9
Total CollAve (4 peaks):				126.9		Total Col2Ave (4 peaks):				151.1 RPD = 17
Corrected Ave (3 peaks):				119.8		Corrected Ave (3 peaks):				137.2 RPD = 14
Aroclor-1248	1	8.384	0.005	23868	83.1	1	8.693	0.408	13696	73.1
Aroclor-1248	2	8.564	0.005	33203	87.2	2	8.897	0.206	21265	128.9
Aroclor-1248	3	8.968	0.004	84096	74.0	3	9.261	0.097	25621	126.6
Aroclor-1248	4	9.276	0.005	56986	95.5	4	9.433	-0.160	6057	28.1
Total CollAve (4 peaks):				85.0		Total Col2Ave (4 peaks):				89.2 RPD = 5
Corrected Ave (3 peaks):				81.4		Corrected Ave (3 peaks):				75.9 RPD = 7
Aroclor-1254	1	9.276	0.000	56986	88.8	1	9.433	0.004	6057	22.7
Aroclor-1254	2	---			0.0	2	9.609	0.081	13368	82.1
Aroclor-1254	3	9.660	0.012	7875	19.4	3	9.958	0.008	2781	12.9
Aroclor-1254	4	9.800	0.010	12771	15.5	4	10.117	0.007	5502	11.8
Aroclor-1254	5	10.183	0.015	9957	23.0	5	10.379	0.024	5042	9.4
Total CollAve (4 peaks):				36.7		Total Col2Ave (5 peaks):				27.8 RPD = 28
Corrected Ave (3 peaks):				19.3		Corrected Ave (4 peaks):				14.2 RPD = 31
Aroclor-1260	1	11.023	0.005	98362	136.9	1	11.614	-0.010	74582	183.0
Aroclor-1260	2	11.337	0.004	8979	12.3	2	11.895	0.003	33641	31.5
Aroclor-1260	3	11.714	0.004	59413	31.4	3	12.402	-0.005	335038	1375.9
Aroclor-1260	4	---			0.0	4	12.470	-0.005	380342	522.0
Aroclor-1260	5	12.219	0.003	530793	1233.3	NS	---			----
Total CollAve (4 peaks):				353.5		Total Col2Ave (4 peaks):				528.1 RPD = 40
Corrected Ave (3 peaks):				60.2		Corrected Ave (3 peaks):				245.5 RPD = 121*
Aroclor-1262	1	10.815	0.006	5713	11.5	1	11.176	0.003	58379	102.0
Aroclor-1262	2	12.219	0.002	530793	612.0	2	11.614	-0.010	74582	154.7
Aroclor-1262	3	12.291	-0.001	548779	575.7	3	12.402	-0.002	335038	659.6
Aroclor-1262	4	12.960	-0.003	218981	284.8	4	12.470	-0.005	380342	433.3
Total CollAve (4 peaks):				371.0		Total Col2Ave (4 peaks):				337.4 RPD = 9
Corrected Ave (3 peaks):				290.7		Corrected Ave (3 peaks):				230.0 RPD = 23
Aroclor-1268	1	12.219	0.000	530793	243.0	1	12.402	-0.001	335038	253.1
Aroclor-1268	2	12.291	0.000	548779	241.2	2	12.470	-0.001	380342	253.2
Aroclor-1268	3	12.669	0.000	449251	237.4	3	12.859	0.001	314079	253.1
Aroclor-1268	4	13.461	-0.000	1338158	244.6	4	13.676	-0.001	976802	258.3
Total CollAve (4 peaks):				241.6		Total Col2Ave (4 peaks):				254.4 RPD = 5

Corrected Ave (3 peaks): 240.5 Corrected Ave (3 peaks): 253.1 RPD = 5

Total PCB Area Col1 (5.866 - 13.762) = 4336494 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 2807426 Col2 Total PCB = 0.7 ppm*

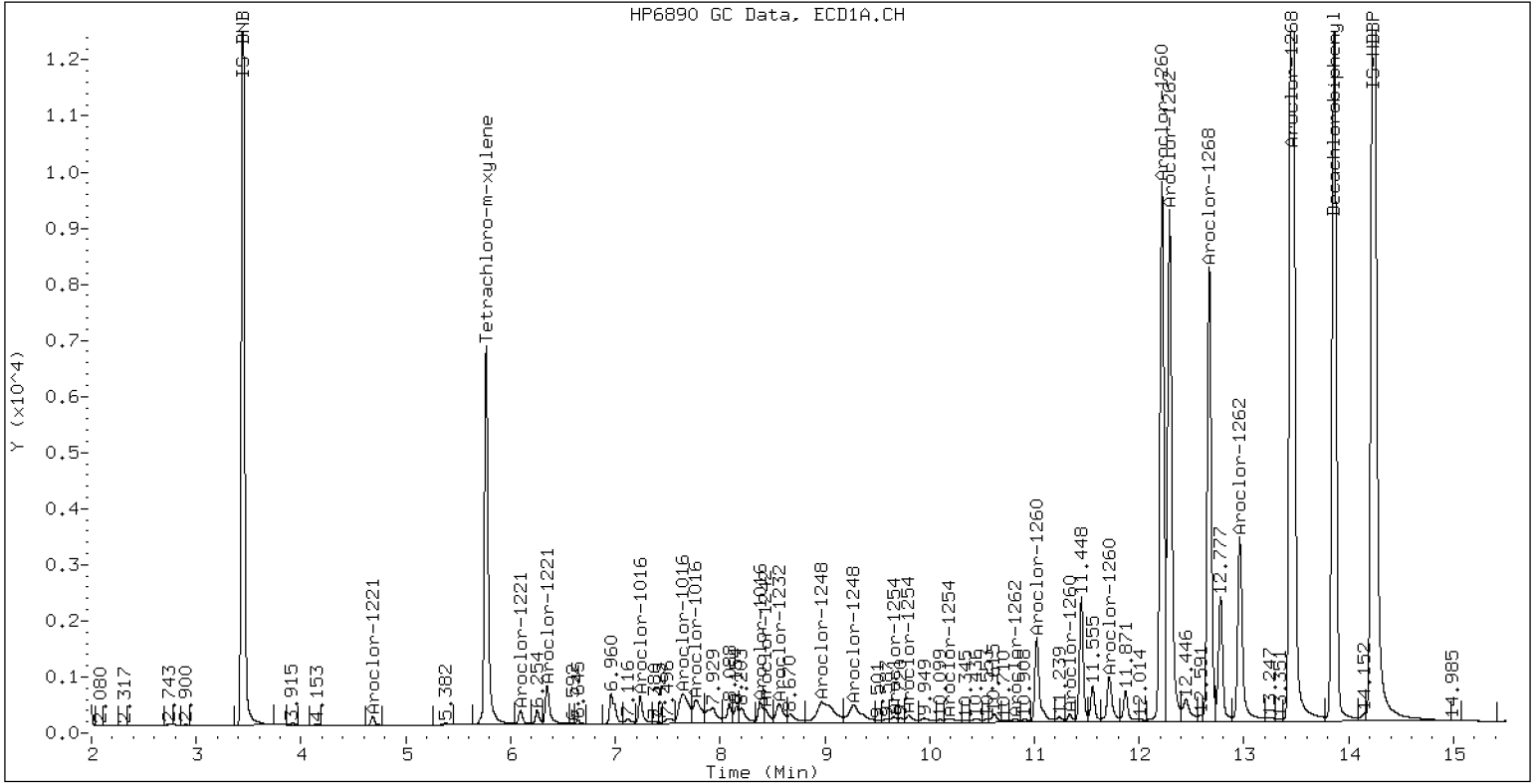
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV

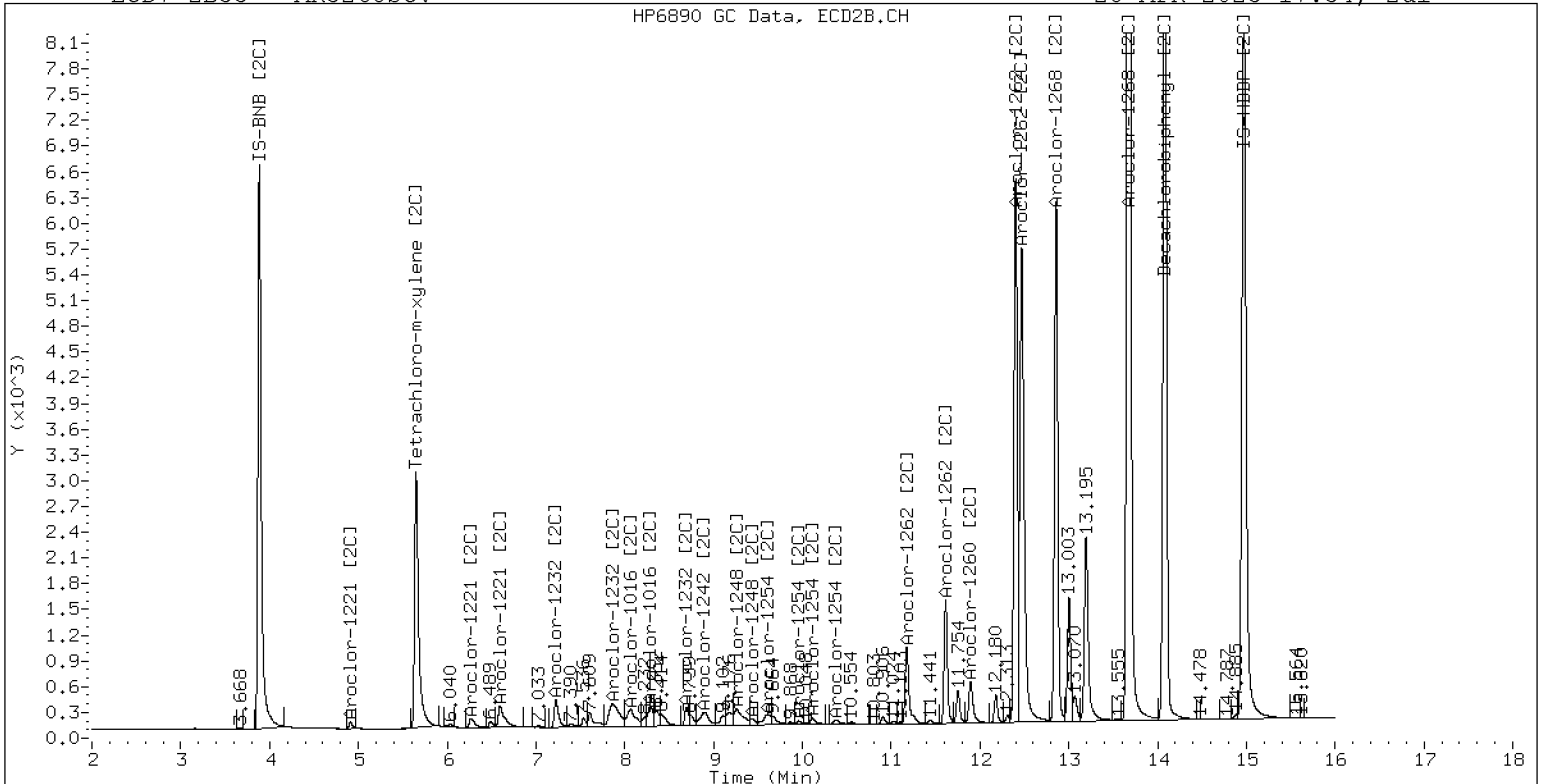
28-APR-2023 17:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV

28-APR-2023 17:54, 2ul

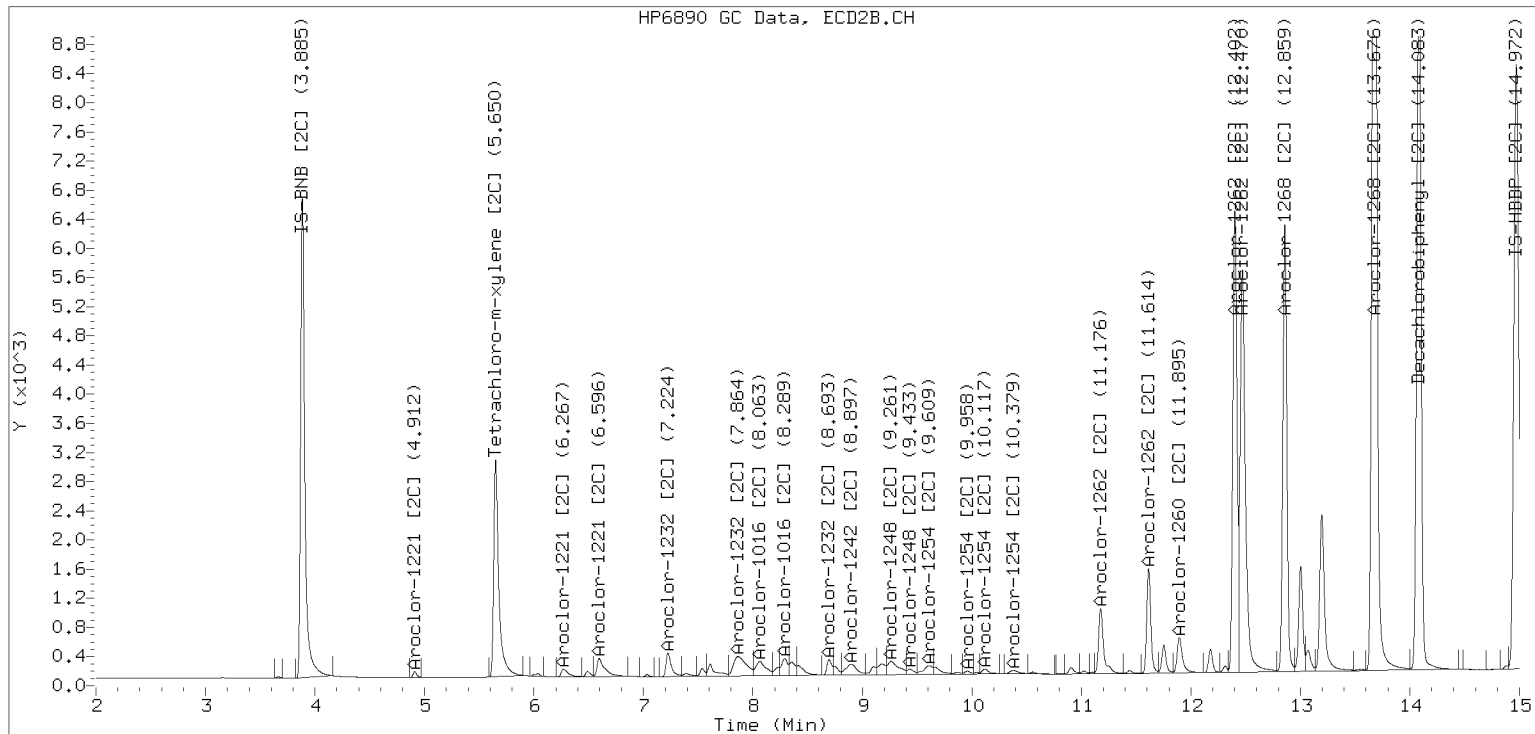


ZB-35 Manual Integration: YES

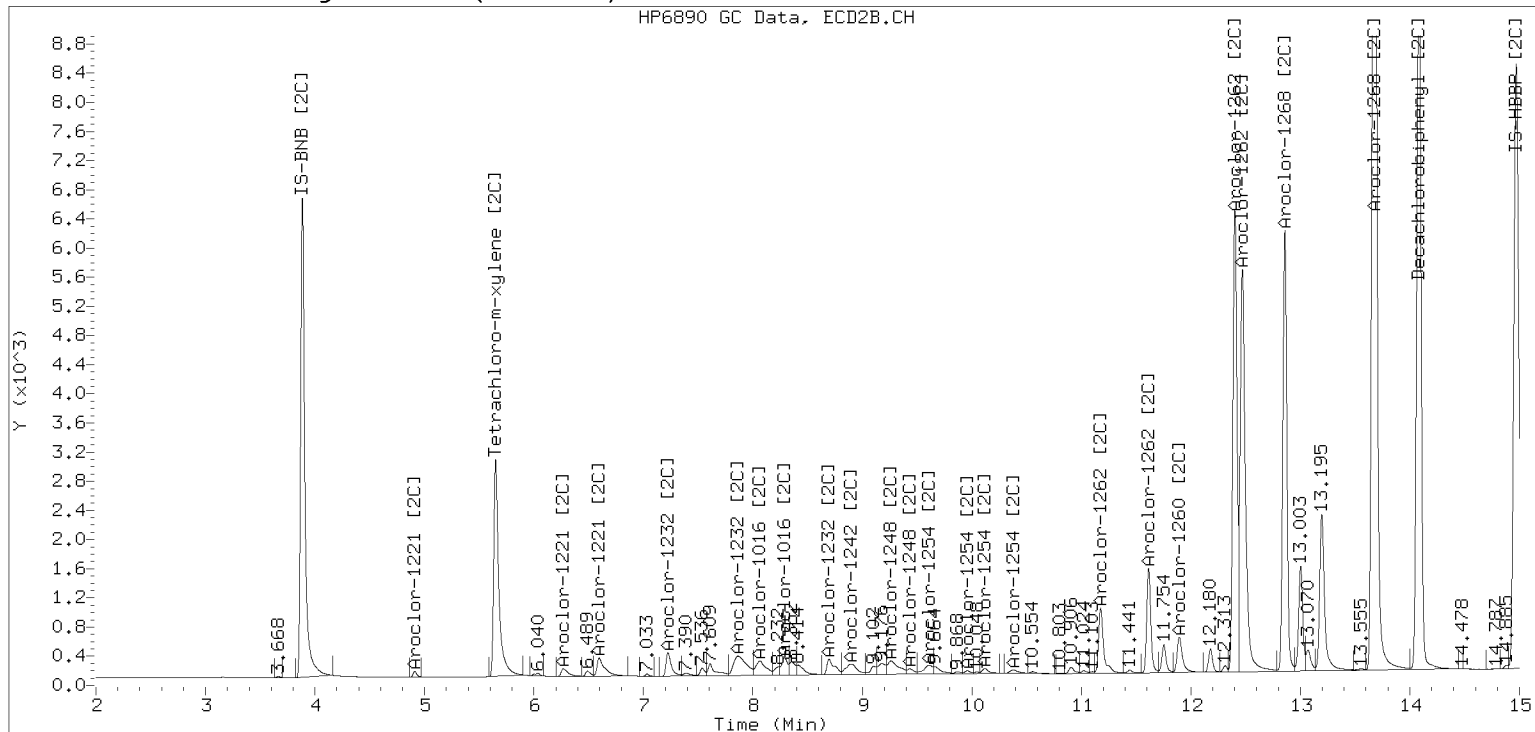
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282320ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00002</u>
Lab File ID:	<u>05022307ECD7.D</u>	Calibration Date:	<u>04/28/2023</u>
Sequence:	<u>SLE0029</u>	Injection Date:	<u>05/02/23</u>
Lab Sample ID:	<u>SLE0029-ICV1</u>	Injection Time:	<u>13:23</u>
Sequence Name:	<u>AR1254ICV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	252	0.0702659	0.0758963		0.8	+/-20
Aroclor-1254 (1)	A	250.00	234	0.0864147	0.0808793			
Aroclor-1254 (2)	A	250.00	244	0.0409579	0.0399497			
Aroclor-1254 (3)	A	250.00	263	0.0546340	0.0575179			
Aroclor-1254 (4)	A	250.00	265	0.1109842	0.1177748			
Aroclor-1254 (5)	A	250.00	254	0.0583385	0.0833598			
Aroclor 1254 [2C]	A	250.00	270	0.0739953	0.0799936		7.9	+/-20
Aroclor-1254 (1) [2C]	A	250.00	274	0.0598131	0.0655693			
Aroclor-1254 (2) [2C]	A	250.00	269	0.0364538	0.0392646			
Aroclor-1254 (3) [2C]	A	250.00	265	0.0484172	0.0512634			
Aroclor-1254 (4) [2C]	A	250.00	267	0.1048212	0.1119048			
Aroclor-1254 (5) [2C]	A	250.00	274	0.1204710	0.1319659			
Decachlorobiphenyl	A	40.000	38.1	0.8671959	0.8258731		-4.8	+/-20
Tetrachlorometaxylene	A	40.000	38.9	1.1690340	1.1370750		-2.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.3	1.2954910	1.2394460		-4.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.1	1.1231530	1.1273020		0.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022307ECD7.D
Data file 2: /230502.b/230502.b/05022307ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 02-MAY-2023 13:23
Report Date: 05/02/2023 14:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	313923	5.650	0.001	172869	38.9	40.1	3.1	Tetrachloro-m-xylene
13.861	0.001	347885	14.082	0.002	271158	38.1	38.3	0.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	552159	-0.7
Hexabromobiphenyl	745660	842466	13.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	306695	-12.0
Hexabromobiphenyl	429949	437547	1.8

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 28-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.271	-0.004	139557	234.0	1	9.428	0.000	62843	274.1	
Aroclor-1254	2	9.355	-0.004	68933	243.8	2	9.524	0.000	37632	269.3	
Aroclor-1254	3	9.646	-0.002	99247	263.2	3	9.947	0.000	49132	264.7	
Aroclor-1254	4	9.787	-0.003	203220	265.3	4	10.104	0.000	107252	266.9	
Aroclor-1254	5	10.162	-0.007	143837	254.2	5	10.351	0.000	126479	273.9	
Total CollAve (5 peaks):				252.1		Total Col2Ave (5 peaks):				269.8	RPD = 7
Corrected Ave (4 peaks):				248.8		Corrected Ave (4 peaks):				268.7	RPD = 8
CalAmt %D:				0.8		CalAmt %D:				7.9	

Total PCB Area Col1 (5.866 - 13.760) = 2129267 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.748 - 13.981) = 1069464 Col2 Total PCB = 0.3 ppm*

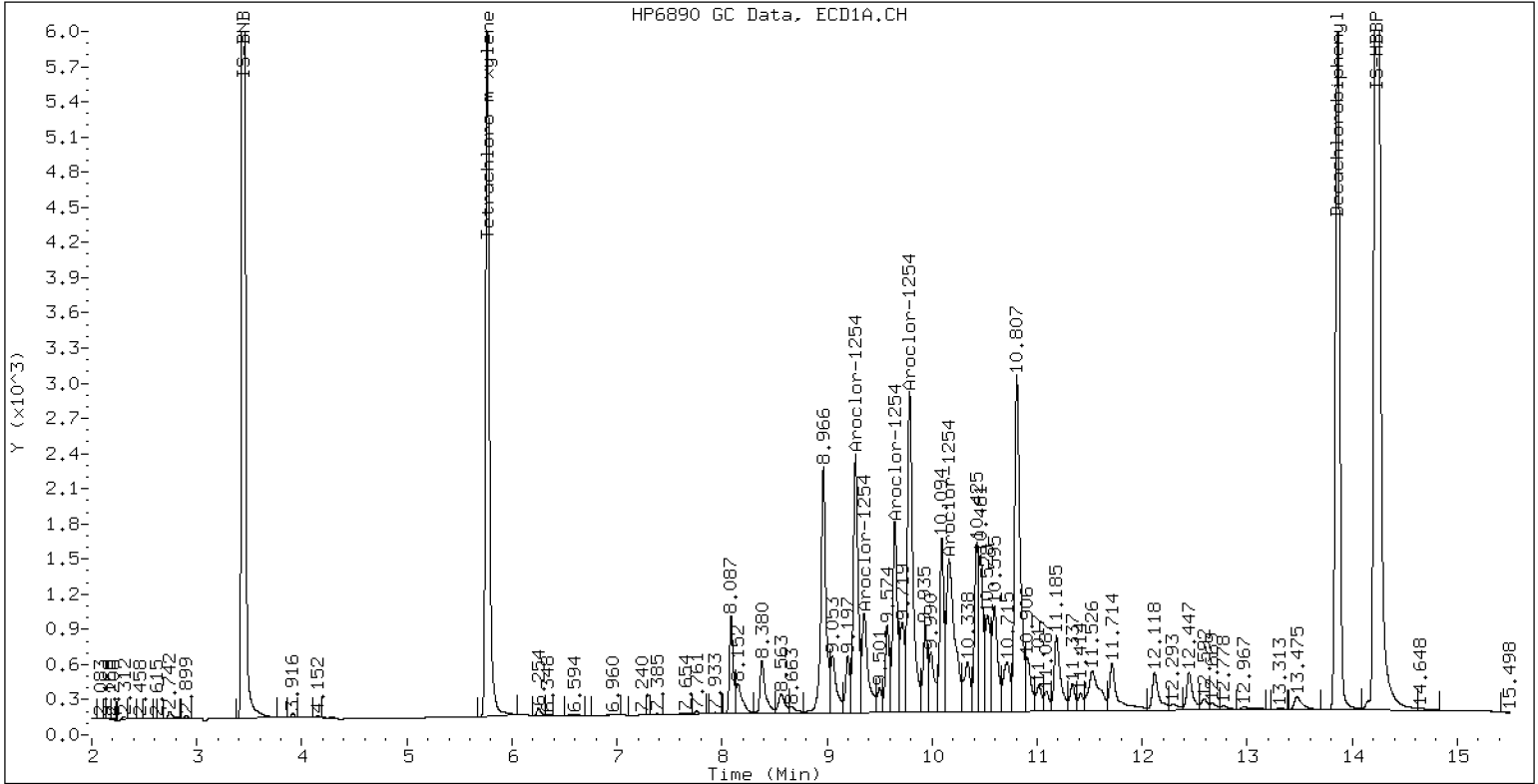
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254ICV1

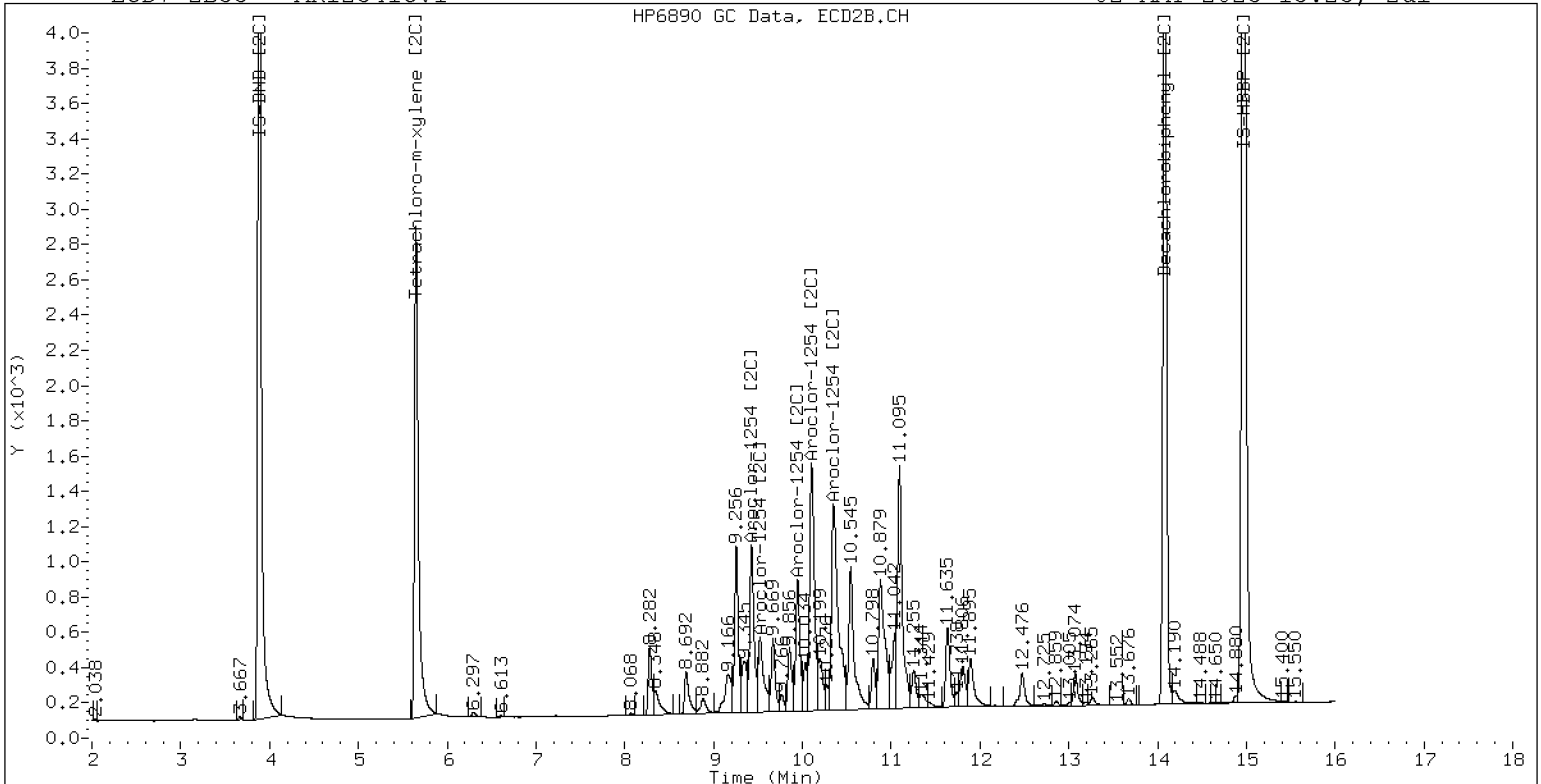
02-MAY-2023 13:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254ICV1

02-MAY-2023 13:23, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022308ECD7.D
Data file 2: /230502.b/230502.b/05022308ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 02-MAY-2023 13:44
Report Date: 05/02/2023 14:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.765	-0.001	334855	5.648	0.000	182280	40.6	46.1	12.7	Tetrachloro-m-xylene
13.860	0.000	374453	14.081	0.000	282543	39.8	39.3	1.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	563960	1.4
Hexabromobiphenyl	745660	868947	16.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	281447	-19.2
Hexabromobiphenyl	429949	443625	3.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.236	0.001	52492	250.2	1	7.220	0.000	46476	304.9
Aroclor-1016	2	7.629	0.002	167597	289.9	2	7.846	0.000	99326	329.7
Aroclor-1016	3	7.763	0.000	94979	240.1	3	8.055	0.000	44436	239.7
Aroclor-1016	4	8.377	0.001	53458	262.7	4	8.281	0.000	34408	249.1
Total CollAve (4 peaks):				260.7		Total Col2Ave (4 peaks):				280.9 RPD = 7
Corrected Ave (3 peaks):				251.0		Corrected Ave (3 peaks):				264.6 RPD = 5
CalAmt %D:				4.3		CalAmt %D:				12.3
Aroclor-1260	1	11.016	-0.001	138461	282.2	1	11.623	0.000	76764	243.2
Aroclor-1260	2	11.333	-0.000	136413	274.1	2	11.891	0.000	204361	246.7
Aroclor-1260	3	11.709	-0.001	365724	283.2	3	12.404	0.000	47927	254.1
Aroclor-1260	4	12.117	0.002	146405	228.6	4	12.473	0.000	137689	244.0
Aroclor-1260	5	12.215	-0.001	77078	262.3	NS	---			----
Total CollAve (5 peaks):				266.1		Total Col2Ave (4 peaks):				247.0 RPD = 7
Corrected Ave (4 peaks):				261.8		Corrected Ave (3 peaks):				244.6 RPD = 7
CalAmt %D:				6.4		CalAmt %D:				-1.2

Total PCB Area Coll (5.866 - 13.760) = 3704161 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.748 - 13.981) = 1898967 Col2 Total PCB = 0.6 ppm*

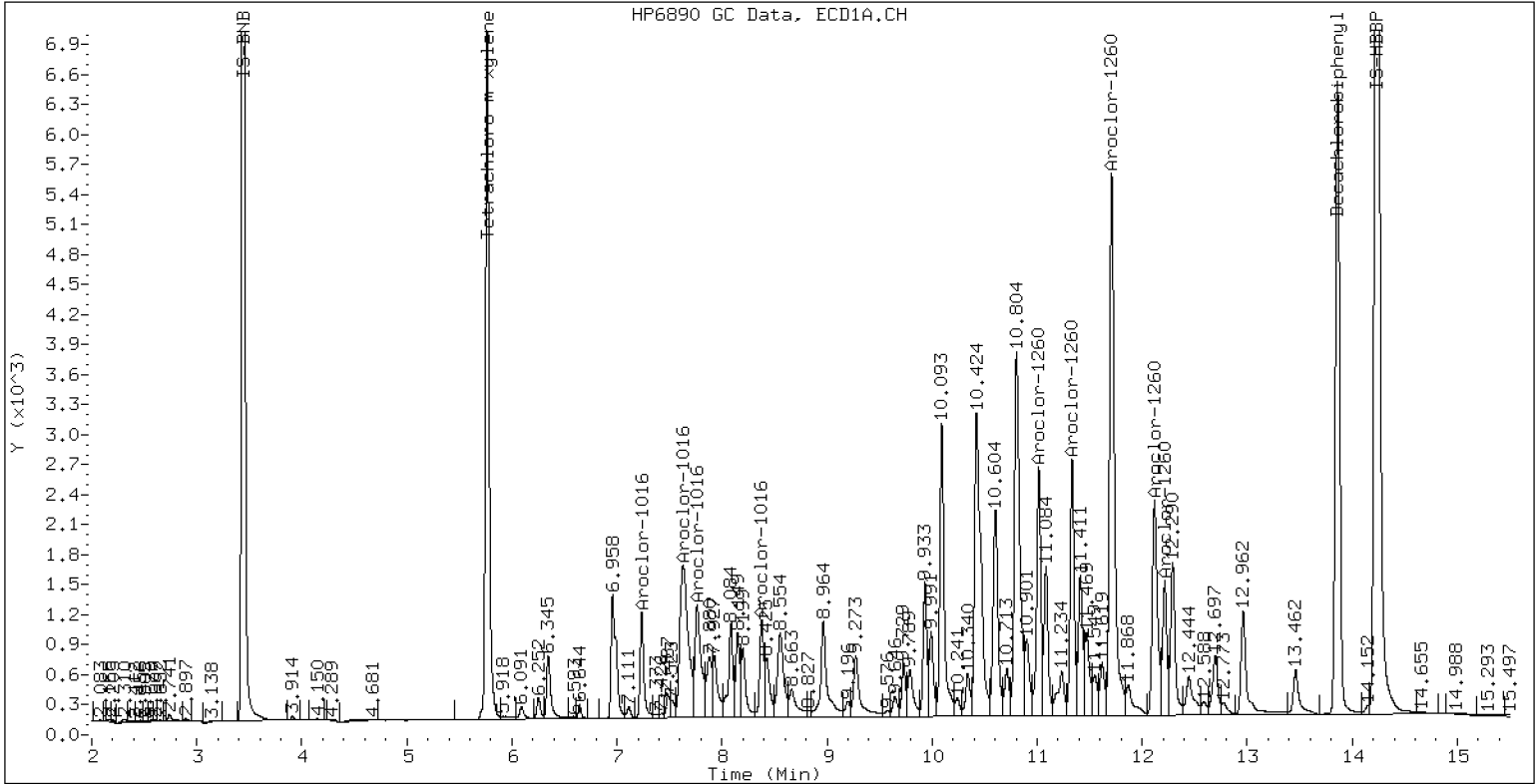
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660ICV2

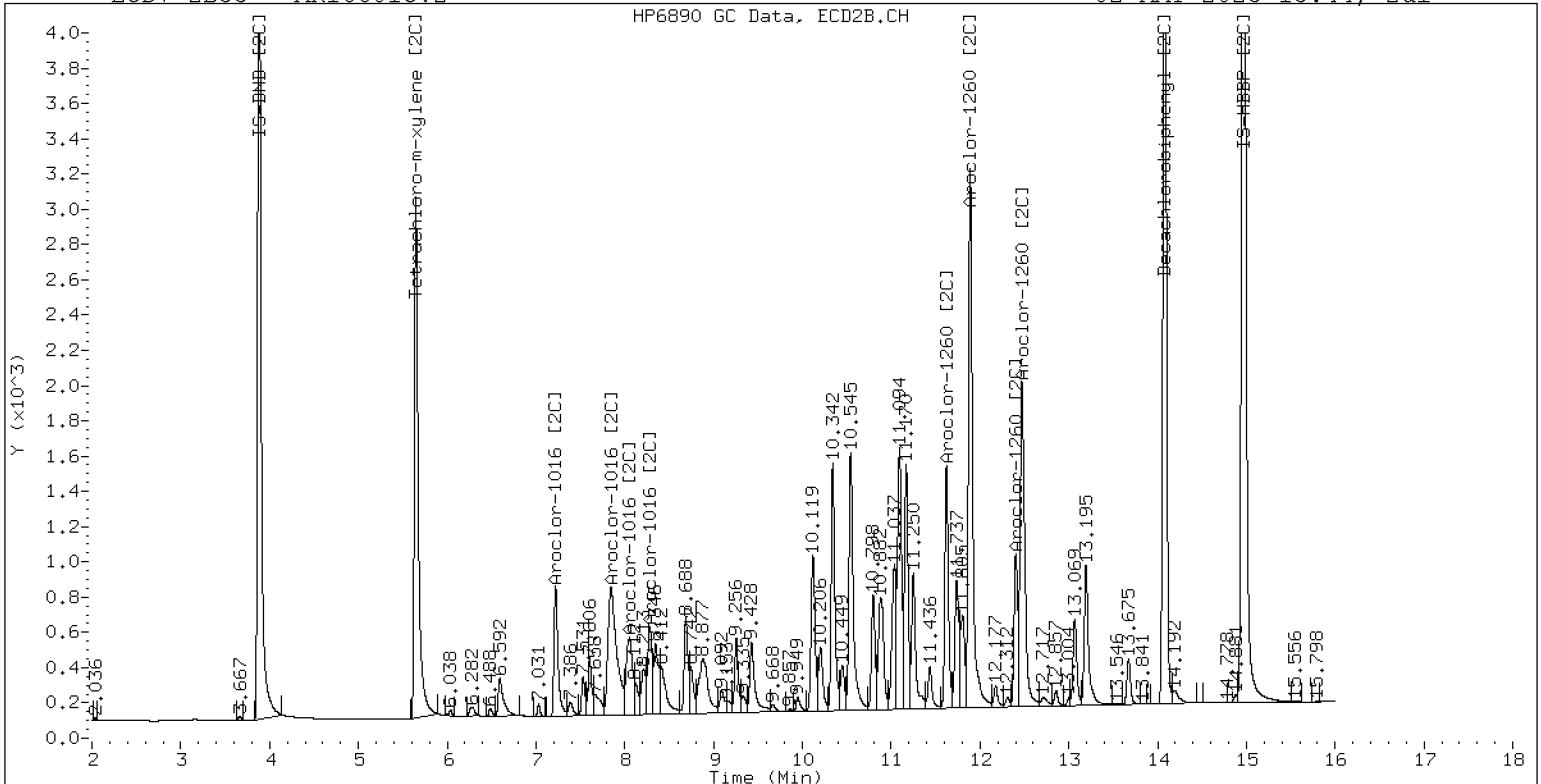
02-MAY-2023 13:44, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660ICV2

02-MAY-2023 13:44, 2ul

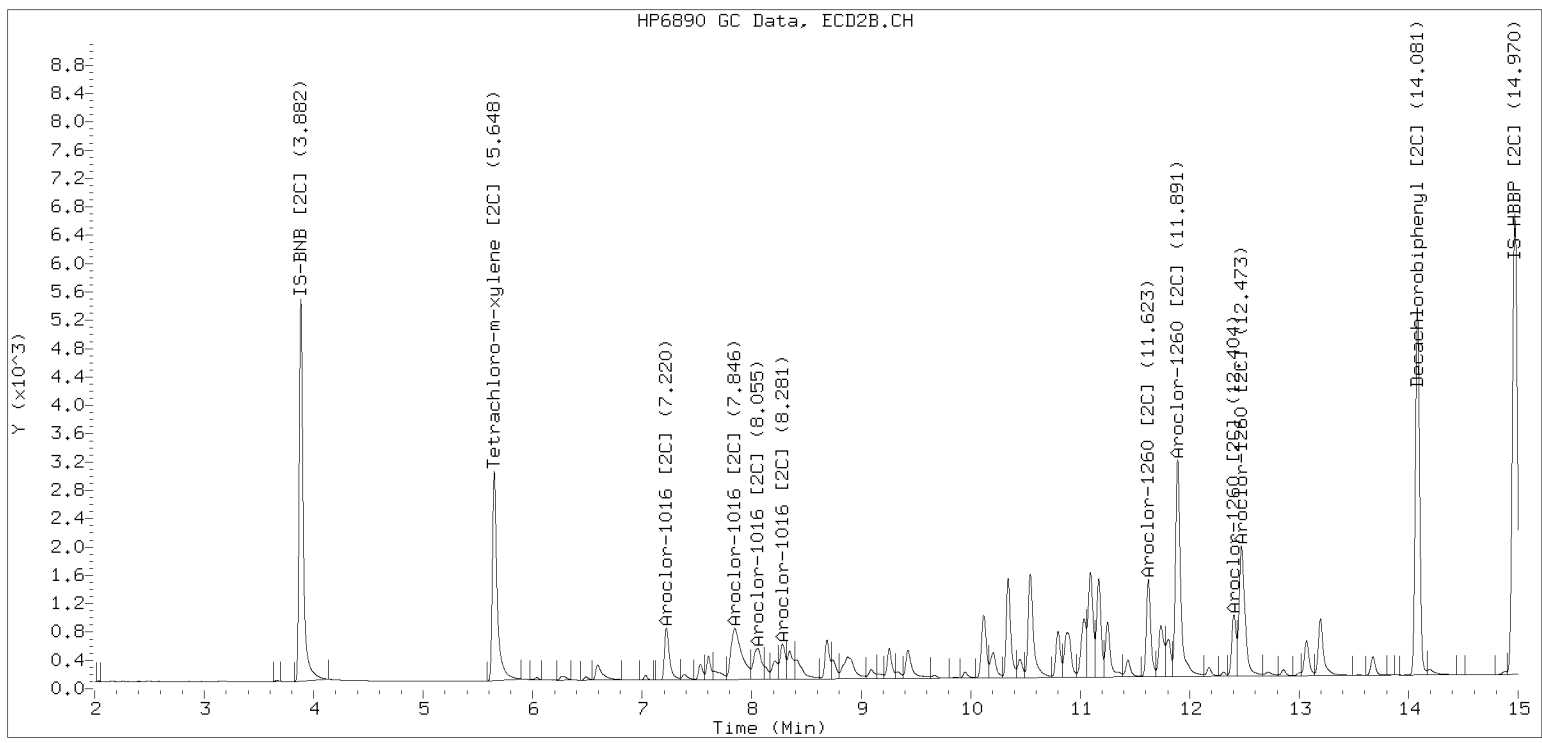


ZB-35 Manual Integration: YES

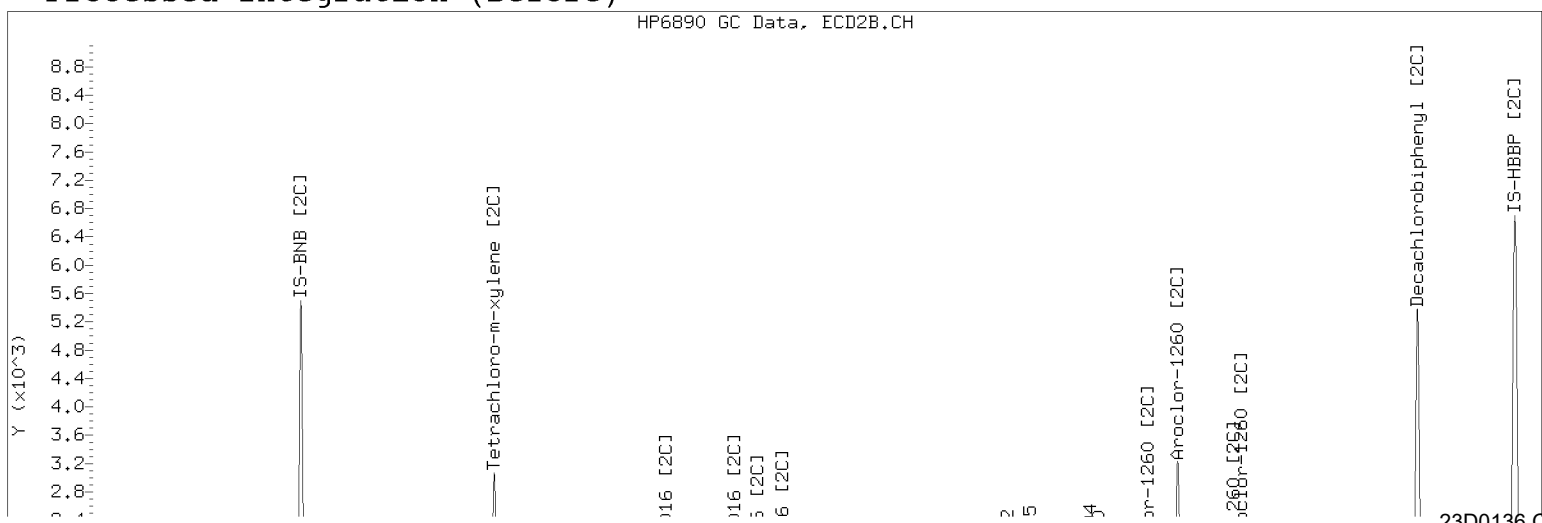
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230502.b/230502.b/05022308ECD7.D Injection Date: 02-MAY-2023 13:44

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282315ECD7.D
Data file 2: /230428.b/230428.b/04282315ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 28-APR-2023 16:09
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.766	-0.000	328442	5.650	-0.000	184023	37.6	36.1	4.0	Tetrachloro-m-xylene
13.862	0.000	457973	14.083	-0.001	349905	36.6	38.9	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	597924	7.5
Hexabromobiphenyl	745660	1154377	54.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	362828	4.1
Hexabromobiphenyl	429949	555238	29.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.236	0.001	58167	251.6	1	7.223	0.002	49868	253.8
Aroclor-1016	2	7.636	0.008	162832	265.6	2	7.853	0.009	102116	262.9
Aroclor-1016	3	7.766	0.003	98114	236.5	3	8.060	0.005	57971	242.6
Aroclor-1016	4	8.378	0.002	55690	257.2	4	8.285	0.005	41472	232.9
Total CollAve (4 peaks):				252.7		Total Col2Ave (4 peaks):				248.1 RPD = 2
Corrected Ave (3 peaks):				248.4		Corrected Ave (3 peaks):				243.1 RPD = 2
Aroclor-1221	1	4.683	0.001	327	7.1	1	---			0.0
Aroclor-1221	2	6.092	-0.001	8500	92.6	2	6.279	0.013	4329	75.2
Aroclor-1221	3	6.347	0.001	39437	181.1	3	6.596	0.002	22951	174.3
Total CollAve (3 peaks):				93.6		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.683	0.001	327	11.2	1	---			0.0
Aroclor-1232	2	6.092	-0.001	8500	132.0	2	7.223	-0.002	49868	574.1
Aroclor-1232	3	7.636	-0.015	162832	637.9	3	7.853	-0.010	102116	595.7
Aroclor-1232	4	8.559	-0.004	77917	655.3	4	8.690	-0.003	33380	632.3
Total CollAve (4 peaks):				359.1		Total Col2Ave (3 peaks):				600.7 RPD = 50*
Corrected Ave (3 peaks):				260.4		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.236	-0.000	58167	311.8	1	7.223	0.001	49868	316.3
Aroclor-1242	2	7.636	-0.002	162832	319.3	2	7.853	-0.006	102116	323.8
Aroclor-1242	3	8.423	0.042	38520	224.6	3	8.690	-0.477	33380	306.1
Aroclor-1242	4	8.559	-0.002	77917	307.0	4	8.889	-0.714	53314	476.2
Total CollAve (4 peaks):				290.7		Total Col2Ave (4 peaks):				355.6 RPD = 20
Corrected Ave (3 peaks):				281.1		Corrected Ave (3 peaks):				315.4 RPD = 11
Aroclor-1248	1	8.378	-0.001	55690	192.8	1	8.690	0.406	33380	175.4
Aroclor-1248	2	8.559	-0.000	77917	203.4	2	8.889	0.198	53314	318.2
Aroclor-1248	3	8.966	0.002	73557	64.3	3	9.258	0.095	27563	134.1
Aroclor-1248	4	9.279	0.008	51235	85.3	4	9.431	-0.163	27687	126.3
Total CollAve (4 peaks):				136.5		Total Col2Ave (4 peaks):				188.5 RPD = 32
Corrected Ave (3 peaks):				114.1		Corrected Ave (3 peaks):				145.3 RPD = 24
Aroclor-1254	1	9.279	0.004	51235	79.3	1	9.431	0.001	27687	102.1
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	9.649	0.001	5569	13.6	3	9.953	0.003	2877	13.1
Aroclor-1254	4	9.790	0.001	20622	24.9	4	10.122	0.013	59350	124.8
Aroclor-1254	5	10.094	-0.074	163613	375.2	5	10.345	-0.011	83726	153.2
Total CollAve (4 peaks):				123.3		Total Col2Ave (4 peaks):				98.3 RPD = 23
Corrected Ave (3 peaks):				39.3		Corrected Ave (3 peaks):				80.0 RPD = 68*
Aroclor-1260	1	11.018	0.001	162373	249.1	1	11.624	0.000	96769	245.0
Aroclor-1260	2	11.335	0.002	163247	246.9	2	11.893	0.001	269412	259.9
Aroclor-1260	3	11.711	0.001	430555	250.9	3	12.406	-0.001	64881	274.8
Aroclor-1260	4	12.118	0.002	188077	221.1	4	12.476	0.001	182024	257.7
Aroclor-1260	5	12.216	0.000	99127	253.9	NS	---			----
Total CollAve (5 peaks):				244.4		Total Col2Ave (4 peaks):				259.3 RPD = 6
Corrected Ave (4 peaks):				242.0		Corrected Ave (3 peaks):				254.2 RPD = 5
Aroclor-1262	1	10.808	-0.000	229421	509.3	1	11.172	-0.001	104566	188.4
Aroclor-1262	2	12.216	-0.000	99127	126.0	2	11.624	0.000	96769	207.0
Aroclor-1262	3	12.292	0.000	123787	143.2	3	12.406	0.002	64881	131.8
Aroclor-1262	4	12.963	0.001	107216	153.7	4	12.476	0.001	182024	213.9
Total CollAve (4 peaks):				233.0		Total Col2Ave (4 peaks):				185.3 RPD = 23
Corrected Ave (3 peaks):				141.0		Corrected Ave (3 peaks):				175.7 RPD = 22
Aroclor-1268	1	12.216	-0.002	99127	50.0	1	12.406	0.002	64881	50.6
Aroclor-1268	2	12.292	0.002	123787	60.0	2	12.476	0.005	182024	125.0
Aroclor-1268	3	12.700	0.030	49518	28.9	3	12.859	0.000	4065	3.4
Aroclor-1268	4	13.461	0.000	25958	5.2	4	13.677	-0.000	14756	4.0
Total CollAve (4 peaks):				36.0		Total Col2Ave (4 peaks):				45.7 RPD = 24
Corrected Ave (3 peaks):				28.0		Corrected Ave (3 peaks):				19.3 RPD = 37

Total PCB Area Col1 (5.866 - 13.762) = 3921238 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 2234032 Col2 Total PCB = 0.5 ppm*

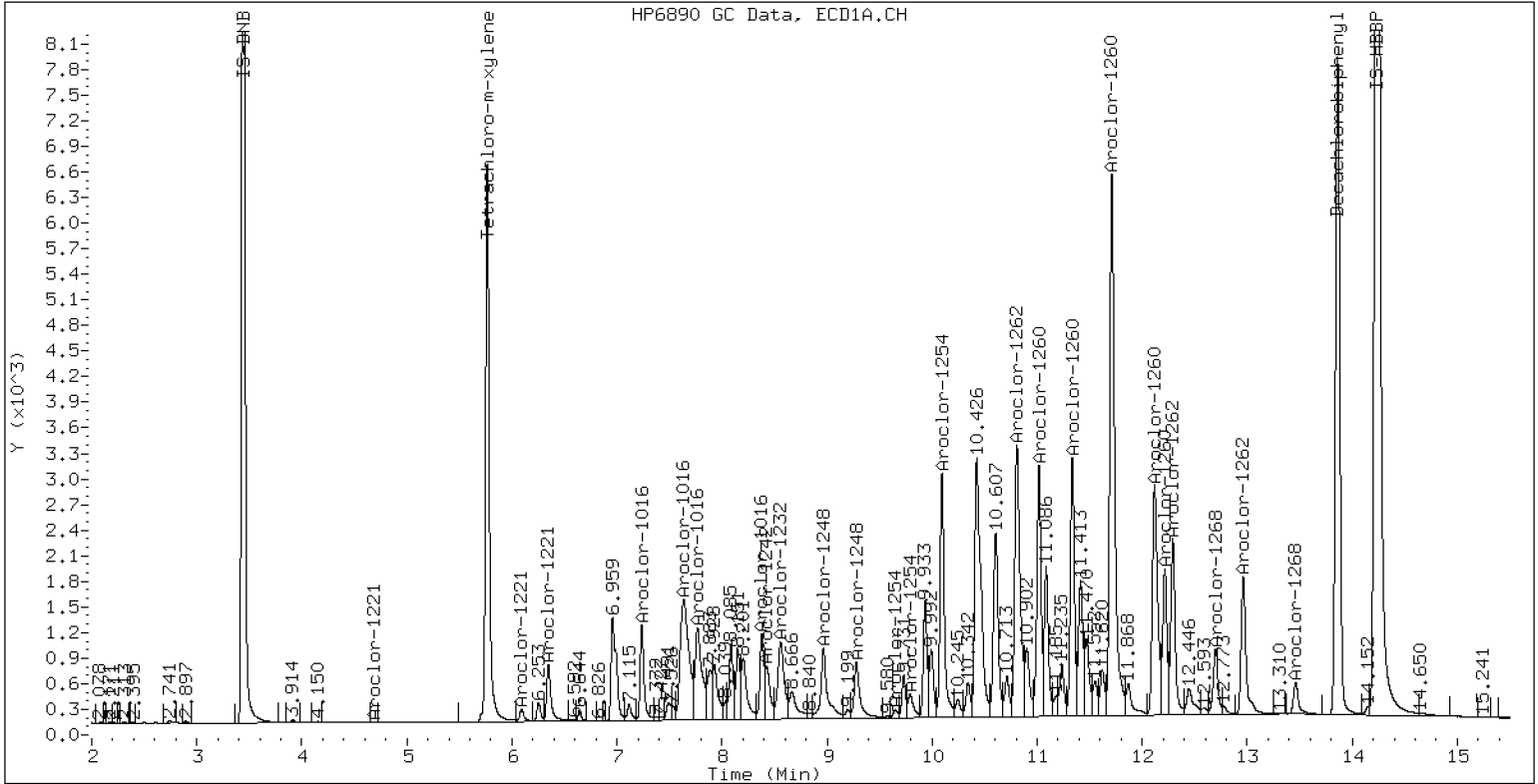
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV

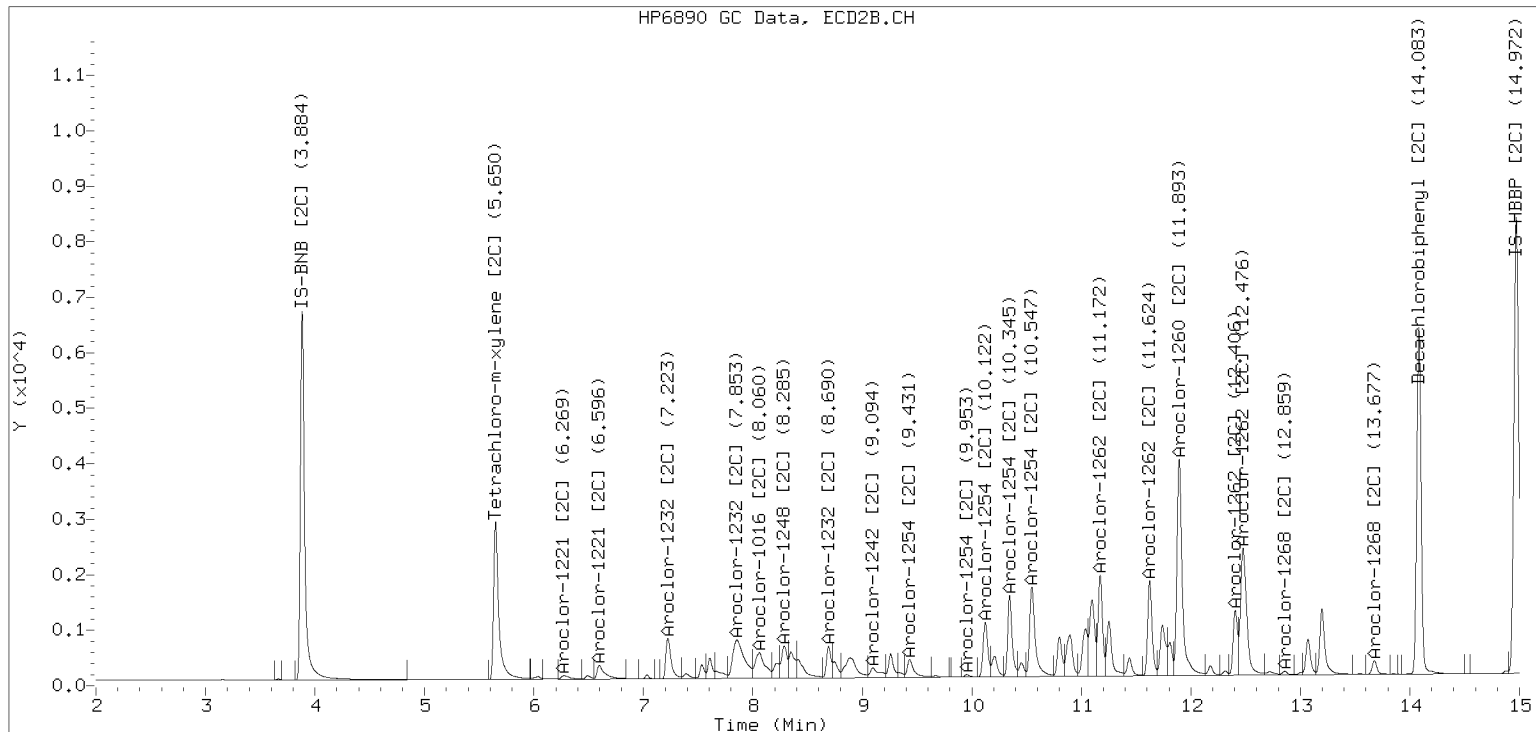
28-APR-2023 16:09, 2ul



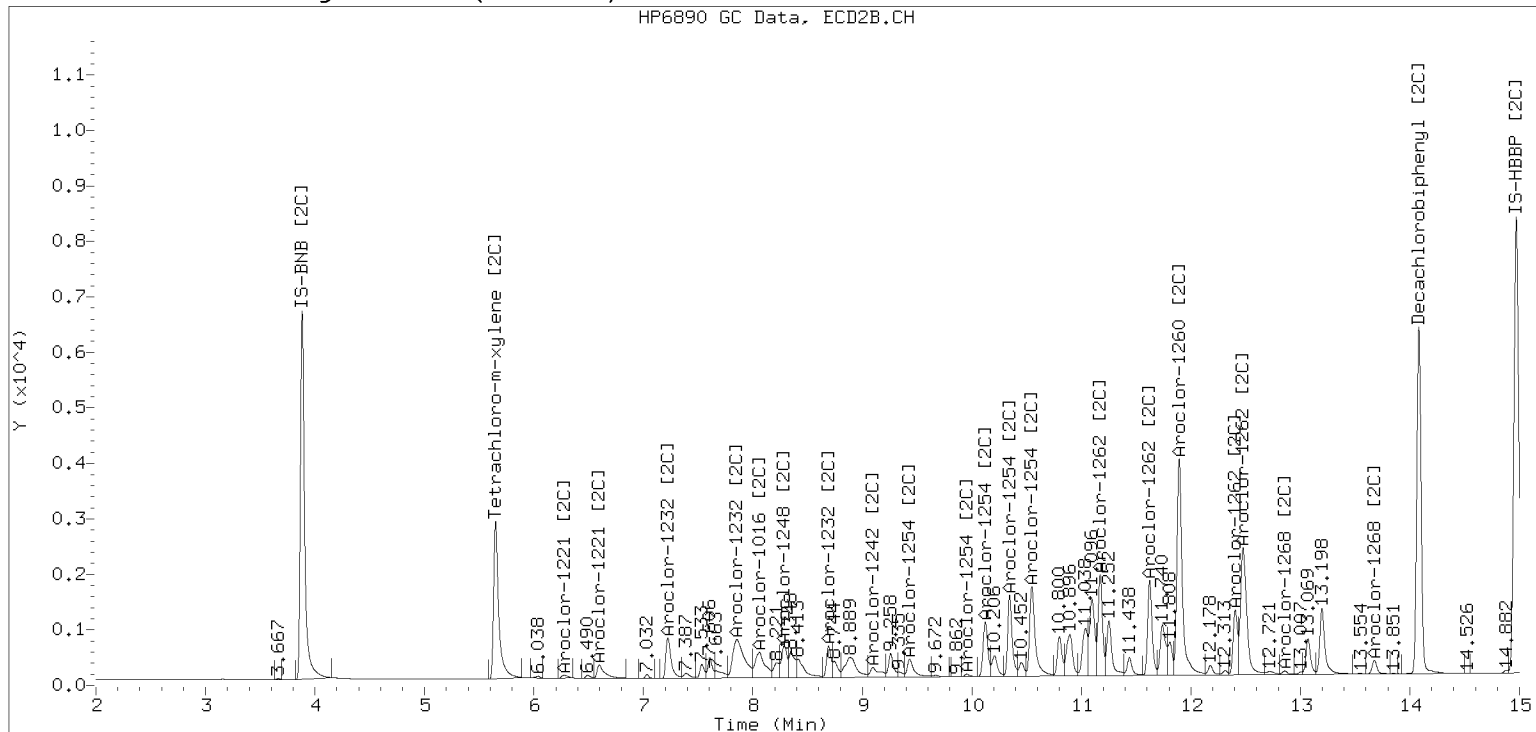
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282315ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00002</u>
Lab File ID:	<u>04282316ECD7.D</u>	Calibration Date:	<u>04/28/2023</u>
Sequence:	<u>SLD0427</u>	Injection Date:	<u>04/28/23</u>
Lab Sample ID:	<u>SLD0427-SCV2</u>	Injection Time:	<u>16:30</u>
Sequence Name:	<u>AR1242SCV2</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	238	0.0375243	0.0354152		-4.9	+/-20
Aroclor 1242 [2C]	A	250.00	249	0.0382553	0.0375619		-0.3	+/-20
Decachlorobiphenyl	A	40.000	40.7	0.8671959	0.8817611		1.7	+/-20
Tetrachlorometaxylene	A	40.000	33.9	1.1690340	0.9894074		-15.4	+/-20
Decachlorobiphenyl [2C]	A	40.000	43.6	1.2954910	1.4104730		8.9	+/-20
Tetrachlorometaxylene [2C]	A	40.000	32.6	1.1231530	0.9160036		-18.4	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282316ECD7.D
Data file 2: /230428.b/230428.b/04282316ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 28-APR-2023 16:30
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	292500	5.650	-0.001	164326	33.9	32.6	3.7	Tetrachloro-m-xylene
13.864	0.002	517644	14.083	-0.001	393716	40.7	43.6	6.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	591263	6.3
Hexabromobiphenyl	745660	1174114	57.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	358789	3.0
Hexabromobiphenyl	429949	558275	29.8

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 28-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.237	0.001	42869	187.5	1	7.224	0.002	36830	189.5
Aroclor-1016	2	7.642	0.014	116563	192.3	2	7.859	0.015	74679	194.4
Aroclor-1016	3	7.767	0.004	72620	177.0	3	8.061	0.007	42627	180.4
Aroclor-1016	4	8.381	0.005	41808	195.2	4	8.287	0.006	31937	181.4
Total CollAve (4 peaks):				188.0		Total Col2Ave (4 peaks):				186.4 RPD = 1
Corrected Ave (3 peaks):				185.6		Corrected Ave (3 peaks):				183.8 RPD = 1
Aroclor-1221	1	4.687	0.005	261	5.8	1	---			0.0
Aroclor-1221	2	6.092	-0.002	5439	59.9	2	6.288	0.022	3034	53.3
Aroclor-1221	3	6.348	0.002	27795	129.1	3	6.597	0.003	16171	124.2
Total CollAve (3 peaks):				64.9		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.687	0.004	261	9.1	1	---			0.0
Aroclor-1232	2	6.092	-0.002	5439	85.4	2	7.224	-0.001	36830	428.8
Aroclor-1232	3	7.642	-0.009	116563	461.7	3	7.859	-0.003	74679	440.5
Aroclor-1232	4	8.560	-0.004	60506	514.6	4	8.693	-0.001	25516	488.8
Total CollAve (4 peaks):				267.7		Total Col2Ave (3 peaks):				452.7 RPD = 51*
Corrected Ave (3 peaks):				185.4		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.237	0.000	42869	232.4	1	7.224	0.002	36830	236.3
Aroclor-1242	2	7.642	0.003	116563	231.1	2	7.859	0.001	74679	239.5
Aroclor-1242	3	8.381	-0.000	41808	246.5	3	9.173	0.005	27704	256.9
Aroclor-1242	4	8.560	-0.001	60506	241.1	4	9.602	-0.001	29247	264.2
Total CollAve (4 peaks):				237.8		Total Col2Ave (4 peaks):				249.2 RPD = 5
Corrected Ave (3 peaks):				234.9		Corrected Ave (3 peaks):				244.2 RPD = 4
Aroclor-1248	1	8.381	0.002	41808	146.4	1	8.693	0.408	25516	135.6
Aroclor-1248	2	8.560	0.000	60506	159.7	2	8.890	0.199	41427	250.0
Aroclor-1248	3	8.967	0.003	153088	135.4	3	9.258	0.094	51085	251.4
Aroclor-1248	4	9.276	0.004	79463	133.8	4	9.433	-0.160	16032	74.0
Total CollAve (4 peaks):				143.8		Total Col2Ave (4 peaks):				177.7 RPD = 21
Corrected Ave (3 peaks):				138.5		Corrected Ave (3 peaks):				153.2 RPD = 10
Aroclor-1254	1	9.276	-0.000	79463	124.4	1	9.433	0.004	16032	59.8
Aroclor-1254	2	9.354	-0.004	29048	96.0	2	9.602	0.074	29247	178.9
Aroclor-1254	3	9.654	0.006	18218	45.1	3	9.955	0.005	10890	50.2
Aroclor-1254	4	9.799	0.009	31107	37.9	4	10.114	0.004	21158	45.0
Aroclor-1254	5	10.188	0.019	22524	52.2	5	10.380	0.024	20273	37.5
Total CollAve (5 peaks):				71.1		Total Col2Ave (5 peaks):				74.3 RPD = 4
Corrected Ave (4 peaks):				57.8		Corrected Ave (4 peaks):				48.1 RPD = 18
Aroclor-1260	1	11.022	0.005	1107	1.7	1	11.645	0.021	2082	5.2
Aroclor-1260	2	11.341	0.007	839	1.2	2	11.903	0.011	1433	1.4
Aroclor-1260	3	11.721	0.011	1240	0.7	3	12.477	0.071	1326	5.6
Aroclor-1260	4	12.127	0.011	1362	1.6	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			---
Total CollAve (4 peaks):				1.3		Total Col2Ave (3 peaks):				4.1 RPD = 103*
Corrected Ave (3 peaks):				1.2		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.818	0.009	16810	36.7	1	11.105	-0.068	10045	18.0
Aroclor-1262	2	12.127	-0.090	1362	1.7	2	11.645	0.021	2082	4.4
Aroclor-1262	3	12.308	0.016	110	0.1	3	12.477	0.074	1326	2.7
Aroclor-1262	4	13.018	0.056	1070	1.5	4	---			0.0
Total CollAve (4 peaks):				10.0		Total Col2Ave (3 peaks):				8.4 RPD = 18
Corrected Ave (3 peaks):				1.1		Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.308	0.090	110	0.1	1	12.477	0.074	1326	1.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.671	0.001	2482	1.4	3	12.861	0.003	1233	1.0
Aroclor-1268	4	13.468	0.007	10976	2.2	4	13.676	-0.000	2739	0.7
Total CollAve (3 peaks):				1.2		Total Col2Ave (3 peaks):				0.9 RPD = 27
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.866 - 13.762) = 1193104 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 682890 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

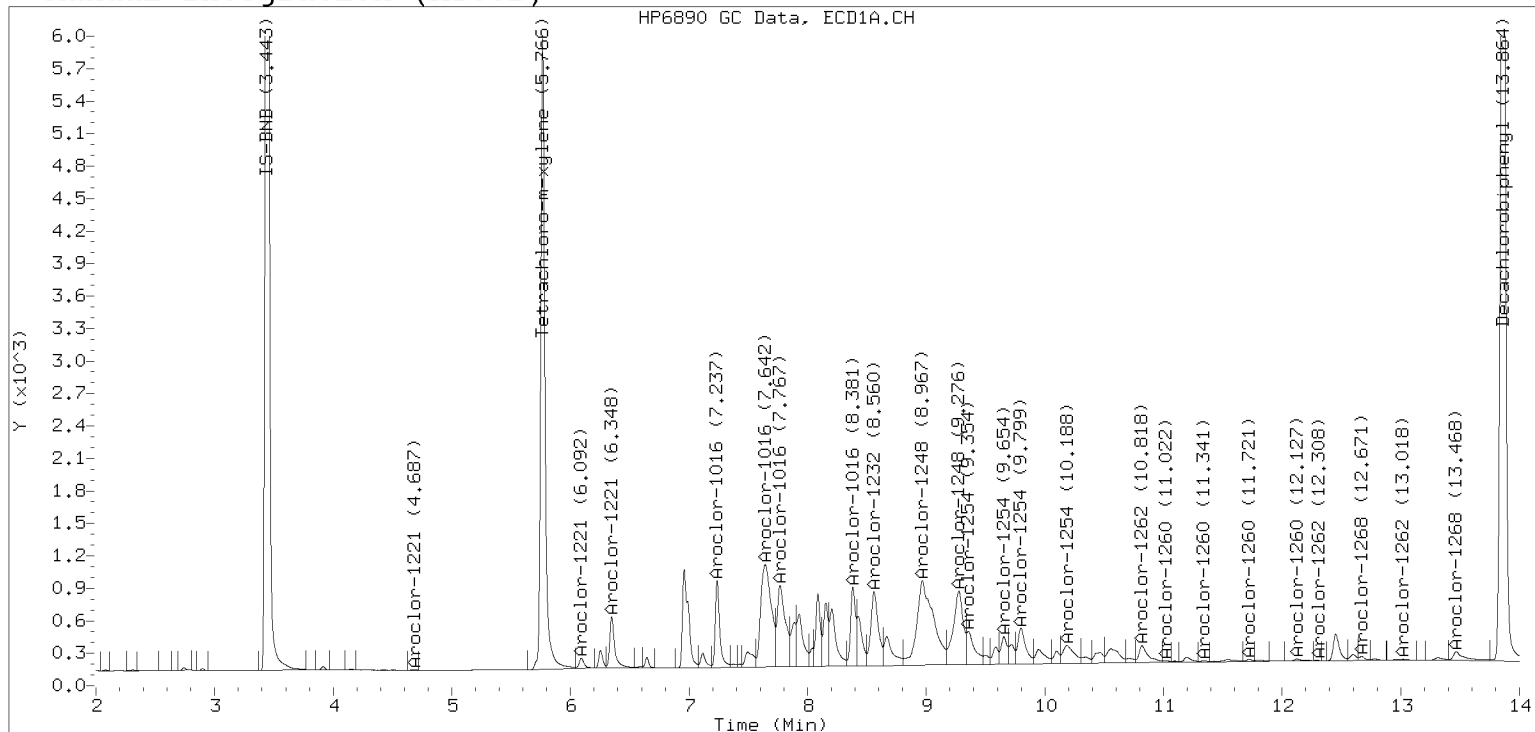
PCB-Form 10 Mod.

Manual Peak Adjustment, ZB-5

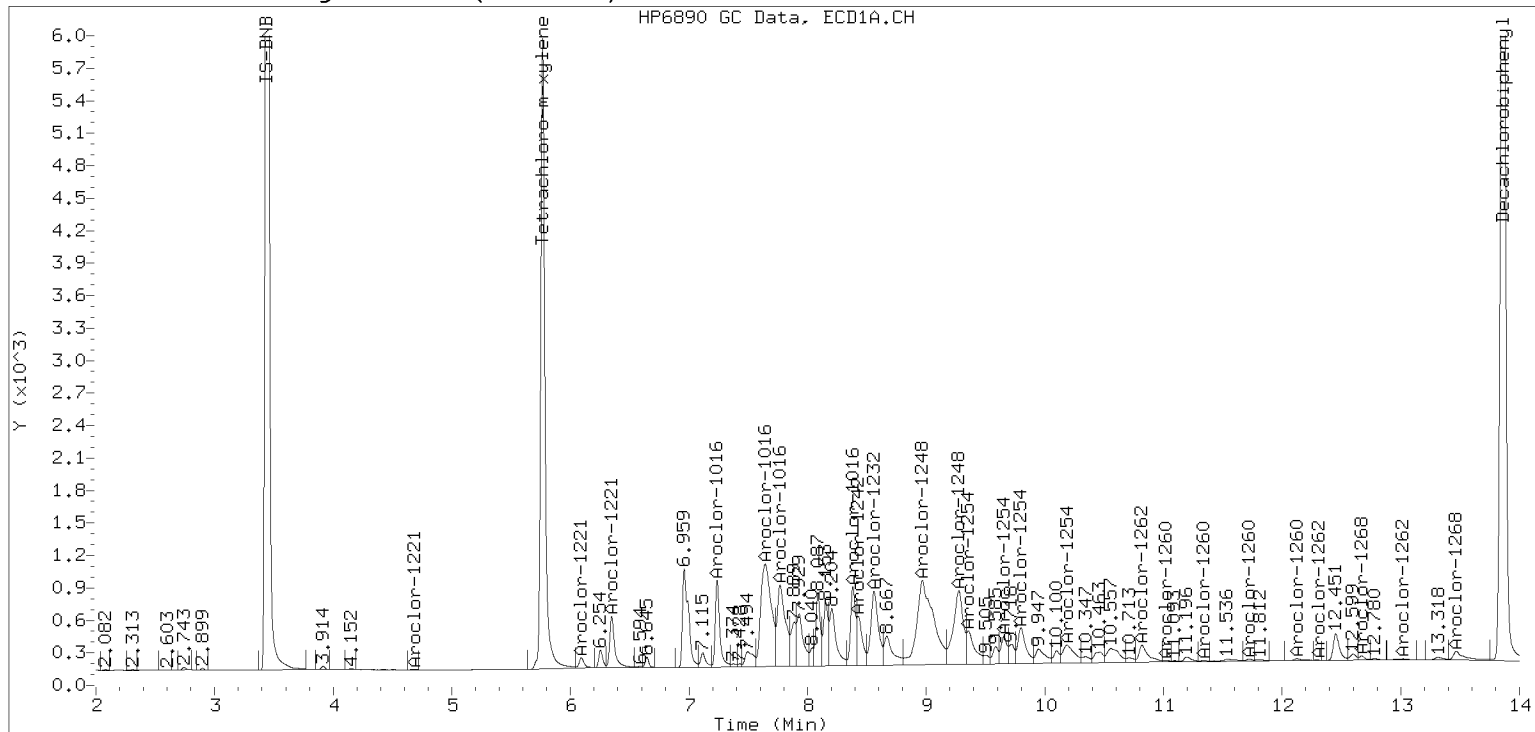
Datafile: ecd7.i/230428.b/04282316ECD7.D

Injection Date: 28-APR-2023 16:30

Manual Integration (After)



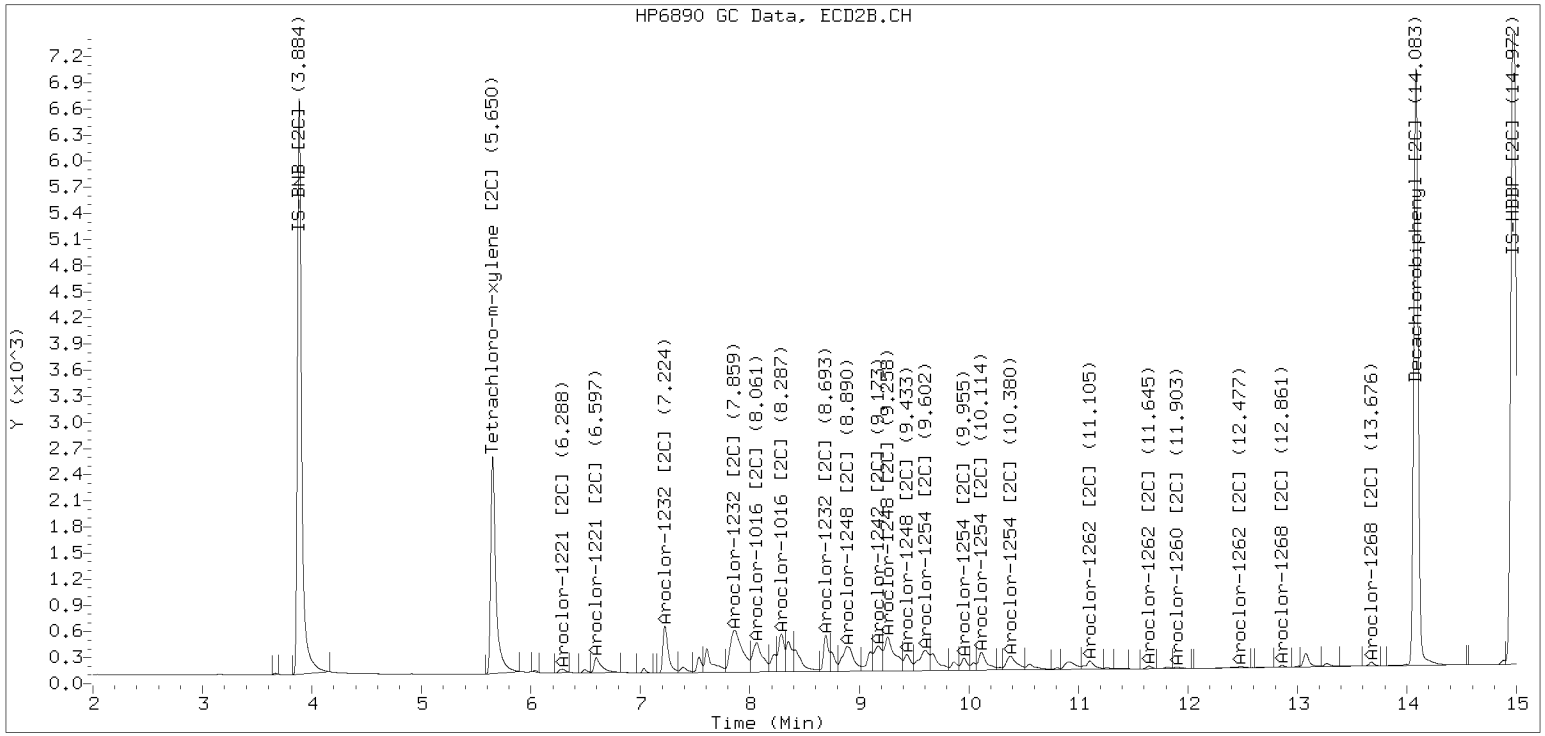
Processed Integration (Before)



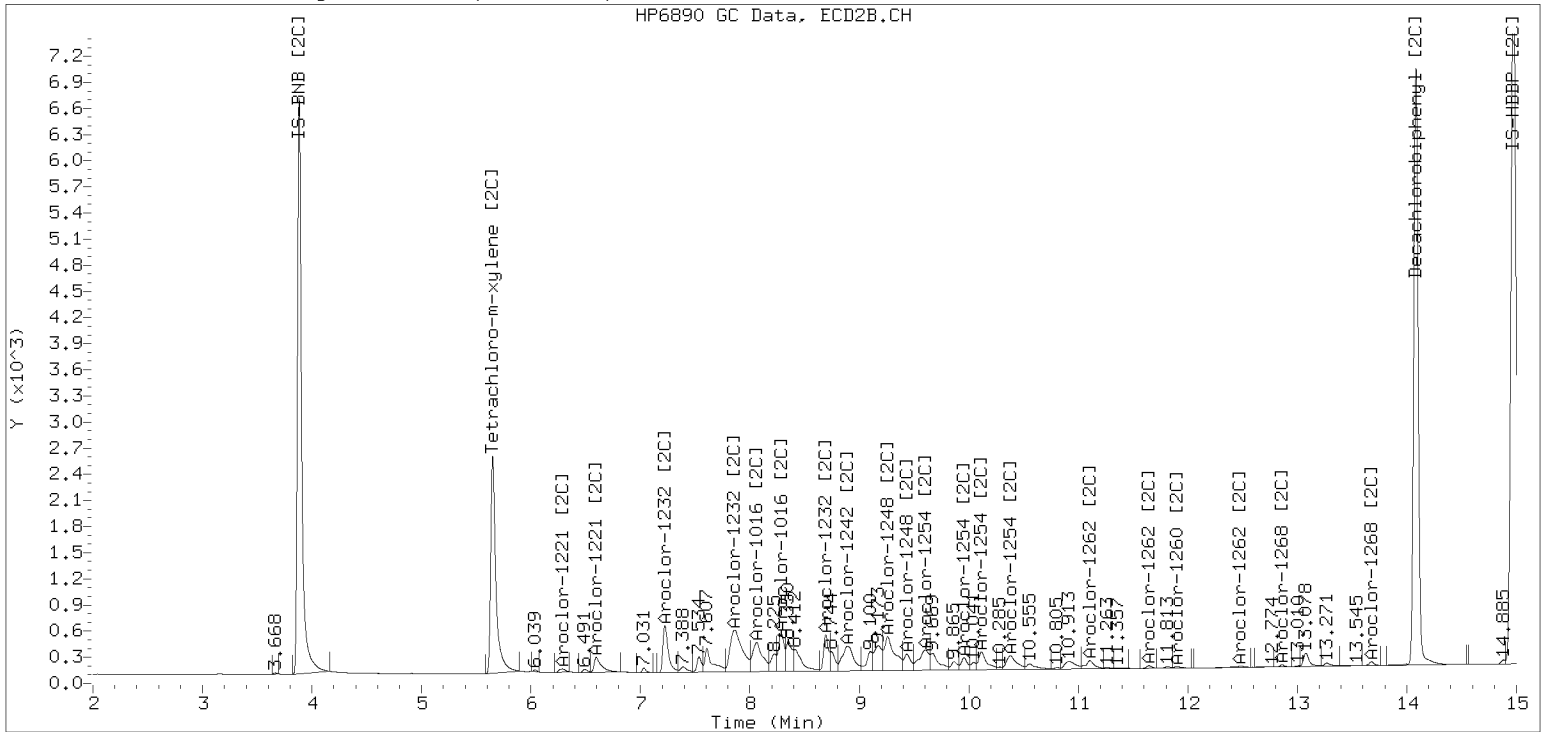
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282316ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00002</u>
Lab File ID:	<u>04282317ECD7.D</u>	Calibration Date:	<u>04/28/2023</u>
Sequence:	<u>SLD0427</u>	Injection Date:	<u>04/28/23</u>
Lab Sample ID:	<u>SLD0427-SCV3</u>	Injection Time:	<u>16:51</u>
Sequence Name:	<u>AR1248SCV3</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	257	0.0808031	0.0828683		2.9	+/-20
Aroclor 1248 [2C]	A	250.00	256	0.0431424	0.0441195		2.2	+/-20
Decachlorobiphenyl	A	40.000	34.9	0.8671959	0.7562407		-12.8	+/-20
Tetrachlorometaxylene	A	40.000	37.4	1.1690340	1.0920540		-6.6	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.0	1.2954910	1.2295870		-5.1	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.7	1.1231530	1.0303160		-8.3	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282317ECD7.D
Data file 2: /230428.b/230428.b/04282317ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 28-APR-2023 16:51
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	329945	5.650	-0.001	187741	37.4	36.7	1.8	Tetrachloro-m-xylene
13.863	0.002	459099	14.084	0.000	349285	34.9	38.0	8.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	604265	8.6
Hexabromobiphenyl	745660	1214161	62.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	364434	4.6
Hexabromobiphenyl	429949	568134	32.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.237	0.002	19001	81.3	1	7.223	0.002	18808	95.3
Aroclor-1016	2	7.640	0.012	74331	120.0	2	7.860	0.016	45610	116.9
Aroclor-1016	3	7.763	0.000	48390	115.4	3	8.066	0.011	19913	83.0
Aroclor-1016	4	8.380	0.004	75928	347.0	4	8.285	0.004	48388	270.6
Total CollAve (4 peaks):				165.9		Total Col2Ave (4 peaks):				141.4 RPD = 16
Corrected Ave (3 peaks):				105.6		Corrected Ave (3 peaks):				98.4 RPD = 7
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.088	-0.005	1143	12.3	2	6.298	0.033	1993	34.5
Aroclor-1221	3	6.349	0.002	3172	14.4	3	6.608	0.014	1326	10.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.088	-0.005	1143	17.6	2	7.223	-0.002	18808	215.6
Aroclor-1232	3	7.640	-0.012	74331	288.1	3	7.860	-0.003	45610	264.9
Aroclor-1232	4	8.559	-0.004	98972	823.6	4	8.691	-0.002	42787	807.0
Total CollAve (3 peaks):				376.4		Total Col2Ave (3 peaks):				429.1 RPD = 13
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.237	0.001	19001	100.8	1	7.223	0.001	18808	118.8
Aroclor-1242	2	7.640	0.001	74331	144.2	2	7.860	0.001	45610	144.0
Aroclor-1242	3	8.380	-0.001	75928	438.1	3	8.691	-0.476	42787	390.6
Aroclor-1242	4	8.559	-0.001	98972	385.9	4	8.885	-0.718	60719	540.0
Total CollAve (4 peaks):				267.2		Total Col2Ave (4 peaks):				298.3 RPD = 11
Corrected Ave (3 peaks):				210.3		Corrected Ave (3 peaks):				217.8 RPD = 4
Aroclor-1248	1	8.380	0.002	75928	260.1	1	8.285	0.000	48388	253.1
Aroclor-1248	2	8.559	0.000	98972	255.7	2	8.691	0.000	42787	254.2
Aroclor-1248	3	8.963	-0.001	294362	254.8	3	9.165	0.001	53988	261.5
Aroclor-1248	4	9.271	0.000	156668	258.2	4	9.587	-0.007	55820	253.5
Total CollAve (4 peaks):				257.2		Total Col2Ave (4 peaks):				255.6 RPD = 1
Corrected Ave (3 peaks):				256.2		Corrected Ave (3 peaks):				253.6 RPD = 1
Aroclor-1254	1	9.271	-0.004	156668	240.0	1	9.430	0.001	28754	105.5
Aroclor-1254	2	9.355	-0.004	60054	194.1	2	9.587	0.059	55820	336.1
Aroclor-1254	3	9.651	0.003	41060	99.5	3	9.952	0.002	23054	104.5
Aroclor-1254	4	9.793	0.004	73186	87.3	4	10.109	-0.001	44343	92.9
Aroclor-1254	5	10.182	0.013	49460	112.2	5	10.379	0.023	41423	75.5
Total CollAve (5 peaks):				146.6		Total Col2Ave (5 peaks):				142.9 RPD = 3
Corrected Ave (4 peaks):				123.3		Corrected Ave (4 peaks):				94.6 RPD = 26
Aroclor-1260	1	11.026	0.009	2009	2.9	1	11.643	0.019	2501	6.2
Aroclor-1260	2	11.340	0.006	1228	1.8	2	11.901	0.009	2130	2.0
Aroclor-1260	3	11.721	0.011	1976	1.1	3	12.414	0.007	826	3.4
Aroclor-1260	4	12.127	0.011	1326	1.5	4	12.479	0.004	1478	2.0
Aroclor-1260	5	12.220	0.004	573	1.4	NS	---			----
Total CollAve (5 peaks):				1.7		Total Col2Ave (4 peaks):				3.4 RPD = 65*
Corrected Ave (4 peaks):				1.4		Corrected Ave (3 peaks):				2.5 RPD = 54*
Aroclor-1262	1	10.818	0.009	19667	41.5	1	11.104	-0.069	9341	16.4
Aroclor-1262	2	12.220	0.003	573	0.7	2	11.643	0.019	2501	5.2
Aroclor-1262	3	12.296	0.004	674	0.7	3	12.414	0.010	826	1.6
Aroclor-1262	4	12.967	0.005	1383	1.9	4	12.479	0.004	1478	1.7
Total CollAve (4 peaks):				11.2		Total Col2Ave (4 peaks):				6.3 RPD = 57*
Corrected Ave (3 peaks):				1.1		Corrected Ave (3 peaks):				2.9 RPD = 88*
Aroclor-1268	1	12.220	0.002	573	0.3	1	12.414	0.011	826	0.6
Aroclor-1268	2	12.296	0.005	674	0.3	2	12.479	0.008	1478	1.0
Aroclor-1268	3	12.671	0.002	2312	1.3	3	12.861	0.002	1020	0.8
Aroclor-1268	4	13.469	0.008	7516	1.4	4	13.678	0.001	2531	0.7
Total CollAve (4 peaks):				0.8		Total Col2Ave (4 peaks):				0.8 RPD = 6
Corrected Ave (3 peaks):				0.6		Corrected Ave (3 peaks):				0.7 RPD = 13

Total PCB Area Col1 (5.866 - 13.762) = 1600602 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 860562 Col2 Total PCB = 0.2 ppm*

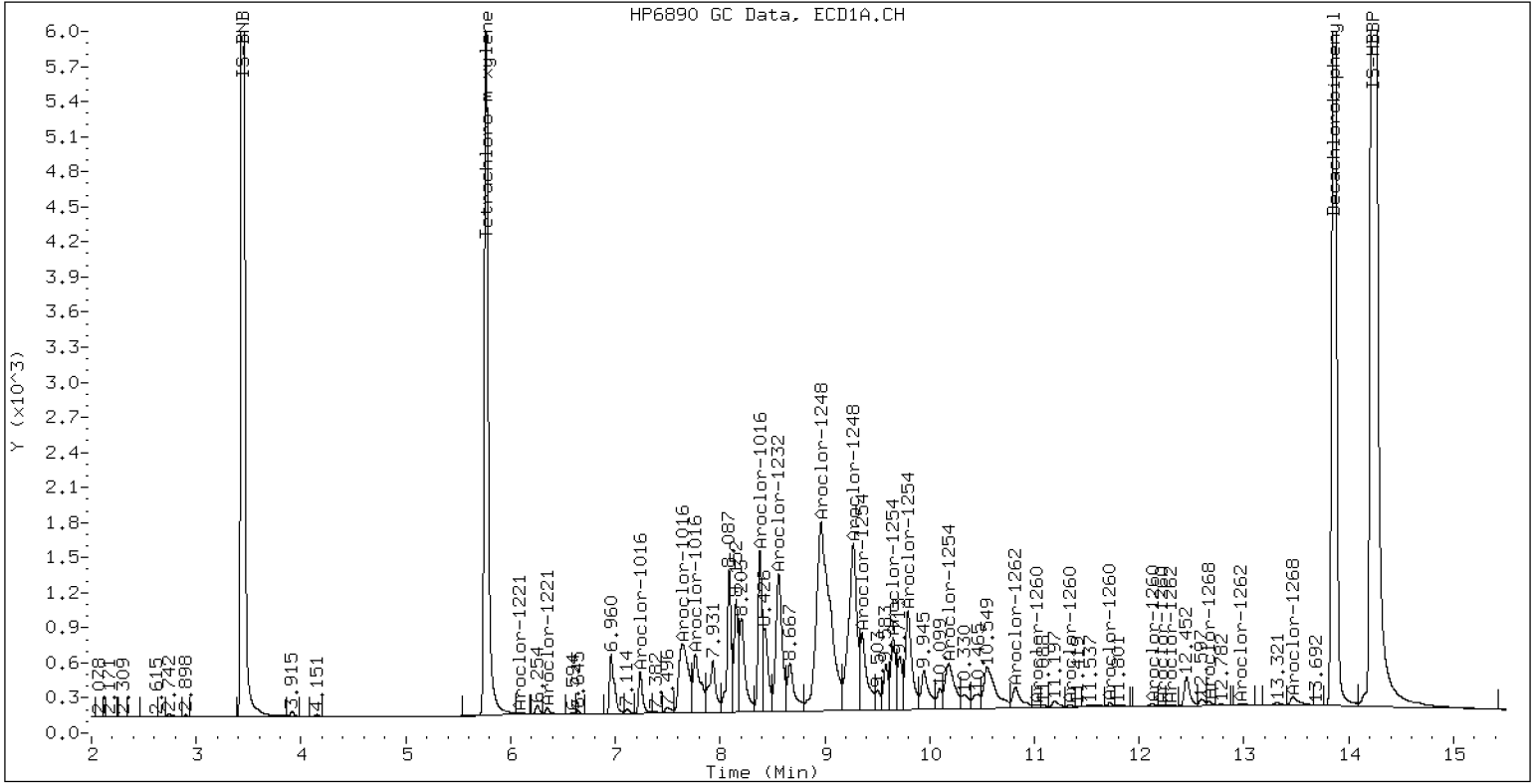
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV

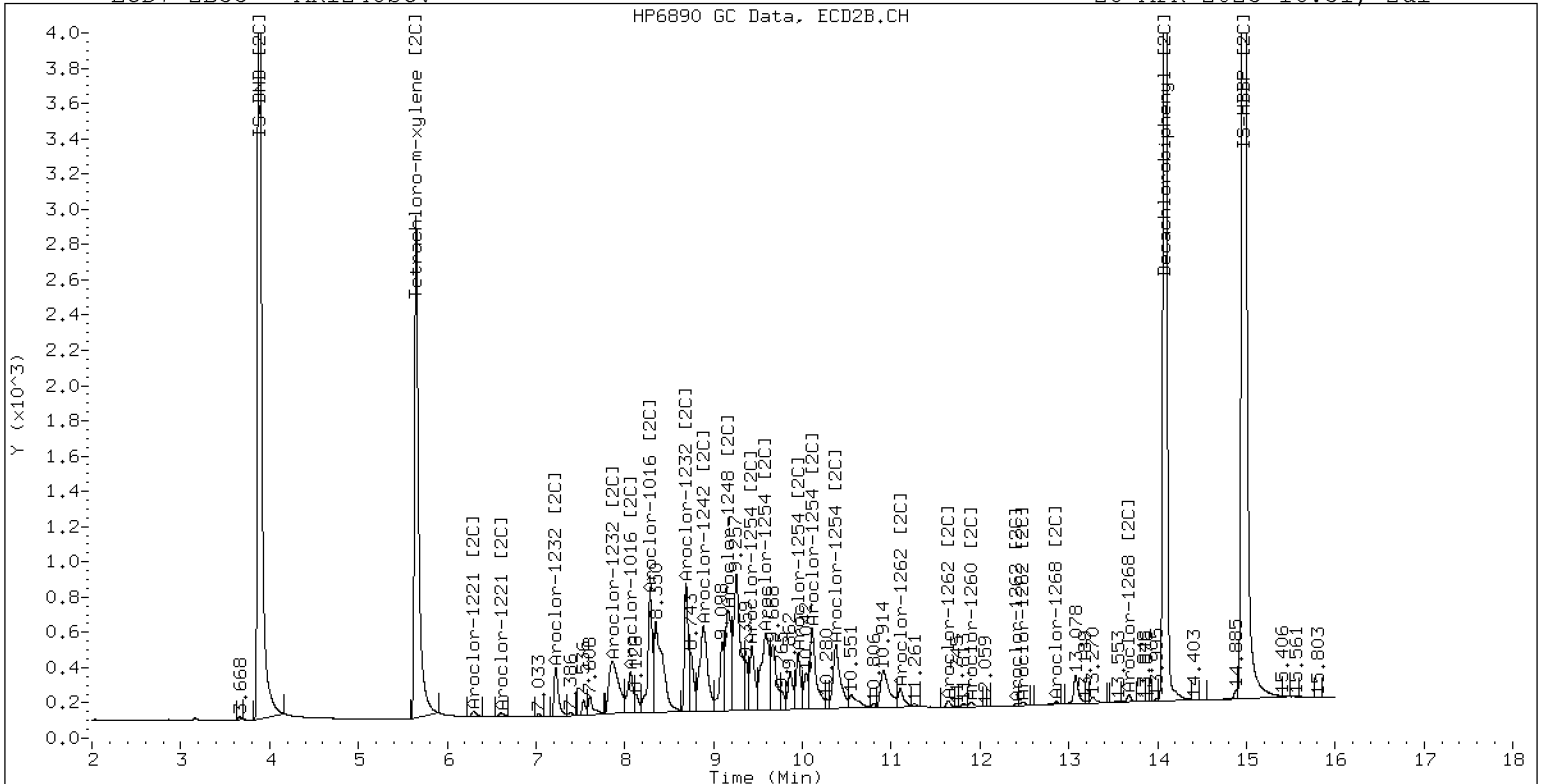
28-APR-2023 16:51, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1248SCV

28-APR-2023 16:51, 2ul



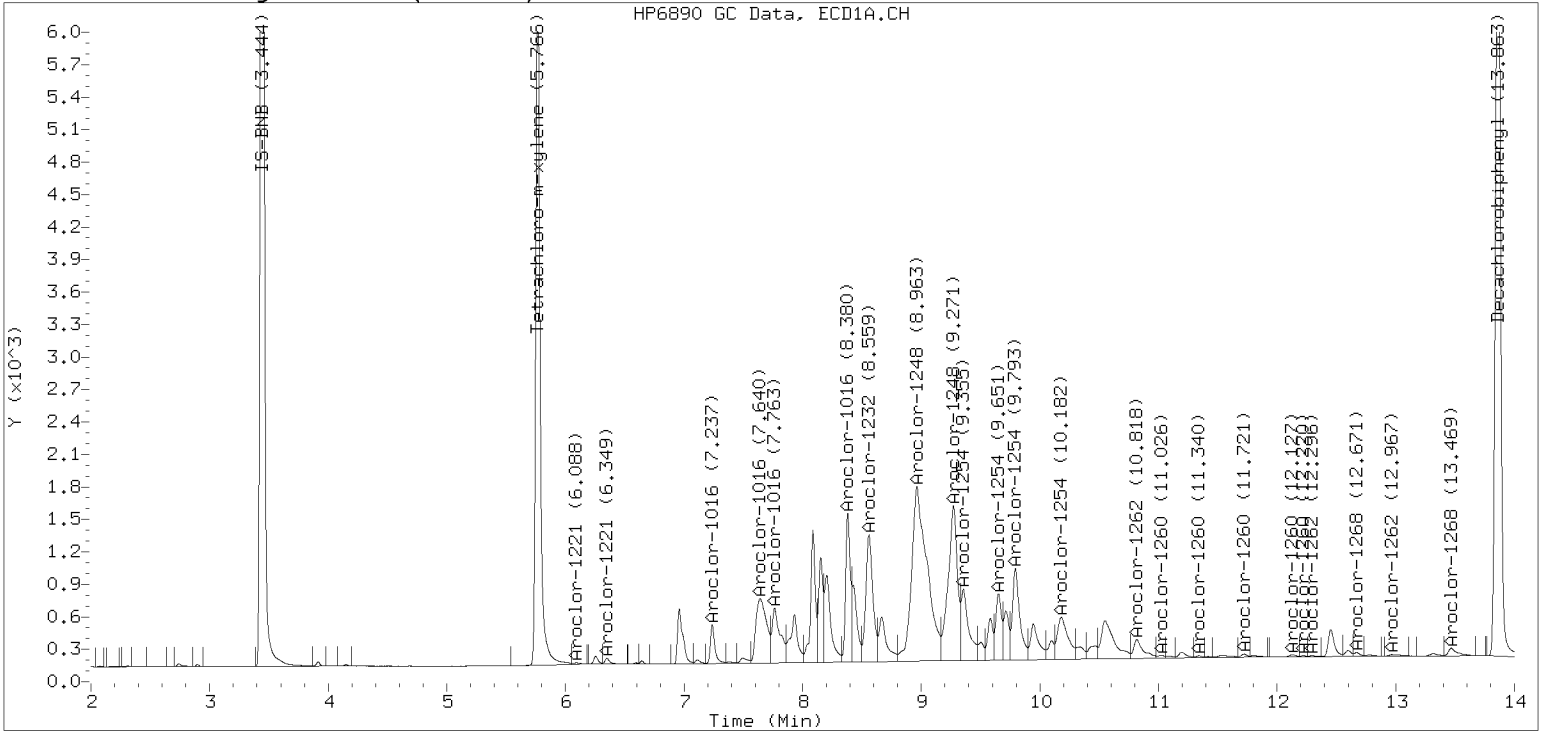
ZB-35 Manual Integration: YES

Manual Peak Adjustment, ZB-5

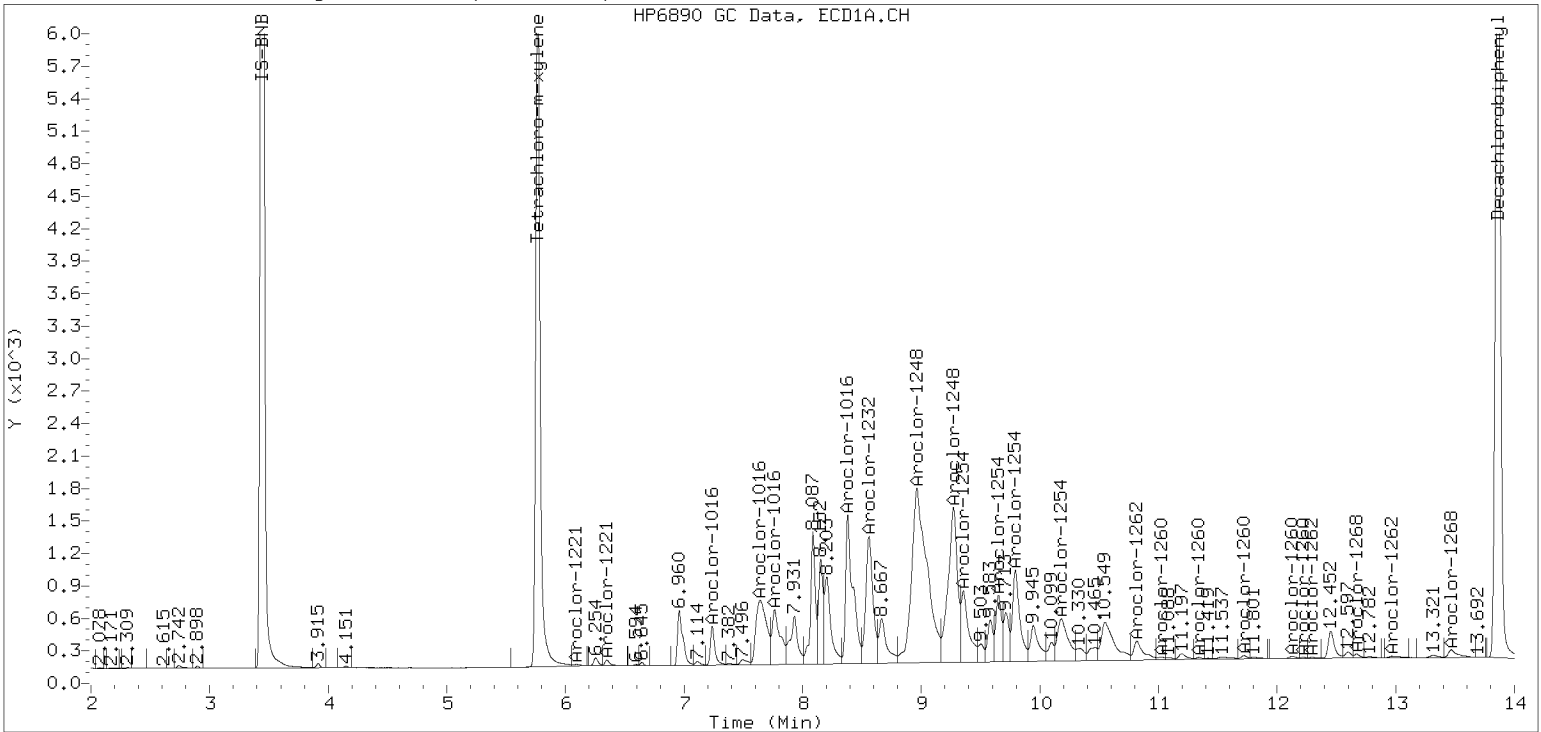
Datafile: ecd7.i/230428.b/04282317ECD7.D

Injection Date: 28-APR-2023 16:51

Manual Integration (After)



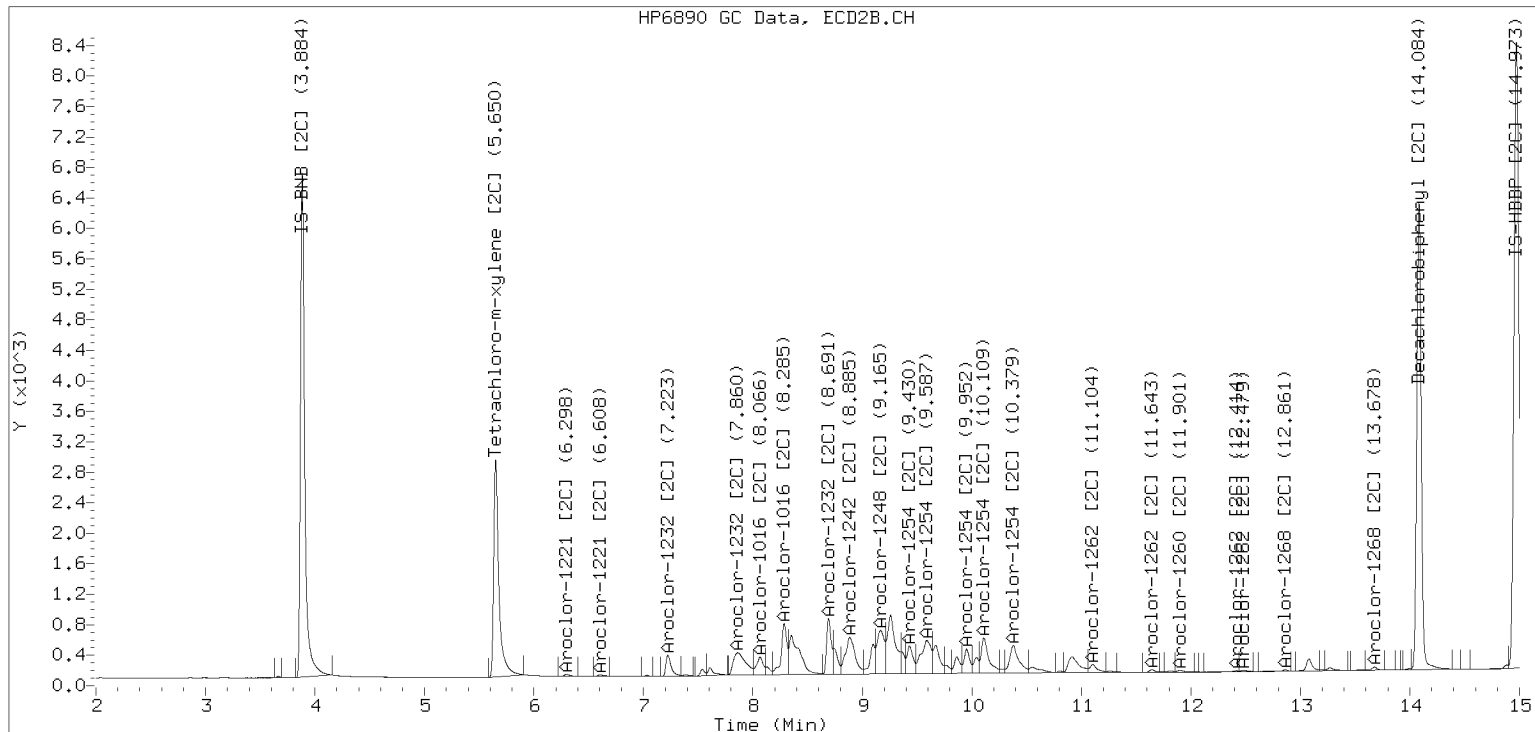
Processed Integration (Before)



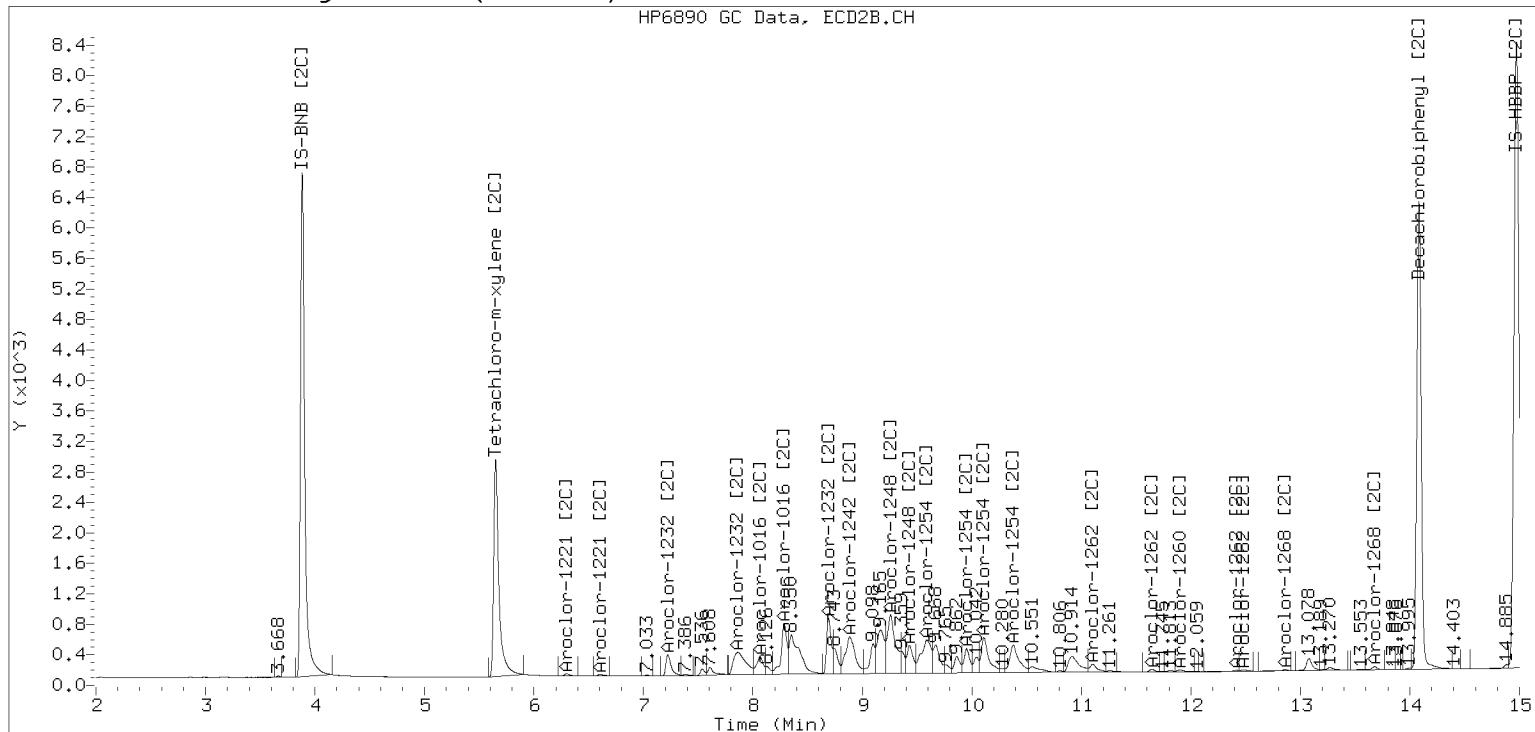
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282317ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00002</u>
Lab File ID:	<u>04282318ECD7.D</u>	Calibration Date:	<u>04/28/2023</u>
Sequence:	<u>SLD0427</u>	Injection Date:	<u>04/28/23</u>
Lab Sample ID:	<u>SLD0427-SCV4</u>	Injection Time:	<u>17:12</u>
Sequence Name:	<u>AR1254SCV4</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	242	0.0702659	0.0675983		-3.4	+/-20
Aroclor 1254 [2C]	A	250.00	234	0.0739953	0.0679071		-6.2	+/-20
Decachlorobiphenyl	A	40.000	34.8	0.8671959	0.7542046		-13.0	+/-20
Tetrachlorometaxylene	A	40.000	38.3	1.1690340	1.1204030		-4.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.3	1.2954910	1.2420100		-4.1	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.3	1.1231530	1.0472380		-6.8	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282318ECD7.D
Data file 2: /230428.b/230428.b/04282318ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 28-APR-2023 17:12
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	338365	5.650	-0.001	190789	38.3	37.3	2.7	Tetrachloro-m-xylene
13.863	0.001	478757	14.083	-0.001	359021	34.8	38.3	9.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	604006	8.6
Hexabromobiphenyl	745660	1269568	70.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	364366	4.6
Hexabromobiphenyl	429949	578129	34.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.239	0.004	417	1.8	1	7.234	0.013	203	1.0	
Aroclor-1016	2	7.672	0.044	1503	2.4	2	---			0.0	
Aroclor-1016	3	7.760	-0.003	1975	4.7	3	8.071	0.016	434	1.8	
Aroclor-1016	4	8.383	0.006	29140	133.2	4	8.285	0.004	22382	125.2	
Total CollAve (4 peaks):				35.5	Total Col2Ave (3 peaks):				42.7	RPD = 18	
Corrected Ave (3 peaks):				3.0	Corrected Ave: < 3 Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	6.297	0.032	1765	30.5	
Aroclor-1221	3	---			0.0	3	6.613	0.019	308	2.3	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	7.234	0.010	203	2.3	
Aroclor-1232	3	7.672	0.020	1503	5.8	3	---			0.0	
Aroclor-1232	4	8.568	0.004	12422	103.4	4	8.695	0.001	16356	308.5	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	7.239	0.002	417	2.2	1	7.234	0.012	203	1.3	
Aroclor-1242	2	7.672	0.033	1503	2.9	2	---			0.0	
Aroclor-1242	3	8.383	0.001	29140	168.2	3	8.695	-0.473	16356	149.3	
Aroclor-1242	4	8.568	0.007	12422	48.5	4	8.889	-0.714	7125	63.4	
Total CollAve (4 peaks):				55.4	Total Col2Ave (3 peaks):				71.3	RPD = 25	
Corrected Ave (3 peaks):				17.9	Corrected Ave: < 3 Peaks						
Aroclor-1248	1	8.383	0.004	29140	99.9	1	8.695	0.410	16356	85.6	
Aroclor-1248	2	8.568	0.008	12422	32.1	2	8.889	0.198	7125	42.3	
Aroclor-1248	3	8.967	0.003	131799	114.1	3	9.259	0.095	58924	285.5	
Aroclor-1248	4	9.276	0.005	155956	257.1	4	9.430	-0.164	67213	305.3	
Total CollAve (4 peaks):				125.8	Total Col2Ave (4 peaks):				179.7	RPD = 35	
Corrected Ave (3 peaks):				82.0	Corrected Ave (3 peaks): 137.8 RPD = 51*						
Aroclor-1254	1	9.276	0.000	155956	239.0	1	9.430	0.000	67213	246.7	
Aroclor-1254	2	9.356	-0.002	75626	244.6	2	9.527	-0.001	39667	238.9	
Aroclor-1254	3	9.648	0.001	99996	242.4	3	9.950	-0.000	53621	243.2	
Aroclor-1254	4	9.788	-0.001	198294	236.6	4	10.109	-0.001	114263	239.3	
Aroclor-1254	5	10.164	-0.004	108093	245.4	5	10.355	-0.001	111846	203.8	
Total CollAve (5 peaks):				241.6	Total Col2Ave (5 peaks):				234.4	RPD = 3	
Corrected Ave (4 peaks):				240.7	Corrected Ave (4 peaks): 231.3 RPD = 4						
Aroclor-1260	1	11.018	0.001	14792	20.6	1	11.639	0.015	34047	82.8	
Aroclor-1260	2	11.338	0.005	15335	21.1	2	11.896	0.004	28313	26.2	
Aroclor-1260	3	11.716	0.006	37253	19.7	3	12.479	0.072	16654	67.8	
Aroclor-1260	4	12.122	0.006	28154	30.1	4	---			0.0	
Aroclor-1260	5	12.293	0.077	2641	6.2	NS	---			---	
Total CollAve (5 peaks):				19.5	Total Col2Ave (3 peaks):				58.9	RPD = 100*	
Corrected Ave (4 peaks):				16.9	Corrected Ave: < 3 Peaks						
Aroclor-1262	1	10.810	0.002	229213	462.7	1	11.097	-0.076	148180	256.4	
Aroclor-1262	2	12.293	0.076	2641	3.1	2	11.639	0.015	34047	69.9	
Aroclor-1262	3	---			0.0	3	12.479	0.076	16654	32.5	
Aroclor-1262	4	12.965	0.003	1702	2.2	4	---			0.0	
Total CollAve (3 peaks):				156.0	Total Col2Ave (3 peaks):				119.6	RPD = 26	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1268	1	12.293	0.075	2641	1.2	1	12.479	0.076	16654	12.5	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	12.672	0.003	2924	1.5	3	12.859	0.000	1168	0.9	
Aroclor-1268	4	13.468	0.007	11477	2.1	4	13.677	0.000	2357	0.6	
Total CollAve (3 peaks):				1.6	Total Col2Ave (3 peaks):				4.7	RPD = 97*	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Total PCB Area Col1 (5.866 - 13.762) = 2154735 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 1162346 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

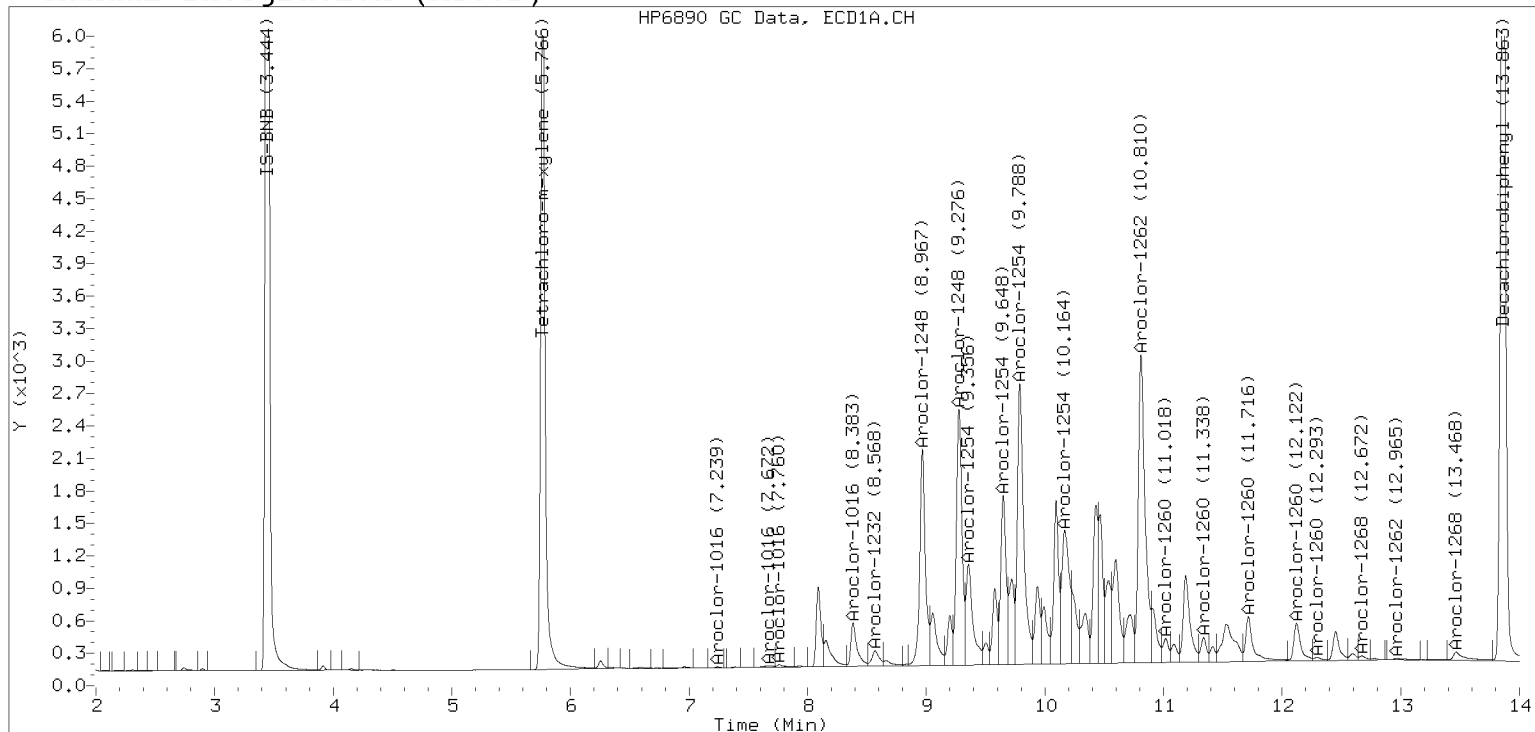
PCB-Form 10 Mod.

Manual Peak Adjustment, ZB-5

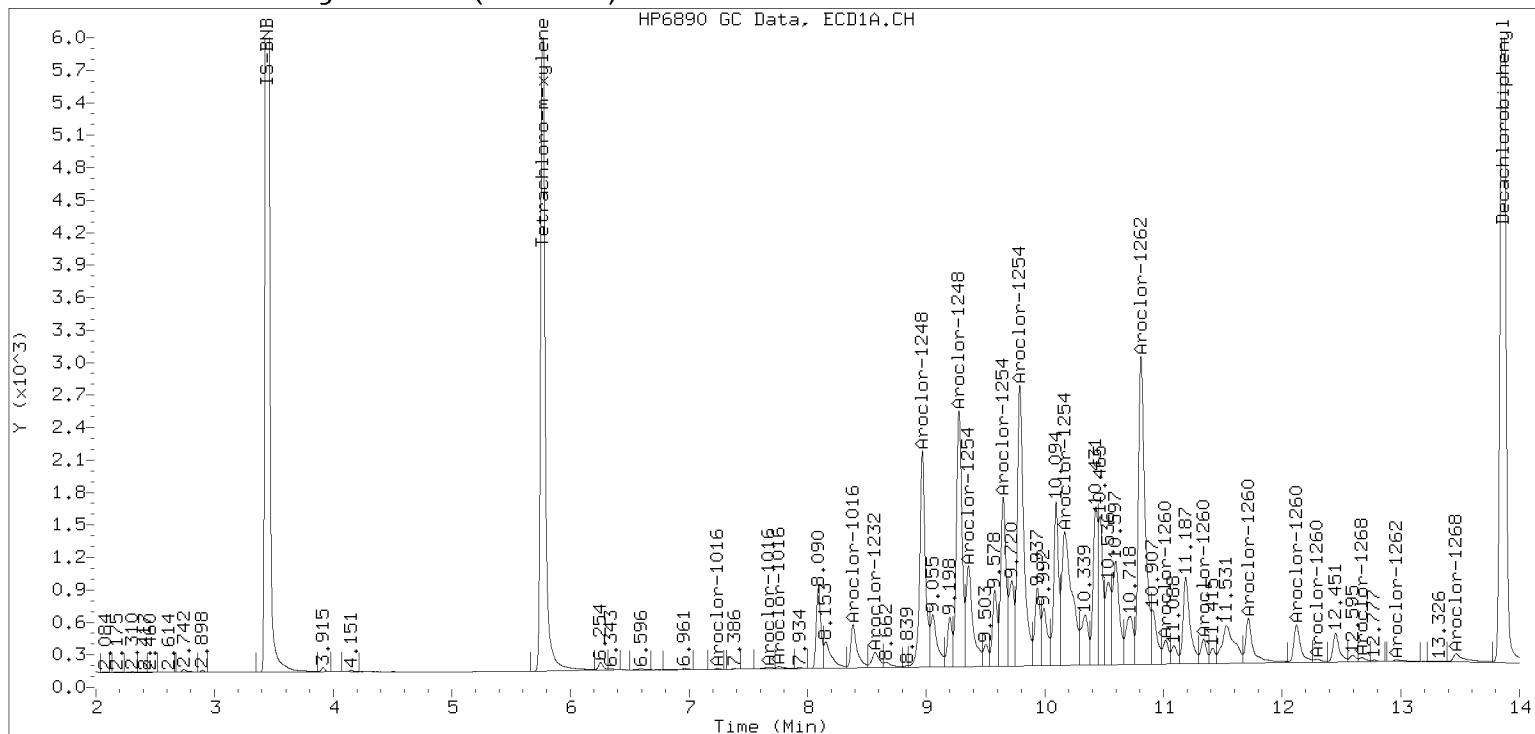
Datafile: ecd7.i/230428.b/04282318ECD7.D

Injection Date: 28-APR-2023 17:12

Manual Integration (After)



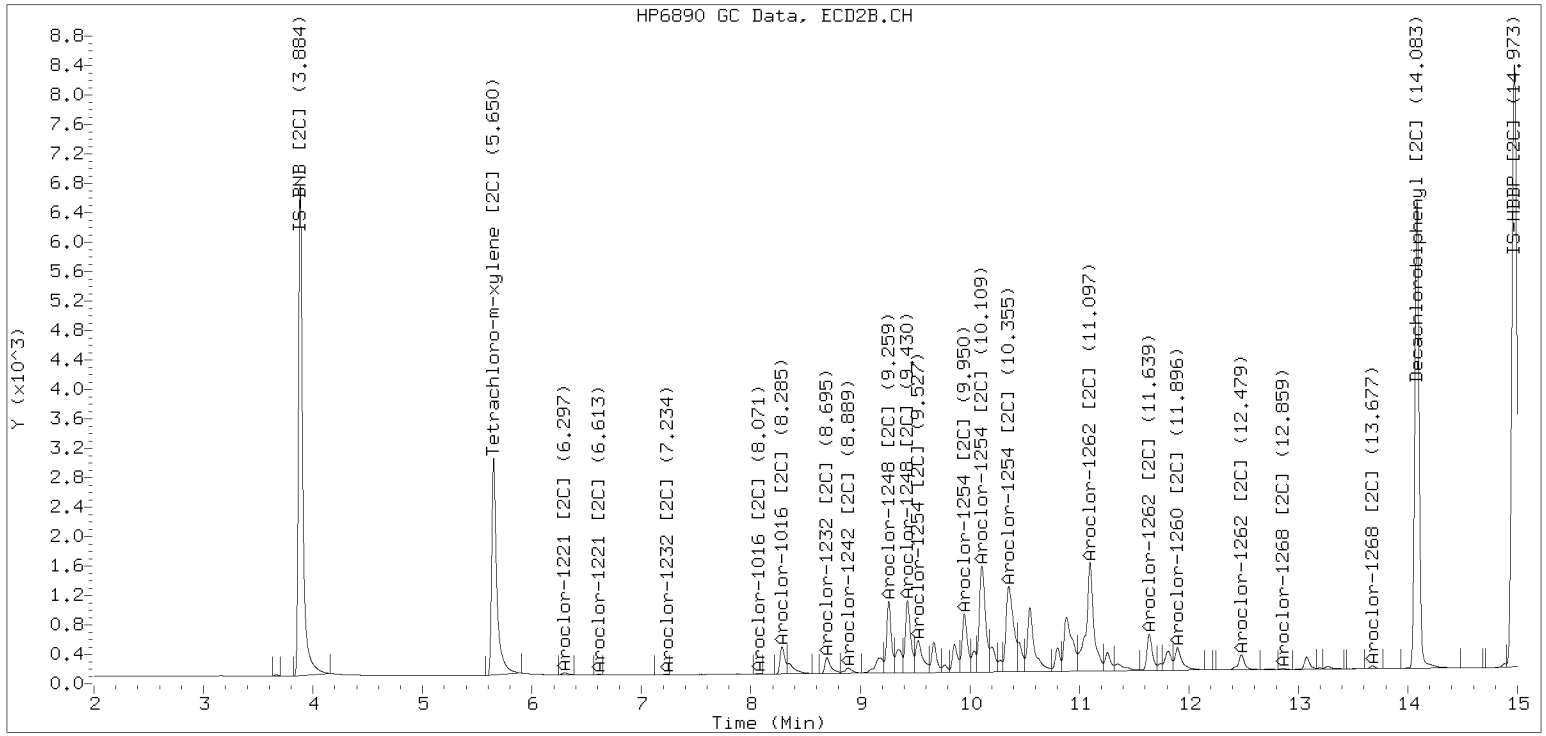
Processed Integration (Before)



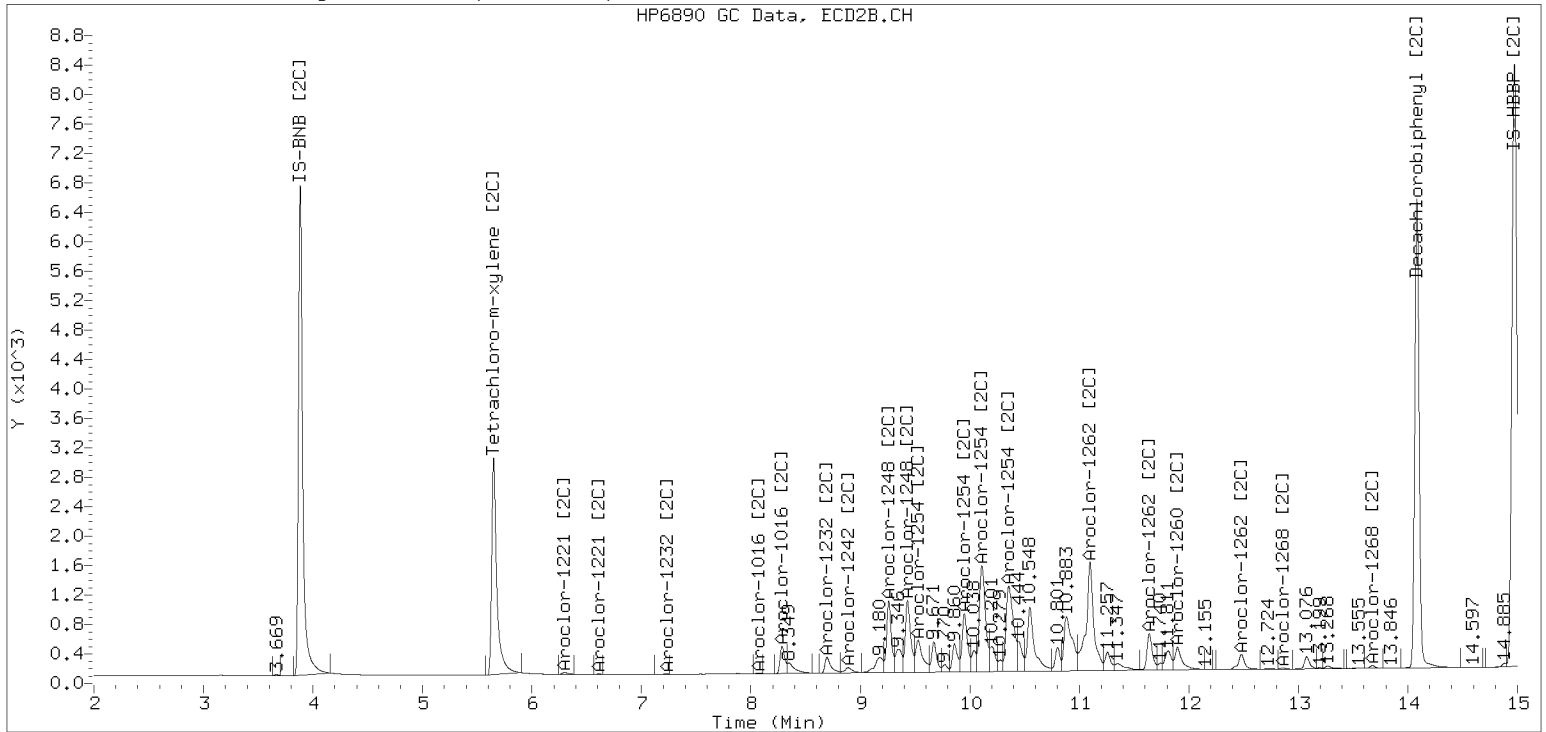
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282318ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00002</u>
Lab File ID:	<u>04282319ECD7.D</u>	Calibration Date:	<u>04/28/2023</u>
Sequence:	<u>SLD0427</u>	Injection Date:	<u>04/28/23</u>
Lab Sample ID:	<u>SLD0427-SCV5</u>	Injection Time:	<u>17:33</u>
Sequence Name:	<u>AR2162SCV5</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1221	A	250.00	269	0.0158494	0.0168244		7.7	+/-20
Aroclor 1221 [2C]	A	250.00	276	0.0158867	0.0171029		10.5	+/-20
Aroclor 1262	A	250.00	254	0.0484992	0.0493166		1.7	+/-20
Aroclor 1262 [2C]	A	250.00	255	0.0852231	0.0869928		2.0	+/-20
Decachlorobiphenyl	A	40.000	35.9	0.8671959	0.7785743		-10.2	+/-20
Tetrachlorometaxylene	A	40.000	38.3	1.1690340	1.1184950		-4.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.9	1.2954910	1.2611750		-2.6	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.0	1.1231530	1.0675380		-5.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282319ECD7.D
Data file 2: /230428.b/230428.b/04282319ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 28-APR-2023 17:33
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.767	0.001	336477	5.650	-0.001	192040	38.3	38.0	0.7	Tetrachloro-m-xylene
13.862	0.001	499246	14.084	-0.000	363267	35.9	38.9	8.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	601660	8.2
Hexabromobiphenyl	745660	1282462	72.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	359781	3.2
Hexabromobiphenyl	429949	576077	34.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.237	0.002	5001	21.5	1	7.227	0.005	3885	19.9	
Aroclor-1016	2	7.665	0.037	8647	14.0	2	7.887	0.043	4451	11.6	
Aroclor-1016	3	7.777	0.014	6495	15.6	3	8.066	0.012	2267	9.6	
Aroclor-1016	4	8.388	0.012	2933	13.5	4	8.290	0.009	1849	10.5	
Total CollAve (4 peaks):				16.1	Total Col2Ave (4 peaks):				12.9	RPD = 22	
Corrected Ave (3 peaks):				14.3	Corrected Ave (3 peaks):				10.5	RPD = 31	
Aroclor-1221	1	4.683	0.001	12932	280.8	1	4.911	0.000	7988	299.1	
Aroclor-1221	2	6.094	0.000	24389	264.0	2	6.265	-0.001	15133	265.2	
Aroclor-1221	3	6.348	0.002	57578	262.7	3	6.593	-0.000	34566	264.7	
Total CollAve (3 peaks):				269.2	Total Col2Ave (3 peaks):				276.3	RPD = 3	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.683	0.001	12932	441.6	1	4.911	-0.001	7988	515.9	
Aroclor-1232	2	6.094	0.001	24389	376.5	2	7.227	0.002	3885	45.1	
Aroclor-1232	3	7.665	0.013	8647	33.7	3	7.887	0.025	4451	26.2	
Aroclor-1232	4	8.569	0.006	1975	16.5	4	8.699	0.005	1706	32.6	
Total CollAve (4 peaks):				217.1	Total Col2Ave (4 peaks):				154.9	RPD = 33	
Corrected Ave (3 peaks):				142.2	Corrected Ave (3 peaks):				34.6	RPD = 122*	
Aroclor-1242	1	7.237	0.001	5001	26.6	1	7.227	0.005	3885	24.9	
Aroclor-1242	2	7.665	0.026	8647	16.9	2	7.887	0.029	4451	14.2	
Aroclor-1242	3	8.388	0.006	2933	17.0	3	8.699	-0.469	1706	15.8	
Aroclor-1242	4	8.569	0.009	1975	7.7	4	8.906	-0.697	1208	10.9	
Total CollAve (4 peaks):				17.1	Total Col2Ave (4 peaks):				16.4	RPD = 4	
Corrected Ave (3 peaks):				13.9	Corrected Ave (3 peaks):				13.6	RPD = 2	
Aroclor-1248	1	8.388	0.009	2933	10.1	1	8.699	0.414	1706	9.0	
Aroclor-1248	2	8.569	0.010	1975	5.1	2	8.906	0.215	1208	7.3	
Aroclor-1248	3	8.970	0.006	23869	20.7	3	9.261	0.098	12638	62.0	
Aroclor-1248	4	9.284	0.013	28188	46.7	4	9.437	-0.157	13948	64.2	
Total CollAve (4 peaks):				20.7	Total Col2Ave (4 peaks):				35.6	RPD = 53*	
Corrected Ave (3 peaks):				12.0	Corrected Ave (3 peaks):				26.1	RPD = 74*	
Aroclor-1254	1	9.284	0.009	28188	43.4	1	9.437	0.007	13948	51.9	
Aroclor-1254	2	---			0.0	2	---			0.0	
Aroclor-1254	3	9.654	0.006	4038	9.8	3	9.958	0.008	1791	8.2	
Aroclor-1254	4	9.795	0.005	11586	13.9	4	10.124	0.014	55476	117.7	
Aroclor-1254	5	10.096	-0.072	138022	314.6	5	10.346	-0.010	70184	129.5	
Total CollAve (4 peaks):				95.4	Total Col2Ave (4 peaks):				76.8	RPD = 22	
Corrected Ave (3 peaks):				22.4	Corrected Ave (3 peaks):				59.3	RPD = 90*	
Aroclor-1260	1	11.019	0.002	240553	332.2	1	11.623	-0.001	124057	302.7	
Aroclor-1260	2	11.335	0.002	202728	276.0	2	11.893	0.001	303878	282.5	
Aroclor-1260	3	11.713	0.003	494200	259.3	3	12.405	-0.002	129175	527.4	
Aroclor-1260	4	12.118	0.002	155139	164.1	4	12.475	0.000	226410	308.9	
Aroclor-1260	5	12.217	0.001	214340	494.2	NS	---			----	
Total CollAve (5 peaks):				305.2	Total Col2Ave (4 peaks):				355.4	RPD = 15	
Corrected Ave (4 peaks):				257.9	Corrected Ave (3 peaks):				298.1	RPD = 14	
Aroclor-1262	1	10.809	0.000	123367	246.5	1	11.173	-0.000	146790	254.9	
Aroclor-1262	2	12.217	0.001	214340	245.2	2	11.623	-0.001	124057	255.8	
Aroclor-1262	3	12.293	0.001	236304	246.0	3	12.405	0.001	129175	252.9	
Aroclor-1262	4	12.963	0.001	216573	279.5	4	12.475	-0.000	226410	256.4	
Total CollAve (4 peaks):				254.3	Total Col2Ave (4 peaks):				255.0	RPD = 0	
Corrected Ave (3 peaks):				245.9	Corrected Ave (3 peaks):				254.5	RPD = 3	
Aroclor-1268	1	12.217	-0.001	214340	97.4	1	12.405	0.001	129175	97.0	
Aroclor-1268	2	12.293	0.002	236304	103.1	2	12.475	0.004	226410	149.9	
Aroclor-1268	3	12.700	0.031	85797	45.0	3	12.859	0.001	9727	7.8	
Aroclor-1268	4	13.461	0.001	83654	15.2	4	13.678	0.001	40997	10.8	
Total CollAve (4 peaks):				65.2	Total Col2Ave (4 peaks):				66.4	RPD = 2	

Corrected Ave (3 peaks): 52.5 Corrected Ave (3 peaks): 38.5 RPD = 31

Total PCB Area Col1 (5.866 - 13.762) = 3513270 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 1957095 Col2 Total PCB = 0.5 ppm*

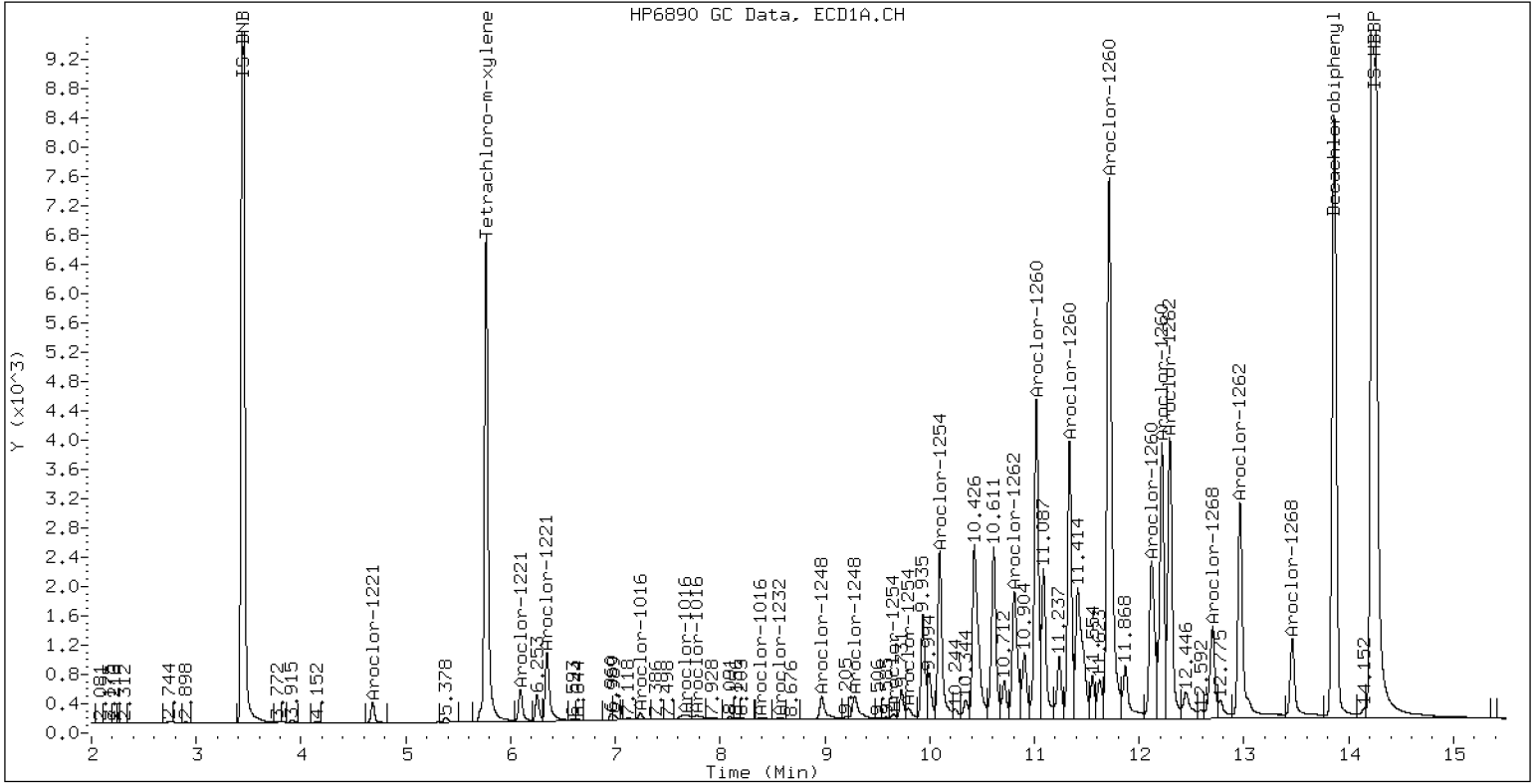
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV

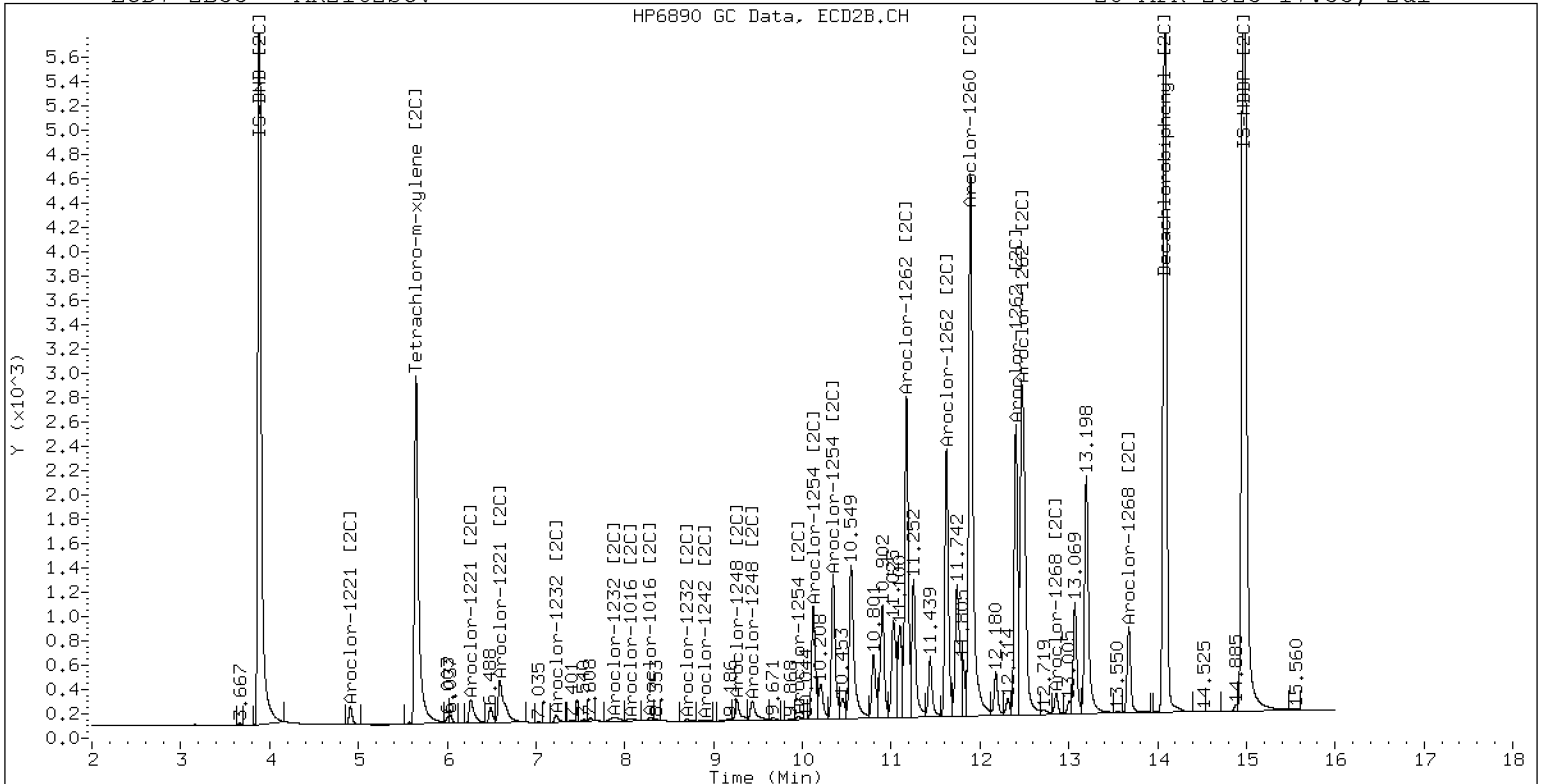
28-APR-2023 17:33, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV

28-APR-2023 17:33, 2u1

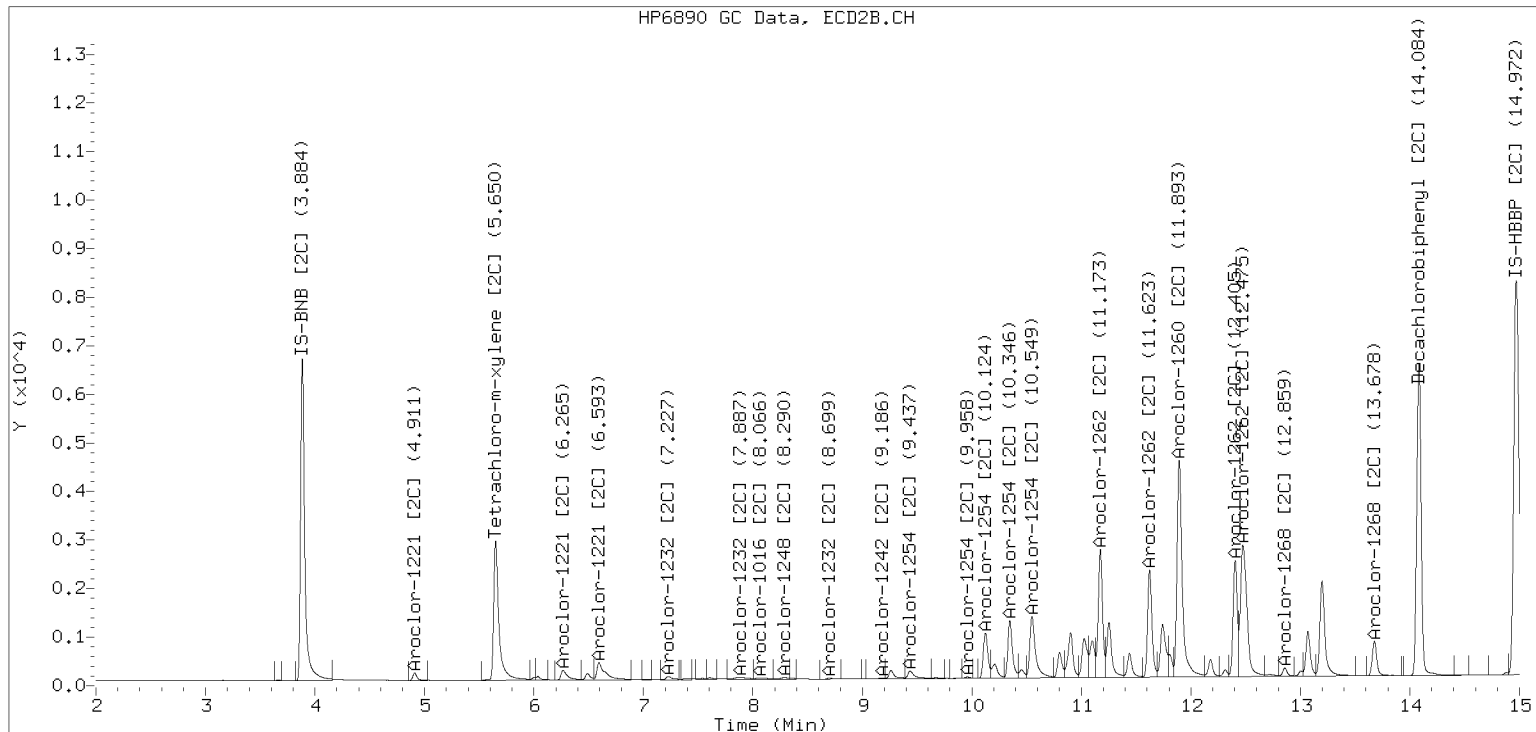


ZB-35 Manual Integration: NO

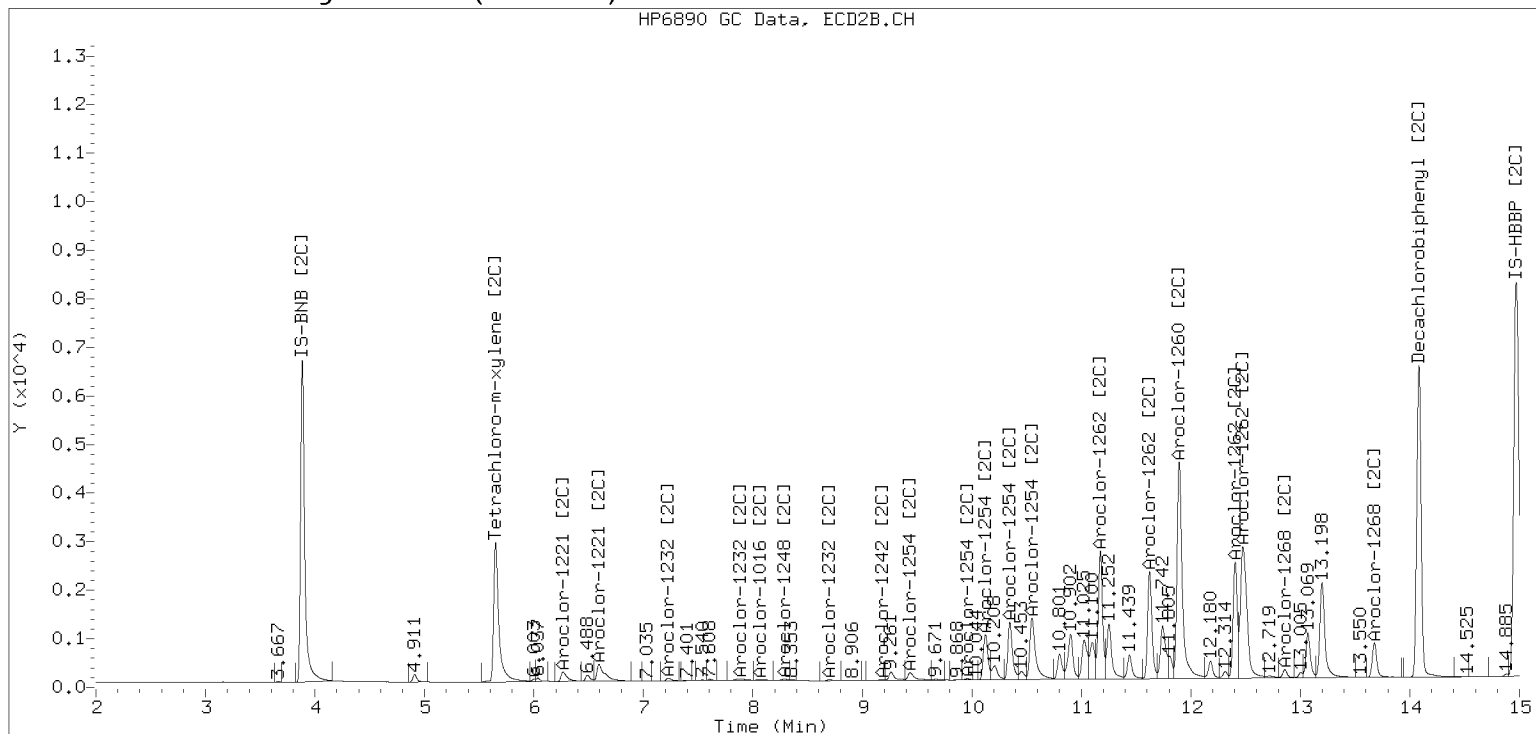
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282319ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00002</u>
Lab File ID:	<u>04282320ECD7.D</u>	Calibration Date:	<u>04/28/2023</u>
Sequence:	<u>SLD0427</u>	Injection Date:	<u>04/28/23</u>
Lab Sample ID:	<u>SLD0427-SCV6</u>	Injection Time:	<u>17:54</u>
Sequence Name:	<u>AR3268SCV6</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1232	A	250.00	253	0.0156430	0.0163986		1.1	+/-20
Aroclor 1232 [2C]	A	250.00	257	0.0180080	0.0186886		2.7	+/-20
Aroclor 1268	A	250.00	242	0.1857986	0.1802210		-3.4	+/-20
Aroclor 1268 [2C]	A	250.00	254	0.2740532	0.2802281		1.8	+/-20
Decachlorobiphenyl	A	40.000	54.3	0.8671959	1.1765650		35.7	+/-20
Tetrachlorometaxylene	A	40.000	39.7	1.1690340	1.1600880		-0.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	60.0	1.2954910	1.9443880		50.1	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.1	1.1231530	1.0686210		-4.9	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230428.b/04282320ECD7.D
Data file 2: /230428.b/230428.b/04282320ECD7.D
Method: \\target\share\chem4\ecd7.i\230428.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 28-APR-2023 17:54
Report Date: 05/01/2023 12:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.767	0.001	344701	5.650	-0.000	190884	39.7	38.1	4.2	Tetrachloro-m-xylene
13.863	0.002	748678	14.083	-0.001	556825	54.3	60.0	10.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	594267	6.8
Hexabromobiphenyl	745660	1272651	70.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	357253	2.5
Hexabromobiphenyl	429949	572751	33.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.238	0.002	27428	119.4	1	7.224	0.003	22212	114.8
Aroclor-1016	2	7.645	0.018	67306	110.5	2	7.864	0.020	43795	114.5
Aroclor-1016	3	7.770	0.007	44634	108.2	3	8.063	0.009	25689	109.2
Aroclor-1016	4	8.384	0.008	23868	110.9	4	8.289	0.008	18313	104.5
Total CollAve (4 peaks):				112.2		Total Col2Ave (4 peaks):				110.7 RPD = 1
Corrected Ave (3 peaks):				109.9		Corrected Ave (3 peaks):				109.4 RPD = 0
Aroclor-1221	1	4.684	0.002	6934	152.4	1	4.912	0.002	3754	141.5
Aroclor-1221	2	6.095	0.001	14371	157.5	2	6.267	0.002	8987	158.6
Aroclor-1221	3	6.348	0.002	41876	193.5	3	6.596	0.002	24420	188.3
Total CollAve (3 peaks):				167.8		Total Col2Ave (3 peaks):				162.8 RPD = 3
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.684	0.002	6934	239.7	1	4.912	0.001	3754	244.1
Aroclor-1232	2	6.095	0.001	14371	224.6	2	7.224	-0.001	22212	259.7
Aroclor-1232	3	7.645	-0.006	67306	265.3	3	7.864	0.002	43795	259.5
Aroclor-1232	4	8.564	0.001	33203	281.0	4	8.693	-0.001	13696	263.5
Total CollAve (4 peaks):				252.6		Total Col2Ave (4 peaks):				256.7 RPD = 2
Corrected Ave (3 peaks):				243.2		Corrected Ave (3 peaks):				254.4 RPD = 5
Aroclor-1242	1	7.238	0.001	27428	147.9	1	7.224	0.002	22212	143.1
Aroclor-1242	2	7.645	0.007	67306	132.8	2	7.864	0.006	43795	141.0
Aroclor-1242	3	8.428	0.047	16206	95.1	3	8.693	-0.475	13696	127.5
Aroclor-1242	4	8.564	0.004	33203	131.6	4	8.897	-0.706	21265	192.9
Total CollAve (4 peaks):				126.9		Total Col2Ave (4 peaks):				151.1 RPD = 17
Corrected Ave (3 peaks):				119.8		Corrected Ave (3 peaks):				137.2 RPD = 14
Aroclor-1248	1	8.384	0.005	23868	83.1	1	8.693	0.408	13696	73.1
Aroclor-1248	2	8.564	0.005	33203	87.2	2	8.897	0.206	21265	128.9
Aroclor-1248	3	8.968	0.004	84096	74.0	3	9.261	0.097	25621	126.6
Aroclor-1248	4	9.276	0.005	56986	95.5	4	9.433	-0.160	6057	28.1
Total CollAve (4 peaks):				85.0		Total Col2Ave (4 peaks):				89.2 RPD = 5
Corrected Ave (3 peaks):				81.4		Corrected Ave (3 peaks):				75.9 RPD = 7
Aroclor-1254	1	9.276	0.000	56986	88.8	1	9.433	0.004	6057	22.7
Aroclor-1254	2	---			0.0	2	9.609	0.081	13368	82.1
Aroclor-1254	3	9.660	0.012	7875	19.4	3	9.958	0.008	2781	12.9
Aroclor-1254	4	9.800	0.010	12771	15.5	4	10.117	0.007	5502	11.8
Aroclor-1254	5	10.183	0.015	9957	23.0	5	10.379	0.024	5042	9.4
Total CollAve (4 peaks):				36.7		Total Col2Ave (5 peaks):				27.8 RPD = 28
Corrected Ave (3 peaks):				19.3		Corrected Ave (4 peaks):				14.2 RPD = 31
Aroclor-1260	1	11.023	0.005	98362	136.9	1	11.614	-0.010	74582	183.0
Aroclor-1260	2	11.337	0.004	8979	12.3	2	11.895	0.003	33641	31.5
Aroclor-1260	3	11.714	0.004	59413	31.4	3	12.402	-0.005	335038	1375.9
Aroclor-1260	4	---			0.0	4	12.470	-0.005	380342	522.0
Aroclor-1260	5	12.219	0.003	530793	1233.3	NS	---			---
Total CollAve (4 peaks):				353.5		Total Col2Ave (4 peaks):				528.1 RPD = 40
Corrected Ave (3 peaks):				60.2		Corrected Ave (3 peaks):				245.5 RPD = 121*
Aroclor-1262	1	10.815	0.006	5713	11.5	1	11.176	0.003	58379	102.0
Aroclor-1262	2	12.219	0.002	530793	612.0	2	11.614	-0.010	74582	154.7
Aroclor-1262	3	12.291	-0.001	548779	575.7	3	12.402	-0.002	335038	659.6
Aroclor-1262	4	12.960	-0.003	218981	284.8	4	12.470	-0.005	380342	433.3
Total CollAve (4 peaks):				371.0		Total Col2Ave (4 peaks):				337.4 RPD = 9
Corrected Ave (3 peaks):				290.7		Corrected Ave (3 peaks):				230.0 RPD = 23
Aroclor-1268	1	12.219	0.000	530793	243.0	1	12.402	-0.001	335038	253.1
Aroclor-1268	2	12.291	0.000	548779	241.2	2	12.470	-0.001	380342	253.2
Aroclor-1268	3	12.669	0.000	449251	237.4	3	12.859	0.001	314079	253.1
Aroclor-1268	4	13.461	-0.000	1338158	244.6	4	13.676	-0.001	976802	258.3
Total CollAve (4 peaks):				241.6		Total Col2Ave (4 peaks):				254.4 RPD = 5

Corrected Ave (3 peaks): 240.5 Corrected Ave (3 peaks): 253.1 RPD = 5

Total PCB Area Col1 (5.866 - 13.762) = 4336494 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.751 - 13.984) = 2807426 Col2 Total PCB = 0.7 ppm*

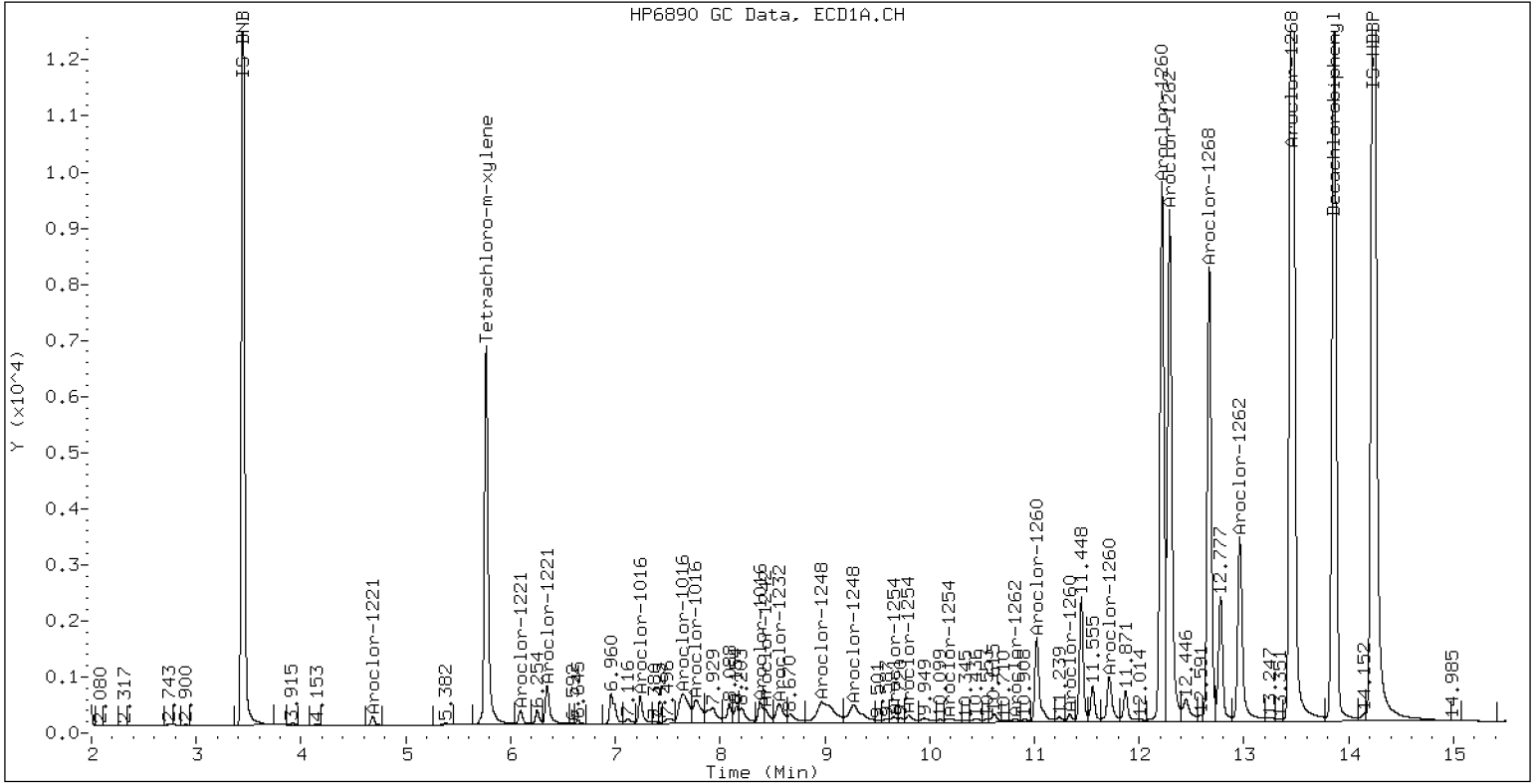
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV

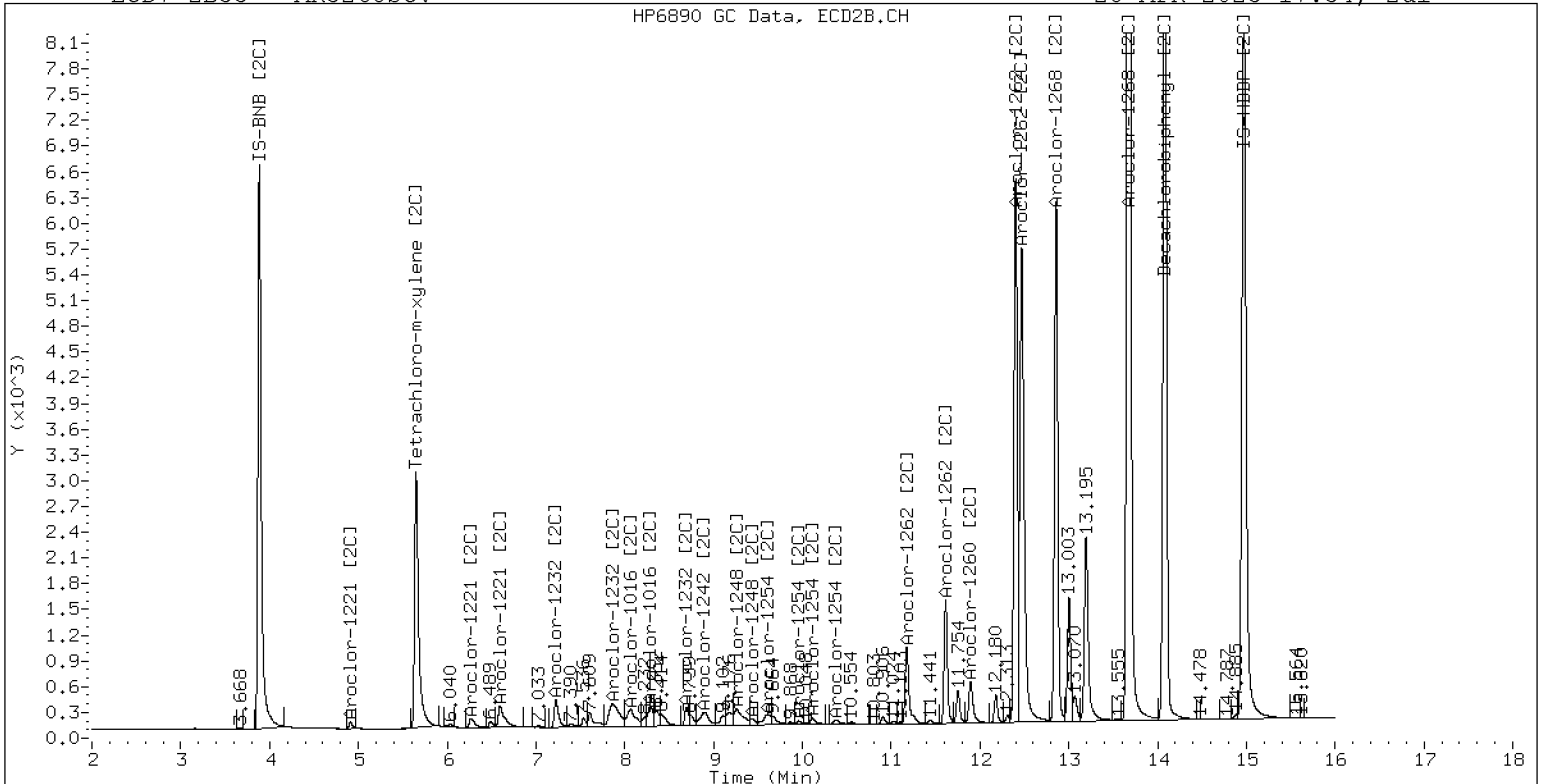
28-APR-2023 17:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV

28-APR-2023 17:54, 2ul

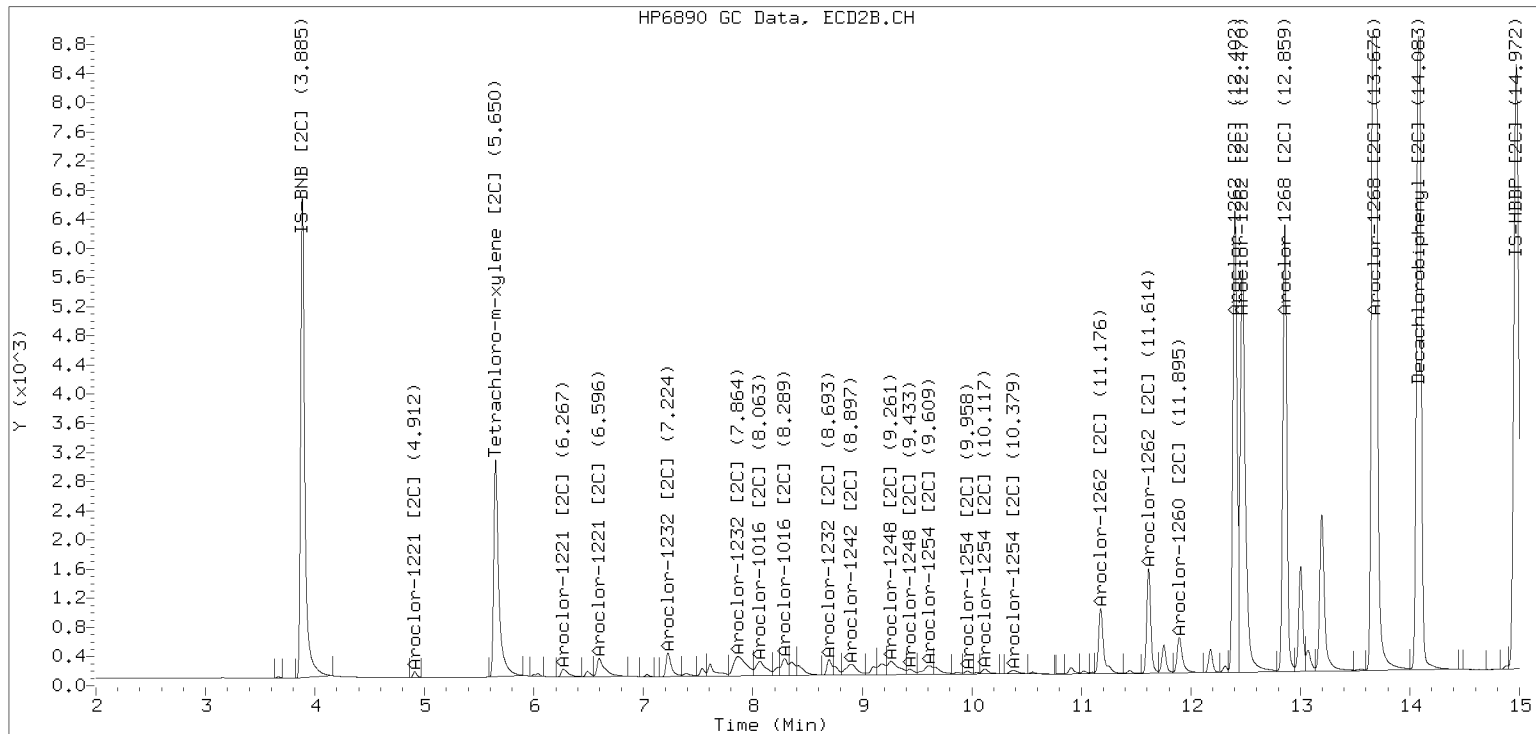


ZB-35 Manual Integration: YES

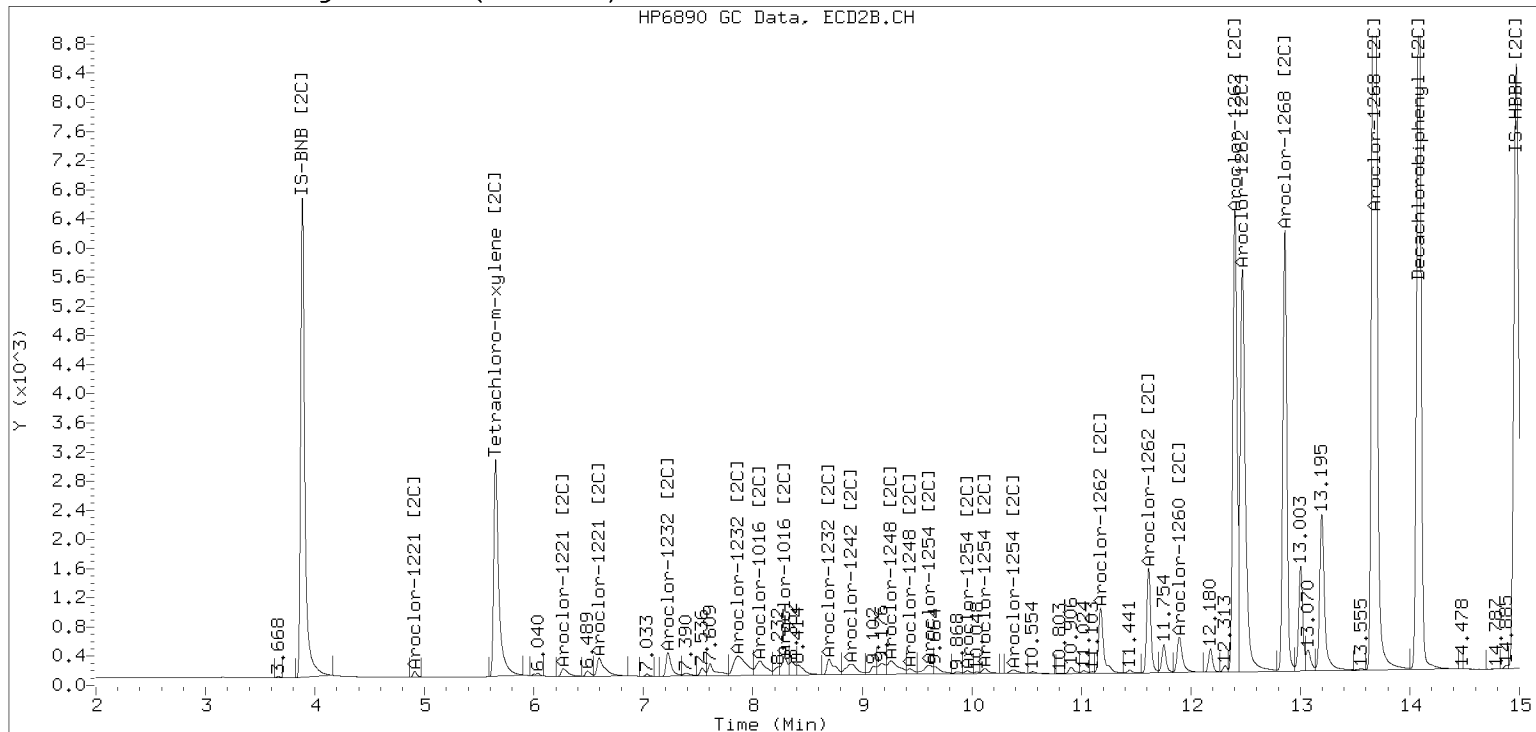
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230428.b/230428.b/04282320ECD7.D Injection Date: 28-APR-2023

Manual Integration (After)



Processed Integration (Before)





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00002</u>
Lab File ID:	<u>05022314ECD7.D</u>	Calibration Date:	<u>04/28/2023</u>
Sequence:	<u>SLE0029</u>	Injection Date:	<u>05/02/23</u>
Lab Sample ID:	<u>SLE0029-CCV1</u>	Injection Time:	<u>15:49</u>
Sequence Name:	<u>AR1248CCV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	232	0.0808031	0.0825809		-7.1	+/-20
Aroclor-1248 (1)	A	250.00	166		0.0407748			
Aroclor-1248 (2)	A	250.00	256		0.0524824			
Aroclor-1248 (3)	A	250.00	255		0.1560695			
Aroclor-1248 (4)	A	250.00	252		0.0809969			
Aroclor 1248 [2C]	A	250.00	263	0.0431424	0.0454425		5.3	+/-20
Aroclor-1248 (1) [2C]	A	250.00	265		0.0445118			
Aroclor-1248 (2) [2C]	A	250.00	263		0.0388649			
Aroclor-1248 (3) [2C]	A	250.00	255		0.0462090			
Aroclor-1248 (4) [2C]	A	250.00	270		0.0521845			
Decachlorobiphenyl	A	40.000	36.3	0.8671959	0.7869299		-9.3	+/-20
Tetrachlorometaxylene	A	40.000	39.0	1.1690340	1.1412640		-2.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	37.2	1.2954910	1.2034880		-7.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.8	1.1231530	1.0888680		-3.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022314ECD7.D
Data file 2: /230502.b/230502.b/05022314ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 02-MAY-2023 15:49
Report Date: 05/02/2023 16:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.001	319814	5.650	0.001	180764	39.0	38.8	0.7	Tetrachloro-m-xylene
13.862	0.002	320779	14.083	0.001	284413	36.3	37.2	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	560456	0.8
Hexabromobiphenyl	745660	815267	9.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	332022	-4.7
Hexabromobiphenyl	429949	472648	9.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.378	-0.001	71414	166.6	1	8.282	0.000	46184	265.1	
Aroclor-1248	2	8.556	-0.003	91919	256.0	2	8.688	0.000	40325	263.0	
Aroclor-1248	3	8.960	-0.004	273344	255.1	3	9.156	0.000	47945	254.9	
Aroclor-1248	4	9.268	-0.003	141860	252.1	4	9.583	0.000	54145	269.9	
Total Col1Ave (4 peaks):				232.4	Total Col2Ave (4 peaks):				263.2	RPD = 12	
Corrected Ave (3 peaks):				224.6	Corrected Ave (3 peaks):				261.0	RPD = 15	
CalAmt %D:				-7.0	CalAmt %D:				5.3		

Total PCB Area Col1 (5.865 - 13.760) = 1467012 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.749 - 13.982) = 804987 Col2 Total PCB = 0.2 ppm*

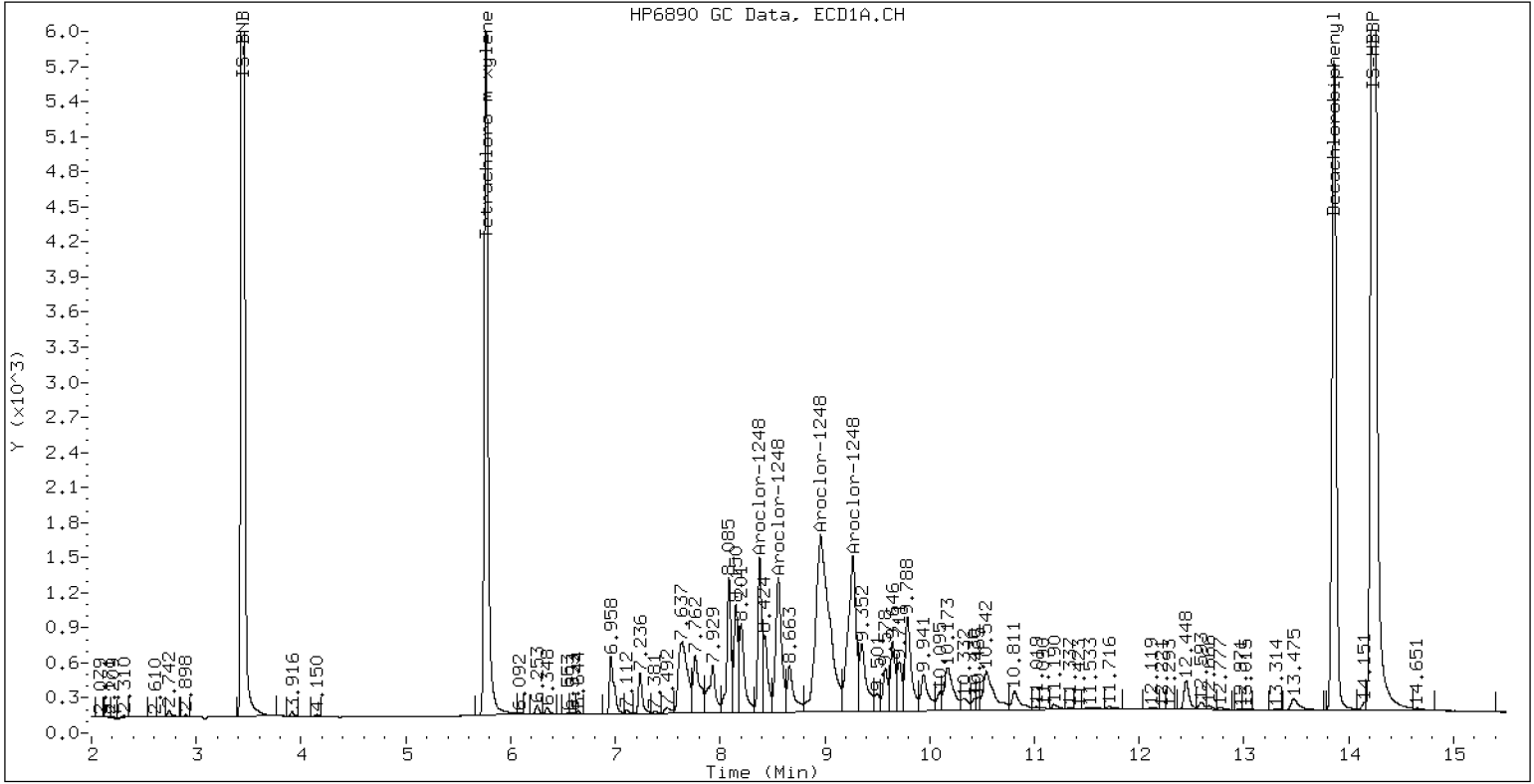
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV1

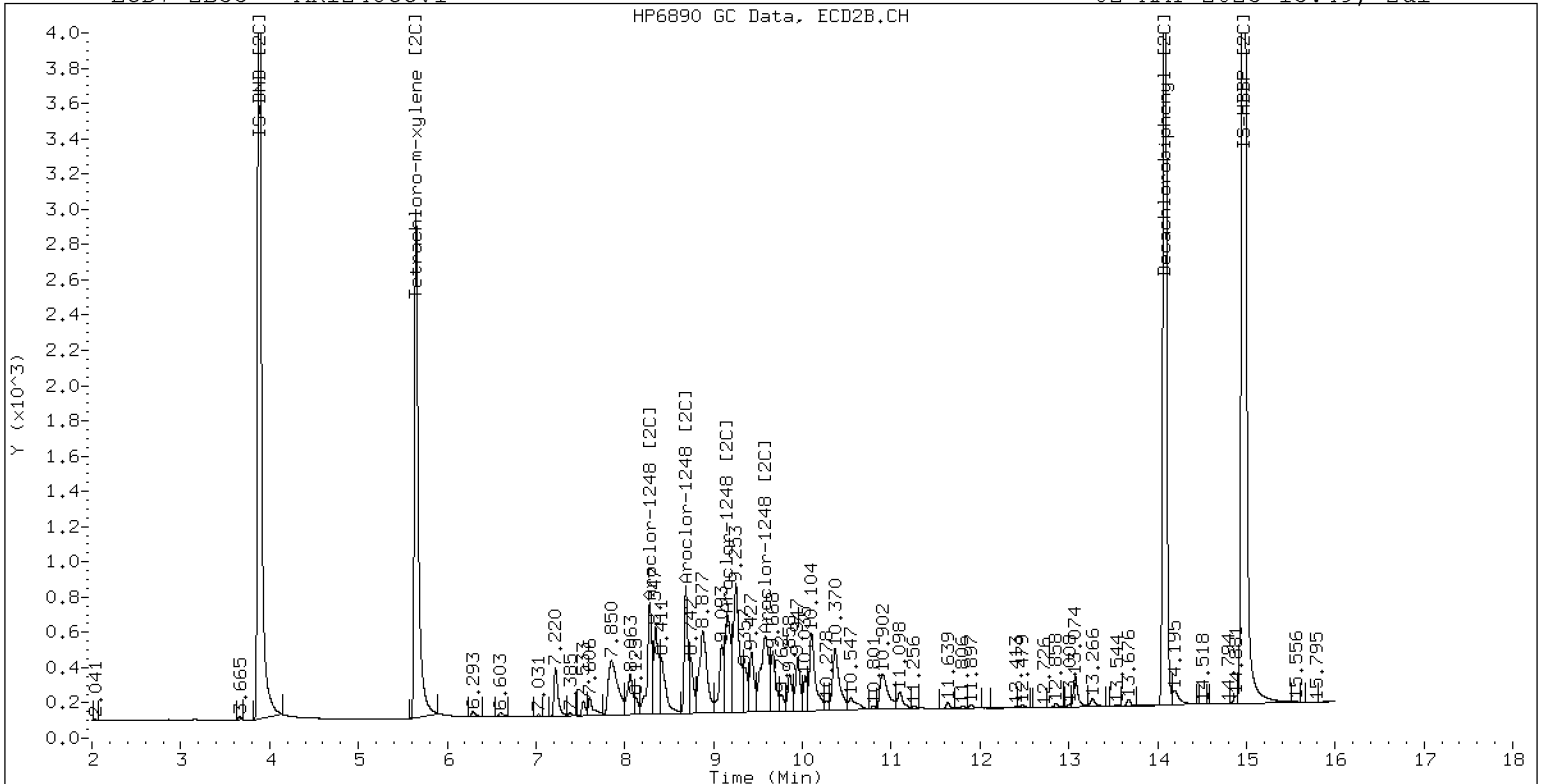
02-MAY-2023 15:49, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV1

02-MAY-2023 15:49, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD7

Calibration: GE00002

Lab File ID: 05022315ECD7.D

Calibration Date: 04/28/2023

Sequence: SLE0029

Injection Date: 05/02/23

Lab Sample ID: SLE0029-CCV2

Injection Time: 16:10

Sequence Name: AR1660CCV2

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	258	0.0493584	0.0519462		3.2	+/-20
Aroclor-1016 (1)	A	250.00	250	0.0309351	0.0297961		0.0	
Aroclor-1016 (2)	A	250.00	291	0.0820179	0.0956215		16.4	
Aroclor-1016 (3)	A	250.00	235	0.0555075	0.0528520		-6.0	
Aroclor-1016 (4)	A	250.00	256	0.0289731	0.0295154		2.4	
Aroclor 1016 [2C]	A	250.00	283	0.0554830	0.0642518		13.2	+/-20
Aroclor-1016 (1) [2C]	A	250.00	307	0.0433246	0.0532682		22.8	
Aroclor-1016 (2) [2C]	A	250.00	330	0.0856363	0.1130258		32.0	
Aroclor-1016 (3) [2C]	A	250.00	241	0.0537117	0.0507748		-3.6	
Aroclor-1016 (4) [2C]	A	250.00	254	0.0392594	0.0399385		1.6	
Aroclor 1260	A	250.00	245	0.0591826	0.0587948		-1.8	+/-20
Aroclor-1260 (1)	A	250.00	263	0.0451684	0.0474543		5.2	
Aroclor-1260 (2)	A	250.00	253	0.0458209	0.0463971		1.2	
Aroclor-1260 (3)	A	250.00	263	0.1189069	0.1249337		5.2	
Aroclor-1260 (4)	A	250.00	209	0.0589630	0.0493584		-16.4	
Aroclor-1260 (5)	A	250.00	239	0.0270539	0.0258304		-4.4	
Aroclor 1260 [2C]	A	250.00	230	0.0855158	0.0788438		-7.9	+/-20
Aroclor-1260 (1) [2C]	A	250.00	224	0.0569154	0.0511155		-10.4	
Aroclor-1260 (2) [2C]	A	250.00	231	0.1493590	0.1380678		-7.6	
Aroclor-1260 (3) [2C]	A	250.00	235	0.0340126	0.0319904		-6.0	
Aroclor-1260 (4) [2C]	A	250.00	231	0.1017762	0.0942015		-7.6	
Decachlorobiphenyl	A	40.000	38.4	0.8671959	0.8336346		-4.0	+/-20
Tetrachlorometaxylene	A	40.000	40.6	1.1690340	1.1864030		1.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.6	1.2954910	1.2503520		-3.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	45.8	1.1231530	1.2867590		14.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022315ECD7.D
Data file 2: /230502.b/230502.b/05022315ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 02-MAY-2023 16:10
Report Date: 05/02/2023 16:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.001	334804	5.649	0.000	182393	40.6	45.8	12.1	Tetrachloro-m-xylene
13.860	-0.000	380242	14.082	0.000	298436	38.5	38.6	0.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	564402	1.5
Hexabromobiphenyl	745660	912251	22.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	283492	-18.7
Hexabromobiphenyl	429949	477363	11.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.237	0.000	52553	250.2	1	7.221	0.000	47191	307.4
Aroclor-1016	2	7.632	0.003	168653	291.5	2	7.848	0.000	100131	330.0
Aroclor-1016	3	7.765	0.001	93218	235.4	3	8.054	0.000	44982	240.9
Aroclor-1016	4	8.378	0.001	52058	255.6	4	8.282	0.000	35382	254.3
Total CollAve (4 peaks):				258.2		Total Col2Ave (4 peaks):				283.1 RPD = 9
Corrected Ave (3 peaks):				247.1		Corrected Ave (3 peaks):				267.5 RPD = 8
CalAmt %D:				3.3		CalAmt %D:				13.3
Aroclor-1260	1	11.017	0.001	135282	262.7	1	11.623	0.000	76252	224.5
Aroclor-1260	2	11.334	0.001	132268	253.1	2	11.890	0.000	205964	231.1
Aroclor-1260	3	11.710	0.001	356159	262.7	3	12.405	0.000	47722	235.1
Aroclor-1260	4	12.117	-0.001	140710	209.3	4	12.474	0.000	140526	231.4
Aroclor-1260	5	12.216	0.001	73637	238.7	NS	---			----
Total CollAve (5 peaks):				245.3		Total Col2Ave (4 peaks):				230.5 RPD = 6
Corrected Ave (4 peaks):				240.9		Corrected Ave (3 peaks):				229.0 RPD = 5
CalAmt %D:				-1.9		CalAmt %D:				-7.8

Total PCB Area Coll (5.865 - 13.760) = 3614926 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.749 - 13.982) = 1914988 Col2 Total PCB = 0.6 ppm*

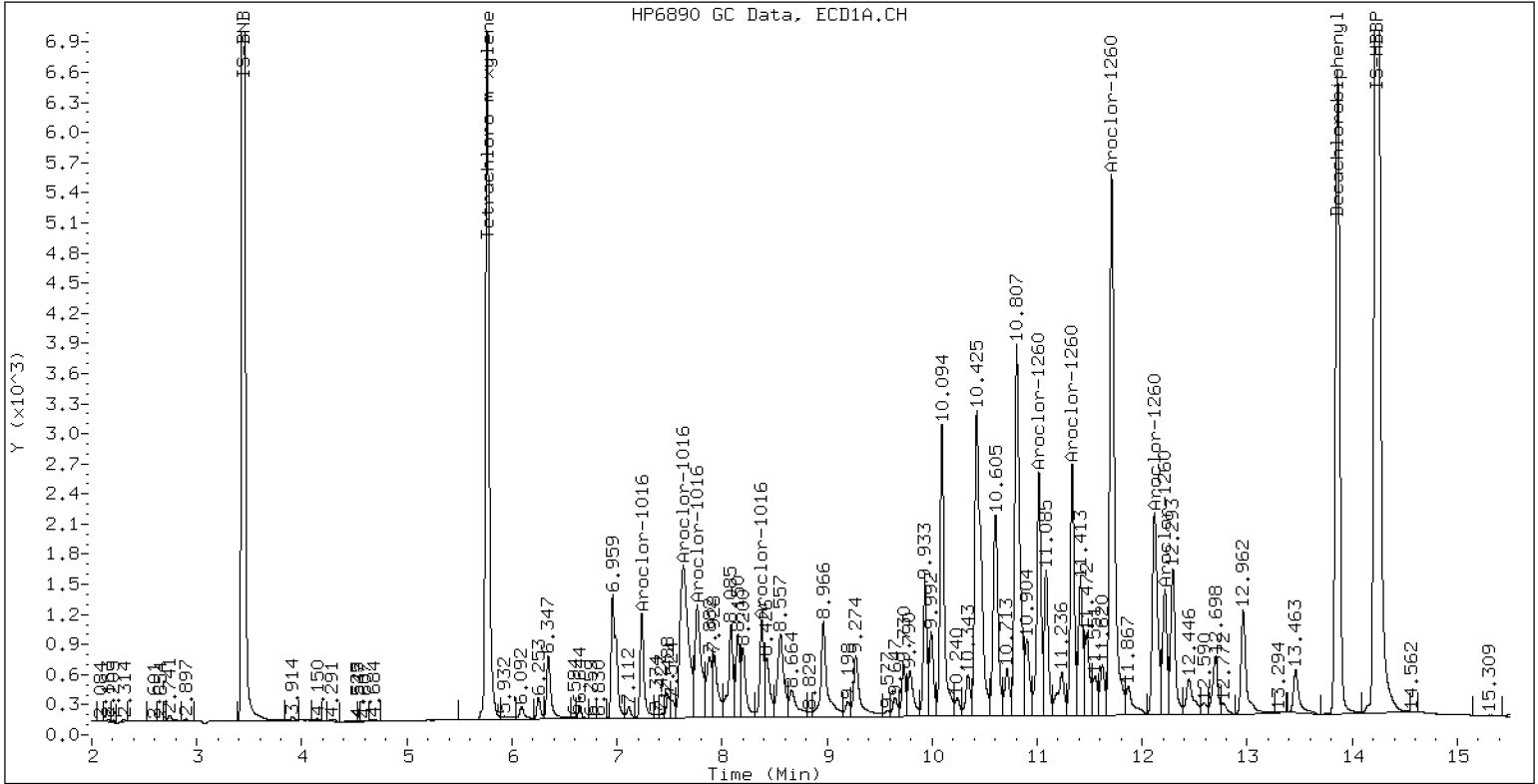
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV2

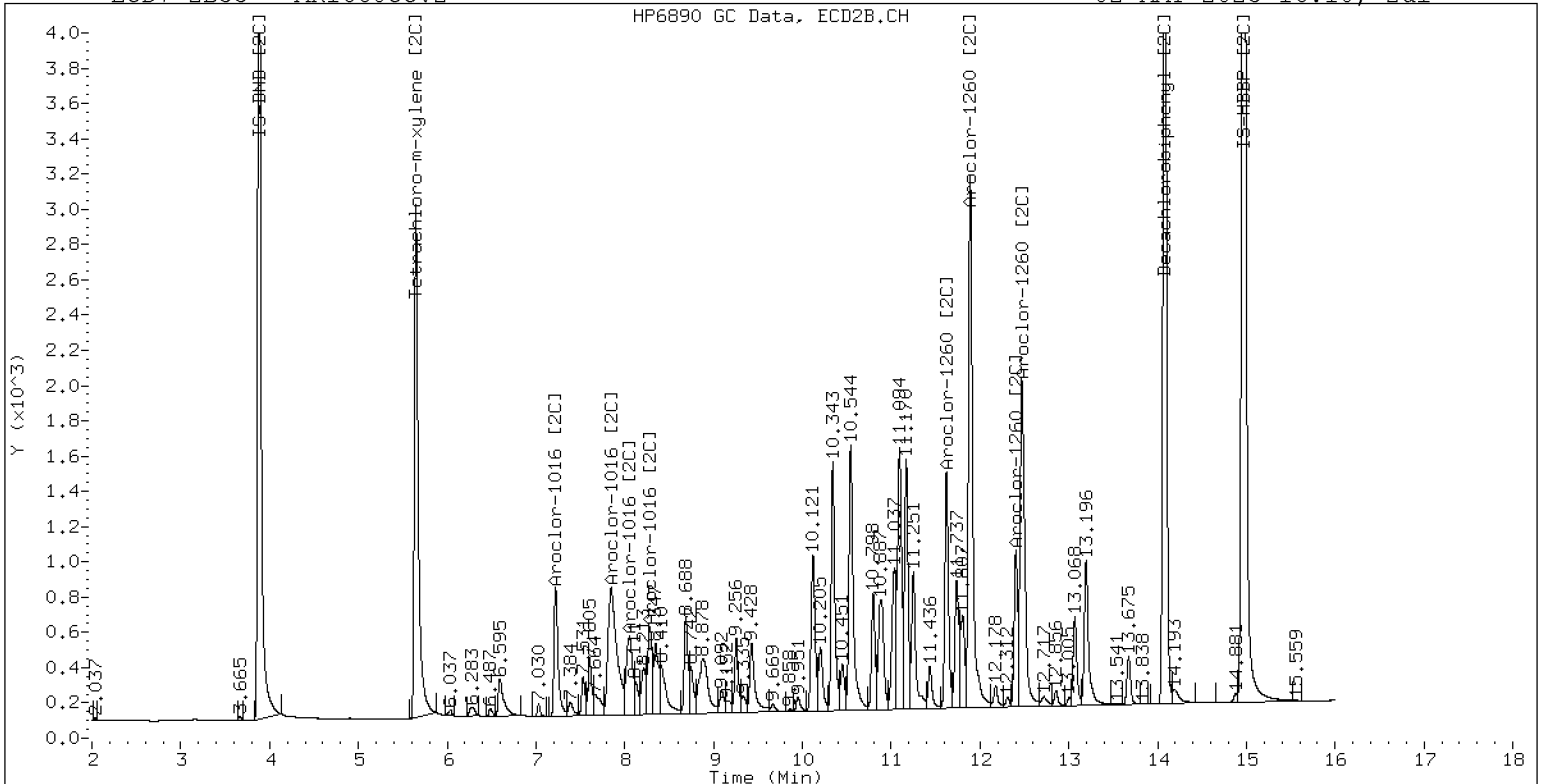
02-MAY-2023 16:10, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV2

02-MAY-2023 16:10, 2ul

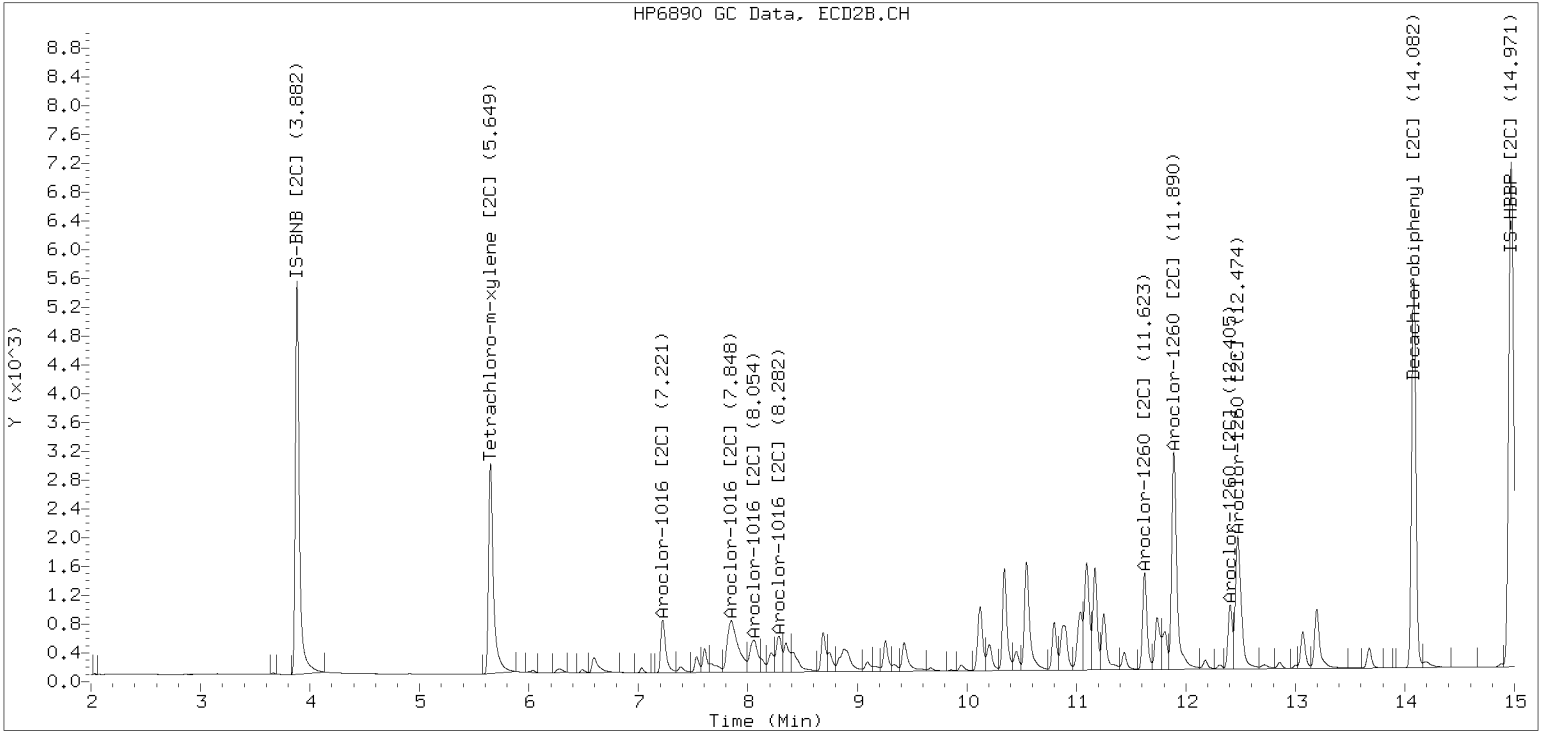


ZB-35 Manual Integration: YES

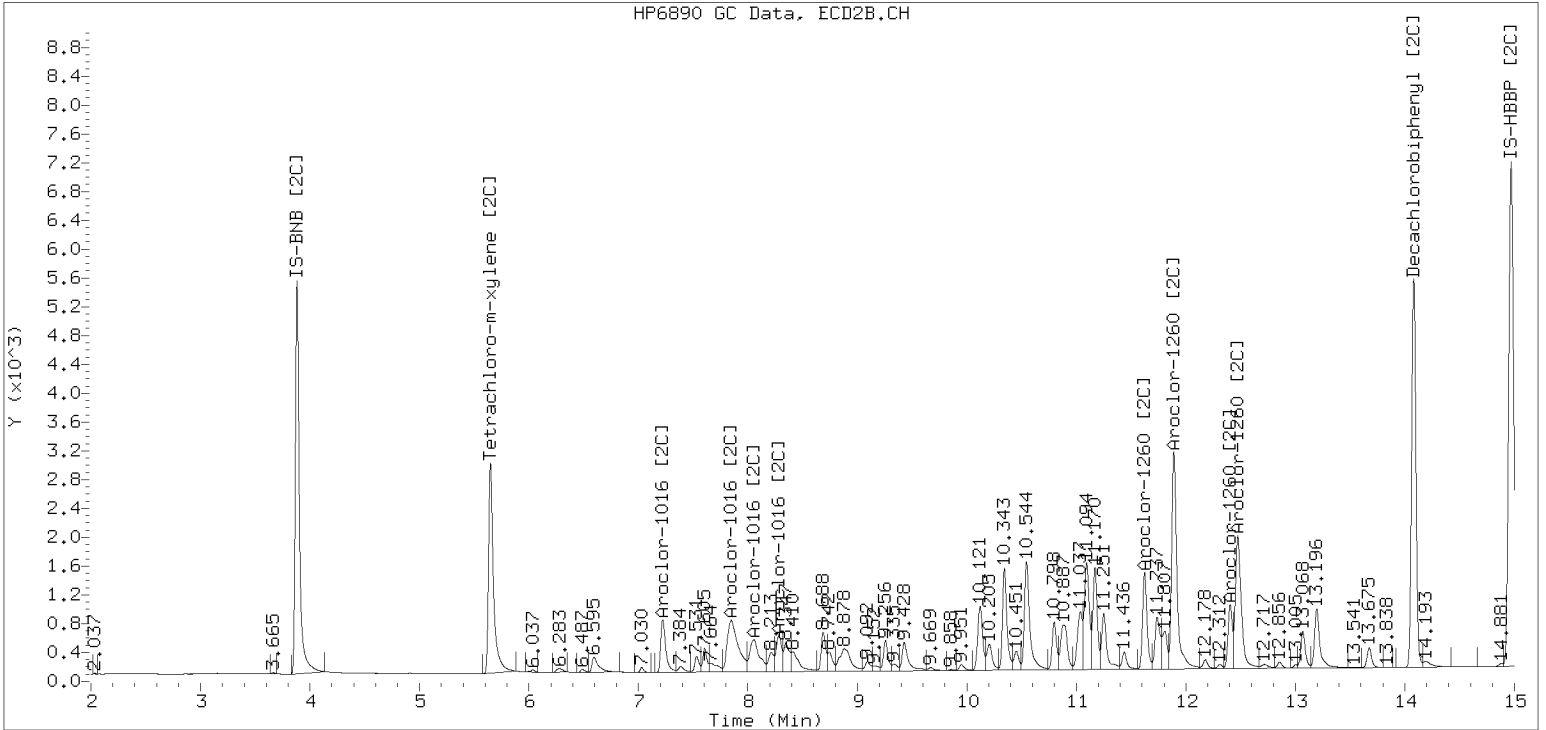
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230502.b/230502.b/05022315ECD7.D Injection Date: 02-MAY-2023

Manual Integration (After)



Processed Integration (Before)





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00002</u>
Lab File ID:	<u>05022330ECD7.D</u>	Calibration Date:	<u>04/28/2023</u>
Sequence:	<u>SLE0029</u>	Injection Date:	<u>05/02/23</u>
Lab Sample ID:	<u>SLE0029-CCV3</u>	Injection Time:	<u>21:23</u>
Sequence Name:	<u>AR1242CCV3</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	257	0.0375243	0.0376183		2.8	+/-20
Aroclor-1242 (1)	A	250.00	251		0.0250613			
Aroclor-1242 (2)	A	250.00	272		0.0741401			
Aroclor-1242 (3)	A	250.00	246		0.0160413			
Aroclor-1242 (4)	A	250.00	259		0.0352306			
Aroclor 1242 [2C]	A	250.00	273	0.0382553	0.0420062		9.3	+/-20
Aroclor-1242 (1) [2C]	A	250.00	267		0.0370745			
Aroclor-1242 (2) [2C]	A	250.00	279		0.0776484			
Aroclor-1242 (3) [2C]	A	250.00	267		0.0256503			
Aroclor-1242 (4) [2C]	A	250.00	280		0.0276516			
Decachlorobiphenyl	A	40.000	36.2	0.8671959	0.7859002		-9.5	+/-20
Tetrachlorometaxylene	A	40.000	47.8	1.1690340	1.3960730		19.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.1	1.2954910	1.2333160		-4.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	48.4	1.1231530	1.3579020		21.0	+/-20 *

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022330ECD7.D
Data file 2: /230502.b/230502.b/05022330ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 02-MAY-2023 21:23
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	396718	5.648	-0.000	224944	47.8	48.4	1.2	Tetrachloro-m-xylene
13.861	-0.001	287120	14.082	-0.000	248422	36.3	38.1	4.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	568334	2.2
Hexabromobiphenyl	745660	730678	-2.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	331311	-4.9
Hexabromobiphenyl	429949	402852	-6.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.235	0.000	44510	251.0	1	7.222	0.000	38385	266.7	
Aroclor-1242	2	7.632	0.000	131676	271.6	2	7.847	0.000	80393	279.2	
Aroclor-1242	3	8.425	0.000	28490	245.9	3	9.158	0.000	26557	266.7	
Aroclor-1242	4	8.555	0.000	62571	259.4	4	9.590	0.000	28629	280.0	
Total CollAve (4 peaks):				257.0		Total Col2Ave (4 peaks):				273.1	RPD = 6
Corrected Ave (3 peaks):				252.1		Corrected Ave (3 peaks):				270.8	RPD = 7
CalAmt %D:				2.8		CalAmt %D:				9.3	

Total PCB Area Col1 (5.866 - 13.762) = 1122339 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.749 - 13.983) = 607990 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022331ECD7.D
Data file 2: /230502.b/230502.b/05022331ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 02-MAY-2023 21:44
Report Date: 05/03/2023 09:34
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.767	0.001	342238	5.649	0.000	188457	40.4	46.1	13.1	Tetrachloro-m-xylene
13.862	0.000	354673	14.081	-0.001	281429	40.0	40.5	1.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	579374	4.2
Hexabromobiphenyl	745660	817095	9.6
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	291215	-16.4
Hexabromobiphenyl	429949	428987	-0.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.236	0.000	53422	247.8	1	7.222	-0.000	48446	307.2
Aroclor-1016	2	7.630	-0.002	174200	293.3	2	7.843	-0.005	104432	335.0
Aroclor-1016	3	7.764	-0.001	96624	237.7	3	8.043	-0.015	45483	237.1
Aroclor-1016	4	8.377	-0.002	54362	260.0	4	8.280	-0.003	35239	246.6
Total CollAve (4 peaks):				259.7		Total Col2Ave (4 peaks):				281.5 RPD = 8
Corrected Ave (3 peaks):				248.5		Corrected Ave (3 peaks):				263.6 RPD = 6
CalAmt %D:				3.9		CalAmt %D:				12.6
Aroclor-1260	1	11.017	0.001	122467	265.5	1	11.623	-0.001	75487	247.3
Aroclor-1260	2	11.334	0.000	121261	259.1	2	11.890	-0.000	201190	251.2
Aroclor-1260	3	11.710	-0.001	332846	274.1	3	12.405	-0.001	46404	254.4
Aroclor-1260	4	12.115	-0.003	137411	228.2	4	12.473	-0.001	132135	242.1
Aroclor-1260	5	12.215	-0.001	71839	260.0	NS	---			----
Total CollAve (5 peaks):				257.4		Total Col2Ave (4 peaks):				248.8 RPD = 3
Corrected Ave (4 peaks):				253.2		Corrected Ave (3 peaks):				246.9 RPD = 3
CalAmt %D:				2.9		CalAmt %D:				-0.5

Total PCB Area Coll (5.866 - 13.762) = 3485750 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.749 - 13.983) = 1908113 Col2 Total PCB = 0.6 ppm*

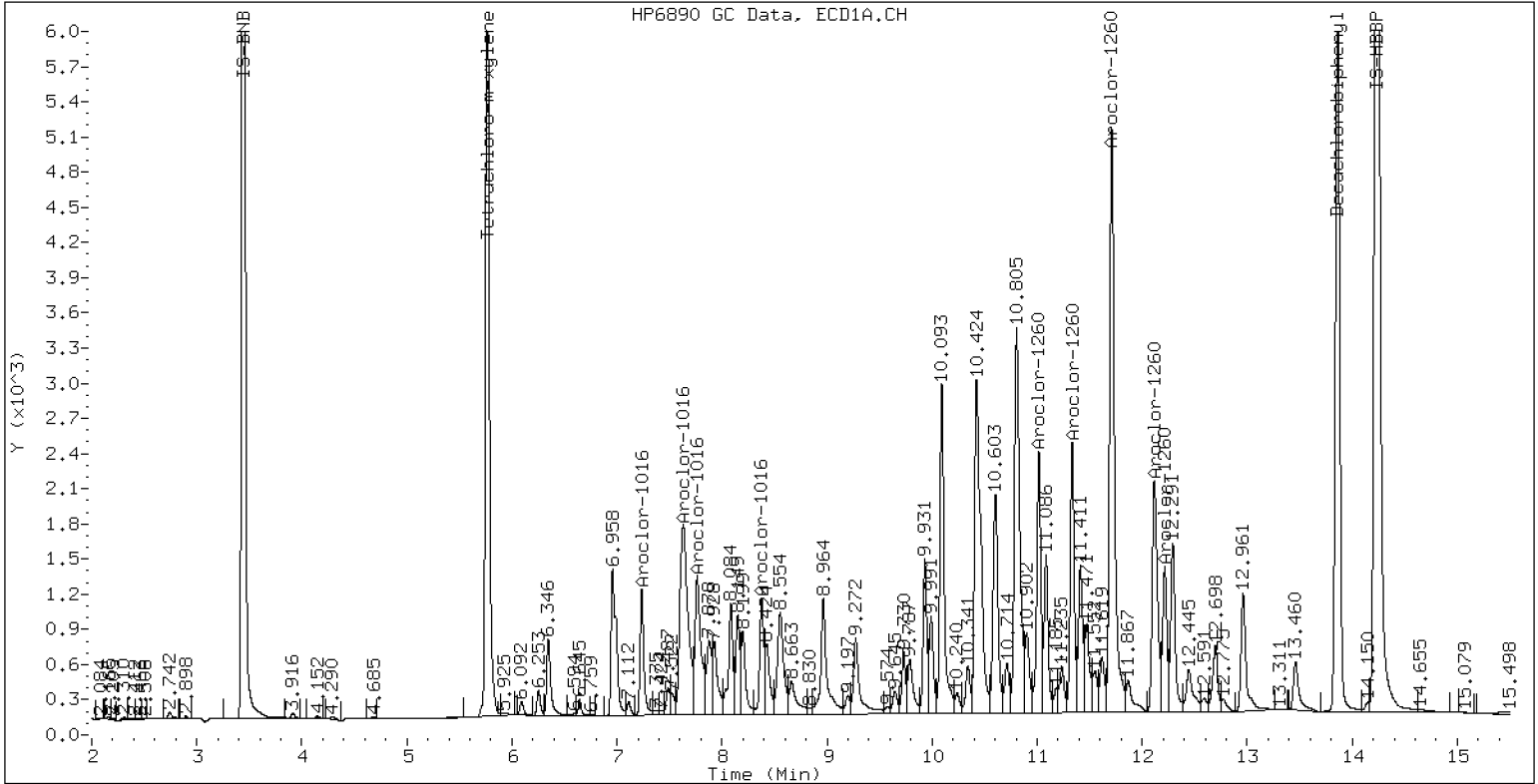
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV4

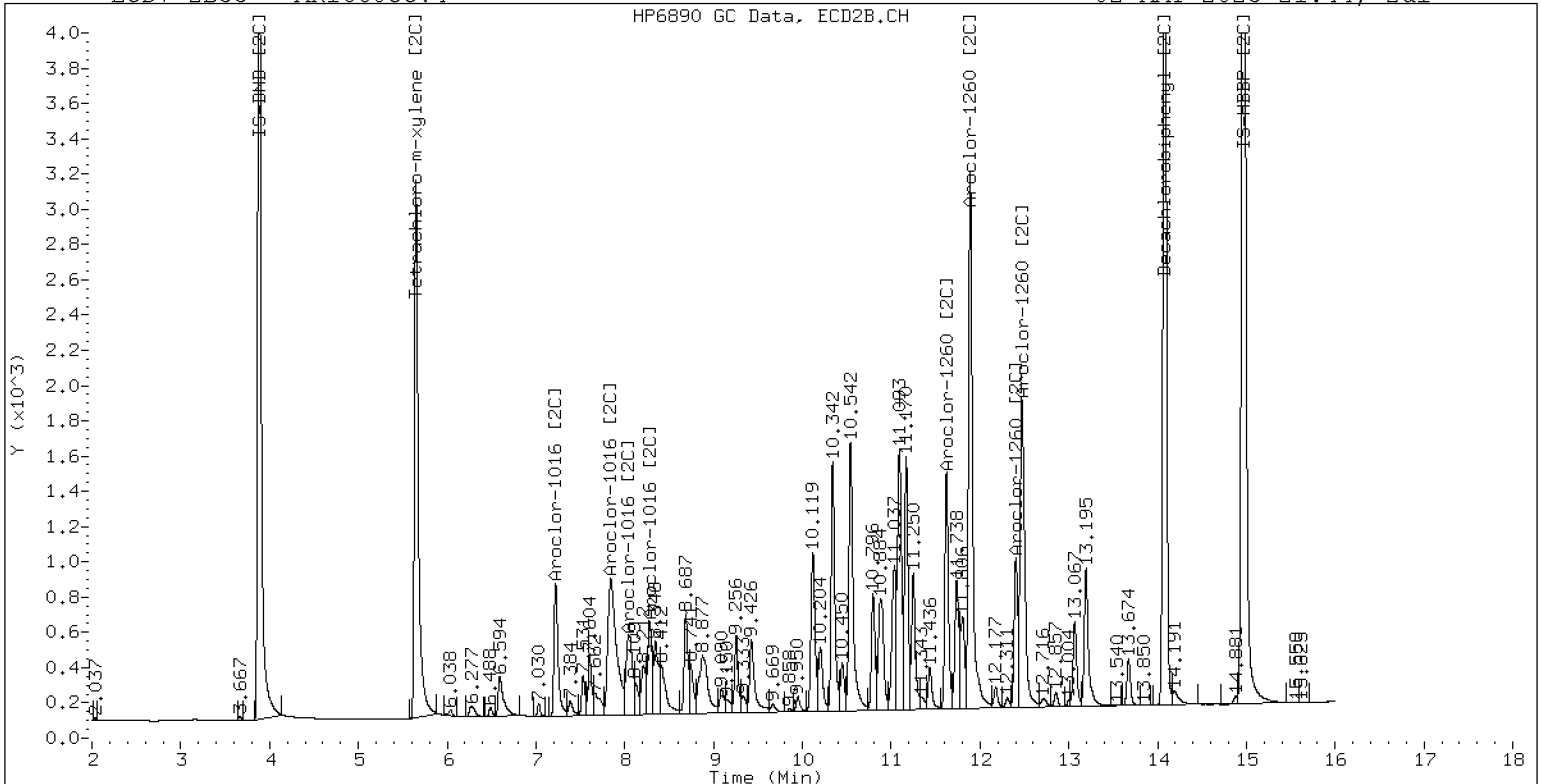
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ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV4

02-MAY-2023 21:44, 2ul

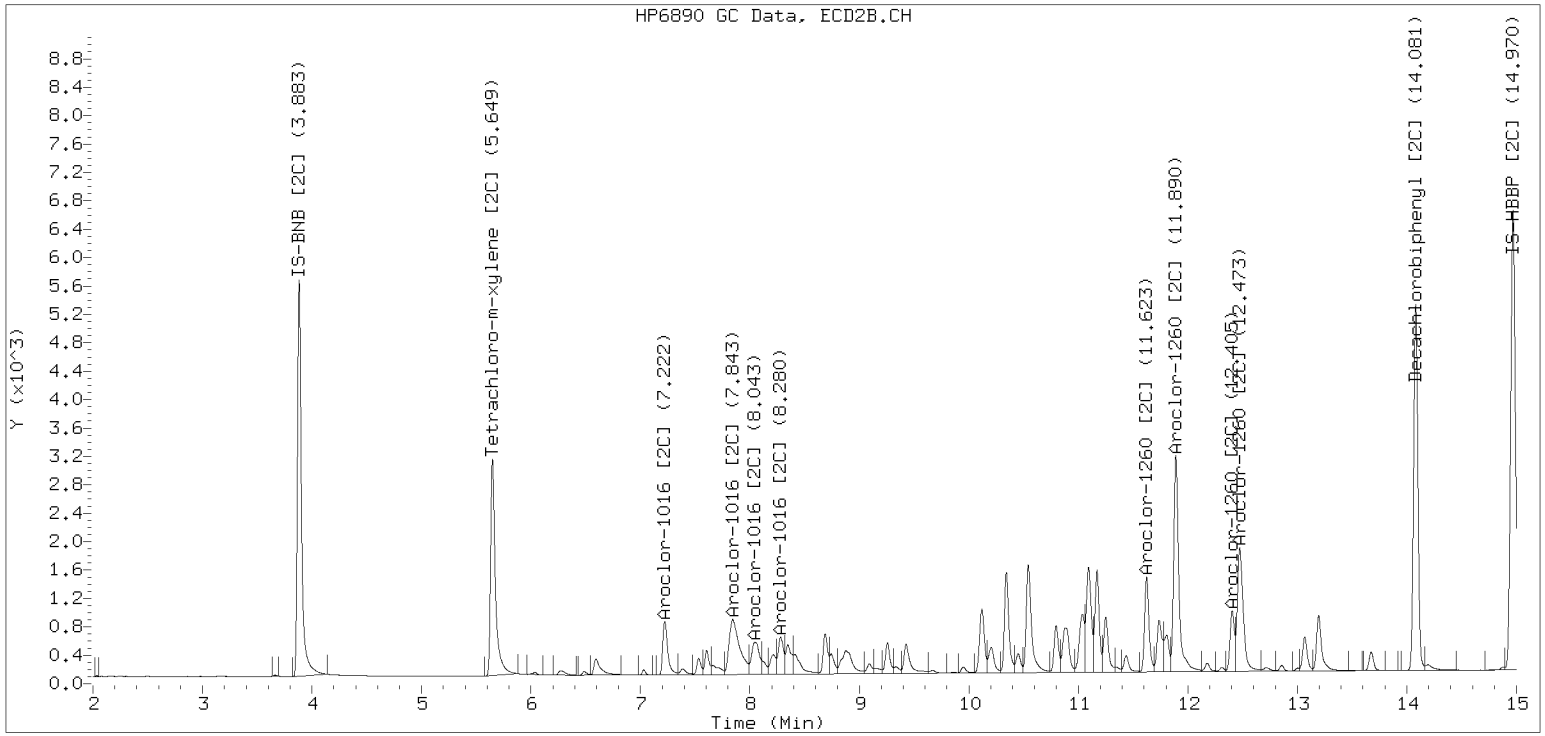


ZB-35 Manual Integration: YES

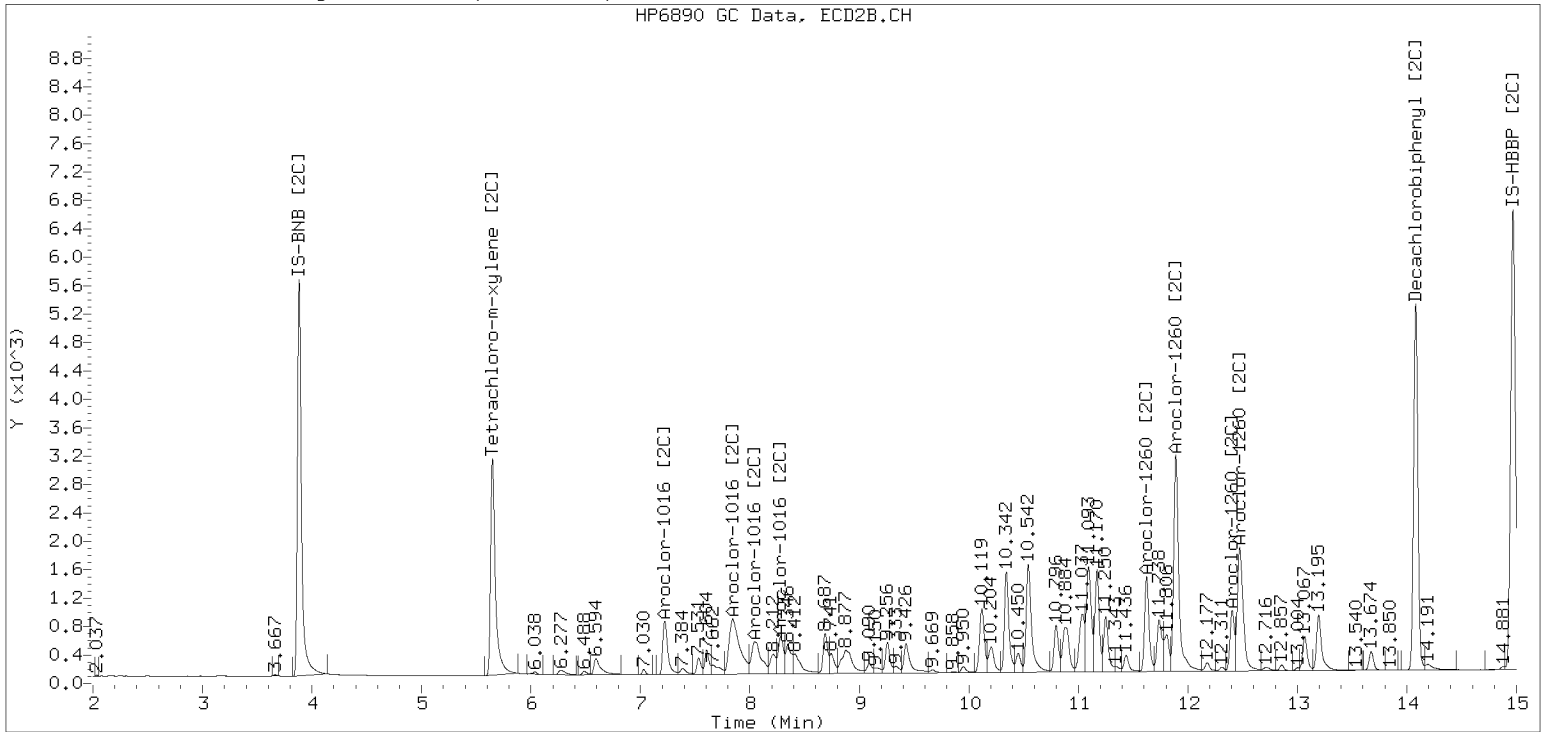
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230502.b/230502.b/05022331ECD7.D Injection Date: 02-MAY-2023

Manual Integration (After)



Processed Integration (Before)





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00002</u>
Lab File ID:	<u>05022351ECD7.D</u>	Calibration Date:	<u>04/28/2023</u>
Sequence:	<u>SLE0029</u>	Injection Date:	<u>05/03/23</u>
Lab Sample ID:	<u>SLE0029-CCV5</u>	Injection Time:	<u>04:41</u>
Sequence Name:	<u>AR1254CCV5</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	208	0.0702659	0.0623428		-16.8	+/-20
Aroclor-1254 (1)	A	250.00	205		0.0709024			
Aroclor-1254 (2)	A	250.00	207		0.0338912			
Aroclor-1254 (3)	A	250.00	216		0.0473197			
Aroclor-1254 (4)	A	250.00	211		0.0936261			
Aroclor-1254 (5)	A	250.00	201		0.0659748			
Aroclor 1254 [2C]	A	250.00	244	0.0739953	0.0716548		-2.4	+/-20
Aroclor-1254 (1) [2C]	A	250.00	251		0.0600651			
Aroclor-1254 (2) [2C]	A	250.00	255		0.0372022			
Aroclor-1254 (3) [2C]	A	250.00	238		0.0461614			
Aroclor-1254 (4) [2C]	A	250.00	236		0.0989080			
Aroclor-1254 (5) [2C]	A	250.00	240		0.1159374			
Decachlorobiphenyl	A	40.000	36.3	0.8671959	0.7879929		-9.3	+/-20
Tetrachlorometaxylene	A	40.000	38.7	1.1690340	1.1305690		-3.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	36.7	1.2954910	1.1886820		-8.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.2	1.1231530	1.1274930		0.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022351ECD7.D
Data file 2: /230502.b/230502.b/05022351ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCV5
Client ID:
Injection Date: 03-MAY-2023 04:41
Report Date: 05/03/2023 09:35
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.001	327930	5.650	0.001	184282	38.7	40.2	3.7	Tetrachloro-m-xylene
13.862	0.001	234801	14.084	0.001	231727	36.3	36.7	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	580115	4.3
Hexabromobiphenyl	745660	595947	-20.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	326888	-6.2
Hexabromobiphenyl	429949	389889	-9.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.272	0.000	128536	205.1	1	9.428	0.000	61358	251.1	
Aroclor-1254	2	9.356	0.000	61440	206.9	2	9.526	0.000	38003	255.1	
Aroclor-1254	3	9.646	0.000	85784	216.5	3	9.948	0.000	47155	238.4	
Aroclor-1254	4	9.786	0.000	169731	210.9	4	10.106	0.000	101037	235.9	
Aroclor-1254	5	10.161	0.000	119603	201.2	5	10.353	0.000	118433	240.6	
Total CollAve (5 peaks):				208.1		Total Col2Ave (5 peaks):				244.2	RPD = 16
Corrected Ave (4 peaks):				206.0		Corrected Ave (4 peaks):				241.5	RPD = 16
CalAmt %D:				-16.8		CalAmt %D:				-2.3	

Total PCB Area Col1 (5.866 - 13.762) = 1740905 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.749 - 13.983) = 1003774 Col2 Total PCB = 0.3 ppm*

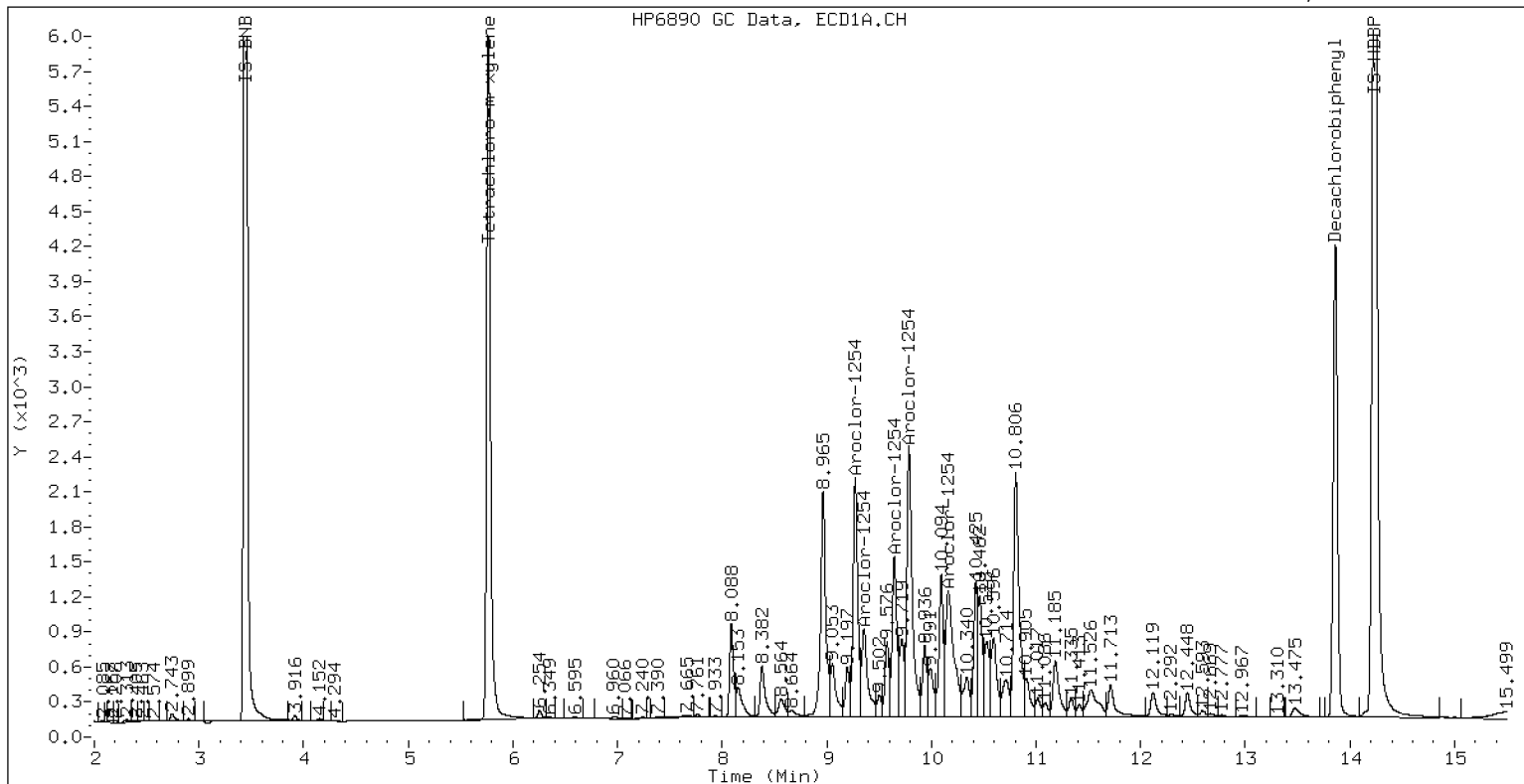
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCV5

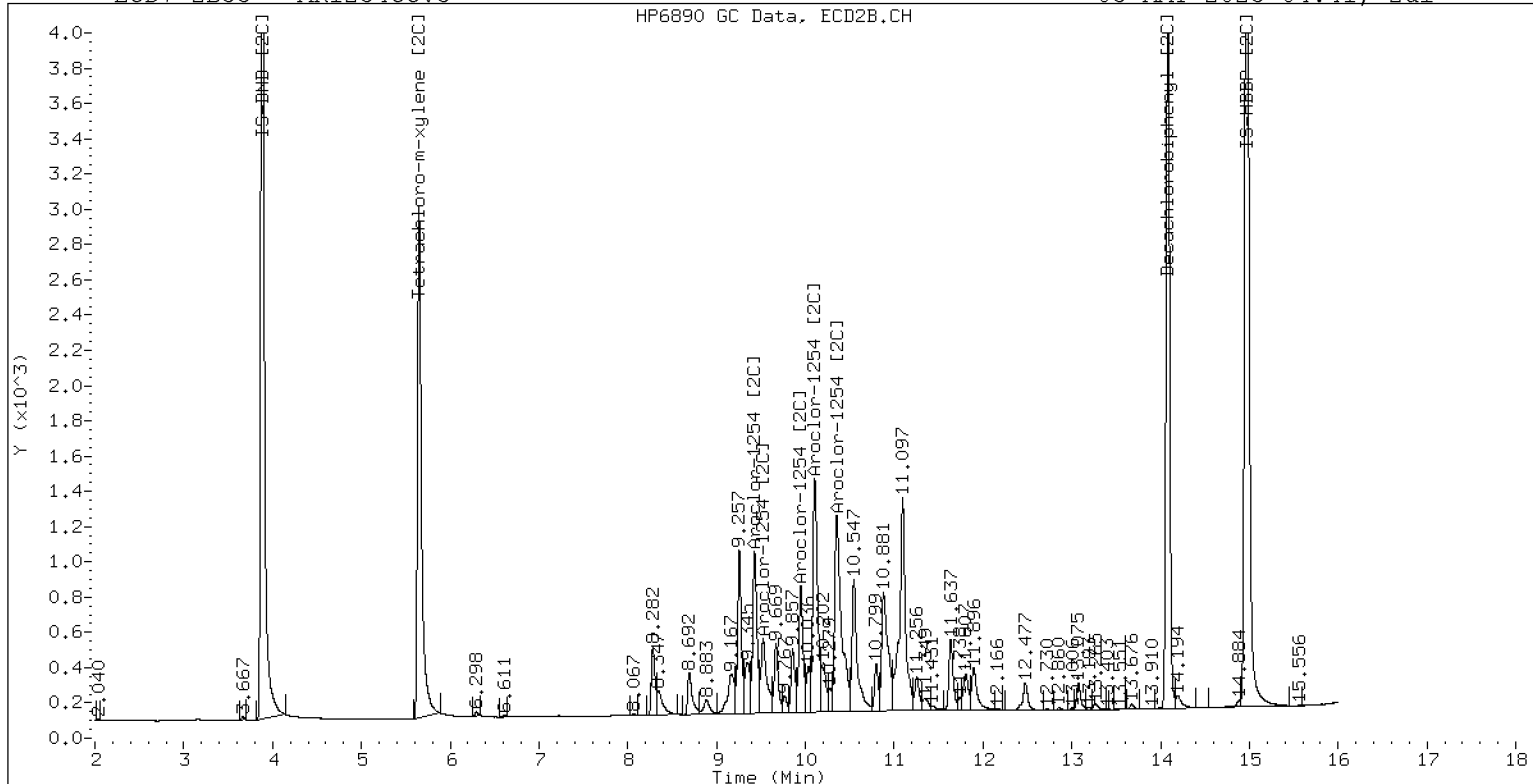
03-MAY-2023 04:41, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCV5

03-MAY-2023 04:41, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230502.b/05022352ECD7.D
Data file 2: /230502.b/230502.b/05022352ECD7.D
Method: \\target\share\chem4\ecd7.i\230502.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV6
Client ID:
Injection Date: 03-MAY-2023 05:02
Report Date: 05/03/2023 09:35
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.766	0.000	357872	5.649	0.000	193519	41.3	46.0	10.8	Tetrachloro-m-xylene
13.862	0.000	354322	14.083	0.000	294899	38.9	39.5	1.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	556262	592753	6.6
Hexabromobiphenyl	745660	839238	12.5
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	348488	299391	-14.1
Hexabromobiphenyl	429949	461296	7.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 28-APR-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.236	0.000	53872	244.3	1	7.222	0.000	50373	310.7
Aroclor-1016	2	7.632	0.000	177028	291.3	2	7.848	0.000	107048	334.0
Aroclor-1016	3	7.765	0.000	99074	238.3	3	8.058	0.000	48293	244.9
Aroclor-1016	4	8.379	0.000	53828	251.7	4	8.283	0.000	38153	259.7
Total CollAve (4 peaks):				256.4		Total Col2Ave (4 peaks):				287.3 RPD = 11
Corrected Ave (3 peaks):				244.7		Corrected Ave (3 peaks):				271.8 RPD = 10
CalAmt %D:				2.5		CalAmt %D:				14.9
Aroclor-1260	1	11.016	0.000	129993	274.3	1	11.624	0.000	76559	233.3
Aroclor-1260	2	11.334	0.000	125822	261.8	2	11.891	0.000	209192	242.9
Aroclor-1260	3	11.711	0.000	327947	262.9	3	12.406	0.000	47517	242.3
Aroclor-1260	4	12.118	0.000	128188	207.2	4	12.475	0.000	137390	234.1
Aroclor-1260	5	12.216	0.000	66839	235.5	NS	---			----
Total CollAve (5 peaks):				248.4		Total Col2Ave (4 peaks):				238.1 RPD = 4
Corrected Ave (4 peaks):				241.9		Corrected Ave (3 peaks):				236.6 RPD = 2
CalAmt %D:				-0.7		CalAmt %D:				-4.7

Total PCB Area Coll (5.866 - 13.762) = 3550802 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.749 - 13.983) = 1961601 Col2 Total PCB = 0.6 ppm*

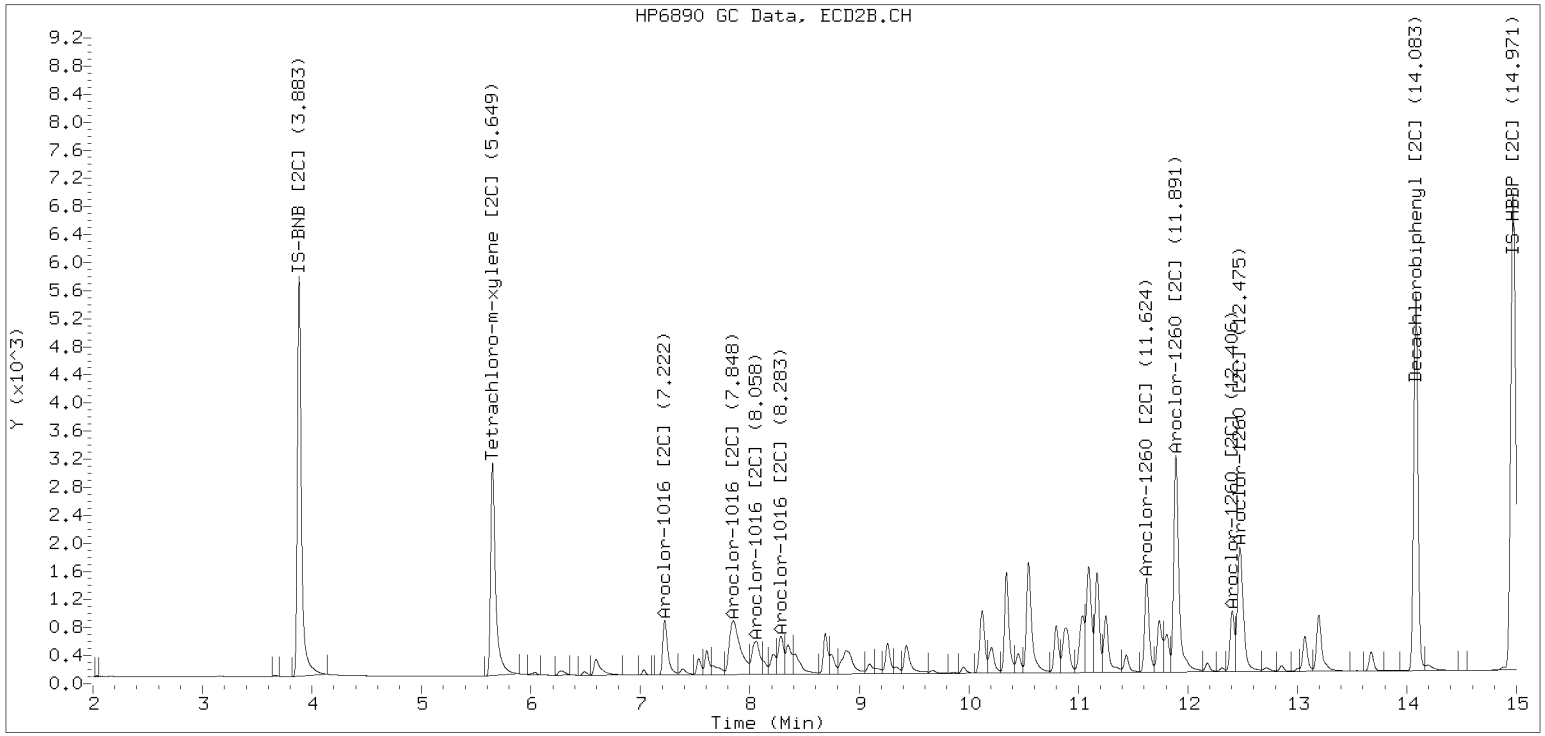
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

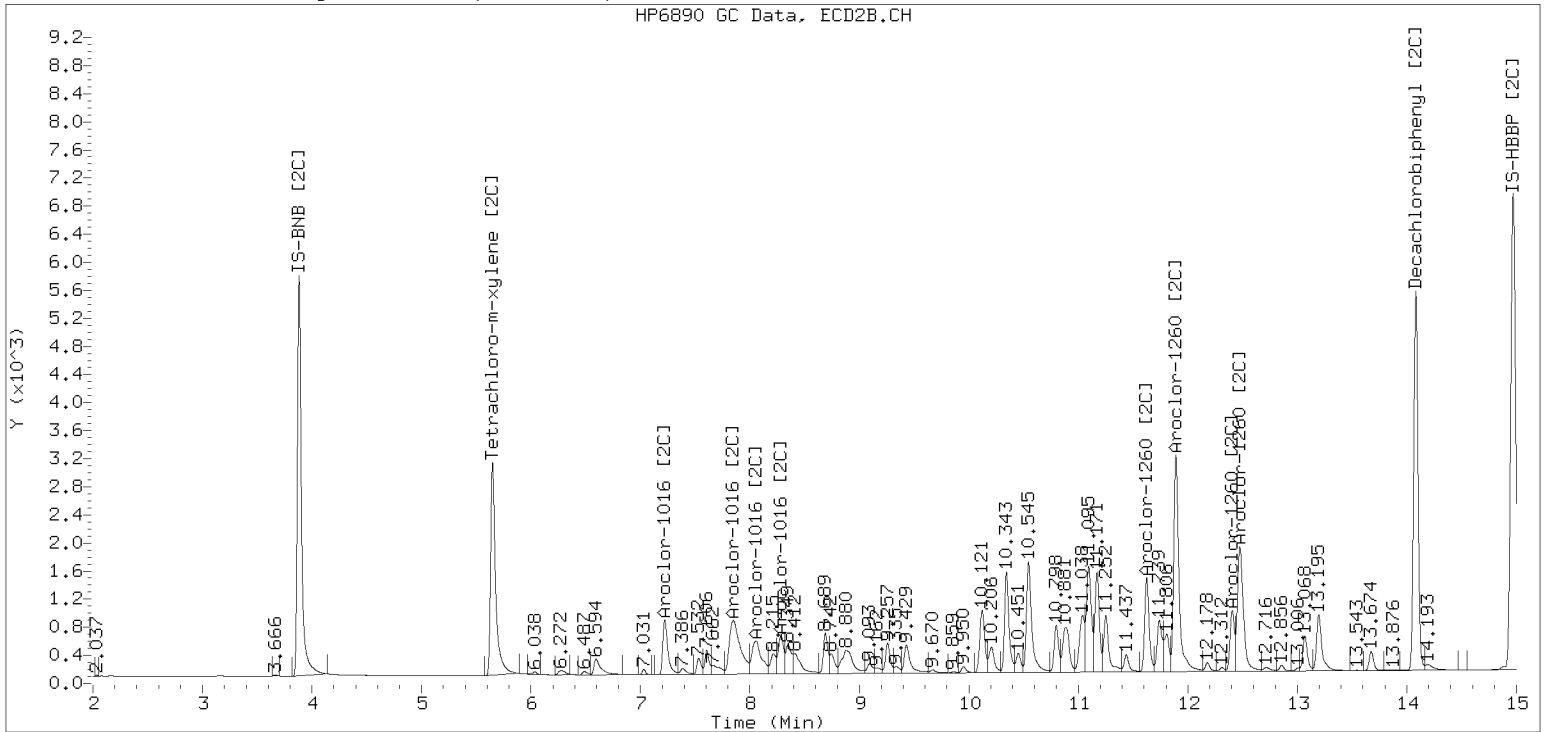
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230502.b/230502.b/05022352ECD7.D Injection Date: 03-MAY-2023

Manual Integration (After)



Processed Integration (Before)





ANALYSIS SEQUENCE

SLD0427

Instrument: ECD7
Calibration ID: GE00002

Printed: 5/1/2023 12:46:09PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLD0427-CAL1	QC		1		L000856	L000844		
SLD0427-CAL2	QC		2		L000859	L000844		
SLD0427-CAL3	QC		3		L000858	L000844		
SLD0427-CAL4	QC		4		L000731	L000844		
SLD0427-CAL5	QC		5		L000857	L000844		
SLD0427-CAL6	QC		6		L000855	L000844		
SLD0427-CAL7	QC		7		L000860	L000844		
SLD0427-CAL8	QC		8		L000861	L000844		
SLD0427-CAL9	QC		9		L000862	L000844		
SLD0427-CALA	QC		10		L000863	L000844		
SLD0427-CALB	QC		11		L000864	L000844		
SLD0427-SCV1	QC		12		L002065	L000844		
SLD0427-SCV2	QC		13		L003970	L000844		
SLD0427-SCV3	QC		14		L002066	L000844		
SLD0427-SCV4	QC		15		L002067	L000844		
SLD0427-SCV5	QC		16		L002068	L000844		
SLD0427-SCV6	QC		17		L002069	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230428.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	28-APR-2023	09:39	04282301ECD7.D	1	AR1660	
2	28-APR-2023	11:28	04282302ECD7.D	1		
3	28-APR-2023	11:59	04282303ECD7.D	1	IB	
4	28-APR-2023	12:20	04282304ECD7.D	1	0.25PPMAR1660	
5	28-APR-2023	12:41	04282305ECD7.D	1	0.02PPMAR1660	
6	28-APR-2023	13:02	04282306ECD7.D	1	0.05PPMAR1660	
7	28-APR-2023	13:23	04282307ECD7.D	1	1.0PPMAR1660	
8	28-APR-2023	13:43	04282308ECD7.D	1	0.1PPMAR1660	
9	28-APR-2023	14:04	04282309ECD7.D	1	0.5PPMAR1660	
10	28-APR-2023	14:25	04282310ECD7.D	1	0.25PPMAR1242	
11	28-APR-2023	14:46	04282311ECD7.D	1	0.25PPMAR1248	
12	28-APR-2023	15:07	04282312ECD7.D	1	0.25PPMAR1254	
13	28-APR-2023	15:28	04282313ECD7.D	1	0.25PPMAR2162	
14	28-APR-2023	15:49	04282314ECD7.D	1	0.25PPMAR3268	
15	28-APR-2023	16:09	04282315ECD7.D	1	AR1660SCV	
16	28-APR-2023	16:30	04282316ECD7.D	1	AR1242SCV	
17	28-APR-2023	16:51	04282317ECD7.D	1	AR1248SCV	
18	28-APR-2023	17:12	04282318ECD7.D	1	AR1254SCV	
19	28-APR-2023	17:33	04282319ECD7.D	1	AR2162SCV	
20	28-APR-2023	17:54	04282320ECD7.D	1	AR3268SCV	
21	28-APR-2023	18:15	04282321ECD7.D	1	DDTS	
22	28-APR-2023	18:35	04282322ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230428.b

ARI Job No.: AR16 Method: PCB.m Instrument: ecd7.i Date: 28-APR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0939	04282301ECD7.D	AR1660		1	NO MANUAL INTEGRATION
1128	04282302ECD7.D			1	NO MANUAL INTEGRATION
1159	04282303ECD7.D	IB		1	NO MANUAL INTEGRATION
1220	04282304ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
1241	04282305ECD7.D	0.02PPMAR1660		1	Aroclor-1016,
1302	04282306ECD7.D	0.05PPMAR1660		1	Aroclor-1016,
1323	04282307ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1343	04282308ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1404	04282309ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1425	04282310ECD7.D	0.25PPMAR1242		1	Aroclor-1242,
1446	04282311ECD7.D	0.25PPMAR1248		1	Aroclor-1248,
1507	04282312ECD7.D	0.25PPMAR1254		1	Aroclor-1254,
1528	04282313ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION
1549	04282314ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1609	04282315ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1630	04282316ECD7.D	AR1242SCV		1	Aroclor-1242,
1651	04282317ECD7.D	AR1248SCV		1	Aroclor-1016, Aroclor-1242, Aroclor-1248,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230428.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1712	04282318ECD7.D	AR1254SCV		1	Aroclor-1254,
1733	04282319ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
1754	04282320ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1815	04282321ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1835	04282322ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
0939	04282301ECD7.D	AR1660		1	NO MANUAL INTEGRATION
1128	04282302ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1159	04282303ECD7.D	IB		1	NO MANUAL INTEGRATION
1220	04282304ECD7.D	0.25PPMAR1660		1	IS-BNB [2C],
1241	04282305ECD7.D	0.02PPMAR1660		1	Aroclor-1016 [2C], IS-BNB [2C], Tetrachloro-m-xylene [2C],
1302	04282306ECD7.D	0.05PPMAR1660		1	Aroclor-1016 [2C], IS-BNB [2C], Tetrachloro-m-xylene [2C],
1323	04282307ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1343	04282308ECD7.D	0.1PPMAR1660		1	Aroclor-1016 [2C], IS-BNB [2C], Tetrachloro-m-xylene [2C],
1404	04282309ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1425	04282310ECD7.D	0.25PPMAR1242		1	Aroclor-1242 [2C], IS-BNB [2C], Tetrachloro-m-xylene [2C],
1446	04282311ECD7.D	0.25PPMAR1248		1	Aroclor-1248 [2C],
1507	04282312ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1528	04282313ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230428.b\230428.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1549	04282314ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1609	04282315ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1630	04282316ECD7.D	AR1242SCV		1	Aroclor-1242 [2C],
1651	04282317ECD7.D	AR1248SCV		1	Aroclor-1248 [2C],
1712	04282318ECD7.D	AR1254SCV		1	Aroclor-1254 [2C],
1733	04282319ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
1754	04282320ECD7.D	AR3268SCV		1	Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C],
1815	04282321ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1835	04282322ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

Security Status Report

Date: 01-May-2023 12:34

04282301ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282302ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282303ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282304ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282305ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282306ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282307ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282308ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282309ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282310ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282311ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282312ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282313ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282314ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282315ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282316ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282317ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282318ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282319ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282320ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282321ECD7.D	Data Locked	richardl, 01-May-2023 12:34
04282322ECD7.D	Data Locked	richardl, 01-May-2023 12:34



ANALYSIS SEQUENCE

SLE0029

Instrument: ECD7
Calibration ID: GE00002

Printed: 5/3/2023 10:17:49AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLE0029-ICV1	QC		1		L000862	L000844		
SLE0029-ICV2	QC		2		L000856	L000844		
BLE0011-BLK1	QC		3			L000844		
BLE0011-BS1	QC		4			L000844		
BLE0011-BSD1	QC		5			L000844		
23D0677-01	082A PCB Medium Level Oil	A 01	6			L000844	The Boeing Company [Auburn]	
SLE0029-CCV1	QC		7		L000861	L000844		
SLE0029-CCV2	QC		8		L000856	L000844		
BLD0300-BLK1	QC		9			L000844		
BLD0300-BS1	QC		10			L000844		
BLD0300-BSD1	QC		11			L000844		
BLD0300-SRM1	QC		12			L000844		
23D0037-01	8082A PCB Solid 4	A 03	13			L000844	Anchor QEA, LLC	
23D0037-02	8082A PCB Solid 4	A 03	14			L000844	Anchor QEA, LLC	
23D0037-03	8082A PCB Solid 4	A 03	15			L000844	Anchor QEA, LLC	
BLD0300-MS1	QC		16			L000844		
BLD0300-MSD1	QC		17			L000844		
23D0037-04	8082A PCB Solid 4	A 03	18			L000844	Anchor QEA, LLC	
23D0063-01	8082A PCB Solid 4	A 03	19			L000844	Anchor QEA, LLC	
23D0063-02	8082A PCB Solid 4	A 03	20			L000844	Anchor QEA, LLC	
23D0063-03	8082A PCB Solid 4	A 03	21			L000844	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SLE0029

Instrument: ECD7
Calibration ID: GE00002

Printed: 5/3/2023 10:17:49AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
23D0063-04	8082A PCB Solid 4	A 01	22			L000844	Anchor QEA, LLC	
SLE0029-CCV3	QC		23		L000860	L000844		
SLE0029-CCV4	QC		24		L000856	L000844		
BLD0328-BLK1	QC		25			L000844		
BLD0328-BS1	QC		26			L000844		
BLD0328-BSD1	QC		27			L000844		
BLD0328-SRM1	QC		28			L000844		
23D0136-01	8082A PCB Solid 4	A 03	29			L000844	Anchor QEA, LLC	
23D0136-02	8082A PCB Solid 4	A 02	30			L000844	Anchor QEA, LLC	
BLD0328-MS1	QC		31			L000844		
BLD0328-MSD1	QC		32			L000844		
23D0136-03	8082A PCB Solid 4	A 02	33			L000844	Anchor QEA, LLC	
23D0136-04	8082A PCB Solid 4	A 01	34			L000844	Anchor QEA, LLC	
BLD0531-BLK1	QC		35			L000844		
BLD0531-BS1	QC		36			L000844		
BLD0531-BSD1	QC		37			L000844		
23D0383-01	PCB (20 ug/kg) or (MTCA 0.	A 01	38			L000844	Nucor Steel Corporation	
23D0384-01	PCB (20 ug/kg) or (MTCA 0.	B 01	39			L000844	Nucor Steel Corporation	
23D0420-01	PCB (20 ug/kg) or (MTCA 0.	C 01	40			L000844	Nucor Steel Corporation	
23D0421-01	PCB (20 ug/kg) or (MTCA 0.	C 01	41			L000844	Nucor Steel Corporation	
23D0437-01	PCB (20 ug/kg) or (MTCA 0.	E 01	42			L000844	Seattle Public Utilities	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230502.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	02-MAY-2023	11:18	05022301ECD7.D	1	AR1660	
2	02-MAY-2023	11:38	05022302ECD7.D	1	AR1254	
3	02-MAY-2023	11:59	05022303ECD7.D	1	AR1248	
4	02-MAY-2023	12:20	05022304ECD7.D	1	AR1242	
5	02-MAY-2023	12:41	05022305ECD7.D	1	AR1660	
6	02-MAY-2023	13:02	05022306ECD7.D	1	DDTS	
7	02-MAY-2023	13:23	05022307ECD7.D	1	AR1254ICV1	
8	02-MAY-2023	13:44	05022308ECD7.D	1	AR1660ICV2	
9	02-MAY-2023	14:05	05022309ECD7.D	1	BLE0011-BLK1	
10	02-MAY-2023	14:26	05022310ECD7.D	1	BLE0011-BS1	
11	02-MAY-2023	14:46	05022311ECD7.D	1	BLE0011-BSD1	
12	02-MAY-2023	15:07	05022312ECD7.D	1	23D0677-01	
13	02-MAY-2023	15:28	05022313ECD7.D	5	23D0677-01RE1	
14	02-MAY-2023	15:49	05022314ECD7.D	1	AR1248CCV1	
15	02-MAY-2023	16:10	05022315ECD7.D	1	AR1660CCV2	
16	02-MAY-2023	16:31	05022316ECD7.D	1	BLD0300-BLK1	
17	02-MAY-2023	16:52	05022317ECD7.D	1	BLD0300-BS1	
18	02-MAY-2023	17:13	05022318ECD7.D	1	BLD0300-BSD1	
19	02-MAY-2023	17:33	05022319ECD7.D	1	BLD0300-SRM1	
20	02-MAY-2023	17:54	05022320ECD7.D	5	23D0037-01RE1	
21	02-MAY-2023	18:15	05022321ECD7.D	5	23D0037-02RE1	
22	02-MAY-2023	18:36	05022322ECD7.D	5	23D0037-03RE1	
23	02-MAY-2023	18:57	05022323ECD7.D	5	BLD0300-MS1RE1	
24	02-MAY-2023	19:18	05022324ECD7.D	5	BLD0300-MSD1RE	
25	02-MAY-2023	19:39	05022325ECD7.D	5	23D0037-04RE1	
26	02-MAY-2023	19:59	05022326ECD7.D	5	23D0063-01RE1	
27	02-MAY-2023	20:20	05022327ECD7.D	5	23D0063-02RE1	
28	02-MAY-2023	20:41	05022328ECD7.D	5	23D0063-03RE1	
29	02-MAY-2023	21:02	05022329ECD7.D	5	23D0063-04RE1	
30	02-MAY-2023	21:23	05022330ECD7.D	1	AR1242CCV3	
31	02-MAY-2023	21:44	05022331ECD7.D	1	AR1660CCV4	
32	02-MAY-2023	22:05	05022332ECD7.D	1	BLD0328-BLK1	
33	02-MAY-2023	22:25	05022333ECD7.D	1	BLD0328-BS1	
34	02-MAY-2023	22:46	05022334ECD7.D	1	BLD0328-BSD1	
35	02-MAY-2023	23:07	05022335ECD7.D	1	BLD0328-SRM1	
36	02-MAY-2023	23:28	05022336ECD7.D	5	23D0136-01RE1	
37	02-MAY-2023	23:49	05022337ECD7.D	5	23D0136-02RE1	
38	03-MAY-2023	00:10	05022338ECD7.D	5	BLD0328-MS1RE1	
39	03-MAY-2023	00:31	05022339ECD7.D	5	BLD0328-MSD1RE	
40	03-MAY-2023	00:51	05022340ECD7.D	5	23D0136-03RE1	
41	03-MAY-2023	01:12	05022341ECD7.D	5	23D0136-04RE1	
42	03-MAY-2023	01:33	05022342ECD7.D	1	BLD0531-BLK1	
43	03-MAY-2023	01:54	05022343ECD7.D	1	BLD0531-BS1	
44	03-MAY-2023	02:15	05022344ECD7.D	1	BLD0531-BSD1	
45	03-MAY-2023	02:36	05022345ECD7.D	1	23D0383-01	
46	03-MAY-2023	02:56	05022346ECD7.D	1	23D0384-01	
47	03-MAY-2023	03:17	05022347ECD7.D	1	23D0420-01	
48	03-MAY-2023	03:38	05022348ECD7.D	1	23D0421-01	
49	03-MAY-2023	03:59	05022349ECD7.D	1	23D0437-01	
50	03-MAY-2023	04:20	05022350ECD7.D	1	23D0437-02	

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	03-MAY-2023	04:41	05022351ECD7.D	1	AR1254CCV5	
52	03-MAY-2023	05:02	05022352ECD7.D	1	AR1660CCV6	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230502.b

ARI Job No.: AR16 Method: PCB.m Instrument: ecd7.i Date: 02-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1118	05022301ECD7.D	AR1660		1	NO MANUAL INTEGRATION
1138	05022302ECD7.D	AR1254		1	NO MANUAL INTEGRATION
1159	05022303ECD7.D	AR1248		1	NO MANUAL INTEGRATION
1220	05022304ECD7.D	AR1242		1	NO MANUAL INTEGRATION
1241	05022305ECD7.D	AR1660		1	NO MANUAL INTEGRATION
1302	05022306ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1323	05022307ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1344	05022308ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1405	05022309ECD7.D	BLE0011-BLK1		1	NO MANUAL INTEGRATION
1426	05022310ECD7.D	BLE0011-BS1		1	NO MANUAL INTEGRATION
1446	05022311ECD7.D	BLE0011-BSD1		1	NO MANUAL INTEGRATION
1507	05022312ECD7.D	23D0677-01		1	NO MANUAL INTEGRATION
1528	05022313ECD7.D	23D0677-01RE1		5	NO MANUAL INTEGRATION
1549	05022314ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1610	05022315ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1631	05022316ECD7.D	BLD0300-BLK1		1	NO MANUAL INTEGRATION
1652	05022317ECD7.D	BLD0300-BS1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230502.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1713	05022318ECD7.D	BLD0300-BSD1		1	NO MANUAL INTEGRATION
1733	05022319ECD7.D	BLD0300-SRM1		1	NO MANUAL INTEGRATION
1754	05022320ECD7.D	23D0037-01RE1		5	Aroclor-1254, Aroclor-1260,
1815	05022321ECD7.D	23D0037-02RE1		5	Aroclor-1254, Aroclor-1260,
1836	05022322ECD7.D	23D0037-03RE1		5	Aroclor-1254, Aroclor-1260,
1857	05022323ECD7.D	BLD0300-MS1RE1		5	Aroclor-1254, Aroclor-1260,
1918	05022324ECD7.D	BLD0300-MSD1RE		5	Aroclor-1254,
1939	05022325ECD7.D	23D0037-04RE1		5	Aroclor-1254,
1959	05022326ECD7.D	23D0063-01RE1		5	Aroclor-1254,
2020	05022327ECD7.D	23D0063-02RE1		5	Aroclor-1254,
2041	05022328ECD7.D	23D0063-03RE1		5	Aroclor-1254,
2102	05022329ECD7.D	23D0063-04RE1		5	Aroclor-1254,
2123	05022330ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
2144	05022331ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
2205	05022332ECD7.D	BLD0328-BLK1		1	NO MANUAL INTEGRATION
2225	05022333ECD7.D	BLD0328-BS1		1	NO MANUAL INTEGRATION
2246	05022334ECD7.D	BLD0328-BSD1		1	NO MANUAL INTEGRATION
2307	05022335ECD7.D	BLD0328-SRM1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230502.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2328	05022336ECD7.D	23D0136-01RE1		5	Aroclor-1254,
2349	05022337ECD7.D	23D0136-02RE1		5	Aroclor-1254,
0010	05022338ECD7.D	BLD0328-MS1RE1		5	NO MANUAL INTEGRATION
0031	05022339ECD7.D	BLD0328-MSD1RE		5	Aroclor-1254,
0051	05022340ECD7.D	23D0136-03RE1		5	Aroclor-1254,
0112	05022341ECD7.D	23D0136-04RE1		5	Aroclor-1254,
0133	05022342ECD7.D	BLD0531-BLK1		1	NO MANUAL INTEGRATION
0154	05022343ECD7.D	BLD0531-BS1		1	NO MANUAL INTEGRATION
0215	05022344ECD7.D	BLD0531-BSD1		1	NO MANUAL INTEGRATION
0236	05022345ECD7.D	23D0383-01		1	Aroclor-1260,
0256	05022346ECD7.D	23D0384-01		1	NO MANUAL INTEGRATION
0317	05022347ECD7.D	23D0420-01		1	Aroclor-1254,
0338	05022348ECD7.D	23D0421-01		1	Aroclor-1254, Aroclor-1260,
0359	05022349ECD7.D	23D0437-01		1	Aroclor-1254, Aroclor-1260,
0420	05022350ECD7.D	23D0437-02		1	Aroclor-1254,
0441	05022351ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
0502	05022352ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
1118	05022301ECD7.D	AR1660		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230502.b\230502.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1138	05022302ECD7.D	AR1254		1	NO MANUAL INTEGRATION
1159	05022303ECD7.D	AR1248		1	NO MANUAL INTEGRATION
1220	05022304ECD7.D	AR1242		1	NO MANUAL INTEGRATION
1241	05022305ECD7.D	AR1660		1	NO MANUAL INTEGRATION
1302	05022306ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1323	05022307ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1344	05022308ECD7.D	AR1660ICV2		1	Aroclor-1016 [2C],
1405	05022309ECD7.D	BLE0011-BLK1		1	NO MANUAL INTEGRATION
1426	05022310ECD7.D	BLE0011-BS1		1	NO MANUAL INTEGRATION
1446	05022311ECD7.D	BLE0011-BSD1		1	NO MANUAL INTEGRATION
1507	05022312ECD7.D	23D0677-01		1	NO MANUAL INTEGRATION
1528	05022313ECD7.D	23D0677-01RE1		5	NO MANUAL INTEGRATION
1549	05022314ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1610	05022315ECD7.D	AR1660CCV2		1	Aroclor-1016 [2C],
1631	05022316ECD7.D	BLD0300-BLK1		1	NO MANUAL INTEGRATION
1652	05022317ECD7.D	BLD0300-BS1		1	NO MANUAL INTEGRATION
1713	05022318ECD7.D	BLD0300-BSD1		1	NO MANUAL INTEGRATION
1733	05022319ECD7.D	BLD0300-SRMI		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230502.b\230502.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1754	05022320ECD7.D	23D0037-01RE1		5	Aroclor-1254 [2C],
1815	05022321ECD7.D	23D0037-02RE1		5	Aroclor-1254 [2C],
1836	05022322ECD7.D	23D0037-03RE1		5	Aroclor-1254 [2C],
1857	05022323ECD7.D	BLD0300-MS1RE1		5	NO MANUAL INTEGRATION
1918	05022324ECD7.D	BLD0300-MSD1RE		5	NO MANUAL INTEGRATION
1939	05022325ECD7.D	23D0037-04RE1		5	Aroclor-1254 [2C],
1959	05022326ECD7.D	23D0063-01RE1		5	NO MANUAL INTEGRATION
2020	05022327ECD7.D	23D0063-02RE1		5	Aroclor-1254 [2C],
2041	05022328ECD7.D	23D0063-03RE1		5	NO MANUAL INTEGRATION
2102	05022329ECD7.D	23D0063-04RE1		5	Aroclor-1254 [2C],
2123	05022330ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
2144	05022331ECD7.D	AR1660CCV4		1	Aroclor-1016 [2C],
2205	05022332ECD7.D	BLD0328-BLK1		1	NO MANUAL INTEGRATION
2225	05022333ECD7.D	BLD0328-BS1		1	NO MANUAL INTEGRATION
2246	05022334ECD7.D	BLD0328-BSD1		1	NO MANUAL INTEGRATION
2307	05022335ECD7.D	BLD0328-SRM1		1	NO MANUAL INTEGRATION
2328	05022336ECD7.D	23D0136-01RE1		5	NO MANUAL INTEGRATION
2349	05022337ECD7.D	23D0136-02RE1		5	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230502.b\230502.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0010	05022338ECD7.D	BLD0328-MS1RE1		5	NO MANUAL INTEGRATION
0031	05022339ECD7.D	BLD0328-MSD1RE		5	NO MANUAL INTEGRATION
0051	05022340ECD7.D	23D0136-03RE1		5	NO MANUAL INTEGRATION
0112	05022341ECD7.D	23D0136-04RE1		5	NO MANUAL INTEGRATION
0133	05022342ECD7.D	BLD0531-BLK1		1	NO MANUAL INTEGRATION
0154	05022343ECD7.D	BLD0531-BS1		1	NO MANUAL INTEGRATION
0215	05022344ECD7.D	BLD0531-BSD1		1	NO MANUAL INTEGRATION
0236	05022345ECD7.D	23D0383-01		1	NO MANUAL INTEGRATION
0256	05022346ECD7.D	23D0384-01		1	NO MANUAL INTEGRATION
0317	05022347ECD7.D	23D0420-01		1	NO MANUAL INTEGRATION
0338	05022348ECD7.D	23D0421-01		1	Aroclor-1260 [2C],
0359	05022349ECD7.D	23D0437-01		1	Aroclor-1260 [2C],
0420	05022350ECD7.D	23D0437-02		1	NO MANUAL INTEGRATION
0441	05022351ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
0502	05022352ECD7.D	AR1660CCV6		1	Aroclor-1016 [2C],

Security Status Report

Date: 03-May-2023 10:16

05022301ECD7.D	Data Locked	richardl, 03-May-2023 10:16
05022302ECD7.D	Data Locked	richardl, 03-May-2023 10:16
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05022331ECD7.D	Data Locked	richardl, 03-May-2023 10:16
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05022351ECD7.D	Data Locked	richardl, 03-May-2023 10:16
05022352ECD7.D	Data Locked	richardl, 03-May-2023 10:16



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLD0427
Calibration: GE00002

SDG/WO: 23D0136
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 04/28/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLD0427-SCV1 (Water) Lab File ID: 04282315ECD7.D Analyzed: 04/28/23 16:09								
Decachlorobiphenyl	40.000	91.5	80 - 120	13.861	13.862	-0.0010	N/A	
Tetrachlorometaxylene	40.000	94.0	80 - 120	5.765	5.765833	-0.0008	N/A	
Decachlorobiphenyl [2C]	40.000	97.3	80 - 120	14.082	14.08367	-0.0017	N/A	
Tetrachlorometaxylene [2C]	40.000	90.3	80 - 120	5.65	5.6495	0.0005	N/A	
SLD0427-SCV2 (Water) Lab File ID: 04282316ECD7.D Analyzed: 04/28/23 16:30								
Decachlorobiphenyl	40.000	102	80 - 120	13.863	13.862	0.0010	N/A	
Tetrachlorometaxylene	40.000	84.6	80 - 120	5.766	5.765833	0.0002	N/A	
Decachlorobiphenyl [2C]	40.000	109	80 - 120	14.083	14.08367	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	81.6	80 - 120	5.649	5.6495	-0.0005	N/A	
SLD0427-SCV3 (Water) Lab File ID: 04282317ECD7.D Analyzed: 04/28/23 16:51								
Decachlorobiphenyl	40.000	87.2	80 - 120	13.863	13.862	0.0010	N/A	
Tetrachlorometaxylene	40.000	93.4	80 - 120	5.766	5.765833	0.0002	N/A	
Decachlorobiphenyl [2C]	40.000	94.9	80 - 120	14.083	14.08367	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	91.7	80 - 120	5.649	5.6495	-0.0005	N/A	
SLD0427-SCV4 (Water) Lab File ID: 04282318ECD7.D Analyzed: 04/28/23 17:12								
Decachlorobiphenyl	40.000	87.0	80 - 120	13.863	13.862	0.0010	N/A	
Tetrachlorometaxylene	40.000	95.8	80 - 120	5.765	5.765833	-0.0008	N/A	
Decachlorobiphenyl [2C]	40.000	95.9	80 - 120	14.083	14.08367	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	93.2	80 - 120	5.65	5.6495	0.0005	N/A	
SLD0427-SCV5 (Water) Lab File ID: 04282319ECD7.D Analyzed: 04/28/23 17:33								
Decachlorobiphenyl	40.000	89.8	80 - 120	13.862	13.862	0.0000	N/A	
Tetrachlorometaxylene	40.000	95.7	80 - 120	5.766	5.765833	0.0002	N/A	
Decachlorobiphenyl [2C]	40.000	97.4	80 - 120	14.083	14.08367	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	95.0	80 - 120	5.65	5.6495	0.0005	N/A	
SLD0427-SCV6 (Water) Lab File ID: 04282320ECD7.D Analyzed: 04/28/23 17:54								
Decachlorobiphenyl	40.000	136	80 - 120	13.863	13.862	0.0010	N/A	
Tetrachlorometaxylene	40.000	99.2	80 - 120	5.766	5.765833	0.0002	N/A	
Decachlorobiphenyl [2C]	40.000	150	80 - 120	14.083	14.08367	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	95.1	80 - 120	5.65	5.6495	0.0005	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SLE0029
Calibration: GE00002

SDG/WO: 23D0136
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 04/28/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLE0029-ICV1 (Solid) Lab File ID: 05022307ECD7.D Analyzed: 05/02/23 13:23								
Decachlorobiphenyl	40.000	95.3	80 - 120	13.861	13.862	-0.0010	N/A	
Tetrachlorometaxylene	40.000	97.3	80 - 120	5.766	5.765833	0.0002	N/A	
Decachlorobiphenyl [2C]	40.000	95.8	80 - 120	14.082	14.08367	-0.0017	N/A	
Tetrachlorometaxylene [2C]	40.000	100	80 - 120	5.649	5.6495	-0.0005	N/A	
SLE0029-ICV2 (Solid) Lab File ID: 05022308ECD7.D Analyzed: 05/02/23 13:44								
Decachlorobiphenyl	40.000	99.5	80 - 120	13.86	13.862	-0.0020	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.765	5.765833	-0.0008	N/A	
Decachlorobiphenyl [2C]	40.000	98.3	80 - 120	14.08	14.08367	-0.0037	N/A	
Tetrachlorometaxylene [2C]	40.000	115	80 - 120	5.648	5.6495	-0.0015	N/A	
SLE0029-CCV1 (Solid) Lab File ID: 05022314ECD7.D Analyzed: 05/02/23 15:49								
Decachlorobiphenyl	40.000	90.8	80 - 120	13.862	13.862	0.0000	N/A	
Tetrachlorometaxylene	40.000	97.5	80 - 120	5.766	5.765833	0.0002	N/A	
Decachlorobiphenyl [2C]	40.000	93.0	80 - 120	14.082	14.08367	-0.0017	N/A	
Tetrachlorometaxylene [2C]	40.000	97.0	80 - 120	5.65	5.6495	0.0005	N/A	
SLE0029-CCV2 (Solid) Lab File ID: 05022315ECD7.D Analyzed: 05/02/23 16:10								
Decachlorobiphenyl	40.000	96.0	80 - 120	13.86	13.862	-0.0020	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.765	5.765833	-0.0008	N/A	
Decachlorobiphenyl [2C]	40.000	96.5	80 - 120	14.081	14.08367	-0.0027	N/A	
Tetrachlorometaxylene [2C]	40.000	115	80 - 120	5.648	5.6495	-0.0015	N/A	
SLE0029-CCV3 (Solid) Lab File ID: 05022330ECD7.D Analyzed: 05/02/23 21:23								
Decachlorobiphenyl	40.000	90.5	80 - 120	13.861	13.862	-0.0010	N/A	
Tetrachlorometaxylene	40.000	120	80 - 120	5.765	5.765833	-0.0008	N/A	
Decachlorobiphenyl [2C]	40.000	95.3	80 - 120	14.082	14.08367	-0.0017	N/A	
Tetrachlorometaxylene [2C]	40.000	121	80 - 120	5.648	5.6495	-0.0015	N/A	*
SLE0029-CCV4 (Solid) Lab File ID: 05022331ECD7.D Analyzed: 05/02/23 21:44								
Decachlorobiphenyl	40.000	100	80 - 120	13.862	13.862	0.0000	N/A	
Tetrachlorometaxylene	40.000	101	80 - 120	5.766	5.765833	0.0002	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.081	14.08367	-0.0027	N/A	
Tetrachlorometaxylene [2C]	40.000	115	80 - 120	5.649	5.6495	-0.0005	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0029
Calibration: GE00002

SDG/WO: 23D0136
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 04/28/2023

Surrogate Compound	Spike Level ug/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLD0328-BLK1 (Solid) Lab File ID: 05022332ECD7.D Analyzed: 05/02/23 22:05								
Decachlorobiphenyl	8.0000	87.0	40 - 126	13.859	13.862	-0.0030	N/A	
Tetrachlorometaxylene	8.0000	77.1	44 - 120	5.765	5.765833	-0.0008	N/A	
Decachlorobiphenyl [2C]	8.0000	89.9	40 - 126	14.08	14.08367	-0.0037	N/A	
Tetrachlorometaxylene [2C]	8.0000	75.2	44 - 120	5.648	5.6495	-0.0015	N/A	
BLD0328-BS1 (Solid) Lab File ID: 05022333ECD7.D Analyzed: 05/02/23 22:25								
Decachlorobiphenyl	8.0000	89.7	40 - 126	13.859	13.862	-0.0030	N/A	
Tetrachlorometaxylene	8.0000	81.9	44 - 120	5.765	5.765833	-0.0008	N/A	
Decachlorobiphenyl [2C]	8.0000	90.2	40 - 126	14.081	14.08367	-0.0027	N/A	
Tetrachlorometaxylene [2C]	8.0000	77.5	44 - 120	5.648	5.6495	-0.0015	N/A	
BLD0328-BSD1 (Solid) Lab File ID: 05022334ECD7.D Analyzed: 05/02/23 22:46								
Decachlorobiphenyl	8.0000	90.8	40 - 126	13.858	13.862	-0.0040	N/A	
Tetrachlorometaxylene	8.0000	86.4	44 - 120	5.765	5.765833	-0.0008	N/A	
Decachlorobiphenyl [2C]	8.0000	89.7	40 - 126	14.08	14.08367	-0.0037	N/A	
Tetrachlorometaxylene [2C]	8.0000	80.0	44 - 120	5.647	5.6495	-0.0025	N/A	
BLD0328-SRM1 (Solid) Lab File ID: 05022335ECD7.D Analyzed: 05/02/23 23:07								
Decachlorobiphenyl	40.000	79.9	40 - 126	13.853	13.862	-0.0090	N/A	
Tetrachlorometaxylene	40.000	74.6	44 - 120	5.763	5.765833	-0.0028	N/A	
Decachlorobiphenyl [2C]	40.000	76.5	40 - 126	14.074	14.08367	-0.0097	N/A	
Tetrachlorometaxylene [2C]	40.000	75.7	44 - 120	5.645	5.6495	-0.0045	N/A	
23D0136-01 (Solid) Lab File ID: 05022336ECD7.D Analyzed: 05/02/23 23:28								
Decachlorobiphenyl	7.9982	86.8	40 - 126	13.85	13.862	-0.0120	N/A	
Tetrachlorometaxylene	7.9982	75.1	44 - 120	5.762	5.765833	-0.0038	N/A	
Decachlorobiphenyl [2C]	7.9982	75.3	40 - 126	14.073	14.08367	-0.0107	N/A	
Tetrachlorometaxylene [2C]	7.9982	78.5	44 - 120	5.644	5.6495	-0.0055	N/A	
23D0136-02 (Solid) Lab File ID: 05022337ECD7.D Analyzed: 05/02/23 23:49								
Decachlorobiphenyl	7.9973	93.6	40 - 126	13.852	13.862	-0.0100	N/A	
Tetrachlorometaxylene	7.9973	76.8	44 - 120	5.763	5.765833	-0.0028	N/A	
Decachlorobiphenyl [2C]	7.9973	75.8	40 - 126	14.074	14.08367	-0.0097	N/A	
Tetrachlorometaxylene [2C]	7.9973	77.6	44 - 120	5.645	5.6495	-0.0045	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0029
Calibration: GE00002

SDG/WO: 23D0136
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 04/28/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLD0328-MS1 (Solid) Lab File ID: 05022338ECD7.D Analyzed: 05/03/23 00:10								
Decachlorobiphenyl	8.0005	82.7	40 - 126	13.852	13.862	-0.0100	N/A	
Tetrachlorometaxylene	8.0005	73.6	44 - 120	5.762	5.765833	-0.0038	N/A	
Decachlorobiphenyl [2C]	8.0005	70.7	40 - 126	14.072	14.08367	-0.0117	N/A	
Tetrachlorometaxylene [2C]	8.0005	71.9	44 - 120	5.645	5.6495	-0.0045	N/A	
BLD0328-MSD1 (Solid) Lab File ID: 05022339ECD7.D Analyzed: 05/03/23 00:31								
Decachlorobiphenyl	8.0005	78.7	40 - 126	13.851	13.862	-0.0110	N/A	
Tetrachlorometaxylene	8.0005	67.2	44 - 120	5.762	5.765833	-0.0038	N/A	
Decachlorobiphenyl [2C]	8.0005	67.8	40 - 126	14.073	14.08367	-0.0107	N/A	
Tetrachlorometaxylene [2C]	8.0005	69.0	44 - 120	5.645	5.6495	-0.0045	N/A	
23D0136-03 (Solid) Lab File ID: 05022340ECD7.D Analyzed: 05/03/23 00:51								
Decachlorobiphenyl	7.9916	78.5	40 - 126	13.851	13.862	-0.0110	N/A	
Tetrachlorometaxylene	7.9916	66.7	44 - 120	5.762	5.765833	-0.0038	N/A	
Decachlorobiphenyl [2C]	7.9916	68.9	40 - 126	14.073	14.08367	-0.0107	N/A	
Tetrachlorometaxylene [2C]	7.9916	68.9	44 - 120	5.644	5.6495	-0.0055	N/A	
23D0136-04 (Solid) Lab File ID: 05022341ECD7.D Analyzed: 05/03/23 01:12								
Decachlorobiphenyl	7.9999	76.6	40 - 126	13.852	13.862	-0.0100	N/A	
Tetrachlorometaxylene	7.9999	68.2	44 - 120	5.762	5.765833	-0.0038	N/A	
Decachlorobiphenyl [2C]	7.9999	67.7	40 - 126	14.073	14.08367	-0.0107	N/A	
Tetrachlorometaxylene [2C]	7.9999	69.3	44 - 120	5.644	5.6495	-0.0055	N/A	
SLE0029-CCV5 (Solid) Lab File ID: 05022351ECD7.D Analyzed: 05/03/23 04:41								
Decachlorobiphenyl	40.000	90.8	80 - 120	13.862	13.862	0.0000	N/A	
Tetrachlorometaxylene	40.000	96.8	80 - 120	5.766	5.765833	0.0002	N/A	
Decachlorobiphenyl [2C]	40.000	91.8	80 - 120	14.083	14.08367	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	101	80 - 120	5.649	5.6495	-0.0005	N/A	
SLE0029-CCV6 (Solid) Lab File ID: 05022352ECD7.D Analyzed: 05/03/23 05:02								
Decachlorobiphenyl	40.000	97.3	80 - 120	13.861	13.862	-0.0010	N/A	
Tetrachlorometaxylene	40.000	103	80 - 120	5.765	5.765833	-0.0008	N/A	
Decachlorobiphenyl [2C]	40.000	98.8	80 - 120	14.082	14.08367	-0.0017	N/A	
Tetrachlorometaxylene [2C]	40.000	115	80 - 120	5.648	5.6495	-0.0015	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLD0427

SDG: 23D0136
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration: GE00002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLD0427-SCV1)		(Water)	Lab File ID: 04282315ECD7.D			Analyzed: 04/28/23 16:09			
1-Bromo-2-Nitrobenzene	597924	3.443	556262	3.443	107	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	1154377	14.239	745660	14.239	155	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	362828	3.883	348488	3.883	104	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	555238	14.972	429949	14.973	129	50 - 200	-0.001	+/-0.50	
Secondary Cal Check (SLD0427-SCV2)		(Water)	Lab File ID: 04282316ECD7.D			Analyzed: 04/28/23 16:30			
1-Bromo-2-Nitrobenzene	591263	3.443	556262	3.443	106	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	1174114	14.239	745660	14.239	157	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	358789	3.883	348488	3.883	103	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	558275	14.972	429949	14.973	130	50 - 200	-0.001	+/-0.50	
Secondary Cal Check (SLD0427-SCV3)		(Water)	Lab File ID: 04282317ECD7.D			Analyzed: 04/28/23 16:51			
1-Bromo-2-Nitrobenzene	604265	3.443	556262	3.443	109	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	1214161	14.238	745660	14.239	163	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	364434	3.883	348488	3.883	105	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	568134	14.973	429949	14.973	132	50 - 200	0.000	+/-0.50	
Secondary Cal Check (SLD0427-SCV4)		(Water)	Lab File ID: 04282318ECD7.D			Analyzed: 04/28/23 17:12			
1-Bromo-2-Nitrobenzene	604006	3.444	556262	3.443	109	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	1269568	14.24	745660	14.239	170	50 - 200	0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	364366	3.884	348488	3.883	105	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	578129	14.973	429949	14.973	134	50 - 200	0.000	+/-0.50	
Secondary Cal Check (SLD0427-SCV5)		(Water)	Lab File ID: 04282319ECD7.D			Analyzed: 04/28/23 17:33			
1-Bromo-2-Nitrobenzene	601660	3.444	556262	3.443	108	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	1282462	14.242	745660	14.239	172	50 - 200	0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	359781	3.884	348488	3.883	103	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	576077	14.971	429949	14.973	134	50 - 200	-0.002	+/-0.50	
Secondary Cal Check (SLD0427-SCV6)		(Water)	Lab File ID: 04282320ECD7.D			Analyzed: 04/28/23 17:54			
1-Bromo-2-Nitrobenzene	594267	3.445	556262	3.443	107	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	1272651	14.241	745660	14.239	171	50 - 200	0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	357253	3.884	348488	3.883	103	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	572751	14.972	429949	14.973	133	50 - 200	-0.001	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0029

SDG: 23D0136
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration: GE00002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLE0029-ICV1)		(Solid)	Lab File ID: 05022307ECD7.D			Analyzed: 05/02/23 13:23			
1-Bromo-2-Nitrobenzene	552159	3.444	552159	3.444	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	842466	14.238	842466	14.238	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	306695	3.884	306695	3.884	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	437547	14.97	437547	14.97	100	50 - 200	0.000	+/-0.50	
Initial Cal Check (SLE0029-ICV2)		(Solid)	Lab File ID: 05022308ECD7.D			Analyzed: 05/02/23 13:44			
1-Bromo-2-Nitrobenzene	563960	3.443	563960	3.443	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	868947	14.237	868947	14.237	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	281447	3.882	281447	3.882	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	443625	14.97	443625	14.97	100	50 - 200	0.000	+/-0.50	
Blank (BLD0328-BLK1)		(Solid)	Lab File ID: 05022332ECD7.D			Analyzed: 05/02/23 22:05			
1-Bromo-2-Nitrobenzene	587428	3.444	563960	3.443	104	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	892849	14.232	868947	14.237	103	50 - 200	-0.005	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	350622	3.883	281447	3.882	125	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	443216	14.968	443625	14.97	100	50 - 200	-0.002	+/-0.50	
LCS (BLD0328-BS1)		(Solid)	Lab File ID: 05022333ECD7.D			Analyzed: 05/02/23 22:25			
1-Bromo-2-Nitrobenzene	601022	3.444	563960	3.443	107	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	966904	14.233	868947	14.237	111	50 - 200	-0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	349925	3.883	281447	3.882	124	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	465538	14.969	443625	14.97	105	50 - 200	-0.001	+/-0.50	
LCS Dup (BLD0328-BSD1)		(Solid)	Lab File ID: 05022334ECD7.D			Analyzed: 05/02/23 22:46			
1-Bromo-2-Nitrobenzene	584721	3.444	563960	3.443	104	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	978758	14.233	868947	14.237	113	50 - 200	-0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	348110	3.884	281447	3.882	124	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	477486	14.968	443625	14.97	108	50 - 200	-0.002	+/-0.50	
Reference (BLD0328-SRM1)		(Solid)	Lab File ID: 05022335ECD7.D			Analyzed: 05/02/23 23:07			
1-Bromo-2-Nitrobenzene	580399	3.444	563960	3.443	103	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	721339	14.221	868947	14.237	83	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	344991	3.883	281447	3.882	123	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	440401	14.961	443625	14.97	99	50 - 200	-0.009	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0029

Instrument: ECD7

Calibration: GE00002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SS1804 (23D0136-01)		(Solid)	Lab File ID: 05022336ECD7.D			Analyzed: 05/02/23 23:28			
1-Bromo-2-Nitrobenzene	577525	3.443	563960	3.443	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	620746	14.219	868947	14.237	71	50 - 200	-0.018	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	349684	3.883	281447	3.882	124	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	415531	14.959	443625	14.97	94	50 - 200	-0.011	+/-0.50	
LDW23-SC1804 (23D0136-02)		(Solid)	Lab File ID: 05022337ECD7.D			Analyzed: 05/02/23 23:49			
1-Bromo-2-Nitrobenzene	583001	3.444	563960	3.443	103	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	625284	14.219	868947	14.237	72	50 - 200	-0.018	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	355322	3.883	281447	3.882	126	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	419266	14.96	443625	14.97	95	50 - 200	-0.010	+/-0.50	
Matrix Spike (BLD0328-MS1)		(Solid)	Lab File ID: 05022338ECD7.D			Analyzed: 05/03/23 00:10			
1-Bromo-2-Nitrobenzene	593414	3.444	563960	3.443	105	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	630407	14.219	868947	14.237	73	50 - 200	-0.018	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	357546	3.883	281447	3.882	127	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	420968	14.958	443625	14.97	95	50 - 200	-0.012	+/-0.50	
Matrix Spike Dup (BLD0328-MSD1)		(Solid)	Lab File ID: 05022339ECD7.D			Analyzed: 05/03/23 00:31			
1-Bromo-2-Nitrobenzene	583991	3.444	563960	3.443	104	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	624434	14.22	868947	14.237	72	50 - 200	-0.017	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	354377	3.883	281447	3.882	126	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	410587	14.958	443625	14.97	93	50 - 200	-0.012	+/-0.50	
LDW23-SS1803 (23D0136-03)		(Solid)	Lab File ID: 05022340ECD7.D			Analyzed: 05/03/23 00:51			
1-Bromo-2-Nitrobenzene	580285	3.443	563960	3.443	103	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	614670	14.219	868947	14.237	71	50 - 200	-0.018	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	351909	3.883	281447	3.882	125	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	410688	14.957	443625	14.97	93	50 - 200	-0.013	+/-0.50	
LDW23-SC1803 (23D0136-04)		(Solid)	Lab File ID: 05022341ECD7.D			Analyzed: 05/03/23 01:12			
1-Bromo-2-Nitrobenzene	578926	3.443	563960	3.443	103	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	621847	14.22	868947	14.237	72	50 - 200	-0.017	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	352942	3.882	281447	3.882	125	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	406912	14.96	443625	14.97	92	50 - 200	-0.010	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/18/23 11:37	12	365	05/02/23 23:28	14	40	
LDW23-SC1804 23D0136-02	04/05/23 12:15	04/06/23 10:30	04/18/23 11:37	12	365	05/02/23 23:49	15	40	
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	04/18/23 11:37	12	365	05/03/23 00:51	15	40	
LDW23-SC1803 23D0136-04	04/05/23 16:30	04/06/23 10:30	04/18/23 11:37	12	365	05/03/23 01:12	15	40	
Matrix Spike BLD0328-MS1	04/05/23 12:15	04/06/23 10:30	04/18/23 11:37	12	365	05/03/23 00:10	15	40	
Matrix Spike Dup BLD0328-MSD1	04/05/23 12:15	04/06/23 10:30	04/18/23 11:37	12	365	05/03/23 00:31	15	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ECD7

Analyte	MDL	RL	Units
Aroclor 1016	1.6	4.0	ug/kg
Aroclor 1016 [2C]	1.6	4.0	ug/kg
Aroclor 1221	1.6	4.0	ug/kg
Aroclor 1221 [2C]	1.6	4.0	ug/kg
Aroclor 1232	1.6	4.0	ug/kg
Aroclor 1232 [2C]	1.6	4.0	ug/kg
Aroclor 1242	1.6	4.0	ug/kg
Aroclor 1242 [2C]	1.6	4.0	ug/kg
Aroclor 1248	1.6	4.0	ug/kg
Aroclor 1248 [2C]	1.6	4.0	ug/kg
Aroclor 1254	1.6	4.0	ug/kg
Aroclor 1254 [2C]	1.6	4.0	ug/kg
Aroclor 1260	0.6	4.0	ug/kg
Aroclor 1260 [2C]	0.6	4.0	ug/kg



CERTIFICATE OF ANALYSIS

Catalog No: S-279N
Description: Tetrachloro-m-xylene
Lot: 0052481B-1
Solvent: N/A
Hazards: Refer to SDS for complete safety information

Date Certified: Jul 28, 2005
Expiration: Jul 28, 2015
Sample Size: 100 mg
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Warning

Certified Reference Material

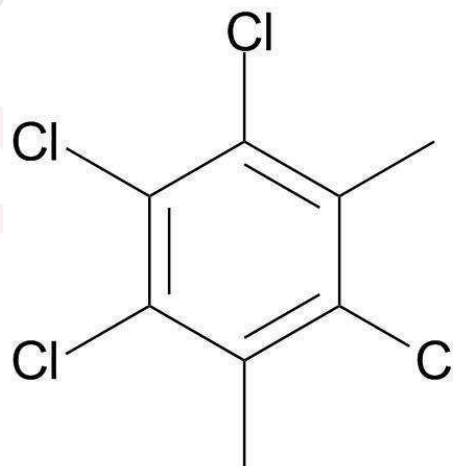


AR-1463

Component	CAS #	Purity % (GC/FID)	Prepared Concentration	Certified Analyte Concentration ¹
Tetrachloro-meta-xylene	877-09-8	96.0	N/A	N/A

Identification:

Molecular formula: C₈H₆Cl₄
Molecular weight: 243.94



C000147

tetrachlorometaxylene

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ The Uncertainty calculated for this product is ±2.4%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Metrological traceability is established through in-house validated methods.

Purity, if stated, is equal to 100% minus found impurity components. Impurity components have not been identified.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager



AccuStandard

125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N

EXPIRATION: Jul 28, 2015

DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl

LOT #: 990521LB-AC

SOLVENT: N/A

This product is guaranteed accurate to $\pm 0.5\%$ of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration ¹	Certified Analyte Concentration ²
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

2;

C000148

decachlorobiphenyl

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

** I 1768 A*

Certified by:

R. Cooper

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
 2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is $\pm 0.5\%$ which is the Combined Uncertainty $U_c(y)$. It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is $U_c(y) * K$ where K is the coverage factor at the 95% confidence level ($K=2$).
 3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

** Recertified ~ 4-6-09 (S)*



Analytical Standard Record
Standard ID: C000148

Printed: 4/23/2015 11:54:44AM

Description:	decachlorobiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	9905211b-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By

Date

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

411 Madrid Ave., Torrance, CA 90501 USA ■ Tel: 310-212-0555 ■ Fax: 310-328-7768 ■ info@phenomenex.com

Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101461

Lot Number: CL13053

Description: Aroclor 1254

Certification Date: November 29, 2018

Storage: 4 °C

Expiration Date: November 30, 2026

Provided As: 1 mL in 2 mL Ampoule in Hexane

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1254	11097-69-1	1000	± 0.246%

I 09808
Recd.
02/24/20



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC-MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

IL11110613_US

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101468

Lot Number: CL14017

Description: Aroclor 1221

Certification Date: August 20, 2019

Storage: 4 °C

Expiration Date: August 31, 2027

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1221	11104-28-2	1000	± 0.553%

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06/18/21



Reference Material Producer
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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101469

Lot Number: CL14914

Description: Aroclor 1232

Certification Date: January 31, 2020

Storage: 4 °C

Expiration Date: January 31, 2028

Provided As: 1 mL in 2 mL Ampoule in Isooctane



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1232	11141-16-5	1000	± 0.738%

J 006467
reed
06/18/21



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2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

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Catalog No.: AL0-101470

Lot Number: CL14018

Description: Aroclor 1242

Certification Date: August 20, 2019

Storage: 4 °C

Expiration Date: August 31, 2027

Provided As: 1 mL in 2 mL Ampoule in Isooctane



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1242	53469-21-9	1000	± 0.553%

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06/18/21



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3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

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Catalog No.: AL0-101471

Lot Number: CL15384

Description: Aroclor 1248

Certification Date: June 19, 2020

Storage: 4 °C

Expiration Date: June 30, 2028

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1248	12672-29-6	1000	± 0.520%

*# J006469
Reed, JR
06/18/21*



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- 2. Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
- 3. Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
- 4. Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
- 5. Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
- 6. Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
- 7. Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
- 8. Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
- 9. Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
- 10. Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
- 11. Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
- 12. Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101474

Lot Number: CL11330

Description: Aroclor 1262

Certification Date: May 15, 2015

Storage: 4 °C

Expiration Date: April 30, 2023

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Revision Date: April 2, 2018



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1262	37324-23-5	1000	± 0.516%

J 00647H
Reed JK
06/18/21



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Manufactured by Phenova, Inc.

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 2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
 3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
 4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
 5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
 6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 μ L.
 7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
 8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
 9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$
- Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
 11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
 12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
- ³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101475

Lot Number: CL11331

Description: Aroclor 1268

Certification Date: May 15, 2015

Storage: 4 °C

Expiration Date: April 30, 2023

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Revision Date: April 2, 2018

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1268	11100-14-4	1000	± 0.516%

J006472
Rec'd. JK
06/18/21



Reference Material Producer
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Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



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2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k \cdot \sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
- ³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



Certificate of Analysis

Aroclor 1016 Solution

Product Number: PP-282

Page: 1 of 1

Lot Number: CR-0761

Lot Issue Date: 28-Feb-2017

Expiration Date: 31-Mar-2025

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1016	012674-11-2	NT01016	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

*K1254
Rec'd JP
02/05/17*

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 9001
Registered
TUV USA, Inc.

John Russo
President

Monica Bourgeois
Director of QA/RA



Certificate of Analysis

Product Name: Aroclor 1260 Standard

Product Number: PP-362-1

Lot Issue Date: 20-Jan-2021

Lot Number: 0006582048

Expiration Date: 28-Feb-2025

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1260	011096-82-5	NT01023	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

K 1255

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: Aroclor 1248 Standard **Lot Number:** 0006626997
Product Number: PP-342-1 **Lot Issue Date:** 17-Aug-2021
Storage Conditions: Store at Room Temperature (15° to 30°C). **Expiration Date:** 30-Sep-2025

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
Aroclor 1248	100.3	± 0.5 µg/mL		012672-29-6	NT01582

Matrix: isooctane (2,2,4-trimethylpentane)

K1257

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.



Certificate of Analysis

Aroclor 1254 Solution

Product Number: PP-352

Page: 1 of 1

Lot Number: CS-2321

Lot Issue Date: 04-May-2018

Expiration Date: 31-May-2026

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1254	011097-69-1	RM00922	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

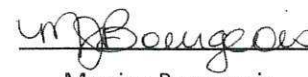
K-1250

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 9001
Registered
TUV USA, Inc.


John Russo
President


Monica Bourgeois
Director of QA/RA



Certificate of Analysis

Product Name: Aroclor 1221 Standard
Product Number: PP-292-1 **Lot Issue Date:** 28-Apr-2020
Lot Number: 0006535333 **Expiration Date:** 31-May-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1221	011104-28-2	RM04278	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1259

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis ISO 17034

Aroclor 1262 Standard

Product Number: PP-372-1

Page: 1 of 1

Lot Number: 0006499800

Lot Issue Date: 04-Nov-2019

Expiration Date: 30-Nov-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1262	037324-23-5	RM14263	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1260

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO 17025 Cert No.
AT-1937



Certificate of Analysis ISO 17034

Aroclor 1232 Standard

Product Number: PP-302-1

Page: 1 of 1

Lot Number: CF-2197A

Lot Issue Date: 05-Jul-2016

Expiration Date: 31-Aug-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1232	011141-16-5	NT01717	100.4 ± 0.5 µg/mL

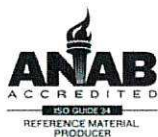
Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1261

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO17025 Cert No.
AT-1937



Certificate of Analysis

Product Name: Aroclor 1268 Standard

Product Number: PP-382-1

Lot Issue Date: 09-Feb-2021

Lot Number: 0006587800

Expiration Date: 31-Mar-2029

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1268	011100-14-4	RM00937	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1262

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:


Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

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CSD-QA-015.1



ISO 17025 Cert
No. AT-1937

Recipient Copy

CHAIN-OF-CUSTODY RECORD

COC No. 15355

Order Number: CB014770

Date Shipped: 4/14/2022

AirBill No(s):

From: QATS LABORATORY
 2700 CHANDLER AVENUE, BLDG. B
 LAS VEGAS, NV 89120
 PHONE: 1-702-895-8712

To: Kelly Bottem
 Analytical Resources, Inc.
 4611 S. 134th Place SUITE 100
 Tukwila WA 98168
 206-695-6211

519204140499

1003635
1003636

Sample ID	Sigma ID	Qty	Description/Remarks	→ Catalogue Number
PSRM0152	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0153	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
<p>ANACORTES OUTFALL</p> <p style="text-align: right;"><i>Q 04/14/2022</i></p>				

Please use the enclosed Sample Preparation Instructions. If catalogue number(s) are listed at the top of the Sample Preparation Instructions use the Sample Preparation Instructions with catalogue number(s) matching the catalogue number(s) of each of the samples listed above.

Relinquished by: (Signature) <i>[Signature]</i>	Date/Time <i>1400</i> <i>04/14/2022</i>	Received by: (Signature) <i>[Signature]</i>	Date/Time <i>10:25</i> <i>04/15/22</i>
Custody Seal(s): Present/Absent	Remarks:		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time



PUGET SOUND SEDIMENT REFERENCE MATERIAL
QATS LABORATORY INSTRUCTIONS FOR
HRGC/HRMS CDD/CDF/CB CONGENER AND GC/ECD AROCLOR ANALYSIS

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocols or your contract, disregard these instructions.

APPLICATION: For the analysis of CDD/CDF and CB Congener analytes using project-specified HRGC/HRMS methods, and Aroclors using project-specified GC/ECD methods.

CAUTION: Read instructions carefully before opening bottles and proceeding with the analyses.

Contains CDD/CDF, CB Congener, and/or Aroclors
HAZARDOUS MATERIAL
Safety Data Sheets
Available Upon Request

(A) SAMPLE DESCRIPTION

Enclosed is a Puget Sound (Washington State) Sediment Reference Material (SRM) set for chlorinated dibenzo-p-dioxins/chlorinated dibenzofurans (CDD/CDF), and/or chlorinated biphenyl (CB) congener analysis using project-specified high resolution gas chromatography/ high resolution mass spectrometry (HRGC/HRMS) methods. This SRM is also suitable for Aroclors analysis using project-specified gas chromatography/electron capture detection (GC/ECD) methods. This set consists of one (1) or more bottles, each with approximately 30 grams of Puget Sound SRM containing CDD/CDF, CB Congener, and/or Aroclor analytes. Check the chain-of-custody record to determine the number of bottles provided for CDD/CDF, CB Congener, and/or Aroclor analysis. None of the bottles are to be opened until SRM preparation/analysis is to occur.

CAUTION: The SRM could contain compounds that are light sensitive and should be protected from light during storage. Store the SRM at $\leq 6^{\circ}\text{C}$, preferably at $< 0^{\circ}\text{C}$, until SRM preparation and analysis is to occur. Allow the bottle(s) to reach ambient temperature before opening.

(B) BREAKAGE OR MISSING ITEMS

Check the contents of the shipment carefully for any broken, leaking, or missing items. Refer to the enclosed chain-of-custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120



(C) ANALYSIS REQUIREMENTS

The SRM is to be analyzed as described in the project-specified methods employed for the analysis of CDD/CDF and/or CB Congener analytes using HRGC/HRMS instrumentation and/or Aroclors using GC/ECD instrumentation. These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the project-specified methods, or your contract, disregard these instructions.

(D) SAMPLE ANALYSIS

General Instructions

The SRM contains CDD/CDF, CB Congener, and Aroclor analytes which are known or suspected to have severe health effects. Employing appropriate safety precautions, this SRM is to be handled, prepared, and analyzed exactly as you would process samples received from a known or suspected hazardous waste site. The SRM should be handled only by trained and experienced analysts in facilities expressly designed to handle such materials. When calculating the concentrations of analytes, use 0% as the soil moisture content.

Allow the bottle(s) to reach ambient temperature before opening and removing gravimetric amounts for sample preparation. To begin the extraction and analysis procedure, break the seal and open the bottle carefully. Weigh out the appropriate aliquot for extraction and analysis as prescribed in the project-specified methods (typically 10 grams for HRGC/HRMS methods and 30 grams for GC/ECD methods), or in accordance with your contract.

Proceed immediately with the extraction and analysis as described in the project-specified methods or your contract.

(E) REPORTING

Report the results for the prepared SRM as received.

Report the analytical results for the SRM to EPA or other appropriate Agency, using the format and other instructions for submission of data packages as specified in your contract.

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

411 Madrid Ave., Torrance, CA 90501 USA ■ Tel: 310-212-0555 ■ Fax: 310-328-7768 ■ info@phenomenex.com

Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101467

Lot Number: CL12975

Description: Aroclor 1016

Certification Date: November 19, 2018

Storage: 4 °C

Expiration Date: October 31, 2026

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1016	12674-11-2	1000	± 0.553%

12975



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

411 Madrid Ave., Torrance, CA 90501 USA ■ Tel: 310-212-0555 ■ Fax: 310-328-7768 ■ info@phenomenex.com

Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$u_{CRM} = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.

³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101462

Lot Number: CL18021

Description: Aroclor 1260

Certification Date: February 14, 2022

Storage: 4 °C

Expiration Date: February 28, 2030

Provided As: 1 mL in 2 mL Ampoule in Hexane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1260	11096-82-5	1000	± 0.553%

K005830



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis



Page 2 of 2

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

- Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
- Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
- Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
- Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
- Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
- Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
- Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
- Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
- Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
- Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
- Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
- Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



Certificate of Analysis ISO Guide 34

Aroclor 1242 Solution

Product Number: PP-312

Page: 1 of 1

Lot Number: CS-6293

Lot Issue Date: 04-Jan-2019

Expiration Date: 31-Jan-2023

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

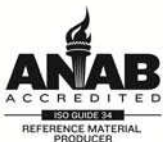
Analyte	CAS#	Analyte Lot	True Value
Aroclor 1242	053469-21-9	NT01020	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO17025 Cert No.
AT-1937



Form 1
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 23D0136
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-01 A File ID: 23050928
 Sampled: 04/05/23 11:45 Prepared: 04/25/23 14:15 Analyzed: 05/10/23 11:11
 % Solids: 48.26 Preparation: EPA 1613 Initial/Final: 20.74 g Wet / 20 uL
 Result Basis: Dry Sequence: SLE0060 Calibration: GC00015
 Batch: BLD0657 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.701	0.655-0.886	0.110	0.999	1.56	ng/kg	
1746-01-6	2,3,7,8-TCDD	1	0.522	0.655-0.886	0.112	0.999	0.529	ng/kg	EMPC, J
57117-41-6	1,2,3,7,8-PeCDF	1	1.624	1.318-1.783	0.248	0.999	1.53	ng/kg	
57117-31-4	2,3,4,7,8-PeCDF	1	1.628	1.318-1.783	0.228	0.999	2.98	ng/kg	
40321-76-4	1,2,3,7,8-PeCDD	1	1.580	1.318-1.783	0.300	0.999	2.41	ng/kg	
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.303	1.054-1.426	0.135	0.999	10.8	ng/kg	
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.298	1.054-1.426	0.136	0.999	2.93	ng/kg	
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.302	1.054-1.426	0.138	0.999	4.19	ng/kg	
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.204	1.054-1.426	0.152	0.999	2.38	ng/kg	
39227-28-6	1,2,3,4,7,8-HxCDD	1	1.179	1.054-1.426	0.271	0.999	2.61	ng/kg	
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.252	1.054-1.426	0.263	0.999	12.1	ng/kg	
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.283	1.054-1.426	0.294	0.999	5.86	ng/kg	
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.017	0.893-1.208	0.274	0.999	91.7	ng/kg	
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	1.013	0.893-1.208	0.362	0.999	7.71	ng/kg	
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.040	0.893-1.208	0.656	2.50	396	ng/kg	
39001-02-0	OCDF	1	0.897	0.757-1.024	0.349	2.50	383	ng/kg	
3268-87-9	OCDD	1	0.868	0.757-1.024	0.574	9.99	3380	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.999	24.3	ng/kg
41903-57-5	Total TCDD	1	0.000			0.999	3.92	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.999	26.4	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.999	5.30	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.999	119	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.999	88.4	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.999	388	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.999	880	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 14.20
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 14.20

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:59 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56
 Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.704	1.001	2.173e3	3.102e3	0.702	0.701	0.770	849	1027	2.81e4	4.13e4	33.1	40.2	NO	bd	bd	0.783
12378-PeCDF	29.855	1.001	2.740e3	1.687e3	0.679	1.624	1.550	1759	1873	4.20e4	2.50e4	23.9	13.4	NO	bb	bb	0.768
23478-PeCDF	31.192	1.001	5.744e3	3.528e3	0.786	1.628	1.550	1759	1873	9.07e4	5.37e4	51.5	28.7	NO	dd	bb	1.493
123478-HxCDF	34.813	1.000	2.343e4	1.797e4	1.166	1.303	1.240	1333	1386	3.68e5	2.83e5	276.0	204.3	NO	dd	bd	5.382
234678-HxCDF	35.794	1.000	8.663e3	6.651e3	1.140	1.302	1.240	1333	1386	1.04e5	7.94e4	78.0	57.3	NO	bb	bb	2.096
123678-HxCDF	34.947	1.000	6.266e3	4.827e3	1.091	1.298	1.240	1333	1386	1.00e5	7.55e4	75.3	54.5	NO	dd	db	1.468
123789-HxCDF	36.819	1.000	4.244e3	3.526e3	1.137	1.204	1.240	1333	1386	6.39e4	5.36e4	48.0	38.7	NO	bd	bd	1.190
1234678-HpCDF	38.690	1.000	1.376e5	1.353e5	1.003	1.017	1.050	2484	2124	2.37e6	2.33e6	955.2	1097.2	NO	bb	bb	45.897
1234789-HpCDF	40.919	1.000	1.004e4	9.911e3	0.953	1.013	1.050	2484	2124	1.56e5	1.41e5	62.9	66.6	NO	bb	bb	3.857
OCDF	45.107	1.005	4.361e5	4.861e5	0.778	0.897	0.890	1939	1458	5.45e6	6.04e6	2809.9	4143.5	NO	bb	bb	191.811
2378-TCDD	26.339	1.000	7.618e2	1.459e3	1.149	0.522	0.770	1373	1064	1.06e4	2.42e4	7.7	22.7	YES	bd	bd	0.265
12378-PeCDD	31.449	1.001	4.004e3	2.534e3	1.022	1.580	1.550	1734	2337	5.20e4	3.69e4	30.0	15.8	NO	bb	bb	1.206
123478-HxCDD	35.950	1.001	4.318e3	3.664e3	0.996	1.179	1.240	2255	2247	6.60e4	6.50e4	29.3	28.9	NO	bd	bd	1.305
123678-HxCDD	36.061	1.000	2.121e4	1.694e4	1.001	1.252	1.240	2255	2247	3.47e5	2.84e5	153.7	126.2	NO	dd	dd	6.036
123789-HxCDD	36.451	1.011	9.313e3	7.258e3	0.907	1.283	1.240	2255	2247	1.54e5	1.25e5	68.4	55.8	NO	bd	bb	2.932
1234678-HpCDD	40.183	1.001	5.531e5	5.317e5	1.039	1.040	1.050	5228	4119	8.66e6	8.32e6	1655.8	2020.9	NO	bb	bb	198.189
OCDD	44.869	1.000	4.469e6	5.148e6	0.920	0.868	0.890	3251	3359	5.74e7	6.69e7	17659.3	19917.7	NO	bb	bb	1691.349
13C-2378-TCDF	25.689	1.007	4.206e5	5.393e5	1.620	0.780	0.770	1654	1362	6.37e6	8.11e6	3854.1	5955.3	NO	bb	bb	90.149
13C-12378-PeCDF	29.833	1.169	5.144e5	3.348e5	1.240	1.537	1.550	2848	3299	7.83e6	5.18e6	2749.9	1569.9	NO	bb	bb	104.166
13C-23478-PeCDF	31.170	1.221	4.782e5	3.116e5	1.118	1.534	1.550	2848	3299	7.36e6	4.85e6	2583.5	1470.5	NO	bb	bb	107.513
13C-123478-HxCDF	34.802	0.955	2.212e5	4.385e5	1.168	0.504	0.510	1573	2277	3.48e6	6.97e6	2212.6	3062.0	NO	bd	bd	78.290
13C-123678-HxCDF	34.936	0.959	2.329e5	4.597e5	1.386	0.507	0.510	1573	2277	3.68e6	7.22e6	2340.2	3171.8	NO	db	db	69.269
13C-234678-HxCDF	35.805	0.983	2.161e5	4.250e5	1.129	0.509	0.510	1573	2277	3.50e6	6.86e6	2225.5	3013.0	NO	bb	bb	78.717
13C-123789-HxCDF	36.830	1.011	1.931e5	3.813e5	0.932	0.506	0.510	1573	2277	3.16e6	6.28e6	2011.3	2759.2	NO	bb	bb	85.480
13C-1234678-HpCDF	38.679	1.062	1.848e5	4.080e5	0.895	0.453	0.440	1487	1822	3.14e6	6.97e6	2111.0	3828.8	NO	bb	bb	91.824
13C-1234789-HpCDF	40.896	1.123	1.665e5	3.763e5	0.770	0.442	0.440	1487	1822	2.45e6	5.40e6	1650.4	2962.8	NO	bb	bb	97.772
13C-1234-TCDD	25.520	0.000	2.876e5	3.696e5	1.000	0.778	0.770	1910	836	4.39e6	5.68e6	2296.4	6791.9	NO	bb	bb	100.000
13C-2378-TCDD	26.325	1.032	3.222e5	4.077e5	1.152	0.790	0.770	1910	836	4.99e6	6.28e6	2615.0	7508.9	NO	bb	bb	96.371
13C-12378-PeCDD	31.427	1.232	3.287e5	2.018e5	0.829	1.629	1.550	1221	1197	4.93e6	3.04e6	4034.1	2539.4	NO	bb	bd	97.385
13C-123478-HxCDD	35.928	0.986	3.476e5	2.669e5	0.995	1.302	1.240	1502	1142	5.66e6	4.46e6	3764.9	3902.7	NO	bd	bd	85.627
13C-123678-HxCDD	36.050	0.990	3.488e5	2.827e5	1.157	1.234	1.240	1502	1142	5.66e6	4.46e6	3767.1	3899.7	NO	db	db	75.692
13C-1234678-HpCDD	40.161	1.102	2.734e5	2.534e5	0.840	1.079	1.050	2199	1568	4.26e6	4.02e6	1939.5	2561.6	NO	bb	bb	86.946
13C-OCDD	44.860	1.231	5.834e5	6.528e5	0.767	0.894	0.890	1351	1759	7.09e6	7.76e6	5246.3	4410.9	NO	bb	bd	223.343
13C-123789-HxCDD	36.429	0.000	4.012e5	3.200e5	1.000	1.254	1.240	1502	1142	6.41e6	5.13e6	4266.7	4489.9	NO	bb	bb	100.000
37CL-2378-TCDD	26.339	1.032	3.270e5		1.288			1104		5.00e6		4529.4			bb		38.641

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.201	0.864	1.155e3	1.313e3	0.802	0.879	0.770	849	1027	1.69e4	2.48e4	19.9	24.2	NO	bb	bb	0.321
1289-TCDF					0.678		0.770	849	1027								
13468-PECDF					1.246		1.550	932	846								
12389-PECDF					0.496		1.550	1759	1873								
123468-HXCDF	33.142	0.952	1.956e4	1.561e4	1.169	1.253	1.240	1333	1386	2.96e5	2.47e5	221.9	178.6	NO	bb	bb	4.560
1368-TCDD	23.472	0.892	2.629e3	3.274e3	1.015	0.803	0.770	1373	1064	4.18e4	5.30e4	30.4	49.9	NO	bb	bb	0.796
1289-TCDD					0.909		0.770	1373	1064								
12479-PECDD	28.775	0.916	7.424e3	5.702e3	2.301	1.302	1.550	1734	2337	7.50e4	5.59e4	43.3	23.9	YES	bb	bb	1.075
12389-PECDD					1.184		1.550	1734	2337								
124679-HXCDD	33.922	0.944	4.699e4	3.605e4	1.115	1.303	1.240	2255	2247	7.53e5	5.78e5	333.9	257.2	NO	bb	bb	12.115
1234679-HPCDD	39.136	0.975	7.386e5	7.117e5	1.137	1.038	1.050	5228	4119	1.25e7	1.20e7	2397.1	2916.9	NO	bb	bb	242.159
Total-tetrafurans			3.508e4		0.727			849		4.98e5							12.155
Total-penta1			3.389e4					932		5.18e5							7.205
Total-pentafurans			2.069e4		0.654			1759		3.02e5							5.995
Total-hexafurans			2.451e5		1.141			1333		3.73e6							59.610
Total-heptafurans			5.497e5		0.978			2484		9.35e6							193.977
Total-Furans			1.321e6		0.922			849		1.98e7							470.753
Total-tetradoxins			6.355e3		1.024			1373		9.03e4							1.961
Total-pentadoxins			1.087e4		1.502			1734		1.60e5							2.651
Total-hexadoxins			1.570e5		1.005			2255		2.27e6							44.239
Total-heptadoxins			1.292e6		1.088			5228		2.12e7							440.349
Total-Dioxins			5.935e6		1.130			1373		8.11e7							2180.548
Total-TEQ			7.256e6					1373		1.01e8							2651.301
FUNCTION1 PFK			7.083e6					244314		1.71e7							
FUNCTION2 PFK			1.938e6					174540		5.96e6							0.000
FUNCTION3 PFK			4.840e6					230472		2.09e7							0.000
FUNCTION4 PFK			0.000e0					143012		0.00e0							
FUNCTION5 PFK			0.000e0					138198		0.00e0							
FUNCTION1 HXCD...			8.089e3					1261		1.34e5							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.949e3					1115		3.52e4							0.000
FUNCTION3 OCDPE			3.519e2					498		5.96e3							0.000
FUNCTION4 NCDPE			8.652e4					1383		1.52e6							0.000
FUNCTION5 DCDPE			1.004e3					608		9.27e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
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 Printed: Thursday, May 11, 2023 11:20:59 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.95	2.239e3	2.894e3	0.727	0.77	0.77	35.9	YES	NO	db	db	0.736
2	Total-tetrafurans	23.81	1.462e3	2.029e3	0.727	0.72	0.77	27.3	YES	NO	dd	dd	0.500
3	Total-tetrafurans	23.54	8.949e2	1.288e3	0.727	0.69	0.77	20.0	YES	NO	db	dd	0.313
4	Total-tetrafurans	23.36	7.682e3	1.134e4	0.727	0.68	0.77	119.5	YES	NO	dd	dd	2.726
5	Total-tetrafurans	23.05	3.256e3	4.761e3	0.727	0.68	0.77	55.3	YES	NO	bd	bd	1.149
6	1368-TCDF	22.20	1.155e3	1.313e3	0.802	0.88	0.77	19.9	YES	NO	bb	bb	0.321
7	Total-tetrafurans	27.34	6.651e2	9.275e2	0.727	0.72	0.77	13.0	YES	NO	bb	db	0.228
8	Total-tetrafurans	27.10	3.365e2	3.859e2	0.727	0.87	0.77	6.6	YES	NO	bb	bd	0.104
9	Total-tetrafurans	26.76	1.664e2	2.043e2	0.727	0.81	0.77	3.4	YES	NO	bb	bb	0.053
10	Total-tetrafurans	25.84	1.585e3	2.320e3	0.727	0.68	0.77	31.5	YES	NO	dd	dd	0.560
11	2378-TCDF	25.70	2.173e3	3.102e3	0.702	0.70	0.77	33.1	YES	NO	bd	bd	0.783
12	Total-tetrafurans	25.46	6.412e3	9.170e3	0.727	0.70	0.77	91.7	YES	NO	bb	bb	2.233
13	Total-tetrafurans	25.19	8.200e2	1.176e3	0.727	0.70	0.77	17.4	YES	NO	bb	db	0.286
14	Total-tetrafurans	25.01	1.438e3	1.863e3	0.727	0.77	0.77	23.9	YES	NO	bb	bd	0.473
15	Total-tetrafurans	24.79	1.790e3	2.613e3	0.727	0.69	0.77	32.8	YES	NO	bb	bb	0.631
16	Total-tetrafurans	24.60	3.007e3	4.396e3	0.727	0.68	0.77	55.1	YES	NO	db	db	1.061

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.13	3.389e4	2.222e4		1.53	1.55	555.7	YES	NO	bb	bb	7.205

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	29.39	7.717e2	4.443e2	0.654	1.74	1.55	6.2	YES	NO	dd	bd	0.227
2	Total-pentafurans	28.62	4.666e3	3.408e3	0.654	1.37	1.55	33.9	YES	NO	dd	bd	1.507
3	23478-PeCDF	31.19	5.744e3	3.528e3	0.786	1.63	1.55	51.5	YES	NO	dd	bb	1.493
4	Total-pentafurans	30.91	2.675e3	1.532e3	0.654	1.75	1.55	19.8	YES	NO	bd	bd	0.785
5	Total-pentafurans	30.06	4.094e3	2.421e3	0.654	1.69	1.55	36.1	YES	NO	bd	bb	1.216
6	12378-PeCDF	29.86	2.740e3	1.687e3	0.679	1.62	1.55	23.9	YES	NO	bb	bb	0.768

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509\HA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:59 Pacific Daylight Time

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	33.35	6.083e4	4.813e4	1.141	1.26	1.24	675.5	YES	NO	bb	bb	14.882
2	123468-HxCDF	33.14	1.956e4	1.561e4	1.169	1.25	1.24	221.9	YES	NO	bb	bb	4.560
3	Total-hexafurans	36.93	5.080e2	4.447e2	1.141	1.14	1.24	6.8	YES	NO	db	dd	0.130
4	123789-HxCDF	36.82	4.244e3	3.526e3	1.137	1.20	1.24	48.0	YES	NO	bd	bd	1.190
5	Total-hexafurans	36.31	3.424e2	2.712e2	1.141	1.26	1.24	3.6	YES	NO	bb	bb	0.084
6	234678-HxCDF	35.79	8.663e3	6.651e3	1.140	1.30	1.24	78.0	YES	NO	bb	bb	2.096
7	123678-HxCDF	34.95	6.266e3	4.827e3	1.091	1.30	1.24	75.3	YES	NO	dd	db	1.468
8	123478-HxCDF	34.81	2.343e4	1.797e4	1.166	1.30	1.24	276.0	YES	NO	dd	bd	5.382
9	Total-hexafurans	34.66	3.035e3	2.396e3	1.141	1.27	1.24	34.6	YES	NO	bd	bb	0.742
10	Total-hexafurans	34.19	1.165e5	9.303e4	1.141	1.25	1.24	1354.7	YES	NO	bb	bb	28.617
11	Total-hexafurans	33.90	1.747e3	1.610e3	1.141	1.08	1.24	21.2	YES	NO	bb	bb	0.458

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	40.92	1.004e4	9.911e3	0.953	1.01	1.05	62.9	YES	NO	bb	bb	3.857
2	Total-heptafurans	39.35	3.998e5	3.965e5	0.978	1.01	1.05	2735.1	YES	NO	bb	bb	143.396
3	Total-heptafurans	39.10	2.294e3	2.304e3	0.978	1.00	1.05	13.0	YES	NO	bb	bb	0.828
4	1234678-HpCDF	38.69	1.376e5	1.353e5	1.003	1.02	1.05	955.2	YES	NO	bb	bb	45.897

Quantify Totals Report MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:59 Pacific Daylight Time

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.95	2.239e3	2.894e3	0.727	0.77	0.77	35.9	YES	NO	db	db	0.736
2	Total-tetrafurans	23.81	1.462e3	2.029e3	0.727	0.72	0.77	27.3	YES	NO	dd	dd	0.500
3	Total-tetrafurans	23.54	8.949e2	1.288e3	0.727	0.69	0.77	20.0	YES	NO	db	dd	0.313
4	Total-tetrafurans	23.36	7.682e3	1.134e4	0.727	0.68	0.77	119.5	YES	NO	dd	dd	2.726
5	Total-tetrafurans	23.05	3.256e3	4.761e3	0.727	0.68	0.77	55.3	YES	NO	bd	bd	1.149
6	1368-TCDF	22.20	1.155e3	1.313e3	0.802	0.88	0.77	19.9	YES	NO	bb	bb	0.321
7	Total-tetrafurans	27.34	6.651e2	9.275e2	0.727	0.72	0.77	13.0	YES	NO	bb	db	0.228
8	Total-tetrafurans	27.10	3.365e2	3.859e2	0.727	0.87	0.77	6.6	YES	NO	bb	bd	0.104
9	Total-tetrafurans	26.76	1.664e2	2.043e2	0.727	0.81	0.77	3.4	YES	NO	bb	bb	0.053
10	Total-tetrafurans	25.84	1.585e3	2.320e3	0.727	0.68	0.77	31.5	YES	NO	dd	dd	0.560
11	2378-TCDF	25.70	2.173e3	3.102e3	0.702	0.70	0.77	33.1	YES	NO	bd	bd	0.783
12	Total-tetrafurans	25.46	6.412e3	9.170e3	0.727	0.70	0.77	91.7	YES	NO	bb	bb	2.233
13	Total-tetrafurans	25.19	8.200e2	1.176e3	0.727	0.70	0.77	17.4	YES	NO	bb	db	0.286
14	Total-tetrafurans	25.01	1.438e3	1.863e3	0.727	0.77	0.77	23.9	YES	NO	bb	bd	0.473
15	Total-tetrafurans	24.79	1.790e3	2.613e3	0.727	0.69	0.77	32.8	YES	NO	bb	bb	0.631
16	Total-tetrafurans	24.60	3.007e3	4.396e3	0.727	0.68	0.77	55.1	YES	NO	db	db	1.061
17	Total-pentafurans	29.39	7.717e2	4.443e2	0.654	1.74	1.55	6.2	YES	NO	dd	bd	0.227
18	Total-pentafurans	28.62	4.666e3	3.408e3	0.654	1.37	1.55	33.9	YES	NO	dd	bd	1.507
19	23478-PeCDF	31.19	5.744e3	3.528e3	0.786	1.63	1.55	51.5	YES	NO	dd	bb	1.493
20	Total-pentafurans	30.91	2.675e3	1.532e3	0.654	1.75	1.55	19.8	YES	NO	bd	bd	0.785
21	Total-pentafurans	30.06	4.094e3	2.421e3	0.654	1.69	1.55	36.1	YES	NO	bd	bb	1.216
22	12378-PeCDF	29.86	2.740e3	1.687e3	0.679	1.62	1.55	23.9	YES	NO	bb	bb	0.768
23	Total-hexafurans	33.35	6.083e4	4.813e4	1.141	1.26	1.24	675.5	YES	NO	bb	bb	14.882
24	123468-HXCDF	33.14	1.956e4	1.561e4	1.169	1.25	1.24	221.9	YES	NO	bb	bb	4.560
25	Total-hexafurans	36.93	5.080e2	4.447e2	1.141	1.14	1.24	6.8	YES	NO	db	dd	0.130
26	123789-HxCDF	36.82	4.244e3	3.526e3	1.137	1.20	1.24	48.0	YES	NO	bd	bd	1.190
27	Total-hexafurans	36.31	3.424e2	2.712e2	1.141	1.26	1.24	3.6	YES	NO	bb	bb	0.084
28	234678-HxCDF	35.79	8.663e3	6.651e3	1.140	1.30	1.24	78.0	YES	NO	bb	bb	2.096
29	123678-HxCDF	34.95	6.266e3	4.827e3	1.091	1.30	1.24	75.3	YES	NO	dd	db	1.468
30	123478-HxCDF	34.81	2.343e4	1.797e4	1.166	1.30	1.24	276.0	YES	NO	dd	bd	5.382
31	Total-hexafurans	34.66	3.035e3	2.396e3	1.141	1.27	1.24	34.6	YES	NO	bd	bb	0.742
32	Total-hexafurans	34.19	1.165e5	9.303e4	1.141	1.25	1.24	1354.7	YES	NO	bb	bb	28.617
33	Total-hexafurans	33.90	1.747e3	1.610e3	1.141	1.08	1.24	21.2	YES	NO	bb	bb	0.458
34	1234789-HpCDF	40.92	1.004e4	9.911e3	0.953	1.01	1.05	62.9	YES	NO	bb	bb	3.857
35	Total-heptafurans	39.35	3.998e5	3.965e5	0.978	1.01	1.05	2735.1	YES	NO	bb	bb	143.396
36	Total-heptafurans	39.10	2.294e3	2.304e3	0.978	1.00	1.05	13.0	YES	NO	bb	bb	0.828
37	1234678-HpCDF	38.69	1.376e5	1.353e5	1.003	1.02	1.05	955.2	YES	NO	bb	bb	45.897

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	OCDF	45.11	4.361e5	4.861e5	0.778	0.90	0.89	2809.9	YES	NO	bb	bb	191.811
39	Total-penta1	27.13	3.389e4	2.222e4		1.53	1.55	555.7	YES	NO	bb	bb	7.205

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.47	9.986e2	1.316e3	1.024	0.76	0.77	9.6	YES	NO	bd	bd	0.310
2	Total-tetradoxins	23.74	1.494e3	2.169e3	1.024	0.69	0.77	17.5	YES	NO	bb	dd	0.490
3	1368-TCDD	23.47	2.629e3	3.274e3	1.015	0.80	0.77	30.4	YES	NO	bb	bb	0.796
4	Total-tetradoxins	25.99	1.234e3	1.492e3	1.024	0.83	0.77	8.2	YES	NO	db	bb	0.365

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.45	4.004e3	2.534e3	1.022	1.58	1.55	30.0	YES	NO	bb	bb	1.206
2	Total-pentadoxins	30.07	3.100e3	1.854e3	1.502	1.67	1.55	26.2	YES	NO	bd	bd	0.622
3	Total-pentadoxins	29.86	3.768e3	2.793e3	1.502	1.35	1.55	36.0	YES	NO	bb	bb	0.823

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadoxins	35.17	6.662e3	5.584e3	1.005	1.19	1.24	49.5	YES	NO	db	db	1.956
2	Total-hexadoxins	35.06	5.534e4	4.529e4	1.005	1.22	1.24	276.0	YES	NO	bd	bd	16.076
3	Total-hexadoxins	34.69	1.027e4	8.479e3	1.005	1.21	1.24	73.0	YES	NO	bb	bb	2.996
4	124679-HxCDD	33.92	4.699e4	3.605e4	1.115	1.30	1.24	333.9	YES	NO	bb	bb	12.115
5	123789-HxCDD	36.45	9.313e3	7.258e3	0.907	1.28	1.24	68.4	YES	NO	bd	bb	2.932
6	Total-hexadoxins	36.22	2.901e3	2.247e3	1.005	1.29	1.24	22.1	YES	NO	dd	db	0.822
7	123678-HxCDD	36.06	2.121e4	1.694e4	1.001	1.25	1.24	153.7	YES	NO	dd	dd	6.036
8	123478-HxCDD	35.95	4.318e3	3.664e3	0.996	1.18	1.24	29.3	YES	NO	bd	bd	1.305

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.14	7.386e5	7.117e5	1.137	1.04	1.05	2397.1	YES	NO	bb	bb	242.159
2	1234678-HpCDD	40.18	5.531e5	5.317e5	1.039	1.04	1.05	1655.8	YES	NO	bb	bb	198.189

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.47	9.986e2	1.316e3	1.024	0.76	0.77	9.6	YES	NO	bd	bd	0.310
2	Total-tetradoxins	23.74	1.494e3	2.169e3	1.024	0.69	0.77	17.5	YES	NO	bb	dd	0.490
3	1368-TCDD	23.47	2.629e3	3.274e3	1.015	0.80	0.77	30.4	YES	NO	bb	bb	0.796
4	Total-tetradoxins	25.99	1.234e3	1.492e3	1.024	0.83	0.77	8.2	YES	NO	db	bb	0.365
5	12378-PeCDD	31.45	4.004e3	2.534e3	1.022	1.58	1.55	30.0	YES	NO	bb	bb	1.206
6	Total-pentadoxins	30.07	3.100e3	1.854e3	1.502	1.67	1.55	26.2	YES	NO	bd	bd	0.622
7	Total-pentadoxins	29.86	3.768e3	2.793e3	1.502	1.35	1.55	36.0	YES	NO	bb	bb	0.823
8	Total-hexadoxins	35.17	6.662e3	5.584e3	1.005	1.19	1.24	49.5	YES	NO	db	db	1.956
9	Total-hexadoxins	35.06	5.534e4	4.529e4	1.005	1.22	1.24	276.0	YES	NO	bd	bd	16.076
10	Total-hexadoxins	34.69	1.027e4	8.479e3	1.005	1.21	1.24	73.0	YES	NO	bb	bb	2.996
11	124679-HxCDD	33.92	4.699e4	3.605e4	1.115	1.30	1.24	333.9	YES	NO	bb	bb	12.115
12	123789-HxCDD	36.45	9.313e3	7.258e3	0.907	1.28	1.24	68.4	YES	NO	bd	bb	2.932
13	Total-hexadoxins	36.22	2.901e3	2.247e3	1.005	1.29	1.24	22.1	YES	NO	dd	db	0.822
14	123678-HxCDD	36.06	2.121e4	1.694e4	1.001	1.25	1.24	153.7	YES	NO	dd	dd	6.036
15	123478-HxCDD	35.95	4.318e3	3.664e3	0.996	1.18	1.24	29.3	YES	NO	bd	bd	1.305
16	1234679-HPCDD	39.14	7.386e5	7.117e5	1.137	1.04	1.05	2397.1	YES	NO	bb	bb	242.159
17	1234678-HpCDD	40.18	5.531e5	5.317e5	1.039	1.04	1.05	1655.8	YES	NO	bb	bb	198.189
18	OCDD	44.87	4.469e6	5.148e6	0.920	0.87	0.89	17659.3	YES	NO	bb	bb	1691.3...

Quantify Totals Report MassLynx V4.1 SCN909

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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.95	2.239e3	2.894e3	0.727	0.77	0.77	35.9	YES	NO	db	db	0.736
2	Total-tetrafurans	23.81	1.462e3	2.029e3	0.727	0.72	0.77	27.3	YES	NO	dd	dd	0.500
3	Total-tetrafurans	23.54	8.949e2	1.288e3	0.727	0.69	0.77	20.0	YES	NO	db	dd	0.313
4	Total-tetrafurans	23.36	7.682e3	1.134e4	0.727	0.68	0.77	119.5	YES	NO	dd	dd	2.726
5	Total-tetrafurans	23.05	3.256e3	4.761e3	0.727	0.68	0.77	55.3	YES	NO	bd	bd	1.149
6	1368-TCDF	22.20	1.155e3	1.313e3	0.802	0.88	0.77	19.9	YES	NO	bb	bb	0.321
7	Total-tetrafurans	27.34	6.651e2	9.275e2	0.727	0.72	0.77	13.0	YES	NO	bb	db	0.228
8	Total-tetrafurans	27.10	3.365e2	3.859e2	0.727	0.87	0.77	6.6	YES	NO	bb	bd	0.104
9	Total-tetrafurans	26.76	1.664e2	2.043e2	0.727	0.81	0.77	3.4	YES	NO	bb	bb	0.053
10	Total-tetrafurans	25.84	1.585e3	2.320e3	0.727	0.68	0.77	31.5	YES	NO	dd	dd	0.560
11	2378-TCDF	25.70	2.173e3	3.102e3	0.702	0.70	0.77	33.1	YES	NO	bd	bd	0.783
12	Total-tetrafurans	25.46	6.412e3	9.170e3	0.727	0.70	0.77	91.7	YES	NO	bb	bb	2.233
13	Total-tetrafurans	25.19	8.200e2	1.176e3	0.727	0.70	0.77	17.4	YES	NO	bb	db	0.286
14	Total-tetrafurans	25.01	1.438e3	1.863e3	0.727	0.77	0.77	23.9	YES	NO	bb	bd	0.473
15	Total-tetrafurans	24.79	1.790e3	2.613e3	0.727	0.69	0.77	32.8	YES	NO	bb	bb	0.631
16	Total-tetrafurans	24.60	3.007e3	4.396e3	0.727	0.68	0.77	55.1	YES	NO	db	db	1.061
17	Total-pentafurans	29.39	7.717e2	4.443e2	0.654	1.74	1.55	6.2	YES	NO	dd	bd	0.227
18	Total-pentafurans	28.62	4.666e3	3.408e3	0.654	1.37	1.55	33.9	YES	NO	dd	bd	1.507
19	23478-PeCDF	31.19	5.744e3	3.528e3	0.786	1.63	1.55	51.5	YES	NO	dd	bb	1.493
20	Total-pentafurans	30.91	2.675e3	1.532e3	0.654	1.75	1.55	19.8	YES	NO	bd	bd	0.785
21	Total-pentafurans	30.06	4.094e3	2.421e3	0.654	1.69	1.55	36.1	YES	NO	bd	bb	1.216
22	12378-PeCDF	29.86	2.740e3	1.687e3	0.679	1.62	1.55	23.9	YES	NO	bb	bb	0.768
23	Total-hexafurans	33.35	6.083e4	4.813e4	1.141	1.26	1.24	675.5	YES	NO	bb	bb	14.882
24	123468-HXCDF	33.14	1.956e4	1.561e4	1.169	1.25	1.24	221.9	YES	NO	bb	bb	4.560
25	Total-hexafurans	36.93	5.080e2	4.447e2	1.141	1.14	1.24	6.8	YES	NO	db	dd	0.130
26	123789-HxCDF	36.82	4.244e3	3.526e3	1.137	1.20	1.24	48.0	YES	NO	bd	bd	1.190
27	Total-hexafurans	36.31	3.424e2	2.712e2	1.141	1.26	1.24	3.6	YES	NO	bb	bb	0.084
28	234678-HxCDF	35.79	8.663e3	6.651e3	1.140	1.30	1.24	78.0	YES	NO	bb	bb	2.096
29	123678-HxCDF	34.95	6.266e3	4.827e3	1.091	1.30	1.24	75.3	YES	NO	dd	db	1.468
30	123478-HxCDF	34.81	2.343e4	1.797e4	1.166	1.30	1.24	276.0	YES	NO	dd	bd	5.382
31	Total-hexafurans	34.66	3.035e3	2.396e3	1.141	1.27	1.24	34.6	YES	NO	bd	bb	0.742
32	Total-hexafurans	34.19	1.165e5	9.303e4	1.141	1.25	1.24	1354.7	YES	NO	bb	bb	28.617
33	Total-hexafurans	33.90	1.747e3	1.610e3	1.141	1.08	1.24	21.2	YES	NO	bb	bb	0.458
34	1234789-HpCDF	40.92	1.004e4	9.911e3	0.953	1.01	1.05	62.9	YES	NO	bb	bb	3.857
35	Total-heptafurans	39.35	3.998e5	3.965e5	0.978	1.01	1.05	2735.1	YES	NO	bb	bb	143.396
36	Total-heptafurans	39.10	2.294e3	2.304e3	0.978	1.00	1.05	13.0	YES	NO	bb	bb	0.828
37	1234678-HpCDF	38.69	1.376e5	1.353e5	1.003	1.02	1.05	955.2	YES	NO	bb	bb	45.897

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:59 Pacific Daylight Time

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	OCDF	45.11	4.361e5	4.861e5	0.778	0.90	0.89	2809.9	YES	NO	bb	bb	191.811
39	Total-penta1	27.13	3.389e4	2.222e4		1.53	1.55	555.7	YES	NO	bb	bb	7.205
40	Total-tetradoxins	24.47	9.986e2	1.316e3	1.024	0.76	0.77	9.6	YES	NO	bd	bd	0.310
41	Total-tetradoxins	23.74	1.494e3	2.169e3	1.024	0.69	0.77	17.5	YES	NO	bb	dd	0.490
42	1368-TCDD	23.47	2.629e3	3.274e3	1.015	0.80	0.77	30.4	YES	NO	bb	bb	0.796
43	Total-tetradoxins	25.99	1.234e3	1.492e3	1.024	0.83	0.77	8.2	YES	NO	db	bb	0.365
44	12378-PeCDD	31.45	4.004e3	2.534e3	1.022	1.58	1.55	30.0	YES	NO	bb	bb	1.206
45	Total-pentadoxins	30.07	3.100e3	1.854e3	1.502	1.67	1.55	26.2	YES	NO	bd	bd	0.622
46	Total-pentadoxins	29.86	3.768e3	2.793e3	1.502	1.35	1.55	36.0	YES	NO	bb	bb	0.823
47	Total-hexadoxins	35.17	6.662e3	5.584e3	1.005	1.19	1.24	49.5	YES	NO	db	db	1.956
48	Total-hexadoxins	35.06	5.534e4	4.529e4	1.005	1.22	1.24	276.0	YES	NO	bd	bd	16.076
49	Total-hexadoxins	34.69	1.027e4	8.479e3	1.005	1.21	1.24	73.0	YES	NO	bb	bb	2.996
50	124679-HxCDD	33.92	4.699e4	3.605e4	1.115	1.30	1.24	333.9	YES	NO	bb	bb	12.115
51	123789-HxCDD	36.45	9.313e3	7.258e3	0.907	1.28	1.24	68.4	YES	NO	bd	bb	2.932
52	Total-hexadoxins	36.22	2.901e3	2.247e3	1.005	1.29	1.24	22.1	YES	NO	dd	db	0.822
53	123678-HxCDD	36.06	2.121e4	1.694e4	1.001	1.25	1.24	153.7	YES	NO	dd	dd	6.036
54	123478-HxCDD	35.95	4.318e3	3.664e3	0.996	1.18	1.24	29.3	YES	NO	bd	bd	1.305
55	1234679-HPCDD	39.14	7.386e5	7.117e5	1.137	1.04	1.05	2397.1	YES	NO	bb	bb	242.159
56	1234678-HpCDD	40.18	5.531e5	5.317e5	1.039	1.04	1.05	1655.8	YES	NO	bb	bb	198.189
57	OCDD	44.87	4.469e6	5.148e6	0.920	0.87	0.89	17659.3	YES	NO	bb	bb	1691.3...

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.79	5.182e6					21.1	YES		db		
2	FUNCTION1 PFK	21.11	1.901e6					48.7	YES		bd		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	32.37	1.045e5					4.7	YES		bb		0.000
2	FUNCTION2 PFK	29.40	7.329e5					16.8	YES		bb		0.000
3	FUNCTION2 PFK	28.95	1.100e6					12.7	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509\HA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:59 Pacific Daylight Time

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.28	9.207e5					10.6	YES		bb		0.000
2	FUNCTION3 PFK	36.83	4.314e5					16.5	YES		db		0.000
3	FUNCTION3 PFK	36.57	1.806e6					19.7	YES		bd		0.000
4	FUNCTION3 PFK	36.22	5.287e5					11.6	YES		bb		0.000
5	FUNCTION3 PFK	35.67	3.372e4					3.8	YES		bb		0.000
6	FUNCTION3 PFK	35.57	2.058e5					12.2	YES		db		0.000
7	FUNCTION3 PFK	35.44	6.636e5					12.1	YES		bd		0.000
8	FUNCTION3 PFK	35.04	2.493e5					4.2	YES		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:59 Pacific Daylight Time

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.87	3.554e3					47.8	YES		db		0.000
2	FUNCTION1 HXCD...	25.76	3.573e2					5.9	YES		dd		0.000
3	FUNCTION1 HXCD...	25.73	3.054e2					5.5	YES		bd		0.000
4	FUNCTION1 HXCD...	25.52	1.753e2					1.8	NO		bb		0.000
5	FUNCTION1 HXCD...	25.07	3.131e2					2.2	NO		db		0.000
6	FUNCTION1 HXCD...	24.84	1.262e2					1.3	NO		bd		0.000
7	FUNCTION1 HXCD...	24.79	1.921e2					3.4	YES		db		0.000
8	FUNCTION1 HXCD...	24.71	2.676e2					2.7	NO		dd		0.000
9	FUNCTION1 HXCD...	24.60	1.471e2					1.9	NO		dd		0.000
10	FUNCTION1 HXCD...	24.55	1.532e2					1.8	NO		dd		0.000
11	FUNCTION1 HXCD...	24.46	1.780e2					2.5	NO		bd		0.000
12	FUNCTION1 HXCD...	23.74	2.922e2					3.4	YES		bb		0.000
13	FUNCTION1 HXCD...	22.77	1.966e2					1.4	NO		db		0.000
14	FUNCTION1 HXCD...	22.61	9.327e1					1.3	NO		bd		0.000
15	FUNCTION1 HXCD...	22.27	5.165e2					6.2	YES		db		0.000
16	FUNCTION1 HXCD...	22.10	9.847e1					1.9	NO		bd		0.000
17	FUNCTION1 HXCD...	27.62	1.367e2					1.5	NO		bb		0.000
18	FUNCTION1 HXCD...	27.13	1.092e2					1.3	NO		bb		0.000
19	FUNCTION1 HXCD...	26.73	1.618e2					2.1	NO		bb		0.000
20	FUNCTION1 HXCD...	26.18	1.225e2					3.3	YES		db		0.000
21	FUNCTION1 HXCD...	26.08	5.924e2					7.4	YES		bd		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:59 Pacific Daylight Time

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.16	1.427e2					2.4	NO		dd		0.000
2	FUNCTION2 HPCD...	32.12	7.189e1					2.7	NO		bd		0.000
3	FUNCTION2 HPCD...	31.91	9.525e1					1.1	NO		bb		0.000
4	FUNCTION2 HPCD...	30.25	9.497e1					1.0	NO		bb		0.000
5	FUNCTION2 HPCD...	29.92	2.381e2					6.2	YES		db		0.000
6	FUNCTION2 HPCD...	29.83	3.050e2					4.4	YES		bd		0.000
7	FUNCTION2 HPCD...	29.21	1.185e2					1.3	NO		db		0.000
8	FUNCTION2 HPCD...	29.08	1.548e2					3.1	YES		dd		0.000
9	FUNCTION2 HPCD...	28.92	5.402e2					6.4	YES		bd		0.000
10	FUNCTION2 HPCD...	28.17	8.886e1					1.6	NO		bb		0.000
11	FUNCTION2 HPCD...	32.28	9.888e1					1.5	NO		db		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	35.95	1.256e2					3.8	YES		bb		0.000
2	FUNCTION3 OCDPE	33.06	2.263e2					8.2	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.78	2.013e2					3.4	YES		bb		0.000
2	FUNCTION4 NCDPE	38.69	1.350e2					2.4	NO		bb		0.000
3	FUNCTION4 NCDPE	38.36	8.618e4					1095.3	YES		bb		0.000

ETHERS6

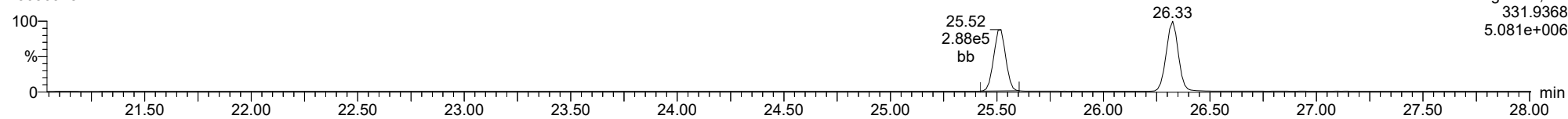
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	44.91	1.004e3					15.2	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

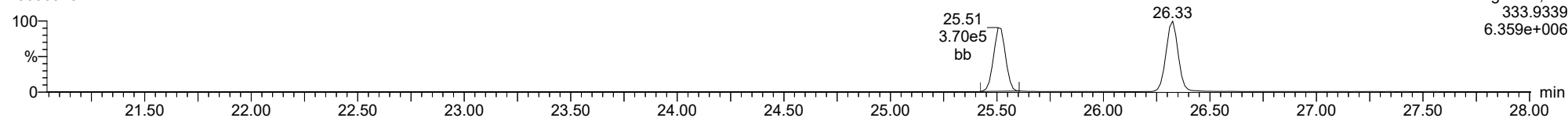
13C-1234-TCDD

23050928



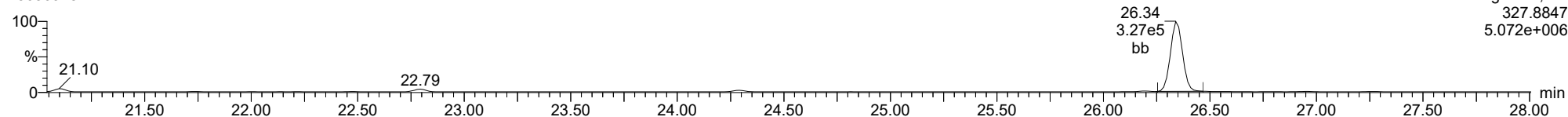
13C-1234-TCDD

23050928



37CL-2378-TCDD

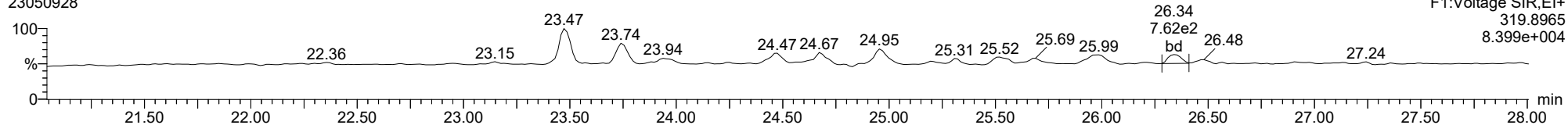
23050928



ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

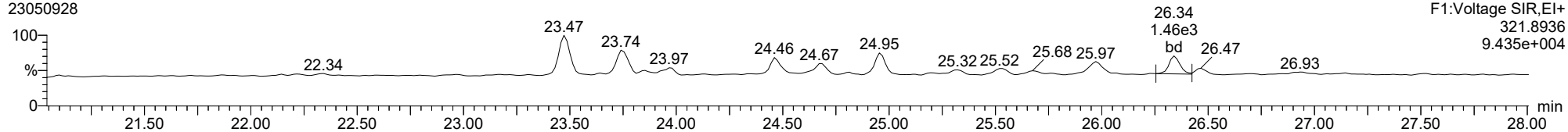
2378-TCDD

23050928



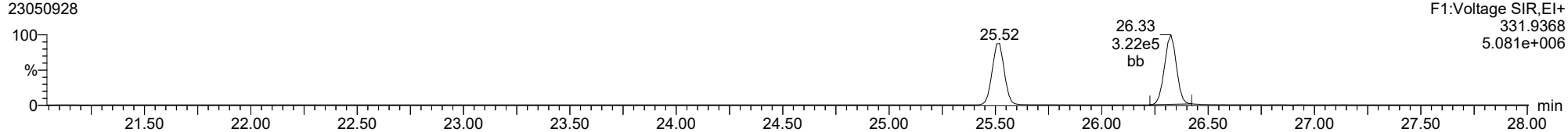
2378-TCDD

23050928



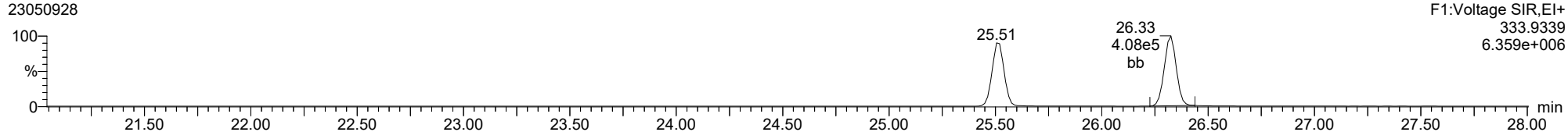
13C-2378-TCDD

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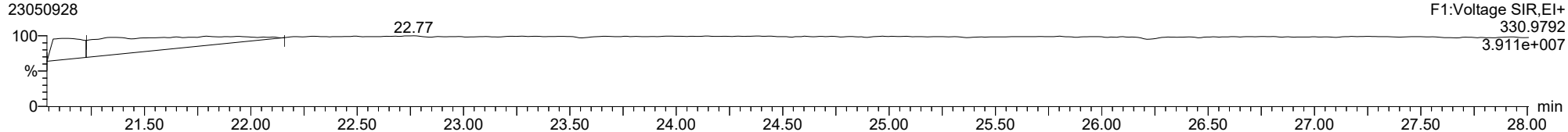
13C-2378-TCDD

23050928



FUNCTION1 PFK

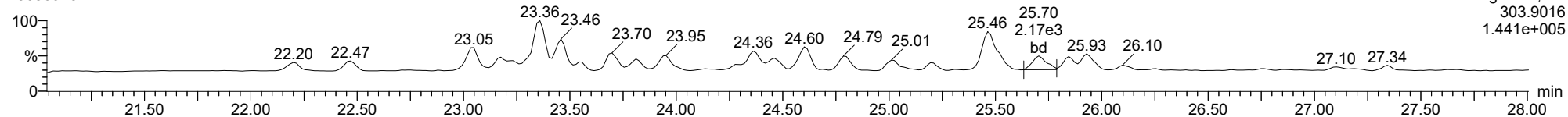
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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

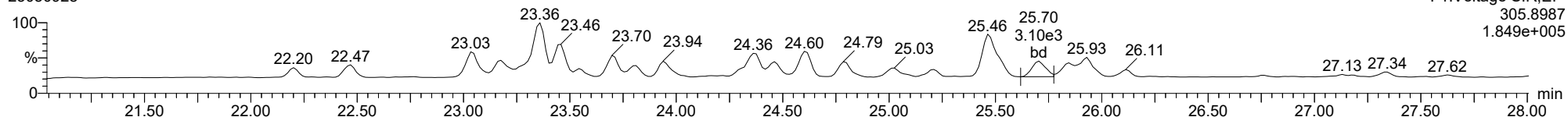
2378-TCDF

23050928



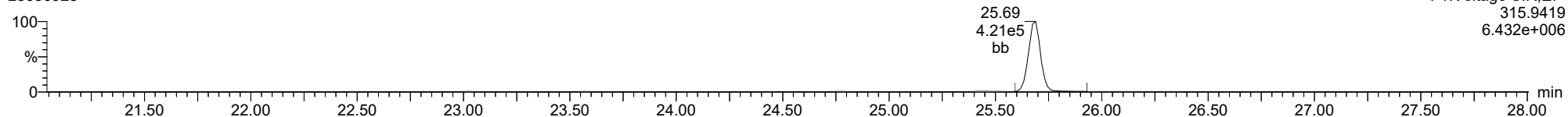
2378-TCDF

23050928



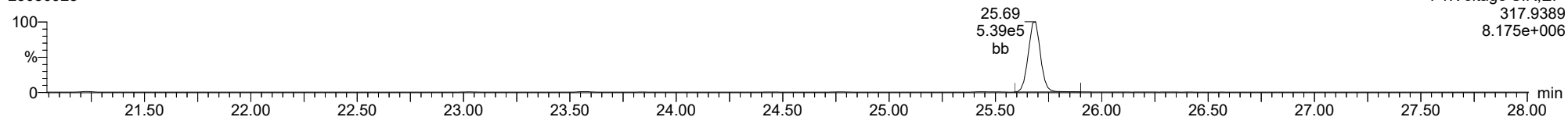
13C-2378-TCDF

23050928



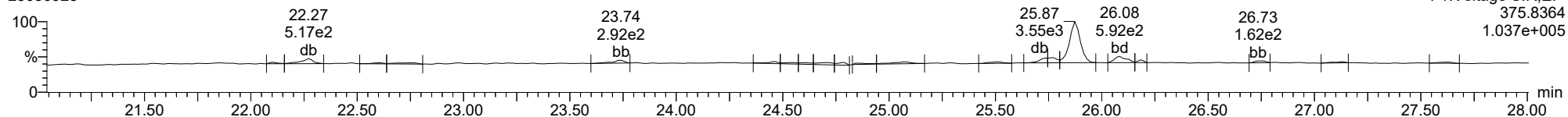
13C-2378-TCDF

23050928



FUNCTION1 HXCDPE

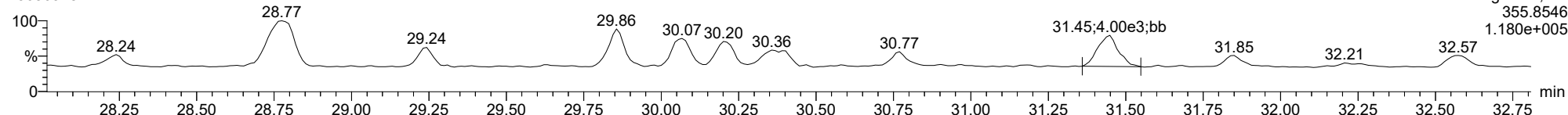
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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

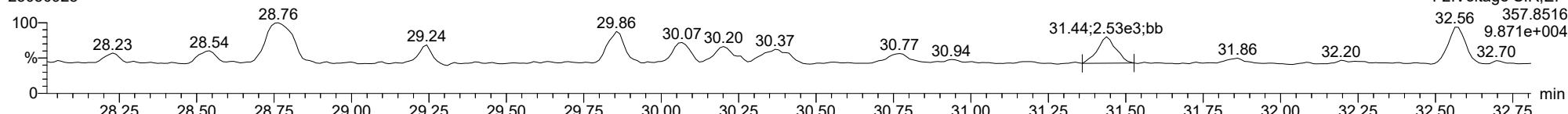
12378-PeCDD

23050928



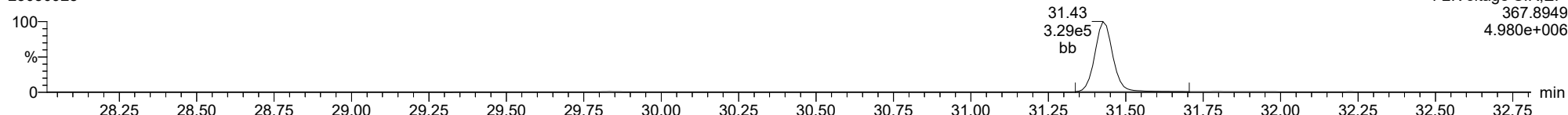
12378-PeCDD

23050928



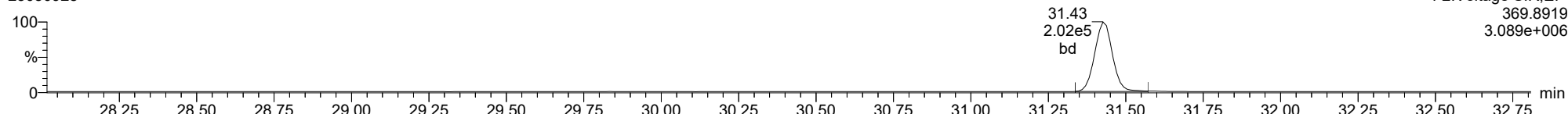
13C-12378-PeCDD

23050928



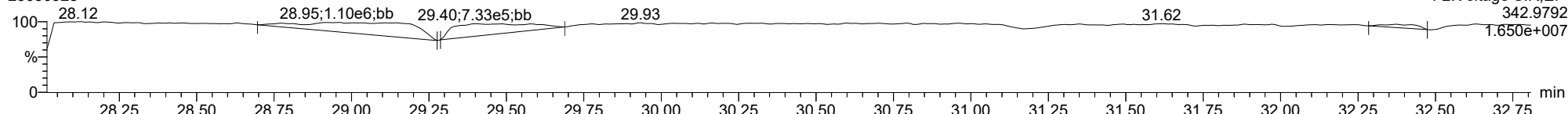
13C-12378-PeCDD

23050928



FUNCTION2 PFK

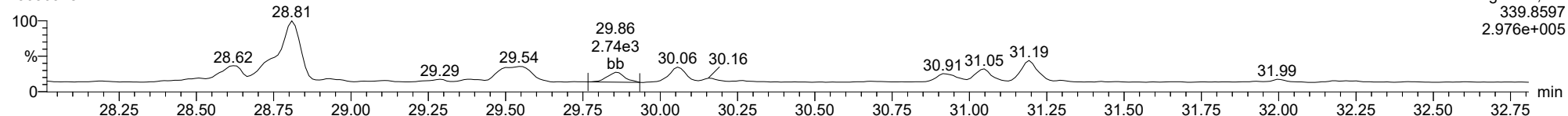
23050928



ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

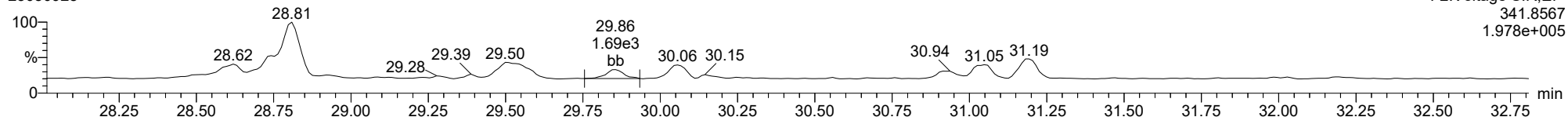
12378-PeCDF

23050928



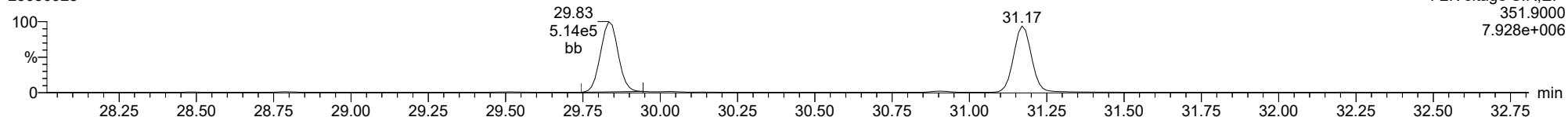
12378-PeCDF

23050928



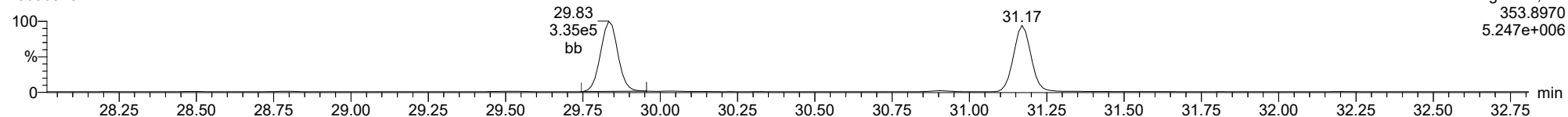
13C-12378-PeCDF

23050928



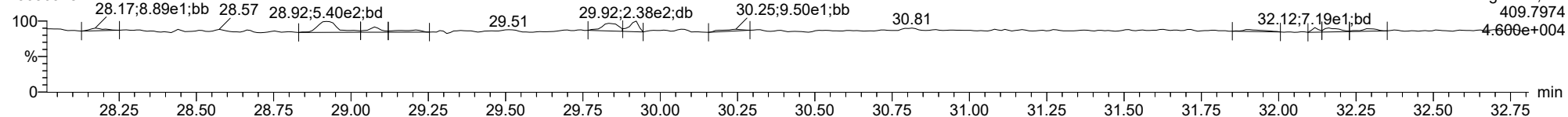
13C-12378-PeCDF

23050928



FUNCTION2 HPCDPE

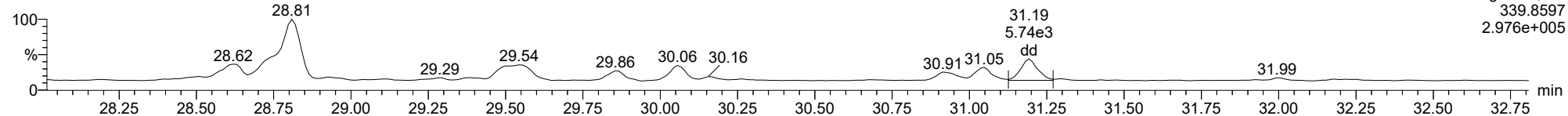
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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

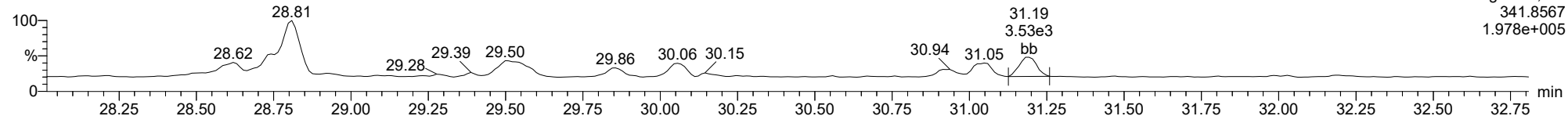
23478-PeCDF

23050928



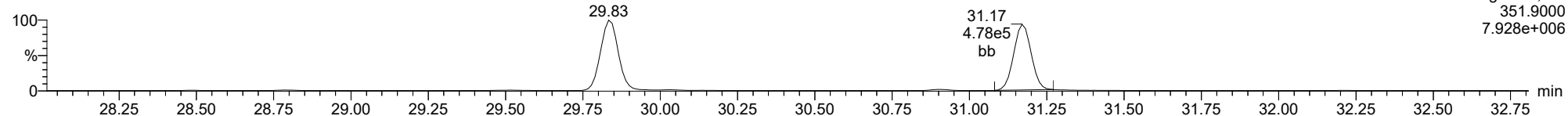
23478-PeCDF

23050928



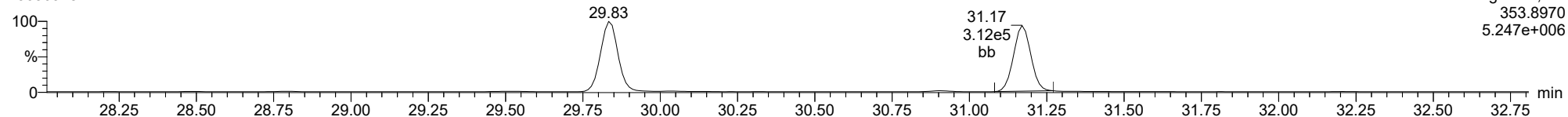
13C-23478-PeCDF

23050928



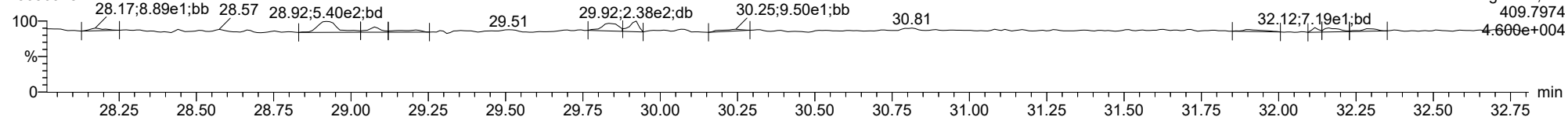
13C-23478-PeCDF

23050928



FUNCTION2 HPCDPE

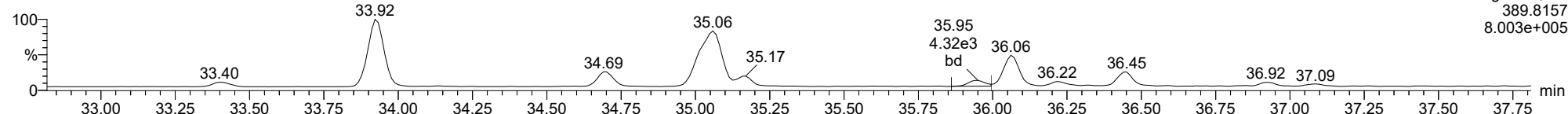
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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

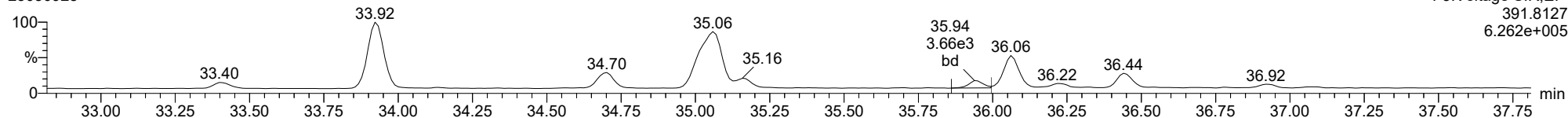
123478-HxCDD

23050928



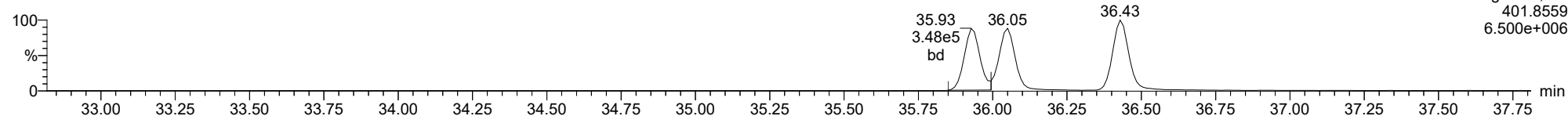
123478-HxCDD

23050928



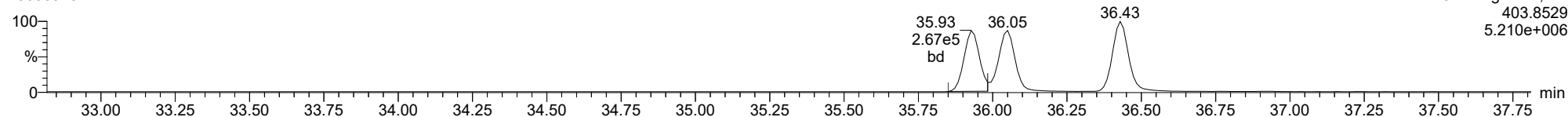
13C-123478-HxCDD

23050928



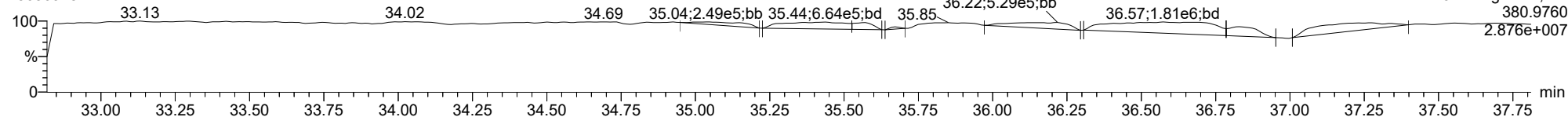
13C-123478-HxCDD

23050928



FUNCTION3 PFK

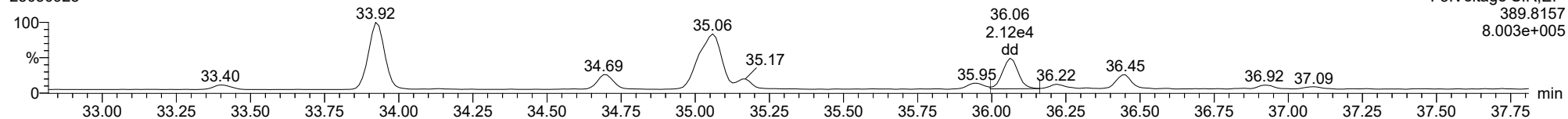
23050928



ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

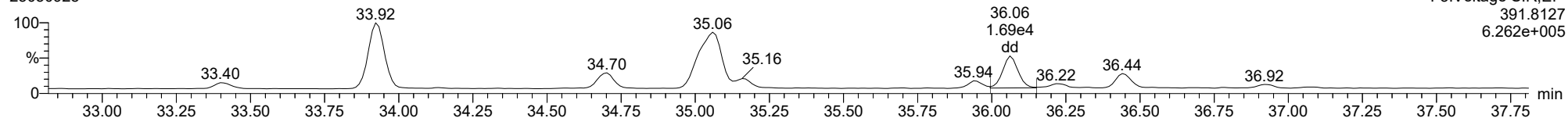
123678-HxCDD

23050928



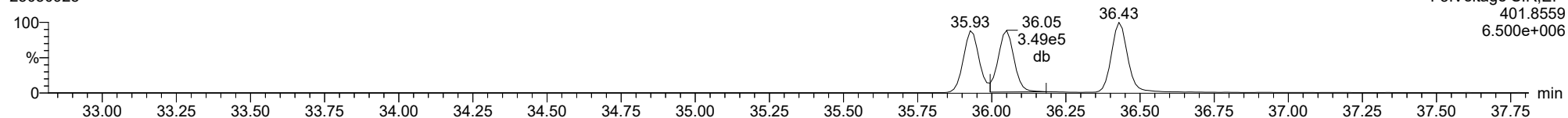
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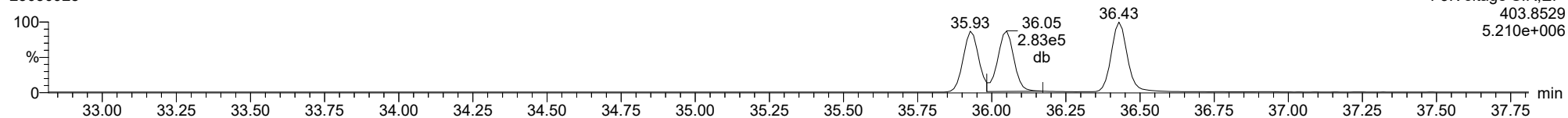
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13C-123678-HxCDD

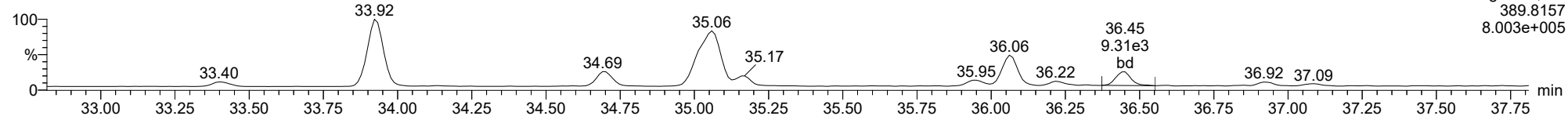
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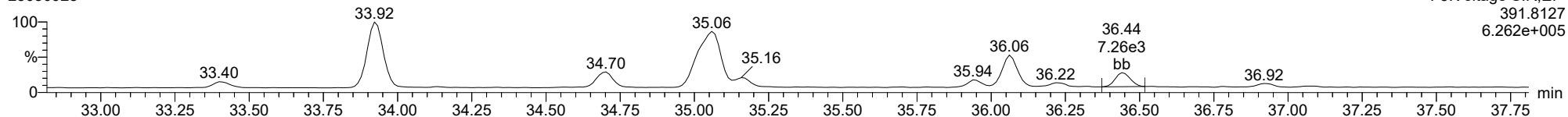
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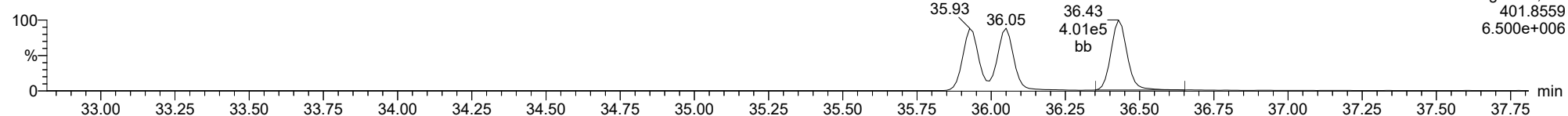
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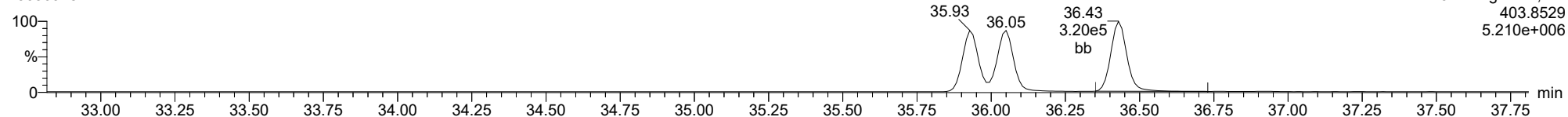
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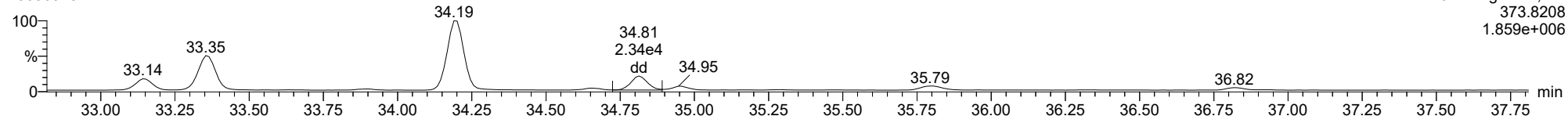
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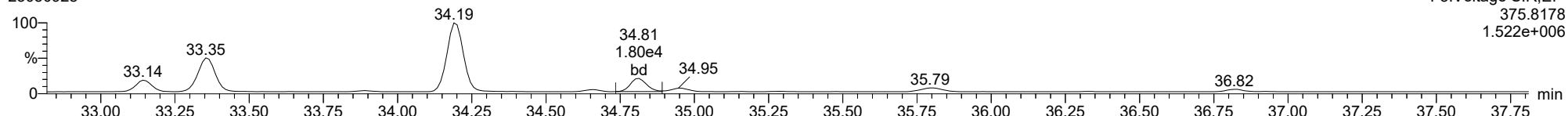
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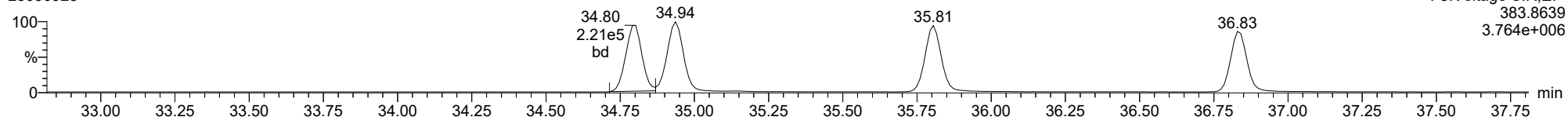
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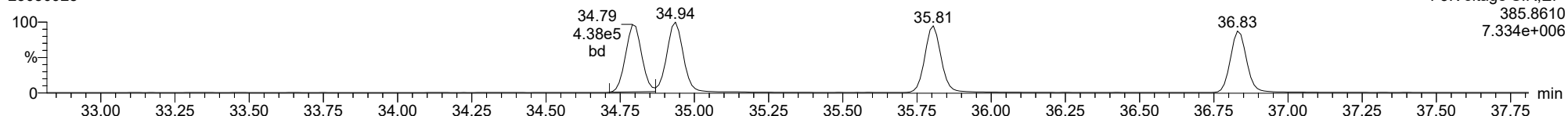
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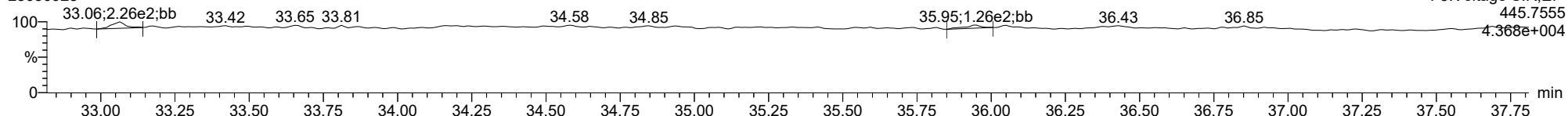
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FUNCTION3 OCDPE

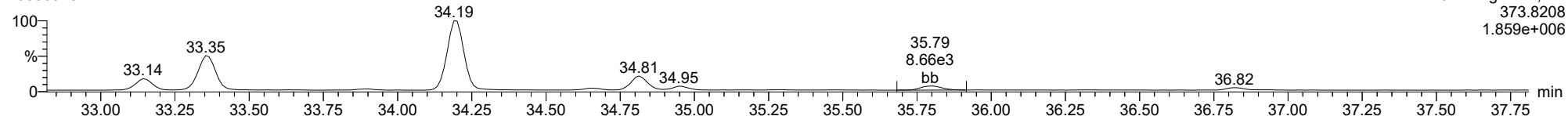
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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

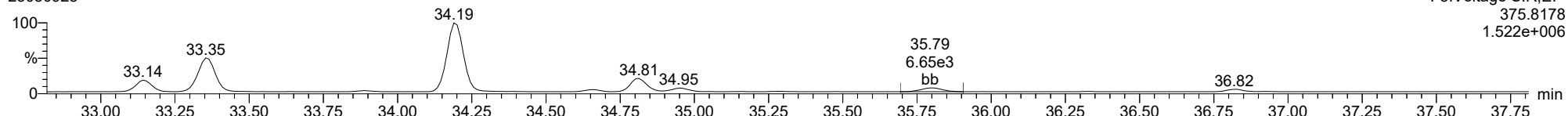
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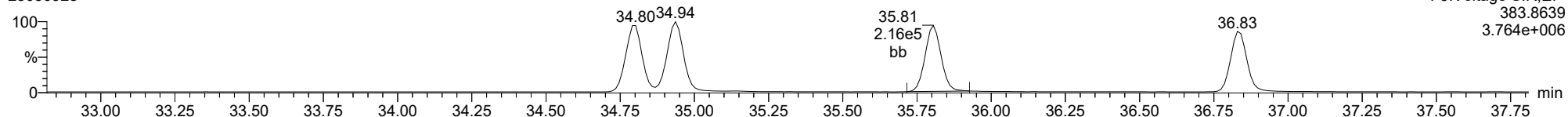
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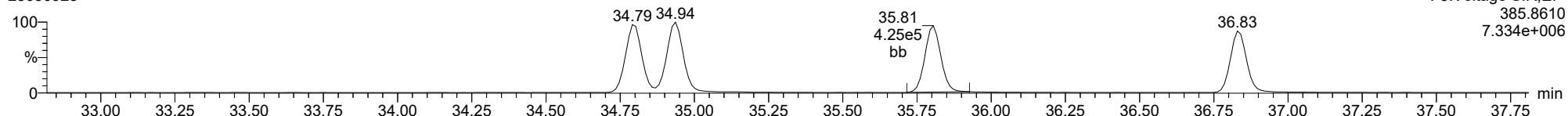
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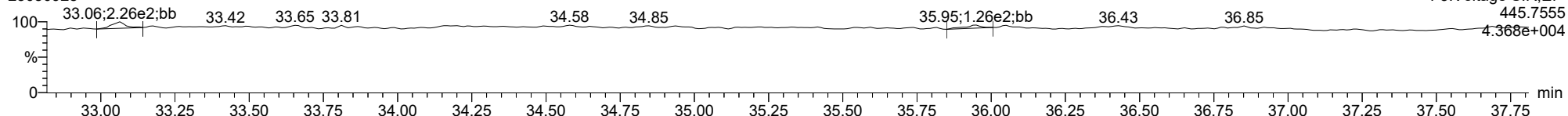
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FUNCTION3 OCDPE

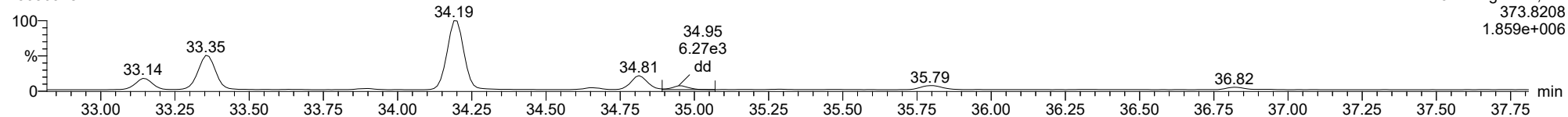
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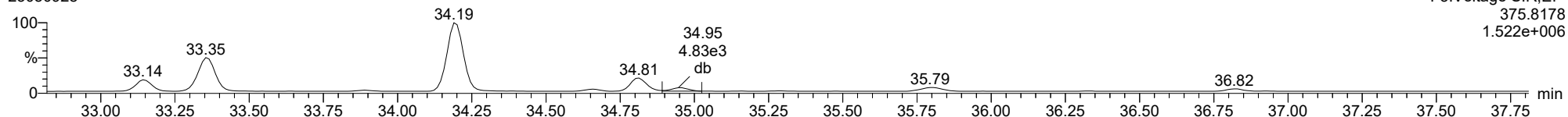
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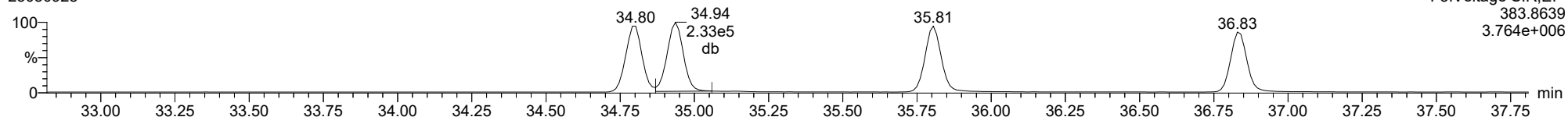
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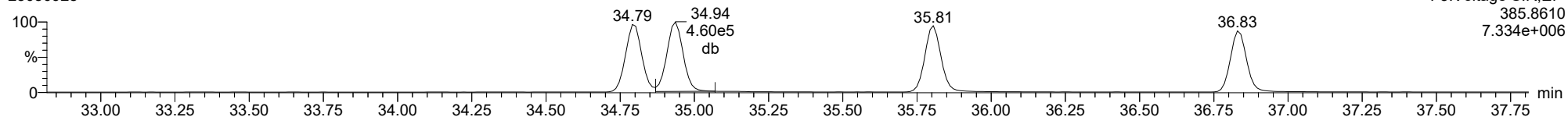
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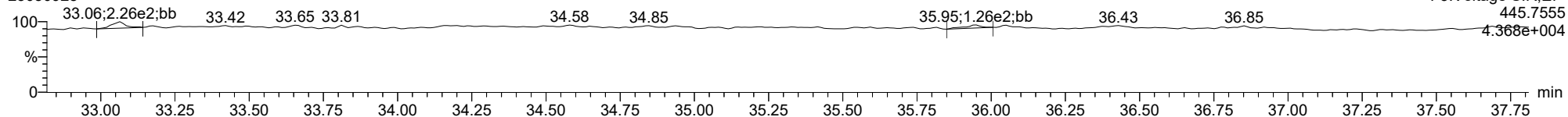
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FUNCTION3 OCDPE

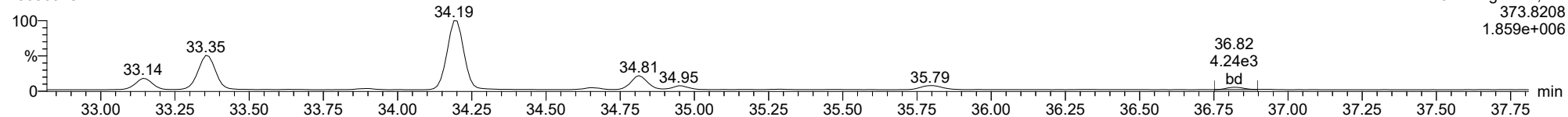
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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

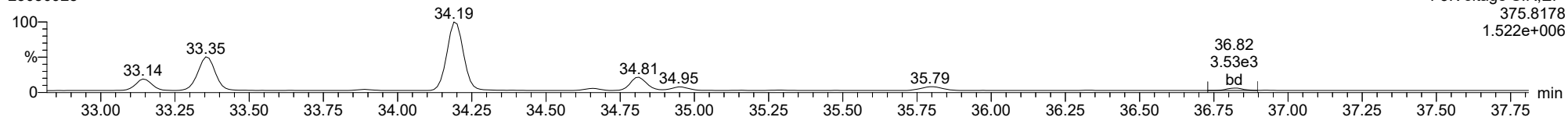
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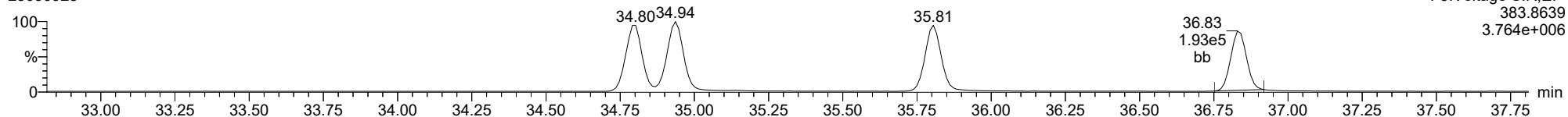
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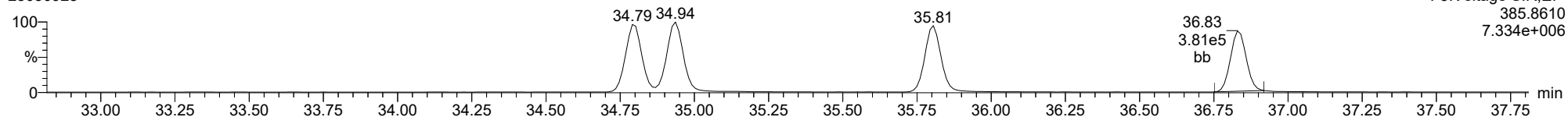
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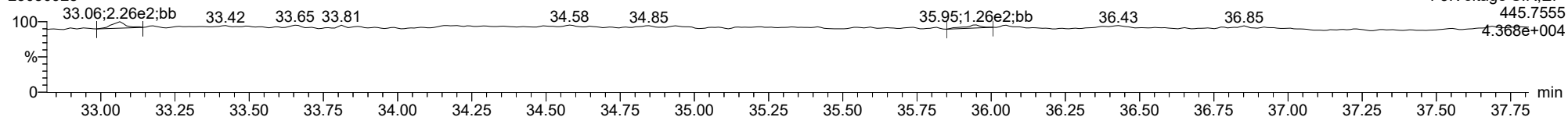
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FUNCTION3 OCDPE

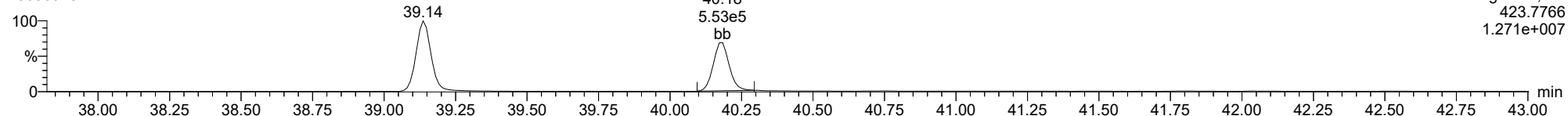
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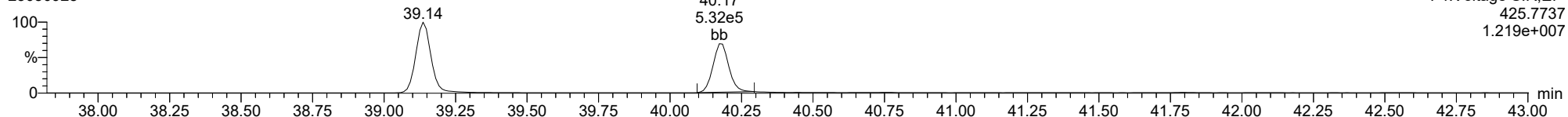
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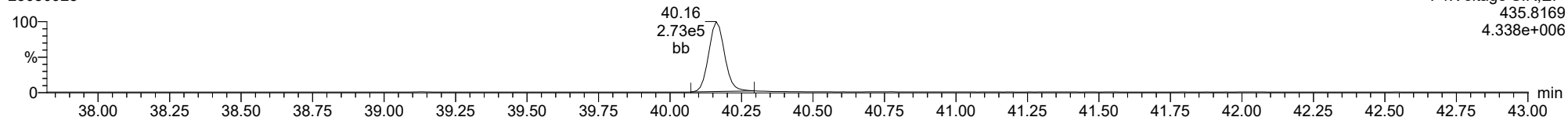
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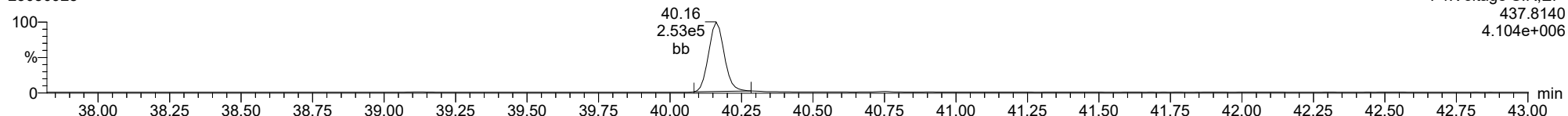
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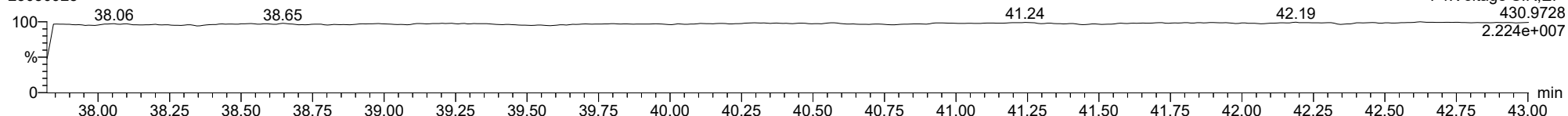
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FUNCTION4 PFK

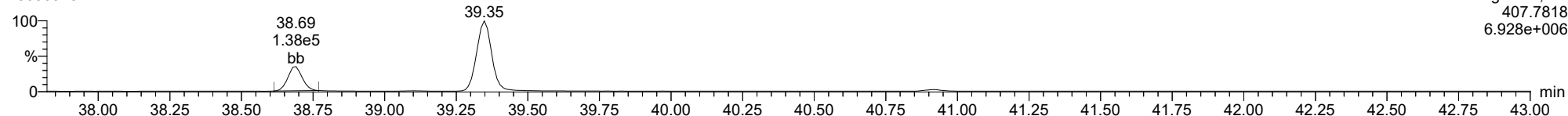
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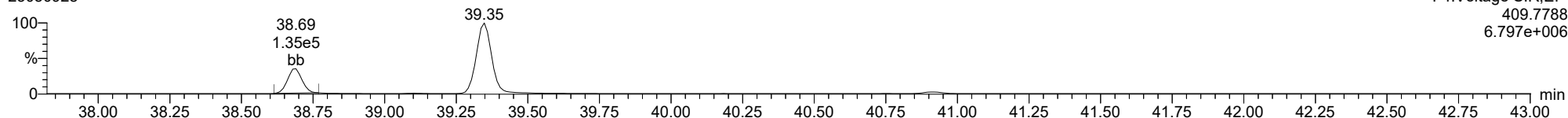
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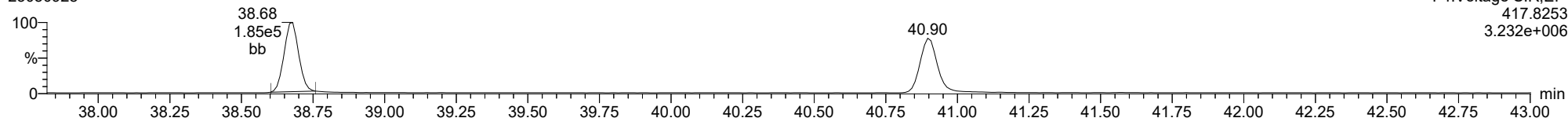
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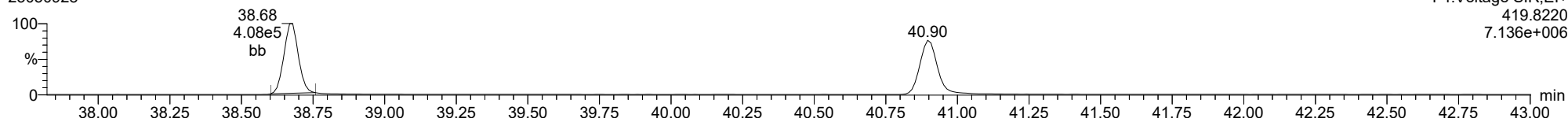
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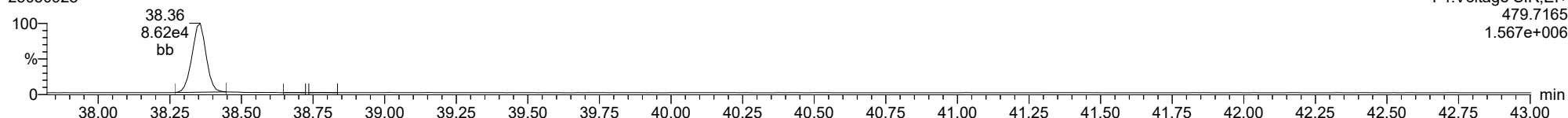
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FUNCTION4 NCDPE

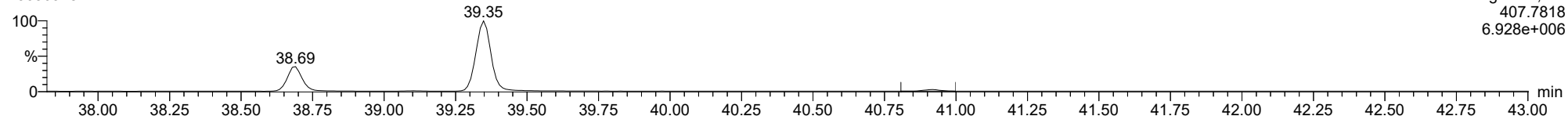
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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

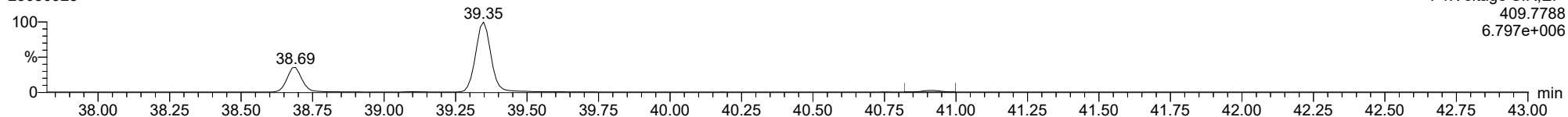
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F4:Voltage SIR,EI+
407.7818
6.928e+006

1234789-HpCDF

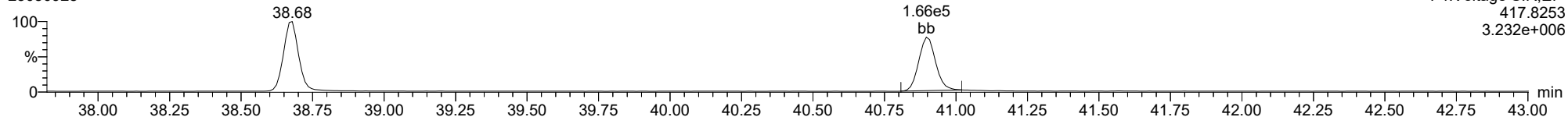
23050928



F4:Voltage SIR,EI+
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6.797e+006

13C-1234789-HpCDF

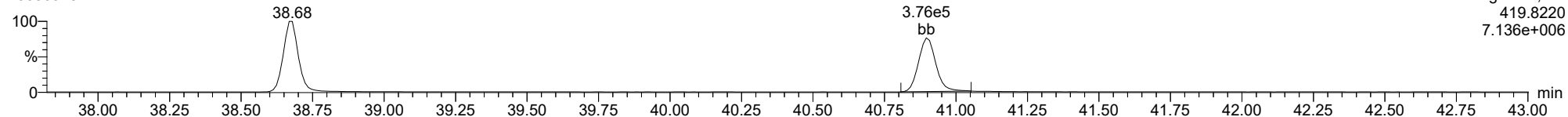
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F4:Voltage SIR,EI+
417.8253
3.232e+006

13C-1234789-HpCDF

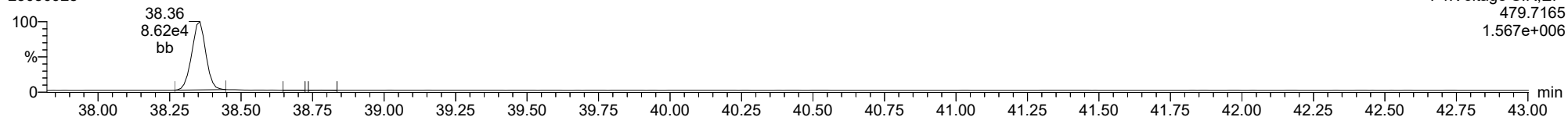
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F4:Voltage SIR,EI+
419.8220
7.136e+006

FUNCTION4 NCDPE

23050928

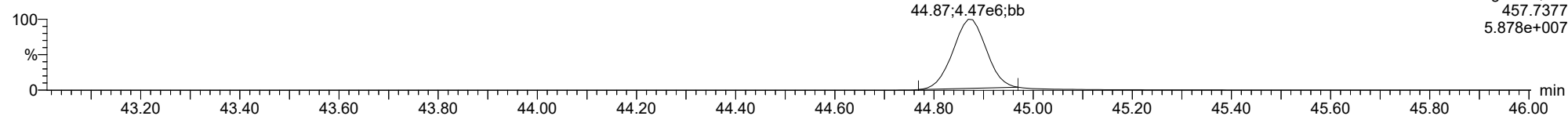


F4:Voltage SIR,EI+
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ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

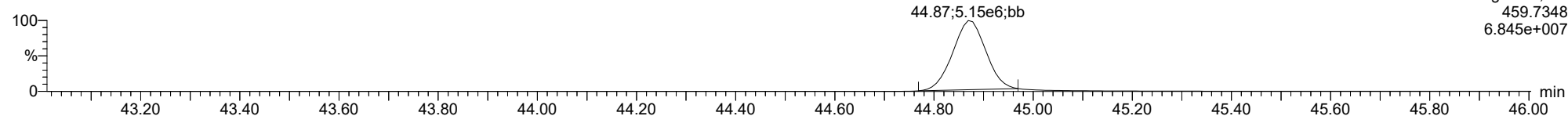
OCDD

23050928



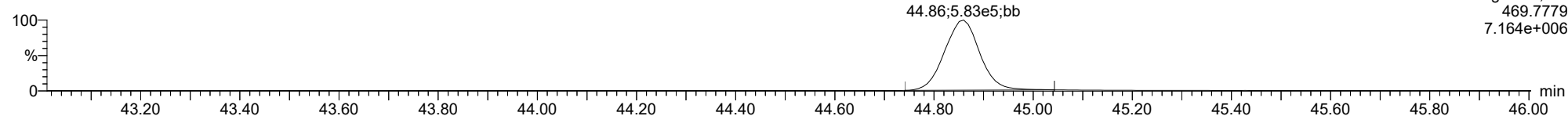
OCDD

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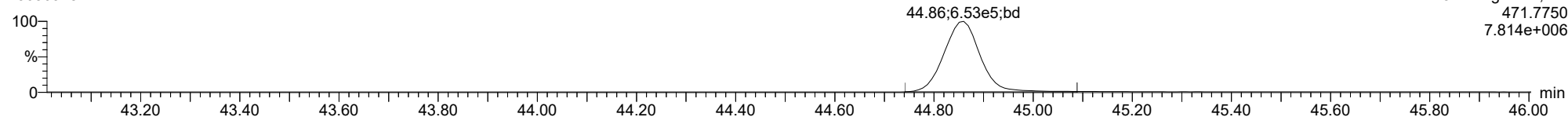
13C-OCDD

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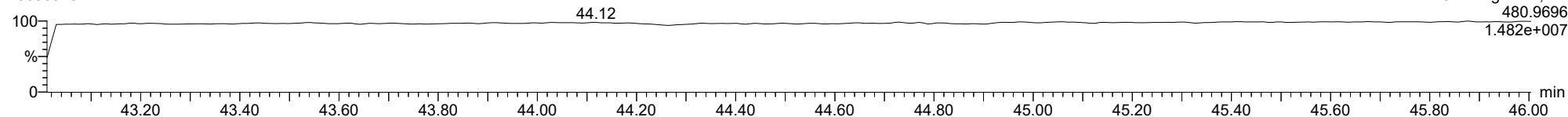
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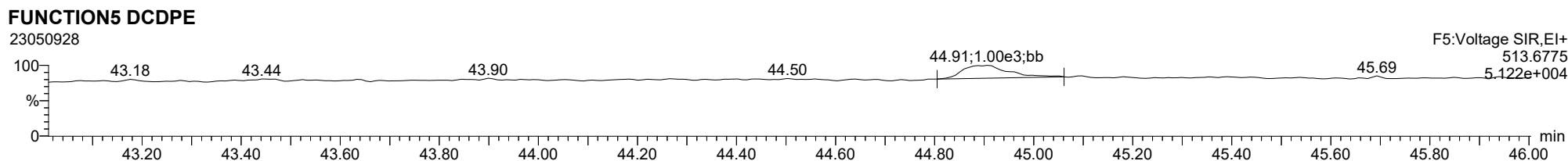
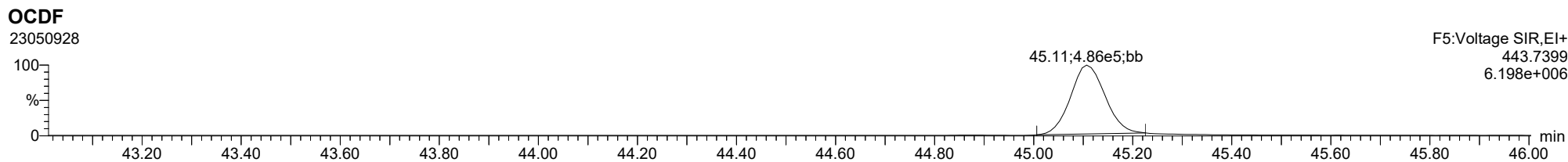
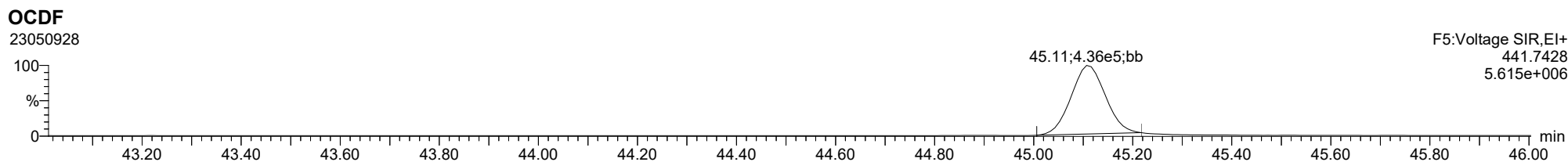


FUNCTION5 PFK

23050928



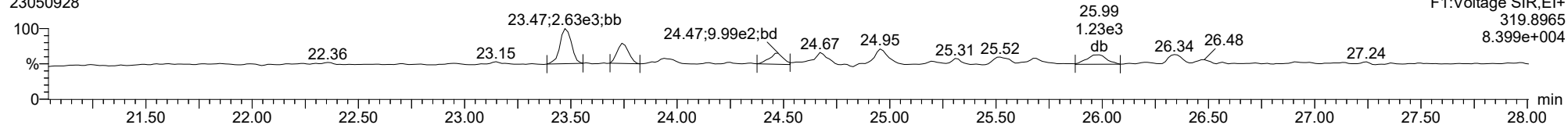
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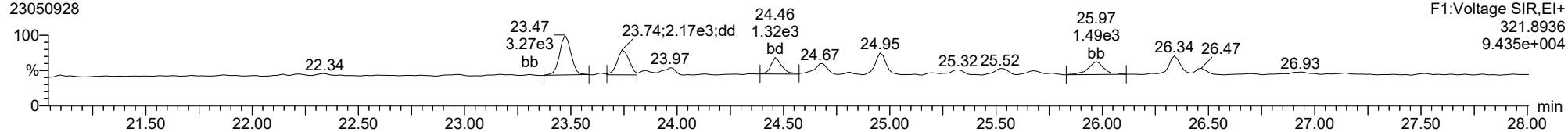
Total-tetradioxins

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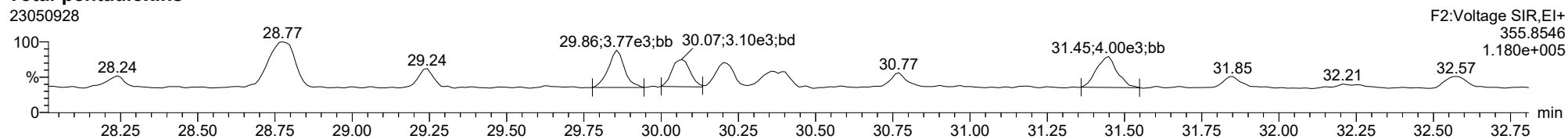
Total-tetradioxins

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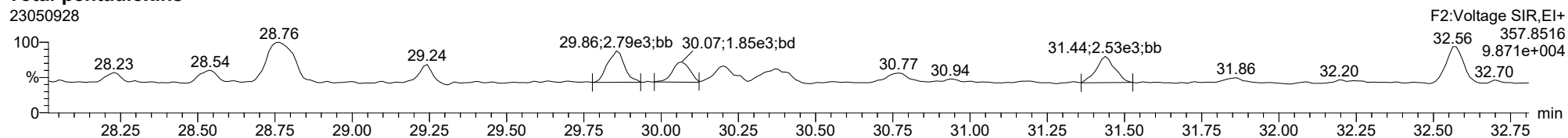
Total-pentadioxins

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Total-pentadioxins

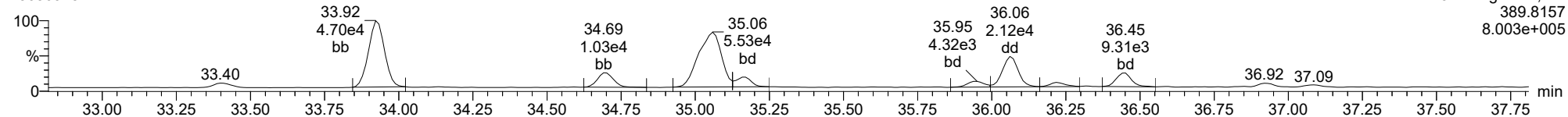
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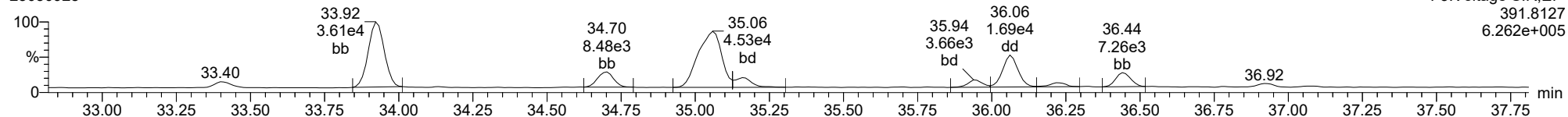
Total-hexadioxins

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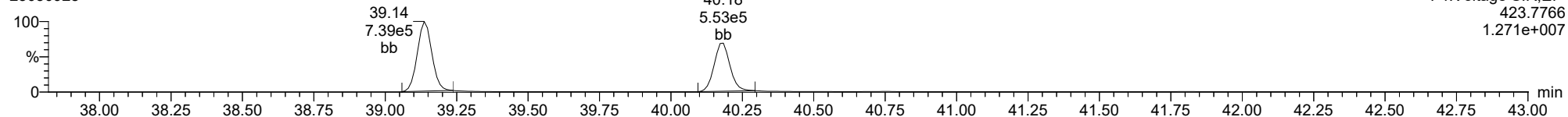
Total-hexadioxins

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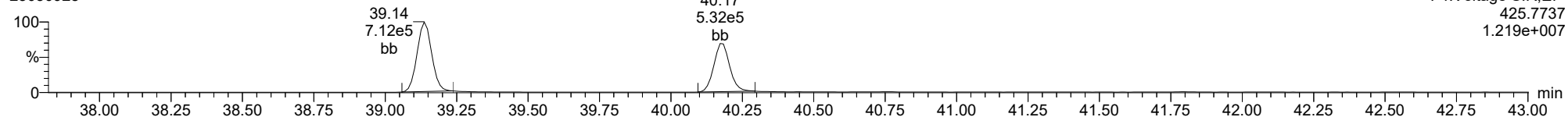
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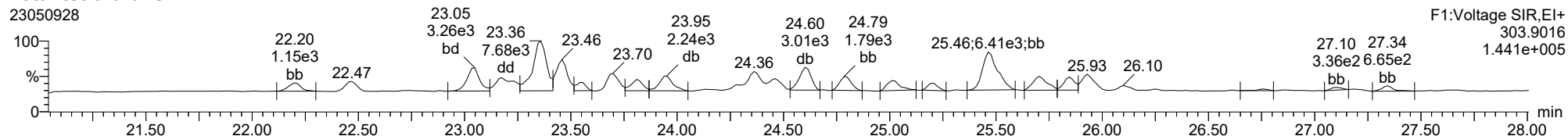
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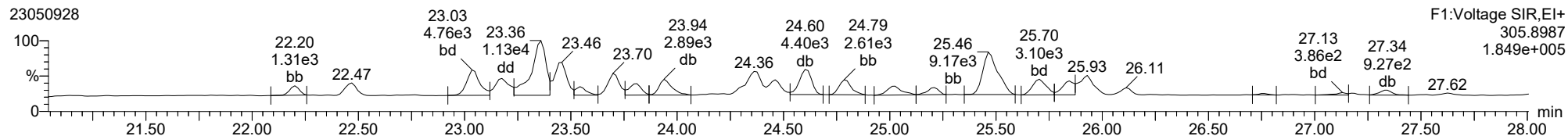


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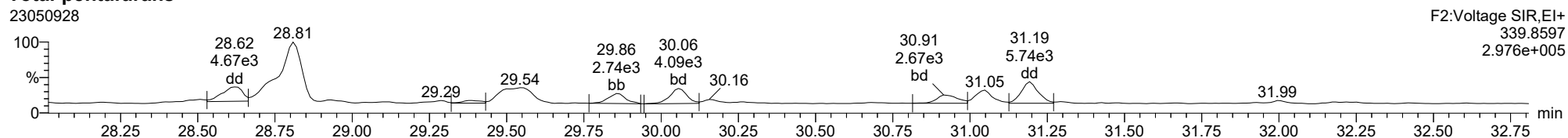
Total-tetrafurans



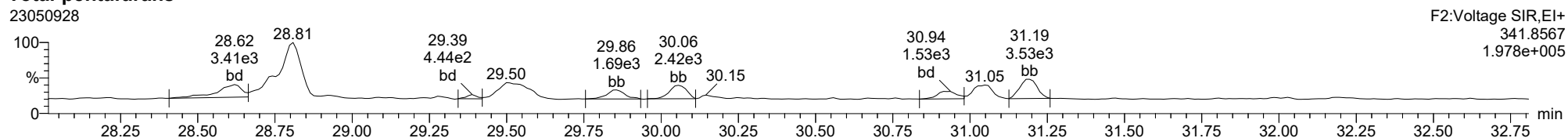
Total-tetrafurans



Total-pentafurans



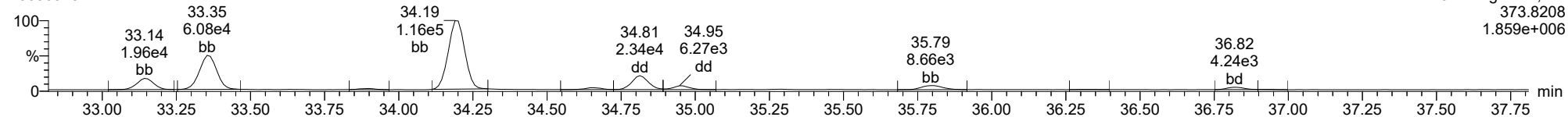
Total-pentafurans



ID: 23D0136-01, Name: 23050928, Date: 10-May-2023, Time: 11:11:26, Conditions: AUTOSPEC01, User: pk

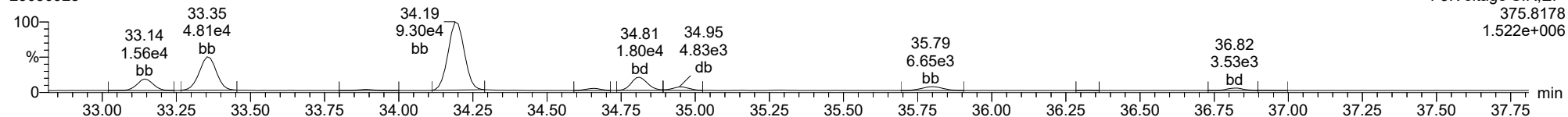
Total-hexafurans

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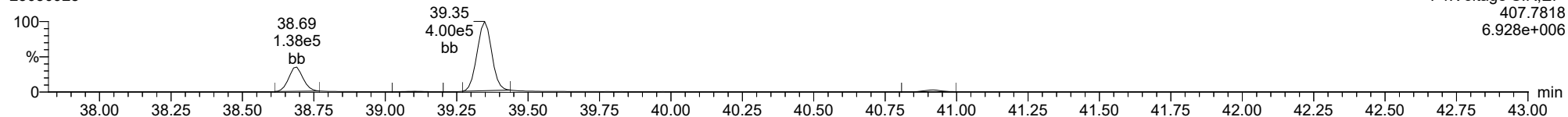
Total-hexafurans

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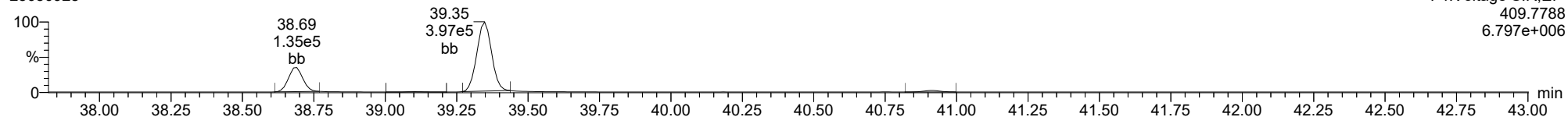
Total-heptafurans

23050928



Total-heptafurans

23050928





PREPARATION BATCH SUMMARY
EPA 1613B

Laboratory: Analytical Resources, LLC SDG: 23D0136
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLD0657 Batch Matrix: Solid Preparation: EPA 1613

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	23050928	04/25/23 14:15	From BLD0240 by NPL on 24-Apr-2023
Blank	BLD0657-BLK2	23050121A	04/25/23 14:15	
LCS	BLD0657-BS2	23050122A	04/25/23 14:15	
Reference	BLD0657-SRM1	23050924	04/25/23 14:15	



Analytical Resources, LLC
Analytical Chemists and Consultants

HRGCMS Dioxin/Furan Preparation Bench Sheet EPA Methods 8290A, 1613B or HRSM02.1

Batch: BLD0657

Solid Samples

From BLD0240 on 24-Apr-2023 by NPL

ARI Work Orders: 23C0761,23C0765,23D0063,23D0136

Matrix (circle one) Soil Sediment Oil Tissue

Extraction Method Soxhlet SepF Shake out

Start Date/Time: 4/25/23 14:15 **End Date/Time:** 4/26/23 0626

Reagents/Equipment Used	NA	ID / Lot Number	Initials	Date
Glasswool		J012850	TW	5/11/23
Basic Silica		L000710	TW	5/11/23
Acid Silica		L0004519	TW	5/11/23
Activated Florisil		R005956	TW	5/11/23
Balance		24650344	TW	4/25/23
Toluene		L003023	TW	4/25/23
Hexane		L003500	TW	4/26/23
CH2Cl2		L002621	TW	5/11/23
H2SO4		L001033 L001033	TW	4/26/23
Na2SO4		L003875	TW	4/25/23
Other (RM)		L001275	TW	4/25/23
0% Silica		L002081	TW	5/11/23
Nonane		H006038	TW	5/11/23

Lab Number & Container	Sample Name	% Solids	Sample Weight Equal to dry (g)		RotoVap 45 °C	Water Trap Vol (mL)	Final Vol. (uL)
			(Target Dry)	Actual			
23C0761-03 A	PCB988	81.07	(12.34)	12.34	1/2	2.0	20
23C0761-08 A	PCB9C0	85.82	(11.65)	11.68	1/2	1.5	20
23C0761-09 A	PCB9C1	63.95	(15.64)	15.65	1/2	4.5	20
23C0765-03 A	PCB9C2	67.15	(14.89)	14.93	1/2	4.5	20
23C0765-06 A	PCB9C7	70.64	(14.16)	14.16	1/2	4.0	20
23D0063-01 C	LDW23-SS1818	40.43	(24.73)	24.74	1/2	12.0	20
23D0063-01B C	LDW23-SS1818	40.43	(24.73)	24.74	1/2	12.0	20
23D0063-03 C	LDW23-SS1819	35.65	(28.05)	28.06	1/2	12.0	20
23D0136-01 A	LDW23-SS1804	48.26	(20.72)	20.74	1/2	7.5	20
BLD0657-BLK1	DBLK25	100	0		1/2	0.0	20
BLD0657-BS1	DLCS25	100	0		1/2	0.0	20
BLD0657-BSD1	DLCS25	100	0		1/2	0.0	20
BLD0657-DUP1	23D0063-01C Duplicate	40.43	(24.73)	24.74	1/2	12.0	20
BLD0657-SRM1	Reference	100	0	10.03	1/2	0.0	20
Prep Analyst / Date:				TW 4/25/23		TW 4/26/23	

Standards Used	Vol	ID / Lot Number	Concentration	Expiration Date	Analyst	Witness	Date
Recovery Standard	1.0 mL	L003529	2/4 ng/mL	4/5/24	TW	AL	4/25/23
OPR	1.0 mL	L000046	0.2/1.0/2.0 ng/mL	1/3/24	TW	AL	4/25/23
QCS Standard	1.0 mL	0018.03/0.1 ng/mL/5 ng/mL					
Clean-up Standard	1.0 mL	L003530	0.8 ng/mL	4/5/24	TW	LD	5/11/23

Verify Client ID

Analyst / Date: TW 4/25/23

Acid Clean

Analyst / Date: TW Y N 4/26/23

Silica-Florisil Clean

Analyst / Date: TW Y N 5/11/23

Alfred 5/1/23
Supervisor Review By Date



Batch: BLD0657

Solid Samples

From BLD0240 on 24-Apr-2023 by NPL

ARI Work Orders: 23C0761,23C0765,23D0063,23D0136

Matrix (circle one) Soil Sediment Oil Tissue

Extraction Method Start Date/Time: End Date/Time:

Soxhlet SepF Shake out

Reagents/Equipment Used	NA	ID / Lot Number	Initials	Date
Glasswool				
Basic Silica				
Acid Silica				
Activated Florisil				
Balance		24650344		
Toluene				
Hexane				
CH2Cl2				
H2SO4				
Na2SO4				
Other (RM)				
0% Silica				
Nonane				

Lab Number & Container	Sample Name	% Solids	Sample Weight Equal to dry (g) (Target Dry) Actual	RotoVap 45 °C	Water Trap Vol (mL)	Final Vol. (uL)
23C0761-03 A	PCB988	81.07	(12.34)	1 / 2		20
23C0761-08 A	PCB9C0	85.82	(11.65)	1 / 2		20
23C0761-09 A	PCB9C1	63.95	(15.64)	1 / 2		20
23C0765-03 A	PCB9C2	67.15	(14.89)	1 / 2		20
23C0765-06 A	PCB9C7	70.64	(14.16)	1 / 2		20
23D0063-01 C	LDW23-SS1818	40.43	(24.73)	1 / 2		20
23D0063-01 REF C	LDW23-SS1818	40.43	(24.73)	1 / 2		20
23D0063-03 C	LDW23-SS1819	35.65	(28.05)	1 / 2		20
23D0136-01 A	LDW23-SS1804	48.26	(20.72)	1 / 2		20
BLD0657-BLK1	DBLK25	100	0	1 / 2		20
BLD0657-BS1	DLCS25	100	0	1 / 2		20
BLD0657-BSD1	DLCSD25	100	0	1 / 2		20
BLD0657-DUP1	23D0063-01C Duplicate	40.43	(24.73)	1 / 2		20
BLD0657-SRM1	Reference	100	0	1 / 2		20

Prep Analyst / Date:

Standards Used	Vol	ID / Lot Number	Concentration	Expiration Date	Analyst	Witness	Date
Recovery Standard	1.0 mL		2/4 ng/mL				
OPR	1.0 mL		0.2/1.0/2.0 ng/mL				
QCS Standard	1.0 mL		0.1/0.05/0.1 ng/mL				
Clean-up Standard	1.0 mL		0.8 ng/mL				

Verify Client ID

Analyst / Date:

Acid Clean
 Y N

Analyst / Date:

Silica-Florisil Clean
 Y N

Analyst / Date:

Supervisor Review By Date



Batch ID: BLD0657

Work Order: 23C0761, 23C0765, 23D0063, 23D0136

Extraction Parameter: Dioxin

ARI Analyst: TW

ARI Sample ID	300 mL Flat Bottom	Small Soxhlet	Large Soxhlet	250 mL Beaker	Funnel	Column	Florisil Column	Turbo Tube	Sep Funnel	Erlenmeyer Flask	Centrifuge Bottle	Turbo-Vap	Vortex Mixer	Heating Mantle
BLD0657 - BLK1	83	7		4	21	229	115	35				4	4	A1
- BSI	19	59		32	67	35	4	71				4	4	A2
- BSD1	16	60		33	82	43	103	81				4	4	A3
- DCP1	9		32	12	26	42	158	83				4	4	A5
- SRM1	60	25		23	30	185	164	28				4	4	A6
23C0761 - 03	59	94		20	19	24	21	39				4	4	B1
- 08	8	79		50	11	57	36	76				4	4	B2
- 09	21	46		9	76	121	63	5				4	4	B3
23C0765 - 03	56	27		30	14	34	35	58				4	4	B4
- 06	11	74		27	88	27	61	37				4	4	B5
23D0063 - 01	7		68	19	47	72	71	82				4	4	B6
- 03	15		35	51	70	44	64	41				4	4	C1
23D0136 - 01	43		1	18	61	15	123	10				4	4	C2
												4	4	
												4	4	
												4	4	
												4	4	
												4	4	
												4	4	
												4	4	
												4	4	
												4	4	



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Dioxin Extraction Laboratory – Glassware

Batch ID: BLOWZ48 Work Order: Z309701, Z308705, Z300003, Z300136 Extraction Parameter: DIOXIN ARI Analyst: LO

ARI Sample ID	300 mL Flat Bottom	Small Soxhlet	Large Soxhlet	250 mL Beaker	Funnel	Column	Florisil Column	Turbo Tube	Sep Funnel	Erlenmeyer Flask	Centrifuge Bottle	Turbo-Vap	Vortex Mixer	Heating Mantle
BLOWZ48 - BLK1	9	27	/	9	14	220	4	32	/	/	/	4	4	A1
-BS1	10	25		24	82	42	37	33				4	4	A2
-BS01	46	24		58	67	15	54	28				4	4	A3
-DVP1	34	10		51	70	20	104	71				4	4	A4
-SRM1	14	94		29	38	43	67	8				4	4	A5
Z308701 - 03A	2	46		49	65	78	63	35				4	4	B1
-03A	19	79		88	11	41	37	83				4	4	B2
-09A	48	7		1	19	191	142	29				4	4	B3
Z308705 - 05A	32	74		18	88	34	61	18				4	4	B4
-06A	30	88		6	40	57	64	82				4	4	B5
Z300003 - 01C	25	/	24	19	24	31	29	81	4	4	B6			
-03C	20	/	60	52	62	27	87	34	4	4	C1			
Z300136 - 01A	39	60	32	37	59	121	183	41	/	/	4	4	C2	
											4	4		
											4	4		
											4	4		
											4	4		
											4	4		
											4	4		
											4	4		
											4	4		
											4	4		

TOTAL SOLIDS BENCHSHEET						Batch:	BLD0086		
Method HRSM01.2 (dry at 110 C)						Date:	4/10/2023 0:00		
Instrumentation						Analyst:	LD		
						Drying Oven:	18		
						Analytical Balance:	24650344		
Batch drying time			Oven Temp, C				TS (%) calculated as:		
Record times as mm/dd/yy hh:mm			Final dry wt (g) = (Dry Wt - Tare Wt)				Oven Temps, °C		
Date/time in oven:	4/10/2023 14:41		108	TS = (Final Dry Wt X 100)/(sample & dish -dish tare)				Start Temp:	108
Date/time out:	4/11/2023 7:14		111					End Temp:	111
Elapsed hrs:	16.5								
SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted			
23C0761-0801	0.7900	11.6700	9.6100	8.82	81.07%	No			
23C0765-06	0.8000	11.8700	8.6200	7.82	70.64%	No			
23D0063-01	0.8000	10.9900	4.9200	4.12	40.43%	No			
23D0063-03	0.8400	11.7800	4.7400	3.90	35.65%	No			
23D0136-01	0.8300	11.4800	5.9700	5.14	48.26%	No			

TOTAL SOLIDS BENCHSHEET						Batch:	BLD0088
Method HRSM01.2						Date:	4-18-23
(dry at 110 C)						Analyst:	LD
Instrumentation						Drying Oven:	18
						Analytical Balance:	Z4650344
Batch drying time			Oven Temp, C	TS (%) calculated as:		Oven Temps, °C	
Record times as mm/dd/yy hh:mm				Final dry wt (g) = (Dry Wt - Tare Wt)		Start Temp: 108	
Date/time in oven:	09/10/23	14:41	108	TS = (Final Dry Wt X 100) / (sample & dish - dish tare)		End Temp: 111	
Date/time out:	09/11/23	7:14	111				
Elapsed hrs:	0.0						
SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted	
23C0761-01	0.79	11.67	9.01			No	
23C0765-06	0.88	11.87	8.62			No	
23D0063-01	0.98	10.99	4.92			No	
23D0063-03	0.94	11.78	4.74			No	
23D0136-01	0.85	11.48	8.97			No	



Extraction Parameter: Dioxin Extraction Batch: BLD0657
~~BLD065~~
in 5/12/23

Total Solids Batch: BLD086 Work Order(s): 23C0761, 765, 23D063, 130

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>23C0761-08A, 23C0765-03A</u>	<u>u 5/12/23</u>
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>1 mL in 761-06, 5 mL in 761-03 & 130-01</u> <u>~10 mL in 063-01 and -03</u>	<u>LD 4/11/23</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)= <u>u 5/12/23 23C0765-03A</u>	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input checked="" type="checkbox"/> Rocks (%+size)? <u>~1" in 130-01, 1/2" in 765-06, 1/4" in 761-03</u>	<u>LD 4/11/23</u>
<input checked="" type="checkbox"/> Organics (Leaves/sticks/grass)= <u>23C0761-09</u>	<u>u 5/12/23</u>
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>skunky odor in 761-03, 063-01 & 03</u>	<u>LD 4/11/23</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input checked="" type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<u>sample 063-01 went dry due to broken solvent. zero water in water trap.</u>	<u>LD 4/13/23</u>
<u>- sample 765-03 = bump on recovery, loss of ~10% completely</u>	<u>LD 4/13/23</u>
<u>765-03 = Bump on Recovery < 5% loss</u>	<u>JW 4/26/23</u>
<input type="checkbox"/> Share Samples Y / N	
<input type="checkbox"/> Multiple Jars Y / N	
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLD0095

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	23050928	04/14/2023	



CLEANUP BENCH SHEET

CLD0095

Matrix: Solid Cleanup using: HRGCMS - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 4/17/2023 9:30:25AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23C0761-03	A	PCB988	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0761-08	A	PCB9C0	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0761-09	A	PCB9C1	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0765-03	A	PCB9C2	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0765-06	A	PCB9C7	A 01	20	20	HRSM02.x	4/14/2023	LD	
23D0063-01	C	LDW23-SS1818	C 01	20	20	HRSM02.x	4/14/2023	LD	
23D0063-01	C	LDW23-SS1818	C 01	20	20	1613B Dioxin	4/14/2023	LD	
23D0063-03	C	LDW23-SS1819	C 01	20	20	1613B Dioxin	4/14/2023	LD	
23D0136-01	A	LDW23-SS1804	A 01	20	20	1613B Dioxin	4/14/2023	LD	
BLD0240-BLK1	-	DBLK12	-	20	20	-	4/14/2023	LD	
BLD0240-BS1	-	DLCS12	-	20	20	-	4/14/2023	LD	
BLD0240-BSD1	-	DLCSD12	-	20	20	-	4/14/2023	LD	
BLD0240-DUP1	-	Duplicate	-	20	20	-	4/14/2023	LD	
BLD0240-SRM1	-	Reference	-	20	20	-	4/14/2023	LD	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLD0096

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	23050928	04/14/2023	



CLEANUP BENCH SHEET

CLD0096

Matrix: Solid

Cleanup using: HRGCMS - EPA 3630C Silica Gel Cleanup - uL

Printed: 4/17/2023 9:31:16AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23C0761-03	A	PCB988	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0761-08	A	PCB9C0	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0761-09	A	PCB9C1	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0765-03	A	PCB9C2	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0765-06	A	PCB9C7	A 01	20	20	HRSM02.x	4/14/2023	LD	
23D0063-01	C	LDW23-SS1818	C 01	20	20	HRSM02.x	4/14/2023	LD	
23D0063-01	C	LDW23-SS1818	C 01	20	20	1613B Dioxin	4/14/2023	LD	
23D0063-03	C	LDW23-SS1819	C 01	20	20	1613B Dioxin	4/14/2023	LD	
23D0136-01	A	LDW23-SS1804	A 01	20	20	1613B Dioxin	4/14/2023	LD	
BLD0240-BLK1	-	DBLK12	-	20	20	-	4/14/2023	LD	
BLD0240-BS1	-	DLCS12	-	20	20	-	4/14/2023	LD	
BLD0240-BSD1	-	DLCSD12	-	20	20	-	4/14/2023	LD	
BLD0240-DUP1	-	Duplicate	-	20	20	-	4/14/2023	LD	
BLD0240-SRM1	-	Reference	-	20	20	-	4/14/2023	LD	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLD0097

Cleanup Type: Florisil

Cleanup Method: EPA 3620B Florisil Cleanup (uL)

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	23050928	04/14/2023	



CLEANUP BENCH SHEET

CLD0097

Matrix: Solid

Cleanup using: HRGCMS - EPA 3620B Florisil Cleanup (uL)

Check Standard: CKK0015-FLO1

Printed: 4/17/2023 9:32:05AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23C0761-03	A	PCB988	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0761-08	A	PCB9C0	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0761-09	A	PCB9C1	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0765-03	A	PCB9C2	A 01	20	20	HRSM02.x	4/14/2023	LD	
23C0765-06	A	PCB9C7	A 01	20	20	HRSM02.x	4/14/2023	LD	
23D0063-01	C	LDW23-SS1818	C 01	20	20	HRSM02.x	4/14/2023	LD	
23D0063-01	C	LDW23-SS1818	C 01	20	20	1613B Dioxin	4/14/2023	LD	
23D0063-03	C	LDW23-SS1819	C 01	20	20	1613B Dioxin	4/14/2023	LD	
23D0136-01	A	LDW23-SS1804	A 01	20	20	1613B Dioxin	4/14/2023	LD	
BLD0240-BLK1	-	DBLK12	-	20	20	-	4/14/2023	LD	
BLD0240-BS1	-	DLCS12	-	20	20	-	4/14/2023	LD	
BLD0240-BSD1	-	DLCSD12	-	20	20	-	4/14/2023	LD	
BLD0240-DUP1	-	Duplicate	-	20	20	-	4/14/2023	LD	
BLD0240-SRM1	-	Reference	-	20	20	-	4/14/2023	LD	



Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0004

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	23050928	04/26/2023	
Reference	BLD0657-SRM1	23050924	04/26/2023	



CLEANUP BENCH SHEET

CLE0004

Matrix: Solid Cleanup using: HRGCMS - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 5/1/2023 11:38:00AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23C0761-03	A	PCB988	A 06	20	20	HRSM02.x	4/26/2023	TW	
23C0761-08	A	PCB9C0	A 06	20	20	HRSM02.x	4/26/2023	TW	
23C0761-09	A	PCB9C1	A 06	20	20	HRSM02.x	4/26/2023	TW	
23C0765-03	A	PCB9C2	A 06	20	20	HRSM02.x	4/26/2023	TW	
23C0765-06	A	PCB9C7	A 06	20	20	HRSM02.x	4/26/2023	TW	
23D0063-01	C	LDW23-SS1818	C 02	20	20	1613B Dioxin	4/26/2023	TW	
23D0063-01RE1	C	LDW23-SS1818	C 02	20	20	HRSM02.x	4/26/2023	TW	
23D0063-03	C	LDW23-SS1819	C 02	20	20	1613B Dioxin	4/26/2023	TW	
23D0136-01	A	LDW23-SS1804	A 06	20	20	1613B Dioxin	4/26/2023	TW	
BLD0657-BLK1	-	DBLK25	-	20	20	-	4/26/2023	TW	
BLD0657-BS1	-	DLCS25	-	20	20	-	4/26/2023	TW	
BLD0657-BSD1	-	DLCSD25	-	20	20	-	4/26/2023	TW	
BLD0657-DUP1	-	Duplicate	-	20	20	-	4/26/2023	TW	
BLD0657-SRM1	-	Reference	-	20	20	-	4/26/2023	TW	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0005

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Reference	BLD0657-SRM1	23050924	05/01/2023	
LDW23-SS1804	23D0136-01	23050928	05/01/2023	



CLEANUP BENCH SHEET

CLE0005

Matrix: Solid

Cleanup using: HRGCMS - EPA 3630C Silica Gel Cleanup - uL

Printed: 5/1/2023 11:38:42AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23C0761-03	A	PCB988	A 06	20	20	HRSM02.x	5/1/2023	TW	
23C0761-08	A	PCB9C0	A 06	20	20	HRSM02.x	5/1/2023	TW	
23C0761-09	A	PCB9C1	A 06	20	20	HRSM02.x	5/1/2023	TW	
23C0765-03	A	PCB9C2	A 06	20	20	HRSM02.x	5/1/2023	TW	
23C0765-06	A	PCB9C7	A 06	20	20	HRSM02.x	5/1/2023	TW	
23D0063-01	C	LDW23-SS1818	C 02	20	20	1613B Dioxin	5/1/2023	TW	
23D0063-01RE1	C	LDW23-SS1818	C 02	20	20	HRSM02.x	5/1/2023	TW	
23D0063-03	C	LDW23-SS1819	C 02	20	20	1613B Dioxin	5/1/2023	TW	
23D0136-01	A	LDW23-SS1804	A 06	20	20	1613B Dioxin	5/1/2023	TW	
BLD0657-BLK1	-	DBLK25	-	20	20	-	5/1/2023	TW	
BLD0657-BS1	-	DLCS25	-	20	20	-	5/1/2023	TW	
BLD0657-BSD1	-	DLCSD25	-	20	20	-	5/1/2023	TW	
BLD0657-DUP1	-	Duplicate	-	20	20	-	5/1/2023	TW	
BLD0657-SRM1	-	Reference	-	20	20	-	5/1/2023	TW	



Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0006

Cleanup Type: Florisil

Cleanup Method: EPA 3620B Florisil Cleanup (uL)

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	23050928	05/01/2023	
Reference	BLD0657-SRM1	23050924	05/01/2023	



CLEANUP BENCH SHEET

CLE0006

Matrix: Solid

Cleanup using: HRGCMS - EPA 3620B Florisil Cleanup (uL)

Check Standard: CKK0015-FLO1

Printed: 5/1/2023 11:39:16AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23C0761-03	A	PCB988	A 06	20	20	HRSM02.x	5/1/2023	TW	
23C0761-08	A	PCB9C0	A 06	20	20	HRSM02.x	5/1/2023	TW	
23C0761-09	A	PCB9C1	A 06	20	20	HRSM02.x	5/1/2023	TW	
23C0765-03	A	PCB9C2	A 06	20	20	HRSM02.x	5/1/2023	TW	
23C0765-06	A	PCB9C7	A 06	20	20	HRSM02.x	5/1/2023	TW	
23D0063-01	C	LDW23-SS1818	C 02	20	20	1613B Dioxin	5/1/2023	TW	
23D0063-01RE1	C	LDW23-SS1818	C 02	20	20	HRSM02.x	5/1/2023	TW	
23D0063-03	C	LDW23-SS1819	C 02	20	20	1613B Dioxin	5/1/2023	TW	
23D0136-01	A	LDW23-SS1804	A 06	20	20	1613B Dioxin	5/1/2023	TW	
BLD0657-BLK1	-	DBLK25	-	20	20	-	5/1/2023	TW	
BLD0657-BS1	-	DLCS25	-	20	20	-	5/1/2023	TW	
BLD0657-BSD1	-	DLCSD25	-	20	20	-	5/1/2023	TW	
BLD0657-DUP1	-	Duplicate	-	20	20	-	5/1/2023	TW	
BLD0657-SRM1	-	Reference	-	20	20	-	5/1/2023	TW	



Blank

Form 1
METHOD BLANK DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLD0657-BLK2</u>
Sampled:	<u>N/A</u>	File ID:	<u>23050121A</u>
Solids Wt%:		Prepared:	<u>04/25/23 14:15</u>
Result Basis:	<u>Dry</u>	Analyzed:	<u>05/02/23 02:53</u>
Batch:	<u>BLD0657</u>	Preparation:	<u>EPA 1613</u>
		Initial/Final:	<u>10 g / 20 uL</u>
		Sequence:	<u>SLE0060</u>
		Calibration:	<u>GC00015</u>
		Instrument:	<u>AUTOSPEC01</u>
		Column:	<u>RTX-Dioxin2</u>

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.000	0.655-0.886	0.179	1.00	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1	0.000	0.655-0.886	0.134	1.00	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	0.000	1.318-1.783	0.199	1.00	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.186	1.00	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.000	1.318-1.783	0.220	1.00	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.000	1.054-1.426	0.118	1.00	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1	0.000	1.054-1.426	0.106	1.00	ND	ng/kg	U
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.000	1.054-1.426	0.125	1.00	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1	0.000	1.054-1.426	0.194	1.00	ND	ng/kg	U
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.000	1.054-1.426	0.238	1.00	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.000	1.054-1.426	0.215	1.00	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.000	1.054-1.426	0.248	1.00	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	0.000	0.893-1.208	0.156	1.00	ND	ng/kg	U
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.251	1.00	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	0.000	0.893-1.208	0.272	2.50	ND	ng/kg	U
39001-02-0	OCDF	1	0.000	0.757-1.024	0.564	2.50	ND	ng/kg	U
3268-87-9	OCDD	1	0.825	0.757-1.024	0.425	10.0	0.661	ng/kg	J

Homologue Groups

55722-27-5	Total TCDF	1	0.000			1.00	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			1.00	ND	ng/kg
30402-15-4	Total PeCDF	1	0.000			1.00	ND	ng/kg
36088-22-9	Total PeCDD	1	0.000			1.00	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			1.00	ND	ng/kg
34465-46-8	Total HxCDD	1	0.000			1.00	ND	ng/kg
38998-75-3	Total HpCDF	1	0.000			1.00	ND	ng/kg
37871-00-4	Total HpCDD	1	0.000			1.00	ND	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC):	0.000
Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC):	0.283



Blank

Form 2
METHOD BLANK DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23D0136</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>AOC5 MR Phase 1</u>
Matrix: <u>Solid</u>	Laboratory ID: <u>BLD0657-BLK2</u>
Sampled: <u>N/A</u>	File ID: <u>23050121A</u>
Solids Wt%: <u>0.00</u>	Prepared: <u>04/25/23 14:15</u>
Result Basis: <u>Dry</u>	Analyzed: <u>05/02/23 02:53</u>
Batch: <u>BLD0657</u>	Preparation: <u>EPA 1613</u>
	Initial/Final: <u>10 g / 20 uL</u>
	Sequence: <u>SLE0060</u>
	Calibration: <u>GC00015</u>
	Instrument: <u>AUTOSPEC01</u>
	Column: <u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF	1	0.756	0.655-0.886	0.16	81.8	24 - 169 %	
13C12-2,3,7,8-TCDD	1	0.779	0.655-0.886	0.23	92.9	25 - 164 %	
13C12-1,2,3,7,8-PeCDF	1	1.510	1.318-1.783	0.51	91.5	24 - 185 %	
13C12-2,3,4,7,8-PeCDF	1	1.541	1.318-1.783	0.57	95.7	21 - 178 %	
13C12-1,2,3,7,8-PeCDD	1	1.744	1.318-1.783	0.25	59.7	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF	1	0.527	0.434-0.587	1.02	106	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF	1	0.444	0.434-0.587	0.86	117	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF	1	0.479	0.434-0.587	1.05	111	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF	1	0.578	0.434-0.587	1.28	99.2	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD	1	1.327	1.054-1.426	0.60	99.7	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD	1	1.173	1.054-1.426	0.52	104	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF	1	0.452	0.374-0.506	1.02	107	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF	1	0.414	0.374-0.506	1.18	98.2	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD	1	1.047	0.893-1.208	0.79	89.9	23 - 140 %	
13C12-OCDD	1	0.904	0.757-1.024	1.24	92.1	17 - 157 %	
37Cl4-2,3,7,8-TCDD	1	328.000		0.12	93.5	35 - 197 %	

* Values outside of QC limits

Quantif Sample Summary Report **MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
 Printed: Wednesday, May 10, 2023 16:27:54 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230501.mdb 02 May 2023 09:11:55

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.702		0.770	652	847								
12378-PeCDF					0.679		1.550	477	917								
23478-PeCDF					0.786		1.550	477	917								
123478-HxCDF					1.166		1.240	436	535								
234678-HxCDF					1.140		1.240	436	535								
123678-HxCDF					1.091		1.240	436	535								
123789-HxCDF					1.137		1.240	436	535								
1234678-HpCDF					1.003		1.050	443	436								
1234789-HpCDF					0.953		1.050	443	436								
OCDF					0.778		0.890	518	721								
2378-TCDD					1.149		0.770	1066	537								
12378-PeCDD					1.022		1.550	647	366								
123478-HxCDD					0.996		1.240	591	824								
123678-HxCDD					1.001		1.240	591	824								
123789-HxCDD					0.907		1.240	591	824								
1234678-HpCDD					1.039		1.050	528	549								
OCDD	44.706	1.001	2.406e2	2.916e2	0.920	0.825	0.890	489	614	4.65e3	7.03e3	9.5	11.4	NO	db	db	0.331
13C-2378-TCDF	25.520	1.007	2.395e5	3.168e5	1.620	0.756	0.770	1286	1389	3.09e6	4.09e6	2399.7	2947.4	NO	bd	bb	81.845
13C-12378-PeCDF	29.669	1.170	2.864e5	1.897e5	1.240	1.510	1.550	2622	3870	3.72e6	2.36e6	1418.9	608.8	NO	bd	bb	91.489
13C-23478-PeCDF	31.006	1.223	2.720e5	1.766e5	1.118	1.541	1.550	2622	3870	3.46e6	2.23e6	1320.1	576.8	NO	bd	bd	95.660
13C-123478-HxCDF	34.639	0.955	1.057e5	2.005e5	1.168	0.527	0.510	3421	3169	1.47e6	2.89e6	428.6	911.0	NO	bd	bd	105.903
13C-123678-HxCDF	34.784	0.959	1.231e5	2.775e5	1.386	0.444	0.510	3421	3169	1.54e6	3.12e6	451.2	985.3	NO	db	db	116.754
13C-234678-HxCDF	35.653	0.983	1.002e5	2.091e5	1.129	0.479	0.510	3421	3169	1.33e6	2.70e6	387.6	851.1	NO	bb	bd	110.662
13C-123789-HxCDF	36.689	1.011	8.384e4	1.449e5	0.932	0.578	0.510	3421	3169	9.68e5	1.87e6	282.9	590.0	NO	bb	bb	99.207
13C-1234678-HpCDF	38.525	1.062	7.376e4	1.631e5	0.895	0.452	0.440	1740	3295	1.05e6	2.35e6	601.7	713.9	NO	bb	bb	106.915
13C-1234789-HpCDF	40.742	1.123	5.476e4	1.324e5	0.770	0.414	0.440	1740	3295	6.44e5	1.51e6	370.1	456.9	NO	bd	bb	98.217
13C-1234-TCDD	25.351	0.000	1.876e5	2.320e5	1.000	0.809	0.770	1606	1060	2.74e6	3.43e6	1707.5	3236.3	NO	bb	bb	100.000
13C-2378-TCDD	26.156	1.032	1.965e5	2.524e5	1.152	0.779	0.770	1606	1060	2.72e6	3.53e6	1695.9	3325.1	NO	bb	bb	92.859
13C-12378-PeCDD	31.262	1.233	1.319e5	7.565e4	0.829	1.744	1.550	1154	965	1.72e6	9.41e5	1489.1	974.3	NO	MM	bd	59.700
13C-123478-HxCDD	35.764	0.986	1.400e5	1.055e5	0.995	1.327	1.240	1824	1496	2.04e6	1.60e6	1118.6	1067.2	NO	bd	bd	99.678
13C-123678-HxCDD	35.887	0.989	1.610e5	1.373e5	1.157	1.173	1.240	1824	1496	2.14e6	1.73e6	1170.5	1153.6	NO	db	db	104.193
13C-1234678-HpCDD	40.007	1.103	9.566e4	9.135e4	0.840	1.047	1.050	1688	1964	1.17e6	1.12e6	692.8	570.5	NO	bb	bd	89.942
13C-OCDD	44.669	1.231	1.661e5	1.838e5	0.767	0.904	0.890	2797	2457	1.61e6	1.75e6	575.1	713.2	NO	bd	bd	184.216
13C-123789-HxCDD	36.277	0.000	1.384e5	1.091e5	1.000	1.268	1.240	1824	1496	1.86e6	1.46e6	1018.3	979.0	NO	bb	bb	100.000
37CL-2378-TCDD	26.170	1.032	2.020e5		1.288			1616		2.70e6		1669.6			bd		37.384

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
 Printed: Wednesday, May 10, 2023 16:27:54 Pacific Daylight Time

ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg	
1368-TCDF					0.802		0.770	652	847									
1289-TCDF					0.678		0.770	652	847									
13468-PECDF					1.246		1.550	512	898									
12389-PECDF					0.496		1.550	477	917									
123468-HXCDF					1.169		1.240	436	535									
1368-TCDD					1.015		0.770	1066	537									
1289-TCDD					0.909		0.770	1066	537									
12479-PECDD					2.301		1.550	647	366									
12389-PECDD					1.184		1.550	647	366									
124679-HXCDD					1.115		1.240	591	824									
1234679-HPCDD	38.981	0.974	1.894e2	7.256e1	1.137	2.611	1.050	528	549	4.25e3	1.62e3	8.1	3.0	YES	bb	bb	0.123	
Total-tetrafurans			0.000e0		0.727			652		0.00e0								
Total-penta1			0.000e0					512		0.00e0								
Total-pentafurans			0.000e0		0.654			477		0.00e0								
Total-hexafurans			0.000e0		1.141			436		0.00e0								
Total-heptafurans			0.000e0		0.978			443		0.00e0								
Total-Furans			0.000e0		0.922			652		0.00e0								
Total-tetradoxins			0.000e0		1.024			1066		0.00e0								
Total-pentadoxins			0.000e0		1.502			647		0.00e0								
Total-hexadoxins			0.000e0		1.005			591		0.00e0								
Total-heptadoxins			0.000e0		1.088			528		0.00e0								
Total-Dioxins			2.406e2		1.130			1066		4.65e3								0.331
Total-TEQ			2.406e2					1066		4.65e3								0.331
FUNCTION1 PFK			5.361e5					335102		1.04e7								
FUNCTION2 PFK			1.684e5					204641		5.66e6								0.000
FUNCTION3 PFK			5.301e7					204692		1.97e8								0.000
FUNCTION4 PFK			3.785e4					254899		9.26e5								
FUNCTION5 PFK			1.659e5					153444		6.10e6								
FUNCTION1 HXCD...			4.938e2					466		7.11e3								0.000
FUNCTION1 HPCD...																		
FUNCTION2 HPCD...			4.389e2					884		1.03e4								0.000
FUNCTION3 OCDPE			1.757e2					365		1.93e3								0.000
FUNCTION4 NCDPE			1.488e2					582		2.82e3								0.000
FUNCTION5 DCDPE			0.000e0					430		0.00e0								

Quantify Totals Report MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
Printed: Wednesday, May 10, 2023 16:27:54 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230501.mdb 02 May 2023 09:11:55

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
Printed: Wednesday, May 10, 2023 16:27:54 Pacific Daylight Time

ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	OCDD	44.71	2.406e2	2.916e2	0.920	0.82	0.89	9.5	YES	NO	db	db	0.331

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
 Printed: Wednesday, May 10, 2023 16:27:54 Pacific Daylight Time

ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	25.12	2.401e4					1.5	NO		bb		
2	FUNCTION1 PFK	24.88	5.894e4					1.8	NO		bb		
3	FUNCTION1 PFK	24.73	4.709e4					1.9	NO		bb		
4	FUNCTION1 PFK	24.53	3.796e4					1.7	NO		bb		
5	FUNCTION1 PFK	24.40	7.741e3					0.7	NO		bb		
6	FUNCTION1 PFK	24.32	2.101e3					0.4	NO		bb		
7	FUNCTION1 PFK	24.04	9.018e3					0.9	NO		bb		
8	FUNCTION1 PFK	23.73	4.685e4					1.5	NO		bb		
9	FUNCTION1 PFK	23.33	2.028e4					0.9	NO		bb		
10	FUNCTION1 PFK	22.36	1.321e4					1.1	NO		bb		
11	FUNCTION1 PFK	22.30	1.366e4					1.5	NO		db		
12	FUNCTION1 PFK	22.27	1.765e4					1.9	NO		bd		
13	FUNCTION1 PFK	21.51	1.422e4					1.3	NO		db		
14	FUNCTION1 PFK	21.31	9.995e4					2.8	NO		bd		
15	FUNCTION1 PFK	21.20	4.960e3					1.1	NO		bb		
16	FUNCTION1 PFK	21.16	1.476e4					1.0	NO		bb		
17	FUNCTION1 PFK	27.71	3.205e4					1.9	NO		db		
18	FUNCTION1 PFK	27.65	1.195e4					1.3	NO		bd		
19	FUNCTION1 PFK	27.31	1.435e4					1.2	NO		bb		
20	FUNCTION1 PFK	26.33	2.850e3					0.6	NO		bb		
21	FUNCTION1 PFK	26.27	1.642e4					1.1	NO		db		
22	FUNCTION1 PFK	26.20	1.115e4					1.2	NO		bd		
23	FUNCTION1 PFK	25.79	3.835e3					0.8	NO		bb		
24	FUNCTION1 PFK	25.27	1.114e4					1.2	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
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ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.08	9.793e3					1.4	NO		bb		0.000
2	FUNCTION2 PFK	29.81	5.256e3					0.8	NO		bb		0.000
3	FUNCTION2 PFK	28.79	1.764e4					2.2	NO		db		0.000
4	FUNCTION2 PFK	28.76	1.980e4					2.2	NO		bd		0.000
5	FUNCTION2 PFK	28.38	1.092e4					1.7	NO		bb		0.000
6	FUNCTION2 PFK	28.00	1.840e3					0.8	NO		bb		0.000
7	FUNCTION2 PFK	27.94	1.357e4					2.1	NO		bb		0.000
8	FUNCTION2 PFK	32.41	5.114e3					1.0	NO		bb		0.000
9	FUNCTION2 PFK	32.30	4.485e3					0.9	NO		db		0.000
10	FUNCTION2 PFK	32.27	5.188e3					1.2	NO		bd		0.000
11	FUNCTION2 PFK	32.13	2.197e3					0.7	NO		bb		0.000
12	FUNCTION2 PFK	31.74	8.786e3					1.8	NO		db		0.000
13	FUNCTION2 PFK	31.71	1.551e4					1.9	NO		bd		0.000
14	FUNCTION2 PFK	31.28	5.186e3					1.0	NO		bb		0.000
15	FUNCTION2 PFK	31.23	1.625e3					0.7	NO		bb		0.000
16	FUNCTION2 PFK	31.04	1.165e4					1.4	NO		bb		0.000
17	FUNCTION2 PFK	30.88	5.387e3					1.1	NO		bb		0.000
18	FUNCTION2 PFK	30.74	9.391e3					1.6	NO		bb		0.000
19	FUNCTION2 PFK	30.45	4.497e3					1.0	NO		bb		0.000
20	FUNCTION2 PFK	30.37	7.979e3					1.3	NO		bb		0.000
21	FUNCTION2 PFK	30.15	2.598e3					0.7	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	32.89	1.057e7					157.9	YES		bd		0.000
2	FUNCTION3 PFK	36.56	3.158e4					2.3	NO		db		0.000
3	FUNCTION3 PFK	36.48	1.085e4					1.9	NO		bd		0.000
4	FUNCTION3 PFK	36.40	1.079e3					0.5	NO		bb		0.000
5	FUNCTION3 PFK	36.31	1.702e3					0.5	NO		bb		0.000
6	FUNCTION3 PFK	35.98	1.905e3					0.6	NO		bb		0.000
7	FUNCTION3 PFK	35.93	4.136e3					1.0	NO		db		0.000
8	FUNCTION3 PFK	35.81	2.295e4					1.2	NO		bd		0.000
9	FUNCTION3 PFK	35.55	4.587e4					5.3	YES		db		0.000
10	FUNCTION3 PFK	35.06	2.617e6					33.8	YES		dd		0.000
11	FUNCTION3 PFK	34.79	1.815e6					49.0	YES		dd		0.000
12	FUNCTION3 PFK	34.54	5.729e6					64.1	YES		dd		0.000
13	FUNCTION3 PFK	34.12	1.454e7					88.5	YES		dd		0.000
14	FUNCTION3 PFK	33.52	7.459e6					121.9	YES		dd		0.000
15	FUNCTION3 PFK	33.20	2.793e6					139.3	YES		dd		0.000
16	FUNCTION3 PFK	33.17	1.279e6					140.9	YES		dd		0.000
17	FUNCTION3 PFK	33.01	6.069e6					151.0	YES		dd		0.000
18	FUNCTION3 PFK	37.15	3.558e3					0.8	NO		bb		0.000
19	FUNCTION3 PFK	37.00	1.074e3					0.5	NO		bb		0.000
20	FUNCTION3 PFK	36.88	1.425e4					1.8	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.95	2.324e3					0.8	NO		bb		
2	FUNCTION4 PFK	37.74	3.553e4					2.8	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
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ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.93	8.681e3					1.5	NO		db		
2	FUNCTION5 PFK	43.86	4.517e3					1.3	NO		dd		
3	FUNCTION5 PFK	43.84	6.998e3					1.8	NO		dd		
4	FUNCTION5 PFK	43.78	6.787e3					1.2	NO		bd		
5	FUNCTION5 PFK	43.55	3.330e3					1.2	NO		bb		
6	FUNCTION5 PFK	43.37	6.415e3					1.3	NO		bb		
7	FUNCTION5 PFK	43.28	5.529e3					1.4	NO		bb		
8	FUNCTION5 PFK	43.15	4.462e3					1.5	NO		bb		
9	FUNCTION5 PFK	43.09	9.499e3					2.5	NO		bb		
10	FUNCTION5 PFK	45.52	1.961e3					0.6	NO		db		
11	FUNCTION5 PFK	45.49	1.885e3					0.7	NO		bd		
12	FUNCTION5 PFK	45.40	3.340e3					0.9	NO		bb		
13	FUNCTION5 PFK	45.36	5.840e3					1.6	NO		bb		
14	FUNCTION5 PFK	45.05	3.643e3					1.0	NO		bb		
15	FUNCTION5 PFK	44.95	1.592e3					0.6	NO		bb		
16	FUNCTION5 PFK	44.91	9.940e3					1.6	NO		bb		
17	FUNCTION5 PFK	44.55	6.818e3					1.7	NO		db		
18	FUNCTION5 PFK	44.50	4.655e3					1.3	NO		bd		
19	FUNCTION5 PFK	44.46	6.097e3					1.7	NO		db		
20	FUNCTION5 PFK	44.42	1.873e4					3.0	NO		bd		
21	FUNCTION5 PFK	44.27	8.248e3					1.9	NO		db		
22	FUNCTION5 PFK	44.23	8.757e3					1.8	NO		bd		
23	FUNCTION5 PFK	44.16	3.588e3					1.2	NO		bb		
24	FUNCTION5 PFK	44.05	7.815e3					1.3	NO		db		
25	FUNCTION5 PFK	43.98	5.746e3					1.3	NO		bd		
26	FUNCTION5 PFK	45.93	2.551e3					1.0	NO		bb		
27	FUNCTION5 PFK	45.89	2.286e3					0.9	NO		bb		
28	FUNCTION5 PFK	45.79	8.025e2					0.5	NO		bb		
29	FUNCTION5 PFK	45.74	4.665e3					1.2	NO		bb		
30	FUNCTION5 PFK	45.69	7.334e2					0.5	NO		bb		

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
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ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.82	7.673e1					2.3	NO		bb		0.000
2	FUNCTION1 HXCD...	26.17	8.681e1					2.7	NO		bb		0.000
3	FUNCTION1 HXCD...	25.87	9.447e1					2.7	NO		bb		0.000
4	FUNCTION1 HXCD...	25.36	1.008e2					3.6	YES		bb		0.000
5	FUNCTION1 HXCD...	21.55	1.350e2					4.1	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.48	7.530e1					1.9	NO		bb		0.000
2	FUNCTION2 HPCD...	29.33	1.478e2					3.2	YES		db		0.000
3	FUNCTION2 HPCD...	29.25	1.232e2					2.7	NO		bd		0.000
4	FUNCTION2 HPCD...	28.21	9.261e1					3.8	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	34.13	8.786e1					2.6	NO		bb		0.000
2	FUNCTION3 OCDPE	32.74	8.781e1					2.7	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.66	7.028e1					2.5	NO		bb		0.000
2	FUNCTION4 NCDPE	37.66	7.847e1					2.4	NO		bb		0.000

ETHERS6

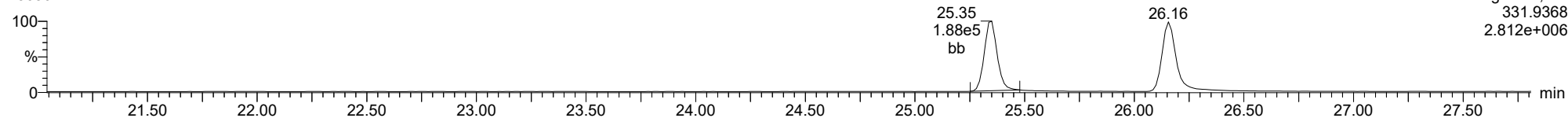
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230501.mdb 02 May 2023 09:11:55
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: DBLK25, **Name:** 23050121, **Date:** 02-May-2023, **Time:** 02:53:26, **Conditions:** AUTOSPEC01, **User:** pk

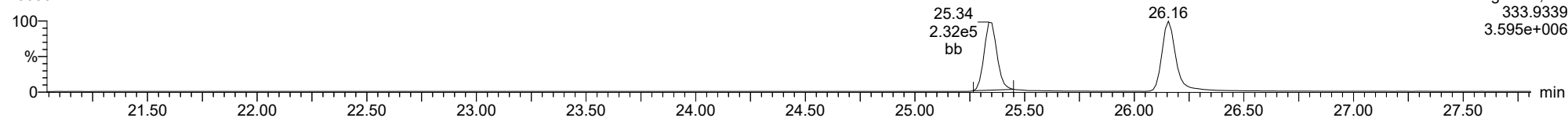
13C-1234-TCDD

23050121



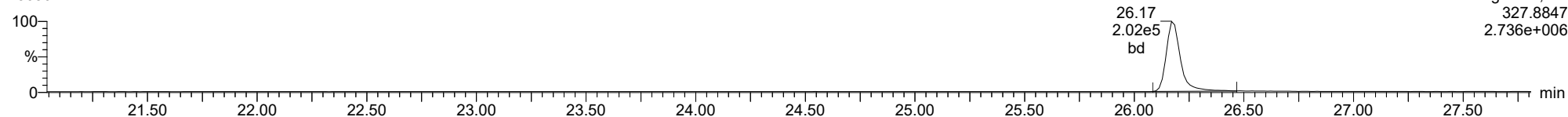
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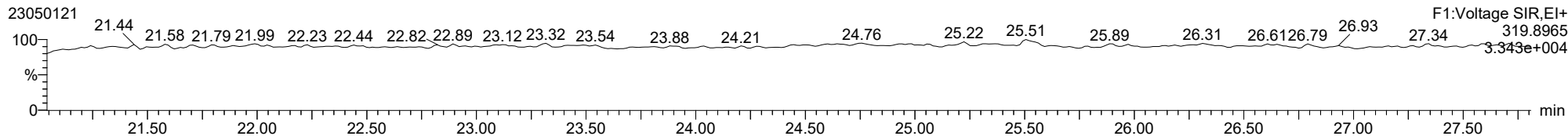
37CL-2378-TCDD

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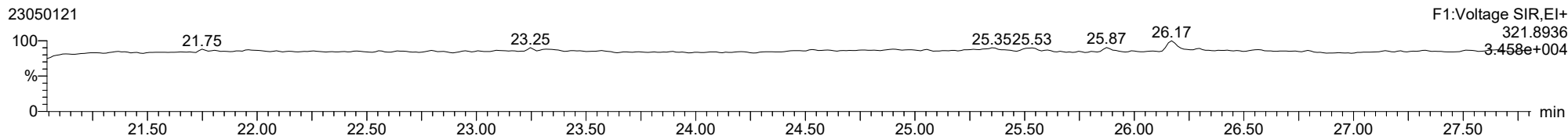


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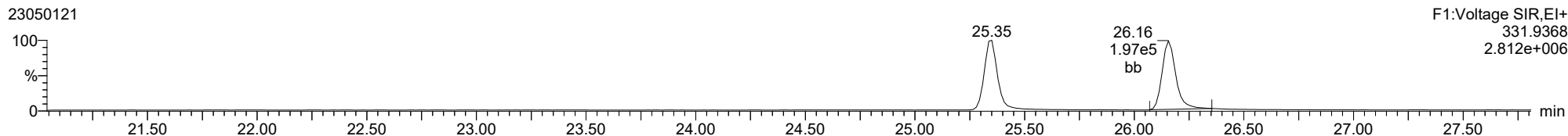
2378-TCDD



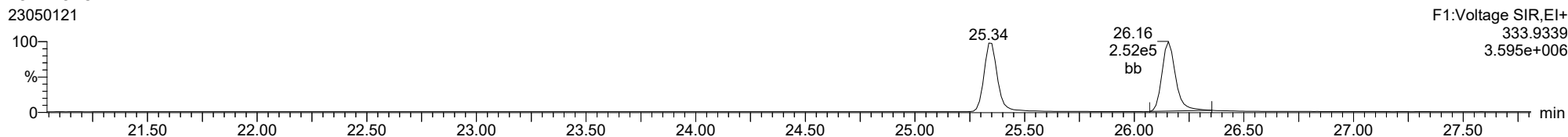
2378-TCDD



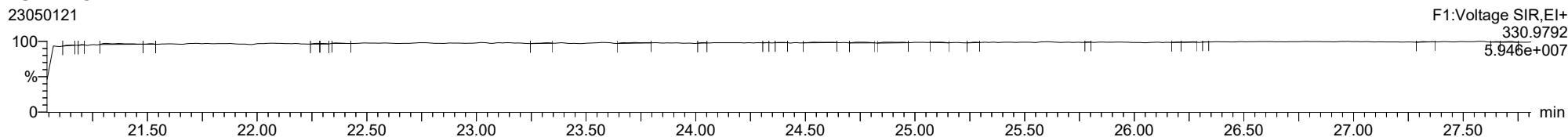
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13C-2378-TCDD

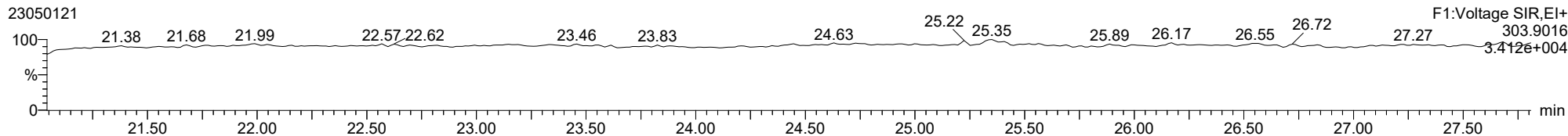


FUNCTION1 PFK

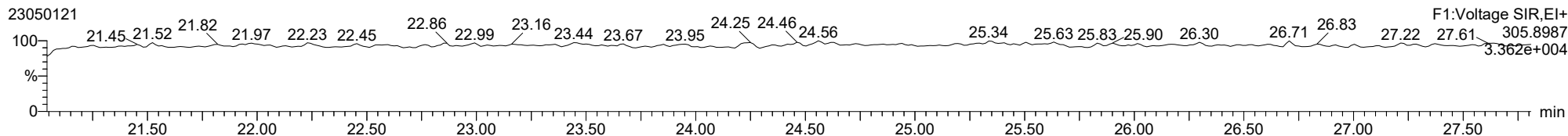


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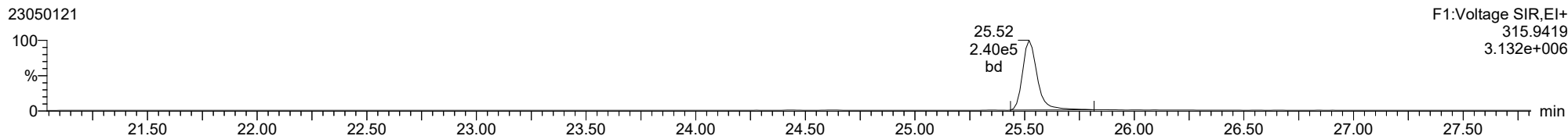
2378-TCDF



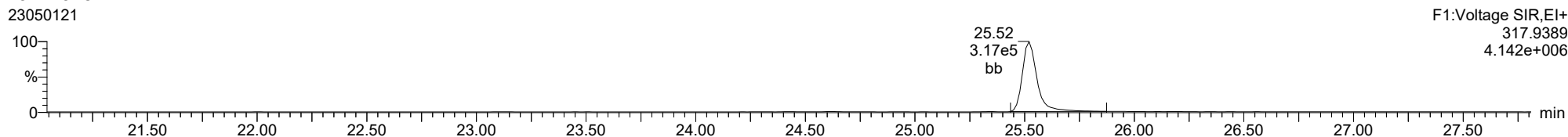
2378-TCDF



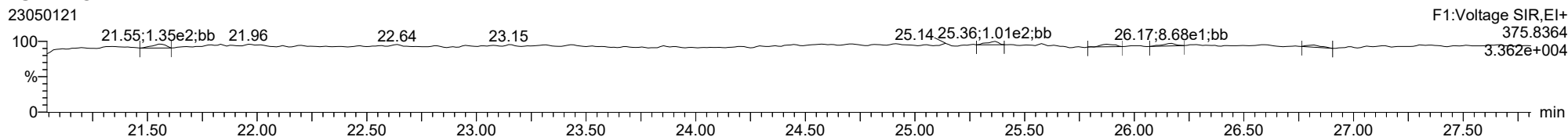
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13C-2378-TCDF

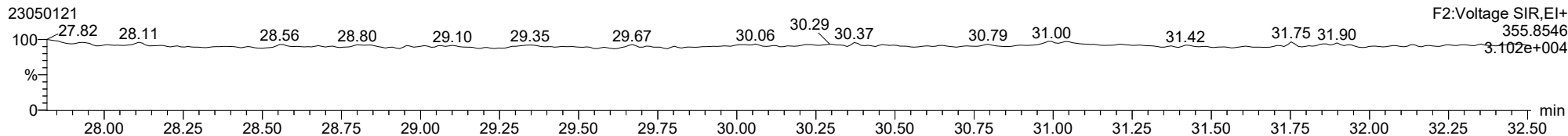


FUNCTION1 HXCDPE

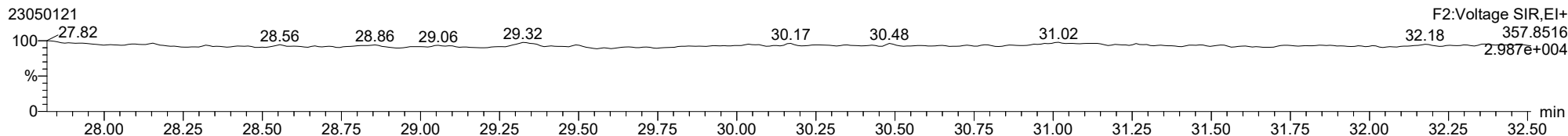


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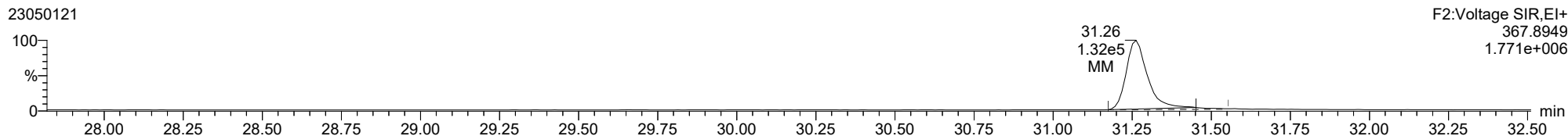
12378-PeCDD



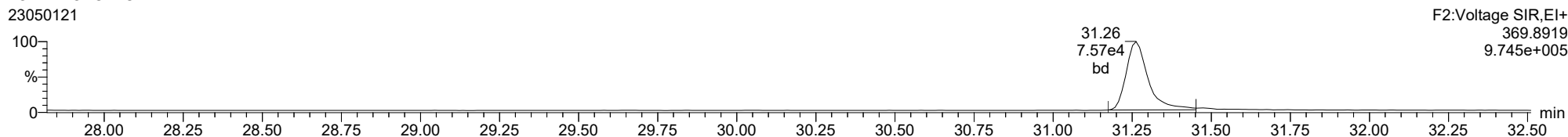
12378-PeCDD



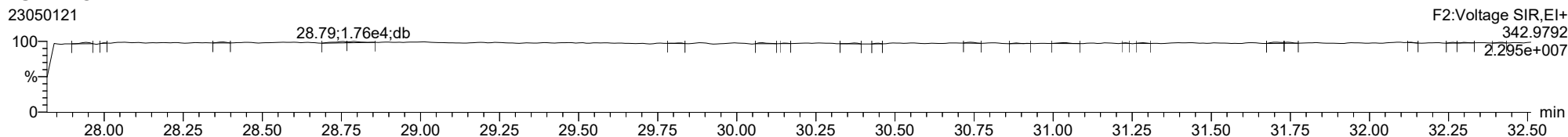
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13C-12378-PeCDD



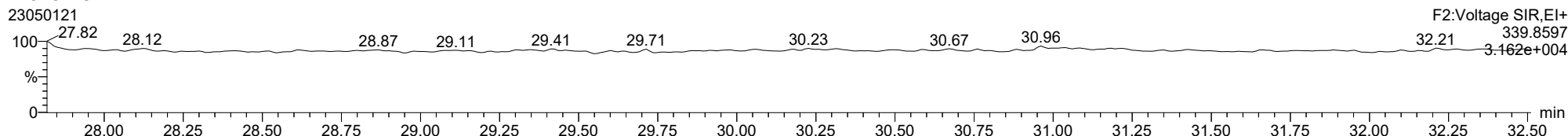
FUNCTION2 PFK



ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

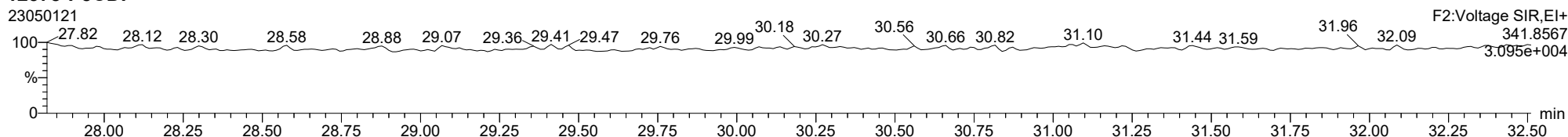
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23050121



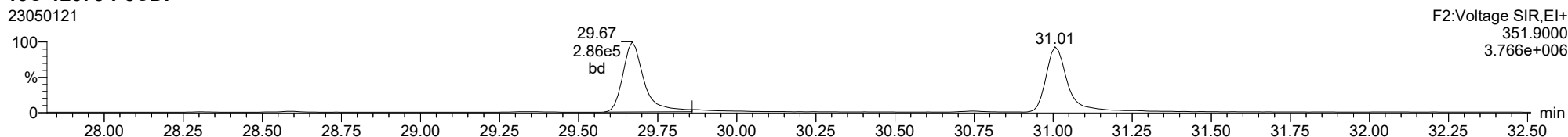
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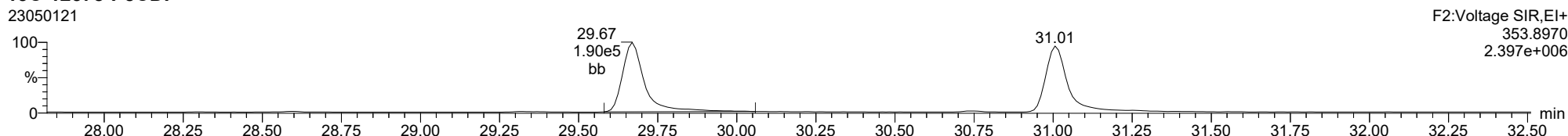
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23050121



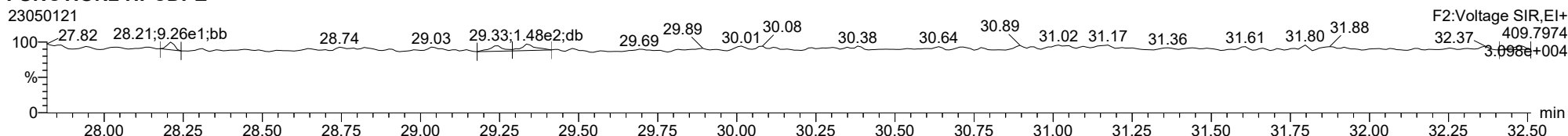
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23050121



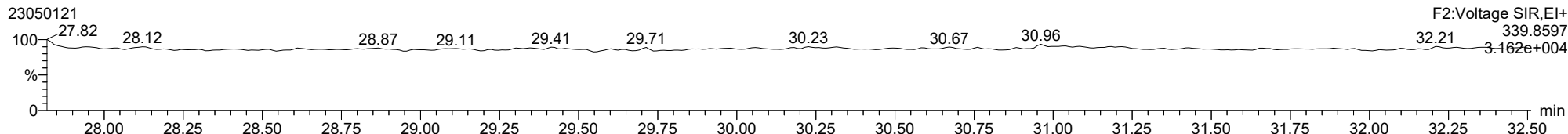
FUNCTION2 HPCDPE

23050121

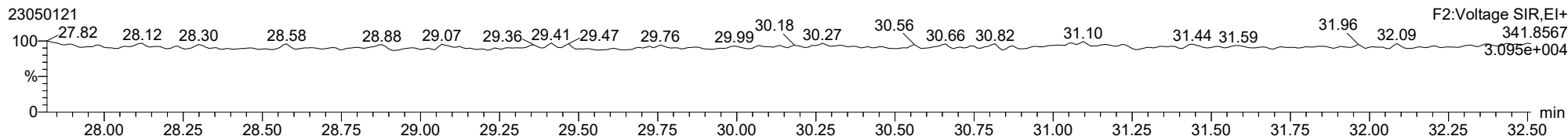


ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

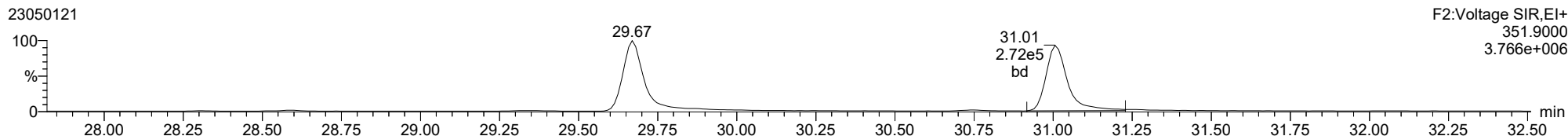
23478-PeCDF



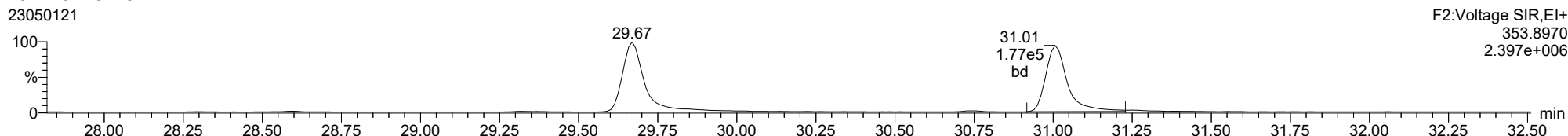
23478-PeCDF



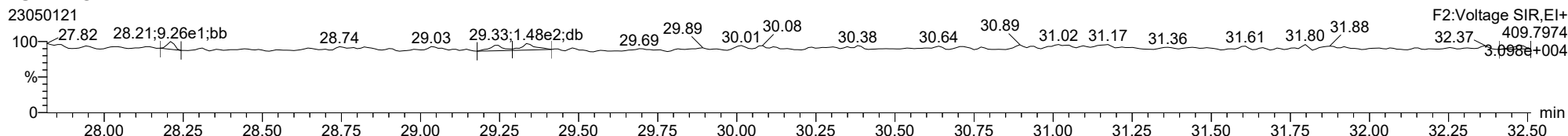
13C-23478-PeCDF



13C-23478-PeCDF

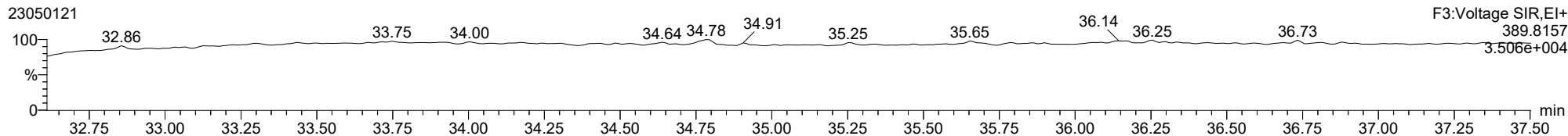


FUNCTION2 HPCDPE

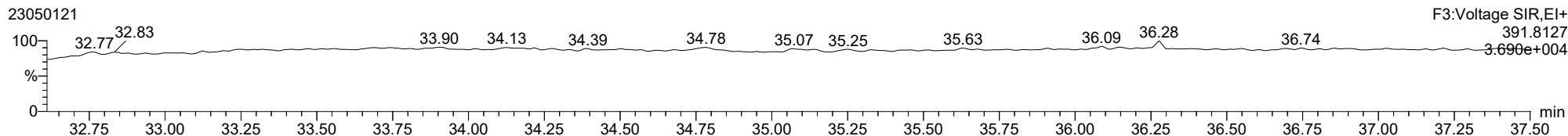


ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

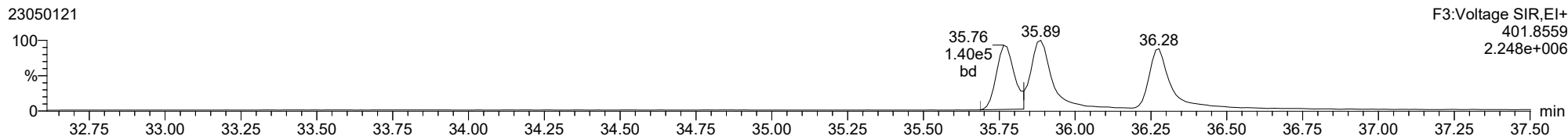
123478-HxCDD



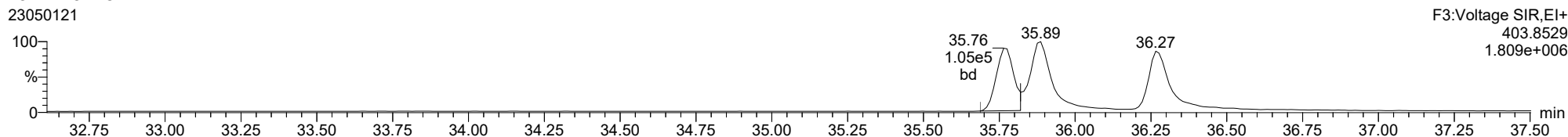
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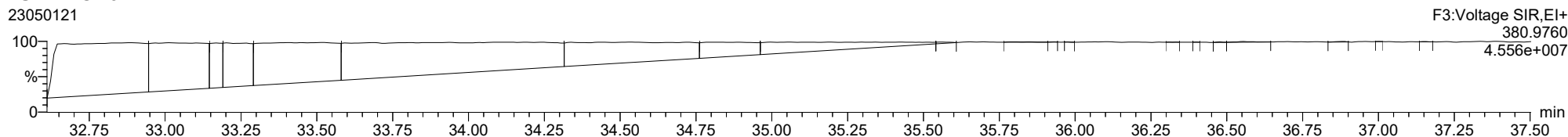
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13C-123478-HxCDD

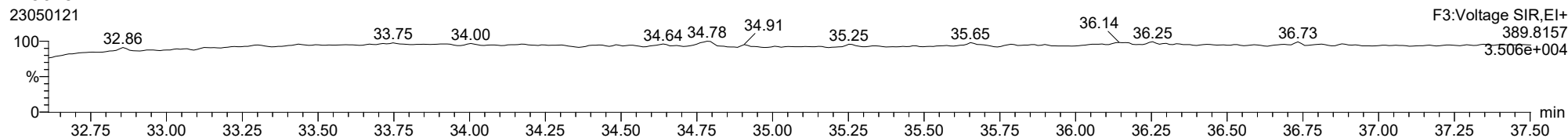


FUNCTION3 PFK

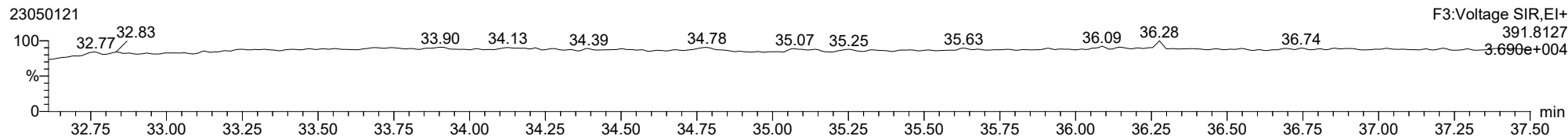


ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

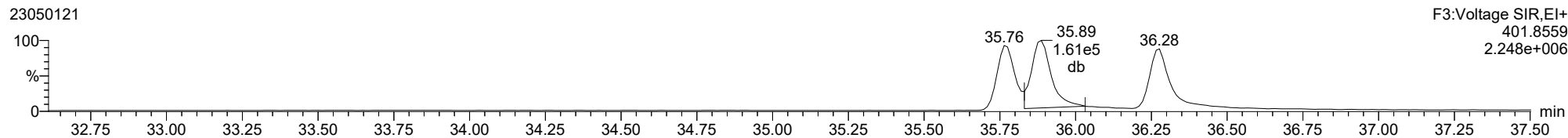
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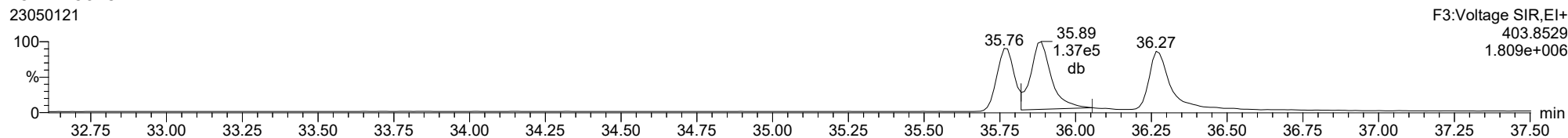
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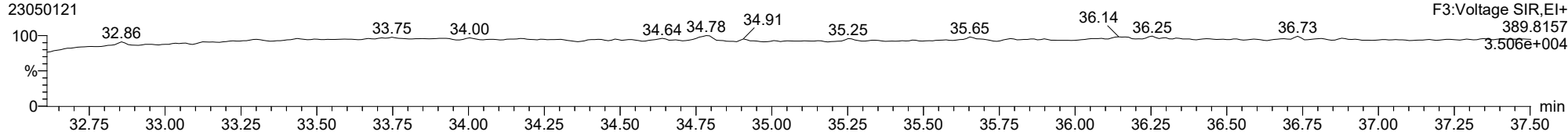
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ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

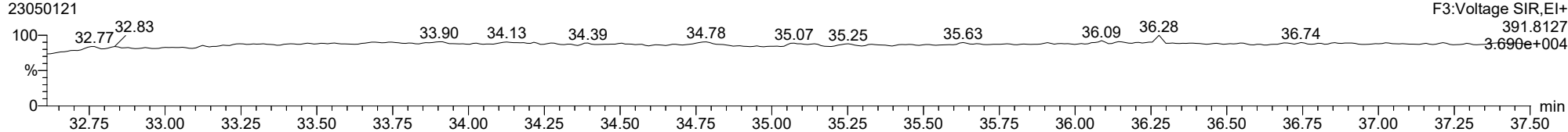
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23050121



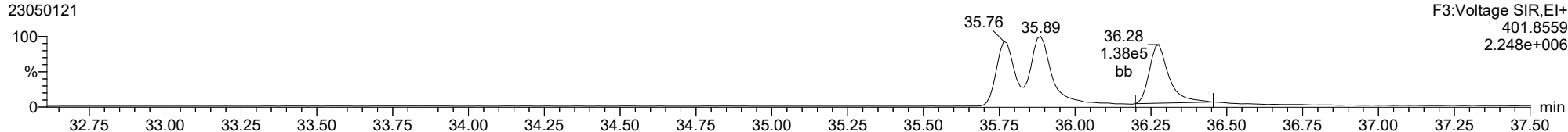
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23050121



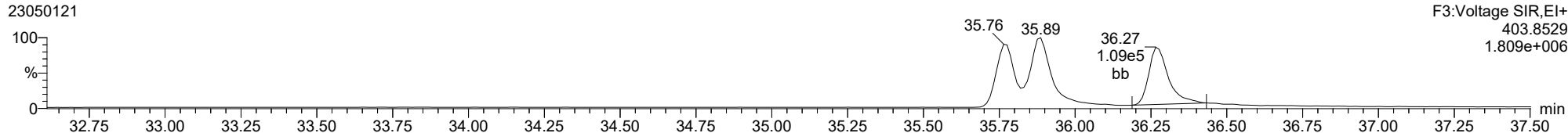
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23050121



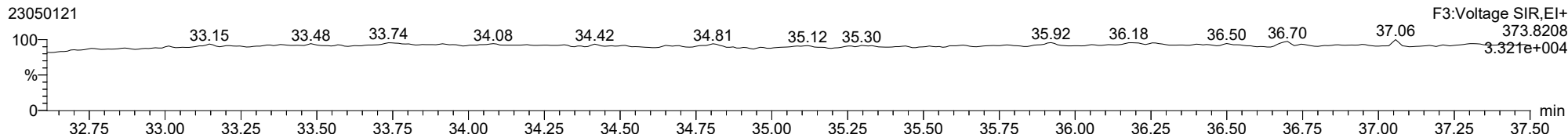
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23050121

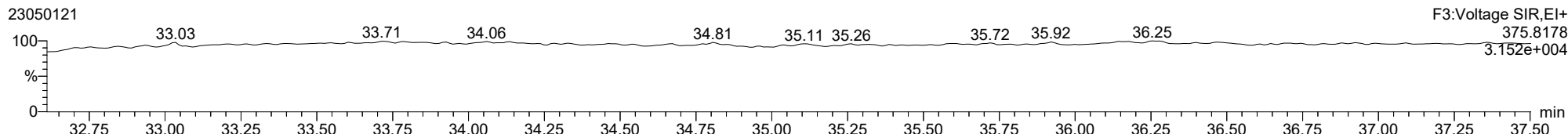


ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

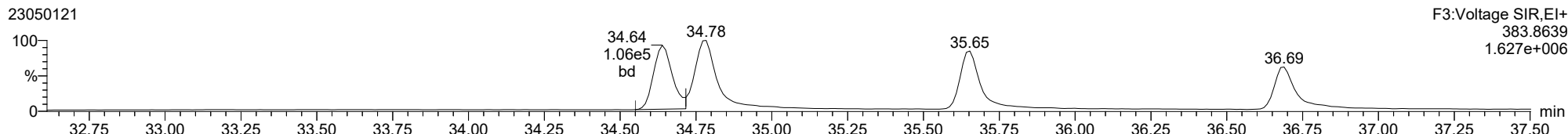
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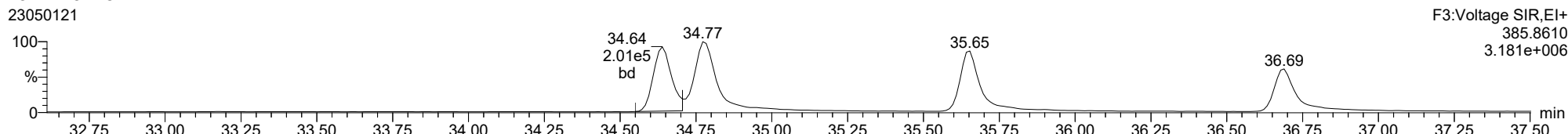
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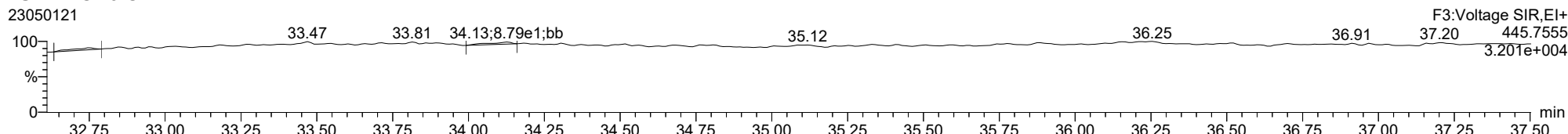
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13C-123478-HxCDF



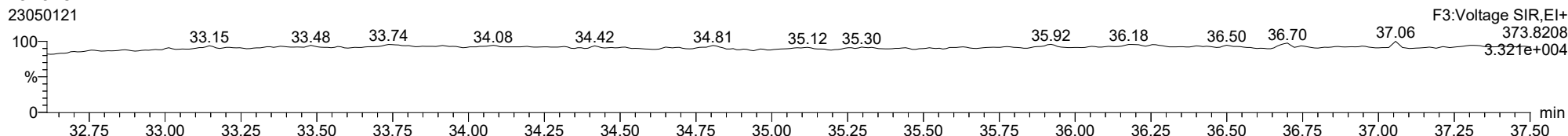
FUNCTION3 OCDPE



ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

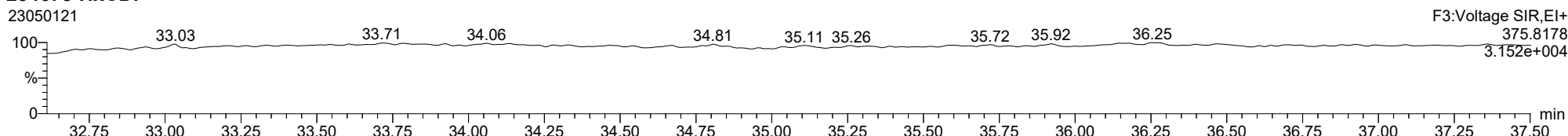
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23050121



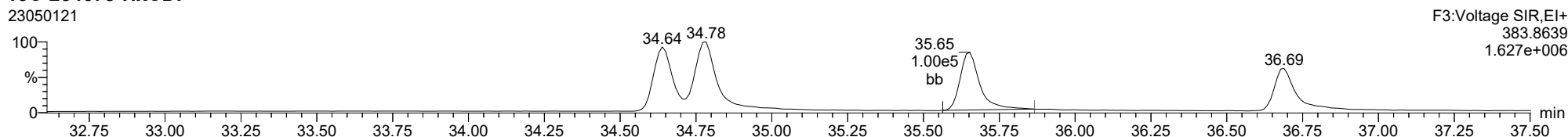
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23050121



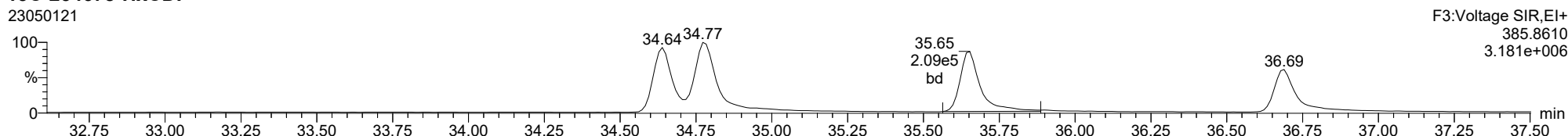
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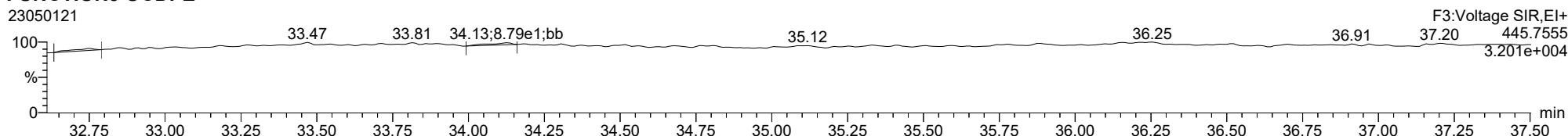
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FUNCTION3 OCDPE

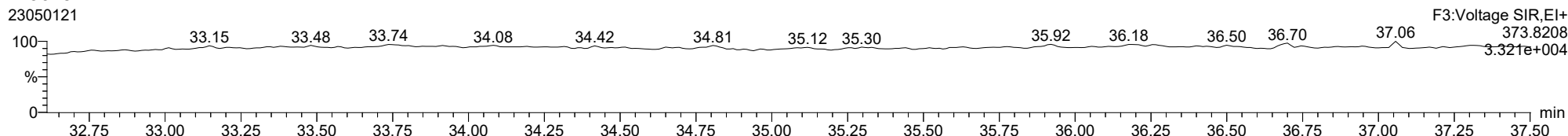
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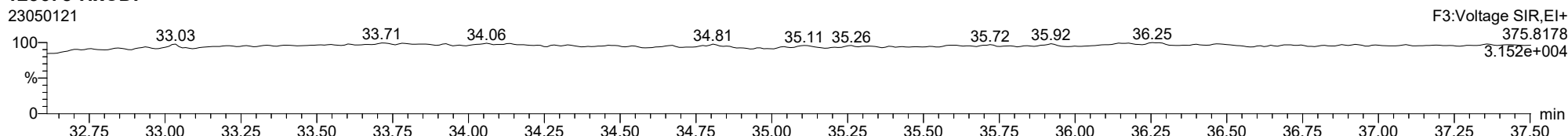
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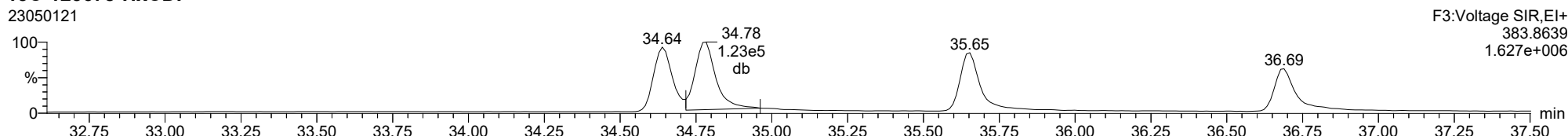
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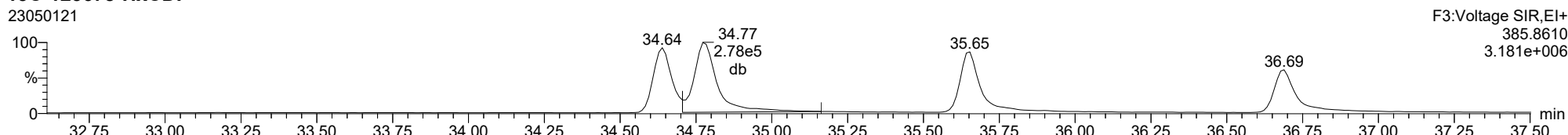
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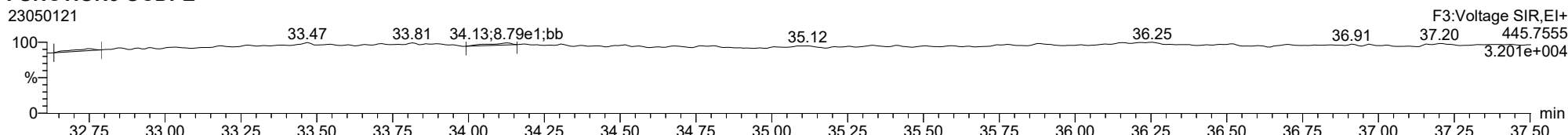
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FUNCTION3 OCDPE

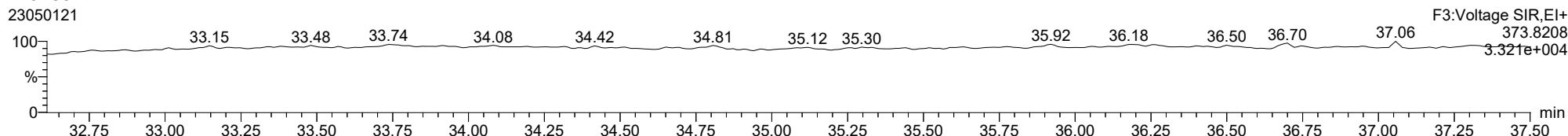
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ID: DBLK25, Name: 23050121, Date: 02-May-2023, Time: 02:53:26, Conditions: AUTOSPEC01, User: pk

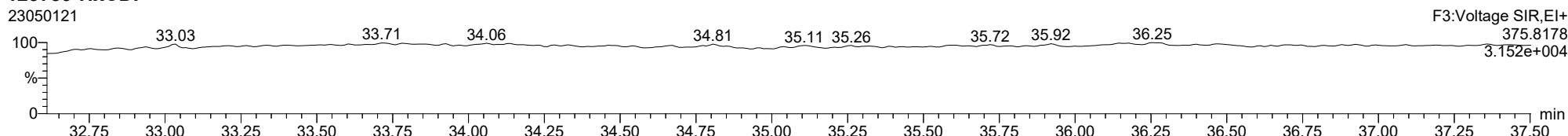
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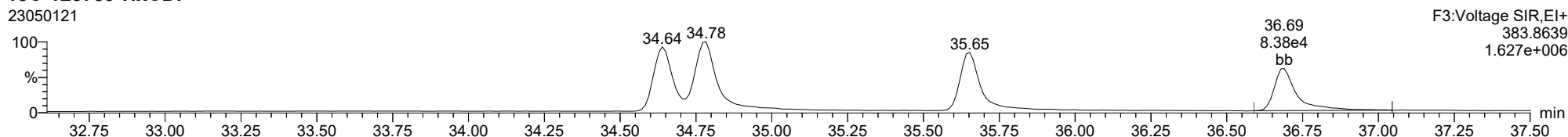
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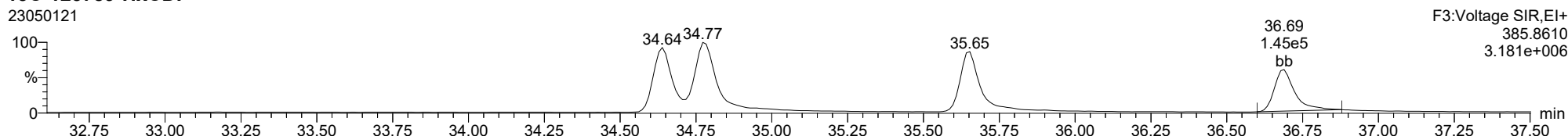
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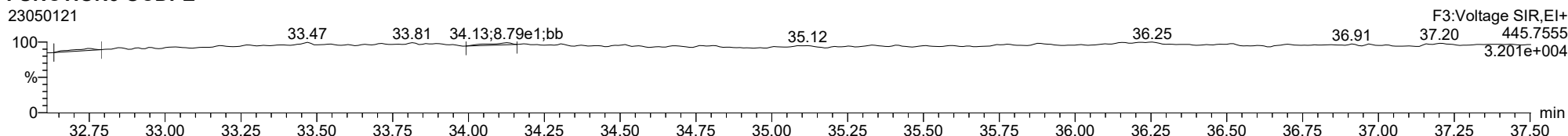
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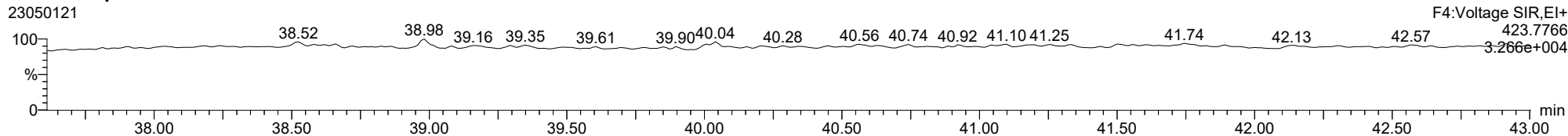
FUNCTION3 OCDPE

23050121

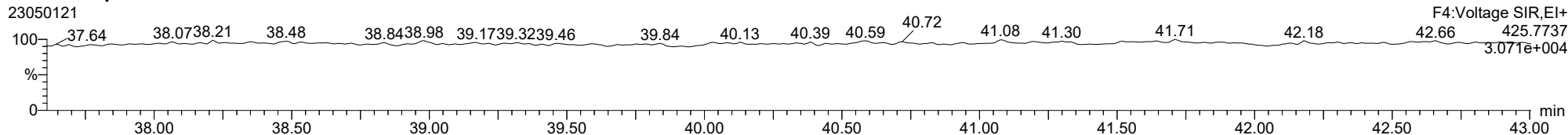


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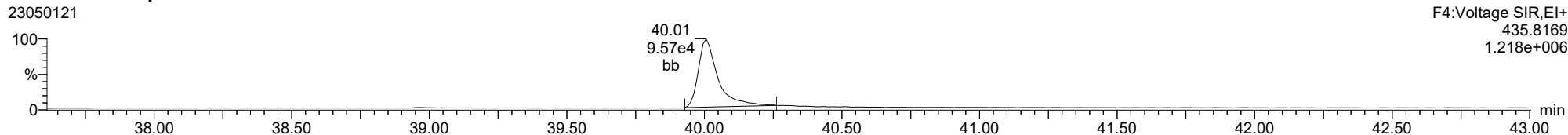
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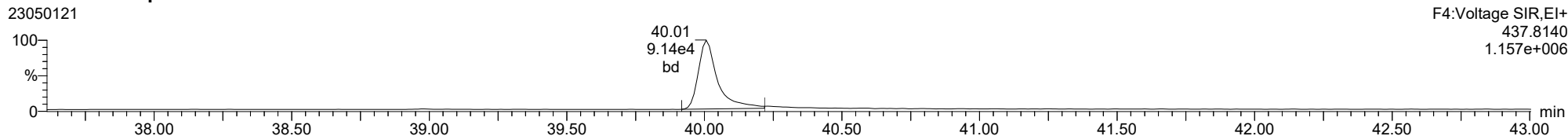
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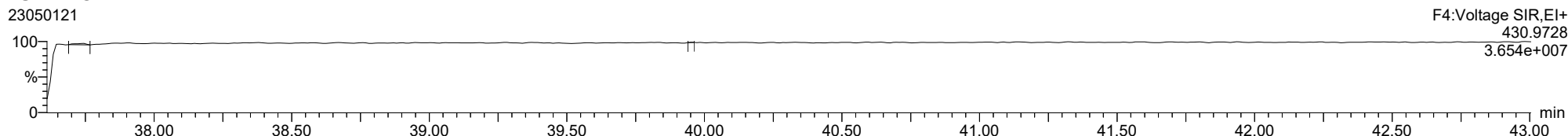
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13C-1234678-HpCDD

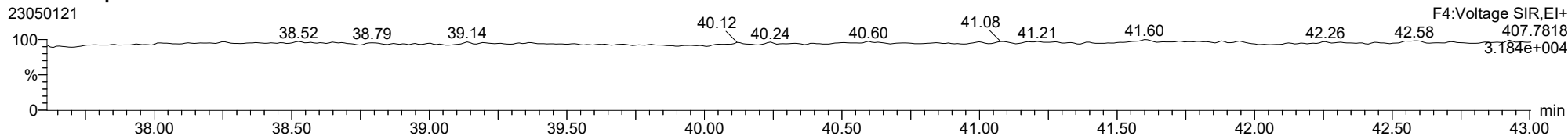


FUNCTION4 PFK

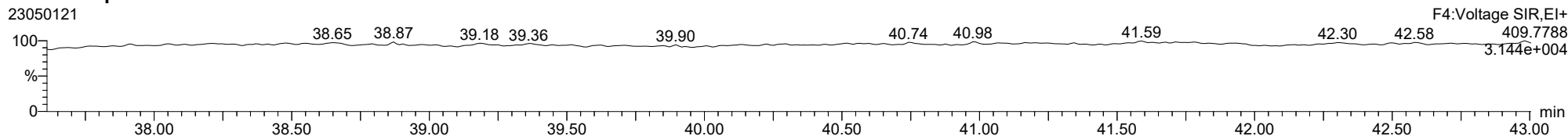


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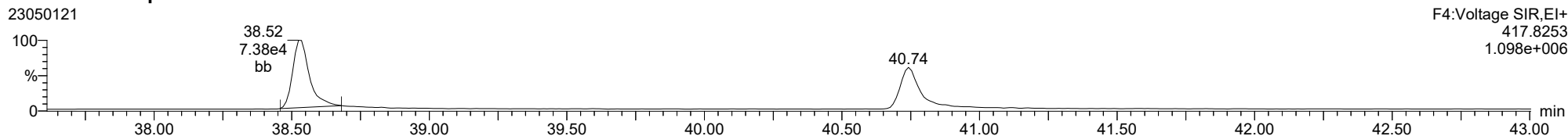
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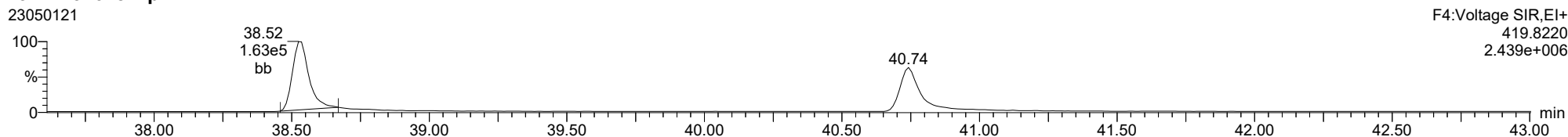
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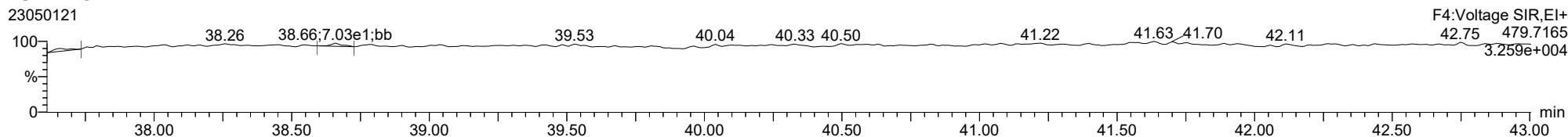
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13C-1234678-HpCDF

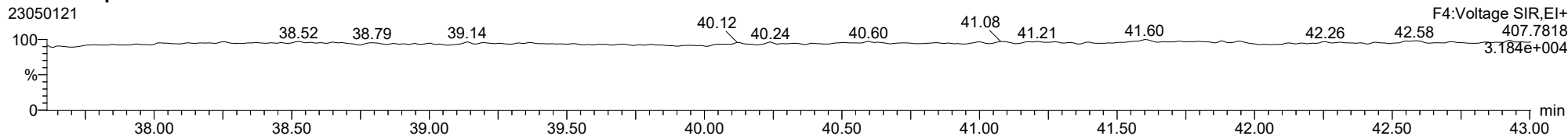


FUNCTION4 NCDPE

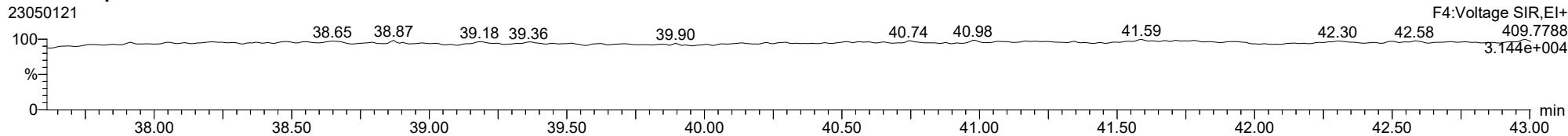


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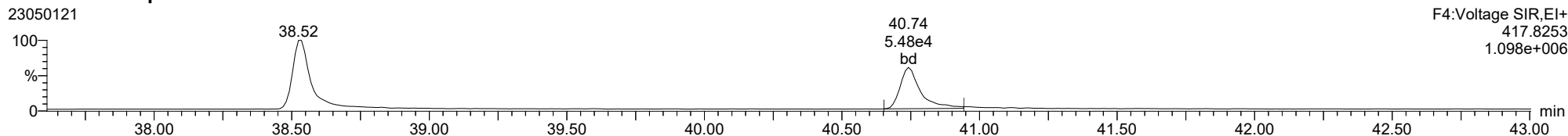
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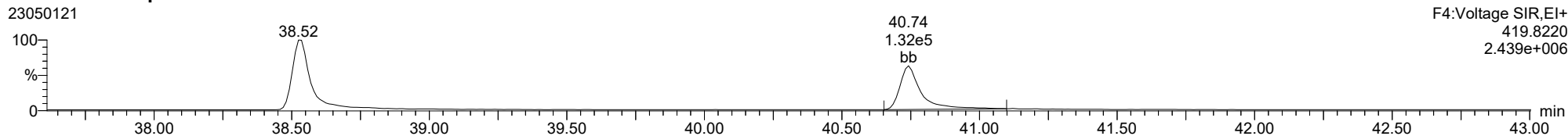
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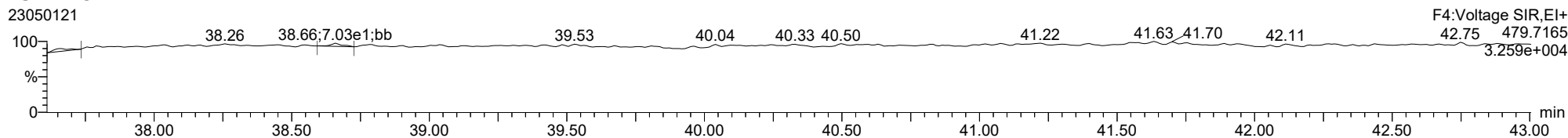
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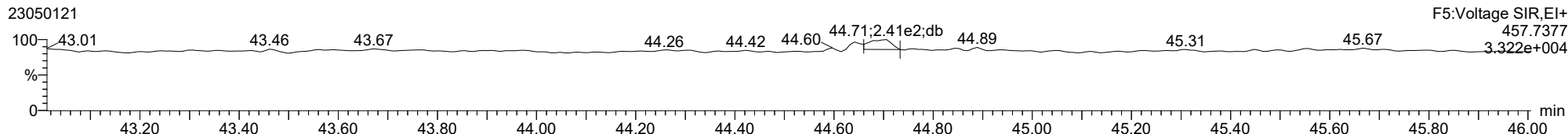


FUNCTION4 NCDPE

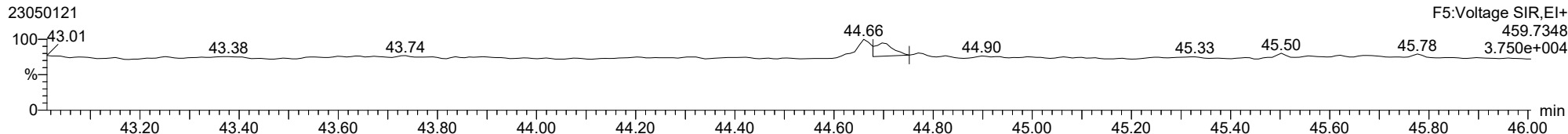


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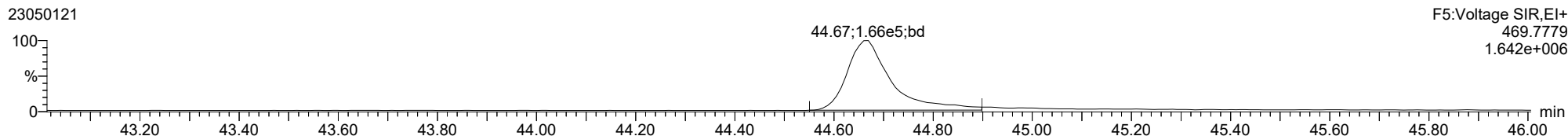
OCDD



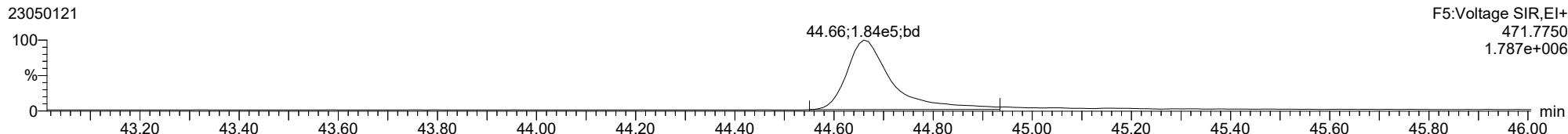
OCDD



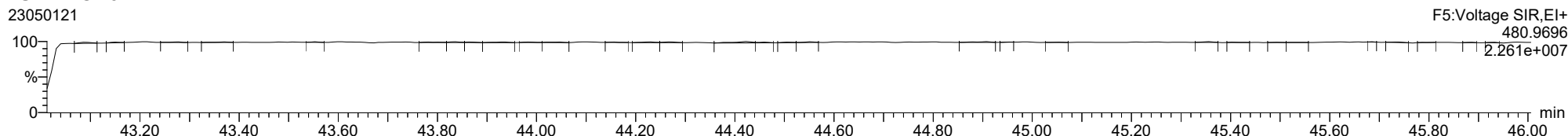
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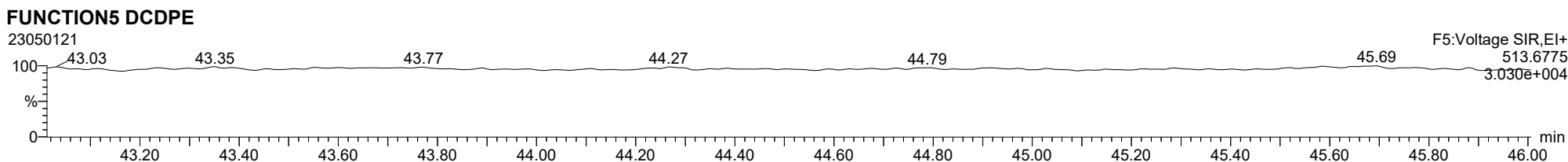
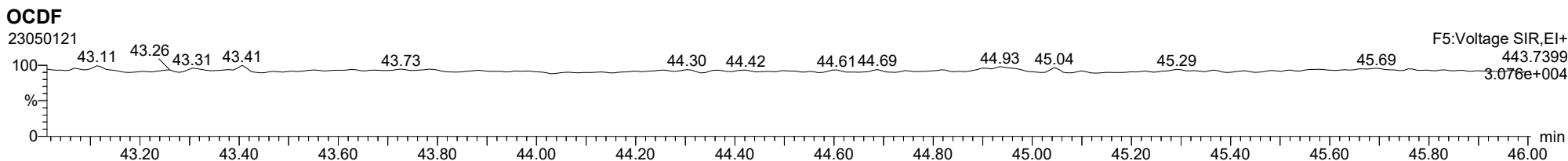
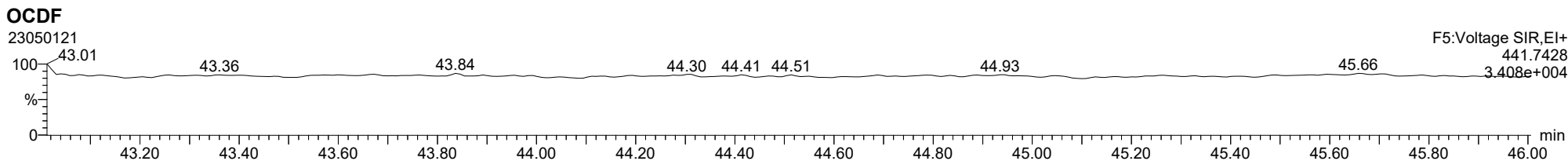
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FUNCTION5 PFK

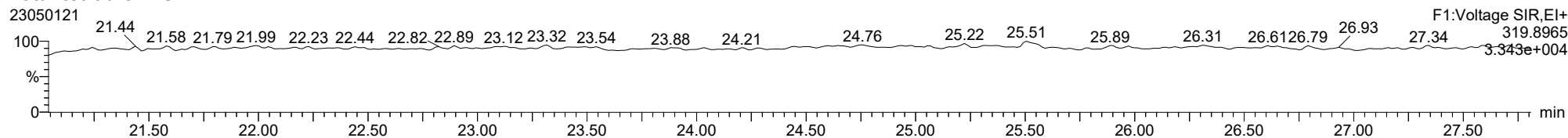


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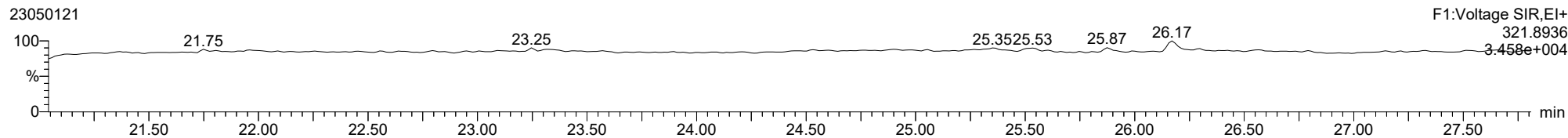


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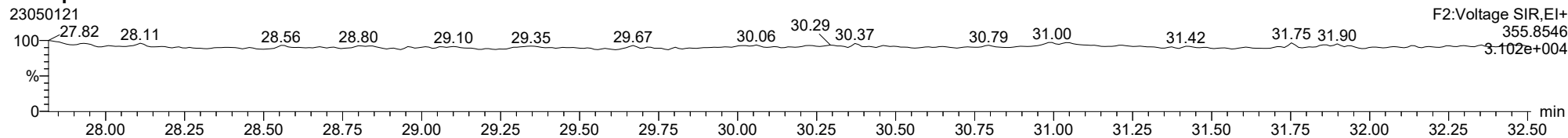
Total-tetradioxins



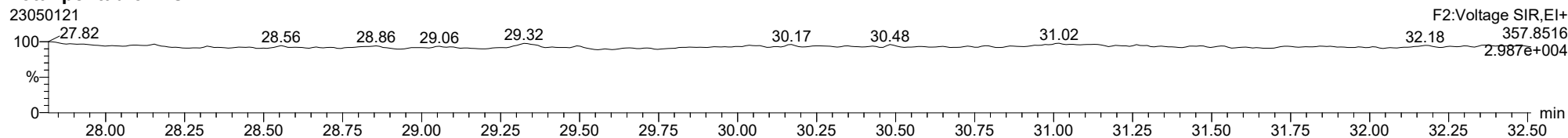
Total-tetradioxins



Total-pentadioxins

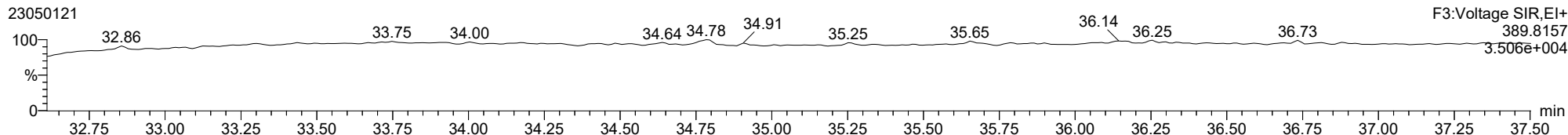


Total-pentadioxins

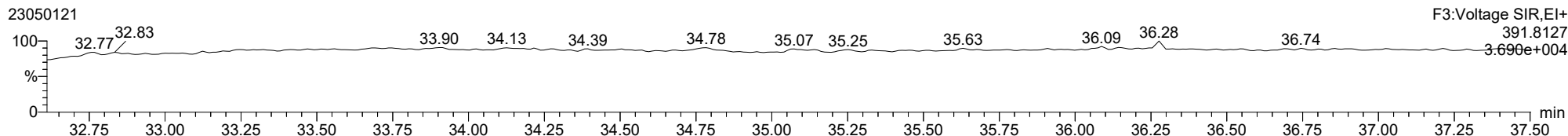


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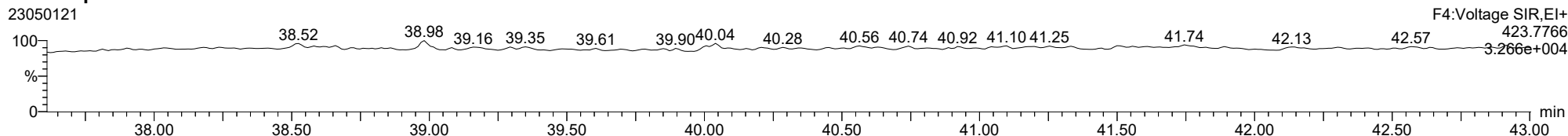
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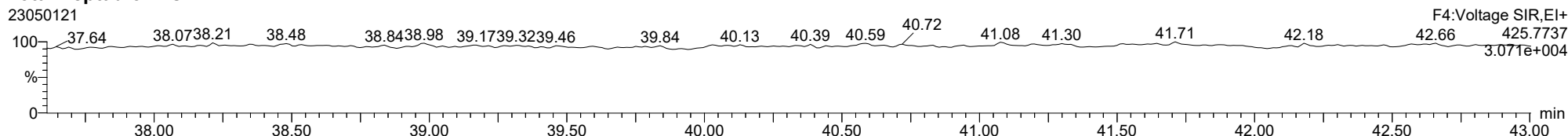
Total-hexadioxins



Total-heptadioxins

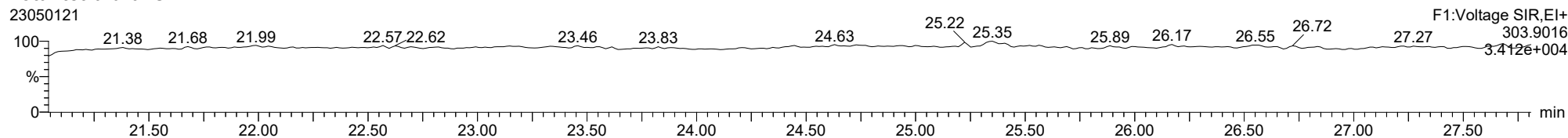


Total-heptadioxins

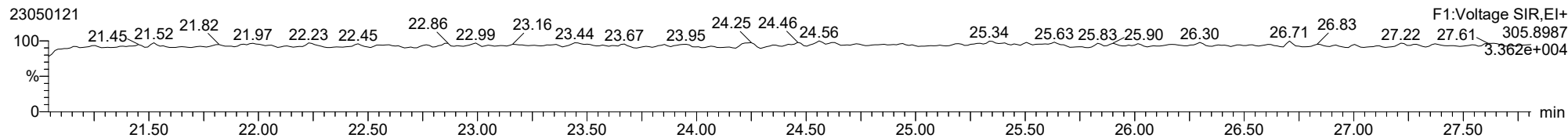


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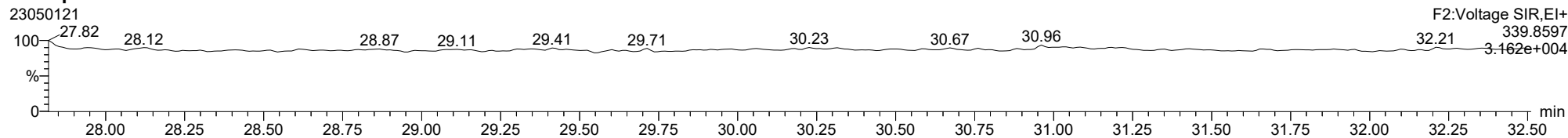
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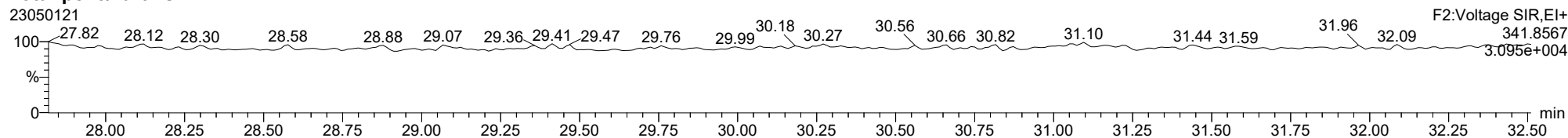
Total-tetrafurans



Total-pentafurans



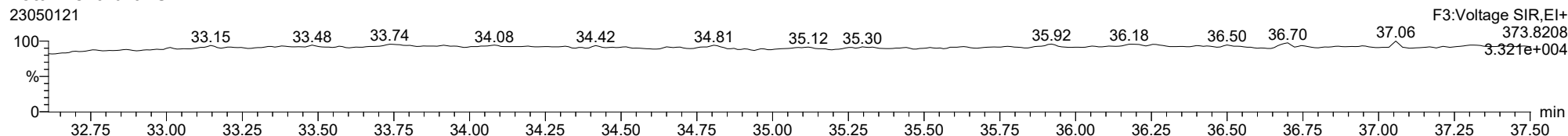
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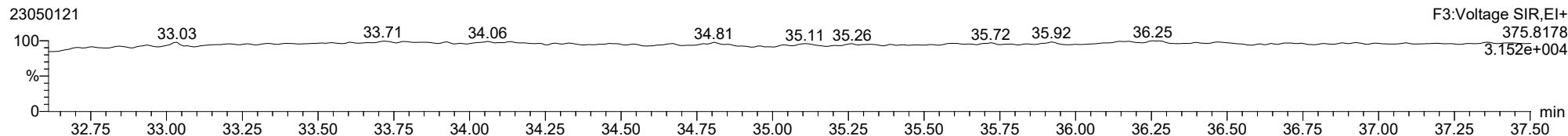
Total-hexafurans

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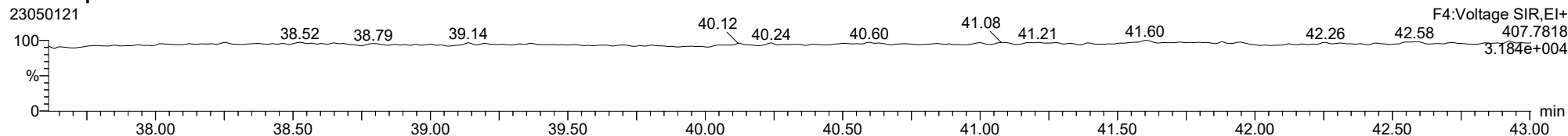
Total-hexafurans

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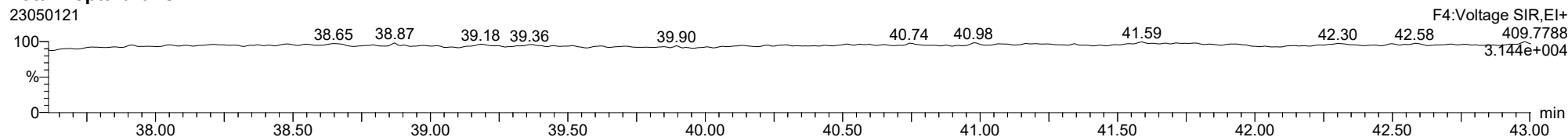
Total-heptafurans

23050121



Total-heptafurans

23050121





LCS RECOVERY
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Analyzed: 05/02/23 03:42

Batch: BLD0657

Laboratory ID: BLD0657-BS2

Preparation: EPA 1613

Sequence Name: LCS

Initial/Final: 10 g / 20 uL

COMPOUND	SPIKE ADDED (ng/kg wet)	LCS CONCENTRATION (ng/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
2,3,7,8-TCDF	20.0	19.3		96.3	75 - 158
2,3,7,8-TCDD	20.0	19.7		98.7	67 - 158
1,2,3,7,8-PeCDF	100	122		122	80 - 134
2,3,4,7,8-PeCDF	100	122		122	68 - 160
1,2,3,7,8-PeCDD	100	128		128	70 - 142
1,2,3,4,7,8-HxCDF	100	101		101	72 - 134
1,2,3,6,7,8-HxCDF	100	121		121	84 - 130
2,3,4,6,7,8-HxCDF	100	111		111	70 - 156
1,2,3,7,8,9-HxCDF	100	107		107	78 - 130
1,2,3,4,7,8-HxCDD	100	100		100	70 - 164
1,2,3,6,7,8-HxCDD	100	115		115	76 - 134
1,2,3,7,8,9-HxCDD	100	117		117	64 - 162
1,2,3,4,6,7,8-HpCDF	100	104		104	82 - 122
1,2,3,4,7,8,9-HpCDF	100	113		113	78 - 138
1,2,3,4,6,7,8-HpCDD	100	96.3		96.3	70 - 140
OCDF	200	176		88.2	63 - 170
OCDD	200	208	B	104	78 - 144

* Indicates values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
 Printed: Wednesday, May 10, 2023 16:28:06 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230501.mdb 02 May 2023 09:11:55
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: DLCS25, **Name:** 23050122, **Date:** 02-May-2023, **Time:** 03:42:31, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.549	1.001	1.570e4	2.013e4	0.702	0.780	0.770	609	945	2.13e5	3.03e5	350.6	320.6	NO	bb	bb	9.629
12378-PeCDF	29.691	1.001	1.182e5	7.631e4	0.679	1.549	1.550	1698	1859	1.72e6	1.08e6	1012.9	582.8	NO	bb	bb	60.848
23478-PeCDF	31.028	1.001	1.209e5	7.666e4	0.786	1.577	1.550	1698	1859	1.73e6	1.09e6	1017.3	583.7	NO	bb	bb	60.756
123478-HxCDF	34.661	1.001	9.812e4	7.975e4	1.166	1.230	1.240	1871	1817	1.42e6	1.13e6	759.3	624.3	NO	bd	bd	50.749
234678-HxCDF	35.664	1.000	1.007e5	8.170e4	1.140	1.233	1.240	1871	1817	1.30e6	1.07e6	694.3	588.3	NO	bd	bd	55.579
123678-HxCDF	34.795	1.000	1.278e5	1.030e5	1.091	1.241	1.240	1871	1817	1.58e6	1.27e6	842.6	698.8	NO	dd	dd	60.547
123789-HxCDF	36.700	1.000	7.638e4	6.082e4	1.137	1.256	1.240	1871	1817	9.76e5	7.59e5	521.7	417.7	NO	bd	bd	53.476
1234678-HpCDF	38.547	1.000	6.577e4	6.372e4	1.003	1.032	1.050	3496	1601	9.90e5	9.79e5	283.1	611.5	NO	bb	bb	51.784
1234789-HpCDF	40.764	1.001	4.849e4	4.712e4	0.953	1.029	1.050	3496	1601	5.73e5	5.50e5	163.8	343.3	NO	bd	bd	56.262
OCDF	44.916	1.006	5.529e4	6.097e4	0.778	0.907	0.890	1533	2962	6.07e5	7.07e5	396.0	238.8	NO	bb	bb	88.209
2378-TCDD	26.170	1.001	2.106e4	2.849e4	1.149	0.739	0.770	886	769	2.88e5	3.92e5	325.0	509.0	NO	bd	bd	9.869
12378-PeCDD	31.285	1.001	8.781e4	5.420e4	1.022	1.620	1.550	1439	885	1.28e6	7.62e5	891.7	861.3	NO	bb	bb	64.102
123478-HxCDD	35.786	1.001	7.105e4	5.565e4	0.996	1.277	1.240	1036	1402	1.11e6	8.38e5	1067.9	597.8	NO	bd	bd	50.080
123678-HxCDD	35.898	1.000	8.905e4	6.856e4	1.001	1.299	1.240	1036	1402	1.21e6	9.56e5	1163.5	682.1	NO	db	db	57.258
123789-HxCDD	36.288	1.011	7.583e4	6.511e4	0.907	1.165	1.240	1036	1402	1.02e6	7.93e5	985.3	565.5	NO	bd	bd	58.729
1234678-HpCDD	40.029	1.000	5.103e4	4.959e4	1.039	1.029	1.050	1489	1882	7.09e5	6.89e5	476.3	366.4	NO	bb	bb	48.155
OCDD	44.678	1.000	7.340e4	8.881e4	0.920	0.826	0.890	1813	2387	7.58e5	8.95e5	418.2	374.9	NO	bd	bd	104.056
13C-2378-TCDF	25.520	1.007	2.276e5	3.028e5	1.620	0.752	0.770	1857	1497	3.09e6	4.13e6	1665.2	2761.8	NO	bd	bb	81.721
13C-12378-PeCDF	29.669	1.170	2.878e5	1.829e5	1.240	1.574	1.550	2857	2253	3.60e6	2.38e6	1259.6	1058.7	NO	bb	bd	94.730
13C-23478-PeCDF	31.006	1.223	2.488e5	1.648e5	1.118	1.510	1.550	2857	2253	3.32e6	2.20e6	1161.7	974.5	NO	bb	bb	92.373
13C-123478-HxCDF	34.639	0.955	1.016e5	1.990e5	1.168	0.510	0.510	1944	3121	1.47e6	2.87e6	756.3	918.4	NO	bd	bd	101.114
13C-123678-HxCDF	34.784	0.959	1.204e5	2.291e5	1.386	0.525	0.510	1944	3121	1.61e6	3.09e6	828.9	988.8	NO	db	db	99.053
13C-234678-HxCDF	35.653	0.983	9.613e4	1.919e5	1.129	0.501	0.510	1944	3121	1.34e6	2.61e6	687.2	836.9	NO	bb	bb	100.230
13C-123789-HxCDF	36.689	1.011	7.454e4	1.511e5	0.932	0.493	0.510	1944	3121	1.03e6	1.98e6	530.2	634.4	NO	bb	bb	95.175
13C-1234678-HpCDF	38.536	1.062	7.600e4	1.733e5	0.895	0.438	0.440	1952	2626	1.11e6	2.53e6	569.8	964.1	NO	bb	bb	109.454
13C-1234789-HpCDF	40.742	1.123	5.739e4	1.209e5	0.770	0.475	0.440	1952	2626	6.34e5	1.42e6	324.8	540.4	NO	bd	bb	91.034
13C-1234-TCDD	25.351	0.000	1.768e5	2.238e5	1.000	0.790	0.770	2069	1090	2.68e6	3.38e6	1296.7	3104.8	NO	bb	bb	100.000
13C-2378-TCDD	26.156	1.032	1.937e5	2.434e5	1.152	0.796	0.770	2069	1090	2.74e6	3.48e6	1324.8	3191.7	NO	bb	bb	94.693
13C-12378-PeCDD	31.262	1.233	1.363e5	8.052e4	0.829	1.693	1.550	989	843	1.72e6	1.03e6	1742.8	1225.6	NO	bb	bd	65.302
13C-123478-HxCDD	35.764	0.986	1.413e5	1.128e5	0.995	1.253	1.240	1798	1346	2.11e6	1.69e6	1174.2	1258.1	NO	bd	bd	100.378
13C-123678-HxCDD	35.887	0.989	1.595e5	1.155e5	1.157	1.380	1.240	1798	1346	2.28e6	1.68e6	1267.3	1251.4	NO	db	db	93.440
13C-1234678-HpCDD	40.018	1.103	1.049e5	9.625e4	0.840	1.090	1.050	1331	1687	1.24e6	1.14e6	933.4	673.6	NO	bb	bd	94.088
13C-OCDD	44.660	1.231	1.620e5	1.769e5	0.767	0.915	0.890	2185	1918	1.61e6	1.80e6	738.8	936.9	NO	bd	bd	173.552
13C-123789-HxCDD	36.277	0.000	1.448e5	1.097e5	1.000	1.320	1.240	1798	1346	1.87e6	1.48e6	1037.9	1098.7	NO	bb	bb	100.000
37CL-2378-TCDD	26.170	1.032	1.963e5		1.288			1458		2.63e6		1800.9			bb		38.056

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
 Printed: Wednesday, May 10, 2023 16:28:06 Pacific Daylight Time

ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	609	945								
1289-TCDF					0.678		0.770	609	945								
13468-PECDF					1.246		1.550	600	830								
12389-PECDF					0.496		1.550	1698	1859								
123468-HXCDF					1.169		1.240	1871	1817								
1368-TCDD					1.015		0.770	886	769								
1289-TCDD					0.909		0.770	886	769								
12479-PECDD					2.301		1.550	1439	885								
12389-PECDD					1.184		1.550	1439	885								
124679-HXCDD					1.115		1.240	1036	1402								
1234679-HPCDD	38.993	0.974	3.402e2	4.980e2	1.137	0.683	1.050	1489	1882	5.99e3	8.58e3	4.0	4.6	YES	bb	bb	0.367
Total-tetrafurans			1.570e4		0.727			609		2.13e5							9.629
Total-penta1			0.000e0					600		0.00e0							
Total-pentafurans			2.391e5		0.654			1698		3.45e6							121.604
Total-hexafurans			4.030e5		1.141			1871		5.27e6							220.351
Total-heptafurans			1.143e5		0.978			3496		1.56e6							108.047
Total-Furans			8.274e5		0.922			609		1.11e7							547.840
Total-tetradoxins			2.156e4		1.024			886		2.94e5							10.108
Total-pentadoxins			8.781e4		1.502			1439		1.28e6							64.102
Total-hexadoxins			2.359e5		1.005			1036		3.33e6							166.067
Total-heptadoxins			5.103e4		1.088			1489		7.09e5							48.155
Total-Dioxins			4.697e5		1.130			886		6.38e6							392.488
Total-TEQ			1.297e6					886		1.75e7							940.328
FUNCTION1 PFK			5.223e5					357736		1.07e7							
FUNCTION2 PFK			3.871e5					168572		1.11e7							0.000
FUNCTION3 PFK			3.310e7					285059		1.45e7							0.000
FUNCTION4 PFK			1.984e5					204830		6.56e6							
FUNCTION5 PFK			1.173e7					132788		8.87e7							
FUNCTION1 HXCD...			8.392e2					528		1.06e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.041e3					1123		2.34e4							0.000
FUNCTION3 OCDPE			2.440e2					516		3.27e3							0.000
FUNCTION4 NCDPE			1.653e2					610		6.08e3							0.000
FUNCTION5 DCDPE			8.711e1					406		1.92e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
 Printed: Wednesday, May 10, 2023 16:28:06 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230501.mdb 02 May 2023 09:11:55

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.55	1.570e4	2.013e4	0.702	0.78	0.77	350.6	YES	NO	bb	bb	9.629

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.03	1.209e5	7.666e4	0.786	1.58	1.55	1017.3	YES	NO	bb	bb	60.756
2	12378-PeCDF	29.69	1.182e5	7.631e4	0.679	1.55	1.55	1012.9	YES	NO	bb	bb	60.848

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	234678-HxCDF	35.66	1.007e5	8.170e4	1.140	1.23	1.24	694.3	YES	NO	bd	bd	55.579
2	123678-HxCDF	34.79	1.278e5	1.030e5	1.091	1.24	1.24	842.6	YES	NO	dd	dd	60.547
3	123478-HxCDF	34.66	9.812e4	7.975e4	1.166	1.23	1.24	759.3	YES	NO	bd	bd	50.749
4	123789-HxCDF	36.70	7.638e4	6.082e4	1.137	1.26	1.24	521.7	YES	NO	bd	bd	53.476

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	40.76	4.849e4	4.712e4	0.953	1.03	1.05	163.8	YES	NO	bd	bd	56.262
2	1234678-HpCDF	38.55	6.577e4	6.372e4	1.003	1.03	1.05	283.1	YES	NO	bb	bb	51.784

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
 Printed: Wednesday, May 10, 2023 16:28:06 Pacific Daylight Time

ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.55	1.570e4	2.013e4	0.702	0.78	0.77	350.6	YES	NO	bb	bb	9.629
2	23478-PeCDF	31.03	1.209e5	7.666e4	0.786	1.58	1.55	1017.3	YES	NO	bb	bb	60.756
3	12378-PeCDF	29.69	1.182e5	7.631e4	0.679	1.55	1.55	1012.9	YES	NO	bb	bb	60.848
4	234678-HxCDF	35.66	1.007e5	8.170e4	1.140	1.23	1.24	694.3	YES	NO	bd	bd	55.579
5	123678-HxCDF	34.79	1.278e5	1.030e5	1.091	1.24	1.24	842.6	YES	NO	dd	dd	60.547
6	123478-HxCDF	34.66	9.812e4	7.975e4	1.166	1.23	1.24	759.3	YES	NO	bd	bd	50.749
7	123789-HxCDF	36.70	7.638e4	6.082e4	1.137	1.26	1.24	521.7	YES	NO	bd	bd	53.476
8	1234789-HpCDF	40.76	4.849e4	4.712e4	0.953	1.03	1.05	163.8	YES	NO	bd	bd	56.262
9	1234678-HpCDF	38.55	6.577e4	6.372e4	1.003	1.03	1.05	283.1	YES	NO	bb	bb	51.784
10	OCDF	44.92	5.529e4	6.097e4	0.778	0.91	0.89	396.0	YES	NO	bb	bb	88.209

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.17	2.106e4	2.849e4	1.149	0.74	0.77	325.0	YES	NO	bd	bd	9.869
2	Total-tetraoxins	25.79	4.977e2	5.740e2	1.024	0.87	0.77	6.7	YES	NO	bb	bb	0.239

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.28	8.781e4	5.420e4	1.022	1.62	1.55	891.7	YES	NO	bb	bb	64.102

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.29	7.583e4	6.511e4	0.907	1.16	1.24	985.3	YES	NO	bd	bd	58.729
2	123678-HxCDD	35.90	8.905e4	6.856e4	1.001	1.30	1.24	1163.5	YES	NO	db	db	57.258
3	123478-HxCDD	35.79	7.105e4	5.565e4	0.996	1.28	1.24	1067.9	YES	NO	bd	bd	50.080

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.03	5.103e4	4.959e4	1.039	1.03	1.05	476.3	YES	NO	bb	bb	48.155

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.17	2.106e4	2.849e4	1.149	0.74	0.77	325.0	YES	NO	bd	bd	9.869
2	Total-tetradiioxins	25.79	4.977e2	5.740e2	1.024	0.87	0.77	6.7	YES	NO	bb	bb	0.239
3	12378-PeCDD	31.28	8.781e4	5.420e4	1.022	1.62	1.55	891.7	YES	NO	bb	bb	64.102
4	123789-HxCDD	36.29	7.583e4	6.511e4	0.907	1.16	1.24	985.3	YES	NO	bd	bd	58.729
5	123678-HxCDD	35.90	8.905e4	6.856e4	1.001	1.30	1.24	1163.5	YES	NO	db	db	57.258
6	123478-HxCDD	35.79	7.105e4	5.565e4	0.996	1.28	1.24	1067.9	YES	NO	bd	bd	50.080
7	1234678-HpCDD	40.03	5.103e4	4.959e4	1.039	1.03	1.05	476.3	YES	NO	bb	bb	48.155
8	OCDD	44.68	7.340e4	8.881e4	0.920	0.83	0.89	418.2	YES	NO	bd	bd	104.056

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.55	1.570e4	2.013e4	0.702	0.78	0.77	350.6	YES	NO	bb	bb	9.629
2	23478-PeCDF	31.03	1.209e5	7.666e4	0.786	1.58	1.55	1017.3	YES	NO	bb	bb	60.756
3	12378-PeCDF	29.69	1.182e5	7.631e4	0.679	1.55	1.55	1012.9	YES	NO	bb	bb	60.848
4	234678-HxCDF	35.66	1.007e5	8.170e4	1.140	1.23	1.24	694.3	YES	NO	bd	bd	55.579
5	123678-HxCDF	34.79	1.278e5	1.030e5	1.091	1.24	1.24	842.6	YES	NO	dd	dd	60.547
6	123478-HxCDF	34.66	9.812e4	7.975e4	1.166	1.23	1.24	759.3	YES	NO	bd	bd	50.749
7	123789-HxCDF	36.70	7.638e4	6.082e4	1.137	1.26	1.24	521.7	YES	NO	bd	bd	53.476
8	1234789-HpCDF	40.76	4.849e4	4.712e4	0.953	1.03	1.05	163.8	YES	NO	bd	bd	56.262
9	1234678-HpCDF	38.55	6.577e4	6.372e4	1.003	1.03	1.05	283.1	YES	NO	bb	bb	51.784
10	OCDF	44.92	5.529e4	6.097e4	0.778	0.91	0.89	396.0	YES	NO	bb	bb	88.209
11	2378-TCDD	26.17	2.106e4	2.849e4	1.149	0.74	0.77	325.0	YES	NO	bd	bd	9.869
12	Total-tetradiioxins	25.79	4.977e2	5.740e2	1.024	0.87	0.77	6.7	YES	NO	bb	bb	0.239
13	12378-PeCDD	31.28	8.781e4	5.420e4	1.022	1.62	1.55	891.7	YES	NO	bb	bb	64.102
14	123789-HxCDD	36.29	7.583e4	6.511e4	0.907	1.16	1.24	985.3	YES	NO	bd	bd	58.729
15	123678-HxCDD	35.90	8.905e4	6.856e4	1.001	1.30	1.24	1163.5	YES	NO	db	db	57.258
16	123478-HxCDD	35.79	7.105e4	5.565e4	0.996	1.28	1.24	1067.9	YES	NO	bd	bd	50.080
17	1234678-HpCDD	40.03	5.103e4	4.959e4	1.039	1.03	1.05	476.3	YES	NO	bb	bb	48.155
18	OCDD	44.68	7.340e4	8.881e4	0.920	0.83	0.89	418.2	YES	NO	bd	bd	104.056

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230501IHQC.qld
 Last Altered: Wednesday, May 10, 2023 16:26:38 Pacific Daylight Time
 Printed: Wednesday, May 10, 2023 16:28:06 Pacific Daylight Time

ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.57	2.166e3					0.4	NO		db		
2	FUNCTION1 PFK	22.51	1.583e4					1.3	NO		bd		
3	FUNCTION1 PFK	22.31	3.667e4					1.3	NO		bb		
4	FUNCTION1 PFK	21.92	7.350e4					2.8	NO		db		
5	FUNCTION1 PFK	21.81	2.436e4					1.5	NO		bd		
6	FUNCTION1 PFK	21.42	1.028e4					1.4	NO		db		
7	FUNCTION1 PFK	21.41	2.170e4					1.3	NO		bd		
8	FUNCTION1 PFK	21.18	5.078e4					2.4	NO		bb		
9	FUNCTION1 PFK	27.24	2.074e4					1.0	NO		db		
10	FUNCTION1 PFK	27.17	1.076e4					1.0	NO		bd		
11	FUNCTION1 PFK	27.12	2.778e3					0.5	NO		bb		
12	FUNCTION1 PFK	26.41	5.986e3					0.8	NO		bb		
13	FUNCTION1 PFK	25.92	2.494e4					1.1	NO		bb		
14	FUNCTION1 PFK	25.63	1.203e4					1.0	NO		bb		
15	FUNCTION1 PFK	25.53	1.652e4					0.8	NO		db		
16	FUNCTION1 PFK	25.48	2.551e4					1.4	NO		bd		
17	FUNCTION1 PFK	25.28	6.804e3					0.7	NO		bb		
18	FUNCTION1 PFK	24.87	1.304e4					0.9	NO		bb		
19	FUNCTION1 PFK	23.81	6.489e4					2.3	NO		bb		
20	FUNCTION1 PFK	23.37	3.567e4					1.4	NO		db		
21	FUNCTION1 PFK	23.32	1.611e4					1.4	NO		bd		
22	FUNCTION1 PFK	22.95	9.679e3					0.9	NO		bb		
23	FUNCTION1 PFK	22.85	1.152e4					1.1	NO		bb		
24	FUNCTION1 PFK	22.78	8.066e3					1.0	NO		bb		
25	FUNCTION1 PFK	27.36	2.004e3					0.4	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.23	1.509e4					2.3	NO		dd		0.000
2	FUNCTION2 PFK	29.18	6.930e3					1.6	NO		dd		0.000
3	FUNCTION2 PFK	29.13	4.055e3					0.9	NO		bd		0.000
4	FUNCTION2 PFK	28.83	4.540e3					1.1	NO		db		0.000
5	FUNCTION2 PFK	28.79	1.061e4					1.7	NO		bd		0.000
6	FUNCTION2 PFK	28.50	3.552e3					0.8	NO		bb		0.000
7	FUNCTION2 PFK	28.39	1.344e4					1.6	NO		bb		0.000
8	FUNCTION2 PFK	28.20	1.465e4					2.0	NO		db		0.000
9	FUNCTION2 PFK	28.15	1.018e4					1.9	NO		dd		0.000
10	FUNCTION2 PFK	28.11	1.218e4					2.2	NO		dd		0.000
11	FUNCTION2 PFK	28.05	1.991e4					2.6	NO		dd		0.000
12	FUNCTION2 PFK	28.01	1.170e4					1.9	NO		dd		0.000
13	FUNCTION2 PFK	27.96	1.090e4					1.9	NO		dd		0.000
14	FUNCTION2 PFK	27.90	1.356e4					2.2	NO		bd		0.000
15	FUNCTION2 PFK	30.99	6.095e3					1.2	NO		bb		0.000
16	FUNCTION2 PFK	30.65	2.369e3					0.6	NO		bb		0.000
17	FUNCTION2 PFK	30.58	9.303e3					2.0	NO		db		0.000
18	FUNCTION2 PFK	30.50	8.841e3					1.4	NO		bd		0.000
19	FUNCTION2 PFK	30.42	1.811e4					2.3	NO		db		0.000
20	FUNCTION2 PFK	30.36	8.492e3					1.5	NO		dd		0.000
21	FUNCTION2 PFK	30.33	4.068e3					0.9	NO		bd		0.000
22	FUNCTION2 PFK	30.27	1.958e3					0.7	NO		bb		0.000
23	FUNCTION2 PFK	30.15	4.872e3					1.1	NO		db		0.000
24	FUNCTION2 PFK	30.09	7.590e3					1.4	NO		bd		0.000
25	FUNCTION2 PFK	29.76	4.144e3					0.9	NO		db		0.000
26	FUNCTION2 PFK	29.72	5.964e3					1.5	NO		dd		0.000
27	FUNCTION2 PFK	29.68	5.010e3					1.3	NO		bd		0.000
28	FUNCTION2 PFK	29.37	6.353e3					1.5	NO		bb		0.000
29	FUNCTION2 PFK	29.32	5.080e3					1.4	NO		db		0.000
30	FUNCTION2 PFK	29.29	1.013e4					1.7	NO		dd		0.000
31	FUNCTION2 PFK	32.31	2.702e4					1.5	NO		bb		0.000
32	FUNCTION2 PFK	32.24	3.621e3					1.0	NO		bb		0.000
33	FUNCTION2 PFK	32.13	6.447e3					1.3	NO		db		0.000
34	FUNCTION2 PFK	32.09	3.417e3					0.9	NO		bd		0.000
35	FUNCTION2 PFK	32.03	1.215e4					2.0	NO		db		0.000
36	FUNCTION2 PFK	31.94	2.145e4					1.9	NO		bd		0.000
37	FUNCTION2 PFK	31.88	4.750e3					1.4	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	31.80	5.515e3					0.5	NO		bb		0.000
39	FUNCTION2 PFK	31.65	1.516e3					0.5	NO		bb		0.000
40	FUNCTION2 PFK	31.53	1.144e4					2.1	NO		db		0.000
41	FUNCTION2 PFK	31.49	9.762e3					1.9	NO		dd		0.000
42	FUNCTION2 PFK	31.44	6.144e3					1.2	NO		bd		0.000
43	FUNCTION2 PFK	31.38	7.977e3					1.5	NO		bb		0.000
44	FUNCTION2 PFK	31.28	2.977e3					0.8	NO		bb		0.000
45	FUNCTION2 PFK	31.06	3.258e3					0.9	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.10	1.747e6					15.8	YES		bb		0.000
2	FUNCTION3 PFK	33.96	3.135e7					35.2	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.11	6.743e3					1.2	NO		bb		
2	FUNCTION4 PFK	40.05	8.866e3					1.0	NO		bb		
3	FUNCTION4 PFK	39.40	4.378e3					1.0	NO		bb		
4	FUNCTION4 PFK	39.10	7.840e3					1.4	NO		bb		
5	FUNCTION4 PFK	38.65	2.085e3					0.6	NO		db		
6	FUNCTION4 PFK	38.58	1.908e4					1.7	NO		bd		
7	FUNCTION4 PFK	38.42	2.901e4					2.7	NO		bb		
8	FUNCTION4 PFK	38.37	7.515e3					1.3	NO		bb		
9	FUNCTION4 PFK	38.26	3.244e3					0.8	NO		bb		
10	FUNCTION4 PFK	38.17	7.754e3					0.8	NO		bb		
11	FUNCTION4 PFK	38.09	9.760e2					0.4	NO		bb		
12	FUNCTION4 PFK	38.00	5.082e3					1.0	NO		bb		
13	FUNCTION4 PFK	37.70	6.602e3					1.3	NO		bb		
14	FUNCTION4 PFK	42.95	4.540e3					0.9	NO		bb		
15	FUNCTION4 PFK	42.86	3.672e3					0.8	NO		bb		
16	FUNCTION4 PFK	42.42	3.036e3					0.7	NO		bb		
17	FUNCTION4 PFK	42.26	9.862e2					0.4	NO		bb		
18	FUNCTION4 PFK	42.21	3.089e3					0.8	NO		bb		
19	FUNCTION4 PFK	42.08	4.526e3					0.7	NO		bb		
20	FUNCTION4 PFK	41.97	4.791e3					1.1	NO		bb		
21	FUNCTION4 PFK	41.82	8.208e3					1.4	NO		bb		
22	FUNCTION4 PFK	41.76	1.651e4					2.4	NO		db		
23	FUNCTION4 PFK	41.71	5.344e3					1.2	NO		bd		
24	FUNCTION4 PFK	41.51	7.383e3					1.3	NO		bb		
25	FUNCTION4 PFK	41.08	1.503e3					0.7	NO		bb		
26	FUNCTION4 PFK	41.03	9.987e3					1.3	NO		bb		
27	FUNCTION4 PFK	40.54	5.253e3					1.2	NO		bb		
28	FUNCTION4 PFK	40.37	1.427e3					0.5	NO		bb		
29	FUNCTION4 PFK	40.30	8.986e3					1.5	NO		bb		

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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.19	3.337e3					1.2	NO		bb		
2	FUNCTION5 PFK	45.14	2.023e3					0.8	NO		db		
3	FUNCTION5 PFK	45.11	1.312e3					0.8	NO		bd		
4	FUNCTION5 PFK	44.97	7.873e3					1.1	NO		bb		
5	FUNCTION5 PFK	44.65	3.738e5					7.6	YES		db		
6	FUNCTION5 PFK	44.43	1.454e5					20.7	YES		dd		
7	FUNCTION5 PFK	44.11	2.106e6					39.7	YES		dd		
8	FUNCTION5 PFK	43.90	4.264e5					51.8	YES		dd		
9	FUNCTION5 PFK	43.85	2.579e5					54.1	YES		dd		
10	FUNCTION5 PFK	43.82	6.190e5					56.6	YES		dd		
11	FUNCTION5 PFK	43.68	8.920e5					63.4	YES		dd		
12	FUNCTION5 PFK	43.32	3.540e6					84.7	YES		dd		
13	FUNCTION5 PFK	43.20	1.283e6					91.6	YES		dd		
14	FUNCTION5 PFK	43.17	4.455e5					92.4	YES		dd		
15	FUNCTION5 PFK	43.10	1.602e6					96.8	YES		bd		
16	FUNCTION5 PFK	45.88	7.379e3					1.4	NO		bb		
17	FUNCTION5 PFK	45.67	6.835e3					1.7	NO		bb		
18	FUNCTION5 PFK	45.42	5.438e3					1.3	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.41	1.593e2					3.2	YES		bb		0.000
2	FUNCTION1 HXCD...	26.74	8.251e1					2.7	NO		db		0.000
3	FUNCTION1 HXCD...	26.65	1.262e2					4.0	YES		dd		0.000
4	FUNCTION1 HXCD...	26.59	1.059e2					3.1	YES		dd		0.000
5	FUNCTION1 HXCD...	26.51	1.210e2					2.4	NO		bd		0.000
6	FUNCTION1 HXCD...	25.65	1.373e2					2.1	NO		bb		0.000
7	FUNCTION1 HXCD...	24.35	1.068e2					2.7	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	30.43	1.120e2					1.7	NO		bd		0.000
2	FUNCTION2 HPCD...	30.13	8.765e1					2.1	NO		bb		0.000
3	FUNCTION2 HPCD...	29.10	7.123e1					1.3	NO		db		0.000
4	FUNCTION2 HPCD...	29.00	9.658e1					2.0	NO		bd		0.000
5	FUNCTION2 HPCD...	31.31	1.169e2					2.4	NO		db		0.000
6	FUNCTION2 HPCD...	31.23	1.170e2					1.9	NO		bd		0.000
7	FUNCTION2 HPCD...	31.13	7.156e1					2.2	NO		bb		0.000
8	FUNCTION2 HPCD...	31.07	7.093e1					2.4	NO		bb		0.000
9	FUNCTION2 HPCD...	30.82	1.379e2					1.5	NO		bb		0.000
10	FUNCTION2 HPCD...	30.60	8.189e1					1.7	NO		db		0.000
11	FUNCTION2 HPCD...	30.54	7.770e1					1.6	NO		dd		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	35.74	9.981e1					3.0	NO		db		0.000
2	FUNCTION3 OCDPE	35.67	1.442e2					3.4	YES		bd		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.29	7.471e1					3.3	YES		bb		0.000
2	FUNCTION4 NCDPE	37.96	9.056e1					6.7	YES		bb		0.000

ETHERS6

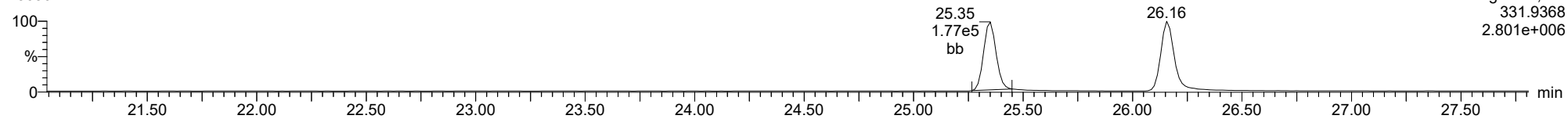
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1	FUNCTION5 DCDPE	44.09	8.711e1					4.7	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230501.mdb 02 May 2023 09:11:55
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

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13C-1234-TCDD

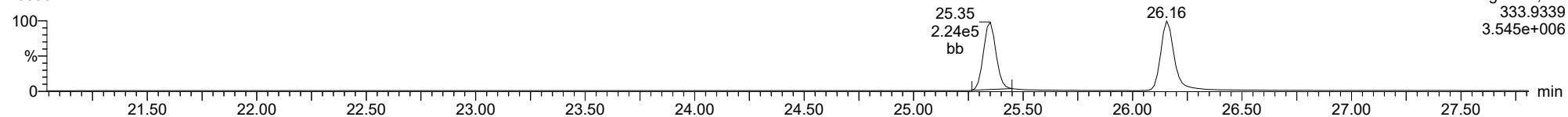
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F1:Voltage SIR,El+
331.9368
2.801e+006

13C-1234-TCDD

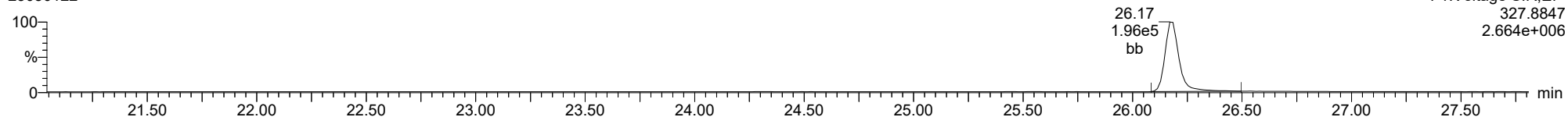
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F1:Voltage SIR,El+
333.9339
3.545e+006

37CL-2378-TCDD

23050122

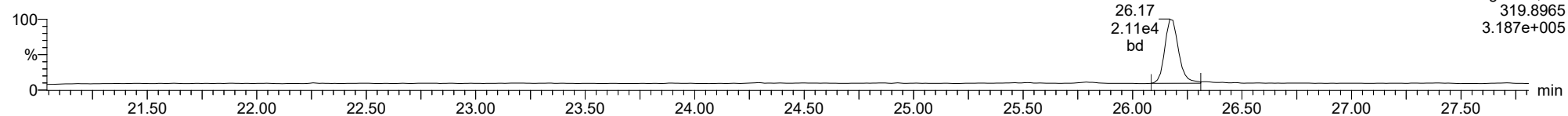


F1:Voltage SIR,El+
327.8847
2.664e+006

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2378-TCDD

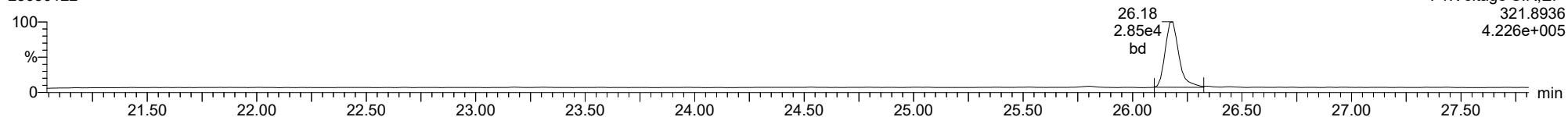
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F1:Voltage SIR,EI+
319.8965
3.187e+005

2378-TCDD

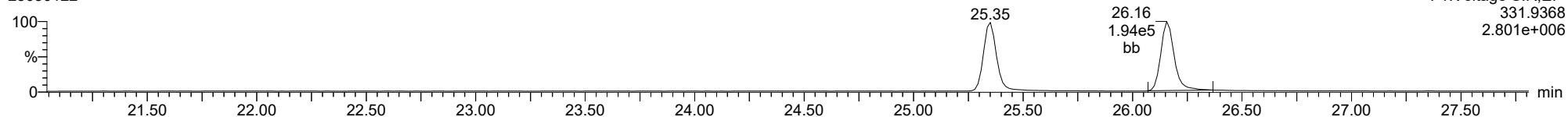
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F1:Voltage SIR,EI+
321.8936
4.226e+005

13C-2378-TCDD

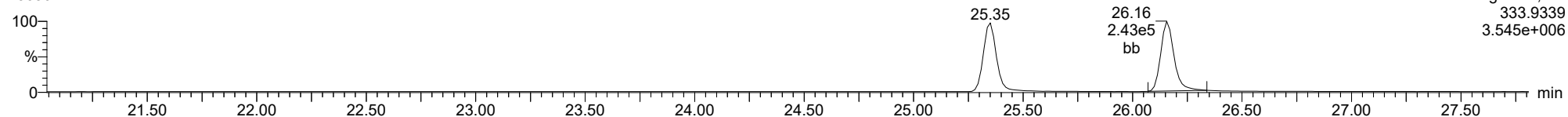
23050122



F1:Voltage SIR,EI+
331.9368
2.801e+006

13C-2378-TCDD

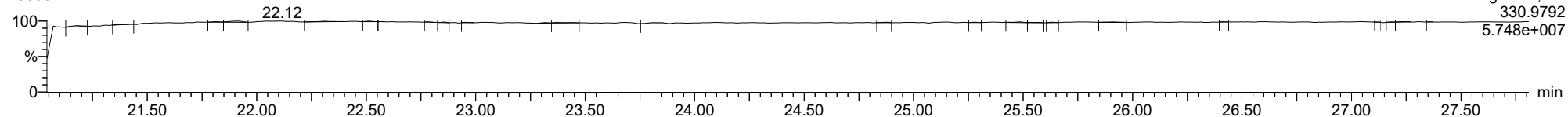
23050122



F1:Voltage SIR,EI+
333.9339
3.545e+006

FUNCTION1 PFK

23050122

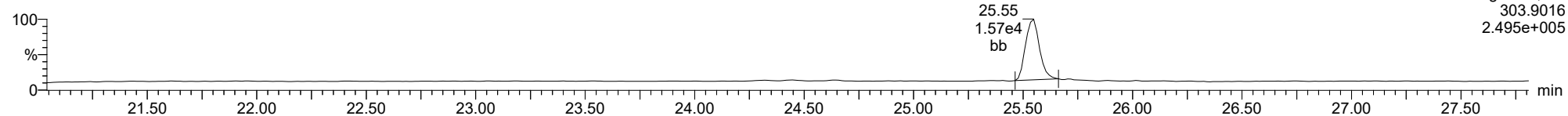


F1:Voltage SIR,EI+
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5.748e+007

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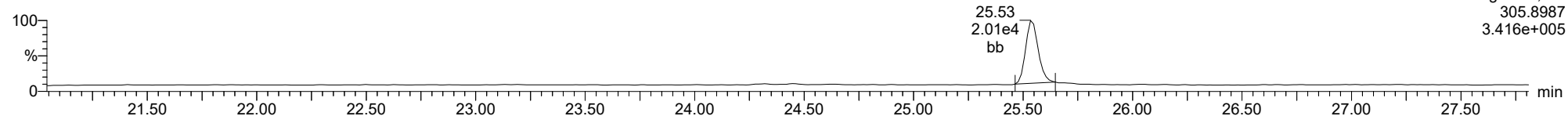
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23050122



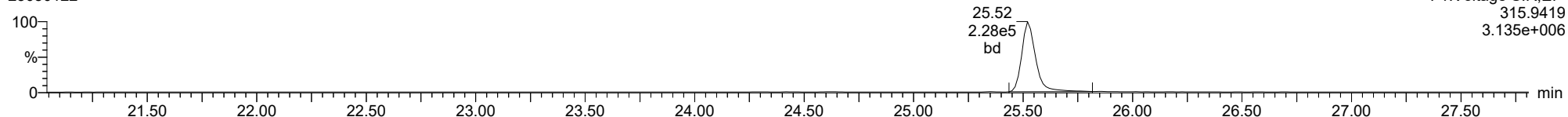
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23050122



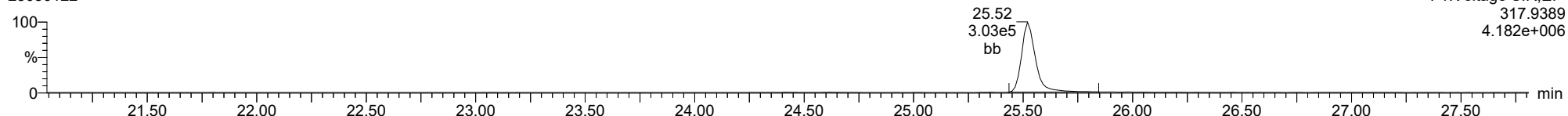
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23050122



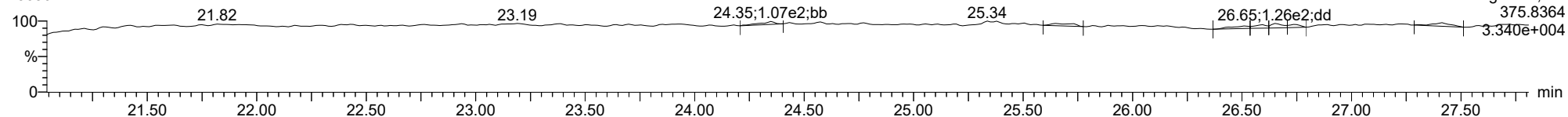
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23050122



FUNCTION1 HXCDPE

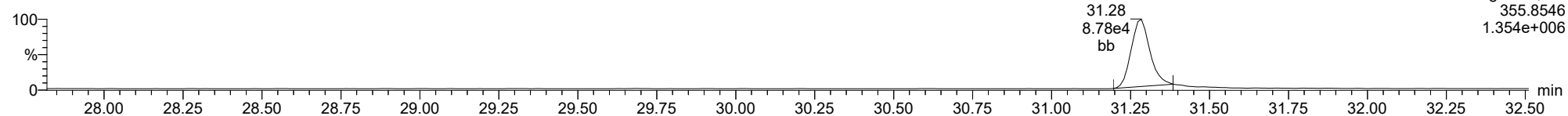
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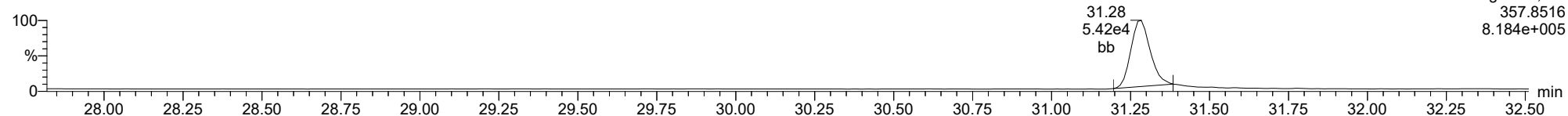
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23050122



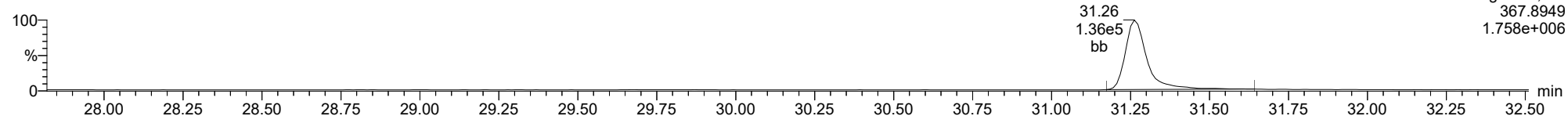
12378-PeCDD

23050122



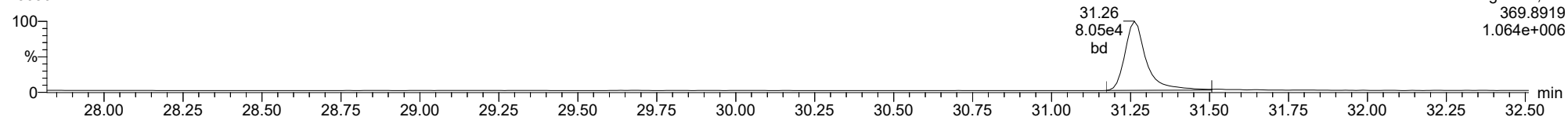
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23050122



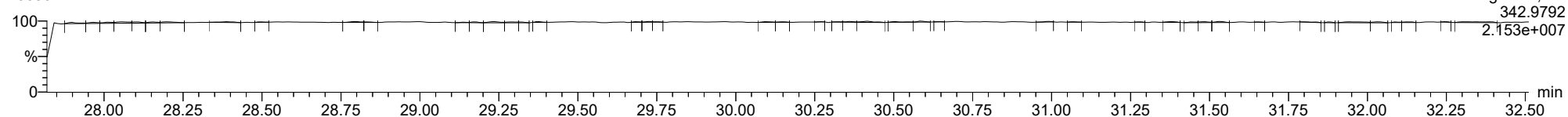
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23050122



FUNCTION2 PFK

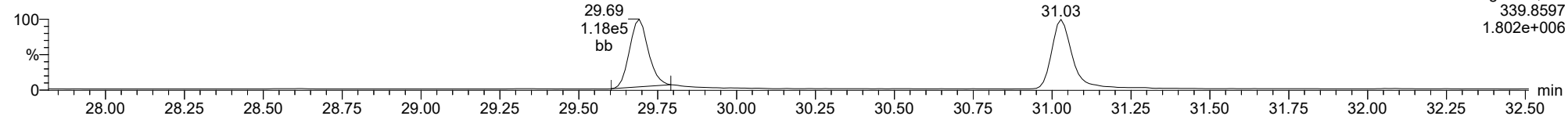
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

12378-PeCDF

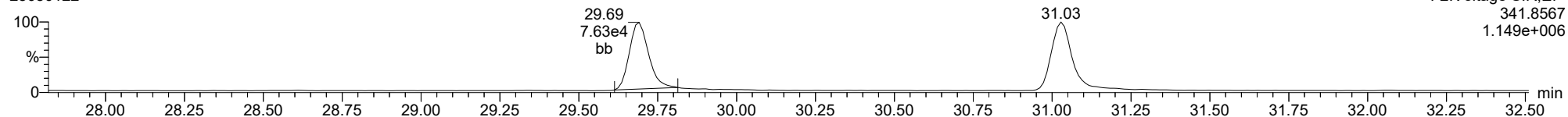
23050122



F2:Voltage SIR,EI+
339.8597
1.802e+006

12378-PeCDF

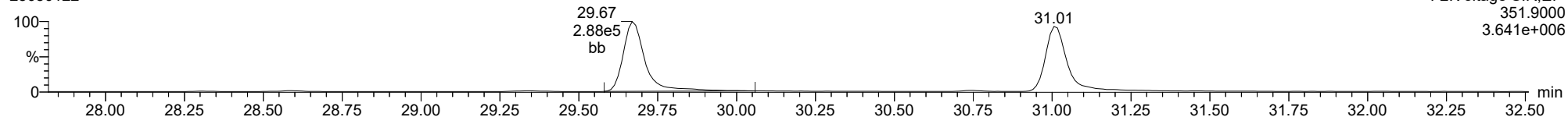
23050122



F2:Voltage SIR,EI+
341.8567
1.149e+006

13C-12378-PeCDF

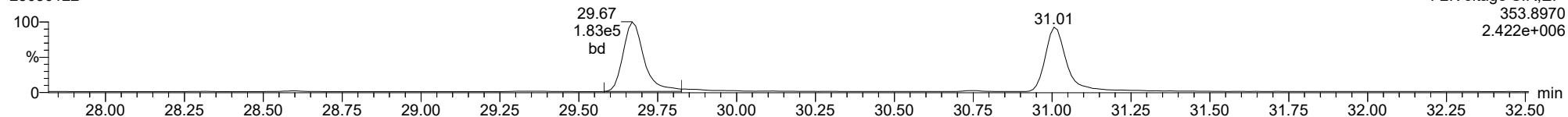
23050122



F2:Voltage SIR,EI+
351.9000
3.641e+006

13C-12378-PeCDF

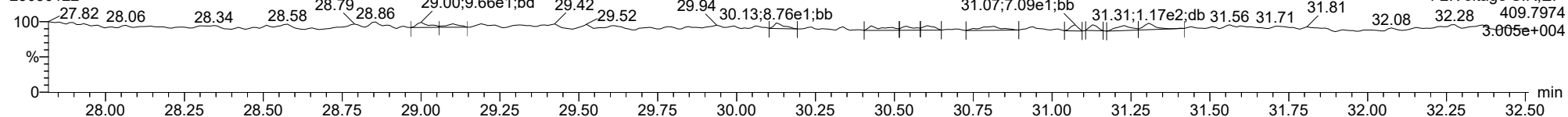
23050122



F2:Voltage SIR,EI+
353.8970
2.422e+006

FUNCTION2 HPCDPE

23050122

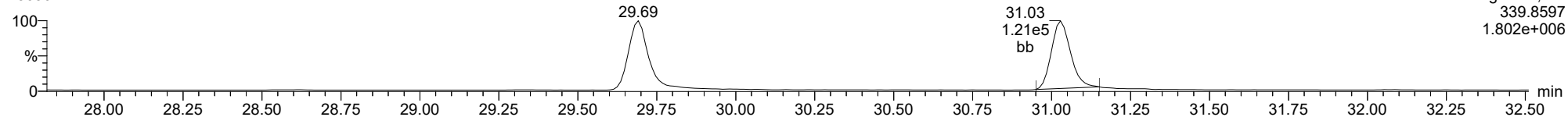


F2:Voltage SIR,EI+
409.7974
3.005e+004

ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

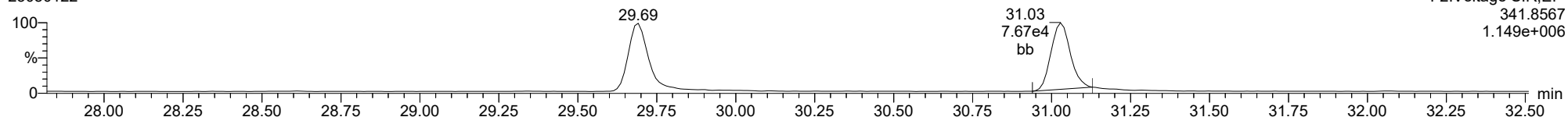
23478-PeCDF

23050122



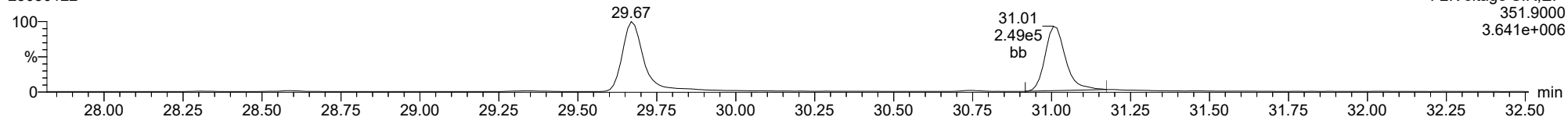
23478-PeCDF

23050122



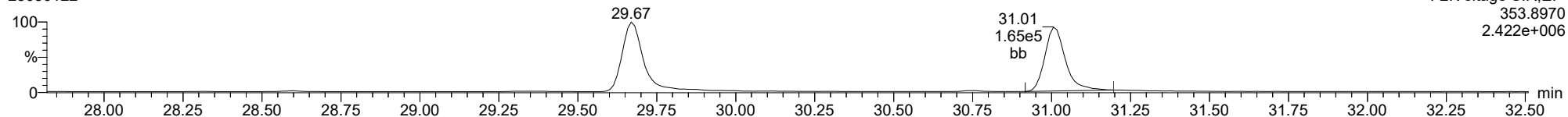
13C-23478-PeCDF

23050122



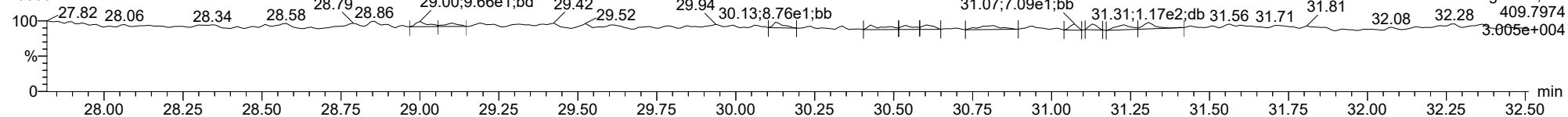
13C-23478-PeCDF

23050122



FUNCTION2 HPCDPE

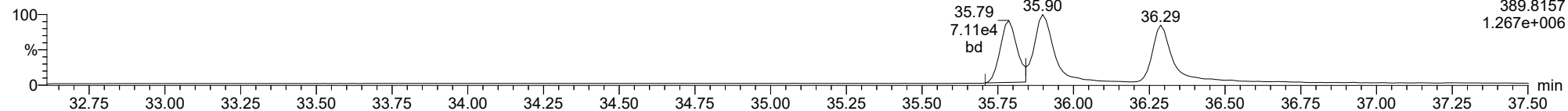
23050122



ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

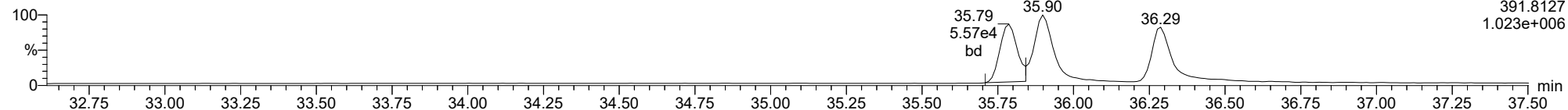
123478-HxCDD

23050122



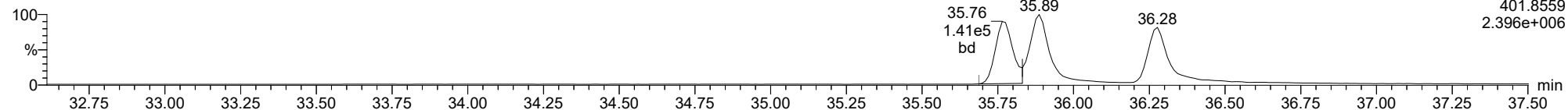
123478-HxCDD

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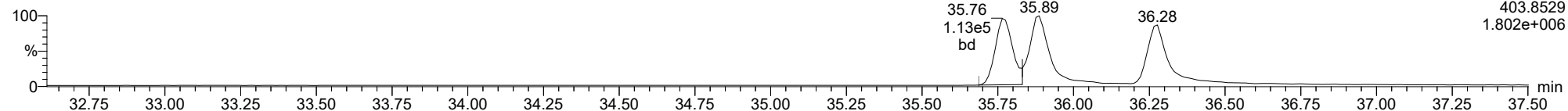
13C-123478-HxCDD

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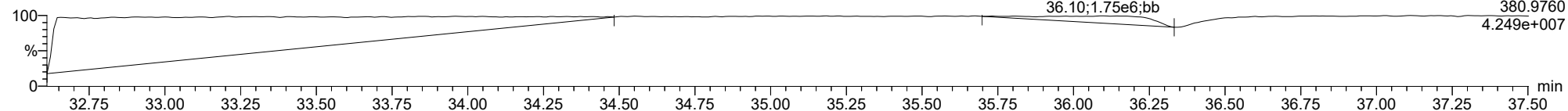
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23050122



FUNCTION3 PFK

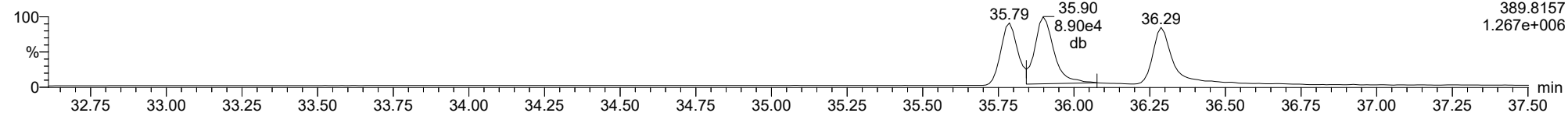
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

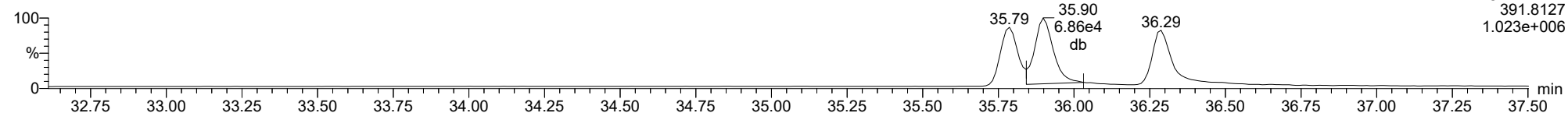
123678-HxCDD

23050122



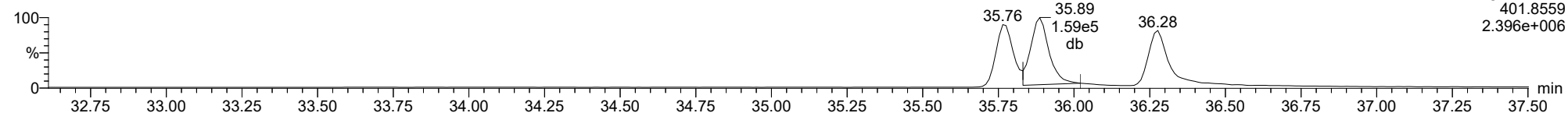
123678-HxCDD

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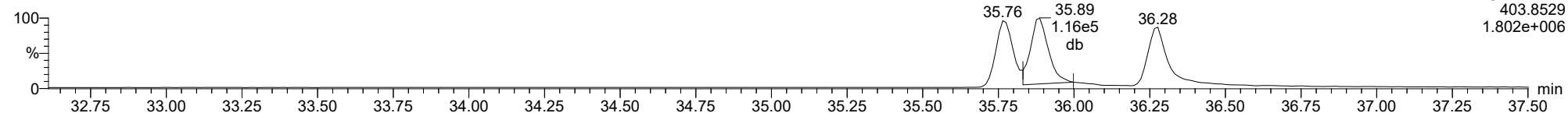
13C-123678-HxCDD

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13C-123678-HxCDD

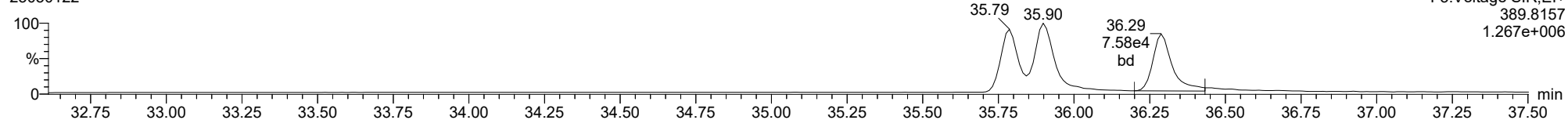
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

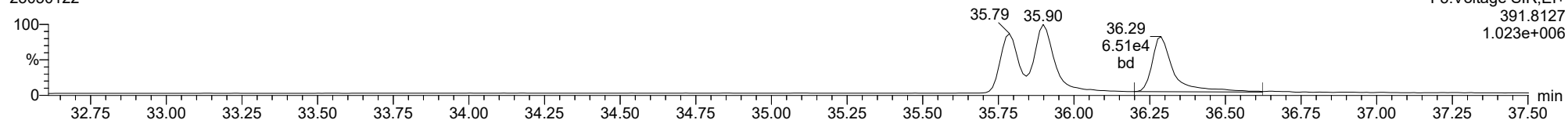
123789-HxCDD

23050122



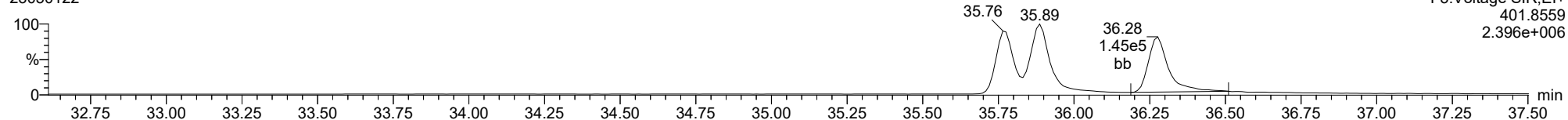
123789-HxCDD

23050122



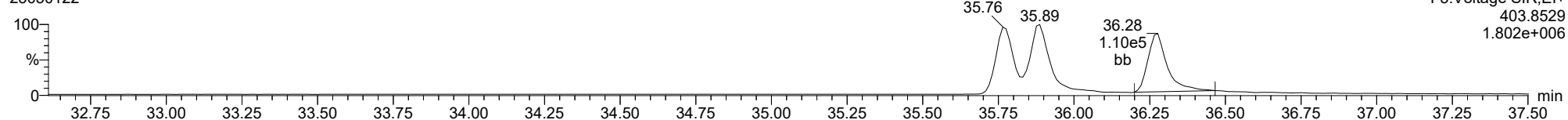
13C-123789-HxCDD

23050122



13C-123789-HxCDD

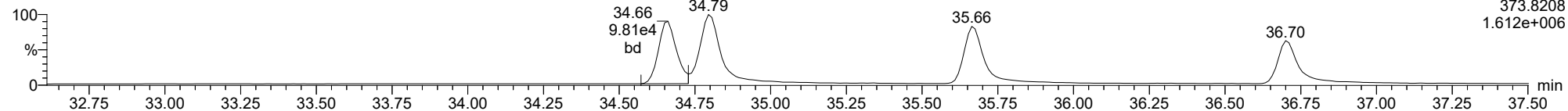
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

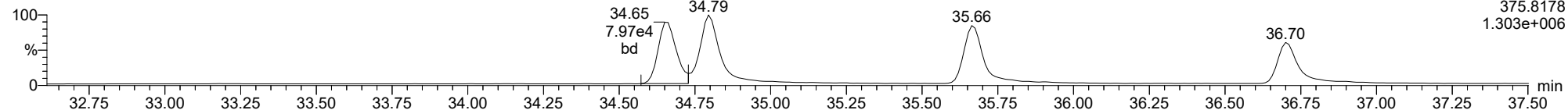
123478-HxCDF

23050122



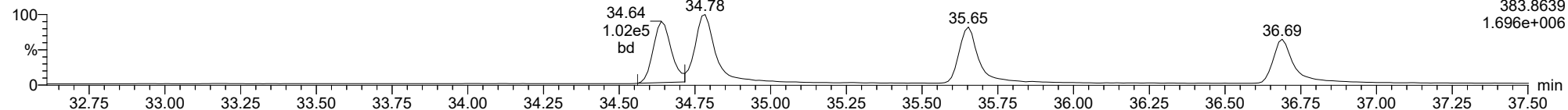
123478-HxCDF

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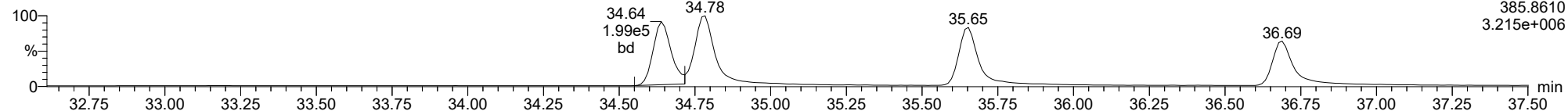
13C-123478-HxCDF

23050122



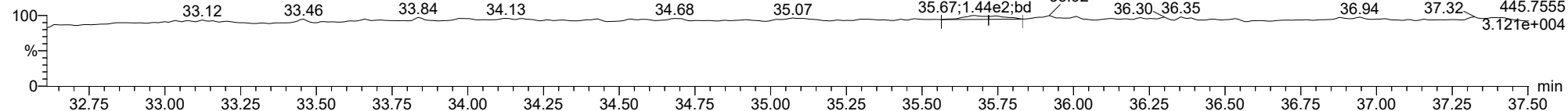
13C-123478-HxCDF

23050122



FUNCTION3 OCDPE

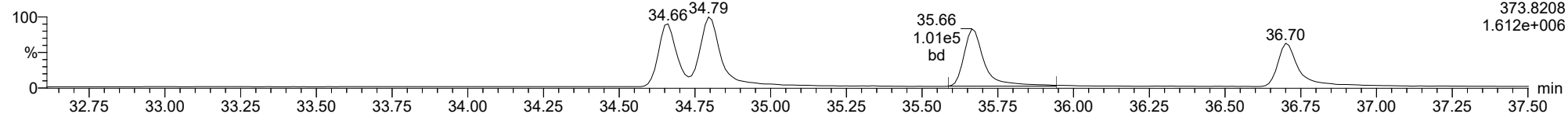
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

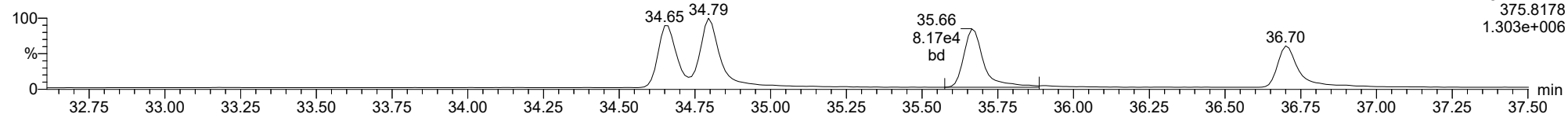
234678-HxCDF

23050122



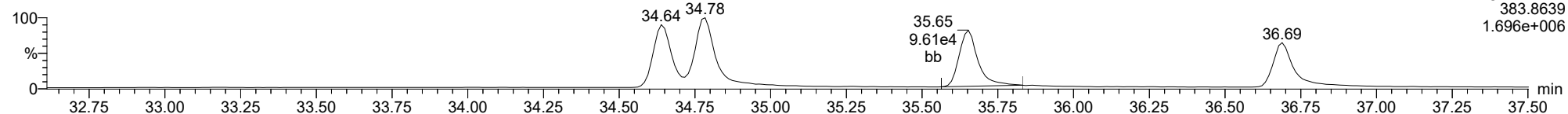
234678-HxCDF

23050122



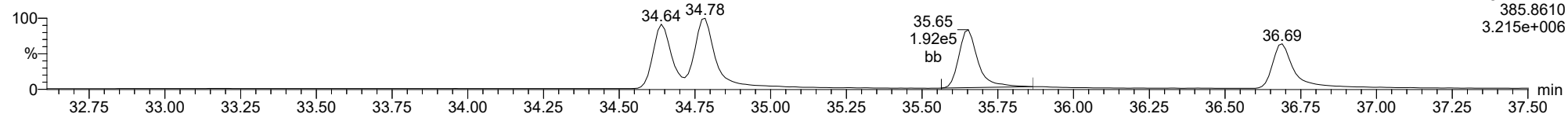
13C-234678-HxCDF

23050122



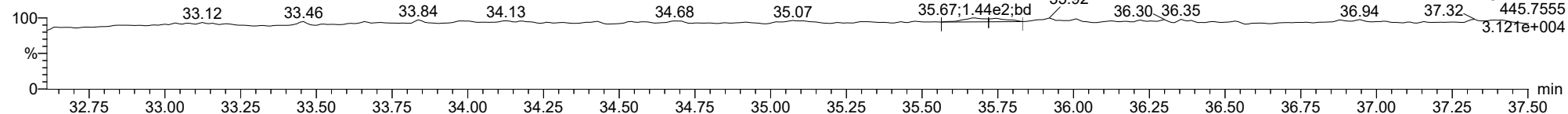
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FUNCTION3 OCDPE

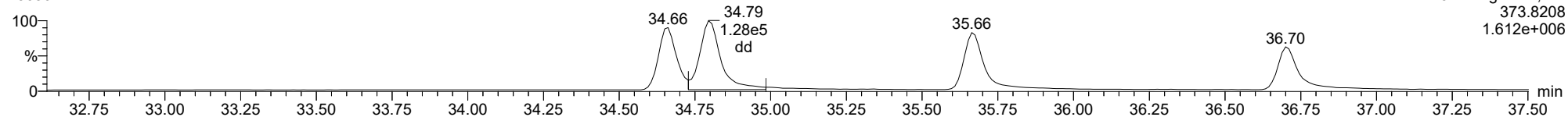
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

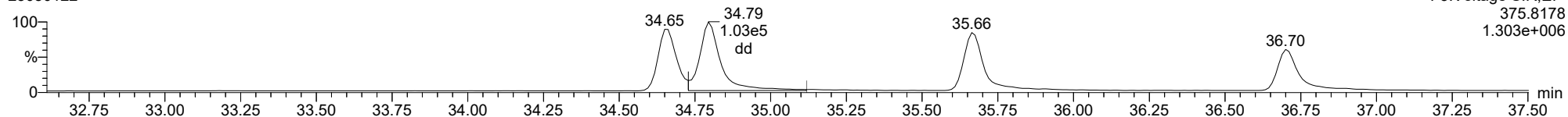
123678-HxCDF

23050122



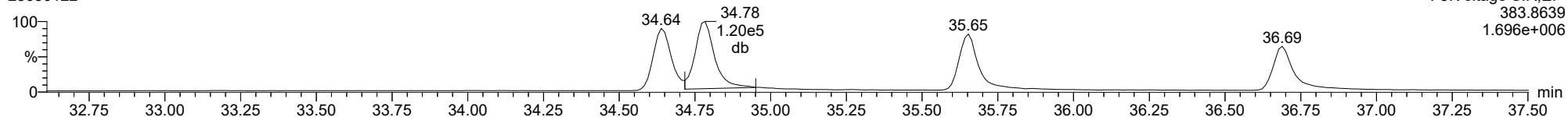
123678-HxCDF

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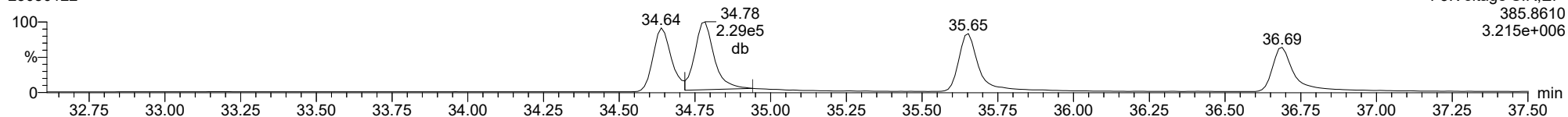
13C-123678-HxCDF

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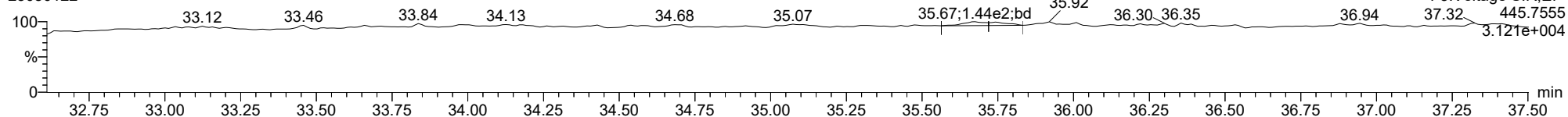
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FUNCTION3 OCDPE

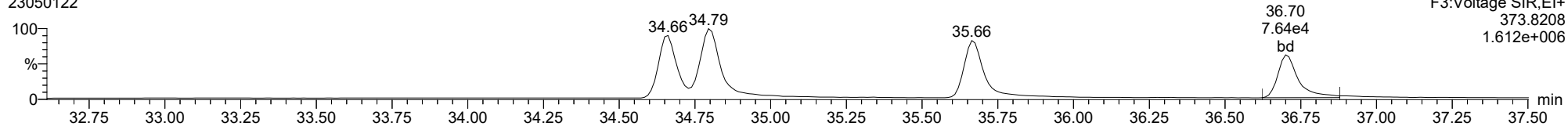
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

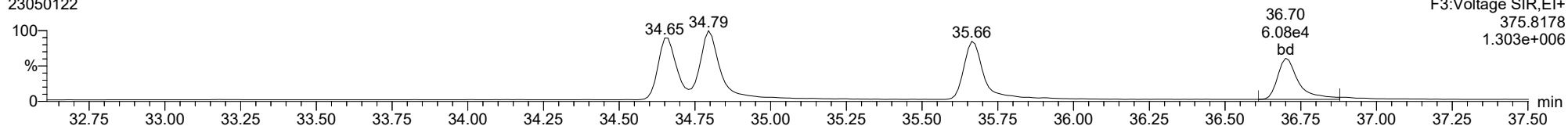
123789-HxCDF

23050122



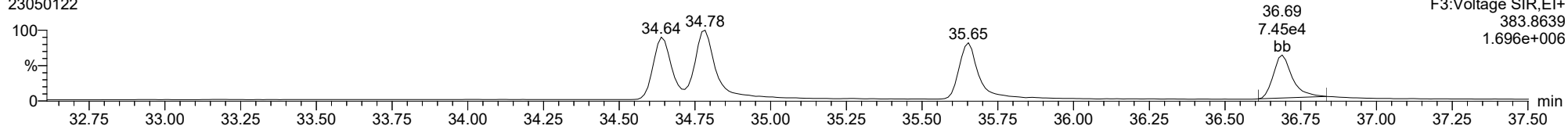
123789-HxCDF

23050122



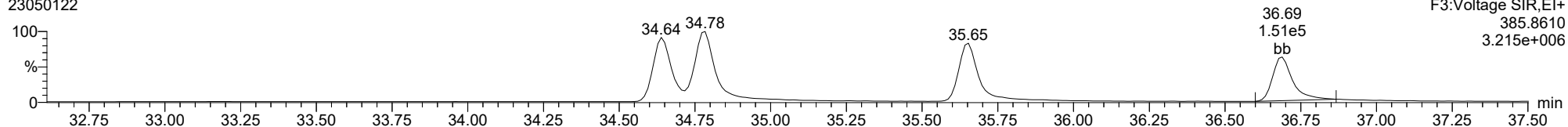
13C-123789-HxCDF

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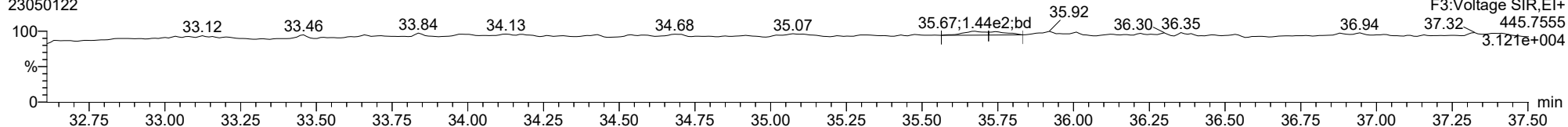
13C-123789-HxCDF

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FUNCTION3 OCDPE

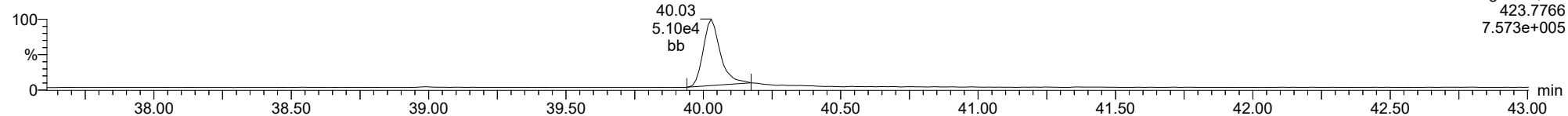
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

1234678-HpCDD

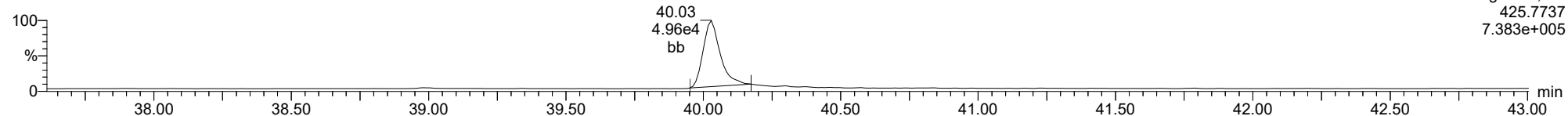
23050122



F4:Voltage SIR,EI+
425.7766
7.573e+005

1234678-HpCDD

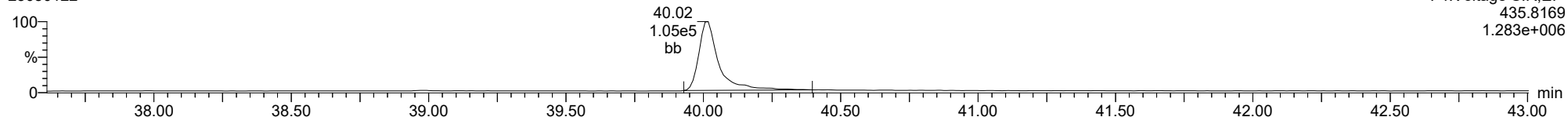
23050122



F4:Voltage SIR,EI+
425.7737
7.383e+005

13C-1234678-HpCDD

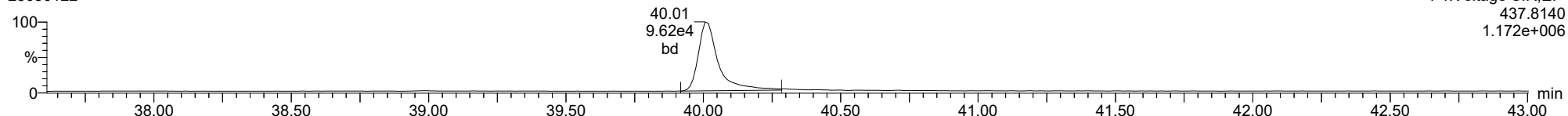
23050122



F4:Voltage SIR,EI+
435.8169
1.283e+006

13C-1234678-HpCDD

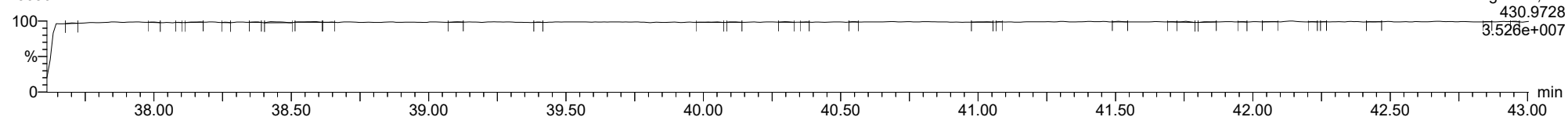
23050122



F4:Voltage SIR,EI+
437.8140
1.172e+006

FUNCTION4 PFK

23050122

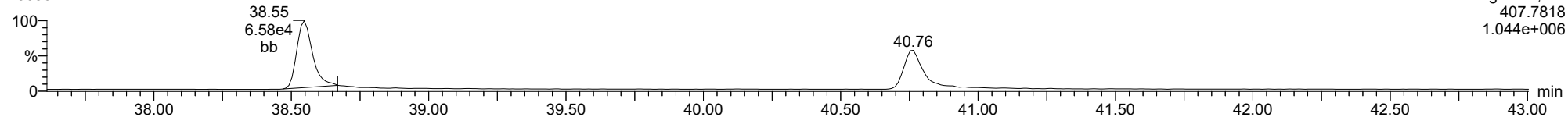


F4:Voltage SIR,EI+
430.9728
3.526e+007

ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

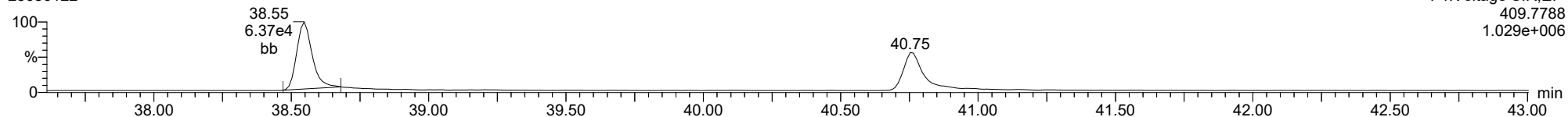
23050122



F4:Voltage SIR,EI+
407.7818
1.044e+006

1234678-HpCDF

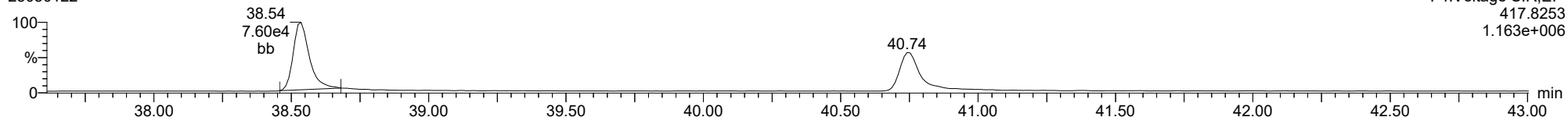
23050122



F4:Voltage SIR,EI+
409.7788
1.029e+006

13C-1234678-HpCDF

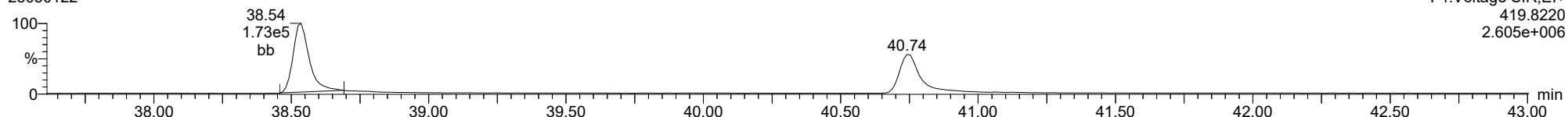
23050122



F4:Voltage SIR,EI+
417.8253
1.163e+006

13C-1234678-HpCDF

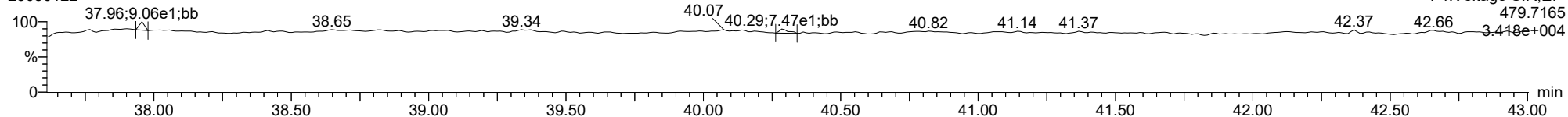
23050122



F4:Voltage SIR,EI+
419.8220
2.605e+006

FUNCTION4 NCDPE

23050122

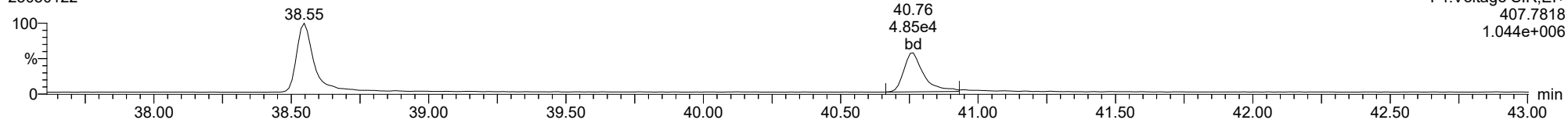


F4:Voltage SIR,EI+
479.7165
3.418e+004

ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

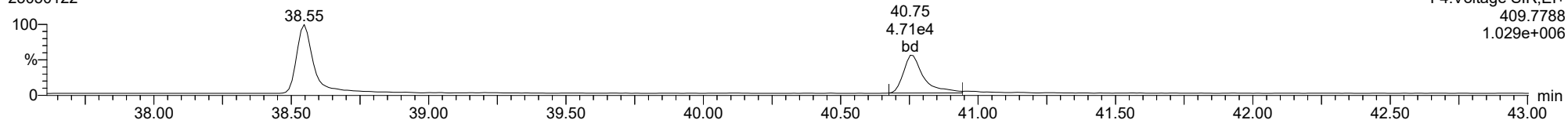
23050122



F4:Voltage SIR,El+
407.7818
1.044e+006

1234789-HpCDF

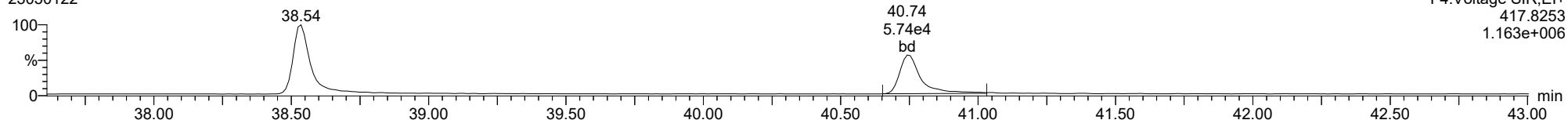
23050122



F4:Voltage SIR,El+
409.7788
1.029e+006

13C-1234789-HpCDF

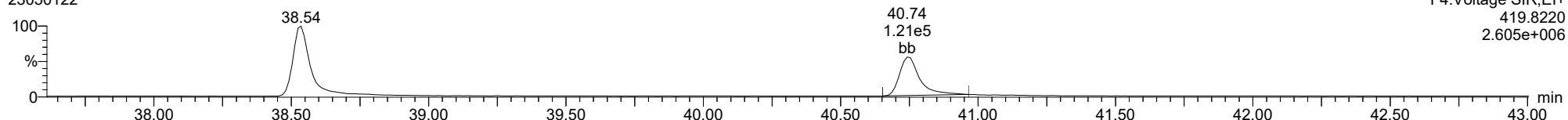
23050122



F4:Voltage SIR,El+
417.8253
1.163e+006

13C-1234789-HpCDF

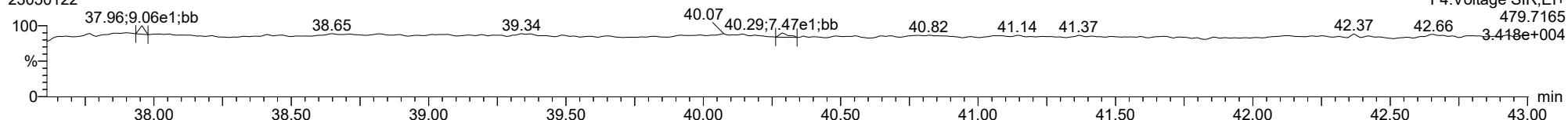
23050122



F4:Voltage SIR,El+
419.8220
2.605e+006

FUNCTION4 NCDPE

23050122

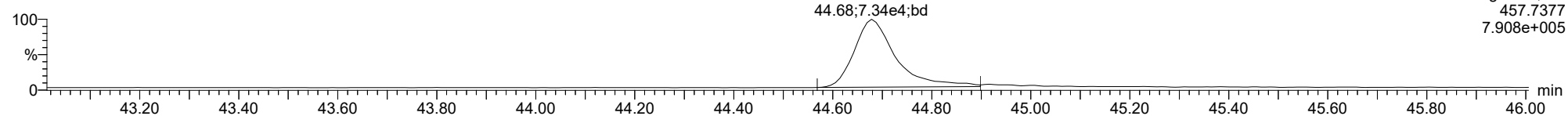


F4:Voltage SIR,El+
479.7165
3.41e+004

ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

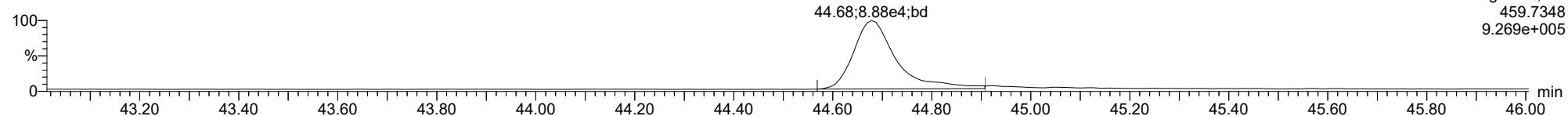
OCDD

23050122



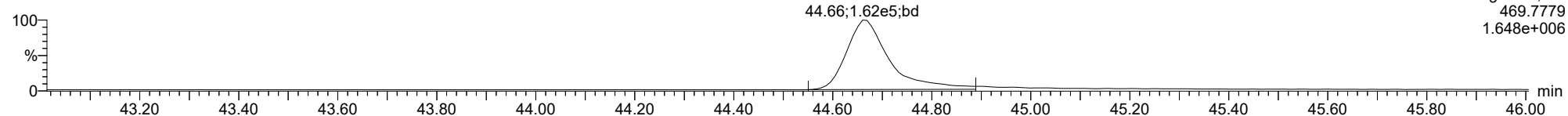
OCDD

23050122



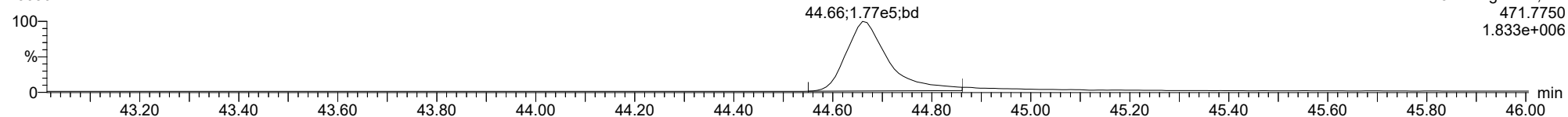
13C-OCDD

23050122



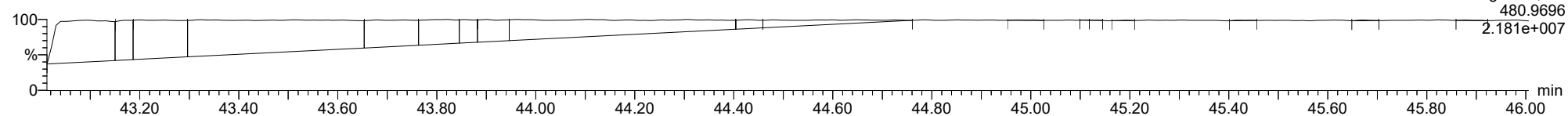
13C-OCDD

23050122



FUNCTION5 PFK

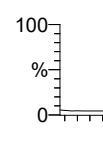
23050122



ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

OCDF

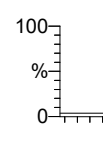
23050122



F5:Voltage SIR,EI+
441.7428
6.594e+005

OCDF

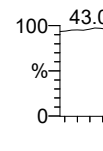
23050122



F5:Voltage SIR,EI+
443.7399
7.699e+005

FUNCTION5 DCDPE

23050122

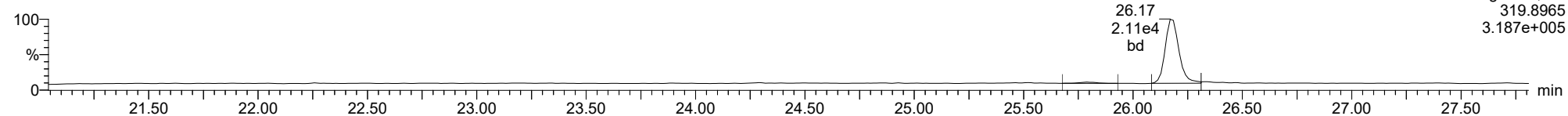


F5:Voltage SIR,EI+
513.6775
3.008e+004

ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

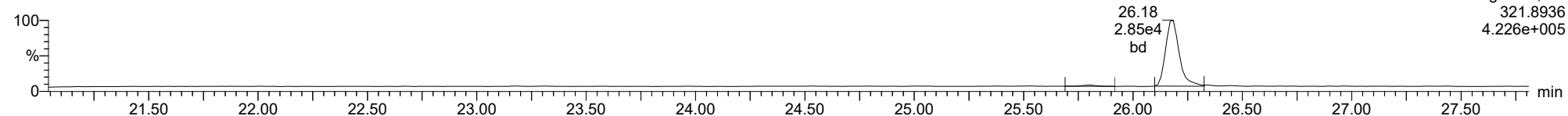
Total-tetradioxins

23050122



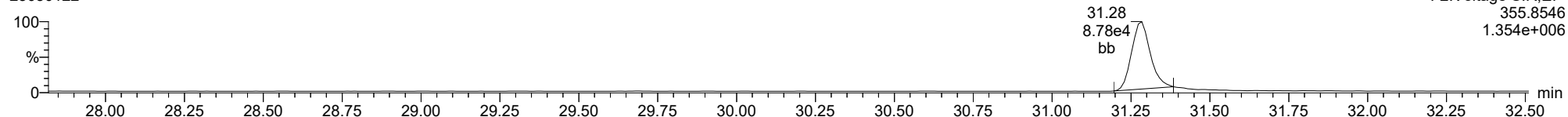
Total-tetradioxins

23050122



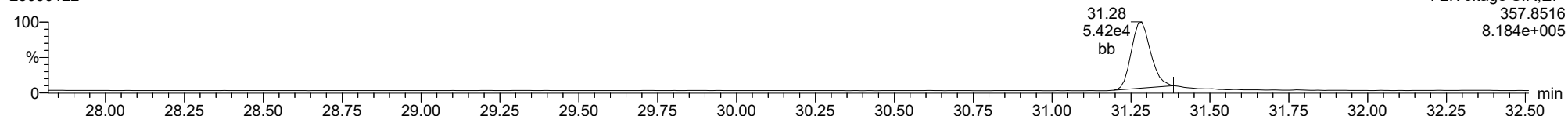
Total-pentadioxins

23050122



Total-pentadioxins

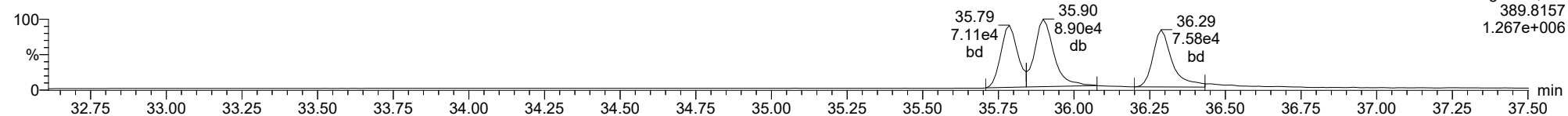
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

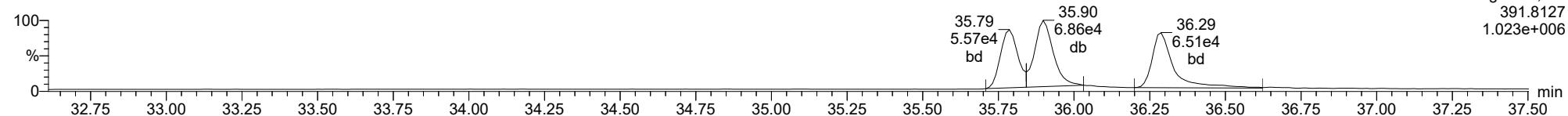
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23050122



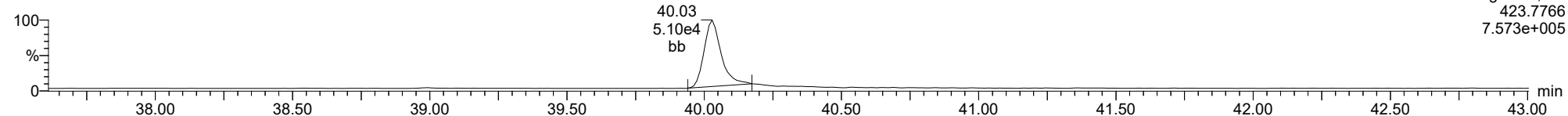
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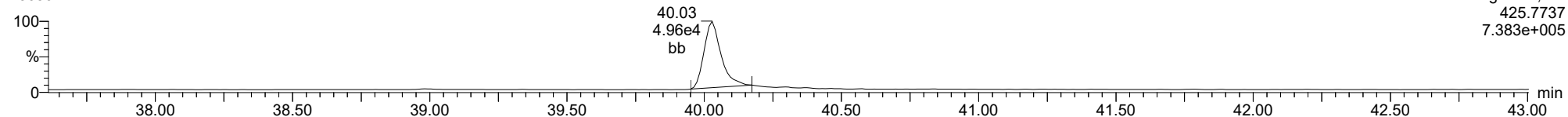
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23050122



Total-heptadioxins

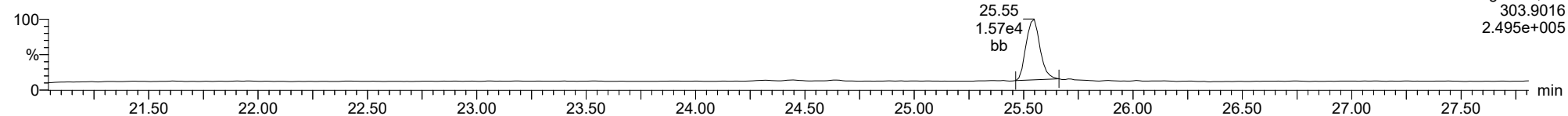
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

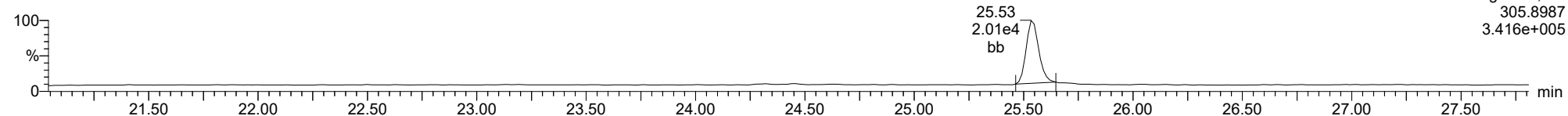
Total-tetrafurans

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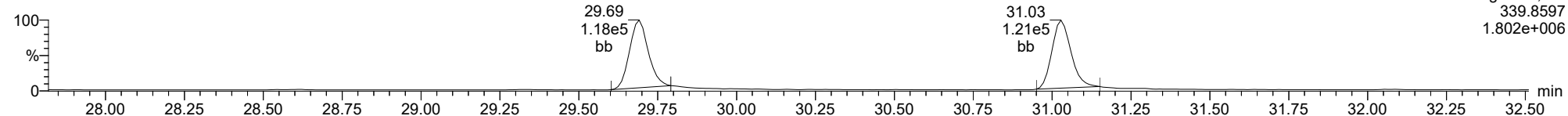
Total-tetrafurans

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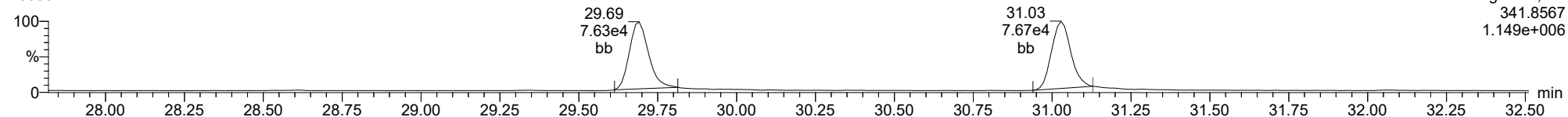
Total-pentafurans

23050122



Total-pentafurans

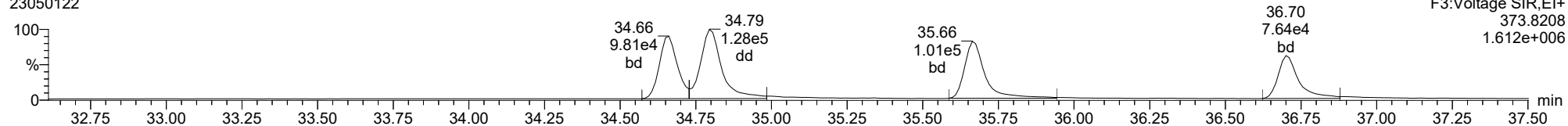
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ID: DLCS25, Name: 23050122, Date: 02-May-2023, Time: 03:42:31, Conditions: AUTOSPEC01, User: pk

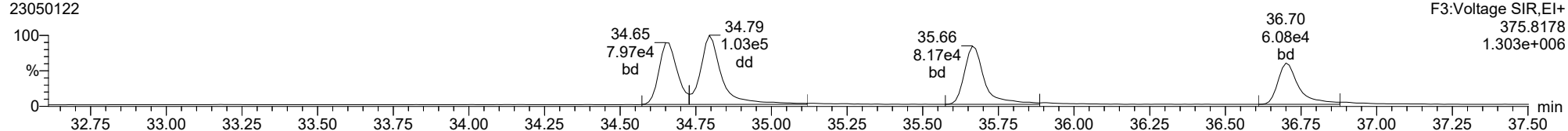
Total-hexafurans

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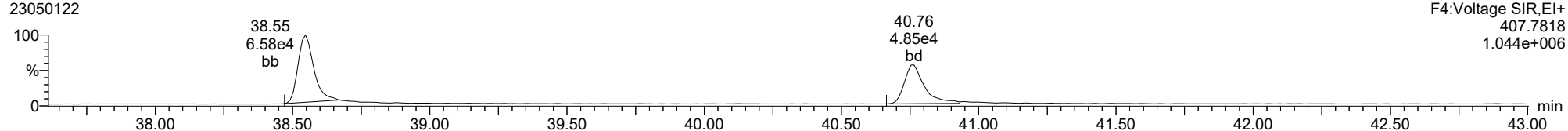
Total-hexafurans

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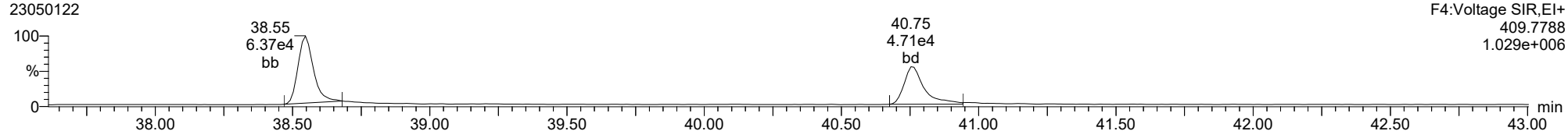
Total-heptafurans

23050122



Total-heptafurans

23050122





STANDARD REFERENCE MATERIAL RECOVERY
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLD0657-SRM1

Batch: BLD0657

Initial/Final: 10.03 g / 20 uL

Preparation: EPA 1613

Analyzed: 05/10/2023 7:55

Standard ID: L001275

Expires: 08/05/2023

Standard Lot#: PSRM0174

Description: Puget Sound reference-SRM

ANALYTE	TRUE (ng/kg wet)	FOUND (ng/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
2,3,7,8-TCDF	1.1100	1.02	0.203	0.997		91.6	50 - 150
2,3,7,8-TCDD	1.0500	0.924	0.150	0.997	J	88.0	50 - 150
1,2,3,7,8-PeCDF	1.2300	1.02	0.239	0.997		82.9	50 - 150
2,3,4,7,8-PeCDF	1.0700	0.830	0.219	0.997	J	77.6	50 - 150
1,2,3,7,8-PeCDD	1.0800	1.23	0.197	0.997		114	50 - 150
1,2,3,4,7,8-HxCDF	3.0200	2.54	0.279	0.997		84.2	50 - 150
1,2,3,6,7,8-HxCDF	1.0900	1.00	0.199	0.997		91.8	50 - 150
2,3,4,6,7,8-HxCDF	1.8300	1.90	0.169	0.997		104	50 - 150
1,2,3,7,8,9-HxCDF	0.51100	0.438	0.189	0.997	EMPC, J	85.7	50 - 150
1,2,3,4,7,8-HxCDD	1.5900	1.36	0.177	0.997	EMPC	85.4	50 - 150
1,2,3,6,7,8-HxCDD	3.8800	3.28	0.179	0.997		84.5	50 - 150
1,2,3,7,8,9-HxCDD	3.0400	2.71	0.219	0.997		89.0	50 - 150
1,2,3,4,6,7,8-HpCDF	18.700	22.2	0.209	0.997		118	50 - 150
1,2,3,4,7,8,9-HpCDF	1.6300	1.47	0.239	0.997		89.9	50 - 150
1,2,3,4,6,7,8-HpCDD	90.600	98.8	0.558	2.49		109	50 - 150
OCDF	58.400	63.4	1.10	2.49		109	50 - 150
OCDD	811.00	816	4.59	9.97	B	101	50 - 150

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:00 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56
 Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.704	1.001	1.931e3	2.281e3	0.702	0.847	0.770	1348	2756	2.57e4	3.42e4	19.0	12.4	NO	dd	bd	0.510
12378-PeCDF	29.844	1.000	2.259e3	1.302e3	0.679	1.736	1.550	1494	1518	3.67e4	1.90e4	24.6	12.5	NO	bb	bb	0.512
23478-PeCDF	31.192	1.001	1.904e3	1.201e3	0.786	1.585	1.550	1494	1518	3.30e4	1.61e4	22.1	10.6	NO	MM	bb	0.416
123478-HxCDF	34.813	1.001	6.498e3	4.782e3	1.166	1.359	1.240	853	989	9.96e4	7.36e4	116.8	74.4	NO	dd	dd	1.275
234678-HxCDF	35.816	1.000	4.403e3	3.948e3	1.140	1.115	1.240	853	989	4.68e4	4.08e4	54.8	41.3	NO	bb	bd	0.953
123678-HxCDF	34.958	1.001	2.657e3	1.912e3	1.091	1.390	1.240	853	989	3.58e4	2.84e4	42.0	28.7	NO	db	db	0.502
123789-HxCDF	36.819	1.000	7.916e2	8.807e2	1.137	0.899	1.240	853	989	1.41e4	1.39e4	16.5	14.1	YES	bb	bb	0.220
1234678-HpCDF	38.680	1.000	3.328e4	3.223e4	1.003	1.033	1.050	1761	1340	5.07e5	5.15e5	288.1	384.7	NO	bb	bb	11.109
1234789-HpCDF	40.908	1.000	1.990e3	2.221e3	0.953	0.896	1.050	1761	1340	3.23e4	2.99e4	18.3	22.3	NO	bb	bb	0.735
OCDF	45.107	1.006	6.639e4	7.422e4	0.778	0.895	0.890	1046	751	7.89e5	8.99e5	754.4	1197.1	NO	bb	bb	31.800
2378-TCDD	26.339	1.001	1.913e3	2.863e3	1.149	0.668	0.770	1018	618	2.99e4	4.10e4	29.4	66.4	NO	bd	bd	0.464
12378-PeCDD	31.449	1.001	2.532e3	1.454e3	1.022	1.741	1.550	1546	1421	3.44e4	2.04e4	22.2	14.3	NO	bd	bb	0.615
123478-HxCDD	35.961	1.000	2.424e3	2.389e3	0.996	1.015	1.240	1662	1458	3.61e4	3.51e4	21.7	24.1	YES	bd	bd	0.681
123678-HxCDD	36.072	1.000	6.676e3	6.194e3	1.001	1.078	1.240	1662	1458	1.08e5	9.06e4	65.0	62.1	NO	db	MM	1.643
123789-HxCDD	36.451	1.011	4.736e3	4.449e3	0.907	1.065	1.240	1662	1458	7.56e4	6.37e4	45.5	43.7	NO	bb	bb	1.357
1234678-HpCDD	40.172	1.000	1.484e5	1.422e5	1.039	1.044	1.050	3190	2181	2.25e6	2.13e6	705.6	977.3	NO	bb	bb	49.528
OCDD	44.869	1.000	1.002e6	1.137e6	0.920	0.881	0.890	2912	1679	1.26e7	1.46e7	4337.5	8691.9	NO	bb	bb	409.065
13C-2378-TCDF	25.676	1.007	5.202e5	6.571e5	1.620	0.792	0.770	1736	1439	7.61e6	9.73e6	4383.9	6763.5	NO	bb	bd	91.753
13C-12378-PeCDF	29.833	1.170	6.185e5	4.062e5	1.240	1.523	1.550	2793	2840	8.90e6	5.78e6	3186.6	2036.1	NO	bd	bd	104.304
13C-23478-PeCDF	31.170	1.222	5.773e5	3.717e5	1.118	1.553	1.550	2793	2840	8.58e6	5.55e6	3072.4	1953.3	NO	bb	bb	107.197
13C-123478-HxCDF	34.791	0.955	2.532e5	5.055e5	1.168	0.501	0.510	1743	2517	3.85e6	7.60e6	2208.1	3021.7	NO	bd	bd	77.371
13C-123678-HxCDF	34.936	0.959	2.953e5	5.398e5	1.386	0.547	0.510	1743	2517	4.10e6	7.81e6	2351.9	3101.7	NO	dd	db	71.754
13C-234678-HxCDF	35.816	0.983	2.655e5	5.033e5	1.129	0.527	0.510	1743	2517	3.73e6	7.36e6	2142.8	2924.0	NO	bd	bb	81.103
13C-123789-HxCDF	36.830	1.011	2.247e5	4.448e5	0.932	0.505	0.510	1743	2517	4.11e6	8.10e6	2358.2	3218.1	NO	bb	bb	85.592
13C-1234678-HpCDF	38.668	1.061	1.793e5	4.086e5	0.895	0.439	0.440	2067	2277	3.03e6	6.71e6	1464.3	2945.6	NO	bb	bb	78.235
13C-1234789-HpCDF	40.897	1.122	1.795e5	4.218e5	0.770	0.426	0.440	2067	2277	2.50e6	5.67e6	1210.1	2491.0	NO	bb	bb	93.069
13C-1234-TCDD	25.506	0.000	3.460e5	4.459e5	1.000	0.776	0.770	1881	1127	5.32e6	6.84e6	2828.7	6068.5	NO	bb	bb	100.000
13C-2378-TCDD	26.311	1.032	3.937e5	5.031e5	1.152	0.783	0.770	1881	1127	5.61e6	7.19e6	2981.3	6377.8	NO	bb	bb	98.266
13C-12378-PeCDD	31.426	1.232	3.898e5	2.446e5	0.829	1.594	1.550	1136	1313	5.42e6	3.39e6	4768.9	2578.5	NO	bd	bd	96.659
13C-123478-HxCDD	35.950	0.987	3.970e5	3.127e5	0.995	1.270	1.240	1799	1152	5.92e6	4.68e6	3291.3	4059.7	NO	bd	bd	84.961
13C-123678-HxCDD	36.061	0.990	4.376e5	3.449e5	1.157	1.269	1.240	1799	1152	6.26e6	5.00e6	3478.9	4337.6	NO	db	db	80.590
13C-1234678-HpCDD	40.161	1.102	2.973e5	2.674e5	0.840	1.112	1.050	1937	1586	4.18e6	3.85e6	2157.3	2424.1	NO	bb	bb	80.065
13C-OCDD	44.851	1.231	5.382e5	5.988e5	0.767	0.899	0.890	1195	1004	6.10e6	6.88e6	5108.6	6853.2	NO	bd	bd	176.483
13C-123789-HxCDD	36.440	0.000	4.661e5	3.733e5	1.000	1.249	1.240	1799	1152	6.87e6	5.46e6	3821.0	4738.6	NO	bb	bd	100.000
37CL-2378-TCDD	26.339	1.033	3.739e5		1.288			982		5.52e6		5624.1			bb		36.663

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.201	0.865	2.768e2	5.924e2	0.802	0.467	0.770	1348	2756	5.63e3	9.10e3	4.2	3.3	YES	bb	bb	0.092
1289-TCDF					0.678		0.770	1348	2756								
13468-PECDF					1.246		1.550	703	764								
12389-PECDF					0.496		1.550	1494	1518								
123468-HXCDF	33.142	0.953	5.506e3	4.482e3	1.169	1.229	1.240	853	989	8.81e4	6.89e4	103.2	69.7	NO	bb	bb	1.126
1368-TCDD	23.472	0.892	1.839e3	1.550e3	1.015	1.186	0.770	1018	618	2.53e4	2.65e4	24.9	42.9	YES	bb	bb	0.372
1289-TCDD					0.909		0.770	1018	618								
12479-PECDD	28.753	0.915	2.350e3	2.038e3	2.301	1.153	1.550	1546	1421	4.20e4	2.56e4	27.1	18.0	YES	bd	bb	0.300
12389-PECDD	31.839	1.013	5.263e2	3.227e2	1.184	1.631	1.550	1546	1421	6.64e3	5.94e3	4.3	4.2	NO	bb	bb	0.113
124679-HXCDD	33.922	0.944	1.877e4	1.534e4	1.115	1.223	1.240	1662	1458	2.71e5	2.32e5	163.0	158.9	NO	bb	bb	4.310
1234679-HPCDD	39.136	0.975	2.216e5	2.156e5	1.137	1.028	1.050	3190	2181	3.53e6	3.40e6	1106.1	1557.1	NO	bb	bb	68.114
Total-tetrafurans			2.435e4		0.727			1348		3.42e5							6.517
Total-penta1			1.699e4					703		2.41e5							3.002
Total-pentafurans			1.100e4		0.654			1494		1.64e5							2.725
Total-hexafurans			6.347e4		1.141			853		9.43e5							13.106
Total-heptafurans			1.028e5		0.978			1761		1.63e6							34.883
Total-Furans			2.850e5		0.922			1348		4.10e6							92.034
Total-tetradioxins			6.662e3		1.024			1018		1.02e5							1.621
Total-pentadioxins			7.699e3		1.502			1546		1.15e5							1.546
Total-hexadioxins			5.860e4		1.005			1662		7.66e5							14.122
Total-heptadioxins			3.700e5		1.088			3190		5.78e6							117.642
Total-Dioxins			1.445e6		1.130			1018		1.94e7							543.995
Total-TEQ			1.730e6					1018		2.35e7							636.028
FUNCTION1 PFK			4.776e7					125834		2.81e7							
FUNCTION2 PFK			1.643e5					107400		4.59e5							0.000
FUNCTION3 PFK			2.791e6					128271		5.12e6							0.000
FUNCTION4 PFK			0.000e0					136511		0.00e0							
FUNCTION5 PFK			7.044e4					102936		1.94e6							
FUNCTION1 HXCD...			2.444e3					857		4.00e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			3.773e2					704		7.53e3							0.000
FUNCTION3 OCDPE			1.099e2					487		1.64e3							0.000
FUNCTION4 NCDPE			1.781e4					650		2.99e5							0.000
FUNCTION5 DCDPE			7.001e1					530		1.46e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:00 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.45	4.546e3	6.048e3	0.727	0.75	0.77	49.1	YES	NO	dd	dd	1.238
2	Total-tetrafurans	24.38	1.504e3	1.948e3	0.727	0.77	0.77	16.5	YES	NO	dd	dd	0.403
3	Total-tetrafurans	23.95	1.655e3	1.872e3	0.727	0.88	0.77	12.7	YES	NO	db	bb	0.412
4	Total-tetrafurans	23.70	1.123e3	1.489e3	0.727	0.75	0.77	12.8	YES	NO	dd	bd	0.305
5	Total-tetrafurans	23.44	1.352e3	1.891e3	0.727	0.71	0.77	15.3	YES	NO	dd	dd	0.379
6	Total-tetrafurans	23.36	1.959e3	2.515e3	0.727	0.78	0.77	20.0	YES	NO	dd	dd	0.523
7	Total-tetrafurans	23.03	2.453e3	3.091e3	0.727	0.79	0.77	24.3	YES	NO	bd	bd	0.648
8	Total-tetrafurans	25.92	1.260e3	1.884e3	0.727	0.67	0.77	14.6	YES	NO	db	dd	0.367
9	2378-TCDF	25.70	1.931e3	2.281e3	0.702	0.85	0.77	19.0	YES	NO	dd	bd	0.510
10	Total-tetrafurans	25.52	7.067e2	9.421e2	0.727	0.75	0.77	10.2	YES	NO	dd	db	0.193
11	Total-tetrafurans	25.45	1.258e3	1.687e3	0.727	0.75	0.77	14.4	YES	NO	bd	bd	0.344
12	Total-tetrafurans	24.79	2.795e3	3.393e3	0.727	0.82	0.77	29.1	YES	NO	bb	bb	0.723
13	Total-tetrafurans	24.60	1.813e3	2.231e3	0.727	0.81	0.77	15.5	YES	NO	db	db	0.473

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	26.79	4.950e2	3.063e2		1.62	1.55	10.6	YES	NO	db	db	0.085
2	Total-penta1	26.69	8.097e2	6.127e2		1.32	1.55	16.7	YES	NO	bd	bd	0.151
3	Total-penta1	27.54	5.830e2	3.360e2		1.74	1.55	9.6	YES	NO	bb	bb	0.098
4	Total-penta1	27.13	1.510e4	9.970e3		1.51	1.55	305.5	YES	NO	bd	bd	2.668

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.80	5.474e3	3.892e3	0.654	1.41	1.55	48.5	YES	NO	db	db	1.451
2	23478-PeCDF	31.19	1.904e3	1.201e3	0.786	1.58	1.55	22.1	YES	NO	MM	bb	0.416
3	Total-pentafurans	31.05	1.360e3	8.701e2	0.654	1.56	1.55	14.5	YES	NO	dd	db	0.346
4	12378-PeCDF	29.84	2.259e3	1.302e3	0.679	1.74	1.55	24.6	YES	NO	bb	bb	0.512

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:00 Pacific Daylight Time

ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	33.35	1.894e4	1.507e4	1.141	1.26	1.24	336.2	YES	NO	bb	bb	3.935
2	123468-HxCDF	33.14	5.506e3	4.482e3	1.169	1.23	1.24	103.2	YES	NO	bb	bb	1.126
3	234678-HxCDF	35.82	4.403e3	3.948e3	1.140	1.12	1.24	54.8	YES	NO	bb	bd	0.953
4	123678-HxCDF	34.96	2.657e3	1.912e3	1.091	1.39	1.24	42.0	YES	NO	db	db	0.502
5	123478-HxCDF	34.81	6.498e3	4.782e3	1.166	1.36	1.24	116.8	YES	NO	dd	dd	1.275
6	Total-hexafurans	34.19	2.546e4	2.050e4	1.141	1.24	1.24	452.1	YES	NO	bb	bb	5.316

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	39.34	6.754e4	6.645e4	0.978	1.02	1.05	616.4	YES	NO	bb	bb	23.039
2	1234678-HpCDF	38.68	3.328e4	3.223e4	1.003	1.03	1.05	288.1	YES	NO	bb	bb	11.109
3	1234789-HpCDF	40.91	1.990e3	2.221e3	0.953	0.90	1.05	18.3	YES	NO	bb	bb	0.735

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509\HA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:00 Pacific Daylight Time

ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.45	4.546e3	6.048e3	0.727	0.75	0.77	49.1	YES	NO	dd	dd	1.238
2	Total-tetrafurans	24.38	1.504e3	1.948e3	0.727	0.77	0.77	16.5	YES	NO	dd	dd	0.403
3	Total-tetrafurans	23.95	1.655e3	1.872e3	0.727	0.88	0.77	12.7	YES	NO	db	bb	0.412
4	Total-tetrafurans	23.70	1.123e3	1.489e3	0.727	0.75	0.77	12.8	YES	NO	dd	bd	0.305
5	Total-tetrafurans	23.44	1.352e3	1.891e3	0.727	0.71	0.77	15.3	YES	NO	dd	dd	0.379
6	Total-tetrafurans	23.36	1.959e3	2.515e3	0.727	0.78	0.77	20.0	YES	NO	dd	dd	0.523
7	Total-tetrafurans	23.03	2.453e3	3.091e3	0.727	0.79	0.77	24.3	YES	NO	bd	bd	0.648
8	Total-tetrafurans	25.92	1.260e3	1.884e3	0.727	0.67	0.77	14.6	YES	NO	db	dd	0.367
9	2378-TCDF	25.70	1.931e3	2.281e3	0.702	0.85	0.77	19.0	YES	NO	dd	bd	0.510
10	Total-tetrafurans	25.52	7.067e2	9.421e2	0.727	0.75	0.77	10.2	YES	NO	dd	db	0.193
11	Total-tetrafurans	25.45	1.258e3	1.687e3	0.727	0.75	0.77	14.4	YES	NO	bd	bd	0.344
12	Total-tetrafurans	24.79	2.795e3	3.393e3	0.727	0.82	0.77	29.1	YES	NO	bb	bb	0.723
13	Total-tetrafurans	24.60	1.813e3	2.231e3	0.727	0.81	0.77	15.5	YES	NO	db	db	0.473
14	Total-pentafurans	28.80	5.474e3	3.892e3	0.654	1.41	1.55	48.5	YES	NO	db	db	1.451
15	23478-PeCDF	31.19	1.904e3	1.201e3	0.786	1.58	1.55	22.1	YES	NO	MM	bb	0.416
16	Total-pentafurans	31.05	1.360e3	8.701e2	0.654	1.56	1.55	14.5	YES	NO	dd	db	0.346
17	12378-PeCDF	29.84	2.259e3	1.302e3	0.679	1.74	1.55	24.6	YES	NO	bb	bb	0.512
18	Total-hexafurans	33.35	1.894e4	1.507e4	1.141	1.26	1.24	336.2	YES	NO	bb	bb	3.935
19	123468-HxCDF	33.14	5.506e3	4.482e3	1.169	1.23	1.24	103.2	YES	NO	bb	bb	1.126
20	234678-HxCDF	35.82	4.403e3	3.948e3	1.140	1.12	1.24	54.8	YES	NO	bb	bd	0.953
21	123678-HxCDF	34.96	2.657e3	1.912e3	1.091	1.39	1.24	42.0	YES	NO	db	db	0.502
22	123478-HxCDF	34.81	6.498e3	4.782e3	1.166	1.36	1.24	116.8	YES	NO	dd	dd	1.275
23	Total-hexafurans	34.19	2.546e4	2.050e4	1.141	1.24	1.24	452.1	YES	NO	bb	bb	5.316
24	Total-heptafurans	39.34	6.754e4	6.645e4	0.978	1.02	1.05	616.4	YES	NO	bb	bb	23.039
25	1234678-HpCDF	38.68	3.328e4	3.223e4	1.003	1.03	1.05	288.1	YES	NO	bb	bb	11.109
26	1234789-HpCDF	40.91	1.990e3	2.221e3	0.953	0.90	1.05	18.3	YES	NO	bb	bb	0.735
27	OCDF	45.11	6.639e4	7.422e4	0.778	0.89	0.89	754.4	YES	NO	bb	bb	31.800
28	Total-penta1	26.79	4.950e2	3.063e2		1.62	1.55	10.6	YES	NO	db	db	0.085
29	Total-penta1	26.69	8.097e2	6.127e2		1.32	1.55	16.7	YES	NO	bd	bd	0.151
30	Total-penta1	27.54	5.830e2	3.360e2		1.74	1.55	9.6	YES	NO	bb	bb	0.098
31	Total-penta1	27.13	1.510e4	9.970e3		1.51	1.55	305.5	YES	NO	bd	bd	2.668

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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradiioxins	24.95	1.285e3	1.530e3	1.024	0.84	0.77	17.2	YES	NO	bb	bb	0.306
2	Total-tetradiioxins	24.46	1.243e3	1.419e3	1.024	0.88	0.77	20.0	YES	NO	bb	bb	0.290
3	2378-TCDD	26.34	1.913e3	2.863e3	1.149	0.67	0.77	29.4	YES	NO	bd	bd	0.464
4	Total-tetradiioxins	25.97	7.484e2	8.797e2	1.024	0.85	0.77	8.6	YES	NO	bb	bb	0.177
5	Total-tetradiioxins	25.52	1.473e3	2.053e3	1.024	0.72	0.77	25.6	YES	NO	bb	bb	0.384

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadiioxins	30.19	9.855e2	6.640e2	1.502	1.48	1.55	11.7	YES	NO	bb	db	0.173
2	Total-pentadiioxins	30.07	1.830e3	1.190e3	1.502	1.54	1.55	20.4	YES	NO	bb	dd	0.317
3	Total-pentadiioxins	29.84	1.825e3	1.300e3	1.502	1.40	1.55	15.7	YES	NO	bb	bd	0.328
4	12389-PECDD	31.84	5.263e2	3.227e2	1.184	1.63	1.55	4.3	YES	NO	bb	bb	0.113
5	12378-PeCDD	31.45	2.532e3	1.454e3	1.022	1.74	1.55	22.2	YES	NO	bd	bb	0.615

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.45	4.736e3	4.449e3	0.907	1.06	1.24	45.5	YES	NO	bb	bb	1.357
2	123678-HxCDD	36.07	6.676e3	6.194e3	1.001	1.08	1.24	65.0	YES	NO	db	MM	1.643
3	Total-hexadiioxins	35.16	2.390e3	1.769e3	1.005	1.35	1.24	25.3	YES	NO	db	db	0.555
4	Total-hexadiioxins	35.06	2.171e4	1.777e4	1.005	1.22	1.24	127.1	YES	NO	bd	bd	5.266
5	Total-hexadiioxins	34.70	4.313e3	3.108e3	1.005	1.39	1.24	35.0	YES	NO	bb	bb	0.990
6	124679-HXCDD	33.92	1.877e4	1.534e4	1.115	1.22	1.24	163.0	YES	NO	bb	bb	4.310

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.14	2.216e5	2.156e5	1.137	1.03	1.05	1106.1	YES	NO	bb	bb	68.114
2	1234678-HpCDD	40.17	1.484e5	1.422e5	1.039	1.04	1.05	705.6	YES	NO	bb	bb	49.528

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.95	1.285e3	1.530e3	1.024	0.84	0.77	17.2	YES	NO	bb	bb	0.306
2	Total-tetradoxins	24.46	1.243e3	1.419e3	1.024	0.88	0.77	20.0	YES	NO	bb	bb	0.290
3	2378-TCDD	26.34	1.913e3	2.863e3	1.149	0.67	0.77	29.4	YES	NO	bd	bd	0.464
4	Total-tetradoxins	25.97	7.484e2	8.797e2	1.024	0.85	0.77	8.6	YES	NO	bb	bb	0.177
5	Total-tetradoxins	25.52	1.473e3	2.053e3	1.024	0.72	0.77	25.6	YES	NO	bb	bb	0.384
6	Total-pentadoxins	30.19	9.855e2	6.640e2	1.502	1.48	1.55	11.7	YES	NO	bb	db	0.173
7	Total-pentadoxins	30.07	1.830e3	1.190e3	1.502	1.54	1.55	20.4	YES	NO	bb	dd	0.317
8	Total-pentadoxins	29.84	1.825e3	1.300e3	1.502	1.40	1.55	15.7	YES	NO	bb	bd	0.328
9	12389-PECDD	31.84	5.263e2	3.227e2	1.184	1.63	1.55	4.3	YES	NO	bb	bb	0.113
10	12378-PeCDD	31.45	2.532e3	1.454e3	1.022	1.74	1.55	22.2	YES	NO	bd	bb	0.615
11	123789-HxCDD	36.45	4.736e3	4.449e3	0.907	1.06	1.24	45.5	YES	NO	bb	bb	1.357
12	123678-HxCDD	36.07	6.676e3	6.194e3	1.001	1.08	1.24	65.0	YES	NO	db	MM	1.643
13	Total-hexadoxins	35.16	2.390e3	1.769e3	1.005	1.35	1.24	25.3	YES	NO	db	db	0.555
14	Total-hexadoxins	35.06	2.171e4	1.777e4	1.005	1.22	1.24	127.1	YES	NO	bd	bd	5.266
15	Total-hexadoxins	34.70	4.313e3	3.108e3	1.005	1.39	1.24	35.0	YES	NO	bb	bb	0.990
16	124679-HXCDD	33.92	1.877e4	1.534e4	1.115	1.22	1.24	163.0	YES	NO	bb	bb	4.310
17	1234679-HPCDD	39.14	2.216e5	2.156e5	1.137	1.03	1.05	1106.1	YES	NO	bb	bb	68.114
18	1234678-HpCDD	40.17	1.484e5	1.422e5	1.039	1.04	1.05	705.6	YES	NO	bb	bb	49.528
19	OCDD	44.87	1.002e6	1.137e6	0.920	0.88	0.89	4337.5	YES	NO	bb	bb	409.065

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2305091HA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.45	4.546e3	6.048e3	0.727	0.75	0.77	49.1	YES	NO	dd	dd	1.238
2	Total-tetrafurans	24.38	1.504e3	1.948e3	0.727	0.77	0.77	16.5	YES	NO	dd	dd	0.403
3	Total-tetrafurans	23.95	1.655e3	1.872e3	0.727	0.88	0.77	12.7	YES	NO	db	bb	0.412
4	Total-tetrafurans	23.70	1.123e3	1.489e3	0.727	0.75	0.77	12.8	YES	NO	dd	bd	0.305
5	Total-tetrafurans	23.44	1.352e3	1.891e3	0.727	0.71	0.77	15.3	YES	NO	dd	dd	0.379
6	Total-tetrafurans	23.36	1.959e3	2.515e3	0.727	0.78	0.77	20.0	YES	NO	dd	dd	0.523
7	Total-tetrafurans	23.03	2.453e3	3.091e3	0.727	0.79	0.77	24.3	YES	NO	bd	bd	0.648
8	Total-tetrafurans	25.92	1.260e3	1.884e3	0.727	0.67	0.77	14.6	YES	NO	db	dd	0.367
9	2378-TCDF	25.70	1.931e3	2.281e3	0.702	0.85	0.77	19.0	YES	NO	dd	bd	0.510
10	Total-tetrafurans	25.52	7.067e2	9.421e2	0.727	0.75	0.77	10.2	YES	NO	dd	db	0.193
11	Total-tetrafurans	25.45	1.258e3	1.687e3	0.727	0.75	0.77	14.4	YES	NO	bd	bd	0.344
12	Total-tetrafurans	24.79	2.795e3	3.393e3	0.727	0.82	0.77	29.1	YES	NO	bb	bb	0.723
13	Total-tetrafurans	24.60	1.813e3	2.231e3	0.727	0.81	0.77	15.5	YES	NO	db	db	0.473
14	Total-penta furans	28.80	5.474e3	3.892e3	0.654	1.41	1.55	48.5	YES	NO	db	db	1.451
15	23478-PeCDF	31.19	1.904e3	1.201e3	0.786	1.58	1.55	22.1	YES	NO	MM	bb	0.416
16	Total-penta furans	31.05	1.360e3	8.701e2	0.654	1.56	1.55	14.5	YES	NO	dd	db	0.346
17	12378-PeCDF	29.84	2.259e3	1.302e3	0.679	1.74	1.55	24.6	YES	NO	bb	bb	0.512
18	Total-hexa furans	33.35	1.894e4	1.507e4	1.141	1.26	1.24	336.2	YES	NO	bb	bb	3.935
19	123468-HxCDF	33.14	5.506e3	4.482e3	1.169	1.23	1.24	103.2	YES	NO	bb	bb	1.126
20	234678-HxCDF	35.82	4.403e3	3.948e3	1.140	1.12	1.24	54.8	YES	NO	bb	bd	0.953
21	123678-HxCDF	34.96	2.657e3	1.912e3	1.091	1.39	1.24	42.0	YES	NO	db	db	0.502
22	123478-HxCDF	34.81	6.498e3	4.782e3	1.166	1.36	1.24	116.8	YES	NO	dd	dd	1.275
23	Total-hexa furans	34.19	2.546e4	2.050e4	1.141	1.24	1.24	452.1	YES	NO	bb	bb	5.316
24	Total-hepta furans	39.34	6.754e4	6.645e4	0.978	1.02	1.05	616.4	YES	NO	bb	bb	23.039
25	1234678-HpCDF	38.68	3.328e4	3.223e4	1.003	1.03	1.05	288.1	YES	NO	bb	bb	11.109
26	1234789-HpCDF	40.91	1.990e3	2.221e3	0.953	0.90	1.05	18.3	YES	NO	bb	bb	0.735
27	OCDF	45.11	6.639e4	7.422e4	0.778	0.89	0.89	754.4	YES	NO	bb	bb	31.800
28	Total-penta 1	26.79	4.950e2	3.063e2		1.62	1.55	10.6	YES	NO	db	db	0.085
29	Total-penta 1	26.69	8.097e2	6.127e2		1.32	1.55	16.7	YES	NO	bd	bd	0.151
30	Total-penta 1	27.54	5.830e2	3.360e2		1.74	1.55	9.6	YES	NO	bb	bb	0.098
31	Total-penta 1	27.13	1.510e4	9.970e3		1.51	1.55	305.5	YES	NO	bd	bd	2.668
32	Total-tetra dioxins	24.95	1.285e3	1.530e3	1.024	0.84	0.77	17.2	YES	NO	bb	bb	0.306
33	Total-tetra dioxins	24.46	1.243e3	1.419e3	1.024	0.88	0.77	20.0	YES	NO	bb	bb	0.290
34	2378-TCDD	26.34	1.913e3	2.863e3	1.149	0.67	0.77	29.4	YES	NO	bd	bd	0.464
35	Total-tetra dioxins	25.97	7.484e2	8.797e2	1.024	0.85	0.77	8.6	YES	NO	bb	bb	0.177
36	Total-tetra dioxins	25.52	1.473e3	2.053e3	1.024	0.72	0.77	25.6	YES	NO	bb	bb	0.384
37	Total-penta dioxins	30.19	9.855e2	6.640e2	1.502	1.48	1.55	11.7	YES	NO	bb	db	0.173

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-pentadioxins	30.07	1.830e3	1.190e3	1.502	1.54	1.55	20.4	YES	NO	bb	dd	0.317
39	Total-pentadioxins	29.84	1.825e3	1.300e3	1.502	1.40	1.55	15.7	YES	NO	bb	bd	0.328
40	12389-PECDD	31.84	5.263e2	3.227e2	1.184	1.63	1.55	4.3	YES	NO	bb	bb	0.113
41	12378-PeCDD	31.45	2.532e3	1.454e3	1.022	1.74	1.55	22.2	YES	NO	bd	bb	0.615
42	123789-HxCDD	36.45	4.736e3	4.449e3	0.907	1.06	1.24	45.5	YES	NO	bb	bb	1.357
43	123678-HxCDD	36.07	6.676e3	6.194e3	1.001	1.08	1.24	65.0	YES	NO	db	MM	1.643
44	Total-hexadioxins	35.16	2.390e3	1.769e3	1.005	1.35	1.24	25.3	YES	NO	db	db	0.555
45	Total-hexadioxins	35.06	2.171e4	1.777e4	1.005	1.22	1.24	127.1	YES	NO	bd	bd	5.266
46	Total-hexadioxins	34.70	4.313e3	3.108e3	1.005	1.39	1.24	35.0	YES	NO	bb	bb	0.990
47	124679-HXCDD	33.92	1.877e4	1.534e4	1.115	1.22	1.24	163.0	YES	NO	bb	bb	4.310
48	1234679-HPCDD	39.14	2.216e5	2.156e5	1.137	1.03	1.05	1106.1	YES	NO	bb	bb	68.114
49	1234678-HpCDD	40.17	1.484e5	1.422e5	1.039	1.04	1.05	705.6	YES	NO	bb	bb	49.528
50	OCDD	44.87	1.002e6	1.137e6	0.920	0.88	0.89	4337.5	YES	NO	bb	bb	409.065

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.91	1.312e6					26.1	YES		bb		
2	FUNCTION1 PFK	24.70	3.906e7					68.1	YES		db		
3	FUNCTION1 PFK	22.33	2.766e6					49.8	YES		dd		
4	FUNCTION1 PFK	21.93	4.346e6					47.2	YES		dd		
5	FUNCTION1 PFK	21.10	2.728e5					31.9	YES		bd		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.22	1.643e5					4.3	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.21	1.006e6					11.7	YES		bb		0.000
2	FUNCTION3 PFK	36.61	1.785e6					28.2	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:00 Pacific Daylight Time

ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.73	2.594e3					0.9	NO		db		
2	FUNCTION5 PFK	44.70	1.373e3					0.7	NO		bd		
3	FUNCTION5 PFK	44.38	2.645e3					1.2	NO		bb		
4	FUNCTION5 PFK	44.13	2.679e3					0.7	NO		bb		
5	FUNCTION5 PFK	43.85	1.212e4					0.8	NO		bb		
6	FUNCTION5 PFK	43.27	3.461e3					1.3	NO		db		
7	FUNCTION5 PFK	43.19	5.849e3					1.6	NO		dd		
8	FUNCTION5 PFK	43.16	3.222e3					1.4	NO		dd		
9	FUNCTION5 PFK	43.12	3.709e3					1.6	NO		dd		
10	FUNCTION5 PFK	43.06	9.071e3					2.3	NO		bd		
11	FUNCTION5 PFK	45.95	7.673e3					1.7	NO		bb		
12	FUNCTION5 PFK	45.78	3.897e3					1.1	NO		bb		
13	FUNCTION5 PFK	45.72	2.839e3					1.2	NO		bb		
14	FUNCTION5 PFK	45.17	5.935e3					1.6	NO		bb		
15	FUNCTION5 PFK	44.83	3.369e3					0.9	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.26	7.543e1					1.3	NO		bb		0.000
2	FUNCTION1 HXCD...	26.10	4.365e2					7.2	YES		bb		0.000
3	FUNCTION1 HXCD...	25.87	9.421e2					19.4	YES		db		0.000
4	FUNCTION1 HXCD...	25.75	2.335e2					4.2	YES		bd		0.000
5	FUNCTION1 HXCD...	24.95	7.972e1					1.3	NO		bb		0.000
6	FUNCTION1 HXCD...	23.73	8.264e1					2.1	NO		bb		0.000
7	FUNCTION1 HXCD...	22.92	1.129e2					1.4	NO		bb		0.000
8	FUNCTION1 HXCD...	22.27	2.848e2					6.5	YES		db		0.000
9	FUNCTION1 HXCD...	22.07	1.066e2					1.6	NO		bd		0.000
10	FUNCTION1 HXCD...	21.96	8.994e1					1.8	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:20:00 Pacific Daylight Time

ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	29.83	2.749e2					7.6	YES		bb		0.000
2	FUNCTION2 HPCD...	28.22	1.025e2					3.1	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.43	1.099e2					3.4	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.35	1.781e4					459.8	YES		bb		0.000

ETHERS6

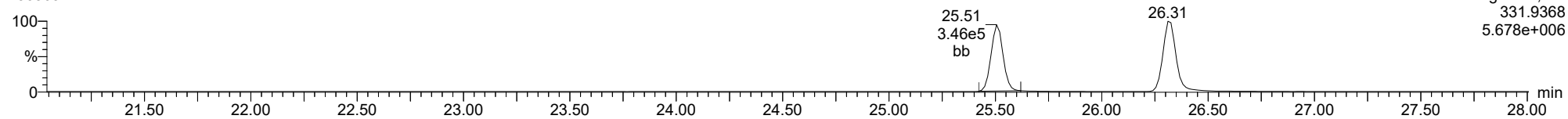
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	43.75	7.001e1					2.7	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: BLD0657-SRM1, **Name:** 23050924, **Date:** 10-May-2023, **Time:** 07:55:32, **Conditions:** AUTOSPEC01, **User:** pk

13C-1234-TCDD

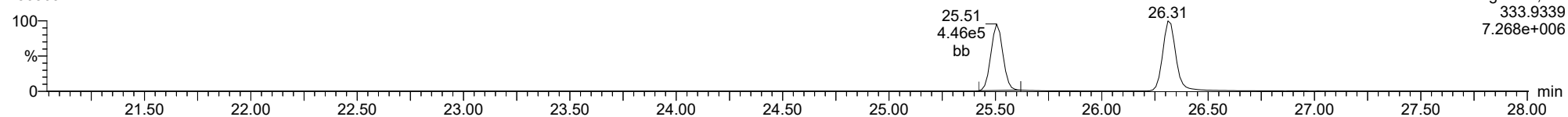
23050924



F1:Voltage SIR,El+
331.9368
5.678e+006

13C-1234-TCDD

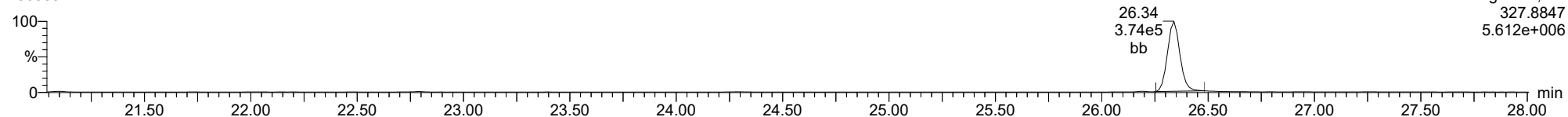
23050924



F1:Voltage SIR,El+
333.9339
7.268e+006

37CL-2378-TCDD

23050924

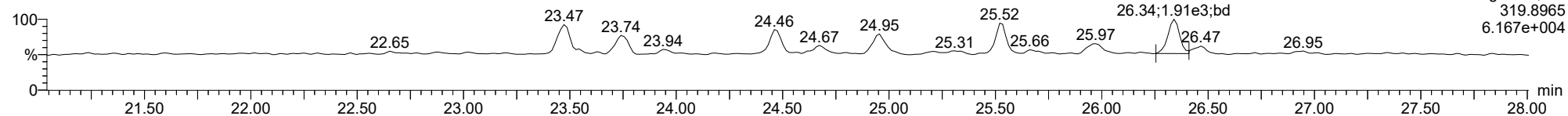


F1:Voltage SIR,El+
327.8847
5.612e+006

ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

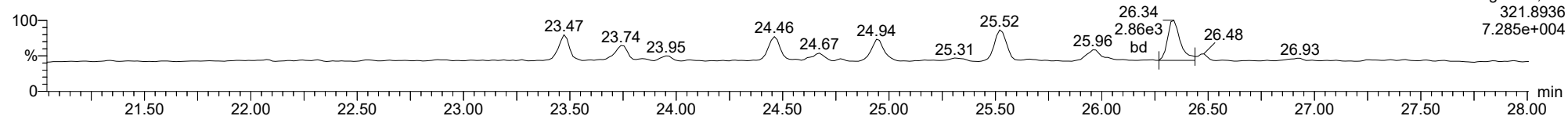
2378-TCDD

23050924



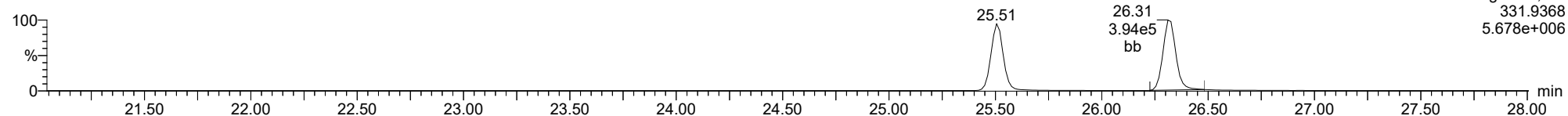
2378-TCDD

23050924



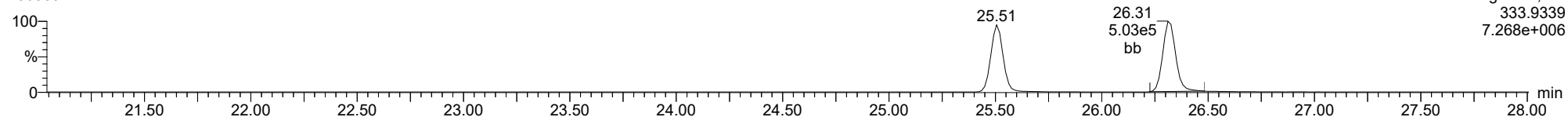
13C-2378-TCDD

23050924



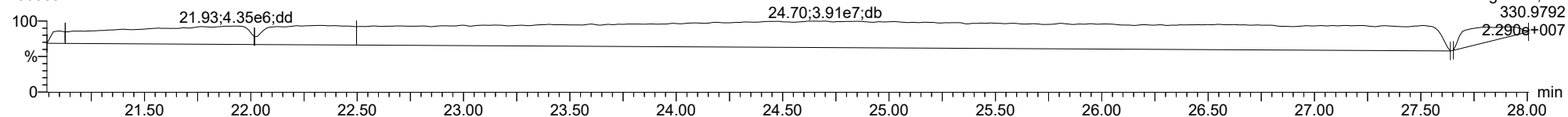
13C-2378-TCDD

23050924



FUNCTION1 PFK

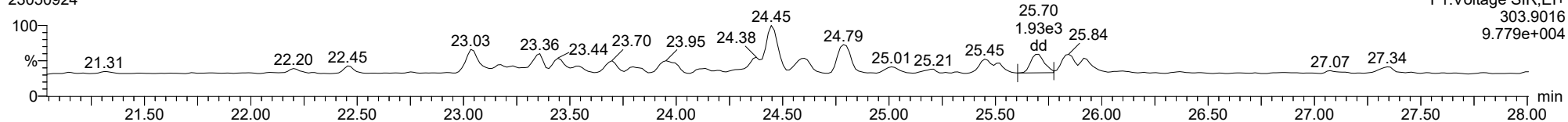
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

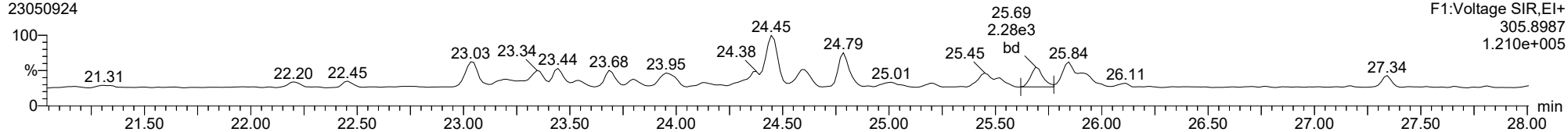
2378-TCDF

23050924



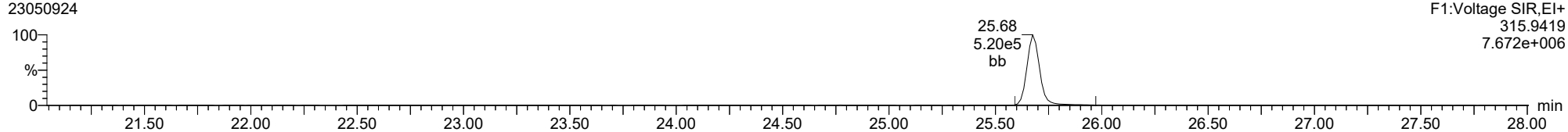
2378-TCDF

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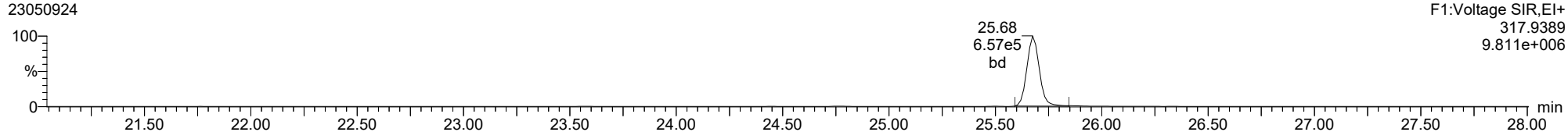
13C-2378-TCDF

23050924



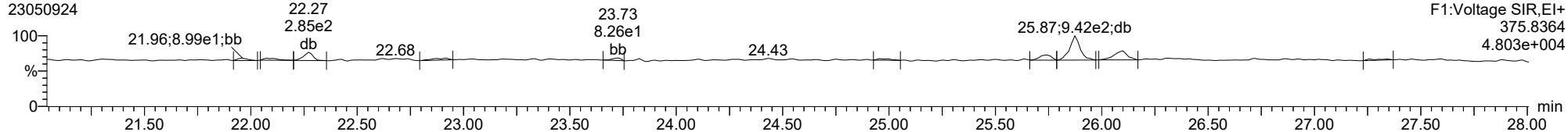
13C-2378-TCDF

23050924



FUNCTION1 HXCDPE

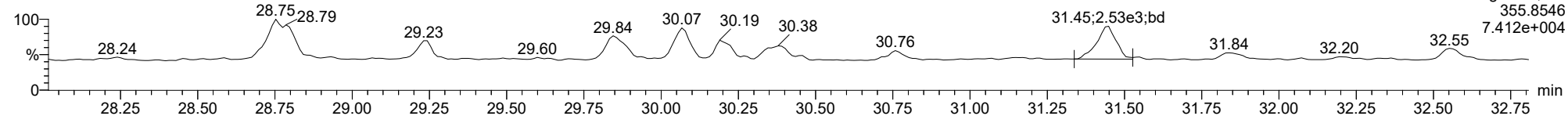
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

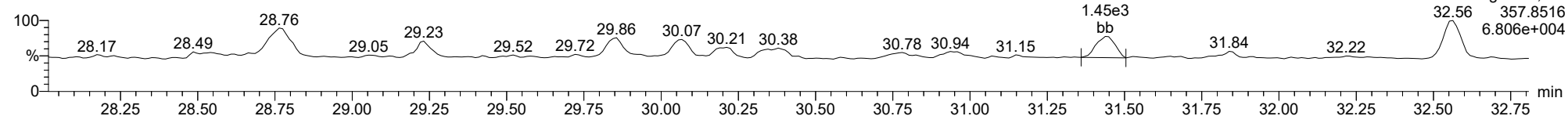
12378-PeCDD

23050924



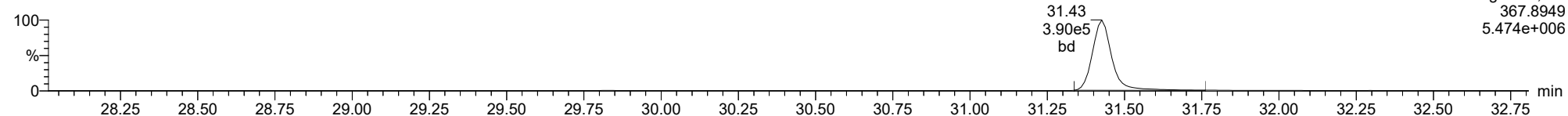
12378-PeCDD

23050924



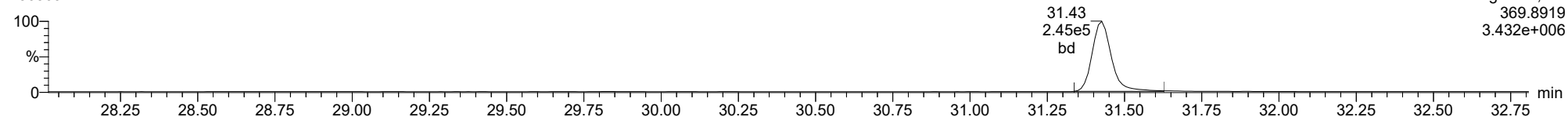
13C-12378-PeCDD

23050924



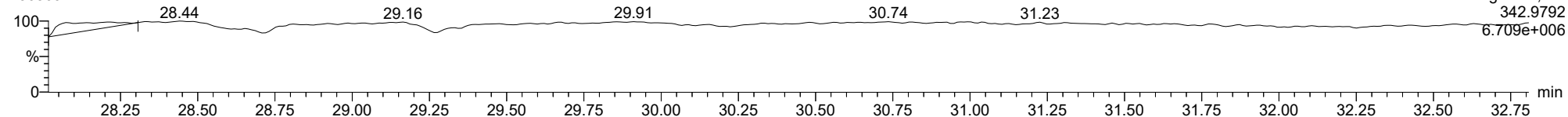
13C-12378-PeCDD

23050924



FUNCTION2 PFK

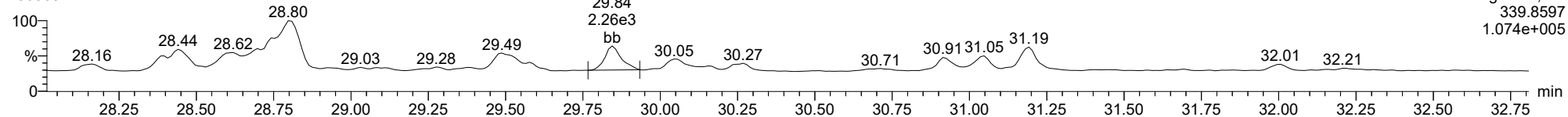
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

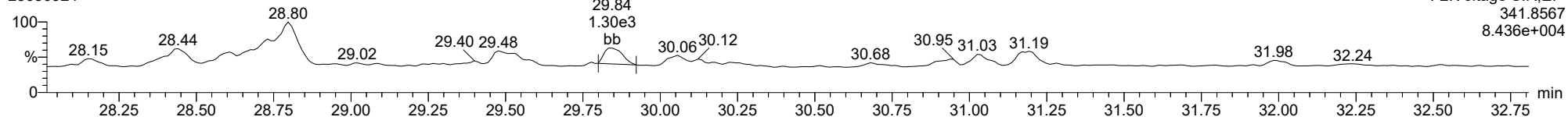
12378-PeCDF

23050924



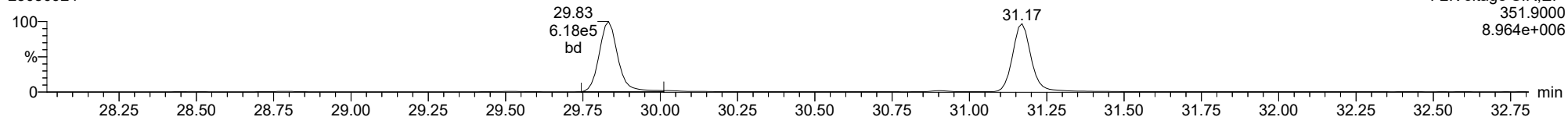
12378-PeCDF

23050924



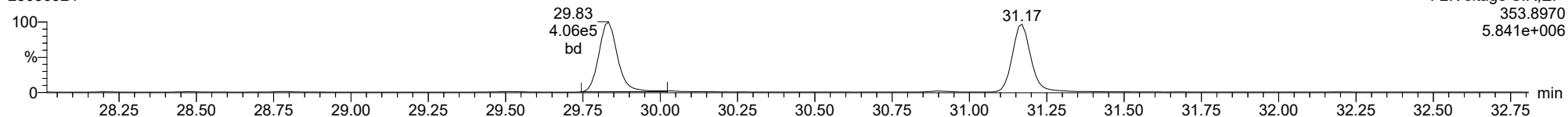
13C-12378-PeCDF

23050924



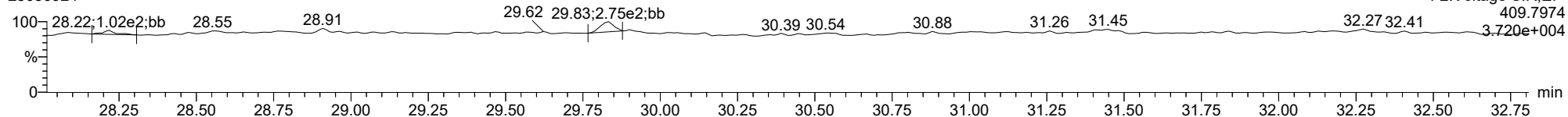
13C-12378-PeCDF

23050924



FUNCTION2 HPCDPE

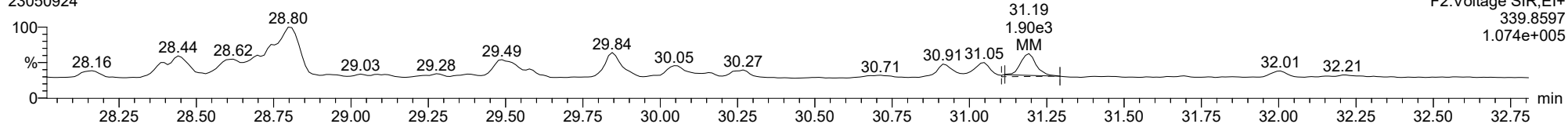
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

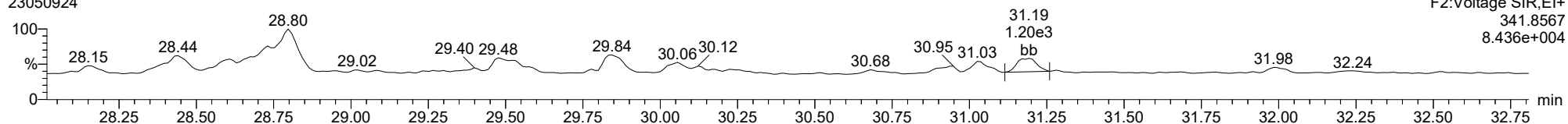
23478-PeCDF

23050924



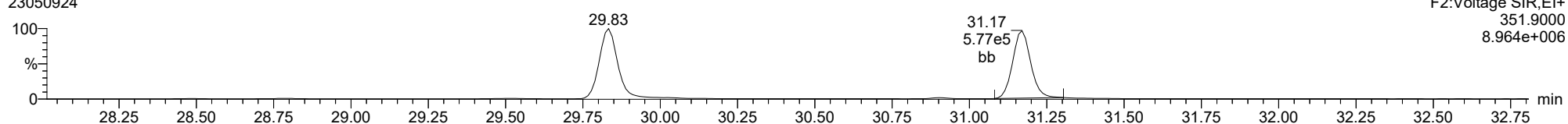
23478-PeCDF

23050924



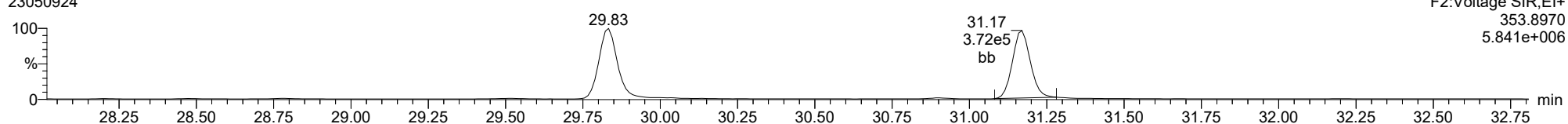
13C-23478-PeCDF

23050924



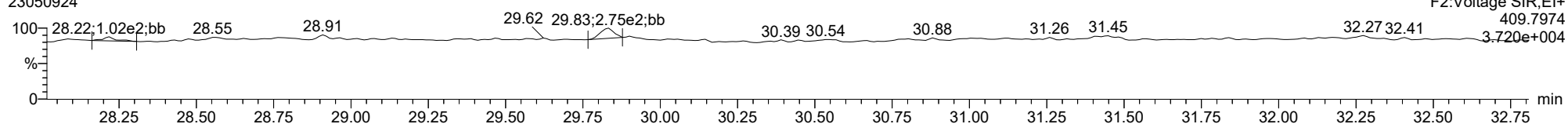
13C-23478-PeCDF

23050924



FUNCTION2 HPCDPE

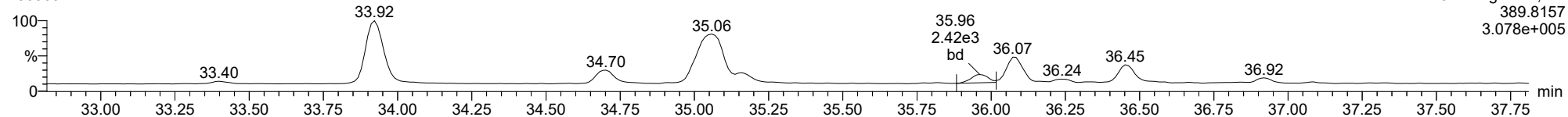
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

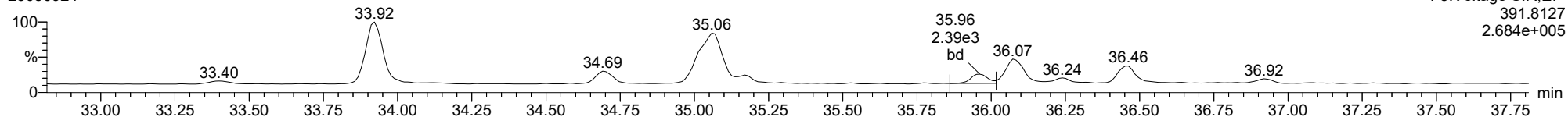
123478-HxCDD

23050924



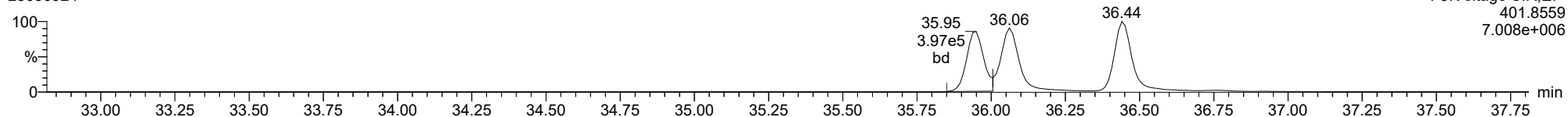
123478-HxCDD

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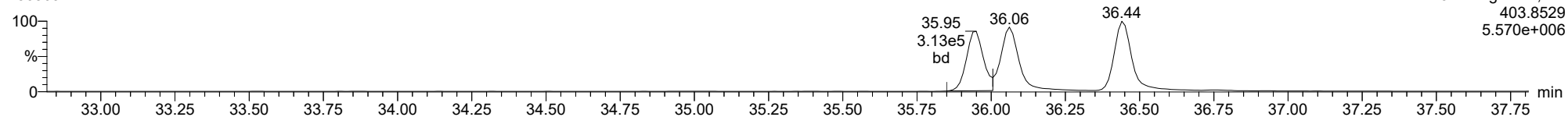
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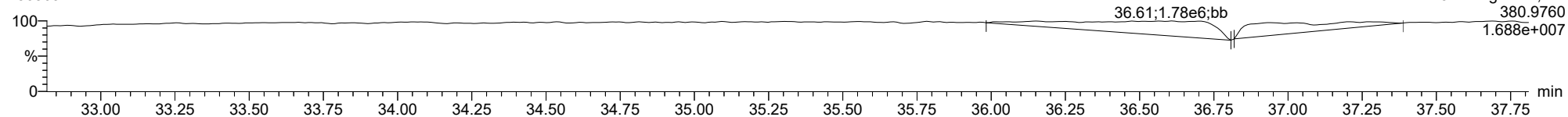
13C-123478-HxCDD

23050924



FUNCTION3 PFK

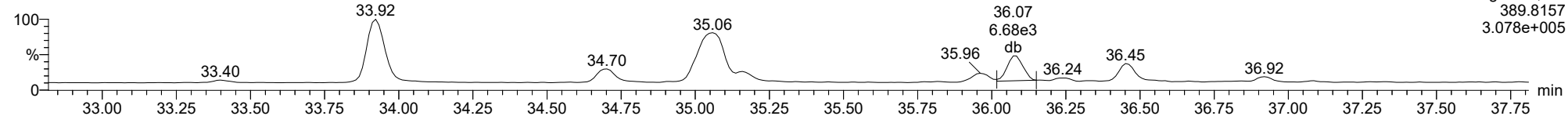
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

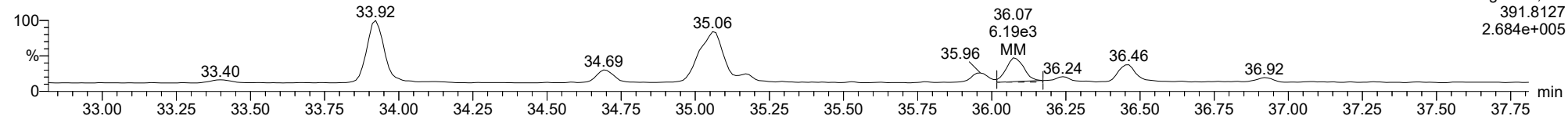
123678-HxCDD

23050924



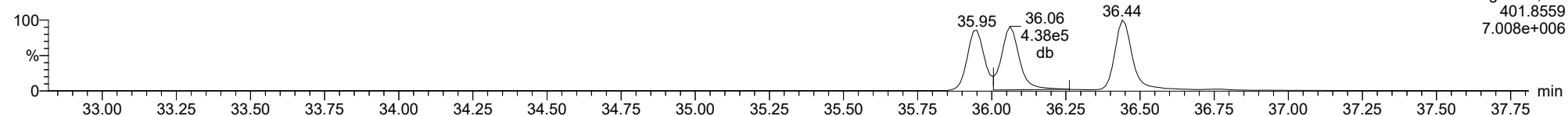
123678-HxCDD

23050924



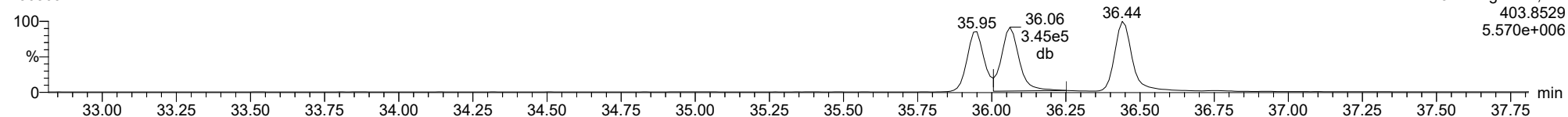
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23050924



13C-123678-HxCDD

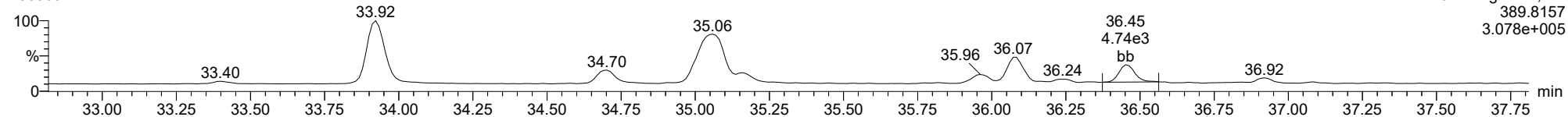
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

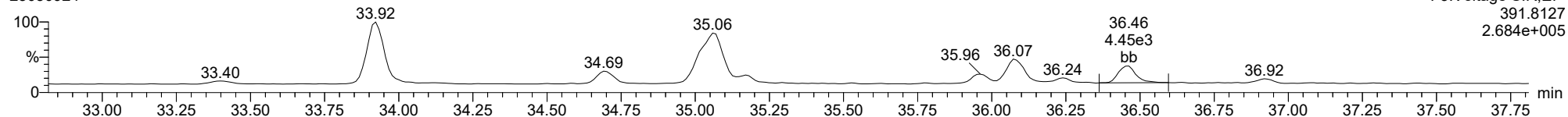
123789-HxCDD

23050924



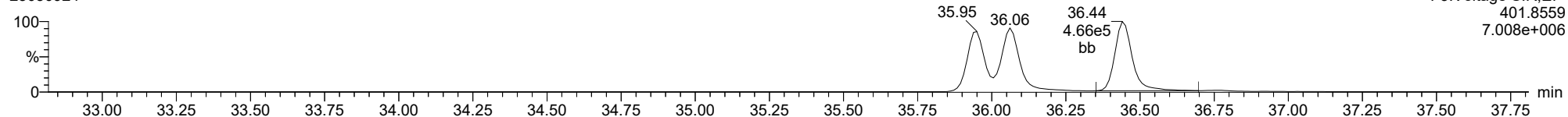
123789-HxCDD

23050924



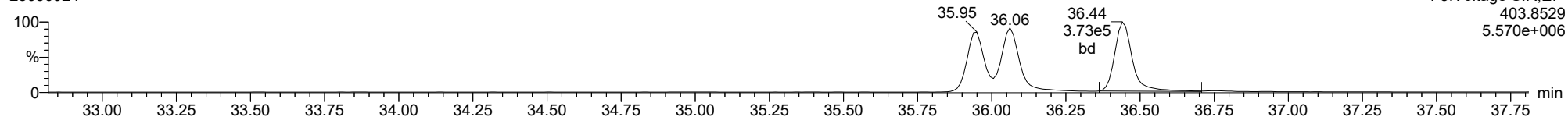
13C-123789-HxCDD

23050924



13C-123789-HxCDD

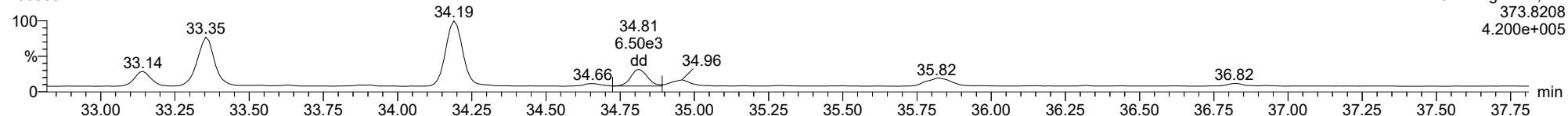
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

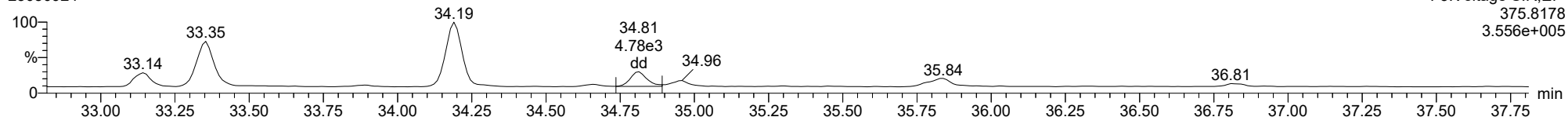
123478-HxCDF

23050924



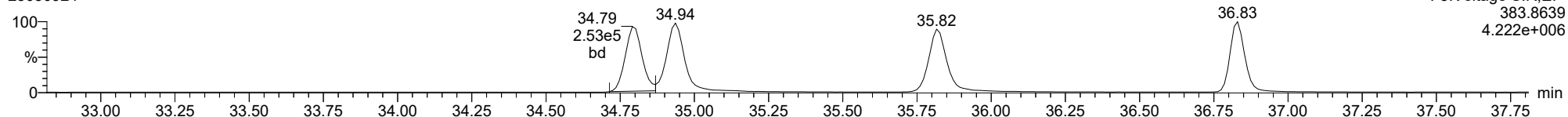
123478-HxCDF

23050924



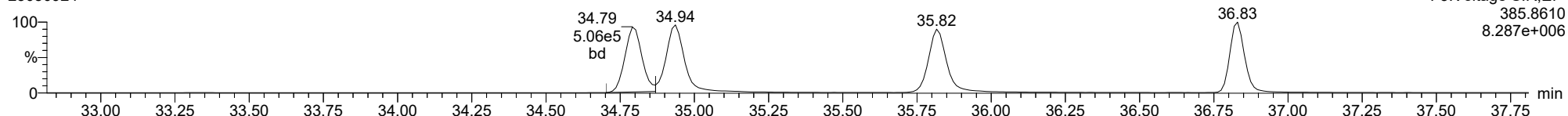
13C-123478-HxCDF

23050924



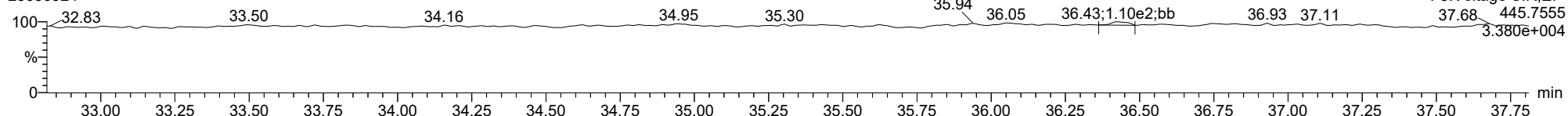
13C-123478-HxCDF

23050924



FUNCTION3 OCDPE

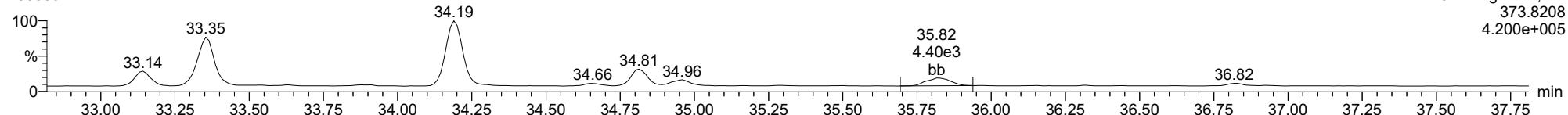
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

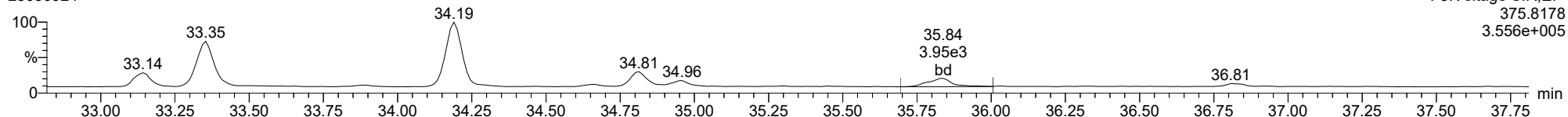
234678-HxCDF

23050924



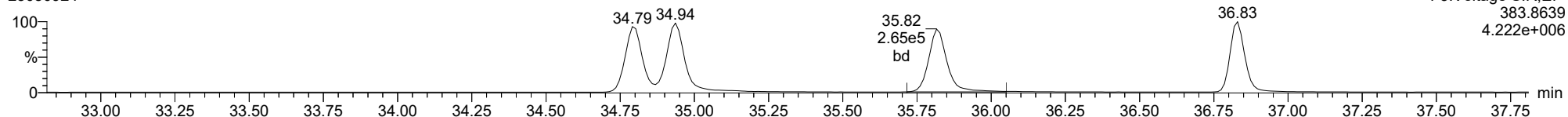
234678-HxCDF

23050924



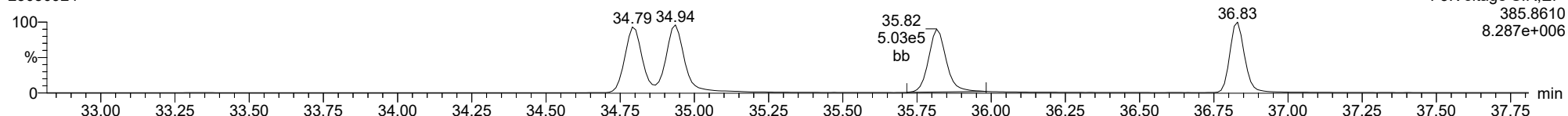
13C-234678-HxCDF

23050924



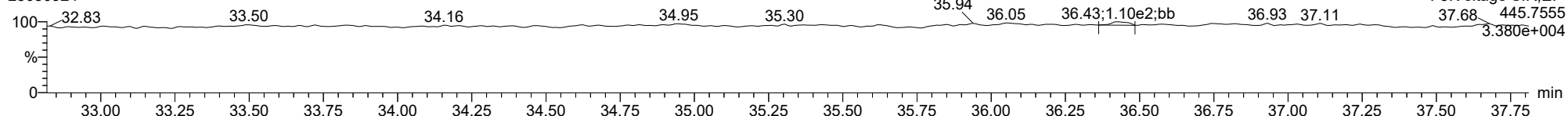
13C-234678-HxCDF

23050924



FUNCTION3 OCDPE

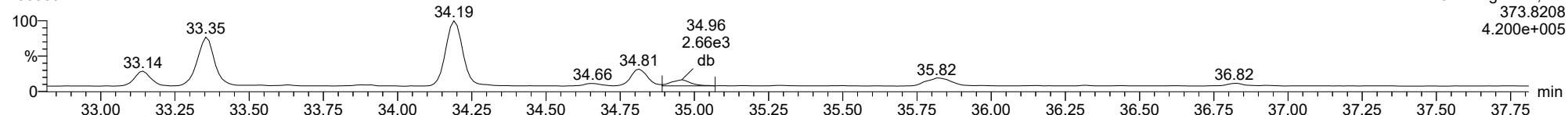
23050924



ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

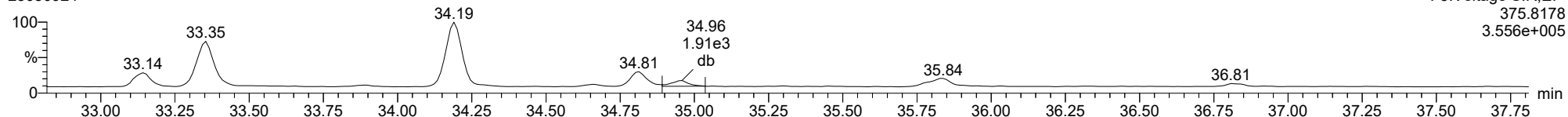
123678-HxCDF

23050924



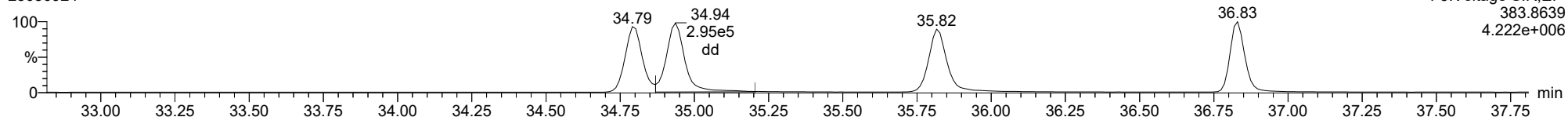
123678-HxCDF

23050924



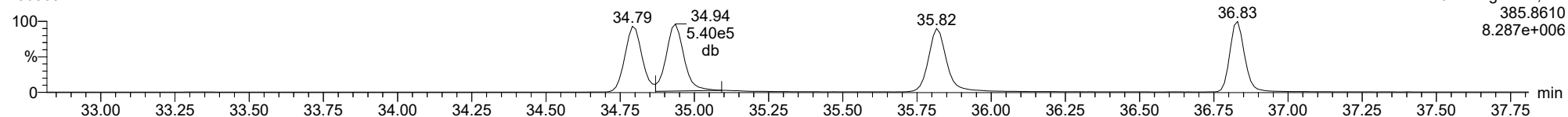
13C-123678-HxCDF

23050924



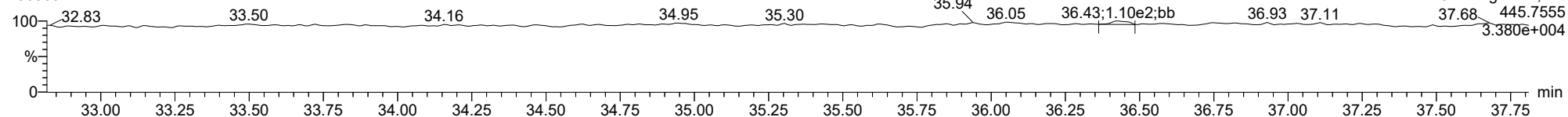
13C-123678-HxCDF

23050924



FUNCTION3 OCDPE

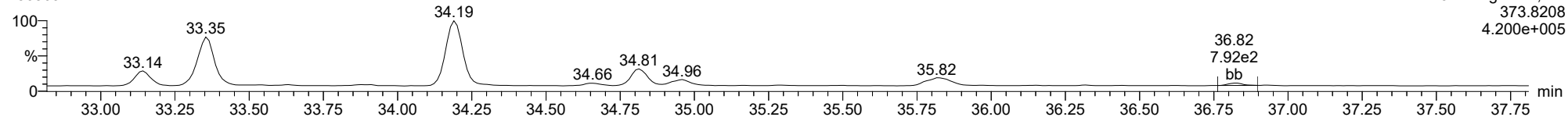
23050924



ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

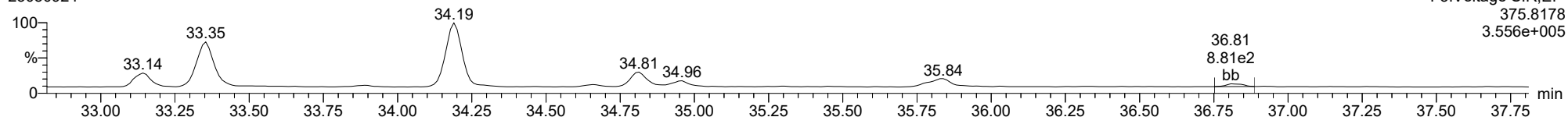
123789-HxCDF

23050924



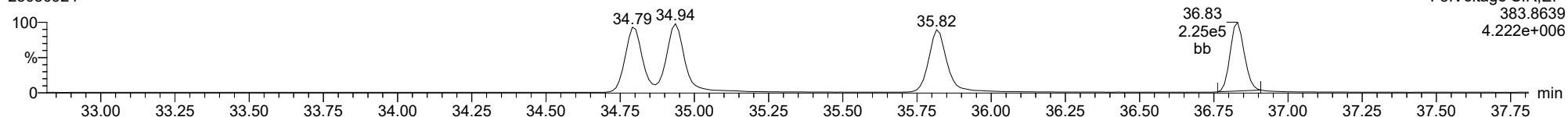
123789-HxCDF

23050924



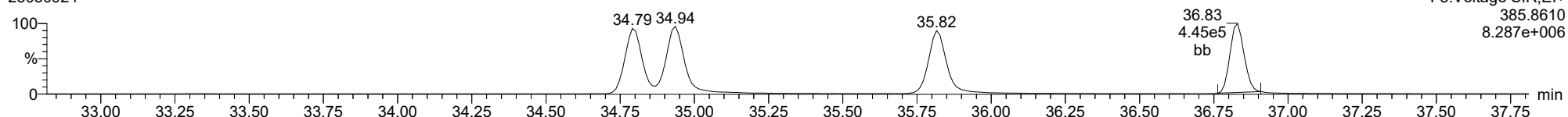
13C-123789-HxCDF

23050924



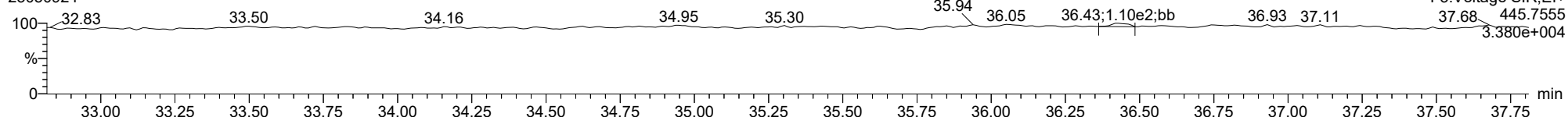
13C-123789-HxCDF

23050924



FUNCTION3 OCDPE

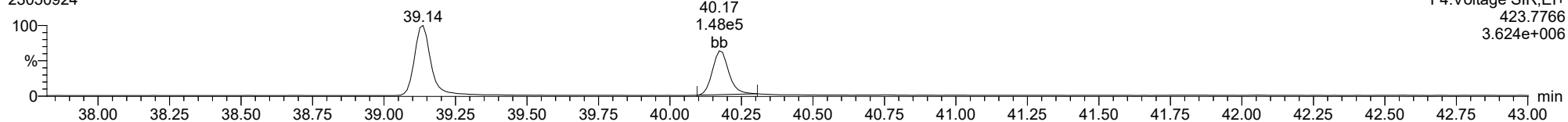
23050924



ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

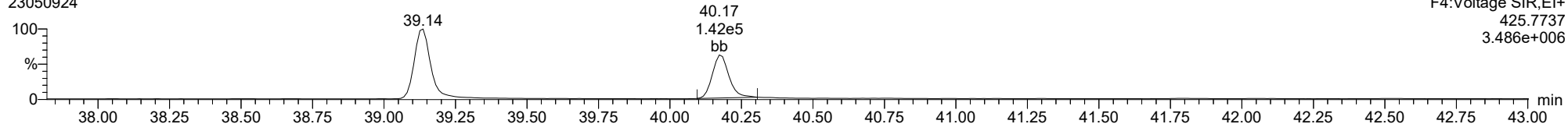
1234678-HpCDD

23050924



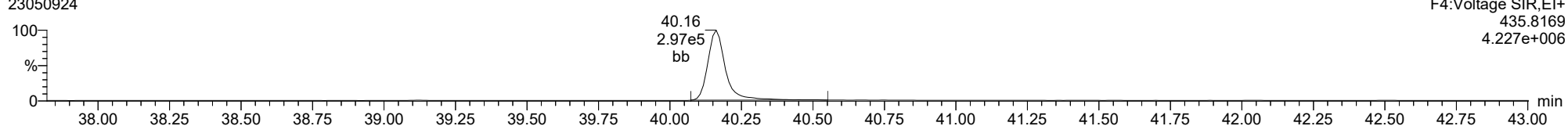
1234678-HpCDD

23050924



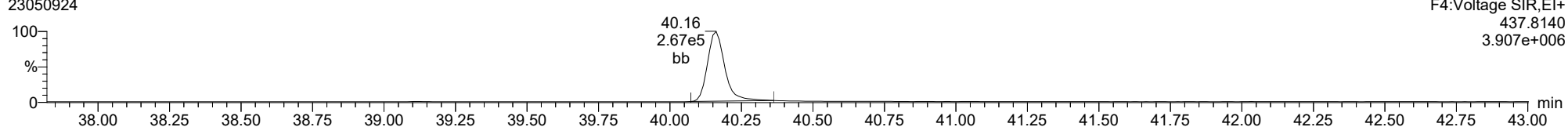
13C-1234678-HpCDD

23050924



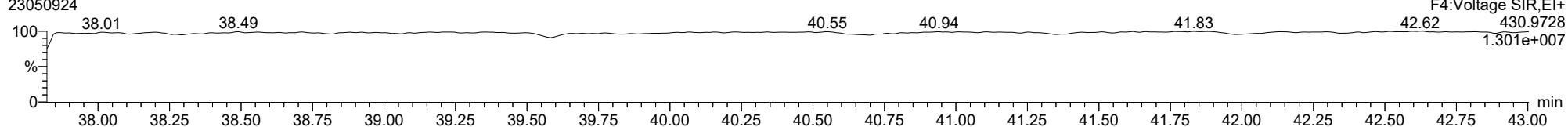
13C-1234678-HpCDD

23050924



FUNCTION4 PFK

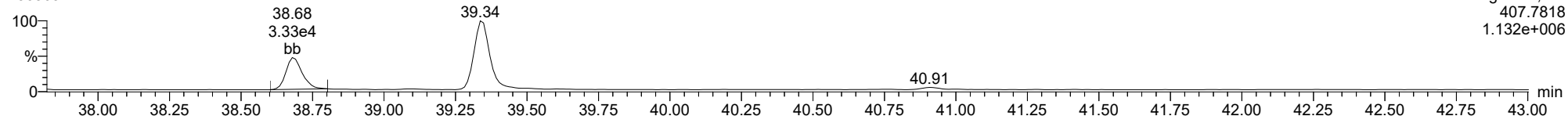
23050924



ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

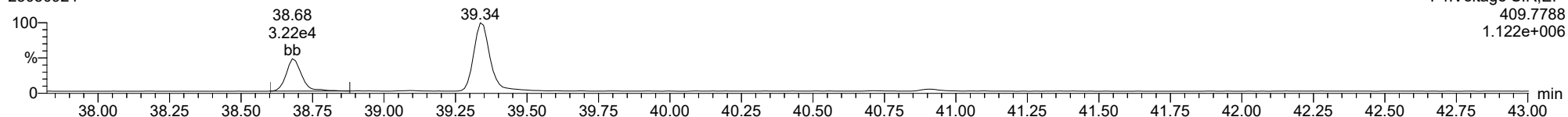
23050924



F4:Voltage SIR,El+
409.7818
1.132e+006

1234678-HpCDF

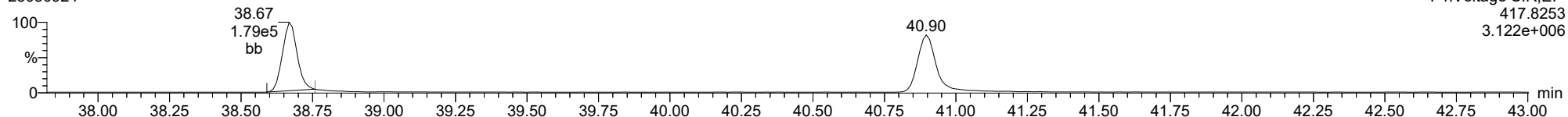
23050924



F4:Voltage SIR,El+
409.7788
1.122e+006

13C-1234678-HpCDF

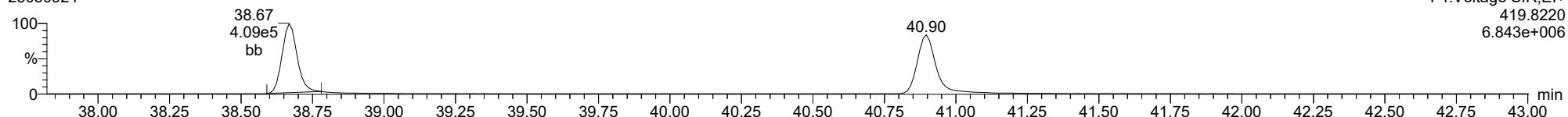
23050924



F4:Voltage SIR,El+
417.8253
3.122e+006

13C-1234678-HpCDF

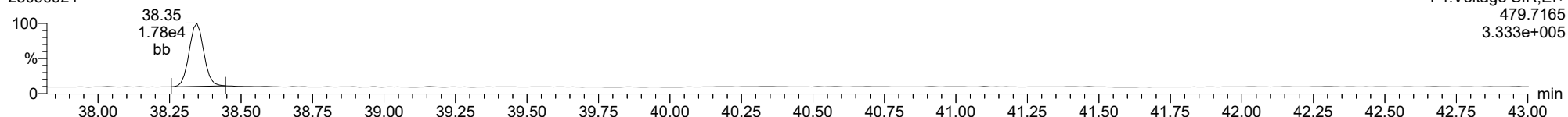
23050924



F4:Voltage SIR,El+
419.8220
6.843e+006

FUNCTION4 NCDPE

23050924

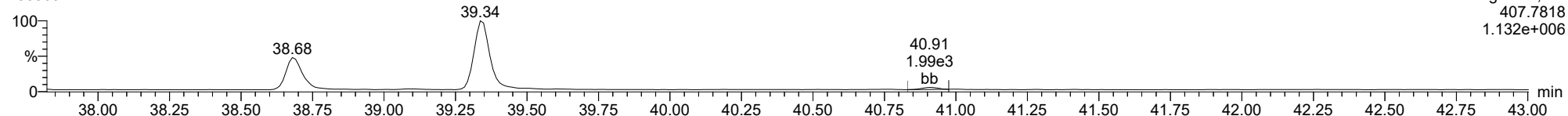


F4:Voltage SIR,El+
479.7165
3.333e+005

ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

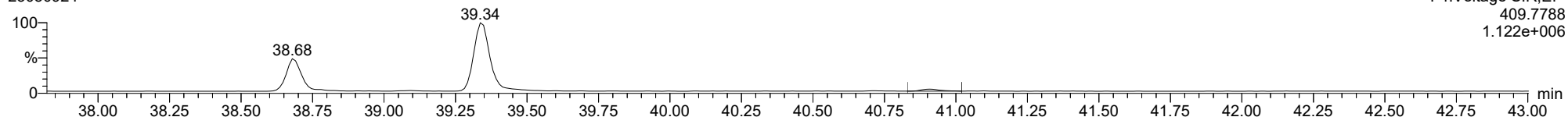
1234789-HpCDF

23050924



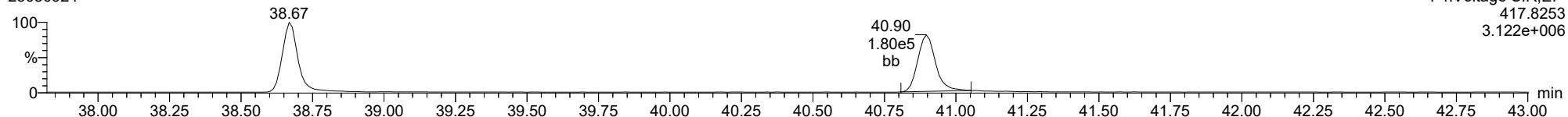
1234789-HpCDF

23050924



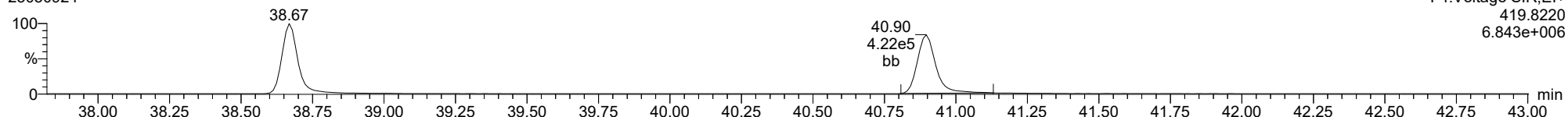
13C-1234789-HpCDF

23050924



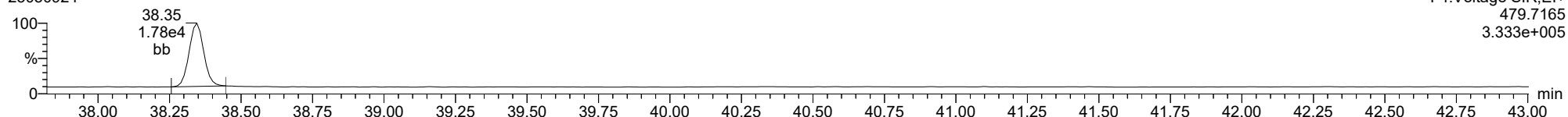
13C-1234789-HpCDF

23050924



FUNCTION4 NCDPE

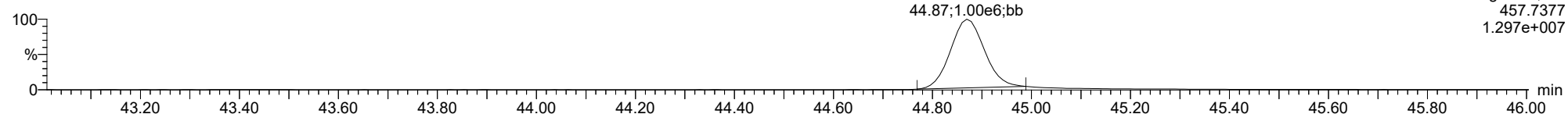
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

OCDD

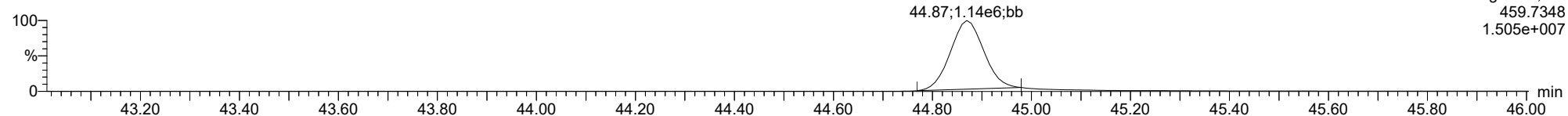
23050924



F5:Voltage SIR,EI+
457.7377
1.297e+007

OCDD

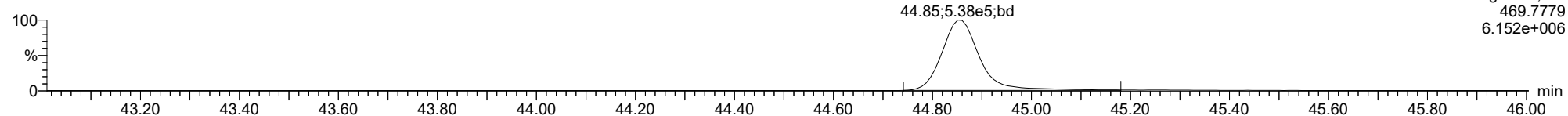
23050924



F5:Voltage SIR,EI+
459.7348
1.505e+007

13C-OCDD

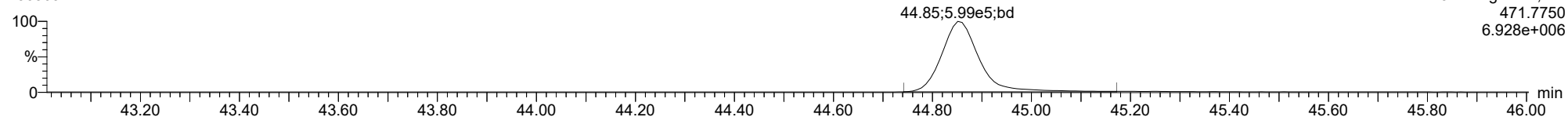
23050924



F5:Voltage SIR,EI+
469.7779
6.152e+006

13C-OCDD

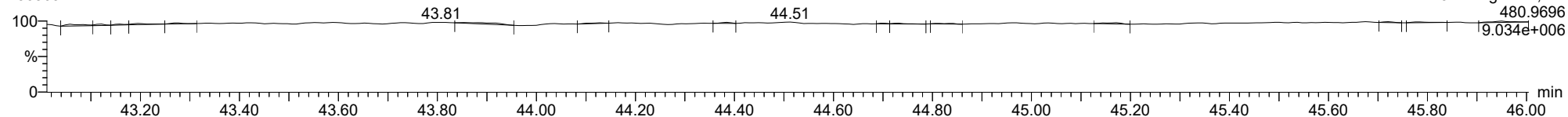
23050924



F5:Voltage SIR,EI+
471.7750
6.928e+006

FUNCTION5 PFK

23050924

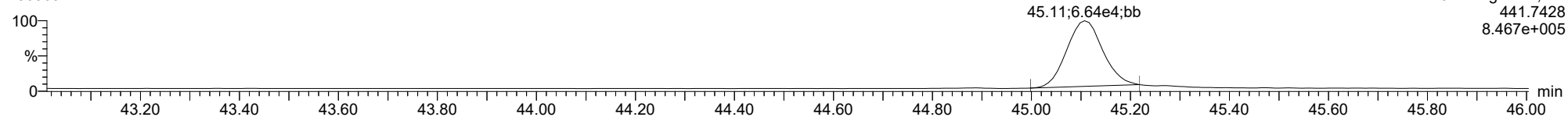


F5:Voltage SIR,EI+
480.9696
9.034e+006

ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

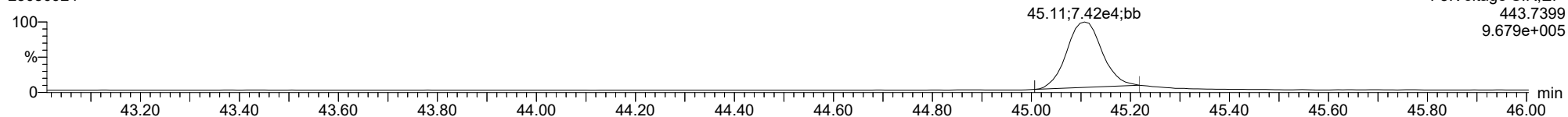
OCDF

23050924



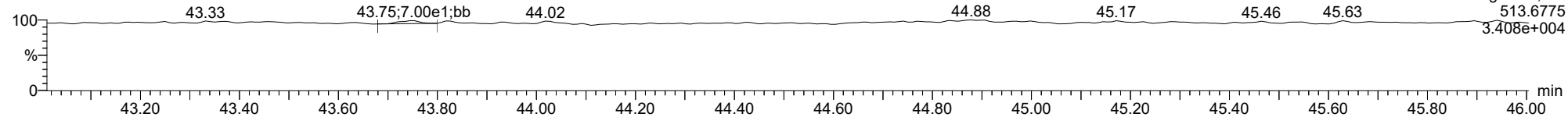
OCDF

23050924



FUNCTION5 DCDPE

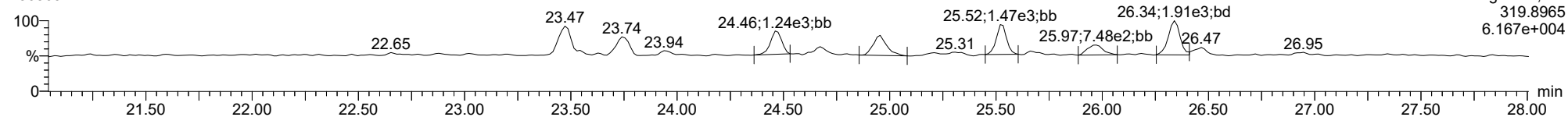
23050924



ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

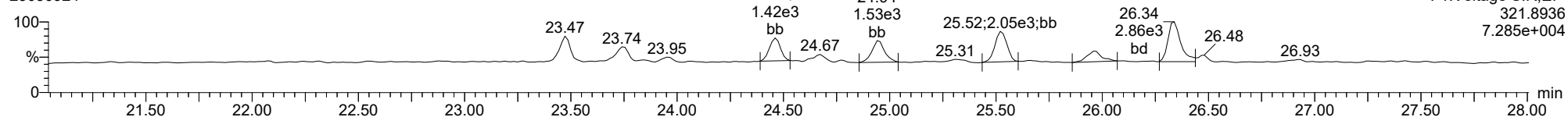
Total-tetradioxins

23050924



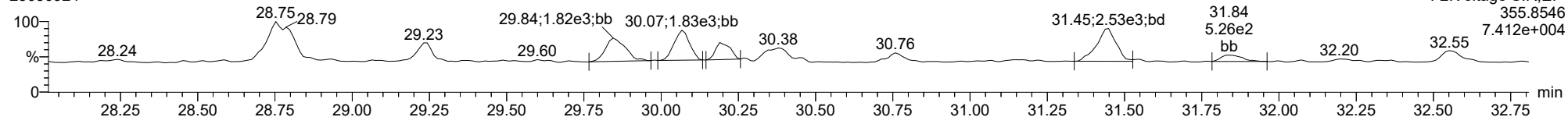
Total-tetradioxins

23050924



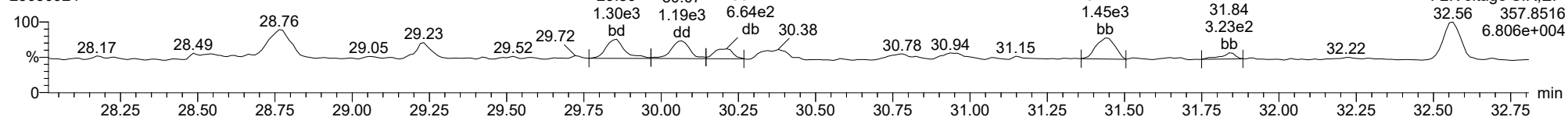
Total-pentadioxins

23050924



Total-pentadioxins

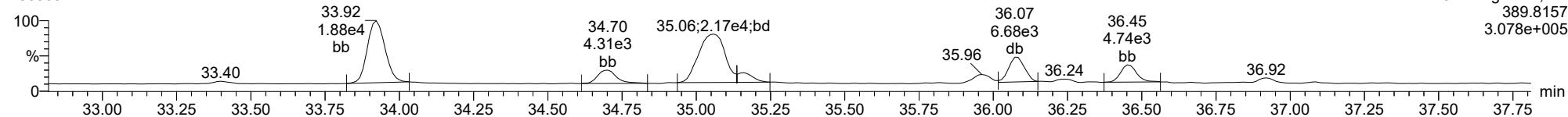
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ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

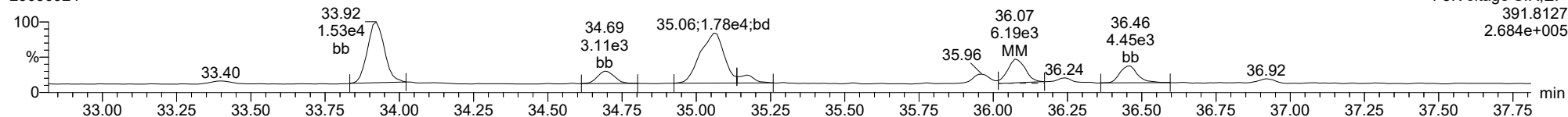
Total-hexadioxins

23050924



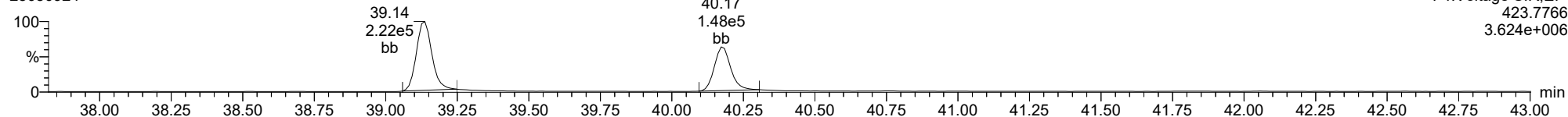
Total-hexadioxins

23050924



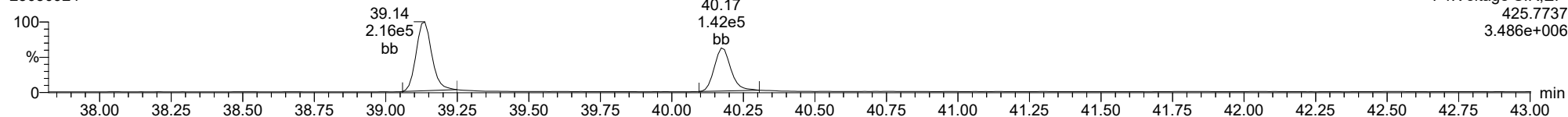
Total-heptadioxins

23050924



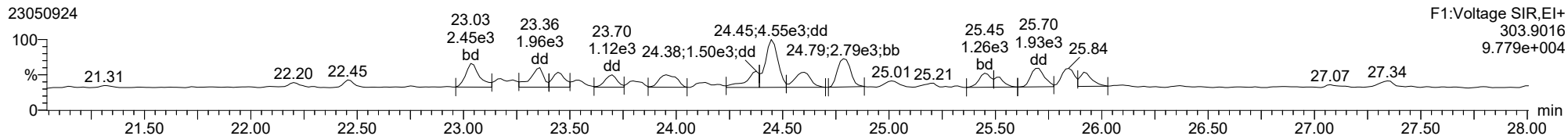
Total-heptadioxins

23050924

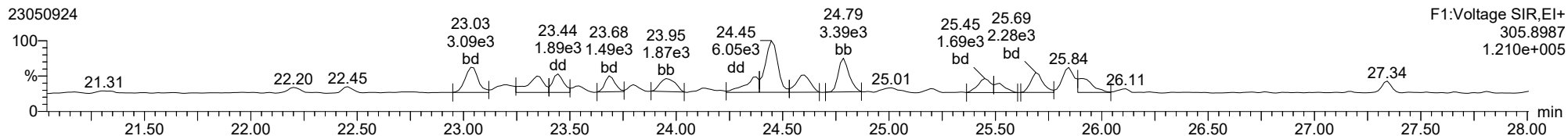


ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

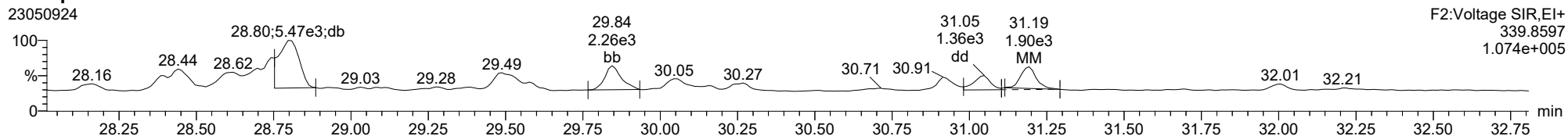
Total-tetrafurans



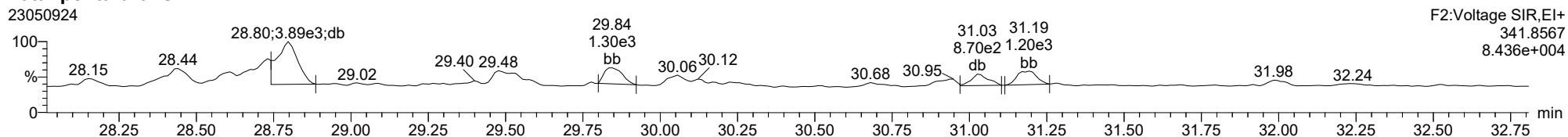
Total-tetrafurans



Total-pentafurans

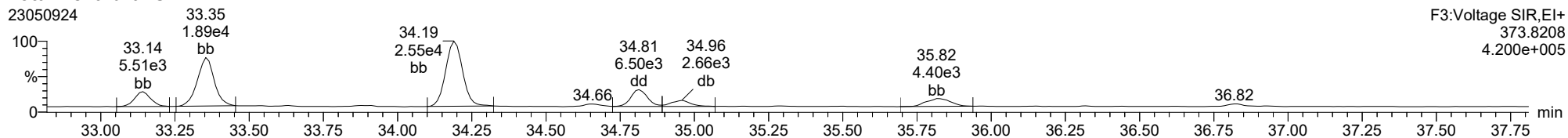


Total-pentafurans

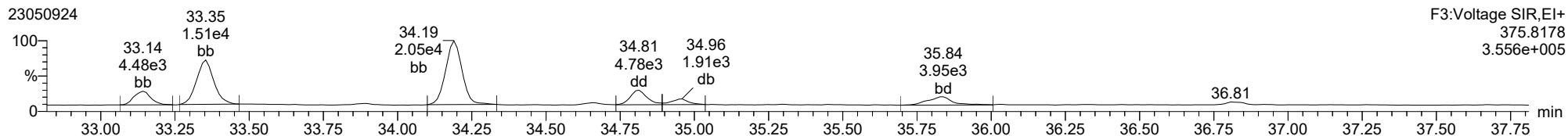


ID: BLD0657-SRM1, Name: 23050924, Date: 10-May-2023, Time: 07:55:32, Conditions: AUTOSPEC01, User: pk

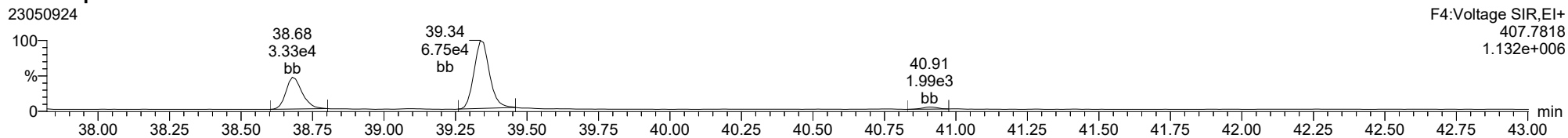
Total-hexafurans



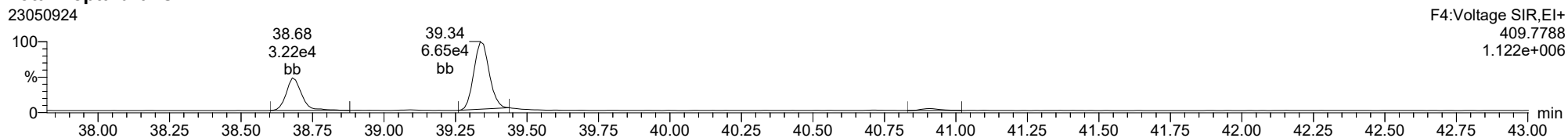
Total-hexafurans



Total-heptafurans



Total-heptafurans





INITIAL CALIBRATION DATA
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00015

Instrument: AUTOSPEC01

Calibration Date: 03/03/2023

Column (1): RTX-Dioxin2

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2,3,7,8-TCDF			0.5	0.6926363	2	0.6813225	10	0.7107923	40	0.719723	200	0.703162
2,3,7,8-TCDD			0.5	1.116738	2	1.187915	10	1.134128	40	1.147736	200	1.156792
1,2,3,7,8-PeCDF	0.5	0.7064839	2.5	0.5889757	10	0.710829	50	0.6668491	200	0.6891968	1000	0.7130453
2,3,4,7,8-PeCDF	0.5	0.7979673	2.5	0.750268	10	0.8092124	50	0.7777683	200	0.7907891	1000	0.7910175
1,2,3,7,8-PeCDD	0.5	1.103364	2.5	0.959607	10	1.01992	50	1.019473	200	1.01999	1000	1.008719
1,2,3,4,7,8-HxCDF	0.5	1.217557	2.5	1.181192	10	1.149885	50	1.142227	200	1.15269	1000	1.152678
1,2,3,6,7,8-HxCDF	0.5	1.080855	2.5	1.053928	10	1.175308	50	1.102076	200	1.035098	1000	1.097184
2,3,4,6,7,8-HxCDF	0.5	1.045907	2.5	1.140857	10	1.199347	50	1.11691	200	1.197861	1000	1.13731
1,2,3,7,8,9-HxCDF	0.5	1.190403	2.5	1.119796	10	1.130872	50	1.147742	200	1.139146	1000	1.094601
1,2,3,4,7,8-HxCDD	0.5	1.079554	2.5	0.961704	10	0.973768	50	0.967789	200	0.9862736	1000	1.004325
1,2,3,6,7,8-HxCDD	0.5	0.9586431	2.5	0.9983677	10	0.9838912	50	1.030566	200	1.022077	1000	1.012084
1,2,3,7,8,9-HxCDD	0.5	0.930997	2.5	0.8854269	10	0.8092562	50	0.9267543	200	0.9251392	1000	0.9651099
1,2,3,4,6,7,8-HpCDF	0.5	0.934103	2.5	1.075239	10	1.011687	50	0.9661089	200	1.026311	1000	1.004508
1,2,3,4,7,8,9-HpCDF	0.5	0.8861422	2.5	0.8930411	10	1.006144	50	0.9387033	200	0.9934576	1000	1.001203
1,2,3,4,6,7,8-HpCDD	0.5	1.103772	2.5	0.971421	10	1.040117	50	1.038088	200	1.030577	1000	1.050103
OCDF	1	0.8118871	5	0.7091624	20	0.7657645	100	0.7266152	400	0.8162858	2000	0.8371317
OCDD			5	1.012935	20	0.8906655	100	0.878436	400	0.9061913	2000	0.9115405
13C12-2,3,7,8-TCDF	100	1.631571	100	1.588495	100	1.670669	100	1.492829	100	1.645068	100	1.692541
13C12-2,3,7,8-TCDD	100	1.103543	100	1.165686	100	1.103763	100	1.147762	100	1.181831	100	1.211872
13C12-1,2,3,7,8-PeCDF	100	1.373516	100	0.8861478	100	1.254697	100	1.157546	100	1.425701	100	1.345107
13C12-2,3,4,7,8-PeCDF	100	1.219579	100	0.8983995	100	1.113808	100	0.8611233	100	1.32733	100	1.286474
13C12-1,2,3,7,8-PeCDD	100	0.9177021	100	0.7002528	100	0.8365419	100	0.5962156	100	0.9821822	100	0.939983
13C12-1,2,3,4,7,8-HxCDF	100	1.152029	100	1.095885	100	1.513935	100	1.121285	100	1.094572	100	1.032122
13C12-1,2,3,6,7,8-HxCDF	100	1.353853	100	1.348693	100	1.689158	100	1.367383	100	1.37092	100	1.188788
13C12-2,3,4,6,7,8-HxCDF	100	1.092029	100	1.127896	100	1.240354	100	1.126074	100	1.087409	100	1.101774
13C12-1,2,3,7,8,9-HxCDF	100	0.8958406	100	0.9493947	100	0.9152119	100	0.9630403	100	0.8996667	100	0.9673701
13C12-1,2,3,4,7,8-HxCDD	100	0.9718531	100	0.9656819	100	1.113686	100	0.9864835	100	0.9766715	100	0.95586
13C12-1,2,3,6,7,8-HxCDD	100	1.184228	100	1.157253	100	1.278683	100	1.163318	100	1.111106	100	1.045546



INITIAL CALIBRATION DATA
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00015	Instrument:	AUTOSPEC01
Calibration Date:	03/03/2023	Column (1):	RTX-Dioxin2

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
13C12-1,2,3,4,6,7,8-HpCDF	100	0.7396157	100	0.9023055	100	1.063192	100	0.9589237	100	0.7622694	100	0.9449039
13C12-1,2,3,4,7,8,9-HpCDF	100	0.6488087	100	0.8119515	100	0.8176949	100	0.8667001	100	0.665459	100	0.8078955
13C12-1,2,3,4,6,7,8-HpCDD	100	0.724191	100	0.8737196	100	0.9555336	100	0.9094052	100	0.7229358	100	0.8549505
13C12-OCDD	200	0.701507	200	0.6312376	200	0.823691	200	0.8980531	200	0.7066522	200	0.8436876
37C14-2,3,7,8-TCDD	0.1	1.576039	0.5	1.320077	2	1.177166	10	1.132717	40	1.2366	200	1.284223
13C12-1,2,3,4-TCDD	100	1	100	1	100	1	100	1	100	1	100	1
13C12-1,2,3,7,8,9-HxCDD	100	1	100	1	100	1	100	1	100	1	100	1



INITIAL CALIBRATION DATA
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00015	Instrument:	AUTOSPEC01
Calibration Date:	03/03/2023	Column (1):	RTX-Dioxin2

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
2,3,7,8-TCDF	0.7015272	2.1			RSD ()	
2,3,7,8-TCDD	1.148662	2.3			RSD ()	
1,2,3,7,8-PeCDF	0.67923	7.0			RSD ()	
2,3,4,7,8-PeCDF	0.7861704	2.6			RSD ()	
1,2,3,7,8-PeCDD	1.021845	4.5			RSD ()	
1,2,3,4,7,8-HxCDF	1.166038	2.4			RSD ()	
1,2,3,6,7,8-HxCDF	1.090741	4.5			RSD ()	
2,3,4,6,7,8-HxCDF	1.139699	5.0			RSD ()	
1,2,3,7,8,9-HxCDF	1.137093	2.8			RSD ()	
1,2,3,4,7,8-HxCDD	0.9955689	4.4			RSD ()	
1,2,3,6,7,8-HxCDD	1.000938	2.7			RSD ()	
1,2,3,7,8,9-HxCDD	0.9071139	6.0			RSD ()	
1,2,3,4,6,7,8-HpCDF	1.002993	4.9			RSD ()	
1,2,3,4,7,8,9-HpCDF	0.9531152	5.8			RSD ()	
1,2,3,4,6,7,8-HpCDD	1.039013	4.1			RSD ()	
OCDF	0.7778078	6.7			RSD ()	
OCDD	0.9199537	5.8			RSD ()	
13C12-2,3,7,8-TCDF	1.620196	4.4			RSD ()	
13C12-2,3,7,8-TCDD	1.152409	3.8			RSD ()	
13C12-1,2,3,7,8-PeCDF	1.240452	15.9			RSD ()	
13C12-2,3,4,7,8-PeCDF	1.117786	17.7			RSD ()	
13C12-1,2,3,7,8-PeCDD	0.8288129	18.3			RSD ()	
13C12-1,2,3,4,7,8-HxCDF	1.168305	14.9			RSD ()	
13C12-1,2,3,6,7,8-HxCDF	1.386466	11.8			RSD ()	
13C12-2,3,4,6,7,8-HxCDF	1.129256	5.0			RSD ()	
13C12-1,2,3,7,8,9-HxCDF	0.9317541	3.4			RSD ()	
13C12-1,2,3,4,7,8-HxCDD	0.9950393	5.9			RSD ()	
13C12-1,2,3,6,7,8-HxCDD	1.156689	6.7			RSD ()	
13C12-1,2,3,4,6,7,8-HpCDF	0.8952017	13.8			RSD ()	
13C12-1,2,3,4,7,8,9-HpCDF	0.7697516	11.7			RSD ()	
13C12-1,2,3,4,6,7,8-HpCDD	0.8401226	11.5			RSD ()	



INITIAL CALIBRATION DATA
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23D0136
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00015	Instrument:	AUTOSPEC01
Calibration Date:	03/03/2023	Column (1):	RTX-Dioxin2

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
13C12-OCDD	0.7674714	13.4			RSD ()	
37C14-2,3,7,8-TCDD	1.287804	12.2			RSD ()	
13C12-1,2,3,4-TCDD	1	0.0			RSD ()	
13C12-1,2,3,7,8,9-HxCDD	1	0.0			RSD ()	



ANALYSIS SEQUENCE

SLC0045

Instrument: AUTOSPEC01 HRGCMS Column ID: K2310
Calibration ID: GC00015 Tune File: FEB0923_1-5
EM Voltage: 350 Resolution check times : 9:51, 18:18

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0045-ICV1	CS3W1	QC		1	K009821		03/03/2023 09:51	23030302	PK	
SLC0045-RES1	ISCW1	QC		2	L002084		03/03/2023 10:39	23030303	PK	
SLC0045-CAL1	CSLCW	QC		3	I005460		03/03/2023 11:28	23030304	PK	
SLC0045-CAL2	CS1CW	QC		4	I005456		03/03/2023 12:23	23030305	PK	
SLC0045-CAL3	CS2CW	QC		5	I005457		03/03/2023 13:16	23030306	PK	
SLC0045-CAL4	CS3CW	QC		6	K009821		03/03/2023 14:06	23030307	PK	
SLC0045-CAL5	CS4CW	QC		7	I005458		03/03/2023 14:59	23030308	PK	
SLC0045-CAL6	CS5CW	QC		8	I005459		03/03/2023 15:47	23030309	PK	
SLC0045-SCV1	ICVCW	QC		9	H008219		03/03/2023 16:36	23030310	PK	
SLC0045-CCV1	CS3V4	QC		10	K009821		03/03/2023 17:25	23030311	PK	
SLC0045-RES2	ISCV4	QC		11	L002084		03/03/2023 18:18	23030312	PK	

Dataset: T:\Autospec\Processed Data Batch\2303031CIH.qld

Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time

Printed: Monday, March 06, 2023 10:58:44 Pacific Standard Time

3/6/23 PK

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Calibrate		
Process Quantify		
Dataset Created		
Peak deleted	Sample:23030304, Compound:TD, RT:26.410	1
Peak deleted	Sample:23030304, Compound:OD, RT:44.990	1
Peak deleted	Sample:23030304, Compound:TF, RT:25.774	1
Pre modification peak	Sample:23030305, Compound:TF, RT:25.774	2
Peak modified	Sample:23030305, Compound:TF, RT:25.774	2
Pre modification peak	Sample:23030304, Compound:HPD, RT:40.261	1
Peak modified	Sample:23030304, Compound:HPD, RT:40.261	1
Peak deleted	Sample:23030308, Compound:PF, RT:32.328	5
Peak deleted	Sample:23030309, Compound:PF, RT:32.307	6
Peak deleted	Sample:23030309, Compound:HF, RT:33.220	6
Peak deleted	Sample:23030309, Compound:TD, RT:27.017	6
Peak deleted	Sample:23030309, Compound:PD, RT:31.995	6
Peak deleted	Sample:23030309, Compound:PD, RT:31.917	6
Peak deleted	Sample:23030308, Compound:HD, RT:34.000	5
Peak deleted	Sample:23030308, Compound:HPD, RT:39.225	5
Peak deleted	Sample:23030309, Compound:HPD, RT:39.214	6
Pre modification peak	Sample:23030305, Compound:OF, RT:45.237	2
Peak modified	Sample:23030305, Compound:OF, RT:45.237	2
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\2303031CIH.qld'	

Dataset: T:\Autospec\Processed Data Batch\230303IHOP.qld
 Last Altered: Monday, March 06, 2023 11:36:30 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:37:17 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
 Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.788	1.001	4.469e4	5.839e4	0.702	0.765	0.770	894	1638	6.87e5	9.09e5	769.3	554.8	NO	bb	bb	9.550
12378-PeCDF	29.956	1.001	2.355e5	1.540e5	0.679	1.529	1.550	2187	1572	3.61e6	2.40e6	1652.4	1526.9	NO	bb	bb	49.641
23478-PeCDF	31.293	1.001	2.214e5	1.482e5	0.786	1.494	1.550	2187	1572	3.41e6	2.30e6	1560.8	1464.8	NO	bb	bb	47.528
123478-HxCDF	34.914	1.001	2.600e5	2.102e5	1.166	1.237	1.240	1592	1910	4.13e6	3.31e6	2594.2	1730.9	NO	bd	bd	47.118
234678-HxCDF	35.917	1.001	2.733e5	2.175e5	1.140	1.257	1.240	1592	1910	4.33e6	3.47e6	2719.2	1818.9	NO	bb	bb	49.341
123678-HxCDF	35.048	1.000	2.727e5	2.151e5	1.091	1.268	1.240	1592	1910	4.23e6	3.33e6	2659.9	1743.3	NO	db	db	49.569
123789-HxCDF	36.941	1.000	2.420e5	1.912e5	1.137	1.266	1.240	1592	1910	3.95e6	3.13e6	2482.2	1637.3	NO	bb	bb	46.959
1234678-HpCDF	38.780	1.000	1.767e5	1.776e5	1.003	0.995	1.050	1849	2300	2.99e6	3.02e6	1618.0	1311.0	NO	bb	bb	47.490
1234789-HpCDF	41.019	1.000	1.595e5	1.575e5	0.953	1.013	1.050	1849	2300	2.36e6	2.33e6	1274.2	1012.6	NO	bb	bb	50.221
OCDF	45.246	1.005	2.326e5	2.612e5	0.778	0.891	0.890	910	1225	2.82e6	3.14e6	3100.2	2559.9	NO	bb	bb	88.591
2378-TCDD	26.438	1.001	5.709e4	7.150e4	1.149	0.798	0.770	1506	757	9.09e5	1.12e6	603.1	1485.0	NO	bb	bb	9.450
12378-PeCDD	31.549	1.001	2.156e5	1.424e5	1.022	1.514	1.550	2044	1419	3.32e6	2.17e6	1626.0	1530.4	NO	bb	bb	49.654
123478-HxCDD	36.028	1.000	2.225e5	1.815e5	0.996	1.226	1.240	1845	1377	3.65e6	2.93e6	1979.4	2130.4	NO	bd	bd	50.053
123678-HxCDD	36.150	1.000	2.361e5	1.995e5	1.001	1.184	1.240	1845	1377	3.83e6	3.15e6	2076.5	2285.7	NO	db	db	49.648
123789-HxCDD	36.529	1.011	2.267e5	1.883e5	0.907	1.204	1.240	1845	1377	3.65e6	3.02e6	1979.8	2191.3	NO	bb	bb	54.229
1234678-HpCDD	40.284	1.001	1.918e5	1.891e5	1.039	1.015	1.050	2026	1655	2.99e6	2.92e6	1477.4	1764.9	NO	bb	bb	47.619
OCDD	45.008	1.000	3.015e5	3.475e5	0.920	0.868	0.890	1418	1100	3.70e6	4.29e6	2606.9	3904.9	NO	bb	bb	98.432
13C-2378-TCDF	25.774	1.007	6.611e5	8.775e5	1.620	0.753	0.770	2458	1918	1.00e7	1.34e7	4080.0	6997.2	NO	bb	bb	94.015
13C-12378-PeCDF	29.934	1.169	6.937e5	4.618e5	1.240	1.502	1.550	2176	1857	1.07e7	7.10e6	4925.2	3826.5	NO	bb	bb	92.213
13C-23478-PeCDF	31.271	1.221	5.928e5	3.963e5	1.118	1.496	1.550	2176	1857	9.20e6	6.25e6	4229.1	3368.5	NO	bb	bb	87.601
13C-123478-HxCDF	34.891	0.955	2.871e5	5.687e5	1.168	0.505	0.510	1657	1593	4.56e6	9.04e6	2750.7	5674.1	NO	bd	bd	84.013
13C-123678-HxCDF	35.036	0.959	3.069e5	5.954e5	1.386	0.515	0.510	1657	1593	4.75e6	9.14e6	2868.0	5738.5	NO	db	db	74.642
13C-234678-HxCDF	35.894	0.983	2.954e5	5.775e5	1.129	0.512	0.510	1657	1593	4.85e6	9.48e6	2926.1	5951.0	NO	bb	bb	88.651
13C-123789-HxCDF	36.930	1.011	2.724e5	5.390e5	0.932	0.505	0.510	1657	1593	4.39e6	8.57e6	2648.2	5379.8	NO	bb	bb	99.871
13C-1234678-HpCDF	38.769	1.062	2.262e5	5.177e5	0.895	0.437	0.440	2036	2545	3.83e6	8.70e6	1881.8	3416.5	NO	bb	bb	95.295
13C-1234789-HpCDF	41.008	1.123	1.995e5	4.627e5	0.770	0.431	0.440	2036	2545	2.95e6	6.70e6	1450.8	2632.3	NO	bb	bb	98.667
13C-1234-TCDD	25.605	0.000	4.500e5	5.601e5	1.000	0.803	0.770	1910	1117	7.08e6	8.81e6	3705.2	7891.1	NO	bb	bb	100.000
13C-2378-TCDD	26.424	1.032	5.241e5	6.605e5	1.152	0.794	0.770	1910	1117	7.92e6	9.96e6	4144.8	8917.7	NO	bb	bb	101.762
13C-12378-PeCDD	31.527	1.231	4.348e5	2.708e5	0.829	1.606	1.550	951	872	6.72e6	4.16e6	7062.4	4771.1	NO	bb	bb	84.283
13C-123478-HxCDD	36.017	0.986	4.575e5	3.533e5	0.995	1.295	1.240	1714	1036	7.67e6	5.90e6	4475.1	5696.2	NO	bd	bd	93.458
13C-123678-HxCDD	36.139	0.990	4.929e5	3.835e5	1.157	1.285	1.240	1714	1036	7.72e6	6.07e6	4504.9	5859.4	NO	db	db	86.905
13C-1234678-HpCDD	40.262	1.103	3.870e5	3.828e5	0.840	1.011	1.050	1736	1260	5.92e6	5.62e6	3411.3	4462.2	NO	bb	bb	105.085
13C-OCDD	44.999	1.232	6.781e5	7.554e5	0.767	0.898	0.890	1440	1232	8.22e6	9.13e6	5710.3	7413.0	NO	bb	bb	214.218
13C-123789-HxCDD	36.518	0.000	4.889e5	3.830e5	1.000	1.277	1.240	1714	1036	7.91e6	6.13e6	4618.2	5918.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.438	1.033	1.177e5		1.288			2053		1.80e6		877.6			bb		9.046

Dataset: T:\Autospec\Processed Data Batch\230303IHOP.qld
 Last Altered: Monday, March 06, 2023 11:36:30 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:37:17 Pacific Standard Time

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.285	0.865	4.825e4	6.619e4	0.802	0.729	0.770	894	1638	7.69e5	1.08e6	860.8	657.5	NO	bb	bb	9.280
1289-TCDF	27.286	1.059	4.233e4	5.922e4	0.678	0.715	0.770	894	1638	6.48e5	8.96e5	725.0	547.0	NO	db	db	9.735
13468-PECDF	27.145	0.907	4.529e5	2.964e5	1.246	1.528	1.550	639	866	7.07e6	4.64e6	11052.6	5356.5	NO	bb	bb	52.031
12389-PECDF	32.329	1.080	1.727e5	1.137e5	0.496	1.519	1.550	2187	1572	2.66e6	1.70e6	1217.2	1080.5	NO	bb	bb	49.938
123468-HXCDF	33.243	0.953	2.450e5	1.964e5	1.169	1.248	1.240	1592	1910	3.71e6	2.99e6	2333.1	1567.3	NO	bb	bb	44.113
1368-TCDD	23.571	0.892	5.082e4	6.674e4	1.015	0.761	0.770	1506	757	8.30e5	1.09e6	551.2	1438.0	NO	bb	bb	9.774
1289-TCDD	27.031	1.023	4.817e4	6.482e4	0.909	0.743	0.770	1506	757	7.39e5	9.76e5	490.7	1289.2	NO	bb	bb	10.496
12479-PECDD	28.831	0.914	4.117e5	2.743e5	2.301	1.501	1.550	2044	1419	3.99e6	2.64e6	1950.7	1862.6	NO	bb	bb	42.238
12389-PECDD	31.939	1.013	2.280e5	1.502e5	1.184	1.518	1.550	2044	1419	3.50e6	2.32e6	1711.4	1633.6	NO	bb	bb	45.288
124679-HXCDD	34.022	0.945	2.111e5	1.738e5	1.115	1.214	1.240	1845	1377	3.36e6	2.72e6	1819.4	1971.8	NO	bb	bb	42.563
1234679-HPCDD	39.236	0.975	2.063e5	2.043e5	1.137	1.010	1.050	2026	1655	3.38e6	3.38e6	1668.0	2041.4	NO	bb	bb	46.924
Total-tetrafurans			1.368e5		0.727			894		2.13e6							28.888
Total-penta1			4.529e5					639		7.07e6							52.031
Total-pentafurans			6.685e5		0.654			2187		1.03e7							156.333
Total-hexafurans			1.293e6		1.141			1592		2.04e7							237.100
Total-heptafurans			3.381e5		0.978			1849		5.38e6							98.217
Total-Furans			3.122e6		0.922			894		4.80e7							661.160
Total-tetradoxins			2.626e5		1.024			1506		3.74e6							49.711
Total-pentadoxins			8.563e5		1.502			2044		1.08e7							137.339
Total-hexadoxins			8.975e5		1.005			1845		1.45e7							196.701
Total-heptadoxins			3.982e5		1.088			2026		6.38e6							94.566
Total-Dioxins			2.716e6		1.130			1506		3.92e7							576.750
Total-TEQ			5.838e6					1506		8.72e7							1237.909
FUNCTION1 PFK			0.000e0					705807		0.00e0							
FUNCTION2 PFK			1.098e6					272509		2.65e6							0.000
FUNCTION3 PFK			8.030e5					419872		3.44e6							0.000
FUNCTION4 PFK			2.346e5					346452		6.90e6							
FUNCTION5 PFK			5.429e4					176842		2.44e6							
FUNCTION1 HXCD...			8.708e2					511		1.38e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.374e3					1181		2.70e4							0.000
FUNCTION3 OCDPE			4.232e2					570		6.10e3							0.000
FUNCTION4 NCDPE			7.938e2					683		4.57e3							0.000
FUNCTION5 DCDPE			0.000e0					526		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303IHOP.qld
 Last Altered: Monday, March 06, 2023 11:36:30 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:37:17 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.233e4	5.922e4	0.678	0.71	0.77	725.0	YES	NO	db	db	9.735
2	Total-tetrafurans	27.16	6.976e2	1.059e3	0.727	0.66	0.77	14.1	YES	NO	bd	bd	0.157
3	2378-TCDF	25.79	4.469e4	5.839e4	0.702	0.77	0.77	769.3	YES	NO	bb	bb	9.550
4	Total-tetrafurans	24.88	4.805e2	5.664e2	0.727	0.85	0.77	7.5	YES	NO	bb	bb	0.094
5	Total-tetrafurans	24.57	3.491e2	4.664e2	0.727	0.75	0.77	6.2	YES	NO	bd	bd	0.073
6	1368-TCDF	22.29	4.825e4	6.619e4	0.802	0.73	0.77	860.8	YES	NO	bb	bb	9.280

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDFF	27.14	4.529e5	2.964e5	1.246	1.53	1.55	11052.6	YES	NO	bb	bb	52.031

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDF	29.96	2.355e5	1.540e5	0.679	1.53	1.55	1652.4	YES	NO	bb	bb	49.641
2	Total-pentafurans	28.81	3.891e4	2.579e4	0.654	1.51	1.55	273.1	YES	NO	bb	bb	9.226
3	12389-PECDF	32.33	1.727e5	1.137e5	0.496	1.52	1.55	1217.2	YES	NO	bb	bb	49.938
4	23478-PeCDF	31.29	2.214e5	1.482e5	0.786	1.49	1.55	1560.8	YES	NO	bb	bb	47.528

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.94	2.420e5	1.912e5	1.137	1.27	1.24	2482.2	YES	NO	bb	bb	46.959
2	234678-HxCDF	35.92	2.733e5	2.175e5	1.140	1.26	1.24	2719.2	YES	NO	bb	bb	49.341
3	123678-HxCDF	35.05	2.727e5	2.151e5	1.091	1.27	1.24	2659.9	YES	NO	db	db	49.569
4	123478-HxCDF	34.91	2.600e5	2.102e5	1.166	1.24	1.24	2594.2	YES	NO	bd	bd	47.118
5	123468-HXCDF	33.24	2.450e5	1.964e5	1.169	1.25	1.24	2333.1	YES	NO	bb	bb	44.113

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	41.38	1.097e2	1.037e2	0.978	1.06	1.05	1.8	NO	NO	bb	bb	0.031
2	1234789-HpCDF	41.02	1.595e5	1.575e5	0.953	1.01	1.05	1274.2	YES	NO	bb	bb	50.221
3	Total-heptafurans	39.45	1.654e3	1.420e3	0.978	1.17	1.05	14.3	YES	NO	bb	bb	0.447
4	Total-heptafurans	39.28	9.725e1	9.433e1	0.978	1.03	1.05	1.5	NO	NO	bb	bb	0.028
5	1234678-HpCDF	38.78	1.767e5	1.776e5	1.003	1.00	1.05	1618.0	YES	NO	bb	bb	47.490

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.233e4	5.922e4	0.678	0.71	0.77	725.0	YES	NO	db	db	9.735
2	Total-tetrafurans	27.16	6.976e2	1.059e3	0.727	0.66	0.77	14.1	YES	NO	bd	bd	0.157
3	2378-TCDF	25.79	4.469e4	5.839e4	0.702	0.77	0.77	769.3	YES	NO	bb	bb	9.550
4	Total-tetrafurans	24.88	4.805e2	5.664e2	0.727	0.85	0.77	7.5	YES	NO	bb	bb	0.094
5	Total-tetrafurans	24.57	3.491e2	4.664e2	0.727	0.75	0.77	6.2	YES	NO	bd	bd	0.073
6	1368-TCDF	22.29	4.825e4	6.619e4	0.802	0.73	0.77	860.8	YES	NO	bb	bb	9.280
7	12378-PeCDF	29.96	2.355e5	1.540e5	0.679	1.53	1.55	1652.4	YES	NO	bb	bb	49.641
8	Total-pentafurans	28.81	3.891e4	2.579e4	0.654	1.51	1.55	273.1	YES	NO	bb	bb	9.226
9	12389-PECDF	32.33	1.727e5	1.137e5	0.496	1.52	1.55	1217.2	YES	NO	bb	bb	49.938
10	23478-PeCDF	31.29	2.214e5	1.482e5	0.786	1.49	1.55	1560.8	YES	NO	bb	bb	47.528
11	123789-HxCDF	36.94	2.420e5	1.912e5	1.137	1.27	1.24	2482.2	YES	NO	bb	bb	46.959
12	234678-HxCDF	35.92	2.733e5	2.175e5	1.140	1.26	1.24	2719.2	YES	NO	bb	bb	49.341
13	123678-HxCDF	35.05	2.727e5	2.151e5	1.091	1.27	1.24	2659.9	YES	NO	db	db	49.569
14	123478-HxCDF	34.91	2.600e5	2.102e5	1.166	1.24	1.24	2594.2	YES	NO	bd	bd	47.118
15	123468-HXCDF	33.24	2.450e5	1.964e5	1.169	1.25	1.24	2333.1	YES	NO	bb	bb	44.113
16	Total-heptafurans	41.38	1.097e2	1.037e2	0.978	1.06	1.05	1.8	NO	NO	bb	bb	0.031
17	1234789-HpCDF	41.02	1.595e5	1.575e5	0.953	1.01	1.05	1274.2	YES	NO	bb	bb	50.221
18	Total-heptafurans	39.45	1.654e3	1.420e3	0.978	1.17	1.05	14.3	YES	NO	bb	bb	0.447
19	Total-heptafurans	39.28	9.725e1	9.433e1	0.978	1.03	1.05	1.5	NO	NO	bb	bb	0.028
20	1234678-HpCDF	38.78	1.767e5	1.776e5	1.003	1.00	1.05	1618.0	YES	NO	bb	bb	47.490
21	OCDF	45.25	2.326e5	2.612e5	0.778	0.89	0.89	3100.2	YES	NO	bb	bb	88.591
22	13468-PECDF	27.14	4.529e5	2.964e5	1.246	1.53	1.55	11052.6	YES	NO	bb	bb	52.031

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TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.57	5.082e4	6.674e4	1.015	0.76	0.77	551.2	YES	NO	bb	bb	9.774
2	1289-TCDD	27.03	4.817e4	6.482e4	0.909	0.74	0.77	490.7	YES	NO	bb	bb	10.496
3	2378-TCDD	26.44	5.709e4	7.150e4	1.149	0.80	0.77	603.1	YES	NO	bb	bb	9.450
4	Total-tetradoxins	26.11	8.149e4	1.045e5	1.024	0.78	0.77	583.1	YES	NO	bb	bb	15.330
5	Total-tetradoxins	25.62	2.499e4	3.156e4	1.024	0.79	0.77	257.1	YES	NO	bb	bb	4.660

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.94	2.280e5	1.502e5	1.184	1.52	1.55	1711.4	YES	NO	bb	bb	45.288
2	12378-PeCDD	31.55	2.156e5	1.424e5	1.022	1.51	1.55	1626.0	YES	NO	bb	bb	49.654
3	Total-pentadoxins	30.87	1.016e3	6.817e2	1.502	1.49	1.55	7.9	YES	NO	bb	bb	0.160
4	12479-PECDD	28.83	4.117e5	2.743e5	2.301	1.50	1.55	1950.7	YES	NO	bb	bb	42.238

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.53	2.267e5	1.883e5	0.907	1.20	1.24	1979.8	YES	NO	bb	bb	54.229
2	123678-HxCDD	36.15	2.361e5	1.995e5	1.001	1.18	1.24	2076.5	YES	NO	db	db	49.648
3	123478-HxCDD	36.03	2.225e5	1.815e5	0.996	1.23	1.24	1979.4	YES	NO	bd	bd	50.053
4	Total-hexadoxins	35.14	9.946e2	7.755e2	1.005	1.28	1.24	9.3	YES	NO	db	bd	0.209
5	124679-HXCDD	34.02	2.111e5	1.738e5	1.115	1.21	1.24	1819.4	YES	NO	bb	bb	42.563

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.24	2.063e5	2.043e5	1.137	1.01	1.05	1668.0	YES	NO	bb	bb	46.924
2	Total-heptadoxins	40.58	1.040e2	8.729e1	1.088	1.19	1.05	2.1	NO	NO	bb	bb	0.023
3	1234678-HpCDD	40.28	1.918e5	1.891e5	1.039	1.01	1.05	1477.4	YES	NO	bb	bb	47.619

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.57	5.082e4	6.674e4	1.015	0.76	0.77	551.2	YES	NO	bb	bb	9.774
2	1289-TCDD	27.03	4.817e4	6.482e4	0.909	0.74	0.77	490.7	YES	NO	bb	bb	10.496
3	2378-TCDD	26.44	5.709e4	7.150e4	1.149	0.80	0.77	603.1	YES	NO	bb	bb	9.450
4	Total-tetradoxins	26.11	8.149e4	1.045e5	1.024	0.78	0.77	583.1	YES	NO	bb	bb	15.330
5	Total-tetradoxins	25.62	2.499e4	3.156e4	1.024	0.79	0.77	257.1	YES	NO	bb	bb	4.660
6	12389-PECDD	31.94	2.280e5	1.502e5	1.184	1.52	1.55	1711.4	YES	NO	bb	bb	45.288
7	12378-PeCDD	31.55	2.156e5	1.424e5	1.022	1.51	1.55	1626.0	YES	NO	bb	bb	49.654
8	Total-pentadoxins	30.87	1.016e3	6.817e2	1.502	1.49	1.55	7.9	YES	NO	bb	bb	0.160
9	12479-PECDD	28.83	4.117e5	2.743e5	2.301	1.50	1.55	1950.7	YES	NO	bb	bb	42.238
10	123789-HxCDD	36.53	2.267e5	1.883e5	0.907	1.20	1.24	1979.8	YES	NO	bb	bb	54.229
11	123678-HxCDD	36.15	2.361e5	1.995e5	1.001	1.18	1.24	2076.5	YES	NO	db	db	49.648
12	123478-HxCDD	36.03	2.225e5	1.815e5	0.996	1.23	1.24	1979.4	YES	NO	bd	bd	50.053
13	Total-hexadoxins	35.14	9.946e2	7.755e2	1.005	1.28	1.24	9.3	YES	NO	db	bd	0.209
14	124679-HXCDD	34.02	2.111e5	1.738e5	1.115	1.21	1.24	1819.4	YES	NO	bb	bb	42.563
15	1234679-HPCDD	39.24	2.063e5	2.043e5	1.137	1.01	1.05	1668.0	YES	NO	bb	bb	46.924
16	Total-heptadoxins	40.58	1.040e2	8.729e1	1.088	1.19	1.05	2.1	NO	NO	bb	bb	0.023
17	1234678-HpCDD	40.28	1.918e5	1.891e5	1.039	1.01	1.05	1477.4	YES	NO	bb	bb	47.619
18	OCDD	45.01	3.015e5	3.475e5	0.920	0.87	0.89	2606.9	YES	NO	bb	bb	98.432

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.233e4	5.922e4	0.678	0.71	0.77	725.0	YES	NO	db	db	9.735
2	Total-tetrafurans	27.16	6.976e2	1.059e3	0.727	0.66	0.77	14.1	YES	NO	bd	bd	0.157
3	2378-TCDF	25.79	4.469e4	5.839e4	0.702	0.77	0.77	769.3	YES	NO	bb	bb	9.550
4	Total-tetrafurans	24.88	4.805e2	5.664e2	0.727	0.85	0.77	7.5	YES	NO	bb	bb	0.094
5	Total-tetrafurans	24.57	3.491e2	4.664e2	0.727	0.75	0.77	6.2	YES	NO	bd	bd	0.073
6	1368-TCDF	22.29	4.825e4	6.619e4	0.802	0.73	0.77	860.8	YES	NO	bb	bb	9.280
7	12378-PeCDF	29.96	2.355e5	1.540e5	0.679	1.53	1.55	1652.4	YES	NO	bb	bb	49.641
8	Total-pentafurans	28.81	3.891e4	2.579e4	0.654	1.51	1.55	273.1	YES	NO	bb	bb	9.226
9	12389-PECDF	32.33	1.727e5	1.137e5	0.496	1.52	1.55	1217.2	YES	NO	bb	bb	49.938
10	23478-PeCDF	31.29	2.214e5	1.482e5	0.786	1.49	1.55	1560.8	YES	NO	bb	bb	47.528
11	123789-HxCDF	36.94	2.420e5	1.912e5	1.137	1.27	1.24	2482.2	YES	NO	bb	bb	46.959
12	234678-HxCDF	35.92	2.733e5	2.175e5	1.140	1.26	1.24	2719.2	YES	NO	bb	bb	49.341
13	123678-HxCDF	35.05	2.727e5	2.151e5	1.091	1.27	1.24	2659.9	YES	NO	db	db	49.569
14	123478-HxCDF	34.91	2.600e5	2.102e5	1.166	1.24	1.24	2594.2	YES	NO	bd	bd	47.118
15	123468-HXCDF	33.24	2.450e5	1.964e5	1.169	1.25	1.24	2333.1	YES	NO	bb	bb	44.113
16	Total-heptafurans	41.38	1.097e2	1.037e2	0.978	1.06	1.05	1.8	NO	NO	bb	bb	0.031
17	1234789-HpCDF	41.02	1.595e5	1.575e5	0.953	1.01	1.05	1274.2	YES	NO	bb	bb	50.221
18	Total-heptafurans	39.45	1.654e3	1.420e3	0.978	1.17	1.05	14.3	YES	NO	bb	bb	0.447
19	Total-heptafurans	39.28	9.725e1	9.433e1	0.978	1.03	1.05	1.5	NO	NO	bb	bb	0.028
20	1234678-HpCDF	38.78	1.767e5	1.776e5	1.003	1.00	1.05	1618.0	YES	NO	bb	bb	47.490
21	OCDF	45.25	2.326e5	2.612e5	0.778	0.89	0.89	3100.2	YES	NO	bb	bb	88.591
22	13468-PECDF	27.14	4.529e5	2.964e5	1.246	1.53	1.55	11052.6	YES	NO	bb	bb	52.031
23	1368-TCDD	23.57	5.082e4	6.674e4	1.015	0.76	0.77	551.2	YES	NO	bb	bb	9.774
24	1289-TCDD	27.03	4.817e4	6.482e4	0.909	0.74	0.77	490.7	YES	NO	bb	bb	10.496
25	2378-TCDD	26.44	5.709e4	7.150e4	1.149	0.80	0.77	603.1	YES	NO	bb	bb	9.450
26	Total-tetradioxins	26.11	8.149e4	1.045e5	1.024	0.78	0.77	583.1	YES	NO	bb	bb	15.330
27	Total-tetradioxins	25.62	2.499e4	3.156e4	1.024	0.79	0.77	257.1	YES	NO	bb	bb	4.660
28	12389-PECDD	31.94	2.280e5	1.502e5	1.184	1.52	1.55	1711.4	YES	NO	bb	bb	45.288
29	12378-PeCDD	31.55	2.156e5	1.424e5	1.022	1.51	1.55	1626.0	YES	NO	bb	bb	49.654
30	Total-pentadioxins	30.87	1.016e3	6.817e2	1.502	1.49	1.55	7.9	YES	NO	bb	bb	0.160
31	12479-PECDD	28.83	4.117e5	2.743e5	2.301	1.50	1.55	1950.7	YES	NO	bb	bb	42.238
32	123789-HxCDD	36.53	2.267e5	1.883e5	0.907	1.20	1.24	1979.8	YES	NO	bb	bb	54.229
33	123678-HxCDD	36.15	2.361e5	1.995e5	1.001	1.18	1.24	2076.5	YES	NO	db	db	49.648
34	123478-HxCDD	36.03	2.225e5	1.815e5	0.996	1.23	1.24	1979.4	YES	NO	bd	bd	50.053
35	Total-hexadioxins	35.14	9.946e2	7.755e2	1.005	1.28	1.24	9.3	YES	NO	db	bd	0.209
36	124679-HXCDD	34.02	2.111e5	1.738e5	1.115	1.21	1.24	1819.4	YES	NO	bb	bb	42.563
37	1234679-HPCDD	39.24	2.063e5	2.043e5	1.137	1.01	1.05	1668.0	YES	NO	bb	bb	46.924

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-heptadioxins	40.58	1.040e2	8.729e1	1.088	1.19	1.05	2.1	NO	NO	bb	bb	0.023
39	1234678-HpCDD	40.28	1.918e5	1.891e5	1.039	1.01	1.05	1477.4	YES	NO	bb	bb	47.619
40	OCDD	45.01	3.015e5	3.475e5	0.920	0.87	0.89	2606.9	YES	NO	bb	bb	98.432

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.96	1.058e5					1.1	NO		bb		0.000
2	FUNCTION2 PFK	30.15	5.471e5					3.7	YES		bb		0.000
3	FUNCTION2 PFK	28.28	4.455e5					4.9	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.89	2.667e5					4.7	YES		bb		0.000
2	FUNCTION3 PFK	33.03	5.362e5					3.5	YES		bb		0.000

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.07	4.905e4					2.0	NO		db		
2	FUNCTION4 PFK	37.96	1.071e4					1.3	NO		bd		
3	FUNCTION4 PFK	37.89	4.848e3					0.7	NO		bb		
4	FUNCTION4 PFK	42.18	1.359e4					1.2	NO		bb		
5	FUNCTION4 PFK	41.91	8.056e3					0.9	NO		db		
6	FUNCTION4 PFK	41.83	2.292e4					1.6	NO		bd		
7	FUNCTION4 PFK	41.77	1.673e4					1.5	NO		bb		
8	FUNCTION4 PFK	41.48	1.418e4					1.4	NO		bb		
9	FUNCTION4 PFK	41.32	2.104e3					0.5	NO		bb		
10	FUNCTION4 PFK	41.13	8.695e3					1.0	NO		bb		
11	FUNCTION4 PFK	40.63	8.163e3					0.8	NO		bb		
12	FUNCTION4 PFK	40.08	1.008e4					1.1	NO		db		
13	FUNCTION4 PFK	40.04	1.572e4					1.4	NO		bd		
14	FUNCTION4 PFK	39.51	7.181e3					1.0	NO		bb		
15	FUNCTION4 PFK	39.44	5.021e3					0.7	NO		bb		
16	FUNCTION4 PFK	38.96	9.511e3					1.3	NO		db		
17	FUNCTION4 PFK	38.92	2.806e4					1.5	NO		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.57	1.411e3					0.9	NO		bb		
2	FUNCTION5 PFK	45.95	2.307e4					3.9	YES		bb		
3	FUNCTION5 PFK	45.69	1.018e3					0.6	NO		bb		
4	FUNCTION5 PFK	45.54	1.146e3					0.7	NO		bb		
5	FUNCTION5 PFK	45.12	9.805e3					2.3	NO		bb		
6	FUNCTION5 PFK	44.83	5.276e3					1.3	NO		bb		
7	FUNCTION5 PFK	44.58	5.554e3					1.4	NO		bb		
8	FUNCTION5 PFK	44.38	2.760e3					0.9	NO		db		
9	FUNCTION5 PFK	44.35	3.252e3					1.1	NO		bd		
10	FUNCTION5 PFK	42.99	9.959e2					0.6	NO		bb		

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.01	7.970e1					3.2	YES		bb		0.000
2	FUNCTION1 HXCD...	23.47	8.919e1					3.0	YES		db		0.000
3	FUNCTION1 HXCD...	23.40	8.065e1					2.9	NO		dd		0.000
4	FUNCTION1 HXCD...	23.32	1.305e2					3.4	YES		dd		0.000
5	FUNCTION1 HXCD...	23.22	1.146e2					2.8	NO		bd		0.000
6	FUNCTION1 HXCD...	22.41	7.936e1					4.3	YES		bb		0.000
7	FUNCTION1 HXCD...	27.40	7.698e1					2.2	NO		bb		0.000
8	FUNCTION1 HXCD...	27.14	1.376e2					3.3	YES		bb		0.000
9	FUNCTION1 HXCD...	25.79	8.222e1					1.9	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.53	2.999e2					2.9	NO		bb		0.000
2	FUNCTION2 HPCD...	31.17	3.219e2					4.5	YES		bb		0.000
3	FUNCTION2 HPCD...	29.58	8.369e1					1.2	NO		db		0.000
4	FUNCTION2 HPCD...	29.50	8.185e1					1.4	NO		bd		0.000
5	FUNCTION2 HPCD...	29.43	9.066e1					2.2	NO		bb		0.000
6	FUNCTION2 HPCD...	28.26	1.049e2					2.5	NO		db		0.000
7	FUNCTION2 HPCD...	28.22	1.658e2					2.8	NO		bd		0.000
8	FUNCTION2 HPCD...	28.15	1.360e2					3.3	YES		db		0.000
9	FUNCTION2 HPCD...	28.11	8.921e1					2.1	NO		bd		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.53	2.562e2					6.2	YES		bb		0.000
2	FUNCTION3 OCDPE	36.14	1.671e2					4.5	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303IHOP.qld
Last Altered: Monday, March 06, 2023 11:36:30 Pacific Standard Time
Printed: Monday, March 06, 2023 11:37:17 Pacific Standard Time

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.04	8.282e1					2.4	NO		bb		0.000
2	FUNCTION4 NCDPE	38.07	5.777e2					4.3	YES		bb		0.000
3	FUNCTION4 NCDPE	37.82	1.333e2					0.0	NO		bb		0.000

ETHERS6

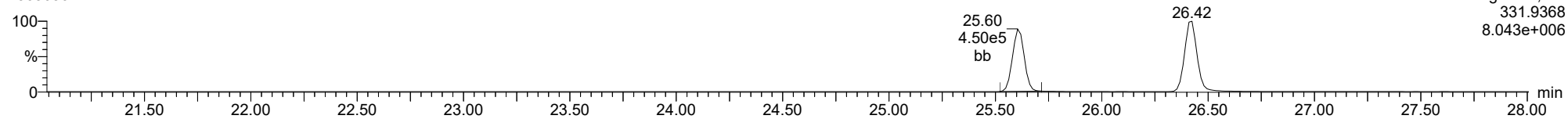
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1													

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W1, **Name:** 23030302, **Date:** 03-Mar-2023, **Time:** 09:51:40, **Conditions:** AUTOSPEC01, **User:** pk

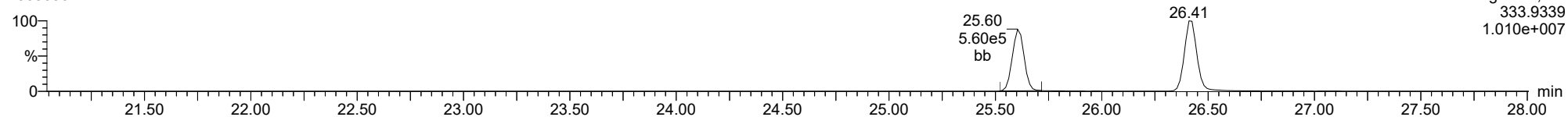
13C-1234-TCDD

23030302



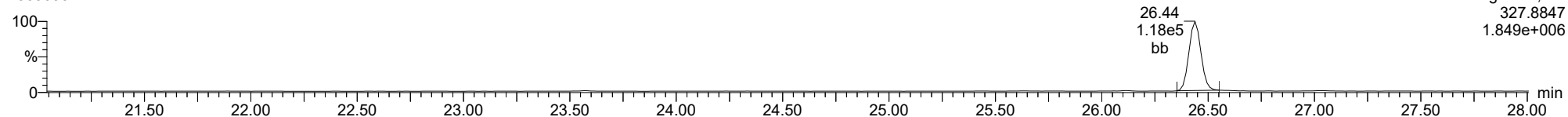
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23030302



37CL-2378-TCDD

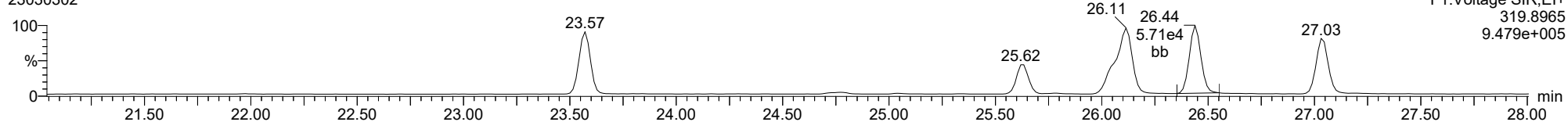
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

2378-TCDD

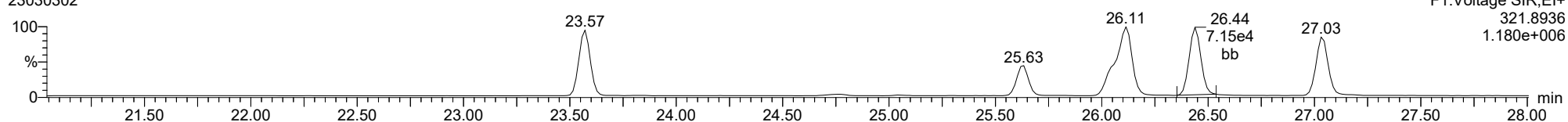
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F1:Voltage SIR,EI+
319.8965
9.479e+005

2378-TCDD

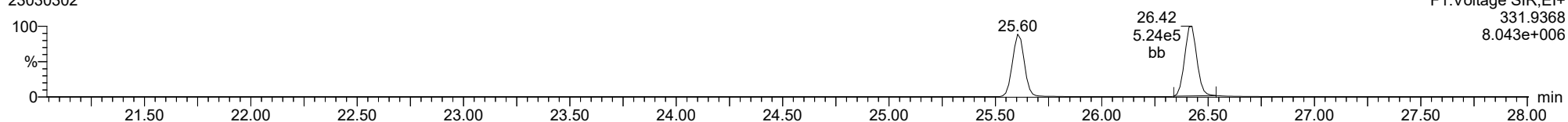
23030302



F1:Voltage SIR,EI+
321.8936
1.180e+006

13C-2378-TCDD

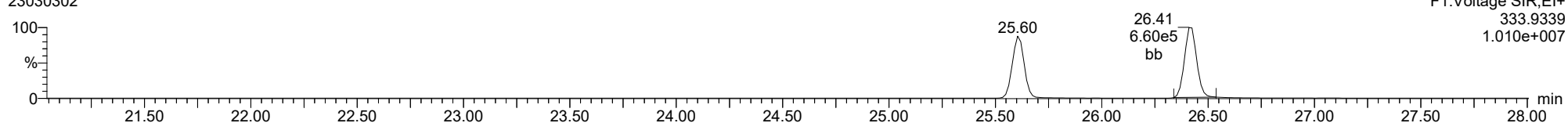
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F1:Voltage SIR,EI+
331.9368
8.043e+006

13C-2378-TCDD

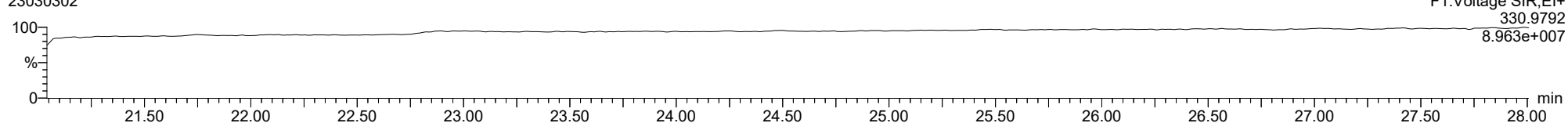
23030302



F1:Voltage SIR,EI+
333.9339
1.010e+007

FUNCTION1 PFK

23030302

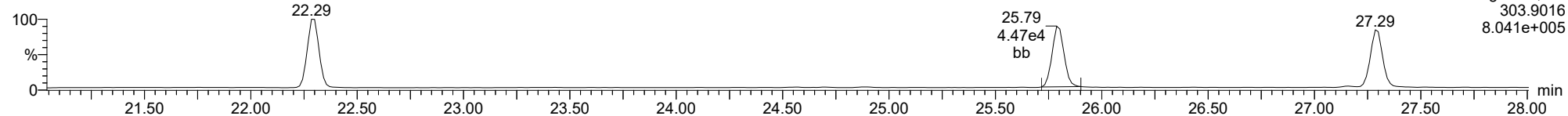


F1:Voltage SIR,EI+
330.9792
8.963e+007

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

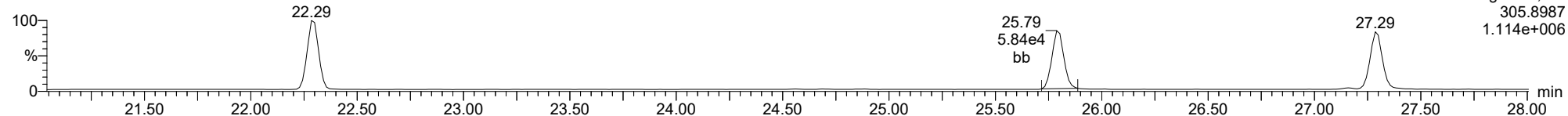
2378-TCDF

23030302



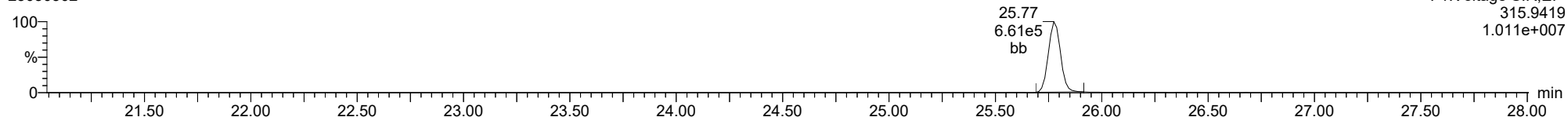
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23030302



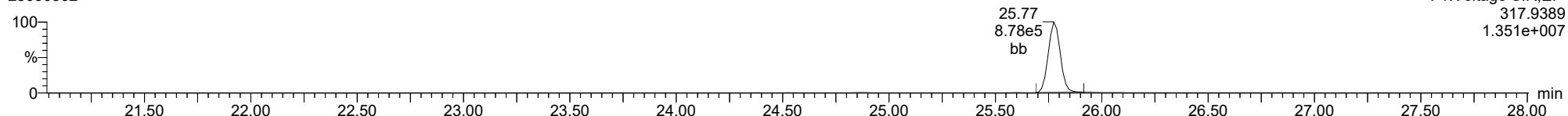
13C-2378-TCDF

23030302



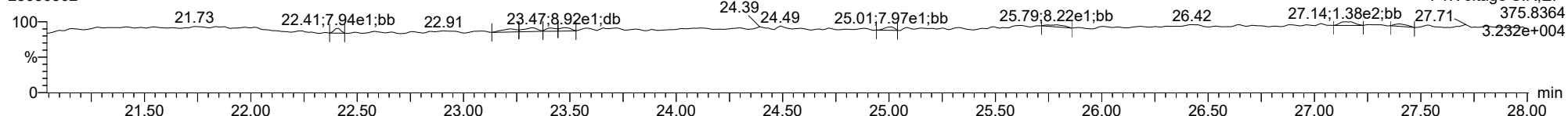
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23030302



FUNCTION1 HXCDPE

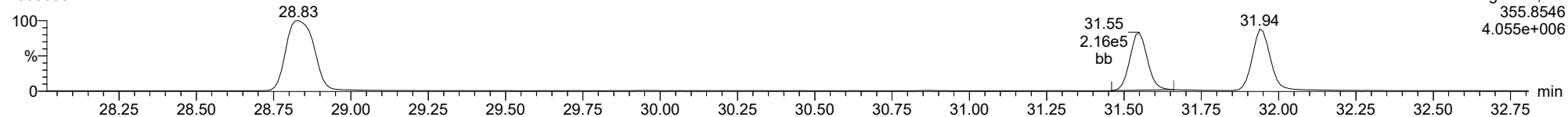
23030302



ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

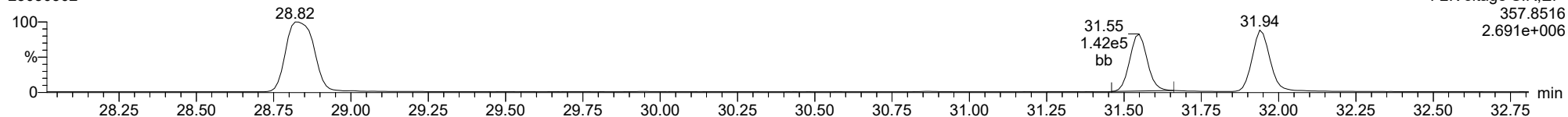
12378-PeCDD

23030302



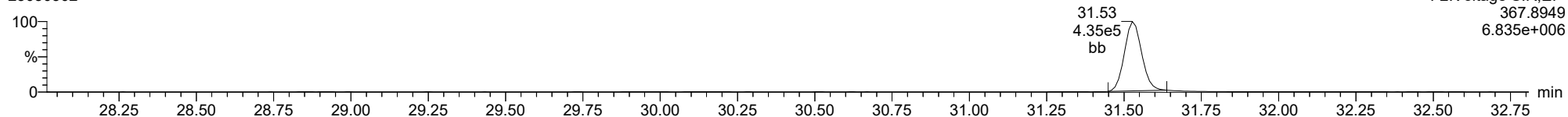
12378-PeCDD

23030302



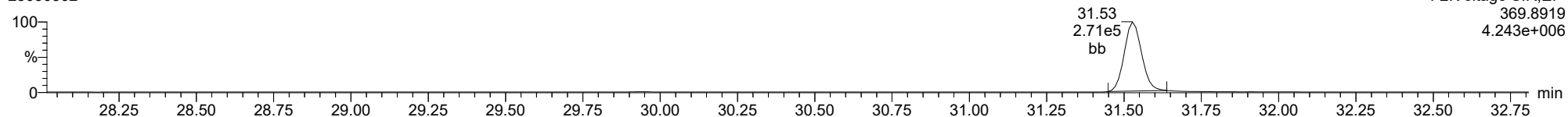
13C-12378-PeCDD

23030302



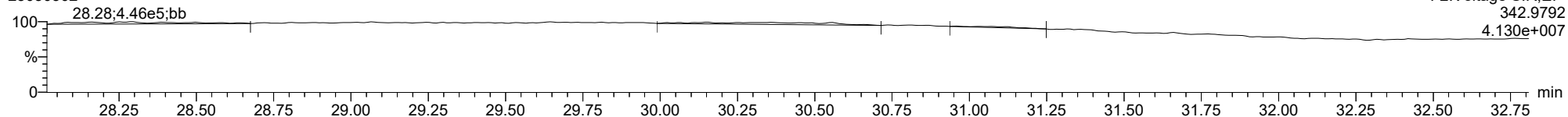
13C-12378-PeCDD

23030302



FUNCTION2 PFK

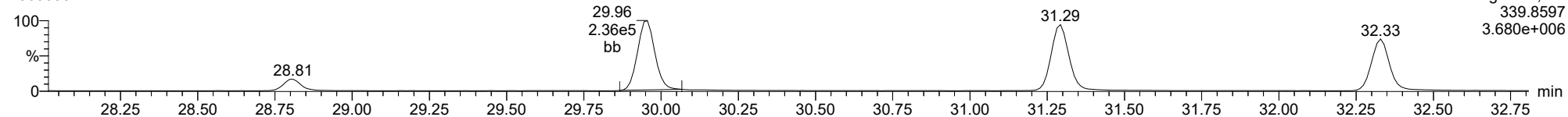
23030302



ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

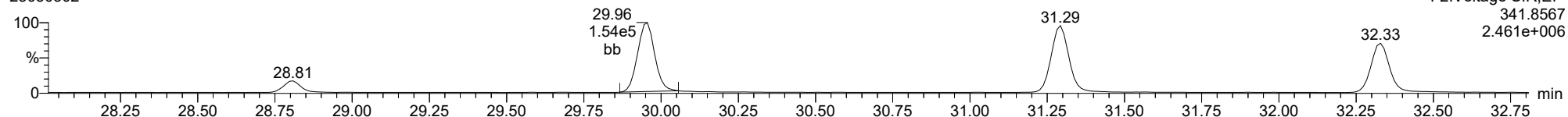
12378-PeCDF

23030302



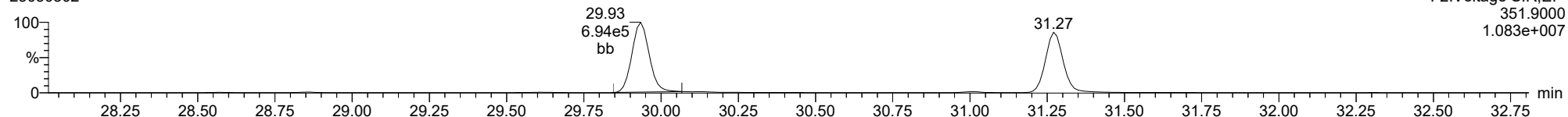
12378-PeCDF

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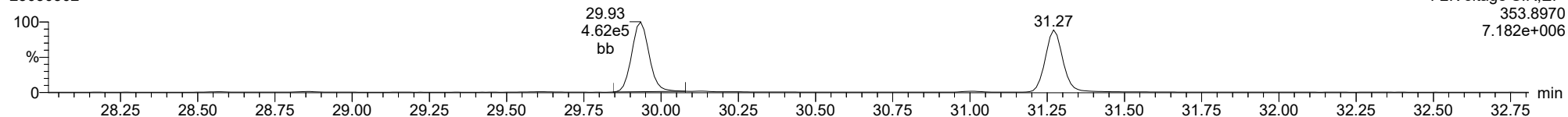
13C-12378-PeCDF

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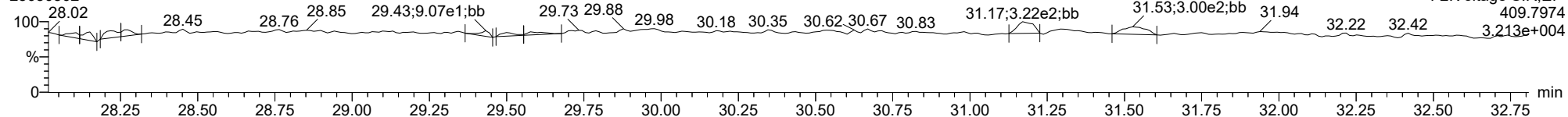
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23030302



FUNCTION2 HPCDPE

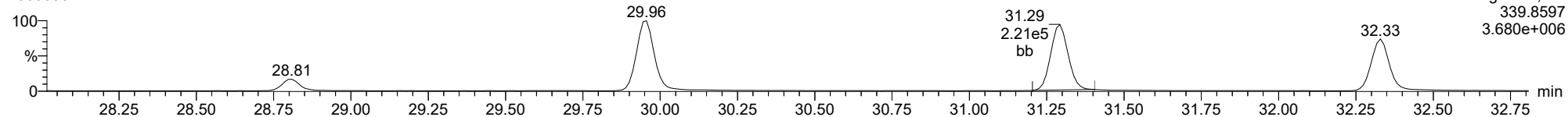
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

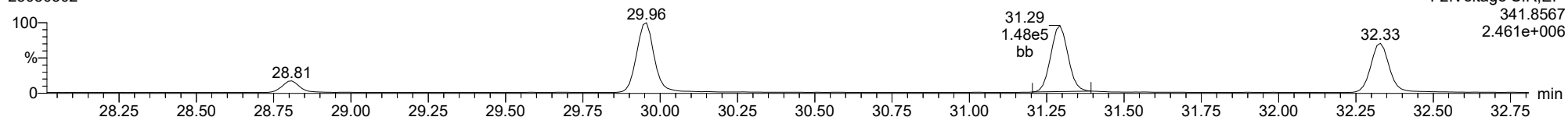
23478-PeCDF

23030302



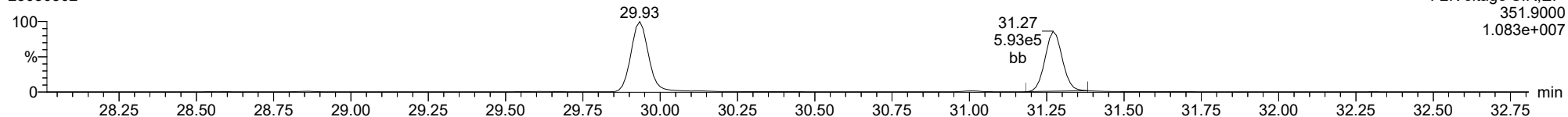
23478-PeCDF

23030302



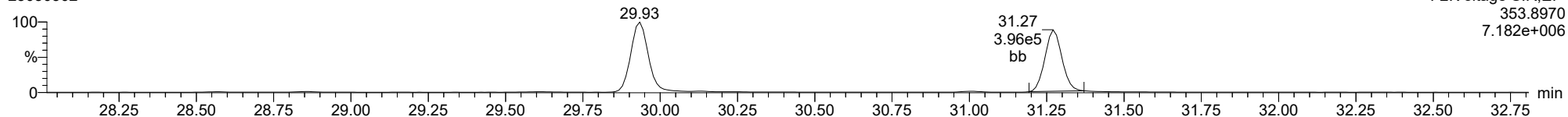
13C-23478-PeCDF

23030302



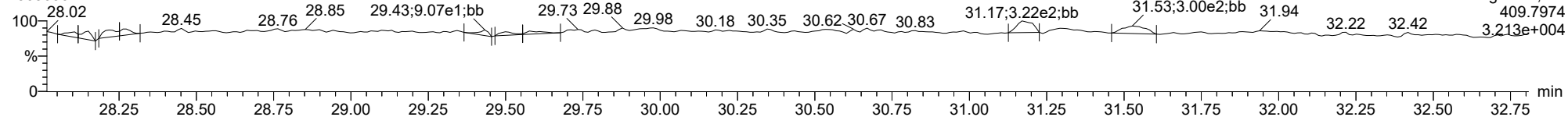
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23030302



FUNCTION2 HPCDPE

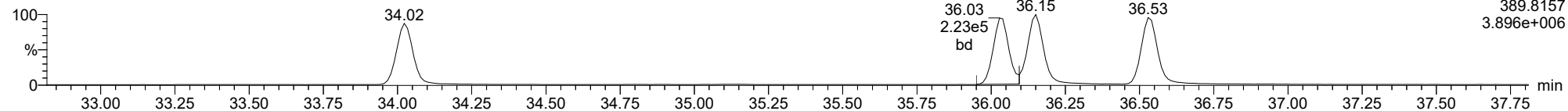
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

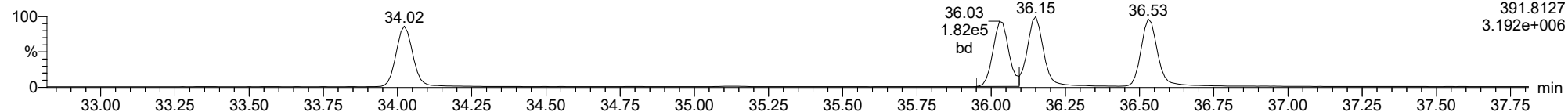
123478-HxCDD

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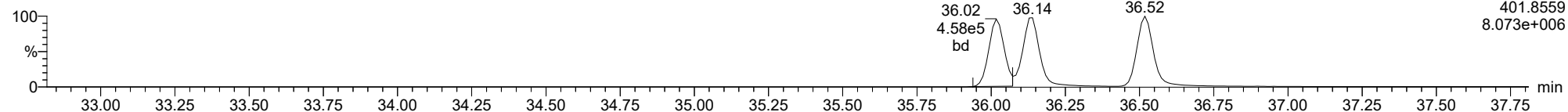
123478-HxCDD

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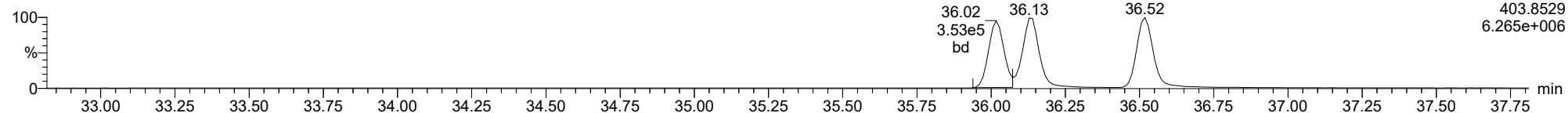
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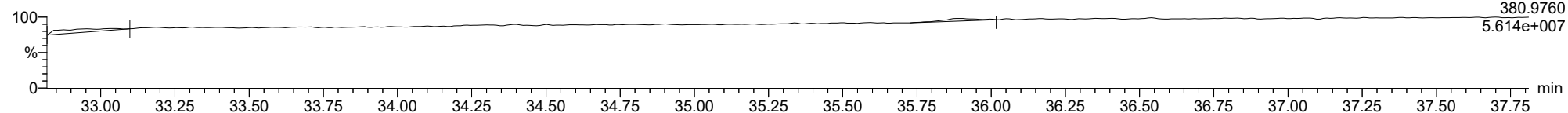
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FUNCTION3 PFK

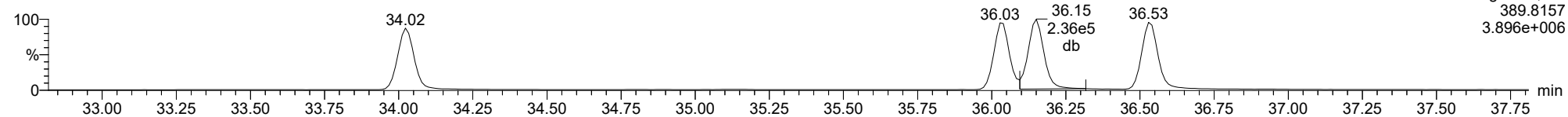
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

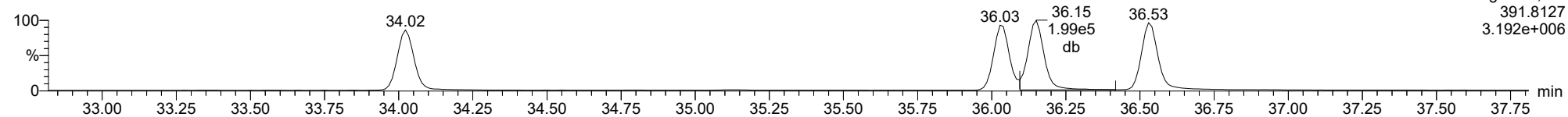
123678-HxCDD

23030302



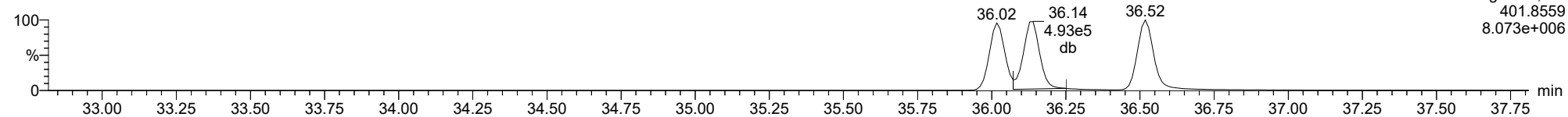
123678-HxCDD

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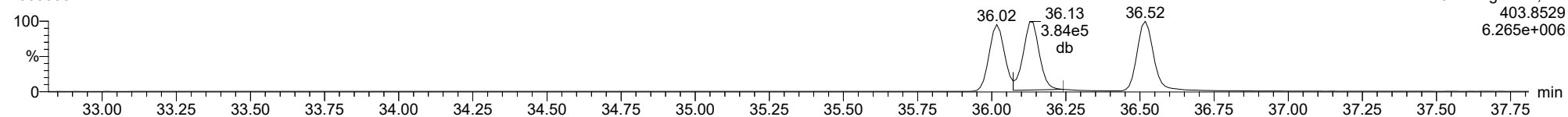
13C-123678-HxCDD

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13C-123678-HxCDD

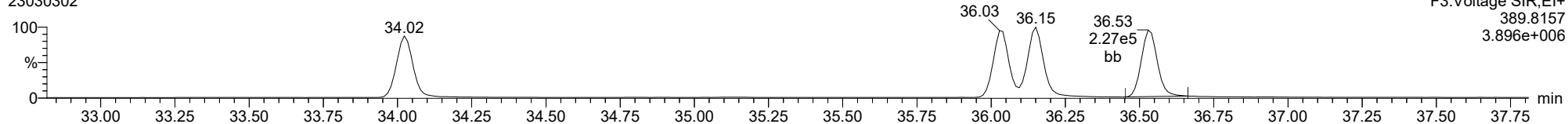
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

123789-HxCDD

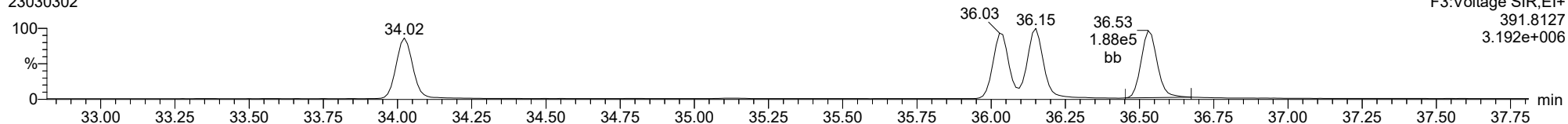
23030302



F3:Voltage SIR,EI+
389.8157
3.896e+006

123789-HxCDD

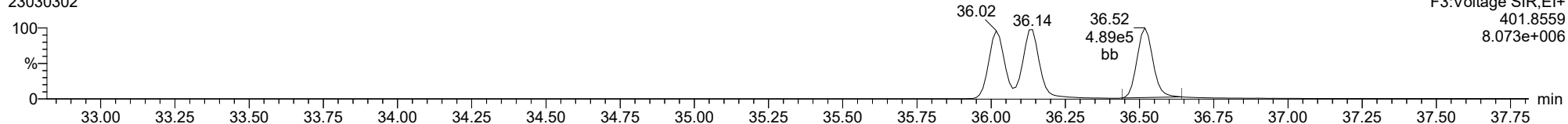
23030302



F3:Voltage SIR,EI+
391.8127
3.192e+006

13C-123789-HxCDD

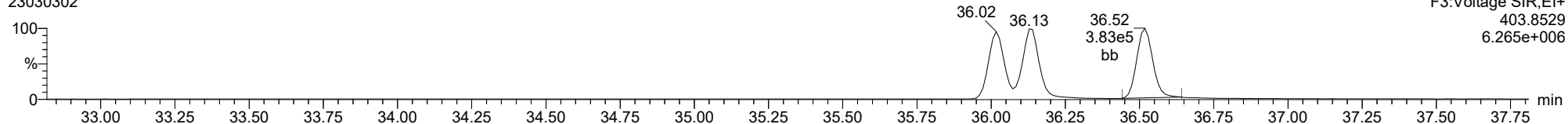
23030302



F3:Voltage SIR,EI+
401.8559
8.073e+006

13C-123789-HxCDD

23030302

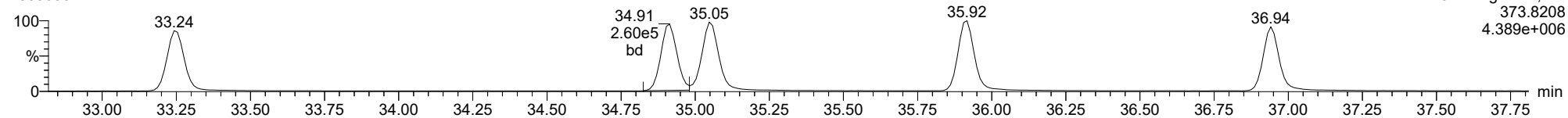


F3:Voltage SIR,EI+
403.8529
6.265e+006

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

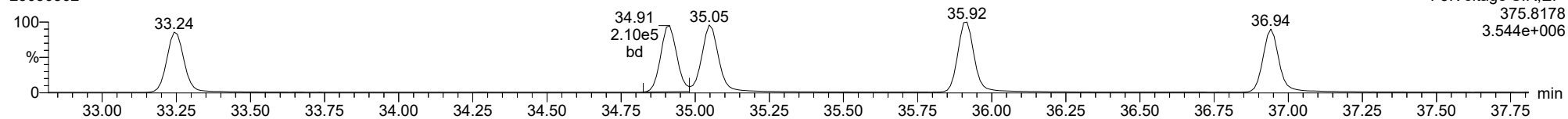
123478-HxCDF

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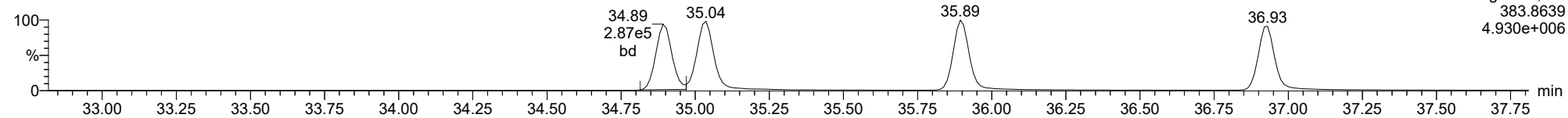
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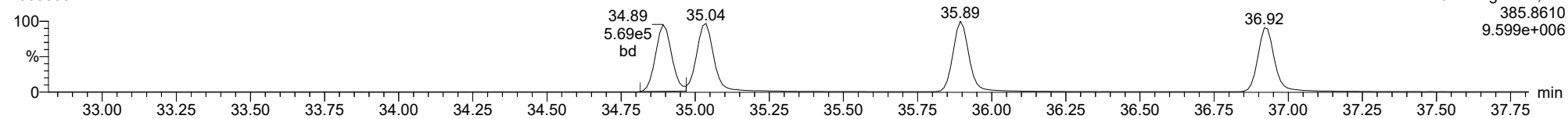
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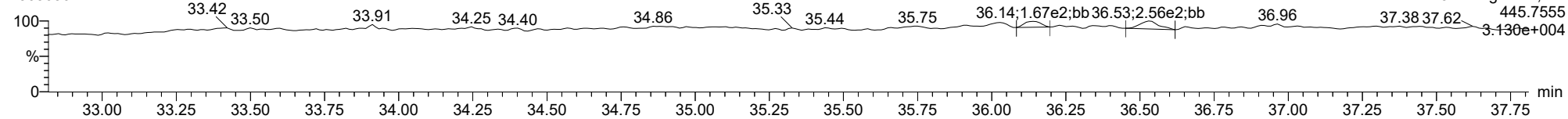
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FUNCTION3 OCDPE

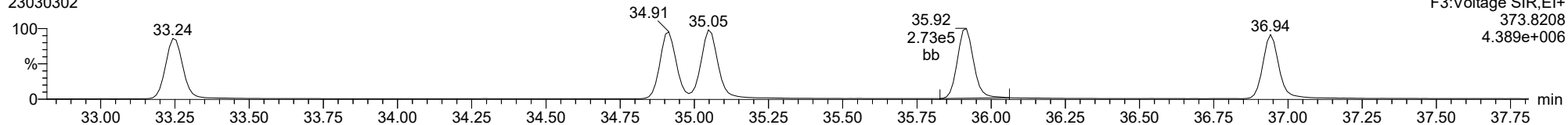
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

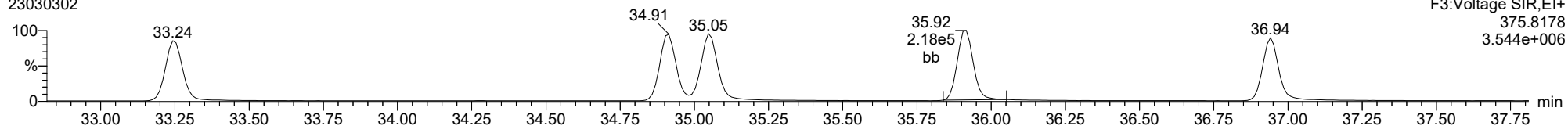
234678-HxCDF

23030302



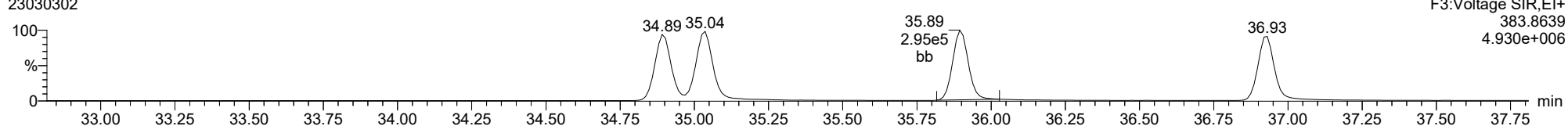
234678-HxCDF

23030302



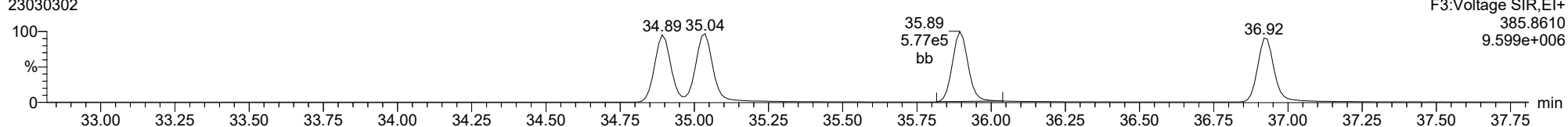
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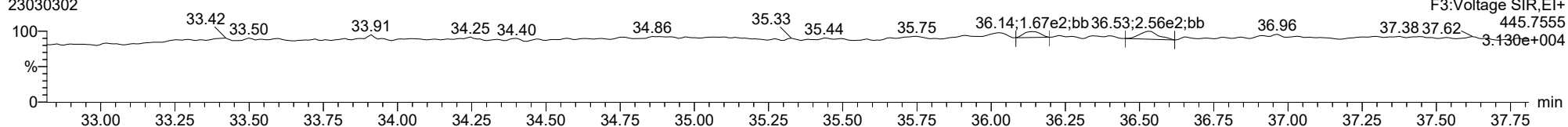
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FUNCTION3 OCDPE

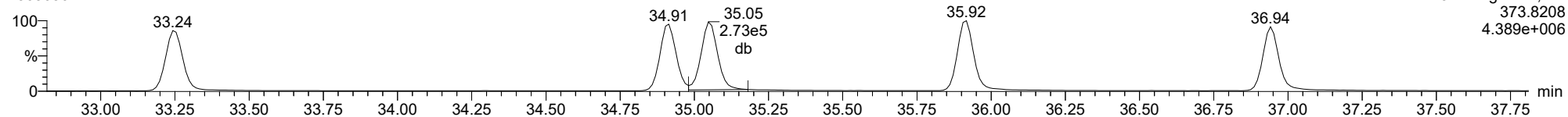
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

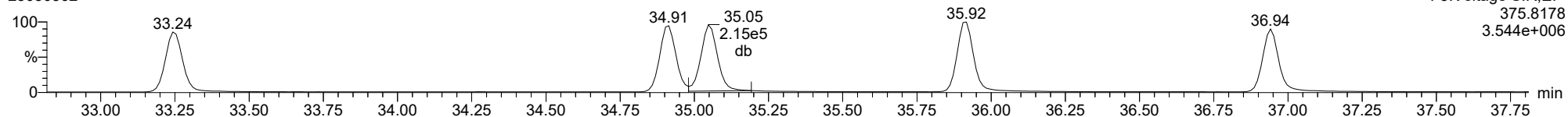
123678-HxCDF

23030302



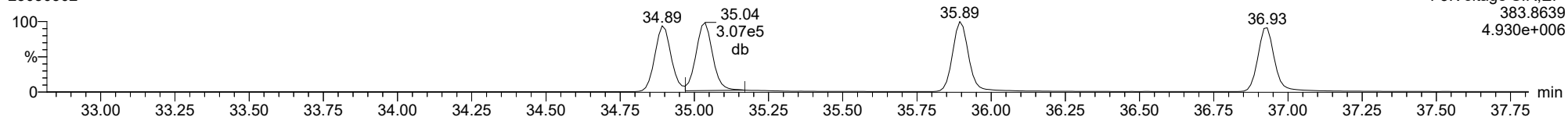
123678-HxCDF

23030302



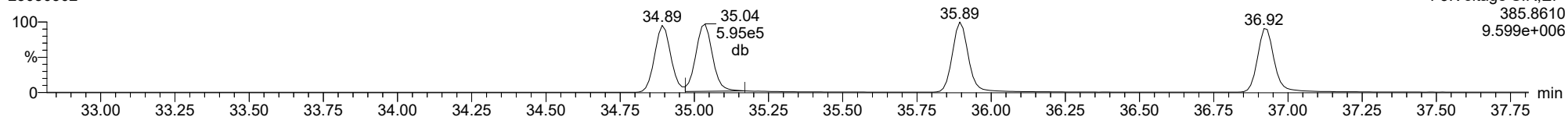
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23030302



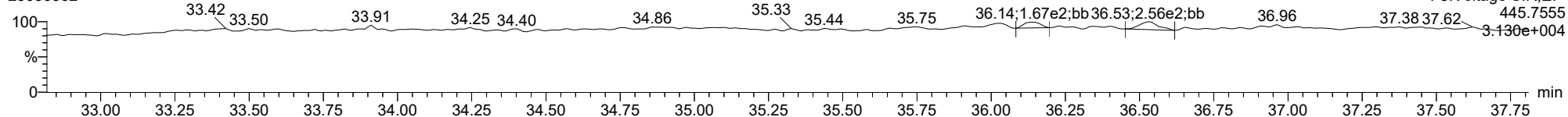
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23030302



FUNCTION3 OCDPE

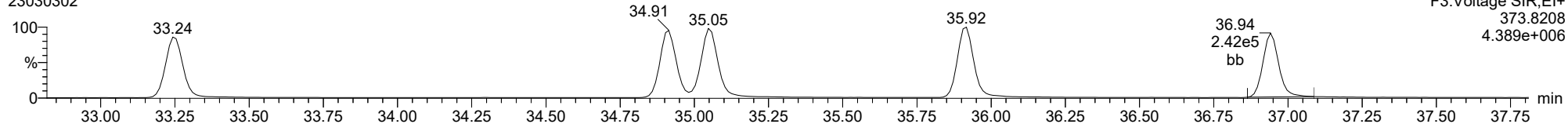
23030302



ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

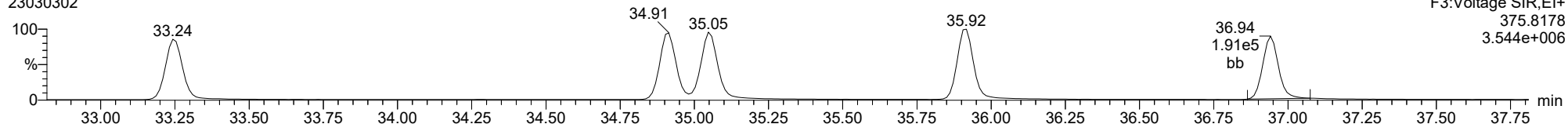
123789-HxCDF

23030302



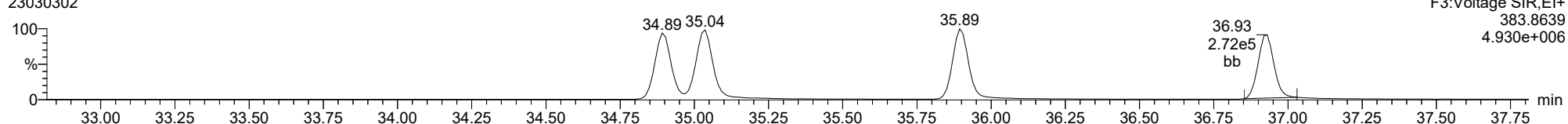
123789-HxCDF

23030302



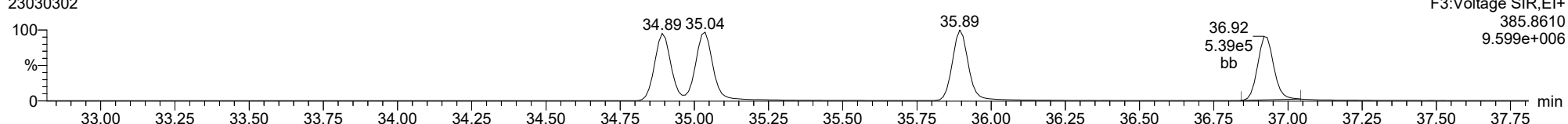
13C-123789-HxCDF

23030302



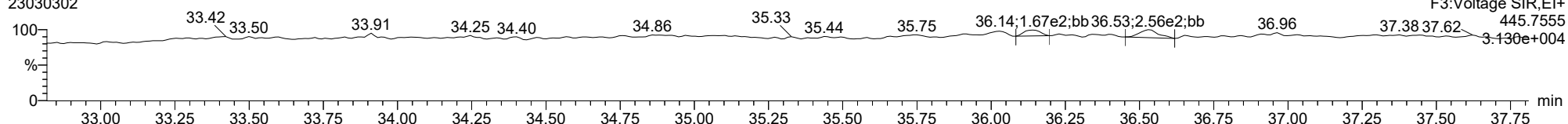
13C-123789-HxCDF

23030302



FUNCTION3 OCDPE

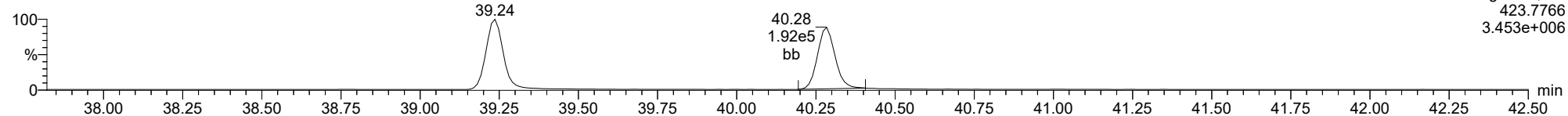
23030302



ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

1234678-HpCDD

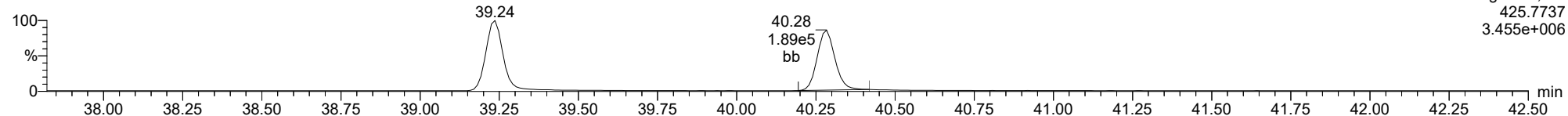
23030302



F4:Voltage SIR,EI+
423.7766
3.453e+006

1234678-HpCDD

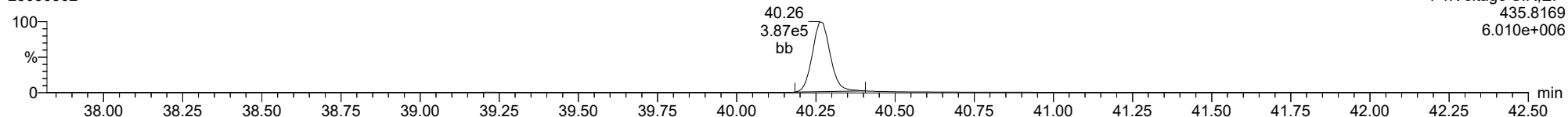
23030302



F4:Voltage SIR,EI+
425.7737
3.455e+006

13C-1234678-HpCDD

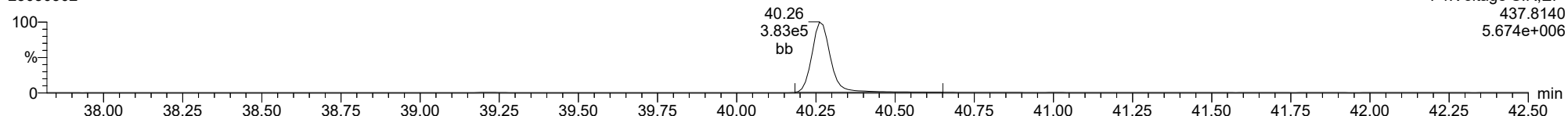
23030302



F4:Voltage SIR,EI+
435.8169
6.010e+006

13C-1234678-HpCDD

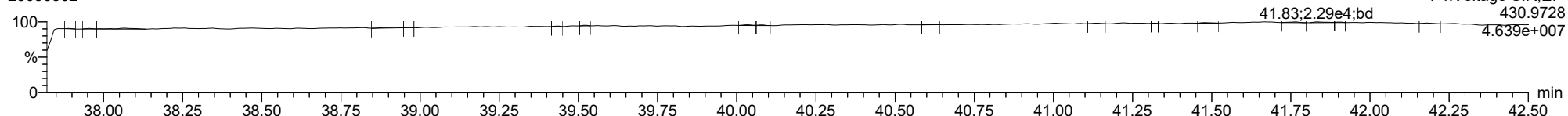
23030302



F4:Voltage SIR,EI+
437.8140
5.674e+006

FUNCTION4 PFK

23030302

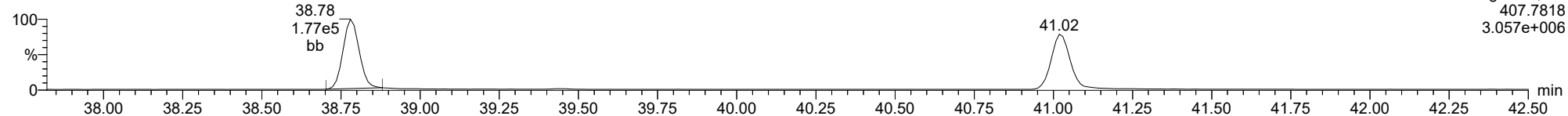


F4:Voltage SIR,EI+
430.9728
4.639e+007

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

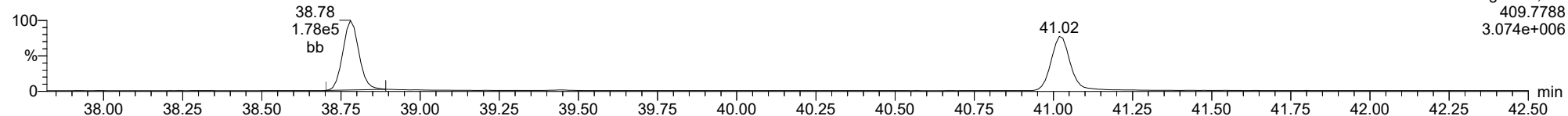
23030302



F4:Voltage SIR,EI+
407.7818
3.057e+006

1234678-HpCDF

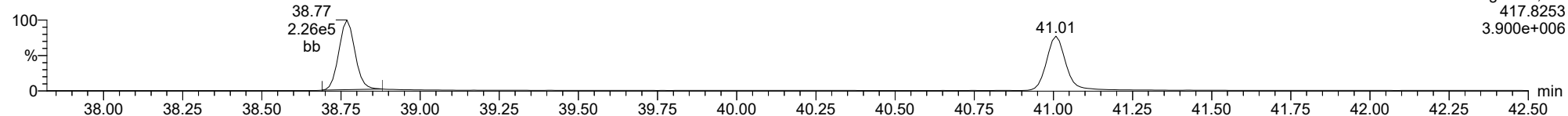
23030302



F4:Voltage SIR,EI+
409.7788
3.074e+006

13C-1234678-HpCDF

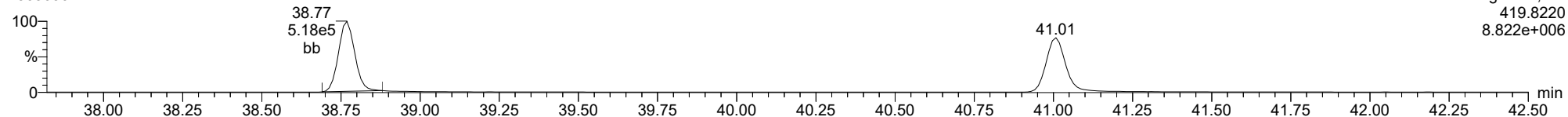
23030302



F4:Voltage SIR,EI+
417.8253
3.900e+006

13C-1234678-HpCDF

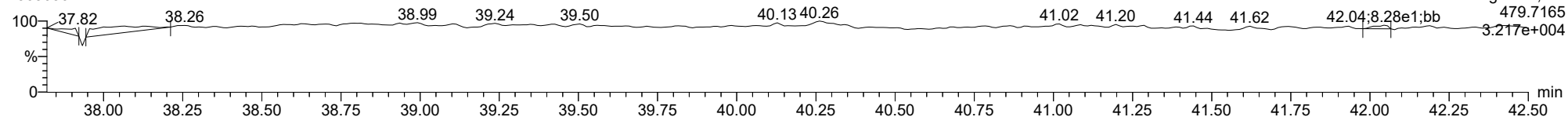
23030302



F4:Voltage SIR,EI+
419.8220
8.822e+006

FUNCTION4 NCDPE

23030302

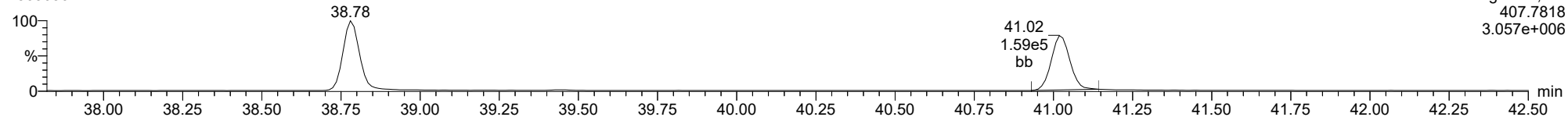


F4:Voltage SIR,EI+
479.7165
3.217e+004

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

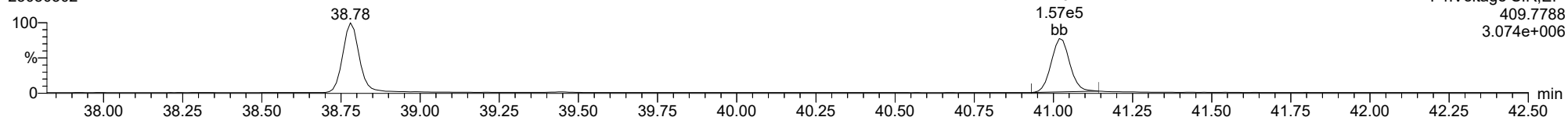
23030302



F4:Voltage SIR,EI+
407.7818
3.057e+006

1234789-HpCDF

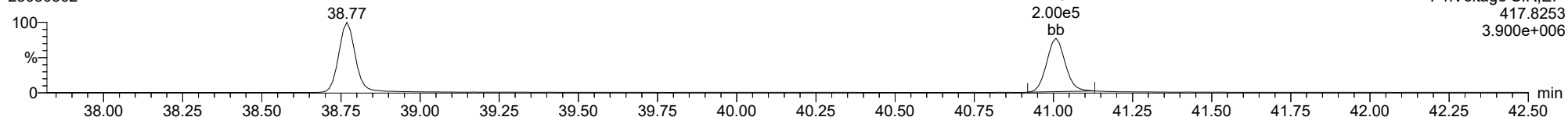
23030302



F4:Voltage SIR,EI+
409.7788
3.074e+006

13C-1234789-HpCDF

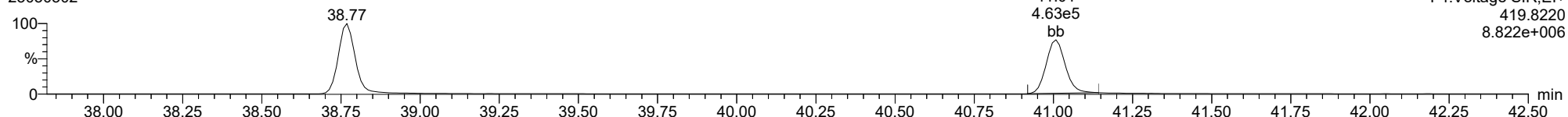
23030302



F4:Voltage SIR,EI+
417.8253
3.900e+006

13C-1234789-HpCDF

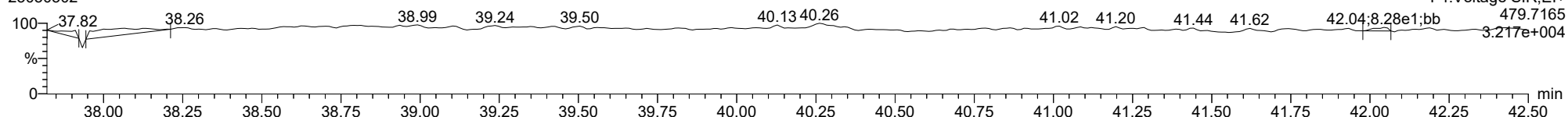
23030302



F4:Voltage SIR,EI+
419.8220
8.822e+006

FUNCTION4 NCDPE

23030302

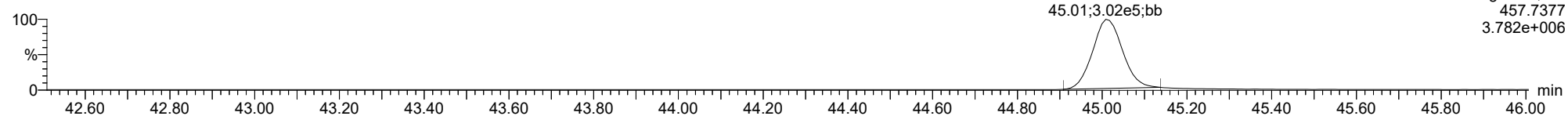


F4:Voltage SIR,EI+
479.7165
3.217e+004

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

OCDD

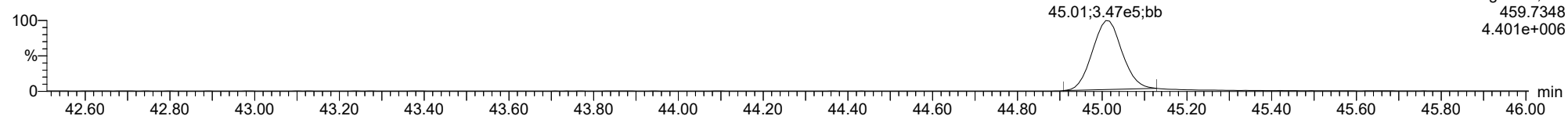
23030302



F5:Voltage SIR,EI+
457.7377
3.782e+006

OCDD

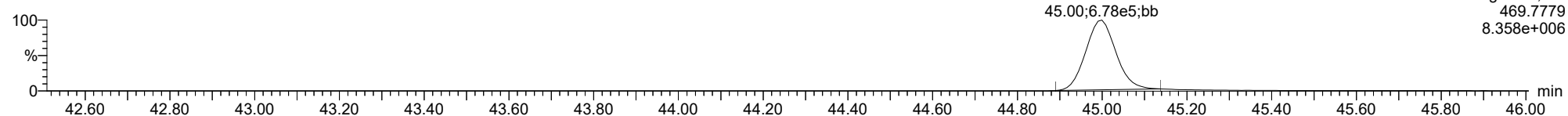
23030302



F5:Voltage SIR,EI+
459.7348
4.401e+006

13C-OCDD

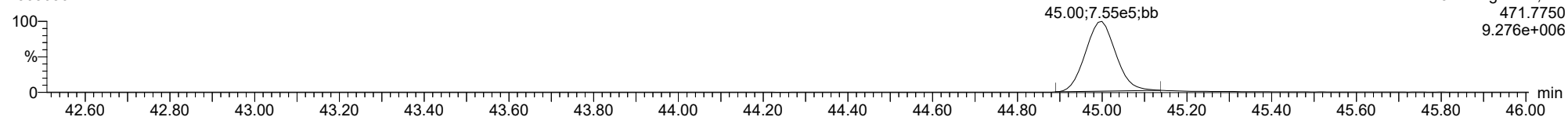
23030302



F5:Voltage SIR,EI+
469.7779
8.358e+006

13C-OCDD

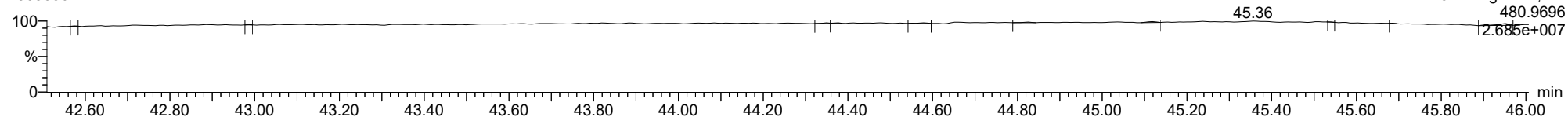
23030302



F5:Voltage SIR,EI+
471.7750
9.276e+006

FUNCTION5 PFK

23030302

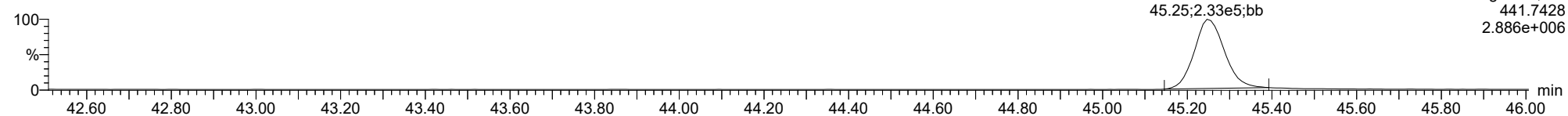


F5:Voltage SIR,EI+
480.9696
2.685e+007

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

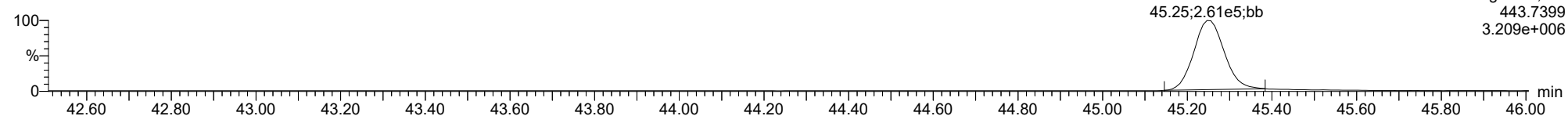
OCDF

23030302



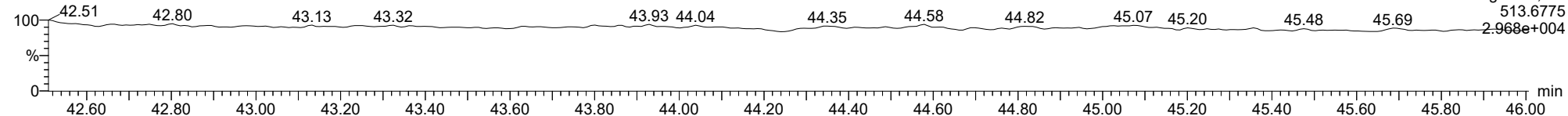
OCDF

23030302



FUNCTION5 DCDPE

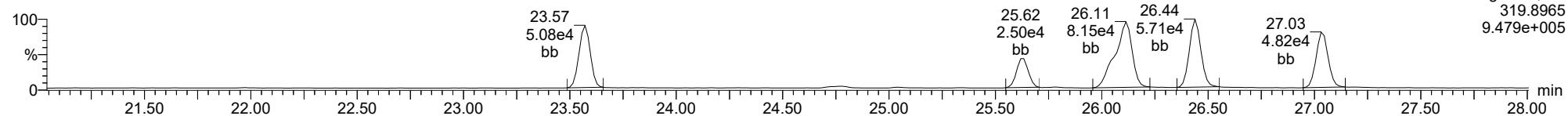
23030302



ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

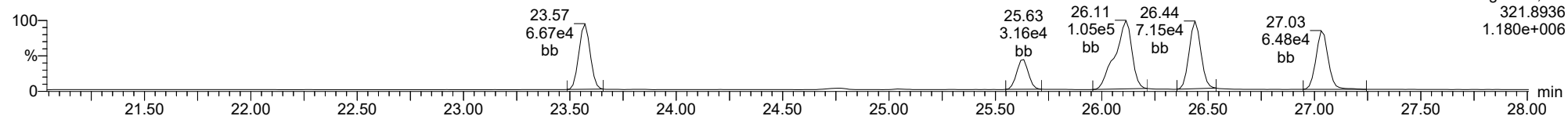
Total-tetradioxins

23030302



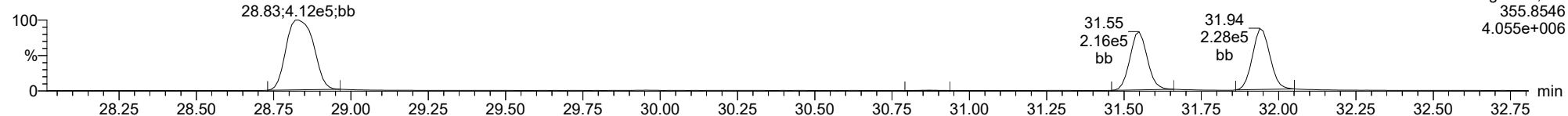
Total-tetradioxins

23030302



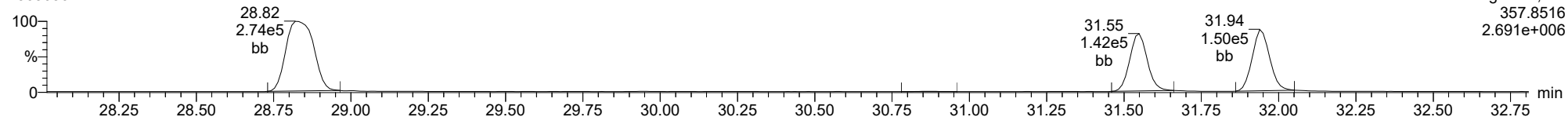
Total-pentadioxins

23030302



Total-pentadioxins

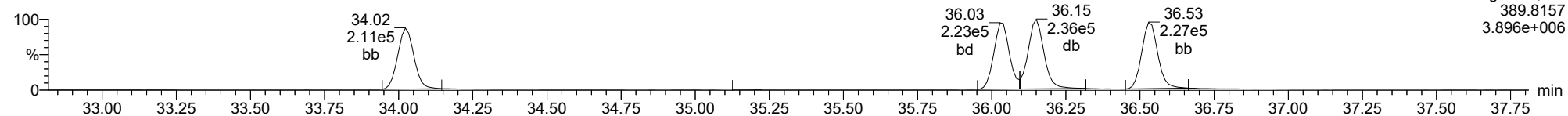
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

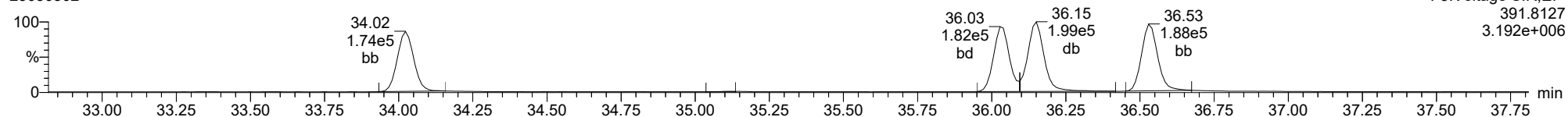
Total-hexadioxins

23030302



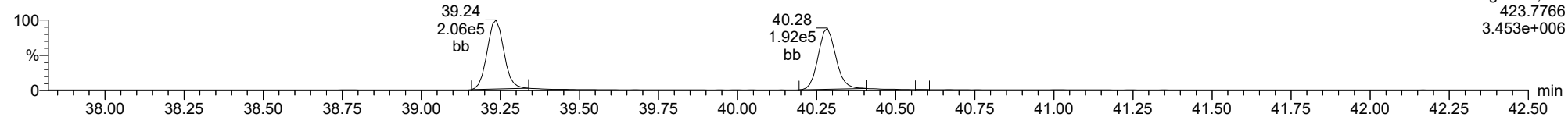
Total-hexadioxins

23030302



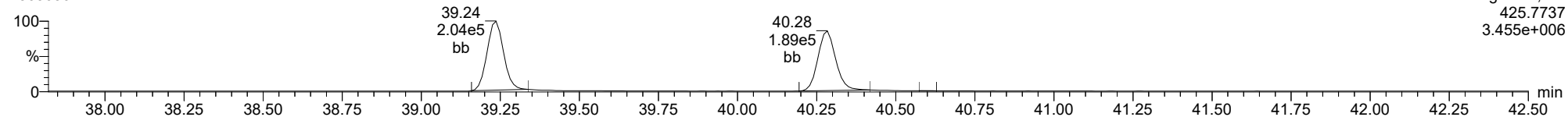
Total-heptadioxins

23030302



Total-heptadioxins

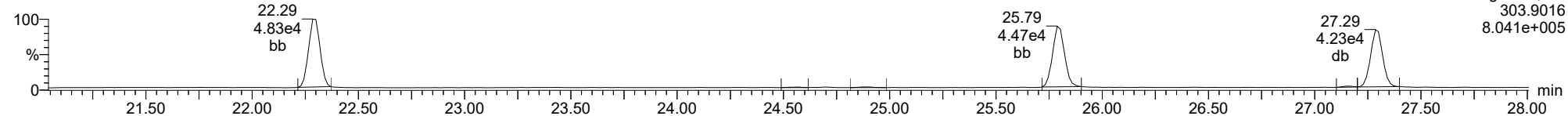
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

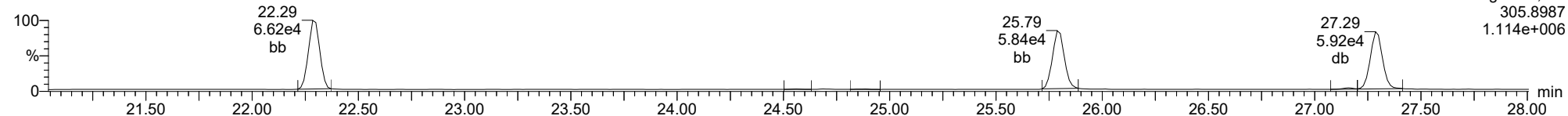
Total-tetrafurans

23030302



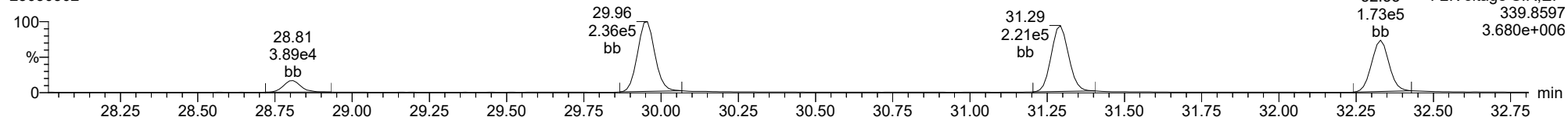
Total-tetrafurans

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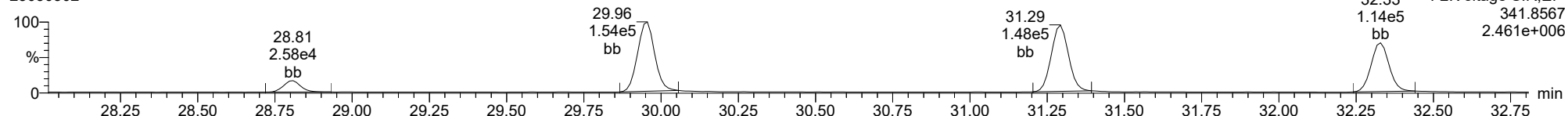
Total-pentafurans

23030302



Total-pentafurans

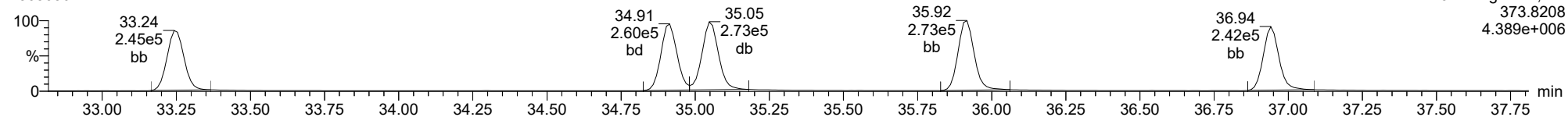
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ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

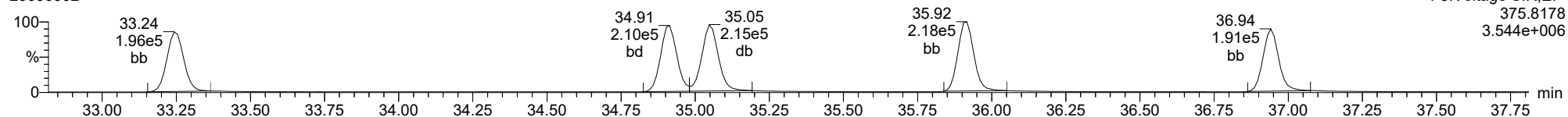
Total-hexafurans

23030302



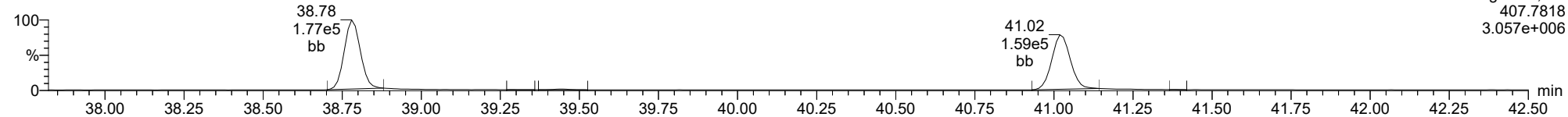
Total-hexafurans

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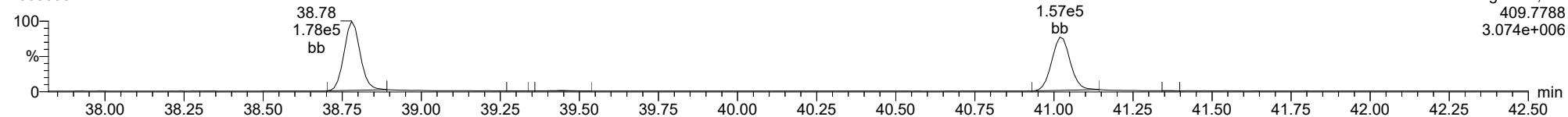
Total-heptafurans

23030302



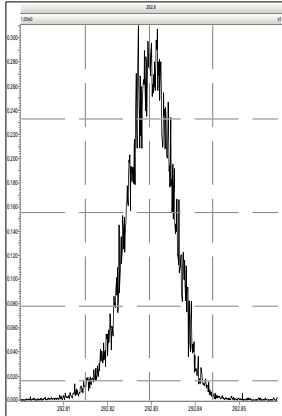
Total-heptafurans

23030302

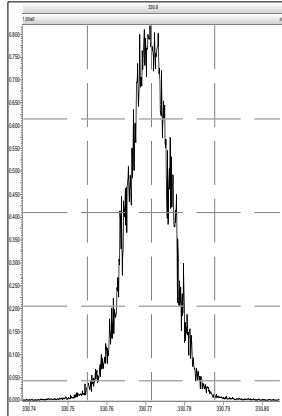


Printed: Friday, March 03, 2023 09:51:10 Pacific Standard Time

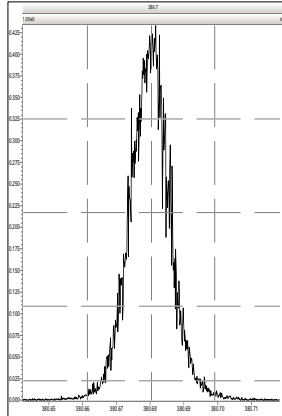
M 292.9824 R 11554



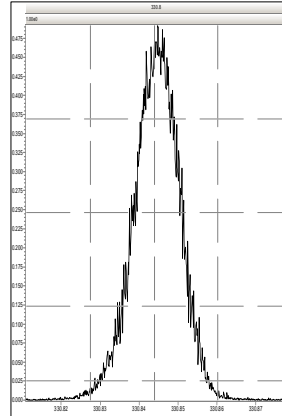
M 330.9792 R 12378



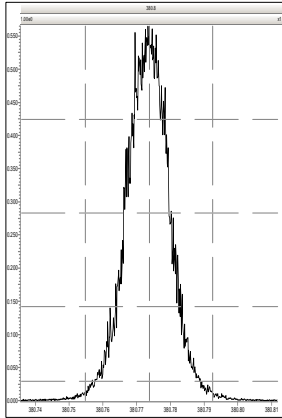
M 380.9760 R 13750



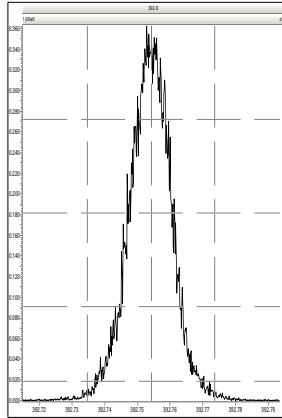
M 330.9792 R 11876



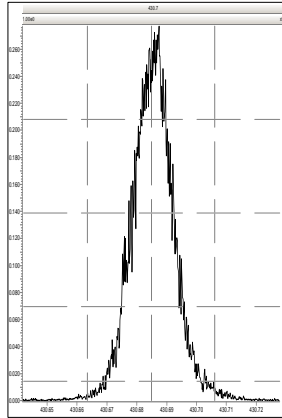
M 380.9760 R 12255



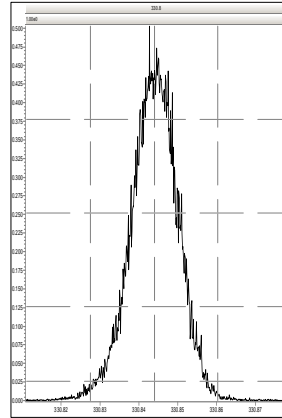
M 392.9760 R 12762



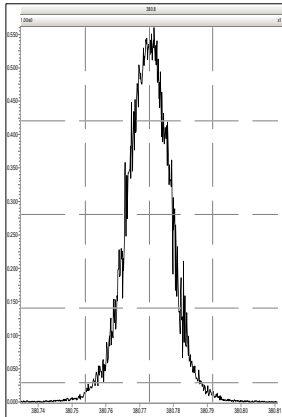
M 430.9728 R 13440



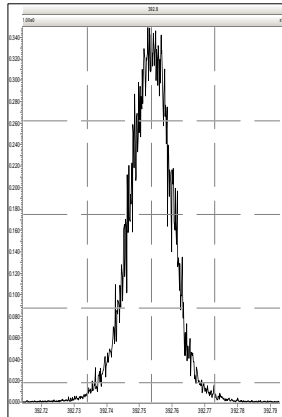
M 330.9792 R 11574



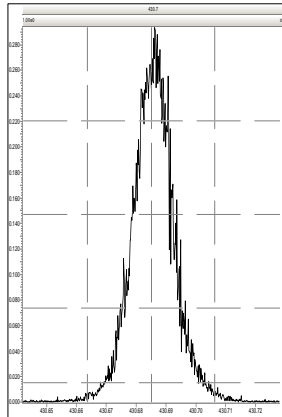
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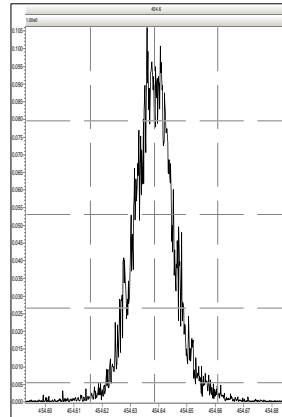
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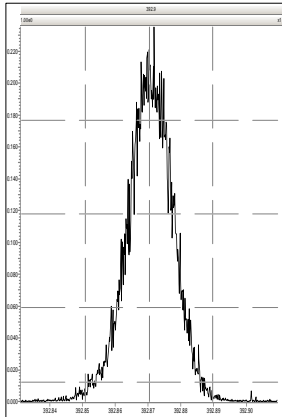
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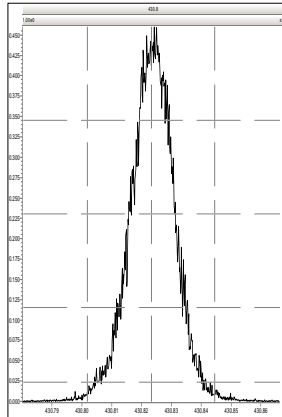
M 454.9728 R 14513



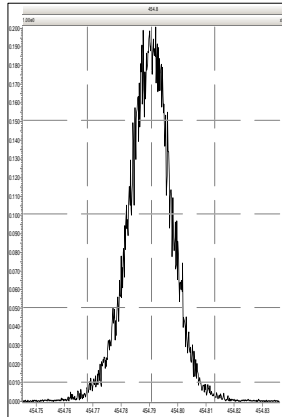
M 392.9760 R 12109



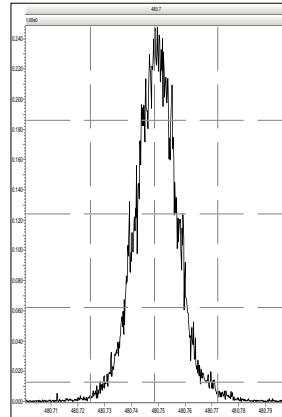
M 430.9728 R 12594



M 454.9728 R 12801

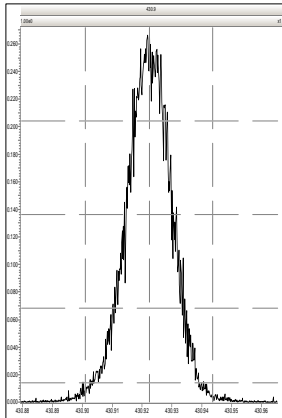


M 480.9696 R 12854

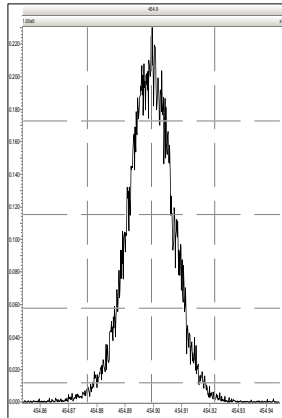


Printed: Friday, March 03, 2023 09:51:10 Pacific Standard Time

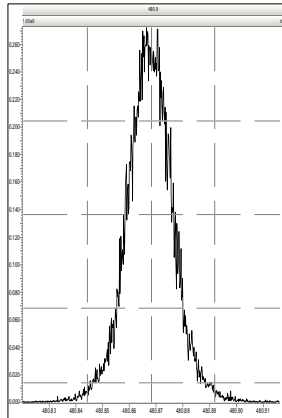
M 430.9728 R 12109



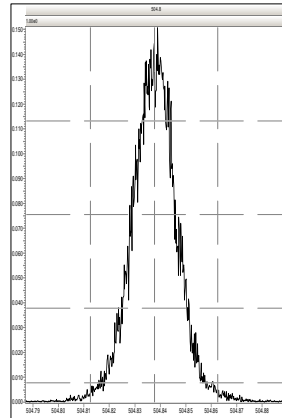
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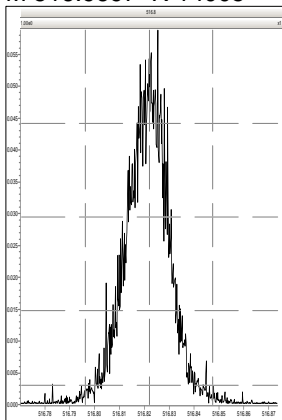
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M 504.9696 R 12722



M 516.9697 R 14005

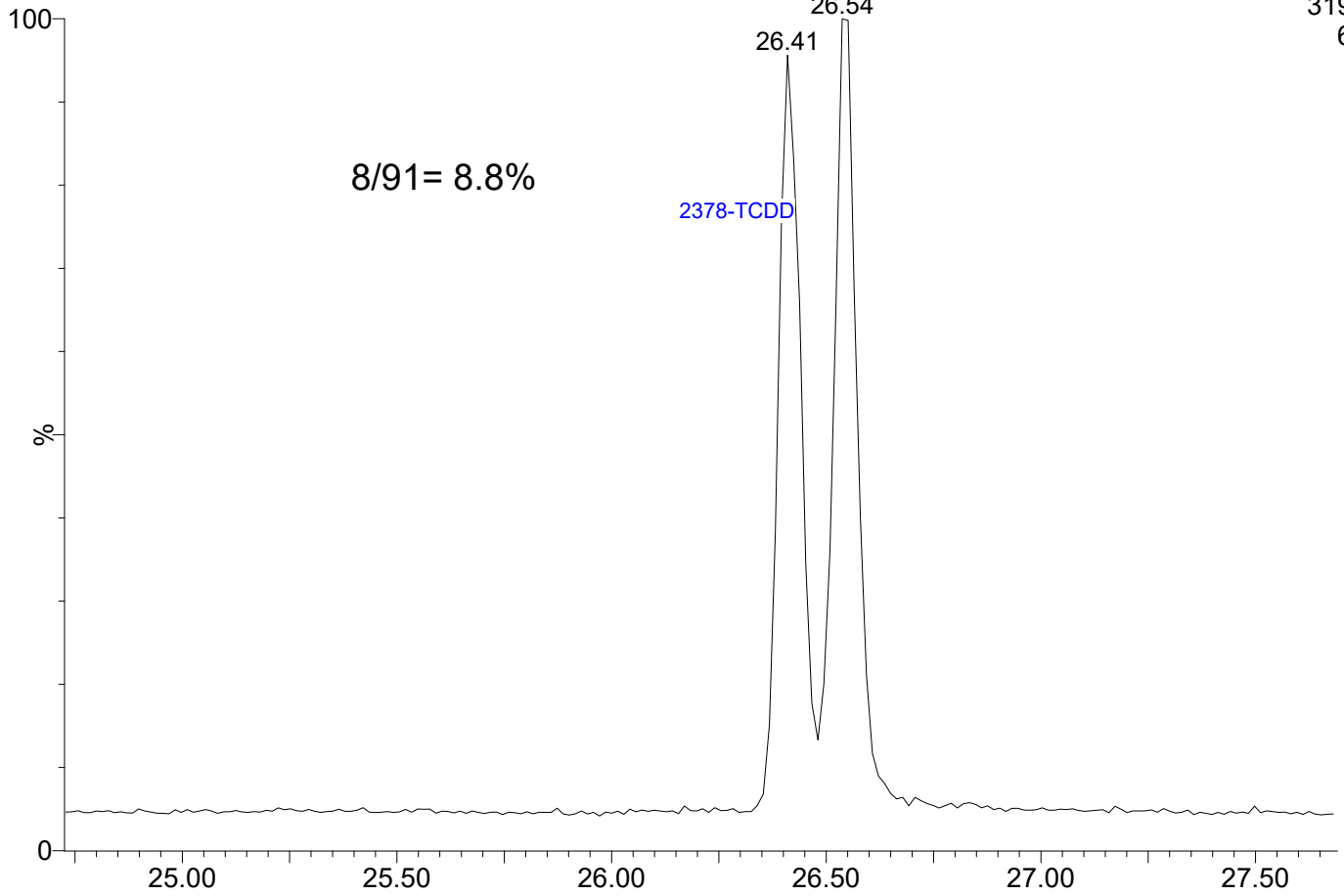


23030303

1: Voltage SIR 14 Channels EI+

319.8965

6.27e5

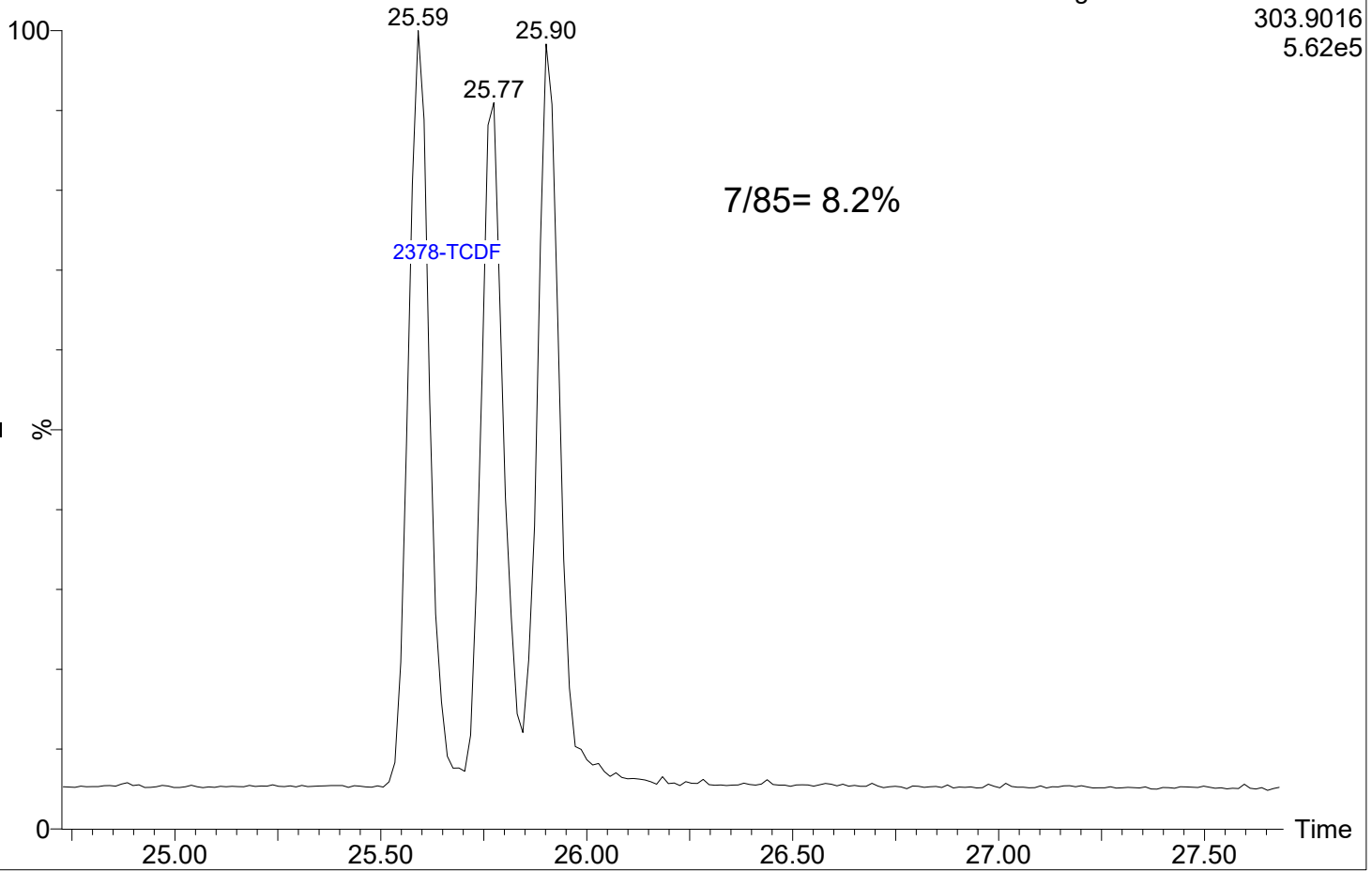


23030303

1: Voltage SIR 14 Channels EI+

303.9016

5.62e5



Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:33:58 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.702		0.770	1141	1568								
12378-PeCDF	29.922	1.000	2.331e3	1.631e3	0.679	1.429	1.550	717	1165	3.89e4	2.49e4	54.3	21.4	NO	bb	bd	0.520
23478-PeCDF	31.270	1.001	2.446e3	1.527e3	0.786	1.602	1.550	717	1165	3.60e4	2.25e4	50.1	19.4	NO	bb	bb	0.508
123478-HxCDF	34.891	1.001	2.740e3	2.578e3	1.166	1.063	1.240	675	706	4.36e4	3.63e4	64.6	51.5	NO	bd	bd	0.522
234678-HxCDF	35.894	1.001	2.363e3	1.967e3	1.140	1.201	1.240	675	706	3.52e4	3.17e4	52.2	44.9	NO	bb	bb	0.459
123678-HxCDF	35.025	1.000	2.955e3	2.593e3	1.091	1.140	1.240	675	706	3.97e4	3.71e4	58.8	52.6	NO	db	dd	0.495
123789-HxCDF	36.919	1.000	2.292e3	1.751e3	1.137	1.309	1.240	675	706	3.51e4	2.45e4	52.0	34.7	NO	bd	bb	0.523
1234678-HpCDF	38.769	1.001	1.264e3	1.356e3	1.003	0.932	1.050	1176	1150	2.17e4	2.11e4	18.4	18.3	NO	bd	bb	0.466
1234789-HpCDF	40.997	1.000	1.144e3	1.036e3	0.953	1.105	1.050	1176	1150	1.78e4	1.51e4	15.1	13.1	NO	bb	bd	0.465
OCDF	45.228	1.006	2.105e3	2.214e3	0.778	0.951	0.890	762	984	2.31e4	2.16e4	30.2	22.0	NO	bb	bb	1.044
2378-TCDD					1.149		0.770	1186	741								
12378-PeCDD	31.527	1.001	2.628e3	1.506e3	1.022	1.745	1.550	935	615	3.66e4	1.58e4	39.1	25.7	NO	bb	bb	0.540
123478-HxCDD	36.016	1.001	2.113e3	1.865e3	0.996	1.133	1.240	725	812	3.30e4	2.93e4	45.6	36.1	NO	dd	bd	0.542
123678-HxCDD	36.128	1.001	2.428e3	1.876e3	1.001	1.294	1.240	725	812	3.70e4	2.39e4	51.1	29.5	NO	db	db	0.479
123789-HxCDD	36.507	1.011	2.154e3	1.651e3	0.907	1.304	1.240	725	812	3.30e4	2.34e4	45.5	28.9	NO	bd	bb	0.513
1234678-HpCDD	40.261	1.000	1.634e3	1.397e3	1.039	1.170	1.050	985	1205	2.31e4	2.24e4	23.5	18.6	NO	MM	bb	0.531
OCDD					0.920		0.890	1090	941								
13C-2378-TCDF	25.746	1.007	5.730e5	7.592e5	1.620	0.755	0.770	2498	2006	8.42e6	1.11e7	3371.3	5556.4	NO	bb	bb	100.702
13C-12378-PeCDF	29.911	1.169	6.805e5	4.409e5	1.240	1.543	1.550	2678	2220	9.20e6	6.10e6	3433.8	2749.3	NO	bb	bd	110.727
13C-23478-PeCDF	31.248	1.222	6.001e5	3.956e5	1.118	1.517	1.550	2678	2220	8.66e6	5.74e6	3235.2	2585.6	NO	bb	bb	109.107
13C-123478-HxCDF	34.869	0.955	2.965e5	5.770e5	1.168	0.514	0.510	1558	3112	4.38e6	8.54e6	2813.2	2745.5	NO	bd	bd	98.607
13C-123678-HxCDF	35.014	0.959	3.446e5	6.820e5	1.386	0.505	0.510	1558	3112	4.56e6	9.02e6	2927.1	2898.6	NO	db	dd	97.648
13C-234678-HxCDF	35.872	0.983	2.821e5	5.460e5	1.129	0.517	0.510	1558	3112	4.13e6	8.00e6	2652.6	2572.0	NO	bb	bb	96.703
13C-123789-HxCDF	36.908	1.011	2.282e5	4.511e5	0.932	0.506	0.510	1558	3112	3.31e6	6.47e6	2122.2	2079.8	NO	bb	bb	96.146
13C-1234678-HpCDF	38.746	1.062	1.794e5	3.814e5	0.895	0.470	0.440	2435	3572	2.60e6	5.93e6	1069.0	1659.1	NO	bd	bb	82.620
13C-1234789-HpCDF	40.986	1.123	1.404e5	3.516e5	0.770	0.399	0.440	2435	3572	1.98e6	4.51e6	813.8	1262.1	NO	bb	bb	84.288
13C-1234-TCDD	25.576	0.000	3.640e5	4.524e5	1.000	0.805	0.770	1931	1352	5.55e6	6.91e6	2875.2	5114.0	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.032	4.012e5	4.998e5	1.152	0.803	0.770	1931	1352	5.75e6	7.10e6	2979.4	5249.9	NO	bb	bb	95.760
13C-12378-PeCDD	31.504	1.232	4.613e5	2.880e5	0.829	1.602	1.550	1401	1533	6.70e6	4.14e6	4781.1	2700.1	NO	bb	bb	110.725
13C-123478-HxCDD	35.994	0.986	4.133e5	3.236e5	0.995	1.277	1.240	1744	1461	6.55e6	5.10e6	3756.0	3493.2	NO	bd	bd	97.670
13C-123678-HxCDD	36.106	0.989	5.195e5	3.785e5	1.157	1.372	1.240	1744	1461	6.84e6	5.29e6	3920.0	3622.3	NO	db	db	102.381
13C-1234678-HpCDD	40.250	1.103	2.785e5	2.707e5	0.840	1.029	1.050	1497	2275	3.82e6	3.65e6	2553.8	1605.5	NO	bb	bd	86.201
13C-OCDD	44.972	1.232	5.210e5	5.429e5	0.767	0.960	0.890	2989	1436	5.87e6	6.48e6	1964.2	4513.5	NO	bd	bb	182.810
13C-123789-HxCDD	36.496	0.000	4.181e5	3.402e5	1.000	1.229	1.240	1744	1461	6.11e6	4.85e6	3503.9	3317.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.410	1.033	1.287e3		1.288			1959		1.53e4		7.8			db		0.122

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Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1141	1568								
1289-TCDF					0.678		0.770	1141	1568								
13468-PECDF					1.246		1.550	669	893								
12389-PECDF					0.496		1.550	717	1165								
123468-HXCDF					1.169		1.240	675	706								
1368-TCDD					1.015		0.770	1186	741								
1289-TCDD					0.909		0.770	1186	741								
12479-PECDD					2.301		1.550	935	615								
12389-PECDD					1.184		1.550	935	615								
124679-HXCDD					1.115		1.240	725	812								
1234679-HPCDD					1.137		1.050	985	1205								
Total-tetrafurans			0.000e0		0.727			1141		0.00e0							
Total-penta1			0.000e0					669		0.00e0							
Total-pentafurans			4.777e3		0.654			717		7.49e4							1.028
Total-hexafurans			1.035e4		1.141			675		1.54e5							2.000
Total-heptafurans			2.408e3		0.978			1176		3.94e4							0.931
Total-Furans			1.971e4		0.922			1141		2.93e5							5.016
Total-tetradoxins			0.000e0		1.024			1186		0.00e0							
Total-pentadoxins			2.628e3		1.502			935		3.66e4							0.540
Total-hexadoxins			6.694e3		1.005			725		1.03e5							1.534
Total-heptadoxins			1.634e3		1.088			985		2.31e4							0.531
Total-Dioxins			1.096e4		1.130			1186		1.63e5							2.605
Total-TEQ			3.067e4					1186		4.55e5							7.621
FUNCTION1 PFK			3.116e6					620464		1.62e6							
FUNCTION2 PFK			1.698e6					301200		2.24e6							0.000
FUNCTION3 PFK			5.380e7					450736		2.93e7							0.000
FUNCTION4 PFK			1.391e7					291095		1.60e7							
FUNCTION5 PFK			7.208e4					238350		2.59e6							
FUNCTION1 HXCD...			4.809e2					559		5.84e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			8.084e2					933		1.50e4							0.000
FUNCTION3 OCDPE			0.000e0					494		0.00e0							
FUNCTION4 NCDPE			6.931e2					845		1.26e4							0.000
FUNCTION5 DCDPE			7.511e2					821		1.86e4							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50

Calibration: T:\Autospec\Curves\230303\CIH.cdb 06 Mar 2023 10:57:27

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	2.446e3	1.527e3	0.786	1.60	1.55	50.1	YES	NO	bb	bb	0.508
2	12378-PeCDF	29.92	2.331e3	1.631e3	0.679	1.43	1.55	54.3	YES	NO	bb	bd	0.520

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.92	2.292e3	1.751e3	1.137	1.31	1.24	52.0	YES	NO	bd	bb	0.523
2	234678-HxCDF	35.89	2.363e3	1.967e3	1.140	1.20	1.24	52.2	YES	NO	bb	bb	0.459
3	123678-HxCDF	35.03	2.955e3	2.593e3	1.091	1.14	1.24	58.8	YES	NO	db	dd	0.495
4	123478-HxCDF	34.89	2.740e3	2.578e3	1.166	1.06	1.24	64.6	YES	NO	bd	bd	0.522

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.77	1.264e3	1.356e3	1.003	0.93	1.05	18.4	YES	NO	bd	bb	0.466
2	1234789-HpCDF	41.00	1.144e3	1.036e3	0.953	1.10	1.05	15.1	YES	NO	bb	bd	0.465

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-Furans	21.68	7.033e1	1.021e2	0.922	0.69	0.77	1.5	NO	NO	bb	bb	0.014
2	123789-HxCDF	36.92	2.292e3	1.751e3	1.137	1.31	1.24	52.0	YES	NO	bd	bb	0.523
3	234678-HxCDF	35.89	2.363e3	1.967e3	1.140	1.20	1.24	52.2	YES	NO	bb	bb	0.459
4	123678-HxCDF	35.03	2.955e3	2.593e3	1.091	1.14	1.24	58.8	YES	NO	db	dd	0.495
5	123478-HxCDF	34.89	2.740e3	2.578e3	1.166	1.06	1.24	64.6	YES	NO	bd	bd	0.522
6	23478-PeCDF	31.27	2.446e3	1.527e3	0.786	1.60	1.55	50.1	YES	NO	bb	bb	0.508
7	12378-PeCDF	29.92	2.331e3	1.631e3	0.679	1.43	1.55	54.3	YES	NO	bb	bd	0.520
8	1234678-HpCDF	38.77	1.264e3	1.356e3	1.003	0.93	1.05	18.4	YES	NO	bd	bb	0.466
9	1234789-HpCDF	41.00	1.144e3	1.036e3	0.953	1.10	1.05	15.1	YES	NO	bb	bd	0.465
10	OCDF	45.23	2.105e3	2.214e3	0.778	0.95	0.89	30.2	YES	NO	bb	bb	1.044

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.53	2.628e3	1.506e3	1.022	1.75	1.55	39.1	YES	NO	bb	bb	0.540

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.51	2.154e3	1.651e3	0.907	1.30	1.24	45.5	YES	NO	bd	bb	0.513
2	123678-HxCDD	36.13	2.428e3	1.876e3	1.001	1.29	1.24	51.1	YES	NO	db	db	0.479
3	123478-HxCDD	36.02	2.113e3	1.865e3	0.996	1.13	1.24	45.6	YES	NO	dd	bd	0.542

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.26	1.634e3	1.397e3	1.039	1.17	1.05	23.5	YES	NO	MM	bb	0.531

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.53	2.628e3	1.506e3	1.022	1.75	1.55	39.1	YES	NO	bb	bb	0.540
2	123789-HxCDD	36.51	2.154e3	1.651e3	0.907	1.30	1.24	45.5	YES	NO	bd	bb	0.513
3	123678-HxCDD	36.13	2.428e3	1.876e3	1.001	1.29	1.24	51.1	YES	NO	db	db	0.479
4	123478-HxCDD	36.02	2.113e3	1.865e3	0.996	1.13	1.24	45.6	YES	NO	dd	bd	0.542
5	1234678-HpCDD	40.26	1.634e3	1.397e3	1.039	1.17	1.05	23.5	YES	NO	MM	bb	0.531

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-Furans	21.68	7.033e1	1.021e2	0.922	0.69	0.77	1.5	NO	NO	bb	bb	0.014
2	123789-HxCDF	36.92	2.292e3	1.751e3	1.137	1.31	1.24	52.0	YES	NO	bd	bb	0.523
3	234678-HxCDF	35.89	2.363e3	1.967e3	1.140	1.20	1.24	52.2	YES	NO	bb	bb	0.459
4	123678-HxCDF	35.03	2.955e3	2.593e3	1.091	1.14	1.24	58.8	YES	NO	db	dd	0.495
5	123478-HxCDF	34.89	2.740e3	2.578e3	1.166	1.06	1.24	64.6	YES	NO	bd	bd	0.522
6	23478-PeCDF	31.27	2.446e3	1.527e3	0.786	1.60	1.55	50.1	YES	NO	bb	bb	0.508
7	12378-PeCDF	29.92	2.331e3	1.631e3	0.679	1.43	1.55	54.3	YES	NO	bb	bd	0.520
8	1234678-HpCDF	38.77	1.264e3	1.356e3	1.003	0.93	1.05	18.4	YES	NO	bd	bb	0.466
9	1234789-HpCDF	41.00	1.144e3	1.036e3	0.953	1.10	1.05	15.1	YES	NO	bb	bd	0.465
10	OCDF	45.23	2.105e3	2.214e3	0.778	0.95	0.89	30.2	YES	NO	bb	bb	1.044
11	12378-PeCDD	31.53	2.628e3	1.506e3	1.022	1.75	1.55	39.1	YES	NO	bb	bb	0.540
12	123789-HxCDD	36.51	2.154e3	1.651e3	0.907	1.30	1.24	45.5	YES	NO	bd	bb	0.513
13	123678-HxCDD	36.13	2.428e3	1.876e3	1.001	1.29	1.24	51.1	YES	NO	db	db	0.479
14	123478-HxCDD	36.02	2.113e3	1.865e3	0.996	1.13	1.24	45.6	YES	NO	dd	bd	0.542
15	1234678-HpCDD	40.26	1.634e3	1.397e3	1.039	1.17	1.05	23.5	YES	NO	MM	bb	0.531

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	24.18	3.116e6					2.6	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.19	1.560e6					3.1	YES		bb		0.000
2	FUNCTION2 PFK	28.13	1.376e5					4.3	YES		bb		0.000

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.12	2.560e6					15.7	YES		db		0.000
2	FUNCTION3 PFK	36.37	7.058e6					24.4	YES		dd		0.000
3	FUNCTION3 PFK	36.11	4.418e7					24.8	YES		bd		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.43	1.404e5					1.6	NO		bb		
2	FUNCTION4 PFK	37.89	1.377e7					53.2	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.15	7.152e3					1.1	NO		bb		
2	FUNCTION5 PFK	45.07	1.178e3					0.5	NO		bb		
3	FUNCTION5 PFK	44.98	1.177e3					0.5	NO		bb		
4	FUNCTION5 PFK	44.19	7.772e3					0.8	NO		bb		
5	FUNCTION5 PFK	43.72	7.921e3					1.3	NO		bb		
6	FUNCTION5 PFK	43.60	4.474e3					0.7	NO		bb		
7	FUNCTION5 PFK	43.17	6.636e3					1.2	NO		bb		
8	FUNCTION5 PFK	43.01	5.001e3					0.7	NO		bb		
9	FUNCTION5 PFK	42.76	1.253e4					1.4	NO		bb		
10	FUNCTION5 PFK	45.91	8.220e3					0.4	NO		bb		
11	FUNCTION5 PFK	45.75	6.523e3					1.4	NO		bb		
12	FUNCTION5 PFK	45.25	3.501e3					0.7	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.60	9.542e1					2.4	NO		bb		0.000
2	FUNCTION1 HXCD...	26.42	7.837e1					1.9	NO		bb		0.000
3	FUNCTION1 HXCD...	25.58	1.709e2					3.5	YES		bb		0.000
4	FUNCTION1 HXCD...	23.40	1.362e2					2.7	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.36	1.308e2					1.8	NO		bb		0.000
2	FUNCTION2 HPCD...	31.75	8.377e1					1.7	NO		bb		0.000
3	FUNCTION2 HPCD...	31.30	1.170e2					2.2	NO		db		0.000
4	FUNCTION2 HPCD...	31.24	1.138e2					2.6	NO		bd		0.000
5	FUNCTION2 HPCD...	30.92	1.786e2					3.2	YES		bb		0.000
6	FUNCTION2 HPCD...	30.04	8.034e1					1.7	NO		bb		0.000
7	FUNCTION2 HPCD...	29.47	1.041e2					2.9	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.04	9.826e1					2.2	NO		bb		0.000
2	FUNCTION4 NCDPE	41.83	1.085e2					2.1	NO		bb		0.000
3	FUNCTION4 NCDPE	41.67	8.318e1					2.8	NO		db		0.000
4	FUNCTION4 NCDPE	41.58	1.047e2					2.5	NO		bd		0.000
5	FUNCTION4 NCDPE	41.32	1.741e2					2.4	NO		bb		0.000
6	FUNCTION4 NCDPE	41.15	1.244e2					2.8	NO		bb		0.000

ETHERS6

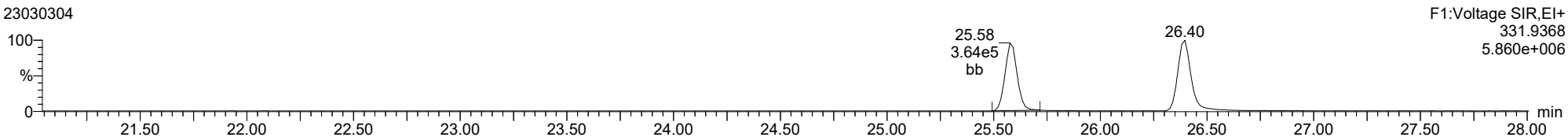
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	43.53	7.557e1					1.5	NO		bb		0.000
2	FUNCTION5 DCDPE	43.39	1.767e2					2.9	NO		bb		0.000
3	FUNCTION5 DCDPE	43.31	8.303e1					2.9	NO		db		0.000
4	FUNCTION5 DCDPE	43.27	1.217e2					4.5	YES		bd		0.000
5	FUNCTION5 DCDPE	43.04	1.550e2					3.9	YES		bb		0.000
6	FUNCTION5 DCDPE	42.73	1.390e2					7.0	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303\CIH.cdb 06 Mar 2023 10:57:27

ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

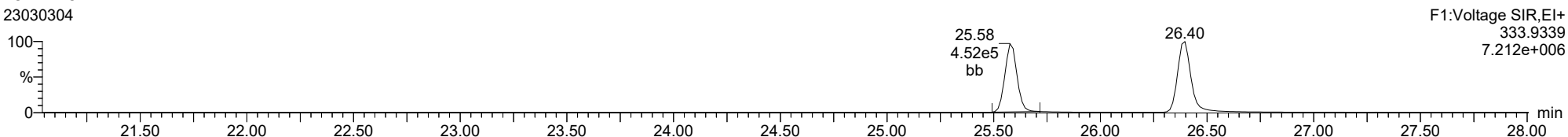
13C-1234-TCDD

23030304



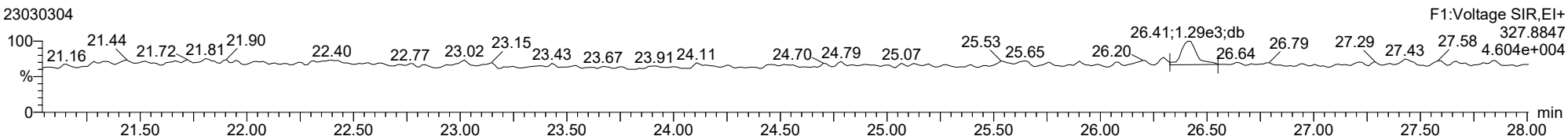
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37CL-2378-TCDD

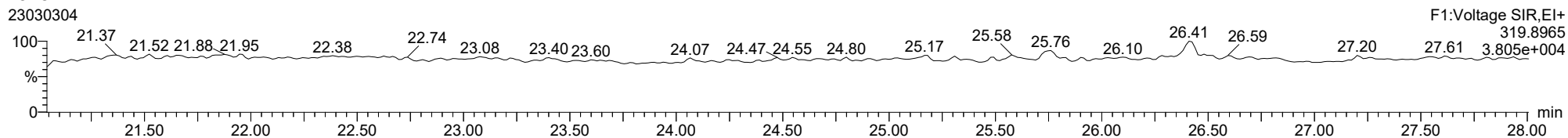
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

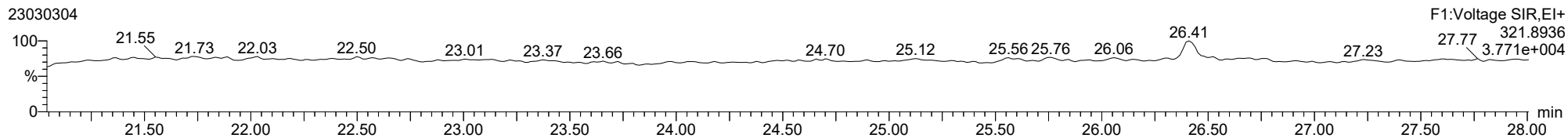
2378-TCDD

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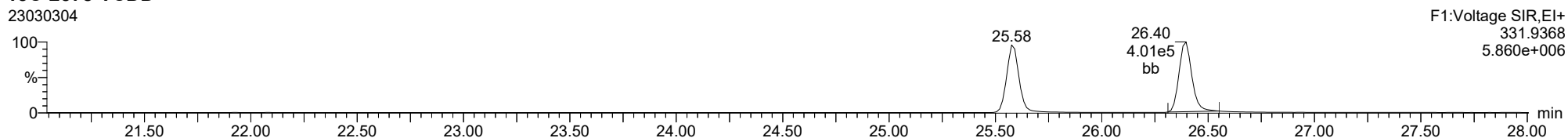
2378-TCDD

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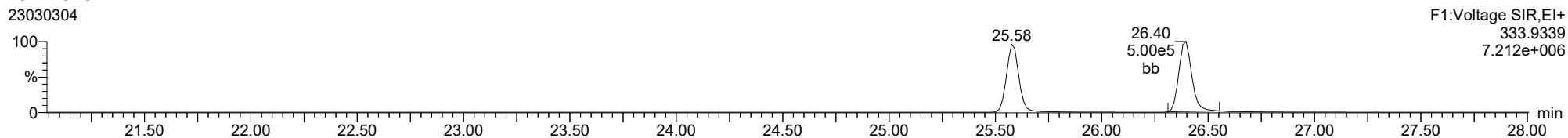
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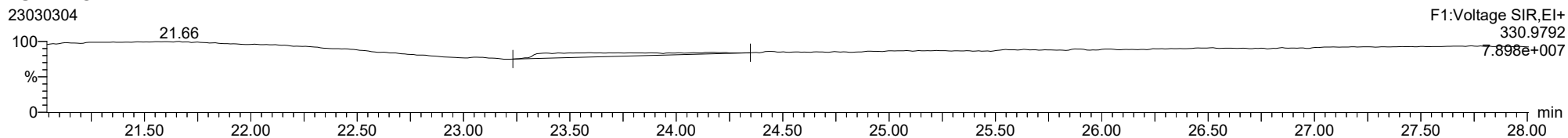
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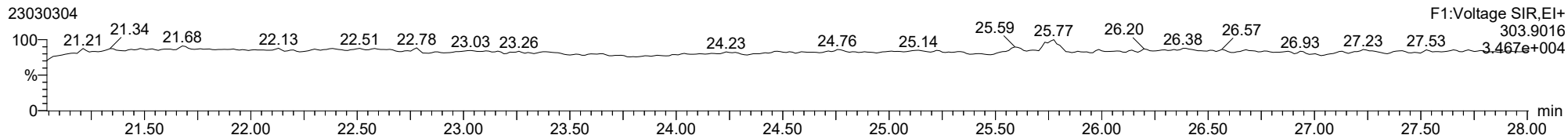
FUNCTION1 PFK

23030304

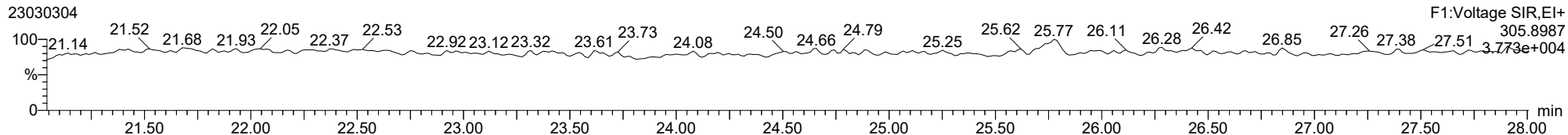


ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

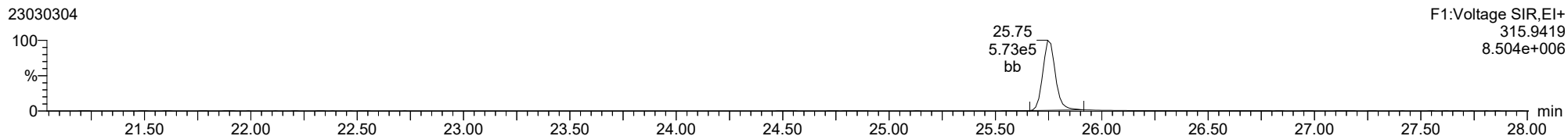
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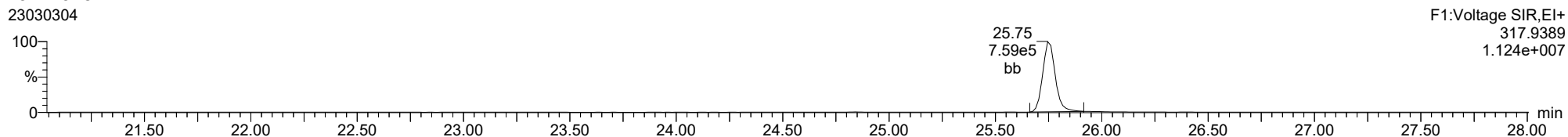
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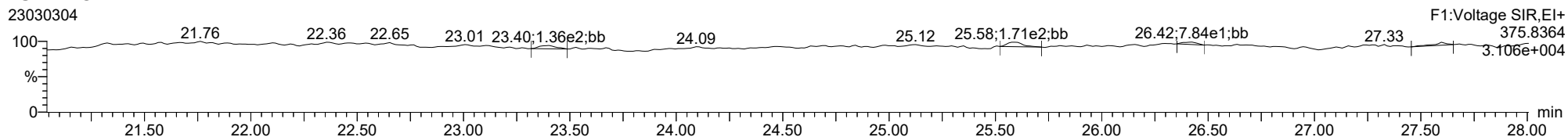
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13C-2378-TCDF



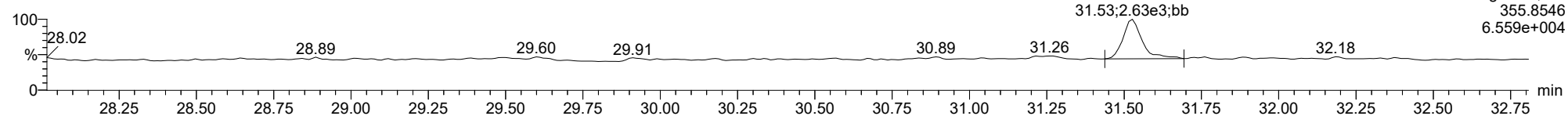
FUNCTION1 HXCDPE



ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

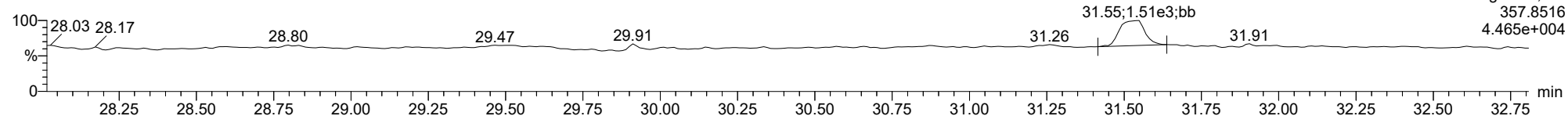
12378-PeCDD

23030304



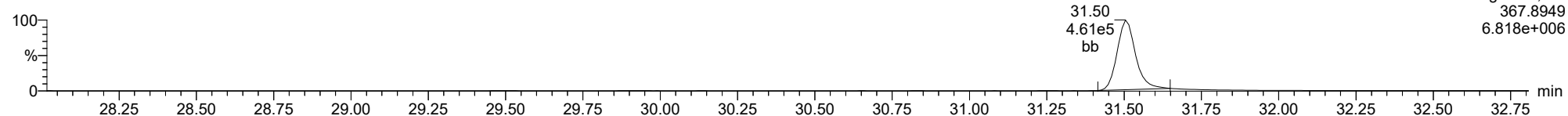
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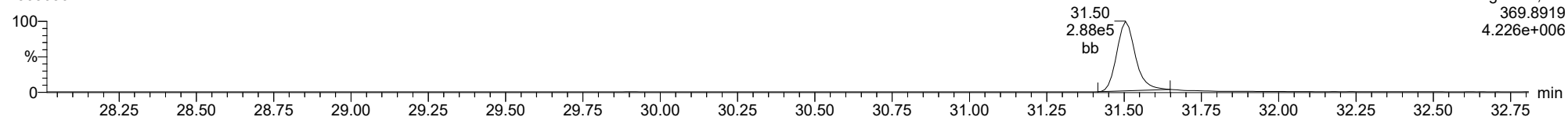
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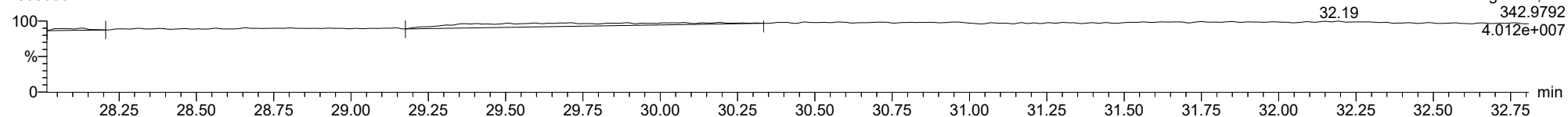
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FUNCTION2 PFK

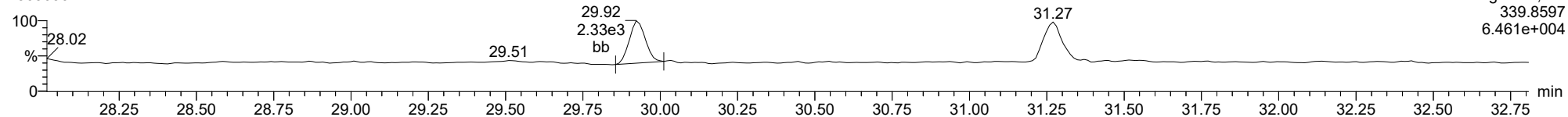
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

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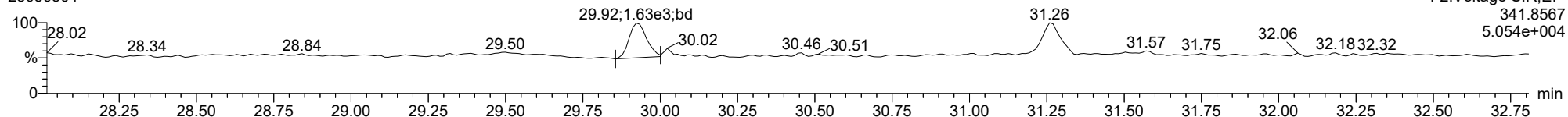
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F2:Voltage SIR,EI+
339.8597
6.461e+004

12378-PeCDF

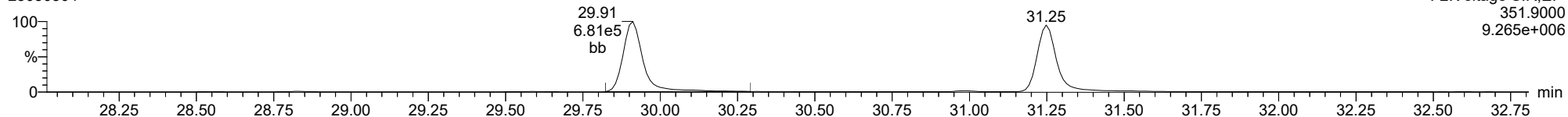
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F2:Voltage SIR,EI+
341.8567
5.054e+004

13C-12378-PeCDF

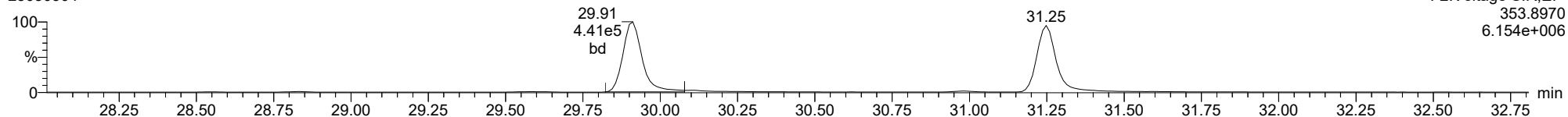
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F2:Voltage SIR,EI+
351.9000
9.265e+006

13C-12378-PeCDF

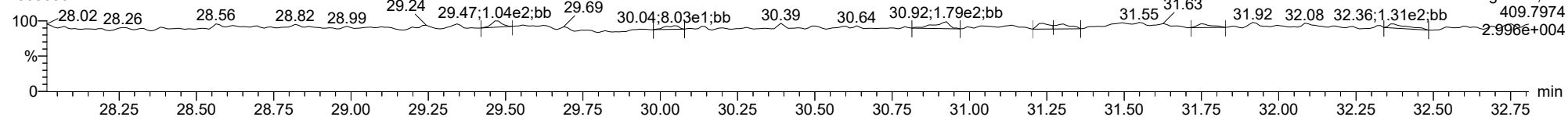
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F2:Voltage SIR,EI+
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6.154e+006

FUNCTION2 HPCDPE

23030304

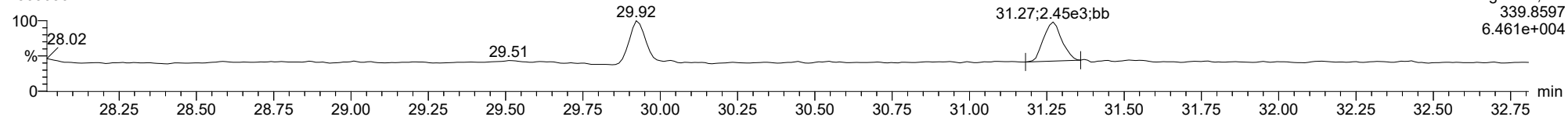


F2:Voltage SIR,EI+
409.7974
2.990e+004

ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

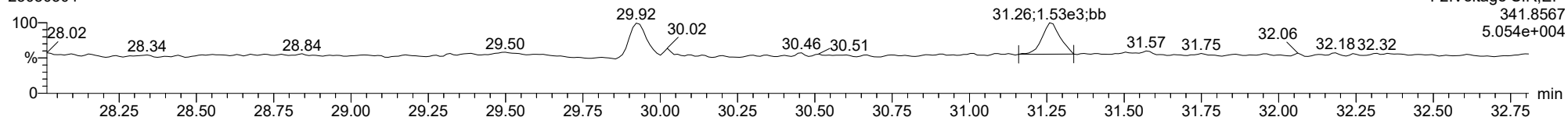
23478-PeCDF

23030304



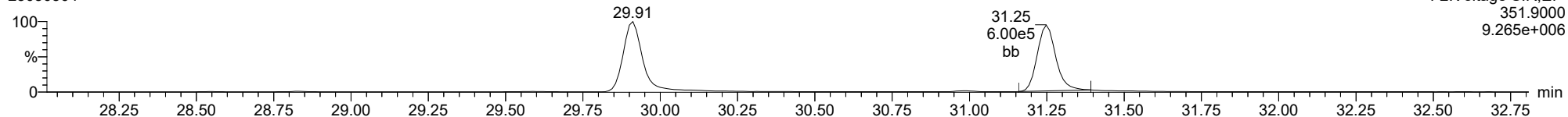
23478-PeCDF

23030304



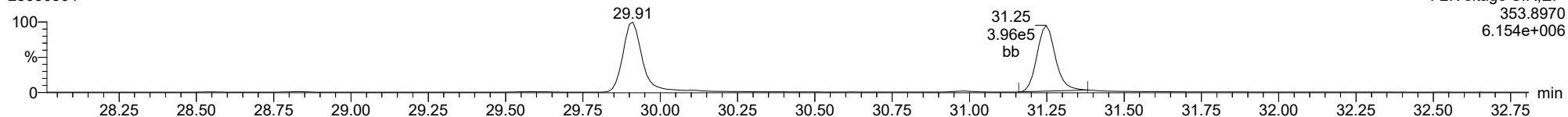
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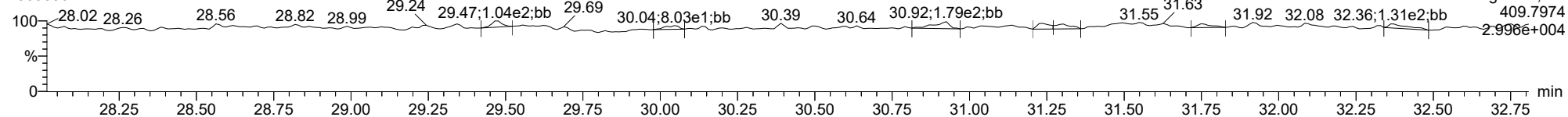
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FUNCTION2 HPCDPE

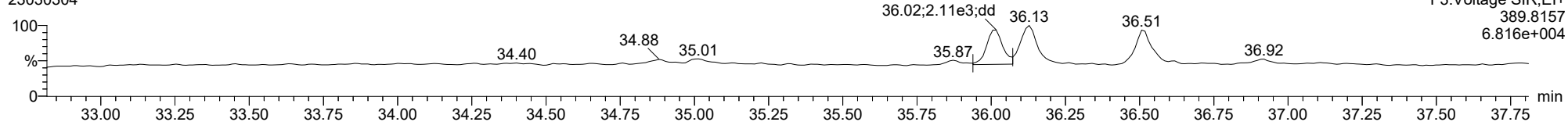
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

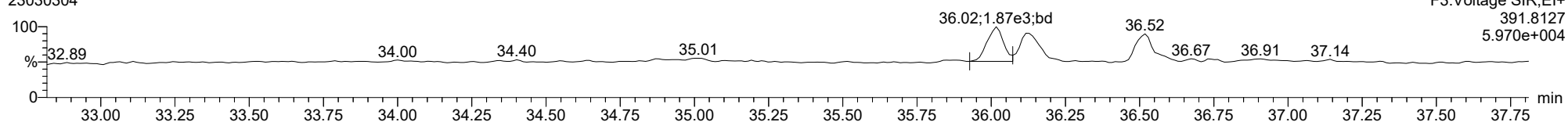
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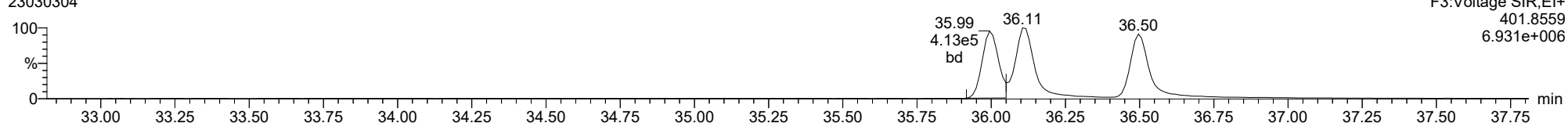
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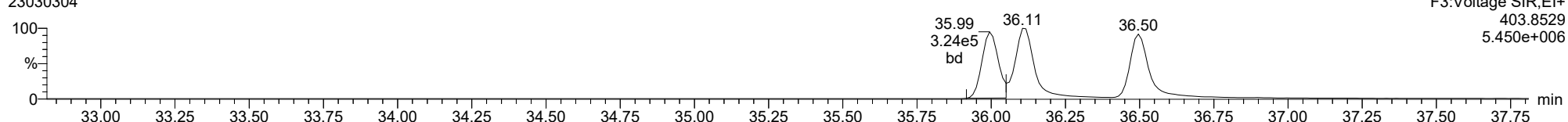
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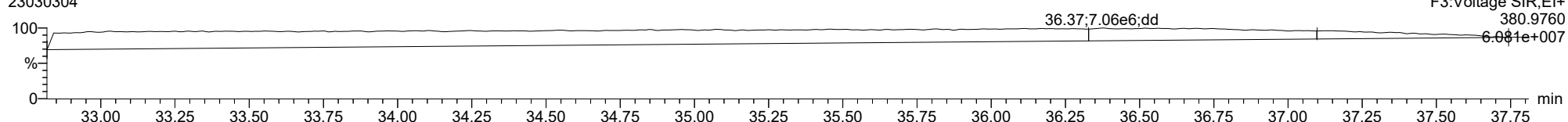
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FUNCTION3 PFK

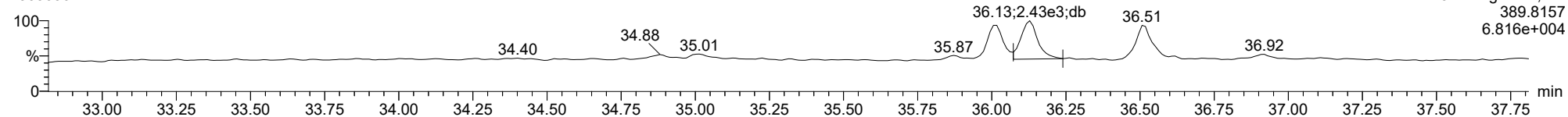
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

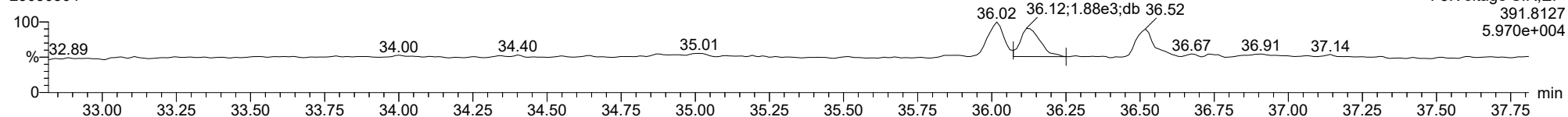
123678-HxCDD

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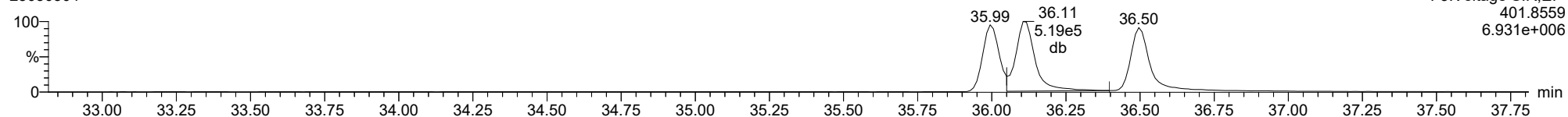
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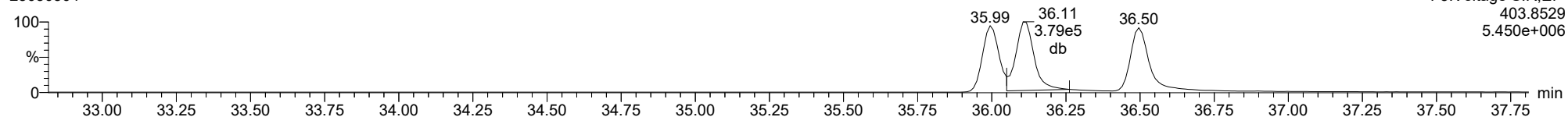
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13C-123678-HxCDD

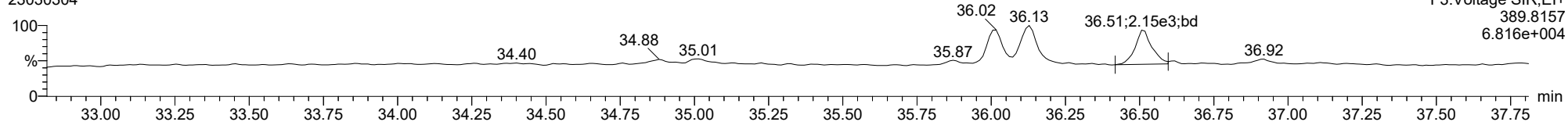
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

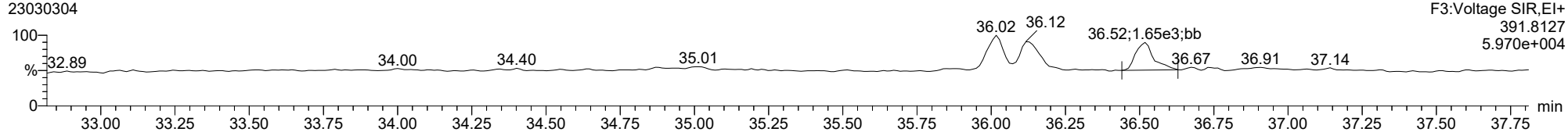
123789-HxCDD

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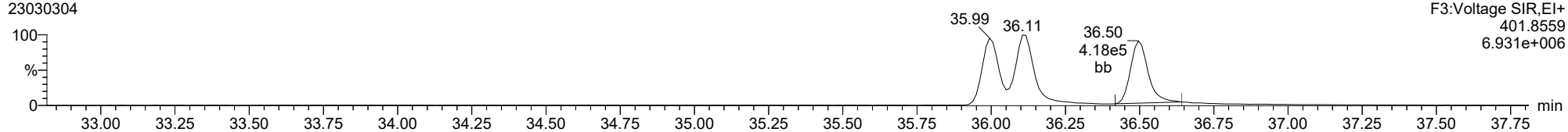
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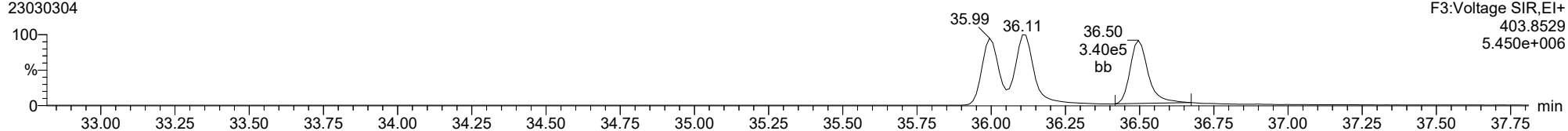
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13C-123789-HxCDD

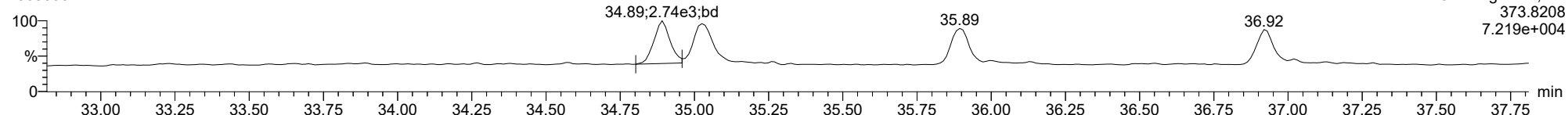
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

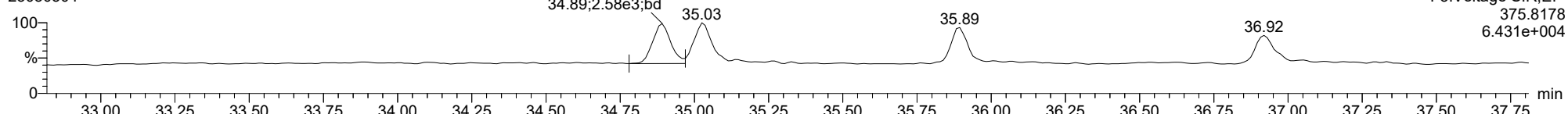
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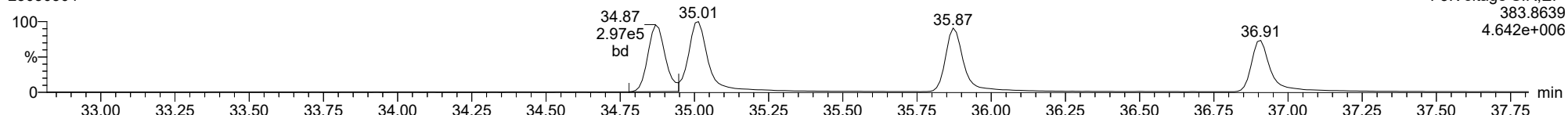
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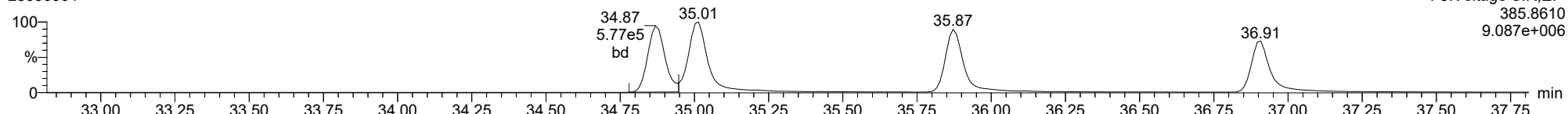
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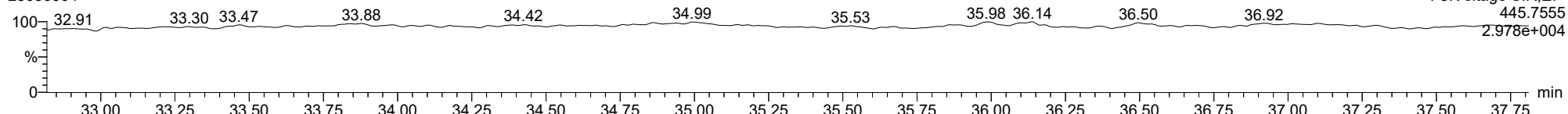
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FUNCTION3 OCDPE

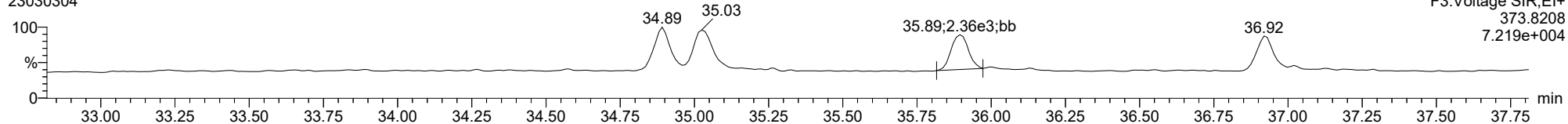
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

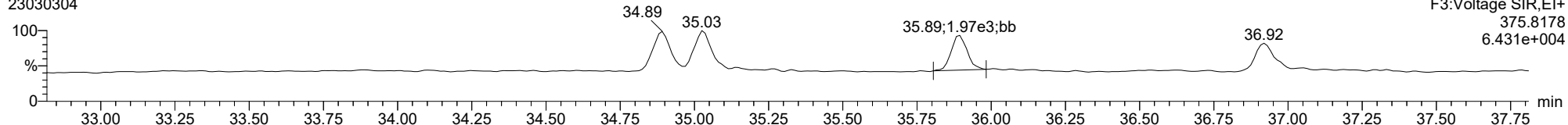
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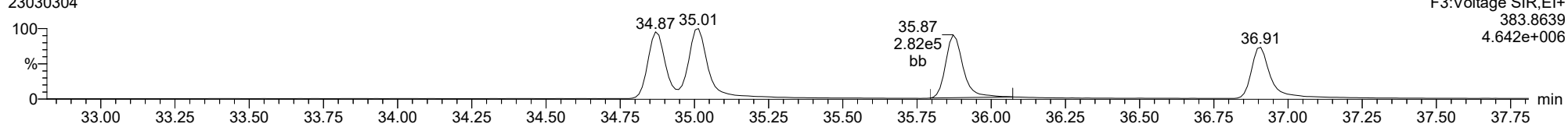
234678-HxCDF

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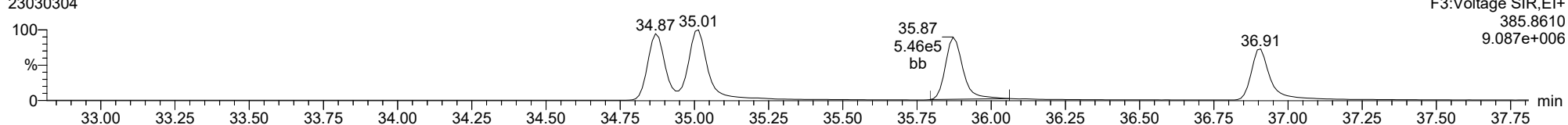
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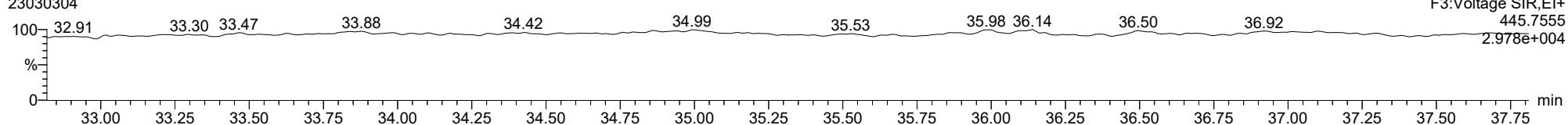
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FUNCTION3 OCDPE

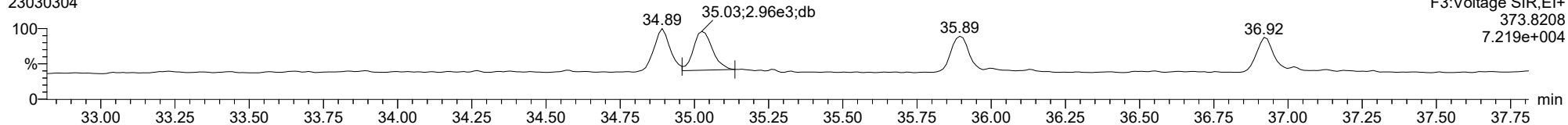
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

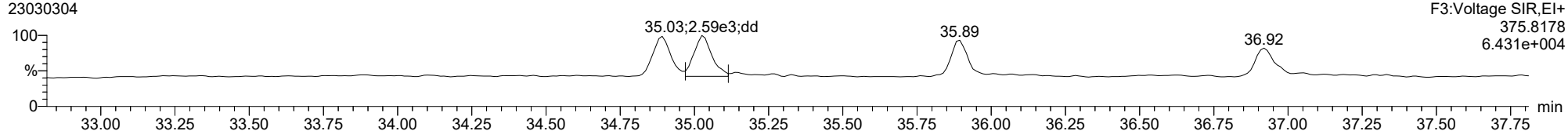
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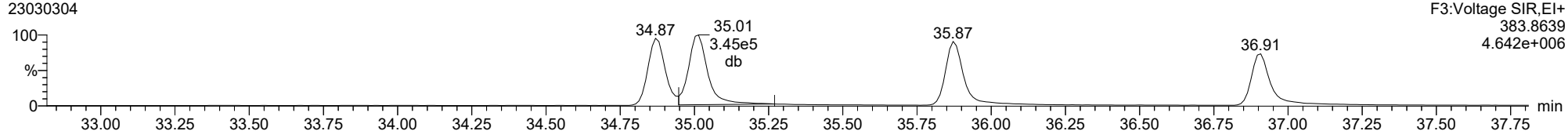
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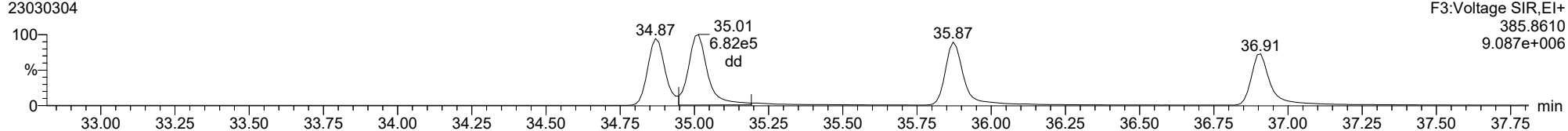
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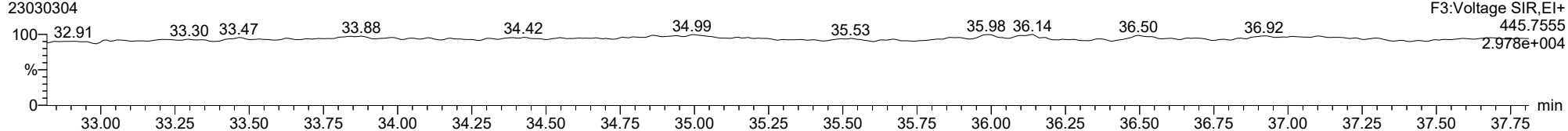
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FUNCTION3 OCDPE

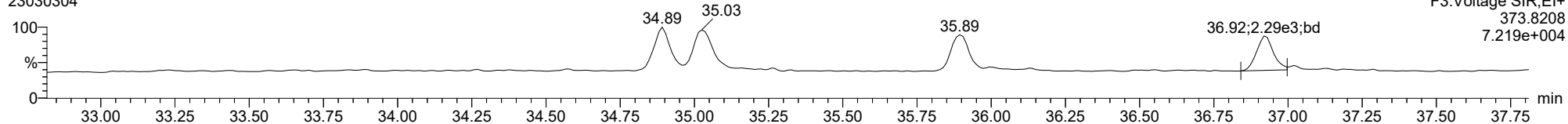
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

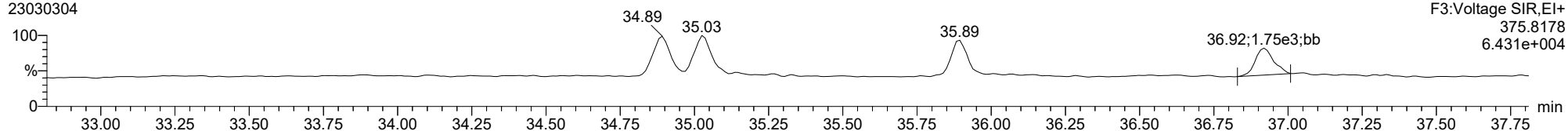
123789-HxCDF

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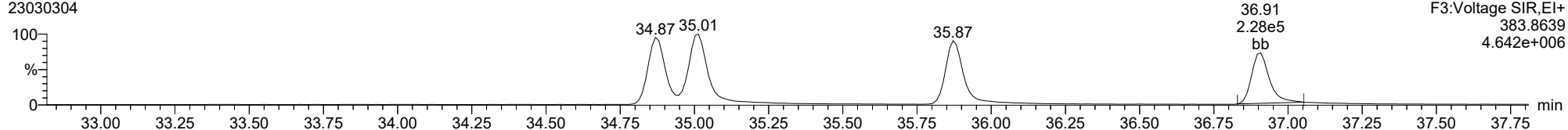
123789-HxCDF

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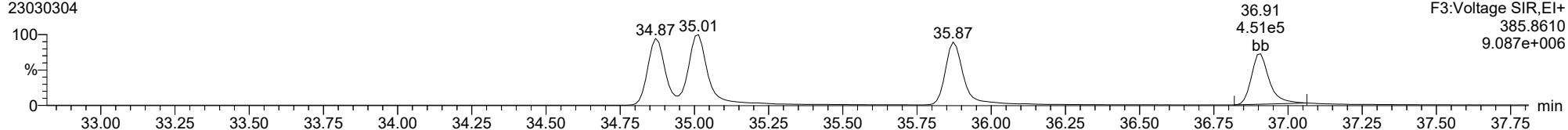
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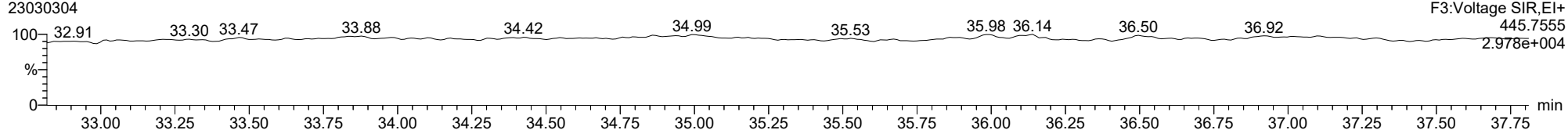
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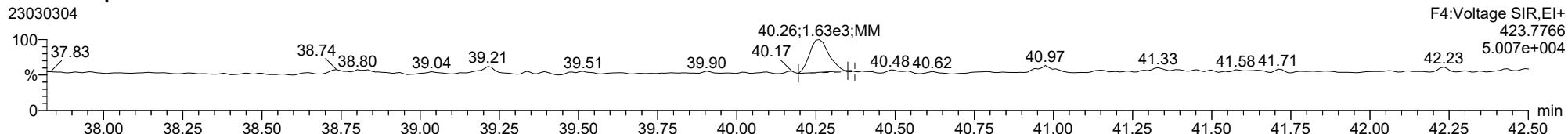
FUNCTION3 OCDPE

23030304

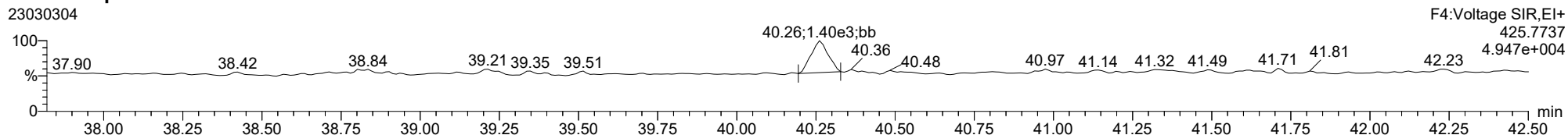


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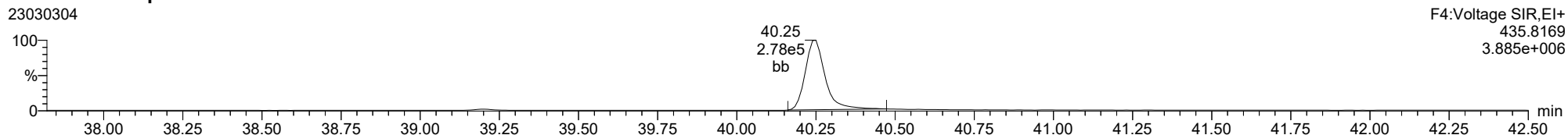
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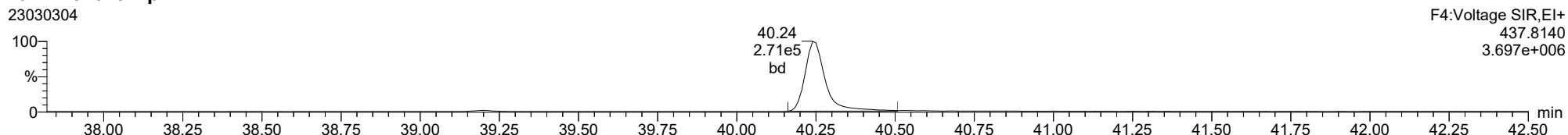
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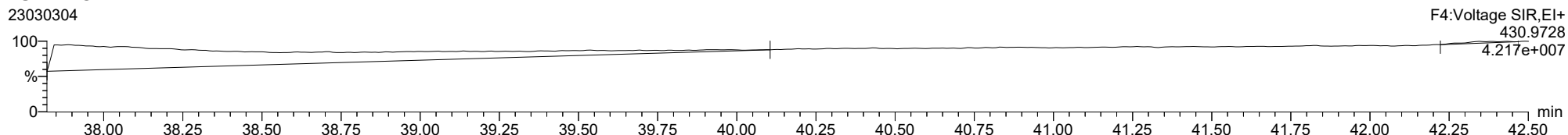
13C-1234678-HpCDD



13C-1234678-HpCDD



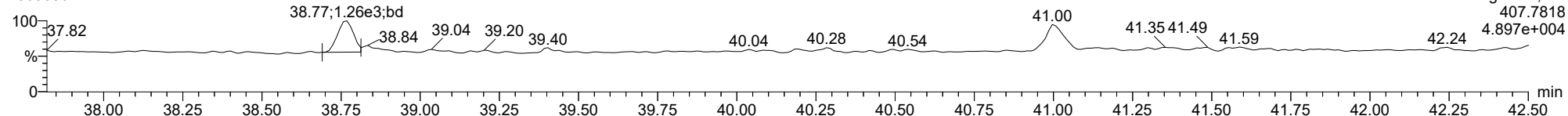
FUNCTION4 PFK



ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

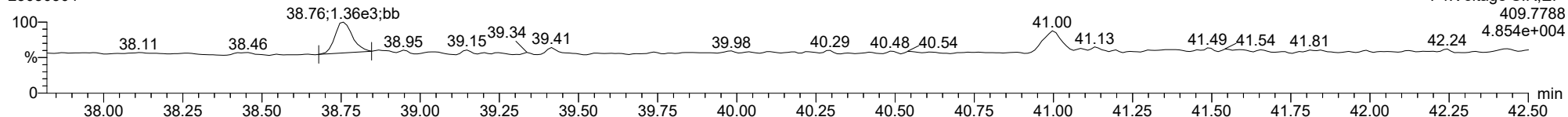
1234678-HpCDF

23030304



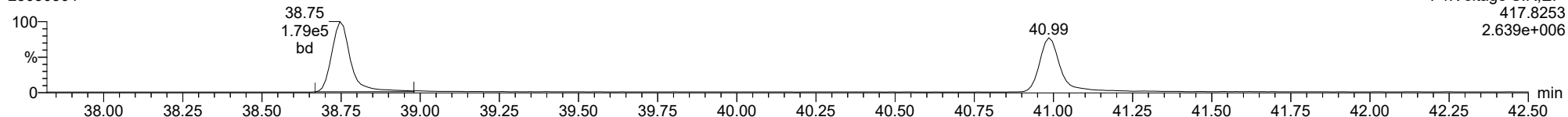
1234678-HpCDF

23030304



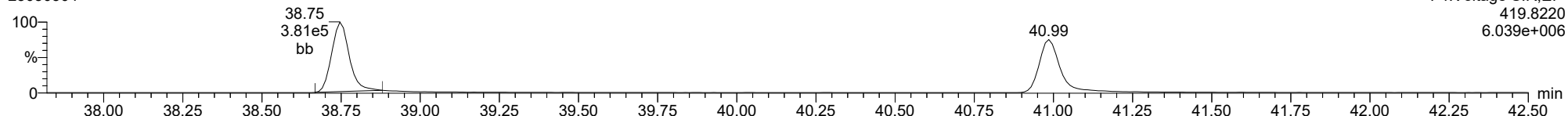
13C-1234678-HpCDF

23030304



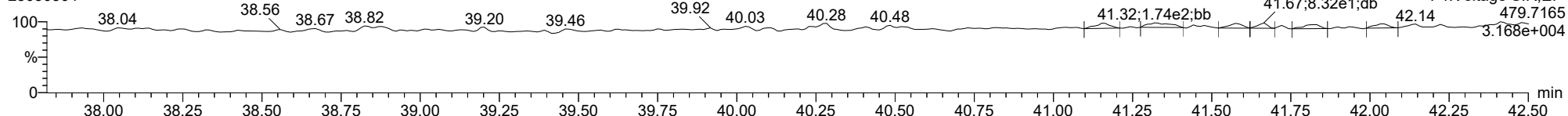
13C-1234678-HpCDF

23030304



FUNCTION4 NCDPE

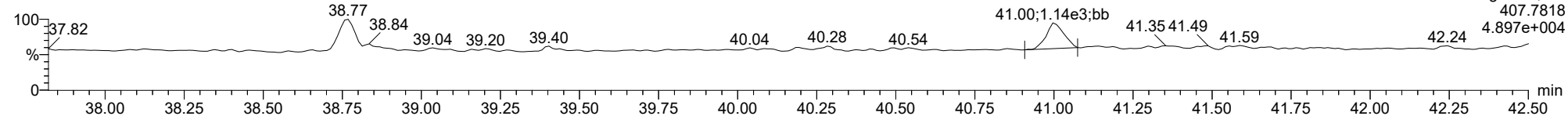
23030304



ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

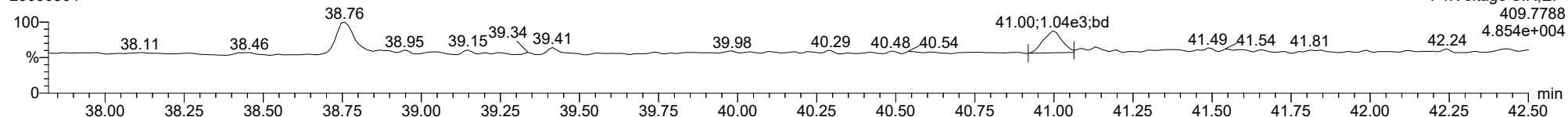
1234789-HpCDF

23030304



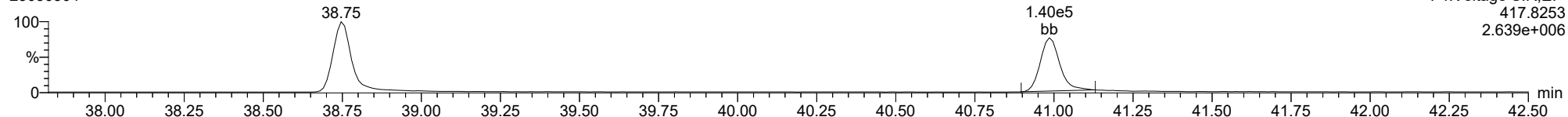
1234789-HpCDF

23030304



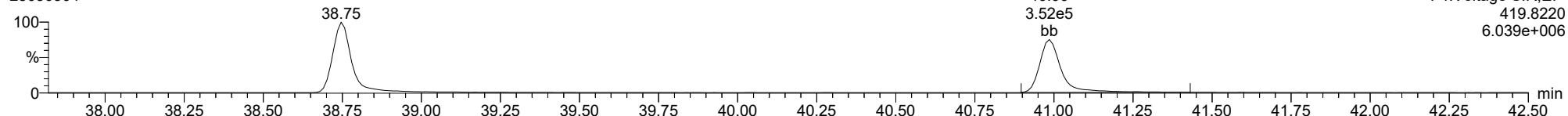
13C-1234789-HpCDF

23030304



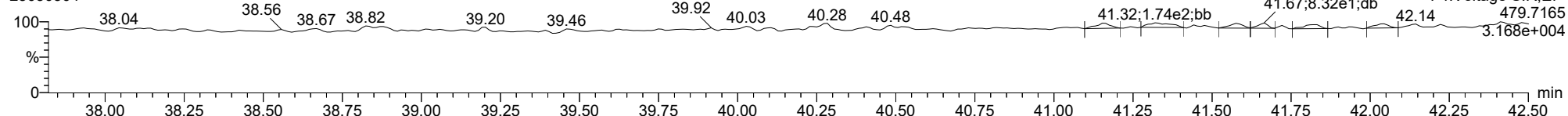
13C-1234789-HpCDF

23030304



FUNCTION4 NCDPE

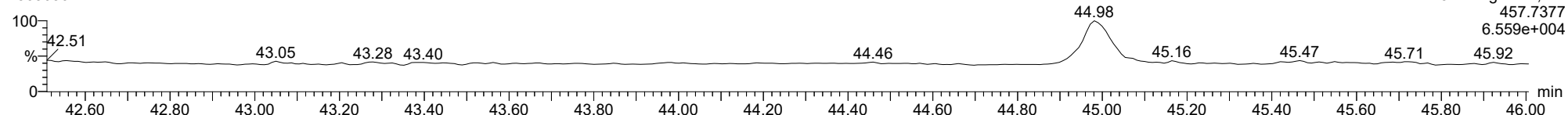
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

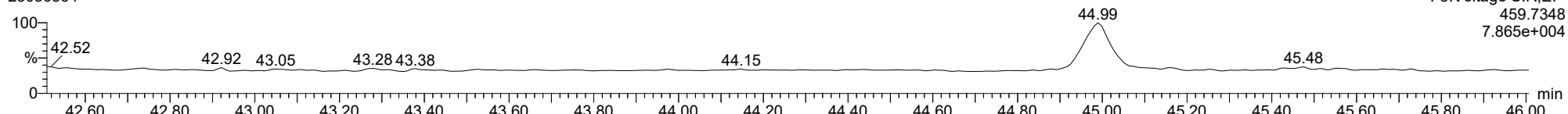
OCDD

23030304



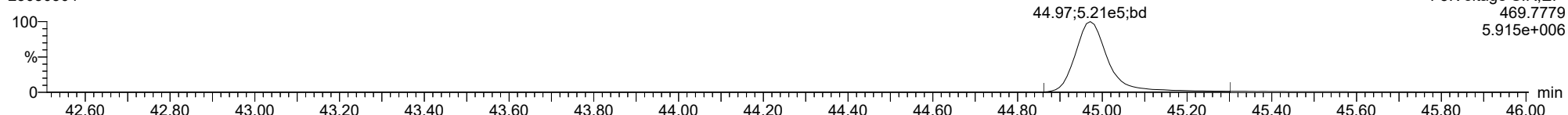
OCDD

23030304



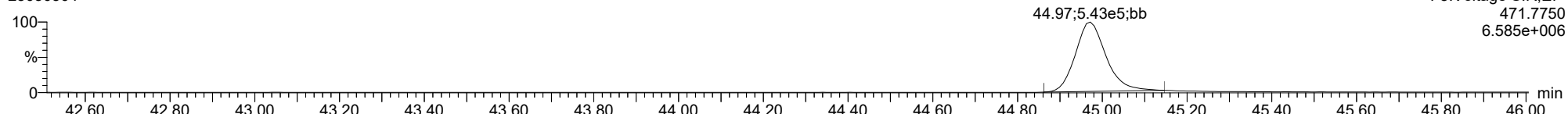
13C-OCDD

23030304



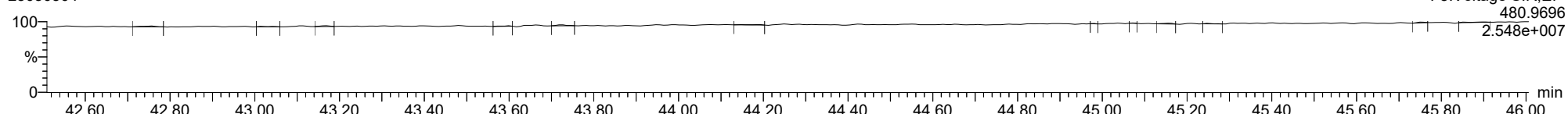
13C-OCDD

23030304



FUNCTION5 PFK

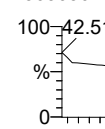
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

OCDF

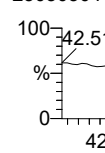
23030304



F5:Voltage SIR,EI+
441.7428
4.982e+004

OCDF

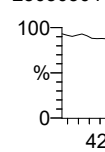
23030304



F5:Voltage SIR,EI+
443.7399
4.786e+004

FUNCTION5 DCDPE

23030304

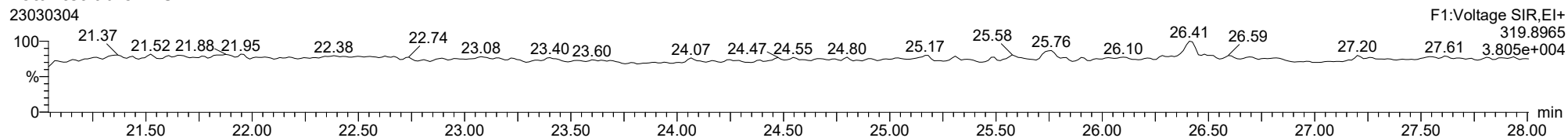


F5:Voltage SIR,EI+
513.6775
3.310e+004

ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

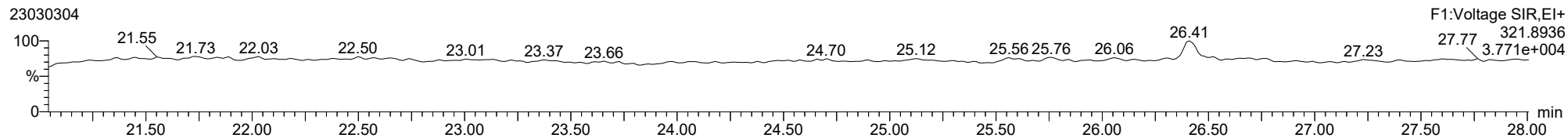
Total-tetradioxins

23030304



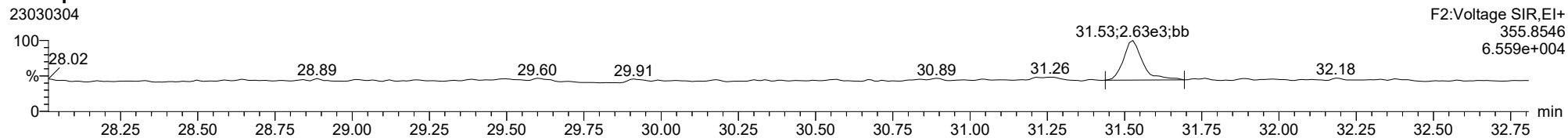
Total-tetradioxins

23030304



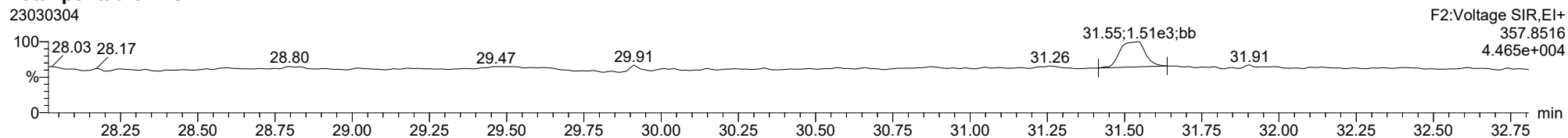
Total-pentadioxins

23030304



Total-pentadioxins

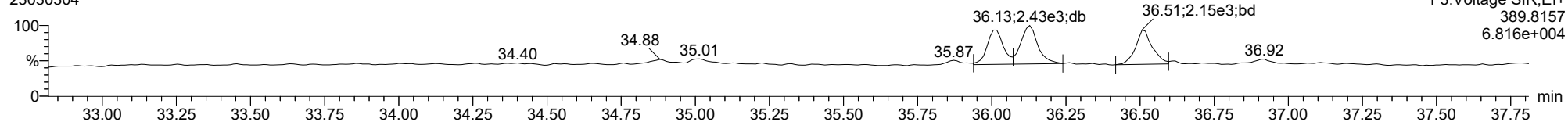
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

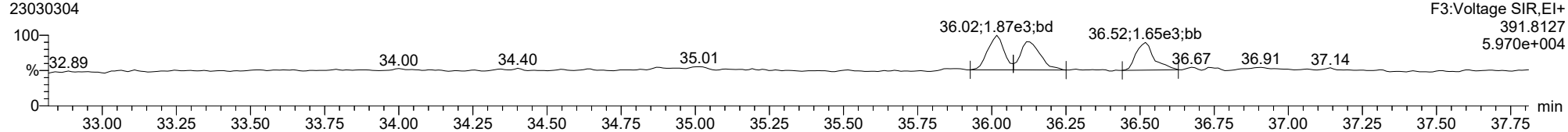
Total-hexadioxins

23030304



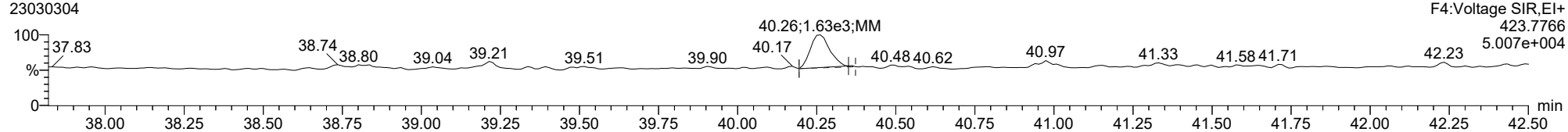
Total-hexadioxins

23030304



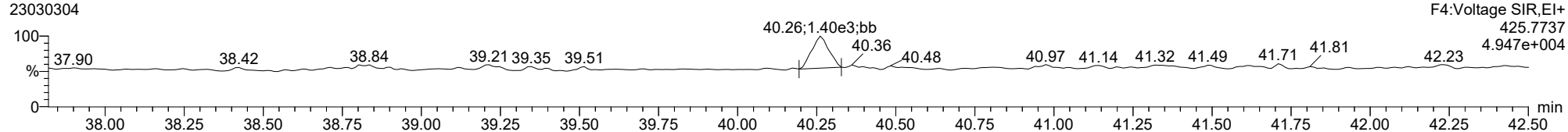
Total-heptadioxins

23030304



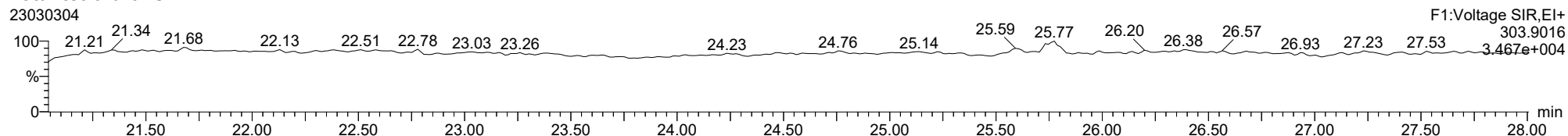
Total-heptadioxins

23030304

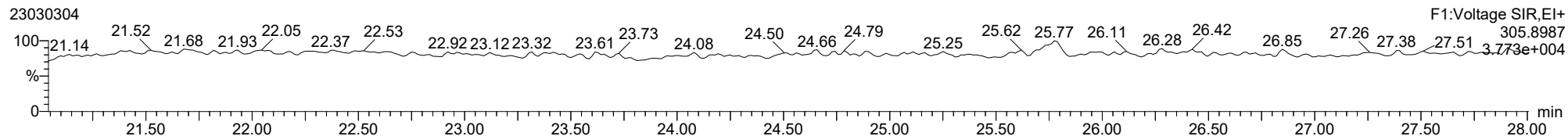


ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

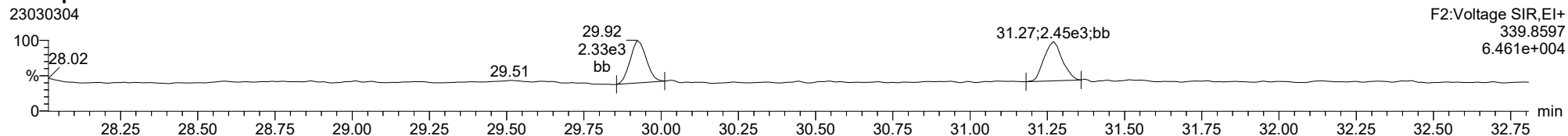
Total-tetrafurans



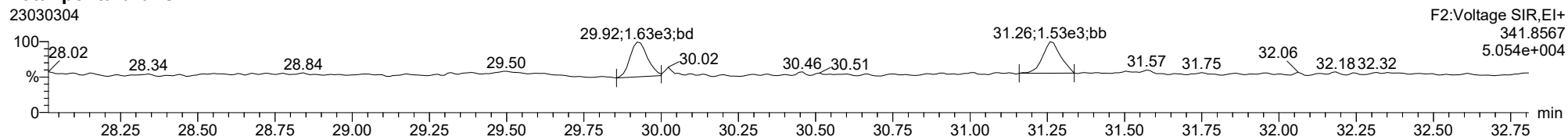
Total-tetrafurans



Total-pentafurans



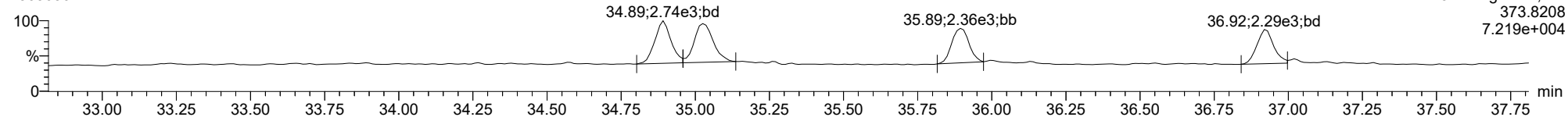
Total-pentafurans



ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

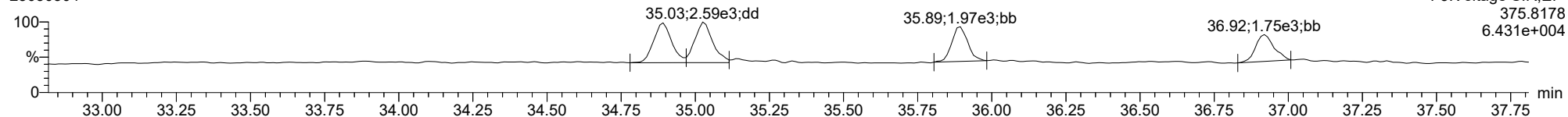
Total-hexafurans

23030304



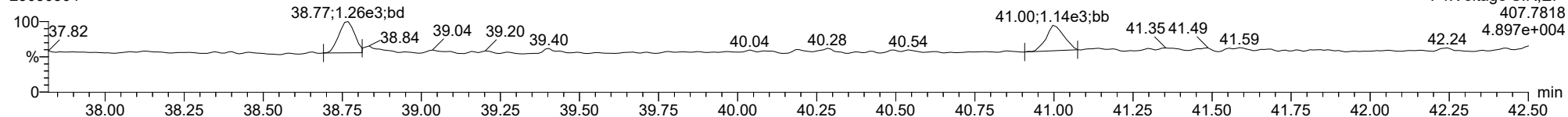
Total-hexafurans

23030304



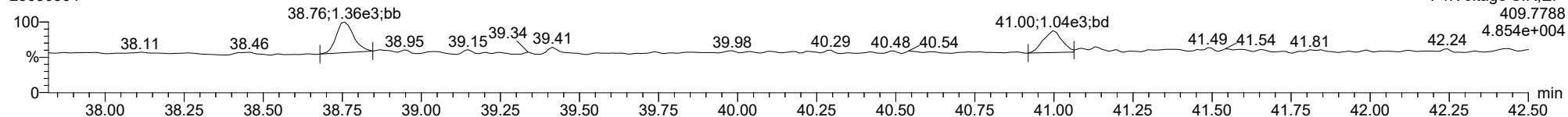
Total-heptafurans

23030304



Total-heptafurans

23030304



Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:10 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.788	1.001	1.705e3	2.516e3	0.702	0.678	0.770	886	1799	2.34e4	3.87e4	26.4	21.5	NO	bb	MM	0.494
12378-PeCDF	29.933	1.000	5.914e3	4.099e3	0.679	1.442	1.550	1151	1276	9.10e4	6.48e4	79.1	50.8	NO	bb	bb	2.168
23478-PeCDF	31.270	1.000	7.974e3	4.958e3	0.786	1.608	1.550	1151	1276	1.22e5	6.97e4	106.1	54.6	NO	bb	bb	2.386
123478-HxCDF	34.891	1.000	1.063e4	7.851e3	1.166	1.354	1.240	1046	1170	1.58e5	1.17e5	151.4	100.1	NO	bd	bd	2.532
234678-HxCDF	35.894	1.000	1.057e4	7.802e3	1.140	1.354	1.240	1046	1170	1.51e5	1.18e5	143.9	100.6	NO	bb	bb	2.503
123678-HxCDF	35.036	1.001	1.161e4	8.676e3	1.091	1.339	1.240	1046	1170	1.53e5	1.27e5	146.1	108.8	NO	dd	dd	2.416
123789-HxCDF	36.930	1.001	8.482e3	6.693e3	1.137	1.267	1.240	1046	1170	1.18e5	8.92e4	112.7	76.2	NO	bd	bb	2.462
1234678-HpCDF	38.768	1.000	7.253e3	6.596e3	1.003	1.100	1.050	811	627	1.05e5	9.73e4	128.9	155.1	NO	bb	bb	2.680
1234789-HpCDF	41.008	1.000	5.116e3	5.234e3	0.953	0.978	1.050	811	627	7.22e4	7.17e4	89.0	114.3	NO	bb	bb	2.342
OCDF	45.237	1.006	5.981e3	6.798e3	0.778	0.880	0.890	709	890	6.92e4	8.13e4	97.6	91.3	NO	MM	bd	4.559
2378-TCDD	26.424	1.001	2.272e3	2.723e3	1.149	0.834	0.770	1286	820	3.35e4	3.73e4	26.0	45.5	NO	bb	bb	0.486
12378-PeCDD	31.538	1.001	7.831e3	5.061e3	1.022	1.548	1.550	902	618	1.00e5	7.05e4	111.4	114.0	NO	bb	bd	2.348
123478-HxCDD	36.016	1.000	7.381e3	5.875e3	0.996	1.256	1.240	655	843	1.17e5	9.68e4	178.2	114.9	NO	bd	bd	2.415
123678-HxCDD	36.139	1.001	9.152e3	7.340e3	1.001	1.247	1.240	655	843	1.26e5	9.90e4	192.8	117.4	NO	db	dd	2.494
123789-HxCDD	36.518	1.011	7.480e3	5.936e3	0.907	1.260	1.240	655	843	1.06e5	8.62e4	162.4	102.3	NO	bd	bd	2.440
1234678-HpCDD	40.272	1.001	6.283e3	5.832e3	1.039	1.077	1.050	694	917	8.98e4	8.16e4	129.4	89.0	NO	bb	bd	2.337
OCDD	44.999	1.000	8.578e3	9.676e3	0.920	0.887	0.890	635	634	9.84e4	1.12e5	154.9	175.9	NO	bd	bb	5.505
13C-2378-TCDF	25.760	1.007	5.230e5	6.960e5	1.620	0.752	0.770	2566	1723	7.68e6	1.02e7	2994.2	5911.4	NO	bb	bb	98.043
13C-12378-PeCDF	29.922	1.169	4.082e5	2.718e5	1.240	1.502	1.550	3092	2294	5.44e6	3.64e6	1758.1	1584.9	NO	bd	bb	71.437
13C-23478-PeCDF	31.259	1.222	4.106e5	2.788e5	1.118	1.473	1.550	3092	2294	5.91e6	4.02e6	1912.5	1751.3	NO	bb	bb	80.373
13C-123478-HxCDF	34.880	0.955	2.117e5	4.140e5	1.168	0.511	0.510	1778	2186	3.18e6	6.21e6	1786.5	2841.3	NO	bd	bd	93.801
13C-123678-HxCDF	35.014	0.959	2.754e5	4.947e5	1.386	0.557	0.510	1778	2186	3.40e6	6.43e6	1911.3	2941.0	NO	db	db	97.276
13C-234678-HxCDF	35.882	0.983	2.122e5	4.318e5	1.129	0.491	0.510	1778	2186	3.04e6	5.98e6	1709.4	2734.1	NO	bb	bd	99.880
13C-123789-HxCDF	36.908	1.011	1.853e5	3.568e5	0.932	0.519	0.510	1778	2186	2.62e6	5.01e6	1471.0	2293.6	NO	bb	bb	101.893
13C-1234678-HpCDF	38.757	1.062	1.579e5	3.573e5	0.895	0.442	0.440	2049	3174	2.36e6	5.45e6	1151.3	1718.3	NO	bb	bb	100.794
13C-1234789-HpCDF	40.997	1.123	1.372e5	3.264e5	0.770	0.420	0.440	2049	3174	1.74e6	3.92e6	851.0	1236.7	NO	bd	bd	105.482
13C-1234-TCDD	25.591	0.000	3.429e5	4.245e5	1.000	0.808	0.770	2519	1748	5.22e6	6.49e6	2072.6	3712.2	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.031	3.982e5	4.964e5	1.152	0.802	0.770	2519	1748	5.51e6	6.93e6	2188.2	3962.8	NO	bb	bb	101.152
13C-12378-PeCDD	31.515	1.232	3.242e5	2.131e5	0.829	1.521	1.550	1586	877	4.46e6	2.78e6	2809.5	3168.1	NO	bb	bd	84.489
13C-123478-HxCDD	36.005	0.986	3.100e5	2.413e5	0.995	1.285	1.240	2517	1649	4.83e6	3.77e6	1920.9	2283.3	NO	bd	bd	97.050
13C-123678-HxCDD	36.117	0.989	3.700e5	2.908e5	1.157	1.273	1.240	2517	1649	5.06e6	4.03e6	2012.2	2442.3	NO	db	db	100.049
13C-1234678-HpCDD	40.250	1.102	2.556e5	2.433e5	0.840	1.051	1.050	2183	1602	3.48e6	3.29e6	1594.9	2052.3	NO	bb	bb	103.999
13C-OCDD	44.980	1.232	3.386e5	3.823e5	0.767	0.886	0.890	3187	1733	3.80e6	4.27e6	1193.7	2462.5	NO	bb	bb	164.498
13C-123789-HxCDD	36.507	0.000	3.194e5	2.515e5	1.000	1.270	1.240	2517	1649	4.46e6	3.59e6	1770.5	2177.4	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.033	5.065e3		1.288			2040		7.28e4		35.7			bb		0.513

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	886	1799								
1289-TCDF					0.678		0.770	886	1799								
13468-PECDF					1.246		1.550	811	1221								
12389-PECDF					0.496		1.550	1151	1276								
123468-HXCDF					1.169		1.240	1046	1170								
1368-TCDD					1.015		0.770	1286	820								
1289-TCDD					0.909		0.770	1286	820								
12479-PECDD					2.301		1.550	902	618								
12389-PECDD					1.184		1.550	902	618								
124679-HXCDD					1.115		1.240	655	843								
1234679-HPCDD					1.137		1.050	694	917								
Total-tetrafurans			1.705e3		0.727			886		2.34e4							0.494
Total-penta1			0.000e0					811		0.00e0							
Total-pentafurans			1.389e4		0.654			1151		2.13e5							4.554
Total-hexafurans			4.139e4		1.141			1046		5.82e5							9.938
Total-heptafurans			1.237e4		0.978			811		1.77e5							5.023
Total-Furans			7.533e4		0.922			886		1.06e6							24.566
Total-tetradoxins			2.272e3		1.024			1286		3.35e4							0.486
Total-pentadoxins			7.831e3		1.502			902		1.00e5							2.348
Total-hexadoxins			2.401e4		1.005			655		3.49e5							7.349
Total-heptadoxins			6.283e3		1.088			694		8.98e4							2.337
Total-Dioxins			4.898e4		1.130			1286		6.72e5							18.025
Total-TEQ			1.243e5					1286		1.74e6							42.592
FUNCTION1 PFK			0.000e0					501375		0.00e0							
FUNCTION2 PFK			7.687e6					300953		7.99e6							0.000
FUNCTION3 PFK			1.081e7					473463		1.95e7							0.000
FUNCTION4 PFK			1.035e7					332160		2.87e6							
FUNCTION5 PFK			6.101e5					195111		8.38e5							
FUNCTION1 HXCD...			6.739e2					611		6.36e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			7.361e2					923		1.83e4							0.000
FUNCTION3 OCDPE			2.008e2					596		2.61e3							0.000
FUNCTION4 NCDPE			9.397e1					539		1.40e3							0.000
FUNCTION5 DCDPE			1.677e2					561		3.39e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:10 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50

Calibration: T:\Autospec\Curves\230303\CIH.cdb 06 Mar 2023 10:57:27

ID: CS1CW, **Name:** 23030305, **Date:** 03-Mar-2023, **Time:** 12:23:58, **Conditions:** AUTOSPEC01, **User:** pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	1.705e3	2.516e3	0.702	0.68	0.77	26.4	YES	NO	bb	MM	0.494

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	7.974e3	4.958e3	0.786	1.61	1.55	106.1	YES	NO	bb	bb	2.386
2	12378-PeCDF	29.93	5.914e3	4.099e3	0.679	1.44	1.55	79.1	YES	NO	bb	bb	2.168

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.93	8.482e3	6.693e3	1.137	1.27	1.24	112.7	YES	NO	bd	bb	2.462
2	234678-HxCDF	35.89	1.057e4	7.802e3	1.140	1.35	1.24	143.9	YES	NO	bb	bb	2.503
3	Total-hexafurans	35.23	1.011e2	8.523e1	1.141	1.19	1.24	2.2	NO	NO	db	db	0.025
4	123678-HxCDF	35.04	1.161e4	8.676e3	1.091	1.34	1.24	146.1	YES	NO	dd	dd	2.416
5	123478-HxCDF	34.89	1.063e4	7.851e3	1.166	1.35	1.24	151.4	YES	NO	bd	bd	2.532

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.77	7.253e3	6.596e3	1.003	1.10	1.05	128.9	YES	NO	bb	bb	2.680
2	1234789-HpCDF	41.01	5.116e3	5.234e3	0.953	0.98	1.05	89.0	YES	NO	bb	bb	2.342

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	7.974e3	4.958e3	0.786	1.61	1.55	106.1	YES	NO	bb	bb	2.386
2	12378-PeCDF	29.93	5.914e3	4.099e3	0.679	1.44	1.55	79.1	YES	NO	bb	bb	2.168
3	2378-TCDF	25.79	1.705e3	2.516e3	0.702	0.68	0.77	26.4	YES	NO	bb	MM	0.494
4	123789-HxCDF	36.93	8.482e3	6.693e3	1.137	1.27	1.24	112.7	YES	NO	bd	bb	2.462
5	234678-HxCDF	35.89	1.057e4	7.802e3	1.140	1.35	1.24	143.9	YES	NO	bb	bb	2.503
6	Total-hexafurans	35.23	1.011e2	8.523e1	1.141	1.19	1.24	2.2	NO	NO	db	db	0.025
7	123678-HxCDF	35.04	1.161e4	8.676e3	1.091	1.34	1.24	146.1	YES	NO	dd	dd	2.416
8	123478-HxCDF	34.89	1.063e4	7.851e3	1.166	1.35	1.24	151.4	YES	NO	bd	bd	2.532
9	1234678-HpCDF	38.77	7.253e3	6.596e3	1.003	1.10	1.05	128.9	YES	NO	bb	bb	2.680
10	OCDF	45.24	5.981e3	6.798e3	0.778	0.88	0.89	97.6	YES	NO	MM	bd	4.559
11	1234789-HpCDF	41.01	5.116e3	5.234e3	0.953	0.98	1.05	89.0	YES	NO	bb	bb	2.342

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.42	2.272e3	2.723e3	1.149	0.83	0.77	26.0	YES	NO	bb	bb	0.486

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.54	7.831e3	5.061e3	1.022	1.55	1.55	111.4	YES	NO	bb	bd	2.348

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.52	7.480e3	5.936e3	0.907	1.26	1.24	162.4	YES	NO	bd	bd	2.440
2	123678-HxCDD	36.14	9.152e3	7.340e3	1.001	1.25	1.24	192.8	YES	NO	db	dd	2.494
3	123478-HxCDD	36.02	7.381e3	5.875e3	0.996	1.26	1.24	178.2	YES	NO	bd	bd	2.415

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.27	6.283e3	5.832e3	1.039	1.08	1.05	129.4	YES	NO	bb	bd	2.337

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.42	2.272e3	2.723e3	1.149	0.83	0.77	26.0	YES	NO	bb	bb	0.486
2	123789-HxCDD	36.52	7.480e3	5.936e3	0.907	1.26	1.24	162.4	YES	NO	bd	bd	2.440
3	123678-HxCDD	36.14	9.152e3	7.340e3	1.001	1.25	1.24	192.8	YES	NO	db	dd	2.494
4	123478-HxCDD	36.02	7.381e3	5.875e3	0.996	1.26	1.24	178.2	YES	NO	bd	bd	2.415
5	12378-PeCDD	31.54	7.831e3	5.061e3	1.022	1.55	1.55	111.4	YES	NO	bb	bd	2.348
6	1234678-HpCDD	40.27	6.283e3	5.832e3	1.039	1.08	1.05	129.4	YES	NO	bb	bd	2.337
7	OCDD	45.00	8.578e3	9.676e3	0.920	0.89	0.89	154.9	YES	NO	bd	bb	5.505

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	7.974e3	4.958e3	0.786	1.61	1.55	106.1	YES	NO	bb	bb	2.386
2	12378-PeCDF	29.93	5.914e3	4.099e3	0.679	1.44	1.55	79.1	YES	NO	bb	bb	2.168
3	2378-TCDF	25.79	1.705e3	2.516e3	0.702	0.68	0.77	26.4	YES	NO	bb	MM	0.494
4	123789-HxCDF	36.93	8.482e3	6.693e3	1.137	1.27	1.24	112.7	YES	NO	bd	bb	2.462
5	234678-HxCDF	35.89	1.057e4	7.802e3	1.140	1.35	1.24	143.9	YES	NO	bb	bb	2.503
6	Total-hexafurans	35.23	1.011e2	8.523e1	1.141	1.19	1.24	2.2	NO	NO	db	db	0.025
7	123678-HxCDF	35.04	1.161e4	8.676e3	1.091	1.34	1.24	146.1	YES	NO	dd	dd	2.416
8	123478-HxCDF	34.89	1.063e4	7.851e3	1.166	1.35	1.24	151.4	YES	NO	bd	bd	2.532
9	1234678-HpCDF	38.77	7.253e3	6.596e3	1.003	1.10	1.05	128.9	YES	NO	bb	bb	2.680
10	OCDF	45.24	5.981e3	6.798e3	0.778	0.88	0.89	97.6	YES	NO	MM	bd	4.559
11	1234789-HpCDF	41.01	5.116e3	5.234e3	0.953	0.98	1.05	89.0	YES	NO	bb	bb	2.342
12	2378-TCDD	26.42	2.272e3	2.723e3	1.149	0.83	0.77	26.0	YES	NO	bb	bb	0.486
13	123789-HxCDD	36.52	7.480e3	5.936e3	0.907	1.26	1.24	162.4	YES	NO	bd	bd	2.440
14	123678-HxCDD	36.14	9.152e3	7.340e3	1.001	1.25	1.24	192.8	YES	NO	db	dd	2.494
15	123478-HxCDD	36.02	7.381e3	5.875e3	0.996	1.26	1.24	178.2	YES	NO	bd	bd	2.415
16	12378-PeCDD	31.54	7.831e3	5.061e3	1.022	1.55	1.55	111.4	YES	NO	bb	bd	2.348
17	1234678-HpCDD	40.27	6.283e3	5.832e3	1.039	1.08	1.05	129.4	YES	NO	bb	bd	2.337
18	OCDD	45.00	8.578e3	9.676e3	0.920	0.89	0.89	154.9	YES	NO	bd	bb	5.505

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.41	6.929e5					4.3	YES		bb		0.000
2	FUNCTION2 PFK	28.05	6.994e6					22.3	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.60	1.788e4					1.3	NO		bb		0.000
2	FUNCTION3 PFK	36.61	1.585e4					1.4	NO		bb		0.000
3	FUNCTION3 PFK	36.53	6.942e3					0.8	NO		bb		0.000
4	FUNCTION3 PFK	33.99	9.502e3					0.9	NO		bb		0.000
5	FUNCTION3 PFK	33.78	4.298e6					7.0	YES		db		0.000
6	FUNCTION3 PFK	33.15	6.467e6					29.8	YES		bd		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.85	1.035e7					8.6	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.97	6.101e5					4.3	YES		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.27	8.033e1					1.9	NO		bb		0.000
2	FUNCTION1 HXCD...	24.98	2.706e2					3.4	YES		bb		0.000
3	FUNCTION1 HXCD...	22.17	1.286e2					2.0	NO		bb		0.000
4	FUNCTION1 HXCD...	21.47	8.089e1					1.9	NO		bb		0.000
5	FUNCTION1 HXCD...	21.17	1.135e2					1.3	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.66	1.045e2					4.3	YES		db		0.000
2	FUNCTION2 HPCD...	32.58	1.134e2					3.0	NO		bd		0.000
3	FUNCTION2 HPCD...	31.88	7.272e1					1.9	NO		bb		0.000
4	FUNCTION2 HPCD...	30.71	7.070e1					1.8	NO		bb		0.000
5	FUNCTION2 HPCD...	30.13	1.134e2					2.5	NO		bb		0.000
6	FUNCTION2 HPCD...	28.92	7.142e1					2.0	NO		bb		0.000
7	FUNCTION2 HPCD...	28.66	9.983e1					2.2	NO		bb		0.000
8	FUNCTION2 HPCD...	28.24	9.016e1					2.1	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.50	2.008e2					4.4	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.59	9.397e1					2.6	NO		bb		0.000

ETHERS6

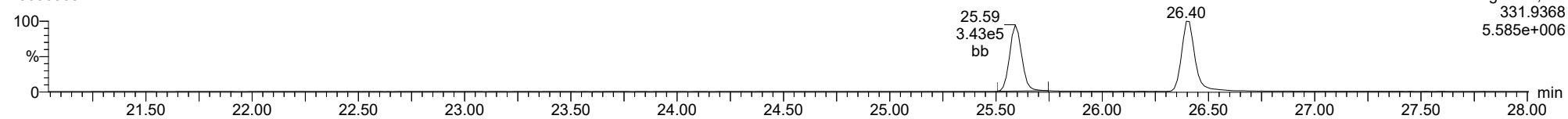
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1	FUNCTION5 DCDPE	44.72	7.355e1					2.5	NO		bb		0.000
2	FUNCTION5 DCDPE	44.30	9.416e1					3.6	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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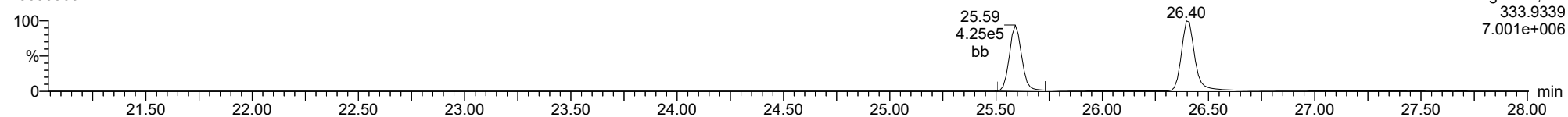
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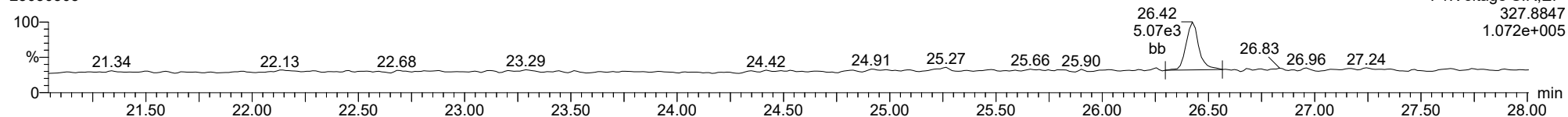
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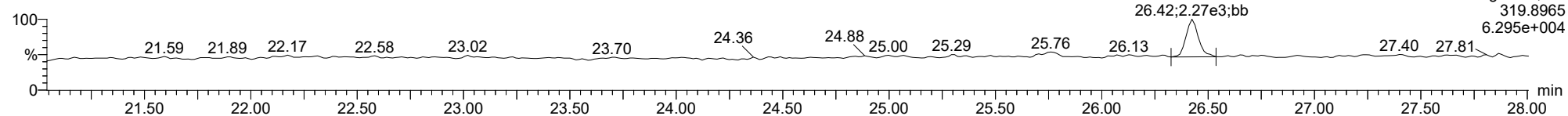
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

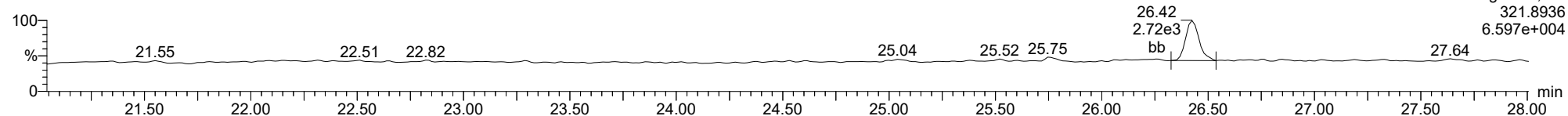
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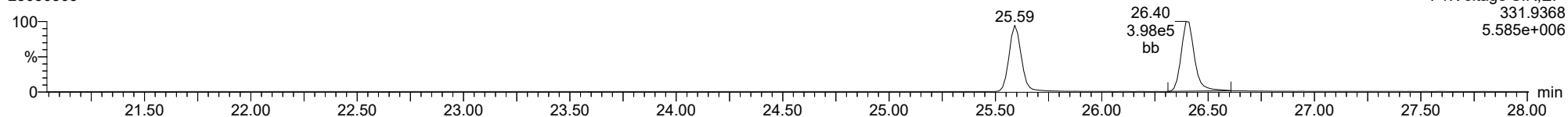
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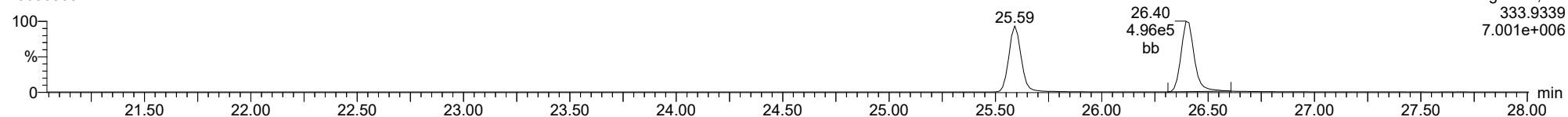
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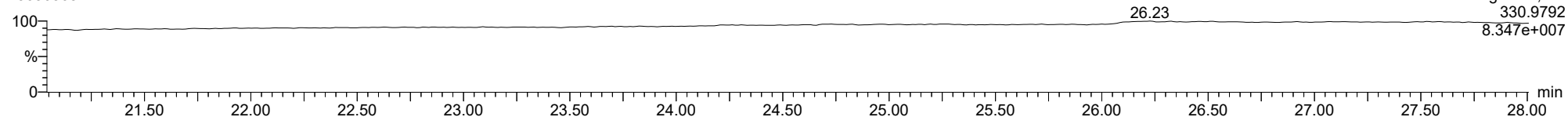
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23030305



FUNCTION1 PFK

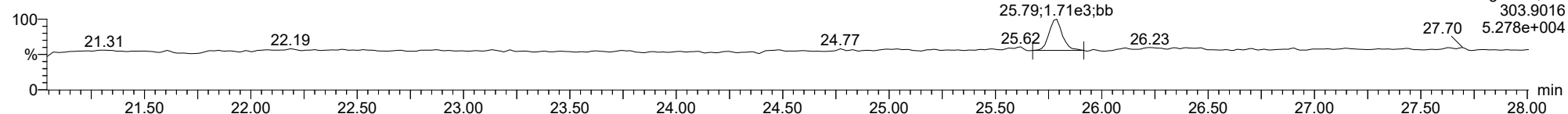
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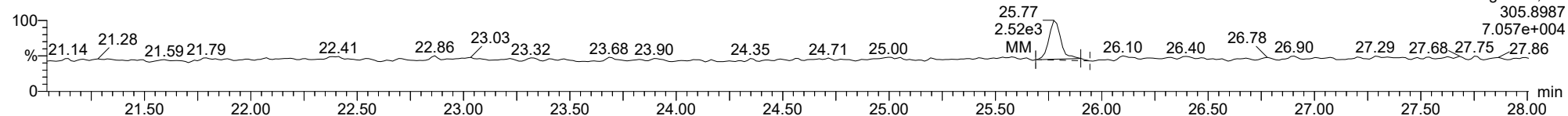
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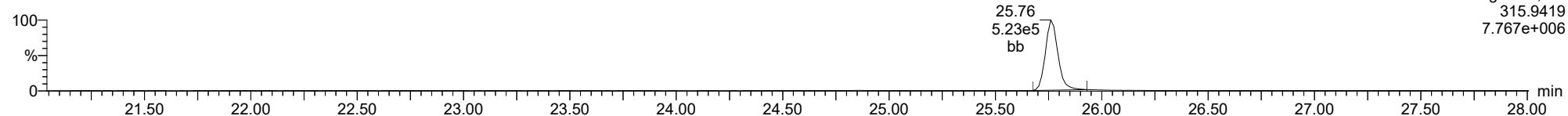
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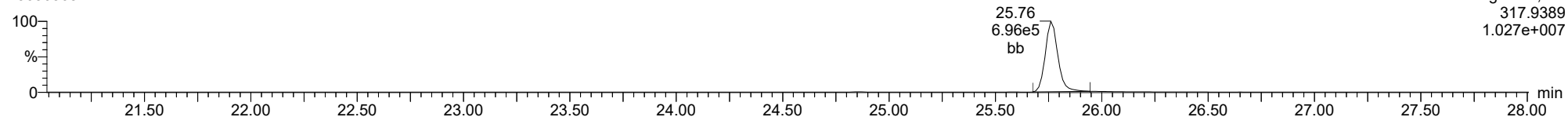
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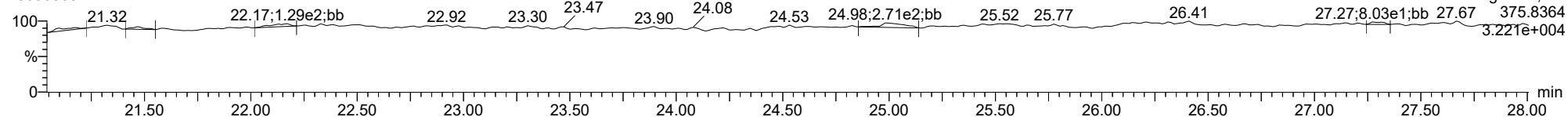
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23030305



FUNCTION1 HXCDPE

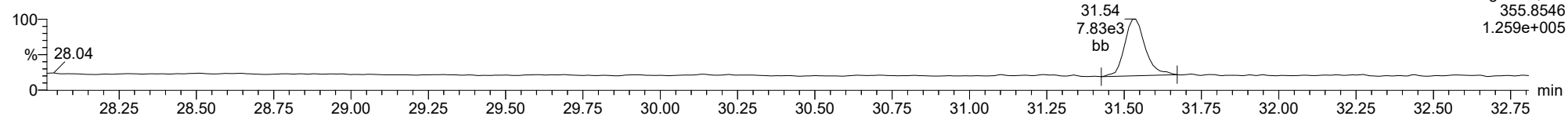
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

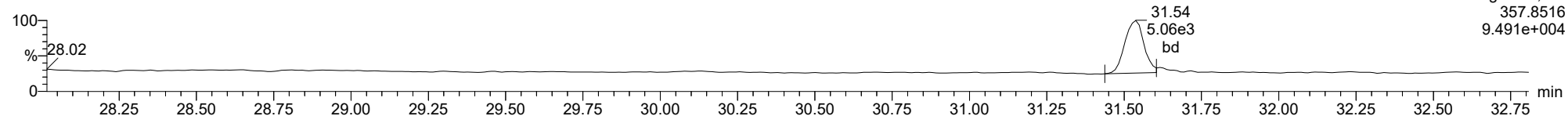
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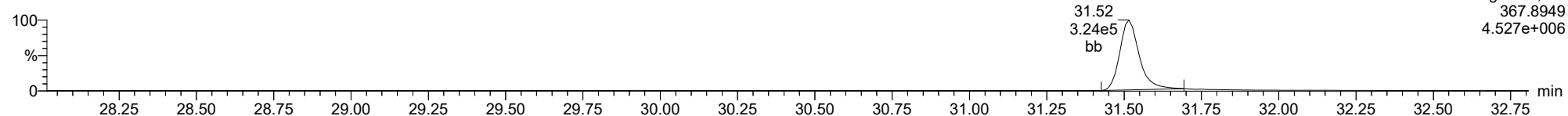
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23030305



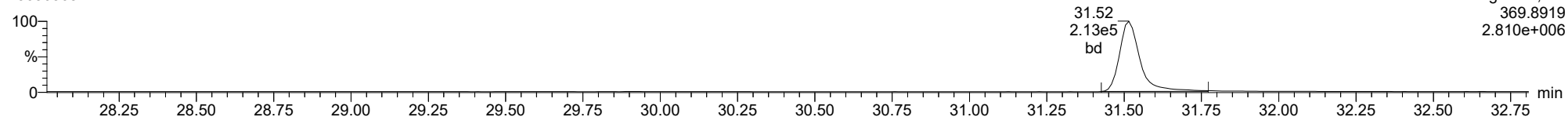
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23030305



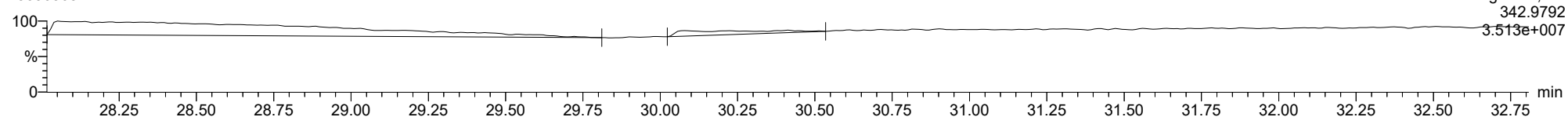
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23030305



FUNCTION2 PFK

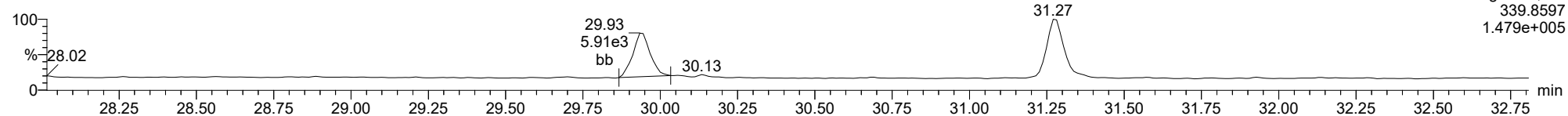
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

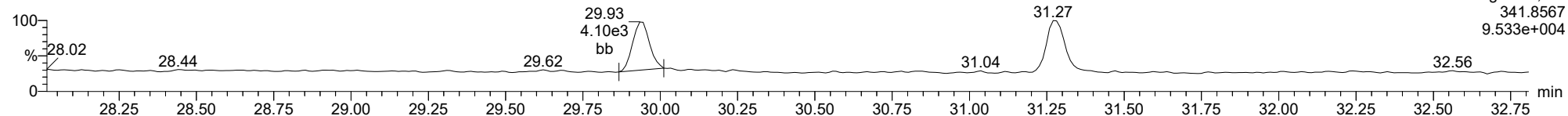
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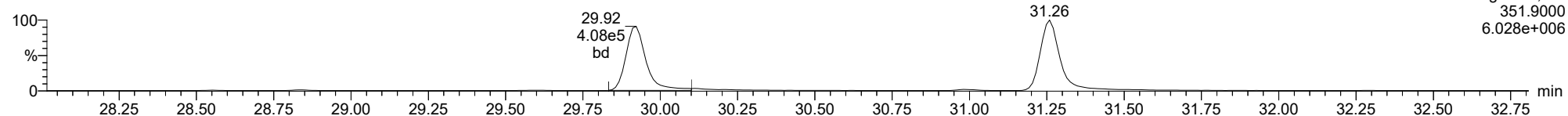
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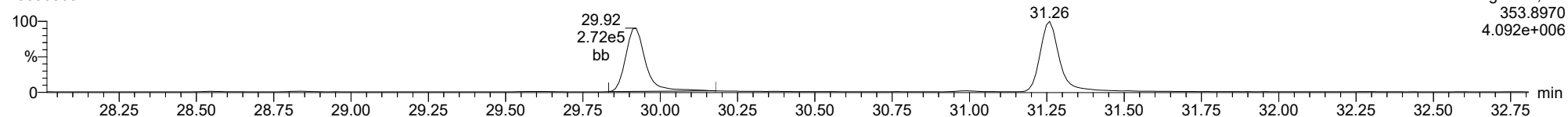
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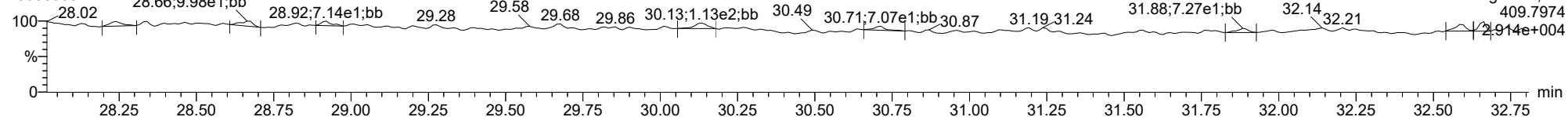
13C-12378-PeCDF

23030305



FUNCTION2 HPCDPE

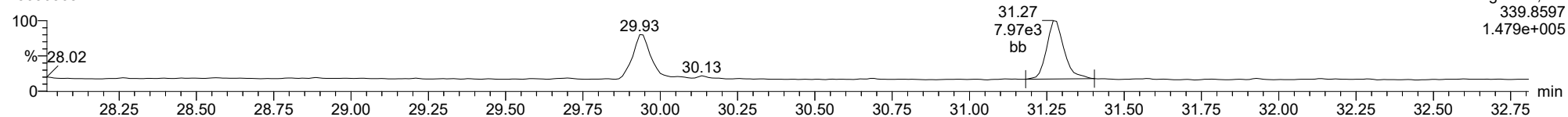
23030305



ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

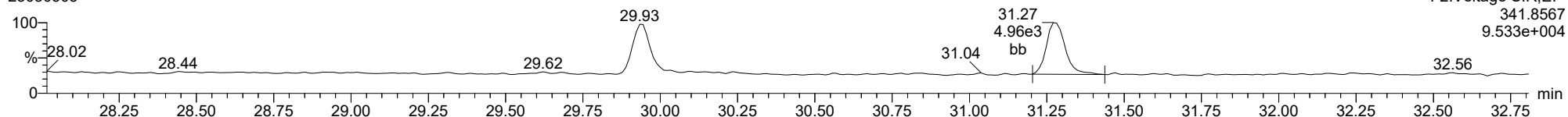
23478-PeCDF

23030305



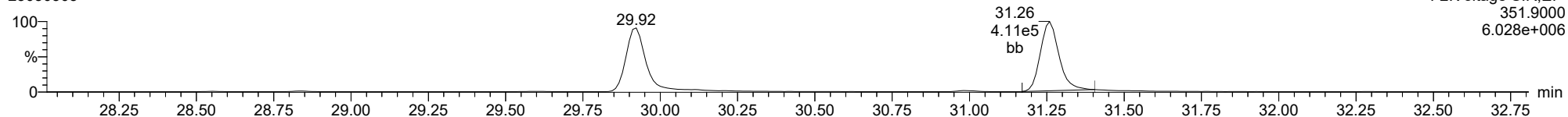
23478-PeCDF

23030305



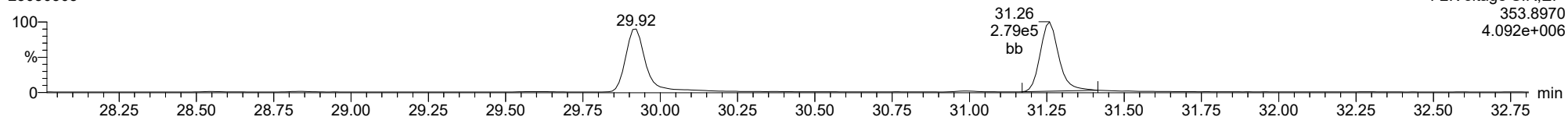
13C-23478-PeCDF

23030305



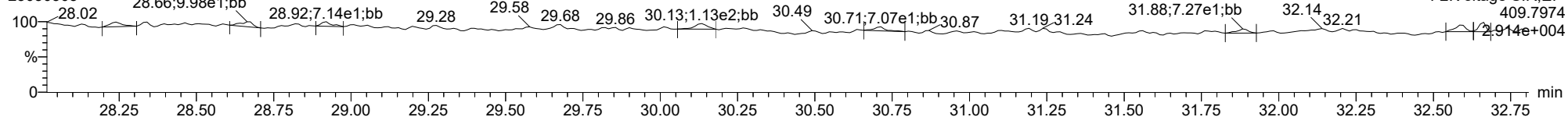
13C-23478-PeCDF

23030305



FUNCTION2 HPCDPE

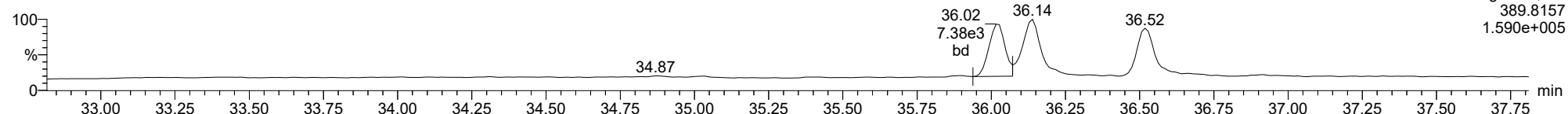
23030305



ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

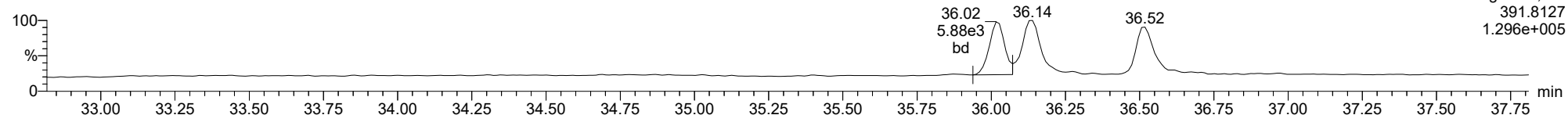
123478-HxCDD

23030305



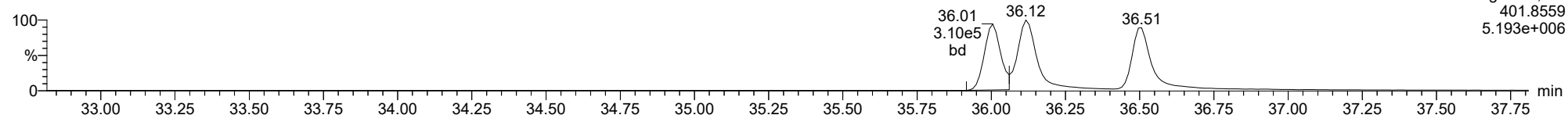
123478-HxCDD

23030305



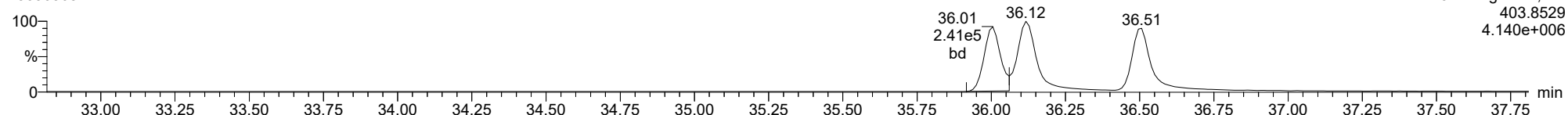
13C-123478-HxCDD

23030305



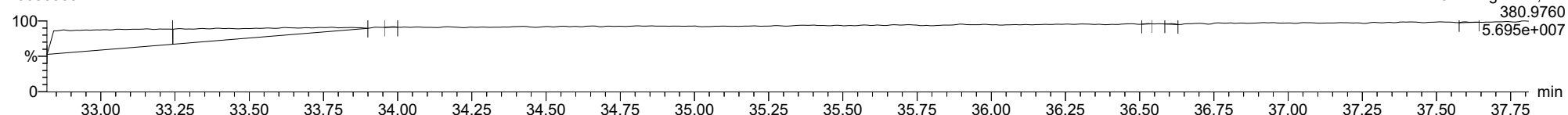
13C-123478-HxCDD

23030305



FUNCTION3 PFK

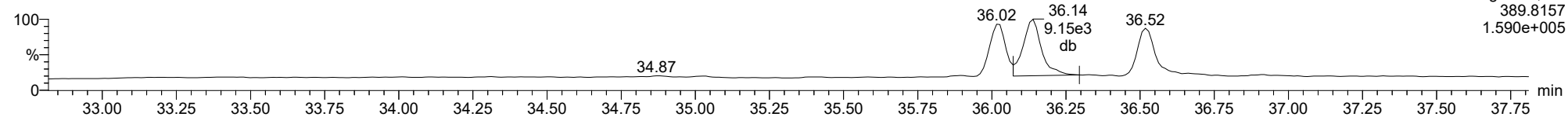
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

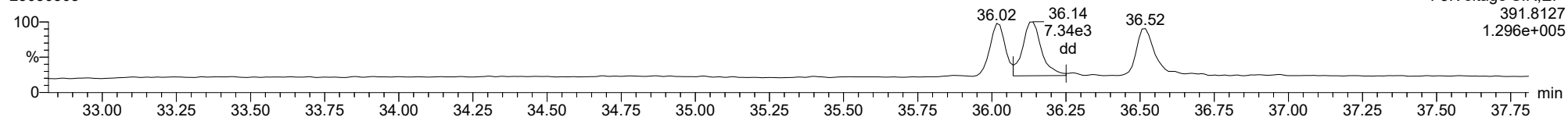
123678-HxCDD

23030305



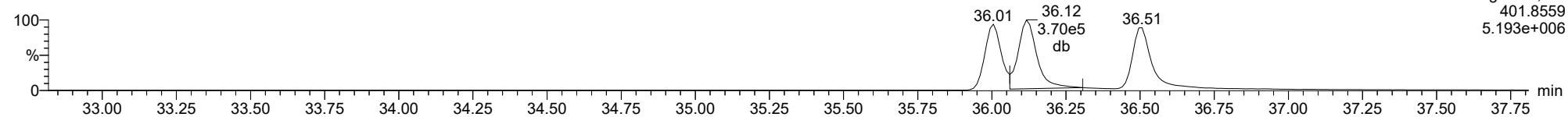
123678-HxCDD

23030305



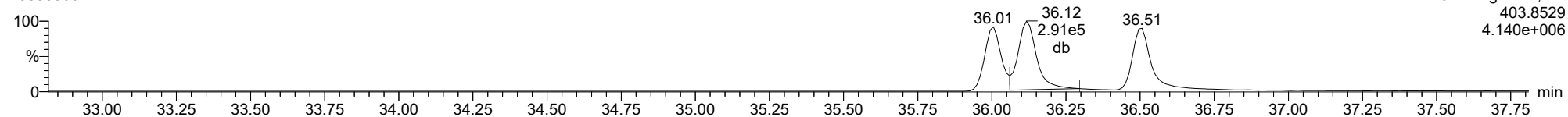
13C-123678-HxCDD

23030305



13C-123678-HxCDD

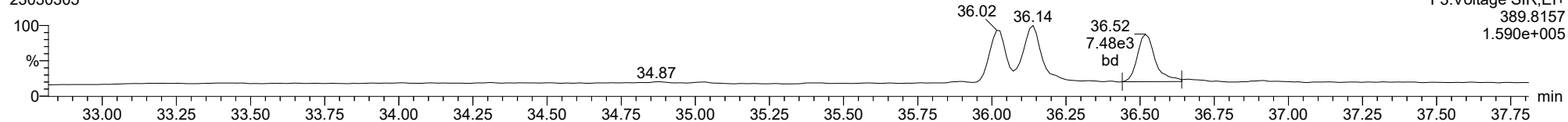
23030305



ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

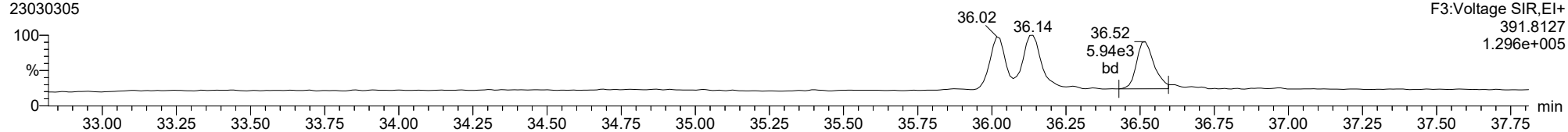
123789-HxCDD

23030305



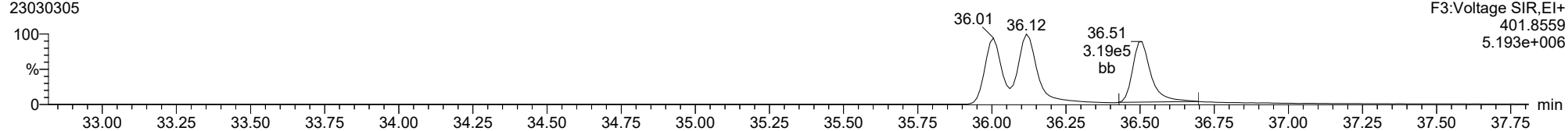
123789-HxCDD

23030305



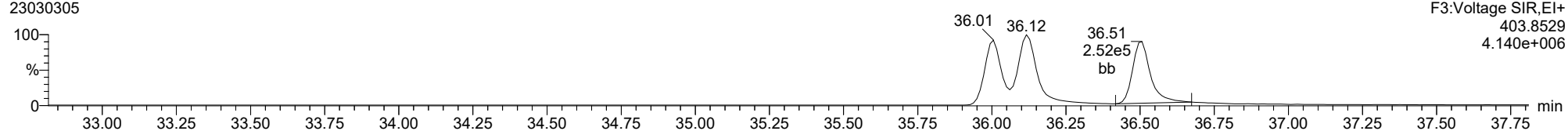
13C-123789-HxCDD

23030305



13C-123789-HxCDD

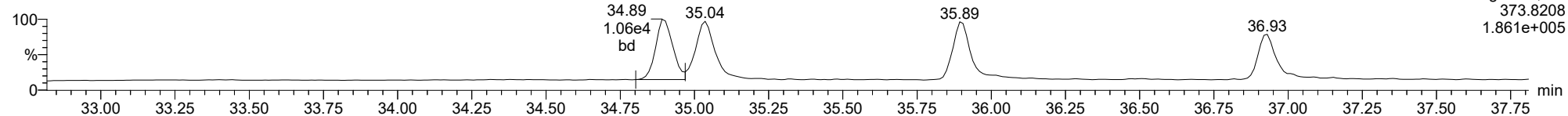
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

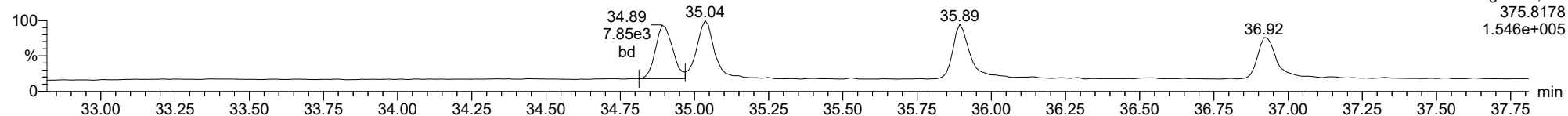
123478-HxCDF

23030305



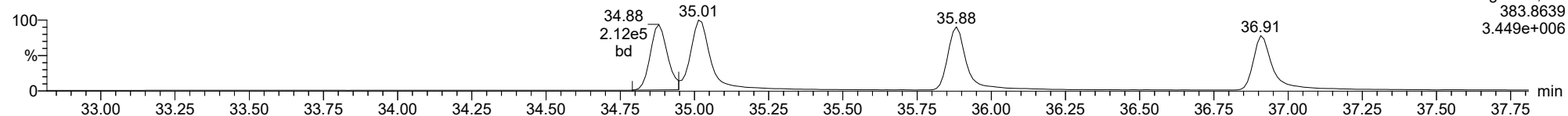
123478-HxCDF

23030305



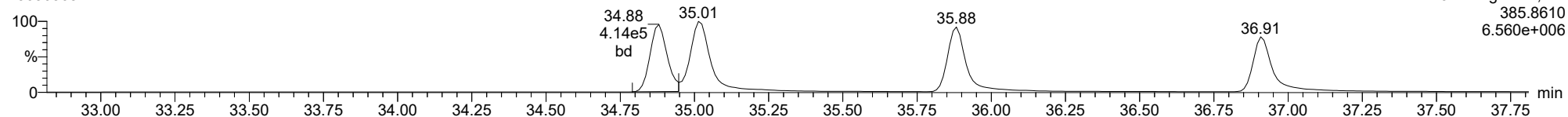
13C-123478-HxCDF

23030305



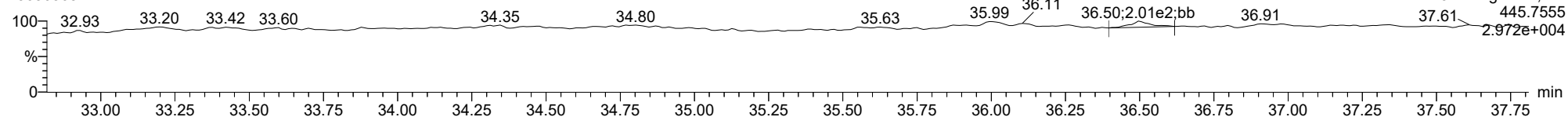
13C-123478-HxCDF

23030305



FUNCTION3 OCDPE

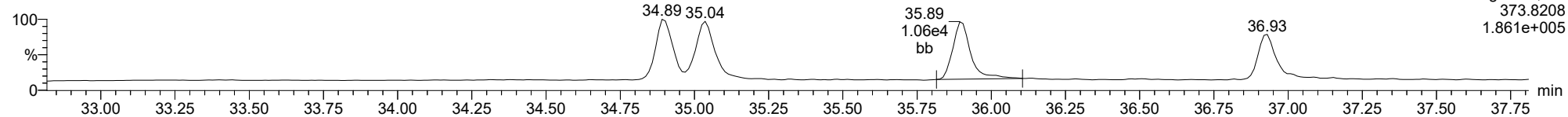
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

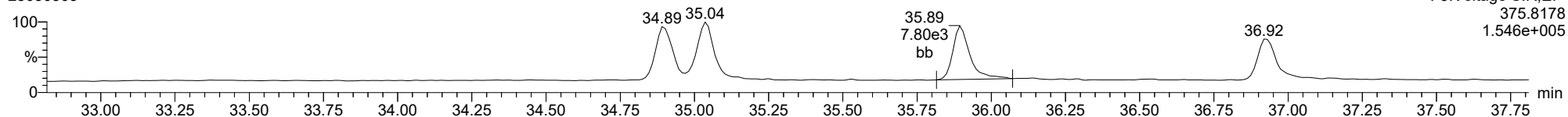
234678-HxCDF

23030305



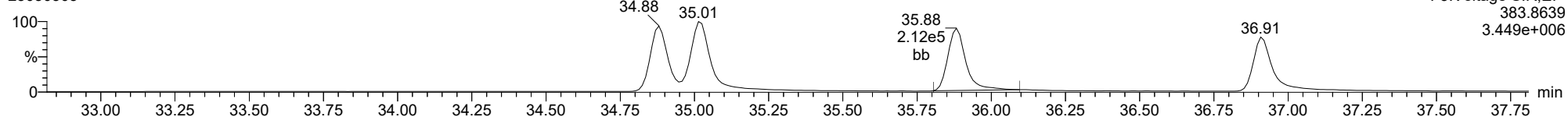
234678-HxCDF

23030305



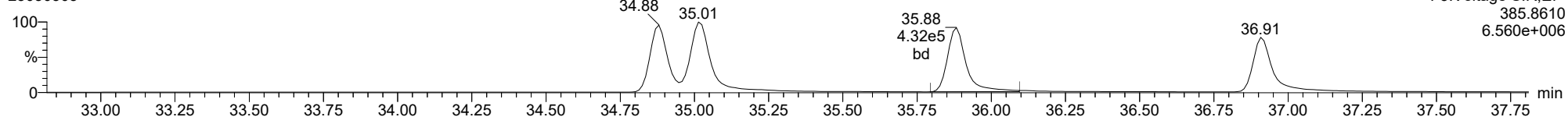
13C-234678-HxCDF

23030305



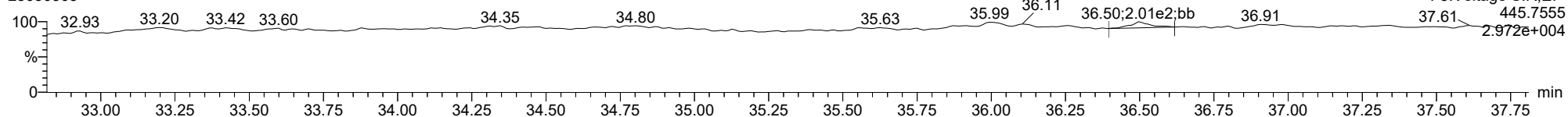
13C-234678-HxCDF

23030305



FUNCTION3 OCDPE

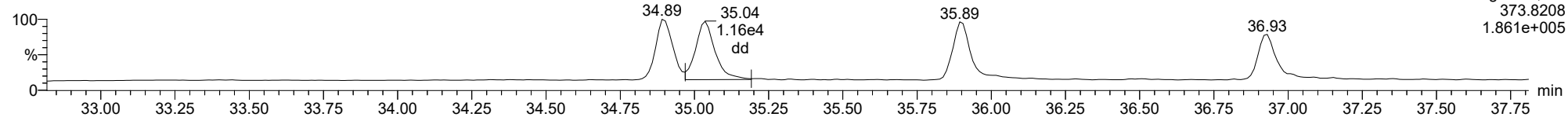
23030305



ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

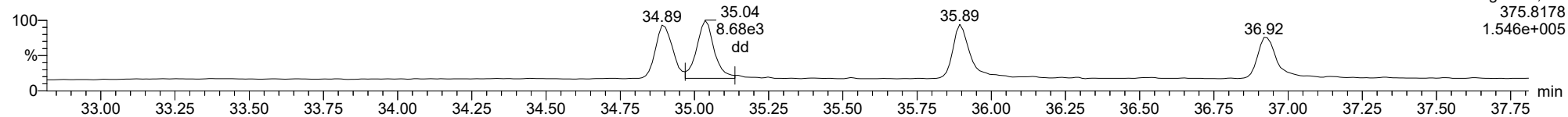
123678-HxCDF

23030305



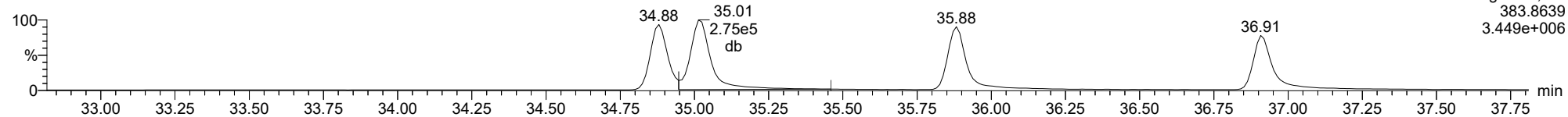
123678-HxCDF

23030305



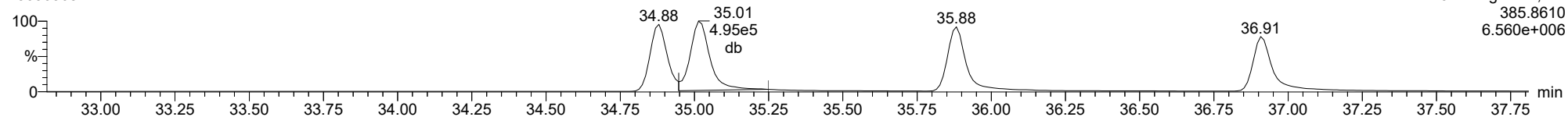
13C-123678-HxCDF

23030305



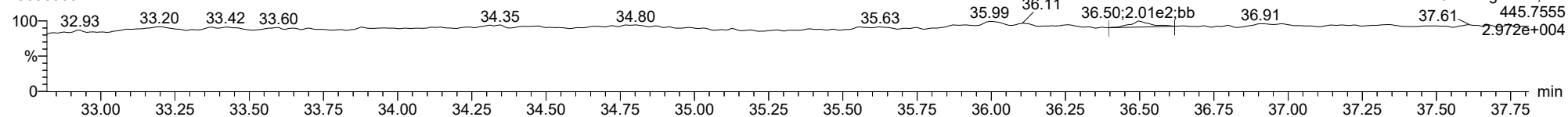
13C-123678-HxCDF

23030305



FUNCTION3 OCDPE

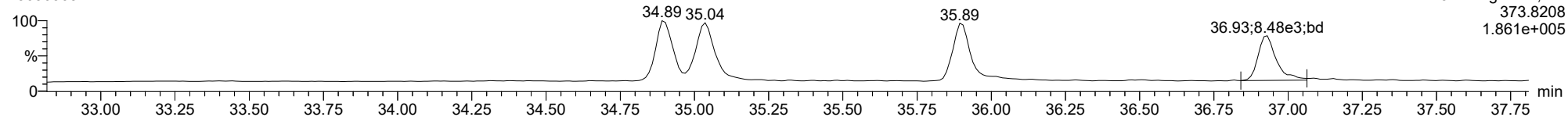
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

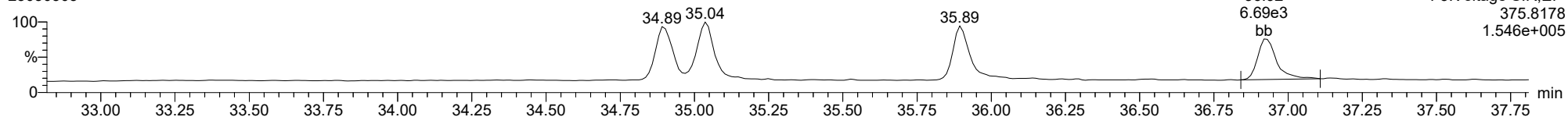
123789-HxCDF

23030305



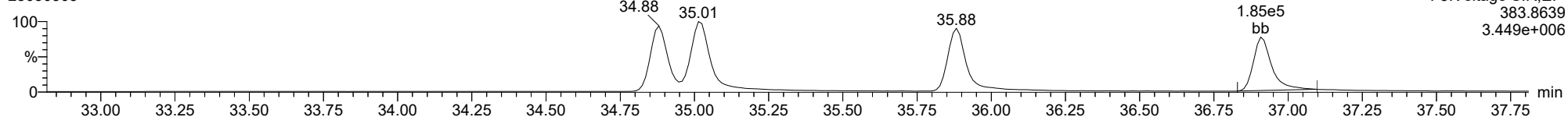
123789-HxCDF

23030305



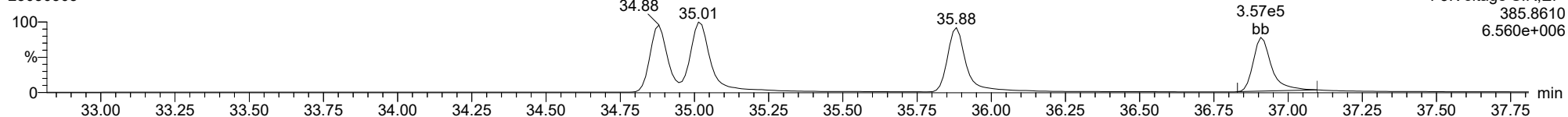
13C-123789-HxCDF

23030305



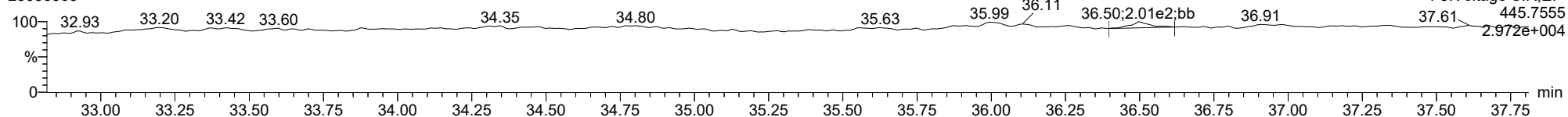
13C-123789-HxCDF

23030305



FUNCTION3 OCDPE

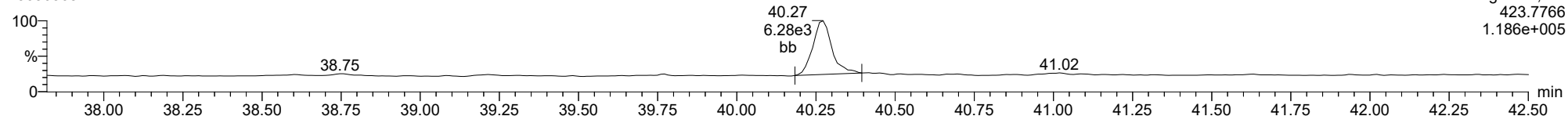
23030305



ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

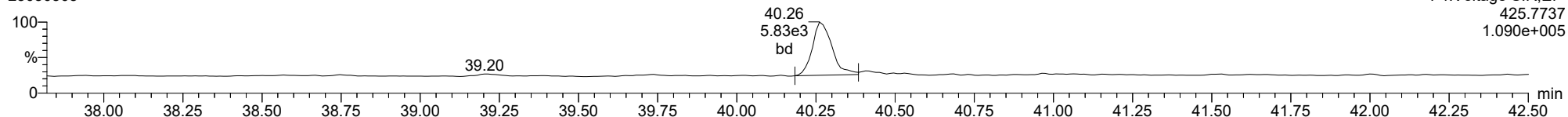
1234678-HpCDD

23030305



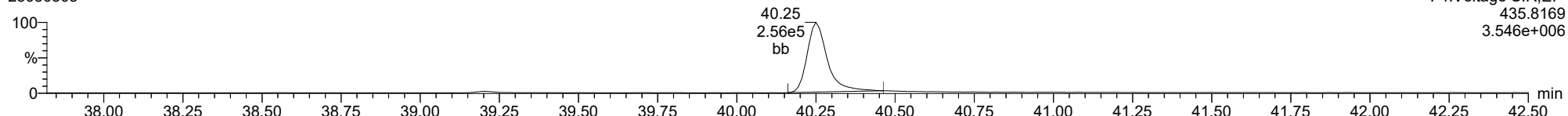
1234678-HpCDD

23030305



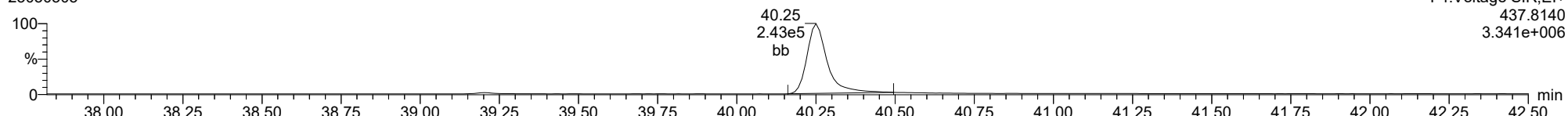
13C-1234678-HpCDD

23030305



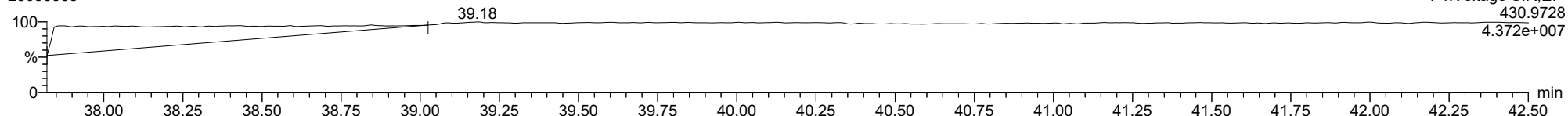
13C-1234678-HpCDD

23030305



FUNCTION4 PFK

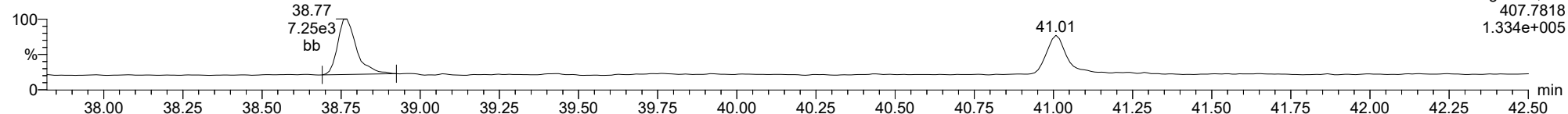
23030305



ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

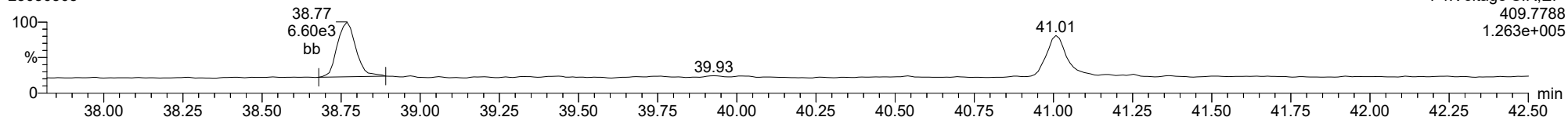
23030305



F4:Voltage SIR,EI+
407.7818
1.334e+005

1234678-HpCDF

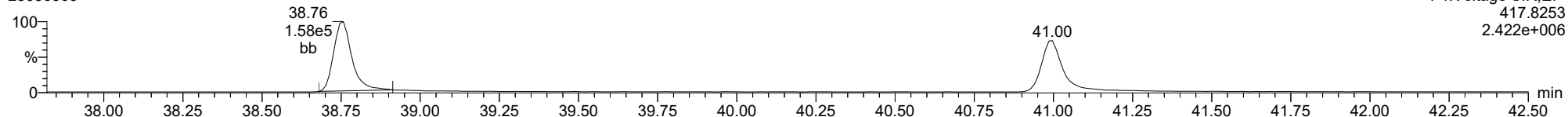
23030305



F4:Voltage SIR,EI+
409.7788
1.263e+005

13C-1234678-HpCDF

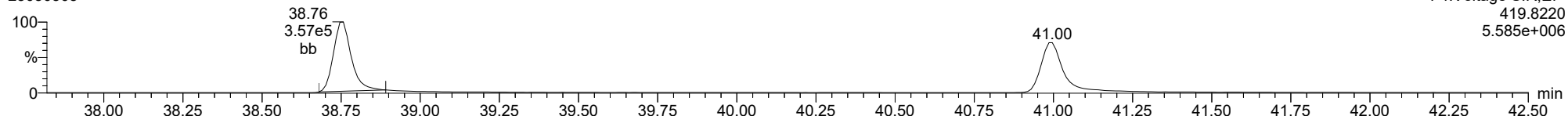
23030305



F4:Voltage SIR,EI+
417.8253
2.422e+006

13C-1234678-HpCDF

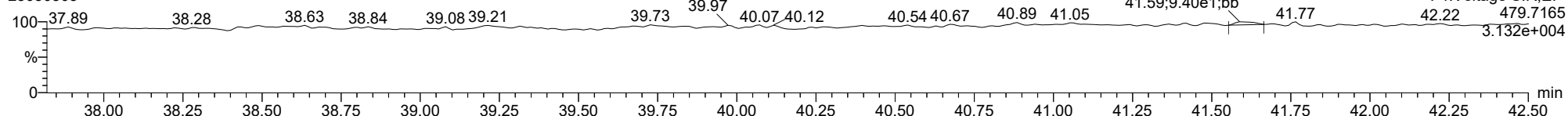
23030305



F4:Voltage SIR,EI+
419.8220
5.585e+006

FUNCTION4 NCDPE

23030305

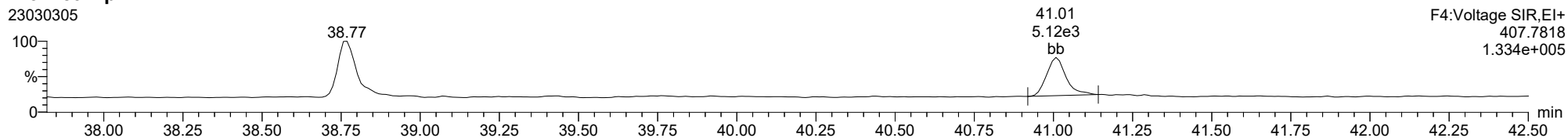


F4:Voltage SIR,EI+
479.7165
3.132e+004

ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

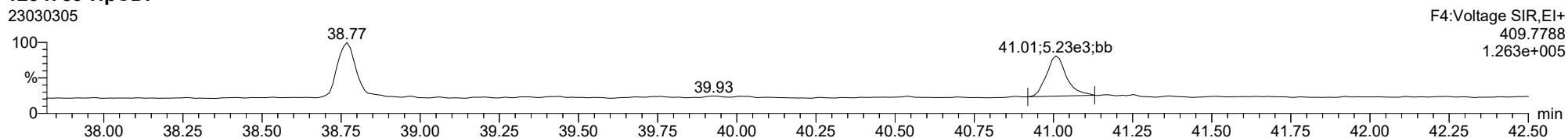
23030305



F4:Voltage SIR,EI+
409.7818
1.334e+005

1234789-HpCDF

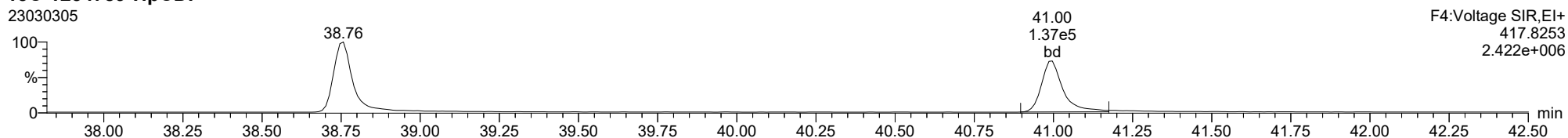
23030305



F4:Voltage SIR,EI+
409.7788
1.263e+005

13C-1234789-HpCDF

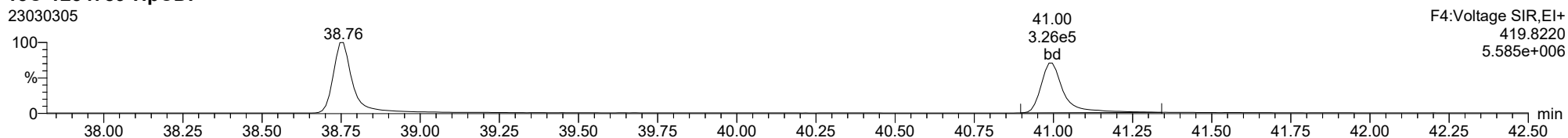
23030305



F4:Voltage SIR,EI+
417.8253
2.422e+006

13C-1234789-HpCDF

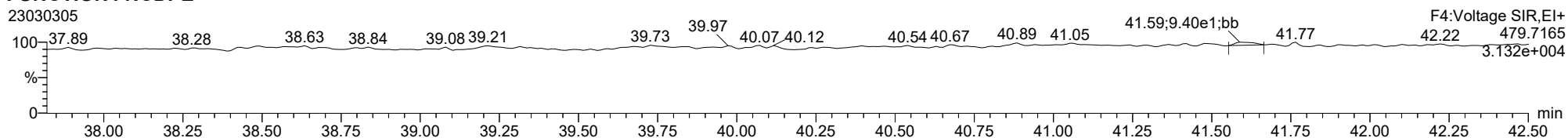
23030305



F4:Voltage SIR,EI+
419.8220
5.585e+006

FUNCTION4 NCDPE

23030305



F4:Voltage SIR,EI+
479.7165
3.132e+004

ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

OCDD

23030305

100
%
0

45.00;8.58e3;bd

F5:Voltage SIR,EI+
457.7377
1.243e+005

42.51
42.60 42.80 43.00 43.20 43.40 43.60 43.80 44.00 44.20 44.40 44.60 44.80 45.00 45.20 45.40 45.60 45.80 46.00 min

OCDD

23030305

100
%
0

45.00;9.68e3;bb

F5:Voltage SIR,EI+
459.7348
1.384e+005

42.51
42.60 42.80 43.00 43.20 43.40 43.60 43.80 44.00 44.20 44.40 44.60 44.80 45.00 45.20 45.40 45.60 45.80 46.00 min

13C-OCDD

23030305

100
%
0

44.98;3.39e5;bb

F5:Voltage SIR,EI+
469.7779
3.894e+006

42.60 42.80 43.00 43.20 43.40 43.60 43.80 44.00 44.20 44.40 44.60 44.80 45.00 45.20 45.40 45.60 45.80 46.00 min

13C-OCDD

23030305

100
%
0

44.98;3.82e5;bb

F5:Voltage SIR,EI+
471.7750
4.349e+006

42.60 42.80 43.00 43.20 43.40 43.60 43.80 44.00 44.20 44.40 44.60 44.80 45.00 45.20 45.40 45.60 45.80 46.00 min

FUNCTIONS PFK

23030305

100
%
0

43.52

F5:Voltage SIR,EI+
480.9696
2.456e+007

42.60 42.80 43.00 43.20 43.40 43.60 43.80 44.00 44.20 44.40 44.60 44.80 45.00 45.20 45.40 45.60 45.80 46.00 min

ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

OCDF

23030305

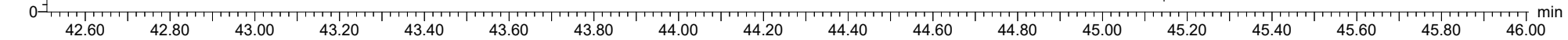
100
%
0

42.51

42.90

45.24;5.98e3;MM

F5:Voltage SIR,EI+
441.7428
9.546e+004



OCDF

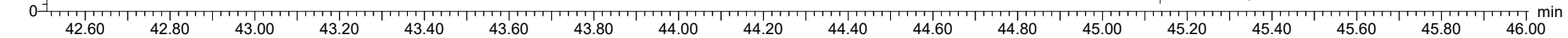
23030305

100
%
0

42.51

45.23;6.80e3;bd

F5:Voltage SIR,EI+
443.7399
1.080e+005



FUNCTION5 DCDPE

23030305

100
%
0

42.51

42.84

43.10

43.38

44.11

44.30;9.42e1;bb

44.53

44.72;7.35e1;bb

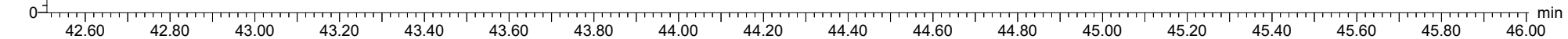
45.03

45.36

45.69

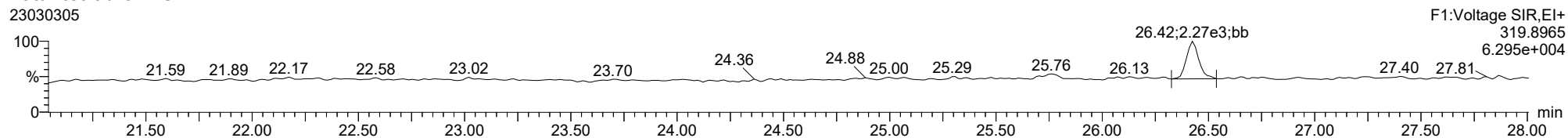
45.91

F5:Voltage SIR,EI+
513.6775
3.020e+004

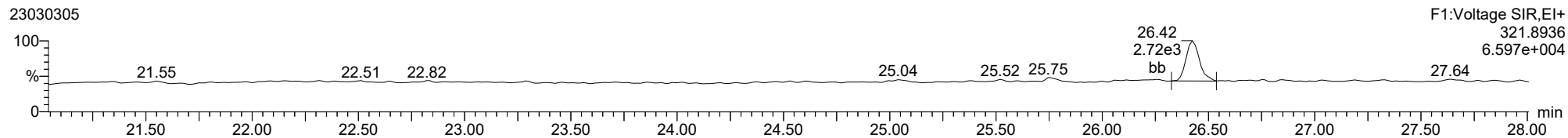


ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

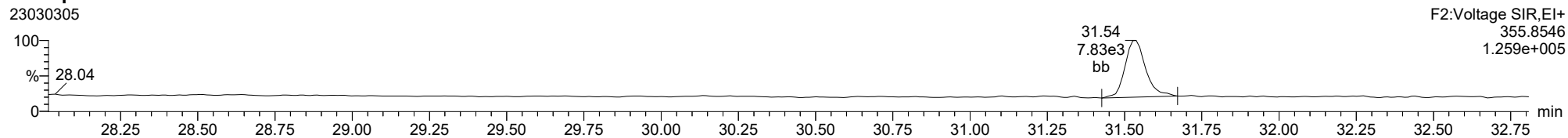
Total-tetradioxins



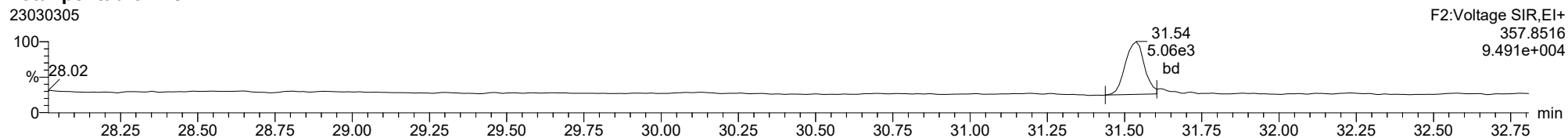
Total-tetradioxins



Total-pentadioxins



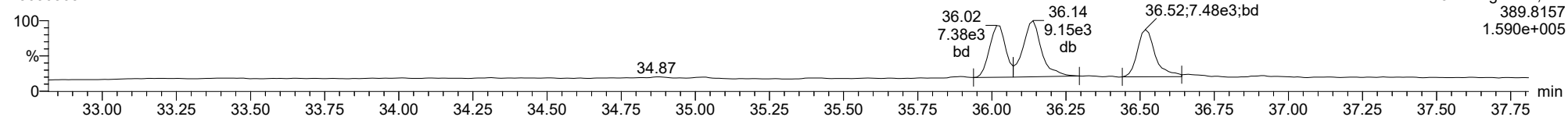
Total-pentadioxins



ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

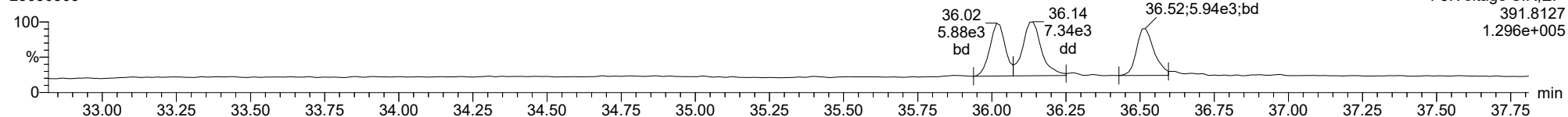
Total-hexadioxins

23030305



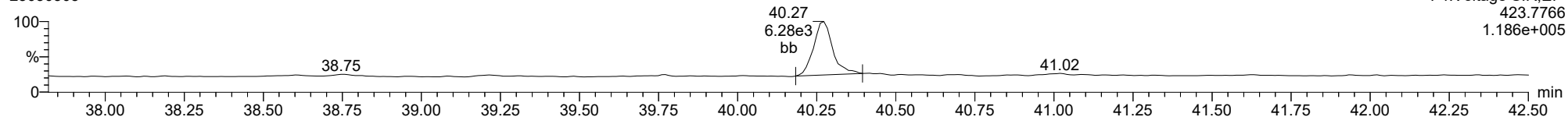
Total-hexadioxins

23030305



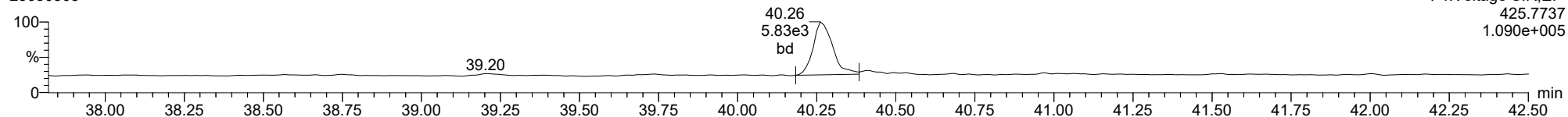
Total-heptadioxins

23030305



Total-heptadioxins

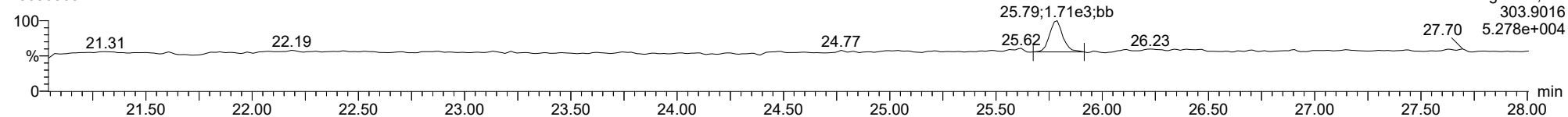
23030305



ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

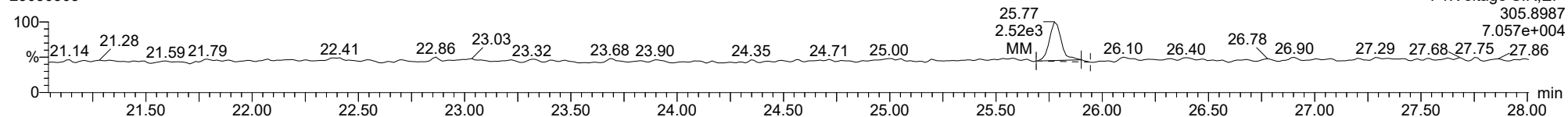
Total-tetrafurans

23030305



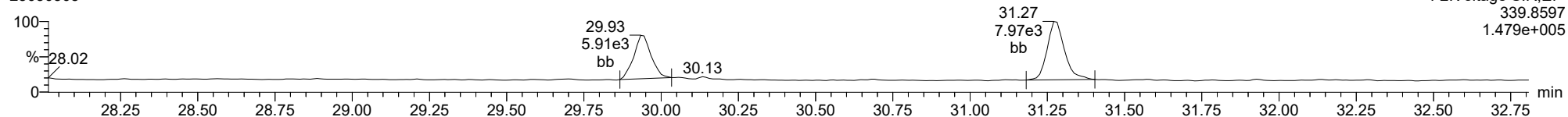
Total-tetrafurans

23030305



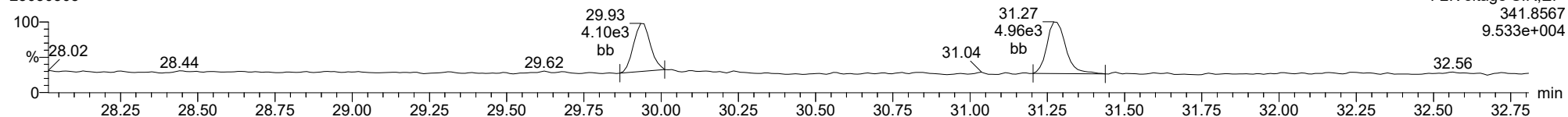
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23030305



Total-pentafurans

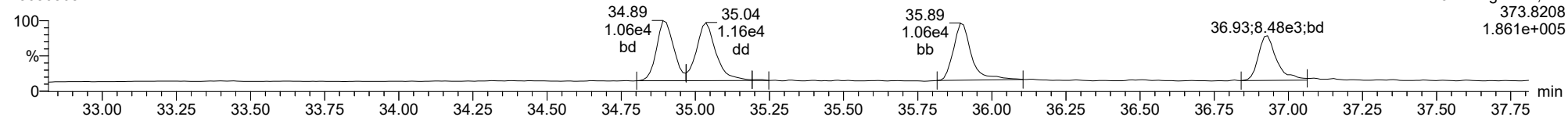
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

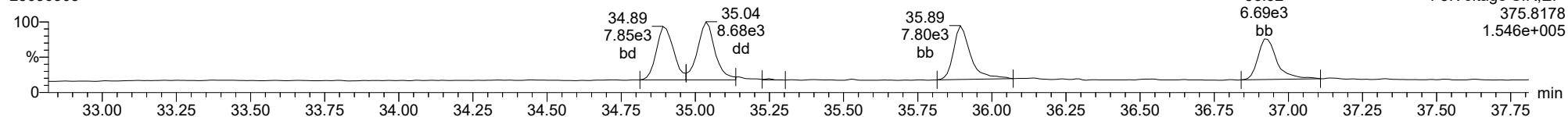
Total-hexafurans

23030305



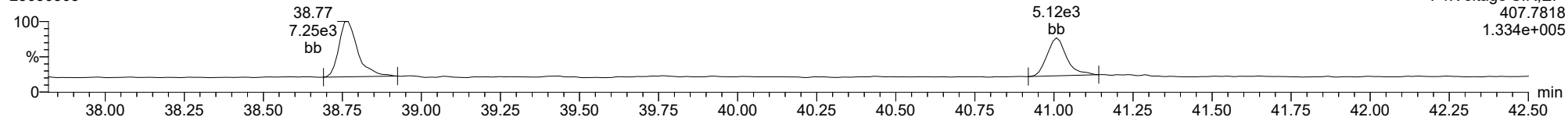
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23030305



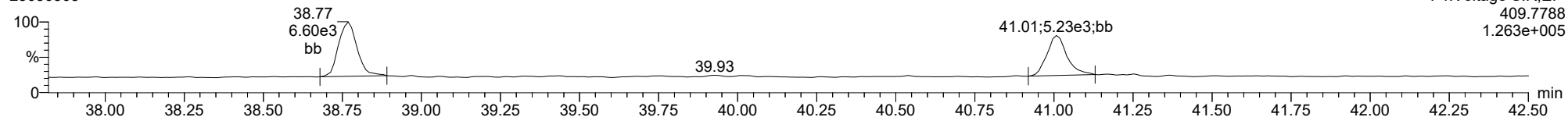
Total-heptafurans

23030305



Total-heptafurans

23030305



Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS2CW, **Name:** 23030306, **Date:** 03-Mar-2023, **Time:** 13:16:24, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.789	1.001	8.311e3	1.080e4	0.702	0.769	0.770	1017	2375	1.17e5	1.59e5	114.9	67.2	NO	bd	bb	1.942
12378-PeCDF	29.945	1.001	4.669e4	2.820e4	0.679	1.656	1.550	1114	1452	6.51e5	4.26e5	583.9	293.2	NO	bd	bb	10.465
23478-PeCDF	31.282	1.000	4.676e4	2.892e4	0.786	1.617	1.550	1114	1452	6.63e5	4.21e5	595.0	289.8	NO	bb	bb	10.293
123478-HxCDF	34.903	1.000	5.097e4	3.855e4	1.166	1.322	1.240	1081	974	7.67e5	5.88e5	709.2	604.2	NO	bd	bd	9.861
234678-HxCDF	35.906	1.000	4.287e4	3.364e4	1.140	1.274	1.240	1081	974	6.16e5	4.95e5	570.0	508.0	NO	bd	bb	10.523
123678-HxCDF	35.048	1.001	5.830e4	4.380e4	1.091	1.331	1.240	1081	974	7.78e5	6.16e5	719.4	632.0	NO	dd	db	10.775
123789-HxCDF	36.942	1.001	3.050e4	2.273e4	1.137	1.342	1.240	1081	974	4.14e5	3.24e5	383.3	332.2	NO	bb	bb	9.945
1234678-HpCDF	38.780	1.001	2.871e4	2.660e4	1.003	1.079	1.050	1234	1299	4.33e5	4.29e5	350.5	330.3	NO	bd	bb	10.087
1234789-HpCDF	41.020	1.000	2.198e4	2.032e4	0.953	1.082	1.050	1234	1299	3.09e5	2.76e5	250.5	212.3	NO	bb	bb	10.556
OCDF	45.247	1.006	3.160e4	3.327e4	0.778	0.950	0.890	832	1108	3.53e5	3.88e5	424.8	350.5	NO	bd	bb	19.690
2378-TCDD	26.438	1.001	9.033e3	1.299e4	1.149	0.696	0.770	1078	937	1.34e5	1.84e5	124.1	196.6	NO	bb	bb	2.068
12378-PeCDD	31.538	1.000	4.287e4	2.877e4	1.022	1.490	1.550	1012	882	6.26e5	3.88e5	618.4	440.6	NO	bb	bb	9.981
123478-HxCDD	36.028	1.001	3.011e4	2.566e4	0.996	1.173	1.240	1087	1355	4.81e5	4.17e5	442.1	307.5	NO	bd	bd	9.781
123678-HxCDD	36.140	1.000	3.660e4	2.810e4	1.001	1.303	1.240	1087	1355	5.13e5	3.98e5	471.9	293.4	NO	dd	db	9.830
123789-HxCDD	36.530	1.011	2.694e4	2.285e4	0.907	1.179	1.240	1087	1355	3.87e5	3.22e5	355.7	237.4	NO	bb	bb	8.921
1234678-HpCDD	40.273	1.000	2.448e4	2.664e4	1.039	0.919	1.050	853	881	3.43e5	3.58e5	402.1	405.9	NO	bb	bd	10.011
OCDD	45.009	1.000	3.531e4	4.015e4	0.920	0.879	0.890	1050	1012	4.08e5	4.99e5	388.3	492.6	NO	bb	bb	19.363
13C-2378-TCDF	25.774	1.007	6.035e5	7.993e5	1.620	0.755	0.770	2457	1835	8.64e6	1.14e7	3516.1	6186.3	NO	bb	bb	103.115
13C-12378-PeCDF	29.923	1.169	6.526e5	4.010e5	1.240	1.628	1.550	3002	2090	8.73e6	5.82e6	2907.1	2783.7	NO	bb	bb	101.148
13C-23478-PeCDF	31.271	1.221	5.554e5	3.799e5	1.118	1.462	1.550	3002	2090	8.01e6	5.41e6	2667.8	2586.4	NO	bb	bb	99.644
13C-123478-HxCDF	34.892	0.956	2.641e5	5.144e5	1.168	0.513	0.510	1857	2488	3.90e6	7.62e6	2100.8	3063.0	NO	bd	bd	129.584
13C-123678-HxCDF	35.026	0.959	2.932e5	5.755e5	1.386	0.510	0.510	1857	2488	4.18e6	8.13e6	2249.4	3269.5	NO	db	db	121.832
13C-234678-HxCDF	35.895	0.983	2.180e5	4.199e5	1.129	0.519	0.510	1857	2488	3.14e6	6.08e6	1689.2	2442.9	NO	bb	bb	109.838
13C-123789-HxCDF	36.920	1.011	1.570e5	3.137e5	0.932	0.501	0.510	1857	2488	2.29e6	4.45e6	1232.1	1790.1	NO	bb	bb	98.225
13C-1234678-HpCDF	38.758	1.062	1.644e5	3.823e5	0.895	0.430	0.440	2012	3375	2.57e6	5.95e6	1277.0	1763.6	NO	bb	bb	118.766
13C-1234789-HpCDF	40.998	1.123	1.271e5	2.934e5	0.770	0.433	0.440	2012	3375	1.71e6	4.02e6	850.7	1191.4	NO	bb	bb	106.228
13C-1234-TCDD	25.605	0.000	3.763e5	4.634e5	1.000	0.812	0.770	2552	2183	5.75e6	7.05e6	2254.8	3231.1	NO	bb	bb	100.000
13C-2378-TCDD	26.410	1.031	4.085e5	5.183e5	1.152	0.788	0.770	2552	2183	5.98e6	7.56e6	2342.4	3461.2	NO	bb	bb	95.779
13C-12378-PeCDD	31.527	1.231	4.337e5	2.688e5	0.829	1.614	1.550	1077	1542	6.15e6	3.74e6	5715.6	2425.2	NO	bb	bb	100.933
13C-123478-HxCDD	36.006	0.986	3.223e5	2.505e5	0.995	1.287	1.240	2237	1883	4.87e6	3.76e6	2175.2	1999.6	NO	bd	bd	111.924
13C-123678-HxCDD	36.129	0.990	3.608e5	2.967e5	1.157	1.216	1.240	2237	1883	5.10e6	4.02e6	2277.5	2137.4	NO	db	db	110.547
13C-1234678-HpCDD	40.262	1.103	2.573e5	2.341e5	0.840	1.099	1.050	2349	1481	3.41e6	3.22e6	1450.8	2172.3	NO	bd	bb	113.737
13C-OCDD	44.991	1.232	4.017e5	4.455e5	0.767	0.902	0.890	2278	1800	4.53e6	5.05e6	1990.6	2807.7	NO	bb	bb	214.651
13C-123789-HxCDD	36.507	0.000	2.902e5	2.240e5	1.000	1.296	1.240	2237	1883	4.20e6	3.27e6	1878.6	1737.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.032	1.977e4		1.288			2484		2.93e5		117.9			bb		1.828

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1017	2375								
1289-TCDF					0.678		0.770	1017	2375								
13468-PECDF					1.246		1.550	633	1159								
12389-PECDF					0.496		1.550	1114	1452								
123468-HXCDF					1.169		1.240	1081	974								
1368-TCDD					1.015		0.770	1078	937								
1289-TCDD					0.909		0.770	1078	937								
12479-PECDD					2.301		1.550	1012	882								
12389-PECDD					1.184		1.550	1012	882								
124679-HXCDD					1.115		1.240	1087	1355								
1234679-HPCDD					1.137		1.050	853	881								
Total-tetrafurans			8.311e3		0.727			1017		1.17e5							1.942
Total-penta1			0.000e0					633		0.00e0							
Total-pentafurans			9.345e4		0.654			1114		1.31e6							20.758
Total-hexafurans			1.826e5		1.141			1081		2.58e6							41.105
Total-heptafurans			5.070e4		0.978			1234		7.42e5							20.643
Total-Furans			3.667e5		0.922			1017		5.10e6							104.140
Total-tetradoxins			9.033e3		1.024			1078		1.34e5							2.068
Total-pentadoxins			4.287e4		1.502			1012		6.26e5							9.981
Total-hexadoxins			9.364e4		1.005			1087		1.38e6							28.532
Total-heptadoxins			2.448e4		1.088			853		3.43e5							10.011
Total-Dioxins			2.053e5		1.130			1078		2.89e6							69.955
Total-TEQ			5.720e5					1078		7.99e6							174.095
FUNCTION1 PFK			1.995e6					567717		7.69e6							
FUNCTION2 PFK			1.258e5					282093		4.74e6							0.000
FUNCTION3 PFK			4.711e7					382868		3.34e7							0.000
FUNCTION4 PFK			2.092e7					278389		1.32e7							
FUNCTION5 PFK			6.777e4					239180		2.68e6							
FUNCTION1 HXCD...			0.000e0					613		0.00e0							
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.408e2					965		2.85e3							0.000
FUNCTION3 OCDPE			0.000e0					571		0.00e0							
FUNCTION4 NCDPE			3.810e2					638		4.39e3							0.000
FUNCTION5 DCDPE			0.000e0					603		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50

Calibration: T:\Autospec\Curves\230303\CIH.cdb 06 Mar 2023 10:57:27

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	8.311e3	1.080e4	0.702	0.77	0.77	114.9	YES	NO	bd	bb	1.942

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.28	4.676e4	2.892e4	0.786	1.62	1.55	595.0	YES	NO	bb	bb	10.293
2	12378-PeCDF	29.94	4.669e4	2.820e4	0.679	1.66	1.55	583.9	YES	NO	bd	bb	10.465

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.94	3.050e4	2.273e4	1.137	1.34	1.24	383.3	YES	NO	bb	bb	9.945
2	234678-HxCDF	35.91	4.287e4	3.364e4	1.140	1.27	1.24	570.0	YES	NO	bd	bb	10.523
3	123678-HxCDF	35.05	5.830e4	4.380e4	1.091	1.33	1.24	719.4	YES	NO	dd	db	10.775
4	123478-HxCDF	34.90	5.097e4	3.855e4	1.166	1.32	1.24	709.2	YES	NO	bd	bd	9.861

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.02	2.198e4	2.032e4	0.953	1.08	1.05	250.5	YES	NO	bb	bb	10.556
2	1234678-HpCDF	38.78	2.871e4	2.660e4	1.003	1.08	1.05	350.5	YES	NO	bd	bb	10.087

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.28	4.676e4	2.892e4	0.786	1.62	1.55	595.0	YES	NO	bb	bb	10.293
2	12378-PeCDF	29.94	4.669e4	2.820e4	0.679	1.66	1.55	583.9	YES	NO	bd	bb	10.465
3	2378-TCDF	25.79	8.311e3	1.080e4	0.702	0.77	0.77	114.9	YES	NO	bd	bb	1.942
4	123789-HxCDF	36.94	3.050e4	2.273e4	1.137	1.34	1.24	383.3	YES	NO	bb	bb	9.945
5	234678-HxCDF	35.91	4.287e4	3.364e4	1.140	1.27	1.24	570.0	YES	NO	bd	bb	10.523
6	123678-HxCDF	35.05	5.830e4	4.380e4	1.091	1.33	1.24	719.4	YES	NO	dd	db	10.775
7	123478-HxCDF	34.90	5.097e4	3.855e4	1.166	1.32	1.24	709.2	YES	NO	bd	bd	9.861
8	1234789-HpCDF	41.02	2.198e4	2.032e4	0.953	1.08	1.05	250.5	YES	NO	bb	bb	10.556
9	1234678-HpCDF	38.78	2.871e4	2.660e4	1.003	1.08	1.05	350.5	YES	NO	bd	bb	10.087
10	OCDF	45.25	3.160e4	3.327e4	0.778	0.95	0.89	424.8	YES	NO	bd	bb	19.690

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.44	9.033e3	1.299e4	1.149	0.70	0.77	124.1	YES	NO	bb	bb	2.068

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.54	4.287e4	2.877e4	1.022	1.49	1.55	618.4	YES	NO	bb	bb	9.981

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.53	2.694e4	2.285e4	0.907	1.18	1.24	355.7	YES	NO	bb	bb	8.921
2	123678-HxCDD	36.14	3.660e4	2.810e4	1.001	1.30	1.24	471.9	YES	NO	dd	db	9.830
3	123478-HxCDD	36.03	3.011e4	2.566e4	0.996	1.17	1.24	442.1	YES	NO	bd	bd	9.781

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.27	2.448e4	2.664e4	1.039	0.92	1.05	402.1	YES	NO	bb	bd	10.011

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.54	4.287e4	2.877e4	1.022	1.49	1.55	618.4	YES	NO	bb	bb	9.981
2	2378-TCDD	26.44	9.033e3	1.299e4	1.149	0.70	0.77	124.1	YES	NO	bb	bb	2.068
3	123789-HxCDD	36.53	2.694e4	2.285e4	0.907	1.18	1.24	355.7	YES	NO	bb	bb	8.921
4	123678-HxCDD	36.14	3.660e4	2.810e4	1.001	1.30	1.24	471.9	YES	NO	dd	db	9.830
5	123478-HxCDD	36.03	3.011e4	2.566e4	0.996	1.17	1.24	442.1	YES	NO	bd	bd	9.781
6	1234678-HpCDD	40.27	2.448e4	2.664e4	1.039	0.92	1.05	402.1	YES	NO	bb	bd	10.011
7	OCDD	45.01	3.531e4	4.015e4	0.920	0.88	0.89	388.3	YES	NO	bb	bb	19.363

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.28	4.676e4	2.892e4	0.786	1.62	1.55	595.0	YES	NO	bb	bb	10.293
2	12378-PeCDF	29.94	4.669e4	2.820e4	0.679	1.66	1.55	583.9	YES	NO	bd	bb	10.465
3	2378-TCDF	25.79	8.311e3	1.080e4	0.702	0.77	0.77	114.9	YES	NO	bd	bb	1.942
4	123789-HxCDF	36.94	3.050e4	2.273e4	1.137	1.34	1.24	383.3	YES	NO	bb	bb	9.945
5	234678-HxCDF	35.91	4.287e4	3.364e4	1.140	1.27	1.24	570.0	YES	NO	bd	bb	10.523
6	123678-HxCDF	35.05	5.830e4	4.380e4	1.091	1.33	1.24	719.4	YES	NO	dd	db	10.775
7	123478-HxCDF	34.90	5.097e4	3.855e4	1.166	1.32	1.24	709.2	YES	NO	bd	bd	9.861
8	1234789-HpCDF	41.02	2.198e4	2.032e4	0.953	1.08	1.05	250.5	YES	NO	bb	bb	10.556
9	1234678-HpCDF	38.78	2.871e4	2.660e4	1.003	1.08	1.05	350.5	YES	NO	bd	bb	10.087
10	OCDF	45.25	3.160e4	3.327e4	0.778	0.95	0.89	424.8	YES	NO	bd	bb	19.690
11	12378-PeCDD	31.54	4.287e4	2.877e4	1.022	1.49	1.55	618.4	YES	NO	bb	bb	9.981
12	2378-TCDD	26.44	9.033e3	1.299e4	1.149	0.70	0.77	124.1	YES	NO	bb	bb	2.068
13	123789-HxCDD	36.53	2.694e4	2.285e4	0.907	1.18	1.24	355.7	YES	NO	bb	bb	8.921
14	123678-HxCDD	36.14	3.660e4	2.810e4	1.001	1.30	1.24	471.9	YES	NO	dd	db	9.830
15	123478-HxCDD	36.03	3.011e4	2.566e4	0.996	1.17	1.24	442.1	YES	NO	bd	bd	9.781
16	1234678-HpCDD	40.27	2.448e4	2.664e4	1.039	0.92	1.05	402.1	YES	NO	bb	bd	10.011
17	OCDD	45.01	3.531e4	4.015e4	0.920	0.88	0.89	388.3	YES	NO	bb	bb	19.363

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	25.73	8.333e5					6.7	YES		bb		
2	FUNCTION1 PFK	21.10	1.162e6					6.9	YES		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld

Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time

Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.61	1.110e4					1.3	NO		bb		0.000
2	FUNCTION2 PFK	28.31	1.183e4					1.5	NO		bb		0.000
3	FUNCTION2 PFK	31.85	7.066e3					1.3	NO		bb		0.000
4	FUNCTION2 PFK	31.75	1.168e4					1.4	NO		bb		0.000
5	FUNCTION2 PFK	30.95	1.613e4					2.1	NO		bb		0.000
6	FUNCTION2 PFK	30.06	7.806e3					1.3	NO		bb		0.000
7	FUNCTION2 PFK	29.77	1.198e4					1.4	NO		bb		0.000
8	FUNCTION2 PFK	29.47	1.476e4					2.1	NO		bb		0.000
9	FUNCTION2 PFK	29.28	1.360e4					2.0	NO		db		0.000
10	FUNCTION2 PFK	29.22	1.980e4					2.4	NO		bd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.30	3.856e7					44.6	YES		db		0.000
2	FUNCTION3 PFK	33.18	8.558e6					42.7	YES		bd		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.24	1.285e7					8.2	YES		db		
2	FUNCTION4 PFK	38.41	8.070e6					39.3	YES		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.68	1.647e4					1.8	NO		bb		
2	FUNCTION5 PFK	45.75	3.282e3					1.0	NO		bb		
3	FUNCTION5 PFK	45.28	6.957e3					1.1	NO		bb		
4	FUNCTION5 PFK	44.90	6.364e3					1.0	NO		bb		
5	FUNCTION5 PFK	44.84	1.531e3					0.5	NO		bb		
6	FUNCTION5 PFK	44.40	6.282e3					1.0	NO		bb		
7	FUNCTION5 PFK	44.21	4.626e3					1.1	NO		bb		
8	FUNCTION5 PFK	44.03	7.842e3					1.2	NO		bb		
9	FUNCTION5 PFK	43.96	6.415e3					1.4	NO		bb		
10	FUNCTION5 PFK	43.84	7.992e3					1.2	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.54	1.408e2					3.0	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.65	1.069e2					1.9	NO		bb		0.000
2	FUNCTION4 NCDPE	40.25	1.358e2					2.2	NO		bb		0.000
3	FUNCTION4 NCDPE	41.02	1.383e2					2.8	NO		bb		0.000

ETHERS6

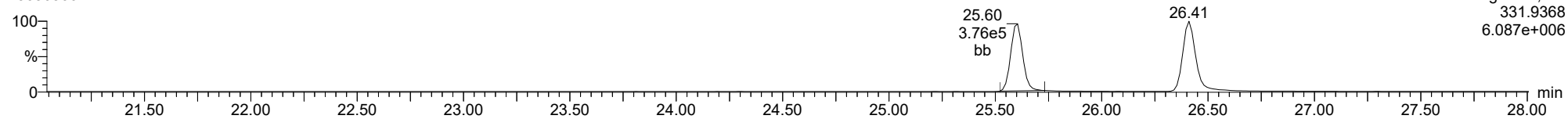
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

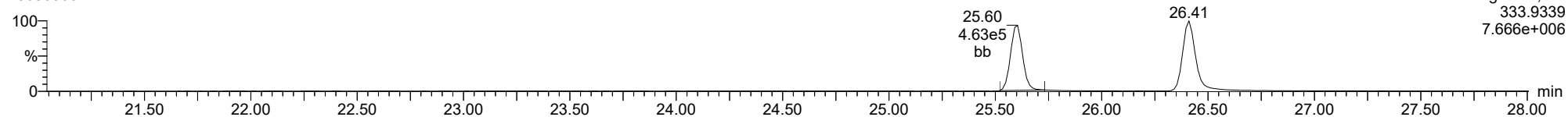
13C-1234-TCDD

23030306



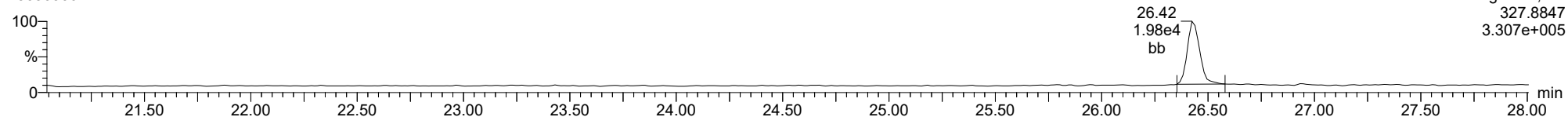
13C-1234-TCDD

23030306



37CL-2378-TCDD

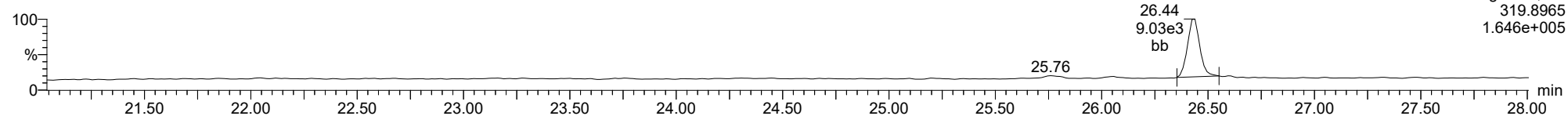
23030306



ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

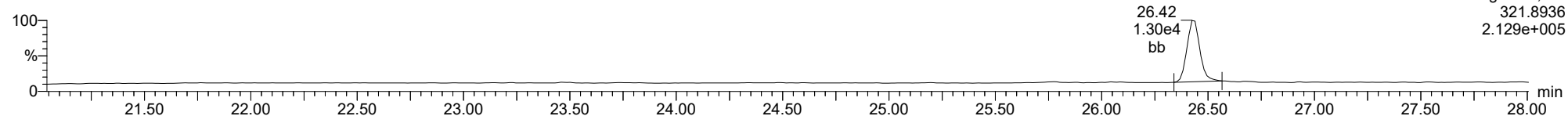
2378-TCDD

23030306



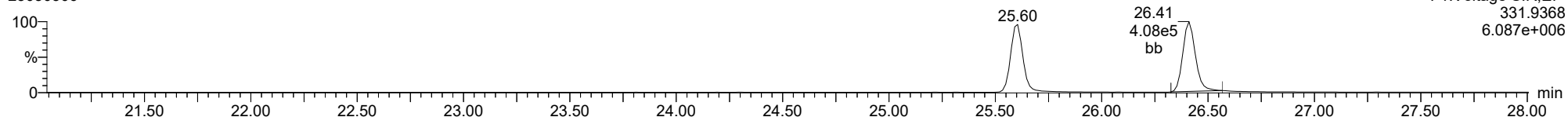
2378-TCDD

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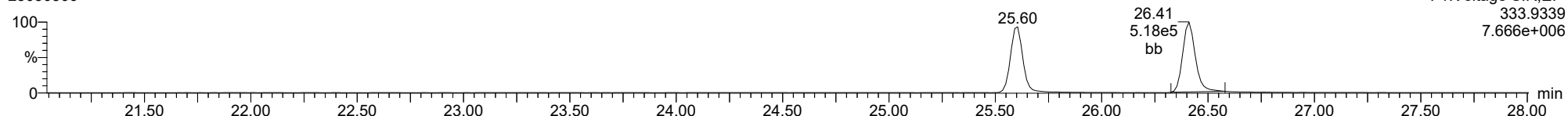
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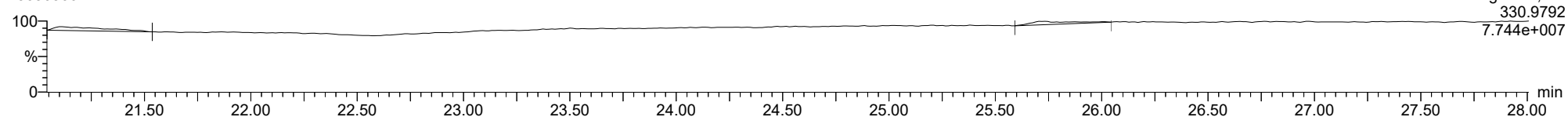
13C-2378-TCDD

23030306



FUNCTION1 PFK

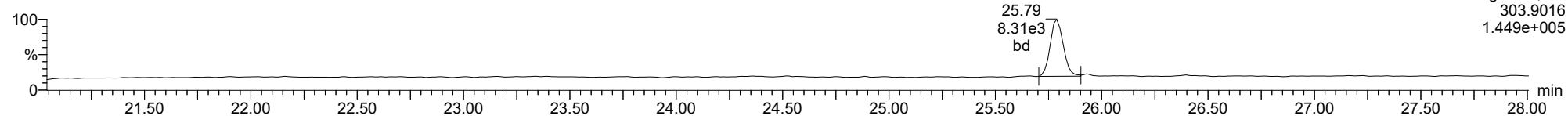
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ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

2378-TCDF

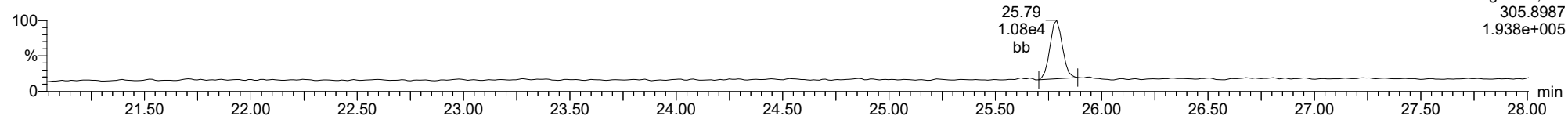
23030306



F1:Voltage SIR,EI+
303.9016
1.449e+005

2378-TCDF

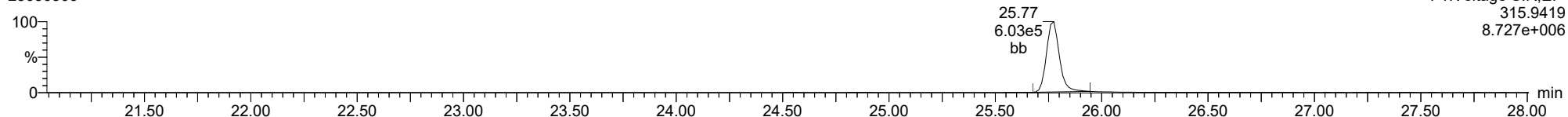
23030306



F1:Voltage SIR,EI+
305.8987
1.938e+005

13C-2378-TCDF

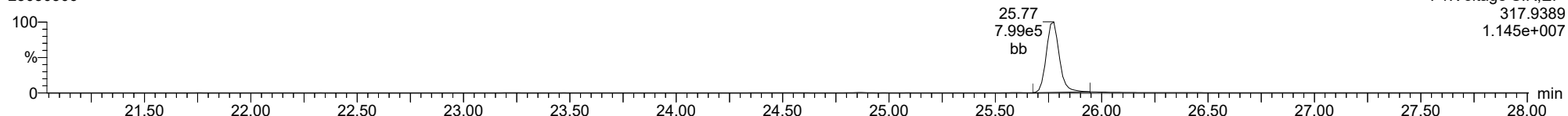
23030306



F1:Voltage SIR,EI+
315.9419
8.727e+006

13C-2378-TCDF

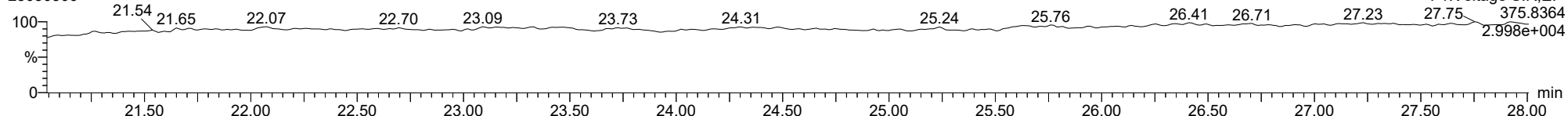
23030306



F1:Voltage SIR,EI+
317.9389
1.145e+007

FUNCTION1 HXCDFE

23030306

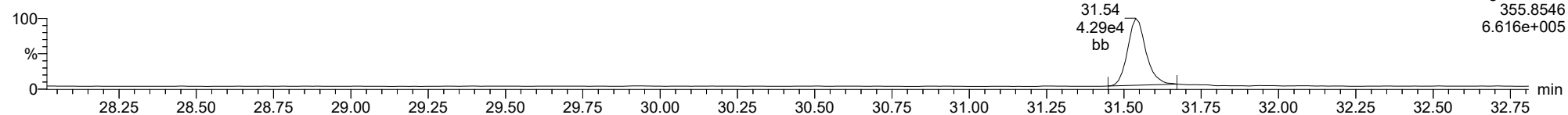


F1:Voltage SIR,EI+
375.8364
2.998e+004

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

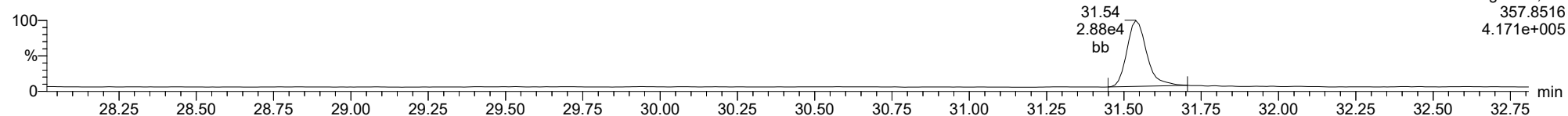
23030306



F2:Voltage SIR,EI+
355.8546
6.616e+005

12378-PeCDD

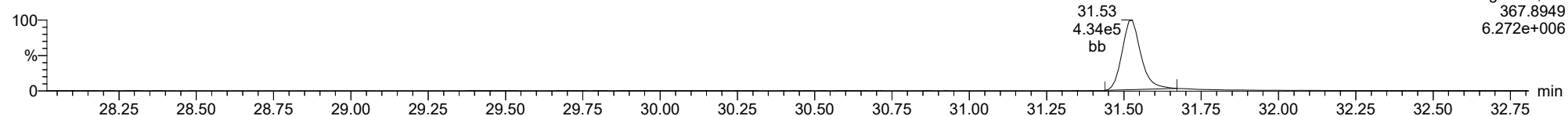
23030306



F2:Voltage SIR,EI+
357.8516
4.171e+005

13C-12378-PeCDD

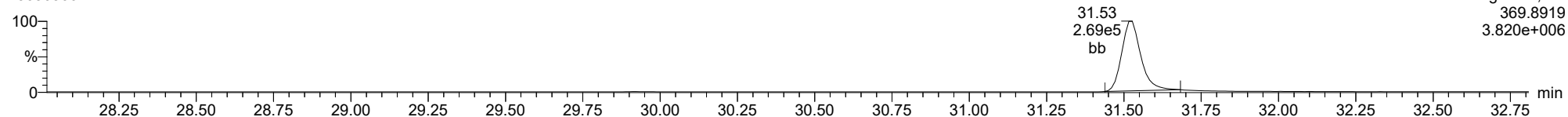
23030306



F2:Voltage SIR,EI+
367.8949
6.272e+006

13C-12378-PeCDD

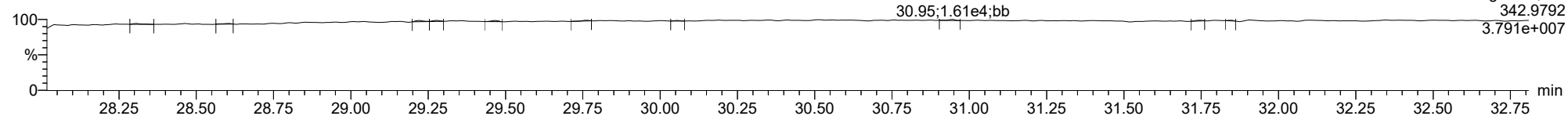
23030306



F2:Voltage SIR,EI+
369.8919
3.820e+006

FUNCTION2 PFK

23030306

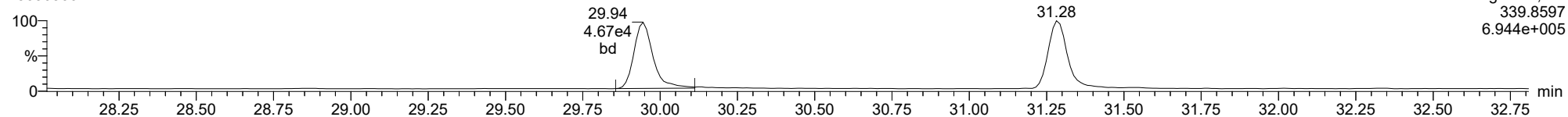


F2:Voltage SIR,EI+
342.9792
3.791e+007

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

12378-PeCDF

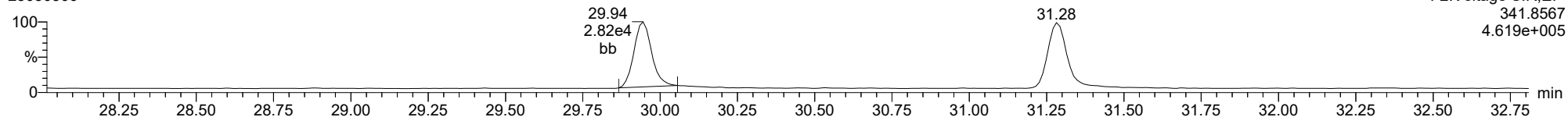
23030306



F2:Voltage SIR,EI+
339.8597
6.944e+005

12378-PeCDF

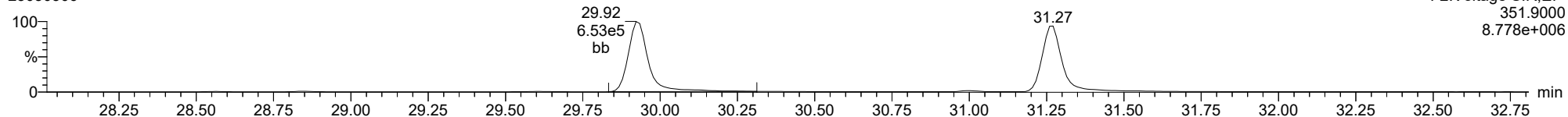
23030306



F2:Voltage SIR,EI+
341.8567
4.619e+005

13C-12378-PeCDF

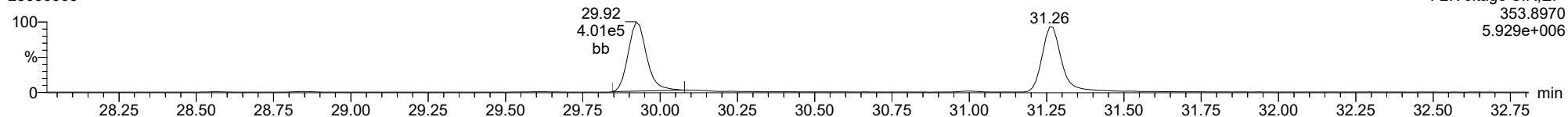
23030306



F2:Voltage SIR,EI+
351.9000
8.778e+006

13C-12378-PeCDF

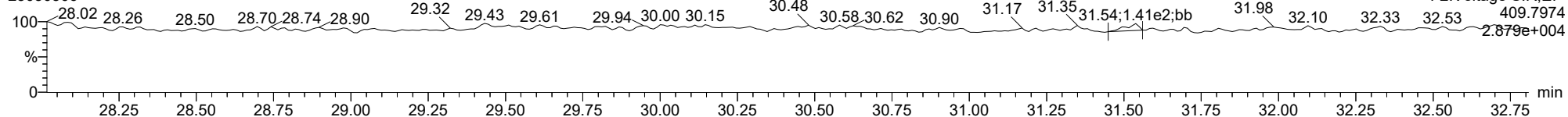
23030306



F2:Voltage SIR,EI+
353.8970
5.929e+006

FUNCTION2 HPCDPE

23030306

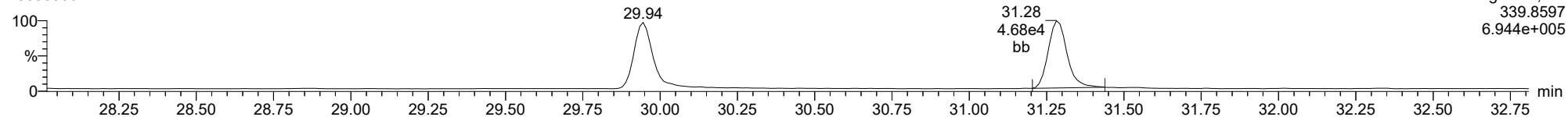


F2:Voltage SIR,EI+
409.7974
2.879e+004

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

23478-PeCDF

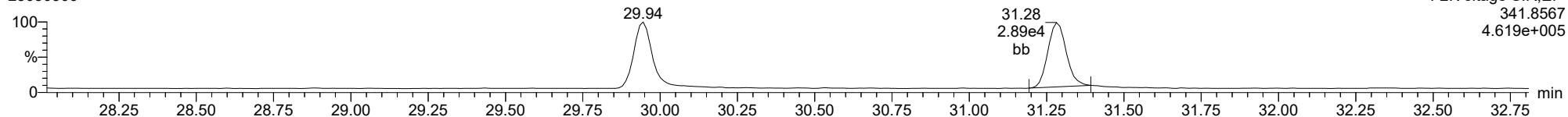
23030306



F2:Voltage SIR,EI+
339.8597
6.944e+005

23478-PeCDF

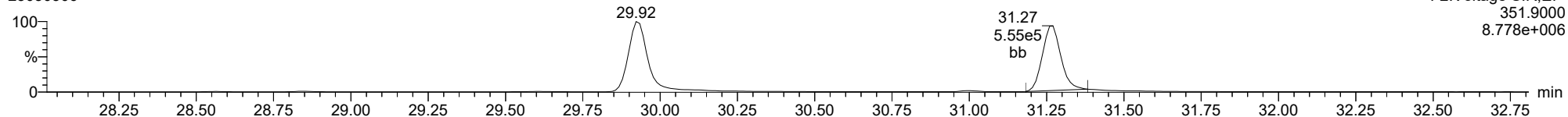
23030306



F2:Voltage SIR,EI+
341.8567
4.619e+005

13C-23478-PeCDF

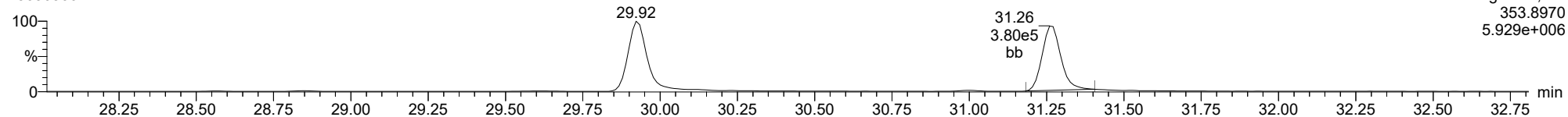
23030306



F2:Voltage SIR,EI+
351.9000
8.778e+006

13C-23478-PeCDF

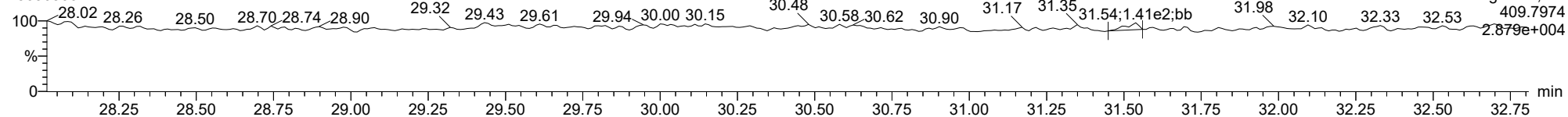
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F2:Voltage SIR,EI+
353.8970
5.929e+006

FUNCTION2 HPCDPE

23030306

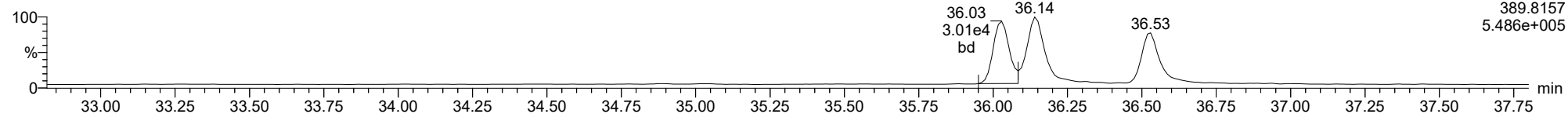


F2:Voltage SIR,EI+
409.7974
2.879e+004

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

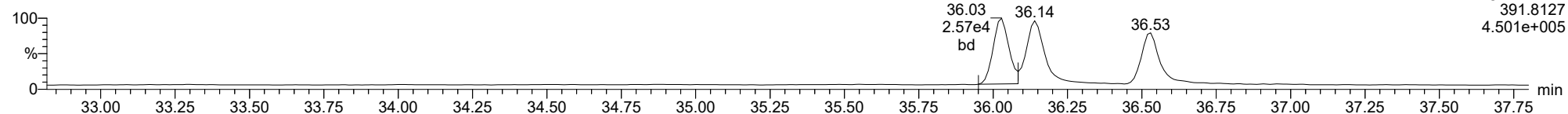
123478-HxCDD

23030306



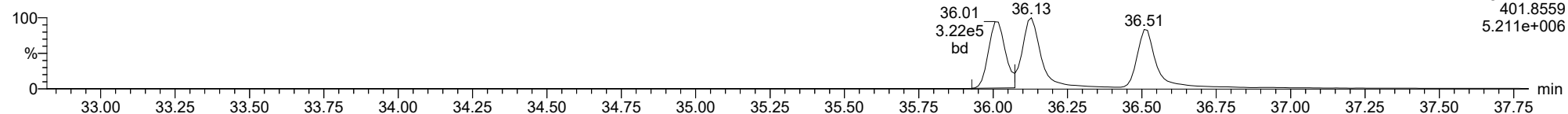
123478-HxCDD

23030306



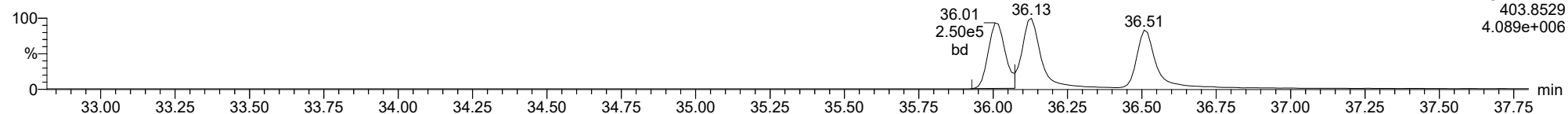
13C-123478-HxCDD

23030306



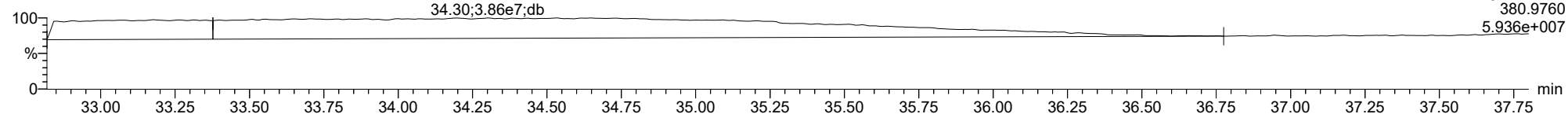
13C-123478-HxCDD

23030306



FUNCTION3 PFK

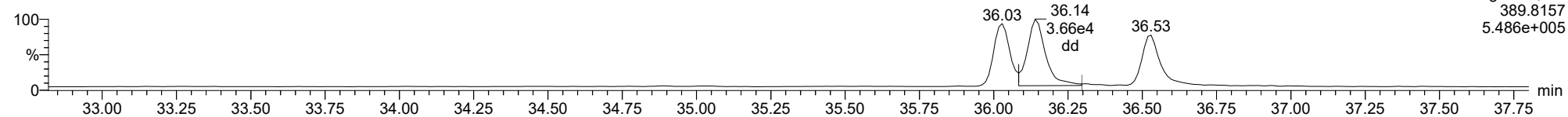
23030306



ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

123678-HxCDD

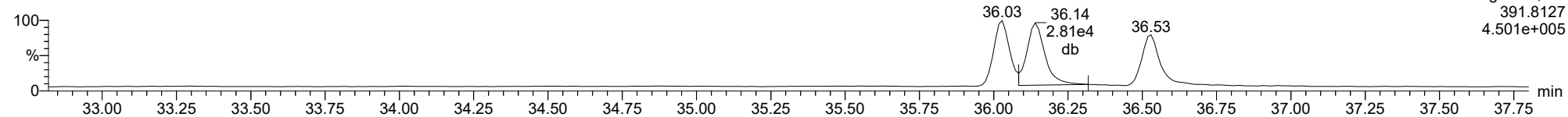
23030306



F3:Voltage SIR,EI+
389.8157
5.486e+005

123678-HxCDD

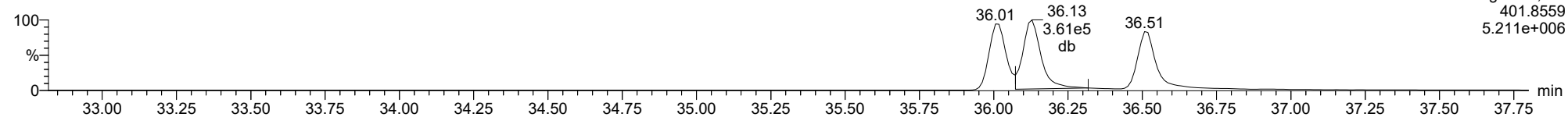
23030306



F3:Voltage SIR,EI+
391.8127
4.501e+005

13C-123678-HxCDD

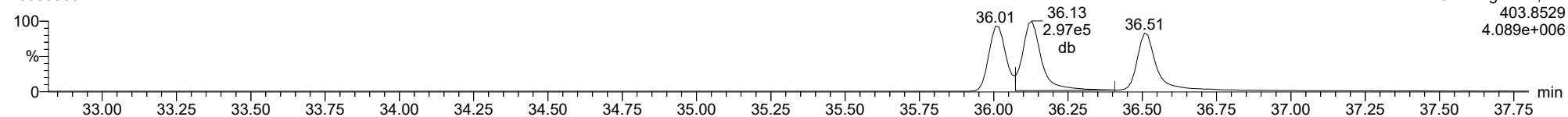
23030306



F3:Voltage SIR,EI+
401.8559
5.211e+006

13C-123678-HxCDD

23030306

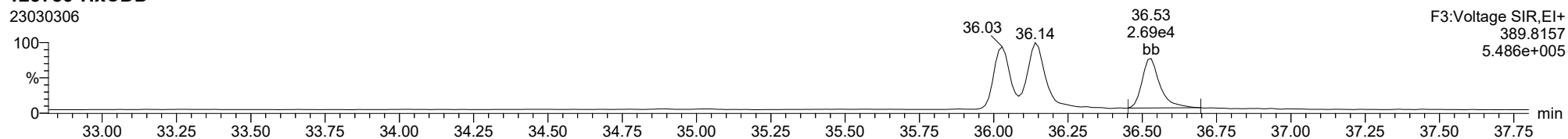


F3:Voltage SIR,EI+
403.8529
4.089e+006

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

123789-HxCDD

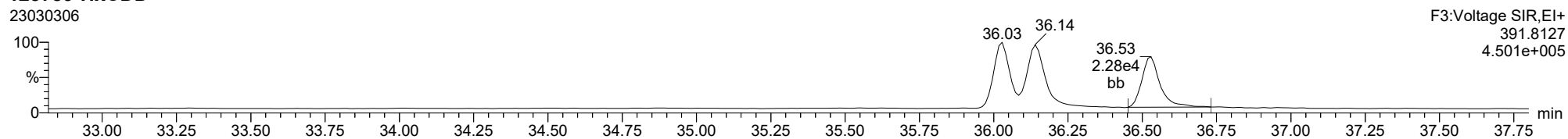
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F3:Voltage SIR,EI+
389.8157
5.486e+005

123789-HxCDD

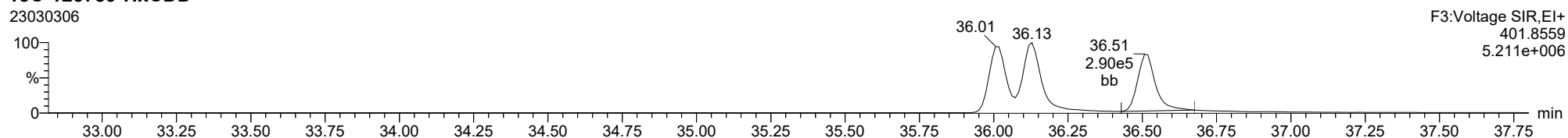
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F3:Voltage SIR,EI+
391.8127
4.501e+005

13C-123789-HxCDD

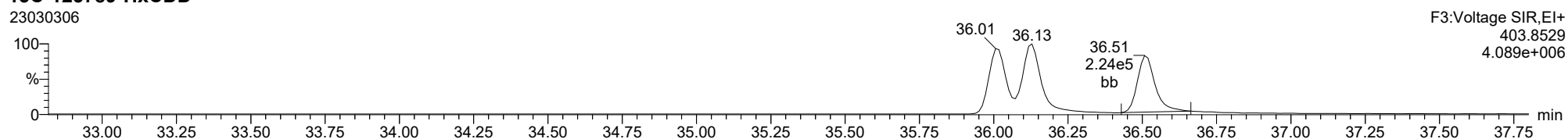
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F3:Voltage SIR,EI+
401.8559
5.211e+006

13C-123789-HxCDD

23030306

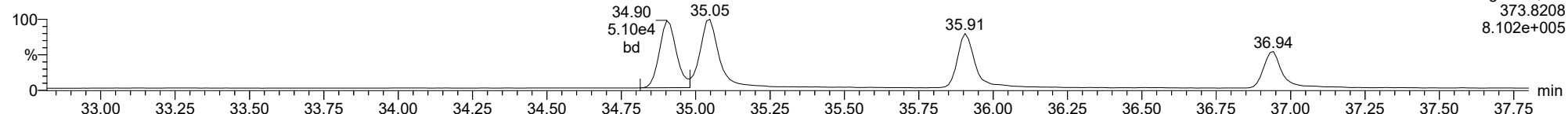


F3:Voltage SIR,EI+
403.8529
4.089e+006

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

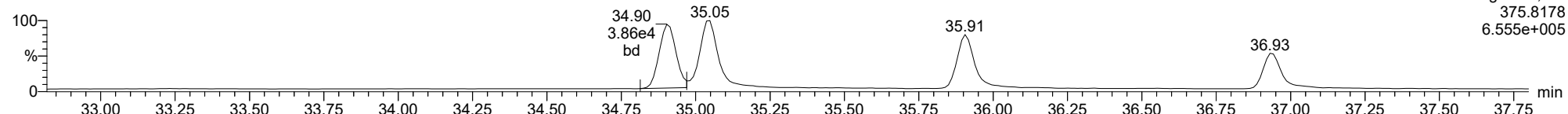
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23030306



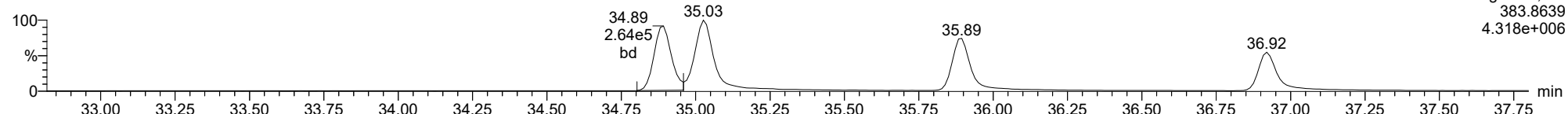
123478-HxCDF

23030306



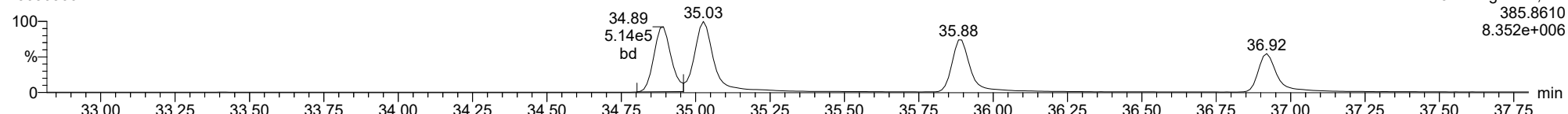
13C-123478-HxCDF

23030306



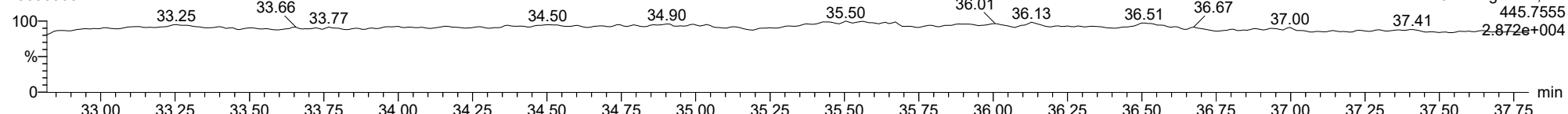
13C-123478-HxCDF

23030306



FUNCTION3 OCDPE

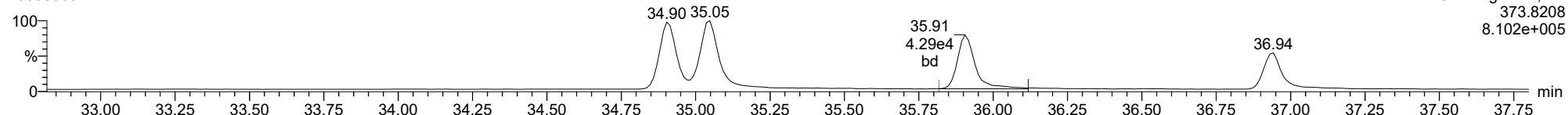
23030306



ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

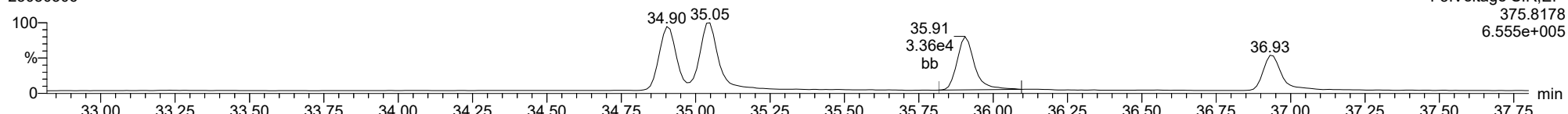
234678-HxCDF

23030306



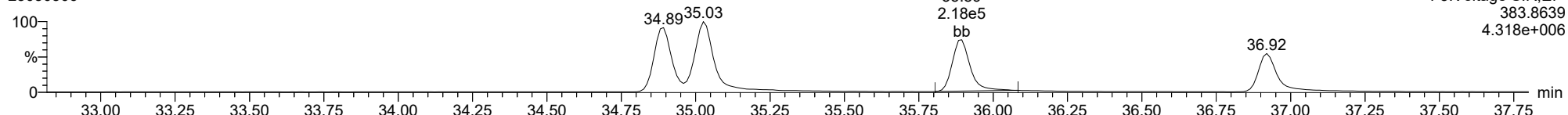
234678-HxCDF

23030306



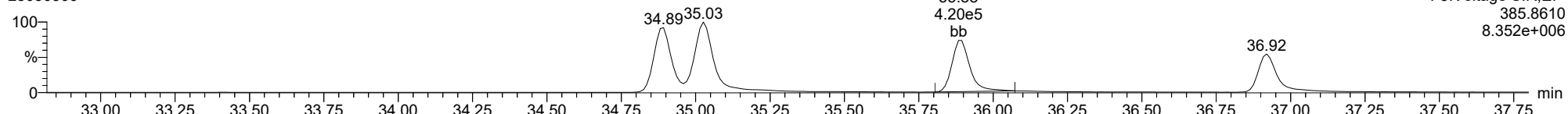
13C-234678-HxCDF

23030306



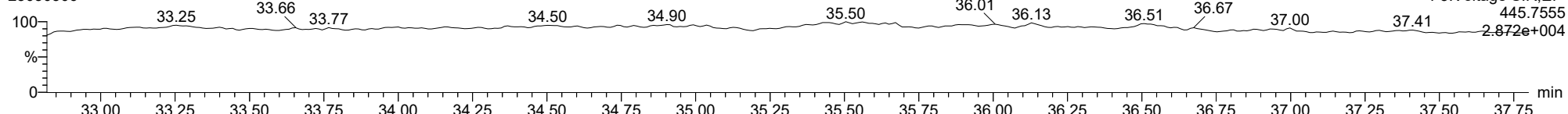
13C-234678-HxCDF

23030306



FUNCTION3 OCDPE

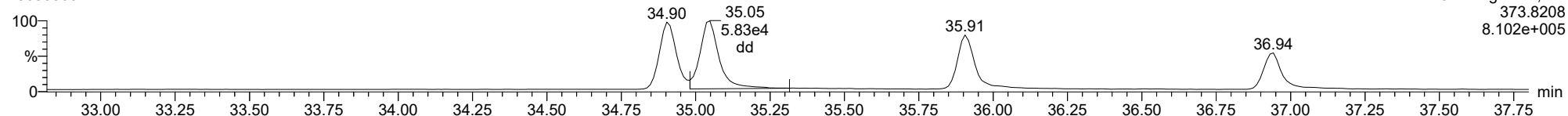
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ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

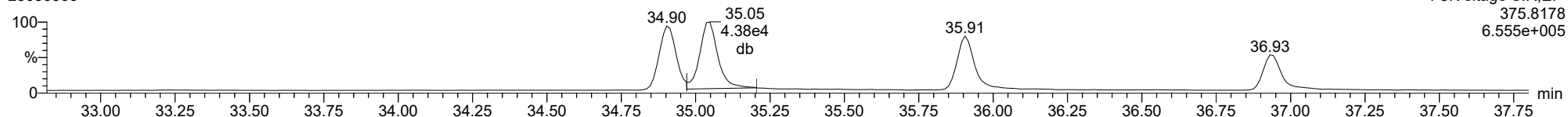
123678-HxCDF

23030306



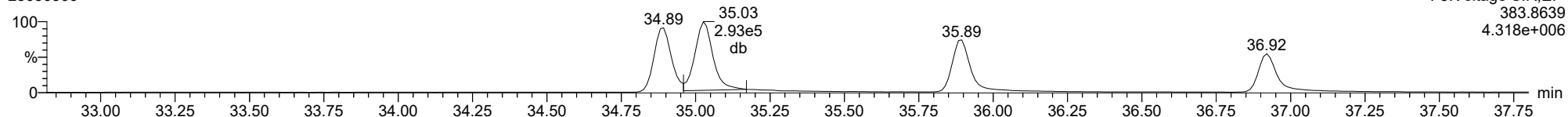
123678-HxCDF

23030306



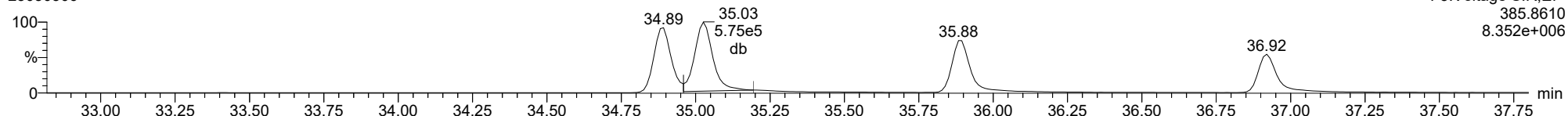
13C-123678-HxCDF

23030306



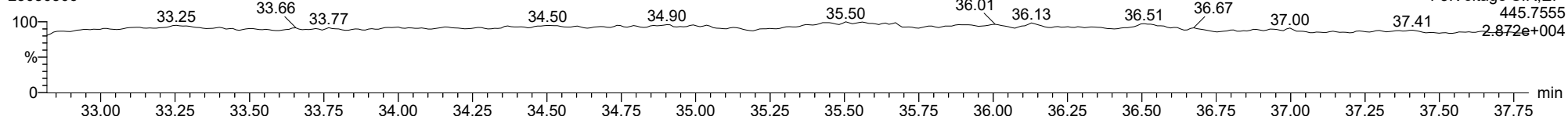
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23030306



FUNCTION3 OCDPE

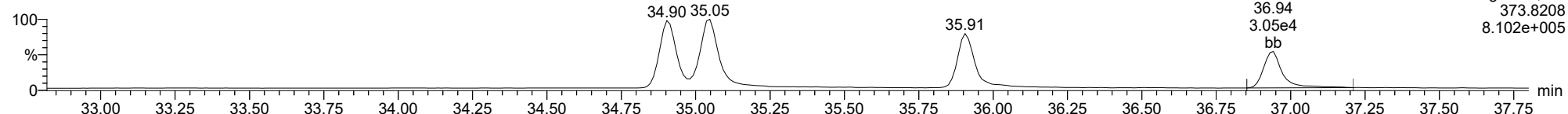
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ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

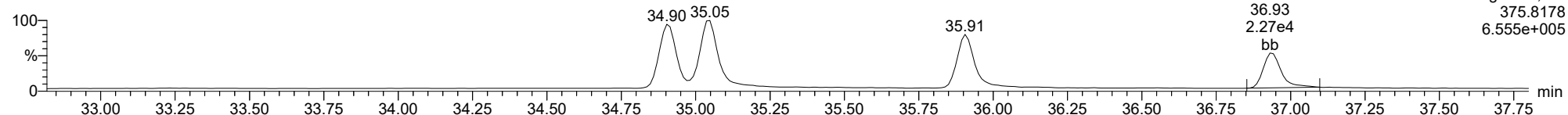
123789-HxCDF

23030306



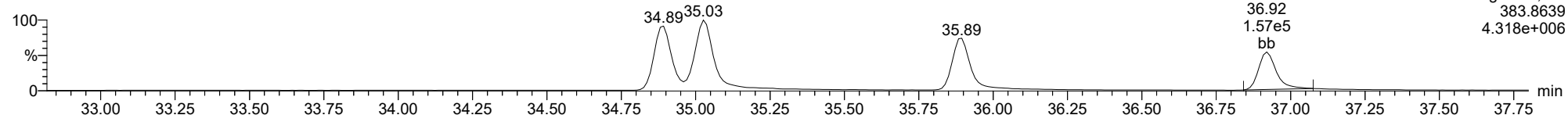
123789-HxCDF

23030306



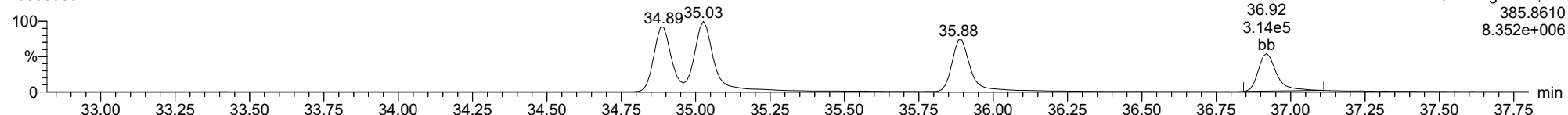
13C-123789-HxCDF

23030306



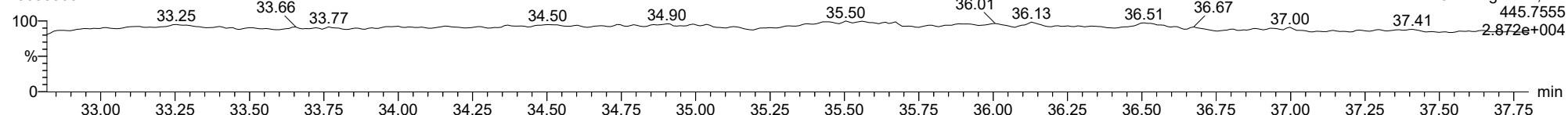
13C-123789-HxCDF

23030306



FUNCTION3 OCDPE

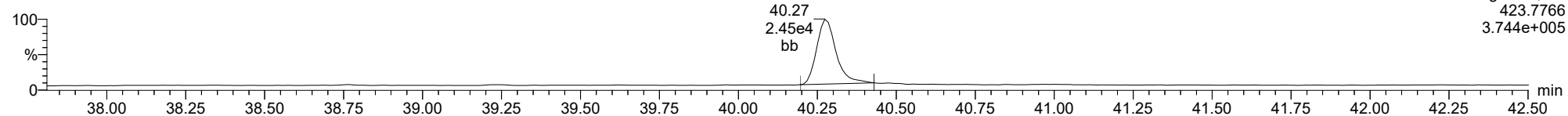
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ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

1234678-HpCDD

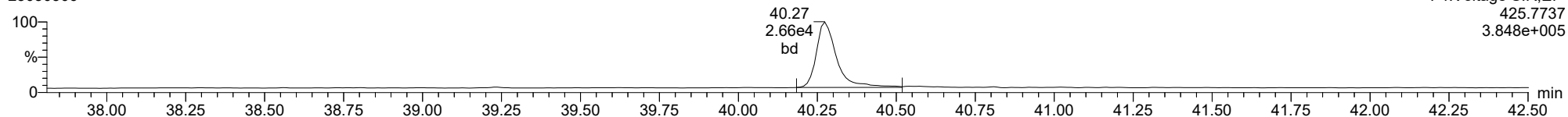
23030306



F4:Voltage SIR,El+
423.7766
3.744e+005

1234678-HpCDD

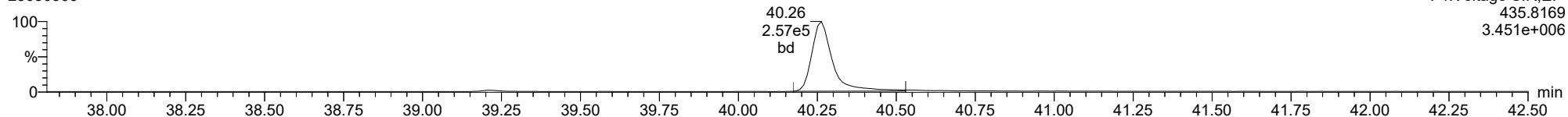
23030306



F4:Voltage SIR,El+
425.7737
3.848e+005

13C-1234678-HpCDD

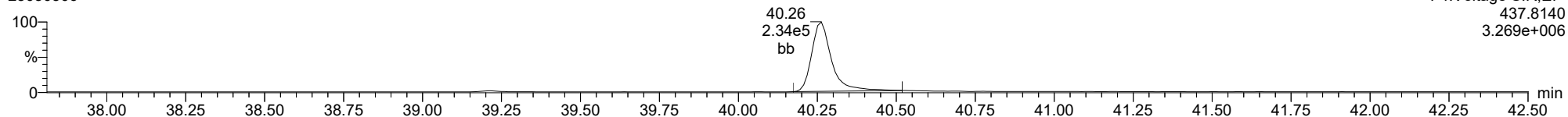
23030306



F4:Voltage SIR,El+
435.8169
3.451e+006

13C-1234678-HpCDD

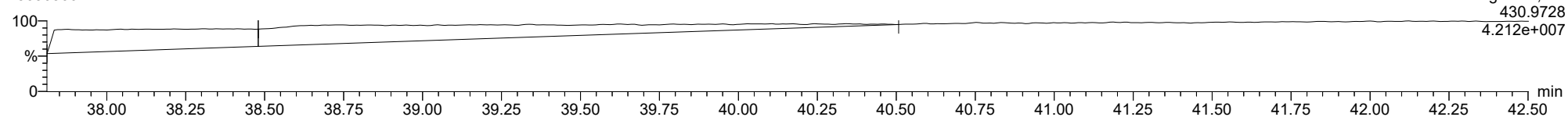
23030306



F4:Voltage SIR,El+
437.8140
3.269e+006

FUNCTION4 PFK

23030306

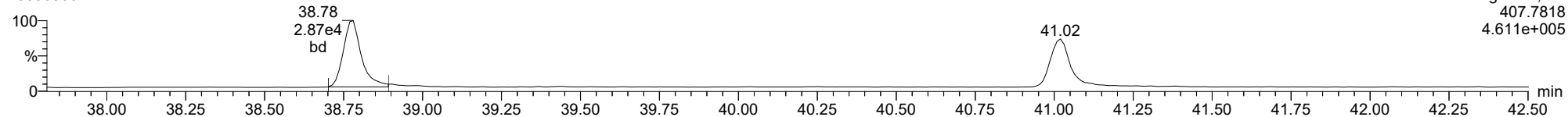


F4:Voltage SIR,El+
430.9728
4.212e+007

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

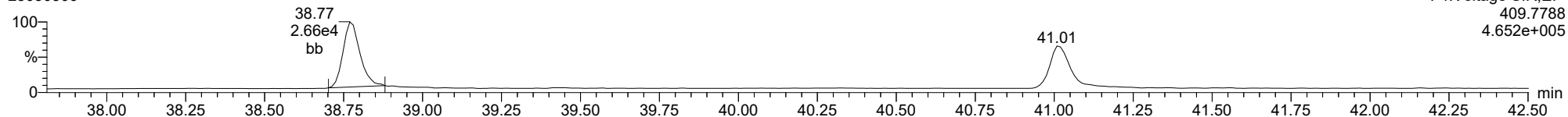
23030306



F4:Voltage SIR,EI+
407.7818
4.611e+005

1234678-HpCDF

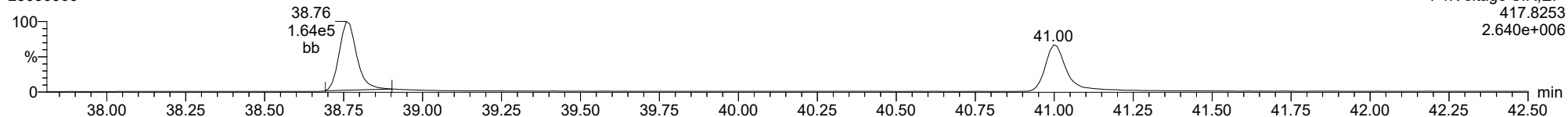
23030306



F4:Voltage SIR,EI+
409.7788
4.652e+005

13C-1234678-HpCDF

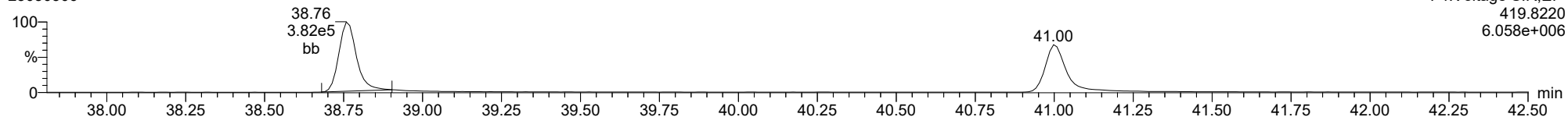
23030306



F4:Voltage SIR,EI+
417.8253
2.640e+006

13C-1234678-HpCDF

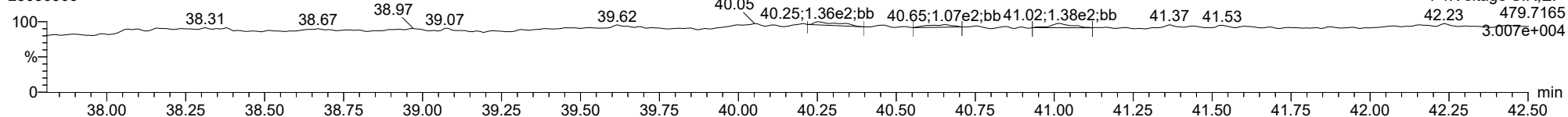
23030306



F4:Voltage SIR,EI+
419.8220
6.058e+006

FUNCTION4 NCDPE

23030306

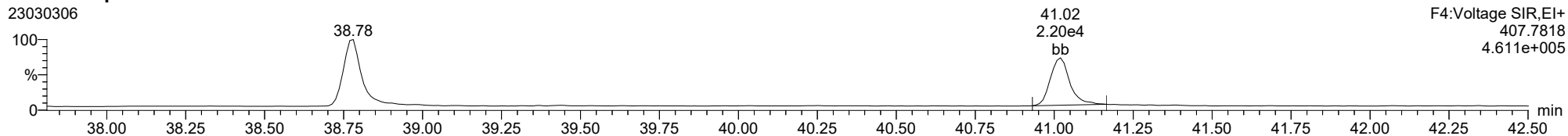


F4:Voltage SIR,EI+
42.23 479.7165
3.007e+004

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

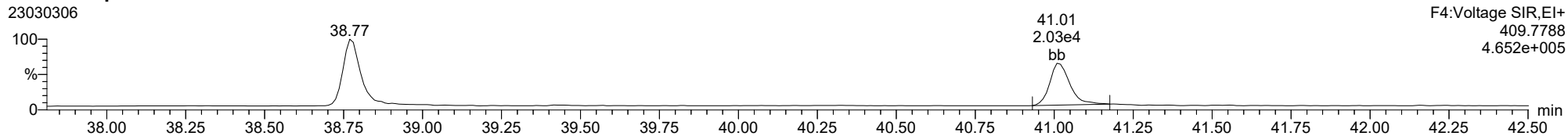
23030306



F4:Voltage SIR,EI+
407.7818
4.611e+005

1234789-HpCDF

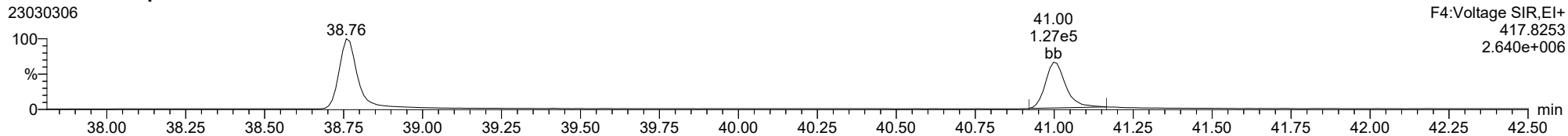
23030306



F4:Voltage SIR,EI+
409.7788
4.652e+005

13C-1234789-HpCDF

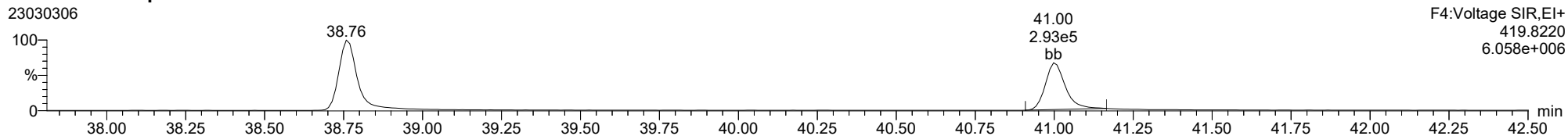
23030306



F4:Voltage SIR,EI+
417.8253
2.640e+006

13C-1234789-HpCDF

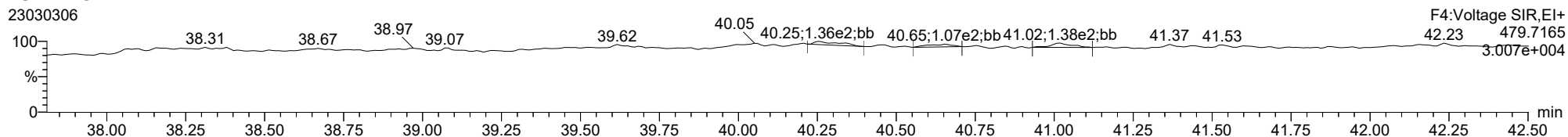
23030306



F4:Voltage SIR,EI+
419.8220
6.058e+006

FUNCTION4 NCDPE

23030306

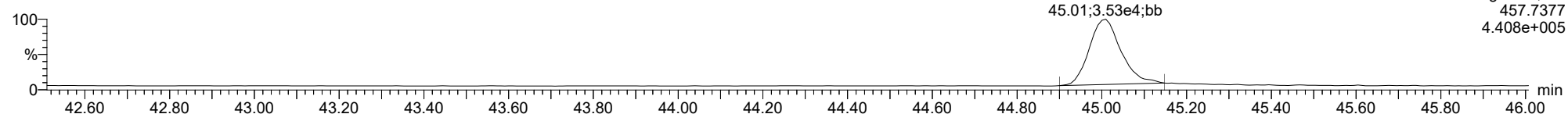


F4:Voltage SIR,EI+
429.7165
3.007e+004

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

OCDD

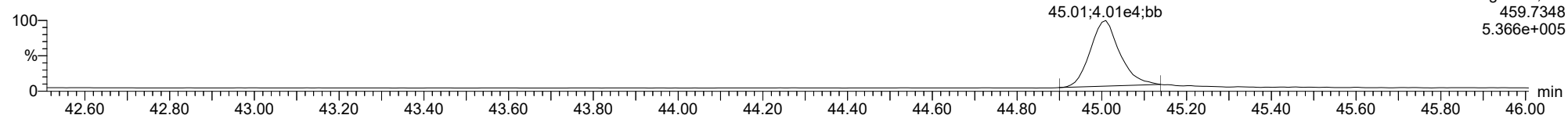
23030306



F5:Voltage SIR,EI+
457.7377
4.408e+005

OCDD

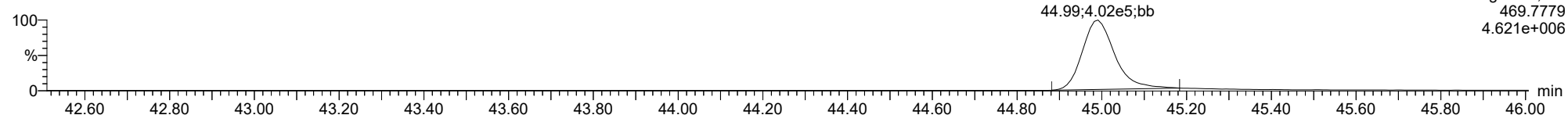
23030306



F5:Voltage SIR,EI+
459.7348
5.366e+005

13C-OCDD

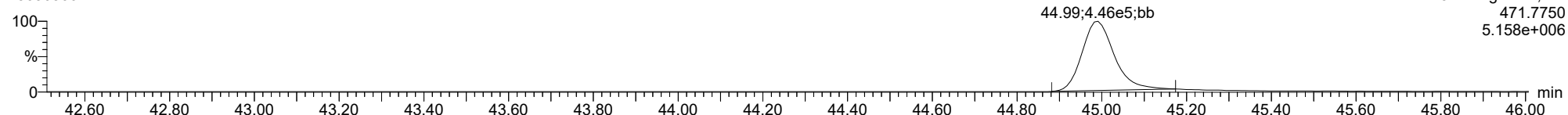
23030306



F5:Voltage SIR,EI+
469.7779
4.621e+006

13C-OCDD

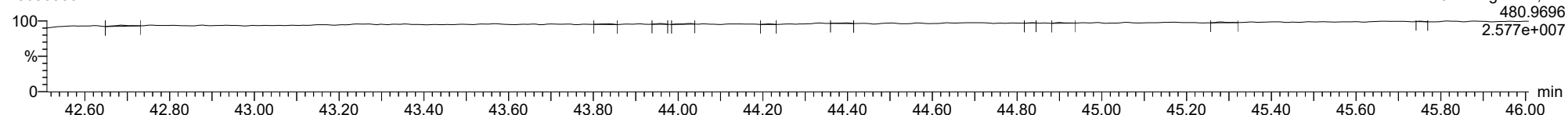
23030306



F5:Voltage SIR,EI+
471.7750
5.158e+006

FUNCTION5 PFK

23030306

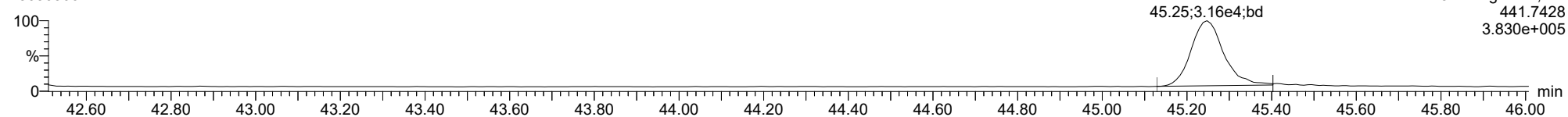


F5:Voltage SIR,EI+
480.9696
2.577e+007

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

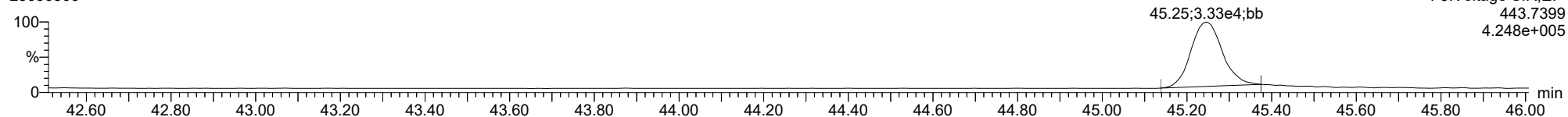
OCDF

23030306



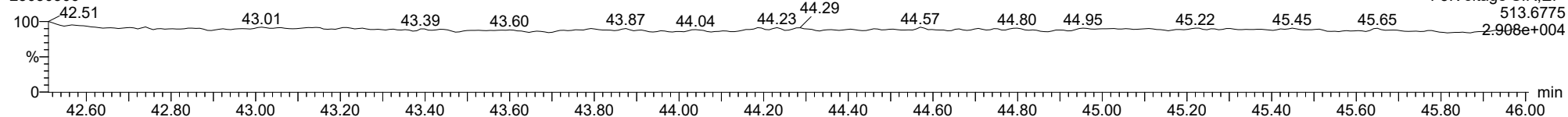
OCDF

23030306



FUNCTION5 DCDPE

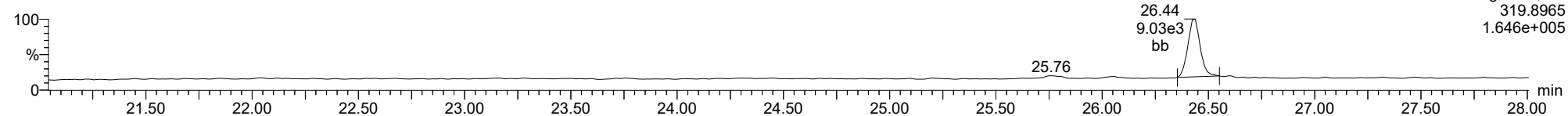
23030306



ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

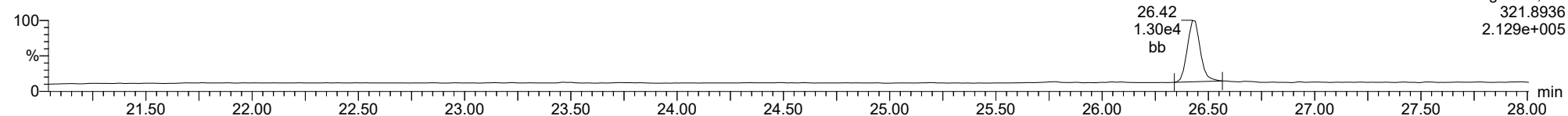
Total-tetradioxins

23030306



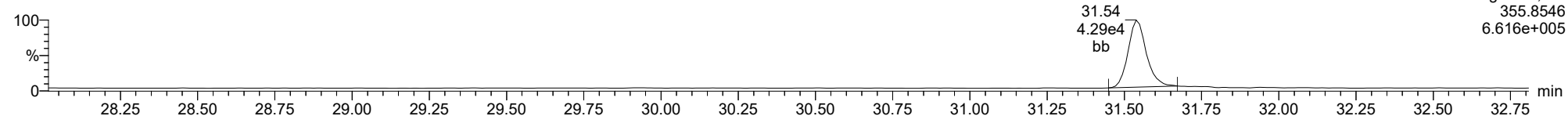
Total-tetradioxins

23030306



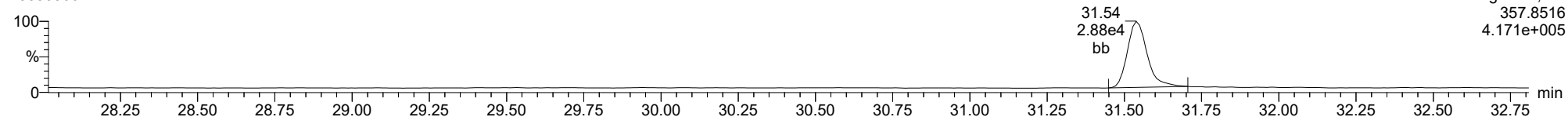
Total-pentadioxins

23030306



Total-pentadioxins

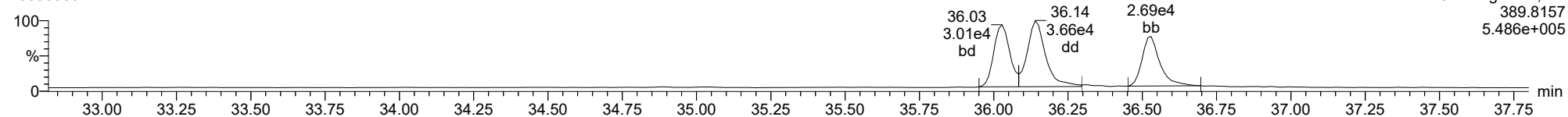
23030306



ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

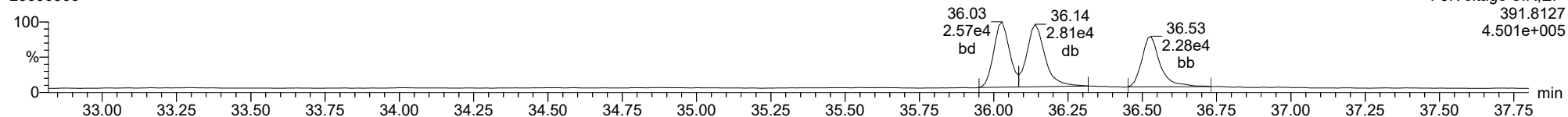
Total-hexadioxins

23030306



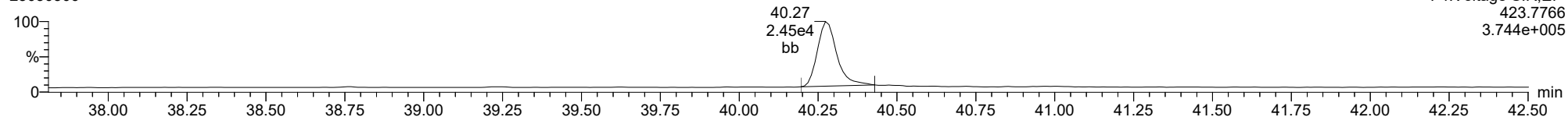
Total-hexadioxins

23030306



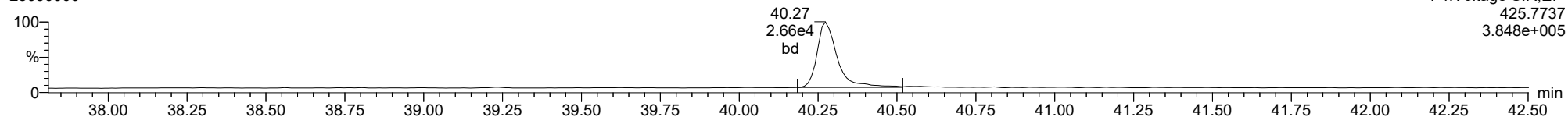
Total-heptadioxins

23030306



Total-heptadioxins

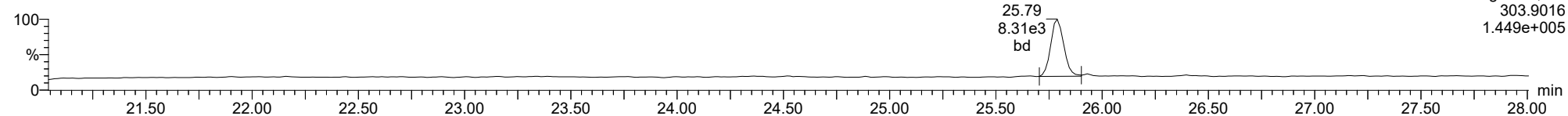
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ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

Total-tetrafurans

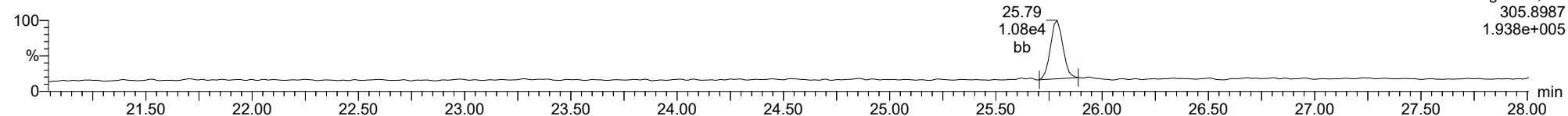
23030306



F1:Voltage SIR,EI+
303.9016
1.449e+005

Total-tetrafurans

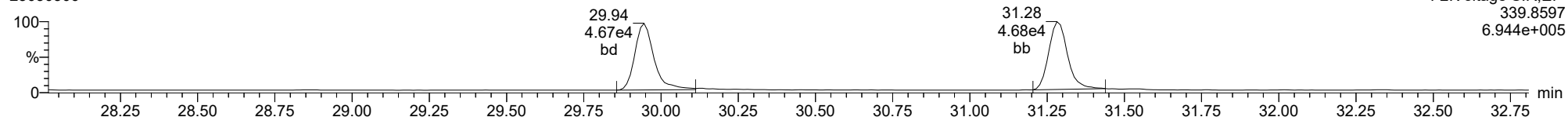
23030306



F1:Voltage SIR,EI+
305.8987
1.938e+005

Total-pentafurans

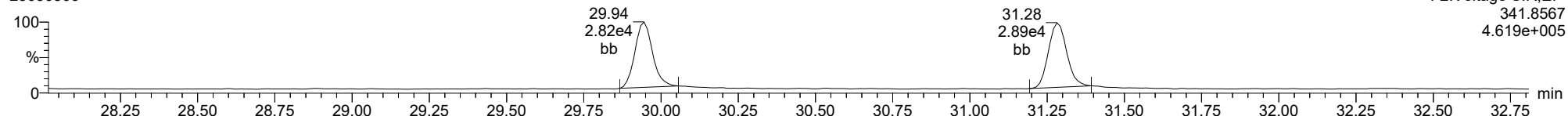
23030306



F2:Voltage SIR,EI+
339.8597
6.944e+005

Total-pentafurans

23030306

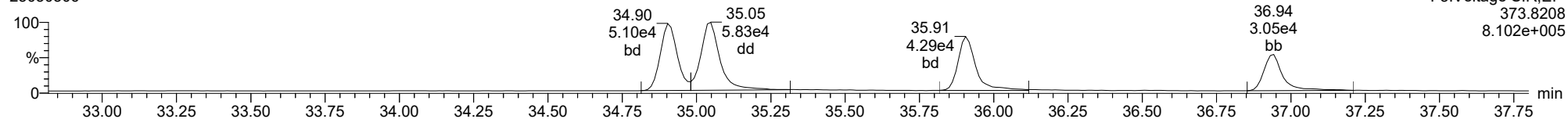


F2:Voltage SIR,EI+
341.8567
4.619e+005

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

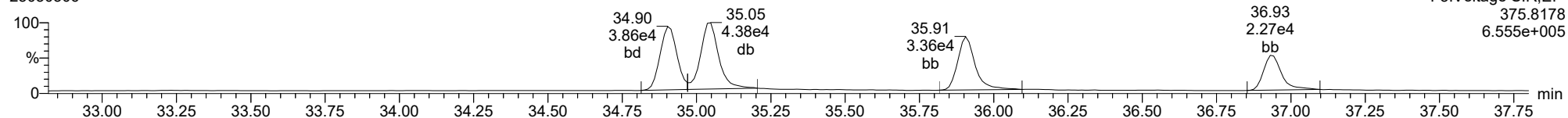
Total-hexafurans

23030306



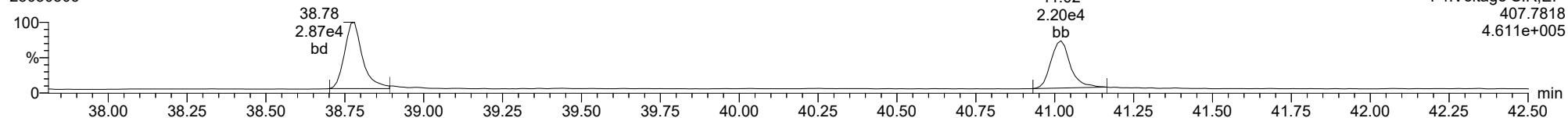
Total-hexafurans

23030306



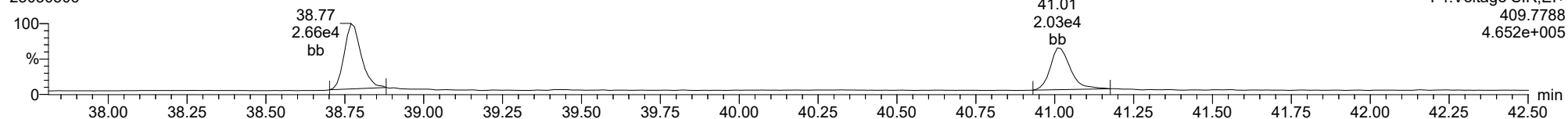
Total-heptafurans

23030306



Total-heptafurans

23030306



Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:37 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
 Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.788	1.001	4.563e4	6.298e4	0.702	0.724	0.770	1455	2151	7.03e5	9.46e5	483.4	440.0	NO	bb	bb	10.132
12378-PeCDF	29.945	1.001	2.374e5	1.577e5	0.679	1.505	1.550	2714	2519	3.51e6	2.28e6	1294.3	903.8	NO	bb	bb	49.089
23478-PeCDF	31.282	1.001	2.063e5	1.364e5	0.786	1.512	1.550	2714	2519	3.03e6	1.99e6	1118.0	788.5	NO	bb	bb	49.466
123478-HxCDF	34.903	1.000	2.473e5	1.941e5	1.166	1.275	1.240	3008	2708	3.76e6	2.98e6	1248.4	1099.9	NO	bd	bd	48.979
234678-HxCDF	35.905	1.000	2.404e5	1.930e5	1.140	1.246	1.240	3008	2708	3.53e6	2.85e6	1172.2	1053.8	NO	bb	bb	49.000
123678-HxCDF	35.048	1.001	2.970e5	2.223e5	1.091	1.336	1.240	3008	2708	3.95e6	3.09e6	1312.5	1142.3	NO	db	db	50.520
123789-HxCDF	36.942	1.001	2.103e5	1.706e5	1.137	1.233	1.240	3008	2708	2.89e6	2.30e6	959.2	849.3	NO	bd	bd	50.468
1234678-HpCDF	38.780	1.000	1.592e5	1.601e5	1.003	0.994	1.050	2672	2189	2.51e6	2.53e6	939.2	1157.5	NO	bb	bb	48.161
1234789-HpCDF	41.019	1.000	1.361e5	1.443e5	0.953	0.943	1.050	2672	2189	1.84e6	1.86e6	689.1	851.7	NO	bb	bd	49.244
OCDF	45.247	1.006	2.019e5	2.478e5	0.778	0.815	0.890	1393	1380	2.32e6	2.62e6	1663.0	1900.3	NO	bb	bd	93.418
2378-TCDD	26.424	1.000	5.877e4	7.446e4	1.149	0.789	0.770	1483	1021	8.00e5	1.03e6	539.5	1013.7	NO	bd	bb	9.873
12378-PeCDD	31.538	1.000	1.890e5	1.221e5	1.022	1.548	1.550	1651	2172	2.74e6	1.77e6	1662.3	815.6	NO	bb	bb	49.884
123478-HxCDD	36.028	1.000	1.812e5	1.479e5	0.996	1.225	1.240	1690	2600	2.90e6	2.38e6	1717.5	913.7	NO	bd	bd	48.605
123678-HxCDD	36.139	1.000	2.270e5	1.862e5	1.001	1.219	1.240	1690	2600	3.05e6	2.54e6	1803.3	977.3	NO	db	db	51.480
123789-HxCDD	36.529	1.011	1.887e5	1.546e5	0.907	1.221	1.240	1690	2600	2.71e6	2.20e6	1606.4	846.3	NO	bb	bb	51.083
1234678-HpCDD	40.273	1.000	1.573e5	1.681e5	1.039	0.936	1.050	2523	2313	2.21e6	2.22e6	874.4	957.9	NO	bb	bd	49.956
OCDD	45.009	1.000	2.508e5	2.930e5	0.920	0.856	0.890	1279	1652	2.91e6	3.41e6	2272.5	2065.6	NO	bb	bb	95.487
13C-2378-TCDF	25.774	1.007	6.575e5	8.705e5	1.620	0.755	0.770	2127	1667	9.70e6	1.27e7	4562.2	7600.8	NO	bb	bb	92.139
13C-12378-PeCDF	29.922	1.169	7.106e5	4.742e5	1.240	1.498	1.550	3150	3257	9.76e6	6.54e6	3098.5	2009.5	NO	bd	bd	93.316
13C-23478-PeCDF	31.259	1.221	5.241e5	3.573e5	1.118	1.467	1.550	3150	3257	7.68e6	5.27e6	2437.6	1617.5	NO	bb	bb	77.038
13C-123478-HxCDF	34.891	0.956	2.605e5	5.124e5	1.168	0.508	0.510	2130	2302	3.94e6	7.71e6	1851.1	3349.5	NO	bd	bd	95.975
13C-123678-HxCDF	35.025	0.959	3.029e5	6.396e5	1.386	0.474	0.510	2130	2302	4.25e6	8.39e6	1994.1	3646.7	NO	db	db	98.624
13C-234678-HxCDF	35.894	0.983	2.705e5	5.057e5	1.129	0.535	0.510	2130	2302	3.77e6	7.17e6	1772.4	3115.7	NO	bd	bb	99.718
13C-123789-HxCDF	36.919	1.011	2.253e5	4.385e5	0.932	0.514	0.510	2130	2302	3.30e6	6.48e6	1548.0	2814.2	NO	bb	bb	103.358
13C-1234678-HpCDF	38.769	1.062	2.032e5	4.578e5	0.895	0.444	0.440	2209	3025	3.15e6	7.13e6	1428.1	2357.0	NO	bb	bb	107.118
13C-1234789-HpCDF	41.008	1.123	1.757e5	4.217e5	0.770	0.417	0.440	2209	3025	2.29e6	5.20e6	1036.4	1717.4	NO	bb	bb	112.595
13C-1234-TCDD	25.605	0.000	4.555e5	5.681e5	1.000	0.802	0.770	2485	1606	6.85e6	8.57e6	2757.9	5335.2	NO	bb	bb	100.000
13C-2378-TCDD	26.410	1.031	5.228e5	6.520e5	1.152	0.802	0.770	2485	1606	7.70e6	9.63e6	3097.5	5999.3	NO	bb	bb	99.597
13C-12378-PeCDD	31.527	1.231	3.747e5	2.356e5	0.829	1.590	1.550	1413	1348	5.28e6	3.29e6	3736.6	2437.5	NO	bb	bb	71.936
13C-123478-HxCDD	36.017	0.986	3.837e5	2.963e5	0.995	1.295	1.240	1796	1719	5.91e6	4.54e6	3293.9	2638.3	NO	bd	bd	99.140
13C-123678-HxCDD	36.128	0.989	4.675e5	3.344e5	1.157	1.398	1.240	1796	1719	6.38e6	4.87e6	3554.2	2831.4	NO	db	db	100.573
13C-1234678-HpCDD	40.262	1.102	3.210e5	3.059e5	0.840	1.049	1.050	2165	1959	4.38e6	4.15e6	2024.2	2117.7	NO	bb	bb	108.247
13C-OCDD	44.990	1.232	6.075e5	6.305e5	0.767	0.963	0.890	2629	1930	6.50e6	7.26e6	2473.3	3761.0	NO	bd	bb	234.029
13C-123789-HxCDD	36.518	0.000	3.849e5	3.043e5	1.000	1.265	1.240	1796	1719	5.52e6	4.36e6	3076.5	2537.0	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.032	1.159e5		1.288			2383		1.68e6		703.2			bb		8.796

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.285	0.865	5.143e4	7.104e4	0.802	0.724	0.770	1455	2151	8.64e5	1.17e6	593.7	544.2	NO	bb	bb	10.000
1289-TCDF	27.286	1.059	4.449e4	5.910e4	0.678	0.753	0.770	1455	2151	6.41e5	8.65e5	440.8	402.3	NO	bb	db	10.000
13468-PECDF	27.144	0.907	4.471e5	2.913e5	1.246	1.535	1.550	765	1431	6.85e6	4.42e6	8952.4	3092.4	NO	bb	bb	50.000
12389-PECDF	32.318	1.080	1.756e5	1.185e5	0.496	1.482	1.550	2714	2519	2.46e6	1.67e6	905.1	663.5	NO	bb	bb	50.000
123468-HXCDF	33.243	0.953	2.474e5	2.044e5	1.169	1.210	1.240	3008	2708	3.57e6	2.89e6	1187.3	1066.9	NO	bb	bd	50.000
1368-TCDD	23.557	0.892	5.333e4	6.596e4	1.015	0.808	0.770	1483	1021	8.25e5	1.09e6	556.5	1064.4	NO	bb	bb	10.000
1289-TCDD	27.031	1.023	4.649e4	6.027e4	0.909	0.771	0.770	1483	1021	6.71e5	8.87e5	452.4	868.9	NO	bb	bb	10.000
12479-PECDD	28.830	0.914	4.152e5	2.870e5	2.301	1.447	1.550	1651	2172	3.89e6	2.64e6	2354.1	1214.5	NO	bb	bd	50.000
12389-PECDD	31.939	1.013	2.202e5	1.409e5	1.184	1.563	1.550	1651	2172	2.97e6	1.93e6	1798.8	887.7	NO	bd	bd	50.000
124679-HXCDD	34.011	0.944	2.133e5	1.659e5	1.115	1.286	1.240	1690	2600	2.98e6	2.42e6	1762.3	930.8	NO	bd	bb	50.000
1234679-HPCDD	39.225	0.974	1.868e5	1.696e5	1.137	1.101	1.050	2523	2313	2.68e6	2.60e6	1062.7	1125.2	NO	bd	bb	50.000
Total-tetrafurans			1.415e5		0.727			1455		2.21e6							30.132
Total-penta1			4.471e5					765		6.85e6							50.000
Total-pentafurans			6.595e5		0.654			2714		9.58e6							158.378
Total-hexafurans			1.243e6		1.141			3008		1.77e7							249.074
Total-heptafurans			2.965e5		0.978			2672		4.37e6							97.824
Total-Furans			2.990e6		0.922			1455		4.30e7							678.826
Total-tetradioxins			2.666e5		1.024			1483		3.52e6							50.252
Total-pentadioxins			8.253e5		1.502			1651		9.61e6							150.025
Total-hexadioxins			8.102e5		1.005			1690		1.16e7							201.167
Total-heptadioxins			3.440e5		1.088			2523		4.89e6							99.956
Total-Dioxins			2.497e6		1.130			1483		3.26e7							596.887
Total-TEQ			5.487e6					1483		7.56e7							1275.713
FUNCTION1 PFK			2.078e5					640846		4.44e6							
FUNCTION2 PFK			1.544e7					302960		1.17e7							0.000
FUNCTION3 PFK			6.335e6					441696		3.43e7							0.000
FUNCTION4 PFK			1.606e7					302692		2.36e6							
FUNCTION5 PFK			3.357e4					240421		1.60e6							
FUNCTION1 HXCD...			1.444e3					587		1.68e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			9.034e2					1003		1.66e4							0.000
FUNCTION3 OCDPE			5.560e2					494		8.57e3							0.000
FUNCTION4 NCDPE			9.205e2					776		1.78e4							0.000
FUNCTION5 DCDPE			9.291e1					548		1.29e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
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Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.449e4	5.910e4	0.678	0.75	0.77	440.8	YES	NO	bb	db	10.000
2	2378-TCDF	25.79	4.563e4	6.298e4	0.702	0.72	0.77	483.4	YES	NO	bb	bb	10.132
3	1368-TCDF	22.29	5.143e4	7.104e4	0.802	0.72	0.77	593.7	YES	NO	bb	bb	10.000

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.14	4.471e5	2.913e5	1.246	1.53	1.55	8952.4	YES	NO	bb	bb	50.000

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.32	1.756e5	1.185e5	0.496	1.48	1.55	905.1	YES	NO	bb	bb	50.000
2	23478-PeCDF	31.28	2.063e5	1.364e5	0.786	1.51	1.55	1118.0	YES	NO	bb	bb	49.466
3	Total-pentafurans	30.13	4.319e2	3.264e2	0.654	1.32	1.55	1.8	NO	NO	bb	bb	0.112
4	12378-PeCDF	29.94	2.374e5	1.577e5	0.679	1.51	1.55	1294.3	YES	NO	bb	bb	49.089
5	Total-pentafurans	28.80	3.978e4	2.583e4	0.654	1.54	1.55	212.5	YES	NO	bb	bb	9.712

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	37.33	5.073e2	4.522e2	1.141	1.12	1.24	4.2	YES	NO	db	dd	0.107
2	123789-HxCDF	36.94	2.103e5	1.706e5	1.137	1.23	1.24	959.2	YES	NO	bd	bd	50.468
3	234678-HxCDF	35.91	2.404e5	1.930e5	1.140	1.25	1.24	1172.2	YES	NO	bb	bb	49.000
4	123678-HxCDF	35.05	2.970e5	2.223e5	1.091	1.34	1.24	1312.5	YES	NO	db	db	50.520
5	123478-HxCDF	34.90	2.473e5	1.941e5	1.166	1.27	1.24	1248.4	YES	NO	bd	bd	48.979
6	123468-HXCDF	33.24	2.474e5	2.044e5	1.169	1.21	1.24	1187.3	YES	NO	bb	bd	50.000

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.02	1.361e5	1.443e5	0.953	0.94	1.05	689.1	YES	NO	bb	bd	49.244
2	Total-heptafurans	39.44	1.302e3	1.273e3	0.978	1.02	1.05	8.5	YES	NO	bb	bb	0.418
3	1234678-HpCDF	38.78	1.592e5	1.601e5	1.003	0.99	1.05	939.2	YES	NO	bb	bb	48.161

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.449e4	5.910e4	0.678	0.75	0.77	440.8	YES	NO	bb	db	10.000
2	2378-TCDF	25.79	4.563e4	6.298e4	0.702	0.72	0.77	483.4	YES	NO	bb	bb	10.132
3	1368-TCDF	22.29	5.143e4	7.104e4	0.802	0.72	0.77	593.7	YES	NO	bb	bb	10.000
4	12389-PECDF	32.32	1.756e5	1.185e5	0.496	1.48	1.55	905.1	YES	NO	bb	bb	50.000
5	23478-PeCDF	31.28	2.063e5	1.364e5	0.786	1.51	1.55	1118.0	YES	NO	bb	bb	49.466
6	Total-pentafurans	30.13	4.319e2	3.264e2	0.654	1.32	1.55	1.8	NO	NO	bb	bb	0.112
7	12378-PeCDF	29.94	2.374e5	1.577e5	0.679	1.51	1.55	1294.3	YES	NO	bb	bb	49.089
8	Total-pentafurans	28.80	3.978e4	2.583e4	0.654	1.54	1.55	212.5	YES	NO	bb	bb	9.712
9	Total-hexafurans	37.33	5.073e2	4.522e2	1.141	1.12	1.24	4.2	YES	NO	db	dd	0.107
10	123789-HxCDF	36.94	2.103e5	1.706e5	1.137	1.23	1.24	959.2	YES	NO	bd	bd	50.468
11	234678-HxCDF	35.91	2.404e5	1.930e5	1.140	1.25	1.24	1172.2	YES	NO	bb	bb	49.000
12	123678-HxCDF	35.05	2.970e5	2.223e5	1.091	1.34	1.24	1312.5	YES	NO	db	db	50.520
13	123478-HxCDF	34.90	2.473e5	1.941e5	1.166	1.27	1.24	1248.4	YES	NO	bd	bd	48.979
14	123468-HXCDF	33.24	2.474e5	2.044e5	1.169	1.21	1.24	1187.3	YES	NO	bb	bd	50.000
15	1234789-HpCDF	41.02	1.361e5	1.443e5	0.953	0.94	1.05	689.1	YES	NO	bb	bd	49.244
16	Total-heptafurans	39.44	1.302e3	1.273e3	0.978	1.02	1.05	8.5	YES	NO	bb	bb	0.418
17	1234678-HpCDF	38.78	1.592e5	1.601e5	1.003	0.99	1.05	939.2	YES	NO	bb	bb	48.161
18	OCDF	45.25	2.019e5	2.478e5	0.778	0.81	0.89	1663.0	YES	NO	bb	bd	93.418
19	13468-PECDF	27.14	4.471e5	2.913e5	1.246	1.53	1.55	8952.4	YES	NO	bb	bb	50.000

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.56	5.333e4	6.596e4	1.015	0.81	0.77	556.5	YES	NO	bb	bb	10.000
2	1289-TCDD	27.03	4.649e4	6.027e4	0.909	0.77	0.77	452.4	YES	NO	bb	bb	10.000
3	2378-TCDD	26.42	5.877e4	7.446e4	1.149	0.79	0.77	539.5	YES	NO	bd	bb	9.873
4	Total-tetradoxins	26.10	8.105e4	1.035e5	1.024	0.78	0.77	553.1	YES	NO	bb	bb	15.333
5	Total-tetradoxins	25.62	2.642e4	3.299e4	1.024	0.80	0.77	267.0	YES	NO	bd	bb	4.937
6	Total-tetradoxins	25.04	5.856e2	7.161e2	1.024	0.82	0.77	7.0	YES	NO	bb	bb	0.108

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.94	2.202e5	1.409e5	1.184	1.56	1.55	1798.8	YES	NO	bd	bd	50.000
2	12378-PeCDD	31.54	1.890e5	1.221e5	1.022	1.55	1.55	1662.3	YES	NO	bb	bb	49.884
3	Total-pentadoxins	30.88	8.263e2	4.657e2	1.502	1.77	1.55	8.6	YES	NO	bb	bb	0.141
4	12479-PECDD	28.83	4.152e5	2.870e5	2.301	1.45	1.55	2354.1	YES	NO	bb	bd	50.000

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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.53	1.887e5	1.546e5	0.907	1.22	1.24	1606.4	YES	NO	bb	bb	51.083
2	123678-HxCDD	36.14	2.270e5	1.862e5	1.001	1.22	1.24	1803.3	YES	NO	db	db	51.480
3	123478-HxCDD	36.03	1.812e5	1.479e5	0.996	1.23	1.24	1717.5	YES	NO	bd	bd	48.605
4	124679-HXCDD	34.01	2.133e5	1.659e5	1.115	1.29	1.24	1762.3	YES	NO	bd	bb	50.000

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.27	1.573e5	1.681e5	1.039	0.94	1.05	874.4	YES	NO	bb	bd	49.956
2	1234679-HPCDD	39.23	1.868e5	1.696e5	1.137	1.10	1.05	1062.7	YES	NO	bd	bb	50.000

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.56	5.333e4	6.596e4	1.015	0.81	0.77	556.5	YES	NO	bb	bb	10.000
2	1289-TCDD	27.03	4.649e4	6.027e4	0.909	0.77	0.77	452.4	YES	NO	bb	bb	10.000
3	2378-TCDD	26.42	5.877e4	7.446e4	1.149	0.79	0.77	539.5	YES	NO	bd	bb	9.873
4	Total-tetradiioxins	26.10	8.105e4	1.035e5	1.024	0.78	0.77	553.1	YES	NO	bb	bb	15.333
5	Total-tetradiioxins	25.62	2.642e4	3.299e4	1.024	0.80	0.77	267.0	YES	NO	bd	bb	4.937
6	Total-tetradiioxins	25.04	5.856e2	7.161e2	1.024	0.82	0.77	7.0	YES	NO	bb	bb	0.108
7	12389-PECDD	31.94	2.202e5	1.409e5	1.184	1.56	1.55	1798.8	YES	NO	bd	bd	50.000
8	12378-PeCDD	31.54	1.890e5	1.221e5	1.022	1.55	1.55	1662.3	YES	NO	bb	bb	49.884
9	Total-pentadiioxins	30.88	8.263e2	4.657e2	1.502	1.77	1.55	8.6	YES	NO	bb	bb	0.141
10	12479-PECDD	28.83	4.152e5	2.870e5	2.301	1.45	1.55	2354.1	YES	NO	bb	bd	50.000
11	123789-HxCDD	36.53	1.887e5	1.546e5	0.907	1.22	1.24	1606.4	YES	NO	bb	bb	51.083
12	123678-HxCDD	36.14	2.270e5	1.862e5	1.001	1.22	1.24	1803.3	YES	NO	db	db	51.480
13	123478-HxCDD	36.03	1.812e5	1.479e5	0.996	1.23	1.24	1717.5	YES	NO	bd	bd	48.605
14	124679-HXCDD	34.01	2.133e5	1.659e5	1.115	1.29	1.24	1762.3	YES	NO	bd	bb	50.000
15	1234678-HpCDD	40.27	1.573e5	1.681e5	1.039	0.94	1.05	874.4	YES	NO	bb	bd	49.956
16	1234679-HPCDD	39.23	1.868e5	1.696e5	1.137	1.10	1.05	1062.7	YES	NO	bd	bb	50.000
17	OCDD	45.01	2.508e5	2.930e5	0.920	0.86	0.89	2272.5	YES	NO	bb	bb	95.487

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:37 Pacific Standard Time

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.449e4	5.910e4	0.678	0.75	0.77	440.8	YES	NO	bb	db	10.000
2	2378-TCDF	25.79	4.563e4	6.298e4	0.702	0.72	0.77	483.4	YES	NO	bb	bb	10.132
3	1368-TCDF	22.29	5.143e4	7.104e4	0.802	0.72	0.77	593.7	YES	NO	bb	bb	10.000
4	12389-PECDF	32.32	1.756e5	1.185e5	0.496	1.48	1.55	905.1	YES	NO	bb	bb	50.000
5	23478-PeCDF	31.28	2.063e5	1.364e5	0.786	1.51	1.55	1118.0	YES	NO	bb	bb	49.466
6	Total-pentafurans	30.13	4.319e2	3.264e2	0.654	1.32	1.55	1.8	NO	NO	bb	bb	0.112
7	12378-PeCDF	29.94	2.374e5	1.577e5	0.679	1.51	1.55	1294.3	YES	NO	bb	bb	49.089
8	Total-pentafurans	28.80	3.978e4	2.583e4	0.654	1.54	1.55	212.5	YES	NO	bb	bb	9.712
9	Total-hexafurans	37.33	5.073e2	4.522e2	1.141	1.12	1.24	4.2	YES	NO	db	dd	0.107
10	123789-HxCDF	36.94	2.103e5	1.706e5	1.137	1.23	1.24	959.2	YES	NO	bd	bd	50.468
11	234678-HxCDF	35.91	2.404e5	1.930e5	1.140	1.25	1.24	1172.2	YES	NO	bb	bb	49.000
12	123678-HxCDF	35.05	2.970e5	2.223e5	1.091	1.34	1.24	1312.5	YES	NO	db	db	50.520
13	123478-HxCDF	34.90	2.473e5	1.941e5	1.166	1.27	1.24	1248.4	YES	NO	bd	bd	48.979
14	123468-HXCDF	33.24	2.474e5	2.044e5	1.169	1.21	1.24	1187.3	YES	NO	bb	bd	50.000
15	1234789-HpCDF	41.02	1.361e5	1.443e5	0.953	0.94	1.05	689.1	YES	NO	bb	bd	49.244
16	Total-heptafurans	39.44	1.302e3	1.273e3	0.978	1.02	1.05	8.5	YES	NO	bb	bb	0.418
17	1234678-HpCDF	38.78	1.592e5	1.601e5	1.003	0.99	1.05	939.2	YES	NO	bb	bb	48.161
18	OCDF	45.25	2.019e5	2.478e5	0.778	0.81	0.89	1663.0	YES	NO	bb	bd	93.418
19	13468-PECDF	27.14	4.471e5	2.913e5	1.246	1.53	1.55	8952.4	YES	NO	bb	bb	50.000
20	1368-TCDD	23.56	5.333e4	6.596e4	1.015	0.81	0.77	556.5	YES	NO	bb	bb	10.000
21	1289-TCDD	27.03	4.649e4	6.027e4	0.909	0.77	0.77	452.4	YES	NO	bb	bb	10.000
22	2378-TCDD	26.42	5.877e4	7.446e4	1.149	0.79	0.77	539.5	YES	NO	bd	bb	9.873
23	Total-tetradiioxins	26.10	8.105e4	1.035e5	1.024	0.78	0.77	553.1	YES	NO	bb	bb	15.333
24	Total-tetradiioxins	25.62	2.642e4	3.299e4	1.024	0.80	0.77	267.0	YES	NO	bd	bb	4.937
25	Total-tetradiioxins	25.04	5.856e2	7.161e2	1.024	0.82	0.77	7.0	YES	NO	bb	bb	0.108
26	12389-PECDD	31.94	2.202e5	1.409e5	1.184	1.56	1.55	1798.8	YES	NO	bd	bd	50.000
27	12378-PeCDD	31.54	1.890e5	1.221e5	1.022	1.55	1.55	1662.3	YES	NO	bb	bb	49.884
28	Total-pentadiioxins	30.88	8.263e2	4.657e2	1.502	1.77	1.55	8.6	YES	NO	bb	bb	0.141
29	12479-PECDD	28.83	4.152e5	2.870e5	2.301	1.45	1.55	2354.1	YES	NO	bb	bd	50.000
30	123789-HxCDD	36.53	1.887e5	1.546e5	0.907	1.22	1.24	1606.4	YES	NO	bb	bb	51.083
31	123678-HxCDD	36.14	2.270e5	1.862e5	1.001	1.22	1.24	1803.3	YES	NO	db	db	51.480
32	123478-HxCDD	36.03	1.812e5	1.479e5	0.996	1.23	1.24	1717.5	YES	NO	bd	bd	48.605
33	124679-HXCDD	34.01	2.133e5	1.659e5	1.115	1.29	1.24	1762.3	YES	NO	bd	bb	50.000
34	1234678-HpCDD	40.27	1.573e5	1.681e5	1.039	0.94	1.05	874.4	YES	NO	bb	bd	49.956
35	1234679-HPCDD	39.23	1.868e5	1.696e5	1.137	1.10	1.05	1062.7	YES	NO	bd	bb	50.000
36	OCDD	45.01	2.508e5	2.930e5	0.920	0.86	0.89	2272.5	YES	NO	bb	bb	95.487

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.24	1.621e5					3.0	YES		bb		
2	FUNCTION1 PFK	26.04	7.004e3					0.8	NO		bb		
3	FUNCTION1 PFK	25.20	1.505e4					1.0	NO		bb		
4	FUNCTION1 PFK	24.33	1.235e4					0.8	NO		bb		
5	FUNCTION1 PFK	23.94	5.589e3					0.6	NO		bb		
6	FUNCTION1 PFK	23.61	5.711e3					0.6	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	32.40	1.216e5					2.2	NO		bb		0.000
2	FUNCTION2 PFK	29.43	1.324e7					19.8	YES		db		0.000
3	FUNCTION2 PFK	28.41	2.080e6					16.6	YES		bd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.64	4.177e4					1.9	NO		bb		0.000
2	FUNCTION3 PFK	33.49	1.199e5					5.0	YES		db		0.000
3	FUNCTION3 PFK	33.44	2.654e6					7.0	YES		dd		0.000
4	FUNCTION3 PFK	33.06	2.958e6					23.7	YES		bd		0.000
5	FUNCTION3 PFK	35.38	2.169e4					1.0	NO		bb		0.000
6	FUNCTION3 PFK	35.25	5.928e3					0.6	NO		bb		0.000
7	FUNCTION3 PFK	35.11	7.037e3					0.7	NO		bb		0.000
8	FUNCTION3 PFK	34.99	1.627e4					1.0	NO		bb		0.000
9	FUNCTION3 PFK	34.92	1.103e4					1.1	NO		db		0.000
10	FUNCTION3 PFK	34.86	1.305e4					1.0	NO		bd		0.000
11	FUNCTION3 PFK	34.80	9.642e3					0.9	NO		bb		0.000
12	FUNCTION3 PFK	34.66	1.233e4					0.9	NO		db		0.000
13	FUNCTION3 PFK	34.64	7.688e3					0.8	NO		bd		0.000
14	FUNCTION3 PFK	34.57	9.132e3					0.8	NO		bb		0.000
15	FUNCTION3 PFK	34.47	7.208e3					0.8	NO		bb		0.000
16	FUNCTION3 PFK	34.31	1.503e4					1.0	NO		bb		0.000
17	FUNCTION3 PFK	34.22	2.675e4					1.4	NO		bb		0.000
18	FUNCTION3 PFK	34.01	3.007e4					2.1	NO		db		0.000
19	FUNCTION3 PFK	33.97	1.328e4					1.1	NO		bd		0.000
20	FUNCTION3 PFK	33.91	6.249e3					0.6	NO		bb		0.000
21	FUNCTION3 PFK	36.99	2.219e4					1.1	NO		bd		0.000
22	FUNCTION3 PFK	36.87	2.133e3					0.4	NO		bb		0.000
23	FUNCTION3 PFK	36.83	5.225e3					0.6	NO		bb		0.000
24	FUNCTION3 PFK	36.70	4.929e4					1.7	NO		bb		0.000
25	FUNCTION3 PFK	36.43	1.980e4					1.2	NO		bb		0.000
26	FUNCTION3 PFK	36.38	7.184e3					0.9	NO		bb		0.000
27	FUNCTION3 PFK	36.27	4.220e3					0.5	NO		bb		0.000
28	FUNCTION3 PFK	36.24	2.102e3					0.4	NO		bb		0.000
29	FUNCTION3 PFK	36.19	3.748e3					0.5	NO		bb		0.000
30	FUNCTION3 PFK	35.87	3.133e4					1.6	NO		db		0.000
31	FUNCTION3 PFK	35.83	1.912e4					1.5	NO		bd		0.000
32	FUNCTION3 PFK	35.78	2.675e3					0.4	NO		db		0.000
33	FUNCTION3 PFK	35.74	3.023e4					1.5	NO		dd		0.000
34	FUNCTION3 PFK	35.67	1.673e4					1.4	NO		bd		0.000
35	FUNCTION3 PFK	35.58	2.145e4					1.4	NO		db		0.000
36	FUNCTION3 PFK	35.53	1.268e4					1.1	NO		bd		0.000
37	FUNCTION3 PFK	37.67	2.243e4					1.6	NO		bb		0.000

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION3 PFK	37.45	8.583e3					0.7	NO		db		0.000
39	FUNCTION3 PFK	37.43	4.891e3					0.7	NO		bd		0.000
40	FUNCTION3 PFK	37.30	6.956e3					0.6	NO		bb		0.000
41	FUNCTION3 PFK	37.23	5.682e3					0.7	NO		db		0.000
42	FUNCTION3 PFK	37.20	9.815e3					0.9	NO		dd		0.000
43	FUNCTION3 PFK	37.15	5.475e3					0.6	NO		dd		0.000
44	FUNCTION3 PFK	37.11	7.631e3					0.8	NO		bd		0.000
45	FUNCTION3 PFK	37.06	2.709e4					1.4	NO		db		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.40	1.889e5					2.4	NO		bb		
2	FUNCTION4 PFK	39.68	1.587e7					5.4	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.63	9.422e3					1.5	NO		bb		
2	FUNCTION5 PFK	43.24	1.576e3					0.7	NO		bb		
3	FUNCTION5 PFK	43.00	1.263e4					1.7	NO		bb		
4	FUNCTION5 PFK	45.90	6.371e3					1.4	NO		bb		
5	FUNCTION5 PFK	45.34	1.310e3					0.6	NO		bb		
6	FUNCTION5 PFK	43.79	2.270e3					0.7	NO		bb		

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.16	2.360e2					3.4	YES		bb		0.000
2	FUNCTION1 HXCD...	26.52	1.410e2					3.2	YES		db		0.000
3	FUNCTION1 HXCD...	26.41	1.480e2					3.3	YES		bd		0.000
4	FUNCTION1 HXCD...	26.16	8.707e1					1.9	NO		db		0.000
5	FUNCTION1 HXCD...	26.10	7.515e1					2.1	NO		bd		0.000
6	FUNCTION1 HXCD...	25.79	8.971e1					2.2	NO		bb		0.000
7	FUNCTION1 HXCD...	25.63	1.156e2					2.5	NO		bb		0.000
8	FUNCTION1 HXCD...	24.52	1.119e2					2.7	NO		db		0.000
9	FUNCTION1 HXCD...	24.43	1.844e2					3.5	YES		bd		0.000
10	FUNCTION1 HXCD...	23.75	1.728e2					2.1	NO		bb		0.000
11	FUNCTION1 HXCD...	21.31	8.251e1					1.7	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.95	1.010e2					1.7	NO		bb		0.000
2	FUNCTION2 HPCD...	31.18	4.333e2					5.6	YES		bb		0.000
3	FUNCTION2 HPCD...	30.70	7.244e1					2.1	NO		bb		0.000
4	FUNCTION2 HPCD...	30.31	7.131e1					1.6	NO		bb		0.000
5	FUNCTION2 HPCD...	29.76	7.422e1					1.6	NO		bb		0.000
6	FUNCTION2 HPCD...	29.04	7.307e1					1.9	NO		bb		0.000
7	FUNCTION2 HPCD...	28.55	7.813e1					2.1	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.51	1.400e2					5.4	YES		bb		0.000
2	FUNCTION3 OCDPE	35.04	1.909e2					5.6	YES		db		0.000
3	FUNCTION3 OCDPE	34.94	2.251e2					6.4	YES		bd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.60	9.374e1					3.5	YES		bb		0.000
2	FUNCTION4 NCDPE	40.25	1.903e2					3.2	YES		bb		0.000
3	FUNCTION4 NCDPE	39.09	7.390e1					1.9	NO		bb		0.000
4	FUNCTION4 NCDPE	38.97	7.768e1					2.4	NO		bb		0.000
5	FUNCTION4 NCDPE	41.21	8.604e1					3.3	YES		bb		0.000
6	FUNCTION4 NCDPE	41.01	1.089e2					3.1	YES		bb		0.000
7	FUNCTION4 NCDPE	40.86	1.930e2					2.9	NO		db		0.000
8	FUNCTION4 NCDPE	40.74	9.692e1					2.6	NO		bd		0.000

ETHERS6

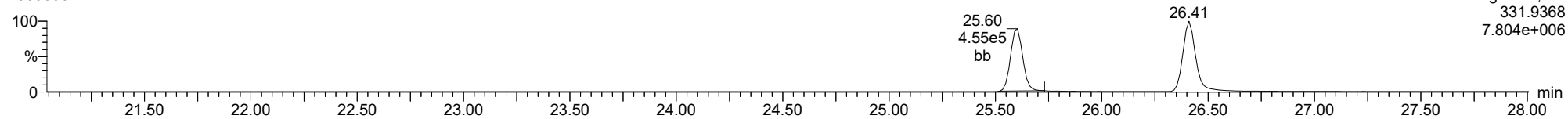
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	44.90	9.291e1					2.4	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

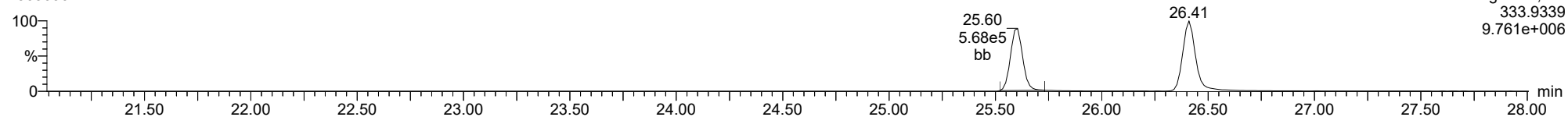
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23030307



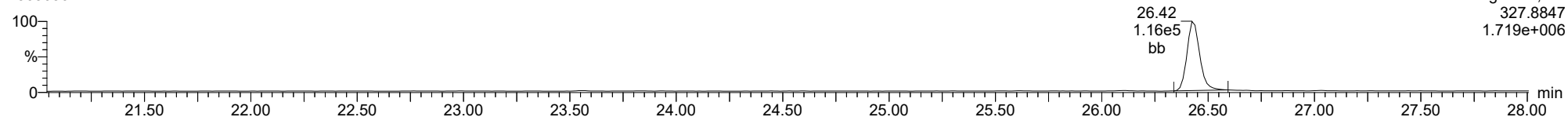
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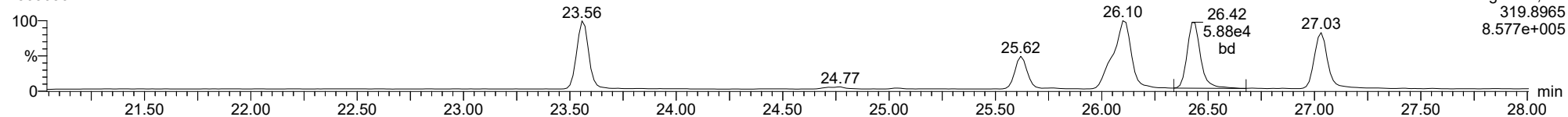
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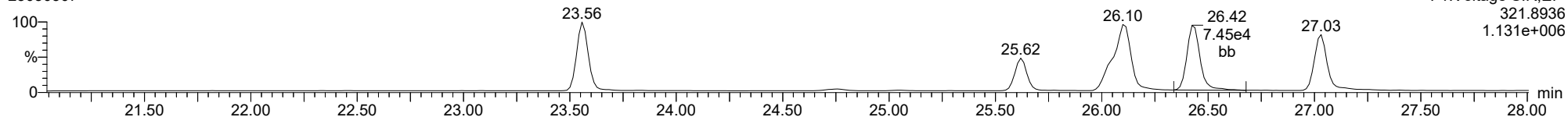
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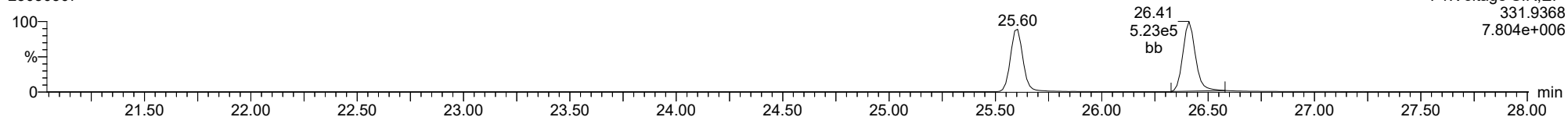
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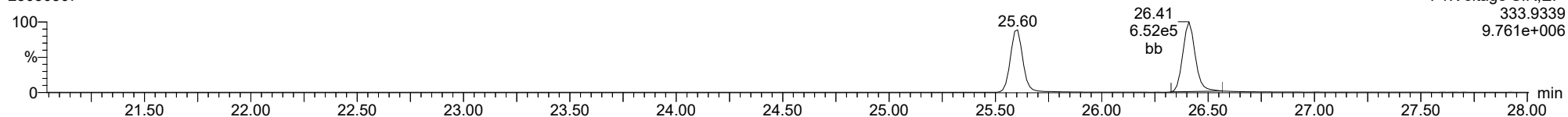
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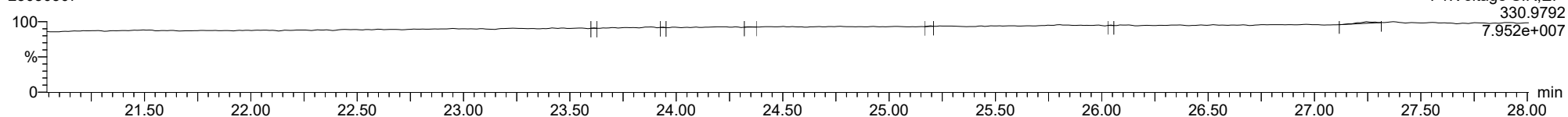
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23030307



FUNCTION1 PFK

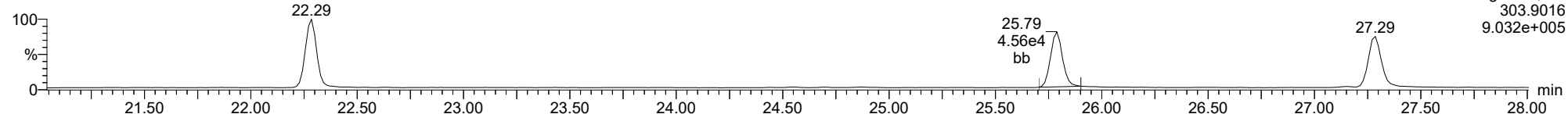
23030307



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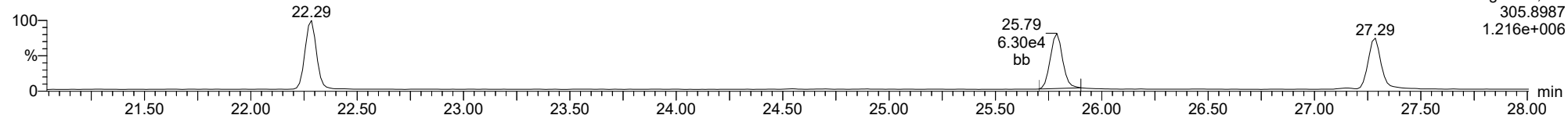
2378-TCDF

23030307



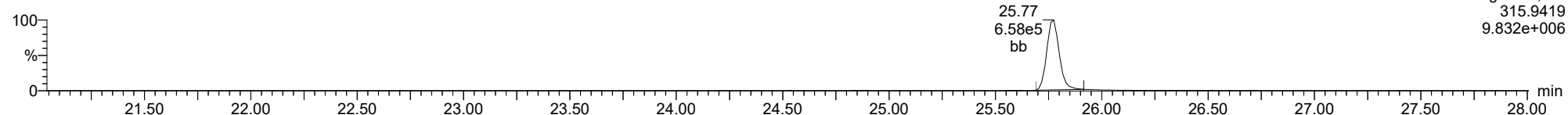
2378-TCDF

23030307



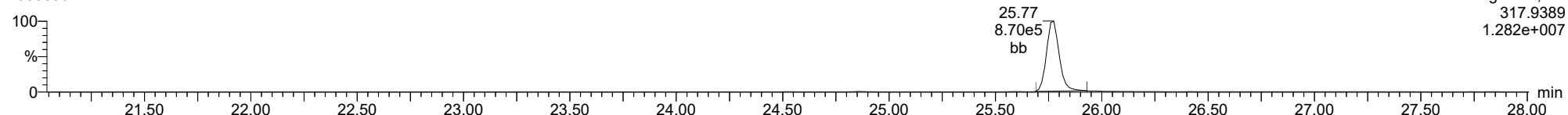
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23030307



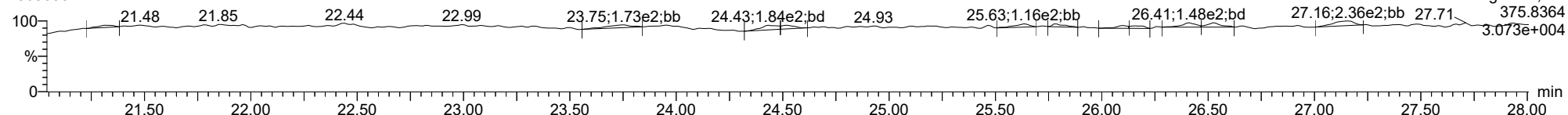
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23030307



FUNCTION1 HXCDPE

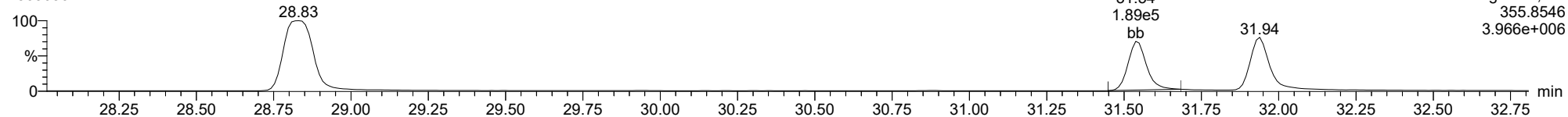
23030307



ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

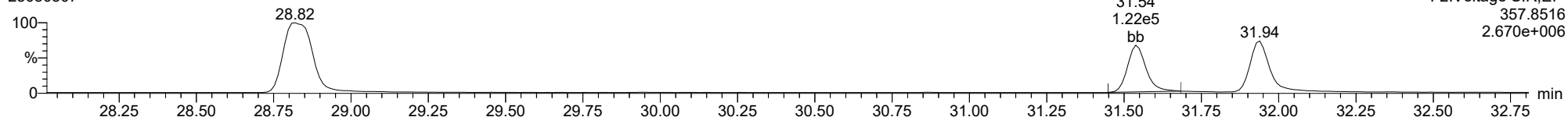
23030307



F2:Voltage SIR,EI+
357.8516
3.966e+006

12378-PeCDD

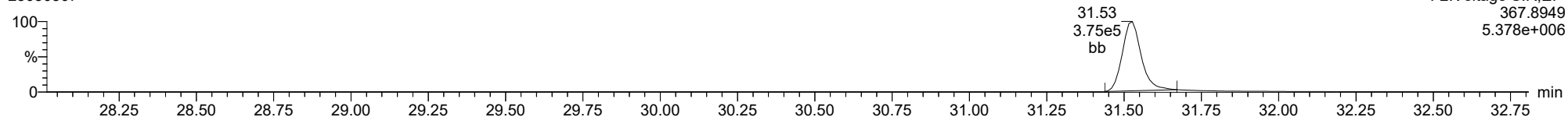
23030307



F2:Voltage SIR,EI+
357.8516
2.670e+006

13C-12378-PeCDD

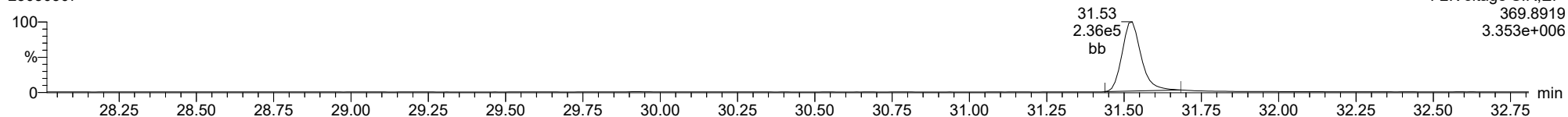
23030307



F2:Voltage SIR,EI+
367.8949
5.378e+006

13C-12378-PeCDD

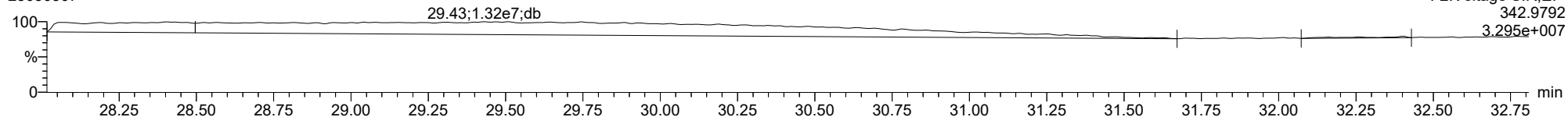
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F2:Voltage SIR,EI+
369.8919
3.353e+006

FUNCTION2 PFK

23030307

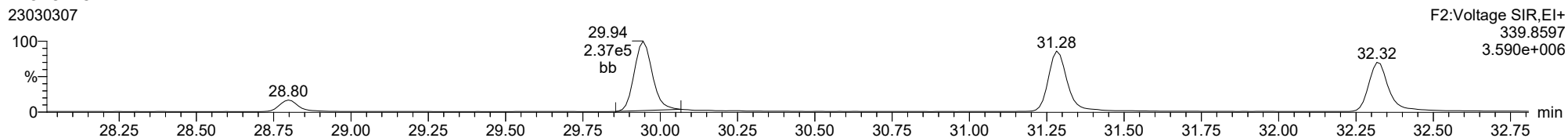


F2:Voltage SIR,EI+
342.9792
3.295e+007

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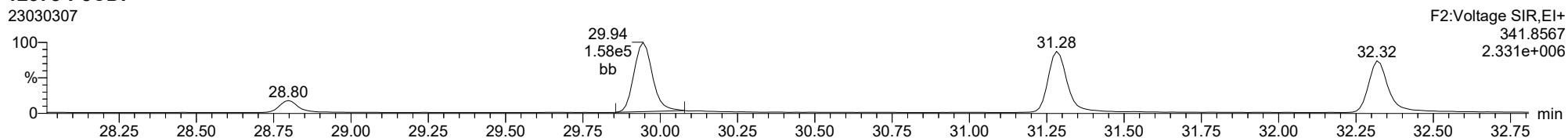
12378-PeCDF

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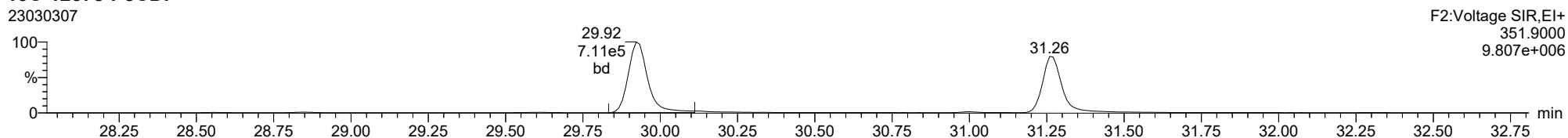
12378-PeCDF

23030307



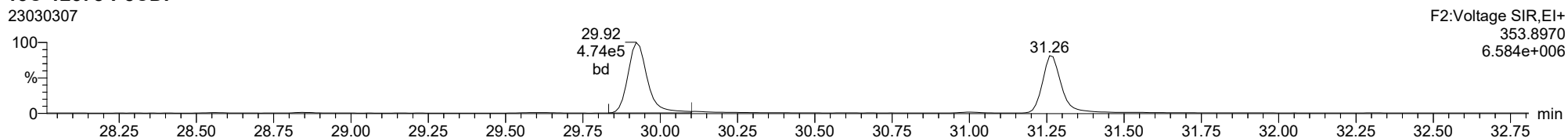
13C-12378-PeCDF

23030307



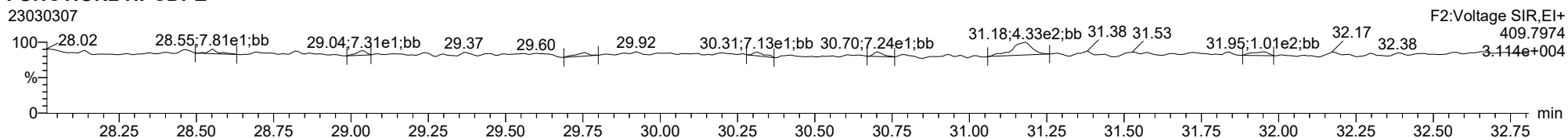
13C-12378-PeCDF

23030307



FUNCTION2 HPCDPE

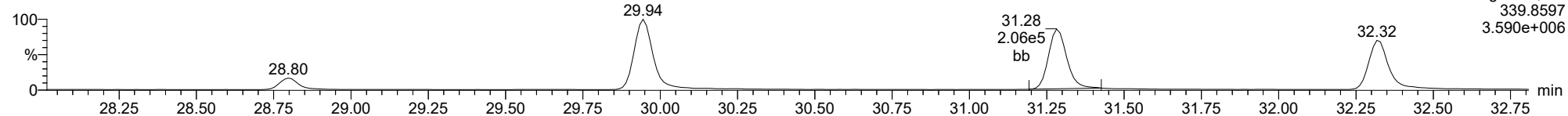
23030307



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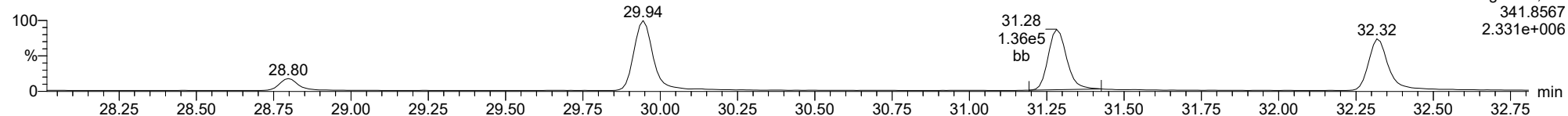
23478-PeCDF

23030307



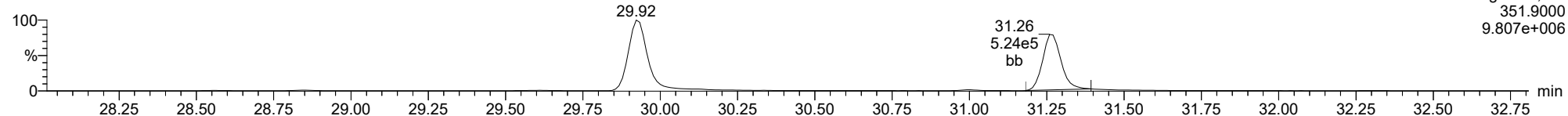
23478-PeCDF

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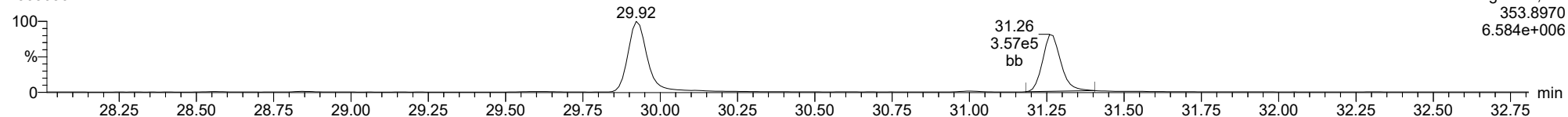
13C-23478-PeCDF

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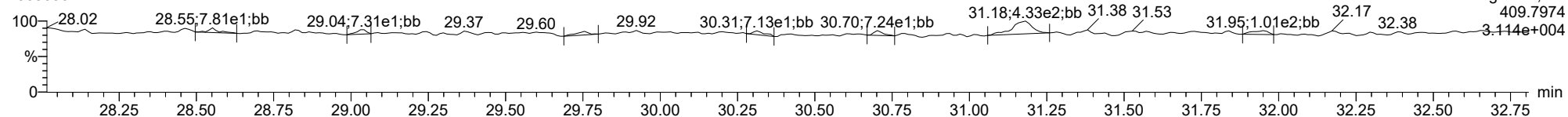
13C-23478-PeCDF

23030307



FUNCTION2 HPCDPE

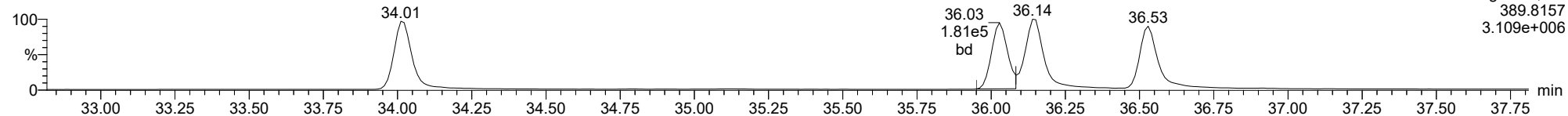
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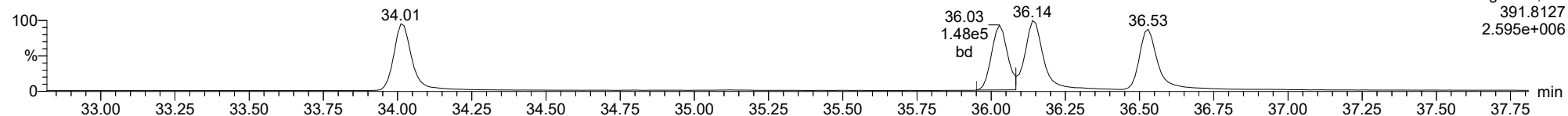
123478-HxCDD

23030307



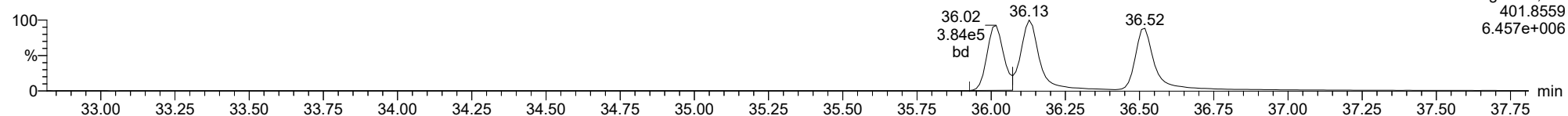
123478-HxCDD

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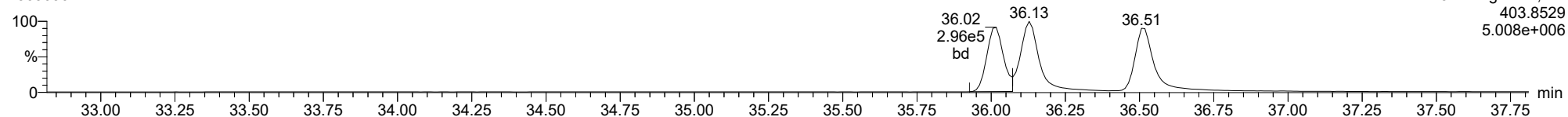
13C-123478-HxCDD

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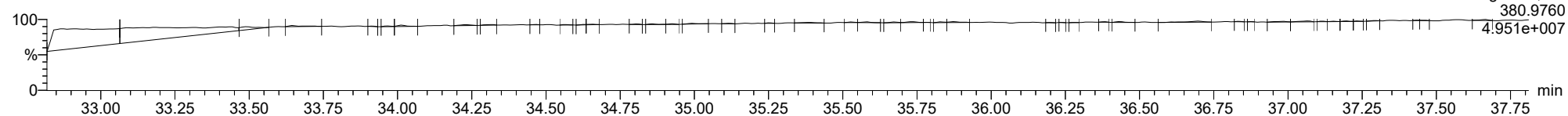
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FUNCTION3 PFK

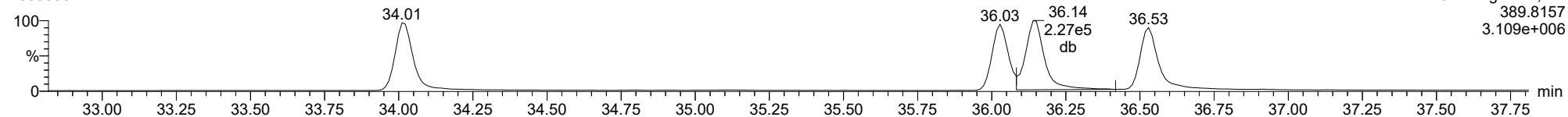
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

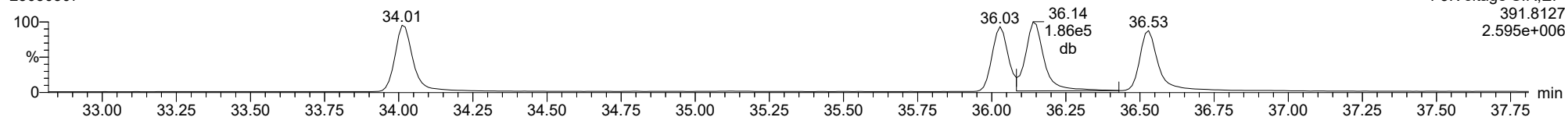
123678-HxCDD

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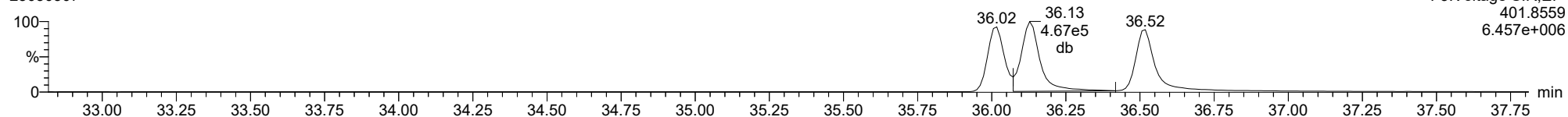
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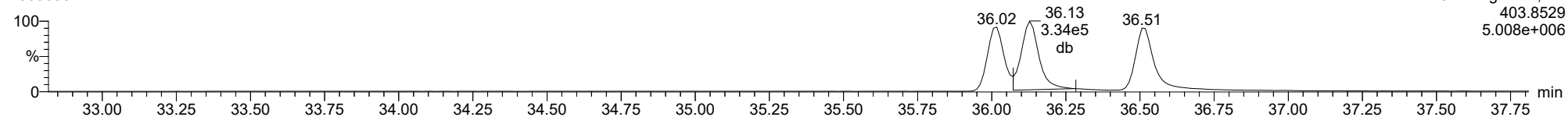
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13C-123678-HxCDD

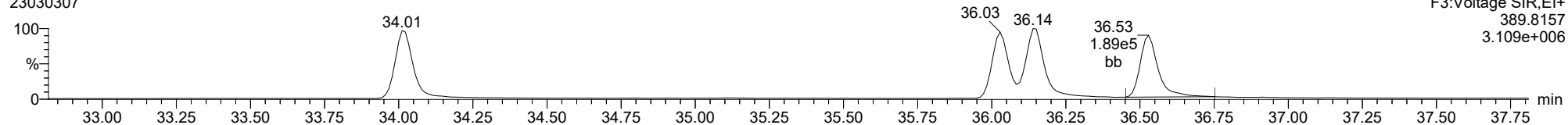
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

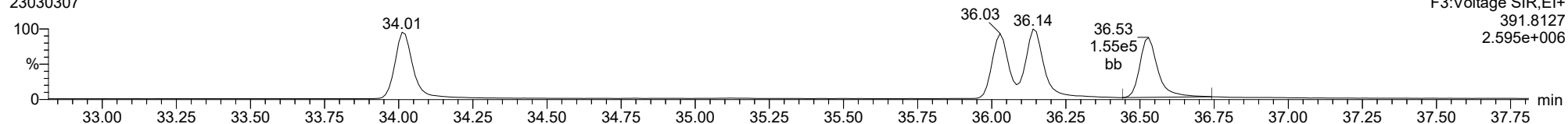
123789-HxCDD

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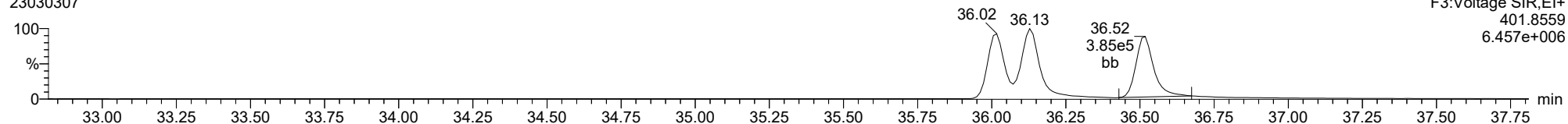
123789-HxCDD

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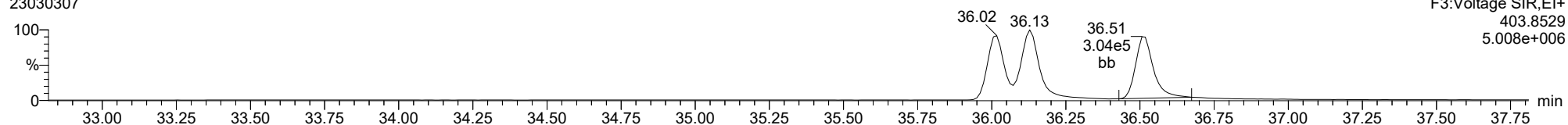
13C-123789-HxCDD

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13C-123789-HxCDD

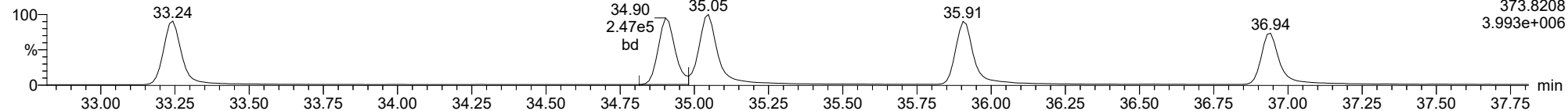
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

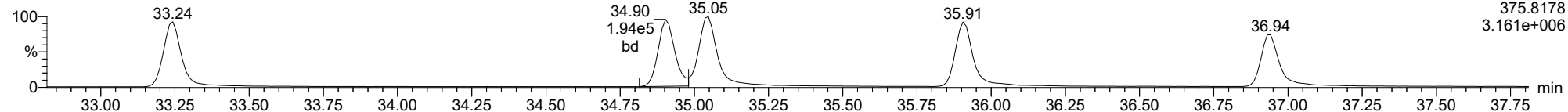
123478-HxCDF

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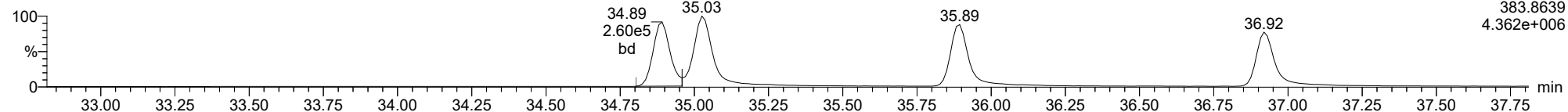
123478-HxCDF

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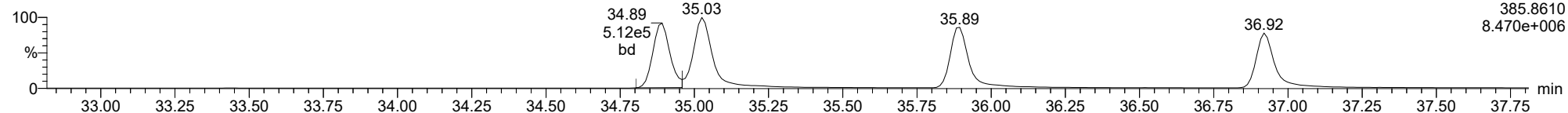
13C-123478-HxCDF

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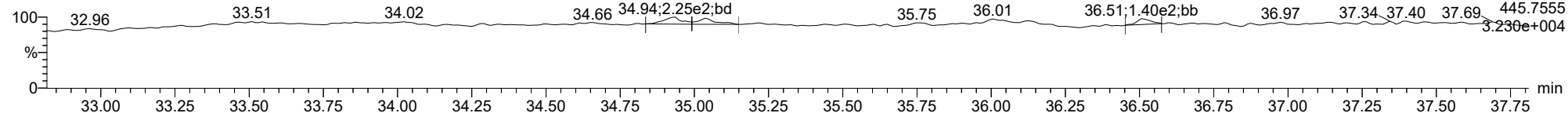
13C-123478-HxCDF

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FUNCTION3 OCDPE

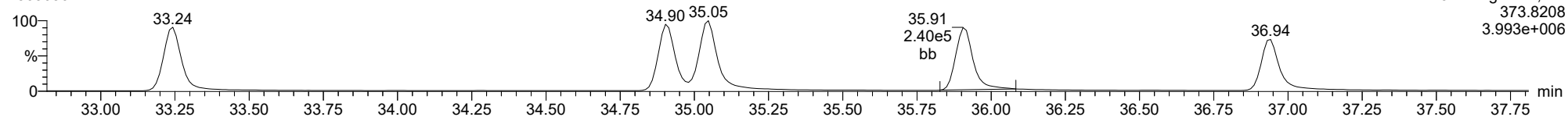
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

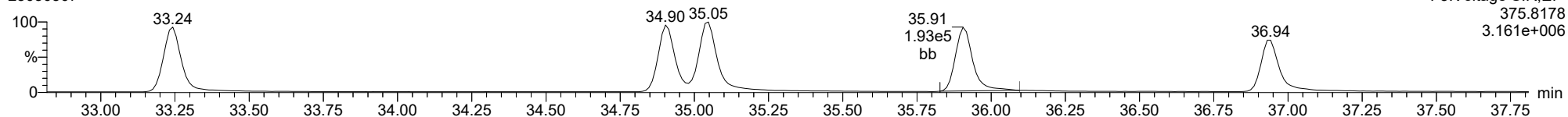
234678-HxCDF

23030307



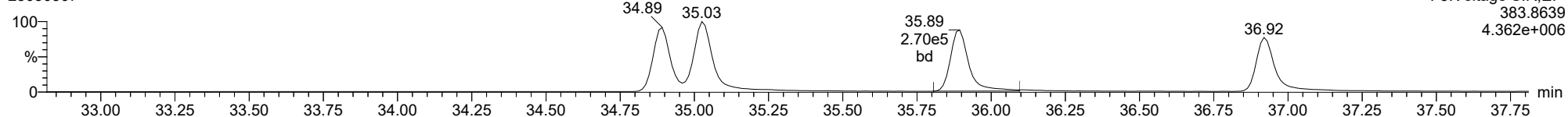
234678-HxCDF

23030307



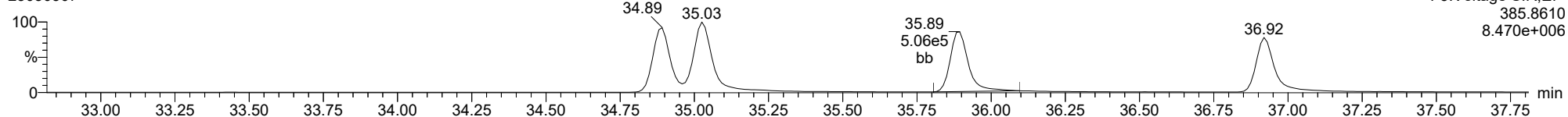
13C-234678-HxCDF

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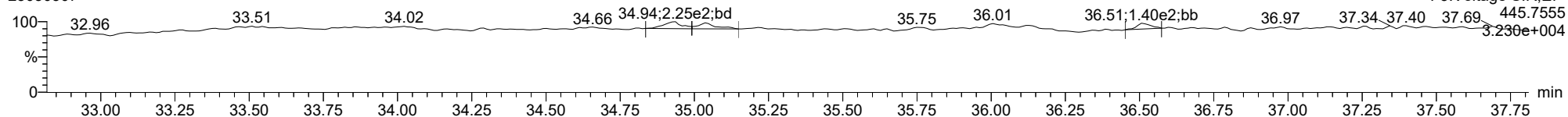
13C-234678-HxCDF

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FUNCTION3 OCDPE

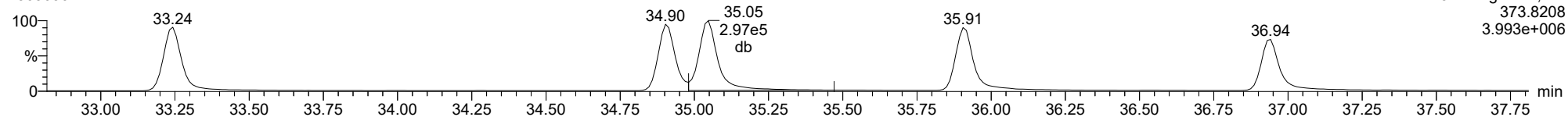
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

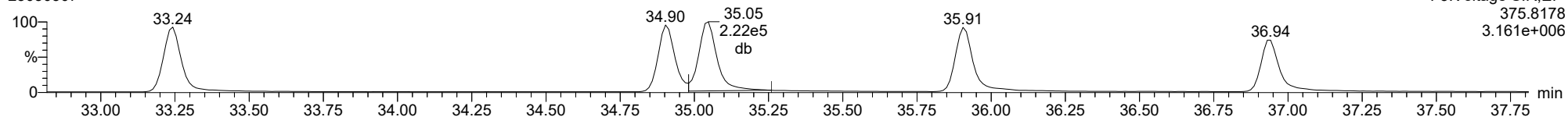
123678-HxCDF

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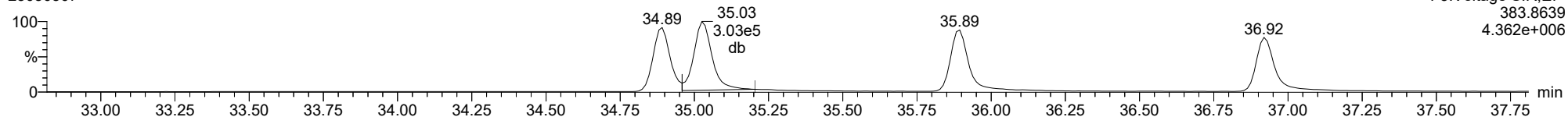
123678-HxCDF

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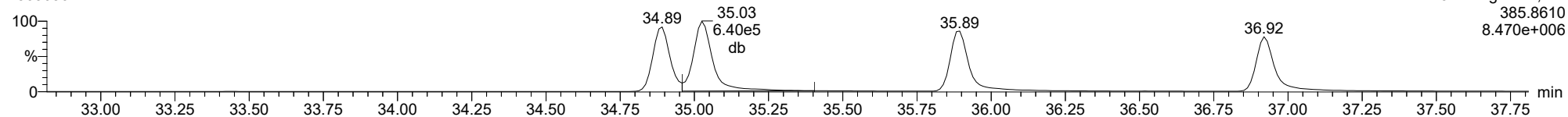
13C-123678-HxCDF

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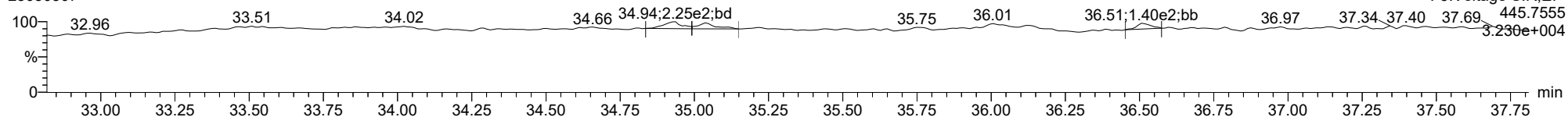
13C-123678-HxCDF

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FUNCTION3 OCDPE

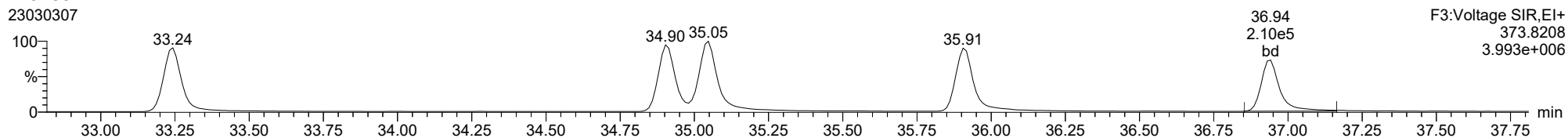
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

123789-HxCDF

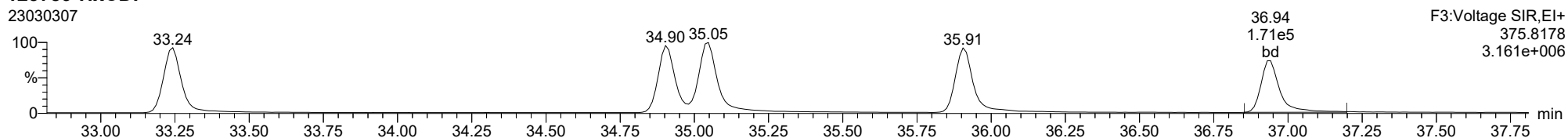
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F3:Voltage SIR,El+
373.8208
3.993e+006

123789-HxCDF

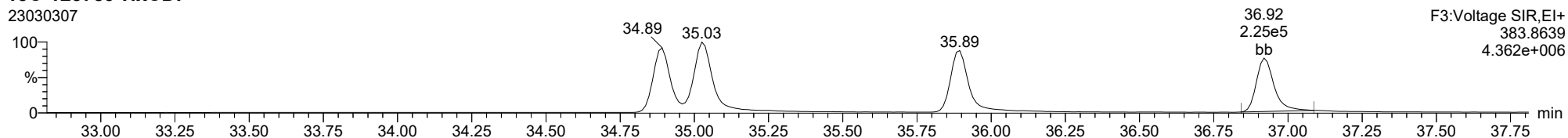
23030307



F3:Voltage SIR,El+
375.8178
3.161e+006

13C-123789-HxCDF

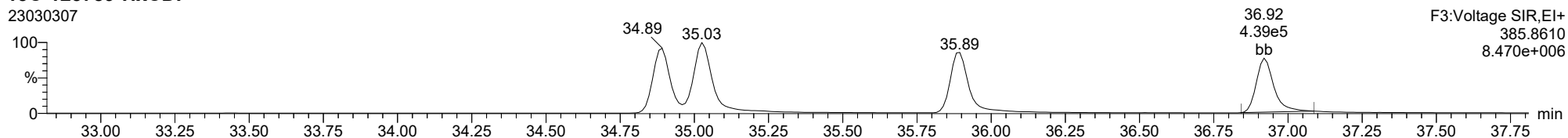
23030307



F3:Voltage SIR,El+
383.8639
4.362e+006

13C-123789-HxCDF

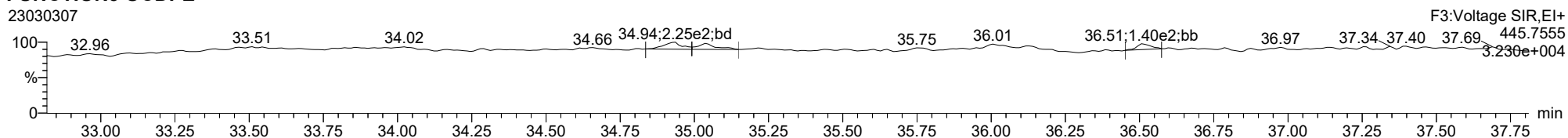
23030307



F3:Voltage SIR,El+
385.8610
8.470e+006

FUNCTION3 OCDPE

23030307

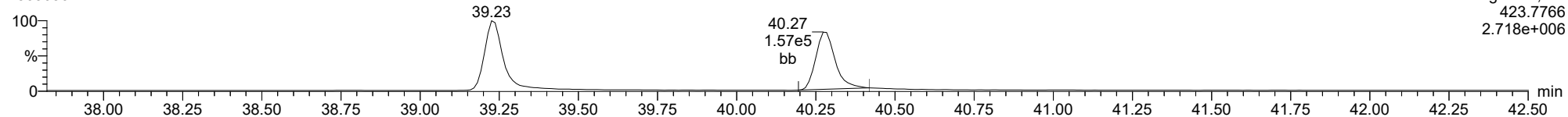


F3:Voltage SIR,El+
445.7555
3.230e+004

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1234678-HpCDD

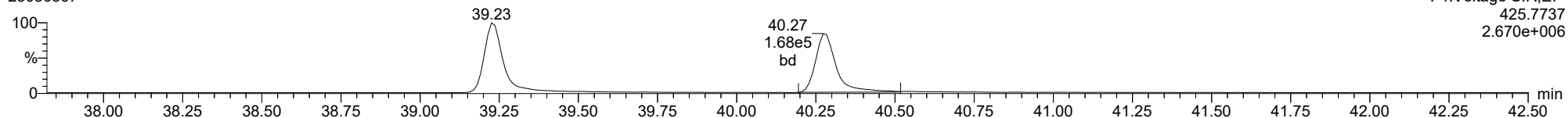
23030307



F4:Voltage SIR,EI+
423.7766
2.718e+006

1234678-HpCDD

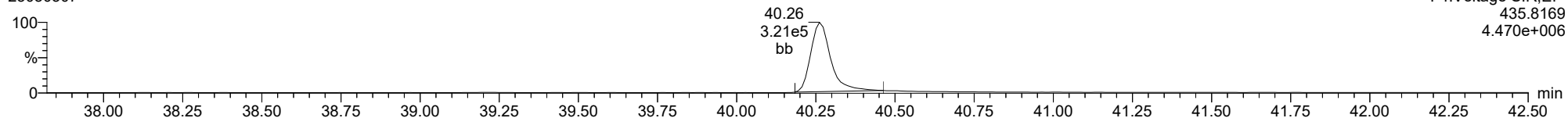
23030307



F4:Voltage SIR,EI+
425.7737
2.670e+006

13C-1234678-HpCDD

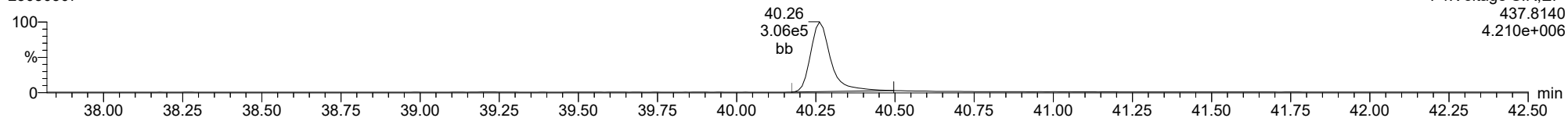
23030307



F4:Voltage SIR,EI+
435.8169
4.470e+006

13C-1234678-HpCDD

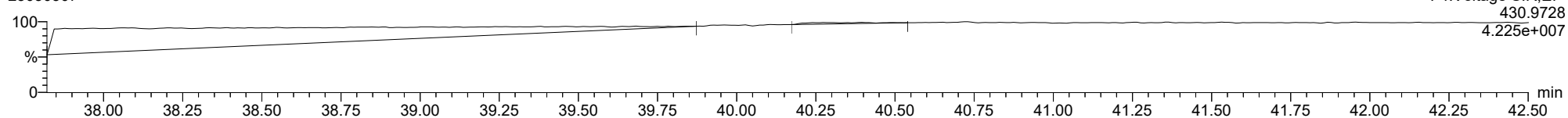
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F4:Voltage SIR,EI+
437.8140
4.210e+006

FUNCTION4 PFK

23030307

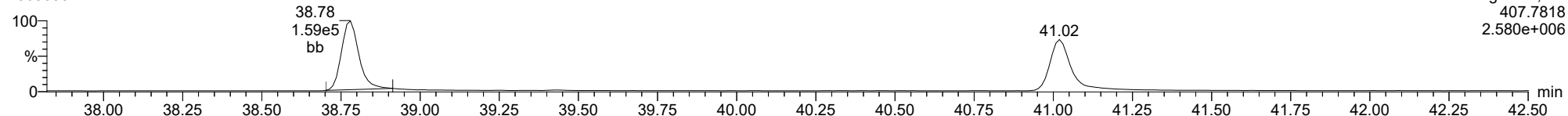


F4:Voltage SIR,EI+
430.9728
4.225e+007

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1234678-HpCDF

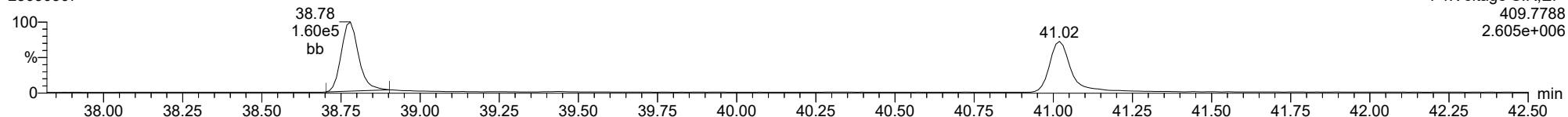
23030307



F4:Voltage SIR,EI+
407.7818
2.580e+006

1234678-HpCDF

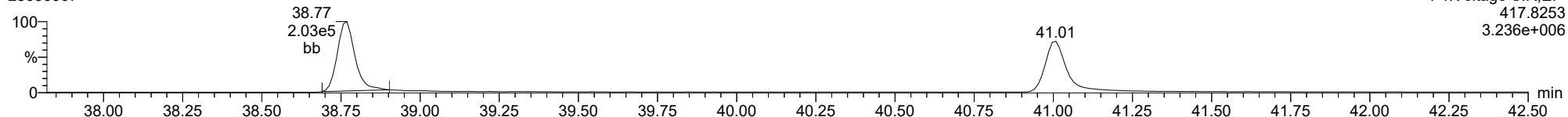
23030307



F4:Voltage SIR,EI+
409.7788
2.605e+006

13C-1234678-HpCDF

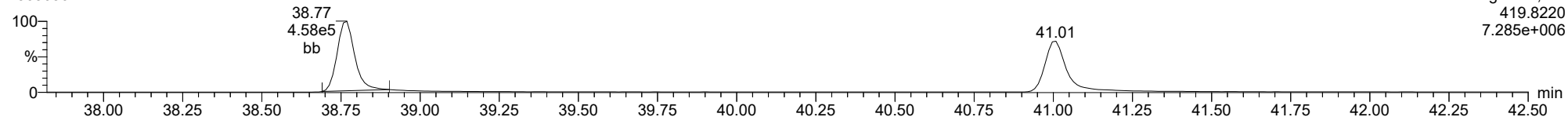
23030307



F4:Voltage SIR,EI+
417.8253
3.236e+006

13C-1234678-HpCDF

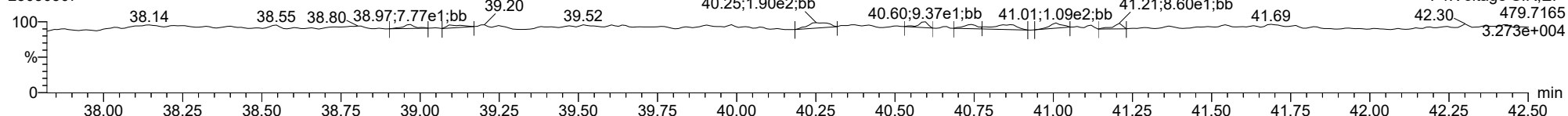
23030307



F4:Voltage SIR,EI+
419.8220
7.285e+006

FUNCTION4 NCDPE

23030307

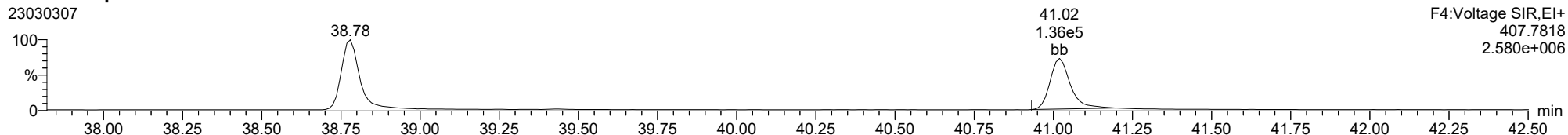


F4:Voltage SIR,EI+
479.7165
3.273e+004

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1234789-HpCDF

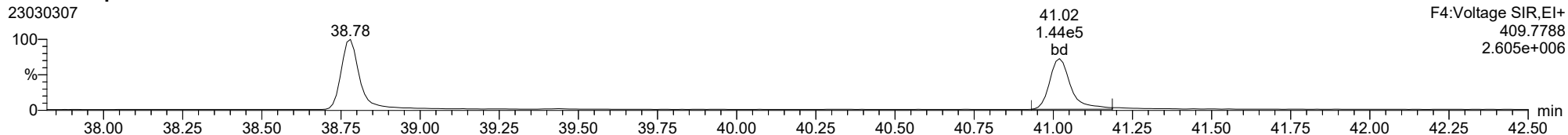
23030307



F4:Voltage SIR,El+
407.7818
2.580e+006

1234789-HpCDF

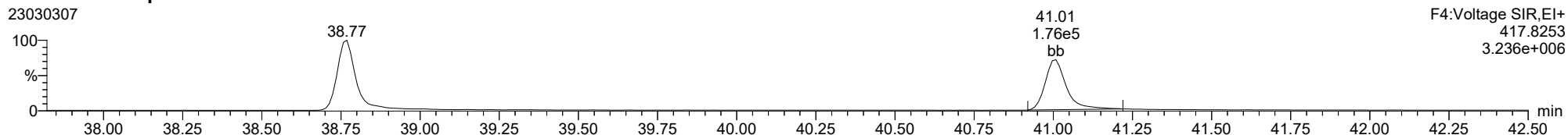
23030307



F4:Voltage SIR,El+
409.7788
2.605e+006

13C-1234789-HpCDF

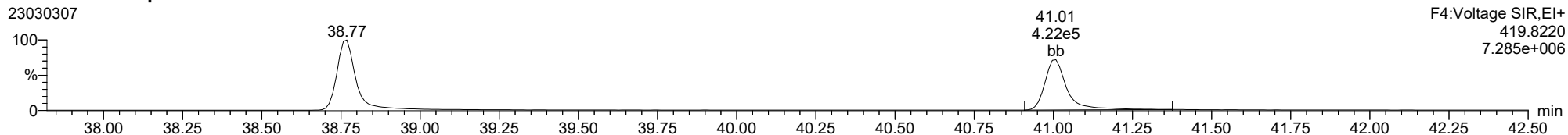
23030307



F4:Voltage SIR,El+
417.8253
3.236e+006

13C-1234789-HpCDF

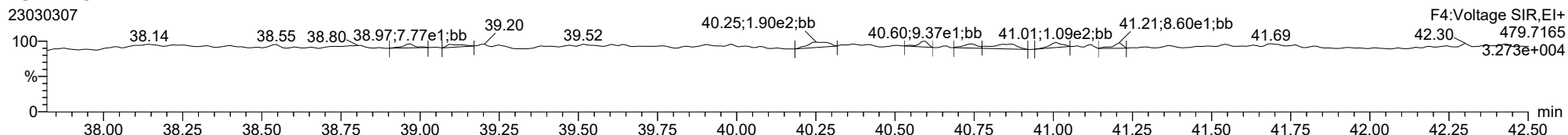
23030307



F4:Voltage SIR,El+
419.8220
7.285e+006

FUNCTION4 NCDPE

23030307

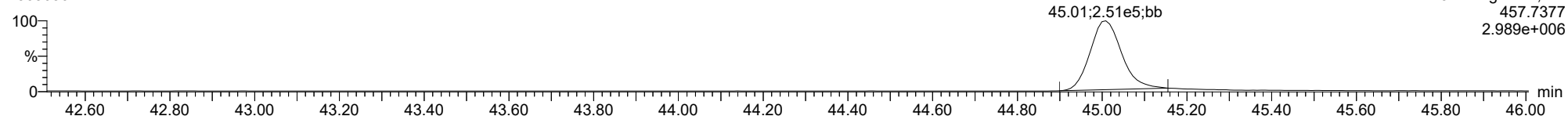


F4:Voltage SIR,El+
479.7165
3.273e+004

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OCDD

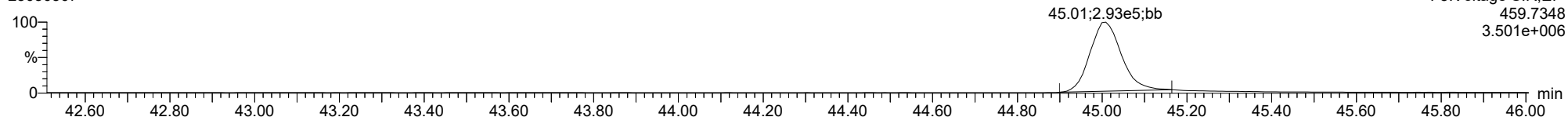
23030307



F5:Voltage SIR,EI+
457.7377
2.989e+006

OCDD

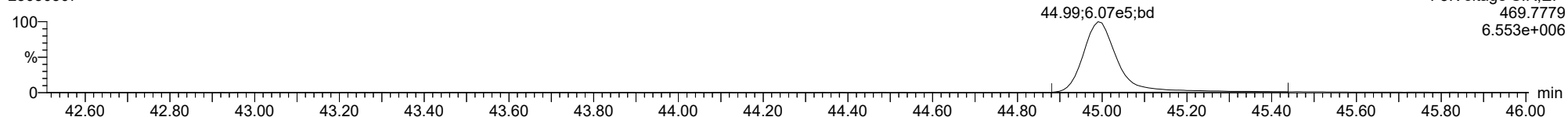
23030307



F5:Voltage SIR,EI+
459.7348
3.501e+006

13C-OCDD

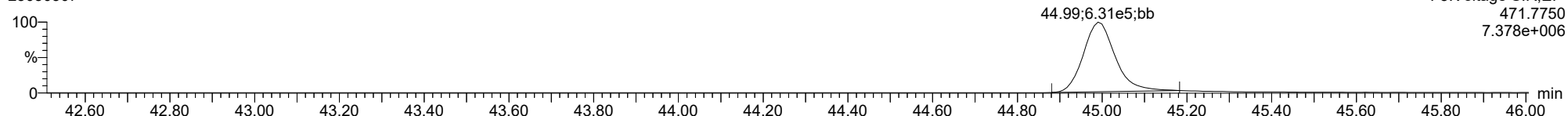
23030307



F5:Voltage SIR,EI+
469.7779
6.553e+006

13C-OCDD

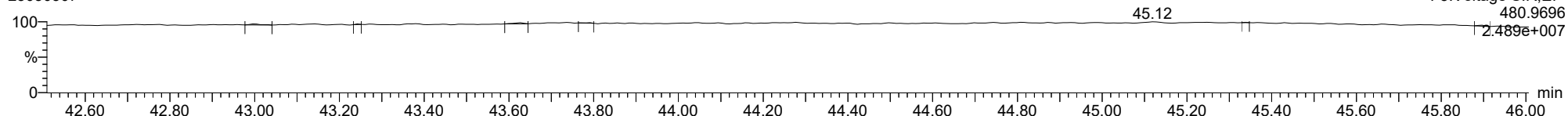
23030307



F5:Voltage SIR,EI+
471.7750
7.378e+006

FUNCTION5 PFK

23030307

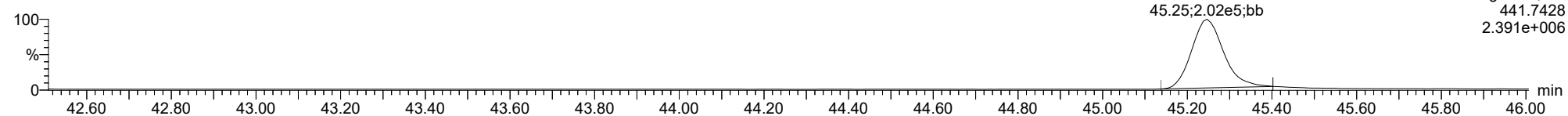


F5:Voltage SIR,EI+
480.9696
2.489e+007

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

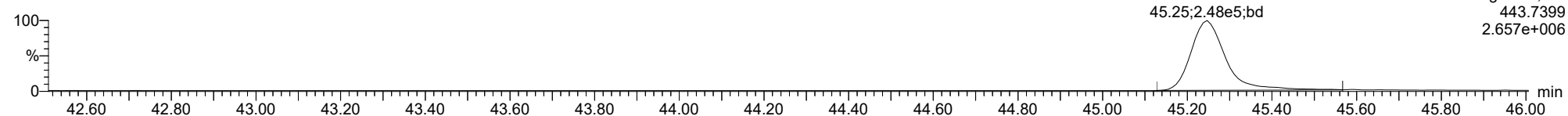
OCDF

23030307



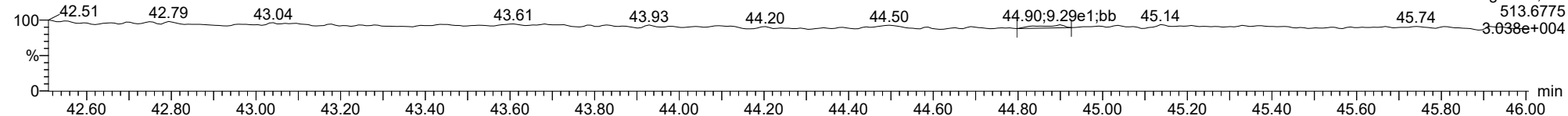
OCDF

23030307



FUNCTION5 DCDPE

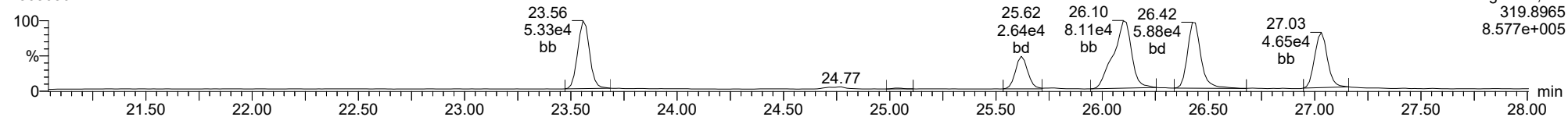
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

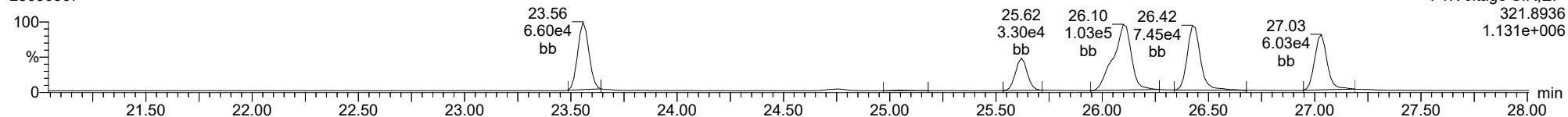
Total-tetradioxins

23030307



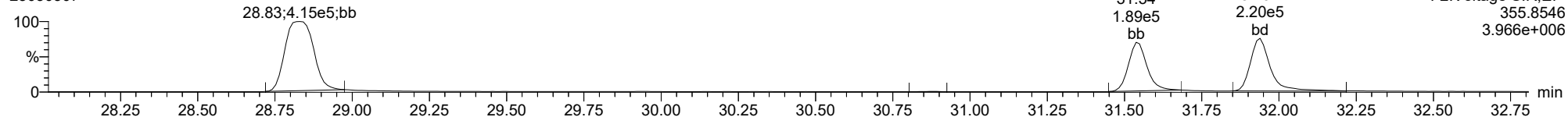
Total-tetradioxins

23030307



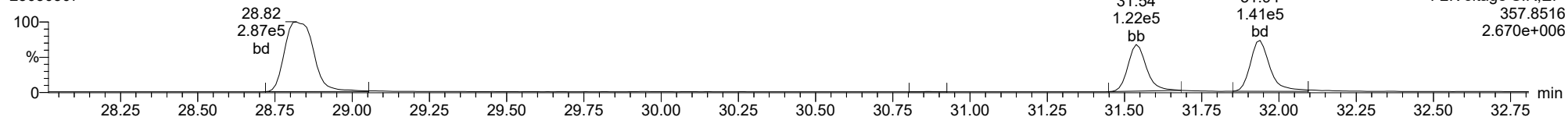
Total-pentadioxins

23030307



Total-pentadioxins

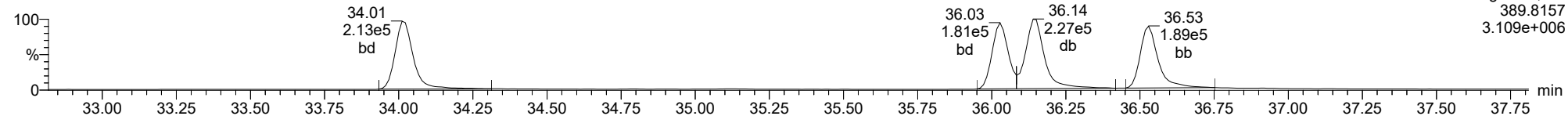
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

Total-hexadioxins

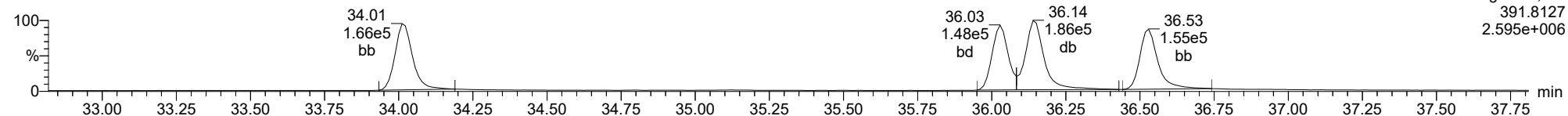
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F3:Voltage SIR,EI+
389.8157
3.109e+006

Total-hexadioxins

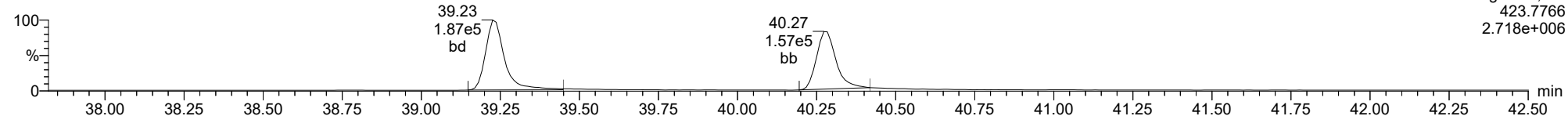
23030307



F3:Voltage SIR,EI+
391.8127
2.595e+006

Total-heptadioxins

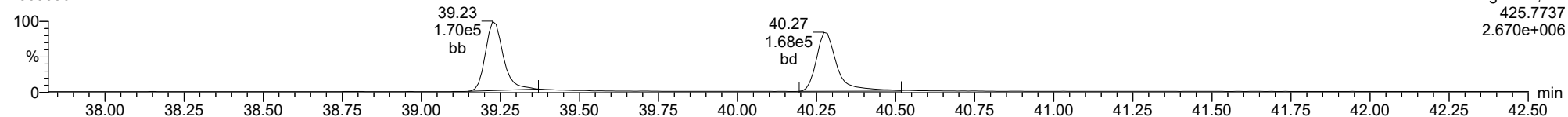
23030307



F4:Voltage SIR,EI+
423.7766
2.718e+006

Total-heptadioxins

23030307

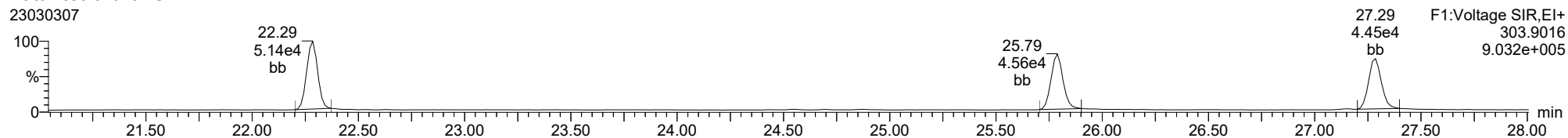


F4:Voltage SIR,EI+
425.7737
2.670e+006

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

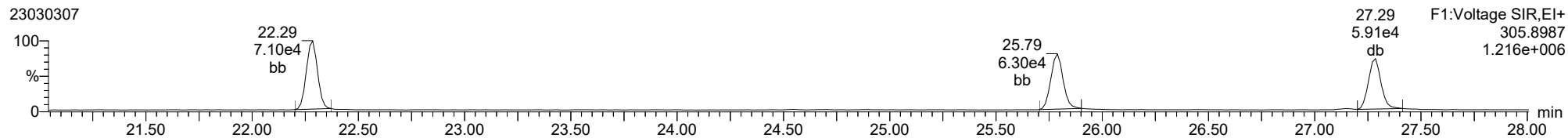
Total-tetrafurans

23030307



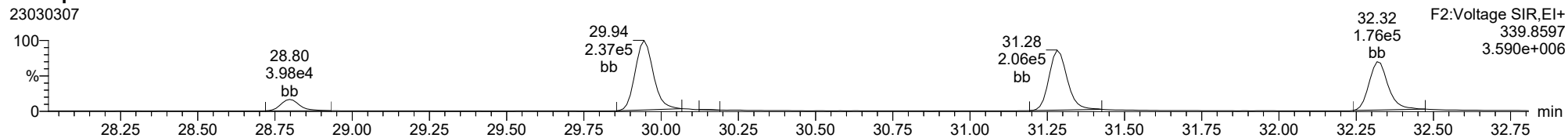
Total-tetrafurans

23030307



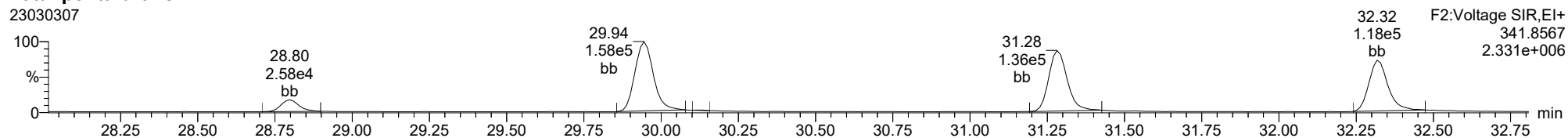
Total-pentafurans

23030307



Total-pentafurans

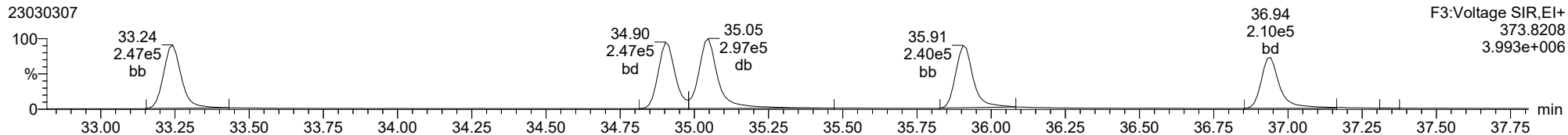
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

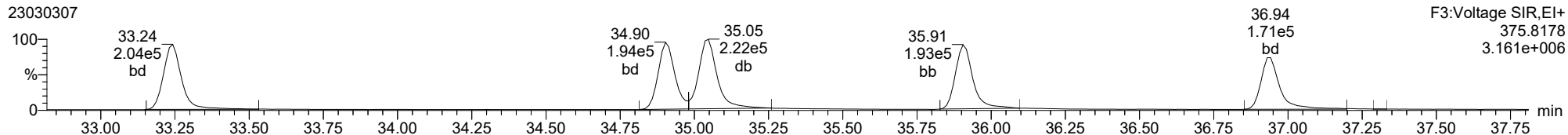
Total-hexafurans

23030307



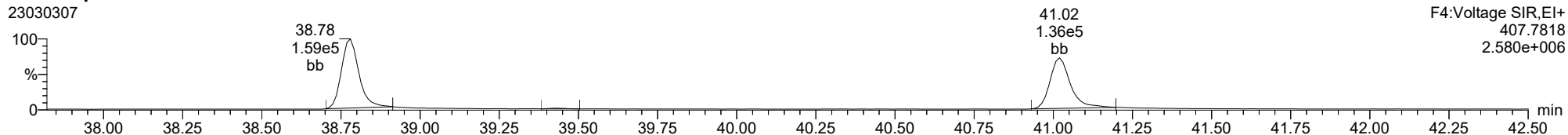
Total-hexafurans

23030307



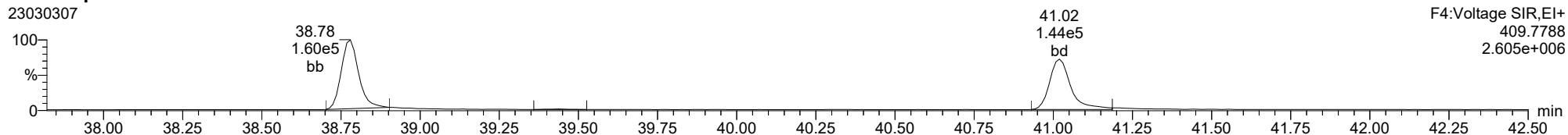
Total-heptafurans

23030307



Total-heptafurans

23030307



Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:51 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS4CW, **Name:** 23030308, **Date:** 03-Mar-2023, **Time:** 14:59:53, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.788	1.001	2.145e5	2.910e5	0.702	0.737	0.770	1085	2356	3.19e6	4.36e6	2939.3	1849.8	NO	bb	bb	41.038
12378-PeCDF	29.944	1.000	1.256e6	8.416e5	0.679	1.492	1.550	4273	3650	1.86e7	1.25e7	4360.5	3425.9	NO	bb	bb	202.935
23478-PeCDF	31.292	1.001	1.346e6	8.943e5	0.786	1.505	1.550	4273	3650	2.02e7	1.34e7	4738.5	3680.0	NO	bb	bb	201.175
123478-HxCDF	34.913	1.001	1.546e6	1.218e6	1.166	1.269	1.240	1919	2508	2.36e7	1.86e7	12323.4	7421.9	NO	bd	bd	197.711
234678-HxCDF	35.916	1.001	1.547e6	1.307e6	1.140	1.184	1.240	1919	2508	2.33e7	1.85e7	12125.4	7387.3	NO	bb	bd	210.207
123678-HxCDF	35.047	1.000	1.740e6	1.369e6	1.091	1.271	1.240	1919	2508	2.57e7	2.04e7	13394.0	8153.6	NO	db	db	189.797
123789-HxCDF	36.941	1.000	1.209e6	1.036e6	1.137	1.167	1.240	1919	2508	1.81e7	1.44e7	9441.6	5749.5	NO	bb	bd	200.361
1234678-HpCDF	38.779	1.000	8.720e5	8.418e5	1.003	1.036	1.050	3326	3780	1.44e7	1.42e7	4339.3	3745.4	NO	bb	bb	204.650
1234789-HpCDF	41.019	1.000	7.221e5	7.262e5	0.953	0.994	1.050	3326	3780	1.01e7	1.02e7	3041.3	2689.4	NO	bb	bb	208.465
OCDF	45.255	1.006	1.195e6	1.333e6	0.778	0.897	0.890	1809	2070	1.43e7	1.59e7	7923.8	7701.9	NO	bb	bb	419.788
2378-TCDD	26.438	1.001	2.573e5	3.218e5	1.149	0.799	0.770	1559	1107	3.81e6	4.84e6	2446.0	4371.1	NO	bb	bb	39.968
12378-PeCDD	31.549	1.001	1.294e6	8.446e5	1.022	1.532	1.550	1566	1736	1.89e7	1.24e7	12077.0	7164.9	NO	bb	bb	199.637
123478-HxCDD	36.027	1.000	1.162e6	9.482e5	0.996	1.225	1.240	1816	1276	1.93e7	1.57e7	10622.2	12327.7	NO	bd	bd	198.133
123678-HxCDD	36.150	1.001	1.363e6	1.125e6	1.001	1.212	1.240	1816	1276	1.97e7	1.61e7	10823.8	12618.8	NO	db	db	204.224
123789-HxCDD	36.528	1.011	1.168e6	9.477e5	0.907	1.232	1.240	1816	1276	1.77e7	1.44e7	9764.9	11291.0	NO	bb	bb	203.974
1234678-HpCDD	40.283	1.001	8.284e5	8.038e5	1.039	1.031	1.050	3177	2938	1.22e7	1.19e7	3841.2	4046.8	NO	bb	bb	198.376
OCDD	45.008	1.000	1.293e6	1.512e6	0.920	0.855	0.890	1475	2373	1.59e7	1.85e7	10744.0	7810.6	NO	bb	bb	394.016
13C-2378-TCDF	25.774	1.007	7.645e5	9.914e5	1.620	0.771	0.770	1843	2282	1.15e7	1.49e7	6238.3	6526.6	NO	bb	bb	101.535
13C-12378-PeCDF	29.933	1.169	9.119e5	6.098e5	1.240	1.495	1.550	3738	4574	1.28e7	8.50e6	3418.3	1857.5	NO	bd	bd	114.934
13C-23478-PeCDF	31.270	1.221	8.522e5	5.645e5	1.118	1.510	1.550	3738	4574	1.28e7	8.47e6	3423.2	1851.3	NO	bb	bb	118.746
13C-123478-HxCDF	34.891	0.956	4.043e5	7.946e5	1.168	0.509	0.510	3379	2646	6.26e6	1.23e7	1851.5	4643.3	NO	bd	bd	93.689
13C-123678-HxCDF	35.036	0.959	5.122e5	9.895e5	1.386	0.518	0.510	3379	2646	6.72e6	1.32e7	1988.7	4975.1	NO	db	dd	98.879
13C-234678-HxCDF	35.894	0.983	4.066e5	7.845e5	1.129	0.518	0.510	3379	2646	6.03e6	1.18e7	1785.1	4452.3	NO	bb	bb	96.294
13C-123789-HxCDF	36.930	1.011	3.312e5	6.542e5	0.932	0.506	0.510	3379	2646	4.85e6	9.52e6	1434.9	3598.2	NO	bb	bb	96.556
13C-1234678-HpCDF	38.768	1.062	2.524e5	5.825e5	0.895	0.433	0.440	1935	3511	4.16e6	9.49e6	2148.5	2703.4	NO	bb	bb	85.151
13C-1234789-HpCDF	41.007	1.123	2.205e5	5.084e5	0.770	0.434	0.440	1935	3511	3.02e6	6.92e6	1559.8	1971.4	NO	bb	bb	86.451
13C-1234-TCDD	25.605	0.000	4.743e5	5.931e5	1.000	0.800	0.770	2271	1813	7.33e6	9.12e6	3228.4	5028.5	NO	bb	bb	100.000
13C-2378-TCDD	26.410	1.031	5.640e5	6.974e5	1.152	0.809	0.770	2271	1813	8.09e6	1.01e7	3563.4	5571.0	NO	bb	bb	102.553
13C-12378-PeCDD	31.526	1.231	6.480e5	4.003e5	0.829	1.619	1.550	1212	1529	9.47e6	5.85e6	7814.9	3827.1	NO	bb	bb	118.505
13C-123478-HxCDD	36.016	0.986	6.052e5	4.646e5	0.995	1.303	1.240	1807	1475	9.78e6	7.54e6	5412.5	5108.2	NO	bd	bd	98.154
13C-123678-HxCDD	36.127	0.989	6.753e5	5.418e5	1.157	1.246	1.240	1807	1475	1.01e7	8.01e6	5594.1	5426.8	NO	db	db	96.059
13C-1234678-HpCDD	40.261	1.102	3.968e5	3.950e5	0.840	1.005	1.050	2357	2248	5.68e6	5.37e6	2408.3	2387.8	NO	bb	bb	86.051
13C-OCDD	44.999	1.232	7.332e5	8.149e5	0.767	0.900	0.890	1459	1173	8.67e6	9.61e6	5943.8	8191.6	NO	bb	bb	184.151
13C-123789-HxCDD	36.518	0.000	6.173e5	4.781e5	1.000	1.291	1.240	1807	1475	9.34e6	7.24e6	5171.1	4908.4	NO	bb	bb	100.000
37CL-2378-TCDD	26.438	1.033	5.280e5		1.288			2576		7.74e6		3003.1			bb		38.410

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:51 Pacific Standard Time

ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1085	2356								
1289-TCDF					0.678		0.770	1085	2356								
13468-PECDF					1.246		1.550	728	1112								
12389-PECDF					0.496		1.550	4273	3650								
123468-HXCDF					1.169		1.240	1919	2508								
1368-TCDD					1.015		0.770	1559	1107								
1289-TCDD					0.909		0.770	1559	1107								
12479-PECDD					2.301		1.550	1566	1736								
12389-PECDD					1.184		1.550	1566	1736								
124679-HXCDD					1.115		1.240	1816	1276								
1234679-HPCDD					1.137		1.050	3177	2938								
Total-tetrafurans			2.178e5		0.727			1085		3.24e6						41.692	
Total-penta1			0.000e0					728		0.00e0							
Total-pentafurans			2.604e6		0.654			4273		3.89e7						404.382	
Total-hexafurans			6.043e6		1.141			1919		9.07e7						798.266	
Total-heptafurans			1.594e6		0.978			3326		2.45e7						413.115	
Total-Furans			1.165e7		0.922			1085		1.72e8						2077.243	
Total-tetradoxins			2.634e5		1.024			1559		3.88e6						41.026	
Total-pentadoxins			1.295e6		1.502			1566		1.89e7						199.743	
Total-hexadoxins			3.693e6		1.005			1816		5.67e7						606.331	
Total-heptadoxins			8.286e5		1.088			3177		1.22e7						198.425	
Total-Dioxins			7.373e6		1.130			1559		1.08e8						1439.540	
Total-TEQ			1.903e7					1559		2.79e8						3516.783	
FUNCTION1 PFK			2.654e6					566854		2.19e6							
FUNCTION2 PFK			2.398e5					242860		6.75e6						0.000	
FUNCTION3 PFK			5.441e7					394639		2.11e7						0.000	
FUNCTION4 PFK			0.000e0					306708		0.00e0							
FUNCTION5 PFK			3.395e4					230570		1.65e6							
FUNCTION1 HXCD...			4.934e2					625		6.74e3						0.000	
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.574e3					915		2.35e4						0.000	
FUNCTION3 OCDPE			8.696e2					844		1.47e4						0.000	
FUNCTION4 NCDPE			3.767e2					925		5.85e3						0.000	
FUNCTION5 DCDPE			0.000e0					629		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:51 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50

Calibration: T:\Autospec\Curves\230303\CIH.cdb 06 Mar 2023 10:57:27

ID: CS4CW, **Name:** 23030308, **Date:** 03-Mar-2023, **Time:** 14:59:53, **Conditions:** AUTOSPEC01, **User:** pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	2.145e5	2.910e5	0.702	0.74	0.77	2939.3	YES	NO	bb	bb	41.038
2	Total-tetrafurans	24.88	1.531e3	2.327e3	0.727	0.66	0.77	20.3	YES	NO	bb	bb	0.302
3	Total-tetrafurans	24.56	1.778e3	2.714e3	0.727	0.66	0.77	29.5	YES	NO	bb	bb	0.352

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	31.01	1.644e3	9.764e2	0.654	1.68	1.55	5.6	YES	NO	db	bd	0.273
2	12378-PeCDF	29.94	1.256e6	8.416e5	0.679	1.49	1.55	4360.5	YES	NO	bb	bb	202.935
3	23478-PeCDF	31.29	1.346e6	8.943e5	0.786	1.51	1.55	4738.5	YES	NO	bb	bb	201.175

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.94	1.209e6	1.036e6	1.137	1.17	1.24	9441.6	YES	NO	bb	bd	200.361
2	234678-HxCDF	35.92	1.547e6	1.307e6	1.140	1.18	1.24	12125.4	YES	NO	bb	bd	210.207
3	Total-hexafurans	35.77	1.562e2	1.389e2	1.141	1.12	1.24	3.4	NO	NO	bb	bb	0.021
4	123678-HxCDF	35.05	1.740e6	1.369e6	1.091	1.27	1.24	13394.0	YES	NO	db	db	189.797
5	123478-HxCDF	34.91	1.546e6	1.218e6	1.166	1.27	1.24	12323.4	YES	NO	bd	bd	197.711
6	Total-hexafurans	34.76	1.255e3	1.100e3	1.141	1.14	1.24	11.9	YES	NO	bb	bb	0.169

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.78	8.720e5	8.418e5	1.003	1.04	1.05	4339.3	YES	NO	bb	bb	204.650
2	1234789-HpCDF	41.02	7.221e5	7.262e5	0.953	0.99	1.05	3041.3	YES	NO	bb	bb	208.465

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:51 Pacific Standard Time

ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	2.145e5	2.910e5	0.702	0.74	0.77	2939.3	YES	NO	bb	bb	41.038
2	Total-tetrafurans	24.88	1.531e3	2.327e3	0.727	0.66	0.77	20.3	YES	NO	bb	bb	0.302
3	Total-tetrafurans	24.56	1.778e3	2.714e3	0.727	0.66	0.77	29.5	YES	NO	bb	bb	0.352
4	Total-pentafurans	31.01	1.644e3	9.764e2	0.654	1.68	1.55	5.6	YES	NO	db	bd	0.273
5	12378-PeCDF	29.94	1.256e6	8.416e5	0.679	1.49	1.55	4360.5	YES	NO	bb	bb	202.935
6	23478-PeCDF	31.29	1.346e6	8.943e5	0.786	1.51	1.55	4738.5	YES	NO	bb	bb	201.175
7	123789-HxCDF	36.94	1.209e6	1.036e6	1.137	1.17	1.24	9441.6	YES	NO	bb	bd	200.361
8	234678-HxCDF	35.92	1.547e6	1.307e6	1.140	1.18	1.24	12125.4	YES	NO	bb	bd	210.207
9	Total-hexafurans	35.77	1.562e2	1.389e2	1.141	1.12	1.24	3.4	NO	NO	bb	bb	0.021
10	123678-HxCDF	35.05	1.740e6	1.369e6	1.091	1.27	1.24	13394.0	YES	NO	db	db	189.797
11	123478-HxCDF	34.91	1.546e6	1.218e6	1.166	1.27	1.24	12323.4	YES	NO	bd	bd	197.711
12	Total-hexafurans	34.76	1.255e3	1.100e3	1.141	1.14	1.24	11.9	YES	NO	bb	bb	0.169
13	1234678-HpCDF	38.78	8.720e5	8.418e5	1.003	1.04	1.05	4339.3	YES	NO	bb	bb	204.650
14	1234789-HpCDF	41.02	7.221e5	7.262e5	0.953	0.99	1.05	3041.3	YES	NO	bb	bb	208.465
15	OCDF	45.26	1.195e6	1.333e6	0.778	0.90	0.89	7923.8	YES	NO	bb	bb	419.788

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.44	2.573e5	3.218e5	1.149	0.80	0.77	2446.0	YES	NO	bb	bb	39.968
2	Total-tetradoxins	26.06	6.115e3	7.563e3	1.024	0.81	0.77	45.2	YES	NO	bb	bb	1.059

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.55	1.294e6	8.446e5	1.022	1.53	1.55	12077.0	YES	NO	bb	bb	199.637
2	Total-pentadoxins	29.94	9.896e2	6.778e2	1.502	1.46	1.55	7.8	YES	NO	bb	bb	0.106

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.53	1.168e6	9.477e5	0.907	1.23	1.24	9764.9	YES	NO	bb	bb	203.974
2	123678-HxCDD	36.15	1.363e6	1.125e6	1.001	1.21	1.24	10823.8	YES	NO	db	db	204.224
3	123478-HxCDD	36.03	1.162e6	9.482e5	0.996	1.23	1.24	10622.2	YES	NO	bd	bd	198.133

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:34:51 Pacific Standard Time

ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	40.57	2.148e2	2.026e2	1.088	1.06	1.05	2.3	NO	NO	bb	bb	0.048
2	1234678-HpCDD	40.28	8.284e5	8.038e5	1.039	1.03	1.05	3841.2	YES	NO	bb	bb	198.376

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.44	2.573e5	3.218e5	1.149	0.80	0.77	2446.0	YES	NO	bb	bb	39.968
2	Total-tetradioxins	26.06	6.115e3	7.563e3	1.024	0.81	0.77	45.2	YES	NO	bb	bb	1.059
3	12378-PeCDD	31.55	1.294e6	8.446e5	1.022	1.53	1.55	12077.0	YES	NO	bb	bb	199.637
4	Total-pentadioxins	29.94	9.896e2	6.778e2	1.502	1.46	1.55	7.8	YES	NO	bb	bb	0.106
5	123789-HxCDD	36.53	1.168e6	9.477e5	0.907	1.23	1.24	9764.9	YES	NO	bb	bb	203.974
6	123678-HxCDD	36.15	1.363e6	1.125e6	1.001	1.21	1.24	10823.8	YES	NO	db	db	204.224
7	123478-HxCDD	36.03	1.162e6	9.482e5	0.996	1.23	1.24	10622.2	YES	NO	bd	bd	198.133
8	Total-heptadioxins	40.57	2.148e2	2.026e2	1.088	1.06	1.05	2.3	NO	NO	bb	bb	0.048
9	1234678-HpCDD	40.28	8.284e5	8.038e5	1.039	1.03	1.05	3841.2	YES	NO	bb	bb	198.376
10	OCDD	45.01	1.293e6	1.512e6	0.920	0.86	0.89	10744.0	YES	NO	bb	bb	394.016

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	2.145e5	2.910e5	0.702	0.74	0.77	2939.3	YES	NO	bb	bb	41.038
2	Total-tetrafurans	24.88	1.531e3	2.327e3	0.727	0.66	0.77	20.3	YES	NO	bb	bb	0.302
3	Total-tetrafurans	24.56	1.778e3	2.714e3	0.727	0.66	0.77	29.5	YES	NO	bb	bb	0.352
4	Total-pentafurans	31.01	1.644e3	9.764e2	0.654	1.68	1.55	5.6	YES	NO	db	bd	0.273
5	12378-PeCDF	29.94	1.256e6	8.416e5	0.679	1.49	1.55	4360.5	YES	NO	bb	bb	202.935
6	23478-PeCDF	31.29	1.346e6	8.943e5	0.786	1.51	1.55	4738.5	YES	NO	bb	bb	201.175
7	123789-HxCDF	36.94	1.209e6	1.036e6	1.137	1.17	1.24	9441.6	YES	NO	bb	bd	200.361
8	234678-HxCDF	35.92	1.547e6	1.307e6	1.140	1.18	1.24	12125.4	YES	NO	bb	bd	210.207
9	Total-hexafurans	35.77	1.562e2	1.389e2	1.141	1.12	1.24	3.4	NO	NO	bb	bb	0.021
10	123678-HxCDF	35.05	1.740e6	1.369e6	1.091	1.27	1.24	13394.0	YES	NO	db	db	189.797
11	123478-HxCDF	34.91	1.546e6	1.218e6	1.166	1.27	1.24	12323.4	YES	NO	bd	bd	197.711
12	Total-hexafurans	34.76	1.255e3	1.100e3	1.141	1.14	1.24	11.9	YES	NO	bb	bb	0.169
13	1234678-HpCDF	38.78	8.720e5	8.418e5	1.003	1.04	1.05	4339.3	YES	NO	bb	bb	204.650
14	1234789-HpCDF	41.02	7.221e5	7.262e5	0.953	0.99	1.05	3041.3	YES	NO	bb	bb	208.465
15	OCDF	45.26	1.195e6	1.333e6	0.778	0.90	0.89	7923.8	YES	NO	bb	bb	419.788
16	2378-TCDD	26.44	2.573e5	3.218e5	1.149	0.80	0.77	2446.0	YES	NO	bb	bb	39.968
17	Total-tetradiioxins	26.06	6.115e3	7.563e3	1.024	0.81	0.77	45.2	YES	NO	bb	bb	1.059
18	12378-PeCDD	31.55	1.294e6	8.446e5	1.022	1.53	1.55	12077.0	YES	NO	bb	bb	199.637
19	Total-pentadiioxins	29.94	9.896e2	6.778e2	1.502	1.46	1.55	7.8	YES	NO	bb	bb	0.106
20	123789-HxCDD	36.53	1.168e6	9.477e5	0.907	1.23	1.24	9764.9	YES	NO	bb	bb	203.974
21	123678-HxCDD	36.15	1.363e6	1.125e6	1.001	1.21	1.24	10823.8	YES	NO	db	db	204.224
22	123478-HxCDD	36.03	1.162e6	9.482e5	0.996	1.23	1.24	10622.2	YES	NO	bd	bd	198.133
23	Total-heptadiioxins	40.57	2.148e2	2.026e2	1.088	1.06	1.05	2.3	NO	NO	bb	bb	0.048
24	1234678-HpCDD	40.28	8.284e5	8.038e5	1.039	1.03	1.05	3841.2	YES	NO	bb	bb	198.376
25	OCDD	45.01	1.293e6	1.512e6	0.920	0.86	0.89	10744.0	YES	NO	bb	bb	394.016

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	26.75	1.219e6					0.4	NO		bb		
2	FUNCTION1 PFK	21.17	1.435e6					3.4	YES		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.26	4.048e3					0.9	NO		bb		0.000
2	FUNCTION2 PFK	28.22	4.511e3					0.9	NO		bb		0.000
3	FUNCTION2 PFK	28.09	1.180e4					1.6	NO		bb		0.000
4	FUNCTION2 PFK	32.40	7.400e3					1.4	NO		bd		0.000
5	FUNCTION2 PFK	31.78	3.780e3					0.8	NO		db		0.000
6	FUNCTION2 PFK	31.75	1.880e3					0.6	NO		bd		0.000
7	FUNCTION2 PFK	31.70	9.648e3					1.7	NO		db		0.000
8	FUNCTION2 PFK	31.63	2.054e4					2.2	NO		bd		0.000
9	FUNCTION2 PFK	31.52	5.247e4					2.4	NO		db		0.000
10	FUNCTION2 PFK	31.37	1.454e4					1.4	NO		bd		0.000
11	FUNCTION2 PFK	31.10	7.031e3					1.1	NO		bb		0.000
12	FUNCTION2 PFK	30.32	1.036e4					1.3	NO		bb		0.000
13	FUNCTION2 PFK	30.01	2.058e3					0.8	NO		bb		0.000
14	FUNCTION2 PFK	29.82	6.711e3					1.2	NO		db		0.000
15	FUNCTION2 PFK	29.78	1.288e4					1.7	NO		bd		0.000
16	FUNCTION2 PFK	29.02	5.997e3					0.8	NO		bb		0.000
17	FUNCTION2 PFK	28.82	2.827e4					1.7	NO		bb		0.000
18	FUNCTION2 PFK	28.47	4.519e3					0.9	NO		bb		0.000
19	FUNCTION2 PFK	28.42	5.823e3					1.1	NO		bb		0.000
20	FUNCTION2 PFK	32.71	1.137e4					1.6	NO		bb		0.000
21	FUNCTION2 PFK	32.44	1.418e4					1.8	NO		db		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.64	7.406e6					25.3	YES		db		0.000
2	FUNCTION3 PFK	36.25	4.701e7					28.1	YES		bd		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.68	7.516e3					1.5	NO		bb		
2	FUNCTION5 PFK	45.50	5.255e3					1.2	NO		bb		
3	FUNCTION5 PFK	43.66	5.108e3					1.2	NO		bb		
4	FUNCTION5 PFK	43.06	3.867e3					1.1	NO		bb		
5	FUNCTION5 PFK	42.63	1.220e4					2.1	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	21.64	8.072e1					1.8	NO		bb		0.000
2	FUNCTION1 HXCD...	21.44	1.165e2					2.1	NO		db		0.000
3	FUNCTION1 HXCD...	21.34	7.544e1					2.3	NO		bd		0.000
4	FUNCTION1 HXCD...	26.42	1.399e2					2.7	NO		bb		0.000
5	FUNCTION1 HXCD...	21.99	8.086e1					2.0	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.18	1.574e3					25.7	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.15	3.227e2					5.7	YES		db		0.000
2	FUNCTION3 OCDPE	36.03	2.331e2					4.4	YES		bd		0.000
3	FUNCTION3 OCDPE	35.36	1.234e2					4.0	YES		bb		0.000
4	FUNCTION3 OCDPE	35.06	1.904e2					3.3	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.00	2.677e2					3.2	YES		bb		0.000
2	FUNCTION4 NCDPE	38.18	1.090e2					3.1	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

ETHERS6

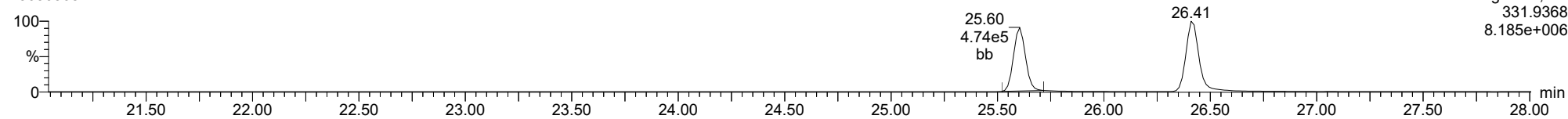
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1													

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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

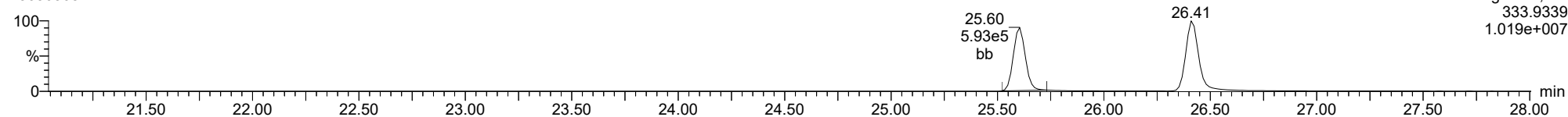
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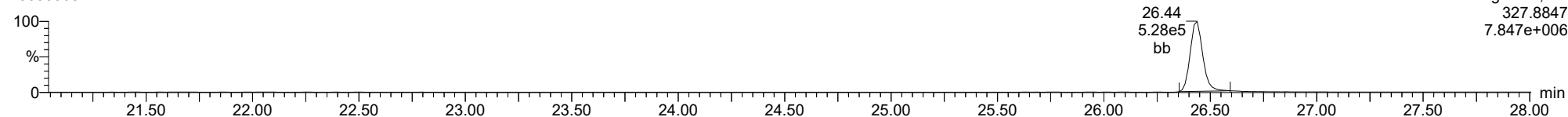
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37CL-2378-TCDD

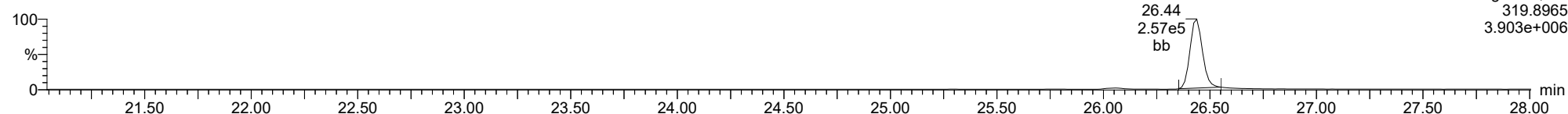
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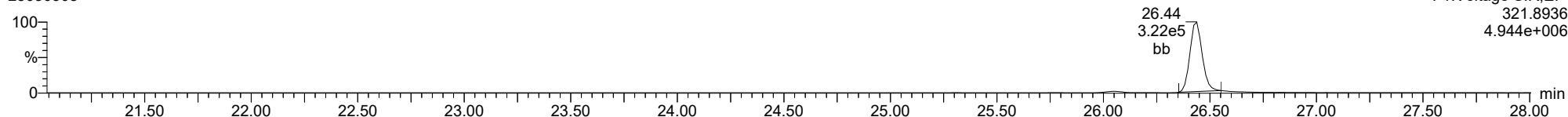
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F1:Voltage SIR,EI+
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3.903e+006

2378-TCDD

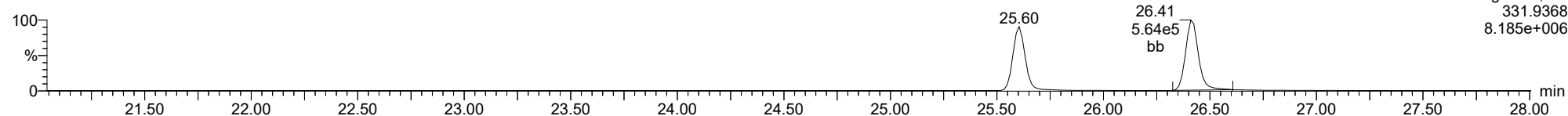
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F1:Voltage SIR,EI+
321.8936
4.944e+006

13C-2378-TCDD

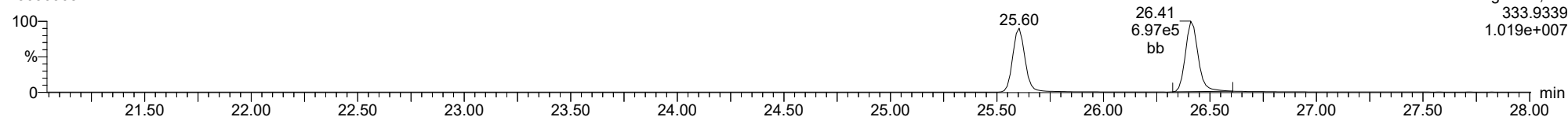
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F1:Voltage SIR,EI+
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8.185e+006

13C-2378-TCDD

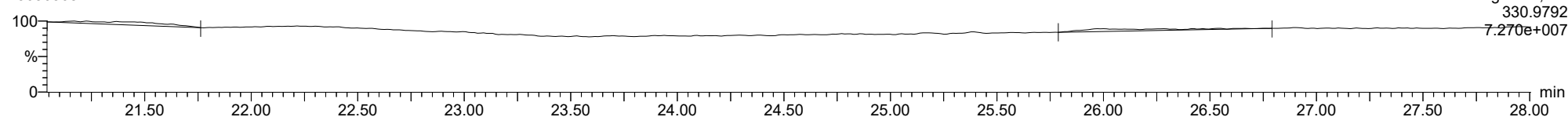
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F1:Voltage SIR,EI+
333.9339
1.019e+007

FUNCTION1 PFK

23030308

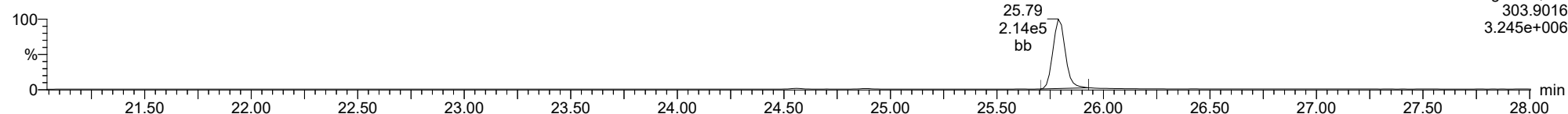


F1:Voltage SIR,EI+
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7.270e+007

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2378-TCDF

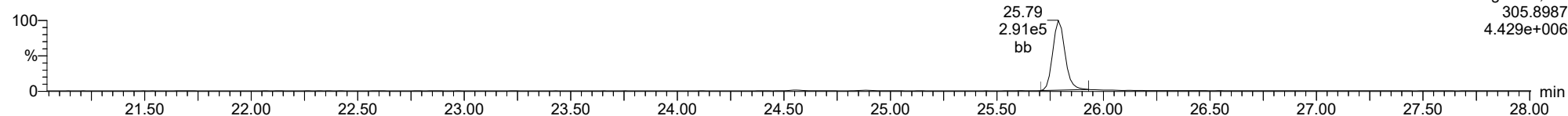
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F1:Voltage SIR,EI+
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3.245e+006

2378-TCDF

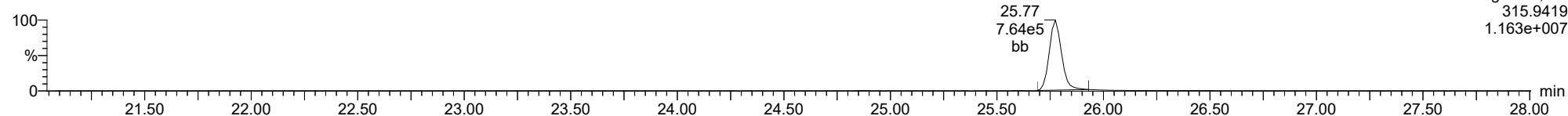
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F1:Voltage SIR,EI+
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4.429e+006

13C-2378-TCDF

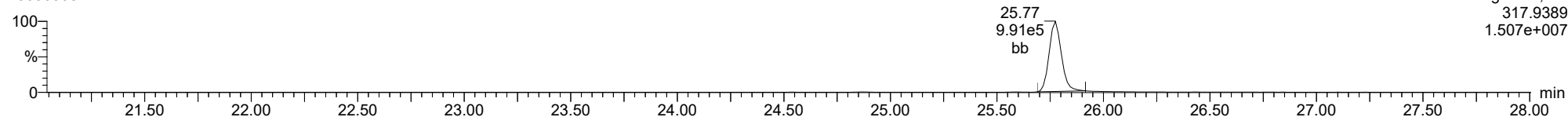
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F1:Voltage SIR,EI+
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1.163e+007

13C-2378-TCDF

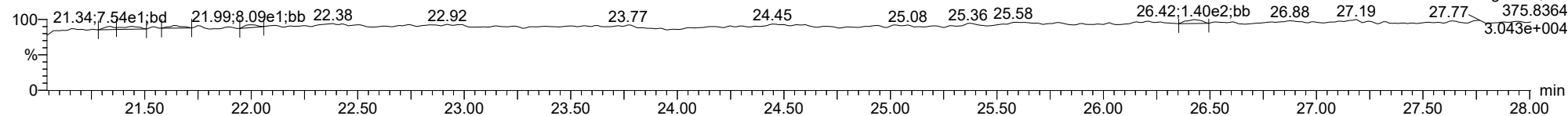
23030308



F1:Voltage SIR,EI+
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1.507e+007

FUNCTION1 HXCDFE

23030308

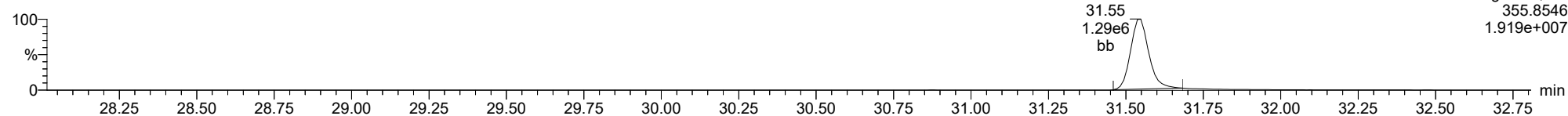


F1:Voltage SIR,EI+
375.8364
3.043e+004

ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

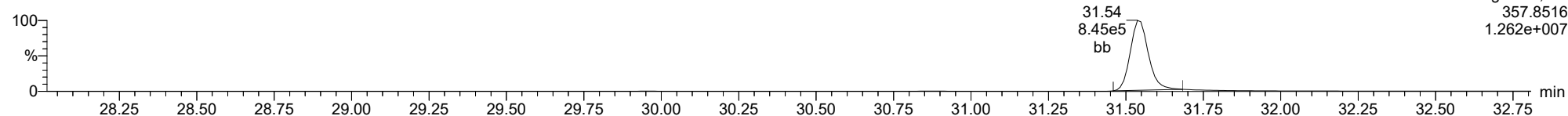
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23030308



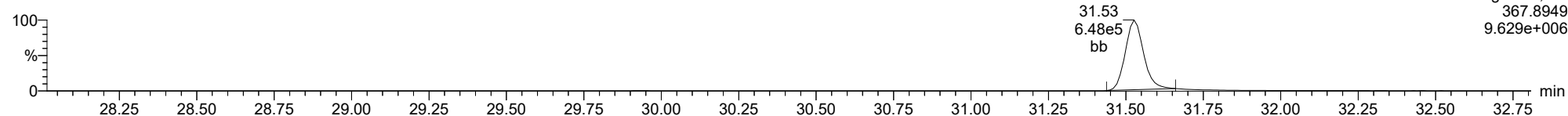
12378-PeCDD

23030308



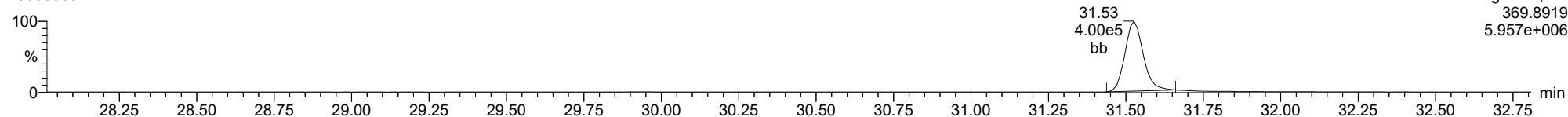
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23030308



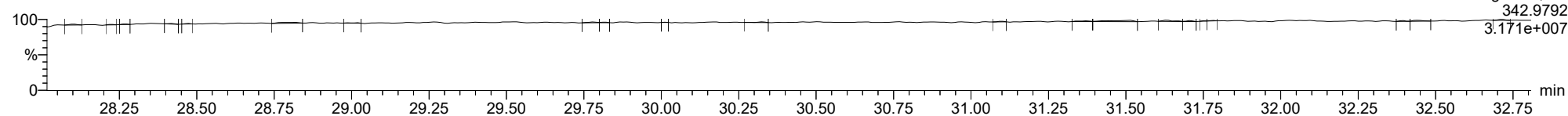
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23030308



FUNCTION2 PFK

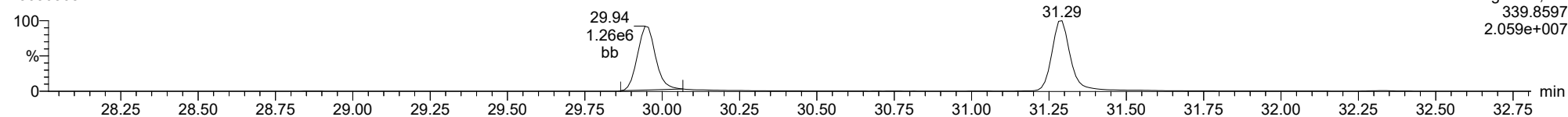
23030308



ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

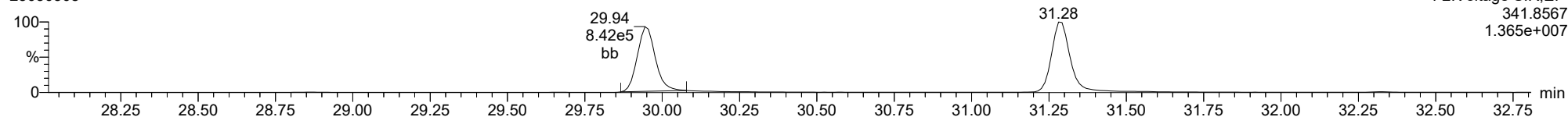
12378-PeCDF

23030308



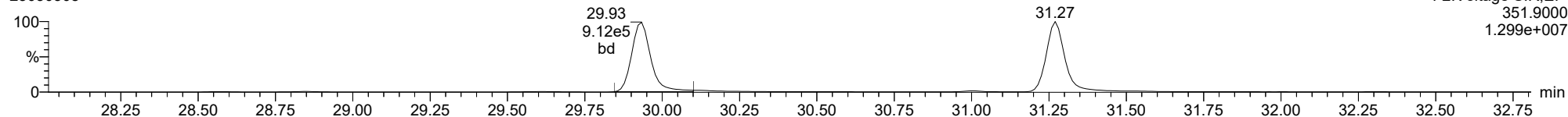
12378-PeCDF

23030308



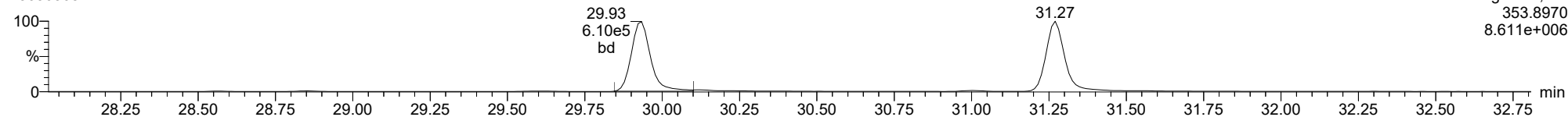
13C-12378-PeCDF

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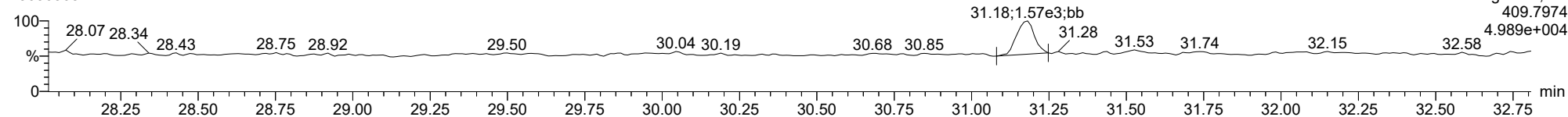
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23030308



FUNCTION2 HPCDPE

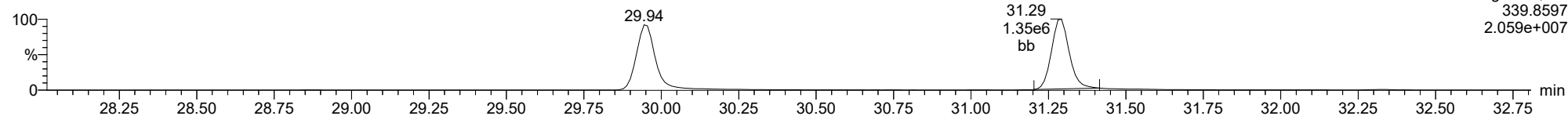
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

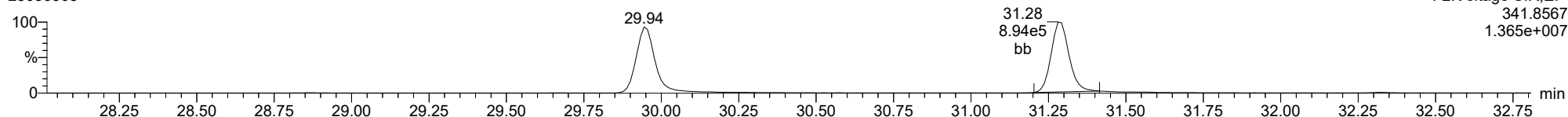
23478-PeCDF

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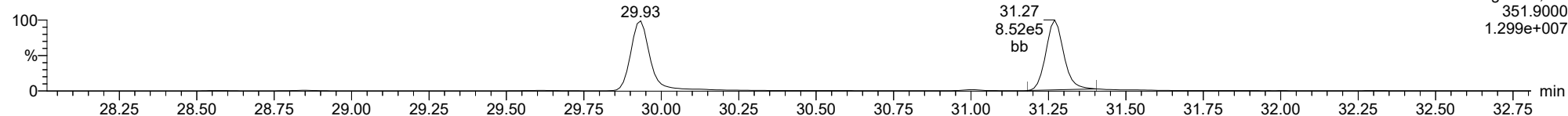
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23030308



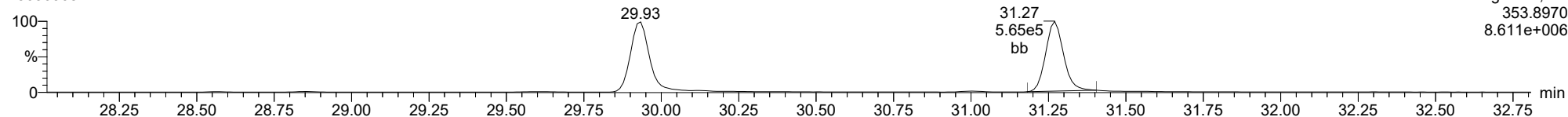
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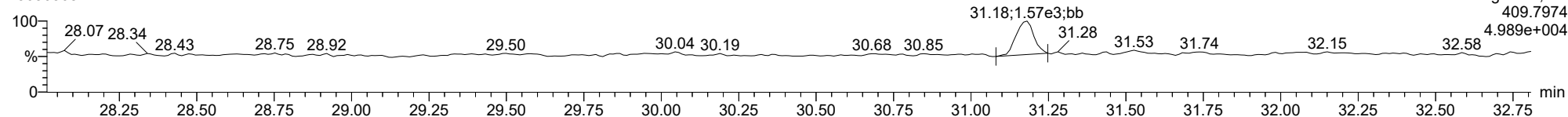
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FUNCTION2 HPCDPE

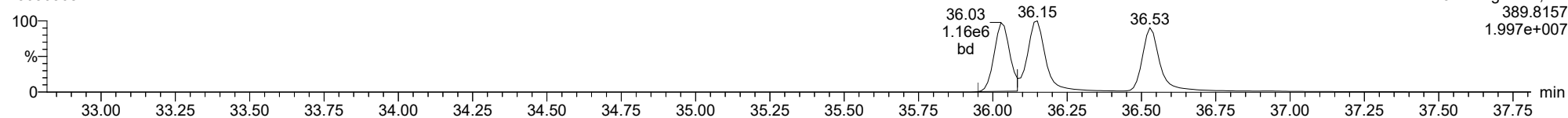
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

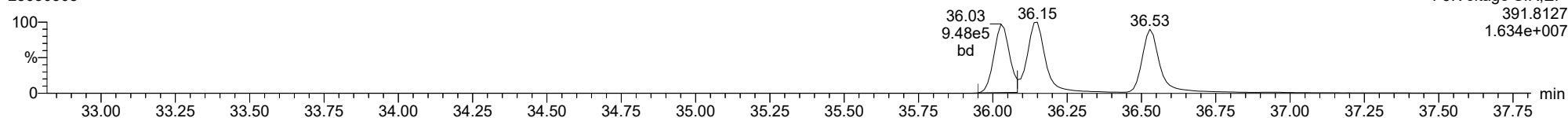
123478-HxCDD

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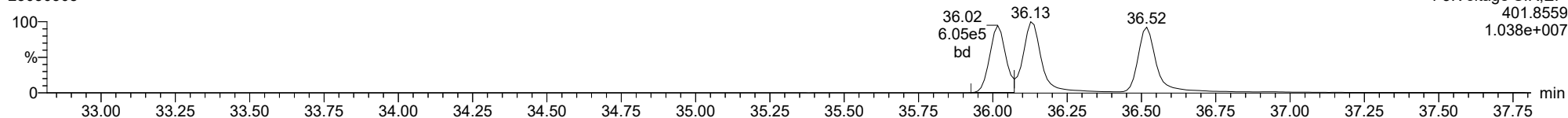
123478-HxCDD

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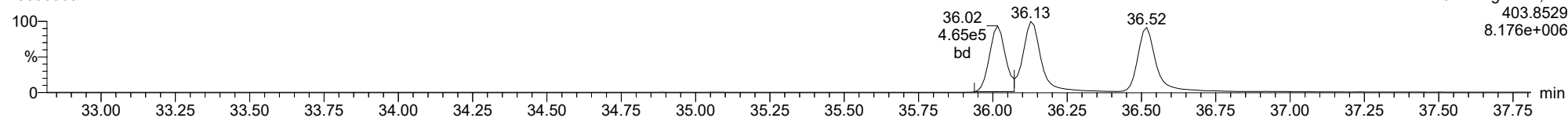
13C-123478-HxCDD

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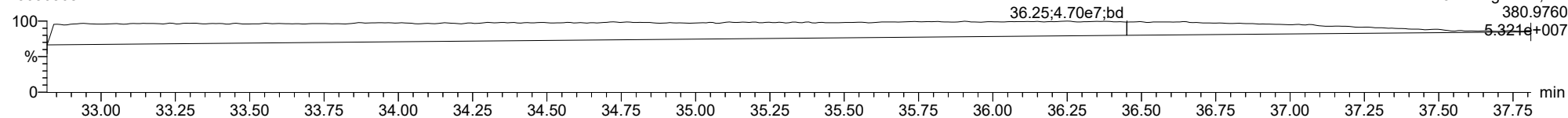
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FUNCTION3 PFK

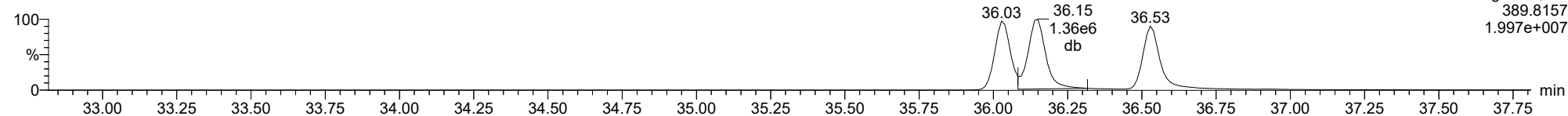
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

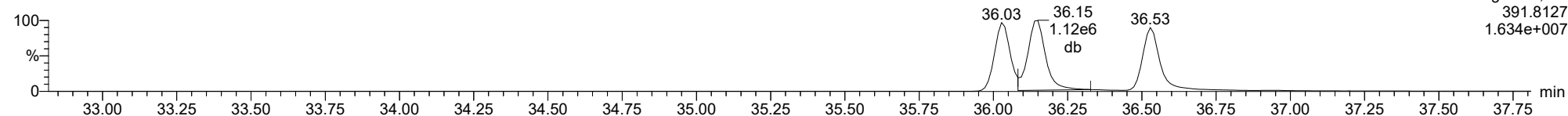
123678-HxCDD

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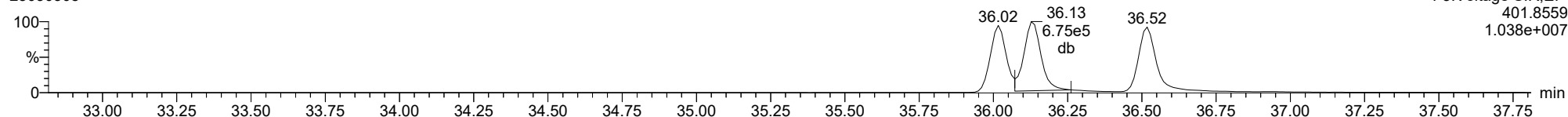
123678-HxCDD

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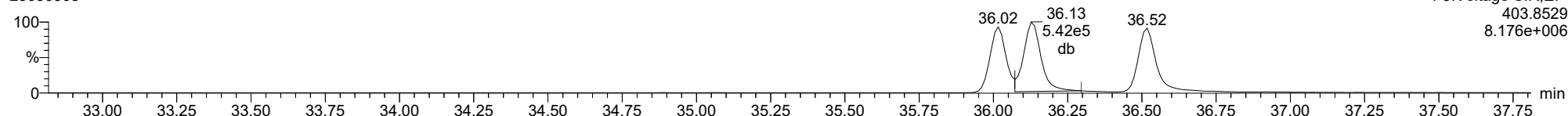
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13C-123678-HxCDD

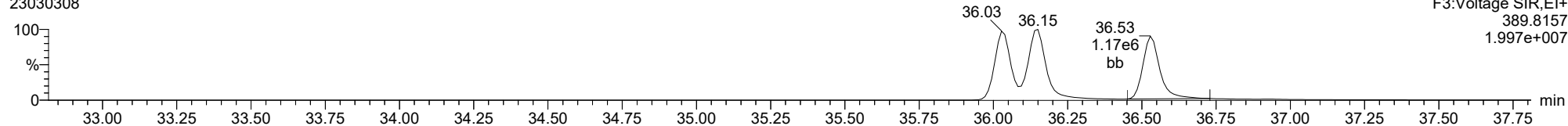
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

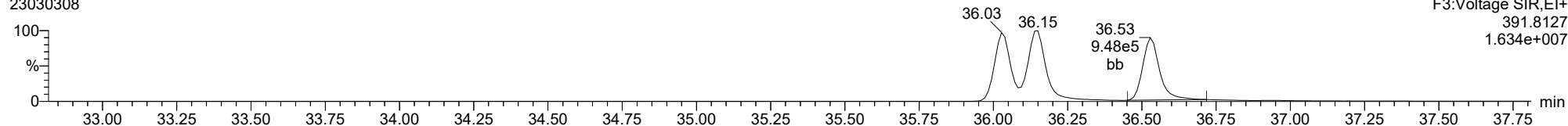
123789-HxCDD

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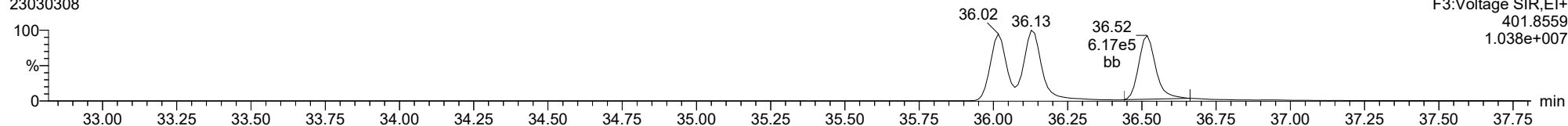
123789-HxCDD

23030308



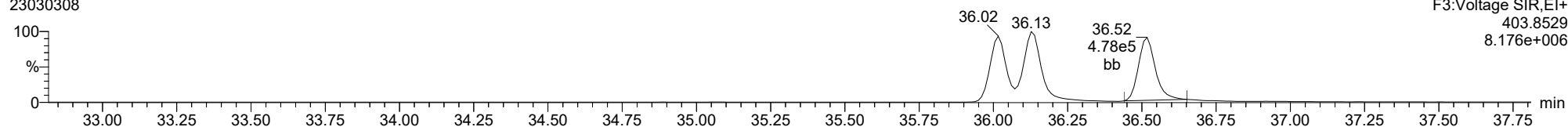
13C-123789-HxCDD

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13C-123789-HxCDD

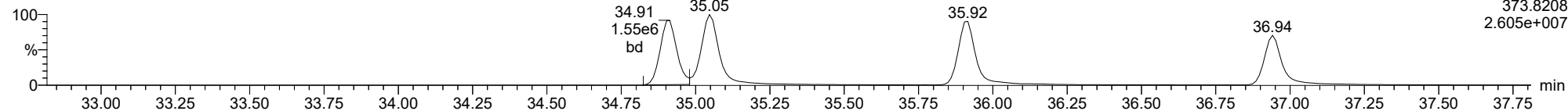
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

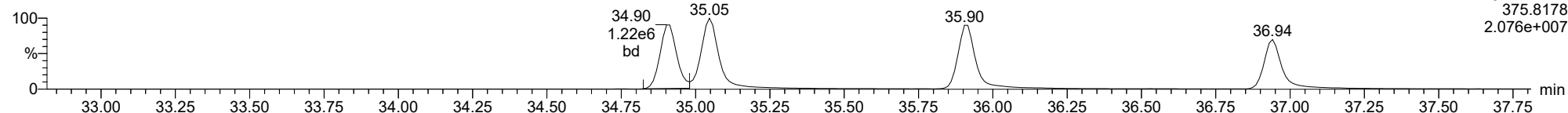
123478-HxCDF

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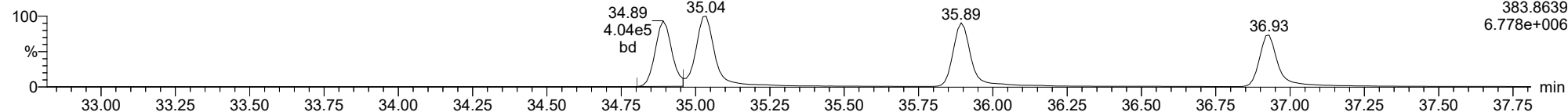
123478-HxCDF

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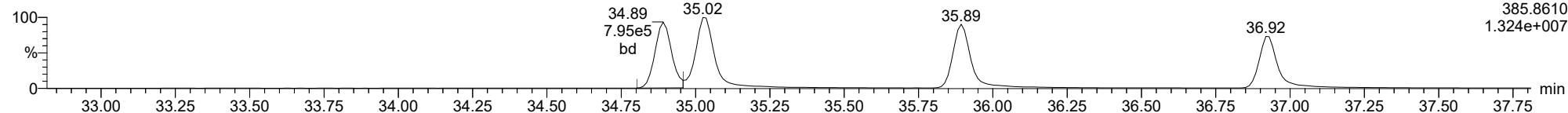
13C-123478-HxCDF

23030308



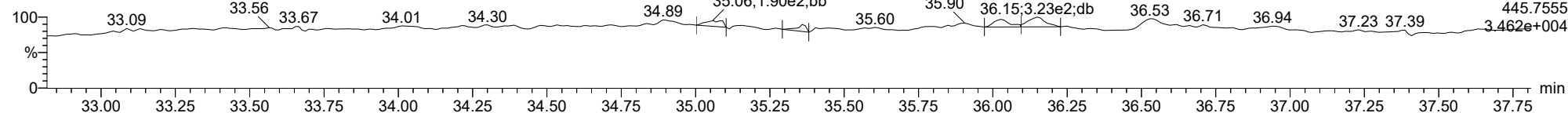
13C-123478-HxCDF

23030308



FUNCTION3 OCDPE

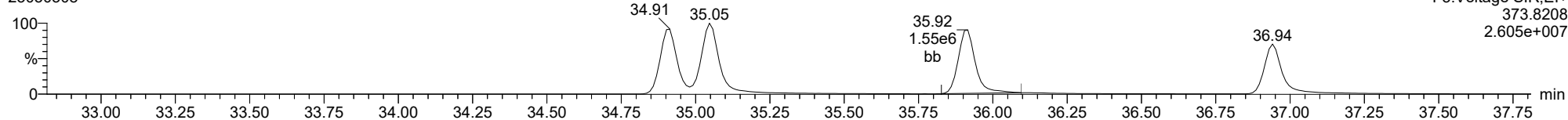
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

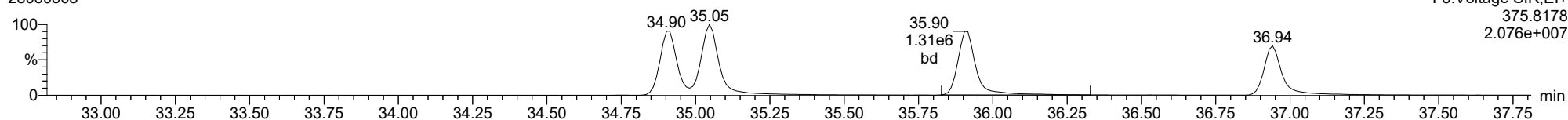
234678-HxCDF

23030308



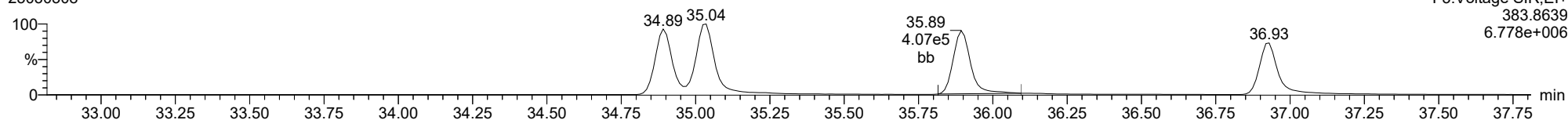
234678-HxCDF

23030308



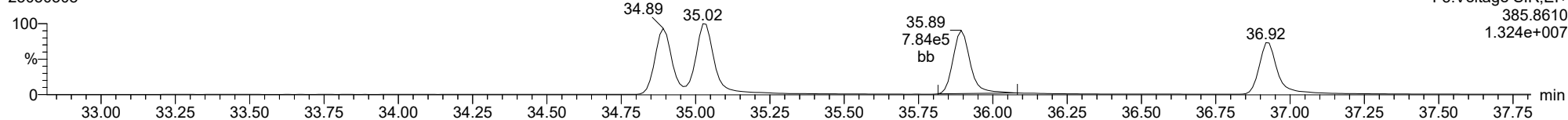
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23030308



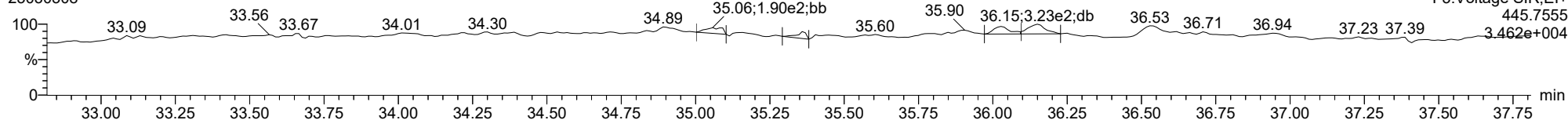
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FUNCTION3 OCDPE

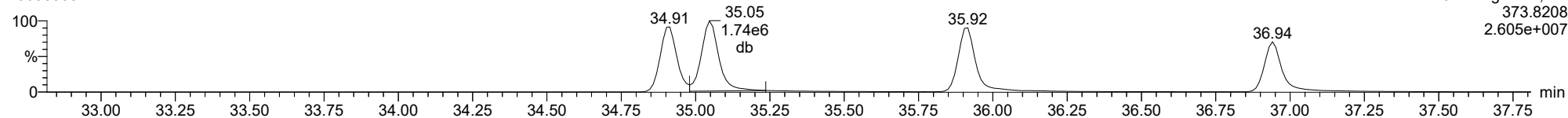
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

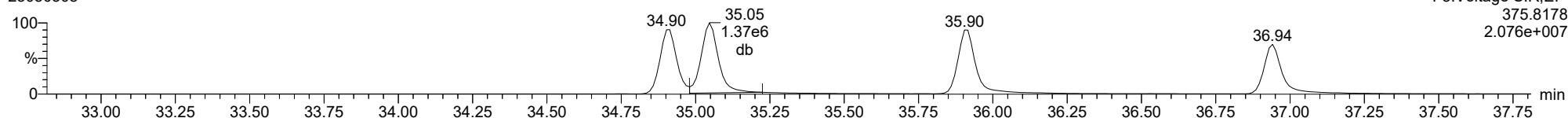
123678-HxCDF

23030308



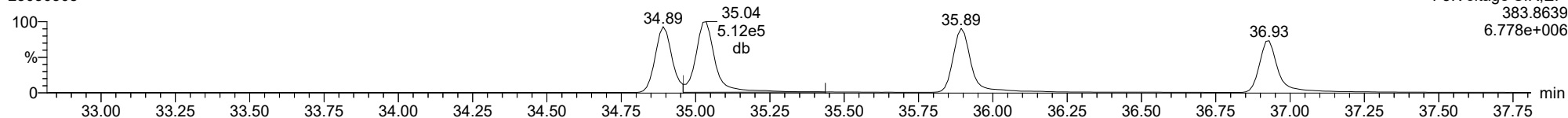
123678-HxCDF

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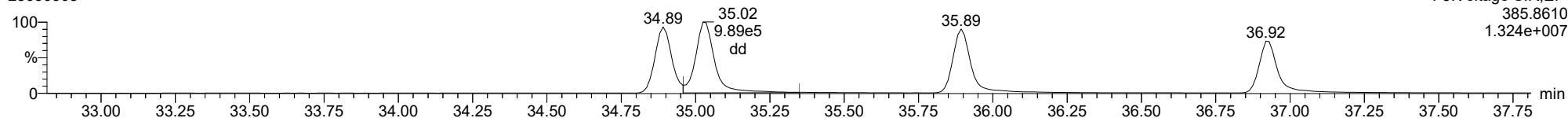
13C-123678-HxCDF

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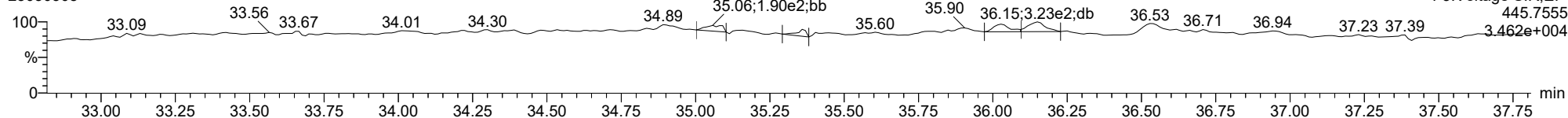
13C-123678-HxCDF

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FUNCTION3 OCDPE

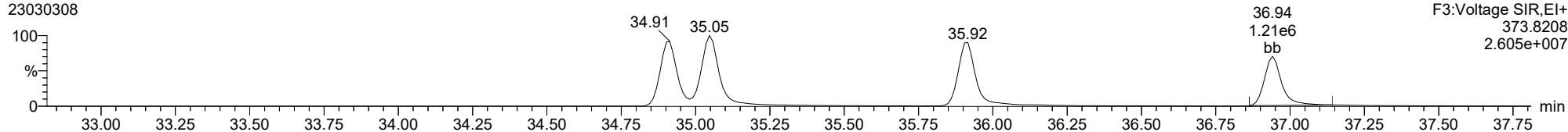
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

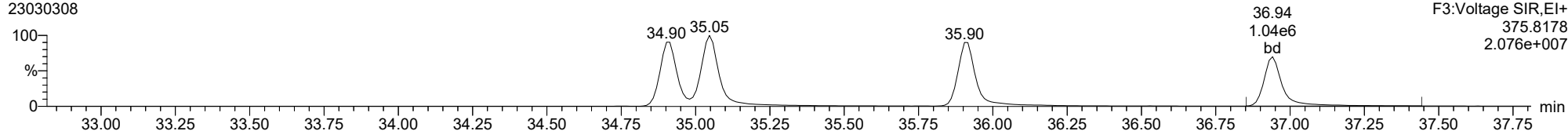
123789-HxCDF

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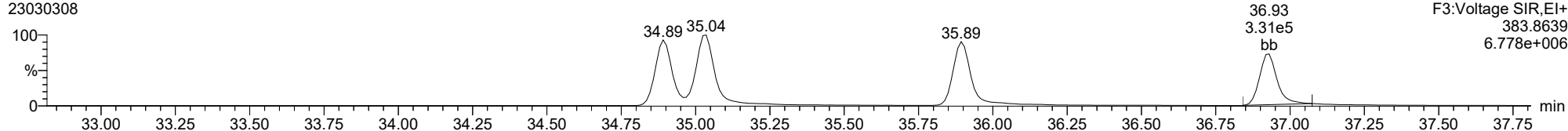
123789-HxCDF

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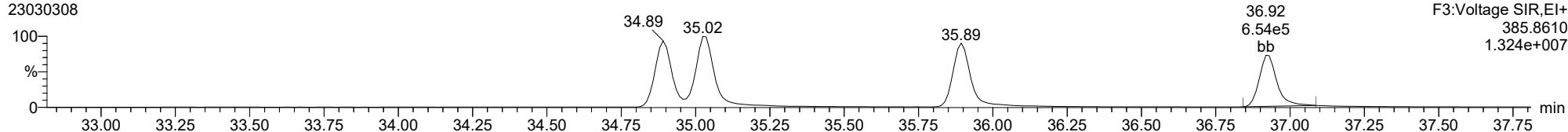
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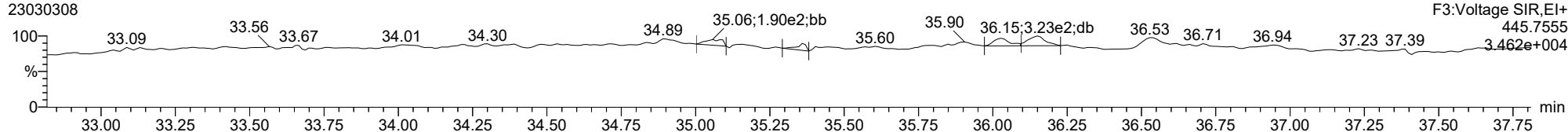
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FUNCTION3 OCDPE

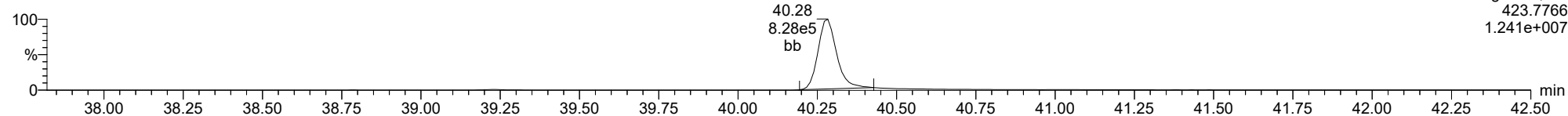
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

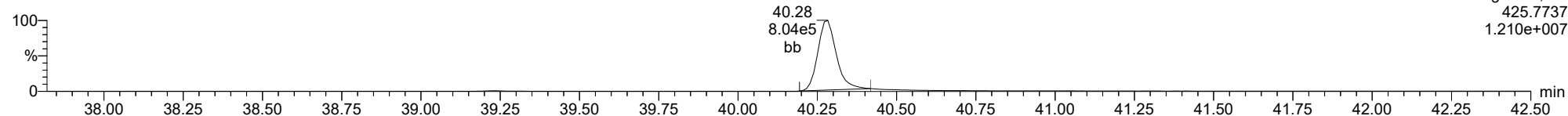
1234678-HpCDD

23030308



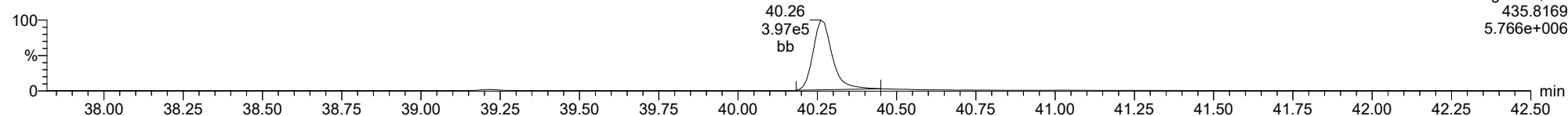
1234678-HpCDD

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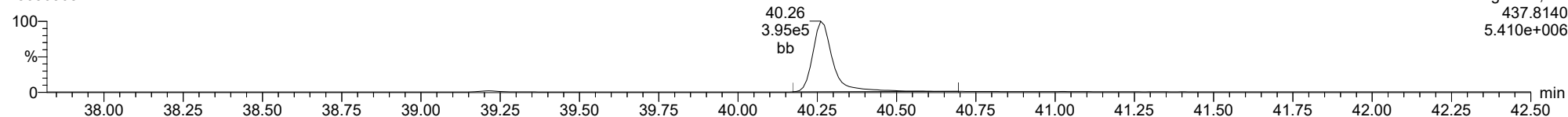
13C-1234678-HpCDD

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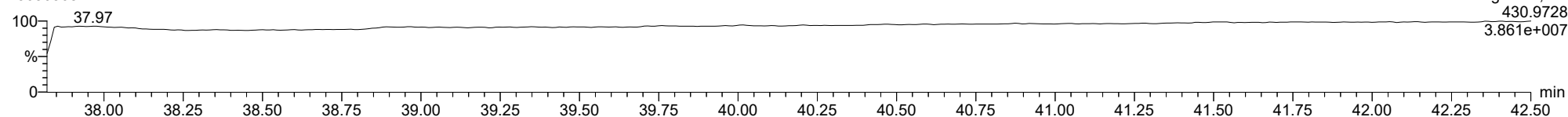
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23030308



FUNCTION4 PFK

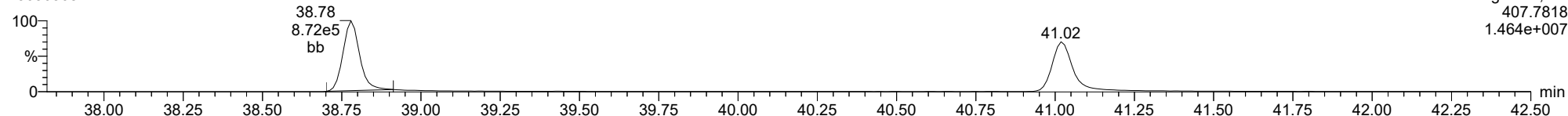
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

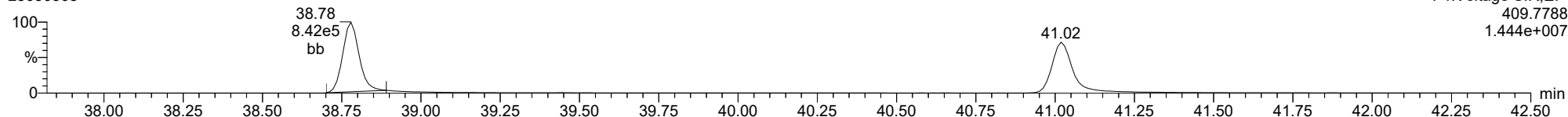
1234678-HpCDF

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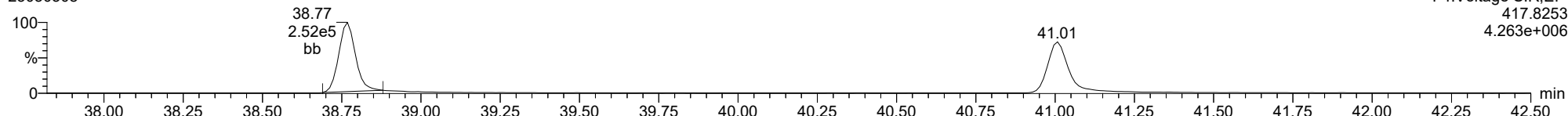
1234678-HpCDF

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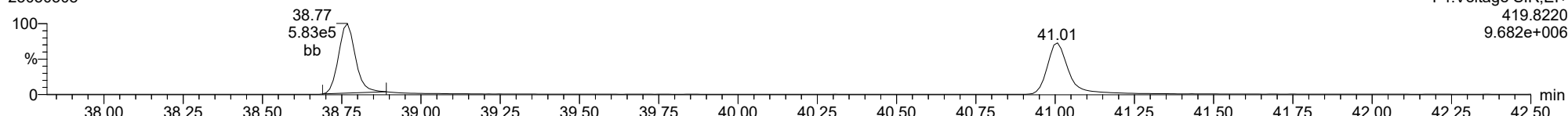
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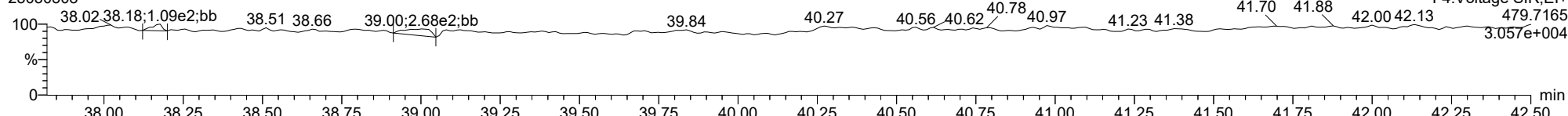
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23030308



FUNCTION4 NCDPE

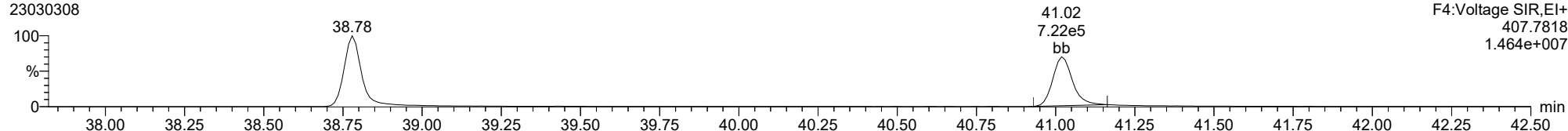
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

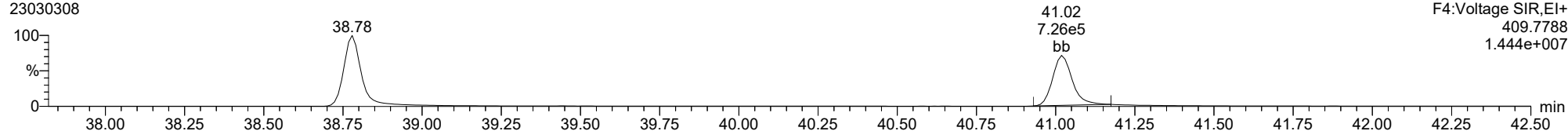
1234789-HpCDF

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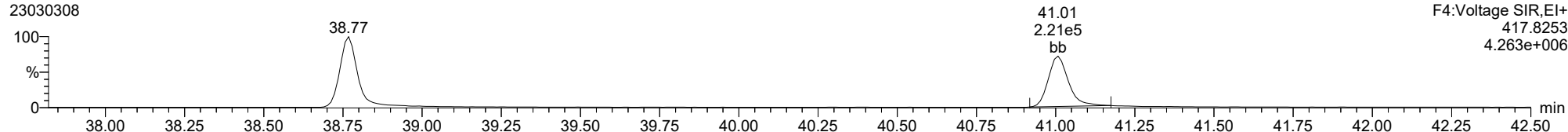
1234789-HpCDF

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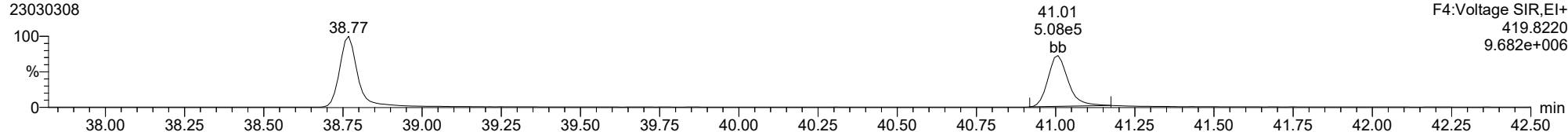
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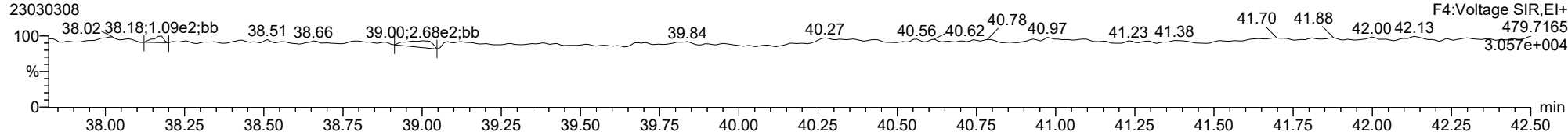
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FUNCTION4 NCDPE

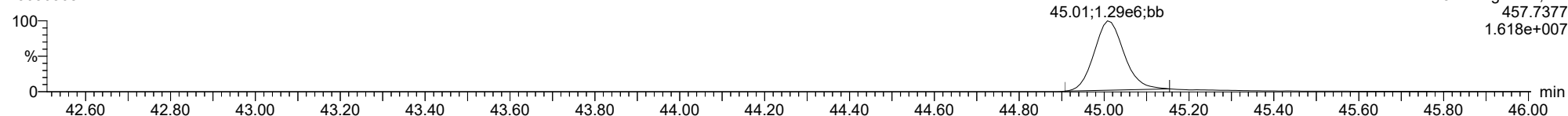
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

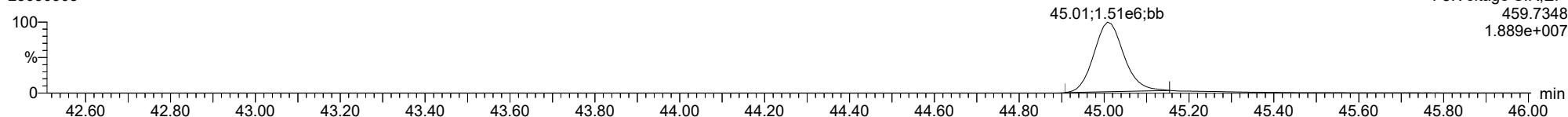
OCDD

23030308



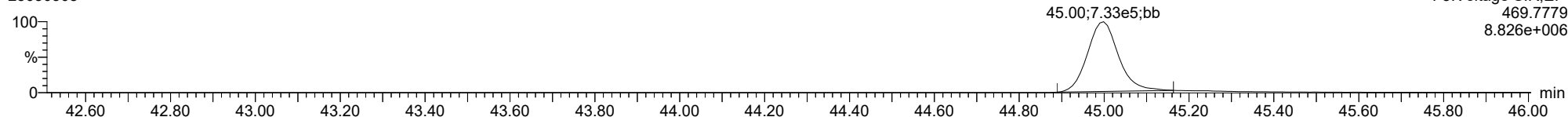
OCDD

23030308



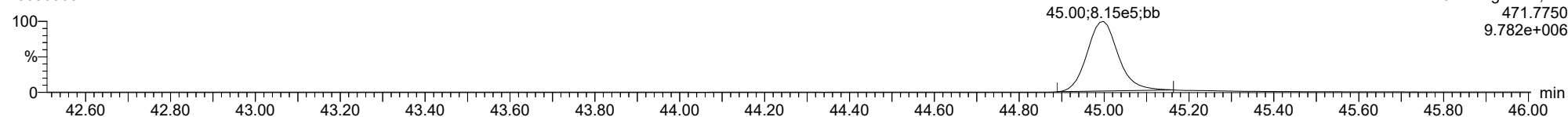
13C-OCDD

23030308



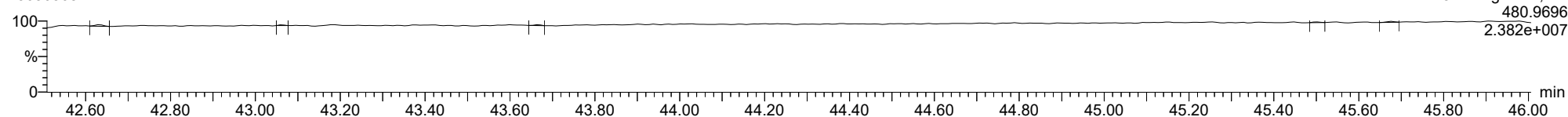
13C-OCDD

23030308

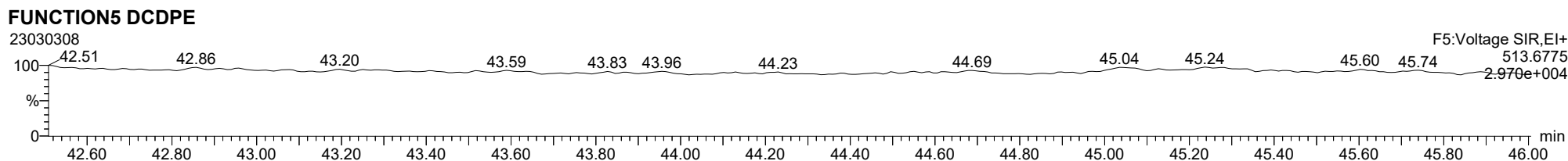
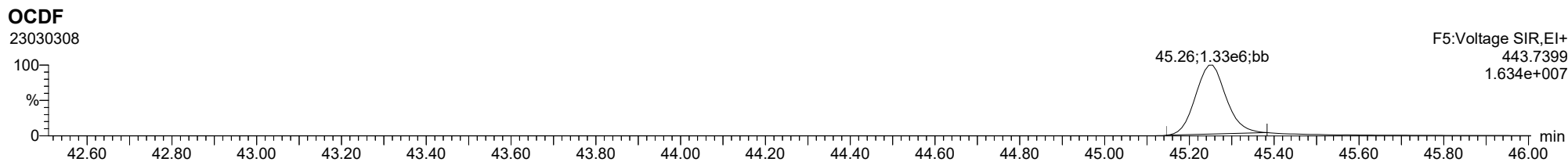
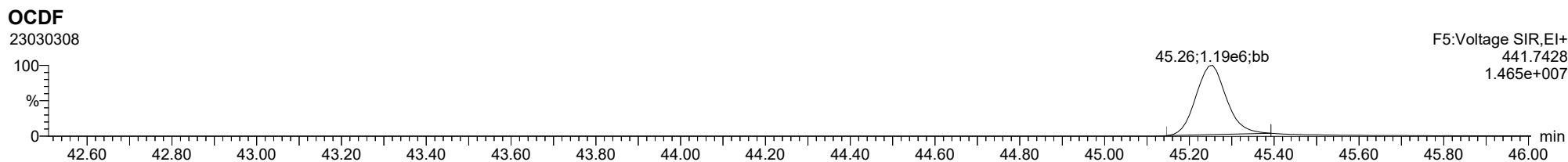


FUNCTION5 PFK

23030308



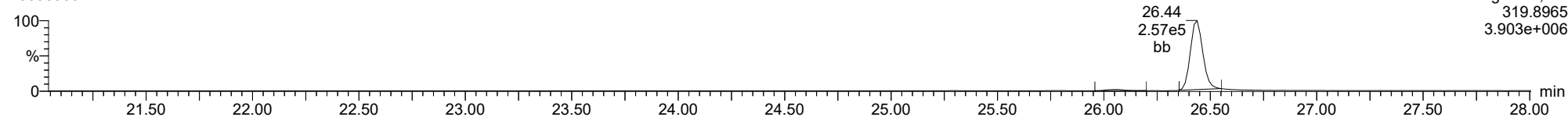
ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk



ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

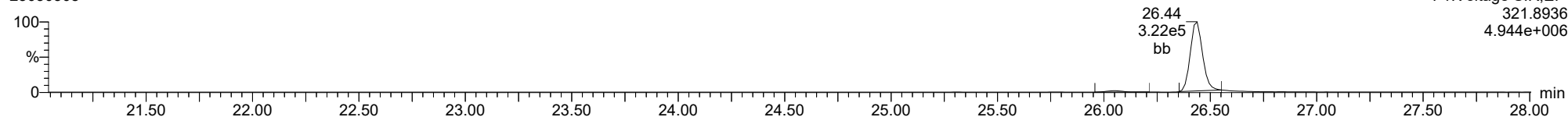
Total-tetradioxins

23030308



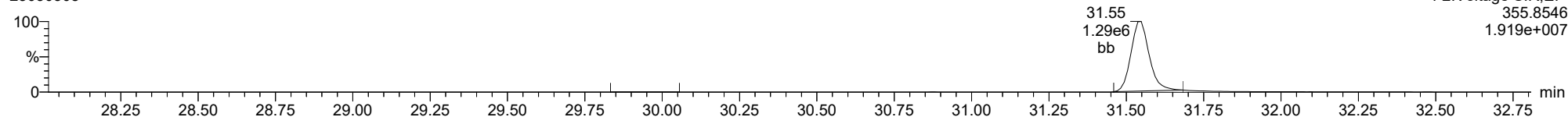
Total-tetradioxins

23030308



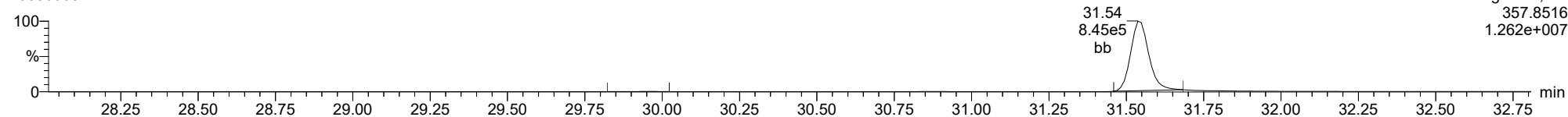
Total-pentadioxins

23030308



Total-pentadioxins

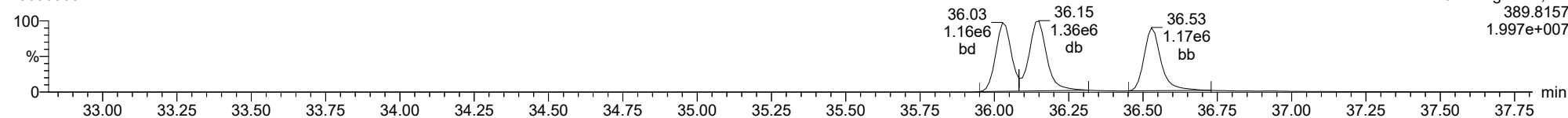
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

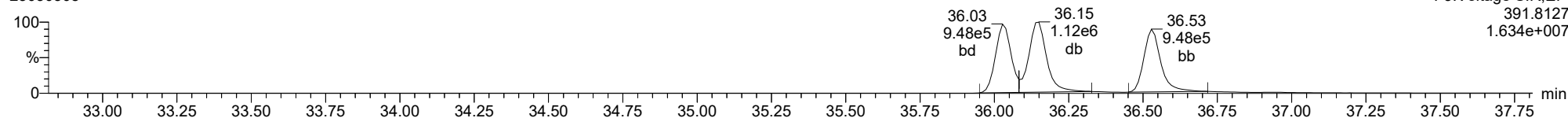
Total-hexadioxins

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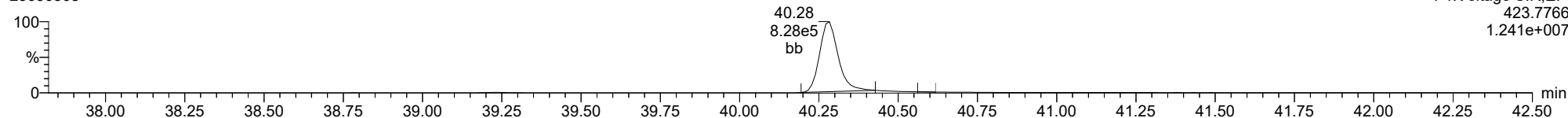
Total-hexadioxins

23030308



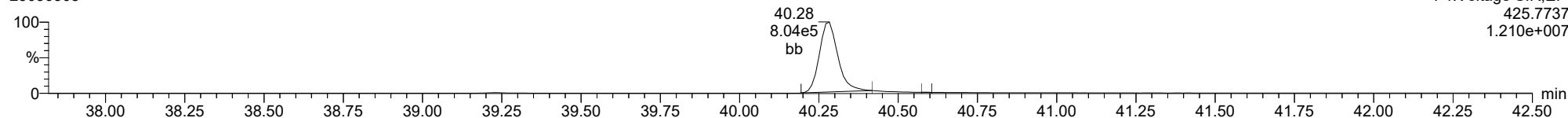
Total-heptadioxins

23030308



Total-heptadioxins

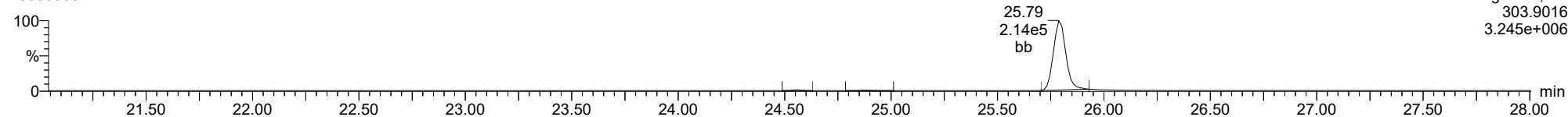
23030308



ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

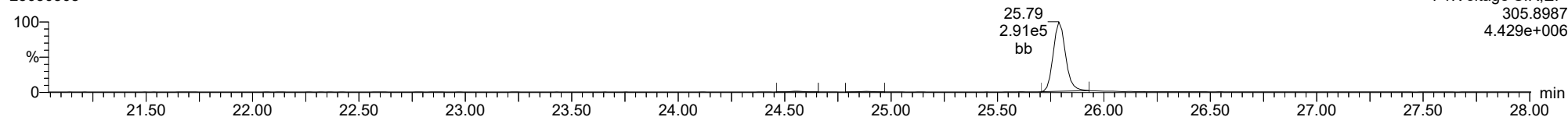
Total-tetrafurans

23030308



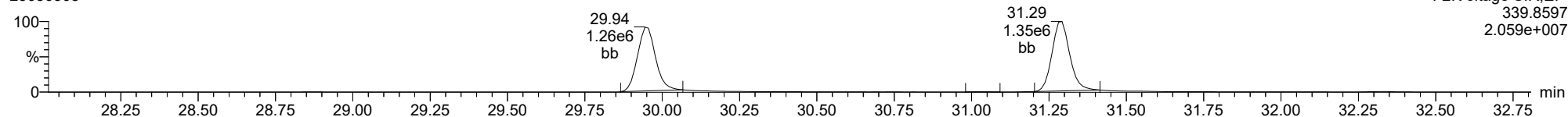
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23030308



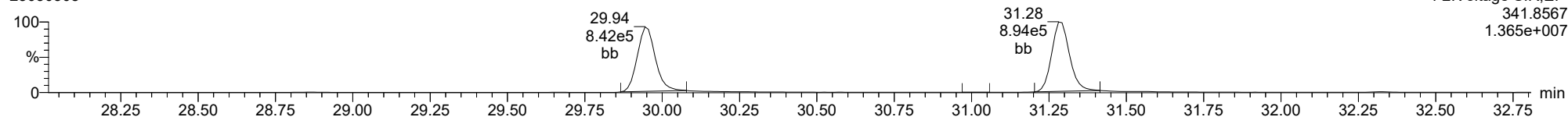
Total-pentafurans

23030308



Total-pentafurans

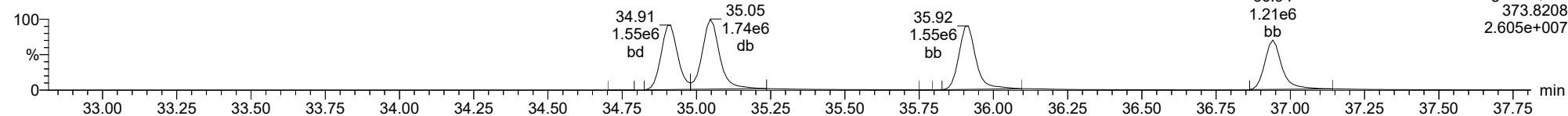
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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

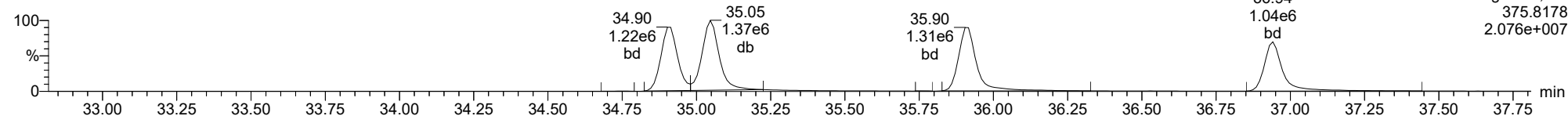
Total-hexafurans

23030308



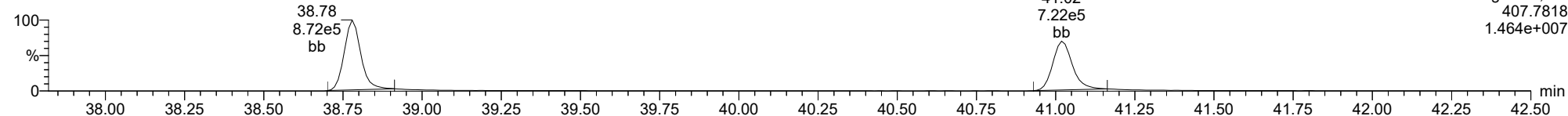
Total-hexafurans

23030308



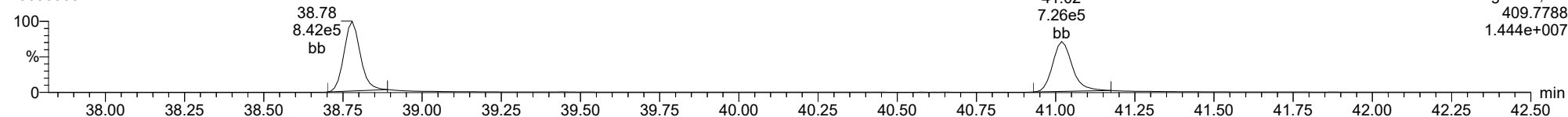
Total-heptafurans

23030308



Total-heptafurans

23030308



Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:35:04 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS5CW, **Name:** 23030309, **Date:** 03-Mar-2023, **Time:** 15:47:43, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.774	1.000	1.334e6	1.787e6	0.702	0.746	0.770	1816	2705	2.07e7	2.78e7	11389.3	10270.6	NO	bb	bb	200.466
12378-PeCDF	29.934	1.000	7.598e6	4.979e6	0.679	1.526	1.550	4787	5694	1.20e8	7.84e7	24983.0	13764.4	NO	bb	bb	1049.785
23478-PeCDF	31.271	1.000	8.034e6	5.310e6	0.786	1.513	1.550	4787	5694	1.23e8	8.18e7	25734.3	14361.4	NO	bb	bb	1006.165
123478-HxCDF	34.903	1.001	7.954e6	6.371e6	1.166	1.248	1.240	1657	3079	1.28e8	1.02e8	76946.6	33145.2	NO	bd	bd	988.542
234678-HxCDF	35.894	1.000	8.440e6	6.648e6	1.140	1.270	1.240	1657	3079	1.32e8	1.04e8	79492.3	33730.7	NO	bd	bd	997.904
123678-HxCDF	35.036	1.000	8.729e6	6.976e6	1.091	1.251	1.240	1657	3079	1.37e8	1.09e8	82564.4	35544.8	NO	db	db	1005.907
123789-HxCDF	36.930	1.000	7.107e6	5.643e6	1.137	1.259	1.240	1657	3079	1.15e8	9.05e7	69330.3	29396.1	NO	bb	bb	962.631
1234678-HpCDF	38.769	1.000	5.729e6	5.700e6	1.003	1.005	1.050	5984	6276	9.87e7	9.77e7	16498.3	15567.0	NO	bb	bb	1001.511
1234789-HpCDF	41.008	1.000	4.891e6	4.848e6	0.953	1.009	1.050	5984	6276	7.31e7	7.29e7	12213.8	11617.0	NO	bb	bb	1050.453
OCDF	45.246	1.006	8.007e6	9.001e6	0.778	0.890	0.890	617	1698	1.01e8	1.14e8	163878.0	67066.1	NO	bb	bb	2152.541
2378-TCDD	26.424	1.001	1.623e6	2.053e6	1.149	0.791	0.770	1583	1421	2.49e7	3.15e7	15719.4	22173.2	NO	bb	bb	201.416
12378-PeCDD	31.527	1.000	7.500e6	4.933e6	1.022	1.520	1.550	3207	3258	1.15e8	7.59e7	35906.6	23308.0	NO	bb	bb	987.154
123478-HxCDD	36.017	1.000	6.446e6	5.113e6	0.996	1.261	1.240	1269	1319	1.05e8	8.63e7	82869.7	65420.3	NO	bd	bd	1008.795
123678-HxCDD	36.139	1.001	6.944e6	5.798e6	1.001	1.198	1.240	1269	1319	1.11e8	8.98e7	87214.8	68064.1	NO	db	db	1011.135
123789-HxCDD	36.518	1.011	6.387e6	5.242e6	0.907	1.218	1.240	1269	1319	1.04e8	8.52e7	81996.1	64539.0	NO	bb	bb	1063.935
1234678-HpCDD	40.273	1.000	5.468e6	5.342e6	1.039	1.023	1.050	4639	3285	8.81e7	8.56e7	19002.3	26055.7	NO	bb	bb	1010.673
OCDD	45.008	1.000	8.523e6	9.997e6	0.920	0.853	0.890	1224	2738	1.09e8	1.28e8	89206.2	46574.8	NO	bb	bb	1981.710
13C-2378-TCDF	25.760	1.007	9.657e5	1.254e6	1.620	0.770	0.770	2759	1757	1.47e7	1.88e7	5325.4	10693.5	NO	bb	bb	104.465
13C-12378-PeCDF	29.923	1.169	1.058e6	7.059e5	1.240	1.499	1.550	2137	2181	1.59e7	1.06e7	7426.1	4845.6	NO	bb	bb	108.437
13C-23478-PeCDF	31.259	1.222	1.010e6	6.768e5	1.118	1.492	1.550	2137	2181	1.54e7	1.03e7	7192.1	4709.7	NO	bb	bb	115.091
13C-123478-HxCDF	34.880	0.955	4.197e5	8.230e5	1.168	0.510	0.510	2074	3087	6.86e6	1.33e7	3308.7	4323.9	NO	bd	bd	88.344
13C-123678-HxCDF	35.025	0.959	4.843e5	9.471e5	1.386	0.511	0.510	2074	3087	7.37e6	1.42e7	3551.0	4614.4	NO	db	db	85.742
13C-234678-HxCDF	35.883	0.983	4.483e5	8.783e5	1.129	0.510	0.510	2074	3087	6.95e6	1.37e7	3352.7	4438.0	NO	bd	bd	97.566
13C-123789-HxCDF	36.919	1.011	3.958e5	7.690e5	0.932	0.515	0.510	2074	3087	6.35e6	1.23e7	3061.9	3979.7	NO	bb	bb	103.822
13C-1234678-HpCDF	38.757	1.062	3.445e5	7.933e5	0.895	0.434	0.440	2404	3556	5.77e6	1.33e7	2401.1	3732.0	NO	bb	bb	105.552
13C-1234789-HpCDF	40.997	1.123	2.963e5	6.765e5	0.770	0.438	0.440	2404	3556	4.35e6	9.96e6	1811.4	2800.3	NO	bb	bb	104.955
13C-1234-TCDD	25.591	0.000	5.845e5	7.267e5	1.000	0.804	0.770	2994	1335	8.98e6	1.11e7	2999.9	8316.3	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.031	7.030e5	8.860e5	1.152	0.794	0.770	2994	1335	1.05e7	1.32e7	3492.1	9847.6	NO	bb	bb	105.160
13C-12378-PeCDD	31.515	1.232	7.626e5	4.699e5	0.829	1.623	1.550	1207	1205	1.17e7	7.16e6	9657.3	5939.7	NO	bb	bb	113.413
13C-123478-HxCDD	36.006	0.986	6.492e5	5.017e5	0.995	1.294	1.240	1422	1281	1.08e7	8.26e6	7562.7	6444.6	NO	bd	bd	96.063
13C-123678-HxCDD	36.117	0.989	7.072e5	5.517e5	1.157	1.282	1.240	1422	1281	1.11e7	8.74e6	7828.3	6824.3	NO	db	db	90.391
13C-1234678-HpCDD	40.262	1.103	5.341e5	4.953e5	0.840	1.078	1.050	2026	1583	8.10e6	7.45e6	3998.5	4702.7	NO	bb	bb	101.765
13C-OCDD	44.990	1.232	9.650e5	1.067e6	0.767	0.905	0.890	1467	1005	1.21e7	1.35e7	8264.7	13401.8	NO	bb	bb	219.862
13C-123789-HxCDD	36.507	0.000	6.722e5	5.319e5	1.000	1.264	1.240	1422	1281	1.10e7	8.62e6	7719.2	6727.3	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.033	3.368e6		1.288			2667		5.07e7		19022.1			bb		199.444

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:35:04 Pacific Standard Time

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1816	2705								
1289-TCDF					0.678		0.770	1816	2705								
13468-PECDF					1.246		1.550	665	1133								
12389-PECDF					0.496		1.550	4787	5694								
123468-HXCDF					1.169		1.240	1657	3079								
1368-TCDD					1.015		0.770	1583	1421								
1289-TCDD					0.909		0.770	1583	1421								
12479-PECDD					2.301		1.550	3207	3258								
12389-PECDD					1.184		1.550	3207	3258								
124679-HXCDD					1.115		1.240	1269	1319								
1234679-HPCDD					1.137		1.050	4639	3285								
Total-tetrafurans			1.355e6		0.727			1816		2.10e7						203.619	
Total-penta1			0.000e0					665		0.00e0							
Total-pentafurans			1.567e7		0.654			4787		2.43e8						2061.969	
Total-hexafurans			3.237e7		1.141			1657		5.13e8						3971.633	
Total-heptafurans			1.063e7		0.978			5984		1.72e8						2053.620	
Total-Furans			6.803e7		0.922			1816		1.05e9						10443.382	
Total-tetradoxins			1.660e6		1.024			1583		2.53e7						206.551	
Total-pentadoxins			7.518e6		1.502			3207		1.15e8						988.757	
Total-hexadoxins			1.981e7		1.005			1269		3.20e8						3089.249	
Total-heptadoxins			5.468e6		1.088			4639		8.81e7						1010.701	
Total-Dioxins			4.298e7		1.130			1583		6.58e8						7276.969	
Total-TEQ			1.110e8					1583		1.71e9						17720.350	
FUNCTION1 PFK			8.364e4					590794		3.29e6							
FUNCTION2 PFK			1.452e7					287139		1.24e7						0.000	
FUNCTION3 PFK			2.904e5					447834		7.86e6						0.000	
FUNCTION4 PFK			1.983e5					258971		5.49e6							
FUNCTION5 PFK			1.360e5					213310		3.56e6							
FUNCTION1 HXCD...			9.848e2					660		1.37e4						0.000	
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			9.974e3					875		1.52e5						0.000	
FUNCTION3 OCDPE			5.118e3					487		5.72e4						0.000	
FUNCTION4 NCDPE			1.842e3					616		1.81e4						0.000	
FUNCTION5 DCDPE			3.423e3					534		2.47e4						0.000	

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:35:04 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50

Calibration: T:\Autospec\Curves\230303\CIH.cdb 06 Mar 2023 10:57:27

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.77	1.334e6	1.787e6	0.702	0.75	0.77	11389.3	YES	NO	bb	bb	200.466
2	Total-tetrafurans	24.87	8.544e3	1.186e4	0.727	0.72	0.77	70.8	YES	NO	bb	bb	1.264
3	Total-tetrafurans	24.67	1.054e3	1.493e3	0.727	0.71	0.77	9.1	YES	NO	db	db	0.158
4	Total-tetrafurans	24.55	1.152e4	1.641e4	0.727	0.70	0.77	91.4	YES	NO	bd	bd	1.731

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	8.034e6	5.310e6	0.786	1.51	1.55	25734.3	YES	NO	bb	bb	1006.1...
2	Total-pentafurans	31.00	7.155e3	5.348e3	0.654	1.34	1.55	24.5	YES	NO	bb	bb	1.108
3	Total-pentafurans	30.22	6.707e3	3.991e3	0.654	1.68	1.55	18.6	YES	NO	bb	bb	0.948
4	12378-PeCDF	29.93	7.598e6	4.979e6	0.679	1.53	1.55	24983.0	YES	NO	bb	bb	1049.7...
5	Total-pentafurans	29.57	3.743e3	2.429e3	0.654	1.54	1.55	12.5	YES	NO	bd	bd	0.547
6	Total-pentafurans	28.85	2.348e4	1.505e4	0.654	1.56	1.55	59.4	YES	NO	bb	bb	3.415

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.04	8.729e6	6.976e6	1.091	1.25	1.24	82564.4	YES	NO	db	db	1005.9...
2	123478-HxCDF	34.90	7.954e6	6.371e6	1.166	1.25	1.24	76946.6	YES	NO	bd	bd	988.542
3	Total-hexafurans	34.75	7.748e3	5.706e3	1.141	1.36	1.24	87.3	YES	NO	bb	bb	0.913
4	Total-hexafurans	33.44	5.026e3	3.534e3	1.141	1.42	1.24	38.8	YES	NO	db	bb	0.581
5	123789-HxCDF	36.93	7.107e6	5.643e6	1.137	1.26	1.24	69330.3	YES	NO	bb	bb	962.631
6	Total-hexafurans	36.53	1.628e4	1.267e4	1.141	1.29	1.24	124.4	YES	NO	dd	bd	1.966
7	Total-hexafurans	36.13	1.100e5	8.424e4	1.141	1.31	1.24	706.6	YES	NO	dd	dd	13.189
8	234678-HxCDF	35.89	8.440e6	6.648e6	1.140	1.27	1.24	79492.3	YES	NO	bd	bd	997.904

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\CIH.qld
 Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 11:35:04 Pacific Standard Time

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.01	4.891e6	4.848e6	0.953	1.01	1.05	12213.8	YES	NO	bb	bb	1050.4...
2	Total-heptafurans	39.43	9.256e3	7.833e3	0.978	1.18	1.05	24.5	YES	NO	bb	bb	1.656
3	1234678-HpCDF	38.77	5.729e6	5.700e6	1.003	1.01	1.05	16498.3	YES	NO	bb	bb	1001.5...

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.77	1.334e6	1.787e6	0.702	0.75	0.77	11389.3	YES	NO	bb	bb	200.466
2	Total-tetrafurans	24.87	8.544e3	1.186e4	0.727	0.72	0.77	70.8	YES	NO	bb	bb	1.264
3	Total-tetrafurans	24.67	1.054e3	1.493e3	0.727	0.71	0.77	9.1	YES	NO	db	db	0.158
4	Total-tetrafurans	24.55	1.152e4	1.641e4	0.727	0.70	0.77	91.4	YES	NO	bd	bd	1.731
5	23478-PeCDF	31.27	8.034e6	5.310e6	0.786	1.51	1.55	25734.3	YES	NO	bb	bb	1006.1...
6	Total-pentafurans	31.00	7.155e3	5.348e3	0.654	1.34	1.55	24.5	YES	NO	bb	bb	1.108
7	Total-pentafurans	30.22	6.707e3	3.991e3	0.654	1.68	1.55	18.6	YES	NO	bb	bb	0.948
8	12378-PeCDF	29.93	7.598e6	4.979e6	0.679	1.53	1.55	24983.0	YES	NO	bb	bb	1049.7...
9	Total-pentafurans	29.57	3.743e3	2.429e3	0.654	1.54	1.55	12.5	YES	NO	bd	bd	0.547
10	Total-pentafurans	28.85	2.348e4	1.505e4	0.654	1.56	1.55	59.4	YES	NO	bb	bb	3.415
11	123678-HxCDF	35.04	8.729e6	6.976e6	1.091	1.25	1.24	82564.4	YES	NO	db	db	1005.9...
12	123478-HxCDF	34.90	7.954e6	6.371e6	1.166	1.25	1.24	76946.6	YES	NO	bd	bd	988.542
13	Total-hexafurans	34.75	7.748e3	5.706e3	1.141	1.36	1.24	87.3	YES	NO	bb	bb	0.913
14	Total-hexafurans	33.44	5.026e3	3.534e3	1.141	1.42	1.24	38.8	YES	NO	db	bb	0.581
15	123789-HxCDF	36.93	7.107e6	5.643e6	1.137	1.26	1.24	69330.3	YES	NO	bb	bb	962.631
16	Total-hexafurans	36.53	1.628e4	1.267e4	1.141	1.29	1.24	124.4	YES	NO	dd	bd	1.966
17	Total-hexafurans	36.13	1.100e5	8.424e4	1.141	1.31	1.24	706.6	YES	NO	dd	dd	13.189
18	234678-HxCDF	35.89	8.440e6	6.648e6	1.140	1.27	1.24	79492.3	YES	NO	bd	bd	997.904
19	1234789-HpCDF	41.01	4.891e6	4.848e6	0.953	1.01	1.05	12213.8	YES	NO	bb	bb	1050.4...
20	Total-heptafurans	39.43	9.256e3	7.833e3	0.978	1.18	1.05	24.5	YES	NO	bb	bb	1.656
21	1234678-HpCDF	38.77	5.729e6	5.700e6	1.003	1.01	1.05	16498.3	YES	NO	bb	bb	1001.5...
22	OCDF	45.25	8.007e6	9.001e6	0.778	0.89	0.89	16387...	YES	NO	bb	bb	2152.5...

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.42	1.623e6	2.053e6	1.149	0.79	0.77	15719.4	YES	NO	bb	bb	201.416
2	Total-tetradioxins	26.03	3.492e4	4.469e4	1.024	0.78	0.77	261.5	YES	NO	bb	bb	4.891
3	Total-tetradioxins	25.59	3.088e2	4.283e2	1.024	0.72	0.77	3.2	YES	NO	bb	bb	0.045
4	Total-tetradioxins	25.29	1.293e3	1.946e3	1.024	0.66	0.77	15.2	YES	NO	bb	bb	0.199

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadioxins	30.29	1.049e3	6.224e2	1.502	1.68	1.55	4.4	YES	NO	dd	db	0.090
2	Total-pentadioxins	30.15	1.847e3	1.302e3	1.502	1.42	1.55	8.1	YES	NO	dd	dd	0.170
3	Total-pentadioxins	29.93	6.137e3	4.352e3	1.502	1.41	1.55	24.1	YES	NO	bd	bd	0.567
4	12378-PeCDD	31.53	7.500e6	4.933e6	1.022	1.52	1.55	35906.6	YES	NO	bb	bb	987.154
5	Total-pentadioxins	30.86	8.777e3	5.596e3	1.502	1.57	1.55	39.8	YES	NO	bd	bb	0.776

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	36.92	3.612e4	2.906e4	1.005	1.24	1.24	377.1	YES	NO	bb	bb	5.383
2	123789-HxCDD	36.52	6.387e6	5.242e6	0.907	1.22	1.24	81996.1	YES	NO	bb	bb	1063.9...
3	123678-HxCDD	36.14	6.944e6	5.798e6	1.001	1.20	1.24	87214.8	YES	NO	db	db	1011.1...
4	123478-HxCDD	36.02	6.446e6	5.113e6	0.996	1.26	1.24	82869.7	YES	NO	bd	bd	1008.7...

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	40.66	1.670e2	1.486e2	1.088	1.12	1.05	0.0	NO	NO	bb	bb	0.028
2	1234678-HpCDD	40.27	5.468e6	5.342e6	1.039	1.02	1.05	19002.3	YES	NO	bb	bb	1010.6...

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.42	1.623e6	2.053e6	1.149	0.79	0.77	15719.4	YES	NO	bb	bb	201.416
2	Total-tetradoxins	26.03	3.492e4	4.469e4	1.024	0.78	0.77	261.5	YES	NO	bb	bb	4.891
3	Total-tetradoxins	25.59	3.088e2	4.283e2	1.024	0.72	0.77	3.2	YES	NO	bb	bb	0.045
4	Total-tetradoxins	25.29	1.293e3	1.946e3	1.024	0.66	0.77	15.2	YES	NO	bb	bb	0.199
5	Total-pentadoxins	30.29	1.049e3	6.224e2	1.502	1.68	1.55	4.4	YES	NO	dd	db	0.090
6	Total-pentadoxins	30.15	1.847e3	1.302e3	1.502	1.42	1.55	8.1	YES	NO	dd	dd	0.170
7	Total-pentadoxins	29.93	6.137e3	4.352e3	1.502	1.41	1.55	24.1	YES	NO	bd	bd	0.567
8	12378-PeCDD	31.53	7.500e6	4.933e6	1.022	1.52	1.55	35906.6	YES	NO	bb	bb	987.154
9	Total-pentadoxins	30.86	8.777e3	5.596e3	1.502	1.57	1.55	39.8	YES	NO	bd	bb	0.776
10	Total-hexadoxins	36.92	3.612e4	2.906e4	1.005	1.24	1.24	377.1	YES	NO	bb	bb	5.383
11	123789-HxCDD	36.52	6.387e6	5.242e6	0.907	1.22	1.24	81996.1	YES	NO	bb	bb	1063.9...
12	123678-HxCDD	36.14	6.944e6	5.798e6	1.001	1.20	1.24	87214.8	YES	NO	db	db	1011.1...
13	123478-HxCDD	36.02	6.446e6	5.113e6	0.996	1.26	1.24	82869.7	YES	NO	bd	bd	1008.7...
14	Total-heptadoxins	40.66	1.670e2	1.486e2	1.088	1.12	1.05	0.0	NO	NO	bb	bb	0.028
15	1234678-HpCDD	40.27	5.468e6	5.342e6	1.039	1.02	1.05	19002.3	YES	NO	bb	bb	1010.6...
16	OCDD	45.01	8.523e6	9.997e6	0.920	0.85	0.89	89206.2	YES	NO	bb	bb	1981.7...

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.77	1.334e6	1.787e6	0.702	0.75	0.77	11389.3	YES	NO	bb	bb	200.466
2	Total-tetrafurans	24.87	8.544e3	1.186e4	0.727	0.72	0.77	70.8	YES	NO	bb	bb	1.264
3	Total-tetrafurans	24.67	1.054e3	1.493e3	0.727	0.71	0.77	9.1	YES	NO	db	db	0.158
4	Total-tetrafurans	24.55	1.152e4	1.641e4	0.727	0.70	0.77	91.4	YES	NO	bd	bd	1.731
5	23478-PeCDF	31.27	8.034e6	5.310e6	0.786	1.51	1.55	25734.3	YES	NO	bb	bb	1006.1...
6	Total-pentafurans	31.00	7.155e3	5.348e3	0.654	1.34	1.55	24.5	YES	NO	bb	bb	1.108
7	Total-pentafurans	30.22	6.707e3	3.991e3	0.654	1.68	1.55	18.6	YES	NO	bb	bb	0.948
8	12378-PeCDF	29.93	7.598e6	4.979e6	0.679	1.53	1.55	24983.0	YES	NO	bb	bb	1049.7...
9	Total-pentafurans	29.57	3.743e3	2.429e3	0.654	1.54	1.55	12.5	YES	NO	bd	bd	0.547
10	Total-pentafurans	28.85	2.348e4	1.505e4	0.654	1.56	1.55	59.4	YES	NO	bb	bb	3.415
11	123678-HxCDF	35.04	8.729e6	6.976e6	1.091	1.25	1.24	82564.4	YES	NO	db	db	1005.9...
12	123478-HxCDF	34.90	7.954e6	6.371e6	1.166	1.25	1.24	76946.6	YES	NO	bd	bd	988.542
13	Total-hexafurans	34.75	7.748e3	5.706e3	1.141	1.36	1.24	87.3	YES	NO	bb	bb	0.913
14	Total-hexafurans	33.44	5.026e3	3.534e3	1.141	1.42	1.24	38.8	YES	NO	db	bb	0.581
15	123789-HxCDF	36.93	7.107e6	5.643e6	1.137	1.26	1.24	69330.3	YES	NO	bb	bb	962.631
16	Total-hexafurans	36.53	1.628e4	1.267e4	1.141	1.29	1.24	124.4	YES	NO	dd	bd	1.966
17	Total-hexafurans	36.13	1.100e5	8.424e4	1.141	1.31	1.24	706.6	YES	NO	dd	dd	13.189
18	234678-HxCDF	35.89	8.440e6	6.648e6	1.140	1.27	1.24	79492.3	YES	NO	bd	bd	997.904
19	1234789-HpCDF	41.01	4.891e6	4.848e6	0.953	1.01	1.05	12213.8	YES	NO	bb	bb	1050.4...
20	Total-heptafurans	39.43	9.256e3	7.833e3	0.978	1.18	1.05	24.5	YES	NO	bb	bb	1.656
21	1234678-HpCDF	38.77	5.729e6	5.700e6	1.003	1.01	1.05	16498.3	YES	NO	bb	bb	1001.5...
22	OCDF	45.25	8.007e6	9.001e6	0.778	0.89	0.89	16387...	YES	NO	bb	bb	2152.5...
23	2378-TCDD	26.42	1.623e6	2.053e6	1.149	0.79	0.77	15719.4	YES	NO	bb	bb	201.416
24	Total-tetradiioxins	26.03	3.492e4	4.469e4	1.024	0.78	0.77	261.5	YES	NO	bb	bb	4.891
25	Total-tetradiioxins	25.59	3.088e2	4.283e2	1.024	0.72	0.77	3.2	YES	NO	bb	bb	0.045
26	Total-tetradiioxins	25.29	1.293e3	1.946e3	1.024	0.66	0.77	15.2	YES	NO	bb	bb	0.199
27	Total-pentadiioxins	30.29	1.049e3	6.224e2	1.502	1.68	1.55	4.4	YES	NO	dd	db	0.090
28	Total-pentadiioxins	30.15	1.847e3	1.302e3	1.502	1.42	1.55	8.1	YES	NO	dd	dd	0.170
29	Total-pentadiioxins	29.93	6.137e3	4.352e3	1.502	1.41	1.55	24.1	YES	NO	bd	bd	0.567
30	12378-PeCDD	31.53	7.500e6	4.933e6	1.022	1.52	1.55	35906.6	YES	NO	bb	bb	987.154
31	Total-pentadiioxins	30.86	8.777e3	5.596e3	1.502	1.57	1.55	39.8	YES	NO	bd	bb	0.776
32	Total-hexadiioxins	36.92	3.612e4	2.906e4	1.005	1.24	1.24	377.1	YES	NO	bb	bb	5.383
33	123789-HxCDD	36.52	6.387e6	5.242e6	0.907	1.22	1.24	81996.1	YES	NO	bb	bb	1063.9...
34	123678-HxCDD	36.14	6.944e6	5.798e6	1.001	1.20	1.24	87214.8	YES	NO	db	db	1011.1...
35	123478-HxCDD	36.02	6.446e6	5.113e6	0.996	1.26	1.24	82869.7	YES	NO	bd	bd	1008.7...
36	Total-heptadiioxins	40.66	1.670e2	1.486e2	1.088	1.12	1.05	0.0	NO	NO	bb	bb	0.028
37	1234678-HpCDD	40.27	5.468e6	5.342e6	1.039	1.02	1.05	19002.3	YES	NO	bb	bb	1010.6...

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	OCDD	45.01	8.523e6	9.997e6	0.920	0.85	0.89	89206.2	YES	NO	bb	bb	1981.7...

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.64	6.068e3					0.7	NO		bb		
2	FUNCTION1 PFK	21.78	2.376e4					1.4	NO		bb		
3	FUNCTION1 PFK	26.65	6.322e3					0.8	NO		bb		
4	FUNCTION1 PFK	26.20	6.018e3					0.7	NO		bb		
5	FUNCTION1 PFK	24.62	4.147e4					1.9	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	31.96	1.329e6					11.3	YES		db		0.000
2	FUNCTION2 PFK	29.68	9.729e6					13.1	YES		dd		0.000
3	FUNCTION2 PFK	29.12	3.197e6					12.0	YES		dd		0.000
4	FUNCTION2 PFK	28.11	2.639e5					6.8	YES		bd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.58	5.268e3					0.6	NO		bb		0.000
2	FUNCTION3 PFK	35.20	2.459e4					1.4	NO		bb		0.000
3	FUNCTION3 PFK	34.94	1.904e4					1.3	NO		bb		0.000
4	FUNCTION3 PFK	34.64	1.893e4					1.6	NO		bb		0.000
5	FUNCTION3 PFK	34.45	3.091e4					1.7	NO		bb		0.000
6	FUNCTION3 PFK	34.20	2.876e3					0.6	NO		bb		0.000
7	FUNCTION3 PFK	34.01	8.291e4					2.8	NO		bb		0.000
8	FUNCTION3 PFK	37.45	2.878e4					1.5	NO		bb		0.000
9	FUNCTION3 PFK	37.14	1.025e4					1.2	NO		bb		0.000
10	FUNCTION3 PFK	36.92	2.201e4					1.4	NO		bb		0.000
11	FUNCTION3 PFK	36.82	6.882e3					0.7	NO		bb		0.000
12	FUNCTION3 PFK	36.27	2.697e4					1.6	NO		bb		0.000
13	FUNCTION3 PFK	35.83	1.096e4					1.2	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.36	1.487e4					2.2	NO		db		
2	FUNCTION4 PFK	40.28	5.399e4					2.8	NO		bd		
3	FUNCTION4 PFK	39.84	7.632e3					1.3	NO		bb		
4	FUNCTION4 PFK	39.63	5.817e3					1.3	NO		bb		
5	FUNCTION4 PFK	39.58	2.233e4					2.4	NO		bb		
6	FUNCTION4 PFK	39.26	1.840e3					0.6	NO		bb		
7	FUNCTION4 PFK	39.15	1.821e4					2.0	NO		bb		
8	FUNCTION4 PFK	38.75	4.539e3					0.9	NO		bb		
9	FUNCTION4 PFK	38.40	3.735e3					0.9	NO		bb		
10	FUNCTION4 PFK	42.22	2.101e4					1.9	NO		bb		
11	FUNCTION4 PFK	41.91	9.871e3					1.2	NO		bb		
12	FUNCTION4 PFK	41.56	2.609e4					2.3	NO		bb		
13	FUNCTION4 PFK	40.96	8.343e3					1.4	NO		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.55	1.986e4					1.8	NO		bb		
2	FUNCTION5 PFK	44.84	1.038e4					2.0	NO		bb		
3	FUNCTION5 PFK	44.32	5.641e3					1.1	NO		bb		
4	FUNCTION5 PFK	44.16	5.508e3					1.3	NO		bb		
5	FUNCTION5 PFK	43.92	3.533e3					1.2	NO		bb		
6	FUNCTION5 PFK	43.74	1.099e4					1.6	NO		bb		
7	FUNCTION5 PFK	43.65	5.197e4					3.3	YES		db		
8	FUNCTION5 PFK	43.53	1.828e4					2.1	NO		bd		
9	FUNCTION5 PFK	42.94	8.618e3					1.5	NO		bb		
10	FUNCTION5 PFK	42.73	1.271e3					0.6	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.02	8.181e1					1.9	NO		bb		0.000
2	FUNCTION1 HXCD...	26.42	2.971e2					5.1	YES		bb		0.000
3	FUNCTION1 HXCD...	25.83	8.848e1					2.3	NO		db		0.000
4	FUNCTION1 HXCD...	25.77	1.170e2					2.5	NO		dd		0.000
5	FUNCTION1 HXCD...	25.59	1.285e2					2.6	NO		bd		0.000
6	FUNCTION1 HXCD...	24.84	1.183e2					1.2	NO		bb		0.000
7	FUNCTION1 HXCD...	24.11	7.501e1					1.5	NO		bb		0.000
8	FUNCTION1 HXCD...	22.26	7.865e1					3.6	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.55	8.739e2					12.4	YES		bb		0.000
2	FUNCTION2 HPCD...	31.16	9.100e3					161.2	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.02	1.011e3					23.2	YES		dd		0.000
2	FUNCTION3 OCDPE	35.92	4.171e2					12.8	YES		bd		0.000
3	FUNCTION3 OCDPE	35.05	6.001e2					12.0	YES		db		0.000
4	FUNCTION3 OCDPE	34.90	4.386e2					11.4	YES		bd		0.000
5	FUNCTION3 OCDPE	36.94	5.713e2					12.4	YES		bb		0.000
6	FUNCTION3 OCDPE	36.52	9.647e2					21.7	YES		bb		0.000
7	FUNCTION3 OCDPE	36.14	1.116e3					24.0	YES		db		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.03	4.935e2					7.5	YES		bb		0.000
2	FUNCTION4 NCDPE	40.28	7.486e2					12.2	YES		bb		0.000
3	FUNCTION4 NCDPE	38.78	6.004e2					9.6	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ETHERS6

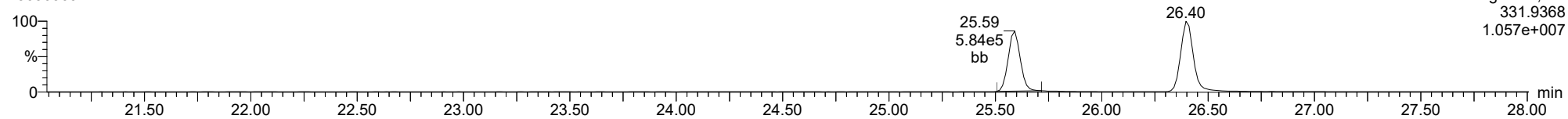
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1	FUNCTION5 DCDPE	45.26	1.761e3					22.2	YES		db		0.000
2	FUNCTION5 DCDPE	45.02	1.661e3					24.0	YES		bd		0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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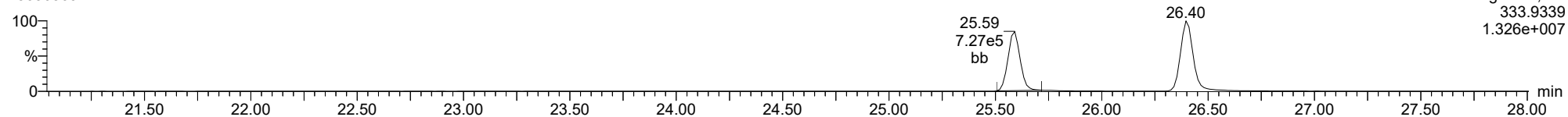
13C-1234-TCDD

23030309



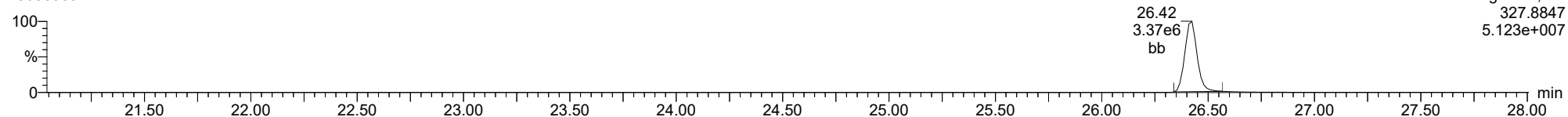
13C-1234-TCDD

23030309



37CL-2378-TCDD

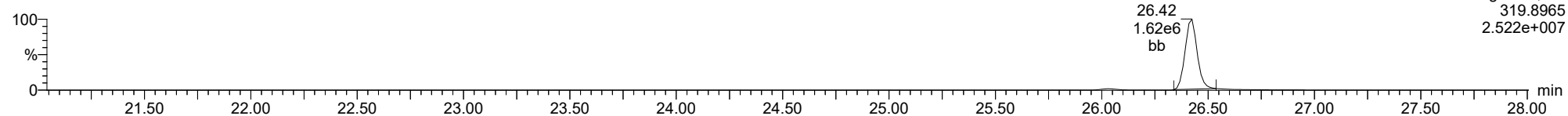
23030309



ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

2378-TCDD

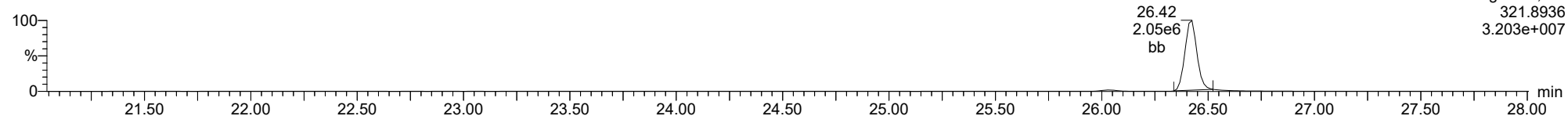
23030309



F1:Voltage SIR,EI+
319.8965
2.522e+007

2378-TCDD

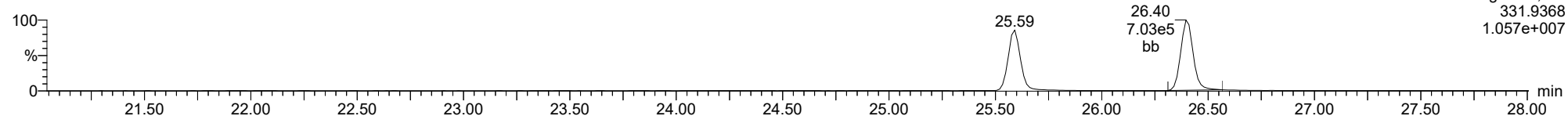
23030309



F1:Voltage SIR,EI+
321.8936
3.203e+007

13C-2378-TCDD

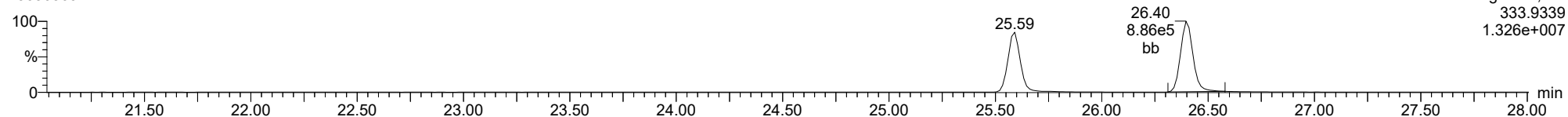
23030309



F1:Voltage SIR,EI+
331.9368
1.057e+007

13C-2378-TCDD

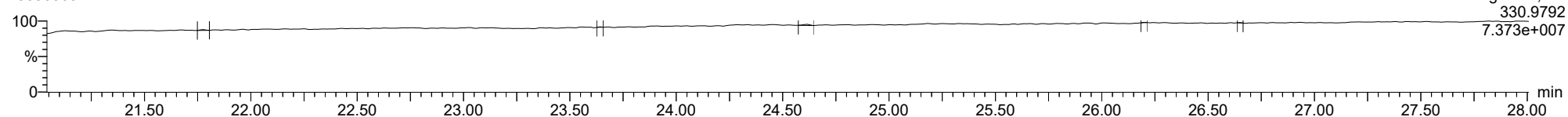
23030309



F1:Voltage SIR,EI+
333.9339
1.326e+007

FUNCTION1 PFK

23030309

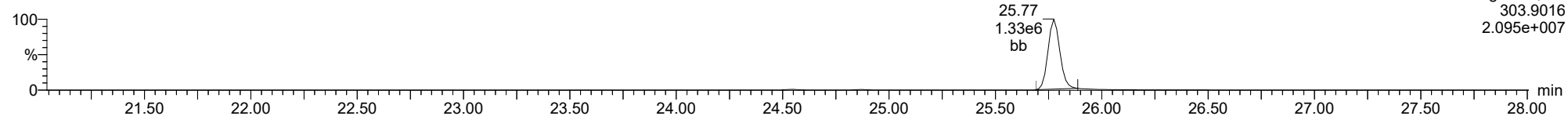


F1:Voltage SIR,EI+
330.9792
7.373e+007

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

2378-TCDF

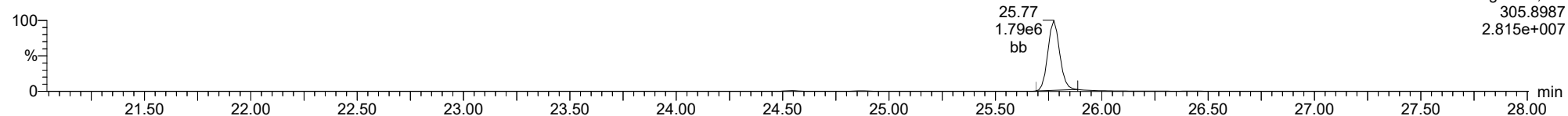
23030309



F1:Voltage SIR,EI+
303.9016
2.095e+007

2378-TCDF

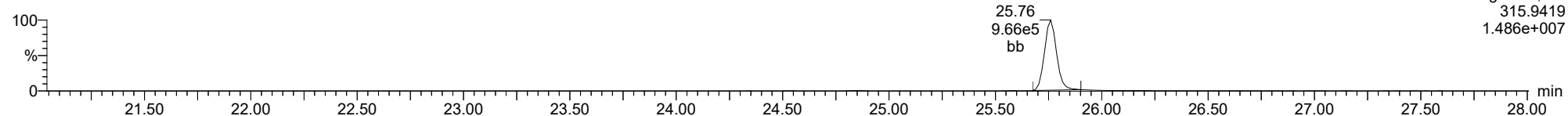
23030309



F1:Voltage SIR,EI+
305.8987
2.815e+007

13C-2378-TCDF

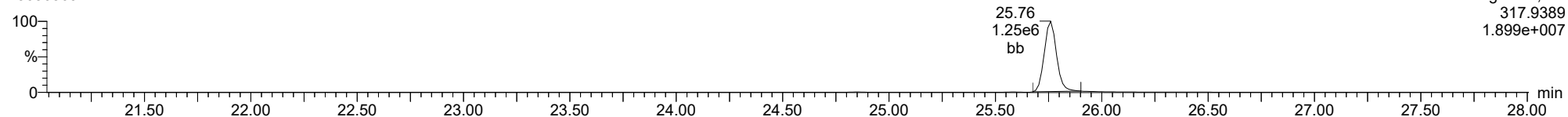
23030309



F1:Voltage SIR,EI+
315.9419
1.486e+007

13C-2378-TCDF

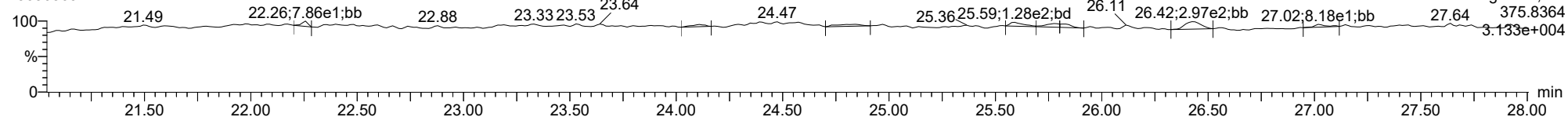
23030309



F1:Voltage SIR,EI+
317.9389
1.899e+007

FUNCTION1 HXCDPE

23030309

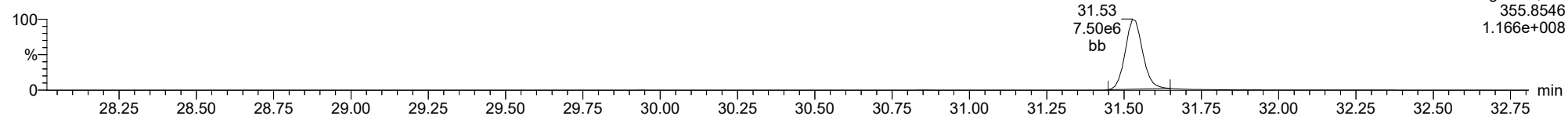


F1:Voltage SIR,EI+
375.8364
3.133e+004

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

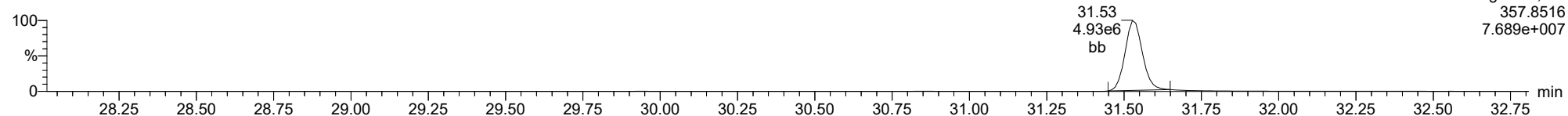
23030309



F2:Voltage SIR,EI+
355.8546
1.166e+008

12378-PeCDD

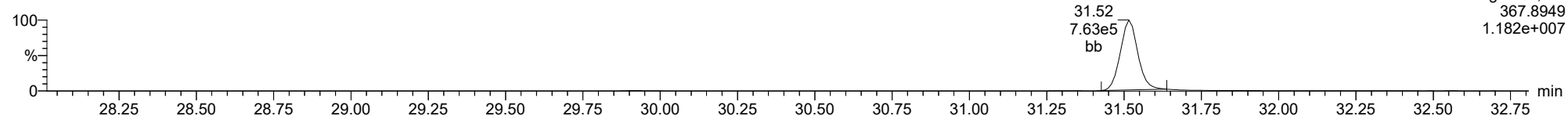
23030309



F2:Voltage SIR,EI+
357.8516
7.689e+007

13C-12378-PeCDD

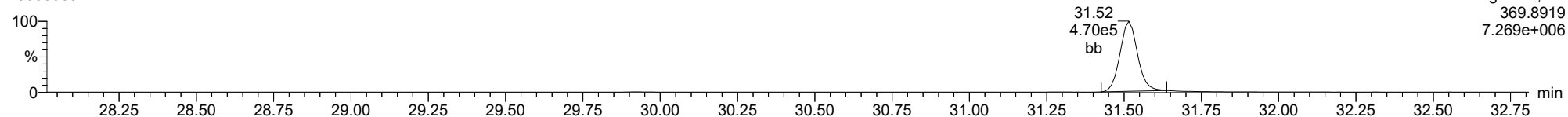
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F2:Voltage SIR,EI+
367.8949
1.182e+007

13C-12378-PeCDD

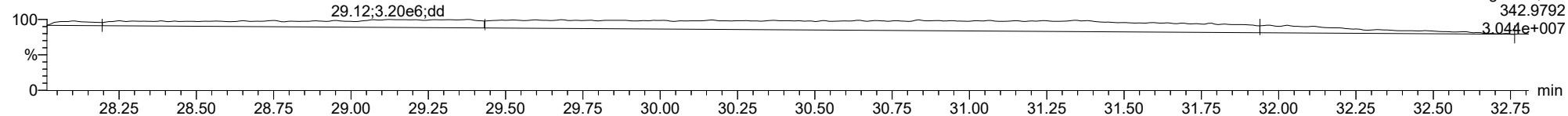
23030309



F2:Voltage SIR,EI+
369.8919
7.269e+006

FUNCTION2 PFK

23030309

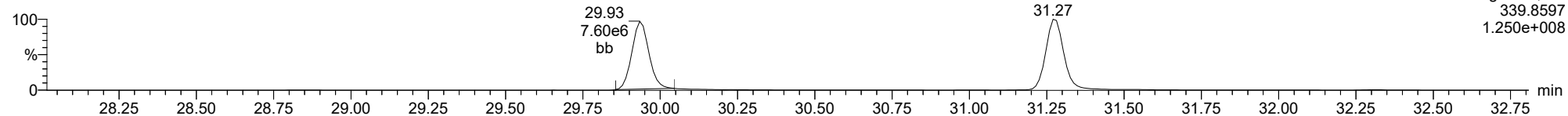


F2:Voltage SIR,EI+
342.9792
3.044e+007

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

12378-PeCDF

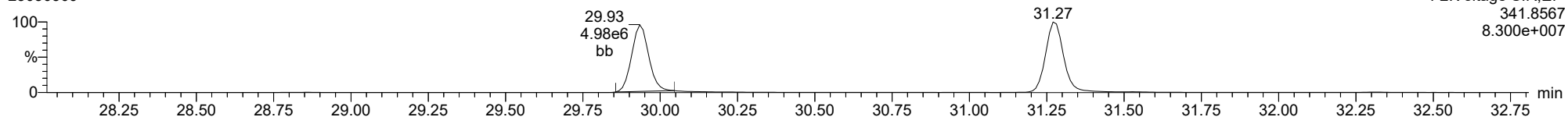
23030309



F2:Voltage SIR,El+
339.8597
1.250e+008

12378-PeCDF

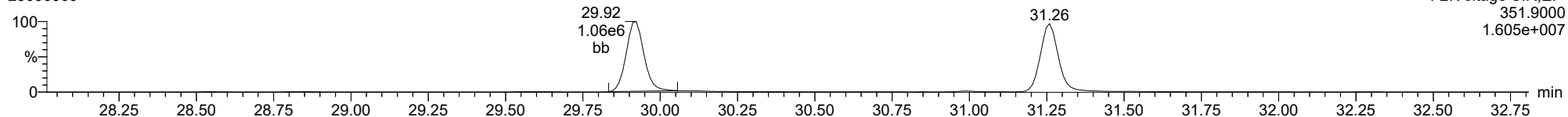
23030309



F2:Voltage SIR,El+
341.8567
8.300e+007

13C-12378-PeCDF

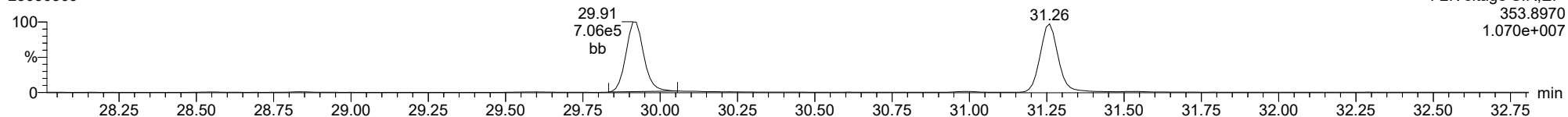
23030309



F2:Voltage SIR,El+
351.9000
1.605e+007

13C-12378-PeCDF

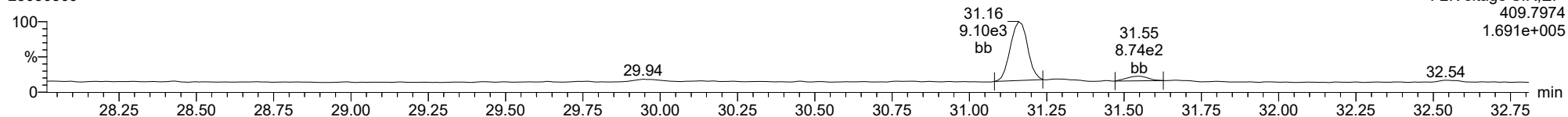
23030309



F2:Voltage SIR,El+
353.8970
1.070e+007

FUNCTION2 HPCDPE

23030309

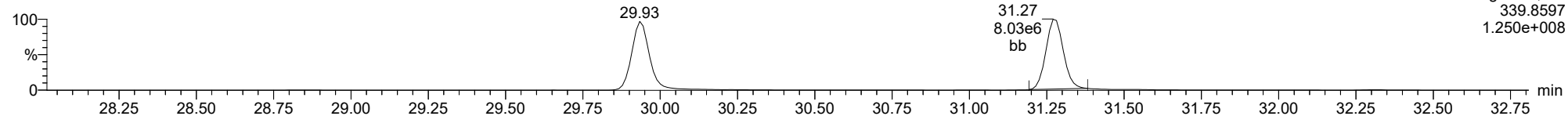


F2:Voltage SIR,El+
409.7974
1.691e+005

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

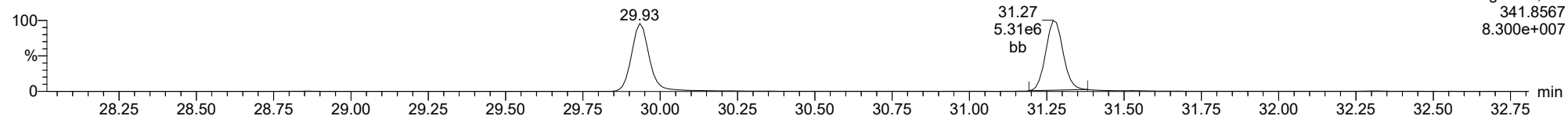
23478-PeCDF

23030309



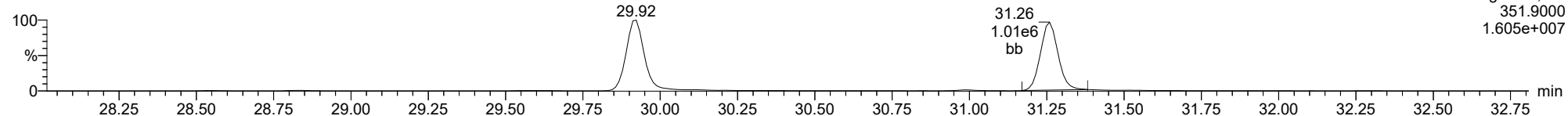
23478-PeCDF

23030309



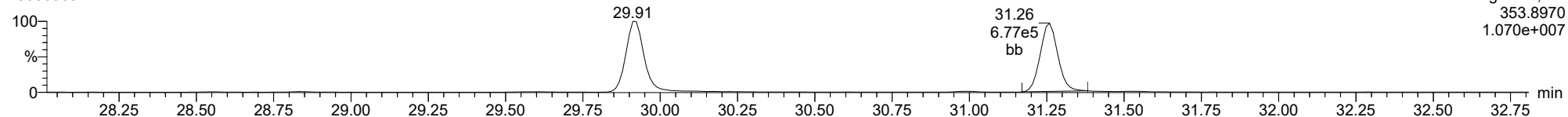
13C-23478-PeCDF

23030309



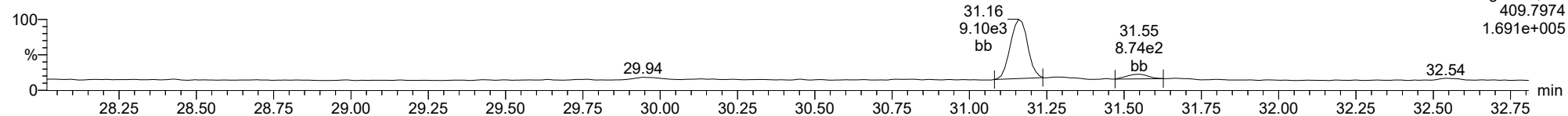
13C-23478-PeCDF

23030309



FUNCTION2 HPCDPE

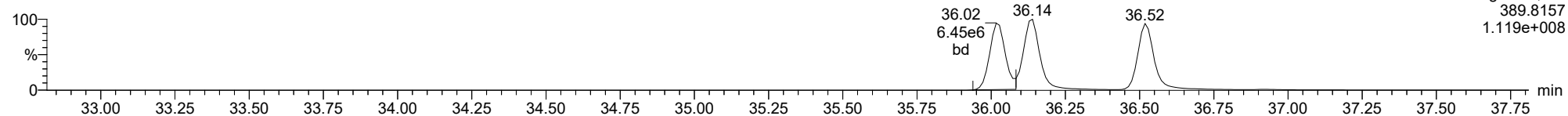
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

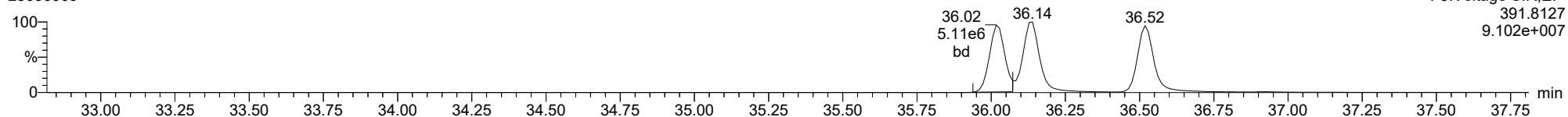
123478-HxCDD

23030309



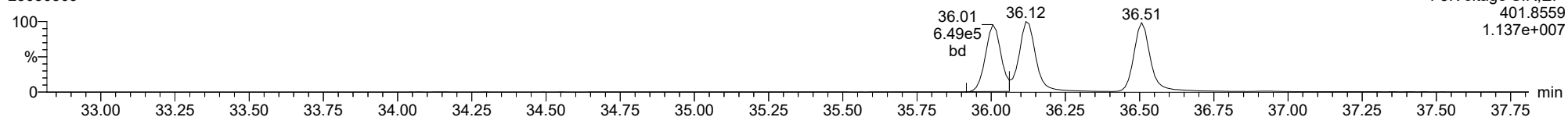
123478-HxCDD

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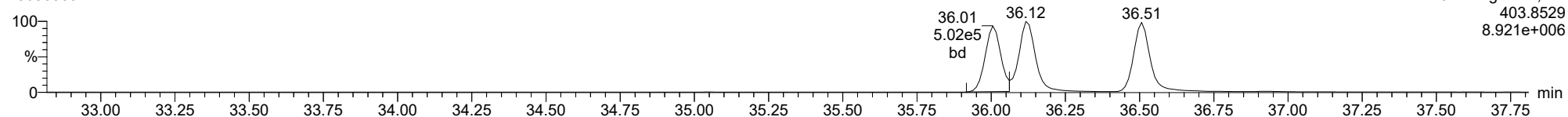
13C-123478-HxCDD

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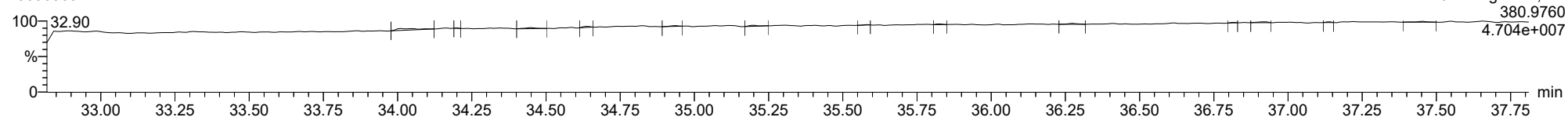
13C-123478-HxCDD

23030309



FUNCTION3 PFK

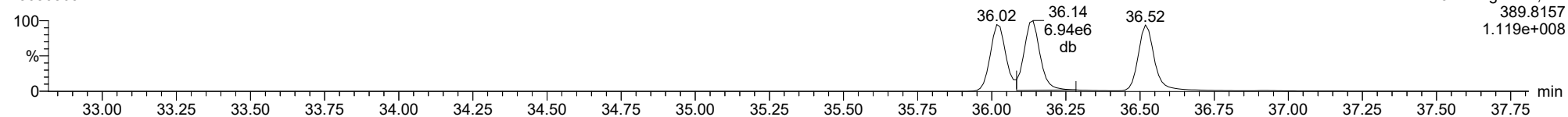
23030309



ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

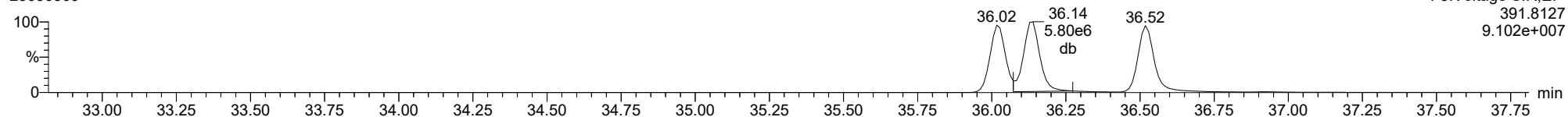
123678-HxCDD

23030309



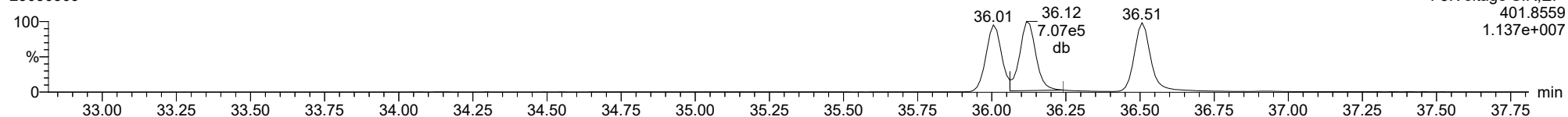
123678-HxCDD

23030309



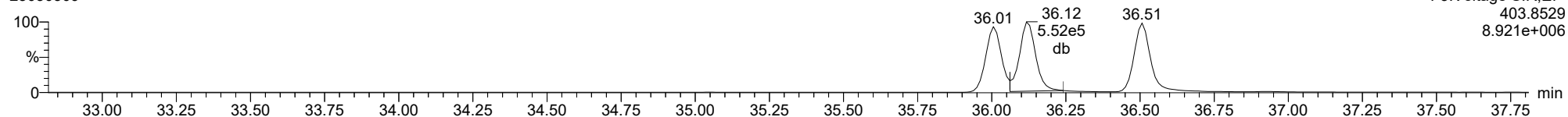
13C-123678-HxCDD

23030309



13C-123678-HxCDD

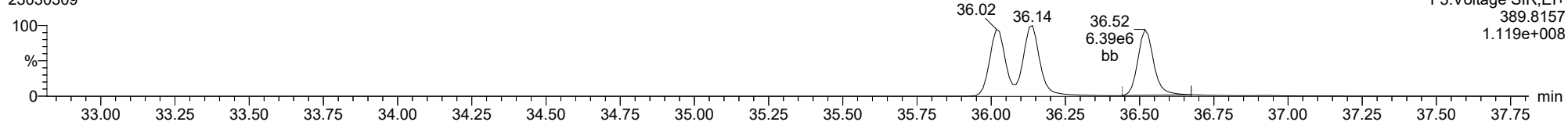
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

123789-HxCDD

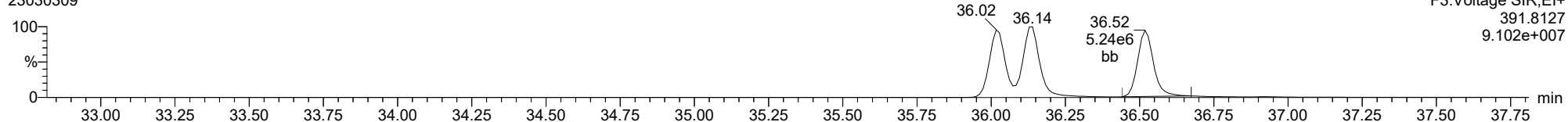
23030309



F3:Voltage SIR,El+
389.8157
1.119e+008

123789-HxCDD

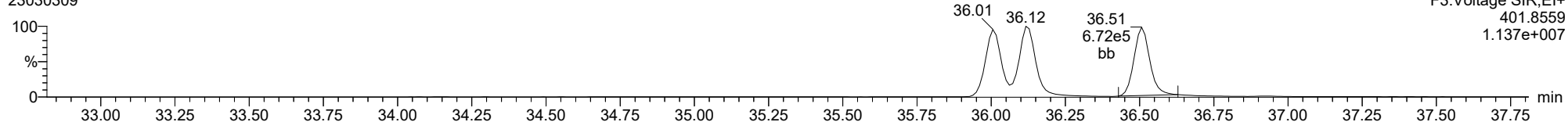
23030309



F3:Voltage SIR,El+
391.8127
9.102e+007

13C-123789-HxCDD

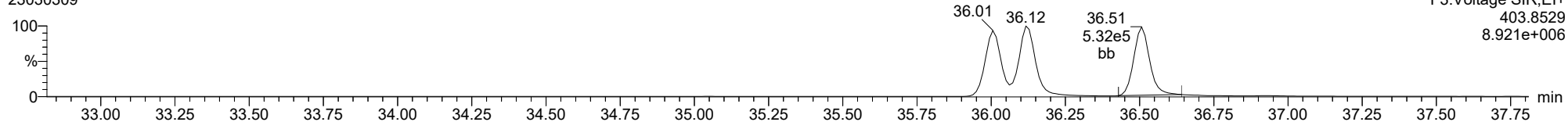
23030309



F3:Voltage SIR,El+
401.8559
1.137e+007

13C-123789-HxCDD

23030309

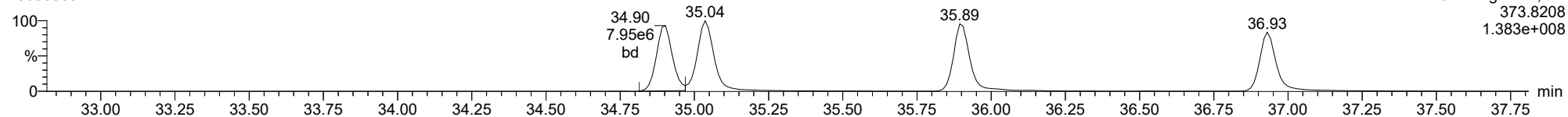


F3:Voltage SIR,El+
403.8529
8.921e+006

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

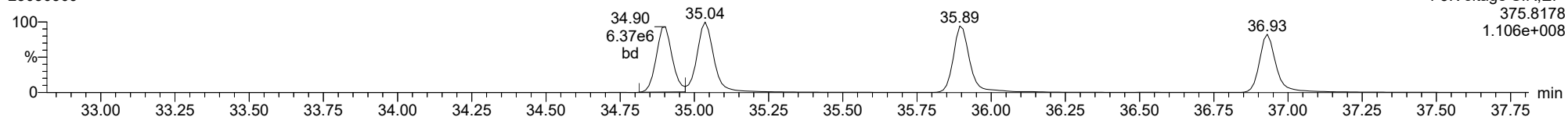
123478-HxCDF

23030309



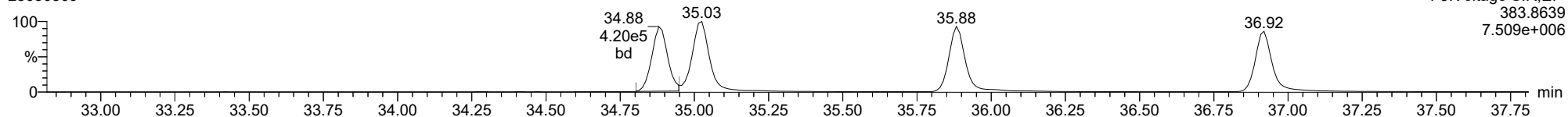
123478-HxCDF

23030309



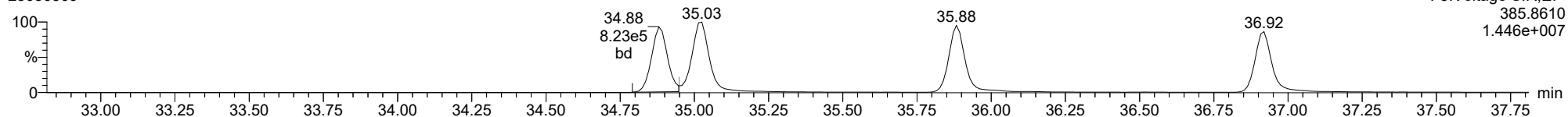
13C-123478-HxCDF

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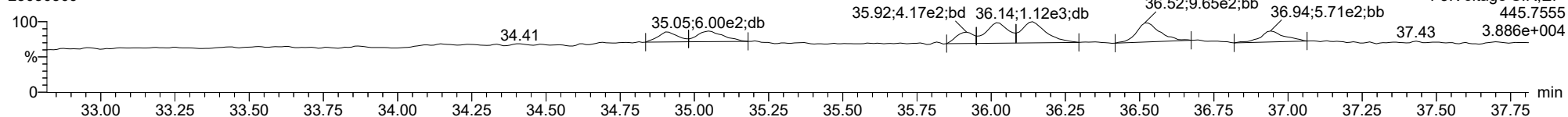
13C-123478-HxCDF

23030309



FUNCTION3 OCDPE

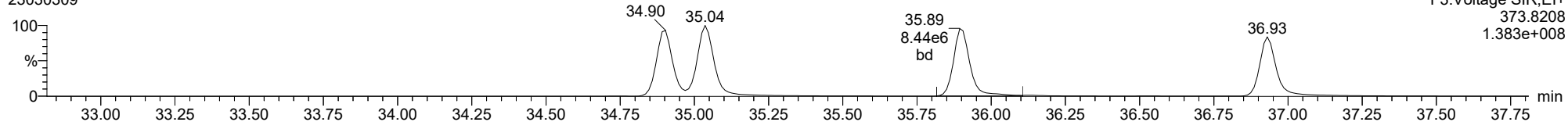
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

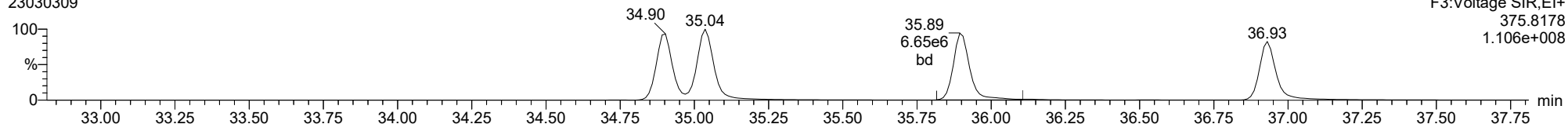
234678-HxCDF

23030309



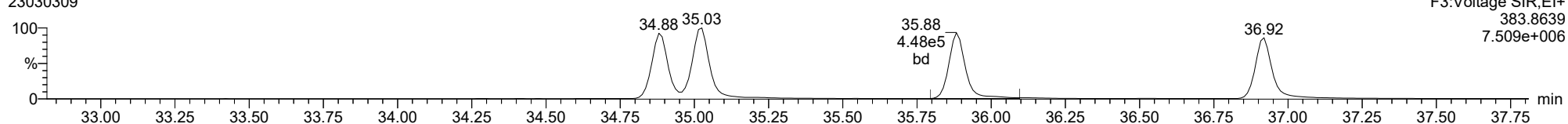
234678-HxCDF

23030309



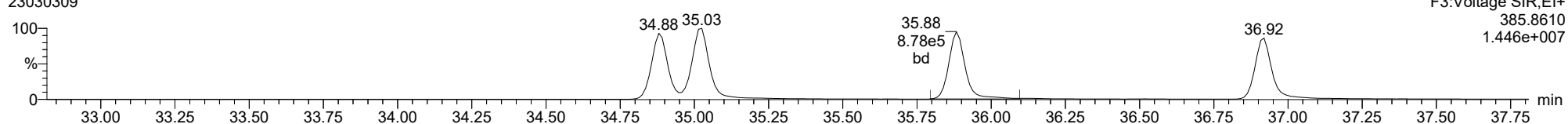
13C-234678-HxCDF

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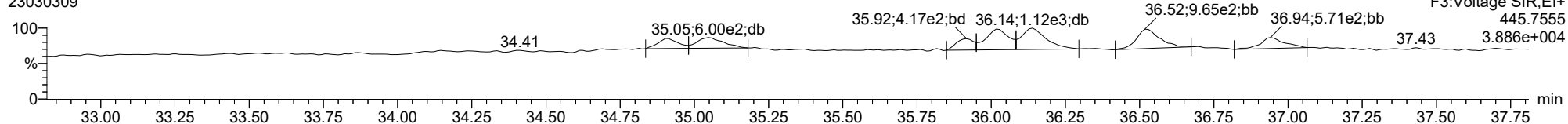
13C-234678-HxCDF

23030309



FUNCTION3 OCDPE

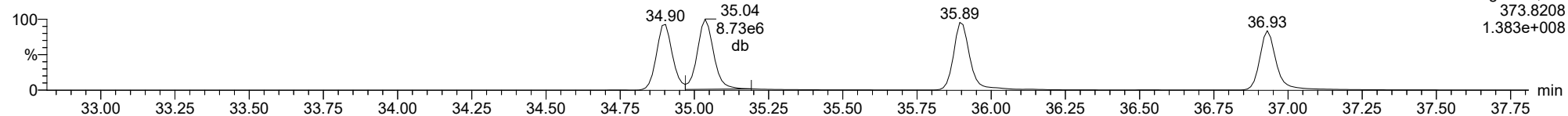
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

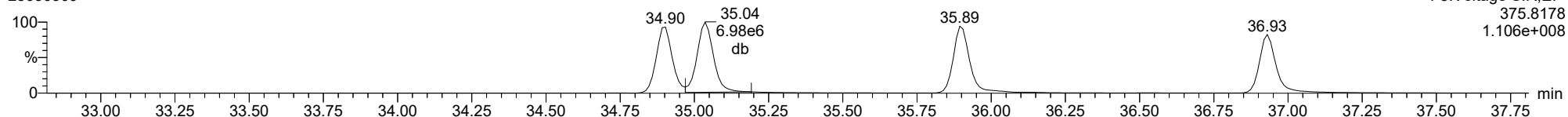
123678-HxCDF

23030309



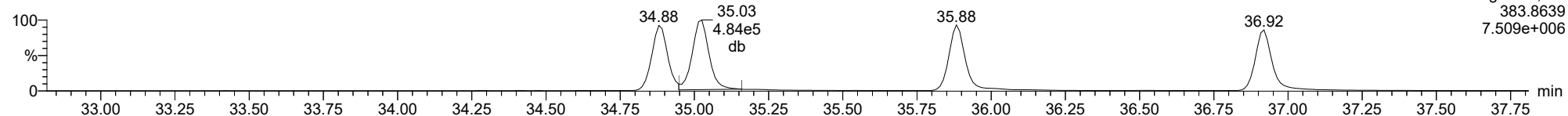
123678-HxCDF

23030309



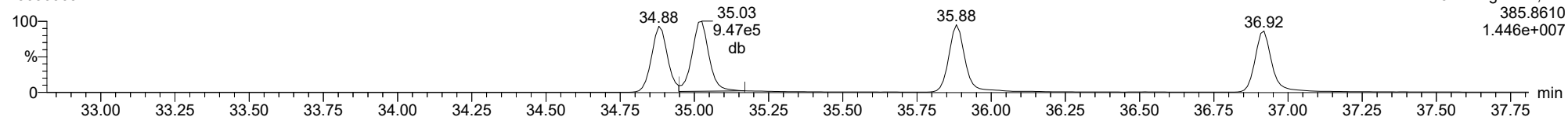
13C-123678-HxCDF

23030309



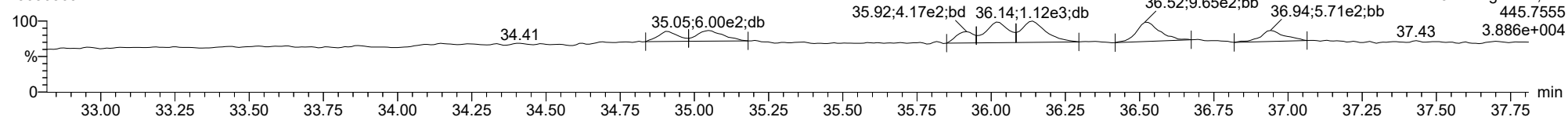
13C-123678-HxCDF

23030309



FUNCTION3 OCDPE

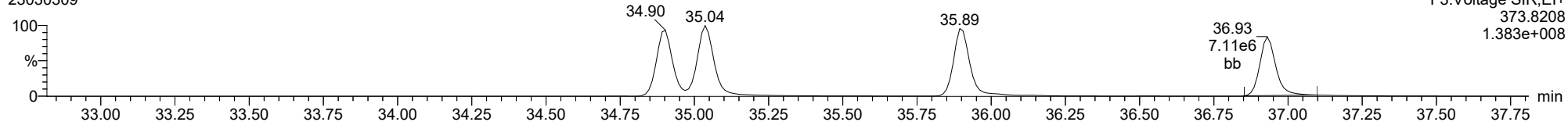
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

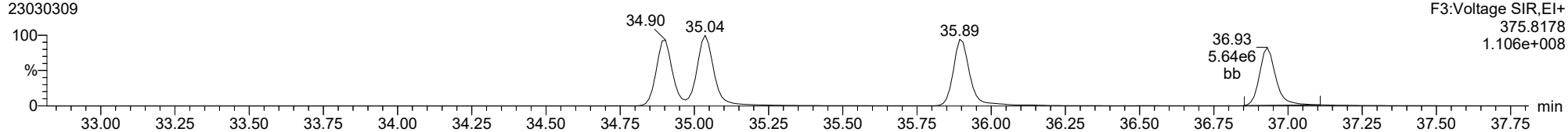
123789-HxCDF

23030309



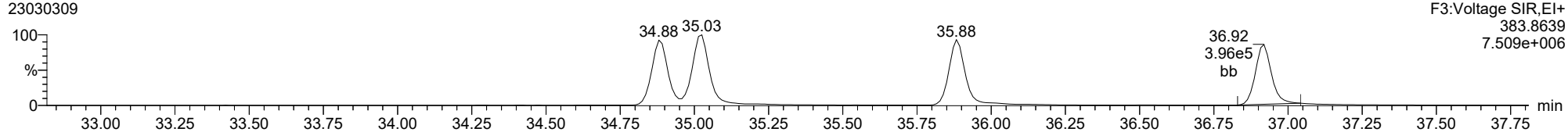
123789-HxCDF

23030309



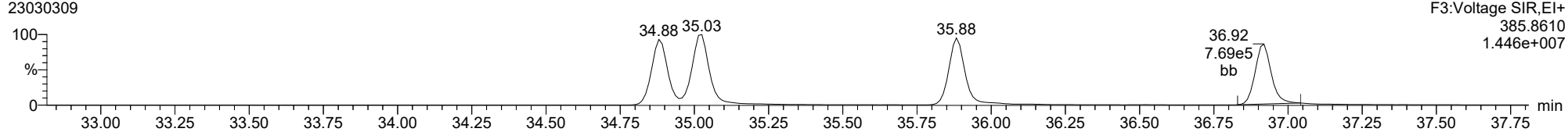
13C-123789-HxCDF

23030309



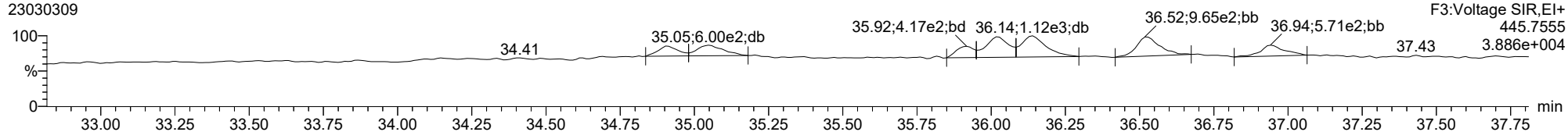
13C-123789-HxCDF

23030309



FUNCTION3 OCDPE

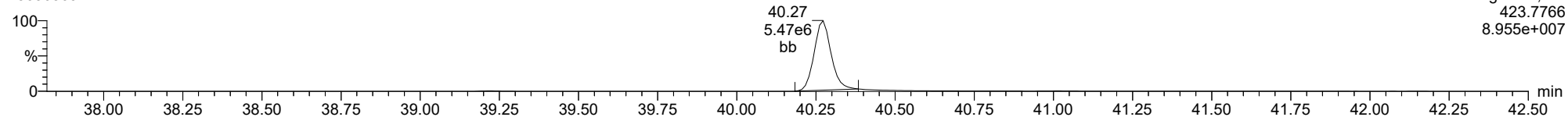
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

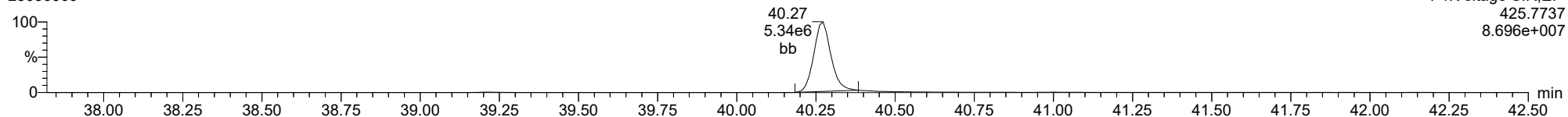
1234678-HpCDD

23030309



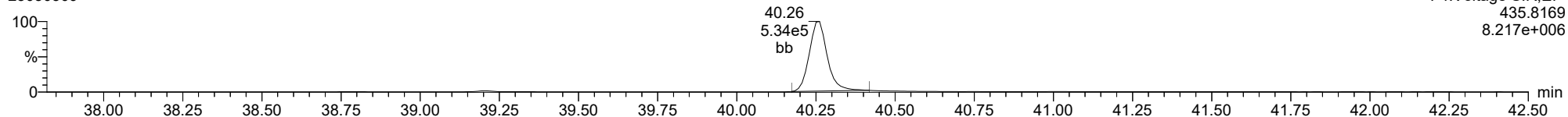
1234678-HpCDD

23030309



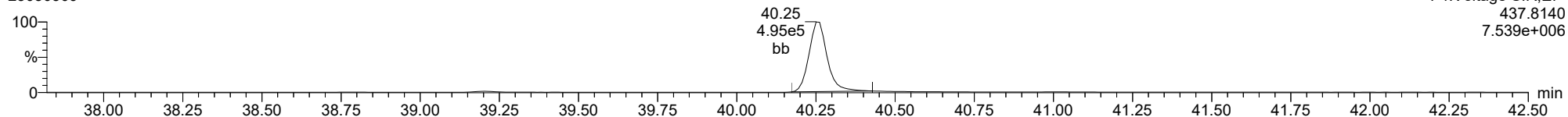
13C-1234678-HpCDD

23030309



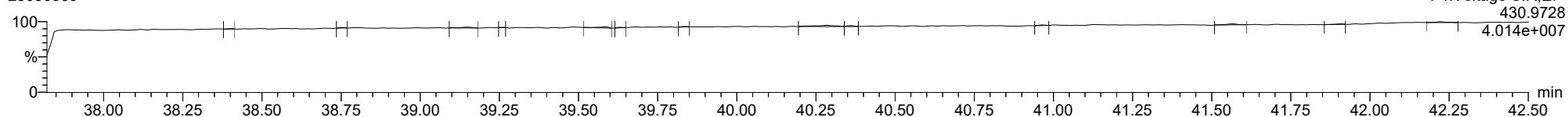
13C-1234678-HpCDD

23030309



FUNCTION4 PFK

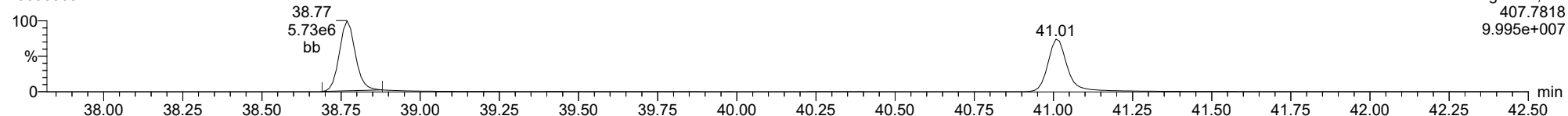
23030309



ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

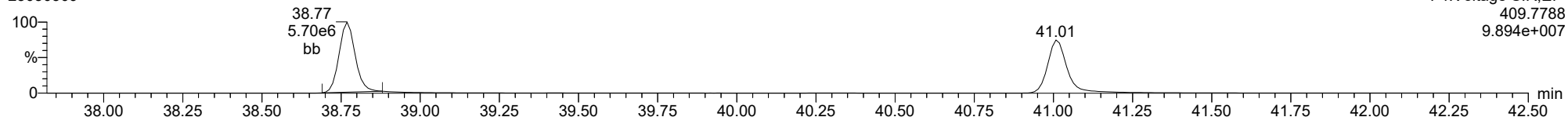
23030309



F4:Voltage SIR,EI+
407.7818
9.995e+007

1234678-HpCDF

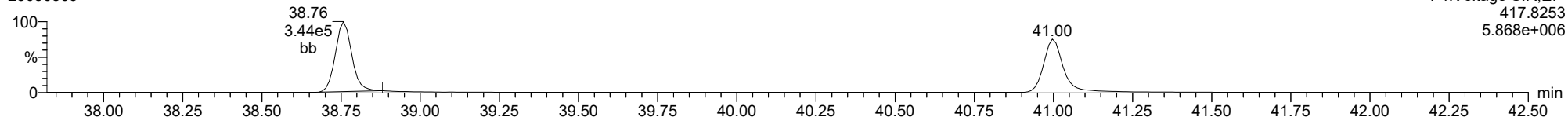
23030309



F4:Voltage SIR,EI+
409.7788
9.894e+007

13C-1234678-HpCDF

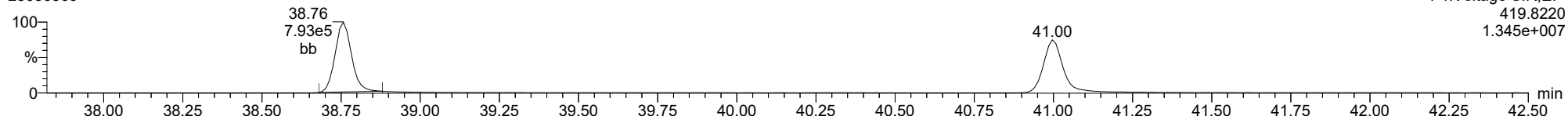
23030309



F4:Voltage SIR,EI+
417.8253
5.868e+006

13C-1234678-HpCDF

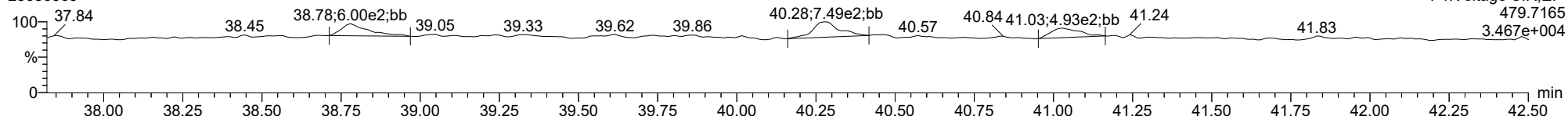
23030309



F4:Voltage SIR,EI+
419.8220
1.345e+007

FUNCTION4 NCDPE

23030309

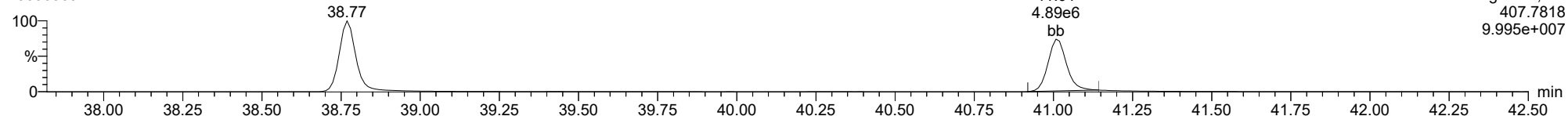


F4:Voltage SIR,EI+
479.7165
3.467e+004

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

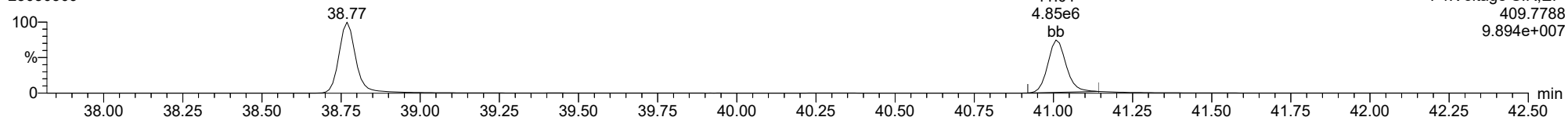
23030309



F4:Voltage SIR,EI+
407.7818
9.995e+007

1234789-HpCDF

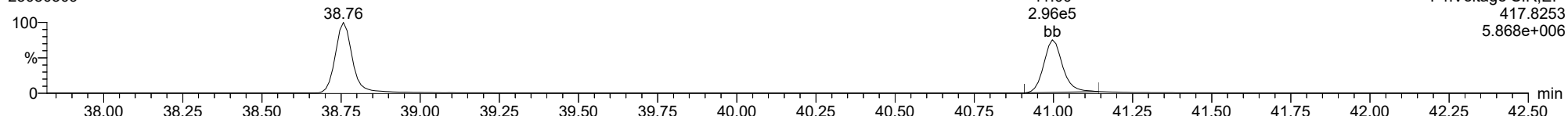
23030309



F4:Voltage SIR,EI+
409.7788
9.894e+007

13C-1234789-HpCDF

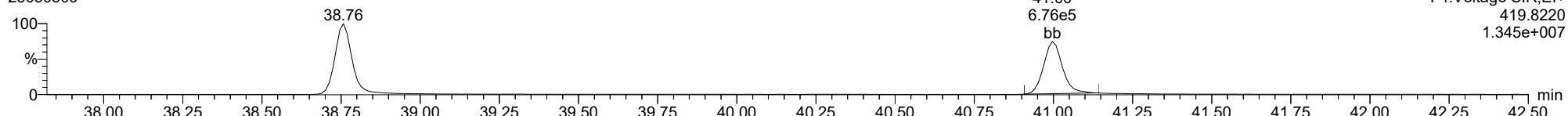
23030309



F4:Voltage SIR,EI+
417.8253
5.868e+006

13C-1234789-HpCDF

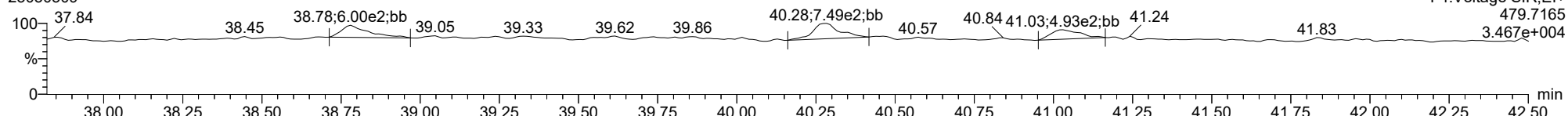
23030309



F4:Voltage SIR,EI+
419.8220
1.345e+007

FUNCTION4 NCDPE

23030309

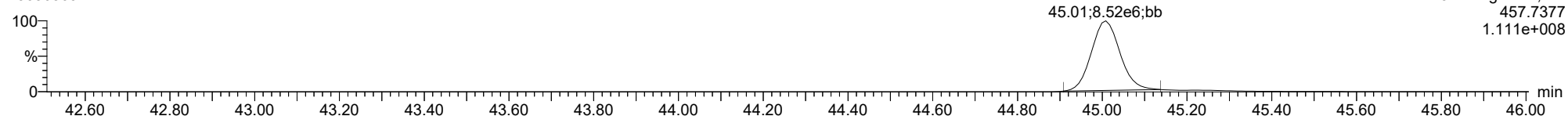


F4:Voltage SIR,EI+
479.7165
3.467e+004

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

OCDD

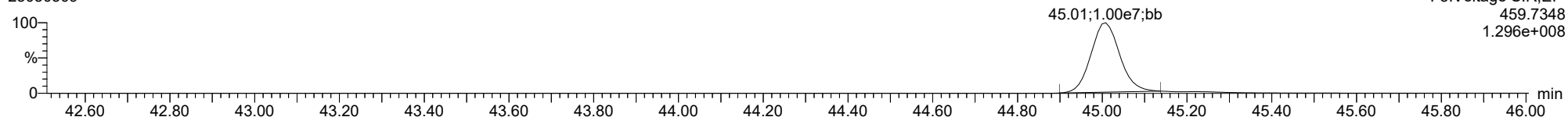
23030309



F5:Voltage SIR,EI+
457.7377
1.111e+008

OCDD

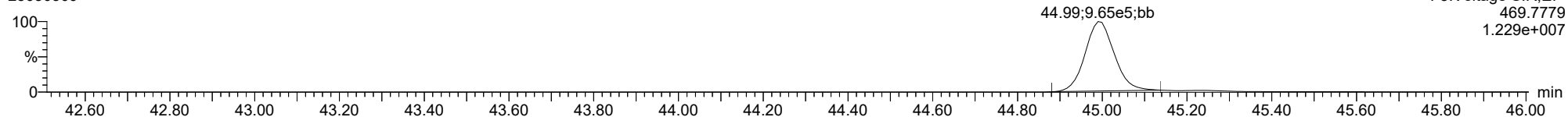
23030309



F5:Voltage SIR,EI+
459.7348
1.296e+008

13C-OCDD

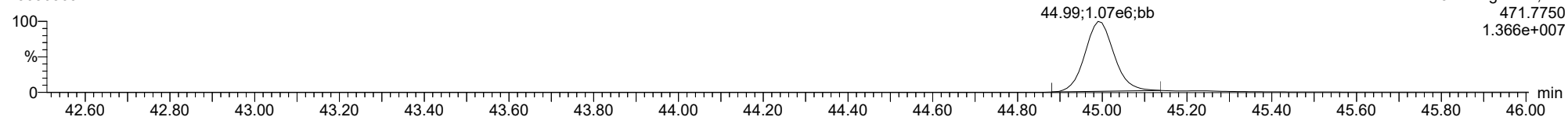
23030309



F5:Voltage SIR,EI+
469.7779
1.229e+007

13C-OCDD

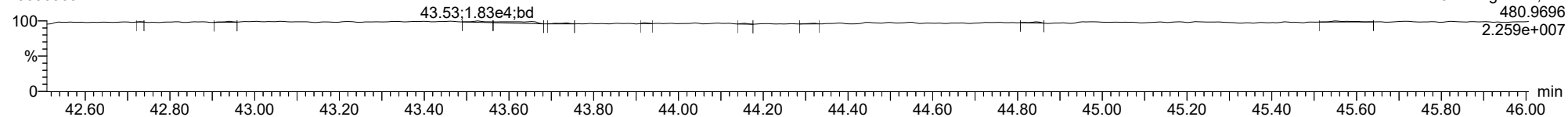
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F5:Voltage SIR,EI+
471.7750
1.366e+007

FUNCTION5 PFK

23030309

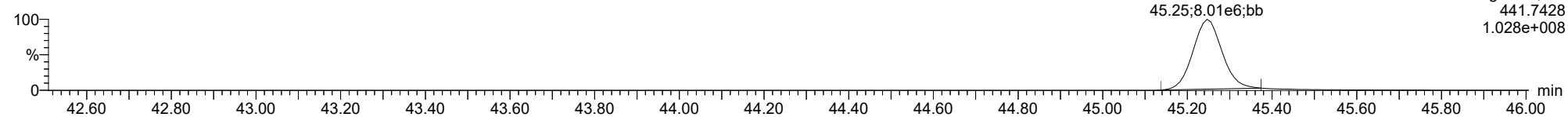


F5:Voltage SIR,EI+
480.9696
2.259e+007

ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

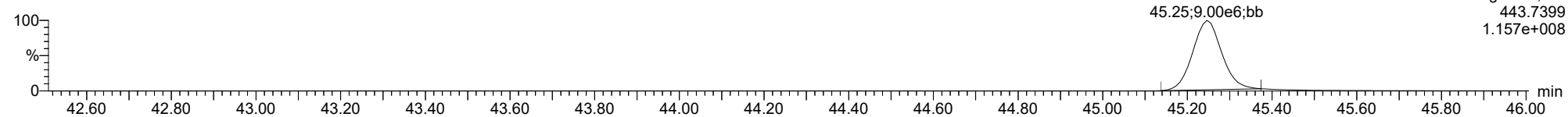
OCDF

23030309



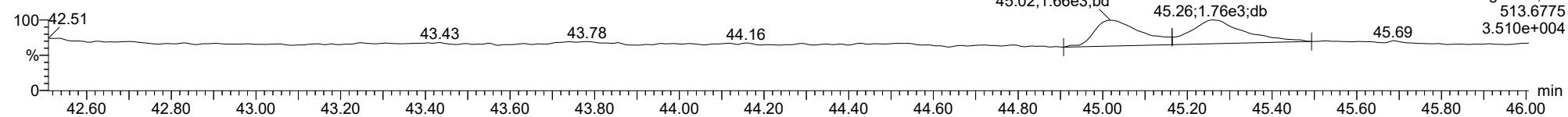
OCDF

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FUNCTION5 DCDPE

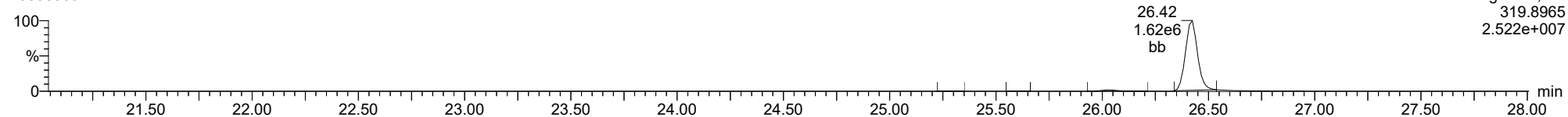
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

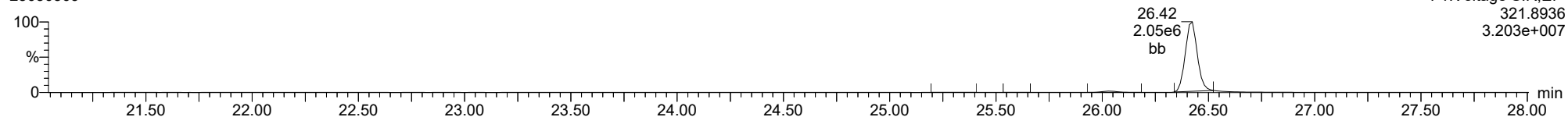
Total-tetradioxins

23030309



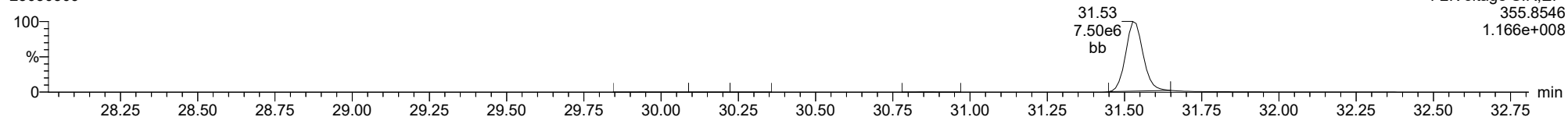
Total-tetradioxins

23030309



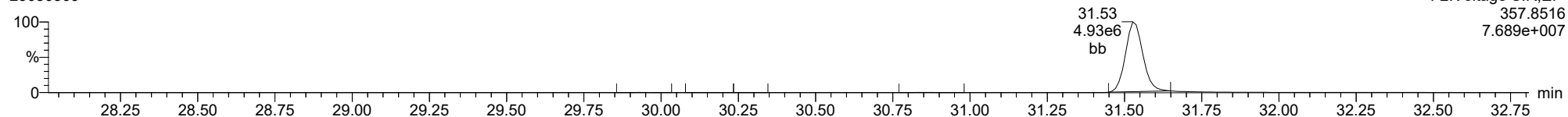
Total-pentadioxins

23030309



Total-pentadioxins

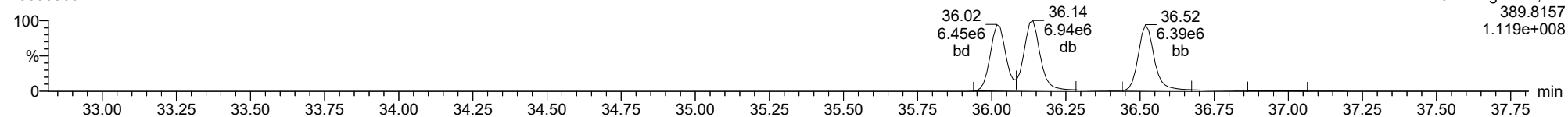
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

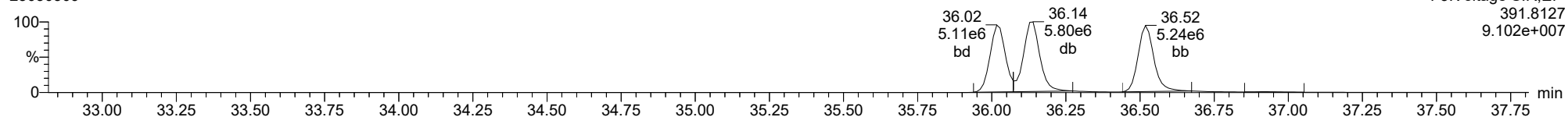
Total-hexadioxins

23030309



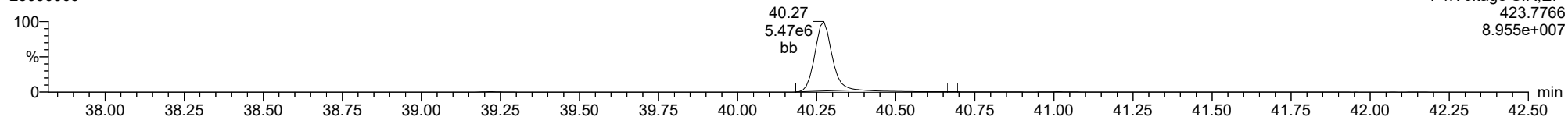
Total-hexadioxins

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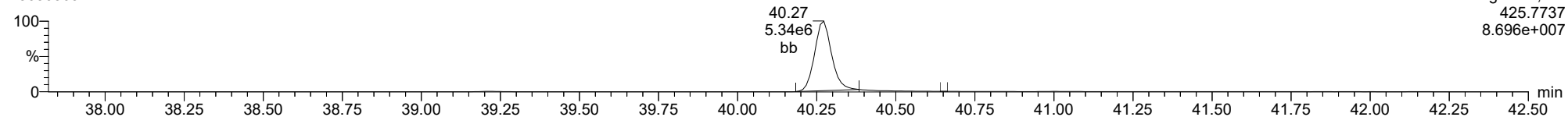
Total-heptadioxins

23030309



Total-heptadioxins

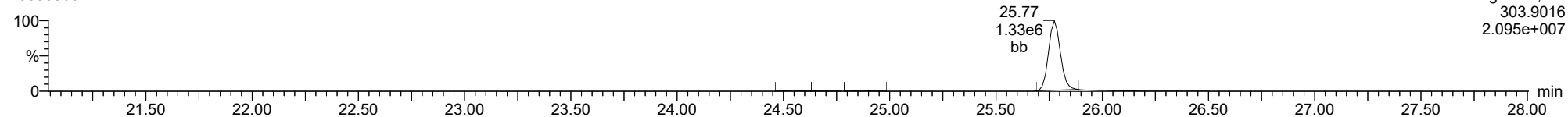
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

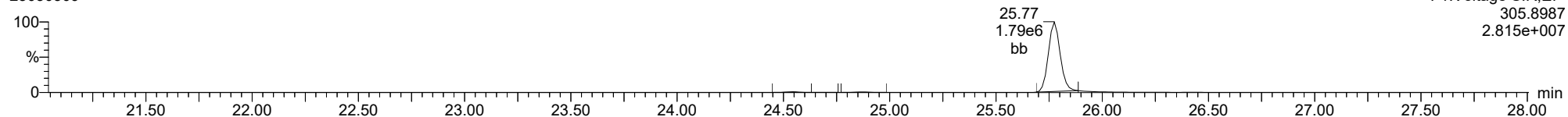
Total-tetrafurans

23030309



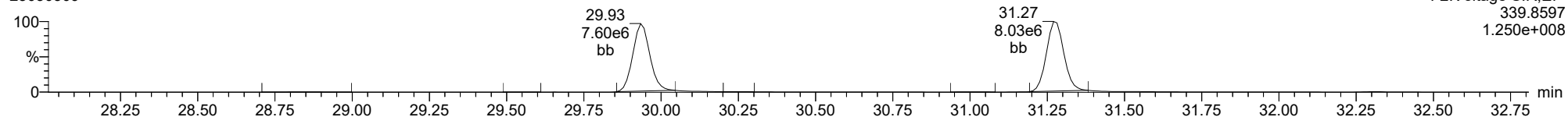
Total-tetrafurans

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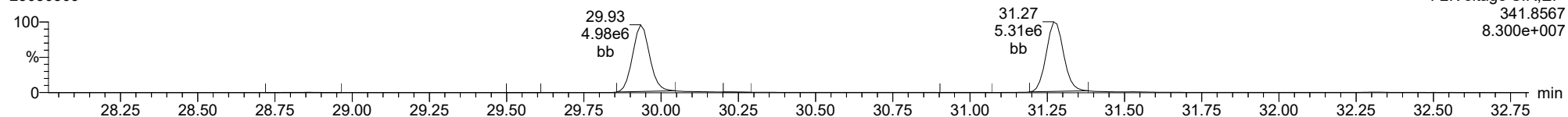
Total-pentafurans

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Total-pentafurans

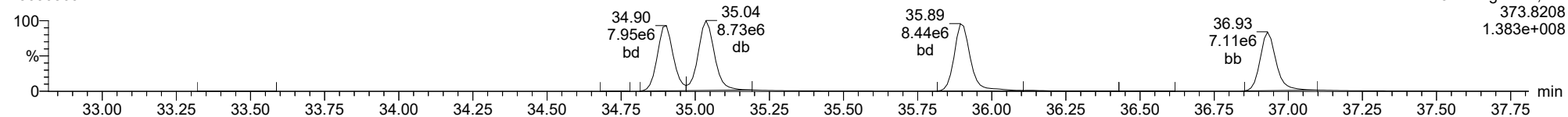
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ID: CS5CW, Name: 23030309, Date: 03-Mar-2023, Time: 15:47:43, Conditions: AUTOSPEC01, User: pk

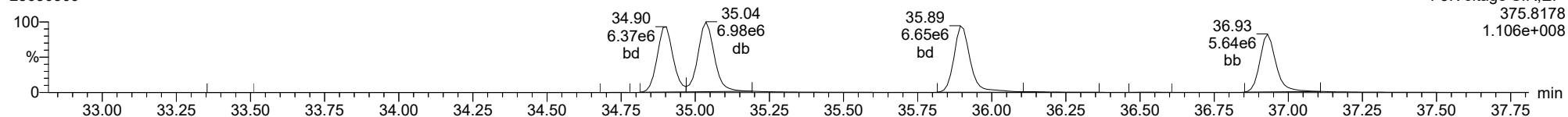
Total-hexafurans

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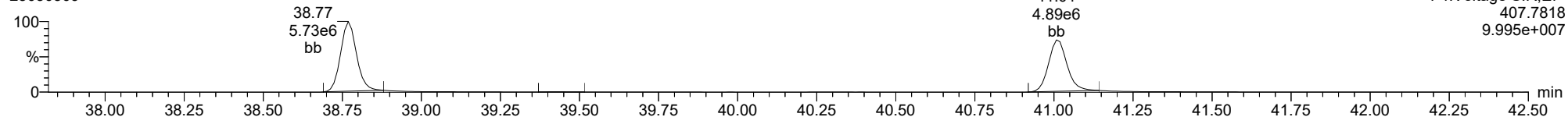
Total-hexafurans

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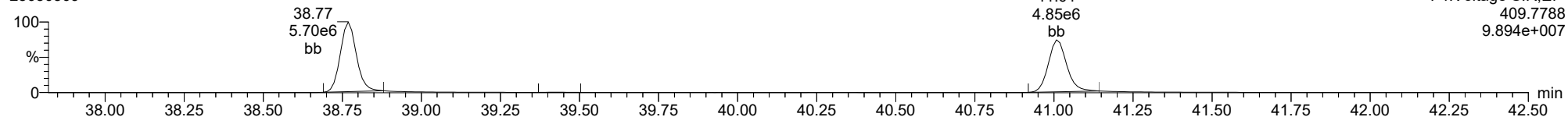
Total-heptafurans

23030309



Total-heptafurans

23030309



Dataset: T:\Autospec\Processed Data Batch\230303IHCIV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:19 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
 Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.774	1.000	5.338e4	7.452e4	0.702	0.716	0.770	1163	2029	8.36e5	1.13e6	718.7	556.3	NO	bb	bb	9.838
12378-PeCDF	29.934	1.000	2.214e5	1.526e5	0.679	1.451	1.550	3022	2812	3.24e6	2.15e6	1073.8	764.7	NO	bb	bd	51.391
23478-PeCDF	31.271	1.000	2.350e5	1.508e5	0.786	1.559	1.550	3022	2812	3.42e6	2.23e6	1131.6	792.3	NO	bb	bb	48.980
123478-HxCDF	34.903	1.001	2.903e5	2.325e5	1.166	1.248	1.240	3142	2543	4.30e6	3.42e6	1370.1	1344.7	NO	bd	bd	48.245
234678-HxCDF	35.905	1.001	2.873e5	2.291e5	1.140	1.254	1.240	3142	2543	4.27e6	3.38e6	1358.7	1330.7	NO	bb	bb	50.224
123678-HxCDF	35.036	1.001	3.271e5	2.812e5	1.091	1.163	1.240	3142	2543	4.70e6	3.76e6	1497.0	1479.3	NO	db	db	47.992
123789-HxCDF	36.930	1.001	2.403e5	1.952e5	1.137	1.231	1.240	3142	2543	3.49e6	2.77e6	1110.7	1088.1	NO	bb	bb	49.077
1234678-HpCDF	38.769	1.000	2.051e5	2.017e5	1.003	1.017	1.050	2774	2508	3.29e6	3.29e6	1185.4	1309.8	NO	bb	bb	51.838
1234789-HpCDF	41.008	1.000	1.584e5	1.578e5	0.953	1.004	1.050	2774	2508	2.19e6	2.22e6	790.9	884.0	NO	bb	bb	48.461
OCDF	45.237	1.006	2.094e5	2.177e5	0.778	0.962	0.890	1876	1660	2.24e6	2.46e6	1194.3	1483.7	NO	bd	bb	103.506
2378-TCDD	26.424	1.001	6.583e4	8.225e4	1.149	0.800	0.770	1514	1206	9.92e5	1.24e6	654.9	1028.2	NO	bb	bb	9.815
12378-PeCDD	31.538	1.001	2.257e5	1.459e5	1.022	1.547	1.550	2000	2144	3.28e6	2.13e6	1638.2	994.7	NO	bb	bb	48.547
123478-HxCDD	36.016	1.000	2.316e5	1.815e5	0.996	1.276	1.240	2983	1710	3.62e6	3.01e6	1214.5	1762.3	NO	bd	bd	50.799
123678-HxCDD	36.139	1.001	2.694e5	2.159e5	1.001	1.248	1.240	2983	1710	3.76e6	3.05e6	1260.5	1785.9	NO	db	db	50.174
123789-HxCDD	36.518	1.011	2.330e5	1.844e5	0.907	1.263	1.240	2983	1710	3.29e6	2.69e6	1104.0	1571.7	NO	bd	bb	51.608
1234678-HpCDD	40.272	1.001	1.962e5	1.803e5	1.039	1.088	1.050	2922	2339	2.72e6	2.60e6	932.5	1113.0	NO	bd	bb	49.199
OCDD	44.999	1.000	2.234e5	2.618e5	0.920	0.853	0.890	1774	1393	2.65e6	3.06e6	1496.5	2199.2	NO	bb	bb	99.422
13C-2378-TCDF	25.760	1.007	7.988e5	1.054e6	1.620	0.758	0.770	2799	1492	1.21e7	1.60e7	4320.8	10737.9	NO	bb	bb	96.925
13C-12378-PeCDF	29.923	1.169	6.425e5	4.290e5	1.240	1.498	1.550	3398	4585	8.78e6	5.86e6	2583.4	1278.4	NO	bd	bd	73.193
13C-23478-PeCDF	31.259	1.222	6.035e5	3.982e5	1.118	1.515	1.550	3398	4585	8.73e6	5.79e6	2568.3	1261.6	NO	bb	bb	75.943
13C-123478-HxCDF	34.880	0.955	3.186e5	6.107e5	1.168	0.522	0.510	2913	2215	4.74e6	9.25e6	1627.4	4175.4	NO	bd	bd	92.972
13C-123678-HxCDF	35.014	0.959	3.885e5	7.735e5	1.386	0.502	0.510	2913	2215	5.29e6	1.03e7	1816.0	4636.7	NO	dd	db	97.958
13C-234678-HxCDF	35.883	0.983	3.009e5	6.013e5	1.129	0.500	0.510	2913	2215	4.56e6	8.94e6	1567.0	4037.6	NO	bb	bb	93.371
13C-123789-HxCDF	36.908	1.011	2.634e5	5.171e5	0.932	0.509	0.510	2913	2215	3.83e6	7.41e6	1313.2	3346.2	NO	bb	bb	97.906
13C-1234678-HpCDF	38.757	1.062	2.395e5	5.428e5	0.895	0.441	0.440	2666	4327	3.79e6	8.70e6	1422.6	2009.5	NO	bb	bb	102.148
13C-1234789-HpCDF	40.997	1.123	1.971e5	4.875e5	0.770	0.404	0.440	2666	4327	2.64e6	6.15e6	990.0	1422.1	NO	bb	bb	103.953
13C-1234-TCDD	25.591	0.000	5.239e5	6.562e5	1.000	0.798	0.770	2541	1448	8.13e6	1.01e7	3200.8	6994.1	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.031	5.859e5	7.277e5	1.152	0.805	0.770	2541	1448	8.48e6	1.06e7	3338.5	7327.1	NO	bb	bb	96.583
13C-12378-PeCDD	31.515	1.232	4.640e5	2.850e5	0.829	1.628	1.550	1690	813	6.82e6	4.16e6	4037.7	5122.1	NO	bb	bb	76.570
13C-123478-HxCDD	36.005	0.986	4.566e5	3.601e5	0.995	1.268	1.240	2230	1571	7.33e6	5.72e6	3288.3	3642.7	NO	bd	bd	95.938
13C-123678-HxCDD	36.117	0.989	5.277e5	4.388e5	1.157	1.203	1.240	2230	1571	7.53e6	5.98e6	3378.3	3806.0	NO	db	db	97.660
13C-1234678-HpCDD	40.250	1.102	3.788e5	3.578e5	0.840	1.059	1.050	1327	2781	5.06e6	4.73e6	3813.0	1700.4	NO	bd	bb	102.476
13C-OCDD	44.981	1.232	5.015e5	5.594e5	0.767	0.896	0.890	2228	1562	5.65e6	6.37e6	2536.4	4080.5	NO	bb	bb	161.563
13C-123789-HxCDD	36.507	0.000	4.814e5	3.742e5	1.000	1.287	1.240	2230	1571	7.02e6	5.48e6	3149.1	3490.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.033	1.324e5		1.288			2249		1.92e6		853.0			bb		8.714

Dataset: T:\Autospec\Processed Data Batch\230303\HICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:19 Pacific Standard Time

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.271	0.865	6.666e4	8.755e4	0.802	0.761	0.770	1163	2029	1.09e6	1.45e6	933.7	713.4	NO	bb	bb	10.382
1289-TCDF	27.272	1.059	5.306e4	7.400e4	0.678	0.717	0.770	1163	2029	8.00e5	1.11e6	688.3	549.0	NO	bb	db	10.112
13468-PECDF	27.130	0.907	5.428e5	3.536e5	1.246	1.535	1.550	921	1306	8.56e6	5.56e6	9287.8	4254.6	NO	bb	bb	67.124
12389-PECDF	32.307	1.080	2.363e5	1.551e5	0.496	1.524	1.550	3022	2812	3.29e6	2.19e6	1088.1	777.6	NO	bb	bb	73.589
123468-HXCDF	33.231	0.953	3.102e5	2.472e5	1.169	1.255	1.240	3142	2543	4.60e6	3.67e6	1465.3	1443.2	NO	bb	bb	51.304
1368-TCDD	23.557	0.892	6.641e4	8.365e4	1.015	0.794	0.770	1514	1206	1.07e6	1.32e6	704.3	1092.4	NO	bb	bb	11.251
1289-TCDD	27.017	1.023	6.055e4	8.062e4	0.909	0.751	0.770	1514	1206	8.59e5	1.12e6	567.6	932.6	NO	bd	bd	11.826
12479-PECDD	28.819	0.914	4.776e5	3.067e5	2.301	1.557	1.550	2000	2144	4.46e6	2.89e6	2227.8	1348.6	NO	bb	bb	45.504
12389-PECDD	31.928	1.013	2.675e5	1.746e5	1.184	1.532	1.550	2000	2144	3.96e6	2.51e6	1980.6	1171.6	NO	bb	bb	49.870
124679-HXCDD	34.011	0.945	2.545e5	2.054e5	1.115	1.239	1.240	2983	1710	3.72e6	3.05e6	1245.7	1780.9	NO	bb	bb	50.484
1234679-HPCDD	39.225	0.975	2.082e5	2.022e5	1.137	1.029	1.050	2922	2339	3.21e6	3.09e6	1099.8	1322.5	NO	bb	bb	49.010
Total-tetrafurans			1.731e5		0.727			1163		2.72e6							30.332
Total-penta1			5.428e5					921		8.56e6							67.124
Total-penta-furans			7.375e5		0.654			3022		1.06e7							184.995
Total-hexa-furans			1.455e6		1.141			3142		2.14e7							246.841
Total-hepta-furans			3.635e5		0.978			2774		5.48e6							100.299
Total-Furans			3.482e6		0.922			1163		5.10e7							733.097
Total-tetradioxins			3.292e5		1.024			1514		4.53e6							56.345
Total-pentadioxins			9.708e5		1.502			2000		1.17e7							143.922
Total-hexadioxins			9.885e5		1.005			2983		1.44e7							203.065
Total-heptadioxins			4.044e5		1.088			2922		5.94e6							98.208
Total-Dioxins			2.916e6		1.130			1514		3.92e7							600.962
Total-TEQ			6.398e6					1514		9.02e7							1334.059
FUNCTION1 PFK			0.000e0					539943		0.00e0							
FUNCTION2 PFK			2.253e6					228820		1.84e6							0.000
FUNCTION3 PFK			3.977e4					386595		8.75e5							0.000
FUNCTION4 PFK			7.296e4					280107		2.70e6							
FUNCTION5 PFK			1.323e3					209307		1.46e5							
FUNCTION1 HXCD...			6.633e2					708		9.34e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			5.152e2					1165		9.44e3							0.000
FUNCTION3 OCDPE			5.246e2					459		6.83e3							0.000
FUNCTION4 NCDPE			4.889e2					641		6.04e3							0.000
FUNCTION5 DCDPE			0.000e0					644		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303IHICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:19 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	5.306e4	7.400e4	0.678	0.72	0.77	688.3	YES	NO	bb	db	10.112
2	2378-TCDF	25.77	5.338e4	7.452e4	0.702	0.72	0.77	718.7	YES	NO	bb	bb	9.838
3	1368-TCDF	22.27	6.666e4	8.755e4	0.802	0.76	0.77	933.7	YES	NO	bb	bb	10.382

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.13	5.428e5	3.536e5	1.246	1.54	1.55	9287.8	YES	NO	bb	bb	67.124

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.31	2.363e5	1.551e5	0.496	1.52	1.55	1088.1	YES	NO	bb	bb	73.589
2	23478-PeCDF	31.27	2.350e5	1.508e5	0.786	1.56	1.55	1131.6	YES	NO	bb	bb	48.980
3	12378-PeCDF	29.93	2.214e5	1.526e5	0.679	1.45	1.55	1073.8	YES	NO	bb	bd	51.391
4	Total-pentafurans	28.79	4.479e4	3.002e4	0.654	1.49	1.55	225.2	YES	NO	bb	bb	11.035

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	34.90	2.903e5	2.325e5	1.166	1.25	1.24	1370.1	YES	NO	bd	bd	48.245
2	123468-HxCDF	33.23	3.102e5	2.472e5	1.169	1.26	1.24	1465.3	YES	NO	bb	bb	51.304
3	123789-HxCDF	36.93	2.403e5	1.952e5	1.137	1.23	1.24	1110.7	YES	NO	bb	bb	49.077
4	234678-HxCDF	35.91	2.873e5	2.291e5	1.140	1.25	1.24	1358.7	YES	NO	bb	bb	50.224
5	123678-HxCDF	35.04	3.271e5	2.812e5	1.091	1.16	1.24	1497.0	YES	NO	db	db	47.992

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.77	2.051e5	2.017e5	1.003	1.02	1.05	1185.4	YES	NO	bb	bb	51.838
2	1234789-HpCDF	41.01	1.584e5	1.578e5	0.953	1.00	1.05	790.9	YES	NO	bb	bb	48.461

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\HICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	5.306e4	7.400e4	0.678	0.72	0.77	688.3	YES	NO	bb	db	10.112
2	2378-TCDF	25.77	5.338e4	7.452e4	0.702	0.72	0.77	718.7	YES	NO	bb	bb	9.838
3	1368-TCDF	22.27	6.666e4	8.755e4	0.802	0.76	0.77	933.7	YES	NO	bb	bb	10.382
4	12389-PECDF	32.31	2.363e5	1.551e5	0.496	1.52	1.55	1088.1	YES	NO	bb	bb	73.589
5	23478-PeCDF	31.27	2.350e5	1.508e5	0.786	1.56	1.55	1131.6	YES	NO	bb	bb	48.980
6	12378-PeCDF	29.93	2.214e5	1.526e5	0.679	1.45	1.55	1073.8	YES	NO	bb	bd	51.391
7	Total-pentafurans	28.79	4.479e4	3.002e4	0.654	1.49	1.55	225.2	YES	NO	bb	bb	11.035
8	123478-HxCDF	34.90	2.903e5	2.325e5	1.166	1.25	1.24	1370.1	YES	NO	bd	bd	48.245
9	123468-HxCDF	33.23	3.102e5	2.472e5	1.169	1.26	1.24	1465.3	YES	NO	bb	bb	51.304
10	123789-HxCDF	36.93	2.403e5	1.952e5	1.137	1.23	1.24	1110.7	YES	NO	bb	bb	49.077
11	234678-HxCDF	35.91	2.873e5	2.291e5	1.140	1.25	1.24	1358.7	YES	NO	bb	bb	50.224
12	123678-HxCDF	35.04	3.271e5	2.812e5	1.091	1.16	1.24	1497.0	YES	NO	db	db	47.992
13	1234678-HpCDF	38.77	2.051e5	2.017e5	1.003	1.02	1.05	1185.4	YES	NO	bb	bb	51.838
14	1234789-HpCDF	41.01	1.584e5	1.578e5	0.953	1.00	1.05	790.9	YES	NO	bb	bb	48.461
15	OCDF	45.24	2.094e5	2.177e5	0.778	0.96	0.89	1194.3	YES	NO	bd	bb	103.506
16	13468-PECDF	27.13	5.428e5	3.536e5	1.246	1.54	1.55	9287.8	YES	NO	bb	bb	67.124

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	25.60	3.327e4	3.983e4	1.024	0.84	0.77	333.8	YES	NO	bd	bb	5.433
2	Total-tetradoxins	25.04	8.004e2	1.202e3	1.024	0.67	0.77	7.4	YES	NO	bb	db	0.149
3	Total-tetradoxins	24.74	2.704e3	4.097e3	1.024	0.66	0.77	17.7	YES	NO	bb	bd	0.506
4	1368-TCDD	23.56	6.641e4	8.365e4	1.015	0.79	0.77	704.3	YES	NO	bb	bb	11.251
5	1289-TCDD	27.02	6.055e4	8.062e4	0.909	0.75	0.77	567.6	YES	NO	bd	bd	11.826
6	Total-tetradoxins	26.76	1.054e2	1.391e2	1.024	0.76	0.77	2.1	NO	NO	bb	bb	0.018
7	2378-TCDD	26.42	6.583e4	8.225e4	1.149	0.80	0.77	654.9	YES	NO	bb	bb	9.815
8	Total-tetradoxins	26.10	9.949e4	1.339e5	1.024	0.74	0.77	703.4	YES	NO	bb	bb	17.347

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.93	2.675e5	1.746e5	1.184	1.53	1.55	1980.6	YES	NO	bb	bb	49.870
2	12378-PeCDD	31.54	2.257e5	1.459e5	1.022	1.55	1.55	1638.2	YES	NO	bb	bb	48.547
3	12479-PECDD	28.82	4.776e5	3.067e5	2.301	1.56	1.55	2227.8	YES	NO	bb	bb	45.504

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2303031\HICV.qld
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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HxCDD	34.01	2.545e5	2.054e5	1.115	1.24	1.24	1245.7	YES	NO	bb	bb	50.484
2	123789-HxCDD	36.52	2.330e5	1.844e5	0.907	1.26	1.24	1104.0	YES	NO	bd	bb	51.608
3	123678-HxCDD	36.14	2.694e5	2.159e5	1.001	1.25	1.24	1260.5	YES	NO	db	db	50.174
4	123478-HxCDD	36.02	2.316e5	1.815e5	0.996	1.28	1.24	1214.5	YES	NO	bd	bd	50.799

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.23	2.082e5	2.022e5	1.137	1.03	1.05	1099.8	YES	NO	bb	bb	49.010
2	1234678-HpCDD	40.27	1.962e5	1.803e5	1.039	1.09	1.05	932.5	YES	NO	bd	bb	49.199

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	25.60	3.327e4	3.983e4	1.024	0.84	0.77	333.8	YES	NO	bd	bb	5.433
2	Total-tetradoxins	25.04	8.004e2	1.202e3	1.024	0.67	0.77	7.4	YES	NO	bb	db	0.149
3	Total-tetradoxins	24.74	2.704e3	4.097e3	1.024	0.66	0.77	17.7	YES	NO	bb	bd	0.506
4	1368-TCDD	23.56	6.641e4	8.365e4	1.015	0.79	0.77	704.3	YES	NO	bb	bb	11.251
5	1289-TCDD	27.02	6.055e4	8.062e4	0.909	0.75	0.77	567.6	YES	NO	bd	bd	11.826
6	Total-tetradoxins	26.76	1.054e2	1.391e2	1.024	0.76	0.77	2.1	NO	NO	bb	bb	0.018
7	2378-TCDD	26.42	6.583e4	8.225e4	1.149	0.80	0.77	654.9	YES	NO	bb	bb	9.815
8	Total-tetradoxins	26.10	9.949e4	1.339e5	1.024	0.74	0.77	703.4	YES	NO	bb	bb	17.347
9	12389-PECDD	31.93	2.675e5	1.746e5	1.184	1.53	1.55	1980.6	YES	NO	bb	bb	49.870
10	12378-PeCDD	31.54	2.257e5	1.459e5	1.022	1.55	1.55	1638.2	YES	NO	bb	bb	48.547
11	12479-PECDD	28.82	4.776e5	3.067e5	2.301	1.56	1.55	2227.8	YES	NO	bb	bb	45.504
12	124679-HxCDD	34.01	2.545e5	2.054e5	1.115	1.24	1.24	1245.7	YES	NO	bb	bb	50.484
13	123789-HxCDD	36.52	2.330e5	1.844e5	0.907	1.26	1.24	1104.0	YES	NO	bd	bb	51.608
14	123678-HxCDD	36.14	2.694e5	2.159e5	1.001	1.25	1.24	1260.5	YES	NO	db	db	50.174
15	123478-HxCDD	36.02	2.316e5	1.815e5	0.996	1.28	1.24	1214.5	YES	NO	bd	bd	50.799
16	1234679-HPCDD	39.23	2.082e5	2.022e5	1.137	1.03	1.05	1099.8	YES	NO	bb	bb	49.010
17	1234678-HpCDD	40.27	1.962e5	1.803e5	1.039	1.09	1.05	932.5	YES	NO	bd	bb	49.199
18	OCDD	45.00	2.234e5	2.618e5	0.920	0.85	0.89	1496.5	YES	NO	bb	bb	99.422

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\HICV.qld
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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	5.306e4	7.400e4	0.678	0.72	0.77	688.3	YES	NO	bb	db	10.112
2	2378-TCDF	25.77	5.338e4	7.452e4	0.702	0.72	0.77	718.7	YES	NO	bb	bb	9.838
3	1368-TCDF	22.27	6.666e4	8.755e4	0.802	0.76	0.77	933.7	YES	NO	bb	bb	10.382
4	12389-PECDF	32.31	2.363e5	1.551e5	0.496	1.52	1.55	1088.1	YES	NO	bb	bb	73.589
5	23478-PeCDF	31.27	2.350e5	1.508e5	0.786	1.56	1.55	1131.6	YES	NO	bb	bb	48.980
6	12378-PeCDF	29.93	2.214e5	1.526e5	0.679	1.45	1.55	1073.8	YES	NO	bb	bd	51.391
7	Total-pentafurans	28.79	4.479e4	3.002e4	0.654	1.49	1.55	225.2	YES	NO	bb	bb	11.035
8	123478-HxCDF	34.90	2.903e5	2.325e5	1.166	1.25	1.24	1370.1	YES	NO	bd	bd	48.245
9	123468-HxCDF	33.23	3.102e5	2.472e5	1.169	1.26	1.24	1465.3	YES	NO	bb	bb	51.304
10	123789-HxCDF	36.93	2.403e5	1.952e5	1.137	1.23	1.24	1110.7	YES	NO	bb	bb	49.077
11	234678-HxCDF	35.91	2.873e5	2.291e5	1.140	1.25	1.24	1358.7	YES	NO	bb	bb	50.224
12	123678-HxCDF	35.04	3.271e5	2.812e5	1.091	1.16	1.24	1497.0	YES	NO	db	db	47.992
13	1234678-HpCDF	38.77	2.051e5	2.017e5	1.003	1.02	1.05	1185.4	YES	NO	bb	bb	51.838
14	1234789-HpCDF	41.01	1.584e5	1.578e5	0.953	1.00	1.05	790.9	YES	NO	bb	bb	48.461
15	OCDF	45.24	2.094e5	2.177e5	0.778	0.96	0.89	1194.3	YES	NO	bd	bb	103.506
16	13468-PECDF	27.13	5.428e5	3.536e5	1.246	1.54	1.55	9287.8	YES	NO	bb	bb	67.124
17	Total-tetradiioxins	25.60	3.327e4	3.983e4	1.024	0.84	0.77	333.8	YES	NO	bd	bb	5.433
18	Total-tetradiioxins	25.04	8.004e2	1.202e3	1.024	0.67	0.77	7.4	YES	NO	bb	db	0.149
19	Total-tetradiioxins	24.74	2.704e3	4.097e3	1.024	0.66	0.77	17.7	YES	NO	bb	bd	0.506
20	1368-TCDD	23.56	6.641e4	8.365e4	1.015	0.79	0.77	704.3	YES	NO	bb	bb	11.251
21	1289-TCDD	27.02	6.055e4	8.062e4	0.909	0.75	0.77	567.6	YES	NO	bd	bd	11.826
22	Total-tetradiioxins	26.76	1.054e2	1.391e2	1.024	0.76	0.77	2.1	NO	NO	bb	bb	0.018
23	2378-TCDD	26.42	6.583e4	8.225e4	1.149	0.80	0.77	654.9	YES	NO	bb	bb	9.815
24	Total-tetradiioxins	26.10	9.949e4	1.339e5	1.024	0.74	0.77	703.4	YES	NO	bb	bb	17.347
25	12389-PECDD	31.93	2.675e5	1.746e5	1.184	1.53	1.55	1980.6	YES	NO	bb	bb	49.870
26	12378-PeCDD	31.54	2.257e5	1.459e5	1.022	1.55	1.55	1638.2	YES	NO	bb	bb	48.547
27	12479-PECDD	28.82	4.776e5	3.067e5	2.301	1.56	1.55	2227.8	YES	NO	bb	bb	45.504
28	124679-HXCDD	34.01	2.545e5	2.054e5	1.115	1.24	1.24	1245.7	YES	NO	bb	bb	50.484
29	123789-HxCDD	36.52	2.330e5	1.844e5	0.907	1.26	1.24	1104.0	YES	NO	bd	bb	51.608
30	123678-HxCDD	36.14	2.694e5	2.159e5	1.001	1.25	1.24	1260.5	YES	NO	db	db	50.174
31	123478-HxCDD	36.02	2.316e5	1.815e5	0.996	1.28	1.24	1214.5	YES	NO	bd	bd	50.799
32	1234679-HPCDD	39.23	2.082e5	2.022e5	1.137	1.03	1.05	1099.8	YES	NO	bb	bb	49.010
33	1234678-HpCDD	40.27	1.962e5	1.803e5	1.039	1.09	1.05	932.5	YES	NO	bd	bb	49.199
34	OCDD	45.00	2.234e5	2.618e5	0.920	0.85	0.89	1496.5	YES	NO	bb	bb	99.422

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.14	2.253e6					8.0	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.08	3.977e4					2.3	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	41.32	4.162e3					0.8	NO		bb		
2	FUNCTION4 PFK	40.68	1.340e4					1.2	NO		bb		
3	FUNCTION4 PFK	40.50	1.024e4					1.3	NO		bb		
4	FUNCTION4 PFK	40.07	1.056e4					1.2	NO		bb		
5	FUNCTION4 PFK	39.50	1.007e4					1.4	NO		bb		
6	FUNCTION4 PFK	42.14	1.085e4					1.0	NO		bb		
7	FUNCTION4 PFK	42.10	6.400e3					1.1	NO		bb		
8	FUNCTION4 PFK	41.87	1.885e3					0.6	NO		bb		
9	FUNCTION4 PFK	41.61	5.389e3					0.9	NO		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.23	1.323e3					0.7	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.55	1.589e2					2.0	NO		db		0.000
2	FUNCTION1 HXCD...	26.42	1.755e2					3.2	YES		bd		0.000
3	FUNCTION1 HXCD...	25.59	9.854e1					1.9	NO		bb		0.000
4	FUNCTION1 HXCD...	23.87	7.096e1					1.9	NO		bb		0.000
5	FUNCTION1 HXCD...	23.56	8.003e1					2.4	NO		bb		0.000
6	FUNCTION1 HXCD...	22.40	7.940e1					1.8	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	30.33	1.101e2					1.7	NO		bb		0.000
2	FUNCTION2 HPCD...	28.89	7.875e1					1.7	NO		bb		0.000
3	FUNCTION2 HPCD...	31.17	3.263e2					4.7	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.51	1.586e2					5.0	YES		bb		0.000
2	FUNCTION3 OCDPE	36.13	1.909e2					4.9	YES		db		0.000
3	FUNCTION3 OCDPE	35.99	1.751e2					5.1	YES		bd		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.06	1.247e2					2.2	NO		db		0.000
2	FUNCTION4 NCDPE	40.94	7.187e1					1.7	NO		bd		0.000
3	FUNCTION4 NCDPE	40.37	7.003e1					1.7	NO		db		0.000
4	FUNCTION4 NCDPE	40.26	2.223e2					3.8	YES		bd		0.000

ETHERS6

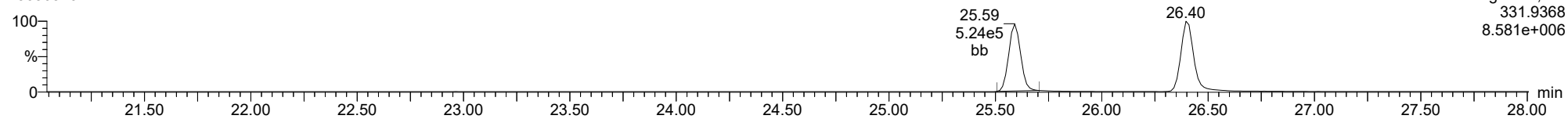
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: ICVCW, **Name:** 23030310, **Date:** 03-Mar-2023, **Time:** 16:36:24, **Conditions:** AUTOSPEC01, **User:** pk

13C-1234-TCDD

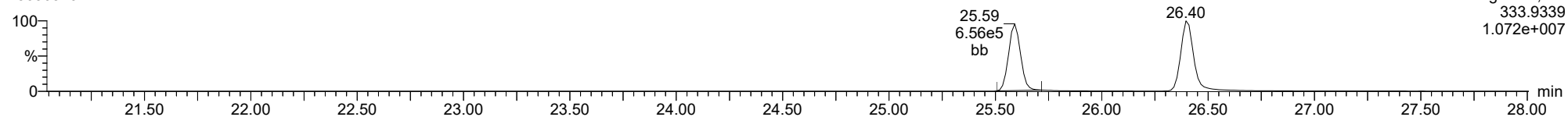
23030310



F1:Voltage SIR,El+
331.9368
8.581e+006

13C-1234-TCDD

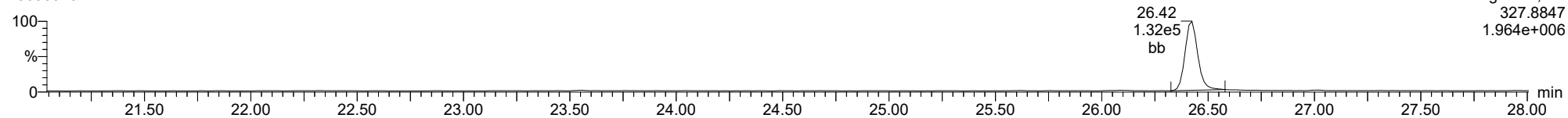
23030310



F1:Voltage SIR,El+
333.9339
1.072e+007

37CL-2378-TCDD

23030310

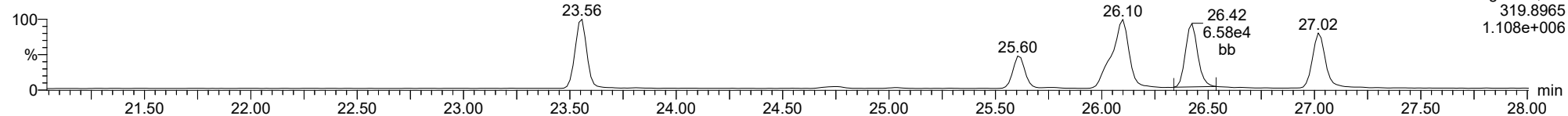


F1:Voltage SIR,El+
327.8847
1.964e+006

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

2378-TCDD

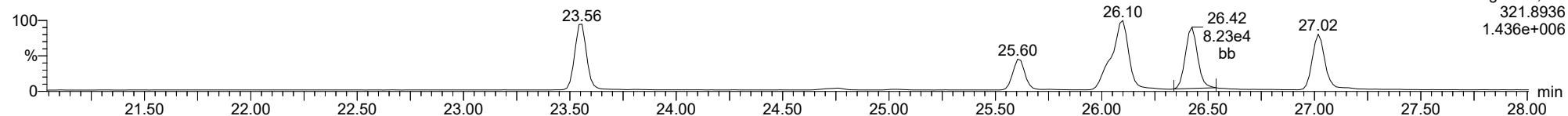
23030310



F1:Voltage SIR,EI+
319.8965
1.108e+006

2378-TCDD

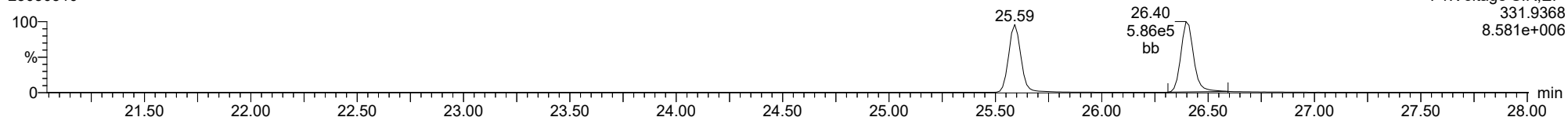
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F1:Voltage SIR,EI+
321.8936
1.436e+006

13C-2378-TCDD

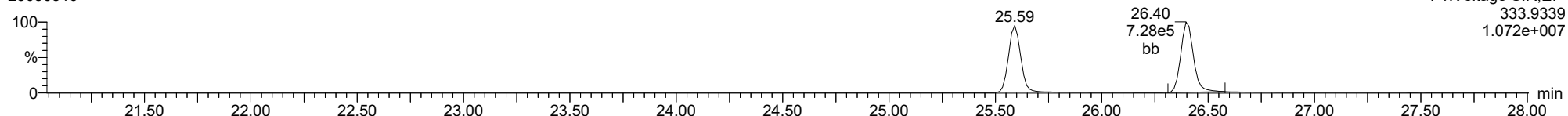
23030310



F1:Voltage SIR,EI+
331.9368
8.581e+006

13C-2378-TCDD

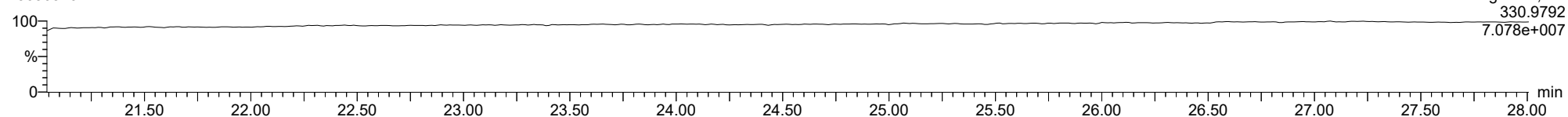
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F1:Voltage SIR,EI+
333.9339
1.072e+007

FUNCTION1 PFK

23030310

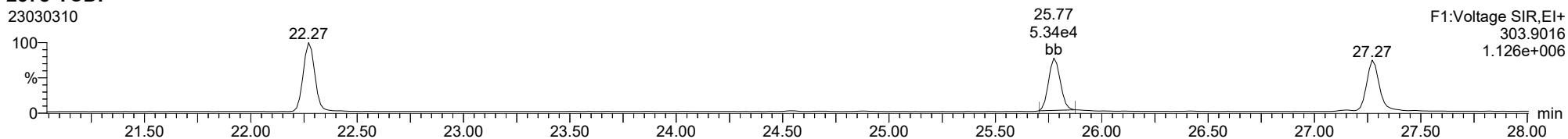


F1:Voltage SIR,EI+
330.9792
7.078e+007

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

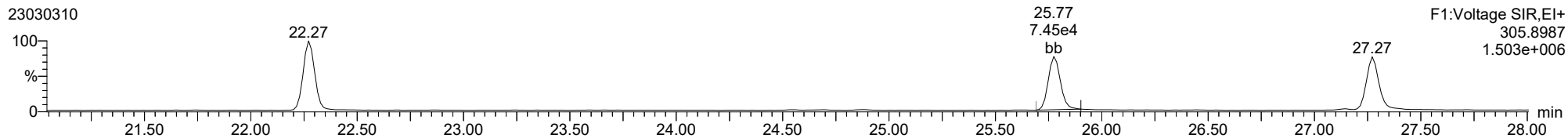
2378-TCDF

23030310



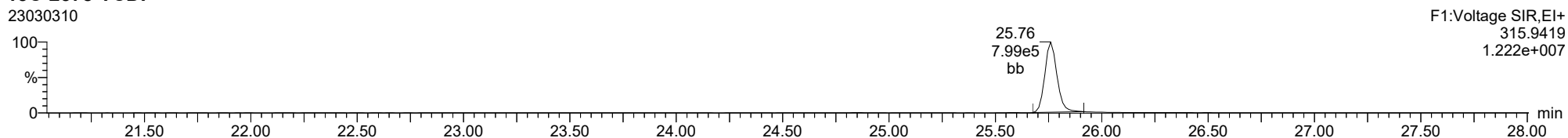
2378-TCDF

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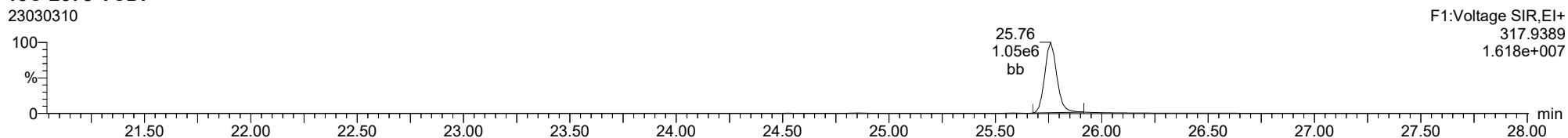
13C-2378-TCDF

23030310



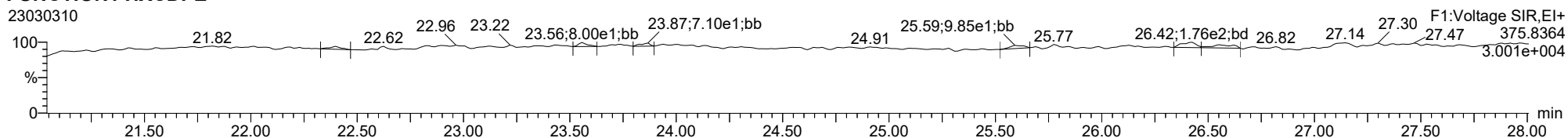
13C-2378-TCDF

23030310



FUNCTION1 HXCDPE

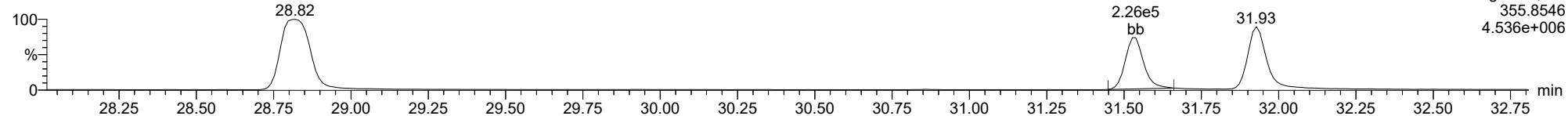
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

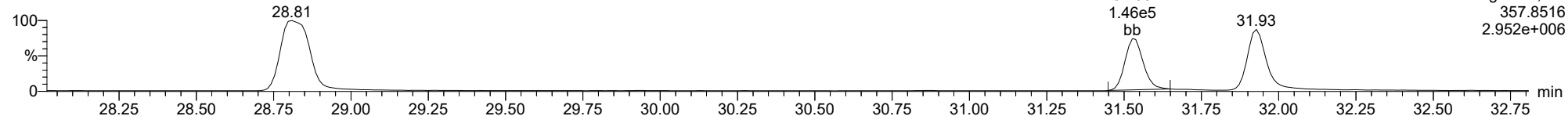
12378-PeCDD

23030310



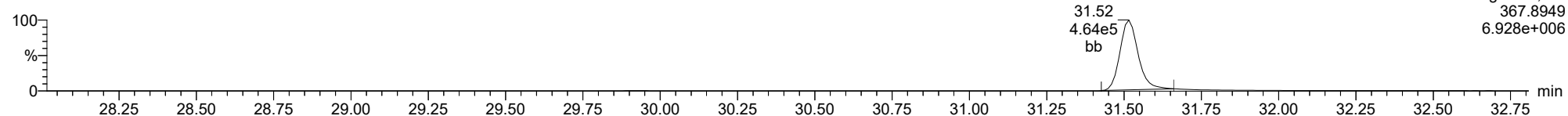
12378-PeCDD

23030310



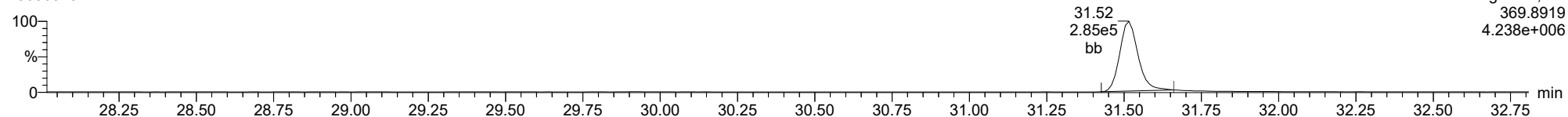
13C-12378-PeCDD

23030310



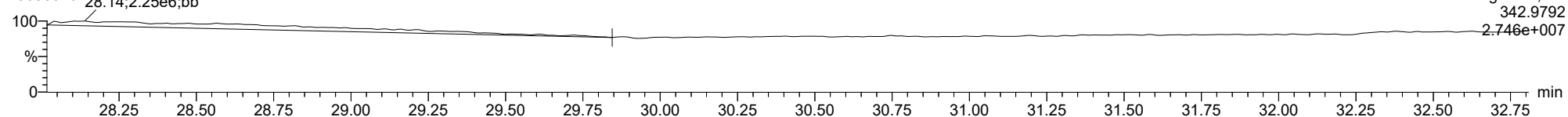
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23030310



FUNCTION2 PFK

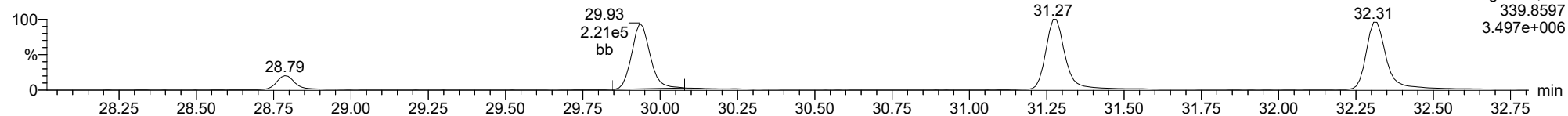
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

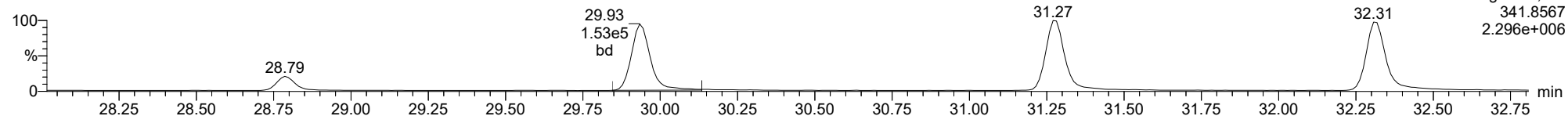
12378-PeCDF

23030310



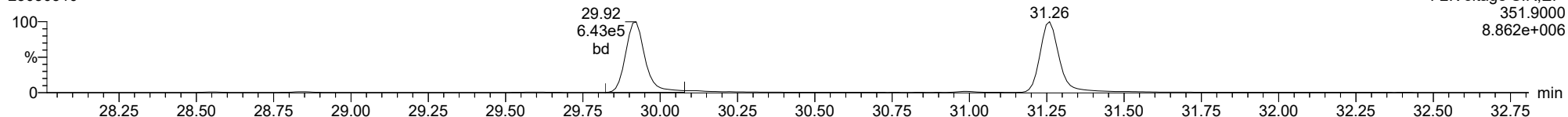
12378-PeCDF

23030310



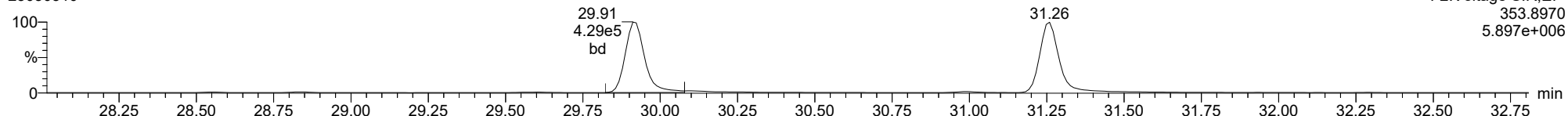
13C-12378-PeCDF

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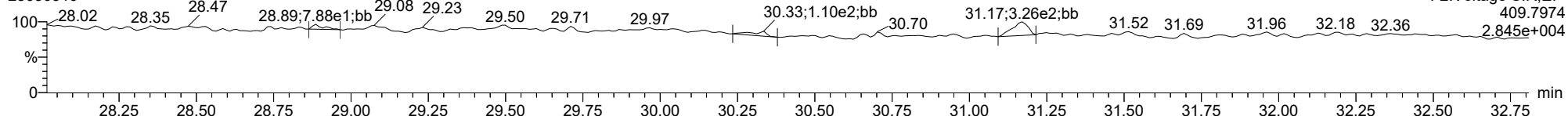
13C-12378-PeCDF

23030310



FUNCTION2 HPCDPE

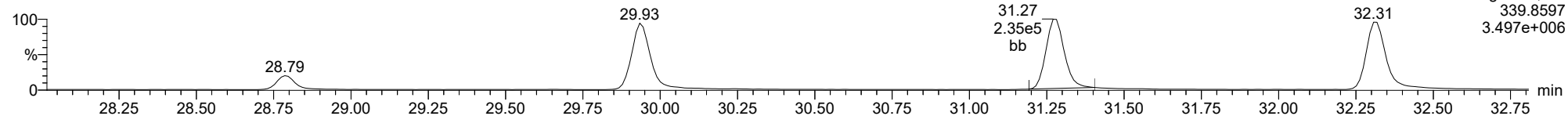
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

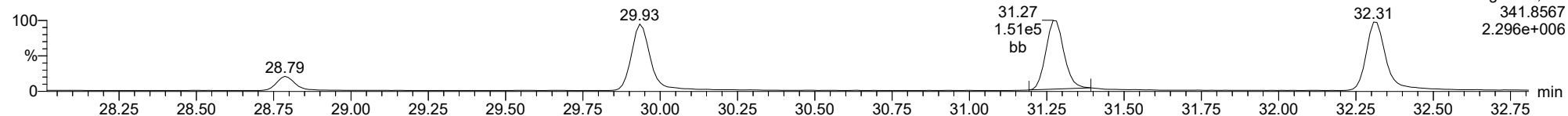
23478-PeCDF

23030310



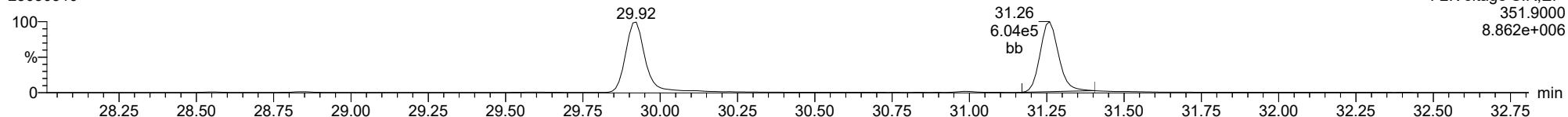
23478-PeCDF

23030310



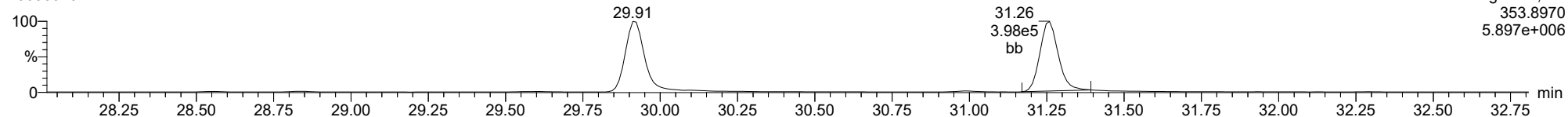
13C-23478-PeCDF

23030310



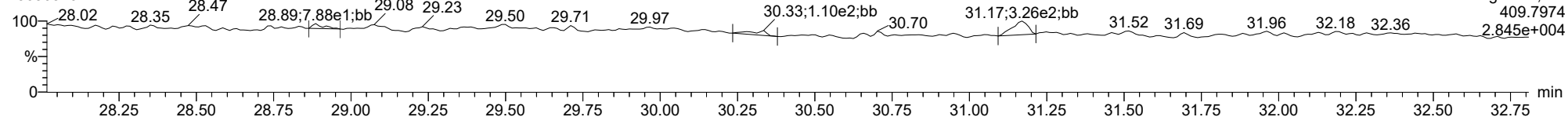
13C-23478-PeCDF

23030310



FUNCTION2 HPCDPE

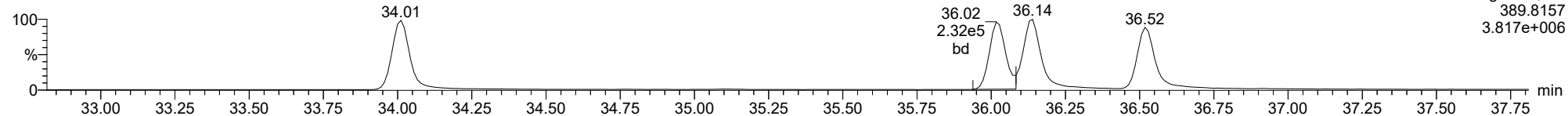
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

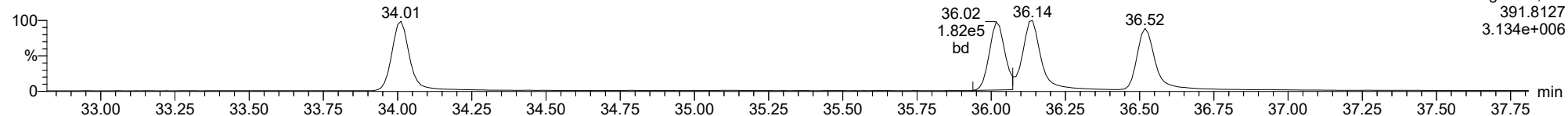
123478-HxCDD

23030310



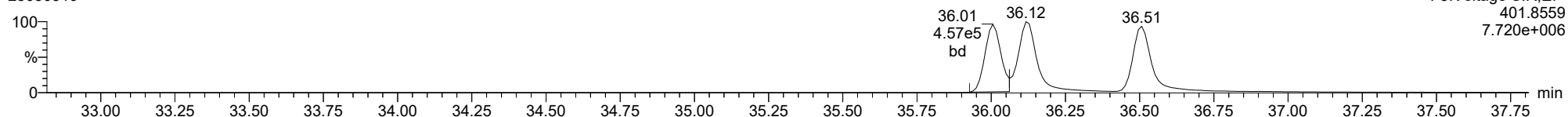
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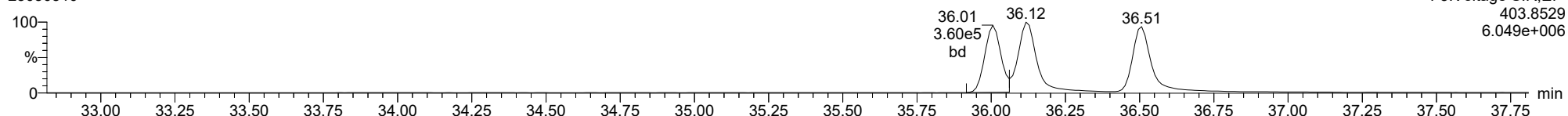
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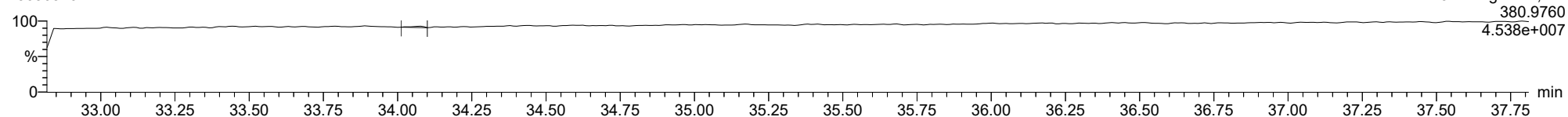
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FUNCTION3 PFK

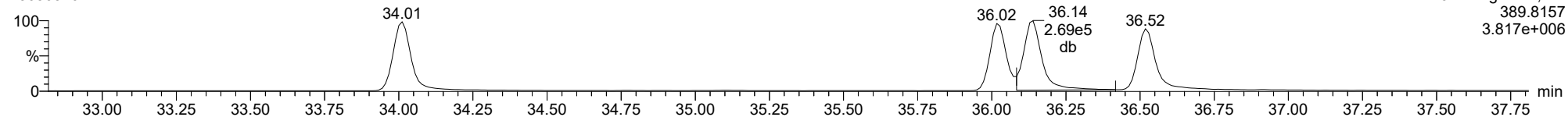
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

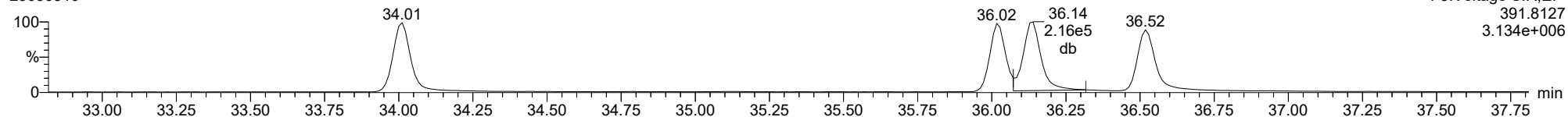
123678-HxCDD

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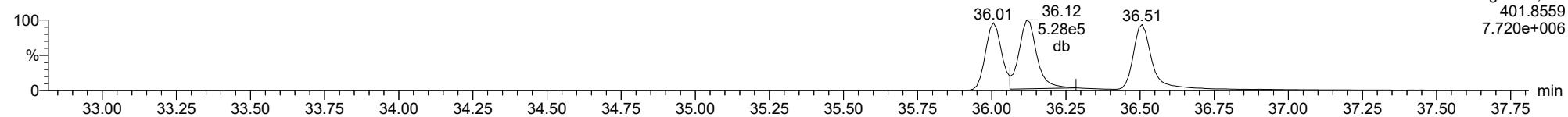
123678-HxCDD

23030310



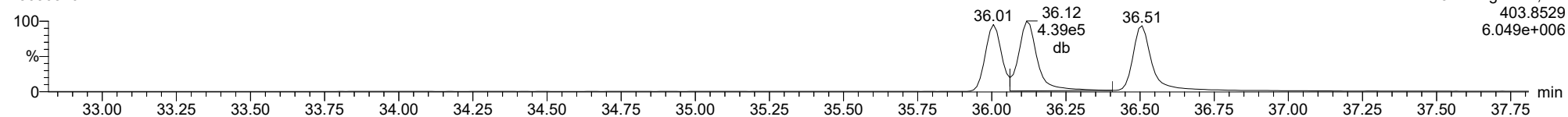
13C-123678-HxCDD

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13C-123678-HxCDD

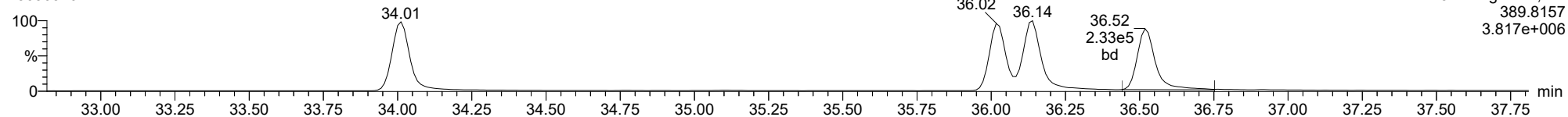
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

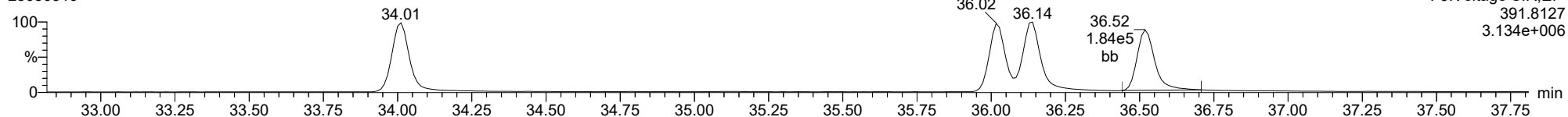
123789-HxCDD

23030310



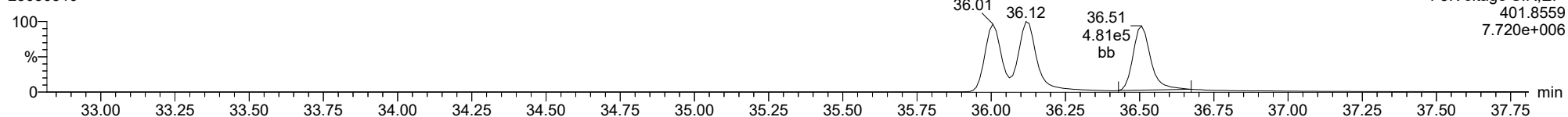
123789-HxCDD

23030310



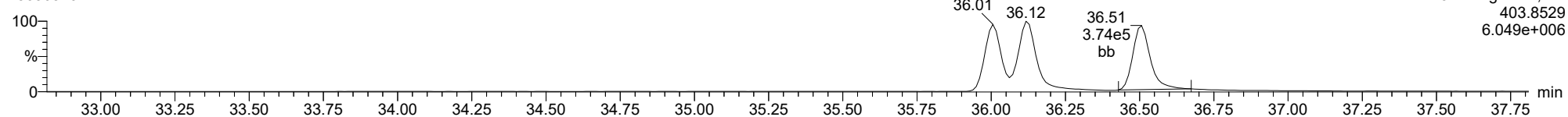
13C-123789-HxCDD

23030310



13C-123789-HxCDD

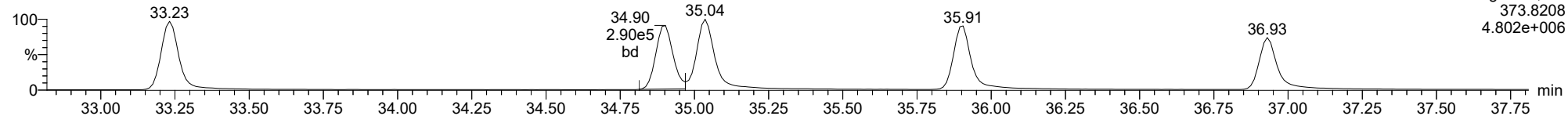
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

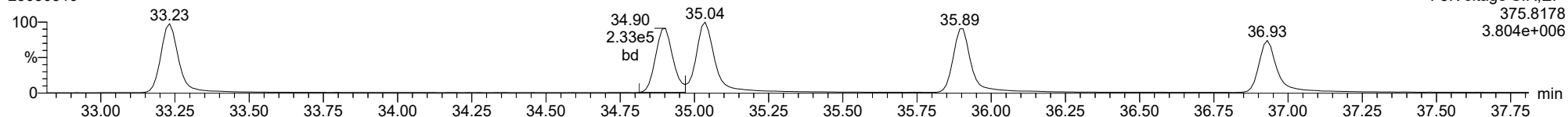
123478-HxCDF

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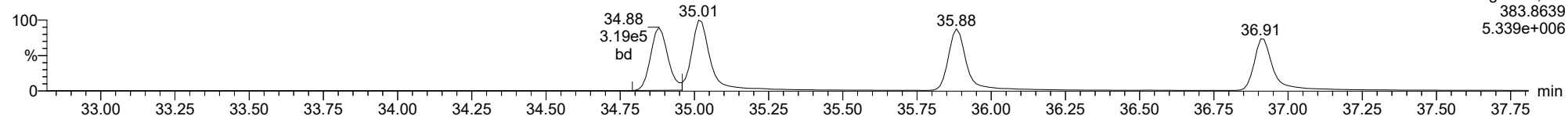
123478-HxCDF

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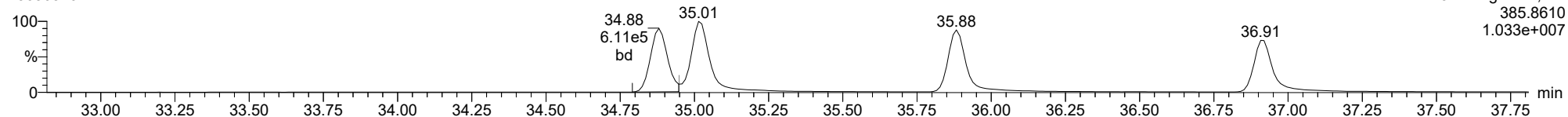
13C-123478-HxCDF

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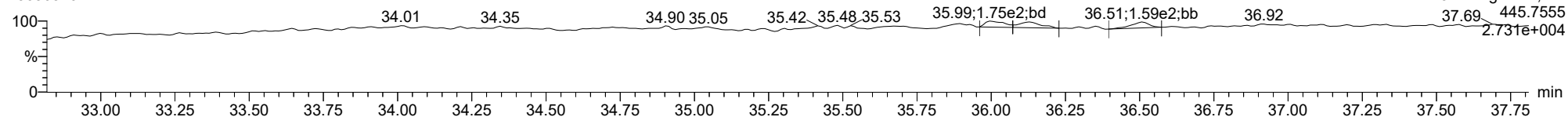
13C-123478-HxCDF

23030310



FUNCTION3 OCDPE

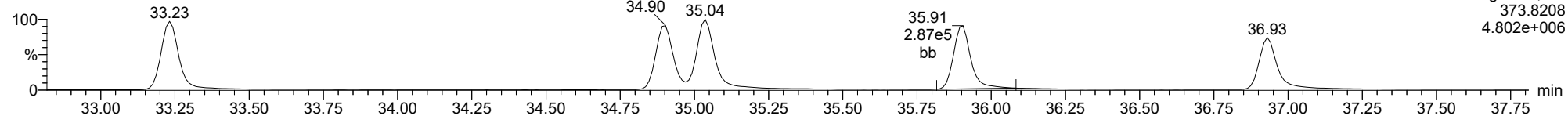
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

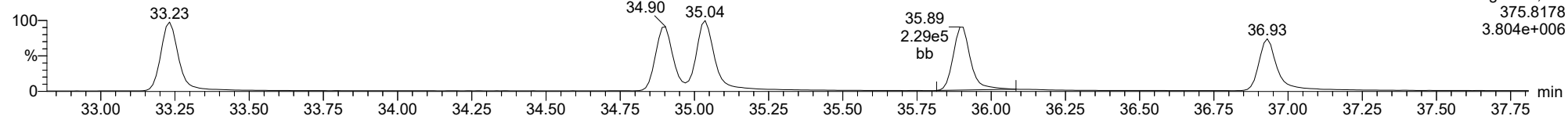
234678-HxCDF

23030310



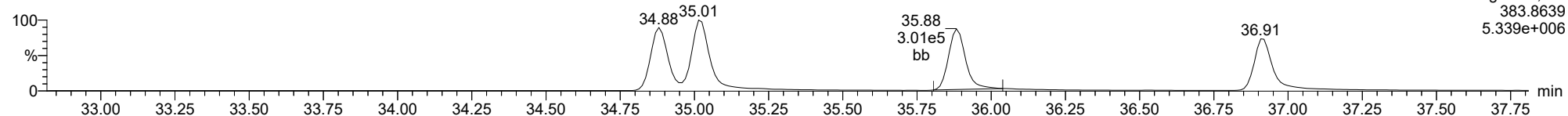
234678-HxCDF

23030310



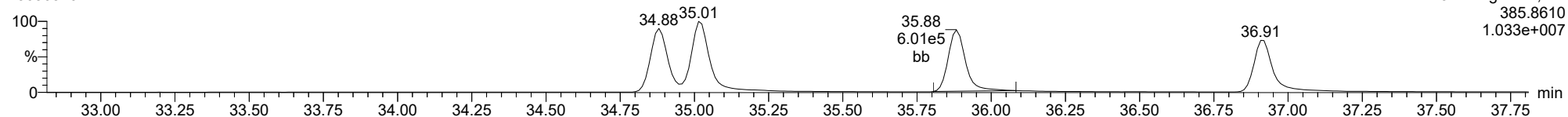
13C-234678-HxCDF

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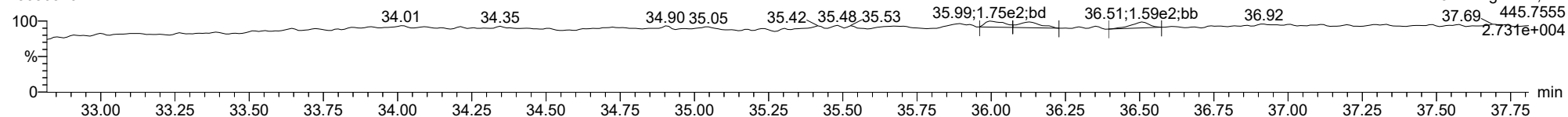
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FUNCTION3 OCDPE

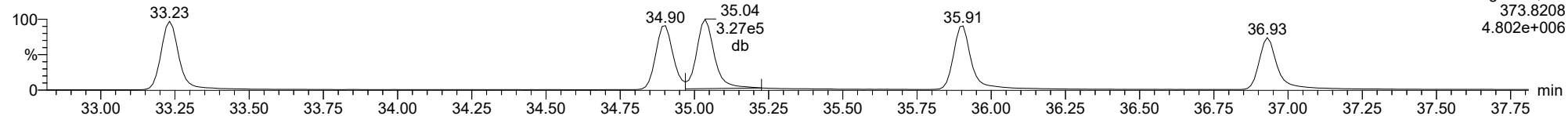
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

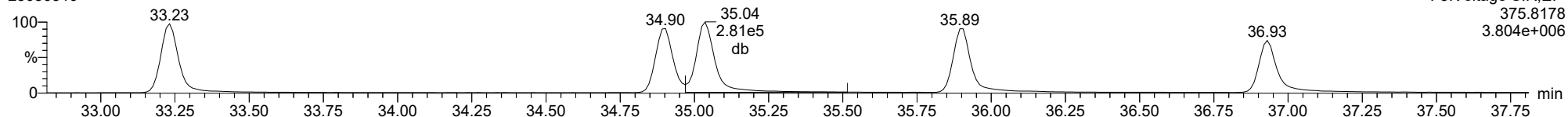
123678-HxCDF

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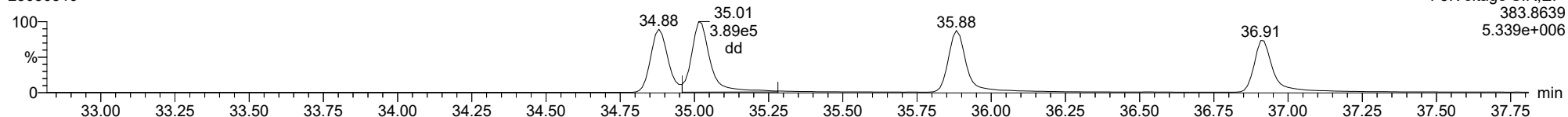
123678-HxCDF

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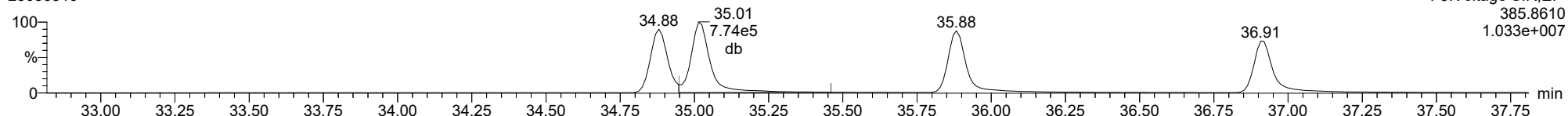
13C-123678-HxCDF

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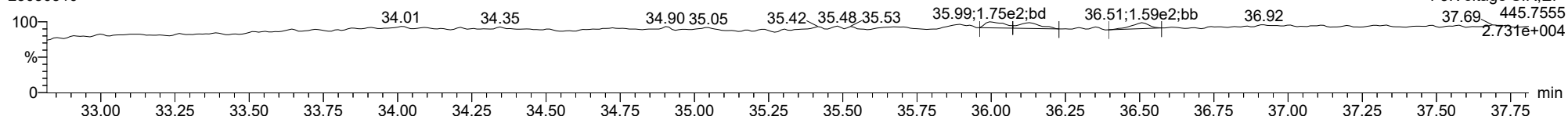
13C-123678-HxCDF

23030310



FUNCTION3 OCDPE

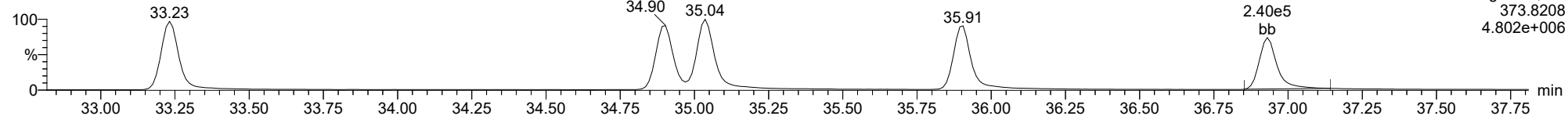
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

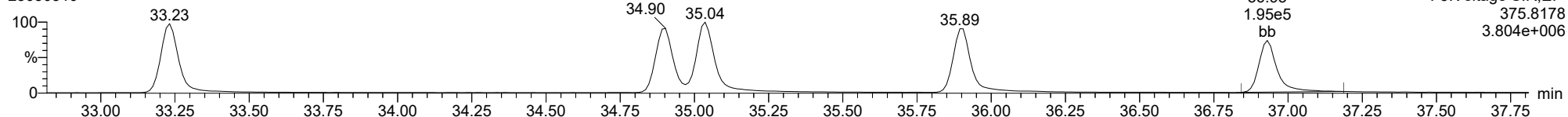
123789-HxCDF

23030310



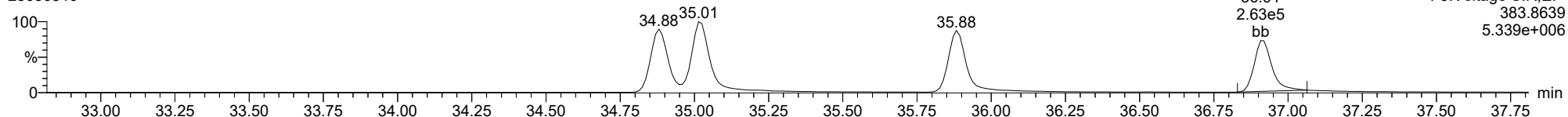
123789-HxCDF

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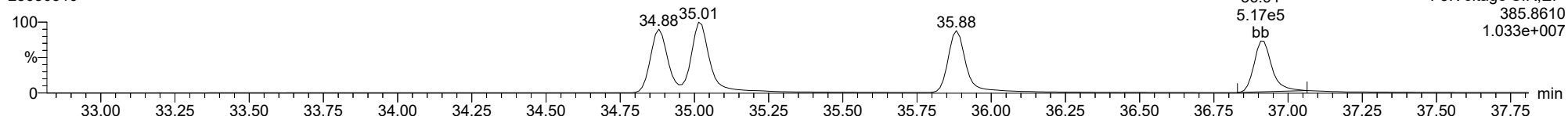
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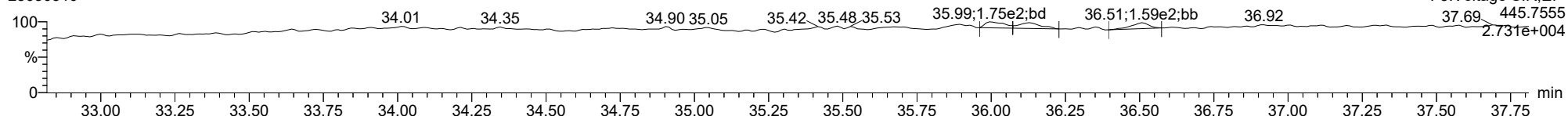
13C-123789-HxCDF

23030310



FUNCTION3 OCDPE

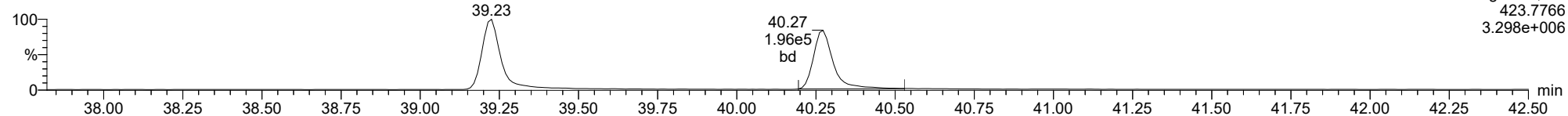
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

1234678-HpCDD

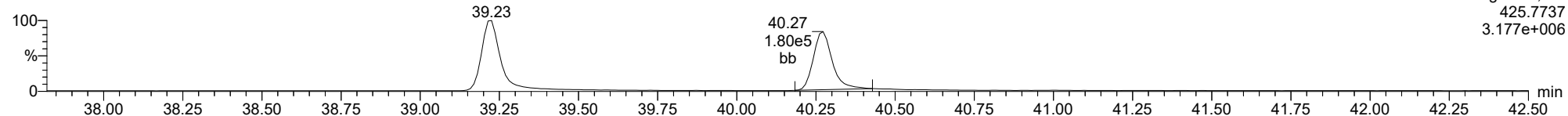
23030310



F4:Voltage SIR,EI+
423.7766
3.298e+006

1234678-HpCDD

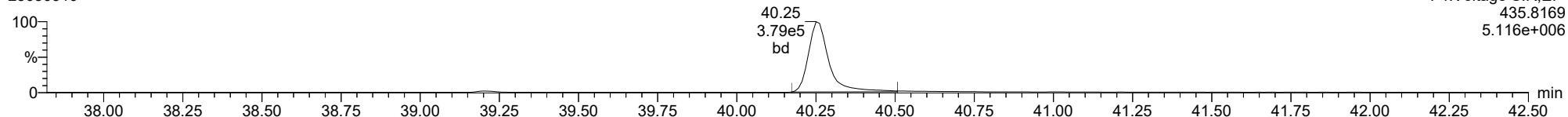
23030310



F4:Voltage SIR,EI+
425.7737
3.177e+006

13C-1234678-HpCDD

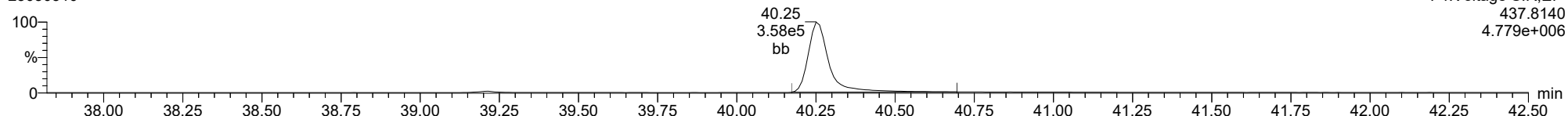
23030310



F4:Voltage SIR,EI+
435.8169
5.116e+006

13C-1234678-HpCDD

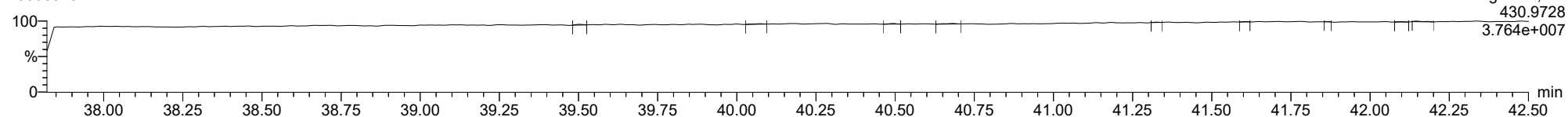
23030310



F4:Voltage SIR,EI+
437.8140
4.779e+006

FUNCTION4 PFK

23030310

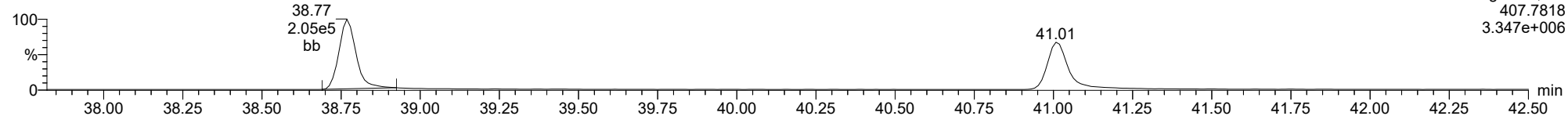


F4:Voltage SIR,EI+
430.9728
3.764e+007

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

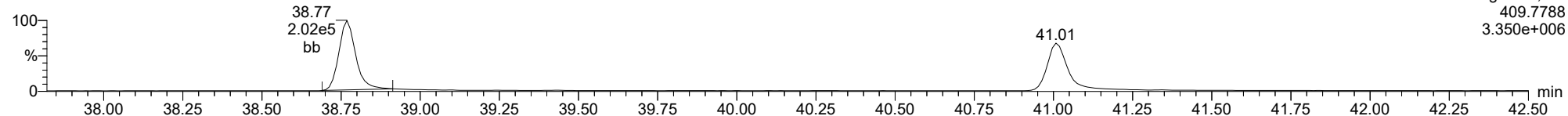
23030310



F4:Voltage SIR,EI+
407.7818
3.347e+006

1234678-HpCDF

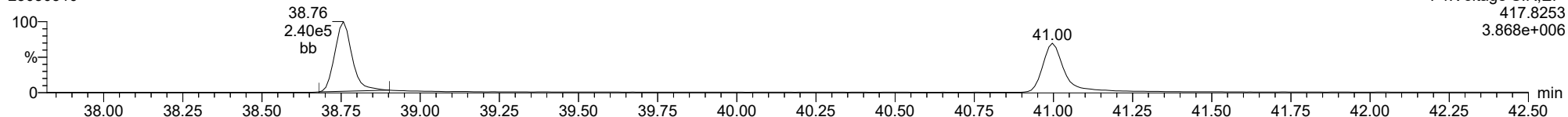
23030310



F4:Voltage SIR,EI+
409.7788
3.350e+006

13C-1234678-HpCDF

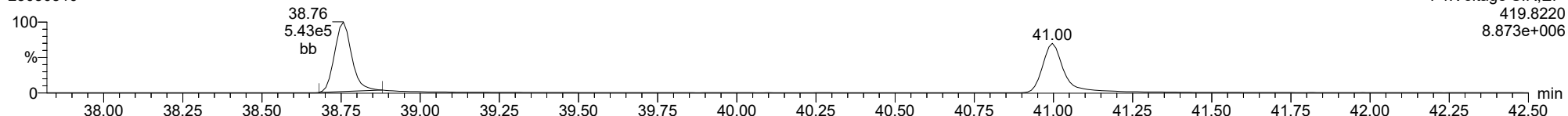
23030310



F4:Voltage SIR,EI+
417.8253
3.868e+006

13C-1234678-HpCDF

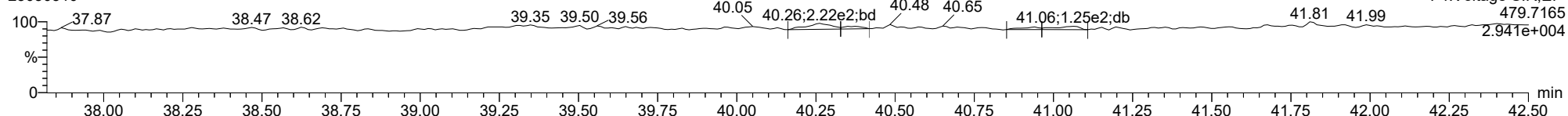
23030310



F4:Voltage SIR,EI+
419.8220
8.873e+006

FUNCTION4 NCDPE

23030310

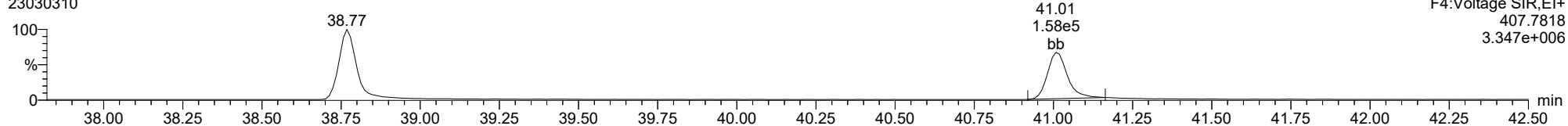


F4:Voltage SIR,EI+
479.7165
2.941e+004

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

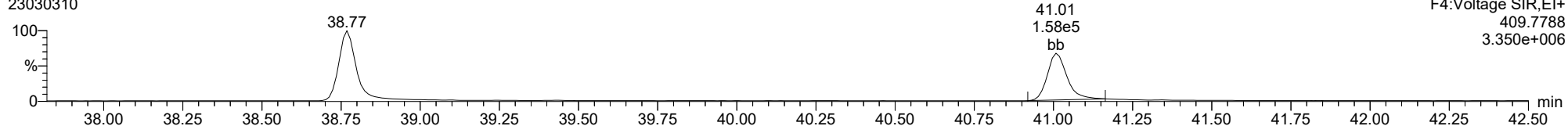
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F4:Voltage SIR,EI+
407.7818
3.347e+006

1234789-HpCDF

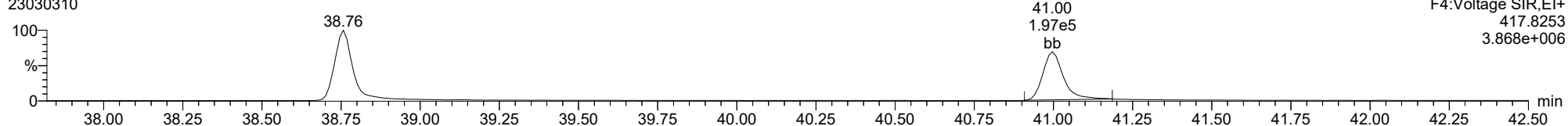
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F4:Voltage SIR,EI+
409.7788
3.350e+006

13C-1234789-HpCDF

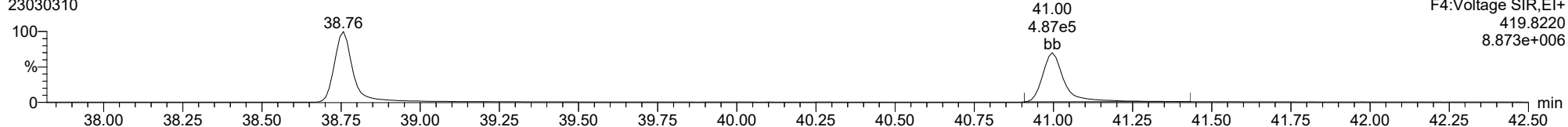
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F4:Voltage SIR,EI+
417.8253
3.868e+006

13C-1234789-HpCDF

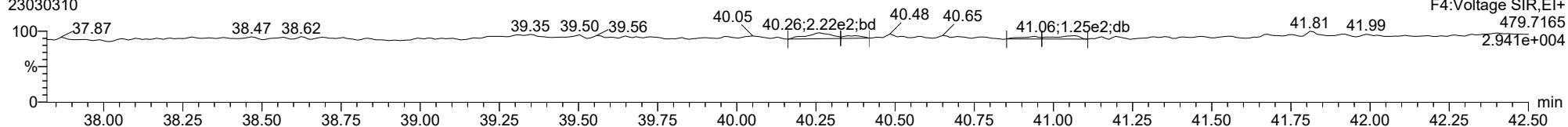
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F4:Voltage SIR,EI+
419.8220
8.873e+006

FUNCTION4 NCDPE

23030310

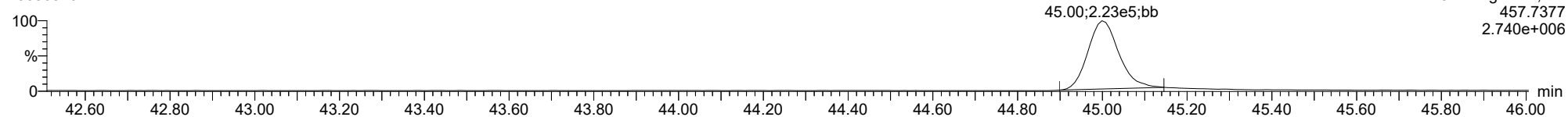


F4:Voltage SIR,EI+
479.7165
2.941e+004

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

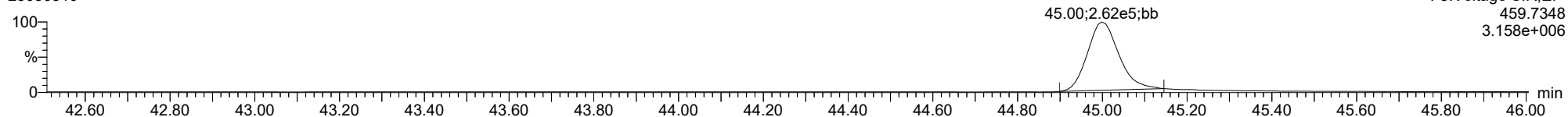
OCDD

23030310



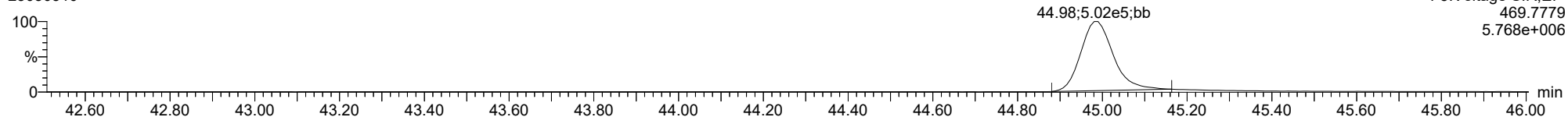
OCDD

23030310



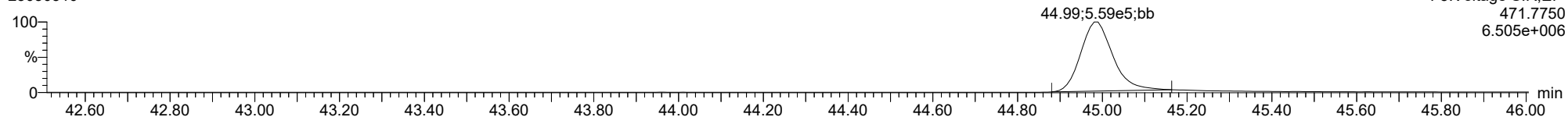
13C-OCDD

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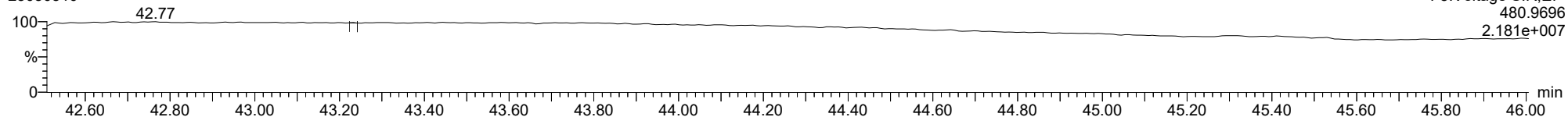
13C-OCDD

23030310



FUNCTION5 PFK

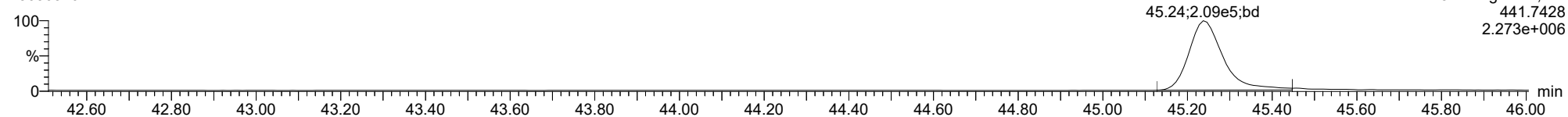
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

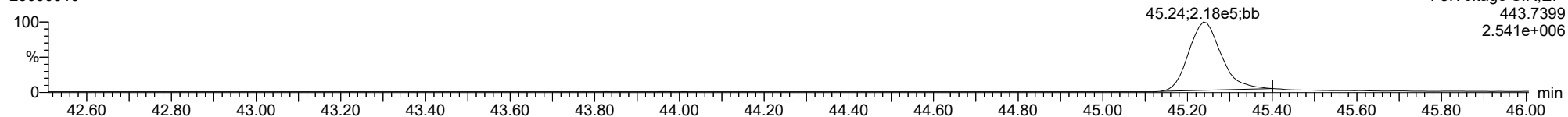
OCDF

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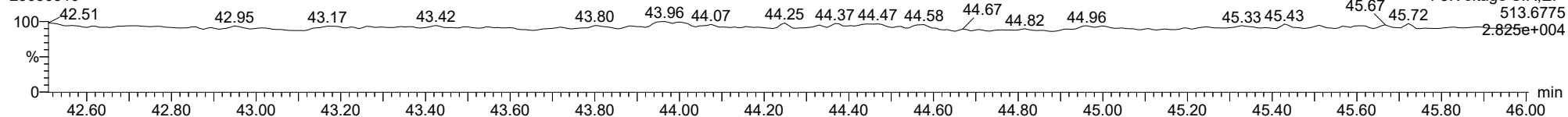
OCDF

23030310



FUNCTION5 DCDPE

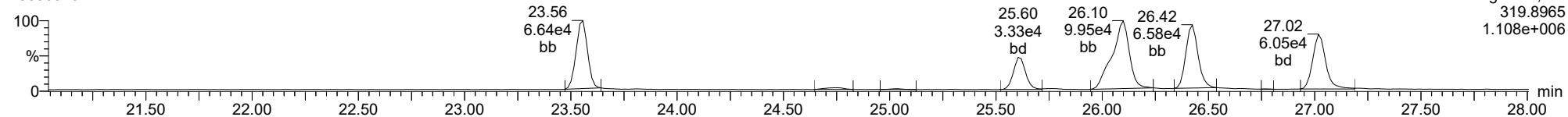
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

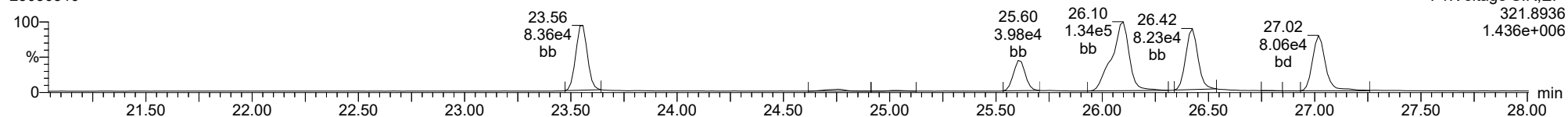
Total-tetradioxins

23030310



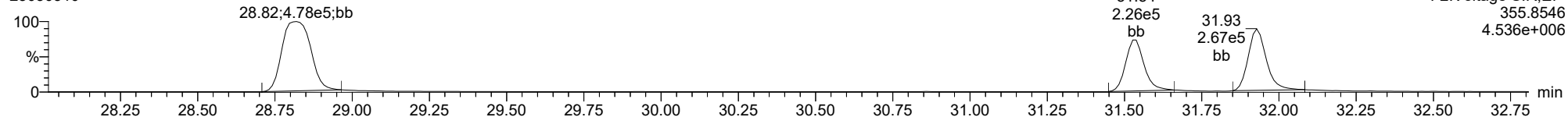
Total-tetradioxins

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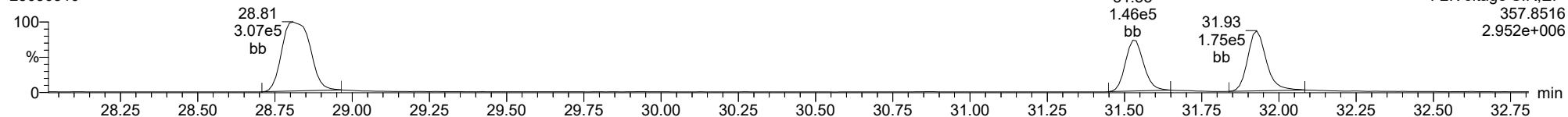
Total-pentadioxins

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Total-pentadioxins

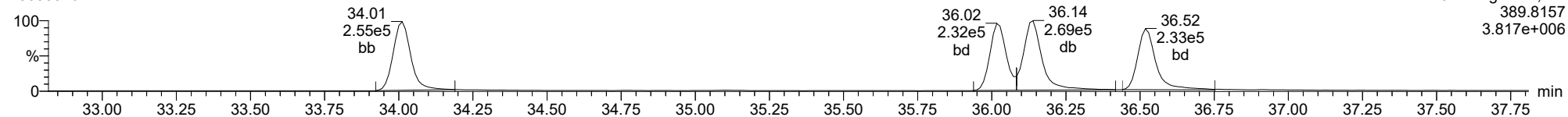
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

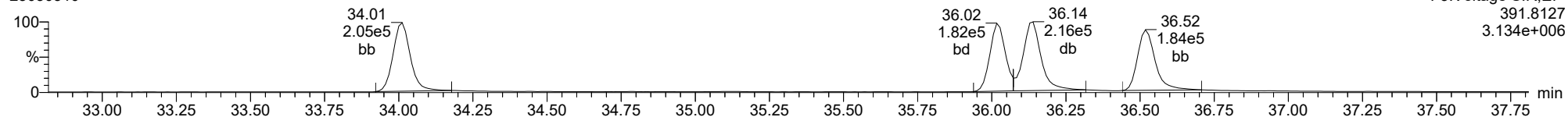
Total-hexadioxins

23030310



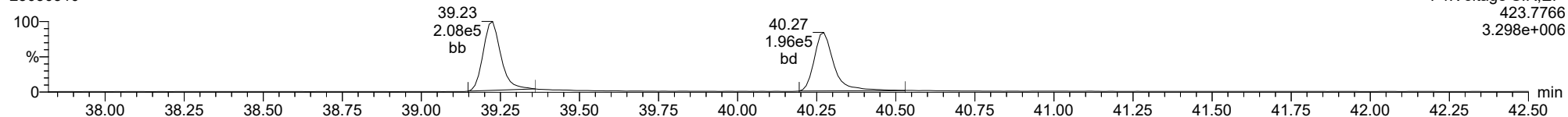
Total-hexadioxins

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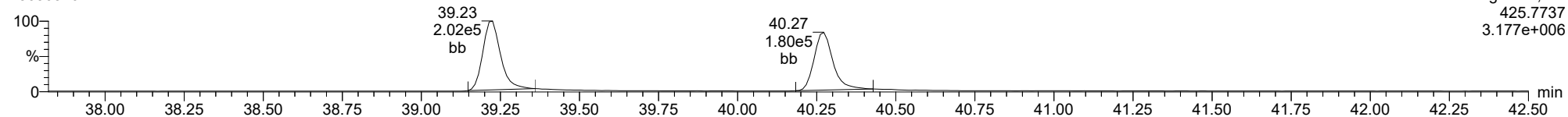
Total-heptadioxins

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Total-heptadioxins

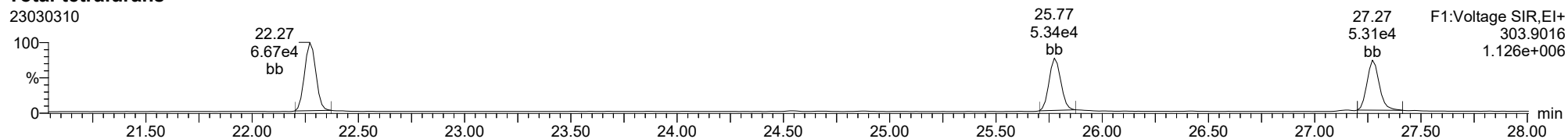
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

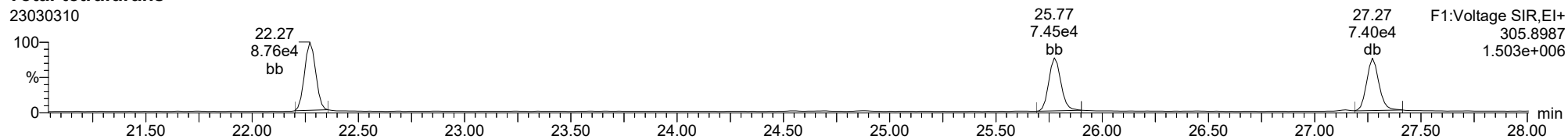
Total-tetrafurans

23030310



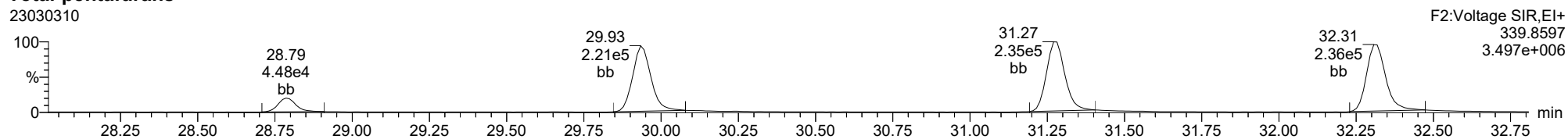
Total-tetrafurans

23030310



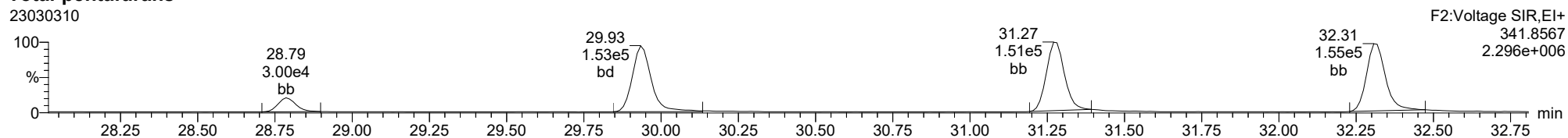
Total-pentafurans

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Total-pentafurans

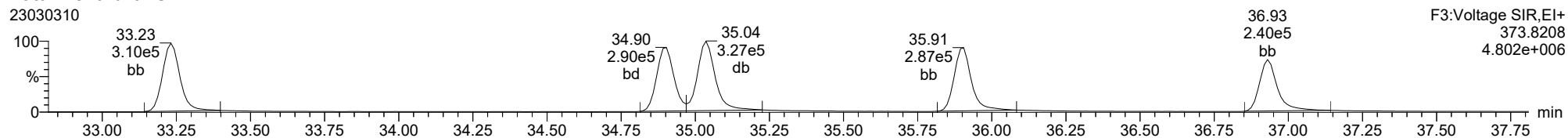
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ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

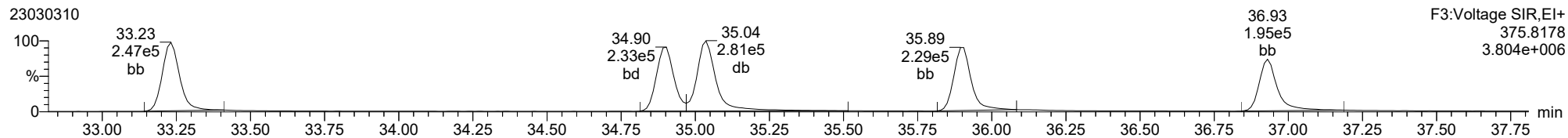
Total-hexafurans

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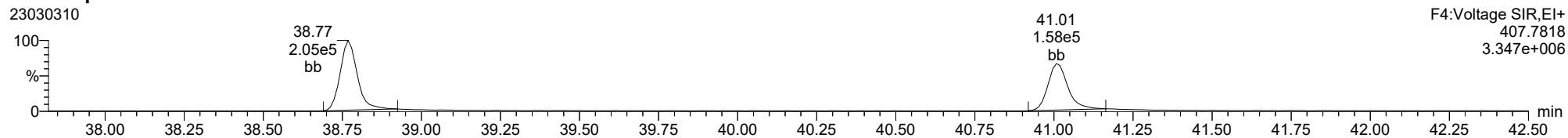
Total-hexafurans

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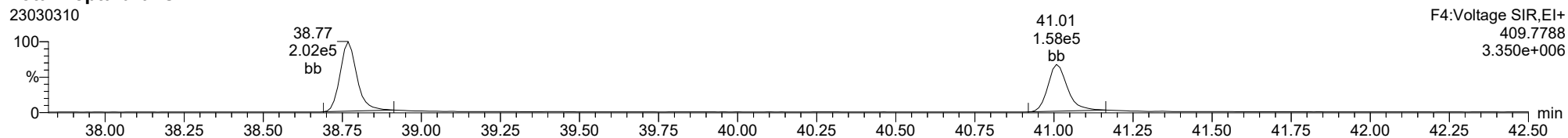
Total-heptafurans

23030310



Total-heptafurans

23030310



Dataset: T:\Autospec\Processed Data Batch\230303IHCIV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
 Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.774	1.000	4.131e4	5.488e4	0.702	0.753	0.770	1493	2220	6.02e5	8.13e5	403.0	366.2	NO	bb	bb	10.126
12378-PeCDF	29.934	1.000	2.094e5	1.387e5	0.679	1.510	1.550	3237	2768	3.10e6	2.08e6	956.2	750.8	NO	bb	bb	47.721
23478-PeCDF	31.282	1.001	2.189e5	1.466e5	0.786	1.493	1.550	3237	2768	3.25e6	2.13e6	1004.6	769.0	NO	bb	bb	48.580
123478-HxCDF	34.903	1.001	2.702e5	2.168e5	1.166	1.247	1.240	2948	2161	4.14e6	3.34e6	1404.3	1544.7	NO	bd	bd	47.304
234678-HxCDF	35.905	1.001	2.808e5	2.345e5	1.140	1.198	1.240	2948	2161	4.05e6	3.23e6	1375.6	1495.3	NO	bb	bd	52.050
123678-HxCDF	35.036	1.000	3.125e5	2.496e5	1.091	1.252	1.240	2948	2161	4.44e6	3.55e6	1506.3	1641.4	NO	db	db	51.387
123789-HxCDF	36.931	1.000	2.304e5	1.857e5	1.137	1.240	1.240	2948	2161	3.37e6	2.68e6	1143.7	1240.6	NO	bb	bb	48.904
1234678-HpCDF	38.769	1.000	1.725e5	1.737e5	1.003	0.993	1.050	2044	2260	2.71e6	2.74e6	1326.3	1210.9	NO	bb	bb	47.690
1234789-HpCDF	41.008	1.000	1.395e5	1.236e5	0.953	1.128	1.050	2044	2260	1.71e6	1.64e6	836.3	725.6	NO	bd	bb	53.601
OCDF	45.237	1.005	1.863e5	1.970e5	0.778	0.946	0.890	1162	1746	2.03e6	2.27e6	1745.6	1302.8	NO	bd	bb	95.021
2378-TCDD	26.424	1.001	4.111e4	5.488e4	1.149	0.749	0.770	1210	797	6.31e5	8.06e5	521.2	1010.5	NO	bb	bb	9.017
12378-PeCDD	31.538	1.001	2.212e5	1.442e5	1.022	1.534	1.550	2794	1649	3.14e6	2.05e6	1124.1	1244.9	NO	bb	bb	50.849
123478-HxCDD	36.017	1.000	2.147e5	1.744e5	0.996	1.231	1.240	3133	1871	3.31e6	2.68e6	1055.8	1434.4	NO	bd	bd	50.696
123678-HxCDD	36.139	1.001	2.532e5	2.091e5	1.001	1.211	1.240	3133	1871	3.49e6	2.85e6	1112.6	1520.4	NO	db	db	51.126
123789-HxCDD	36.518	1.011	2.114e5	1.814e5	0.907	1.166	1.240	3133	1871	3.08e6	2.54e6	982.1	1355.5	NO	bb	bd	51.723
1234678-HpCDD	40.273	1.000	1.700e5	1.663e5	1.039	1.022	1.050	1948	2105	2.22e6	2.15e6	1138.4	1022.1	NO	bd	bd	52.721
OCDD	45.000	1.000	2.152e5	2.483e5	0.920	0.867	0.890	885	1554	2.46e6	2.84e6	2785.0	1828.9	NO	bb	bb	97.150
13C-2378-TCDF	25.760	1.007	5.853e5	7.688e5	1.620	0.761	0.770	1921	2018	8.54e6	1.13e7	4445.5	5599.2	NO	bb	bb	89.420
13C-12378-PeCDF	29.923	1.169	6.466e5	4.272e5	1.240	1.513	1.550	2442	3390	8.85e6	5.90e6	3622.7	1739.1	NO	bb	bd	92.612
13C-23478-PeCDF	31.259	1.222	5.702e5	3.869e5	1.118	1.474	1.550	2442	3390	8.42e6	5.62e6	3447.3	1659.1	NO	bb	bb	91.616
13C-123478-HxCDF	34.881	0.955	2.992e5	5.837e5	1.168	0.513	0.510	2430	2952	4.46e6	8.67e6	1835.4	2935.2	NO	bd	bd	95.179
13C-123678-HxCDF	35.025	0.959	3.347e5	6.682e5	1.386	0.501	0.510	2430	2952	4.76e6	9.19e6	1958.9	3111.9	NO	db	db	91.102
13C-234678-HxCDF	35.883	0.983	2.956e5	5.730e5	1.129	0.516	0.510	2430	2952	4.27e6	8.35e6	1756.5	2829.2	NO	bb	bb	96.885
13C-123789-HxCDF	36.919	1.011	2.519e5	4.965e5	0.932	0.507	0.510	2430	2952	3.69e6	7.15e6	1518.9	2421.6	NO	bb	bb	101.167
13C-1234678-HpCDF	38.758	1.062	2.307e5	4.931e5	0.895	0.468	0.440	2487	3339	3.35e6	7.56e6	1347.2	2263.7	NO	bd	bb	101.839
13C-1234789-HpCDF	40.997	1.123	1.602e5	3.548e5	0.770	0.452	0.440	2487	3339	2.05e6	4.72e6	823.7	1413.6	NO	bb	bb	84.268
13C-1234-TCDD	25.591	0.000	4.152e5	5.195e5	1.000	0.799	0.770	2224	1360	6.53e6	8.14e6	2938.6	5984.1	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.031	4.083e5	5.184e5	1.152	0.788	0.770	2224	1360	5.76e6	7.36e6	2588.5	5411.0	NO	bb	bb	86.032
13C-12378-PeCDD	31.516	1.232	4.323e5	2.709e5	0.829	1.595	1.550	1217	913	6.32e6	3.99e6	5187.9	4362.9	NO	bb	bb	90.774
13C-123478-HxCDD	36.006	0.986	4.338e5	3.372e5	0.995	1.286	1.240	3851	1371	6.85e6	5.33e6	1778.6	3884.7	NO	bd	bd	97.589
13C-123678-HxCDD	36.117	0.989	5.114e5	3.919e5	1.157	1.305	1.240	3851	1371	7.20e6	5.65e6	1870.4	4120.3	NO	db	db	98.370
13C-1234678-HpCDD	40.262	1.103	3.166e5	2.972e5	0.840	1.065	1.050	1699	1520	4.20e6	3.95e6	2473.2	2598.3	NO	bb	bb	92.030
13C-OCDD	44.990	1.232	5.160e5	5.214e5	0.767	0.990	0.890	2001	1870	5.29e6	5.84e6	2645.0	3123.1	NO	bd	bb	170.247
13C-123789-HxCDD	36.507	0.000	4.452e5	3.487e5	1.000	1.277	1.240	3851	1371	6.49e6	5.07e6	1686.5	3694.9	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.033	9.071e4		1.288			1721		1.34e6		776.4			bb		7.536

Dataset: T:\Autospec\Processed Data Batch\230303\HICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.271	0.865	5.764e4	7.805e4	0.802	0.738	0.770	1493	2220	9.22e5	1.25e6	617.6	564.2	NO	bb	bb	12.503
1289-TCDF	27.272	1.059	3.446e4	4.665e4	0.678	0.739	0.770	1493	2220	5.07e5	6.62e5	339.5	298.3	NO	bb	db	8.835
13468-PECDF	27.130	0.907	3.611e5	2.330e5	1.246	1.550	1.550	743	1090	5.44e6	3.55e6	7323.2	3255.0	NO	bb	bb	44.390
12389-PECDF	32.318	1.080	2.101e5	1.516e5	0.496	1.387	1.550	3237	2768	2.95e6	1.97e6	910.6	713.0	NO	bb	bd	67.866
123468-HXCDF	33.231	0.953	2.880e5	2.384e5	1.169	1.208	1.240	2948	2161	4.12e6	3.25e6	1397.4	1503.0	NO	bb	bb	51.002
1368-TCDD	23.557	0.892	5.668e4	7.180e4	1.015	0.789	0.770	1210	797	9.15e5	1.16e6	755.8	1460.4	NO	bb	bb	13.654
1289-TCDD	27.017	1.023	3.648e4	4.783e4	0.909	0.763	0.770	1210	797	5.40e5	6.90e5	445.8	865.4	NO	bb	bb	10.012
12479-PECDD	28.819	0.914	3.593e5	2.367e5	2.301	1.518	1.550	2794	1649	3.42e6	2.21e6	1224.5	1341.7	NO	bb	bb	36.832
12389-PECDD	31.928	1.013	2.423e5	1.700e5	1.184	1.426	1.550	2794	1649	3.48e6	2.31e6	1246.0	1399.4	NO	bb	bd	49.543
124679-HXCDD	34.011	0.945	2.330e5	1.909e5	1.115	1.220	1.240	3133	1871	3.38e6	2.76e6	1078.1	1473.6	NO	bb	bb	49.292
1234679-HPCDD	39.225	0.974	2.020e5	1.832e5	1.137	1.103	1.050	1948	2105	2.83e6	2.72e6	1451.0	1293.3	NO	bd	bb	55.196
Total-tetrafurans			1.346e5		0.727			1493		2.05e6							31.724
Total-penta1			3.611e5					743		5.44e6							44.390
Total-pentafurans			6.730e5		0.654			3237		9.80e6							172.856
Total-hexafurans			1.382e6		1.141			2948		2.01e7							250.647
Total-heptafurans			3.120e5		0.978			2044		4.42e6							101.291
Total-Furans			3.049e6		0.922			1493		4.39e7							695.930
Total-tetradoxins			2.249e5		1.024			1210		3.13e6							54.516
Total-pentadoxins			8.229e5		1.502			2794		1.00e7							137.223
Total-hexadoxins			9.123e5		1.005			3133		1.32e7							202.837
Total-heptadoxins			3.720e5		1.088			1948		5.04e6							107.918
Total-Dioxins			2.547e6		1.130			1210		3.39e7							599.643
Total-TEQ			5.596e6					1210		7.78e7							1295.573
FUNCTION1 PFK			7.521e6					557945		8.00e6							
FUNCTION2 PFK			4.110e5					226700		1.13e7							0.000
FUNCTION3 PFK			8.443e6					414812		2.82e6							0.000
FUNCTION4 PFK			2.598e7					304689		2.22e7							
FUNCTION5 PFK			7.163e4					189891		2.74e6							
FUNCTION1 HXCD...			3.794e2					593		5.61e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			8.042e2					818		1.73e4							0.000
FUNCTION3 OCDPE			9.563e1					429		1.87e3							0.000
FUNCTION4 NCDPE			0.000e0					545		0.00e0							
FUNCTION5 DCDPE			0.000e0					542		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303IHCIV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	3.446e4	4.665e4	0.678	0.74	0.77	339.5	YES	NO	bb	db	8.835
2	2378-TCDF	25.77	4.131e4	5.488e4	0.702	0.75	0.77	403.0	YES	NO	bb	bb	10.126
3	Total-tetrafurans	24.86	6.389e2	7.978e2	0.727	0.80	0.77	6.2	YES	NO	bb	bb	0.146
4	Total-tetrafurans	24.55	5.238e2	5.981e2	0.727	0.88	0.77	6.0	YES	NO	bb	bb	0.114
5	1368-TCDF	22.27	5.764e4	7.805e4	0.802	0.74	0.77	617.6	YES	NO	bb	bb	12.503

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.13	3.611e5	2.330e5	1.246	1.55	1.55	7323.2	YES	NO	bb	bb	44.390

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.32	2.101e5	1.516e5	0.496	1.39	1.55	910.6	YES	NO	bb	bd	67.866
2	23478-PeCDF	31.28	2.189e5	1.466e5	0.786	1.49	1.55	1004.6	YES	NO	bb	bb	48.580
3	12378-PeCDF	29.93	2.094e5	1.387e5	0.679	1.51	1.55	956.2	YES	NO	bb	bb	47.721
4	Total-pentafurans	28.80	3.458e4	2.311e4	0.654	1.50	1.55	155.8	YES	NO	bb	bb	8.688

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	34.90	2.702e5	2.168e5	1.166	1.25	1.24	1404.3	YES	NO	bd	bd	47.304
2	123468-HxCDF	33.23	2.880e5	2.384e5	1.169	1.21	1.24	1397.4	YES	NO	bb	bb	51.002
3	123789-HxCDF	36.93	2.304e5	1.857e5	1.137	1.24	1.24	1143.7	YES	NO	bb	bb	48.904
4	234678-HxCDF	35.91	2.808e5	2.345e5	1.140	1.20	1.24	1375.6	YES	NO	bb	bd	52.050
5	123678-HxCDF	35.04	3.125e5	2.496e5	1.091	1.25	1.24	1506.3	YES	NO	db	db	51.387

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.01	1.395e5	1.236e5	0.953	1.13	1.05	836.3	YES	NO	bd	bb	53.601
2	1234678-HpCDF	38.77	1.725e5	1.737e5	1.003	0.99	1.05	1326.3	YES	NO	bb	bb	47.690

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2303031HICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	3.446e4	4.665e4	0.678	0.74	0.77	339.5	YES	NO	bb	db	8.835
2	2378-TCDF	25.77	4.131e4	5.488e4	0.702	0.75	0.77	403.0	YES	NO	bb	bb	10.126
3	Total-tetrafurans	24.86	6.389e2	7.978e2	0.727	0.80	0.77	6.2	YES	NO	bb	bb	0.146
4	Total-tetrafurans	24.55	5.238e2	5.981e2	0.727	0.88	0.77	6.0	YES	NO	bb	bb	0.114
5	1368-TCDF	22.27	5.764e4	7.805e4	0.802	0.74	0.77	617.6	YES	NO	bb	bb	12.503
6	12389-PECDF	32.32	2.101e5	1.516e5	0.496	1.39	1.55	910.6	YES	NO	bb	bd	67.866
7	23478-PeCDF	31.28	2.189e5	1.466e5	0.786	1.49	1.55	1004.6	YES	NO	bb	bb	48.580
8	12378-PeCDF	29.93	2.094e5	1.387e5	0.679	1.51	1.55	956.2	YES	NO	bb	bb	47.721
9	Total-pentafurans	28.80	3.458e4	2.311e4	0.654	1.50	1.55	155.8	YES	NO	bb	bb	8.688
10	123478-HxCDF	34.90	2.702e5	2.168e5	1.166	1.25	1.24	1404.3	YES	NO	bd	bd	47.304
11	123468-HXCDF	33.23	2.880e5	2.384e5	1.169	1.21	1.24	1397.4	YES	NO	bb	bb	51.002
12	123789-HxCDF	36.93	2.304e5	1.857e5	1.137	1.24	1.24	1143.7	YES	NO	bb	bb	48.904
13	234678-HxCDF	35.91	2.808e5	2.345e5	1.140	1.20	1.24	1375.6	YES	NO	bb	bd	52.050
14	123678-HxCDF	35.04	3.125e5	2.496e5	1.091	1.25	1.24	1506.3	YES	NO	db	db	51.387
15	1234789-HpCDF	41.01	1.395e5	1.236e5	0.953	1.13	1.05	836.3	YES	NO	bd	bb	53.601
16	1234678-HpCDF	38.77	1.725e5	1.737e5	1.003	0.99	1.05	1326.3	YES	NO	bb	bb	47.690
17	OCDF	45.24	1.863e5	1.970e5	0.778	0.95	0.89	1745.6	YES	NO	bd	bb	95.021
18	13468-PECDF	27.13	3.611e5	2.330e5	1.246	1.55	1.55	7323.2	YES	NO	bb	bb	44.390

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.56	5.668e4	7.180e4	1.015	0.79	0.77	755.8	YES	NO	bb	bb	13.654
2	1289-TCDD	27.02	3.648e4	4.783e4	0.909	0.76	0.77	445.8	YES	NO	bb	bb	10.012
3	2378-TCDD	26.42	4.111e4	5.488e4	1.149	0.75	0.77	521.2	YES	NO	bb	bb	9.017
4	Total-tetradoxins	26.10	6.719e4	8.697e4	1.024	0.77	0.77	561.8	YES	NO	bb	bb	16.242
5	Total-tetradoxins	25.60	2.343e4	2.963e4	1.024	0.79	0.77	301.6	YES	NO	bb	bb	5.591

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.93	2.423e5	1.700e5	1.184	1.43	1.55	1246.0	YES	NO	bb	bd	49.543
2	12378-PeCDD	31.54	2.212e5	1.442e5	1.022	1.53	1.55	1124.1	YES	NO	bb	bb	50.849
3	12479-PECDD	28.82	3.593e5	2.367e5	2.301	1.52	1.55	1224.5	YES	NO	bb	bb	36.832

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2303031\HICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HxCDD	34.01	2.330e5	1.909e5	1.115	1.22	1.24	1078.1	YES	NO	bb	bb	49.292
2	123789-HxCDD	36.52	2.114e5	1.814e5	0.907	1.17	1.24	982.1	YES	NO	bb	bd	51.723
3	123678-HxCDD	36.14	2.532e5	2.091e5	1.001	1.21	1.24	1112.6	YES	NO	db	db	51.126
4	123478-HxCDD	36.02	2.147e5	1.744e5	0.996	1.23	1.24	1055.8	YES	NO	bd	bd	50.696

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.27	1.700e5	1.663e5	1.039	1.02	1.05	1138.4	YES	NO	bd	bd	52.721
2	1234679-HPCDD	39.23	2.020e5	1.832e5	1.137	1.10	1.05	1451.0	YES	NO	bd	bb	55.196

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.56	5.668e4	7.180e4	1.015	0.79	0.77	755.8	YES	NO	bb	bb	13.654
2	1289-TCDD	27.02	3.648e4	4.783e4	0.909	0.76	0.77	445.8	YES	NO	bb	bb	10.012
3	2378-TCDD	26.42	4.111e4	5.488e4	1.149	0.75	0.77	521.2	YES	NO	bb	bb	9.017
4	Total-tetradoxins	26.10	6.719e4	8.697e4	1.024	0.77	0.77	561.8	YES	NO	bb	bb	16.242
5	Total-tetradoxins	25.60	2.343e4	2.963e4	1.024	0.79	0.77	301.6	YES	NO	bb	bb	5.591
6	12389-PECDD	31.93	2.423e5	1.700e5	1.184	1.43	1.55	1246.0	YES	NO	bb	bd	49.543
7	12378-PeCDD	31.54	2.212e5	1.442e5	1.022	1.53	1.55	1124.1	YES	NO	bb	bb	50.849
8	12479-PECDD	28.82	3.593e5	2.367e5	2.301	1.52	1.55	1224.5	YES	NO	bb	bb	36.832
9	124679-HxCDD	34.01	2.330e5	1.909e5	1.115	1.22	1.24	1078.1	YES	NO	bb	bb	49.292
10	123789-HxCDD	36.52	2.114e5	1.814e5	0.907	1.17	1.24	982.1	YES	NO	bb	bd	51.723
11	123678-HxCDD	36.14	2.532e5	2.091e5	1.001	1.21	1.24	1112.6	YES	NO	db	db	51.126
12	123478-HxCDD	36.02	2.147e5	1.744e5	0.996	1.23	1.24	1055.8	YES	NO	bd	bd	50.696
13	1234678-HpCDD	40.27	1.700e5	1.663e5	1.039	1.02	1.05	1138.4	YES	NO	bd	bd	52.721
14	1234679-HPCDD	39.23	2.020e5	1.832e5	1.137	1.10	1.05	1451.0	YES	NO	bd	bb	55.196
15	OCDD	45.00	2.152e5	2.483e5	0.920	0.87	0.89	2785.0	YES	NO	bb	bb	97.150

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\HICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	3.446e4	4.665e4	0.678	0.74	0.77	339.5	YES	NO	bb	db	8.835
2	2378-TCDF	25.77	4.131e4	5.488e4	0.702	0.75	0.77	403.0	YES	NO	bb	bb	10.126
3	Total-tetrafurans	24.86	6.389e2	7.978e2	0.727	0.80	0.77	6.2	YES	NO	bb	bb	0.146
4	Total-tetrafurans	24.55	5.238e2	5.981e2	0.727	0.88	0.77	6.0	YES	NO	bb	bb	0.114
5	1368-TCDF	22.27	5.764e4	7.805e4	0.802	0.74	0.77	617.6	YES	NO	bb	bb	12.503
6	12389-PECDF	32.32	2.101e5	1.516e5	0.496	1.39	1.55	910.6	YES	NO	bb	bd	67.866
7	23478-PeCDF	31.28	2.189e5	1.466e5	0.786	1.49	1.55	1004.6	YES	NO	bb	bb	48.580
8	12378-PeCDF	29.93	2.094e5	1.387e5	0.679	1.51	1.55	956.2	YES	NO	bb	bb	47.721
9	Total-pentafurans	28.80	3.458e4	2.311e4	0.654	1.50	1.55	155.8	YES	NO	bb	bb	8.688
10	123478-HxCDF	34.90	2.702e5	2.168e5	1.166	1.25	1.24	1404.3	YES	NO	bd	bd	47.304
11	123468-HxCDF	33.23	2.880e5	2.384e5	1.169	1.21	1.24	1397.4	YES	NO	bb	bb	51.002
12	123789-HxCDF	36.93	2.304e5	1.857e5	1.137	1.24	1.24	1143.7	YES	NO	bb	bb	48.904
13	234678-HxCDF	35.91	2.808e5	2.345e5	1.140	1.20	1.24	1375.6	YES	NO	bb	bd	52.050
14	123678-HxCDF	35.04	3.125e5	2.496e5	1.091	1.25	1.24	1506.3	YES	NO	db	db	51.387
15	1234789-HpCDF	41.01	1.395e5	1.236e5	0.953	1.13	1.05	836.3	YES	NO	bd	bb	53.601
16	1234678-HpCDF	38.77	1.725e5	1.737e5	1.003	0.99	1.05	1326.3	YES	NO	bb	bb	47.690
17	OCDF	45.24	1.863e5	1.970e5	0.778	0.95	0.89	1745.6	YES	NO	bd	bb	95.021
18	13468-PECDF	27.13	3.611e5	2.330e5	1.246	1.55	1.55	7323.2	YES	NO	bb	bb	44.390
19	1368-TCDD	23.56	5.668e4	7.180e4	1.015	0.79	0.77	755.8	YES	NO	bb	bb	13.654
20	1289-TCDD	27.02	3.648e4	4.783e4	0.909	0.76	0.77	445.8	YES	NO	bb	bb	10.012
21	2378-TCDD	26.42	4.111e4	5.488e4	1.149	0.75	0.77	521.2	YES	NO	bb	bb	9.017
22	Total-tetradiioxins	26.10	6.719e4	8.697e4	1.024	0.77	0.77	561.8	YES	NO	bb	bb	16.242
23	Total-tetradiioxins	25.60	2.343e4	2.963e4	1.024	0.79	0.77	301.6	YES	NO	bb	bb	5.591
24	12389-PECDD	31.93	2.423e5	1.700e5	1.184	1.43	1.55	1246.0	YES	NO	bb	bd	49.543
25	12378-PeCDD	31.54	2.212e5	1.442e5	1.022	1.53	1.55	1124.1	YES	NO	bb	bb	50.849
26	12479-PECDD	28.82	3.593e5	2.367e5	2.301	1.52	1.55	1224.5	YES	NO	bb	bb	36.832
27	124679-HXCDD	34.01	2.330e5	1.909e5	1.115	1.22	1.24	1078.1	YES	NO	bb	bb	49.292
28	123789-HxCDD	36.52	2.114e5	1.814e5	0.907	1.17	1.24	982.1	YES	NO	bb	bd	51.723
29	123678-HxCDD	36.14	2.532e5	2.091e5	1.001	1.21	1.24	1112.6	YES	NO	db	db	51.126
30	123478-HxCDD	36.02	2.147e5	1.744e5	0.996	1.23	1.24	1055.8	YES	NO	bd	bd	50.696
31	1234678-HpCDD	40.27	1.700e5	1.663e5	1.039	1.02	1.05	1138.4	YES	NO	bd	bd	52.721
32	1234679-HPCDD	39.23	2.020e5	1.832e5	1.137	1.10	1.05	1451.0	YES	NO	bd	bb	55.196
33	OCDD	45.00	2.152e5	2.483e5	0.920	0.87	0.89	2785.0	YES	NO	bb	bb	97.150

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303IHICV.qld
Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.45	3.397e6					9.1	YES		db		
2	FUNCTION1 PFK	22.00	4.124e6					5.2	YES		bd		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\HICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.25	2.674e4					2.5	NO		db		0.000
2	FUNCTION2 PFK	28.20	5.558e3					1.1	NO		dd		0.000
3	FUNCTION2 PFK	28.15	1.333e4					1.7	NO		bd		0.000
4	FUNCTION2 PFK	28.11	4.408e3					0.8	NO		bb		0.000
5	FUNCTION2 PFK	30.52	5.287e3					0.9	NO		bd		0.000
6	FUNCTION2 PFK	30.38	1.568e4					1.4	NO		bb		0.000
7	FUNCTION2 PFK	30.23	2.380e4					1.5	NO		db		0.000
8	FUNCTION2 PFK	30.10	2.694e4					1.7	NO		bd		0.000
9	FUNCTION2 PFK	29.99	2.076e3					0.5	NO		bb		0.000
10	FUNCTION2 PFK	29.89	7.421e3					1.2	NO		bb		0.000
11	FUNCTION2 PFK	29.80	6.022e3					0.5	NO		bb		0.000
12	FUNCTION2 PFK	29.62	1.101e4					1.2	NO		bb		0.000
13	FUNCTION2 PFK	29.52	2.200e4					2.0	NO		bb		0.000
14	FUNCTION2 PFK	29.42	7.036e3					1.0	NO		bb		0.000
15	FUNCTION2 PFK	29.29	2.309e4					2.2	NO		bb		0.000
16	FUNCTION2 PFK	29.03	1.036e4					1.7	NO		db		0.000
17	FUNCTION2 PFK	29.00	8.382e3					1.3	NO		bd		0.000
18	FUNCTION2 PFK	28.80	5.680e3					0.9	NO		bb		0.000
19	FUNCTION2 PFK	28.70	1.413e4					1.3	NO		bb		0.000
20	FUNCTION2 PFK	28.60	2.690e3					0.7	NO		bb		0.000
21	FUNCTION2 PFK	32.35	9.362e3					1.3	NO		bd		0.000
22	FUNCTION2 PFK	32.28	5.282e3					0.9	NO		bb		0.000
23	FUNCTION2 PFK	31.94	5.478e3					0.6	NO		bb		0.000
24	FUNCTION2 PFK	31.86	9.539e3					1.3	NO		bb		0.000
25	FUNCTION2 PFK	31.70	8.598e3					0.9	NO		bb		0.000
26	FUNCTION2 PFK	31.56	1.164e4					1.5	NO		bb		0.000
27	FUNCTION2 PFK	31.44	9.870e3					1.2	NO		bb		0.000
28	FUNCTION2 PFK	31.37	5.651e3					1.2	NO		bb		0.000
29	FUNCTION2 PFK	31.16	3.906e3					0.7	NO		db		0.000
30	FUNCTION2 PFK	31.10	5.259e3					1.0	NO		bd		0.000
31	FUNCTION2 PFK	31.00	2.220e3					0.5	NO		bb		0.000
32	FUNCTION2 PFK	30.93	4.197e3					0.6	NO		bb		0.000
33	FUNCTION2 PFK	30.84	1.813e4					1.7	NO		bb		0.000
34	FUNCTION2 PFK	30.68	6.046e3					1.3	NO		db		0.000
35	FUNCTION2 PFK	30.64	6.706e3					1.2	NO		dd		0.000
36	FUNCTION2 PFK	30.58	1.475e4					1.4	NO		dd		0.000
37	FUNCTION2 PFK	32.74	9.704e3					1.1	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303IHICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	32.61	1.975e3					0.6	NO		bb		0.000
39	FUNCTION2 PFK	32.55	1.171e3					0.5	NO		bb		0.000
40	FUNCTION2 PFK	32.51	7.325e3					1.0	NO		db		0.000
41	FUNCTION2 PFK	32.45	9.340e3					1.3	NO		dd		0.000
42	FUNCTION2 PFK	32.41	1.322e4					1.9	NO		dd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.70	5.175e4					1.9	NO		bb		0.000
2	FUNCTION3 PFK	35.52	3.681e5					3.3	YES		bb		0.000
3	FUNCTION3 PFK	34.42	8.023e6					1.5	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.67	5.668e6					23.1	YES		db		
2	FUNCTION4 PFK	39.84	1.814e7					26.9	YES		dd		
3	FUNCTION4 PFK	38.09	2.173e6					22.8	YES		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.82	4.953e3					1.4	NO		bb		
2	FUNCTION5 PFK	45.79	4.078e3					1.3	NO		db		
3	FUNCTION5 PFK	45.76	2.296e3					0.8	NO		bd		
4	FUNCTION5 PFK	45.37	1.499e4					1.8	NO		bb		
5	FUNCTION5 PFK	45.31	3.040e3					1.0	NO		bb		
6	FUNCTION5 PFK	44.94	1.866e3					0.7	NO		bb		
7	FUNCTION5 PFK	44.62	4.342e3					1.3	NO		bb		
8	FUNCTION5 PFK	43.85	4.909e3					1.2	NO		bb		
9	FUNCTION5 PFK	43.55	9.698e3					1.7	NO		bb		
10	FUNCTION5 PFK	43.31	1.818e4					2.2	NO		bb		
11	FUNCTION5 PFK	43.18	3.274e3					1.0	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230303\HICV.qld
 Last Altered: Monday, March 06, 2023 11:49:27 Pacific Standard Time
 Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.14	7.703e1					2.6	NO		bb		0.000
2	FUNCTION1 HXCD...	25.58	1.369e2					3.0	NO		bb		0.000
3	FUNCTION1 HXCD...	24.29	7.654e1					1.4	NO		bb		0.000
4	FUNCTION1 HXCD...	23.49	8.895e1					2.4	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.41	1.026e2					2.4	NO		db		0.000
2	FUNCTION2 HPCD...	32.32	1.299e2					2.2	NO		bd		0.000
3	FUNCTION2 HPCD...	31.19	1.035e2					3.9	YES		db		0.000
4	FUNCTION2 HPCD...	31.15	2.274e2					6.9	YES		bd		0.000
5	FUNCTION2 HPCD...	29.21	1.504e2					2.9	NO		bb		0.000
6	FUNCTION2 HPCD...	28.77	9.035e1					2.8	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.51	9.563e1					4.4	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS6

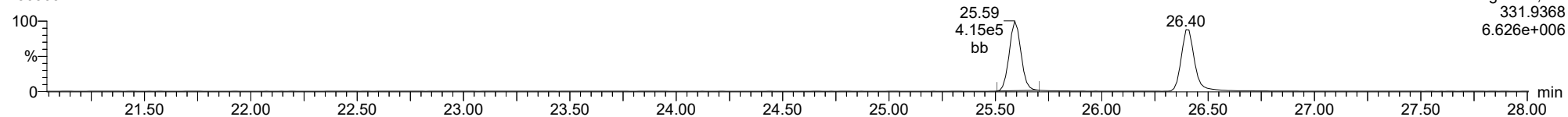
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W2, **Name:** 23030311, **Date:** 03-Mar-2023, **Time:** 17:25:01, **Conditions:** AUTOSPEC01, **User:** pk

13C-1234-TCDD

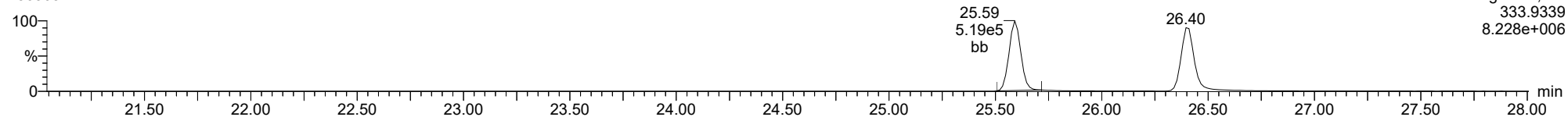
23030311



F1:Voltage SIR,El+
331.9368
6.626e+006

13C-1234-TCDD

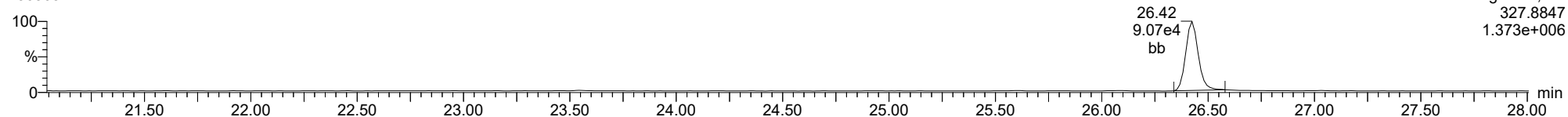
23030311



F1:Voltage SIR,El+
333.9339
8.228e+006

37CL-2378-TCDD

23030311

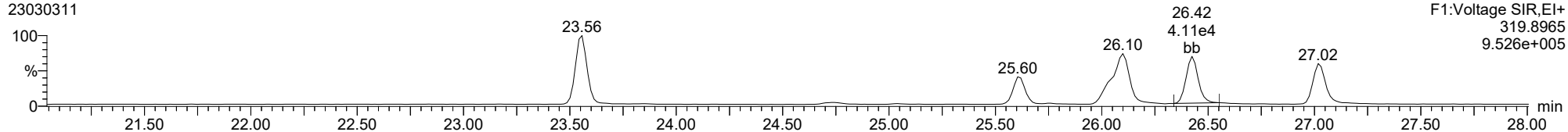


F1:Voltage SIR,El+
327.8847
1.373e+006

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

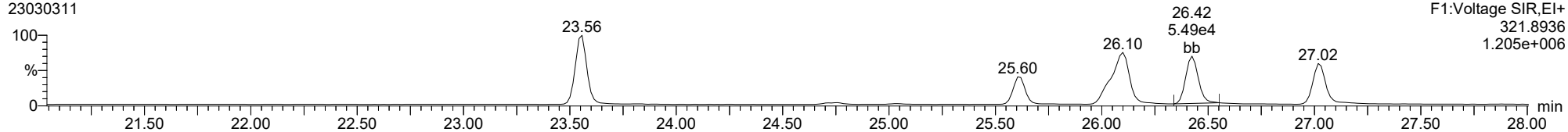
2378-TCDD

23030311



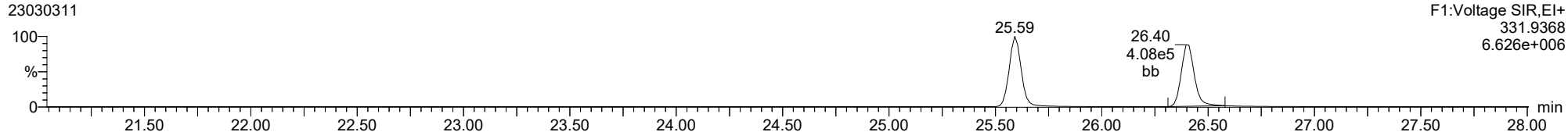
2378-TCDD

23030311



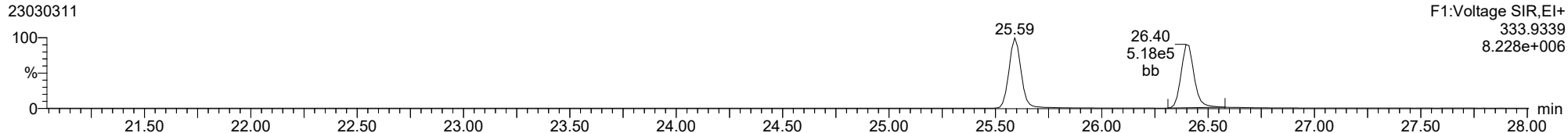
13C-2378-TCDD

23030311



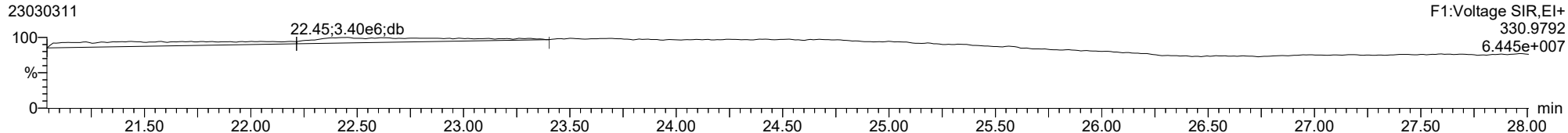
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23030311



FUNCTION1 PFK

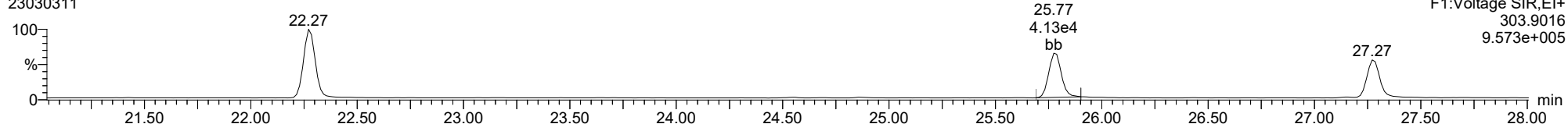
23030311



ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

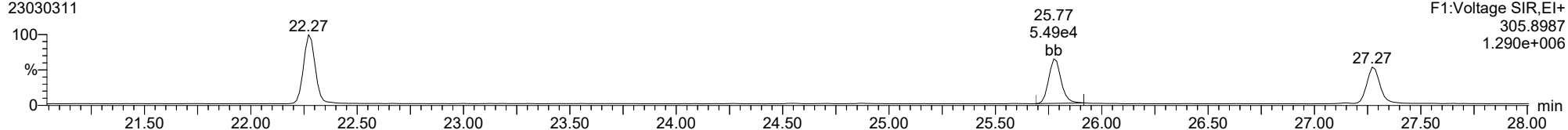
2378-TCDF

23030311



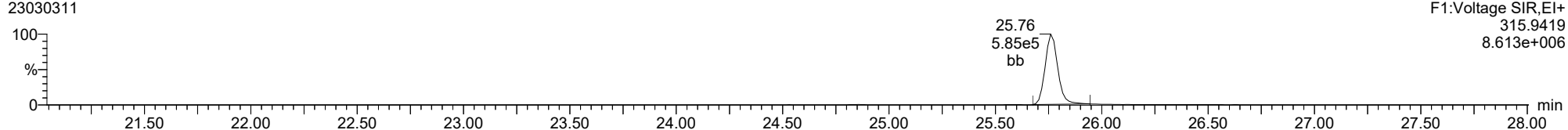
2378-TCDF

23030311



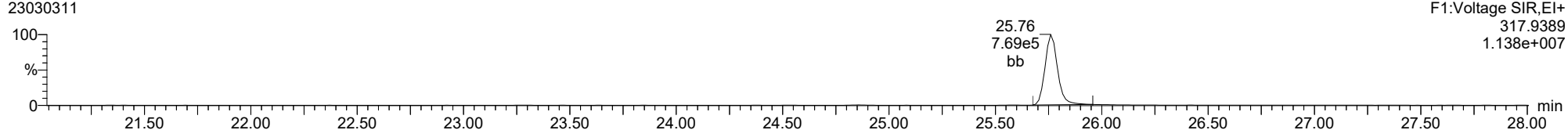
13C-2378-TCDF

23030311



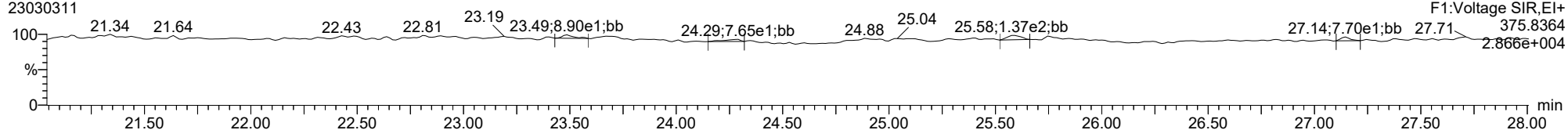
13C-2378-TCDF

23030311



FUNCTION1 HXCDPE

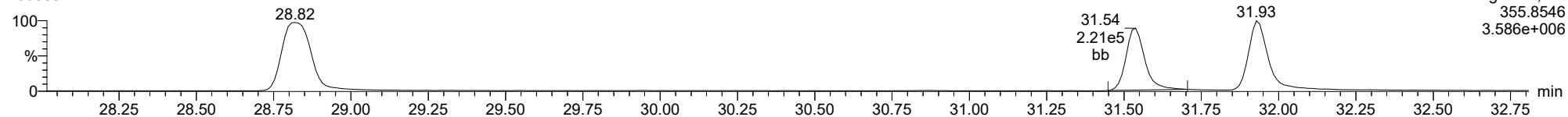
23030311



ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

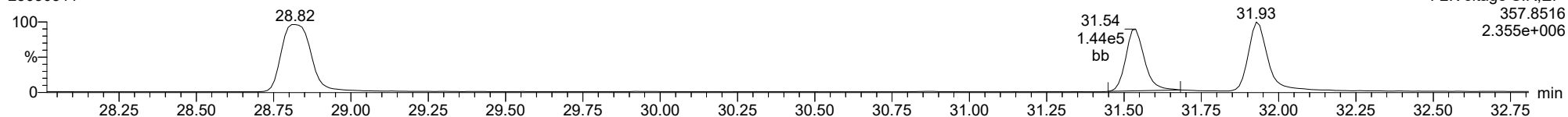
12378-PeCDD

23030311



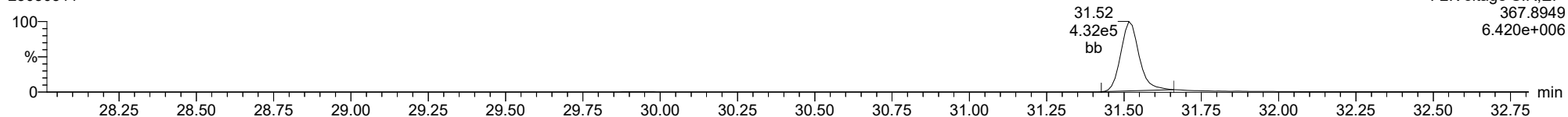
12378-PeCDD

23030311



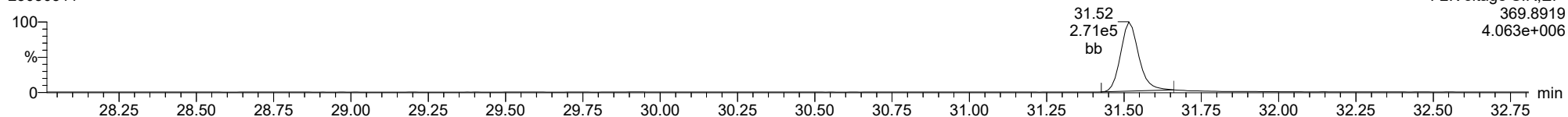
13C-12378-PeCDD

23030311



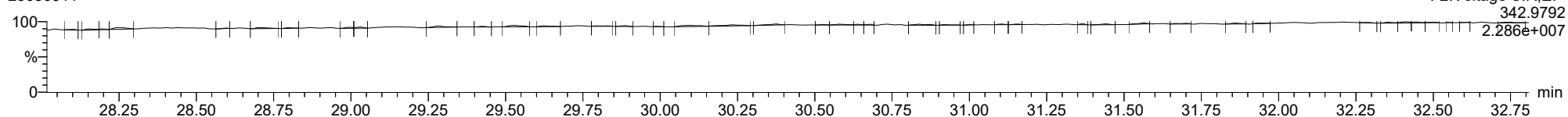
13C-12378-PeCDD

23030311



FUNCTION2 PFK

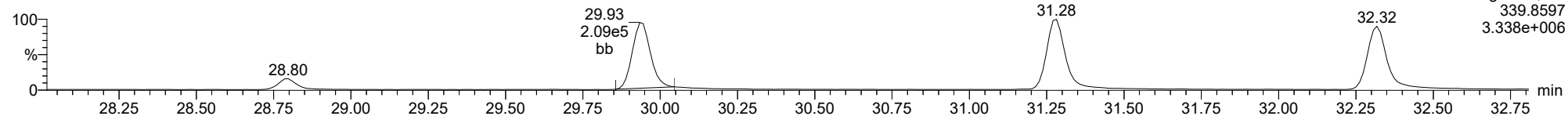
23030311



ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

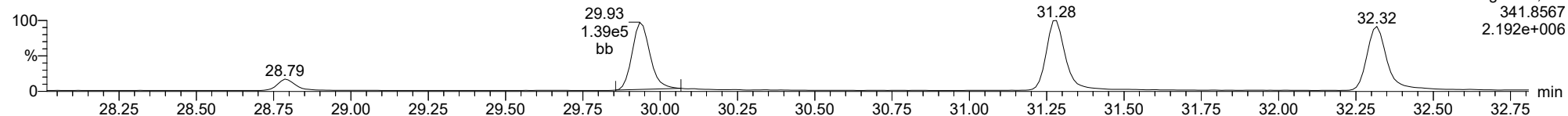
12378-PeCDF

23030311



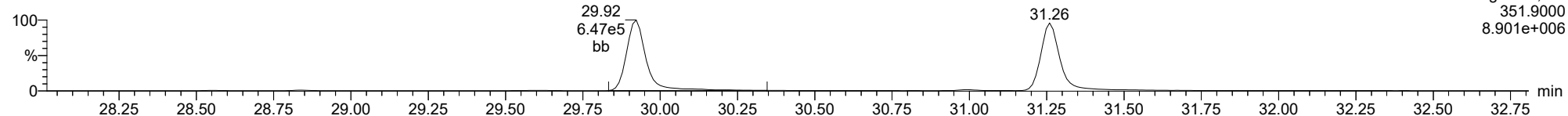
12378-PeCDF

23030311



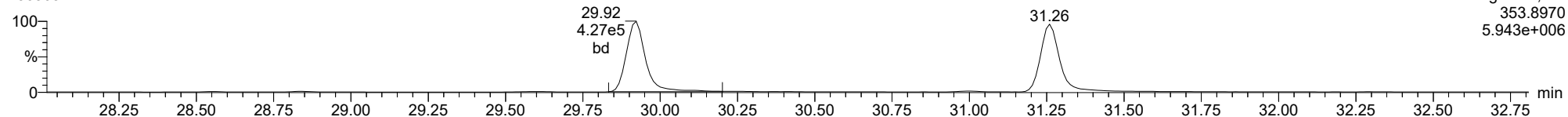
13C-12378-PeCDF

23030311



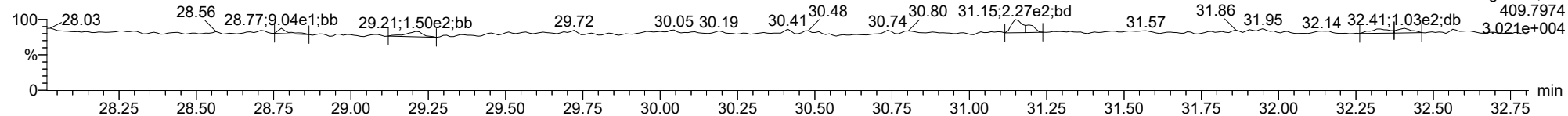
13C-12378-PeCDF

23030311



FUNCTION2 HPCDPE

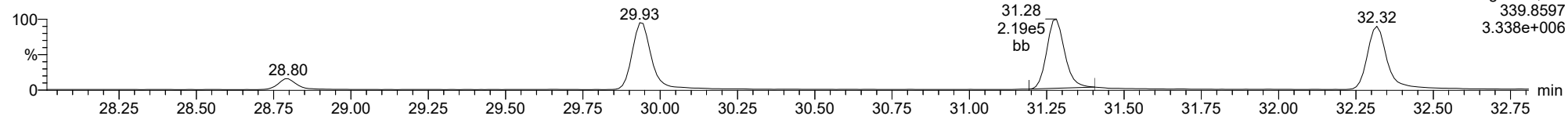
23030311



ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

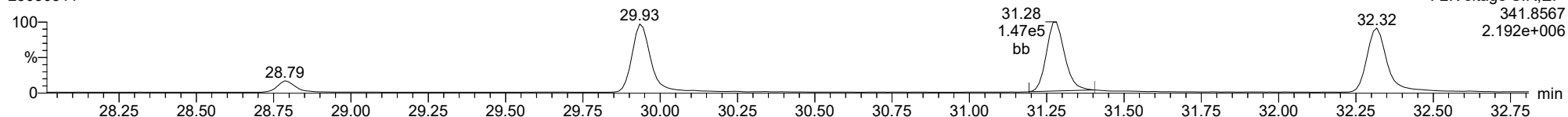
23478-PeCDF

23030311



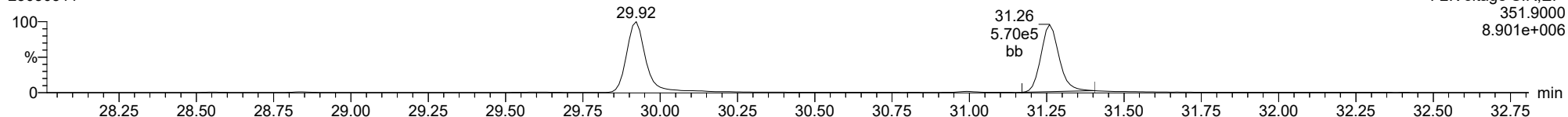
23478-PeCDF

23030311



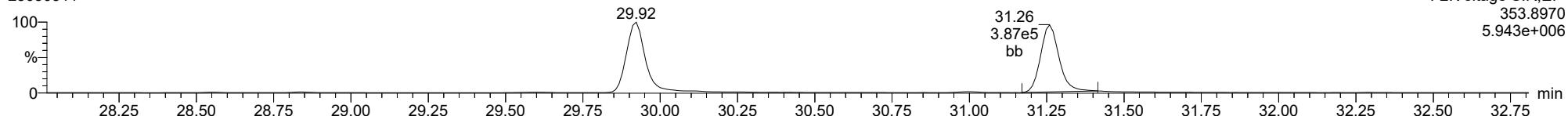
13C-23478-PeCDF

23030311



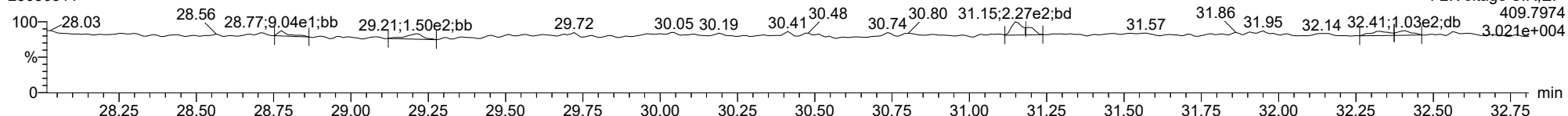
13C-23478-PeCDF

23030311



FUNCTION2 HPCDPE

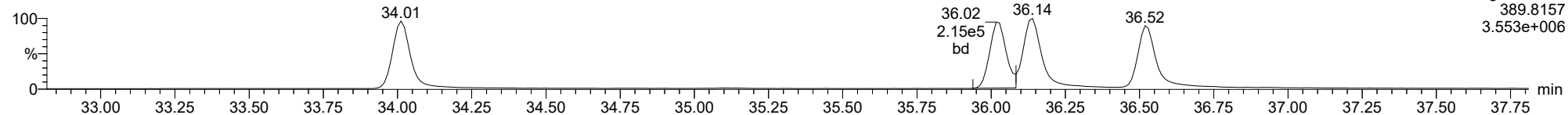
23030311



ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

123478-HxCDD

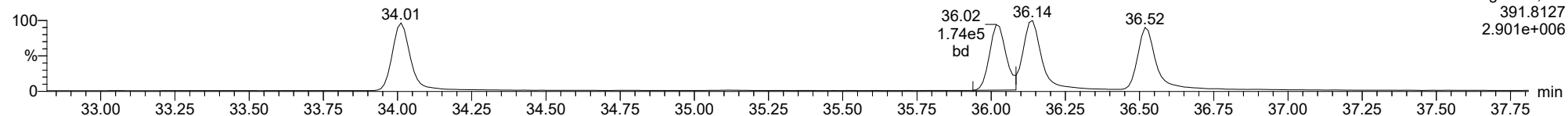
23030311



F3:Voltage SIR,EI+
389.8157
3.553e+006

123478-HxCDD

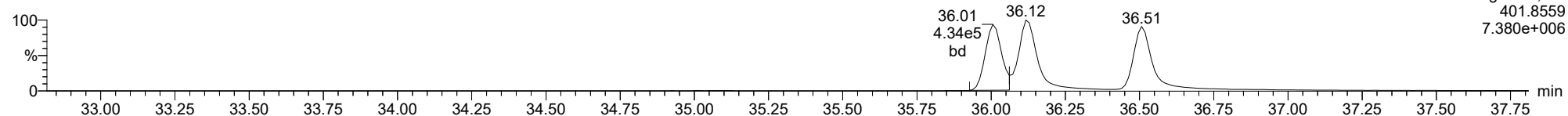
23030311



F3:Voltage SIR,EI+
391.8127
2.901e+006

13C-123478-HxCDD

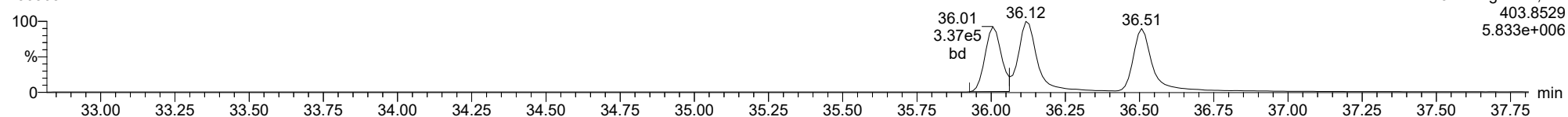
23030311



F3:Voltage SIR,EI+
401.8559
7.380e+006

13C-123478-HxCDD

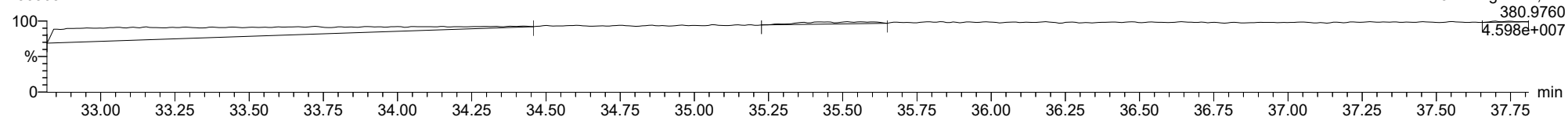
23030311



F3:Voltage SIR,EI+
403.8529
5.833e+006

FUNCTION3 PFK

23030311

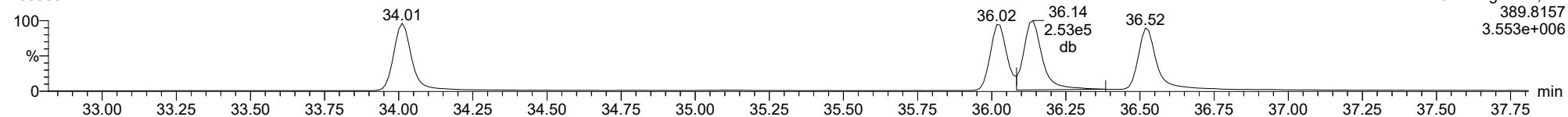


F3:Voltage SIR,EI+
380.9760
4.598e+007

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

123678-HxCDD

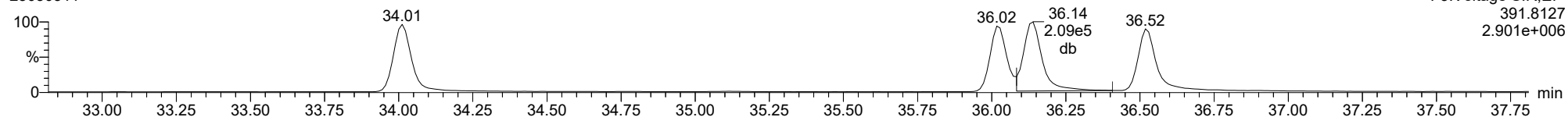
23030311



F3:Voltage SIR,EI+
389.8157
3.553e+006

123678-HxCDD

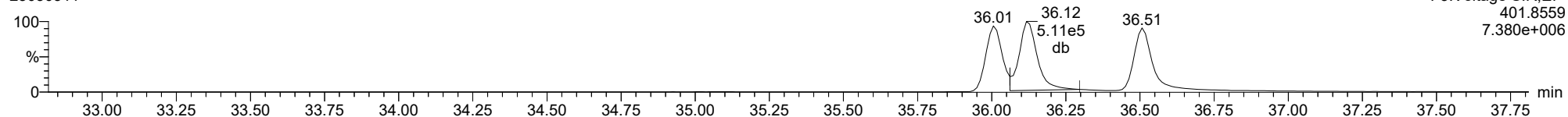
23030311



F3:Voltage SIR,EI+
391.8127
2.901e+006

13C-123678-HxCDD

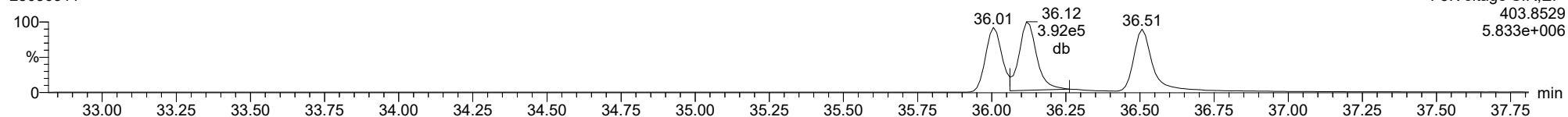
23030311



F3:Voltage SIR,EI+
401.8559
7.380e+006

13C-123678-HxCDD

23030311

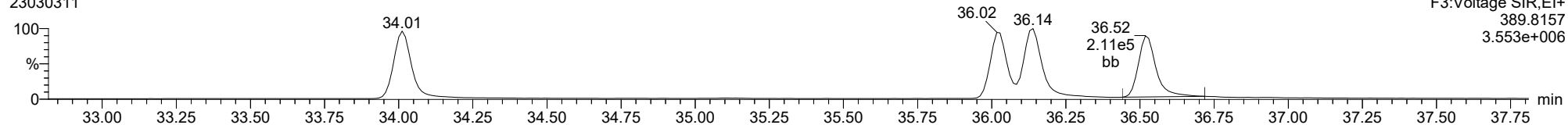


F3:Voltage SIR,EI+
403.8529
5.833e+006

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

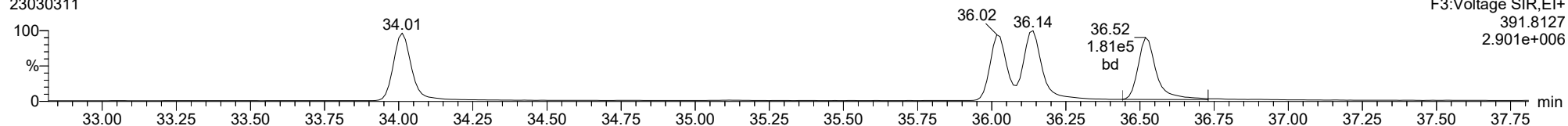
123789-HxCDD

23030311



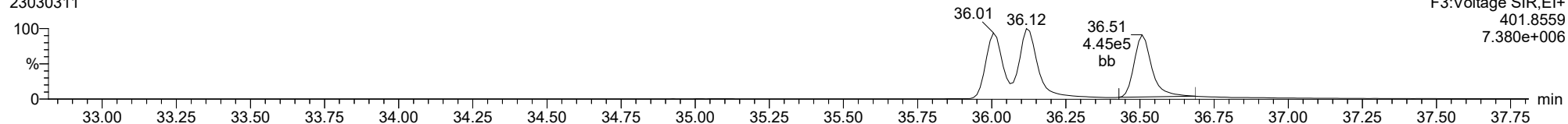
123789-HxCDD

23030311



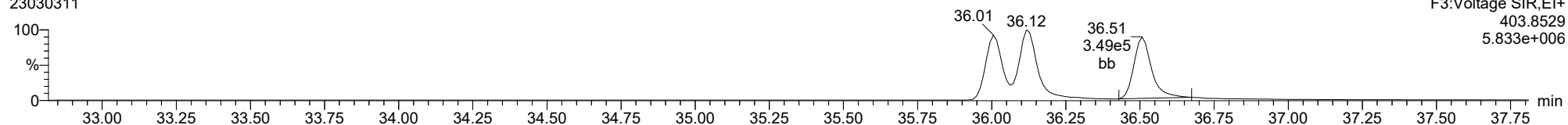
13C-123789-HxCDD

23030311



13C-123789-HxCDD

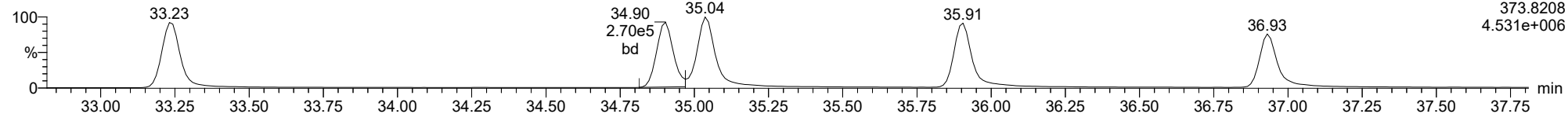
23030311



ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

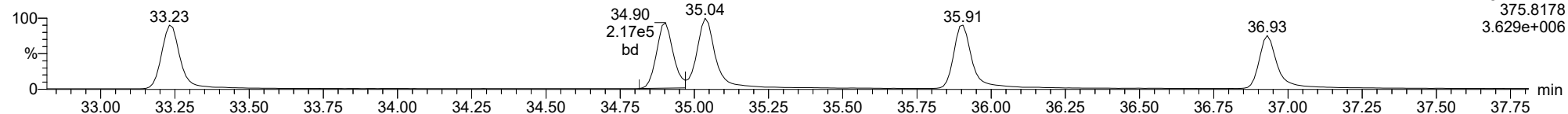
123478-HxCDF

23030311



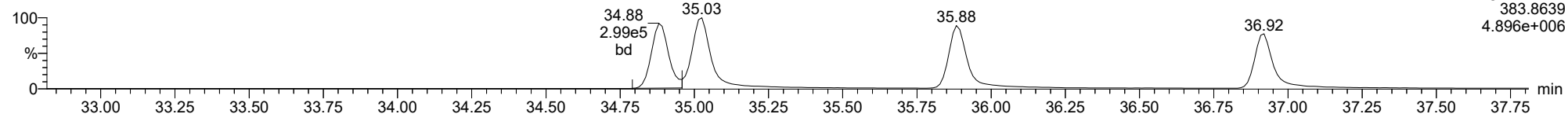
123478-HxCDF

23030311



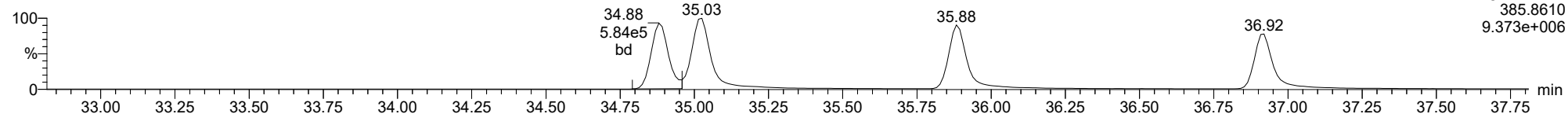
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23030311



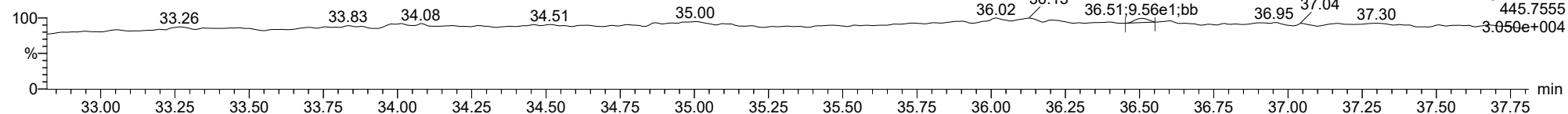
13C-123478-HxCDF

23030311



FUNCTION3 OCDPE

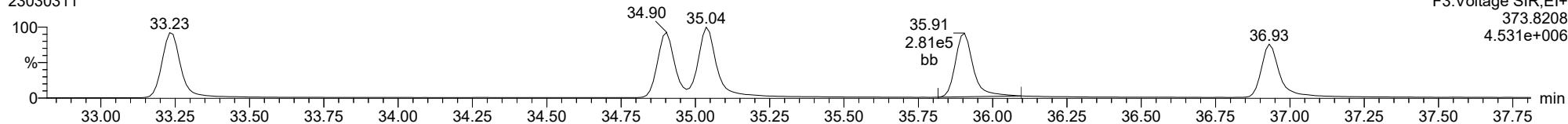
23030311



ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

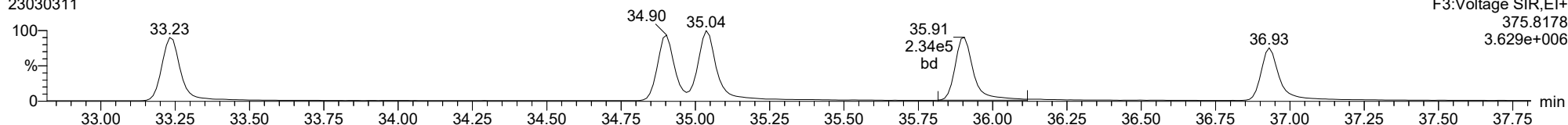
234678-HxCDF

23030311



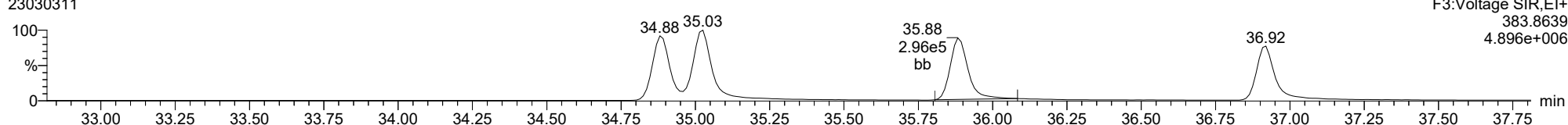
234678-HxCDF

23030311



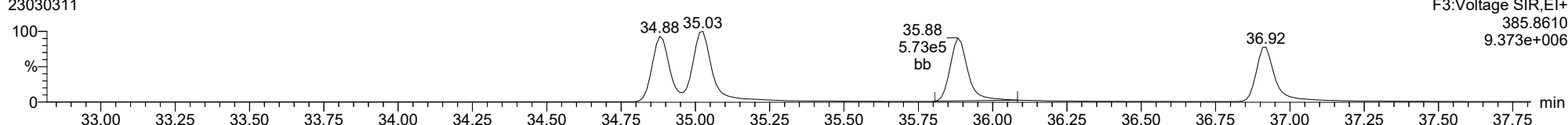
13C-234678-HxCDF

23030311



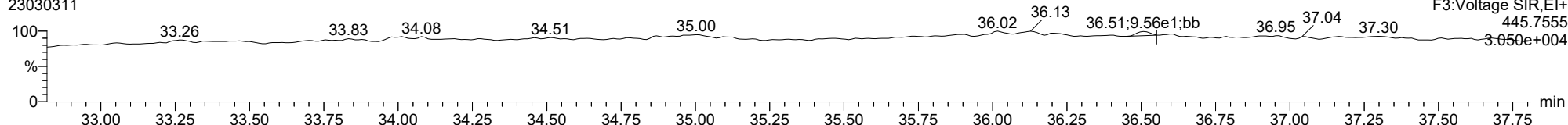
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23030311



FUNCTION3 OCDPE

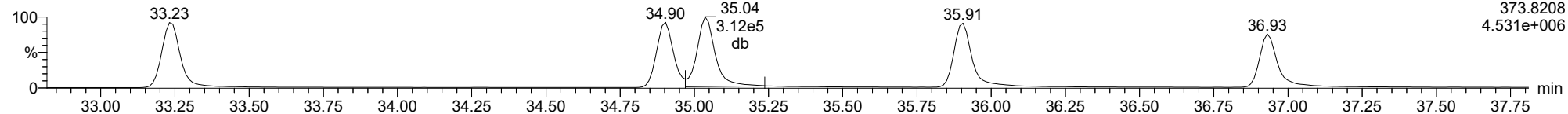
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ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

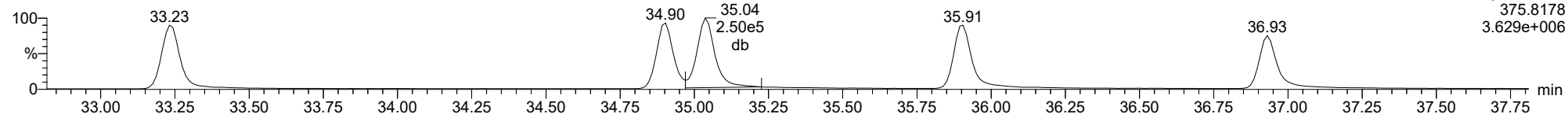
123678-HxCDF

23030311



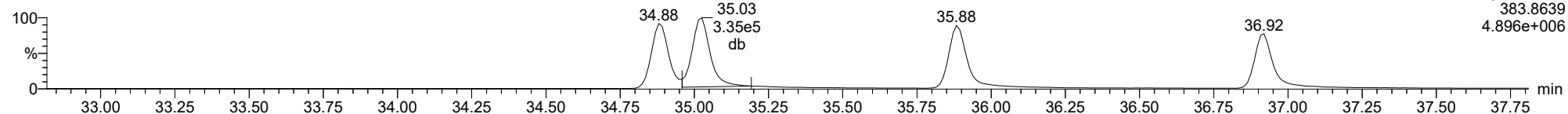
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23030311



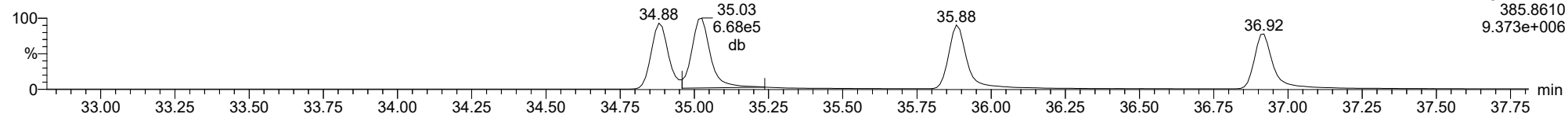
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23030311



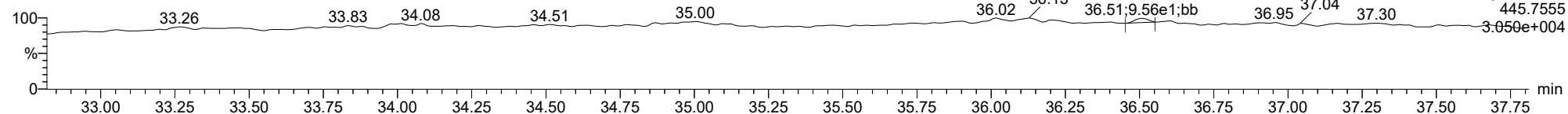
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23030311



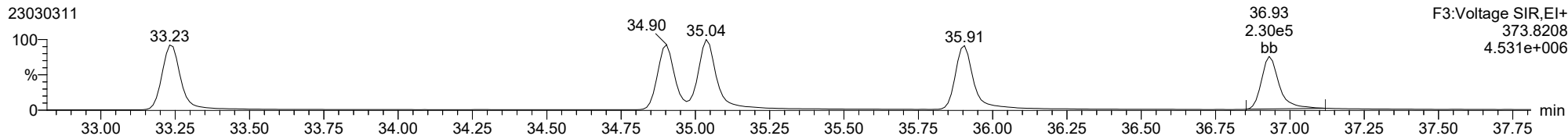
FUNCTION3 OCDPE

23030311

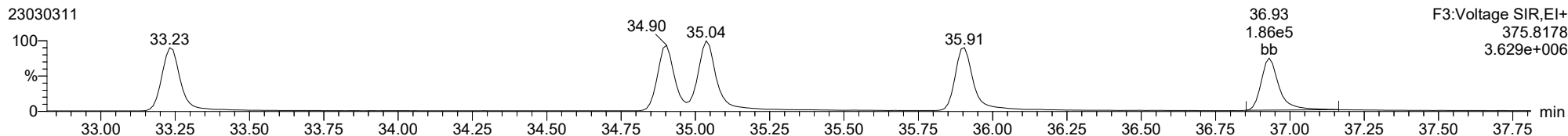


ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

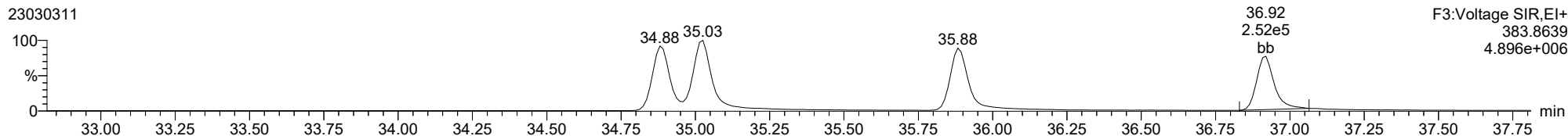
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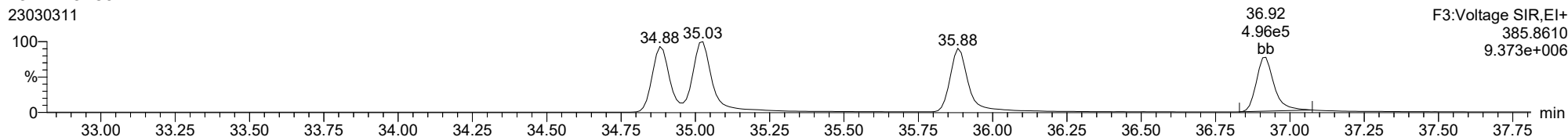
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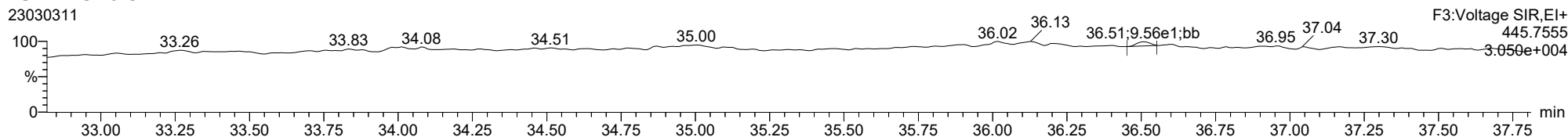
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13C-123789-HxCDF



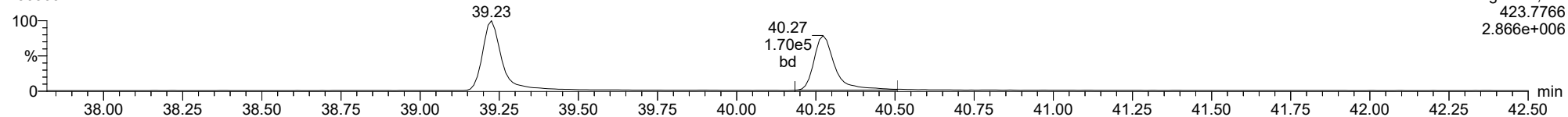
FUNCTION3 OCDPE



ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

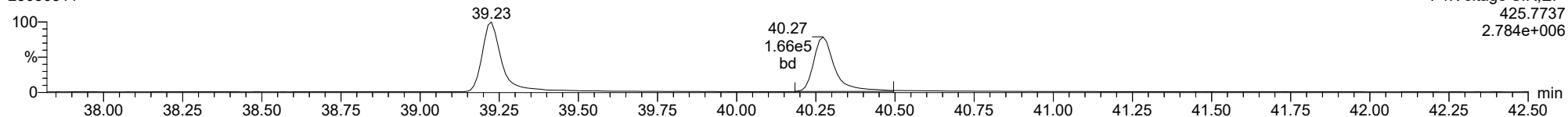
1234678-HpCDD

23030311



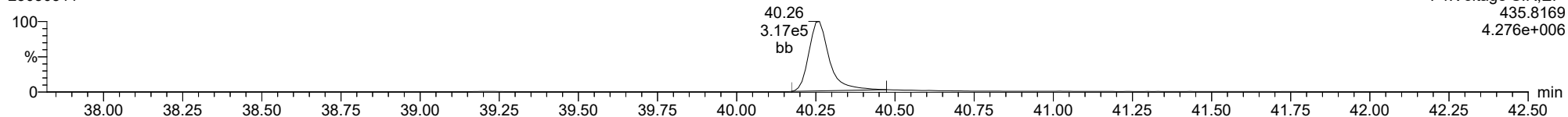
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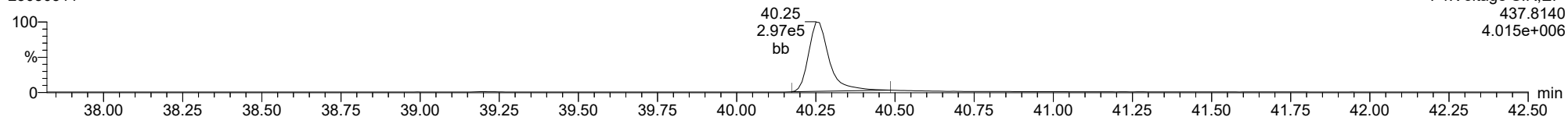
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23030311



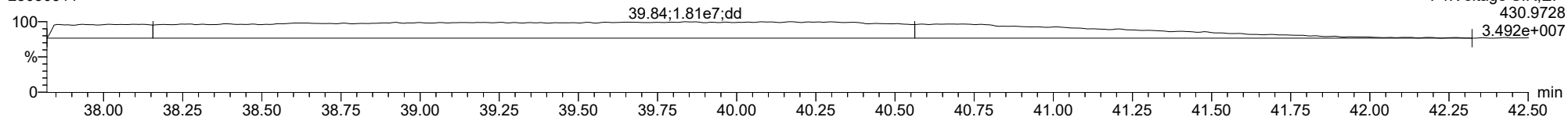
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23030311



FUNCTION4 PFK

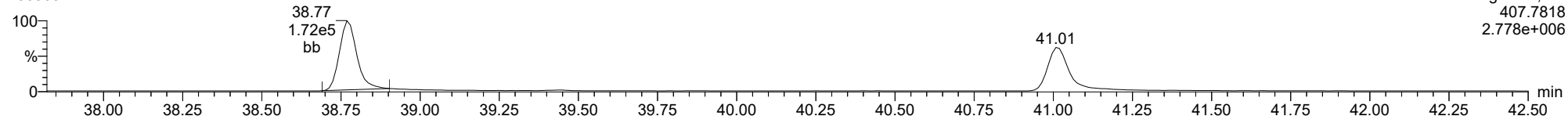
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ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

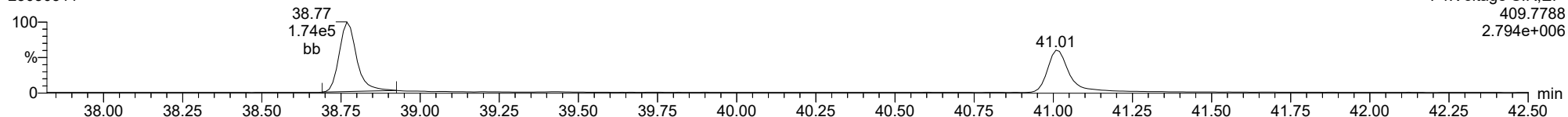
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F4:Voltage SIR,EI+
407.7818
2.778e+006

1234678-HpCDF

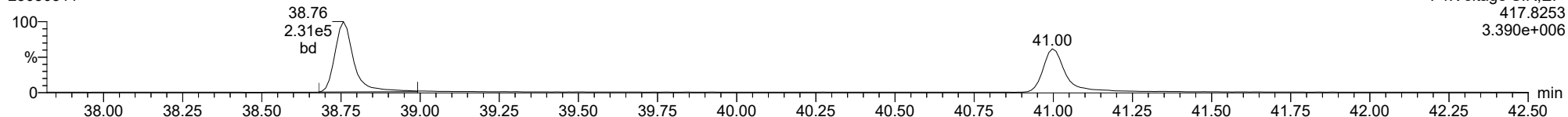
23030311



F4:Voltage SIR,EI+
409.7788
2.794e+006

13C-1234678-HpCDF

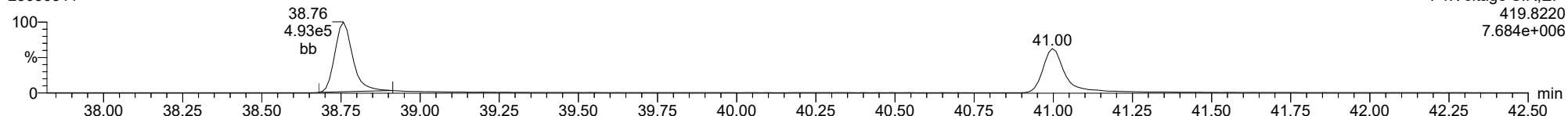
23030311



F4:Voltage SIR,EI+
417.8253
3.390e+006

13C-1234678-HpCDF

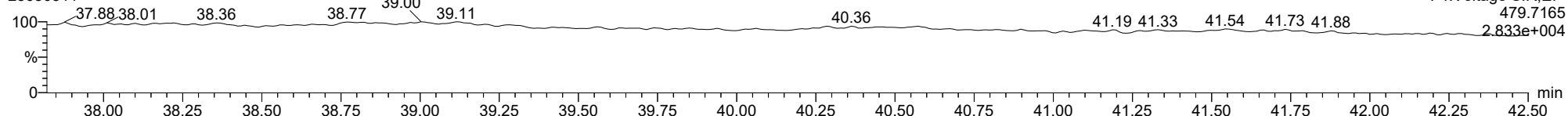
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F4:Voltage SIR,EI+
419.8220
7.684e+006

FUNCTION4 NCDPE

23030311

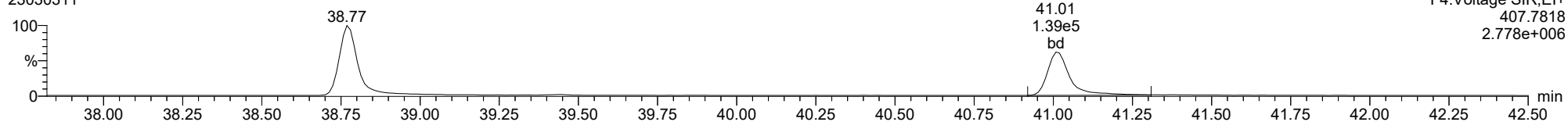


F4:Voltage SIR,EI+
479.7165
2.833e+004

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

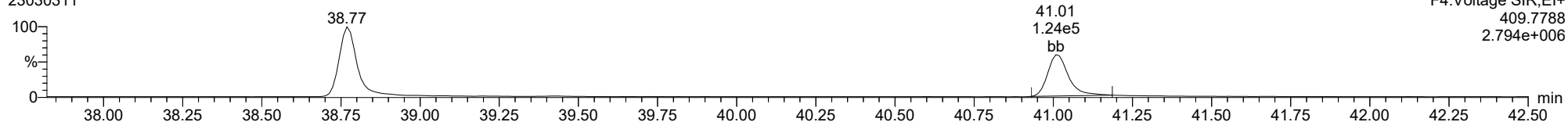
23030311



F4:Voltage SIR,El+
407.7818
2.778e+006

1234789-HpCDF

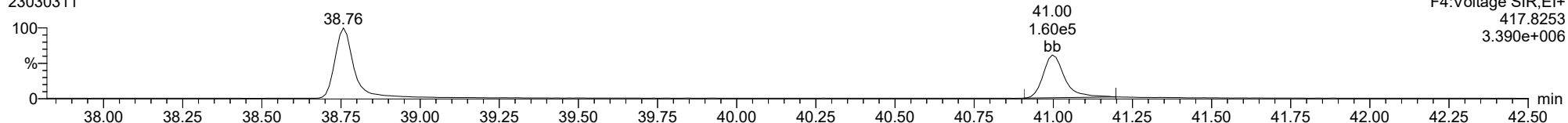
23030311



F4:Voltage SIR,El+
409.7788
2.794e+006

13C-1234789-HpCDF

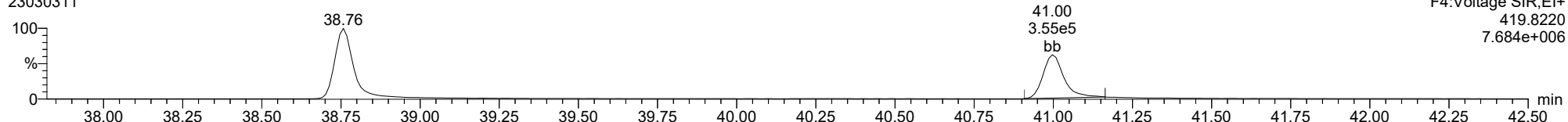
23030311



F4:Voltage SIR,El+
417.8253
3.390e+006

13C-1234789-HpCDF

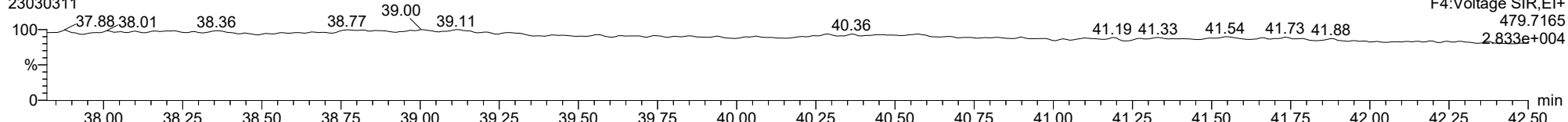
23030311



F4:Voltage SIR,El+
419.8220
7.684e+006

FUNCTION4 NCDPE

23030311

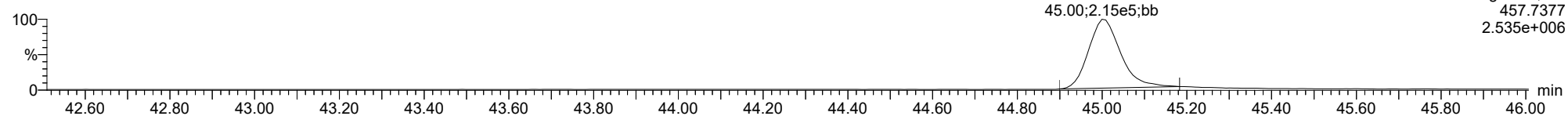


F4:Voltage SIR,El+
479.7165
2.833e+004

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

OCDD

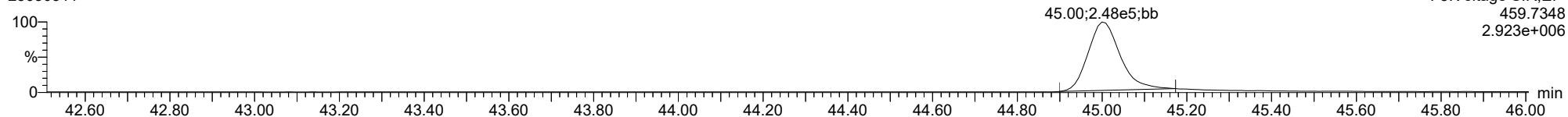
23030311



F5:Voltage SIR,EI+
457.7377
2.535e+006

OCDD

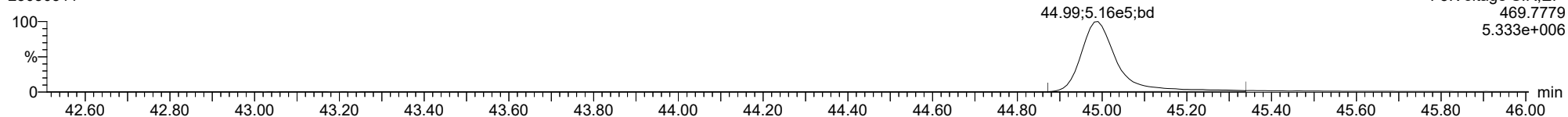
23030311



F5:Voltage SIR,EI+
459.7348
2.923e+006

13C-OCDD

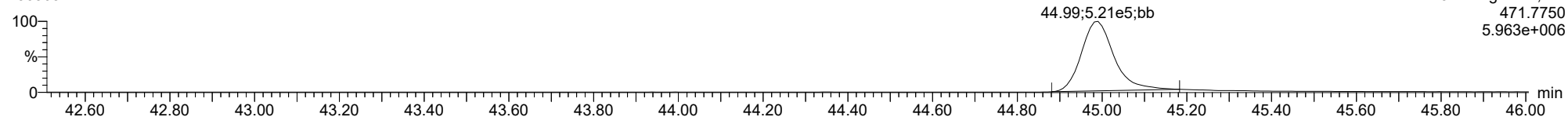
23030311



F5:Voltage SIR,EI+
469.7779
5.333e+006

13C-OCDD

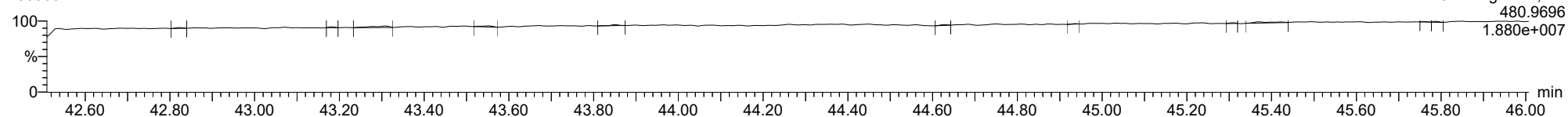
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F5:Voltage SIR,EI+
471.7750
5.963e+006

FUNCTION5 PFK

23030311

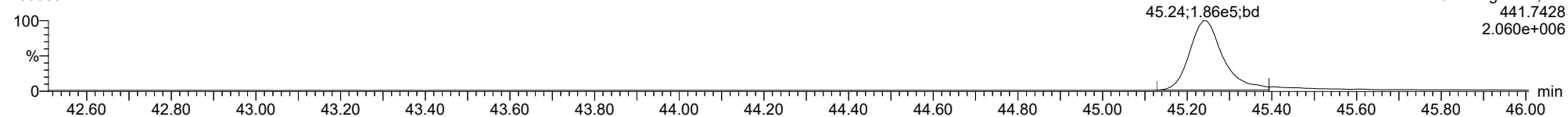


F5:Voltage SIR,EI+
480.9696
1.880e+007

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

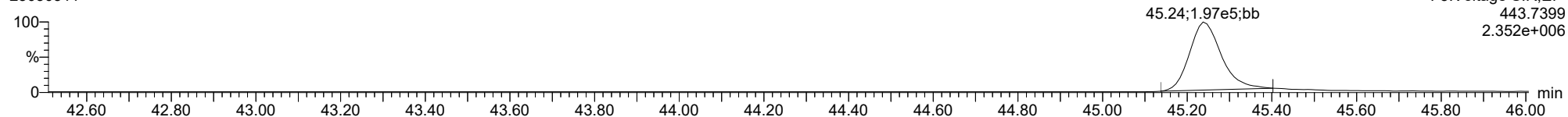
OCDF

23030311



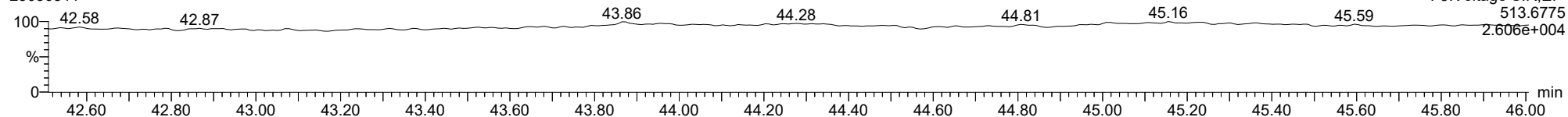
OCDF

23030311



FUNCTION5 DCDPE

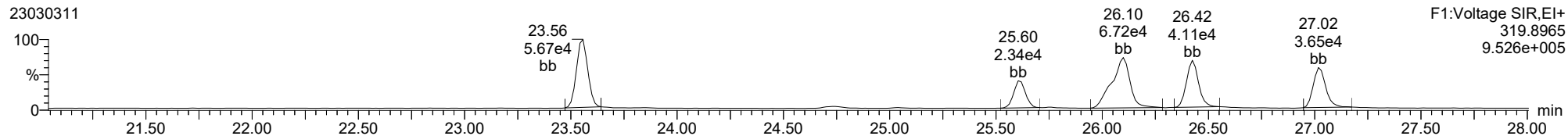
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ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

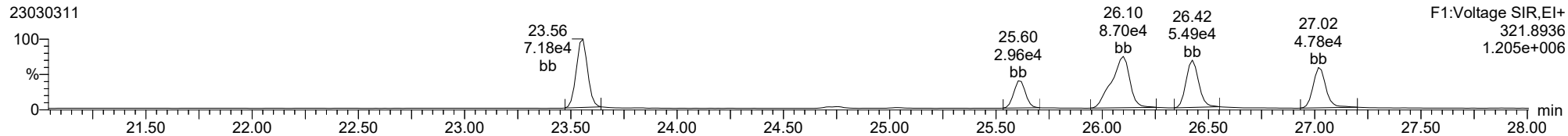
Total-tetradioxins

23030311



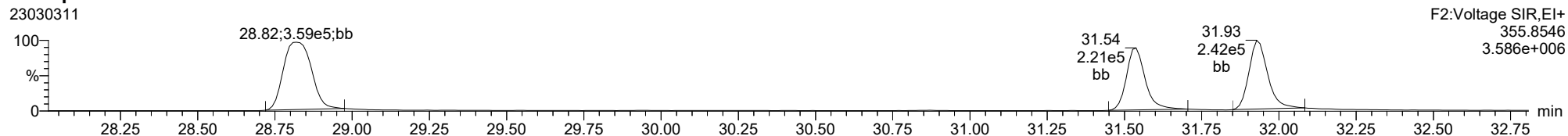
Total-tetradioxins

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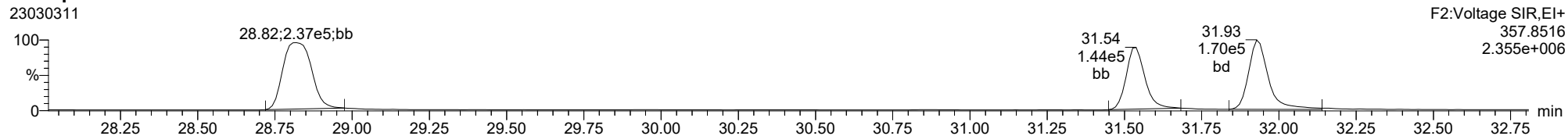
Total-pentadioxins

23030311



Total-pentadioxins

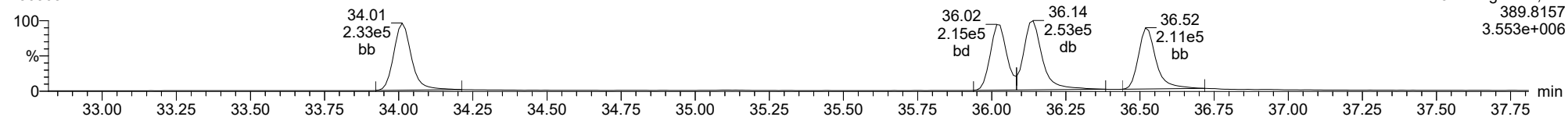
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ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

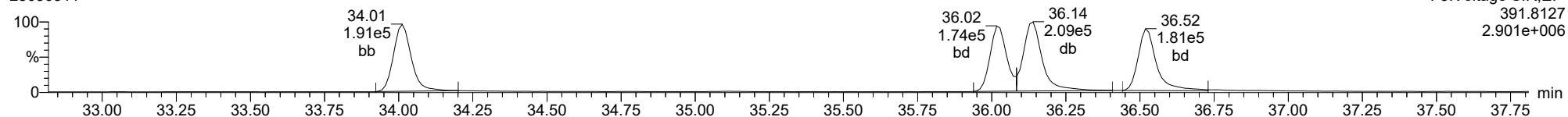
Total-hexadioxins

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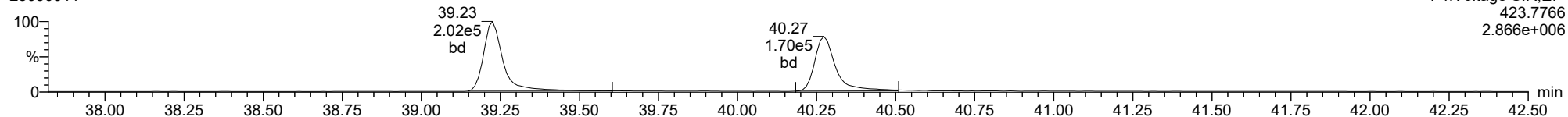
Total-hexadioxins

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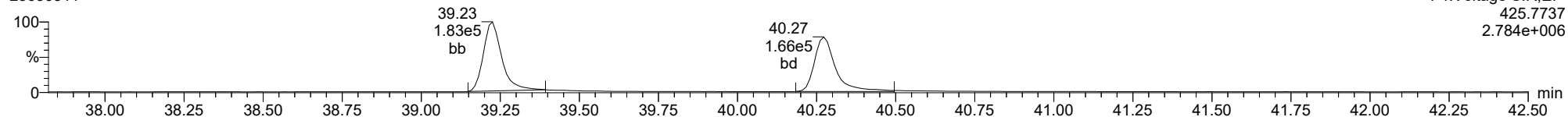
Total-heptadioxins

23030311



Total-heptadioxins

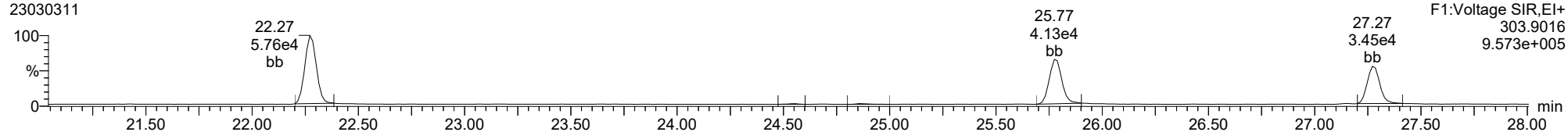
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ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

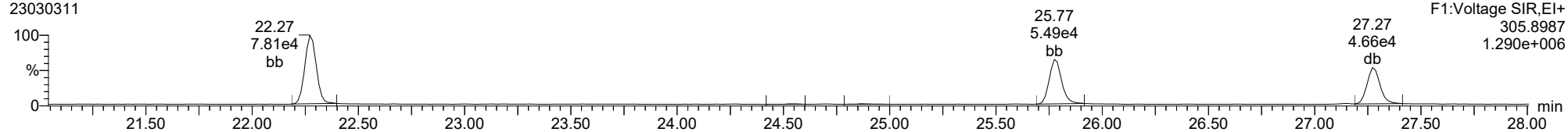
Total-tetrafurans

23030311



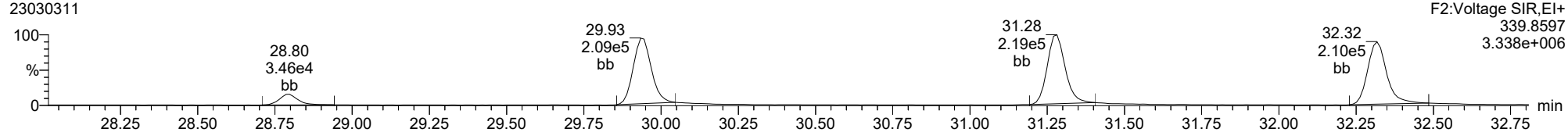
Total-tetrafurans

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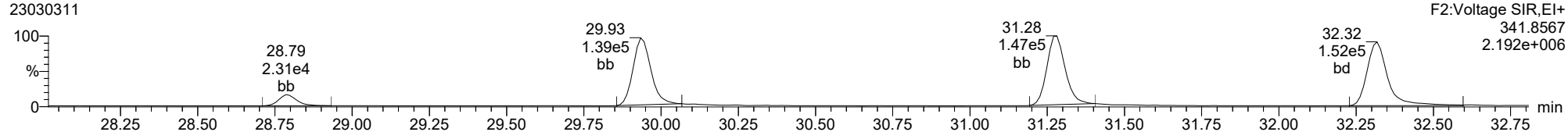
Total-pentafurans

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Total-pentafurans

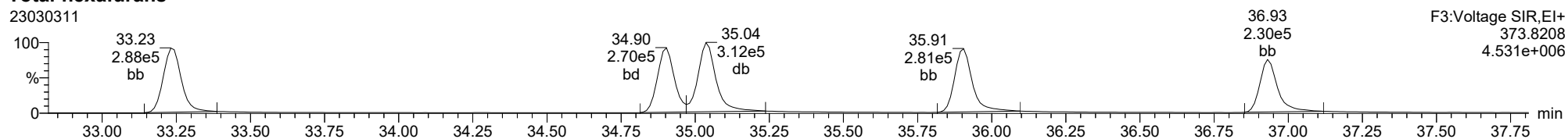
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ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

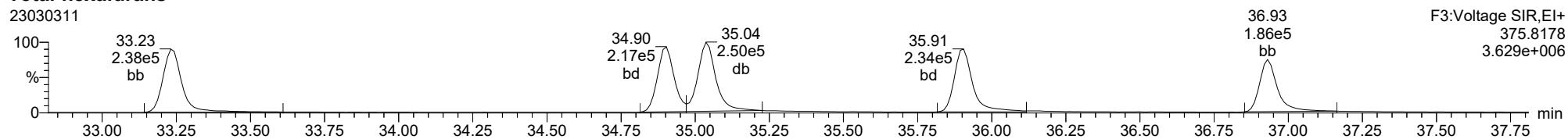
Total-hexafurans

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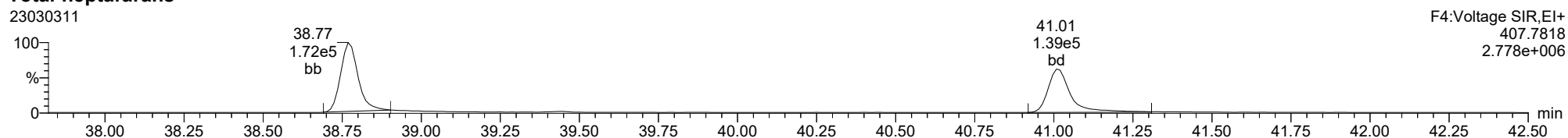
Total-hexafurans

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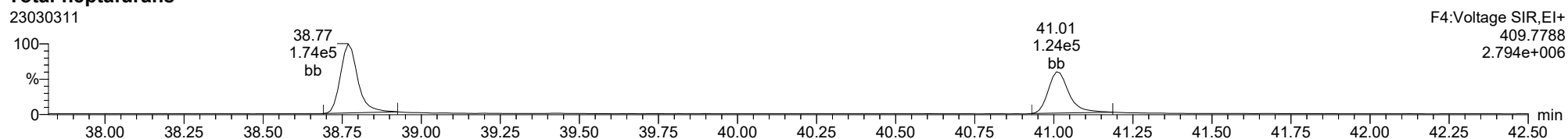
Total-heptafurans

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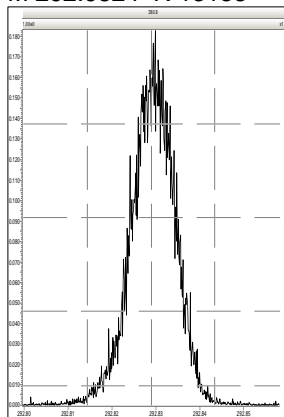
Total-heptafurans

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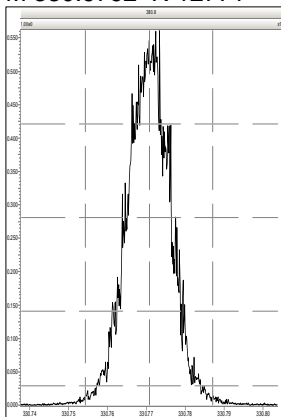


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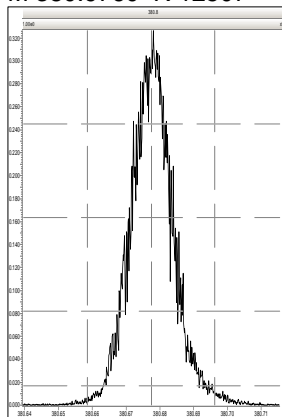
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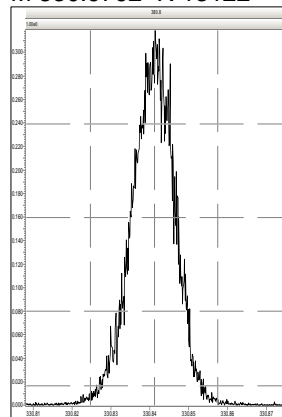
M 330.9792 R 12771



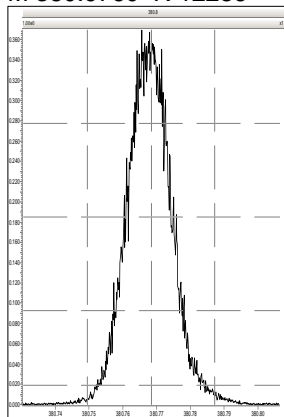
M 380.9760 R 12507



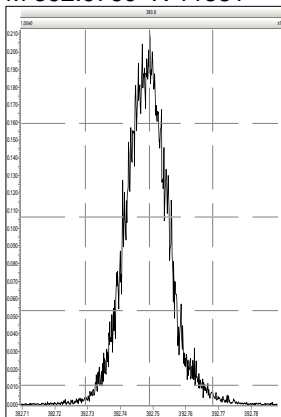
M 330.9792 R 13122



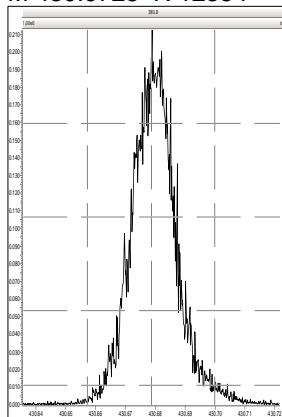
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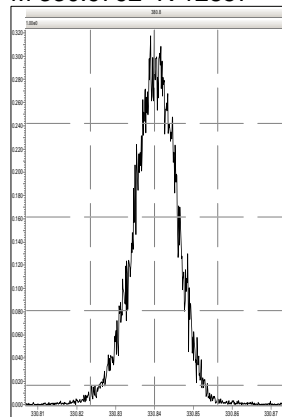
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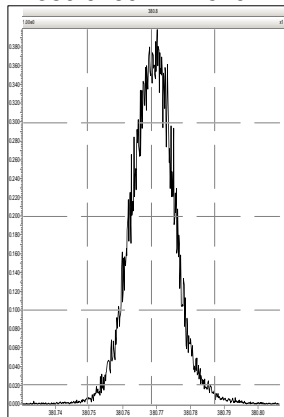
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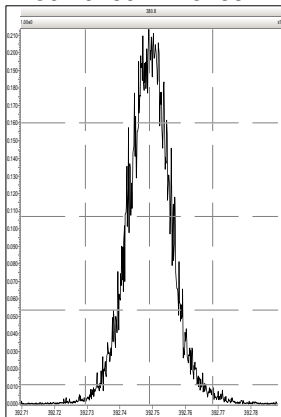
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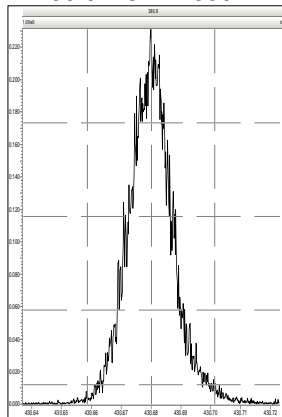
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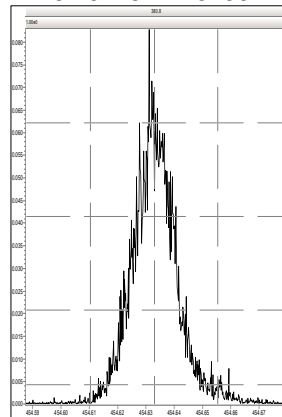
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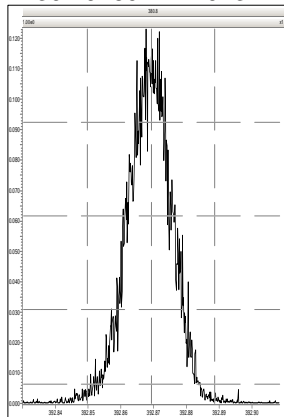
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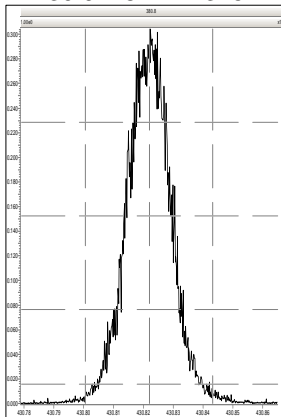
M 454.9728 R 13450



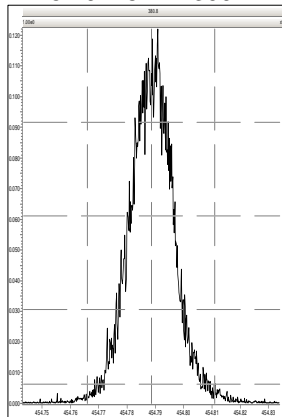
M 392.9760 R 12923



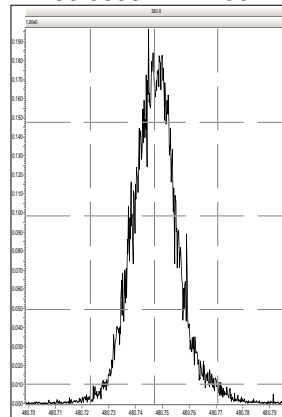
M 430.9728 R 12345



M 454.9728 R 13094

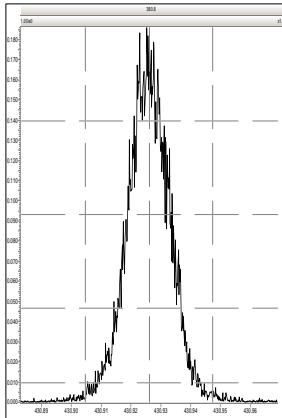


M 480.9696 R 12230

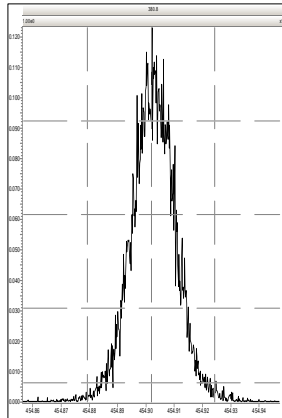


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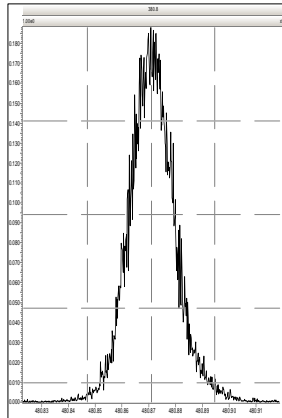
M 430.9728 R 12854



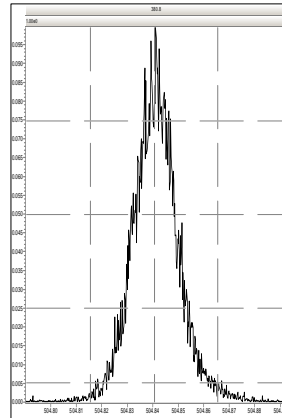
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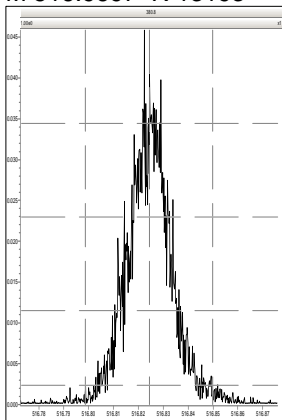
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M 504.9696 R 12168



M 516.9697 R 13193

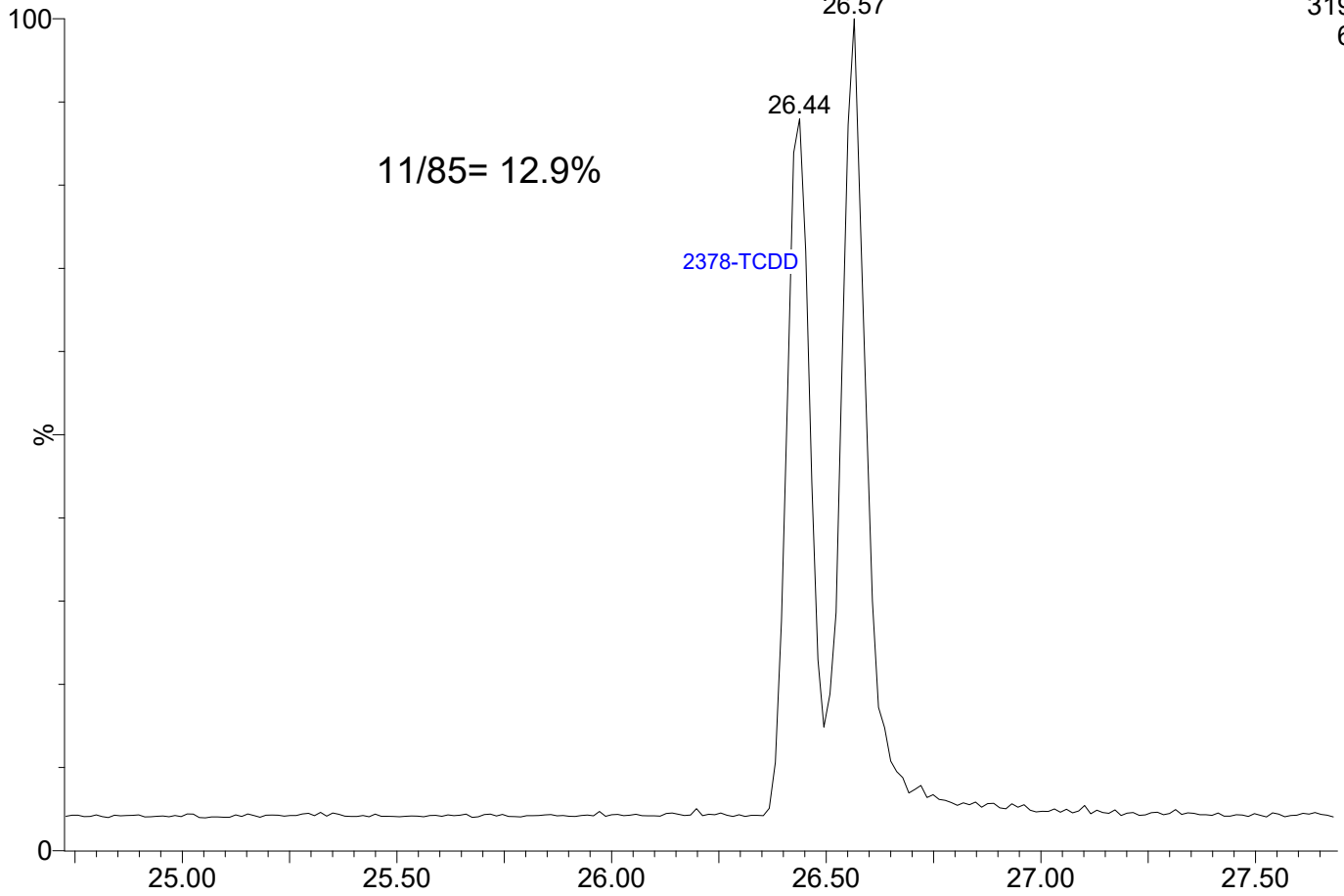


23030312

1: Voltage SIR 14 Channels EI+

319.8965

6.52e5

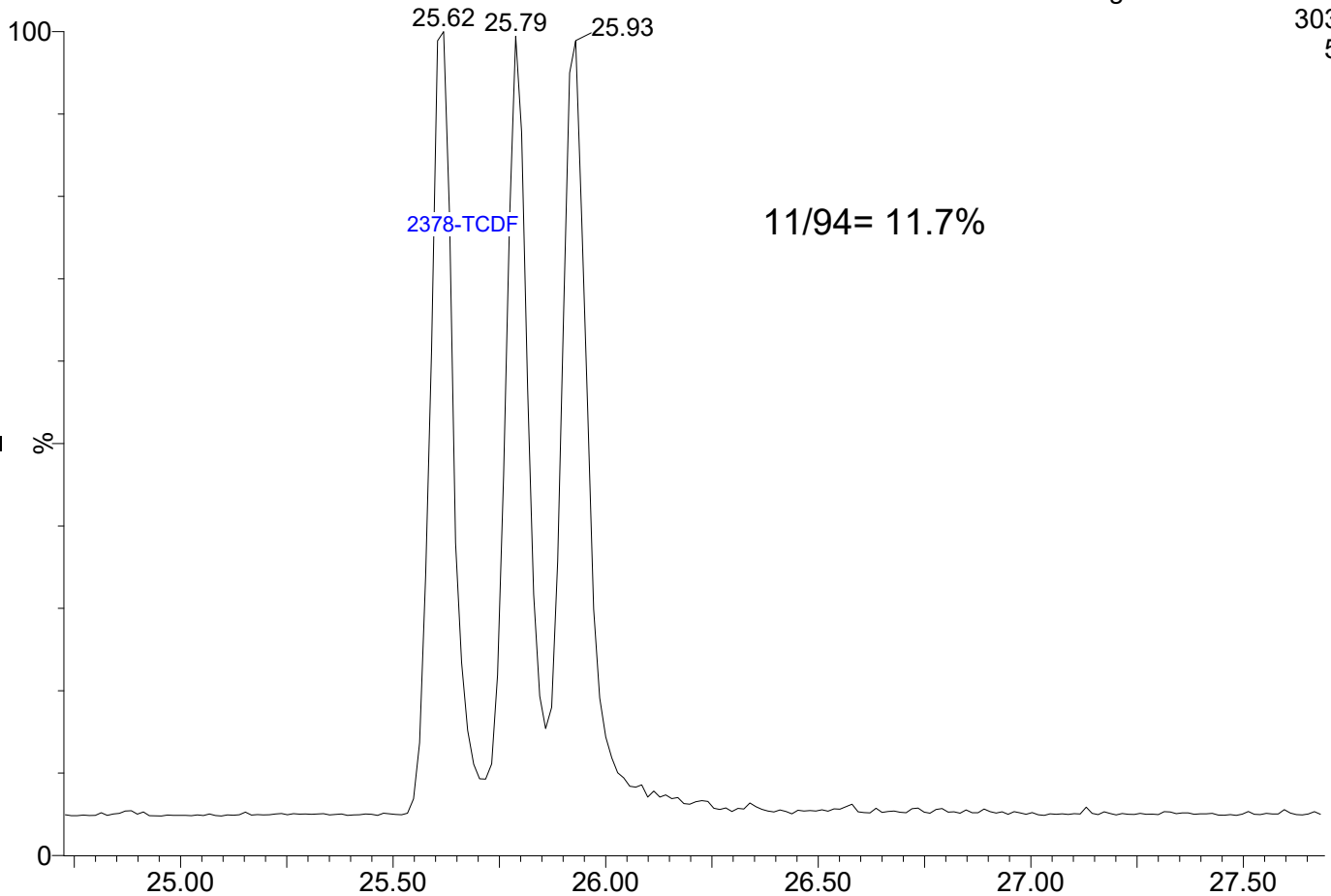


23030312

1: Voltage SIR 14 Channels EI+

303.9016

5.59e5





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00015

Laboratory ID: SLC0045-SCV1

Sequence: SLC0045

Sequence Name: ICVCW

Standard ID: H008219

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,3,7,8-TCDF	10.000	9.84	-1.6	
2,3,7,8-TCDD	10.000	9.81	-1.9	
1,2,3,7,8-PeCDF	50.000	51.4	2.8	
2,3,4,7,8-PeCDF	50.000	49.0	-2.0	
1,2,3,7,8-PeCDD	50.000	48.5	-2.9	
1,2,3,4,7,8-HxCDF	50.000	48.2	-3.5	
1,2,3,6,7,8-HxCDF	50.000	48.0	-4.0	
2,3,4,6,7,8-HxCDF	50.000	50.2	0.4	
1,2,3,7,8,9-HxCDF	50.000	49.1	-1.8	
1,2,3,4,7,8-HxCDD	50.000	50.8	1.6	
1,2,3,6,7,8-HxCDD	50.000	50.2	0.3	
1,2,3,7,8,9-HxCDD	50.000	51.6	3.2	
1,2,3,4,6,7,8-HpCDF	50.000	51.8	3.7	
1,2,3,4,7,8,9-HpCDF	50.000	48.5	-3.1	
1,2,3,4,6,7,8-HpCDD	50.000	49.2	-1.6	
OCDF	100.00	104	3.5	
OCDD	100.00	99.4	-0.6	
13C12-2,3,7,8-TCDF	100.00	96.9	-3.1	
13C12-2,3,7,8-TCDD	100.00	96.6	-3.4	
13C12-1,2,3,7,8-PeCDF	100.00	73.2	-26.8	
13C12-2,3,4,7,8-PeCDF	100.00	75.9	-24.1	
13C12-1,2,3,7,8-PeCDD	100.00	76.6	-23.4	
13C12-1,2,3,4,7,8-HxCDF	100.00	93.0	-7.0	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.0	-2.0	
13C12-2,3,4,6,7,8-HxCDF	100.00	93.4	-6.6	
13C12-1,2,3,7,8,9-HxCDF	100.00	97.9	-2.1	
13C12-1,2,3,4,7,8-HxCDD	100.00	95.9	-4.1	
13C12-1,2,3,6,7,8-HxCDD	100.00	97.7	-2.3	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	102	2.1	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	104	4.0	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	102	2.5	
13C12-OCDD	200.00	162	-19.2	
37Cl4-2,3,7,8-TCDD	10.000	8.71	-12.9	



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 1613B

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Calibration: GC00015

Sequence: SLC0045

SDG: 23D0136

Project: AOC5 MR Phase 1

Laboratory ID: SLC0045-SCV1

Sequence Name: ICVCW

Standard ID: H008219

* Indicates values outside of QC limits



**SECOND-SOURCE
CALIBRATION VERIFICATION**

EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00015

Laboratory ID: SLC0045-SCV1

Sequence: SLC0045

Standard ID: H008219

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
OCDF	100.00	104	3.5	
OCDD	100.00	99.4	-0.6	
13C12-2,3,7,8-TCDF	100.00	96.9	-3.1	
13C12-2,3,7,8-TCDD	100.00	96.6	-3.4	
13C12-1,2,3,7,8-PeCDF	100.00	73.2	-26.8	
13C12-2,3,4,7,8-PeCDF	100.00	75.9	-24.1	
13C12-1,2,3,7,8-PeCDD	100.00	76.6	-23.4	
13C12-1,2,3,4,7,8-HxCDF	100.00	93.0	-7.0	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.0	-2.0	
13C12-2,3,4,6,7,8-HxCDF	100.00	93.4	-6.6	
13C12-1,2,3,7,8,9-HxCDF	100.00	97.9	-2.1	
13C12-1,2,3,4,7,8-HxCDD	100.00	95.9	-4.1	
13C12-1,2,3,6,7,8-HxCDD	100.00	97.7	-2.3	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	102	2.1	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	104	4.0	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	102	2.5	
13C12-OCDD	200.00	162	-19.2	
37Cl4-2,3,7,8-TCDD	10.000	8.71	-12.9	

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GC00015

Lab File ID: 23030302

Calibration Date: 03/03/2023

Sequence: SLC0045

Injection Date: 03/03/23

Lab Sample ID: SLC0045-ICV1

Injection Time: 09:51

Sequence Name: CS3W1

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
2,3,7,8-TCDF	A	10.000	9.55	0.7015272	0.6699659		-4.5	+/-16
2,3,7,8-TCDD	A	10.000	9.45	1.1486620	1.0855020		-5.5	+/-22
1,2,3,7,8-PeCDF	A	50.000	49.6	0.6792300	0.6743560		-0.7	+/-18
2,3,4,7,8-PeCDF	A	50.000	47.5	0.7861704	0.7472986		-4.9	+/-18
1,2,3,7,8-PeCDD	A	50.000	49.7	1.0218450	1.0147700		-0.7	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	47.1	1.1660380	1.0988190		-5.8	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	49.6	1.0907410	1.0813380		-0.9	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	49.3	1.1396990	1.1246750		-1.3	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	47.0	1.1370930	1.0679460		-6.1	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	50.1	0.9955689	0.9966266		0.1	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	49.6	1.0009380	0.9938861		-0.7	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	54.2	0.9071139	0.9838286		8.5	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	47.5	1.0029930	0.9526502		-5.0	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	50.2	0.9531152	0.9573187		0.4	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	47.6	1.0390130	0.9895371		-4.8	+/-14
OCDF	A	100.00	88.6	0.7778078	0.6890651		-11.4	+/-37
OCDD	A	100.00	98.4	0.9199537	0.9055309		-1.6	+/-21
13C12-2,3,7,8-TCDF	A	100.00	94.0	1.6201960	1.5232274		-6.0	+/-29
13C12-2,3,7,8-TCDD	A	100.00	102	1.1524090	1.1727116		1.8	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	92.2	1.2404520	1.1438587		-7.8	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	87.6	1.1177860	0.9791895		-12.4	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	84.3	0.8288129	0.6985475		-15.7	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	84.0	1.1683050	0.9815313		-16.0	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	74.6	1.3864660	1.0348865		-25.4	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	88.7	1.1292560	1.0010969		-11.3	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	99.9	0.9317541	0.9305560		-0.1	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	93.5	0.9950393	0.9299453		-6.5	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	86.9	1.1566890	1.0052205		-13.1	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	95.3	0.8952017	0.8530837		-4.7	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	98.7	0.7697516	0.7594900		-1.3	+/-23

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>AUTOSPEC01</u>	Calibration:	<u>GC00015</u>
Lab File ID:	<u>23030302</u>	Calibration Date:	<u>03/03/2023</u>
Sequence:	<u>SLC0045</u>	Injection Date:	<u>03/03/23</u>
Lab Sample ID:	<u>SLC0045-ICV1</u>	Injection Time:	<u>09:51</u>
Sequence Name:	<u>CS3W1</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	105	0.8401226	0.8828452		5.1	+/-28
13C12-OCDD	A	200.00	214	0.7674714	0.8220320		7.1	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	9.05	1.2878040	1.1649542		-9.5	

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GC00015

Lab File ID: 23050922A

Calibration Date: 03/03/2023

Sequence: SLE0060

Injection Date: 05/10/23

Lab Sample ID: SLE0060-ICV1

Injection Time: 06:11

Sequence Name: CS3K6

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
2,3,7,8-TCDF	A	10.000	11.0	0.7015272	0.7737050		10.3	+/-16
2,3,7,8-TCDD	A	10.000	9.04	1.1486620	1.0384220		-9.6	+/-22
1,2,3,7,8-PeCDF	A	50.000	54.5	0.6792300	0.7407199		9.1	+/-18
2,3,4,7,8-PeCDF	A	50.000	52.1	0.7861704	0.8186656		4.1	+/-18
1,2,3,7,8-PeCDD	A	50.000	51.6	1.0218450	1.0554720		3.3	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	47.0	1.1660380	1.0970340		-5.9	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	48.8	1.0907410	1.0651550		-2.3	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	47.5	1.1396990	1.0829980		-5.0	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	50.6	1.1370930	1.1514780		1.3	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	48.1	0.9955689	0.9576144		-3.8	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	46.9	1.0009380	0.9398602		-6.1	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	51.9	0.9071139	0.9422093		3.9	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	52.8	1.0029930	1.0587960		5.6	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	53.7	0.9531152	1.0231130		7.3	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	54.8	1.0390130	1.1390650		9.6	+/-14
OCDF	A	100.00	101	0.7778078	0.7851392		0.9	+/-37
OCDD	A	100.00	96.9	0.9199537	0.8914075		-3.1	+/-21
13C12-2,3,7,8-TCDF	A	100.00	101	1.6201960	1.6313265		0.7	+/-29
13C12-2,3,7,8-TCDD	A	100.00	105	1.1524090	1.2065254		4.7	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	113	1.2404520	1.3965750		12.6	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	116	1.1177860	1.2971413		16.0	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	106	0.8288129	0.8792768		6.1	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	87.1	1.1683050	1.0175557		-12.9	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	90.1	1.3864660	1.2497577		-9.9	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	96.1	1.1292560	1.0852654		-3.9	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	95.0	0.9317541	0.8847847		-5.0	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	91.6	0.9950393	0.9117499		-8.4	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	93.1	1.1566890	1.0764412		-6.9	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	104	0.8952017	0.9336111		4.3	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	110	0.7697516	0.8442228		9.7	+/-23

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>AUTOSPEC01</u>	Calibration:	<u>GC00015</u>
Lab File ID:	<u>23050922A</u>	Calibration Date:	<u>03/03/2023</u>
Sequence:	<u>SLE0060</u>	Injection Date:	<u>05/10/23</u>
Lab Sample ID:	<u>SLE0060-ICV1</u>	Injection Time:	<u>06:11</u>
Sequence Name:	<u>CS3K6</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	92.8	0.8401226	0.7797636		-7.2	+/-28
13C12-OCDD	A	200.00	229	0.7674714	0.8787232		14.5	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	8.79	1.2878040	1.1320644		-12.1	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:19:18 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56
 Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.661	1.000	2.833e4	3.785e4	0.702	0.748	0.770	978	1317	4.21e5	5.57e5	430.5	422.9	NO	bb	bb	11.029
12378-PeCDF	29.822	1.001	1.642e5	1.070e5	0.679	1.534	1.550	2681	2521	2.44e6	1.56e6	910.1	618.1	NO	bb	bb	54.526
23478-PeCDF	31.159	1.001	1.683e5	1.101e5	0.786	1.528	1.550	2681	2521	2.52e6	1.63e6	938.5	646.5	NO	bb	bb	52.067
123478-HxCDF	34.780	1.001	1.628e5	1.320e5	1.166	1.233	1.240	2940	2313	2.46e6	1.99e6	838.2	860.1	NO	bd	bd	47.041
234678-HxCDF	35.783	1.001	1.741e5	1.362e5	1.140	1.278	1.240	2940	2313	2.46e6	1.97e6	837.2	851.5	NO	bd	bb	47.512
123678-HxCDF	34.914	1.000	1.875e5	1.640e5	1.091	1.144	1.240	2940	2313	2.59e6	2.08e6	882.1	899.6	NO	db	db	48.827
123789-HxCDF	36.807	1.000	1.434e5	1.256e5	1.137	1.142	1.240	2940	2313	1.98e6	1.65e6	675.2	715.0	NO	bb	bb	50.633
1234678-HpCDF	38.646	1.000	1.370e5	1.240e5	1.003	1.105	1.050	2331	2337	1.93e6	1.88e6	827.4	805.7	NO	bd	bb	52.782
1234789-HpCDF	40.874	1.000	1.144e5	1.137e5	0.953	1.007	1.050	2331	2337	1.50e6	1.46e6	645.6	623.5	NO	bd	bb	53.672
OCDF	45.062	1.006	1.713e5	1.931e5	0.778	0.887	0.890	2255	2246	2.02e6	2.28e6	895.2	1014.3	NO	bb	bb	100.943
2378-TCDD	26.311	1.001	2.905e4	3.664e4	1.149	0.793	0.770	1372	1124	4.39e5	5.33e5	319.7	474.7	NO	bb	bb	9.040
12378-PeCDD	31.415	1.001	1.452e5	9.805e4	1.022	1.481	1.550	1821	1797	2.13e6	1.34e6	1168.5	747.6	NO	bb	bb	51.645
123478-HxCDD	35.905	1.001	1.271e5	1.034e5	0.996	1.229	1.240	2153	2064	2.03e6	1.62e6	942.4	786.5	NO	bd	bd	48.094
123678-HxCDD	36.017	1.000	1.464e5	1.208e5	1.001	1.212	1.240	2153	2064	2.16e6	1.79e6	1005.2	865.5	NO	db	db	46.949
123789-HxCDD	36.407	1.011	1.411e5	1.062e5	0.907	1.328	1.240	2153	2064	1.98e6	1.58e6	919.0	763.1	NO	bd	bb	51.934
1234678-HpCDD	40.139	1.000	1.214e5	1.131e5	1.039	1.073	1.050	2308	1701	1.61e6	1.50e6	698.4	882.2	NO	bd	bd	54.815
OCDD	44.824	1.000	1.928e5	2.209e5	0.920	0.873	0.890	2511	3071	2.31e6	2.65e6	920.4	862.2	NO	bb	bb	96.897
13C-2378-TCDF	25.647	1.007	3.744e5	4.808e5	1.620	0.779	0.770	1748	1265	5.28e6	6.83e6	3018.8	5395.1	NO	bb	bb	100.687
13C-12378-PeCDF	29.800	1.170	4.347e5	2.975e5	1.240	1.462	1.550	3590	2399	6.29e6	4.15e6	1753.3	1729.4	NO	bb	bd	112.586
13C-23478-PeCDF	31.137	1.222	4.141e5	2.659e5	1.118	1.557	1.550	3590	2399	5.94e6	3.85e6	1654.0	1605.8	NO	bb	bb	116.046
13C-123478-HxCDF	34.758	0.955	1.813e5	3.560e5	1.168	0.509	0.510	2094	2890	2.66e6	5.26e6	1267.9	1819.9	NO	bd	bd	87.097
13C-123678-HxCDF	34.903	0.959	2.196e5	4.404e5	1.386	0.498	0.510	2094	2890	2.94e6	5.83e6	1404.7	2017.4	NO	db	dd	90.140
13C-234678-HxCDF	35.760	0.983	1.841e5	3.891e5	1.129	0.473	0.510	2094	2890	2.63e6	5.27e6	1253.8	1822.0	NO	bb	bb	96.104
13C-123789-HxCDF	36.797	1.011	1.555e5	3.117e5	0.932	0.499	0.510	2094	2890	2.33e6	4.60e6	1111.8	1590.5	NO	bb	bb	94.959
13C-1234678-HpCDF	38.635	1.062	1.522e5	3.408e5	0.895	0.447	0.440	2501	3454	2.38e6	5.34e6	953.4	1545.3	NO	bb	bb	104.291
13C-1234789-HpCDF	40.863	1.123	1.337e5	3.121e5	0.770	0.428	0.440	2501	3454	1.72e6	3.83e6	686.8	1108.0	NO	bd	bd	109.675
13C-1234-TCDD	25.478	0.000	2.293e5	2.950e5	1.000	0.777	0.770	1421	1258	3.46e6	4.45e6	2437.0	3538.3	NO	bb	bb	100.000
13C-2378-TCDD	26.283	1.032	2.759e5	3.566e5	1.152	0.774	0.770	1421	1258	3.90e6	5.03e6	2742.6	3996.2	NO	bb	bb	104.696
13C-12378-PeCDD	31.393	1.232	2.861e5	1.749e5	0.829	1.636	1.550	1546	974	3.96e6	2.45e6	2561.9	2516.3	NO	bb	bd	106.089
13C-123478-HxCDD	35.883	0.986	2.698e5	2.117e5	0.995	1.275	1.240	2812	1823	4.04e6	3.17e6	1438.1	1740.6	NO	bd	bd	91.630
13C-123678-HxCDD	36.006	0.990	3.135e5	2.549e5	1.157	1.230	1.240	2812	1823	4.33e6	3.51e6	1539.2	1925.5	NO	db	db	93.062
13C-1234678-HpCDD	40.128	1.103	2.222e5	1.896e5	0.840	1.172	1.050	1783	1853	2.83e6	2.61e6	1586.2	1408.9	NO	bb	bb	92.815
13C-OCDD	44.805	1.231	4.407e5	4.874e5	0.767	0.904	0.890	3468	3280	4.68e6	5.12e6	1350.4	1561.6	NO	bd	bd	228.992
13C-123789-HxCDD	36.384	0.000	2.976e5	2.305e5	1.000	1.291	1.240	2812	1823	4.12e6	3.28e6	1463.4	1799.4	NO	bd	bb	100.000
37CL-2378-TCDD	26.311	1.033	5.935e4		1.288			1291		8.58e5		664.4			bb		8.791

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
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ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.172	0.864	3.392e4	4.563e4	0.802	0.743	0.770	978	1317	5.41e5	7.19e5	553.0	545.6	NO	bb	bb	11.606
1289-TCDF	27.159	1.059	2.437e4	3.410e4	0.678	0.715	0.770	978	1317	3.70e5	5.02e5	378.0	381.0	NO	bb	db	10.084
13468-PECDF	27.017	0.907	2.494e5	1.653e5	1.246	1.509	1.550	867	846	3.74e6	2.52e6	4317.6	2973.4	NO	bb	bb	45.444
12389-PECDF	32.195	1.080	1.495e5	9.683e4	0.496	1.543	1.550	2681	2521	2.10e6	1.39e6	783.0	550.7	NO	bb	bb	67.771
123468-HXCDF	33.109	0.953	1.681e5	1.343e5	1.169	1.251	1.240	2940	2313	2.43e6	1.94e6	826.7	839.1	NO	bb	bb	48.130
1368-TCDD	23.444	0.892	2.829e4	3.576e4	1.015	0.791	0.770	1372	1124	4.42e5	5.50e5	321.9	489.2	NO	bb	bb	9.973
1289-TCDD	26.904	1.024	2.505e4	3.016e4	0.909	0.831	0.770	1372	1124	3.53e5	4.40e5	257.4	391.7	NO	bd	bd	9.604
12479-PECDD	28.697	0.914	2.410e5	1.554e5	2.301	1.551	1.550	1821	1797	2.24e6	1.48e6	1231.3	821.7	NO	bb	bb	37.361
12389-PECDD	31.805	1.013	1.548e5	1.029e5	1.184	1.505	1.550	1821	1797	2.28e6	1.49e6	1249.4	829.5	NO	bb	bb	47.240
124679-HXCDD	33.889	0.944	1.385e5	1.083e5	1.115	1.279	1.240	2153	2064	2.01e6	1.66e6	934.7	803.3	NO	bb	bb	45.966
1234679-HPCDD	39.103	0.975	1.301e5	1.157e5	1.137	1.124	1.050	2308	1701	1.87e6	1.76e6	809.9	1036.7	NO	bd	bb	52.509
Total-tetrafurans			8.684e4		0.727			978		1.34e6							32.803
Total-penta1			2.494e5					867		3.74e6							45.444
Total-pentafurans			5.087e5		0.654			2681		7.45e6							183.727
Total-hexafurans			8.359e5		1.141			2940		1.19e7							242.143
Total-heptafurans			2.514e5		0.978			2331		3.43e6							106.454
Total-Furans			2.104e6		0.922			978		2.99e7							711.514
Total-tetradoxins			1.379e5		1.024			1372		1.85e6							47.921
Total-pentadoxins			5.410e5		1.502			1821		6.65e6							136.246
Total-hexadoxins			5.531e5		1.005			2153		8.18e6							192.943
Total-heptadoxins			2.517e5		1.088			2308		3.49e6							107.394
Total-Dioxins			1.676e6		1.130			1372		2.25e7							581.402
Total-TEQ			3.780e6					1372		5.24e7							1292.916
FUNCTION1 PFK			1.668e5					186971		3.41e6							
FUNCTION2 PFK			8.113e5					106552		3.34e6							0.000
FUNCTION3 PFK			4.076e4					172503		1.24e6							0.000
FUNCTION4 PFK			1.993e5					140525		6.20e6							
FUNCTION5 PFK			0.000e0					116429		0.00e0							
FUNCTION1 HXCD...			5.753e2					520		8.04e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			4.123e2					631		7.31e3							0.000
FUNCTION3 OCDPE			1.152e2					622		1.82e3							0.000
FUNCTION4 NCDPE			1.143e2					628		4.46e3							0.000
FUNCTION5 DCDPE			7.330e1					570		1.31e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
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Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.66	2.833e4	3.785e4	0.702	0.75	0.77	430.5	YES	NO	bb	bb	11.029
2	Total-tetrafurans	23.99	2.198e2	3.057e2	0.727	0.72	0.77	4.9	YES	NO	db	bb	0.085
3	1368-TCDF	22.17	3.392e4	4.563e4	0.802	0.74	0.77	553.0	YES	NO	bb	bb	11.606
4	1289-TCDF	27.16	2.437e4	3.410e4	0.678	0.71	0.77	378.0	YES	NO	bb	db	10.084

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDFF	27.02	2.494e5	1.653e5	1.246	1.51	1.55	4317.6	YES	NO	bb	bb	45.444

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.16	1.683e5	1.101e5	0.786	1.53	1.55	938.5	YES	NO	bb	bb	52.067
2	12378-PeCDF	29.82	1.642e5	1.070e5	0.679	1.53	1.55	910.1	YES	NO	bb	bb	54.526
3	Total-pentafurans	28.67	2.684e4	1.639e4	0.654	1.64	1.55	147.3	YES	NO	bb	bb	9.363
4	12389-PECDF	32.20	1.495e5	9.683e4	0.496	1.54	1.55	783.0	YES	NO	bb	bb	67.771

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	234678-HxCDF	35.78	1.741e5	1.362e5	1.140	1.28	1.24	837.2	YES	NO	bd	bb	47.512
2	123678-HxCDF	34.91	1.875e5	1.640e5	1.091	1.14	1.24	882.1	YES	NO	db	db	48.827
3	123478-HxCDF	34.78	1.628e5	1.320e5	1.166	1.23	1.24	838.2	YES	NO	bd	bd	47.041
4	123468-HXCDF	33.11	1.681e5	1.343e5	1.169	1.25	1.24	826.7	YES	NO	bb	bb	48.130
5	123789-HxCDF	36.81	1.434e5	1.256e5	1.137	1.14	1.24	675.2	YES	NO	bb	bb	50.633

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	40.87	1.144e5	1.137e5	0.953	1.01	1.05	645.6	YES	NO	bd	bb	53.672
2	1234678-HpCDF	38.65	1.370e5	1.240e5	1.003	1.11	1.05	827.4	YES	NO	bd	bb	52.782

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.66	2.833e4	3.785e4	0.702	0.75	0.77	430.5	YES	NO	bb	bb	11.029
2	Total-tetrafurans	23.99	2.198e2	3.057e2	0.727	0.72	0.77	4.9	YES	NO	db	bb	0.085
3	1368-TCDF	22.17	3.392e4	4.563e4	0.802	0.74	0.77	553.0	YES	NO	bb	bb	11.606
4	23478-PeCDF	31.16	1.683e5	1.101e5	0.786	1.53	1.55	938.5	YES	NO	bb	bb	52.067
5	12378-PeCDF	29.82	1.642e5	1.070e5	0.679	1.53	1.55	910.1	YES	NO	bb	bb	54.526
6	Total-pentafurans	28.67	2.684e4	1.639e4	0.654	1.64	1.55	147.3	YES	NO	bb	bb	9.363
7	1289-TCDF	27.16	2.437e4	3.410e4	0.678	0.71	0.77	378.0	YES	NO	bb	db	10.084
8	234678-HxCDF	35.78	1.741e5	1.362e5	1.140	1.28	1.24	837.2	YES	NO	bd	bb	47.512
9	123678-HxCDF	34.91	1.875e5	1.640e5	1.091	1.14	1.24	882.1	YES	NO	db	db	48.827
10	123478-HxCDF	34.78	1.628e5	1.320e5	1.166	1.23	1.24	838.2	YES	NO	bd	bd	47.041
11	123468-HXCDF	33.11	1.681e5	1.343e5	1.169	1.25	1.24	826.7	YES	NO	bb	bb	48.130
12	12389-PECDF	32.20	1.495e5	9.683e4	0.496	1.54	1.55	783.0	YES	NO	bb	bb	67.771
13	123789-HxCDF	36.81	1.434e5	1.256e5	1.137	1.14	1.24	675.2	YES	NO	bb	bb	50.633
14	1234789-HpCDF	40.87	1.144e5	1.137e5	0.953	1.01	1.05	645.6	YES	NO	bd	bb	53.672
15	1234678-HpCDF	38.65	1.370e5	1.240e5	1.003	1.11	1.05	827.4	YES	NO	bd	bb	52.782
16	OCDF	45.06	1.713e5	1.931e5	0.778	0.89	0.89	895.2	YES	NO	bb	bb	100.943
17	13468-PECDF	27.02	2.494e5	1.653e5	1.246	1.51	1.55	4317.6	YES	NO	bb	bb	45.444

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	25.99	4.269e4	5.250e4	1.024	0.81	0.77	309.9	YES	NO	bb	bb	14.692
2	Total-tetradioxins	25.51	1.285e4	1.703e4	1.024	0.75	0.77	139.2	YES	NO	bb	bb	4.612
3	1368-TCDD	23.44	2.829e4	3.576e4	1.015	0.79	0.77	321.9	YES	NO	bb	bb	9.973
4	1289-TCDD	26.90	2.505e4	3.016e4	0.909	0.83	0.77	257.4	YES	NO	bd	bd	9.604
5	2378-TCDD	26.31	2.905e4	3.664e4	1.149	0.79	0.77	319.7	YES	NO	bb	bb	9.040

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.81	1.548e5	1.029e5	1.184	1.50	1.55	1249.4	YES	NO	bb	bb	47.240
2	12378-PeCDD	31.42	1.452e5	9.805e4	1.022	1.48	1.55	1168.5	YES	NO	bb	bb	51.645
3	12479-PECDD	28.70	2.410e5	1.554e5	2.301	1.55	1.55	1231.3	YES	NO	bb	bb	37.361

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.41	1.411e5	1.062e5	0.907	1.33	1.24	919.0	YES	NO	bd	bb	51.934
2	123678-HxCDD	36.02	1.464e5	1.208e5	1.001	1.21	1.24	1005.2	YES	NO	db	db	46.949
3	123478-HxCDD	35.91	1.271e5	1.034e5	0.996	1.23	1.24	942.4	YES	NO	bd	bd	48.094
4	124679-HXCDD	33.89	1.385e5	1.083e5	1.115	1.28	1.24	934.7	YES	NO	bb	bb	45.966

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.14	1.214e5	1.131e5	1.039	1.07	1.05	698.4	YES	NO	bd	bd	54.815
2	Total-heptadioxins	39.67	1.621e2	1.542e2	1.088	1.05	1.05	2.5	NO	NO	bb	bb	0.071
3	1234679-HPCDD	39.10	1.301e5	1.157e5	1.137	1.12	1.05	809.9	YES	NO	bd	bb	52.509

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	25.99	4.269e4	5.250e4	1.024	0.81	0.77	309.9	YES	NO	bb	bb	14.692
2	Total-tetradoxins	25.51	1.285e4	1.703e4	1.024	0.75	0.77	139.2	YES	NO	bb	bb	4.612
3	1368-TCDD	23.44	2.829e4	3.576e4	1.015	0.79	0.77	321.9	YES	NO	bb	bb	9.973
4	1289-TCDD	26.90	2.505e4	3.016e4	0.909	0.83	0.77	257.4	YES	NO	bd	bd	9.604
5	2378-TCDD	26.31	2.905e4	3.664e4	1.149	0.79	0.77	319.7	YES	NO	bb	bb	9.040
6	12389-PECDD	31.81	1.548e5	1.029e5	1.184	1.50	1.55	1249.4	YES	NO	bb	bb	47.240
7	12378-PeCDD	31.42	1.452e5	9.805e4	1.022	1.48	1.55	1168.5	YES	NO	bb	bb	51.645
8	12479-PECDD	28.70	2.410e5	1.554e5	2.301	1.55	1.55	1231.3	YES	NO	bb	bb	37.361
9	123789-HxCDD	36.41	1.411e5	1.062e5	0.907	1.33	1.24	919.0	YES	NO	bd	bb	51.934
10	123678-HxCDD	36.02	1.464e5	1.208e5	1.001	1.21	1.24	1005.2	YES	NO	db	db	46.949
11	123478-HxCDD	35.91	1.271e5	1.034e5	0.996	1.23	1.24	942.4	YES	NO	bd	bd	48.094
12	124679-HXCDD	33.89	1.385e5	1.083e5	1.115	1.28	1.24	934.7	YES	NO	bb	bb	45.966
13	1234678-HpCDD	40.14	1.214e5	1.131e5	1.039	1.07	1.05	698.4	YES	NO	bd	bd	54.815
14	Total-heptadioxins	39.67	1.621e2	1.542e2	1.088	1.05	1.05	2.5	NO	NO	bb	bb	0.071
15	1234679-HPCDD	39.10	1.301e5	1.157e5	1.137	1.12	1.05	809.9	YES	NO	bd	bb	52.509
16	OCDD	44.82	1.928e5	2.209e5	0.920	0.87	0.89	920.4	YES	NO	bb	bb	96.897

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.66	2.833e4	3.785e4	0.702	0.75	0.77	430.5	YES	NO	bb	bb	11.029
2	Total-tetrafurans	23.99	2.198e2	3.057e2	0.727	0.72	0.77	4.9	YES	NO	db	bb	0.085
3	1368-TCDF	22.17	3.392e4	4.563e4	0.802	0.74	0.77	553.0	YES	NO	bb	bb	11.606
4	23478-PeCDF	31.16	1.683e5	1.101e5	0.786	1.53	1.55	938.5	YES	NO	bb	bb	52.067
5	12378-PeCDF	29.82	1.642e5	1.070e5	0.679	1.53	1.55	910.1	YES	NO	bb	bb	54.526
6	Total-pentafurans	28.67	2.684e4	1.639e4	0.654	1.64	1.55	147.3	YES	NO	bb	bb	9.363
7	1289-TCDF	27.16	2.437e4	3.410e4	0.678	0.71	0.77	378.0	YES	NO	bb	db	10.084
8	234678-HxCDF	35.78	1.741e5	1.362e5	1.140	1.28	1.24	837.2	YES	NO	bd	bb	47.512
9	123678-HxCDF	34.91	1.875e5	1.640e5	1.091	1.14	1.24	882.1	YES	NO	db	db	48.827
10	123478-HxCDF	34.78	1.628e5	1.320e5	1.166	1.23	1.24	838.2	YES	NO	bd	bd	47.041
11	123468-HXCDF	33.11	1.681e5	1.343e5	1.169	1.25	1.24	826.7	YES	NO	bb	bb	48.130
12	12389-PECDF	32.20	1.495e5	9.683e4	0.496	1.54	1.55	783.0	YES	NO	bb	bb	67.771
13	123789-HxCDF	36.81	1.434e5	1.256e5	1.137	1.14	1.24	675.2	YES	NO	bb	bb	50.633
14	1234789-HpCDF	40.87	1.144e5	1.137e5	0.953	1.01	1.05	645.6	YES	NO	bd	bb	53.672
15	1234678-HpCDF	38.65	1.370e5	1.240e5	1.003	1.11	1.05	827.4	YES	NO	bd	bb	52.782
16	OCDF	45.06	1.713e5	1.931e5	0.778	0.89	0.89	895.2	YES	NO	bb	bb	100.943
17	13468-PECDF	27.02	2.494e5	1.653e5	1.246	1.51	1.55	4317.6	YES	NO	bb	bb	45.444
18	Total-tetradioxins	25.99	4.269e4	5.250e4	1.024	0.81	0.77	309.9	YES	NO	bb	bb	14.692
19	Total-tetradioxins	25.51	1.285e4	1.703e4	1.024	0.75	0.77	139.2	YES	NO	bb	bb	4.612
20	1368-TCDD	23.44	2.829e4	3.576e4	1.015	0.79	0.77	321.9	YES	NO	bb	bb	9.973
21	1289-TCDD	26.90	2.505e4	3.016e4	0.909	0.83	0.77	257.4	YES	NO	bd	bd	9.604
22	2378-TCDD	26.31	2.905e4	3.664e4	1.149	0.79	0.77	319.7	YES	NO	bb	bb	9.040
23	12389-PECDD	31.81	1.548e5	1.029e5	1.184	1.50	1.55	1249.4	YES	NO	bb	bb	47.240
24	12378-PeCDD	31.42	1.452e5	9.805e4	1.022	1.48	1.55	1168.5	YES	NO	bb	bb	51.645
25	12479-PECDD	28.70	2.410e5	1.554e5	2.301	1.55	1.55	1231.3	YES	NO	bb	bb	37.361
26	123789-HxCDD	36.41	1.411e5	1.062e5	0.907	1.33	1.24	919.0	YES	NO	bd	bb	51.934
27	123678-HxCDD	36.02	1.464e5	1.208e5	1.001	1.21	1.24	1005.2	YES	NO	db	db	46.949
28	123478-HxCDD	35.91	1.271e5	1.034e5	0.996	1.23	1.24	942.4	YES	NO	bd	bd	48.094
29	124679-HXCDD	33.89	1.385e5	1.083e5	1.115	1.28	1.24	934.7	YES	NO	bb	bb	45.966
30	1234678-HpCDD	40.14	1.214e5	1.131e5	1.039	1.07	1.05	698.4	YES	NO	bd	bd	54.815
31	Total-heptadioxins	39.67	1.621e2	1.542e2	1.088	1.05	1.05	2.5	NO	NO	bb	bb	0.071
32	1234679-HPCDD	39.10	1.301e5	1.157e5	1.137	1.12	1.05	809.9	YES	NO	bd	bb	52.509
33	OCDD	44.82	1.928e5	2.209e5	0.920	0.87	0.89	920.4	YES	NO	bb	bb	96.897

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:19:18 Pacific Daylight Time

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	24.22	2.429e4					1.4	NO		bb		
2	FUNCTION1 PFK	23.39	1.595e3					0.5	NO		db		
3	FUNCTION1 PFK	23.34	3.170e3					0.6	NO		bd		
4	FUNCTION1 PFK	23.25	1.690e4					2.0	NO		bb		
5	FUNCTION1 PFK	22.71	6.558e3					1.0	NO		bb		
6	FUNCTION1 PFK	22.55	2.929e3					0.6	NO		bb		
7	FUNCTION1 PFK	22.23	2.749e3					0.6	NO		bb		
8	FUNCTION1 PFK	22.16	1.798e4					1.2	NO		bb		
9	FUNCTION1 PFK	27.89	1.093e3					0.4	NO		bb		
10	FUNCTION1 PFK	27.65	1.387e4					1.4	NO		db		
11	FUNCTION1 PFK	27.55	1.835e4					1.3	NO		bd		
12	FUNCTION1 PFK	26.49	4.792e3					0.7	NO		bb		
13	FUNCTION1 PFK	26.37	6.824e3					0.9	NO		bb		
14	FUNCTION1 PFK	26.33	1.226e3					0.5	NO		bb		
15	FUNCTION1 PFK	25.96	9.664e3					1.1	NO		bb		
16	FUNCTION1 PFK	25.49	1.043e3					0.4	NO		bb		
17	FUNCTION1 PFK	25.10	4.537e3					0.7	NO		bb		
18	FUNCTION1 PFK	24.60	1.489e4					1.1	NO		db		
19	FUNCTION1 PFK	24.49	1.324e4					1.4	NO		bd		
20	FUNCTION1 PFK	24.29	1.094e3					0.4	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:19:18 Pacific Daylight Time

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.50	4.136e3					1.3	NO		bd		0.000
2	FUNCTION2 PFK	29.09	3.921e3					1.2	NO		bb		0.000
3	FUNCTION2 PFK	28.31	7.596e5					13.8	YES		bb		0.000
4	FUNCTION2 PFK	32.69	2.528e3					0.9	NO		db		0.000
5	FUNCTION2 PFK	32.65	9.250e2					0.6	NO		bd		0.000
6	FUNCTION2 PFK	32.38	5.159e2					0.4	NO		bb		0.000
7	FUNCTION2 PFK	32.13	2.221e3					0.9	NO		bb		0.000
8	FUNCTION2 PFK	31.97	2.641e3					1.0	NO		bb		0.000
9	FUNCTION2 PFK	31.92	2.615e3					1.0	NO		bb		0.000
10	FUNCTION2 PFK	31.00	1.370e3					0.7	NO		bb		0.000
11	FUNCTION2 PFK	30.29	5.611e3					1.4	NO		db		0.000
12	FUNCTION2 PFK	30.20	1.006e4					1.6	NO		bd		0.000
13	FUNCTION2 PFK	30.11	2.084e3					0.7	NO		bb		0.000
14	FUNCTION2 PFK	30.06	2.666e3					1.1	NO		bb		0.000
15	FUNCTION2 PFK	29.97	9.710e2					0.8	NO		bb		0.000
16	FUNCTION2 PFK	29.89	4.635e2					0.4	NO		bb		0.000
17	FUNCTION2 PFK	29.86	5.619e2					0.5	NO		bb		0.000
18	FUNCTION2 PFK	29.76	3.692e3					1.4	NO		bb		0.000
19	FUNCTION2 PFK	29.53	4.722e3					1.6	NO		db		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.20	6.042e3					1.5	NO		bb		0.000
2	FUNCTION3 PFK	33.23	1.798e4					2.7	NO		bb		0.000
3	FUNCTION3 PFK	32.87	1.674e4					3.0	NO		bb		0.000

Quantify Totals Report MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:19:18 Pacific Daylight Time

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.35	5.806e3					1.5	NO		bb		
2	FUNCTION4 PFK	39.17	2.454e3					1.0	NO		bb		
3	FUNCTION4 PFK	39.01	1.382e4					1.5	NO		bb		
4	FUNCTION4 PFK	38.96	8.035e2					0.5	NO		bb		
5	FUNCTION4 PFK	38.51	7.936e3					1.5	NO		db		
6	FUNCTION4 PFK	38.47	2.410e3					0.8	NO		bd		
7	FUNCTION4 PFK	38.30	2.244e3					0.8	NO		bb		
8	FUNCTION4 PFK	38.23	6.389e3					1.4	NO		bb		
9	FUNCTION4 PFK	38.18	9.474e3					1.7	NO		bb		
10	FUNCTION4 PFK	37.97	6.614e3					1.9	NO		bb		
11	FUNCTION4 PFK	37.91	2.830e3					0.9	NO		bb		
12	FUNCTION4 PFK	41.67	4.090e3					1.3	NO		db		
13	FUNCTION4 PFK	41.63	5.393e3					1.2	NO		bd		
14	FUNCTION4 PFK	41.41	3.945e3					1.2	NO		bb		
15	FUNCTION4 PFK	41.20	1.135e4					1.8	NO		bb		
16	FUNCTION4 PFK	40.99	3.929e3					1.1	NO		bb		
17	FUNCTION4 PFK	40.82	7.332e3					1.3	NO		bb		
18	FUNCTION4 PFK	40.68	6.838e2					0.4	NO		bb		
19	FUNCTION4 PFK	40.37	8.156e2					0.4	NO		db		
20	FUNCTION4 PFK	40.33	4.038e3					1.3	NO		dd		
21	FUNCTION4 PFK	40.29	7.026e3					1.8	NO		bd		
22	FUNCTION4 PFK	40.13	8.300e3					1.5	NO		db		
23	FUNCTION4 PFK	40.06	3.488e3					1.0	NO		bd		
24	FUNCTION4 PFK	40.01	3.303e3					1.1	NO		db		
25	FUNCTION4 PFK	39.97	4.549e3					1.2	NO		bd		
26	FUNCTION4 PFK	39.49	1.325e3					0.6	NO		db		
27	FUNCTION4 PFK	39.46	1.441e3					0.6	NO		bd		
28	FUNCTION4 PFK	42.91	1.561e4					1.9	NO		db		
29	FUNCTION4 PFK	42.81	8.663e2					0.5	NO		bd		
30	FUNCTION4 PFK	42.77	6.177e2					0.4	NO		bb		
31	FUNCTION4 PFK	42.69	3.302e3					0.9	NO		bb		
32	FUNCTION4 PFK	42.56	1.632e4					2.2	NO		db		
33	FUNCTION4 PFK	42.45	1.486e4					2.2	NO		bd		
34	FUNCTION4 PFK	42.08	8.282e2					0.5	NO		bb		
35	FUNCTION4 PFK	41.88	6.700e3					1.5	NO		db		
36	FUNCTION4 PFK	41.83	3.705e3					1.2	NO		bd		
37	FUNCTION4 PFK	41.72	4.664e3					1.3	NO		bb		

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
Printed: Thursday, May 11, 2023 11:19:18 Pacific Daylight Time

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.80	9.468e1					3.6	YES		bb	0.000	
2	FUNCTION1 HXCD...	24.73	1.625e2					3.8	YES		bb	0.000	
3	FUNCTION1 HXCD...	23.97	3.182e2					8.0	YES		bb	0.000	

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.82	7.326e1					2.6	NO		bb	0.000	
2	FUNCTION2 HPCD...	31.52	9.804e1					2.4	NO		bb	0.000	
3	FUNCTION2 HPCD...	31.03	1.556e2					3.7	YES		bb	0.000	
4	FUNCTION2 HPCD...	29.72	8.539e1					2.8	NO		bb	0.000	

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	33.23	1.152e2					2.9	NO		bb	0.000	

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.00	1.143e2					7.1	YES		bb	0.000	

ETHERS6

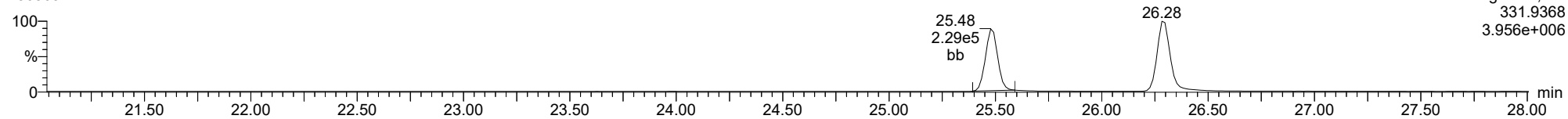
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1	FUNCTION5 DCDPE	44.48	7.330e1					2.3	NO		bb	0.000	

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: CS3K6, **Name:** 23050922, **Date:** 10-May-2023, **Time:** 06:11:05, **Conditions:** AUTOSPEC01, **User:** pk

13C-1234-TCDD

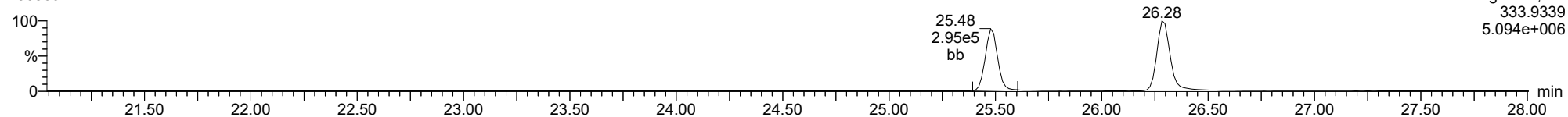
23050922



F1:Voltage SIR,EI+
331.9368
3.956e+006

13C-1234-TCDD

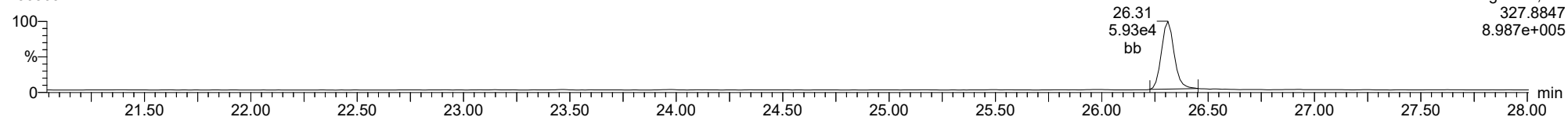
23050922



F1:Voltage SIR,EI+
333.9339
5.094e+006

37CL-2378-TCDD

23050922

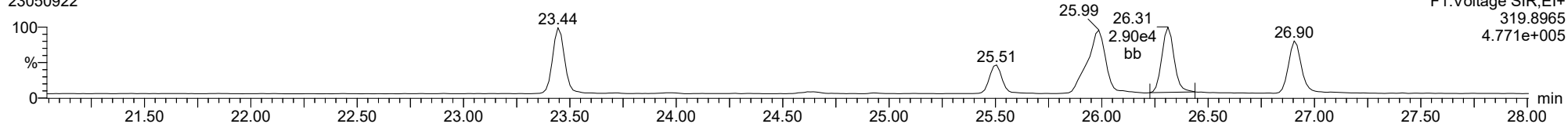


F1:Voltage SIR,EI+
327.8847
8.987e+005

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

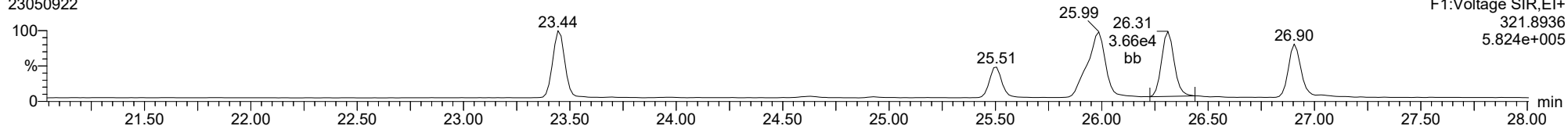
2378-TCDD

23050922



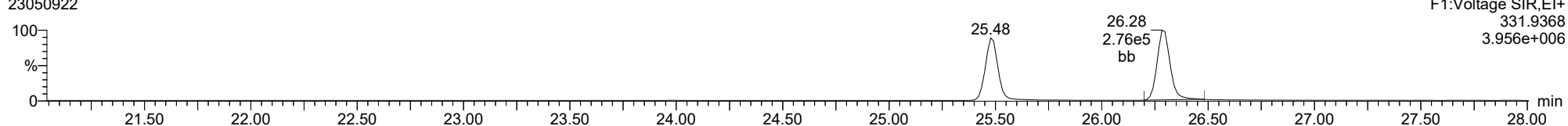
2378-TCDD

23050922



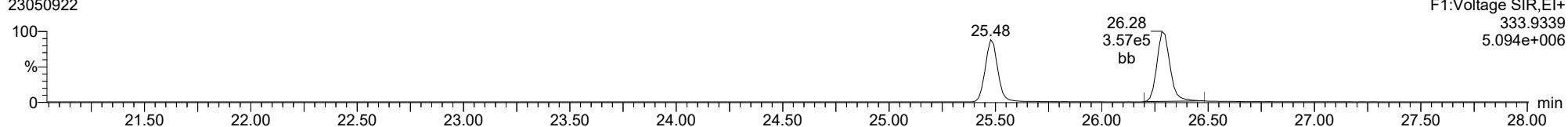
13C-2378-TCDD

23050922



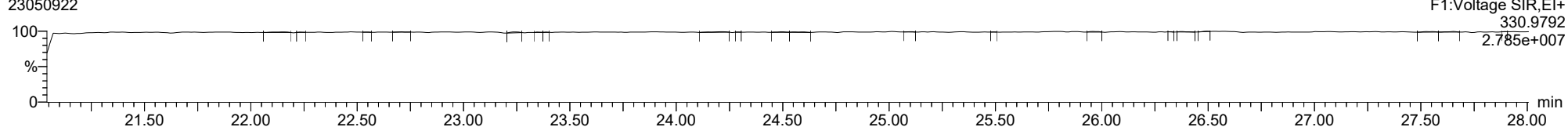
13C-2378-TCDD

23050922



FUNCTION1 PFK

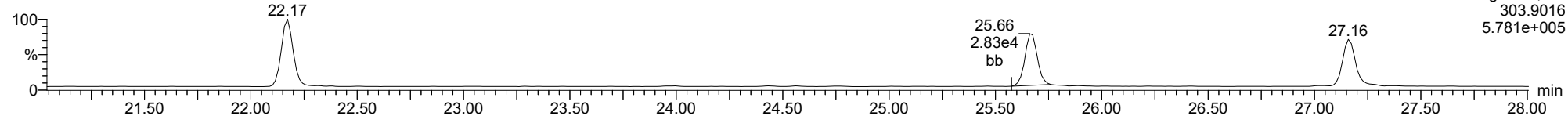
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ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

2378-TCDF

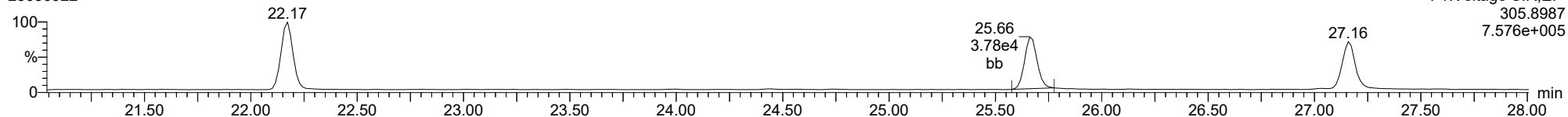
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F1:Voltage SIR,EI+
303.9016
5.781e+005

2378-TCDF

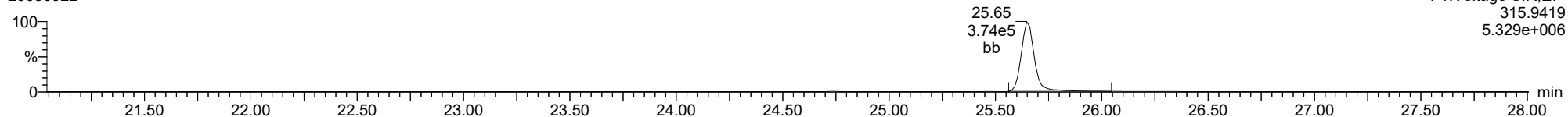
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F1:Voltage SIR,EI+
305.8987
7.576e+005

13C-2378-TCDF

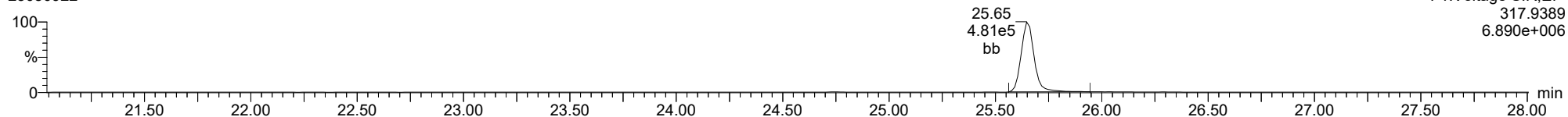
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F1:Voltage SIR,EI+
315.9419
5.329e+006

13C-2378-TCDF

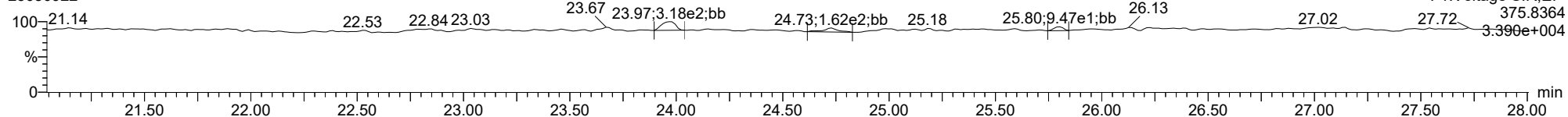
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F1:Voltage SIR,EI+
317.9389
6.890e+006

FUNCTION1 HXCDPE

23050922

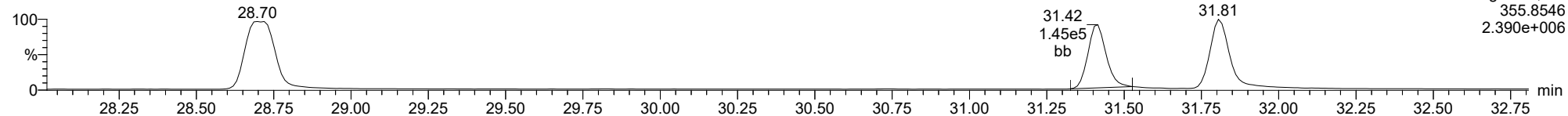


F1:Voltage SIR,EI+
375.8364
3.39e+004

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

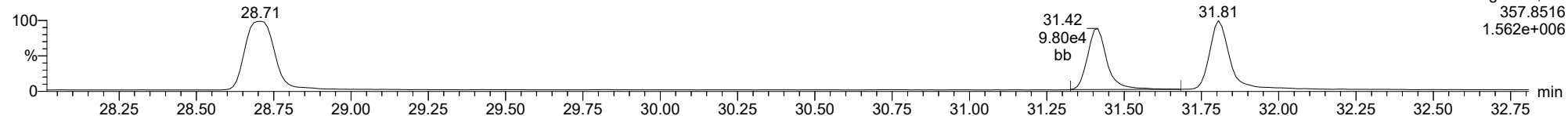
23050922



F2:Voltage SIR,EI+
355.8546
2.390e+006

12378-PeCDD

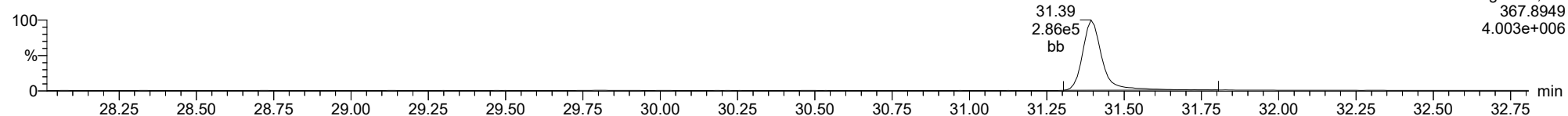
23050922



F2:Voltage SIR,EI+
357.8516
1.562e+006

13C-12378-PeCDD

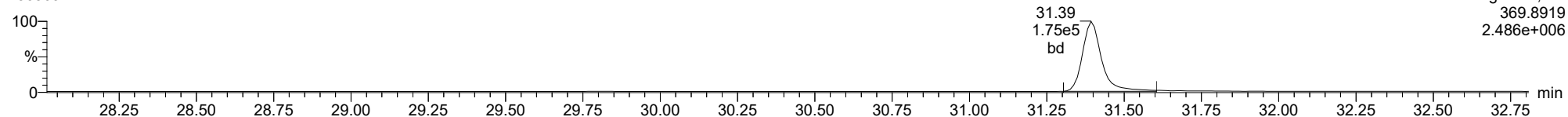
23050922



F2:Voltage SIR,EI+
367.8949
4.003e+006

13C-12378-PeCDD

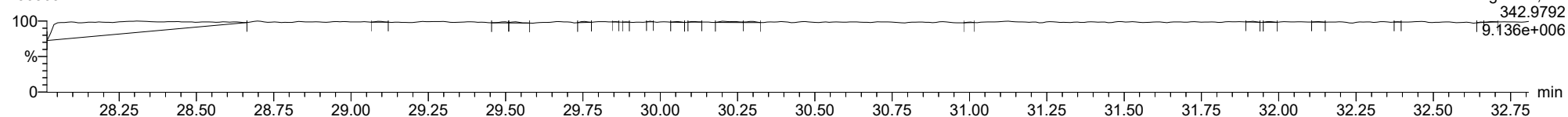
23050922



F2:Voltage SIR,EI+
369.8919
2.486e+006

FUNCTION2 PFK

23050922

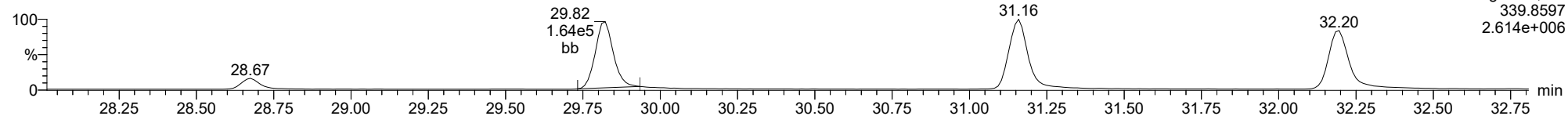


F2:Voltage SIR,EI+
342.9792
9.136e+006

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

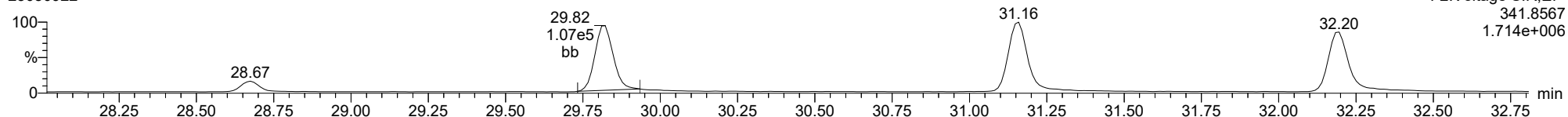
12378-PeCDF

23050922



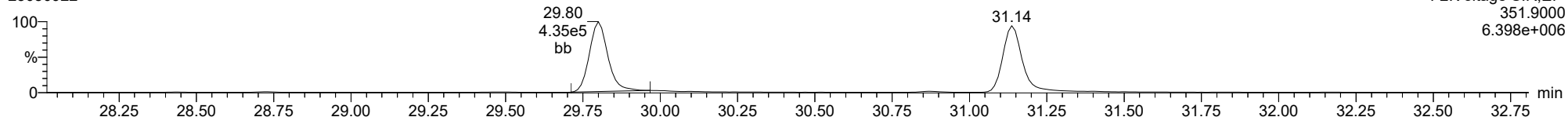
12378-PeCDF

23050922



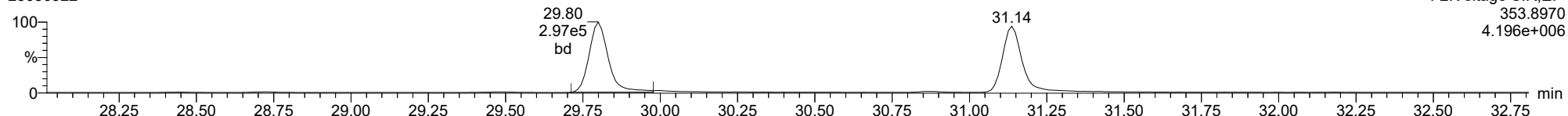
13C-12378-PeCDF

23050922



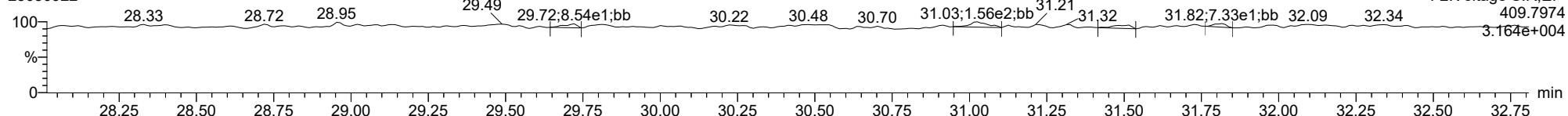
13C-12378-PeCDF

23050922



FUNCTION2 HPCDPE

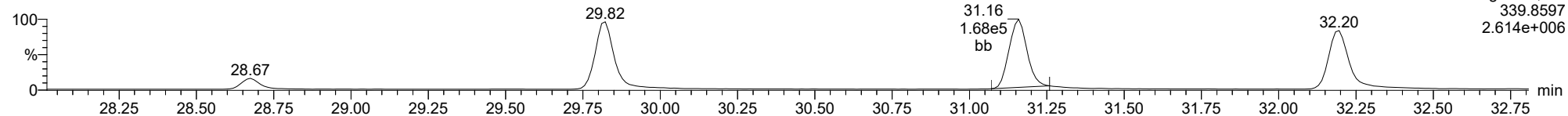
23050922



ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

23478-PeCDF

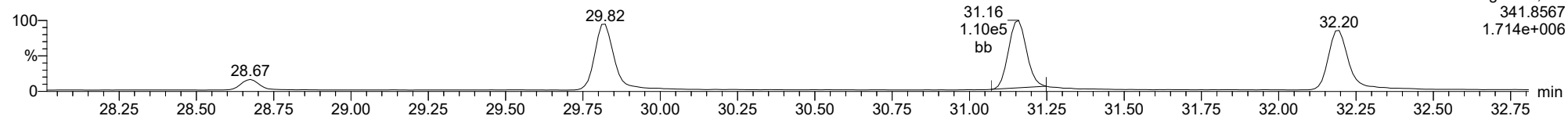
23050922



F2:Voltage SIR,EI+
339.8597
2.614e+006

23478-PeCDF

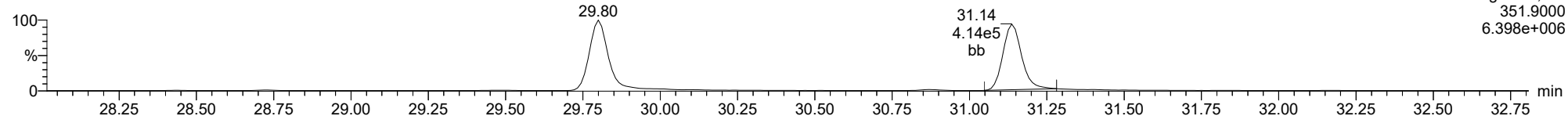
23050922



F2:Voltage SIR,EI+
341.8567
1.714e+006

13C-23478-PeCDF

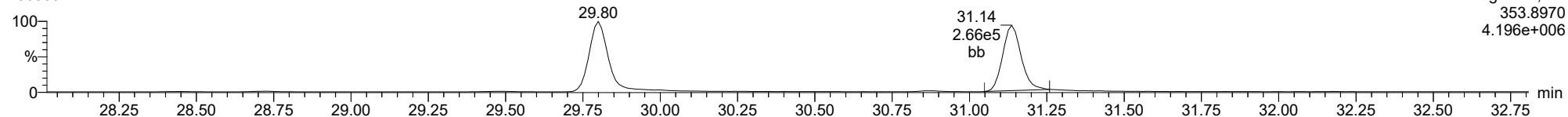
23050922



F2:Voltage SIR,EI+
351.9000
6.398e+006

13C-23478-PeCDF

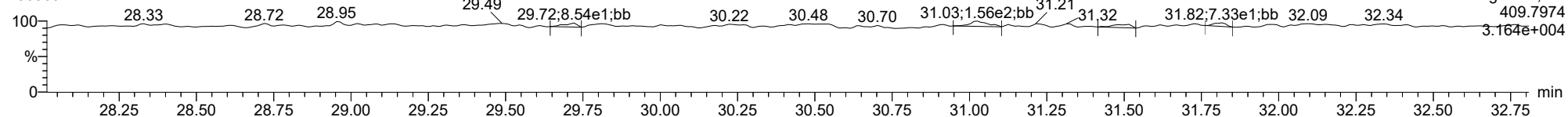
23050922



F2:Voltage SIR,EI+
353.8970
4.196e+006

FUNCTION2 HPCDPE

23050922

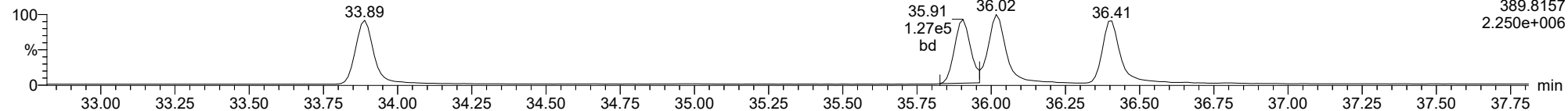


F2:Voltage SIR,EI+
409.7974
3.164e+004

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

123478-HxCDD

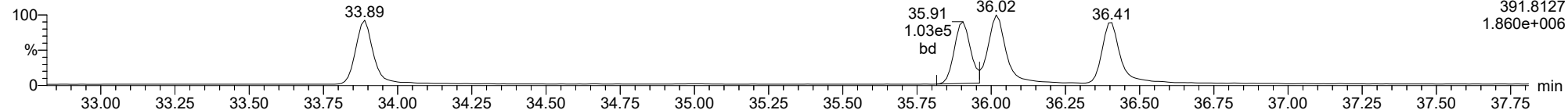
23050922



F3:Voltage SIR,El+
389.8157
2.250e+006

123478-HxCDD

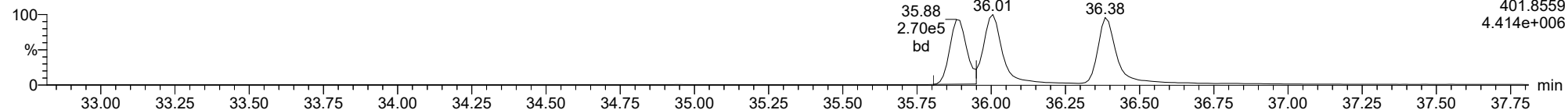
23050922



F3:Voltage SIR,El+
391.8127
1.860e+006

13C-123478-HxCDD

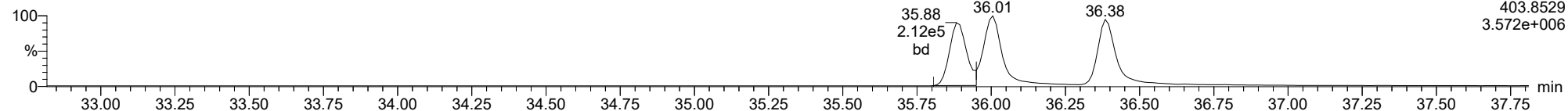
23050922



F3:Voltage SIR,El+
401.8559
4.414e+006

13C-123478-HxCDD

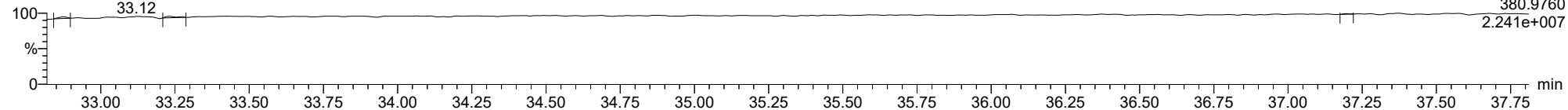
23050922



F3:Voltage SIR,El+
403.8529
3.572e+006

FUNCTION3 PFK

23050922

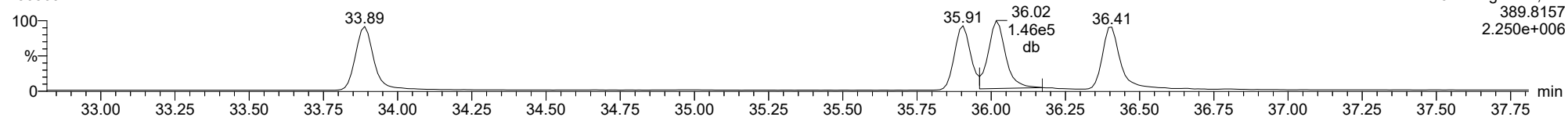


F3:Voltage SIR,El+
380.9760
2.241e+007

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

123678-HxCDD

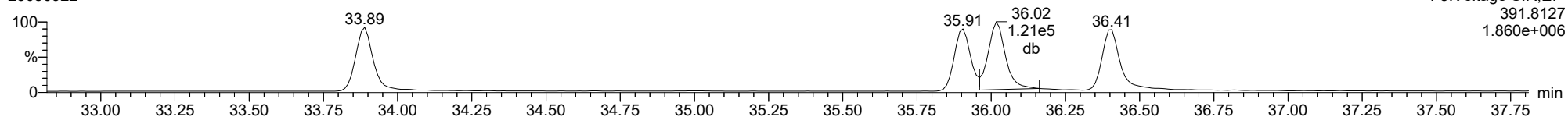
23050922



F3:Voltage SIR,EI+
389.8157
2.250e+006

123678-HxCDD

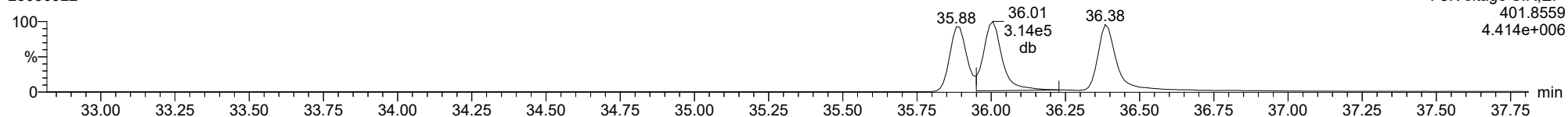
23050922



F3:Voltage SIR,EI+
391.8127
1.860e+006

13C-123678-HxCDD

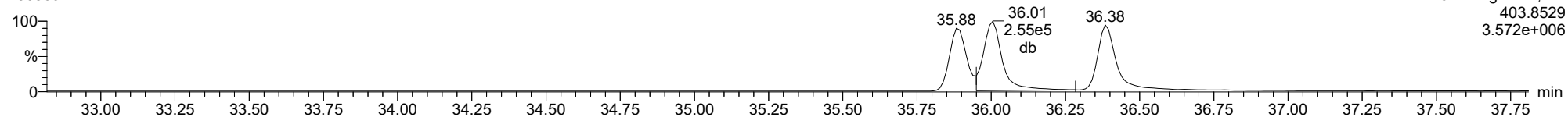
23050922



F3:Voltage SIR,EI+
401.8559
4.414e+006

13C-123678-HxCDD

23050922

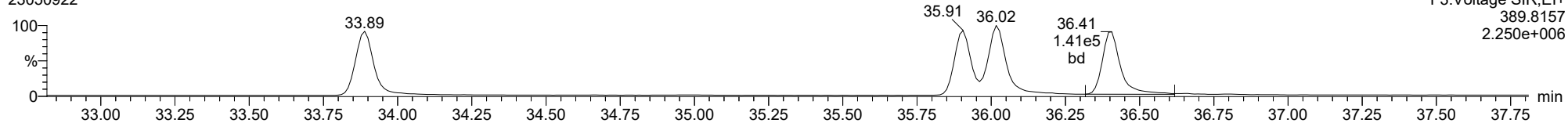


F3:Voltage SIR,EI+
403.8529
3.572e+006

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

123789-HxCDD

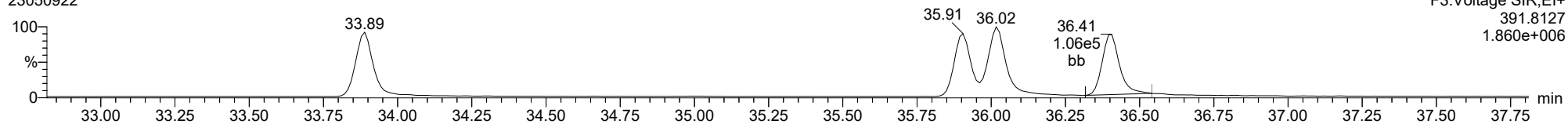
23050922



F3:Voltage SIR,EI+
389.8157
2.250e+006

123789-HxCDD

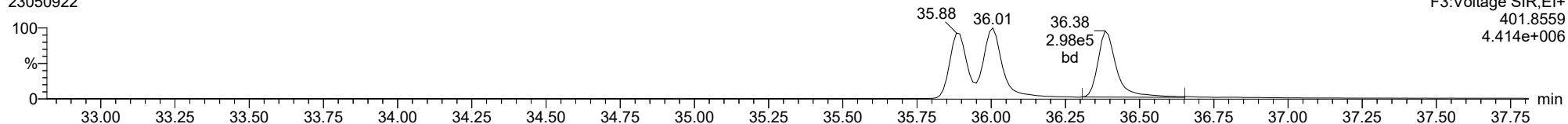
23050922



F3:Voltage SIR,EI+
391.8127
1.860e+006

13C-123789-HxCDD

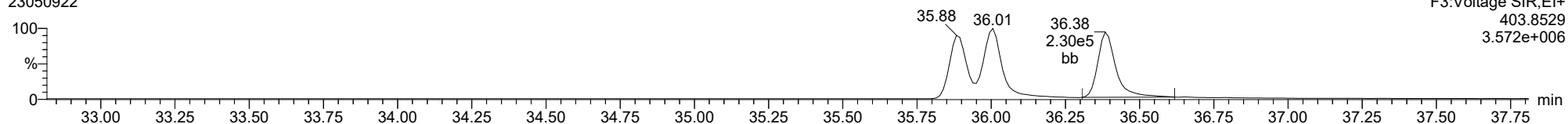
23050922



F3:Voltage SIR,EI+
401.8559
4.414e+006

13C-123789-HxCDD

23050922

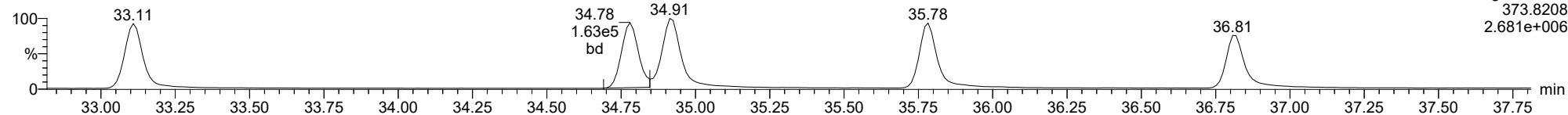


F3:Voltage SIR,EI+
403.8529
3.572e+006

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

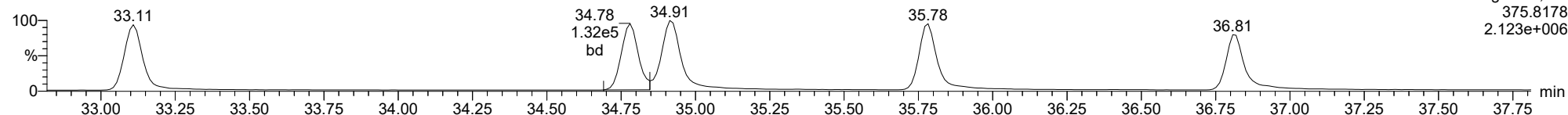
123478-HxCDF

23050922



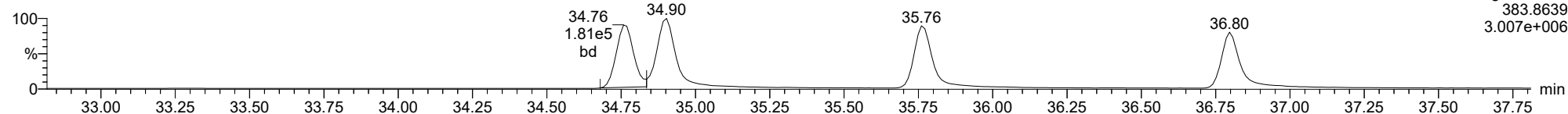
123478-HxCDF

23050922



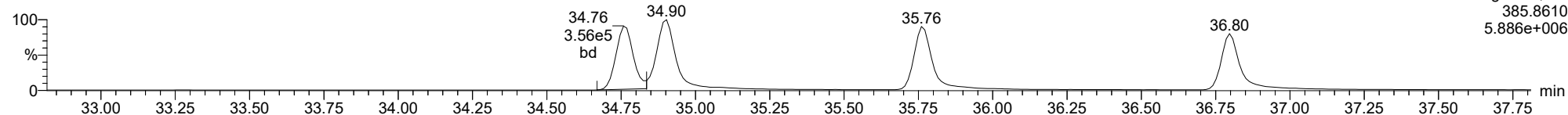
13C-123478-HxCDF

23050922



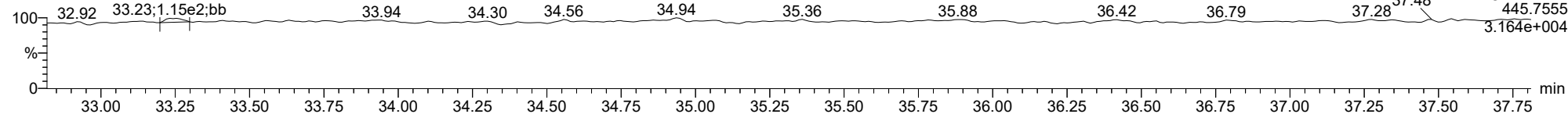
13C-123478-HxCDF

23050922



FUNCTION3 OCDPE

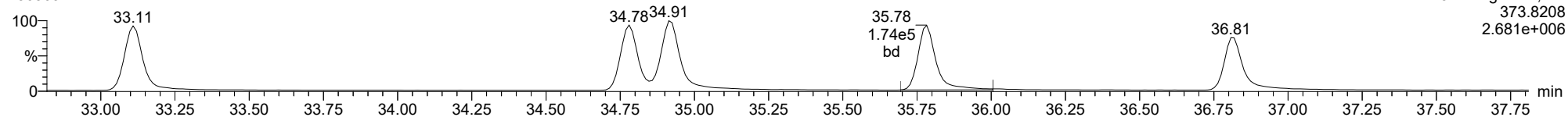
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ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

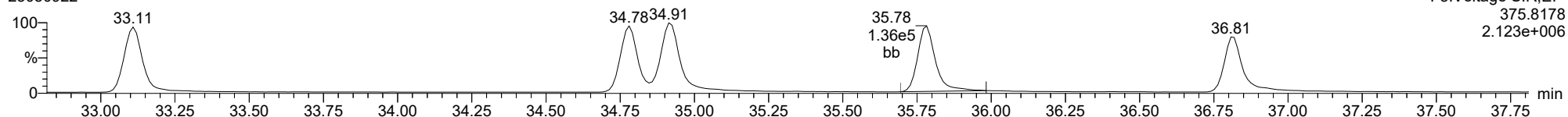
234678-HxCDF

23050922



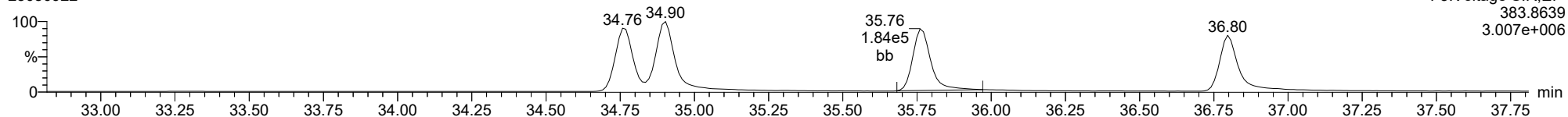
234678-HxCDF

23050922



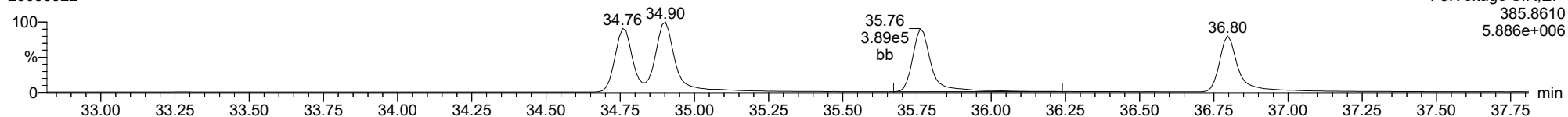
13C-234678-HxCDF

23050922



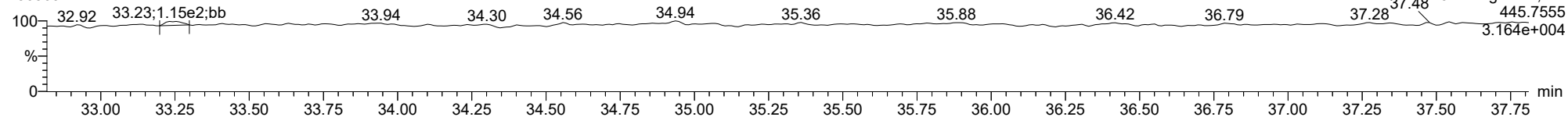
13C-234678-HxCDF

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FUNCTION3 OCDPE

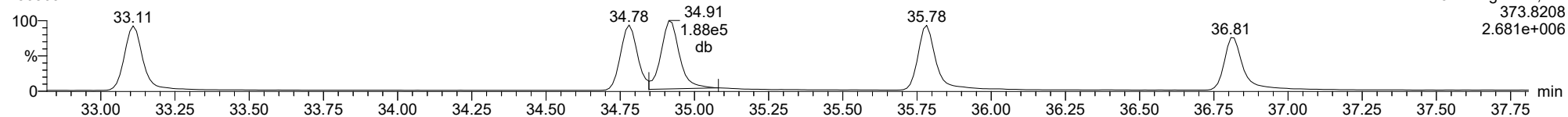
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ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

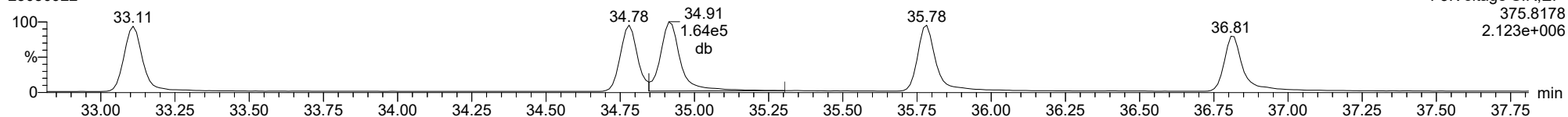
123678-HxCDF

23050922



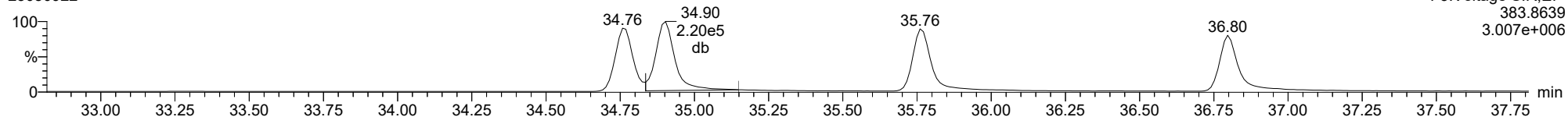
123678-HxCDF

23050922



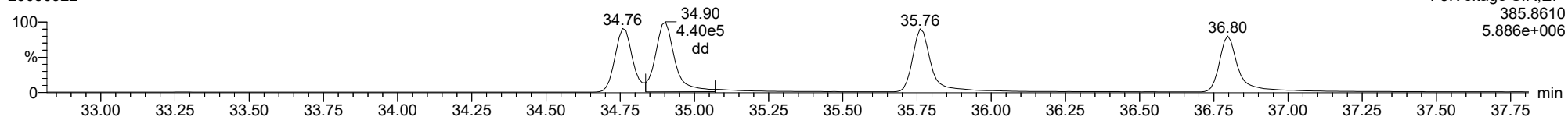
13C-123678-HxCDF

23050922



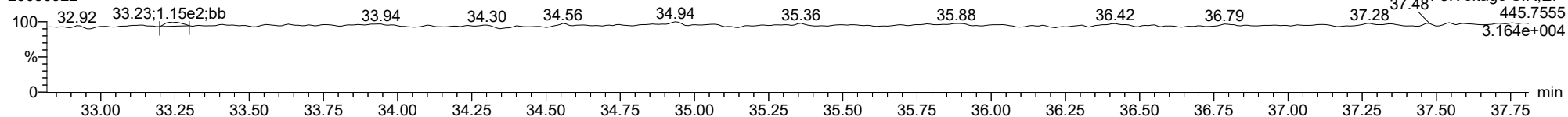
13C-123678-HxCDF

23050922



FUNCTION3 OCDPE

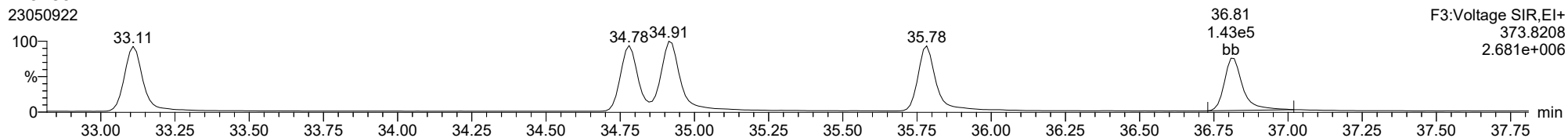
23050922



ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

123789-HxCDF

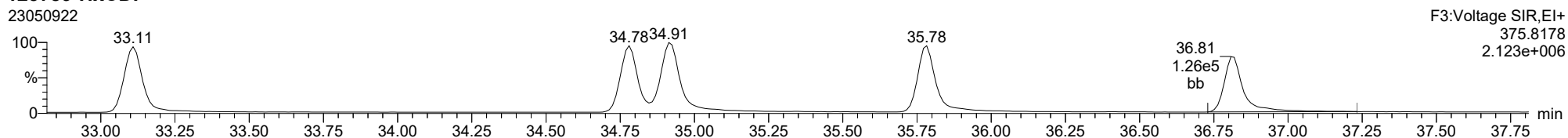
23050922



F3:Voltage SIR,EI+
373.8208
2.681e+006

123789-HxCDF

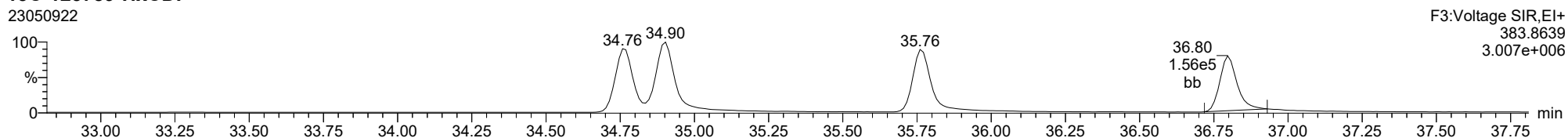
23050922



F3:Voltage SIR,EI+
375.8178
2.123e+006

13C-123789-HxCDF

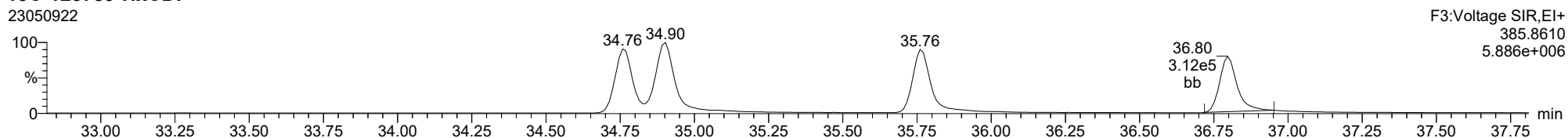
23050922



F3:Voltage SIR,EI+
383.8639
3.007e+006

13C-123789-HxCDF

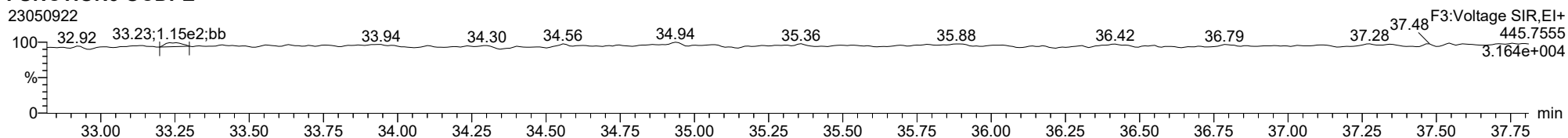
23050922



F3:Voltage SIR,EI+
385.8610
5.886e+006

FUNCTION3 OCDPE

23050922

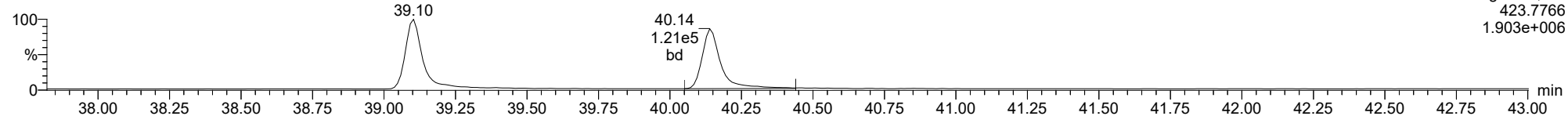


F3:Voltage SIR,EI+
445.7555
3.164e+004

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

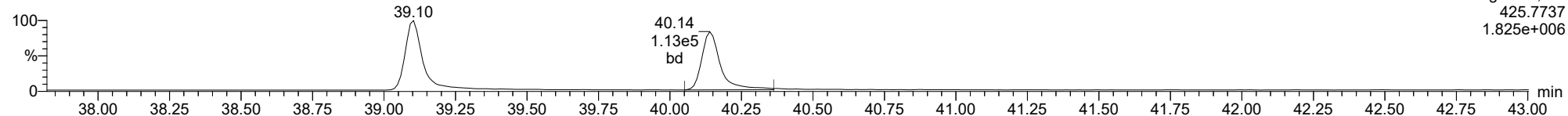
1234678-HpCDD

23050922



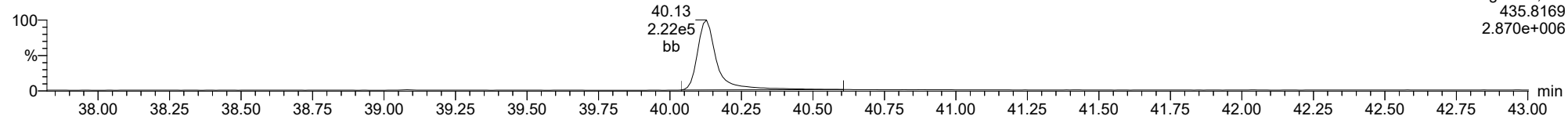
1234678-HpCDD

23050922



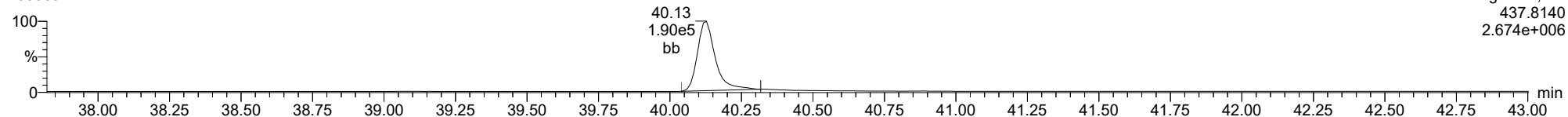
13C-1234678-HpCDD

23050922



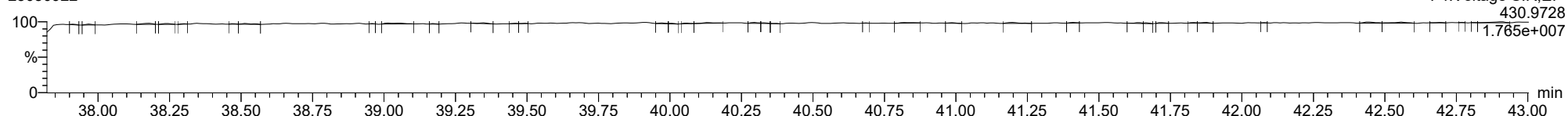
13C-1234678-HpCDD

23050922



FUNCTION4 PFK

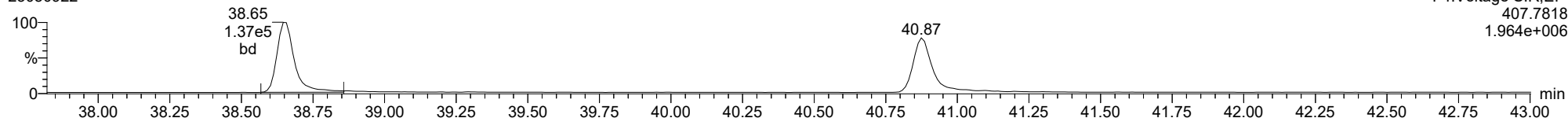
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ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

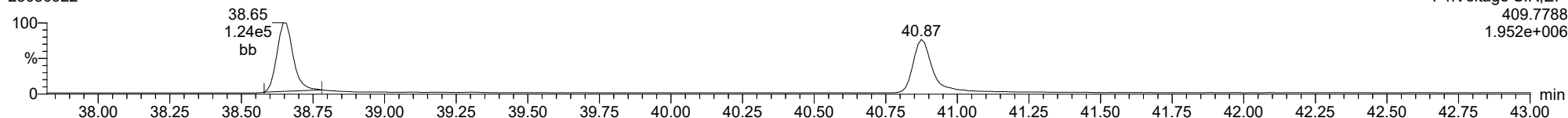
1234678-HpCDF

23050922



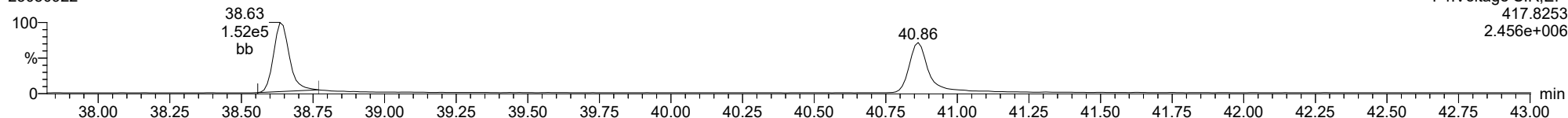
1234678-HpCDF

23050922



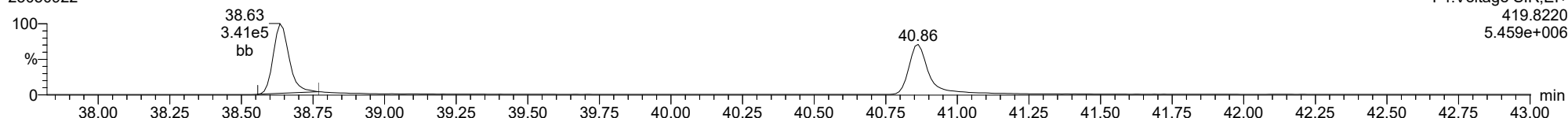
13C-1234678-HpCDF

23050922



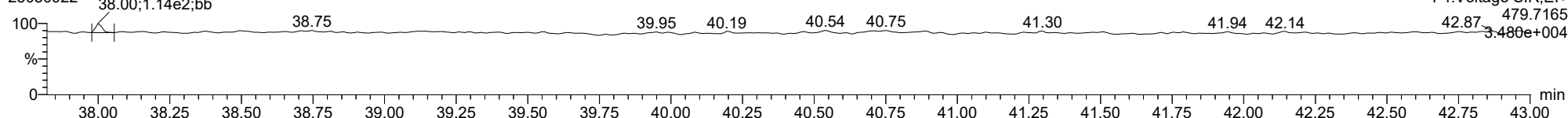
13C-1234678-HpCDF

23050922



FUNCTION4 NCDPE

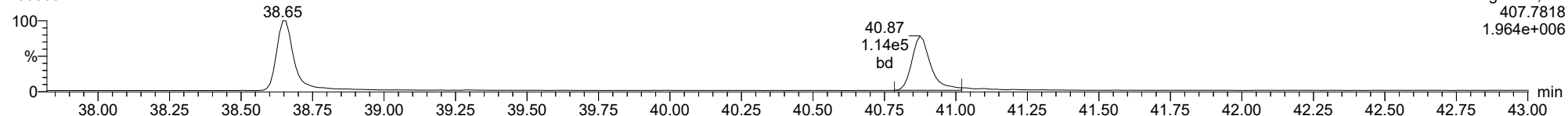
23050922



ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

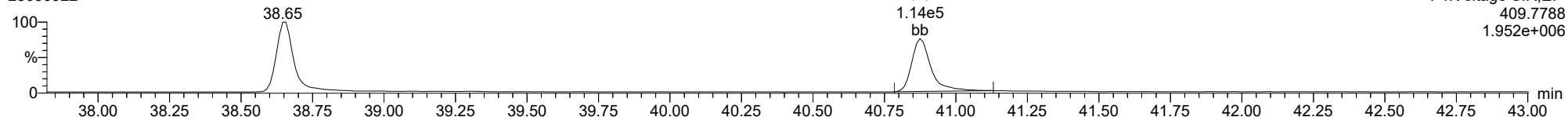
23050922



F4:Voltage SIR,EI+
407.7818
1.964e+006

1234789-HpCDF

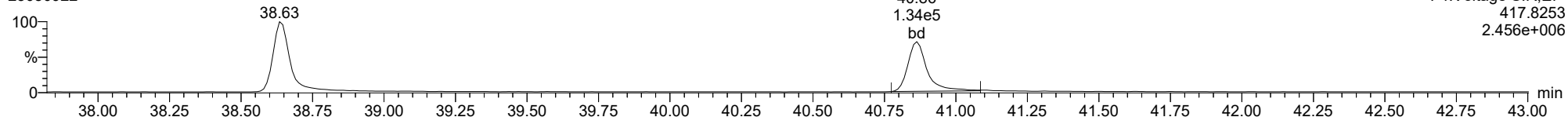
23050922



F4:Voltage SIR,EI+
409.7788
1.952e+006

13C-1234789-HpCDF

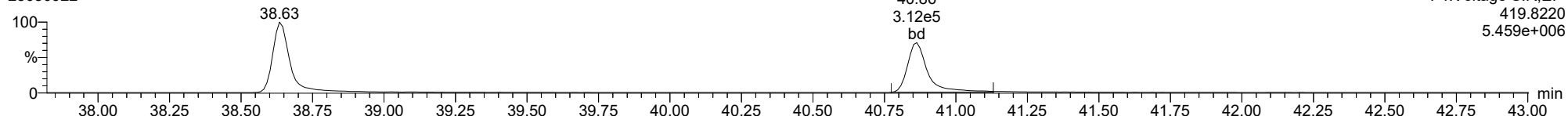
23050922



F4:Voltage SIR,EI+
417.8253
2.456e+006

13C-1234789-HpCDF

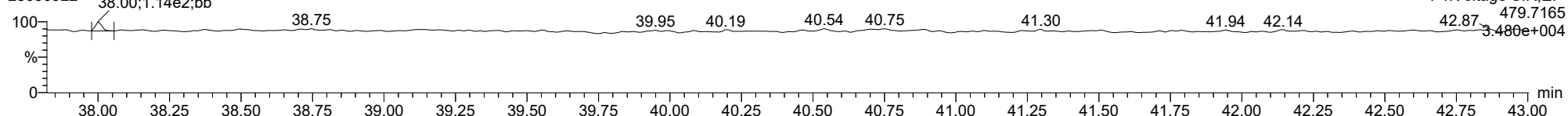
23050922



F4:Voltage SIR,EI+
419.8220
5.459e+006

FUNCTION4 NCDPE

23050922

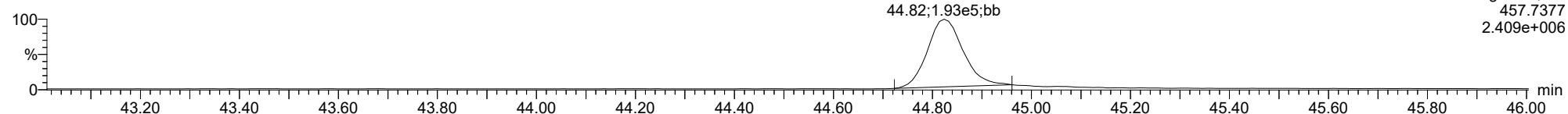


F4:Voltage SIR,EI+
479.7165
3.480e+004

ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

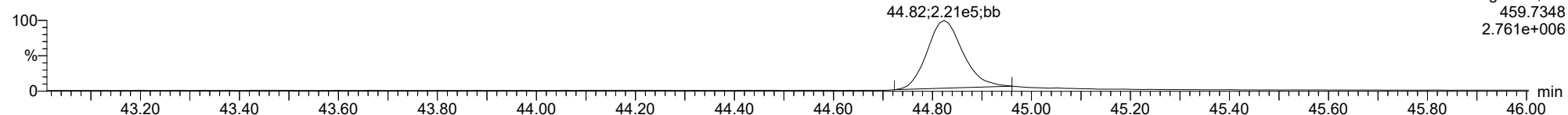
OCDD

23050922



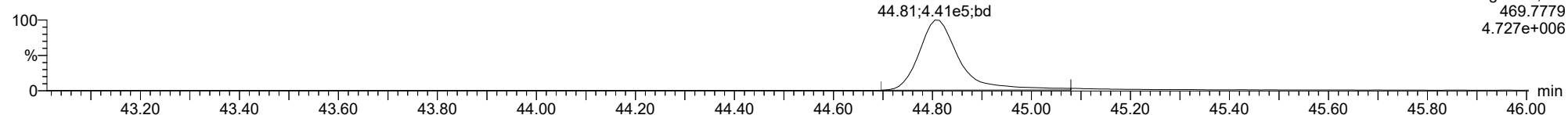
OCDD

23050922



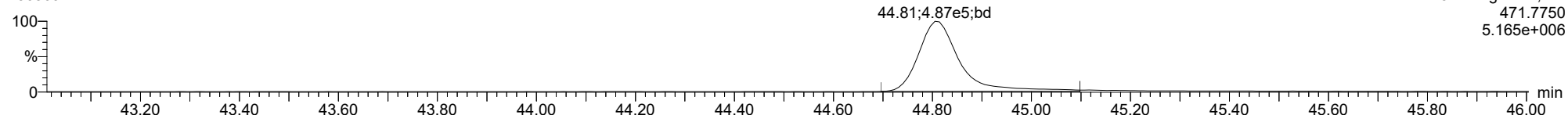
13C-OCDD

23050922



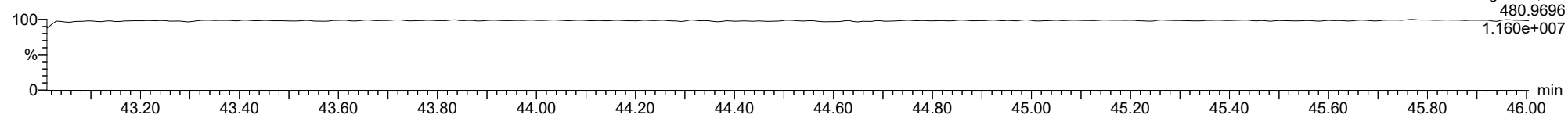
13C-OCDD

23050922



FUNCTION5 PFK

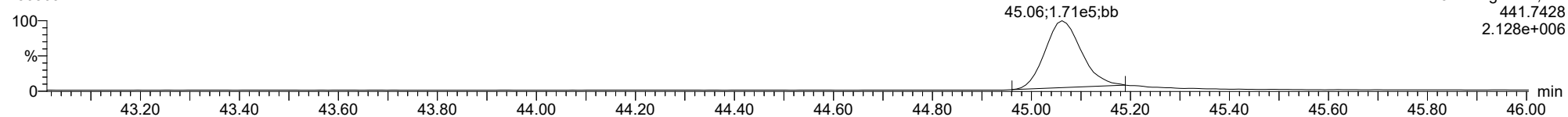
23050922



ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

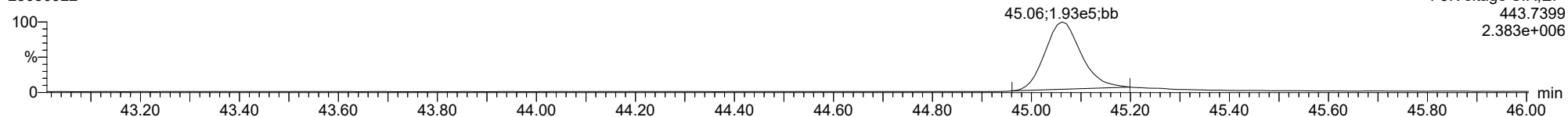
OCDF

23050922



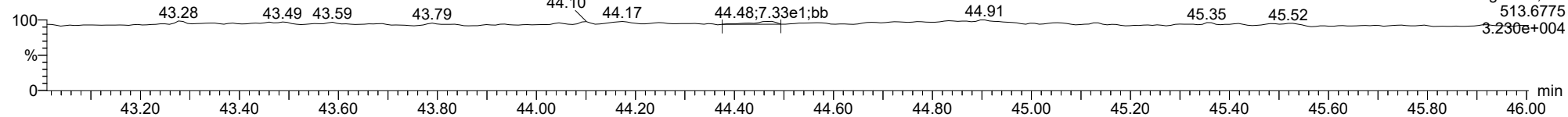
OCDF

23050922



FUNCTION5 DCDPE

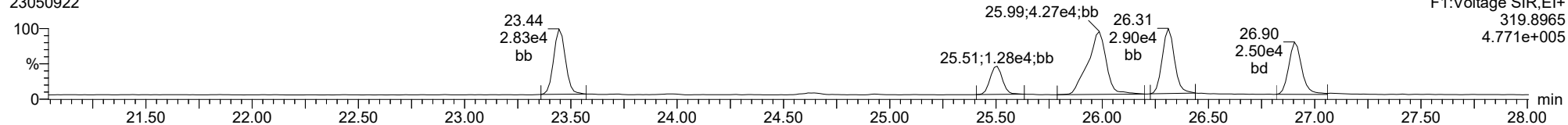
23050922



ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

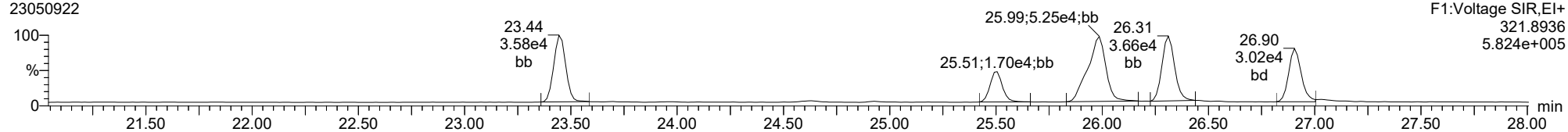
Total-tetradioxins

23050922



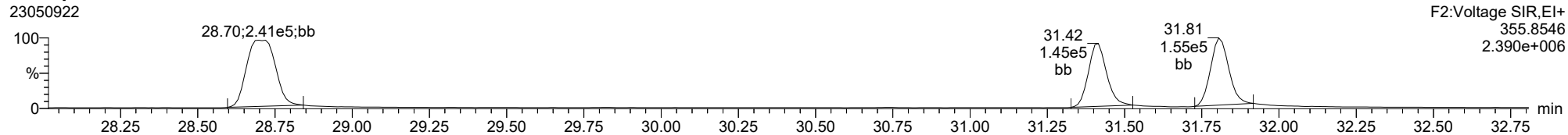
Total-tetradioxins

23050922



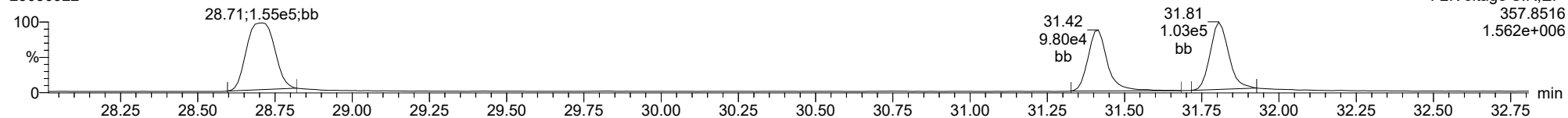
Total-pentadioxins

23050922



Total-pentadioxins

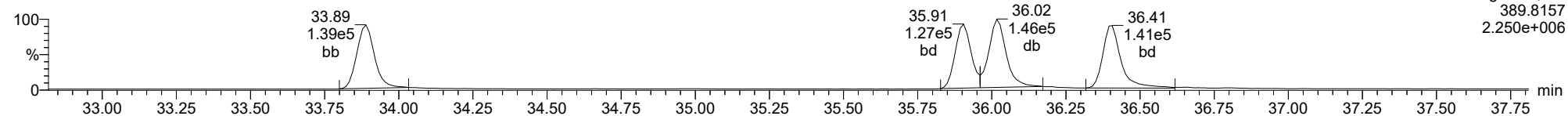
23050922



ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

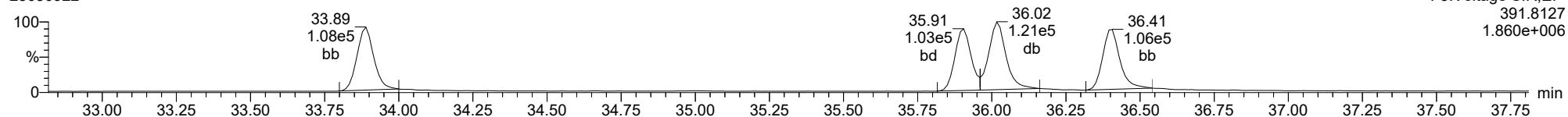
Total-hexadioxins

23050922



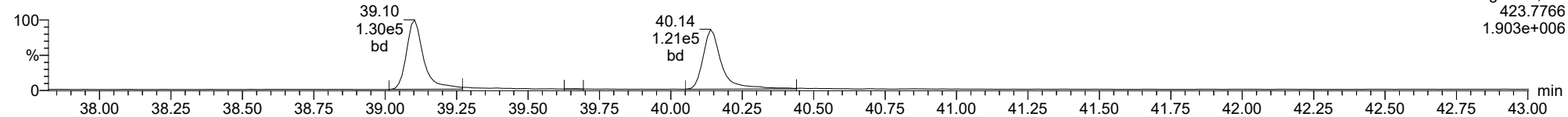
Total-hexadioxins

23050922



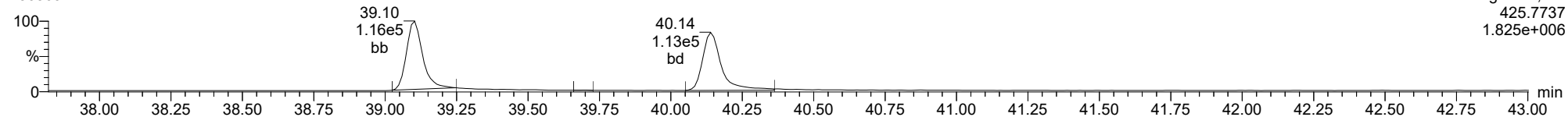
Total-heptadioxins

23050922



Total-heptadioxins

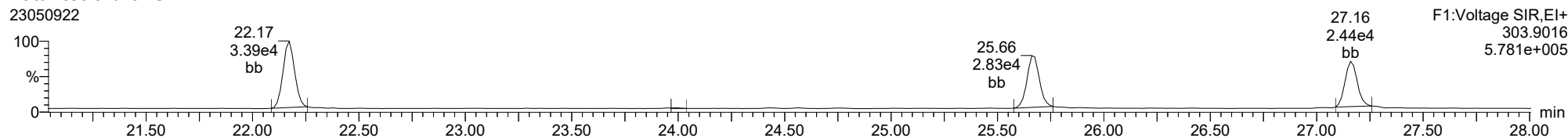
23050922



ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

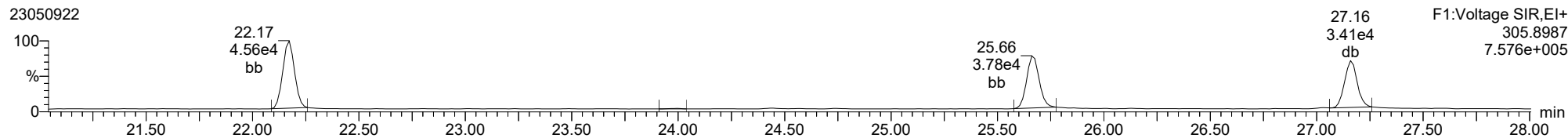
Total-tetrafurans

23050922



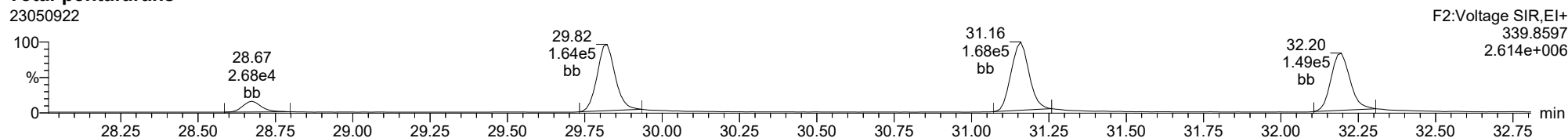
Total-tetrafurans

23050922



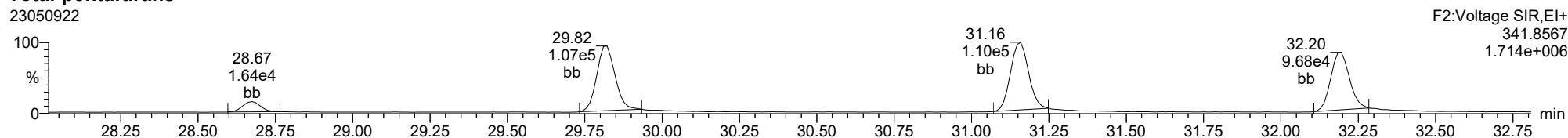
Total-pentafurans

23050922



Total-pentafurans

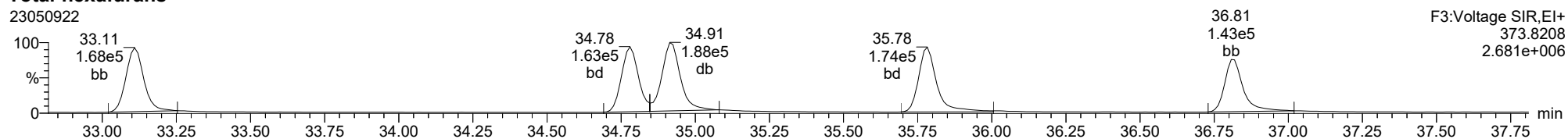
23050922



ID: CS3K6, Name: 23050922, Date: 10-May-2023, Time: 06:11:05, Conditions: AUTOSPEC01, User: pk

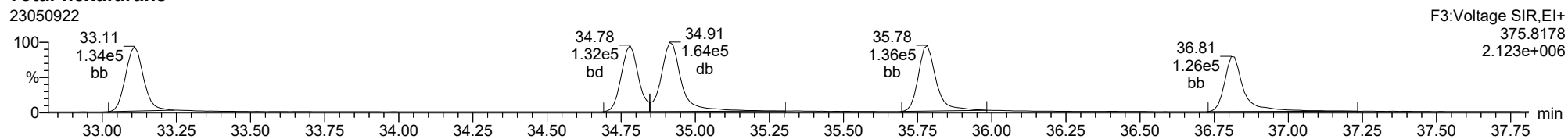
Total-hexafurans

23050922



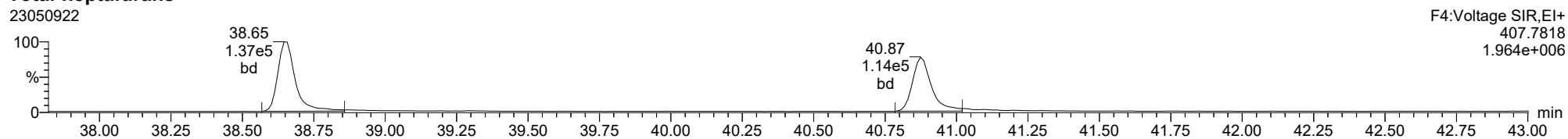
Total-hexafurans

23050922



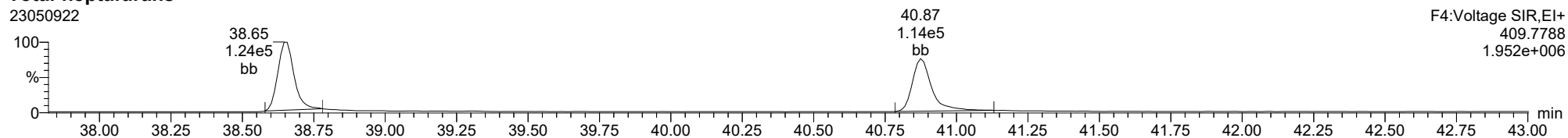
Total-heptafurans

23050922



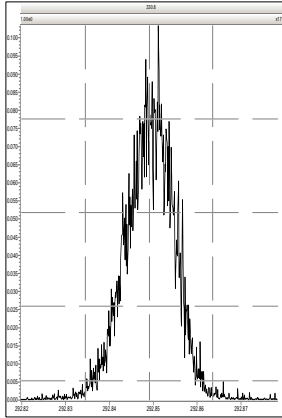
Total-heptafurans

23050922

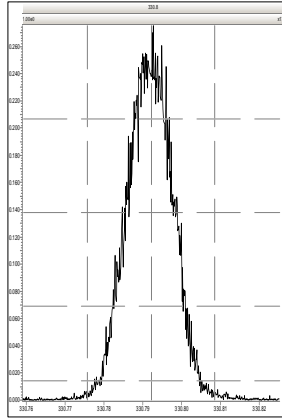


Printed: Wednesday, May 10, 2023 07:03:56 Pacific Daylight Time

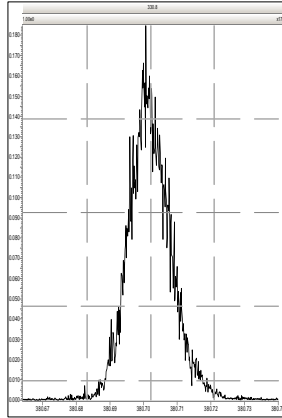
M 292.9824 R 12316



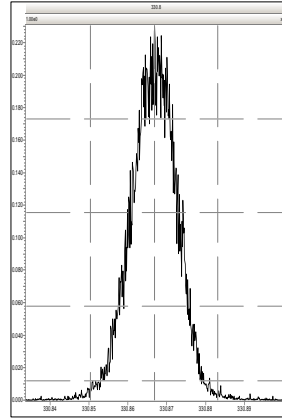
M 330.9792 R 12736



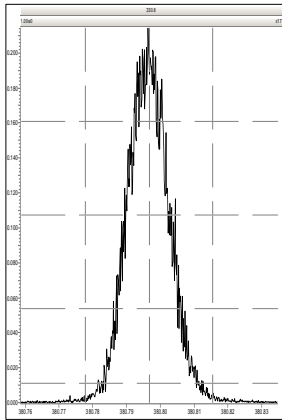
M 380.9760 R 14414



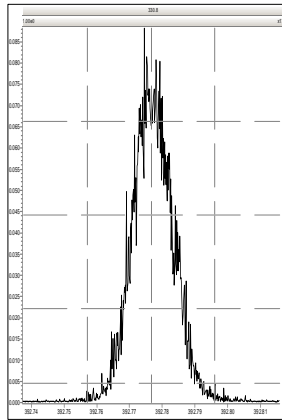
M 330.9792 R 12658



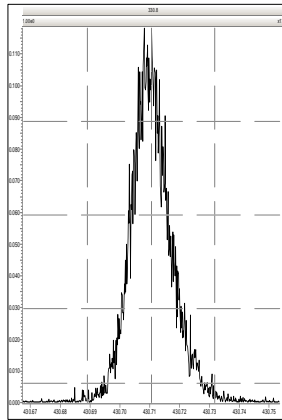
M 380.9760 R 13932



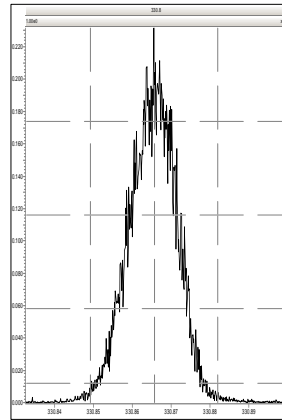
M 392.9760 R 14124



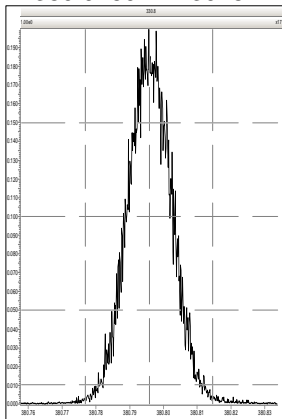
M 430.9728 R 13588



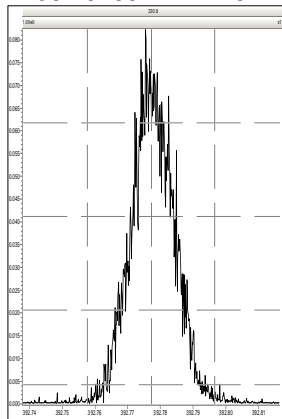
M 330.9792 R 12106



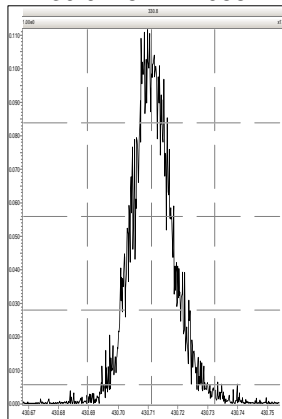
M 380.9760 R 13018



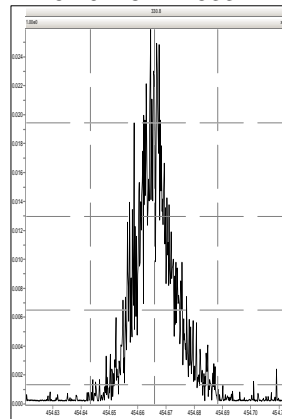
M 392.9760 R 14125



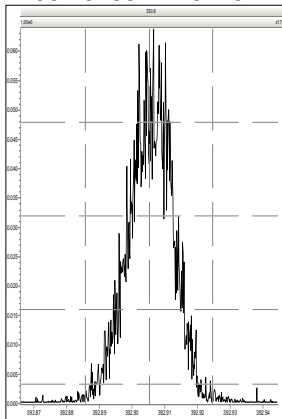
M 430.9728 R 14088



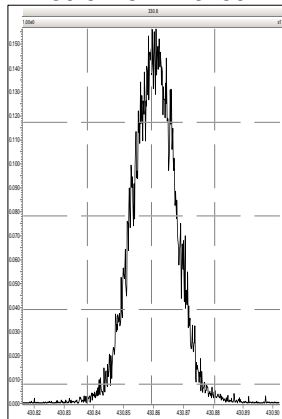
M 454.9728 R 15337



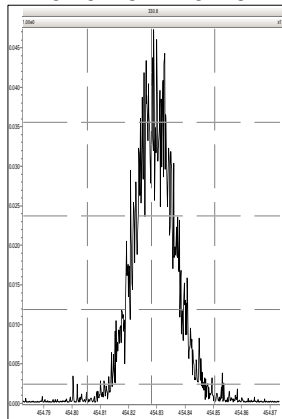
M 392.9760 R 13715



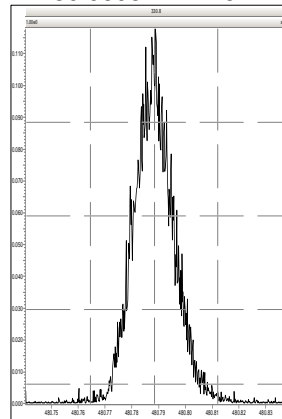
M 430.9728 R 13750



M 454.9728 R 13416

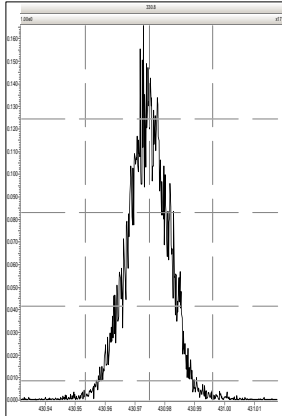


M 480.9696 R 14264

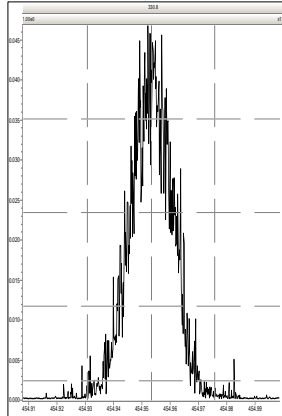


Printed: Wednesday, May 10, 2023 07:03:56 Pacific Daylight Time

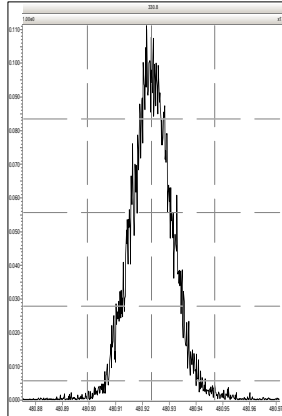
M 430.9728 R 13337



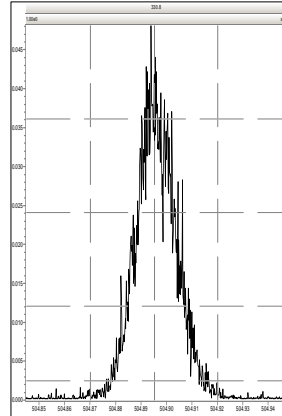
M 454.9728 R 14329



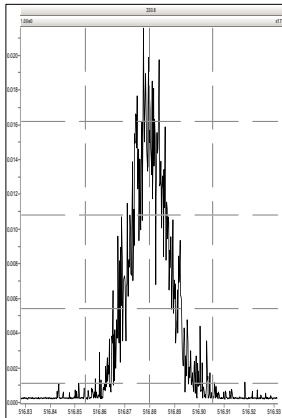
M 480.9696 R 14414



M 504.9696 R 14481



M 516.9697 R 16033

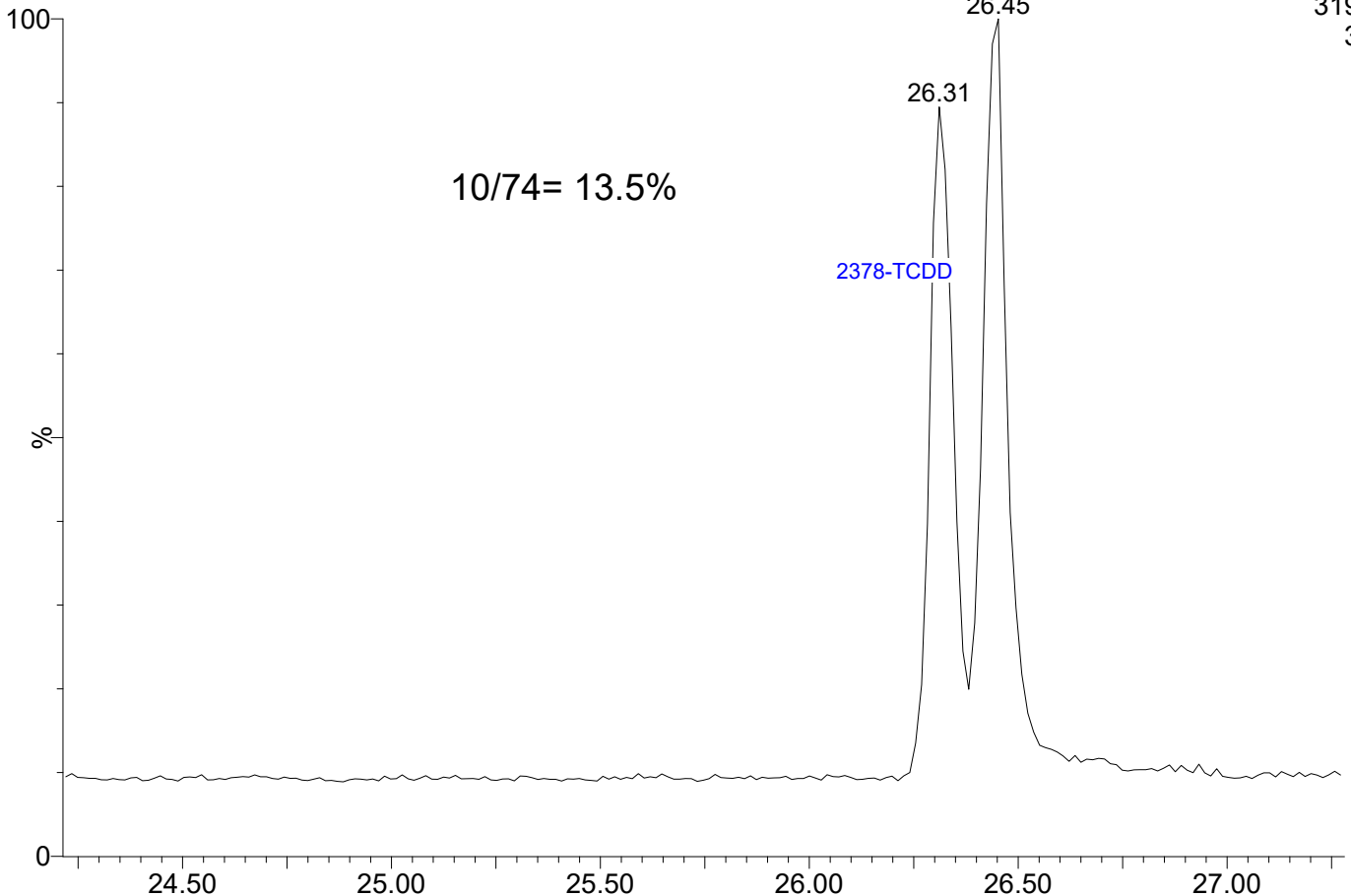


23050923

1: Voltage SIR 14 Channels EI+

319.8965

3.33e5

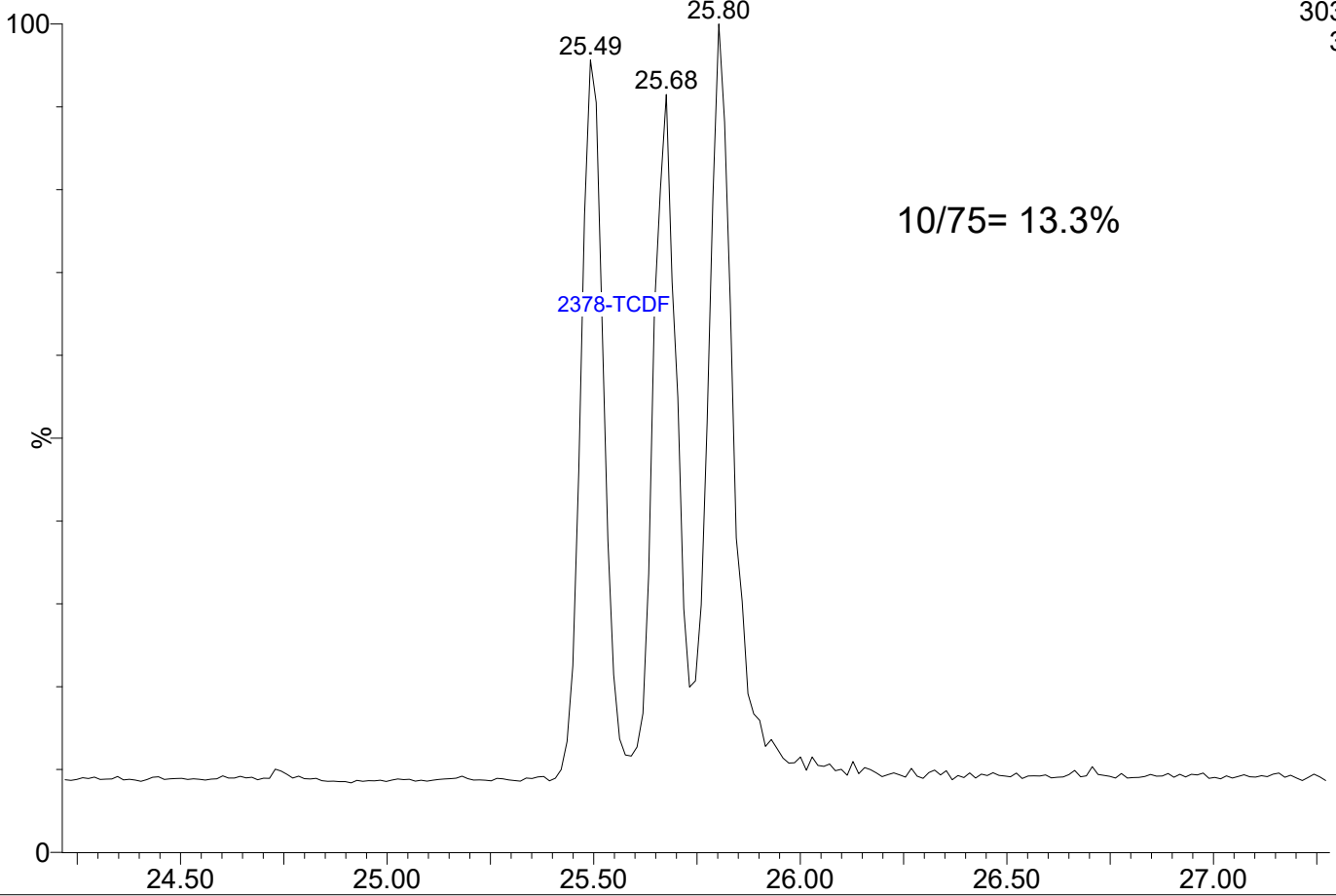


23050923

1: Voltage SIR 14 Channels EI+

303.9016

3.51e5





CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GC00015

Lab File ID: 23030311

Calibration Date: 03/03/2023

Sequence: SLC0045

Injection Date: 03/03/23

Lab Sample ID: SLC0045-CCV1

Injection Time: 17:25

Sequence Name: CS3V4

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	10.1	0.7015272	0.7103909		1.3	+/-16
2,3,7,8-TCDD	A	10.000	9.02	1.1486620	1.0358000		-9.8	+/-22
1,2,3,7,8-PeCDF	A	50.000	47.7	0.6792300	0.6482723		-4.6	+/-18
2,3,4,7,8-PeCDF	A	50.000	48.6	0.7861704	0.7638484		-2.8	+/-18
1,2,3,7,8-PeCDD	A	50.000	50.8	1.0218450	1.0391930		1.7	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	47.3	1.1660380	1.1031690		-5.4	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	51.4	1.0907410	1.1209930		2.8	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	52.1	1.1396990	1.1864330		4.1	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	48.9	1.1370930	1.1121660		-2.2	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	50.7	0.9955689	1.0094320		1.4	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	51.1	1.0009380	1.0234880		2.3	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	51.7	0.9071139	0.9383686		3.4	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	47.7	1.0029930	0.9566603		-4.6	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	53.6	0.9531152	1.0217610		7.2	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	52.7	1.0390130	1.0955650		5.4	+/-14
OCDF	A	100.00	95.0	0.7778078	0.7390842		-5.0	+/-37
OCDD	A	100.00	97.1	0.9199537	0.8937318		-2.9	+/-21
13C12-2,3,7,8-TCDF	A	100.00	89.4	1.6201960	1.4487738		-10.6	+/-29
13C12-2,3,7,8-TCDD	A	100.00	86.0	1.1524090	0.9914363		-14.0	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	92.6	1.2404520	1.1488109		-7.4	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	91.6	1.1177860	1.0240744		-8.4	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	90.8	0.8288129	0.7523463		-9.2	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	95.2	1.1683050	1.1119828		-4.8	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	91.1	1.3864660	1.2630996		-8.9	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	96.9	1.1292560	1.0940819		-3.1	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	101	0.9317541	0.9426254		1.2	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	97.6	0.9950393	0.9710534		-2.4	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	98.4	1.1566890	1.1378328		-1.6	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	102	0.8952017	0.9116661		1.8	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	84.3	0.7697516	0.6486548		-15.7	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	92.0	0.8401226	0.7731635		-8.0	+/-28
13C12-OCDD	A	200.00	170	0.7674714	0.6532994		-14.9	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	7.54	1.2878040	0.9705402		-24.6	

* Values outside of QC limits

* Values outside of QC limits

* Values outside of QC limits



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GC00015

Lab File ID: 23030310

Calibration Date: 03/03/2023

Sequence: SLC0045

Injection Date: 03/03/23

Lab Sample ID: SLC0045-SCV1

Injection Time: 16:36

Sequence Name: ICVCW

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.84	0.7015272	0.6901560		-1.6	
2,3,7,8-TCDD	A	10.000	9.81	1.1486620	1.1273700		-1.9	
1,2,3,7,8-PeCDF	A	50.000	51.4	0.6792300	0.6981249		2.8	
2,3,4,7,8-PeCDF	A	50.000	49.0	0.7861704	0.7701368		-2.0	
1,2,3,7,8-PeCDD	A	50.000	48.5	1.0218450	0.9921504		-2.9	
1,2,3,4,7,8-HxCDF	A	50.000	48.2	1.1660380	1.1251100		-3.5	
1,2,3,6,7,8-HxCDF	A	50.000	48.0	1.0907410	1.0469270		-4.0	
2,3,4,6,7,8-HxCDF	A	50.000	50.2	1.1396990	1.1448090		0.4	
1,2,3,7,8,9-HxCDF	A	50.000	49.1	1.1370930	1.1161010		-1.8	
1,2,3,4,7,8-HxCDD	A	50.000	50.8	0.9955689	1.0114830		1.6	
1,2,3,6,7,8-HxCDD	A	50.000	50.2	1.0009380	1.0044310		0.3	
1,2,3,7,8,9-HxCDD	A	50.000	51.6	0.9071139	8347.938		3.2	
1,2,3,4,6,7,8-HpCDF	A	50.000	51.8	1.0029930	1.0398620		3.7	
1,2,3,4,7,8,9-HpCDF	A	50.000	48.5	0.9531152	0.9237809		-3.1	
1,2,3,4,6,7,8-HpCDD	A	50.000	49.2	1.0390130	1.0223590		-1.6	
OCDF	A	100.00	104	0.7778078	0.8050743		3.5	
OCDD	A	100.00	99.4	0.9199537	0.9146365		-0.6	
13C12-2,3,7,8-TCDF	A	100.00	96.9	1.6201960	1.5703703		-3.1	
13C12-2,3,7,8-TCDD	A	100.00	96.6	1.1524090	1.1130294		-3.4	
13C12-1,2,3,7,8-PeCDF	A	100.00	73.2	1.2404520	0.9079224		-26.8	
13C12-2,3,4,7,8-PeCDF	A	100.00	75.9	1.1177860	0.8488817		-24.1	
13C12-1,2,3,7,8-PeCDD	A	100.00	76.6	0.8288129	0.6346243		-23.4	
13C12-1,2,3,4,7,8-HxCDF	A	100.00	93.0	1.1683050	1.0861993		-7.0	
13C12-1,2,3,6,7,8-HxCDF	A	100.00	98.0	1.3864660	1.3581552		-2.0	
13C12-2,3,4,6,7,8-HxCDF	A	100.00	93.4	1.1292560	1.0544008		-6.6	
13C12-1,2,3,7,8,9-HxCDF	A	100.00	97.9	0.9317541	0.9122440		-2.1	
13C12-1,2,3,4,7,8-HxCDD	A	100.00	95.9	0.9950393	0.9546162		-4.1	
13C12-1,2,3,6,7,8-HxCDD	A	100.00	97.7	1.1566890	1.1296183		-2.3	
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	102	0.8952017	0.9144345		2.1	
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	104	0.7697516	0.8001798		4.0	
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	102	0.8401226	0.8609226		2.5	
13C12-OCDD	A	200.00	162	0.7674714	0.6199758		-19.2	
37C14-2,3,7,8-TCDD	A	10.000	8.71	1.2878040	1.1221835		-12.9	

* Values outside of QC limits



CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GC00015

Lab File ID: 23050929

Calibration Date: 03/03/2023

Sequence: SLE0060

Injection Date: 05/10/23

Lab Sample ID: SLE0060-CCV1

Injection Time: 12:00

Sequence Name: CS3K7

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.95	0.7015272	0.6982223		-0.5	+/-16
2,3,7,8-TCDD	A	10.000	9.74	1.1486620	1.1184930		-2.6	+/-22
1,2,3,7,8-PeCDF	A	50.000	54.8	0.6792300	0.7446449		9.6	+/-18
2,3,4,7,8-PeCDF	A	50.000	53.0	0.7861704	0.8325767		5.9	+/-18
1,2,3,7,8-PeCDD	A	50.000	53.7	1.0218450	1.0983240		7.5	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	47.6	1.1660380	1.1095710		-4.8	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	49.3	1.0907410	1.0763230		-1.3	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	48.8	1.1396990	1.1119500		-2.4	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	47.7	1.1370930	1.0856550		-4.5	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	49.4	0.9955689	0.9842592		-1.1	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	46.4	1.0009380	0.9287160		-7.2	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	54.1	0.9071139	0.9808322		8.1	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	49.2	1.0029930	0.9877123		-1.5	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	51.7	0.9531152	0.9859591		3.4	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	53.3	1.0390130	1.1084210		6.7	+/-14
OCDF	A	100.00	94.7	0.7778078	0.7365286		-5.3	+/-37
OCDD	A	100.00	97.3	0.9199537	0.8947287		-2.7	+/-21
13C12-2,3,7,8-TCDF	A	100.00	97.4	1.6201960	1.5777053		-2.6	+/-29
13C12-2,3,7,8-TCDD	A	100.00	102	1.1524090	1.1788101		2.3	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	111	1.2404520	1.3719304		10.6	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	118	1.1177860	1.3216622		18.2	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	105	0.8288129	0.8696980		4.9	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	81.3	1.1683050	0.9499910		-18.7	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	73.2	1.3864660	1.0145449		-26.8	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	84.2	1.1292560	0.9511515		-15.8	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	88.7	0.9317541	0.8260421		-11.3	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	87.8	0.9950393	0.8739820		-12.2	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	81.4	1.1566890	0.9410898		-18.6	+/-15 *
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	102	0.8952017	0.9137090		2.1	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	105	0.7697516	0.8097005		5.2	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	96.2	0.8401226	0.8080542		-3.8	+/-28
13C12-OCDD	A	200.00	246	0.7674714	0.9434296		22.9	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	8.97	1.2878040	1.1548526		-10.3	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:21:13 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56
 Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.676	1.001	2.510e4	3.131e4	0.702	0.802	0.770	716	738	4.06e5	4.94e5	567.2	669.7	NO	bb	bb	9.953
12378-PeCDF	29.822	1.000	1.582e5	1.034e5	0.679	1.531	1.550	2199	1528	2.56e6	1.64e6	1162.9	1073.7	NO	bb	bb	54.815
23478-PeCDF	31.159	1.000	1.690e5	1.127e5	0.786	1.500	1.550	2199	1528	2.60e6	1.76e6	1181.4	1152.9	NO	bb	bb	52.951
123478-HxCDF	34.780	1.000	1.776e5	1.433e5	1.166	1.239	1.240	1821	2254	2.78e6	2.26e6	1524.9	1004.3	NO	bd	bd	47.579
234678-HxCDF	35.783	1.000	1.771e5	1.448e5	1.140	1.223	1.240	1821	2254	2.79e6	2.26e6	1531.4	1001.5	NO	bb	bb	48.783
123678-HxCDF	34.925	1.001	1.848e5	1.476e5	1.091	1.252	1.240	1821	2254	2.91e6	2.31e6	1597.8	1023.2	NO	db	db	49.339
123789-HxCDF	36.819	1.000	1.522e5	1.208e5	1.137	1.261	1.240	1821	2254	2.41e6	1.91e6	1326.4	846.0	NO	bb	bb	47.738
1234678-HpCDF	38.658	1.000	1.379e5	1.369e5	1.003	1.007	1.050	1853	1598	2.37e6	2.33e6	1276.7	1455.9	NO	bb	bb	49.238
1234789-HpCDF	40.886	1.000	1.218e5	1.212e5	0.953	1.004	1.050	1853	1598	1.81e6	1.80e6	977.7	1127.3	NO	bb	bb	51.723
OCDF	45.071	1.006	2.019e5	2.211e5	0.778	0.913	0.890	1142	2752	2.41e6	2.68e6	2109.3	973.1	NO	bb	bb	94.693
2378-TCDD	26.311	1.000	2.996e4	3.756e4	1.149	0.798	0.770	953	770	4.36e5	5.72e5	457.1	742.5	NO	bd	bb	9.737
12378-PeCDD	31.416	1.000	1.478e5	9.675e4	1.022	1.528	1.550	1524	1248	2.32e6	1.52e6	1523.6	1214.5	NO	bb	bb	53.742
123478-HxCDD	35.905	1.000	1.442e5	1.177e5	0.996	1.225	1.240	1349	1523	2.33e6	1.89e6	1729.1	1244.2	NO	bd	bd	49.432
123678-HxCDD	36.028	1.001	1.470e5	1.191e5	1.001	1.234	1.240	1349	1523	2.41e6	1.88e6	1785.8	1231.9	NO	db	db	46.392
123789-HxCDD	36.407	1.011	1.502e5	1.208e5	0.907	1.243	1.240	1349	1523	2.48e6	1.97e6	1838.0	1291.4	NO	bb	bb	54.063
1234678-HpCDD	40.151	1.001	1.431e5	1.295e5	1.039	1.105	1.050	1502	1441	2.13e6	2.00e6	1420.3	1386.8	NO	bd	bb	53.340
OCDD	44.833	1.000	2.394e5	2.745e5	0.920	0.872	0.890	1905	2464	3.05e6	3.51e6	1599.8	1424.2	NO	bb	bb	97.258
13C-2378-TCDF	25.661	1.007	3.496e5	4.583e5	1.620	0.763	0.770	1556	1158	5.24e6	6.79e6	3366.2	5863.4	NO	bb	bb	97.377
13C-12378-PeCDF	29.811	1.169	4.254e5	2.771e5	1.240	1.535	1.550	3322	1749	6.49e6	4.20e6	1952.8	2399.7	NO	bb	bb	110.599
13C-23478-PeCDF	31.148	1.222	4.096e5	2.671e5	1.118	1.533	1.550	3322	1749	6.20e6	4.02e6	1865.2	2295.4	NO	bb	bb	118.239
13C-123478-HxCDF	34.769	0.955	1.960e5	3.824e5	1.168	0.513	0.510	1724	1531	3.15e6	6.13e6	1828.0	4007.6	NO	bd	bd	81.314
13C-123678-HxCDF	34.903	0.959	2.093e5	4.084e5	1.386	0.512	0.510	1724	1531	3.29e6	6.36e6	1906.9	4153.5	NO	db	db	73.175
13C-234678-HxCDF	35.772	0.983	1.960e5	3.831e5	1.129	0.512	0.510	1724	1531	3.15e6	6.07e6	1826.7	3962.3	NO	bb	bb	84.228
13C-123789-HxCDF	36.808	1.011	1.696e5	3.333e5	0.932	0.509	0.510	1724	1531	2.77e6	5.36e6	1609.4	3502.7	NO	bb	bb	88.655
13C-1234678-HpCDF	38.646	1.062	1.707e5	3.856e5	0.895	0.443	0.440	1992	2647	2.93e6	6.57e6	1472.0	2481.6	NO	bb	bb	102.067
13C-1234789-HpCDF	40.875	1.123	1.554e5	3.376e5	0.770	0.460	0.440	1992	2647	2.23e6	4.92e6	1118.0	1859.8	NO	bb	bb	105.190
13C-1234-TCDD	25.492	0.000	2.268e5	2.853e5	1.000	0.795	0.770	1620	1032	3.46e6	4.33e6	2133.5	4195.6	NO	bb	bb	100.000
13C-2378-TCDD	26.297	1.032	2.652e5	3.385e5	1.152	0.784	0.770	1620	1032	4.06e6	5.13e6	2507.9	4970.2	NO	bb	bb	102.291
13C-12378-PeCDD	31.404	1.232	2.780e5	1.674e5	0.829	1.661	1.550	1055	877	4.14e6	2.47e6	3925.5	2817.9	NO	bd	bb	104.933
13C-123478-HxCDD	35.895	0.986	2.963e5	2.358e5	0.995	1.257	1.240	1048	1474	4.88e6	3.91e6	4655.9	2653.1	NO	bd	bd	87.834
13C-123678-HxCDD	36.006	0.989	3.209e5	2.521e5	1.157	1.273	1.240	1048	1474	5.08e6	4.04e6	4842.5	2742.2	NO	db	db	81.361
13C-1234678-HpCDD	40.128	1.103	2.510e5	2.410e5	0.840	1.041	1.050	1555	1401	3.85e6	3.71e6	2476.3	2649.8	NO	bb	bb	96.183
13C-OCDD	44.815	1.231	5.458e5	6.029e5	0.767	0.905	0.890	1531	1803	6.45e6	7.14e6	4211.4	3959.4	NO	bd	bd	245.854
13C-123789-HxCDD	36.396	0.000	3.408e5	2.680e5	1.000	1.272	1.240	1048	1474	5.28e6	4.17e6	5035.6	2828.3	NO	bb	bb	100.000
37CL-2378-TCDD	26.311	1.032	5.914e4		1.288			1196		8.80e5		735.7			bb		8.968

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
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ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.173	0.864	2.840e4	3.974e4	0.802	0.715	0.770	716	738	4.57e5	6.66e5	638.4	902.5	NO	bb	bb	10.523
1289-TCDF	27.173	1.059	2.345e4	3.169e4	0.678	0.740	0.770	716	738	3.56e5	4.81e5	497.1	652.3	NO	db	bb	10.068
13468-PECDF	27.031	0.907	2.319e5	1.548e5	1.246	1.498	1.550	618	737	3.50e6	2.33e6	5656.8	3168.3	NO	bb	bb	44.157
12389-PECDF	32.195	1.080	1.637e5	1.076e5	0.496	1.522	1.550	2199	1528	2.51e6	1.67e6	1143.5	1090.2	NO	bb	bb	77.806
123468-HXCDF	33.120	0.953	1.740e5	1.398e5	1.169	1.245	1.240	1821	2254	2.69e6	2.15e6	1479.6	955.4	NO	bb	bb	46.417
1368-TCDD	23.458	0.892	2.635e4	3.233e4	1.015	0.815	0.770	953	770	4.19e5	4.97e5	439.5	645.3	NO	bb	bb	9.574
1289-TCDD	26.919	1.024	2.379e4	3.106e4	0.909	0.766	0.770	953	770	3.53e5	4.49e5	370.6	583.8	NO	bb	bb	9.999
12479-PECDD	28.697	0.914	2.435e5	1.553e5	2.301	1.567	1.550	1524	1248	2.35e6	1.50e6	1544.5	1204.0	NO	bb	bb	38.910
12389-PECDD	31.817	1.013	1.763e5	1.113e5	1.184	1.584	1.550	1524	1248	2.75e6	1.71e6	1801.2	1370.1	NO	bb	bb	54.551
124679-HXCDD	33.900	0.944	1.465e5	1.182e5	1.115	1.239	1.240	1349	1523	2.28e6	1.86e6	1687.2	1223.6	NO	bb	bb	44.590
1234679-HPCDD	39.103	0.975	1.479e5	1.435e5	1.137	1.031	1.050	1502	1441	2.42e6	2.35e6	1613.5	1631.8	NO	bb	bb	52.100
Total-tetrafurans			7.780e4		0.727			716		1.23e6							30.862
Total-penta1			2.319e5					618		3.50e6							44.157
Total-pentafurans			5.166e5		0.654			2199		8.07e6							194.955
Total-hexafurans			8.658e5		1.141			1821		1.36e7							239.855
Total-heptafurans			2.596e5		0.978			1853		4.18e6							100.961
Total-Furans			2.154e6		0.922			716		3.30e7							705.484
Total-tetradoxins			1.364e5		1.024			953		1.87e6							49.763
Total-pentadoxins			5.675e5		1.502			1524		7.42e6							147.203
Total-hexadoxins			5.881e5		1.005			1349		9.51e6							194.585
Total-heptadoxins			2.910e5		1.088			1502		4.56e6							105.440
Total-Dioxins			1.823e6		1.130			953		2.64e7							594.249
Total-TEQ			3.976e6					953		5.94e7							1299.733
FUNCTION1 PFK			1.489e5					279083		4.20e6							
FUNCTION2 PFK			1.321e5					179131		4.77e6							0.000
FUNCTION3 PFK			5.122e6					303675		2.50e6							0.000
FUNCTION4 PFK			1.487e5					184400		4.09e6							
FUNCTION5 PFK			6.967e4					148407		2.41e6							
FUNCTION1 HXCD...			3.381e2					611		4.55e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			4.931e2					724		9.61e3							0.000
FUNCTION3 OCDPE			1.546e2					565		2.28e3							0.000
FUNCTION4 NCDPE			1.575e2					671		4.08e3							0.000
FUNCTION5 DCDPE			1.472e2					596		2.67e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
 Printed: Thursday, May 11, 2023 11:21:13 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56

Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.17	2.345e4	3.169e4	0.678	0.74	0.77	497.1	YES	NO	db	bb	10.068
2	Total-tetrafurans	27.05	5.574e2	6.711e2	0.727	0.83	0.77	11.8	YES	NO	bd	bb	0.209
3	2378-TCDF	25.68	2.510e4	3.131e4	0.702	0.80	0.77	567.2	YES	NO	bb	bb	9.953
4	Total-tetrafurans	24.45	2.900e2	3.477e2	0.727	0.83	0.77	9.3	YES	NO	bd	bd	0.109
5	1368-TCDF	22.17	2.840e4	3.974e4	0.802	0.71	0.77	638.4	YES	NO	bb	bb	10.523

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.03	2.319e5	1.548e5	1.246	1.50	1.55	5656.8	YES	NO	bb	bb	44.157

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.16	1.690e5	1.127e5	0.786	1.50	1.55	1181.4	YES	NO	bb	bb	52.951
2	12378-PeCDF	29.82	1.582e5	1.034e5	0.679	1.53	1.55	1162.9	YES	NO	bb	bb	54.815
3	Total-pentafurans	28.67	2.566e4	1.665e4	0.654	1.54	1.55	183.7	YES	NO	bb	bb	9.382
4	12389-PECDF	32.20	1.637e5	1.076e5	0.496	1.52	1.55	1143.5	YES	NO	bb	bb	77.806

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.82	1.522e5	1.208e5	1.137	1.26	1.24	1326.4	YES	NO	bb	bb	47.738
2	234678-HxCDF	35.78	1.771e5	1.448e5	1.140	1.22	1.24	1531.4	YES	NO	bb	bb	48.783
3	123678-HxCDF	34.92	1.848e5	1.476e5	1.091	1.25	1.24	1597.8	YES	NO	db	db	49.339
4	123478-HxCDF	34.78	1.776e5	1.433e5	1.166	1.24	1.24	1524.9	YES	NO	bd	bd	47.579
5	123468-HxCDF	33.12	1.740e5	1.398e5	1.169	1.24	1.24	1479.6	YES	NO	bb	bb	46.417

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	40.89	1.218e5	1.212e5	0.953	1.00	1.05	977.7	YES	NO	bb	bb	51.723
2	1234678-HpCDF	38.66	1.379e5	1.369e5	1.003	1.01	1.05	1276.7	YES	NO	bb	bb	49.238

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld
 Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time
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ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.17	2.345e4	3.169e4	0.678	0.74	0.77	497.1	YES	NO	db	bb	10.068
2	Total-tetrafurans	27.05	5.574e2	6.711e2	0.727	0.83	0.77	11.8	YES	NO	bd	bb	0.209
3	2378-TCDF	25.68	2.510e4	3.131e4	0.702	0.80	0.77	567.2	YES	NO	bb	bb	9.953
4	Total-tetrafurans	24.45	2.900e2	3.477e2	0.727	0.83	0.77	9.3	YES	NO	bd	bd	0.109
5	1368-TCDF	22.17	2.840e4	3.974e4	0.802	0.71	0.77	638.4	YES	NO	bb	bb	10.523
6	23478-PeCDF	31.16	1.690e5	1.127e5	0.786	1.50	1.55	1181.4	YES	NO	bb	bb	52.951
7	12378-PeCDF	29.82	1.582e5	1.034e5	0.679	1.53	1.55	1162.9	YES	NO	bb	bb	54.815
8	Total-pentafurans	28.67	2.566e4	1.665e4	0.654	1.54	1.55	183.7	YES	NO	bb	bb	9.382
9	12389-PECDF	32.20	1.637e5	1.076e5	0.496	1.52	1.55	1143.5	YES	NO	bb	bb	77.806
10	123789-HxCDF	36.82	1.522e5	1.208e5	1.137	1.26	1.24	1326.4	YES	NO	bb	bb	47.738
11	234678-HxCDF	35.78	1.771e5	1.448e5	1.140	1.22	1.24	1531.4	YES	NO	bb	bb	48.783
12	123678-HxCDF	34.92	1.848e5	1.476e5	1.091	1.25	1.24	1597.8	YES	NO	db	db	49.339
13	123478-HxCDF	34.78	1.776e5	1.433e5	1.166	1.24	1.24	1524.9	YES	NO	bd	bd	47.579
14	123468-HxCDF	33.12	1.740e5	1.398e5	1.169	1.24	1.24	1479.6	YES	NO	bb	bb	46.417
15	1234789-HpCDF	40.89	1.218e5	1.212e5	0.953	1.00	1.05	977.7	YES	NO	bb	bb	51.723
16	1234678-HpCDF	38.66	1.379e5	1.369e5	1.003	1.01	1.05	1276.7	YES	NO	bb	bb	49.238
17	OCDF	45.07	2.019e5	2.211e5	0.778	0.91	0.89	2109.3	YES	NO	bb	bb	94.693
18	13468-PECDF	27.03	2.319e5	1.548e5	1.246	1.50	1.55	5656.8	YES	NO	bb	bb	44.157

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	23.74	2.033e2	2.706e2	1.024	0.75	0.77	3.6	YES	NO	bb	db	0.077
2	1368-TCDD	23.46	2.635e4	3.233e4	1.015	0.82	0.77	439.5	YES	NO	bb	bb	9.574
3	1289-TCDD	26.92	2.379e4	3.106e4	0.909	0.77	0.77	370.6	YES	NO	bb	bb	9.999
4	2378-TCDD	26.31	2.996e4	3.756e4	1.149	0.80	0.77	457.1	YES	NO	bd	bb	9.737
5	Total-tetradioxins	25.99	4.248e4	5.319e4	1.024	0.80	0.77	477.0	YES	NO	bb	bb	15.474
6	Total-tetradioxins	25.51	1.363e4	1.667e4	1.024	0.82	0.77	217.7	YES	NO	bd	bd	4.901

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.82	1.763e5	1.113e5	1.184	1.58	1.55	1801.2	YES	NO	bb	bb	54.551
2	12378-PeCDD	31.42	1.478e5	9.675e4	1.022	1.53	1.55	1523.6	YES	NO	bb	bb	53.742
3	12479-PECDD	28.70	2.435e5	1.553e5	2.301	1.57	1.55	1544.5	YES	NO	bb	bb	38.910

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.41	1.502e5	1.208e5	0.907	1.24	1.24	1838.0	YES	NO	bb	bb	54.063
2	123678-HxCDD	36.03	1.470e5	1.191e5	1.001	1.23	1.24	1785.8	YES	NO	db	db	46.392
3	123478-HxCDD	35.91	1.442e5	1.177e5	0.996	1.22	1.24	1729.1	YES	NO	bd	bd	49.432
4	Total-hexadioxins	35.05	2.554e2	1.830e2	1.005	1.40	1.24	5.3	YES	NO	db	bb	0.079
5	Total-hexadioxins	34.10	8.367e1	7.691e1	1.005	1.09	1.24	2.4	NO	NO	bb	bb	0.029
6	124679-HXCDD	33.90	1.465e5	1.182e5	1.115	1.24	1.24	1687.2	YES	NO	bb	bb	44.590

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.15	1.431e5	1.295e5	1.039	1.11	1.05	1420.3	YES	NO	bd	bb	53.340
2	1234679-HPCDD	39.10	1.479e5	1.435e5	1.137	1.03	1.05	1613.5	YES	NO	bb	bb	52.100

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	23.74	2.033e2	2.706e2	1.024	0.75	0.77	3.6	YES	NO	bb	db	0.077
2	1368-TCDD	23.46	2.635e4	3.233e4	1.015	0.82	0.77	439.5	YES	NO	bb	bb	9.574
3	1289-TCDD	26.92	2.379e4	3.106e4	0.909	0.77	0.77	370.6	YES	NO	bb	bb	9.999
4	2378-TCDD	26.31	2.996e4	3.756e4	1.149	0.80	0.77	457.1	YES	NO	bd	bb	9.737
5	Total-tetradioxins	25.99	4.248e4	5.319e4	1.024	0.80	0.77	477.0	YES	NO	bb	bb	15.474
6	Total-tetradioxins	25.51	1.363e4	1.667e4	1.024	0.82	0.77	217.7	YES	NO	bd	bd	4.901
7	12389-PECDD	31.82	1.763e5	1.113e5	1.184	1.58	1.55	1801.2	YES	NO	bb	bb	54.551
8	12378-PeCDD	31.42	1.478e5	9.675e4	1.022	1.53	1.55	1523.6	YES	NO	bb	bb	53.742
9	12479-PECDD	28.70	2.435e5	1.553e5	2.301	1.57	1.55	1544.5	YES	NO	bb	bb	38.910
10	123789-HxCDD	36.41	1.502e5	1.208e5	0.907	1.24	1.24	1838.0	YES	NO	bb	bb	54.063
11	123678-HxCDD	36.03	1.470e5	1.191e5	1.001	1.23	1.24	1785.8	YES	NO	db	db	46.392
12	123478-HxCDD	35.91	1.442e5	1.177e5	0.996	1.22	1.24	1729.1	YES	NO	bd	bd	49.432
13	Total-hexadioxins	35.05	2.554e2	1.830e2	1.005	1.40	1.24	5.3	YES	NO	db	bb	0.079
14	Total-hexadioxins	34.10	8.367e1	7.691e1	1.005	1.09	1.24	2.4	NO	NO	bb	bb	0.029
15	124679-HXCDD	33.90	1.465e5	1.182e5	1.115	1.24	1.24	1687.2	YES	NO	bb	bb	44.590
16	OCDD	44.83	2.394e5	2.745e5	0.920	0.87	0.89	1599.8	YES	NO	bb	bb	97.258
17	1234678-HpCDD	40.15	1.431e5	1.295e5	1.039	1.11	1.05	1420.3	YES	NO	bd	bb	53.340
18	1234679-HPCDD	39.10	1.479e5	1.435e5	1.137	1.03	1.05	1613.5	YES	NO	bb	bb	52.100

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.17	2.345e4	3.169e4	0.678	0.74	0.77	497.1	YES	NO	db	bb	10.068
2	Total-tetrafurans	27.05	5.574e2	6.711e2	0.727	0.83	0.77	11.8	YES	NO	bd	bb	0.209
3	2378-TCDF	25.68	2.510e4	3.131e4	0.702	0.80	0.77	567.2	YES	NO	bb	bb	9.953
4	Total-tetrafurans	24.45	2.900e2	3.477e2	0.727	0.83	0.77	9.3	YES	NO	bd	bd	0.109
5	1368-TCDF	22.17	2.840e4	3.974e4	0.802	0.71	0.77	638.4	YES	NO	bb	bb	10.523
6	23478-PeCDF	31.16	1.690e5	1.127e5	0.786	1.50	1.55	1181.4	YES	NO	bb	bb	52.951
7	12378-PeCDF	29.82	1.582e5	1.034e5	0.679	1.53	1.55	1162.9	YES	NO	bb	bb	54.815
8	Total-pentafurans	28.67	2.566e4	1.665e4	0.654	1.54	1.55	183.7	YES	NO	bb	bb	9.382
9	12389-PECDF	32.20	1.637e5	1.076e5	0.496	1.52	1.55	1143.5	YES	NO	bb	bb	77.806
10	123789-HxCDF	36.82	1.522e5	1.208e5	1.137	1.26	1.24	1326.4	YES	NO	bb	bb	47.738
11	234678-HxCDF	35.78	1.771e5	1.448e5	1.140	1.22	1.24	1531.4	YES	NO	bb	bb	48.783
12	123678-HxCDF	34.92	1.848e5	1.476e5	1.091	1.25	1.24	1597.8	YES	NO	db	db	49.339
13	123478-HxCDF	34.78	1.776e5	1.433e5	1.166	1.24	1.24	1524.9	YES	NO	bd	bd	47.579
14	123468-HXCDF	33.12	1.740e5	1.398e5	1.169	1.24	1.24	1479.6	YES	NO	bb	bb	46.417
15	1234789-HpCDF	40.89	1.218e5	1.212e5	0.953	1.00	1.05	977.7	YES	NO	bb	bb	51.723
16	1234678-HpCDF	38.66	1.379e5	1.369e5	1.003	1.01	1.05	1276.7	YES	NO	bb	bb	49.238
17	OCDF	45.07	2.019e5	2.211e5	0.778	0.91	0.89	2109.3	YES	NO	bb	bb	94.693
18	13468-PECDF	27.03	2.319e5	1.548e5	1.246	1.50	1.55	5656.8	YES	NO	bb	bb	44.157
19	Total-tetradioxins	23.74	2.033e2	2.706e2	1.024	0.75	0.77	3.6	YES	NO	bb	db	0.077
20	1368-TCDD	23.46	2.635e4	3.233e4	1.015	0.82	0.77	439.5	YES	NO	bb	bb	9.574
21	1289-TCDD	26.92	2.379e4	3.106e4	0.909	0.77	0.77	370.6	YES	NO	bb	bb	9.999
22	2378-TCDD	26.31	2.996e4	3.756e4	1.149	0.80	0.77	457.1	YES	NO	bd	bb	9.737
23	Total-tetradioxins	25.99	4.248e4	5.319e4	1.024	0.80	0.77	477.0	YES	NO	bb	bb	15.474
24	Total-tetradioxins	25.51	1.363e4	1.667e4	1.024	0.82	0.77	217.7	YES	NO	bd	bd	4.901
25	12389-PECDD	31.82	1.763e5	1.113e5	1.184	1.58	1.55	1801.2	YES	NO	bb	bb	54.551
26	12378-PeCDD	31.42	1.478e5	9.675e4	1.022	1.53	1.55	1523.6	YES	NO	bb	bb	53.742
27	12479-PECDD	28.70	2.435e5	1.553e5	2.301	1.57	1.55	1544.5	YES	NO	bb	bb	38.910
28	123789-HxCDD	36.41	1.502e5	1.208e5	0.907	1.24	1.24	1838.0	YES	NO	bb	bb	54.063
29	123678-HxCDD	36.03	1.470e5	1.191e5	1.001	1.23	1.24	1785.8	YES	NO	db	db	46.392
30	123478-HxCDD	35.91	1.442e5	1.177e5	0.996	1.22	1.24	1729.1	YES	NO	bd	bd	49.432
31	Total-hexadioxins	35.05	2.554e2	1.830e2	1.005	1.40	1.24	5.3	YES	NO	db	bb	0.079
32	Total-hexadioxins	34.10	8.367e1	7.691e1	1.005	1.09	1.24	2.4	NO	NO	bb	bb	0.029
33	124679-HXCDD	33.90	1.465e5	1.182e5	1.115	1.24	1.24	1687.2	YES	NO	bb	bb	44.590
34	OCDD	44.83	2.394e5	2.745e5	0.920	0.87	0.89	1599.8	YES	NO	bb	bb	97.258
35	1234678-HpCDD	40.15	1.431e5	1.295e5	1.039	1.11	1.05	1420.3	YES	NO	bd	bb	53.340
36	1234679-HPCDD	39.10	1.479e5	1.435e5	1.137	1.03	1.05	1613.5	YES	NO	bb	bb	52.100

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	26.98	1.918e3					0.5	NO		bb		
2	FUNCTION1 PFK	26.69	2.222e4					1.1	NO		bb		
3	FUNCTION1 PFK	26.47	1.405e4					1.0	NO		bb		
4	FUNCTION1 PFK	25.52	3.013e4					1.6	NO		bb		
5	FUNCTION1 PFK	24.52	2.180e3					0.6	NO		bb		
6	FUNCTION1 PFK	24.46	1.617e4					1.0	NO		bb		
7	FUNCTION1 PFK	24.25	1.503e4					1.6	NO		bb		
8	FUNCTION1 PFK	24.15	2.129e3					0.5	NO		bb		
9	FUNCTION1 PFK	23.75	1.210e4					1.2	NO		bb		
10	FUNCTION1 PFK	22.98	2.370e3					0.6	NO		bb		
11	FUNCTION1 PFK	22.94	2.311e3					0.6	NO		bb		
12	FUNCTION1 PFK	22.29	9.133e3					1.3	NO		bb		
13	FUNCTION1 PFK	21.42	2.012e3					0.5	NO		bb		
14	FUNCTION1 PFK	21.17	2.068e3					0.5	NO		bb		
15	FUNCTION1 PFK	21.13	7.392e3					1.0	NO		bb		
16	FUNCTION1 PFK	27.43	2.562e3					0.6	NO		bb		
17	FUNCTION1 PFK	27.24	5.147e3					0.8	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.78	8.381e3					1.9	NO		bd		0.000
2	FUNCTION2 PFK	30.69	1.194e4					1.5	NO		bb		0.000
3	FUNCTION2 PFK	29.79	4.364e3					1.1	NO		bb		0.000
4	FUNCTION2 PFK	29.58	2.785e3					0.8	NO		bb		0.000
5	FUNCTION2 PFK	29.45	9.948e3					1.6	NO		bb		0.000
6	FUNCTION2 PFK	29.40	1.085e4					1.6	NO		bb		0.000
7	FUNCTION2 PFK	29.25	1.862e3					0.6	NO		bb		0.000
8	FUNCTION2 PFK	29.21	7.606e3					1.7	NO		bb		0.000
9	FUNCTION2 PFK	29.02	9.474e3					2.1	NO		bb		0.000
10	FUNCTION2 PFK	28.91	2.716e3					0.6	NO		bb		0.000
11	FUNCTION2 PFK	28.56	7.164e3					1.7	NO		bb		0.000
12	FUNCTION2 PFK	28.52	2.488e3					0.7	NO		bb		0.000
13	FUNCTION2 PFK	28.37	2.937e3					0.7	NO		bb		0.000
14	FUNCTION2 PFK	32.73	7.108e3					1.6	NO		bb		0.000
15	FUNCTION2 PFK	32.40	4.166e3					1.0	NO		bb		0.000
16	FUNCTION2 PFK	32.20	1.275e3					0.6	NO		bb		0.000
17	FUNCTION2 PFK	32.16	8.558e2					0.4	NO		bb		0.000
18	FUNCTION2 PFK	31.66	3.613e3					0.8	NO		bb		0.000
19	FUNCTION2 PFK	31.46	5.032e3					1.0	NO		db		0.000
20	FUNCTION2 PFK	31.43	3.203e3					0.9	NO		bd		0.000
21	FUNCTION2 PFK	31.24	3.480e3					1.1	NO		bb		0.000
22	FUNCTION2 PFK	30.98	1.204e4					1.5	NO		bb		0.000
23	FUNCTION2 PFK	30.83	8.764e3					1.2	NO		db		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.65	2.533e6					4.9	YES		bb		0.000
2	FUNCTION3 PFK	36.26	2.589e6					3.3	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.03	3.015e4					2.6	NO		bb		
2	FUNCTION4 PFK	37.98	5.563e3					1.2	NO		bb		
3	FUNCTION4 PFK	42.64	4.479e3					1.1	NO		bb		
4	FUNCTION4 PFK	42.48	6.452e3					1.4	NO		bb		
5	FUNCTION4 PFK	41.55	7.414e3					1.2	NO		bb		
6	FUNCTION4 PFK	41.24	1.032e4					1.8	NO		bb		
7	FUNCTION4 PFK	41.11	1.055e3					0.5	NO		bb		
8	FUNCTION4 PFK	40.75	2.240e3					0.7	NO		bb		
9	FUNCTION4 PFK	39.86	1.408e4					1.6	NO		bb		
10	FUNCTION4 PFK	39.73	1.021e4					1.5	NO		bb		
11	FUNCTION4 PFK	39.50	5.051e3					1.3	NO		db		
12	FUNCTION4 PFK	39.47	6.422e3					1.3	NO		bd		
13	FUNCTION4 PFK	39.40	6.594e3					1.2	NO		bb		
14	FUNCTION4 PFK	39.19	2.475e4					1.9	NO		bb		
15	FUNCTION4 PFK	38.37	7.719e3					1.4	NO		bb		
16	FUNCTION4 PFK	38.23	6.183e3					1.5	NO		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.06	4.251e3					0.7	NO		bd		
2	FUNCTION5 PFK	45.76	4.029e3					1.4	NO		bb		
3	FUNCTION5 PFK	45.65	6.683e3					1.4	NO		bb		
4	FUNCTION5 PFK	45.60	1.385e3					0.6	NO		bb		
5	FUNCTION5 PFK	45.57	1.215e3					0.6	NO		bb		
6	FUNCTION5 PFK	44.66	5.778e3					1.6	NO		db		
7	FUNCTION5 PFK	44.62	5.534e3					1.4	NO		dd		
8	FUNCTION5 PFK	44.58	1.268e4					1.5	NO		bd		
9	FUNCTION5 PFK	44.42	3.141e3					1.1	NO		bb		
10	FUNCTION5 PFK	44.19	1.861e3					0.8	NO		bb		
11	FUNCTION5 PFK	43.47	6.620e3					1.5	NO		bb		
12	FUNCTION5 PFK	43.26	1.048e4					1.7	NO		bb		
13	FUNCTION5 PFK	43.12	6.014e3					1.7	NO		db		

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.40	7.106e1					1.5	NO		db		0.000
2	FUNCTION1 HXCD...	26.30	1.547e2					3.9	YES		bd		0.000
3	FUNCTION1 HXCD...	21.13	1.123e2					2.1	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.25	1.183e2					4.7	YES		bb		0.000
2	FUNCTION2 HPCD...	31.15	1.055e2					3.1	YES		db		0.000
3	FUNCTION2 HPCD...	31.06	9.733e1					2.3	NO		bd		0.000
4	FUNCTION2 HPCD...	29.83	7.466e1					1.8	NO		bb		0.000
5	FUNCTION2 HPCD...	28.74	9.733e1					1.3	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.37	8.067e1					2.4	NO		bb		0.000
2	FUNCTION3 OCDPE	34.37	7.393e1					1.6	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.54	7.696e1					2.6	NO		db		0.000
2	FUNCTION4 NCDPE	38.50	8.049e1					3.5	YES		bd		0.000

ETHERS6

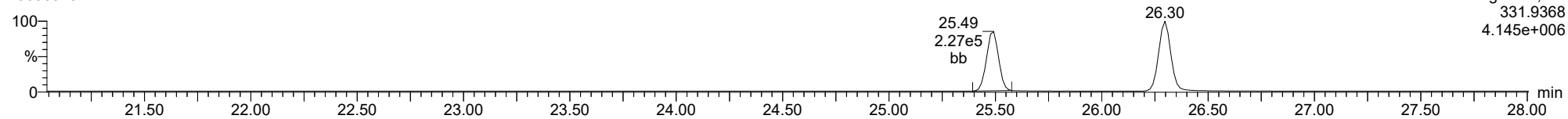
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.74	7.603e1					2.4	NO		bb		0.000
2	FUNCTION5 DCDPE	43.29	7.114e1					2.1	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230509.mdb 10 May 2023 07:46:56
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 11:57:27

ID: CS3K7, **Name:** 23050929, **Date:** 10-May-2023, **Time:** 12:00:32, **Conditions:** AUTOSPEC01, **User:** pk

13C-1234-TCDD

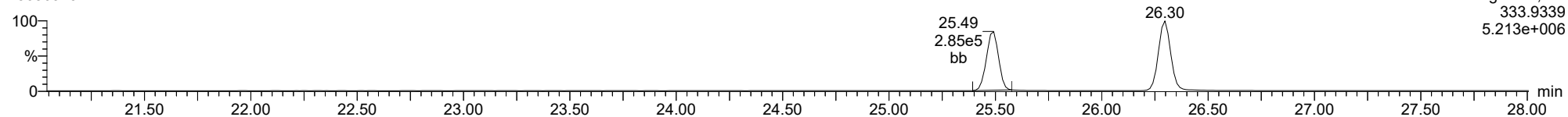
23050929



F1:Voltage SIR,El+
331.9368
4.145e+006

13C-1234-TCDD

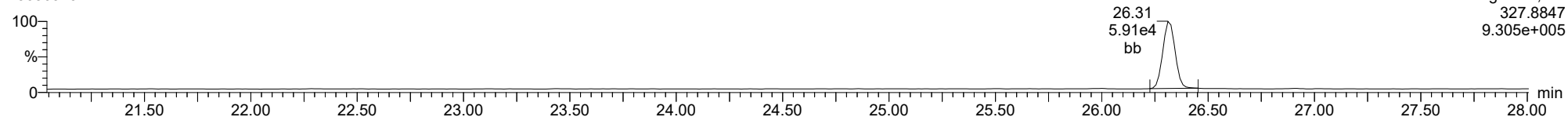
23050929



F1:Voltage SIR,El+
333.9339
5.213e+006

37CL-2378-TCDD

23050929

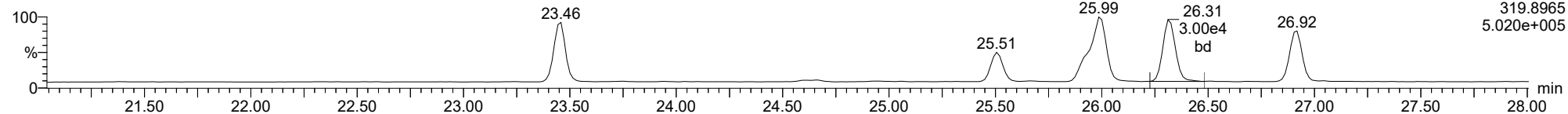


F1:Voltage SIR,El+
327.8847
9.305e+005

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

2378-TCDD

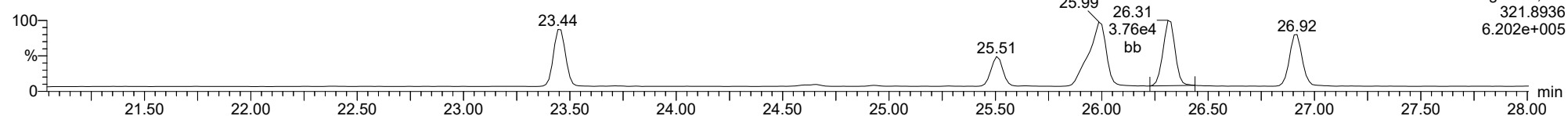
23050929



F1:Voltage SIR,EI+
319.8965
5.020e+005

2378-TCDD

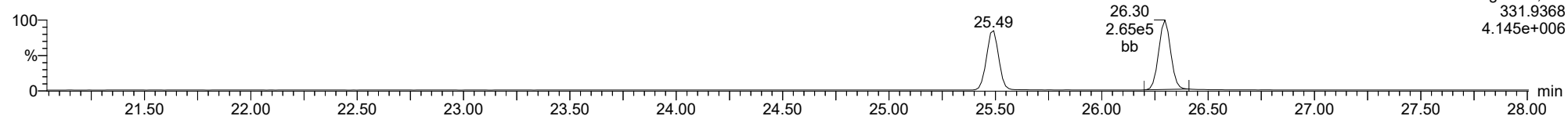
23050929



F1:Voltage SIR,EI+
321.8936
6.202e+005

13C-2378-TCDD

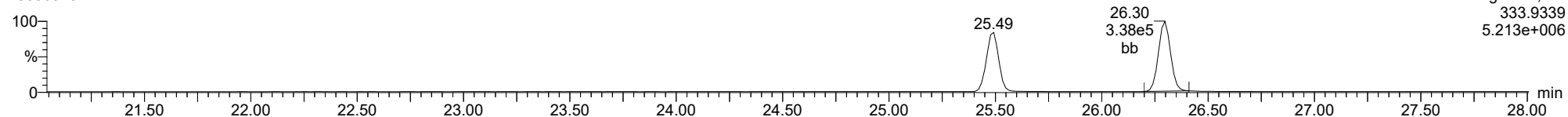
23050929



F1:Voltage SIR,EI+
331.9368
4.145e+006

13C-2378-TCDD

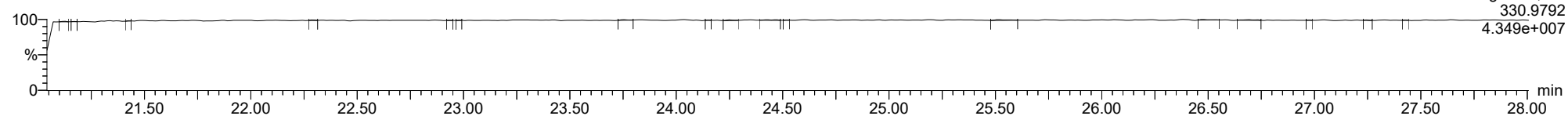
23050929



F1:Voltage SIR,EI+
333.9339
5.213e+006

FUNCTION1 PFK

23050929

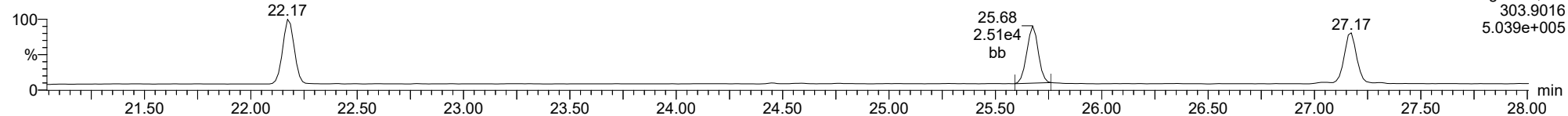


F1:Voltage SIR,EI+
330.9792
4.349e+007

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

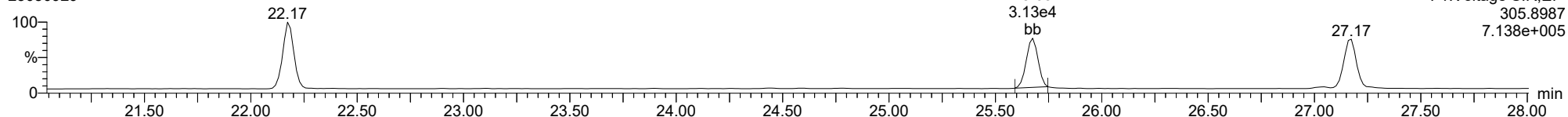
2378-TCDF

23050929



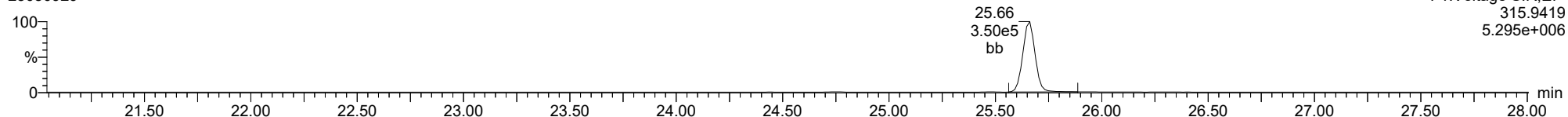
2378-TCDF

23050929



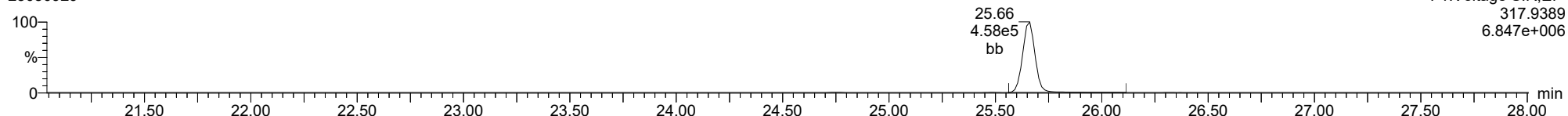
13C-2378-TCDF

23050929



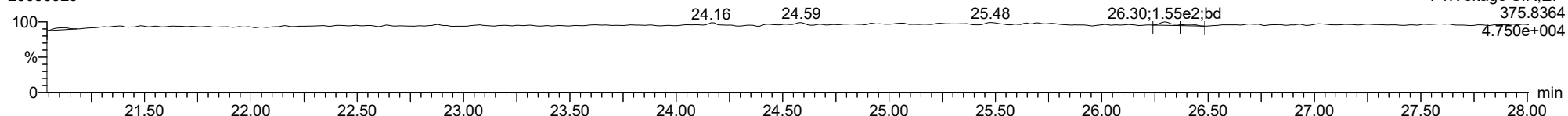
13C-2378-TCDF

23050929



FUNCTION1 HXCDPE

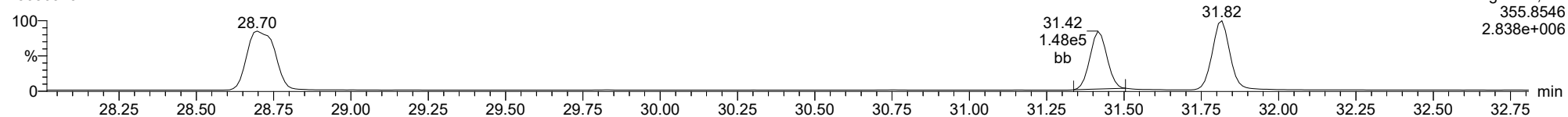
23050929



ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

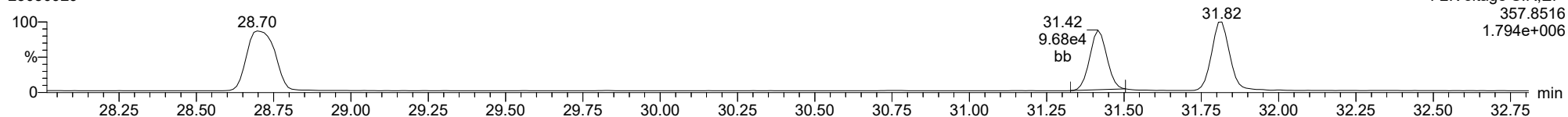
23050929



F2:Voltage SIR,EI+
357.8516
2.838e+006

12378-PeCDD

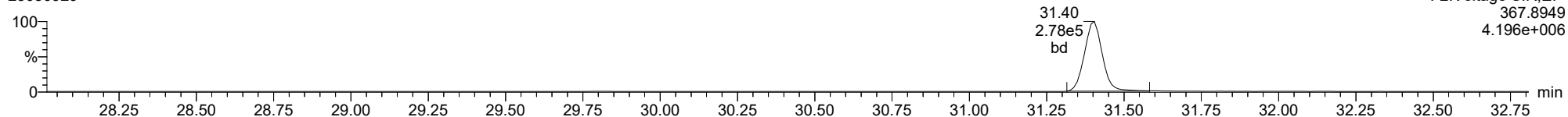
23050929



F2:Voltage SIR,EI+
357.8516
1.794e+006

13C-12378-PeCDD

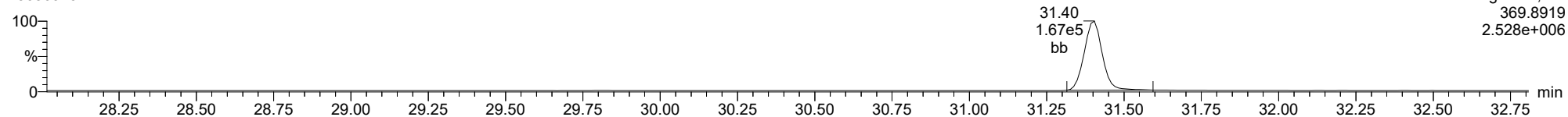
23050929



F2:Voltage SIR,EI+
367.8949
4.196e+006

13C-12378-PeCDD

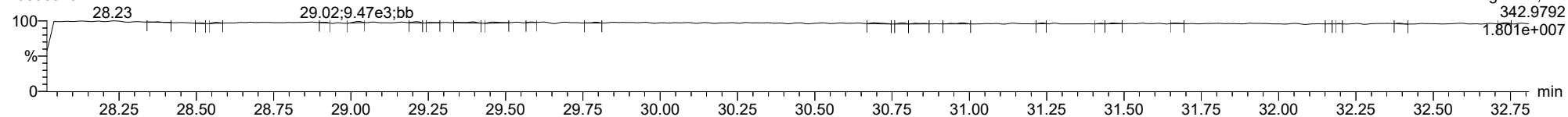
23050929



F2:Voltage SIR,EI+
369.8919
2.528e+006

FUNCTION2 PFK

23050929

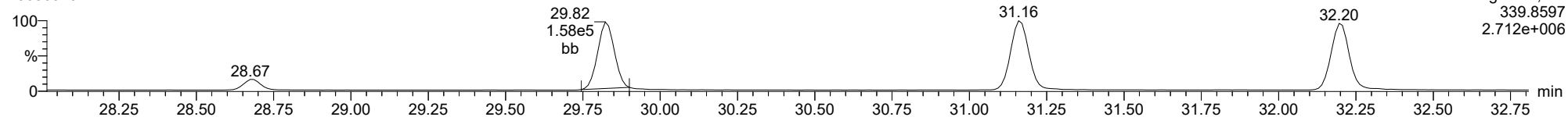


F2:Voltage SIR,EI+
342.9792
1.801e+007

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

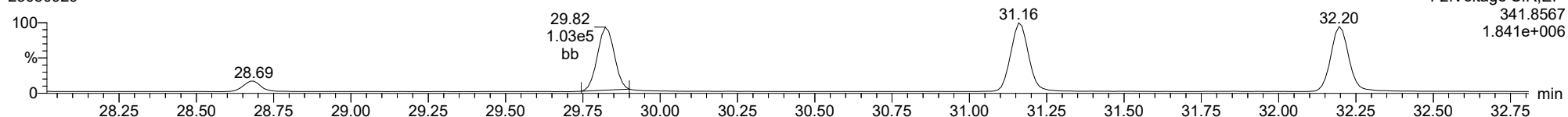
12378-PeCDF

23050929



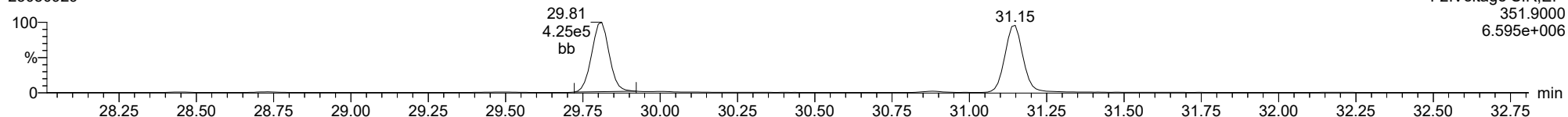
12378-PeCDF

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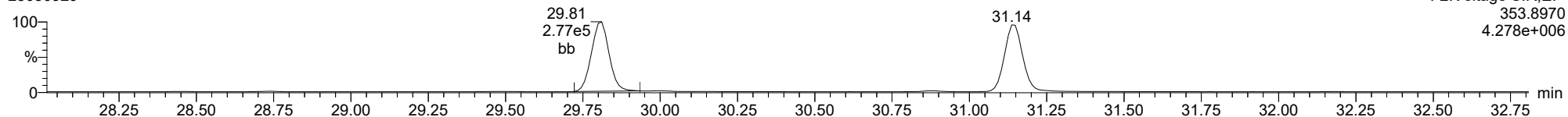
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23050929



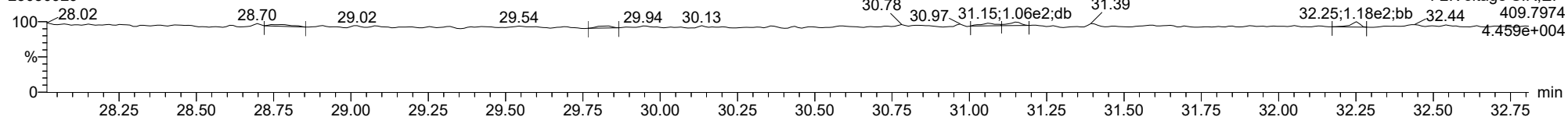
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23050929



FUNCTION2 HPCDPE

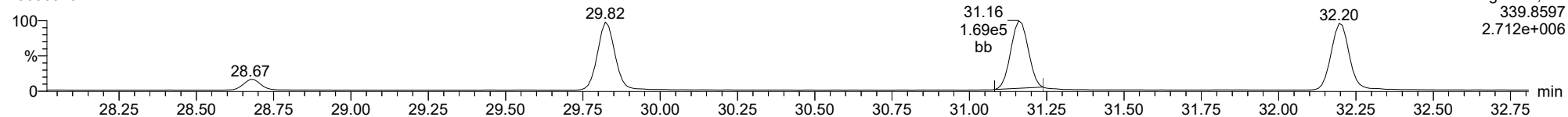
23050929



ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

23478-PeCDF

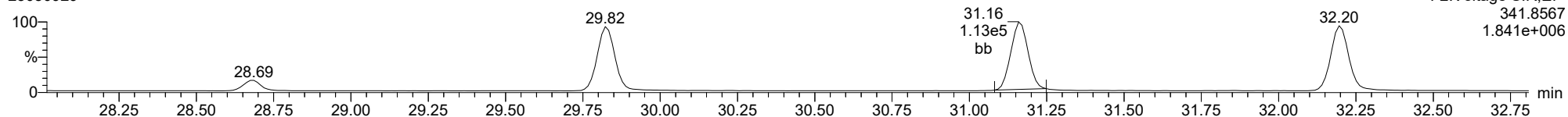
23050929



F2:Voltage SIR,EI+
339.8597
2.712e+006

23478-PeCDF

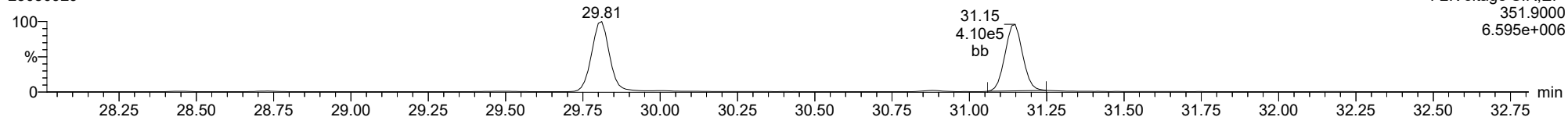
23050929



F2:Voltage SIR,EI+
341.8567
1.841e+006

13C-23478-PeCDF

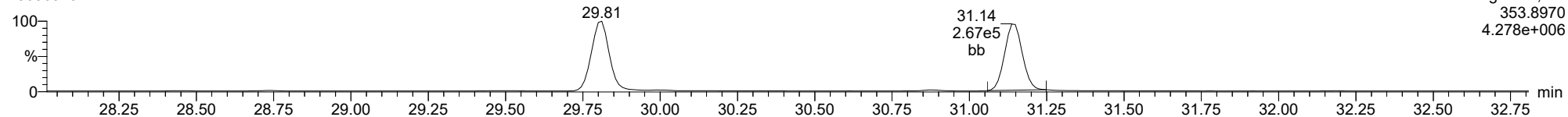
23050929



F2:Voltage SIR,EI+
351.9000
6.595e+006

13C-23478-PeCDF

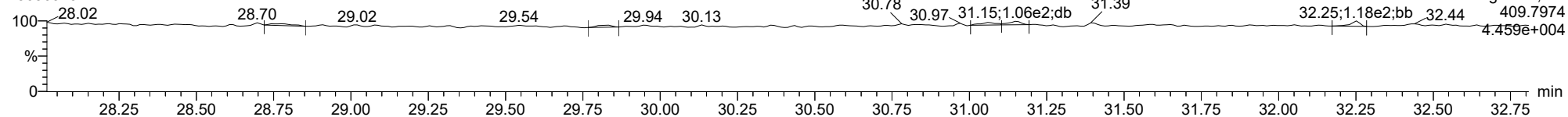
23050929



F2:Voltage SIR,EI+
353.8970
4.278e+006

FUNCTION2 HPCDPE

23050929

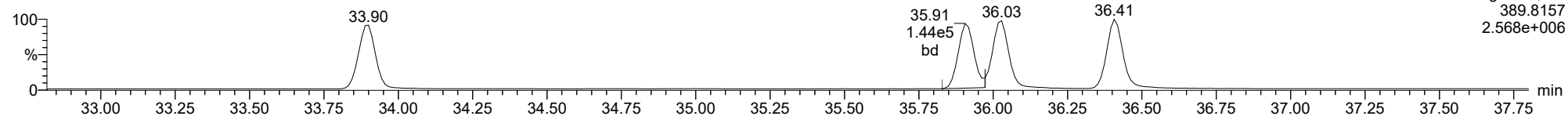


F2:Voltage SIR,EI+
409.7974
4.459e+004

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

123478-HxCDD

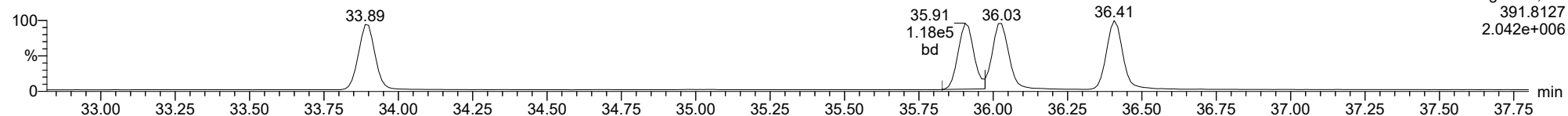
23050929



F3:Voltage SIR,El+
389.8157
2.568e+006

123478-HxCDD

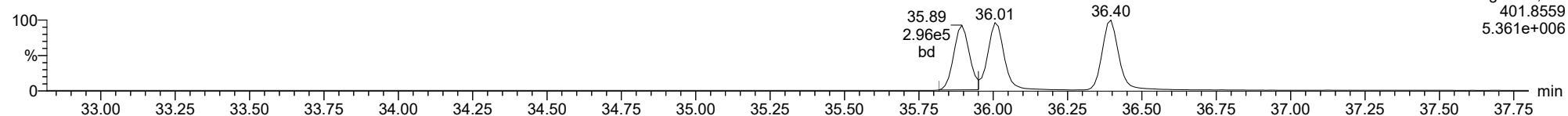
23050929



F3:Voltage SIR,El+
391.8127
2.042e+006

13C-123478-HxCDD

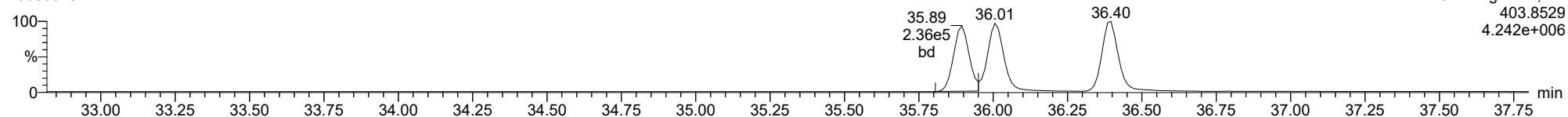
23050929



F3:Voltage SIR,El+
401.8559
5.361e+006

13C-123478-HxCDD

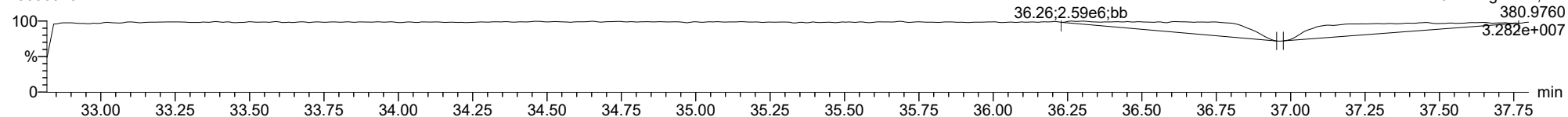
23050929



F3:Voltage SIR,El+
403.8529
4.242e+006

FUNCTION3 PFK

23050929

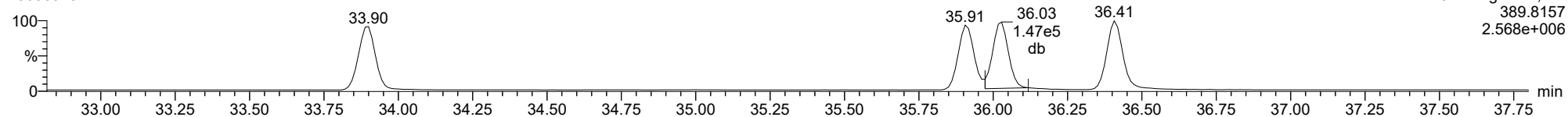


F3:Voltage SIR,El+
380.9760
3.282e+007

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

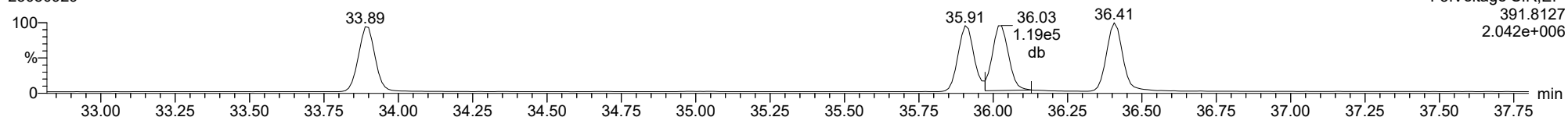
123678-HxCDD

23050929



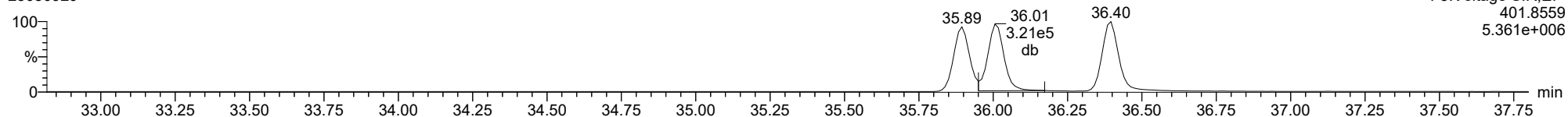
123678-HxCDD

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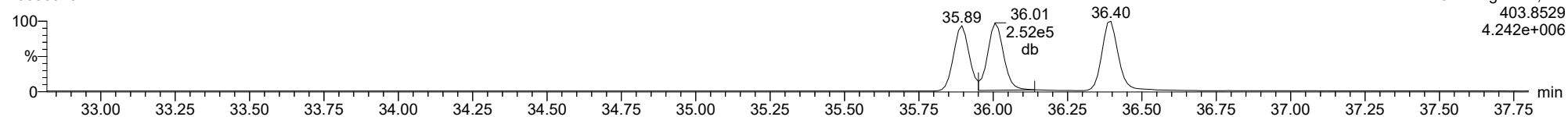
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13C-123678-HxCDD

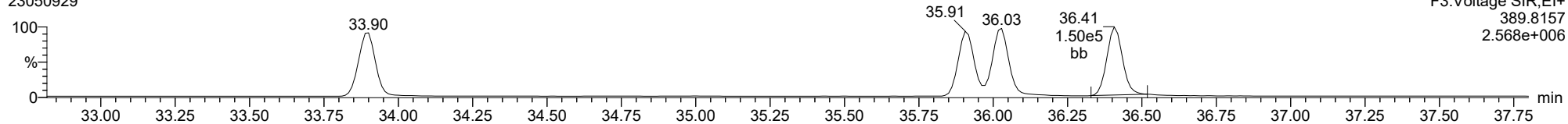
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ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

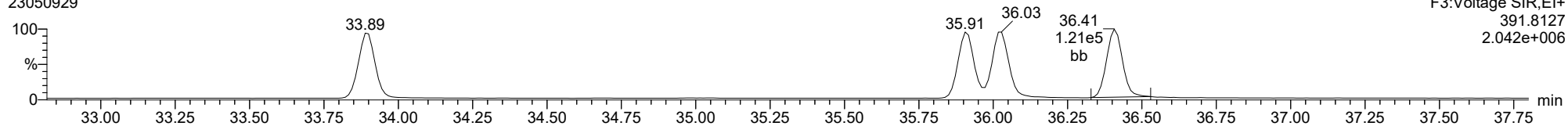
123789-HxCDD

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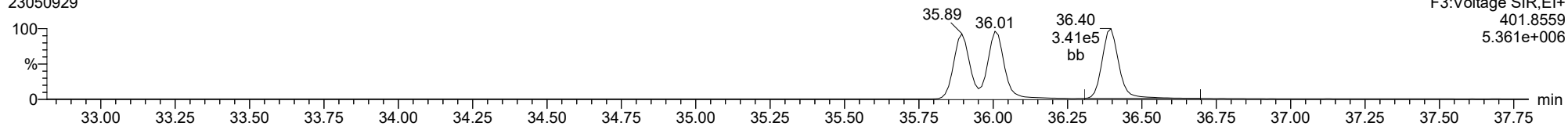
123789-HxCDD

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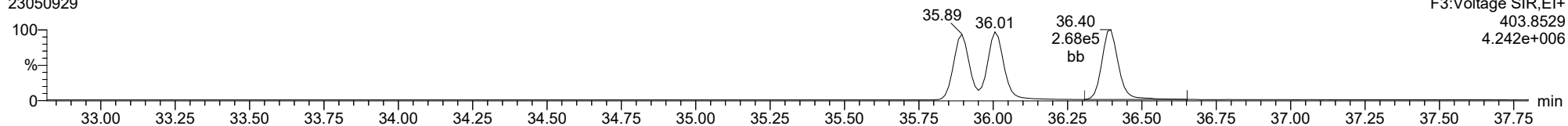
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13C-123789-HxCDD

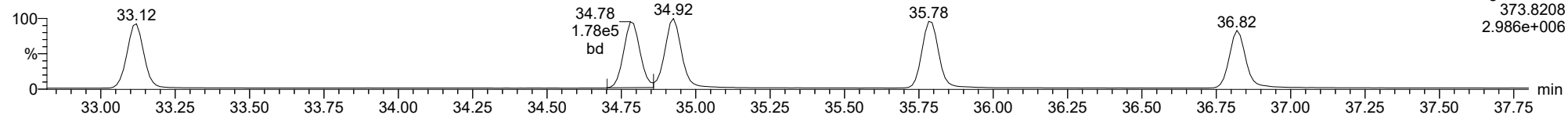
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ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

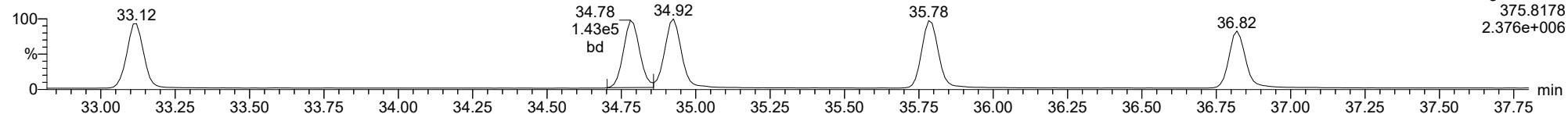
123478-HxCDF

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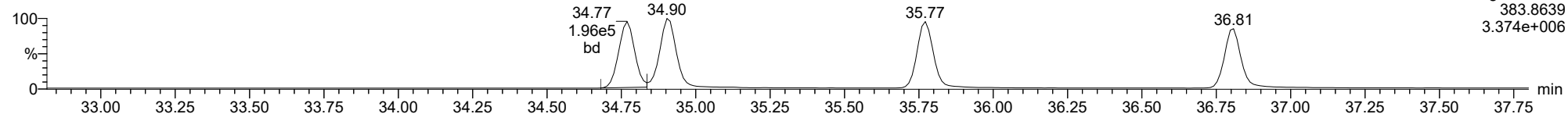
123478-HxCDF

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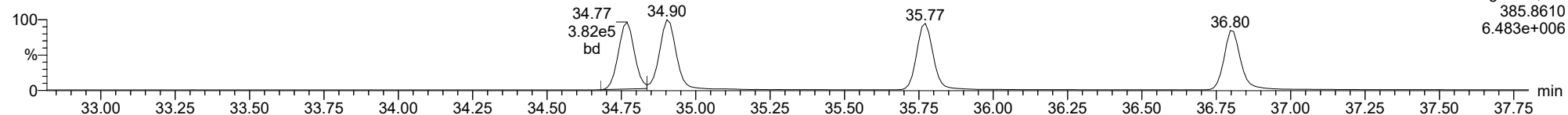
13C-123478-HxCDF

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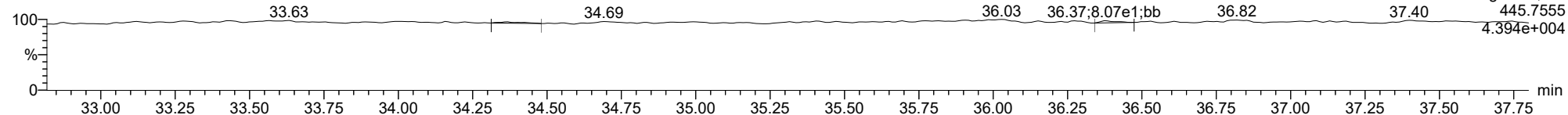
13C-123478-HxCDF

23050929



FUNCTION3 OCDPE

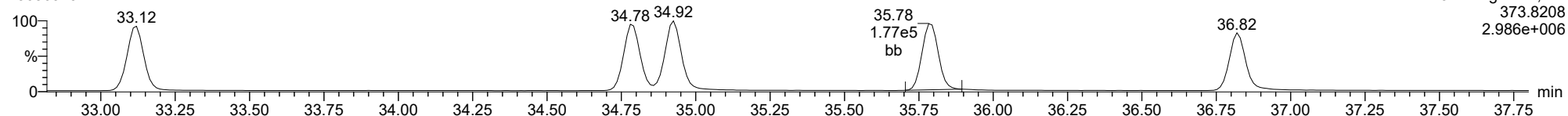
23050929



ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

234678-HxCDF

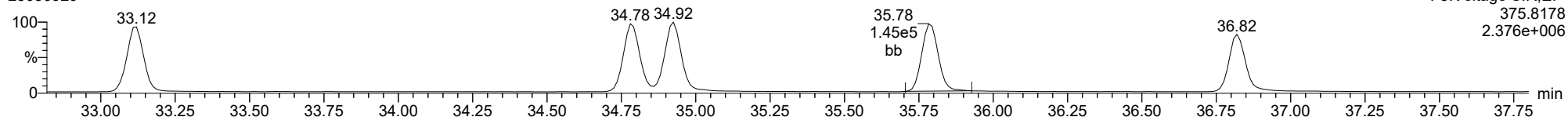
23050929



F3:Voltage SIR,EI+
373.8208
2.986e+006

234678-HxCDF

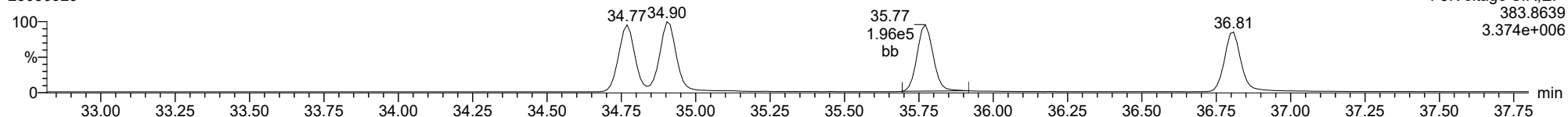
23050929



F3:Voltage SIR,EI+
375.8178
2.376e+006

13C-234678-HxCDF

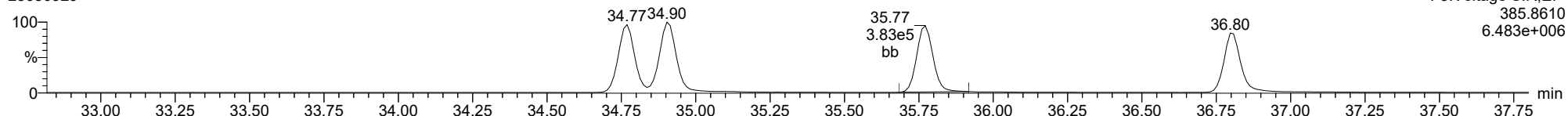
23050929



F3:Voltage SIR,EI+
383.8639
3.374e+006

13C-234678-HxCDF

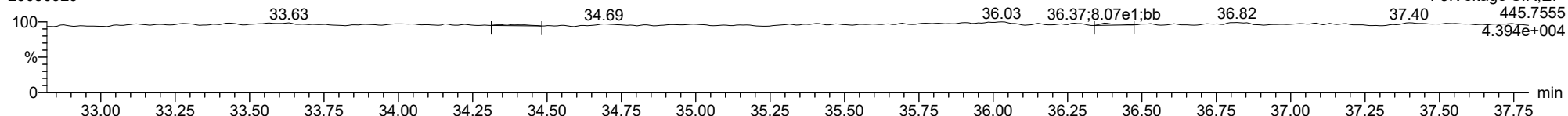
23050929



F3:Voltage SIR,EI+
385.8610
6.483e+006

FUNCTION3 OCDPE

23050929

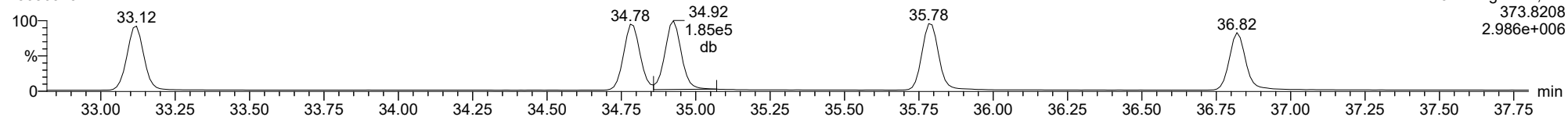


F3:Voltage SIR,EI+
445.7555
4.394e+004

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

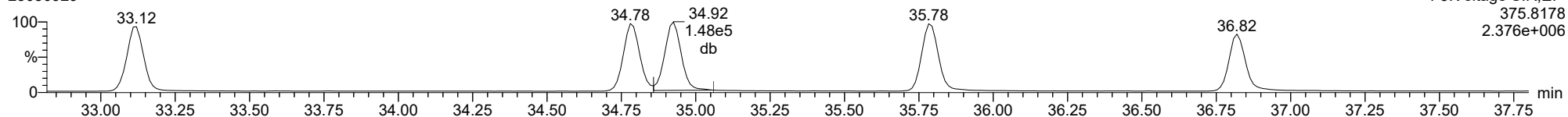
123678-HxCDF

23050929



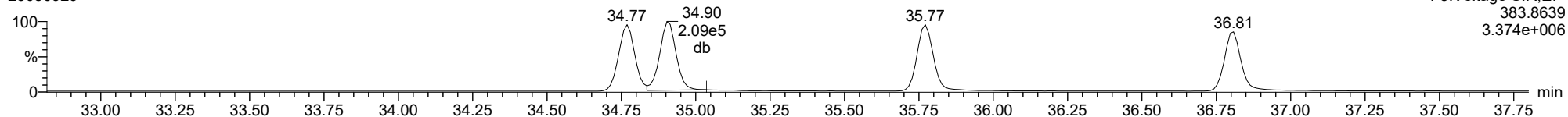
123678-HxCDF

23050929



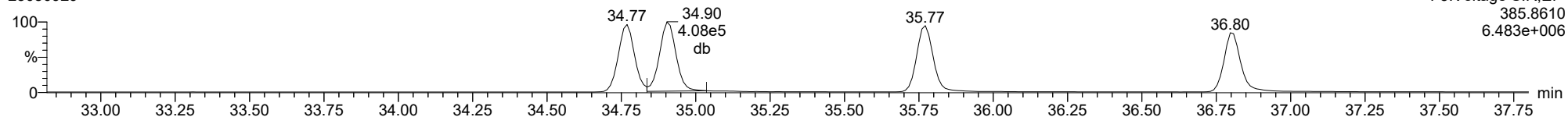
13C-123678-HxCDF

23050929



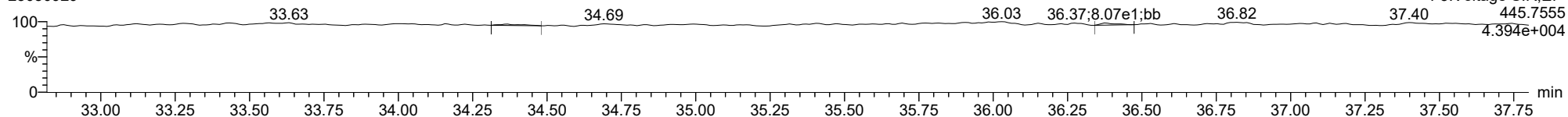
13C-123678-HxCDF

23050929



FUNCTION3 OCDPE

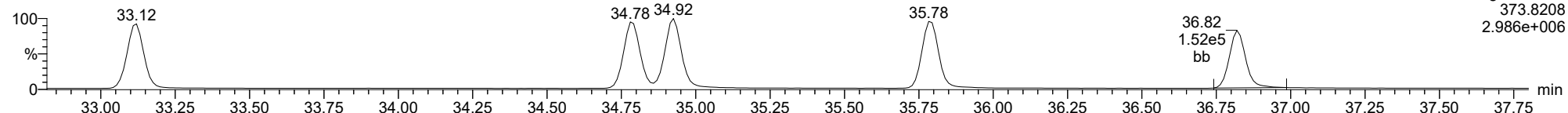
23050929



ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

123789-HxCDF

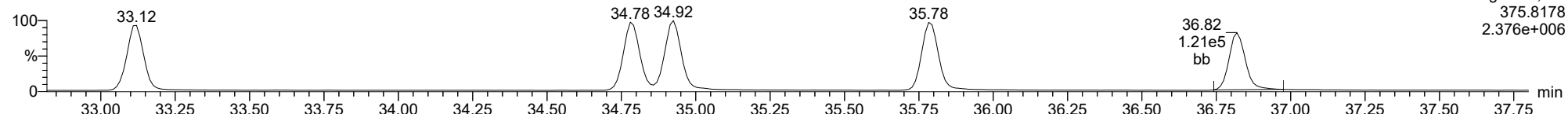
23050929



F3:Voltage SIR,EI+
373.8208
2.986e+006

123789-HxCDF

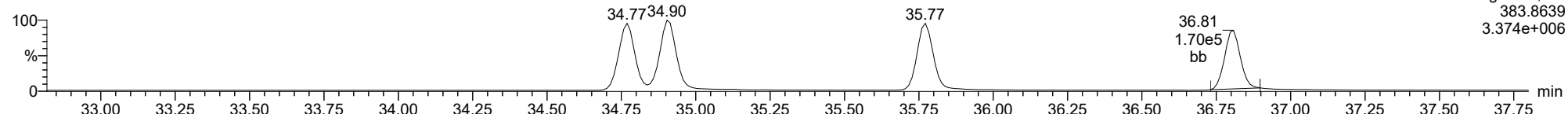
23050929



F3:Voltage SIR,EI+
375.8178
2.376e+006

13C-123789-HxCDF

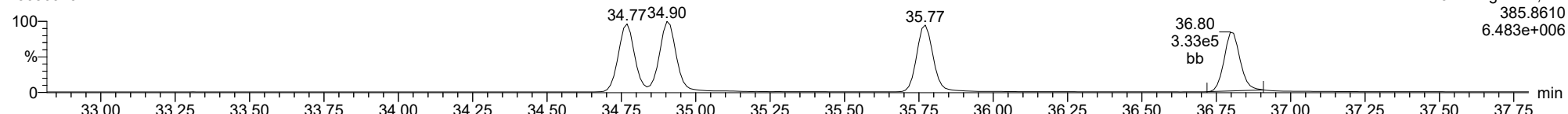
23050929



F3:Voltage SIR,EI+
383.8639
3.374e+006

13C-123789-HxCDF

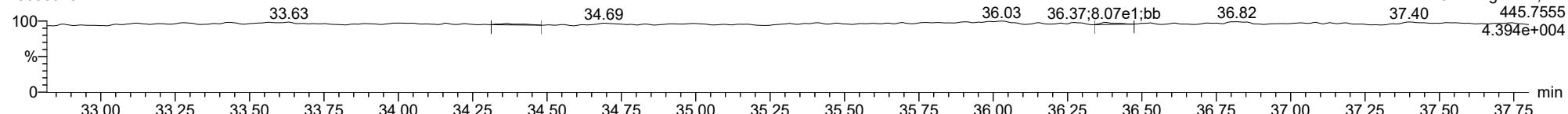
23050929



F3:Voltage SIR,EI+
385.8610
6.483e+006

FUNCTION3 OCDPE

23050929

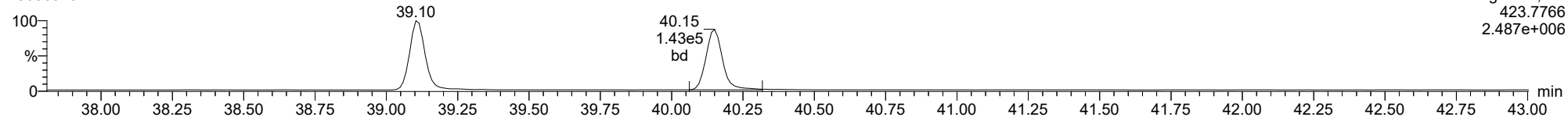


F3:Voltage SIR,EI+
445.7555
4.394e+004

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

1234678-HpCDD

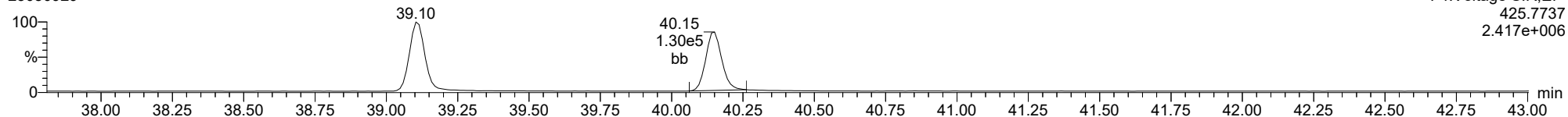
23050929



F4:Voltage SIR,El+
423.7766
2.487e+006

1234678-HpCDD

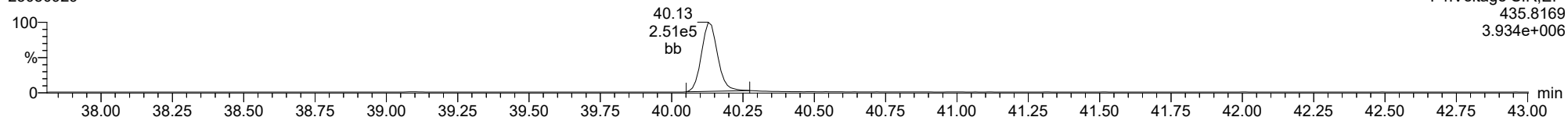
23050929



F4:Voltage SIR,El+
425.7737
2.417e+006

13C-1234678-HpCDD

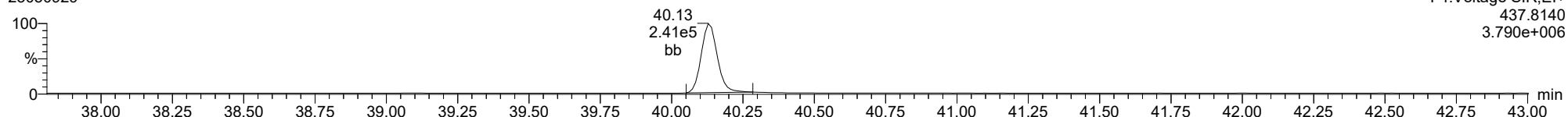
23050929



F4:Voltage SIR,El+
435.8169
3.934e+006

13C-1234678-HpCDD

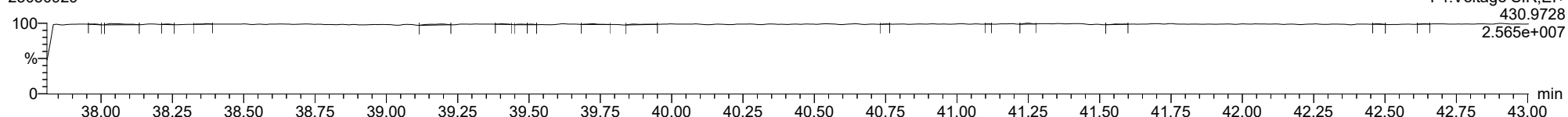
23050929



F4:Voltage SIR,El+
437.8140
3.790e+006

FUNCTION4 PFK

23050929

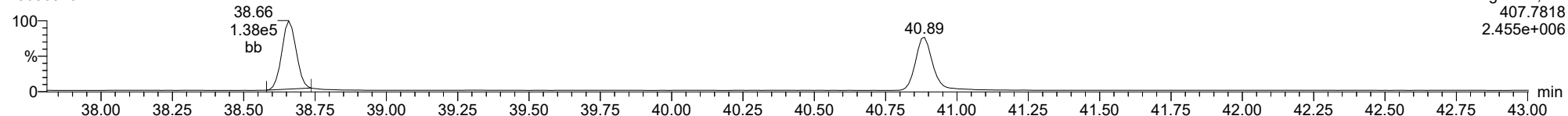


F4:Voltage SIR,El+
430.9728
2.565e+007

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

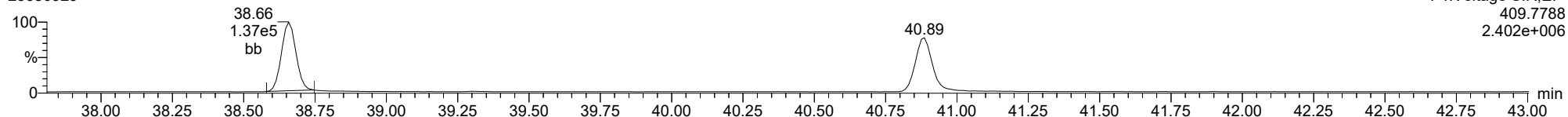
23050929



F4:Voltage SIR,El+
407.7818
2.455e+006

1234678-HpCDF

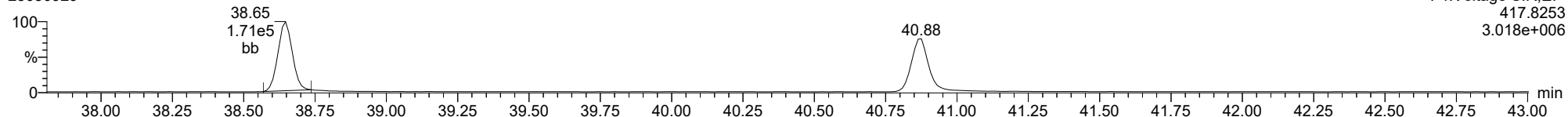
23050929



F4:Voltage SIR,El+
409.7788
2.402e+006

13C-1234678-HpCDF

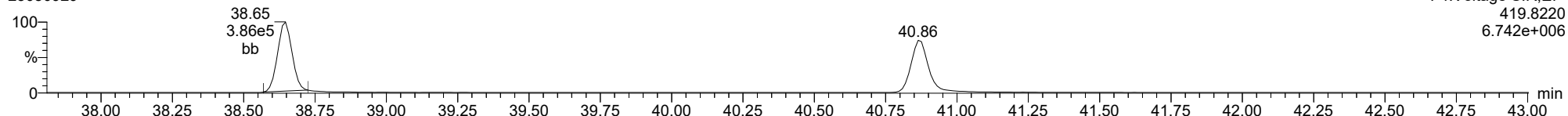
23050929



F4:Voltage SIR,El+
417.8253
3.018e+006

13C-1234678-HpCDF

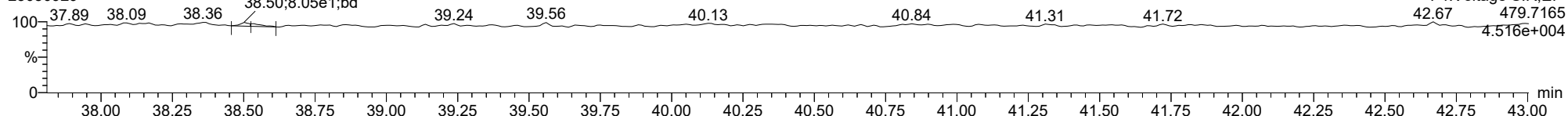
23050929



F4:Voltage SIR,El+
419.8220
6.742e+006

FUNCTION4 NCDPE

23050929

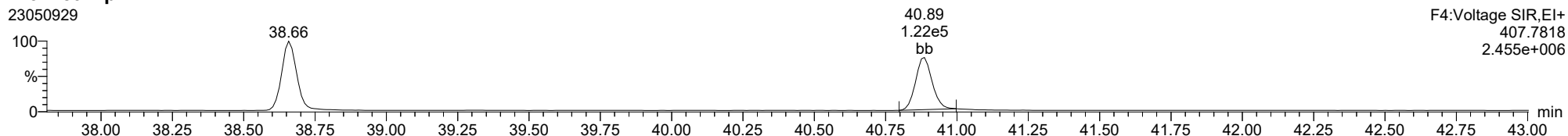


F4:Voltage SIR,El+
479.7165
4.516e+004

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

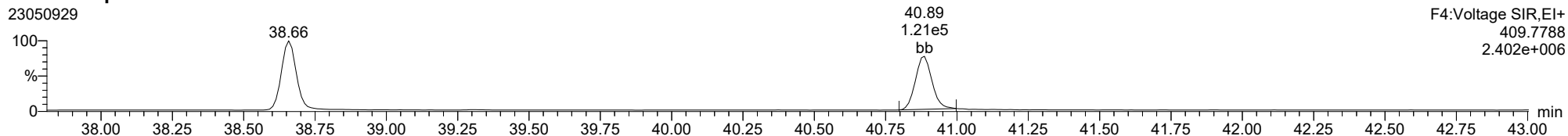
23050929



F4:Voltage SIR,EI+
407.7818
2.455e+006

1234789-HpCDF

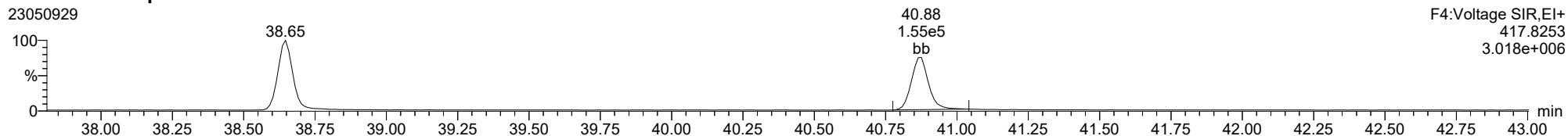
23050929



F4:Voltage SIR,EI+
409.7788
2.402e+006

13C-1234789-HpCDF

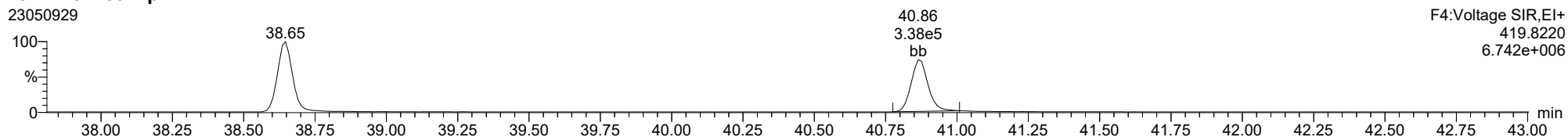
23050929



F4:Voltage SIR,EI+
417.8253
3.018e+006

13C-1234789-HpCDF

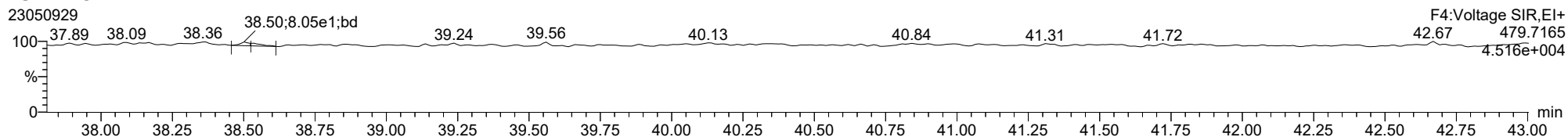
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F4:Voltage SIR,EI+
419.8220
6.742e+006

FUNCTION4 NCDPE

23050929

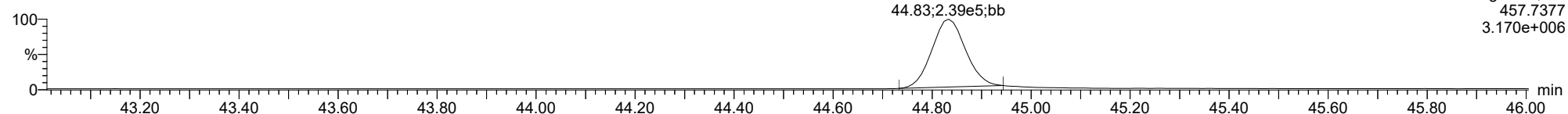


F4:Voltage SIR,EI+
479.7165
4.516e+004

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

OCDD

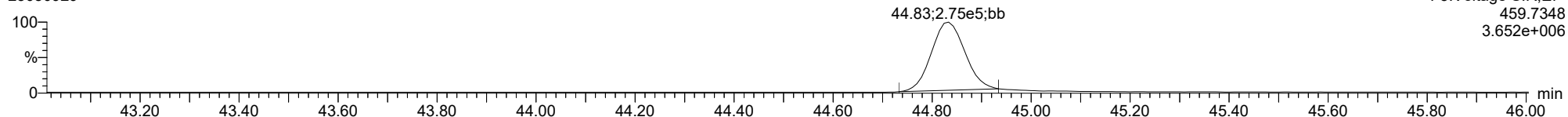
23050929



F5:Voltage SIR,EI+
457.7377
3.170e+006

OCDD

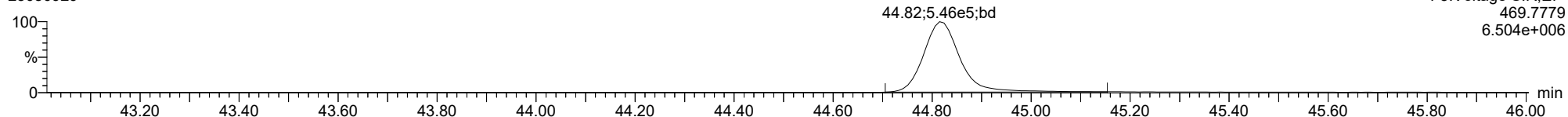
23050929



F5:Voltage SIR,EI+
459.7348
3.652e+006

13C-OCDD

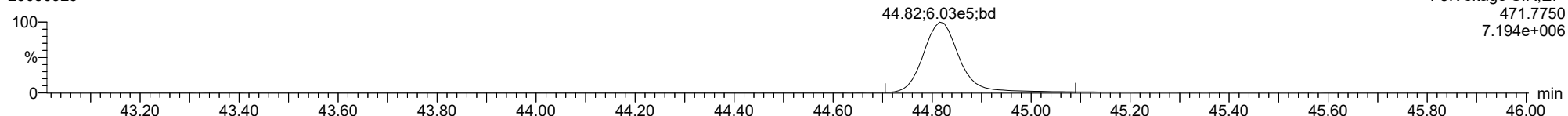
23050929



F5:Voltage SIR,EI+
469.7779
6.504e+006

13C-OCDD

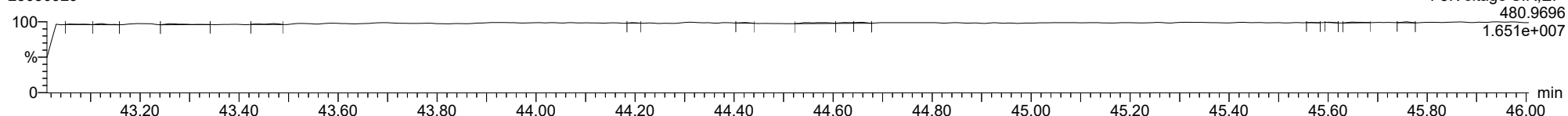
23050929



F5:Voltage SIR,EI+
471.7750
7.194e+006

FUNCTION5 PFK

23050929

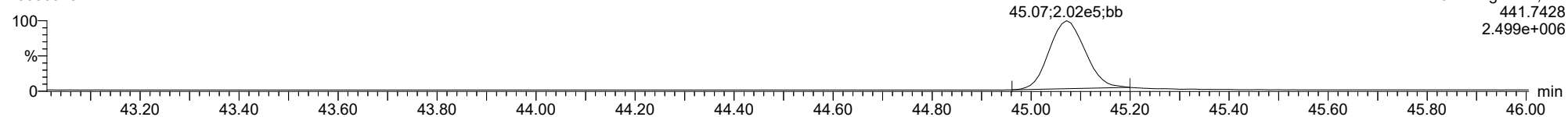


F5:Voltage SIR,EI+
480.9696
1.651e+007

ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

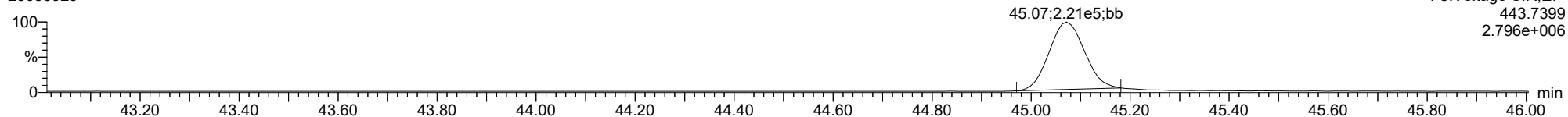
OCDF

23050929



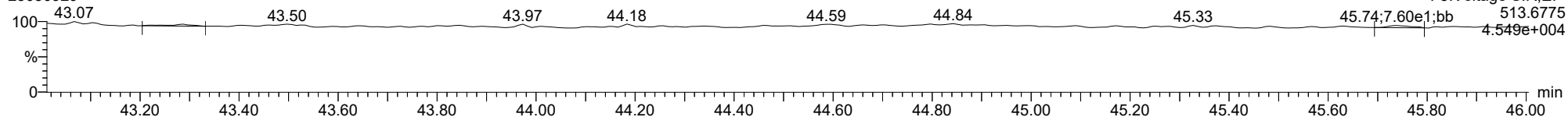
OCDF

23050929



FUNCTION5 DCDPE

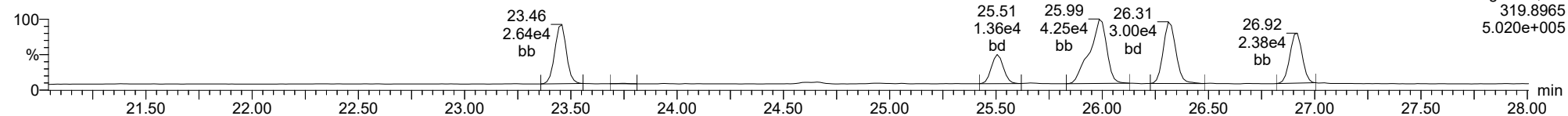
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ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

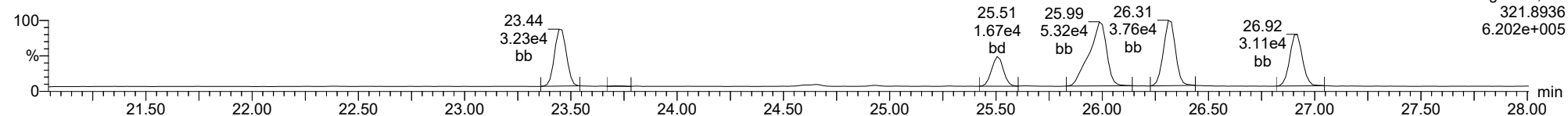
Total-tetradioxins

23050929



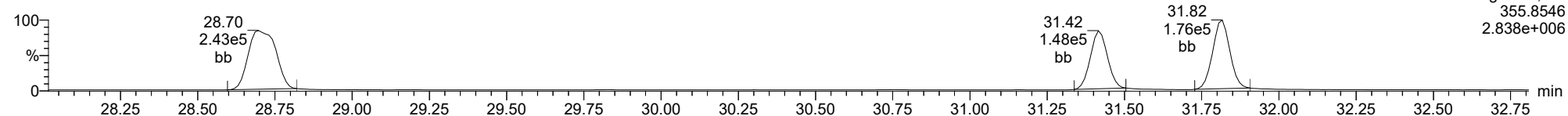
Total-tetradioxins

23050929



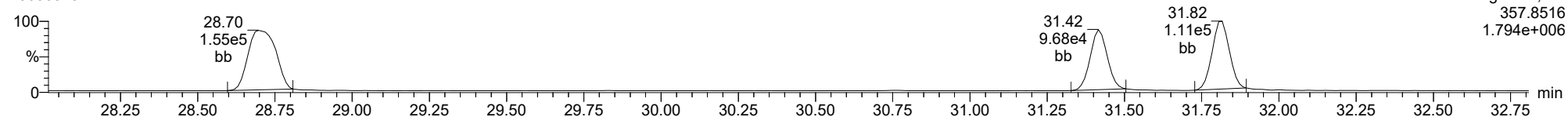
Total-pentadioxins

23050929



Total-pentadioxins

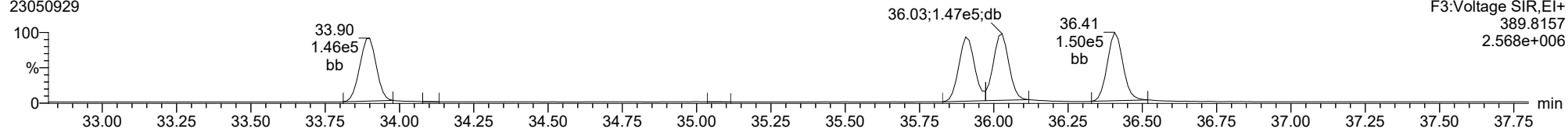
23050929



ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

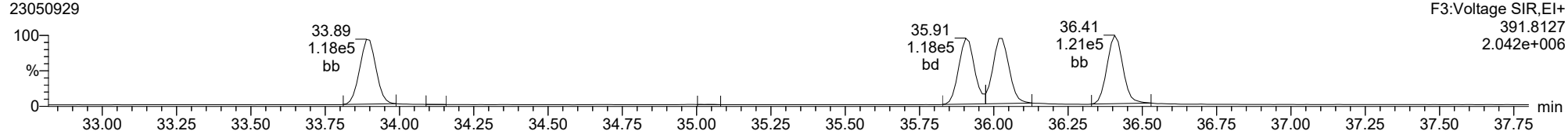
Total-hexadioxins

23050929



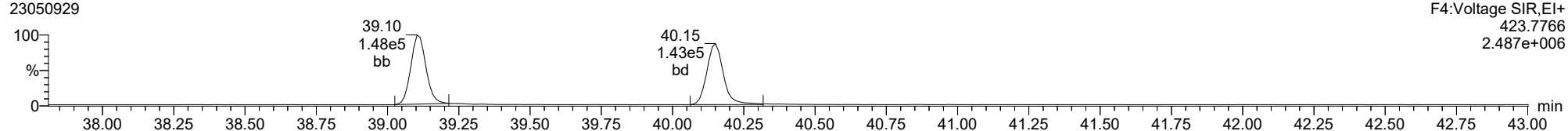
Total-hexadioxins

23050929



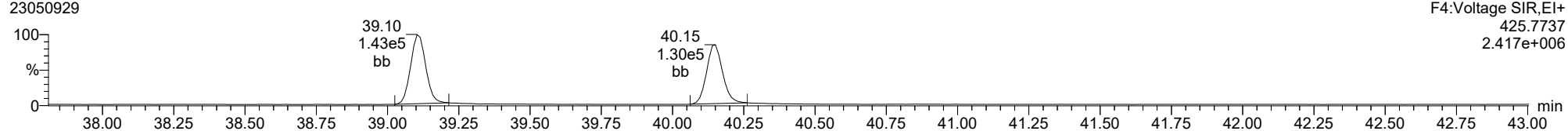
Total-heptadioxins

23050929



Total-heptadioxins

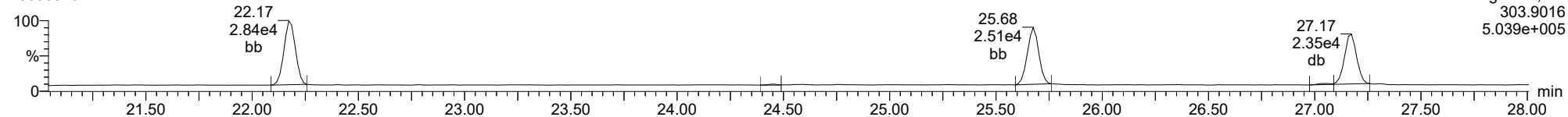
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ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

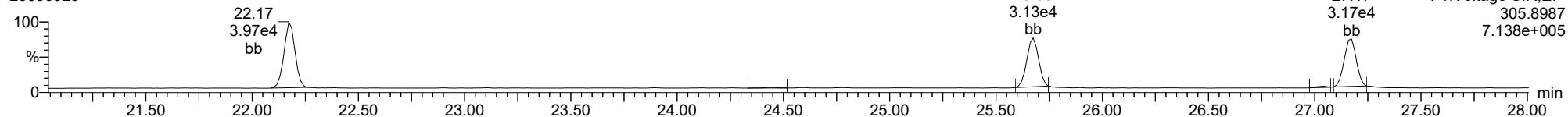
Total-tetrafurans

23050929



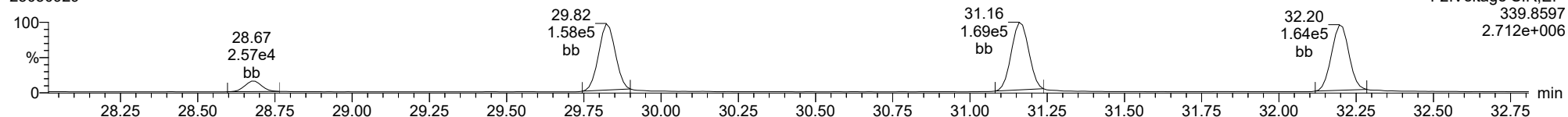
Total-tetrafurans

23050929



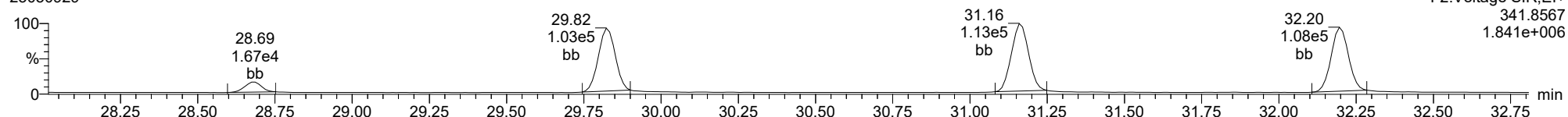
Total-pentafurans

23050929



Total-pentafurans

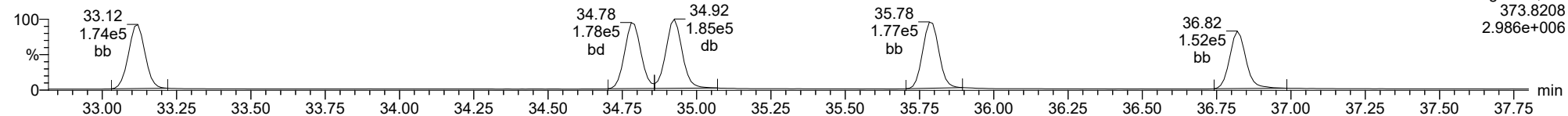
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ID: CS3K7, Name: 23050929, Date: 10-May-2023, Time: 12:00:32, Conditions: AUTOSPEC01, User: pk

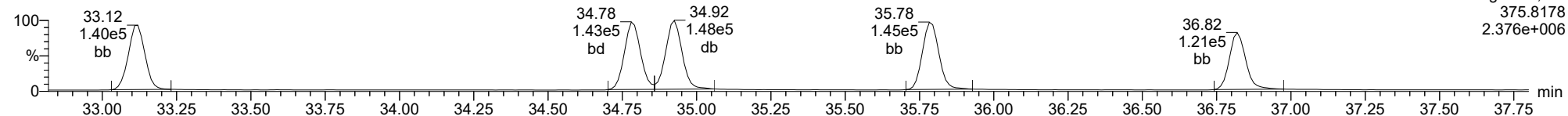
Total-hexafurans

23050929



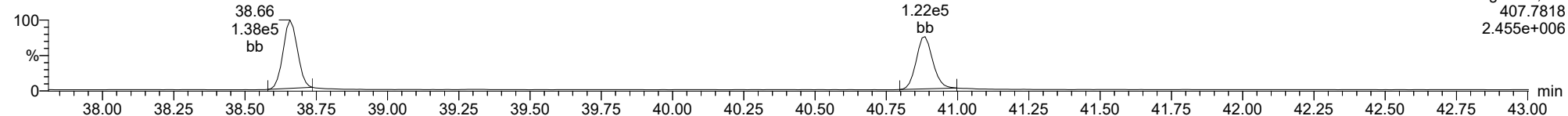
Total-hexafurans

23050929



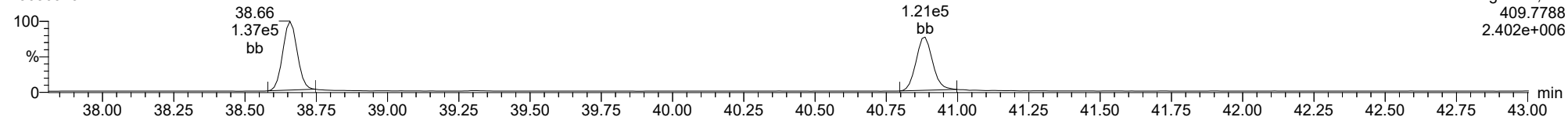
Total-heptafurans

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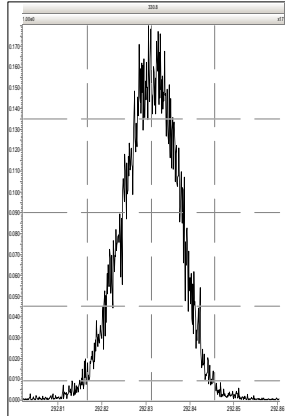
Total-heptafurans

23050929

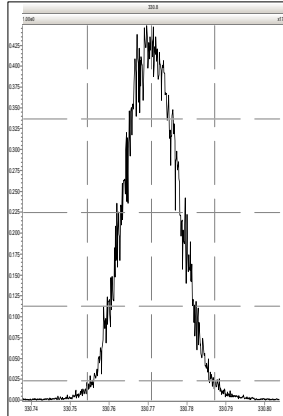


Printed: Wednesday, May 10, 2023 12:53:32 Pacific Daylight Time

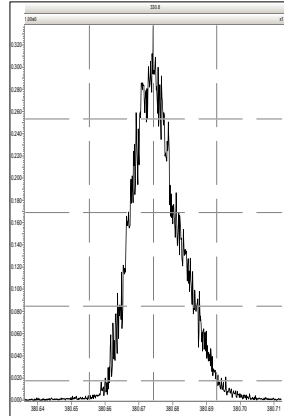
M 292.9824 R 10460



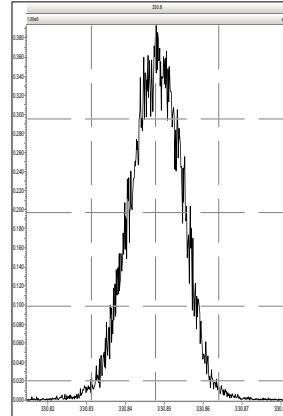
M 330.9792 R 11092



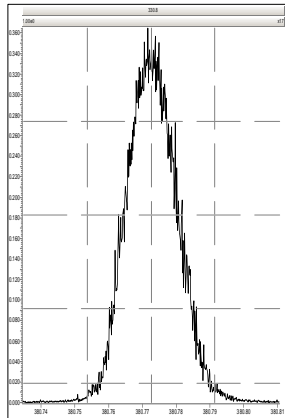
M 380.9760 R 11608



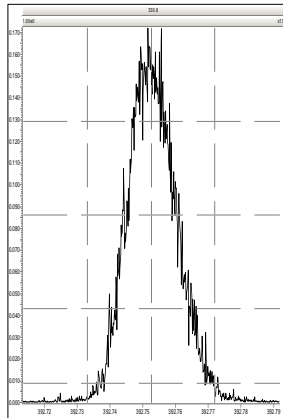
M 330.9792 R 11205



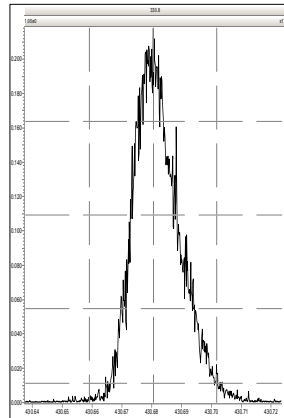
M 380.9760 R 11961



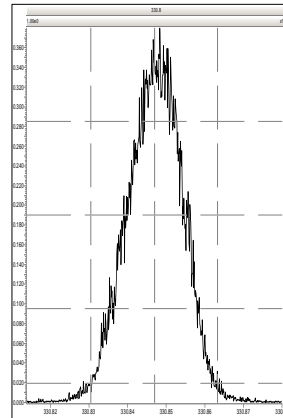
M 392.9760 R 12301



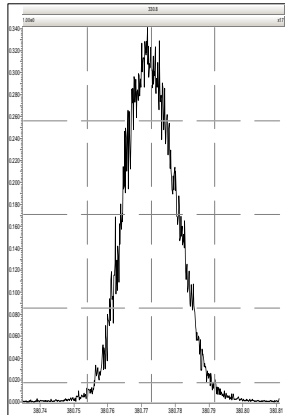
M 430.9728 R 12406



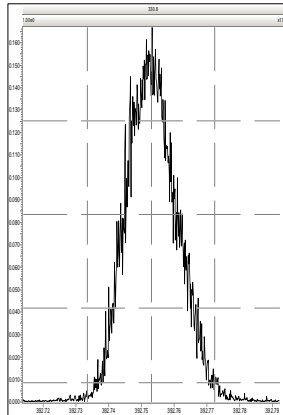
M 330.9792 R 10776



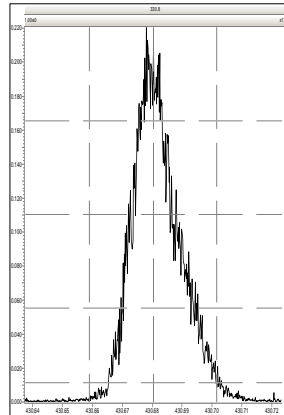
M 380.9760 R 10846



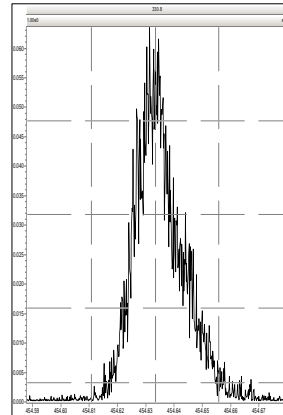
M 392.9760 R 11467



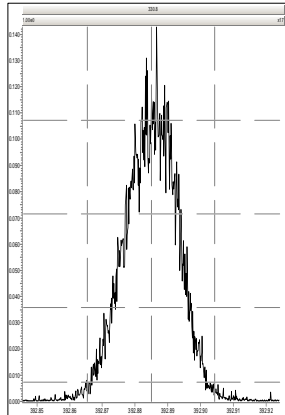
M 430.9728 R 11769



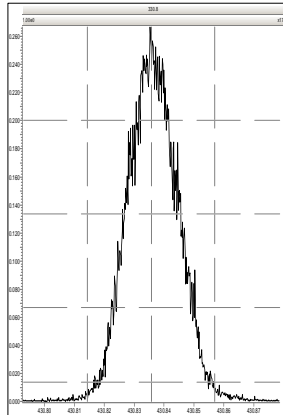
M 454.9728 R 12507



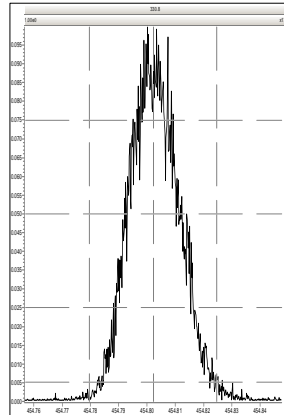
M 392.9760 R 11365



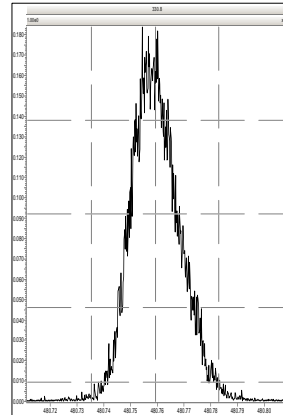
M 430.9728 R 11765



M 454.9728 R 11905

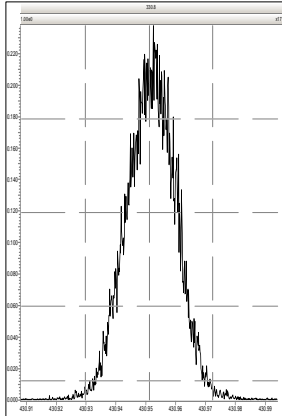


M 480.9696 R 12081

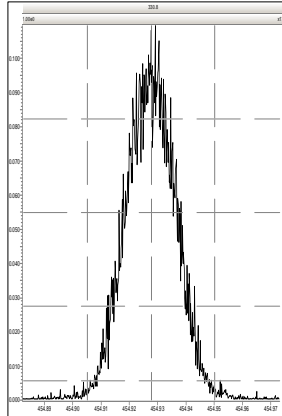


Printed: Wednesday, May 10, 2023 12:53:32 Pacific Daylight Time

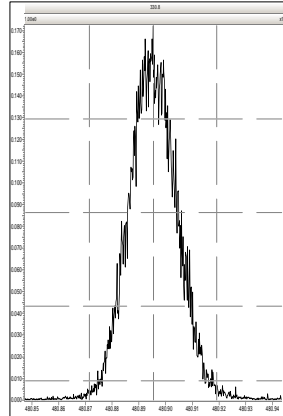
M 430.9728 R 11911



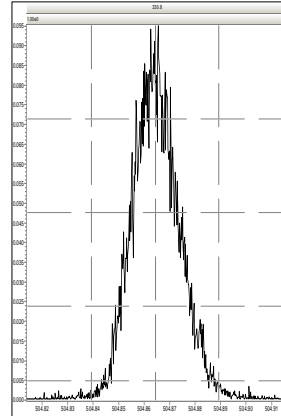
M 454.9728 R 11655



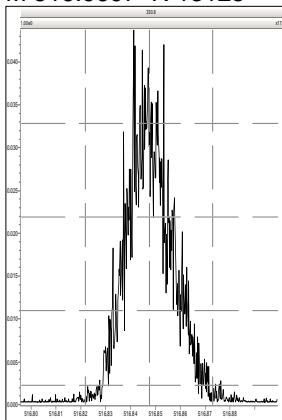
M 480.9696 R 11772



M 504.9696 R 12801



M 516.9697 R 13125

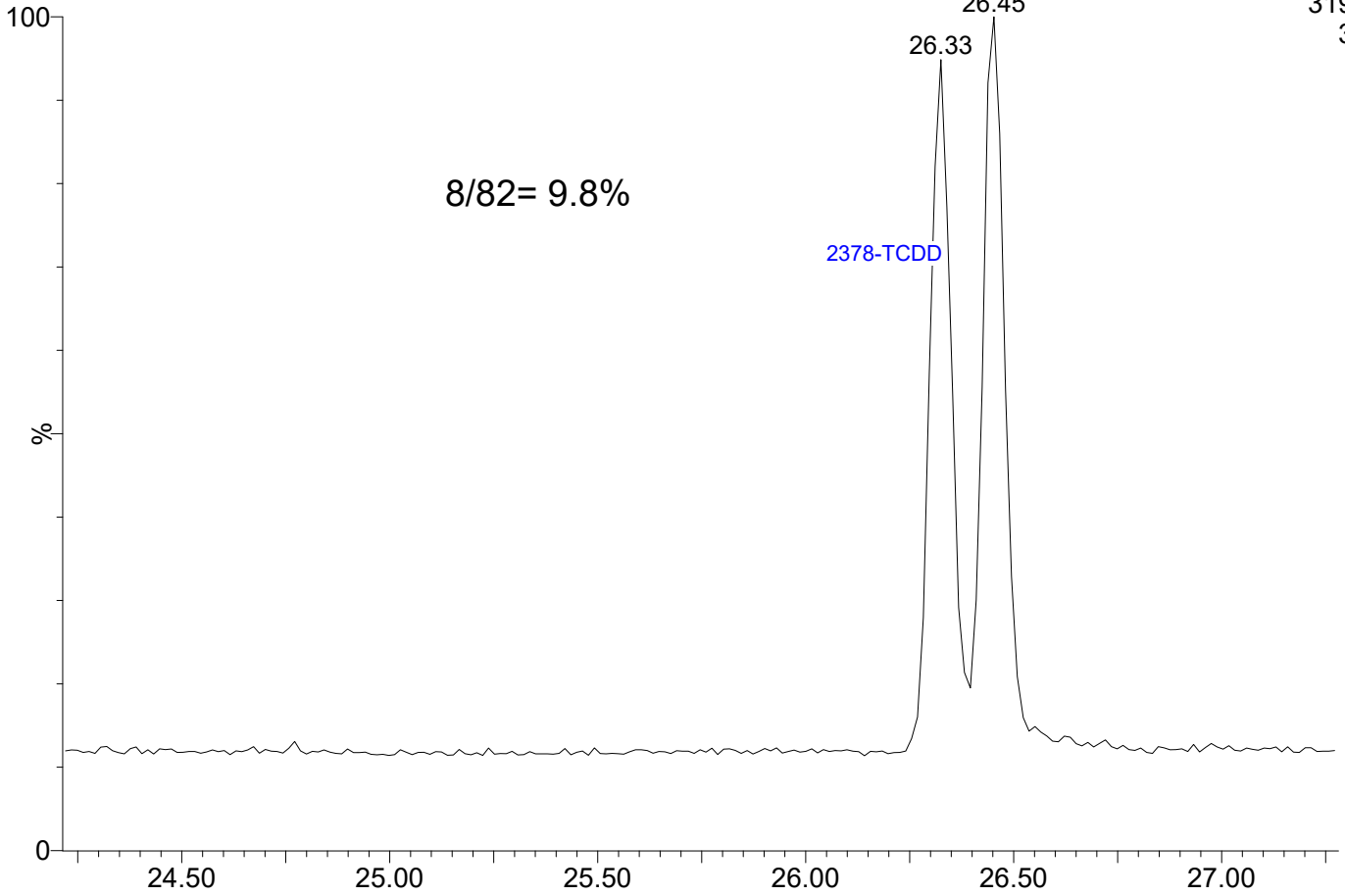


23050930

1: Voltage SIR 14 Channels EI+

319.8965

3.75e5

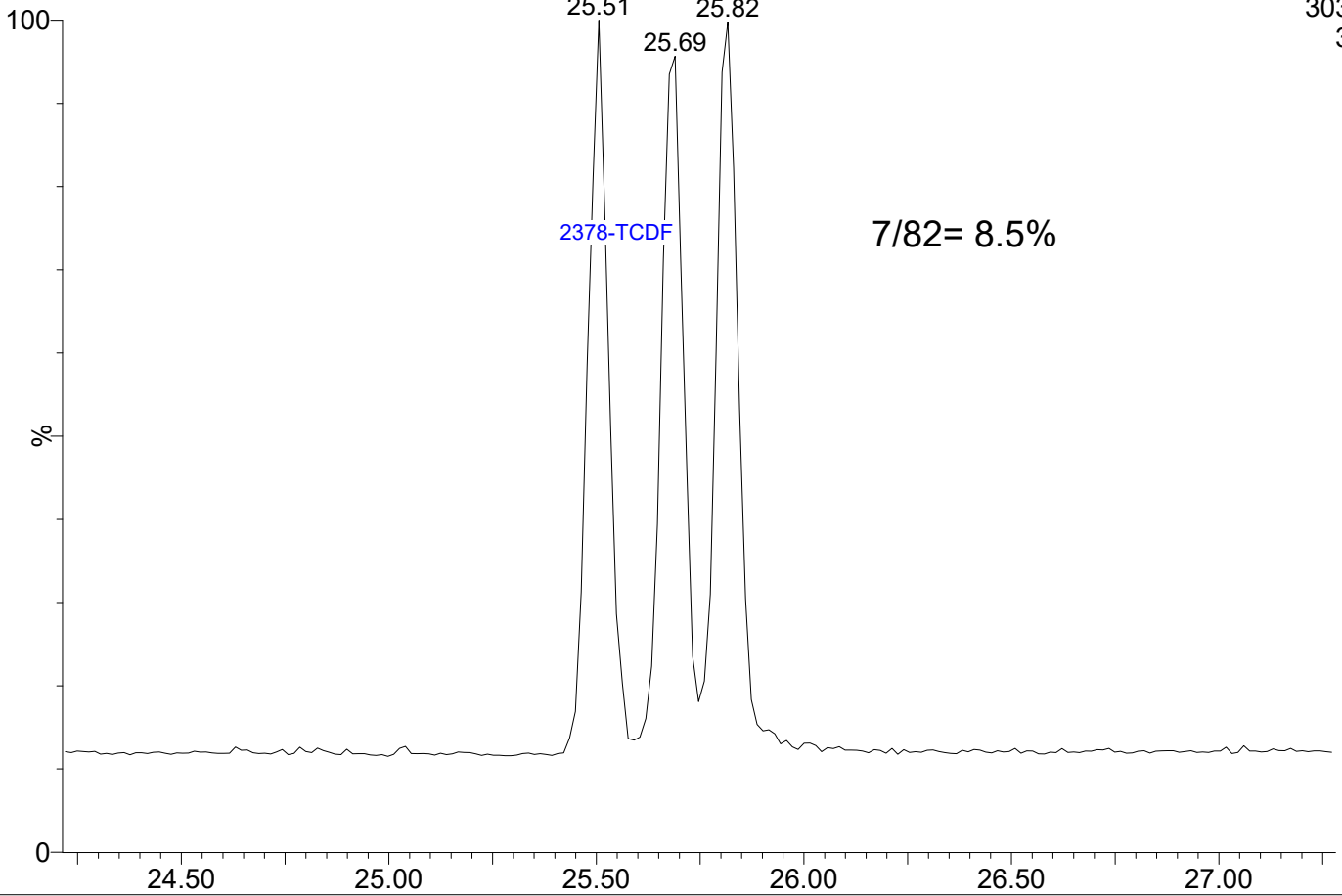


23050930

1: Voltage SIR 14 Channels EI+

303.9016

3.78e5





**CDD/CDF CHROMATOGRAPHIC
RESOLUTION SUMMARY
EPA 1613B**

Lab Name: <u>Analytical Resources, LLC</u>	SDG: <u>23D0136</u>
Instrument .ID: <u>AUTOSPEC01</u>	Lab File ID: <u>23030303</u>
Date Analyzed: <u>03/03/23</u>	Time Analyzed: <u>10:39</u>
Lab Sample ID: <u>SLC0045-RES1</u>	Sequence: <u>SLC0045</u>

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 8.8

3467-TCDF/2378-TCDF: 8.2

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLC0045-ICV1	CS3W1	23030302	03/03/2023	09:51
SLC0045-RES1	ISCW1	23030303	03/03/2023	10:39
SLC0045-CAL1	CSLCW	23030304	03/03/2023	11:28
SLC0045-CAL2	CS1CW	23030305	03/03/2023	12:23
SLC0045-CAL3	CS2CW	23030306	03/03/2023	13:16
SLC0045-CAL4	CS3CW	23030307	03/03/2023	14:06
SLC0045-CAL5	CS4CW	23030308	03/03/2023	14:59
SLC0045-CAL6	CS5CW	23030309	03/03/2023	15:47
SLC0045-SCV1	ICVCW	23030310	03/03/2023	16:36
SLC0045-CCV1	CS3V4	23030311	03/03/2023	17:25
SLC0045-RES2	ISCV4	23030312	03/03/2023	18:18



CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY EPA 1613B

Lab Name: <u>Analytical Resources, LLC</u>	SDG: <u>23D0136</u>
Instrument ID: <u>AUTOSPEC01</u>	Lab File ID: <u>23030312</u>
Date Analyzed: <u>03/03/23</u>	Time Analyzed: <u>18:18</u>
Lab Sample ID: <u>SLC0045-RES2</u>	Sequence: <u>SLC0045</u>

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: _____	12.9
3467-TCDF/2378-TCDF: _____	11.7

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLC0045-ICV1	CS3W1	23030302	03/03/2023	09:51
SLC0045-RES1	ISCW1	23030303	03/03/2023	10:39
SLC0045-CAL1	CSLCW	23030304	03/03/2023	11:28
SLC0045-CAL2	CS1CW	23030305	03/03/2023	12:23
SLC0045-CAL3	CS2CW	23030306	03/03/2023	13:16
SLC0045-CAL4	CS3CW	23030307	03/03/2023	14:06
SLC0045-CAL5	CS4CW	23030308	03/03/2023	14:59
SLC0045-CAL6	CS5CW	23030309	03/03/2023	15:47
SLC0045-SCV1	ICVCW	23030310	03/03/2023	16:36
SLC0045-CCV1	CS3V4	23030311	03/03/2023	17:25
SLC0045-RES2	ISCV4	23030312	03/03/2023	18:18



CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY EPA 1613B

Lab Name: Analytical Resources, LLC SDG: 23D0136
Instrument .ID: AUTOSPEC01 Lab File ID: 23050923
Date Analyzed: 05/10/23 Time Analyzed: 07:03
Lab Sample ID: SLE0060-RES1 Sequence: SLE0060

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 13.5

3467-TCDF/2378-TCDF: 13.3

Quality Control (QC) Limits: $\leq 25\%$

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
BLD0657-BLK2	Blank	23050121A	05/02/2023	02:53
BLD0657-BS2	LCS	23050122A	05/02/2023	03:42
SLE0060-ICV1	CS3K6	23050922A	05/10/2023	06:11
SLE0060-RES1	ISCK6	23050923	05/10/2023	07:03
BLD0657-SRM1	Reference	23050924	05/10/2023	07:55
23D0136-01	LDW23-SS1804	23050928	05/10/2023	11:11
SLE0060-CCV1	CS3K7	23050929	05/10/2023	12:00
SLE0060-RES2	ISCK7	23050930	05/10/2023	12:53



**CDD/CDF CHROMATOGRAPHIC
RESOLUTION SUMMARY
EPA 1613B**

Lab Name:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Instrument .ID:	<u>AUTOSPEC01</u>	Lab File ID:	<u>23050930</u>
Date Analyzed:	<u>05/10/23</u>	Time Analyzed:	<u>12:53</u>
Lab Sample ID:	<u>SLE0060-RES2</u>	Sequence:	<u>SLE0060</u>

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 9.8
3467-TCDF/2378-TCDF: 8.5

Quality Control (QC) Limits: $\leq 25\%$

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
BLD0657-BLK2	Blank	23050121A	05/02/2023	02:53
BLD0657-BS2	LCS	23050122A	05/02/2023	03:42
SLE0060-ICV1	CS3K6	23050922A	05/10/2023	06:11
SLE0060-RES1	ISCK6	23050923	05/10/2023	07:03
BLD0657-SRM1	Reference	23050924	05/10/2023	07:55
23D0136-01	LDW23-SS1804	23050928	05/10/2023	11:11
SLE0060-CCV1	CS3K7	23050929	05/10/2023	12:00
SLE0060-RES2	ISCK7	23050930	05/10/2023	12:53



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0045

Instrument: AUTOSPEC01

Calibration: GC00015

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CS3W1	SLC0045-ICV1	23030302	NA	03/03/23 09:51
ISCW1	SLC0045-RES1	23030303	NA	03/03/23 10:39
CSLCW	SLC0045-CAL1	23030304	NA	03/03/23 11:28
CS1CW	SLC0045-CAL2	23030305	NA	03/03/23 12:23
CS2CW	SLC0045-CAL3	23030306	NA	03/03/23 13:16
CS3CW	SLC0045-CAL4	23030307	NA	03/03/23 14:06
CS4CW	SLC0045-CAL5	23030308	NA	03/03/23 14:59
CS5CW	SLC0045-CAL6	23030309	NA	03/03/23 15:47
ICVCW	SLC0045-SCV1	23030310	NA	03/03/23 16:36
CS3V4	SLC0045-CCV1	23030311	NA	03/03/23 17:25
ISCV4	SLC0045-RES2	23030312	NA	03/03/23 18:18



ANALYSIS SEQUENCE

SLC0045

Instrument: AUTOSPEC01 HRGCMS Column ID: K2310
Calibration ID: GC00015 Tune File: FEB0923_1-5
EM Voltage: 350 Resolution check times : 9:51, 18:18

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0045-ICV1	CS3W1	QC		1	K009821		03/03/2023 09:51	23030302	PK	
SLC0045-RES1	ISCW1	QC		2	L002084		03/03/2023 10:39	23030303	PK	
SLC0045-CAL1	CSLCW	QC		3	I005460		03/03/2023 11:28	23030304	PK	
SLC0045-CAL2	CS1CW	QC		4	I005456		03/03/2023 12:23	23030305	PK	
SLC0045-CAL3	CS2CW	QC		5	I005457		03/03/2023 13:16	23030306	PK	
SLC0045-CAL4	CS3CW	QC		6	K009821		03/03/2023 14:06	23030307	PK	
SLC0045-CAL5	CS4CW	QC		7	I005458		03/03/2023 14:59	23030308	PK	
SLC0045-CAL6	CS5CW	QC		8	I005459		03/03/2023 15:47	23030309	PK	
SLC0045-SCV1	ICVCW	QC		9	H008219		03/03/2023 16:36	23030310	PK	
SLC0045-CCV1	CS3V4	QC		10	K009821		03/03/2023 17:25	23030311	PK	
SLC0045-RES2	ISCV4	QC		11	L002084		03/03/2023 18:18	23030312	PK	

Dataset: T:\Autospec\Processed Data Batch\2303031CIH.qld

Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time

Printed: Monday, March 06, 2023 10:58:44 Pacific Standard Time

3/6/23 PK

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Calibrate		
Process Quantify		
Dataset Created		
Peak deleted	Sample:23030304, Compound:TD, RT:26.410	1
Peak deleted	Sample:23030304, Compound:OD, RT:44.990	1
Peak deleted	Sample:23030304, Compound:TF, RT:25.774	1
Pre modification peak	Sample:23030305, Compound:TF, RT:25.774	2
Peak modified	Sample:23030305, Compound:TF, RT:25.774	2
Pre modification peak	Sample:23030304, Compound:HPD, RT:40.261	1
Peak modified	Sample:23030304, Compound:HPD, RT:40.261	1
Peak deleted	Sample:23030308, Compound:PF, RT:32.328	5
Peak deleted	Sample:23030309, Compound:PF, RT:32.307	6
Peak deleted	Sample:23030309, Compound:HF, RT:33.220	6
Peak deleted	Sample:23030309, Compound:TD, RT:27.017	6
Peak deleted	Sample:23030309, Compound:PD, RT:31.995	6
Peak deleted	Sample:23030309, Compound:PD, RT:31.917	6
Peak deleted	Sample:23030308, Compound:HD, RT:34.000	5
Peak deleted	Sample:23030308, Compound:HPD, RT:39.225	5
Peak deleted	Sample:23030309, Compound:HPD, RT:39.214	6
Pre modification peak	Sample:23030305, Compound:OF, RT:45.237	2
Peak modified	Sample:23030305, Compound:OF, RT:45.237	2
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\2303031CIH.qld'	



ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0060

Instrument: AUTOSPEC01

Calibration: GC00015

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Blank	BLD0657-BLK2	23050121A	Solid	05/02/23 02:53
LCS	BLD0657-BS2	23050122A	Solid	05/02/23 03:42
CS3K6	SLE0060-ICV1	23050922A	NA	05/10/23 06:11
ISCK6	SLE0060-RES1	23050923	NA	05/10/23 07:03
Reference	BLD0657-SRM1	23050924	Solid	05/10/23 07:55
LDW23-SS1804	23D0136-01	23050928	Solid	05/10/23 11:11
CS3K7	SLE0060-CCV1	23050929	NA	05/10/23 12:00
ISCK7	SLE0060-RES2	23050930	NA	05/10/23 12:53



ANALYSIS SEQUENCE

SLE0060

Instrument: AUTOSPEC01 HRGCMS Column ID: L2313
Calibration ID: GC00015 Tune File: mar2023_1-5
EM Voltage: 350 Resolution check times : 07:03, 12:53

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0060-ICV1	CS3K6	QC		1	K009821		05/10/2023 06:11	23050922A	PK	
SLE0060-RES1	ISCK6	QC		2	L002084		05/10/2023 07:03	23050923	PK	
BLD0657-BLK2	Blank	QC		3		K011414	05/02/2023 02:53	23050121A	PK	
BLD0657-BS2	LCS	QC		4		K011414	05/02/2023 03:42	23050122A	PK	
BLD0657-SRM1	Reference	QC		5		K011414	05/10/2023 07:55	23050924	PK	
BLD0657-DUP1	Duplicate	QC		6		K011414	05/10/2023 08:44	23050925	PK	
23D0063-01	LDW23-SS1818	1613B Dioxin	C 02	7		K011414	05/10/2023 09:33	23050926	PK	
23D0136-01	LDW23-SS1804	1613B Dioxin	A 06	8		K011414	05/10/2023 11:11	23050928	PK	
SLE0060-CCV1	CS3K7	QC		9	K009821		05/10/2023 12:00	23050929	PK	
SLE0060-RES2	ISCK7	QC		10	L002084		05/10/2023 12:53	23050930	PK	

Dataset: T:\Autospec\Processed Data Batch\230509IHA.qld

Last Altered: Wednesday, May 10, 2023 16:18:06 Pacific Daylight Time

Printed: Wednesday, May 10, 2023 16:21:36 Pacific Daylight Time

5/10/23 PK

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Quantify		
Dataset Created		
Peak deleted	Sample:23050930, Compound:13C-123789-HxCDD, RT:36.373	9
Pre modification peak	Sample:23050924, Compound:PF, RT:31.192	3
Peak modified	Sample:23050924, Compound:PF, RT:31.192	3
Pre modification peak	Sample:23050924, Compound:HD, RT:36.072	3
Peak modified	Sample:23050924, Compound:HD, RT:36.072	3
Pre modification peak	Sample:23050925, Compound:HF, RT:35.905	4
Peak modified	Sample:23050925, Compound:HF, RT:35.905	4
Peak added	Sample:23050925, Compound:HF, RT:35.905	4
Peak added	Sample:23050925, Compound:HF, RT:35.883	4
Peak modified	Sample:23050925, Compound:HF, RT:35.905	4
Pre modification peak	Sample:23050926, Compound:HF, RT:34.802	5
Peak modified	Sample:23050926, Compound:HF, RT:34.802	5
Peak deleted	Sample:23050926, Compound:HF, RT:34.925	5
Peak deleted	Sample:23050926, Compound:HD, RT:36.039	5
Pre modification peak	Sample:23050927, Compound:HF, RT:35.849	6
Peak modified	Sample:23050927, Compound:HF, RT:35.849	6
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230509IHA.qld'	
Peak deleted	Sample:23050924, Compound:TF, RT:25.195	3
Peak deleted	Sample:23050924, Compound:TF, RT:25.011	3
Peak deleted	Sample:23050925, Compound:TF, RT:26.777	4
Peak deleted	Sample:23050925, Compound:TF, RT:26.226	4
Peak added	Sample:23050925, Compound:HF, RT:35.861	4
Peak added	Sample:23050925, Compound:HF, RT:35.871	4
Peak modified	Sample:23050925, Compound:HF, RT:35.871	4
Peak deleted	Sample:23050927, Compound:TF, RT:26.749	6
Peak deleted	Sample:23050927, Compound:TD, RT:25.223	6
Peak deleted	Sample:23050928, Compound:HPF, RT:40.183	7
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230509IHA.qld'	



SURROGATE RECOVERY AND RT SUMMARY
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0045

Instrument: AUTOSPEC01

Sample ID: SLC0045-ICV1

Calibration: GC00015

File ID: 23030302

Analyzed: 03/03/23 09:51

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	94.0	71 - 129	25.7745	25.76487	0.0096	N/A	
13C12-2,3,7,8-TCDD	100.00	102	82 - 118	26.4242	26.40287	0.0213	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	92.2	76 - 124	29.9337	29.92235	0.0114	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	87.6	77 - 123	31.2707	31.2611	0.0096	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	84.3	62 - 138	31.5268	31.5192	0.0076	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	84.0	76 - 124	34.8915	34.88393	0.0076	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	74.6	70 - 130	35.0363	35.02318	0.0131	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	88.7	73 - 127	35.8942	35.88653	0.0077	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	99.9	74 - 126	36.9303	36.91718	0.0131	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	93.5	85 - 115	36.0167	36.00728	0.0094	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	86.9	85 - 115	36.1393	36.12053	0.0188	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	95.3	78 - 122	38.7685	38.7593	0.0092	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	98.7	77 - 123	41.008	40.99867	0.0093	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	105	72 - 128	40.2615	40.25773	0.0038	N/A	
13C12-OCDD	200.00	107	48 - 152	44.9993	44.98705	0.0122	N/A	
37Cl4-2,3,7,8-TCDD	10.000	90.5	0 - 200	26.4383	26.42402	0.0143	N/A	

* Values outside of QC limits



SURROGATE RECOVERY AND RT SUMMARY
EPA 1613B

Laboratory: Analytical Resources, LLC SDG: 23D0136
 Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
 Sequence: SLC0045 Instrument: AUTOSPEC01
 Sample ID: SLC0045-SCV1 Calibration: GC00015
 File ID: 23030310 Analyzed: 03/03/23 16:36

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	96.9	0 - 200	25.7602	25.76487	-0.0047	N/A	
13C12-2,3,7,8-TCDD	100.00	96.6	0 - 200	26.3958	26.40287	-0.0071	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	73.2	0 - 200	29.9225	29.92235	0.0001	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	75.9	0 - 200	31.2593	31.2611	-0.0018	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	76.6	0 - 200	31.5155	31.5192	-0.0037	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	93.0	0 - 200	34.8802	34.88393	-0.0037	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.0	0 - 200	35.014	35.02318	-0.0092	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	93.4	0 - 200	35.8828	35.88653	-0.0037	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	97.9	0 - 200	36.9078	36.91718	-0.0094	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	95.9	0 - 200	36.0053	36.00728	-0.0020	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	97.7	0 - 200	36.1168	36.12053	-0.0037	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	102	0 - 200	38.7573	38.7593	-0.0020	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	104	0 - 200	40.9967	40.99867	-0.0020	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	102	0 - 200	40.2502	40.25773	-0.0075	N/A	
13C12-OCDD	200.00	80.8	0 - 200	44.9807	44.98705	-0.0064	N/A	
37C14-2,3,7,8-TCDD	10.000	87.1	0 - 200	26.4242	26.42402	0.0002	N/A	

* Values outside of QC limits



SURROGATE RECOVERY AND RT SUMMARY EPA 1613B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLC0045</u>	Instrument:	<u>AUTOSPEC01</u>
Sample ID:	<u>SLC0045-CCV1</u>	Calibration:	<u>GC00015</u>
File ID:	<u>23030311</u>	Analyzed:	<u>03/03/23 17:25</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	89.4	71 - 129	25.7602	25.76487	-0.0047	N/A	
13C12-2,3,7,8-TCDD	100.00	86.0	82 - 118	26.3958	26.40287	-0.0071	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	92.6	76 - 124	29.9225	29.92235	0.0001	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	91.6	77 - 123	31.2593	31.2611	-0.0018	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	90.8	62 - 138	31.5157	31.5192	-0.0035	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	95.2	76 - 124	34.8805	34.88393	-0.0034	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	91.1	70 - 130	35.0253	35.02318	0.0021	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	96.9	73 - 127	35.883	35.88653	-0.0035	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	101	74 - 126	36.9193	36.91718	0.0021	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	97.6	85 - 115	36.0057	36.00728	-0.0016	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	98.4	85 - 115	36.117	36.12053	-0.0035	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	102	78 - 122	38.7577	38.7593	-0.0016	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	84.3	77 - 123	40.997	40.99867	-0.0017	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	92.0	72 - 128	40.2617	40.25773	0.0040	N/A	
13C12-OCDD	200.00	85.1	48 - 152	44.9903	44.98705	0.0032	N/A	
37C14-2,3,7,8-TCDD	10.000	75.4	0 - 200	26.424	26.42402	0.0000	N/A	

* Values outside of QC limits



SURROGATE RECOVERY AND RT SUMMARY
EPA 1613B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0060</u>	Instrument:	<u>AUTOSPEC01</u>
Sample ID:	<u>BLD0657-BS2</u>	Calibration:	<u>GC00015</u>
File ID:	<u>23050122A</u>	Analyzed:	<u>05/02/23 03:42</u>

Surrogate Compound	Spike Level ng/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	200.00	81.7	24 - 169	25.5202	25.76487	-0.2447	N/A	
13C12-2,3,7,8-TCDD	200.00	94.7	25 - 164	26.1558	26.40287	-0.2471	N/A	
13C12-1,2,3,7,8-PeCDF	200.00	94.7	24 - 185	29.669	29.92235	-0.2534	N/A	
13C12-2,3,4,7,8-PeCDF	200.00	92.4	21 - 178	31.0058	31.2611	-0.2553	N/A	
13C12-1,2,3,7,8-PeCDD	200.00	65.3	25 - 181	31.2622	31.5192	-0.2570	N/A	
13C12-1,2,3,4,7,8-HxCDF	200.00	101	26 - 152	34.6388	34.88393	-0.2451	N/A	
13C12-1,2,3,6,7,8-HxCDF	200.00	99.1	26 - 123	34.7837	35.02318	-0.2395	N/A	
13C12-2,3,4,6,7,8-HxCDF	200.00	100	28 - 136	35.6527	35.88653	-0.2338	N/A	
13C12-1,2,3,7,8,9-HxCDF	200.00	95.2	29 - 147	36.6888	36.91718	-0.2284	N/A	
13C12-1,2,3,4,7,8-HxCDD	200.00	100	32 - 141	35.7642	36.00728	-0.2431	N/A	
13C12-1,2,3,6,7,8-HxCDD	200.00	93.4	28 - 130	35.8867	36.12053	-0.2338	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	200.00	109	28 - 143	38.5358	38.7593	-0.2235	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	200.00	91.0	26 - 138	40.7418	40.99867	-0.2569	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	200.00	94.1	23 - 140	40.0177	40.25773	-0.2400	N/A	
13C12-OCDD	400.00	86.8	17 - 157	44.6602	44.98705	-0.3269	N/A	
37C14-2,3,7,8-TCDD	80.000	95.1	35 - 197	26.17	26.42402	-0.2540	N/A	

* Values outside of QC limits



SURROGATE RECOVERY AND RT SUMMARY
EPA 1613B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0060</u>	Instrument:	<u>AUTOSPEC01</u>
Sample ID:	<u>SLE0060-ICV1</u>	Calibration:	<u>GC00015</u>
File ID:	<u>23050922A</u>	Analyzed:	<u>05/10/23 06:11</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	101	71 - 129	25.6472	25.76487	-0.1177	N/A	
13C12-2,3,7,8-TCDD	100.00	105	82 - 118	26.2828	26.40287	-0.1201	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	113	76 - 124	29.7997	29.92235	-0.1227	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	116	77 - 123	31.1368	31.2611	-0.1243	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	106	62 - 138	31.393	31.5192	-0.1262	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	87.1	76 - 124	34.7577	34.88393	-0.1262	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	90.1	70 - 130	34.9025	35.02318	-0.1207	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	96.1	73 - 127	35.7603	35.88653	-0.1262	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	95.0	74 - 126	36.7965	36.91718	-0.1207	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	91.6	85 - 115	35.8828	36.00728	-0.1245	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	93.1	85 - 115	36.0055	36.12053	-0.1150	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	104	78 - 122	38.6348	38.7593	-0.1245	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	110	77 - 123	40.8632	40.99867	-0.1355	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	92.8	72 - 128	40.1278	40.25773	-0.1299	N/A	
13C12-OCDD	200.00	114	48 - 152	44.8052	44.98705	-0.1819	N/A	
37C14-2,3,7,8-TCDD	10.000	87.9	0 - 200	26.311	26.42402	-0.1130	N/A	

* Values outside of QC limits



SURROGATE RECOVERY AND RT SUMMARY
EPA 1613B

Laboratory: Analytical Resources, LLC SDG: 23D0136
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Sequence: SLE0060 Instrument: AUTOSPEC01
Sample ID: BLD0657-SRM1 Calibration: GC00015
File ID: 23050924 Analyzed: 05/10/23 07:55

Surrogate Compound	Spike Level ng/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.40	91.8	24 - 169	25.6755	25.76487	-0.0894	N/A	
13C12-2,3,7,8-TCDD	199.40	98.3	25 - 164	26.311	26.40287	-0.0919	N/A	
13C12-1,2,3,7,8-PeCDF	199.40	104	24 - 185	29.8332	29.92235	-0.0892	N/A	
13C12-2,3,4,7,8-PeCDF	199.40	107	21 - 178	31.1702	31.2611	-0.0909	N/A	
13C12-1,2,3,7,8-PeCDD	199.40	96.7	25 - 181	31.4263	31.5192	-0.0929	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.40	77.4	26 - 152	34.7912	34.88393	-0.0927	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.40	71.8	26 - 123	34.936	35.02318	-0.0872	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.40	81.1	28 - 136	35.8162	35.88653	-0.0703	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.40	85.6	29 - 147	36.83	36.91718	-0.0872	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.40	85.0	32 - 141	35.9498	36.00728	-0.0575	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.40	80.6	28 - 130	36.0612	36.12053	-0.0593	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.40	78.2	28 - 143	38.6683	38.7593	-0.0910	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.40	93.1	26 - 138	40.8967	40.99867	-0.1020	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.40	80.1	23 - 140	40.1612	40.25773	-0.0965	N/A	
13C12-OCDD	398.80	88.2	17 - 157	44.851	44.98705	-0.1361	N/A	
37C14-2,3,7,8-TCDD	79.761	91.7	35 - 197	26.3393	26.42402	-0.0847	N/A	

* Values outside of QC limits



SURROGATE RECOVERY AND RT SUMMARY EPA 1613B

Laboratory: Analytical Resources, LLC SDG: 23D0136
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Sequence: SLE0060 Instrument: AUTOSPEC01
Sample ID: 23D0136-01 Calibration: GC00015
File ID: 23050928 Analyzed: 05/10/23 11:11

Surrogate Compound	Spike Level ng/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.82	90.1	24 - 169	25.6893	25.76487	-0.0756	N/A	
13C12-2,3,7,8-TCDD	199.82	96.4	25 - 164	26.325	26.40287	-0.0779	N/A	
13C12-1,2,3,7,8-PeCDF	199.82	104	24 - 185	29.8332	29.92235	-0.0892	N/A	
13C12-2,3,4,7,8-PeCDF	199.82	108	21 - 178	31.1702	31.2611	-0.0909	N/A	
13C12-1,2,3,7,8-PeCDD	199.82	97.4	25 - 181	31.4265	31.5192	-0.0927	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.82	78.3	26 - 152	34.8023	34.88393	-0.0816	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.82	69.3	26 - 123	34.936	35.02318	-0.0872	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.82	78.7	28 - 136	35.805	35.88653	-0.0815	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.82	85.5	29 - 147	36.8298	36.91718	-0.0874	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.82	85.6	32 - 141	35.9275	36.00728	-0.0798	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.82	75.7	28 - 130	36.05	36.12053	-0.0705	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.82	91.8	28 - 143	38.6793	38.7593	-0.0800	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.82	97.8	26 - 138	40.8965	40.99867	-0.1022	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.82	86.9	23 - 140	40.1612	40.25773	-0.0965	N/A	
13C12-OCDD	399.64	112	17 - 157	44.86	44.98705	-0.1271	N/A	
37C14-2,3,7,8-TCDD	79.927	96.6	35 - 197	26.3392	26.42402	-0.0848	N/A	

* Values outside of QC limits



SURROGATE RECOVERY AND RT SUMMARY
EPA 1613B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0060</u>	Instrument:	<u>AUTOSPEC01</u>
Sample ID:	<u>SLE0060-CCV1</u>	Calibration:	<u>GC00015</u>
File ID:	<u>23050929</u>	Analyzed:	<u>05/10/23 12:00</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	97.4	71 - 129	25.6613	25.76487	-0.1036	N/A	
13C12-2,3,7,8-TCDD	100.00	102	82 - 118	26.297	26.40287	-0.1059	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	111	76 - 124	29.8112	29.92235	-0.1112	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	118	77 - 123	31.1482	31.2611	-0.1129	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	105	62 - 138	31.4043	31.5192	-0.1149	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	81.3	76 - 124	34.769	34.88393	-0.1149	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	73.2	70 - 130	34.9028	35.02318	-0.1204	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	84.2	73 - 127	35.7718	35.88653	-0.1147	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	88.7	74 - 126	36.808	36.91718	-0.1092	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	87.8	85 - 115	35.8945	36.00728	-0.1128	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	81.4	85 - 115	36.0058	36.12053	-0.1147	N/A	*
13C12-1,2,3,4,6,7,8-HpCDF	100.00	102	78 - 122	38.6465	38.7593	-0.1128	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	105	77 - 123	40.875	40.99867	-0.1237	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	96.2	72 - 128	40.1283	40.25773	-0.1294	N/A	
13C12-OCDD	200.00	123	48 - 152	44.8152	44.98705	-0.1719	N/A	
37C14-2,3,7,8-TCDD	10.000	89.7	0 - 200	26.3112	26.42402	-0.1128	N/A	

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/25/23 14:15	20	365	05/10/23 11:11	15	365	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: AUTOSPEC01

Analyte	MDL	RL	Units
2,3,7,8-TCDF	0.058	1.00	ng/kg
2,3,7,8-TCDD	0.150	1.00	ng/kg
1,2,3,7,8-PeCDF	0.240	1.00	ng/kg
2,3,4,7,8-PeCDF	0.220	1.00	ng/kg
1,2,3,7,8-PeCDD	0.170	1.00	ng/kg
1,2,3,4,7,8-HxCDF	0.280	1.00	ng/kg
1,2,3,6,7,8-HxCDF	0.200	1.00	ng/kg
2,3,4,6,7,8-HxCDF	0.170	1.00	ng/kg
1,2,3,7,8,9-HxCDF	0.190	1.00	ng/kg
1,2,3,4,7,8-HxCDD	0.170	1.00	ng/kg
1,2,3,6,7,8-HxCDD	0.180	1.00	ng/kg
1,2,3,7,8,9-HxCDD	0.220	1.00	ng/kg
1,2,3,4,6,7,8-HpCDF	0.210	1.00	ng/kg
1,2,3,4,7,8,9-HpCDF	0.240	1.00	ng/kg
1,2,3,4,6,7,8-HpCDD	0.560	2.50	ng/kg
OCDF	1.10	2.50	ng/kg
OCDD	4.60	10.0	ng/kg
Total TCDF		1.00	ng/kg
Total TCDD		1.00	ng/kg
Total PeCDF		1.00	ng/kg
Total PeCDD		1.00	ng/kg
Total HxCDF		1.00	ng/kg
Total HxCDD		1.00	ng/kg
Total HpCDF		1.00	ng/kg
Total HpCDD		1.00	ng/kg



CS3WT

**Calibration and Verification Solution (EPA-1613CS3)
combined with Window Defining and 2,3,7,8-TCDD
Resolution Testing Congeners**

PRODUCT CODE: CS3WT
LOT NUMBER: CS3WT0918
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/24/2018
LAST TESTED: (mm/dd/yyyy) 10/29/2018
EXPIRY DATE: (mm/dd/yyyy) 10/29/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

CS3WT is a solution/mixture of native and $^{13}\text{C}_{12}$ -labelled chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

CS3WT was designed and prepared to be used as a HRMS calibration standard according to U.S. EPA Method 1613B.

It is to be used for calibration verification in place of EPA-1613CS3 (Lot: 13CS30918). It also contains the PCDD and PCDF window defining congeners for a DB-5 (or equivalent) capillary column as well as the TCDD isomers required to test and confirm the resolution of 2,3,7,8-TCDD.

The individual ^{13}C -labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of $\geq 99\%$. The 2,3,7,8- $^{37}\text{Cl}_4$ -tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of $\geq 95\%$. The individual native 2,3,7,8-substituted PCDD and PCDF congeners all have chemical purities of >98%; the other congeners (window defining and resolution testing) should only be considered semi-quantitative.

This current lot of CS3WT is to be used with the 1613 calibration solutions having the following lot numbers:

<u>PRODUCT CODE</u>	<u>LOT NUMBER</u>
EPA-1613CS1	13CS10918
EPA-1613CS2	13CS20918
EPA-1613CS3	13CS30918
EPA-1613CS4	13CS40918
EPA-1613CS5	13CS50918
EPA-1613CSL	13CSL0918
EPA-1613CS0.5	13CS0.50918

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.
- Only the 2,3,7,8-substituted PCDDs and PCDFs should be used for quantitation. The other congeners (window defining and 2378-TCDD resolution testing) should be considered semi-quantitative (within $\pm 20\%$ of their design value). Impurities have been identified where possible.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: CS3WT; Components and Concentrations (ng/ml, in nonane/4.5% toluene)

QUANTITATIVE ANALYTES (ng/ml, ±5%)

Native PCDDs & PCDFs:

2,3,7,8-TCDD	10
2,3,7,8-TCDF	10
1,2,3,7,8-PeCDD	50
1,2,3,7,8-PeCDF	50
2,3,4,7,8-PeCDF	50
1,2,3,4,7,8-HxCDD	50
1,2,3,6,7,8-HxCDD	50
1,2,3,7,8,9-HxCDD	50
1,2,3,4,7,8-HxCDF	50
1,2,3,6,7,8-HxCDF	50
1,2,3,7,8,9-HxCDF	50
2,3,4,6,7,8-HxCDF	50
1,2,3,4,6,7,8-HpCDD (WD)	50
1,2,3,4,6,7,8-HpCDF (WD)	50
1,2,3,4,7,8,9-HpCDF (WD)	50
OCDD	100
OCDF	100

Labelled PCDDs & PCDFs:

¹³ C ₁₂ -2,3,7,8-TCDD	100
¹³ C ₁₂ -2,3,7,8-TCDF	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100
¹³ C ₁₂ -OCDD	200

Cleanup Standard:

³⁷ Cl ₄ -2,3,7,8-TCDD	10
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Internal Standards:

¹³ C ₁₂ -1,2,3,4-TCDD	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100

SEMI-QUANTITATIVE ANALYTES (ng/ml, ±20%)

Window Definers:*

1,3,6,8-TCDD	10
1,2,8,9-TCDD	10
1,3,6,8-TCDF	10
1,2,8,9-TCDF	10
1,2,4,6,8/1,2,4,7,9-PeCDD	50
1,2,3,8,9-PeCDD	50
1,3,4,6,8-PeCDF	50
1,2,3,8,9-PeCDF	50
1,2,4,6,7,9-HxCDD	50
1,2,3,4,6,8-HxCDF	50
1,2,3,4,6,7,9-HpCDD	50

2378-TCDD Resolution Testing Isomers:

1,2,3,4-TCDD	5
1,2,3,7/1,2,3,8-TCDD	5
1,2,3,9-TCDD	10

* 1,2,3,4,6,7-HxCDD (last eluting HxCDD) not included; coelutes with 1,2,3,7,8,9-HxCDD. Use 1,2,3,4,6,7,9-HpCDD to set window.

* 1,2,3,4,8,9-HxCDF (last eluting HxCDF) not included; can interfere with 1,2,3,7,8,9-HxCDF. Use 1,2,3,4,6,7,8-HpCDF to set window.

WD – Window Definer

Certified By: 
B.G. Chittim, General Manager

Date: 10/30/2018
(mm/dd/yyyy)

Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

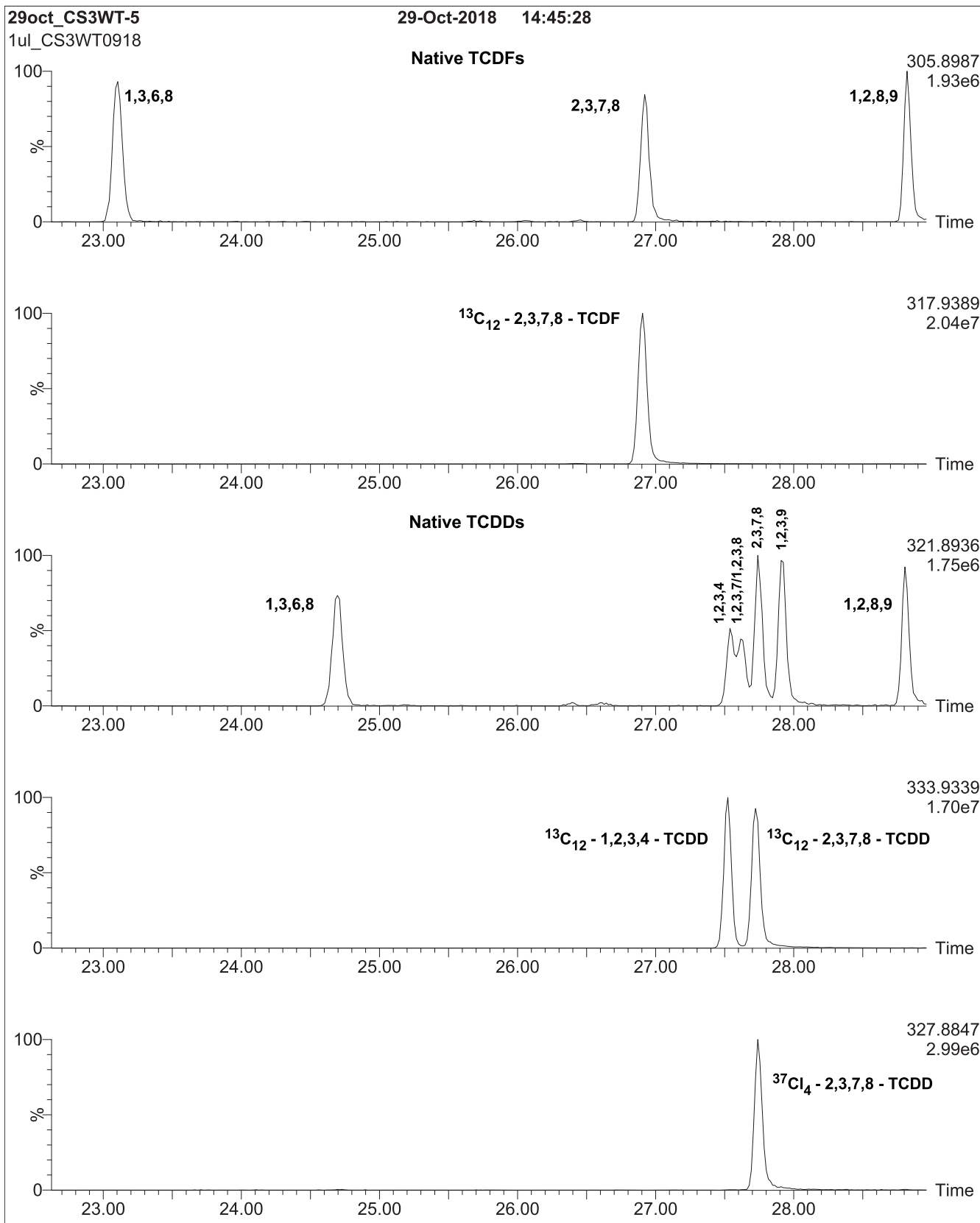


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

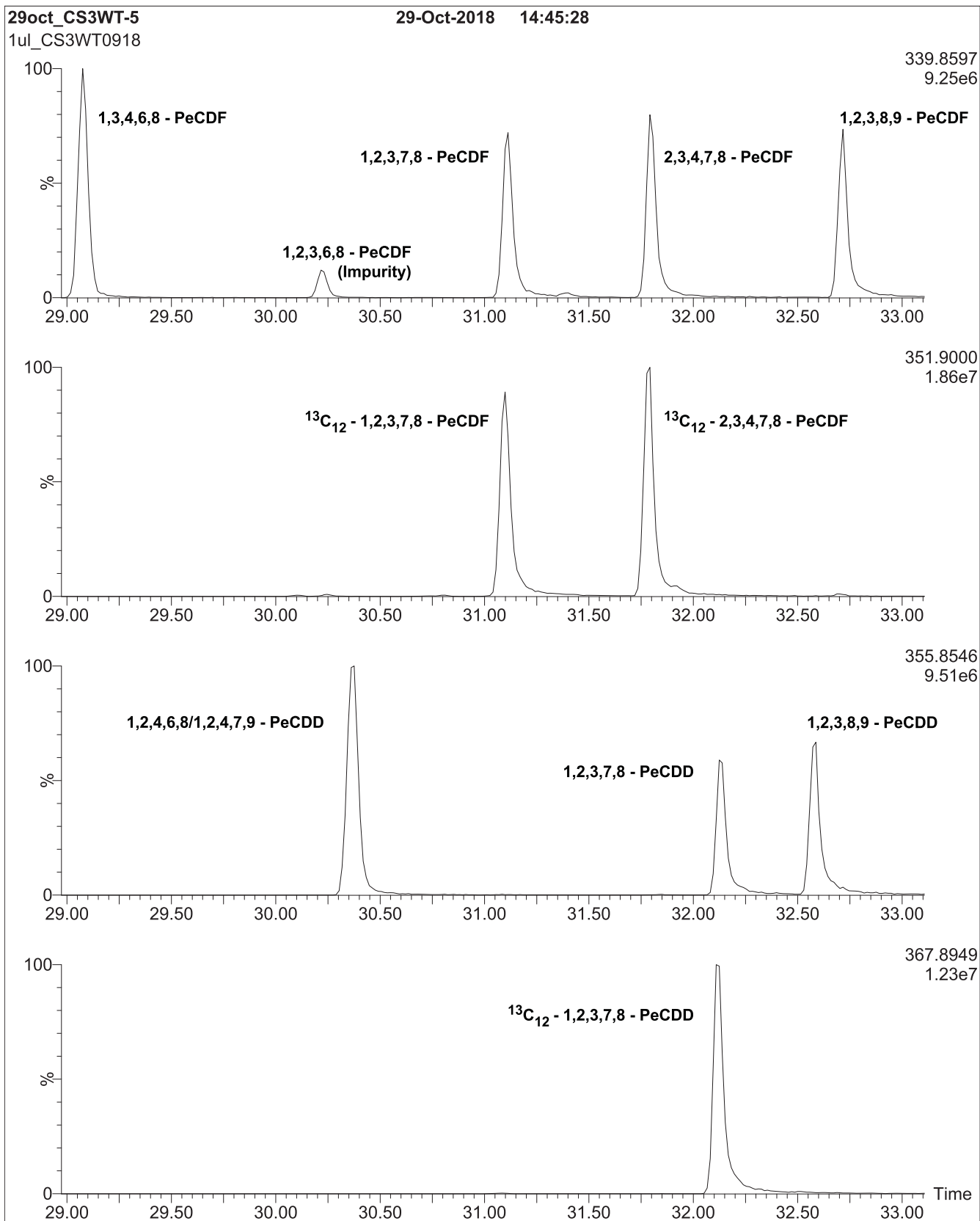


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

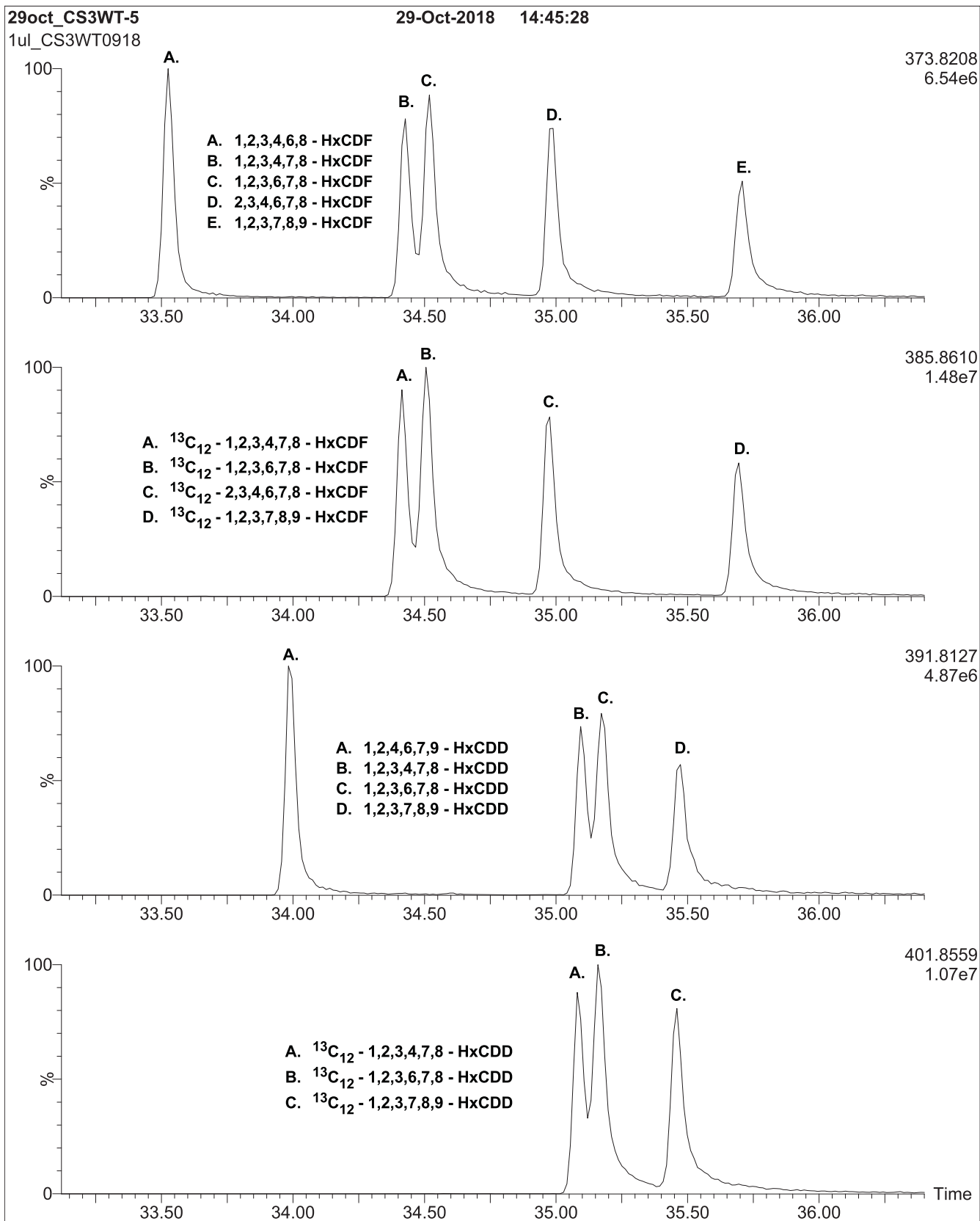


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

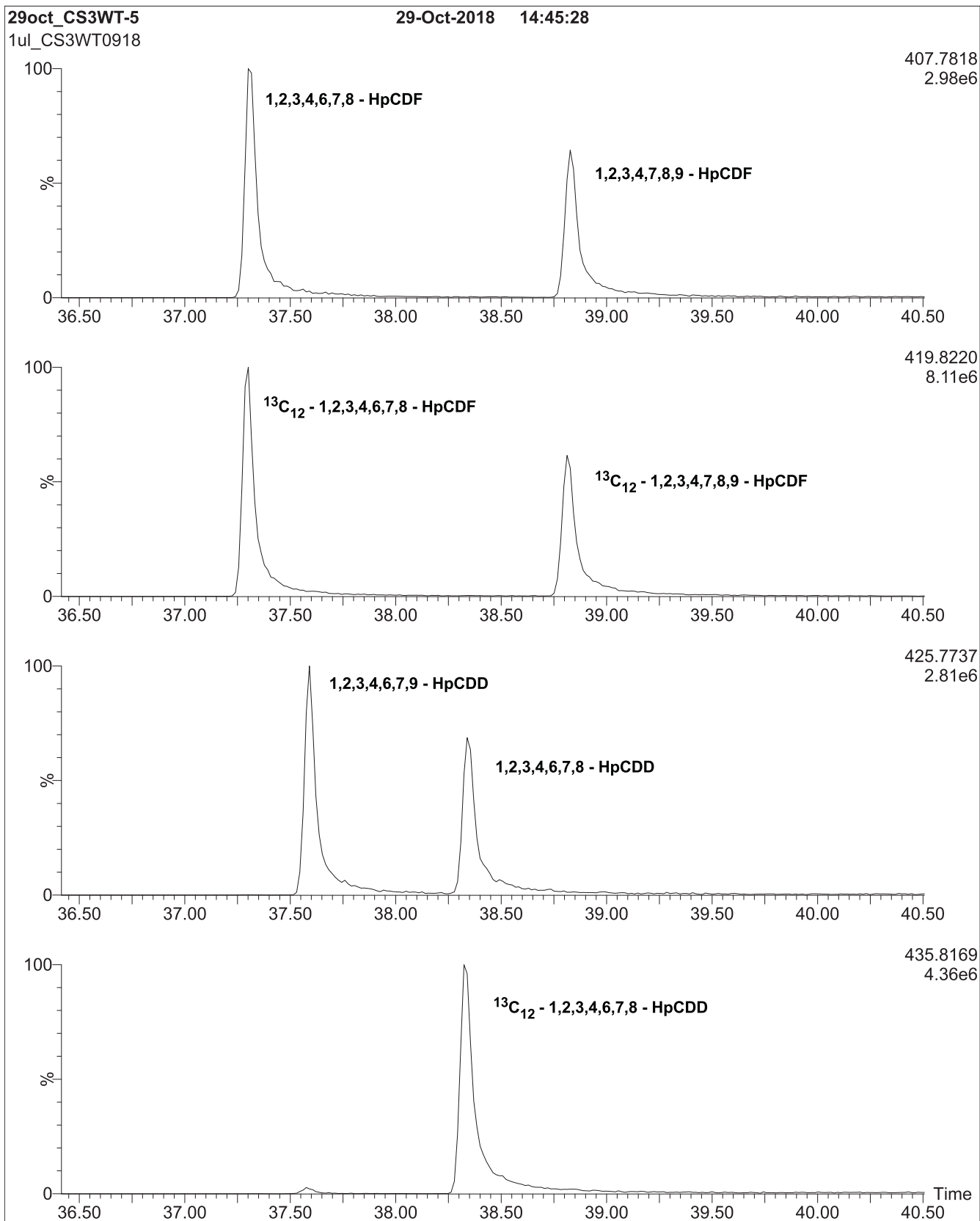
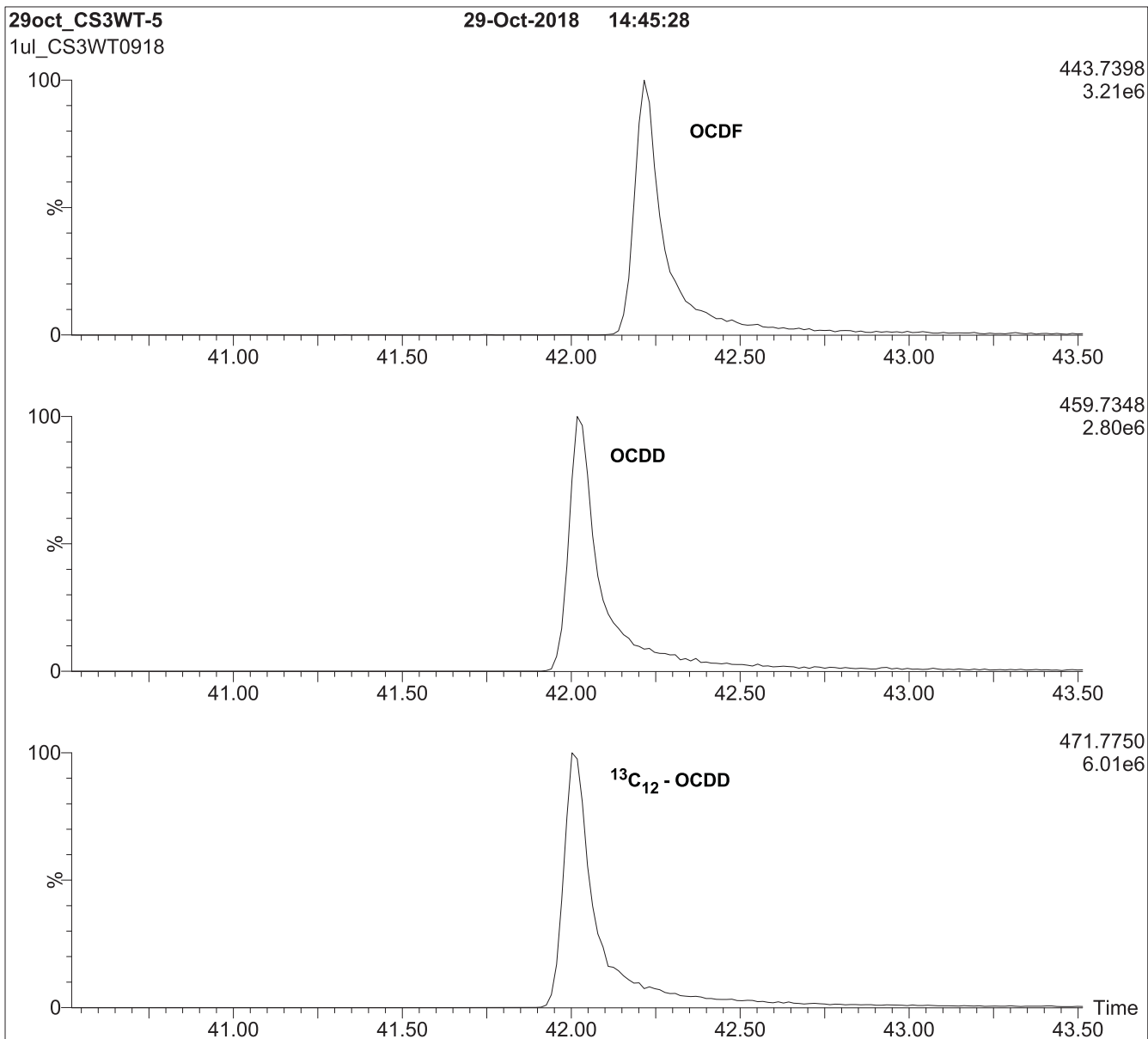


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

I005456

1613 CS1 CAL STD
Expires 10/24/2026
Prepared By Joshua Rains 6/23/2020

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

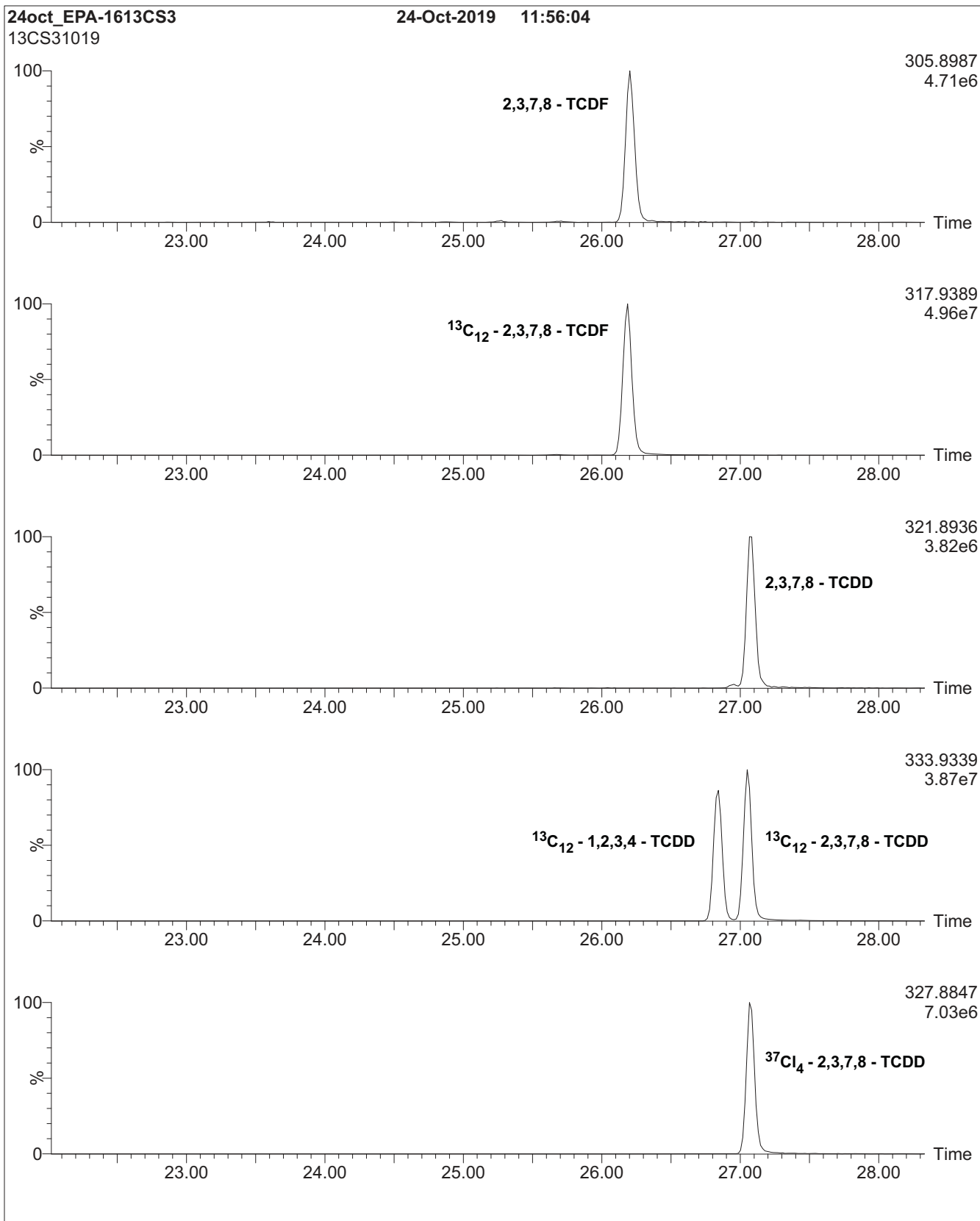


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

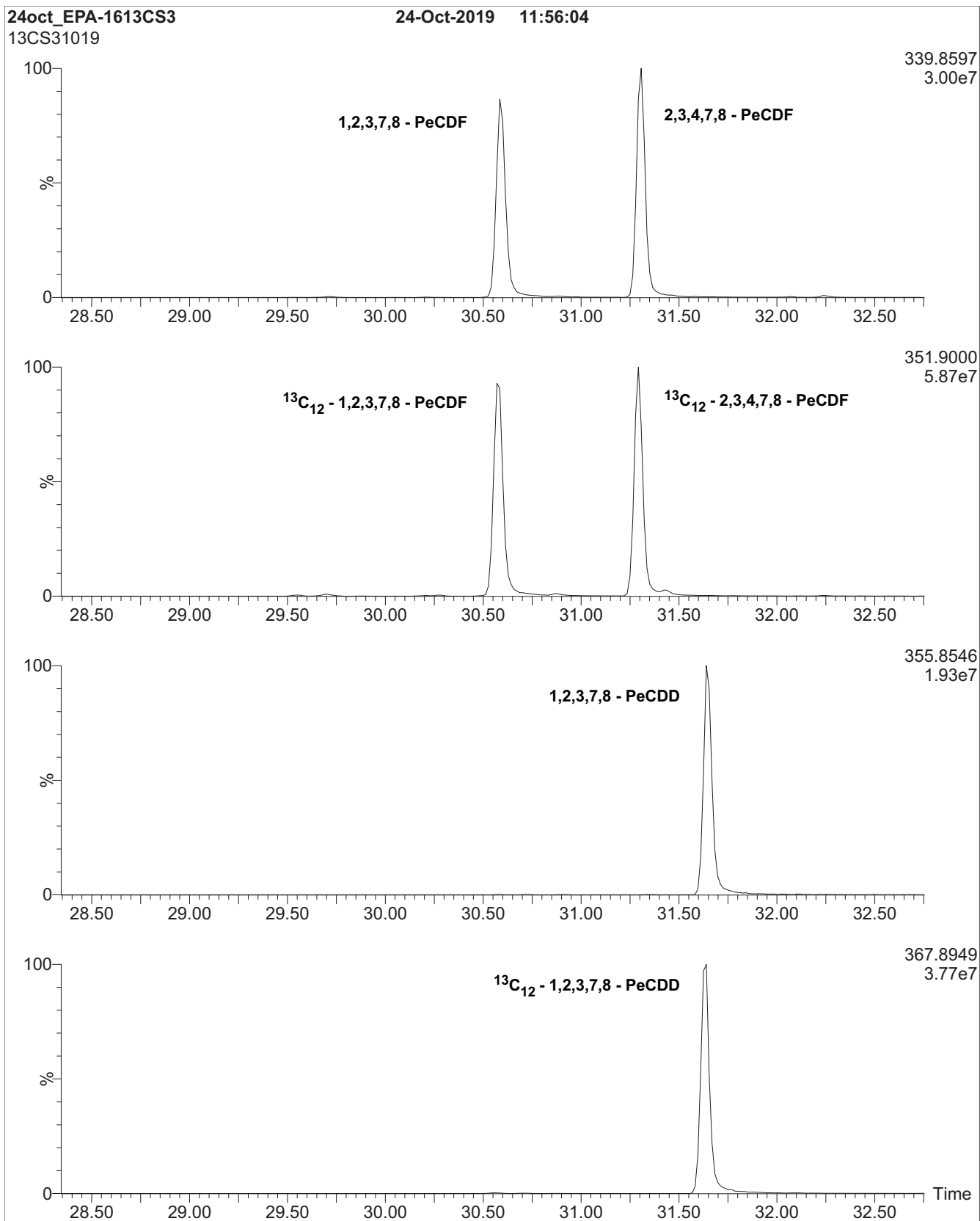


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

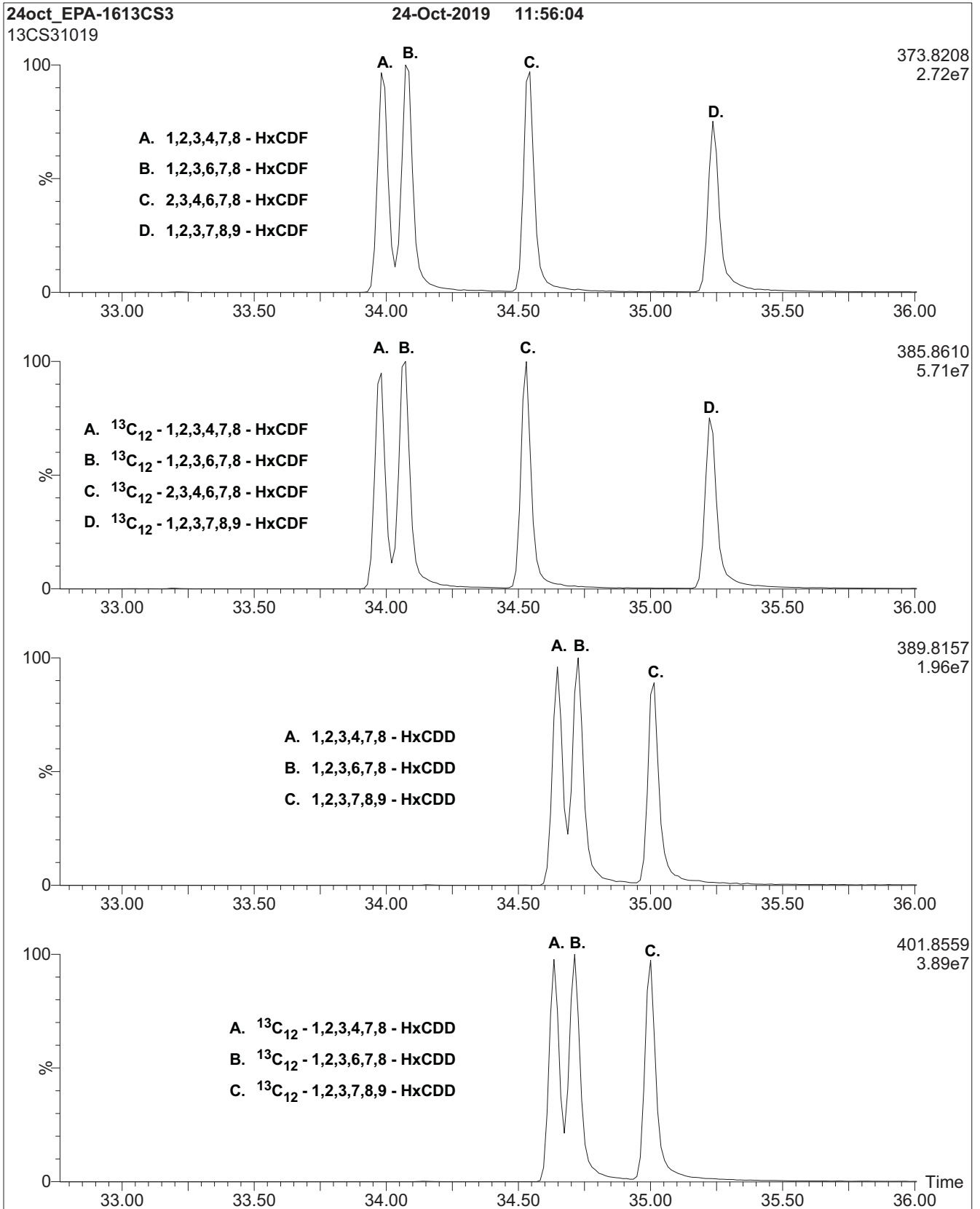


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

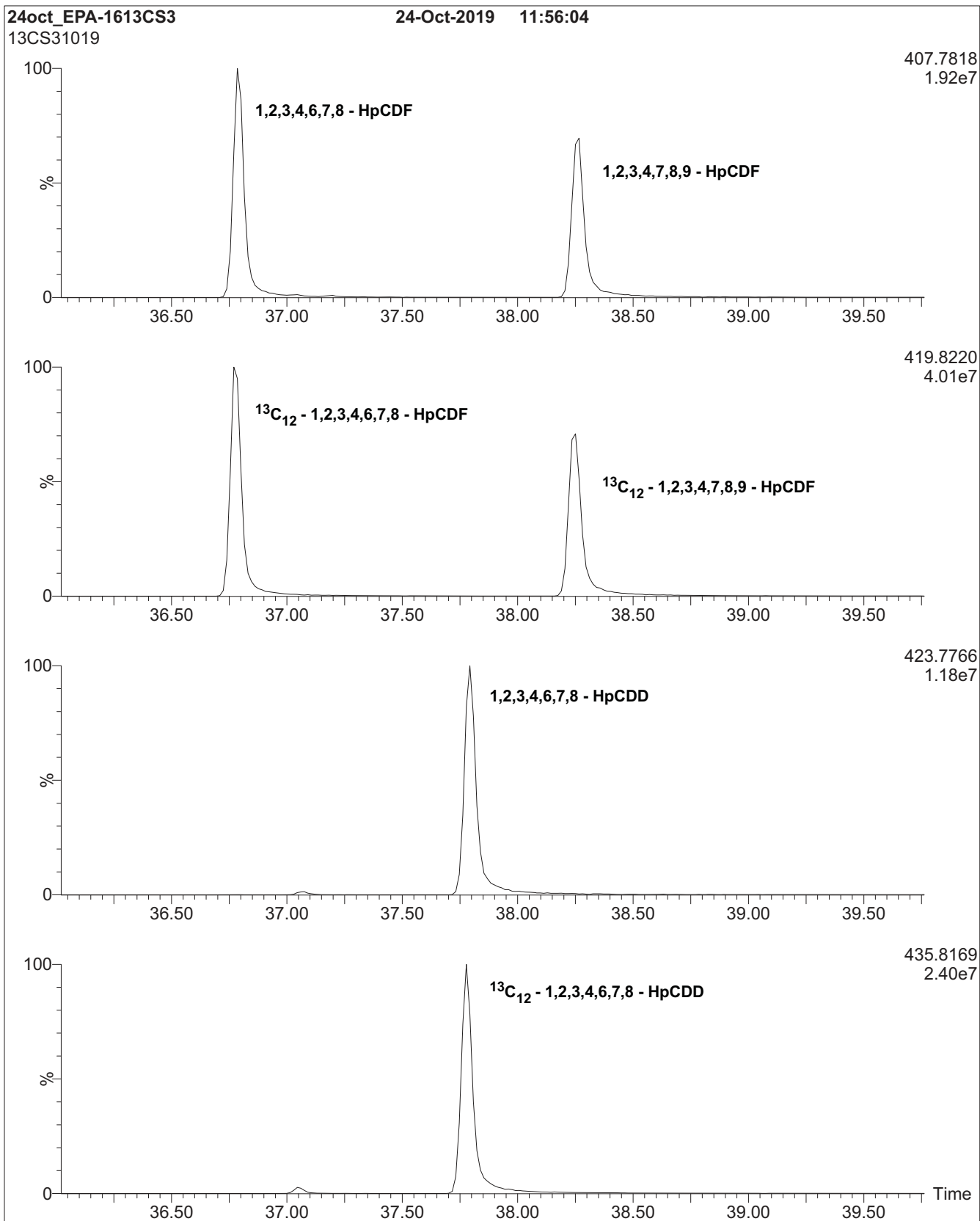
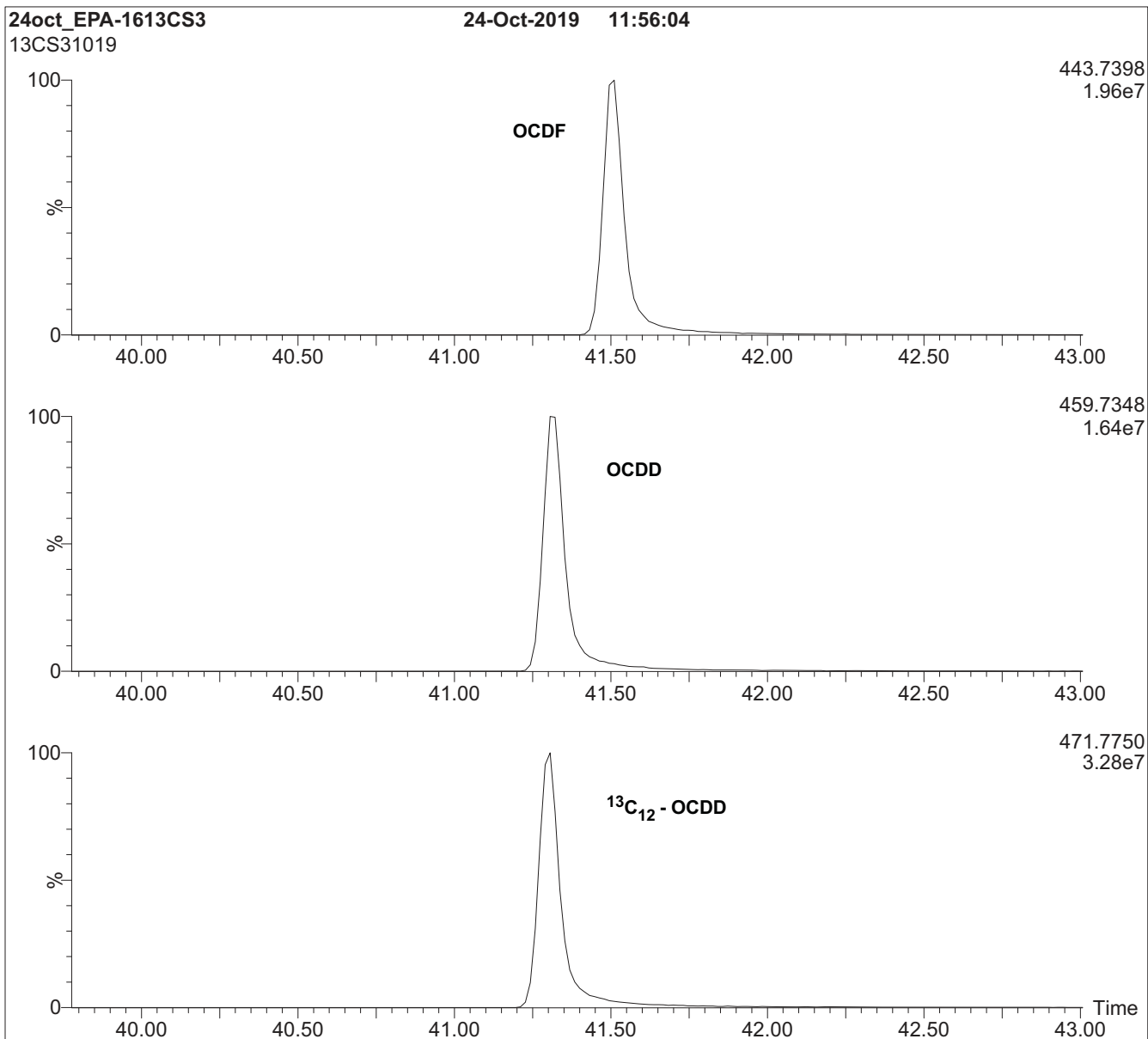


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

1005457
1613 CS2 CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

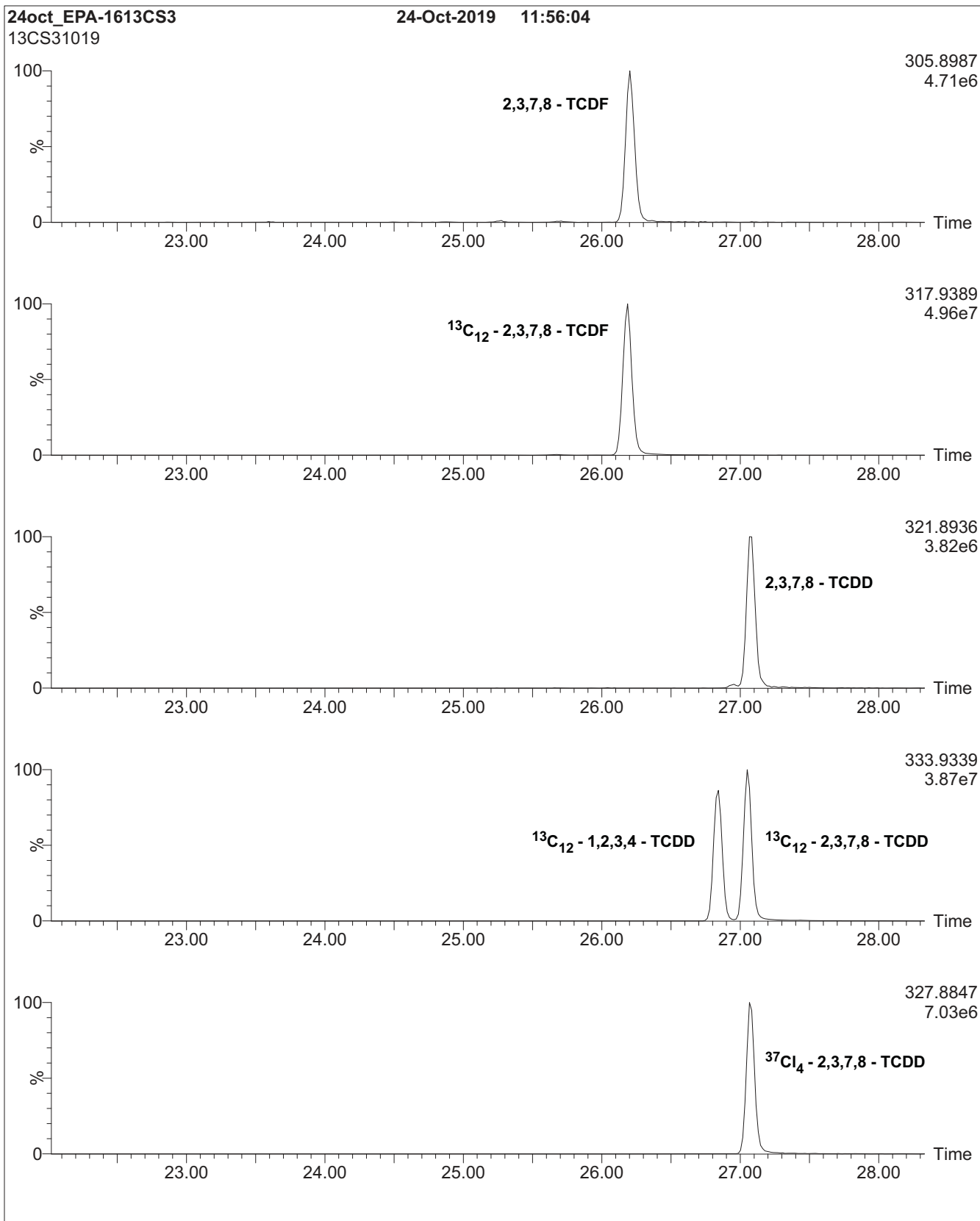


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

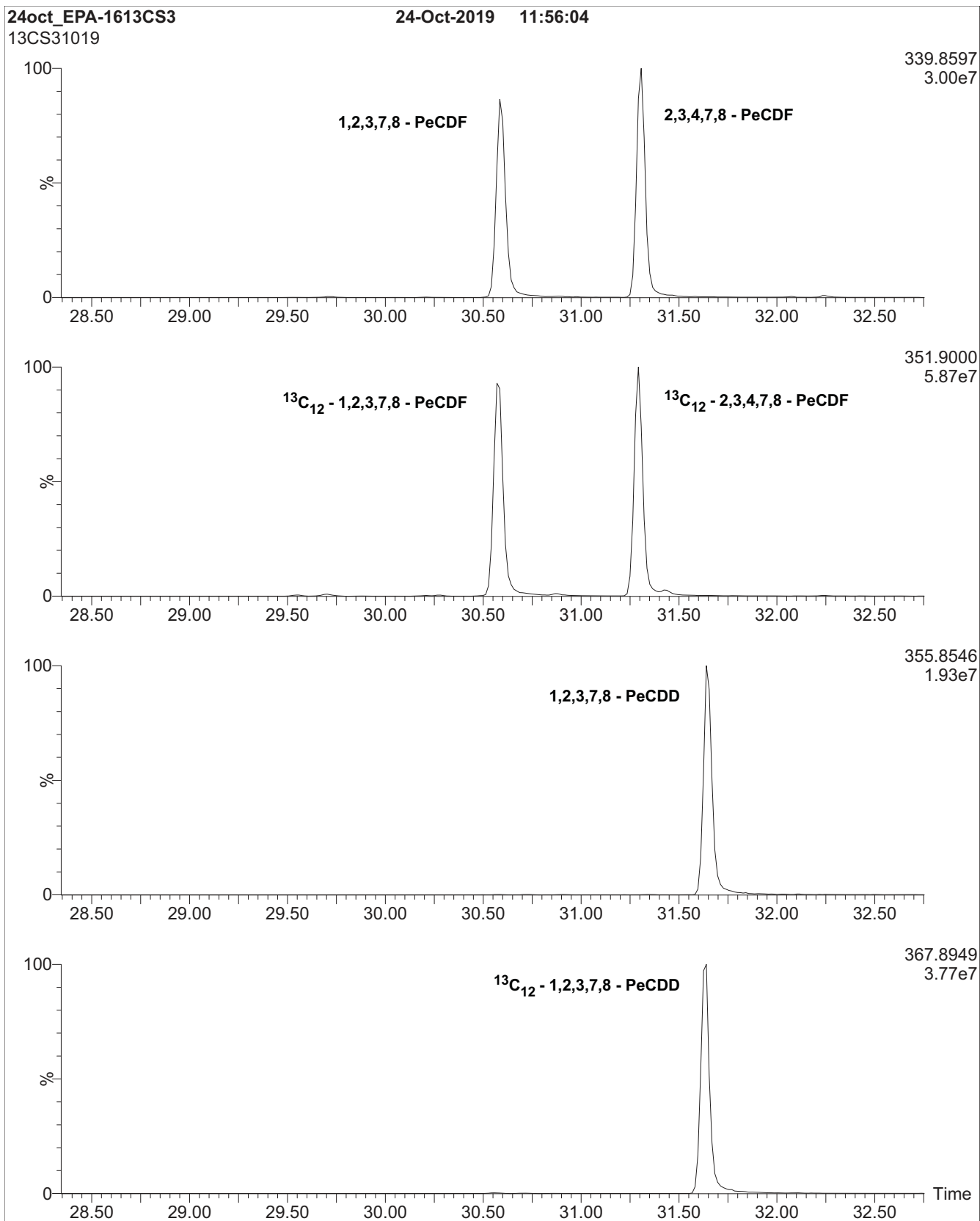


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

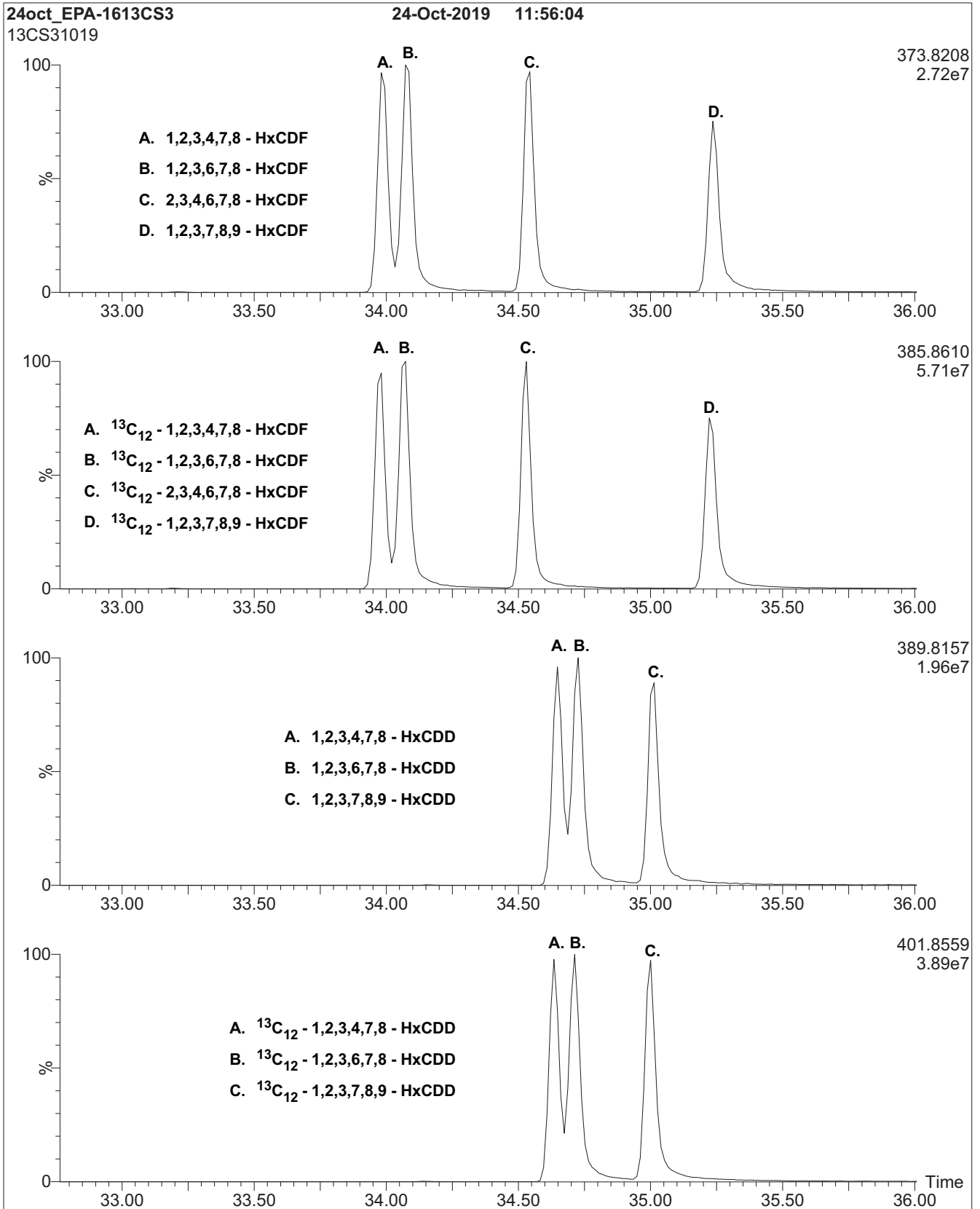


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

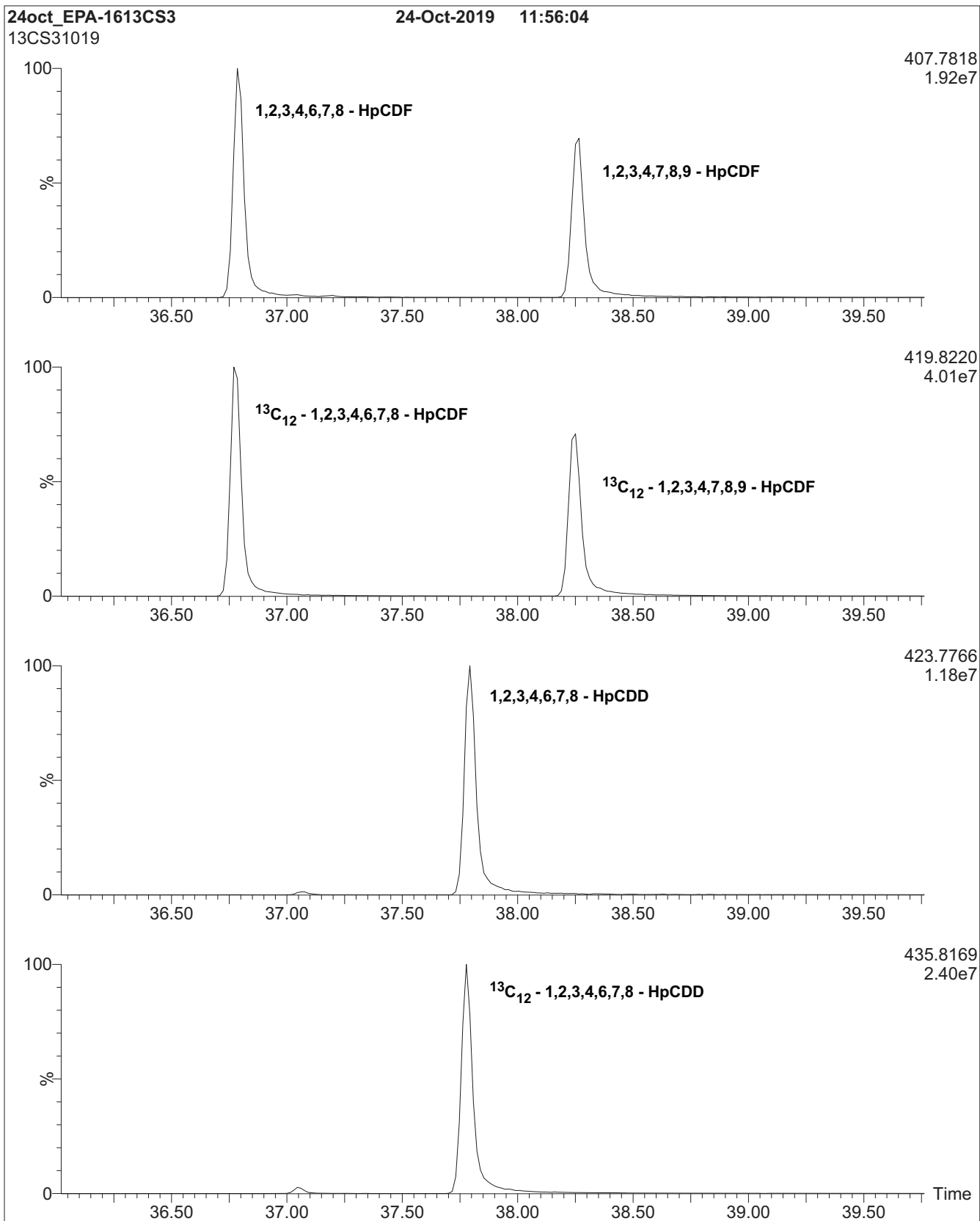
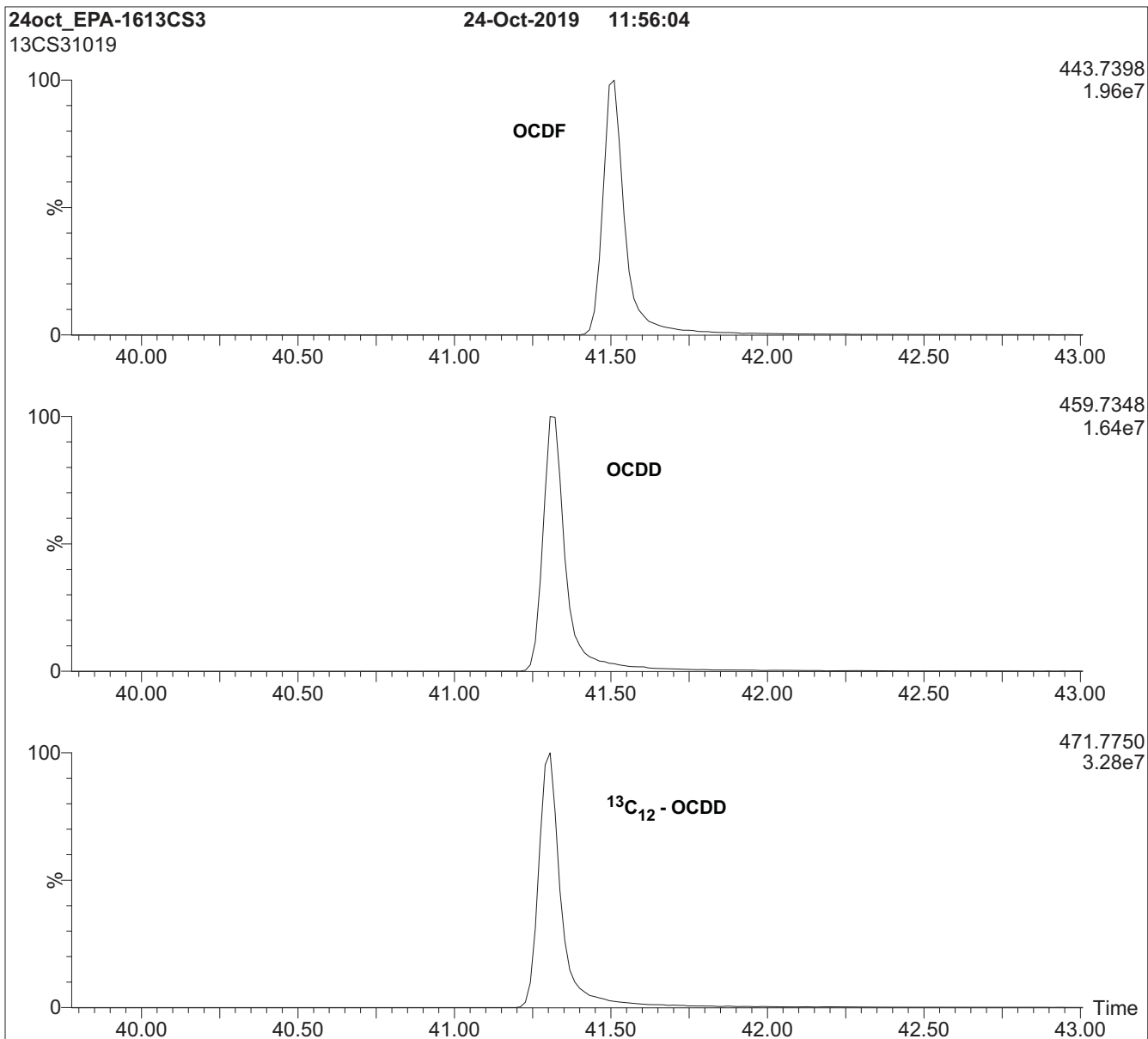


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

1005458
1613 CS4 CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

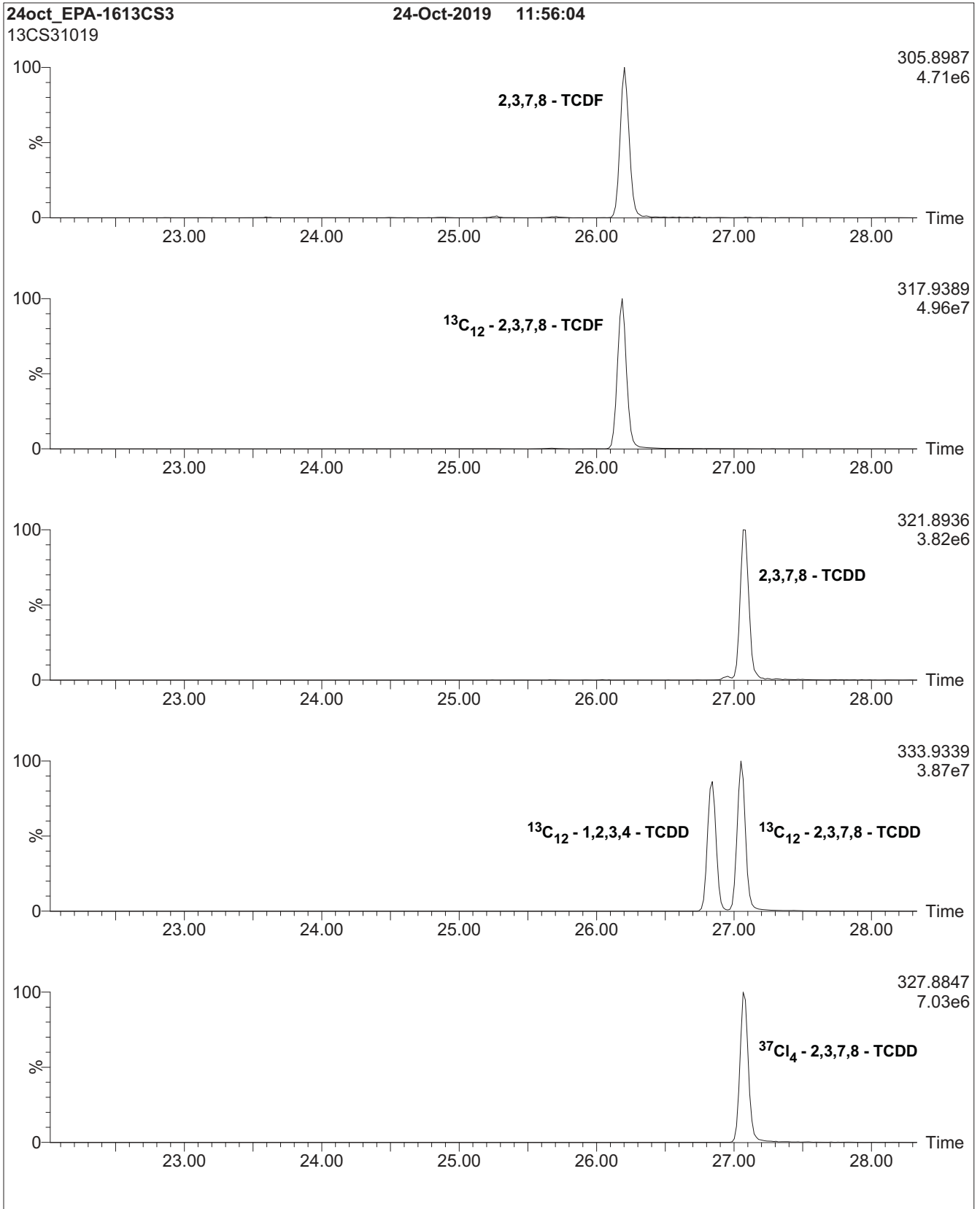


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

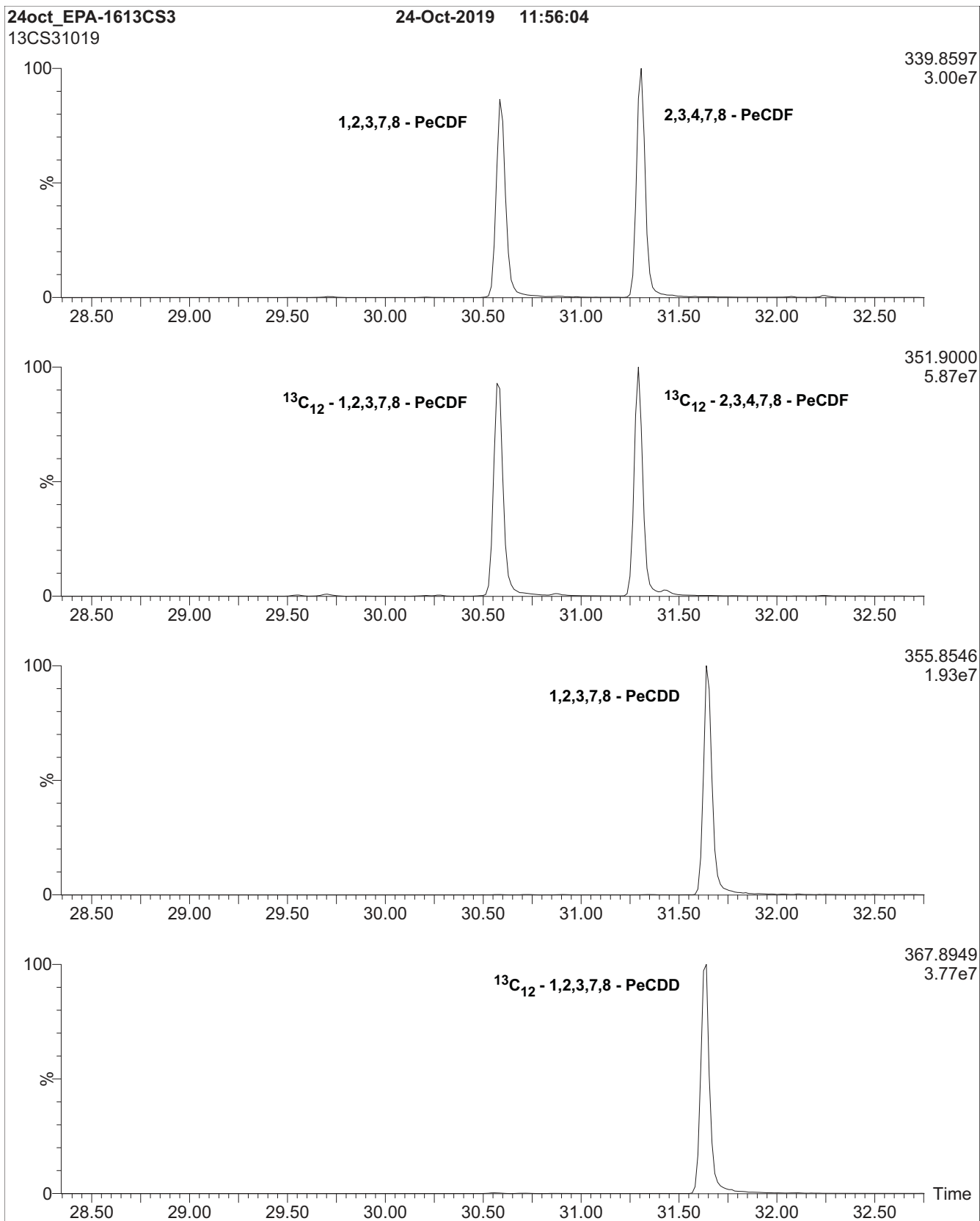


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

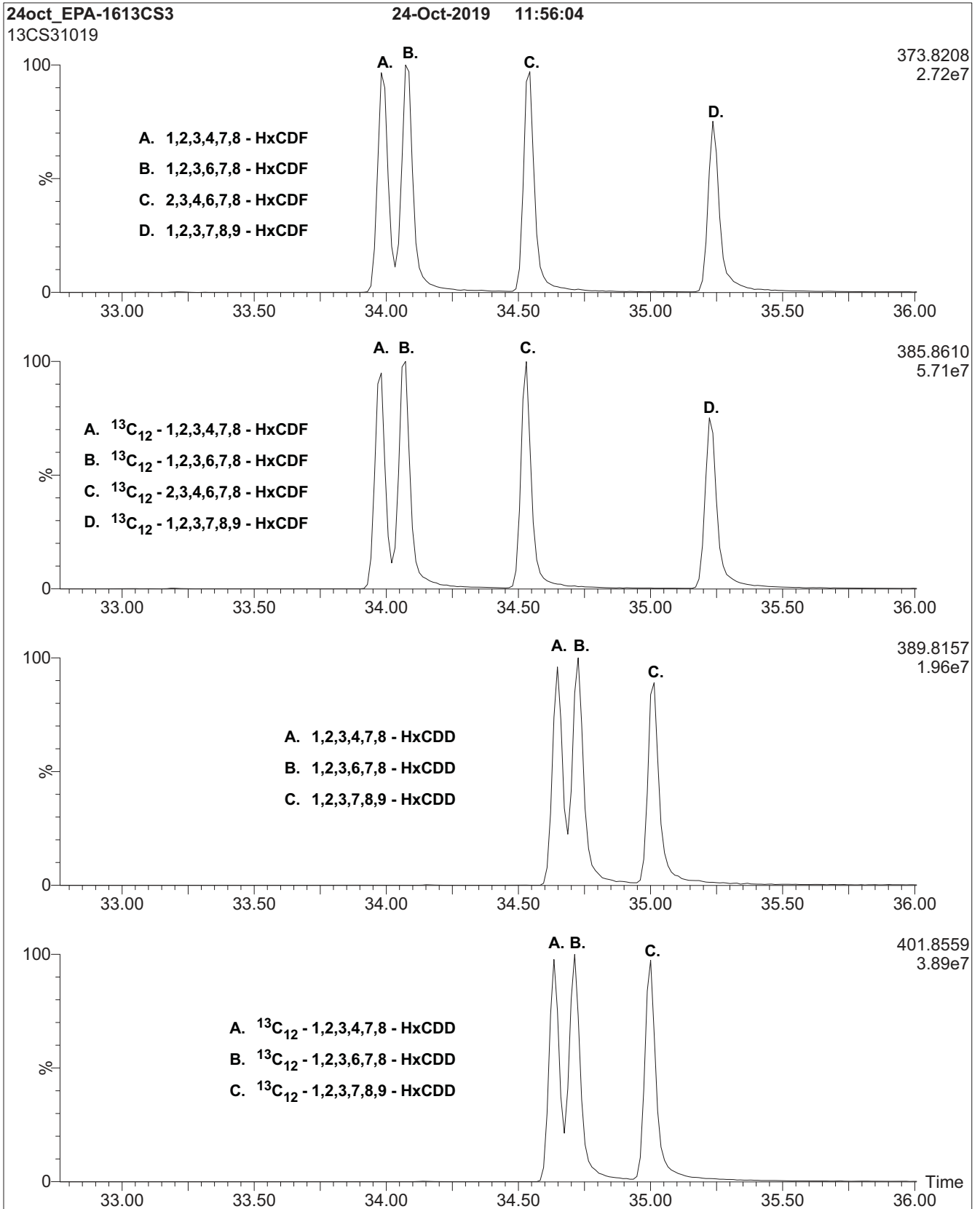


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

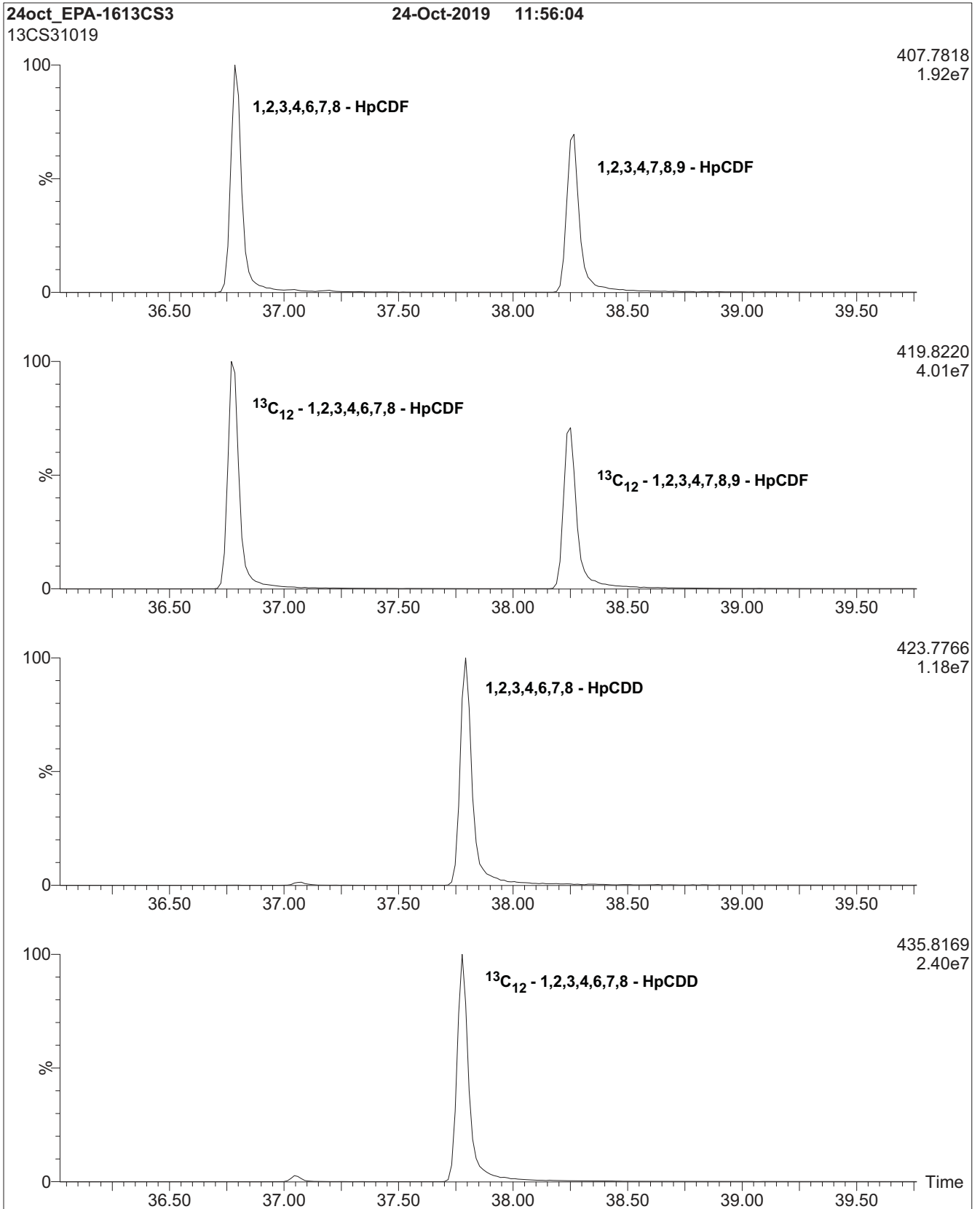
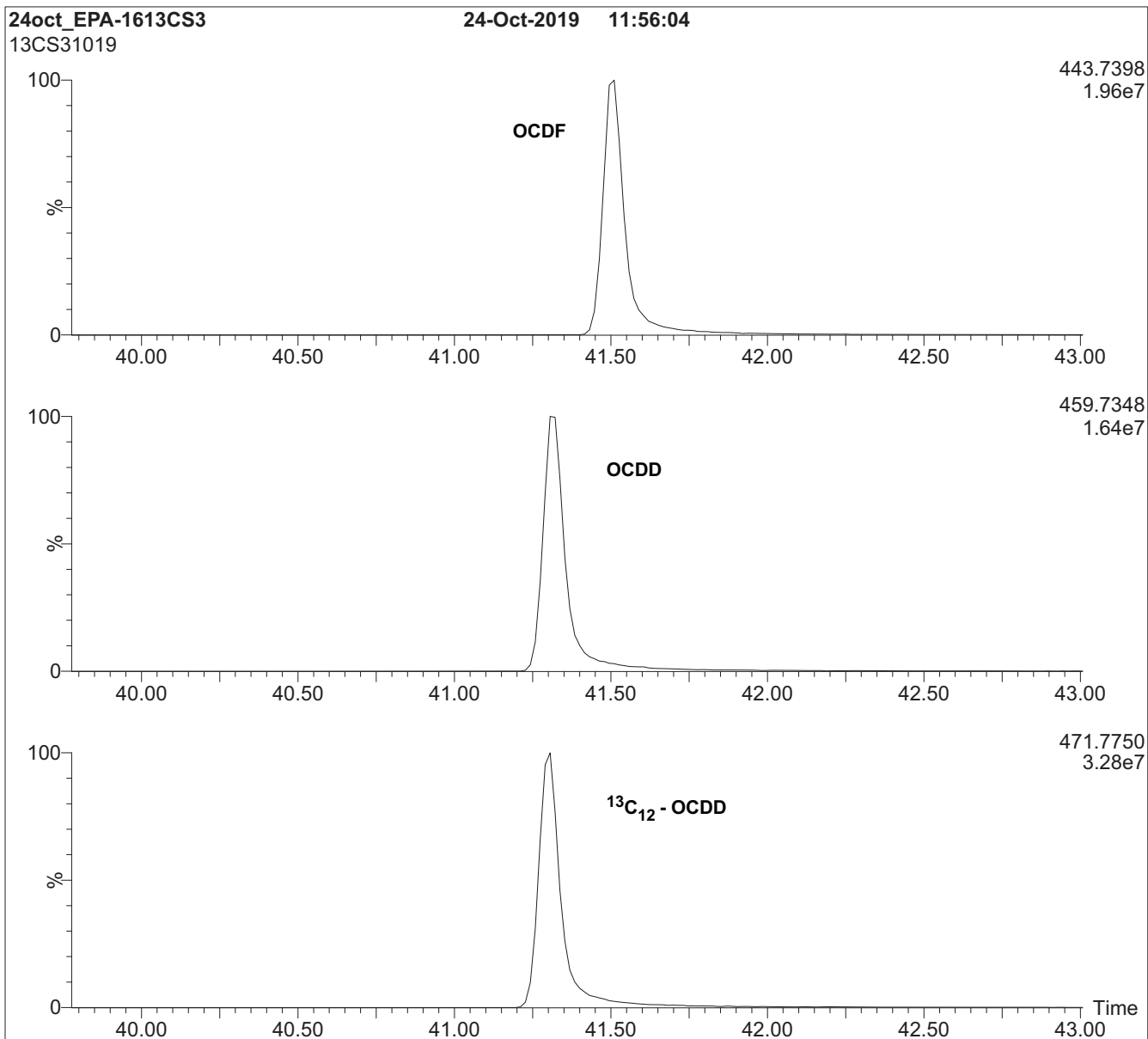


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

I005459
1613 CS5 CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

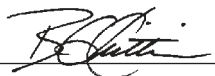
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

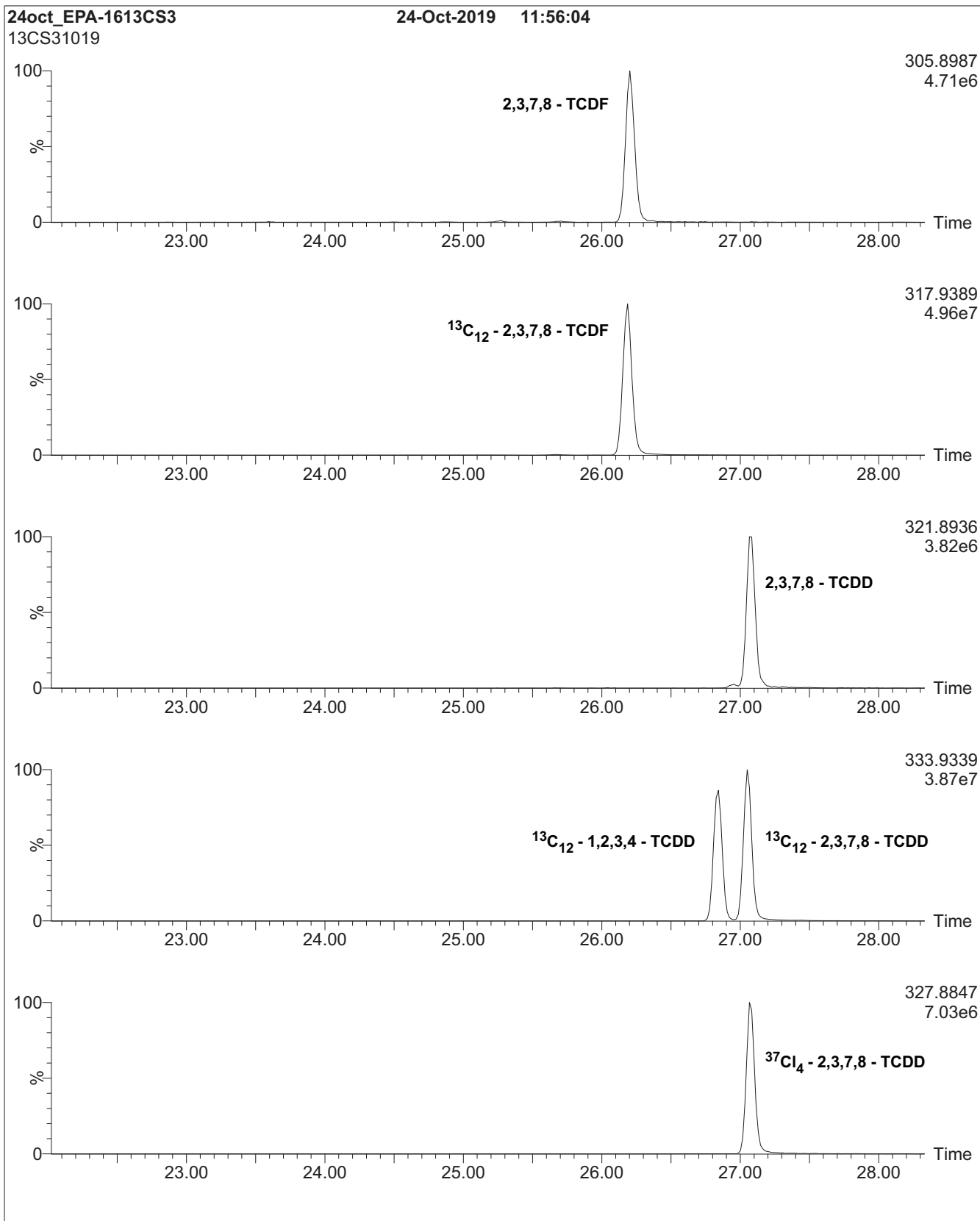


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

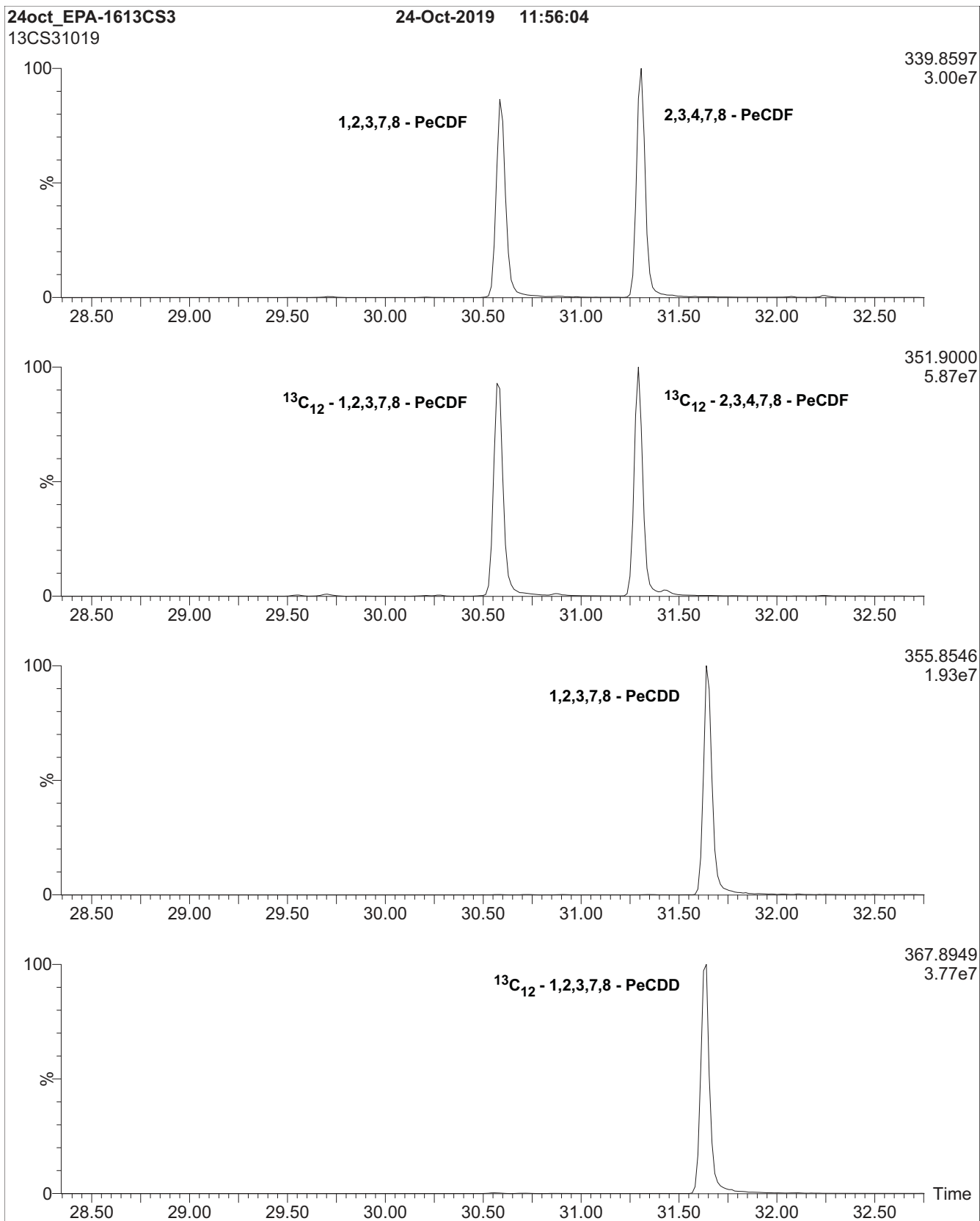


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

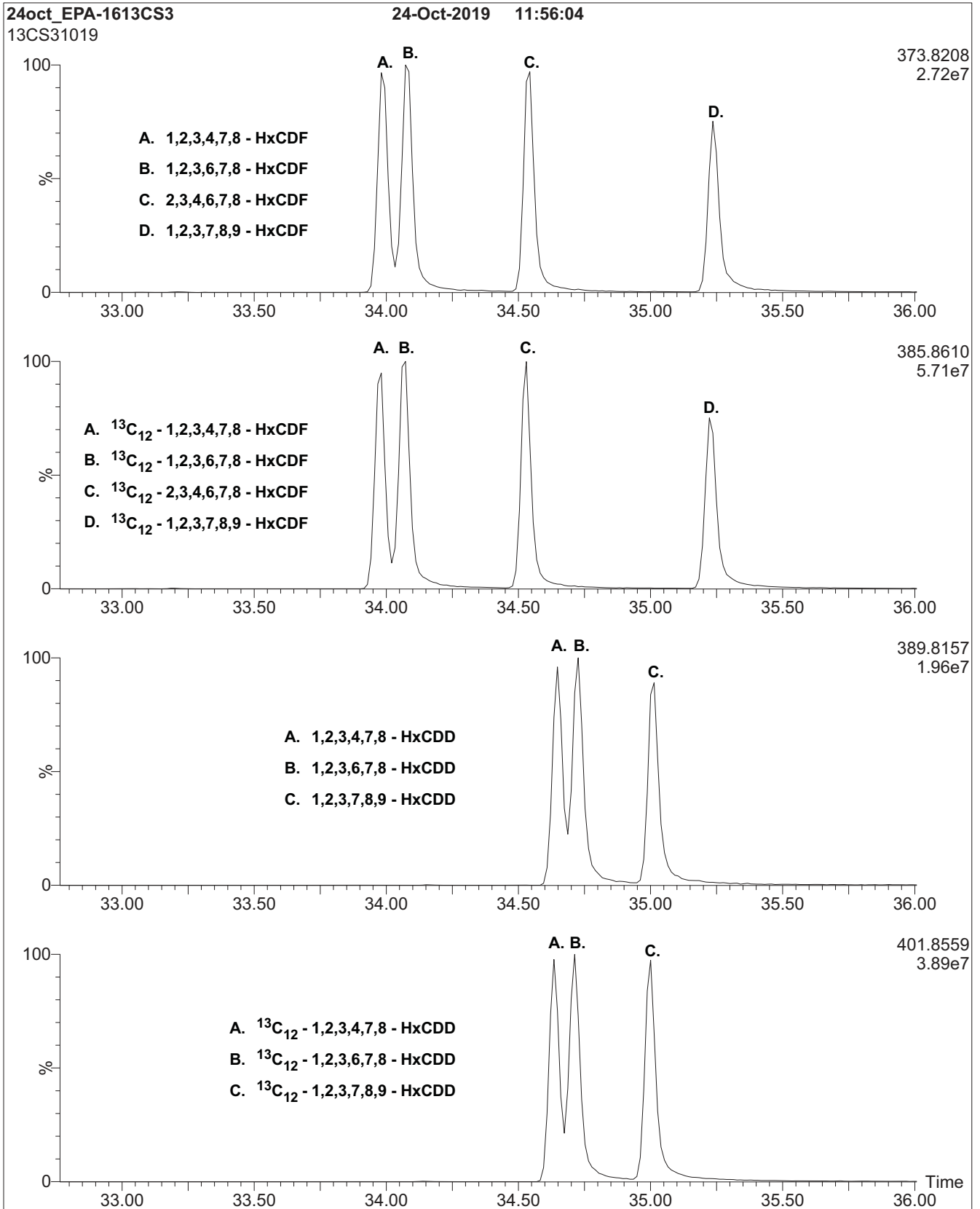


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

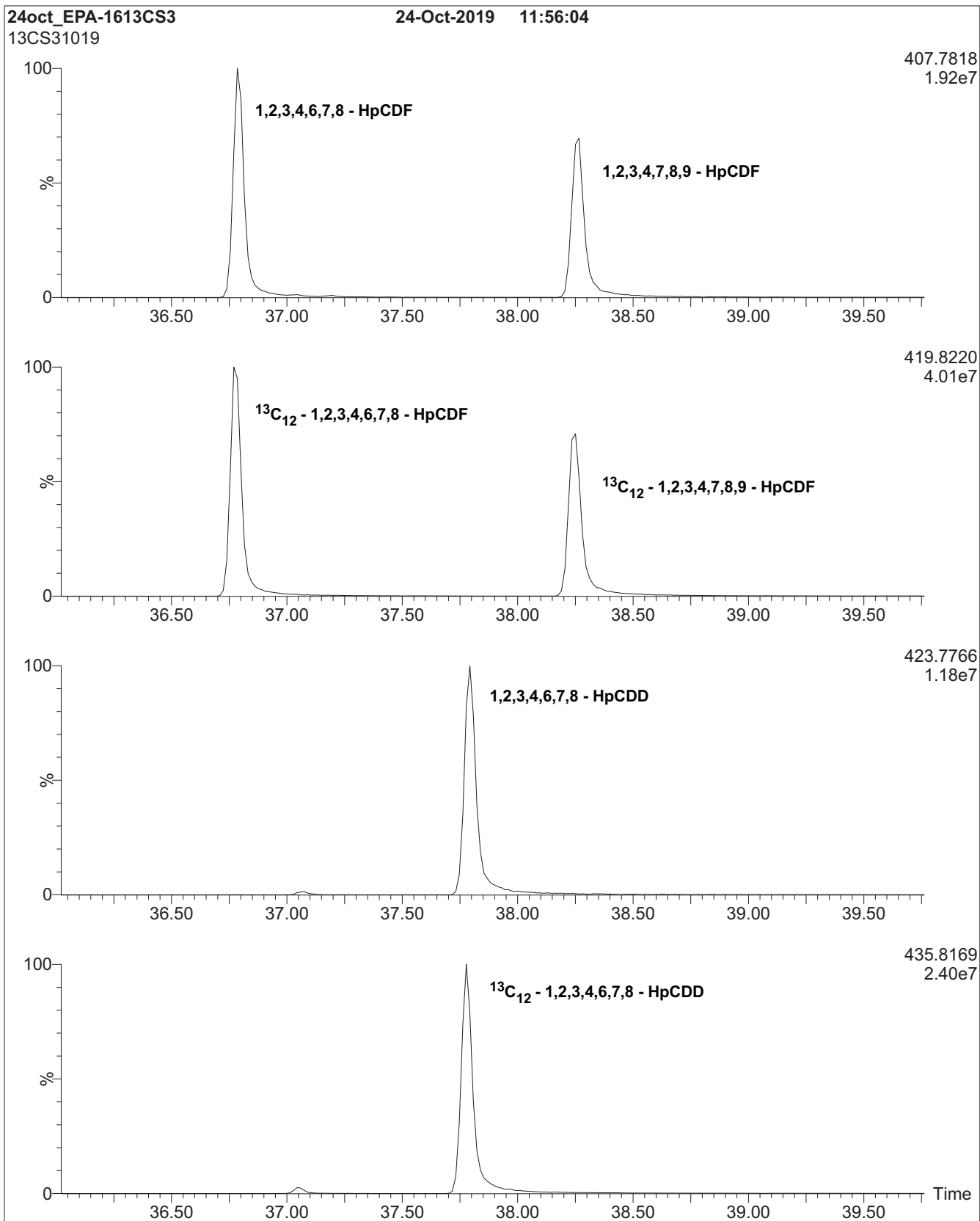
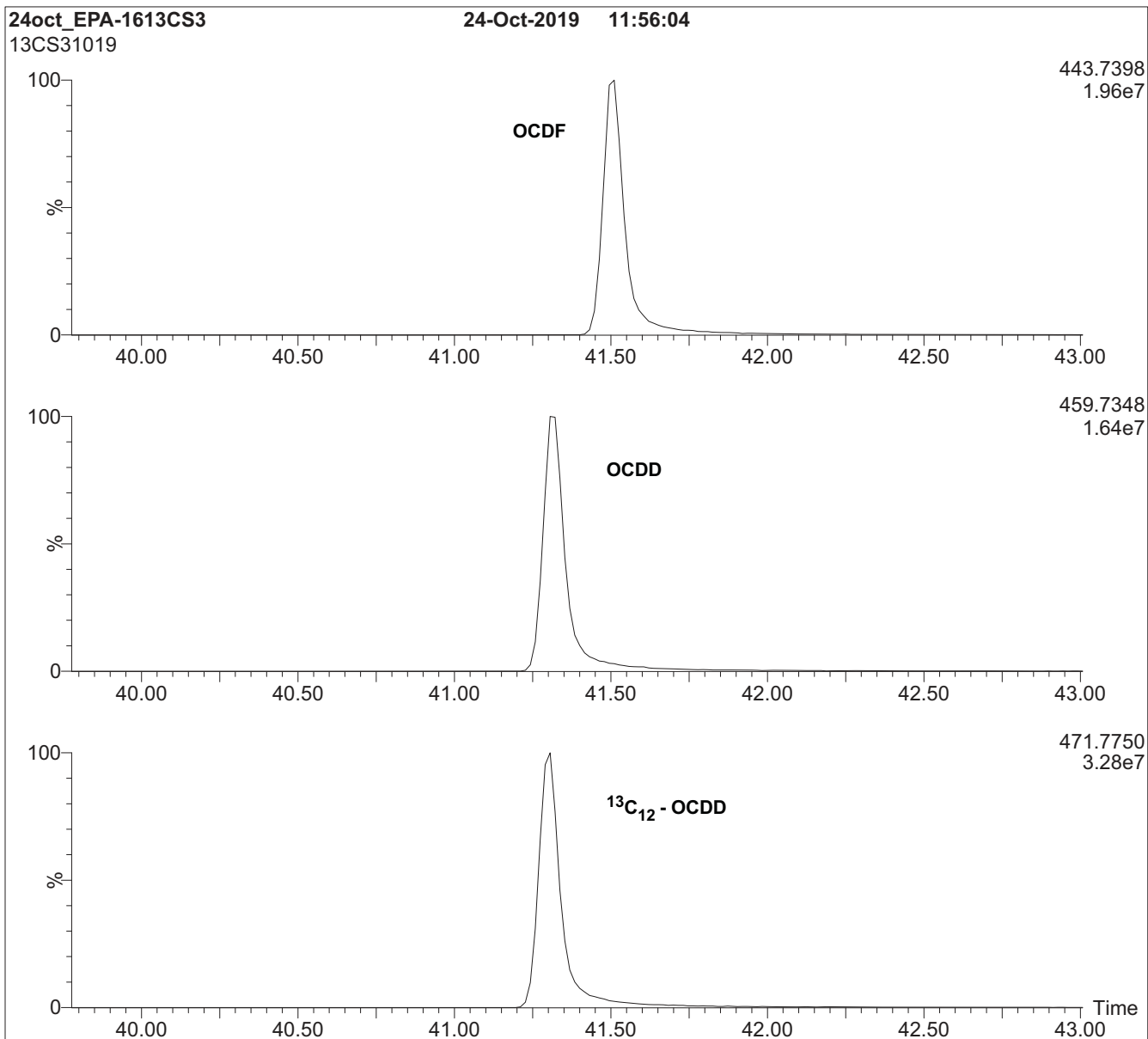


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

I005460
1613 CSL CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

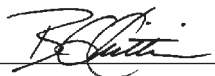
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

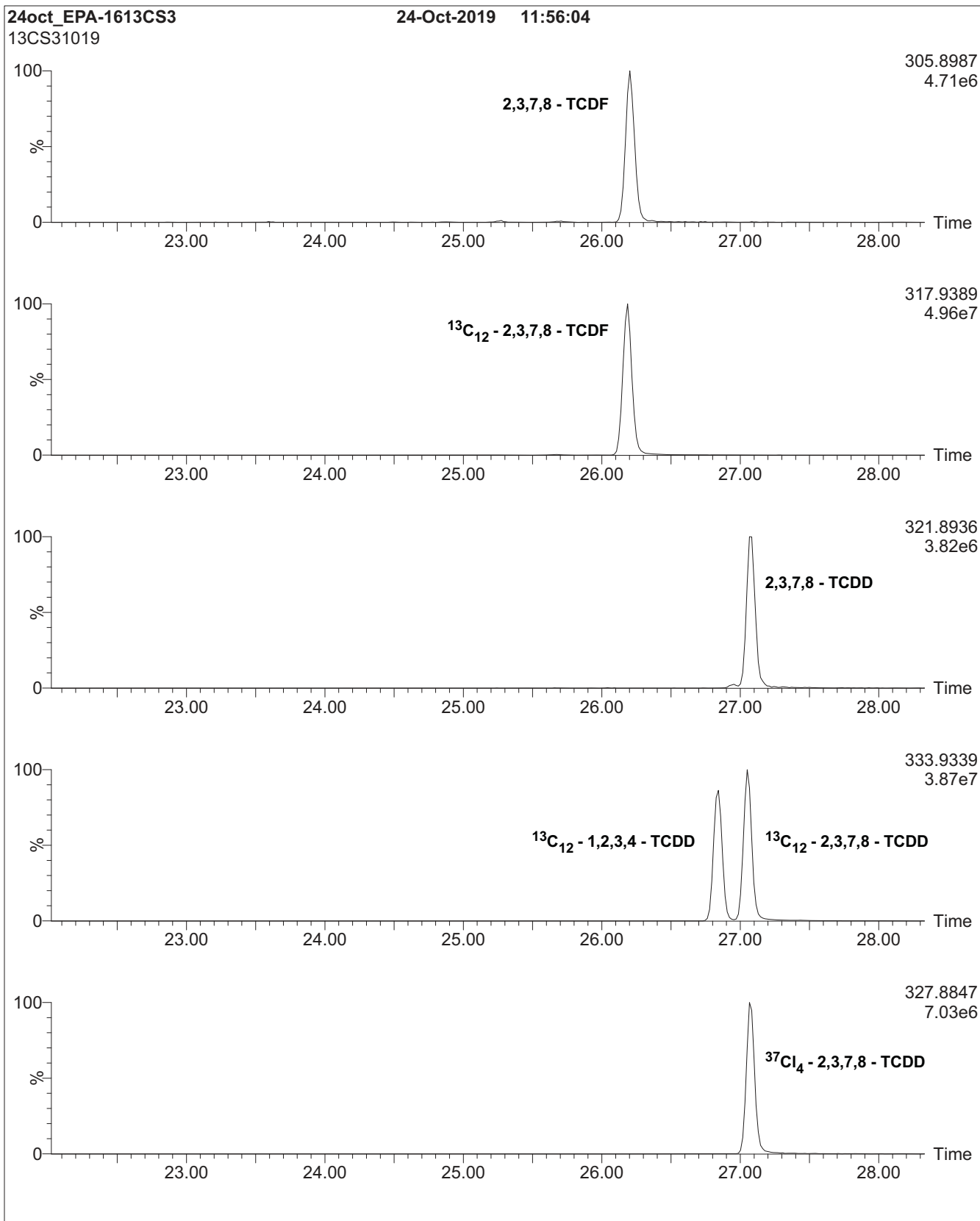


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

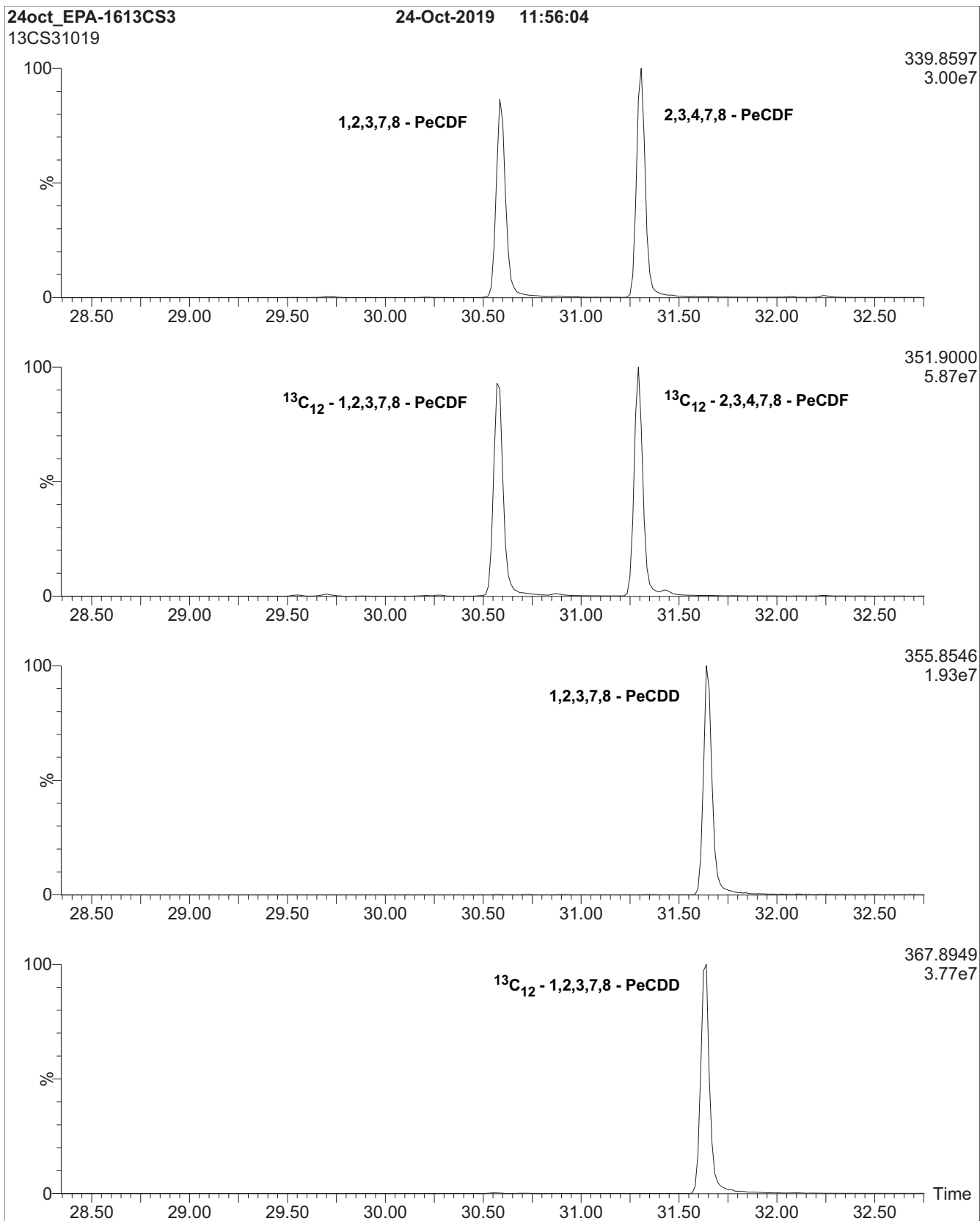


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

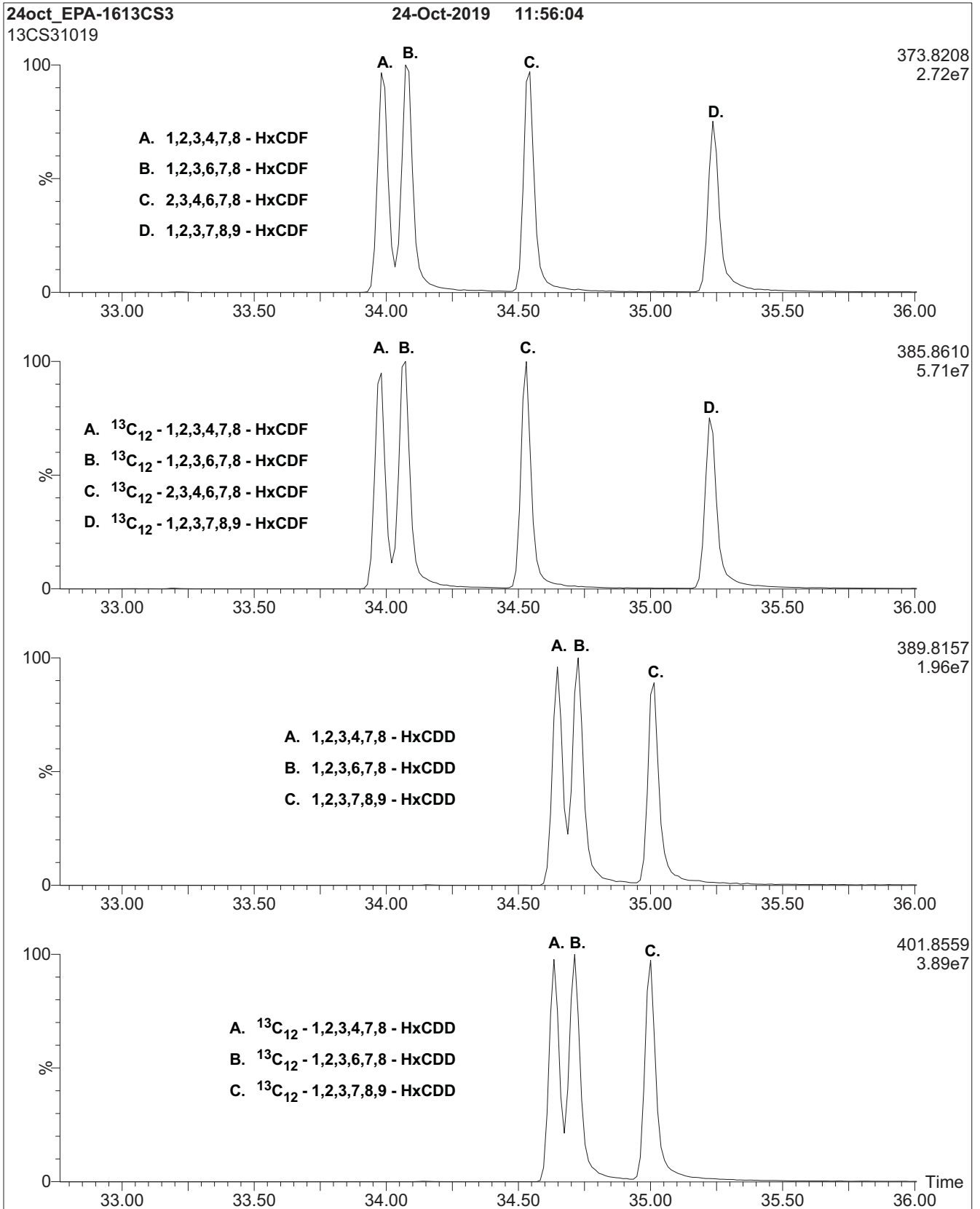


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

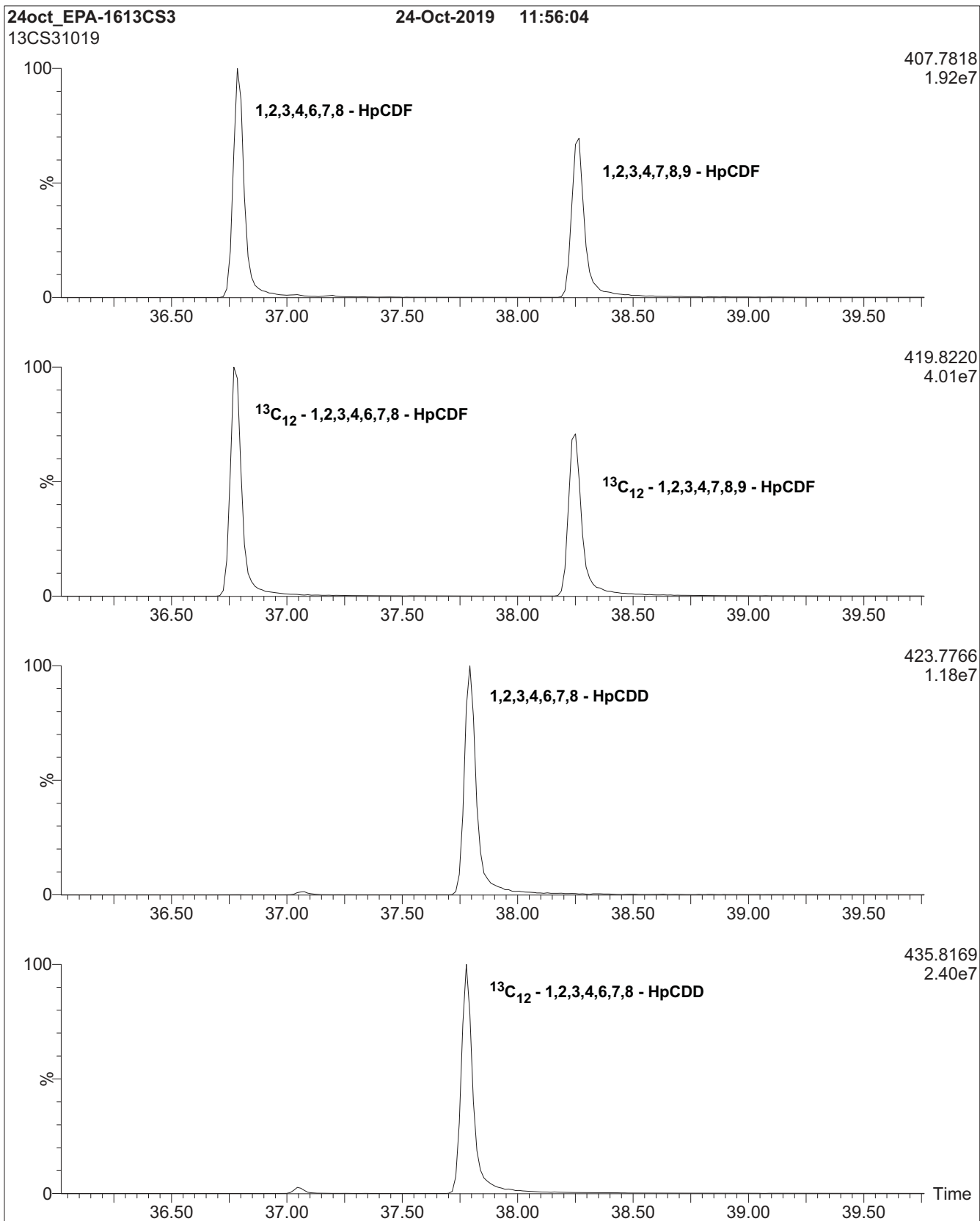
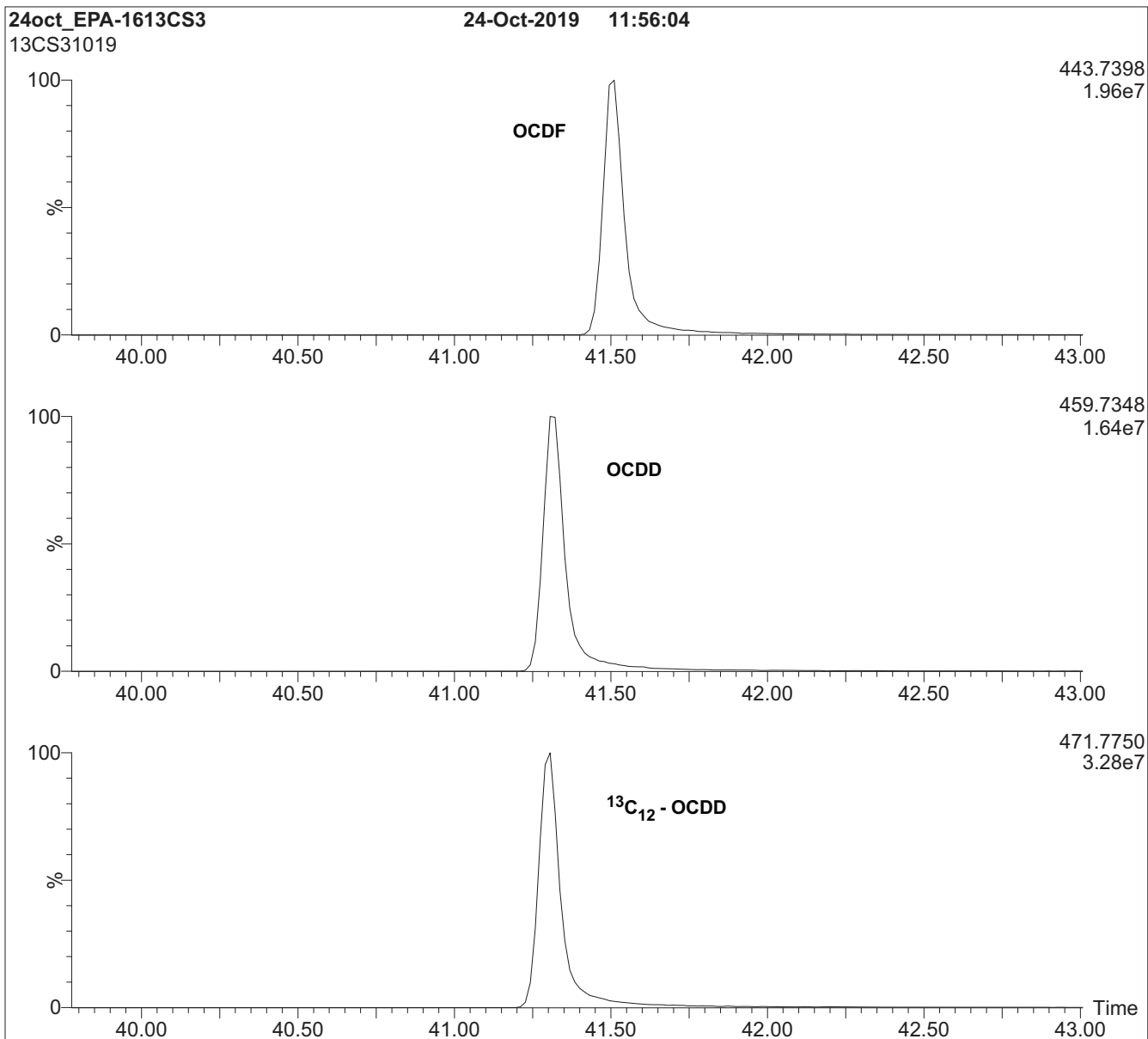


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613PAR

**U.S. EPA Method 1613 Native PCDD/PCDF
Precision and Recovery Stock Solution**

PRODUCT CODE: EPA-1613PAR
LOT NUMBER: 13PAR1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/25/2021
LAST TESTED: (mm/dd/yyyy) 11/03/2021
EXPIRY DATE: (mm/dd/yyyy) 11/03/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

J013397
Rec'd. JR
12/20/21

DESCRIPTION:

EPA-1613PAR is a solution/mixture of all the 2,3,7,8-substituted polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613PAR was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual PCDDs and PCDFs all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

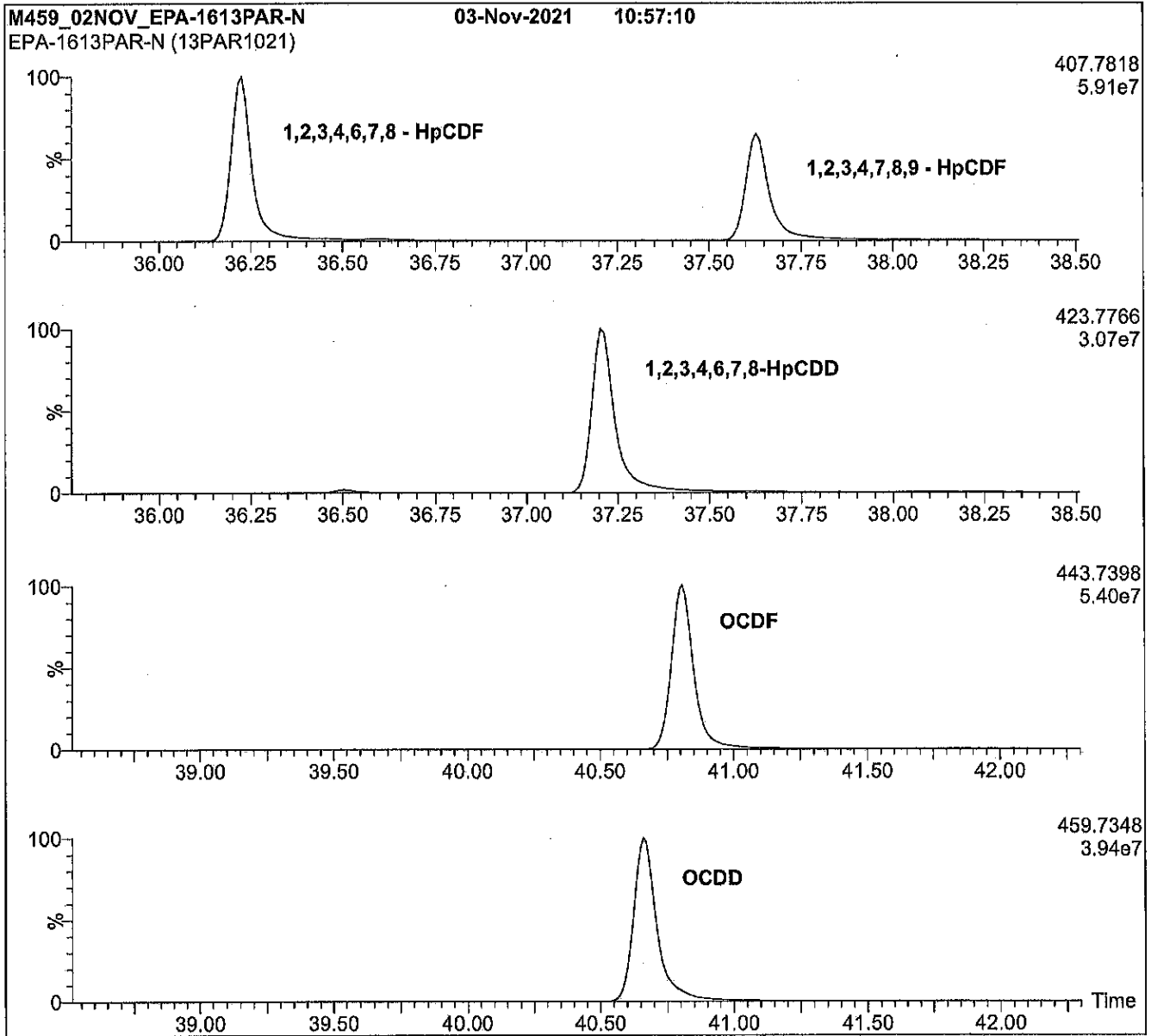
Table A: EPA-1613PAR; Components and Concentrations (ng/mL, ± 5% in nonane/2.4% toluene)

Compound	Acronym	CAS #	Concentration (ng/mL)
PCDDs:			
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	2,3,7,8-TCDD	1746-01-6	40.0
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8-PeCDD	40321-76-4	200
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,7,8-HxCDD	39227-28-6	200
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,6,7,8-HxCDD	57653-85-7	200
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8,9-HxCDD	19408-74-3	200
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,6,7,8-HpCDD	35822-46-9	200
Octachlorodibenzo- <i>p</i> -dioxin	OCDD	3268-87-9	400
PCDFs:			
2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	51207-31-9	40.0
1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF	57117-41-6	200
2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF	57117-31-4	200
1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF	70648-26-9	200
1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF	57117-44-9	200
1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF	72918-21-9	200
2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF	60851-34-5	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF	67562-39-4	200
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF	55673-89-7	200
Octachlorodibenzofuran	OCDF	39001-02-0	400

Certified By: 
 B.G. Chittim, General Manager

Date: 11/05/2021
(mm/dd/yyyy)

Figure 1: EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven:
Injector:	280°C (Splitless Injection)	150°C (1 min)
Ionization:	EI+	12°C/min to 200°C
Detector:	280°C	3°C/min to 235°C
	SIR at 10,000 mass resolving power	235°C (8 min)
		8°C/min to 310°C
		310°C (8 min)



EPA-1613PAR

**U.S. EPA Method 1613 Native PCDD/PCDF
Precision and Recovery Stock Solution**

PRODUCT CODE: EPA-1613PAR
LOT NUMBER: 13PAR1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/25/2021
LAST TESTED: (mm/dd/yyyy) 11/03/2021
EXPIRY DATE: (mm/dd/yyyy) 11/03/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

J013397
Rec'd. JR
12/20/21

DESCRIPTION:

EPA-1613PAR is a solution/mixture of all the 2,3,7,8-substituted polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613PAR was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual PCDDs and PCDFs all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: EPA-1613PAR; Components and Concentrations (ng/mL, ± 5% in nonane/2.4% toluene)

Compound	Acronym	CAS #	Concentration (ng/mL)
PCDDs:			
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	2,3,7,8-TCDD	1746-01-6	40.0
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8-PeCDD	40321-76-4	200
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,7,8-HxCDD	39227-28-6	200
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,6,7,8-HxCDD	57653-85-7	200
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8,9-HxCDD	19408-74-3	200
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,6,7,8-HpCDD	35822-46-9	200
Octachlorodibenzo- <i>p</i> -dioxin	OCDD	3268-87-9	400
PCDFs:			
2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	51207-31-9	40.0
1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF	57117-41-6	200
2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF	57117-31-4	200
1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF	70648-26-9	200
1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF	57117-44-9	200
1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF	72918-21-9	200
2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF	60851-34-5	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF	67562-39-4	200
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF	55673-89-7	200
Octachlorodibenzofuran	OCDF	39001-02-0	400

Certified By: 
 B.G. Chittim, General Manager

Date: 11/05/2021
(mm/dd/yyyy)

Figure 1: EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)

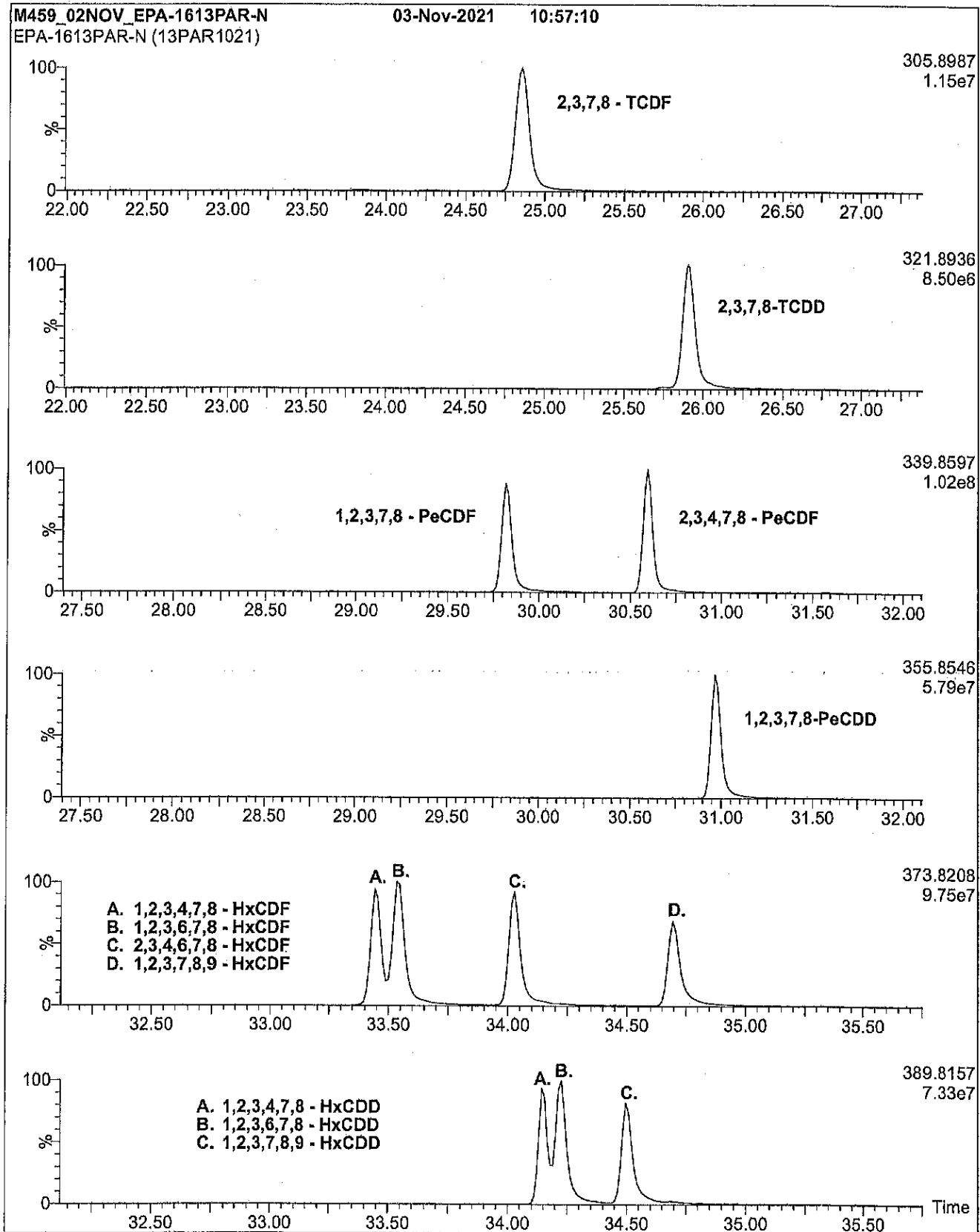
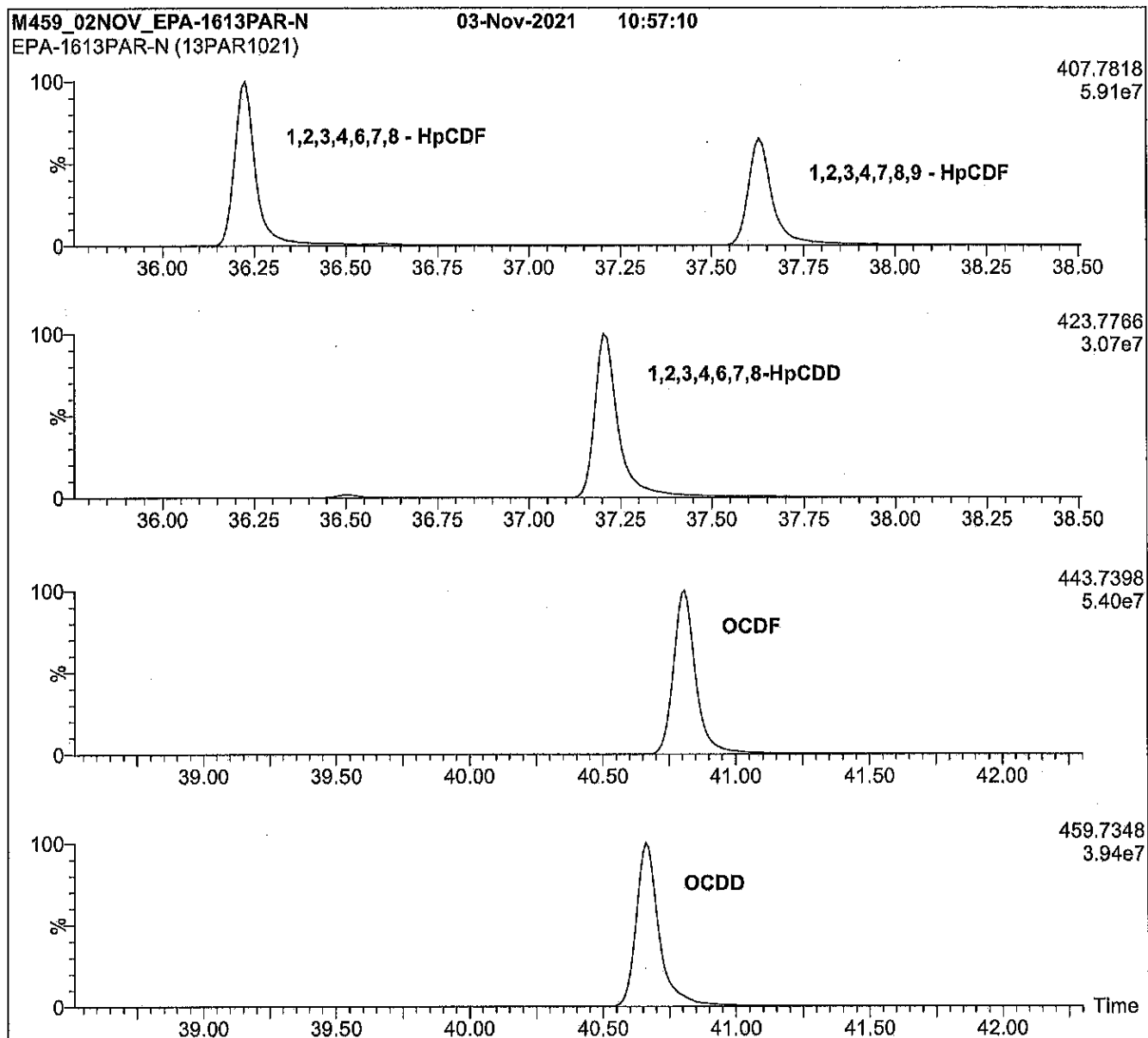


Figure 1: EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven: 150°C (1 min)
Injector:	280°C (Splitless Injection)	12°C/min to 200°C
Ionization:	EI+	3°C/min to 235°C
Detector:	280°C	235°C (8 min)
	SIR at 10,000 mass resolving power	8°C/min to 310°C
		310°C (8 min)



K9821

CS3WT

**Calibration and Verification Solution (EPA-1613CS3)
combined with Window Defining and 2,3,7,8-TCDD
Resolution Testing Congeners**

PRODUCT CODE: CS3WT
LOT NUMBER: CS3WT1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 11/01/2021
LAST TESTED: (mm/dd/yyyy) 11/02/2021
EXPIRY DATE: (mm/dd/yyyy) 11/02/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

CS3WT is a solution/mixture of native (¹²C₁₂) and mass-labelled (¹³C₁₂) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Tables A and B.

CS3WT is an HRGC/HRMS calibration solution that was designed and prepared to be used according to U.S. EPA Method 1613, Revision B, in place of EPA-1613CS3 (lot: 13CS31021). Additionally, it contains the PCDD and PCDF isomers required to set retention time windows as well as test and establish isomer specificity for 2,3,7,8-TCDD on a DB-5 (or equivalent) capillary column.

The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-(³⁷Cl₄)tetrachlorodibenzo-*p*-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%. The individual native 2,3,7,8-substituted PCDD and PCDF congeners all have chemical purities of >98%; the other congeners (window defining and resolution testing) should only be considered semi-quantitative.

This current lot of CS3WT is to be used with the 1613 calibration solutions having the following lot numbers:

<u>PRODUCT CODE</u>	<u>LOT NUMBER</u>
EPA-1613CS1	13CS11021
EPA-1613CS2	13CS21021
EPA-1613CS3	13CS31021
EPA-1613CS4	13CS41021
EPA-1613CS5	13CS51021
EPA-1613CSL	13CSL1021
EPA-1613CS0.5	13CS0.51021

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) has been assigned to the quantitative components in this product. A maximum combined percent relative uncertainty of $\pm 20\%$ has been assigned to the semi-quantitative components in this product.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: CS3WT; Quantitative Components and Concentrations (ng/mL, ± 5%, in nonane/4.5% toluene)

Compound	Designation ^a	Acronym	CAS #	Concentration (ng/mL)
Native PCDDs:				
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin		2,3,7,8-TCDD	1746-01-6	10.0
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin		1,2,3,7,8-PeCDD	40321-76-4	50.0
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin		1,2,3,4,7,8-HxCDD	39227-28-6	50.0
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin		1,2,3,6,7,8-HxCDD	57653-85-7	50.0
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	Last HxCDD ^b	1,2,3,7,8,9-HxCDD	19408-74-3	50.0
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	Last HpCDD	1,2,3,4,6,7,8-HpCDD	35822-46-9	50.0
Octachlorodibenzo- <i>p</i> -dioxin		OCDD	3268-87-9	100
Native PCDFs:				
2,3,7,8-Tetrachlorodibenzofuran		2,3,7,8-TCDF	51207-31-9	10.0
1,2,3,7,8-Pentachlorodibenzofuran		1,2,3,7,8-PeCDF	57117-41-6	50.0
2,3,4,7,8-Pentachlorodibenzofuran		2,3,4,7,8-PeCDF	57117-31-4	50.0
1,2,3,4,7,8-Hexachlorodibenzofuran		1,2,3,4,7,8-HxCDF	70648-26-9	50.0
1,2,3,6,7,8-Hexachlorodibenzofuran		1,2,3,6,7,8-HxCDF	57117-44-9	50.0
1,2,3,7,8,9-Hexachlorodibenzofuran		1,2,3,7,8,9-HxCDF	72918-21-9	50.0
2,3,4,6,7,8-Hexachlorodibenzofuran		2,3,4,6,7,8-HxCDF	60851-34-5	50.0
1,2,3,4,6,7,8-Heptachlorodibenzofuran	First HpCDF ^c	1,2,3,4,6,7,8-HpCDF	67562-39-4	50.0
1,2,3,4,7,8,9-Heptachlorodibenzofuran	Last HpCDF	1,2,3,4,7,8,9-HpCDF	55673-89-7	50.0
Octachlorodibenzofuran		OCDF	39001-02-0	100
Mass-Labelled PCDDs:				
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -OCDD	114423-97-1	200
Mass-Labelled PCDFs:				
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	109719-94-0	100
Cleanup Standard:				
2,3,7,8-(³⁷ Cl ₄)Tetrachlorodibenzo- <i>p</i> -dioxin		³⁷ Cl ₄ -2,3,7,8-TCDD	85508-50-5	10.0
Internal Standards:				
1,2,3,4-Tetrachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,4-TCDD	114423-99-3	100
1,2,3,7,8,9-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	109719-82-6	100

^a First/Last eluting isomer for the specified homologue group (see Table B for additional Window Definers).

^{b,c} – see Table B for footnote.

Table B: CS3WT; Semi-Quantitative Components and Concentrations (ng/mL, ± 20%, in nonane/4.5% toluene)

Compound	Designation ^a	Acronym	CAS #	Concentration (ng/mL)
PCDD Window Definers:				
1,3,6,8-Tetrachlorodibenzo- <i>p</i> -dioxin	First TCDD	1,3,6,8-TCDD	33423-92-6	10.0
1,2,8,9-Tetrachlorodibenzo- <i>p</i> -dioxin	Last TCDD	1,2,8,9-TCDD	62470-54-6	10.0
1,2,4,6,8-/1,2,4,7,9-Pentachlorodibenzo- <i>p</i> -dioxin	First PeCDD	1,2,4,6,8-PeCDD	71998-76-0	50.0 ^d
		1,2,4,7,9-PeCDD	82291-37-0	
1,2,3,8,9-Pentachlorodibenzo- <i>p</i> -dioxin	Last PeCDD	1,2,3,8,9-PeCDD	71925-18-3	50.0
1,2,4,6,7,9-Hexachlorodibenzo- <i>p</i> -dioxin	First HxCDD	1,2,4,6,7,9-HxCDD	39227-62-8	50.0
1,2,3,4,6,7,9-Heptachlorodibenzo- <i>p</i> -dioxin	First HpCDD	1,2,3,4,6,7,9-HpCDD	58200-70-7	50.0
PCDF Window Definers:				
1,3,6,8-Tetrachlorodibenzofuran	First TCDF	1,3,6,8-TCDF	71998-72-6	10.0
1,2,8,9-Tetrachlorodibenzofuran	Last TCDF	1,2,8,9-TCDF	70648-22-5	10.0
1,3,4,6,8-Pentachlorodibenzofuran	First PeCDF	1,3,4,6,8-PeCDF	83704-55-6	50.0
1,2,3,8,9-Pentachlorodibenzofuran	Last PeCDF	1,2,3,8,9-PeCDF	83704-54-5	50.0
1,2,3,4,6,8-Hexachlorodibenzofuran	First HxCDF	1,2,3,4,6,8-HxCDF	69698-60-8	50.0
2,3,7,8-TCDD Resolution Testing Isomers:				
1,2,3,4-Tetrachlorodibenzo- <i>p</i> -dioxin		1,2,3,4-TCDD	30746-58-8	5.00
1,2,3,7-/1,2,3,8-Tetrachlorodibenzo- <i>p</i> -dioxin		1,2,3,7-TCDD	67028-18-6	5.00 ^d
		1,2,3,8-TCDD	53555-02-5	
1,2,3,9-Tetrachlorodibenzo- <i>p</i> -dioxin		1,2,3,9-TCDD	71669-26-6	10.0

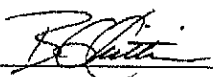
^a First/Last eluting isomer for the specified homologue group (see Table A for additional Window Definers).

^b 1,2,3,4,6,7-HxCDD (last eluting HxCDD) not included; coelutes with 1,2,3,7,8,9-HxCDD on a 60 m DB-5 column. Use 1,2,3,7,8,9-HxCDD (see Table A) and 1,2,3,4,6,7,9-HpCDD to approximate the end of the HxCDD window.

^c 1,2,3,4,8,9-HxCDF (last eluting HxCDF) not included; can interfere with 1,2,3,7,8,9-HxCDF on a 60 m DB-5 column. Use 1,2,3,4,6,7,8-HpCDF (see Table A) to approximate the end of the HxCDF window.

^d Total concentration of isomers.

Certified By: _____



B.G. Chittim, General Manager

Date: 11/05/2021

(mm/dd/yyyy)

Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

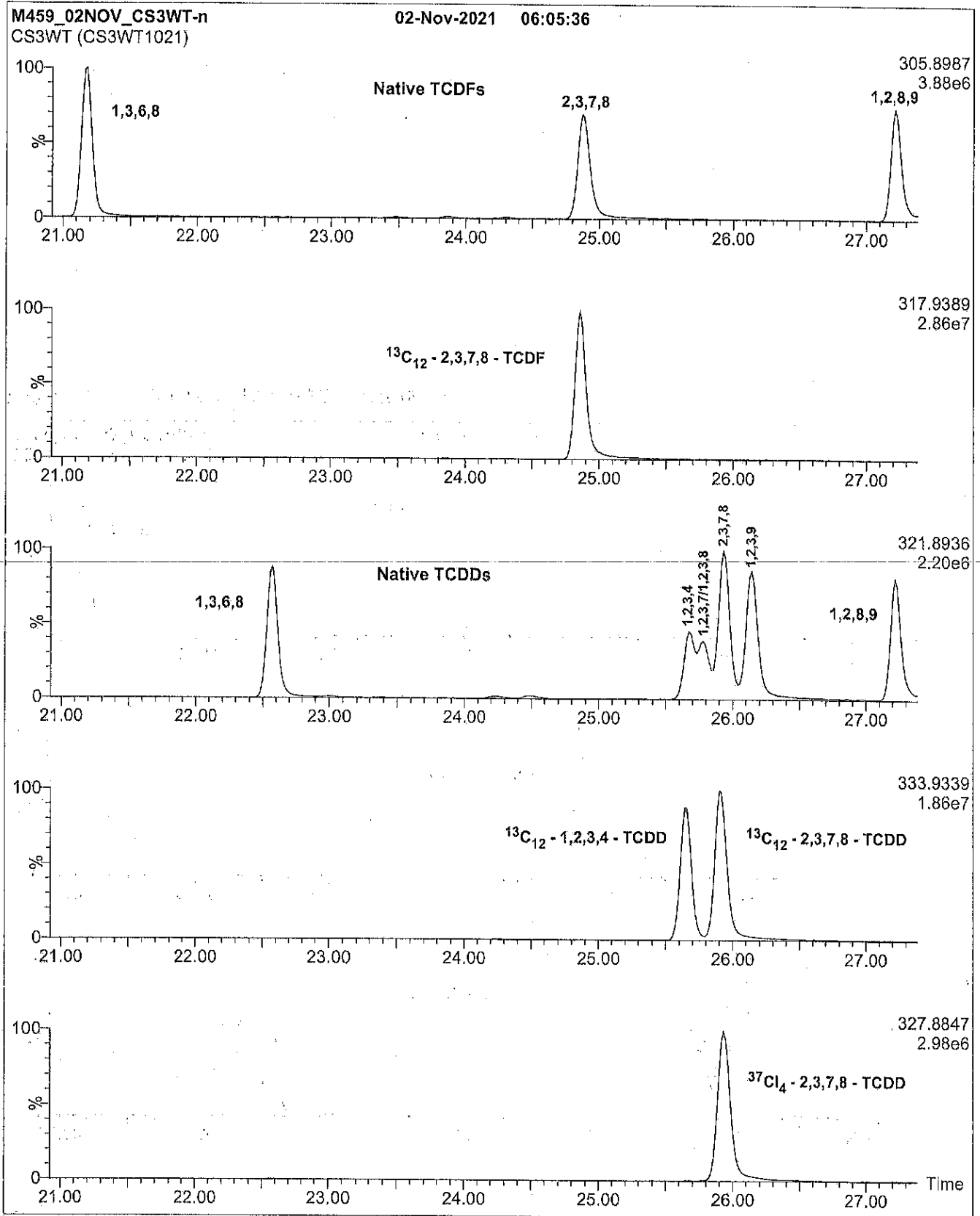


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

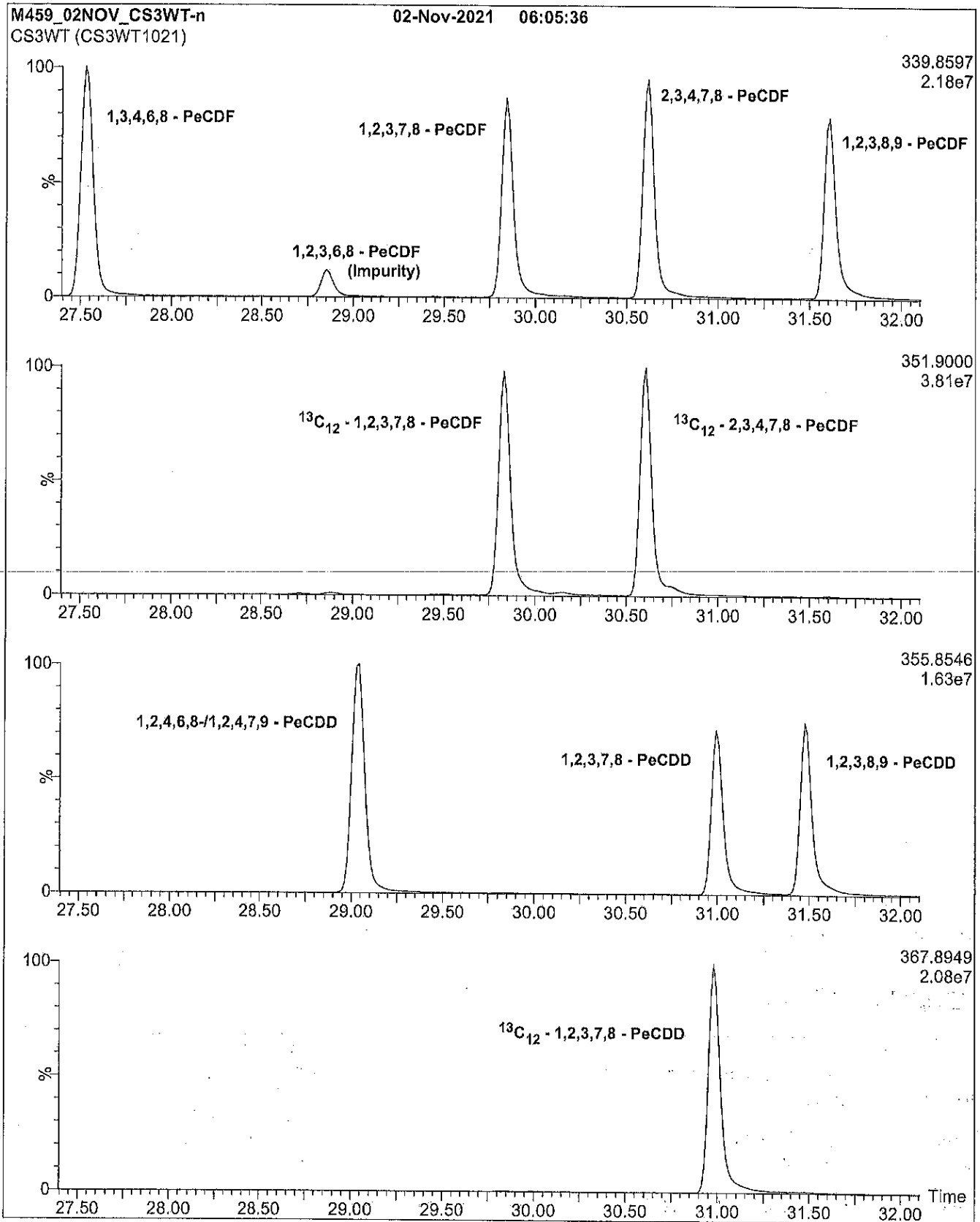


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

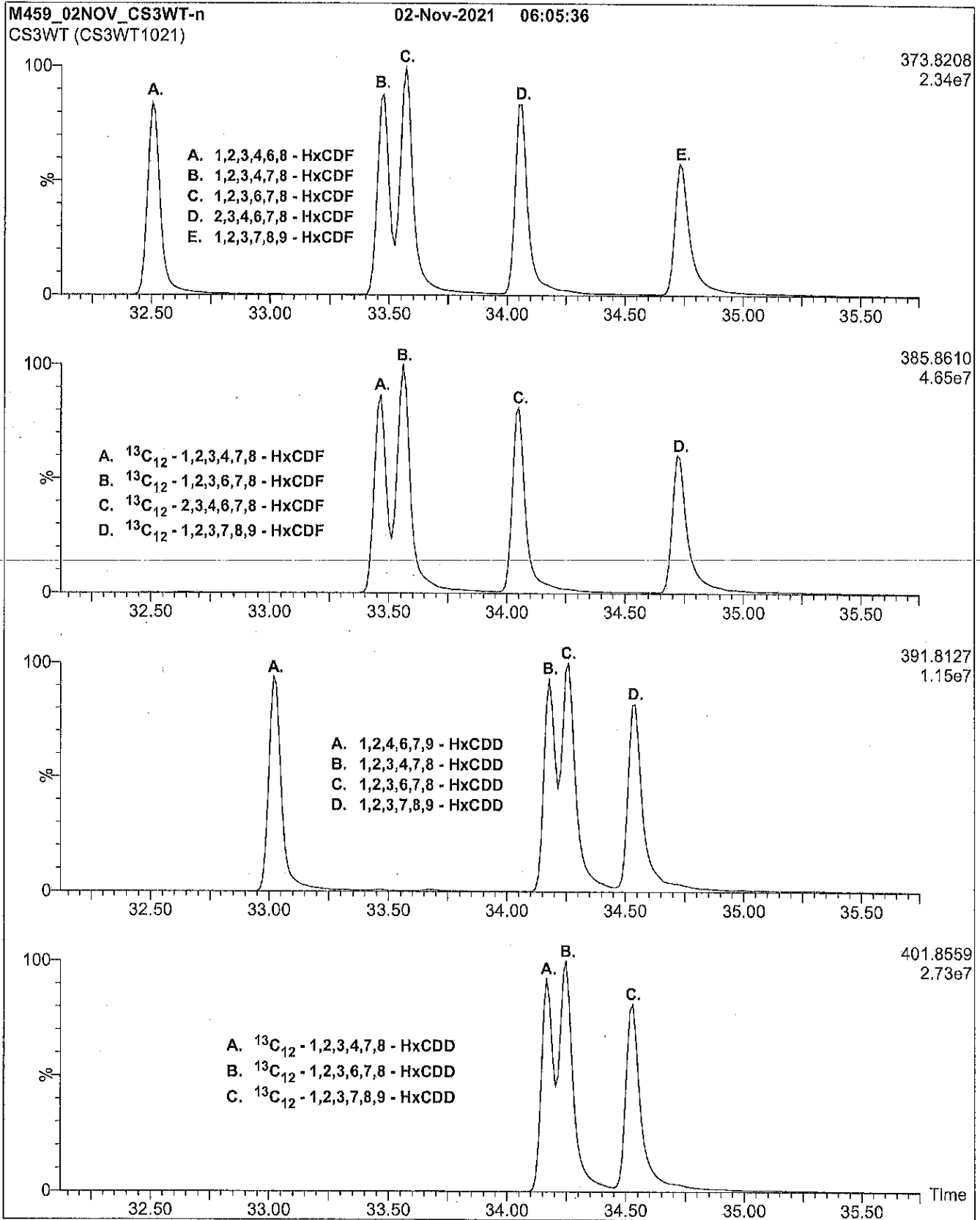


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

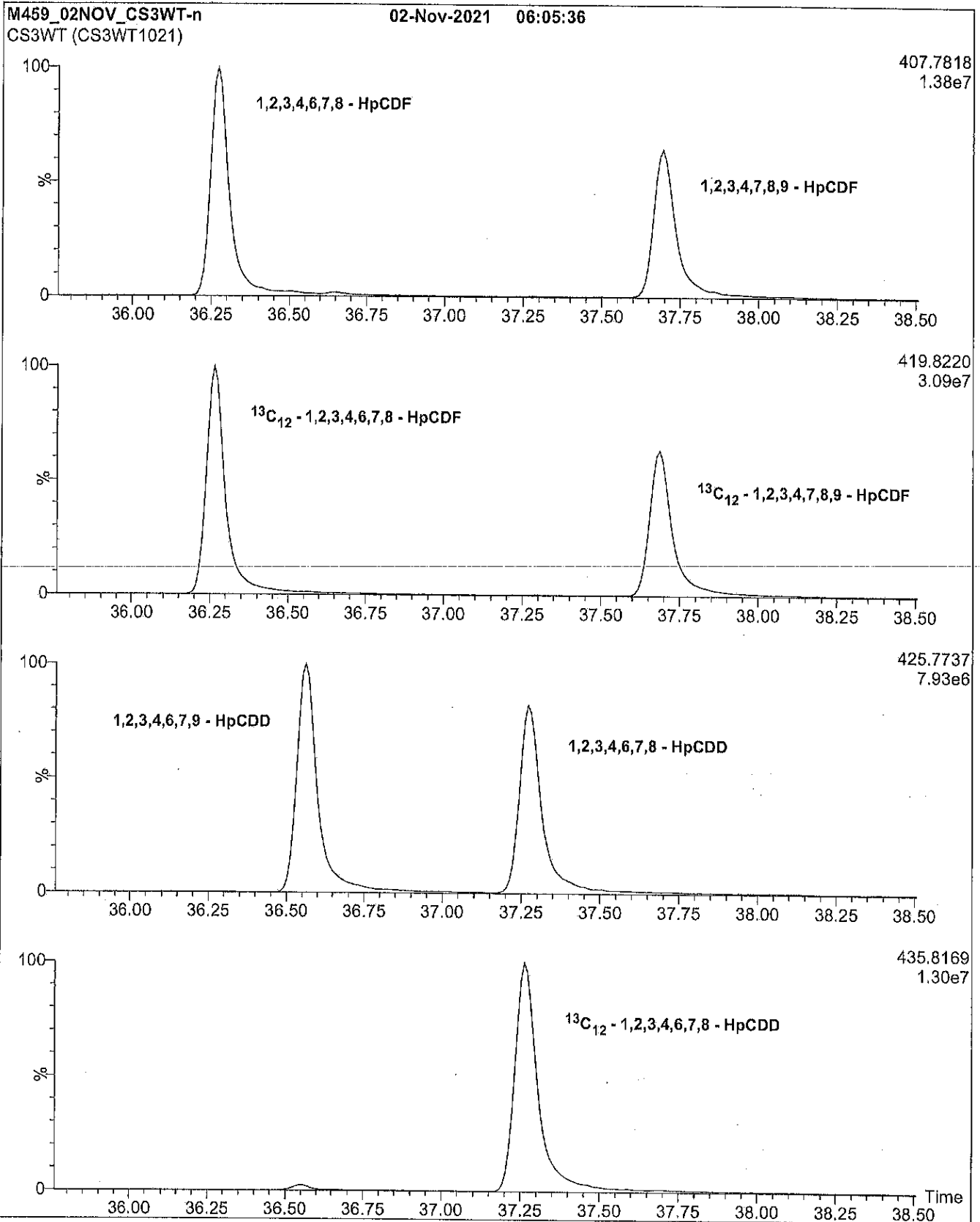
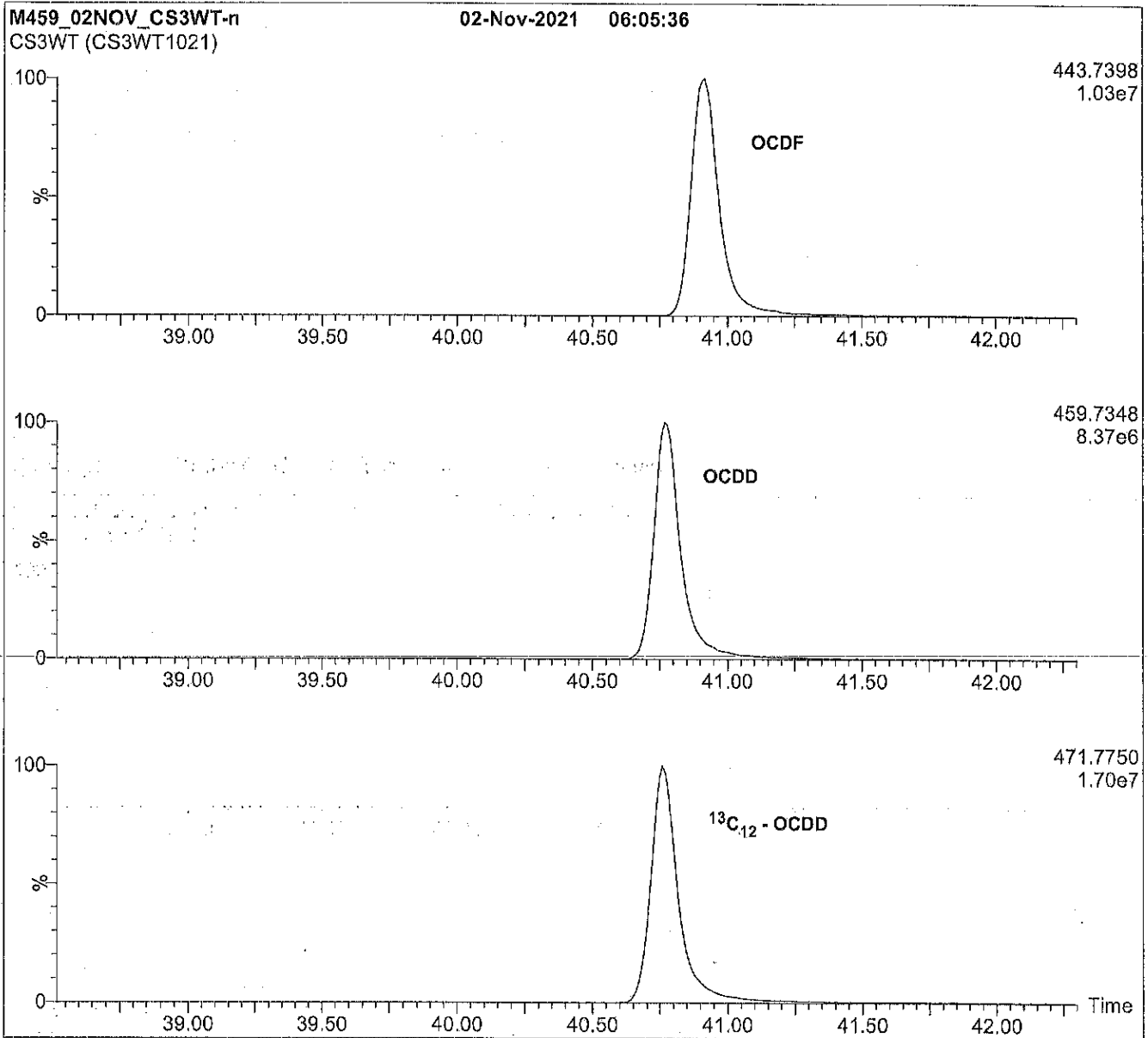


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 μm film thickness) Agilent J&W

Flow: Constant at 1.4 mL/min
Injector: 280°C (Splitless Injection)

Ionization: EI+
Detector: 280°C

SIR at 10,000 mass resolving power

Oven: 150°C (1 min)
12°C/min to 200°C
3°C/min to 235°C
235°C (8 min)
8°C/min to 310°C
310°C (8 min)



EPA-1613LCS

**U.S. EPA Method 1613
Labelled Compound Stock Solution**

PRODUCT CODE: EPA-1613LCS
LOT NUMBER: 13LCS1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/29/2021
LAST TESTED: (mm/dd/yyyy) 10/31/2021
EXPIRY DATE: (mm/dd/yyyy) 10/31/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

K 9985
JK Reed
10/27/22

DESCRIPTION:

EPA-1613LCS is a solution/mixture of mass-labelled ($^{13}\text{C}_{12}$) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613LCS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual ^{13}C -labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of $\geq 99\%$.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

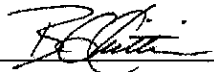
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: EPA-1613LCS; Components and Concentrations (ng/mL, ± 5% in nonane/3.2% toluene)

Compound	Acronym	CAS #	Concentration (ng/mL)
Mass-Labelled PCDDs:			
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -OCDD	114423-97-1	200
Mass-Labelled PCDFs:			
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	109719-94-0	100

Certified By: 
 B.G. Chittim, General Manager

Date: 11/05/2021
(mm/dd/yyyy)

Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

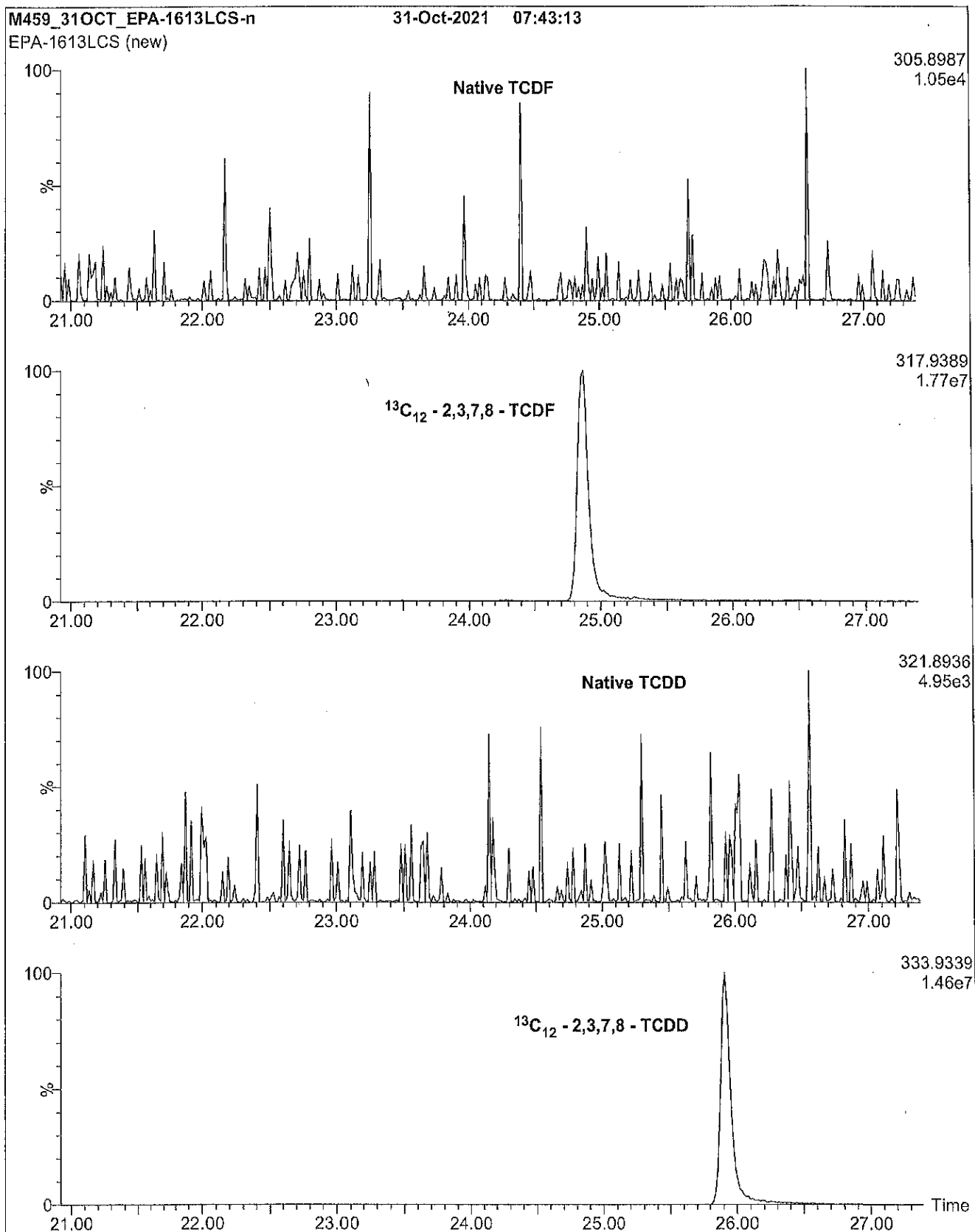


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

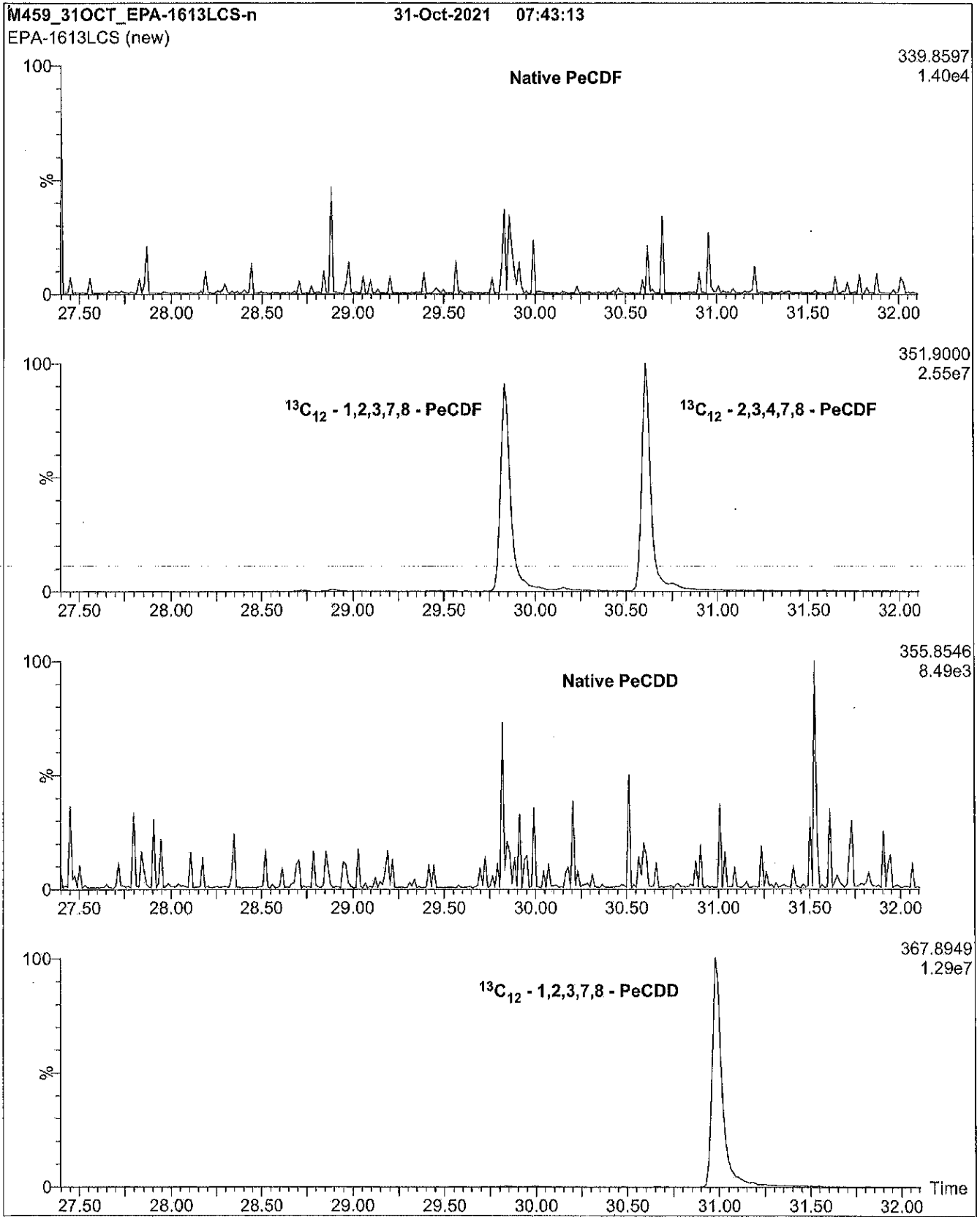


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

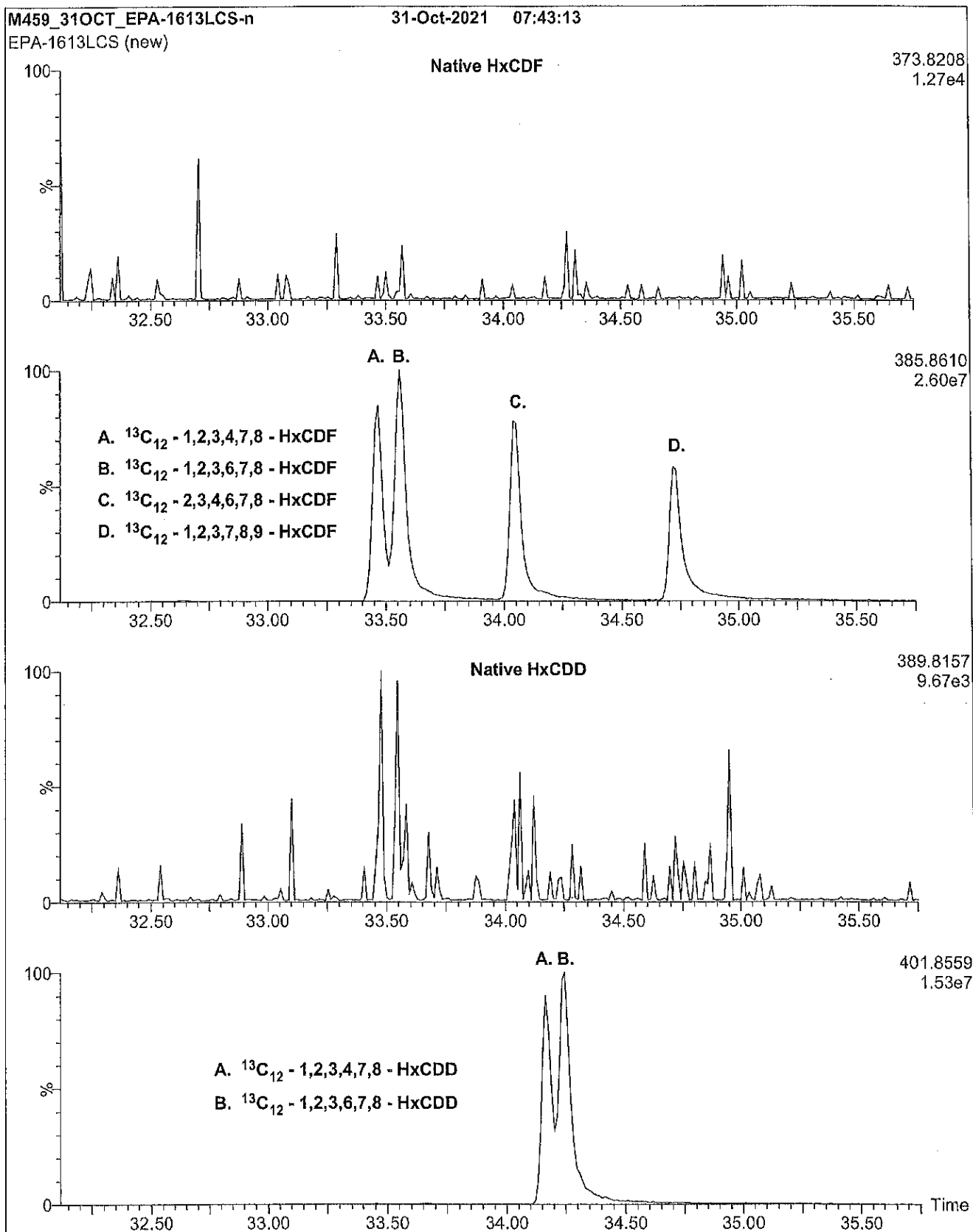


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

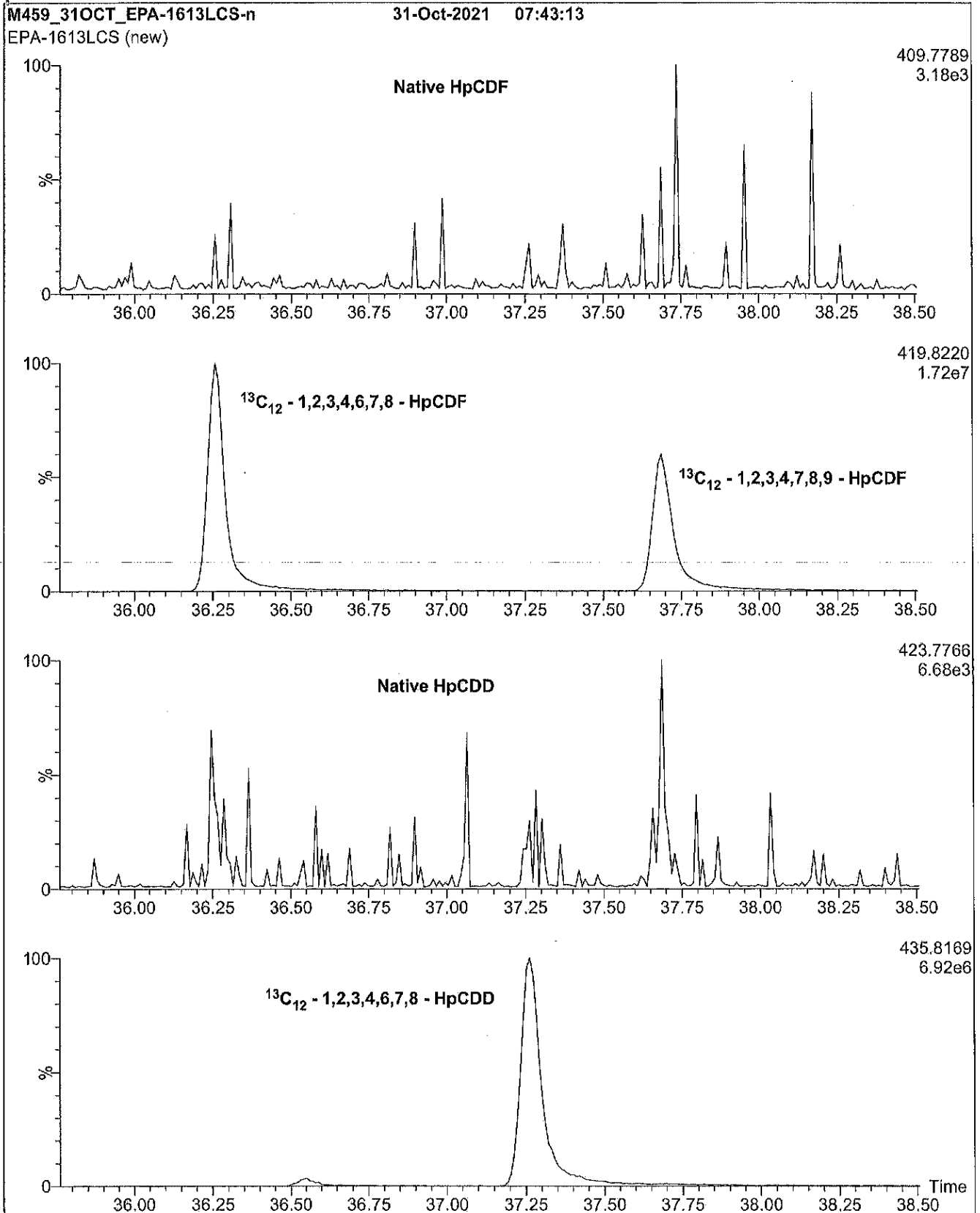
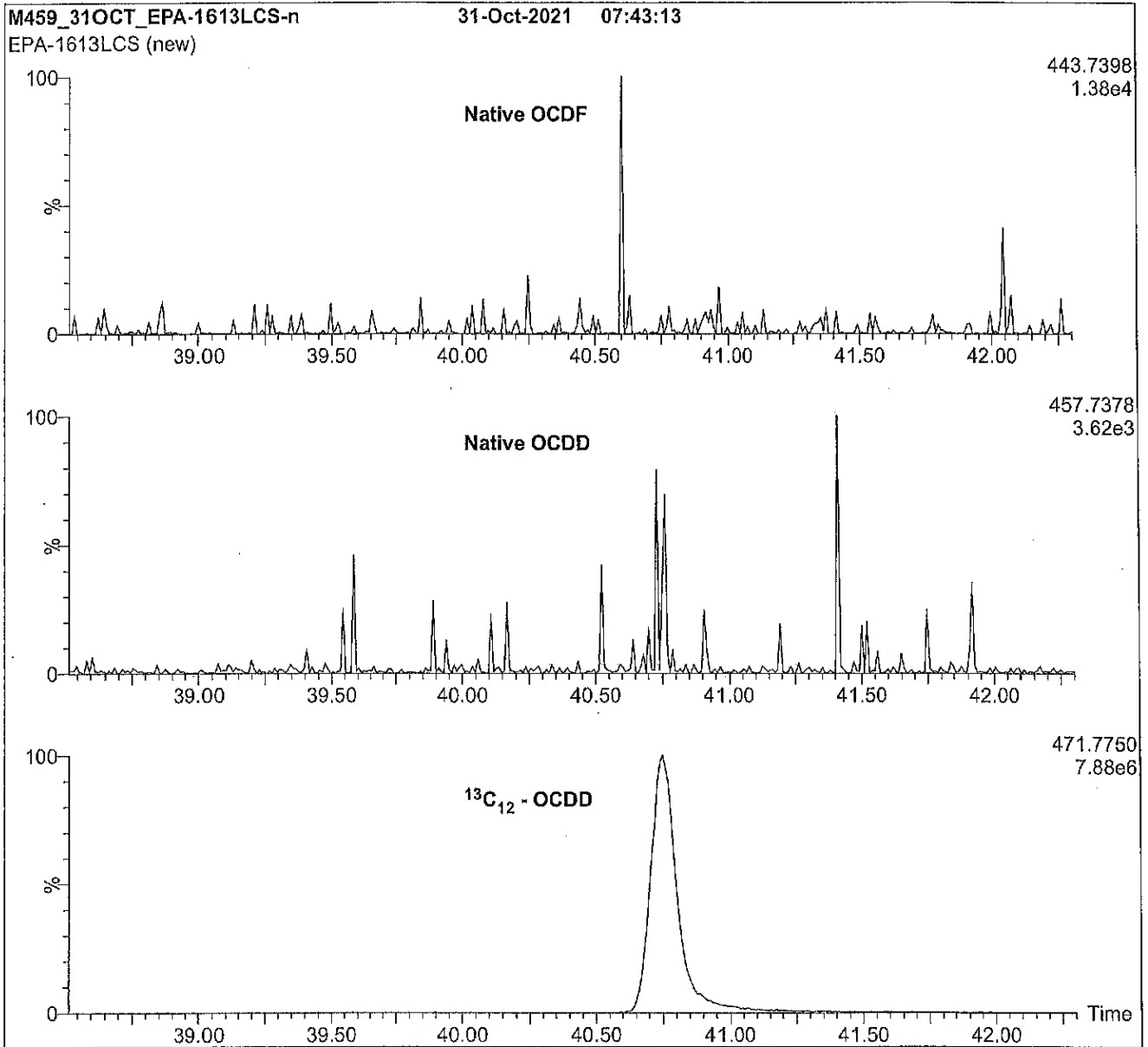


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
 Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 μm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven: 150°C (1 min)
Injector:	280°C (Splitless Injection)	12°C/min to 200°C
Ionization:	Ei+	3°C/min to 235°C
Detector:	280°C	235°C (8 min)
	SIR at 10,000 mass resolving power	8°C/min to 310°C
		310°C (8 min)



EPA-1613CSS

**U.S. EPA Method 1613 Cleanup Standard
Spiking Solution**

PRODUCT CODE: EPA-1613CSS
LOT NUMBER: 13CSS1021
SOLVENT(S): Nonane
DATE PREPARED: (mm/dd/yyyy) 10/29/2021
LAST TESTED: (mm/dd/yyyy) 10/31/2021
EXPIRY DATE: (mm/dd/yyyy) 10/31/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

*K 9986
Recd. JK
10/27/22*

DESCRIPTION:

EPA-1613CSS contains 2,3,7,8-(³⁷Cl₄)tetrachlorodibenzo-*p*-dioxin at the concentration given in Table A.
 EPA-1613CSS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.
 2,3,7,8-(³⁷Cl₄)Tetrachlorodibenzo-*p*-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution
 Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

Table A: EPA-1613CSS; Components and Concentrations (ng/mL, ± 5% in nonane)

Compound	Acronym	CAS #	Concentration (ng/mL)
2,3,7,8-(³⁷ Cl ₄)Tetrachlorodibenzo- <i>p</i> -dioxin	³⁷ Cl ₄ -2,3,7,8-TCDD	85508-50-5	40.0

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager
 Date: 11/05/2021
(mm/dd/yyyy)

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

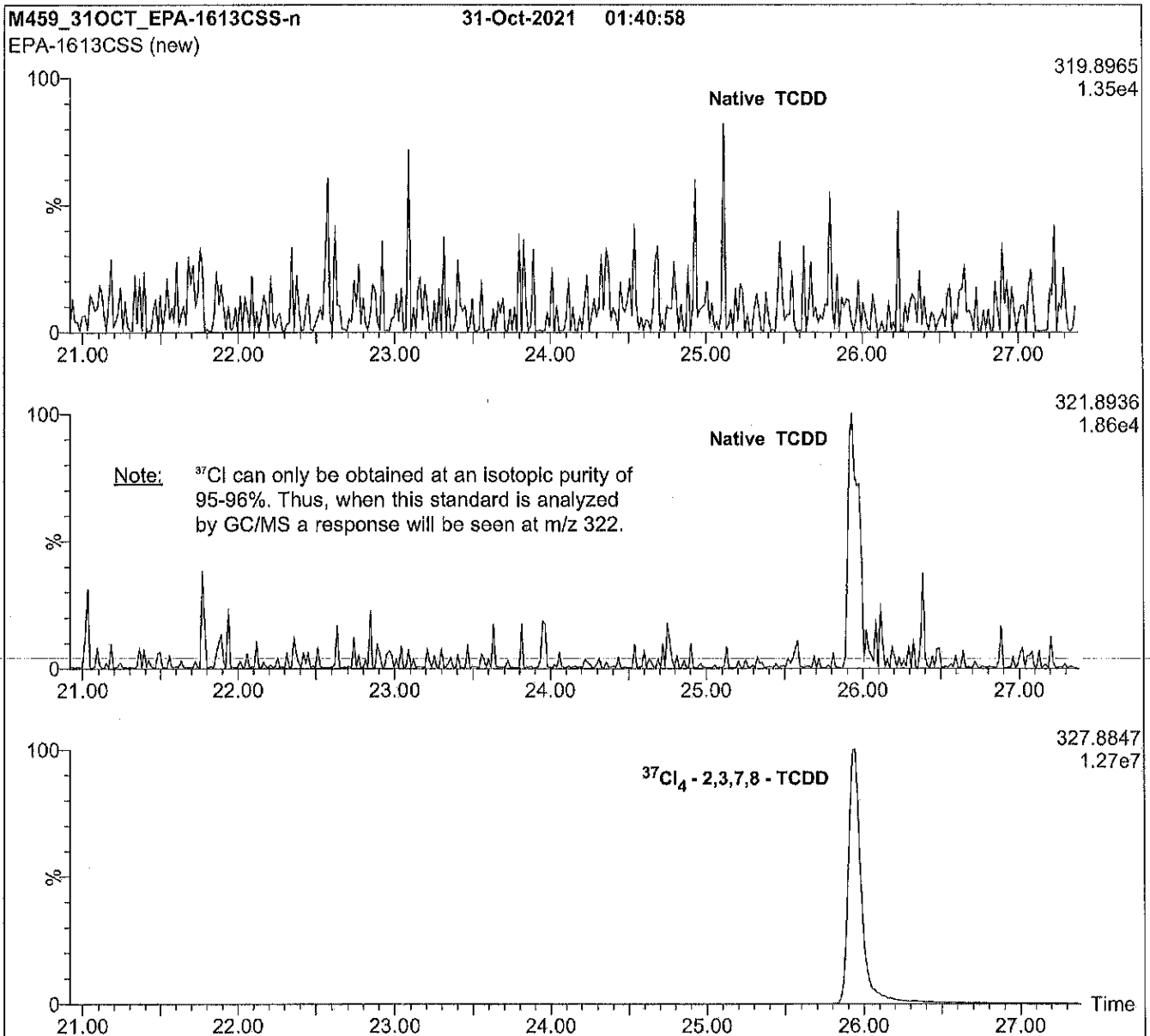
QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: EPA-1613CSS; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven: 150°C (1 min)
Injector:	280°C (Splitless Injection)	12°C/min to 200°C
Ionization:	EI+	3°C/min to 235°C
Detector:	280°C	235°C (8 min)
	SIR at 10,000 mass resolving power	8°C/min to 310°C
		310°C (8 min)



EPA-1613LCS

U.S. EPA Method 1613
Labelled Compound Stock Solution

PRODUCT CODE: EPA-1613LCS
LOT NUMBER: 13LCS1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/29/2021
LAST TESTED: (mm/dd/yyyy) 10/31/2021
EXPIRY DATE: (mm/dd/yyyy) 10/31/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

L 1259

DESCRIPTION:

EPA-1613LCS is a solution/mixture of mass-labelled ($^{13}\text{C}_{12}$) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613LCS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual ^{13}C -labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of $\geq 99\%$.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: EPA-1613LCS; Components and Concentrations (ng/mL, ± 5% in nonane/3.2% toluene)

Compound	Acronym	CAS #	Concentration (ng/mL)
Mass-Labelled PCDDs:			
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -OCDD	114423-97-1	200
Mass-Labelled PCDFs:			
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	109719-94-0	100

Certified By: 
 B.G. Chittim, General Manager

Date: 11/05/2021
(mm/dd/yyyy)

Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

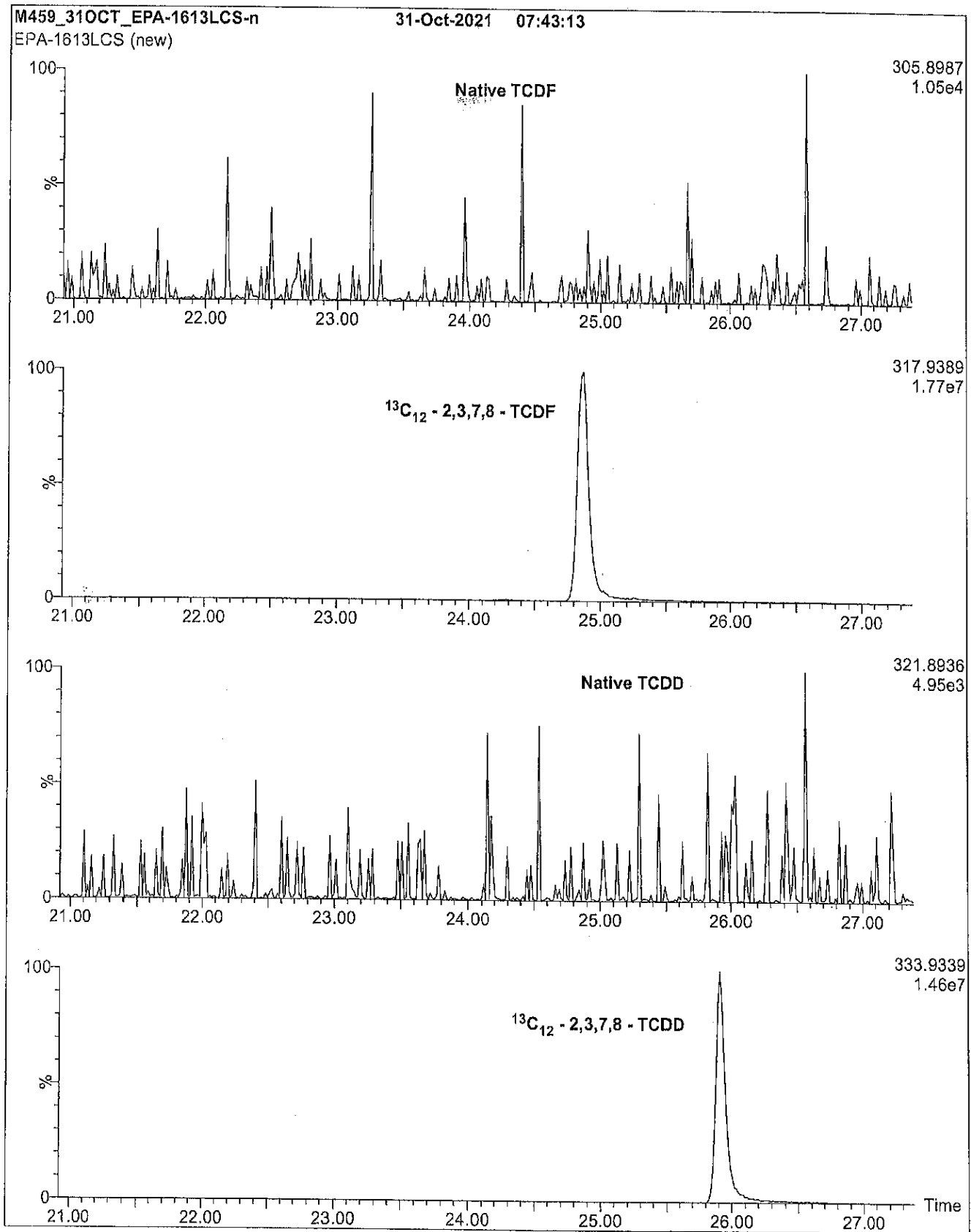


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

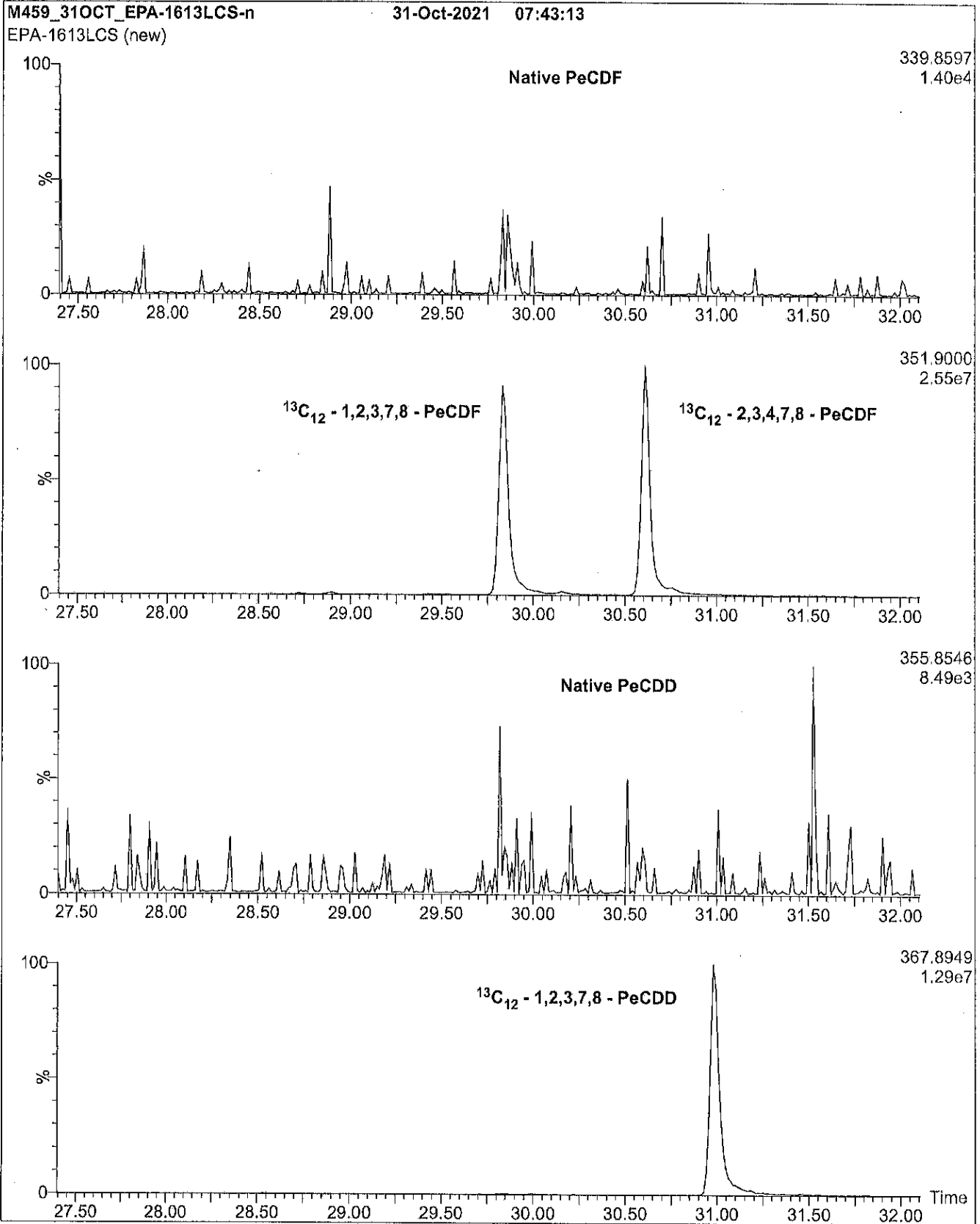


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

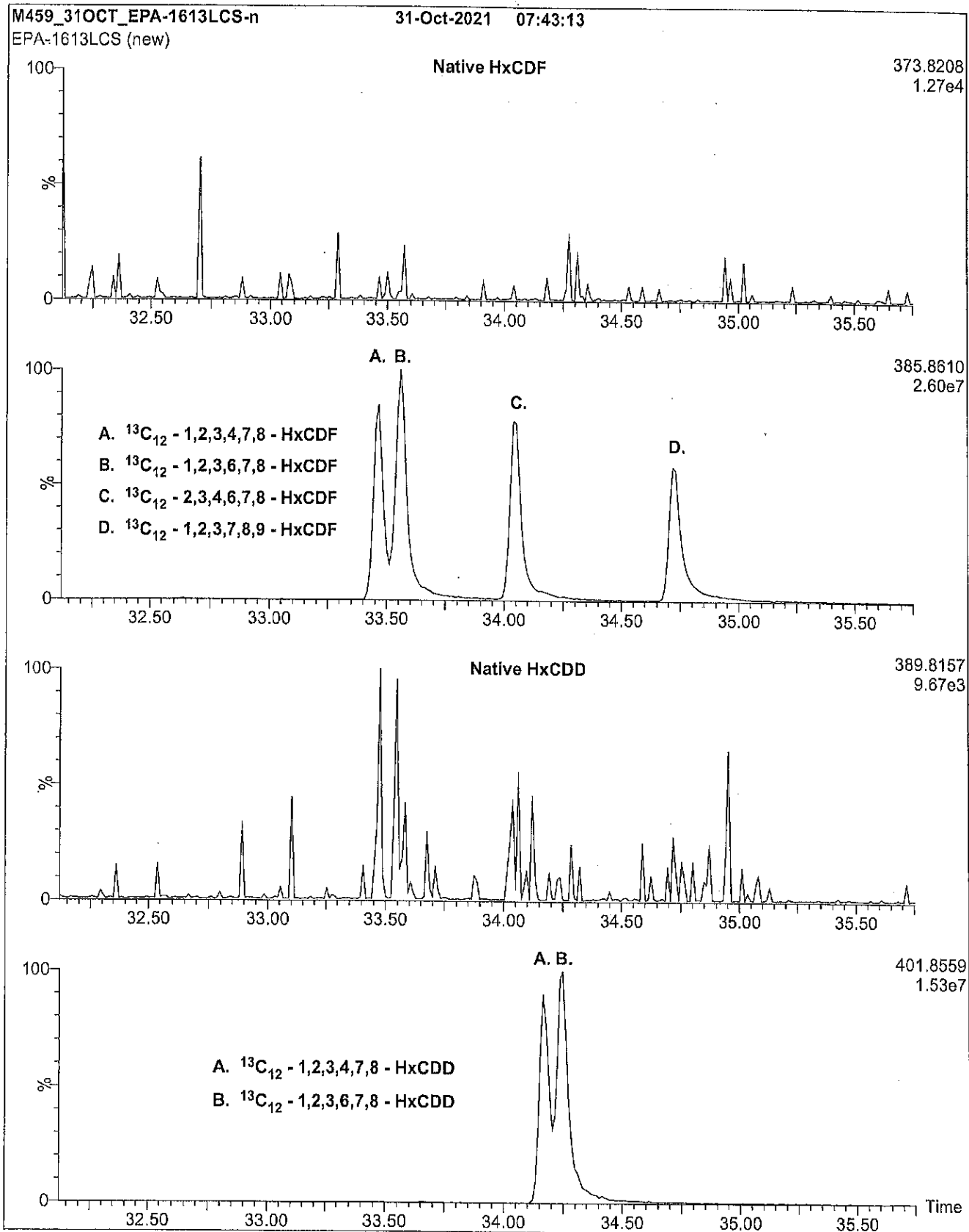


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

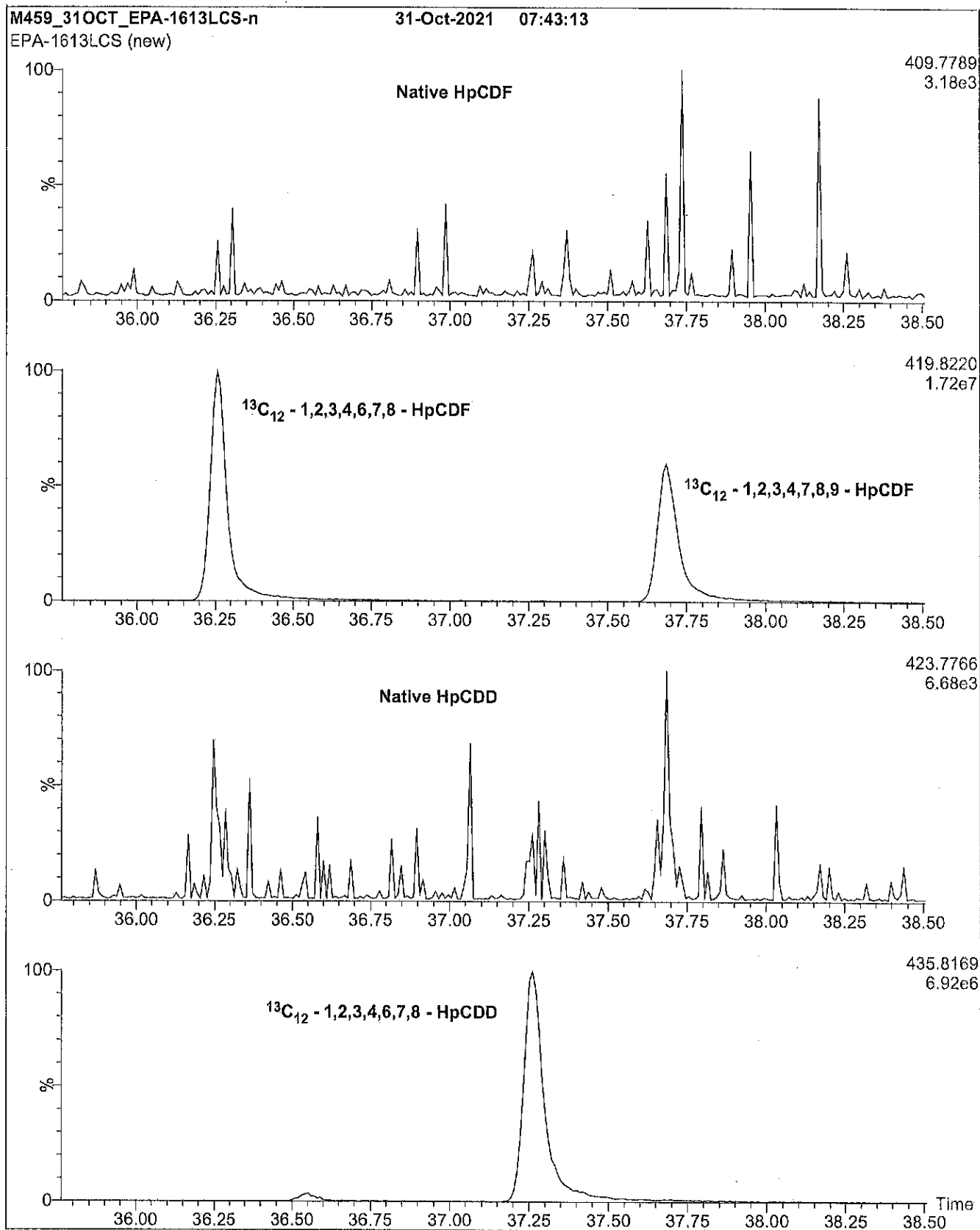
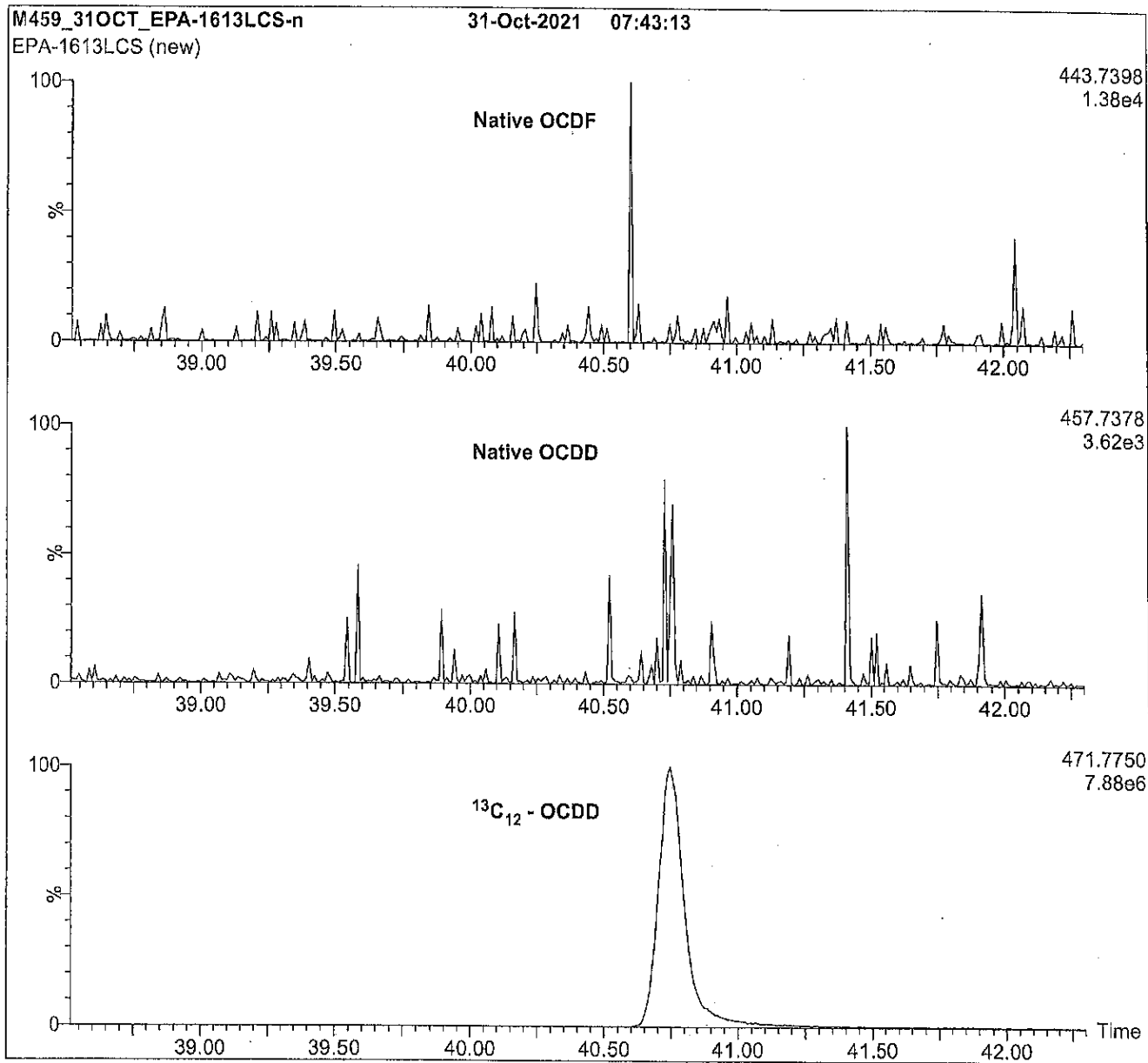


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow:	Constant at 1.4 mL/min	Oven:	150°C (1 min)
Injector:	280°C (Splitless Injection)		12°C/min to 200°C
Ionization:	El+		3°C/min to 235°C
Detector:	280°C		235°C (8 min)
	SIR at 10,000 mass resolving power		8°C/min to 310°C
			310°C (8 min)

Recipient Copy

CHAIN-OF-CUSTODY RECORD

COC No. 15600

Order Number: CB015015

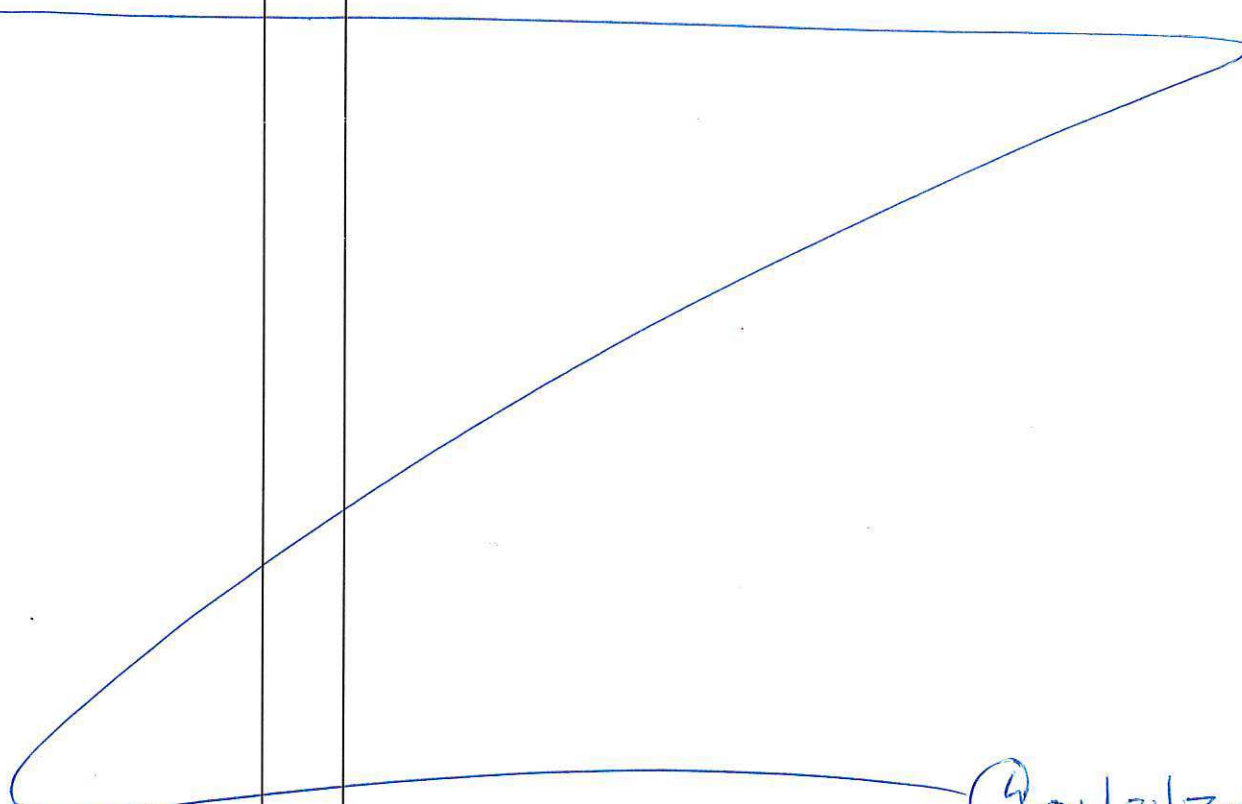
Date Shipped: 1/31/2023

AirBill No(s):

From: QATS LABORATORY
2700 CHANDLER AVENUE, BLDG. B
LAS VEGAS, NV 89120
PHONE: 1-702-895-8712

To: SUE DUNNIHOO
ANALYTICAL RESOURCES INC.
4611 S. 134TH PLACE SUITE 100
TUKWILA WA 98168
250-695-6207

633163298570

Sample ID	Qty	Description/Remarks	→ Catalogue Number
PSRM0172 - L&A1273	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0173 - L&A1274	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0174 - L&A1274 ^{JS} - 1/31/23 L&A1275	1	PUGET SOUND SEDIMENT RM	PS-SRM
			
PUGET SOUND SRM FOR THE DUWAMISH AOC5 PROJECT			

④ 01/31/2023

Please use the enclosed Sample Preparation Instructions. If catalogue number(s) are listed at the top of the Sample Preparation Instructions use the Sample Preparation Instructions with catalogue number(s) matching the catalogue number(s) of each of the samples listed above.

Relinquished by: (Signature) <i>[Signature]</i>	Date/Time (1400) 01/31/2023	Received by: <i>Jacob Shaker</i> (Signature) <i>[Signature]</i>	Date/Time 02/06/23 1415
Custody Seal(s): <u>Present</u> /Absent	Remarks:		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time



Analytical Standard Record
Standard ID: L002084

Printed: 3/2/2023 8:59:18AM

Description:	Dioxin ISC Mix	Expires:	24-Feb-2024
Standard Type:	Other	Prepared:	24-Feb-2023
Solvent:	Nonane	Prepared By:	Peter Kepler
Final Volume (mls):	1	Department:	HRGCMS
Vials:	1	Last Edit:	24-Feb-2023 11:19 by PK
Vendor:	NA	Lot #:	1234
Vendor Catalog #:			

Comments

Stock: H9902: 2378-TCDF, 3467-TCDF, 2348-TCDF, 1278-TCDD, 2378-TCDD. each @ 1000 ng/mL

10 ul to 1 mL FV in Nonane. Final Conc = 10 ng/mL. Analytes and units not available in Element.

Analyte	CAS Number	Concentration	Units
2,3,7,8-TCDF	51207-31-9	10	ug/mL
2,3,7,8-TCDD	1746-01-6	10	ug/mL



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B
Total Metals

LDW23-SS1804

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-01 C SDG: 23D0136
 Sampled: 04/05/23 11:45 Prepared: 04/28/23 15:38 File ID: XDT_m1230511-125
 % Solids: 47.25 Preparation: SWN EPA 3050B Analyzed: 05/11/23 22:35
 Batch: BLD0687 Sequence: SLE0209 Initial/Final: 1.003 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GE00042

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	29.6	20	0.55	1.05	
7439-92-1	Lead	32.4	20	0.11	0.21	
7440-22-4	Silver	0.33	20	0.05	0.42	J



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B
Total Metals

LDW23-SS1803

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-03 C SDG: 23D0136
 Sampled: 04/05/23 16:05 Prepared: 04/28/23 15:38 File ID: XDT_m1230511-126
 % Solids: 48.35 Preparation: SWN EPA 3050B Analyzed: 05/11/23 22:40
 Batch: BLD0687 Sequence: SLE0209 Initial/Final: 1.002 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GE00042

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	29.9	20	0.54	1.03	
7439-92-1	Lead	30.4	20	0.11	0.21	
7440-22-4	Silver	0.33	20	0.05	0.41	J



PREPARATION BATCH SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0687 Batch Matrix: Solid

Preparation: SWN EPA 3050B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	XDT_m1230511-125	04/28/23 15:38	
LDW23-SS1803	23D0136-03	XDT_m1230511-126	04/28/23 15:38	
Blank	BLD0687-BLK1	XDT_m1230509a-069	04/28/23 15:38	
Blank	BLD0687-BLK2	XDT_m1230510A-031	04/28/23 15:38	Added 5/11/2023 by MCB
LCS	BLD0687-BS1	XDT_m1230509a-070	04/28/23 15:38	
LCS	BLD0687-BS2	XDT_m1230510A-033	04/28/23 15:38	Added 5/11/2023 by MCB



Digestion Log

Analyst: AR Date: 04/28/23 Time: 1016-1538 Balance ID: 3AL10
Matrix: soil Block ID: 16 Block Temp: 96C Thermometer: 20-4

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWW</u>		Prep Code:		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
23D136-01	C	|	1.003	50			
↓ -03	↓	|	1.002				
23D394-01	↓	|	1.018				
↓ -02	B	|	1.051				
↓ -03	↓	|	1.058				
↓ -04	C	|	1.065				
↓ -05		|	1.012				
↓ -06		|	1.074				
↓ -07		|	1.019				
↓ -08		|	1.039				
↓ -09		|	1.018				
↓ -10		|	1.036				
↓ -11	↓	|	1.033				
↓ -12	B	|	1.008				
↓ -13	C	|	1.087				
23D394-01	↓	|	1.033				
↓ -03	↓	|	1.020				
BLD087-blk	-	|	-				23D394-01
↓ -bs	-	|	-				↓
↓ -dup	-	|	1.016				
↓ -MS	-	|	1.019				
↓ -MSD	-	|	1.014				
23D37-02	D	|	1.063				
↓ -04	↓	|	1.012	↓			
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

Chemical/Reagent ID:

HNO₃: L4188 1:1 HNO₃: L4206 HCl: — H₂O₂: K1056
Tube Lot#: 221017 Boiling Chip Lot#: — (DoD Only)



Form I
METHOD BLANK DATA SHEET
EPA 6020B
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0687

Laboratory ID: BLD0687-BLK1

Prepared: 04/28/23 15:38

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 05/09/23 21:43

Sequence: SLE0163

Calibration: GE00034

Instrument: ICPMS1

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium-52	ND	20	0.26	0.50	U
7439-92-1	Lead-208	ND	20	0.05	0.10	U



Form I
METHOD BLANK DATA SHEET
EPA 6020B
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0687

Laboratory ID: BLD0687-BLK2

Prepared: 04/28/23 15:38

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 05/10/23 17:54

Sequence: SLE0204

Calibration: GE00040

Instrument: ICPMS1

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver-107	ND	20	0.02	0.20	U



LCS / LCS DUPLICATE RECOVERY

EPA 6020B

Total Metals

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Analyzed: 05/09/23 21:48

Batch: BLD0687

Laboratory ID: BLD0687-BS1

Preparation: SWN EPA 3050B

Sequence Name: LCS

Initial/Final: 1 g / 50 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Chromium-52	25.0	25.6		102	80 - 120
Lead-208	25.0	27.6		110	80 - 120

* Indicates values outside of QC limits

* Indicates values outside of QC limits



LCS / LCS DUPLICATE RECOVERY

EPA 6020B

Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/10/23 18:05</u>
Batch:	<u>BLD0687</u>	Laboratory ID:	<u>BLD0687-BS2</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>1 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Silver-107	25.0	25.1		101	80 - 120

* Indicates values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-ICV1	Chromium-52	50.000	49.9	99.8	ug/L	EPA 6020B
	Chromium-53	50.000	51.3	103	ug/L	EPA 6020B
	Lead-208	50.000	51.5	103	ug/L	EPA 6020B
	Silver-107	50.000	51.7	103	ug/L	EPA 6020B
SLE0163-CCV1	Chromium-52	50.000	49.1	98.2	ug/L	EPA 6020B
	Chromium-53	50.000	51.6	103	ug/L	EPA 6020B
	Lead-208	50.000	50.2	100	ug/L	EPA 6020B
	Silver-107	50.000	50.0	100	ug/L	EPA 6020B
SLE0163-CCV2	Chromium-52	50.000	48.9	97.9	ug/L	EPA 6020B
	Chromium-53	50.000	51.0	102	ug/L	EPA 6020B
	Lead-208	50.000	51.6	103	ug/L	EPA 6020B
	Silver-107	50.000	47.4	94.7	ug/L	EPA 6020B
SLE0163-CCV3	Chromium-52	50.000	48.4	96.8	ug/L	EPA 6020B
	Chromium-53	50.000	50.4	101	ug/L	EPA 6020B
	Lead-208	50.000	53.8	108	ug/L	EPA 6020B
	Silver-107	50.000	45.0	90.0	ug/L	EPA 6020B
SLE0163-CCV4	Chromium-52	50.000	48.4	96.8	ug/L	EPA 6020B
	Chromium-53	50.000	50.2	100	ug/L	EPA 6020B
	Lead-208	50.000	52.1	104	ug/L	EPA 6020B
	Silver-107	50.000	45.3	90.7	ug/L	EPA 6020B
SLE0163-CCV5	Chromium-52	50.000	48.2	96.4	ug/L	EPA 6020B
	Chromium-53	50.000	49.7	99.5	ug/L	EPA 6020B
	Lead-208	50.000	53.1	106	ug/L	EPA 6020B
	Silver-107	50.000	45.2	90.4	ug/L	EPA 6020B
SLE0163-CCV6	Chromium-52	50.000	48.0	96.1	ug/L	EPA 6020B
	Chromium-53	50.000	50.3	101	ug/L	EPA 6020B
	Lead-208	50.000	53.0	106	ug/L	EPA 6020B
	Silver-107	50.000	47.0	94.1	ug/L	EPA 6020B
SLE0163-CCV7	Chromium-52	50.000	48.4	96.9	ug/L	EPA 6020B
	Chromium-53	50.000	50.5	101	ug/L	EPA 6020B
	Lead-208	50.000	51.0	102	ug/L	EPA 6020B
SLE0163-CCV8	Chromium-52	50.000	48.7	97.5	ug/L	EPA 6020B
	Chromium-53	50.000	50.4	101	ug/L	EPA 6020B
	Lead-208	50.000	52.6	105	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-CCV9	Chromium-52	50.000	49.4	98.8	ug/L	EPA 6020B
	Chromium-53	50.000	50.6	101	ug/L	EPA 6020B
	Lead-208	50.000	52.4	105	ug/L	EPA 6020B
SLE0163-CCVA	Chromium-52	50.000	48.9	97.8	ug/L	EPA 6020B
	Chromium-53	50.000	50.6	101	ug/L	EPA 6020B
	Lead-208	50.000	51.3	103	ug/L	EPA 6020B
SLE0163-CCVB	Chromium-52	50.000	49.1	98.3	ug/L	EPA 6020B
	Chromium-53	50.000	51.1	102	ug/L	EPA 6020B
	Lead-208	50.000	52.3	105	ug/L	EPA 6020B
SLE0163-CCVC	Chromium-52	50.000	48.3	96.6	ug/L	EPA 6020B
	Chromium-53	50.000	49.9	99.7	ug/L	EPA 6020B
	Lead-208	50.000	56.3	113	ug/L	EPA 6020B
SLE0163-CCVD	Chromium-52	50.000	48.0	96.0	ug/L	EPA 6020B
	Chromium-53	50.000	50.2	100	ug/L	EPA 6020B
	Lead-208	50.000	53.8	108	ug/L	EPA 6020B
SLE0163-CCVE	Chromium-52	50.000	48.6	97.3	ug/L	EPA 6020B
	Chromium-53	50.000	50.2	100	ug/L	EPA 6020B
	Lead-208	50.000	54.9	110	ug/L	EPA 6020B
SLE0163-CCVF	Chromium-52	50.000	48.7	97.4	ug/L	EPA 6020B
	Chromium-53	50.000	51.0	102	ug/L	EPA 6020B
	Lead-208	50.000	54.3	109	ug/L	EPA 6020B

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-ICV1	Chromium-52	50.000	52.9	106	ug/L	EPA 6020B
	Chromium-53	50.000	51.3	103	ug/L	EPA 6020B
	Lead-208	50.000	52.6	105	ug/L	EPA 6020B
	Silver-107	50.000	50.8	102	ug/L	EPA 6020B
SLE0204-CCV1	Chromium-52	50.000	51.5	103	ug/L	EPA 6020B
	Chromium-53	50.000	50.5	101	ug/L	EPA 6020B
	Lead-208	50.000	50.3	101	ug/L	EPA 6020B
	Silver-107	50.000	50.1	100	ug/L	EPA 6020B
SLE0204-CCV2	Chromium-52	50.000	49.6	99.2	ug/L	EPA 6020B
	Chromium-53	50.000	49.3	98.6	ug/L	EPA 6020B
	Lead-208	50.000	50.8	102	ug/L	EPA 6020B
	Silver-107	50.000	48.8	97.6	ug/L	EPA 6020B
SLE0204-CCV3	Chromium-52	50.000	50.1	100	ug/L	EPA 6020B
	Chromium-53	50.000	49.4	98.7	ug/L	EPA 6020B
	Lead-208	50.000	50.4	101	ug/L	EPA 6020B
	Silver-107	50.000	49.2	98.5	ug/L	EPA 6020B
SLE0204-CCV4	Chromium-52	50.000	50.6	101	ug/L	EPA 6020B
	Chromium-53	50.000	49.5	99.0	ug/L	EPA 6020B
	Lead-208	50.000	51.7	103	ug/L	EPA 6020B
	Silver-107	50.000	49.8	99.6	ug/L	EPA 6020B
SLE0204-CCV5	Chromium-52	50.000	51.1	102	ug/L	EPA 6020B
	Chromium-53	50.000	49.5	98.9	ug/L	EPA 6020B
	Lead-208	50.000	52.8	106	ug/L	EPA 6020B
	Silver-107	50.000	48.1	96.2	ug/L	EPA 6020B
SLE0204-CCV6	Chromium-52	50.000	49.2	98.3	ug/L	EPA 6020B
	Chromium-53	50.000	49.2	98.4	ug/L	EPA 6020B
	Lead-208	50.000	49.6	99.2	ug/L	EPA 6020B
	Silver-107	50.000	47.6	95.1	ug/L	EPA 6020B
SLE0204-CCV7	Chromium-52	50.000	49.7	99.4	ug/L	EPA 6020B
	Chromium-53	50.000	48.4	96.8	ug/L	EPA 6020B
	Lead-208	50.000	50.5	101	ug/L	EPA 6020B
	Silver-107	50.000	48.6	97.2	ug/L	EPA 6020B
SLE0204-CCV8	Chromium-52	50.000	50.7	101	ug/L	EPA 6020B
	Chromium-53	50.000	49.7	99.4	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCV8	Lead-208	50.000	50.1	100	ug/L	EPA 6020B
	Silver-107	50.000	49.5	99.1	ug/L	EPA 6020B
SLE0204-CCV9	Chromium-52	50.000	49.4	98.8	ug/L	EPA 6020B
	Chromium-53	50.000	48.4	96.8	ug/L	EPA 6020B
	Lead-208	50.000	52.2	104	ug/L	EPA 6020B
	Silver-107	50.000	48.8	97.6	ug/L	EPA 6020B
	Chromium-52	50.000	50.2	100	ug/L	EPA 6020B
SLE0204-CCVA	Chromium-53	50.000	49.4	98.7	ug/L	EPA 6020B
	Lead-208	50.000	51.6	103	ug/L	EPA 6020B
	Silver-107	50.000	48.9	97.9	ug/L	EPA 6020B
	Chromium-52	50.000	50.3	101	ug/L	EPA 6020B
SLE0204-CCVB	Chromium-53	50.000	49.0	98.1	ug/L	EPA 6020B
	Lead-208	50.000	51.7	103	ug/L	EPA 6020B
	Silver-107	50.000	48.8	97.6	ug/L	EPA 6020B
	Chromium-52	50.000	49.0	98.0	ug/L	EPA 6020B
SLE0204-CCVC	Chromium-53	50.000	48.4	96.7	ug/L	EPA 6020B
	Lead-208	50.000	51.2	102	ug/L	EPA 6020B
	Silver-107	50.000	48.1	96.2	ug/L	EPA 6020B
	Chromium-52	50.000	49.9	99.8	ug/L	EPA 6020B
SLE0204-CCVD	Chromium-53	50.000	48.9	97.8	ug/L	EPA 6020B
	Lead-208	50.000	53.3	107	ug/L	EPA 6020B
	Silver-107	50.000	46.0	92.1	ug/L	EPA 6020B
	Chromium-52	50.000	48.9	97.7	ug/L	EPA 6020B
SLE0204-CCVE	Chromium-53	50.000	48.1	96.3	ug/L	EPA 6020B
	Lead-208	50.000	54.9	110	ug/L	EPA 6020B
	Silver-107	50.000	46.3	92.6	ug/L	EPA 6020B
	Chromium-52	50.000	48.7	97.4	ug/L	EPA 6020B
SLE0204-CCVF	Chromium-53	50.000	47.7	95.4	ug/L	EPA 6020B
	Lead-208	50.000	55.3	111	ug/L	EPA 6020B
	Silver-107	50.000	45.7	91.5	ug/L	EPA 6020B
	Chromium-52	50.000	49.5	99.0	ug/L	EPA 6020B
SLE0204-CCVG	Chromium-53	50.000	48.8	97.5	ug/L	EPA 6020B
	Lead-208	50.000	55.0	110	ug/L	EPA 6020B
	Silver-107	50.000	46.7	93.3	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCVH	Chromium-52	50.000	49.5	99.0	ug/L	EPA 6020B
	Chromium-53	50.000	48.3	96.7	ug/L	EPA 6020B
	Lead-208	50.000	55.5	111	ug/L	EPA 6020B
	Silver-107	50.000	46.7	93.4	ug/L	EPA 6020B
SLE0204-CCVI	Chromium-52	50.000	50.2	100	ug/L	EPA 6020B
	Chromium-53	50.000	48.3	96.6	ug/L	EPA 6020B
	Lead-208	50.000	54.3	109	ug/L	EPA 6020B
	Silver-107	50.000	46.8	93.5	ug/L	EPA 6020B
SLE0204-CCVJ	Chromium-52	50.000	49.8	99.7	ug/L	EPA 6020B
	Chromium-53	50.000	49.3	98.5	ug/L	EPA 6020B
	Lead-208	50.000	55.8	112	ug/L	EPA 6020B
	Silver-107	50.000	45.7	91.4	ug/L	EPA 6020B

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-ICV1	Chromium-52	50.000	51.3	103	ug/L	EPA 6020B
	Chromium-53	50.000	51.2	102	ug/L	EPA 6020B
	Lead-208	50.000	51.4	103	ug/L	EPA 6020B
	Silver-107	50.000	51.0	102	ug/L	EPA 6020B
SLE0209-CCV1	Chromium-52	50.000	49.3	98.5	ug/L	EPA 6020B
	Chromium-53	50.000	48.7	97.4	ug/L	EPA 6020B
	Lead-208	50.000	49.4	98.9	ug/L	EPA 6020B
	Silver-107	50.000	50.0	100	ug/L	EPA 6020B
SLE0209-CCV2	Chromium-52	50.000	48.9	97.8	ug/L	EPA 6020B
	Chromium-53	50.000	48.9	97.8	ug/L	EPA 6020B
	Lead-208	50.000	48.9	97.8	ug/L	EPA 6020B
	Silver-107	50.000	49.9	99.9	ug/L	EPA 6020B
SLE0209-CCV3	Chromium-52	50.000	48.7	97.4	ug/L	EPA 6020B
	Chromium-53	50.000	49.5	99.0	ug/L	EPA 6020B
	Lead-208	50.000	48.6	97.3	ug/L	EPA 6020B
	Silver-107	50.000	51.2	102	ug/L	EPA 6020B
SLE0209-CCV4	Chromium-52	50.000	48.9	97.7	ug/L	EPA 6020B
	Chromium-53	50.000	49.2	98.4	ug/L	EPA 6020B
	Lead-208	50.000	49.9	99.7	ug/L	EPA 6020B
	Silver-107	50.000	50.2	100	ug/L	EPA 6020B
SLE0209-CCV5	Lead-208	50.000	50.9	102	ug/L	EPA 6020B
SLE0209-CCV6	Lead-208	50.000	50.2	100	ug/L	EPA 6020B
SLE0209-CCV7	Chromium-52	50.000	46.9	93.7	ug/L	EPA 6020B
	Chromium-53	50.000	47.4	94.9	ug/L	EPA 6020B
	Lead-208	50.000	49.0	98.1	ug/L	EPA 6020B
	Silver-107	50.000	48.7	97.5	ug/L	EPA 6020B
SLE0209-CCV8	Chromium-52	50.000	48.0	96.1	ug/L	EPA 6020B
	Chromium-53	50.000	48.7	97.5	ug/L	EPA 6020B
	Lead-208	50.000	49.5	99.0	ug/L	EPA 6020B
	Silver-107	50.000	49.5	98.9	ug/L	EPA 6020B
SLE0209-CCVA	Chromium-52	50.000	47.9	95.8	ug/L	EPA 6020B
	Chromium-53	50.000	48.3	96.6	ug/L	EPA 6020B
	Lead-208	50.000	49.0	98.0	ug/L	EPA 6020B
	Silver-107	50.000	50.3	101	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCVB	Chromium-52	50.000	47.8	95.6	ug/L	EPA 6020B
	Chromium-53	50.000	47.8	95.6	ug/L	EPA 6020B
	Lead-208	50.000	49.0	97.9	ug/L	EPA 6020B
	Silver-107	50.000	48.6	97.2	ug/L	EPA 6020B
SLE0209-CCVC	Chromium-52	50.000	48.9	97.7	ug/L	EPA 6020B
	Chromium-53	50.000	48.9	97.7	ug/L	EPA 6020B
	Lead-208	50.000	48.5	96.9	ug/L	EPA 6020B
	Silver-107	50.000	49.2	98.4	ug/L	EPA 6020B
SLE0209-CCVD	Chromium-52	50.000	47.5	95.1	ug/L	EPA 6020B
	Chromium-53	50.000	48.0	96.0	ug/L	EPA 6020B
	Lead-208	50.000	49.1	98.2	ug/L	EPA 6020B
	Silver-107	50.000	50.4	101	ug/L	EPA 6020B
SLE0209-CCVE	Chromium-52	50.000	48.6	97.2	ug/L	EPA 6020B
	Chromium-53	50.000	48.2	96.3	ug/L	EPA 6020B
	Lead-208	50.000	49.2	98.4	ug/L	EPA 6020B
	Silver-107	50.000	49.0	98.0	ug/L	EPA 6020B
SLE0209-CCVF	Chromium-52	50.000	48.5	97.0	ug/L	EPA 6020B
	Chromium-53	50.000	48.5	97.0	ug/L	EPA 6020B
	Lead-208	50.000	49.2	98.4	ug/L	EPA 6020B
	Silver-107	50.000	50.3	101	ug/L	EPA 6020B
SLE0209-CCVG	Chromium-52	50.000	48.0	96.1	ug/L	EPA 6020B
	Chromium-53	50.000	48.1	96.3	ug/L	EPA 6020B
	Lead-208	50.000	49.5	98.9	ug/L	EPA 6020B
	Silver-107	50.000	48.9	97.8	ug/L	EPA 6020B
SLE0209-CCVH	Chromium-52	50.000	48.0	95.9	ug/L	EPA 6020B
	Chromium-53	50.000	47.9	95.8	ug/L	EPA 6020B
	Lead-208	50.000	50.7	101	ug/L	EPA 6020B
	Silver-107	50.000	49.5	99.1	ug/L	EPA 6020B
SLE0209-CCVI	Chromium-52	50.000	48.5	97.1	ug/L	EPA 6020B
	Chromium-53	50.000	48.1	96.1	ug/L	EPA 6020B
	Lead-208	50.000	50.7	101	ug/L	EPA 6020B
	Silver-107	50.000	48.7	97.4	ug/L	EPA 6020B
SLE0209-CCVJ	Chromium-52	50.000	48.2	96.4	ug/L	EPA 6020B
	Chromium-53	50.000	48.5	96.9	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCVJ	Lead-208	50.000	51.3	103	ug/L	EPA 6020B
	Silver-107	50.000	48.7	97.3	ug/L	EPA 6020B
SLE0209-CCVK	Chromium-52	50.000	47.3	94.7	ug/L	EPA 6020B
	Chromium-53	50.000	47.1	94.3	ug/L	EPA 6020B
	Lead-208	50.000	52.1	104	ug/L	EPA 6020B
SLE0209-CCVL	Silver-107	50.000	47.2	94.4	ug/L	EPA 6020B
	Chromium-52	50.000	46.5	92.9	ug/L	EPA 6020B
SLE0209-CCVL	Chromium-53	50.000	46.7	93.3	ug/L	EPA 6020B
	Lead-208	50.000	53.3	107	ug/L	EPA 6020B
	Silver-107	50.000	47.2	94.4	ug/L	EPA 6020B
	Chromium-52	50.000	46.3	92.7	ug/L	EPA 6020B
SLE0209-CCVM	Chromium-53	50.000	46.3	92.5	ug/L	EPA 6020B
	Lead-208	50.000	50.3	101	ug/L	EPA 6020B
	Silver-107	50.000	48.4	96.7	ug/L	EPA 6020B
	Chromium-52	50.000	43.3	86.6	ug/L	EPA 6020B
SLE0209-CCVN	Chromium-53	50.000	42.9	85.8	ug/L	EPA 6020B
	Lead-208	50.000	51.6	103	ug/L	EPA 6020B
	Silver-107	50.000	49.5	98.9	ug/L	EPA 6020B
	Chromium-52	50.000	43.1	86.1	ug/L	EPA 6020B
SLE0209-CCVO	Chromium-53	50.000	42.5	85.1	ug/L	EPA 6020B
	Lead-208	50.000	52.0	104	ug/L	EPA 6020B
	Silver-107	50.000	49.0	98.0	ug/L	EPA 6020B
	Chromium-52	50.000	43.1	86.3	ug/L	EPA 6020B
SLE0209-CCVP	Chromium-53	50.000	42.5	85.1	ug/L	EPA 6020B
	Lead-208	50.000	55.5	111	ug/L	EPA 6020B
	Silver-107	50.000	48.3	96.5	ug/L	EPA 6020B

* Values outside of QC limits



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 15:55

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBL1	Chromium-52	0.00200	0.26	0.500	ug/L	
SLE0163-IBL1	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0163-IBL1	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBL1	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0163-ICB1	Chromium-52	-0.0120	0.26	0.500	ug/L	
SLE0163-ICB1	Chromium-53	-0.0200	0.239	0.500	ug/L	
SLE0163-ICB1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0163-ICB1	Silver-107	0.00	0.022	0.200	ug/L	
SLE0163-CCB1	Chromium-52	0.00100	0.26	0.500	ug/L	
SLE0163-CCB1	Chromium-53	-0.0150	0.239	0.500	ug/L	
SLE0163-CCB1	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-CCB1	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0163-IBL2	Chromium-52	-0.0300	0.26	0.500	ug/L	
SLE0163-IBL2	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0163-IBL2	Lead-208	0.00700	0.0513	0.100	ug/L	
SLE0163-IBL2	Silver-107	0.0110	0.022	0.200	ug/L	
SLE0163-IBL3	Chromium-52	-0.0100	0.26	0.500	ug/L	
SLE0163-IBL3	Chromium-53	-0.0110	0.239	0.500	ug/L	
SLE0163-IBL3	Lead-208	0.00500	0.0513	0.100	ug/L	
SLE0163-IBL3	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0163-CCB2	Chromium-52	-0.0240	0.26	0.500	ug/L	
SLE0163-CCB2	Chromium-53	-0.0290	0.239	0.500	ug/L	
SLE0163-CCB2	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-CCB2	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0163-IBL4	Chromium-52	0.139	0.26	0.500	ug/L	
SLE0163-IBL4	Chromium-53	-0.0230	0.239	0.500	ug/L	
SLE0163-IBL4	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-IBL4	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0163-IBL5	Chromium-52	-0.0380	0.26	0.500	ug/L	
SLE0163-IBL5	Chromium-53	-0.0340	0.239	0.500	ug/L	
SLE0163-IBL5	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-IBL5	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0163-CCB3	Chromium-52	-0.0300	0.26	0.500	ug/L	
SLE0163-CCB3	Chromium-53	-0.0480	0.239	0.500	ug/L	
SLE0163-CCB3	Lead-208	0.00400	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 18:47

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCB3	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0163-CCB4	Chromium-52	-0.00300	0.26	0.500	ug/L	
SLE0163-CCB4	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0163-CCB4	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0163-CCB4	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0163-IBL6	Chromium-52	0.186	0.26	0.500	ug/L	
SLE0163-IBL6	Chromium-53	0.0140	0.239	0.500	ug/L	
SLE0163-IBL6	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-IBL6	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0163-CCB5	Chromium-52	-0.0110	0.26	0.500	ug/L	
SLE0163-CCB5	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0163-CCB5	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0163-CCB5	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0163-IBL7	Chromium-52	0.00400	0.26	0.500	ug/L	
SLE0163-IBL7	Chromium-53	-0.00400	0.239	0.500	ug/L	
SLE0163-IBL7	Lead-208	0.00500	0.0513	0.100	ug/L	
SLE0163-IBL7	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0163-CCB6	Chromium-52	0.00700	0.26	0.500	ug/L	
SLE0163-CCB6	Chromium-53	-0.0100	0.239	0.500	ug/L	
SLE0163-CCB6	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0163-CCB6	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0163-CCB7	Chromium-52	0.00900	0.26	0.500	ug/L	
SLE0163-CCB7	Chromium-53	0.00700	0.239	0.500	ug/L	
SLE0163-CCB7	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBL8	Chromium-52	0.0840	0.26	0.500	ug/L	
SLE0163-IBL8	Chromium-53	0.0180	0.239	0.500	ug/L	
SLE0163-IBL8	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-CCB8	Chromium-52	-0.00300	0.26	0.500	ug/L	
SLE0163-CCB8	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0163-CCB8	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBL9	Chromium-52	0.0680	0.26	0.500	ug/L	
SLE0163-IBL9	Chromium-53	0.0370	0.239	0.500	ug/L	
SLE0163-IBL9	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-CCB9	Chromium-52	0.00400	0.26	0.500	ug/L	
SLE0163-CCB9	Chromium-53	0.00600	0.239	0.500	ug/L	
SLE0163-CCB9	Lead-208	0.00200	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 00:11

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBLA	Chromium-52	0.00500	0.26	0.500	ug/L	
SLE0163-IBLA	Chromium-53	0.0140	0.239	0.500	ug/L	
SLE0163-IBLA	Lead-208	0.0190	0.0513	0.100	ug/L	
SLE0163-CCBA	Chromium-52	0.0260	0.26	0.500	ug/L	
SLE0163-CCBA	Chromium-53	0.0110	0.239	0.500	ug/L	
SLE0163-CCBA	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-IBLB	Chromium-52	-0.00800	0.26	0.500	ug/L	
SLE0163-IBLB	Chromium-53	0.00	0.239	0.500	ug/L	
SLE0163-IBLB	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-CCBB	Chromium-52	0.0720	0.26	0.500	ug/L	
SLE0163-CCBB	Chromium-53	0.0430	0.239	0.500	ug/L	
SLE0163-CCBB	Lead-208	0.0710	0.0513	0.100	ug/L	
SLE0163-IBLC	Chromium-52	0.0480	0.26	0.500	ug/L	
SLE0163-IBLC	Chromium-53	0.0230	0.239	0.500	ug/L	
SLE0163-IBLC	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-IBLD	Chromium-52	0.106	0.26	0.500	ug/L	
SLE0163-IBLD	Chromium-53	0.0450	0.239	0.500	ug/L	
SLE0163-IBLD	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-CCBC	Chromium-52	-0.0270	0.26	0.500	ug/L	
SLE0163-CCBC	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0163-CCBC	Lead-208	0.00600	0.0513	0.100	ug/L	
SLE0163-IBLE	Chromium-52	0.0210	0.26	0.500	ug/L	
SLE0163-IBLE	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0163-IBLE	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-IBLF	Chromium-52	-0.00300	0.26	0.500	ug/L	
SLE0163-IBLF	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0163-IBLF	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-CCBD	Chromium-52	-0.00900	0.26	0.500	ug/L	
SLE0163-CCBD	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0163-CCBD	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBLG	Chromium-52	0.0120	0.26	0.500	ug/L	
SLE0163-IBLG	Chromium-53	0.0150	0.239	0.500	ug/L	
SLE0163-IBLG	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0163-IBLH	Chromium-52	0.0300	0.26	0.500	ug/L	
SLE0163-IBLH	Chromium-53	0.00400	0.239	0.500	ug/L	
SLE0163-IBLH	Lead-208	0.00	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 04:07

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCBE	Chromium-52	0.0280	0.26	0.500	ug/L	
SLE0163-CCBE	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0163-CCBE	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBLI	Chromium-52	0.0200	0.26	0.500	ug/L	
SLE0163-IBLI	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0163-IBLI	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0163-CCBF	Chromium-52	0.0210	0.26	0.500	ug/L	
SLE0163-CCBF	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0163-CCBF	Lead-208	0.00200	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 16:19

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBL1	Chromium-52	0.0110	0.26	0.500	ug/L	
SLE0204-IBL1	Chromium-53	0.00400	0.239	0.500	ug/L	
SLE0204-IBL1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-IBL1	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0204-ICB1	Chromium-52	0.0170	0.26	0.500	ug/L	
SLE0204-ICB1	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0204-ICB1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-ICB1	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-CCB1	Chromium-52	0.00600	0.26	0.500	ug/L	
SLE0204-CCB1	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0204-CCB1	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-CCB1	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-IBL2	Chromium-52	0.0130	0.26	0.500	ug/L	
SLE0204-IBL2	Chromium-53	0.00600	0.239	0.500	ug/L	
SLE0204-IBL2	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0204-IBL2	Silver-107	0.00800	0.022	0.200	ug/L	
SLE0204-CCB2	Chromium-52	0.0230	0.26	0.500	ug/L	
SLE0204-CCB2	Chromium-53	0.0280	0.239	0.500	ug/L	
SLE0204-CCB2	Lead-208	0.0300	0.0513	0.100	ug/L	
SLE0204-CCB2	Silver-107	0.0300	0.022	0.200	ug/L	
SLE0204-CCB3	Chromium-52	-0.0200	0.26	0.500	ug/L	
SLE0204-CCB3	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0204-CCB3	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0204-CCB3	Silver-107	0.00600	0.022	0.200	ug/L	
SLE0204-IBL3	Chromium-52	-0.0220	0.26	0.500	ug/L	
SLE0204-IBL3	Chromium-53	-0.0170	0.239	0.500	ug/L	
SLE0204-IBL3	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0204-IBL3	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCB4	Chromium-52	-0.0320	0.26	0.500	ug/L	
SLE0204-CCB4	Chromium-53	-0.0110	0.239	0.500	ug/L	
SLE0204-CCB4	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCB4	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBL4	Chromium-52	-0.00700	0.26	0.500	ug/L	
SLE0204-IBL4	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0204-IBL4	Lead-208	0.00400	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 19:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBL4	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-IBL5	Chromium-52	0.0360	0.26	0.500	ug/L	
SLE0204-IBL5	Chromium-53	0.0240	0.239	0.500	ug/L	
SLE0204-IBL5	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0204-IBL5	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCB5	Chromium-52	-0.0410	0.26	0.500	ug/L	
SLE0204-CCB5	Chromium-53	-0.0180	0.239	0.500	ug/L	
SLE0204-CCB5	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCB5	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-CCB6	Chromium-52	-0.0280	0.26	0.500	ug/L	
SLE0204-CCB6	Chromium-53	-0.0190	0.239	0.500	ug/L	
SLE0204-CCB6	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCB6	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0204-IBL6	Chromium-52	-0.0170	0.26	0.500	ug/L	
SLE0204-IBL6	Chromium-53	0.00200	0.239	0.500	ug/L	
SLE0204-IBL6	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-IBL6	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-CCB7	Chromium-52	-0.00900	0.26	0.500	ug/L	
SLE0204-CCB7	Chromium-53	0.0110	0.239	0.500	ug/L	
SLE0204-CCB7	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCB7	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0204-IBL7	Chromium-52	-0.0510	0.26	0.500	ug/L	
SLE0204-IBL7	Chromium-53	-0.0130	0.239	0.500	ug/L	
SLE0204-IBL7	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-IBL7	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-CCB8	Chromium-52	-0.0260	0.26	0.500	ug/L	
SLE0204-CCB8	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0204-CCB8	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-CCB8	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-IBL8	Chromium-52	0.0300	0.26	0.500	ug/L	
SLE0204-IBL8	Chromium-53	0.0250	0.239	0.500	ug/L	
SLE0204-IBL8	Lead-208	0.275	0.0513	0.100	ug/L	
SLE0204-IBL8	Silver-107	0.00800	0.022	0.200	ug/L	
SLE0204-CCB9	Chromium-52	-0.0280	0.26	0.500	ug/L	
SLE0204-CCB9	Chromium-53	-0.0110	0.239	0.500	ug/L	
SLE0204-CCB9	Lead-208	0.00700	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 23:28

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCB9	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0204-IBL9	Chromium-52	-0.0200	0.26	0.500	ug/L	
SLE0204-IBL9	Chromium-53	-0.00900	0.239	0.500	ug/L	
SLE0204-IBL9	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-IBL9	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBA	Chromium-52	-0.0330	0.26	0.500	ug/L	
SLE0204-CCBA	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0204-CCBA	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0204-CCBA	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-IBLA	Chromium-52	-0.0310	0.26	0.500	ug/L	
SLE0204-IBLA	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0204-IBLA	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0204-IBLA	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBB	Chromium-52	-0.0160	0.26	0.500	ug/L	
SLE0204-CCBB	Chromium-53	-0.0100	0.239	0.500	ug/L	
SLE0204-CCBB	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCBB	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-CCBC	Chromium-52	0.0180	0.26	0.500	ug/L	
SLE0204-CCBC	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0204-CCBC	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCBC	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0204-IBLB	Chromium-52	-0.0440	0.26	0.500	ug/L	
SLE0204-IBLB	Chromium-53	0.00800	0.239	0.500	ug/L	
SLE0204-IBLB	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-IBLB	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBD	Chromium-52	-0.0360	0.26	0.500	ug/L	
SLE0204-CCBD	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0204-CCBD	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBD	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBLC	Chromium-52	0.0230	0.26	0.500	ug/L	
SLE0204-IBLC	Chromium-53	-0.00900	0.239	0.500	ug/L	
SLE0204-IBLC	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0204-IBLC	Silver-107	0.00	0.022	0.200	ug/L	
SLE0204-IBLD	Chromium-52	-0.0450	0.26	0.500	ug/L	
SLE0204-IBLD	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0204-IBLD	Lead-208	-0.00100	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 03:20

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBLD	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBE	Chromium-52	-0.0500	0.26	0.500	ug/L	
SLE0204-CCBE	Chromium-53	-0.0140	0.239	0.500	ug/L	
SLE0204-CCBE	Lead-208	-0.00200	0.0513	0.100	ug/L	
SLE0204-CCBE	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-IBLE	Chromium-52	-0.0460	0.26	0.500	ug/L	
SLE0204-IBLE	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0204-IBLE	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-IBLE	Silver-107	0.00	0.022	0.200	ug/L	
SLE0204-IBLF	Chromium-52	-0.0490	0.26	0.500	ug/L	
SLE0204-IBLF	Chromium-53	-0.00100	0.239	0.500	ug/L	
SLE0204-IBLF	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-IBLF	Silver-107	0.00	0.022	0.200	ug/L	
SLE0204-CCBF	Chromium-52	-0.0610	0.26	0.500	ug/L	
SLE0204-CCBF	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0204-CCBF	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBF	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-CCBG	Chromium-52	0.0140	0.26	0.500	ug/L	
SLE0204-CCBG	Chromium-53	-0.00900	0.239	0.500	ug/L	
SLE0204-CCBG	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBG	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBLG	Chromium-52	0.0210	0.26	0.500	ug/L	
SLE0204-IBLG	Chromium-53	0.00400	0.239	0.500	ug/L	
SLE0204-IBLG	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-IBLG	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0204-CCBH	Chromium-52	-0.00600	0.26	0.500	ug/L	
SLE0204-CCBH	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0204-CCBH	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBH	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBLH	Chromium-52	0.0130	0.26	0.500	ug/L	
SLE0204-IBLH	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0204-IBLH	Lead-208	-0.00400	0.0513	0.100	ug/L	
SLE0204-IBLH	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBI	Chromium-52	0.00400	0.26	0.500	ug/L	
SLE0204-CCBI	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0204-CCBI	Lead-208	-0.00300	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 06:42

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCBI	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBLI	Chromium-52	0.0160	0.26	0.500	ug/L	
SLE0204-IBLI	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0204-IBLI	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-IBLI	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-IBLJ	Chromium-52	0.00900	0.26	0.500	ug/L	
SLE0204-IBLJ	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0204-IBLJ	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-IBLJ	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBJ	Chromium-52	0.0140	0.26	0.500	ug/L	
SLE0204-CCBJ	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0204-CCBJ	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBJ	Silver-107	0.00100	0.022	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 14:29

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBL1	Chromium-52	0.0410	0.26	0.500	ug/L	
SLE0209-IBL1	Chromium-53	0.00600	0.239	0.500	ug/L	
SLE0209-IBL1	Lead-208	0.0180	0.0513	0.100	ug/L	
SLE0209-IBL1	Silver-107	0.0350	0.022	0.200	ug/L	
SLE0209-ICB1	Chromium-52	0.0310	0.26	0.500	ug/L	
SLE0209-ICB1	Chromium-53	-0.00700	0.239	0.500	ug/L	
SLE0209-ICB1	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-ICB1	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0209-CCB1	Chromium-52	0.00200	0.26	0.500	ug/L	
SLE0209-CCB1	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0209-CCB1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCB1	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0209-IBL2	Chromium-52	0.0290	0.26	0.500	ug/L	
SLE0209-IBL2	Chromium-53	0.0330	0.239	0.500	ug/L	
SLE0209-IBL2	Lead-208	0.00700	0.0513	0.100	ug/L	
SLE0209-IBL2	Silver-107	0.00800	0.022	0.200	ug/L	
SLE0209-IBL3	Chromium-52	0.0330	0.26	0.500	ug/L	
SLE0209-IBL3	Chromium-53	0.0220	0.239	0.500	ug/L	
SLE0209-IBL3	Lead-208	0.00600	0.0513	0.100	ug/L	
SLE0209-IBL3	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0209-CCB2	Chromium-52	0.0150	0.26	0.500	ug/L	
SLE0209-CCB2	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0209-CCB2	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0209-CCB2	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0209-CCB3	Chromium-52	-0.0180	0.26	0.500	ug/L	
SLE0209-CCB3	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0209-CCB3	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCB3	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBL4	Chromium-52	0.140	0.26	0.500	ug/L	
SLE0209-IBL4	Chromium-53	0.0650	0.239	0.500	ug/L	
SLE0209-IBL4	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0209-IBL4	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-IBL5	Chromium-52	0.100	0.26	0.500	ug/L	
SLE0209-IBL5	Chromium-53	0.00700	0.239	0.500	ug/L	
SLE0209-IBL5	Lead-208	0.00300	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 17:21

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBL5	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCB4	Chromium-52	0.00300	0.26	0.500	ug/L	
SLE0209-CCB4	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0209-CCB4	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCB4	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0209-IBL6	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-CCB5	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBL7	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-IBL8	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCB6	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-IBL9	Chromium-52	0.0410	0.26	0.500	ug/L	
SLE0209-IBL9	Chromium-53	0.00600	0.239	0.500	ug/L	
SLE0209-IBL9	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-IBL9	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-IBLA	Chromium-52	0.0520	0.26	0.500	ug/L	
SLE0209-IBLA	Chromium-53	0.125	0.239	0.500	ug/L	
SLE0209-IBLA	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBLA	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCB7	Chromium-52	0.0560	0.26	0.500	ug/L	
SLE0209-CCB7	Chromium-53	0.0220	0.239	0.500	ug/L	
SLE0209-CCB7	Lead-208	0.0110	0.0513	0.100	ug/L	
SLE0209-CCB7	Silver-107	0.0100	0.022	0.200	ug/L	
SLE0209-CCB8	Chromium-52	-0.0190	0.26	0.500	ug/L	
SLE0209-CCB8	Chromium-53	-0.0160	0.239	0.500	ug/L	
SLE0209-CCB8	Lead-208	0.0100	0.0513	0.100	ug/L	
SLE0209-CCB8	Silver-107	0.00800	0.022	0.200	ug/L	
SLE0209-CCBA	Chromium-52	0.00900	0.26	0.500	ug/L	
SLE0209-CCBA	Chromium-53	0.0230	0.239	0.500	ug/L	
SLE0209-CCBA	Lead-208	0.0170	0.0513	0.100	ug/L	
SLE0209-CCBA	Silver-107	0.0220	0.022	0.200	ug/L	
SLE0209-IBLC	Chromium-52	0.0110	0.26	0.500	ug/L	
SLE0209-IBLC	Chromium-53	0.00200	0.239	0.500	ug/L	
SLE0209-IBLC	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBLC	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLD	Chromium-52	-0.0200	0.26	0.500	ug/L	
SLE0209-IBLD	Chromium-53	-0.00800	0.239	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 20:49

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLD	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0209-IBLD	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-CCBB	Chromium-52	0.00	0.26	0.500	ug/L	
SLE0209-CCBB	Chromium-53	-0.00400	0.239	0.500	ug/L	
SLE0209-CCBB	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBB	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBLE	Chromium-52	-0.0100	0.26	0.500	ug/L	
SLE0209-IBLE	Chromium-53	-0.0140	0.239	0.500	ug/L	
SLE0209-IBLE	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0209-IBLE	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-IBLF	Chromium-52	-0.0240	0.26	0.500	ug/L	
SLE0209-IBLF	Chromium-53	-0.0170	0.239	0.500	ug/L	
SLE0209-IBLF	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBLF	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBC	Chromium-52	-0.0270	0.26	0.500	ug/L	
SLE0209-CCBC	Chromium-53	-0.0200	0.239	0.500	ug/L	
SLE0209-CCBC	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0209-CCBC	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-CCBD	Chromium-52	-0.00400	0.26	0.500	ug/L	
SLE0209-CCBD	Chromium-53	0.00700	0.239	0.500	ug/L	
SLE0209-CCBD	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBD	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLG	Chromium-52	0.0110	0.26	0.500	ug/L	
SLE0209-IBLG	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0209-IBLG	Lead-208	-0.00200	0.0513	0.100	ug/L	
SLE0209-IBLG	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCBE	Chromium-52	-0.00400	0.26	0.500	ug/L	
SLE0209-CCBE	Chromium-53	0.00	0.239	0.500	ug/L	
SLE0209-CCBE	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBE	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLH	Chromium-52	0.00400	0.26	0.500	ug/L	
SLE0209-IBLH	Chromium-53	-0.00900	0.239	0.500	ug/L	
SLE0209-IBLH	Lead-208	-0.00200	0.0513	0.100	ug/L	
SLE0209-IBLH	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCBF	Chromium-52	0.00100	0.26	0.500	ug/L	
SLE0209-CCBF	Chromium-53	0.00	0.239	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 00:09

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBF	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBF	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLI	Chromium-52	0.0220	0.26	0.500	ug/L	
SLE0209-IBLI	Chromium-53	-0.00400	0.239	0.500	ug/L	
SLE0209-IBLI	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBLI	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCBG	Chromium-52	-0.00400	0.26	0.500	ug/L	
SLE0209-CCBG	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0209-CCBG	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBG	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLJ	Chromium-52	0.00300	0.26	0.500	ug/L	
SLE0209-IBLJ	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0209-IBLJ	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0209-IBLJ	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBH	Chromium-52	0.0140	0.26	0.500	ug/L	
SLE0209-CCBH	Chromium-53	0.00200	0.239	0.500	ug/L	
SLE0209-CCBH	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBH	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLK	Chromium-52	0.00700	0.26	0.500	ug/L	
SLE0209-IBLK	Chromium-53	-0.00700	0.239	0.500	ug/L	
SLE0209-IBLK	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-IBLK	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-IBLL	Chromium-52	-0.00300	0.26	0.500	ug/L	
SLE0209-IBLL	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0209-IBLL	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLL	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCBI	Chromium-52	-0.0150	0.26	0.500	ug/L	
SLE0209-CCBI	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0209-CCBI	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBI	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBJ	Chromium-52	-0.0240	0.26	0.500	ug/L	
SLE0209-CCBJ	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0209-CCBJ	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBJ	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBLM	Chromium-52	-0.0150	0.26	0.500	ug/L	
SLE0209-IBLM	Chromium-53	-0.00600	0.239	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 03:46

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLM	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLM	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLN	Chromium-52	0.0370	0.26	0.500	ug/L	
SLE0209-IBLN	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0209-IBLN	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLN	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-CCBK	Chromium-52	-0.00600	0.26	0.500	ug/L	
SLE0209-CCBK	Chromium-53	0.00200	0.239	0.500	ug/L	
SLE0209-CCBK	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBK	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBLO	Chromium-52	0.0140	0.26	0.500	ug/L	
SLE0209-IBLO	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0209-IBLO	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLO	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBL	Chromium-52	-0.0270	0.26	0.500	ug/L	
SLE0209-CCBL	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0209-CCBL	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBL	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0209-IBLP	Chromium-52	0.0420	0.26	0.500	ug/L	
SLE0209-IBLP	Chromium-53	0.566	0.239	0.500	ug/L	
SLE0209-IBLP	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLP	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBM	Chromium-52	-0.0220	0.26	0.500	ug/L	
SLE0209-CCBM	Chromium-53	0.321	0.239	0.500	ug/L	
SLE0209-CCBM	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBM	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBLQ	Chromium-52	-0.0420	0.26	0.500	ug/L	
SLE0209-IBLQ	Chromium-53	0.192	0.239	0.500	ug/L	
SLE0209-IBLQ	Lead-208	-0.00200	0.0513	0.100	ug/L	
SLE0209-IBLQ	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-IBLR	Chromium-52	0.0530	0.26	0.500	ug/L	
SLE0209-IBLR	Chromium-53	0.841	0.239	0.500	ug/L	
SLE0209-IBLR	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0209-IBLR	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0209-CCBN	Chromium-52	-0.0620	0.26	0.500	ug/L	
SLE0209-CCBN	Chromium-53	0.364	0.239	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 07:11

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBN	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBN	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-CCBO	Chromium-52	-0.00500	0.26	0.500	ug/L	
SLE0209-CCBO	Chromium-53	-0.0460	0.239	0.500	ug/L	
SLE0209-CCBO	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBO	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0209-IBLS	Chromium-52	-0.0170	0.26	0.500	ug/L	
SLE0209-IBLS	Chromium-53	-0.157	0.239	0.500	ug/L	
SLE0209-IBLS	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0209-IBLS	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-CCBP	Chromium-52	-0.0330	0.26	0.500	ug/L	
SLE0209-CCBP	Chromium-53	-0.183	0.239	0.500	ug/L	
SLE0209-CCBP	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-CCBP	Silver-107	0.00	0.022	0.200	ug/L	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0163-CAL1	XDT_m1230509a-001	NA	05/09/23 15:21
CAL 1 - LOW CHECK	SLE0163-CAL2	XDT_m1230509a-002	NA	05/09/23 15:26
CAL 2	SLE0163-CAL3	XDT_m1230509a-003	NA	05/09/23 15:30
CAL 3	SLE0163-CAL4	XDT_m1230509a-004	NA	05/09/23 15:36
CAL 4	SLE0163-CAL5	XDT_m1230509a-005	NA	05/09/23 15:41
CAL 5	SLE0163-CAL6	XDT_m1230509a-006	NA	05/09/23 15:48
RINSE	SLE0163-IBL1	XDT_m1230509a-007	NA	05/09/23 15:55
Initial Cal Check	SLE0163-ICV1	XDT_m1230509a-009	NA	05/09/23 16:02
Initial Cal Blank	SLE0163-ICB1	XDT_m1230509a-011	NA	05/09/23 16:14
Calibration Check	SLE0163-CCV1	XDT_m1230509a-012	NA	05/09/23 16:20
Calibration Blank	SLE0163-CCB1	XDT_m1230509a-014	NA	05/09/23 16:32
Instrument RL Check	SLE0163-CRL1	XDT_m1230509a-015	NA	05/09/23 16:39
Interference Check B	SLE0163-IFB1	XDT_m1230509a-017	NA	05/09/23 16:49
Interference Check A	SLE0163-IFA1	XDT_m1230509a-018	NA	05/09/23 16:54
LR300	SLE0163-HCV2	XDT_m1230509a-020	NA	05/09/23 17:04
LR200	SLE0163-HCV1	XDT_m1230509a-021	NA	05/09/23 17:11
Instrument Blank	SLE0163-IBL2	XDT_m1230509a-022	NA	05/09/23 17:16
Instrument Blank	SLE0163-IBL3	XDT_m1230509a-023	NA	05/09/23 17:23
Calibration Check	SLE0163-CCV2	XDT_m1230509a-024	NA	05/09/23 17:29
Calibration Blank	SLE0163-CCB2	XDT_m1230509a-025	NA	05/09/23 17:36
ZZZZZ	BLE0256-BLK1	XDT_m1230509a-026	Water	05/09/23 17:44
ZZZZZ	BLE0256-BS1	XDT_m1230509a-027	Water	05/09/23 17:49
Instrument Blank	SLE0163-IBL4	XDT_m1230509a-033	NA	05/09/23 18:24
Instrument Blank	SLE0163-IBL5	XDT_m1230509a-035	NA	05/09/23 18:35
Calibration Check	SLE0163-CCV3	XDT_m1230509a-036	NA	05/09/23 18:40
Calibration Blank	SLE0163-CCB3	XDT_m1230509a-037	NA	05/09/23 18:47
Calibration Check	SLE0163-CCV4	XDT_m1230509a-039	NA	05/09/23 18:59
Calibration Blank	SLE0163-CCB4	XDT_m1230509a-040	NA	05/09/23 19:06
ZZZZZ	23D0297-08	XDT_m1230509a-046	Solid	05/09/23 19:39



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0420-07	XDT_m1230509a-047	Solid	05/09/23 19:44
Instrument Blank	SLE0163-IBL6	XDT_m1230509a-050	NA	05/09/23 19:57
Calibration Check	SLE0163-CCV5	XDT_m1230509a-051	NA	05/09/23 20:01
Calibration Blank	SLE0163-CCB5	XDT_m1230509a-052	NA	05/09/23 20:09
ZZZZZ	23C0715-02	XDT_m1230509a-053	Water	05/09/23 20:15
ZZZZZ	23C0715-04	XDT_m1230509a-054	Water	05/09/23 20:23
ZZZZZ	23C0690-08	XDT_m1230509a-055	Water	05/09/23 20:27
ZZZZZ	23C0690-10	XDT_m1230509a-056	Water	05/09/23 20:32
ZZZZZ	23C0690-04	XDT_m1230509a-057	Water	05/09/23 20:37
Instrument Blank	SLE0163-IBL7	XDT_m1230509a-062	NA	05/09/23 21:00
Calibration Check	SLE0163-CCV6	XDT_m1230509a-063	NA	05/09/23 21:05
Calibration Blank	SLE0163-CCB6	XDT_m1230509a-064	NA	05/09/23 21:12
Calibration Check	SLE0163-CCV7	XDT_m1230509a-067	NA	05/09/23 21:32
Calibration Blank	SLE0163-CCB7	XDT_m1230509a-068	NA	05/09/23 21:39
Blank	BLD0687-BLK1	XDT_m1230509a-069	Solid	05/09/23 21:43
LCS	BLD0687-BS1	XDT_m1230509a-070	Solid	05/09/23 21:48
Instrument Blank	SLE0163-IBL8	XDT_m1230509a-078	NA	05/09/23 22:22
Calibration Check	SLE0163-CCV8	XDT_m1230509a-079	NA	05/09/23 22:26
Calibration Blank	SLE0163-CCB8	XDT_m1230509a-080	NA	05/09/23 22:33
Instrument Blank	SLE0163-IBL9	XDT_m1230509a-090	NA	05/09/23 23:17
Calibration Check	SLE0163-CCV9	XDT_m1230509a-091	NA	05/09/23 23:21
Calibration Blank	SLE0163-CCB9	XDT_m1230509a-092	NA	05/09/23 23:28
Instrument Blank	SLE0163-IBLA	XDT_m1230509a-102	NA	05/10/23 00:11
Calibration Check	SLE0163-CCVA	XDT_m1230509a-103	NA	05/10/23 00:15
Calibration Blank	SLE0163-CCBA	XDT_m1230509a-104	NA	05/10/23 00:23
Instrument Blank	SLE0163-IBLB	XDT_m1230509a-114	NA	05/10/23 01:06
Calibration Check	SLE0163-CCVB	XDT_m1230509a-115	NA	05/10/23 01:10
Calibration Blank	SLE0163-CCBB	XDT_m1230509a-116	NA	05/10/23 01:17
Instrument Blank	SLE0163-IBLC	XDT_m1230509a-122	NA	05/10/23 01:43



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLE0163-IBLD	XDT_m1230509a-126	NA	05/10/23 02:01
Calibration Check	SLE0163-CCVC	XDT_m1230509a-127	NA	05/10/23 02:05
Calibration Blank	SLE0163-CCBC	XDT_m1230509a-128	NA	05/10/23 02:12
Instrument Blank	SLE0163-IBLE	XDT_m1230509a-133	NA	05/10/23 02:36
Instrument Blank	SLE0163-IBLF	XDT_m1230509a-138	NA	05/10/23 02:59
Calibration Check	SLE0163-CCVD	XDT_m1230509a-139	NA	05/10/23 03:04
Calibration Blank	SLE0163-CCBD	XDT_m1230509a-140	NA	05/10/23 03:11
Instrument Blank	SLE0163-IBLG	XDT_m1230509a-145	NA	05/10/23 03:34
Instrument Blank	SLE0163-IBLH	XDT_m1230509a-150	NA	05/10/23 03:55
Calibration Check	SLE0163-CCVE	XDT_m1230509a-151	NA	05/10/23 04:00
Calibration Blank	SLE0163-CCBE	XDT_m1230509a-152	NA	05/10/23 04:07
ZZZZZ	23D0477-05	XDT_m1230509a-156	Water	05/10/23 04:24
ZZZZZ	23D0477-17	XDT_m1230509a-157	Water	05/10/23 04:28
ZZZZZ	23D0477-19	XDT_m1230509a-158	Water	05/10/23 04:32
ZZZZZ	BLE0077-DUP1	XDT_m1230509a-159	Water	05/10/23 04:37
ZZZZZ	BLE0077-MS1	XDT_m1230509a-160	Water	05/10/23 04:41
ZZZZZ	BLE0077-MSD1	XDT_m1230509a-161	Water	05/10/23 04:47
Instrument Blank	SLE0163-IBLI	XDT_m1230509a-162	NA	05/10/23 04:51
Calibration Check	SLE0163-CCVF	XDT_m1230509a-163	NA	05/10/23 04:56
Calibration Blank	SLE0163-CCBF	XDT_m1230509a-164	NA	05/10/23 05:03



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0204-CAL1	XDT_m1230510A-008	NA	05/10/23 15:47
CAL 1 - LOW CHECK	SLE0204-CAL2	XDT_m1230510A-009	NA	05/10/23 15:51
CAL 2	SLE0204-CAL3	XDT_m1230510A-010	NA	05/10/23 15:56
CAL 3	SLE0204-CAL4	XDT_m1230510A-011	NA	05/10/23 16:01
CAL 4	SLE0204-CAL5	XDT_m1230510A-012	NA	05/10/23 16:05
CAL 5	SLE0204-CAL6	XDT_m1230510A-013	NA	05/10/23 16:12
RINSE	SLE0204-IBL1	XDT_m1230510A-014	NA	05/10/23 16:19
Initial Cal Check	SLE0204-ICV1	XDT_m1230510A-016	NA	05/10/23 16:25
Initial Cal Blank	SLE0204-ICB1	XDT_m1230510A-017	NA	05/10/23 16:32
Calibration Check	SLE0204-CCV1	XDT_m1230510A-018	NA	05/10/23 16:37
Calibration Blank	SLE0204-CCB1	XDT_m1230510A-019	NA	05/10/23 16:44
Instrument RL Check	SLE0204-CRL1	XDT_m1230510A-020	NA	05/10/23 16:49
Interference Check A	SLE0204-IFA1	XDT_m1230510A-021	NA	05/10/23 16:56
Interference Check B	SLE0204-IFB1	XDT_m1230510A-022	NA	05/10/23 17:00
LR200	SLE0204-HCV1	XDT_m1230510A-023	NA	05/10/23 17:06
LR300	SLE0204-HCV2	XDT_m1230510A-024	NA	05/10/23 17:11
Instrument Blank	SLE0204-IBL2	XDT_m1230510A-025	NA	05/10/23 17:18
Calibration Check	SLE0204-CCV2	XDT_m1230510A-026	NA	05/10/23 17:24
Calibration Blank	SLE0204-CCB2	XDT_m1230510A-027	NA	05/10/23 17:32
Calibration Check	SLE0204-CCV3	XDT_m1230510A-029	NA	05/10/23 17:41
Calibration Blank	SLE0204-CCB3	XDT_m1230510A-030	NA	05/10/23 17:49
Blank	BLD0687-BLK2	XDT_m1230510A-031	Solid	05/10/23 17:54
LCS	BLD0687-BS2	XDT_m1230510A-033	Solid	05/10/23 18:05
ZZZZZ	BLE0298-BLK1	XDT_m1230510A-034	Water	05/10/23 18:11
ZZZZZ	BLE0298-BS1	XDT_m1230510A-035	Water	05/10/23 18:15
ZZZZZ	23D0297-01	XDT_m1230510A-037	Solid	05/10/23 18:27
ZZZZZ	23D0297-01	XDT_m1230510A-037	Solid	05/10/23 18:27
ZZZZZ	BLD0728-DUP2	XDT_m1230510A-038	Solid	05/10/23 18:32
Instrument Blank	SLE0204-IBL3	XDT_m1230510A-040	NA	05/10/23 18:41



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLE0204-CCV4	XDT_m1230510A-041	NA	05/10/23 18:45
Calibration Blank	SLE0204-CCB4	XDT_m1230510A-042	NA	05/10/23 18:53
ZZZZZ	BLE0143-BLK1	XDT_m1230510A-045	Solid	05/10/23 19:07
ZZZZZ	BLE0143-BS1	XDT_m1230510A-047	Solid	05/10/23 19:19
ZZZZZ	BLD0728-MS2	XDT_m1230510A-048	Solid	05/10/23 19:23
Instrument Blank	SLE0204-IBL4	XDT_m1230510A-050	NA	05/10/23 19:33
Instrument Blank	SLE0204-IBL5	XDT_m1230510A-052	NA	05/10/23 19:44
Calibration Check	SLE0204-CCV5	XDT_m1230510A-053	NA	05/10/23 19:48
Calibration Blank	SLE0204-CCB5	XDT_m1230510A-054	NA	05/10/23 19:56
Calibration Check	SLE0204-CCV6	XDT_m1230510A-057	NA	05/10/23 20:30
Calibration Blank	SLE0204-CCB6	XDT_m1230510A-058	NA	05/10/23 20:37
ZZZZZ	BLD0578-BLK1	XDT_m1230510A-059	Solid	05/10/23 20:44
ZZZZZ	BLD0578-BS1	XDT_m1230510A-060	Solid	05/10/23 20:48
ZZZZZ	BLE0072-BLK1	XDT_m1230510A-061	Solid	05/10/23 20:53
ZZZZZ	23D0394-01	XDT_m1230510A-063	Solid	05/10/23 21:02
ZZZZZ	23D0394-01	XDT_m1230510A-063	Solid	05/10/23 21:02
ZZZZZ	23D0394-01	XDT_m1230510A-063	Solid	05/10/23 21:02
Instrument Blank	SLE0204-IBL6	XDT_m1230510A-068	NA	05/10/23 21:25
Calibration Check	SLE0204-CCV7	XDT_m1230510A-069	NA	05/10/23 21:29
Calibration Blank	SLE0204-CCB7	XDT_m1230510A-070	NA	05/10/23 21:37
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	BLD0578-DUP1	XDT_m1230510A-076	Solid	05/10/23 22:03
ZZZZZ	BLD0578-MS1	XDT_m1230510A-077	Solid	05/10/23 22:08
ZZZZZ	BLD0578-MSD1	XDT_m1230510A-078	Solid	05/10/23 22:12
ZZZZZ	BLD0578-PS1	XDT_m1230510A-079	Solid	05/10/23 22:16
Instrument Blank	SLE0204-IBL7	XDT_m1230510A-080	NA	05/10/23 22:21
Calibration Check	SLE0204-CCV8	XDT_m1230510A-081	NA	05/10/23 22:25
Calibration Blank	SLE0204-CCB8	XDT_m1230510A-082	NA	05/10/23 22:32
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23D0393-04	XDT_m1230510A-087	Solid	05/10/23 22:54
ZZZZZ	BLE0072-DUP1	XDT_m1230510A-088	Solid	05/10/23 22:59
ZZZZZ	BLE0072-MS1	XDT_m1230510A-089	Solid	05/10/23 23:03
ZZZZZ	BLE0072-MSD1	XDT_m1230510A-090	Solid	05/10/23 23:08
Instrument Blank	SLE0204-IBL8	XDT_m1230510A-092	NA	05/10/23 23:16
Calibration Check	SLE0204-CCV9	XDT_m1230510A-093	NA	05/10/23 23:21
Calibration Blank	SLE0204-CCB9	XDT_m1230510A-094	NA	05/10/23 23:28



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
Instrument Blank	SLE0204-IBL9	XDT_m1230510A-104	NA	05/11/23 00:12
Calibration Check	SLE0204-CCVA	XDT_m1230510A-105	NA	05/11/23 00:16
Calibration Blank	SLE0204-CCBA	XDT_m1230510A-106	NA	05/11/23 00:24
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
Instrument Blank	SLE0204-IBLA	XDT_m1230510A-116	NA	05/11/23 01:08
Calibration Check	SLE0204-CCVB	XDT_m1230510A-117	NA	05/11/23 01:12
Calibration Blank	SLE0204-CCBB	XDT_m1230510A-118	NA	05/11/23 01:19
Calibration Check	SLE0204-CCVC	XDT_m1230510A-120	NA	05/11/23 01:28
Calibration Blank	SLE0204-CCBC	XDT_m1230510A-121	NA	05/11/23 01:35
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
<i>ZZZZZ</i>	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
Instrument Blank	SLE0204-IBLB	XDT_m1230510A-131	NA	05/11/23 02:21
Calibration Check	SLE0204-CCVD	XDT_m1230510A-132	NA	05/11/23 02:26
Calibration Blank	SLE0204-CCBD	XDT_m1230510A-133	NA	05/11/23 02:33
Instrument Blank	SLE0204-IBLC	XDT_m1230510A-138	NA	05/11/23 02:57
<i>ZZZZZ</i>	23D0477-21	XDT_m1230510A-141	Water	05/11/23 03:11
<i>ZZZZZ</i>	23D0477-22	XDT_m1230510A-142	Water	05/11/23 03:15
Instrument Blank	SLE0204-IBLD	XDT_m1230510A-143	NA	05/11/23 03:20
Calibration Check	SLE0204-CCVE	XDT_m1230510A-144	NA	05/11/23 03:24
Calibration Blank	SLE0204-CCBE	XDT_m1230510A-145	NA	05/11/23 03:31
Instrument Blank	SLE0204-IBLE	XDT_m1230510A-150	NA	05/11/23 03:57
Instrument Blank	SLE0204-IBLF	XDT_m1230510A-155	NA	05/11/23 04:21
Calibration Check	SLE0204-CCVF	XDT_m1230510A-156	NA	05/11/23 04:26
Calibration Blank	SLE0204-CCBF	XDT_m1230510A-157	NA	05/11/23 04:33
Calibration Check	SLE0204-CCVG	XDT_m1230510A-159	NA	05/11/23 04:42
Calibration Blank	SLE0204-CCBG	XDT_m1230510A-160	NA	05/11/23 04:49
Instrument Blank	SLE0204-IBLG	XDT_m1230510A-170	NA	05/11/23 05:33
Calibration Check	SLE0204-CCVH	XDT_m1230510A-171	NA	05/11/23 05:38
Calibration Blank	SLE0204-CCBH	XDT_m1230510A-172	NA	05/11/23 05:45
Instrument Blank	SLE0204-IBLH	XDT_m1230510A-182	NA	05/11/23 06:31
Calibration Check	SLE0204-CCVI	XDT_m1230510A-183	NA	05/11/23 06:35
Calibration Blank	SLE0204-CCBI	XDT_m1230510A-184	NA	05/11/23 06:42
Instrument Blank	SLE0204-IBLI	XDT_m1230510A-189	NA	05/11/23 07:05
<i>ZZZZZ</i>	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09
<i>ZZZZZ</i>	BLE0298-DUP1	XDT_m1230510A-191	Water	05/11/23 07:14
<i>ZZZZZ</i>	BLE0298-MS1	XDT_m1230510A-192	Water	05/11/23 07:19
<i>ZZZZZ</i>	BLE0298-MSD1	XDT_m1230510A-193	Water	05/11/23 07:25
Instrument Blank	SLE0204-IBLJ	XDT_m1230510A-194	NA	05/11/23 07:29
Calibration Check	SLE0204-CCVJ	XDT_m1230510A-195	NA	05/11/23 07:34



ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLE0204-CCBJ	XDT_m1230510A-196	NA	05/11/23 07:41



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0209-CAL1	XDT_m1230511-006	NA	05/11/23 13:56
CAL 1 - LOW CHECK	SLE0209-CAL2	XDT_m1230511-007	NA	05/11/23 14:00
CAL 2	SLE0209-CAL3	XDT_m1230511-008	NA	05/11/23 14:05
CAL 3	SLE0209-CAL4	XDT_m1230511-009	NA	05/11/23 14:10
CAL 4	SLE0209-CAL5	XDT_m1230511-010	NA	05/11/23 14:15
CAL 5	SLE0209-CAL6	XDT_m1230511-011	NA	05/11/23 14:21
RINSE	SLE0209-IBL1	XDT_m1230511-012	NA	05/11/23 14:29
Initial Cal Check	SLE0209-ICV1	XDT_m1230511-014	NA	05/11/23 14:34
Initial Cal Blank	SLE0209-ICB1	XDT_m1230511-015	NA	05/11/23 14:42
Calibration Check	SLE0209-CCV1	XDT_m1230511-019	NA	05/11/23 15:06
Calibration Blank	SLE0209-CCB1	XDT_m1230511-020	NA	05/11/23 15:13
Instrument RL Check	SLE0209-CRL1	XDT_m1230511-021	NA	05/11/23 15:18
Interference Check A	SLE0209-IFA1	XDT_m1230511-022	NA	05/11/23 15:23
Interference Check B	SLE0209-IFB1	XDT_m1230511-023	NA	05/11/23 15:28
LR200	SLE0209-HCV1	XDT_m1230511-024	NA	05/11/23 15:32
LR300	SLE0209-HCV2	XDT_m1230511-025	NA	05/11/23 15:37
Instrument Blank	SLE0209-IBL2	XDT_m1230511-026	NA	05/11/23 15:50
Instrument Blank	SLE0209-IBL3	XDT_m1230511-027	NA	05/11/23 15:56
Calibration Check	SLE0209-CCV2	XDT_m1230511-028	NA	05/11/23 16:02
Calibration Blank	SLE0209-CCB2	XDT_m1230511-029	NA	05/11/23 16:09
Calibration Check	SLE0209-CCV3	XDT_m1230511-031	NA	05/11/23 16:19
Calibration Blank	SLE0209-CCB3	XDT_m1230511-032	NA	05/11/23 16:27
ZZZZZ	BLE0072-BS2	XDT_m1230511-033	Solid	05/11/23 16:37
ZZZZZ	BLE0342-BLK1	XDT_m1230511-034	Water	05/11/23 16:42
ZZZZZ	BLE0342-BS1	XDT_m1230511-035	Water	05/11/23 16:46
Instrument Blank	SLE0209-IBL4	XDT_m1230511-040	NA	05/11/23 17:10
Instrument Blank	SLE0209-IBL5	XDT_m1230511-042	NA	05/11/23 17:21
Calibration Check	SLE0209-CCV4	XDT_m1230511-043	NA	05/11/23 17:25
Calibration Blank	SLE0209-CCB4	XDT_m1230511-044	NA	05/11/23 17:32



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0477-04	XDT_m1230511-045	Water	05/11/23 17:42
ZZZZZ	23D0477-08	XDT_m1230511-046	Water	05/11/23 17:43
ZZZZZ	23D0477-10	XDT_m1230511-047	Water	05/11/23 17:44
ZZZZZ	23D0477-12	XDT_m1230511-048	Water	05/11/23 17:46
ZZZZZ	23D0477-18	XDT_m1230511-049	Water	05/11/23 17:47
ZZZZZ	23D0477-20	XDT_m1230511-050	Water	05/11/23 17:48
Instrument Blank	SLE0209-IBL6	XDT_m1230511-054	NA	05/11/23 17:54
Calibration Check	SLE0209-CCV5	XDT_m1230511-055	NA	05/11/23 17:55
Calibration Blank	SLE0209-CCB5	XDT_m1230511-056	NA	05/11/23 17:59
ZZZZZ	23D0477-01	XDT_m1230511-057	Water	05/11/23 18:02
ZZZZZ	23D0477-07	XDT_m1230511-058	Water	05/11/23 18:03
ZZZZZ	23D0477-09	XDT_m1230511-059	Water	05/11/23 18:05
Instrument Blank	SLE0209-IBL7	XDT_m1230511-061	NA	05/11/23 18:08
ZZZZZ	23D0477-02	XDT_m1230511-062	Water	05/11/23 18:09
ZZZZZ	23D0477-03	XDT_m1230511-063	Water	05/11/23 18:10
ZZZZZ	23D0477-06	XDT_m1230511-064	Water	05/11/23 18:12
ZZZZZ	23D0477-11	XDT_m1230511-065	Water	05/11/23 18:13
Instrument Blank	SLE0209-IBL8	XDT_m1230511-066	NA	05/11/23 18:15
Calibration Check	SLE0209-CCV6	XDT_m1230511-067	NA	05/11/23 18:16
Calibration Blank	SLE0209-CCB6	XDT_m1230511-068	NA	05/11/23 18:20
ZZZZZ	23D0477-13	XDT_m1230511-069	Water	05/11/23 18:24
ZZZZZ	23D0477-14	XDT_m1230511-070	Water	05/11/23 18:25
ZZZZZ	23D0477-16	XDT_m1230511-071	Water	05/11/23 18:26
ZZZZZ	23D0477-15	XDT_m1230511-072	Water	05/11/23 18:28
Instrument Blank	SLE0209-IBL9	XDT_m1230511-073	NA	05/11/23 18:29
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	BLE0342-DUP1	XDT_m1230511-075	Water	05/11/23 18:40



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLE0342-MS1	XDT_m1230511-076	Water	05/11/23 18:45
ZZZZZ	BLE0342-MSD1	XDT_m1230511-077	Water	05/11/23 18:50
Instrument Blank	SLE0209-IBLA	XDT_m1230511-078	NA	05/11/23 18:55
Calibration Check	SLE0209-CCV7	XDT_m1230511-079	NA	05/11/23 18:59
Calibration Blank	SLE0209-CCB7	XDT_m1230511-080	NA	05/11/23 19:07
Calibration Check	SLE0209-CCV8	XDT_m1230511-082	NA	05/11/23 19:18
Calibration Blank	SLE0209-CCB8	XDT_m1230511-083	NA	05/11/23 19:25
Calibration Check	SLE0209-CCVA	XDT_m1230511-094	NA	05/11/23 19:55
Calibration Blank	SLE0209-CCBA	XDT_m1230511-095	NA	05/11/23 20:00
ZZZZZ	23D0636-01	XDT_m1230511-096	Water	05/11/23 20:07
ZZZZZ	23D0636-01	XDT_m1230511-096	Water	05/11/23 20:07
ZZZZZ	BLE0298-DUP2	XDT_m1230511-097	Water	05/11/23 20:11
ZZZZZ	BLE0298-MS2	XDT_m1230511-098	Water	05/11/23 20:16
ZZZZZ	BLE0298-MSD2	XDT_m1230511-099	Water	05/11/23 20:20
Instrument Blank	SLE0209-IBLC	XDT_m1230511-100	NA	05/11/23 20:25
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	BLE0143-DUP1	XDT_m1230511-102	Solid	05/11/23 20:35
ZZZZZ	BLE0143-MS1	XDT_m1230511-103	Solid	05/11/23 20:40
ZZZZZ	BLE0143-MSD1	XDT_m1230511-104	Solid	05/11/23 20:44
Instrument Blank	SLE0209-IBLD	XDT_m1230511-105	NA	05/11/23 20:49
Calibration Check	SLE0209-CCVB	XDT_m1230511-106	NA	05/11/23 20:53
Calibration Blank	SLE0209-CCBB	XDT_m1230511-107	NA	05/11/23 21:00
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
Instrument Blank	SLE0209-IBL E	XDT_m1230511-114	NA	05/11/23 21:34
Instrument Blank	SLE0209-IBL F	XDT_m1230511-116	NA	05/11/23 21:46
Calibration Check	SLE0209-CCVC	XDT_m1230511-117	NA	05/11/23 21:50
Calibration Blank	SLE0209-CCBC	XDT_m1230511-118	NA	05/11/23 21:58
Calibration Check	SLE0209-CCVD	XDT_m1230511-120	NA	05/11/23 22:08
Calibration Blank	SLE0209-CCBD	XDT_m1230511-121	NA	05/11/23 22:15
ZZZZZ	23A0467-03	XDT_m1230511-122	Solid	05/11/23 22:22
ZZZZZ	23A0467-03	XDT_m1230511-122	Solid	05/11/23 22:22
ZZZZZ	23A0467-03	XDT_m1230511-122	Solid	05/11/23 22:22
ZZZZZ	23C0071-03	XDT_m1230511-123	Solid	05/11/23 22:27
ZZZZZ	23C0071-03	XDT_m1230511-123	Solid	05/11/23 22:27
ZZZZZ	23C0071-03	XDT_m1230511-123	Solid	05/11/23 22:27
ZZZZZ	23D0008-01	XDT_m1230511-124	Solid	05/11/23 22:31
ZZZZZ	23D0008-01	XDT_m1230511-124	Solid	05/11/23 22:31
ZZZZZ	23D0008-01	XDT_m1230511-124	Solid	05/11/23 22:31
LDW23-SS1804	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW23-SS1804	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
LDW23-SS1804	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
LDW23-SS1803	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
LDW23-SS1803	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
LDW23-SS1803	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
ZZZZZ	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
ZZZZZ	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
ZZZZZ	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
ZZZZZ	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
ZZZZZ	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
ZZZZZ	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
Instrument Blank	SLE0209-IBLG	XDT_m1230511-131	NA	05/11/23 23:02
Calibration Check	SLE0209-CCVE	XDT_m1230511-132	NA	05/11/23 23:07
Calibration Blank	SLE0209-CCBE	XDT_m1230511-133	NA	05/11/23 23:14
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
Instrument Blank	SLE0209-IBLH	XDT_m1230511-143	NA	05/11/23 23:58
Calibration Check	SLE0209-CCVF	XDT_m1230511-144	NA	05/12/23 00:02
Calibration Blank	SLE0209-CCBF	XDT_m1230511-145	NA	05/12/23 00:09
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-12	XDT_m1230511-148	Solid	05/12/23 00:23
ZZZZZ	23D0393-12	XDT_m1230511-148	Solid	05/12/23 00:23



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0393-12	XDT_m1230511-148	Solid	05/12/23 00:23
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
Instrument Blank	SLE0209-IBLI	XDT_m1230511-155	NA	05/12/23 00:56
Calibration Check	SLE0209-CCVG	XDT_m1230511-156	NA	05/12/23 01:00
Calibration Blank	SLE0209-CCBG	XDT_m1230511-157	NA	05/12/23 01:07
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	BLE0072-DUP2	XDT_m1230511-163	Solid	05/12/23 01:34
ZZZZZ	BLE0072-MS2	XDT_m1230511-164	Solid	05/12/23 01:38
ZZZZZ	BLE0072-MSD2	XDT_m1230511-165	Solid	05/12/23 01:43
ZZZZZ	BLE0072-PS2	XDT_m1230511-166	Solid	05/12/23 01:49
Instrument Blank	SLE0209-IBLJ	XDT_m1230511-167	NA	05/12/23 01:54



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLE0209-CCVH	XDT_m1230511-168	NA	05/12/23 01:58
Calibration Blank	SLE0209-CCBH	XDT_m1230511-169	NA	05/12/23 02:05
ZZZZZ	23D0568-03RE1	XDT_m1230511-170	Solid	05/12/23 02:09
ZZZZZ	23D0568-07RE1	XDT_m1230511-171	Solid	05/12/23 02:14
ZZZZZ	23D0568-07RE1	XDT_m1230511-171	Solid	05/12/23 02:14
ZZZZZ	23D0568-08RE1	XDT_m1230511-172	Solid	05/12/23 02:18
ZZZZZ	BLE0143-DUP2	XDT_m1230511-173	Solid	05/12/23 02:22
ZZZZZ	BLE0143-MS2	XDT_m1230511-174	Solid	05/12/23 02:27
ZZZZZ	BLE0143-MSD2	XDT_m1230511-175	Solid	05/12/23 02:31
Instrument Blank	SLE0209-IBLK	XDT_m1230511-176	NA	05/12/23 02:36
Instrument Blank	SLE0209-IBLL	XDT_m1230511-179	NA	05/12/23 02:56
Calibration Check	SLE0209-CCVI	XDT_m1230511-180	NA	05/12/23 03:00
Calibration Blank	SLE0209-CCBI	XDT_m1230511-181	NA	05/12/23 03:07
Calibration Check	SLE0209-CCVJ	XDT_m1230511-183	NA	05/12/23 03:16
Calibration Blank	SLE0209-CCBJ	XDT_m1230511-184	NA	05/12/23 03:23
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
Instrument Blank	SLE0209-IBLM	XDT_m1230511-188	NA	05/12/23 03:46
Instrument Blank	SLE0209-IBLN	XDT_m1230511-194	NA	05/12/23 04:12
Calibration Check	SLE0209-CCVK	XDT_m1230511-195	NA	05/12/23 04:17
Calibration Blank	SLE0209-CCBK	XDT_m1230511-196	NA	05/12/23 04:24
Instrument Blank	SLE0209-IBLO	XDT_m1230511-206	NA	05/12/23 05:08
Calibration Check	SLE0209-CCVL	XDT_m1230511-207	NA	05/12/23 05:12
Calibration Blank	SLE0209-CCBL	XDT_m1230511-208	NA	05/12/23 05:19
ZZZZZ	23D0598-06	XDT_m1230511-214	Water	05/12/23 05:47
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
Instrument Blank	SLE0209-IBLP	XDT_m1230511-218	NA	05/12/23 06:04
Calibration Check	SLE0209-CCVM	XDT_m1230511-219	NA	05/12/23 06:09
Calibration Blank	SLE0209-CCBM	XDT_m1230511-220	NA	05/12/23 06:16
Instrument Blank	SLE0209-IBLQ	XDT_m1230511-225	NA	05/12/23 06:37
Instrument Blank	SLE0209-IBLR	XDT_m1230511-230	NA	05/12/23 07:00
Calibration Check	SLE0209-CCVN	XDT_m1230511-231	NA	05/12/23 07:04
Calibration Blank	SLE0209-CCBN	XDT_m1230511-232	NA	05/12/23 07:11
Calibration Check	SLE0209-CCVO	XDT_m1230511-234	NA	05/12/23 07:20
Calibration Blank	SLE0209-CCBO	XDT_m1230511-235	NA	05/12/23 07:27
Instrument Blank	SLE0209-IBLS	XDT_m1230511-245	NA	05/12/23 08:11
Calibration Check	SLE0209-CCVP	XDT_m1230511-246	NA	05/12/23 08:15
Calibration Blank	SLE0209-CCBP	XDT_m1230511-247	NA	05/12/23 08:22



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0163-IFA1	Chromium-52	0	0.6100		ug/L
	Chromium-53	0	3.6380		ug/L
	Lead-208	0	0.0240		ug/L
	Silver-107	0	0.0030		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0163-IFB1	Chromium-52	20.000	19.239	96.2	ug/L
	Chromium-53	20.000	22.578	113	ug/L
	Lead-208	0	0.0160		ug/L
	Silver-107	20.000	16.458	82.3	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0204-IFA1	Chromium-52	0	0.6610		ug/L
	Chromium-53	0	1.7410		ug/L
	Lead-208	0	0.0270		ug/L
	Silver-107	0	0.0050		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0204-IFB1	Chromium-52	20.000	20.186	101	ug/L
	Chromium-53	20.000	21.276	106	ug/L
	Lead-208	0	0.0180		ug/L
	Silver-107	20.000	18.002	90.0	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Standard ID: L005318

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0209-IFA1	Chromium-52	0	0.6190		ug/L
	Chromium-53	0	1.6910		ug/L
	Lead-208	0	0.0170		ug/L
	Silver-107	0	0.0040		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Standard ID: L005318

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0209-IFB1	Chromium-52	20.000	19.309	96.5	ug/L
	Chromium-53	20.000	20.701	104	ug/L
	Lead-208	0	0.0190		ug/L
	Silver-107	20.000	18.557	92.8	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Lab Sample ID: SLE0163-CRL1

Analyte	True	Found	%R	Units	QC Limits
Chromium-52	0.50000	0.488	97.6	ug/L	50 - 150
Chromium-53	0.50000	0.510	102	ug/L	50 - 150
Lead-208	0.10000	0.104	104	ug/L	50 - 150
Silver-107	0.20000	0.217	109	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Lab Sample ID: SLE0204-CRL1

Analyte	True	Found	%R	Units	QC Limits
Chromium-52	0.50000	0.523	105	ug/L	50 - 150
Chromium-53	0.50000	0.501	100	ug/L	50 - 150
Lead-208	0.10000	0.107	107	ug/L	50 - 150
Silver-107	0.20000	0.202	101	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Lab Sample ID: SLE0209-CRL1

Analyte	True	Found	%R	Units	QC Limits
Chromium-52	0.50000	0.497	99.4	ug/L	50 - 150
Chromium-53	0.50000	0.480	96.0	ug/L	50 - 150
Lead-208	0.10000	0.113	113	ug/L	50 - 150
Silver-107	0.20000	0.206	103	ug/L	50 - 150

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Laboratory ID: SLE0163-HCV1

Sequence: SLE0163

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	196	-2.0	10.00
Chromium-53	200.00	194	-3.0	10.00
Lead-208	200.00	205	2.4	10.00
Silver-107	200.00	183	-8.3	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION**

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Laboratory ID: SLE0163-HCV2

Sequence: SLE0163

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	304	1.2	10.00
Chromium-53	300.00	303	1.0	10.00
Lead-208	300.00	310	3.3	10.00
Silver-107	300.00	286	-4.8	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Laboratory ID: SLE0204-HCV1

Sequence: SLE0204

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	198	-0.8	10.00
Chromium-53	200.00	195	-2.5	10.00
Lead-208	200.00	200	0.004	10.00
Silver-107	200.00	194	-3.2	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Laboratory ID: SLE0204-HCV2

Sequence: SLE0204

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	306	1.9	10.00
Chromium-53	300.00	295	-1.7	10.00
Lead-208	300.00	317	5.5	10.00
Silver-107	300.00	311	3.6	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Laboratory ID: SLE0209-HCV1

Sequence: SLE0209

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	193	-3.3	10.00
Chromium-53	200.00	190	-5.1	10.00
Lead-208	200.00	195	-2.3	10.00
Silver-107	200.00	201	0.3	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Laboratory ID: SLE0209-HCV2

Sequence: SLE0209

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	305	1.7	10.00
Chromium-53	300.00	292	-2.8	10.00
Lead-208	300.00	300	-0.02	10.00
Silver-107	300.00	295	-1.5	10.00

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/28/23 15:38	23	180	05/11/23 22:35	36	180	
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	04/28/23 15:38	22	180	05/11/23 22:40	36	180	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ICPMS1

Analyte	MDL	RL	Units
Chromium-52	0.26	0.50	mg/kg
Chromium-53	0.24	0.50	mg/kg
Lead-208	0.05	0.10	mg/kg
Silver-107	0.02	0.20	mg/kg

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCU10
 Lot Number: P2-CU682108
 Matrix: 3% (v/v) HNO3
 Value / Analyte(s): 10 000 µg/mL ea:
 Copper
 Starting Material: Cu Metal
 Starting Material Lot#: 2095
 Starting Material Purity: 99.9996%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10013 ± 30 µg/mL
Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

- Assay Method #1** **9977 ± 50 µg/mL**
 ICP Assay NIST SRM 3114 Lot Number: 121207

- Assay Method #2** **10024 ± 26 µg/mL**
 EDTA NIST SRM 928 Lot Number: 928

- Assay Method #3** **10007 ± 46 µg/mL**
 Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.007542	M Eu < 0.000942	O Na < 0.001434	M Se < 0.016971	M Zn < 0.005657
O Al < 0.000609	O Fe < 0.008700	M Nb < 0.000942	O Si < 0.003052	M Zr < 0.000942
M As < 0.010371	M Ga < 0.000942	M Nd < 0.000942	M Sm < 0.000942	
M Au < 0.001885	M Gd < 0.000942	M Ni < 0.003781	M Sn < 0.005657	
O B < 0.003663	M Ge < 0.005657	M Os < 0.000942	M Sr < 0.000942	
M Ba < 0.004253	M Hf < 0.000942	O P < 0.031668	M Ta < 0.000942	
M Be < 0.000942	O Hg < 0.007064	M Pb < 0.005789	M Tb < 0.000942	
M Bi < 0.000942	M Ho < 0.000942	M Pd < 0.000942	M Te < 0.004714	
O Ca < 0.002304	M In < 0.000942	M Pr < 0.000942	M Th < 0.000942	
M Cd < 0.000942	M Ir < 0.000942	M Pt < 0.000942	O Ti < 0.002801	
M Ce < 0.000942	O K < 0.000763	M Rb < 0.000942	M Tl < 0.000942	
M Co < 0.001890	M La < 0.000942	M Re < 0.000942	M Tm < 0.000942	
M Cr < 0.005657	O Li < 0.000243	i Rh <	M U < 0.000942	
M Cs < 0.000942	M Lu < 0.000942	M Ru < 0.039588	M V < 0.003771	
s Cu <	O Mg < 0.000320	O S < 0.007174	M W < 0.005657	
M Dy < 0.000942	O Mn < 0.000793	M Sb < 0.001885	M Y < 0.000942	
M Er < 0.000942	M Mo < 0.005657	M Sc < 0.000942	M Yb < 0.000942	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 63.55 +2 6 Cu(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cu Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 63 amu	10 ppt	n/a	40Ar23Na 47Ti16O, 14N12C37Cl, 16O12C35Cl, 23Na40Ca
ICP-OES 219.958 nm	0.01/.002 µg/mL	1	Th, Ta, Nb, U, Hf
ICP-OES 224.700 nm	0.01/.001 µg/mL	1	Pb, Ir, Ni, W
ICP-OES 324.754 nm	0.06/.001 µg/mL		Nb, U, Th, Mo, Hf

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 24, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 24, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGPB10
Lot Number: S2-PB713228
Matrix: 0.5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Lead
Starting Material: Lead Nitrate
Starting Material Lot#: 2343
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10042 ± 31 µg/mL
Density: 1.015 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10024 ± 41 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 101026

Assay Method #2 **10054 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000310	M Eu < 0.000310	M Na < 0.001470	M Se < 0.009100	O Zn < 0.006155
O Al < 0.017098	O Fe < 0.002496	M Nb < 0.000310	O Si < 0.003761	O Zr < 0.001700
M As < 0.003100	M Ga < 0.000310	M Nd < 0.000310	M Sm < 0.000310	
M Au < 0.000910	M Gd < 0.000310	O Ni < 0.001709	M Sn < 0.001300	
O B < 0.005600	M Ge < 0.002200	M Os < 0.000310	O Sr < 0.000444	
O Ba < 0.007865	M Hf < 0.000310	O P < 0.038000	M Ta < 0.000310	
O Be < 0.000320	M Hg < 0.002200	s Pb < 0.000610	M Tb < 0.000610	
M Bi < 0.028000	M Ho < 0.000310	M Pd < 0.000610	M Te < 0.000310	
O Ca < 0.019834	M In < 0.000310	M Pr < 0.000310	M Th < 0.000310	
O Cd < 0.000630	M Ir < 0.000310	M Pt < 0.000910	O Ti < 0.005129	
M Ce < 0.004787	O K < 0.008207	M Rb < 0.006700	M Tl < 0.016000	
M Co < 0.000610	M La < 0.001900	M Re < 0.000310	M Tm < 0.000310	
O Cr < 0.001500	O Li < 0.000110	O Rh < 0.007700	M U < 0.000310	
M Cs < 0.006100	M Lu < 0.000310	M Ru < 0.001300	M V < 0.001600	
M Cu < 0.001600	O Mg < 0.003317	O S < 0.052000	M W < 0.000910	
M Dy < 0.000310	O Mn < 0.001600	O Sb < 0.015000	M Y < 0.000310	
M Er < 0.000310	M Mo < 0.000610	O Sc < 0.000630	M Yb < 0.000310	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 207.20 +2 6 Pb(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, HF and HNO₃. Avoid H₂SO₄. Stable with most metals and inorganic anions forming insoluble carbonate, borate, sulfate, sulfite, sulfide, phosphate, oxalate, chromate, tannate, iodate, and cyanide in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Pb Containing Samples (Preparation and Solution) -Metal (Best dissolved in 1:1 H₂O / HNO₃); Oxides (The many different Pb oxides are soluble in HNO₃ with the exception of PbO₂ which is soluble in HCl or HF); Ores and Alloys (Best attacked using 1:1 H₂O / HNO₃); Organic Matrices (Dry ash and dissolve in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 208 amu	5 ppt	n/a	192Pt16O, 192Os16O
ICP-OES 168.215 nm	0.03 / 0.003 µg/mL	1	Co
ICP-OES 217.000 nm	0.09 / 0.03 µg/mL	1	W, Ir, Hf, Sb, Th
ICP-OES 220.353 nm	0.04 / 0.006 µg/mL	1	Bi, Nb

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGZN10
Lot Number: S2-ZN711249
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Zinc
Starting Material: Zinc Metal
Starting Material Lot#: 2349
Starting Material Purity: 99.9988%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9981 ± 56 µg/mL ICP Assay NIST SRM 3168a Lot Number: 120629
Assay Method #2	9987 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10002 ± 32 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.002000	M Eu < 0.000500	O Na < 0.008713	M Se < 0.048000	s Zn <
O Al < 0.011000	O Fe < 0.015467	M Nb < 0.000500	O Si < 0.007842	M Zr < 0.000500
O As < 0.012000	M Ga < 0.004900	M Nd < 0.000500	M Sm < 0.000500	
M Au < 0.006500	M Gd < 0.000500	O Ni < 0.003049	M Sn < 0.002614	
O B < 0.019000	M Ge < 0.009100	M Os < 0.000500	M Sr < 0.000500	
M Ba < 0.000500	M Hf < 0.000500	O P < 0.059000	M Ta < 0.000500	
O Be < 0.000230	O Hg < 0.003800	M Pb < 0.016774	M Tb < 0.000500	
M Bi < 0.002400	M Ho < 0.000500	M Pd < 0.001000	M Te < 0.017000	
O Ca < 0.052283	M In < 0.003500	M Pr < 0.000500	M Th < 0.000500	
O Cd < 0.000588	M Ir < 0.001000	M Pt < 0.000500	M Ti < 0.002000	
M Ce < 0.000500	O K < 0.017209	M Rb < 0.002500	M Tl < 0.000500	
M Co < 0.000653	M La < 0.000500	M Re < 0.000500	M Tm < 0.000500	
O Cr < 0.001089	O Li < 0.000230	M Rh < 0.000500	M U < 0.000500	
M Cs < 0.000500	M Lu < 0.000500	M Ru < 0.005000	M V < 0.000500	
O Cu < 0.001938	O Mg < 0.000871	O S < 0.048000	M W < 0.001000	
M Dy < 0.000500	O Mn < 0.000172	M Sb < 0.004300	M Y < 0.000500	
M Er < 0.000500	M Mo < 0.001500	O Sc < 0.000900	M Yb < 0.000500	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 65.39 +2 4 Zn(OH)(aq)1+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media forming insoluble carbonate and hydroxide. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Zn Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃); Organic based (dry ash at 4500C and dissolve ash in HCl) (sulfuric/peroxide acid digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 66 amu	7 ppt	N/A	50Ti16O,50Cr16O, 50V16O, 34S16O2, 32S16O18O, 32S17O2, 33S16O17O, 32S34S, 33S2
ICP-OES 202.548 nm	0.004/0.0002 µg/mL	1	Nb, Cu, Co, Hf
ICP-OES 206.200 nm	0.006/0.0006 µg/mL	1	Sb, Ta, Bi, Os
ICP-OES 213.856 nm	0.002/0.0004 µg/mL	1	Ni, Cu, V

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 22, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSE10
Lot Number: S2-SE711004
Matrix: 3% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Selenium
Starting Material: Se Metal
Starting Material Lot#: 1962
Starting Material Purity: 99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9955 ± 61 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **9955 ± 50 µg/mL**
ICP Assay NIST SRM 3149 Lot Number: 100901

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char\ i}^2) / (\sum(1/(u_{char\ i}^2)))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with
 $u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char\ a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.002242	M Eu <	0.000373	O Na	0.013654	s Se <		O Zn	0.002374
M Al	0.004450	M Fe	0.008478	O Nb <	0.002975	O Si	0.006249	M Zr <	0.001868
O As <	0.022040	M Ga <	0.000373	M Nd <	0.000373	M Sm <	0.000373		
M Au <	0.000373	M Gd <	0.000373	O Ni	0.001843	M Sn	0.000847		
O B <	0.007714	M Ge <	0.002616	M Os <	0.000373	M Sr <	0.001121		
M Ba <	0.001495	M Hf <	0.000373	O P <	0.022040	M Ta <	0.000373		
M Be <	0.001495	M Hg <	0.002240	M Pb	0.006358	M Tb <	0.006353		
M Bi <	0.000373	M Ho <	0.000373	M Pd <	0.000373	M Te <	0.012707		
O Ca	0.006530	M In <	0.000373	M Pr <	0.001495	M Th <	0.002990		
M Cd	0.001165	M Ir <	0.000373	M Pt <	0.000373	M Ti <	0.003363		
M Ce <	0.000373	O K	0.001999	M Rb <	0.001868	M Tl	0.008584		
M Co <	0.000373	M La <	0.001121	M Re <	0.000373	M Tm <	0.000373		
M Cr	0.002861	O Li	0.000062	M Rh <	0.000373	M U <	0.000373		
M Cs <	0.001121	M Lu <	0.000373	M Ru <	0.001493	M V <	0.000747		
M Cu <	0.000747	O Mg	0.001156	O S	0.024591	M W <	0.002242		
M Dy <	0.000373	M Mn <	0.000373	M Sb <	0.002242	M Y <	0.000373		
M Er <	0.000373	O Mo <	0.003195	M Sc <	0.001121	M Yb <	0.000373		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 78.96 +4 6 H₂SeO₃

Chemical Compatibility -Soluble in HCl, HNO₃, H₃PO₄, H₂SO₄ and HF aqueous matrices and water. It is stable with most inorganic anions but many cationic metals form the insoluble selenites under pH neutral conditions. When fluorinated and/or under acidic conditions precipitation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Se Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (readily soluble in water); Minerals and alloys (acid digestion with HNO₃ or HNO₃ / HF); Organic Matrices (acid digestion with hot concentrated H₂SO₄ accompanied by the careful dropwise addition of H₂O₂ until clear).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 82 amu	200 ppt	N/A	12C35Cl2
ICP-OES 196.026 nm	0.08/0.006 µg/mL	1	Fe
ICP-OES 203.985 nm	0.2/0.05 µg/mL	1	Sb, Ir, Cr, Ta
ICP-OES 206.279 nm	0.3/0.16 µg/mL	1	Cr, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMO10
Lot Number: S2-MO706255
Matrix: H2O
tr. NH4OH
Value / Analyte(s): 10 000 µg/mL ea:
Molybdenum
Starting Material: Ammonium Molybdate
Starting Material Lot#: 2361
Starting Material Purity: 99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10026 ± 47 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10032 ± 68 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

Assay Method #2 **10020 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000590	M Eu < 0.000300	M Na < 0.008739	M Se < 0.008000	M Zn < 0.005942
M Al < 0.005592	M Fe < 0.006500	M Nb < 0.029000	i Si < 0.001800	M Zr < 0.001800
M As < 0.002100	M Ga < 0.000300	i Nd < 0.000300	M Sm < 0.000300	
M Au < 0.000300	M Gd < 0.000300	M Ni < 0.008000	M Sn < 0.008900	
M B < 0.003300	M Ge < 0.000300	M Os < 0.000590	M Sr < 0.001747	
M Ba < 0.016778	M Hf < 0.001800	i P < 0.004200	M Ta < 0.004200	
M Be < 0.000890	M Hg < 0.003300	M Pb < 0.000300	M Tb < 0.000300	
M Bi < 0.000890	M Ho < 0.000300	M Pd < 0.001800	M Te < 0.021000	
O Ca < 0.062920	M In < 0.032000	M Pr < 0.013000	M Th < 0.000300	
O Cd < 0.026000	M Ir < 0.000300	M Pt < 0.000300	O Ti < 0.032000	
M Ce < 0.008300	M K < 1.293372	M Rb < 0.045442	M Tl < 0.012584	
M Co < 0.005942	M La < 0.000300	M Re < 0.000300	M Tm < 0.000300	
M Cr < 0.005243	O Li < 0.000594	M Rh < 0.000300	M U < 0.005300	
M Cs < 0.005243	M Lu < 0.000300	M Ru < 0.079000	M V < 0.000890	
M Cu < 0.022371	M Mg < 0.005592	i S < 0.873900	M W < 0.873900	
M Dy < 0.000300	M Mn < 0.005900	M Sb < 0.015031	M Y < 0.000300	
M Er < 0.000300	s Mo < 0.001200	M Sc < 0.001200	M Yb < 0.000300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9

[MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 60,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 04, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGTL10
Lot Number: T2-TL714687
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Thallium
Starting Material: TINO₃
Starting Material Lot#: 2118
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10030 ± 42 µg/mL
Density: 1.036 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10040 ± 43 µg/mL**
ICP Assay NIST SRM 3158 Lot Number: 151215

Assay Method #2 **10010 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000200	M Eu < 0.000200	O Na < 0.002489	M Se < 0.011019	O Zn < 0.002298
O Al < 0.004184	O Fe < 0.002824	M Nb < 0.000200	O Si < 0.003760	M Zr < 0.000200
M As < 0.002003	M Ga < 0.000200	M Nd < 0.000200	M Sm < 0.000200	
O Au < 0.002824	M Gd < 0.000200	M Ni < 0.001724	M Sn < 0.000601	
O B < 0.004184	M Ge < 0.000801	M Os < 0.000198	O Sr < 0.000313	
M Ba < 0.000400	M Hf < 0.000200	O P < 0.010460	M Ta < 0.000200	
O Be < 0.000104	M Hg < 0.000794	M Pb < 0.000811	M Tb < 0.000200	
M Bi < 0.005209	M Ho < 0.000200	M Pd < 0.000400	M Te < 0.005008	
O Ca < 0.002436	M In < 0.000200	M Pr < 0.000200	M Th < 0.000200	
M Cd < 0.001318	M Ir < 0.000198	M Pt < 0.000801	O Ti < 0.001255	
M Ce < 0.000200	O K < 0.006175	M Rb < 0.000200	s Tl <	
M Co < 0.000601	M La < 0.000200	M Re < 0.000200	M Tm < 0.000200	
M Cr < 0.000801	O Li < 0.000177	M Rh < 0.000200	M U < 0.000200	
M Cs < 0.003606	M Lu < 0.000200	M Ru < 0.000397	M V < 0.002203	
M Cu < 0.001001	O Mg < 0.000529	O S < 0.015690	M W < 0.000601	
M Dy < 0.000200	M Mn < 0.000801	M Sb < 0.000400	M Y < 0.000200	
M Er < 0.000200	M Mo < 0.001202	O Sc < 0.000711	M Yb < 0.000200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Ti(H₂O)₆⁺
Chemical Compatibility - Soluble in HCl, HNO₃, and H₂SO₄. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ti Containing Samples)Preparation and Solution) -Metal (Best dissolved in HNO₃ which forms chiefly the Ti⁺ ion.); Oxide (The thalious oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in Pt₀ followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 08, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **February 08, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCD10
Lot Number: S2-CD710508
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Cadmium
Starting Material: Cd Metal
Starting Material Lot#: 1953
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10008 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10010 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	10011 ± 30 µg/mL ICP Assay NIST SRM 3108 Lot Number: 130116
Assay Method #3	10003 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

O Ag < 0.003200	O Eu < 0.002500	O Na < 0.005499	M Se < 0.005700	O Zn < 0.001100
O Al < 0.008903	O Fe < 0.000602	M Nb < 0.000400	O Si < 0.016758	O Zr < 0.002600
M As < 0.003600	M Ga < 0.001200	M Nd < 0.000800	M Sm < 0.000400	
M Au < 0.000810	M Gd < 0.000400	M Ni < 0.003600	M Sn < 0.003200	
O B < 0.004189	O Ge < 0.012000	M Os < 0.000810	O Sr < 0.000330	
M Ba < 0.002400	M Hf < 0.000400	O P < 0.022000	M Ta < 0.000800	
M Be < 0.000400	M Hg < 0.001700	M Pb < 0.002400	M Tb < 0.000400	
M Bi < 0.000400	M Ho < 0.000400	M Pd < 0.001200	M Te < 0.008000	
O Ca < 0.011259	O In < 0.013000	M Pr < 0.000400	M Th < 0.000400	
s Cd < 0.000400	M Ir < 0.000410	M Pt < 0.000400	O Ti < 0.000602	
M Ce < 0.000400	O K < 0.005237	M Rb < 0.004400	M Tl < 0.000523	
M Co < 0.000400	M La < 0.000400	M Re < 0.000400	M Tm < 0.000400	
O Cr < 0.005100	O Li < 0.000054	M Rh < 0.000400	M U < 0.000400	
M Cs < 0.002400	M Lu < 0.000400	M Ru < 0.002500	M V < 0.002000	
O Cu < 0.004800	O Mg < 0.000288	O S < 0.022000	M W < 0.000400	
M Dy < 0.000400	O Mn < 0.000860	O Sb < 0.018000	M Y < 0.000400	
M Er < 0.000400	M Mo < 0.001600	O Sc < 0.000430	M Yb < 0.000400	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 112.41 +2 4 Cd₂(OH)₃+ and Cd(OH)₂(aq)

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, and HF. Avoid basic media forming insoluble carbonate and hydroxide.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃ / LDPE container.

Cd Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (soluble in HCl or HNO₃); Ores (dissolve in HCl /HNO₃ then take to fumes with H₂SO₄. The silica and lead sulfate are filtered off after the addition of water); Organic based (dry ash at 450°C and dissolve ash in HCl), (sulfuric / peroxide acid digestion).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 111 amu	11 ppt	n/a	95Mo16O
ICP-OES 214.438 nm	0.003 / 0.0003 µg/mL	1	Pt, Ir
ICP-OES 226.502 nm	0.003 / 0.0003 µg/mL	1	Ir
ICP-OES 228.802 nm	0.003 / 0.0003 µg/mL	1	Co, Ir, As, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 01, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 01, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMN10
Lot Number: S2-MN704240
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Manganese
Starting Material: Mn Metal
Starting Material Lot#: 2275
Starting Material Purity: 99.9909%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10011 ± 30 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9989 ± 69 µg/mL ICP Assay NIST SRM 3132 Lot Number: 050429
Assay Method #2	10011 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10024 ± 47 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001500	M Eu < 0.000730	O Na 0.176097	M Se < 0.006600	M Zn 0.009925
O Al 0.004322	M Fe < 0.650000	M Nb < 0.000730	O Si 0.097654	M Zr < 0.000730
M As < 0.008000	M Ga 0.004322	M Nd < 0.001500	M Sm < 0.000730	
M Au < 0.000730	M Gd < 0.000730	M Ni 0.024013	M Sn < 0.002200	
M B 0.068838	M Ge < 0.004400	M Os < 0.000730	O Sr 0.000928	
M Ba < 0.001500	M Hf < 0.000730	i P <	M Ta < 0.000730	
M Be < 0.000730	M Hg < 0.002200	M Pb 0.007364	M Tb < 0.000730	
M Bi < 0.003000	M Ho < 0.000730	M Pd < 0.000730	M Te < 0.019000	
O Ca 0.062434	M In < 0.003000	M Pr < 0.000730	M Th < 0.000730	
M Cd < 0.001500	M Ir < 0.000730	M Pt < 0.000730	O Ti < 0.006500	
M Ce < 0.007300	O K 0.006403	M Rb < 0.006600	M Tl < 0.000730	
O Co 0.014728	M La < 0.003000	M Re < 0.000730	M Tm < 0.000730	
O Cr 0.272151	O Li 0.000416	M Rh < 0.003000	M U < 0.001500	
M Cs < 0.000730	M Lu < 0.000730	M Ru < 0.004400	M V < 0.000730	
O Cu 0.007684	O Mg 0.320177	i S <	M W < 0.004400	
M Dy < 0.001500	s Mn <	M Sb < 0.021000	O Y 0.001360	
M Er < 0.001500	M Mo 0.010245	O Sc < 0.004100	M Yb < 0.000730	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 54.94 +2 6 Mn(H₂O)₆2+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃/LDPE container.

Mn Containing Samples (Preparation and Solution) -Metal (Soluble in dilute acids); Oxides (Soluble in dilute acids); Ores (Dissolve with HCl. If silica is present add HF and then fume off silica by adding H₂SO₄ and heat to SO₃ fumes - dense white fumes).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 55 amu	10 ppt	n/a	40Ar14N1H,39K16 O,37Cl18O,40Ar15 N,38Ar17O,36Ar18O 1H ,38Ar16O1H,37Cl17 O1H,23Na32S
ICP-OES 257.610 nm	0.0014 / 0.00002 µg/mL	1	Ce, W, Re
ICP-OES 259.373 nm	0.0016 / 0.00002 µg/mL	1	U, Ta, Mo, Fe, Nb
ICP-OES 260.569 nm	0.0021 / 0.00002 µg/mL	1	Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 17, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGSB10
 Lot Number: R2-SB688559
 Matrix: 3% (v/v) HNO3
 3% (w/v) tartaric acid
 Value / Analyte(s): 10 000 µg/mL ea:
 Antimony
 Starting Material: Antimony Metal
 Starting Material Lot#: 1857
 Starting Material Purity: 99.9894%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10003 ± 47 µg/mL
Density: 1.061 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 10003 ± 41 µg/mL
 ICP Assay NIST SRM 3102a Lot Number: 140911

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.000200	M Eu <	0.000300	O Na	0.140000	M Se <	0.007300	O Zn	0.005000
M Al	0.003200	O Fe	0.060000	M Nb <	0.000100	O Si	0.150000	O Zr <	0.006300
M As <	0.004400	M Ga <	0.000400	M Nd <	0.000100	M Sm <	0.000100		
M Au <	0.000210	M Gd <	0.000100	O Ni	0.004800	M Sn <	0.001800		
M B <	0.011000	M Ge <	0.000600	M Os <	0.000110	O Sr	0.000750		
O Ba <	0.004900	M Hf <	0.000100	O P	0.540000	M Ta	0.003300		
M Be <	0.000400	M Hg <	0.000110	M Pb <	0.000400	M Tb <	0.000100		
M Bi <	0.000200	M Ho <	0.000100	M Pd <	0.000210	M Te <	0.000600		
O Ca	0.110000	M In <	0.000100	M Pr <	0.001600	M Th <	0.000100		
M Cd <	0.000200	M Ir <	0.000110	M Pt <	0.000600	M Ti <	0.002800		
M Ce	0.006500	O K	0.020000	M Rb <	0.001000	M Tl <	0.000100		
M Co <	0.000200	O La <	0.016000	M Re <	0.000100	M Tm <	0.000100		
M Cr	0.006900	O Li <	0.000430	M Rh <	0.000300	M U <	0.000100		
M Cs <	0.000200	M Lu <	0.000100	M Ru <	0.000310	M V <	0.000800		
M Cu <	0.000600	O Mg	0.021000	n S <		M W <	0.000200		
M Dy <	0.000100	O Mn	0.001900	s Sb <		M Y <	0.000100		
M Er <	0.000100	M Mo <	0.000500	O Sc <	0.002300	M Yb <	0.000100		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 121.75 +3 6 Sb(O)C4H4O6-1

Chemical Compatibility -Stable in conc. HCl, dilute or conc. HF. Stable in dilute HNO3 as the fluoride or tartrate complex. Avoid basic media. Stable with most metals and inorganic anions in acidic media as the tartrate provided the acidity is not too high or the acid is oxidizing causing loss of the stabilizing tartrate ion. The fluoride complex of antimony is stable in strong acid but you should only mix with other metals that are fluorinated.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-2% HNO3 / LDPE container.

Sb Containing Samples (Preparation and Solution) -Metal and alloys (Soluble in H2O / HF / HNO3 mixture); Oxides (Soluble in HCl and tartaric acid or H2O / HF / HNO3 mixtures); Ores (fusion with Na2CO3 in Pt0 followed by dissolving the fuseate in a H2O / HF / HNO3 mixture); Organic based (sulfuric acid / hydrogen peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 121 amu	5 ppt	N/A	105Pd16O, 89Y16O2
ICP-OES 206.833 nm	0.03/0.003 µg/mL	1	Ta, Cr, Ge, Hf
ICP-OES 217.581 nm	0.05/0.005 µg/mL	1	Nb, W, Re, Fe
ICP-OES 231.147 nm	0.06/0.006 µg/mL	1	Ni, Co, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 30, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 30, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAS10
Lot Number: T2-AS718260
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Arsenic
Starting Material: As Metal
Starting Material Lot#: 2208
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10060 ± 40 µg/mL
Density: 1.037 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10062 ± 46 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 100818

Assay Method #2 **10055 ± 76 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.003200	M Eu < 0.000530	O Na < 0.032544	M Se < 0.006300	O Zn < 0.001952
M Al < 0.007593	O Fe < 0.001475	O Nb < 0.012000	O Si < 0.238658	O Zr < 0.004100
s As < 0.000530	M Ga < 0.000530	M Nd < 0.000530	M Sm < 0.000530	
M Au < 0.003100	M Gd < 0.000530	M Ni < 0.002100	M Sn < 0.000530	
M B < 0.026035	M Ge < 0.001600	M Os < 0.000520	M Sr < 0.000530	
M Ba < 0.000530	M Hf < 0.000530	O P < 0.043000	M Ta < 0.000530	
O Be < 0.000360	M Hg < 0.001600	M Pb < 0.002100	M Tb < 0.000530	
M Bi < 0.000530	M Ho < 0.000530	M Pd < 0.001100	M Te < 0.004700	
O Ca < 0.004339	M In < 0.023000	M Pr < 0.005300	M Th < 0.000530	
M Cd < 0.001100	M Ir < 0.000520	M Pt < 0.000530	O Ti < 0.002300	
M Ce < 0.000530	O K < 0.002061	M Rb < 0.000530	M Tl < 0.000530	
M Co < 0.000530	M La < 0.001100	M Re < 0.000530	M Tm < 0.000530	
O Cr < 0.001800	O Li < 0.000120	M Rh < 0.000530	M U < 0.000530	
M Cs < 0.005300	M Lu < 0.000530	M Ru < 0.000520	M V < 0.002700	
M Cu < 0.001600	O Mg < 0.000154	O S < 0.028205	M W < 0.012000	
M Dy < 0.000530	O Mn < 0.000154	M Sb < 0.000530	M Y < 0.000530	
M Er < 0.000530	M Mo < 0.000530	O Sc < 0.001700	M Yb < 0.000530	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 74.92 ; mix of +3 and +5 ; 6 ; H3AsO4 and HAsO2

Chemical Compatibility - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3, H3PO4, H2SO4 and HF aqueous matrices water and NH4OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container.

As Containing Samples (Preparation and Solution) - Metal (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphous form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (one gram of powdered sample is fused in a Ni crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a Ni crucible. The fuseate is extracted with water and acidified with HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 75 amu	20 ppt	N/A	40Ar35Cl, 59Co16O, 36Ar38Ar1H,8Ar37C I,Ar39K, 150Nd2+,150Sm2+
ICP-OES 189.042 nm	0.05/0.005 µg/mL	1	Cr
ICP-OES 193.696 nm	0.1/0.01 µg/mL	1	V, Ge
ICP-OES 228.812 nm	0.1/0.01 µg/mL	1	Cd, Pt, Ir, Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGBA10
Lot Number: R2-BA692576
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Barium
Starting Material: Barium Nitrate
Starting Material Lot#: 1969
Starting Material Purity: 99.9982%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL
Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10018 ± 50 µg/mL ICP Assay NIST SRM 3104a Lot Number: 140909
Assay Method #2	10023 ± 31 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #3	10023 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000410	O Eu < 0.005200	O Na < 0.004610	M Se < 0.003700	O Zn < 0.000658
M Al < 0.003100	O Fe < 0.015707	M Nb < 0.000210	O Si < 0.005573	M Zr < 0.001300
M As < 0.001300	M Ga < 0.000210	M Nd < 0.000210	O Sm < 0.021000	
M Au < 0.001300	M Gd < 0.000210	M Ni < 0.000810	M Sn < 0.000410	
O B < 0.005200	M Ge < 0.002500	M Os < 0.000410	O Sr < 0.003850	
s Ba < 0.000320	M Hf < 0.000810	O P < 0.026000	M Ta < 0.000410	
O Be < 0.000320	M Hg < 0.000210	M Pb < 0.002300	M Tb < 0.000210	
M Bi < 0.000210	M Ho < 0.000210	M Pd < 0.000210	M Te < 0.001900	
O Ca < 0.007093	M In < 0.000210	M Pr < 0.000210	M Th < 0.000210	
M Cd < 0.000210	M Ir < 0.000210	M Pt < 0.000210	M Ti < 0.002100	
M Ce < 0.001300	O K < 0.035467	M Rb < 0.002100	M Tl < 0.000210	
M Co < 0.000410	O La < 0.005200	M Re < 0.000210	M Tm < 0.000410	
M Cr < 0.001700	O Li < 0.000630	M Rh < 0.000210	M U < 0.000210	
M Cs < 0.003300	M Lu < 0.001700	M Ru < 0.000210	O V < 0.005200	
M Cu < 0.001300	O Mg < 0.000861	O S < 0.268539	M W < 0.000410	
M Dy < 0.000210	M Mn < 0.000410	M Sb < 0.001300	O Y < 0.005200	
M Er < 0.001300	M Mo < 0.000410	M Sc < 0.000410	M Yb < 0.001300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 137.33 +2 6 Ba(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, iodate, molybdate, sulfite and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1 -10,000 ppm solutions chemically stable for years in 1-3.5% HNO₃ / LDPE container.

Ba Containing Samples (Preparation and Solution) -Metal(is best dissolved in diluted HNO₃); Ores(Carbonate fusion in Pt0 followed by HCl dissolution. If sulfate is present dissolve the fuseate using HCl / tartaric acid to prevent BaSO₄ precipitate); Organic Matrices (dry ash and dissolve in dilute HCl.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 138 amu	1 ppt	N/A	122Sn16O, 122Te16O
ICP-OES 230.424 nm	0.004/0.0005 µg/mL	1	Mo, Ir, Co
ICP-OES 233.527 nm	0.004/0.0003 µg/mL	1	
ICP-OES 455.403 nm	0.002/0.0001 µg/mL	1	Zr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 11, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 11, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGBE10
 Lot Number: R2-BE692992
 Matrix: 6% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Beryllium
 Starting Material: Beryllium Acetate
 Starting Material Lot#: 2281
 Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10032 ± 41 µg/mL
Density: 1.128 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10042 ± 67 µg/mL ICP Assay NIST SRM 3105a Lot Number: 090514
Assay Method #2	10025 ± 51 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001100	M Eu < 0.000270	O Na < 0.040962	M Se < 0.005000	M Zn < 0.013054
O Al < 0.016205	O Fe < 0.015754	M Nb < 0.000270	O Si < 0.024307	O Zr < 0.001900
M As < 0.002900	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000520	M Gd < 0.000270	M Ni < 0.003700	M Sn < 0.000790	
M B < 0.091000	M Ge < 0.000270	M Os < 0.000260	M Sr < 0.000630	
M Ba < 0.002700	M Hf < 0.000270	O P < 0.066000	M Ta < 0.000270	
s Be < 0.000530	M Hg < 0.000520	M Pb < 0.000270	M Tb < 0.000270	
M Bi < 0.072022	M Ho < 0.000270	M Pd < 0.000520	M Te < 0.003700	
O Ca < 0.000790	M In < 0.000790	M Pr < 0.000270	M Th < 0.000270	
M Cd < 0.000270	M Ir < 0.000260	M Pt < 0.000270	O Ti < 0.000400	
M Ce < 0.000270	O K < 0.045014	M Rb < 0.000270	M Tl < 0.000790	
O Co < 0.003200	M La < 0.000270	M Re < 0.000270	M Tm < 0.000270	
O Cr < 0.001800	O Li < 0.000660	M Rh < 0.001100	M U < 0.000270	
M Cs < 0.001440	M Lu < 0.000270	M Ru < 0.000260	M V < 0.000790	
M Cu < 0.002100	O Mg < 0.016205	i S < 0.000270	M W < 0.000530	
M Dy < 0.000270	M Mn < 0.001215	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.000530	O Sc < 0.000930	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 9.01 +2 4 Be(H₂O)₄+2

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1 % HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 5-10 % HNO₃ / LDPE container.

Be Containing Samples (Preparation and Solution) - Meta I(is best dissolved in diluted H₂SO₄); BeO (boiling nitric, hydrochloric, or sulfuric acids or KHSO₄ fusion); Ores (H₂SO₄/HF digestion or carbonate fusion in Pt0); Organic Matrices (sulfuric/peroxide digestion or nitric/sulfuric/perchloric acid decomposition, or dry ash and dissolution according to the BeO procedure above).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 9 amu	4 ppt	N/A	
ICP-OES 234.861 nm	0.0003/0.00016 µg/mL	1	Fe, Ta, Mo
ICP-OES 313.042 nm	0.0003/0.00009 µg/mL	1	V, Ce, U
ICP-OES 313.107 nm	0.0007/0.0005 µg/mL	1	Ce, Th, Tm

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION, PERIOD OF VALIDITY AND REVISION HISTORY

11.1 Certification Issue Date

May 13, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 13, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.4 Revision Status

- Revision 1 - Revised on Thursday, Jan 14, 2021 by utruong. Revision was made for the following reason: Modified Section 7 Chemical Form in Solution.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCO10
Lot Number: R2-CO695285
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Cobalt
Starting Material: Co Metal
Starting Material Lot#: 2326
Starting Material Purity: 99.9934%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10012 ± 31 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10031 ± 67 µg/mL ICP Assay NIST SRM 3113 Lot Number: 190630
Assay Method #2	10019 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10000 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/CRM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.014660	M Eu	<	0.000590	O Na	0.007534	M Se	<	0.019000	M Zn	0.003461	
M Al	<	0.024000	M Fe	0.050905	M Nb	<	0.000590	O Si	0.075340	M Zr	<	0.001200
i As	<		M Ga	<	0.000590	M Nd	<	0.000590	M Sm	<	0.000590	
M Au	<	0.004100	M Gd	<	0.000590	O Ni	0.427608	M Sn	<	0.001200		
M B	<	0.031000	M Ge	<	0.003000	M Os	<	0.000590	O Sr	<	0.000260	
M Ba	<	0.000590	M Hf	<	0.000590	n P	<		M Ta	<	0.001200	
O Be	<	0.001300	M Hg	<	0.001800	M Pb	0.003257	M Tb	<	0.000590		
M Bi	<	0.003000	M Ho	<	0.000590	M Pd	<	0.000590	M Te	<	0.005300	
O Ca	0.010588	M In	<	0.001200	M Pr	<	0.000590	M Th	<	0.000590		
M Cd	<	0.004700	M Ir	<	0.001200	M Pt	<	0.002400	M Ti	<	0.014000	
M Ce	<	0.000590	O K	0.008144	M Rb	<	0.000590	M Tl	0.002647			
s Co	<		M La	<	0.000590	M Re	<	0.000590	M Tm	<	0.000590	
M Cr	<	0.021000	O Li	<	0.000130	M Rh	<	0.000590	M U	<	0.000590	
M Cs	<	0.002400	M Lu	<	0.000590	M Ru	<	0.007100	O V	<	0.000880	
M Cu	0.189369	O Mg	0.001893	n S	<			M W	<	0.000590		
M Dy	<	0.000590	M Mn	<	0.001800	M Sb	<	0.003600	M Y	<	0.000590	
M Er	<	0.000590	M Mo	<	0.002400	O Sc	<	0.001600	M Yb	<	0.000590	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.93 +2 6 Co(H₂O)₆²⁺

Chemical Compatibility - Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 59 amu	2 ppt	n/a	42Ca16O1H , 40Ar18O1H , 36Ar23Na, 43Ca16O, 24Mg35Cl
ICP-OES 228.616 nm	0.01/0.001 µg/mL	1	
ICP-OES 237.862 nm	0.01/0.002 µg/mL	1	W, Re, Al, Ta
ICP-OES 238.892 nm	0.01/0.002 µg/mL	1	Fe, W, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 04, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 04, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAG10
Lot Number: S2-AG712977
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Silver
Starting Material: Ag Shot
Starting Material Lot#: 2289
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10051 ± 30 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10051 ± 52 µg/mL ICP Assay NIST SRM 3151 Lot Number: 160729
Assay Method #2	10051 ± 19 µg/mL Volhard NIST SRM 999c Lot Number: 999c
Assay Method #3	10049 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

s Ag <	M Eu <	0.000260	O Na	0.003811	M Se <	0.003900	O Zn	0.048146	
M Al	0.002688	O Fe	0.006419	M Nb <	0.000260	O Si	0.005215	M Zr <	0.000260
M As <	0.001100	M Ga <	0.000260	M Nd <	0.000260	M Sm <	0.000260		
M Au <	0.000260	M Gd <	0.000260	O Ni	0.001765	M Sn	0.020060		
O B <	0.004300	M Ge <	0.002300	M Os <	0.001100	O Sr <	0.000110		
M Ba <	0.000520	M Hf <	0.000260	O P <	0.017000	M Ta <	0.000260		
O Be <	0.001100	M Hg <	0.000770	M Pb <	0.003600	M Tb <	0.000260		
M Bi	0.004814	M Ho <	0.000260	M Pd	0.044134	M Te <	0.009000		
O Ca	0.005215	M In	0.003691	M Pr <	0.000260	M Th <	0.000260		
M Cd <	0.000260	M Ir <	0.000520	M Pt <	0.001100	O Ti <	0.000440		
M Ce <	0.002100	O K <	0.008700	M Rb <	0.001100	M Tl <	0.004100		
O Co <	0.000330	M La <	0.000260	M Re <	0.000260	M Tm <	0.000260		
O Cr <	0.002500	O Li <	0.000110	M Rh <	0.000520	M U <	0.000260		
M Cs <	0.002600	M Lu <	0.000260	M Ru <	0.000260	M V <	0.000260		
O Cu	0.357085	O Mg	0.001203	O S <	0.017000	M W <	0.000260		
M Dy <	0.000260	O Mn <	0.000220	M Sb <	0.014000	M Y <	0.000260		
M Er <	0.000260	M Mo <	0.000260	O Sc <	0.000220	M Yb <	0.000260		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 107.87 +1 6 Ag(H₂O)₆⁺
Chemical Compatibility - Stable in HNO₃, and HF. Avoid basic media. Ag forms more insoluble salts than any other metal. It also is subject to photochemical reduction to the metal in HCl media although 10 µg/mL solutions in 10% HCl [AgCl_x1-x] are commonly used in the analytical laboratory. The most common solubility problems exist with arsenate, arsenite, bromide, chloride, iodide, carbonate, chromate, cyanide, iodate, oxalate, oxide, sulfate, sulfide, tartrate, and thiocyanate in aqueous media. The addition of nitric acid renders many of these salts soluble.

Stability - 2-100 ppb levels stable for 75+ days when mixed with equivalent levels of all other elements including the precious metals (where chloride is present) when in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ag Containing Samples (Preparation and Solution) - Metal (Soluble in HNO₃); Oxides (Soluble in HNO₃); Ores (Digestion with conc. HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 107 amu	1 ppt	N/A	91Zr16O
ICP-OES 243.779 nm	0.12/0.01 µg/mL	1	Mn, Th, Ni, Rh
ICP-OES 328.068 nm	0.007/0.0007 µg/mL	1	Ce, Rh, V
ICP-OES 338.289 nm	0.013/0.001 µg/mL	1	Ce, Cr, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCR(3)10
Lot Number: S2-CR709784
Matrix: 10% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Chromium
Starting Material: Cr Metal
Starting Material Lot#: 2328
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10027 ± 41 µg/mL
Density: 1.072 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10027 ± 40 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 170630

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char j}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_j)^2 (u_{char j})^2]^{1/2}$ where $u_{char j}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.001700	M	Eu <	0.003400	O	Na	0.090372	M	Se <	0.012000	O	Zn <	0.006100
M Al	0.034916	O	Fe	0.246471	M	Nb <	0.017000	n	Si <		M	Zr <	0.007800
M As <	0.028000	O	Ga <	0.013000	M	Nd <	0.013000	M	Sm <	0.006900			
M Au <	0.001700	M	Gd <	0.000560	M	Ni	0.016020	M	Sn	0.006983			
O B <	0.025000	O	Ge <	0.014000	M	Os <	0.000560	M	Sr	0.006367			
M Ba <	0.008900	M	Hf <	0.000560	i	P <		M	Ta <	0.000560			
M Be <	0.013000	M	Hg <	0.001700	M	Pb	0.010064	M	Tb <	0.000560			
M Bi <	0.002300	M	Ho <	0.000560	M	Pd <	0.021000	M	Te <	0.010000			
O Ca	0.075995	M	In <	0.000560	M	Pr <	0.001700	M	Th <	0.000560			
M Cd <	0.000560	M	Ir <	0.000560	M	Pt <	0.001200	O	Ti	0.013555			
M Ce <	0.001200	O	K	0.043132	i	Rb <		M	Tl <	0.000560			
M Co <	0.002600	M	La <	0.001200	M	Re <	0.001200	O	Tm <	0.013000			
s Cr <		O	Li	0.000390	M	Rh <	0.095000	M	U <	0.000560			
M Cs <	0.007800	M	Lu <	0.000560	M	Ru <	0.087000	O	V	0.014993			
O Cu	0.007599	O	Mg	0.000883	i	S <		M	W <	0.049000			
M Dy <	0.000560	M	Mn	0.008626	M	Sb <	0.003400	M	Y <	0.001700			
M Er <	0.019000	M	Mo <	0.032000	M	Sc	0.003080	M	Yb <	0.000560			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 52.00 +3 6 Cr(H₂O)₆3+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cr₃ Containing Samples (Preparation and Solution) -Metal (soluble in HCl); Oxides/Ores (Chrome ore/oxides are very difficult to dissolve. The following procedures [A-D] are commonly used: A. Fusion with KHSO₄ and extraction with hot KCl. The residue fused with Na₂CO₃ and KClO₃, 3:1. B. Fusion with NaKSO₄ and NaF 2:1, C. Fusion with magnesia or lime and sodium or potassium carbonates, 4:1. D. Fusion with Na₂O₂ or NaOH and KNO₃ or NaOH and Na₂O₂. Nickel, iron, copper, or silver crucibles should be used for D. Platinum may be used for A, <, C); Organic Matrices (ash at 4500C followed by one of the fusion methods above or sulfuric/hydrogen peroxide acid digestions may be applicable to non oxide containing samples).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 52 amu	40 ppt	N/A	36S16O, 36Ar16O - The 50Cr, 53Cr, 54Cr lines suffer from many more potential interferences from sulfur, chlorine and argon compounds of oxygen, nitrogen and carbon.
ICP-OES 205.552 nm	0.006/0.0008 µg/mL	1	Os
ICP-OES 276.654 nm	0.01/0.001 µg/mL	1	Cu, Ta, V
ICP-OES 284.325 nm	0.008/0.0007 µg/mL	1	

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 26, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 26, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGNI10
 Lot Number: P2-NI686384
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Nickel
 Starting Material: Ni Metal
 Starting Material Lot#: 2277 and 2282
 Starting Material Purity: 99.9992%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9979 ± 30 µg/mL
Density: 1.038 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9971 ± 54 µg/mL ICP Assay NIST SRM 3136 Lot Number: 120619
Assay Method #2	9970 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	9993 ± 33 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/(u_{char\ i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.002606	M Eu	<	0.001100	O Na	0.004965	O Se	<	0.067000	M Zn	0.006578	
M Al	<	0.013000	O Fe	0.018618	M Nb	<	0.001100	O Si	0.010923	M Zr	<	0.001100
O As	<	0.067000	M Ga	<	0.001100	M Nd	<	0.001100	M Sm	<	0.001100	
M Au	<	0.002100	M Gd	<	0.001100	s Ni	<		M Sn	<	0.016000	
M B	<	0.017000	M Ge	<	0.004200	M Os	0.002110	O Sr	<	0.000940		
M Ba	<	0.001100	M Hf	<	0.001100	i P	<		M Ta	<	0.001100	
O Be	<	0.000410	M Hg	0.014895	M Pb	0.006578	M Tb	<	0.001100			
M Bi	<	0.004200	M Ho	<	0.001100	M Pd	<	0.001100	M Te	<	0.015000	
O Ca	0.003351	M In	<	0.001100	M Pr	<	0.001100	M Th	<	0.001100		
M Cd	0.001365	M Ir	0.004716	M Pt	<	0.001100	M Ti	<	0.004200			
M Ce	<	0.001100	O K	0.004716	M Rb	<	0.001100	M Tl	<	0.001100		
O Co	0.017377	M La	<	0.001100	M Re	0.001737	M Tm	<	0.001100			
O Cr	<	0.006700	O Li	<	0.000140	M Rh	<	0.006300	M U	<	0.001100	
M Cs	<	0.007300	M Lu	<	0.001100	M Ru	<	0.019000	M V	<	0.002100	
M Cu	0.004096	O Mg	0.000372	i S	<			M W	<	0.006300		
M Dy	<	0.001100	O Mn	<	0.001900	M Sb	0.005833	O Y	<	0.000540		
M Er	<	0.001100	M Mo	<	0.008400	M Sc	<	0.002100	M Yb	<	0.001100	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.69 +2 6 Ni(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ni Containing Samples (Preparation and Solution) -Metal (Soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 60 amu	100 ppt	n/a	43Ca16O1H , 44Ca16O, 23Na37Cl
ICP-OES 221.647 nm	0.01 / 0.0009 µg/mL	1	Si
ICP-OES 231.604 nm	0.02 / 0.002 µg/mL	1	Sb, Ta, Co
ICP-OES 232.003 nm	0.02 / 0.006 µg/mL	1	Cr, Re, Os, Nb, Ag, Pt, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGV10
Lot Number: S2-V711005
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Vanadium
Starting Material: Vanadium Pentoxide
Starting Material Lot#: 1782
Starting Material Purity: 99.9877%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10014 ± 30 µg/mL
Density: 1.104 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10017 ± 42 µg/mL**
ICP Assay NIST SRM 3165 Lot Number: 160906

Assay Method #2 **10013 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000110	M Eu < 0.000110	O Na 0.120000	M Se < 0.009400	M Zn 0.009400
O Al 0.120000	O Fe 0.460000	M Nb < 0.001300	O Si 0.270000	M Zr < 0.002900
M As < 0.000210	M Ga < 0.009300	M Nd < 0.000610	M Sm < 0.000110	
M Au < 0.004700	M Gd < 0.000110	M Ni 0.012000	M Sn 0.003900	
M B 0.051000	M Ge < 0.000410	M Os < 0.000110	O Sr 0.007100	
M Ba 0.003600	M Hf < 0.000110	O P < 0.034000	M Ta < 0.000110	
O Be < 0.000560	M Hg < 0.000410	M Pb 0.001400	M Tb < 0.000110	
M Bi < 0.000210	M Ho < 0.000110	M Pd < 0.000410	M Te < 0.000110	
O Ca 0.730000	M In < 0.000110	M Pr < 0.000110	M Th < 0.000210	
M Cd < 0.000610	M Ir < 0.000110	M Pt < 0.000110	M Ti 0.017000	
M Ce < 0.000610	M K 0.052000	M Rb < 0.000310	M Tl < 0.000110	
M Co < 0.001300	M La < 0.000410	M Re 0.001700	M Tm < 0.000110	
O Cr 0.170000	M Li < 0.000810	M Rh < 0.000110	M U < 0.000410	
M Cs 0.005600	M Lu < 0.000110	M Ru < 0.000110	s V <	
M Cu < 0.001300	M Mg 0.053000	i S <	M W 0.002000	
M Dy < 0.000110	M Mn 0.007900	M Sb 0.078000	M Y < 0.000110	
M Er < 0.000110	M Mo 0.094000	M Sc < 0.000410	M Yb < 0.000110	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 50.94 +5 6 H₂V₁₀O₂₈4-

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄, HF, H₃PO₄ and strong basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

V Containing Samples (Preparation and Solution) -Metal (Fusion with NaOH or KOH in NiO or Na₂CO₃ / KNO₃); Oxides (V₂O₃ - use HCl, V₂O₄ - use HCl or HNO₃, V₂O₅ - use concentrated acids); Ores (Na₂CO₃ / KNO₃ in PtO caution - nitrates attack PtO followed by water extraction of fuseate); Organic Matrices (Ash at 450 EC followed by dissolving according to V₂O₅ above) .

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

<u>Technique/Line</u>	<u>Estimated D.L.</u>	<u>Order</u>	<u>Interferences</u> (underlined indicates severe)
ICP-MS 51 amu	4 ppt	N/A	34S16O1H, 35Cl16O, 38Ar13C, 36Ar15N, 36Ar14N1H, 37Cl14N,36S15N, 33S18O, 34S17O, 102Ru+2,02Pd+2
ICP-OES 290.882 nm	0.008 / 0.0008 µg/mL	1	Hf, Nb
ICP-OES 292.402 nm	0.006 / 0.001 µg/mL	1	Th
ICP-OES 309.311 nm	0.005 / 0.001 µg/mL	1	Mg, U, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAL10
Lot Number: T2-AL716102
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Aluminum
Starting Material: Aluminum Nitrate Nonahydrate
Starting Material Lot#: 2460
Starting Material Purity: 99.9938%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10049 ± 31 µg/mL
Density: 1.087 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10059 ± 40 µg/mL ICP Assay NIST SRM 3101a Lot Number: 140903
Assay Method #2	10044 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10049 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.002100	M Eu < 0.002100	O Na < 0.352819	M Se < 0.005200	M Zn < 0.006018
s Al < 0.002100	O Fe < 0.074714	M Nb < 0.000520	O Si < 0.017848	O Zr < 0.004358
M As < 0.008716	O Ga < 0.112072	M Nd < 0.000520	M Sm < 0.000520	
M Au < 0.008400	M Gd < 0.001100	O Ni < 0.006000	M Sn < 0.000747	
O B < 0.014000	M Ge < 0.005200	M Os < 0.000650	O Sr < 0.000518	
O Ba < 0.012867	M Hf < 0.004100	n P < 0.000520	M Ta < 0.000520	
O Be < 0.000270	M Hg < 0.002000	M Pb < 0.002282	M Tb < 0.000520	
M Bi < 0.001930	M Ho < 0.000520	M Pd < 0.000520	M Te < 0.001100	
O Ca < 0.076790	M In < 0.002100	M Pr < 0.000520	M Th < 0.000520	
M Cd < 0.000520	M Ir < 0.000650	M Pt < 0.000520	O Ti < 0.001930	
M Ce < 0.001100	O K < 0.043583	M Rb < 0.000520	M Tl < 0.000520	
O Co < 0.005400	M La < 0.002100	M Re < 0.000520	M Tm < 0.000520	
O Cr < 0.006018	O Li < 0.000112	M Rh < 0.000520	M U < 0.000520	
M Cs < 0.000643	M Lu < 0.000520	M Ru < 0.002000	M V < 0.001286	
O Cu < 0.008300	O Mg < 0.068488	i S < 0.000520	M W < 0.009800	
M Dy < 0.002100	O Mn < 0.000913	M Sb < 0.003100	M Y < 0.001100	
M Er < 0.000520	M Mo < 0.005396	O Sc < 0.000950	M Yb < 0.000520	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 26.98 +3 6 Al(H₂O)₆+3

Chemical Compatibility -Soluble in HCl, HNO₃, vF and v₂SO₄. Avoid neutral media. Soluble in strongly basic NaOH forming the Al(OH)₄(H₂O)₂⁻ species. Stable with most metals and inorganic anions. The phosphate is insoluble in water and only slightly soluble in acid.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Al Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO₃); a- Al₂O₃ (Na₂CO₃ fusion in PtO);

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 27 amu	30 ppt	N/A	12C15N, 13C14N, 1H12C14N, 11B16O, 54Cr2+, 54Fe2+
ICP-OES 167.078 nm	0.1/0.009 µg/mL	1	Fe
ICP-OES 394.401 nm	0.05/0.006 µg/mL	1	U, Ce
ICP-OES 396.152 nm	0.03/0.006 µg/mL	1	Mo, Zr, Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 22, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGK10
Lot Number: S2-K711973
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Potassium
Starting Material: KNO₃
Starting Material Lot#: 2313
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.024 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9987 ± 24 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	10004 ± 84 µg/mL ICP Assay NIST SRM 3141a Lot Number: 140813
Assay Method #3	10007 ± 45 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001400	M Eu < 0.000660	O Na < 0.246220	M Se < 0.007900	O Zn < 0.018056
O Al < 0.001592	O Fe < 0.005909	M Nb < 0.000660	O Si < 0.011490	O Zr < 0.001600
M As < 0.005300	M Ga < 0.000660	M Nd < 0.000660	M Sm < 0.000660	
M Au < 0.002000	M Gd < 0.000660	O Ni < 0.004900	M Sn < 0.000660	
O B < 0.005600	M Ge < 0.002000	M Os < 0.003300	O Sr < 0.000055	
O Ba < 0.000860	M Hf < 0.000660	O P < 0.032000	M Ta < 0.000660	
O Be < 0.000082	M Hg < 0.002000	M Pb < 0.002300	M Tb < 0.000660	
M Bi < 0.006600	M Ho < 0.000660	M Pd < 0.000660	M Te < 0.017000	
O Ca < 0.031187	M In < 0.000660	M Pr < 0.000660	M Th < 0.000660	
O Cd < 0.000450	M Ir < 0.000660	M Pt < 0.002700	M Ti < 0.000660	
M Ce < 0.000660	s K <	M Rb < 0.476026	M Tl < 0.000660	
O Co < 0.000780	M La < 0.000660	M Re < 0.000660	M Tm < 0.000660	
O Cr < 0.000541	O Li < 0.000084	M Rh < 0.000660	M U < 0.000660	
M Cs < 0.000660	M Lu < 0.000660	M Ru < 0.000660	O V < 0.001100	
M Cu < 0.002700	O Mg < 0.006237	O S < 0.027905	M W < 0.000660	
M Dy < 0.000660	O Mn < 0.000476	M Sb < 0.000660	M Y < 0.000660	
M Er < 0.000660	M Mo < 0.000660	O Sc < 0.000340	O Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 39.10 +1 (6) K+(aq)

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Avoid use of HClO₄ due to insolubility of the perchlorate. Stable with all metals and inorganic anions except ClO₄⁻.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

K Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Sodium carbonate fusion in Pt0 followed by HCl dissolution-blank levels of K in sodium carbonate critical); Organic Matrices (Sulfuric/peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 39 amu	10 ppt	n/a	38ArH, 23Na16O, 78Se
ICP-OES 404.721 nm	1.1 / 0.05 µg/mL	1	U, Ce
ICP-OES 766.490 nm	0.4 / 0.001 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 771.531 nm	1.0 / 0.03 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 10, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 10, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMG10
Lot Number: S2-MG704239
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Magnesium
Starting Material: Magnesium Metal
Starting Material Lot#: 2168
Starting Material Purity: 99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10053 ± 30 µg/mL
Density: 1.053 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10022 ± 62 µg/mL ICP Assay NIST SRM 3131a Lot Number: 140110
Assay Method #2	10078 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10033 ± 26 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$$
 where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O Ag	0.002106	M	Eu <	0.000910	O Na	0.071075	O Se <	0.048000	O Zn	0.003299
M Al	0.003553	M	Fe	0.002538	M Nb <	0.000460	O Si <	0.032000	O Zr <	0.002700
M As <	0.001400	M	Ga <	0.000460	M Nd <	0.000910	M Sm <	0.000460		
M Au <	0.001400	M	Gd <	0.000460	O Ni <	0.001600	M Sn <	0.002300		
O B	0.006853	M	Ge <	0.001400	M Os <	0.000460	O Sr	0.000279		
O Ba	0.000964	M	Hf <	0.000460	O P	0.015230	M Ta <	0.000460		
O Be <	0.000120	M	Hg <	0.000460	M Pb <	0.000460	M Tb <	0.000460		
M Bi <	0.000460	M	Ho <	0.000460	M Pd <	0.003200	M Te <	0.007300		
O Ca	0.053306	M	In <	0.000460	M Pr <	0.000460	M Th <	0.000460		
O Cd <	0.000360	M	Ir <	0.000460	M Pt <	0.001900	O Ti <	0.001700		
M Ce <	0.002300	M	K	0.048229	M Rb	0.002411	M Tl	0.003046		
M Co <	0.000910	M	La <	0.002800	M Re <	0.000460	M Tm <	0.000460		
M Cr <	0.002300	O	Li	0.027922	M Rh <	0.000460	M U <	0.000460		
M Cs	0.001040	M	Lu <	0.000460	M Ru <	0.000460	M V <	0.000460		
O Cu <	0.003000	s	Mg <		O S <	0.190000	M W <	0.000460		
M Dy <	0.000460	O	Mn	0.015230	M Sb	0.020814	O Y <	0.000720		
M Er <	0.000460	M	Mo <	0.000910	O Sc <	0.000480	M Yb <	0.000460		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 24.31 +2 6 Mg(H₂O)₆+2

Chemical Compatibility -Soluble in HCl, HNO₃, and H₂SO₄ avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicates, carbonates, hydroxides, oxides, and tungstates in neutral and slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Mg Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Oxide (Readily soluble in above compatible aqueous acidic solutions); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition, or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 24 amu	42 ppt	n/a	7Li17O, 48Ti+2 , 48Ca+2
ICP-OES 279.553 nm	0.0002 / 0.00003 µg/mL	1	Th
ICP-OES 280.270 nm	0.0003 / 0.00005 µg/mL	1	U, V
ICP-OES 285.213 nm	0.002 / 0.00003 µg/mL	1	U, Hf, Cr, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 23, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 23, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCA10
Lot Number: T2-CA716103
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Calcium
Starting Material: CaCO₃
Starting Material Lot#: 2472
Starting Material Purity: 99.9950%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10005 ± 30 µg/mL
Density: 1.039 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10005 ± 45 µg/mL ICP Assay NIST SRM 3109a Lot Number: 130213
Assay Method #2	10005 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10005 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag <	0.001200	M Eu <	0.001200	O Na	0.006112	M Se <	0.024000	M Zn	0.005362
M Al	0.065419	O Fe	0.009115	M Nb <	0.001200	O Si	0.139417	O Zr <	0.006700
O As <	0.013000	M Ga <	0.015000	M Nd <	0.020000	M Sm <	0.001200		
M Au <	0.017000	M Gd <	0.004800	O Ni	0.000793	M Sn <	0.003600		
O B	0.001179	M Ge <	0.003600	M Os <	0.001200	M Sr	0.081505		
O Ba	0.002788	M Hf <	0.001200	O P <	0.041000	M Ta <	0.001200		
O Be <	0.000410	M Hg <	0.004800	M Pb	0.001608	M Tb <	0.001200		
M Bi	0.001608	M Ho <	0.001200	M Pd <	0.001200	M Te <	0.003600		
s Ca <		M In <	0.001200	M Pr	0.000257	M Th <	0.001200		
O Cd <	0.001300	M Ir <	0.001200	M Pt <	0.003600	O Ti <	0.001900		
M Ce	0.001029	O K	0.009759	M Rb <	0.001200	M Tl <	0.001200		
O Co	0.000418	M La	0.001823	M Re <	0.001200	M Tm <	0.001200		
O Cr	0.003324	O Li <	0.007300	M Rh <	0.001200	M U	0.002144		
M Cs	0.007399	M Lu	0.000128	M Ru <	0.001200	M V	0.001286		
O Cu <	0.011000	M Mg	1.286934	O S	0.055767	O W <	0.024000		
M Dy <	0.002400	O Mn	0.004611	M Sb <	0.009600	O Y	0.000536		
M Er <	0.002400	M Mo	0.003539	O Sc <	0.001400	M Yb <	0.001200		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 40.08 +2 6 Ca(H₂O)₆+2

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₂SO₄, vF, v3PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Ca Containing Samples)Preparation and Solution -Metal (best dissolved in diluted HNO₃); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (dry ash and dissolution in dilute HCl. Do not heat when dissolving to avoid precipitation of SiO₂). The oxide, hydroxide, carbonate, phosphate, and fluoride of calcium are soluble in % levels of HCl or HNO₃. The sulfates (gypsum, anhydrite, etc.), certain silicates, and complex compounds require fusion with Na₂CO₃ followed by HCl / water dissolution. Note that contamination is a very real problem when analyzing for trace levels.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 44 amu	1200 ppt	n/a	16O ₂ 12C, 28Si16O, 88Sr
ICP-OES 393.366 nm	0.0002 / 0.00004 µg/mL	1	U, Ce
ICP-OES 396.847 nm	0.0005 / 0.00006 µg/mL	1	Th
ICP-OES 422.673 nm	0.01 / 0.001 µg/mL	1	Ge

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 14, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 14, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNA10
Lot Number: T2-NA717221
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Sodium
Starting Material: Na₂CO₃
Starting Material Lot#: 2358 and 2453
Starting Material Purity: 99.9977%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9977 ± 30 µg/mL
Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9974 ± 18 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	9977 ± 34 µg/mL ICP Assay NIST SRM 3152a Lot Number: 200413
Assay Method #3	9987 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/(u_{char\ j})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000930	M Eu < 0.000930	s Na <	M Se < 0.003800	O Zn < 0.000138
M Al < 0.004409	O Fe < 0.002393	M Nb < 0.000930	O Si < 0.056696	O Zr < 0.003200
O As < 0.023000	M Ga < 0.000930	M Nd < 0.000930	M Sm < 0.000930	
O Au < 0.004100	M Gd < 0.000930	O Ni < 0.003000	M Sn < 0.002800	
O B < 0.001385	M Ge < 0.004700	M Os < 0.000930	O Sr < 0.000251	
M Ba < 0.004031	M Hf < 0.000930	O P < 0.010205	M Ta < 0.000930	
O Be < 0.000130	M Hg < 0.000930	M Pb < 0.000930	M Tb < 0.000930	
M Bi < 0.000930	M Ho < 0.000930	M Pd < 0.000930	M Te < 0.001900	
O Ca < 0.176388	M In < 0.000930	M Pr < 0.000930	M Th < 0.000352	
O Cd < 0.000860	M Ir < 0.000930	M Pt < 0.000930	O Ti < 0.000592	
M Ce < 0.001900	O K < 0.302380	M Rb < 0.000930	M Tl < 0.000930	
O Co < 0.001800	O La < 0.002100	M Re < 0.000930	M Tm < 0.000930	
M Cr < 0.002800	O Li < 0.000031	M Rh < 0.000930	M U < 0.000930	
M Cs < 0.000930	M Lu < 0.000930	M Ru < 0.001900	O V < 0.001600	
O Cu < 0.003900	O Mg < 0.026458	O S < 0.040317	O W < 0.028000	
M Dy < 0.000930	O Mn < 0.000740	M Sb < 0.000930	O Y < 0.000860	
M Er < 0.000930	O Mo < 0.003600	O Sc < 0.000610	O Yb < 0.000250	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2 , 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 20, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 20, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGU1
Lot Number: S2-U707914
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Uranium
Starting Material: Uranyl Nitrate Hexahydrate
Starting Material Lot#: P2-2322
Starting Material Purity: 99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 5 µg/mL
Density: 1.010 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 5 µg/mL**
ICP Assay NIST SRM 3164 Lot Number: 080521

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

<u>Isotope</u>	<u>Atom %</u>
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000270	M Eu < 0.000270	M Na < 0.011000	M Se < 0.009300	M Zn < 0.002358
M Al < 0.011000	M Fe < 0.003222	M Nb < 0.000270	M Si < 0.160000	M Zr < 0.001100
M As < 0.002400	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000270	M Gd < 0.000270	M Ni < 0.020000	M Sn < 0.011000	
M B < 0.000270	M Ge < 0.000800	M Os < 0.001900	M Sr < 0.000270	
M Ba < 0.003800	M Hf < 0.000270	i P <	M Ta < 0.000270	
M Be < 0.000270	M Hg < 0.000540	M Pb < 0.002200	M Tb < 0.000270	
M Bi < 0.000270	M Ho < 0.000270	M Pd < 0.000540	M Te < 0.003800	
M Ca < 0.140000	M In < 0.000270	M Pr < 0.000270	M Th < 0.000129	
M Cd < 0.000270	M Ir < 0.000270	M Pt < 0.000270	M Ti < 0.002700	
M Ce < 0.000540	O K < 0.250000	M Rb < 0.000800	M Tl < 0.000270	
M Co < 0.000800	M La < 0.000117	M Re < 0.064000	M Tm < 0.000270	
M Cr < 0.000943	M Li < 0.003000	M Rh < 0.000270	s U <	
M Cs < 0.000106	M Lu < 0.000270	M Ru < 0.000540	M V < 0.000540	
M Cu < 0.001100	M Mg < 0.003000	i S <	M W < 0.000540	
M Dy < 0.000270	M Mn < 0.006900	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.006400	M Sc < 0.000540	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 238.03 +6 8 UO₂²⁺(uranyl)

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₃PO₄. H₂SO₄ and HF matrices should not be a problem depending upon [U]. Although the UO₂²⁺ ion is distinctly basic, any U+4 will precipitate in basic media. UO₂²⁺salts are generally soluble in water and UO₂²⁺ is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF₄ and UF₆ are water soluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO₃); Oxide (Soluble in HNO₃); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO₃. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H₂SO₄.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: AR-ICVMS-2
Lot Number: T2-MEB719895
Matrix: 3% (v/v) HNO3
tr. HF
Value / Analyte(s): 2.5 µg/mL ea:
Molybdenum, Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	2.499 ± 0.015 µg/mL	Molybdenum, Mo	2.500 ± 0.017 µg/mL

Density: 1.014 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/(u_{char\ i})^2))$$

$$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum((w_i)^2(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k(u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	AR-ICVMS-3	
Lot Number:	T2-MEB719896	
Matrix:	7% (v/v) HNO ₃	
Value / Analyte(s):	250 µg/mL ea:	
	Aluminum,	Calcium,
	Iron,	Potassium,
	Magnesium,	Sodium,
	4 µg/mL ea:	
	Selenium,	
	2.5 µg/mL ea:	
	Thorium,	Thallium,
	Uranium,	Vanadium,
	Zinc,	Manganese,
	Cadmium,	Cobalt,
	Chromium,	Copper,
	Arsenic,	Barium,
	Beryllium,	Nickel,
	Lead,	Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.500 ± 0.018 µg/mL
Barium, Ba	2.501 ± 0.013 µg/mL	Beryllium, Be	2.501 ± 0.015 µg/mL
Cadmium, Cd	2.501 ± 0.013 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.015 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.014 µg/mL	Iron, Fe	250.0 ± 1.0 µg/mL
Lead, Pb	2.500 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.014 µg/mL	Nickel, Ni	2.500 ± 0.014 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.002 ± 0.024 µg/mL
Silver, Ag	2.501 ± 0.017 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.500 ± 0.017 µg/mL	Thorium, Th	2.499 ± 0.013 µg/mL
Uranium, U	2.501 ± 0.015 µg/mL	Vanadium, V	2.500 ± 0.014 µg/mL
Zinc, Zn	2.500 ± 0.014 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2

V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928
Zn	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } j}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

<u>Isotope</u>	<u>Atom %</u>
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

<https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver>

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

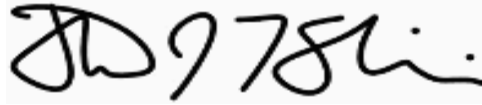
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: AR-6020ICS-0A10
 Lot Number: T2-MEB719898
 Matrix: 1.4% (v/v) HNO₃
 Value / Analyte(s):
 1 000 µg/mL ea:
 Chloride,
 200 µg/mL ea:
 Carbon,
 100 µg/mL ea:
 Calcium, Aluminum,
 Iron, Potassium,
 Magnesium, Sodium,
 Phosphorus, Sulfur,
 2 µg/mL ea:
 Titanium, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Calcium, Ca	100.0 ± 0.5 µg/mL
Carbon, C	200.1 ± 0.5 µg/mL	Chloride, Cl	1 000 ± 5 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Magnesium, Mg	100.0 ± 0.5 µg/mL
Molybdenum, Mo	2.001 ± 0.014 µg/mL	Phosphorus, P	100.0 ± 0.6 µg/mL
Potassium, K	100.0 ± 0.5 µg/mL	Sodium, Na	100.0 ± 0.5 µg/mL
Sulfur, S	100.0 ± 0.5 µg/mL	Titanium, Ti	2.001 ± 0.015 µg/mL

Density: 1.009 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cl	Acidimetric	84L	84L
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 07, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 07, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

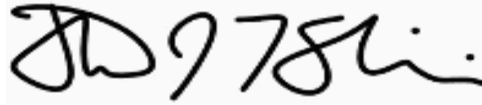
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B
Total Metals

LDW23-SS1804

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-01 C SDG: 23D0136
 Sampled: 04/05/23 11:45 Prepared: 04/27/23 15:14 File ID: SMM 05-01-23-054
 % Solids: 47.25 Preparation: SMM EPA 7471B Analyzed: 05/01/23 14:26
 Batch: BLD0688 Sequence: SLE0012 Initial/Final: 0.265 g Wet / 50 mL
 Instrument: HYDRA Calibration: GE00003

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.253	1	0.00839	0.0399	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B
Total Metals

LDW23-SS1803

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-03 B SDG: 23D0136
 Sampled: 04/05/23 16:05 Prepared: 04/27/23 15:14 File ID: SMM 05-01-23-055
 % Solids: 48.35 Preparation: SMM EPA 7471B Analyzed: 05/01/23 14:29
 Batch: BLD0688 Sequence: SLE0012 Initial/Final: 0.209 g Wet / 50 mL
 Instrument: HYDRA Calibration: GE00003

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.208	1	0.0104	0.0495	



PREPARATION BATCH SUMMARY
EPA 7471B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Batch:	<u>BLD0688</u>	Batch Matrix:	<u>Solid</u>
		Preparation:	<u>SMM EPA 7471B</u>

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	SMM 05-01-23-054	04/27/23 15:14	Store frozen
LDW23-SS1803	23D0136-03	SMM 05-01-23-055	04/27/23 15:14	Store frozen
Blank	BLD0688-BLK1	SMM 05-01-23-044	04/27/23 15:14	
LCS	BLD0688-BS1	SMM 05-01-23-045	04/27/23 15:14	



Mercury Digestion Log

Prep Code: SMM Balance ID: B4210 Matrix: soil
 Analyst: AR Block ID: 9 Date: 04/27/23
 Bath Temp: 99C Start Time: 1418 End Time: 1514

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO ₄ Aliquots	CLP	Comments
23D136-01	C	|	0.205	50	1		
↓ -03	B	|	0.209				
23D394-01	C	|	0.219				
↓ -02	B	|	0.204				
↓ -04	C	|	0.258				
↓ -06		|	0.258				
↓ -08		|	0.255				
↓ -11		|	0.288				
↓ -12		|	0.254				
23D396-01		|	0.221				
↓ -03	↓	|	0.205				23D394-01
BDL688-blk	-	|	-				
↓ -05	-	|	-				
↓ -dup	-	|	0.219				
↓ -MS	-	|	0.215				
↓ -MSD	-	|	0.218				
23D37-02	D	|	0.211				
↓ -04	↓	|	0.221				
MC 04/27/23							

Chemical/Reagent ID:
 HNO₃: L4188 H₂SO₄: L923 HCl: -
 5% K₂S₂O₈: K3350 5% KMnO₄: K11727 Digest Tube Lot: 2210117



Form I
METHOD BLANK DATA SHEET
EPA 7471B
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0688

Laboratory ID: BLD0688-BLK1

Prepared: 04/27/23 15:14

Matrix: Solid

Preparation: SMM EPA 7471B

Analyzed: 05/01/23 14:03

Sequence: SLE0012

Calibration: GE00003

Instrument: HYDRA

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	ND	1	0.00525	0.0250	U



LCS / LCS DUPLICATE RECOVERY

EPA 7471B

Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/01/23 14:06</u>
Batch:	<u>BLD0688</u>	Laboratory ID:	<u>BLD0688-BS1</u>
Preparation:	<u>SMM EPA 7471B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>0.2 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Mercury	0.500	0.441		88.2	80 - 120

* Indicates values outside of QC limits



INITIAL CALIBRATION DATA

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00003

Instrument: HYDRA

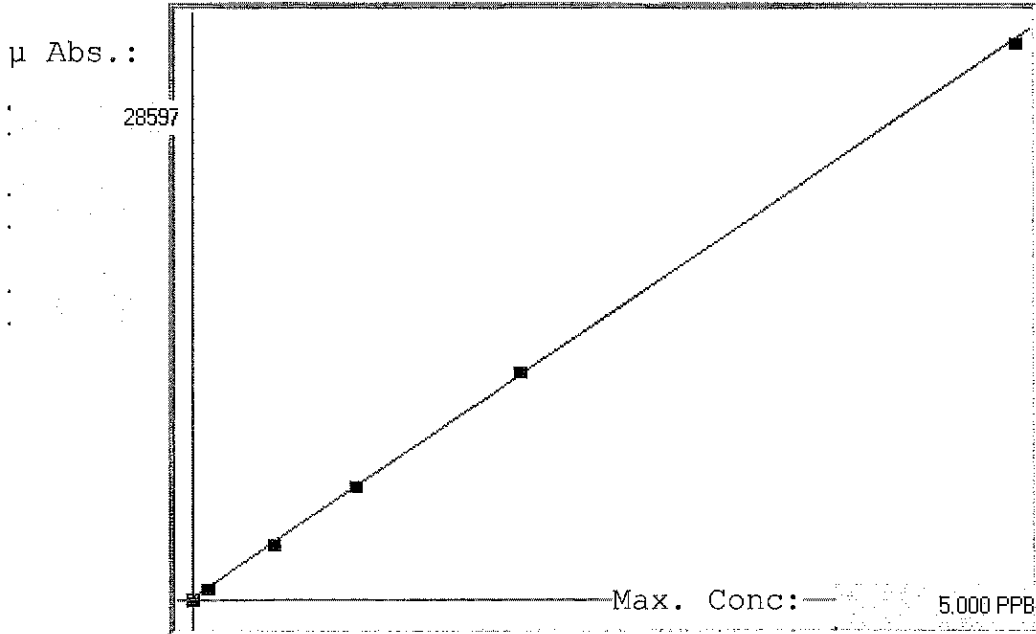
Calibration Date: 05/01/2023 15:11

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Mercury	0	0	0.0001	6280000	0.0005	5844000	0.001	5860000	0.002	5878000	0.005	5719400

Sample ID	Mean	Units	Date	Method
SEQ-CAL1	-6	PPB	01 May 2023 10:51:23	ARI 5 ppb (NO 0.05)
SEQ-CAL2	628	PPB	01 May 2023 10:53:44	ARI 5 ppb (NO 0.05)
SEQ-CAL3	2922	PPB	01 May 2023 10:56:05	ARI 5 ppb (NO 0.05)
SEQ-CAL4	5860	PPB	01 May 2023 10:58:26	ARI 5 ppb (NO 0.05)
SEQ-CAL5	11756	PPB	01 May 2023 11:00:46	ARI 5 ppb (NO 0.05)
SEQ-CAL6	28597	PPB	01 May 2023 11:03:06	ARI 5 ppb (NO 0.05)
SEQ-ICV	101.8% 4.0705	PPB ✓	01 May 2023 11:30:14	ARI 5 ppb (NO 0.05)
SEQ-ICB	-0.0184	PPB ✓	01 May 2023 11:32:33	ARI 5 ppb (NO 0.05)
SEQ-CRL	93.7% 0.0937	PPB ✓	01 May 2023 11:34:55	ARI 5 ppb (NO 0.05)
SEQ-CCV	102.3% 4.0916	PPB ✓	01 May 2023 11:37:16	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0184	PPB ✓	01 May 2023 11:39:34	ARI 5 ppb (NO 0.05)
SEQ-CCV	100.6% 4.0257	PPB ✓	01 May 2023 11:41:56	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0198	PPB ✓	01 May 2023 11:44:15	ARI 5 ppb (NO 0.05)
SEQ-CCV	101.5% 4.0604	PPB ✓	01 May 2023 12:53:53	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0176	PPB ✓	01 May 2023 12:56:11	ARI 5 ppb (NO 0.05)
BLD0668-BLK1	-0.0112	PPB	01 May 2023 12:58:33	ARI 5 ppb (NO 0.05)
BLD0668-BS1	1.7744	PPB ✓	01 May 2023 13:00:52	ARI 5 ppb (NO 0.05)
23D0420-01	0.0689	PPB	01 May 2023 13:03:11	ARI 5 ppb (NO 0.05)
BLD0668-DUP1	0.0696	PPB	01 May 2023 13:05:30	ARI 5 ppb (NO 0.05)
BLD0668-MS1	0.6552	PPB x del	01 May 2023 13:07:49	ARI 5 ppb (NO 0.05)
23D0297-01	0.1601	PPB	01 May 2023 13:10:08	ARI 5 ppb (NO 0.05)
23D0297-02	0.0801	PPB	01 May 2023 13:12:27	ARI 5 ppb (NO 0.05)
23D0297-03	0.1859	PPB	01 May 2023 13:14:47	ARI 5 ppb (NO 0.05)
23D0297-04	0.2936	PPB	01 May 2023 13:17:06	ARI 5 ppb (NO 0.05)
23D0297-05	0.0732	PPB	01 May 2023 13:19:26	ARI 5 ppb (NO 0.05)
SEQ-CCV	102.4% 4.0960	PPB ✓	01 May 2023 13:21:47	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0186	PPB ✓	01 May 2023 13:24:05	ARI 5 ppb (NO 0.05)
23D0297-06	0.0398	PPB	01 May 2023 13:26:26	ARI 5 ppb (NO 0.05)
23D0297-07	0.0703	PPB	01 May 2023 13:28:47	ARI 5 ppb (NO 0.05)
23D0297-08	0.0831	PPB	01 May 2023 13:31:07	ARI 5 ppb (NO 0.05)
23D0303-01	0.3177	PPB	01 May 2023 13:33:26	ARI 5 ppb (NO 0.05)
23D0303-02	0.1133	PPB	01 May 2023 13:35:45	ARI 5 ppb (NO 0.05)
23D0383-01	0.6445	PPB	01 May 2023 13:38:04	ARI 5 ppb (NO 0.05)
23D0384-01	0.5203	PPB	01 May 2023 13:40:23	ARI 5 ppb (NO 0.05)
23D0421-01	0.2459	PPB	01 May 2023 13:42:42	ARI 5 ppb (NO 0.05)
23D0437-01	0.1558	PPB	01 May 2023 13:45:01	ARI 5 ppb (NO 0.05)
23D0437-02	0.1899	PPB	01 May 2023 13:47:20	ARI 5 ppb (NO 0.05)
SEQ-CCV	101.7% 4.0674	PPB ✓	01 May 2023 13:49:40	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0209	PPB ✓	01 May 2023 13:51:58	ARI 5 ppb (NO 0.05)
23D0544-01	0.0877	PPB	01 May 2023 13:54:20	ARI 5 ppb (NO 0.05)
23D0544-02	0.0209	PPB	01 May 2023 13:56:40	ARI 5 ppb (NO 0.05)
23D0579-01	0.0805	PPB	01 May 2023 13:59:01	ARI 5 ppb (NO 0.05)
BLD0668-MS1	0.8611	PPB ✓	01 May 2023 14:01:22	ARI 5 ppb (NO 0.05)
BLD0688-BLK1	-0.0117	PPB	01 May 2023 14:03:42	ARI 5 ppb (NO 0.05)
BLD0688-BS1	1.7632	PPB ✓	01 May 2023 14:06:01	ARI 5 ppb (NO 0.05)
23D0394-01	0.3509	PPB	01 May 2023 14:08:21	ARI 5 ppb (NO 0.05)
BLD0688-DUP1	0.2577	PPB	01 May 2023 14:10:40	ARI 5 ppb (NO 0.05)
BLD0688-MS1	1.3034	PPB ✓	01 May 2023 14:13:00	ARI 5 ppb (NO 0.05)
BLD0688-MSD1	1.2637	PPB ✓	01 May 2023 14:15:19	ARI 5 ppb (NO 0.05)
SEQ-CCV	100.2% 4.0078	PPB ✓	01 May 2023 14:17:38	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0184	PPB ✓	01 May 2023 14:19:56	ARI 5 ppb (NO 0.05)
23D0037-02	0.3471	PPB	01 May 2023 14:22:18	ARI 5 ppb (NO 0.05)
23D0037-04	0.3311	PPB	01 May 2023 14:24:37	ARI 5 ppb (NO 0.05)
23D0136-01	0.6340	PPB	01 May 2023 14:26:58	ARI 5 ppb (NO 0.05)
23D0136-03	0.4205	PPB	01 May 2023 14:29:17	ARI 5 ppb (NO 0.05)
23D0394-02	0.0943	PPB	01 May 2023 14:31:38	ARI 5 ppb (NO 0.05)
23D0394-04	0.1059	PPB	01 May 2023 14:33:58	ARI 5 ppb (NO 0.05)
23D0394-06	0.0143	PPB	01 May 2023 14:36:20	ARI 5 ppb (NO 0.05)
23D0394-08	0.2875	PPB	01 May 2023 14:38:39	ARI 5 ppb (NO 0.05)
23D0394-11	0.8730	PPB	01 May 2023 14:40:58	ARI 5 ppb (NO 0.05)

ARI 5 ppb (NO 0.05)

Linear



A= 0.0000e+000
 B= 1.7483e-004
 C= -1.6511e-002
 Rho= 0.9999378
 Accept=Accepted
 Accepted Date=
 05/01/23 11:29

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
SEQ-CAL1 - Blank	0.000	-0.018	-0.018	-5	3.399	-9	-1	-7		
SEQ-CAL2 - 0.1 PPB	0.100	0.093	-0.007	628	0.2 %	629	629	627		
SEQ-CAL3 - 0.5 PPB	0.500	0.494	-0.006	2921	0.5 %	2903	2929	2933		
SEQ-CAL4 - 1.0 PPB	1.000	1.008	0.008	5859	1.5 %	5735	5938	5906		
SEQ-CAL5 - 2.0 PPB	2.000	2.039	0.039	11755	1.0 %	11615	11914	11738		
SEQ-CAL6 - 5.0 PPB	5.000	4.983	-0.017	28597	1.1 %	29018	28454	28319		

Mercury Analysis Log

Analyst: ML
 Instrument: HYDRA

05/01/23
 Date: 5/12
 Page: 1 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
SEQ - C011	3mm	1X		
- C012				
- C013				
- C014				
- C015				
- C016				
- ICV			✓ 4.07	
- ICB			✓ -0.018	
- C02L			✓ 0.93	
- CCV			✓ 4.09	
- C03			✓ -0.018	
- CCV			✓ 4.02	
- C03			✓ -0.019	
- CCV			✓ 4.06	
↓ - C03			✓ -0.017	
BLD0668 - B1K1				
↓ - B31			✓ 1.774	88.7% R
23D0420 - 01				
BLD0668 - D0P1				RPD = 1.01
↓ - M51			✓ 0.655	58.6% R ; Del
23D0297 - 01				
↓ - 02				
↓ - 03				
↓ - 04				
↓ - 05				
SEQ - CCV			✓ 4.09	
↓ - C03			✓ -0.018	
23D0297 - 06				
↓ - 07				
↓ - 08				

Chemical/Reagent ID:
 10% SnCl₂: L4336

14% NH₂OH/NaCl: L4337

Standard ID:
 Standard: L4785-L4790

ICV/CCV: L4782

Mercury Analysis Log

Analyst:

Date:

Instrument:

Page: 2 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
23D0303 -01				
↓ -02				
23D0383 -01				
23D0384 -01				
23D0421 -01				
23D0437 -01				
↓ -02				
SEQ -CCV			√ 4.06	
↓ -CCB			√ -0.02	
23D0544 -01				
↓ -02				
23D0579 -01				
BLD0688 -MSI			√ 0.861	79.2 %R
BLD0688 -BIKI				
↓ -BSI			√ 1.763	88.1 %R
23D0394 -01				
BLD0688 -DUPI				NO RPD
↓ -MSI			√ 1.303	95.2 %R
↓ -MSDI			√ 1.263	91.2 %R
SEQ -CCV			√ 4.00	
↓ -CCB			√ -0.018	
23D0037 -02				
↓ -04				
23D0136 -01				
↓ -03				
23D0394 -02				
-04				
-06				
-08				
-11				

Chemical/Reagent ID:
10% SnCl₂:

14% NH₂OH/NaCl:

Standard ID:
Standard:

ICV/CCV:

Mercury Analysis Log

Analyst: _____
Instrument: _____

Date: _____
Page: 3 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
↓ -12				
SEA -CCV			√3.95	
↓ -CB			√-0.02	
23D0396 -01				
↓ -03				
SEA -CCV			√3.92	
↓ -CCB	↓	↓	√-0.02	
<i>MI 05/01/23</i>				

Chemical/Reagent ID:
10% SnCl₂: _____

14% NH₂OH/NaCl: _____

Standard ID:
Standard: _____

ICV/CCV: _____

Sample ID	Mean	Units	Date/Method
SEQ-CAL1	-6	PPB	01 May 2023 10:51:23ARI 5 ppb (NO 0.05)
SEQ-CAL2	628	PPB	01 May 2023 10:53:44ARI 5 ppb (NO 0.05)
SEQ-CAL3	2922	PPB	01 May 2023 10:56:05ARI 5 ppb (NO 0.05)
SEQ-CAL4	5860	PPB	01 May 2023 10:58:26ARI 5 ppb (NO 0.05)
SEQ-CAL5	11756	PPB	01 May 2023 11:00:46ARI 5 ppb (NO 0.05)
SEQ-CAL6	28597	PPB	01 May 2023 11:03:06ARI 5 ppb (NO 0.05)
SEQ-ICV	101.8% 4.0705	PPB ✓	01 May 2023 11:30:14ARI 5 ppb (NO 0.05)
SEQ-ICB	-0.0184	PPB ✓	01 May 2023 11:32:33ARI 5 ppb (NO 0.05)
SEQ-CRL	93.7% 0.0937	PPB ✓	01 May 2023 11:34:55ARI 5 ppb (NO 0.05)
SEQ-CCV	102.3% 4.0916	PPB ✓	01 May 2023 11:37:16ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0184	PPB ✓	01 May 2023 11:39:34ARI 5 ppb (NO 0.05)
SEQ-CCV	100.6% 4.0257	PPB ✓	01 May 2023 11:41:56ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0198	PPB ✓	01 May 2023 11:44:15ARI 5 ppb (NO 0.05)
SEQ-CCV	101.5% 4.0604	PPB ✓	01 May 2023 12:53:53ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0176	PPB ✓	01 May 2023 12:56:11ARI 5 ppb (NO 0.05)
BLD0668-BLK1	-0.0112	PPB	01 May 2023 12:58:33ARI 5 ppb (NO 0.05)
BLD0668-BS1	1.7744	PPB ✓	01 May 2023 13:00:52ARI 5 ppb (NO 0.05)
23D0420-01	0.0689	PPB	01 May 2023 13:03:11ARI 5 ppb (NO 0.05)
BLD0668-DUP1	0.0696	PPB	01 May 2023 13:05:30ARI 5 ppb (NO 0.05)
BLD0668-MS1	0.6552	PPB x del	01 May 2023 13:07:49ARI 5 ppb (NO 0.05)
23D0297-01	0.1601	PPB	01 May 2023 13:10:08ARI 5 ppb (NO 0.05)
23D0297-02	0.0801	PPB	01 May 2023 13:12:27ARI 5 ppb (NO 0.05)
23D0297-03	0.1859	PPB	01 May 2023 13:14:47ARI 5 ppb (NO 0.05)
23D0297-04	0.2936	PPB	01 May 2023 13:17:06ARI 5 ppb (NO 0.05)
23D0297-05	0.0732	PPB	01 May 2023 13:19:26ARI 5 ppb (NO 0.05)
SEQ-CCV	102.4% 4.0960	PPB ✓	01 May 2023 13:21:47ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0186	PPB ✓	01 May 2023 13:24:05ARI 5 ppb (NO 0.05)
23D0297-06	0.0398	PPB	01 May 2023 13:26:26ARI 5 ppb (NO 0.05)
23D0297-07	0.0703	PPB	01 May 2023 13:28:47ARI 5 ppb (NO 0.05)
23D0297-08	0.0831	PPB	01 May 2023 13:31:07ARI 5 ppb (NO 0.05)
23D0303-01	0.3177	PPB	01 May 2023 13:33:26ARI 5 ppb (NO 0.05)
23D0303-02	0.1133	PPB	01 May 2023 13:35:45ARI 5 ppb (NO 0.05)
23D0383-01	0.6445	PPB	01 May 2023 13:38:04ARI 5 ppb (NO 0.05)
23D0384-01	0.5203	PPB	01 May 2023 13:40:23ARI 5 ppb (NO 0.05)
23D0421-01	0.2459	PPB	01 May 2023 13:42:42ARI 5 ppb (NO 0.05)
23D0437-01	0.1558	PPB	01 May 2023 13:45:01ARI 5 ppb (NO 0.05)
23D0437-02	0.1899	PPB	01 May 2023 13:47:20ARI 5 ppb (NO 0.05)
SEQ-CCV	101.7% 4.0674	PPB ✓	01 May 2023 13:49:40ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0209	PPB ✓	01 May 2023 13:51:58ARI 5 ppb (NO 0.05)
23D0544-01	0.0877	PPB	01 May 2023 13:54:20ARI 5 ppb (NO 0.05)
23D0544-02	0.0209	PPB	01 May 2023 13:56:40ARI 5 ppb (NO 0.05)
23D0579-01	0.0805	PPB	01 May 2023 13:59:01ARI 5 ppb (NO 0.05)
BLD0668-MS1	0.8611	PPB ✓	01 May 2023 14:01:22ARI 5 ppb (NO 0.05)
BLD0688-BLK1	-0.0117	PPB	01 May 2023 14:03:42ARI 5 ppb (NO 0.05)
BLD0688-BS1	1.7632	PPB ✓	01 May 2023 14:06:01ARI 5 ppb (NO 0.05)
23D0394-01	0.3509	PPB	01 May 2023 14:08:21ARI 5 ppb (NO 0.05)
BLD0688-DUP1	0.2577	PPB	01 May 2023 14:10:40ARI 5 ppb (NO 0.05)
BLD0688-MS1	1.3034	PPB ✓	01 May 2023 14:13:00ARI 5 ppb (NO 0.05)
BLD0688-MSD1	1.2637	PPB ✓	01 May 2023 14:15:19ARI 5 ppb (NO 0.05)
SEQ-CCV	100.2% 4.0078	PPB ✓	01 May 2023 14:17:38ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0184	PPB ✓	01 May 2023 14:19:56ARI 5 ppb (NO 0.05)
23D0037-02	0.3471	PPB	01 May 2023 14:22:18ARI 5 ppb (NO 0.05)
23D0037-04	0.3311	PPB	01 May 2023 14:24:37ARI 5 ppb (NO 0.05)
23D0136-01	0.6340	PPB	01 May 2023 14:26:58ARI 5 ppb (NO 0.05)
23D0136-03	0.4205	PPB	01 May 2023 14:29:17ARI 5 ppb (NO 0.05)
23D0394-02	0.0943	PPB	01 May 2023 14:31:38ARI 5 ppb (NO 0.05)
23D0394-04	0.1059	PPB	01 May 2023 14:33:58ARI 5 ppb (NO 0.05)
23D0394-06	0.0143	PPB	01 May 2023 14:36:20ARI 5 ppb (NO 0.05)
23D0394-08	0.2875	PPB	01 May 2023 14:38:39ARI 5 ppb (NO 0.05)
23D0394-11	0.8730	PPB	01 May 2023 14:40:58ARI 5 ppb (NO 0.05)

SMM 05-01-23

Method: ARI 5 ppb (NO 0.05)

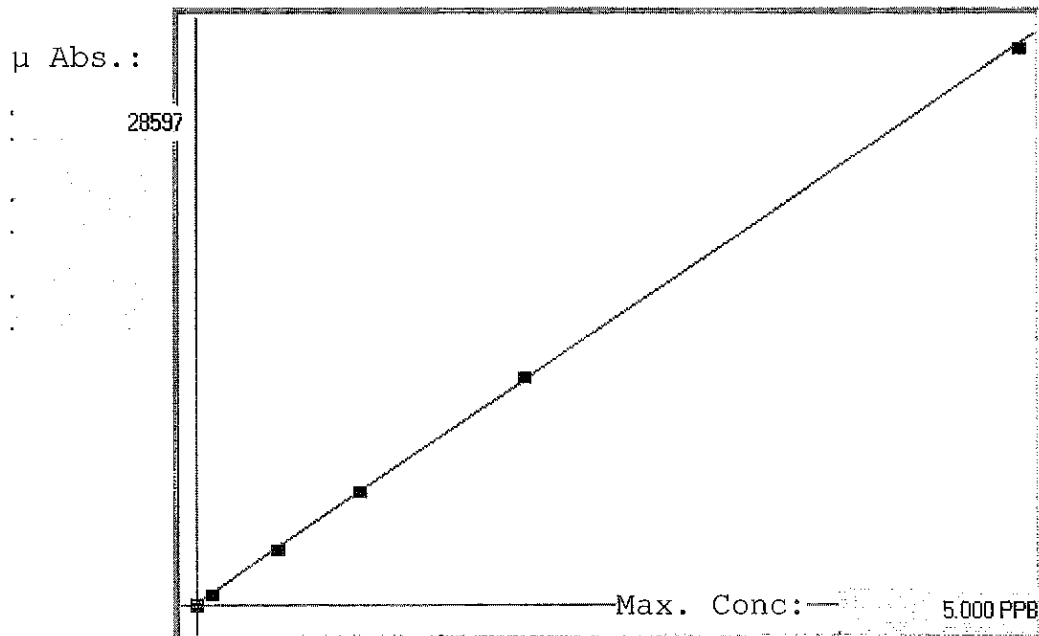
Operator: Admin

Date of Analysis: 01 May 2023 10:50:09

Sample ID	Mean	Units	Date	Method
23D0394-12	0.1077	PPB	01 May 2023 14:43:18	ARI 5 ppb (NO 0.05)
SEQ-CCV	96.4% 3.8556	PPB ✓	01 May 2023 14:45:37	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0205	PPB ✓	01 May 2023 14:47:56	ARI 5 ppb (NO 0.05)
23D0396-01	0.4693	PPB	01 May 2023 14:50:18	ARI 5 ppb (NO 0.05)
23D0396-03	0.3397	PPB	01 May 2023 14:52:38	ARI 5 ppb (NO 0.05)
SEQ-CCV	98.1% 3.9221	PPB ✓	01 May 2023 14:54:57	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0201	PPB ✓	01 May 2023 14:57:16	ARI 5 ppb (NO 0.05)

ARI 5 ppb (NO 0.05)

Linear



A= 0.0000e+000

B= 1.7483e-004

C= -1.6511e-002

Rho= 0.9999378

Accept=Accepted

Accepted Date=

05/01/23 11:29

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
SEQ-CAL1 - Blank	0.000	-0.018	-0.018	-5	3.399	-9	-1	-7		
SEQ-CAL2 - 0.1 PPB	0.100	0.093	-0.007	628	0.2 %	629	629	627		
SEQ-CAL3 - 0.5 PPB	0.500	0.494	-0.006	2921	0.5 %	2903	2929	2933		
SEQ-CAL4 - 1.0 PPB	1.000	1.008	0.008	5859	1.5 %	5735	5938	5906		
SEQ-CAL5 - 2.0 PPB	2.000	2.039	0.039	11755	1.0 %	11615	11914	11738		
SEQ-CAL6 - 5.0 PPB	5.000	4.983	-0.017	28597	1.1 %	29018	28454	28319		

Mercury Analysis Log

05/01/23

Analyst: ML
Instrument: HYDRA

Date: 05/12
Page: 1 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
SEQ -C011	3mm	1X		
-C012				
-C013				
-C014				
-C015				
-C016				
-1CV			✓ 4.07	
-1CB			✓ -0.018	
-C12L			✓ 0.93	
-CCV			✓ 4.09	
-CCB			✓ -0.018	
-CCV			✓ 4.02	
-CCB			✓ -0.019	
-CCV			✓ 4.06	
↓ -CCB			✓ -0.017	
BLD0668 -B1K1				
↓ -B31			✓ 1.774	88.7% R
23D0420 -01				
BLD0668 -DUP1				RFD = 1.01
↓ -MS1			✓ 0.655	58.6% R ; Del
23D0297 -01				
↓ -02				
↓ -03				
↓ -04				
↓ -05				
SEQ -CCV			✓ 4.09	
↓ -CCB			✓ -0.018	
23D0297 -06				
↓ -07				
↓ -08				

Chemical/Reagent ID:
10% SnCl₂: L4336

14% NH₂OH/NaCl: L4337

Standard ID:
Standard: L4785-L4790

ICV/CCV: L4782

Mercury Analysis Log

 Analyst:

 Date:

 Instrument:

 Page: 2 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
23D0303 -01				
↓ -02				
23D0383 -01				
23D0384 -01				
23D0421 -01				
23D0437 -01				
↓ -02				
SEA -CCV			√ 4.06	
↓ -CCB			√ -0.02	
23D0544 -01				
↓ -02				
23D0579 -01				
BLD0688 -MSI			√ 0.861	79.2 1/R
BLD0688 -BSI				
↓ -BSI			√ 1.763	88.1 1/R
23D0394 -01				
BLD0688 -DMSI				NO RPD
↓ -MSI			√ 1.303	95.2 1/R
↓ -MSDI			√ 1.263	91.2 1/R
SEA -CCV			√ 4.00	
↓ -CCB			√ -0.018	
23D0037 -02				
↓ -04				
23D0136 -01				
↓ -03				
23D0394 -02				
-04				
-06				
-08				
-11				

 Chemical/Reagent ID:
 10% SnCl₂:

 14% NH₂OH/NaCl:

 Standard ID:
 Standard:

 ICV/CCV:

Mercury Analysis Log

Analyst:
 Instrument:

Date:
 Page: 3 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
↓ -12				
SEA -COV			√ 3.85	
↓ -CCB			√ -0.02	
23D0396 -01				
↓ -03				
SEA -COV			√ 3.92	
↓ -CCB	↓	↓	√ -0.02	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(-45deg); opacity: 0.5; pointer-events: none;"> M 05/01/03 </div>				

Chemical/Reagent ID:
 10% SnCl₂:
 Standard ID:
 Standard:

14% NH₂OH/NaCl:
 ICV/CCV:

23D0136 CLPLIKE (Rev0) - Page 3650 of 4865



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 7471B**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: HYDRA

Calibration: GE00003

Control Limit: +/- 20.00%

Sequence: SLE0012

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0012-ICV1	Mercury	0.0040000	0.00407	102	mg/L	EPA 7471B
SLE0012-CCV1	Mercury	0.0040000	0.00409	102	mg/L	EPA 7471B
SLE0012-CCV2	Mercury	0.0040000	0.00403	101	mg/L	EPA 7471B
SLE0012-CCV3	Mercury	0.0040000	0.00406	102	mg/L	EPA 7471B
SLE0012-CCV4	Mercury	0.0040000	0.00410	102	mg/L	EPA 7471B
SLE0012-CCV5	Mercury	0.0040000	0.00407	102	mg/L	EPA 7471B
SLE0012-CCV6	Mercury	0.0040000	0.00401	100	mg/L	EPA 7471B
SLE0012-CCV7	Mercury	0.0040000	0.00386	96.4	mg/L	EPA 7471B
SLE0012-CCV8	Mercury	0.0040000	0.00392	98.1	mg/L	EPA 7471B

* Values outside of QC limits



INSTRUMENT BLANKS
EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: HYDRA

Calibration: GE00003

Sequence: SLE0012

Date Analyzed: 05/01/23 11:32

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0012-ICB1	Mercury	-0.000018	0.000021	0.000100	mg/L	
SLE0012-CCB1	Mercury	-0.000018	0.000021	0.000100	mg/L	
SLE0012-CCB2	Mercury	-0.000020	0.000021	0.000100	mg/L	
SLE0012-CCB3	Mercury	-0.000018	0.000021	0.000100	mg/L	
SLE0012-CCB4	Mercury	-0.000019	0.000021	0.000100	mg/L	
SLE0012-CCB5	Mercury	-0.000021	0.000021	0.000100	mg/L	
SLE0012-CCB6	Mercury	-0.000018	0.000021	0.000100	mg/L	
SLE0012-CCB7	Mercury	-0.000021	0.000021	0.000100	mg/L	
SLE0012-CCB8	Mercury	-0.000020	0.000021	0.000100	mg/L	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0012

Instrument: HYDRA

Calibration: GE00003

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SLE0012-CAL1	SMM 05-01-23-001	NA	05/01/23 10:51
Cal Standard	SLE0012-CAL2	SMM 05-01-23-002	NA	05/01/23 10:53
Cal Standard	SLE0012-CAL3	SMM 05-01-23-003	NA	05/01/23 10:56
Cal Standard	SLE0012-CAL4	SMM 05-01-23-004	NA	05/01/23 10:58
Cal Standard	SLE0012-CAL5	SMM 05-01-23-005	NA	05/01/23 11:00
Cal Standard	SLE0012-CAL6	SMM 05-01-23-006	NA	05/01/23 11:03
Initial Cal Check	SLE0012-ICV1	SMM 05-01-23-007	NA	05/01/23 11:30
Initial Cal Blank	SLE0012-ICB1	SMM 05-01-23-008	NA	05/01/23 11:32
Instrument RL Check	SLE0012-CRL1	SMM 05-01-23-009	NA	05/01/23 11:34
Calibration Check	SLE0012-CCV1	SMM 05-01-23-010	NA	05/01/23 11:37
Calibration Blank	SLE0012-CCB1	SMM 05-01-23-011	NA	05/01/23 11:39
Calibration Check	SLE0012-CCV2	SMM 05-01-23-012	NA	05/01/23 11:41
Calibration Blank	SLE0012-CCB2	SMM 05-01-23-013	NA	05/01/23 11:44
Calibration Check	SLE0012-CCV3	SMM 05-01-23-014	NA	05/01/23 12:53
Calibration Blank	SLE0012-CCB3	SMM 05-01-23-015	NA	05/01/23 12:56
Calibration Check	SLE0012-CCV4	SMM 05-01-23-026	NA	05/01/23 13:21
Calibration Blank	SLE0012-CCB4	SMM 05-01-23-027	NA	05/01/23 13:24
Calibration Check	SLE0012-CCV5	SMM 05-01-23-038	NA	05/01/23 13:49
Calibration Blank	SLE0012-CCB5	SMM 05-01-23-039	NA	05/01/23 13:51
Blank	BLD0688-BLK1	SMM 05-01-23-044	Solid	05/01/23 14:03
LCS	BLD0688-BS1	SMM 05-01-23-045	Solid	05/01/23 14:06
Calibration Check	SLE0012-CCV6	SMM 05-01-23-050	NA	05/01/23 14:17
Calibration Blank	SLE0012-CCB6	SMM 05-01-23-051	NA	05/01/23 14:19
LDW23-SS1804	23D0136-01	SMM 05-01-23-054	Solid	05/01/23 14:26
LDW23-SS1803	23D0136-03	SMM 05-01-23-055	Solid	05/01/23 14:29
Calibration Check	SLE0012-CCV7	SMM 05-01-23-062	NA	05/01/23 14:45
Calibration Blank	SLE0012-CCB7	SMM 05-01-23-063	NA	05/01/23 14:47
Calibration Check	SLE0012-CCV8	SMM 05-01-23-066	NA	05/01/23 14:54
Calibration Blank	SLE0012-CCB8	SMM 05-01-23-067	NA	05/01/23 14:57



DETECTION LEVEL STANDARD
EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: HYDRA

Calibration: GE00003

Sequence: SLE0012

Lab Sample ID: SLE0012-CRL1

Analyte	True	Found	%R	Units	QC Limits
Mercury	0.000100	0.000094	93.7	mg/L	70 - 130

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/27/23 15:14	22	180	05/01/23 14:26	26	180	
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	04/27/23 15:14	21	180	05/01/23 14:29	26	180	

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: HYDRA

Analyte	MDL	RL	Units
Mercury	0.00525	0.0250	mg/kg

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGHG1
Lot Number: S2-HG711246
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Mercury
Starting Material: Hg Metal
Starting Material Lot#: 1959
Starting Material Purity: 99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 3 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	1004 ± 6 µg/mL ICP Assay NIST SRM 3133 Lot Number: 160921
Assay Method #2	998 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1001 ± 3 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000210	M Eu < 0.000210	O Na < 0.000626	M Se < 0.008100	M Zn < 0.000810
M Al < 0.000161	O Fe < 0.001600	M Nb < 0.000410	O Si < 0.000626	M Zr < 0.000410
M As < 0.002500	M Ga < 0.000210	M Nd < 0.000210	M Sm < 0.000210	
O Au < 0.001700	M Gd < 0.000210	O Ni < 0.001400	M Sn < 0.000410	
M B < 0.008500	M Ge < 0.000410	M Os < 0.003900	O Sr < 0.000110	
M Ba < 0.000210	M Hf < 0.000210	O P < 0.029000	M Ta < 0.000210	
O Be < 0.000110	s Hg < 0.000210	M Pb < 0.000210	M Tb < 0.000210	
M Bi < 0.001100	M Ho < 0.000210	M Pd < 0.003500	M Te < 0.005700	
O Ca < 0.004754	M In < 0.000210	M Pr < 0.000210	M Th < 0.000210	
M Cd < 0.000210	M Ir < 0.000210	M Pt < 0.000210	O Ti < 0.000430	
M Ce < 0.000210	O K < 0.000731	M Rb < 0.000210	O Tl < 0.005400	
M Co < 0.000210	M La < 0.000210	M Re < 0.000210	M Tm < 0.000210	
O Cr < 0.003300	O Li < 0.000110	M Rh < 0.001100	M U < 0.000410	
M Cs < 0.000410	M Lu < 0.000210	M Ru < 0.000810	M V < 0.000210	
M Cu < 0.000810	O Mg < 0.000104	O S < 0.022000	M W < 0.001100	
M Dy < 0.000210	O Mn < 0.000430	M Sb < 0.000210	M Y < 0.000210	
M Er < 0.000210	M Mo < 0.000210	M Sc < 0.000210	M Yb < 0.000210	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+
Chemical Compatibility - Stable in HNO₃. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO₃ / LDPE container, stable in 10% HNO₃ packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO₃ packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO₃ / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxide (Soluble in HNO₃); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th, Rh, Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 18, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 18, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: QCP-QCS-4
Lot Number: R2-MEB695951
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 5 µg/mL ea:
Mercury

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Mercury, Hg	5.011 ± 0.023 µg/mL		

Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	061204
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/u_{char\ i})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u^2_{char} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_i)^2(u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u^2_{char\ a} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 20, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 20, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SS1804

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23D0136-01 D SDG: 23D0136

Sampled: 04/05/23 11:45 Prepared: 04/07/23 14:56 File ID:

% Solids: 47.25 Preparation: No Prep Wet Chem Analyzed: 04/07/23 14:58

Batch: BLD0215 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	47.25	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1804

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23D0136-02 D SDG: 23D0136

Sampled: 04/05/23 12:15 Prepared: 04/07/23 14:56 File ID:

% Solids: 49.80 Preparation: No Prep Wet Chem Analyzed: 04/07/23 14:58

Batch: BLD0215 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	49.80	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SS1803

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-03 D SDG: 23D0136
 Sampled: 04/05/23 16:05 Prepared: 04/07/23 14:56 File ID:
 % Solids: 48.35 Preparation: No Prep Wet Chem Analyzed: 04/07/23 14:58
 Batch: BLD0215 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	48.35	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1803

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23D0136-04 D SDG: 23D0136

Sampled: 04/05/23 16:30 Prepared: 04/07/23 14:56 File ID:

% Solids: 49.32 Preparation: No Prep Wet Chem Analyzed: 04/07/23 14:58

Batch: BLD0215 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	49.32	1	0.04	0.04	



PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, LLC SDG: 23D0136
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLD0215 Batch Matrix: Solid Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01		04/07/23 14:56	
LDW23-SC1804	23D0136-02		04/07/23 14:56	
LDW23-SS1803	23D0136-03		04/07/23 14:56	
LDW23-SC1803	23D0136-04		04/07/23 14:56	
Blank	BLD0215-BLK1		04/07/23 14:56	

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET for Solid samples													Batch: BLD0215									
Method: PSEP 1986, SM2540, EPA 160.1													Date: 4/7/2023 14:58									
(dry at 104 (12-24 hr) then combust at 550 (30 min))													Analyst: UW									
Instrumentation			Drying Ovens: 12			Analytical Balance: BAL2			Muffle Furnace: 2													
Batch drying time			TS (%) calculated as:			Oven Temps, °C			TVS (mg/kg dry wt) calculated as:													
record times as mm/dd/yy hh:mm			Final dry wt (g) = (Dry Wt - Tare Wt)			Start Temp 104			Final ash wt (g) = (min ash wt - tare wt)													
date/time in oven: 4/7/2023 15:45			TS = (Final Dry Wt)/(grams Sample-Tare)			Dry Cycle 1 105			TVS (mg/kg) = [(Dry wt-Ash wt)/(dry weight)] *1,000,000													
date/time out: 4/11/2023 8:35						Dry Cycle 2			if ash wt > dry wt, "Chk for Err"													
elapsed hrs = 88.8 > 24 hr						Dry Cycle 3			if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000													
Balance Calibration Check																						
Record weights to 4 places													CV-02		CV-02		CV-02					
Cal Weight ID:			CV-02		CV-02		CV-02		CV-02		CV-02											
Date & Time:			4/7/23 15:10		4/7/23 15:20		4/11/23 17:05															
Cal Wt (g):			10.0000		10.0000		9.9999															
			Cal OK!		Cal OK!		Cal OK!															
Sample ID	Dish #	Tare Wt. (g)	Dish & Sample (g)	Dry Wt 104C (grams)			dry Wt (g)	TS (%)	Notes	ASH WT 550C (grams)			Ash Wt (g)	TVS		Notes						
				1	2	3				1	2	3		(mg/kg)	(%)							
BLD0215-BLK1	1	1.0258	0.0000	1.0256			-0.0002	0.02%														
23C0085-01	2	1.0611	8.2261	6.4702			5.4091	75.49%														
23C0085-02	3	1.0613	9.0006	7.0966			6.0353	76.02%														
BLD0215-DUP1	4	1.0431	10.0116	7.8232			6.7801	75.60%	RPD=0.6													
BLD0215-DUP2	5	1.0656	8.3746	6.6254			5.5598	76.07%	RSD=0.3													
23C0085-03	6	1.0441	9.8677	7.6420			6.5979	74.78%														
23C0085-04	7	1.0594	9.1017	7.1377			6.0783	75.58%														
23C0085-05	8	1.0531	6.9709	5.4024			4.3493	73.50%														
23C0085-06	9	1.0394	8.4739	6.5339			5.4945	73.91%														
23C0085-09	10	1.0309	8.5293	6.8378			5.8069	77.44%														
23C0085-10	11	1.0370	7.6050	6.0670			5.0300	76.58%														
23C0085-13	12	1.0085	8.8031	6.7440			5.7355	73.58%														
23C0085-14	13	1.0568	8.7895	6.4621			5.4053	69.90%														
23D0095-02	14	1.0466	2.1811	1.2876			0.2410	21.24%														
23D0104-01	15	1.0313	2.2537	1.5219			0.4906	40.13%														
23D0136-01	16	1.0180	5.6198	3.1925			2.1745	47.25%														
23D0136-02	17	1.0403	6.4010	3.7100			2.6697	49.80%														
23D0136-03	18	1.0396	7.6314	4.2266			3.1870	48.35%														
23D0136-04	19	1.0362	6.0422	3.5052			2.4690	49.32%														

NOTE: Do not enter data in blue shaded cells as they are calculated fields. Green shaded cells MAY be altered if a reweigh is called for.

TOTAL SOLIDS (TS) BENCHSHEET for Solid samples						Batch:	BLD0746		
Method: Total Solids, Metals Correction						Date:	4/28/2023 15:50		
dry at 104°C (12-24 hr)						Analyst:	ml		
Instrumentation		Drying Oven:	7		Analytical Balance:	10			
Batch drying time				TS (%) calculated as: Final dry wt (g) = (Dry Wt - Tare Wt) TS = (Final Dry Wt)/ (grams Sample-Tare)					
record times as mm/dd/yy hh:mm									
date/time in oven:	4/27/2023 16:50		Temp in:					104 °C	
date/time out:	4/28/2023 15:47		Temp out:					106 °C	
elapsed hrs =	22.9	OK							
Sample ID	Tare Weight (g)	Tare + Sample Weight (g)	Tare + Sample Dry Weight @ 104°C (g)			dry Wt (g)	TS (%)	Notes	
			1	2	3				
23D0136-01	1.0050	10.0040	5.3750			4.3700	48.56%		
23D0136-03	1.0220	10.0560	5.4950			4.4730	49.51%		
23D0394-01	1.0160	10.0960	5.2190			4.2030	46.29%		
23D0394-02	1.0210	10.0190	7.5620			6.5410	72.69%		
23D0394-03	1.0200	10.0520	7.4960			6.4760	71.70%		
23D0394-04	1.0040	10.0360	7.5750			6.5710	72.75%		
23D0394-05	1.0230	10.0090	5.4400			4.4170	49.15%		
23D0394-06	1.0160	10.0650	9.2290			8.2130	90.76%		
23D0394-07	1.0080	10.0700	8.8200			7.8120	86.21%		
23D0394-08	1.0000	10.0720	7.9530			6.9530	76.64%		
23D0394-09	0.9850	10.0430	8.2160			7.2310	79.83%		
23D0394-10	1.0250	10.0890	8.0580			7.0330	77.59%		
23D0394-11	1.0030	10.0130	7.5760			6.5730	72.95%		
23D0394-12	0.9980	10.0480	7.9510			6.9530	76.83%		
23D0394-13	0.9850	10.0730	7.6270			6.6420	73.09%		
23D0396-01	1.0090	10.0260	5.3790			4.3700	48.46%		
23D0396-03	0.9860	10.0260	5.2990			4.3130	47.71%		
23D0420-01	1.0060	10.0250	9.8650			8.8590	98.23%		
23D0421-01	1.0210	10.0060	9.9270			8.9060	99.12%		



Form I
METHOD BLANK DATA SHEET
SM 2540 G-97
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0215

Laboratory ID: BLD0215-BLK1

Prepared: 04/07/23 14:56

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 04/07/23 14:58

Sequence:

Calibration:

Instrument: BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	ND	1	0.04	0.04	U



HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/07/23 14:56	2	28	04/07/23 14:58	2	28	
LDW23-SC1804 23D0136-02	04/05/23 12:15	04/06/23 10:30	04/07/23 14:56	2	28	04/07/23 14:58	2	28	
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	04/07/23 14:56	1	28	04/07/23 14:58	2	28	
LDW23-SC1803 23D0136-04	04/05/23 16:30	04/06/23 10:30	04/07/23 14:56	1	28	04/07/23 14:58	2	28	

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument:

Analyte	MDL	RL	Units
Total Solids	0.04	0.04	%



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

LDW23-SS1804

Total Metals

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0136-01 C

SDG: 23D0136

Sampled: 04/05/23 11:45

Prepared: 04/28/23 15:38

File ID: XDT_m1230511-125

% Solids: 47.25

Preparation: SWN EPA 3050B

Analyzed: 05/11/23 22:35

Batch: BLD0687

Sequence: SLE0209

Initial/Final: 1.003 g Wet / 50 mL

Instrument: ICPMS1

Calibration: GE00042

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	19.3	20	0.08	0.42	
7440-43-9	Cadmium	0.41	20	0.06	0.21	
7440-50-8	Copper	80.1	20	0.37	1.05	
7440-66-6	Zinc	179	20	6.2	12.7	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-SS1803

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-03 C SDG: 23D0136
 Sampled: 04/05/23 16:05 Prepared: 04/28/23 15:38 File ID: XDT_m1230511-126
 % Solids: 48.35 Preparation: SWN EPA 3050B Analyzed: 05/11/23 22:40
 Batch: BLD0687 Sequence: SLE0209 Initial/Final: 1.002 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GE00042

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	17.2	20	0.08	0.41	
7440-43-9	Cadmium	0.48	20	0.06	0.21	
7440-50-8	Copper	72.6	20	0.36	1.03	
7440-66-6	Zinc	135	20	6.0	12.4	



PREPARATION BATCH SUMMARY
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC SDG: 23D0136
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLD0687 Batch Matrix: Solid Preparation: SWN EPA 3050B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	XDT_m1230511-125	04/28/23 15:38	
LDW23-SS1803	23D0136-03	XDT_m1230511-126	04/28/23 15:38	
Blank	BLD0687-BLK1	XDT_m1230509a-069	04/28/23 15:38	
Blank	BLD0687-BLK2	XDT_m1230510A-031	04/28/23 15:38	Added 5/11/2023 by MCB
LCS	BLD0687-BS1	XDT_m1230509a-070	04/28/23 15:38	
LCS	BLD0687-BS2	XDT_m1230510A-033	04/28/23 15:38	Added 5/11/2023 by MCB



Digestion Log

Analyst: AR Date: 04/28/23 Time: 1016-1538 Balance ID: 3AL10
 Matrix: soil Block ID: 16 Block Temp: 96C Thermometer: 20-4

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWW</u>		Prep Code:		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
23D136-01	C	|	1.003	50			
↓ -03	↓	|	1.002				
23D394-01	↓	|	1.018				
↓ -02	B	|	1.051				
↓ -03	↓	|	1.058				
↓ -04	C	|	1.065				
↓ -05		|	1.012				
↓ -06		|	1.074				
↓ -07		|	1.019				
↓ -08		|	1.039				
↓ -09		|	1.018				
↓ -10		|	1.036				
↓ -11	↓	|	1.033				
↓ -12	B	|	1.008				
↓ -13	C	|	1.087				
23D394-01	↓	|	1.033				
↓ -03	↓	|	1.020				
BLD087-blk	-	|	-				23D394-01
↓ -bs	-	|	-				↓
↓ -dup	-	|	1.016				
↓ -MS	-	|	1.019				
↓ -MSD	-	|	1.014				
23D37-02	D	|	1.063				
↓ -04	↓	|	1.012	↓			
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

Chemical/Reagent ID:

HNO₃: L4188 1:1 HNO₃: L4206 HCl: — H₂O₂: K1056
 Tube Lot#: 221017 Boiling Chip Lot#: — (DoD Only)



Form I
METHOD BLANK DATA SHEET
EPA 6020B UCT-KED
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0687

Laboratory ID: BLD0687-BLK1

Prepared: 04/28/23 15:38

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 05/09/23 21:43

Sequence: SLE0163

Calibration: GE00034

Instrument: ICPMS1

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic-75a	ND	20	0.04	0.20	U
7440-43-9	Cadmium-111	ND	20	0.03	0.10	U
7440-50-8	Copper-63	ND	20	0.17	0.50	U



Form I
METHOD BLANK DATA SHEET
EPA 6020B UCT-KED
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0687

Laboratory ID: BLD0687-BLK2

Prepared: 04/28/23 15:38

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 05/10/23 17:54

Sequence: SLE0204

Calibration: GE00040

Instrument: ICPMS1

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-66-6	Zinc-66	ND	20	2.9	6.0	U



LCS / LCS DUPLICATE RECOVERY
EPA 6020B UCT-KED
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/09/23 21:48</u>
Batch:	<u>BLD0687</u>	Laboratory ID:	<u>BLD0687-BS1</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>1 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Arsenic-75a	25.0	24.9		99.6	80 - 120
Cadmium-111	25.0	25.7		103	80 - 120
Copper-63	25.0	28.5		114	80 - 120

* Indicates values outside of QC limits



LCS / LCS DUPLICATE RECOVERY
EPA 6020B UCT-KED
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/10/23 18:05</u>
Batch:	<u>BLD0687</u>	Laboratory ID:	<u>BLD0687-BS2</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>1 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Zinc-66	80.0	81.1		101	80 - 120

* Indicates values outside of QC limits



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Instrument: ICPMS1

Calibration Date: 05/09/2023 15:21

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	15550	10	15277.5	20	14954	50	14450.62	100	14213.3
Chromium-52	0	0	0.5	52696	10	25665.6	20	24896	50	23824.18	100	24100.37
Chromium-53	0	0	0.5	3292	10	2783.5	20	2747.15	50	2666.92	100	2605
Lead-208	0	0	0.1	92440	10	87764.4	20	87636.2	50	89109.48	100	87067.5



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GE00034

Calibration Date: 5/9/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	12407.57	49.2	0.9998		0.998	
Chromium-52	25197.03	66.3	0.9999		0.998	
Chromium-53	2349.095	50.1	0.9998		0.998	
Lead-208	74002.93	49.1	0.9999		0.998	



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Instrument: ICPMS1

Calibration Date: 05/09/2023 15:21

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	320	10	322.8	20	320.65	50	311.22	100	307.61
Cadmium-111	0	0	0.1	410	10	339.5	20	330.1	50	318.02	100	310.93
Cadmium-114	0	0	0.1	710	10	853.7	20	856.85	50	805.66	100	787.91
Copper-63	0	0	0.5	5830	10	4715.1	20	4670.7	50	4392.22	100	4224.14
Copper-65	0	0	0.5	3004	10	2368.8	20	2341.65	50	2245.14	100	2145.83
Zinc-66	0	0	6	643.5	10	673.3	20	638.85	50	607.58	100	582.37
Zinc-67	0	0	6	96.83334	10	106.1	20	105.2	50	97.46	100	97.08



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Calibration: GE00034

Instrument: ICPMS1
Calibration Date: 5/9/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	263.7133	49.0	0.9999		0.998	
Cadmium-111	284.7583	50.6	0.9998		0.998	
Cadmium-114	669.02	49.6	0.9996		0.998	
Copper-63	3972.027	51.0	0.9994		0.998	
Copper-65	2017.57	51.2	0.9993		0.998	
Zinc-66	524.2667	49.4	0.9994		0.998	
Zinc-67	83.77889	49.2	0.9997		0.998	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MB Sequence: SLEΦ163 Cal: GEΦΦΦ34

All corrections made by analyst unless otherwise noted. MB 5/9/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CAL1	L5224		
		CAL2	L5225		
		-CAL3	L5226		
		-CAL4	L5227		
		-CAL5	L5228		
		-CAL6	L5229		
		-IBL1	—		
		-ICV1	L3575		
	✓	-ICB1	—		Std Made noisy
		-ICB1	L5224		
		-CCV1	L5228		
	✓	-CCB1	—		Std Made noisy
		-CCB1	L5224		
		-CRL1	L5225		
	✓	-IFA1	—		Std Made noisy
		-IFB1	L4689		
		-IFA1	L4688		C _r 53↑
	✓	-HCV1	—		Ba ¹³⁷ ↓
		-HCV2	L4781		
		-HCV1	L4780		
		-IBL2	—		
		-IBL3	—		
		-CCV2			
		✓ -CCB2			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/9/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLEΦ256-BLK1	REN		
		↓ -BS1	↓		Ge noisy: %R, Values + Analytes OK
		23EΦ192-Φ1		5	
		23EΦ179-Φ1		2	Sc, In, Tb noisy: %R + Analytes OK
		23EΦ141-Φ1		5	
		23EΦΦ96-Φ1		2	
		230Φ453-Φ1	↓	↓	Ge, In ↓ Cd, Cu, Ni, Zn NR
		SEQ-IBL4			
		230Φ595-Φ1	REN	20	Zn ↑ Zn NR
		SEQ-IBL5			
		↓ -CCV3			Be 137 ↓ - Not needed
		-CCB3			
✓		-CAL1			Al, Co, Mo, Se Removed
		-CCV4			Be 137 ↓
		↓ -CCB4			
		BLEΦ119-BLK1	REN		
✓		↓ -BS1	↓		Ge noisy
		↓ -BS1	↓		
		BLEΦ134-BLK2			As, Cd, Cr, Ni, Pb only
		↓ -BS2	↓		↓
		230Φ297-Φ8	SWN	100	Cr only
		23AΦ42Φ-Φ7	↓	↓	↓
		230Φ595-Φ1RE1	REN	↓	Zn only
		230Φ453-Φ1RE1	↓	10	Cd, Cu, Ni, Zn only



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MB Sequence: Cal:

All corrections made by analyst unless otherwise noted. MB 5/9/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEC2IBLG			
		↓ -CCV5			Ba ¹³⁷ ↓
		↓ -CCB5			
		23CΦ715-Φ2	REN	5	Cr only
		↓ -Φ4		50	
		23CΦ69Φ-Φ8		↓	
		↓ -1Φ		20	
		↓ -Φ4		10	
		230Φ514-Φ5		5	Sc↑/Mn↑ Ag, Ca, Ni only
		BLEΦΦ78-DPZ		↓	Ge noisy -7.R + Analytes OK/Values match parent.
		↓ -MSZ		↓	Ag %R ↓
		↓ -MSOZ		↓	
		SEC-IBL7			
		↓ -CCV6			
		↓ -CCB6			
✓		↓ -CALI			Sc, Tb noisy
✓		↓ -CCV7CALI			Ag, Ba, Mn Removed
		↓ -CCV7			
		↓ -CCB7			
		BLDΦ687-BLK1	SWN	20	Zn↑(35.926) - Re-run to confirm No Zn
		↓ -BSI	↓	↓	
		BLEΦ202-BLK1	REN		Cu only
		↓ -BSI	↓		
		↓ -SRL1	↓	5	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/9/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230φ242-φ5RE1	REN		Sc↑ - Not Needed Cu only
		BLEφ2φ8 - DUPI	↓		↓
		↓ -MS1	↓		↓
		↓ -PS1	↓		CoDown / K4709 ↓
		SEQ-IBL8			
		↓ -CCV8			
		↓ -CCB8			
		BLEφ125-BLK1	SWN	20	
		↓ -BS1	↓	↓	
		230φ233-φ7RE1	REN		Cu only
		230φ234-φ7RE1	↓		↓
		230φ241-φ2RE1	↓		Sc↑ - Not Needed
		↓ -φ4RE1	↓		↓ ↓
		230φ242-φ2RE1	↓		↓
		↓ -φ4RE1	↓		Sc↑ - Not Needed
		230φ3φ6-φ1	↓	2	Cr only
		SEQ-IBL9			
		↓ -CCV9			
		↓ -CCB9			
		230φ393-φ9	SWN	20	Sc↑ - Not Needed
		↓ -13	↓	↓	
		↓ -14	↓	↓	
		↓ -2φ	↓	↓	Sc↑ - Not Needed
		↓ -φ7	↓	↓	↓ ↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/19/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLEΦ125-DUPI	SWN	20	Sc↑ - Not Needed
		↓ -MS1	↓	↓	↓ /As STL
		↓ -MSD1	↓	↓	↓
		↓ -PS1	↓	↓	60ml K7409 ↓
		SEQ-IBLA			
		↓ -CCVA			
		↓ -CCBA			
		230Φ393-21	SWN	20	Sc↑ - Not Needed
		↓ -23	↓	↓	↓
		230Φ394-Φ3			
		↓ -Φ5			↓
		↓ -Φ1			
		BLDΦ687-DUPI			No Cr, Pb, Zn
		↓ -MS1	↓	↓	↓
		↓ -MSD1	↓	↓	↓
		↓ -PS1	↓	↓	60ml K7409 / Sc↑ ↓
		SEQ-IBLB			
		↓ -CCVB			
		↓ -CCBB			Pb noisy
✓		230Φ394-Φ7	SWN	20	Sc↑ - Not Needed
		↓ -Φ9	↓	↓	↓ ↓
		↓ -1Φ	↓	↓	
✓		↓ -13	↓	↓	
		230Φ348-Φ1	REN	↓	No Pb



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-IBLC			
		230φ376-φ1	REN	100	Cr only
		230φ424-φ1	↓	5	Zn only
		230φ374-φ3	↓	2	Cd, Cr only
		SEQ-IBLD			
		↓ -CCVC			Pb?
		↓ -CCBC			
		230φ513-φ3	REN		
		230φ452-φ1	↓	2	No Pb
		230φ462-φ1	↓	↓	↓
		230φ48φ-φ1	↓	↓	Ce, In ⁻¹ ↓ Cr only
		SEQ-IBLE			
		230φ442-φ2	REN	20	Cr only
		BLEφφ54-DUP3	↓	↓	↓
		↓ -MS3	↓	↓	
		↓ -MSD3	↓	↓	
		SEQ-IBLF			
		↓ -CCVD			
		↓ -CCBD			
		230φ537-φ5	REN	Sc ↑	No Cr
		BLEφ12φ-DUP2	↓	↓	↓
		↓ -MS2	↓	↓	
		↓ -MSD2	↓	↓	
		SEQ-IBLG			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/9/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ464-Φ2	REN	20	Pb only
		↓ -Φ1	↓		↓
		230Φ516-Φ1			Sc ↑ - Not Needed
		↓ -Φ2	↓		↓ ↓ ↓
		SEQ-IBLH			
		↓ -CCVE			
		↓ -CCBE			
		230Φ463-Φ1	REN		Pb only
		↓ -Φ2	↓		Sc ↑ - Not Needed
		↓ -Φ3	↓		↓
		230Φ477-Φ5		5	
		↓ -17		2	
		↓ -19		↓	
		BLEΦΦ77-OLP1			
OK ✓		↓ -MS1	↓	↓	Genoisy Pb only
		↓ -MS01	↓	↓	
		SEQ-IBLI			
		↓ -CCVF			
		↓ -CCBF			
					Remaining CV tubes empty - End of usable data
<u>MS 5/9/23</u>					

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Tuesday, May 09, 2023 12:18:16

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.134

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0		9586.5		9586.549	68.777	0.7	Standard
In	114.9		71985.5		71985.472	993.919	1.4	Standard
U	238.1		96089.6		96089.638	954.703	1.0	Standard
[CeO	155.9		2059.6		0.020	0.000	2.4	Standard
] > Ce	139.9		102412.2		102412.184	475.304	0.5	Standard
[Ce++	70.0		977.8		0.010	0.000	2.3	Standard
Bkgd	220.0		0.5		0.467	0.183	39.1	Standard

Current Conditions File Data

Current Value	Description
0.91	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.91	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Tuesday, May 09, 2023 12:20:20

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/9/2023 12:18:11 PM

End Time: 5/9/2023 12:24:32 PM

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 9586.55

Obtained Intensity (In 115): 71985.47

Obtained Intensity (U 238): 96089.64

Obtained Intensity (Bkgd 220): 0.47

Obtained Formula (Ce++ 70 / ce 140): 0.010 (=977.83 / 102412.18)

Obtained Formula (CeO 156 / ce 140): 0.020 (=2059.62 / 102412.18)

Obtained RSD (Be 9): 0.0072

Obtained RSD (In 115): 0.0138

Obtained RSD (U 238): 0.0099

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/9/2023 12:18:11 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 9586.55
Obtained Intensity (In 115): 71985.47
Obtained Intensity (U 238): 96089.64
Obtained Intensity (Bkgd 220): 0.47
Obtained Formula (Ce++ 70 / Ce 140): 0.010 (=977.83 / 102412.18)
Obtained Formula (CeO 156 / Ce 140): 0.020 (=2059.62 / 102412.18)
Obtained RSD (Be 9): 0.0072
Obtained RSD (In 115): 0.0138
Obtained RSD (U 238): 0.0099

[Passed] Optimum value(s): N/A

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.
Intensity Criterion: In 115 Maximum

Optimization Results:

[Cancelled]

End Time: 5/9/2023 12:24:32 PM

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Tuesday, May 09, 2023 12:31:48

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.141

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		11009.8		11009.842		178.493		1.6	Standard	
In	114.9		77649.3		77649.347		893.969		1.2	Standard	
U	238.1		102175.4		102175.448		1799.462		1.8	Standard	
[	CeO	155.9		2593.5		0.024		0.000		2.1	Standard
|>	Ce	139.9		110114.7		110114.713		947.804		0.9	Standard
[	Ce++	70.0		1356.3		0.012		0.000		1.9	Standard
	Bkgd	220.0		0.5		0.467		0.139		29.9	Standard

Current Conditions File Data

Current Value	Description
0.92	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.92	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Tuesday, May 09, 2023 12:33:52

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/9/2023 12:24:37 PM

End Time: 5/9/2023 12:33:53 PM

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.78 mm	0.99 mm	75718.13

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.92

Obtained Intensity (In 115): 85176.17

Obtained Formula (CeO 156 / Ce 140): 0.0219 (=2374.20 / 108222.38)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.691)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.710)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.698)

Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.693)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.997; Intercept = -14.40

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.995; Intercept = -13.81

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 11009.84

Obtained Intensity (In 115): 77649.35

Obtained Intensity (U 238): 102175.45

Obtained Intensity (Bkgd 220): 0.47

Obtained Formula (Ce++ 70 / Ce 140): 0.012 (=1356.26 / 110114.71)

Obtained Formula (CeO 156 / Ce 140): 0.024 (=2593.50 / 110114.71)

Obtained RSD (Be 9): 0.0162

Obtained RSD (In 115): 0.0115

Obtained RSD (U 238): 0.0176

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/9/2023 12:24:37 PM

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.

Intensity Criterion: In 115 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
[Passed]	0.78 mm	0.99 mm	75718.13

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.

Initial Try - Start/End/Step: 0.89/0.96/0.01.

Intensity Criterion: In 115 Maximum

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 85176.17

Obtained Formula (CeO 156 / Ce 140): 0.0219 (=2374.20 / 108222.38)

[Passed] optimum value(s): 0.92

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.691)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.710)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.698)

Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.693)

[Passed] optimum value(s): N/A

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.997; Intercept = -14.40

Analyte	Mass	Points	DAC	MaxIntensity
---------	------	--------	-----	--------------

Li	7	41	-14.5	55363.1
Mg	24	41	-14.5	53532.1
In	115	41	-13	82332.6
Ce	140	41	-12	113235
Pb	208	41	-11	58262.6
U	238	41	-11.5	105395

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.995; Intercept = -13.81

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-14	37068
Mg	24	41	-14	57523.6
In	115	41	-12	121119
Ce	140	41	-11	119203
Pb	208	41	-10.5	54174.5
U	238	41	-10.5	126490

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 5

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

RSD Criterion: Be 9.0122 < 0.05

RSD Criterion: In 114.904 < 0.05

RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 11009.84

Obtained Intensity (In 115): 77649.35

Obtained Intensity (U 238): 102175.45

Obtained Intensity (Bkgd 220): 0.47

Obtained Formula (Ce++ 70 / Ce 140): 0.012 (=1356.26 / 110114.71)

Obtained Formula (CeO 156 / Ce 140): 0.024 (=2593.50 / 110114.71)

Obtained RSD (Be 9): 0.0162

Obtained RSD (In 115): 0.0115

Obtained RSD (U 238): 0.0176

[Passed] Optimum value(s): N/A

End Time: 5/9/2023 12:33:53 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:21:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L				41563	2	Standard
> Sc	45	ug/L				330809	3	Standard
| Al	27	ug/L				2334	3	Standard
| Cr	52	ug/L				13927	3	Standard
| Cr	53	ug/L				305	13	Standard
| Mn	55	ug/L				504	10	Standard
> Ge	72	ug/L				39846	0	KED
| Co	59	ug/L				61	115	KED
| Ni	60	ug/L				59	45	KED
| Ni	62	ug/L				10	61	KED
| Cu	63	ug/L				67	77	KED
| Cu	65	ug/L				26	67	KED
| Zn	66	ug/L				22	39	KED
| Zn	67	ug/L				3	91	KED
| As	75	ug/L				5	52	KED
| Se	78	ug/L				11	15	KED
| Kr	83	ug/L				53	4	Standard
> In-1	115	ug/L				9311	3	KED
| Mo	98	ug/L				10	35	KED
| Cd	111	ug/L				2	24	KED
| Cd	114	ug/L				8	36	KED
> In	115	ug/L				399419	5	Standard
| Ag	107	ug/L				46	27	Standard
| Ba	135	ug/L				15	25	Standard
| Ba	137	ug/L				37	10	Standard
> Tb	159	ug/L				173053	2	Standard
| Pb	208	ug/L				201	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:26:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	42798	0	Standard
> Sc	45		ug/L			330809	347123	0	Standard
| Al	27	20.000	ug/L	0.473	2	2334	510670	1	Standard
| Cr	52	0.500	ug/L	0.011	2	13927	26348	0	Standard
| Cr	53	0.500	ug/L	0.027	5	305	1646	5	Standard
| Mn	55	0.500	ug/L	0.008	1	504	17661	0	Standard
> Ge	72		ug/L			39846	39869	1	KED
| Co	59	0.200	ug/L	0.010	4	61	1193	4	KED
| Ni	60	0.500	ug/L	0.020	4	59	852	4	KED
| Ni	62	0.500	ug/L	0.017	3	10	130	3	KED
| Cu	63	0.500	ug/L	0.007	1	67	2915	2	KED
| Cu	65	0.500	ug/L	0.011	2	26	1502	1	KED
| Zn	66	6.000	ug/L	0.234	3	22	3861	3	KED
| Zn	67	6.000	ug/L	0.179	2	3	581	2	KED
| As	75	0.200	ug/L	0.025	12	5	64	11	KED
| Se	78	0.500	ug/L	0.078	15	11	24	7	KED
| Kr	83		ug/L			53	56	5	Standard
> In-1	115		ug/L			9311	9467	1	KED
| Mo	98	0.200	ug/L	0.005	2	10	301	2	KED
| Cd	111	0.100	ug/L	0.019	19	2	41	19	KED
| Cd	114	0.100	ug/L	0.010	9	8	71	7	KED
> In	115		ug/L			399419	418159	0	Standard
| Ag	107	0.200	ug/L	0.001	0	46	3110	0	Standard
| Ba	135	0.500	ug/L	0.026	5	15	2765	4	Standard
| Ba	137	0.500	ug/L	0.011	2	37	5223	1	Standard
> Tb	159		ug/L			173053	178365	0	Standard
| Pb	208	0.100	ug/L	0.001	0	201	9244	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:30:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	45757	1	Standard
[> Sc	45		ug/L			330809	352525	1	Standard
| Al	27	1000.010	ug/L	30.286	3	2334	26468702	2	Standard
| Cr	52	10.000	ug/L	0.380	3	13927	256656	2	Standard
| Cr	53	10.001	ug/L	0.246	2	305	27835	1	Standard
| Mn	55	10.000	ug/L	0.200	1	504	354551	1	Standard
[> Ge	72		ug/L			39846	40554	1	KED
| Co	59	10.000	ug/L	0.201	2	61	57570	1	KED
| Ni	60	10.001	ug/L	0.381	3	59	17107	2	KED
| Ni	62	10.001	ug/L	0.245	2	10	2591	1	KED
| Cu	63	9.994	ug/L	0.252	2	67	47151	1	KED
| Cu	65	9.993	ug/L	0.097	0	26	23688	0	KED
| Zn	66	10.081	ug/L	0.410	4	22	6733	2	KED
| Zn	67	10.198	ug/L	0.331	3	3	1061	2	KED
| As	75	10.000	ug/L	0.232	2	5	3228	0	KED
[Se	78	10.004	ug/L	0.511	5	11	324	4	KED
| Kr	83		ug/L			53	57	8	Standard
[> In-1	115		ug/L			9311	9322	2	KED
| Mo	98	10.000	ug/L	0.399	3	10	15075	1	KED
| Cd	111	10.000	ug/L	0.264	2	2	3395	1	KED
| Cd	114	10.000	ug/L	0.282	2	8	8537	1	KED
[> In	115		ug/L			399419	423194	2	Standard
| Ag	107	10.000	ug/L	0.180	1	46	152775	1	Standard
| Ba	135	10.000	ug/L	0.335	3	15	54787	0	Standard
[Ba	137	10.000	ug/L	0.179	1	37	104428	1	Standard
[> Tb	159		ug/L			173053	183421	0	Standard
[Pb	208	10.000	ug/L	0.099	0	201	877644	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:36:03

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	47595	3	Standard
> Sc	45		ug/L			330809	351739	1	Standard
| Al	27	2000.805	ug/L	34.694	1	2334	52926238	1	Standard
| Cr	52	20.004	ug/L	0.381	1	13927	497920	1	Standard
| Cr	53	19.979	ug/L	0.398	1	305	54943	1	Standard
| Mn	55	20.010	ug/L	0.446	2	504	708686	1	Standard
> Ge	72		ug/L			39846	40958	0	KED
| Co	59	19.897	ug/L	0.485	2	61	113307	1	KED
| Ni	60	19.844	ug/L	0.317	1	59	33205	0	KED
| Ni	62	20.073	ug/L	0.428	2	10	5320	2	KED
| Cu	63	19.922	ug/L	0.288	1	67	93414	0	KED
| Cu	65	19.913	ug/L	0.369	1	26	46833	1	KED
| Zn	66	19.726	ug/L	0.119	0	22	12777	1	KED
| Zn	67	20.012	ug/L	0.361	1	3	2104	1	KED
| As	75	19.936	ug/L	0.225	1	5	6413	0	KED
| Se	78	20.063	ug/L	0.208	1	11	653	0	KED
| Kr	83		ug/L			53	40	50	Standard
> In-1	115		ug/L			9311	9471	1	KED
| Mo	98	19.891	ug/L	0.453	2	10	29817	0	KED
| Cd	111	19.822	ug/L	0.606	3	2	6602	2	KED
| Cd	114	19.951	ug/L	0.173	0	8	17137	1	KED
> In	115		ug/L			399419	429169	0	Standard
| Ag	107	19.856	ug/L	0.529	2	46	299080	2	Standard
| Ba	135	20.009	ug/L	0.126	0	15	111436	0	Standard
| Ba	137	19.925	ug/L	0.122	0	37	207952	0	Standard
> Tb	159		ug/L			173053	183959	0	Standard
| Pb	208	19.983	ug/L	0.203	1	201	1752724	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:41:17

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			41563	44736	2	Standard
> Sc	45	ug/L			330809	349834	2	Standard
| Al	27	5002.670	85.281	1	2334	131936826	0	Standard
| Cr	52	49.828	0.750	1	13927	1191209	1	Standard
| Cr	53	49.818	0.724	1	305	133346	1	Standard
| Mn	55	49.804	0.314	0	504	1720189	2	Standard
> Ge	72				39846	38077	3	KED
| Co	59	50.393	1.802	3	61	277406	0	KED
| Ni	60	50.261	1.344	2	59	80152	1	KED
| Ni	62	50.388	1.324	2	10	12894	2	KED
| Cu	63	50.072	1.547	3	67	219611	0	KED
| Cu	65	50.227	1.888	3	26	112257	1	KED
| Zn	66	50.095	1.624	3	22	30379	0	KED
| Zn	67	49.990	3.682	7	3	4873	5	KED
| As	75	50.336	1.209	2	5	15561	1	KED
| Se	78	50.148	0.560	1	11	1525	3	KED
| Kr	83				53	56	3	Standard
> In-1	115				9311	9162	4	KED
| Mo	98	50.124	2.310	4	10	73507	0	KED
| Cd	111	49.897	1.611	3	2	15901	0	KED
| Cd	114	49.751	2.030	4	8	40283	0	KED
> In	115				399419	409733	3	Standard
| Ag	107	50.048	1.939	3	46	722531	0	Standard
| Ba	135	50.484	2.046	4	15	281808	1	Standard
| Ba	137	50.201	1.586	3	37	510053	0	Standard
> Tb	159				173053	182863	1	Standard
| Pb	208	50.182	0.587	1	201	4455474	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:48:11

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	47319	1	Standard
> Sc	45		ug/L			330809	347968	1	Standard
| Al	27	9993.856	ug/L	146.775	1	2334	261673101	0	Standard
| Cr	52	100.449	ug/L	0.719	0	13927	2410037	0	Standard
| Cr	53	99.516	ug/L	1.213	1	305	260500	2	Standard
| Mn	55	100.210	ug/L	1.155	1	504	3466669	2	Standard
> Ge	72		ug/L			39846	38576	1	KED
| Co	59	99.502	ug/L	0.924	0	61	546242	1	KED
| Ni	60	99.028	ug/L	1.562	1	59	154979	0	KED
| Ni	62	98.838	ug/L	3.763	3	10	24662	2	KED
| Cu	63	98.803	ug/L	1.257	1	67	422414	1	KED
| Cu	65	98.726	ug/L	1.132	1	26	214583	1	KED
| Zn	66	98.730	ug/L	1.593	1	22	58237	0	KED
| Zn	67	99.578	ug/L	0.802	0	3	9708	0	KED
| As	75	99.575	ug/L	1.193	1	5	30761	0	KED
| Se	78	98.973	ug/L	1.063	1	11	2939	2	KED
| Kr	83		ug/L			53	64	15	Standard
> In-1	115		ug/L			9311	9233	2	KED
| Mo	98	99.424	ug/L	2.178	2	10	144285	0	KED
| Cd	111	99.240	ug/L	2.879	2	2	31093	0	KED
| Cd	114	99.174	ug/L	2.885	2	8	78791	0	KED
> In	115		ug/L			399419	407313	4	Standard
| Ag	107	99.778	ug/L	3.274	3	46	1421330	1	Standard
| Ba	135	98.997	ug/L	2.050	2	15	531703	2	Standard
| Ba	137	99.876	ug/L	2.237	2	37	1004628	2	Standard
> Tb	159		ug/L			173053	182429	0	Standard
| Pb	208	99.600	ug/L	2.205	2	201	8706750	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:55:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	41474	0	Standard
> Sc	45		ug/L			330809	337191	2	Standard
| Al	27	0.037	ug/L	0.020	52	2334	3320	16	Standard
| Cr	52	0.002	ug/L	0.012	558	13927	14239	1	Standard
| Cr	53	-0.012	ug/L	0.005	43	305	281	2	Standard
| Mn	55	0.002	ug/L	0.001	48	504	571	2	Standard
> Ge	72		ug/L			39846	39354	1	KED
| Co	59	-0.008	ug/L	0.002	27	61	13	90	KED
| Ni	60	-0.015	ug/L	0.003	20	59	34	14	KED
| Ni	62	-0.007	ug/L	0.016	225	10	8	44	KED
| Cu	63	-0.009	ug/L	0.001	16	67	29	19	KED
| Cu	65	-0.001	ug/L	0.001	144	26	23	12	KED
| Zn	66	0.027	ug/L	0.014	50	22	38	21	KED
| Zn	67	0.000	ug/L	0.011	3252	3	3	34	KED
| As	75	0.004	ug/L	0.004	97	5	7	17	KED
| Se	78	-0.002	ug/L	0.198	8521	11	11	55	KED
| Kr	83		ug/L			53	52	24	Standard
> In-1	115		ug/L			9311	9513	2	KED
| Mo	98	0.026	ug/L	0.006	22	10	50	18	KED
| Cd	111	0.017	ug/L	0.006	33	2	7	25	KED
| Cd	114	0.003	ug/L	0.004	121	8	10	26	KED
> In	115		ug/L			399419	403042	1	Standard
| Ag	107	0.003	ug/L	0.000	13	46	90	5	Standard
| Ba	135	0.002	ug/L	0.001	27	15	25	11	Standard
| Ba	137	0.001	ug/L	0.001	70	37	49	16	Standard
> Tb	159		ug/L			173053	176176	0	Standard
| Pb	208	0.002	ug/L	0.000	13	201	379	5	Standard

Sample Information

Sample Date/Time: Tuesday, May 09, 2023 15:48:11

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.m

Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Sc	45							
Al	27	1.0000	0.075	20.00	1000	2000	5000	10000
Cr	52	1.0000	0.069	0.50	10	20	50	100
Cr	53	1.0000	0.008	0.50	10	20	50	100
Mn	55	1.0000	0.099	0.50	10	20	50	100
Ge	72							
Co	59	0.9999	0.142	0.20	10	20	50	100
Ni	60	0.9998	0.041	0.50	10	20	50	100
Ni	62	0.9997	0.006	0.50	10	20	50	100
Cu	63	0.9998	0.111	0.50	10	20	50	100
Cu	65	0.9997	0.056	0.50	10	20	50	100
Zn	66	0.9997	0.015	6.00	10	20	50	100
Zn	67	1.0000	0.003	6.00	10	20	50	100
As	75	0.9999	0.008	0.20	10	20	50	100
Se	78	0.9998	0.001	0.50	10	20	50	100
Kr	83							
In-1	115							
Mo	98	0.9999	0.157	0.20	10	20	50	100
Cd	111	0.9999	0.034	0.10	10	20	50	100
Cd	114	0.9999	0.086	0.10	10	20	50	100
In	115							
Ag	107	1.0000	0.035	0.20	10	20	50	100
Ba	135	0.9998	0.013	0.50	10	20	50	100
Ba	137	1.0000	0.025	0.50	10	20	50	100
Tb	159							
Pb	208	1.0000	0.479	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:02:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	51030	0	Standard
> Sc	45		ug/L			330809	348289	1	Standard
| Al	27	5055.142	ug/L	67.080	1	2334	132481604	0	Standard
| Cr	52	49.900	ug/L	0.534	1	13927	1205645	0	Standard
| Cr	53	51.349	ug/L	1.082	2	305	134661	1	Standard
| Mn	55	50.670	ug/L	0.765	1	504	1754341	0	Standard
> Ge	72		ug/L			39846	39763	1	KED
| Co	59	49.745	ug/L	0.122	0	61	281520	0	KED
| Ni	60	51.058	ug/L	1.053	2	59	82393	1	KED
| Ni	62	51.063	ug/L	1.423	2	10	13140	1	KED
| Cu	63	51.738	ug/L	0.675	1	67	228017	0	KED
| Cu	65	51.510	ug/L	0.653	1	26	115416	1	KED
| Zn	66	49.322	ug/L	0.636	1	22	30000	0	KED
| Zn	67	50.105	ug/L	1.472	2	3	5037	2	KED
| As	75	47.612	ug/L	0.736	1	5	15163	0	KED
| Se	78	79.129	ug/L	2.195	2	11	2424	3	KED
| Kr	83		ug/L			53	51	7	Standard
> In-1	115		ug/L			9311	9456	2	KED
| Mo	98	48.824	ug/L	0.912	1	10	72575	0	KED
| Cd	111	50.002	ug/L	1.123	2	2	16048	0	KED
| Cd	114	49.630	ug/L	0.920	1	8	40393	0	KED
> In	115		ug/L			399419	407713	2	Standard
| Ag	107	51.697	ug/L	1.768	3	46	737324	0	Standard
| Ba	135	51.629	ug/L	2.097	4	15	277557	2	Standard
| Ba	137	51.335	ug/L	2.490	4	37	516748	2	Standard
> Tb	159		ug/L			173053	182624	0	Standard
| Pb	208	51.461	ug/L	0.294	0	201	4503392	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:09:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	41853	1	Standard
> Sc	45		ug/L			330809	321169	12	Standard
Al	27	0.024	ug/L	0.010	40	2334	2819	4	Standard
Cr	52	0.036	ug/L	0.071	199	13927	14178	2	Standard
Cr	53	-0.007	ug/L	0.015	200	305	276	5	Standard
Mn	55	0.002	ug/L	0.002	129	504	540	1	Standard
> Ge	72		ug/L			39846	39840	0	KED
Co	59	-0.009	ug/L	0.001	11	61	12	48	KED
Ni	60	-0.012	ug/L	0.005	38	59	39	20	KED
Ni	62	-0.010	ug/L	0.019	189	10	8	58	KED
Cu	63	-0.008	ug/L	0.003	39	67	29	48	KED
Cu	65	-0.004	ug/L	0.002	59	26	17	26	KED
Zn	66	0.007	ug/L	0.005	72	22	26	12	KED
Zn	67	0.025	ug/L	0.051	199	3	5	88	KED
As	75	-0.005	ug/L	0.003	59	5	4	22	KED
Se	78	0.006	ug/L	0.055	989	11	11	14	KED
Kr	83		ug/L			53	43	15	Standard
> In-1	115		ug/L			9311	9420	1	KED
Mo	98	0.013	ug/L	0.007	52	10	30	32	KED
Cd	111	0.011	ug/L	0.003	25	2	5	16	KED
Cd	114	-0.002	ug/L	0.011	680	8	6	129	KED
> In	115		ug/L			399419	373010	11	Standard
Ag	107	0.003	ug/L	0.002	70	46	77	24	Standard
Ba	135	0.001	ug/L	0.001	70	15	20	30	Standard
Ba	137	0.002	ug/L	0.001	24	37	55	3	Standard
> Tb	159		ug/L			173053	162830	8	Standard
Pb	208	0.002	ug/L	0.000	19	201	343	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:14:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	41843	0	Standard
[> Sc	45		ug/L			330809	342999	1	Standard
| Al	27	-0.006	ug/L	0.005	88	2334	2271	5	Standard
| Cr	52	-0.012	ug/L	0.017	146	13927	14160	2	Standard
| Cr	53	-0.020	ug/L	0.007	35	305	265	6	Standard
| Mn	55	-0.001	ug/L	0.000	71	504	500	3	Standard
[> Ge	72		ug/L			39846	39973	1	KED
| Co	59	-0.009	ug/L	0.000	3	61	9	20	KED
| Ni	60	-0.016	ug/L	0.004	27	59	33	21	KED
| Ni	62	0.015	ug/L	0.015	101	10	14	27	KED
| Cu	63	-0.010	ug/L	0.001	13	67	22	30	KED
| Cu	65	-0.003	ug/L	0.003	91	26	18	39	KED
| Zn	66	0.022	ug/L	0.014	65	22	35	24	KED
| Zn	67	0.013	ug/L	0.030	232	3	4	65	KED
| As	75	-0.011	ug/L	0.002	19	5	2	32	KED
[Se	78	-0.012	ug/L	0.077	669	11	10	21	KED
| Kr	83		ug/L			53	49	13	Standard
[> In-1	115		ug/L			9311	9338	1	KED
| Mo	98	0.002	ug/L	0.006	351	10	13	66	KED
| Cd	111	0.011	ug/L	0.006	52	2	5	33	KED
| Cd	114	-0.007	ug/L	0.001	18	8	2	45	KED
[> In	115		ug/L			399419	407275	1	Standard
| Ag	107	0.000	ug/L	0.001	2365	46	47	20	Standard
| Ba	135	0.002	ug/L	0.001	77	15	24	27	Standard
[Ba	137	0.001	ug/L	0.001	91	37	47	18	Standard
[> Tb	159		ug/L			173053	175538	1	Standard
[Pb	208	0.001	ug/L	0.000	31	201	287	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:20:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	43825	1	Standard
> Sc	45		ug/L			330809	351713	1	Standard
| Al	27	5017.324	ug/L	66.831	1	2334	132780299	1	Standard
| Cr	52	49.123	ug/L	1.476	3	13927	1198689	2	Standard
| Cr	53	51.619	ug/L	0.692	1	305	136698	0	Standard
| Mn	55	49.606	ug/L	0.908	1	504	1734249	0	Standard
> Ge	72		ug/L			39846	40000	1	KED
| Co	59	48.873	ug/L	1.174	2	61	278172	0	KED
| Ni	60	49.785	ug/L	0.823	1	59	80817	0	KED
| Ni	62	50.064	ug/L	1.069	2	10	12960	0	KED
| Cu	63	50.263	ug/L	1.422	2	67	222822	2	KED
| Cu	65	50.231	ug/L	0.497	0	26	113218	1	KED
| Zn	66	50.271	ug/L	0.721	1	22	30759	0	KED
| Zn	67	50.586	ug/L	2.193	4	3	5113	2	KED
| As	75	49.273	ug/L	0.700	1	5	15785	0	KED
| Se	78	50.457	ug/L	1.106	2	11	1558	1	KED
| Kr	83		ug/L			53	58	29	Standard
> In-1	115		ug/L			9311	9554	1	KED
| Mo	98	49.118	ug/L	0.330	0	10	73793	0	KED
| Cd	111	49.809	ug/L	0.460	0	2	16157	0	KED
| Cd	114	49.890	ug/L	0.661	1	8	41037	0	KED
> In	115		ug/L			399419	420946	0	Standard
| Ag	107	50.017	ug/L	0.387	0	46	737019	0	Standard
| Ba	135	48.935	ug/L	1.070	2	15	271777	1	Standard
| Ba	137	49.517	ug/L	1.055	2	37	515090	1	Standard
> Tb	159		ug/L			173053	183933	0	Standard
| Pb	208	50.246	ug/L	0.471	0	201	4428518	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:27:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	41468	2	Standard
> Sc	45		ug/L			330809	325907	10	Standard
Al	27	0.264	ug/L	0.444	168	2334	9241	128	Standard
Cr	52	0.030	ug/L	0.049	165	13927	14310	3	Standard
Cr	53	-0.010	ug/L	0.013	124	305	274	11	Standard
Mn	55	0.006	ug/L	0.007	122	504	687	40	Standard
> Ge	72		ug/L			39846	40680	0	KED
Co	59	-0.009	ug/L	0.001	7	61	9	40	KED
Ni	60	-0.013	ug/L	0.007	54	59	39	29	KED
Ni	62	-0.013	ug/L	0.019	150	10	7	66	KED
Cu	63	-0.004	ug/L	0.004	88	67	48	35	KED
Cu	65	-0.004	ug/L	0.002	54	26	17	29	KED
Zn	66	0.026	ug/L	0.022	85	22	38	35	KED
Zn	67	0.030	ug/L	0.039	127	3	6	62	KED
As	75	-0.004	ug/L	0.010	258	5	4	65	KED
Se	78	-0.004	ug/L	0.091	2092	11	11	24	KED
Kr	83		ug/L			53	49	13	Standard
> In-1	115		ug/L			9311	9519	3	KED
Mo	98	0.010	ug/L	0.009	89	10	26	51	KED
Cd	111	0.012	ug/L	0.004	37	2	6	24	KED
Cd	114	-0.006	ug/L	0.004	58	8	3	96	KED
> In	115		ug/L			399419	387542	11	Standard
Ag	107	0.005	ug/L	0.006	116	46	119	77	Standard
Ba	135	0.007	ug/L	0.007	102	15	52	79	Standard
Ba	137	0.005	ug/L	0.005	98	37	85	61	Standard
> Tb	159		ug/L			173053	167051	11	Standard
Pb	208	0.005	ug/L	0.005	89	201	624	67	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:32:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	42147	0	Standard
[> Sc	45		ug/L			330809	340888	1	Standard
| Al	27	0.003	ug/L	0.003	86	2334	2482	3	Standard
| Cr	52	0.001	ug/L	0.004	592	13927	14368	1	Standard
| Cr	53	-0.015	ug/L	0.016	108	305	277	16	Standard
| Mn	55	-0.001	ug/L	0.001	104	504	493	6	Standard
[> Ge	72		ug/L			39846	39995	1	KED
| Co	59	-0.010	ug/L	0.000	3	61	6	31	KED
| Ni	60	-0.010	ug/L	0.005	52	59	43	17	KED
| Ni	62	-0.020	ug/L	0.015	76	10	5	66	KED
| Cu	63	-0.007	ug/L	0.001	7	67	37	5	KED
| Cu	65	-0.005	ug/L	0.001	21	26	15	13	KED
| Zn	66	0.027	ug/L	0.006	23	22	38	11	KED
| Zn	67	0.013	ug/L	0.022	175	3	4	49	KED
| As	75	-0.007	ug/L	0.002	33	5	3	19	KED
[Se	78	-0.007	ug/L	0.036	517	11	11	8	KED
| Kr	83		ug/L			53	47	17	Standard
[> In-1	115		ug/L			9311	9242	1	KED
| Mo	98	0.002	ug/L	0.003	138	10	14	32	KED
| Cd	111	0.005	ug/L	0.013	258	2	3	108	KED
| Cd	114	-0.005	ug/L	0.004	78	8	3	90	KED
[> In	115		ug/L			399419	405205	1	Standard
| Ag	107	-0.001	ug/L	0.001	120	46	38	27	Standard
| Ba	135	0.001	ug/L	0.000	19	15	22	4	Standard
[Ba	137	0.001	ug/L	0.001	81	37	48	17	Standard
[> Tb	159		ug/L			173053	174170	1	Standard
[Pb	208	0.002	ug/L	0.000	9	201	391	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:39:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	41773	0	Standard
> Sc	45		ug/L			330809	348291	1	Standard
| Al	27	19.792	ug/L	0.092	0	2334	521196	1	Standard
| Cr	52	0.488	ug/L	0.018	3	13927	26303	0	Standard
| Cr	53	0.510	ug/L	0.011	2	305	1655	1	Standard
| Mn	55	0.502	ug/L	0.005	1	504	17922	1	Standard
> Ge	72		ug/L			39846	41006	0	KED
| Co	59	0.194	ug/L	0.005	2	61	1194	1	KED
| Ni	60	0.477	ug/L	0.028	5	59	853	4	KED
| Ni	62	0.513	ug/L	0.020	3	10	147	4	KED
| Cu	63	0.703	ug/L	0.023	3	67	3265	2	KED
| Cu	65	0.709	ug/L	0.009	1	26	1665	1	KED
| Zn	66	6.199	ug/L	0.134	2	22	3908	2	KED
| Zn	67	5.777	ug/L	0.453	7	3	601	7	KED
| As	75	0.206	ug/L	0.027	12	5	73	12	KED
| Se	78	0.565	ug/L	0.190	33	11	29	19	KED
| Kr	83		ug/L			53	41	25	Standard
> In-1	115		ug/L			9311	9695	0	KED
| Mo	98	0.185	ug/L	0.019	10	10	293	9	KED
| Cd	111	0.097	ug/L	0.026	26	2	34	24	KED
| Cd	114	0.095	ug/L	0.013	13	8	87	11	KED
> In	115		ug/L			399419	413454	3	Standard
| Ag	107	0.217	ug/L	0.002	0	46	3192	3	Standard
| Ba	135	0.520	ug/L	0.027	5	15	2854	5	Standard
| Ba	137	0.516	ug/L	0.032	6	37	5303	3	Standard
> Tb	159		ug/L			173053	178882	0	Standard
| Pb	208	0.104	ug/L	0.000	0	201	9154	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

DEL

Sample Date/Time: Tuesday, May 09, 2023 16:44:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	178413	0	Standard
> Sc	45		ug/L			330809	319836	10	Standard
Al	27	20673.419	ug/L	2512.933	12	2334	493384416	1	Standard
Cr	52	0.693	ug/L	0.143	20	13927	28445	0	Standard
Cr	53	3.584	ug/L	0.380	10	305	8844	1	Standard
Mn	55	0.198	ug/L	0.027	13	504	6708	2	Standard
> Ge	72		ug/L			39846	35200	1	KED
Co	59	0.022	ug/L	0.003	14	61	163	8	KED
Ni	60	0.094	ug/L	0.008	8	59	186	6	KED
Ni	62	0.150	ug/L	0.028	18	10	43	15	KED
Cu	63	0.031	ug/L	0.005	16	67	180	11	KED
Cu	65	0.039	ug/L	0.004	11	26	100	9	KED
Zn	66	0.280	ug/L	0.050	17	22	170	14	KED
Zn	67	0.311	ug/L	0.033	10	3	30	10	KED
As	75	0.024	ug/L	0.012	51	5	12	28	KED
Se	78	-0.058	ug/L	0.060	103	11	8	20	KED
Kr	83		ug/L			53	127	5	Standard
> In-1	115		ug/L			9311	8388	2	KED
Mo	98	393.408	ug/L	9.298	2	10	518636	0	KED
Cd	111	0.089	ug/L	0.013	14	2	27	11	KED
Cd	114	0.053	ug/L	0.011	20	8	45	18	KED
> In	115		ug/L			399419	421531	9	Standard
Ag	107	0.004	ug/L	0.001	34	46	110	8	Standard
Ba	135	0.106	ug/L	0.002	2	15	606	7	Standard
Ba	137	0.105	ug/L	0.014	13	37	1120	4	Standard
> Tb	159		ug/L			173053	165411	10	Standard
Pb	208	0.025	ug/L	0.003	14	201	2125	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:49:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	175638	0	Standard
[> Sc	45		ug/L			330809	339423	1	Standard
| Al	27	18992.057	ug/L	45.740	0	2334	485118632	1	Standard
| Cr	52	19.239	ug/L	0.158	0	13927	461816	0	Standard
| Cr	53	22.578	ug/L	0.085	0	305	57886	0	Standard
| Mn	55	19.193	ug/L	0.108	0	504	647999	0	Standard
[> Ge	72		ug/L			39846	34003	1	KED
| Co	59	20.391	ug/L	0.289	1	61	98695	0	KED
| Ni	60	20.684	ug/L	0.321	1	59	28576	2	KED
| Ni	62	20.454	ug/L	0.331	1	10	4507	2	KED
| Cu	63	20.310	ug/L	0.427	2	67	76567	1	KED
| Cu	65	20.188	ug/L	0.219	1	26	38689	0	KED
| Zn	66	19.206	ug/L	0.248	1	22	10000	0	KED
| Zn	67	17.986	ug/L	0.386	2	3	1548	2	KED
| As	75	18.983	ug/L	0.260	1	5	5172	0	KED
[Se	78	0.069	ug/L	0.056	82	11	11	14	KED
| Kr	83		ug/L			53	140	2	Standard
[> In-1	115		ug/L			9311	7800	2	KED
| Mo	98	406.780	ug/L	8.263	2	10	498752	0	KED
| Cd	111	19.887	ug/L	0.241	1	2	5267	0	KED
[Cd	114	19.859	ug/L	0.698	3	8	13335	1	KED
[> In	115		ug/L			399419	458230	2	Standard
| Ag	107	16.458	ug/L	0.235	1	46	263970	0	Standard
| Ba	135	0.100	ug/L	0.006	6	15	619	4	Standard
[Ba	137	0.091	ug/L	0.002	2	37	1078	4	Standard
[> Tb	159		ug/L			173053	175568	1	Standard
[Pb	208	0.016	ug/L	0.001	3	201	1560	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:54:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	170222	1	Standard
> Sc	45		ug/L			330809	324648	2	Standard
Al	27	19352.192	ug/L	285.516	1	2334	472726211	1	Standard
Cr	52	0.610	ug/L	0.011	1	13927	27229	1	Standard
Cr	53	3.638	ug/L	0.057	1	305	9175	3	Standard
Mn	55	0.176	ug/L	0.003	1	504	6185	2	Standard
> Ge	72		ug/L			39846	33021	1	KED
Co	59	0.025	ug/L	0.003	14	61	168	11	KED
Ni	60	0.098	ug/L	0.011	10	59	179	9	KED
Ni	62	0.139	ug/L	0.007	5	10	38	5	KED
Cu	63	0.035	ug/L	0.007	21	67	182	15	KED
Cu	65	0.042	ug/L	0.008	19	26	99	13	KED
Zn	66	0.318	ug/L	0.021	6	22	179	7	KED
Zn	67	0.197	ug/L	0.069	34	3	19	30	KED
As	75	0.021	ug/L	0.011	52	5	10	28	KED
Se	78	-0.010	ug/L	0.158	1561	11	9	42	KED
Kr	83		ug/L			53	132	13	Standard
> In-1	115		ug/L			9311	7621	0	KED
Mo	98	403.581	ug/L	2.915	0	10	483596	0	KED
Cd	111	0.083	ug/L	0.014	16	2	23	15	KED
Cd	114	0.072	ug/L	0.022	30	8	53	27	KED
> In	115		ug/L			399419	454995	0	Standard
Ag	107	0.003	ug/L	0.001	32	46	105	16	Standard
Ba	135	0.108	ug/L	0.008	7	15	662	7	Standard
Ba	137	0.100	ug/L	0.002	2	37	1167	2	Standard
> Tb	159		ug/L			173053	173976	1	Standard
Pb	208	0.024	ug/L	0.002	7	201	2168	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:59:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	48313	0	Standard
> Sc	45		ug/L			330809	322847	0	Standard
Al	27	19741.425	ug/L	71.368	0	2334	479639166	1	Standard
Cr	52	198.542	ug/L	3.145	1	13927	4406890	2	Standard
Cr	53	196.647	ug/L	0.344	0	305	477271	1	Standard
Mn	55	201.779	ug/L	1.576	0	504	6475346	1	Standard
> Ge	72		ug/L			39846	32623	0	KED
Co	59	201.561	ug/L	1.970	0	61	935703	0	KED
Ni	60	199.185	ug/L	3.001	1	59	263614	1	KED
Ni	62	199.266	ug/L	1.436	0	10	42052	0	KED
Cu	63	197.593	ug/L	2.018	1	67	714373	1	KED
Cu	65	197.712	ug/L	1.492	0	26	363393	0	KED
Zn	66	193.134	ug/L	0.267	0	22	96338	0	KED
Zn	67	190.315	ug/L	4.102	2	3	15690	2	KED
As	75	193.494	ug/L	1.405	0	5	50549	0	KED
Se	78	191.006	ug/L	1.616	0	11	4787	1	KED
Kr	83		ug/L			53	150	19	Standard
> In-1	115		ug/L			9311	7778	1	KED
Mo	98	201.948	ug/L	3.842	1	10	246930	0	KED
Cd	111	194.681	ug/L	4.559	2	2	51396	0	KED
Cd	114	197.729	ug/L	3.254	1	8	132379	0	KED
> In	115		ug/L			399419	428093	2	Standard
Ag	107	182.281	ug/L	4.583	2	46	2730498	1	Standard
Ba	135	183.680	ug/L	3.486	1	15	1037101	1	Standard
Ba	137	179.582	ug/L	3.813	2	37	1899009	0	Standard
> Tb	159		ug/L			173053	172141	1	Standard
Pb	208	205.647	ug/L	3.213	1	201	16960392	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:04:16

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	52276	0	Standard
> Sc	45		ug/L			330809	313429	3	Standard
| Al	27	31005.746	ug/L	562.243	1	2334	731037211	1	Standard
| Cr	52	303.658	ug/L	3.359	1	13927	6535199	2	Standard
| Cr	53	303.033	ug/L	4.581	1	305	713647	1	Standard
| Mn	55	306.141	ug/L	5.471	1	504	9533969	1	Standard
> Ge	72		ug/L			39846	32028	0	KED
| Co	59	307.176	ug/L	0.922	0	61	1399949	0	KED
| Ni	60	303.679	ug/L	2.108	0	59	394535	0	KED
| Ni	62	300.015	ug/L	3.229	1	10	62152	0	KED
| Cu	63	298.175	ug/L	1.109	0	67	1058290	0	KED
| Cu	65	292.324	ug/L	4.504	1	26	527452	1	KED
| Zn	66	287.385	ug/L	1.986	0	22	140723	0	KED
| Zn	67	280.785	ug/L	2.491	0	3	22725	0	KED
| As	75	294.201	ug/L	0.913	0	5	75455	0	KED
| Se	78	286.480	ug/L	2.751	0	11	7045	1	KED
| Kr	83		ug/L			53	203	8	Standard
> In-1	115		ug/L			9311	7480	1	KED
| Mo	98	317.999	ug/L	6.026	1	10	373953	1	KED
| Cd	111	295.955	ug/L	4.835	1	2	75149	0	KED
| Cd	114	297.848	ug/L	4.774	1	8	191772	0	KED
> In	115		ug/L			399419	399361	1	Standard
| Ag	107	285.536	ug/L	7.252	2	46	3990262	0	Standard
| Ba	135	286.739	ug/L	3.966	1	15	1510698	1	Standard
| Ba	137	298.906	ug/L	2.154	0	37	2949511	1	Standard
> Tb	159		ug/L			173053	165043	0	Standard
| Pb	208	309.892	ug/L	1.883	0	201	24508496	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:11:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	49173	1	Standard
> Sc	45		ug/L			330809	326774	2	Standard
| Al	27	19953.876	ug/L	257.214	1	2334	490586538	1	Standard
| Cr	52	196.013	ug/L	1.902	0	13927	4403434	2	Standard
| Cr	53	194.069	ug/L	4.740	2	305	476559	0	Standard
| Mn	55	196.114	ug/L	1.447	0	504	6370172	2	Standard
> Ge	72		ug/L			39846	33834	1	KED
| Co	59	199.526	ug/L	1.362	0	61	960591	0	KED
| Ni	60	198.863	ug/L	2.970	1	59	272911	0	KED
| Ni	62	198.206	ug/L	3.678	1	10	43374	0	KED
| Cu	63	197.328	ug/L	2.319	1	67	739866	1	KED
| Cu	65	196.798	ug/L	0.431	0	26	375141	1	KED
| Zn	66	194.119	ug/L	3.134	1	22	100408	0	KED
| Zn	67	193.033	ug/L	3.419	1	3	16502	0	KED
| As	75	195.521	ug/L	2.148	1	5	52970	0	KED
| Se	78	192.073	ug/L	3.589	1	11	4992	0	KED
| Kr	83		ug/L			53	131	13	Standard
> In-1	115		ug/L			9311	7916	0	KED
| Mo	98	205.102	ug/L	2.356	1	10	255288	0	KED
| Cd	111	198.168	ug/L	0.577	0	2	53261	0	KED
| Cd	114	200.016	ug/L	0.351	0	8	136315	0	KED
> In	115		ug/L			399419	410271	3	Standard
| Ag	107	183.336	ug/L	2.976	1	46	2632172	2	Standard
| Ba	135	191.519	ug/L	5.381	2	15	1036079	1	Standard
| Ba	137	186.709	ug/L	2.306	1	37	1892433	2	Standard
> Tb	159		ug/L			173053	169948	1	Standard
| Pb	208	204.831	ug/L	0.905	0	201	16680119	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:16:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	44220	1	Standard
[> Sc	45		ug/L			330809	328384	0	Standard
| Al	27	0.139	ug/L	0.019	13	2334	5739	7	Standard
| Cr	52	-0.030	ug/L	0.010	33	13927	13160	1	Standard
| Cr	53	-0.005	ug/L	0.004	92	305	291	2	Standard
| Mn	55	0.016	ug/L	0.001	3	504	1019	2	Standard
[> Ge	72		ug/L			39846	35764	0	KED
| Co	59	0.079	ug/L	0.076	96	61	453	84	KED
| Ni	60	0.073	ug/L	0.069	93	59	158	61	KED
| Ni	62	0.071	ug/L	0.062	87	10	26	53	KED
| Cu	63	0.089	ug/L	0.075	84	67	411	71	KED
| Cu	65	0.086	ug/L	0.066	77	26	195	67	KED
| Zn	66	0.158	ug/L	0.082	52	22	106	41	KED
| Zn	67	0.222	ug/L	0.171	76	3	22	66	KED
| As	75	0.088	ug/L	0.068	76	5	30	62	KED
[Se	78	0.026	ug/L	0.017	67	11	10	3	KED
| Kr	83		ug/L			53	41	5	Standard
[> In-1	115		ug/L			9311	8209	1	KED
| Mo	98	0.064	ug/L	0.014	22	10	92	20	KED
| Cd	111	0.010	ug/L	0.007	66	2	4	40	KED
| Cd	114	0.008	ug/L	0.004	55	8	12	23	KED
[> In	115		ug/L			399419	436393	1	Standard
| Ag	107	0.011	ug/L	0.001	10	46	213	7	Standard
| Ba	135	0.020	ug/L	0.001	2	15	131	2	Standard
[Ba	137	0.017	ug/L	0.002	14	37	224	10	Standard
[> Tb	159		ug/L			173053	168280	0	Standard
[Pb	208	0.007	ug/L	0.000	4	201	748	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:23:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	44378	0	Standard
[> Sc	45		ug/L			330809	331508	1	Standard
| Al	27	0.125	ug/L	0.088	70	2334	5461	41	Standard
| Cr	52	-0.010	ug/L	0.011	112	13927	13730	2	Standard
| Cr	53	-0.011	ug/L	0.002	18	305	277	3	Standard
| Mn	55	0.013	ug/L	0.001	8	504	932	4	Standard
[> Ge	72		ug/L			39846	36934	1	KED
| Co	59	-0.007	ug/L	0.002	21	61	19	40	KED
| Ni	60	-0.009	ug/L	0.004	41	59	41	13	KED
| Ni	62	0.001	ug/L	0.017	2500	10	10	39	KED
| Cu	63	-0.001	ug/L	0.003	366	67	59	23	KED
| Cu	65	0.006	ug/L	0.005	98	26	35	30	KED
| Zn	66	0.084	ug/L	0.022	26	22	67	18	KED
| Zn	67	0.132	ug/L	0.035	26	3	15	21	KED
| As	75	0.001	ug/L	0.001	44	5	5	4	KED
[Se	78	-0.057	ug/L	0.054	96	11	8	18	KED
| Kr	83		ug/L			53	42	13	Standard
[> In-1	115		ug/L			9311	8509	1	KED
| Mo	98	0.039	ug/L	0.032	80	10	62	68	KED
| Cd	111	0.023	ug/L	0.034	151	2	8	115	KED
| Cd	114	0.004	ug/L	0.005	119	8	10	36	KED
[> In	115		ug/L			399419	429063	4	Standard
| Ag	107	0.004	ug/L	0.001	19	46	102	10	Standard
| Ba	135	0.019	ug/L	0.001	6	15	122	8	Standard
[Ba	137	0.015	ug/L	0.001	7	37	200	7	Standard
[> Tb	159		ug/L			173053	170125	1	Standard
[Pb	208	0.005	ug/L	0.001	23	201	606	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:29:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	44583	1	Standard
> Sc	45		ug/L			330809	339834	1	Standard
| Al	27	5030.884	ug/L	56.550	1	2334	128648322	0	Standard
| Cr	52	48.940	ug/L	0.467	0	13927	1154071	0	Standard
| Cr	53	51.004	ug/L	1.079	2	305	130528	2	Standard
| Mn	55	49.483	ug/L	0.497	1	504	1671832	1	Standard
> Ge	72		ug/L			39846	36604	0	KED
| Co	59	50.587	ug/L	0.991	1	61	263538	1	KED
| Ni	60	51.447	ug/L	0.418	0	59	76431	0	KED
| Ni	62	51.192	ug/L	0.463	0	10	12129	1	KED
| Cu	63	52.315	ug/L	0.490	0	67	212254	0	KED
| Cu	65	52.209	ug/L	0.649	1	26	107694	1	KED
| Zn	66	51.627	ug/L	1.298	2	22	28906	1	KED
| Zn	67	51.769	ug/L	1.778	3	3	4790	3	KED
| As	75	49.425	ug/L	0.419	0	5	14491	0	KED
| Se	78	49.963	ug/L	1.840	3	11	1412	2	KED
| Kr	83		ug/L			53	38	33	Standard
> In-1	115		ug/L			9311	8386	2	KED
| Mo	98	51.538	ug/L	0.722	1	10	67950	0	KED
| Cd	111	52.327	ug/L	0.646	1	2	14897	1	KED
| Cd	114	52.728	ug/L	1.376	2	8	38058	0	KED
> In	115		ug/L			399419	427513	2	Standard
| Ag	107	47.359	ug/L	0.435	0	46	708747	2	Standard
| Ba	135	48.344	ug/L	0.506	1	15	272667	2	Standard
| Ba	137	48.160	ug/L	0.598	1	37	508704	1	Standard
> Tb	159		ug/L			173053	176247	1	Standard
| Pb	208	51.551	ug/L	1.150	2	201	4353163	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:36:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	42969	1	Standard
> Sc	45		ug/L			330809	334273	0	Standard
| Al	27	0.053	ug/L	0.005	8	2334	3696	2	Standard
| Cr	52	-0.024	ug/L	0.013	53	13927	13523	2	Standard
| Cr	53	-0.029	ug/L	0.005	15	305	236	5	Standard
| Mn	55	0.001	ug/L	0.001	41	504	554	3	Standard
> Ge	72		ug/L			39846	37744	0	KED
| Co	59	-0.008	ug/L	0.001	9	61	16	24	KED
| Ni	60	-0.025	ug/L	0.002	8	59	17	19	KED
| Ni	62	-0.019	ug/L	0.021	110	10	5	88	KED
| Cu	63	-0.007	ug/L	0.001	12	67	36	9	KED
| Cu	65	0.000	ug/L	0.001	158	26	25	4	KED
| Zn	66	0.013	ug/L	0.025	191	22	28	50	KED
| Zn	67	0.042	ug/L	0.011	26	3	6	15	KED
| As	75	-0.006	ug/L	0.003	47	5	3	21	KED
| Se	78	-0.078	ug/L	0.107	136	11	8	36	KED
| Kr	83		ug/L			53	50	35	Standard
> In-1	115		ug/L			9311	8708	3	KED
| Mo	98	0.027	ug/L	0.015	54	10	47	43	KED
| Cd	111	0.016	ug/L	0.027	162	2	6	114	KED
| Cd	114	0.004	ug/L	0.012	298	8	10	84	KED
> In	115		ug/L			399419	429969	3	Standard
| Ag	107	0.004	ug/L	0.000	7	46	106	3	Standard
| Ba	135	0.003	ug/L	0.001	20	15	35	13	Standard
| Ba	137	0.002	ug/L	0.001	79	37	59	23	Standard
> Tb	159		ug/L			173053	170863	1	Standard
| Pb	208	0.004	ug/L	0.001	14	201	521	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0256-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 17:44:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	61493	1	Standard
> Sc	45		ug/L			330809	344234	0	Standard
| Al	27	0.907	ug/L	0.001	0	2334	25925	0	Standard
| Cr	52	0.021	ug/L	0.012	59	13927	14984	1	Standard
| Cr	53	-0.000	ug/L	0.006	2089	305	317	4	Standard
| Mn	55	0.032	ug/L	0.001	3	504	1619	2	Standard
> Ge	72		ug/L			39846	38337	1	KED
| Co	59	-0.008	ug/L	0.001	18	61	16	48	KED
| Ni	60	-0.017	ug/L	0.008	46	59	29	40	KED
| Ni	62	-0.029	ug/L	0.005	15	10	3	34	KED
| Cu	63	0.071	ug/L	0.008	10	67	368	9	KED
| Cu	65	0.070	ug/L	0.006	8	26	175	6	KED
| Zn	66	0.477	ug/L	0.030	6	22	300	7	KED
| Zn	67	0.473	ug/L	0.074	15	3	48	14	KED
| As	75	-0.008	ug/L	0.006	76	5	3	51	KED
| Se	78	-0.068	ug/L	0.087	128	11	8	29	KED
| Kr	83		ug/L			53	48	13	Standard
> In-1	115		ug/L			9311	9099	2	KED
| Mo	98	0.021	ug/L	0.007	31	10	40	22	KED
| Cd	111	0.007	ug/L	0.007	98	2	4	49	KED
| Cd	114	-0.001	ug/L	0.007	550	8	6	79	KED
> In	115		ug/L			399419	433020	0	Standard
| Ag	107	0.000	ug/L	0.000	154	46	53	10	Standard
| Ba	135	0.039	ug/L	0.004	10	15	237	8	Standard
| Ba	137	0.036	ug/L	0.004	9	37	426	8	Standard
> Tb	159		ug/L			173053	175697	0	Standard
| Pb	208	0.002	ug/L	0.000	16	201	345	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0256-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 17:49:13**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	68216	0	Standard
> Sc	45		ug/L			330809	346232	1	Standard
| Al	27	5121.085	ug/L	60.412	1	2334	133433342	2	Standard
| Cr	52	24.481	ug/L	0.104	0	13927	595482	1	Standard
| Cr	53	25.383	ug/L	0.167	0	305	66347	1	Standard
| Mn	55	24.899	ug/L	0.150	0	504	857407	2	Standard
> Ge	72		ug/L			39846	35317	8	KED
| Co	59	26.753	ug/L	2.525	9	61	133789	1	KED
| Ni	60	26.926	ug/L	2.427	9	59	38426	0	KED
| Ni	62	27.390	ug/L	2.719	9	10	6231	1	KED
| Cu	63	27.216	ug/L	2.442	8	67	106032	0	KED
| Cu	65	26.994	ug/L	2.474	9	26	53454	0	KED
| Zn	66	85.006	ug/L	8.681	10	22	45650	1	KED
| Zn	67	81.130	ug/L	7.965	9	3	7203	1	KED
| As	75	25.961	ug/L	2.582	9	5	7305	1	KED
| Se	78	82.535	ug/L	7.381	8	11	2234	2	KED
| Kr	83		ug/L			53	55	18	Standard
> In-1	115		ug/L			9311	8647	2	KED
| Mo	98	26.090	ug/L	0.866	3	10	35465	1	KED
| Cd	111	25.295	ug/L	0.424	1	2	7427	2	KED
| Cd	114	25.797	ug/L	0.357	1	8	19210	2	KED
> In	115		ug/L			399419	436102	2	Standard
| Ag	107	23.945	ug/L	0.432	1	46	365595	3	Standard
| Ba	135	24.901	ug/L	0.238	0	15	143271	1	Standard
| Ba	137	23.729	ug/L	0.674	2	37	255658	1	Standard
> Tb	159		ug/L			173053	175809	0	Standard
| Pb	208	25.404	ug/L	0.092	0	201	2140350	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0192-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 17:55:30**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	189824	1	Standard
> Sc	45		ug/L			330809	331540	2	Standard
Al	27	1.055	ug/L	0.051	4	2334	28633	1	Standard
Cr	52	0.905	ug/L	0.025	2	13927	34507	1	Standard
Cr	53	0.670	ug/L	0.031	4	305	1973	3	Standard
Mn	55	83.790	ug/L	1.019	1	504	2760980	1	Standard
> Ge	72		ug/L			39846	33686	0	KED
Co	59	0.190	ug/L	0.009	4	61	961	3	KED
Ni	60	1.186	ug/L	0.027	2	59	1669	2	KED
Ni	62	1.168	ug/L	0.008	0	10	263	0	KED
Cu	63	0.028	ug/L	0.009	31	67	162	19	KED
Cu	65	0.045	ug/L	0.012	26	26	106	20	KED
Zn	66	0.648	ug/L	0.106	16	22	352	14	KED
Zn	67	1.110	ug/L	0.041	3	3	97	3	KED
As	75	0.062	ug/L	0.008	13	5	21	9	KED
Se	78	0.005	ug/L	0.117	2564	11	9	32	KED
Kr	83		ug/L			53	47	30	Standard
> In-1	115		ug/L			9311	7843	0	KED
Mo	98	0.839	ug/L	0.052	6	10	1043	6	KED
Cd	111	0.016	ug/L	0.006	35	2	6	24	KED
Cd	114	-0.001	ug/L	0.004	341	8	5	47	KED
> In	115		ug/L			399419	438145	3	Standard
Ag	107	0.001	ug/L	0.000	41	46	69	14	Standard
Ba	135	6.922	ug/L	0.227	3	15	40002	0	Standard
Ba	137	6.605	ug/L	0.216	3	37	71503	0	Standard
> Tb	159		ug/L			173053	165981	0	Standard
Pb	208	0.004	ug/L	0.000	7	201	493	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0179-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:01:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	60398	0	Standard
> Sc	45		ug/L			330809	328186	8	Standard
| Al	27	15.112	ug/L	1.215	8	2334	373789	1	Standard
| Cr	52	0.283	ug/L	0.081	28	13927	20086	1	Standard
| Cr	53	0.263	ug/L	0.031	11	305	948	5	Standard
| Mn	55	9.726	ug/L	0.747	7	504	316375	2	Standard
> Ge	72		ug/L			39846	35095	2	KED
| Co	59	0.116	ug/L	0.007	6	61	632	3	KED
| Ni	60	0.381	ug/L	0.037	9	59	593	7	KED
| Ni	62	0.392	ug/L	0.060	15	10	98	11	KED
| Cu	63	3.614	ug/L	0.039	1	67	14113	1	KED
| Cu	65	3.598	ug/L	0.074	2	26	7135	1	KED
| Zn	66	260.001	ug/L	4.512	1	22	139476	0	KED
| Zn	67	244.228	ug/L	2.847	1	3	21657	1	KED
| As	75	0.349	ug/L	0.016	4	5	103	2	KED
| Se	78	-0.032	ug/L	0.066	205	11	9	21	KED
| Kr	83		ug/L			53	47	17	Standard
> In-1	115		ug/L			9311	8284	0	KED
| Mo	98	0.221	ug/L	0.015	6	10	297	6	KED
| Cd	111	0.689	ug/L	0.039	5	2	195	5	KED
| Cd	114	0.647	ug/L	0.053	8	8	468	8	KED
> In	115		ug/L			399419	432019	9	Standard
| Ag	107	0.002	ug/L	0.002	76	46	81	26	Standard
| Ba	135	8.602	ug/L	1.029	11	15	48689	2	Standard
| Ba	137	8.317	ug/L	0.889	10	37	88242	0	Standard
> Tb	159		ug/L			173053	161522	8	Standard
| Pb	208	0.219	ug/L	0.019	8	201	17064	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0141-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:07:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	52924	1	Standard
> Sc	45		ug/L			330809	341461	2	Standard
| Al	27	61.633	ug/L	1.682	2	2334	1585403	0	Standard
| Cr	52	2.785	ug/L	0.117	4	13927	79499	1	Standard
| Cr	53	2.701	ug/L	0.043	1	305	7244	2	Standard
| Mn	55	3.301	ug/L	0.051	1	504	112539	2	Standard
> Ge	72		ug/L			39846	34352	1	KED
| Co	59	0.006	ug/L	0.004	72	61	82	24	KED
| Ni	60	0.135	ug/L	0.008	5	59	239	3	KED
| Ni	62	0.155	ug/L	0.036	23	10	43	19	KED
| Cu	63	1.180	ug/L	0.018	1	67	4549	0	KED
| Cu	65	1.199	ug/L	0.041	3	26	2342	1	KED
| Zn	66	0.794	ug/L	0.103	12	22	436	12	KED
| Zn	67	0.657	ug/L	0.150	22	3	59	21	KED
| As	75	0.014	ug/L	0.019	138	5	8	57	KED
| Se	78	0.006	ug/L	0.095	1513	11	9	24	KED
| Kr	83		ug/L			53	48	27	Standard
> In-1	115		ug/L			9311	7763	1	KED
| Mo	98	1.043	ug/L	0.034	3	10	1281	1	KED
| Cd	111	0.004	ug/L	0.011	283	2	2	100	KED
| Cd	114	-0.004	ug/L	0.002	41	8	4	25	KED
> In	115		ug/L			399419	447020	2	Standard
| Ag	107	-0.001	ug/L	0.000	28	46	34	15	Standard
| Ba	135	0.241	ug/L	0.009	3	15	1436	4	Standard
| Ba	137	0.222	ug/L	0.010	4	37	2487	2	Standard
> Tb	159		ug/L			173053	169100	0	Standard
| Pb	208	0.006	ug/L	0.000	3	201	680	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0096-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:13:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	470063	1	Standard
> Sc	45		ug/L			330809	323722	3	Standard
Al	27	6.095	ug/L	0.160	2	2334	150693	1	Standard
Cr	52	2.267	ug/L	0.039	1	13927	63915	1	Standard
Cr	53	1.877	ug/L	0.044	2	305	4863	0	Standard
Mn	55	12.516	ug/L	0.179	1	504	403110	1	Standard
> Ge	72		ug/L			39846	30290	0	KED
Co	59	0.238	ug/L	0.021	8	61	1072	9	KED
Ni	60	4.271	ug/L	0.073	1	59	5291	0	KED
Ni	62	4.169	ug/L	<u>0.409</u>	9	10	825	10	KED
Cu	63	3.098	ug/L	0.034	1	67	10448	0	KED
Cu	65	3.043	ug/L	0.049	1	26	5211	1	KED
Zn	66	4.701	ug/L	0.224	4	22	2193	4	KED
Zn	67	6.665	ug/L	0.386	5	3	512	4	KED
As	75	0.085	ug/L	0.012	14	5	25	12	KED
Se	78	0.085	ug/L	0.229	269	11	10	49	KED
Kr	83		ug/L			53	56	8	Standard
> In-1	115		ug/L			9311	7086	1	KED
Mo	98	3.459	ug/L	0.034	0	10	3862	2	KED
Cd	111	0.063	ug/L	0.020	31	2	16	28	KED
Cd	114	0.043	ug/L	0.002	5	8	32	6	KED
> In	115		ug/L			399419	439580	3	Standard
Ag	107	-0.001	ug/L	0.001	44	46	31	24	Standard
Ba	135	43.924	ug/L	1.330	3	15	254601	0	Standard
Ba	137	41.233	ug/L	1.244	3	37	447652	0	Standard
> Tb	159		ug/L			173053	163713	1	Standard
Pb	208	0.049	ug/L	0.001	2	201	4006	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0453-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:19:30**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	467188	1	Standard
> Sc	45		ug/L			330809	264702	2	Standard
Al	27	1.789	ug/L	0.065	3	2334	37484	1	Standard
Cr	52	2.326	ug/L	0.014	0	13927	53347	2	Standard
Cr	53	2.016	ug/L	0.029	1	305	4253	2	Standard
Mn	55	90.714	ug/L	0.679	0	504	2386795	2	Standard
> Ge	72		ug/L			39846	23335	1	KED
Co	59	0.924	ug/L	0.015	1	61	3103	0	KED
Ni	60	8.803	ug/L	0.077	0	59	8367	2	KED
Ni	62	8.517	ug/L	0.394	4	10	1291	4	KED
Cu	63	1.575	ug/L	0.058	3	67	4113	5	KED
Cu	65	1.629	ug/L	0.015	0	26	2156	1	KED
Zn	66	9.219	ug/L	0.134	1	22	3301	1	KED
Zn	67	9.015	ug/L	0.346	3	3	533	3	KED
As	75	0.181	ug/L	0.019	10	5	37	10	KED
Se	78	0.030	ug/L	0.197	666	11	7	49	KED
Kr	83		ug/L			53	76	7	Standard
> In-1	115		ug/L			9311	5637	1	KED
Mo	98	4.020	ug/L	0.093	2	10	3568	1	KED
Cd	111	0.129	ug/L	0.025	18	2	26	16	KED
Cd	114	0.086	ug/L	0.024	28	8	46	23	KED
> In	115		ug/L			399419	364153	1	Standard
Ag	107	0.001	ug/L	0.000	42	46	53	8	Standard
Ba	135	14.760	ug/L	0.168	1	15	70933	2	Standard
Ba	137	13.836	ug/L	0.067	0	37	124533	0	Standard
> Tb	159		ug/L			173053	145714	0	Standard
Pb	208	0.013	ug/L	0.001	4	201	1095	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:24:58

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	45606	1	Standard
[> Sc	45		ug/L			330809	307255	2	Standard
| Al	27	0.016	ug/L	0.004	26	2334	2527	0	Standard
| Cr	52	0.139	ug/L	0.010	7	13927	15868	2	Standard
| Cr	53	-0.023	ug/L	0.004	18	305	231	4	Standard
| Mn	55	0.002	ug/L	0.000	20	504	536	2	Standard
[> Ge	72		ug/L			39846	32401	1	KED
| Co	59	-0.010	ug/L	0.000	4	61	5	33	KED
| Ni	60	-0.024	ug/L	0.004	14	59	15	30	KED
| Ni	62	-0.024	ug/L	0.015	65	10	3	86	KED
| Cu	63	-0.005	ug/L	0.004	73	67	35	38	KED
| Cu	65	-0.001	ug/L	0.002	291	26	19	20	KED
| Zn	66	0.145	ug/L	0.025	17	22	90	15	KED
| Zn	67	0.239	ug/L	0.165	69	3	22	62	KED
| As	75	-0.010	ug/L	0.002	19	5	2	26	KED
[Se	78	-0.061	ug/L	0.128	208	11	7	42	KED
| Kr	83		ug/L			53	37	26	Standard
[> In-1	115		ug/L			9311	7506	1	KED
| Mo	98	-0.004	ug/L	0.001	22	10	3	29	KED
| Cd	111	0.007	ug/L	0.004	64	2	3	31	KED
| Cd	114	-0.004	ug/L	0.009	259	8	4	142	KED
[> In	115		ug/L			399419	444777	1	Standard
| Ag	107	-0.002	ug/L	0.000	21	46	19	36	Standard
| Ba	135	0.007	ug/L	0.002	33	15	57	21	Standard
[Ba	137	0.006	ug/L	0.002	29	37	109	18	Standard
[> Tb	159		ug/L			173053	162882	2	Standard
[Pb	208	0.004	ug/L	0.001	11	201	540	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0595-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:29:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	217510	1	Standard
> Sc	45		ug/L			330809	342435	1	Standard
Al	27	31.824	ug/L	0.499	1	2334	822422	1	Standard
Cr	52	19.730	ug/L	0.247	1	13927	477459	2	Standard
Cr	53	20.893	ug/L	0.184	0	305	54064	0	Standard
Mn	55	39.455	ug/L	0.383	0	504	1343286	0	Standard
> Ge	72		ug/L			39846	33867	0	KED
Co	59	0.242	ug/L	0.009	3	61	1217	3	KED
Ni	60	9.441	ug/L	0.159	1	59	13019	1	KED
Ni	62	9.301	ug/L	0.119	1	10	2046	1	KED
Cu	63	2.664	ug/L	0.025	0	67	10056	0	KED
Cu	65	2.573	ug/L	0.048	1	26	4931	1	KED
Zn	66	312.435	ug/L	5.661	1	22	161764	1	KED
Zn	67	290.044	ug/L	0.893	0	3	24823	0	KED
As	75	0.016	ug/L	0.004	23	5	9	10	KED
Se	78	-0.141	ug/L	0.058	41	11	5	25	KED
Kr	83		ug/L			53	42	15	Standard
> In-1	115		ug/L			9311	7696	1	KED
Mo	98	0.158	ug/L	0.016	9	10	200	7	KED
Cd	111	0.702	ug/L	0.030	4	2	185	4	KED
Cd	114	0.730	ug/L	0.032	4	8	490	4	KED
> In	115		ug/L			399419	472892	1	Standard
Ag	107	-0.000	ug/L	0.001	454	46	52	21	Standard
Ba	135	3.767	ug/L	0.076	2	15	23519	0	Standard
Ba	137	3.536	ug/L	0.078	2	37	41354	1	Standard
> Tb	159		ug/L			173053	170648	0	Standard
Pb	208	0.155	ug/L	0.004	2	201	12854	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:35:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	43564	2	Standard
[> Sc	45		ug/L			330809	314941	1	Standard
| Al	27	0.014	ug/L	0.003	20	2334	2549	2	Standard
| Cr	52	-0.038	ug/L	0.007	18	13927	12445	1	Standard
| Cr	53	-0.034	ug/L	0.006	16	305	210	7	Standard
| Mn	55	0.001	ug/L	0.001	215	504	500	8	Standard
[> Ge	72		ug/L			39846	34168	1	KED
| Co	59	-0.010	ug/L	0.000	3	61	3	50	KED
| Ni	60	-0.024	ug/L	0.004	17	59	17	33	KED
| Ni	62	-0.025	ug/L	0.000	0	10	3	0	KED
| Cu	63	-0.006	ug/L	0.001	11	67	35	6	KED
| Cu	65	0.001	ug/L	0.004	374	26	24	27	KED
| Zn	66	0.158	ug/L	0.027	17	22	101	13	KED
| Zn	67	0.093	ug/L	0.033	35	3	10	26	KED
| As	75	-0.012	ug/L	0.005	45	5	1	83	KED
[Se	78	-0.051	ug/L	0.024	48	11	8	8	KED
| Kr	83		ug/L			53	38	19	Standard
[> In-1	115		ug/L			9311	7896	0	KED
| Mo	98	-0.004	ug/L	0.003	73	10	4	71	KED
| Cd	111	0.007	ug/L	0.007	98	2	3	50	KED
| Cd	114	-0.006	ug/L	0.003	59	8	3	72	KED
[> In	115		ug/L			399419	463464	1	Standard
| Ag	107	-0.002	ug/L	0.001	28	46	24	35	Standard
| Ba	135	0.007	ug/L	0.003	35	15	61	24	Standard
[Ba	137	0.006	ug/L	0.001	14	37	113	9	Standard
[> Tb	159		ug/L			173053	165309	0	Standard
[Pb	208	0.004	ug/L	0.000	9	201	539	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:40:14

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	43588	1	Standard
> Sc	45		ug/L			330809	337577	3	Standard
| Al	27	4990.853	ug/L	138.174	2	2334	126726667	1	Standard
| Cr	52	48.378	ug/L	1.262	2	13927	1132847	0	Standard
| Cr	53	50.449	ug/L	0.708	1	305	128222	1	Standard
| Mn	55	50.233	ug/L	0.526	1	504	1685718	2	Standard
> Ge	72		ug/L			39846	34741	1	KED
| Co	59	50.848	ug/L	0.098	0	61	251423	1	KED
| Ni	60	51.512	ug/L	0.883	1	59	72624	0	KED
| Ni	62	51.601	ug/L	0.648	1	10	11602	1	KED
| Cu	63	52.642	ug/L	0.697	1	67	202695	0	KED
| Cu	65	52.433	ug/L	0.794	1	26	102631	0	KED
| Zn	66	52.649	ug/L	0.949	1	22	27976	0	KED
| Zn	67	52.513	ug/L	2.147	4	3	4611	3	KED
| As	75	49.237	ug/L	1.014	2	5	13699	1	KED
| Se	78	50.234	ug/L	0.652	1	11	1348	0	KED
| Kr	83		ug/L			53	49	7	Standard
> In-1	115		ug/L			9311	8141	0	KED
| Mo	98	50.976	ug/L	0.810	1	10	65258	1	KED
| Cd	111	51.337	ug/L	0.106	0	2	14190	0	KED
| Cd	114	51.796	ug/L	0.528	1	8	36304	0	KED
> In	115		ug/L			399419	465743	0	Standard
| Ag	107	44.992	ug/L	0.986	2	46	733544	2	Standard
| Ba	135	45.534	ug/L	0.929	2	15	279803	1	Standard
| Ba	137	43.749	ug/L	0.819	1	37	503512	1	Standard
> Tb	159		ug/L			173053	175419	0	Standard
| Pb	208	53.785	ug/L	0.549	1	201	4520944	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:47:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	42485	0	Standard
> Sc	45		ug/L			330809	312260	3	Standard
| Al	27	0.043	ug/L	0.006	14	2334	3217	5	Standard
| Cr	52	-0.030	ug/L	0.019	62	13927	12501	1	Standard
| Cr	53	-0.048	ug/L	0.004	8	305	175	7	Standard
| Mn	55	-0.000	ug/L	0.000	67	504	470	3	Standard
> Ge	72		ug/L			39846	35618	1	KED
| Co	59	-0.010	ug/L	0.001	8	61	6	62	KED
| Ni	60	-0.026	ug/L	0.005	19	59	15	45	KED
| Ni	62	-0.028	ug/L	0.010	33	10	3	69	KED
| Cu	63	-0.009	ug/L	0.001	11	67	24	15	KED
| Cu	65	-0.003	ug/L	0.004	136	26	17	44	KED
| Zn	66	0.035	ug/L	0.006	17	22	38	10	KED
| Zn	67	0.068	ug/L	0.086	126	3	8	86	KED
| As	75	-0.006	ug/L	0.005	85	5	3	37	KED
| Se	78	-0.035	ug/L	0.092	264	11	9	29	KED
| Kr	83		ug/L			53	46	2	Standard
> In-1	115		ug/L			9311	8219	2	KED
| Mo	98	0.010	ug/L	0.006	62	10	22	37	KED
| Cd	111	0.008	ug/L	0.014	179	2	4	93	KED
| Cd	114	-0.005	ug/L	0.006	112	8	3	106	KED
> In	115		ug/L			399419	435446	4	Standard
| Ag	107	0.001	ug/L	0.000	63	46	60	12	Standard
| Ba	135	0.001	ug/L	0.002	149	15	23	44	Standard
| Ba	137	0.001	ug/L	0.001	78	37	50	13	Standard
> Tb	159		ug/L			173053	162511	4	Standard
| Pb	208	0.004	ug/L	0.000	11	201	514	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:54:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				42090	0	Standard
[>	Sc	45	ug/L				332961	2	Standard
|	Cr	52	ug/L				12895	2	Standard
|	Cr	53	ug/L				187	6	Standard
|	Mn	55	ug/L				424	3	Standard
[>	Ge	72	ug/L				35628	1	KED
|	Ni	60	ug/L				10	26	KED
|	Ni	62	ug/L				2	86	KED
|	Cu	63	ug/L				12	37	KED
|	Cu	65	ug/L				10	47	KED
|	Zn	66	ug/L				20	39	KED
|	Zn	67	ug/L				2	43	KED
|	As	75	ug/L				3	34	KED
|	Kr	83	ug/L				45	4	Standard
[>	In-1	115	ug/L				8466	3	KED
|	Cd	111	ug/L				1	34	KED
|	Cd	114	ug/L				3	52	KED
[>	In	115	ug/L				448865	1	Standard
|	Ag	107	ug/L				40	9	Standard
|	Ba	135	ug/L				11	44	Standard
|	Ba	137	ug/L				19	5	Standard
[>	Tb	159	ug/L				168501	1	Standard
|	Pb	208	ug/L				172	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:59:11

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	42861	2	Standard
>	Sc	45	ug/L			332961	342352	1	Standard
|	Cr	52	48.393	0.603	1	12895	1148797	2	Standard
|	Cr	53	50.240	0.892	1	187	129428	2	Standard
|	Mn	55	49.914	0.939	1	424	1698864	2	Standard
>	Ge	72				35628	36455	0	KED
|	Ni	60	51.317	0.584	1	10	75887	0	KED
|	Ni	62	52.179	0.556	1	2	12304	0	KED
|	Cu	63	52.820	0.430	0	12	213390	0	KED
|	Cu	65	52.452	0.162	0	10	107736	0	KED
|	Zn	66	51.454	0.954	1	20	28694	1	KED
|	Zn	67	50.889	0.102	0	2	4690	0	KED
|	As	75	49.075	0.432	0	3	14328	0	KED
|	Kr	83				45	52	24	Standard
>	In-1	115				8466	8452	1	KED
|	Cd	111	50.990	0.707	1	1	14631	0	KED
|	Cd	114	51.137	0.782	1	3	37206	0	KED
>	In	115				448865	462302	1	Standard
|	Ag	107	45.329	0.211	0	40	733525	1	Standard
|	Ba	135	46.066	1.132	2	11	280911	0	Standard
|	Ba	137	44.112	0.954	2	19	503821	0	Standard
>	Tb	159				168501	176683	1	Standard
|	Pb	208	52.096	0.628	1	172	4410480	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 19:06:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	43305	0	Standard
[> Sc	45		ug/L			332961	328091	3	Standard
| Cr	52	-0.003	ug/L	0.021	824	12895	12638	1	Standard
| Cr	53	-0.002	ug/L	0.007	364	187	180	8	Standard
| Mn	55	-0.001	ug/L	0.001	97	424	396	8	Standard
[> Ge	72		ug/L			35628	37144	2	KED
| Ni	60	-0.002	ug/L	0.004	246	10	8	61	KED
| Ni	62	0.005	ug/L	0.008	160	2	3	50	KED
| Cu	63	0.003	ug/L	0.001	56	12	24	24	KED
| Cu	65	-0.001	ug/L	0.003	373	10	8	75	KED
| Zn	66	-0.004	ug/L	0.013	353	20	19	36	KED
| Zn	67	0.032	ug/L	0.034	104	2	5	57	KED
| As	75	-0.001	ug/L	0.002	223	3	3	24	KED
| Kr	83		ug/L			45	29	30	Standard
[> In-1	115		ug/L			8466	8638	2	KED
| Cd	111	<u>0.033</u>	ug/L	<u>0.059</u>	176	1	11	152	KED
| Cd	114	<u>0.034</u>	ug/L	<u>0.046</u>	136	3	29	119	KED
[> In	115		ug/L			448865	441677	2	Standard
| Ag	107	0.001	ug/L	0.001	73	40	62	24	Standard
| Ba	135	-0.001	ug/L	0.000	54	11	7	25	Standard
| Ba	137	0.000	ug/L	0.001	328	19	20	24	Standard
[> Tb	159		ug/L			168501	167164	1	Standard
| Pb	208	0.001	ug/L	0.000	34	172	233	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0119-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:14:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	69068	0	Standard
>	Sc	45	ug/L			332961	339062	1	Standard
|	Cr	52	ug/L	0.004	2	12895	17337	1	Standard
|	Cr	53	ug/L	0.005	2	187	589	3	Standard
|	Mn	55	ug/L	0.001	0	424	5314	1	Standard
>	Ge	72	ug/L			35628	37186	1	KED
|	Ni	60	ug/L	0.004	26	10	34	16	KED
|	Ni	62	ug/L	0.012	162	2	4	65	KED
|	Cu	63	ug/L	0.007	8	12	342	9	KED
|	Cu	65	ug/L	0.013	15	10	182	13	KED
|	Zn	66	ug/L	0.033	1	20	1268	0	KED
|	Zn	67	ug/L	0.311	12	2	229	11	KED
|	As	75	ug/L	0.004	142	3	2	52	KED
|	Kr	83	ug/L			45	41	18	Standard
>	In-1	115	ug/L			8466	8759	2	KED
|	Cd	111	ug/L	0.006	59	1	4	40	KED
|	Cd	114	ug/L	0.003	80	3	6	34	KED
>	In	115	ug/L			448865	455179	2	Standard
|	Ag	107	ug/L	0.001	1022	40	41	18	Standard
|	Ba	135	ug/L	0.010	18	11	354	15	Standard
|	Ba	137	ug/L	0.001	1	19	593	4	Standard
>	Tb	159	ug/L			168501	172687	0	Standard
|	Pb	208	ug/L	0.001	4	172	1316	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0119-BS1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 19:18:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	65913	0	Standard
> Sc	45		ug/L			332961	337655	1	Standard
| Cr	52	24.707	ug/L	0.281	1	12895	584791	1	Standard
| Cr	53	25.988	ug/L	0.282	1	187	66120	2	Standard
| Mn	55	25.988	ug/L	0.313	1	424	872658	2	Standard
> Ge	72		ug/L			35628	34015	11	KED
| Ni	60	28.928	ug/L	3.451	11	10	39543	0	KED
| Ni	62	28.971	ug/L	3.148	10	2	6321	1	KED
| Cu	63	29.976	ug/L	3.547	11	12	111942	0	KED
| Cu	65	29.702	ug/L	3.366	11	10	56417	1	KED
| Zn	66	92.071	ug/L	10.538	11	20	47464	1	KED
| Zn	67	86.466	ug/L	8.847	10	2	7373	2	KED
| As	75	26.430	ug/L	3.010	11	3	7137	1	KED
| Kr	83		ug/L			45	52	18	Standard
> In-1	115		ug/L			8466	8450	2	KED
| Cd	111	26.183	ug/L	0.785	2	1	7513	4	KED
| Cd	114	25.912	ug/L	0.660	2	3	18853	3	KED
> In	115		ug/L			448865	445725	2	Standard
| Ag	107	24.031	ug/L	0.079	0	40	374977	2	Standard
| Ba	135	24.589	ug/L	0.460	1	11	144563	0	Standard
| Ba	137	23.305	ug/L	0.435	1	19	256642	1	Standard
> Tb	159		ug/L			168501	171848	1	Standard
| Pb	208	27.383	ug/L	0.294	1	172	2254912	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0119-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:24:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	66007	3	Standard
> Sc	45		ug/L			332961	335680	0	Standard
| Cr	52	25.125	ug/L	0.269	1	12895	590992	0	Standard
| Cr	53	26.262	ug/L	0.360	1	187	66416	0	Standard
| Mn	55	26.567	ug/L	0.430	1	424	886840	2	Standard
> Ge	72		ug/L			35628	36217	1	KED
| Ni	60	26.843	ug/L	0.265	0	10	39440	1	KED
| Ni	62	26.232	ug/L	0.186	0	2	6147	2	KED
| Cu	63	28.057	ug/L	0.145	0	12	112608	1	KED
| Cu	65	27.702	ug/L	0.192	0	10	56528	0	KED
| Zn	66	87.024	ug/L	0.889	1	20	48202	1	KED
| Zn	67	80.670	ug/L	1.801	2	2	7384	2	KED
| As	75	24.830	ug/L	0.352	1	3	7202	0	KED
| Kr	83		ug/L			45	45	24	Standard
> In-1	115		ug/L			8466	8619	2	KED
| Cd	111	26.006	ug/L	0.880	3	1	7607	1	KED
| Cd	114	25.666	ug/L	0.481	1	3	19046	3	KED
> In	115		ug/L			448865	461265	1	Standard
| Ag	107	23.687	ug/L	0.621	2	40	382366	1	Standard
| Ba	135	23.848	ug/L	0.457	1	11	145107	0	Standard
| Ba	137	22.774	ug/L	0.436	1	19	259535	0	Standard
> Tb	159		ug/L			168501	172071	1	Standard
| Pb	208	27.496	ug/L	0.504	1	172	2266962	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0134-BLK2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:29:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	64759	1	Standard
> Sc	45		ug/L			332961	333825	0	Standard
| Cr	52	0.150	ug/L	0.017	11	12895	16368	1	Standard
| Cr	53	0.098	ug/L	0.001	1	187	433	0	Standard
| Mn	55	0.382	ug/L	0.007	1	424	13092	1	Standard
> Ge	72		ug/L			35628	36493	0	KED
| Ni	60	0.011	ug/L	0.004	34	10	27	21	KED
| Ni	62	0.021	ug/L	0.014	65	2	7	43	KED
| Cu	63	0.061	ug/L	0.004	6	12	257	6	KED
| Cu	65	0.057	ug/L	0.004	6	10	127	6	KED
| Zn	66	0.632	ug/L	0.030	4	20	373	5	KED
| Zn	67	0.674	ug/L	0.051	7	2	64	7	KED
| As	75	-0.001	ug/L	0.002	115	3	2	16	KED
| Kr	83		ug/L			45	43	15	Standard
> In-1	115		ug/L			8466	8432	2	KED
| Cd	111	0.006	ug/L	0.005	95	1	3	45	KED
| Cd	114	-0.002	ug/L	0.001	63	3	2	52	KED
> In	115		ug/L			448865	446651	1	Standard
| Ag	107	0.002	ug/L	0.001	22	40	76	11	Standard
| Ba	135	0.135	ug/L	0.003	2	11	808	2	Standard
| Ba	137	0.138	ug/L	0.008	6	19	1536	4	Standard
> Tb	159		ug/L			168501	170397	0	Standard
| Pb	208	0.014	ug/L	0.000	2	172	1323	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0134-BS2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:33:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	71232	1	Standard
> Sc	45		ug/L			332961	346017	4	Standard
| Cr	52	26.359	ug/L	0.539	2	12895	638177	2	Standard
| Cr	53	26.857	ug/L	0.944	3	187	69946	1	Standard
| Mn	55	27.397	ug/L	0.898	3	424	941818	0	Standard
> Ge	72		ug/L			35628	37051	0	KED
| Ni	60	27.210	ug/L	0.160	0	10	40901	0	KED
| Ni	62	27.077	ug/L	0.546	2	2	6490	1	KED
| Cu	63	27.661	ug/L	0.364	1	12	113578	1	KED
| Cu	65	27.335	ug/L	0.171	0	10	57069	0	KED
| Zn	66	87.930	ug/L	2.293	2	20	49824	2	KED
| Zn	67	84.630	ug/L	1.547	1	2	7925	1	KED
| As	75	26.088	ug/L	0.110	0	3	7743	0	KED
| Kr	83		ug/L			45	43	19	Standard
> In-1	115		ug/L			8466	8673	1	KED
| Cd	111	26.748	ug/L	0.446	1	1	7876	1	KED
| Cd	114	26.501	ug/L	0.294	1	3	19788	0	KED
> In	115		ug/L			448865	446416	4	Standard
| Ag	107	24.717	ug/L	0.883	3	40	385850	1	Standard
| Ba	135	25.657	ug/L	1.120	4	11	150929	0	Standard
| Ba	137	24.866	ug/L	1.144	4	19	273928	0	Standard
> Tb	159		ug/L			168501	174613	1	Standard
| Pb	208	27.396	ug/L	0.538	1	172	2291862	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0297-08**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:39:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			42090	63336	1	Standard
[>	Sc	45		ug/L			332961	361093	0	Standard
|	Cr	52	2.659	ug/L	0.037	1	12895	79801	1	Standard
|	Cr	53	2.804	ug/L	0.029	1	187	7809	0	Standard
[	Mn	55	20.060	ug/L	0.199	0	424	720449	1	Standard
[>	Ge	72		ug/L			35628	38084	1	KED
|	Ni	60	1.908	ug/L	0.071	3	10	2957	1	KED
|	Ni	62	2.012	ug/L	0.197	9	2	497	8	KED
|	Cu	63	8.245	ug/L	0.289	3	12	34803	3	KED
|	Cu	65	8.023	ug/L	0.246	3	10	17218	1	KED
|	Zn	66	58.360	ug/L	0.766	1	20	33994	1	KED
|	Zn	67	54.364	ug/L	0.893	1	2	5234	2	KED
[	As	75	0.298	ug/L	0.021	6	3	94	8	KED
	Kr	83		ug/L			45	36	10	Standard
[>	In-1	115		ug/L			8466	9035	0	KED
|	Cd	111	0.142	ug/L	0.014	10	1	45	10	KED
[	Cd	114	0.127	ug/L	0.014	10	3	103	11	KED
[>	In	115		ug/L			448865	454440	2	Standard
|	Ag	107	0.016	ug/L	0.001	3	40	297	5	Standard
|	Ba	135	34.910	ug/L	0.298	0	11	209327	2	Standard
[	Ba	137	33.851	ug/L	0.731	2	19	380014	0	Standard
[>	Tb	159		ug/L			168501	176044	2	Standard
[	Pb	208	1.550	ug/L	0.017	1	172	130891	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0420-07**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:44:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			42090	57200	1	Standard
[>	Sc	45	ug/L			332961	394052	1	Standard
|	Cr	52	ug/L	0.045	1	12895	111142	1	Standard
|	Cr	53	ug/L	0.025	0	187	11382	0	Standard
|	Mn	55	ug/L	0.529	1	424	1379290	2	Standard
[>	Ge	72	ug/L			35628	38427	0	KED
|	Ni	60	ug/L	0.048	1	10	4990	0	KED
|	Ni	62	ug/L	0.150	4	2	765	5	KED
|	Cu	63	ug/L	0.227	2	12	38323	2	KED
|	Cu	65	ug/L	0.055	0	10	19193	1	KED
|	Zn	66	ug/L	0.177	1	20	9531	0	KED
|	Zn	67	ug/L	0.281	1	2	1508	1	KED
|	As	75	ug/L	0.039	2	3	540	1	KED
	Kr	83	ug/L			45	50	20	Standard
[>	In-1	115	ug/L			8466	8966	2	KED
|	Cd	111	ug/L	0.022	38	1	19	32	KED
|	Cd	114	ug/L	0.025	43	3	47	41	KED
[>	In	115	ug/L			448865	451130	0	Standard
|	Ag	107	ug/L	0.001	1	40	747	1	Standard
|	Ba	135	ug/L	0.110	1	11	58931	0	Standard
|	Ba	137	ug/L	0.045	0	19	106082	0	Standard
[>	Tb	159	ug/L			168501	182935	0	Standard
|	Pb	208	ug/L	0.046	1	172	361352	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0595-01RE1**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:48:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	86976	0	Standard
>	Sc	45	ug/L			332961	350786	1	Standard
|	Cr	52	4.243	0.071	1	12895	115582	0	Standard
|	Cr	53	4.406	0.060	1	187	11808	1	Standard
|	Mn	55	8.323	0.022	0	424	290623	1	Standard
>	Ge	72	ug/L			35628	38226	1	KED
|	Ni	60	1.962	0.009	0	10	3053	1	KED
|	Ni	62	1.984	0.144	7	2	493	8	KED
|	Cu	63	0.540	0.014	2	12	2302	1	KED
|	Cu	65	0.534	0.015	2	10	1160	1	KED
|	Zn	66	64.841	1.522	2	20	37905	1	KED
|	Zn	67	59.897	1.863	3	2	5787	2	KED
|	As	75	0.002	0.003	188	3	3	27	KED
|	Kr	83	ug/L			45	49	16	Standard
>	In-1	115	ug/L			8466	8893	0	KED
|	Cd	111	0.149	0.010	6	1	46	6	KED
|	Cd	114	0.141	0.008	5	3	111	5	KED
>	In	115	ug/L			448865	460930	2	Standard
|	Ag	107	-0.000	0.000	44	40	33	11	Standard
|	Ba	135	0.814	0.043	5	11	4957	2	Standard
|	Ba	137	0.775	0.018	2	19	8846	1	Standard
>	Tb	159	ug/L			168501	173712	0	Standard
|	Pb	208	0.058	0.001	0	172	4972	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0453-01RE1**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:53:04**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			42090	160873	1	Standard	
>	Sc	45	ug/L			332961	319215	1	Standard	
|	Cr	52	0.694	ug/L	0.020	12895	27543	2	Standard	
|	Cr	53	0.492	ug/L	0.016	187	1358	3	Standard	
|	Mn	55	18.991	ug/L	0.252	424	602918	1	Standard	
>	Ge	72		ug/L		35628	31894	0	KED	
|	Ni	60	1.833	ug/L	0.037	10	2380	1	KED	
|	Ni	62	1.692	ug/L	0.259	2	351	14	KED	
|	Cu	63	0.341	ug/L	0.012	12	1217	2	KED	
|	Cu	65	0.349	ug/L	0.005	10	636	0	KED	
|	Zn	66	2.228	ug/L	0.061	20	1104	2	KED	
|	Zn	67	2.398	ug/L	0.051	2	195	2	KED	
|	As	75	0.037	ug/L	0.011	3	12	22	KED	
|	Kr	83		ug/L		45	40	17	Standard	
>	In-1	115		ug/L		8466	7512	1	KED	
|	Cd	111	0.034	ug/L	0.009	1	10	23	KED	
|	Cd	114	0.030	ug/L	0.017	3	22	47	KED	
>	In	115		ug/L		448865	434309	1	Standard	
|	Ag	107	-0.000	ug/L	0.000	230	40	38	5	Standard
|	Ba	135	2.900	ug/L	0.038	1	11	16628	0	Standard
|	Ba	137	2.774	ug/L	0.007	0	19	29791	2	Standard
>	Tb	159		ug/L		168501	164060	1	Standard	
|	Pb	208	0.028	ug/L	0.001	2	172	2397	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 19:57:28

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
	C	13	ug/L			42090	45612	0	Standard	
[>	Sc	45	ug/L			332961	316987	2	Standard	
|	Cr	52	0.186	ug/L	0.031	12895	16303	2	Standard	
|	Cr	53	0.014	ug/L	0.005	187	211	6	Standard	
|	Mn	55	0.006	ug/L	0.000	424	589	1	Standard	
[>	Ge	72	ug/L			35628	34677	0	KED	
|	Ni	60	0.000	ug/L	0.002	764	10	20	KED	
|	Ni	62	0.000	ug/L	0.005	1626	2	43	KED	
|	Cu	63	0.008	ug/L	0.001	19	12	41	14	KED
|	Cu	65	0.006	ug/L	0.003	60	10	20	32	KED
|	Zn	66	0.131	ug/L	0.024	18	20	89	14	KED
|	Zn	67	0.117	ug/L	0.026	22	2	12	17	KED
|	As	75	-0.001	ug/L	0.002	147	3	2	20	KED
	Kr	83	ug/L			45	43	0	Standard	
[>	In-1	115	ug/L			8466	7845	2	KED	
|	Cd	111	0.008	ug/L	0.008	101	1	3	56	KED
|	Cd	114	0.001	ug/L	0.004	302	3	4	65	KED
[>	In	115	ug/L			448865	441414	2	Standard	
|	Ag	107	-0.001	ug/L	0.000	85	40	31	24	Standard
|	Ba	135	0.007	ug/L	0.002	33	11	54	28	Standard
|	Ba	137	0.008	ug/L	0.002	21	19	106	15	Standard
[>	Tb	159	ug/L			168501	161328	1	Standard	
|	Pb	208	0.004	ug/L	0.000	5	172	499	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 20:01:58

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	43287	1	Standard
> Sc	45		ug/L			332961	331897	2	Standard
| Cr	52	48.217	ug/L	0.398	0	12895	1109511	1	Standard
| Cr	53	49.743	ug/L	0.721	1	187	124207	1	Standard
| Mn	55	49.306	ug/L	0.636	1	424	1626734	1	Standard
> Ge	72		ug/L			35628	34508	1	KED
| Ni	60	52.467	ug/L	0.830	1	10	73432	0	KED
| Ni	62	52.382	ug/L	0.571	1	2	11691	0	KED
| Cu	63	53.232	ug/L	1.745	3	12	203489	1	KED
| Cu	65	52.855	ug/L	1.433	2	10	102731	0	KED
| Zn	66	53.194	ug/L	1.136	2	20	28074	0	KED
| Zn	67	51.354	ug/L	2.201	4	2	4478	2	KED
| As	75	49.582	ug/L	1.327	2	3	13699	0	KED
| Kr	83		ug/L			45	50	9	Standard
> In-1	115		ug/L			8466	7968	2	KED
| Cd	111	52.053	ug/L	1.431	2	1	14075	0	KED
| Cd	114	52.906	ug/L	0.442	0	3	36290	2	KED
> In	115		ug/L			448865	449953	3	Standard
| Ag	107	45.191	ug/L	1.998	4	40	711151	1	Standard
| Ba	135	45.689	ug/L	0.752	1	11	271161	2	Standard
| Ba	137	44.108	ug/L	1.306	2	19	490120	0	Standard
> Tb	159		ug/L			168501	169763	1	Standard
| Pb	208	53.053	ug/L	0.593	1	172	4315405	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 20:09:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	42299	1	Standard
[>	Sc	45	ug/L			332961	324014	2	Standard
|	Cr	52	-0.011	0.004	35	12895	12291	2	Standard
|	Cr	53	-0.006	0.010	156	187	166	11	Standard
|	Mn	55	-0.001	0.000	1	424	384	2	Standard
[>	Ge	72	ug/L			35628	36283	0	KED
|	Ni	60	0.000	0.003	1217	10	11	44	KED
|	Ni	62	0.003	0.013	488	2	3	91	KED
|	Cu	63	0.004	0.002	63	12	27	34	KED
|	Cu	65	0.002	0.005	258	10	13	67	KED
|	Zn	66	0.001	0.015	2913	20	20	39	KED
|	Zn	67	0.020	0.031	156	2	4	65	KED
|	As	75	-0.000	0.005	2146	3	3	43	KED
|	Kr	83				45	43	4	Standard
[>	In-1	115	ug/L			8466	8302	2	KED
|	Cd	111	0.009	0.005	52	1	4	35	KED
|	Cd	114	0.001	0.004	386	3	4	67	KED
[>	In	115	ug/L			448865	450959	3	Standard
|	Ag	107	0.001	0.001	136	40	56	41	Standard
|	Ba	135	0.001	0.001	132	11	14	30	Standard
|	Ba	137	0.000	0.000	91	19	24	15	Standard
[>	Tb	159	ug/L			168501	165161	1	Standard
|	Pb	208	0.001	0.000	16	172	229	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0715-02**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:15:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			42090	52300	1	Standard
[>	Sc	45	ug/L			332961	356794	1	Standard
|	Cr	52	ug/L	0.013	2	12895	28735	2	Standard
|	Cr	53	ug/L	0.100	3	187	7208	4	Standard
[	Mn	55	ug/L	0.003	2	424	4680	1	Standard
[>	Ge	72	ug/L			35628	32041	0	KED
|	Ni	60	ug/L	0.036	5	10	816	5	KED
|	Ni	62	ug/L	0.002	0	2	143	0	KED
|	Cu	63	ug/L	0.009	4	12	675	4	KED
|	Cu	65	ug/L	0.014	6	10	361	6	KED
|	Zn	66	ug/L	0.062	19	20	172	17	KED
|	Zn	67	ug/L	0.156	16	2	78	15	KED
[	As	75	ug/L	0.129	0	3	5162	1	KED
	Kr	83	ug/L			45	33	25	Standard
[>	In-1	115	ug/L			8466	7504	1	KED
|	Cd	111	ug/L	0.007	29	1	7	25	KED
[	Cd	114	ug/L	0.003	30	3	10	21	KED
[>	In	115	ug/L			448865	419320	1	Standard
|	Ag	107	ug/L	0.001	239	40	41	25	Standard
|	Ba	135	ug/L	0.105	1	11	39531	0	Standard
[	Ba	137	ug/L	0.169	2	19	70067	1	Standard
[>	Tb	159	ug/L			168501	155378	0	Standard
[	Pb	208	ug/L	0.001	10	172	637	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0715-04**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:23:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			42090	48545	1	Standard
[>	Sc	45		ug/L			332961	320770	1	Standard
|	Cr	52	7.376	ug/L	0.083	1	12895	174567	0	Standard
|	Cr	53	8.209	ug/L	0.082	1	187	19964	2	Standard
[	Mn	55	0.300	ug/L	0.005	1	424	9974	2	Standard
[>	Ge	72		ug/L			35628	34764	0	KED
|	Ni	60	0.364	ug/L	0.010	2	10	524	3	KED
|	Ni	62	0.364	ug/L	0.020	5	2	84	5	KED
|	Cu	63	0.030	ug/L	0.004	13	12	128	12	KED
|	Cu	65	0.036	ug/L	0.009	25	10	80	21	KED
|	Zn	66	0.094	ug/L	0.026	27	20	69	19	KED
|	Zn	67	0.102	ug/L	0.076	74	2	11	57	KED
[	As	75	1.011	ug/L	0.056	5	3	284	5	KED
	Kr	83		ug/L			45	40	4	Standard
[>	In-1	115		ug/L			8466	8083	1	KED
|	Cd	111	0.008	ug/L	0.000	2	1	3	0	KED
[	Cd	114	0.000	ug/L	0.000	23	3	3	2	KED
[>	In	115		ug/L			448865	426257	1	Standard
|	Ag	107	-0.001	ug/L	0.001	51	40	19	52	Standard
|	Ba	135	0.338	ug/L	0.007	1	11	1913	2	Standard
[	Ba	137	0.319	ug/L	0.005	1	19	3376	2	Standard
[>	Tb	159		ug/L			168501	162748	1	Standard
[	Pb	208	0.001	ug/L	0.000	13	172	264	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0690-08**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:27:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			42090	48889	1	Standard
[>	Sc	45	ug/L			332961	325697	0	Standard
|	Cr	5.646	ug/L	0.053	0	12895	138635	0	Standard
|	Cr	53	ug/L	0.037	0	187	15387	0	Standard
|	Mn	55	ug/L	0.000	4	424	722	2	Standard
[>	Ge	72	ug/L			35628	34543	0	KED
|	Ni	60	ug/L	0.015	6	10	356	6	KED
|	Ni	62	ug/L	0.027	10	2	59	9	KED
|	Cu	63	ug/L	0.003	8	12	129	7	KED
|	Cu	65	ug/L	0.007	18	10	76	16	KED
|	Zn	66	ug/L	0.030	6	20	269	5	KED
|	Zn	67	ug/L	0.078	19	2	36	18	KED
|	As	75	ug/L	0.061	5	3	305	5	KED
|	Kr	83	ug/L			45	38	19	Standard
[>	In-1	115	ug/L			8466	7880	0	KED
|	Cd	111	ug/L	0.002	501	1	1	34	KED
|	Cd	114	ug/L	0.001	104	3	2	41	KED
[>	In	115	ug/L			448865	433236	2	Standard
|	Ag	107	ug/L	0.000	26	40	25	11	Standard
|	Ba	135	ug/L	0.006	2	11	1597	0	Standard
|	Ba	137	ug/L	0.009	3	19	2877	1	Standard
[>	Tb	159	ug/L			168501	161495	0	Standard
|	Pb	208	ug/L	0.000	2	172	500	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0690-10**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:32:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			42090	47524	1	Standard
[>	Sc	45		ug/L			332961	327851	2	Standard
|	Cr	52	2.057	ug/L	0.062	3	12895	58899	1	Standard
|	Cr	53	3.096	ug/L	0.066	2	187	7809	1	Standard
|	Mn	55	0.375	ug/L	0.013	3	424	12638	3	Standard
[>	Ge	72		ug/L			35628	32720	2	KED
|	Ni	60	0.102	ug/L	0.017	16	10	145	13	KED
|	Ni	62	0.122	ug/L	0.049	40	2	27	34	KED
|	Cu	63	0.081	ug/L	0.005	5	12	304	6	KED
|	Cu	65	0.086	ug/L	0.006	6	10	166	4	KED
|	Zn	66	0.078	ug/L	0.008	9	20	57	6	KED
|	Zn	67	0.210	ug/L	0.060	28	2	19	24	KED
|	As	75	7.798	ug/L	0.153	1	3	2045	2	KED
	Kr	83		ug/L			45	38	12	Standard
[>	In-1	115		ug/L			8466	7701	0	KED
|	Cd	111	0.018	ug/L	0.014	78	1	6	59	KED
|	Cd	114	0.007	ug/L	0.006	81	3	8	48	KED
[>	In	115		ug/L			448865	425752	0	Standard
|	Ag	107	-0.001	ug/L	0.001	115	40	27	41	Standard
|	Ba	135	0.619	ug/L	0.016	2	11	3489	3	Standard
|	Ba	137	0.571	ug/L	0.009	1	19	6025	1	Standard
[>	Tb	159		ug/L			168501	159571	1	Standard
|	Pb	208	0.006	ug/L	0.000	4	172	584	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0690-04**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:37:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	47730	1	Standard
>	Sc	45	ug/L			332961	327913	2	Standard
|	Cr	52	ug/L	0.030	4	12895	26739	0	Standard
|	Cr	53	ug/L	0.050	2	187	5966	3	Standard
|	Mn	55	ug/L	0.001	1	424	2507	2	Standard
>	Ge	72	ug/L			35628	30481	2	KED
|	Ni	60	ug/L	0.027	14	10	245	15	KED
|	Ni	62	ug/L	0.035	16	2	44	13	KED
|	Cu	63	ug/L	0.008	10	12	278	8	KED
|	Cu	65	ug/L	0.014	17	10	140	17	KED
|	Zn	66	ug/L	0.030	21	20	83	14	KED
|	Zn	67	ug/L	0.049	12	2	31	9	KED
|	As	75	ug/L	0.089	3	3	726	3	KED
|	Kr	83	ug/L			45	68	7	Standard
>	In-1	115	ug/L			8466	7063	2	KED
|	Cd	111	ug/L	0.005	42	1	4	26	KED
|	Cd	114	ug/L	0.000	15	3	3	0	KED
>	In	115	ug/L			448865	407878	1	Standard
|	Ag	107	ug/L	0.000	24	40	14	37	Standard
|	Ba	135	ug/L	0.047	2	11	11205	0	Standard
|	Ba	137	ug/L	0.041	2	19	19707	1	Standard
>	Tb	159	ug/L			168501	153180	1	Standard
|	Pb	208	ug/L	0.000	6	172	267	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:42:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	70596	2	Standard
> Sc	45		ug/L			332961	437667	1	Standard
Cr	52	-0.067	ug/L	0.002	3	12895	14927	1	Standard
Cr	53	0.125	ug/L	0.010	7	187	658	6	Standard
Mn	55	508.121	ug/L	6.931	1	424	22107272	2	Standard
> Ge	72		ug/L			35628	33171	0	KED
Ni	60	1.112	ug/L	0.040	3	10	1505	3	KED
Ni	62	1.164	ug/L	0.061	5	2	252	5	KED
Cu	63	0.053	ug/L	0.008	15	12	207	14	KED
Cu	65	0.055	ug/L	0.012	22	10	112	20	KED
Zn	66	0.208	ug/L	0.015	7	20	124	6	KED
Zn	67	0.585	ug/L	0.126	21	2	51	20	KED
As	75	0.454	ug/L	0.042	9	3	123	8	KED
Kr	83		ug/L			45	57	10	Standard
> In-1	115		ug/L			8466	7545	2	KED
Cd	111	0.014	ug/L	0.010	68	1	5	47	KED
Cd	114	-0.001	ug/L	0.002	330	3	2	36	KED
> In	115		ug/L			448865	437788	1	Standard
Ag	107	-0.001	ug/L	0.000	35	40	27	15	Standard
Ba	135	5.646	ug/L	0.072	1	11	32620	1	Standard
Ba	137	5.339	ug/L	0.108	2	19	57759	0	Standard
> Tb	159		ug/L			168501	165429	0	Standard
Pb	208	0.004	ug/L	0.000	8	172	477	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0078-DUP2**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:47:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			42090	71387	0	Standard
>	Sc	45	ug/L			332961	443812	1	Standard
|	Cr	-0.068	ug/L	0.006	9	12895	15110	1	Standard
|	Cr	53	ug/L	0.002	1	187	640	0	Standard
|	Mn	55	ug/L	5.051	0	424	23018673	2	Standard
>	Ge	72	ug/L			35628	32218	13	KED
|	Ni	60	ug/L	0.116	9	10	1553	4	KED
|	Ni	62	ug/L	0.166	14	2	244	5	KED
|	Cu	63	ug/L	0.002	5	12	119	17	KED
|	Cu	65	ug/L	0.003	9	10	75	12	KED
|	Zn	66	ug/L	0.034	15	20	129	15	KED
|	Zn	67	ug/L	0.190	37	2	43	37	KED
|	As	75	ug/L	0.057	10	3	135	5	KED
|	Kr	83	ug/L			45	65	23	Standard
>	In-1	115	ug/L			8466	7883	4	KED
|	Cd	111	ug/L	0.000	21	1	1		KED
|	Cd	114	ug/L	0.003	99	3	1	124	KED
>	In	115	ug/L			448865	434051	3	Standard
|	Ag	107	ug/L	0.001	1373	40	38	30	Standard
|	Ba	135	ug/L	0.180	3	11	33038	1	Standard
|	Ba	137	ug/L	0.151	2	19	59628	0	Standard
>	Tb	159	ug/L			168501	165671	0	Standard
|	Pb	208	ug/L	0.000	4	172	405	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0078-MS2**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:51:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	72202	0	Standard
> Sc	45		ug/L			332961	462187	1	Standard
Cr	52	3.572	ug/L	0.061	1	12895	131028	1	Standard
Cr	53	3.915	ug/L	0.032	0	187	13852	0	Standard
Mn	55	509.984	ug/L	8.970	1	424	23427369	1	Standard
> Ge	72		ug/L			35628	34548	1	KED
Ni	60	6.410	ug/L	0.118	1	10	8991	1	KED
Ni	62	6.161	ug/L	0.106	1	2	1379	2	KED
Cu	63	5.418	ug/L	0.103	1	12	20754	2	KED
Cu	65	5.288	ug/L	0.074	1	10	10300	0	KED
Zn	66	17.741	ug/L	0.543	3	20	9387	2	KED
Zn	67	16.561	ug/L	0.933	5	2	1447	4	KED
As	75	5.669	ug/L	0.046	0	3	1571	2	KED
Kr	83		ug/L			45	64	16	Standard
> In-1	115		ug/L			8466	7940	1	KED
Cd	111	5.395	ug/L	0.103	1	1	1455	2	KED
Cd	114	5.263	ug/L	0.142	2	3	3600	2	KED
> In	115		ug/L			448865	446477	3	Standard
Ag	107	2.929	ug/L	0.027	0	40	45802	2	Standard
Ba	135	10.484	ug/L	0.341	3	11	61719	0	Standard
Ba	137	10.141	ug/L	0.316	3	19	111820	1	Standard
> Tb	159		ug/L			168501	170696	0	Standard
Pb	208	5.338	ug/L	0.085	1	172	436800	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0078-MSD2**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:56:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	95606	1	Standard
> Sc	45		ug/L			332961	450474	3	Standard
Cr	52	3.727	ug/L	0.114	3	12895	132425	1	Standard
Cr	53	4.039	ug/L	0.051	1	187	13919	2	Standard
Mn	55	510.734	ug/L	12.728	2	424	22856765	1	Standard
> Ge	72		ug/L			35628	34841	0	KED
Ni	60	6.663	ug/L	0.158	2	10	9425	2	KED
Ni	62	6.766	ug/L	0.218	3	2	1527	3	KED
Cu	63	5.651	ug/L	0.050	0	12	21828	0	KED
Cu	65	5.542	ug/L	0.130	2	10	10886	2	KED
Zn	66	17.477	ug/L	0.397	2	20	9328	2	KED
Zn	67	17.318	ug/L	0.369	2	2	1527	1	KED
As	75	5.815	ug/L	0.052	0	3	1625	0	KED
Kr	83		ug/L			45	65	37	Standard
> In-1	115		ug/L			8466	7886	1	KED
Cd	111	5.500	ug/L	0.161	2	1	1473	2	KED
Cd	114	5.709	ug/L	0.102	1	3	3879	1	KED
> In	115		ug/L			448865	426508	2	Standard
Ag	107	3.413	ug/L	0.035	1	40	50989	2	Standard
Ba	135	10.864	ug/L	0.031	0	11	61145	2	Standard
Ba	137	10.452	ug/L	0.155	1	19	110153	1	Standard
> Tb	159		ug/L			168501	165456	0	Standard
Pb	208	5.581	ug/L	0.042	0	172	442650	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:00:37

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			42090	53251	0	Standard
[>	Sc	45		ug/L			332961	325225	2	Standard
|	Cr	52	0.004	ug/L	0.007	166	12895	12687	1	Standard
|	Cr	53	-0.004	ug/L	0.008	195	187	173	12	Standard
|	Mn	55	0.009	ug/L	0.001	10	424	720	6	Standard
[>	Ge	72		ug/L			35628	35314	0	KED
|	Ni	60	0.000	ug/L	0.004	6081	10	10	56	KED
|	Ni	62	0.011	ug/L	0.013	114	2	5	57	KED
|	Cu	63	0.006	ug/L	0.003	45	12	36	29	KED
|	Cu	65	0.003	ug/L	0.002	62	10	16	24	KED
|	Zn	66	0.166	ug/L	0.016	9	20	109	7	KED
|	Zn	67	0.085	ug/L	0.032	37	2	10	28	KED
|	As	75	-0.004	ug/L	0.004	113	3	2	58	KED
|	Kr	83		ug/L			45	40	40	Standard
[>	In-1	115		ug/L			8466	7995	3	KED
|	Cd	111	0.013	ug/L	0.004	33	1	5	21	KED
|	Cd	114	0.001	ug/L	0.003	252	3	4	49	KED
[>	In	115		ug/L			448865	437984	1	Standard
|	Ag	107	-0.001	ug/L	0.000	33	40	29	9	Standard
|	Ba	135	0.010	ug/L	0.002	24	11	66	18	Standard
|	Ba	137	0.010	ug/L	0.001	12	19	126	12	Standard
[>	Tb	159		ug/L			168501	163101	0	Standard
|	Pb	208	0.005	ug/L	0.000	5	172	530	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:05:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	47786	2	Standard
> Sc	45		ug/L			332961	334412	2	Standard
| Cr	52	48.035	ug/L	0.975	2	12895	1113580	0	Standard
| Cr	53	50.321	ug/L	1.009	2	187	126584	0	Standard
| Mn	55	49.267	ug/L	0.882	1	424	1637587	0	Standard
> Ge	72		ug/L			35628	36436	0	KED
| Ni	60	50.588	ug/L	0.832	1	10	74766	1	KED
| Ni	62	50.542	ug/L	0.700	1	2	11912	0	KED
| Cu	63	51.479	ug/L	0.931	1	12	207845	1	KED
| Cu	65	51.241	ug/L	0.707	1	10	105191	1	KED
| Zn	66	51.907	ug/L	1.181	2	20	28931	1	KED
| Zn	67	52.131	ug/L	1.746	3	2	4801	2	KED
| As	75	48.479	ug/L	0.486	1	3	14147	1	KED
| Kr	83		ug/L			45	43	31	Standard
> In-1	115		ug/L			8466	8246	2	KED
| Cd	111	51.464	ug/L	0.597	1	1	14408	2	KED
| Cd	114	52.063	ug/L	1.573	3	3	36945	0	KED
> In	115		ug/L			448865	426451	2	Standard
| Ag	107	47.034	ug/L	1.428	3	40	701805	1	Standard
| Ba	135	48.092	ug/L	1.046	2	11	270504	0	Standard
| Ba	137	46.543	ug/L	1.325	2	19	490268	0	Standard
> Tb	159		ug/L			168501	167617	1	Standard
| Pb	208	52.950	ug/L	1.170	2	172	4252260	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:12:20

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			42090	45868	1	Standard	
>	Sc	45	ug/L			332961	332999	0	Standard	
|	Cr	52	0.007	ug/L	0.018	12895	13047	2	Standard	
|	Cr	53	-0.010	ug/L	0.003	187	163	4	Standard	
|	Mn	55	0.004	ug/L	0.001	424	545	4	Standard	
>	Ge	72		ug/L		35628	37183	1	KED	
|	Ni	60	-0.002	ug/L	0.002	10	8	32	KED	
|	Ni	62	-0.001	ug/L	0.009	1712	2	86	KED	
|	Cu	63	0.004	ug/L	0.003	75	27	39	KED	
|	Cu	65	0.000	ug/L	0.000	534	10	10	KED	
|	Zn	66	-0.005	ug/L	0.013	255	18	39	KED	
|	Zn	67	0.006	ug/L	0.031	537	2	3	91	KED
|	As	75	-0.000	ug/L	0.003	721	3	3	31	KED
|	Kr	83		ug/L		45	42	21	Standard	
>	In-1	115		ug/L		8466	8876	1	KED	
|	Cd	111	0.005	ug/L	0.007	132	1	3	62	KED
|	Cd	114	-0.003	ug/L	0.002	44	3	1	93	KED
>	In	115		ug/L		448865	446461	1	Standard	
|	Ag	107	0.002	ug/L	0.001	68	40	64	25	Standard
|	Ba	135	-0.000	ug/L	0.001	453	11	10	54	Standard
|	Ba	137	0.000	ug/L	0.001	266	19	24	50	Standard
>	Tb	159		ug/L		168501	163711	0	Standard	
|	Pb	208	0.001	ug/L	0.001	43	172	267	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:22:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				44394	1	Standard
[>	Sc	45	ug/L				294037	11	Standard
|	Cr	52	ug/L				13085	5	Standard
|	Cr	53	ug/L				150	10	Standard
[>	Ge	72	ug/L				37522	1	KED
|	Ni	60	ug/L				6	45	KED
|	Ni	62	ug/L				1	86	KED
|	Cu	63	ug/L				27	10	KED
|	Cu	65	ug/L				9	34	KED
|	Zn	66	ug/L				19	10	KED
|	Zn	67	ug/L				3	50	KED
|	As	75	ug/L				1	33	KED
|	Kr	83	ug/L				56	7	Standard
[>	In-1	115	ug/L				8889	0	KED
|	Cd	111	ug/L				5	16	KED
|	Cd	114	ug/L				5	22	KED
[>	Tb	159	ug/L				151668	11	Standard
|	Pb	208	ug/L				135	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:28:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				43915	1	Standard
[>	Sc	45	ug/L				332530	1	Standard
|	Cr	52	ug/L				13137	2	Standard
|	Cr	53	ug/L				163	8	Standard
[>	Ge	72	ug/L				37776	1	KED
|	Ni	60	ug/L				3	100	KED
|	Ni	62	ug/L				0	173	KED
|	Cu	63	ug/L				18	23	KED
|	Cu	65	ug/L				6	41	KED
|	Zn	66	ug/L				19	14	KED
|	Zn	67	ug/L				3	50	KED
|	As	75	ug/L				3	27	KED
|	Kr	83	ug/L				41	37	Standard
[>	In-1	115	ug/L				8842	2	KED
|	Cd	111	ug/L				3	56	KED
|	Cd	114	ug/L				3	52	KED
[>	Tb	159	ug/L				167464	1	Standard
|	Pb	208	ug/L				168	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:32:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	44013	1	Standard
[> Sc	45		ug/L			332530	345315	1	Standard
| Cr	52	48.430	ug/L	0.364	0	13137	1159781	1	Standard
| Cr	53	50.466	ug/L	0.276	0	163	131090	0	Standard
[> Ge	72		ug/L			37776	37535	1	KED
| Ni	60	51.615	ug/L	0.193	0	3	78581	1	KED
| Ni	62	51.720	ug/L	1.419	2	0	12552	1	KED
| Cu	63	51.953	ug/L	1.352	2	18	216053	1	KED
| Cu	65	51.914	ug/L	0.930	1	6	109764	0	KED
| Zn	66	52.174	ug/L	0.673	1	19	29953	0	KED
| Zn	67	51.599	ug/L	1.919	3	3	4896	2	KED
| As	75	49.265	ug/L	1.350	2	3	14806	1	KED
Kr	83		ug/L			41	43	35	Standard
[> In-1	115		ug/L			8842	8388	3	KED
| Cd	111	53.409	ug/L	1.286	2	3	15204	0	KED
| Cd	114	53.226	ug/L	1.663	3	3	38412	1	KED
[> Tb	159		ug/L			167464	178280	0	Standard
| Pb	208	51.042	ug/L	0.222	0	168	4360458	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:39:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	43824	1	Standard
[>	Sc	45	ug/L			332530	333583	3	Standard
|	Cr	52	ug/L	0.015	167	13137	13372	1	Standard
|	Cr	53	ug/L	0.004	49	163	181	8	Standard
[>	Ge	72	ug/L			37776	38104	1	KED
|	Ni	60	ug/L	0.004	55	3	14	39	KED
|	Ni	62	ug/L	0.004	28	0	4	24	KED
|	Cu	63	ug/L	0.002	79	18	29	29	KED
|	Cu	65	ug/L	0.002	38	6	17	22	KED
|	Zn	66	ug/L	0.020	72	19	35	32	KED
|	Zn	67	ug/L	0.063	196	3	6	87	KED
|	As	75	ug/L	0.005	196	3	4	34	KED
	Kr	83	ug/L			41	38	46	Standard
[>	In-1	115	ug/L			8842	8742	2	KED
|	Cd	111	ug/L	0.002	190	3	3	17	KED
|	Cd	114	ug/L	0.003	316	3	3	71	KED
[>	Tb	159	ug/L			167464	166881	2	Standard
|	Pb	208	ug/L	0.000	19	168	325	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 21:43:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	62037	1	Standard
[> Sc	45		ug/L			332530	347080	2	Standard
| Cr	52	0.031	ug/L	0.005	16	13137	14448	1	Standard
| Cr	53	0.005	ug/L	0.010	215	163	181	12	Standard
[> Ge	72		ug/L			37776	38309	1	KED
| Ni	60	0.007	ug/L	0.004	59	3	13	41	KED
| Ni	62	0.013	ug/L	0.008	61	0	3	50	KED
| Cu	63	0.125	ug/L	0.012	9	18	551	10	KED
| Cu	65	0.115	ug/L	0.014	12	6	255	12	KED
| Zn	66	33.926	ug/L	0.792	2	19	19883	0	KED
| Zn	67	32.362	ug/L	1.440	4	3	3136	4	KED
| As	75	0.006	ug/L	0.004	59	3	5	19	KED
Kr	83		ug/L			41	43	11	Standard
[> In-1	115		ug/L			8842	8684	1	KED
| Cd	111	0.007	ug/L	0.002	28	3	5	10	KED
| Cd	114	0.002	ug/L	0.004	194	3	5	61	KED
[> Tb	159		ug/L			167464	175053	1	Standard
| Pb	208	0.018	ug/L	0.000	2	168	1720	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 21:48:04**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	55964	1	Standard
[>	Sc	45	ug/L			332530	348781	1	Standard
|	Cr	25.581	ug/L	0.308	1	13137	625219	0	Standard
|	Cr	26.533	ug/L	0.436	1	163	69689	0	Standard
[>	Ge	72	ug/L			37776	37596	1	KED
|	Ni	27.129	ug/L	0.800	2	3	41364	2	KED
|	Ni	27.295	ug/L	0.314	1	0	6637	0	KED
|	Cu	28.464	ug/L	0.375	1	18	118589	0	KED
|	Cu	27.649	ug/L	0.309	1	6	58563	0	KED
|	Zn	83.613	ug/L	1.820	2	19	48068	1	KED
|	Zn	79.563	ug/L	0.952	1	3	7561	0	KED
|	As	24.908	ug/L	0.390	1	3	7501	0	KED
|	Kr	83	ug/L			41	52	11	Standard
[>	In-1	115	ug/L			8842	8766	3	KED
|	Cd	25.724	ug/L	1.511	5	3	7649	3	KED
|	Cd	25.913	ug/L	1.096	4	3	19540	1	KED
[>	Tb	159	ug/L			167464	175745	2	Standard
|	Pb	27.587	ug/L	0.599	2	168	2322573	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 21:52:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	68316	0	Standard
[>	Sc	45	ug/L			332530	346906	0	Standard
|	Cr	52	ug/L	0.013	8	13137	17663	1	Standard
|	Cr	53	ug/L	0.011	6	163	600	5	Standard
[>	Ge	72	ug/L			37776	38158	1	KED
|	Ni	60	ug/L	0.002	8	3	36	7	KED
|	Ni	62	ug/L	0.019	61	0	8	58	KED
|	Cu	63	ug/L	0.006	9	18	292	10	KED
|	Cu	65	ug/L	0.012	16	6	165	14	KED
|	Zn	66	ug/L	0.018	2	19	486	2	KED
|	Zn	67	ug/L	0.024	3	3	67	1	KED
|	As	75	ug/L	0.001	70	3	4	11	KED
	Kr	83	ug/L			41	37	25	Standard
[>	In-1	115	ug/L			8842	8908	1	KED
|	Cd	111	ug/L	0.008	128	3	5	44	KED
|	Cd	114	ug/L	0.003	342	3	4	54	KED
[>	Tb	159	ug/L			167464	175571	0	Standard
|	Pb	208	ug/L	0.000	0	168	1534	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 21:56:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	70513	1	Standard
[>	Sc	45		ug/L			332530	340977	0	Standard
|	Cr	52	26.792	ug/L	0.741	2	13137	639498	2	Standard
|	Cr	53	27.440	ug/L	0.720	2	163	70453	1	Standard
[>	Ge	72		ug/L			37776	37350	0	KED
|	Ni	60	27.844	ug/L	0.715	2	3	42182	2	KED
|	Ni	62	27.618	ug/L	0.845	3	0	6672	2	KED
|	Cu	63	29.062	ug/L	0.250	0	18	120299	0	KED
|	Cu	65	28.942	ug/L	0.654	2	6	60904	2	KED
|	Zn	66	85.225	ug/L	0.981	1	19	48680	0	KED
|	Zn	67	81.664	ug/L	1.825	2	3	7710	2	KED
|	As	75	24.868	ug/L	0.445	1	3	7440	1	KED
	Kr	83		ug/L			41	46	13	Standard
[>	In-1	115		ug/L			8842	8589	0	KED
|	Cd	111	27.026	ug/L	0.307	1	3	7884	1	KED
|	Cd	114	27.268	ug/L	0.351	1	3	20164	0	KED
[>	Tb	159		ug/L			167464	174528	2	Standard
|	Pb	208	28.417	ug/L	0.753	2	168	2375611	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-SRL1**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:00:59**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	56294	2	Standard
[>	Sc	45		ug/L			332530	364897	2	Standard
|	Cr	52	0.034	ug/L	0.015	42	13137	15263	0	Standard
|	Cr	53	0.110	ug/L	0.011	10	163	479	5	Standard
[>	Ge	72		ug/L			37776	38320	0	KED
|	Ni	60	0.053	ug/L	0.010	18	3	86	17	KED
|	Ni	62	0.084	ug/L	0.004	4	0	21	5	KED
|	Cu	63	0.222	ug/L	0.008	3	18	960	3	KED
|	Cu	65	0.205	ug/L	0.030	14	6	449	14	KED
|	Zn	66	3.738	ug/L	0.074	1	19	2209	2	KED
|	Zn	67	3.704	ug/L	0.267	7	3	362	7	KED
|	As	75	0.048	ug/L	0.004	8	3	18	6	KED
	Kr	83		ug/L			41	52	4	Standard
[>	In-1	115		ug/L			8842	8883	2	KED
|	Cd	111	0.003	ug/L	0.003	109	3	4	24	KED
|	Cd	114	0.001	ug/L	0.003	188	3	4	43	KED
[>	Tb	159		ug/L			167464	176441	0	Standard
|	Pb	208	0.039	ug/L	0.001	3	168	3494	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0242-05RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:05:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	76912	1	Standard
[>	Sc	45		ug/L			332530	444365	1	Standard
|	Cr	52	0.100	ug/L	0.010	10	13137	20587	0	Standard
|	Cr	53	0.437	ug/L	0.013	2	163	1677	3	Standard
[>	Ge	72		ug/L			37776	36973	1	KED
|	Ni	60	0.239	ug/L	0.021	8	3	362	7	KED
|	Ni	62	0.228	ug/L	0.014	6	0	55	6	KED
|	Cu	63	1.050	ug/L	0.032	3	18	4317	2	KED
|	Cu	65	1.030	ug/L	0.044	4	6	2152	4	KED
|	Zn	66	17.774	ug/L	0.160	0	19	10065	1	KED
|	Zn	67	16.568	ug/L	0.542	3	3	1551	2	KED
|	As	75	0.226	ug/L	0.025	11	3	70	10	KED
	Kr	83		ug/L			41	36	32	Standard
[>	In-1	115		ug/L			8842	8602	0	KED
|	Cd	111	0.022	ug/L	0.012	55	3	9	36	KED
|	Cd	114	0.018	ug/L	0.009	51	3	16	41	KED
[>	Tb	159		ug/L			167464	174508	0	Standard
|	Pb	208	0.062	ug/L	0.002	3	168	5375	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-DUP1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:09:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	76857	1	Standard
[>	Sc	45		ug/L			332530	437824	3	Standard
|	Cr	52	0.059	ug/L	0.022	37	13137	19067	1	Standard
|	Cr	53	0.387	ug/L	0.008	2	163	1488	2	Standard
[>	Ge	72		ug/L			37776	37707	0	KED
|	Ni	60	0.227	ug/L	0.013	5	3	351	6	KED
|	Ni	62	0.203	ug/L	0.038	18	0	50	19	KED
|	Cu	63	0.998	ug/L	0.019	1	18	4186	1	KED
|	Cu	65	0.977	ug/L	0.025	2	6	2082	2	KED
|	Zn	66	16.419	ug/L	0.148	0	19	9484	1	KED
|	Zn	67	15.015	ug/L	0.185	1	3	1434	1	KED
|	As	75	0.223	ug/L	0.018	8	3	70	7	KED
	Kr	83		ug/L			41	32	11	Standard
[>	In-1	115		ug/L			8842	8683	4	KED
|	Cd	111	0.023	ug/L	0.017	71	3	10	44	KED
|	Cd	114	0.016	ug/L	0.005	28	3	15	19	KED
[>	Tb	159		ug/L			167464	174167	0	Standard
|	Pb	208	0.066	ug/L	0.001	0	168	5688	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-MS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:13:55**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	75146	1	Standard
[>	Sc	45		ug/L			332530	449351	2	Standard
|	Cr	52	19.623	ug/L	0.227	1	13137	621972	1	Standard
|	Cr	53	20.787	ug/L	0.318	1	163	70380	1	Standard
[>	Ge	72		ug/L			37776	36643	1	KED
|	Ni	60	27.907	ug/L	0.176	0	3	41481	1	KED
|	Ni	62	27.534	ug/L	0.652	2	0	6524	1	KED
|	Cu	63	29.770	ug/L	0.496	1	18	120886	0	KED
|	Cu	65	29.215	ug/L	0.054	0	6	60316	1	KED
|	Zn	66	102.880	ug/L	2.940	2	19	57638	2	KED
|	Zn	67	97.201	ug/L	3.698	3	3	9000	2	KED
|	As	75	26.102	ug/L	0.599	2	3	7661	1	KED
	Kr	83		ug/L			41	53	25	Standard
[>	In-1	115		ug/L			8842	8348	3	KED
|	Cd	111	27.232	ug/L	1.149	4	3	7713	0	KED
|	Cd	114	26.870	ug/L	1.264	4	3	19293	1	KED
[>	Tb	159		ug/L			167464	174115	1	Standard
|	Pb	208	27.929	ug/L	0.331	1	168	2330062	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-PS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:18:13**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	74500	2	Standard
[>	Sc	45		ug/L			332530	448428	2	Standard
|	Cr	52	18.411	ug/L	0.505	2	13137	583315	0	Standard
|	Cr	53	19.610	ug/L	0.368	1	163	66270	1	Standard
[>	Ge	72		ug/L			37776	36582	0	KED
|	Ni	60	26.321	ug/L	0.770	2	3	39050	2	KED
|	Ni	62	26.246	ug/L	0.679	2	0	6209	1	KED
|	Cu	63	28.038	ug/L	0.651	2	18	113662	1	KED
|	Cu	65	27.689	ug/L	0.520	1	6	57068	1	KED
|	Zn	66	97.332	ug/L	0.474	0	19	54451	1	KED
|	Zn	67	91.477	ug/L	0.614	0	3	8459	0	KED
|	As	75	24.170	ug/L	0.230	0	3	7083	1	KED
	Kr	83		ug/L			41	48	25	Standard
[>	In-1	115		ug/L			8842	8407	1	KED
|	Cd	111	25.243	ug/L	0.734	2	3	7204	0	KED
|	Cd	114	25.620	ug/L	0.330	1	3	18542	1	KED
[>	Tb	159		ug/L			167464	173813	0	Standard
|	Pb	208	26.463	ug/L	0.021	0	168	2204193	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL8

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 22:22:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	43198	1	Standard
[>	Sc	45	ug/L			332530	330611	1	Standard
|	Cr	52	0.084	0.003	3	13137	14960	1	Standard
|	Cr	53	0.018	0.007	39	163	206	8	Standard
[>	Ge	72	ug/L			37776	35888	2	KED
|	Ni	60	0.004	0.004	113	3	8	65	KED
|	Ni	62	0.017	0.005	28	0	4	24	KED
|	Cu	63	0.003	0.002	62	18	27	21	KED
|	Cu	65	0.005	0.002	49	6	16	29	KED
|	Zn	66	0.026	0.011	44	19	33	20	KED
|	Zn	67	0.002	0.054	3569	3	3	132	KED
|	As	75	-0.004	0.003	74	3	2	34	KED
	Kr	83	ug/L			41	43	15	Standard
[>	In-1	115	ug/L			8842	8399	0	KED
|	Cd	111	0.012	0.012	100	3	6	49	KED
|	Cd	114	0.013	0.003	26	3	12	17	KED
[>	Tb	159	ug/L			167464	167100	1	Standard
|	Pb	208	0.003	0.000	6	168	383	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 22:26:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	43520	1	Standard
[>	Sc	45		ug/L			332530	335932	2	Standard
|	Cr	52	48.728	ug/L	0.629	1	13137	1135038	1	Standard
|	Cr	53	50.393	ug/L	0.986	1	163	127316	1	Standard
[>	Ge	72		ug/L			37776	36161	1	KED
|	Ni	60	51.453	ug/L	0.476	0	3	75462	1	KED
|	Ni	62	52.383	ug/L	1.697	3	0	12247	1	KED
|	Cu	63	52.881	ug/L	0.742	1	18	211893	1	KED
|	Cu	65	51.554	ug/L	1.263	2	6	105019	2	KED
|	Zn	66	51.978	ug/L	0.717	1	19	28748	0	KED
|	Zn	67	52.618	ug/L	2.696	5	3	4808	3	KED
|	As	75	50.206	ug/L	1.150	2	3	14536	0	KED
	Kr	83		ug/L			41	57	27	Standard
[>	In-1	115		ug/L			8842	8530	2	KED
|	Cd	111	51.308	ug/L	1.633	3	3	14855	1	KED
|	Cd	114	50.964	ug/L	1.073	2	3	37415	0	KED
[>	Tb	159		ug/L			167464	172417	0	Standard
|	Pb	208	52.646	ug/L	0.174	0	168	4349601	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 22:33:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	42389	1	Standard
[>	Sc	45	ug/L			332530	334806	3	Standard
|	Cr	52	-0.003	0.020	624	13137	13145	0	Standard
|	Cr	53	0.005	0.003	61	163	178	6	Standard
[>	Ge	72	ug/L			37776	37571	1	KED
|	Ni	60	0.007	0.004	59	3	13	43	KED
|	Ni	62	0.010	0.005	43	0	3	34	KED
|	Cu	63	0.006	0.002	31	18	41	18	KED
|	Cu	65	0.006	0.003	58	6	19	36	KED
|	Zn	66	0.058	0.019	33	19	52	19	KED
|	Zn	67	0.041	0.054	132	3	7	66	KED
|	As	75	0.002	0.001	66	3	4	11	KED
	Kr	83	ug/L			41	43	14	Standard
[>	In-1	115	ug/L			8842	9047	1	KED
|	Cd	111	0.004	0.005	138	3	4	34	KED
|	Cd	114	-0.000	0.002	1193	3	3	52	KED
[>	Tb	159	ug/L			167464	169661	1	Standard
|	Pb	208	0.002	0.000	21	168	344	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:38:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	62547	1	Standard
[>	Sc	45		ug/L			332530	345150	2	Standard
|	Cr	52	0.028	ug/L	0.015	52	13137	14297	0	Standard
|	Cr	53	0.007	ug/L	0.007	98	163	187	7	Standard
[>	Ge	72		ug/L			37776	37095	0	KED
|	Ni	60	0.006	ug/L	0.003	43	3	12	31	KED
|	Ni	62	0.008	ug/L	0.009	114	0	2	86	KED
|	Cu	63	0.109	ug/L	0.004	3	18	464	3	KED
|	Cu	65	0.107	ug/L	0.015	14	6	231	14	KED
|	Zn	66	0.297	ug/L	0.047	15	19	187	13	KED
|	Zn	67	0.211	ug/L	0.030	14	3	23	12	KED
|	As	75	0.003	ug/L	0.006	196	3	4	37	KED
	Kr	83		ug/L			41	41	36	Standard
[>	In-1	115		ug/L			8842	8524	0	KED
|	Cd	111	0.005	ug/L	0.011	237	3	4	69	KED
|	Cd	114	0.002	ug/L	0.007	292	3	5	95	KED
[>	Tb	159		ug/L			167464	174714	0	Standard
|	Pb	208	0.034	ug/L	0.001	1	168	3057	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:42:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	56862	0	Standard
[>	Sc	45	ug/L			332530	340124	0	Standard
|	Cr	25.906	ug/L	0.166	0	13137	617323	0	Standard
|	Cr	26.617	ug/L	0.150	0	163	68182	0	Standard
[>	Ge	72	ug/L			37776	36992	2	KED
|	Ni	26.317	ug/L	0.848	3	3	39471	2	KED
|	Ni	26.449	ug/L	0.618	2	0	6326	1	KED
|	Cu	27.689	ug/L	0.479	1	18	113488	1	KED
|	Cu	27.446	ug/L	0.903	3	6	57177	2	KED
|	Zn	81.047	ug/L	2.298	2	19	45827	0	KED
|	Zn	76.525	ug/L	4.022	5	3	7149	2	KED
|	As	24.424	ug/L	0.752	3	3	7233	0	KED
	Kr	83	ug/L			41	50	10	Standard
[>	In-1	115	ug/L			8842	8795	2	KED
|	Cd	25.001	ug/L	0.805	3	3	7464	1	KED
|	Cd	25.248	ug/L	0.671	2	3	19110	0	KED
[>	Tb	159	ug/L			167464	173556	1	Standard
|	Pb	28.160	ug/L	0.718	2	168	2341304	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0233-07RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:46:51**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	74224	1	Standard
[>	Sc	45		ug/L			332530	399147	1	Standard
|	Cr	52	0.093	ug/L	0.012	13	13137	18319	1	Standard
|	Cr	53	0.364	ug/L	0.026	7	163	1287	6	Standard
[>	Ge	72		ug/L			37776	36948	1	KED
|	Ni	60	0.228	ug/L	0.012	5	3	345	6	KED
|	Ni	62	0.217	ug/L	0.059	27	0	52	28	KED
|	Cu	63	1.061	ug/L	0.005	0	18	4363	1	KED
|	Cu	65	1.099	ug/L	0.031	2	6	2293	1	KED
|	Zn	66	30.820	ug/L	0.640	2	19	17427	2	KED
|	Zn	67	28.194	ug/L	0.428	1	3	2635	1	KED
|	As	75	0.269	ug/L	0.030	11	3	83	9	KED
	Kr	83		ug/L			41	38	18	Standard
[>	In-1	115		ug/L			8842	8589	2	KED
|	Cd	111	0.015	ug/L	0.009	61	3	7	33	KED
|	Cd	114	0.014	ug/L	0.007	46	3	14	34	KED
[>	Tb	159		ug/L			167464	172580	0	Standard
|	Pb	208	0.164	ug/L	0.008	4	168	13754	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0234-07RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:51:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	76777	0	Standard
[> Sc	45		ug/L			332530	345129	2	Standard
| Cr	52	0.326	ug/L	0.023	7	13137	21331	0	Standard
| Cr	53	0.321	ug/L	0.013	4	163	1001	2	Standard
[> Ge	72		ug/L			37776	37771	0	KED
| Ni	60	0.357	ug/L	0.033	9	3	550	9	KED
| Ni	62	0.416	ug/L	0.050	12	0	102	11	KED
| Cu	63	2.900	ug/L	0.056	1	18	12154	1	KED
| Cu	65	2.763	ug/L	0.059	2	6	5886	2	KED
| Zn	66	40.410	ug/L	0.822	2	19	23353	1	KED
| Zn	67	37.762	ug/L	1.072	2	3	3608	3	KED
| As	75	0.132	ug/L	0.005	4	3	43	3	KED
| Kr	83		ug/L			41	40	12	Standard
[> In-1	115		ug/L			8842	8686	2	KED
| Cd	111	0.066	ug/L	0.004	6	3	22	7	KED
| Cd	114	0.062	ug/L	0.008	13	3	50	14	KED
[> Tb	159		ug/L			167464	173154	0	Standard
| Pb	208	0.203	ug/L	0.003	1	168	17028	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0241-02RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:55:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	74576	1	Standard
[>	Sc	45	ug/L			332530	443077	2	Standard
|	Cr	0.039	ug/L	0.009	23	13137	18677	1	Standard
|	Cr	53	ug/L	0.023	2	163	3929	4	Standard
[>	Ge	72	ug/L			37776	36516	1	KED
|	Ni	60	ug/L	0.009	5	3	251	5	KED
|	Ni	62	ug/L	0.012	6	0	43	6	KED
|	Cu	63	ug/L	0.035	5	18	2774	4	KED
|	Cu	65	ug/L	0.030	4	6	1396	3	KED
|	Zn	66	ug/L	0.076	1	19	3042	0	KED
|	Zn	67	ug/L	0.418	7	3	509	8	KED
|	As	75	ug/L	0.017	9	3	55	9	KED
	Kr	83	ug/L			41	43	30	Standard
[>	In-1	115	ug/L			8842	8398	0	KED
|	Cd	111	ug/L	0.010	42	3	10	28	KED
|	Cd	114	ug/L	0.006	17	3	29	15	KED
[>	Tb	159	ug/L			167464	172232	0	Standard
|	Pb	208	ug/L	0.002	3	168	4934	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0241-04RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:59:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	75881	0	Standard
[>	Sc	45	ug/L			332530	435318	0	Standard
|	Cr	0.044	ug/L	0.004	9	13137	18495	0	Standard
|	Cr	0.549	ug/L	0.027	4	163	2008	4	Standard
[>	Ge	72	ug/L			37776	35980	0	KED
|	Ni	0.261	ug/L	0.012	4	3	384	4	KED
|	Ni	0.300	ug/L	0.033	10	0	70	10	KED
|	Cu	0.431	ug/L	0.014	3	18	1737	3	KED
|	Cu	0.428	ug/L	0.017	3	6	873	4	KED
|	Zn	3.432	ug/L	0.061	1	19	1906	2	KED
|	Zn	3.158	ug/L	0.385	12	3	290	12	KED
|	As	0.239	ug/L	0.013	5	3	72	5	KED
	Kr	83	ug/L			41	41	27	Standard
[>	In-1	115	ug/L			8842	8470	1	KED
|	Cd	0.005	ug/L	0.003	67	3	4	20	KED
|	Cd	0.009	ug/L	0.008	86	3	10	56	KED
[>	Tb	159	ug/L			167464	170221	2	Standard
|	Pb	0.071	ug/L	0.004	6	168	5945	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0242-02RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:04:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	70929	2	Standard
[>	Sc	45	ug/L			332530	366663	3	Standard
|	Cr	0.141	ug/L	0.016	11	13137	18034	3	Standard
|	Cr	0.261	ug/L	0.017	6	163	898	2	Standard
[>	Ge	72	ug/L			37776	36506	0	KED
|	Ni	0.169	ug/L	0.018	10	3	253	11	KED
|	Ni	0.180	ug/L	0.075	41	0	43	41	KED
|	Cu	1.181	ug/L	0.045	3	18	4795	4	KED
|	Cu	1.190	ug/L	0.005	0	6	2454	0	KED
|	Zn	5.681	ug/L	0.043	0	19	3189	0	KED
|	Zn	5.523	ug/L	0.413	7	3	513	6	KED
|	As	0.155	ug/L	0.008	5	3	48	4	KED
	Kr	83	ug/L			41	33	27	Standard
[>	In-1	115	ug/L			8842	8459	2	KED
|	Cd	0.022	ug/L	0.014	63	3	9	43	KED
|	Cd	0.016	ug/L	0.006	38	3	15	27	KED
[>	Tb	159	ug/L			167464	167584	2	Standard
|	Pb	0.158	ug/L	0.004	2	168	12822	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0242-04RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:08:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	72229	0	Standard
[>	Sc	45		ug/L			332530	450211	1	Standard
|	Cr	52	-0.003	ug/L	0.008	263	13137	17686	0	Standard
|	Cr	53	0.381	ug/L	0.016	4	163	1508	5	Standard
[>	Ge	72		ug/L			37776	36744	1	KED
|	Ni	60	0.197	ug/L	0.028	14	3	296	13	KED
|	Ni	62	0.195	ug/L	0.022	11	0	46	10	KED
|	Cu	63	0.921	ug/L	0.020	2	18	3769	1	KED
|	Cu	65	0.905	ug/L	0.032	3	6	1880	2	KED
|	Zn	66	11.312	ug/L	0.078	0	19	6372	0	KED
|	Zn	67	10.795	ug/L	0.912	8	3	1005	8	KED
|	As	75	0.215	ug/L	0.017	7	3	66	8	KED
	Kr	83		ug/L			41	40	7	Standard
[>	In-1	115		ug/L			8842	8332	0	KED
|	Cd	111	0.014	ug/L	0.002	13	3	7	7	KED
|	Cd	114	0.010	ug/L	0.010	93	3	10	63	KED
[>	Tb	159		ug/L			167464	171471	0	Standard
|	Pb	208	0.051	ug/L	0.001	2	168	4341	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0306-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:12:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	62149	0	Standard
[>	Sc	45	ug/L			332530	399512	0	Standard
|	Cr	0.879	ug/L	0.013	1	13137	39849	0	Standard
|	Cr	53	ug/L	0.060	3	163	5110	3	Standard
[>	Ge	72	ug/L			37776	36585	0	KED
|	Ni	60	ug/L	0.023	4	3	800	3	KED
|	Ni	62	ug/L	0.071	12	0	133	12	KED
|	Cu	63	ug/L	0.117	1	18	25016	1	KED
|	Cu	65	ug/L	0.118	1	6	12561	1	KED
|	Zn	66	ug/L	0.201	3	19	3651	2	KED
|	Zn	67	ug/L	0.388	6	3	549	6	KED
|	As	75	ug/L	0.016	7	3	69	7	KED
|	Kr	83	ug/L			41	40	40	Standard
[>	In-1	115	ug/L			8842	8487	1	KED
|	Cd	111	ug/L	0.002	56	3	4	12	KED
|	Cd	114	ug/L	0.006	104	3	7	54	KED
[>	Tb	159	ug/L			167464	171494	1	Standard
|	Pb	208	ug/L	0.002	2	168	7332	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL9

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 23:17:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	42974	0	Standard
[> Sc	45		ug/L			332530	330444	2	Standard
| Cr	52	0.068	ug/L	0.016	23	13137	14596	0	Standard
| Cr	53	0.037	ug/L	0.003	9	163	254	4	Standard
[> Ge	72		ug/L			37776	36594	1	KED
| Ni	60	0.005	ug/L	0.003	68	3	10	44	KED
| Ni	62	0.005	ug/L	0.008	146	0	1	100	KED
| Cu	63	0.001	ug/L	0.001	131	18	22	24	KED
| Cu	65	0.004	ug/L	0.003	76	6	14	39	KED
| Zn	66	0.009	ug/L	0.006	61	19	24	12	KED
| Zn	67	0.015	ug/L	0.043	287	3	5	78	KED
| As	75	-0.002	ug/L	0.004	178	3	2	44	KED
| Kr	83		ug/L			41	39	15	Standard
[> In-1	115		ug/L			8842	8511	3	KED
| Cd	111	0.005	ug/L	0.006	127	3	4	40	KED
| Cd	114	-0.003	ug/L	0.001	42	3	1	90	KED
[> Tb	159		ug/L			167464	168885	1	Standard
| Pb	208	0.002	ug/L	0.001	23	168	344	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 23:21:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	42548	1	Standard
[> Sc	45		ug/L			332530	333394	2	Standard
| Cr	52	49.412	ug/L	0.917	1	13137	1141947	1	Standard
| Cr	53	50.587	ug/L	0.712	1	163	126853	1	Standard
[> Ge	72		ug/L			37776	37567	0	KED
| Ni	60	49.823	ug/L	0.826	1	3	75911	0	KED
| Ni	62	50.531	ug/L	0.964	1	0	12277	1	KED
| Cu	63	51.458	ug/L	1.137	2	18	214201	1	KED
| Cu	65	51.146	ug/L	1.094	2	6	108239	1	KED
| Zn	66	50.488	ug/L	1.536	3	19	29009	2	KED
| Zn	67	49.685	ug/L	1.143	2	3	4719	1	KED
| As	75	48.971	ug/L	0.794	1	3	14733	0	KED
Kr	83		ug/L			41	43	14	Standard
[> In-1	115		ug/L			8842	8531	1	KED
| Cd	111	51.024	ug/L	0.924	1	3	14778	0	KED
| Cd	114	50.921	ug/L	0.679	1	3	37395	0	KED
[> Tb	159		ug/L			167464	173325	0	Standard
| Pb	208	52.418	ug/L	0.476	0	168	4353637	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 23:28:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	42388	1	Standard
[> Sc	45		ug/L			332530	329230	2	Standard
| Cr	52	0.004	ug/L	0.006	174	13137	13086	2	Standard
| Cr	53	0.006	ug/L	0.003	52	163	176	5	Standard
[> Ge	72		ug/L			37776	38020	2	KED
| Ni	60	0.004	ug/L	0.002	60	3	10	39	KED
| Ni	62	0.003	ug/L	0.004	174	0	1	86	KED
| Cu	63	0.004	ug/L	0.001	29	18	37	15	KED
| Cu	65	0.004	ug/L	0.002	58	6	15	33	KED
| Zn	66	0.044	ug/L	0.003	6	19	45	2	KED
| Zn	67	0.020	ug/L	0.001	6	3	5	0	KED
| As	75	0.002	ug/L	0.007	353	3	4	50	KED
| Kr	83		ug/L			41	41	5	Standard
[> In-1	115		ug/L			8842	8830	2	KED
| Cd	111	0.003	ug/L	0.004	125	3	4	24	KED
| Cd	114	0.004	ug/L	0.007	191	3	6	85	KED
[> Tb	159		ug/L			167464	166899	0	Standard
| Pb	208	0.002	ug/L	0.000	13	168	336	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-09**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:32:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	66723	0	Standard
[>	Sc	45	ug/L			332530	436323	1	Standard
|	Cr	10.898	ug/L	0.175	1	13137	343071	1	Standard
|	Cr	11.531	ug/L	0.217	1	163	38005	0	Standard
[>	Ge	72	ug/L			37776	39265	0	KED
|	Ni	11.220	ug/L	0.408	3	3	17874	4	KED
|	Ni	11.389	ug/L	0.583	5	0	2892	4	KED
|	Cu	83.576	ug/L	1.813	2	18	363650	1	KED
|	Cu	82.672	ug/L	2.864	3	6	182875	3	KED
|	Zn	51.989	ug/L	1.551	2	19	31225	2	KED
|	Zn	50.028	ug/L	2.582	5	3	4967	5	KED
|	As	2.691	ug/L	0.095	3	3	849	4	KED
	Kr	83	ug/L			41	62	14	Standard
[>	In-1	115	ug/L			8842	8921	0	KED
|	Cd	0.048	ug/L	0.024	48	3	18	39	KED
|	Cd	0.047	ug/L	0.005	10	3	39	8	KED
[>	Tb	159	ug/L			167464	202039	1	Standard
|	Pb	21.218	ug/L	0.173	0	168	2054225	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-13**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:37:06**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	67326	1	Standard
[>	Sc	45	ug/L			332530	405383	0	Standard
|	Cr	52	5.534	0.041	0	13137	169760	1	Standard
|	Cr	53	5.823	0.096	1	163	17933	1	Standard
[>	Ge	72	ug/L			37776	38501	0	KED
|	Ni	60	5.198	0.138	2	3	8120	2	KED
|	Ni	62	5.389	0.284	5	0	1342	5	KED
|	Cu	63	7.733	0.211	2	18	33013	2	KED
|	Cu	65	7.764	0.132	1	6	16845	0	KED
|	Zn	66	16.565	0.256	1	19	9770	2	KED
|	Zn	67	16.270	0.176	1	3	1586	1	KED
|	As	75	2.005	0.035	1	3	621	2	KED
	Kr	83	ug/L			41	60	15	Standard
[>	In-1	115	ug/L			8842	9013	2	KED
|	Cd	111	0.029	0.012	41	3	12	27	KED
|	Cd	114	0.025	0.008	33	3	22	29	KED
[>	Tb	159	ug/L			167464	191409	1	Standard
|	Pb	208	1.651	0.012	0	168	151611	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-14**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:41:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	62010	0	Standard
[>	Sc	45		ug/L			332530	396910	2	Standard
|	Cr	52	5.907	ug/L	0.107	1	13137	176332	2	Standard
|	Cr	53	6.271	ug/L	0.177	2	163	18885	0	Standard
[>	Ge	72		ug/L			37776	38078	2	KED
|	Ni	60	6.273	ug/L	0.129	2	3	9688	0	KED
|	Ni	62	6.519	ug/L	0.094	1	0	1605	1	KED
|	Cu	63	8.704	ug/L	0.147	1	18	36737	0	KED
|	Cu	65	8.597	ug/L	0.126	1	6	18448	1	KED
|	Zn	66	21.517	ug/L	0.621	2	19	12540	1	KED
|	Zn	67	20.880	ug/L	1.103	5	3	2012	4	KED
|	As	75	2.029	ug/L	0.067	3	3	622	2	KED
	Kr	83		ug/L			41	55	1	Standard
[>	In-1	115		ug/L			8842	8871	1	KED
|	Cd	111	0.026	ug/L	0.000	1	3	11	0	KED
|	Cd	114	0.026	ug/L	0.008	31	3	23	25	KED
[>	Tb	159		ug/L			167464	195670	1	Standard
|	Pb	208	4.908	ug/L	0.084	1	168	460307	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-20**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:45:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	66438	0	Standard
[>	Sc	45		ug/L			332530	462113	1	Standard
|	Cr	52	20.411	ug/L	0.220	1	13137	664650	1	Standard
|	Cr	53	21.236	ug/L	0.219	1	163	73949	1	Standard
[>	Ge	72		ug/L			37776	38097	0	KED
|	Ni	60	31.446	ug/L	0.215	0	3	48594	0	KED
|	Ni	62	32.287	ug/L	0.803	2	0	7955	1	KED
|	Cu	63	88.628	ug/L	1.675	1	18	374155	1	KED
|	Cu	65	87.028	ug/L	0.493	0	6	186790	0	KED
|	Zn	66	154.491	ug/L	2.342	1	19	89996	1	KED
|	Zn	67	147.083	ug/L	1.849	1	3	14162	1	KED
|	As	75	33.201	ug/L	0.342	1	3	10131	0	KED
	Kr	83		ug/L			41	73	18	Standard
[>	In-1	115		ug/L			8842	9033	3	KED
|	Cd	111	0.156	ug/L	0.019	11	3	51	11	KED
|	Cd	114	0.165	ug/L	0.016	9	3	132	8	KED
[>	Tb	159		ug/L			167464	202074	1	Standard
|	Pb	208	260.681	ug/L	4.402	1	168	25237660	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:50:03**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	68568	0	Standard
[>	Sc	45		ug/L			332530	474461	3	Standard
|	Cr	52	17.106	ug/L	0.112	0	13137	574925	2	Standard
|	Cr	53	17.591	ug/L	0.457	2	163	62903	0	Standard
[>	Ge	72		ug/L			37776	38147	0	KED
|	Ni	60	21.266	ug/L	0.193	0	3	32905	0	KED
|	Ni	62	22.907	ug/L	0.399	1	0	5651	1	KED
|	Cu	63	283.918	ug/L	0.854	0	18	1200179	0	KED
|	Cu	65	280.972	ug/L	5.354	1	6	603841	1	KED
|	Zn	66	750.180	ug/L	6.407	0	19	437502	1	KED
|	Zn	67	699.606	ug/L	13.303	1	3	67440	2	KED
|	As	75	108.894	ug/L	0.491	0	3	33265	0	KED
	Kr	83		ug/L			41	81	21	Standard
[>	In-1	115		ug/L			8842	9882	2	KED
|	Cd	111	0.450	ug/L	0.020	4	3	154	6	KED
|	Cd	114	0.431	ug/L	0.009	2	3	370	4	KED
[>	Tb	159		ug/L			167464	201624	1	Standard
|	Pb	208	91.183	ug/L	0.525	0	168	8809198	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:54:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	68640	0	Standard
[>	Sc	45		ug/L			332530	441223	2	Standard
|	Cr	52	14.020	ug/L	0.106	0	13137	441331	1	Standard
|	Cr	53	14.729	ug/L	0.347	2	163	49025	1	Standard
[>	Ge	72		ug/L			37776	38819	0	KED
|	Ni	60	18.959	ug/L	0.127	0	3	29854	0	KED
|	Ni	62	19.834	ug/L	0.297	1	0	4979	0	KED
|	Cu	63	170.114	ug/L	2.552	1	18	731747	0	KED
|	Cu	65	167.923	ug/L	2.713	1	6	367221	0	KED
|	Zn	66	521.315	ug/L	7.460	1	19	309368	0	KED
|	Zn	67	479.525	ug/L	5.573	1	3	47039	1	KED
|	As	75	90.023	ug/L	0.504	0	3	27985	0	KED
	Kr	83		ug/L			41	69	19	Standard
[>	In-1	115		ug/L			8842	9782	0	KED
|	Cd	111	0.370	ug/L	0.040	10	3	126	10	KED
|	Cd	114	0.339	ug/L	0.021	6	3	289	6	KED
[>	Tb	159		ug/L			167464	192460	0	Standard
|	Pb	208	74.707	ug/L	0.688	0	168	6889594	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:58:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	64979	0	Standard
[>	Sc	45	ug/L			332530	443054	3	Standard
|	Cr	32.752	ug/L	0.884	2	13137	1011590	2	Standard
|	Cr	33.634	ug/L	0.732	2	163	112139	2	Standard
[>	Ge	72	ug/L			37776	38076	1	KED
|	Ni	44.611	ug/L	0.566	1	3	68892	0	KED
|	Ni	45.904	ug/L	0.710	1	0	11303	0	KED
|	Cu	226.950	ug/L	2.733	1	18	957497	0	KED
|	Cu	224.794	ug/L	3.385	1	6	482181	1	KED
|	Zn	727.010	ug/L	6.400	0	19	423174	0	KED
|	Zn	674.445	ug/L	9.860	1	3	64885	0	KED
|	As STL	118.812	ug/L	1.379	1	3	36224	0	KED
|	Kr	83	ug/L			41	88	18	Standard
[>	In-1	115	ug/L			8842	10027	2	KED
|	Cd	22.076	ug/L	0.252	1	3	7517	1	KED
|	Cd	22.305	ug/L	0.731	3	3	19247	1	KED
[>	Tb	159	ug/L			167464	202859	0	Standard
|	Pb	106.766	ug/L	1.718	1	168	10378358	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:03:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	63821	1	Standard
[>	Sc	45		ug/L			332530	482519	1	Standard
|	Cr	52	33.598	ug/L	0.237	0	13137	1130057	1	Standard
|	Cr	53	35.142	ug/L	0.527	1	163	127615	0	Standard
[>	Ge	72		ug/L			37776	38241	2	KED
|	Ni	60	45.464	ug/L	0.909	1	3	70499	0	KED
|	Ni	62	46.724	ug/L	1.626	3	0	11550	1	KED
|	Cu	63	272.207	ug/L	4.578	1	18	1153275	1	KED
|	Cu	65	270.487	ug/L	6.941	2	6	582520	0	KED
|	Zn	66	906.004	ug/L	32.281	3	19	529409	1	KED
|	Zn	67	853.472	ug/L	20.287	2	3	82443	0	KED
|	As	75	127.779	ug/L	3.747	2	3	39113	0	KED
	Kr	83		ug/L			41	79	9	Standard
[>	In-1	115		ug/L			8842	9965	1	KED
|	Cd	111	22.310	ug/L	0.461	2	3	7550	0	KED
|	Cd	114	22.403	ug/L	0.312	1	3	19220	0	KED
[>	Tb	159		ug/L			167464	204527	2	Standard
|	Pb	208	118.630	ug/L	2.493	2	168	11623211	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0125-PS1

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, May 10, 2023 00:07:19

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	69915	1	Standard
[>	Sc	45		ug/L			332530	466397	0	Standard
|	Cr	52	35.260	ug/L	0.668	1	13137	1145388	1	Standard
|	Cr	53	37.223	ug/L	0.861	2	163	130646	1	Standard
[>	Ge	72		ug/L			37776	37837	1	KED
|	Ni	60	47.571	ug/L	0.927	1	3	72998	0	KED
|	Ni	62	48.020	ug/L	1.262	2	0	11749	1	KED
|	Cu	63	307.495	ug/L	3.938	1	18	1289200	0	KED
|	Cu	65	307.168	ug/L	4.154	1	6	654744	1	KED
|	Zn	66	835.974	ug/L	8.518	1	19	483546	0	KED
|	Zn	67	772.877	ug/L	9.960	1	3	73894	1	KED
|	As	75	133.851	ug/L	1.174	0	3	40555	0	KED
	Kr	83		ug/L			41	90	25	Standard
[>	In-1	115		ug/L			8842	9966	3	KED
|	Cd	111	22.228	ug/L	1.367	6	3	7513	2	KED
|	Cd	114	22.249	ug/L	0.602	2	3	19082	2	KED
[>	Tb	159		ug/L			167464	199422	3	Standard
|	Pb	208	116.825	ug/L	3.030	2	168	11157835	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLA

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 00:11:39

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	44297	1	Standard
[>	Sc	45	ug/L			332530	334004	1	Standard
|	Cr	52	ug/L	0.004	84	13137	13312	1	Standard
|	Cr	53	ug/L	0.009	62	163	199	12	Standard
[>	Ge	72	ug/L			37776	38577	0	KED
|	Ni	60	ug/L	0.004	12	3	54	11	KED
|	Ni	62	ug/L	0.005	17	0	6	15	KED
|	Cu	63	ug/L	0.006	24	18	121	19	KED
|	Cu	65	ug/L	0.010	48	6	53	41	KED
|	Zn	66	ug/L	0.006	6	19	73	5	KED
|	Zn	67	ug/L	0.039	209	3	5	66	KED
|	As	75	ug/L	0.001	21	3	4	5	KED
	Kr	83	ug/L			41	45	32	Standard
[>	In-1	115	ug/L			8842	8526	2	KED
|	Cd	111	ug/L	0.004	93	3	2	49	KED
|	Cd	114	ug/L	0.007	262	3	5	91	KED
[>	Tb	159	ug/L			167464	166472	0	Standard
|	Pb	208	ug/L	0.023	120	168	1661	107	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 00:15:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	43932	1	Standard
[>	Sc	45		ug/L			332530	338852	2	Standard
|	Cr	52	48.884	ug/L	0.354	0	13137	1148454	2	Standard
|	Cr	53	50.640	ug/L	0.774	1	163	129058	2	Standard
[>	Ge	72		ug/L			37776	37996	0	KED
|	Ni	60	50.320	ug/L	0.691	1	3	77551	1	KED
|	Ni	62	51.453	ug/L	0.796	1	0	12644	1	KED
|	Cu	63	51.393	ug/L	1.258	2	18	216406	2	KED
|	Cu	65	50.813	ug/L	0.763	1	6	108779	1	KED
|	Zn	66	50.104	ug/L	1.662	3	19	29124	3	KED
|	Zn	67	50.777	ug/L	2.174	4	3	4878	4	KED
|	As	75	48.552	ug/L	0.783	1	3	14775	1	KED
	Kr	83		ug/L			41	53	17	Standard
[>	In-1	115		ug/L			8842	8658	0	KED
|	Cd	111	51.235	ug/L	0.583	1	3	15064	1	KED
|	Cd	114	51.309	ug/L	0.946	1	3	38248	1	KED
[>	Tb	159		ug/L			167464	175902	1	Standard
|	Pb	208	51.253	ug/L	0.598	1	168	4320031	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 00:23:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	43964	2	Standard
[>	Sc	45	ug/L			332530	334079	0	Standard
|	Cr	52	0.026	0.013	49	13137	13799	1	Standard
|	Cr	53	0.011	0.002	22	163	191	2	Standard
[>	Ge	72	ug/L			37776	39048	1	KED
|	Ni	60	0.032	0.005	16	3	54	16	KED
|	Ni	62	0.032	0.011	34	0	8	32	KED
|	Cu	63	0.008	0.001	13	18	55	10	KED
|	Cu	65	0.013	0.002	18	6	36	13	KED
|	Zn	66	0.047	0.010	21	19	48	12	KED
|	Zn	67	0.018	0.020	111	3	5	33	KED
|	As	75	0.006	0.006	109	3	5	34	KED
	Kr	83	ug/L			41	43	17	Standard
[>	In-1	115	ug/L			8842	9015	1	KED
|	Cd	111	0.011	0.008	67	3	6	31	KED
|	Cd	114	-0.001	0.004	368	3	3	99	KED
[>	Tb	159	ug/L			167464	166890	0	Standard
|	Pb	208	0.004	0.003	63	168	490	41	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-21**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:27:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	76459	0	Standard
[>	Sc	45		ug/L			332530	461439	0	Standard
|	Cr	52	12.189	ug/L	0.295	2	13137	403683	2	Standard
|	Cr	53	12.803	ug/L	0.219	1	163	44609	1	Standard
[>	Ge	72		ug/L			37776	37976	1	KED
|	Ni	60	16.382	ug/L	0.209	1	3	25233	0	KED
|	Ni	62	16.220	ug/L	0.083	0	0	3984	1	KED
|	Cu	63	36.293	ug/L	0.522	1	18	152726	0	KED
|	Cu	65	36.329	ug/L	0.560	1	6	77721	0	KED
|	Zn	66	45.816	ug/L	0.248	0	19	26617	0	KED
|	Zn	67	47.056	ug/L	0.705	1	3	4518	1	KED
|	As	75	4.690	ug/L	0.109	2	3	1429	1	KED
	Kr	83		ug/L			41	73	17	Standard
[>	In-1	115		ug/L			8842	8736	1	KED
|	Cd	111	0.189	ug/L	0.005	2	3	59	0	KED
|	Cd	114	0.181	ug/L	0.021	11	3	139	9	KED
[>	Tb	159		ug/L			167464	199366	0	Standard
|	Pb	208	41.556	ug/L	0.032	0	168	3970092	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-23**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:31:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	74830	0	Standard
[>	Sc	45		ug/L			332530	441642	1	Standard
|	Cr	52	36.623	ug/L	0.591	1	13137	1125730	0	Standard
|	Cr	53	38.064	ug/L	0.664	1	163	126487	0	Standard
[>	Ge	72		ug/L			37776	37988	1	KED
|	Ni	60	12.386	ug/L	0.114	0	3	19086	0	KED
|	Ni	62	12.278	ug/L	0.158	1	0	3017	2	KED
|	Cu	63	18.922	ug/L	0.137	0	18	79667	0	KED
|	Cu	65	18.771	ug/L	0.346	1	6	40175	1	KED
|	Zn	66	76.354	ug/L	1.903	2	19	44354	1	KED
|	Zn	67	70.776	ug/L	1.377	1	3	6798	3	KED
|	As	75	4.424	ug/L	0.039	0	3	1349	1	KED
	Kr	83		ug/L			41	60	15	Standard
[>	In-1	115		ug/L			8842	8705	0	KED
|	Cd	111	0.056	ug/L	0.012	21	3	20	17	KED
|	Cd	114	0.056	ug/L	0.016	29	3	45	26	KED
[>	Tb	159		ug/L			167464	202711	1	Standard
|	Pb	208	19.184	ug/L	0.279	1	168	1863408	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:36:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13			ug/L			43915	81204	1	Standard
[>	Sc	45			ug/L			332530	472048	1	Standard
|	Cr	52	12.545		ug/L	0.284	2	13137	424433	1	Standard
|	Cr	53	13.034		ug/L	0.074	0	163	46453	1	Standard
[>	Ge	72			ug/L			37776	36942	2	KED
|	Ni	60	18.823		ug/L	0.885	4	3	28185	2	KED
|	Ni	62	19.288		ug/L	0.654	3	0	4607	2	KED
|	Cu	63	24.315		ug/L	0.458	1	18	99529	1	KED
|	Cu	65	23.991		ug/L	0.649	2	6	49914	0	KED
|	Zn	66	53.439		ug/L	1.514	2	19	30186	1	KED
|	Zn	67	51.980		ug/L	2.300	4	3	4852	1	KED
|	As	75	5.112		ug/L	0.171	3	3	1514	0	KED
	Kr	83			ug/L			41	81	9	Standard
[>	In-1	115			ug/L			8842	8543	1	KED
|	Cd	111	0.058		ug/L	0.018	31	3	20	25	KED
|	Cd	114	0.050		ug/L	0.025	50	3	40	44	KED
[>	Tb	159			ug/L			167464	199198	1	Standard
|	Pb	208	17.282		ug/L	0.244	1	168	1649623	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:40:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	104122	1	Standard
[>	Sc	45		ug/L			332530	515038	2	Standard
|	Cr	52	42.055	ug/L	0.636	1	13137	1504361	1	Standard
|	Cr	53	43.668	ug/L	1.081	2	163	169139	0	Standard
[>	Ge	72		ug/L			37776	37168	0	KED
|	Ni	60	29.403	ug/L	0.197	0	3	44330	1	KED
|	Ni	62	29.969	ug/L	0.413	1	0	7204	1	KED
|	Cu	63	111.651	ug/L	0.972	0	18	459853	0	KED
|	Cu	65	110.342	ug/L	1.453	1	6	231057	1	KED
|	Zn	66	254.634	ug/L	4.479	1	19	144692	1	KED
|	Zn	67	247.089	ug/L	3.927	1	3	23208	1	KED
|	As	75	12.428	ug/L	0.299	2	3	3701	1	KED
	Kr	83		ug/L			41	103	14	Standard
[>	In-1	115		ug/L			8842	8430	0	KED
|	Cd	111	4.208	ug/L	0.169	4	3	1207	4	KED
|	Cd	114	4.054	ug/L	0.070	1	3	2945	1	KED
[>	Tb	159		ug/L			167464	200896	0	Standard
|	Pb	208	408.445	ug/L	5.918	1	168	39318569	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:44:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	80379	2	Standard
[>	Sc	45		ug/L			332530	492398	2	Standard
|	Cr	52	9.571	ug/L	0.119	1	13137	342383	1	Standard
|	Cr	53	10.237	ug/L	0.247	2	163	38095	0	Standard
[>	Ge	72		ug/L			37776	37178	0	KED
|	Ni	60	11.606	ug/L	0.109	0	3	17504	1	KED
|	Ni	62	11.670	ug/L	0.022	0	0	2806	0	KED
|	Cu	63	26.298	ug/L	0.073	0	18	108361	0	KED
|	Cu	65	26.251	ug/L	0.059	0	6	54988	0	KED
|	Zn	66	53.995	ug/L	0.132	0	19	30707	0	KED
|	Zn	67	52.139	ug/L	1.110	2	3	4901	2	KED
|	As	75	5.517	ug/L	0.126	2	3	1646	2	KED
	Kr	83		ug/L			41	83	25	Standard
[>	In-1	115		ug/L			8842	8301	0	KED
|	Cd	111	0.156	ug/L	0.022	13	3	47	13	KED
|	Cd	114	0.115	ug/L	0.022	19	3	85	18	KED
[>	Tb	159		ug/L			167464	199826	1	Standard
|	Pb	208	9.842	ug/L	0.134	1	168	942472	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:48:56**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	82668	1	Standard
[>	Sc	45		ug/L			332530	494273	1	Standard
|	Cr	52	9.506	ug/L	0.087	0	13137	341547	2	Standard
|	Cr	53	9.949	ug/L	0.082	0	163	37186	1	Standard
[>	Ge	72		ug/L			37776	36431	1	KED
|	Ni	60	11.662	ug/L	0.255	2	3	17233	1	KED
|	Ni	62	11.870	ug/L	0.391	3	0	2797	2	KED
|	Cu	63	26.350	ug/L	0.347	1	18	106385	1	KED
|	Cu	65	26.538	ug/L	0.453	1	6	54465	0	KED
|	Zn	66	53.674	ug/L	0.468	0	19	29910	0	KED
|	Zn	67	52.192	ug/L	2.084	3	3	4806	2	KED
|	As	75	5.362	ug/L	0.201	3	3	1567	2	KED
	Kr	83		ug/L			41	81	25	Standard
[>	In-1	115		ug/L			8842	8368	0	KED
|	Cd	111	0.161	ug/L	0.036	22	3	48	19	KED
|	Cd	114	0.156	ug/L	0.027	17	3	115	16	KED
[>	Tb	159		ug/L			167464	199076	0	Standard
|	Pb	208	9.259	ug/L	0.108	1	168	883390	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:53:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	71590	0	Standard
[>	Sc	45		ug/L			332530	503058	1	Standard
|	Cr	52	25.876	ug/L	0.129	0	13137	912014	2	Standard
|	Cr	53	26.979	ug/L	0.634	2	163	102192	1	Standard
[>	Ge	72		ug/L			37776	36318	1	KED
|	Ni	60	37.848	ug/L	0.892	2	3	55740	0	KED
|	Ni	62	38.324	ug/L	1.404	3	0	8998	1	KED
|	Cu	63	53.461	ug/L	0.892	1	18	215132	0	KED
|	Cu	65	53.011	ug/L	0.820	1	6	108451	0	KED
|	Zn	66	132.730	ug/L	2.404	1	19	73694	0	KED
|	Zn	67	126.505	ug/L	4.423	3	3	11609	2	KED
|	As	75	29.176	ug/L	0.295	1	3	8487	0	KED
	Kr	83		ug/L			41	84	10	Standard
[>	In-1	115		ug/L			8842	8355	3	KED
|	Cd	111	25.260	ug/L	1.145	4	3	7160	0	KED
|	Cd	114	25.612	ug/L	1.387	5	3	18402	2	KED
[>	Tb	159		ug/L			167464	196213	0	Standard
|	Pb	208	32.065	ug/L	0.358	1	168	3014752	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:57:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	68041	1	Standard
[>	Sc	45		ug/L			332530	482139	3	Standard
|	Cr	52	26.101	ug/L	0.795	3	13137	880882	0	Standard
|	Cr	53	27.226	ug/L	0.886	3	163	98786	1	Standard
[>	Ge	72		ug/L			37776	36287	1	KED
|	Ni	60	36.992	ug/L	0.610	1	3	54440	1	KED
|	Ni	62	37.272	ug/L	0.787	2	0	8748	2	KED
|	Cu	63	51.809	ug/L	0.821	1	18	208314	0	KED
|	Cu	65	51.139	ug/L	0.883	1	6	104533	0	KED
|	Zn	66	131.098	ug/L	2.376	1	19	72730	0	KED
|	Zn	67	126.543	ug/L	2.352	1	3	11604	0	KED
|	As	75	28.833	ug/L	0.529	1	3	8379	0	KED
	Kr	83		ug/L			41	90	18	Standard
[>	In-1	115		ug/L			8842	8417	1	KED
|	Cd	111	24.845	ug/L	0.751	3	3	7100	1	KED
|	Cd	114	24.876	ug/L	0.405	1	3	18025	1	KED
[>	Tb	159		ug/L			167464	196091	0	Standard
|	Pb	208	31.674	ug/L	0.256	0	168	2976369	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0687-PS1

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:01:53

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	79982	0	Standard
[>	Sc	45		ug/L			332530	491748	1	Standard
|	Cr	52	26.095	ug/L	0.043	0	13137	898859	1	Standard
|	Cr	53	27.271	ug/L	0.408	1	163	100981	0	Standard
[>	Ge	72		ug/L			37776	36127	0	KED
|	Ni	60	37.312	ug/L	0.492	1	3	54672	0	KED
|	Ni	62	38.098	ug/L	1.551	4	0	8900	3	KED
|	Cu	63	53.233	ug/L	0.315	0	18	213124	0	KED
|	Cu	65	52.745	ug/L	1.040	1	6	107347	1	KED
|	Zn	66	133.882	ug/L	2.016	1	19	73958	1	KED
|	Zn	67	128.460	ug/L	2.300	1	3	11729	1	KED
|	As	75	29.795	ug/L	0.468	1	3	8622	1	KED
	Kr	83		ug/L			41	88	20	Standard
[>	In-1	115		ug/L			8842	8361	0	KED
|	Cd	111	24.504	ug/L	0.453	1	3	6957	1	KED
|	Cd	114	25.134	ug/L	0.476	1	3	18091	1	KED
[>	Tb	159		ug/L			167464	198248	0	Standard
|	Pb	208	32.328	ug/L	0.284	0	168	3071107	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLB

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:06:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	43677	2	Standard
[> Sc	45		ug/L			332530	326255	1	Standard
| Cr	52	-0.008	ug/L	0.011	131	13137	12707	1	Standard
| Cr	53	-0.000	ug/L	0.006	1816	163	159	10	Standard
[> Ge	72		ug/L			37776	36578	0	KED
| Ni	60	0.022	ug/L	0.006	28	3	35	24	KED
| Ni	62	0.019	ug/L	0.012	65	0	5	57	KED
| Cu	63	0.007	ug/L	0.002	27	18	47	17	KED
| Cu	65	0.007	ug/L	0.002	28	6	20	19	KED
| Zn	66	0.017	ug/L	0.011	67	19	28	23	KED
| Zn	67	0.008	ug/L	0.023	292	3	4	49	KED
| As	75	0.006	ug/L	0.004	57	3	5	20	KED
| Kr	83		ug/L			41	45	12	Standard
[> In-1	115		ug/L			8842	8279	3	KED
| Cd	111	0.002	ug/L	0.004	190	3	3	25	KED
| Cd	114	-0.001	ug/L	0.003	429	3	3	68	KED
[> Tb	159		ug/L			167464	169477	0	Standard
| Pb	208	0.004	ug/L	0.000	6	168	502	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:10:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	44281	0	Standard
[>	Sc	45		ug/L			332530	327572	1	Standard
|	Cr	52	49.143	ug/L	0.606	1	13137	1116097	1	Standard
|	Cr	53	51.123	ug/L	0.652	1	163	125962	1	Standard
[>	Ge	72		ug/L			37776	36951	1	KED
|	Ni	60	50.058	ug/L	0.801	1	3	75018	0	KED
|	Ni	62	51.286	ug/L	1.408	2	0	12254	1	KED
|	Cu	63	52.089	ug/L	0.729	1	18	213286	0	KED
|	Cu	65	50.905	ug/L	0.828	1	6	105966	0	KED
|	Zn	66	51.112	ug/L	0.820	1	19	28888	0	KED
|	Zn	67	50.082	ug/L	1.029	2	3	4679	1	KED
|	As	75	49.036	ug/L	0.301	0	3	14511	0	KED
	Kr	83		ug/L			41	42	26	Standard
[>	In-1	115		ug/L			8842	8166	2	KED
|	Cd	111	52.272	ug/L	2.000	3	3	14484	1	KED
|	Cd	114	52.871	ug/L	1.570	2	3	37150	1	KED
[>	Tb	159		ug/L			167464	170308	1	Standard
|	Pb	208	52.307	ug/L	0.701	1	168	4268418	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:17:36

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	43109	0	Standard
[>	Sc	45		ug/L			332530	325612	2	Standard
|	Cr	52	0.072	ug/L	0.081	113	13137	14450	11	Standard
|	Cr	53	0.043	ug/L	0.073	167	163	263	65	Standard
[>	Ge	72		ug/L			37776	37436	0	KED
|	Ni	60	0.022	ug/L	0.001	4	3	36	2	KED
|	Ni	62	0.034	ug/L	0.012	35	0	8	32	KED
|	Cu	63	0.002	ug/L	0.001	62	18	26	18	KED
|	Cu	65	0.007	ug/L	0.003	40	6	21	28	KED
|	Zn	66	0.055	ug/L	0.008	14	19	50	9	KED
|	Zn	67	0.061	ug/L	0.061	100	3	9	60	KED
|	As	75	0.002	ug/L	0.002	137	3	4	17	KED
	Kr	83		ug/L			41	46	36	Standard
[>	In-1	115		ug/L			8842	8597	1	KED
|	Cd	111	0.004	ug/L	0.002	57	3	4	12	KED
|	Cd	114	0.001	ug/L	0.004	434	3	4	65	KED
[>	Tb	159		ug/L			167464	166649	0	Standard
|	Pb	208	0.071	ug/L	0.117	165	168	5784	160	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-07**

Sample Dil Factor: **20**

DEL

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:21:56**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	70476	0	Standard
[>	Sc	45		ug/L			332530	454088	3	Standard
|	Cr	52	9.274	ug/L	0.428	4	13137	306227	1	Standard
|	Cr	53	9.649	ug/L	0.149	1	163	33129	2	Standard
[>	Ge	72		ug/L			37776	36804	1	KED
|	Ni	60	22.087	ug/L	0.339	1	3	32971	1	KED
|	Ni	62	22.142	ug/L	0.760	3	0	5269	2	KED
|	Cu	63	19.212	ug/L	0.292	1	18	78360	0	KED
|	Cu	65	19.361	ug/L	0.221	1	6	40153	2	KED
|	Zn	66	37.347	ug/L	0.956	2	19	21027	1	KED
|	Zn	67	37.471	ug/L	1.236	3	3	3487	2	KED
|	As	75	8.119	ug/L	0.110	1	3	2396	1	KED
	Kr	83		ug/L			41	63	4	Standard
[>	In-1	115		ug/L			8842	8379	0	KED
|	Cd	111	0.037	ug/L	0.005	13	3	13	10	KED
|	Cd	114	0.036	ug/L	0.007	18	3	29	16	KED
[>	Tb	159		ug/L			167464	196394	1	Standard
|	Pb	208	2.250	ug/L	0.026	1	168	211933	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-09**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:26:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	72031	1	Standard
[>	Sc	45		ug/L			332530	442093	2	Standard
|	Cr	52	71.717	ug/L	0.932	1	13137	2189974	1	Standard
|	Cr	53	71.999	ug/L	1.413	1	163	239287	0	Standard
[>	Ge	72		ug/L			37776	36891	1	KED
|	Ni	60	97.415	ug/L	0.453	0	3	145757	1	KED
|	Ni	62	97.295	ug/L	2.058	2	0	23211	1	KED
|	Cu	63	88.365	ug/L	1.177	1	18	361204	0	KED
|	Cu	65	86.840	ug/L	0.681	0	6	180475	0	KED
|	Zn	66	74.426	ug/L	0.937	1	19	41987	0	KED
|	Zn	67	70.743	ug/L	2.634	3	3	6595	2	KED
|	As	75	6.223	ug/L	0.215	3	3	1841	2	KED
	Kr	83		ug/L			41	67	18	Standard
[>	In-1	115		ug/L			8842	8311	1	KED
|	Cd	111	0.162	ug/L	0.034	20	3	48	18	KED
|	Cd	114	0.159	ug/L	0.028	17	3	117	15	KED
[>	Tb	159		ug/L			167464	187180	0	Standard
|	Pb	208	62.709	ug/L	0.140	0	168	5624709	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-10**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:30:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	77713	0	Standard
[>	Sc	45		ug/L			332530	463736	2	Standard
|	Cr	52	18.360	ug/L	0.384	2	13137	601715	1	Standard
|	Cr	53	18.974	ug/L	0.106	0	163	66328	1	Standard
[>	Ge	72		ug/L			37776	36456	0	KED
|	Ni	60	36.857	ug/L	0.266	0	3	54500	0	KED
|	Ni	62	38.090	ug/L	0.927	2	0	8981	2	KED
|	Cu	63	45.515	ug/L	0.433	0	18	183884	0	KED
|	Cu	65	44.346	ug/L	0.798	1	6	91082	1	KED
|	Zn	66	212.240	ug/L	1.662	0	19	118305	1	KED
|	Zn	67	201.442	ug/L	2.984	1	3	18559	1	KED
|	As	75	4.068	ug/L	0.084	2	3	1191	2	KED
	Kr	83		ug/L			41	99	5	Standard
[>	In-1	115		ug/L			8842	8237	0	KED
|	Cd	111	0.439	ug/L	0.063	14	3	126	13	KED
|	Cd	114	0.369	ug/L	0.075	20	3	264	19	KED
[>	Tb	159		ug/L			167464	194681	0	Standard
|	Pb	208	83.272	ug/L	1.545	1	168	7767545	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-13**

Sample Dil Factor: **20**

Comments:

DEL

Sample Date/Time: **Wednesday, May 10, 2023 01:34:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	61975	2	Standard
[> Sc	45		ug/L			332530	412337	2	Standard
| Cr	52	10.299	ug/L	0.174	1	13137	307251	1	Standard
| Cr	53	10.905	ug/L	0.163	1	163	33978	1	Standard
[> Ge	72		ug/L			37776	36196	0	KED
| Ni	60	12.289	ug/L	0.209	1	3	18043	1	KED
| Ni	62	12.165	ug/L	0.203	1	0	2848	2	KED
| Cu	63	34.043	ug/L	0.303	0	18	136557	0	KED
| Cu	65	33.882	ug/L	0.449	1	6	69094	0	KED
| Zn	66	71.033	ug/L	0.609	0	19	39323	1	KED
| Zn	67	68.352	ug/L	1.054	1	3	6254	0	KED
| As	75	4.810	ug/L	0.056	1	3	1397	1	KED
| Kr	83		ug/L			41	69	32	Standard
[> In-1	115		ug/L			8842	8353	2	KED
| Cd	111	0.114	ug/L	0.028	24	3	35	20	KED
| Cd	114	0.130	ug/L	0.026	20	3	97	18	KED
[> Tb	159		ug/L			167464	189703	2	Standard
| Pb	208	32.329	ug/L	0.882	2	168	2937649	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0348-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:39:06**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	61599	1	Standard
[>	Sc	45	ug/L			332530	286969	2	Standard
|	Cr	0.441	ug/L	0.019	4	13137	20001	3	Standard
|	Cr	1.624	ug/L	0.010	0	163	3641	3	Standard
[>	Ge	72	ug/L			37776	28084	0	KED
|	Ni	1.437	ug/L	0.031	2	3	1640	2	KED
|	Ni	1.427	ug/L	0.124	8	0	259	8	KED
|	Cu	1.953	ug/L	0.018	0	18	6090	1	KED
|	Cu	1.982	ug/L	0.015	0	6	3141	0	KED
|	Zn	17.083	ug/L	0.234	1	19	7349	1	KED
|	Zn	16.172	ug/L	0.402	2	3	1150	3	KED
|	As	1.246	ug/L	0.040	3	3	283	3	KED
	Kr	83	ug/L			41	55	5	Standard
[>	In-1	115	ug/L			8842	6511	3	KED
|	Cd	111	ug/L	0.011	53	3	6	31	KED
|	Cd	114	ug/L	0.004	42	3	7	26	KED
[>	Tb	159	ug/L			167464	148231	2	Standard
|	Pb	208	ug/L	0.003	2	168	8997	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLC

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:43:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	39153	1	Standard
[>	Sc	45	ug/L			332530	310974	3	Standard
|	Cr	52	ug/L	0.020	42	13137	13306	0	Standard
|	Cr	53	ug/L	0.006	25	163	206	3	Standard
[>	Ge	72	ug/L			37776	32860	0	KED
|	Ni	60	ug/L	0.008	43	3	26	37	KED
|	Ni	62	ug/L	0.009	36	0	5	33	KED
|	Cu	63	ug/L	0.003	20	18	66	15	KED
|	Cu	65	ug/L	0.001	8	6	34	6	KED
|	Zn	66	ug/L	0.025	162	19	24	50	KED
|	Zn	67	ug/L	0.022	77	3	5	33	KED
|	As	75	ug/L	0.003	63	3	2	35	KED
	Kr	83	ug/L			41	39	22	Standard
[>	In-1	115	ug/L			8842	7552	1	KED
|	Cd	111	ug/L	0.004	857	3	2	33	KED
|	Cd	114	ug/L	0.005	387	3	2	122	KED
[>	Tb	159	ug/L			167464	163041	1	Standard
|	Pb	208	ug/L	0.001	31	168	389	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0376-01**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:48:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	54293	2	Standard
[> Sc	45		ug/L			332530	314660	0	Standard
| Cr	52	18.960	ug/L	0.231	1	13137	421315	1	Standard
| Cr	53	19.668	ug/L	0.106	0	163	46650	0	Standard
[> Ge	72		ug/L			37776	34247	1	KED
| Ni	60	0.246	ug/L	0.027	10	3	344	11	KED
| Ni	62	0.304	ug/L	0.071	23	0	67	22	KED
| Cu	63	0.337	ug/L	0.010	3	18	1295	2	KED
| Cu	65	0.338	ug/L	0.027	8	6	657	6	KED
| Zn	66	15.872	ug/L	0.273	1	19	8326	0	KED
| Zn	67	14.432	ug/L	0.867	6	3	1252	7	KED
| As	75	0.037	ug/L	0.005	13	3	13	11	KED
| Kr	83		ug/L			41	38	35	Standard
[> In-1	115		ug/L			8842	7536	0	KED
| Cd	111	0.138	ug/L	0.034	24	3	38	22	KED
| Cd	114	0.133	ug/L	0.007	5	3	89	5	KED
[> Tb	159		ug/L			167464	161968	1	Standard
| Pb	208	0.029	ug/L	0.001	3	168	2419	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0424-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:52:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	52553	2	Standard
[>	Sc	45	ug/L			332530	344015	2	Standard
|	Cr	0.601	ug/L	0.021	3	13137	27749	1	Standard
|	Cr	0.738	ug/L	0.008	1	163	2076	3	Standard
[>	Ge	72	ug/L			37776	33048	1	KED
|	Ni	0.694	ug/L	0.028	4	3	933	2	KED
|	Ni	0.734	ug/L	0.055	7	0	157	6	KED
|	Cu	2.449	ug/L	0.069	2	18	8982	1	KED
|	Cu	2.435	ug/L	0.057	2	6	4539	0	KED
|	Zn	96.648	ug/L	0.645	0	19	48842	1	KED
|	Zn	67	ug/L	1.689	1	3	7497	2	KED
|	As	0.583	ug/L	0.052	8	3	157	7	KED
	Kr	83	ug/L			41	44	8	Standard
[>	In-1	115	ug/L			8842	7616	0	KED
|	Cd	0.101	ug/L	0.009	9	3	29	8	KED
|	Cd	0.098	ug/L	0.028	28	3	67	26	KED
[>	Tb	159	ug/L			167464	163481	0	Standard
|	Pb	0.576	ug/L	0.008	1	168	45305	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0374-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:57:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	61358	1	Standard
[>	Sc	45	ug/L			332530	298471	1	Standard
|	Cr	52	1.328	0.021	1	13137	38953	2	Standard
|	Cr	53	2.563	0.053	2	163	5892	2	Standard
[>	Ge	72	ug/L			37776	27150	0	KED
|	Ni	60	1.039	0.074	7	3	1146	7	KED
|	Ni	62	1.053	0.117	11	0	185	10	KED
|	Cu	63	1.883	0.021	1	18	5678	0	KED
|	Cu	65	1.814	0.030	1	6	2779	0	KED
|	Zn	66	1.534	0.015	0	19	650	1	KED
|	Zn	67	2.394	0.039	1	3	166	0	KED
|	As	75	0.708	0.026	3	3	156	4	KED
	Kr	83	ug/L			41	41	34	Standard
[>	In-1	115	ug/L			8842	6456	0	KED
|	Cd	111	0.016	0.005	32	3	6	18	KED
|	Cd	114	0.015	0.021	144	3	10	107	KED
[>	Tb	159	ug/L			167464	147508	0	Standard
|	Pb	208	0.111	0.002	1	168	8025	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLD

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:01:19

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	38378	2	Standard
[> Sc	45		ug/L			332530	289398	3	Standard
| Cr	52	0.106	ug/L	0.021	19	13137	13531	0	Standard
| Cr	53	0.045	ug/L	0.009	19	163	240	10	Standard
[> Ge	72		ug/L			37776	31531	0	KED
| Ni	60	0.007	ug/L	0.002	31	3	12	22	KED
| Ni	62	0.016	ug/L	0.009	58	0	3	50	KED
| Cu	63	0.003	ug/L	0.002	70	18	25	28	KED
| Cu	65	0.004	ug/L	0.004	102	6	13	57	KED
| Zn	66	0.007	ug/L	0.006	94	19	19	14	KED
| Zn	67	0.024	ug/L	0.028	115	3	5	43	KED
| As	75	-0.004	ug/L	0.003	75	3	2	35	KED
Kr	83		ug/L			41	43	4	Standard
[> In-1	115		ug/L			8842	6362	13	KED
| Cd	111	-0.005	ug/L	0.004	68	3	1	43	KED
| Cd	114	0.001	ug/L	0.006	471	3	3	102	KED
[> Tb	159		ug/L			167464	151430	1	Standard
| Pb	208	0.003	ug/L	0.000	7	168	375	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:05:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	38042	0	Standard
[> Sc	45		ug/L			332530	295762	1	Standard
| Cr	52	48.297	ug/L	0.492	1	13137	990587	1	Standard
| Cr	53	49.856	ug/L	0.557	1	163	110910	0	Standard
[> Ge	72		ug/L			37776	30706	0	KED
| Ni	60	52.052	ug/L	0.958	1	3	64831	2	KED
| Ni	62	52.337	ug/L	0.771	1	0	10394	1	KED
| Cu	63	53.747	ug/L	0.463	0	18	182888	0	KED
| Cu	65	53.307	ug/L	0.946	1	6	92214	1	KED
| Zn	66	52.519	ug/L	0.263	0	19	24668	0	KED
| Zn	67	52.163	ug/L	1.222	2	3	4050	3	KED
| As	75	49.513	ug/L	0.209	0	3	12176	0	KED
Kr	83		ug/L			41	48	23	Standard
[> In-1	115		ug/L			8842	6949	0	KED
| Cd	111	53.499	ug/L	0.617	1	3	12624	1	KED
| Cd	114	53.285	ug/L	0.173	0	3	31879	0	KED
[> Tb	159		ug/L			167464	157054	0	Standard
| Pb	208	56.321	ug/L	0.244	0	168	4238669	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:12:42

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	38212	1	Standard
[> Sc	45		ug/L			332530	292625	2	Standard
| Cr	52	-0.027	ug/L	0.006	23	13137	11014	1	Standard
| Cr	53	-0.002	ug/L	0.004	176	163	138	5	Standard
[> Ge	72		ug/L			37776	31710	0	KED
| Ni	60	0.014	ug/L	0.003	21	3	20	18	KED
| Ni	62	0.010	ug/L	0.021	219	0	2	173	KED
| Cu	63	0.005	ug/L	0.004	80	18	33	43	KED
| Cu	65	0.009	ug/L	0.005	54	6	21	39	KED
| Zn	66	0.038	ug/L	0.029	76	19	34	40	KED
| Zn	67	0.055	ug/L	0.063	113	3	7	66	KED
| As	75	0.004	ug/L	0.005	111	3	4	29	KED
Kr	83		ug/L			41	36	2	Standard
[> In-1	115		ug/L			8842	7448	0	KED
| Cd	111	0.005	ug/L	0.002	49	3	4	13	KED
| Cd	114	0.001	ug/L	0.005	704	3	3	94	KED
[> Tb	159		ug/L			167464	154637	1	Standard
| Pb	208	0.006	ug/L	0.005	91	168	587	66	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0513-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:17:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	76459	2	Standard
[> Sc	45		ug/L			332530	347951	1	Standard
| Cr	52	0.493	ug/L	0.017	3	13137	25506	1	Standard
| Cr	53	0.822	ug/L	0.022	2	163	2319	1	Standard
[> Ge	72		ug/L			37776	31974	0	KED
| Ni	60	1.158	ug/L	0.038	3	3	1504	2	KED
| Ni	62	1.220	ug/L	0.067	5	0	252	4	KED
| Cu	63	10.068	ug/L	0.063	0	18	35687	1	KED
| Cu	65	10.009	ug/L	0.326	3	6	18033	2	KED
| Zn	66	37.583	ug/L	0.607	1	19	18387	1	KED
| Zn	67	34.815	ug/L	0.410	1	3	2816	1	KED
| As	75	0.241	ug/L	0.029	11	3	64	10	KED
| Kr	83		ug/L			41	45	12	Standard
[> In-1	115		ug/L			8842	7250	1	KED
| Cd	111	0.044	ug/L	0.013	30	3	13	24	KED
| Cd	114	-0.002	ug/L	0.043	1995	3	1	1511	KED
[> Tb	159		ug/L			167464	159305	0	Standard
| Pb	208	0.255	ug/L	0.004	1	168	19634	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0452-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:21:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	265955	1	Standard
[> Sc	45		ug/L			332530	286954	2	Standard
| Cr	52	2.337	ug/L	0.054	2	13137	57271	1	Standard
| Cr	53	2.168	ug/L	0.013	0	163	4814	3	Standard
[> Ge	72		ug/L			37776	27762	1	KED
| Ni	60	4.031	ug/L	0.085	2	3	4540	0	KED
| Ni	62	4.109	ug/L	0.167	4	0	738	5	KED
| Cu	63	0.480	ug/L	0.019	3	18	1490	5	KED
| Cu	65	0.462	ug/L	0.024	5	6	727	6	KED
| Zn	66	3.074	ug/L	0.105	3	19	1318	1	KED
| Zn	67	3.103	ug/L	0.461	14	3	220	14	KED
| As	75	0.162	ug/L	0.004	2	3	38	3	KED
Kr	83		ug/L			41	52	31	Standard
[> In-1	115		ug/L			8842	6337	1	KED
| Cd	111	0.027	ug/L	0.007	26	3	8	17	KED
| Cd	114	0.019	ug/L	0.009	49	3	12	40	KED
[> Tb	159		ug/L			167464	146445	0	Standard
| Pb	208	0.048	ug/L	0.000	0	168	3531	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0462-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:25:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	57550	0	Standard
[>	Sc	45	ug/L			332530	362170	3	Standard
|	Cr	0.024	ug/L	0.004	14	13137	14910	2	Standard
|	Cr	0.805	ug/L	0.026	3	163	2367	1	Standard
[>	Ge	72	ug/L			37776	30582	0	KED
|	Ni	1.767	ug/L	0.052	2	3	2194	2	KED
|	Ni	1.654	ug/L	0.208	12	0	327	12	KED
|	Cu	0.327	ug/L	0.003	1	18	1123	0	KED
|	Cu	0.340	ug/L	0.017	4	6	591	4	KED
|	Zn	1.162	ug/L	0.024	2	19	559	1	KED
|	Zn	1.521	ug/L	0.207	13	3	120	13	KED
|	As	0.307	ug/L	0.014	4	3	78	4	KED
	Kr	83	ug/L			41	46	46	Standard
[>	In-1	115	ug/L			8842	6969	1	KED
|	Cd	111	ug/L	0.011	51	3	7	33	KED
|	Cd	114	ug/L	0.007	57	3	9	39	KED
[>	Tb	159	ug/L			167464	154961	1	Standard
|	Pb	208	ug/L	0.001	3	168	2438	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0480-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:31:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	293918	1	Standard
[>	Sc	45	ug/L			332530	245721	3	Standard
|	Cr	52	ug/L	0.337	2	13137	292820	1	Standard
|	Cr	53	ug/L	0.117	0	163	31500	2	Standard
[>	Ge	72	ug/L			37776	21688	0	KED
|	Ni	60	ug/L	0.112	2	3	3579	2	KED
|	Ni	62	ug/L	0.111	2	0	619	1	KED
|	Cu	63	ug/L	0.014	5	18	684	5	KED
|	Cu	65	ug/L	0.045	15	6	346	15	KED
|	Zn	66	ug/L	0.577	2	19	8929	1	KED
|	Zn	67	ug/L	0.949	3	3	1323	3	KED
|	As	75	ug/L	0.016	16	3	18	14	KED
|	Kr	83	ug/L			41	84	10	Standard
[>	In-1	115	ug/L			8842	5227	2	KED
|	Cd	111	ug/L	0.043	9	3	83	10	KED
|	Cd	114	ug/L	0.073	16	3	198	14	KED
[>	Tb	159	ug/L			167464	133894	1	Standard
|	Pb	208	ug/L	0.001	1	168	4043	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:36:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	41033	1	Standard
[>	Sc	45	ug/L			332530	288885	0	Standard
|	Cr	0.021	ug/L	0.013	59	13137	11833	1	Standard
|	Cr	-0.008	ug/L	0.005	66	163	124	8	Standard
[>	Ge	72	ug/L			37776	30510	0	KED
|	Ni	0.016	ug/L	0.007	44	3	22	38	KED
|	Ni	0.043	ug/L	0.024	57	0	8	53	KED
|	Cu	0.016	ug/L	0.005	29	18	67	21	KED
|	Cu	0.015	ug/L	0.002	10	6	31	9	KED
|	Zn	0.046	ug/L	0.035	76	19	37	44	KED
|	Zn	0.059	ug/L	0.001	1	3	7	0	KED
|	As	0.000	ug/L	0.006	2166	3	3	48	KED
	Kr	83	ug/L			41	41	16	Standard
[>	In-1	115	ug/L			8842	7030	1	KED
|	Cd	0.007	ug/L	0.011	164	3	4	61	KED
|	Cd	-0.001	ug/L	0.005	494	3	2	120	KED
[>	Tb	159	ug/L			167464	155077	0	Standard
|	Pb	0.003	ug/L	0.000	15	168	360	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0442-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:40:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	47786	1	Standard
[>	Sc	45	ug/L			332530	320614	2	Standard
|	Cr	-0.047	ug/L	0.009	20	13137	11634	0	Standard
|	Cr	0.036	ug/L	0.011	29	163	243	10	Standard
[>	Ge	72	ug/L			37776	31329	0	KED
|	Ni	60	ug/L	0.016	55	3	39	51	KED
|	Ni	62	ug/L	0.027	65	0	8	61	KED
|	Cu	63	ug/L	0.004	17	18	90	15	KED
|	Cu	65	ug/L	0.006	34	6	38	28	KED
|	Zn	66	ug/L	0.010	11	19	55	8	KED
|	Zn	67	ug/L	0.061	125	3	6	68	KED
|	As	75	ug/L	0.014	2	3	124	3	KED
|	Kr	83	ug/L			41	34	20	Standard
[>	In-1	115	ug/L			8842	7187	0	KED
|	Cd	111	ug/L	0.006	497	3	2	57	KED
|	Cd	114	ug/L	0.002	172	3	2	45	KED
[>	Tb	159	ug/L			167464	158377	0	Standard
|	Pb	208	ug/L	0.000	3	168	288	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0054-DUP3**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:45:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	48580	1	Standard
[>	Sc	45	ug/L			332530	319845	2	Standard
|	Cr	-0.036	ug/L	0.017	48	13137	11846	0	Standard
|	Cr	0.043	ug/L	0.001	1	163	260	2	Standard
[>	Ge	72	ug/L			37776	31872	1	KED
|	Ni	60	ug/L	0.006	21	3	36	21	KED
|	Ni	62	ug/L	0.035	111	0	6	103	KED
|	Cu	63	ug/L	0.005	42	18	59	29	KED
|	Cu	65	ug/L	0.001	17	6	19	11	KED
|	Zn	66	ug/L	0.014	32	19	38	17	KED
|	Zn	67	ug/L	0.061	59	3	11	44	KED
|	As	75	ug/L	0.027	5	3	125	6	KED
	Kr	83	ug/L			41	37	10	Standard
[>	In-1	115	ug/L			8842	7282	4	KED
|	Cd	111	ug/L	0.006	260	3	2	65	KED
|	Cd	114	ug/L	0.009	330	3	4	119	KED
[>	Tb	159	ug/L			167464	159075	1	Standard
|	Pb	208	ug/L	0.000	56	168	194	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0054-MS3**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:49:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	48650	0	Standard
[>	Sc	45		ug/L			332530	325593	1	Standard
|	Cr	52	1.193	ug/L	0.022	1	13137	39485	2	Standard
|	Cr	53	1.337	ug/L	0.017	1	163	3429	2	Standard
[>	Ge	72		ug/L			37776	32790	0	KED
|	Ni	60	1.435	ug/L	0.050	3	3	1911	3	KED
|	Ni	62	1.465	ug/L	0.096	6	0	311	6	KED
|	Cu	63	1.500	ug/L	0.023	1	18	5464	1	KED
|	Cu	65	1.465	ug/L	0.049	3	6	2711	3	KED
|	Zn	66	4.740	ug/L	0.030	0	19	2393	1	KED
|	Zn	67	4.520	ug/L	0.268	5	3	377	5	KED
|	As	75	1.824	ug/L	0.010	0	3	482	0	KED
	Kr	83		ug/L			41	33	23	Standard
[>	In-1	115		ug/L			8842	7441	1	KED
|	Cd	111	1.426	ug/L	0.024	1	3	363	0	KED
|	Cd	114	1.443	ug/L	0.006	0	3	927	1	KED
[>	Tb	159		ug/L			167464	160535	1	Standard
|	Pb	208	1.474	ug/L	0.013	0	168	113578	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0054-MSD3**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:55:28**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	48789	0	Standard
[>	Sc	45		ug/L			332530	331932	2	Standard
|	Cr	52	1.181	ug/L	0.058	4	13137	39951	0	Standard
|	Cr	53	1.291	ug/L	0.018	1	163	3380	1	Standard
[>	Ge	72		ug/L			37776	33311	0	KED
|	Ni	60	1.423	ug/L	0.054	3	3	1926	3	KED
|	Ni	62	1.530	ug/L	0.057	3	0	330	4	KED
|	Cu	63	1.462	ug/L	0.039	2	18	5412	2	KED
|	Cu	65	1.474	ug/L	0.006	0	6	2771	0	KED
|	Zn	66	4.603	ug/L	0.074	1	19	2361	2	KED
|	Zn	67	4.744	ug/L	0.403	8	3	402	7	KED
|	As	75	1.748	ug/L	0.053	3	3	469	3	KED
	Kr	83		ug/L			41	36	20	Standard
[>	In-1	115		ug/L			8842	7697	1	KED
|	Cd	111	1.404	ug/L	0.108	7	3	369	7	KED
|	Cd	114	1.441	ug/L	0.078	5	3	958	6	KED
[>	Tb	159		ug/L			167464	161131	0	Standard
|	Pb	208	1.477	ug/L	0.014	0	168	114240	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLF

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:59:42

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	39941	0	Standard
[>	Sc	45	ug/L			332530	297917	1	Standard
|	Cr	52	ug/L	0.006	189	13137	11703	1	Standard
|	Cr	53	ug/L	0.005	40	163	119	10	Standard
[>	Ge	72	ug/L			37776	32565	0	KED
|	Ni	60	ug/L	0.001	9	3	15	6	KED
|	Ni	62	ug/L	0.019	101	0	4	89	KED
|	Cu	63	ug/L	0.002	77	18	24	27	KED
|	Cu	65	ug/L	0.003	68	6	13	37	KED
|	Zn	66	ug/L	0.010	74	19	23	20	KED
|	Zn	67	ug/L	0.035	58	3	8	35	KED
|	As	75	ug/L	0.004	107	3	2	44	KED
	Kr	83	ug/L			41	43	11	Standard
[>	In-1	115	ug/L			8842	7480	1	KED
|	Cd	111	ug/L	0.011	675	3	2	108	KED
|	Cd	114	ug/L	0.000	17	3	3	1	KED
[>	Tb	159	ug/L			167464	156350	1	Standard
|	Pb	208	ug/L	0.000	2	168	356	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 03:04:01

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	41313	1	Standard
[>	Sc	45		ug/L			332530	307356	1	Standard
|	Cr	52	47.979	ug/L	0.793	1	13137	1022914	2	Standard
|	Cr	53	50.150	ug/L	0.721	1	163	115964	2	Standard
[>	Ge	72		ug/L			37776	32572	0	KED
|	Ni	60	51.583	ug/L	0.408	0	3	68147	0	KED
|	Ni	62	52.891	ug/L	0.595	1	0	11142	0	KED
|	Cu	63	53.300	ug/L	0.755	1	18	192386	0	KED
|	Cu	65	52.686	ug/L	0.416	0	6	96684	0	KED
|	Zn	66	52.944	ug/L	0.643	1	19	26378	0	KED
|	Zn	67	52.503	ug/L	2.007	3	3	4324	3	KED
|	As	75	50.119	ug/L	0.059	0	3	13074	0	KED
	Kr	83		ug/L			41	54	13	Standard
[>	In-1	115		ug/L			8842	7538	0	KED
|	Cd	111	51.519	ug/L	0.413	0	3	13188	0	KED
|	Cd	114	51.630	ug/L	0.578	1	3	33508	0	KED
[>	Tb	159		ug/L			167464	162469	1	Standard
|	Pb	208	53.772	ug/L	1.113	2	168	4185920	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 03:11:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	40689	0	Standard
[>	Sc	45	ug/L			332530	303870	2	Standard
|	Cr	52	ug/L	0.004	40	13137	11822	2	Standard
|	Cr	53	ug/L	0.004	28	163	121	8	Standard
[>	Ge	72	ug/L			37776	33588	2	KED
|	Ni	60	ug/L	0.002	21	3	13	14	KED
|	Ni	62	ug/L	0.010	85	0	3	69	KED
|	Cu	63	ug/L	0.001	27	18	36	13	KED
|	Cu	65	ug/L	0.002	42	6	17	29	KED
|	Zn	66	ug/L	0.022	41	19	44	23	KED
|	Zn	67	ug/L	0.046	1477	3	3	124	KED
|	As	75	ug/L	0.002	33	3	4	11	KED
	Kr	83	ug/L			41	41	16	Standard
[>	In-1	115	ug/L			8842	7761	2	KED
|	Cd	111	ug/L	0.007	1066	3	2	66	KED
|	Cd	114	ug/L	0.002	559	3	3	34	KED
[>	Tb	159	ug/L			167464	158746	0	Standard
|	Pb	208	ug/L	0.000	8	168	313	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:15:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	85852	1	Standard
[>	Sc	45	ug/L			332530	667261	4	Standard
|	Cr	0.012	ug/L	0.014	110	13137	26909	2	Standard
|	Cr	0.491	ug/L	0.004	0	163	2787	4	Standard
[>	Ge	72	ug/L			37776	29764	0	KED
|	Ni	0.700	ug/L	0.025	3	3	848	3	KED
|	Ni	0.779	ug/L	0.053	6	0	150	6	KED
|	Cu	0.380	ug/L	0.028	7	18	1267	7	KED
|	Cu	0.401	ug/L	0.019	4	6	678	4	KED
|	Zn	1.572	ug/L	0.120	7	19	730	8	KED
|	Zn	2.408	ug/L	0.032	1	3	184	1	KED
|	As	4.400	ug/L	0.049	1	3	1051	0	KED
	Kr	83	ug/L			41	50	20	Standard
[>	In-1	115	ug/L			8842	6861	1	KED
|	Cd	0.014	ug/L	0.005	34	3	6	18	KED
|	Cd	0.002	ug/L	0.005	244	3	4	71	KED
[>	Tb	159	ug/L			167464	156691	1	Standard
|	Pb	0.035	ug/L	0.002	5	168	2756	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-DUP2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:19:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	86976	0	Standard
[>	Sc	45	ug/L			332530	644087	3	Standard
|	Cr	0.052	ug/L	0.024	46	13137	27696	0	Standard
|	Cr	0.524	ug/L	0.027	5	163	2851	1	Standard
[>	Ge	72	ug/L			37776	30041	0	KED
|	Ni	0.766	ug/L	0.024	3	3	935	2	KED
|	Ni	0.814	ug/L	0.105	12	0	158	12	KED
|	Cu	0.224	ug/L	0.002	1	18	761	0	KED
|	Cu	0.234	ug/L	0.016	6	6	401	6	KED
|	Zn	1.462	ug/L	0.170	11	19	687	11	KED
|	Zn	2.310	ug/L	0.089	3	3	178	4	KED
|	As	4.454	ug/L	0.057	1	3	1074	0	KED
	Kr	83	ug/L			41	44	39	Standard
[>	In-1	115	ug/L			8842	6849	1	KED
|	Cd	0.011	ug/L	0.015	131	3	5	66	KED
|	Cd	-0.002	ug/L	0.000	2	3	1	3	KED
[>	Tb	159	ug/L			167464	153022	1	Standard
|	Pb	0.027	ug/L	0.001	4	168	2098	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-MS2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:24:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	86232	1	Standard
[>	Sc	45	ug/L			332530	621648	2	Standard
|	Cr	52	ug/L	0.224	1	13137	511653	0	Standard
|	Cr	53	ug/L	0.162	1	163	57879	1	Standard
[>	Ge	72	ug/L			37776	29580	0	KED
|	Ni	60	ug/L	0.309	1	3	32230	0	KED
|	Ni	62	ug/L	0.540	2	0	5120	1	KED
|	Cu	63	ug/L	0.096	0	18	84222	0	KED
|	Cu	65	ug/L	0.335	1	6	42617	1	KED
|	Zn	66	ug/L	0.605	0	19	34406	0	KED
|	Zn	67	ug/L	1.184	1	3	5403	0	KED
|	As	75	ug/L	0.258	0	3	6806	0	KED
	Kr	83	ug/L			41	73	31	Standard
[>	In-1	115	ug/L			8842	6837	2	KED
|	Cd	111	ug/L	0.549	2	3	5623	1	KED
|	Cd	114	ug/L	0.566	2	3	14721	1	KED
[>	Tb	159	ug/L			167464	155552	0	Standard
|	Pb	208	ug/L	0.471	1	168	1872259	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-MSD2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:30:03**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	85695	0	Standard
[>	Sc	45	ug/L			332530	641390	2	Standard
|	Cr	11.527	ug/L	0.212	1	13137	531914	1	Standard
|	Cr	12.350	ug/L	0.132	1	163	59819	2	Standard
[>	Ge	72	ug/L			37776	30276	0	KED
|	Ni	27.346	ug/L	0.428	1	3	33583	1	KED
|	Ni	27.615	ug/L	0.121	0	0	5408	0	KED
|	Cu	26.248	ug/L	0.503	1	18	88073	1	KED
|	Cu	26.164	ug/L	0.339	1	6	44631	1	KED
|	Zn	77.475	ug/L	1.231	1	19	35874	1	KED
|	Zn	74.471	ug/L	0.256	0	3	5700	0	KED
|	As	29.345	ug/L	0.019	0	3	7117	0	KED
	Kr	83	ug/L			41	64	18	Standard
[>	In-1	115	ug/L			8842	6798	1	KED
|	Cd	25.904	ug/L	0.121	0	3	5980	0	KED
|	Cd	25.925	ug/L	0.289	1	3	15173	1	KED
[>	Tb	159	ug/L			167464	154708	1	Standard
|	Pb	25.748	ug/L	0.468	1	168	1908435	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLG

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 03:34:16

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	41894	1	Standard
[>	Sc	45		ug/L			332530	306227	1	Standard
|	Cr	52	0.012	ug/L	0.006	50	13137	12358	1	Standard
|	Cr	53	0.015	ug/L	0.003	19	163	184	4	Standard
[>	Ge	72		ug/L			37776	34308	1	KED
|	Ni	60	0.016	ug/L	0.006	35	3	26	29	KED
|	Ni	62	0.026	ug/L	0.005	20	0	6	17	KED
|	Cu	63	0.001	ug/L	0.002	166	18	20	32	KED
|	Cu	65	0.004	ug/L	0.004	117	6	13	62	KED
|	Zn	66	-0.007	ug/L	0.009	118	19	13	31	KED
|	Zn	67	-0.003	ug/L	0.013	406	3	3	34	KED
|	As	75	0.002	ug/L	0.004	156	3	3	24	KED
	Kr	83		ug/L			41	44	39	Standard
[>	In-1	115		ug/L			8842	7536	1	KED
|	Cd	111	0.005	ug/L	0.010	209	3	4	58	KED
|	Cd	114	-0.003	ug/L	0.002	51	3	1	94	KED
[>	Tb	159		ug/L			167464	162505	1	Standard
|	Pb	208	0.000	ug/L	0.000	37	168	188	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0464-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:38:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	49663	1	Standard
[>	Sc	45		ug/L			332530	311893	0	Standard
|	Cr	52	0.095	ug/L	0.008	8	13137	14357	0	Standard
|	Cr	53	0.047	ug/L	0.007	13	163	263	5	Standard
[>	Ge	72		ug/L			37776	33466	0	KED
|	Ni	60	1.346	ug/L	0.049	3	3	1829	3	KED
|	Ni	62	1.370	ug/L	0.010	0	0	297	0	KED
|	Cu	63	0.376	ug/L	0.020	5	18	1412	5	KED
|	Cu	65	0.360	ug/L	0.036	10	6	684	9	KED
|	Zn	66	3.781	ug/L	0.068	1	19	1951	2	KED
|	Zn	67	3.721	ug/L	0.411	11	3	318	11	KED
|	As	75	0.029	ug/L	0.009	31	3	10	22	KED
	Kr	83		ug/L			41	43	4	Standard
[>	In-1	115		ug/L			8842	7513	0	KED
|	Cd	111	0.033	ug/L	0.004	11	3	11	8	KED
|	Cd	114	0.033	ug/L	0.018	54	3	24	48	KED
[>	Tb	159		ug/L			167464	161396	0	Standard
|	Pb	208	22.116	ug/L	0.149	0	168	1710473	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0464-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:42:55**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	82109	1	Standard
[> Sc	45		ug/L			332530	353902	2	Standard
| Cr	52	0.475	ug/L	0.001	0	13137	25491	2	Standard
| Cr	53	0.635	ug/L	0.016	2	163	1860	0	Standard
[> Ge	72		ug/L			37776	33788	1	KED
| Ni	60	1.118	ug/L	0.053	4	3	1535	4	KED
| Ni	62	1.148	ug/L	0.044	3	0	251	5	KED
| Cu	63	2.887	ug/L	0.089	3	18	10821	1	KED
| Cu	65	2.885	ug/L	0.137	4	6	5495	3	KED
| Zn	66	37.145	ug/L	0.817	2	19	19199	0	KED
| Zn	67	34.845	ug/L	2.256	6	3	2976	5	KED
| As	75	0.417	ug/L	0.030	7	3	116	7	KED
Kr	83		ug/L			41	37	16	Standard
[> In-1	115		ug/L			8842	7633	2	KED
| Cd	111	0.024	ug/L	0.003	14	3	9	11	KED
| Cd	114	0.009	ug/L	0.010	111	3	9	72	KED
[> Tb	159		ug/L			167464	160202	1	Standard
| Pb	208	0.318	ug/L	0.001	0	168	24536	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0516-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:47:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	78090	1	Standard
[>	Sc	45		ug/L			332530	495888	2	Standard
|	Cr	52	-0.047	ug/L	0.009	18	13137	17972	0	Standard
|	Cr	53	0.242	ug/L	0.009	3	163	1144	5	Standard
[>	Ge	72		ug/L			37776	32026	0	KED
|	Ni	60	0.573	ug/L	0.048	8	3	747	8	KED
|	Ni	62	0.638	ug/L	0.028	4	0	132	5	KED
|	Cu	63	8.279	ug/L	0.030	0	18	29395	0	KED
|	Cu	65	8.201	ug/L	0.059	0	6	14802	0	KED
|	Zn	66	10.896	ug/L	0.392	3	19	5350	3	KED
|	Zn	67	11.156	ug/L	0.398	3	3	906	3	KED
|	As	75	0.462	ug/L	0.037	8	3	121	8	KED
	Kr	83		ug/L			41	36	32	Standard
[>	In-1	115		ug/L			8842	7235	1	KED
|	Cd	111	0.015	ug/L	0.011	74	3	6	42	KED
|	Cd	114	0.010	ug/L	0.003	26	3	9	19	KED
[>	Tb	159		ug/L			167464	158033	0	Standard
|	Pb	208	0.138	ug/L	0.002	1	168	10624	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0516-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:51:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	77753	0	Standard
[>	Sc	45		ug/L			332530	473153	1	Standard
|	Cr	52	-0.039	ug/L	0.012	31	13137	17412	2	Standard
|	Cr	53	0.211	ug/L	0.016	7	163	982	4	Standard
[>	Ge	72		ug/L			37776	31704	1	KED
|	Ni	60	0.545	ug/L	0.007	1	3	704	0	KED
|	Ni	62	0.552	ug/L	0.012	2	0	113	0	KED
|	Cu	63	8.586	ug/L	0.051	0	18	30181	1	KED
|	Cu	65	8.449	ug/L	0.052	0	6	15095	1	KED
|	Zn	66	11.587	ug/L	0.188	1	19	5631	0	KED
|	Zn	67	11.038	ug/L	0.629	5	3	887	6	KED
|	As	75	0.474	ug/L	0.036	7	3	123	6	KED
	Kr	83		ug/L			41	43	2	Standard
[>	In-1	115		ug/L			8842	6965	3	KED
|	Cd	111	0.014	ug/L	0.002	17	3	6	9	KED
|	Cd	114	0.015	ug/L	0.007	47	3	12	37	KED
[>	Tb	159		ug/L			167464	156180	1	Standard
|	Pb	208	0.146	ug/L	0.003	1	168	11068	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLH

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 03:55:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	41383	0	Standard
[>	Sc	45		ug/L			332530	298913	1	Standard
|	Cr	52	0.030	ug/L	0.006	19	13137	12422	1	Standard
|	Cr	53	0.004	ug/L	0.008	169	163	156	11	Standard
[>	Ge	72		ug/L			37776	32004	1	KED
|	Ni	60	0.029	ug/L	0.007	23	3	40	22	KED
|	Ni	62	0.037	ug/L	0.005	13	0	8	13	KED
|	Cu	63	0.002	ug/L	0.002	108	18	22	32	KED
|	Cu	65	0.005	ug/L	0.001	24	6	14	15	KED
|	Zn	66	-0.011	ug/L	0.010	93	19	11	44	KED
|	Zn	67	-0.024	ug/L	0.014	55	3	1	86	KED
|	As	75	-0.004	ug/L	0.003	69	3	2	35	KED
	Kr	83		ug/L			41	36	13	Standard
[>	In-1	115		ug/L			8842	7289	1	KED
|	Cd	111	0.000	ug/L	0.010	201378	3	2	88	KED
|	Cd	114	-0.001	ug/L	0.002	166	3	2	47	KED
[>	Tb	159		ug/L			167464	153715	0	Standard
|	Pb	208	-0.000	ug/L	0.000	28	168	122	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 04:00:06

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	40791	1	Standard
[>	Sc	45	ug/L			332530	294234	0	Standard
|	Cr	52	ug/L	0.411	0	13137	992252	0	Standard
|	Cr	53	ug/L	0.306	0	163	111136	0	Standard
[>	Ge	72	ug/L			37776	32220	0	KED
|	Ni	60	ug/L	0.887	1	3	67431	1	KED
|	Ni	62	ug/L	0.502	0	0	10865	1	KED
|	Cu	63	ug/L	0.882	1	18	188520	1	KED
|	Cu	65	ug/L	0.669	1	6	95724	1	KED
|	Zn	66	ug/L	0.419	0	19	25482	0	KED
|	Zn	67	ug/L	1.347	2	3	4183	2	KED
|	As	75	ug/L	0.584	1	3	12847	0	KED
	Kr	83	ug/L			41	40	19	Standard
[>	In-1	115	ug/L			8842	7370	0	KED
|	Cd	111	ug/L	0.976	1	3	12672	2	KED
|	Cd	114	ug/L	0.932	1	3	32766	1	KED
[>	Tb	159	ug/L			167464	155724	0	Standard
|	Pb	208	ug/L	0.496	0	168	4096616	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 04:07:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	40961	2	Standard
[>	Sc	45	ug/L			332530	290438	2	Standard
|	Cr	52	0.028	0.012	43	13137	12031	2	Standard
|	Cr	53	0.001	0.005	383	163	145	4	Standard
[>	Ge	72	ug/L			37776	32490	1	KED
|	Ni	60	0.036	0.006	15	3	50	13	KED
|	Ni	62	0.046	0.023	51	0	10	47	KED
|	Cu	63	0.006	0.003	59	18	36	34	KED
|	Cu	65	0.009	0.005	61	6	21	43	KED
|	Zn	66	0.045	0.012	27	19	39	14	KED
|	Zn	67	0.045	0.013	27	3	6	15	KED
|	As	75	0.006	0.005	80	3	4	26	KED
	Kr	83	ug/L			41	46	4	Standard
[>	In-1	115	ug/L			8842	7601	1	KED
|	Cd	111	0.004	0.015	341	3	4	93	KED
|	Cd	114	0.008	0.006	72	3	8	46	KED
[>	Tb	159	ug/L			167464	151027	3	Standard
|	Pb	208	0.002	0.001	29	168	323	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0463-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:11:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	83717	2	Standard
[>	Sc	45		ug/L			332530	363338	2	Standard
|	Cr	52	0.327	ug/L	0.009	2	13137	22486	1	Standard
|	Cr	53	1.216	ug/L	0.059	4	163	3495	2	Standard
[>	Ge	72		ug/L			37776	31225	0	KED
|	Ni	60	0.744	ug/L	0.043	5	3	944	5	KED
|	Ni	62	0.865	ug/L	0.063	7	0	175	7	KED
|	Cu	63	2.413	ug/L	0.019	0	18	8366	1	KED
|	Cu	65	2.401	ug/L	0.079	3	6	4229	2	KED
|	Zn	66	8.259	ug/L	0.099	1	19	3958	0	KED
|	Zn	67	8.006	ug/L	0.381	4	3	634	5	KED
|	As	75	0.493	ug/L	0.018	3	3	126	3	KED
	Kr	83		ug/L			41	39	31	Standard
[>	In-1	115		ug/L			8842	7314	1	KED
|	Cd	111	0.013	ug/L	0.008	64	3	6	32	KED
|	Cd	114	0.009	ug/L	0.002	22	3	8	13	KED
[>	Tb	159		ug/L			167464	157428	1	Standard
|	Pb	208	0.237	ug/L	0.002	0	168	18050	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0463-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:15:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	81905	0	Standard
[>	Sc	45		ug/L			332530	438260	0	Standard
|	Cr	52	0.154	ug/L	0.016	10	13137	21930	1	Standard
|	Cr	53	0.939	ug/L	0.009	0	163	3306	1	Standard
[>	Ge	72		ug/L			37776	30901	1	KED
|	Ni	60	1.108	ug/L	0.010	0	3	1391	0	KED
|	Ni	62	1.131	ug/L	0.030	2	0	226	3	KED
|	Cu	63	1.257	ug/L	0.005	0	18	4320	1	KED
|	Cu	65	1.229	ug/L	0.020	1	6	2145	1	KED
|	Zn	66	4.583	ug/L	0.167	3	19	2181	3	KED
|	Zn	67	4.549	ug/L	0.448	9	3	358	8	KED
|	As	75	2.164	ug/L	0.026	1	3	538	1	KED
	Kr	83		ug/L			41	35	20	Standard
[>	In-1	115		ug/L			8842	7163	1	KED
|	Cd	111	0.009	ug/L	0.010	108	3	5	47	KED
|	Cd	114	0.013	ug/L	0.006	48	3	10	35	KED
[>	Tb	159		ug/L			167464	155570	0	Standard
|	Pb	208	0.277	ug/L	0.001	0	168	20812	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0463-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:20:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	78076	0	Standard
[>	Sc	45		ug/L			332530	379664	0	Standard
|	Cr	52	0.323	ug/L	0.004	1	13137	23406	0	Standard
|	Cr	53	1.227	ug/L	0.026	2	163	3685	1	Standard
[>	Ge	72		ug/L			37776	31456	1	KED
|	Ni	60	1.005	ug/L	0.036	3	3	1285	3	KED
|	Ni	62	0.983	ug/L	0.085	8	0	200	9	KED
|	Cu	63	2.355	ug/L	0.058	2	18	8222	1	KED
|	Cu	65	2.322	ug/L	0.021	0	6	4120	1	KED
|	Zn	66	15.119	ug/L	0.335	2	19	7286	1	KED
|	Zn	67	13.996	ug/L	0.042	0	3	1115	1	KED
|	As	75	0.875	ug/L	0.082	9	3	223	9	KED
	Kr	83		ug/L			41	37	17	Standard
[>	In-1	115		ug/L			8842	6933	0	KED
|	Cd	111	0.011	ug/L	0.006	53	3	5	26	KED
|	Cd	114	0.019	ug/L	0.008	44	3	14	35	KED
[>	Tb	159		ug/L			167464	156437	1	Standard
|	Pb	208	0.569	ug/L	0.010	1	168	42773	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:24:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	51217	3	Standard
[>	Sc	45	ug/L			332530	369725	1	Standard
|	Cr	52	ug/L	0.013	0	13137	92552	1	Standard
|	Cr	53	ug/L	0.057	1	163	9610	2	Standard
[>	Ge	72	ug/L			37776	32054	0	KED
|	Ni	60	ug/L	0.075	1	3	5918	2	KED
|	Ni	62	ug/L	0.062	1	0	968	2	KED
|	Cu	63	ug/L	0.575	2	18	71932	2	KED
|	Cu	65	ug/L	0.086	0	6	36874	0	KED
|	Zn	66	ug/L	0.106	0	19	15455	1	KED
|	Zn	67	ug/L	0.839	2	3	2409	2	KED
|	As	75	ug/L	0.330	3	3	2459	2	KED
	Kr	83	ug/L			41	34	3	Standard
[>	In-1	115	ug/L			8842	7221	0	KED
|	Cd	111	ug/L	0.059	11	3	131	11	KED
|	Cd	114	ug/L	0.044	7	3	366	8	KED
[>	Tb	159	ug/L			167464	159535	0	Standard
|	Pb	208	ug/L	0.144	2	168	488338	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-17**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:28:33**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	57372	2	Standard
[>	Sc	45	ug/L			332530	336010	2	Standard
|	Cr	52	ug/L	0.009	1	13137	32452	3	Standard
|	Cr	53	ug/L	0.024	2	163	2749	1	Standard
[>	Ge	72	ug/L			37776	32424	0	KED
|	Ni	60	ug/L	0.078	6	3	1598	7	KED
|	Ni	62	ug/L	0.071	5	0	252	5	KED
|	Cu	63	ug/L	0.086	2	18	14007	2	KED
|	Cu	65	ug/L	0.105	2	6	7043	2	KED
|	Zn	66	ug/L	0.275	1	19	9338	0	KED
|	Zn	67	ug/L	0.434	2	3	1506	1	KED
|	As	75	ug/L	0.029	2	3	268	3	KED
	Kr	83	ug/L			41	37	5	Standard
[>	In-1	115	ug/L			8842	7196	2	KED
|	Cd	111	ug/L	0.006	82	3	4	34	KED
|	Cd	114	ug/L	0.009	70	3	11	52	KED
[>	Tb	159	ug/L			167464	158062	0	Standard
|	Pb	208	ug/L	0.005	1	168	28792	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-19**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:32:52**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	59659	1	Standard
[>	Sc	45	ug/L			332530	351435	2	Standard
|	Cr	0.489	ug/L	0.018	3	13137	25644	0	Standard
|	Cr	0.593	ug/L	0.031	5	163	1738	5	Standard
[>	Ge	72	ug/L			37776	32751	0	KED
|	Ni	1.387	ug/L	0.087	6	3	1845	6	KED
|	Ni	1.664	ug/L	0.083	4	0	353	4	KED
|	Cu	4.561	ug/L	0.022	0	18	16568	0	KED
|	Cu	4.677	ug/L	0.064	1	6	8635	1	KED
|	Zn	1.677	ug/L	0.094	5	19	856	5	KED
|	Zn	1.932	ug/L	0.086	4	3	163	4	KED
|	As	1.329	ug/L	0.071	5	3	351	4	KED
	Kr	83	ug/L			41	33	21	Standard
[>	In-1	115	ug/L			8842	7377	0	KED
|	Cd	0.006	ug/L	0.015	249	3	4	86	KED
|	Cd	0.003	ug/L	0.006	226	3	4	80	KED
[>	Tb	159	ug/L			167464	157325	0	Standard
|	Pb	0.214	ug/L	0.001	0	168	16290	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0077-DUP1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:37:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	59738	0	Standard
[>	Sc	45	ug/L			332530	352960	1	Standard
|	Cr	52	0.552	0.015	2	13137	27295	2	Standard
|	Cr	53	0.668	0.027	4	163	1945	4	Standard
[>	Ge	72	ug/L			37776	32935	1	KED
|	Ni	60	1.370	0.064	4	3	1833	3	KED
|	Ni	62	1.362	0.202	14	0	290	13	KED
|	Cu	63	4.578	0.125	2	18	16719	1	KED
|	Cu	65	4.461	0.134	3	6	8279	1	KED
|	Zn	66	1.727	0.029	1	19	886	0	KED
|	Zn	67	1.951	0.004	0	3	165	1	KED
|	As	75	1.306	0.059	4	3	347	5	KED
	Kr	83	ug/L			41	43	11	Standard
[>	In-1	115	ug/L			8842	7237	0	KED
|	Cd	111	0.003	0.002	87	3	3	15	KED
|	Cd	114	0.005	0.005	92	3	6	46	KED
[>	Tb	159	ug/L			167464	159690	0	Standard
|	Pb	208	0.210	0.002	0	168	16248	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0077-MS1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:41:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	60127	1	Standard
[>	Sc	45		ug/L			332530	360257	0	Standard
|	Cr	52	11.376	ug/L	0.162	1	13137	295102	1	Standard
|	Cr	53	11.802	ug/L	0.259	2	163	32122	2	Standard
[>	Ge	72		ug/L			37776	30101	12	KED
|	Ni	60	16.661	ug/L	2.330	13	3	20103	0	KED
|	Ni	62	17.130	ug/L	2.307	13	0	3297	0	KED
|	Cu	63	20.887	ug/L	2.960	14	18	68850	1	KED
|	Cu	65	20.775	ug/L	2.501	12	6	34877	1	KED
|	Zn	66	49.868	ug/L	6.159	12	19	22725	2	KED
|	Zn	67	47.467	ug/L	7.462	15	3	3565	2	KED
|	As	75	15.372	ug/L	2.287	14	3	3661	1	KED
	Kr	83		ug/L			41	32	21	Standard
[>	In-1	115		ug/L			8842	7505	4	KED
|	Cd	111	13.381	ug/L	0.587	4	3	3408	0	KED
|	Cd	114	13.622	ug/L	0.889	6	3	8787	2	KED
[>	Tb	159		ug/L			167464	160575	0	Standard
|	Pb	208	14.304	ug/L	0.216	1	168	1100714	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0077-MSD1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:47:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	58395	1	Standard
[>	Sc	45		ug/L			332530	355338	1	Standard
|	Cr	52	11.009	ug/L	0.575	5	13137	282155	5	Standard
|	Cr	53	11.525	ug/L	0.625	5	163	30949	6	Standard
[>	Ge	72		ug/L			37776	33018	0	KED
|	Ni	60	15.045	ug/L	0.157	1	3	20151	0	KED
|	Ni	62	14.924	ug/L	0.333	2	0	3187	2	KED
|	Cu	63	19.087	ug/L	0.317	1	18	69854	2	KED
|	Cu	65	18.751	ug/L	0.012	0	6	34885	0	KED
|	Zn	66	45.054	ug/L	0.034	0	19	22758	0	KED
|	Zn	67	43.555	ug/L	0.609	1	3	3637	1	KED
|	As	75	14.007	ug/L	0.196	1	3	3706	1	KED
	Kr	83		ug/L			41	52	12	Standard
[>	In-1	115		ug/L			8842	7573	0	KED
|	Cd	111	13.397	ug/L	0.223	1	3	3447	1	KED
|	Cd	114	13.597	ug/L	0.059	0	3	8867	0	KED
[>	Tb	159		ug/L			167464	160670	0	Standard
|	Pb	208	13.927	ug/L	0.657	4	168	1072141	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLI

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 04:51:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	40799	2	Standard
[>	Sc	45		ug/L			332530	296429	3	Standard
|	Cr	52	0.020	ug/L	0.017	87	13137	12102	0	Standard
|	Cr	53	0.001	ug/L	0.007	1019	163	146	7	Standard
[>	Ge	72		ug/L			37776	32321	0	KED
|	Ni	60	0.034	ug/L	0.010	28	3	48	26	KED
|	Ni	62	0.040	ug/L	0.006	13	0	8	12	KED
|	Cu	63	0.002	ug/L	0.000	18	18	21	5	KED
|	Cu	65	0.004	ug/L	0.001	31	6	12	17	KED
|	Zn	66	0.001	ug/L	0.004	619	19	17	11	KED
|	Zn	67	-0.009	ug/L	0.014	157	3	2	43	KED
|	As	75	-0.002	ug/L	0.001	44	3	2	10	KED
	Kr	83		ug/L			41	40	8	Standard
[>	In-1	115		ug/L			8842	7345	1	KED
|	Cd	111	0.010	ug/L	0.008	80	3	5	36	KED
|	Cd	114	0.004	ug/L	0.006	147	3	5	66	KED
[>	Tb	159		ug/L			167464	154332	0	Standard
|	Pb	208	0.000	ug/L	0.000	67	168	190	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVF

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 04:56:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	41620	1	Standard
[>	Sc	45		ug/L			332530	296349	2	Standard
|	Cr	52	48.679	ug/L	1.034	2	13137	1000116	1	Standard
|	Cr	53	51.001	ug/L	1.433	2	163	113664	2	Standard
[>	Ge	72		ug/L			37776	32571	1	KED
|	Ni	60	51.432	ug/L	1.177	2	3	67930	0	KED
|	Ni	62	52.709	ug/L	0.110	0	0	11103	1	KED
|	Cu	63	52.502	ug/L	0.434	0	18	189495	0	KED
|	Cu	65	53.198	ug/L	0.347	0	6	97619	1	KED
|	Zn	66	52.597	ug/L	0.263	0	19	26204	1	KED
|	Zn	67	52.705	ug/L	1.710	3	3	4339	2	KED
|	As	75	49.987	ug/L	0.631	1	3	13039	1	KED
	Kr	83		ug/L			41	48	6	Standard
[>	In-1	115		ug/L			8842	7424	3	KED
|	Cd	111	51.648	ug/L	2.278	4	3	13005	0	KED
|	Cd	114	51.934	ug/L	1.496	2	3	33167	0	KED
[>	Tb	159		ug/L			167464	158559	1	Standard
|	Pb	208	54.279	ug/L	0.484	0	168	4123875	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBF

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 05:03:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	40643	2	Standard
[>	Sc	45	ug/L			332530	291714	0	Standard
|	Cr	0.021	ug/L	0.010	49	13137	11943	2	Standard
|	Cr	-0.003	ug/L	0.008	256	163	136	13	Standard
[>	Ge	72	ug/L			37776	33501	1	KED
|	Ni	0.036	ug/L	0.004	12	3	52	11	KED
|	Ni	0.044	ug/L	0.018	40	0	10	39	KED
|	Cu	0.007	ug/L	0.002	24	18	42	13	KED
|	Cu	0.006	ug/L	0.005	70	6	18	46	KED
|	Zn	0.057	ug/L	0.013	22	19	46	12	KED
|	Zn	0.073	ug/L	0.047	64	3	9	40	KED
|	As	-0.000	ug/L	0.006	3391	3	3	48	KED
	Kr	83	ug/L			41	37	22	Standard
[>	In-1	115	ug/L			8842	7698	0	KED
|	Cd	-0.002	ug/L	0.004	219	3	2	43	KED
|	Cd	0.001	ug/L	0.003	472	3	3	51	KED
[>	Tb	159	ug/L			167464	151940	1	Standard
|	Pb	0.002	ug/L	0.000	17	168	331	8	Standard



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Instrument: ICPMS1

Calibration Date: 05/10/2023 15:47

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	15570	10	16140.9	20	15789.15	50	15195.72	100	15002.63
Chromium-52	0	0	0.5	31020	10	15441.1	20	15000.05	50	14462.12	100	14509.21
Chromium-53	0	0	0.5	1694	10	1654.9	20	1689.3	50	1689.16	100	1684.98
Lead-208	0	0	0.1	90610	10	90331.7	20	89339.2	50	87570.58	100	84871.84



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GE00040

Calibration Date: 5/10/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	12949.73	49.1	0.9999		0.998	
Chromium-52	15072.08	65.2	1.0000		0.998	
Chromium-53	1402.057	49.0	1.0000		0.998	
Lead-208	73787.22	49.1	0.9997		0.998	



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Instrument: ICPMS1

Calibration Date: 05/10/2023 15:47

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	245	10	247.9	20	243.5	50	239.7	100	242.13
Cadmium-111	0	0	0.1	210	10	235.4	20	233.45	50	230.1	100	233.47
Cadmium-114	0	0	0.1	700	10	607.9	20	614.8	50	592.84	100	599.85
Copper-63	0	0	0.5	5004	10	4375	20	4306.25	50	4084.54	100	4030.52
Copper-65	0	0	0.5	2594	10	2169.7	20	2190.8	50	2078.94	100	2074.73
Zinc-66	0	0	6	522.8333	10	539	20	516.55	50	492.7	100	498.85
Zinc-67	0	0	6	86.16666	10	89.3	20	86.65	50	79.74	100	81.23



INITIAL CALIBRATION DATA

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GE00040

Calibration Date: 5/10/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	203.0383	49.0	1.0000		0.998	
Cadmium-111	190.4033	49.2	0.9999		0.998	
Cadmium-114	519.2317	49.6	0.9999		0.998	
Copper-63	3633.385	49.9	0.9998		0.998	
Copper-65	1851.362	50.1	0.9999		0.998	
Zinc-66	428.3222	49.1	0.9998		0.998	
Zinc-67	70.51444	49.3	0.9996		0.998	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MS Sequence: SLEΦ2Φ4 Cal: GEΦΦΦ4Φ

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	SEQ-CAL1	—		
	✓	↓ -CAL2	—		
	✓	↓ -CAL3	—		S _{CT} ↑ (New cones)
		SEQ-CAL1	LS276		
		↓ -CAL2	LS225		
		↓ -CAL3	LS226		
		↓ -CAL4	LS227		
		↓ -CAL5	LS228		
		↓ -CAL6	LS229		
		↓ -IBL1	—		
		↓ -ICV1	L3575		
		↓ -ICB1	LS276		
		↓ -CCV1	LS228		
		↓ -CCB1	LS276		
		↓ -CRL1	LS226		
		↓ -IFA1	L4688		C _r ^{S3} ↑
		↓ -IFB1	L4689		
		↓ -HCV1	L478Φ		D _n ⁻¹ noisy - Cd < 100
		↓ -HCV2	L4781		
		↓ -IBL2	—		
		↓ -CCV2			
		↓ -CCB2			
	✓	↓ -CAL1			
		↓ -CCV3			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCB3			
		BLOΦ687-BLK2	SWN	20	Ag, Zn only
	✓	↓ -BS2	↓	↓	STD Mode noisy ↓
E→D		↓ -BS2	↓	↓	
		BLEΦ298-BLK1	REN		
		↓ -BS1	↓		
		BLEΦΦ77-MS2		2	As, Co, Zn only
		230Φ297-Φ1	SWN	100	Ba, Cr only
		BLOΦ728-DUP2			Ba, Cr RPD↑ ↓
	✓	↓ -MS2	↓	↓	Std Mode noisy ↓
		SEQ-IBL3			
		↓ -CCV4			
		↓ -CCB4			
		BLEΦ3Φ1-BLK1	REN		
		↓ -BS1	↓		
		BLEΦ143-BLK1	SWN	20	
	✓	↓ -BS1	↓	↓	Std Mode noisy
		↓ -BS1	↓	↓	
		BLOΦ728-MS2		100	Ba, Cr, R↑ Ba, Cr only
		230Φ348-Φ1	REN	20	Pb only
		SEQ-IBL4			
		230Φ374-Φ3	REN	2	Pb only
		SEQ-IBL5			
		↓ -CCV5			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCBS			
	✓	Rinse			Break in Analysis - Flushed Sample Intro
	✓	SEQ-CALI			Be Removed
		↓ -CCV6			
		↓ -CCBG			
		BLDΦ578-BLK1	SWN	20	
		↓ -BS1	↓	↓	
		BLEΦΦ72-BLK1			
		↓ -BS1			Std Mode no. 34
		23DΦ394-Φ1			No Ag, Cr, Pb Ag, Cr, Pb, Zn only
		BLDΦ687-DUP2			
		↓ -MS2			
		↓ -MSD2			Ag % R ↓
		↓ -PS2	↓	↓	60ul K7409
		SEQ-IBLG			
		↓ -CCV7			
		↓ -CCB7			
		23AΦ467-Φ2	SWN	20	
		↓ -Φ3	↓	↓	Std Mode no. 34
		↓ -Φ4			No Ag, Cr, Pb
		↓ -Φ5			
		↓ -Φ1			
		BLDΦ578-DUP1			
		↓ -MS1	↓	↓	Ag % R ↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLOΦ578-MSD1	SWN	20	
		↓ -PSI	↓	↓	60ml K7409
		SEQ-IBL7			
		↓ -CCV8			
		↓ -CCB8			
		23AΦ467-Φ6	SWN	20	
		↓ -Φ7	↓	↓	
		↓ -Φ8	↓	↓	
		↓ -Φ9	↓	↓	
		230Φ392-Φ4			In ⁺ , Dn ⁺ / As, Cu, Pb, Zn ⁺ / Cr only
		BLEΦΦ72-DUP1			
		↓ -MS1	↓	↓	
		↓ -MSD1	↓	↓	
		↓ -PSI	↓	↓	60ml K7409
		SEQ-IBL8			
		↓ -CCV9			
		↓ -CCB9			
		23CΦΦ71-Φ1	SWN	20	
		↓ -Φ2	↓	↓	
		↓ -Φ3	↓	↓	Std made noisy
		↓ -Φ4	↓	↓	No Ag, Cr, Pb
		↓ -Φ5	↓	↓	
		↓ -Φ6	↓	↓	
		23CΦ1Φ9-Φ2	↓	↓	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23CΦ1Φ9-Φ3	SWN	20	
		23CΦ1Φ8-Φ2	↓	↓	
		SEQ-IBL9			
		↓ -CCVA			
		↓ -CCBA			
		23CΦ1Φ8-Φ6	SWN	20	
		↓ -Φ7	↓	↓	
		↓ -Φ8	↓	↓	
		↓ -Φ9	↓	↓	
		230ΦΦ8-Φ1			Std Mode no. 74
		↓ -Φ3			No Ag, Cr, Pb
		230ΦΦ37-Φ1			
		↓ -Φ3			
		↓ -Φ2	↓	↓	
		SEQ-IBLA			
		↓ -CCVB			
		↓ -CCBB			
	✓	↓ -CALI			
		↓ -CCVC			
		↓ -CCBC			
		230ΦΦ37-Φ4	SWN	20	
		230ΦΦ63-Φ1	↓	↓	
		↓ -Φ3	↓	↓	
		230Φ452-Φ1	REN	2	Pb only



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ462-Φ1	REN	2	Pb only
		23EΦ135-Φ1	↓		
		↓ -Φ2	↓		
		↓ -Φ3	↓		
		↓ -Φ4	↓		
		SEQ IBLB			
		↓ -CCVD			
		↓ -CCBD			
		23EΦ138-Φ1	REN	2	
		23EΦ139-Φ1	↓	↓	
		↓ -Φ2	↓	↓	
		↓ -Φ3	↓	↓	
		SEQ IBLC			
		23EΦ136-Φ1	REN		
		23EΦ137-Φ1	↓		
		230Φ477-21	↓		
		↓ -22	↓		
		SEQ-IBLD			
		↓ -CCVE			
		↓ -CCBE			
		230Φ477-11	REN	2	No Pb
		↓ -13	↓	↓	↓
		↓ -Φ2	↓		
		230Φ48Φ-Φ1	↓	5	↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MS Sequence: Cal:

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-IBLE			
		2300537-05	REN	5	Cr only
		BLE0120-DUP3	↓	↓	↓
		-MS3	↓	↓	↓
		-MS03	↓	↓	↓
		SEQ-IBLF			
		-CCVF			Pb↑
		-CCBF			
	✓	-CALI			
		-CCVG			
		-CCBG			
		2300477-04	REN		No Pb
		-06	↓		↓
		-08	↓		↓
		-10	↓		↓
		-12	↓		↓
		-20	↓		↓
		BLE0100-DUP1	↓		↓
		-MS1	↓		↓
		-MS01	↓		↓
		SEQ-IBLG			
		-CCVH			Pb↑
		-CCBH			
		2300477-14	REN		No Pb



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ477-16	REN		No Pb
		↓ -18	↓		↓
		↓ -Φ1			
		↓ -Φ3			
		↓ -Φ7			
		↓ -Φ9			
		↓ -15			
		230Φ487-Φ2	↓	5	
		SEQ-IBLH			
		↓ -CCVI			
		↓ -CCBI			
		230Φ487-Φ6	REN	2	
		↓ -Φ5	↓	↓	
		↓ -Φ4			
		↓ -Φ3	↓		
		SEQ-IBLI			
		230Φ636-Φ1	REN	10	No Pb
		BLEΦ298-DUPI	↓	↓	↓
		↓ -MSI			
		↓ -MSO1	↓	↓	
		SEQ-IBLJ			
		↓ -CCVJ			Pb↑
		↓ -CCBJ			
		Rinse/DI			

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Wednesday, May 10, 2023 14:43:46

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.149

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode
Be	9.0		5723.5		5723.480		56.895		1.0	Standard
In	114.9		69596.5		-341751.511		924.539		0.3	Standard
U	238.1		90402.3		90402.284		679.988		0.8	Standard
[CeO	155.9		1526.9		0.017		0.000		1.7	Standard
> Ce	139.9		87807.4		87807.445		764.748		0.9	Standard
[Ce++	70.0		422.3		0.005		0.000		1.5	Standard
Bkgd	220.0		6.3		6.300		3.351		53.2	Standard

Current Conditions File Data

Current Value	Description
0.92	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.92	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Wednesday, May 10, 2023 14:45:50

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/10/2023 2:43:45 PM

End Time: 5/10/2023 2:52:33 PM

STD Performance Check - [Failed]

Obtained Intensity (Be 9): 5723.48

Obtained Intensity (In 115): 69596.54

Obtained Intensity (U 238): 90402.28

Obtained Intensity (Bkgd 220): 6.30 - <Target not achieved>

Obtained Formula (Ce++ 70 / Ce 140): 0.005 (=422.34 / 87807.44)

Obtained Formula (CeO 156 / Ce 140): 0.017 (=1526.95 / 87807.44)

Obtained RSD (Be 9): 0.0099

Obtained RSD (In 115): 0.0027

Obtained RSD (U 238): 0.0075

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.90 mm	0.96 mm	88181.32

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.92

Obtained Intensity (In 115): 84673.19

Obtained Formula (CeO 156 / Ce 140): 0.0203 (=2063.15 / 101494.26)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)

Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.688)

Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.698)

Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.701)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -15.80

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.987; Intercept = -15.94

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/10/2023 2:43:45 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 5723.48
Obtained Intensity (In 115): 69596.54
Obtained Intensity (U 238): 90402.28
Obtained Intensity (Bkgd 220): 6.30 - <Target not achieved>
Obtained Formula (Ce++ 70 / Ce 140): 0.005 (=422.34 / 87807.44)
Obtained Formula (CeO 156 / Ce 140): 0.017 (=1526.95 / 87807.44)
Obtained RSD (Be 9): 0.0099
Obtained RSD (In 115): 0.0027
Obtained RSD (U 238): 0.0075

[Failed]

[Failed]

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.
Intensity Criterion: In 115 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
[Passed]	0.90 mm	0.96 mm	88181.32

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.
Initial Try - Start/End/Step: 0.89/0.96/0.01.
Intensity Criterion: In 115 Maximum
Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 84673.19
Obtained Formula (CeO 156 / Ce 140): 0.0203 (=2063.15 / 101494.26)

[Passed] optimum value(s): 0.92

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Iterations: 6
Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.663) - <Target not achieved>
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.695)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.699)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.684)
[Failed]

Retry 1

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.688)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.698)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.701)

[Passed] Optimum value(s): N/A

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -15.80

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-16	46294.9
Mg	24	41	-16	32452.8
In	115	41	-13	86971.9
Ce	140	41	-12	102732
Pb	208	41	-11.5	62146.9
U	238	41	-11.5	114360

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.987; Intercept = -15.94

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-16	37509.2
Mg	24	41	-15.5	70742.7
In	115	41	-13	125291
Ce	140	41	-11.5	108660
Pb	208	41	-11	62379.9

U 238 41 -10.5 141719

End Time: 5/10/2023 2:52:33 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/10/2023 2:52:35 PM

End Time: 5/10/2023 2:53:50 PM

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.998; Intercept = -16.07

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/10/2023 2:52:35 PM

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.998; Intercept = -16.07

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-16	38908.9
Mg	24	41	-15.5	65678.6
In	115	41	-12.5	124315
Ce	140	41	-11.5	108152
Pb	208	41	-11	62408
U	238	41	-11	146831

End Time: 5/10/2023 2:53:50 PM

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Wednesday, May 10, 2023 14:53:54

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.157

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0		6511.5		6511.484	145.377	2.2	Standard
In	114.9		81325.5		81325.516	897.738	1.1	Standard
U	238.1		113291.7		113291.661	1664.283	1.5	Standard
[CeO	155.9		1966.6		0.020	0.000	2.4	Standard
> Ce	139.9		98993.0		98993.030	999.094	1.0	Standard
[Ce++	70.0		668.1		0.007	0.000	3.1	Standard
Bkgd	220.0		1.1		1.133	0.650	57.3	Standard

Current Conditions File Data

Current Value	Description
0.92	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.92	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Wednesday, May 10, 2023 14:55:58

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/10/2023 2:53:54 PM

End Time: 5/10/2023 2:55:58 PM

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 6511.48

Obtained Intensity (In 115): 81325.52

Obtained Intensity (U 238): 113291.66

Obtained Intensity (Bkgd 220): 1.13

Obtained Formula (Ce++ 70 / ce 140): 0.007 (=668.15 / 98993.03)

Obtained Formula (CeO 156 / ce 140): 0.020 (=1966.60 / 98993.03)

Obtained RSD (Be 9): 0.0223

Obtained RSD (In 115): 0.0110

Obtained RSD (U 238): 0.0147

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/10/2023 2:53:54 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: Ce0 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 6511.48
Obtained Intensity (In 115): 81325.52
Obtained Intensity (U 238): 113291.66
Obtained Intensity (Bkgd 220): 1.13
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=668.15 / 98993.03)
Obtained Formula (Ce0 156 / Ce 140): 0.020 (=1966.60 / 98993.03)
Obtained RSD (Be 9): 0.0223
Obtained RSD (In 115): 0.0110
Obtained RSD (U 238): 0.0147

[Passed] Optimum value(s): N/A

End Time: 5/10/2023 2:55:58 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:28:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				24207	2	Standard
[>	Sc	45	ug/L				474403	0	Standard
|	Cr	52	ug/L				8456	1	Standard
|	Cr	53	ug/L				81	14	Standard
[>	Ge	72	ug/L				28967	4	KED
|	Ni	60	ug/L				19	10	KED
|	Ni	62	ug/L				5	78	KED
|	Cu	63	ug/L				43	9	KED
|	Cu	65	ug/L				24	15	KED
|	Zn	66	ug/L				19	22	KED
|	Zn	67	ug/L				2	173	KED
|	As	75	ug/L				1	33	KED
	Y	89	ug/L				49674	0	Standard
	Kr	83	ug/L				32	42	Standard
[>	In-1	115	ug/L				6259	5	KED
|	Cd	111	ug/L				0	100	KED
|	Cd	114	ug/L				0	206	KED
[>	In	115	ug/L				474692	1	Standard
|	Ag	107	ug/L				12	31	Standard
|	Ba	135	ug/L				15	25	Standard
|	Ba	137	ug/L				31	30	Standard
[>	Tb	159	ug/L				170775	0	Standard
|	Pb	208	ug/L				201	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:32:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			24207	25883	2	Standard
[> Sc	45		ug/L			474403	523902	3	Standard
| Cr	52	0.500	ug/L	0.021	4	8456	15234	1	Standard
| Cr	53	0.500	ug/L	0.020	4	81	873	1	Standard
[> Ge	72		ug/L			28967	29195	0	KED
| Ni	60	0.500	ug/L	0.034	6	19	780	6	KED
| Ni	62	0.500	ug/L	0.050	10	5	116	9	KED
| Cu	63	0.500	ug/L	0.026	5	43	2412	4	KED
| Cu	65	0.500	ug/L	0.034	6	24	1190	5	KED
| Zn	66	6.000	ug/L	0.090	1	19	3153	0	KED
| Zn	67	6.000	ug/L	0.211	3	2	498	3	KED
| As	75	0.200	ug/L	0.040	19	1	51	18	KED
| Y	89		ug/L			49674	50949	1	Standard
| Kr	83		ug/L			32	51	16	Standard
[> In-1	115		ug/L			6259	6039	1	KED
| Cd	111	0.100	ug/L	0.020	19	0	23	18	KED
| Cd	114	0.100	ug/L	0.009	9	0	63	7	KED
[> In	115		ug/L			474692	480250	1	Standard
| Ag	107	0.200	ug/L	0.005	2	12	3172	2	Standard
| Ba	135	0.500	ug/L	0.016	3	15	2622	4	Standard
| Ba	137	0.500	ug/L	0.009	1	31	4621	2	Standard
[> Tb	159		ug/L			170775	172878	1	Standard
| Pb	208	0.100	ug/L	0.002	2	201	9324	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:37:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			24207	29617	2	Standard
[>	Sc	45		ug/L			474403	621120	0	Standard
|	Cr	52	10.000	ug/L	0.223	2	8456	152564	2	Standard
|	Cr	53	9.997	ug/L	0.230	2	81	16498	2	Standard
[>	Ge	72		ug/L			28967	29364	0	KED
|	Ni	60	9.999	ug/L	0.134	1	19	14840	1	KED
|	Ni	62	10.001	ug/L	0.349	3	5	2328	3	KED
|	Cu	63	9.997	ug/L	0.249	2	43	42394	2	KED
|	Cu	65	9.998	ug/L	0.087	0	24	21761	0	KED
|	Zn	66	9.987	ug/L	0.291	2	19	5247	2	KED
|	Zn	67	10.157	ug/L	0.430	4	2	885	3	KED
|	As	75	10.000	ug/L	0.358	3	1	2452	3	KED
	Y	89		ug/L			49674	52739	0	Standard
	Kr	83		ug/L			32	46	26	Standard
[>	In-1	115		ug/L			6259	6173	3	KED
|	Cd	111	10.000	ug/L	0.443	4	0	2332	4	KED
|	Cd	114	10.000	ug/L	0.345	3	0	6021	3	KED
[>	In	115		ug/L			474692	482786	2	Standard
|	Ag	107	10.000	ug/L	0.201	2	12	164963	1	Standard
|	Ba	135	10.001	ug/L	0.476	4	15	53839	2	Standard
|	Ba	137	10.001	ug/L	0.260	2	31	95966	0	Standard
[>	Tb	159		ug/L			170775	178874	0	Standard
|	Pb	208	10.000	ug/L	0.139	1	201	905833	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:47:22

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				23729	0	Standard
>	Sc	45	ug/L				509000	1	Standard
|	Cr	52	ug/L				8828	1	Standard
|	Cr	53	ug/L				74	13	Standard
>	Ge	72	ug/L				29303	1	KED
|	Ni	60	ug/L				5	21	KED
|	Ni	62	ug/L				1	100	KED
|	Cu	63	ug/L				34	20	KED
|	Cu	65	ug/L				19	27	KED
|	Zn	66	ug/L				23	32	KED
|	Zn	67	ug/L				5	0	KED
|	As	75	ug/L				3	9	KED
|	Y	89	ug/L				48310	2	Standard
|	Kr	83	ug/L				47	34	Standard
>	In-1	115	ug/L				6273	3	KED
|	Cd	111	ug/L				2	49	KED
|	Cd	114	ug/L				4	66	KED
>	In	115	ug/L				463649	3	Standard
|	Ag	107	ug/L				35	3	Standard
|	Ba	135	ug/L				24	20	Standard
|	Ba	137	ug/L				33	18	Standard
>	Tb	159	ug/L				169186	2	Standard
|	Pb	208	ug/L				224	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:51:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			23729	25525	0	Standard	
[>	Sc	45	ug/L			509000	512472	1	Standard	
|	Cr	52	0.500	ug/L	0.020	4	8828	15510	0	Standard
|	Cr	53	0.500	ug/L	0.011	2	74	847	3	Standard
[>	Ge	72	ug/L			29303	29478	0	KED	
|	Ni	60	0.500	ug/L	0.012	2	5	719	3	KED
|	Ni	62	0.500	ug/L	0.073	14	1	114	13	KED
|	Cu	63	0.500	ug/L	0.023	4	34	2502	5	KED
|	Cu	65	0.500	ug/L	0.009	1	19	1297	1	KED
|	Zn	66	6.000	ug/L	0.034	0	23	3137	0	KED
|	Zn	67	6.000	ug/L	0.410	6	5	517	5	KED
|	As	75	0.200	ug/L	0.016	8	3	49	7	KED
|	Y	89		ug/L		48310	49051	0	Standard	
|	Kr	83		ug/L		47	36	14	Standard	
[>	In-1	115		ug/L		6273	6139	4	KED	
|	Cd	111	0.100	ug/L	0.032	31	2	21	31	KED
|	Cd	114	0.100	ug/L	0.017	16	4	70	16	KED
[>	In	115		ug/L		463649	458533	2	Standard	
|	Ag	107	0.200	ug/L	0.006	3	35	3114	1	Standard
|	Ba	135	0.500	ug/L	0.031	6	24	2588	4	Standard
|	Ba	137	0.500	ug/L	0.021	4	33	4565	3	Standard
[>	Tb	159		ug/L		169186	175328	1	Standard	
|	Pb	208	0.100	ug/L	0.002	2	224	9061	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:56:19

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	28227	5	Standard
[>	Sc	45	ug/L			509000	547188	1	Standard
|	Cr	52	10.001	ug/L	0.180	8828	154411	2	Standard
|	Cr	53	10.000	ug/L	0.148	74	16549	0	Standard
[>	Ge	72		ug/L		29303	30268	1	KED
|	Ni	60	10.001	ug/L	0.091	5	15465	0	KED
|	Ni	62	10.001	ug/L	0.274	1	2447	1	KED
|	Cu	63	9.996	ug/L	0.164	34	43750	0	KED
|	Cu	65	9.995	ug/L	0.109	19	21697	1	KED
|	Zn	66	10.019	ug/L	0.157	23	5390	0	KED
|	Zn	67	10.037	ug/L	0.375	5	893	2	KED
|	As	75	10.000	ug/L	0.098	3	2479	0	KED
|	Y	89		ug/L		48310	52333	3	Standard
|	Kr	83		ug/L		47	35	29	Standard
[>	In-1	115		ug/L		6273	6321	4	KED
|	Cd	111	10.000	ug/L	0.361	2	2354	2	KED
|	Cd	114	10.000	ug/L	0.490	4	6079	0	KED
[>	In	115		ug/L		463649	495399	2	Standard
|	Ag	107	10.000	ug/L	0.327	35	161409	1	Standard
|	Ba	135	10.000	ug/L	0.202	24	54582	0	Standard
|	Ba	137	9.999	ug/L	0.141	33	95918	1	Standard
[>	Tb	159		ug/L		169186	178590	0	Standard
|	Pb	208	10.000	ug/L	0.024	224	903317	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:01:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	29878	4	Standard
[> Sc	45		ug/L			509000	545359	2	Standard
| Cr	52	20.025	ug/L	0.642	3	8828	300001	2	Standard
| Cr	53	20.105	ug/L	0.478	2	74	33786	1	Standard
[> Ge	72		ug/L			29303	30442	0	KED
| Ni	60	19.876	ug/L	0.260	1	5	30161	1	KED
| Ni	62	20.030	ug/L	0.349	1	1	4958	1	KED
| Cu	63	19.912	ug/L	0.144	0	34	86125	1	KED
| Cu	65	20.015	ug/L	0.243	1	19	43816	1	KED
| Zn	66	19.772	ug/L	0.229	1	23	10331	1	KED
| Zn	67	19.846	ug/L	0.513	2	5	1733	2	KED
| As	75	19.906	ug/L	0.056	0	3	4870	0	KED
Y	89		ug/L			48310	53094	1	Standard
Kr	83		ug/L			47	41	20	Standard
[> In-1	115		ug/L			6273	6343	2	KED
| Cd	111	19.953	ug/L	0.881	4	2	4669	3	KED
| Cd	114	20.027	ug/L	0.435	2	4	12296	1	KED
[> In	115		ug/L			463649	489391	1	Standard
| Ag	107	19.959	ug/L	0.325	1	35	315783	3	Standard
| Ba	135	19.968	ug/L	0.582	2	24	106955	1	Standard
| Ba	137	20.045	ug/L	0.402	2	33	191641	0	Standard
[> Tb	159		ug/L			169186	179464	1	Standard
| Pb	208	19.937	ug/L	0.237	1	224	1786784	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:05:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	25400	2	Standard
[> Sc	45		ug/L			509000	558473	1	Standard
| Cr	52	49.655	ug/L	0.911	1	8828	723106	2	Standard
| Cr	53	49.854	ug/L	0.903	1	74	84458	2	Standard
[> Ge	72		ug/L			29303	30015	2	KED
| Ni	60	49.697	ug/L	0.680	1	5	72172	3	KED
| Ni	62	49.505	ug/L	0.762	1	1	11513	2	KED
| Cu	63	49.635	ug/L	1.321	2	34	204227	4	KED
| Cu	65	49.687	ug/L	0.309	0	19	103947	1	KED
| Zn	66	49.611	ug/L	1.423	2	23	24635	4	KED
| Zn	67	49.320	ug/L	1.429	2	5	3987	4	KED
| As	75	49.951	ug/L	0.505	1	3	11985	2	KED
Y	89		ug/L			48310	50964	0	Standard
Kr	83		ug/L			47	54	10	Standard
[> In-1	115		ug/L			6273	6292	0	KED
| Cd	111	49.924	ug/L	0.530	1	2	11505	0	KED
| Cd	114	49.773	ug/L	0.306	0	4	29642	0	KED
[> In	115		ug/L			463649	482571	0	Standard
| Ag	107	49.781	ug/L	0.756	1	35	759786	0	Standard
| Ba	135	49.982	ug/L	0.497	0	24	263565	1	Standard
| Ba	137	50.029	ug/L	0.399	0	33	473061	0	Standard
[> Tb	159		ug/L			169186	178836	0	Standard
| Pb	208	49.835	ug/L	0.541	1	224	4378529	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:12:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	28122	4	Standard
[> Sc	45		ug/L			509000	558930	1	Standard
| Cr	52	100.051	ug/L	0.647	0	8828	1450921	2	Standard
| Cr	53	99.871	ug/L	2.158	2	74	168498	0	Standard
[> Ge	72		ug/L			29303	30158	2	KED
| Ni	60	99.810	ug/L	1.688	1	5	144647	0	KED
| Ni	62	99.827	ug/L	1.638	1	1	23190	3	KED
| Cu	63	99.425	ug/L	2.145	2	34	403052	1	KED
| Cu	65	99.706	ug/L	2.344	2	19	207473	1	KED
| Zn	66	100.020	ug/L	2.199	2	23	49885	1	KED
| Zn	67	100.026	ug/L	1.801	1	5	8123	2	KED
| As	75	100.105	ug/L	1.080	1	3	24213	1	KED
Y	89		ug/L			48310	51944	4	Standard
Kr	83		ug/L			47	57	13	Standard
[> In-1	115		ug/L			6273	6458	1	KED
| Cd	111	99.701	ug/L	0.430	0	2	23347	1	KED
| Cd	114	99.566	ug/L	0.654	0	4	59985	0	KED
[> In	115		ug/L			463649	450932	0	Standard
| Ag	107	101.152	ug/L	1.685	1	35	1500263	1	Standard
| Ba	135	101.705	ug/L	0.844	0	24	531312	1	Standard
| Ba	137	101.623	ug/L	2.092	2	33	949210	1	Standard
[> Tb	159		ug/L			169186	178763	1	Standard
| Pb	208	99.203	ug/L	0.769	0	224	8487184	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:19:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	24581	4	Standard
[> Sc	45		ug/L			509000	533088	2	Standard
| Cr	52	0.011	ug/L	0.014	123	8828	9404	4	Standard
| Cr	53	0.004	ug/L	0.001	25	74	84	4	Standard
[> Ge	72		ug/L			29303	30002	0	KED
| Ni	60	0.000	ug/L	0.001	370	5	5	33	KED
| Ni	62	-0.000	ug/L	0.008	4930	1	1	100	KED
| Cu	63	0.003	ug/L	0.000	18	34	46	4	KED
| Cu	65	0.001	ug/L	0.006	428	19	22	50	KED
| Zn	66	0.007	ug/L	0.022	332	23	27	39	KED
| Zn	67	-0.025	ug/L	0.062	245	5	3	132	KED
| As	75	0.004	ug/L	0.003	71	3	4	17	KED
Y	89		ug/L			48310	48443	1	Standard
Kr	83		ug/L			47	46	13	Standard
[> In-1	115		ug/L			6273	6574	1	KED
| Cd	111	-0.006	ug/L	0.004	71	2	0	100	KED
| Cd	114	-0.002	ug/L	0.005	343	4	3	89	KED
[> In	115		ug/L			463649	469846	4	Standard
| Ag	107	0.004	ug/L	0.001	32	35	105	21	Standard
| Ba	135	-0.001	ug/L	0.000	15	24	19	0	Standard
| Ba	137	0.000	ug/L	0.001	351	33	37	31	Standard
[> Tb	159		ug/L			169186	173731	3	Standard
| Pb	208	0.001	ug/L	0.000	37	224	311	8	Standard

Sample Information

Sample Date/Time: Wednesday, May 10, 2023 16:12:26

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.m

Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Sc	45							
Cr	52	1.0000	0.026	0.50	10	20	50	100
Cr	53	1.0000	0.003	0.50	10	20	50	100
Ge	72							
Ni	60	1.0000	0.048	0.50	10	20	50	100
Ni	62	0.9999	0.008	0.50	10	20	50	100
Cu	63	0.9999	0.134	0.50	10	20	50	100
Cu	65	1.0000	0.069	0.50	10	20	50	100
Zn	66	1.0000	0.017	6.00	10	20	50	100
Zn	67	0.9999	0.003	6.00	10	20	50	100
As	75	1.0000	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	1.0000	0.036	0.10	10	20	50	100
Cd	114	1.0000	0.093	0.10	10	20	50	100
In	115							
Ag	107	0.9998	0.033	0.20	10	20	50	100
Ba	135	0.9995	0.012	0.50	10	20	50	100
Ba	137	0.9996	0.021	0.50	10	20	50	100
Tb	159							
Pb	208	0.9999	0.479	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:25:31

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	29797	4	Standard
[> Sc	45		ug/L			509000	564850	0	Standard
| Cr	52	52.907	ug/L	1.586	2	8828	780016	3	Standard
| Cr	53	51.308	ug/L	1.827	3	74	87546	3	Standard
[> Ge	72		ug/L			29303	31782	0	KED
| Ni	60	50.903	ug/L	0.178	0	5	77766	0	KED
| Ni	62	51.012	ug/L	1.334	2	1	12489	2	KED
| Cu	63	52.299	ug/L	0.986	1	34	223527	2	KED
| Cu	65	51.383	ug/L	1.337	2	19	112722	2	KED
| Zn	66	50.838	ug/L	0.626	1	23	26741	1	KED
| Zn	67	50.580	ug/L	0.623	1	5	4332	0	KED
| As	75	48.181	ug/L	0.178	0	3	12285	0	KED
Y	89		ug/L			48310	52288	1	Standard
Kr	83		ug/L			47	44	15	Standard
[> In-1	115		ug/L			6273	6677	2	KED
| Cd	111	51.665	ug/L	1.744	3	2	12504	2	KED
| Cd	114	51.793	ug/L	1.375	2	4	32251	0	KED
[> In	115		ug/L			463649	478187	2	Standard
| Ag	107	50.790	ug/L	1.892	3	35	798375	1	Standard
| Ba	135	49.978	ug/L	0.851	1	24	276825	1	Standard
| Ba	137	50.115	ug/L	0.177	0	33	496417	2	Standard
[> Tb	159		ug/L			169186	183312	0	Standard
| Pb	208	52.638	ug/L	1.364	2	224	4617664	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:32:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	26356	3	Standard
[> Sc	45		ug/L			509000	539338	1	Standard
| Cr	52	0.017	ug/L	0.016	94	8828	9587	1	Standard
| Cr	53	-0.002	ug/L	0.002	123	74	75	6	Standard
[> Ge	72		ug/L			29303	30568	2	KED
| Ni	60	0.001	ug/L	0.003	424	5	6	69	KED
| Ni	62	0.005	ug/L	0.012	239	1	3	91	KED
| Cu	63	0.005	ug/L	0.004	81	34	57	30	KED
| Cu	65	0.004	ug/L	0.005	126	19	28	37	KED
| Zn	66	0.020	ug/L	0.026	126	23	34	38	KED
| Zn	67	-0.003	ug/L	0.045	1369	5	5	66	KED
| As	75	0.007	ug/L	0.008	127	3	4	43	KED
| Y	89		ug/L			48310	50406	2	Standard
| Kr	83		ug/L			47	43	11	Standard
[> In-1	115		ug/L			6273	6493	1	KED
| Cd	111	-0.002	ug/L	0.004	232	2	1	50	KED
| Cd	114	-0.006	ug/L	0.004	65	4	1	176	KED
[> In	115		ug/L			463649	465713	1	Standard
| Ag	107	0.002	ug/L	0.001	51	35	73	26	Standard
| Ba	135	-0.001	ug/L	0.001	199	24	21	28	Standard
| Ba	137	0.000	ug/L	0.001	389	33	36	31	Standard
[> Tb	159		ug/L			169186	175668	1	Standard
| Pb	208	0.001	ug/L	0.000	62	224	286	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:37:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	26594	2	Standard
[> Sc	45		ug/L			509000	564599	1	Standard
| Cr	52	51.471	ug/L	0.725	1	8828	758784	2	Standard
| Cr	53	50.536	ug/L	0.353	0	74	86184	1	Standard
[> Ge	72		ug/L			29303	32146	1	KED
| Ni	60	49.546	ug/L	1.173	2	5	76549	1	KED
| Ni	62	49.050	ug/L	0.276	0	1	12146	1	KED
| Cu	63	49.725	ug/L	0.346	0	34	214938	0	KED
| Cu	65	49.566	ug/L	1.054	2	19	109970	1	KED
| Zn	66	49.855	ug/L	1.259	2	23	26518	1	KED
| Zn	67	50.337	ug/L	1.507	2	5	4360	2	KED
| As	75	49.689	ug/L	1.019	2	3	12812	1	KED
Y	89		ug/L			48310	53576	2	Standard
Kr	83		ug/L			47	42	34	Standard
[> In-1	115		ug/L			6273	6756	1	KED
| Cd	111	49.652	ug/L	0.968	1	2	12162	1	KED
| Cd	114	50.647	ug/L	0.242	0	4	31925	1	KED
[> In	115		ug/L			463649	482029	1	Standard
| Ag	107	50.096	ug/L	0.827	1	35	794203	0	Standard
| Ba	135	49.631	ug/L	0.673	1	24	277141	0	Standard
| Ba	137	49.270	ug/L	0.397	0	33	491965	0	Standard
[> Tb	159		ug/L			169186	185684	1	Standard
| Pb	208	50.279	ug/L	0.957	1	224	4467825	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:44:37

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	26575	3	Standard
[>	Sc	45	ug/L			509000	541589	1	Standard
|	Cr	52	0.006	0.013	204	8828	9483	2	Standard
|	Cr	53	-0.005	0.004	84	74	70	11	Standard
[>	Ge	72	ug/L			29303	32305	1	KED
|	Ni	60	0.002	0.001	42	5	8	13	KED
|	Ni	62	-0.001	0.013	2070	1	1	173	KED
|	Cu	63	0.001	0.001	105	34	41	9	KED
|	Cu	65	-0.005	0.001	17	19	11	16	KED
|	Zn	66	0.005	0.012	245	23	28	24	KED
|	Zn	67	0.023	0.035	153	5	8	35	KED
|	As	75	0.004	0.006	144	3	4	37	KED
|	Y	89	ug/L			48310	50243	2	Standard
|	Kr	83	ug/L			47	43	16	Standard
[>	In-1	115	ug/L			6273	6862	1	KED
|	Cd	111	0.003	0.002	70	2	3	17	KED
|	Cd	114	-0.002	0.003	174	4	3	50	KED
[>	In	115	ug/L			463649	462636	4	Standard
|	Ag	107	0.002	0.001	43	35	67	20	Standard
|	Ba	135	0.000	0.001	237	24	26	15	Standard
|	Ba	137	-0.000	0.001	187	33	29	26	Standard
[>	Tb	159	ug/L			169186	175175	2	Standard
|	Pb	208	0.000	0.000	67	224	267	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:49:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	29745	3	Standard
[> Sc	45		ug/L			509000	544043	0	Standard
| Cr	52	0.523	ug/L	0.009	1	8828	16764	1	Standard
| Cr	53	0.501	ug/L	0.008	1	74	901	2	Standard
[> Ge	72		ug/L			29303	32168	0	KED
| Ni	60	0.493	ug/L	0.024	4	5	767	4	KED
| Ni	62	0.476	ug/L	0.072	15	1	120	14	KED
| Cu	63	0.708	ug/L	0.010	1	34	3101	2	KED
| Cu	65	0.727	ug/L	0.032	4	19	1635	3	KED
| Zn	66	6.250	ug/L	0.152	2	23	3349	2	KED
| Zn	67	6.111	ug/L	0.086	1	5	535	0	KED
| As	75	0.213	ug/L	0.006	2	3	58	3	KED
Y	89		ug/L			48310	50496	2	Standard
Kr	83		ug/L			47	45	12	Standard
[> In-1	115		ug/L			6273	6541	2	KED
| Cd	111	0.113	ug/L	0.021	18	2	29	16	KED
| Cd	114	0.097	ug/L	0.023	23	4	64	22	KED
[> In	115		ug/L			463649	478093	1	Standard
| Ag	107	0.202	ug/L	0.006	2	35	3206	1	Standard
| Ba	135	0.482	ug/L	0.013	2	24	2696	3	Standard
| Ba	137	0.483	ug/L	0.017	3	33	4821	3	Standard
[> Tb	159		ug/L			169186	178239	1	Standard
| Pb	208	0.107	ug/L	0.004	4	224	9331	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:56:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	82148	4	Standard
[>	Sc	45	ug/L			509000	540030	1	Standard
|	Cr	52	ug/L	0.017	2	8828	18570	2	Standard
|	Cr	53	ug/L	0.086	4	74	2916	6	Standard
[>	Ge	72	ug/L			29303	28977	0	KED
|	Ni	60	ug/L	0.017	15	5	154	13	KED
|	Ni	62	ug/L	0.014	11	1	28	11	KED
|	Cu	63	ug/L	0.002	5	34	186	5	KED
|	Cu	65	ug/L	0.012	37	19	84	28	KED
|	Zn	66	ug/L	0.053	17	23	172	13	KED
|	Zn	67	ug/L	0.085	31	5	26	25	KED
|	As	75	ug/L	0.012	45	3	9	31	KED
|	Y	89	ug/L			48310	49648	3	Standard
|	Kr	83	ug/L			47	65	18	Standard
[>	In-1	115	ug/L			6273	5999	0	KED
|	Cd	111	ug/L	0.020	45	2	11	38	KED
|	Cd	114	ug/L	0.012	42	4	19	34	KED
[>	In	115	ug/L			463649	441167	0	Standard
|	Ag	107	ug/L	0.000	7	35	104	5	Standard
|	Ba	135	ug/L	0.007	5	24	599	5	Standard
|	Ba	137	ug/L	0.005	4	33	1070	4	Standard
[>	Tb	159	ug/L			169186	167906	0	Standard
|	Pb	208	ug/L	0.000	0	224	2394	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:00:36

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	80778	1	Standard
[> Sc	45		ug/L			509000	530617	1	Standard
| Cr	52	20.186	ug/L	0.671	3	8828	285340	4	Standard
| Cr	53	21.276	ug/L	0.553	2	74	34155	4	Standard
[> Ge	72		ug/L			29303	27650	1	KED
| Ni	60	20.512	ug/L	0.872	4	5	27258	3	KED
| Ni	62	20.858	ug/L	0.487	2	1	4443	1	KED
| Cu	63	20.580	ug/L	0.468	2	34	76522	1	KED
| Cu	65	20.103	ug/L	0.651	3	19	38370	2	KED
| Zn	66	19.662	ug/L	0.585	2	23	9009	2	KED
| Zn	67	17.951	ug/L	1.720	9	5	1340	8	KED
| As	75	19.651	ug/L	0.451	2	3	4360	1	KED
Y	89		ug/L			48310	48740	2	Standard
Kr	83		ug/L			47	74	13	Standard
[> In-1	115		ug/L			6273	6028	0	KED
| Cd	111	18.519	ug/L	0.593	3	2	4049	2	KED
| Cd	114	18.365	ug/L	0.516	2	4	10330	2	KED
[> In	115		ug/L			463649	447152	1	Standard
| Ag	107	18.002	ug/L	0.130	0	35	264803	2	Standard
| Ba	135	0.109	ug/L	0.010	9	24	587	6	Standard
| Ba	137	0.104	ug/L	0.002	1	33	994	1	Standard
[> Tb	159		ug/L			169186	168627	2	Standard
| Pb	208	0.018	ug/L	0.001	2	224	1705	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:06:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	26329	2	Standard
> Sc	45		ug/L			509000	556001	2	Standard
| Cr	52	198.368	ug/L	1.458	0	8828	2851709	2	Standard
| Cr	53	195.087	ug/L	0.307	0	74	327408	2	Standard
> Ge	72		ug/L			29303	29227	1	KED
| Ni	60	191.945	ug/L	3.999	2	5	269634	1	KED
| Ni	62	186.640	ug/L	4.629	2	1	42024	3	KED
| Cu	63	187.668	ug/L	2.643	1	34	737510	2	KED
| Cu	65	185.711	ug/L	3.770	2	19	374570	1	KED
| Zn	66	189.266	ug/L	0.834	0	23	91483	1	KED
| Zn	67	186.660	ug/L	4.772	2	5	14685	1	KED
| As	75	193.838	ug/L	1.289	0	3	45439	0	KED
Y	89		ug/L			48310	49992	1	Standard
Kr	83		ug/L			47	83	11	Standard
> In-1	115		ug/L			6273	5371	18	KED
| Cd	111	219.502	ug/L	43.976	20	2	41729	4	KED
| Cd	114	220.074	ug/L	39.817	18	4	107921	4	KED
> In	115		ug/L			463649	435715	1	Standard
| Ag	107	193.623	ug/L	0.562	0	35	2774950	2	Standard
| Ba	135	193.128	ug/L	4.604	2	24	974609	1	Standard
| Ba	137	193.380	ug/L	2.785	1	33	1745084	0	Standard
> Tb	159		ug/L			169186	171188	2	Standard
| Pb	208	200.008	ug/L	5.919	2	224	16378774	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:11:16

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	29606	4	Standard
> Sc	45		ug/L			509000	552654	1	Standard
| Cr	52	305.580	ug/L	3.631	1	8828	4362199	2	Standard
| Cr	53	294.803	ug/L	0.531	0	74	491755	1	Standard
> Ge	72		ug/L			29303	28899	0	KED
| Ni	60	290.897	ug/L	5.116	1	5	404100	2	KED
| Ni	62	288.363	ug/L	1.622	0	1	64187	0	KED
| Cu	63	287.043	ug/L	2.289	0	34	1115281	0	KED
| Cu	65	287.453	ug/L	2.535	0	19	573363	1	KED
| Zn	66	285.291	ug/L	2.722	0	23	136335	0	KED
| Zn	67	287.574	ug/L	3.024	1	5	22370	1	KED
| As	75	305.011	ug/L	1.315	0	3	70699	0	KED
Y	89		ug/L			48310	49758	1	Standard
Kr	83		ug/L			47	116	11	Standard
> In-1	115		ug/L			6273	6204	3	KED
| Cd	111	292.818	ug/L	9.764	3	2	65819	0	KED
| Cd	114	294.321	ug/L	10.877	3	4	170207	1	KED
> In	115		ug/L			463649	405906	0	Standard
| Ag	107	310.853	ug/L	5.576	1	35	4149787	1	Standard
| Ba	135	294.858	ug/L	8.523	2	24	1386297	2	Standard
| Ba	137	299.321	ug/L	3.477	1	33	2516816	1	Standard
> Tb	159		ug/L			169186	154666	1	Standard
| Pb	208	316.508	ug/L	5.627	1	224	23425103	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:18:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	28126	2	Standard
[>	Sc	45	ug/L			509000	570158	2	Standard
|	Cr	52	0.013	0.019	142	8828	10078	2	Standard
|	Cr	53	0.006	0.004	67	74	93	8	Standard
[>	Ge	72	ug/L			29303	34258	1	KED
|	Ni	60	0.006	0.003	41	5	15	27	KED
|	Ni	62	0.004	0.015	410	1	3	124	KED
|	Cu	63	0.003	0.003	95	34	54	23	KED
|	Cu	65	0.003	0.001	51	19	29	9	KED
|	Zn	66	0.019	0.018	97	23	38	26	KED
|	Zn	67	0.031	0.055	177	5	9	52	KED
|	As	75	0.013	0.005	36	3	7	17	KED
|	Y	89	ug/L			48310	52547	0	Standard
|	Kr	83	ug/L			47	52	20	Standard
[>	In-1	115	ug/L			6273	7246	0	KED
|	Cd	111	-0.000	0.008	8315	2	2	78	KED
|	Cd	114	-0.000	0.003	1197	4	4	43	KED
[>	In	115	ug/L			463649	497647	2	Standard
|	Ag	107	0.008	0.002	18	35	175	12	Standard
|	Ba	135	0.002	0.001	54	24	40	19	Standard
|	Ba	137	0.004	0.002	44	33	80	23	Standard
[>	Tb	159	ug/L			169186	187495	1	Standard
|	Pb	208	0.002	0.000	19	224	437	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:24:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	28216	2	Standard
[> Sc	45		ug/L			509000	614310	2	Standard
| Cr	52	49.614	ug/L	0.154	0	8828	796164	2	Standard
| Cr	53	49.306	ug/L	0.655	1	74	91479	1	Standard
[> Ge	72		ug/L			29303	33882	0	KED
| Ni	60	48.761	ug/L	0.591	1	5	79418	1	KED
| Ni	62	49.065	ug/L	1.020	2	1	12807	2	KED
| Cu	63	50.335	ug/L	0.792	1	34	229335	1	KED
| Cu	65	49.788	ug/L	0.248	0	19	116447	0	KED
| Zn	66	49.118	ug/L	1.011	2	23	27541	1	KED
| Zn	67	51.803	ug/L	0.793	1	5	4730	2	KED
| As	75	50.107	ug/L	0.465	0	3	13619	0	KED
Y	89		ug/L			48310	55027	0	Standard
Kr	83		ug/L			47	46	15	Standard
[> In-1	115		ug/L			6273	7119	3	KED
| Cd	111	50.184	ug/L	1.227	2	2	12949	0	KED
| Cd	114	50.175	ug/L	0.566	1	4	33318	2	KED
[> In	115		ug/L			463649	504029	0	Standard
| Ag	107	48.797	ug/L	0.760	1	35	808976	1	Standard
| Ba	135	49.515	ug/L	0.138	0	24	289131	0	Standard
| Ba	137	49.043	ug/L	0.770	1	33	512033	0	Standard
[> Tb	159		ug/L			169186	194827	2	Standard
| Pb	208	50.847	ug/L	1.120	2	224	4739539	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:32:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	27340	2	Standard
[>	Sc	45	ug/L			509000	580003	1	Standard
|	Cr	52	0.023	0.039	169	8828	10405	7	Standard
|	Cr	53	0.028	0.037	134	74	133	50	Standard
[>	Ge	72	ug/L			29303	34295	1	KED
|	Ni	60	0.001	0.003	301	5	7	66	KED
|	Ni	62	-0.004	0.008	221	1	1	173	KED
|	Cu	63	0.000	0.002	646	34	41	15	KED
|	Cu	65	-0.000	0.005	8359	19	22	46	KED
|	Zn	66	0.009	0.009	100	23	32	15	KED
|	Zn	67	-0.004	0.023	606	5	6	34	KED
|	As	75	0.008	0.012	144	3	5	54	KED
|	Y	89	ug/L			48310	53554	1	Standard
|	Kr	83	ug/L			47	59	14	Standard
[>	In-1	115	ug/L			6273	7121	2	KED
|	Cd	111	-0.001	0.002	159	2	2	24	KED
|	Cd	114	-0.001	0.001	145	4	4	24	KED
[>	In	115	ug/L			463649	495495	2	Standard
|	Ag	107	0.030	0.033	110	35	527	103	Standard
|	Ba	135	0.024	0.030	120	24	169	102	Standard
|	Ba	137	0.026	0.031	123	33	303	108	Standard
[>	Tb	159	ug/L			169186	184923	3	Standard
|	Pb	208	0.030	0.029	98	224	2932	93	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:37:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				26311	4	Standard
[>	Sc	45	ug/L				566891	1	Standard
|	Cr	52	ug/L				10103	1	Standard
|	Cr	53	ug/L				90	11	Standard
[>	Ge	72	ug/L				32698	0	KED
|	Ni	60	ug/L				3	50	KED
|	Ni	62	ug/L				3	34	KED
|	Cu	63	ug/L				24	19	KED
|	Cu	65	ug/L				17	11	KED
|	Zn	66	ug/L				20	48	KED
|	Zn	67	ug/L				3	132	KED
|	As	75	ug/L				3	45	KED
	Y	89	ug/L				53020	2	Standard
	Kr	83	ug/L				39	12	Standard
[>	In-1	115	ug/L				7060	1	KED
|	Cd	111	ug/L				2	89	KED
|	Cd	114	ug/L				3	68	KED
[>	In	115	ug/L				494263	2	Standard
|	Ag	107	ug/L				53	2	Standard
|	Ba	135	ug/L				15	33	Standard
|	Ba	137	ug/L				16	52	Standard
[>	Tb	159	ug/L				184968	0	Standard
|	Pb	208	ug/L				252	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:41:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	27086	4	Standard
> Sc	45		ug/L			566891	602734	1	Standard
| Cr	52	50.087	ug/L	0.634	1	10103	788886	3	Standard
| Cr	53	49.352	ug/L	0.393	0	90	89874	2	Standard
> Ge	72		ug/L			32698	34111	1	KED
| Ni	60	48.892	ug/L	0.532	1	3	80169	1	KED
| Ni	62	49.253	ug/L	0.220	0	3	12944	1	KED
| Cu	63	49.622	ug/L	1.349	2	24	227559	1	KED
| Cu	65	48.368	ug/L	0.349	0	17	113892	1	KED
| Zn	66	50.735	ug/L	0.721	1	20	28634	1	KED
| Zn	67	50.136	ug/L	0.936	1	3	4607	3	KED
| As	75	49.751	ug/L	0.619	1	3	13613	0	KED
Y	89		ug/L			53020	55757	1	Standard
Kr	83		ug/L			39	41	29	Standard
> In-1	115		ug/L			7060	7062	1	KED
| Cd	111	50.589	ug/L	1.752	3	2	12950	2	KED
| Cd	114	50.362	ug/L	0.801	1	3	33178	2	KED
> In	115		ug/L			494263	496605	2	Standard
| Ag	107	49.227	ug/L	0.708	1	53	803963	0	Standard
| Ba	135	50.459	ug/L	2.381	4	15	290080	2	Standard
| Ba	137	50.527	ug/L	1.528	3	16	519526	0	Standard
> Tb	159		ug/L			184968	193060	1	Standard
| Pb	208	50.413	ug/L	1.135	2	252	4657369	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:49:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	26387	1	Standard
[>	Sc	45	ug/L			566891	577127	1	Standard
|	Cr	52	-0.020	0.010	47	10103	9985	2	Standard
|	Cr	53	-0.008	0.004	53	90	78	9	Standard
[>	Ge	72	ug/L			32698	34100	1	KED
|	Ni	60	-0.002	0.001	33	3	0	173	KED
|	Ni	62	-0.005	0.007	131	3	1	100	KED
|	Cu	63	0.000	0.001	191	24	26	12	KED
|	Cu	65	-0.001	0.001	121	17	15	21	KED
|	Zn	66	0.001	0.003	512	20	22	9	KED
|	Zn	67	-0.023	0.020	89	3	1	100	KED
|	As	75	0.000	0.005	4102	3	3	37	KED
|	Y	89				53020	51769	1	Standard
|	Kr	83				39	35	17	Standard
[>	In-1	115	ug/L			7060	7354	2	KED
|	Cd	111	0.007	0.014	201	2	4	87	KED
|	Cd	114	0.027	0.026	94	3	22	82	KED
[>	In	115	ug/L			494263	493687	2	Standard
|	Ag	107	0.006	0.006	98	53	153	65	Standard
|	Ba	135	0.003	0.007	220	15	33	118	Standard
|	Ba	137	0.004	0.006	151	16	60	111	Standard
[>	Tb	159	ug/L			184968	186545	0	Standard
|	Pb	208	0.004	0.006	143	252	643	86	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-BLK2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 17:54:17**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13			ug/L			26311	37670	3	Standard
>	Sc	45		ug/L			566891	603363	1	Standard
|	Cr	52	-0.001	ug/L	0.027	4639	10103	10740	2	Standard
|	Cr	53	0.001	ug/L	0.013	1768	90	97	22	Standard
>	Ge	72		ug/L			32698	33573	2	KED
|	Ni	60	0.004	ug/L	0.004	101	3	10	66	KED
|	Ni	62	-0.003	ug/L	0.011	368	3	2	114	KED
|	Cu	63	0.070	ug/L	0.006	8	24	340	8	KED
|	Cu	65	0.065	ug/L	0.006	9	17	166	7	KED
|	Zn	66	0.172	ug/L	0.045	25	20	116	21	KED
|	Zn	67	0.168	ug/L	0.041	24	3	19	17	KED
|	As	75	-0.003	ug/L	0.006	226	3	2	60	KED
|	Y	89		ug/L			53020	54713	1	Standard
|	Kr	83		ug/L			39	42	18	Standard
>	In-1	115		ug/L			7060	7281	1	KED
|	Cd	111	0.005	ug/L	0.002	48	2	3	15	KED
|	Cd	114	-0.001	ug/L	0.004	367	3	2	121	KED
>	In	115		ug/L			494263	517690	1	Standard
|	Ag	107	-0.000	ug/L	0.000	105	53	50	14	Standard
|	Ba	135	0.005	ug/L	0.000	6	15	45	2	Standard
|	Ba	137	0.008	ug/L	0.001	16	16	98	12	Standard
>	Tb	159		ug/L			184968	194843	1	Standard
|	Pb	208	0.008	ug/L	0.001	9	252	1056	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0687-BS2

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:58:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	33195	2	Standard
[> Sc	45		ug/L			566891	555862	11	Standard
| Cr	52	27.319	ug/L	2.314	8	10103	398623	3	Standard
| Cr	53	27.123	ug/L	2.036	7	90	45316	4	Standard
[> Ge	72		ug/L			32698	34536	1	KED
| Ni	60	26.277	ug/L	0.423	1	3	43618	0	KED
| Ni	62	25.531	ug/L	0.733	2	3	6793	1	KED
| Cu	63	26.428	ug/L	0.996	3	24	122696	2	KED
| Cu	65	26.366	ug/L	0.643	2	17	62849	1	KED
| Zn	66	81.431	ug/L	3.435	4	20	46502	2	KED
| Zn	67	77.856	ug/L	1.691	2	3	7239	2	KED
| As	75	24.595	ug/L	0.132	0	3	6815	0	KED
Y	89		ug/L			53020	50937	11	Standard
Kr	83		ug/L			39	43	2	Standard
[> In-1	115		ug/L			7060	7171	0	KED
| Cd	111	25.205	ug/L	0.178	0	2	6555	0	KED
| Cd	114	25.527	ug/L	0.381	1	3	17079	1	KED
[> In	115		ug/L			494263	475075	13	Standard
| Ag	107	26.777	ug/L	2.851	10	53	414464	4	Standard
| Ba	135	26.576	ug/L	2.759	10	15	144886	4	Standard
| Ba	137	26.205	ug/L	2.206	8	16	255882	5	Standard
[> Tb	159		ug/L			184968	178000	9	Standard
| Pb	208	27.358	ug/L	1.891	6	252	2320134	3	Standard

BLD

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0687-BS2

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:05:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	33167	3	Standard
[> Sc	45		ug/L			566891	617917	1	Standard
| Cr	52	26.566	ug/L	0.336	1	10103	434021	0	Standard
| Cr	53	25.839	ug/L	0.203	0	90	48285	2	Standard
[> Ge	72		ug/L			32698	35114	0	KED
| Ni	60	26.149	ug/L	0.318	1	3	44138	1	KED
| Ni	62	26.557	ug/L	0.236	0	3	7185	1	KED
| Cu	63	26.719	ug/L	0.111	0	24	126165	0	KED
| Cu	65	26.523	ug/L	0.868	3	17	64298	3	KED
| Zn	66	81.101	ug/L	0.657	0	20	47108	0	KED
| Zn	67	79.743	ug/L	2.633	3	3	7539	3	KED
| As	75	25.028	ug/L	0.475	1	3	7052	1	KED
| Y	89		ug/L			53020	54777	2	Standard
| Kr	83		ug/L			39	56	25	Standard
[> In-1	115		ug/L			7060	7190	2	KED
| Cd	111	25.907	ug/L	1.333	5	2	6749	2	KED
| Cd	114	25.906	ug/L	0.432	1	3	17376	2	KED
[> In	115		ug/L			494263	529323	0	Standard
| Ag	107	25.138	ug/L	0.889	3	53	437657	3	Standard
| Ba	135	25.018	ug/L	0.513	2	15	153411	1	Standard
| Ba	137	25.193	ug/L	0.818	3	16	276243	3	Standard
[> Tb	159		ug/L			184968	195659	1	Standard
| Pb	208	26.664	ug/L	0.249	0	252	2496863	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:11:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	38063	2	Standard
> Sc	45		ug/L			566891	597496	2	Standard
| Cr	52	-0.003	ug/L	0.011	446	10103	10607	1	Standard
| Cr	53	0.015	ug/L	0.002	15	90	121	5	Standard
> Ge	72		ug/L			32698	34566	1	KED
| Ni	60	0.005	ug/L	0.001	13	3	12	9	KED
| Ni	62	0.002	ug/L	0.007	416	3	3	50	KED
| Cu	63	0.028	ug/L	0.004	15	24	154	12	KED
| Cu	65	0.030	ug/L	0.004	12	17	90	10	KED
| Zn	66	0.367	ug/L	0.046	12	20	231	10	KED
| Zn	67	0.380	ug/L	0.094	24	3	39	22	KED
| As	75	-0.002	ug/L	0.003	112	3	2	26	KED
Y	89		ug/L			53020	53718	2	Standard
Kr	83		ug/L			39	38	21	Standard
> In-1	115		ug/L			7060	7412	2	KED
| Cd	111	-0.002	ug/L	0.004	224	2	1	50	KED
| Cd	114	-0.001	ug/L	0.002	306	3	2	38	KED
> In	115		ug/L			494263	508864	4	Standard
| Ag	107	0.001	ug/L	0.001	103	53	76	30	Standard
| Ba	135	0.044	ug/L	0.001	3	15	276	7	Standard
| Ba	137	0.041	ug/L	0.002	5	16	448	2	Standard
> Tb	159		ug/L			184968	189447	1	Standard
| Pb	208	0.003	ug/L	0.001	15	252	551	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:15:38**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	41219	2	Standard
> Sc	45		ug/L			566891	595237	2	Standard
| Cr	52	26.019	ug/L	0.637	2	10103	409724	2	Standard
| Cr	53	25.701	ug/L	0.388	1	90	46253	0	Standard
> Ge	72		ug/L			32698	33724	2	KED
| Ni	60	26.223	ug/L	0.188	0	3	42515	3	KED
| Ni	62	25.826	ug/L	0.457	1	3	6712	3	KED
| Cu	63	27.023	ug/L	0.029	0	24	122552	2	KED
| Cu	65	26.364	ug/L	0.662	2	17	61404	4	KED
| Zn	66	84.748	ug/L	0.880	1	20	47269	1	KED
| Zn	67	82.421	ug/L	2.653	3	3	7480	1	KED
| As	75	25.246	ug/L	0.327	1	3	6830	1	KED
Y	89		ug/L			53020	55215	3	Standard
Kr	83		ug/L			39	61	32	Standard
> In-1	115		ug/L			7060	7117	3	KED
| Cd	111	26.003	ug/L	0.830	3	2	6706	1	KED
| Cd	114	25.869	ug/L	1.271	4	3	17159	2	KED
> In	115		ug/L			494263	501527	1	Standard
| Ag	107	25.380	ug/L	0.349	1	53	418726	1	Standard
| Ba	135	25.446	ug/L	0.398	1	15	147835	0	Standard
| Ba	137	25.147	ug/L	0.112	0	16	261267	1	Standard
> Tb	159		ug/L			184968	192205	0	Standard
| Pb	208	25.898	ug/L	0.210	0	252	2382531	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0077-MS2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:21:17**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	40376	1	Standard
[> Sc	45		ug/L			566891	644293	2	Standard
| Cr	52	13.646	ug/L	0.334	2	10103	237982	1	Standard
| Cr	53	13.650	ug/L	0.413	3	90	26636	3	Standard
[> Ge	72		ug/L			32698	35599	1	KED
| Ni	60	14.278	ug/L	0.608	4	3	24427	3	KED
| Ni	62	14.855	ug/L	0.778	5	3	4078	6	KED
| Cu	63	17.856	ug/L	0.146	0	24	85486	1	KED
| Cu	65	17.890	ug/L	0.181	1	17	43971	1	KED
| Zn	66	44.470	ug/L	0.482	1	20	26195	0	KED
| Zn	67	44.109	ug/L	0.983	2	3	4229	1	KED
| As	75	14.390	ug/L	0.229	1	3	4111	0	KED
| Y	89		ug/L			53020	82049	1	Standard
| Kr	83		ug/L			39	44	35	Standard
[> In-1	115		ug/L			7060	7585	1	KED
| Cd	111	13.396	ug/L	0.268	2	2	3686	3	KED
| Cd	114	12.937	ug/L	0.159	1	3	9156	1	KED
[> In	115		ug/L			494263	520828	1	Standard
| Ag	107	13.168	ug/L	0.834	6	53	225463	4	Standard
| Ba	135	18.146	ug/L	0.439	2	15	109466	0	Standard
| Ba	137	18.016	ug/L	0.372	2	16	194342	1	Standard
[> Tb	159		ug/L			184968	198562	2	Standard
| Pb	208	13.622	ug/L	0.430	3	252	1294148	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0297-01**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:27:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	43660	3	Standard
> Sc	45		ug/L			566891	632000	0	Standard
| Cr	52	2.036	ug/L	0.025	1	10103	44431	0	Standard
| Cr	53	2.030	ug/L	0.034	1	90	3972	1	Standard
> Ge	72		ug/L			32698	35701	1	KED
| Ni	60	2.054	ug/L	0.066	3	3	3527	2	KED
| Ni	62	2.148	ug/L	0.146	6	3	593	4	KED
| Cu	63	3.160	ug/L	0.088	2	24	15197	4	KED
| Cu	65	3.168	ug/L	0.115	3	17	7823	3	KED
| Zn	66	13.507	ug/L	0.376	2	20	7993	1	KED
| Zn	67	13.075	ug/L	0.153	1	3	1260	2	KED
| As	75	0.552	ug/L	0.034	6	3	161	7	KED
Y	89		ug/L			53020	79010	1	Standard
Kr	83		ug/L			39	41	17	Standard
> In-1	115		ug/L			7060	7693	2	KED
| Cd	111	0.040	ug/L	0.009	23	2	13	17	KED
| Cd	114	0.048	ug/L	0.010	21	3	37	18	KED
> In	115		ug/L			494263	523935	1	Standard
| Ag	107	0.024	ug/L	0.002	7	53	473	6	Standard
| Ba	135	6.728	ug/L	0.172	2	15	40843	2	Standard
| Ba	137	6.775	ug/L	0.223	3	16	73515	1	Standard
> Tb	159		ug/L			184968	202392	1	Standard
| Pb	208	12.755	ug/L	0.082	0	252	1235605	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0728-DUP2**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:32:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	44324	2	Standard
> Sc	45		ug/L			566891	616246	1	Standard
Cr	52	3.859	ug/L	0.104	2	10103	72247	0	Standard
Cr	53	3.763	ug/L	0.033	0	90	7097	1	Standard
> Ge	72		ug/L			32698	35016	1	KED
Ni	60	3.217	ug/L	0.049	1	3	5417	1	KED
Ni	62	3.072	ug/L	0.041	1	3	831	0	KED
Cu	63	5.765	ug/L	0.101	1	24	27162	1	KED
Cu	65	5.632	ug/L	0.198	3	17	13623	1	KED
Zn	66	25.143	ug/L	0.668	2	20	14575	1	KED
Zn	67	24.719	ug/L	0.461	1	3	2332	0	KED
As	75	0.890	ug/L	0.054	6	3	253	5	KED
Y	89		ug/L			53020	86822	2	Standard
Kr	83		ug/L			39	38	5	Standard
> In-1	115		ug/L			7060	7818	1	KED
Cd	111	0.092	ug/L	0.014	15	2	28	15	KED
Cd	114	0.078	ug/L	0.020	25	3	60	24	KED
> In	115		ug/L			494263	505786	3	Standard
Ag	107	0.019	ug/L	0.001	7	53	378	3	Standard
Ba	135	12.943	ug/L	0.471	3	15	75798	1	Standard
Ba	137	12.936	ug/L	0.581	4	16	135424	1	Standard
> Tb	159		ug/L			184968	196469	1	Standard
Pb	208	25.694	ug/L	0.107	0	252	2416204	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0728-MS2

Sample Dil Factor: 100

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:36:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	43287	3	Standard
[> Sc	45		ug/L			566891	591647	10	Standard
| Cr	52	9.452	ug/L	0.588	6	10103	154071	5	Standard
| Cr	53	9.291	ug/L	0.725	7	90	16595	2	Standard
[> Ge	72		ug/L			32698	35179	0	KED
| Ni	60	8.374	ug/L	0.172	2	3	14163	1	KED
| Ni	62	8.570	ug/L	0.258	3	3	2325	3	KED
| Cu	63	10.707	ug/L	0.135	1	24	50663	1	KED
| Cu	65	10.695	ug/L	0.305	2	17	25987	3	KED
| Zn	66	41.005	ug/L	0.450	1	20	23871	0	KED
| Zn	67	43.282	ug/L	1.509	3	3	4102	4	KED
| As	75	5.955	ug/L	0.067	1	3	1683	0	KED
Y	89		ug/L			53020	82678	9	Standard
Kr	83		ug/L			39	48	26	Standard
[> In-1	115		ug/L			7060	7566	2	KED
| Cd	111	5.358	ug/L	0.095	1	2	1472	2	KED
| Cd	114	5.303	ug/L	0.159	2	3	3745	3	KED
[> In	115		ug/L			494263	487343	10	Standard
| Ag	107	4.919	ug/L	0.394	8	53	78463	4	Standard
| Ba	135	79.346	ug/L	6.937	8	15	445104	2	Standard
| Ba	137	79.361	ug/L	5.203	6	16	797381	4	Standard
[> Tb	159		ug/L			184968	188193	8	Standard
| Pb	208	31.645	ug/L	1.866	5	252	2841204	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:41:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	28394	4	Standard
[> Sc	45		ug/L			566891	585732	2	Standard
| Cr	52	-0.022	ug/L	0.003	13	10103	10113	1	Standard
| Cr	53	-0.017	ug/L	0.007	42	90	63	22	Standard
[> Ge	72		ug/L			32698	33367	0	KED
| Ni	60	0.004	ug/L	0.002	58	3	9	34	KED
| Ni	62	0.007	ug/L	0.028	390	3	5	141	KED
| Cu	63	0.007	ug/L	0.006	84	24	54	46	KED
| Cu	65	0.001	ug/L	0.006	513	17	20	71	KED
| Zn	66	0.082	ug/L	0.030	36	20	66	24	KED
| Zn	67	0.049	ug/L	0.088	181	3	8	96	KED
| As	75	-0.002	ug/L	0.004	182	3	2	36	KED
Y	89		ug/L			53020	53017	1	Standard
Kr	83		ug/L			39	46	26	Standard
[> In-1	115		ug/L			7060	7227	2	KED
| Cd	111	-0.004	ug/L	0.006	150	2	1	114	KED
| Cd	114	-0.002	ug/L	0.000	5	3	1	4	KED
[> In	115		ug/L			494263	495365	1	Standard
| Ag	107	-0.001	ug/L	0.001	81	53	38	35	Standard
| Ba	135	0.002	ug/L	0.002	109	15	27	49	Standard
| Ba	137	0.005	ug/L	0.001	12	16	66	8	Standard
[> Tb	159		ug/L			184968	186655	1	Standard
| Pb	208	0.004	ug/L	0.000	3	252	641	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:45:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	28727	4	Standard
[> Sc	45		ug/L			566891	609014	3	Standard
| Cr	52	50.570	ug/L	0.762	1	10103	804391	2	Standard
| Cr	53	49.489	ug/L	1.195	2	90	91015	1	Standard
[> Ge	72		ug/L			32698	34132	2	KED
| Ni	60	50.592	ug/L	1.395	2	3	82971	0	KED
| Ni	62	50.224	ug/L	3.628	7	3	13194	5	KED
| Cu	63	50.541	ug/L	1.378	2	24	231886	1	KED
| Cu	65	49.221	ug/L	0.899	1	17	115932	0	KED
| Zn	66	51.252	ug/L	1.016	1	20	28936	0	KED
| Zn	67	52.016	ug/L	2.220	4	3	4779	2	KED
| As	75	50.828	ug/L	0.713	1	3	13915	1	KED
Y	89		ug/L			53020	56257	1	Standard
Kr	83		ug/L			39	47	10	Standard
[> In-1	115		ug/L			7060	7295	0	KED
| Cd	111	50.371	ug/L	0.324	0	2	13324	0	KED
| Cd	114	51.434	ug/L	0.839	1	3	35003	1	KED
[> In	115		ug/L			494263	503811	3	Standard
| Ag	107	49.821	ug/L	1.108	2	53	825169	1	Standard
| Ba	135	50.659	ug/L	2.522	4	15	295308	1	Standard
| Ba	137	49.729	ug/L	1.869	3	16	518499	0	Standard
[> Tb	159		ug/L			184968	191232	2	Standard
| Pb	208	51.742	ug/L	0.772	1	252	4734666	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:53:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	27100	6	Standard
[> Sc	45		ug/L			566891	604751	2	Standard
| Cr	52	-0.032	ug/L	0.003	8	10103	10287	2	Standard
| Cr	53	-0.011	ug/L	0.003	28	90	76	7	Standard
[> Ge	72		ug/L			32698	35074	2	KED
| Ni	60	-0.000	ug/L	0.000	30	3	3	0	KED
| Ni	62	-0.008	ug/L	0.008	107	3	1	173	KED
| Cu	63	0.006	ug/L	0.002	32	24	52	14	KED
| Cu	65	0.002	ug/L	0.002	76	17	24	19	KED
| Zn	66	-0.002	ug/L	0.009	530	20	21	25	KED
| Zn	67	0.004	ug/L	0.011	296	3	4	24	KED
| As	75	-0.001	ug/L	0.002	282	3	3	17	KED
Y	89		ug/L			53020	52811	0	Standard
Kr	83		ug/L			39	43	26	Standard
[> In-1	115		ug/L			7060	7273	3	KED
| Cd	111	0.001	ug/L	0.005	577	2	2	57	KED
| Cd	114	0.001	ug/L	0.006	392	3	4	91	KED
[> In	115		ug/L			494263	514317	0	Standard
| Ag	107	0.001	ug/L	0.001	153	53	64	20	Standard
| Ba	135	-0.000	ug/L	0.001	153	15	13	28	Standard
| Ba	137	0.001	ug/L	0.001	65	16	26	22	Standard
[> Tb	159		ug/L			184968	191895	0	Standard
| Pb	208	0.001	ug/L	0.000	16	252	332	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0301-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:57:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	36132	2	Standard
> Sc	45		ug/L			566891	602137	1	Standard
| Cr	52	0.039	ug/L	0.002	4	10103	11333	1	Standard
| Cr	53	0.041	ug/L	0.004	11	90	170	5	Standard
> Ge	72		ug/L			32698	35755	1	KED
| Ni	60	0.009	ug/L	0.006	72	3	19	55	KED
| Ni	62	-0.006	ug/L	0.012	205	3	1	173	KED
| Cu	63	0.054	ug/L	0.004	7	24	286	5	KED
| Cu	65	0.049	ug/L	0.005	11	17	139	8	KED
| Zn	66	0.501	ug/L	0.016	3	20	318	1	KED
| Zn	67	0.537	ug/L	0.123	22	3	55	21	KED
| As	75	-0.004	ug/L	0.005	131	3	2	60	KED
Y	89		ug/L			53020	53484	1	Standard
Kr	83		ug/L			39	42	9	Standard
> In-1	115		ug/L			7060	7514	4	KED
| Cd	111	-0.003	ug/L	0.004	162	2	1	69	KED
| Cd	114	0.001	ug/L	0.007	593	3	4	120	KED
> In	115		ug/L			494263	515717	1	Standard
| Ag	107	-0.001	ug/L	0.001	165	53	41	59	Standard
| Ba	135	0.032	ug/L	0.003	7	15	208	8	Standard
| Ba	137	0.034	ug/L	0.005	15	16	380	13	Standard
> Tb	159		ug/L			184968	188567	0	Standard
| Pb	208	0.013	ug/L	0.001	6	252	1422	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0301-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:02:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	39347	2	Standard
> Sc	45		ug/L			566891	602736	1	Standard
| Cr	52	25.728	ug/L	0.632	2	10103	410293	1	Standard
| Cr	53	25.069	ug/L	0.544	2	90	45686	0	Standard
> Ge	72		ug/L			32698	35760	0	KED
| Ni	60	24.931	ug/L	0.329	1	3	42859	2	KED
| Ni	62	25.470	ug/L	0.338	1	3	7019	2	KED
| Cu	63	26.115	ug/L	0.703	2	24	125575	2	KED
| Cu	65	25.523	ug/L	0.337	1	17	63008	1	KED
| Zn	66	81.836	ug/L	1.535	1	20	48404	0	KED
| Zn	67	77.435	ug/L	1.924	2	3	7455	1	KED
| As	75	24.221	ug/L	0.419	1	3	6951	2	KED
Y	89		ug/L			53020	55246	3	Standard
Kr	83		ug/L			39	38	17	Standard
> In-1	115		ug/L			7060	7223	4	KED
| Cd	111	25.786	ug/L	0.757	2	2	6750	1	KED
| Cd	114	25.761	ug/L	0.217	0	3	17358	3	KED
> In	115		ug/L			494263	502123	3	Standard
| Ag	107	25.046	ug/L	0.929	3	53	413450	2	Standard
| Ba	135	25.125	ug/L	0.881	3	15	146049	0	Standard
| Ba	137	24.829	ug/L	0.821	3	16	258081	0	Standard
> Tb	159		ug/L			184968	192140	0	Standard
| Pb	208	26.135	ug/L	0.277	1	252	2403344	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:07:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	33143	1	Standard
> Sc	45		ug/L			566891	616779	2	Standard
| Cr	52	-0.028	ug/L	0.019	69	10103	10547	0	Standard
| Cr	53	-0.006	ug/L	0.003	40	90	86	4	Standard
> Ge	72		ug/L			32698	34454	0	KED
| Ni	60	0.008	ug/L	0.004	46	3	16	35	KED
| Ni	62	-0.003	ug/L	0.008	272	3	2	86	KED
| Cu	63	0.012	ug/L	0.003	29	24	79	20	KED
| Cu	65	0.008	ug/L	0.007	86	17	36	43	KED
| Zn	66	0.171	ug/L	0.019	11	20	119	8	KED
| Zn	67	0.203	ug/L	0.083	40	3	22	33	KED
| As	75	-0.003	ug/L	0.003	91	3	2	28	KED
Y	89		ug/L			53020	56743	3	Standard
Kr	83		ug/L			39	53	27	Standard
> In-1	115		ug/L			7060	7418	0	KED
| Cd	111	-0.004	ug/L	0.002	51	2	1	43	KED
| Cd	114	-0.001	ug/L	0.004	676	3	2	100	KED
> In	115		ug/L			494263	513562	2	Standard
| Ag	107	0.001	ug/L	0.001	216	53	66	31	Standard
| Ba	135	0.034	ug/L	0.003	9	15	215	6	Standard
| Ba	137	0.034	ug/L	0.001	1	16	377	3	Standard
> Tb	159		ug/L			184968	193668	0	Standard
| Pb	208	0.007	ug/L	0.000	3	252	869	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0143-BS1

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:11:48

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	31606	2	Standard
> Sc	45		ug/L			566891	583965	11	Standard
| Cr	52	27.552	ug/L	2.680	9	10103	422084	3	Standard
| Cr	53	27.385	ug/L	2.342	8	90	48042	3	Standard
> Ge	72		ug/L			32698	33602	2	KED
| Ni	60	26.623	ug/L	0.960	3	3	42975	0	KED
| Ni	62	26.995	ug/L	0.969	3	3	6985	1	KED
| Cu	63	27.153	ug/L	0.763	2	24	122630	0	KED
| Cu	65	26.767	ug/L	0.624	2	17	62066	0	KED
| Zn	66	82.288	ug/L	2.082	2	20	45718	0	KED
| Zn	67	78.775	ug/L	1.406	1	3	7124	0	KED
| As	75	25.075	ug/L	0.969	3	3	6756	1	KED
Y	89		ug/L			53020	52675	13	Standard
Kr	83		ug/L			39	52	36	Standard
> In-1	115		ug/L			7060	7562	3	KED
| Cd	111	24.984	ug/L	0.283	1	2	6850	1	KED
| Cd	114	24.822	ug/L	0.916	3	3	17500	0	KED
> In	115		ug/L			494263	489071	10	Standard
| Ag	107	26.745	ug/L	1.759	6	53	428268	4	Standard
| Ba	135	27.408	ug/L	2.670	9	15	154205	1	Standard
| Ba	137	27.186	ug/L	2.617	9	16	273527	2	Standard
> Tb	159		ug/L			184968	184312	10	Standard
| Pb	208	28.250	ug/L	2.382	8	252	2477210	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:19:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	30379	2	Standard
> Sc	45		ug/L			566891	608076	1	Standard
| Cr	52	26.503	ug/L	0.345	1	10103	426187	2	Standard
| Cr	53	26.098	ug/L	0.180	0	90	47989	1	Standard
> Ge	72		ug/L			32698	35900	1	KED
| Ni	60	25.767	ug/L	0.436	1	3	44460	0	KED
| Ni	62	26.190	ug/L	0.532	2	3	7243	0	KED
| Cu	63	27.050	ug/L	0.206	0	24	130578	1	KED
| Cu	65	26.509	ug/L	0.178	0	17	65696	1	KED
| Zn	66	81.108	ug/L	0.527	0	20	48170	2	KED
| Zn	67	77.729	ug/L	0.535	0	3	7513	1	KED
| As	75	24.804	ug/L	0.297	1	3	7144	1	KED
Y	89		ug/L			53020	55160	3	Standard
Kr	83		ug/L			39	68	12	Standard
> In-1	115		ug/L			7060	7460	2	KED
| Cd	111	25.512	ug/L	0.374	1	2	6904	3	KED
| Cd	114	24.977	ug/L	0.596	2	3	17384	2	KED
> In	115		ug/L			494263	513378	4	Standard
| Ag	107	26.260	ug/L	0.377	1	53	443361	3	Standard
| Ba	135	26.060	ug/L	1.712	6	15	154721	2	Standard
| Ba	137	25.388	ug/L	1.063	4	16	269741	2	Standard
> Tb	159		ug/L			184968	194271	3	Standard
| Pb	208	26.682	ug/L	0.951	3	252	2478789	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0728-MS2**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:23:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	32572	2	Standard
> Sc	45		ug/L			566891	634781	1	Standard
Cr	52	8.923	ug/L	0.181	2	10103	157301	3	Standard
Cr	53	8.784	ug/L	0.118	1	90	16931	2	Standard
> Ge	72		ug/L			32698	35227	2	KED
Ni	60	7.934	ug/L	0.171	2	3	13433	0	KED
Ni	62	8.105	ug/L	0.290	3	3	2202	3	KED
Cu	63	10.173	ug/L	0.317	3	24	48187	1	KED
Cu	65	10.080	ug/L	0.557	5	17	24508	3	KED
Zn	66	38.423	ug/L	0.769	2	20	22395	0	KED
Zn	67	40.690	ug/L	1.664	4	3	3860	3	KED
As	75	5.570	ug/L	0.174	3	3	1576	1	KED
Y	89		ug/L			53020	85393	1	Standard
Kr	83		ug/L			39	44	27	Standard
> In-1	115		ug/L			7060	7444	0	KED
Cd	111	5.163	ug/L	0.104	2	2	1395	1	KED
Cd	114	5.160	ug/L	0.024	0	3	3586	0	KED
> In	115		ug/L			494263	516165	3	Standard
Ag	107	4.702	ug/L	0.128	2	53	79838	0	Standard
Ba	135	76.355	ug/L	3.843	5	15	456151	2	Standard
Ba	137	75.875	ug/L	3.822	5	16	810591	3	Standard
> Tb	159		ug/L			184968	202938	1	Standard
Pb	208	30.231	ug/L	0.583	1	252	2935613	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0348-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:28:33**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26311	25448	5	Standard
[>	Sc	45	ug/L			566891	529281	3	Standard
|	Cr	52	0.440	0.008	1	10103	15429	3	Standard
|	Cr	53	1.137	0.039	3	90	1900	3	Standard
[>	Ge	72	ug/L			32698	27739	0	KED
|	Ni	60	1.356	0.067	4	3	1811	5	KED
|	Ni	62	1.314	0.157	11	3	283	10	KED
|	Cu	63	1.848	0.018	0	24	6912	0	KED
|	Cu	65	1.781	0.011	0	17	3424	0	KED
|	Zn	66	16.919	0.501	2	20	7776	2	KED
|	Zn	67	15.634	0.215	1	3	1170	0	KED
|	As	75	1.258	0.034	2	3	282	3	KED
	Y	89	ug/L			53020	48610	0	Standard
	Kr	83	ug/L			39	43	19	Standard
[>	In-1	115	ug/L			7060	5801	2	KED
|	Cd	111	0.005	0.004	92	2	2	33	KED
|	Cd	114	0.010	0.009	90	3	7	62	KED
[>	In	115	ug/L			494263	443792	0	Standard
|	Ag	107	0.001	0.001	64	53	62	14	Standard
|	Ba	135	0.370	0.025	6	15	1916	6	Standard
|	Ba	137	0.371	0.010	2	16	3427	3	Standard
[>	Tb	159	ug/L			184968	173759	1	Standard
|	Pb	208	0.116	0.001	1	252	9874	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:33:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	24223	2	Standard
[> Sc	45		ug/L			566891	575088	3	Standard
| Cr	52	-0.007	ug/L	0.012	171	10103	10143	3	Standard
| Cr	53	0.005	ug/L	0.011	218	90	100	18	Standard
[> Ge	72		ug/L			32698	30306	11	KED
| Ni	60	0.002	ug/L	0.002	106	3	6	56	KED
| Ni	62	-0.008	ug/L	0.004	58	3	1	86	KED
| Cu	63	0.004	ug/L	0.003	73	24	36	26	KED
| Cu	65	0.003	ug/L	0.003	113	17	21	26	KED
| Zn	66	0.070	ug/L	0.009	13	20	54	19	KED
| Zn	67	0.035	ug/L	0.010	28	3	6	17	KED
| As	75	-0.004	ug/L	0.002	52	3	1	25	KED
Y	89		ug/L			53020	52486	2	Standard
Kr	83		ug/L			39	40	9	Standard
[> In-1	115		ug/L			7060	6912	1	KED
| Cd	111	-0.006	ug/L	0.002	35	2	0	86	KED
| Cd	114	-0.002	ug/L	0.003	164	3	1	103	KED
[> In	115		ug/L			494263	502957	1	Standard
| Ag	107	-0.001	ug/L	0.001	187	53	45	43	Standard
| Ba	135	0.001	ug/L	0.001	180	15	19	34	Standard
| Ba	137	0.003	ug/L	0.001	33	16	49	21	Standard
[> Tb	159		ug/L			184968	186751	0	Standard
| Pb	208	0.004	ug/L	0.000	10	252	622	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0374-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:40:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	27470	2	Standard
> Sc	45		ug/L			566891	535366	2	Standard
| Cr	52	1.485	ug/L	0.027	1	10103	30025	1	Standard
| Cr	53	2.427	ug/L	0.053	2	90	4007	4	Standard
> Ge	72		ug/L			32698	26716	2	KED
| Ni	60	0.991	ug/L	0.067	6	3	1276	8	KED
| Ni	62	0.904	ug/L	0.041	4	3	188	2	KED
| Cu	63	1.735	ug/L	0.003	0	24	6252	2	KED
| Cu	65	1.743	ug/L	0.055	3	17	3228	5	KED
| Zn	66	1.685	ug/L	0.077	4	20	761	6	KED
| Zn	67	2.401	ug/L	0.167	6	3	175	8	KED
| As	75	0.727	ug/L	0.067	9	3	158	8	KED
| Y	89		ug/L			53020	49651	1	Standard
| Kr	83		ug/L			39	38	15	Standard
> In-1	115		ug/L			7060	5871	1	KED
| Cd	111	0.008	ug/L	0.007	86	2	3	41	KED
| Cd	114	0.009	ug/L	0.009	96	3	7	63	KED
> In	115		ug/L			494263	457235	0	Standard
| Ag	107	-0.000	ug/L	0.001	375	53	46	22	Standard
| Ba	135	19.449	ug/L	0.234	1	15	103026	0	Standard
| Ba	137	19.409	ug/L	0.370	1	16	183823	1	Standard
> Tb	159		ug/L			184968	175956	0	Standard
| Pb	208	0.110	ug/L	0.002	1	252	9480	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:44:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	24303	5	Standard
[> Sc	45		ug/L			566891	576791	3	Standard
| Cr	52	0.036	ug/L	0.027	76	10103	10807	3	Standard
| Cr	53	0.024	ug/L	0.004	15	90	133	5	Standard
[> Ge	72		ug/L			32698	33136	1	KED
| Ni	60	0.001	ug/L	0.002	203	3	5	66	KED
| Ni	62	-0.000	ug/L	0.009	6668	3	3	69	KED
| Cu	63	-0.001	ug/L	0.001	138	24	20	24	KED
| Cu	65	-0.001	ug/L	0.003	284	17	15	37	KED
| Zn	66	0.053	ug/L	0.010	18	20	50	9	KED
| Zn	67	0.042	ug/L	0.022	52	3	7	25	KED
| As	75	-0.004	ug/L	0.006	153	3	2	68	KED
Y	89		ug/L			53020	52970	2	Standard
Kr	83		ug/L			39	34	8	Standard
[> In-1	115		ug/L			7060	6842	2	KED
| Cd	111	-0.005	ug/L	0.007	143	2	0	173	KED
| Cd	114	-0.003	ug/L	0.002	57	3	1	90	KED
[> In	115		ug/L			494263	506336	1	Standard
| Ag	107	-0.001	ug/L	0.000	21	53	30	18	Standard
| Ba	135	0.002	ug/L	0.001	49	15	26	21	Standard
| Ba	137	0.003	ug/L	0.001	35	16	48	23	Standard
[> Tb	159		ug/L			184968	187814	2	Standard
| Pb	208	0.003	ug/L	0.000	5	252	556	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:48:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	24269	4	Standard
[> Sc	45		ug/L			566891	590553	1	Standard
| Cr	52	51.066	ug/L	0.308	0	10103	787666	1	Standard
| Cr	53	49.455	ug/L	0.522	1	90	88228	1	Standard
[> Ge	72		ug/L			32698	33288	2	KED
| Ni	60	49.520	ug/L	1.070	2	3	79212	1	KED
| Ni	62	50.158	ug/L	1.195	2	3	12858	0	KED
| Cu	63	50.304	ug/L	2.007	3	24	225023	1	KED
| Cu	65	50.399	ug/L	1.418	2	17	115756	1	KED
| Zn	66	51.639	ug/L	1.107	2	20	28433	1	KED
| Zn	67	50.767	ug/L	0.397	0	3	4551	1	KED
| As	75	49.807	ug/L	1.104	2	3	13296	0	KED
| Y	89		ug/L			53020	54784	0	Standard
| Kr	83		ug/L			39	47	4	Standard
[> In-1	115		ug/L			7060	6811	3	KED
| Cd	111	51.475	ug/L	1.428	2	2	12706	0	KED
| Cd	114	51.093	ug/L	1.398	2	3	32450	1	KED
[> In	115		ug/L			494263	508399	2	Standard
| Ag	107	48.081	ug/L	1.462	3	53	803607	0	Standard
| Ba	135	48.411	ug/L	0.773	1	15	285047	1	Standard
| Ba	137	48.840	ug/L	0.572	1	16	514273	2	Standard
[> Tb	159		ug/L			184968	194510	1	Standard
| Pb	208	52.796	ug/L	1.254	2	252	4913375	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:56:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	23676	7	Standard
[> Sc	45		ug/L			566891	595773	0	Standard
| Cr	52	-0.041	ug/L	0.018	43	10103	9984	3	Standard
| Cr	53	-0.018	ug/L	0.005	27	90	63	14	Standard
[> Ge	72		ug/L			32698	32613	1	KED
| Ni	60	0.000	ug/L	0.001	345	3	4	49	KED
| Ni	62	0.000	ug/L	0.005	5394	3	3	34	KED
| Cu	63	0.002	ug/L	0.003	144	24	33	39	KED
| Cu	65	-0.000	ug/L	0.002	574	17	16	24	KED
| Zn	66	-0.015	ug/L	0.002	15	20	12	8	KED
| Zn	67	0.015	ug/L	0.045	306	3	5	78	KED
| As	75	-0.001	ug/L	0.004	298	3	2	33	KED
| Y	89		ug/L			53020	54754	2	Standard
| Kr	83		ug/L			39	36	18	Standard
[> In-1	115		ug/L			7060	7291	3	KED
| Cd	111	0.001	ug/L	0.009	818	2	2	94	KED
| Cd	114	0.002	ug/L	0.001	91	3	4	26	KED
[> In	115		ug/L			494263	530983	2	Standard
| Ag	107	0.001	ug/L	0.001	69	53	74	16	Standard
| Ba	135	-0.001	ug/L	0.001	164	15	12	45	Standard
| Ba	137	0.001	ug/L	0.001	103	16	31	44	Standard
[> Tb	159		ug/L			184968	189359	0	Standard
| Pb	208	0.001	ug/L	0.000	20	252	351	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 20:21:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	30742	2	Standard
[> Sc	45		ug/L			566891	624857	1	Standard
| Cr	52	0.084	ug/L	0.034	40	10103	12489	5	Standard
| Cr	53	0.132	ug/L	0.039	29	90	350	22	Standard
[> Ge	72		ug/L			32698	35356	3	KED
| Ni	60	0.546	ug/L	0.226	41	3	922	37	KED
| Ni	62	0.552	ug/L	0.142	25	3	153	22	KED
| Cu	63	0.023	ug/L	0.003	11	24	133	9	KED
| Cu	65	0.022	ug/L	0.011	48	17	72	36	KED
| Zn	66	0.601	ug/L	0.108	17	20	372	12	KED
| Zn	67	0.587	ug/L	0.108	18	3	59	13	KED
| As	75	-0.003	ug/L	0.003	102	3	2	26	KED
Y	89		ug/L			53020	55653	0	Standard
Kr	83		ug/L			39	54	22	Standard
[> In-1	115		ug/L			7060	7908	3	KED
| Cd	111	-0.003	ug/L	0.007	242	2	1	124	KED
| Cd	114	0.001	ug/L	0.004	386	3	4	68	KED
[> In	115		ug/L			494263	523603	3	Standard
| Ag	107	0.000	ug/L	0.001	196	53	64	19	Standard
| Ba	135	0.121	ug/L	0.027	22	15	751	23	Standard
| Ba	137	0.118	ug/L	0.013	11	16	1298	13	Standard
[> Tb	159		ug/L			184968	191054	1	Standard
| Pb	208	0.005	ug/L	0.000	7	252	724	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 20:26:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				27881	1	Standard
[>	Sc	45	ug/L				600447	1	Standard
|	Cr	52	ug/L				10860	1	Standard
|	Cr	53	ug/L				113	5	Standard
[>	Ge	72	ug/L				35776	2	KED
|	Ni	60	ug/L				145	17	KED
|	Ni	62	ug/L				28	29	KED
|	Cu	63	ug/L				53	12	KED
|	Cu	65	ug/L				29	13	KED
|	Zn	66	ug/L				87	12	KED
|	Zn	67	ug/L				19	11	KED
|	As	75	ug/L				2	44	KED
	Y	89	ug/L				55660	0	Standard
	Kr	83	ug/L				44	13	Standard
[>	In-1	115	ug/L				7587	4	KED
|	Cd	111	ug/L				4	13	KED
|	Cd	114	ug/L				1	106	KED
[>	In	115	ug/L				519229	3	Standard
|	Ag	107	ug/L				33	13	Standard
[>	Tb	159	ug/L				190542	1	Standard
|	Pb	208	ug/L				524	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 20:30:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	29050	1	Standard
[> Sc	45		ug/L			600447	626146	0	Standard
| Cr	52	49.167	ug/L	0.927	1	10860	804779	2	Standard
| Cr	53	49.187	ug/L	0.914	1	113	93067	2	Standard
[> Ge	72		ug/L			35776	35306	0	KED
| Ni	60	48.708	ug/L	1.092	2	145	82805	2	KED
| Ni	62	48.519	ug/L	1.369	2	28	13221	2	KED
| Cu	63	49.493	ug/L	0.730	1	53	234973	1	KED
| Cu	65	49.388	ug/L	0.330	0	29	120371	1	KED
| Zn	66	50.574	ug/L	1.281	2	87	29610	2	KED
| Zn	67	50.034	ug/L	0.468	0	19	4773	1	KED
| As	75	49.621	ug/L	0.526	1	2	14052	0	KED
Y	89		ug/L			55660	56069	3	Standard
Kr	83		ug/L			44	62	6	Standard
[> In-1	115		ug/L			7587	7367	0	KED
| Cd	111	50.587	ug/L	0.561	1	4	13516	1	KED
| Cd	114	50.851	ug/L	0.642	1	1	34948	1	KED
[> In	115		ug/L			519229	515799	3	Standard
| Ag	107	47.565	ug/L	1.435	3	33	806664	2	Standard
[> Tb	159		ug/L			190542	197846	0	Standard
| Pb	208	49.588	ug/L	0.492	0	524	4695653	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 20:37:35

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	30403	3	Standard
[>	Sc	45	ug/L			600447	612688	0	Standard
|	Cr	52	-0.028	0.012	42	10860	10643	1	Standard
|	Cr	53	-0.019	0.007	33	113	80	16	Standard
[>	Ge	72	ug/L			35776	35407	2	KED
|	Ni	60	-0.008	0.005	61	145	130	8	KED
|	Ni	62	-0.052	0.015	29	28	13	28	KED
|	Cu	63	0.002	0.001	24	53	64	6	KED
|	Cu	65	-0.001	0.004	251	29	25	35	KED
|	Zn	66	-0.024	0.007	30	87	72	4	KED
|	Zn	67	-0.091	0.043	47	19	10	36	KED
|	As	75	0.010	0.003	36	2	4	22	KED
	Y	89	ug/L			55660	55266	2	Standard
	Kr	83	ug/L			44	45	19	Standard
[>	In-1	115	ug/L			7587	7638	0	KED
|	Cd	111	-0.008	0.000	0	4	1		KED
|	Cd	114	0.002	0.001	80	1	3	34	KED
[>	In	115	ug/L			519229	538099	1	Standard
|	Ag	107	0.004	0.001	16	33	101	10	Standard
[>	Tb	159	ug/L			190542	193312	1	Standard
|	Pb	208	0.001	0.000	34	524	610	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 20:44:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	40138	4	Standard
[> Sc	45		ug/L			600447	621245	1	Standard
[Cr	52	0.003	ug/L	0.001	45	10860	11280	1	Standard
[Cr	53	0.007	ug/L	0.004	47	113	131	4	Standard
[> Ge	72		ug/L			35776	35226	1	KED
[Ni	60	0.016	ug/L	0.020	127	145	170	19	KED
[Ni	62	0.011	ug/L	0.039	354	28	31	33	KED
[Cu	63	0.003	ug/L	0.003	102	53	67	23	KED
[Cu	65	0.007	ug/L	0.002	30	29	46	11	KED
[Zn	66	0.068	ug/L	0.015	22	87	125	6	KED
[Zn	67	0.057	ug/L	0.101	177	19	24	38	KED
[As	75	-0.003	ug/L	0.003	105	2	1	78	KED
Y	89		ug/L			55660	55969	0	Standard
Kr	83		ug/L			44	39	14	Standard
[> In-1	115		ug/L			7587	7906	1	KED
[Cd	111	-0.007	ug/L	0.008	103	4	2	98	KED
[Cd	114	0.002	ug/L	0.005	193	1	3	93	KED
[> In	115		ug/L			519229	537592	1	Standard
[Ag	107	0.005	ug/L	0.004	76	33	119	54	Standard
[> Tb	159		ug/L			190542	199925	0	Standard
[Pb	208	0.006	ug/L	0.005	84	524	1100	41	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 20:48:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	37980	2	Standard
[> Sc	45		ug/L			600447	626934	1	Standard
[Cr	52	25.864	ug/L	0.160	0	10860	429230	1	Standard
[Cr	53	25.501	ug/L	0.209	0	113	48367	2	Standard
[> Ge	72		ug/L			35776	35083	0	KED
[Ni	60	26.314	ug/L	0.807	3	145	44509	2	KED
[Ni	62	25.633	ug/L	0.562	2	28	6954	1	KED
[Cu	63	27.020	ug/L	0.634	2	53	127486	1	KED
[Cu	65	27.020	ug/L	0.828	3	29	65447	2	KED
[Zn	66	81.453	ug/L	3.084	3	87	47326	3	KED
[Zn	67	77.935	ug/L	0.929	1	19	7377	0	KED
[As	75	24.974	ug/L	0.394	1	2	7029	1	KED
Y	89		ug/L			55660	56955	1	Standard
Kr	83		ug/L			44	48	19	Standard
[> In-1	115		ug/L			7587	7518	2	KED
[Cd	111	25.173	ug/L	0.343	1	4	6865	2	KED
[Cd	114	25.138	ug/L	0.825	3	1	17623	1	KED
[> In	115		ug/L			519229	527783	1	Standard
[Ag	107	25.955	ug/L	0.935	3	33	450479	2	Standard
[> Tb	159		ug/L			190542	197638	2	Standard
[Pb	208	26.529	ug/L	0.826	3	524	2508791	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 20:53:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	37385	3	Standard
[> Sc	45		ug/L			600447	615099	2	Standard
[Cr	52	0.015	ug/L	0.013	88	10860	11362	1	Standard
[Cr	53	0.002	ug/L	0.005	210	113	120	5	Standard
[> Ge	72		ug/L			35776	34993	1	KED
[Ni	60	0.065	ug/L	0.008	12	145	250	4	KED
[Ni	62	0.021	ug/L	0.042	200	28	33	34	KED
[Cu	63	0.010	ug/L	0.004	39	53	97	17	KED
[Cu	65	0.009	ug/L	0.003	34	29	51	16	KED
[Zn	66	0.232	ug/L	0.032	13	87	219	8	KED
[Zn	67	0.207	ug/L	0.030	14	19	38	7	KED
[As	75	0.001	ug/L	0.009	1125	2	2	105	KED
Y	89		ug/L			55660	55904	3	Standard
Kr	83		ug/L			44	43	15	Standard
[> In-1	115		ug/L			7587	7454	2	KED
[Cd	111	-0.002	ug/L	0.002	84	4	3	15	KED
[Cd	114	0.003	ug/L	0.002	75	1	3	40	KED
[> In	115		ug/L			519229	537278	1	Standard
[Ag	107	0.005	ug/L	0.002	53	33	116	35	Standard
[> Tb	159		ug/L			190542	195405	3	Standard
[Pb	208	0.006	ug/L	0.001	16	524	1060	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 20:57:33**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	36094	2	Standard
> Sc	45		ug/L			600447	572755	10	Standard
| Cr	52	27.852	ug/L	2.315	8	10860	419085	4	Standard
| Cr	53	27.110	ug/L	1.969	7	113	46728	4	Standard
> Ge	72		ug/L			35776	35198	0	KED
| Ni	60	25.504	ug/L	0.222	0	145	43291	1	KED
| Ni	62	25.791	ug/L	0.614	2	28	7019	1	KED
| Cu	63	26.575	ug/L	0.425	1	53	125806	1	KED
| Cu	65	26.358	ug/L	0.294	1	29	64056	1	KED
| Zn	66	79.691	ug/L	1.477	1	87	46463	1	KED
| Zn	67	76.937	ug/L	1.501	1	19	7307	2	KED
| As	75	24.014	ug/L	0.245	1	2	6781	0	KED
Y	89		ug/L			55660	53298	9	Standard
Kr	83		ug/L			44	53	40	Standard
> In-1	115		ug/L			7587	7340	4	KED
| Cd	111	25.290	ug/L	0.565	2	4	6730	1	KED
| Cd	114	25.211	ug/L	0.729	2	1	17251	1	KED
> In	115		ug/L			519229	495969	9	Standard
| Ag	107	26.638	ug/L	2.172	8	33	432404	2	Standard
> Tb	159		ug/L			190542	186305	10	Standard
| Pb	208	27.713	ug/L	2.476	8	524	2455977	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:02:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	49327	2	Standard
> Sc	45		ug/L			600447	731706	2	Standard
| Cr	52	12.124	ug/L	0.147	1	10860	241826	1	Standard
| Cr	53	12.156	ug/L	0.116	0	113	26975	1	Standard
> Ge	72		ug/L			35776	34902	1	KED
| Ni	60	10.919	ug/L	0.231	2	145	18456	0	KED
| Ni	62	10.987	ug/L	0.493	4	28	2979	2	KED
| Cu	63	24.875	ug/L	0.831	3	53	116737	1	KED
| Cu	65	24.816	ug/L	0.603	2	29	59790	0	KED
| Zn	66	53.146	ug/L	1.002	1	87	30749	0	KED
| Zn	67	51.278	ug/L	1.131	2	19	4834	0	KED
| As	75	5.436	ug/L	0.145	2	2	1523	2	KED
Y	89		ug/L			55660	260380	0	Standard
Kr	83		ug/L			44	76	23	Standard
> In-1	115		ug/L			7587	7321	2	KED
| Cd	111	0.108	ug/L	0.008	7	4	32	8	KED
| Cd	114	0.152	ug/L	0.016	10	1	105	10	KED
> In	115		ug/L			519229	519189	4	Standard
| Ag	107	0.100	ug/L	0.001	0	33	1748	4	Standard
> Tb	159		ug/L			190542	217094	0	Standard
| Pb	208	9.840	ug/L	0.276	2	524	1022869	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-DUP2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:07:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	48948	3	Standard
> Sc	45		ug/L			600447	717992	2	Standard
| Cr	52	12.278	ug/L	0.108	0	10860	240147	1	Standard
| Cr	53	12.202	ug/L	0.281	2	113	26574	3	Standard
> Ge	72		ug/L			35776	34652	1	KED
| Ni	60	11.215	ug/L	0.148	1	145	18817	0	KED
| Ni	62	10.981	ug/L	0.055	0	28	2958	1	KED
| Cu	63	24.789	ug/L	0.125	0	53	115536	1	KED
| Cu	65	25.011	ug/L	0.663	2	29	59828	1	KED
| Zn	66	52.626	ug/L	0.823	1	87	30233	1	KED
| Zn	67	51.295	ug/L	1.023	1	19	4802	2	KED
| As	75	5.303	ug/L	0.187	3	2	1475	2	KED
Y	89		ug/L			55660	264619	1	Standard
Kr	83		ug/L			44	89	9	Standard
> In-1	115		ug/L			7587	7338	4	KED
| Cd	111	0.127	ug/L	0.015	11	4	37	6	KED
| Cd	114	0.124	ug/L	0.007	5	1	86	9	KED
> In	115		ug/L			519229	507795	1	Standard
| Ag	107	0.096	ug/L	0.003	3	33	1642	4	Standard
> Tb	159		ug/L			190542	217783	1	Standard
| Pb	208	9.267	ug/L	0.055	0	524	966473	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-MS2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:12:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	43798	4	Standard
> Sc	45		ug/L			600447	712380	2	Standard
| Cr	52	33.848	ug/L	0.696	2	10860	634231	2	Standard
| Cr	53	33.218	ug/L	0.454	1	113	71537	1	Standard
> Ge	72		ug/L			35776	34769	1	KED
| Ni	60	35.480	ug/L	0.262	0	145	59435	1	KED
| Ni	62	35.792	ug/L	0.375	1	28	9613	2	KED
| Cu	63	49.044	ug/L	0.181	0	53	229305	0	KED
| Cu	65	49.587	ug/L	0.401	0	29	119023	1	KED
| Zn	66	127.164	ug/L	1.063	0	87	73182	0	KED
| Zn	67	123.226	ug/L	4.628	3	19	11545	2	KED
| As	75	28.650	ug/L	0.300	1	2	7990	0	KED
Y	89		ug/L			55660	263207	0	Standard
Kr	83		ug/L			44	70	9	Standard
> In-1	115		ug/L			7587	7271	0	KED
| Cd	111	24.050	ug/L	0.279	1	4	6344	0	KED
| Cd	114	24.062	ug/L	0.530	2	1	16324	2	KED
> In	115		ug/L			519229	498952	2	Standard
| Ag	107	20.136	ug/L	0.422	2	33	330380	0	Standard
> Tb	159		ug/L			190542	217190	0	Standard
| Pb	208	31.824	ug/L	0.401	1	524	3308209	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-MSD2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:16:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42886	5	Standard
[> Sc	45		ug/L			600447	713189	2	Standard
[Cr	52	32.799	ug/L	0.728	2	10860	615560	1	Standard
[Cr	53	32.872	ug/L	0.464	1	113	70870	1	Standard
[> Ge	72		ug/L			35776	34920	2	KED
[Ni	60	34.594	ug/L	0.175	0	145	58202	1	KED
[Ni	62	34.631	ug/L	1.105	3	28	9337	1	KED
[Cu	63	47.676	ug/L	1.144	2	53	223798	0	KED
[Cu	65	47.132	ug/L	2.056	4	29	113539	2	KED
[Zn	66	125.287	ug/L	2.668	2	87	72401	1	KED
[Zn	67	124.246	ug/L	1.881	1	19	11692	1	KED
[As	75	27.961	ug/L	0.434	1	2	7831	1	KED
[Y	89		ug/L			55660	247812	1	Standard
[Kr	83		ug/L			44	69	20	Standard
[> In-1	115		ug/L			7587	7305	2	KED
[Cd	111	24.552	ug/L	0.448	1	4	6504	0	KED
[Cd	114	24.586	ug/L	1.060	4	1	16749	3	KED
[> In	115		ug/L			519229	504337	3	Standard
[Ag	107	17.259	ug/L	0.157	0	33	286300	2	Standard
[> Tb	159		ug/L			190542	221250	1	Standard
[Pb	208	30.874	ug/L	0.352	1	524	3269435	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-PS2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:21:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	48757	4	Standard
[> Sc	45		ug/L			600447	729719	3	Standard
| Cr	52	33.107	ug/L	0.489	1	10860	635718	2	Standard
| Cr	53	32.943	ug/L	0.273	0	113	72672	2	Standard
[> Ge	72		ug/L			35776	34959	1	KED
| Ni	60	36.373	ug/L	0.157	0	145	61261	1	KED
| Ni	62	36.640	ug/L	0.186	0	28	9894	1	KED
| Cu	63	49.754	ug/L	0.930	1	53	233872	1	KED
| Cu	65	49.585	ug/L	0.881	1	29	119664	2	KED
| Zn	66	132.457	ug/L	3.739	2	87	76640	2	KED
| Zn	67	126.800	ug/L	2.433	1	19	11947	1	KED
| As	75	30.260	ug/L	0.577	1	2	8485	0	KED
Y	89		ug/L			55660	274282	1	Standard
Kr	83		ug/L			44	81	11	Standard
[> In-1	115		ug/L			7587	7422	1	KED
| Cd	111	25.084	ug/L	0.224	0	4	6753	0	KED
| Cd	114	25.290	ug/L	0.359	1	1	17510	0	KED
[> In	115		ug/L			519229	501845	2	Standard
| Ag	107	24.345	ug/L	0.418	1	33	401777	1	Standard
[> Tb	159		ug/L			190542	220281	1	Standard
| Pb	208	32.333	ug/L	0.276	0	524	3409321	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 21:25:31

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	28733	3	Standard
[>	Sc	45	ug/L			600447	603287	2	Standard
|	Cr	52	-0.017	0.014	80	10860	10646	3	Standard
|	Cr	53	0.002	0.010	424	113	118	17	Standard
[>	Ge	72	ug/L			35776	35096	0	KED
|	Ni	60	0.102	0.008	7	145	314	4	KED
|	Ni	62	0.112	0.027	23	28	58	12	KED
|	Cu	63	0.004	0.001	33	53	71	8	KED
|	Cu	65	0.005	0.009	160	29	41	51	KED
|	Zn	66	0.017	0.010	60	87	95	6	KED
|	Zn	67	-0.043	0.035	81	19	15	21	KED
|	As	75	0.000	0.003	2492	2	2	44	KED
	Y	89	ug/L			55660	53844	3	Standard
	Kr	83	ug/L			44	50	7	Standard
[>	In-1	115	ug/L			7587	7525	0	KED
|	Cd	111	-0.003	0.002	62	4	3	17	KED
|	Cd	114	0.004	0.006	149	1	4	90	KED
[>	In	115	ug/L			519229	512731	3	Standard
|	Ag	107	0.002	0.000	11	33	68	8	Standard
[>	Tb	159	ug/L			190542	193475	1	Standard
|	Pb	208	0.000	0.000	135	524	539	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 21:29:56

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27927	5	Standard
[> Sc	45		ug/L			600447	636370	1	Standard
| Cr	52	49.675	ug/L	0.721	1	10860	826310	2	Standard
| Cr	53	48.401	ug/L	0.534	1	113	93080	2	Standard
[> Ge	72		ug/L			35776	34775	2	KED
| Ni	60	49.673	ug/L	0.162	0	145	83169	2	KED
| Ni	62	50.020	ug/L	0.731	1	28	13424	2	KED
| Cu	63	50.381	ug/L	1.600	3	53	235511	1	KED
| Cu	65	49.220	ug/L	1.166	2	29	118121	0	KED
| Zn	66	51.392	ug/L	1.224	2	87	29629	2	KED
| Zn	67	52.114	ug/L	1.313	2	19	4897	4	KED
| As	75	50.182	ug/L	0.760	1	2	13995	0	KED
Y	89		ug/L			55660	56443	3	Standard
Kr	83		ug/L			44	49	15	Standard
[> In-1	115		ug/L			7587	7362	1	KED
| Cd	111	49.881	ug/L	1.210	2	4	13314	1	KED
| Cd	114	50.034	ug/L	1.724	3	1	34349	1	KED
[> In	115		ug/L			519229	514927	3	Standard
| Ag	107	48.588	ug/L	2.233	4	33	822157	2	Standard
[> Tb	159		ug/L			190542	200300	2	Standard
| Pb	208	50.450	ug/L	1.358	2	524	4835024	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 21:37:06

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	26930	5	Standard
[>	Sc	45	ug/L			600447	613915	1	Standard
|	Cr	52	-0.009	0.004	42	10860	10962	2	Standard
|	Cr	53	0.011	0.007	64	113	135	7	Standard
[>	Ge	72	ug/L			35776	34316	3	KED
|	Ni	60	0.071	0.027	37	145	257	19	KED
|	Ni	62	0.060	0.053	89	28	43	33	KED
|	Cu	63	0.023	0.025	111	53	158	76	KED
|	Cu	65	0.023	0.027	118	29	82	79	KED
|	Zn	66	-0.028	0.029	104	87	68	26	KED
|	Zn	67	-0.033	0.051	155	19	15	30	KED
|	As	75	0.014	0.024	172	2	6	112	KED
	Y	89	ug/L			55660	54932	0	Standard
	Kr	83	ug/L			44	48	18	Standard
[>	In-1	115	ug/L			7587	7637	1	KED
|	Cd	111	-0.009	0.007	75	4	1	124	KED
|	Cd	114	-0.000	0.003	3557	1	1	113	KED
[>	In	115	ug/L			519229	519681	1	Standard
|	Ag	107	0.003	0.000	6	33	78	5	Standard
[>	Tb	159	ug/L			190542	193231	0	Standard
|	Pb	208	0.001	0.000	30	524	613	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:41:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	45032	3	Standard
> Sc	45		ug/L			600447	742114	2	Standard
| Cr	52	15.234	ug/L	0.188	1	10860	304818	3	Standard
| Cr	53	14.955	ug/L	0.198	1	113	33634	2	Standard
> Ge	72		ug/L			35776	34523	2	KED
| Ni	60	13.744	ug/L	0.476	3	145	22932	0	KED
| Ni	62	13.777	ug/L	0.715	5	28	3687	2	KED
| Cu	63	35.145	ug/L	1.144	3	53	163083	1	KED
| Cu	65	34.406	ug/L	1.355	3	29	81948	1	KED
| Zn	66	67.279	ug/L	2.612	3	87	38459	1	KED
| Zn	67	66.917	ug/L	3.870	5	19	6229	3	KED
| As	75	7.207	ug/L	0.238	3	2	1996	1	KED
Y	89		ug/L			55660	305809	2	Standard
Kr	83		ug/L			44	67	10	Standard
> In-1	115		ug/L			7587	7350	2	KED
| Cd	111	0.179	ug/L	0.026	14	4	51	12	KED
| Cd	114	0.231	ug/L	0.005	2	1	160	4	KED
> In	115		ug/L			519229	505016	3	Standard
| Ag	107	0.154	ug/L	0.013	8	33	2584	4	Standard
> Tb	159		ug/L			190542	223968	1	Standard
| Pb	208	14.203	ug/L	0.190	1	524	1522706	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:45:57**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42622	4	Standard
[> Sc	45		ug/L			600447	690566	8	Standard
| Cr	52	15.019	ug/L	0.756	5	10860	279010	4	Standard
| Cr	53	14.873	ug/L	0.661	4	113	31049	4	Standard
[> Ge	72		ug/L			35776	34971	0	KED
| Ni	60	12.825	ug/L	0.224	1	145	21699	1	KED
| Ni	62	13.074	ug/L	0.636	4	28	3549	5	KED
| Cu	63	30.875	ug/L	0.469	1	53	145218	1	KED
| Cu	65	31.639	ug/L	0.368	1	29	76384	0	KED
| Zn	66	60.680	ug/L	0.755	1	87	35170	1	KED
| Zn	67	58.931	ug/L	1.790	3	19	5565	3	KED
| As	75	6.862	ug/L	0.217	3	2	1927	3	KED
| Y	89		ug/L			55660	279514	1	Standard
| Kr	83		ug/L			44	93	4	Standard
[> In-1	115		ug/L			7587	7541	3	KED
| Cd	111	0.206	ug/L	0.031	15	4	60	12	KED
| Cd	114	0.210	ug/L	0.029	13	1	149	12	KED
[> In	115		ug/L			519229	467677	10	Standard
| Ag	107	0.158	ug/L	0.011	6	33	2457	6	Standard
[> Tb	159		ug/L			190542	208844	7	Standard
| Pb	208	14.122	ug/L	0.952	6	524	1406990	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:50:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42039	1	Standard
[> Sc	45		ug/L			600447	722307	1	Standard
[Cr	52	15.403	ug/L	0.058	0	10860	299782	1	Standard
[Cr	53	15.134	ug/L	0.260	1	113	33122	1	Standard
[> Ge	72		ug/L			35776	34398	1	KED
[Ni	60	13.305	ug/L	0.513	3	145	22132	2	KED
[Ni	62	13.397	ug/L	0.866	6	28	3575	5	KED
[Cu	63	36.367	ug/L	0.976	2	53	168193	1	KED
[Cu	65	36.194	ug/L	1.342	3	29	85923	2	KED
[Zn	66	67.215	ug/L	1.956	2	87	38301	1	KED
[Zn	67	67.347	ug/L	2.218	3	19	6251	2	KED
[As	75	8.338	ug/L	0.373	4	2	2301	3	KED
[Y	89		ug/L			55660	280878	1	Standard
[Kr	83		ug/L			44	83	13	Standard
[> In-1	115		ug/L			7587	7122	1	KED
[Cd	111	0.253	ug/L	0.034	13	4	69	11	KED
[Cd	114	0.270	ug/L	0.039	14	1	180	15	KED
[> In	115		ug/L			519229	504674	3	Standard
[Ag	107	0.171	ug/L	0.006	3	33	2876	3	Standard
[> Tb	159		ug/L			190542	219689	1	Standard
[Pb	208	16.464	ug/L	0.545	3	524	1730980	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:54:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42806	1	Standard
[> Sc	45		ug/L			600447	716286	1	Standard
[Cr	52	14.519	ug/L	0.159	1	10860	281010	2	Standard
[Cr	53	14.343	ug/L	0.209	1	113	31134	0	Standard
[> Ge	72		ug/L			35776	35309	1	KED
[Ni	60	11.887	ug/L	0.160	1	145	20315	0	KED
[Ni	62	12.515	ug/L	0.232	1	28	3432	3	KED
[Cu	63	30.686	ug/L	0.194	0	53	145729	2	KED
[Cu	65	30.856	ug/L	0.789	2	29	75198	0	KED
[Zn	66	59.607	ug/L	0.519	0	87	34885	2	KED
[Zn	67	59.174	ug/L	0.672	1	19	5643	3	KED
[As	75	6.641	ug/L	0.158	2	2	1883	3	KED
Y	89		ug/L			55660	284193	1	Standard
Kr	83		ug/L			44	70	37	Standard
[> In-1	115		ug/L			7587	7365	0	KED
[Cd	111	0.162	ug/L	0.039	24	4	47	21	KED
[Cd	114	0.184	ug/L	0.024	12	1	128	12	KED
[> In	115		ug/L			519229	495838	1	Standard
[Ag	107	0.144	ug/L	0.007	4	33	2379	5	Standard
[> Tb	159		ug/L			190542	222154	1	Standard
[Pb	208	13.638	ug/L	0.162	1	524	1450648	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:59:12**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	44599	4	Standard
[> Sc	45		ug/L			600447	731713	0	Standard
[Cr	52	14.739	ug/L	0.210	1	10860	291190	1	Standard
[Cr	53	14.638	ug/L	0.276	1	113	32460	2	Standard
[> Ge	72		ug/L			35776	35401	1	KED
[Ni	60	12.912	ug/L	0.463	3	145	22105	1	KED
[Ni	62	13.360	ug/L	0.173	1	28	3671	2	KED
[Cu	63	30.949	ug/L	0.224	0	53	147347	1	KED
[Cu	65	30.919	ug/L	0.887	2	29	75545	1	KED
[Zn	66	59.526	ug/L	1.559	2	87	34920	1	KED
[Zn	67	58.622	ug/L	1.849	3	19	5602	1	KED
[As	75	6.546	ug/L	0.025	0	2	1860	2	KED
Y	89		ug/L			55660	287110	1	Standard
Kr	83		ug/L			44	80	8	Standard
[> In-1	115		ug/L			7587	7523	1	KED
[Cd	111	0.226	ug/L	0.023	10	4	65	8	KED
[Cd	114	0.271	ug/L	<u>0.051</u>	18	1	192	19	KED
[> In	115		ug/L			519229	509267	1	Standard
[Ag	107	0.139	ug/L	0.004	2	33	2357	2	Standard
[> Tb	159		ug/L			190542	226516	2	Standard
[Pb	208	13.207	ug/L	0.260	1	524	1431982	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:03:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	45160	2	Standard
> Sc	45		ug/L			600447	709676	1	Standard
| Cr	52	15.013	ug/L	0.150	0	10860	287439	2	Standard
| Cr	53	14.978	ug/L	0.160	1	113	32210	0	Standard
> Ge	72		ug/L			35776	35230	1	KED
| Ni	60	13.396	ug/L	0.331	2	145	22823	1	KED
| Ni	62	13.330	ug/L	0.172	1	28	3645	2	KED
| Cu	63	30.968	ug/L	0.110	0	53	146728	1	KED
| Cu	65	31.310	ug/L	0.657	2	29	76161	2	KED
| Zn	66	63.015	ug/L	0.738	1	87	36788	0	KED
| Zn	67	62.204	ug/L	1.138	1	19	5916	2	KED
| As	75	6.961	ug/L	0.186	2	2	1968	1	KED
Y	89		ug/L			55660	283560	1	Standard
Kr	83		ug/L			44	85	22	Standard
> In-1	115		ug/L			7587	7404	1	KED
| Cd	111	0.232	ug/L	0.043	18	4	66	17	KED
| Cd	114	0.233	ug/L	0.017	7	1	162	8	KED
> In	115		ug/L			519229	492481	0	Standard
| Ag	107	0.145	ug/L	0.004	2	33	2386	3	Standard
> Tb	159		ug/L			190542	220224	3	Standard
| Pb	208	13.158	ug/L	0.300	2	524	1386701	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:08:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41520	3	Standard
> Sc	45		ug/L			600447	717446	3	Standard
| Cr	52	33.556	ug/L	0.650	1	10860	633326	3	Standard
| Cr	53	33.648	ug/L	0.689	2	113	72972	2	Standard
> Ge	72		ug/L			35776	35212	3	KED
| Ni	60	35.184	ug/L	2.100	5	145	59616	2	KED
| Ni	62	34.676	ug/L	1.662	4	28	9422	1	KED
| Cu	63	52.193	ug/L	2.020	3	53	246942	1	KED
| Cu	65	52.053	ug/L	2.137	4	29	126415	1	KED
| Zn	66	126.817	ug/L	6.484	5	87	73838	2	KED
| Zn	67	124.720	ug/L	2.442	1	19	11832	1	KED
| As	75	27.696	ug/L	0.850	3	2	7818	0	KED
Y	89		ug/L			55660	271396	0	Standard
Kr	83		ug/L			44	100	14	Standard
> In-1	115		ug/L			7587	7455	2	KED
| Cd	111	22.716	ug/L	0.408	1	4	6142	1	KED
| Cd	114	22.248	ug/L	0.741	3	1	15469	2	KED
> In	115		ug/L			519229	514419	4	Standard
| Ag	107	18.205	ug/L	0.801	4	33	307640	0	Standard
> Tb	159		ug/L			190542	221393	0	Standard
| Pb	208	33.456	ug/L	0.468	1	524	3545238	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:12:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	44015	3	Standard
[> Sc	45		ug/L			600447	721052	3	Standard
[Cr	52	36.977	ug/L	0.616	1	10860	700011	2	Standard
[Cr	53	37.171	ug/L	1.010	2	113	80983	2	Standard
[> Ge	72		ug/L			35776	34237	2	KED
[Ni	60	39.106	ug/L	0.914	2	145	64469	0	KED
[Ni	62	38.644	ug/L	0.795	2	28	10214	0	KED
[Cu	63	57.815	ug/L	0.699	1	53	266134	1	KED
[Cu	65	57.115	ug/L	0.664	1	29	134960	1	KED
[Zn	66	142.699	ug/L	4.197	2	87	80822	0	KED
[Zn	67	135.117	ug/L	3.802	2	19	12463	1	KED
[As	75	30.878	ug/L	0.621	2	2	8478	0	KED
[Y	89		ug/L			55660	287252	1	Standard
[Kr	83		ug/L			44	95	12	Standard
[> In-1	115		ug/L			7587	7377	2	KED
[Cd	111	25.360	ug/L	0.541	2	4	6784	0	KED
[Cd	114	25.469	ug/L	0.366	1	1	17530	3	KED
[> In	115		ug/L			519229	497333	1	Standard
[Ag	107	19.764	ug/L	0.913	4	33	323142	2	Standard
[> Tb	159		ug/L			190542	219212	0	Standard
[Pb	208	37.388	ug/L	0.368	0	524	3923097	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-PS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:16:52**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	45372	6	Standard
[> Sc	45		ug/L			600447	718540	2	Standard
| Cr	52	36.741	ug/L	0.599	1	10860	693185	1	Standard
| Cr	53	36.056	ug/L	0.837	2	113	78288	0	Standard
[> Ge	72		ug/L			35776	34859	1	KED
| Ni	60	37.401	ug/L	0.136	0	145	62811	1	KED
| Ni	62	38.589	ug/L	0.944	2	28	10387	2	KED
| Cu	63	56.121	ug/L	0.896	1	53	263033	0	KED
| Cu	65	55.252	ug/L	1.012	1	29	132930	0	KED
| Zn	66	138.618	ug/L	1.496	1	87	79980	1	KED
| Zn	67	132.100	ug/L	4.039	3	19	12408	2	KED
| As	75	30.730	ug/L	0.687	2	2	8591	0	KED
Y	89		ug/L			55660	288018	2	Standard
Kr	83		ug/L			44	80	8	Standard
[> In-1	115		ug/L			7587	7491	3	KED
| Cd	111	24.290	ug/L	0.743	3	4	6597	1	KED
| Cd	114	24.183	ug/L	0.272	1	1	16899	2	KED
[> In	115		ug/L			519229	508102	0	Standard
| Ag	107	24.891	ug/L	0.312	1	33	416033	1	Standard
[> Tb	159		ug/L			190542	220946	1	Standard
| Pb	208	37.236	ug/L	0.193	0	524	3937864	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 22:21:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27642	4	Standard
[> Sc	45		ug/L			600447	603813	2	Standard
| Cr	52	-0.051	ug/L	0.021	41	10860	10122	2	Standard
| Cr	53	-0.013	ug/L	0.005	41	113	90	8	Standard
[> Ge	72		ug/L			35776	35433	2	KED
| Ni	60	0.021	ug/L	0.007	33	145	179	6	KED
| Ni	62	0.047	ug/L	0.030	63	28	41	20	KED
| Cu	63	0.002	ug/L	0.002	110	53	62	15	KED
| Cu	65	0.002	ug/L	0.001	43	29	34	5	KED
| Zn	66	-0.045	ug/L	0.015	32	87	60	13	KED
| Zn	67	-0.092	ug/L	0.078	84	19	10	71	KED
| As	75	-0.000	ug/L	0.004	850	2	2	48	KED
Y	89		ug/L			55660	56192	1	Standard
Kr	83		ug/L			44	38	7	Standard
[> In-1	115		ug/L			7587	7673	1	KED
| Cd	111	-0.008	ug/L	0.003	40	4	1	50	KED
| Cd	114	0.003	ug/L	0.005	205	1	3	104	KED
[> In	115		ug/L			519229	511235	2	Standard
| Ag	107	0.002	ug/L	0.000	5	33	62	0	Standard
[> Tb	159		ug/L			190542	202248	1	Standard
| Pb	208	-0.000	ug/L	0.000	102	524	535	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 22:25:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27192	3	Standard
[> Sc	45		ug/L			600447	608622	1	Standard
| Cr	52	50.684	ug/L	0.378	0	10860	805976	1	Standard
| Cr	53	49.678	ug/L	1.026	2	113	91340	1	Standard
[> Ge	72		ug/L			35776	35568	0	KED
| Ni	60	48.330	ug/L	0.870	1	145	82768	1	KED
| Ni	62	48.442	ug/L	0.639	1	28	13298	1	KED
| Cu	63	49.417	ug/L	0.579	1	53	236363	1	KED
| Cu	65	48.231	ug/L	1.469	3	29	118414	2	KED
| Zn	66	49.608	ug/L	0.551	1	87	29261	1	KED
| Zn	67	49.324	ug/L	1.186	2	19	4740	2	KED
| As	75	49.969	ug/L	0.076	0	2	14256	0	KED
Y	89		ug/L			55660	56809	4	Standard
Kr	83		ug/L			44	47	18	Standard
[> In-1	115		ug/L			7587	7389	1	KED
| Cd	111	49.546	ug/L	1.061	2	4	13275	1	KED
| Cd	114	49.494	ug/L	0.422	0	1	34117	1	KED
[> In	115		ug/L			519229	506372	2	Standard
| Ag	107	49.532	ug/L	0.924	1	33	824893	2	Standard
[> Tb	159		ug/L			190542	201346	2	Standard
| Pb	208	50.146	ug/L	1.169	2	524	4830970	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 22:32:53

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	27637	6	Standard
[>	Sc	45	ug/L			600447	601964	1	Standard
|	Cr	52	ug/L	0.016	62	10860	10474	1	Standard
|	Cr	53	ug/L	0.003	63	113	103	4	Standard
[>	Ge	72	ug/L			35776	36137	1	KED
|	Ni	60	ug/L	0.012	73	145	174	12	KED
|	Ni	62	ug/L	0.014	32	28	16	24	KED
|	Cu	63	ug/L	0.003	112	53	66	21	KED
|	Cu	65	ug/L	0.001	67	29	33	8	KED
|	Zn	66	ug/L	0.015	41	87	66	12	KED
|	Zn	67	ug/L	0.028	34	19	12	24	KED
|	As	75	ug/L	0.007	258	2	3	65	KED
	Y	89	ug/L			55660	54450	2	Standard
	Kr	83	ug/L			44	43	21	Standard
[>	In-1	115	ug/L			7587	7720	2	KED
|	Cd	111	ug/L	0.005	57	4	1	91	KED
|	Cd	114	ug/L	0.003	180	1	2	70	KED
[>	In	115	ug/L			519229	507656	1	Standard
|	Ag	107	ug/L	0.001	25	33	67	14	Standard
[>	Tb	159	ug/L			190542	194063	1	Standard
|	Pb	208	ug/L	0.000	133	524	566	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:37:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	44112	4	Standard
> Sc	45		ug/L			600447	709054	2	Standard
| Cr	52	13.866	ug/L	0.406	2	10860	266055	0	Standard
| Cr	53	14.000	ug/L	0.297	2	113	30081	1	Standard
> Ge	72		ug/L			35776	34999	2	KED
| Ni	60	11.928	ug/L	0.327	2	145	20201	1	KED
| Ni	62	11.602	ug/L	0.091	0	28	3155	1	KED
| Cu	63	30.347	ug/L	0.908	2	53	142788	1	KED
| Cu	65	29.640	ug/L	1.166	3	29	71581	1	KED
| Zn	66	67.932	ug/L	2.944	4	87	39370	2	KED
| Zn	67	65.305	ug/L	2.153	3	19	6167	1	KED
| As	75	7.893	ug/L	0.118	1	2	2217	1	KED
Y	89		ug/L			55660	269034	2	Standard
Kr	83		ug/L			44	83	10	Standard
> In-1	115		ug/L			7587	7517	0	KED
| Cd	111	0.202	ug/L	0.025	12	4	59	11	KED
| Cd	114	0.197	ug/L	0.029	14	1	139	14	KED
> In	115		ug/L			519229	510602	1	Standard
| Ag	107	0.120	ug/L	0.002	1	33	2052	2	Standard
> Tb	159		ug/L			190542	219802	3	Standard
| Pb	208	11.171	ug/L	0.325	2	524	1174869	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:41:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42440	3	Standard
[> Sc	45		ug/L			600447	715357	1	Standard
[Cr	52	12.859	ug/L	0.040	0	10860	250000	1	Standard
[Cr	53	13.009	ug/L	0.357	2	113	28218	3	Standard
[> Ge	72		ug/L			35776	34864	1	KED
[Ni	60	13.775	ug/L	0.257	1	145	23223	1	KED
[Ni	62	13.798	ug/L	0.584	4	28	3734	5	KED
[Cu	63	24.510	ug/L	0.357	1	53	114927	0	KED
[Cu	65	24.470	ug/L	0.195	0	29	58904	0	KED
[Zn	66	53.122	ug/L	1.279	2	87	30701	1	KED
[Zn	67	53.087	ug/L	0.536	1	19	4999	0	KED
[As	75	6.441	ug/L	0.043	0	2	1803	0	KED
[Y	89		ug/L			55660	266859	1	Standard
[Kr	83		ug/L			44	73	3	Standard
[> In-1	115		ug/L			7587	7219	2	KED
[Cd	111	0.125	ug/L	0.023	18	4	36	14	KED
[Cd	114	0.155	ug/L	0.036	23	1	106	25	KED
[> In	115		ug/L			519229	505027	1	Standard
[Ag	107	0.096	ug/L	0.002	2	33	1635	3	Standard
[> Tb	159		ug/L			190542	222110	1	Standard
[Pb	208	9.491	ug/L	0.215	2	524	1009179	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:46:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42216	5	Standard
[> Sc	45		ug/L			600447	737126	2	Standard
[Cr	52	15.985	ug/L	0.581	3	10860	316818	1	Standard
[Cr	53	15.684	ug/L	0.237	1	113	35018	1	Standard
[> Ge	72		ug/L			35776	34661	1	KED
[Ni	60	13.792	ug/L	0.237	1	145	23115	0	KED
[Ni	62	13.986	ug/L	0.109	0	28	3761	1	KED
[Cu	63	36.202	ug/L	0.537	1	53	168737	0	KED
[Cu	65	36.196	ug/L	0.297	0	29	86607	0	KED
[Zn	66	68.237	ug/L	0.710	1	87	39187	0	KED
[Zn	67	64.700	ug/L	1.108	1	19	6053	0	KED
[As	75	7.814	ug/L	0.160	2	2	2174	0	KED
Y	89		ug/L			55660	305716	1	Standard
Kr	83		ug/L			44	94	9	Standard
[> In-1	115		ug/L			7587	7387	3	KED
[Cd	111	0.230	ug/L	0.034	14	4	65	10	KED
[Cd	114	0.189	ug/L	0.020	10	1	132	12	KED
[> In	115		ug/L			519229	504320	1	Standard
[Ag	107	0.173	ug/L	0.003	1	33	2906	2	Standard
[> Tb	159		ug/L			190542	220823	3	Standard
[Pb	208	16.723	ug/L	0.540	3	524	1766569	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-09**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:50:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	36941	3	Standard
> Sc	45		ug/L			600447	707482	1	Standard
| Cr	52	13.403	ug/L	0.125	0	10860	257172	1	Standard
| Cr	53	12.977	ug/L	0.121	0	113	27843	2	Standard
> Ge	72		ug/L			35776	35020	0	KED
| Ni	60	12.070	ug/L	0.218	1	145	20458	1	KED
| Ni	62	12.224	ug/L	0.385	3	28	3325	3	KED
| Cu	63	25.027	ug/L	0.373	1	53	117881	1	KED
| Cu	65	24.754	ug/L	0.415	1	29	59854	1	KED
| Zn	66	60.844	ug/L	0.755	1	87	35314	0	KED
| Zn	67	108.303	ug/L	2.395	2	19	10225	1	KED
| As	75	5.746	ug/L	0.088	1	2	1616	1	KED
Y	89		ug/L			55660	254580	0	Standard
Kr	83		ug/L			44	77	7	Standard
> In-1	115		ug/L			7587	7416	2	KED
| Cd	111	0.125	ug/L	0.025	19	4	37	19	KED
| Cd	114	0.136	ug/L	0.011	7	1	95	8	KED
> In	115		ug/L			519229	494495	1	Standard
| Ag	107	0.103	ug/L	0.004	3	33	1702	2	Standard
> Tb	159		ug/L			190542	218399	1	Standard
| Pb	208	11.623	ug/L	0.140	1	524	1215246	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:54:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	28956	0	Standard
> Sc	45		ug/L			600447	632927	2	Standard
| Cr	52	83.030	ug/L	1.894	2	10860	1365955	3	Standard
| Cr	53	82.553	ug/L	2.117	2	113	157762	1	Standard
> Ge	72		ug/L			35776	31287	1	KED
| Ni	60	23.659	ug/L	0.556	2	145	35697	0	KED
| Ni	62	27.194	ug/L	0.581	2	28	6576	0	KED
| Cu	63	2498.049	ug/L	48.349	1	53	10506397	1	KED
| Cu	65	2569.123	ug/L	57.301	2	29	5546287	0	KED
| Zn	66	7354.329	ug/L	288.789	3	87	3803532	3	KED
| Zn	67	6774.525	ug/L	131.191	1	19	570411	2	KED
| As	75	1054.444	ug/L	16.893	1	2	264562	0	KED
| Y	89		ug/L			55660	282337	3	Standard
| Kr	83		ug/L			44	108	15	Standard
> In-1	115		ug/L			7587	16696	0	KED
| Cd	111	2.127	ug/L	0.026	1	4	1296	1	KED
| Cd	114	2.036	ug/L	0.022	1	1	3175	0	KED
> In	115		ug/L			519229	910777	0	Standard
| Ag	107	0.753	ug/L	0.018	2	33	22621	2	Standard
> Tb	159		ug/L			190542	158646	1	Standard
| Pb	208	1211.380	ug/L	38.633	3	524	91952848	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:59:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	30314	5	Standard
> Sc	45		ug/L			600447	626535	3	Standard
| Cr	52	85.240	ug/L	2.397	2	10860	1386839	0	Standard
| Cr	53	84.038	ug/L	2.060	2	113	158948	2	Standard
> Ge	72		ug/L			35776	30534	0	KED
| Ni	60	24.774	ug/L	0.555	2	145	36484	2	KED
| Ni	62	29.303	ug/L	0.311	1	28	6915	0	KED
| Cu	63	2817.731	ug/L	58.540	2	53	11567687	2	KED
| Cu	65	2764.990	ug/L	27.962	1	29	5826764	0	KED
| Zn	66	7637.721	ug/L	56.656	0	87	3856088	0	KED
| Zn	67	7060.766	ug/L	69.114	0	19	580207	0	KED
| As	75	1082.369	ug/L	5.384	0	2	265078	0	KED
| Y	89		ug/L			55660	316457	1	Standard
| Kr	83		ug/L			44	93	15	Standard
> In-1	115		ug/L			7587	15962	1	KED
| Cd	111	2.478	ug/L	0.072	2	4	1442	3	KED
| Cd	114	2.439	ug/L	0.022	0	1	3635	0	KED
> In	115		ug/L			519229	899865	0	Standard
| Ag	107	0.832	ug/L	0.021	2	33	24686	1	Standard
> Tb	159		ug/L			190542	160807	0	Standard
| Pb	208	1201.329	ug/L	19.280	1	524	92444349	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:03:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27291	5	Standard
> Sc	45		ug/L			600447	608593	1	Standard
| Cr	52	110.095	ug/L	3.295	2	10860	1737242	1	Standard
| Cr	53	108.219	ug/L	1.529	1	113	198841	0	Standard
> Ge	72		ug/L			35776	29436	2	KED
| Ni	60	48.982	ug/L	1.875	3	145	69379	1	KED
| Ni	62	54.981	ug/L	2.524	4	28	12479	1	KED
| Cu	63	3042.849	ug/L	134.473	4	53	12033133	1	KED
| Cu	65	3048.235	ug/L	86.303	2	29	6189784	1	KED
| Zn	66	7993.790	ug/L	257.905	3	87	3888434	0	KED
| Zn	67	7334.042	ug/L	256.573	3	19	580633	0	KED
| As	75	1176.119	ug/L	32.073	2	2	277546	0	KED
| Y	89		ug/L			55660	297960	0	Standard
| Kr	83		ug/L			44	105	19	Standard
> In-1	115		ug/L			7587	15976	1	KED
| Cd	111	10.853	ug/L	0.123	1	4	6294	0	KED
| Cd	114	10.994	ug/L	0.247	2	1	16388	2	KED
> In	115		ug/L			519229	904235	1	Standard
| Ag	107	4.491	ug/L	0.132	2	33	133599	1	Standard
> Tb	159		ug/L			190542	157324	0	Standard
| Pb	208	1280.635	ug/L	22.743	1	524	96414758	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:08:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	26877	3	Standard
> Sc	45		ug/L			600447	611441	1	Standard
| Cr	52	111.436	ug/L	3.976	3	10860	1766516	2	Standard
| Cr	53	110.105	ug/L	4.573	4	113	203202	2	Standard
> Ge	72		ug/L			35776	29152	0	KED
| Ni	60	48.618	ug/L	0.881	1	145	68250	2	KED
| Ni	62	51.789	ug/L	1.011	1	28	11653	2	KED
| Cu	63	2806.959	ug/L	37.381	1	53	11000916	0	KED
| Cu	65	2816.731	ug/L	71.420	2	29	5666231	1	KED
| Zn	66	8265.905	ug/L	136.269	1	87	3984176	1	KED
| Zn	67	7616.692	ug/L	44.699	0	19	597534	0	KED
| As	75	1296.431	ug/L	11.821	0	2	303108	0	KED
| Y	89		ug/L			55660	289686	0	Standard
| Kr	83		ug/L			44	106	18	Standard
> In-1	115		ug/L			7587	16333	1	KED
| Cd	111	11.000	ug/L	0.211	1	4	6521	0	KED
| Cd	114	10.726	ug/L	0.114	1	1	16343	0	KED
> In	115		ug/L			519229	951207	3	Standard
| Ag	107	4.378	ug/L	0.114	2	33	136944	1	Standard
> Tb	159		ug/L			190542	157453	1	Standard
| Pb	208	1380.771	ug/L	20.785	1	524	104030860	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0072-PS1

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, May 10, 2023 23:12:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27119	1	Standard
[> Sc	45		ug/L			600447	605688	1	Standard
[Cr	52	107.946	ug/L	4.648	4	10860	1695312	3	Standard
[Cr	53	105.056	ug/L	2.621	2	113	192093	1	Standard
[> Ge	72		ug/L			35776	29173	1	KED
[Ni	60	48.441	ug/L	1.072	2	145	68035	1	KED
[Ni	62	51.887	ug/L	1.933	3	28	11679	2	KED
[Cu	63	2659.663	ug/L	25.993	0	53	10431378	0	KED
[Cu	65	2674.653	ug/L	89.805	3	29	5383864	2	KED
[Zn	66	7740.478	ug/L	41.895	0	87	3733813	1	KED
[Zn	67	7109.067	ug/L	112.602	1	19	558068	0	KED
[As	75	1097.144	ug/L	7.742	0	2	256700	0	KED
[Y	89		ug/L			55660	287334	1	Standard
[Kr	83		ug/L			44	88	2	Standard
[> In-1	115		ug/L			7587	15754	1	KED
[Cd	111	11.382	ug/L	0.376	3	4	6507	1	KED
[Cd	114	11.428	ug/L	0.447	3	1	16790	2	KED
[> In	115		ug/L			519229	924163	2	Standard
[Ag	107	11.450	ug/L	0.297	2	33	347999	1	Standard
[> Tb	159		ug/L			190542	158980	1	Standard
[Pb	208	1253.989	ug/L	4.849	0	524	95406487	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL8

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 23:16:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	22829	2	Standard
[> Sc	45		ug/L			600447	564251	0	Standard
| Cr	52	0.030	ug/L	0.034	113	10860	10641	4	Standard
| Cr	53	0.025	ug/L	0.031	125	113	148	35	Standard
[> Ge	72		ug/L			35776	31647	0	KED
| Ni	60	0.041	ug/L	0.020	47	145	190	15	KED
| Ni	62	0.027	ug/L	0.012	44	28	31	9	KED
| Cu	63	0.082	ug/L	0.007	8	53	398	7	KED
| Cu	65	0.082	ug/L	0.013	15	29	205	13	KED
| Zn	66	0.206	ug/L	0.036	17	87	185	10	KED
| Zn	67	0.094	ug/L	0.046	48	19	25	15	KED
| As	75	0.075	ug/L	0.010	13	2	20	12	KED
Y	89		ug/L			55660	54412	1	Standard
Kr	83		ug/L			44	53	15	Standard
[> In-1	115		ug/L			7587	6568	3	KED
| Cd	111	-0.012	ug/L	0.002	18	4	0	86	KED
| Cd	114	0.002	ug/L	0.001	26	1	2	8	KED
[> In	115		ug/L			519229	523168	3	Standard
| Ag	107	0.008	ug/L	0.008	104	33	168	86	Standard
[> Tb	159		ug/L			190542	194825	1	Standard
| Pb	208	0.275	ug/L	0.271	98	524	25917	95	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 23:21:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	24653	5	Standard
[> Sc	45		ug/L			600447	591563	1	Standard
| Cr	52	49.379	ug/L	0.755	1	10860	763476	1	Standard
| Cr	53	48.410	ug/L	0.314	0	113	86533	1	Standard
[> Ge	72		ug/L			35776	32024	1	KED
| Ni	60	49.999	ug/L	0.359	0	145	77097	2	KED
| Ni	62	50.338	ug/L	0.599	1	28	12440	0	KED
| Cu	63	50.853	ug/L	0.479	0	53	218983	1	KED
| Cu	65	50.279	ug/L	0.509	1	29	111154	1	KED
| Zn	66	50.970	ug/L	0.590	1	87	27069	2	KED
| Zn	67	51.946	ug/L	1.180	2	19	4493	1	KED
| As	75	50.153	ug/L	1.115	2	2	12882	1	KED
Y	89		ug/L			55660	54346	3	Standard
Kr	83		ug/L			44	41	30	Standard
[> In-1	115		ug/L			7587	6872	2	KED
| Cd	111	49.954	ug/L	1.477	2	4	12444	0	KED
| Cd	114	50.060	ug/L	0.658	1	1	32090	1	KED
[> In	115		ug/L			519229	500870	0	Standard
| Ag	107	48.812	ug/L	0.335	0	33	804173	0	Standard
[> Tb	159		ug/L			190542	196347	1	Standard
| Pb	208	52.229	ug/L	0.704	1	524	4907728	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 23:28:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	24509	6	Standard
[>	Sc	45	ug/L			600447	583759	2	Standard
|	Cr	52	-0.028	0.018	66	10860	10137	2	Standard
|	Cr	53	-0.011	0.006	52	113	90	13	Standard
[>	Ge	72	ug/L			35776	33371	3	KED
|	Ni	60	-0.006	0.007	114	145	125	11	KED
|	Ni	62	-0.014	0.022	152	28	22	22	KED
|	Cu	63	0.016	0.007	43	53	120	27	KED
|	Cu	65	0.018	0.005	27	29	69	15	KED
|	Zn	66	0.001	0.018	3110	87	81	10	KED
|	Zn	67	-0.063	0.009	14	19	12	8	KED
|	As	75	0.023	0.007	31	2	8	20	KED
	Y	89	ug/L			55660	54110	1	Standard
	Kr	83	ug/L			44	46	13	Standard
[>	In-1	115	ug/L			7587	6862	2	KED
|	Cd	111	-0.002	0.004	201	4	3	34	KED
|	Cd	114	0.002	0.004	180	1	2	81	KED
[>	In	115	ug/L			519229	515794	3	Standard
|	Ag	107	0.003	0.001	26	33	82	17	Standard
[>	Tb	159	ug/L			190542	195697	2	Standard
|	Pb	208	0.007	0.000	1	524	1220	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:33:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41800	4	Standard
> Sc	45		ug/L			600447	694893	1	Standard
| Cr	52	14.760	ug/L	0.330	2	10860	276862	1	Standard
| Cr	53	14.749	ug/L	0.355	2	113	31060	2	Standard
> Ge	72		ug/L			35776	33387	1	KED
| Ni	60	12.096	ug/L	0.354	2	145	19540	1	KED
| Ni	62	12.236	ug/L	0.141	1	28	3173	2	KED
| Cu	63	34.440	ug/L	0.616	1	53	154616	0	KED
| Cu	65	33.554	ug/L	0.420	1	29	77335	1	KED
| Zn	66	61.897	ug/L	0.534	0	87	34249	1	KED
| Zn	67	60.911	ug/L	2.396	3	19	5489	2	KED
| As	75	7.068	ug/L	0.157	2	2	1894	2	KED
Y	89		ug/L			55660	279345	1	Standard
Kr	83		ug/L			44	90	13	Standard
> In-1	115		ug/L			7587	6934	2	KED
| Cd	111	0.195	ug/L	0.047	24	4	52	21	KED
| Cd	114	0.219	ug/L	0.014	6	1	143	8	KED
> In	115		ug/L			519229	517494	0	Standard
| Ag	107	0.165	ug/L	0.003	1	33	2844	1	Standard
> Tb	159		ug/L			190542	224144	0	Standard
| Pb	208	14.987	ug/L	0.095	0	524	1608279	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:37:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41920	5	Standard
> Sc	45		ug/L			600447	707279	1	Standard
| Cr	52	13.606	ug/L	0.173	1	10860	260824	2	Standard
| Cr	53	13.450	ug/L	0.128	0	113	28839	1	Standard
> Ge	72		ug/L			35776	33813	2	KED
| Ni	60	12.474	ug/L	0.318	2	145	20402	0	KED
| Ni	62	12.568	ug/L	0.337	2	28	3298	0	KED
| Cu	63	27.102	ug/L	0.625	2	53	123211	0	KED
| Cu	65	26.633	ug/L	0.700	2	29	62154	0	KED
| Zn	66	53.856	ug/L	2.290	4	87	30171	1	KED
| Zn	67	53.534	ug/L	0.966	1	19	4890	3	KED
| As	75	6.504	ug/L	0.322	4	2	1764	2	KED
Y	89		ug/L			55660	279415	2	Standard
Kr	83		ug/L			44	85	14	Standard
> In-1	115		ug/L			7587	7109	2	KED
| Cd	111	0.169	ug/L	0.030	17	4	47	16	KED
| Cd	114	0.154	ug/L	0.036	23	1	103	20	KED
> In	115		ug/L			519229	506285	1	Standard
| Ag	107	0.112	ug/L	0.003	2	33	1899	2	Standard
> Tb	159		ug/L			190542	221252	0	Standard
| Pb	208	10.941	ug/L	0.016	0	524	1159070	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:41:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41624	4	Standard
[> Sc	45		ug/L			600447	641883	(18)	Standard
| Cr	52	16.175	ug/L	2.585	15	10860	274088	4	Standard
| Cr	53	16.107	ug/L	2.732	16	113	30688	3	Standard
[> Ge	72		ug/L			35776	33460	0	KED
| Ni	60	13.007	ug/L	0.126	0	145	21054	1	KED
| Ni	62	12.937	ug/L	0.251	1	28	3360	1	KED
| Cu	63	34.231	ug/L	0.569	1	53	154049	2	KED
| Cu	65	33.408	ug/L	0.682	2	29	77167	1	KED
| Zn	66	66.941	ug/L	2.382	3	87	37107	2	KED
| Zn	67	64.779	ug/L	1.290	1	19	5850	1	KED
| As	75	7.501	ug/L	0.124	1	2	2015	1	KED
| Y	89		ug/L			55660	272445	5	Standard
| Kr	83		ug/L			44	93	25	Standard
[> In-1	115		ug/L			7587	7083	2	KED
| Cd	111	0.206	ug/L	0.024	11	4	56	9	KED
| Cd	114	0.231	ug/L	0.024	10	1	153	9	KED
[> In	115		ug/L			519229	441955	(19)	Standard
| Ag	107	0.171	ug/L	0.035	20	33	2452	1	Standard
[> Tb	159		ug/L			190542	205536	(15)	Standard
| Pb	208	15.984	ug/L	2.361	14	524	1548517	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:46:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41611	5	Standard
> Sc	45		ug/L			600447	699791	2	Standard
| Cr	52	14.261	ug/L	0.110	0	10860	269809	2	Standard
| Cr	53	14.245	ug/L	0.285	2	113	30206	1	Standard
> Ge	72		ug/L			35776	33878	0	KED
| Ni	60	12.340	ug/L	0.198	1	145	20233	1	KED
| Ni	62	11.929	ug/L	0.375	3	28	3139	2	KED
| Cu	63	32.200	ug/L	0.998	3	53	146699	2	KED
| Cu	65	31.622	ug/L	0.386	1	29	73963	1	KED
| Zn	66	61.960	ug/L	0.332	0	87	34789	0	KED
| Zn	67	62.225	ug/L	1.387	2	19	5691	1	KED
| As	75	7.169	ug/L	0.232	3	2	1949	2	KED
Y	89		ug/L			55660	273102	1	Standard
Kr	83		ug/L			44	73	25	Standard
> In-1	115		ug/L			7587	6963	1	KED
| Cd	111	0.182	ug/L	0.016	8	4	49	9	KED
| Cd	114	0.260	ug/L	0.013	4	1	170	3	KED
> In	115		ug/L			519229	502263	0	Standard
| Ag	107	0.134	ug/L	0.006	4	33	2247	4	Standard
> Tb	159		ug/L			190542	223559	0	Standard
| Pb	208	13.661	ug/L	0.263	1	524	1462194	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:50:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27881	40115	3	Standard
[>	Sc	45		ug/L			600447	696541	1	Standard
|	Cr	52	13.972	ug/L	0.171	1	10860	263366	0	Standard
|	Cr	53	14.084	ug/L	0.546	3	113	29722	2	Standard
[>	Ge	72		ug/L			35776	34063	0	KED
|	Ni	60	12.153	ug/L	0.004	0	145	20035	0	KED
|	Ni	62	12.203	ug/L	0.252	2	28	3228	2	KED
|	Cu	63	30.621	ug/L	0.182	0	53	140286	1	KED
|	Cu	65	30.888	ug/L	0.529	1	29	72636	1	KED
|	Zn	66	61.152	ug/L	1.552	2	87	34527	3	KED
|	Zn	67	60.193	ug/L	0.541	0	19	5536	0	KED
|	As	75	6.442	ug/L	0.173	2	2	1761	2	KED
	Y	89		ug/L			55660	267558	1	Standard
	Kr	83		ug/L			44	67	5	Standard
[>	In-1	115		ug/L			7587	7095	0	KED
|	Cd	111	0.200	ug/L	0.033	16	4	55	15	KED
|	Cd	114	0.229	ug/L	0.041	17	1	153	18	KED
[>	In	115		ug/L			519229	499273	1	Standard
|	Ag	107	0.139	ug/L	0.012	8	33	2310	7	Standard
[>	Tb	159		ug/L			190542	219835	0	Standard
|	Pb	208	14.358	ug/L	0.249	1	524	1511199	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:55:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	40341	3	Standard
[> Sc	45		ug/L			600447	679727	1	Standard
[Cr	52	13.576	ug/L	0.280	2	10860	250134	2	Standard
[Cr	53	13.642	ug/L	0.301	2	113	28109	1	Standard
[> Ge	72		ug/L			35776	33903	1	KED
[Ni	60	11.924	ug/L	0.282	2	145	19565	1	KED
[Ni	62	11.936	ug/L	0.534	4	28	3142	3	KED
[Cu	63	27.743	ug/L	0.140	0	53	126506	1	KED
[Cu	65	27.736	ug/L	0.201	0	29	64920	1	KED
[Zn	66	58.405	ug/L	1.496	2	87	32817	2	KED
[Zn	67	57.184	ug/L	1.965	3	19	5233	1	KED
[As	75	5.879	ug/L	0.200	3	2	1600	2	KED
Y	89		ug/L			55660	253187	1	Standard
Kr	83		ug/L			44	62	15	Standard
[> In-1	115		ug/L			7587	7134	2	KED
[Cd	111	0.173	ug/L	0.033	19	4	48	16	KED
[Cd	114	0.200	ug/L	0.032	15	1	134	17	KED
[> In	115		ug/L			519229	507129	2	Standard
[Ag	107	0.133	ug/L	0.005	4	33	2255	2	Standard
[> Tb	159		ug/L			190542	221170	1	Standard
[Pb	208	19.884	ug/L	0.450	2	524	2104767	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0109-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:59:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	41351	4	Standard
[>	Sc	45	ug/L			600447	689065	1	Standard
|	Cr	52	ug/L	0.115	0	10860	248242	1	Standard
|	Cr	53	ug/L	0.146	1	113	27430	2	Standard
[>	Ge	72	ug/L			35776	33601	1	KED
|	Ni	60	ug/L	0.105	0	145	17839	1	KED
|	Ni	62	ug/L	0.166	1	28	2861	0	KED
|	Cu	63	ug/L	0.776	2	53	169002	1	KED
|	Cu	65	ug/L	1.137	3	29	86342	1	KED
|	Zn	66	ug/L	0.498	0	87	30188	0	KED
|	Zn	67	ug/L	1.758	3	19	4714	2	KED
|	As	75	ug/L	0.093	1	2	2260	0	KED
	Y	89	ug/L			55660	253081	2	Standard
	Kr	83	ug/L			44	70	4	Standard
[>	In-1	115	ug/L			7587	7085	2	KED
|	Cd	111	ug/L	0.018	10	4	49	8	KED
|	Cd	114	ug/L	0.014	7	1	116	9	KED
[>	In	115	ug/L			519229	506436	3	Standard
|	Ag	107	ug/L	0.009	6	33	2360	2	Standard
[>	Tb	159	ug/L			190542	218914	0	Standard
|	Pb	208	ug/L	0.026	0	524	1365955	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0109-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:03:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	44730	2	Standard
[> Sc	45		ug/L			600447	695996	0	Standard
[Cr	52	13.163	ug/L	0.197	1	10860	248690	1	Standard
[Cr	53	12.957	ug/L	0.368	2	113	27345	2	Standard
[> Ge	72		ug/L			35776	33265	1	KED
[Ni	60	11.039	ug/L	0.401	3	145	17780	2	KED
[Ni	62	11.096	ug/L	0.292	2	28	2868	1	KED
[Cu	63	33.534	ug/L	0.794	2	53	150033	2	KED
[Cu	65	33.030	ug/L	0.499	1	29	75849	0	KED
[Zn	66	55.322	ug/L	0.971	1	87	30504	0	KED
[Zn	67	55.166	ug/L	1.585	2	19	4957	3	KED
[As	75	8.674	ug/L	0.314	3	2	2315	2	KED
[Y	89		ug/L			55660	251821	1	Standard
[Kr	83		ug/L			44	67	20	Standard
[> In-1	115		ug/L			7587	6853	1	KED
[Cd	111	0.200	ug/L	0.020	10	4	53	7	KED
[Cd	114	0.185	ug/L	0.031	16	1	119	14	KED
[> In	115		ug/L			519229	504230	4	Standard
[Ag	107	0.143	ug/L	0.009	6	33	2395	1	Standard
[> Tb	159		ug/L			190542	215455	1	Standard
[Pb	208	13.720	ug/L	0.338	2	524	1415046	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:08:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	43300	5	Standard
[> Sc	45		ug/L			600447	713310	1	Standard
| Cr	52	16.422	ug/L	0.161	0	10860	314787	1	Standard
| Cr	53	16.361	ug/L	0.435	2	113	35354	3	Standard
[> Ge	72		ug/L			35776	32638	0	KED
| Ni	60	15.409	ug/L	0.351	2	145	24305	2	KED
| Ni	62	15.069	ug/L	0.298	1	28	3813	1	KED
| Cu	63	38.928	ug/L	0.502	1	53	170861	0	KED
| Cu	65	39.033	ug/L	0.216	0	29	87953	1	KED
| Zn	66	75.753	ug/L	0.903	1	87	40958	1	KED
| Zn	67	73.795	ug/L	1.061	1	19	6499	1	KED
| As	75	8.223	ug/L	0.084	1	2	2154	0	KED
Y	89		ug/L			55660	331620	1	Standard
Kr	83		ug/L			44	85	5	Standard
[> In-1	115		ug/L			7587	7151	0	KED
| Cd	111	0.175	ug/L	0.028	15	4	49	14	KED
| Cd	114	0.189	ug/L	0.041	21	1	127	20	KED
[> In	115		ug/L			519229	494671	2	Standard
| Ag	107	0.155	ug/L	0.005	3	33	2553	5	Standard
[> Tb	159		ug/L			190542	226865	1	Standard
| Pb	208	15.700	ug/L	0.343	2	524	1704869	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 00:12:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	26146	3	Standard
[> Sc	45		ug/L			600447	573930	1	Standard
| Cr	52	-0.020	ug/L	0.012	58	10860	10084	3	Standard
| Cr	53	-0.009	ug/L	0.008	84	113	92	15	Standard
[> Ge	72		ug/L			35776	32582	1	KED
| Ni	60	0.015	ug/L	0.010	68	145	155	11	KED
| Ni	62	0.005	ug/L	0.030	607	28	27	28	KED
| Cu	63	0.014	ug/L	0.002	14	53	111	6	KED
| Cu	65	0.010	ug/L	0.005	55	29	48	25	KED
| Zn	66	-0.030	ug/L	0.021	69	87	63	16	KED
| Zn	67	-0.067	ug/L	0.011	16	19	12	9	KED
| As	75	0.003	ug/L	0.005	152	2	2	44	KED
Y	89		ug/L			55660	54155	0	Standard
Kr	83		ug/L			44	38	2	Standard
[> In-1	115		ug/L			7587	6900	0	KED
| Cd	111	-0.012	ug/L	0.002	17	4	0	86	KED
| Cd	114	-0.002	ug/L	0.002	101	1	0	207	KED
[> In	115		ug/L			519229	511559	0	Standard
| Ag	107	-0.001	ug/L	0.000	5	33	10	10	Standard
[> Tb	159		ug/L			190542	194216	1	Standard
| Pb	208	0.001	ug/L	0.000	31	524	634	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 00:16:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	25538	4	Standard
[> Sc	45		ug/L			600447	594963	3	Standard
| Cr	52	50.178	ug/L	0.793	1	10860	779879	1	Standard
| Cr	53	49.353	ug/L	1.384	2	113	88670	0	Standard
[> Ge	72		ug/L			35776	34074	1	KED
| Ni	60	48.680	ug/L	0.968	1	145	79858	2	KED
| Ni	62	47.611	ug/L	0.229	0	28	12521	1	KED
| Cu	63	49.180	ug/L	0.308	0	53	225338	1	KED
| Cu	65	48.634	ug/L	0.916	1	29	114372	0	KED
| Zn	66	48.427	ug/L	0.650	1	87	27362	1	KED
| Zn	67	50.458	ug/L	2.031	4	19	4643	2	KED
| As	75	49.054	ug/L	1.109	2	2	13404	0	KED
Y	89		ug/L			55660	54653	1	Standard
Kr	83		ug/L			44	55	9	Standard
[> In-1	115		ug/L			7587	7138	3	KED
| Cd	111	49.973	ug/L	2.395	4	4	12921	0	KED
| Cd	114	49.890	ug/L	1.571	3	1	33197	1	KED
[> In	115		ug/L			519229	506488	1	Standard
| Ag	107	48.935	ug/L	1.204	2	33	815045	1	Standard
[> Tb	159		ug/L			190542	196385	0	Standard
| Pb	208	51.586	ug/L	0.606	1	524	4848875	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 00:24:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	25562	4	Standard
[>	Sc	45	ug/L			600447	584484	0	Standard
|	Cr	52	ug/L	0.013	38	10860	10071	2	Standard
|	Cr	53	ug/L	0.004	52	113	96	8	Standard
[>	Ge	72	ug/L			35776	33932	0	KED
|	Ni	60	ug/L	0.007	39	145	109	9	KED
|	Ni	62	ug/L	0.030	96	28	19	40	KED
|	Cu	63	ug/L	0.001	48	53	64	10	KED
|	Cu	65	ug/L	0.003	56	29	38	15	KED
|	Zn	66	ug/L	0.002	3	87	50	2	KED
|	Zn	67	ug/L	0.031	23	19	6	45	KED
|	As	75	ug/L	0.004	63	2	3	30	KED
	Y	89	ug/L			55660	54405	2	Standard
	Kr	83	ug/L			44	37	28	Standard
[>	In-1	115	ug/L			7587	7340	1	KED
|	Cd	111	ug/L	0.006	81	4	1	86	KED
|	Cd	114	ug/L	0.002	175	1	2	47	KED
[>	In	115	ug/L			519229	506728	1	Standard
|	Ag	107	ug/L	0.001	46	33	59	22	Standard
[>	Tb	159	ug/L			190542	195679	1	Standard
|	Pb	208	ug/L	0.000	5	524	691	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:28:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42152	3	Standard
[> Sc	45		ug/L			600447	701617	2	Standard
[Cr	52	13.784	ug/L	0.159	1	10860	261945	2	Standard
[Cr	53	13.824	ug/L	0.149	1	113	29404	2	Standard
[> Ge	72		ug/L			35776	33631	1	KED
[Ni	60	11.683	ug/L	0.169	1	145	19022	2	KED
[Ni	62	11.656	ug/L	0.112	0	28	3046	0	KED
[Cu	63	32.720	ug/L	0.427	1	53	147993	1	KED
[Cu	65	32.727	ug/L	0.710	2	29	75985	2	KED
[Zn	66	58.096	ug/L	1.862	3	87	32377	1	KED
[Zn	67	57.353	ug/L	1.009	1	19	5208	1	KED
[As	75	8.068	ug/L	0.212	2	2	2178	2	KED
Y	89		ug/L			55660	268399	1	Standard
Kr	83		ug/L			44	84	7	Standard
[> In-1	115		ug/L			7587	7254	0	KED
[Cd	111	0.183	ug/L	0.012	6	4	52	5	KED
[Cd	114	0.196	ug/L	0.027	13	1	134	13	KED
[> In	115		ug/L			519229	505482	0	Standard
[Ag	107	0.143	ug/L	0.008	5	33	2409	6	Standard
[> Tb	159		ug/L			190542	222718	0	Standard
[Pb	208	13.876	ug/L	0.125	0	524	1479618	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:32:59**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	40027	8	Standard
> Sc	45		ug/L			600447	698775	1	Standard
| Cr	52	14.213	ug/L	0.080	0	10860	268577	1	Standard
| Cr	53	14.164	ug/L	0.155	1	113	30003	2	Standard
> Ge	72		ug/L			35776	33832	0	KED
| Ni	60	11.465	ug/L	0.137	1	145	18781	0	KED
| Ni	62	11.563	ug/L	0.199	1	28	3040	2	KED
| Cu	63	33.675	ug/L	0.564	1	53	153215	1	KED
| Cu	65	32.656	ug/L	0.151	0	29	76276	0	KED
| Zn	66	57.957	ug/L	1.470	2	87	32501	2	KED
| Zn	67	55.816	ug/L	1.269	2	19	5099	1	KED
| As	75	8.291	ug/L	0.137	1	2	2251	1	KED
Y	89		ug/L			55660	265350	3	Standard
Kr	83		ug/L			44	74	5	Standard
> In-1	115		ug/L			7587	7022	2	KED
| Cd	111	0.241	ug/L	<u>0.056</u>	23	4	65	23	KED
| Cd	114	0.248	ug/L	<u>0.041</u>	16	1	163	15	KED
> In	115		ug/L			519229	507693	0	Standard
| Ag	107	0.154	ug/L	0.006	3	33	2596	4	Standard
> Tb	159		ug/L			190542	218126	0	Standard
| Pb	208	14.843	ug/L	0.185	1	524	1550062	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:37:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	38717	0	Standard
> Sc	45		ug/L			600447	703681	1	Standard
| Cr	52	13.446	ug/L	0.155	1	10860	256553	0	Standard
| Cr	53	13.362	ug/L	0.125	0	113	28507	1	Standard
> Ge	72		ug/L			35776	33183	1	KED
| Ni	60	12.093	ug/L	0.381	3	145	19417	2	KED
| Ni	62	12.156	ug/L	0.093	0	28	3133	2	KED
| Cu	63	28.972	ug/L	0.594	2	53	129274	0	KED
| Cu	65	28.921	ug/L	0.252	0	29	66254	0	KED
| Zn	66	56.544	ug/L	1.297	2	87	31099	1	KED
| Zn	67	56.684	ug/L	1.162	2	19	5079	1	KED
| As	75	6.999	ug/L	0.103	1	2	1864	1	KED
Y	89		ug/L			55660	267168	0	Standard
Kr	83		ug/L			44	76	8	Standard
> In-1	115		ug/L			7587	6892	3	KED
| Cd	111	0.172	ug/L	0.019	11	4	46	9	KED
| Cd	114	0.224	ug/L	0.026	11	1	145	14	KED
> In	115		ug/L			519229	502886	1	Standard
| Ag	107	0.124	ug/L	0.000	0	33	2079	1	Standard
> Tb	159		ug/L			190542	220269	0	Standard
| Pb	208	11.496	ug/L	0.252	2	524	1212380	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-09**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:41:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	36163	3	Standard
> Sc	45		ug/L			600447	675390	2	Standard
| Cr	52	11.612	ug/L	0.348	2	10860	214261	1	Standard
| Cr	53	11.687	ug/L	0.277	2	113	23940	1	Standard
> Ge	72		ug/L			35776	33264	0	KED
| Ni	60	9.904	ug/L	0.159	1	145	15969	1	KED
| Ni	62	9.757	ug/L	0.454	4	28	2526	4	KED
| Cu	63	26.785	ug/L	0.607	2	53	119830	1	KED
| Cu	65	26.312	ug/L	0.547	2	29	60427	1	KED
| Zn	66	52.519	ug/L	0.742	1	87	28964	0	KED
| Zn	67	51.518	ug/L	2.705	5	19	4630	5	KED
| As	75	6.060	ug/L	0.120	1	2	1618	1	KED
Y	89		ug/L			55660	234210	0	Standard
Kr	83		ug/L			44	67	25	Standard
> In-1	115		ug/L			7587	7065	1	KED
| Cd	111	0.155	ug/L	0.017	10	4	43	10	KED
| Cd	114	0.153	ug/L	0.016	10	1	102	11	KED
> In	115		ug/L			519229	505119	2	Standard
| Ag	107	0.108	ug/L	0.003	3	33	1821	3	Standard
> Tb	159		ug/L			190542	217502	2	Standard
| Pb	208	10.645	ug/L	0.144	1	524	1108469	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0008-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:46:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	36904	6	Standard
[> Sc	45		ug/L			600447	658482	(8)	Standard
[Cr	52	13.364	ug/L	1.275	9	10860	237528	1	Standard
[Cr	53	13.224	ug/L	1.165	8	113	26285	3	Standard
[> Ge	72		ug/L			35776	33385	1	KED
[Ni	60	11.756	ug/L	0.301	2	145	18995	0	KED
[Ni	62	11.718	ug/L	0.482	4	28	3038	2	KED
[Cu	63	26.959	ug/L	0.285	1	53	121042	0	KED
[Cu	65	26.749	ug/L	0.537	2	29	61646	0	KED
[Zn	66	95.776	ug/L	0.264	0	87	52948	1	KED
[Zn	67	93.257	ug/L	3.356	3	19	8393	2	KED
[As	75	5.155	ug/L	0.087	1	2	1382	0	KED
[Y	89		ug/L			55660	267607	3	Standard
[Kr	83		ug/L			44	82	18	Standard
[> In-1	115		ug/L			7587	7025	1	KED
[Cd	111	0.159	ug/L	0.028	17	4	44	17	KED
[Cd	114	0.164	ug/L	0.003	1	1	109	1	KED
[> In	115		ug/L			519229	476583	(10)	Standard
[Ag	107	0.109	ug/L	0.012	10	33	1730	1	Standard
[> Tb	159		ug/L			190542	212482	(8)	Standard
[Pb	208	11.065	ug/L	1.013	9	524	1119922	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0008-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:50:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	35181	3	Standard
[> Sc	45		ug/L			600447	694840	0	Standard
[Cr	52	12.759	ug/L	0.166	1	10860	241055	1	Standard
[Cr	53	12.803	ug/L	0.260	2	113	26979	2	Standard
[> Ge	72		ug/L			35776	32911	1	KED
[Ni	60	11.463	ug/L	0.048	0	145	18267	0	KED
[Ni	62	11.716	ug/L	0.618	5	28	2995	5	KED
[Cu	63	30.419	ug/L	0.228	0	53	134653	1	KED
[Cu	65	30.125	ug/L	0.324	1	29	68448	1	KED
[Zn	66	63.456	ug/L	1.666	2	87	34603	1	KED
[Zn	67	61.360	ug/L	1.215	1	19	5452	2	KED
[As	75	6.807	ug/L	0.171	2	2	1798	1	KED
Y	89		ug/L			55660	270124	3	Standard
Kr	83		ug/L			44	94	9	Standard
[> In-1	115		ug/L			7587	7021	2	KED
[Cd	111	0.179	ug/L	0.037	20	4	49	17	KED
[Cd	114	0.173	ug/L	0.024	14	1	114	16	KED
[> In	115		ug/L			519229	499685	2	Standard
[Ag	107	0.116	ug/L	0.008	6	33	1932	4	Standard
[> Tb	159		ug/L			190542	221804	0	Standard
[Pb	208	11.749	ug/L	0.083	0	524	1247680	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0037-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:54:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	37636	5	Standard
> Sc	45		ug/L			600447	685486	0	Standard
| Cr	52	16.521	ug/L	0.526	3	10860	304236	2	Standard
| Cr	53	16.594	ug/L	0.435	2	113	34456	2	Standard
> Ge	72		ug/L			35776	32742	0	KED
| Ni	60	12.901	ug/L	0.250	1	145	20434	1	KED
| Ni	62	12.820	ug/L	0.316	2	28	3258	1	KED
| Cu	63	32.180	ug/L	0.702	2	53	141691	1	KED
| Cu	65	32.801	ug/L	0.389	1	29	74144	0	KED
| Zn	66	71.544	ug/L	1.069	1	87	38808	0	KED
| Zn	67	69.189	ug/L	1.002	1	19	6114	2	KED
| As	75	7.614	ug/L	0.071	0	2	2001	1	KED
Y	89		ug/L			55660	259985	1	Standard
Kr	83		ug/L			44	85	9	Standard
> In-1	115		ug/L			7587	7023	1	KED
| Cd	111	0.137	ug/L	0.009	6	4	38	7	KED
| Cd	114	0.144	ug/L	0.012	8	1	95	6	KED
> In	115		ug/L			519229	496722	1	Standard
| Ag	107	0.113	ug/L	0.004	3	33	1883	2	Standard
> Tb	159		ug/L			190542	218818	0	Standard
| Pb	208	17.415	ug/L	0.324	1	524	1824272	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0037-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:59:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	37582	3	Standard
> Sc	45		ug/L			600447	669281	2	Standard
| Cr	52	22.029	ug/L	0.384	1	10860	392004	2	Standard
| Cr	53	21.690	ug/L	0.339	1	113	43926	1	Standard
> Ge	72		ug/L			35776	32667	2	KED
| Ni	60	18.945	ug/L	0.600	3	145	29864	0	KED
| Ni	62	18.494	ug/L	0.363	1	28	4678	1	KED
| Cu	63	103.407	ug/L	2.883	2	53	454006	0	KED
| Cu	65	102.730	ug/L	1.556	1	29	231623	2	KED
| Zn	66	178.533	ug/L	4.616	2	87	96485	2	KED
| Zn	67	170.011	ug/L	2.949	1	19	14964	3	KED
| As	75	16.375	ug/L	0.240	1	2	4291	1	KED
Y	89		ug/L			55660	241132	1	Standard
Kr	83		ug/L			44	73	26	Standard
> In-1	115		ug/L			7587	6780	0	KED
| Cd	111	0.418	ug/L	<u>0.049</u>	11	4	106	10	KED
| Cd	114	0.454	ug/L	<u>0.060</u>	13	1	288	12	KED
> In	115		ug/L			519229	502468	3	Standard
| Ag	107	0.118	ug/L	0.002	1	33	1979	1	Standard
> Tb	159		ug/L			190542	213368	0	Standard
| Pb	208	48.910	ug/L	0.730	1	524	4994590	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0037-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:03:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42891	2	Standard
[> Sc	45		ug/L			600447	690386	1	Standard
| Cr	52	15.879	ug/L	0.081	0	10860	295013	1	Standard
| Cr	53	15.797	ug/L	0.231	1	113	33044	2	Standard
[> Ge	72		ug/L			35776	32570	1	KED
| Ni	60	15.329	ug/L	0.559	3	145	24120	2	KED
| Ni	62	15.503	ug/L	0.390	2	28	3914	1	KED
| Cu	63	35.760	ug/L	0.959	2	53	156594	1	KED
| Cu	65	34.988	ug/L	0.447	1	29	78674	2	KED
| Zn	66	81.273	ug/L	1.022	1	87	43842	1	KED
| Zn	67	78.630	ug/L	2.118	2	19	6908	1	KED
| As	75	6.077	ug/L	0.117	1	2	1589	0	KED
| Y	89		ug/L			55660	293531	0	Standard
| Kr	83		ug/L			44	81	11	Standard
[> In-1	115		ug/L			7587	6877	0	KED
| Cd	111	0.163	ug/L	0.024	14	4	44	14	KED
| Cd	114	0.184	ug/L	0.033	18	1	119	17	KED
[> In	115		ug/L			519229	497287	2	Standard
| Ag	107	0.123	ug/L	0.006	4	33	2042	6	Standard
[> Tb	159		ug/L			190542	220337	0	Standard
| Pb	208	18.272	ug/L	0.349	1	524	1927197	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:08:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	24843	3	Standard
[>	Sc	45	ug/L			600447	570538	2	Standard
|	Cr	52	ug/L	0.013	43	10860	9866	1	Standard
|	Cr	53	ug/L	0.015	128	113	86	27	Standard
[>	Ge	72	ug/L			35776	32250	0	KED
|	Ni	60	ug/L	0.011	56	145	161	10	KED
|	Ni	62	ug/L	0.016	99	28	29	13	KED
|	Cu	63	ug/L	0.002	30	53	81	12	KED
|	Cu	65	ug/L	0.004	103	29	34	24	KED
|	Zn	66	ug/L	0.030	106	87	64	25	KED
|	Zn	67	ug/L	0.034	30	19	8	35	KED
|	As	75	ug/L	0.002	122	2	2	20	KED
	Y	89	ug/L			55660	53022	1	Standard
	Kr	83	ug/L			44	46	24	Standard
[>	In-1	115	ug/L			7587	6858	1	KED
|	Cd	111	ug/L	0.009	88	4	1	173	KED
|	Cd	114	ug/L	0.003	915	1	1	106	KED
[>	In	115	ug/L			519229	507926	2	Standard
|	Ag	107	ug/L	0.000	23	33	12	37	Standard
[>	Tb	159	ug/L			190542	192482	2	Standard
|	Pb	208	ug/L	0.004	126	524	860	50	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:12:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	24688	5	Standard
[> Sc	45		ug/L			600447	587821	1	Standard
| Cr	52	50.267	ug/L	0.836	1	10860	772260	3	Standard
| Cr	53	49.039	ug/L	1.119	2	113	87116	3	Standard
[> Ge	72		ug/L			35776	33250	0	KED
| Ni	60	48.819	ug/L	0.971	1	145	78156	1	KED
| Ni	62	48.209	ug/L	1.520	3	28	12372	2	KED
| Cu	63	49.620	ug/L	0.752	1	53	221871	1	KED
| Cu	65	48.668	ug/L	0.371	0	29	111709	0	KED
| Zn	66	50.023	ug/L	1.122	2	87	27580	1	KED
| Zn	67	49.741	ug/L	2.604	5	19	4468	4	KED
| As	75	49.558	ug/L	0.239	0	2	13218	0	KED
Y	89		ug/L			55660	53986	1	Standard
Kr	83		ug/L			44	40	28	Standard
[> In-1	115		ug/L			7587	7116	3	KED
| Cd	111	48.527	ug/L	2.801	5	4	12510	3	KED
| Cd	114	48.916	ug/L	3.450	7	1	32427	4	KED
[> In	115		ug/L			519229	497812	2	Standard
| Ag	107	48.787	ug/L	0.812	1	33	798652	0	Standard
[> Tb	159		ug/L			190542	199063	0	Standard
| Pb	208	51.680	ug/L	0.781	1	524	4923450	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:19:44

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	24490	0	Standard
[> Sc	45		ug/L			600447	572095	1	Standard
| Cr	52	-0.016	ug/L	0.007	47	10860	10114	2	Standard
| Cr	53	-0.010	ug/L	0.005	52	113	90	10	Standard
[> Ge	72		ug/L			35776	33107	1	KED
| Ni	60	-0.019	ug/L	0.017	93	145	104	25	KED
| Ni	62	-0.036	ug/L	0.021	57	28	17	29	KED
| Cu	63	0.007	ug/L	0.003	36	53	81	14	KED
| Cu	65	0.011	ug/L	0.011	102	29	50	46	KED
| Zn	66	-0.055	ug/L	0.037	66	87	50	38	KED
| Zn	67	-0.111	ug/L	0.077	68	19	8	81	KED
| As	75	0.006	ug/L	0.002	30	2	3	15	KED
Y	89		ug/L			55660	53252	4	Standard
Kr	83		ug/L			44	46	16	Standard
[> In-1	115		ug/L			7587	7049	3	KED
| Cd	111	-0.011	ug/L	0.007	58	4	0	173	KED
| Cd	114	-0.001	ug/L	0.002	226	1	1	94	KED
[> In	115		ug/L			519229	500651	2	Standard
| Ag	107	0.001	ug/L	0.001	50	33	55	22	Standard
[> Tb	159		ug/L			190542	194761	1	Standard
| Pb	208	0.001	ug/L	0.000	22	524	665	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:24:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				23951	1	Standard
[>	Sc	45	ug/L				579638	2	Standard
|	Cr	52	ug/L				10138	1	Standard
|	Cr	53	ug/L				92	13	Standard
[>	Ge	72	ug/L				33052	2	KED
|	Ni	60	ug/L				97	25	KED
|	Ni	62	ug/L				15	49	KED
|	Cu	63	ug/L				198	57	KED
|	Cu	65	ug/L				107	77	KED
|	Zn	66	ug/L				67	36	KED
|	Zn	67	ug/L				15	13	KED
|	As	75	ug/L				4	114	KED
	Y	89	ug/L				53627	1	Standard
	Kr	83	ug/L				34	20	Standard
[>	In-1	115	ug/L				7114	5	KED
|	Cd	111	ug/L				2	24	KED
|	Cd	114	ug/L				0	293	KED
[>	In	115	ug/L				522018	2	Standard
|	Ag	107	ug/L				24	23	Standard
[>	Tb	159	ug/L				194588	1	Standard
|	Pb	208	ug/L				589	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:28:35

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	24643	4	Standard
[>	Sc	45	ug/L			579638	604497	1	Standard
|	Cr	52	48.978	0.531	1	10138	773644	2	Standard
|	Cr	53	48.354	0.493	1	92	88313	2	Standard
[>	Ge	72	ug/L			33052	33370	0	KED
|	Ni	60	49.324	1.040	2	97	79207	1	KED
|	Ni	62	47.977	1.281	2	15	12345	1	KED
|	Cu	63	49.978	1.244	2	198	224398	1	KED
|	Cu	65	48.605	0.688	1	107	112041	0	KED
|	Zn	66	50.089	0.902	1	67	27704	1	KED
|	Zn	67	50.597	2.408	4	15	4559	4	KED
|	As	75	49.659	1.424	2	4	13295	2	KED
	Y	89	ug/L			53627	55035	2	Standard
	Kr	83	ug/L			34	50	21	Standard
[>	In-1	115	ug/L			7114	7142	0	KED
|	Cd	111	49.790	0.467	0	2	12894	1	KED
|	Cd	114	49.917	0.583	1	0	33256	1	KED
[>	In	115	ug/L			522018	505738	4	Standard
|	Ag	107	48.105	1.906	3	24	799289	0	Standard
[>	Tb	159	ug/L			194588	199862	1	Standard
|	Pb	208	51.228	1.038	2	589	4900055	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:35:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	24390	5	Standard
[>	Sc	45	ug/L			579638	570057	2	Standard
|	Cr	52	0.018	0.030	170	10138	10227	2	Standard
|	Cr	53	-0.003	0.005	170	92	86	11	Standard
[>	Ge	72	ug/L			33052	34200	3	KED
|	Ni	60	0.005	0.011	211	97	109	18	KED
|	Ni	62	-0.016	0.016	101	15	12	32	KED
|	Cu	63	-0.017	0.005	27	198	128	14	KED
|	Cu	65	-0.024	0.005	19	107	55	15	KED
|	Zn	66	-0.023	0.025	111	67	57	28	KED
|	Zn	67	-0.062	0.046	74	15	10	40	KED
|	As	75	-0.005	0.005	104	4	3	37	KED
	Y	89	ug/L			53627	53691	4	Standard
	Kr	83	ug/L			34	40	9	Standard
[>	In-1	115	ug/L			7114	7219	0	KED
|	Cd	111	-0.004	0.006	147	2	1	114	KED
|	Cd	114	0.000	0.002	907	0	0	218	KED
[>	In	115	ug/L			522018	508569	2	Standard
|	Ag	107	0.003	0.001	30	24	77	18	Standard
[>	Tb	159	ug/L			194588	192635	1	Standard
|	Pb	208	0.001	0.001	55	589	699	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0037-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:40:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	37083	2	Standard
[> Sc	45		ug/L			579638	666315	2	Standard
| Cr	52	14.778	ug/L	0.414	2	10138	265352	2	Standard
| Cr	53	14.846	ug/L	0.408	2	92	29949	2	Standard
[> Ge	72		ug/L			33052	33256	2	KED
| Ni	60	13.070	ug/L	0.294	2	97	20983	0	KED
| Ni	62	13.519	ug/L	0.640	4	15	3476	2	KED
| Cu	63	33.896	ug/L	0.667	1	198	151715	0	KED
| Cu	65	34.294	ug/L	1.367	3	107	78776	1	KED
| Zn	66	78.001	ug/L	1.335	1	67	42946	0	KED
| Zn	67	76.310	ug/L	3.075	4	15	6841	2	KED
| As	75	7.516	ug/L	0.211	2	4	2008	1	KED
| Y	89		ug/L			53627	253479	2	Standard
| Kr	83		ug/L			34	67	14	Standard
[> In-1	115		ug/L			7114	7022	2	KED
| Cd	111	0.173	ug/L	0.026	14	2	46	15	KED
| Cd	114	0.168	ug/L	0.032	19	0	110	19	KED
[> In	115		ug/L			522018	501570	2	Standard
| Ag	107	0.124	ug/L	0.008	6	24	2072	3	Standard
[> Tb	159		ug/L			194588	216254	2	Standard
| Pb	208	24.655	ug/L	0.542	2	589	2551303	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0063-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:44:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	36093	5	Standard
> Sc	45		ug/L			579638	675816	1	Standard
| Cr	52	12.093	ug/L	0.292	2	10138	222478	3	Standard
| Cr	53	11.925	ug/L	0.087	0	92	24429	1	Standard
> Ge	72		ug/L			33052	32692	0	KED
| Ni	60	10.569	ug/L	0.056	0	97	16704	0	KED
| Ni	62	10.693	ug/L	0.267	2	15	2708	2	KED
| Cu	63	28.415	ug/L	0.362	1	198	125086	0	KED
| Cu	65	27.586	ug/L	0.411	1	107	62347	1	KED
| Zn	66	54.295	ug/L	1.764	3	67	29412	2	KED
| Zn	67	54.009	ug/L	0.750	1	15	4767	0	KED
| As	75	6.145	ug/L	0.125	2	4	1615	1	KED
Y	89		ug/L			53627	247657	1	Standard
Kr	83		ug/L			34	70	10	Standard
> In-1	115		ug/L			7114	6869	3	KED
| Cd	111	0.128	ug/L	0.034	26	2	33	26	KED
| Cd	114	0.143	ug/L	0.032	22	0	91	23	KED
> In	115		ug/L			522018	498017	1	Standard
| Ag	107	0.114	ug/L	0.004	3	24	1886	1	Standard
> Tb	159		ug/L			194588	218860	2	Standard
| Pb	208	11.885	ug/L	0.301	2	589	1244967	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0063-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:49:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	35499	1	Standard
> Sc	45		ug/L			579638	667168	1	Standard
| Cr	52	12.476	ug/L	0.197	1	10138	226180	1	Standard
| Cr	53	12.216	ug/L	0.084	0	92	24701	1	Standard
> Ge	72		ug/L			33052	32239	3	KED
| Ni	60	10.330	ug/L	0.214	2	97	16096	1	KED
| Ni	62	10.576	ug/L	0.168	1	15	2640	2	KED
| Cu	63	29.293	ug/L	0.285	0	198	127139	2	KED
| Cu	65	28.863	ug/L	0.751	2	107	64290	0	KED
| Zn	66	56.772	ug/L	2.696	4	67	30296	1	KED
| Zn	67	55.840	ug/L	3.137	5	15	4854	2	KED
| As	75	7.812	ug/L	0.264	3	4	2022	1	KED
Y	89		ug/L			53627	245815	2	Standard
Kr	83		ug/L			34	64	9	Standard
> In-1	115		ug/L			7114	6861	2	KED
| Cd	111	0.175	ug/L	0.040	22	2	45	19	KED
| Cd	114	0.161	ug/L	0.030	18	0	103	17	KED
> In	115		ug/L			522018	506848	1	Standard
| Ag	107	0.117	ug/L	0.005	4	24	1968	5	Standard
> Tb	159		ug/L			194588	214654	2	Standard
| Pb	208	11.626	ug/L	0.374	3	589	1194319	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0452-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:53:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	105848	5	Standard
[>	Sc	45	ug/L			579638	461044	2	Standard
|	Cr	52	ug/L	0.016	0	10138	38630	2	Standard
|	Cr	53	ug/L	0.084	3	92	3048	1	Standard
[>	Ge	72	ug/L			33052	25757	1	KED
|	Ni	60	ug/L	0.094	2	97	4995	2	KED
|	Ni	62	ug/L	0.157	3	15	800	4	KED
|	Cu	63	ug/L	0.004	1	198	1539	0	KED
|	Cu	65	ug/L	0.035	8	107	780	7	KED
|	Zn	66	ug/L	0.241	8	67	1243	8	KED
|	Zn	67	ug/L	0.296	10	15	205	9	KED
|	As	75	ug/L	0.017	12	4	31	10	KED
	Y	89	ug/L			53627	44123	1	Standard
	Kr	83	ug/L			34	34	27	Standard
[>	In-1	115	ug/L			7114	5449	7	KED
|	Cd	111	ug/L	0.004	11	2	8	13	KED
|	Cd	114	ug/L	0.009	35	0	13	39	KED
[>	In	115	ug/L			522018	421633	1	Standard
|	Ag	107	ug/L	0.005	111	24	76	82	Standard
[>	Tb	159	ug/L			194588	165473	1	Standard
|	Pb	208	ug/L	0.001	1	589	3659	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0462-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:58:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	27229	5	Standard
[> Sc	45		ug/L			579638	536374	1	Standard
| Cr	52	0.130	ug/L	0.034	26	10138	11176	4	Standard
| Cr	53	0.395	ug/L	0.027	6	92	725	7	Standard
[> Ge	72		ug/L			33052	27488	2	KED
| Ni	60	1.680	ug/L	0.028	1	97	2301	2	KED
| Ni	62	1.689	ug/L	0.045	2	15	370	1	KED
| Cu	63	0.581	ug/L	0.032	5	198	2311	3	KED
| Cu	65	0.564	ug/L	0.036	6	107	1158	5	KED
| Zn	66	1.179	ug/L	0.101	8	67	591	5	KED
| Zn	67	1.938	ug/L	0.261	13	15	156	14	KED
| As	75	0.362	ug/L	0.010	2	4	83	0	KED
Y	89		ug/L			53627	49793	3	Standard
Kr	83		ug/L			34	47	16	Standard
[> In-1	115		ug/L			7114	5876	2	KED
| Cd	111	0.015	ug/L	0.008	49	2	5	28	KED
| Cd	114	0.019	ug/L	0.008	42	0	10	38	KED
[> In	115		ug/L			522018	482911	0	Standard
| Ag	107	0.000	ug/L	0.000	276	24	24	20	Standard
[> Tb	159		ug/L			194588	180457	1	Standard
| Pb	208	0.029	ug/L	0.001	2	589	3029	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0135-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:03:57**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	37969	3	Standard
[> Sc	45		ug/L			579638	547722	2	Standard
| Cr	52	0.714	ug/L	0.028	3	10138	19664	2	Standard
| Cr	53	0.678	ug/L	0.015	2	92	1207	0	Standard
[> Ge	72		ug/L			33052	30087	2	KED
| Ni	60	0.612	ug/L	0.033	5	97	975	6	KED
| Ni	62	0.639	ug/L	0.038	5	15	162	7	KED
| Cu	63	5.288	ug/L	0.088	1	198	21568	0	KED
| Cu	65	5.255	ug/L	0.116	2	107	11007	0	KED
| Zn	66	140.941	ug/L	1.920	1	67	70163	1	KED
| Zn	67	133.083	ug/L	3.879	2	15	10786	2	KED
| As	75	1.106	ug/L	0.012	1	4	270	1	KED
Y	89		ug/L			53627	51171	1	Standard
Kr	83		ug/L			34	71	15	Standard
[> In-1	115		ug/L			7114	6329	1	KED
| Cd	111	0.112	ug/L	0.013	12	2	27	12	KED
| Cd	114	0.097	ug/L	0.002	2	0	57	2	KED
[> In	115		ug/L			522018	493757	1	Standard
| Ag	107	0.009	ug/L	0.001	7	24	170	6	Standard
[> Tb	159		ug/L			194588	185755	1	Standard
| Pb	208	0.563	ug/L	0.020	3	589	50598	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0135-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:08:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	36538	6	Standard
[> Sc	45		ug/L			579638	578838	2	Standard
| Cr	52	0.519	ug/L	0.007	1	10138	17866	2	Standard
| Cr	53	0.988	ug/L	0.059	5	92	1818	5	Standard
[> Ge	72		ug/L			33052	29808	1	KED
| Ni	60	0.569	ug/L	0.017	2	97	904	3	KED
| Ni	62	0.530	ug/L	0.027	5	15	135	3	KED
| Cu	63	3.554	ug/L	0.126	3	198	14417	2	KED
| Cu	65	3.585	ug/L	0.056	1	107	7470	0	KED
| Zn	66	2.359	ug/L	0.068	2	67	1222	1	KED
| Zn	67	2.363	ug/L	0.363	15	15	203	14	KED
| As	75	1.123	ug/L	0.031	2	4	272	1	KED
Y	89		ug/L			53627	59933	0	Standard
Kr	83		ug/L			34	63	13	Standard
[> In-1	115		ug/L			7114	6300	2	KED
| Cd	111	0.004	ug/L	0.009	216	2	2	66	KED
| Cd	114	0.010	ug/L	0.002	17	0	6	16	KED
[> In	115		ug/L			522018	486907	0	Standard
| Ag	107	0.007	ug/L	0.000	2	24	141	1	Standard
[> Tb	159		ug/L			194588	189476	1	Standard
| Pb	208	0.205	ug/L	0.005	2	589	19197	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0135-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:12:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	38119	4	Standard
[> Sc	45		ug/L			579638	558704	1	Standard
| Cr	52	0.554	ug/L	0.023	4	10138	17750	3	Standard
| Cr	53	0.562	ug/L	0.027	4	92	1036	4	Standard
[> Ge	72		ug/L			33052	30571	1	KED
| Ni	60	0.746	ug/L	0.032	4	97	1186	2	KED
| Ni	62	0.744	ug/L	0.118	15	15	189	14	KED
| Cu	63	5.766	ug/L	0.128	2	198	23876	0	KED
| Cu	65	5.570	ug/L	0.189	3	107	11848	2	KED
| Zn	66	60.188	ug/L	2.507	4	67	30468	2	KED
| Zn	67	58.288	ug/L	1.458	2	15	4810	3	KED
| As	75	0.270	ug/L	0.016	6	4	70	6	KED
Y	89		ug/L			53627	54774	3	Standard
Kr	83		ug/L			34	70	10	Standard
[> In-1	115		ug/L			7114	6555	0	KED
| Cd	111	0.049	ug/L	0.020	40	2	13	34	KED
| Cd	114	0.048	ug/L	0.005	9	0	29	9	KED
[> In	115		ug/L			522018	515795	2	Standard
| Ag	107	0.008	ug/L	0.001	14	24	168	11	Standard
[> Tb	159		ug/L			194588	191287	1	Standard
| Pb	208	0.846	ug/L	0.012	1	589	78051	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0135-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:17:12**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	38665	4	Standard
[> Sc	45		ug/L			579638	566861	1	Standard
| Cr	52	0.728	ug/L	0.010	1	10138	20546	2	Standard
| Cr	53	0.803	ug/L	0.062	7	92	1465	8	Standard
[> Ge	72		ug/L			33052	31153	1	KED
| Ni	60	1.149	ug/L	0.046	3	97	1813	4	KED
| Ni	62	1.105	ug/L	0.081	7	15	280	5	KED
| Cu	63	6.771	ug/L	0.129	1	198	28541	0	KED
| Cu	65	6.596	ug/L	0.167	2	107	14285	3	KED
| Zn	66	65.082	ug/L	0.876	1	67	33581	0	KED
| Zn	67	61.094	ug/L	4.276	6	15	5132	5	KED
| As	75	0.523	ug/L	0.041	7	4	134	6	KED
Y	89		ug/L			53627	59942	1	Standard
Kr	83		ug/L			34	76	13	Standard
[> In-1	115		ug/L			7114	6559	2	KED
| Cd	111	0.061	ug/L	0.030	48	2	16	42	KED
| Cd	114	0.056	ug/L	0.002	4	0	34	6	KED
[> In	115		ug/L			522018	504265	0	Standard
| Ag	107	0.008	ug/L	0.001	12	24	164	11	Standard
[> Tb	159		ug/L			194588	192160	1	Standard
| Pb	208	2.595	ug/L	0.038	1	589	239201	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 02:21:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	21544	3	Standard
[>	Sc	45	ug/L			579638	545161	2	Standard
|	Cr	52	-0.044	0.022	49	10138	8919	2	Standard
|	Cr	53	0.008	0.003	39	92	100	4	Standard
[>	Ge	72	ug/L			33052	30281	2	KED
|	Ni	60	0.028	0.008	27	97	130	5	KED
|	Ni	62	0.036	0.016	46	15	22	16	KED
|	Cu	63	0.014	0.008	60	198	236	11	KED
|	Cu	65	0.010	0.009	99	107	118	16	KED
|	Zn	66	-0.013	0.015	120	67	55	13	KED
|	Zn	67	-0.085	0.021	24	15	7	25	KED
|	As	75	-0.007	0.006	79	4	2	60	KED
	Y	89	ug/L			53627	50064	2	Standard
	Kr	83	ug/L			34	67	16	Standard
[>	In-1	115	ug/L			7114	6136	0	KED
|	Cd	111	-0.004	0.007	168	2	0	173	KED
|	Cd	114	-0.001	0.000	12	0	0	50	KED
[>	In	115	ug/L			522018	493408	1	Standard
|	Ag	107	-0.001	0.000	30	24	7	66	Standard
[>	Tb	159	ug/L			194588	186807	0	Standard
|	Pb	208	-0.000	0.000	396	589	558	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 02:26:03

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23951	21516	4	Standard
[>	Sc	45		ug/L			579638	550260	3	Standard
|	Cr	52	49.898	ug/L	0.736	1	10138	717062	2	Standard
|	Cr	53	48.905	ug/L	0.774	1	92	81286	2	Standard
[>	Ge	72		ug/L			33052	30601	1	KED
|	Ni	60	49.258	ug/L	1.105	2	97	72531	1	KED
|	Ni	62	49.062	ug/L	0.777	1	15	11579	2	KED
|	Cu	63	50.423	ug/L	1.755	3	198	207598	2	KED
|	Cu	65	50.155	ug/L	0.422	0	107	106033	2	KED
|	Zn	66	51.110	ug/L	1.440	2	67	25916	1	KED
|	Zn	67	50.481	ug/L	0.741	1	15	4171	0	KED
|	As	75	49.333	ug/L	0.457	0	4	12111	0	KED
	Y	89		ug/L			53627	51421	2	Standard
	Kr	83		ug/L			34	50	35	Standard
[>	In-1	115		ug/L			7114	6373	2	KED
|	Cd	111	51.144	ug/L	0.617	1	2	11817	1	KED
|	Cd	114	51.111	ug/L	1.372	2	0	30374	0	KED
[>	In	115		ug/L			522018	491126	0	Standard
|	Ag	107	46.025	ug/L	0.868	1	24	743507	2	Standard
[>	Tb	159		ug/L			194588	193039	1	Standard
|	Pb	208	53.346	ug/L	0.719	1	589	4928316	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 02:33:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	20958	3	Standard
[> Sc	45		ug/L			579638	544844	3	Standard
| Cr	52	-0.036	ug/L	0.007	18	10138	9030	2	Standard
| Cr	53	-0.008	ug/L	0.008	108	92	73	17	Standard
[> Ge	72		ug/L			33052	30925	2	KED
| Ni	60	0.009	ug/L	0.032	345	97	106	47	KED
| Ni	62	0.017	ug/L	0.041	236	15	19	51	KED
| Cu	63	0.011	ug/L	0.031	286	198	232	57	KED
| Cu	65	0.003	ug/L	0.019	572	107	108	39	KED
| Zn	66	-0.038	ug/L	0.026	68	67	43	32	KED
| Zn	67	-0.087	ug/L	0.023	26	15	7	25	KED
| As	75	0.012	ug/L	0.013	106	4	7	46	KED
Y	89		ug/L			53627	51661	1	Standard
Kr	83		ug/L			34	57	21	Standard
[> In-1	115		ug/L			7114	6496	1	KED
| Cd	111	-0.003	ug/L	0.006	191	2	1	114	KED
| Cd	114	-0.001	ug/L	0.000	5	0	0	21	KED
[> In	115		ug/L			522018	495425	0	Standard
| Ag	107	0.001	ug/L	0.000	9	24	44	4	Standard
[> Tb	159		ug/L			194588	187990	1	Standard
| Pb	208	-0.003	ug/L	0.000	9	589	317	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0138-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:37:38**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	26731	3	Standard
[> Sc	45		ug/L			579638	510919	2	Standard
[Cr	52	3.536	ug/L	0.053	1	10138	55491	1	Standard
[Cr	53	3.450	ug/L	0.048	1	92	5401	3	Standard
[> Ge	72		ug/L			33052	27574	0	KED
[Ni	60	0.373	ug/L	0.022	5	97	576	5	KED
[Ni	62	0.368	ug/L	0.037	9	15	91	8	KED
[Cu	63	2.632	ug/L	0.032	1	198	9922	1	KED
[Cu	65	2.576	ug/L	0.005	0	107	4991	0	KED
[Zn	66	1.731	ug/L	0.144	8	67	845	6	KED
[Zn	67	1.654	ug/L	0.275	16	15	135	14	KED
[As	75	0.040	ug/L	0.010	23	4	12	17	KED
Y	89		ug/L			53627	46957	1	Standard
Kr	83		ug/L			34	50	22	Standard
[> In-1	115		ug/L			7114	5630	4	KED
[Cd	111	0.012	ug/L	0.007	62	2	4	35	KED
[Cd	114	0.005	ug/L	0.002	32	0	2	32	KED
[> In	115		ug/L			522018	454440	3	Standard
[Ag	107	0.001	ug/L	0.001	86	24	35	32	Standard
[> Tb	159		ug/L			194588	177445	0	Standard
[Pb	208	0.009	ug/L	0.000	4	589	1292	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0139-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:42:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	25305	6	Standard
[> Sc	45		ug/L			579638	495840	2	Standard
[Cr	52	6.970	ug/L	0.074	1	10138	97727	1	Standard
[Cr	53	6.889	ug/L	0.140	2	92	10389	3	Standard
[> Ge	72		ug/L			33052	26357	0	KED
[Ni	60	0.396	ug/L	0.027	6	97	579	5	KED
[Ni	62	0.351	ug/L	0.046	13	15	83	10	KED
[Cu	63	2.634	ug/L	0.022	0	198	9492	0	KED
[Cu	65	2.580	ug/L	0.023	0	107	4779	1	KED
[Zn	66	1.552	ug/L	0.050	3	67	730	2	KED
[Zn	67	1.324	ug/L	0.279	21	15	106	19	KED
[As	75	0.037	ug/L	0.004	10	4	11	7	KED
Y	89		ug/L			53627	45441	0	Standard
Kr	83		ug/L			34	40	33	Standard
[> In-1	115		ug/L			7114	5374	2	KED
[Cd	111	0.009	ug/L	0.014	150	2	3	78	KED
[Cd	114	0.027	ug/L	0.012	46	0	13	43	KED
[> In	115		ug/L			522018	432964	3	Standard
[Ag	107	0.001	ug/L	0.000	45	24	31	12	Standard
[> Tb	159		ug/L			194588	174764	1	Standard
[Pb	208	0.034	ug/L	0.001	1	589	3409	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0139-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:47:16**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	26683	4	Standard
[> Sc	45		ug/L			579638	489659	3	Standard
[Cr	52	3.753	ug/L	0.073	1	10138	55912	1	Standard
[Cr	53	3.762	ug/L	0.018	0	92	5636	2	Standard
[> Ge	72		ug/L			33052	26552	0	KED
[Ni	60	0.369	ug/L	0.018	4	97	549	4	KED
[Ni	62	0.345	ug/L	0.078	22	15	83	18	KED
[Cu	63	2.510	ug/L	0.028	1	198	9120	0	KED
[Cu	65	2.433	ug/L	0.067	2	107	4546	3	KED
[Zn	66	1.083	ug/L	0.028	2	67	529	2	KED
[Zn	67	0.817	ug/L	0.129	15	15	71	12	KED
[As	75	0.036	ug/L	0.011	29	4	11	19	KED
Y	89		ug/L			53627	46118	3	Standard
Kr	83		ug/L			34	36	7	Standard
[> In-1	115		ug/L			7114	5389	1	KED
[Cd	111	0.017	ug/L	0.006	33	2	5	21	KED
[Cd	114	0.010	ug/L	0.007	70	0	5	65	KED
[> In	115		ug/L			522018	441133	2	Standard
[Ag	107	-0.001	ug/L	0.000	46	24	12	31	Standard
[> Tb	159		ug/L			194588	175179	1	Standard
[Pb	208	0.007	ug/L	0.001	12	589	1111	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0139-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:53:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	26767	4	Standard
[> Sc	45		ug/L			579638	504015	1	Standard
[Cr	52	3.513	ug/L	0.093	2	10138	54463	4	Standard
[Cr	53	3.463	ug/L	0.043	1	92	5348	3	Standard
[> Ge	72		ug/L			33052	26771	0	KED
[Ni	60	0.451	ug/L	0.023	5	97	659	4	KED
[Ni	62	0.489	ug/L	0.039	8	15	113	6	KED
[Cu	63	2.660	ug/L	0.052	1	198	9732	0	KED
[Cu	65	2.699	ug/L	0.079	2	107	5073	1	KED
[Zn	66	1.768	ug/L	0.133	7	67	836	6	KED
[Zn	67	1.750	ug/L	0.245	13	15	139	13	KED
[As	75	0.035	ug/L	0.007	21	4	11	15	KED
Y	89		ug/L			53627	46971	2	Standard
Kr	83		ug/L			34	48	12	Standard
[> In-1	115		ug/L			7114	5586	1	KED
[Cd	111	0.010	ug/L	0.005	47	2	3	25	KED
[Cd	114	0.010	ug/L	0.004	41	0	5	37	KED
[> In	115		ug/L			522018	433798	0	Standard
[Ag	107	0.002	ug/L	0.001	54	24	53	34	Standard
[> Tb	159		ug/L			194588	175484	1	Standard
[Pb	208	0.014	ug/L	0.001	5	589	1719	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 02:57:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	20581	4	Standard
[> Sc	45		ug/L			579638	514460	2	Standard
| Cr	52	0.023	ug/L	0.028	121	10138	9300	1	Standard
| Cr	53	-0.009	ug/L	0.001	15	92	67	3	Standard
[> Ge	72		ug/L			33052	29561	0	KED
| Ni	60	0.037	ug/L	0.010	28	97	139	10	KED
| Ni	62	0.010	ug/L	0.040	389	15	16	54	KED
| Cu	63	-0.030	ug/L	0.002	8	198	57	16	KED
| Cu	65	-0.036	ug/L	0.003	6	107	22	22	KED
| Zn	66	-0.017	ug/L	0.016	93	67	52	15	KED
| Zn	67	-0.107	ug/L	0.041	38	15	5	57	KED
| As	75	-0.007	ug/L	0.005	67	4	2	53	KED
Y	89		ug/L			53627	48791	1	Standard
Kr	83		ug/L			34	54	43	Standard
[> In-1	115		ug/L			7114	6083	2	KED
| Cd	111	-0.002	ug/L	0.005	315	2	1	69	KED
| Cd	114	0.002	ug/L	0.002	123	0	1	90	KED
[> In	115		ug/L			522018	488801	1	Standard
| Ag	107	-0.000	ug/L	0.000	49	24	18	11	Standard
[> Tb	159		ug/L			194588	184314	1	Standard
| Pb	208	-0.001	ug/L	0.000	30	589	479	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0136-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:02:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	32770	3	Standard
[> Sc	45		ug/L			579638	557739	0	Standard
| Cr	52	67.274	ug/L	2.653	3	10138	976668	3	Standard
| Cr	53	66.446	ug/L	0.652	0	92	111934	1	Standard
[> Ge	72		ug/L			33052	29236	0	KED
| Ni	60	1.121	ug/L	0.050	4	97	1661	3	KED
| Ni	62	1.234	ug/L	0.177	14	15	292	14	KED
| Cu	63	7.027	ug/L	0.005	0	198	27797	0	KED
| Cu	65	6.877	ug/L	0.141	2	107	13973	2	KED
| Zn	66	6.382	ug/L	0.084	1	67	3144	1	KED
| Zn	67	6.911	ug/L	0.750	10	15	557	9	KED
| As	75	2.137	ug/L	0.056	2	4	504	2	KED
Y	89		ug/L			53627	87368	1	Standard
Kr	83		ug/L			34	57	10	Standard
[> In-1	115		ug/L			7114	6172	2	KED
| Cd	111	0.003	ug/L	0.007	235	2	2	57	KED
| Cd	114	0.015	ug/L	0.010	69	0	8	65	KED
[> In	115		ug/L			522018	485517	3	Standard
| Ag	107	0.011	ug/L	0.000	2	24	199	4	Standard
[> Tb	159		ug/L			194588	194873	2	Standard
| Pb	208	1.553	ug/L	0.050	3	589	145383	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0137-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:06:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	35755	6	Standard
[>	Sc	45	ug/L			579638	535473	2	Standard
|	Cr	52	0.338	ug/L	0.032	10138	14033	5	Standard
|	Cr	53	0.343	ug/L	0.012	92	639	4	Standard
[>	Ge	72		ug/L		33052	29985	1	KED
|	Ni	60	0.275	ug/L	0.028	97	484	6	KED
|	Ni	62	0.284	ug/L	0.052	15	80	14	KED
|	Cu	63	4.731	ug/L	0.041	198	19250	1	KED
|	Cu	65	4.659	ug/L	0.101	107	9738	2	KED
|	Zn	66	45.233	ug/L	0.593	67	22489	2	KED
|	Zn	67	42.656	ug/L	1.352	15	3456	3	KED
|	As	75	0.172	ug/L	0.015	4	45	9	KED
	Y	89		ug/L		53627	51488	2	Standard
	Kr	83		ug/L		34	48	35	Standard
[>	In-1	115		ug/L		7114	6231	1	KED
|	Cd	111	0.026	ug/L	0.011	2	7	30	KED
|	Cd	114	0.040	ug/L	0.007	0	23	17	KED
[>	In	115		ug/L		522018	499250	1	Standard
|	Ag	107	0.004	ug/L	0.001	24	86	10	Standard
[>	Tb	159		ug/L		194588	189397	1	Standard
|	Pb	208	0.787	ug/L	0.023	589	71873	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-21**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:11:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	33248	2	Standard
[> Sc	45		ug/L			579638	537208	1	Standard
| Cr	52	0.097	ug/L	0.020	20	10138	10742	2	Standard
| Cr	53	0.104	ug/L	0.004	3	92	253	3	Standard
[> Ge	72		ug/L			33052	29942	2	KED
| Ni	60	0.000	ug/L	0.010	5753	97	88	17	KED
| Ni	62	0.026	ug/L	0.014	53	15	20	14	KED
| Cu	63	0.081	ug/L	0.008	9	198	505	6	KED
| Cu	65	0.080	ug/L	0.008	10	107	262	4	KED
| Zn	66	0.867	ug/L	0.118	13	67	490	11	KED
| Zn	67	0.698	ug/L	0.164	23	15	70	16	KED
| As	75	0.000	ug/L	0.007	1825	4	4	43	KED
| Y	89		ug/L			53627	50819	1	Standard
| Kr	83		ug/L			34	50	11	Standard
[> In-1	115		ug/L			7114	6279	2	KED
| Cd	111	0.005	ug/L	0.002	39	2	3	17	KED
| Cd	114	0.004	ug/L	0.002	46	0	2	39	KED
[> In	115		ug/L			522018	507431	1	Standard
| Ag	107	-0.000	ug/L	0.001	2064	24	23	46	Standard
[> Tb	159		ug/L			194588	187192	0	Standard
| Pb	208	0.021	ug/L	0.001	6	589	2460	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-22**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:15:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	33216	5	Standard
[> Sc	45		ug/L			579638	540455	2	Standard
| Cr	52	0.193	ug/L	0.007	3	10138	12141	2	Standard
| Cr	53	0.213	ug/L	0.006	2	92	432	1	Standard
[> Ge	72		ug/L			33052	29934	2	KED
| Ni	60	-0.016	ug/L	0.007	43	97	65	13	KED
| Ni	62	-0.013	ug/L	0.015	121	15	11	28	KED
| Cu	63	0.144	ug/L	0.010	6	198	760	2	KED
| Cu	65	0.145	ug/L	0.007	4	107	398	4	KED
| Zn	66	0.558	ug/L	0.016	2	67	337	2	KED
| Zn	67	0.635	ug/L	0.206	32	15	65	24	KED
| As	75	-0.008	ug/L	0.004	48	4	2	48	KED
| Y	89		ug/L			53627	51381	1	Standard
| Kr	83		ug/L			34	43	45	Standard
[> In-1	115		ug/L			7114	6475	1	KED
| Cd	111	-0.005	ug/L	0.004	87	2	0	100	KED
| Cd	114	-0.001	ug/L	0.000	18	0	0	91	KED
[> In	115		ug/L			522018	506450	0	Standard
| Ag	107	-0.000	ug/L	0.000	27	24	15	13	Standard
[> Tb	159		ug/L			194588	190548	0	Standard
| Pb	208	0.003	ug/L	0.001	18	589	829	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 03:20:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	21935	7	Standard
[> Sc	45		ug/L			579638	534807	2	Standard
| Cr	52	-0.045	ug/L	0.003	6	10138	8736	2	Standard
| Cr	53	-0.006	ug/L	0.004	69	92	75	6	Standard
[> Ge	72		ug/L			33052	29971	2	KED
| Ni	60	0.025	ug/L	0.011	45	97	123	11	KED
| Ni	62	0.043	ug/L	0.040	95	15	24	37	KED
| Cu	63	-0.031	ug/L	0.002	6	198	53	16	KED
| Cu	65	-0.033	ug/L	0.009	26	107	29	59	KED
| Zn	66	-0.013	ug/L	0.015	121	67	54	12	KED
| Zn	67	-0.060	ug/L	0.096	158	15	9	80	KED
| As	75	-0.009	ug/L	0.009	99	4	1	108	KED
Y	89		ug/L			53627	51479	1	Standard
Kr	83		ug/L			34	55	15	Standard
[> In-1	115		ug/L			7114	6208	1	KED
| Cd	111	-0.000	ug/L	0.004	3385	2	1	50	KED
| Cd	114	0.001	ug/L	0.004	255	0	1	184	KED
[> In	115		ug/L			522018	496396	1	Standard
| Ag	107	-0.001	ug/L	0.000	8	24	8	12	Standard
[> Tb	159		ug/L			194588	186482	2	Standard
| Pb	208	-0.001	ug/L	0.000	16	589	459	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 03:24:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	22807	7	Standard
[> Sc	45		ug/L			579638	556000	2	Standard
| Cr	52	48.851	ug/L	0.760	1	10138	709575	1	Standard
| Cr	53	48.141	ug/L	0.705	1	92	80877	3	Standard
[> Ge	72		ug/L			33052	29925	0	KED
| Ni	60	50.748	ug/L	0.354	0	97	73083	1	KED
| Ni	62	50.531	ug/L	1.699	3	15	11660	3	KED
| Cu	63	51.681	ug/L	0.769	1	198	208097	1	KED
| Cu	65	50.635	ug/L	1.471	2	107	104669	2	KED
| Zn	66	51.834	ug/L	0.857	1	67	25705	1	KED
| Zn	67	50.952	ug/L	0.559	1	15	4117	0	KED
| As	75	50.274	ug/L	0.907	1	4	12069	1	KED
Y	89		ug/L			53627	50922	0	Standard
Kr	83		ug/L			34	59	6	Standard
[> In-1	115		ug/L			7114	6455	1	KED
| Cd	111	50.608	ug/L	1.004	1	2	11844	0	KED
| Cd	114	51.083	ug/L	1.456	2	0	30752	1	KED
[> In	115		ug/L			522018	489404	3	Standard
| Ag	107	46.320	ug/L	1.660	3	24	744936	0	Standard
[> Tb	159		ug/L			194588	189215	1	Standard
| Pb	208	54.914	ug/L	0.055	0	589	4973228	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 03:31:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23951	22233	3	Standard
[>	Sc	45		ug/L			579638	549986	1	Standard
|	Cr	52	-0.050	ug/L	0.020	40	10138	8905	3	Standard
|	Cr	53	-0.014	ug/L	0.005	36	92	64	12	Standard
[>	Ge	72		ug/L			33052	30190	2	KED
|	Ni	60	-0.022	ug/L	0.003	15	97	57	10	KED
|	Ni	62	-0.005	ug/L	0.013	257	15	13	24	KED
|	Cu	63	-0.035	ug/L	0.004	12	198	38	45	KED
|	Cu	65	-0.040	ug/L	0.002	6	107	15	30	KED
|	Zn	66	-0.071	ug/L	0.013	18	67	26	23	KED
|	Zn	67	-0.155	ug/L	0.024	15	15	1	100	KED
|	As	75	-0.006	ug/L	0.006	114	4	2	56	KED
	Y	89		ug/L			53627	49886	1	Standard
	Kr	83		ug/L			34	40	18	Standard
[>	In-1	115		ug/L			7114	6635	3	KED
|	Cd	111	-0.001	ug/L	0.000	41	2	1		KED
|	Cd	114	0.004	ug/L	0.002	42	0	3	37	KED
[>	In	115		ug/L			522018	502273	1	Standard
|	Ag	107	0.002	ug/L	0.002	86	24	62	52	Standard
[>	Tb	159		ug/L			194588	186108	1	Standard
|	Pb	208	-0.002	ug/L	0.002	146	589	411	53	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-11**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:36:16**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	31765	4	Standard
[> Sc	45		ug/L			579638	563677	2	Standard
| Cr	52	0.516	ug/L	0.028	5	10138	17347	1	Standard
| Cr	53	0.528	ug/L	0.028	5	92	987	7	Standard
[> Ge	72		ug/L			33052	31098	3	KED
| Ni	60	0.485	ug/L	0.004	0	97	817	3	KED
| Ni	62	0.513	ug/L	0.019	3	15	137	2	KED
| Cu	63	4.141	ug/L	0.127	3	198	17492	1	KED
| Cu	65	4.064	ug/L	0.150	3	107	8818	0	KED
| Zn	66	14.845	ug/L	0.550	3	67	7690	1	KED
| Zn	67	13.795	ug/L	1.052	7	15	1168	6	KED
| As	75	0.979	ug/L	0.034	3	4	248	1	KED
Y	89		ug/L			53627	58044	1	Standard
Kr	83		ug/L			34	40	45	Standard
[> In-1	115		ug/L			7114	6522	1	KED
| Cd	111	0.010	ug/L	0.015	148	2	4	81	KED
| Cd	114	0.024	ug/L	0.022	92	0	15	90	KED
[> In	115		ug/L			522018	517383	2	Standard
| Ag	107	0.005	ug/L	0.001	12	24	112	7	Standard
[> Tb	159		ug/L			194588	192288	0	Standard
| Pb	208	0.297	ug/L	0.004	1	589	27902	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-13**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:40:42**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	33420	6	Standard
[> Sc	45		ug/L			579638	597184	2	Standard
| Cr	52	0.086	ug/L	0.003	3	10138	11761	2	Standard
| Cr	53	0.672	ug/L	0.020	3	92	1306	5	Standard
[> Ge	72		ug/L			33052	29672	0	KED
| Ni	60	0.873	ug/L	0.063	7	97	1333	7	KED
| Ni	62	0.796	ug/L	0.037	4	15	196	3	KED
| Cu	63	2.671	ug/L	0.041	1	198	10832	1	KED
| Cu	65	2.604	ug/L	0.067	2	107	5428	2	KED
| Zn	66	4.566	ug/L	0.064	1	67	2300	0	KED
| Zn	67	4.512	ug/L	0.361	8	15	374	8	KED
| As	75	8.446	ug/L	0.070	0	4	2013	0	KED
Y	89		ug/L			53627	52902	3	Standard
Kr	83		ug/L			34	40	29	Standard
[> In-1	115		ug/L			7114	6338	3	KED
| Cd	111	0.044	ug/L	0.017	39	2	12	35	KED
| Cd	114	0.047	ug/L	0.021	45	0	28	48	KED
[> In	115		ug/L			522018	485458	1	Standard
| Ag	107	0.007	ug/L	0.001	11	24	130	8	Standard
[> Tb	159		ug/L			194588	190390	1	Standard
| Pb	208	0.116	ug/L	0.005	4	589	11107	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:45:01**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	38314	4	Standard
[> Sc	45		ug/L			579638	646981	2	Standard
| Cr	52	0.888	ug/L	0.023	2	10138	26120	2	Standard
| Cr	53	1.076	ug/L	0.017	1	92	2203	2	Standard
[> Ge	72		ug/L			33052	29945	1	KED
| Ni	60	1.543	ug/L	0.011	0	97	2310	0	KED
| Ni	62	1.604	ug/L	0.107	6	15	384	5	KED
| Cu	63	8.861	ug/L	0.062	0	198	35851	0	KED
| Cu	65	8.710	ug/L	0.233	2	107	18094	1	KED
| Zn	66	59.363	ug/L	1.858	3	67	29443	1	KED
| Zn	67	55.640	ug/L	1.116	2	15	4497	2	KED
| As	75	13.552	ug/L	0.241	1	4	3258	0	KED
Y	89		ug/L			53627	53454	1	Standard
Kr	83		ug/L			34	42	31	Standard
[> In-1	115		ug/L			7114	6255	2	KED
| Cd	111	0.095	ug/L	0.028	29	2	23	26	KED
| Cd	114	0.094	ug/L	0.028	29	0	55	31	KED
[> In	115		ug/L			522018	483384	2	Standard
| Ag	107	0.020	ug/L	0.003	14	24	338	11	Standard
[> Tb	159		ug/L			194588	187521	0	Standard
| Pb	208	0.498	ug/L	0.005	1	589	45223	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0480-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:49:51**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	70854	3	Standard
[> Sc	45		ug/L			579638	449320	6	Standard
| Cr	52	7.887	ug/L	0.328	4	10138	99022	2	Standard
| Cr	53	7.426	ug/L	0.154	2	92	10131	4	Standard
[> Ge	72		ug/L			33052	25478	2	KED
| Ni	60	1.547	ug/L	0.066	4	97	1969	4	KED
| Ni	62	1.644	ug/L	0.112	6	15	334	4	KED
| Cu	63	0.100	ug/L	0.014	13	198	497	9	KED
| Cu	65	0.093	ug/L	0.018	19	107	246	10	KED
| Zn	66	11.574	ug/L	0.487	4	67	4924	2	KED
| Zn	67	10.735	ug/L	0.983	9	15	747	6	KED
| As	75	0.044	ug/L	0.003	6	4	12	3	KED
Y	89		ug/L			53627	44728	0	Standard
Kr	83		ug/L			34	46	9	Standard
[> In-1	115		ug/L			7114	5192	0	KED
| Cd	111	0.170	ug/L	0.024	13	2	33	13	KED
| Cd	114	0.224	ug/L	0.028	12	0	108	11	KED
[> In	115		ug/L			522018	411063	1	Standard
| Ag	107	0.000	ug/L	0.000	143	24	23	26	Standard
[> Tb	159		ug/L			194588	163966	1	Standard
| Pb	208	0.025	ug/L	0.001	5	589	2473	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 03:57:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	20319	5	Standard
[>	Sc	45	ug/L			579638	499605	1	Standard
|	Cr	52	ug/L	0.012	25	10138	8150	1	Standard
|	Cr	53	ug/L	0.004	73	92	71	6	Standard
[>	Ge	72	ug/L			33052	27777	0	KED
|	Ni	60	ug/L	0.014	58	97	50	38	KED
|	Ni	62	ug/L	0.031	991	15	12	52	KED
|	Cu	63	ug/L	0.004	10	198	38	34	KED
|	Cu	65	ug/L	0.001	2	107	20	9	KED
|	Zn	66	ug/L	0.043	96	67	36	55	KED
|	Zn	67	ug/L	0.097	163	15	8	81	KED
|	As	75	ug/L	0.004	52	4	1	50	KED
	Y	89	ug/L			53627	46991	0	Standard
	Kr	83	ug/L			34	40	50	Standard
[>	In-1	115	ug/L			7114	5646	3	KED
|	Cd	111	ug/L	0.003	50	2	0	86	KED
|	Cd	114	ug/L	0.006	134	0	2	115	KED
[>	In	115	ug/L			522018	478274	1	Standard
|	Ag	107	ug/L	0.001	134	24	15	56	Standard
[>	Tb	159	ug/L			194588	177490	1	Standard
|	Pb	208	ug/L	0.000	8	589	291	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:02:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	25567	1	Standard
[>	Sc	45	ug/L			579638	570472	2	Standard
|	Cr	52	ug/L	0.013	34	10138	10522	1	Standard
|	Cr	53	ug/L	0.007	4	92	368	5	Standard
[>	Ge	72	ug/L			33052	27813	1	KED
|	Ni	60	ug/L	0.020	17	97	238	9	KED
|	Ni	62	ug/L	0.051	32	15	46	23	KED
|	Cu	63	ug/L	0.008	13	198	394	9	KED
|	Cu	65	ug/L	0.007	12	107	198	5	KED
|	Zn	66	ug/L	0.053	16	67	201	13	KED
|	Zn	67	ug/L	0.135	24	15	53	17	KED
|	As	75	ug/L	0.057	6	4	200	5	KED
	Y	89	ug/L			53627	51535	1	Standard
	Kr	83	ug/L			34	35	18	Standard
[>	In-1	115	ug/L			7114	5808	1	KED
|	Cd	111	ug/L	0.003	97	2	1	43	KED
|	Cd	114	ug/L	0.006	216	0	1	180	KED
[>	In	115	ug/L			522018	466235	0	Standard
|	Ag	107	ug/L	0.001	647	24	23	38	Standard
[>	Tb	159	ug/L			194588	184807	1	Standard
|	Pb	208	ug/L	0.001	10	589	1353	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-DUP3**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:06:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	25921	4	Standard
[> Sc	45		ug/L			579638	571398	1	Standard
[Cr	52	0.026	ug/L	0.018	67	10138	10378	1	Standard
[Cr	53	0.167	ug/L	0.014	8	92	378	6	Standard
[> Ge	72		ug/L			33052	27769	2	KED
[Ni	60	0.146	ug/L	0.011	7	97	276	3	KED
[Ni	62	0.101	ug/L	0.050	49	15	34	30	KED
[Cu	63	0.017	ug/L	0.017	97	198	231	27	KED
[Cu	65	0.013	ug/L	0.008	62	107	114	13	KED
[Zn	66	0.357	ug/L	0.064	17	67	220	12	KED
[Zn	67	0.443	ug/L	0.103	23	15	46	14	KED
[As	75	0.944	ug/L	0.075	7	4	213	5	KED
Y	89		ug/L			53627	51598	1	Standard
Kr	83		ug/L			34	38	23	Standard
[> In-1	115		ug/L			7114	5735	1	KED
[Cd	111	0.007	ug/L	0.003	39	2	3	17	KED
[Cd	114	0.005	ug/L	0.004	80	0	2	73	KED
[> In	115		ug/L			522018	473625	1	Standard
[Ag	107	-0.000	ug/L	0.000	51	24	15	25	Standard
[> Tb	159		ug/L			194588	184642	1	Standard
[Pb	208	0.006	ug/L	0.000	7	589	1104	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-MS3**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:11:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	26225	3	Standard
> Sc	45		ug/L			579638	578116	3	Standard
| Cr	52	4.784	ug/L	0.234	4	10138	81350	3	Standard
| Cr	53	4.812	ug/L	0.226	4	92	8479	1	Standard
> Ge	72		ug/L			33052	28372	0	KED
| Ni	60	5.500	ug/L	0.057	1	97	7584	1	KED
| Ni	62	5.488	ug/L	0.209	3	15	1212	2	KED
| Cu	63	5.297	ug/L	0.107	2	198	20376	2	KED
| Cu	65	5.293	ug/L	0.035	0	107	10457	1	KED
| Zn	66	17.411	ug/L	0.199	1	67	8225	1	KED
| Zn	67	16.806	ug/L	0.629	3	15	1296	2	KED
| As	75	6.246	ug/L	0.164	2	4	1424	1	KED
Y	89		ug/L			53627	53132	2	Standard
Kr	83		ug/L			34	51	45	Standard
> In-1	115		ug/L			7114	5936	1	KED
| Cd	111	5.302	ug/L	0.017	0	2	1142	1	KED
| Cd	114	5.212	ug/L	0.091	1	0	2887	3	KED
> In	115		ug/L			522018	478703	2	Standard
| Ag	107	4.852	ug/L	0.119	2	24	76442	4	Standard
> Tb	159		ug/L			194588	185283	0	Standard
| Pb	208	5.696	ug/L	0.049	0	589	505647	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-MSD3**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:17:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	26543	2	Standard
[>	Sc	45	ug/L			579638	587593	2	Standard
|	Cr	4.909	ug/L	0.087	1	10138	84614	2	Standard
|	Cr	53	ug/L	0.054	1	92	8855	2	Standard
[>	Ge	72	ug/L			33052	29168	1	KED
|	Ni	60	ug/L	0.139	2	97	7671	2	KED
|	Ni	62	ug/L	0.086	1	15	1253	1	KED
|	Cu	63	ug/L	0.106	1	198	21457	1	KED
|	Cu	65	ug/L	0.133	2	107	10947	1	KED
|	Zn	66	ug/L	0.518	2	67	8549	1	KED
|	Zn	67	ug/L	0.367	2	15	1332	3	KED
|	As	75	ug/L	0.141	2	4	1487	0	KED
	Y	89	ug/L			53627	54403	3	Standard
	Kr	83	ug/L			34	43	19	Standard
[>	In-1	115	ug/L			7114	6065	1	KED
|	Cd	111	ug/L	0.071	1	2	1198	1	KED
|	Cd	114	ug/L	0.220	4	0	3075	2	KED
[>	In	115	ug/L			522018	480828	1	Standard
|	Ag	107	ug/L	0.032	0	24	78821	0	Standard
[>	Tb	159	ug/L			194588	183019	2	Standard
|	Pb	208	ug/L	0.152	2	589	525164	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLF

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:21:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	21528	5	Standard
[>	Sc	45	ug/L			579638	504587	2	Standard
|	Cr	52	-0.049	0.013	26	10138	8189	4	Standard
|	Cr	53	-0.001	0.010	914	92	78	20	Standard
[>	Ge	72	ug/L			33052	29052	2	KED
|	Ni	60	-0.027	0.002	9	97	48	6	KED
|	Ni	62	-0.020	0.008	39	15	9	20	KED
|	Cu	63	-0.035	0.001	4	198	38	13	KED
|	Cu	65	-0.041	0.002	5	107	12	31	KED
|	Zn	66	-0.064	0.013	20	67	28	24	KED
|	Zn	67	-0.122	0.028	22	15	4	49	KED
|	As	75	-0.007	0.008	108	4	2	81	KED
	Y	89	ug/L			53627	49637	1	Standard
	Kr	83	ug/L			34	38	20	Standard
[>	In-1	115	ug/L			7114	6027	1	KED
|	Cd	111	-0.003	0.007	226	2	1	114	KED
|	Cd	114	0.000	0.002	394	0	0	180	KED
[>	In	115	ug/L			522018	479515	1	Standard
|	Ag	107	-0.000	0.000	299	24	20	32	Standard
[>	Tb	159	ug/L			194588	179966	0	Standard
|	Pb	208	-0.003	0.000	6	589	288	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVF

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:26:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	21819	4	Standard
[> Sc	45		ug/L			579638	537241	1	Standard
| Cr	52	48.713	ug/L	0.418	0	10138	683894	1	Standard
| Cr	53	47.716	ug/L	0.941	1	92	77447	2	Standard
[> Ge	72		ug/L			33052	28563	3	KED
| Ni	60	50.357	ug/L	1.050	2	97	69185	1	KED
| Ni	62	49.360	ug/L	2.641	5	15	10859	2	KED
| Cu	63	50.236	ug/L	1.591	3	198	192937	0	KED
| Cu	65	49.314	ug/L	2.387	4	107	97191	1	KED
| Zn	66	51.840	ug/L	1.972	3	67	24518	1	KED
| Zn	67	50.726	ug/L	2.388	4	15	3909	3	KED
| As	75	49.845	ug/L	2.221	4	4	11411	2	KED
Y	89		ug/L			53627	50469	1	Standard
Kr	83		ug/L			34	51	9	Standard
[> In-1	115		ug/L			7114	6035	1	KED
| Cd	111	50.348	ug/L	1.040	2	2	11017	1	KED
| Cd	114	49.801	ug/L	1.740	3	0	28030	2	KED
[> In	115		ug/L			522018	483754	2	Standard
| Ag	107	45.747	ug/L	1.559	3	24	727585	1	Standard
[> Tb	159		ug/L			194588	186391	1	Standard
| Pb	208	55.271	ug/L	0.646	1	589	4930661	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBF

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:33:31

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	21106	1	Standard
[> Sc	45		ug/L			579638	522344	0	Standard
| Cr	52	-0.061	ug/L	0.019	31	10138	8310	2	Standard
| Cr	53	-0.006	ug/L	0.004	59	92	73	8	Standard
[> Ge	72		ug/L			33052	29478	2	KED
| Ni	60	-0.012	ug/L	0.009	77	97	69	16	KED
| Ni	62	0.005	ug/L	0.010	201	15	15	12	KED
| Cu	63	-0.037	ug/L	0.002	5	198	30	27	KED
| Cu	65	-0.038	ug/L	0.004	9	107	18	41	KED
| Zn	66	-0.070	ug/L	0.007	9	67	26	15	KED
| Zn	67	-0.130	ug/L	0.025	19	15	3	50	KED
| As	75	-0.005	ug/L	0.003	62	4	2	26	KED
Y	89		ug/L			53627	49249	1	Standard
Kr	83		ug/L			34	43	24	Standard
[> In-1	115		ug/L			7114	6244	2	KED
| Cd	111	-0.002	ug/L	0.009	593	2	1	124	KED
| Cd	114	0.002	ug/L	0.004	251	0	1	184	KED
[> In	115		ug/L			522018	496790	2	Standard
| Ag	107	0.001	ug/L	0.001	101	24	40	40	Standard
[> Tb	159		ug/L			194588	181353	2	Standard
| Pb	208	-0.003	ug/L	0.000	9	589	283	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:37:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				21210	4	Standard
[>	Sc	45	ug/L				512571	4	Standard
|	Cr	52	ug/L				7952	2	Standard
|	Cr	53	ug/L				75	19	Standard
[>	Ge	72	ug/L				28784	1	KED
|	Ni	60	ug/L				75	11	KED
|	Ni	62	ug/L				12	56	KED
|	Cu	63	ug/L				53	8	KED
|	Cu	65	ug/L				25	37	KED
|	Zn	66	ug/L				52	8	KED
|	Zn	67	ug/L				8	13	KED
|	As	75	ug/L				3	33	KED
	Y	89	ug/L				50088	0	Standard
	Kr	83	ug/L				44	32	Standard
[>	In-1	115	ug/L				6034	0	KED
|	Cd	111	ug/L				1	34	KED
|	Cd	114	ug/L				1	102	KED
[>	In	115	ug/L				486697	0	Standard
|	Ag	107	ug/L				29	39	Standard
[>	Tb	159	ug/L				178618	1	Standard
|	Pb	208	ug/L				534	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVG

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:42:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	22837	2	Standard
[> Sc	45		ug/L			512571	535240	2	Standard
| Cr	52	49.491	ug/L	0.986	1	7952	690998	3	Standard
| Cr	53	48.754	ug/L	0.390	0	75	78819	1	Standard
[> Ge	72		ug/L			28784	29525	1	KED
| Ni	60	50.055	ug/L	0.415	0	75	71110	0	KED
| Ni	62	49.979	ug/L	1.344	2	12	11377	1	KED
| Cu	63	50.840	ug/L	1.123	2	53	201840	1	KED
| Cu	65	49.659	ug/L	0.970	1	25	101204	1	KED
| Zn	66	50.552	ug/L	0.931	1	52	24728	0	KED
| Zn	67	49.626	ug/L	2.134	4	8	3950	3	KED
| As	75	48.478	ug/L	0.311	0	3	11483	0	KED
Y	89		ug/L			50088	50850	3	Standard
Kr	83		ug/L			44	46	16	Standard
[> In-1	115		ug/L			6034	6252	1	KED
| Cd	111	49.549	ug/L	0.377	0	1	11233	2	KED
| Cd	114	50.157	ug/L	0.178	0	1	29252	1	KED
[> In	115		ug/L			486697	479759	2	Standard
| Ag	107	46.667	ug/L	0.707	1	29	736349	2	Standard
[> Tb	159		ug/L			178618	186665	1	Standard
| Pb	208	55.001	ug/L	1.042	1	534	4913677	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBG

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:49:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	21997	3	Standard
[>	Sc	45	ug/L			512571	533122	1	Standard
|	Cr	52	0.014	0.006	43	7952	8458	2	Standard
|	Cr	53	-0.009	0.006	71	75	64	15	Standard
[>	Ge	72	ug/L			28784	29712	0	KED
|	Ni	60	-0.021	0.008	39	75	48	24	KED
|	Ni	62	-0.024	0.000	0	12	7	0	KED
|	Cu	63	-0.005	0.001	17	53	36	9	KED
|	Cu	65	-0.004	0.002	41	25	17	22	KED
|	Zn	66	-0.068	0.025	37	52	20	59	KED
|	Zn	67	-0.059	0.041	70	8	3	86	KED
|	As	75	-0.003	0.005	212	3	3	37	KED
	Y	89	ug/L			50088	49727	2	Standard
	Kr	83	ug/L			44	43	24	Standard
[>	In-1	115	ug/L			6034	6050	0	KED
|	Cd	111	-0.004	0.003	57	1	0	86	KED
|	Cd	114	0.000	0.004	6243	1	1	192	KED
[>	In	115	ug/L			486697	490182	1	Standard
|	Ag	107	0.001	0.001	61	29	45	23	Standard
[>	Tb	159	ug/L			178618	181329	1	Standard
|	Pb	208	-0.003	0.001	22	534	307	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:53:59**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	41125	4	Standard
[> Sc	45		ug/L			512571	553406	2	Standard
| Cr	52	0.370	ug/L	0.014	3	7952	13862	0	Standard
| Cr	53	0.421	ug/L	0.015	3	75	784	3	Standard
[> Ge	72		ug/L			28784	29957	1	KED
| Ni	60	0.870	ug/L	0.040	4	75	1330	3	KED
| Ni	62	0.872	ug/L	0.054	6	12	214	6	KED
| Cu	63	2.805	ug/L	0.089	3	53	11350	2	KED
| Cu	65	2.680	ug/L	0.062	2	25	5568	2	KED
| Zn	66	10.735	ug/L	0.292	2	52	5370	1	KED
| Zn	67	10.167	ug/L	0.647	6	8	827	5	KED
| As	75	1.857	ug/L	0.005	0	3	450	1	KED
Y	89		ug/L			50088	52074	0	Standard
Kr	83		ug/L			44	43	2	Standard
[> In-1	115		ug/L			6034	6279	0	KED
| Cd	111	0.015	ug/L	0.005	32	1	5	21	KED
| Cd	114	0.018	ug/L	0.004	21	1	11	19	KED
[> In	115		ug/L			486697	500655	1	Standard
| Ag	107	0.002	ug/L	0.001	40	29	55	19	Standard
[> Tb	159		ug/L			178618	186090	1	Standard
| Pb	208	0.043	ug/L	0.002	3	534	4388	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:58:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	37818	3	Standard
[> Sc	45		ug/L			512571	620959	3	Standard
| Cr	52	0.750	ug/L	0.035	4	7952	21630	0	Standard
| Cr	53	0.850	ug/L	0.037	4	75	1682	2	Standard
[> Ge	72		ug/L			28784	28362	2	KED
| Ni	60	1.873	ug/L	0.124	6	75	2627	7	KED
| Ni	62	2.080	ug/L	0.104	5	12	466	2	KED
| Cu	63	6.207	ug/L	0.041	0	53	23720	1	KED
| Cu	65	5.944	ug/L	0.210	3	25	11654	1	KED
| Zn	66	13.939	ug/L	0.181	1	52	6588	1	KED
| Zn	67	13.056	ug/L	0.606	4	8	1005	6	KED
| As	75	13.044	ug/L	0.191	1	3	2970	0	KED
Y	89		ug/L			50088	52960	3	Standard
Kr	83		ug/L			44	37	12	Standard
[> In-1	115		ug/L			6034	5947	1	KED
| Cd	111	0.186	ug/L	0.014	7	1	41	5	KED
| Cd	114	0.208	ug/L	0.016	7	1	116	6	KED
[> In	115		ug/L			486697	479901	1	Standard
| Ag	107	0.012	ug/L	0.001	8	29	218	5	Standard
[> Tb	159		ug/L			178618	184864	1	Standard
| Pb	208	0.644	ug/L	0.011	1	534	57486	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-08**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:02:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	35079	4	Standard
[> Sc	45		ug/L			512571	617244	2	Standard
| Cr	52	0.125	ug/L	0.020	15	7952	11566	2	Standard
| Cr	53	0.244	ug/L	0.006	2	75	546	4	Standard
[> Ge	72		ug/L			28784	27855	1	KED
| Ni	60	0.829	ug/L	0.066	7	75	1181	6	KED
| Ni	62	0.946	ug/L	0.098	10	12	215	9	KED
| Cu	63	3.890	ug/L	0.068	1	53	14619	1	KED
| Cu	65	3.923	ug/L	0.106	2	25	7565	1	KED
| Zn	66	3.697	ug/L	0.051	1	52	1753	2	KED
| Zn	67	3.953	ug/L	0.258	6	8	304	5	KED
| As	75	20.959	ug/L	0.676	3	3	4684	1	KED
Y	89		ug/L			50088	50382	1	Standard
Kr	83		ug/L			44	40	12	Standard
[> In-1	115		ug/L			6034	5808	2	KED
| Cd	111	0.055	ug/L	0.019	34	1	13	27	KED
| Cd	114	0.072	ug/L	0.029	40	1	40	39	KED
[> In	115		ug/L			486697	470446	1	Standard
| Ag	107	0.006	ug/L	0.000	7	29	123	6	Standard
[> Tb	159		ug/L			178618	183524	1	Standard
| Pb	208	0.140	ug/L	0.003	1	534	12872	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-10**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:07:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	36815	5	Standard
[> Sc	45		ug/L			512571	612003	2	Standard
| Cr	52	0.190	ug/L	0.013	7	7952	12489	1	Standard
| Cr	53	0.324	ug/L	0.013	4	75	687	5	Standard
[> Ge	72		ug/L			28784	27936	0	KED
| Ni	60	0.814	ug/L	0.060	7	75	1165	6	KED
| Ni	62	0.884	ug/L	0.083	9	12	202	8	KED
| Cu	63	3.939	ug/L	0.170	4	53	14843	3	KED
| Cu	65	3.916	ug/L	0.044	1	25	7575	0	KED
| Zn	66	4.135	ug/L	0.215	5	52	1961	5	KED
| Zn	67	4.277	ug/L	0.228	5	8	329	4	KED
| As	75	20.891	ug/L	0.311	1	3	4684	0	KED
Y	89		ug/L			50088	50782	1	Standard
Kr	83		ug/L			44	56	10	Standard
[> In-1	115		ug/L			6034	5897	1	KED
| Cd	111	0.072	ug/L	0.012	16	1	16	14	KED
| Cd	114	0.084	ug/L	0.026	31	1	47	31	KED
[> In	115		ug/L			486697	476512	1	Standard
| Ag	107	0.005	ug/L	0.001	21	29	111	17	Standard
[> Tb	159		ug/L			178618	184815	0	Standard
| Pb	208	0.113	ug/L	0.001	0	534	10555	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-12**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:11:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	37614	3	Standard
[> Sc	45		ug/L			512571	541924	1	Standard
| Cr	52	0.444	ug/L	0.005	1	7952	14603	1	Standard
| Cr	53	0.458	ug/L	0.009	2	75	828	2	Standard
[> Ge	72		ug/L			28784	29366	1	KED
| Ni	60	0.438	ug/L	0.038	8	75	694	6	KED
| Ni	62	0.467	ug/L	0.046	9	12	118	9	KED
| Cu	63	4.007	ug/L	0.099	2	53	15872	0	KED
| Cu	65	3.821	ug/L	0.120	3	25	7768	2	KED
| Zn	66	15.485	ug/L	0.769	4	52	7568	3	KED
| Zn	67	14.598	ug/L	0.300	2	8	1161	2	KED
| As	75	1.412	ug/L	0.061	4	3	336	5	KED
Y	89		ug/L			50088	54650	2	Standard
Kr	83		ug/L			44	40	21	Standard
[> In-1	115		ug/L			6034	6075	2	KED
| Cd	111	0.006	ug/L	0.008	134	1	2	57	KED
| Cd	114	0.005	ug/L	0.010	194	1	4	138	KED
[> In	115		ug/L			486697	485971	1	Standard
| Ag	107	0.001	ug/L	0.001	66	29	45	23	Standard
[> Tb	159		ug/L			178618	187970	2	Standard
| Pb	208	0.026	ug/L	0.001	3	534	2930	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-20**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:16:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21210	40097	3	Standard
[>	Sc	45		ug/L			512571	603458	1	Standard
|	Cr	52	0.809	ug/L	0.013	1	7952	21936	1	Standard
|	Cr	53	0.815	ug/L	0.006	0	75	1573	2	Standard
[>	Ge	72		ug/L			28784	28977	2	KED
|	Ni	60	1.925	ug/L	0.145	7	75	2754	5	KED
|	Ni	62	1.888	ug/L	0.139	7	12	433	5	KED
|	Cu	63	8.198	ug/L	0.187	2	53	31985	1	KED
|	Cu	65	8.011	ug/L	0.219	2	25	16040	1	KED
|	Zn	66	2.547	ug/L	0.146	5	52	1273	5	KED
|	Zn	67	2.986	ug/L	0.210	7	8	241	8	KED
|	As	75	2.558	ug/L	0.105	4	3	598	5	KED
	Y	89		ug/L			50088	93417	2	Standard
	Kr	83		ug/L			44	48	4	Standard
[>	In-1	115		ug/L			6034	6056	1	KED
|	Cd	111	0.001	ug/L	0.004	303	1	1	50	KED
|	Cd	114	0.013	ug/L	0.008	56	1	8	49	KED
[>	In	115		ug/L			486697	499578	1	Standard
|	Ag	107	0.009	ug/L	0.001	8	29	184	6	Standard
[>	Tb	159		ug/L			178618	188351	0	Standard
|	Pb	208	0.237	ug/L	0.005	1	534	21965	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-DUP1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:20:30**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	41033	4	Standard
[> Sc	45		ug/L			512571	600732	2	Standard
| Cr	52	0.798	ug/L	0.026	3	7952	21676	3	Standard
| Cr	53	0.812	ug/L	0.040	4	75	1561	6	Standard
[> Ge	72		ug/L			28784	29419	1	KED
| Ni	60	1.815	ug/L	0.049	2	75	2643	0	KED
| Ni	62	1.980	ug/L	0.134	6	12	461	6	KED
| Cu	63	8.139	ug/L	0.123	1	53	32242	0	KED
| Cu	65	8.017	ug/L	0.020	0	25	16304	1	KED
| Zn	66	2.465	ug/L	0.142	5	52	1252	4	KED
| Zn	67	2.747	ug/L	0.140	5	8	226	6	KED
| As	75	2.471	ug/L	0.116	4	3	586	2	KED
Y	89		ug/L			50088	90128	3	Standard
Kr	83		ug/L			44	61	25	Standard
[> In-1	115		ug/L			6034	6203	0	KED
| Cd	111	0.010	ug/L	0.007	76	1	3	43	KED
| Cd	114	0.008	ug/L	0.004	42	1	6	34	KED
[> In	115		ug/L			486697	491241	1	Standard
| Ag	107	0.008	ug/L	0.001	9	29	165	7	Standard
[> Tb	159		ug/L			178618	190226	0	Standard
| Pb	208	0.240	ug/L	0.006	2	534	22402	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-MS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:24:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	39760	3	Standard
[> Sc	45		ug/L			512571	584445	1	Standard
| Cr	52	24.504	ug/L	0.768	3	7952	378151	3	Standard
| Cr	53	24.330	ug/L	0.333	1	75	42999	2	Standard
[> Ge	72		ug/L			28784	29130	0	KED
| Ni	60	29.233	ug/L	0.300	1	75	41006	0	KED
| Ni	62	28.687	ug/L	1.279	4	12	6447	3	KED
| Cu	63	35.588	ug/L	0.038	0	53	139434	0	KED
| Cu	65	35.292	ug/L	0.441	1	25	70972	0	KED
| Zn	66	85.618	ug/L	1.238	1	52	41287	0	KED
| Zn	67	85.737	ug/L	1.395	1	8	6729	1	KED
| As	75	28.239	ug/L	0.482	1	3	6601	0	KED
Y	89		ug/L			50088	90513	2	Standard
Kr	83		ug/L			44	48	20	Standard
[> In-1	115		ug/L			6034	6109	2	KED
| Cd	111	26.780	ug/L	0.465	1	1	5932	0	KED
| Cd	114	26.945	ug/L	0.773	2	1	15357	3	KED
[> In	115		ug/L			486697	492130	1	Standard
| Ag	107	24.738	ug/L	0.495	2	29	400420	2	Standard
[> Tb	159		ug/L			178618	191727	1	Standard
| Pb	208	29.314	ug/L	0.364	1	534	2689958	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-MSD1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:29:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	38779	2	Standard
[> Sc	45		ug/L			512571	593612	0	Standard
| Cr	52	24.128	ug/L	0.502	2	7952	378325	1	Standard
| Cr	53	23.584	ug/L	0.272	1	75	42336	1	Standard
[> Ge	72		ug/L			28784	29134	1	KED
| Ni	60	28.208	ug/L	0.262	0	75	39574	1	KED
| Ni	62	28.944	ug/L	0.377	1	12	6506	1	KED
| Cu	63	35.573	ug/L	0.102	0	53	139393	1	KED
| Cu	65	35.339	ug/L	0.595	1	25	71081	2	KED
| Zn	66	89.540	ug/L	0.536	0	52	43185	2	KED
| Zn	67	85.104	ug/L	1.844	2	8	6679	0	KED
| As	75	27.745	ug/L	0.236	0	3	6486	1	KED
Y	89		ug/L			50088	91556	2	Standard
Kr	83		ug/L			44	59	21	Standard
[> In-1	115		ug/L			6034	6041	2	KED
| Cd	111	26.686	ug/L	0.564	2	1	5845	0	KED
| Cd	114	26.924	ug/L	1.283	4	1	15164	2	KED
[> In	115		ug/L			486697	492919	2	Standard
| Ag	107	24.337	ug/L	1.058	4	29	394333	2	Standard
[> Tb	159		ug/L			178618	189477	1	Standard
| Pb	208	29.445	ug/L	0.796	2	534	2669694	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLG

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 05:33:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21210	23042	4	Standard
[>	Sc	45		ug/L			512571	504065	2	Standard
|	Cr	52	0.021	ug/L	0.003	14	7952	8096	2	Standard
|	Cr	53	0.004	ug/L	0.004	98	75	80	8	Standard
[>	Ge	72		ug/L			28784	29215	1	KED
|	Ni	60	-0.017	ug/L	0.006	36	75	52	16	KED
|	Ni	62	-0.032	ug/L	0.022	68	12	5	88	KED
|	Cu	63	-0.004	ug/L	0.002	43	53	40	17	KED
|	Cu	65	-0.002	ug/L	0.004	230	25	22	39	KED
|	Zn	66	-0.055	ug/L	0.018	32	52	26	31	KED
|	Zn	67	-0.018	ug/L	0.028	158	8	6	31	KED
|	As	75	-0.007	ug/L	0.001	16	3	2	12	KED
	Y	89		ug/L			50088	47701	0	Standard
	Kr	83		ug/L			44	36	21	Standard
[>	In-1	115		ug/L			6034	6006	0	KED
|	Cd	111	0.001	ug/L	0.009	596	1	1	100	KED
|	Cd	114	0.002	ug/L	0.005	220	1	2	118	KED
[>	In	115		ug/L			486697	485981	4	Standard
|	Ag	107	0.003	ug/L	0.002	91	29	71	52	Standard
[>	Tb	159		ug/L			178618	179589	0	Standard
|	Pb	208	0.000	ug/L	0.006	1138	534	580	82	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVH

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 05:38:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23250	6	Standard
[> Sc	45		ug/L			512571	528228	1	Standard
| Cr	52	49.500	ug/L	0.901	1	7952	681993	1	Standard
| Cr	53	48.349	ug/L	0.150	0	75	77149	1	Standard
[> Ge	72		ug/L			28784	30008	0	KED
| Ni	60	48.196	ug/L	0.665	1	75	69599	1	KED
| Ni	62	47.638	ug/L	0.836	1	12	11023	1	KED
| Cu	63	48.752	ug/L	0.851	1	53	196743	1	KED
| Cu	65	49.349	ug/L	0.352	0	25	102234	1	KED
| Zn	66	49.407	ug/L	0.678	1	52	24567	0	KED
| Zn	67	49.504	ug/L	0.874	1	8	4006	1	KED
| As	75	48.304	ug/L	0.703	1	3	11630	1	KED
Y	89		ug/L			50088	50276	3	Standard
Kr	83		ug/L			44	66	8	Standard
[> In-1	115		ug/L			6034	6120	0	KED
| Cd	111	51.184	ug/L	0.659	1	1	11358	0	KED
| Cd	114	51.083	ug/L	0.638	1	1	29165	1	KED
[> In	115		ug/L			486697	478764	0	Standard
| Ag	107	46.724	ug/L	0.422	0	29	735777	0	Standard
[> Tb	159		ug/L			178618	184982	1	Standard
| Pb	208	55.526	ug/L	1.157	2	534	4914953	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBH

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 05:45:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	22826	1	Standard
[> Sc	45		ug/L			512571	514605	2	Standard
| Cr	52	-0.006	ug/L	0.008	138	7952	7911	3	Standard
| Cr	53	-0.008	ug/L	0.004	46	75	63	11	Standard
[> Ge	72		ug/L			28784	29448	0	KED
| Ni	60	-0.017	ug/L	0.016	91	75	53	40	KED
| Ni	62	-0.007	ug/L	0.017	238	12	11	33	KED
| Cu	63	-0.004	ug/L	0.007	195	53	40	68	KED
| Cu	65	-0.003	ug/L	0.001	21	25	20	5	KED
| Zn	66	-0.051	ug/L	0.018	36	52	29	30	KED
| Zn	67	-0.082	ug/L	0.024	29	8	1	100	KED
| As	75	0.006	ug/L	0.006	98	3	5	26	KED
Y	89		ug/L			50088	48607	1	Standard
Kr	83		ug/L			44	52	12	Standard
[> In-1	115		ug/L			6034	6091	2	KED
| Cd	111	-0.003	ug/L	0.004	139	1	0	100	KED
| Cd	114	0.002	ug/L	0.002	90	1	2	45	KED
[> In	115		ug/L			486697	473300	0	Standard
| Ag	107	0.001	ug/L	0.000	11	29	50	5	Standard
[> Tb	159		ug/L			178618	179990	0	Standard
| Pb	208	-0.003	ug/L	0.001	15	534	251	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-14**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:50:01**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	40592	5	Standard
[> Sc	45		ug/L			512571	625583	3	Standard
| Cr	52	0.332	ug/L	0.007	1	7952	15056	3	Standard
| Cr	53	1.924	ug/L	0.015	0	75	3723	3	Standard
[> Ge	72		ug/L			28784	28463	2	KED
| Ni	60	1.957	ug/L	0.061	3	75	2750	1	KED
| Ni	62	2.020	ug/L	0.030	1	12	455	1	KED
| Cu	63	9.385	ug/L	0.272	2	53	35960	2	KED
| Cu	65	9.404	ug/L	0.188	2	25	18493	0	KED
| Zn	66	10.817	ug/L	0.187	1	52	5141	1	KED
| Zn	67	11.789	ug/L	0.263	2	8	911	2	KED
| As	75	20.812	ug/L	0.559	2	3	4753	0	KED
Y	89		ug/L			50088	53972	1	Standard
Kr	83		ug/L			44	42	15	Standard
[> In-1	115		ug/L			6034	6071	0	KED
| Cd	111	0.141	ug/L	0.013	8	1	32	8	KED
| Cd	114	0.100	ug/L	0.004	4	1	57	5	KED
[> In	115		ug/L			486697	454002	2	Standard
| Ag	107	0.026	ug/L	0.002	7	29	414	5	Standard
[> Tb	159		ug/L			178618	181226	2	Standard
| Pb	208	0.990	ug/L	0.014	1	534	86358	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-16**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:54:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13			ug/L			21210	43420	6	Standard
[> Sc	45			ug/L			512571	546125	1	Standard
| Cr	52	0.647		ug/L	0.033	5	7952	17577	4	Standard
| Cr	53	0.675		ug/L	0.033	4	75	1193	4	Standard
[> Ge	72			ug/L			28784	30240	0	KED
| Ni	60	0.675		ug/L	0.035	5	75	1059	4	KED
| Ni	62	0.602		ug/L	0.023	3	12	153	3	KED
| Cu	63	5.711		ug/L	0.106	1	53	23274	1	KED
| Cu	65	5.569		ug/L	0.142	2	25	11649	2	KED
| Zn	66	29.892		ug/L	0.254	0	52	15000	0	KED
| Zn	67	28.725		ug/L	0.734	2	8	2346	2	KED
| As	75	3.914		ug/L	0.061	1	3	953	1	KED
Y	89			ug/L			50088	54733	0	Standard
Kr	83			ug/L			44	45	8	Standard
[> In-1	115			ug/L			6034	6139	2	KED
| Cd	111	0.037		ug/L	0.002	5	1	9	5	KED
| Cd	114	0.014		ug/L	0.004	28	1	8	22	KED
[> In	115			ug/L			486697	497849	1	Standard
| Ag	107	0.003		ug/L	0.001	25	29	85	15	Standard
[> Tb	159			ug/L			178618	190840	1	Standard
| Pb	208	0.300		ug/L	0.005	1	534	27994	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-18**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:58:51**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	41506	5	Standard
[> Sc	45		ug/L			512571	563971	1	Standard
| Cr	52	0.879	ug/L	0.056	6	7952	21514	2	Standard
| Cr	53	0.921	ug/L	0.009	1	75	1650	1	Standard
[> Ge	72		ug/L			28784	29591	0	KED
| Ni	60	0.841	ug/L	0.034	4	75	1274	4	KED
| Ni	62	0.988	ug/L	0.174	17	12	238	16	KED
| Cu	63	3.718	ug/L	0.097	2	53	14845	2	KED
| Cu	65	3.603	ug/L	0.056	1	25	7384	1	KED
| Zn	66	16.875	ug/L	0.347	2	52	8310	1	KED
| Zn	67	16.131	ug/L	1.579	9	8	1292	9	KED
| As	75	1.797	ug/L	0.041	2	3	430	1	KED
Y	89		ug/L			50088	56214	2	Standard
Kr	83		ug/L			44	30	21	Standard
[> In-1	115		ug/L			6034	6314	4	KED
| Cd	111	0.008	ug/L	0.006	69	1	3	31	KED
| Cd	114	0.011	ug/L	0.006	60	1	7	52	KED
[> In	115		ug/L			486697	482029	1	Standard
| Ag	107	0.005	ug/L	0.001	24	29	115	18	Standard
[> Tb	159		ug/L			178618	192728	0	Standard
| Pb	208	0.200	ug/L	0.003	1	534	19033	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:03:17**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	35873	2	Standard
[> Sc	45		ug/L			512571	619987	1	Standard
| Cr	52	1.104	ug/L	0.004	0	7952	27252	2	Standard
| Cr	53	1.258	ug/L	0.032	2	75	2444	3	Standard
[> Ge	72		ug/L			28784	29585	1	KED
| Ni	60	1.906	ug/L	0.066	3	75	2788	4	KED
| Ni	62	1.874	ug/L	0.068	3	12	440	2	KED
| Cu	63	11.407	ug/L	0.361	3	53	45418	2	KED
| Cu	65	10.967	ug/L	0.111	1	25	22416	0	KED
| Zn	66	60.525	ug/L	0.205	0	52	29659	1	KED
| Zn	67	58.668	ug/L	1.256	2	8	4678	1	KED
| As	75	14.694	ug/L	0.332	2	3	3490	1	KED
Y	89		ug/L			50088	54055	0	Standard
Kr	83		ug/L			44	48	13	Standard
[> In-1	115		ug/L			6034	6021	0	KED
| Cd	111	0.100	ug/L	0.018	17	1	23	16	KED
| Cd	114	0.090	ug/L	0.014	15	1	51	15	KED
[> In	115		ug/L			486697	482814	0	Standard
| Ag	107	0.034	ug/L	0.002	6	29	575	6	Standard
[> Tb	159		ug/L			178618	185868	0	Standard
| Pb	208	1.077	ug/L	0.010	0	534	96390	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:07:42**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	43263	3	Standard
[> Sc	45		ug/L			512571	531042	1	Standard
| Cr	52	0.707	ug/L	0.019	2	7952	17913	1	Standard
| Cr	53	0.767	ug/L	0.021	2	75	1306	3	Standard
[> Ge	72		ug/L			28784	29609	0	KED
| Ni	60	0.786	ug/L	0.054	6	75	1195	5	KED
| Ni	62	0.839	ug/L	0.050	5	12	204	5	KED
| Cu	63	5.822	ug/L	0.067	1	53	23229	0	KED
| Cu	65	5.535	ug/L	0.116	2	25	11336	1	KED
| Zn	66	13.078	ug/L	0.235	1	52	6456	0	KED
| Zn	67	12.540	ug/L	0.549	4	8	1007	4	KED
| As	75	1.716	ug/L	0.082	4	3	411	5	KED
Y	89		ug/L			50088	53989	0	Standard
Kr	83		ug/L			44	57	29	Standard
[> In-1	115		ug/L			6034	6197	2	KED
| Cd	111	0.015	ug/L	0.005	29	1	5	21	KED
| Cd	114	0.014	ug/L	0.014	94	1	9	80	KED
[> In	115		ug/L			486697	493755	1	Standard
| Ag	107	0.089	ug/L	0.007	7	29	1466	6	Standard
[> Tb	159		ug/L			178618	188017	0	Standard
| Pb	208	0.305	ug/L	0.004	1	534	28030	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-07**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:12:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	36616	2	Standard
[> Sc	45		ug/L			512571	609800	2	Standard
| Cr	52	0.487	ug/L	0.028	5	7952	17107	3	Standard
| Cr	53	0.596	ug/L	0.001	0	75	1187	2	Standard
[> Ge	72		ug/L			28784	28812	2	KED
| Ni	60	1.347	ug/L	0.050	3	75	1939	0	KED
| Ni	62	1.268	ug/L	0.098	7	12	293	6	KED
| Cu	63	10.734	ug/L	0.298	2	53	41615	0	KED
| Cu	65	10.264	ug/L	0.203	1	25	20429	0	KED
| Zn	66	7.755	ug/L	0.118	1	52	3746	1	KED
| Zn	67	8.262	ug/L	0.482	5	8	648	3	KED
| As	75	27.631	ug/L	0.581	2	3	6386	0	KED
Y	89		ug/L			50088	52863	1	Standard
Kr	83		ug/L			44	45	7	Standard
[> In-1	115		ug/L			6034	5973	0	KED
| Cd	111	0.142	ug/L	0.021	14	1	32	13	KED
| Cd	114	0.136	ug/L	0.023	17	1	76	16	KED
[> In	115		ug/L			486697	471762	1	Standard
| Ag	107	0.032	ug/L	0.001	3	29	520	5	Standard
[> Tb	159		ug/L			178618	184829	1	Standard
| Pb	208	2.682	ug/L	0.056	2	534	237695	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-09**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:16:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	35157	5	Standard
[> Sc	45		ug/L			512571	618826	2	Standard
| Cr	52	0.520	ug/L	0.025	4	7952	17896	2	Standard
| Cr	53	0.627	ug/L	0.026	4	75	1260	3	Standard
[> Ge	72		ug/L			28784	28728	0	KED
| Ni	60	1.391	ug/L	0.040	2	75	1996	3	KED
| Ni	62	1.401	ug/L	0.054	3	12	322	2	KED
| Cu	63	10.972	ug/L	0.175	1	53	42431	1	KED
| Cu	65	10.761	ug/L	0.087	0	25	21361	0	KED
| Zn	66	7.901	ug/L	0.123	1	52	3805	2	KED
| Zn	67	8.117	ug/L	0.560	6	8	635	6	KED
| As	75	29.103	ug/L	0.478	1	3	6709	1	KED
Y	89		ug/L			50088	55720	3	Standard
Kr	83		ug/L			44	47	21	Standard
[> In-1	115		ug/L			6034	6067	2	KED
| Cd	111	0.152	ug/L	0.036	23	1	35	24	KED
| Cd	114	0.154	ug/L	0.026	16	1	88	18	KED
[> In	115		ug/L			486697	464844	1	Standard
| Ag	107	0.031	ug/L	0.002	7	29	503	6	Standard
[> Tb	159		ug/L			178618	185300	1	Standard
| Pb	208	2.712	ug/L	0.064	2	534	240965	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-15**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:20:52**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13			ug/L			21210	39624	4	Standard
[> Sc	45			ug/L			512571	537265	2	Standard
| Cr	52	1.179		ug/L	0.044	3	7952	24668	3	Standard
| Cr	53	1.177		ug/L	0.016	1	75	1987	3	Standard
[> Ge	72			ug/L			28784	29689	1	KED
| Ni	60	1.227		ug/L	0.038	3	75	1828	1	KED
| Ni	62	1.280		ug/L	0.124	9	12	306	10	KED
| Cu	63	25.781		ug/L	1.054	4	53	102918	2	KED
| Cu	65	25.054		ug/L	0.251	1	25	51356	0	KED
| Zn	66	49.987		ug/L	1.395	2	52	24584	1	KED
| Zn	67	48.808		ug/L	1.051	2	8	3907	0	KED
| As	75	7.808		ug/L	0.282	3	3	1862	2	KED
Y	89			ug/L			50088	56736	3	Standard
Kr	83			ug/L			44	47	12	Standard
[> In-1	115			ug/L			6034	6201	2	KED
| Cd	111	0.093		ug/L	0.012	13	1	22	9	KED
| Cd	114	0.076		ug/L	0.022	28	1	44	25	KED
[> In	115			ug/L			486697	493967	0	Standard
| Ag	107	0.082		ug/L	0.002	2	29	1368	2	Standard
[> Tb	159			ug/L			178618	190178	2	Standard
| Pb	208	5.513		ug/L	0.179	3	534	502033	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-02**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:26:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	35825	0	Standard
[>	Sc	45	ug/L			512571	562560	1	Standard
|	Cr	52	1.220	0.017	1	7952	26415	1	Standard
|	Cr	53	1.264	0.015	1	75	2229	1	Standard
[>	Ge	72	ug/L			28784	29752	1	KED
|	Ni	60	6.548	0.096	1	75	9441	0	KED
|	Ni	62	6.686	0.384	5	12	1544	5	KED
|	Cu	63	0.176	0.010	5	53	761	4	KED
|	Cu	65	0.180	0.017	9	25	395	8	KED
|	Zn	66	0.527	0.056	10	52	313	7	KED
|	Zn	67	0.901	0.142	15	8	80	13	KED
|	As	75	15.233	0.237	1	3	3638	1	KED
	Y	89	ug/L			50088	79316	0	Standard
	Kr	83	ug/L			44	40	4	Standard
[>	In-1	115	ug/L			6034	6266	0	KED
|	Cd	111	0.003	0.013	536	1	2	137	KED
|	Cd	114	0.004	0.000	0	1	3	0	KED
[>	In	115	ug/L			486697	468178	0	Standard
|	Ag	107	0.005	0.000	7	29	112	6	Standard
[>	Tb	159	ug/L			178618	187920	2	Standard
|	Pb	208	0.034	0.001	3	534	3577	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLH

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 06:31:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23115	4	Standard
[> Sc	45		ug/L			512571	517740	2	Standard
| Cr	52	0.013	ug/L	0.006	48	7952	8202	1	Standard
| Cr	53	0.001	ug/L	0.008	1453	75	77	19	Standard
[> Ge	72		ug/L			28784	29261	1	KED
| Ni	60	-0.015	ug/L	0.011	73	75	55	29	KED
| Ni	62	-0.018	ug/L	0.018	103	12	8	44	KED
| Cu	63	-0.005	ug/L	0.001	27	53	33	17	KED
| Cu	65	-0.001	ug/L	0.005	613	25	24	43	KED
| Zn	66	-0.060	ug/L	0.017	28	52	24	33	KED
| Zn	67	-0.082	ug/L	0.000	0	8	1		KED
| As	75	-0.004	ug/L	0.009	212	3	2	72	KED
Y	89		ug/L			50088	49988	1	Standard
Kr	83		ug/L			44	55	15	Standard
[> In-1	115		ug/L			6034	6137	0	KED
| Cd	111	-0.003	ug/L	0.004	144	1	0	100	KED
| Cd	114	-0.001	ug/L	0.002	176	1	0	180	KED
[> In	115		ug/L			486697	486698	2	Standard
| Ag	107	-0.001	ug/L	0.001	57	29	12	77	Standard
[> Tb	159		ug/L			178618	183514	1	Standard
| Pb	208	-0.004	ug/L	0.000	3	534	240	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 06:35:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21210	23784	6	Standard
[>	Sc	45		ug/L			512571	524165	1	Standard
|	Cr	52	50.223	ug/L	1.690	3	7952	686346	2	Standard
|	Cr	53	48.285	ug/L	0.163	0	75	76453	1	Standard
[>	Ge	72		ug/L			28784	29553	1	KED
|	Ni	60	49.754	ug/L	0.656	1	75	70745	0	KED
|	Ni	62	50.882	ug/L	3.005	5	12	11590	4	KED
|	Cu	63	50.319	ug/L	1.412	2	53	199933	1	KED
|	Cu	65	49.530	ug/L	0.589	1	25	101036	0	KED
|	Zn	66	50.795	ug/L	1.374	2	52	24867	1	KED
|	Zn	67	50.525	ug/L	1.241	2	8	4025	1	KED
|	As	75	50.135	ug/L	0.843	1	3	11885	1	KED
	Y	89		ug/L			50088	50673	2	Standard
	Kr	83		ug/L			44	55	21	Standard
[>	In-1	115		ug/L			6034	6213	2	KED
|	Cd	111	49.407	ug/L	1.725	3	1	11124	0	KED
|	Cd	114	50.485	ug/L	1.873	3	1	29245	1	KED
[>	In	115		ug/L			486697	478603	2	Standard
|	Ag	107	46.759	ug/L	0.518	1	29	736095	2	Standard
[>	Tb	159		ug/L			178618	187493	1	Standard
|	Pb	208	54.257	ug/L	1.080	1	534	4867949	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 06:42:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	22705	3	Standard
[> Sc	45		ug/L			512571	510222	2	Standard
| Cr	52	0.004	ug/L	0.015	349	7952	7968	2	Standard
| Cr	53	0.001	ug/L	0.003	207	75	77	6	Standard
[> Ge	72		ug/L			28784	29563	0	KED
| Ni	60	-0.021	ug/L	0.008	38	75	48	23	KED
| Ni	62	-0.021	ug/L	0.032	151	12	8	87	KED
| Cu	63	-0.005	ug/L	0.002	42	53	33	27	KED
| Cu	65	-0.003	ug/L	0.004	155	25	20	43	KED
| Zn	66	-0.064	ug/L	0.010	15	52	22	22	KED
| Zn	67	-0.051	ug/L	0.060	118	8	4	107	KED
| As	75	0.002	ug/L	0.007	315	3	4	37	KED
Y	89		ug/L			50088	49119	4	Standard
Kr	83		ug/L			44	40	5	Standard
[> In-1	115		ug/L			6034	6359	0	KED
| Cd	111	0.004	ug/L	0.005	126	1	2	43	KED
| Cd	114	0.002	ug/L	0.004	182	1	2	92	KED
[> In	115		ug/L			486697	484923	2	Standard
| Ag	107	0.001	ug/L	0.002	141	29	45	50	Standard
[> Tb	159		ug/L			178618	182782	1	Standard
| Pb	208	-0.003	ug/L	0.000	6	534	264	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-06**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:47:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	32134	4	Standard
[> Sc	45		ug/L			512571	622588	1	Standard
| Cr	52	0.373	ug/L	0.016	4	7952	15647	2	Standard
| Cr	53	0.480	ug/L	0.009	1	75	994	3	Standard
[> Ge	72		ug/L			28784	28304	2	KED
| Ni	60	1.014	ug/L	0.054	5	75	1452	2	KED
| Ni	62	1.030	ug/L	0.099	9	12	236	7	KED
| Cu	63	0.040	ug/L	0.006	14	53	205	8	KED
| Cu	65	0.036	ug/L	0.013	35	25	94	23	KED
| Zn	66	0.740	ug/L	0.013	1	52	398	4	KED
| Zn	67	1.054	ug/L	0.107	10	8	88	6	KED
| As	75	19.230	ug/L	0.660	3	3	4366	1	KED
| Y	89		ug/L			50088	69538	3	Standard
| Kr	83		ug/L			44	30	16	Standard
[> In-1	115		ug/L			6034	5855	1	KED
| Cd	111	0.005	ug/L	0.005	108	1	2	43	KED
| Cd	114	0.001	ug/L	0.003	349	1	1	112	KED
[> In	115		ug/L			486697	442888	2	Standard
| Ag	107	0.002	ug/L	0.000	14	29	52	5	Standard
[> Tb	159		ug/L			178618	176146	1	Standard
| Pb	208	0.007	ug/L	0.000	4	534	1141	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-05**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:51:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	32551	2	Standard
[> Sc	45		ug/L			512571	622587	2	Standard
| Cr	52	0.412	ug/L	0.016	3	7952	16267	3	Standard
| Cr	53	0.486	ug/L	0.013	2	75	1004	5	Standard
[> Ge	72		ug/L			28784	27718	2	KED
| Ni	60	1.154	ug/L	0.065	5	75	1610	4	KED
| Ni	62	1.189	ug/L	0.121	10	12	266	10	KED
| Cu	63	0.037	ug/L	0.001	3	53	189	3	KED
| Cu	65	0.039	ug/L	0.008	21	25	99	15	KED
| Zn	66	0.454	ug/L	0.039	8	52	259	7	KED
| Zn	67	0.737	ug/L	0.045	6	8	62	3	KED
| As	75	17.452	ug/L	0.167	0	3	3882	1	KED
| Y	89		ug/L			50088	70299	3	Standard
| Kr	83		ug/L			44	43	23	Standard
[> In-1	115		ug/L			6034	5780	1	KED
| Cd	111	0.008	ug/L	0.010	120	1	3	62	KED
| Cd	114	0.001	ug/L	0.004	267	1	1	106	KED
[> In	115		ug/L			486697	454628	1	Standard
| Ag	107	0.001	ug/L	0.000	19	29	44	6	Standard
[> Tb	159		ug/L			178618	178896	0	Standard
| Pb	208	0.003	ug/L	0.001	20	534	808	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:55:54**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13			ug/L			21210	43951	2	Standard
[> Sc	45			ug/L			512571	611223	0	Standard
| Cr	52	0.674		ug/L	0.028	4	7952	20103	2	Standard
| Cr	53	0.801		ug/L	0.030	3	75	1567	4	Standard
[> Ge	72			ug/L			28784	27657	2	KED
| Ni	60	4.379		ug/L	0.108	2	75	5891	1	KED
| Ni	62	4.412		ug/L	0.139	3	12	951	2	KED
| Cu	63	5.152		ug/L	0.035	0	53	19209	2	KED
| Cu	65	5.031		ug/L	0.155	3	25	9622	1	KED
| Zn	66	9.989		ug/L	0.373	3	52	4615	1	KED
| Zn	67	10.437		ug/L	0.353	3	8	784	4	KED
| As	75	4.605		ug/L	0.101	2	3	1024	1	KED
Y	89			ug/L			50088	69977	3	Standard
Kr	83			ug/L			44	36	15	Standard
[> In-1	115			ug/L			6034	5721	3	KED
| Cd	111	0.307		ug/L	0.017	5	1	65	3	KED
| Cd	114	0.269		ug/L	0.048	17	1	143	14	KED
[> In	115			ug/L			486697	463308	0	Standard
| Ag	107	0.017		ug/L	0.002	11	29	289	9	Standard
[> Tb	159			ug/L			178618	184294	0	Standard
| Pb	208	0.306		ug/L	0.004	1	534	27565	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:00:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13			ug/L			21210	34930	6	Standard
[> Sc	45			ug/L			512571	627875	1	Standard
| Cr	52	0.380		ug/L	0.019	5	7952	15891	1	Standard
| Cr	53	0.553		ug/L	0.025	4	75	1139	4	Standard
[> Ge	72			ug/L			28784	27514	0	KED
| Ni	60	2.436		ug/L	0.075	3	75	3293	3	KED
| Ni	62	2.256		ug/L	0.038	1	12	490	1	KED
| Cu	63	1.485		ug/L	0.027	1	53	5545	1	KED
| Cu	65	1.415		ug/L	0.035	2	25	2711	2	KED
| Zn	66	1.359		ug/L	0.066	4	52	668	4	KED
| Zn	67	1.908		ug/L	0.317	16	8	149	15	KED
| As	75	1.535		ug/L	0.082	5	3	342	5	KED
| Y	89			ug/L			50088	68173	1	Standard
| Kr	83			ug/L			44	43	9	Standard
[> In-1	115			ug/L			6034	5812	3	KED
| Cd	111	0.046		ug/L	0.015	32	1	11	24	KED
| Cd	114	0.042		ug/L	0.011	26	1	23	25	KED
[> In	115			ug/L			486697	461876	0	Standard
| Ag	107	0.004		ug/L	0.000	2	29	84	1	Standard
[> Tb	159			ug/L			178618	183150	1	Standard
| Pb	208	0.017		ug/L	0.001	6	534	2074	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:05:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	24777	4	Standard
[> Sc	45		ug/L			512571	495765	2	Standard
| Cr	52	0.016	ug/L	0.006	40	7952	7890	2	Standard
| Cr	53	0.005	ug/L	0.003	57	75	79	6	Standard
[> Ge	72		ug/L			28784	28451	2	KED
| Ni	60	-0.016	ug/L	0.012	71	75	52	29	KED
| Ni	62	-0.014	ug/L	0.001	8	12	9	0	KED
| Cu	63	-0.005	ug/L	0.002	38	53	34	20	KED
| Cu	65	-0.005	ug/L	0.002	41	25	15	25	KED
| Zn	66	-0.054	ug/L	0.016	29	52	26	25	KED
| Zn	67	-0.064	ug/L	0.039	60	8	3	91	KED
| As	75	-0.005	ug/L	0.004	96	3	2	36	KED
Y	89		ug/L			50088	48564	3	Standard
Kr	83		ug/L			44	48	37	Standard
[> In-1	115		ug/L			6034	5785	2	KED
| Cd	111	0.003	ug/L	0.007	204	1	2	65	KED
| Cd	114	0.000	ug/L	0.002	881	1	1	94	KED
[> In	115		ug/L			486697	478635	2	Standard
| Ag	107	-0.001	ug/L	0.000	34	29	12	45	Standard
[> Tb	159		ug/L			178618	179215	1	Standard
| Pb	208	-0.003	ug/L	0.000	11	534	261	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0636-01**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:09:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	27281	2	Standard
[> Sc	45		ug/L			512571	527974	2	Standard
[Cr	52	0.531	ug/L	0.004	0	7952	15415	2	Standard
[Cr	53	0.556	ug/L	0.057	10	75	962	8	Standard
[> Ge	72		ug/L			28784	27707	0	KED
[Ni	60	0.997	ug/L	0.030	3	75	1400	2	KED
[Ni	62	0.972	ug/L	0.145	14	12	219	14	KED
[Cu	63	1.671	ug/L	0.041	2	53	6275	1	KED
[Cu	65	1.694	ug/L	0.063	3	25	3263	3	KED
[Zn	66	3.878	ug/L	0.013	0	52	1827	0	KED
[Zn	67	3.658	ug/L	0.276	7	8	280	6	KED
[As	75	0.526	ug/L	0.028	5	3	120	4	KED
Y	89		ug/L			50088	65167	0	Standard
Kr	83		ug/L			44	40	24	Standard
[> In-1	115		ug/L			6034	5801	4	KED
[Cd	111	0.000	ug/L	0.006	1388	1	1	69	KED
[Cd	114	0.005	ug/L	0.004	74	1	3	50	KED
[> In	115		ug/L			486697	473435	2	Standard
[Ag	107	0.001	ug/L	0.000	28	29	48	9	Standard
[> Tb	159		ug/L			178618	186385	0	Standard
[Pb	208	0.744	ug/L	0.012	1	534	66913	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-DUP1**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:14:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	28530	3	Standard
[>	Sc	45	ug/L			512571	538334	0	Standard
|	Cr	0.537	ug/L	0.030	5	7952	15807	2	Standard
|	Cr	0.592	ug/L	0.045	7	75	1040	6	Standard
[>	Ge	72	ug/L			28784	28724	0	KED
|	Ni	0.998	ug/L	0.070	6	75	1452	6	KED
|	Ni	1.102	ug/L	0.076	6	12	256	6	KED
|	Cu	1.729	ug/L	0.041	2	53	6729	2	KED
|	Cu	1.667	ug/L	0.038	2	25	3329	1	KED
|	Zn	4.091	ug/L	0.104	2	52	1995	2	KED
|	Zn	4.288	ug/L	0.718	16	8	339	16	KED
|	As	0.560	ug/L	0.031	5	3	132	5	KED
	Y	89	ug/L			50088	65772	1	Standard
	Kr	83	ug/L			44	57	36	Standard
[>	In-1	115	ug/L			6034	6012	3	KED
|	Cd	0.014	ug/L	0.018	129	1	4	81	KED
|	Cd	0.010	ug/L	0.002	16	1	6	16	KED
[>	In	115	ug/L			486697	480605	1	Standard
|	Ag	0.001	ug/L	0.000	42	29	38	10	Standard
[>	Tb	159	ug/L			178618	189596	0	Standard
|	Pb	0.754	ug/L	0.014	1	534	68955	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-MS1**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:19:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	27955	5	Standard
[> Sc	45		ug/L			512571	525581	2	Standard
[Cr	52	2.936	ug/L	0.034	1	7952	47911	2	Standard
[Cr	53	2.885	ug/L	0.053	1	75	4653	3	Standard
[> Ge	72		ug/L			28784	28593	2	KED
[Ni	60	3.498	ug/L	0.051	1	75	4881	1	KED
[Ni	62	3.654	ug/L	0.214	5	12	816	3	KED
[Cu	63	4.341	ug/L	0.156	3	53	16732	0	KED
[Cu	65	4.320	ug/L	0.187	4	25	8544	2	KED
[Zn	66	12.514	ug/L	0.258	2	52	5966	0	KED
[Zn	67	11.781	ug/L	0.398	3	8	914	5	KED
[As	75	3.033	ug/L	0.163	5	3	698	2	KED
Y	89		ug/L			50088	67142	3	Standard
Kr	83		ug/L			44	37	12	Standard
[> In-1	115		ug/L			6034	5883	2	KED
[Cd	111	2.582	ug/L	0.073	2	1	552	1	KED
[Cd	114	2.689	ug/L	0.054	2	1	1476	1	KED
[> In	115		ug/L			486697	479355	0	Standard
[Ag	107	2.061	ug/L	0.025	1	29	32527	1	Standard
[> Tb	159		ug/L			178618	182686	0	Standard
[Pb	208	3.600	ug/L	0.075	2	534	315263	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-MSD1**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:25:04**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	28749	4	Standard
[> Sc	45		ug/L			512571	530124	2	Standard
[Cr	52	2.822	ug/L	0.034	1	7952	46777	2	Standard
[Cr	53	2.760	ug/L	0.057	2	75	4491	1	Standard
[> Ge	72		ug/L			28784	28834	0	KED
[Ni	60	3.466	ug/L	0.040	1	75	4878	1	KED
[Ni	62	3.268	ug/L	0.068	2	12	738	2	KED
[Cu	63	4.176	ug/L	0.095	2	53	16242	2	KED
[Cu	65	4.187	ug/L	0.061	1	25	8358	1	KED
[Zn	66	12.041	ug/L	0.301	2	52	5792	2	KED
[Zn	67	11.364	ug/L	0.700	6	8	890	6	KED
[As	75	2.958	ug/L	0.065	2	3	687	1	KED
Y	89		ug/L			50088	66898	0	Standard
Kr	83		ug/L			44	43	18	Standard
[> In-1	115		ug/L			6034	6008	3	KED
[Cd	111	2.402	ug/L	0.153	6	1	524	3	KED
[Cd	114	2.457	ug/L	0.086	3	1	1378	4	KED
[> In	115		ug/L			486697	486503	2	Standard
[Ag	107	2.042	ug/L	0.032	1	29	32695	0	Standard
[> Tb	159		ug/L			178618	185233	0	Standard
[Pb	208	3.411	ug/L	0.010	0	534	302959	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLJ

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:29:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23093	3	Standard
[> Sc	45		ug/L			512571	491451	2	Standard
| Cr	52	0.009	ug/L	0.012	138	7952	7733	3	Standard
| Cr	53	-0.002	ug/L	0.007	369	75	69	16	Standard
[> Ge	72		ug/L			28784	28042	0	KED
| Ni	60	-0.015	ug/L	0.005	33	75	53	12	KED
| Ni	62	-0.007	ug/L	0.014	191	12	10	26	KED
| Cu	63	-0.006	ug/L	0.002	28	53	28	24	KED
| Cu	65	-0.003	ug/L	0.002	74	25	19	20	KED
| Zn	66	-0.049	ug/L	0.032	65	52	28	52	KED
| Zn	67	-0.031	ug/L	0.025	81	8	5	33	KED
| As	75	-0.007	ug/L	0.005	79	3	2	53	KED
Y	89		ug/L			50088	47507	2	Standard
Kr	83		ug/L			44	39	2	Standard
[> In-1	115		ug/L			6034	5851	3	KED
| Cd	111	0.002	ug/L	0.005	256	1	1	50	KED
| Cd	114	-0.001	ug/L	0.002	208	1	0	188	KED
[> In	115		ug/L			486697	482259	2	Standard
| Ag	107	-0.001	ug/L	0.000	48	29	13	55	Standard
[> Tb	159		ug/L			178618	176757	2	Standard
| Pb	208	-0.003	ug/L	0.000	11	534	247	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVJ

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:34:20

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23085	4	Standard
[> Sc	45		ug/L			512571	510290	2	Standard
| Cr	52	49.845	ug/L	0.659	1	7952	663306	1	Standard
| Cr	53	49.254	ug/L	0.241	0	75	75919	1	Standard
[> Ge	72		ug/L			28784	28502	0	KED
| Ni	60	49.022	ug/L	0.991	2	75	67228	1	KED
| Ni	62	49.233	ug/L	0.674	1	12	10820	1	KED
| Cu	63	51.028	ug/L	1.049	2	53	195577	1	KED
| Cu	65	50.266	ug/L	0.362	0	25	98899	0	KED
| Zn	66	50.246	ug/L	1.428	2	52	23728	2	KED
| Zn	67	49.533	ug/L	0.241	0	8	3807	0	KED
| As	75	49.156	ug/L	0.750	1	3	11240	1	KED
Y	89		ug/L			50088	49783	0	Standard
Kr	83		ug/L			44	61	7	Standard
[> In-1	115		ug/L			6034	6026	1	KED
| Cd	111	50.412	ug/L	0.446	0	1	11014	0	KED
| Cd	114	50.125	ug/L	0.823	1	1	28176	2	KED
[> In	115		ug/L			486697	469523	3	Standard
| Ag	107	45.677	ug/L	1.580	3	29	704992	1	Standard
[> Tb	159		ug/L			178618	183887	1	Standard
| Pb	208	55.762	ug/L	1.321	2	534	4906643	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBJ

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:41:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	23317	1	Standard
[>	Sc	45	ug/L			512571	498254	1	Standard
|	Cr	52	0.014	0.004	27	7952	7906	0	Standard
|	Cr	53	-0.003	0.007	202	75	68	15	Standard
[>	Ge	72	ug/L			28784	28666	1	KED
|	Ni	60	0.001	0.015	3020	75	76	29	KED
|	Ni	62	-0.014	0.037	258	12	9	87	KED
|	Cu	63	0.008	0.019	252	53	83	90	KED
|	Cu	65	0.012	0.028	241	25	48	116	KED
|	Zn	66	-0.042	0.036	85	52	33	53	KED
|	Zn	67	-0.033	0.041	123	8	5	57	KED
|	As	75	0.007	0.018	259	3	5	77	KED
	Y	89	ug/L			50088	47888	0	Standard
	Kr	83	ug/L			44	58	21	Standard
[>	In-1	115	ug/L			6034	5978	1	KED
|	Cd	111	0.003	0.005	168	1	2	49	KED
|	Cd	114	0.000	0.002	2472	1	1	86	KED
[>	In	115	ug/L			486697	472919	2	Standard
|	Ag	107	0.001	0.001	115	29	41	35	Standard
[>	Tb	159	ug/L			178618	178659	0	Standard
|	Pb	208	-0.003	0.000	7	534	267	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:45:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	25958	3	Standard
[> Sc	45		ug/L			512571	564678	1	Standard
| Cr	52	0.004	ug/L	0.014	382	7952	8811	1	Standard
| Cr	53	-0.007	ug/L	0.004	53	75	70	7	Standard
[> Ge	72		ug/L			28784	28993	1	KED
| Ni	60	-0.013	ug/L	0.008	60	75	58	17	KED
| Ni	62	-0.023	ug/L	0.009	37	12	7	25	KED
| Cu	63	-0.003	ug/L	0.001	50	53	43	14	KED
| Cu	65	-0.002	ug/L	0.003	109	25	20	24	KED
| Zn	66	-0.015	ug/L	0.013	81	52	45	14	KED
| Zn	67	-0.000	ug/L	0.052	15913	8	8	48	KED
| As	75	-0.008	ug/L	0.008	108	3	2	96	KED
Y	89		ug/L			50088	54349	1	Standard
Kr	83		ug/L			44	48	48	Standard
[> In-1	115		ug/L			6034	6353	3	KED
| Cd	111	-0.000	ug/L	0.005	1172	1	1	69	KED
| Cd	114	-0.001	ug/L	0.002	166	1	0	205	KED
[> In	115		ug/L			486697	523133	3	Standard
| Ag	107	0.000	ug/L	0.001	200	29	36	26	Standard
[> Tb	159		ug/L			178618	196229	1	Standard
| Pb	208	-0.002	ug/L	0.000	12	534	414	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:50:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	26612	5	Standard
[>	Sc	45	ug/L			512571	549525	3	Standard
|	Cr	52	ug/L	0.007	31	7952	8850	1	Standard
|	Cr	53	ug/L	0.001	43	75	75	5	Standard
[>	Ge	72	ug/L			28784	29286	2	KED
|	Ni	60	ug/L	0.016	81	75	48	43	KED
|	Ni	62	ug/L	0.024	188	12	10	54	KED
|	Cu	63	ug/L	0.003	86	53	43	25	KED
|	Cu	65	ug/L	0.002	53	25	19	14	KED
|	Zn	66	ug/L	0.028	351	52	49	25	KED
|	Zn	67	ug/L	0.051	3767	8	8	48	KED
|	As	75	ug/L	0.003	28	3	1	57	KED
	Y	89	ug/L			50088	54172	0	Standard
	Kr	83	ug/L			44	42	13	Standard
[>	In-1	115	ug/L			6034	6173	0	KED
|	Cd	111	ug/L	0.004	340	1	1	50	KED
|	Cd	114	ug/L	0.004	339	1	1	115	KED
[>	In	115	ug/L			486697	514395	3	Standard
|	Ag	107	ug/L	0.000	1870	29	31	18	Standard
[>	Tb	159	ug/L			178618	194120	0	Standard
|	Pb	208	ug/L	0.000	15	534	381	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:54:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	25778	3	Standard
[> Sc	45		ug/L			512571	553078	2	Standard
| Cr	52	0.011	ug/L	0.009	77	7952	8737	2	Standard
| Cr	53	0.005	ug/L	0.006	133	75	89	11	Standard
[> Ge	72		ug/L			28784	29423	0	KED
| Ni	60	-0.011	ug/L	0.006	56	75	60	14	KED
| Ni	62	-0.004	ug/L	0.027	647	12	12	50	KED
| Cu	63	-0.006	ug/L	0.002	29	53	32	21	KED
| Cu	65	-0.005	ug/L	0.002	36	25	15	25	KED
| Zn	66	-0.005	ug/L	0.045	918	52	51	42	KED
| Zn	67	-0.018	ug/L	0.037	204	8	6	41	KED
| As	75	-0.010	ug/L	0.002	19	3	1	33	KED
Y	89		ug/L			50088	54582	3	Standard
Kr	83		ug/L			44	37	19	Standard
[> In-1	115		ug/L			6034	6229	3	KED
| Cd	111	-0.003	ug/L	0.004	129	1	0	100	KED
| Cd	114	-0.000	ug/L	0.002	1785	1	1	98	KED
[> In	115		ug/L			486697	520624	1	Standard
| Ag	107	-0.001	ug/L	0.000	61	29	22	26	Standard
[> Tb	159		ug/L			178618	196970	0	Standard
| Pb	208	-0.002	ug/L	0.000	7	534	358	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:59:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23586	4	Standard
[> Sc	45		ug/L			512571	467022	2	Standard
| Cr	52	0.007	ug/L	0.015	218	7952	7326	2	Standard
| Cr	53	-0.002	ug/L	0.004	211	75	65	11	Standard
[> Ge	72		ug/L			28784	27849	0	KED
| Ni	60	-0.039	ug/L	0.002	6	75	20	15	KED
| Ni	62	-0.040	ug/L	0.018	44	12	3	100	KED
| Cu	63	-0.009	ug/L	0.001	14	53	19	26	KED
| Cu	65	-0.009	ug/L	0.004	40	25	6	103	KED
| Zn	66	-0.064	ug/L	0.006	9	52	21	13	KED
| Zn	67	-0.090	ug/L	0.029	32	8	1	173	KED
| As	75	-0.004	ug/L	0.006	157	3	2	44	KED
Y	89		ug/L			50088	45718	0	Standard
Kr	83		ug/L			44	45	4	Standard
[> In-1	115		ug/L			6034	5676	2	KED
| Cd	111	-0.001	ug/L	0.011	1009	1	1	173	KED
| Cd	114	0.000	ug/L	0.002	909	1	1	90	KED
[> In	115		ug/L			486697	443034	2	Standard
| Ag	107	-0.001	ug/L	0.000	30	29	8	66	Standard
[> Tb	159		ug/L			178618	170677	0	Standard
| Pb	208	-0.005	ug/L	0.000	5	534	131	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 08:03:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23858	2	Standard
[> Sc	45		ug/L			512571	471059	2	Standard
| Cr	52	0.009	ug/L	0.006	67	7952	7422	1	Standard
| Cr	53	-0.006	ug/L	0.006	86	75	60	12	Standard
[> Ge	72		ug/L			28784	28025	1	KED
| Ni	60	-0.034	ug/L	0.005	13	75	27	22	KED
| Ni	62	-0.022	ug/L	0.015	70	12	7	43	KED
| Cu	63	-0.007	ug/L	0.001	15	53	25	17	KED
| Cu	65	-0.009	ug/L	0.004	40	25	6	103	KED
| Zn	66	-0.072	ug/L	0.014	19	52	17	34	KED
| Zn	67	-0.090	ug/L	0.015	16	8	1	86	KED
| As	75	-0.003	ug/L	0.005	147	3	3	32	KED
Y	89		ug/L			50088	46999	2	Standard
Kr	83		ug/L			44	50	21	Standard
[> In-1	115		ug/L			6034	5675	3	KED
| Cd	111	-0.001	ug/L	0.011	1342	1	1	173	KED
| Cd	114	0.004	ug/L	0.002	47	1	3	33	KED
[> In	115		ug/L			486697	453748	1	Standard
| Ag	107	-0.001	ug/L	0.000	9	29	5	33	Standard
[> Tb	159		ug/L			178618	170230	0	Standard
| Pb	208	-0.005	ug/L	0.000	5	534	110	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 08:08:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23298	4	Standard
[> Sc	45		ug/L			512571	476857	3	Standard
| Cr	52	0.009	ug/L	0.007	78	7952	7511	2	Standard
| Cr	53	-0.004	ug/L	0.002	35	75	63	0	Standard
[> Ge	72		ug/L			28784	27968	1	KED
| Ni	60	-0.032	ug/L	0.007	20	75	30	28	KED
| Ni	62	-0.031	ug/L	0.017	56	12	5	66	KED
| Cu	63	-0.009	ug/L	0.001	9	53	17	19	KED
| Cu	65	-0.008	ug/L	0.002	24	25	9	40	KED
| Zn	66	-0.050	ug/L	0.005	10	52	27	7	KED
| Zn	67	-0.073	ug/L	0.015	20	8	2	43	KED
| As	75	-0.008	ug/L	0.004	46	3	1	43	KED
Y	89		ug/L			50088	46307	0	Standard
Kr	83		ug/L			44	41	18	Standard
[> In-1	115		ug/L			6034	5740	3	KED
| Cd	111	0.007	ug/L	0.012	183	1	2	88	KED
| Cd	114	-0.002	ug/L	0.000	8	1	0	124	KED
[> In	115		ug/L			486697	464061	3	Standard
| Ag	107	-0.001	ug/L	0.000	23	29	10	43	Standard
[> Tb	159		ug/L			178618	172358	0	Standard
| Pb	208	-0.005	ug/L	0.000	2	534	118	7	Standard



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Instrument: ICPMS1

Calibration Date: 05/11/2023 13:56

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	14605	10	14850.5	20	14243.6	50	13620.14	100	13175.56
Chromium-52	0	0	0.5	31826	10	14601.9	20	13940.65	50	12586.68	100	12285.63
Chromium-53	0	0	0.5	1730	10	1565.3	20	1561.7	50	1453.62	100	1404.46
Lead-208	0	0	0.1	90790	10	90159.3	20	88189.75	50	84692.68	100	81042.75



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GE00042

Calibration Date: 5/11/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	11749.13	49.3	0.9995		0.998	
Chromium-52	14206.81	71.7	0.9995		0.998	
Chromium-53	1285.847	49.8	0.9994		0.998	
Lead-208	72479.08	49.2	0.9993		0.998	



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Instrument: ICPMS1

Calibration Date: 05/11/2023 13:56

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	260	10	254.7	20	249.25	50	236.26	100	229.57
Cadmium-111	0	0	0.1	210	10	239.4	20	229.7	50	220.12	100	211.69
Cadmium-114	0	0	0.1	650	10	611.2	20	584.95	50	559.7	100	540.5
Copper-63	0	0	0.5	4706	10	4491.6	20	4340.5	50	3994.12	100	3756.22
Copper-65	0	0	0.5	2382	10	2215.3	20	2202.9	50	1984.34	100	1919.1
Zinc-66	0	0	6	543.5	10	545.3	20	526.4	50	490.02	100	469.18
Zinc-67	0	0	6	80.33334	10	86.7	20	87.1	50	81.8	100	76.06



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Calibration: GE00042

Instrument: ICPMS1
Calibration Date: 5/11/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	204.9633	49.3	0.9996		0.998	
Cadmium-111	185.1517	49.4	0.9994		0.998	
Cadmium-114	491.0583	49.6	0.9995		0.998	
Copper-63	3548.073	49.9	0.9984		0.998	
Copper-65	1783.94	49.9	0.9990		0.998	
Zinc-66	429.0667	49.5	0.9993		0.998	
Zinc-67	68.66556	49.4	0.9983		0.998	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MB Sequence: SLEPZPQ9 Cal: GEPPPH2

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQR-CAL1	LS316		
		-CAL2	LS225		
		-CAL3	LS226		
		-CAL4	LS227		In-1 st noisy - %R & Analytes OK
		-CAL5	LS317		
		-CAL6	LS229		
		-IBL1	—		
		-ICV1	L3575		
		-ICB1	LS316		
	✓	-CAL1	—		
	✓	-CAL1	—		
	✓	-CCV1	—		Std Mode St. noisy
		-CCV1	LS317		
		-CCB1	LS316		
		-CRL1	LS225		
		-JFA1	LS318		C _r 53 ↑
		-JFB1	LS319		
		-MCV1	L4780		
		-MCV2	L4781		
		-IBL2	—		(Cd ↑ / Cd noisy)
		-IBL3	—		
		-CCV2			
		-CCB2			
	✓	↓ -CAL1			



Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCV3			
		↓ -CCB3			
		BLEΦΦ72-BSS2	SWN	20	Ag, Cr, Pb only
		BLEΦ342-BLK1	REN		
		↓ -BS1			
	✓	BS TEST OLD SPIKE			TEST ONLY
	✓	↓ NEW SPIKE			↓
		23EΦ271-Φ1		5	
		23EΦ239-Φ1		2	
		SEQ-IBL4			
		23DΦΦ74-13	REN	100	Mn only
		SEQ-IBL5			
		↓ -CCM			
		↓ -CCB4			
		23DΦ477-Φ4	REN		Pb only
		↓ -Φ8			
		↓ -1Φ			
		↓ -12			
		↓ -18			
		↓ -2Φ		2	
		BLEΦ1Φ6-DUP2			
		↓ -MS2			
		↓ -MSO2			
		SEQ-IBL6			TUBE Empty



Analysis Date: 5/11/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCV5			
		↓ -CCB5			
		230φ477-φ1	REN	5	Pb only
		↓ -φ7	↓	↓	↓
		↓ -φ9	↓	↓	↓
		230φ48φ-φ1	↓	↓	↓
		SEQ-IBL7			
		230φ477-φ2	REN	2	Pb only
		↓ -φ3	↓	↓	↓
		↓ -φ6	↓	↓	↓
		↓ -11	↓	↓	↓
		SEQ-IBL8			
		↓ -CCV6			
		↓ -CCB6			
		230φ477-13	REN	2	Pb only
		↓ -14	↓	↓	↓
		↓ -16	↓	↓	↓
		↓ -15	↓	10	↓
		SEQ-IBL9			
		230φ7φ2-φ4	REN		
		BLEφ342-DUPI	↓		
		↓ -MS1	↓		
		↓ -MSD1	↓		
		SEQ-IBLA			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCV7			
		↓ -CCB7			
	✓	↓ -CAL1			
		↓ -CCV8			
		↓ ✓ -CCB8			
	✓	230Φ171-Φ1	REN	20	ScT Mn only
		↓ -Φ2	↓	↓	↓
		↓ -1Φ	↓	↓	↓
		↓ -11	↓	100	↓
		↓ -12	↓	↓	↓
		↓ -Φ6	↓	50	↓
		SEQ-IBLB			
		↓ -CCV9			ScT
		↓ -CCB9			
	✓	↓ -CAL1			
		↓ -CCVA			
		↓ ✓ -CCBA			
		230Φ636-Φ1	REN	10	Be, Pb only
		BLEΦ298-DUP2	↓	↓	↓
		↓ -MS2	↓	↓	↓
		↓ -MS02	↓	↓	↓
		SEQ-IBLC			
		230Φ568-Φ8	SWN	20	Cr NR
		BLEΦ143-DUP1	↓	↓	As, Pb RPT ↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLEΦ143-MS1	SWN	20	Pb%R↓ Cr NR
		↓ -MS01	↓	↓	Se↑/As%R↓/Sn ↓
		SEQ-IBLD			(Ge noisy)
		↓ -CCVB			
		↓ -CCBB			
		230Φ568-Φ2	SWN	20	
		↓ -Φ3	↓	↓	Pb↑ Pb NR
		↓ -Φ4	↓	↓	
		↓ -Φ5	↓	↓	
		↓ -Φ6	↓	↓	
		↓ -Φ7	↓	↓	Se, Tb↑ Cr, Pb NR
		SEQ-IBLE			
	✓	BLEΦ143-MS01	SWN	20	Se, Tb↑
		SEQ-IBLF			
		↓ -CCVC			
		↓ -CCBC			
	✓	↓ -CAL1			Ba, Mn, Ni Removed
		↓ -CCVD			
		↓ -CCBD			
		23AΦ467-Φ3	SWN	20	Ag, Cr, Pb only
		23CΦΦ71-Φ3	↓	↓	↓
		230ΦΦΦ8-Φ1	↓	↓	
		230Φ136-Φ1	↓	↓	
		↓ -Φ3	↓	↓	



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Analytical Chemists and Consultants

ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230φ396-φ1	SWN	20	
		↓ -φ3	↓	↓	
		230φ394-φ2	↓	↓	
		↓ -φ4	↓	↓	
		SEQ-IBLG			
		↓ -CCVE			
		↓ -CCBE			
		230φ394-φ6	SWN	20	
		↓ -φ7	↓	↓	
		↓ -φ8	↓	↓	
		↓ -11	↓	↓	Zn ↑ / Cd noisy No Cd, Zn
		↓ -12	↓	↓	
		↓ -13	↓	↓	
		230φ393-24			
		↓ -28	↓	↓	
		↓ -29	↓	↓	
		SEQ-IBLH			
		↓ -CCVF			
		↓ -CCBF			
		230φ393-1φ	SWN	20	
		↓ -11	↓	↓	
		↓ -12	↓	↓	In-1st noisy for Ge + Analytes OK / noisy No As, Cu, Zn
		↓ -15	↓	↓	
		↓ -16	↓	↓	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/14/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ393-17	SWN	20	
		↓ -18	↓	↓	
		↓ -19	↓	↓	
		↓ -22	↓	↓	Cu↑ No Cu
		SEQ-IBLI			
		↓ -CCVG			
		↓ -CCBG			
		230Φ393-Φ4RE1	SWN	2000	Cu, Zn only
		BLEΦΦ72-DUP3	↓	↓	↓
		↓ -MS3	↓	↓	Cu, Zn STL
		↓ -MS03	↓	↓	↓
		230Φ393-Φ4		200	Cu, Zn↑ Ag, As, Cd, Pb only / Cu, Zn NR
		BLEΦΦ72-DUP2	↓	↓	↓
		↓ -MS2	↓	↓	↓ / Ag, Pb STL
		↓ -MS02	↓	↓	↓
		↓ -PS2	↓	↓	↓ / 160.04 / 167409
		SEQ-IBLJ			
		↓ -CCVH			
		↓ -CCBH			
		230Φ568-Φ3RE1	SWN	200	Pb only
		230Φ568-Φ7RE1	↓	50	Cr, Pb only
		↓ -Φ8RE1	↓	↓	Cr only
		BLEΦ143-DUP2	↓	↓	↓
		↓ -MS2	↓	↓	↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/11/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLEΦ143-MSDZ	SWN	50	Cr only
		SEQ-IBLK			
	✓	230Φ393-Φ2	SWN	200	Re-run @ 20x
	✓	↓ -Φ3	↓	↓	↓
		SEQ-IBLL			
		↓ -CCVI			
		↓ -CCBI			
	✓	↓ -CALI			
		↓ -CCVJ			
		↓ -CCBJ			
		230Φ393-Φ5	SWN	200	Zn ↑ ^{No L} Needed <u>No Zn</u>
		↓ -Φ6	↓	↓	
	✓	↓ -Φ8	↓	↓	Re-run @ 20x
		SEQ-IBLM			
		230Φ412-Φ2	REN		
		↓ -Φ3	↓		
		↓ -Φ4	↓		
		↓ -Φ5	↓		
		↓ -Φ6	↓		
		SEQ-IBLN			
		↓ -CCVK			
		↓ -CCBK			
		230Φ412-Φ7	REN		
		↓ -Φ8	↓		



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ412-Φ9	REN		
		↓ -10	↓		
		-11			
		-12			
		-13			
		-14			
		↓ -15	↓		
		SEQ-IBLO			
		↓ -CCVL			
		↓ -CCBL			
		230Φ442-Φ3	REN		Sc↑ - Not Needed
		↓ -Φ4	↓		
	✓	↓ -Φ5			Sc↑ - Not Needed / Ge noisy
		↓ -Φ6			↓ ↓
	✓	230Φ598-Φ4			Sc, Ge, In ↓ In, Tb ↓
		↓ -Φ6			Ge, In, In, Tb ↓
		↓ -Φ8			Sc↑ Cr only
		↓ -10			No Cr ↓
		↓ -12	↓		
		SEQ-IBLP			(Cr ⁵³ ↑)
		↓ -CCVM			
		↓ -CCBM			
		230Φ514-Φ2	REN		Sc↑ - Not Needed
		↓ -Φ3	↓		↓ ↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		2300514-04	REN		Sc↑ - Not Needed
		↓ -06	↓		
		SEQ-IBLR			
✓		2300598-02	REN		Int. STDs ↓
	↓	BLE0119-DUPI	↓		↓
		↓ -M51			
	↓	↓ -M501	↓		↓
		SEQ-IBLR			(Sc, Ge↑ / Cr ⁵³ ↑)
		↓ -CCVN			Cr ↓
		↓ -CCBN			
✓		↓ -CALI			
		↓ -CCVO			Cr ↓
		↓ -CCBO			
		2300537-02	REN	2	
		↓ -03	↓	↓	
		↓ -04			Sc↑ - Not Needed
		2300494-01			
		↓ -02			
		↓ -03			Sc↑ - Not Needed
		↓ -04			
		↓ -05			
		↓ -06	↓		
		SEQ-IBLS			
		↓ -CCVP			Cr ↓ / P6T



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/14/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCBP			
		2300494-07	REN		
	✓	↓ -08	↓		As noisy
		↓ -09	↓		
		↓ -10	↓		
		↓ -11	↓		
		2300578-02		25	As only
		BLE0134-00P1		↓	↓
		↓ -MS1	↓		
	✓	↓ -MS01	↓	↓	Ge noisy
		SEQ-IBLT			
		↓ -CCVQ			
		↓ -CCBQ			
		2300588-01	REN		
		↓ -03	↓		
		↓ -05	↓		
		↓ -07	↓		
		↓ -09	↓		
		↓ -11	↓		
		↓ -13	↓		
		↓ -15	↓		
		2300587-03			
		SEQ-IBLU			
		↓ -CCVR			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCBR			
		230φ587-φ2	REN	2	
		↓ -φ4	↓	5	
		↓ -φ5	↓	↓	
		230φ578-φ7		↓	
		↓ -φ8	↓	↓	
		↓ -φ4	↓	2	
		↓ -φ6	↓	↓	
		↓ -φ3	↓		
		↓ -φ5	↓		
		SEQ-IBLV			
		↓ -CCVS			
		↓ -CCBS			
		Rinse/DF			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(-45deg); opacity: 0.5;"></div>					
			MB	5/11/23	

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Thursday, May 11, 2023 12:49:24

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.159

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0		6461.2		6461.194	108.647	1.7	Standard
In	114.9		67625.0		67624.969	851.616	1.3	Standard
U	238.1		94250.1		94250.125	1957.526	2.1	Standard
[CeO	155.9		1249.3		0.013	0.000	1.9	Standard
> Ce	139.9		93503.0		93502.957	927.845	1.0	Standard
[Ce++	70.0		612.9		0.007	0.000	6.9	Standard
Bkgd	220.0		1.7		1.667	0.264	15.8	Standard

Current Conditions File Data

Current Value	Description
0.92	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.92	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Thursday, May 11, 2023 12:51:29

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/11/2023 12:49:13 PM

End Time: 5/11/2023 12:54:25 PM

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 6461.19

Obtained Intensity (In 115): 67624.97

Obtained Intensity (U 238): 94250.13

Obtained Intensity (Bkgd 220): 1.67

Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=612.88 / 93502.96)

Obtained Formula (CeO 156 / Ce 140): 0.013 (=1249.32 / 93502.96)

Obtained RSD (Be 9): 0.0168

Obtained RSD (In 115): 0.0126

Obtained RSD (U 238): 0.0208

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
1.14 mm	1.04 mm	76323.34

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.93

Obtained Intensity (In 115): 79740.93

Obtained Formula (CeO 156 / Ce 140): 0.0170 (=1741.11 / 102470.19)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.713)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.675)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.680)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.703)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/11/2023 12:49:13 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 6461.19
Obtained Intensity (In 115): 67624.97
Obtained Intensity (U 238): 94250.13
Obtained Intensity (Bkgd 220): 1.67
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=612.88 / 93502.96)
Obtained Formula (CeO 156 / Ce 140): 0.013 (=1249.32 / 93502.96)
Obtained RSD (Be 9): 0.0168
Obtained RSD (In 115): 0.0126
Obtained RSD (U 238): 0.0208

[Passed] Optimum value(s): N/A

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.
Intensity Criterion: In 115 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
[Passed]	1.14 mm	1.04 mm	76323.34

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.
Initial Try - Start/End/Step: 0.91/0.93/0.01.
Intensity Criterion: In 115 Maximum
Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 79740.93
Obtained Formula (CeO 156 / Ce 140): 0.0170 (=1741.11 / 102470.19)

[Passed] Optimum value(s): 0.93

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.713)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.675)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.680)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.703)

[Passed] Optimum value(s): N/A

End Time: 5/11/2023 12:54:25 PM

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Thursday, May 11, 2023 12:59:23

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.167

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		7408.7		7408.655		153.896		2.1	Standard	
In	114.9		77950.1		77950.141		1370.420		1.8	Standard	
U	238.1		111916.6		111916.599		2616.965		2.3	Standard	
[	CeO	155.9		1830.2		0.018		0.001		3.8	Standard
|>	Ce	139.9		104042.3		104042.336		1986.057		1.9	Standard
[	Ce++	70.0		670.5		0.006		0.000		3.2	Standard
	Bkgd	220.0		1.6		1.633		0.701		42.9	Standard

Current Conditions File Data

Current Value	Description
0.93	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.93	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Thursday, May 11, 2023 13:01:27

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/11/2023 12:54:40 PM

End Time: 5/11/2023 1:01:27 PM

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.93

Obtained Intensity (In 115): 84178.28

Obtained Formula (CeO 156 / Ce 140): 0.0181 (=1892.13 / 104805.04)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.707)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.687)

Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.692)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.694)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.997; Intercept = -15.68

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.996; Intercept = -14.78

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 7408.65

Obtained Intensity (In 115): 77950.14

Obtained Intensity (U 238): 111916.60

Obtained Intensity (Bkgd 220): 1.63

Obtained Formula (Ce++ 70 / Ce 140): 0.006 (=670.55 / 104042.34)

Obtained Formula (CeO 156 / Ce 140): 0.018 (=1830.18 / 104042.34)

Obtained RSD (Be 9): 0.0208

Obtained RSD (In 115): 0.0176

Obtained RSD (U 238): 0.0234

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/11/2023 12:54:40 PM

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.

Initial Try - Start/End/Step: 0.93/0.96/0.01.

Intensity Criterion: In 115 Maximum

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 84178.28

Obtained Formula (CeO 156 / Ce 140): 0.0181 (=1892.13 / 104805.04)

[Passed] Optimum value(s): 0.93

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.707)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.687)

Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.692)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.694)

[Passed] Optimum value(s): N/A

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.997; Intercept = -15.68

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-16	50196
Mg	24	41	-16.5	36699.1
In	115	41	-13	81861.9
Ce	140	41	-12.5	103929
Pb	208	41	-11.5	62620.9
U	238	41	-11.5	115279

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.996; Intercept = -14.78

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-15	35371.7
Mg	24	41	-15	56081.9
In	115	41	-12.5	122297
Ce	140	41	-11.5	105528
Pb	208	41	-11	58326.8
U	238	41	-10.5	137434

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 5

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

RSD Criterion: Be 9.0122 < 0.05

RSD Criterion: In 114.904 < 0.05

RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 7408.65

Obtained Intensity (In 115): 77950.14

Obtained Intensity (U 238): 111916.60

Obtained Intensity (Bkgd 220): 1.63

Obtained Formula (Ce++ 70 / Ce 140): 0.006 (=670.55 / 104042.34)

Obtained Formula (CeO 156 / Ce 140): 0.018 (=1830.18 / 104042.34)

Obtained RSD (Be 9): 0.0208

Obtained RSD (In 115): 0.0176

Obtained RSD (U 238): 0.0234

[Passed] Optimum value(s): N/A

End Time: 5/11/2023 1:01:27 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 13:56:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L				29450	1	Standard
Cl	37	ug/L				2929441	2	Standard
[> Sc	45	ug/L				500966	2	Standard
| Cr	52	ug/L				9079	1	Standard
| Cr	53	ug/L				93	12	Standard
| Mn	55	ug/L				264	2	Standard
[> Ge	72	ug/L				31052	2	KED
| Ni	60	ug/L				26	31	KED
| Ni	62	ug/L				6	62	KED
| Cu	63	ug/L				43	5	KED
| Cu	65	ug/L				30	21	KED
| Zn	66	ug/L				36	31	KED
| Zn	67	ug/L				6	31	KED
| As	75	ug/L				3	18	KED
Y	89	ug/L				40261	2	Standard
Kr	83	ug/L				50	4	Standard
[> In-1	115	ug/L				6674	2	KED
| Cd	111	ug/L				2	115	KED
| Cd	114	ug/L				3	72	KED
[> In	115	ug/L				458892	1	Standard
| Ag	107	ug/L				13	24	Standard
| Ba	135	ug/L				43	11	Standard
| Ba	137	ug/L				78	10	Standard
[> Tb	159	ug/L				181387	1	Standard
| Pb	208	ug/L				323	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:00:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			29450	31832	4	Standard
Cl	37	ug/L			2929441	2839755	4	Standard
[> Sc	45	ug/L			500966	496983	3	Standard
| Cr	52	0.500	0.014	2	9079	15913	2	Standard
| Cr	53	0.500	0.035	6	93	865	3	Standard
| Mn	55	0.500	0.011	2	264	9923	5	Standard
[> Ge	72	ug/L			31052	31441	1	KED
| Ni	60	0.500	0.026	5	26	775	5	KED
| Ni	62	0.500	0.077	15	6	130	13	KED
| Cu	63	0.500	0.006	1	43	2353	0	KED
| Cu	65	0.500	0.019	3	30	1191	4	KED
| Zn	66	6.000	0.188	3	36	3261	4	KED
| Zn	67	6.000	0.586	9	6	482	8	KED
[As	75	0.200	0.018	8	3	52	9	KED
Y	89	ug/L			40261	40194	3	Standard
Kr	83	ug/L			50	41	23	Standard
[> In-1	115	ug/L			6674	6464	1	KED
| Cd	111	0.100	0.023	22	2	21	18	KED
[Cd	114	0.100	0.011	10	3	65	9	KED
[> In	115	ug/L			458892	444022	3	Standard
| Ag	107	0.200	0.003	1	13	2921	2	Standard
| Ba	135	0.500	0.038	7	43	2729	4	Standard
[Ba	137	0.500	0.011	2	78	4854	3	Standard
[> Tb	159	ug/L			181387	179115	3	Standard
[Pb	208	0.100	0.003	3	323	9079	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:05:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	38615	2	Standard
Cl	37		ug/L			2929441	2965976	5	Standard
[> Sc	45		ug/L			500966	492932	2	Standard
| Cr	52	10.000	ug/L	0.241	2	9079	146019	1	Standard
| Cr	53	10.000	ug/L	0.340	3	93	15653	2	Standard
| Mn	55	10.001	ug/L	0.292	2	264	199231	2	Standard
[> Ge	72		ug/L			31052	30729	2	KED
| Ni	60	10.001	ug/L	0.207	2	26	15213	1	KED
| Ni	62	10.000	ug/L	0.242	2	6	2455	1	KED
| Cu	63	10.000	ug/L	0.230	2	43	44916	3	KED
| Cu	65	9.999	ug/L	0.275	2	30	22153	0	KED
| Zn	66	10.082	ug/L	0.165	1	36	5453	1	KED
| Zn	67	10.273	ug/L	0.327	3	6	867	2	KED
| As	75	10.000	ug/L	0.240	2	3	2547	0	KED
Y	89		ug/L			40261	41417	3	Standard
Kr	83		ug/L			50	38	27	Standard
[> In-1	115		ug/L			6674	6340	1	KED
| Cd	111	10.000	ug/L	0.152	1	2	2394	2	KED
| Cd	114	10.000	ug/L	0.216	2	3	6112	2	KED
[> In	115		ug/L			458892	456528	2	Standard
| Ag	107	10.000	ug/L	0.035	0	13	148505	2	Standard
| Ba	135	10.000	ug/L	0.120	1	43	55666	1	Standard
| Ba	137	10.000	ug/L	0.049	0	78	97151	2	Standard
[> Tb	159		ug/L			181387	182174	3	Standard
| Pb	208	10.000	ug/L	0.225	2	323	901593	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:10:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	37598	5	Standard
Cl	37		ug/L			2929441	3016985	5	Standard
[> Sc	45		ug/L			500966	495356	3	Standard
| Cr	52	19.915	ug/L	0.230	1	9079	278813	3	Standard
| Cr	53	19.982	ug/L	0.307	1	93	31234	2	Standard
| Mn	55	19.853	ug/L	0.270	1	264	385814	2	Standard
[> Ge	72		ug/L			31052	31142	1	KED
| Ni	60	19.875	ug/L	0.193	0	26	29873	1	KED
| Ni	62	19.829	ug/L	0.427	2	6	4767	2	KED
| Cu	63	19.810	ug/L	0.617	3	43	86810	1	KED
| Cu	65	19.924	ug/L	0.406	2	30	44058	2	KED
| Zn	66	19.808	ug/L	0.324	1	36	10528	1	KED
| Zn	67	20.108	ug/L	0.353	1	6	1742	0	KED
[As	75	19.858	ug/L	0.037	0	3	4985	1	KED
Y	89		ug/L			40261	40956	0	Standard
Kr	83		ug/L			50	36	10	Standard
[> In-1	115		ug/L			6674	6162	6	KED
| Cd	111	19.961	ug/L	1.156	5	2	4594	0	KED
[Cd	114	19.948	ug/L	1.052	5	3	11699	1	KED
[> In	115		ug/L			458892	442261	2	Standard
| Ag	107	19.961	ug/L	0.488	2	13	284872	2	Standard
| Ba	135	19.961	ug/L	0.460	2	43	106756	1	Standard
[Ba	137	20.053	ug/L	0.424	2	78	190616	0	Standard
[> Tb	159		ug/L			181387	182067	1	Standard
[Pb	208	19.912	ug/L	0.188	0	323	1763795	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:15:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	27882	6	Standard
Cl	37		ug/L			2929441	3034849	2	Standard
[> Sc	45		ug/L			500966	458587	1	Standard
| Cr	52	49.922	ug/L	1.876	3	9079	629334	1	Standard
| Cr	53	50.053	ug/L	0.603	1	93	72681	0	Standard
| Mn	55	49.996	ug/L	0.842	1	264	898883	1	Standard
[> Ge	72		ug/L			31052	29579	0	KED
| Ni	60	49.802	ug/L	0.895	1	26	69689	2	KED
| Ni	62	49.780	ug/L	1.236	2	6	11116	3	KED
| Cu	63	49.652	ug/L	0.326	0	43	199706	1	KED
| Cu	65	49.521	ug/L	0.703	1	30	99217	1	KED
| Zn	66	49.752	ug/L	0.177	0	36	24501	0	KED
| Zn	67	49.966	ug/L	1.333	2	6	4090	1	KED
[As	75	49.927	ug/L	0.338	0	3	11813	0	KED
Y	89		ug/L			40261	39593	0	Standard
Kr	83		ug/L			50	45	19	Standard
[> In-1	115		ug/L			6674	6012	0	KED
| Cd	111	49.812	ug/L	0.438	0	2	11006	1	KED
[Cd	114	49.795	ug/L	0.668	1	3	27985	0	KED
[> In	115		ug/L			458892	422438	0	Standard
| Ag	107	49.993	ug/L	1.404	2	13	681007	2	Standard
| Ba	135	49.990	ug/L	0.567	1	43	255103	0	Standard
[Ba	137	49.864	ug/L	1.049	2	78	446649	1	Standard
[> Tb	159		ug/L			181387	174003	0	Standard
[Pb	208	50.004	ug/L	0.350	0	323	4234634	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:21:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	34721	5	Standard
Cl	37		ug/L			2929441	3166160	3	Standard
[> Sc	45		ug/L			500966	449933	0	Standard
| Cr	52	99.986	ug/L	2.146	2	9079	1228563	2	Standard
| Cr	53	99.676	ug/L	2.337	2	93	140446	3	Standard
| Mn	55	100.252	ug/L	0.264	0	264	1783305	0	Standard
[> Ge	72		ug/L			31052	28460	0	KED
| Ni	60	100.032	ug/L	0.974	0	26	134792	1	KED
| Ni	62	99.699	ug/L	0.385	0	6	21199	0	KED
| Cu	63	99.310	ug/L	1.347	1	43	375622	0	KED
| Cu	65	99.902	ug/L	1.609	1	30	191910	0	KED
| Zn	66	99.787	ug/L	2.048	2	36	46918	1	KED
| Zn	67	99.193	ug/L	0.682	0	6	7606	0	KED
[As	75	100.196	ug/L	1.478	1	3	22957	0	KED
Y	89		ug/L			40261	38715	1	Standard
Kr	83		ug/L			50	53	10	Standard
[> In-1	115		ug/L			6674	5881	2	KED
| Cd	111	99.523	ug/L	0.347	0	2	21169	2	KED
| Cd	114	99.612	ug/L	1.244	1	3	54050	1	KED
[> In	115		ug/L			458892	403500	0	Standard
| Ag	107	100.284	ug/L	0.965	0	13	1317556	1	Standard
| Ba	135	100.098	ug/L	1.034	1	43	489484	0	Standard
| Ba	137	100.577	ug/L	1.052	1	78	877436	1	Standard
[> Tb	159		ug/L			181387	168275	2	Standard
[Pb	208	99.769	ug/L	2.754	2	323	8104275	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:29:03

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	27815	3	Standard
Cl	37		ug/L			2929441	2895451	4	Standard
[> Sc	45		ug/L			500966	437362	3	Standard
| Cr	52	0.041	ug/L	0.030	72	9079	8419	7	Standard
| Cr	53	0.006	ug/L	0.037	599	93	91	59	Standard
| Mn	55	0.029	ug/L	0.051	179	264	743	124	Standard
[> Ge	72		ug/L			31052	28653	0	KED
| Ni	60	0.002	ug/L	0.010	401	26	27	47	KED
| Ni	62	0.005	ug/L	0.005	97	6	6	15	KED
| Cu	63	0.002	ug/L	0.004	188	43	48	34	KED
| Cu	65	-0.004	ug/L	0.002	37	30	20	14	KED
| Zn	66	-0.016	ug/L	0.023	147	36	26	41	KED
| Zn	67	-0.034	ug/L	0.025	72	6	3	50	KED
[As	75	0.011	ug/L	0.009	76	3	5	36	KED
Y	89		ug/L			40261	37510	2	Standard
Kr	83		ug/L			50	50	13	Standard
[> In-1	115		ug/L			6674	5933	1	KED
| Cd	111	0.006	ug/L	0.015	259	2	3	86	KED
| Cd	114	0.001	ug/L	0.002	367	3	3	35	KED
[> In	115		ug/L			458892	409881	3	Standard
| Ag	107	0.035	ug/L	0.051	145	13	488	142	Standard
| Ba	135	0.021	ug/L	0.038	176	43	145	130	Standard
| Ba	137	0.022	ug/L	0.042	189	78	267	139	Standard
[> Tb	159		ug/L			181387	165152	2	Standard
[Pb	208	0.018	ug/L	0.032	172	323	1800	144	Standard

Sample Information

Sample Date/Time: Thursday, May 11, 2023 14:21:46

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.m

Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	1.0000	0.027	0.50	10	20	50	100
Cr	53	1.0000	0.003	0.50	10	20	50	100
Mn	55	1.0000	0.040	0.50	10	20	50	100
Ge	72							
Ni	60	1.0000	0.047	0.50	10	20	50	100
Ni	62	1.0000	0.007	0.50	10	20	50	100
Cu	63	0.9999	0.133	0.50	10	20	50	100
Cu	65	0.9999	0.067	0.50	10	20	50	100
Zn	66	1.0000	0.017	6.00	10	20	50	100
Zn	67	0.9999	0.003	6.00	10	20	50	100
As	75	1.0000	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	1.0000	0.036	0.10	10	20	50	100
Cd	114	1.0000	0.092	0.10	10	20	50	100
In	115							
Ag	107	1.0000	0.033	0.20	10	20	50	100
Ba	135	1.0000	0.012	0.50	10	20	50	100
Ba	137	0.9999	0.022	0.50	10	20	50	100
Tb	159							
Pb	208	1.0000	0.483	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:34:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	32734	2	Standard
Cl	37		ug/L			2929441	3121402	2	Standard
[> Sc	45		ug/L			500966	460267	1	Standard
| Cr	52	51.318	ug/L	0.712	1	9079	649020	0	Standard
| Cr	53	51.236	ug/L	0.611	1	93	73879	0	Standard
| Mn	55	51.172	ug/L	0.995	1	264	931167	1	Standard
[> Ge	72		ug/L			31052	29525	1	KED
| Ni	60	52.057	ug/L	0.958	1	26	72781	1	KED
| Ni	62	52.067	ug/L	1.276	2	6	11487	2	KED
| Cu	63	52.782	ug/L	0.236	0	43	207145	1	KED
| Cu	65	51.949	ug/L	0.255	0	30	103549	1	KED
| Zn	66	50.602	ug/L	1.227	2	36	24700	2	KED
| Zn	67	50.874	ug/L	<u>3.016</u>	5	6	4052	6	KED
| As	75	48.312	ug/L	0.218	0	3	11486	1	KED
Y	89		ug/L			40261	39977	0	Standard
Kr	83		ug/L			50	42	20	Standard
[> In-1	115		ug/L			6674	6124	0	KED
| Cd	111	50.931	ug/L	1.126	2	2	11283	2	KED
| Cd	114	50.926	ug/L	1.309	2	3	28780	2	KED
[> In	115		ug/L			458892	418731	1	Standard
| Ag	107	51.018	ug/L	0.913	1	13	695521	1	Standard
| Ba	135	50.635	ug/L	0.899	1	43	256949	0	Standard
| Ba	137	51.005	ug/L	0.239	0	78	461777	0	Standard
[> Tb	159		ug/L			181387	173193	1	Standard
| Pb	208	51.355	ug/L	1.100	2	323	4294627	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:42:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	27252	2	Standard
Cl	37		ug/L			2929441	2901324	2	Standard
[> Sc	45		ug/L			500966	435323	2	Standard
| Cr	52	0.031	ug/L	0.014	45	9079	8249	2	Standard
| Cr	53	-0.007	ug/L	0.002	27	93	71	0	Standard
| Mn	55	-0.001	ug/L	0.001	81	264	219	2	Standard
[> Ge	72		ug/L			31052	29290	1	KED
| Ni	60	-0.000	ug/L	0.004	1473	26	24	20	KED
| Ni	62	0.019	ug/L	0.014	72	6	10	28	KED
| Cu	63	-0.004	ug/L	0.001	17	43	24	12	KED
| Cu	65	-0.008	ug/L	0.000	1	30	13	0	KED
| Zn	66	0.000	ug/L	0.009	2333	36	34	11	KED
| Zn	67	-0.051	ug/L	0.014	28	6	2	43	KED
[As	75	0.002	ug/L	0.005	257	3	3	37	KED
Y	89		ug/L			40261	37372	2	Standard
Kr	83		ug/L			50	38	10	Standard
[> In-1	115		ug/L			6674	6114	0	KED
| Cd	111	0.004	ug/L	0.015	382	2	3	95	KED
[Cd	114	0.000	ug/L	0.002	438	3	3	34	KED
[> In	115		ug/L			458892	415249	2	Standard
| Ag	107	0.004	ug/L	0.000	8	13	63	9	Standard
| Ba	135	-0.001	ug/L	0.003	537	43	36	37	Standard
[Ba	137	-0.001	ug/L	0.001	158	78	62	18	Standard
[> Tb	159		ug/L			181387	163951	1	Standard
[Pb	208	-0.001	ug/L	0.001	113	323	249	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:46:58

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				27246	4	Standard
	Cl	37	ug/L				2837394	3	Standard
[>	Sc	45	ug/L				433133	1	Standard
|	Cr	52	ug/L				8166	2	Standard
|	Cr	53	ug/L				76	12	Standard
|	Mn	55	ug/L				206	7	Standard
[>	Ge	72	ug/L				28633	1	KED
|	Ni	60	ug/L				24	13	KED
|	Ni	62	ug/L				1	86	KED
|	Cu	63	ug/L				24	19	KED
|	Cu	65	ug/L				15	33	KED
|	Zn	66	ug/L				23	32	KED
|	Zn	67	ug/L				6	124	KED
|	As	75	ug/L				1	78	KED
	Y	89	ug/L				37407	4	Standard
	Kr	83	ug/L				39	7	Standard
[>	In-1	115	ug/L				6039	1	KED
|	Cd	111	ug/L				2	145	KED
|	Cd	114	ug/L				2	117	KED
[>	In	115	ug/L				409433	1	Standard
|	Ag	107	ug/L				34	22	Standard
|	Ba	135	ug/L				38	7	Standard
|	Ba	137	ug/L				64	17	Standard
[>	Tb	159	ug/L				161761	1	Standard
|	Pb	208	ug/L				227	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:54:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				27289	5	Standard
>	Sc	45	ug/L				453480	1	Standard
|	Cr	52	ug/L				8256	1	Standard
|	Cr	53	ug/L				77	3	Standard
|	Mn	55	ug/L				193	3	Standard
>	Ge	72	ug/L				28304	1	KED
|	Ni	60	ug/L				22	14	KED
|	Ni	62	ug/L				1	86	KED
|	Cu	63	ug/L				24	44	KED
|	Cu	65	ug/L				12	18	KED
|	Zn	66	ug/L				26	18	KED
|	Zn	67	ug/L				5	0	KED
|	As	75	ug/L				2	10	KED
|	Y	89	ug/L				38013	1	Standard
|	Kr	83	ug/L				36	13	Standard
>	In-1	115	ug/L				5725	0	KED
|	Cd	111	ug/L				4	70	KED
|	Cd	114	ug/L				3	87	KED
>	In	115	ug/L				411490	1	Standard
|	Ag	107	ug/L				27	3	Standard
|	Ba	135	ug/L				32	0	Standard
|	Ba	137	ug/L				62	16	Standard
>	Tb	159	ug/L				164240	3	Standard
|	Pb	208	ug/L				214	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:59:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	27062	2	Standard
>	Sc	45	ug/L			453480	440161	7	Standard
|	Cr	52	50.337	ug/L	3.140	8256	607294	2	Standard
|	Cr	53	51.443	ug/L	3.485	77	70699	1	Standard
|	Mn	55	50.441	ug/L	2.492	193	875712	2	Standard
>	Ge	72		ug/L		28304	29116	2	KED
|	Ni	60	50.025	ug/L	0.415	22	68966	2	KED
|	Ni	62	50.660	ug/L	1.091	1	11014	1	KED
|	Cu	63	50.669	ug/L	0.680	24	196030	1	KED
|	Cu	65	50.092	ug/L	1.903	12	98378	1	KED
|	Zn	66	50.553	ug/L	1.736	26	24313	1	KED
|	Zn	67	51.938	ug/L	2.526	5	4074	3	KED
|	As	75	49.544	ug/L	1.372	2	11609	0	KED
|	Y	89		ug/L		38013	37634	8	Standard
|	Kr	83		ug/L		36	52	23	Standard
>	In-1	115		ug/L		5725	6030	2	KED
|	Cd	111	50.347	ug/L	1.224	4	10979	0	KED
|	Cd	114	50.833	ug/L	1.154	3	28277	0	KED
>	In	115		ug/L		411490	395011	7	Standard
|	Ag	107	51.162	ug/L	2.079	27	656715	3	Standard
|	Ba	135	51.093	ug/L	2.849	32	243997	3	Standard
|	Ba	137	50.478	ug/L	3.171	62	429804	1	Standard
>	Tb	159		ug/L		164240	165110	7	Standard
|	Pb	208	51.095	ug/L	3.200	214	4061166	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:06:40

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	28083	4	Standard
>	Sc	45	ug/L			453480	460376	2	Standard
|	Cr	52	49.268	0.237	0	8256	623624	2	Standard
|	Cr	53	48.687	0.344	0	77	70224	2	Standard
|	Mn	55	49.182	0.910	1	193	895012	1	Standard
>	Ge	72	ug/L			28304	29239	2	KED
|	Ni	60	50.169	0.848	1	22	69473	3	KED
|	Ni	62	50.974	1.193	2	1	11133	3	KED
|	Cu	63	50.018	0.409	0	24	194361	1	KED
|	Cu	65	49.969	0.555	1	12	98612	1	KED
|	Zn	66	50.950	0.867	1	26	24617	0	KED
|	Zn	67	50.684	0.714	1	5	3994	0	KED
|	As	75	49.714	0.612	1	2	11702	0	KED
|	Y	89	ug/L			38013	39217	2	Standard
|	Kr	83	ug/L			36	42	25	Standard
>	In-1	115	ug/L			5725	6156	1	KED
|	Cd	111	50.268	0.769	1	4	11197	1	KED
|	Cd	114	49.967	0.817	1	3	28389	1	KED
>	In	115	ug/L			411490	411382	1	Standard
|	Ag	107	50.038	0.943	1	27	670246	2	Standard
|	Ba	135	48.789	1.142	2	32	243298	3	Standard
|	Ba	137	49.603	0.657	1	62	441251	2	Standard
>	Tb	159	ug/L			164240	172225	2	Standard
|	Pb	208	49.434	0.951	1	214	4111011	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:13:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	27314	3	Standard
> Sc	45		ug/L			453480	456632	1	Standard
| Cr	52	0.002	ug/L	0.009	627	8256	8331	1	Standard
| Cr	53	-0.012	ug/L	0.007	63	77	61	18	Standard
| Mn	55	0.002	ug/L	0.001	58	193	228	9	Standard
> Ge	72		ug/L			28304	29402	1	KED
| Ni	60	0.001	ug/L	0.009	676	22	25	45	KED
| Ni	62	0.017	ug/L	0.019	107	1	5	78	KED
| Cu	63	0.003	ug/L	0.001	47	24	36	16	KED
| Cu	65	0.002	ug/L	0.003	167	12	16	40	KED
| Zn	66	0.011	ug/L	0.007	64	26	32	11	KED
| Zn	67	0.005	ug/L	0.015	286	5	6	17	KED
| As	75	0.008	ug/L	0.002	26	2	4	11	KED
| Y	89		ug/L			38013	38102	2	Standard
| Kr	83		ug/L			36	40	26	Standard
> In-1	115		ug/L			5725	6168	0	KED
| Cd	111	-0.013	ug/L	0.007	51	4	1	91	KED
| Cd	114	-0.004	ug/L	0.003	89	3	1	103	KED
> In	115		ug/L			411490	415787	1	Standard
| Ag	107	0.003	ug/L	0.000	15	27	70	9	Standard
| Ba	135	0.002	ug/L	0.002	81	32	43	20	Standard
| Ba	137	0.001	ug/L	0.001	97	62	74	14	Standard
> Tb	159		ug/L			164240	164798	2	Standard
| Pb	208	0.001	ug/L	0.000	46	214	285	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:18:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	31340	3	Standard
> Sc	45		ug/L			453480	457759	1	Standard
| Cr	52	0.497	ug/L	0.030	6	8256	14505	1	Standard
| Cr	53	0.480	ug/L	0.006	1	77	766	2	Standard
| Mn	55	0.503	ug/L	0.008	1	193	9302	0	Standard
> Ge	72		ug/L			28304	29147	0	KED
| Ni	60	0.526	ug/L	0.038	7	22	749	6	KED
| Ni	62	0.510	ug/L	0.024	4	1	112	5	KED
| Cu	63	0.700	ug/L	0.033	4	24	2736	4	KED
| Cu	65	0.654	ug/L	0.037	5	12	1299	5	KED
| Zn	66	6.516	ug/L	0.092	1	26	3162	1	KED
| Zn	67	5.954	ug/L	0.279	4	5	473	4	KED
| As	75	0.199	ug/L	0.021	10	2	49	9	KED
| Y	89		ug/L			38013	38127	2	Standard
| Kr	83		ug/L			36	44	40	Standard
> In-1	115		ug/L			5725	5964	0	KED
| Cd	111	0.083	ug/L	0.014	16	4	22	13	KED
| Cd	114	0.085	ug/L	0.020	23	3	50	21	KED
> In	115		ug/L			411490	416552	1	Standard
| Ag	107	0.206	ug/L	0.010	4	27	2817	4	Standard
| Ba	135	0.486	ug/L	0.006	1	32	2485	1	Standard
| Ba	137	0.497	ug/L	0.008	1	62	4542	2	Standard
> Tb	159		ug/L			164240	163726	0	Standard
| Pb	208	0.113	ug/L	0.001	0	214	9144	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:23:30

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	97217	3	Standard
> Sc	45		ug/L			453480	450990	1	Standard
| Cr	52	0.619	ug/L	0.009	1	8256	15784	2	Standard
| Cr	53	1.691	ug/L	0.026	1	77	2463	3	Standard
| Mn	55	0.128	ug/L	0.002	1	193	2482	1	Standard
> Ge	72		ug/L			28304	27762	1	KED
| Ni	60	0.098	ug/L	0.014	14	22	151	12	KED
| Ni	62	0.126	ug/L	0.038	30	1	27	28	KED
| Cu	63	0.045	ug/L	0.008	17	24	189	14	KED
| Cu	65	0.054	ug/L	0.007	13	12	112	11	KED
| Zn	66	0.231	ug/L	0.023	10	26	131	7	KED
| Zn	67	0.163	ug/L	0.041	25	5	17	16	KED
| As	75	0.021	ug/L	0.011	52	2	7	35	KED
| Y	89		ug/L			38013	38861	1	Standard
| Kr	83		ug/L			36	71	17	Standard
> In-1	115		ug/L			5725	5764	1	KED
| Cd	111	0.047	ug/L	0.016	33	4	13	21	KED
| Cd	114	0.044	ug/L	0.005	11	3	27	8	KED
> In	115		ug/L			411490	393779	0	Standard
| Ag	107	0.004	ug/L	0.002	42	27	79	28	Standard
| Ba	135	0.107	ug/L	0.010	9	32	544	9	Standard
| Ba	137	0.101	ug/L	0.006	6	62	920	6	Standard
> Tb	159		ug/L			164240	161181	0	Standard
| Pb	208	0.017	ug/L	0.001	6	214	1535	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:28:01

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	95582	3	Standard
> Sc	45		ug/L			453480	451501	3	Standard
| Cr	52	19.309	ug/L	0.190	0	8256	244658	2	Standard
| Cr	53	20.701	ug/L	0.085	0	77	29324	3	Standard
| Mn	55	19.005	ug/L	0.376	1	193	339259	1	Standard
> Ge	72		ug/L			28304	27187	1	KED
| Ni	60	20.096	ug/L	0.486	2	22	25881	1	KED
| Ni	62	20.993	ug/L	0.239	1	1	4264	1	KED
| Cu	63	20.032	ug/L	0.187	0	24	72395	1	KED
| Cu	65	20.081	ug/L	0.166	0	12	36858	1	KED
| Zn	66	19.222	ug/L	0.170	0	26	8652	0	KED
| Zn	67	18.232	ug/L	0.644	3	5	1339	3	KED
| As	75	19.554	ug/L	0.554	2	2	4280	1	KED
| Y	89		ug/L			38013	38083	1	Standard
| Kr	83		ug/L			36	75	20	Standard
> In-1	115		ug/L			5725	5656	2	KED
| Cd	111	18.852	ug/L	0.493	2	4	3859	1	KED
| Cd	114	18.980	ug/L	0.824	4	3	9903	2	KED
> In	115		ug/L			411490	394438	3	Standard
| Ag	107	18.557	ug/L	0.095	0	27	238342	3	Standard
| Ba	135	0.109	ug/L	0.004	3	32	553	6	Standard
| Ba	137	0.103	ug/L	0.003	3	62	939	2	Standard
> Tb	159		ug/L			164240	161935	2	Standard
| Pb	208	0.019	ug/L	0.001	6	214	1687	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:32:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	31805	1	Standard
> Sc	45		ug/L			453480	454340	1	Standard
| Cr	52	193.447	ug/L	1.846	0	8256	2392229	0	Standard
| Cr	53	189.875	ug/L	3.302	1	77	269997	0	Standard
| Mn	55	197.868	ug/L	1.246	0	193	3553689	1	Standard
> Ge	72		ug/L			28304	27450	1	KED
| Ni	60	192.267	ug/L	5.856	3	22	249819	2	KED
| Ni	62	196.530	ug/L	4.033	2	1	40290	0	KED
| Cu	63	191.286	ug/L	3.025	1	24	697752	0	KED
| Cu	65	190.234	ug/L	3.652	1	12	352415	0	KED
| Zn	66	192.981	ug/L	3.879	2	26	87475	0	KED
| Zn	67	189.380	ug/L	2.775	1	5	14001	1	KED
| As	75	197.010	ug/L	2.672	1	2	43533	0	KED
Y	89		ug/L			38013	39134	3	Standard
Kr	83		ug/L			36	62	16	Standard
> In-1	115		ug/L			5725	5844	2	KED
| Cd	111	192.594	ug/L	5.941	3	4	40691	1	KED
| Cd	114	193.758	ug/L	8.282	4	3	104415	1	KED
> In	115		ug/L			411490	380931	1	Standard
| Ag	107	200.601	ug/L	2.547	1	27	2487769	0	Standard
| Ba	135	198.373	ug/L	1.293	0	32	915840	2	Standard
| Ba	137	195.380	ug/L	0.838	0	62	1609046	1	Standard
> Tb	159		ug/L			164240	163550	1	Standard
| Pb	208	195.400	ug/L	2.950	1	214	15432200	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:37:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	33722	4	Standard
> Sc	45		ug/L			453480	441731	1	Standard
| Cr	52	305.091	ug/L	5.565	1	8256	3663729	2	Standard
| Cr	53	291.524	ug/L	3.403	1	77	403107	2	Standard
| Mn	55	309.118	ug/L	3.307	1	193	5397400	0	Standard
> Ge	72		ug/L			28304	27437	2	KED
| Ni	60	286.248	ug/L	4.261	1	22	371797	2	KED
| Ni	62	294.176	ug/L	9.832	3	1	60269	2	KED
| Cu	63	283.486	ug/L	4.433	1	24	1033499	1	KED
| Cu	65	282.457	ug/L	3.737	1	12	522986	0	KED
| Zn	66	280.790	ug/L	3.654	1	26	127206	1	KED
| Zn	67	275.224	ug/L	2.531	0	5	20333	1	KED
| As	75	296.499	ug/L	4.791	1	2	65477	0	KED
Y	89		ug/L			38013	36418	0	Standard
Kr	83		ug/L			36	125	5	Standard
> In-1	115		ug/L			5725	5693	1	KED
| Cd	111	284.581	ug/L	0.587	0	4	58604	1	KED
| Cd	114	287.279	ug/L	2.990	1	3	150943	2	KED
> In	115		ug/L			411490	368922	1	Standard
| Ag	107	295.425	ug/L	4.404	1	27	3548209	0	Standard
| Ba	135	285.410	ug/L	2.244	0	32	1275959	0	Standard
| Ba	137	297.174	ug/L	7.652	2	62	2369613	1	Standard
> Tb	159		ug/L			164240	153395	0	Standard
| Pb	208	299.935	ug/L	6.119	2	214	22217572	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:50:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	32080	5	Standard
> Sc	45		ug/L			453480	462017	3	Standard
| Cr	52	0.029	ug/L	0.011	37	8256	8782	4	Standard
| Cr	53	0.033	ug/L	0.009	27	77	126	12	Standard
| Mn	55	0.008	ug/L	0.000	4	193	346	5	Standard
> Ge	72		ug/L			28304	31188	2	KED
| Ni	60	0.010	ug/L	0.003	31	22	40	12	KED
| Ni	62	0.018	ug/L	0.028	152	1	5	115	KED
| Cu	63	0.005	ug/L	0.002	33	24	46	14	KED
| Cu	65	0.008	ug/L	0.004	50	12	31	30	KED
| Zn	66	0.067	ug/L	0.033	48	26	63	27	KED
| Zn	67	0.030	ug/L	0.033	107	5	8	32	KED
| As	75	0.035	ug/L	0.003	8	2	11	8	KED
| Y	89		ug/L			38013	37074	2	Standard
| Kr	83		ug/L			36	41	16	Standard
> In-1	115		ug/L			5725	6678	0	KED
| Cd	111	0.344	ug/L	0.610	177	4	88	167	KED
| Cd	114	0.415	ug/L	0.712	171	3	260	168	KED
> In	115		ug/L			411490	405907	5	Standard
| Ag	107	0.008	ug/L	0.000	4	27	138	3	Standard
| Ba	135	0.011	ug/L	0.002	15	32	84	9	Standard
| Ba	137	0.012	ug/L	0.001	10	62	166	9	Standard
> Tb	159		ug/L			164240	165413	2	Standard
| Pb	208	0.007	ug/L	0.001	7	214	765	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:56:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	32817	6	Standard
> Sc	45		ug/L			453480	465595	0	Standard
| Cr	52	0.033	ug/L	0.029	89	8256	8891	4	Standard
| Cr	53	0.022	ug/L	0.008	36	77	112	10	Standard
| Mn	55	0.007	ug/L	0.001	16	193	324	6	Standard
> Ge	72		ug/L			28304	30609	0	KED
| Ni	60	0.006	ug/L	0.004	63	22	33	16	KED
| Ni	62	0.022	ug/L	0.005	21	1	6	17	KED
| Cu	63	0.007	ug/L	0.001	12	24	53	7	KED
| Cu	65	0.006	ug/L	0.002	42	12	24	20	KED
| Zn	66	0.061	ug/L	0.030	49	26	59	25	KED
| Zn	67	0.110	ug/L	0.022	20	5	15	12	KED
| As	75	0.017	ug/L	0.009	50	2	6	30	KED
Y	89		ug/L			38013	37828	1	Standard
Kr	83		ug/L			36	46	19	Standard
> In-1	115		ug/L			5725	6380	1	KED
| Cd	111	-0.006	ug/L	0.009	141	4	3	62	KED
| Cd	114	-0.002	ug/L	0.004	208	3	3	71	KED
> In	115		ug/L			411490	411081	2	Standard
| Ag	107	0.003	ug/L	0.001	38	27	61	18	Standard
| Ba	135	0.009	ug/L	0.000	2	32	76	1	Standard
| Ba	137	0.008	ug/L	0.001	19	62	129	8	Standard
> Tb	159		ug/L			164240	168060	0	Standard
| Pb	208	0.006	ug/L	0.000	6	214	699	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:02:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	28875	4	Standard
> Sc	45		ug/L			453480	482814	0	Standard
| Cr	52	48.915	ug/L	1.071	2	8256	649472	2	Standard
| Cr	53	48.922	ug/L	0.840	1	77	74007	2	Standard
| Mn	55	48.618	ug/L	1.178	2	193	928265	3	Standard
> Ge	72		ug/L			28304	31467	1	KED
| Ni	60	47.900	ug/L	0.847	1	22	71376	2	KED
| Ni	62	48.879	ug/L	1.757	3	1	11486	2	KED
| Cu	63	48.723	ug/L	0.352	0	24	203768	0	KED
| Cu	65	48.305	ug/L	0.286	0	12	102604	1	KED
| Zn	66	49.318	ug/L	0.810	1	26	25649	1	KED
| Zn	67	49.869	ug/L	0.085	0	5	4231	1	KED
| As	75	48.603	ug/L	0.330	0	2	12314	0	KED
Y	89		ug/L			38013	39328	2	Standard
Kr	83		ug/L			36	48	6	Standard
> In-1	115		ug/L			5725	6414	1	KED
| Cd	111	48.597	ug/L	0.674	1	4	11277	0	KED
| Cd	114	47.948	ug/L	0.913	1	3	28379	0	KED
> In	115		ug/L			411490	417201	1	Standard
| Ag	107	49.941	ug/L	0.254	0	27	678388	1	Standard
| Ba	135	50.373	ug/L	0.671	1	32	254680	0	Standard
| Ba	137	50.599	ug/L	0.533	1	62	456395	1	Standard
> Tb	159		ug/L			164240	175544	1	Standard
| Pb	208	48.892	ug/L	0.986	2	214	4144705	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:09:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	27823	4	Standard
> Sc	45		ug/L			453480	465227	3	Standard
| Cr	52	0.015	ug/L	0.021	141	8256	8652	0	Standard
| Cr	53	0.001	ug/L	0.006	536	77	81	8	Standard
| Mn	55	0.002	ug/L	0.001	58	193	232	8	Standard
> Ge	72		ug/L			28304	30317	1	KED
| Ni	60	0.002	ug/L	0.007	437	22	26	35	KED
| Ni	62	0.016	ug/L	0.005	30	1	5	21	KED
| Cu	63	0.002	ug/L	0.001	88	24	32	17	KED
| Cu	65	0.005	ug/L	0.002	42	12	22	17	KED
| Zn	66	0.047	ug/L	0.018	38	26	51	18	KED
| Zn	67	0.057	ug/L	0.047	82	5	10	36	KED
| As	75	0.016	ug/L	0.005	33	2	6	18	KED
Y	89		ug/L			38013	37122	1	Standard
Kr	83		ug/L			36	37	32	Standard
> In-1	115		ug/L			5725	6495	4	KED
| Cd	111	-0.005	ug/L	0.006	118	4	3	41	KED
| Cd	114	-0.003	ug/L	0.002	61	3	2	45	KED
> In	115		ug/L			411490	406741	3	Standard
| Ag	107	0.004	ug/L	0.001	22	27	74	16	Standard
| Ba	135	0.003	ug/L	0.001	26	32	47	6	Standard
| Ba	137	0.001	ug/L	0.000	28	62	73	1	Standard
> Tb	159		ug/L			164240	165879	2	Standard
| Pb	208	0.002	ug/L	0.000	24	214	357	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:15:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				27225	3	Standard
[>	Sc	45	ug/L				460122	1	Standard
|	Cr	52	ug/L				8551	1	Standard
|	Cr	53	ug/L				93	7	Standard
[	Mn	55	ug/L				219	2	Standard
[>	Ge	72	ug/L				30494	0	KED
|	Ni	60	ug/L				28	24	KED
|	Ni	62	ug/L				3	0	KED
|	Cu	63	ug/L				26	37	KED
|	Cu	65	ug/L				10	54	KED
|	Zn	66	ug/L				19	49	KED
|	Zn	67	ug/L				3	91	KED
[	As	75	ug/L				2	57	KED
	Y	89	ug/L				38927	1	Standard
	Kr	83	ug/L				46	28	Standard
[>	In-1	115	ug/L				6386	0	KED
|	Cd	111	ug/L				4	135	KED
[	Cd	114	ug/L				13	137	KED
[>	In	115	ug/L				414575	1	Standard
|	Ag	107	ug/L				42	6	Standard
|	Ba	135	ug/L				38	10	Standard
[	Ba	137	ug/L				52	20	Standard
[>	Tb	159	ug/L				165965	0	Standard
[	Pb	208	ug/L				210	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:19:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	28719	3	Standard
[>	Sc	45	ug/L			460122	479980	1	Standard
|	Cr	52	48.714	0.892	1	8551	643070	0	Standard
|	Cr	53	49.494	0.747	1	93	74427	0	Standard
|	Mn	55	49.581	1.295	2	219	940735	1	Standard
[>	Ge	72	ug/L			30494	30799	1	KED
|	Ni	60	49.076	0.404	0	28	71585	1	KED
|	Ni	62	50.137	0.582	1	3	11536	0	KED
|	Cu	63	49.653	0.328	0	26	203267	1	KED
|	Cu	65	49.757	0.853	1	10	103428	0	KED
|	Zn	66	51.089	0.637	1	19	25996	0	KED
|	Zn	67	49.790	0.492	0	3	4132	2	KED
|	As	75	49.584	0.515	1	2	12295	0	KED
|	Y	89	ug/L			38927	40383	1	Standard
|	Kr	83	ug/L			46	45	18	Standard
[>	In-1	115	ug/L			6386	6468	3	KED
|	Cd	111	48.415	0.738	1	4	11326	1	KED
|	Cd	114	48.721	0.964	1	13	29080	1	KED
[>	In	115	ug/L			414575	414534	0	Standard
|	Ag	107	51.238	1.337	2	42	691635	2	Standard
|	Ba	135	50.227	0.731	1	38	252349	1	Standard
|	Ba	137	50.308	0.936	1	52	450887	1	Standard
[>	Tb	159	ug/L			165965	174759	1	Standard
|	Pb	208	48.648	1.114	2	210	4105611	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:27:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	27300	2	Standard
>	Sc	45	ug/L			460122	470436	2	Standard
|	Cr	52	-0.018	ug/L	0.009	8551	8514	4	Standard
|	Cr	53	-0.003	ug/L	0.004	93	90	5	Standard
|	Mn	55	-0.000	ug/L	0.002	219	220	13	Standard
>	Ge	72		ug/L		30494	30726	0	KED
|	Ni	60	-0.001	ug/L	0.005	28	27	24	KED
|	Ni	62	0.008	ug/L	0.029	3	5	115	KED
|	Cu	63	0.001	ug/L	0.001	26	32	15	KED
|	Cu	65	0.004	ug/L	0.001	10	17	16	KED
|	Zn	66	-0.005	ug/L	0.008	19	17	22	KED
|	Zn	67	0.007	ug/L	0.023	3	3	50	KED
|	As	75	0.006	ug/L	0.006	2	4	33	KED
|	Y	89		ug/L		38927	38371	2	Standard
|	Kr	83		ug/L		46	50	12	Standard
>	In-1	115		ug/L		6386	6581	0	KED
|	Cd	111	-0.011	ug/L	0.005	4	1	69	KED
|	Cd	114	-0.018	ug/L	0.004	13	2	74	KED
>	In	115		ug/L		414575	415511	1	Standard
|	Ag	107	0.002	ug/L	0.001	42	74	17	Standard
|	Ba	135	0.004	ug/L	0.002	38	56	14	Standard
|	Ba	137	0.002	ug/L	0.001	52	67	5	Standard
>	Tb	159		ug/L		165965	170390	1	Standard
|	Pb	208	0.001	ug/L	0.000	210	278	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-BS2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 16:37:38**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	36179	3	Standard
> Sc	45		ug/L			460122	489899	1	Standard
Cr	52	24.960	ug/L	0.316	1	8551	340780	0	Standard
Cr	53	25.380	ug/L	0.338	1	93	39004	0	Standard
Mn	55	25.393	ug/L	0.561	2	219	491901	0	Standard
> Ge	72		ug/L			30494	32242	1	KED
Ni	60	25.240	ug/L	0.314	1	28	38550	1	KED
Ni	62	25.783	ug/L	0.109	0	3	6213	1	KED
Cu	63	26.359	ug/L	0.566	2	26	112958	1	KED
Cu	65	25.384	ug/L	0.481	1	10	55248	2	KED
Zn	66	79.567	ug/L	1.920	2	19	42370	1	KED
Zn	67	75.736	ug/L	2.160	2	3	6576	1	KED
As	75	24.433	ug/L	0.538	2	2	6343	1	KED
Y	89		ug/L			38927	40159	1	Standard
Kr	83		ug/L			46	43	4	Standard
> In-1	115		ug/L			6386	6957	2	KED
Cd	111	23.957	ug/L	0.603	2	4	6030	1	KED
Cd	114	24.072	ug/L	0.683	2	13	15459	0	KED
> In	115		ug/L			414575	431799	0	Standard
Ag	107	26.127	ug/L	0.824	3	42	367351	3	Standard
Ba	135	25.404	ug/L	0.211	0	38	132968	0	Standard
Ba	137	25.330	ug/L	0.211	0	52	236512	1	Standard
> Tb	159		ug/L			165965	174231	1	Standard
Pb	208	25.433	ug/L	0.192	0	210	2140092	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 16:42:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	40021	2	Standard
> Sc	45		ug/L			460122	473873	0	Standard
| Cr	52	0.097	ug/L	0.010	10	8551	10051	0	Standard
| Cr	53	0.105	ug/L	0.018	17	93	251	9	Standard
| Mn	55	0.033	ug/L	0.002	5	219	837	3	Standard
> Ge	72		ug/L			30494	31264	2	KED
| Ni	60	0.022	ug/L	0.015	70	28	60	35	KED
| Ni	62	0.016	ug/L	0.016	103	3	7	50	KED
| Cu	63	0.049	ug/L	0.014	29	26	232	24	KED
| Cu	65	0.056	ug/L	0.016	28	10	128	24	KED
| Zn	66	0.470	ug/L	0.069	14	19	262	12	KED
| Zn	67	0.497	ug/L	0.014	2	3	45	4	KED
| As	75	0.015	ug/L	0.027	177	2	6	98	KED
Y	89		ug/L			38927	39917	0	Standard
Kr	83		ug/L			46	39	7	Standard
> In-1	115		ug/L			6386	6540	1	KED
| Cd	111	-0.002	ug/L	0.012	633	4	3	75	KED
| Cd	114	-0.006	ug/L	0.013	209	13	9	77	KED
> In	115		ug/L			414575	415543	1	Standard
| Ag	107	0.003	ug/L	0.000	11	42	83	6	Standard
| Ba	135	0.026	ug/L	0.003	12	38	171	9	Standard
| Ba	137	0.029	ug/L	0.003	9	52	314	6	Standard
> Tb	159		ug/L			165965	169922	1	Standard
| Pb	208	0.006	ug/L	0.001	14	210	718	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 16:46:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27225	39027	2	Standard
>	Sc	45	ug/L			460122	461654	2	Standard
|	Cr	52	25.238	0.287	1	8551	324601	2	Standard
|	Cr	53	25.440	0.296	1	93	36851	3	Standard
|	Mn	55	25.373	0.120	0	219	463229	2	Standard
>	Ge	72	ug/L			30494	30211	2	KED
|	Ni	60	26.185	0.273	1	28	37483	3	KED
|	Ni	62	26.338	0.301	1	3	5947	3	KED
|	Cu	63	27.433	0.170	0	26	110164	2	KED
|	Cu	65	26.596	0.313	1	10	54234	2	KED
|	Zn	66	83.932	1.655	1	19	41884	3	KED
|	Zn	67	80.250	2.169	2	3	6529	3	KED
|	As	75	25.370	0.056	0	2	6172	2	KED
	Y	89	ug/L			38927	38192	1	Standard
	Kr	83	ug/L			46	52	11	Standard
>	In-1	115	ug/L			6386	6501	3	KED
|	Cd	111	25.134	1.192	4	4	5907	1	KED
|	Cd	114	25.194	0.793	3	13	15119	1	KED
>	In	115	ug/L			414575	410527	2	Standard
|	Ag	107	25.608	0.856	3	42	342138	0	Standard
|	Ba	135	25.741	0.306	1	38	128095	2	Standard
|	Ba	137	25.254	0.068	0	52	224183	2	Standard
>	Tb	159	ug/L			165965	165111	0	Standard
|	Pb	208	25.619	0.557	2	210	2043320	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BS TEST OLD SPIKE

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:51:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	40627	4	Standard
>	Sc	45	ug/L			460122	458950	2	Standard
|	Cr	52	<u>26.766</u>	0.345	1	8551	341750	2	Standard
|	Cr	53	<u>26.847</u>	0.458	1	93	38641	0	Standard
|	Mn	55	<u>27.372</u>	0.430	1	219	496744	2	Standard
>	Ge	72	ug/L			30494	30230	0	KED
|	Ni	60	<u>27.633</u>	0.426	1	28	39570	1	KED
|	Ni	62	<u>28.064</u>	0.431	1	3	6340	1	KED
|	Cu	63	<u>29.127</u>	0.178	0	26	117038	0	KED
|	Cu	65	<u>28.454</u>	0.497	1	10	58061	1	KED
|	Zn	66	<u>89.908</u>	0.386	0	19	44892	0	KED
|	Zn	67	<u>86.177</u>	1.866	2	3	7016	1	KED
|	As	75	<u>27.188</u>	0.020	0	2	6619	0	KED
|	Y	89	ug/L			38927	38692	1	Standard
|	Kr	83	ug/L			46	45	39	Standard
>	In-1	115	ug/L			6386	6224	1	KED
|	Cd	111	<u>27.062</u>	0.623	2	4	6094	0	KED
|	Cd	114	<u>27.613</u>	0.405	1	13	15870	0	KED
>	In	115	ug/L			414575	412256	1	Standard
|	Ag	107	<u>27.469</u>	0.347	1	42	368710	1	Standard
|	Ba	135	<u>26.960</u>	0.678	2	38	134694	1	Standard
|	Ba	137	<u>26.753</u>	0.291	1	52	238470	1	Standard
>	Tb	159	ug/L			165965	167858	1	Standard
|	Pb	208	<u>26.566</u>	0.294	1	210	2153961	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BS TEST NEW SPIKE

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:55:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	38854	7	Standard
>	Sc	45	ug/L			460122	468192	3	Standard
|	Cr	52	23.853	0.197	0	8551	311663	3	Standard
|	Cr	53	23.892	0.082	0	93	35097	3	Standard
|	Mn	55	24.567	0.042	0	219	454908	3	Standard
>	Ge	72	ug/L			30494	30816	1	KED
|	Ni	60	24.684	0.484	1	28	36037	2	KED
|	Ni	62	24.520	0.523	2	3	5646	1	KED
|	Cu	63	25.318	0.217	0	26	103704	1	KED
|	Cu	65	25.251	0.532	2	10	52519	1	KED
|	Zn	66	78.571	1.426	1	19	39990	1	KED
|	Zn	67	74.287	2.241	3	3	6164	1	KED
|	As	75	23.647	0.271	1	2	5868	0	KED
|	Y	89	ug/L			38927	39003	4	Standard
|	Kr	83	ug/L			46	53	14	Standard
>	In-1	115	ug/L			6386	6281	2	KED
|	Cd	111	24.475	0.467	1	4	5562	0	KED
|	Cd	114	24.380	0.860	3	13	14138	1	KED
>	In	115	ug/L			414575	423587	2	Standard
|	Ag	107	24.883	0.677	2	42	343351	4	Standard
|	Ba	135	23.986	0.495	2	38	123196	3	Standard
|	Ba	137	23.662	0.444	1	52	216790	3	Standard
>	Tb	159	ug/L			165965	168602	1	Standard
|	Pb	208	24.317	0.313	1	210	1980323	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0271-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 17:00:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	142251	4	Standard
> Sc	45		ug/L			460122	446369	1	Standard
| Cr	52	1.076	ug/L	0.027	2	8551	21317	1	Standard
| Cr	53	0.715	ug/L	0.034	4	93	1087	3	Standard
| Mn	55	5.426	ug/L	0.020	0	219	95958	1	Standard
> Ge	72		ug/L			30494	28103	0	KED
| Ni	60	0.941	ug/L	0.024	2	28	1278	2	KED
| Ni	62	0.875	ug/L	0.099	11	3	187	11	KED
| Cu	63	0.069	ug/L	0.007	9	26	280	9	KED
| Cu	65	0.063	ug/L	0.007	11	10	128	10	KED
| Zn	66	0.679	ug/L	0.039	5	19	333	5	KED
| Zn	67	1.086	ug/L	0.037	3	3	85	3	KED
| As	75	0.096	ug/L	0.026	26	2	24	23	KED
| Y	89		ug/L			38927	39499	0	Standard
| Kr	83		ug/L			46	41	20	Standard
> In-1	115		ug/L			6386	5644	1	KED
| Cd	111	-0.006	ug/L	0.010	172	4	2	78	KED
| Cd	114	-0.012	ug/L	0.008	67	13	5	79	KED
> In	115		ug/L			414575	389922	0	Standard
| Ag	107	0.003	ug/L	0.001	22	42	83	12	Standard
| Ba	135	5.108	ug/L	0.029	0	38	24174	1	Standard
| Ba	137	5.077	ug/L	0.055	1	52	42850	1	Standard
> Tb	159		ug/L			165965	163179	1	Standard
| Pb	208	0.011	ug/L	0.001	10	210	1069	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0239-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 17:05:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	40361	4	Standard
> Sc	45		ug/L			460122	468394	2	Standard
| Cr	52	100.505	ug/L	1.370	1	8551	1285499	0	Standard
| Cr	53	102.580	ug/L	0.852	0	93	150438	1	Standard
| Mn	55	1.875	ug/L	0.033	1	219	34923	0	Standard
> Ge	72		ug/L			30494	28568	2	KED
| Ni	60	1.933	ug/L	0.084	4	28	2638	2	KED
| Ni	62	1.986	ug/L	0.028	1	3	427	1	KED
| Cu	63	15.980	ug/L	0.165	1	26	60693	2	KED
| Cu	65	15.923	ug/L	0.257	1	10	30705	0	KED
| Zn	66	12.253	ug/L	0.340	2	19	5796	1	KED
| Zn	67	11.501	ug/L	0.878	7	3	888	9	KED
| As	75	0.246	ug/L	0.030	12	2	59	9	KED
| Y	89		ug/L			38927	38347	2	Standard
| Kr	83		ug/L			46	35	17	Standard
> In-1	115		ug/L			6386	5914	2	KED
| Cd	111	0.242	ug/L	0.044	18	4	55	17	KED
| Cd	114	0.250	ug/L	0.010	3	13	148	5	KED
> In	115		ug/L			414575	390354	0	Standard
| Ag	107	0.013	ug/L	0.003	21	42	200	17	Standard
| Ba	135	1.685	ug/L	0.029	1	38	8004	1	Standard
| Ba	137	1.639	ug/L	0.020	1	52	13878	1	Standard
> Tb	159		ug/L			165965	163119	1	Standard
| Pb	208	0.270	ug/L	0.002	0	210	21458	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:10:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	31547	4	Standard
> Sc	45		ug/L			460122	443747	2	Standard
| Cr	52	0.140	ug/L	0.050	35	8551	9920	3	Standard
| Cr	53	0.065	ug/L	0.038	58	93	179	27	Standard
| Mn	55	0.003	ug/L	0.001	34	219	256	5	Standard
> Ge	72		ug/L			30494	28983	0	KED
| Ni	60	0.007	ug/L	0.004	57	28	36	13	KED
| Ni	62	0.018	ug/L	0.023	126	3	7	66	KED
| Cu	63	0.004	ug/L	0.002	61	26	39	22	KED
| Cu	65	0.008	ug/L	0.004	47	10	25	30	KED
| Zn	66	0.104	ug/L	0.017	16	19	68	12	KED
| Zn	67	0.124	ug/L	0.038	30	3	12	22	KED
| As	75	0.003	ug/L	0.008	231	2	3	51	KED
Y	89		ug/L			38927	38028	2	Standard
Kr	83		ug/L			46	40	21	Standard
> In-1	115		ug/L			6386	5864	1	KED
| Cd	111	-0.010	ug/L	0.005	48	4	1	69	KED
| Cd	114	-0.013	ug/L	0.004	30	13	4	44	KED
> In	115		ug/L			414575	408589	0	Standard
| Ag	107	-0.001	ug/L	0.000	68	42	33	16	Standard
| Ba	135	0.006	ug/L	0.003	56	38	67	24	Standard
| Ba	137	0.010	ug/L	0.002	18	52	135	11	Standard
> Tb	159		ug/L			165965	162358	0	Standard
| Pb	208	0.003	ug/L	0.000	3	210	469	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0074-13**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 17:16:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27225	49095	3	Standard
>	Sc	45	ug/L			460122	458570	1	Standard
|	Cr	52	0.121	0.004	3	8551	10023	0	Standard
|	Cr	53	0.117	0.006	5	93	260	3	Standard
|	Mn	55	62.290	0.696	1	219	1129343	1	Standard
>	Ge	72	ug/L			30494	29462	1	KED
|	Ni	60	0.271	0.028	10	28	405	10	KED
|	Ni	62	0.312	0.043	13	3	72	14	KED
|	Cu	63	0.012	0.004	34	26	73	23	KED
|	Cu	65	0.017	0.007	38	10	43	30	KED
|	Zn	66	0.253	0.025	9	19	142	7	KED
|	Zn	67	0.330	0.119	36	3	29	32	KED
|	As	75	0.024	0.006	23	2	8	17	KED
	Y	89	ug/L			38927	38051	5	Standard
	Kr	83	ug/L			46	41	4	Standard
>	In-1	115	ug/L			6386	6228	4	KED
|	Cd	111	-0.002	0.003	106	4	3	15	KED
|	Cd	114	-0.017	0.004	21	13	3	72	KED
>	In	115	ug/L			414575	414433	0	Standard
|	Ag	107	-0.001	0.001	51	42	29	22	Standard
|	Ba	135	1.303	0.021	1	38	6583	1	Standard
|	Ba	137	1.275	0.021	1	52	11471	1	Standard
>	Tb	159	ug/L			165965	164391	0	Standard
|	Pb	208	0.001	0.000	15	210	306	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:21:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	32250	3	Standard
[> Sc	45		ug/L			460122	448029	3	Standard
| Cr	52	0.100	ug/L	0.015	14	8551	9535	1	Standard
| Cr	53	0.007	ug/L	0.002	32	93	99	4	Standard
| Mn	55	0.003	ug/L	0.000	15	219	269	6	Standard
[> Ge	72		ug/L			30494	29530	2	KED
| Ni	60	0.005	ug/L	0.004	76	28	34	14	KED
| Ni	62	0.015	ug/L	0.026	175	3	6	83	KED
| Cu	63	0.007	ug/L	0.002	31	26	53	15	KED
| Cu	65	0.009	ug/L	0.006	67	10	27	45	KED
| Zn	66	0.101	ug/L	0.022	21	19	68	16	KED
| Zn	67	0.145	ug/L	0.017	11	3	14	7	KED
| As	75	-0.006	ug/L	0.000	2	2	1	0	KED
Y	89		ug/L			38927	37386	3	Standard
Kr	83		ug/L			46	36	27	Standard
[> In-1	115		ug/L			6386	6171	1	KED
| Cd	111	-0.011	ug/L	0.002	22	4	1	34	KED
| Cd	114	-0.019	ug/L	0.003	17	13	1	107	KED
[> In	115		ug/L			414575	410481	2	Standard
| Ag	107	-0.002	ug/L	0.001	39	42	17	53	Standard
| Ba	135	0.009	ug/L	0.001	12	38	81	8	Standard
| Ba	137	0.010	ug/L	0.002	16	52	140	7	Standard
[> Tb	159		ug/L			165965	159373	2	Standard
| Pb	208	0.003	ug/L	0.000	6	210	454	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:25:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	28398	4	Standard
[>	Sc	45	ug/L			460122	469913	2	Standard
|	Cr	52	48.856	0.643	1	8551	631392	1	Standard
|	Cr	53	49.223	1.281	2	93	72464	2	Standard
|	Mn	55	49.560	1.224	2	219	920566	1	Standard
[>	Ge	72	ug/L			30494	30063	1	KED
|	Ni	60	49.867	0.782	1	28	70999	2	KED
|	Ni	62	50.197	0.689	1	3	11275	1	KED
|	Cu	63	50.159	0.576	1	26	200413	0	KED
|	Cu	65	48.899	0.492	1	10	99227	1	KED
|	Zn	66	51.739	1.386	2	19	25699	2	KED
|	Zn	67	50.185	0.498	0	3	4065	2	KED
|	As	75	50.172	0.623	1	2	12145	1	KED
|	Y	89	ug/L			38927	39969	1	Standard
|	Kr	83	ug/L			46	45	37	Standard
[>	In-1	115	ug/L			6386	6279	1	KED
|	Cd	111	49.539	0.842	1	4	11251	0	KED
|	Cd	114	49.229	0.544	1	13	28533	0	KED
[>	In	115	ug/L			414575	411972	1	Standard
|	Ag	107	50.177	0.802	1	42	673041	1	Standard
|	Ba	135	49.679	1.413	2	38	248006	1	Standard
|	Ba	137	49.119	1.140	2	52	437442	1	Standard
[>	Tb	159	ug/L			165965	171214	1	Standard
|	Pb	208	49.862	0.645	1	210	4122760	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:32:56

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	27717	4	Standard
> Sc	45		ug/L			460122	450724	2	Standard
| Cr	52	0.003	ug/L	0.014	418	8551	8421	4	Standard
| Cr	53	-0.005	ug/L	0.009	182	93	84	12	Standard
| Mn	55	-0.001	ug/L	0.000	23	219	200	3	Standard
> Ge	72		ug/L			30494	29445	3	KED
| Ni	60	0.006	ug/L	0.005	79	28	35	15	KED
| Ni	62	0.012	ug/L	0.036	300	3	6	124	KED
| Cu	63	0.001	ug/L	0.002	144	26	31	23	KED
| Cu	65	0.003	ug/L	0.005	179	10	15	62	KED
| Zn	66	0.011	ug/L	0.008	78	19	24	16	KED
| Zn	67	0.002	ug/L	0.029	1588	3	3	69	KED
| As	75	-0.000	ug/L	0.001	460	2	2	10	KED
| Y	89		ug/L			38927	37726	1	Standard
| Kr	83		ug/L			46	40	4	Standard
> In-1	115		ug/L			6386	6165	2	KED
| Cd	111	-0.004	ug/L	0.003	78	4	3	17	KED
| Cd	114	-0.017	ug/L	0.002	11	13	3	35	KED
> In	115		ug/L			414575	396753	2	Standard
| Ag	107	0.001	ug/L	0.000	50	42	48	9	Standard
| Ba	135	0.002	ug/L	0.002	114	38	46	26	Standard
| Ba	137	0.004	ug/L	0.001	13	52	86	5	Standard
> Tb	159		ug/L			165965	158887	2	Standard
| Pb	208	0.001	ug/L	0.000	54	210	264	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-04**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:42:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	61757	0	Standard
Kr	83	ug/L			46	46	14	Standard
[> Tb	159	ug/L			165965	165213	1	Standard
[Pb	208	0.043	0.001	1	210	3630	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-08**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:43:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	58213	2	Standard
Kr	83		ug/L			46	52	9	Standard
[> Tb	159		ug/L			165965	164898	0	Standard
[Pb	208	0.131	ug/L	0.002	1	210	10648	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-10**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:44:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	58428	1	Standard
Kr	83		ug/L			46	45	11	Standard
[> Tb	159		ug/L			165965	163874	1	Standard
[Pb	208	0.109	ug/L	0.003	2	210	8815	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-12**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:46:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	61012	1	Standard
Kr	83	ug/L			46	47	28	Standard
[> Tb	159	ug/L			165965	164973	2	Standard
[Pb	208	ug/L	0.001	3	210	2478	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-18**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:47:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	61398	0	Standard
Kr	83	ug/L			46	51	16	Standard
[> Tb	159	ug/L			165965	165020	0	Standard
[Pb	208	ug/L	0.005	2	210	15939	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-20**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:48:56

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	50771	1	Standard
Kr	83	ug/L			46	48	13	Standard
[> Tb	159	ug/L			165965	171143	0	Standard
[Pb	208	0.113	0.002	1	210	9556	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-DUP2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:50:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	49235	1	Standard
Kr	83	ug/L			46	48	43	Standard
[> Tb	159	ug/L			165965	167068	1	Standard
[Pb	208	0.116	0.001	1	210	9571	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-MS2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 17:51:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27225	49614	2	Standard
	Kr	83	ug/L			46	50	9	Standard
[>	Tb	159	ug/L			165965	170031	2	Standard
[	Pb	208	ug/L	0.344	2	210	1127528	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-MSD2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:53:01

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	48805	2	Standard
Kr	83	ug/L			46	50	14	Standard
[> Tb	159	ug/L			165965	167377	0	Standard
[Pb	208	ug/L	0.177	1	210	1121192	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:54:24

TUBE EMPTY

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	27210	4	Standard
Kr	83		ug/L			46	144	17	Standard
[> Tb	159		ug/L			165965	327175	4	Standard
[Pb	208	-0.001	ug/L	0.000	9	210	260	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:55:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	34810	2	Standard
Kr	83	ug/L			46	52	17	Standard
[> Tb	159	ug/L			165965	161330	1	Standard
[Pb	208	50.918	1.253	2	210	3966283	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:59:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	34296	0	Standard
Kr	83		ug/L			46	49	26	Standard
[> Tb	159		ug/L			165965	159481	1	Standard
[Pb	208	0.001	ug/L	0.000	24	210	259	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:02:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	44018	1	Standard
Kr	83	ug/L			46	46	26	Standard
[> Tb	159	ug/L			165965	161506	3	Standard
[Pb	208	ug/L	0.005	2	210	16953	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-07**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:03:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	44977	1	Standard
Kr	83		ug/L			46	49	3	Standard
[> Tb	159		ug/L			165965	163185	2	Standard
[Pb	208	0.528	ug/L	0.010	1	210	41772	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-09**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:05:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	44276	1	Standard
Kr	83	ug/L			46	57	30	Standard
[> Tb	159	ug/L			165965	165180	0	Standard
[Pb	208	0.532	0.007	1	210	42672	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0480-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:06:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	122185	1	Standard
Kr	83	ug/L			46	67	9	Standard
[> Tb	159	ug/L			165965	154453	0	Standard
[Pb	208	ug/L	0.001	2	210	2487	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:08:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	38187	0	Standard
Kr	83	ug/L			46	53	19	Standard
[> Tb	159	ug/L			165965	155231	2	Standard
[Pb	208	ug/L	0.000	290	210	190	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:09:37

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	49595	1	Standard
Kr	83	ug/L			46	44	8	Standard
[> Tb	159	ug/L			165965	163100	0	Standard
[Pb	208	0.240	0.001	0	210	19113	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:10:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	51006	1	Standard
Kr	83	ug/L			46	44	6	Standard
[> Tb	159	ug/L			165965	164539	0	Standard
[Pb	208	0.146	0.002	1	210	11808	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-06**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:12:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	50541	0	Standard
Kr	83		ug/L			46	42	6	Standard
[> Tb	159		ug/L			165965	165015	2	Standard
[Pb	208	0.314	ug/L	0.005	1	210	25260	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-11**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:13:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	49047	2	Standard
Kr	83		ug/L			46	53	25	Standard
[> Tb	159		ug/L			165965	163377	0	Standard
[Pb	208	0.285	ug/L	0.003	1	210	22689	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:15:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13	ug/L			27225	39344	0	Standard	
Kr	83	ug/L			46	51	14	Standard	
[> Tb	159	ug/L			165965	155831	1	Standard	
[Pb	208	0.000	ug/L	0.000	3427	210	198	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:16:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	36226	0	Standard
Kr	83		ug/L			46	58	6	Standard
[> Tb	159		ug/L			165965	164187	0	Standard
[Pb	208	50.229	ug/L	0.094	0	210	3982976	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:20:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	34920	2	Standard
Kr	83		ug/L			46	49	10	Standard
[> Tb	159		ug/L			165965	158492	1	Standard
[Pb	208	0.000	ug/L	0.000	129	210	228	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-13**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:24:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	51951	0	Standard
Kr	83	ug/L			46	52	12	Standard
[> Tb	159	ug/L			165965	160838	0	Standard
[Pb	208	ug/L	0.000	0	210	9164	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0477-14

Sample Dil Factor: 2

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:25:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	53936	0	Standard
Kr	83	ug/L			46	53	22	Standard
Tb	159	ug/L			165965	160287	1	Standard
Pb	208	ug/L	0.007	1	210	37574	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-16**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:26:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	56772	2	Standard
Kr	83		ug/L			46	48	8	Standard
[> Tb	159		ug/L			165965	163973	0	Standard
[Pb	208	0.145	ug/L	0.004	2	210	11656	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-15**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:28:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	42521	0	Standard
Kr	83		ug/L			46	53	16	Standard
[> Tb	159		ug/L			165965	161089	0	Standard
[Pb	208	0.551	ug/L	0.003	0	210	43096	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:29:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	33768	5	Standard
> Sc	45		ug/L			460122	479753	3	Standard
| Cr	52	0.041	ug/L	0.014	35	8551	9448	2	Standard
| Cr	53	0.006	ug/L	0.009	149	93	106	16	Standard
| Mn	55	-0.001	ug/L	0.000	25	219	206	4	Standard
> Ge	72		ug/L			30494	30106	2	KED
| Ni	60	0.011	ug/L	0.003	30	28	43	11	KED
| Ni	62	0.012	ug/L	0.028	237	3	6	96	KED
| Cu	63	0.002	ug/L	0.002	101	26	33	23	KED
| Cu	65	0.002	ug/L	0.002	118	10	13	28	KED
| Zn	66	0.035	ug/L	0.003	9	19	36	2	KED
| Zn	67	0.040	ug/L	0.015	37	3	6	17	KED
| As	75	-0.006	ug/L	0.009	154	2	1	145	KED
Y	89		ug/L			38927	40722	4	Standard
Kr	83		ug/L			46	36	13	Standard
> In-1	115		ug/L			6386	7035	3	KED
| Cd	111	-0.005	ug/L	0.002	39	4	3	17	KED
| Cd	114	-0.015	ug/L	0.005	30	13	5	58	KED
> In	115		ug/L			414575	426936	2	Standard
| Ag	107	-0.002	ug/L	0.001	38	42	20	47	Standard
| Ba	135	0.004	ug/L	0.002	61	38	58	21	Standard
| Ba	137	0.003	ug/L	0.002	60	52	85	23	Standard
> Tb	159		ug/L			165965	162029	1	Standard
| Pb	208	0.000	ug/L	0.000	24	210	219	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0702-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:34:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	50071	6	Standard
> Sc	45		ug/L			460122	559108	3	Standard
| Cr	52	2.801	ug/L	0.106	3	8551	52852	2	Standard
| Cr	53	5.604	ug/L	0.159	2	93	9911	0	Standard
| Mn	55	89.383	ug/L	2.391	2	219	1974612	1	Standard
> Ge	72		ug/L			30494	29308	1	KED
| Ni	60	4.352	ug/L	0.054	1	28	6064	1	KED
| Ni	62	4.366	ug/L	0.070	1	3	959	1	KED
| Cu	63	2.289	ug/L	0.036	1	26	8941	1	KED
| Cu	65	2.249	ug/L	0.100	4	10	4457	3	KED
| Zn	66	3.039	ug/L	0.133	4	19	1489	4	KED
| Zn	67	3.825	ug/L	0.302	7	3	304	7	KED
| As	75	10.055	ug/L	0.105	1	2	2374	0	KED
Y	89		ug/L			38927	89604	2	Standard
Kr	83		ug/L			46	51	9	Standard
> In-1	115		ug/L			6386	6158	1	KED
| Cd	111	0.002	ug/L	0.017	872	4	4	86	KED
| Cd	114	-0.004	ug/L	0.009	233	13	10	49	KED
> In	115		ug/L			414575	377047	1	Standard
| Ag	107	0.011	ug/L	0.002	21	42	168	14	Standard
| Ba	135	15.590	ug/L	0.479	3	38	71246	1	Standard
| Ba	137	15.628	ug/L	0.167	1	52	127422	0	Standard
> Tb	159		ug/L			165965	170609	1	Standard
| Pb	208	0.223	ug/L	0.005	2	210	18620	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-DUP1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:40:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	51084	4	Standard
> Sc	45		ug/L			460122	568350	2	Standard
| Cr	52	2.833	ug/L	0.035	1	8551	54242	2	Standard
| Cr	53	5.610	ug/L	0.098	1	93	10090	2	Standard
| Mn	55	89.613	ug/L	3.327	3	219	2014004	5	Standard
> Ge	72		ug/L			30494	28802	0	KED
| Ni	60	4.291	ug/L	0.110	2	28	5876	2	KED
| Ni	62	4.641	ug/L	0.202	4	3	1001	3	KED
| Cu	63	2.274	ug/L	0.042	1	26	8728	1	KED
| Cu	65	2.249	ug/L	0.100	4	10	4381	4	KED
| Zn	66	2.824	ug/L	0.077	2	19	1361	2	KED
| Zn	67	3.785	ug/L	0.579	15	3	296	15	KED
| As	75	10.016	ug/L	0.092	0	2	2324	0	KED
Y	89		ug/L			38927	89267	1	Standard
Kr	83		ug/L			46	47	8	Standard
> In-1	115		ug/L			6386	5985	1	KED
| Cd	111	0.003	ug/L	0.009	346	4	4	44	KED
| Cd	114	-0.007	ug/L	0.003	51	13	8	22	KED
> In	115		ug/L			414575	388034	3	Standard
| Ag	107	0.011	ug/L	0.001	6	42	176	8	Standard
| Ba	135	15.387	ug/L	0.337	2	38	72354	1	Standard
| Ba	137	15.411	ug/L	0.319	2	52	129265	1	Standard
> Tb	159		ug/L			165965	172113	0	Standard
| Pb	208	0.238	ug/L	0.003	1	210	20000	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-MS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:45:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	51186	5	Standard
> Sc	45		ug/L			460122	570416	2	Standard
| Cr	52	21.874	ug/L	0.296	1	8551	349015	1	Standard
| Cr	53	24.410	ug/L	0.481	1	93	43677	0	Standard
| Mn	55	112.129	ug/L	1.042	0	219	2528412	1	Standard
> Ge	72		ug/L			30494	29271	0	KED
| Ni	60	27.840	ug/L	0.280	1	28	38602	0	KED
| Ni	62	27.779	ug/L	0.122	0	3	6076	0	KED
| Cu	63	25.033	ug/L	0.213	0	26	97401	0	KED
| Cu	65	25.046	ug/L	0.184	0	10	49488	0	KED
| Zn	66	72.190	ug/L	1.687	2	19	34903	1	KED
| Zn	67	69.774	ug/L	2.572	3	3	5500	3	KED
| As	75	33.963	ug/L	0.148	0	2	8005	0	KED
Y	89		ug/L			38927	86850	1	Standard
Kr	83		ug/L			46	47	10	Standard
> In-1	115		ug/L			6386	5917	3	KED
| Cd	111	22.714	ug/L	1.260	5	4	4858	2	KED
| Cd	114	22.672	ug/L	0.714	3	13	12384	2	KED
> In	115		ug/L			414575	385596	1	Standard
| Ag	107	21.779	ug/L	0.668	3	42	273430	2	Standard
| Ba	135	41.119	ug/L	0.845	2	38	192158	1	Standard
| Ba	137	40.806	ug/L	0.502	1	52	340176	0	Standard
> Tb	159		ug/L			165965	173214	0	Standard
| Pb	208	21.567	ug/L	0.124	0	210	1804350	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-MSD1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:50:55**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	50121	5	Standard
> Sc	45		ug/L			460122	566649	2	Standard
| Cr	52	21.819	ug/L	0.163	0	8551	345942	3	Standard
| Cr	53	24.581	ug/L	0.115	0	93	43704	2	Standard
| Mn	55	110.088	ug/L	0.947	0	219	2466602	3	Standard
> Ge	72		ug/L			30494	28743	0	KED
| Ni	60	27.761	ug/L	0.348	1	28	37800	1	KED
| Ni	62	28.514	ug/L	0.618	2	3	6125	1	KED
| Cu	63	25.533	ug/L	0.214	0	26	97557	1	KED
| Cu	65	25.563	ug/L	0.514	2	10	49604	2	KED
| Zn	66	73.567	ug/L	1.366	1	19	34930	1	KED
| Zn	67	71.696	ug/L	1.628	2	3	5550	2	KED
| As	75	34.650	ug/L	0.590	1	2	8020	1	KED
Y	89		ug/L			38927	87094	1	Standard
Kr	83		ug/L			46	47	4	Standard
> In-1	115		ug/L			6386	5969	3	KED
| Cd	111	22.427	ug/L	0.921	4	4	4840	0	KED
| Cd	114	22.421	ug/L	0.824	3	13	12352	1	KED
> In	115		ug/L			414575	377052	2	Standard
| Ag	107	21.519	ug/L	0.480	2	42	264134	1	Standard
| Ba	135	41.712	ug/L	0.827	1	38	190601	2	Standard
| Ba	137	41.496	ug/L	0.365	0	52	338248	1	Standard
> Tb	159		ug/L			165965	171228	0	Standard
| Pb	208	21.433	ug/L	0.437	2	210	1772521	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:55:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	32104	2	Standard
[> Sc	45		ug/L			460122	484185	0	Standard
| Cr	52	0.052	ug/L	0.019	37	8551	9682	2	Standard
| Cr	53	0.125	ug/L	0.020	16	93	287	10	Standard
| Mn	55	0.003	ug/L	0.001	20	219	288	4	Standard
[> Ge	72		ug/L			30494	31140	1	KED
| Ni	60	0.002	ug/L	0.008	354	28	32	35	KED
| Ni	62	0.008	ug/L	0.022	275	3	5	88	KED
| Cu	63	0.004	ug/L	0.000	10	26	44	4	KED
| Cu	65	0.005	ug/L	0.002	32	10	20	15	KED
| Zn	66	0.050	ug/L	0.004	8	19	45	4	KED
| Zn	67	0.007	ug/L	0.022	337	3	3	50	KED
| As	75	-0.005	ug/L	0.001	23	2	1	15	KED
Y	89		ug/L			38927	38904	1	Standard
Kr	83		ug/L			46	44	25	Standard
[> In-1	115		ug/L			6386	6374	1	KED
| Cd	111	-0.008	ug/L	0.002	27	4	2	24	KED
| Cd	114	-0.018	ug/L	0.002	11	13	2	47	KED
[> In	115		ug/L			414575	414400	0	Standard
| Ag	107	-0.000	ug/L	0.000	199	42	39	16	Standard
| Ba	135	0.005	ug/L	0.002	36	38	62	13	Standard
| Ba	137	0.005	ug/L	0.000	5	52	99	3	Standard
[> Tb	159		ug/L			165965	170024	1	Standard
| Pb	208	0.001	ug/L	0.000	22	210	321	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:59:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27225	29882	5	Standard
[>	Sc	45	ug/L			460122	492719	1	Standard
|	Cr	52	46.862	0.898	1	8551	635602	3	Standard
|	Cr	53	47.446	0.957	2	93	73242	0	Standard
|	Mn	55	47.412	0.375	0	219	923706	1	Standard
[>	Ge	72	ug/L			30494	31679	0	KED
|	Ni	60	49.451	0.657	1	28	74185	0	KED
|	Ni	62	50.710	1.000	1	3	12004	2	KED
|	Cu	63	50.219	0.881	1	26	211426	0	KED
|	Cu	65	49.462	0.399	0	10	105774	1	KED
|	Zn	66	51.028	0.143	0	19	26710	1	KED
|	Zn	67	51.839	0.935	1	3	4424	2	KED
|	As	75	49.952	0.538	1	2	12741	0	KED
	Y	89	ug/L			38927	39628	2	Standard
	Kr	83	ug/L			46	42	9	Standard
[>	In-1	115	ug/L			6386	6648	0	KED
|	Cd	111	49.226	1.079	2	4	11839	1	KED
|	Cd	114	49.147	0.723	1	13	30162	0	KED
[>	In	115	ug/L			414575	414854	2	Standard
|	Ag	107	48.728	1.030	2	42	657999	1	Standard
|	Ba	135	49.989	0.737	1	38	251298	1	Standard
|	Ba	137	49.163	1.103	2	52	440803	0	Standard
[>	Tb	159	ug/L			165965	172287	1	Standard
|	Pb	208	49.027	0.734	1	210	4078768	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:07:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	44107	2	Standard
> Sc	45		ug/L			460122	467848	1	Standard
| Cr	52	0.056	ug/L	0.025	44	8551	9400	1	Standard
| Cr	53	0.022	ug/L	0.020	92	93	126	21	Standard
| Mn	55	0.009	ug/L	0.013	149	219	383	61	Standard
> Ge	72		ug/L			30494	30626	1	KED
| Ni	60	0.009	ug/L	0.002	19	28	41	4	KED
| Ni	62	0.042	ug/L	0.017	41	3	13	28	KED
| Cu	63	0.003	ug/L	0.003	87	26	39	26	KED
| Cu	65	0.007	ug/L	0.002	31	10	24	16	KED
| Zn	66	0.020	ug/L	0.005	25	19	29	9	KED
| Zn	67	0.023	ug/L	0.059	256	3	5	94	KED
| As	75	0.004	ug/L	0.005	127	2	3	33	KED
| Y	89		ug/L			38927	37362	2	Standard
| Kr	83		ug/L			46	31	27	Standard
> In-1	115		ug/L			6386	6407	3	KED
| Cd	111	-0.012	ug/L	0.002	17	4	1	43	KED
| Cd	114	-0.019	ug/L	0.003	17	13	1	100	KED
> In	115		ug/L			414575	406141	1	Standard
| Ag	107	0.010	ug/L	0.015	155	42	172	116	Standard
| Ba	135	0.014	ug/L	0.019	129	38	107	83	Standard
| Ba	137	0.014	ug/L	0.017	117	52	173	82	Standard
> Tb	159		ug/L			165965	163351	3	Standard
| Pb	208	0.011	ug/L	0.016	144	210	1026	113	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:14:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				35375	4	Standard
[>	Sc	45	ug/L				473417	1	Standard
|	Cr	52	ug/L				9091	2	Standard
|	Cr	53	ug/L				128	3	Standard
|	Mn	55	ug/L				216	3	Standard
[>	Ge	72	ug/L				31041	1	KED
|	Ni	60	ug/L				38	41	KED
|	Ni	62	ug/L				3	50	KED
|	Cu	63	ug/L				33	3	KED
|	Cu	65	ug/L				13	78	KED
|	Zn	66	ug/L				24	7	KED
|	Zn	67	ug/L				5	141	KED
|	As	75	ug/L				2	52	KED
	Y	89	ug/L				39379	3	Standard
	Kr	83	ug/L				33	20	Standard
[>	In-1	115	ug/L				6479	2	KED
|	Cd	111	ug/L				0	173	KED
|	Cd	114	ug/L				3	50	KED
[>	In	115	ug/L				411466	2	Standard
|	Ag	107	ug/L				26	25	Standard
|	Ba	135	ug/L				57	20	Standard
|	Ba	137	ug/L				109	19	Standard
[>	Tb	159	ug/L				168748	1	Standard
|	Pb	208	ug/L				245	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:18:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35375	31956	3	Standard
> Sc	45		ug/L			473417	483579	1	Standard
| Cr	52	48.033	ug/L	1.112	2	9091	639308	1	Standard
| Cr	53	48.743	ug/L	0.741	1	128	73885	0	Standard
| Mn	55	48.910	ug/L	0.430	0	216	935147	1	Standard
> Ge	72		ug/L			31041	31531	2	KED
| Ni	60	48.774	ug/L	2.327	4	38	72774	1	KED
| Ni	62	49.943	ug/L	0.902	1	3	11762	1	KED
| Cu	63	49.777	ug/L	1.894	3	33	208463	0	KED
| Cu	65	48.767	ug/L	1.443	2	13	103739	0	KED
| Zn	66	50.712	ug/L	1.224	2	24	26415	1	KED
| Zn	67	51.263	ug/L	0.826	1	5	4356	3	KED
| As	75	49.678	ug/L	1.461	2	2	12605	0	KED
Y	89		ug/L			39379	39569	1	Standard
Kr	83		ug/L			33	34	25	Standard
> In-1	115		ug/L			6479	6461	1	KED
| Cd	111	49.132	ug/L	0.667	1	0	11482	2	KED
| Cd	114	48.849	ug/L	0.955	1	3	29126	2	KED
> In	115		ug/L			411466	414070	2	Standard
| Ag	107	49.450	ug/L	1.680	3	26	666438	2	Standard
| Ba	135	49.266	ug/L	1.389	2	57	247159	0	Standard
| Ba	137	49.289	ug/L	1.165	2	109	441153	0	Standard
> Tb	159		ug/L			168748	170066	1	Standard
| Pb	208	49.517	ug/L	0.438	0	245	4066889	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:25:48

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35375	30742	2	Standard
[>	Sc	45		ug/L			473417	484633	4	Standard
|	Cr	52	-0.019	ug/L	0.032	173	9091	9049	1	Standard
|	Cr	53	-0.016	ug/L	0.017	102	128	106	19	Standard
|	Mn	55	0.008	ug/L	0.014	178	216	363	67	Standard
[>	Ge	72		ug/L			31041	31356	0	KED
|	Ni	60	-0.004	ug/L	0.011	291	38	33	46	KED
|	Ni	62	0.035	ug/L	0.013	36	3	12	24	KED
|	Cu	63	0.001	ug/L	0.002	267	33	36	20	KED
|	Cu	65	-0.001	ug/L	0.002	192	13	11	44	KED
|	Zn	66	-0.008	ug/L	0.003	44	24	20	9	KED
|	Zn	67	-0.008	ug/L	0.047	590	5	4	89	KED
|	As	75	0.003	ug/L	0.004	130	2	3	31	KED
	Y	89		ug/L			39379	40092	3	Standard
	Kr	83		ug/L			33	52	21	Standard
[>	In-1	115		ug/L			6479	6545	2	KED
|	Cd	111	0.003	ug/L	0.004	149	0	0	100	KED
|	Cd	114	-0.001	ug/L	0.003	271	3	3	71	KED
[>	In	115		ug/L			411466	418771	3	Standard
|	Ag	107	0.008	ug/L	0.012	139	26	137	111	Standard
|	Ba	135	0.007	ug/L	0.013	191	57	92	69	Standard
|	Ba	137	0.005	ug/L	0.013	257	109	154	70	Standard
[>	Tb	159		ug/L			168748	167031	2	Standard
|	Pb	208	0.010	ug/L	0.016	161	245	1004	121	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-01

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:33:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	40750	2	Standard
[>	Sc	45	ug/L			473417	593182	1	Standard
[	Mn	55	83.233	1.216	1	216	1952262	3	Standard
	Kr	83	ug/L			33	43	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-02

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:35:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	42093	1	Standard
[>	Sc	45	ug/L			473417	615694	3	Standard
[	Mn	55	ug/L	0.148	0	216	1899382	3	Standard
	Kr	83	ug/L			33	39	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-10

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:37:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
	C	13	ug/L			35375	43142	3	Standard	
[>	Sc	45	ug/L			473417	601761	2	Standard	
[Mn	55	232.522	ug/L	2.348	1	216	5531685	3	Standard
	Kr	83	ug/L			33	54	2	Standard	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-11

Sample Dil Factor: 100

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:38:35

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
	C	13	ug/L			35375	39783	0	Standard	
[>	Sc	45	ug/L			473417	599154	0	Standard	
[Mn	55	79.755	ug/L	2.106	2	216	1889365	3	Standard
	Kr	83	ug/L			33	48	29	Standard	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-12

Sample Dil Factor: 100

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:39:56

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	40719	0	Standard
[>	Sc	45	ug/L			473417	604640	2	Standard
[	Mn	55	ug/L	1.025	1	216	1817530	3	Standard
	Kr	83	ug/L			33	45	31	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-06

Sample Dil Factor: 50

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:41:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35375	40463	2	Standard
[> Sc	45		ug/L			473417	603703	4	Standard
[Mn	55	56.639	ug/L	1.334	2	216	1351242	3	Standard
Kr	83		ug/L			33	48	33	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:42:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	40240	2	Standard
[>	Sc	45	ug/L			473417	591422	1	Standard
[	Mn	55	0.004	0.001	27	216	365	5	Standard
	Kr	83	ug/L			33	42	41	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:44:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	36689	1	Standard
[>	Sc	45	ug/L			473417	610131	2	Standard
[	Mn	55	ug/L	0.619	1	216	1103017	3	Standard
	Kr	83	ug/L			33	55	27	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:48:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	35587	0	Standard
[>	Sc	45	ug/L			473417	576301	3	Standard
[	Mn	55	ug/L	0.001	46	216	287	2	Standard
	Kr	83	ug/L			33	41	25	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:51:06

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L				30125	1	Standard
[>	Sc	45		ug/L				488451	2	Standard
|	Cr	52		ug/L				8929	3	Standard
|	Cr	53		ug/L				95	11	Standard
|	Mn	55		ug/L				208	10	Standard
[>	Ge	72		ug/L				31094	1	KED
|	Ni	60		ug/L				36	9	KED
|	Ni	62		ug/L				5	78	KED
|	Cu	63		ug/L				24	13	KED
|	Cu	65		ug/L				18	36	KED
|	Zn	66		ug/L				23	23	KED
|	Zn	67		ug/L				4	49	KED
|	As	75		ug/L				2	68	KED
	Y	89		ug/L				40140	3	Standard
	Kr	83		ug/L				40	38	Standard
[>	In-1	115		ug/L				6950	2	KED
|	Cd	111		ug/L				3	56	KED
|	Cd	114		ug/L				0	180	KED
[>	In	115		ug/L				429431	3	Standard
|	Ag	107		ug/L				24	13	Standard
|	Ba	135		ug/L				46	4	Standard
|	Ba	137		ug/L				85	12	Standard
[>	Tb	159		ug/L				166755	2	Standard
|	Pb	208		ug/L				213	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:55:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	31068	6	Standard
>	Sc	45	ug/L			488451	496953	2	Standard
|	Cr	52	47.887	0.305	0	8929	654584	1	Standard
|	Cr	53	48.282	0.759	1	95	75177	2	Standard
|	Mn	55	48.329	0.366	0	208	949563	1	Standard
>	Ge	72	ug/L			31094	31335	1	KED
|	Ni	60	49.504	1.097	2	36	73453	0	KED
|	Ni	62	50.840	1.958	3	5	11900	2	KED
|	Cu	63	49.902	1.103	2	24	207822	2	KED
|	Cu	65	49.025	0.755	1	18	103691	0	KED
|	Zn	66	51.257	1.113	2	23	26540	2	KED
|	Zn	67	51.830	2.221	4	4	4375	3	KED
|	As	75	50.761	0.849	1	2	12805	0	KED
	Y	89	ug/L			40140	41623	2	Standard
	Kr	83	ug/L			40	43	15	Standard
>	In-1	115	ug/L			6950	6586	1	KED
|	Cd	111	48.710	0.857	1	3	11605	0	KED
|	Cd	114	49.769	0.997	2	0	30244	0	KED
>	In	115	ug/L			429431	422607	0	Standard
|	Ag	107	50.288	1.632	3	24	691847	2	Standard
|	Ba	135	48.585	0.946	1	46	248842	1	Standard
|	Ba	137	48.718	0.733	1	85	445176	1	Standard
>	Tb	159	ug/L			166755	174363	1	Standard
|	Pb	208	48.985	1.030	2	213	4124375	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 20:00:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	29186	4	Standard
> Sc	45		ug/L			488451	490772	1	Standard
| Cr	52	0.009	ug/L	0.042	453	8929	9089	4	Standard
| Cr	53	0.023	ug/L	0.036	157	95	130	41	Standard
| Mn	55	0.019	ug/L	0.031	161	208	581	102	Standard
> Ge	72		ug/L			31094	31384	2	KED
| Ni	60	-0.004	ug/L	0.004	106	36	31	18	KED
| Ni	62	-0.000	ug/L	0.012	3657	5	5	57	KED
| Cu	63	0.003	ug/L	0.002	59	24	38	20	KED
| Cu	65	0.001	ug/L	0.002	433	18	19	24	KED
| Zn	66	0.010	ug/L	0.020	208	23	28	35	KED
| Zn	67	0.022	ug/L	0.034	155	4	6	45	KED
| As	75	0.003	ug/L	0.003	90	2	3	24	KED
| Y	89		ug/L			40140	40666	1	Standard
| Kr	83		ug/L			40	40	25	Standard
> In-1	115		ug/L			6950	6471	0	KED
| Cd	111	0.001	ug/L	0.002	220	3	3	15	KED
| Cd	114	0.008	ug/L	0.004	50	0	5	43	KED
> In	115		ug/L			429431	430476	1	Standard
| Ag	107	0.022	ug/L	0.034	155	24	335	144	Standard
| Ba	135	0.015	ug/L	0.027	179	46	126	113	Standard
| Ba	137	0.014	ug/L	0.023	164	85	219	101	Standard
> Tb	159		ug/L			166755	169298	1	Standard
| Pb	208	0.017	ug/L	0.027	157	213	1621	137	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0636-01**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:07:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	37533	4	Standard
[>	Sc	45	ug/L			488451	529062	2	Standard
|	Cr	52	0.541	0.003	0	8929	17434	2	Standard
|	Cr	53	0.601	0.008	1	95	1098	1	Standard
|	Mn	55	88.376	0.740	0	208	1848790	3	Standard
[>	Ge	72	ug/L			31094	31864	2	KED
|	Ni	60	0.988	0.024	2	36	1526	2	KED
|	Ni	62	1.021	0.115	11	5	247	8	KED
|	Cu	63	1.647	0.021	1	24	6997	1	KED
|	Cu	65	1.686	0.054	3	18	3643	1	KED
|	Zn	66	4.041	0.149	3	23	2151	6	KED
|	Zn	67	3.780	0.373	9	4	328	7	KED
|	As	75	0.565	0.012	2	2	147	4	KED
|	Y	89	ug/L			40140	56560	3	Standard
|	Kr	83	ug/L			40	39	14	Standard
[>	In-1	115	ug/L			6950	6868	0	KED
|	Cd	111	0.005	0.015	289	3	4	80	KED
|	Cd	114	0.012	0.004	30	0	8	28	KED
[>	In	115	ug/L			429431	448110	1	Standard
|	Ag	107	0.004	0.001	29	24	85	19	Standard
|	Ba	135	2.679	0.043	1	46	14596	2	Standard
|	Ba	137	2.633	0.026	0	85	25592	1	Standard
[>	Tb	159	ug/L			166755	178597	0	Standard
|	Pb	208	0.679	0.008	1	213	58760	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-DUP2**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:11:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	37041	3	Standard
> Sc	45		ug/L			488451	517410	0	Standard
| Cr	52	0.555	ug/L	0.014	2	8929	17251	1	Standard
| Cr	53	0.620	ug/L	0.016	2	95	1105	2	Standard
| Mn	55	90.495	ug/L	1.649	1	208	1851260	2	Standard
> Ge	72		ug/L			31094	31715	1	KED
| Ni	60	0.992	ug/L	0.041	4	36	1525	2	KED
| Ni	62	1.008	ug/L	0.067	6	5	243	5	KED
| Cu	63	1.724	ug/L	0.022	1	24	7293	2	KED
| Cu	65	1.698	ug/L	0.014	0	18	3653	1	KED
| Zn	66	4.083	ug/L	0.167	4	23	2161	2	KED
| Zn	67	3.985	ug/L	0.154	3	4	344	3	KED
| As	75	0.571	ug/L	0.021	3	2	147	2	KED
| Y	89		ug/L			40140	56345	3	Standard
| Kr	83		ug/L			40	34	11	Standard
> In-1	115		ug/L			6950	6841	0	KED
| Cd	111	-0.004	ug/L	0.006	159	3	2	57	KED
| Cd	114	0.007	ug/L	0.001	21	0	4	19	KED
> In	115		ug/L			429431	437724	2	Standard
| Ag	107	0.002	ug/L	0.001	47	24	54	24	Standard
| Ba	135	2.795	ug/L	0.102	3	46	14868	1	Standard
| Ba	137	2.763	ug/L	0.058	2	85	26229	0	Standard
> Tb	159		ug/L			166755	175911	0	Standard
| Pb	208	0.692	ug/L	0.006	0	213	59009	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-MS2**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:16:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	37834	4	Standard
[>	Sc	45	ug/L			488451	509796	3	Standard
|	Cr	52	2.928	0.050	1	8929	49799	3	Standard
|	Cr	53	3.034	0.078	2	95	4936	1	Standard
|	Mn	55	95.427	2.392	2	208	1922397	2	Standard
[>	Ge	72	ug/L			31094	32404	0	KED
|	Ni	60	3.516	0.048	1	36	5431	1	KED
|	Ni	62	3.710	0.182	4	5	902	3	KED
|	Cu	63	4.318	0.048	1	24	18621	0	KED
|	Cu	65	4.255	0.153	3	18	9322	2	KED
|	Zn	66	12.225	0.290	2	23	6564	1	KED
|	Zn	67	11.985	0.075	0	4	1050	1	KED
|	As	75	3.013	0.134	4	2	788	5	KED
|	Y	89	ug/L			40140	57255	3	Standard
|	Kr	83	ug/L			40	37	36	Standard
[>	In-1	115	ug/L			6950	6696	3	KED
|	Cd	111	2.447	0.099	4	3	595	4	KED
|	Cd	114	2.438	0.131	5	0	1507	7	KED
[>	In	115	ug/L			429431	437727	1	Standard
|	Ag	107	2.205	0.040	1	24	31452	3	Standard
|	Ba	135	5.278	0.058	1	46	28043	1	Standard
|	Ba	137	5.274	0.063	1	85	49996	1	Standard
[>	Tb	159	ug/L			166755	177766	1	Standard
|	Pb	208	3.166	0.042	1	213	272094	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-MSD2**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:20:33**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	36979	2	Standard
>	Sc	45	ug/L			488451	525686	2	Standard
|	Cr	52	2.854	0.078	2	8929	50302	2	Standard
|	Cr	53	2.930	0.007	0	95	4922	2	Standard
|	Mn	55	91.394	1.596	1	208	1899162	2	Standard
>	Ge	72	ug/L			31094	31781	0	KED
|	Ni	60	3.555	0.073	2	36	5384	1	KED
|	Ni	62	3.613	0.131	3	5	862	3	KED
|	Cu	63	4.211	0.090	2	24	17809	2	KED
|	Cu	65	4.197	0.110	2	18	9021	2	KED
|	Zn	66	12.756	0.172	1	23	6717	0	KED
|	Zn	67	12.102	0.236	1	4	1040	2	KED
|	As	75	3.007	0.093	3	2	771	2	KED
|	Y	89	ug/L			40140	58514	3	Standard
|	Kr	83	ug/L			40	45	23	Standard
>	In-1	115	ug/L			6950	6582	3	KED
|	Cd	111	2.475	0.049	1	3	592	2	KED
|	Cd	114	2.509	0.189	7	0	1521	3	KED
>	In	115	ug/L			429431	439755	2	Standard
|	Ag	107	2.234	0.064	2	24	32023	5	Standard
|	Ba	135	5.335	0.152	2	46	28465	0	Standard
|	Ba	137	5.240	0.130	2	85	49891	1	Standard
>	Tb	159	ug/L			166755	179008	1	Standard
|	Pb	208	3.173	0.034	1	213	274515	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 20:25:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	32810	3	Standard
[> Sc	45		ug/L			488451	483754	2	Standard
| Cr	52	0.011	ug/L	0.007	59	8929	8990	3	Standard
| Cr	53	0.002	ug/L	0.003	137	95	97	4	Standard
| Mn	55	0.004	ug/L	0.001	24	208	274	5	Standard
[> Ge	72		ug/L			31094	32249	0	KED
| Ni	60	-0.003	ug/L	0.008	290	36	33	38	KED
| Ni	62	0.012	ug/L	0.017	133	5	8	48	KED
| Cu	63	0.003	ug/L	0.002	58	24	39	20	KED
| Cu	65	-0.000	ug/L	0.001	410	18	18	15	KED
| Zn	66	0.043	ug/L	0.009	20	23	46	9	KED
| Zn	67	0.086	ug/L	0.054	63	4	12	39	KED
| As	75	-0.003	ug/L	0.002	78	2	1	34	KED
| Y	89		ug/L			40140	40596	0	Standard
| Kr	83		ug/L			40	33	8	Standard
[> In-1	115		ug/L			6950	6409	1	KED
| Cd	111	-0.000	ug/L	0.002	1237	3	3	17	KED
| Cd	114	0.005	ug/L	0.003	59	0	3	51	KED
[> In	115		ug/L			429431	430809	3	Standard
| Ag	107	-0.000	ug/L	0.000	73	24	20	15	Standard
| Ba	135	0.001	ug/L	0.002	228	46	50	17	Standard
| Ba	137	0.001	ug/L	0.001	53	85	95	2	Standard
[> Tb	159		ug/L			166755	168692	2	Standard
| Pb	208	0.001	ug/L	0.000	26	213	286	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:30:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	37172	2	Standard
> Sc	45		ug/L			488451	585054	3	Standard
| Cr	52	19.035	ug/L	0.241	1	8929	312715	2	Standard
| Cr	53	19.184	ug/L	0.461	2	95	35219	0	Standard
| Mn	55	408.963	ug/L	6.469	1	208	9455468	1	Standard
> Ge	72		ug/L			31094	29441	1	KED
| Ni	60	49.353	ug/L	1.005	2	36	68810	1	KED
| Ni	62	50.923	ug/L	1.247	2	5	11201	1	KED
| Cu	63	159.251	ug/L	4.042	2	24	623033	2	KED
| Cu	65	156.890	ug/L	1.546	0	18	311752	0	KED
| Zn	66	74.362	ug/L	1.528	2	23	36163	1	KED
| Zn	67	68.154	ug/L	1.445	2	4	5407	3	KED
| As	75	2.157	ug/L	0.080	3	2	513	3	KED
| Y	89		ug/L			40140	317948	1	Standard
| Kr	83		ug/L			40	200	9	Standard
> In-1	115		ug/L			6950	6095	0	KED
| Cd	111	0.136	ug/L	0.011	8	3	33	7	KED
| Cd	114	0.132	ug/L	0.037	28	0	74	28	KED
> In	115		ug/L			429431	379319	1	Standard
| Ag	107	0.141	ug/L	0.009	6	24	1757	6	Standard
| Ba	135	13.381	ug/L	0.231	1	46	61552	2	Standard
| Ba	137	13.256	ug/L	0.124	0	85	108769	0	Standard
> Tb	159		ug/L			166755	185408	1	Standard
| Pb	208	11.928	ug/L	0.058	0	213	1068245	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:35:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	38308	4	Standard
> Sc	45		ug/L			488451	581455	1	Standard
| Cr	52	18.454	ug/L	0.322	1	8929	301660	0	Standard
| Cr	53	18.605	ug/L	0.072	0	95	33968	1	Standard
| Mn	55	351.407	ug/L	4.276	1	208	8077094	1	Standard
> Ge	72		ug/L			31094	29946	1	KED
| Ni	60	41.402	ug/L	0.644	1	36	58719	0	KED
| Ni	62	42.603	ug/L	1.363	3	5	9532	2	KED
| Cu	63	160.484	ug/L	4.473	2	24	638555	1	KED
| Cu	65	157.043	ug/L	1.660	1	18	317422	1	KED
| Zn	66	72.547	ug/L	1.040	1	23	35889	1	KED
| Zn	67	70.143	ug/L	1.933	2	4	5659	3	KED
| As	75	3.128	ug/L	0.080	2	2	756	1	KED
| Y	89		ug/L			40140	333817	0	Standard
| Kr	83		ug/L			40	213	3	Standard
> In-1	115		ug/L			6950	6142	2	KED
| Cd	111	0.193	ug/L	0.048	24	3	46	22	KED
| Cd	114	0.180	ug/L	0.019	10	0	102	9	KED
> In	115		ug/L			429431	386154	1	Standard
| Ag	107	0.157	ug/L	0.005	3	24	2002	4	Standard
| Ba	135	13.196	ug/L	0.309	2	46	61784	1	Standard
| Ba	137	12.810	ug/L	0.121	0	85	107005	0	Standard
> Tb	159		ug/L			166755	190251	0	Standard
| Pb	208	15.187	ug/L	0.119	0	213	1395652	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:40:03**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	35682	6	Standard
>	Sc	45	ug/L			488451	602861	3	Standard
|	Cr	52	40.501	0.519	1	8929	673139	2	Standard
|	Cr	53	40.134	0.661	1	95	75801	2	Standard
|	Mn	55	403.696	9.605	2	208	9614903	1	Standard
>	Ge	72	ug/L			31094	29627	2	KED
|	Ni	60	71.332	2.031	2	36	100046	1	KED
|	Ni	62	72.084	1.289	1	5	15953	1	KED
|	Cu	63	178.612	3.276	1	24	703091	0	KED
|	Cu	65	175.823	4.358	2	18	351477	0	KED
|	Zn	66	139.753	1.404	1	23	68375	1	KED
|	Zn	67	133.587	5.323	3	4	10654	2	KED
|	As	75	22.806	0.374	1	2	5440	2	KED
|	Y	89	ug/L			40140	354871	3	Standard
|	Kr	83	ug/L			40	207	16	Standard
>	In-1	115	ug/L			6950	6155	1	KED
|	Cd	111	24.652	0.177	0	3	5491	2	KED
|	Cd	114	24.512	0.441	1	0	13920	0	KED
>	In	115	ug/L			429431	386831	1	Standard
|	Ag	107	24.681	0.253	1	24	310888	2	Standard
|	Ba	135	34.380	0.768	2	46	161198	2	Standard
|	Ba	137	33.167	0.625	1	85	277407	1	Standard
>	Tb	159	ug/L			166755	193863	2	Standard
|	Pb	208	30.586	0.566	1	213	2863025	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:44:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	36215	3	Standard
> Sc	45		ug/L			488451	614737	1	Standard
Cr	52	38.157	ug/L	0.751	1	8929	647469	1	Standard
Cr	53	38.387	ug/L	0.645	1	95	73963	1	Standard
Mn	55	373.236	ug/L	6.598	1	208	9069303	1	Standard
> Ge	72		ug/L			31094	30940	0	KED
Ni	60	64.989	ug/L	0.830	1	36	95219	1	KED
Ni	62	66.779	ug/L	0.835	1	5	15436	0	KED
Cu STL	63	158.301	ug/L	0.895	0	24	650906	0	KED
Cu	65	158.710	ug/L	3.040	1	18	331427	1	KED
Zn	66	144.837	ug/L	0.207	0	23	74011	0	KED
Zn	67	137.610	ug/L	0.372	0	4	11466	0	KED
As	75	20.547	ug/L	0.227	1	2	5119	0	KED
Y	89		ug/L			40140	374892	2	Standard
Kr	83		ug/L			40	194	15	Standard
> In-1	115		ug/L			6950	6616	2	KED
Cd	111	23.308	ug/L	0.995	4	3	5576	1	KED
Cd	114	23.131	ug/L	0.515	2	0	14117	1	KED
> In	115		ug/L			429431	390014	1	Standard
Ag	107	25.024	ug/L	0.651	2	24	317728	1	Standard
Ba	135	34.183	ug/L	0.292	0	46	161600	1	Standard
Ba	137	33.671	ug/L	0.711	2	85	283919	0	Standard
> Tb	159		ug/L			166755	198813	0	Standard
Pb	208	31.952	ug/L	0.481	1	213	3067852	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 20:49:06

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			30125	33486	2	Standard
[>	Sc	45	ug/L			488451	492138	0	Standard
|	Cr	-0.020	ug/L	0.018	90	8929	8729	3	Standard
|	Cr	-0.008	ug/L	0.003	44	95	84	6	Standard
|	Mn	0.017	ug/L	0.004	23	208	536	13	Standard
[>	Ge	72	ug/L			31094	29224	18	KED
|	Ni	0.004	ug/L	0.010	275	36	37	15	KED
|	Ni	0.001	ug/L	0.024	1900	5	5	114	KED
|	Cu	0.016	ug/L	0.004	28	24	81	4	KED
|	Cu	0.009	ug/L	0.004	44	18	33	3	KED
|	Zn	0.058	ug/L	0.014	23	23	49	7	KED
|	Zn	0.080	ug/L	0.103	128	4	9	60	KED
|	As	0.006	ug/L	0.005	91	2	3	43	KED
	Y	89	ug/L			40140	40341	2	Standard
	Kr	83	ug/L			40	39	12	Standard
[>	In-1	115	ug/L			6950	6607	3	KED
|	Cd	0.053	ug/L	<u>0.050</u>	94	3	15	75	KED
|	Cd	0.057	ug/L	<u>0.050</u>	88	0	34	86	KED
[>	In	115	ug/L			429431	424681	1	Standard
|	Ag	0.002	ug/L	0.001	61	24	47	28	Standard
|	Ba	0.001	ug/L	0.003	304	46	51	29	Standard
|	Ba	0.002	ug/L	0.001	35	85	102	5	Standard
[>	Tb	159	ug/L			166755	172906	0	Standard
|	Pb	0.002	ug/L	0.000	18	213	376	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 20:53:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	30349	2	Standard
> Sc	45		ug/L			488451	500151	1	Standard
| Cr	52	47.797	ug/L	0.682	1	8929	657554	0	Standard
| Cr	53	47.780	ug/L	0.772	1	95	74890	2	Standard
| Mn	55	48.138	ug/L	0.695	1	208	951850	0	Standard
> Ge	72		ug/L			31094	31557	1	KED
| Ni	60	49.111	ug/L	0.948	1	36	73390	1	KED
| Ni	62	50.092	ug/L	1.814	3	5	11808	2	KED
| Cu	63	50.292	ug/L	0.819	1	24	210903	0	KED
| Cu	65	49.462	ug/L	0.808	1	18	105355	1	KED
| Zn	66	50.887	ug/L	0.866	1	23	26532	0	KED
| Zn	67	50.159	ug/L	1.636	3	4	4266	4	KED
| As	75	50.279	ug/L	1.185	2	2	12772	0	KED
Y	89		ug/L			40140	41165	1	Standard
Kr	83		ug/L			40	45	19	Standard
> In-1	115		ug/L			6950	6605	2	KED
| Cd	111	48.346	ug/L	0.954	1	3	11548	0	KED
| Cd	114	49.017	ug/L	1.180	2	0	29865	0	KED
> In	115		ug/L			429431	430018	0	Standard
| Ag	107	48.606	ug/L	0.839	1	24	680582	1	Standard
| Ba	135	48.913	ug/L	0.978	2	46	254944	2	Standard
| Ba	137	48.708	ug/L	0.267	0	85	452897	0	Standard
> Tb	159		ug/L			166755	176847	0	Standard
| Pb	208	48.974	ug/L	0.478	0	213	4182898	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:00:53

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	29643	3	Standard
> Sc	45		ug/L			488451	487286	0	Standard
| Cr	52	0.000	ug/L	0.006	21725	8929	8908	0	Standard
| Cr	53	-0.004	ug/L	0.005	120	95	89	7	Standard
| Mn	55	0.002	ug/L	0.000	12	208	253	2	Standard
> Ge	72		ug/L			31094	32611	0	KED
| Ni	60	-0.003	ug/L	0.006	214	36	33	27	KED
| Ni	62	0.009	ug/L	0.020	219	5	7	66	KED
| Cu	63	0.004	ug/L	0.002	51	24	41	19	KED
| Cu	65	-0.001	ug/L	0.003	424	18	17	37	KED
| Zn	66	0.020	ug/L	0.002	9	23	35	3	KED
| Zn	67	0.041	ug/L	0.013	31	4	8	13	KED
| As	75	0.003	ug/L	0.008	234	2	3	62	KED
| Y	89		ug/L			40140	39383	1	Standard
| Kr	83		ug/L			40	33	18	Standard
> In-1	115		ug/L			6950	6576	2	KED
| Cd	111	-0.004	ug/L	0.005	105	3	2	49	KED
| Cd	114	0.008	ug/L	0.008	97	0	5	88	KED
> In	115		ug/L			429431	427806	1	Standard
| Ag	107	0.002	ug/L	0.001	35	24	45	14	Standard
| Ba	135	0.000	ug/L	0.003	825	46	48	25	Standard
| Ba	137	0.000	ug/L	0.003	817	85	88	26	Standard
> Tb	159		ug/L			166755	168082	0	Standard
| Pb	208	0.001	ug/L	0.000	33	213	311	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:06:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	46985	4	Standard
> Sc	45		ug/L			488451	534721	1	Standard
| Cr	52	27.742	ug/L	0.720	2	8929	412240	3	Standard
| Cr	53	28.038	ug/L	0.287	1	95	47020	1	Standard
| Mn	55	1064.142	ug/L	28.598	2	208	22494749	3	Standard
> Ge	72		ug/L			31094	32051	1	KED
| Ni	60	15.678	ug/L	0.036	0	36	23824	1	KED
| Ni	62	16.233	ug/L	0.031	0	5	3891	1	KED
| Cu	63	46.517	ug/L	0.453	0	24	198148	0	KED
| Cu	65	45.801	ug/L	0.802	1	18	99088	1	KED
| Zn	66	173.657	ug/L	4.375	2	23	91903	1	KED
| Zn	67	165.252	ug/L	1.668	1	4	14262	0	KED
| As	75	12.925	ug/L	0.220	1	2	3336	0	KED
| Y	89		ug/L			40140	142103	1	Standard
| Kr	83		ug/L			40	71	10	Standard
> In-1	115		ug/L			6950	6885	2	KED
| Cd	111	0.414	ug/L	0.001	0	3	106	2	KED
| Cd	114	0.366	ug/L	0.022	5	0	233	4	KED
> In	115		ug/L			429431	393324	2	Standard
| Ag	107	0.162	ug/L	0.006	3	24	2101	6	Standard
| Ba	135	31.697	ug/L	0.823	2	46	151057	0	Standard
| Ba	137	30.637	ug/L	0.149	0	85	260595	2	Standard
> Tb	159		ug/L			166755	168476	0	Standard
| Pb	208	151.589	ug/L	2.471	1	213	12335180	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:11:12**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	46502	4	Standard
> Sc	45		ug/L			488451	543996	2	Standard
| Cr	52	30.867	ug/L	0.240	0	8929	465460	2	Standard
| Cr	53	31.076	ug/L	0.581	1	95	53005	2	Standard
| Mn	55	455.053	ug/L	4.939	1	208	9786918	3	Standard
> Ge	72		ug/L			31094	30784	1	KED
| Ni	60	15.099	ug/L	0.155	1	36	22037	1	KED
| Ni	62	14.992	ug/L	0.644	4	5	3451	3	KED
| Cu	63	131.128	ug/L	5.499	4	24	536254	2	KED
| Cu	65	131.305	ug/L	2.284	1	18	272796	0	KED
| Zn	66	169.823	ug/L	4.654	2	23	86314	1	KED
| Zn	67	157.006	ug/L	1.585	1	4	13016	1	KED
| As	75	18.607	ug/L	0.104	0	2	4613	1	KED
| Y	89		ug/L			40140	155497	1	Standard
| Kr	83		ug/L			40	89	14	Standard
> In-1	115		ug/L			6950	6472	1	KED
| Cd	111	12.622	ug/L	0.366	2	3	2957	2	KED
| Cd	114	12.499	ug/L	0.041	0	0	7466	1	KED
> In	115		ug/L			429431	414369	2	Standard
| Ag	107	0.148	ug/L	0.002	1	24	2024	3	Standard
| Ba	135	21.870	ug/L	0.587	2	46	109854	2	Standard
| Ba	137	21.381	ug/L	0.340	1	85	191573	1	Standard
> Tb	159		ug/L			166755	179904	3	Standard
| Pb	208	745.655	ug/L	14.614	1	213	64757164	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:15:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	49445	4	Standard
> Sc	45		ug/L			488451	557144	2	Standard
| Cr	52	21.947	ug/L	0.141	0	8929	341879	2	Standard
| Cr	53	22.190	ug/L	0.381	1	95	38788	2	Standard
| Mn	55	329.777	ug/L	2.960	0	208	7262106	1	Standard
> Ge	72		ug/L			31094	31410	1	KED
| Ni	60	12.193	ug/L	0.133	1	36	18167	1	KED
| Ni	62	12.756	ug/L	0.087	0	5	2997	0	KED
| Cu	63	87.915	ug/L	0.516	0	24	366988	0	KED
| Cu	65	86.966	ug/L	1.593	1	18	184386	2	KED
| Zn	66	133.428	ug/L	1.490	1	23	69214	0	KED
| Zn	67	126.587	ug/L	0.681	0	4	10708	0	KED
| As	75	6.938	ug/L	0.154	2	2	1756	1	KED
| Y	89		ug/L			40140	162765	0	Standard
| Kr	83		ug/L			40	78	14	Standard
> In-1	115		ug/L			6950	6408	2	KED
| Cd	111	0.222	ug/L	0.004	1	3	54	1	KED
| Cd	114	0.192	ug/L	0.008	4	0	114	6	KED
> In	115		ug/L			429431	423474	3	Standard
| Ag	107	0.121	ug/L	0.012	9	24	1683	6	Standard
| Ba	135	23.608	ug/L	0.725	3	46	121113	0	Standard
| Ba	137	23.286	ug/L	0.661	2	85	213135	1	Standard
> Tb	159		ug/L			166755	190018	1	Standard
| Pb	208	268.236	ug/L	5.726	2	213	24611827	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:20:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	43125	3	Standard
> Sc	45		ug/L			488451	568425	3	Standard
| Cr	52	11.128	ug/L	0.256	2	8929	181902	1	Standard
| Cr	53	11.274	ug/L	0.144	1	95	20167	3	Standard
| Mn	55	78.112	ug/L	0.641	0	208	1755331	3	Standard
> Ge	72		ug/L			31094	31370	1	KED
| Ni	60	8.987	ug/L	0.100	1	36	13381	1	KED
| Ni	62	9.507	ug/L	0.203	2	5	2232	1	KED
| Cu	63	15.324	ug/L	0.349	2	24	63896	0	KED
| Cu	65	15.022	ug/L	0.351	2	18	31818	1	KED
| Zn	66	62.987	ug/L	1.489	2	23	32641	1	KED
| Zn	67	62.205	ug/L	0.150	0	4	5258	1	KED
| As	75	4.223	ug/L	0.106	2	2	1068	2	KED
| Y	89		ug/L			40140	164869	4	Standard
| Kr	83		ug/L			40	59	23	Standard
> In-1	115		ug/L			6950	6674	2	KED
| Cd	111	0.164	ug/L	0.029	17	3	42	13	KED
| Cd	114	0.184	ug/L	0.005	2	0	113	1	KED
> In	115		ug/L			429431	436073	0	Standard
| Ag	107	0.055	ug/L	0.004	7	24	800	8	Standard
| Ba	135	31.748	ug/L	0.181	0	46	167824	1	Standard
| Ba	137	31.695	ug/L	0.503	1	85	298917	2	Standard
> Tb	159		ug/L			166755	198717	1	Standard
| Pb	208	11.851	ug/L	0.067	0	213	1137514	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:24:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	52682	5	Standard
> Sc	45		ug/L			488451	588362	2	Standard
| Cr	52	9.639	ug/L	0.081	0	8929	164582	2	Standard
| Cr	53	9.847	ug/L	0.196	1	95	18240	1	Standard
| Mn	55	236.529	ug/L	1.621	0	208	5500825	2	Standard
> Ge	72		ug/L			31094	33225	0	KED
| Ni	60	8.532	ug/L	0.131	1	36	13457	1	KED
| Ni	62	8.750	ug/L	0.263	3	5	2176	2	KED
| Cu	63	18.273	ug/L	0.399	2	24	80703	1	KED
| Cu	65	18.279	ug/L	0.790	4	18	41002	3	KED
| Zn	66	78.244	ug/L	1.706	2	23	42943	1	KED
| Zn	67	75.675	ug/L	1.756	2	4	6773	2	KED
| As	75	5.178	ug/L	0.031	0	2	1387	0	KED
| Y	89		ug/L			40140	155868	1	Standard
| Kr	83		ug/L			40	63	14	Standard
> In-1	115		ug/L			6950	6990	1	KED
| Cd	111	0.159	ug/L	<u>0.055</u>	34	3	43	32	KED
| Cd	114	0.216	ug/L	0.010	4	0	139	5	KED
> In	115		ug/L			429431	457253	0	Standard
| Ag	107	0.098	ug/L	0.004	3	24	1487	3	Standard
| Ba	135	26.043	ug/L	0.215	0	46	144364	1	Standard
| Ba	137	26.184	ug/L	0.847	3	85	258950	3	Standard
> Tb	159		ug/L			166755	203335	0	Standard
| Pb	208	44.443	ug/L	0.772	1	213	4364411	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:29:16**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			30125	50602	3	Standard
>	Sc	45	ug/L			488451	631146	5	Standard
|	Cr	52	ug/L	0.589	3	8929	279291	2	Standard
|	Cr	53	ug/L	0.301	1	95	31355	3	Standard
|	Mn	55	ug/L	3.276	1	208	5884205	4	Standard
>	Ge	72	ug/L			31094	33332	1	KED
|	Ni	60	ug/L	0.351	1	36	30377	0	KED
|	Ni	62	ug/L	0.180	0	5	4737	1	KED
|	Cu	63	ug/L	0.333	0	24	240431	1	KED
|	Cu	65	ug/L	0.602	1	18	121818	2	KED
|	Zn	66	ug/L	3.341	1	23	107329	1	KED
|	Zn	67	ug/L	0.783	0	4	16680	1	KED
|	As	75	ug/L	0.095	1	2	1374	1	KED
|	Y	89	ug/L			40140	233218	3	Standard
|	Kr	83	ug/L			40	90	12	Standard
>	In-1	115	ug/L			6950	6868	1	KED
|	Cd	111	ug/L	0.031	7	3	107	5	KED
|	Cd	114	ug/L	0.029	6	0	272	6	KED
>	In	115	ug/L			429431	446354	3	Standard
|	Ag	107	ug/L	0.002	1	24	1805	2	Standard
|	Ba	135	ug/L	0.436	1	46	188478	3	Standard
|	Ba	137	ug/L	0.869	2	85	332185	2	Standard
>	Tb	159	ug/L			166755	209030	2	Standard
|	Pb	208	ug/L	0.094	0	213	2476421	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:34:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			30125	33902	4	Standard
[>	Sc	45	ug/L			488451	509317	2	Standard
|	Cr	52	ug/L	0.003	34	8929	9169	1	Standard
|	Cr	53	ug/L	0.004	29	95	76	10	Standard
|	Mn	55	ug/L	0.002	25	208	392	11	Standard
[>	Ge	72	ug/L			31094	33105	3	KED
|	Ni	60	ug/L	0.004	40	36	23	28	KED
|	Ni	62	ug/L	0.000	1	5	1		KED
|	Cu	63	ug/L	0.002	25	24	58	14	KED
|	Cu	65	ug/L	0.004	80	18	30	28	KED
|	Zn	66	ug/L	0.022	68	23	42	29	KED
|	Zn	67	ug/L	0.054	88	4	10	47	KED
|	As	75	ug/L	0.002	98	2	1	31	KED
	Y	89	ug/L			40140	40283	2	Standard
	Kr	83	ug/L			40	36	9	Standard
[>	In-1	115	ug/L			6950	6626	2	KED
|	Cd	111	ug/L	0.002	66	3	2	21	KED
|	Cd	114	ug/L	0.003	40	0	5	35	KED
[>	In	115	ug/L			429431	437233	1	Standard
|	Ag	107	ug/L	0.000	21	24	14	15	Standard
|	Ba	135	ug/L	0.000	64	46	44	6	Standard
|	Ba	137	ug/L	0.001	198	85	91	7	Standard
[>	Tb	159	ug/L			166755	178936	1	Standard
|	Pb	208	ug/L	0.000	6	213	482	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0143-MSD1

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:40:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			30125	38182	4	Standard
>	Sc	45	ug/L			488451	677388	3	Standard
|	Cr	52	38.068	0.685	1	8929	711624	1	Standard
|	Cr	53	38.733	1.470	3	95	82170	1	Standard
|	Mn	55	373.479	7.490	2	208	9996495	1	Standard
>	Ge	72	ug/L			31094	32777	1	KED
|	Ni	60	66.532	2.386	3	36	103242	2	KED
|	Ni	62	67.162	1.345	2	5	16448	2	KED
|	Cu	63	165.307	1.190	0	24	720130	1	KED
|	Cu	65	163.973	2.411	1	18	362734	0	KED
|	Zn	66	148.455	3.061	2	23	80352	0	KED
|	Zn	67	141.313	2.921	2	4	12472	0	KED
|	As	75	21.021	0.453	2	2	5548	0	KED
	Y	89	ug/L			40140	388292	2	Standard
	Kr	83	ug/L			40	179	8	Standard
>	In-1	115	ug/L			6950	6715	2	KED
|	Cd	111	24.505	0.693	2	3	5952	1	KED
|	Cd	114	24.265	0.380	1	0	15034	0	KED
>	In	115	ug/L			429431	410418	2	Standard
|	Ag	107	24.850	0.270	1	24	332055	1	Standard
|	Ba	135	35.070	0.499	1	46	174462	2	Standard
|	Ba	137	33.654	0.449	1	85	298697	3	Standard
>	Tb	159	ug/L			166755	214273	1	Standard
|	Pb	208	31.024	0.787	2	213	3210544	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLF

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:46:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	34214	5	Standard
> Sc	45		ug/L			488451	519979	1	Standard
| Cr	52	-0.024	ug/L	0.004	16	8929	9169	2	Standard
| Cr	53	-0.017	ug/L	0.004	24	95	73	11	Standard
| Mn	55	0.005	ug/L	0.001	25	208	320	5	Standard
> Ge	72		ug/L			31094	33035	3	KED
| Ni	60	0.061	ug/L	0.059	95	36	132	68	KED
| Ni	62	0.033	ug/L	0.048	144	5	13	86	KED
| Cu	63	0.179	ug/L	0.156	87	24	801	85	KED
| Cu	65	0.164	ug/L	0.157	95	18	382	91	KED
| Zn	66	0.164	ug/L	0.147	89	23	113	69	KED
| Zn	67	0.135	ug/L	0.173	128	4	16	93	KED
| As	75	0.029	ug/L	0.026	86	2	10	67	KED
Y	89		ug/L			40140	40195	1	Standard
Kr	83		ug/L			40	44	19	Standard
> In-1	115		ug/L			6950	6917	1	KED
| Cd	111	0.001	ug/L	0.004	291	3	3	25	KED
| Cd	114	0.005	ug/L	0.003	61	0	3	51	KED
> In	115		ug/L			429431	432133	1	Standard
| Ag	107	0.000	ug/L	0.001	905	24	26	37	Standard
| Ba	135	-0.001	ug/L	0.002	129	46	40	21	Standard
| Ba	137	-0.003	ug/L	0.001	43	85	56	21	Standard
> Tb	159		ug/L			166755	179540	0	Standard
| Pb	208	0.001	ug/L	0.000	44	213	278	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:50:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	31361	3	Standard
[> Sc	45		ug/L			488451	510631	1	Standard
| Cr	52	48.852	ug/L	1.102	2	8929	685926	1	Standard
| Cr	53	48.864	ug/L	0.948	1	95	78172	1	Standard
| Mn	55	48.790	ug/L	1.863	3	208	984808	2	Standard
[> Ge	72		ug/L			31094	33139	0	KED
| Ni	60	49.000	ug/L	0.527	1	36	76909	1	KED
| Ni	62	49.629	ug/L	0.936	1	5	12290	2	KED
| Cu	63	49.216	ug/L	0.050	0	24	216780	0	KED
| Cu	65	48.963	ug/L	0.852	1	18	109532	1	KED
| Zn	66	51.210	ug/L	1.079	2	23	28043	1	KED
| Zn	67	50.210	ug/L	0.199	0	4	4484	0	KED
| As	75	49.346	ug/L	0.471	0	2	13167	1	KED
Y	89		ug/L			40140	40043	0	Standard
Kr	83		ug/L			40	41	15	Standard
[> In-1	115		ug/L			6950	6706	1	KED
| Cd	111	49.190	ug/L	1.141	2	3	11934	2	KED
| Cd	114	48.845	ug/L	0.837	1	0	30229	2	KED
[> In	115		ug/L			429431	427274	0	Standard
| Ag	107	49.191	ug/L	1.107	2	24	684390	2	Standard
| Ba	135	50.763	ug/L	0.378	0	46	262894	0	Standard
| Ba	137	50.712	ug/L	1.304	2	85	468482	2	Standard
[> Tb	159		ug/L			166755	182549	2	Standard
| Pb	208	48.451	ug/L	0.915	1	213	4270718	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:58:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	29097	5	Standard
> Sc	45		ug/L			488451	490683	2	Standard
| Cr	52	-0.027	ug/L	0.016	57	8929	8604	2	Standard
| Cr	53	-0.020	ug/L	0.005	26	95	65	10	Standard
| Mn	55	0.003	ug/L	0.001	42	208	264	6	Standard
> Ge	72		ug/L			31094	31437	2	KED
| Ni	60	-0.003	ug/L	0.004	119	36	31	21	KED
| Ni	62	0.002	ug/L	0.001	26	5	5	0	KED
| Cu	63	0.007	ug/L	0.001	7	24	54	4	KED
| Cu	65	0.006	ug/L	0.004	71	18	31	30	KED
| Zn	66	0.027	ug/L	0.015	56	23	38	22	KED
| Zn	67	0.007	ug/L	0.012	172	4	5	21	KED
| As	75	0.007	ug/L	0.006	88	2	3	36	KED
| Y	89		ug/L			40140	39951	3	Standard
| Kr	83		ug/L			40	38	10	Standard
> In-1	115		ug/L			6950	6671	1	KED
| Cd	111	-0.005	ug/L	0.004	94	3	2	49	KED
| Cd	114	0.007	ug/L	0.004	50	0	4	45	KED
> In	115		ug/L			429431	425844	1	Standard
| Ag	107	0.002	ug/L	0.001	42	24	47	20	Standard
| Ba	135	0.002	ug/L	0.002	99	46	59	19	Standard
| Ba	137	-0.002	ug/L	0.000	17	85	68	2	Standard
> Tb	159		ug/L			166755	170214	1	Standard
| Pb	208	0.003	ug/L	0.000	17	213	433	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 22:03:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				28285	5	Standard
[>	Sc	45	ug/L				489773	1	Standard
|	Cr	52	ug/L				8505	2	Standard
|	Cr	53	ug/L				60	5	Standard
[>	Ge	72	ug/L				31037	2	KED
|	Cu	63	ug/L				42	18	KED
|	Cu	65	ug/L				15	79	KED
|	Zn	66	ug/L				22	36	KED
|	Zn	67	ug/L				4	65	KED
|	As	75	ug/L				3	34	KED
	Y	89	ug/L				38706	2	Standard
	Kr	83	ug/L				31	34	Standard
[>	In-1	115	ug/L				6431	1	KED
|	Cd	111	ug/L				3	75	KED
|	Cd	114	ug/L				0	208	KED
[>	In	115	ug/L				415168	1	Standard
|	Ag	107	ug/L				37	32	Standard
[>	Tb	159	ug/L				170846	0	Standard
|	Pb	208	ug/L				364	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 22:08:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	29789	4	Standard
[> Sc	45		ug/L			489773	492820	1	Standard
| Cr	52	47.526	ug/L	0.881	1	8505	643953	2	Standard
| Cr	53	48.003	ug/L	0.353	0	60	74096	1	Standard
[> Ge	72		ug/L			31037	31517	1	KED
| Cu	63	48.957	ug/L	0.528	1	42	205076	0	KED
| Cu	65	48.445	ug/L	0.610	1	15	103059	1	KED
| Zn	66	50.910	ug/L	0.274	0	22	26515	1	KED
| Zn	67	49.932	ug/L	2.398	4	4	4240	4	KED
| As	75	49.739	ug/L	0.385	0	3	12622	0	KED
Y	89		ug/L			38706	39760	2	Standard
Kr	83		ug/L			31	36	10	Standard
[> In-1	115		ug/L			6431	6548	0	KED
| Cd	111	48.693	ug/L	0.226	0	3	11534	0	KED
| Cd	114	49.288	ug/L	0.311	0	0	29781	0	KED
[> In	115		ug/L			415168	405853	1	Standard
| Ag	107	50.361	ug/L	1.548	3	37	665305	1	Standard
[> Tb	159		ug/L			170846	174104	1	Standard
| Pb	208	49.105	ug/L	0.386	0	364	4128822	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 22:15:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	28697	2	Standard
[>	Sc	45	ug/L			489773	484962	1	Standard
|	Cr	52	ug/L	0.008	205	8505	8370	2	Standard
|	Cr	53	ug/L	0.006	90	60	70	14	Standard
[>	Ge	72	ug/L			31037	31012	0	KED
|	Cu	63	ug/L	0.002	78	42	52	14	KED
|	Cu	65	ug/L	0.005	87	15	27	37	KED
|	Zn	66	ug/L	0.010	32	22	38	13	KED
|	Zn	67	ug/L	0.095	417	4	6	124	KED
|	As	75	ug/L	0.002	343	3	3	18	KED
	Y	89	ug/L			38706	38893	2	Standard
	Kr	83	ug/L			31	50	28	Standard
[>	In-1	115	ug/L			6431	6579	1	KED
|	Cd	111	ug/L	0.006	138	3	2	65	KED
|	Cd	114	ug/L	0.002	190	0	1	99	KED
[>	In	115	ug/L			415168	423463	0	Standard
|	Ag	107	ug/L	0.001	205	37	43	26	Standard
[>	Tb	159	ug/L			170846	170623	0	Standard
|	Pb	208	ug/L	0.001	203	364	394	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:22:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	48851	3	Standard
[> Sc	45		ug/L			489773	577049	3	Standard
[Cr	52	13.738	ug/L	0.110	0	8505	225029	3	Standard
[Cr	53	13.944	ug/L	0.189	1	60	25244	2	Standard
[> Ge	72		ug/L			31037	31520	0	KED
[Cu	63	31.485	ug/L	1.089	3	42	131942	3	KED
[Cu	65	31.317	ug/L	0.931	2	15	66646	3	KED
[Zn	66	59.634	ug/L	0.617	1	22	31058	1	KED
[Zn	67	56.517	ug/L	1.374	2	4	4800	2	KED
[As	75	6.809	ug/L	0.157	2	3	1731	2	KED
Y	89		ug/L			38706	202589	3	Standard
Kr	83		ug/L			31	67	21	Standard
[> In-1	115		ug/L			6431	6849	3	KED
[Cd	111	0.194	ug/L	0.034	17	3	51	16	KED
[Cd	114	0.228	ug/L	0.029	12	0	143	9	KED
[> In	115		ug/L			415168	425958	2	Standard
[Ag	107	0.147	ug/L	0.007	4	37	2083	5	Standard
[> Tb	159		ug/L			170846	199303	2	Standard
[Pb	208	12.702	ug/L	0.088	0	364	1223123	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:27:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	52612	4	Standard
[>	Sc	45	ug/L			489773	588040	1	Standard
|	Cr	52	ug/L	0.054	0	8505	238304	2	Standard
|	Cr	53	ug/L	0.142	0	60	26330	2	Standard
[>	Ge	72	ug/L			31037	31325	1	KED
|	Cu	63	ug/L	0.313	0	42	142137	0	KED
|	Cu	65	ug/L	0.799	2	15	70615	0	KED
|	Zn	66	ug/L	1.586	2	22	34095	0	KED
|	Zn	67	ug/L	0.838	1	4	5508	1	KED
|	As	75	ug/L	0.122	1	3	1916	1	KED
	Y	89	ug/L			38706	205508	0	Standard
	Kr	83	ug/L			31	71	24	Standard
[>	In-1	115	ug/L			6431	6667	2	KED
|	Cd	111	ug/L	0.027	11	3	61	9	KED
|	Cd	114	ug/L	0.042	18	0	138	16	KED
[>	In	115	ug/L			415168	427225	1	Standard
|	Ag	107	ug/L	0.004	2	37	2103	1	Standard
[>	Tb	159	ug/L			170846	203411	2	Standard
|	Pb	208	ug/L	0.326	2	364	1349193	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0008-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:31:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	47376	4	Standard
[> Sc	45		ug/L			489773	581887	0	Standard
[Cr	52	12.314	ug/L	0.033	0	8505	204488	0	Standard
[Cr	53	12.138	ug/L	0.153	1	60	22175	2	Standard
[> Ge	72		ug/L			31037	30368	4	KED
[Cu	63	27.278	ug/L	0.612	2	42	110055	2	KED
[Cu	65	26.800	ug/L	0.990	3	15	54888	1	KED
[Zn	66	96.499	ug/L	2.661	2	22	48366	1	KED
[Zn	67	93.435	ug/L	1.571	1	4	7639	2	KED
[As	75	5.151	ug/L	0.287	5	3	1260	1	KED
Y	89		ug/L			38706	199023	1	Standard
Kr	83		ug/L			31	67	18	Standard
[> In-1	115		ug/L			6431	6421	1	KED
[Cd	111	0.175	ug/L	0.034	19	3	43	19	KED
[Cd	114	0.155	ug/L	0.039	24	0	91	22	KED
[> In	115		ug/L			415168	421474	3	Standard
[Ag	107	0.108	ug/L	0.006	5	37	1521	2	Standard
[> Tb	159		ug/L			170846	200348	1	Standard
[Pb	208	10.076	ug/L	0.105	1	364	975298	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0136-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:35:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	53073	3	Standard
[>	Sc	45	ug/L			489773	576636	1	Standard
|	Cr	52	ug/L	0.167	1	8505	229281	1	Standard
|	Cr	53	ug/L	0.280	1	60	25856	1	Standard
[>	Ge	72	ug/L			31037	30759	0	KED
|	Cu	63	ug/L	0.461	1	42	155136	0	KED
|	Cu	65	ug/L	0.388	1	15	77367	0	KED
|	Zn	66	ug/L	1.417	1	22	43090	1	KED
|	Zn	67	ug/L	1.771	2	4	6834	2	KED
|	As	75	ug/L	0.287	3	3	2266	2	KED
	Y	89	ug/L			38706	203759	0	Standard
	Kr	83	ug/L			31	71	15	Standard
[>	In-1	115	ug/L			6431	6435	0	KED
|	Cd	111	ug/L	0.021	10	3	48	10	KED
|	Cd	114	ug/L	0.007	2	0	148	3	KED
[>	In	115	ug/L			415168	422509	1	Standard
|	Ag	107	ug/L	0.006	3	37	2198	4	Standard
[>	Tb	159	ug/L			170846	198005	0	Standard
|	Pb	208	ug/L	0.160	1	364	1469423	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0136-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:40:11**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	50849	3	Standard
[> Sc	45		ug/L			489773	582688	1	Standard
[Cr	52	14.489	ug/L	0.118	0	8505	239127	1	Standard
[Cr	53	14.675	ug/L	0.275	1	60	26833	3	Standard
[> Ge	72		ug/L			31037	31484	1	KED
[Cu	63	35.162	ug/L	0.415	1	42	147153	0	KED
[Cu	65	34.804	ug/L	0.505	1	15	73971	1	KED
[Zn	66	65.580	ug/L	0.825	1	22	34111	0	KED
[Zn	67	63.513	ug/L	0.902	1	4	5387	1	KED
[As	75	8.323	ug/L	0.120	1	3	2112	0	KED
Y	89		ug/L			38706	200945	1	Standard
Kr	83		ug/L			31	82	5	Standard
[> In-1	115		ug/L			6431	6536	1	KED
[Cd	111	0.233	ug/L	0.021	8	3	58	8	KED
[Cd	114	0.235	ug/L	0.013	5	0	142	4	KED
[> In	115		ug/L			415168	431832	2	Standard
[Ag	107	0.161	ug/L	0.009	5	37	2299	3	Standard
[> Tb	159		ug/L			170846	200028	1	Standard
[Pb	208	14.745	ug/L	0.110	0	364	1424758	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0396-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:44:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	55864	5	Standard
[> Sc	45		ug/L			489773	589497	0	Standard
| Cr	52	14.311	ug/L	0.130	0	8505	239086	0	Standard
| Cr	53	14.650	ug/L	0.191	1	60	27097	0	Standard
[> Ge	72		ug/L			31037	31122	1	KED
| Cu	63	38.316	ug/L	0.293	0	42	158513	1	KED
| Cu	65	38.064	ug/L	0.356	0	15	79961	1	KED
| Zn	66	71.053	ug/L	1.084	1	22	36536	2	KED
| Zn	67	67.339	ug/L	2.040	3	4	5646	3	KED
| As	75	7.097	ug/L	0.133	1	3	1781	3	KED
Y	89		ug/L			38706	215059	2	Standard
Kr	83		ug/L			31	78	33	Standard
[> In-1	115		ug/L			6431	6493	3	KED
| Cd	111	0.193	ug/L	<u>0.054</u>	27	3	48	21	KED
| Cd	114	0.220	ug/L	0.020	9	0	132	8	KED
[> In	115		ug/L			415168	424926	1	Standard
| Ag	107	0.157	ug/L	0.006	4	37	2216	3	Standard
[> Tb	159		ug/L			170846	201951	1	Standard
| Pb	208	15.085	ug/L	0.363	2	364	1471359	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0396-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:48:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	55777	3	Standard
[> Sc	45		ug/L			489773	572796	2	Standard
[Cr	52	14.013	ug/L	0.199	1	8505	227627	1	Standard
[Cr	53	14.110	ug/L	0.283	2	60	25353	1	Standard
[> Ge	72		ug/L			31037	31260	0	KED
[Cu	63	34.557	ug/L	0.140	0	42	143608	1	KED
[Cu	65	34.753	ug/L	0.496	1	15	73336	1	KED
[Zn	66	66.426	ug/L	0.936	1	22	34305	1	KED
[Zn	67	63.224	ug/L	1.361	2	4	5325	2	KED
[As	75	6.306	ug/L	0.132	2	3	1589	1	KED
Y	89		ug/L			38706	202469	0	Standard
Kr	83		ug/L			31	66	5	Standard
[> In-1	115		ug/L			6431	6464	0	KED
[Cd	111	0.194	ug/L	0.009	4	3	48	5	KED
[Cd	114	0.184	ug/L	0.007	3	0	110	3	KED
[> In	115		ug/L			415168	425206	0	Standard
[Ag	107	0.138	ug/L	0.002	1	37	1953	0	Standard
[> Tb	159		ug/L			170846	197182	1	Standard
[Pb	208	13.939	ug/L	0.210	1	364	1327642	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:53:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	46448	5	Standard
[> Sc	45		ug/L			489773	549846	2	Standard
[Cr	52	17.371	ug/L	0.291	1	8505	268634	2	Standard
[Cr	53	17.651	ug/L	0.219	1	60	30439	3	Standard
[> Ge	72		ug/L			31037	31365	0	KED
[Cu	63	25.021	ug/L	0.154	0	42	104333	0	KED
[Cu	65	24.851	ug/L	0.217	0	15	52626	1	KED
[Zn	66	57.690	ug/L	0.363	0	22	29897	0	KED
[Zn	67	56.329	ug/L	3.259	5	4	4759	4	KED
[As	75	5.835	ug/L	0.052	0	3	1476	1	KED
Y	89		ug/L			38706	164691	2	Standard
Kr	83		ug/L			31	52	18	Standard
[> In-1	115		ug/L			6431	6493	1	KED
[Cd	111	0.078	ug/L	0.024	30	3	21	24	KED
[Cd	114	0.080	ug/L	0.018	22	0	48	20	KED
[> In	115		ug/L			415168	421529	1	Standard
[Ag	107	0.242	ug/L	0.008	3	37	3355	4	Standard
[> Tb	159		ug/L			170846	194334	0	Standard
[Pb	208	11.882	ug/L	0.325	2	364	1115373	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:57:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	43461	2	Standard
[> Sc	45		ug/L			489773	545974	1	Standard
[Cr	52	17.152	ug/L	0.276	1	8505	263488	1	Standard
[Cr	53	16.985	ug/L	0.153	0	60	29086	0	Standard
[> Ge	72		ug/L			31037	31095	0	KED
[Cu	63	43.419	ug/L	1.078	2	42	179456	2	KED
[Cu	65	43.123	ug/L	0.628	1	15	90515	0	KED
[Zn	66	109.906	ug/L	1.583	1	22	56445	0	KED
[Zn	67	104.388	ug/L	2.835	2	4	8742	2	KED
[As	75	4.796	ug/L	0.203	4	3	1203	3	KED
Y	89		ug/L			38706	160463	1	Standard
Kr	83		ug/L			31	53	15	Standard
[> In-1	115		ug/L			6431	6538	2	KED
[Cd	111	0.076	ug/L	0.028	37	3	21	33	KED
[Cd	114	0.090	ug/L	0.014	15	0	54	13	KED
[> In	115		ug/L			415168	418749	2	Standard
[Ag	107	0.052	ug/L	0.003	6	37	748	3	Standard
[> Tb	159		ug/L			170846	193022	1	Standard
[Pb	208	23.659	ug/L	0.416	1	364	2205491	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLG

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 23:02:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	31345	5	Standard
[>	Sc	45	ug/L			489773	473998	2	Standard
|	Cr	52	0.011	0.017	149	8505	8374	2	Standard
|	Cr	53	-0.002	0.001	62	60	55	5	Standard
[>	Ge	72	ug/L			31037	31201	1	KED
|	Cu	63	0.014	0.023	158	42	101	91	KED
|	Cu	65	0.017	0.023	134	15	51	91	KED
|	Zn	66	0.030	0.050	168	22	38	66	KED
|	Zn	67	0.030	0.048	159	4	6	56	KED
|	As	75	-0.008	0.003	38	3	1	57	KED
	Y	89	ug/L			38706	39592	4	Standard
	Kr	83	ug/L			31	40	23	Standard
[>	In-1	115	ug/L			6431	6544	1	KED
|	Cd	111	0.001	0.003	223	3	3	15	KED
|	Cd	114	-0.000	0.002	7103	0	0	209	KED
[>	In	115	ug/L			415168	422329	2	Standard
|	Ag	107	-0.002	0.000	17	37	15	25	Standard
[>	Tb	159	ug/L			170846	170875	1	Standard
|	Pb	208	-0.002	0.000	17	364	216	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 23:07:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	28899	5	Standard
[> Sc	45		ug/L			489773	482605	1	Standard
| Cr	52	48.592	ug/L	0.483	0	8505	644491	1	Standard
| Cr	53	48.168	ug/L	0.910	1	60	72792	0	Standard
[> Ge	72		ug/L			31037	31124	2	KED
| Cu	63	49.252	ug/L	0.912	1	42	203714	1	KED
| Cu	65	49.051	ug/L	1.631	3	15	103007	1	KED
| Zn	66	50.122	ug/L	1.329	2	22	25769	0	KED
| Zn	67	50.418	ug/L	2.174	4	4	4226	2	KED
| As	75	49.790	ug/L	1.321	2	3	12473	0	KED
Y	89		ug/L			38706	40740	2	Standard
Kr	83		ug/L			31	43	13	Standard
[> In-1	115		ug/L			6431	6726	3	KED
| Cd	111	48.091	ug/L	1.867	3	3	11693	1	KED
| Cd	114	48.760	ug/L	1.508	3	0	30247	0	KED
[> In	115		ug/L			415168	420228	3	Standard
| Ag	107	49.016	ug/L	1.974	4	37	670195	1	Standard
[> Tb	159		ug/L			170846	175745	2	Standard
| Pb	208	49.189	ug/L	0.972	1	364	4174139	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 23:14:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	28266	3	Standard
[>	Sc	45	ug/L			489773	475445	3	Standard
|	Cr	52	ug/L	0.009	207	8505	8197	2	Standard
|	Cr	53	ug/L	0.005	7964	60	58	11	Standard
[>	Ge	72	ug/L			31037	31118	1	KED
|	Cu	63	ug/L	0.001	39	42	50	5	KED
|	Cu	65	ug/L	0.005	67	15	31	33	KED
|	Zn	66	ug/L	0.007	27	22	36	9	KED
|	Zn	67	ug/L	0.047	122	4	7	50	KED
|	As	75	ug/L	0.005	385	3	3	34	KED
	Y	89	ug/L			38706	38769	1	Standard
	Kr	83	ug/L			31	29	43	Standard
[>	In-1	115	ug/L			6431	6283	2	KED
|	Cd	111	ug/L	0.011	917	3	2	88	KED
|	Cd	114	ug/L	0.003	54	0	3	49	KED
[>	In	115	ug/L			415168	422915	1	Standard
|	Ag	107	ug/L	0.001	294	37	35	24	Standard
[>	Tb	159	ug/L			170846	169400	1	Standard
|	Pb	208	ug/L	0.000	639	364	356	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:18:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	38997	5	Standard
[> Sc	45		ug/L			489773	553643	1	Standard
[Cr	52	9.316	ug/L	0.259	2	8505	149520	2	Standard
[Cr	53	9.373	ug/L	0.208	2	60	16308	2	Standard
[> Ge	72		ug/L			31037	31627	2	KED
[Cu	63	29.984	ug/L	0.541	1	42	126045	0	KED
[Cu	65	29.430	ug/L	0.324	1	15	62837	2	KED
[Zn	66	52.353	ug/L	1.686	3	22	27351	1	KED
[Zn	67	52.332	ug/L	1.242	2	4	4459	0	KED
[As	75	3.039	ug/L	0.073	2	3	777	3	KED
Y	89		ug/L			38706	164478	3	Standard
Kr	83		ug/L			31	56	15	Standard
[> In-1	115		ug/L			6431	6291	1	KED
[Cd	111	0.028	ug/L	0.007	25	3	9	17	KED
[Cd	114	0.043	ug/L	0.005	11	0	25	12	KED
[> In	115		ug/L			415168	427999	3	Standard
[Ag	107	0.030	ug/L	0.002	8	37	455	11	Standard
[> Tb	159		ug/L			170846	198983	0	Standard
[Pb	208	3.822	ug/L	0.050	1	364	367686	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:23:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	38286	3	Standard
[> Sc	45		ug/L			489773	519453	1	Standard
[Cr	52	7.712	ug/L	0.073	0	8505	117692	1	Standard
[Cr	53	7.871	ug/L	0.226	2	60	12861	4	Standard
[> Ge	72		ug/L			31037	31448	2	KED
[Cu	63	14.996	ug/L	0.166	1	42	62705	1	KED
[Cu	65	14.792	ug/L	0.208	1	15	31405	0	KED
[Zn	66	25.340	ug/L	0.850	3	22	13173	1	KED
[Zn	67	26.232	ug/L	0.411	1	4	2224	0	KED
[As	75	2.215	ug/L	0.093	4	3	563	1	KED
Y	89		ug/L			38706	152163	1	Standard
Kr	83		ug/L			31	47	22	Standard
[> In-1	115		ug/L			6431	6420	1	KED
[Cd	111	0.030	ug/L	0.016	53	3	10	35	KED
[Cd	114	0.035	ug/L	0.004	11	0	21	11	KED
[> In	115		ug/L			415168	430376	2	Standard
[Ag	107	0.025	ug/L	0.002	8	37	391	7	Standard
[> Tb	159		ug/L			170846	195224	1	Standard
[Pb	208	1.547	ug/L	0.006	0	364	146221	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:27:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	42020	3	Standard
[> Sc	45		ug/L			489773	531122	1	Standard
[Cr	52	41.170	ug/L	0.332	0	8505	602419	2	Standard
[Cr	53	40.854	ug/L	0.232	0	60	67969	1	Standard
[> Ge	72		ug/L			31037	31204	0	KED
[Cu	63	64.749	ug/L	0.743	1	42	268545	1	KED
[Cu	65	63.857	ug/L	0.789	1	15	134517	2	KED
[Zn	66	98.107	ug/L	1.480	1	22	50571	2	KED
[Zn	67	104.940	ug/L	1.572	1	4	8819	1	KED
[As	75	7.411	ug/L	0.058	0	3	1865	1	KED
Y	89		ug/L			38706	146162	2	Standard
Kr	83		ug/L			31	64	15	Standard
[> In-1	115		ug/L			6431	6268	1	KED
[Cd	111	0.233	ug/L	0.047	19	3	55	17	KED
[Cd	114	0.227	ug/L	0.012	5	0	131	5	KED
[> In	115		ug/L			415168	410437	2	Standard
[Ag	107	0.161	ug/L	0.004	2	37	2188	3	Standard
[> Tb	159		ug/L			170846	186241	1	Standard
[Pb	208	49.354	ug/L	0.874	1	364	4438659	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-11**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:31:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	46824	4	Standard
[> Sc	45		ug/L			489773	553481	1	Standard
[Cr	52	16.703	ug/L	0.354	2	8505	260343	0	Standard
[Cr	53	16.901	ug/L	0.438	2	60	29335	1	Standard
[> Ge	72		ug/L			31037	31314	1	KED
[Cu	63	117.753	ug/L	1.729	1	42	490034	0	KED
[Cu	65	115.655	ug/L	2.577	2	15	244431	1	KED
[Zn	66	370.231	ug/L	7.694	2	22	191412	1	KED
[Zn	67	351.821	ug/L	4.197	1	4	29662	0	KED
[As	75	11.920	ug/L	0.103	0	3	3008	0	KED
[Y	89		ug/L			38706	209610	2	Standard
[Kr	83		ug/L			31	71	24	Standard
[> In-1	115		ug/L			6431	6464	4	KED
[Cd	111	0.784	ug/L	0.104	13	3	185	8	KED
[Cd	114	0.780	ug/L	0.055	7	0	466	11	KED
[> In	115		ug/L			415168	414094	1	Standard
[Ag	107	0.213	ug/L	0.008	3	37	2914	5	Standard
[> Tb	159		ug/L			170846	199232	1	Standard
[Pb	208	155.646	ug/L	2.153	1	364	14974835	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-12**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:36:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	43502	3	Standard
[> Sc	45		ug/L			489773	536443	1	Standard
[Cr	52	15.990	ug/L	0.351	2	8505	241957	1	Standard
[Cr	53	16.015	ug/L	0.115	0	60	26951	1	Standard
[> Ge	72		ug/L			31037	31252	0	KED
[Cu	63	23.396	ug/L	0.365	1	42	97218	2	KED
[Cu	65	23.203	ug/L	0.190	0	15	48957	0	KED
[Zn	66	55.790	ug/L	0.407	0	22	28810	0	KED
[Zn	67	53.318	ug/L	1.275	2	4	4490	1	KED
[As	75	5.847	ug/L	0.035	0	3	1474	0	KED
Y	89		ug/L			38706	147591	2	Standard
Kr	83		ug/L			31	50	12	Standard
[> In-1	115		ug/L			6431	6546	2	KED
[Cd	111	0.077	ug/L	0.019	24	3	21	21	KED
[Cd	114	0.058	ug/L	0.020	33	0	36	35	KED
[> In	115		ug/L			415168	418793	1	Standard
[Ag	107	0.049	ug/L	0.002	5	37	704	4	Standard
[> Tb	159		ug/L			170846	192806	0	Standard
[Pb	208	23.560	ug/L	0.293	1	364	2194229	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-13**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:40:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	40353	3	Standard
[> Sc	45		ug/L			489773	529737	1	Standard
[Cr	52	14.653	ug/L	0.363	2	8505	219719	1	Standard
[Cr	53	14.593	ug/L	0.216	1	60	24257	2	Standard
[> Ge	72		ug/L			31037	31322	0	KED
[Cu	63	21.651	ug/L	0.262	1	42	90163	0	KED
[Cu	65	21.097	ug/L	0.151	0	15	44614	0	KED
[Zn	66	67.677	ug/L	0.813	1	22	35021	1	KED
[Zn	67	66.149	ug/L	2.076	3	4	5582	2	KED
[As	75	4.939	ug/L	0.116	2	3	1248	2	KED
Y	89		ug/L			38706	148354	1	Standard
Kr	83		ug/L			31	45	0	Standard
[> In-1	115		ug/L			6431	6500	1	KED
[Cd	111	0.116	ug/L	0.022	19	3	30	16	KED
[Cd	114	0.122	ug/L	0.045	37	0	73	36	KED
[> In	115		ug/L			415168	418029	0	Standard
[Ag	107	0.073	ug/L	0.002	2	37	1027	1	Standard
[> Tb	159		ug/L			170846	195302	0	Standard
[Pb	208	32.536	ug/L	0.079	0	364	3069165	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-24**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:44:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	46655	4	Standard
[>	Sc	45		ug/L			489773	577415	1	Standard
|	Cr	52	15.546	ug/L	0.231	1	8505	253510	1	Standard
|	Cr	53	15.712	ug/L	0.183	1	60	28460	1	Standard
[>	Ge	72		ug/L			31037	30637	0	KED
|	Cu	63	39.182	ug/L	0.791	2	42	159565	1	KED
|	Cu	65	38.956	ug/L	0.839	2	15	80566	1	KED
|	Zn	66	72.613	ug/L	0.513	0	22	36752	0	KED
|	Zn	67	72.912	ug/L	3.167	4	4	6017	4	KED
|	As	75	7.143	ug/L	0.074	1	3	1764	1	KED
	Y	89		ug/L			38706	212682	1	Standard
	Kr	83		ug/L			31	72	9	Standard
[>	In-1	115		ug/L			6431	6400	2	KED
|	Cd	111	0.210	ug/L	0.016	7	3	51	8	KED
|	Cd	114	0.220	ug/L	0.010	4	0	130	7	KED
[>	In	115		ug/L			415168	420678	0	Standard
|	Ag	107	0.179	ug/L	0.003	1	37	2485	1	Standard
[>	Tb	159		ug/L			170846	202518	1	Standard
|	Pb	208	17.818	ug/L	0.280	1	364	1742837	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-28**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:49:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	51881	3	Standard
[>	Sc	45		ug/L			489773	566930	1	Standard
|	Cr	52	14.201	ug/L	0.102	0	8505	228254	1	Standard
|	Cr	53	14.083	ug/L	0.278	1	60	25058	2	Standard
[>	Ge	72		ug/L			31037	30561	1	KED
|	Cu	63	28.446	ug/L	0.330	1	42	115562	1	KED
|	Cu	65	28.645	ug/L	0.218	0	15	59097	1	KED
|	Zn	66	56.512	ug/L	0.566	1	22	28538	2	KED
|	Zn	67	53.910	ug/L	1.956	3	4	4438	1	KED
|	As	75	7.179	ug/L	0.024	0	3	1769	1	KED
	Y	89		ug/L			38706	208995	2	Standard
	Kr	83		ug/L			31	51	20	Standard
[>	In-1	115		ug/L			6431	6279	2	KED
|	Cd	111	0.182	ug/L	0.035	19	3	44	19	KED
|	Cd	114	0.199	ug/L	0.017	8	0	115	9	KED
[>	In	115		ug/L			415168	417569	1	Standard
|	Ag	107	0.138	ug/L	0.006	4	37	1912	4	Standard
[>	Tb	159		ug/L			170846	201351	0	Standard
|	Pb	208	10.669	ug/L	0.139	1	364	1037851	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-29**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:53:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	49899	2	Standard
[> Sc	45		ug/L			489773	567089	0	Standard
| Cr	52	12.901	ug/L	0.140	1	8505	208311	1	Standard
| Cr	53	13.083	ug/L	0.127	0	60	23287	1	Standard
[> Ge	72		ug/L			31037	30821	0	KED
| Cu	63	28.687	ug/L	0.561	1	42	117542	2	KED
| Cu	65	28.326	ug/L	0.191	0	15	58942	1	KED
| Zn	66	52.330	ug/L	0.021	0	22	26652	0	KED
| Zn	67	50.585	ug/L	1.246	2	4	4201	1	KED
| As	75	6.717	ug/L	0.081	1	3	1669	1	KED
Y	89		ug/L			38706	187086	0	Standard
Kr	83		ug/L			31	66	7	Standard
[> In-1	115		ug/L			6431	6311	1	KED
| Cd	111	0.155	ug/L	0.022	13	3	38	12	KED
| Cd	114	0.143	ug/L	0.032	22	0	83	22	KED
[> In	115		ug/L			415168	420809	2	Standard
| Ag	107	0.143	ug/L	0.009	6	37	1999	6	Standard
[> Tb	159		ug/L			170846	200244	0	Standard
| Pb	208	11.420	ug/L	0.084	0	364	1104767	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLH

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 23:58:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	31832	0	Standard
[>	Sc	45	ug/L			489773	467299	0	Standard
|	Cr	52	0.004	0.018	499	8505	8160	2	Standard
|	Cr	53	-0.009	0.006	64	60	44	20	Standard
[>	Ge	72	ug/L			31037	29981	2	KED
|	Cu	63	0.002	0.004	215	42	47	28	KED
|	Cu	65	0.005	0.001	11	15	25	4	KED
|	Zn	66	-0.004	0.003	85	22	20	5	KED
|	Zn	67	-0.014	0.036	251	4	3	91	KED
|	As	75	-0.004	0.003	67	3	2	35	KED
	Y	89	ug/L			38706	38062	2	Standard
	Kr	83	ug/L			31	41	19	Standard
[>	In-1	115	ug/L			6431	6328	1	KED
|	Cd	111	-0.003	0.006	254	3	2	57	KED
|	Cd	114	0.003	0.002	61	0	2	47	KED
[>	In	115	ug/L			415168	418180	1	Standard
|	Ag	107	-0.002	0.000	12	37	9	34	Standard
[>	Tb	159	ug/L			170846	168893	0	Standard
|	Pb	208	-0.002	0.000	3	364	226	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVF

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 00:02:30

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	29659	3	Standard
[> Sc	45		ug/L			489773	480703	0	Standard
| Cr	52	48.479	ug/L	0.498	1	8505	640524	1	Standard
| Cr	53	48.514	ug/L	0.954	1	60	73036	1	Standard
[> Ge	72		ug/L			31037	31103	1	KED
| Cu	63	49.409	ug/L	1.022	2	42	204227	0	KED
| Cu	65	48.614	ug/L	0.529	1	15	102058	0	KED
| Zn	66	49.228	ug/L	0.915	1	22	25297	0	KED
| Zn	67	50.442	ug/L	1.345	2	4	4227	1	KED
| As	75	49.437	ug/L	0.931	1	3	12379	0	KED
Y	89		ug/L			38706	40704	0	Standard
Kr	83		ug/L			31	31	3	Standard
[> In-1	115		ug/L			6431	6305	2	KED
| Cd	111	48.641	ug/L	1.833	3	3	11089	1	KED
| Cd	114	49.361	ug/L	0.357	0	0	28717	1	KED
[> In	115		ug/L			415168	414363	1	Standard
| Ag	107	50.273	ug/L	1.203	2	37	678201	1	Standard
[> Tb	159		ug/L			170846	177904	0	Standard
| Pb	208	49.193	ug/L	0.355	0	364	4226831	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBF

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 00:09:36

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	27567	4	Standard
[>	Sc	45	ug/L			489773	470683	3	Standard
|	Cr	52	0.001	0.013	1520	8505	8184	3	Standard
|	Cr	53	0.000	0.001	1858	60	58	6	Standard
[>	Ge	72	ug/L			31037	30027	1	KED
|	Cu	63	0.001	0.005	399	42	45	40	KED
|	Cu	65	0.006	0.003	57	15	27	26	KED
|	Zn	66	0.016	0.003	20	22	29	3	KED
|	Zn	67	0.057	0.076	132	4	8	68	KED
|	As	75	0.002	0.004	183	3	3	30	KED
	Y	89	ug/L			38706	39448	2	Standard
	Kr	83	ug/L			31	39	18	Standard
[>	In-1	115	ug/L			6431	6410	1	KED
|	Cd	111	-0.010	0.000	0	3	0		KED
|	Cd	114	0.007	0.007	103	0	4	91	KED
[>	In	115	ug/L			415168	414592	2	Standard
|	Ag	107	0.000	0.001	12572	37	37	36	Standard
[>	Tb	159	ug/L			170846	169619	2	Standard
|	Pb	208	-0.000	0.000	58	364	342	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-10**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:14:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	41192	3	Standard
[>	Sc	45		ug/L			489773	537924	1	Standard
|	Cr	52	17.195	ug/L	0.038	0	8505	260259	1	Standard
|	Cr	53	17.114	ug/L	0.108	0	60	28878	1	Standard
[>	Ge	72		ug/L			31037	30751	1	KED
|	Cu	63	32.218	ug/L	0.519	1	42	131679	0	KED
|	Cu	65	32.308	ug/L	0.742	2	15	67054	1	KED
|	Zn	66	103.263	ug/L	1.686	1	22	52440	0	KED
|	Zn	67	99.525	ug/L	3.246	3	4	8240	1	KED
|	As	75	24.542	ug/L	0.621	2	3	6077	1	KED
	Y	89		ug/L			38706	170292	1	Standard
	Kr	83		ug/L			31	60	10	Standard
[>	In-1	115		ug/L			6431	6331	1	KED
|	Cd	111	0.161	ug/L	0.013	7	3	40	8	KED
|	Cd	114	0.152	ug/L	0.010	6	0	89	5	KED
[>	In	115		ug/L			415168	437202	2	Standard
|	Ag	107	0.058	ug/L	0.004	6	37	866	3	Standard
[>	Tb	159		ug/L			170846	199684	1	Standard
|	Pb	208	42.091	ug/L	0.667	1	364	4059151	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-11**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:19:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	46899	1	Standard
[> Sc	45		ug/L			489773	576312	1	Standard
[Cr	52	13.207	ug/L	0.143	1	8505	216473	1	Standard
[Cr	53	13.305	ug/L	0.255	1	60	24062	1	Standard
[> Ge	72		ug/L			31037	30903	1	KED
[Cu	63	26.300	ug/L	0.203	0	42	108053	1	KED
[Cu	65	26.266	ug/L	0.263	0	15	54801	1	KED
[Zn	66	67.223	ug/L	1.562	2	22	34315	1	KED
[Zn	67	64.105	ug/L	1.911	2	4	5338	3	KED
[As	75	7.939	ug/L	0.077	0	3	1978	2	KED
Y	89		ug/L			38706	227750	2	Standard
Kr	83		ug/L			31	74	23	Standard
[> In-1	115		ug/L			6431	6240	1	KED
[Cd	111	0.262	ug/L	0.029	11	3	62	11	KED
[Cd	114	0.272	ug/L	0.019	6	0	157	8	KED
[> In	115		ug/L			415168	425917	1	Standard
[Ag	107	0.191	ug/L	0.006	3	37	2691	2	Standard
[> Tb	159		ug/L			170846	202880	0	Standard
[Pb	208	11.807	ug/L	0.091	0	364	1157220	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-12**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:23:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	41484	3	Standard
[> Sc	45		ug/L			489773	546627	3	Standard
[Cr	52	9.010	ug/L	0.019	0	8505	143092	3	Standard
[Cr	53	9.160	ug/L	0.059	0	60	15738	3	Standard
[> Ge	72		ug/L			31037	28599	12	KED
[Cu	63	14.960	ug/L	1.707	11	42	56374	1	KED
[Cu	65	14.786	ug/L	1.491	10	15	28324	2	KED
[Zn	66	34.869	ug/L	3.250	9	22	16363	3	KED
[Zn	67	33.803	ug/L	2.720	8	4	2591	6	KED
[As	75	2.476	ug/L	0.217	8	3	569	6	KED
Y	89		ug/L			38706	154862	1	Standard
Kr	83		ug/L			31	59	6	Standard
[> In-1	115		ug/L			6431	6434	6	KED
[Cd	111	0.075	ug/L	0.026	34	3	20	23	KED
[Cd	114	0.103	ug/L	0.042	40	0	60	33	KED
[> In	115		ug/L			415168	445756	1	Standard
[Ag	107	0.045	ug/L	0.002	4	37	696	3	Standard
[> Tb	159		ug/L			170846	199553	2	Standard
[Pb	208	5.418	ug/L	0.046	0	364	522497	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-15**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:27:56**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	42224	2	Standard
[>	Sc	45		ug/L			489773	535637	0	Standard
|	Cr	52	9.457	ug/L	0.202	2	8505	146712	2	Standard
|	Cr	53	9.378	ug/L	0.119	1	60	15786	1	Standard
[>	Ge	72		ug/L			31037	31058	1	KED
|	Cu	63	75.439	ug/L	1.685	2	42	311361	1	KED
|	Cu	65	74.439	ug/L	0.979	1	15	156046	1	KED
|	Zn	66	43.994	ug/L	0.484	1	22	22580	0	KED
|	Zn	67	42.128	ug/L	0.370	0	4	3526	0	KED
|	As	75	8.261	ug/L	0.192	2	3	2069	3	KED
	Y	89		ug/L			38706	139700	1	Standard
	Kr	83		ug/L			31	55	3	Standard
[>	In-1	115		ug/L			6431	6514	2	KED
|	Cd	111	0.032	ug/L	0.007	22	3	10	13	KED
|	Cd	114	0.043	ug/L	0.012	28	0	26	28	KED
[>	In	115		ug/L			415168	444508	1	Standard
|	Ag	107	0.042	ug/L	0.001	2	37	654	2	Standard
[>	Tb	159		ug/L			170846	195982	1	Standard
|	Pb	208	28.410	ug/L	0.566	1	364	2689074	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-16**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:34:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	43330	4	Standard
[> Sc	45		ug/L			489773	543847	1	Standard
[Cr	52	14.647	ug/L	0.188	1	8505	225535	2	Standard
[Cr	53	14.718	ug/L	0.010	0	60	25116	1	Standard
[> Ge	72		ug/L			31037	30556	0	KED
[Cu	63	14.442	ug/L	0.034	0	42	58689	0	KED
[Cu	65	14.013	ug/L	0.412	2	15	28913	2	KED
[Zn	66	41.095	ug/L	0.502	1	22	20756	1	KED
[Zn	67	40.225	ug/L	0.124	0	4	3313	0	KED
[As	75	2.709	ug/L	0.046	1	3	669	1	KED
Y	89		ug/L			38706	151607	1	Standard
Kr	83		ug/L			31	50	19	Standard
[> In-1	115		ug/L			6431	6526	3	KED
[Cd	111	0.069	ug/L	0.014	20	3	19	15	KED
[Cd	114	0.034	ug/L	0.006	16	0	21	19	KED
[> In	115		ug/L			415168	430357	1	Standard
[Ag	107	0.046	ug/L	0.005	11	37	678	8	Standard
[> Tb	159		ug/L			170846	196157	0	Standard
[Pb	208	8.682	ug/L	0.035	0	364	822876	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-17**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:38:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	39815	5	Standard
[>	Sc	45		ug/L			489773	532303	1	Standard
|	Cr	52	12.534	ug/L	0.232	1	8505	190251	2	Standard
|	Cr	53	12.561	ug/L	0.168	1	60	20988	1	Standard
[>	Ge	72		ug/L			31037	30796	1	KED
|	Cu	63	14.010	ug/L	0.306	2	42	57374	1	KED
|	Cu	65	13.817	ug/L	0.060	0	15	28734	0	KED
|	Zn	66	45.726	ug/L	0.267	0	22	23273	1	KED
|	Zn	67	44.094	ug/L	1.961	4	4	3659	3	KED
|	As	75	3.287	ug/L	0.027	0	3	818	0	KED
	Y	89		ug/L			38706	134234	3	Standard
	Kr	83		ug/L			31	50	15	Standard
[>	In-1	115		ug/L			6431	6444	1	KED
|	Cd	111	0.048	ug/L	0.004	9	3	14	6	KED
|	Cd	114	0.053	ug/L	0.005	9	0	32	9	KED
[>	In	115		ug/L			415168	439159	1	Standard
|	Ag	107	0.041	ug/L	0.002	5	37	619	4	Standard
[>	Tb	159		ug/L			170846	196027	0	Standard
|	Pb	208	19.957	ug/L	0.049	0	364	1889730	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-18**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:43:06**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	50409	2	Standard
[> Sc	45		ug/L			489773	544792	1	Standard
[Cr	52	7.985	ug/L	0.015	0	8505	127459	1	Standard
[Cr	53	8.110	ug/L	0.084	1	60	13892	1	Standard
[> Ge	72		ug/L			31037	30737	1	KED
[Cu	63	15.977	ug/L	0.152	0	42	65303	0	KED
[Cu	65	16.043	ug/L	0.241	1	15	33296	0	KED
[Zn	66	16.443	ug/L	0.313	1	22	8366	0	KED
[Zn	67	16.934	ug/L	0.147	0	4	1405	1	KED
[As	75	3.950	ug/L	0.069	1	3	980	0	KED
Y	89		ug/L			38706	126181	1	Standard
Kr	83		ug/L			31	52	5	Standard
[> In-1	115		ug/L			6431	6406	2	KED
[Cd	111	0.022	ug/L	0.018	80	3	8	48	KED
[Cd	114	0.022	ug/L	0.003	15	0	13	15	KED
[> In	115		ug/L			415168	442957	1	Standard
[Ag	107	0.047	ug/L	0.000	0	37	723	1	Standard
[> Tb	159		ug/L			170846	195223	1	Standard
[Pb	208	4.130	ug/L	0.011	0	364	389818	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-19**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:47:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	37159	5	Standard
[> Sc	45		ug/L			489773	548709	2	Standard
[Cr	52	15.393	ug/L	0.345	2	8505	238573	0	Standard
[Cr	53	15.508	ug/L	0.188	1	60	26691	1	Standard
[> Ge	72		ug/L			31037	30172	1	KED
[Cu	63	48.799	ug/L	0.476	0	42	195698	0	KED
[Cu	65	48.099	ug/L	0.245	0	15	97965	1	KED
[Zn	66	140.370	ug/L	0.622	0	22	69950	1	KED
[Zn	67	133.546	ug/L	3.576	2	4	10852	3	KED
[As	75	15.238	ug/L	0.247	1	3	3703	0	KED
Y	89		ug/L			38706	186543	3	Standard
Kr	83		ug/L			31	55	5	Standard
[> In-1	115		ug/L			6431	6548	1	KED
[Cd	111	0.120	ug/L	0.036	30	3	31	27	KED
[Cd	114	0.071	ug/L	0.012	16	0	43	16	KED
[> In	115		ug/L			415168	438647	1	Standard
[Ag	107	0.043	ug/L	0.002	5	37	652	6	Standard
[> Tb	159		ug/L			170846	199150	1	Standard
[Pb	208	28.845	ug/L	0.420	1	364	2774307	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-22**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:51:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	43064	3	Standard
[> Sc	45		ug/L			489773	558439	1	Standard
[Cr	52	44.150	ug/L	0.302	0	8505	678482	0	Standard
[Cr	53	43.988	ug/L	0.585	1	60	76948	2	Standard
[> Ge	72		ug/L			31037	30590	0	KED
[Cu	63	595.340	ug/L	7.490	1	42	2420198	1	KED
[Cu	65	551.170	ug/L	3.704	0	15	1137954	0	KED
[Zn	66	207.307	ug/L	3.398	1	22	104721	1	KED
[Zn	67	197.681	ug/L	3.122	1	4	16283	1	KED
[As	75	8.626	ug/L	0.068	0	3	2127	1	KED
Y	89		ug/L			38706	220432	1	Standard
Kr	83		ug/L			31	66	9	Standard
[> In-1	115		ug/L			6431	6200	1	KED
[Cd	111	0.300	ug/L	0.036	12	3	70	10	KED
[Cd	114	0.328	ug/L	0.046	14	0	188	15	KED
[> In	115		ug/L			415168	414710	1	Standard
[Ag	107	0.141	ug/L	0.008	5	37	1944	7	Standard
[> Tb	159		ug/L			170846	198068	1	Standard
[Pb	208	104.657	ug/L	2.616	2	364	10008661	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 00:56:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	31692	4	Standard
[>	Sc	45	ug/L			489773	462144	1	Standard
|	Cr	52	ug/L	0.008	38	8505	8304	2	Standard
|	Cr	53	ug/L	0.003	82	60	52	6	Standard
[>	Ge	72	ug/L			31037	30135	0	KED
|	Cu	63	ug/L	0.005	9	42	253	7	KED
|	Cu	65	ug/L	0.004	7	15	137	6	KED
|	Zn	66	ug/L	0.016	49	22	38	20	KED
|	Zn	67	ug/L	0.076	300	4	6	96	KED
|	As	75	ug/L	0.002	185	3	3	14	KED
	Y	89	ug/L			38706	38668	3	Standard
	Kr	83	ug/L			31	33	37	Standard
[>	In-1	115	ug/L			6431	6204	1	KED
|	Cd	111	ug/L	0.002	29	3	1	43	KED
|	Cd	114	ug/L	0.002	38	0	2	32	KED
[>	In	115	ug/L			415168	416951	4	Standard
|	Ag	107	ug/L	0.000	21	37	13	34	Standard
[>	Tb	159	ug/L			170846	171074	0	Standard
|	Pb	208	ug/L	0.000	20	364	461	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVG

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 01:00:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	28687	6	Standard
[> Sc	45		ug/L			489773	479894	2	Standard
| Cr	52	48.044	ug/L	0.832	1	8505	633573	1	Standard
| Cr	53	48.145	ug/L	0.311	0	60	72354	2	Standard
[> Ge	72		ug/L			31037	30420	1	KED
| Cu	63	50.248	ug/L	1.371	2	42	203123	1	KED
| Cu	65	49.783	ug/L	0.973	1	15	102219	1	KED
| Zn	66	50.436	ug/L	1.595	3	22	25347	2	KED
| Zn	67	52.050	ug/L	1.297	2	4	4266	0	KED
| As	75	49.192	ug/L	0.767	1	3	12048	0	KED
Y	89		ug/L			38706	39850	1	Standard
Kr	83		ug/L			31	45	7	Standard
[> In-1	115		ug/L			6431	6340	1	KED
| Cd	111	48.689	ug/L	0.297	0	3	11168	1	KED
| Cd	114	49.469	ug/L	1.021	2	0	28938	0	KED
[> In	115		ug/L			415168	415978	1	Standard
| Ag	107	48.907	ug/L	0.542	1	37	662378	1	Standard
[> Tb	159		ug/L			170846	177816	0	Standard
| Pb	208	49.451	ug/L	0.721	1	364	4246608	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBG

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 01:07:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	27566	2	Standard
[>	Sc	45	ug/L			489773	475006	1	Standard
|	Cr	52	ug/L	0.008	216	8505	8199	2	Standard
|	Cr	53	ug/L	0.008	92	60	46	26	Standard
[>	Ge	72	ug/L			31037	29889	0	KED
|	Cu	63	ug/L	0.007	50	42	95	28	KED
|	Cu	65	ug/L	0.004	21	15	53	15	KED
|	Zn	66	ug/L	0.017	125	22	28	29	KED
|	Zn	67	ug/L	0.037	360	4	5	57	KED
|	As	75	ug/L	0.006	1348	3	3	48	KED
	Y	89	ug/L			38706	38925	1	Standard
	Kr	83	ug/L			31	48	8	Standard
[>	In-1	115	ug/L			6431	6244	0	KED
|	Cd	111	ug/L	0.010	161	3	4	49	KED
|	Cd	114	ug/L	0.002	185	0	1	102	KED
[>	In	115	ug/L			415168	430066	1	Standard
|	Ag	107	ug/L	0.001	220	37	32	45	Standard
[>	Tb	159	ug/L			170846	168062	0	Standard
|	Pb	208	ug/L	0.000	17	364	328	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-04RE1**

Sample Dil Factor: **2000**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:12:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	30551	4	Standard
[>	Sc	45	ug/L			489773	472324	2	Standard
|	Cr	52	ug/L	0.022	2	8505	21019	2	Standard
|	Cr	53	ug/L	0.006	0	60	1541	1	Standard
[>	Ge	72	ug/L			31037	30398	2	KED
|	Cu	63	ug/L	0.761	2	42	116874	0	KED
|	Cu	65	ug/L	0.186	0	15	60048	3	KED
|	Zn	66	ug/L	1.525	1	22	43982	1	KED
|	Zn	67	ug/L	1.102	1	4	6870	1	KED
|	As	75	ug/L	0.373	3	3	2915	1	KED
	Y	89	ug/L			38706	41079	3	Standard
	Kr	83	ug/L			31	46	31	Standard
[>	In-1	115	ug/L			6431	6427	0	KED
|	Cd	111	ug/L	0.014	23	3	16	18	KED
|	Cd	114	ug/L	0.014	20	0	41	20	KED
[>	In	115	ug/L			415168	427647	2	Standard
|	Ag	107	ug/L	0.002	9	37	274	10	Standard
[>	Tb	159	ug/L			170846	174643	0	Standard
|	Pb	208	ug/L	0.110	0	364	968692	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-DUP3**

Sample Dil Factor: **2000**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:16:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30898	3	Standard
[> Sc	45		ug/L			489773	488984	1	Standard
| Cr	52	0.958	ug/L	0.014	1	8505	21205	2	Standard
| Cr	53	0.982	ug/L	0.028	2	60	1564	3	Standard
[> Ge	72		ug/L			31037	31407	0	KED
| Cu	63	31.207	ug/L	0.191	0	42	130300	1	KED
| Cu	65	30.125	ug/L	0.377	1	15	63877	1	KED
| Zn	66	86.830	ug/L	0.595	0	22	45047	0	KED
| Zn	67	84.346	ug/L	1.688	2	4	7135	1	KED
| As	75	11.642	ug/L	0.015	0	3	2946	0	KED
Y	89		ug/L			38706	43238	2	Standard
Kr	83		ug/L			31	40	2	Standard
[> In-1	115		ug/L			6431	6515	3	KED
| Cd	111	0.052	ug/L	0.019	36	3	15	30	KED
| Cd	114	0.078	ug/L	0.002	2	0	47	1	KED
[> In	115		ug/L			415168	444475	1	Standard
| Ag	107	0.016	ug/L	0.002	10	37	276	7	Standard
[> Tb	159		ug/L			170846	175642	1	Standard
| Pb	208	11.306	ug/L	0.135	1	364	959316	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MS3**

Sample Dil Factor: **2000**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:20:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30807	4	Standard
[> Sc	45		ug/L			489773	490648	1	Standard
| Cr	52	1.258	ug/L	0.023	1	8505	25260	2	Standard
| Cr	53	1.264	ug/L	0.044	3	60	2001	3	Standard
[> Ge	72		ug/L			31037	31055	2	KED
| Cu STL	63	33.693	ug/L	0.891	2	42	139054	2	KED
| Cu	65	33.044	ug/L	0.837	2	15	69247	0	KED
| Zn STL	66	94.281	ug/L	1.711	1	22	48349	0	KED
| Zn	67	86.973	ug/L	1.658	1	4	7273	0	KED
| As	75	12.936	ug/L	0.137	1	3	3237	2	KED
Y	89		ug/L			38706	42287	1	Standard
Kr	83		ug/L			31	35	18	Standard
[> In-1	115		ug/L			6431	6456	2	KED
| Cd	111	0.280	ug/L	0.068	24	3	68	24	KED
| Cd	114	0.306	ug/L	0.047	15	0	182	13	KED
[> In	115		ug/L			415168	450507	2	Standard
| Ag	107	0.101	ug/L	0.002	2	37	1523	3	Standard
[> Tb	159		ug/L			170846	179202	1	Standard
| Pb	208	11.787	ug/L	0.139	1	364	1020315	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MSD3**

Sample Dil Factor: **2000**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:25:04**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30391	3	Standard
[> Sc	45		ug/L			489773	486050	0	Standard
| Cr	52	1.289	ug/L	0.016	1	8505	25435	0	Standard
| Cr	53	1.272	ug/L	0.034	2	60	1995	2	Standard
[> Ge	72		ug/L			31037	30597	0	KED
| Cu STL	63	31.232	ug/L	0.304	0	42	127032	0	KED
| Cu	65	30.820	ug/L	0.571	1	15	63657	1	KED
| Zn STL	66	95.342	ug/L	2.089	2	22	48183	1	KED
| Zn	67	92.251	ug/L	0.612	0	4	7603	0	KED
| As	75	14.360	ug/L	0.327	2	3	3539	1	KED
Y	89		ug/L			38706	43671	3	Standard
Kr	83		ug/L			31	26	14	Standard
[> In-1	115		ug/L			6431	6440	1	KED
| Cd	111	0.295	ug/L	0.047	15	3	71	14	KED
| Cd	114	0.338	ug/L	0.041	12	0	201	11	KED
[> In	115		ug/L			415168	449398	1	Standard
| Ag	107	0.102	ug/L	0.001	1	37	1530	2	Standard
[> Tb	159		ug/L			170846	179486	1	Standard
| Pb	208	12.545	ug/L	0.158	1	364	1087663	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-04**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:29:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30631	5	Standard
[> Sc	45		ug/L			489773	493335	3	Standard
| Cr	52	9.547	ug/L	0.169	1	8505	136286	1	Standard
| Cr	53	9.509	ug/L	0.285	2	60	14734	2	Standard
[> Ge	72		ug/L			31037	31482	0	KED
| Cu	63	281.221	ug/L	1.937	0	42	1176615	0	KED
| Cu	65	277.319	ug/L	2.161	0	15	589274	0	KED
| Zn	66	852.097	ug/L	9.023	1	22	442931	1	KED
| Zn	67	803.366	ug/L	16.409	2	4	68094	2	KED
| As	75	115.076	ug/L	0.981	0	3	29167	0	KED
Y	89		ug/L			38706	61146	0	Standard
Kr	83		ug/L			31	47	8	Standard
[> In-1	115		ug/L			6431	7352	1	KED
| Cd	111	0.508	ug/L	0.035	6	3	138	5	KED
| Cd	114	0.493	ug/L	0.037	7	0	334	6	KED
[> In	115		ug/L			415168	503740	1	Standard
| Ag	107	0.156	ug/L	0.005	3	37	2600	2	Standard
[> Tb	159		ug/L			170846	182208	1	Standard
| Pb	208	115.229	ug/L	1.114	0	364	10140173	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-DUP2**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:34:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30139	3	Standard
[> Sc	45		ug/L			489773	482233	0	Standard
| Cr	52	9.224	ug/L	0.039	0	8505	129036	0	Standard
| Cr	53	9.294	ug/L	0.107	1	60	14085	0	Standard
[> Ge	72		ug/L			31037	31019	0	KED
| Cu	63	296.799	ug/L	8.170	2	42	1223536	2	KED
| Cu	65	290.840	ug/L	4.591	1	15	608916	1	KED
| Zn	66	837.327	ug/L	7.595	0	22	428850	0	KED
| Zn	67	797.723	ug/L	16.671	2	4	66622	2	KED
| As	75	113.575	ug/L	1.088	0	3	28363	0	KED
| Y	89		ug/L			38706	62481	1	Standard
| Kr	83		ug/L			31	47	6	Standard
[> In-1	115		ug/L			6431	7466	2	KED
| Cd	111	0.597	ug/L	0.075	12	3	164	11	KED
| Cd	114	0.556	ug/L	0.063	11	0	384	12	KED
[> In	115		ug/L			415168	489865	2	Standard
| Ag	107	0.164	ug/L	0.005	3	37	2658	4	Standard
[> Tb	159		ug/L			170846	177530	2	Standard
| Pb	208	114.260	ug/L	2.317	2	364	9793943	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MS2**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:38:51**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	29199	3	Standard
[> Sc	45		ug/L			489773	481935	1	Standard
| Cr	52	12.086	ug/L	0.171	1	8505	166389	2	Standard
| Cr	53	12.337	ug/L	0.230	1	60	18663	1	Standard
[> Ge	72		ug/L			31037	30385	2	KED
| Cu	63	324.911	ug/L	8.767	2	42	1311520	1	KED
| Cu	65	320.907	ug/L	4.283	1	15	657992	1	KED
| Zn	66	913.322	ug/L	20.769	2	22	458051	0	KED
| Zn	67	843.494	ug/L	16.438	1	4	68983	0	KED
| As	STL 75	126.687	ug/L	2.649	2	3	30981	0	KED
Y	89		ug/L			38706	60811	5	Standard
Kr	83		ug/L			31	49	7	Standard
[> In-1	115		ug/L			6431	7279	1	KED
| Cd	111	2.577	ug/L	0.147	5	3	681	4	KED
| Cd	114	2.545	ug/L	0.104	4	0	1709	2	KED
[> In	115		ug/L			415168	491629	0	Standard
| Ag	107	0.914	ug/L	0.033	3	37	14672	3	Standard
[> Tb	159		ug/L			170846	175848	2	Standard
| Pb	STL 208	123.651	ug/L	2.529	2	364	10499446	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MSD2**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:43:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	29253	2	Standard
[> Sc	45		ug/L			489773	478491	1	Standard
[Cr	52	12.000	ug/L	0.155	1	8505	164058	1	Standard
[Cr	53	12.342	ug/L	0.018	0	60	18540	1	Standard
[> Ge	72		ug/L			31037	29516	1	KED
[Cu	63	298.398	ug/L	6.261	2	42	1170402	1	KED
[Cu	65	299.647	ug/L	9.493	3	15	596840	2	KED
[Zn	66	934.941	ug/L	10.807	1	22	455607	0	KED
[Zn	67	876.581	ug/L	20.255	2	4	69647	1	KED
[As STL	75	139.598	ug/L	2.184	1	3	33169	0	KED
[Y	89		ug/L			38706	61352	0	Standard
[Kr	83		ug/L			31	49	0	Standard
[> In-1	115		ug/L			6431	7369	0	KED
[Cd	111	2.591	ug/L	0.172	6	3	694	6	KED
[Cd	114	2.626	ug/L	0.197	7	0	1786	8	KED
[> In	115		ug/L			415168	485755	2	Standard
[Ag	107	0.915	ug/L	0.014	1	37	14513	1	Standard
[> Tb	159		ug/L			170846	177756	1	Standard
[Pb STL	208	127.749	ug/L	2.128	1	364	10965682	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-PS2**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:49:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30713	3	Standard
[> Sc	45		ug/L			489773	480926	2	Standard
| Cr	52	33.128	ug/L	0.619	1	8505	440421	1	Standard
| Cr	53	33.458	ug/L	0.662	1	60	50398	0	Standard
[> Ge	72		ug/L			31037	29561	0	KED
| Cu	63	308.592	ug/L	4.739	1	42	1212252	0	KED
| Cu	65	304.340	ug/L	5.202	1	15	607177	0	KED
| Zn	66	946.721	ug/L	8.030	0	22	462068	0	KED
| Zn	67	878.577	ug/L	8.175	0	4	69928	1	KED
| As	75	140.870	ug/L	1.866	1	3	33524	0	KED
Y	89		ug/L			38706	65298	1	Standard
Kr	83		ug/L			31	56	10	Standard
[> In-1	115		ug/L			6431	6960	1	KED
| Cd	111	22.267	ug/L	0.592	2	3	5608	2	KED
| Cd	114	22.783	ug/L	0.148	0	0	14632	0	KED
[> In	115		ug/L			415168	488552	0	Standard
| Ag	107	22.205	ug/L	0.197	0	37	353249	0	Standard
[> Tb	159		ug/L			170846	174800	0	Standard
| Pb	208	146.960	ug/L	0.816	0	364	12406204	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLJ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 01:54:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	29657	1	Standard
[>	Sc	45	ug/L			489773	453739	1	Standard
|	Cr	52	ug/L	0.008	251	8505	7919	1	Standard
|	Cr	53	ug/L	0.002	16	60	39	6	Standard
[>	Ge	72	ug/L			31037	28655	1	KED
|	Cu	63	ug/L	0.003	5	42	242	5	KED
|	Cu	65	ug/L	0.002	4	15	109	2	KED
|	Zn	66	ug/L	0.013	29	22	41	14	KED
|	Zn	67	ug/L	0.029	227	4	5	43	KED
|	As	75	ug/L	0.009	50	3	7	29	KED
	Y	89	ug/L			38706	39024	2	Standard
	Kr	83	ug/L			31	44	19	Standard
[>	In-1	115	ug/L			6431	6089	2	KED
|	Cd	111	ug/L	0.005	222	3	2	43	KED
|	Cd	114	ug/L	0.015	166	0	5	151	KED
[>	In	115	ug/L			415168	420505	1	Standard
|	Ag	107	ug/L	0.001	261	37	40	17	Standard
[>	Tb	159	ug/L			170846	168070	1	Standard
|	Pb	208	ug/L	0.000	11	364	556	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVH

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 01:58:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	28472	1	Standard
[> Sc	45		ug/L			489773	474949	1	Standard
| Cr	52	47.965	ug/L	0.470	0	8505	626152	1	Standard
| Cr	53	47.875	ug/L	0.742	1	60	71220	2	Standard
[> Ge	72		ug/L			31037	29215	0	KED
| Cu	63	50.335	ug/L	0.996	1	42	195466	1	KED
| Cu	65	50.159	ug/L	1.239	2	15	98918	2	KED
| Zn	66	49.688	ug/L	0.599	1	22	23989	1	KED
| Zn	67	50.926	ug/L	2.453	4	4	4010	5	KED
| As	75	50.121	ug/L	0.499	0	3	11791	0	KED
Y	89		ug/L			38706	40881	2	Standard
Kr	83		ug/L			31	43	18	Standard
[> In-1	115		ug/L			6431	6076	4	KED
| Cd	111	49.124	ug/L	0.705	1	3	10793	3	KED
| Cd	114	49.453	ug/L	1.521	3	0	27702	1	KED
[> In	115		ug/L			415168	418925	2	Standard
| Ag	107	49.536	ug/L	1.188	2	37	675500	1	Standard
[> Tb	159		ug/L			170846	174901	0	Standard
| Pb	208	50.663	ug/L	0.504	0	364	4279485	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBH

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 02:05:31

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	26731	1	Standard
[>	Sc	45	ug/L			489773	453624	3	Standard
|	Cr	52	0.014	0.017	125	8505	8044	1	Standard
|	Cr	53	0.002	0.005	261	60	59	11	Standard
[>	Ge	72	ug/L			31037	29444	1	KED
|	Cu	63	0.032	0.005	15	42	165	12	KED
|	Cu	65	0.029	0.003	11	15	71	9	KED
|	Zn	66	0.025	0.016	65	22	33	23	KED
|	Zn	67	-0.021	0.036	168	4	2	114	KED
|	As	75	-0.001	0.004	330	3	2	36	KED
	Y	89	ug/L			38706	38946	2	Standard
	Kr	83	ug/L			31	37	32	Standard
[>	In-1	115	ug/L			6431	6118	1	KED
|	Cd	111	-0.002	0.007	303	3	2	57	KED
|	Cd	114	0.004	0.002	39	0	2	34	KED
[>	In	115	ug/L			415168	413830	2	Standard
|	Ag	107	0.000	0.001	422	37	39	21	Standard
[>	Tb	159	ug/L			170846	164294	1	Standard
|	Pb	208	0.001	0.000	30	364	455	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-03RE1**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:09:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30624	3	Standard
[> Sc	45		ug/L			489773	487192	2	Standard
| Cr	52	3.273	ug/L	0.129	3	8505	51694	1	Standard
| Cr	53	3.350	ug/L	0.083	2	60	5165	0	Standard
[> Ge	72		ug/L			31037	29906	1	KED
| Cu	63	13.945	ug/L	0.345	2	42	55451	1	KED
| Cu	65	13.640	ug/L	0.160	1	15	27545	0	KED
| Zn	66	18.522	ug/L	0.095	0	22	9167	0	KED
| Zn	67	17.125	ug/L	0.234	1	4	1382	0	KED
| As	75	1.939	ug/L	0.093	4	3	470	5	KED
Y	89		ug/L			38706	51426	1	Standard
Kr	83		ug/L			31	39	7	Standard
[> In-1	115		ug/L			6431	6213	2	KED
| Cd	111	1.349	ug/L	0.021	1	3	306	3	KED
| Cd	114	1.338	ug/L	0.052	3	0	767	4	KED
[> In	115		ug/L			415168	433493	2	Standard
| Ag	107	0.013	ug/L	0.001	7	37	228	4	Standard
[> Tb	159		ug/L			170846	176763	1	Standard
| Pb	208	78.292	ug/L	0.952	1	364	6682947	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-07RE1**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:14:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	35262	3	Standard
[> Sc	45		ug/L			489773	498833	2	Standard
[Cr	52	6.919	ug/L	0.161	2	8505	102262	1	Standard
[Cr	53	7.160	ug/L	0.284	3	60	11232	1	Standard
[> Ge	72		ug/L			31037	29425	2	KED
[Cu	63	21.746	ug/L	0.149	0	42	85074	2	KED
[Cu	65	21.605	ug/L	0.331	1	15	42917	2	KED
[Zn	66	78.657	ug/L	1.499	1	22	38225	0	KED
[Zn	67	75.072	ug/L	3.238	4	4	5947	1	KED
[As	75	2.013	ug/L	0.032	1	3	479	1	KED
Y	89		ug/L			38706	110324	2	Standard
Kr	83		ug/L			31	43	5	Standard
[> In-1	115		ug/L			6431	6245	0	KED
[Cd	111	0.158	ug/L	0.056	35	3	38	31	KED
[Cd	114	0.213	ug/L	0.003	1	0	122	2	KED
[> In	115		ug/L			415168	417940	1	Standard
[Ag	107	0.054	ug/L	0.002	3	37	767	1	Standard
[> Tb	159		ug/L			170846	184577	1	Standard
[Pb	208	10.989	ug/L	0.080	0	364	979909	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-08RE1**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:18:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	31596	3	Standard
[>	Sc	45	ug/L			489773	517960	2	Standard
|	Cr	8.543	ug/L	0.115	1	8505	129008	2	Standard
|	Cr	8.743	ug/L	0.132	1	60	14233	2	Standard
[>	Ge	72	ug/L			31037	29166	1	KED
|	Cu	65.938	ug/L	0.910	1	42	255577	0	KED
|	Cu	66.039	ug/L	2.091	3	15	129965	1	KED
|	Zn	30.904	ug/L	1.722	5	22	14892	3	KED
|	Zn	29.801	ug/L	1.213	4	4	2343	2	KED
|	As	0.908	ug/L	0.052	5	3	216	3	KED
	Y	89	ug/L			38706	155291	2	Standard
	Kr	83	ug/L			31	84	7	Standard
[>	In-1	115	ug/L			6431	5942	1	KED
|	Cd	0.044	ug/L	0.019	43	3	12	33	KED
|	Cd	0.065	ug/L	0.016	24	0	35	23	KED
[>	In	115	ug/L			415168	407971	1	Standard
|	Ag	0.050	ug/L	0.006	11	37	695	10	Standard
[>	Tb	159	ug/L			170846	188018	3	Standard
|	Pb	5.214	ug/L	0.135	2	364	473576	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-DUP2**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:22:46**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	32188	4	Standard
[>	Sc	45	ug/L			489773	514224	0	Standard
|	Cr	8.460	ug/L	0.137	1	8505	126940	1	Standard
|	Cr	8.562	ug/L	0.143	1	60	13842	1	Standard
[>	Ge	72	ug/L			31037	28889	0	KED
|	Cu	67.265	ug/L	0.792	1	42	258273	0	KED
|	Cu	68.236	ug/L	0.153	0	15	133063	0	KED
|	Zn	31.600	ug/L	0.647	2	22	15092	1	KED
|	Zn	30.536	ug/L	1.112	3	4	2379	3	KED
|	As	1.361	ug/L	0.052	3	3	319	3	KED
	Y	89	ug/L			38706	163418	3	Standard
	Kr	83	ug/L			31	85	25	Standard
[>	In-1	115	ug/L			6431	5786	1	KED
|	Cd	0.070	ug/L	0.027	38	3	17	33	KED
|	Cd	0.068	ug/L	0.017	25	0	36	26	KED
[>	In	115	ug/L			415168	413285	2	Standard
|	Ag	0.063	ug/L	0.006	9	37	889	6	Standard
[>	Tb	159	ug/L			170846	188901	1	Standard
|	Pb	6.697	ug/L	0.064	0	364	611329	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-MS2**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:27:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	31313	3	Standard
[> Sc	45		ug/L			489773	510684	2	Standard
| Cr	52	18.655	ug/L	0.323	1	8505	267255	1	Standard
| Cr	53	18.746	ug/L	0.348	1	60	30022	2	Standard
[> Ge	72		ug/L			31037	28790	1	KED
| Cu	63	76.495	ug/L	0.327	0	42	292713	1	KED
| Cu	65	76.368	ug/L	0.858	1	15	148397	0	KED
| Zn	66	60.624	ug/L	0.247	0	22	28838	1	KED
| Zn	67	56.389	ug/L	2.283	4	4	4375	4	KED
| As	75	9.360	ug/L	0.068	0	3	2172	0	KED
Y	89		ug/L			38706	166225	3	Standard
Kr	83		ug/L			31	65	24	Standard
[> In-1	115		ug/L			6431	5934	1	KED
| Cd	111	10.090	ug/L	0.243	2	3	2168	2	KED
| Cd	114	10.347	ug/L	0.182	1	0	5666	1	KED
[> In	115		ug/L			415168	407600	1	Standard
| Ag	107	9.938	ug/L	0.212	2	37	131911	1	Standard
[> Tb	159		ug/L			170846	186852	1	Standard
| Pb	208	13.748	ug/L	0.170	1	364	1240887	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-MSD2**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:31:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	31044	4	Standard
[>	Sc	45		ug/L			489773	518699	1	Standard
|	Cr	52	17.572	ug/L	0.147	0	8505	256239	1	Standard
|	Cr	53	17.644	ug/L	0.164	0	60	28701	1	Standard
[>	Ge	72		ug/L			31037	29185	0	KED
|	Cu	63	69.683	ug/L	0.325	0	42	270307	0	KED
|	Cu	65	68.472	ug/L	1.336	1	15	134892	2	KED
|	Zn	66	64.007	ug/L	1.086	1	22	30862	1	KED
|	Zn	67	63.315	ug/L	1.110	1	4	4978	1	KED
|	As	75	8.715	ug/L	0.136	1	3	2050	1	KED
	Y	89		ug/L			38706	175850	1	Standard
	Kr	83		ug/L			31	71	8	Standard
[>	In-1	115		ug/L			6431	6045	1	KED
|	Cd	111	10.400	ug/L	0.308	2	3	2276	1	KED
|	Cd	114	10.110	ug/L	0.094	0	0	5640	2	KED
[>	In	115		ug/L			415168	412014	1	Standard
|	Ag	107	9.935	ug/L	0.244	2	37	133316	2	Standard
[>	Tb	159		ug/L			170846	191323	0	Standard
|	Pb	208	14.236	ug/L	0.104	0	364	1315763	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLK

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 02:36:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30359	5	Standard
[> Sc	45		ug/L			489773	453998	1	Standard
| Cr	52	0.007	ug/L	0.007	104	8505	7970	1	Standard
| Cr	53	-0.007	ug/L	0.007	105	60	46	21	Standard
[> Ge	72		ug/L			31037	28893	1	KED
| Cu	63	0.016	ug/L	0.002	12	42	100	8	KED
| Cu	65	0.013	ug/L	0.004	30	15	40	17	KED
| Zn	66	0.014	ug/L	0.009	66	22	27	14	KED
| Zn	67	0.037	ug/L	0.077	206	4	6	83	KED
| As	75	-0.006	ug/L	0.006	96	3	1	100	KED
Y	89		ug/L			38706	38306	2	Standard
Kr	83		ug/L			31	40	33	Standard
[> In-1	115		ug/L			6431	5811	3	KED
| Cd	111	-0.002	ug/L	0.003	193	3	2	21	KED
| Cd	114	0.001	ug/L	0.004	309	0	1	188	KED
[> In	115		ug/L			415168	413827	1	Standard
| Ag	107	-0.001	ug/L	0.001	151	37	29	43	Standard
[> Tb	159		ug/L			170846	166016	1	Standard
| Pb	208	-0.000	ug/L	0.000	68	364	330	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0393-02

Sample Dil Factor: 200

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 02:40:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	45434	2	Standard
[> Sc	45		ug/L			489773	482968	3	Standard
| Cr	52	2.353	ug/L	0.019	0	8505	39210	2	Standard
| Cr	53	2.336	ug/L	0.038	1	60	3590	3	Standard
[> Ge	72		ug/L			31037	29490	1	KED
| Cu	63	7.628	ug/L	0.205	2	42	29929	1	KED
| Cu	65	7.670	ug/L	0.201	2	15	15279	2	KED
| Zn	66	15.420	ug/L	0.323	2	22	7528	0	KED
| Zn	67	15.652	ug/L	0.735	4	4	1247	5	KED
| As	75	2.343	ug/L	0.048	2	3	559	1	KED
Y	89		ug/L			38706	70245	4	Standard
Kr	83		ug/L			31	35	3	Standard
[> In-1	115		ug/L			6431	6169	1	KED
| Cd	111	0.026	ug/L	0.011	43	3	8	26	KED
| Cd	114	0.028	ug/L	0.007	26	0	16	23	KED
[> In	115		ug/L			415168	420907	1	Standard
| Ag	107	0.034	ug/L	0.002	6	37	505	5	Standard
[> Tb	159		ug/L			170846	177257	1	Standard
| Pb	208	2.067	ug/L	0.021	0	364	177307	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0393-03

Sample Dil Factor: 200

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 02:48:17

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	33604	1	Standard
[> Sc	45		ug/L			489773	487278	2	Standard
| Cr	52	2.160	ug/L	0.027	1	8505	37006	1	Standard
| Cr	53	2.152	ug/L	0.038	1	60	3341	1	Standard
[> Ge	72		ug/L			31037	30046	1	KED
| Cu	63	8.181	ug/L	0.073	0	42	32709	1	KED
| Cu	65	8.188	ug/L	0.175	2	15	16622	3	KED
| Zn	66	14.978	ug/L	0.559	3	22	7450	2	KED
| Zn	67	15.756	ug/L	0.427	2	4	1278	2	KED
| As	75	1.829	ug/L	0.095	5	3	445	6	KED
Y	89		ug/L			38706	83285	1	Standard
Kr	83		ug/L			31	36	10	Standard
[> In-1	115		ug/L			6431	6234	1	KED
| Cd	111	0.016	ug/L	0.008	48	3	6	24	KED
| Cd	114	0.021	ug/L	0.012	57	0	12	54	KED
[> In	115		ug/L			415168	418765	2	Standard
| Ag	107	0.023	ug/L	0.001	3	37	356	0	Standard
[> Tb	159		ug/L			170846	178718	0	Standard
| Pb	208	2.555	ug/L	0.004	0	364	220947	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLL

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 02:56:03

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30836	3	Standard
[> Sc	45		ug/L			489773	469752	4	Standard
| Cr	52	-0.003	ug/L	0.010	348	8505	8120	3	Standard
| Cr	53	-0.006	ug/L	0.004	62	60	49	15	Standard
[> Ge	72		ug/L			31037	29085	0	KED
| Cu	63	0.017	ug/L	0.003	17	42	104	10	KED
| Cu	65	0.019	ug/L	0.002	8	15	52	5	KED
| Zn	66	0.014	ug/L	0.002	14	22	27	3	KED
| Zn	67	-0.021	ug/L	0.014	68	4	2	43	KED
| As	75	-0.007	ug/L	0.003	42	3	1	57	KED
Y	89		ug/L			38706	40136	2	Standard
Kr	83		ug/L			31	29	24	Standard
[> In-1	115		ug/L			6431	6211	3	KED
| Cd	111	-0.001	ug/L	0.012	1346	3	2	88	KED
| Cd	114	0.003	ug/L	0.002	61	0	2	47	KED
[> In	115		ug/L			415168	424538	4	Standard
| Ag	107	-0.002	ug/L	0.000	9	37	17	11	Standard
[> Tb	159		ug/L			170846	172024	1	Standard
| Pb	208	-0.001	ug/L	0.000	19	364	267	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:00:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	27412	4	Standard
[> Sc	45		ug/L			489773	472142	2	Standard
| Cr	52	48.525	ug/L	0.359	0	8505	629678	2	Standard
| Cr	53	48.055	ug/L	0.480	0	60	71053	1	Standard
[> Ge	72		ug/L			31037	29986	0	KED
| Cu	63	49.546	ug/L	0.423	0	42	197473	0	KED
| Cu	65	49.314	ug/L	0.707	1	15	99822	1	KED
| Zn	66	49.844	ug/L	0.989	1	22	24698	1	KED
| Zn	67	50.845	ug/L	1.890	3	4	4108	3	KED
| As	75	49.357	ug/L	0.317	0	3	11917	0	KED
Y	89		ug/L			38706	40632	1	Standard
Kr	83		ug/L			31	43	11	Standard
[> In-1	115		ug/L			6431	6181	2	KED
| Cd	111	48.743	ug/L	1.451	2	3	10895	1	KED
| Cd	114	49.281	ug/L	1.152	2	0	28100	0	KED
[> In	115		ug/L			415168	420245	0	Standard
| Ag	107	48.692	ug/L	0.848	1	37	666249	1	Standard
[> Tb	159		ug/L			170846	174791	1	Standard
| Pb	208	50.739	ug/L	1.441	2	364	4282243	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:07:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	27232	4	Standard
[>	Sc	45	ug/L			489773	460997	2	Standard
|	Cr	52	ug/L	0.013	86	8505	7820	2	Standard
|	Cr	53	ug/L	0.003	56	60	48	8	Standard
[>	Ge	72	ug/L			31037	28836	1	KED
|	Cu	63	ug/L	0.005	138	42	53	37	KED
|	Cu	65	ug/L	0.005	102	15	23	37	KED
|	Zn	66	ug/L	0.019	33	22	47	17	KED
|	Zn	67	ug/L	0.015	360	4	4	24	KED
|	As	75	ug/L	0.004	88	3	1	50	KED
	Y	89	ug/L			38706	38610	2	Standard
	Kr	83	ug/L			31	39	48	Standard
[>	In-1	115	ug/L			6431	6029	4	KED
|	Cd	111	ug/L	0.011	312	3	2	107	KED
|	Cd	114	ug/L	0.004	370	0	1	205	KED
[>	In	115	ug/L			415168	414487	1	Standard
|	Ag	107	ug/L	0.000	275	37	38	5	Standard
[>	Tb	159	ug/L			170846	165442	0	Standard
|	Pb	208	ug/L	0.000	87	364	398	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:12:17

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				26244	0	Standard
[>	Sc	45	ug/L				448237	0	Standard
|	Cr	52	ug/L				8038	0	Standard
|	Cr	53	ug/L				50	7	Standard
[>	Ge	72	ug/L				28647	1	KED
|	Cu	63	ug/L				51	22	KED
|	Cu	65	ug/L				25	22	KED
|	Zn	66	ug/L				36	18	KED
|	Zn	67	ug/L				6	15	KED
|	As	75	ug/L				2	21	KED
	Y	89	ug/L				38752	1	Standard
	Kr	83	ug/L				40	21	Standard
[>	In-1	115	ug/L				6124	1	KED
|	Cd	111	ug/L				4	48	KED
|	Cd	114	ug/L				3	51	KED
[>	In	115	ug/L				412702	0	Standard
|	Ag	107	ug/L				17	19	Standard
[>	Tb	159	ug/L				165777	0	Standard
|	Pb	208	ug/L				350	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVJ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:16:39

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	27528	3	Standard
[> Sc	45		ug/L			448237	465302	1	Standard
| Cr	52	48.195	ug/L	1.071	2	8038	616725	3	Standard
| Cr	53	48.451	ug/L	1.053	2	50	70619	3	Standard
[> Ge	72		ug/L			28647	29088	1	KED
| Cu	63	49.523	ug/L	0.747	1	51	191468	0	KED
| Cu	65	49.587	ug/L	0.811	1	25	97364	0	KED
| Zn	66	50.764	ug/L	1.787	3	36	24410	2	KED
| Zn	67	51.486	ug/L	0.785	1	6	4038	0	KED
| As	75	49.815	ug/L	0.738	1	2	11666	0	KED
Y	89		ug/L			38752	39682	1	Standard
Kr	83		ug/L			40	38	10	Standard
[> In-1	115		ug/L			6124	5986	1	KED
| Cd	111	50.165	ug/L	0.768	1	4	10864	0	KED
| Cd	114	50.376	ug/L	0.553	1	3	27830	1	KED
[> In	115		ug/L			412702	414779	3	Standard
| Ag	107	48.657	ug/L	0.166	0	17	657183	3	Standard
[> Tb	159		ug/L			165777	173047	1	Standard
| Pb	208	51.251	ug/L	0.610	1	350	4282878	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBJ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:23:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	27346	3	Standard
[>	Sc	45	ug/L			448237	461077	0	Standard
|	Cr	52	ug/L	0.006	22	8038	7967	1	Standard
|	Cr	53	ug/L	0.003	107	50	47	11	Standard
[>	Ge	72	ug/L			28647	29348	3	KED
|	Cu	63	ug/L	0.002	94	51	45	18	KED
|	Cu	65	ug/L	0.005	131	25	33	27	KED
|	Zn	66	ug/L	0.009	130	36	34	9	KED
|	Zn	67	ug/L	0.016	161	6	6	17	KED
|	As	75	ug/L	0.005	1211	2	2	44	KED
	Y	89	ug/L			38752	38899	0	Standard
	Kr	83	ug/L			40	36	32	Standard
[>	In-1	115	ug/L			6124	6057	3	KED
|	Cd	111	ug/L	0.007	242	4	3	41	KED
|	Cd	114	ug/L	0.003	104	3	1	101	KED
[>	In	115	ug/L			412702	421771	1	Standard
|	Ag	107	ug/L	0.001	50	17	44	31	Standard
[>	Tb	159	ug/L			165777	166182	0	Standard
|	Pb	208	ug/L	0.001	74	350	409	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-05**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:28:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	28967	3	Standard
[> Sc	45		ug/L			448237	473662	1	Standard
| Cr	52	6.951	ug/L	0.009	0	8038	97812	1	Standard
| Cr	53	7.122	ug/L	0.149	2	50	10613	3	Standard
[> Ge	72		ug/L			28647	29878	1	KED
| Cu	63	140.074	ug/L	4.444	3	51	556090	2	KED
| Cu	65	137.686	ug/L	3.184	2	25	277626	1	KED
| Zn	66	432.085	ug/L	1.353	0	36	213184	1	KED
| Zn	67	396.702	ug/L	8.330	2	6	31911	1	KED
| As	75	58.904	ug/L	1.212	2	2	14168	1	KED
Y	89		ug/L			38752	55902	2	Standard
Kr	83		ug/L			40	50	26	Standard
[> In-1	115		ug/L			6124	6550	1	KED
| Cd	111	0.239	ug/L	0.038	15	4	60	13	KED
| Cd	114	0.272	ug/L	0.015	5	3	168	6	KED
[> In	115		ug/L			412702	459125	2	Standard
| Ag	107	0.090	ug/L	0.003	3	17	1366	3	Standard
[> Tb	159		ug/L			165777	177424	1	Standard
| Pb	208	56.336	ug/L	1.570	2	350	4826184	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-06**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:32:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	30367	2	Standard
[>	Sc	45	ug/L			448237	479266	1	Standard
|	Cr	52	ug/L	0.045	1	8038	50334	0	Standard
|	Cr	53	ug/L	0.092	2	50	4923	1	Standard
[>	Ge	72	ug/L			28647	30135	1	KED
|	Cu	63	ug/L	0.858	1	51	204186	1	KED
|	Cu	65	ug/L	0.275	0	25	101598	1	KED
|	Zn	66	ug/L	2.067	1	36	93651	0	KED
|	Zn	67	ug/L	2.872	1	6	14365	1	KED
|	As	75	ug/L	0.314	1	2	6457	0	KED
	Y	89	ug/L			38752	53142	2	Standard
	Kr	83	ug/L			40	43	19	Standard
[>	In-1	115	ug/L			6124	6312	2	KED
|	Cd	111	ug/L	0.040	46	4	23	38	KED
|	Cd	114	ug/L	0.015	16	3	58	17	KED
[>	In	115	ug/L			412702	435687	2	Standard
|	Ag	107	ug/L	0.001	3	17	523	2	Standard
[>	Tb	159	ug/L			165777	175550	0	Standard
|	Pb	208	ug/L	0.460	1	350	2191176	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0393-08

Sample Dil Factor: 200

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 03:40:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	31181	3	Standard
[> Sc	45		ug/L			448237	478509	1	Standard
| Cr	52	1.220	ug/L	0.043	3	8038	24407	0	Standard
| Cr	53	1.282	ug/L	0.063	4	50	1973	3	Standard
[> Ge	72		ug/L			28647	30151	1	KED
| Cu	63	6.754	ug/L	0.133	1	51	27113	1	KED
| Cu	65	6.604	ug/L	0.067	1	25	13465	0	KED
| Zn	66	6.390	ug/L	0.314	4	36	3218	3	KED
| Zn	67	6.099	ug/L	0.366	5	6	502	5	KED
| As	75	0.351	ug/L	0.020	5	2	87	6	KED
Y	89		ug/L			38752	50471	3	Standard
Kr	83		ug/L			40	45	8	Standard
[> In-1	115		ug/L			6124	6249	2	KED
| Cd	111	0.001	ug/L	0.007	618	4	4	32	KED
| Cd	114	0.004	ug/L	0.004	79	3	6	34	KED
[> In	115		ug/L			412702	436235	1	Standard
| Ag	107	0.007	ug/L	0.001	18	17	115	17	Standard
[> Tb	159		ug/L			165777	178703	0	Standard
| Pb	208	2.526	ug/L	0.011	0	350	218384	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLM

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:46:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	30527	5	Standard
[>	Sc	45	ug/L			448237	458442	0	Standard
|	Cr	52	ug/L	0.025	167	8038	8039	3	Standard
|	Cr	53	ug/L	0.005	93	50	43	18	Standard
[>	Ge	72	ug/L			28647	29142	1	KED
|	Cu	63	ug/L	0.001	98	51	48	8	KED
|	Cu	65	ug/L	0.002	84	25	22	13	KED
|	Zn	66	ug/L	0.026	134	36	27	43	KED
|	Zn	67	ug/L	0.037	63	6	2	114	KED
|	As	75	ug/L	0.004	856	2	2	36	KED
	Y	89	ug/L			38752	38600	1	Standard
	Kr	83	ug/L			40	36	5	Standard
[>	In-1	115	ug/L			6124	6084	3	KED
|	Cd	111	ug/L	0.005	392	4	3	25	KED
|	Cd	114	ug/L	0.010	432	3	4	111	KED
[>	In	115	ug/L			412702	419892	1	Standard
|	Ag	107	ug/L	0.000	154	17	13	49	Standard
[>	Tb	159	ug/L			165777	169399	0	Standard
|	Pb	208	ug/L	0.001	83	350	293	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:50:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	42650	4	Standard
[>	Sc	45	ug/L			448237	530401	2	Standard
|	Cr	52	ug/L	0.007	5	8038	11239	1	Standard
|	Cr	53	ug/L	0.007	1	50	846	3	Standard
[>	Ge	72	ug/L			28647	28591	0	KED
|	Cu	63	ug/L	0.027	2	51	4951	1	KED
|	Cu	65	ug/L	0.021	1	25	2536	0	KED
|	Zn	66	ug/L	0.052	4	36	645	4	KED
|	Zn	67	ug/L	0.137	9	6	123	8	KED
|	As	75	ug/L	0.024	5	2	114	4	KED
	Y	89	ug/L			38752	47886	3	Standard
	Kr	83	ug/L			40	40	23	Standard
[>	In-1	115	ug/L			6124	5788	1	KED
|	Cd	111	ug/L	0.007	62	4	6	22	KED
|	Cd	114	ug/L	0.004	20	3	12	17	KED
[>	In	115	ug/L			412702	424716	1	Standard
|	Ag	107	ug/L	0.001	132	17	27	48	Standard
[>	Tb	159	ug/L			165777	173082	0	Standard
|	Pb	208	ug/L	0.000	7	350	953	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:55:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	36089	1	Standard
[> Sc	45		ug/L			448237	508981	1	Standard
| Cr	52	0.007	ug/L	0.014	208	8038	9222	2	Standard
| Cr	53	0.471	ug/L	0.036	7	50	807	7	Standard
[> Ge	72		ug/L			28647	27519	2	KED
| Cu	63	0.413	ug/L	0.017	4	51	1558	1	KED
| Cu	65	0.399	ug/L	0.054	13	25	765	12	KED
| Zn	66	1.670	ug/L	0.134	8	36	793	6	KED
| Zn	67	1.816	ug/L	0.419	23	6	140	20	KED
| As	75	0.386	ug/L	0.025	6	2	87	3	KED
Y	89		ug/L			38752	41667	3	Standard
Kr	83		ug/L			40	36	7	Standard
[> In-1	115		ug/L			6124	5550	0	KED
| Cd	111	-0.004	ug/L	0.010	220	4	2	66	KED
| Cd	114	0.006	ug/L	0.002	38	3	6	17	KED
[> In	115		ug/L			412702	419007	2	Standard
| Ag	107	0.001	ug/L	0.000	74	17	25	24	Standard
[> Tb	159		ug/L			165777	168327	2	Standard
| Pb	208	0.011	ug/L	0.000	2	350	1228	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:59:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	36160	3	Standard
[> Sc	45		ug/L			448237	501329	0	Standard
| Cr	52	0.098	ug/L	0.027	27	8038	10320	3	Standard
| Cr	53	0.469	ug/L	0.026	5	50	792	5	Standard
[> Ge	72		ug/L			28647	26746	0	KED
| Cu	63	0.693	ug/L	0.024	3	51	2510	3	KED
| Cu	65	0.676	ug/L	0.022	3	25	1245	3	KED
| Zn	66	1.511	ug/L	0.056	3	36	701	2	KED
| Zn	67	1.478	ug/L	0.150	10	6	113	10	KED
| As	75	0.114	ug/L	0.017	14	2	26	14	KED
Y	89		ug/L			38752	40879	1	Standard
Kr	83		ug/L			40	35	26	Standard
[> In-1	115		ug/L			6124	5352	2	KED
| Cd	111	0.006	ug/L	0.010	170	4	4	40	KED
| Cd	114	-0.003	ug/L	0.004	126	3	1	112	KED
[> In	115		ug/L			412702	403498	1	Standard
| Ag	107	0.001	ug/L	0.001	116	17	24	35	Standard
[> Tb	159		ug/L			165777	165184	1	Standard
| Pb	208	0.005	ug/L	0.001	11	350	784	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:03:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	42590	6	Standard
[> Sc	45		ug/L			448237	522766	2	Standard
| Cr	52	0.344	ug/L	0.007	1	8038	14260	2	Standard
| Cr	53	0.595	ug/L	0.019	3	50	1031	1	Standard
[> Ge	72		ug/L			28647	26398	0	KED
| Cu	63	0.272	ug/L	0.019	6	51	1002	6	KED
| Cu	65	0.264	ug/L	0.020	7	25	493	6	KED
| Zn	66	1.455	ug/L	0.138	9	36	667	8	KED
| Zn	67	1.581	ug/L	0.242	15	6	118	14	KED
| As	75	1.568	ug/L	0.081	5	2	335	4	KED
Y	89		ug/L			38752	48893	0	Standard
Kr	83		ug/L			40	33	31	Standard
[> In-1	115		ug/L			6124	5519	2	KED
| Cd	111	-0.006	ug/L	0.007	120	4	2	57	KED
| Cd	114	0.007	ug/L	0.006	83	3	6	41	KED
[> In	115		ug/L			412702	410491	1	Standard
| Ag	107	0.000	ug/L	0.001	299	17	20	48	Standard
[> Tb	159		ug/L			165777	168884	2	Standard
| Pb	208	0.014	ug/L	0.001	3	350	1517	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:08:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	37374	6	Standard
[>	Sc	45		ug/L			448237	543142	1	Standard
|	Cr	52	0.110	ug/L	0.011	10	8038	11359	1	Standard
|	Cr	53	0.280	ug/L	0.014	5	50	536	4	Standard
[>	Ge	72		ug/L			28647	26365	1	KED
|	Cu	63	0.140	ug/L	0.007	5	51	536	4	KED
|	Cu	65	0.131	ug/L	0.015	11	25	256	9	KED
|	Zn	66	2.253	ug/L	0.100	4	36	1014	2	KED
|	Zn	67	2.603	ug/L	0.114	4	6	191	3	KED
|	As	75	1.190	ug/L	0.034	2	2	255	4	KED
	Y	89		ug/L			38752	41959	1	Standard
	Kr	83		ug/L			40	33	26	Standard
[>	In-1	115		ug/L			6124	5401	2	KED
|	Cd	111	-0.004	ug/L	0.005	117	4	2	33	KED
|	Cd	114	0.003	ug/L	0.006	180	3	4	57	KED
[>	In	115		ug/L			412702	406534	2	Standard
|	Ag	107	0.000	ug/L	0.000	39	17	22	8	Standard
[>	Tb	159		ug/L			165777	172296	2	Standard
|	Pb	208	0.006	ug/L	0.001	14	350	834	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLN

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 04:12:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	27561	3	Standard
[> Sc	45		ug/L			448237	445679	2	Standard
| Cr	52	0.037	ug/L	0.012	31	8038	8433	2	Standard
| Cr	53	0.005	ug/L	0.007	155	50	56	17	Standard
[> Ge	72		ug/L			28647	28593	1	KED
| Cu	63	-0.004	ug/L	0.002	44	51	36	18	KED
| Cu	65	-0.007	ug/L	0.003	53	25	12	52	KED
| Zn	66	-0.023	ug/L	0.019	82	36	26	32	KED
| Zn	67	-0.033	ug/L	0.028	86	6	4	49	KED
| As	75	-0.001	ug/L	0.009	1538	2	2	87	KED
Y	89		ug/L			38752	38260	2	Standard
Kr	83		ug/L			40	36	13	Standard
[> In-1	115		ug/L			6124	5663	2	KED
| Cd	111	-0.009	ug/L	0.005	50	4	1	50	KED
| Cd	114	-0.003	ug/L	0.004	117	3	1	104	KED
[> In	115		ug/L			412702	414879	1	Standard
| Ag	107	-0.001	ug/L	0.000	41	17	10	28	Standard
[> Tb	159		ug/L			165777	167727	0	Standard
| Pb	208	-0.001	ug/L	0.000	30	350	254	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVK

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 04:17:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	25817	5	Standard
[> Sc	45		ug/L			448237	458964	2	Standard
| Cr	52	47.339	ug/L	0.616	1	8038	597481	1	Standard
| Cr	53	47.127	ug/L	1.094	2	50	67723	2	Standard
[> Ge	72		ug/L			28647	28285	1	KED
| Cu	63	49.769	ug/L	1.510	3	51	187053	1	KED
| Cu	65	49.726	ug/L	1.311	2	25	94927	1	KED
| Zn	66	50.171	ug/L	1.805	3	36	23455	1	KED
| Zn	67	50.152	ug/L	1.339	2	6	3824	1	KED
| As	75	49.459	ug/L	1.582	3	2	11259	1	KED
Y	89		ug/L			38752	39627	0	Standard
Kr	83		ug/L			40	34	16	Standard
[> In-1	115		ug/L			6124	5651	4	KED
| Cd	111	51.104	ug/L	1.817	3	4	10440	2	KED
| Cd	114	51.219	ug/L	2.169	4	3	26683	1	KED
[> In	115		ug/L			412702	416361	1	Standard
| Ag	107	47.224	ug/L	1.028	2	17	640079	0	Standard
[> Tb	159		ug/L			165777	173175	2	Standard
| Pb	208	52.054	ug/L	1.042	2	350	4352693	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBK

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 04:24:14

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	25999	3	Standard
[> Sc	45		ug/L			448237	447350	1	Standard
| Cr	52	-0.006	ug/L	0.013	225	8038	7953	3	Standard
| Cr	53	0.002	ug/L	0.004	191	50	53	11	Standard
[> Ge	72		ug/L			28647	28109	1	KED
| Cu	63	-0.005	ug/L	0.001	14	51	31	9	KED
| Cu	65	-0.003	ug/L	0.002	88	25	19	22	KED
| Zn	66	-0.022	ug/L	0.005	22	36	26	8	KED
| Zn	67	0.010	ug/L	0.090	914	6	7	90	KED
| As	75	0.000	ug/L	0.004	1855	2	2	39	KED
Y	89		ug/L			38752	38816	1	Standard
Kr	83		ug/L			40	33	28	Standard
[> In-1	115		ug/L			6124	5534	2	KED
| Cd	111	-0.012	ug/L	0.007	57	4	1	114	KED
| Cd	114	0.006	ug/L	0.002	36	3	6	17	KED
[> In	115		ug/L			412702	422383	1	Standard
| Ag	107	0.002	ug/L	0.001	36	17	43	21	Standard
[> Tb	159		ug/L			165777	167282	0	Standard
| Pb	208	0.001	ug/L	0.000	62	350	417	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-07**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:28:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	34980	4	Standard
[>	Sc	45		ug/L			448237	507391	2	Standard
|	Cr	52	-0.000	ug/L	0.011	2810	8038	9093	2	Standard
|	Cr	53	0.283	ug/L	0.019	6	50	507	7	Standard
[>	Ge	72		ug/L			28647	26697	1	KED
|	Cu	63	0.111	ug/L	0.003	3	51	440	2	KED
|	Cu	65	0.116	ug/L	0.014	11	25	232	10	KED
|	Zn	66	1.554	ug/L	0.157	10	36	718	8	KED
|	Zn	67	2.143	ug/L	0.179	8	6	160	8	KED
|	As	75	0.679	ug/L	0.053	7	2	148	7	KED
	Y	89		ug/L			38752	40544	3	Standard
	Kr	83		ug/L			40	34	14	Standard
[>	In-1	115		ug/L			6124	5355	3	KED
|	Cd	111	-0.009	ug/L	0.000	3	4	1		KED
|	Cd	114	0.002	ug/L	0.010	458	3	4	111	KED
[>	In	115		ug/L			412702	406592	2	Standard
|	Ag	107	0.001	ug/L	0.001	121	17	26	42	Standard
[>	Tb	159		ug/L			165777	167561	1	Standard
|	Pb	208	0.011	ug/L	0.001	4	350	1221	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-08**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:32:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	34708	3	Standard
[> Sc	45		ug/L			448237	521894	3	Standard
| Cr	52	0.034	ug/L	0.013	37	8038	9842	3	Standard
| Cr	53	0.532	ug/L	0.008	1	50	927	4	Standard
[> Ge	72		ug/L			28647	25650	1	KED
| Cu	63	0.549	ug/L	0.013	2	51	1918	2	KED
| Cu	65	0.549	ug/L	0.010	1	25	972	1	KED
| Zn	66	2.235	ug/L	0.080	3	36	979	4	KED
| Zn	67	2.713	ug/L	0.101	3	6	193	4	KED
| As	75	0.376	ug/L	0.019	4	2	80	4	KED
Y	89		ug/L			38752	42727	2	Standard
Kr	83		ug/L			40	34	20	Standard
[> In-1	115		ug/L			6124	5228	2	KED
| Cd	111	0.018	ug/L	0.002	12	4	6	7	KED
| Cd	114	0.023	ug/L	0.005	23	3	14	20	KED
[> In	115		ug/L			412702	418045	2	Standard
| Ag	107	-0.000	ug/L	0.001	3271	17	17	50	Standard
[> Tb	159		ug/L			165777	167064	0	Standard
| Pb	208	0.012	ug/L	0.001	5	350	1348	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-09**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:37:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	39008	4	Standard
[> Sc	45		ug/L			448237	523709	2	Standard
| Cr	52	-0.003	ug/L	0.009	298	8038	9348	1	Standard
| Cr	53	0.423	ug/L	0.025	5	50	751	3	Standard
[> Ge	72		ug/L			28647	25094	2	KED
| Cu	63	1.206	ug/L	0.033	2	51	4065	1	KED
| Cu	65	1.210	ug/L	0.034	2	25	2071	0	KED
| Zn	66	2.156	ug/L	0.124	5	36	925	5	KED
| Zn	67	2.797	ug/L	0.633	22	6	194	19	KED
| As	75	0.379	ug/L	0.019	5	2	78	4	KED
Y	89		ug/L			38752	56516	3	Standard
Kr	83		ug/L			40	35	24	Standard
[> In-1	115		ug/L			6124	5268	2	KED
| Cd	111	0.056	ug/L	0.012	21	4	14	17	KED
| Cd	114	0.050	ug/L	0.008	16	3	27	16	KED
[> In	115		ug/L			412702	413918	1	Standard
| Ag	107	0.001	ug/L	0.000	24	17	24	7	Standard
[> Tb	159		ug/L			165777	165395	1	Standard
| Pb	208	0.009	ug/L	0.001	10	350	1075	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-10**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:41:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	37328	5	Standard
[>	Sc	45	ug/L			448237	514346	2	Standard
|	Cr	52	0.138	0.014	10	8038	11152	3	Standard
|	Cr	53	1.128	0.011	1	50	1873	1	Standard
[>	Ge	72	ug/L			28647	25872	0	KED
|	Cu	63	0.438	0.009	1	51	1551	1	KED
|	Cu	65	0.422	0.030	7	25	759	7	KED
|	Zn	66	3.277	0.134	4	36	1433	3	KED
|	Zn	67	3.610	0.275	7	6	257	7	KED
|	As	75	0.154	0.008	5	2	34	4	KED
	Y	89	ug/L			38752	45722	0	Standard
	Kr	83	ug/L			40	34	14	Standard
[>	In-1	115	ug/L			6124	5294	3	KED
|	Cd	111	0.013	0.010	77	4	6	32	KED
|	Cd	114	0.008	0.007	88	3	7	52	KED
[>	In	115	ug/L			412702	418437	1	Standard
|	Ag	107	-0.000	0.000	74	17	13	24	Standard
[>	Tb	159	ug/L			165777	172510	1	Standard
|	Pb	208	0.005	0.000	6	350	793	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-11**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:46:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	36551	3	Standard
[> Sc	45		ug/L			448237	478649	2	Standard
| Cr	52	0.539	ug/L	0.040	7	8038	15579	1	Standard
| Cr	53	0.643	ug/L	0.009	1	50	1016	1	Standard
[> Ge	72		ug/L			28647	27659	0	KED
| Cu	63	0.716	ug/L	0.012	1	51	2680	1	KED
| Cu	65	0.697	ug/L	0.024	3	25	1325	3	KED
| Zn	66	1.435	ug/L	0.052	3	36	690	3	KED
| Zn	67	1.726	ug/L	0.266	15	6	135	14	KED
| As	75	0.107	ug/L	0.004	3	2	26	3	KED
Y	89		ug/L			38752	44581	2	Standard
Kr	83		ug/L			40	34	14	Standard
[> In-1	115		ug/L			6124	5619	1	KED
| Cd	111	-0.006	ug/L	0.006	90	4	2	43	KED
| Cd	114	-0.003	ug/L	0.004	104	3	1	115	KED
[> In	115		ug/L			412702	423122	1	Standard
| Ag	107	-0.000	ug/L	0.000	42	17	12	18	Standard
[> Tb	159		ug/L			165777	172262	1	Standard
| Pb	208	0.007	ug/L	0.001	17	350	942	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-12**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:50:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	37463	6	Standard
[> Sc	45		ug/L			448237	481580	2	Standard
| Cr	52	0.475	ug/L	0.016	3	8038	14843	2	Standard
| Cr	53	0.571	ug/L	0.031	5	50	914	3	Standard
[> Ge	72		ug/L			28647	27543	0	KED
| Cu	63	0.659	ug/L	0.006	0	51	2462	1	KED
| Cu	65	0.637	ug/L	0.030	4	25	1208	3	KED
| Zn	66	1.718	ug/L	0.054	3	36	816	3	KED
| Zn	67	1.809	ug/L	0.237	13	6	140	13	KED
| As	75	0.103	ug/L	0.014	13	2	25	11	KED
Y	89		ug/L			38752	44952	0	Standard
Kr	83		ug/L			40	34	14	Standard
[> In-1	115		ug/L			6124	5573	3	KED
| Cd	111	-0.014	ug/L	0.005	35	4	0	100	KED
| Cd	114	0.004	ug/L	0.010	228	3	5	91	KED
[> In	115		ug/L			412702	425006	2	Standard
| Ag	107	-0.000	ug/L	0.001	511	17	15	54	Standard
[> Tb	159		ug/L			165777	174747	2	Standard
| Pb	208	0.006	ug/L	0.001	11	350	860	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-13**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:54:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	50151	4	Standard
[>	Sc	45	ug/L			448237	515471	4	Standard
|	Cr	52	ug/L	0.051	4	8038	23717	2	Standard
|	Cr	53	ug/L	0.031	2	50	1932	2	Standard
[>	Ge	72	ug/L			28647	26794	2	KED
|	Cu	63	ug/L	0.126	2	51	16238	1	KED
|	Cu	65	ug/L	0.140	3	25	7976	1	KED
|	Zn	66	ug/L	0.087	4	36	845	3	KED
|	Zn	67	ug/L	0.334	12	6	203	10	KED
|	As	75	ug/L	0.023	6	2	81	4	KED
	Y	89	ug/L			38752	55318	0	Standard
	Kr	83	ug/L			40	29	7	Standard
[>	In-1	115	ug/L			6124	5465	4	KED
|	Cd	111	ug/L	0.014	128	4	5	44	KED
|	Cd	114	ug/L	0.015	119	3	9	74	KED
[>	In	115	ug/L			412702	417323	2	Standard
|	Ag	107	ug/L	0.000	11	17	34	3	Standard
[>	Tb	159	ug/L			165777	171029	1	Standard
|	Pb	208	ug/L	0.000	4	350	1292	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-14**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:59:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	60913	5	Standard
[> Sc	45		ug/L			448237	519319	2	Standard
| Cr	52	0.917	ug/L	0.019	2	8038	22240	3	Standard
| Cr	53	1.086	ug/L	0.010	0	50	1823	2	Standard
[> Ge	72		ug/L			28647	26673	0	KED
| Cu	63	12.597	ug/L	0.095	0	51	44697	0	KED
| Cu	65	12.583	ug/L	0.156	1	25	22674	0	KED
| Zn	66	1.341	ug/L	0.039	2	36	624	3	KED
| Zn	67	1.414	ug/L	0.270	19	6	107	17	KED
| As	75	54.959	ug/L	0.366	0	2	11803	1	KED
Y	89		ug/L			38752	51441	2	Standard
Kr	83		ug/L			40	36	7	Standard
[> In-1	115		ug/L			6124	5208	1	KED
| Cd	111	0.064	ug/L	0.017	26	4	15	19	KED
| Cd	114	0.052	ug/L	0.025	47	3	28	41	KED
[> In	115		ug/L			412702	399894	2	Standard
| Ag	107	0.021	ug/L	0.001	6	17	295	7	Standard
[> Tb	159		ug/L			165777	171823	1	Standard
| Pb	208	3.243	ug/L	0.018	0	350	269471	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-15**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:03:46**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	35421	4	Standard
[> Sc	45		ug/L			448237	497187	2	Standard
| Cr	52	1.002	ug/L	0.021	2	8038	22430	1	Standard
| Cr	53	1.130	ug/L	0.046	4	50	1815	5	Standard
[> Ge	72		ug/L			28647	27665	0	KED
| Cu	63	0.293	ug/L	0.005	1	51	1126	2	KED
| Cu	65	0.310	ug/L	0.011	3	25	603	2	KED
| Zn	66	1.461	ug/L	0.088	6	36	702	5	KED
| Zn	67	1.589	ug/L	0.353	22	6	125	20	KED
| As	75	0.176	ug/L	0.005	2	2	41	2	KED
Y	89		ug/L			38752	41465	0	Standard
Kr	83		ug/L			40	33	34	Standard
[> In-1	115		ug/L			6124	5424	0	KED
| Cd	111	-0.014	ug/L	0.008	61	4	0	173	KED
| Cd	114	0.006	ug/L	0.006	102	3	6	47	KED
[> In	115		ug/L			412702	422790	3	Standard
| Ag	107	-0.000	ug/L	0.000	186	17	14	41	Standard
[> Tb	159		ug/L			165777	173661	1	Standard
| Pb	208	0.005	ug/L	0.000	8	350	790	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLO

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 05:08:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	26979	3	Standard
[> Sc	45		ug/L			448237	446006	2	Standard
| Cr	52	0.014	ug/L	0.020	146	8038	8160	1	Standard
| Cr	53	0.005	ug/L	0.008	143	50	57	16	Standard
[> Ge	72		ug/L			28647	27330	2	KED
| Cu	63	-0.008	ug/L	0.001	10	51	19	14	KED
| Cu	65	-0.008	ug/L	0.002	27	25	8	44	KED
| Zn	66	-0.033	ug/L	0.006	18	36	20	14	KED
| Zn	67	-0.004	ug/L	0.041	1039	6	6	45	KED
| As	75	-0.003	ug/L	0.005	169	2	1	62	KED
Y	89		ug/L			38752	39183	1	Standard
Kr	83		ug/L			40	40	37	Standard
[> In-1	115		ug/L			6124	5504	2	KED
| Cd	111	-0.012	ug/L	0.005	44	4	1	86	KED
| Cd	114	-0.003	ug/L	0.004	123	3	1	100	KED
[> In	115		ug/L			412702	427851	2	Standard
| Ag	107	-0.000	ug/L	0.000	45	17	10	26	Standard
[> Tb	159		ug/L			165777	170202	0	Standard
| Pb	208	-0.001	ug/L	0.000	15	350	252	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVL

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 05:12:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	24982	6	Standard
[> Sc	45		ug/L			448237	453215	3	Standard
| Cr	52	46.451	ug/L	0.802	1	8038	579315	4	Standard
| Cr	53	46.660	ug/L	1.299	2	50	66213	3	Standard
[> Ge	72		ug/L			28647	27759	1	KED
| Cu	63	50.342	ug/L	0.608	1	51	185775	2	KED
| Cu	65	49.546	ug/L	0.295	0	25	92845	0	KED
| Zn	66	51.625	ug/L	0.166	0	36	23695	1	KED
| Zn	67	50.095	ug/L	1.491	2	6	3749	2	KED
| As	75	49.557	ug/L	0.556	1	2	11076	1	KED
Y	89		ug/L			38752	39500	1	Standard
Kr	83		ug/L			40	34	16	Standard
[> In-1	115		ug/L			6124	5581	2	KED
| Cd	111	50.088	ug/L	2.172	4	4	10108	2	KED
| Cd	114	50.711	ug/L	2.220	4	3	26104	1	KED
[> In	115		ug/L			412702	408762	1	Standard
| Ag	107	47.187	ug/L	0.917	1	17	628146	3	Standard
[> Tb	159		ug/L			165777	170367	0	Standard
| Pb	208	53.286	ug/L	0.162	0	350	4384594	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBL

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 05:19:36

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	24546	5	Standard
[> Sc	45		ug/L			448237	439611	0	Standard
| Cr	52	-0.027	ug/L	0.003	10	8038	7559	0	Standard
| Cr	53	0.001	ug/L	0.003	232	50	51	6	Standard
[> Ge	72		ug/L			28647	27443	2	KED
| Cu	63	0.019	ug/L	0.029	156	51	119	93	KED
| Cu	65	0.012	ug/L	0.026	220	25	46	106	KED
| Zn	66	0.036	ug/L	0.050	137	36	52	46	KED
| Zn	67	-0.023	ug/L	0.051	227	6	5	78	KED
| As	75	0.028	ug/L	0.028	101	2	8	75	KED
Y	89		ug/L			38752	38324	0	Standard
Kr	83		ug/L			40	34	39	Standard
[> In-1	115		ug/L			6124	5670	1	KED
| Cd	111	-0.011	ug/L	0.005	48	4	1	69	KED
| Cd	114	0.002	ug/L	0.004	225	3	4	49	KED
[> In	115		ug/L			412702	412049	0	Standard
| Ag	107	0.001	ug/L	0.000	8	17	31	3	Standard
[> Tb	159		ug/L			165777	164866	1	Standard
| Pb	208	0.001	ug/L	0.000	67	350	402	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0442-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:23:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	40373	7	Standard
[>	Sc	45		ug/L			448237	599787	2	Standard
|	Cr	52	0.551	ug/L	0.022	3	8038	19717	3	Standard
|	Cr	53	0.814	ug/L	0.039	4	50	1596	5	Standard
[>	Ge	72		ug/L			28647	24092	0	KED
|	Cu	63	0.283	ug/L	0.020	7	51	950	7	KED
|	Cu	65	0.276	ug/L	0.023	8	25	469	7	KED
|	Zn	66	1.464	ug/L	0.041	2	36	613	1	KED
|	Zn	67	2.906	ug/L	0.225	7	6	194	6	KED
|	As	75	12.475	ug/L	0.185	1	2	2421	0	KED
	Y	89		ug/L			38752	68837	1	Standard
	Kr	83		ug/L			40	35	8	Standard
[>	In-1	115		ug/L			6124	4859	2	KED
|	Cd	111	0.005	ug/L	0.013	259	4	4	53	KED
|	Cd	114	0.007	ug/L	0.007	88	3	6	45	KED
[>	In	115		ug/L			412702	328354	3	Standard
|	Ag	107	0.010	ug/L	0.002	20	17	118	19	Standard
[>	Tb	159		ug/L			165777	138260	3	Standard
|	Pb	208	0.026	ug/L	0.001	3	350	2038	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0442-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:28:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	34260	5	Standard
[>	Sc	45	ug/L			448237	526058	2	Standard
|	Cr	52	0.649	0.021	3	8038	18686	2	Standard
|	Cr	53	0.860	0.041	4	50	1475	7	Standard
[>	Ge	72	ug/L			28647	24934	2	KED
|	Cu	63	3.118	0.123	3	51	10370	2	KED
|	Cu	65	3.010	0.078	2	25	5085	2	KED
|	Zn	66	8.387	0.245	2	36	3483	1	KED
|	Zn	67	8.270	0.453	5	6	561	5	KED
|	As	75	1.589	0.068	4	2	320	2	KED
	Y	89	ug/L			38752	57215	1	Standard
	Kr	83	ug/L			40	37	25	Standard
[>	In-1	115	ug/L			6124	4993	2	KED
|	Cd	111	0.004	0.011	258	4	4	48	KED
|	Cd	114	0.009	0.013	140	3	7	80	KED
[>	In	115	ug/L			412702	389749	2	Standard
|	Ag	107	0.011	0.001	7	17	161	4	Standard
[>	Tb	159	ug/L			165777	166152	1	Standard
|	Pb	208	0.068	0.002	2	350	5824	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0442-05

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 05:32:40

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	33105	5	Standard
[>	Sc	45		ug/L			448237	607600	1	Standard
|	Cr	52	0.733	ug/L	0.031	4	8038	22967	0	Standard
|	Cr	53	0.959	ug/L	0.018	1	50	1891	0	Standard
[>	Ge	72		ug/L			28647	21788	15	KED
|	Cu	63	0.125	ug/L	0.022	17	51	395	4	KED
|	Cu	65	0.137	ug/L	0.035	25	25	215	6	KED
|	Zn	66	1.022	ug/L	0.258	25	36	386	6	KED
|	Zn	67	2.284	ug/L	0.788	34	6	134	15	KED
|	As	75	21.548	ug/L	2.498	11	2	3736	4	KED
	Y	89		ug/L			38752	64840	2	Standard
	Kr	83		ug/L			40	35	15	Standard
[>	In-1	115		ug/L			6124	4804	2	KED
|	Cd	111	-0.008	ug/L	0.005	70	4	1	50	KED
|	Cd	114	-0.005	ug/L	0.002	45	3	0	135	KED
[>	In	115		ug/L			412702	373853	1	Standard
|	Ag	107	0.005	ug/L	0.001	14	17	74	11	Standard
[>	Tb	159		ug/L			165777	159311	2	Standard
|	Pb	208	0.019	ug/L	0.001	5	350	1763	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0442-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:36:56**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	38801	5	Standard
[>	Sc	45		ug/L			448237	625527	2	Standard
|	Cr	52	0.747	ug/L	0.006	0	8038	23900	2	Standard
|	Cr	53	1.077	ug/L	0.007	0	50	2178	2	Standard
[>	Ge	72		ug/L			28647	23769	0	KED
|	Cu	63	0.058	ug/L	0.006	9	51	226	7	KED
|	Cu	65	0.058	ug/L	0.007	12	25	113	10	KED
|	Zn	66	0.539	ug/L	0.030	5	36	241	4	KED
|	Zn	67	2.082	ug/L	0.155	7	6	139	7	KED
|	As	75	5.811	ug/L	0.095	1	2	1114	1	KED
	Y	89		ug/L			38752	67879	0	Standard
	Kr	83		ug/L			40	35	17	Standard
[>	In-1	115		ug/L			6124	4815	3	KED
|	Cd	111	0.005	ug/L	0.009	175	4	4	35	KED
|	Cd	114	-0.002	ug/L	0.005	305	3	2	101	KED
[>	In	115		ug/L			412702	358808	1	Standard
|	Ag	107	0.004	ug/L	0.000	10	17	57	8	Standard
[>	Tb	159		ug/L			165777	152290	1	Standard
|	Pb	208	0.009	ug/L	0.000	2	350	1012	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0598-04

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 05:42:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	17761	6	Standard
[>	Sc	45		ug/L			448237	231078	5	Standard
|	Cr	52	0.723	ug/L	0.026	3	8038	8673	3	Standard
|	Cr	53	52.191	ug/L	0.345	0	50	37759	4	Standard
[>	Ge	72		ug/L			28647	8352	0	KED
|	Cu	63	1.544	ug/L	0.059	3	51	1729	4	KED
|	Cu	65	1.599	ug/L	0.122	7	25	908	6	KED
|	Zn	66	8.637	ug/L	0.767	8	36	1201	7	KED
|	Zn	67	10.530	ug/L	1.169	11	6	238	10	KED
|	As	75	1.235	ug/L	0.043	3	2	83	4	KED
	Y	89		ug/L			38752	19425	4	Standard
	Kr	83		ug/L			40	1582	3	Standard
[>	In-1	115		ug/L			6124	1935	1	KED
|	Cd	111	0.108	ug/L	0.063	58	4	8	50	KED
|	Cd	114	0.056	ug/L	0.012	21	3	11	17	KED
[>	In	115		ug/L			412702	116852	4	Standard
|	Ag	107	0.011	ug/L	0.000	3	17	48	6	Standard
[>	Tb	159		ug/L			165777	51852	3	Standard
|	Pb	208	0.021	ug/L	0.000	1	350	647	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0598-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:47:03**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	30698	5	Standard
[> Sc	45		ug/L			448237	363422	3	Standard
[Cr	52	0.375	ug/L	0.020	5	8038	10218	3	Standard
[Cr	53	22.456	ug/L	0.436	1	50	25575	3	Standard
[> Ge	72		ug/L			28647	15417	1	KED
[Cu	63	0.551	ug/L	0.018	3	51	1156	3	KED
[Cu	65	0.543	ug/L	0.028	5	25	578	4	KED
[Zn	66	2.326	ug/L	0.100	4	36	612	5	KED
[Zn	67	5.124	ug/L	0.163	3	6	216	4	KED
[As	75	1.788	ug/L	0.044	2	2	223	3	KED
[Y	89		ug/L			38752	26993	4	Standard
[Kr	83		ug/L			40	332	6	Standard
[> In-1	115		ug/L			6124	3207	1	KED
[Cd	111	0.058	ug/L	0.013	22	4	8	16	KED
[Cd	114	0.042	ug/L	0.010	23	3	14	20	KED
[> In	115		ug/L			412702	197126	2	Standard
[Ag	107	0.003	ug/L	0.002	58	17	24	38	Standard
[> Tb	159		ug/L			165777	90869	2	Standard
[Pb	208	0.018	ug/L	0.000	1	350	984	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0598-08**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:51:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	59809	4	Standard
[>	Sc	45	ug/L			448237	608571	1	Standard
|	Cr	52	ug/L	0.027	3	8038	24593	1	Standard
|	Cr	53	ug/L	0.074	1	50	10796	2	Standard
[>	Ge	72	ug/L			28647	31934	0	KED
|	Cu	63	ug/L	0.072	2	51	13944	1	KED
|	Cu	65	ug/L	0.081	2	25	6849	2	KED
|	Zn	66	ug/L	0.007	0	36	474	0	KED
|	Zn	67	ug/L	0.073	9	6	76	7	KED
|	As	75	ug/L	0.088	5	2	395	5	KED
	Y	89	ug/L			38752	57187	1	Standard
	Kr	83	ug/L			40	43	11	Standard
[>	In-1	115	ug/L			6124	6343	2	KED
|	Cd	111	ug/L	0.012	1465	4	4	70	KED
|	Cd	114	ug/L	0.005	539	3	3	98	KED
[>	In	115	ug/L			412702	392034	3	Standard
|	Ag	107	ug/L	0.001	70	17	25	22	Standard
[>	Tb	159	ug/L			165777	178669	0	Standard
|	Pb	208	ug/L	0.000	3	350	1605	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0598-10**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:55:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	58330	4	Standard
[> Sc	45		ug/L			448237	572775	1	Standard
[Cr	52	0.948	ug/L	0.041	4	8038	24998	1	Standard
[Cr	53	4.323	ug/L	0.041	0	50	7812	1	Standard
[> Ge	72		ug/L			28647	30641	1	KED
[Cu	63	3.485	ug/L	0.041	1	51	14244	0	KED
[Cu	65	3.457	ug/L	0.077	2	25	7174	0	KED
[Zn	66	1.100	ug/L	0.065	5	36	595	5	KED
[Zn	67	0.972	ug/L	0.110	11	6	87	9	KED
[As	75	1.541	ug/L	<u>0.122</u>	7	2	382	6	KED
Y	89		ug/L			38752	53861	2	Standard
Kr	83		ug/L			40	51	25	Standard
[> In-1	115		ug/L			6124	6056	1	KED
[Cd	111	-0.006	ug/L	0.011	196	4	2	88	KED
[Cd	114	-0.002	ug/L	0.005	286	3	2	110	KED
[> In	115		ug/L			412702	378024	1	Standard
[Ag	107	0.002	ug/L	0.001	49	17	37	28	Standard
[> Tb	159		ug/L			165777	174038	1	Standard
[Pb	208	0.022	ug/L	0.001	4	350	2214	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0598-12**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:00:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	46185	4	Standard
[> Sc	45		ug/L			448237	544548	1	Standard
| Cr	52	0.246	ug/L	0.027	10	8038	13403	2	Standard
| Cr	53	0.968	ug/L	0.041	4	50	1710	3	Standard
[> Ge	72		ug/L			28647	33646	1	KED
| Cu	63	0.532	ug/L	0.002	0	51	2440	1	KED
| Cu	65	0.517	ug/L	0.033	6	25	1203	7	KED
| Zn	66	0.649	ug/L	0.047	7	36	403	5	KED
| Zn	67	0.792	ug/L	0.115	14	6	80	13	KED
| As	75	0.001	ug/L	0.003	384	2	3	22	KED
Y	89		ug/L			38752	38286	3	Standard
Kr	83		ug/L			40	50	30	Standard
[> In-1	115		ug/L			6124	6661	2	KED
| Cd	111	-0.011	ug/L	0.004	38	4	1	50	KED
| Cd	114	0.000	ug/L	0.005	4473	3	4	70	KED
[> In	115		ug/L			412702	424435	1	Standard
| Ag	107	-0.000	ug/L	0.000	66	17	15	12	Standard
[> Tb	159		ug/L			165777	183413	1	Standard
| Pb	208	0.008	ug/L	0.001	7	350	1083	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLP

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 06:04:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	31558	2	Standard
[>	Sc	45	ug/L			448237	504623	2	Standard
|	Cr	52	ug/L	0.026	61	8038	9628	4	Standard
|	Cr	53	ug/L	0.015	2	50	950	3	Standard
[>	Ge	72	ug/L			28647	32567	3	KED
|	Cu	63	ug/L	0.001	11	51	33	6	KED
|	Cu	65	ug/L	0.003	43	25	13	51	KED
|	Zn	66	ug/L	0.005	47	36	36	10	KED
|	Zn	67	ug/L	0.032	79	6	4	65	KED
|	As	75	ug/L	0.006	8494	2	2	50	KED
	Y	89	ug/L			38752	36421	2	Standard
	Kr	83	ug/L			40	50	28	Standard
[>	In-1	115	ug/L			6124	6465	1	KED
|	Cd	111	ug/L	0.008	469	4	4	40	KED
|	Cd	114	ug/L	0.002	39	3	1	94	KED
[>	In	115	ug/L			412702	404097	3	Standard
|	Ag	107	ug/L	0.000	250	17	14	41	Standard
[>	Tb	159	ug/L			165777	173806	2	Standard
|	Pb	208	ug/L	0.000	62	350	307	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVM

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 06:09:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	28089	4	Standard
[> Sc	45		ug/L			448237	500238	2	Standard
| Cr	52	46.342	ug/L	1.666	3	8038	637635	2	Standard
| Cr	53	46.258	ug/L	1.384	2	50	72443	1	Standard
[> Ge	72		ug/L			28647	31798	1	KED
| Cu	63	49.989	ug/L	0.628	1	51	211286	0	KED
| Cu	65	48.835	ug/L	0.757	1	25	104828	1	KED
| Zn	66	50.384	ug/L	0.727	1	36	26491	1	KED
| Zn	67	50.846	ug/L	1.716	3	6	4360	2	KED
| As	75	49.456	ug/L	0.873	1	2	12661	0	KED
Y	89		ug/L			38752	36596	0	Standard
Kr	83		ug/L			40	48	17	Standard
[> In-1	115		ug/L			6124	6257	4	KED
| Cd	111	48.679	ug/L	2.211	4	4	11005	0	KED
| Cd	114	50.875	ug/L	1.485	2	3	29353	1	KED
[> In	115		ug/L			412702	394200	1	Standard
| Ag	107	48.362	ug/L	1.578	3	17	620685	3	Standard
[> Tb	159		ug/L			165777	177982	1	Standard
| Pb	208	50.250	ug/L	0.383	0	350	4319833	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBM

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 06:16:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	26594	2	Standard
[>	Sc	45	ug/L			448237	488958	3	Standard
|	Cr	52	-0.022	0.004	18	8038	8484	4	Standard
|	Cr	53	<u>0.321</u>	0.023	7	50	546	9	Standard
[>	Ge	72	ug/L			28647	31070	2	KED
|	Cu	63	-0.007	0.004	62	51	27	64	KED
|	Cu	65	-0.007	0.004	59	25	12	67	KED
|	Zn	66	-0.017	0.001	5	36	31	3	KED
|	Zn	67	0.024	0.024	103	6	9	20	KED
|	As	75	0.007	0.003	34	2	4	11	KED
	Y	89	ug/L			38752	37149	2	Standard
	Kr	83	ug/L			40	43	15	Standard
[>	In-1	115	ug/L			6124	6245	1	KED
|	Cd	111	-0.003	0.007	207	4	3	41	KED
|	Cd	114	0.001	0.004	412	3	4	50	KED
[>	In	115	ug/L			412702	405028	1	Standard
|	Ag	107	0.002	0.001	23	17	45	15	Standard
[>	Tb	159	ug/L			165777	173523	1	Standard
|	Pb	208	0.001	0.000	7	350	428	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:20:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	42525	2	Standard
[>	Sc	45		ug/L			448237	694230	1	Standard
|	Cr	52	0.236	ug/L	0.020	8	8038	16904	2	Standard
|	Cr	53	0.703	ug/L	0.020	2	50	1605	2	Standard
[>	Ge	72		ug/L			28647	28128	1	KED
|	Cu	63	0.138	ug/L	0.007	4	51	566	5	KED
|	Cu	65	0.147	ug/L	0.014	9	25	304	8	KED
|	Zn	66	1.017	ug/L	0.040	3	36	508	4	KED
|	Zn	67	1.370	ug/L	0.197	14	6	110	11	KED
|	As	75	2.219	ug/L	0.058	2	2	504	2	KED
	Y	89		ug/L			38752	47039	3	Standard
	Kr	83		ug/L			40	53	30	Standard
[>	In-1	115		ug/L			6124	5687	4	KED
|	Cd	111	0.017	ug/L	0.012	70	4	7	32	KED
|	Cd	114	0.015	ug/L	0.010	62	3	11	43	KED
[>	In	115		ug/L			412702	371523	1	Standard
|	Ag	107	0.004	ug/L	0.002	47	17	64	35	Standard
[>	Tb	159		ug/L			165777	163663	1	Standard
|	Pb	208	0.071	ug/L	0.003	3	350	5976	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:24:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	49735	5	Standard
[>	Sc	45		ug/L			448237	570785	3	Standard
|	Cr	52	0.511	ug/L	0.020	3	8038	18141	1	Standard
|	Cr	53	0.873	ug/L	0.037	4	50	1624	5	Standard
[>	Ge	72		ug/L			28647	29362	0	KED
|	Cu	63	5.258	ug/L	0.024	0	51	20569	0	KED
|	Cu	65	5.291	ug/L	0.056	1	25	10511	1	KED
|	Zn	66	11.958	ug/L	0.123	1	36	5834	1	KED
|	Zn	67	11.733	ug/L	0.504	4	6	934	4	KED
|	As	75	1.838	ug/L	0.059	3	2	437	3	KED
	Y	89		ug/L			38752	48599	3	Standard
	Kr	83		ug/L			40	41	23	Standard
[>	In-1	115		ug/L			6124	5717	3	KED
|	Cd	111	0.126	ug/L	0.016	12	4	29	10	KED
|	Cd	114	0.101	ug/L	0.030	29	3	56	26	KED
[>	In	115		ug/L			412702	403369	0	Standard
|	Ag	107	0.016	ug/L	0.003	21	17	224	20	Standard
[>	Tb	159		ug/L			165777	178062	0	Standard
|	Pb	208	0.305	ug/L	0.006	1	350	26620	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:29:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	41883	1	Standard
[>	Sc	45		ug/L			448237	685666	2	Standard
|	Cr	52	0.283	ug/L	0.016	5	8038	17558	2	Standard
|	Cr	53	0.708	ug/L	0.006	0	50	1596	2	Standard
[>	Ge	72		ug/L			28647	26983	1	KED
|	Cu	63	0.137	ug/L	0.006	4	51	539	5	KED
|	Cu	65	0.142	ug/L	0.007	4	25	282	5	KED
|	Zn	66	1.440	ug/L	0.092	6	36	676	6	KED
|	Zn	67	2.462	ug/L	0.159	6	6	185	5	KED
|	As	75	1.745	ug/L	0.086	4	2	381	5	KED
	Y	89		ug/L			38752	46722	1	Standard
	Kr	83		ug/L			40	34	22	Standard
[>	In-1	115		ug/L			6124	5415	3	KED
|	Cd	111	-0.004	ug/L	0.010	231	4	2	66	KED
|	Cd	114	0.008	ug/L	0.004	45	3	7	28	KED
[>	In	115		ug/L			412702	366298	3	Standard
|	Ag	107	0.002	ug/L	0.000	23	17	34	15	Standard
[>	Tb	159		ug/L			165777	159318	1	Standard
|	Pb	208	0.019	ug/L	0.001	5	350	1767	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:33:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	47810	6	Standard
[>	Sc	45	ug/L			448237	543763	2	Standard
|	Cr	52	0.830	0.029	3	8038	21986	1	Standard
|	Cr	53	1.101	0.010	0	50	1935	3	Standard
[>	Ge	72	ug/L			28647	26460	0	KED
|	Cu	63	2.170	0.030	1	51	7677	1	KED
|	Cu	65	2.101	0.035	1	25	3775	1	KED
|	Zn	66	2.952	0.169	5	36	1323	5	KED
|	Zn	67	3.421	0.336	9	6	250	9	KED
|	As	75	3.319	0.074	2	2	709	1	KED
	Y	89	ug/L			38752	45453	1	Standard
	Kr	83	ug/L			40	45	17	Standard
[>	In-1	115	ug/L			6124	5459	3	KED
|	Cd	111	0.041	0.006	15	4	11	9	KED
|	Cd	114	0.061	0.023	37	3	34	30	KED
[>	In	115	ug/L			412702	373404	1	Standard
|	Ag	107	0.011	0.002	16	17	153	14	Standard
[>	Tb	159	ug/L			165777	163816	0	Standard
|	Pb	208	0.135	0.004	3	350	11014	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLQ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 06:37:58

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	27742	3	Standard
[>	Sc	45	ug/L			448237	457309	2	Standard
|	Cr	52	-0.042	0.020	48	8038	7672	2	Standard
|	Cr	53	0.192	0.011	5	50	326	6	Standard
[>	Ge	72	ug/L			28647	28109	0	KED
|	Cu	63	-0.007	0.001	15	51	24	16	KED
|	Cu	65	-0.002	0.001	60	25	20	14	KED
|	Zn	66	-0.045	0.011	24	36	15	33	KED
|	Zn	67	-0.049	0.014	29	6	3	34	KED
|	As	75	-0.002	0.004	227	2	2	48	KED
	Y	89	ug/L			38752	36044	2	Standard
	Kr	83	ug/L			40	33	13	Standard
[>	In-1	115	ug/L			6124	5782	2	KED
|	Cd	111	-0.014	0.004	31	4	0	100	KED
|	Cd	114	-0.002	0.002	92	3	2	46	KED
[>	In	115	ug/L			412702	400011	1	Standard
|	Ag	107	-0.001	0.000	79	17	8	68	Standard
[>	Tb	159	ug/L			165777	168328	1	Standard
|	Pb	208	-0.002	0.000	1	350	154	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0598-02

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 06:42:20

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	17383	7	Standard
[>	Sc	45	ug/L			448237	262738	5	Standard
|	Cr	52	ug/L	0.041	2	8038	17357	4	Standard
|	Cr	53	ug/L	0.623	2	50	23306	5	Standard
[>	Ge	72	ug/L			28647	9849	3	KED
|	Cu	63	ug/L	0.041	3	51	1695	4	KED
|	Cu	65	ug/L	0.020	1	25	880	3	KED
|	Zn	66	ug/L	0.203	14	36	245	10	KED
|	Zn	67	ug/L	0.094	4	6	59	6	KED
|	As	75	ug/L	0.049	6	2	64	9	KED
	Y	89	ug/L			38752	21862	3	Standard
	Kr	83	ug/L			40	427	11	Standard
[>	In-1	115	ug/L			6124	2264	3	KED
|	Cd	111	ug/L	0.012	24	4	5	20	KED
|	Cd	114	ug/L	0.011	33	3	7	26	KED
[>	In	115	ug/L			412702	153829	2	Standard
|	Ag	107	ug/L	0.001	7	17	50	5	Standard
[>	Tb	159	ug/L			165777	69804	1	Standard
|	Pb	208	ug/L	0.002	7	350	878	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0119-DUP1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 06:46:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	19225	8	Standard
> Sc	45		ug/L			448237	275105	4	Standard
Cr	52	1.762	ug/L	0.046	2	8038	18085	5	Standard
Cr	53	26.406	ug/L	0.418	1	50	22755	3	Standard
> Ge	72		ug/L			28647	10607	1	KED
Cu	63	1.177	ug/L	0.025	2	51	1678	2	KED
Cu	65	1.181	ug/L	0.074	6	25	855	7	KED
Zn	66	1.257	ug/L	0.109	8	36	233	7	KED
Zn	67	2.666	ug/L	0.397	14	6	78	14	KED
As	75	0.734	ug/L	0.064	8	2	63	9	KED
Y	89		ug/L			38752	21868	3	Standard
Kr	83		ug/L			40	403	11	Standard
> In-1	115		ug/L			6124	2247	3	KED
Cd	111	0.021	ug/L	0.029	137	4	3	69	KED
Cd	114	0.031	ug/L	0.036	115	3	8	98	KED
> In	115		ug/L			412702	153606	3	Standard
Ag	107	0.008	ug/L	0.002	22	17	47	17	Standard
> Tb	159		ug/L			165777	70087	1	Standard
Pb	208	0.022	ug/L	0.001	4	350	903	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0119-MS1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 06:50:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	19786	7	Standard
> Sc	45		ug/L			448237	271230	3	Standard
Cr	52	22.694	ug/L	0.111	0	8038	171840	3	Standard
Cr	53	48.152	ug/L	0.772	1	50	40887	1	Standard
> Ge	72		ug/L			28647	10203	0	KED
Cu	63	23.880	ug/L	0.347	1	51	32394	0	KED
Cu	65	23.525	ug/L	0.285	1	25	16209	1	KED
Zn	66	54.684	ug/L	1.607	2	36	9223	2	KED
Zn	67	52.527	ug/L	1.653	3	6	1445	2	KED
As	75	22.030	ug/L	0.207	0	2	1810	0	KED
Y	89		ug/L			38752	21673	2	Standard
Kr	83		ug/L			40	396	7	Standard
> In-1	115		ug/L			6124	2158	4	KED
Cd	111	18.081	ug/L	0.659	3	4	1411	0	KED
Cd	114	18.159	ug/L	1.307	7	3	3610	2	KED
> In	115		ug/L			412702	146661	2	Standard
Ag	107	19.086	ug/L	0.043	0	17	91147	2	Standard
> Tb	159		ug/L			165777	68582	0	Standard
Pb	208	18.976	ug/L	0.354	1	350	628618	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0119-MSD1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 06:55:42

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	18283	7	Standard
[>	Sc	45	ug/L			448237	267654	4	Standard
|	Cr	52	22.434	0.131	0	8038	167669	3	Standard
|	Cr	53	47.760	1.118	2	50	40059	6	Standard
[>	Ge	72	ug/L			28647	9434	10	KED
|	Cu	63	25.810	2.584	10	51	32147	1	KED
|	Cu	65	25.541	2.840	11	25	16143	1	KED
|	Zn	66	58.973	6.566	11	36	9126	2	KED
|	Zn	67	59.017	7.534	12	6	1487	2	KED
|	As	75	24.201	2.608	10	2	1824	0	KED
	Y	89	ug/L			38752	21695	2	Standard
	Kr	83	ug/L			40	455	15	Standard
[>	In-1	115	ug/L			6124	2156	4	KED
|	Cd	111	17.767	1.089	6	4	1384	3	KED
|	Cd	114	18.136	1.419	7	3	3601	3	KED
[>	In	115	ug/L			412702	143050	1	Standard
|	Ag	107	19.186	0.138	0	17	89372	2	Standard
[>	Tb	159	ug/L			165777	67422	1	Standard
|	Pb	208	19.372	0.410	2	350	630859	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLR

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:00:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	31830	1	Standard
[>	Sc	45	ug/L			448237	567342	1	Standard
|	Cr	52	0.053	0.016	29	8038	10997	3	Standard
|	Cr	53	0.841	0.029	3	50	1557	4	Standard
[>	Ge	72	ug/L			28647	36154	0	KED
|	Cu	63	-0.003	0.001	21	51	51	6	KED
|	Cu	65	-0.005	0.001	13	25	19	10	KED
|	Zn	66	-0.003	0.012	356	36	44	16	KED
|	Zn	67	-0.013	0.051	408	6	7	66	KED
|	As	75	0.000	0.009	1846	2	3	75	KED
	Y	89	ug/L			38752	37108	4	Standard
	Kr	83	ug/L			40	24	7	Standard
[>	In-1	115	ug/L			6124	6953	2	KED
|	Cd	111	-0.001	0.009	836	4	4	53	KED
|	Cd	114	0.000	0.002	3619	3	4	26	KED
[>	In	115	ug/L			412702	402007	1	Standard
|	Ag	107	0.001	0.000	28	17	25	11	Standard
[>	Tb	159	ug/L			165777	180143	0	Standard
|	Pb	208	0.004	0.001	16	350	743	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVN

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:04:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	25754	4	Standard
[> Sc	45		ug/L			448237	474757	2	Standard
| Cr	52	43.291	ug/L	1.489	3	8038	565734	1	Standard
| Cr	53	42.910	ug/L	1.575	3	50	63770	1	Standard
[> Ge	72		ug/L			28647	30689	1	KED
| Cu	63	49.123	ug/L	1.272	2	51	200344	1	KED
| Cu	65	49.656	ug/L	1.766	3	25	102847	2	KED
| Zn	66	50.650	ug/L	1.285	2	36	25703	2	KED
| Zn	67	49.862	ug/L	0.427	0	6	4127	2	KED
| As	75	50.245	ug/L	1.001	1	2	12413	0	KED
Y	89		ug/L			38752	35167	1	Standard
Kr	83		ug/L			40	36	24	Standard
[> In-1	115		ug/L			6124	5715	1	KED
| Cd	111	51.094	ug/L	0.347	0	4	10567	2	KED
| Cd	114	52.390	ug/L	0.384	0	3	27634	1	KED
[> In	115		ug/L			412702	369882	1	Standard
| Ag	107	49.464	ug/L	1.593	3	17	595465	1	Standard
[> Tb	159		ug/L			165777	164981	1	Standard
| Pb	208	51.634	ug/L	0.630	1	350	4113891	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBN

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:11:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	23764	2	Standard
[> Sc	45		ug/L			448237	443773	0	Standard
| Cr	52	-0.062	ug/L	0.026	41	8038	7214	3	Standard
| Cr	53	<u>0.364</u>	ug/L	0.031	8	50	554	7	Standard
[> Ge	72		ug/L			28647	28900	2	KED
| Cu	63	-0.004	ug/L	0.003	71	51	36	32	KED
| Cu	65	-0.006	ug/L	0.001	16	25	13	15	KED
| Zn	66	-0.024	ug/L	0.036	153	36	26	67	KED
| Zn	67	-0.009	ug/L	0.016	184	6	6	17	KED
| As	75	0.009	ug/L	0.003	36	2	4	15	KED
Y	89		ug/L			38752	34249	3	Standard
Kr	83		ug/L			40	29	24	Standard
[> In-1	115		ug/L			6124	5750	0	KED
| Cd	111	-0.002	ug/L	0.009	511	4	3	56	KED
| Cd	114	0.001	ug/L	0.007	1391	3	3	102	KED
[> In	115		ug/L			412702	368942	2	Standard
| Ag	107	0.002	ug/L	0.001	58	17	40	37	Standard
[> Tb	159		ug/L			165777	159010	0	Standard
| Pb	208	0.000	ug/L	0.000	89	350	368	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:15:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				23953	4	Standard
[>	Sc	45	ug/L				443281	1	Standard
|	Cr	52	ug/L				7163	2	Standard
|	Cr	53	ug/L				487	7	Standard
[>	Ge	72	ug/L				28284	0	KED
|	Cu	63	ug/L				33	17	KED
|	Cu	65	ug/L				11	60	KED
|	Zn	66	ug/L				33	8	KED
|	Zn	67	ug/L				6	62	KED
|	As	75	ug/L				2	0	KED
	Y	89	ug/L				34497	2	Standard
	Kr	83	ug/L				33	8	Standard
[>	In-1	115	ug/L				5536	3	KED
|	Cd	111	ug/L				4	107	KED
|	Cd	114	ug/L				6	129	KED
[>	In	115	ug/L				370942	2	Standard
|	Ag	107	ug/L				18	51	Standard
[>	Tb	159	ug/L				161944	3	Standard
|	Pb	208	ug/L				380	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVO

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:20:16

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	23823	6	Standard
[> Sc	45		ug/L			443281	457972	4	Standard
| Cr	52	43.059	ug/L	0.364	0	7163	542248	3	Standard
| Cr	53	42.527	ug/L	0.121	0	487	61452	4	Standard
[> Ge	72		ug/L			28284	28052	2	KED
| Cu	63	49.368	ug/L	1.094	2	33	184033	2	KED
| Cu	65	47.907	ug/L	1.398	2	11	90672	0	KED
| Zn	66	49.389	ug/L	0.984	1	33	22904	2	KED
| Zn	67	49.684	ug/L	1.707	3	6	3756	1	KED
| As	75	49.256	ug/L	1.063	2	2	11121	0	KED
Y	89		ug/L			34497	36275	2	Standard
Kr	83		ug/L			33	35	34	Standard
[> In-1	115		ug/L			5536	5491	2	KED
| Cd	111	49.085	ug/L	1.079	2	4	9749	1	KED
| Cd	114	50.502	ug/L	0.827	1	6	25592	1	KED
[> In	115		ug/L			370942	367831	2	Standard
| Ag	107	49.011	ug/L	1.052	2	18	586941	2	Standard
[> Tb	159		ug/L			161944	163763	1	Standard
| Pb	208	51.969	ug/L	0.843	1	380	4110823	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBO

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:27:22

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	23985	3	Standard
[> Sc	45		ug/L			443281	435790	1	Standard
| Cr	52	-0.005	ug/L	0.004	87	7163	6989	2	Standard
| Cr	53	-0.046	ug/L	0.015	31	487	416	5	Standard
[> Ge	72		ug/L			28284	28183	2	KED
| Cu	63	0.001	ug/L	0.002	135	33	37	17	KED
| Cu	65	0.001	ug/L	0.005	440	11	13	65	KED
| Zn	66	-0.005	ug/L	0.007	128	33	31	12	KED
| Zn	67	0.066	ug/L	0.087	133	6	11	60	KED
| As	75	0.006	ug/L	0.008	120	2	3	45	KED
Y	89		ug/L			34497	34563	2	Standard
Kr	83		ug/L			33	38	18	Standard
[> In-1	115		ug/L			5536	5562	2	KED
| Cd	111	-0.006	ug/L	0.008	121	4	3	45	KED
| Cd	114	-0.010	ug/L	0.004	38	6	1	105	KED
[> In	115		ug/L			370942	361618	3	Standard
| Ag	107	0.001	ug/L	0.001	57	18	34	28	Standard
[> Tb	159		ug/L			161944	156559	2	Standard
| Pb	208	-0.000	ug/L	0.000	322	380	358	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:31:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	32368	2	Standard
[> Sc	45		ug/L			443281	546623	2	Standard
| Cr	52	0.360	ug/L	0.012	3	7163	14164	2	Standard
| Cr	53	0.388	ug/L	0.008	2	487	1265	1	Standard
[> Ge	72		ug/L			28284	26609	2	KED
| Cu	63	0.390	ug/L	0.026	6	33	1410	7	KED
| Cu	65	0.375	ug/L	0.008	2	11	683	1	KED
| Zn	66	4.759	ug/L	0.218	4	33	2121	2	KED
| Zn	67	5.219	ug/L	0.327	6	6	379	5	KED
| As	75	0.789	ug/L	0.033	4	2	171	4	KED
Y	89		ug/L			34497	42005	1	Standard
Kr	83		ug/L			33	32	21	Standard
[> In-1	115		ug/L			5536	5208	2	KED
| Cd	111	0.033	ug/L	0.036	106	4	10	63	KED
| Cd	114	0.041	ug/L	0.052	126	6	26	94	KED
[> In	115		ug/L			370942	353505	0	Standard
| Ag	107	0.005	ug/L	0.001	15	18	74	12	Standard
[> Tb	159		ug/L			161944	154792	1	Standard
| Pb	208	0.225	ug/L	0.004	1	380	17208	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:36:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	34681	2	Standard
[> Sc	45		ug/L			443281	547793	2	Standard
| Cr	52	0.346	ug/L	0.018	5	7163	13991	1	Standard
| Cr	53	0.376	ug/L	0.020	5	487	1246	2	Standard
[> Ge	72		ug/L			28284	26586	0	KED
| Cu	63	0.085	ug/L	0.008	9	33	332	7	KED
| Cu	65	0.093	ug/L	0.008	8	11	177	7	KED
| Zn	66	0.616	ug/L	0.002	0	33	302	0	KED
| Zn	67	0.972	ug/L	0.185	19	6	75	17	KED
| As	75	40.903	ug/L	0.639	1	2	8755	0	KED
Y	89		ug/L			34497	56833	3	Standard
Kr	83		ug/L			33	43	31	Standard
[> In-1	115		ug/L			5536	5061	1	KED
| Cd	111	0.023	ug/L	0.047	204	4	8	103	KED
| Cd	114	0.016	ug/L	0.038	236	6	13	128	KED
[> In	115		ug/L			370942	354300	2	Standard
| Ag	107	0.006	ug/L	0.003	61	18	81	49	Standard
[> Tb	159		ug/L			161944	154731	1	Standard
| Pb	208	0.019	ug/L	0.004	22	380	1782	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:40:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	38975	5	Standard
[>	Sc	45		ug/L			443281	600053	3	Standard
|	Cr	52	0.158	ug/L	0.011	7	7163	12262	2	Standard
|	Cr	53	0.223	ug/L	0.010	4	487	1079	3	Standard
[>	Ge	72		ug/L			28284	25951	1	KED
|	Cu	63	0.081	ug/L	0.011	13	33	309	12	KED
|	Cu	65	0.076	ug/L	0.015	19	11	143	19	KED
|	Zn	66	0.845	ug/L	0.080	9	33	393	9	KED
|	Zn	67	1.434	ug/L	0.338	23	6	106	22	KED
|	As	75	1.392	ug/L	0.082	5	2	293	6	KED
	Y	89		ug/L			34497	41556	1	Standard
	Kr	83		ug/L			33	31	27	Standard
[>	In-1	115		ug/L			5536	5022	3	KED
|	Cd	111	-0.005	ug/L	0.006	137	4	3	34	KED
|	Cd	114	-0.007	ug/L	0.006	80	6	2	94	KED
[>	In	115		ug/L			370942	343665	0	Standard
|	Ag	107	0.001	ug/L	0.000	58	18	22	14	Standard
[>	Tb	159		ug/L			161944	152798	1	Standard
|	Pb	208	0.005	ug/L	0.000	4	380	755	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:45:06**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	32947	4	Standard
[> Sc	45		ug/L			443281	523130	1	Standard
| Cr	52	3.049	ug/L	0.019	0	7163	51723	0	Standard
| Cr	53	2.997	ug/L	0.101	3	487	5480	1	Standard
[> Ge	72		ug/L			28284	26198	1	KED
| Cu	63	0.207	ug/L	0.013	6	33	751	6	KED
| Cu	65	0.197	ug/L	0.016	8	11	359	6	KED
| Zn	66	0.798	ug/L	0.056	6	33	376	6	KED
| Zn	67	1.112	ug/L	0.183	16	6	84	16	KED
| As	75	1.668	ug/L	0.095	5	2	353	6	KED
Y	89		ug/L			34497	35978	1	Standard
Kr	83		ug/L			33	37	20	Standard
[> In-1	115		ug/L			5536	5284	2	KED
| Cd	111	-0.007	ug/L	0.009	119	4	2	57	KED
| Cd	114	-0.010	ug/L	0.004	37	6	1	126	KED
[> In	115		ug/L			370942	365163	1	Standard
| Ag	107	0.000	ug/L	0.000	264	18	20	28	Standard
[> Tb	159		ug/L			161944	158726	1	Standard
| Pb	208	0.012	ug/L	0.001	7	380	1262	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:49:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	34191	0	Standard
[>	Sc	45		ug/L			443281	516002	2	Standard
|	Cr	52	-0.006	ug/L	0.011	179	7163	8248	1	Standard
|	Cr	53	0.032	ug/L	0.005	15	487	619	2	Standard
[>	Ge	72		ug/L			28284	25749	0	KED
|	Cu	63	0.378	ug/L	0.009	2	33	1324	2	KED
|	Cu	65	0.373	ug/L	0.016	4	11	659	4	KED
|	Zn	66	1.026	ug/L	0.143	13	33	467	13	KED
|	Zn	67	1.694	ug/L	0.044	2	6	123	2	KED
|	As	75	1.550	ug/L	0.094	6	2	323	5	KED
	Y	89		ug/L			34497	36548	0	Standard
	Kr	83		ug/L			33	38	5	Standard
[>	In-1	115		ug/L			5536	4911	2	KED
|	Cd	111	0.028	ug/L	0.014	50	4	8	26	KED
|	Cd	114	0.011	ug/L	0.005	42	6	10	17	KED
[>	In	115		ug/L			370942	370348	2	Standard
|	Ag	107	0.000	ug/L	0.001	579	18	19	39	Standard
[>	Tb	159		ug/L			161944	160625	1	Standard
|	Pb	208	0.026	ug/L	0.003	9	380	2387	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:53:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	35272	2	Standard
[>	Sc	45		ug/L			443281	555008	1	Standard
|	Cr	52	1.088	ug/L	0.016	1	7163	25353	2	Standard
|	Cr	53	1.102	ug/L	0.017	1	487	2524	0	Standard
[>	Ge	72		ug/L			28284	26216	2	KED
|	Cu	63	0.672	ug/L	0.029	4	33	2370	3	KED
|	Cu	65	0.645	ug/L	0.018	2	11	1151	2	KED
|	Zn	66	1.342	ug/L	0.058	4	33	612	4	KED
|	Zn	67	2.072	ug/L	0.217	10	6	152	12	KED
|	As	75	1.109	ug/L	0.036	3	2	236	1	KED
	Y	89		ug/L			34497	35884	0	Standard
	Kr	83		ug/L			33	29	39	Standard
[>	In-1	115		ug/L			5536	5217	0	KED
|	Cd	111	0.001	ug/L	0.015	1144	4	4	65	KED
|	Cd	114	-0.005	ug/L	0.006	113	6	4	72	KED
[>	In	115		ug/L			370942	366141	1	Standard
|	Ag	107	0.008	ug/L	0.001	9	18	116	8	Standard
[>	Tb	159		ug/L			161944	158946	1	Standard
|	Pb	208	0.018	ug/L	0.001	3	380	1760	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:58:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	36798	3	Standard
[> Sc	45		ug/L			443281	544050	2	Standard
| Cr	52	-0.054	ug/L	0.011	20	7163	7999	2	Standard
| Cr	53	-0.025	ug/L	0.011	43	487	556	6	Standard
[> Ge	72		ug/L			28284	26708	0	KED
| Cu	63	0.838	ug/L	0.016	1	33	3003	0	KED
| Cu	65	0.846	ug/L	0.014	1	11	1535	1	KED
| Zn	66	0.633	ug/L	0.066	10	33	311	10	KED
| Zn	67	1.047	ug/L	0.035	3	6	81	2	KED
| As	75	1.910	ug/L	0.048	2	2	412	1	KED
Y	89		ug/L			34497	36725	2	Standard
Kr	83		ug/L			33	29	3	Standard
[> In-1	115		ug/L			5536	5148	2	KED
| Cd	111	-0.002	ug/L	0.006	341	4	3	25	KED
| Cd	114	-0.004	ug/L	0.004	117	6	4	46	KED
[> In	115		ug/L			370942	365824	4	Standard
| Ag	107	0.000	ug/L	0.001	338	18	22	71	Standard
[> Tb	159		ug/L			161944	160908	1	Standard
| Pb	208	0.007	ug/L	0.001	14	380	956	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:02:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	33011	2	Standard
[> Sc	45		ug/L			443281	509288	2	Standard
| Cr	52	-0.004	ug/L	0.002	69	7163	8181	2	Standard
| Cr	53	-0.019	ug/L	0.020	105	487	530	8	Standard
[> Ge	72		ug/L			28284	26402	2	KED
| Cu	63	0.237	ug/L	0.027	11	33	859	8	KED
| Cu	65	0.242	ug/L	0.021	8	11	441	10	KED
| Zn	66	1.050	ug/L	0.024	2	33	488	0	KED
| Zn	67	1.334	ug/L	0.162	12	6	100	14	KED
| As	75	4.736	ug/L	0.192	4	2	1007	1	KED
Y	89		ug/L			34497	35818	2	Standard
Kr	83		ug/L			33	32	10	Standard
[> In-1	115		ug/L			5536	5114	2	KED
| Cd	111	-0.003	ug/L	0.006	162	4	3	31	KED
| Cd	114	-0.006	ug/L	0.000	1	6	3	1	KED
[> In	115		ug/L			370942	371382	2	Standard
| Ag	107	-0.000	ug/L	0.001	185	18	14	52	Standard
[> Tb	159		ug/L			161944	160844	0	Standard
| Pb	208	0.022	ug/L	0.000	0	380	2106	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:06:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	33260	5	Standard
[> Sc	45		ug/L			443281	520994	3	Standard
| Cr	52	0.001	ug/L	0.021	4047	7163	8419	0	Standard
| Cr	53	-0.004	ug/L	0.018	446	487	566	7	Standard
[> Ge	72		ug/L			28284	25960	2	KED
| Cu	63	0.316	ug/L	0.022	7	33	1118	5	KED
| Cu	65	0.311	ug/L	0.013	4	11	554	4	KED
| Zn	66	0.932	ug/L	0.103	11	33	430	10	KED
| Zn	67	1.015	ug/L	0.185	18	6	76	17	KED
| As	75	12.863	ug/L	0.161	1	2	2690	1	KED
Y	89		ug/L			34497	35627	1	Standard
Kr	83		ug/L			33	32	15	Standard
[> In-1	115		ug/L			5536	5174	1	KED
| Cd	111	-0.007	ug/L	0.005	78	4	2	33	KED
| Cd	114	0.000	ug/L	0.012	3000	6	6	86	KED
[> In	115		ug/L			370942	378984	3	Standard
| Ag	107	0.001	ug/L	0.001	67	18	36	33	Standard
[> Tb	159		ug/L			161944	157933	1	Standard
| Pb	208	0.008	ug/L	0.000	1	380	960	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLS

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 08:11:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	24312	3	Standard
[>	Sc	45	ug/L			443281	423709	1	Standard
|	Cr	52	ug/L	0.018	103	7163	6650	4	Standard
|	Cr	53	ug/L	0.017	11	487	257	9	Standard
[>	Ge	72	ug/L			28284	26243	0	KED
|	Cu	63	ug/L	0.004	200	33	24	55	KED
|	Cu	65	ug/L	0.001	43	11	15	12	KED
|	Zn	66	ug/L	0.003	8	33	17	6	KED
|	Zn	67	ug/L	0.071	236	6	3	132	KED
|	As	75	ug/L	0.002	271	2	2	20	KED
	Y	89	ug/L			34497	34766	2	Standard
	Kr	83	ug/L			33	34	8	Standard
[>	In-1	115	ug/L			5536	5110	2	KED
|	Cd	111	ug/L	0.010	146	4	2	66	KED
|	Cd	114	ug/L	0.006	72	6	2	125	KED
[>	In	115	ug/L			370942	363346	3	Standard
|	Ag	107	ug/L	0.000	31	18	7	43	Standard
[>	Tb	159	ug/L			161944	156921	0	Standard
|	Pb	208	ug/L	0.000	5	380	127	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVP

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 08:15:37

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	23131	6	Standard
[> Sc	45		ug/L			443281	429452	4	Standard
| Cr	52	43.137	ug/L	1.283	2	7163	509091	2	Standard
| Cr	53	42.532	ug/L	1.016	2	487	57617	4	Standard
[> Ge	72		ug/L			28284	26845	1	KED
| Cu	63	48.586	ug/L	1.204	2	33	173318	0	KED
| Cu	65	47.759	ug/L	1.161	2	11	86522	1	KED
| Zn	66	48.700	ug/L	0.829	1	33	21613	1	KED
| Zn	67	49.974	ug/L	1.175	2	6	3617	2	KED
| As	75	48.187	ug/L	0.497	1	2	10414	0	KED
Y	89		ug/L			34497	35680	2	Standard
Kr	83		ug/L			33	40	7	Standard
[> In-1	115		ug/L			5536	5483	1	KED
| Cd	111	47.087	ug/L	0.889	1	4	9340	0	KED
| Cd	114	47.831	ug/L	1.184	2	6	24201	0	KED
[> In	115		ug/L			370942	373329	1	Standard
| Ag	107	48.273	ug/L	0.181	0	18	586801	1	Standard
[> Tb	159		ug/L			161944	157225	4	Standard
| Pb	208	55.524	ug/L	1.115	2	380	4214059	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBP

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 08:22:42

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	23153	6	Standard
[>	Sc	45	ug/L			443281	426749	1	Standard
|	Cr	52	ug/L	0.016	49	7163	6515	2	Standard
|	Cr	53	ug/L	0.014	7	487	225	9	Standard
[>	Ge	72	ug/L			28284	27054	1	KED
|	Cu	63	ug/L	0.001	206	33	33	13	KED
|	Cu	65	ug/L	0.001	59	11	12	8	KED
|	Zn	66	ug/L	0.016	53	33	19	36	KED
|	Zn	67	ug/L	0.031	226	6	5	43	KED
|	As	75	ug/L	0.006	51	2	4	26	KED
	Y	89	ug/L			34497	35176	3	Standard
	Kr	83	ug/L			33	33	28	Standard
[>	In-1	115	ug/L			5536	5166	3	KED
|	Cd	111	ug/L	0.006	81	4	2	33	KED
|	Cd	114	ug/L	0.006	72	6	2	122	KED
[>	In	115	ug/L			370942	374701	4	Standard
|	Ag	107	ug/L	0.001	150	18	24	35	Standard
[>	Tb	159	ug/L			161944	156776	3	Standard
|	Pb	208	ug/L	0.000	60	380	318	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-07**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:27:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	30709	1	Standard
[>	Ge	72	ug/L			28284	26538	1	KED
[	As	75	ug/L	0.226	1	2	2660	2	KED
	Y	89	ug/L			34497	36716	2	Standard
	Kr	83	ug/L			33	37	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0494-08

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 08:30:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	32393	0	Standard
Ge	72		ug/L			28284	25720	1	KED
As	75	1.257	ug/L	0.241	19	2	262	17	KED
Y	89		ug/L			34497	35640	3	Standard
Kr	83		ug/L			33	45	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-09**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:34:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	38746	1	Standard
[>	Ge	72	ug/L			28284	25415	1	KED
[	As	75	ug/L	0.073	4	2	312	4	KED
	Y	89	ug/L			34497	36620	0	Standard
	Kr	83	ug/L			33	33	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-10**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:37:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	57220	3	Standard
[>	Ge	72	ug/L			28284	25650	1	KED
[	As	75	ug/L	0.033	0	2	697	0	KED
	Y	89	ug/L			34497	44371	2	Standard
	Kr	83	ug/L			33	36	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-11**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:41:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	39588	3	Standard
[>	Ge	72	ug/L			28284	26578	1	KED
[	As	75	ug/L	0.072	5	2	287	5	KED
	Y	89	ug/L			34497	37588	2	Standard
	Kr	83	ug/L			33	37	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-02**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:46:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	25866	1	Standard
[>	Ge	72	ug/L			28284	25532	1	KED
[	As	75	ug/L	0.082	3	2	468	4	KED
	Y	89	ug/L			34497	41271	3	Standard
	Kr	83	ug/L			33	34	20	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0134-DUP1**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:50:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	25448	0	Standard
[>	Ge	72	ug/L			28284	25336	0	KED
[	As	75	ug/L	0.019	0	2	465	1	KED
	Y	89	ug/L			34497	40019	5	Standard
	Kr	83	ug/L			33	24	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0134-MS1**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:53:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	25656	2	Standard
[>	Ge	72	ug/L			28284	25138	0	KED
[	As	75	ug/L	0.068	0	2	1525	0	KED
	Y	89	ug/L			34497	40825	2	Standard
	Kr	83	ug/L			33	40	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0134-MSD1

Sample Dil Factor: 5

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 08:57:14

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	25165	4	Standard
[> Ge	72		ug/L			28284	22831	11	KED
[As	75	8.315	ug/L	0.579	6	2	1523	6	KED
Y	89		ug/L			34497	41090	2	Standard
Kr	83		ug/L			33	44	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLT

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:00:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	21044	3	Standard
[>	Ge	72	ug/L			28284	25195	1	KED
[	As	75	0.005	0.005	97	2	3	31	KED
	Y	89	ug/L			34497	36387	4	Standard
	Kr	83	ug/L			33	32	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVQ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:04:11

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	19365	3	Standard
[> Ge	72		ug/L			28284	25866	2	KED
[As	75	48.718	ug/L	1.079	2	2	10142	0	KED
Y	89		ug/L			34497	35732	3	Standard
Kr	83		ug/L			33	40	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBQ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:10:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	19521	6	Standard
[>	Ge	72		ug/L			28284	26236	1	KED
[	As	75	0.004	ug/L	0.007	188	2	3	50	KED
	Y	89		ug/L			34497	36358	4	Standard
	Kr	83		ug/L			33	42	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:13:52**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	32027	1	Standard
[> Ge	72		ug/L			28284	26007	1	KED
[As	75	0.890	ug/L	0.049	5	2	188	4	KED
Y	89		ug/L			34497	40247	1	Standard
Kr	83		ug/L			33	39	27	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:17:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	30397	2	Standard
[>	Ge	72	ug/L			28284	25458	1	KED
[	As	75	ug/L	0.006	0	2	177	2	KED
	Y	89	ug/L			34497	38663	1	Standard
	Kr	83	ug/L			33	40	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-05**

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:20:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	31369	1	Standard
[>	Ge	72	ug/L			28284	25256	1	KED
[	As	75	ug/L	0.013	1	2	139	3	KED
	Y	89	ug/L			34497	37846	4	Standard
	Kr	83	ug/L			33	38	31	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-07**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:24:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	31068	2	Standard
[>	Ge	72	ug/L			28284	25354	1	KED
[	As	75	ug/L	0.024	2	2	169	3	KED
	Y	89	ug/L			34497	38519	3	Standard
	Kr	83	ug/L			33	41	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-09**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:27:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	28545	3	Standard
[>	Ge	72	ug/L			28284	25863	0	KED
[	As	75	ug/L	0.085	6	2	286	5	KED
	Y	89	ug/L			34497	41558	3	Standard
	Kr	83	ug/L			33	36	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-11**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:31:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	30064	0	Standard
[>	Ge	72	ug/L			28284	25241	1	KED
[	As	75	ug/L	0.091	9	2	200	8	KED
	Y	89	ug/L			34497	41326	4	Standard
	Kr	83	ug/L			33	38	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-13**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:34:38**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	34038	1	Standard
[>	Ge	72	ug/L			28284	25584	0	KED
[	As	75	ug/L	0.040	9	2	90	8	KED
	Y	89	ug/L			34497	37964	2	Standard
	Kr	83	ug/L			33	34	29	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-15**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:38:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	31176	2	Standard
[>	Ge	72	ug/L			28284	25211	1	KED
[	As	75	ug/L	0.064	6	2	199	5	KED
	Y	89	ug/L			34497	38058	1	Standard
	Kr	83	ug/L			33	44	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0587-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:41:51**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	29462	1	Standard
[>	Ge	72	ug/L			28284	26481	1	KED
[	As	75	ug/L	0.002	158	2	1	25	KED
	Y	89	ug/L			34497	37168	0	Standard
	Kr	83	ug/L			33	33	43	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLU

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:45:20

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	21654	1	Standard
[>	Ge	72		ug/L			28284	25096	1	KED
[	As	75	0.007	ug/L	0.007	97	2	3	39	KED
	Y	89		ug/L			34497	35617	3	Standard
	Kr	83		ug/L			33	26	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVR

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:48:48

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	20136	4	Standard
[> Ge	72		ug/L			28284	25943	0	KED
[As	75	48.782	ug/L	0.808	1	2	10190	1	KED
Y	89		ug/L			34497	35774	1	Standard
Kr	83		ug/L			33	40	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBR

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:55:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	20341	2	Standard
[>	Ge	72	ug/L			28284	26117	1	KED
[	As	75	0.002	0.009	576	2	2	75	KED
	Y	89	ug/L			34497	36037	3	Standard
	Kr	83	ug/L			33	38	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0587-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:58:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	25634	2	Standard
[>	Ge	72	ug/L			28284	25170	1	KED
[	As	75	ug/L	0.067	3	2	386	1	KED
	Y	89	ug/L			34497	47569	1	Standard
	Kr	83	ug/L			33	41	20	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0587-04**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:01:57**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	23088	1	Standard
[>	Ge	72	ug/L			28284	25083	0	KED
[	As	75	ug/L	0.083	3	2	545	3	KED
	Y	89	ug/L			34497	39491	2	Standard
	Kr	83	ug/L			33	38	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0587-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:05:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	24086	2	Standard
[> Ge	72		ug/L			28284	25297	0	KED
[As	75	2.679	ug/L	0.061	2	2	547	2	KED
Y	89		ug/L			34497	39866	2	Standard
Kr	83		ug/L			33	38	43	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-07**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:09:11**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	28092	1	Standard
[> Ge	72		ug/L			28284	24265	2	KED
[As	75	3.647	ug/L	0.045	1	2	714	2	KED
Y	89		ug/L			34497	36517	3	Standard
Kr	83		ug/L			33	48	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-08**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:12:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	24129	1	Standard
[>	Ge	72	ug/L			28284	24842	1	KED
[	As	75	ug/L	0.065	3	2	391	2	KED
	Y	89	ug/L			34497	39994	1	Standard
	Kr	83	ug/L			33	40	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-04**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:16:01**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	27316	1	Standard
[>	Ge	72	ug/L			28284	25745	2	KED
[	As	75	ug/L	0.064	6	2	193	4	KED
	Y	89	ug/L			34497	51126	1	Standard
	Kr	83	ug/L			33	34	24	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-06**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:19:28**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	26836	1	Standard
[>	Ge	72	ug/L			28284	24007	0	KED
[	As	75	ug/L	0.071	1	2	727	2	KED
	Y	89	ug/L			34497	40963	1	Standard
	Kr	83	ug/L			33	40	28	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:23:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	29306	2	Standard
[>	Ge	72	ug/L			28284	25776	3	KED
[	As	75	ug/L	0.005	71	2	3	27	KED
	Y	89	ug/L			34497	36300	2	Standard
	Kr	83	ug/L			33	45	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:26:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	31168	1	Standard
[>	Ge	72	ug/L			28284	23049	3	KED
[	As	75	ug/L	0.459	3	2	2270	1	KED
	Y	89	ug/L			34497	42422	0	Standard
	Kr	83	ug/L			33	52	20	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLV

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:30:17

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	22595	1	Standard
[>	Ge	72	ug/L			28284	25718	0	KED
[	As	75	ug/L	0.001	291	2	2	13	KED
	Y	89	ug/L			34497	35195	5	Standard
	Kr	83	ug/L			33	40	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVS

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:33:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	20551	1	Standard
[>	Ge	72		ug/L			28284	24988	0	KED
[	As	75	50.067	ug/L	1.149	2	2	10073	2	KED
	Y	89		ug/L			34497	35581	2	Standard
	Kr	83		ug/L			33	49	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBS

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:39:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	20489	2	Standard
[>	Ge	72		ug/L			28284	25090	0	KED
[	As	75	0.002	ug/L	0.006	279	2	2	47	KED
	Y	89		ug/L			34497	35714	2	Standard
	Kr	83		ug/L			33	38	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:43:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	25632	2	Standard
[>	Ge	72		ug/L			28284	26454	1	KED
[	As	75	0.006	ug/L	0.010	169	2	3	61	KED
	Y	89		ug/L			34497	41214	3	Standard
	Kr	83		ug/L			33	38	24	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:46:53

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
	C	13	ug/L			23953	24859	4	Standard	
[>	Ge	72	ug/L			28284	26414	1	KED	
[As	75	0.000	ug/L	0.005	9977	2	2	49	KED
	Y	89	ug/L			34497	38257	2	Standard	
	Kr	83	ug/L			33	41	25	Standard	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:50:22

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
	C	13	ug/L			23953	25074	4	Standard	
[>	Ge	72	ug/L			28284	25856	5	KED	
[As	75	0.004	ug/L	0.009	256	2	3	71	KED
	Y	89	ug/L			34497	40670	1	Standard	
	Kr	83	ug/L			33	42	28	Standard	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:53:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	21544	0	Standard
[>	Ge	72	ug/L			28284	24979	2	KED
[	As	75	ug/L	0.001	29	2	1	21	KED
	Y	89	ug/L			34497	33632	2	Standard
	Kr	83	ug/L			33	40	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:57:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	21498	3	Standard
[>	Ge	72	ug/L			28284	24196	2	KED
[	As	75	0.000	0.004	2080	2	2	35	KED
	Y	89	ug/L			34497	33753	1	Standard
	Kr	83	ug/L			33	36	26	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 11:00:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	21398	1	Standard
[>	Ge	72	ug/L			28284	25308	0	KED
[	As	75	0.000	0.010	2112	2	2	89	KED
	Y	89	ug/L			34497	34273	1	Standard
	Kr	83	ug/L			33	34	14	Standard



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-ICV1	Arsenic-75a	50.000	47.6	95.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.6	99.3	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.1	100	ug/L	PA 6020B UCT-KE
SLE0163-CCV1	Arsenic-75a	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.6	101	ug/L	PA 6020B UCT-KE
SLE0163-CCV2	Arsenic-75a	50.000	49.4	98.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.7	105	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.2	104	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.8	104	ug/L	PA 6020B UCT-KE
SLE0163-CCV3	Arsenic-75a	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.8	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.4	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.5	105	ug/L	PA 6020B UCT-KE
SLE0163-CCV4	Arsenic-75a	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.8	106	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.5	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.5	103	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-CCV4	Zinc-67	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLE0163-CCV5	Arsenic-75a	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.4	103	ug/L	PA 6020B UCT-KE
SLE0163-CCV6	Arsenic-75a	50.000	48.5	97.0	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.1	104	ug/L	PA 6020B UCT-KE
SLE0163-CCV7	Arsenic-75a	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	53.4	107	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.0	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.2	104	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.6	103	ug/L	PA 6020B UCT-KE
SLE0163-CCV8	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.0	104	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.6	105	ug/L	PA 6020B UCT-KE
SLE0163-CCV9	Arsenic-75a	50.000	49.0	97.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.1	102	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-CCV9	Zinc-66	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
SLE0163-CCVA	Arsenic-75a	50.000	48.6	97.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.1	100	ug/L	PA 6020B UCT-KE
SLE0163-CCVB	Zinc-67	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLE0163-CCVC	Zinc-66	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	53.5	107	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	53.3	107	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	53.7	107	ug/L	PA 6020B UCT-KE
SLE0163-CCVD	Copper-65	50.000	53.3	107	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.5	105	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.2	104	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.6	103	ug/L	PA 6020B UCT-KE
SLE0163-CCVE	Copper-63	50.000	53.3	107	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.7	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.5	105	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
SLE0163-CCVE	Cadmium-114	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.8	106	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-CCVE	Copper-65	50.000	52.7	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.3	103	ug/L	PA 6020B UCT-KE
SLE0163-CCVF	Arsenic-75a	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.5	105	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.7	105	ug/L	PA 6020B UCT-KE

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-ICV1	Arsenic-75a	50.000	48.2	96.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.8	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.6	101	ug/L	PA 6020B UCT-KE
SLE0204-CCV1	Arsenic-75a	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.6	99.1	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.9	99.7	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.3	101	ug/L	PA 6020B UCT-KE
SLE0204-CCV2	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.8	104	ug/L	PA 6020B UCT-KE
SLE0204-CCV3	Arsenic-75a	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.4	96.7	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.1	100	ug/L	PA 6020B UCT-KE
SLE0204-CCV4	Arsenic-75a	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.3	103	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCV4	Zinc-67	50.000	52.0	104	ug/L	PA 6020B UCT-KE
SLE0204-CCV5	Arsenic-75a	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.8	102	ug/L	PA 6020B UCT-KE
SLE0204-CCV6	Arsenic-75a	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.0	100	ug/L	PA 6020B UCT-KE
SLE0204-CCV7	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.1	104	ug/L	PA 6020B UCT-KE
SLE0204-CCV8	Arsenic-75a	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.2	96.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
SLE0204-CCV9	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.3	101	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCV9	Zinc-66	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.9	104	ug/L	PA 6020B UCT-KE
SLE0204-CCVA	Arsenic-75a	50.000	49.1	98.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.6	97.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.4	96.9	ug/L	PA 6020B UCT-KE
SLE0204-CCVB	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.6	99.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.5	97.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.7	97.3	ug/L	PA 6020B UCT-KE
SLE0204-CCVC	Zinc-66	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.0	100	ug/L	PA 6020B UCT-KE
SLE0204-CCVD	Copper-65	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.3	98.7	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
SLE0204-CCVE	Copper-63	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
SLE0204-CCVE	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.7	103	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCVE	Copper-65	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.8	104	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.0	102	ug/L	PA 6020B UCT-KE
SLE0204-CCVF	Arsenic-75a	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.8	104	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	48.5	97.0	ug/L	PA 6020B UCT-KE
SLE0204-CCVG	Cadmium-111	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.6	99.3	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	48.3	96.6	ug/L	PA 6020B UCT-KE
SLE0204-CCVH	Cadmium-111	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.3	98.7	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
SLE0204-CCVI	Cadmium-111	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.2	98.3	ug/L	PA 6020B UCT-KE
SLE0204-CCVJ	Cadmium-111	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.1	100	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCVJ	Copper-63	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-ICV1	Arsenic-75a	50.000	48.3	96.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.8	106	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLE0209-CCV1	Arsenic-75a	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.7	101	ug/L	PA 6020B UCT-KE
SLE0209-CCV2	Arsenic-75a	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	47.9	95.9	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.3	96.6	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.9	99.7	ug/L	PA 6020B UCT-KE
SLE0209-CCV3	Arsenic-75a	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.4	96.8	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
SLE0209-CCV4	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.7	103	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCV4	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLE0209-CCV7	Arsenic-75a	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.1	98.3	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.8	104	ug/L	PA 6020B UCT-KE
SLE0209-CCV8	Arsenic-75a	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.1	98.3	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.8	97.7	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.3	103	ug/L	PA 6020B UCT-KE
SLE0209-CCVA	Arsenic-75a	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.8	104	ug/L	PA 6020B UCT-KE
SLE0209-CCVB	Arsenic-75a	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.3	96.7	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.0	98.0	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLE0209-CCVC	Arsenic-75a	50.000	49.3	98.7	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.8	97.7	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.0	97.9	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCVC	Zinc-66	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLE0209-CCVD	Arsenic-75a	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.0	97.9	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.4	96.9	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLE0209-CCVE	Zinc-67	50.000	49.9	99.9	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.1	96.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.1	98.1	ug/L	PA 6020B UCT-KE
SLE0209-CCVF	Zinc-66	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.4	98.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.6	97.3	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.4	98.7	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
SLE0209-CCVG	Copper-65	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
SLE0209-CCVH	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
SLE0209-CCVH	Cadmium-114	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method	
SLE0209-CCVH	Copper-65	50.000	50.2	100	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.9	102	ug/L	PA 6020B UCT-KE	
SLE0209-CCVI	Arsenic-75a	50.000	49.4	98.7	ug/L	PA 6020B UCT-KE	
	Cadmium-111	50.000	48.7	97.5	ug/L	PA 6020B UCT-KE	
	Cadmium-114	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.8	102	ug/L	PA 6020B UCT-KE	
	SLE0209-CCVJ	Arsenic-75a	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
		Cadmium-111	50.000	50.2	100	ug/L	PA 6020B UCT-KE
Cadmium-114		50.000	50.4	101	ug/L	PA 6020B UCT-KE	
Copper-63		50.000	49.5	99.0	ug/L	PA 6020B UCT-KE	
Copper-65		50.000	49.6	99.2	ug/L	PA 6020B UCT-KE	
Zinc-66		50.000	50.8	102	ug/L	PA 6020B UCT-KE	
Zinc-67		50.000	51.5	103	ug/L	PA 6020B UCT-KE	
SLE0209-CCVK		Arsenic-75a	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
		Cadmium-111	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.2	102	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	50.2	100	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE	
	SLE0209-CCVL	Arsenic-75a	50.000	49.6	99.1	ug/L	PA 6020B UCT-KE
		Cadmium-111	50.000	50.1	100	ug/L	PA 6020B UCT-KE
Cadmium-114		50.000	50.7	101	ug/L	PA 6020B UCT-KE	
Copper-63		50.000	50.3	101	ug/L	PA 6020B UCT-KE	
Copper-65		50.000	49.5	99.1	ug/L	PA 6020B UCT-KE	
Zinc-66		50.000	51.6	103	ug/L	PA 6020B UCT-KE	
Zinc-67		50.000	50.1	100	ug/L	PA 6020B UCT-KE	
SLE0209-CCVM		Arsenic-75a	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
		Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE	



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCVM	Copper-63	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.8	97.7	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.8	102	ug/L	PA 6020B UCT-KE
SLE0209-CCVN	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.4	105	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.9	99.7	ug/L	PA 6020B UCT-KE
	SLE0209-CCVO	Arsenic-75a	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
SLE0209-CCVP	Cadmium-111	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.4	98.7	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	47.9	95.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	SLE0209-CCVQ	Arsenic-75a	50.000	48.2	96.4	ug/L	PA 6020B UCT-KE
SLE0209-CCVR	Cadmium-111	50.000	47.1	94.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	47.8	95.7	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	47.8	95.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	SLE0209-CCVQ	Arsenic-75a	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
SLE0209-CCVQ	Arsenic-75a	50.000	48.8	97.6	ug/L	PA 6020B UCT-KE
SLE0209-CCVS	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE

* Values outside of QC limits



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 15:55

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBL1	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0163-IBL1	Cadmium-111	0.0170	0.03	0.100	ug/L	
SLE0163-IBL1	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0163-IBL1	Copper-63	-0.00900	0.173	0.500	ug/L	
SLE0163-IBL1	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0163-IBL1	Zinc-66	0.0270	2.92	6.00	ug/L	
SLE0163-IBL1	Zinc-67	0.00	0.94	6.00	ug/L	
SLE0163-ICB1	Arsenic-75a	-0.0110	0.0373	0.200	ug/L	
SLE0163-ICB1	Cadmium-111	0.0110	0.03	0.100	ug/L	
SLE0163-ICB1	Cadmium-114	-0.00700	0.04	0.100	ug/L	
SLE0163-ICB1	Copper-63	-0.0100	0.173	0.500	ug/L	
SLE0163-ICB1	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0163-ICB1	Zinc-66	0.0220	2.92	6.00	ug/L	
SLE0163-ICB1	Zinc-67	0.0130	0.94	6.00	ug/L	
SLE0163-CCB1	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0163-CCB1	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-CCB1	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLE0163-CCB1	Copper-63	-0.00700	0.173	0.500	ug/L	
SLE0163-CCB1	Copper-65	-0.00500	0.35	0.500	ug/L	
SLE0163-CCB1	Zinc-66	0.0270	2.92	6.00	ug/L	
SLE0163-CCB1	Zinc-67	0.0130	0.94	6.00	ug/L	
SLE0163-IBL2	Arsenic-75a	0.0880	0.0373	0.200	ug/L	
SLE0163-IBL2	Cadmium-111	0.0100	0.03	0.100	ug/L	
SLE0163-IBL2	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0163-IBL2	Copper-63	0.0890	0.173	0.500	ug/L	
SLE0163-IBL2	Copper-65	0.0860	0.35	0.500	ug/L	
SLE0163-IBL2	Zinc-66	0.158	2.92	6.00	ug/L	
SLE0163-IBL2	Zinc-67	0.222	0.94	6.00	ug/L	
SLE0163-IBL3	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0163-IBL3	Cadmium-111	0.0230	0.03	0.100	ug/L	
SLE0163-IBL3	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0163-IBL3	Copper-63	-0.00100	0.173	0.500	ug/L	
SLE0163-IBL3	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-IBL3	Zinc-66	0.0840	2.92	6.00	ug/L	
SLE0163-IBL3	Zinc-67	0.132	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 17:36

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCB2	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0163-CCB2	Cadmium-111	0.0160	0.03	0.100	ug/L	
SLE0163-CCB2	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0163-CCB2	Copper-63	-0.00700	0.173	0.500	ug/L	
SLE0163-CCB2	Copper-65	0.00	0.35	0.500	ug/L	
SLE0163-CCB2	Zinc-66	0.0130	2.92	6.00	ug/L	
SLE0163-CCB2	Zinc-67	0.0420	0.94	6.00	ug/L	
SLE0163-IBL4	Arsenic-75a	-0.0100	0.0373	0.200	ug/L	
SLE0163-IBL4	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLE0163-IBL4	Cadmium-114	-0.00400	0.04	0.100	ug/L	
SLE0163-IBL4	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0163-IBL4	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0163-IBL4	Zinc-66	0.145	2.92	6.00	ug/L	
SLE0163-IBL4	Zinc-67	0.239	0.94	6.00	ug/L	
SLE0163-IBL5	Arsenic-75a	-0.0120	0.0373	0.200	ug/L	
SLE0163-IBL5	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLE0163-IBL5	Cadmium-114	-0.00600	0.04	0.100	ug/L	
SLE0163-IBL5	Copper-63	-0.00600	0.173	0.500	ug/L	
SLE0163-IBL5	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0163-IBL5	Zinc-66	0.158	2.92	6.00	ug/L	
SLE0163-IBL5	Zinc-67	0.0930	0.94	6.00	ug/L	
SLE0163-CCB3	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0163-CCB3	Cadmium-111	0.00800	0.03	0.100	ug/L	
SLE0163-CCB3	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLE0163-CCB3	Copper-63	-0.00900	0.173	0.500	ug/L	
SLE0163-CCB3	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0163-CCB3	Zinc-66	0.0350	2.92	6.00	ug/L	
SLE0163-CCB3	Zinc-67	0.0680	0.94	6.00	ug/L	
SLE0163-CCB4	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0163-CCB4	Cadmium-111	0.0330	0.03	0.100	ug/L	
SLE0163-CCB4	Cadmium-114	0.0340	0.04	0.100	ug/L	
SLE0163-CCB4	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0163-CCB4	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0163-CCB4	Zinc-66	-0.0040	2.92	6.00	ug/L	
SLE0163-CCB4	Zinc-67	0.0320	0.94	6.00	ug/L	
SLE0163-IBL6	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 19:57

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBL6	Cadmium-111	0.00800	0.03	0.100	ug/L	
SLE0163-IBL6	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-IBL6	Copper-63	0.00800	0.173	0.500	ug/L	
SLE0163-IBL6	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-IBL6	Zinc-66	0.131	2.92	6.00	ug/L	
SLE0163-IBL6	Zinc-67	0.117	0.94	6.00	ug/L	
SLE0163-CCB5	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0163-CCB5	Cadmium-111	0.00900	0.03	0.100	ug/L	
SLE0163-CCB5	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-CCB5	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0163-CCB5	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0163-CCB5	Zinc-66	0.0010	2.92	6.00	ug/L	
SLE0163-CCB5	Zinc-67	0.0200	0.94	6.00	ug/L	
SLE0163-IBL7	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBL7	Cadmium-111	0.0130	0.03	0.100	ug/L	
SLE0163-IBL7	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-IBL7	Copper-63	0.00600	0.173	0.500	ug/L	
SLE0163-IBL7	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0163-IBL7	Zinc-66	0.166	2.92	6.00	ug/L	
SLE0163-IBL7	Zinc-67	0.0850	0.94	6.00	ug/L	
SLE0163-CCB6	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0163-CCB6	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-CCB6	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0163-CCB6	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0163-CCB6	Copper-65	0.00	0.35	0.500	ug/L	
SLE0163-CCB6	Zinc-66	-0.0050	2.92	6.00	ug/L	
SLE0163-CCB6	Zinc-67	0.0060	0.94	6.00	ug/L	
SLE0163-CCB7	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-CCB7	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0163-CCB7	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-CCB7	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0163-CCB7	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0163-CCB7	Zinc-66	0.0270	2.92	6.00	ug/L	
SLE0163-CCB7	Zinc-67	0.0320	0.94	6.00	ug/L	
SLE0163-IBL8	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBL8	Cadmium-111	0.0120	0.03	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 22:22

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBL8	Cadmium-114	0.0130	0.04	0.100	ug/L	
SLE0163-IBL8	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0163-IBL8	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0163-IBL8	Zinc-66	0.0260	2.92	6.00	ug/L	
SLE0163-IBL8	Zinc-67	0.0020	0.94	6.00	ug/L	
SLE0163-CCB8	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-CCB8	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0163-CCB8	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0163-CCB8	Copper-63	0.00600	0.173	0.500	ug/L	
SLE0163-CCB8	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-CCB8	Zinc-66	0.0580	2.92	6.00	ug/L	
SLE0163-CCB8	Zinc-67	0.0410	0.94	6.00	ug/L	
SLE0163-IBL9	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0163-IBL9	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-IBL9	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0163-IBL9	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0163-IBL9	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBL9	Zinc-66	0.0090	2.92	6.00	ug/L	
SLE0163-IBL9	Zinc-67	0.0150	0.94	6.00	ug/L	
SLE0163-CCB9	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-CCB9	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0163-CCB9	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0163-CCB9	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0163-CCB9	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-CCB9	Zinc-66	0.0440	2.92	6.00	ug/L	
SLE0163-CCB9	Zinc-67	0.0200	0.94	6.00	ug/L	
SLE0163-IBLA	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0163-IBLA	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0163-IBLA	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0163-IBLA	Copper-63	0.0240	0.173	0.500	ug/L	
SLE0163-IBLA	Copper-65	0.0220	0.35	0.500	ug/L	
SLE0163-IBLA	Zinc-66	0.0900	2.92	6.00	ug/L	
SLE0163-IBLA	Zinc-67	0.0190	0.94	6.00	ug/L	
SLE0163-CCBA	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0163-CCBA	Cadmium-111	0.0110	0.03	0.100	ug/L	
SLE0163-CCBA	Cadmium-114	-0.00100	0.04	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 00:23

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCBA	Copper-63	0.00800	0.173	0.500	ug/L	
SLE0163-CCBA	Copper-65	0.0130	0.35	0.500	ug/L	
SLE0163-CCBA	Zinc-66	0.0470	2.92	6.00	ug/L	
SLE0163-CCBA	Zinc-67	0.0180	0.94	6.00	ug/L	
SLE0163-IBLB	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0163-IBLB	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLE0163-IBLB	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-IBLB	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0163-IBLB	Copper-65	0.00700	0.35	0.500	ug/L	
SLE0163-IBLB	Zinc-66	0.0170	2.92	6.00	ug/L	
SLE0163-IBLB	Zinc-67	0.0080	0.94	6.00	ug/L	
SLE0163-CCBB	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-CCBB	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0163-CCBB	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-CCBB	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0163-CCBB	Copper-65	0.00700	0.35	0.500	ug/L	
SLE0163-CCBB	Zinc-66	0.0550	2.92	6.00	ug/L	
SLE0163-CCBB	Zinc-67	0.0610	0.94	6.00	ug/L	
SLE0163-IBLC	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBLC	Cadmium-111	0.00	0.03	0.100	ug/L	
SLE0163-IBLC	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-IBLC	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0163-IBLC	Copper-65	0.0160	0.35	0.500	ug/L	
SLE0163-IBLC	Zinc-66	0.0150	2.92	6.00	ug/L	
SLE0163-IBLC	Zinc-67	0.0290	0.94	6.00	ug/L	
SLE0163-IBLD	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBLD	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0163-IBLD	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-IBLD	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0163-IBLD	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBLD	Zinc-66	0.0070	2.92	6.00	ug/L	
SLE0163-IBLD	Zinc-67	0.0240	0.94	6.00	ug/L	
SLE0163-CCBC	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0163-CCBC	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-CCBC	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-CCBC	Copper-63	0.00500	0.173	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 02:12

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCBC	Copper-65	0.00900	0.35	0.500	ug/L	
SLE0163-CCBC	Zinc-66	0.0380	2.92	6.00	ug/L	
SLE0163-CCBC	Zinc-67	0.0550	0.94	6.00	ug/L	
SLE0163-IBL	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0163-IBL	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLE0163-IBL	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-IBL	Copper-63	0.0160	0.173	0.500	ug/L	
SLE0163-IBL	Copper-65	0.0150	0.35	0.500	ug/L	
SLE0163-IBL	Zinc-66	0.0460	2.92	6.00	ug/L	
SLE0163-IBL	Zinc-67	0.0590	0.94	6.00	ug/L	
SLE0163-IBLF	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBLF	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0163-IBLF	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-IBLF	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0163-IBLF	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBLF	Zinc-66	0.0130	2.92	6.00	ug/L	
SLE0163-IBLF	Zinc-67	0.0600	0.94	6.00	ug/L	
SLE0163-CCBD	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLE0163-CCBD	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0163-CCBD	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0163-CCBD	Copper-63	0.00500	0.173	0.500	ug/L	
SLE0163-CCBD	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-CCBD	Zinc-66	0.0530	2.92	6.00	ug/L	
SLE0163-CCBD	Zinc-67	-0.0030	0.94	6.00	ug/L	
SLE0163-IBLG	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-IBLG	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-IBLG	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0163-IBLG	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0163-IBLG	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBLG	Zinc-66	-0.0070	2.92	6.00	ug/L	
SLE0163-IBLG	Zinc-67	-0.0030	0.94	6.00	ug/L	
SLE0163-IBLH	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBLH	Cadmium-111	0.00	0.03	0.100	ug/L	
SLE0163-IBLH	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-IBLH	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0163-IBLH	Copper-65	0.00500	0.35	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 03:55

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBLH	Zinc-66	-0.0110	2.92	6.00	ug/L	
SLE0163-IBLH	Zinc-67	-0.0240	0.94	6.00	ug/L	
SLE0163-CCBE	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0163-CCBE	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0163-CCBE	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0163-CCBE	Copper-63	0.00600	0.173	0.500	ug/L	
SLE0163-CCBE	Copper-65	0.00900	0.35	0.500	ug/L	
SLE0163-CCBE	Zinc-66	0.0450	2.92	6.00	ug/L	
SLE0163-CCBE	Zinc-67	0.0450	0.94	6.00	ug/L	
SLE0163-IBLI	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0163-IBLI	Cadmium-111	0.0100	0.03	0.100	ug/L	
SLE0163-IBLI	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0163-IBLI	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0163-IBLI	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBLI	Zinc-66	0.0010	2.92	6.00	ug/L	
SLE0163-IBLI	Zinc-67	-0.0090	0.94	6.00	ug/L	
SLE0163-CCBF	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0163-CCBF	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0163-CCBF	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-CCBF	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0163-CCBF	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-CCBF	Zinc-66	0.0570	2.92	6.00	ug/L	
SLE0163-CCBF	Zinc-67	0.0730	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 16:19

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBL1	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0204-IBL1	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLE0204-IBL1	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-IBL1	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0204-IBL1	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0204-IBL1	Zinc-66	0.0070	2.92	6.00	ug/L	
SLE0204-IBL1	Zinc-67	-0.0250	0.94	6.00	ug/L	
SLE0204-ICB1	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0204-ICB1	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0204-ICB1	Cadmium-114	-0.00600	0.04	0.100	ug/L	
SLE0204-ICB1	Copper-63	0.00500	0.173	0.500	ug/L	
SLE0204-ICB1	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0204-ICB1	Zinc-66	0.0200	2.92	6.00	ug/L	
SLE0204-ICB1	Zinc-67	-0.0030	0.94	6.00	ug/L	
SLE0204-CCB1	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0204-CCB1	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0204-CCB1	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-CCB1	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0204-CCB1	Copper-65	-0.00500	0.35	0.500	ug/L	
SLE0204-CCB1	Zinc-66	0.0050	2.92	6.00	ug/L	
SLE0204-CCB1	Zinc-67	0.0230	0.94	6.00	ug/L	
SLE0204-IBL2	Arsenic-75a	0.0130	0.0373	0.200	ug/L	
SLE0204-IBL2	Cadmium-111	0.00	0.03	0.100	ug/L	
SLE0204-IBL2	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-IBL2	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0204-IBL2	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0204-IBL2	Zinc-66	0.0190	2.92	6.00	ug/L	
SLE0204-IBL2	Zinc-67	0.0310	0.94	6.00	ug/L	
SLE0204-CCB2	Arsenic-75a	0.00800	0.0373	0.200	ug/L	
SLE0204-CCB2	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0204-CCB2	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-CCB2	Copper-63	0.00	0.173	0.500	ug/L	
SLE0204-CCB2	Copper-65	0.00	0.35	0.500	ug/L	
SLE0204-CCB2	Zinc-66	0.0090	2.92	6.00	ug/L	
SLE0204-CCB2	Zinc-67	-0.0040	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 17:49

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCB3	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0204-CCB3	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLE0204-CCB3	Cadmium-114	0.0270	0.04	0.100	ug/L	
SLE0204-CCB3	Copper-63	0.00	0.173	0.500	ug/L	
SLE0204-CCB3	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0204-CCB3	Zinc-66	0.0010	2.92	6.00	ug/L	
SLE0204-CCB3	Zinc-67	-0.0230	0.94	6.00	ug/L	
SLE0204-IBL3	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0204-IBL3	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0204-IBL3	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-IBL3	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0204-IBL3	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0204-IBL3	Zinc-66	0.0820	2.92	6.00	ug/L	
SLE0204-IBL3	Zinc-67	0.0490	0.94	6.00	ug/L	
SLE0204-CCB4	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0204-CCB4	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0204-CCB4	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0204-CCB4	Copper-63	0.00600	0.173	0.500	ug/L	
SLE0204-CCB4	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0204-CCB4	Zinc-66	-0.0020	2.92	6.00	ug/L	
SLE0204-CCB4	Zinc-67	0.0040	0.94	6.00	ug/L	
SLE0204-IBL4	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0204-IBL4	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLE0204-IBL4	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-IBL4	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0204-IBL4	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0204-IBL4	Zinc-66	0.0700	2.92	6.00	ug/L	
SLE0204-IBL4	Zinc-67	0.0350	0.94	6.00	ug/L	
SLE0204-IBL5	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0204-IBL5	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0204-IBL5	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0204-IBL5	Copper-63	-0.00100	0.173	0.500	ug/L	
SLE0204-IBL5	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0204-IBL5	Zinc-66	0.0530	2.92	6.00	ug/L	
SLE0204-IBL5	Zinc-67	0.0420	0.94	6.00	ug/L	
SLE0204-CCB5	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 19:56

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCB5	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0204-CCB5	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCB5	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0204-CCB5	Copper-65	0.00	0.35	0.500	ug/L	
SLE0204-CCB5	Zinc-66	-0.0150	2.92	6.00	ug/L	
SLE0204-CCB5	Zinc-67	0.0150	0.94	6.00	ug/L	
SLE0204-CCB6	Arsenic-75a	0.0100	0.0373	0.200	ug/L	
SLE0204-CCB6	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0204-CCB6	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCB6	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0204-CCB6	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0204-CCB6	Zinc-66	-0.0240	2.92	6.00	ug/L	
SLE0204-CCB6	Zinc-67	-0.0910	0.94	6.00	ug/L	
SLE0204-IBL6	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0204-IBL6	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-IBL6	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0204-IBL6	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0204-IBL6	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0204-IBL6	Zinc-66	0.0170	2.92	6.00	ug/L	
SLE0204-IBL6	Zinc-67	-0.0430	0.94	6.00	ug/L	
SLE0204-CCB7	Arsenic-75a	0.0140	0.0373	0.200	ug/L	
SLE0204-CCB7	Cadmium-111	-0.00900	0.03	0.100	ug/L	
SLE0204-CCB7	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-CCB7	Copper-63	0.0230	0.173	0.500	ug/L	
SLE0204-CCB7	Copper-65	0.0230	0.35	0.500	ug/L	
SLE0204-CCB7	Zinc-66	-0.0280	2.92	6.00	ug/L	
SLE0204-CCB7	Zinc-67	-0.0330	0.94	6.00	ug/L	
SLE0204-IBL7	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0204-IBL7	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0204-IBL7	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0204-IBL7	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0204-IBL7	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0204-IBL7	Zinc-66	-0.0450	2.92	6.00	ug/L	
SLE0204-IBL7	Zinc-67	-0.0920	0.94	6.00	ug/L	
SLE0204-CCB8	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0204-CCB8	Cadmium-111	-0.00900	0.03	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 22:32

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCB8	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCB8	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0204-CCB8	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0204-CCB8	Zinc-66	-0.0360	2.92	6.00	ug/L	
SLE0204-CCB8	Zinc-67	-0.0810	0.94	6.00	ug/L	
SLE0204-IBL8	Arsenic-75a	0.0750	0.0373	0.200	ug/L	
SLE0204-IBL8	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0204-IBL8	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-IBL8	Copper-63	0.0820	0.173	0.500	ug/L	
SLE0204-IBL8	Copper-65	0.0820	0.35	0.500	ug/L	
SLE0204-IBL8	Zinc-66	0.206	2.92	6.00	ug/L	
SLE0204-IBL8	Zinc-67	0.0940	0.94	6.00	ug/L	
SLE0204-CCB9	Arsenic-75a	0.0230	0.0373	0.200	ug/L	
SLE0204-CCB9	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0204-CCB9	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCB9	Copper-63	0.0160	0.173	0.500	ug/L	
SLE0204-CCB9	Copper-65	0.0180	0.35	0.500	ug/L	
SLE0204-CCB9	Zinc-66	0.0010	2.92	6.00	ug/L	
SLE0204-CCB9	Zinc-67	-0.0630	0.94	6.00	ug/L	
SLE0204-IBL9	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0204-IBL9	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0204-IBL9	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-IBL9	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0204-IBL9	Copper-65	0.0100	0.35	0.500	ug/L	
SLE0204-IBL9	Zinc-66	-0.0300	2.92	6.00	ug/L	
SLE0204-IBL9	Zinc-67	-0.0670	0.94	6.00	ug/L	
SLE0204-CCBA	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0204-CCBA	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0204-CCBA	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0204-CCBA	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0204-CCBA	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0204-CCBA	Zinc-66	-0.0580	2.92	6.00	ug/L	
SLE0204-CCBA	Zinc-67	-0.135	0.94	6.00	ug/L	
SLE0204-IBLA	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0204-IBLA	Cadmium-111	-0.0100	0.03	0.100	ug/L	
SLE0204-IBLA	Cadmium-114	0.00	0.04	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 01:08

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBLA	Copper-63	0.00800	0.173	0.500	ug/L	
SLE0204-IBLA	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0204-IBLA	Zinc-66	-0.0280	2.92	6.00	ug/L	
SLE0204-IBLA	Zinc-67	-0.109	0.94	6.00	ug/L	
SLE0204-CCBB	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0204-CCBB	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLE0204-CCBB	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-CCBB	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0204-CCBB	Copper-65	0.0110	0.35	0.500	ug/L	
SLE0204-CCBB	Zinc-66	-0.0550	2.92	6.00	ug/L	
SLE0204-CCBB	Zinc-67	-0.111	0.94	6.00	ug/L	
SLE0204-CCBC	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0204-CCBC	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0204-CCBC	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-CCBC	Copper-63	-0.0170	0.173	0.500	ug/L	
SLE0204-CCBC	Copper-65	-0.0240	0.35	0.500	ug/L	
SLE0204-CCBC	Zinc-66	-0.0230	2.92	6.00	ug/L	
SLE0204-CCBC	Zinc-67	-0.0620	0.94	6.00	ug/L	
SLE0204-IBLB	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLB	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0204-IBLB	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-IBLB	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0204-IBLB	Copper-65	0.0100	0.35	0.500	ug/L	
SLE0204-IBLB	Zinc-66	-0.0130	2.92	6.00	ug/L	
SLE0204-IBLB	Zinc-67	-0.0850	0.94	6.00	ug/L	
SLE0204-CCBD	Arsenic-75a	0.0120	0.0373	0.200	ug/L	
SLE0204-CCBD	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-CCBD	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-CCBD	Copper-63	0.0110	0.173	0.500	ug/L	
SLE0204-CCBD	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0204-CCBD	Zinc-66	-0.0380	2.92	6.00	ug/L	
SLE0204-CCBD	Zinc-67	-0.0870	0.94	6.00	ug/L	
SLE0204-IBLC	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLC	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0204-IBLC	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-IBLC	Copper-63	-0.0300	0.173	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 02:57

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBLC	Copper-65	-0.0360	0.35	0.500	ug/L	
SLE0204-IBLC	Zinc-66	-0.0170	2.92	6.00	ug/L	
SLE0204-IBLC	Zinc-67	-0.107	0.94	6.00	ug/L	
SLE0204-IBLD	Arsenic-75a	-0.00900	0.0373	0.200	ug/L	
SLE0204-IBLD	Cadmium-111	0.00	0.03	0.100	ug/L	
SLE0204-IBLD	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0204-IBLD	Copper-63	-0.0310	0.173	0.500	ug/L	
SLE0204-IBLD	Copper-65	-0.0330	0.35	0.500	ug/L	
SLE0204-IBLD	Zinc-66	-0.0130	2.92	6.00	ug/L	
SLE0204-IBLD	Zinc-67	-0.0600	0.94	6.00	ug/L	
SLE0204-CCBE	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0204-CCBE	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0204-CCBE	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0204-CCBE	Copper-63	-0.0350	0.173	0.500	ug/L	
SLE0204-CCBE	Copper-65	-0.0400	0.35	0.500	ug/L	
SLE0204-CCBE	Zinc-66	-0.0710	2.92	6.00	ug/L	
SLE0204-CCBE	Zinc-67	-0.155	0.94	6.00	ug/L	
SLE0204-IBLE	Arsenic-75a	-0.00800	0.0373	0.200	ug/L	
SLE0204-IBLE	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0204-IBLE	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0204-IBLE	Copper-63	-0.0340	0.173	0.500	ug/L	
SLE0204-IBLE	Copper-65	-0.0360	0.35	0.500	ug/L	
SLE0204-IBLE	Zinc-66	-0.0450	2.92	6.00	ug/L	
SLE0204-IBLE	Zinc-67	-0.0590	0.94	6.00	ug/L	
SLE0204-IBLF	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLF	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-IBLF	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-IBLF	Copper-63	-0.0350	0.173	0.500	ug/L	
SLE0204-IBLF	Copper-65	-0.0410	0.35	0.500	ug/L	
SLE0204-IBLF	Zinc-66	-0.0640	2.92	6.00	ug/L	
SLE0204-IBLF	Zinc-67	-0.122	0.94	6.00	ug/L	
SLE0204-CCBF	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0204-CCBF	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0204-CCBF	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCBF	Copper-63	-0.0370	0.173	0.500	ug/L	
SLE0204-CCBF	Copper-65	-0.0380	0.35	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 04:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCBF	Zinc-66	-0.0700	2.92	6.00	ug/L	
SLE0204-CCBF	Zinc-67	-0.130	0.94	6.00	ug/L	
SLE0204-CCBG	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLE0204-CCBG	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0204-CCBG	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-CCBG	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0204-CCBG	Copper-65	-0.00400	0.35	0.500	ug/L	
SLE0204-CCBG	Zinc-66	-0.0680	2.92	6.00	ug/L	
SLE0204-CCBG	Zinc-67	-0.0590	0.94	6.00	ug/L	
SLE0204-IBLG	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLG	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0204-IBLG	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-IBLG	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0204-IBLG	Copper-65	-0.00200	0.35	0.500	ug/L	
SLE0204-IBLG	Zinc-66	-0.0550	2.92	6.00	ug/L	
SLE0204-IBLG	Zinc-67	-0.0180	0.94	6.00	ug/L	
SLE0204-CCBH	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0204-CCBH	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-CCBH	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCBH	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0204-CCBH	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0204-CCBH	Zinc-66	-0.0510	2.92	6.00	ug/L	
SLE0204-CCBH	Zinc-67	-0.0820	0.94	6.00	ug/L	
SLE0204-IBLH	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0204-IBLH	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-IBLH	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-IBLH	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0204-IBLH	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0204-IBLH	Zinc-66	-0.0600	2.92	6.00	ug/L	
SLE0204-IBLH	Zinc-67	-0.0820	0.94	6.00	ug/L	
SLE0204-CCBI	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0204-CCBI	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0204-CCBI	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCBI	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0204-CCBI	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0204-CCBI	Zinc-66	-0.0640	2.92	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 06:42

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCBI	Zinc-67	-0.0510	0.94	6.00	ug/L	
SLE0204-IBLI	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0204-IBLI	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0204-IBLI	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-IBLI	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0204-IBLI	Copper-65	-0.00500	0.35	0.500	ug/L	
SLE0204-IBLI	Zinc-66	-0.0540	2.92	6.00	ug/L	
SLE0204-IBLI	Zinc-67	-0.0640	0.94	6.00	ug/L	
SLE0204-IBLJ	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLJ	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLE0204-IBLJ	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-IBLJ	Copper-63	-0.00600	0.173	0.500	ug/L	
SLE0204-IBLJ	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0204-IBLJ	Zinc-66	-0.0490	2.92	6.00	ug/L	
SLE0204-IBLJ	Zinc-67	-0.0310	0.94	6.00	ug/L	
SLE0204-CCBJ	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0204-CCBJ	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0204-CCBJ	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-CCBJ	Copper-63	0.00800	0.173	0.500	ug/L	
SLE0204-CCBJ	Copper-65	0.0120	0.35	0.500	ug/L	
SLE0204-CCBJ	Zinc-66	-0.0420	2.92	6.00	ug/L	
SLE0204-CCBJ	Zinc-67	-0.0330	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 14:29

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBL1	Arsenic-75a	0.0110	0.0373	0.200	ug/L	
SLE0209-IBL1	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLE0209-IBL1	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-IBL1	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-IBL1	Copper-65	-0.00400	0.35	0.500	ug/L	
SLE0209-IBL1	Zinc-66	-0.0160	2.92	6.00	ug/L	
SLE0209-IBL1	Zinc-67	-0.0340	0.94	6.00	ug/L	
SLE0209-ICB1	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0209-ICB1	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0209-ICB1	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0209-ICB1	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0209-ICB1	Copper-65	-0.00800	0.35	0.500	ug/L	
SLE0209-ICB1	Zinc-66	0.00	2.92	6.00	ug/L	
SLE0209-ICB1	Zinc-67	-0.0510	0.94	6.00	ug/L	
SLE0209-CCB1	Arsenic-75a	0.00800	0.0373	0.200	ug/L	
SLE0209-CCB1	Cadmium-111	-0.0130	0.03	0.100	ug/L	
SLE0209-CCB1	Cadmium-114	-0.00400	0.04	0.100	ug/L	
SLE0209-CCB1	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0209-CCB1	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0209-CCB1	Zinc-66	0.0110	2.92	6.00	ug/L	
SLE0209-CCB1	Zinc-67	0.0050	0.94	6.00	ug/L	
SLE0209-IBL2	Arsenic-75a	0.0350	0.0373	0.200	ug/L	
SLE0209-IBL2	Cadmium-111	0.344	0.03	0.100	ug/L	
SLE0209-IBL2	Cadmium-114	0.415	0.04	0.100	ug/L	
SLE0209-IBL2	Copper-63	0.00500	0.173	0.500	ug/L	
SLE0209-IBL2	Copper-65	0.00800	0.35	0.500	ug/L	
SLE0209-IBL2	Zinc-66	0.0670	2.92	6.00	ug/L	
SLE0209-IBL2	Zinc-67	0.0300	0.94	6.00	ug/L	
SLE0209-IBL3	Arsenic-75a	0.0170	0.0373	0.200	ug/L	
SLE0209-IBL3	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLE0209-IBL3	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0209-IBL3	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0209-IBL3	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0209-IBL3	Zinc-66	0.0610	2.92	6.00	ug/L	
SLE0209-IBL3	Zinc-67	0.110	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 16:09

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCB2	Arsenic-75a	0.0160	0.0373	0.200	ug/L	
SLE0209-CCB2	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0209-CCB2	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0209-CCB2	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-CCB2	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-CCB2	Zinc-66	0.0470	2.92	6.00	ug/L	
SLE0209-CCB2	Zinc-67	0.0570	0.94	6.00	ug/L	
SLE0209-CCB3	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0209-CCB3	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLE0209-CCB3	Cadmium-114	-0.0180	0.04	0.100	ug/L	
SLE0209-CCB3	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCB3	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0209-CCB3	Zinc-66	-0.0050	2.92	6.00	ug/L	
SLE0209-CCB3	Zinc-67	0.0070	0.94	6.00	ug/L	
SLE0209-IBL4	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0209-IBL4	Cadmium-111	-0.0100	0.03	0.100	ug/L	
SLE0209-IBL4	Cadmium-114	-0.0130	0.04	0.100	ug/L	
SLE0209-IBL4	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0209-IBL4	Copper-65	0.00800	0.35	0.500	ug/L	
SLE0209-IBL4	Zinc-66	0.104	2.92	6.00	ug/L	
SLE0209-IBL4	Zinc-67	0.124	0.94	6.00	ug/L	
SLE0209-IBL5	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0209-IBL5	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLE0209-IBL5	Cadmium-114	-0.0190	0.04	0.100	ug/L	
SLE0209-IBL5	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0209-IBL5	Copper-65	0.00900	0.35	0.500	ug/L	
SLE0209-IBL5	Zinc-66	0.101	2.92	6.00	ug/L	
SLE0209-IBL5	Zinc-67	0.145	0.94	6.00	ug/L	
SLE0209-CCB4	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCB4	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0209-CCB4	Cadmium-114	-0.0170	0.04	0.100	ug/L	
SLE0209-CCB4	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCB4	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0209-CCB4	Zinc-66	0.0110	2.92	6.00	ug/L	
SLE0209-CCB4	Zinc-67	0.0020	0.94	6.00	ug/L	
SLE0209-IBL9	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 18:29

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBL9	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0209-IBL9	Cadmium-114	-0.0150	0.04	0.100	ug/L	
SLE0209-IBL9	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-IBL9	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0209-IBL9	Zinc-66	0.0350	2.92	6.00	ug/L	
SLE0209-IBL9	Zinc-67	0.0400	0.94	6.00	ug/L	
SLE0209-IBLA	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0209-IBLA	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0209-IBLA	Cadmium-114	-0.0180	0.04	0.100	ug/L	
SLE0209-IBLA	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0209-IBLA	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-IBLA	Zinc-66	0.0500	2.92	6.00	ug/L	
SLE0209-IBLA	Zinc-67	0.0070	0.94	6.00	ug/L	
SLE0209-CCB7	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0209-CCB7	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0209-CCB7	Cadmium-114	-0.0190	0.04	0.100	ug/L	
SLE0209-CCB7	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0209-CCB7	Copper-65	0.00700	0.35	0.500	ug/L	
SLE0209-CCB7	Zinc-66	0.0200	2.92	6.00	ug/L	
SLE0209-CCB7	Zinc-67	0.0230	0.94	6.00	ug/L	
SLE0209-CCB8	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0209-CCB8	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0209-CCB8	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0209-CCB8	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCB8	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0209-CCB8	Zinc-66	-0.0080	2.92	6.00	ug/L	
SLE0209-CCB8	Zinc-67	-0.0080	0.94	6.00	ug/L	
SLE0209-CCBA	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0209-CCBA	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0209-CCBA	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0209-CCBA	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0209-CCBA	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0209-CCBA	Zinc-66	0.0100	2.92	6.00	ug/L	
SLE0209-CCBA	Zinc-67	0.0220	0.94	6.00	ug/L	
SLE0209-IBLC	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLE0209-IBLC	Cadmium-111	0.00	0.03	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 20:25

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLC	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLE0209-IBLC	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0209-IBLC	Copper-65	0.00	0.35	0.500	ug/L	
SLE0209-IBLC	Zinc-66	0.0430	2.92	6.00	ug/L	
SLE0209-IBLC	Zinc-67	0.0860	0.94	6.00	ug/L	
SLE0209-IBLD	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0209-IBLD	Cadmium-111	0.0530	0.03	0.100	ug/L	
SLE0209-IBLD	Cadmium-114	0.0570	0.04	0.100	ug/L	
SLE0209-IBLD	Copper-63	0.0160	0.173	0.500	ug/L	
SLE0209-IBLD	Copper-65	0.00900	0.35	0.500	ug/L	
SLE0209-IBLD	Zinc-66	0.0580	2.92	6.00	ug/L	
SLE0209-IBLD	Zinc-67	0.0800	0.94	6.00	ug/L	
SLE0209-CCBB	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0209-CCBB	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0209-CCBB	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0209-CCBB	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0209-CCBB	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0209-CCBB	Zinc-66	0.0200	2.92	6.00	ug/L	
SLE0209-CCBB	Zinc-67	0.0410	0.94	6.00	ug/L	
SLE0209-IBLE	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0209-IBLE	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-IBLE	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0209-IBLE	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0209-IBLE	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-IBLE	Zinc-66	0.0320	2.92	6.00	ug/L	
SLE0209-IBLE	Zinc-67	0.0610	0.94	6.00	ug/L	
SLE0209-IBLF	Arsenic-75a	0.0290	0.0373	0.200	ug/L	
SLE0209-IBLF	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0209-IBLF	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLE0209-IBLF	Copper-63	0.179	0.173	0.500	ug/L	
SLE0209-IBLF	Copper-65	0.164	0.35	0.500	ug/L	
SLE0209-IBLF	Zinc-66	0.164	2.92	6.00	ug/L	
SLE0209-IBLF	Zinc-67	0.135	0.94	6.00	ug/L	
SLE0209-CCBC	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0209-CCBC	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0209-CCBC	Cadmium-114	0.00700	0.04	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 21:58

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBC	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0209-CCBC	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0209-CCBC	Zinc-66	0.0270	2.92	6.00	ug/L	
SLE0209-CCBC	Zinc-67	0.0070	0.94	6.00	ug/L	
SLE0209-CCBD	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0209-CCBD	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0209-CCBD	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBD	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-CCBD	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0209-CCBD	Zinc-66	0.0300	2.92	6.00	ug/L	
SLE0209-CCBD	Zinc-67	0.0230	0.94	6.00	ug/L	
SLE0209-IBLG	Arsenic-75a	-0.00800	0.0373	0.200	ug/L	
SLE0209-IBLG	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0209-IBLG	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0209-IBLG	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0209-IBLG	Copper-65	0.0170	0.35	0.500	ug/L	
SLE0209-IBLG	Zinc-66	0.0300	2.92	6.00	ug/L	
SLE0209-IBLG	Zinc-67	0.0300	0.94	6.00	ug/L	
SLE0209-CCBE	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0209-CCBE	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0209-CCBE	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLE0209-CCBE	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-CCBE	Copper-65	0.00700	0.35	0.500	ug/L	
SLE0209-CCBE	Zinc-66	0.0260	2.92	6.00	ug/L	
SLE0209-CCBE	Zinc-67	0.0380	0.94	6.00	ug/L	
SLE0209-IBLH	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0209-IBLH	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-IBLH	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0209-IBLH	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-IBLH	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-IBLH	Zinc-66	-0.0040	2.92	6.00	ug/L	
SLE0209-IBLH	Zinc-67	-0.0140	0.94	6.00	ug/L	
SLE0209-CCBF	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0209-CCBF	Cadmium-111	-0.0100	0.03	0.100	ug/L	
SLE0209-CCBF	Cadmium-114	0.00700	0.04	0.100	ug/L	
SLE0209-CCBF	Copper-63	0.00100	0.173	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 00:09

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBF	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0209-CCBF	Zinc-66	0.0160	2.92	6.00	ug/L	
SLE0209-CCBF	Zinc-67	0.0570	0.94	6.00	ug/L	
SLE0209-IBLI	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0209-IBLI	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0209-IBLI	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0209-IBLI	Copper-63	0.0530	0.173	0.500	ug/L	
SLE0209-IBLI	Copper-65	0.0600	0.35	0.500	ug/L	
SLE0209-IBLI	Zinc-66	0.0320	2.92	6.00	ug/L	
SLE0209-IBLI	Zinc-67	0.0250	0.94	6.00	ug/L	
SLE0209-CCBG	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCBG	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLE0209-CCBG	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBG	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0209-CCBG	Copper-65	0.0190	0.35	0.500	ug/L	
SLE0209-CCBG	Zinc-66	0.0130	2.92	6.00	ug/L	
SLE0209-CCBG	Zinc-67	0.0100	0.94	6.00	ug/L	
SLE0209-IBLJ	Arsenic-75a	0.0180	0.0373	0.200	ug/L	
SLE0209-IBLJ	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0209-IBLJ	Cadmium-114	0.00900	0.04	0.100	ug/L	
SLE0209-IBLJ	Copper-63	0.0530	0.173	0.500	ug/L	
SLE0209-IBLJ	Copper-65	0.0490	0.35	0.500	ug/L	
SLE0209-IBLJ	Zinc-66	0.0430	2.92	6.00	ug/L	
SLE0209-IBLJ	Zinc-67	0.0130	0.94	6.00	ug/L	
SLE0209-CCBH	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0209-CCBH	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0209-CCBH	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0209-CCBH	Copper-63	0.0320	0.173	0.500	ug/L	
SLE0209-CCBH	Copper-65	0.0290	0.35	0.500	ug/L	
SLE0209-CCBH	Zinc-66	0.0250	2.92	6.00	ug/L	
SLE0209-CCBH	Zinc-67	-0.0210	0.94	6.00	ug/L	
SLE0209-IBLK	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0209-IBLK	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0209-IBLK	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-IBLK	Copper-63	0.0160	0.173	0.500	ug/L	
SLE0209-IBLK	Copper-65	0.0130	0.35	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 02:36

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLK	Zinc-66	0.0140	2.92	6.00	ug/L	
SLE0209-IBLK	Zinc-67	0.0370	0.94	6.00	ug/L	
SLE0209-IBLL	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0209-IBLL	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0209-IBLL	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0209-IBLL	Copper-63	0.0170	0.173	0.500	ug/L	
SLE0209-IBLL	Copper-65	0.0190	0.35	0.500	ug/L	
SLE0209-IBLL	Zinc-66	0.0140	2.92	6.00	ug/L	
SLE0209-IBLL	Zinc-67	-0.0210	0.94	6.00	ug/L	
SLE0209-CCBI	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0209-CCBI	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-CCBI	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBI	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0209-CCBI	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-CCBI	Zinc-66	0.0560	2.92	6.00	ug/L	
SLE0209-CCBI	Zinc-67	0.0040	0.94	6.00	ug/L	
SLE0209-CCBJ	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCBJ	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-CCBJ	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0209-CCBJ	Copper-63	-0.00200	0.173	0.500	ug/L	
SLE0209-CCBJ	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0209-CCBJ	Zinc-66	-0.0070	2.92	6.00	ug/L	
SLE0209-CCBJ	Zinc-67	-0.0100	0.94	6.00	ug/L	
SLE0209-IBLM	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-IBLM	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0209-IBLM	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0209-IBLM	Copper-63	-0.00100	0.173	0.500	ug/L	
SLE0209-IBLM	Copper-65	-0.00200	0.35	0.500	ug/L	
SLE0209-IBLM	Zinc-66	-0.0200	2.92	6.00	ug/L	
SLE0209-IBLM	Zinc-67	-0.0580	0.94	6.00	ug/L	
SLE0209-IBLN	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0209-IBLN	Cadmium-111	-0.00900	0.03	0.100	ug/L	
SLE0209-IBLN	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0209-IBLN	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0209-IBLN	Copper-65	-0.00700	0.35	0.500	ug/L	
SLE0209-IBLN	Zinc-66	-0.0230	2.92	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 04:12

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLN	Zinc-67	-0.0330	0.94	6.00	ug/L	
SLE0209-CCBK	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCBK	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0209-CCBK	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLE0209-CCBK	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0209-CCBK	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0209-CCBK	Zinc-66	-0.0220	2.92	6.00	ug/L	
SLE0209-CCBK	Zinc-67	0.0100	0.94	6.00	ug/L	
SLE0209-IBLO	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLE0209-IBLO	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0209-IBLO	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0209-IBLO	Copper-63	-0.00800	0.173	0.500	ug/L	
SLE0209-IBLO	Copper-65	-0.00800	0.35	0.500	ug/L	
SLE0209-IBLO	Zinc-66	-0.0330	2.92	6.00	ug/L	
SLE0209-IBLO	Zinc-67	-0.0040	0.94	6.00	ug/L	
SLE0209-CCBL	Arsenic-75a	0.0280	0.0373	0.200	ug/L	
SLE0209-CCBL	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLE0209-CCBL	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0209-CCBL	Copper-63	0.0190	0.173	0.500	ug/L	
SLE0209-CCBL	Copper-65	0.0120	0.35	0.500	ug/L	
SLE0209-CCBL	Zinc-66	0.0360	2.92	6.00	ug/L	
SLE0209-CCBL	Zinc-67	-0.0230	0.94	6.00	ug/L	
SLE0209-IBLP	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-IBLP	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLE0209-IBLP	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLE0209-IBLP	Copper-63	-0.00600	0.173	0.500	ug/L	
SLE0209-IBLP	Copper-65	-0.00700	0.35	0.500	ug/L	
SLE0209-IBLP	Zinc-66	-0.0110	2.92	6.00	ug/L	
SLE0209-IBLP	Zinc-67	-0.0400	0.94	6.00	ug/L	
SLE0209-CCBM	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0209-CCBM	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-CCBM	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBM	Copper-63	-0.00700	0.173	0.500	ug/L	
SLE0209-CCBM	Copper-65	-0.00700	0.35	0.500	ug/L	
SLE0209-CCBM	Zinc-66	-0.0170	2.92	6.00	ug/L	
SLE0209-CCBM	Zinc-67	0.0240	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 06:37

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLQ	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0209-IBLQ	Cadmium-111	-0.0140	0.03	0.100	ug/L	
SLE0209-IBLQ	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0209-IBLQ	Copper-63	-0.00700	0.173	0.500	ug/L	
SLE0209-IBLQ	Copper-65	-0.00200	0.35	0.500	ug/L	
SLE0209-IBLQ	Zinc-66	-0.0450	2.92	6.00	ug/L	
SLE0209-IBLQ	Zinc-67	-0.0490	0.94	6.00	ug/L	
SLE0209-IBLR	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-IBLR	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0209-IBLR	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0209-IBLR	Copper-63	-0.00300	0.173	0.500	ug/L	
SLE0209-IBLR	Copper-65	-0.00500	0.35	0.500	ug/L	
SLE0209-IBLR	Zinc-66	-0.0030	2.92	6.00	ug/L	
SLE0209-IBLR	Zinc-67	-0.0130	0.94	6.00	ug/L	
SLE0209-CCBN	Arsenic-75a	0.00900	0.0373	0.200	ug/L	
SLE0209-CCBN	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0209-CCBN	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBN	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0209-CCBN	Copper-65	-0.00600	0.35	0.500	ug/L	
SLE0209-CCBN	Zinc-66	-0.0240	2.92	6.00	ug/L	
SLE0209-CCBN	Zinc-67	-0.0090	0.94	6.00	ug/L	
SLE0209-CCBO	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0209-CCBO	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLE0209-CCBO	Cadmium-114	-0.0100	0.04	0.100	ug/L	
SLE0209-CCBO	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCBO	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0209-CCBO	Zinc-66	-0.0050	2.92	6.00	ug/L	
SLE0209-CCBO	Zinc-67	0.0660	0.94	6.00	ug/L	
SLE0209-IBLS	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0209-IBLS	Cadmium-111	-0.00700	0.03	0.100	ug/L	
SLE0209-IBLS	Cadmium-114	-0.00900	0.04	0.100	ug/L	
SLE0209-IBLS	Copper-63	-0.00200	0.173	0.500	ug/L	
SLE0209-IBLS	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0209-IBLS	Zinc-66	-0.0310	2.92	6.00	ug/L	
SLE0209-IBLS	Zinc-67	-0.0300	0.94	6.00	ug/L	
SLE0209-CCBP	Arsenic-75a	0.0110	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 08:22

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBP	Cadmium-111	-0.00700	0.03	0.100	ug/L	
SLE0209-CCBP	Cadmium-114	-0.00800	0.04	0.100	ug/L	
SLE0209-CCBP	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCBP	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0209-CCBP	Zinc-66	-0.0290	2.92	6.00	ug/L	
SLE0209-CCBP	Zinc-67	-0.0140	0.94	6.00	ug/L	
SLE0209-IBLT	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLE0209-CCBQ	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0209-IBLU	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0209-CCBR	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0209-IBLV	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCBS	Arsenic-75a	0.00200	0.0373	0.200	ug/L	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0163-CAL1	XDT_m1230509a-001	NA	05/09/23 15:21
CAL 1 - LOW CHECK	SLE0163-CAL2	XDT_m1230509a-002	NA	05/09/23 15:26
CAL 2	SLE0163-CAL3	XDT_m1230509a-003	NA	05/09/23 15:30
CAL 3	SLE0163-CAL4	XDT_m1230509a-004	NA	05/09/23 15:36
CAL 4	SLE0163-CAL5	XDT_m1230509a-005	NA	05/09/23 15:41
CAL 5	SLE0163-CAL6	XDT_m1230509a-006	NA	05/09/23 15:48
RINSE	SLE0163-IBL1	XDT_m1230509a-007	NA	05/09/23 15:55
Initial Cal Check	SLE0163-ICV1	XDT_m1230509a-009	NA	05/09/23 16:02
Initial Cal Blank	SLE0163-ICB1	XDT_m1230509a-011	NA	05/09/23 16:14
Calibration Check	SLE0163-CCV1	XDT_m1230509a-012	NA	05/09/23 16:20
Calibration Blank	SLE0163-CCB1	XDT_m1230509a-014	NA	05/09/23 16:32
Instrument RL Check	SLE0163-CRL1	XDT_m1230509a-015	NA	05/09/23 16:39
Interference Check B	SLE0163-IFB1	XDT_m1230509a-017	NA	05/09/23 16:49
Interference Check A	SLE0163-IFA1	XDT_m1230509a-018	NA	05/09/23 16:54
LR300	SLE0163-HCV2	XDT_m1230509a-020	NA	05/09/23 17:04
LR200	SLE0163-HCV1	XDT_m1230509a-021	NA	05/09/23 17:11
Instrument Blank	SLE0163-IBL2	XDT_m1230509a-022	NA	05/09/23 17:16
Instrument Blank	SLE0163-IBL3	XDT_m1230509a-023	NA	05/09/23 17:23
Calibration Check	SLE0163-CCV2	XDT_m1230509a-024	NA	05/09/23 17:29
Calibration Blank	SLE0163-CCB2	XDT_m1230509a-025	NA	05/09/23 17:36
ZZZZZ	BLE0256-BLK1	XDT_m1230509a-026	Water	05/09/23 17:44
ZZZZZ	BLE0256-BS1	XDT_m1230509a-027	Water	05/09/23 17:49
Instrument Blank	SLE0163-IBL4	XDT_m1230509a-033	NA	05/09/23 18:24
Instrument Blank	SLE0163-IBL5	XDT_m1230509a-035	NA	05/09/23 18:35
Calibration Check	SLE0163-CCV3	XDT_m1230509a-036	NA	05/09/23 18:40
Calibration Blank	SLE0163-CCB3	XDT_m1230509a-037	NA	05/09/23 18:47
Calibration Check	SLE0163-CCV4	XDT_m1230509a-039	NA	05/09/23 18:59
Calibration Blank	SLE0163-CCB4	XDT_m1230509a-040	NA	05/09/23 19:06
ZZZZZ	BLE0134-BLK2	XDT_m1230509a-044	Water	05/09/23 19:29



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLE0134-BS2	XDT_m1230509a-045	Water	05/09/23 19:33
Instrument Blank	SLE0163-IBL6	XDT_m1230509a-050	NA	05/09/23 19:57
Calibration Check	SLE0163-CCV5	XDT_m1230509a-051	NA	05/09/23 20:01
Calibration Blank	SLE0163-CCB5	XDT_m1230509a-052	NA	05/09/23 20:09
Instrument Blank	SLE0163-IBL7	XDT_m1230509a-062	NA	05/09/23 21:00
Calibration Check	SLE0163-CCV6	XDT_m1230509a-063	NA	05/09/23 21:05
Calibration Blank	SLE0163-CCB6	XDT_m1230509a-064	NA	05/09/23 21:12
Calibration Check	SLE0163-CCV7	XDT_m1230509a-067	NA	05/09/23 21:32
Calibration Blank	SLE0163-CCB7	XDT_m1230509a-068	NA	05/09/23 21:39
Blank	BLD0687-BLK1	XDT_m1230509a-069	Solid	05/09/23 21:43
LCS	BLD0687-BS1	XDT_m1230509a-070	Solid	05/09/23 21:48
Instrument Blank	SLE0163-IBL8	XDT_m1230509a-078	NA	05/09/23 22:22
Calibration Check	SLE0163-CCV8	XDT_m1230509a-079	NA	05/09/23 22:26
Calibration Blank	SLE0163-CCB8	XDT_m1230509a-080	NA	05/09/23 22:33
ZZZZZ	BLE0125-BLK1	XDT_m1230509a-081	Solid	05/09/23 22:38
ZZZZZ	BLE0125-BS1	XDT_m1230509a-082	Solid	05/09/23 22:42
Instrument Blank	SLE0163-IBL9	XDT_m1230509a-090	NA	05/09/23 23:17
Calibration Check	SLE0163-CCV9	XDT_m1230509a-091	NA	05/09/23 23:21
Calibration Blank	SLE0163-CCB9	XDT_m1230509a-092	NA	05/09/23 23:28
ZZZZZ	23D0393-09	XDT_m1230509a-093	Solid	05/09/23 23:32
ZZZZZ	23D0393-13	XDT_m1230509a-094	Solid	05/09/23 23:37
ZZZZZ	23D0393-14	XDT_m1230509a-095	Solid	05/09/23 23:41
ZZZZZ	23D0393-20	XDT_m1230509a-096	Solid	05/09/23 23:45
ZZZZZ	23D0393-07	XDT_m1230509a-097	Solid	05/09/23 23:50
ZZZZZ	BLE0125-DUP1	XDT_m1230509a-098	Solid	05/09/23 23:54
ZZZZZ	BLE0125-MS1	XDT_m1230509a-099	Solid	05/09/23 23:58
ZZZZZ	BLE0125-MSD1	XDT_m1230509a-100	Solid	05/10/23 00:03
Instrument Blank	SLE0163-IBLA	XDT_m1230509a-102	NA	05/10/23 00:11
Calibration Check	SLE0163-CCVA	XDT_m1230509a-103	NA	05/10/23 00:15



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLE0163-CCBA	XDT_m1230509a-104	NA	05/10/23 00:23
ZZZZZ	23D0393-21	XDT_m1230509a-105	Solid	05/10/23 00:27
ZZZZZ	23D0393-23	XDT_m1230509a-106	Solid	05/10/23 00:31
ZZZZZ	23D0394-03	XDT_m1230509a-107	Solid	05/10/23 00:36
ZZZZZ	23D0394-05	XDT_m1230509a-108	Solid	05/10/23 00:40
ZZZZZ	23D0394-01	XDT_m1230509a-109	Solid	05/10/23 00:44
ZZZZZ	23D0394-01	XDT_m1230509a-109	Solid	05/10/23 00:44
ZZZZZ	23D0394-01	XDT_m1230509a-109	Solid	05/10/23 00:44
Instrument Blank	SLE0163-IBLB	XDT_m1230509a-114	NA	05/10/23 01:06
Calibration Check	SLE0163-CCVB	XDT_m1230509a-115	NA	05/10/23 01:10
Calibration Blank	SLE0163-CCBB	XDT_m1230509a-116	NA	05/10/23 01:17
ZZZZZ	23D0394-09	XDT_m1230509a-118	Solid	05/10/23 01:26
ZZZZZ	23D0394-10	XDT_m1230509a-119	Solid	05/10/23 01:30
Instrument Blank	SLE0163-IBLC	XDT_m1230509a-122	NA	05/10/23 01:43
Instrument Blank	SLE0163-IBLD	XDT_m1230509a-126	NA	05/10/23 02:01
Calibration Check	SLE0163-CCVC	XDT_m1230509a-127	NA	05/10/23 02:05
Calibration Blank	SLE0163-CCBC	XDT_m1230509a-128	NA	05/10/23 02:12
Instrument Blank	SLE0163-IBLE	XDT_m1230509a-133	NA	05/10/23 02:36
Instrument Blank	SLE0163-IBLF	XDT_m1230509a-138	NA	05/10/23 02:59
Calibration Check	SLE0163-CCVD	XDT_m1230509a-139	NA	05/10/23 03:04
Calibration Blank	SLE0163-CCBD	XDT_m1230509a-140	NA	05/10/23 03:11
ZZZZZ	23D0537-05	XDT_m1230509a-141	Water	05/10/23 03:15
ZZZZZ	BLE0120-DUP2	XDT_m1230509a-142	Water	05/10/23 03:19
ZZZZZ	BLE0120-MS2	XDT_m1230509a-143	Water	05/10/23 03:24
ZZZZZ	BLE0120-MSD2	XDT_m1230509a-144	Water	05/10/23 03:30
Instrument Blank	SLE0163-IBLG	XDT_m1230509a-145	NA	05/10/23 03:34
Instrument Blank	SLE0163-IBLH	XDT_m1230509a-150	NA	05/10/23 03:55
Calibration Check	SLE0163-CCVE	XDT_m1230509a-151	NA	05/10/23 04:00
Calibration Blank	SLE0163-CCBE	XDT_m1230509a-152	NA	05/10/23 04:07



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0477-05	XDT_m1230509a-156	Water	05/10/23 04:24
ZZZZZ	23D0477-05	XDT_m1230509a-156	Water	05/10/23 04:24
ZZZZZ	23D0477-05	XDT_m1230509a-156	Water	05/10/23 04:24
ZZZZZ	23D0477-17	XDT_m1230509a-157	Water	05/10/23 04:28
ZZZZZ	23D0477-17	XDT_m1230509a-157	Water	05/10/23 04:28
ZZZZZ	23D0477-17	XDT_m1230509a-157	Water	05/10/23 04:28
ZZZZZ	23D0477-19	XDT_m1230509a-158	Water	05/10/23 04:32
ZZZZZ	23D0477-19	XDT_m1230509a-158	Water	05/10/23 04:32
ZZZZZ	23D0477-19	XDT_m1230509a-158	Water	05/10/23 04:32
ZZZZZ	BLE0077-DUP1	XDT_m1230509a-159	Water	05/10/23 04:37
ZZZZZ	BLE0077-MSD1	XDT_m1230509a-161	Water	05/10/23 04:47
Instrument Blank	SLE0163-IBLI	XDT_m1230509a-162	NA	05/10/23 04:51
Calibration Check	SLE0163-CCVF	XDT_m1230509a-163	NA	05/10/23 04:56
Calibration Blank	SLE0163-CCBF	XDT_m1230509a-164	NA	05/10/23 05:03



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0204</u>	Instrument:	<u>ICPMS1</u>
		Calibration:	<u>GE00040</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0204-CAL1	XDT_m1230510A-008	NA	05/10/23 15:47
CAL 1 - LOW CHECK	SLE0204-CAL2	XDT_m1230510A-009	NA	05/10/23 15:51
CAL 2	SLE0204-CAL3	XDT_m1230510A-010	NA	05/10/23 15:56
CAL 3	SLE0204-CAL4	XDT_m1230510A-011	NA	05/10/23 16:01
CAL 4	SLE0204-CAL5	XDT_m1230510A-012	NA	05/10/23 16:05
CAL 5	SLE0204-CAL6	XDT_m1230510A-013	NA	05/10/23 16:12
RINSE	SLE0204-IBL1	XDT_m1230510A-014	NA	05/10/23 16:19
Initial Cal Check	SLE0204-ICV1	XDT_m1230510A-016	NA	05/10/23 16:25
Initial Cal Blank	SLE0204-ICB1	XDT_m1230510A-017	NA	05/10/23 16:32
Calibration Check	SLE0204-CCV1	XDT_m1230510A-018	NA	05/10/23 16:37
Calibration Blank	SLE0204-CCB1	XDT_m1230510A-019	NA	05/10/23 16:44
Instrument RL Check	SLE0204-CRL1	XDT_m1230510A-020	NA	05/10/23 16:49
Interference Check A	SLE0204-IFA1	XDT_m1230510A-021	NA	05/10/23 16:56
Interference Check B	SLE0204-IFB1	XDT_m1230510A-022	NA	05/10/23 17:00
LR200	SLE0204-HCV1	XDT_m1230510A-023	NA	05/10/23 17:06
LR300	SLE0204-HCV2	XDT_m1230510A-024	NA	05/10/23 17:11
Instrument Blank	SLE0204-IBL2	XDT_m1230510A-025	NA	05/10/23 17:18
Calibration Check	SLE0204-CCV2	XDT_m1230510A-026	NA	05/10/23 17:24
Calibration Blank	SLE0204-CCB2	XDT_m1230510A-027	NA	05/10/23 17:32
Calibration Check	SLE0204-CCV3	XDT_m1230510A-029	NA	05/10/23 17:41
Calibration Blank	SLE0204-CCB3	XDT_m1230510A-030	NA	05/10/23 17:49
Blank	BLD0687-BLK2	XDT_m1230510A-031	Solid	05/10/23 17:54
LCS	BLD0687-BS2	XDT_m1230510A-033	Solid	05/10/23 18:05
ZZZZZ	BLE0298-BLK1	XDT_m1230510A-034	Water	05/10/23 18:11
ZZZZZ	BLE0298-BS1	XDT_m1230510A-035	Water	05/10/23 18:15
ZZZZZ	BLE0077-MS2	XDT_m1230510A-036	Water	05/10/23 18:21
Instrument Blank	SLE0204-IBL3	XDT_m1230510A-040	NA	05/10/23 18:41
Calibration Check	SLE0204-CCV4	XDT_m1230510A-041	NA	05/10/23 18:45
Calibration Blank	SLE0204-CCB4	XDT_m1230510A-042	NA	05/10/23 18:53



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLE0143-BLK1	XDT_m1230510A-045	Solid	05/10/23 19:07
ZZZZZ	BLE0143-BS1	XDT_m1230510A-047	Solid	05/10/23 19:19
Instrument Blank	SLE0204-IBL4	XDT_m1230510A-050	NA	05/10/23 19:33
Instrument Blank	SLE0204-IBL5	XDT_m1230510A-052	NA	05/10/23 19:44
Calibration Check	SLE0204-CCV5	XDT_m1230510A-053	NA	05/10/23 19:48
Calibration Blank	SLE0204-CCB5	XDT_m1230510A-054	NA	05/10/23 19:56
Calibration Check	SLE0204-CCV6	XDT_m1230510A-057	NA	05/10/23 20:30
Calibration Blank	SLE0204-CCB6	XDT_m1230510A-058	NA	05/10/23 20:37
ZZZZZ	BLD0578-BLK1	XDT_m1230510A-059	Solid	05/10/23 20:44
ZZZZZ	BLD0578-BS1	XDT_m1230510A-060	Solid	05/10/23 20:48
ZZZZZ	BLE0072-BLK1	XDT_m1230510A-061	Solid	05/10/23 20:53
ZZZZZ	BLE0072-BS1	XDT_m1230510A-062	Solid	05/10/23 20:57
ZZZZZ	23D0394-01	XDT_m1230510A-063	Solid	05/10/23 21:02
Instrument Blank	SLE0204-IBL6	XDT_m1230510A-068	NA	05/10/23 21:25
Calibration Check	SLE0204-CCV7	XDT_m1230510A-069	NA	05/10/23 21:29
Calibration Blank	SLE0204-CCB7	XDT_m1230510A-070	NA	05/10/23 21:37
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-03	XDT_m1230510A-072	Solid	05/10/23 21:45
ZZZZZ	23A0467-03	XDT_m1230510A-072	Solid	05/10/23 21:45
ZZZZZ	23A0467-03	XDT_m1230510A-072	Solid	05/10/23 21:45
ZZZZZ	23A0467-03	XDT_m1230510A-072	Solid	05/10/23 21:45
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	BLD0578-DUP1	XDT_m1230510A-076	Solid	05/10/23 22:03
ZZZZZ	BLD0578-MS1	XDT_m1230510A-077	Solid	05/10/23 22:08
ZZZZZ	BLD0578-MSD1	XDT_m1230510A-078	Solid	05/10/23 22:12
Instrument Blank	SLE0204-IBL7	XDT_m1230510A-080	NA	05/10/23 22:21
Calibration Check	SLE0204-CCV8	XDT_m1230510A-081	NA	05/10/23 22:25
Calibration Blank	SLE0204-CCB8	XDT_m1230510A-082	NA	05/10/23 22:32
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLE0204-IBL8	XDT_m1230510A-092	NA	05/10/23 23:16
Calibration Check	SLE0204-CCV9	XDT_m1230510A-093	NA	05/10/23 23:21
Calibration Blank	SLE0204-CCB9	XDT_m1230510A-094	NA	05/10/23 23:28
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-03	XDT_m1230510A-097	Solid	05/10/23 23:41
ZZZZZ	23C0071-03	XDT_m1230510A-097	Solid	05/10/23 23:41
ZZZZZ	23C0071-03	XDT_m1230510A-097	Solid	05/10/23 23:41
ZZZZZ	23C0071-03	XDT_m1230510A-097	Solid	05/10/23 23:41
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
Instrument Blank	SLE0204-IBL9	XDT_m1230510A-104	NA	05/11/23 00:12
Calibration Check	SLE0204-CCVA	XDT_m1230510A-105	NA	05/11/23 00:16
Calibration Blank	SLE0204-CCBA	XDT_m1230510A-106	NA	05/11/23 00:24
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0008-01	XDT_m1230510A-111	Solid	05/11/23 00:46
ZZZZZ	23D0008-01	XDT_m1230510A-111	Solid	05/11/23 00:46
ZZZZZ	23D0008-01	XDT_m1230510A-111	Solid	05/11/23 00:46
ZZZZZ	23D0008-01	XDT_m1230510A-111	Solid	05/11/23 00:46
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-02	XDT_m1230510A-115	Solid	05/11/23 01:03
Instrument Blank	SLE0204-IBLA	XDT_m1230510A-116	NA	05/11/23 01:08
Calibration Check	SLE0204-CCVB	XDT_m1230510A-117	NA	05/11/23 01:12
Calibration Blank	SLE0204-CCBB	XDT_m1230510A-118	NA	05/11/23 01:19
Calibration Check	SLE0204-CCVC	XDT_m1230510A-120	NA	05/11/23 01:28
Calibration Blank	SLE0204-CCBC	XDT_m1230510A-121	NA	05/11/23 01:35
ZZZZZ	23D0037-04	XDT_m1230510A-122	Solid	05/11/23 01:40
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
Instrument Blank	SLE0204-IBLB	XDT_m1230510A-131	NA	05/11/23 02:21
Calibration Check	SLE0204-CCVD	XDT_m1230510A-132	NA	05/11/23 02:26
Calibration Blank	SLE0204-CCBD	XDT_m1230510A-133	NA	05/11/23 02:33
Instrument Blank	SLE0204-IBLC	XDT_m1230510A-138	NA	05/11/23 02:57
ZZZZZ	23D0477-21	XDT_m1230510A-141	Water	05/11/23 03:11
ZZZZZ	23D0477-21	XDT_m1230510A-141	Water	05/11/23 03:11
ZZZZZ	23D0477-21	XDT_m1230510A-141	Water	05/11/23 03:11
ZZZZZ	23D0477-22	XDT_m1230510A-142	Water	05/11/23 03:15
ZZZZZ	23D0477-22	XDT_m1230510A-142	Water	05/11/23 03:15
ZZZZZ	23D0477-22	XDT_m1230510A-142	Water	05/11/23 03:15
Instrument Blank	SLE0204-IBLD	XDT_m1230510A-143	NA	05/11/23 03:20
Calibration Check	SLE0204-CCVE	XDT_m1230510A-144	NA	05/11/23 03:24
Calibration Blank	SLE0204-CCBE	XDT_m1230510A-145	NA	05/11/23 03:31
ZZZZZ	23D0477-11	XDT_m1230510A-146	Water	05/11/23 03:36
ZZZZZ	23D0477-11	XDT_m1230510A-146	Water	05/11/23 03:36
ZZZZZ	23D0477-11	XDT_m1230510A-146	Water	05/11/23 03:36
ZZZZZ	23D0477-13	XDT_m1230510A-147	Water	05/11/23 03:40
ZZZZZ	23D0477-13	XDT_m1230510A-147	Water	05/11/23 03:40
ZZZZZ	23D0477-13	XDT_m1230510A-147	Water	05/11/23 03:40
ZZZZZ	23D0477-02	XDT_m1230510A-148	Water	05/11/23 03:45
ZZZZZ	23D0477-02	XDT_m1230510A-148	Water	05/11/23 03:45
ZZZZZ	23D0477-02	XDT_m1230510A-148	Water	05/11/23 03:45
Instrument Blank	SLE0204-IBLE	XDT_m1230510A-150	NA	05/11/23 03:57
Instrument Blank	SLE0204-IBLF	XDT_m1230510A-155	NA	05/11/23 04:21
Calibration Check	SLE0204-CCVF	XDT_m1230510A-156	NA	05/11/23 04:26
Calibration Blank	SLE0204-CCBF	XDT_m1230510A-157	NA	05/11/23 04:33
Calibration Check	SLE0204-CCVG	XDT_m1230510A-159	NA	05/11/23 04:42



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLE0204-CCBG	XDT_m1230510A-160	NA	05/11/23 04:49
ZZZZZ	23D0477-04	XDT_m1230510A-161	Water	05/11/23 04:53
ZZZZZ	23D0477-04	XDT_m1230510A-161	Water	05/11/23 04:53
ZZZZZ	23D0477-04	XDT_m1230510A-161	Water	05/11/23 04:53
ZZZZZ	23D0477-06	XDT_m1230510A-162	Water	05/11/23 04:58
ZZZZZ	23D0477-06	XDT_m1230510A-162	Water	05/11/23 04:58
ZZZZZ	23D0477-06	XDT_m1230510A-162	Water	05/11/23 04:58
ZZZZZ	23D0477-08	XDT_m1230510A-163	Water	05/11/23 05:02
ZZZZZ	23D0477-08	XDT_m1230510A-163	Water	05/11/23 05:02
ZZZZZ	23D0477-08	XDT_m1230510A-163	Water	05/11/23 05:02
ZZZZZ	23D0477-10	XDT_m1230510A-164	Water	05/11/23 05:07
ZZZZZ	23D0477-10	XDT_m1230510A-164	Water	05/11/23 05:07
ZZZZZ	23D0477-10	XDT_m1230510A-164	Water	05/11/23 05:07
ZZZZZ	23D0477-12	XDT_m1230510A-165	Water	05/11/23 05:11
ZZZZZ	23D0477-12	XDT_m1230510A-165	Water	05/11/23 05:11
ZZZZZ	23D0477-12	XDT_m1230510A-165	Water	05/11/23 05:11
ZZZZZ	23D0477-20	XDT_m1230510A-166	Water	05/11/23 05:16
ZZZZZ	23D0477-20	XDT_m1230510A-166	Water	05/11/23 05:16
ZZZZZ	23D0477-20	XDT_m1230510A-166	Water	05/11/23 05:16
Instrument Blank	SLE0204-IBLG	XDT_m1230510A-170	NA	05/11/23 05:33
Calibration Check	SLE0204-CCVH	XDT_m1230510A-171	NA	05/11/23 05:38
Calibration Blank	SLE0204-CCBH	XDT_m1230510A-172	NA	05/11/23 05:45
ZZZZZ	23D0477-14	XDT_m1230510A-173	Water	05/11/23 05:50
ZZZZZ	23D0477-14	XDT_m1230510A-173	Water	05/11/23 05:50
ZZZZZ	23D0477-14	XDT_m1230510A-173	Water	05/11/23 05:50
ZZZZZ	23D0477-16	XDT_m1230510A-174	Water	05/11/23 05:54
ZZZZZ	23D0477-16	XDT_m1230510A-174	Water	05/11/23 05:54
ZZZZZ	23D0477-16	XDT_m1230510A-174	Water	05/11/23 05:54
ZZZZZ	23D0477-18	XDT_m1230510A-175	Water	05/11/23 05:58



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0477-18	XDT_m1230510A-175	Water	05/11/23 05:58
ZZZZZ	23D0477-18	XDT_m1230510A-175	Water	05/11/23 05:58
ZZZZZ	23D0477-01	XDT_m1230510A-176	Water	05/11/23 06:03
ZZZZZ	23D0477-01	XDT_m1230510A-176	Water	05/11/23 06:03
ZZZZZ	23D0477-01	XDT_m1230510A-176	Water	05/11/23 06:03
ZZZZZ	23D0477-03	XDT_m1230510A-177	Water	05/11/23 06:07
ZZZZZ	23D0477-03	XDT_m1230510A-177	Water	05/11/23 06:07
ZZZZZ	23D0477-03	XDT_m1230510A-177	Water	05/11/23 06:07
ZZZZZ	23D0477-07	XDT_m1230510A-178	Water	05/11/23 06:12
ZZZZZ	23D0477-07	XDT_m1230510A-178	Water	05/11/23 06:12
ZZZZZ	23D0477-07	XDT_m1230510A-178	Water	05/11/23 06:12
ZZZZZ	23D0477-09	XDT_m1230510A-179	Water	05/11/23 06:16
ZZZZZ	23D0477-09	XDT_m1230510A-179	Water	05/11/23 06:16
ZZZZZ	23D0477-09	XDT_m1230510A-179	Water	05/11/23 06:16
ZZZZZ	23D0477-15	XDT_m1230510A-180	Water	05/11/23 06:20
ZZZZZ	23D0477-15	XDT_m1230510A-180	Water	05/11/23 06:20
ZZZZZ	23D0477-15	XDT_m1230510A-180	Water	05/11/23 06:20
ZZZZZ	23D0487-02	XDT_m1230510A-181	Water	05/11/23 06:26
Instrument Blank	SLE0204-IBLH	XDT_m1230510A-182	NA	05/11/23 06:31
Calibration Check	SLE0204-CCVI	XDT_m1230510A-183	NA	05/11/23 06:35
Calibration Blank	SLE0204-CCBI	XDT_m1230510A-184	NA	05/11/23 06:42
ZZZZZ	23D0487-06	XDT_m1230510A-185	Water	05/11/23 06:47
ZZZZZ	23D0487-05	XDT_m1230510A-186	Water	05/11/23 06:51
ZZZZZ	23D0487-04	XDT_m1230510A-187	Water	05/11/23 06:55
ZZZZZ	23D0487-03	XDT_m1230510A-188	Water	05/11/23 07:00
Instrument Blank	SLE0204-IBLI	XDT_m1230510A-189	NA	05/11/23 07:05
ZZZZZ	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09
ZZZZZ	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09
ZZZZZ	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09
ZZZZZ	BLE0298-DUP1	XDT_m1230510A-191	Water	05/11/23 07:14
ZZZZZ	BLE0298-MS1	XDT_m1230510A-192	Water	05/11/23 07:19
ZZZZZ	BLE0298-MSD1	XDT_m1230510A-193	Water	05/11/23 07:25
Instrument Blank	SLE0204-IBLJ	XDT_m1230510A-194	NA	05/11/23 07:29
Calibration Check	SLE0204-CCVJ	XDT_m1230510A-195	NA	05/11/23 07:34
Calibration Blank	SLE0204-CCBJ	XDT_m1230510A-196	NA	05/11/23 07:41



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0209-CAL1	XDT_m1230511-006	NA	05/11/23 13:56
CAL 1 - LOW CHECK	SLE0209-CAL2	XDT_m1230511-007	NA	05/11/23 14:00
CAL 2	SLE0209-CAL3	XDT_m1230511-008	NA	05/11/23 14:05
CAL 3	SLE0209-CAL4	XDT_m1230511-009	NA	05/11/23 14:10
CAL 4	SLE0209-CAL5	XDT_m1230511-010	NA	05/11/23 14:15
CAL 5	SLE0209-CAL6	XDT_m1230511-011	NA	05/11/23 14:21
RINSE	SLE0209-IBL1	XDT_m1230511-012	NA	05/11/23 14:29
Initial Cal Check	SLE0209-ICV1	XDT_m1230511-014	NA	05/11/23 14:34
Initial Cal Blank	SLE0209-ICB1	XDT_m1230511-015	NA	05/11/23 14:42
Calibration Check	SLE0209-CCV1	XDT_m1230511-019	NA	05/11/23 15:06
Calibration Blank	SLE0209-CCB1	XDT_m1230511-020	NA	05/11/23 15:13
Instrument RL Check	SLE0209-CRL1	XDT_m1230511-021	NA	05/11/23 15:18
Interference Check A	SLE0209-IFA1	XDT_m1230511-022	NA	05/11/23 15:23
Interference Check B	SLE0209-IFB1	XDT_m1230511-023	NA	05/11/23 15:28
LR200	SLE0209-HCV1	XDT_m1230511-024	NA	05/11/23 15:32
LR300	SLE0209-HCV2	XDT_m1230511-025	NA	05/11/23 15:37
Instrument Blank	SLE0209-IBL2	XDT_m1230511-026	NA	05/11/23 15:50
Instrument Blank	SLE0209-IBL3	XDT_m1230511-027	NA	05/11/23 15:56
Calibration Check	SLE0209-CCV2	XDT_m1230511-028	NA	05/11/23 16:02
Calibration Blank	SLE0209-CCB2	XDT_m1230511-029	NA	05/11/23 16:09
Calibration Check	SLE0209-CCV3	XDT_m1230511-031	NA	05/11/23 16:19
Calibration Blank	SLE0209-CCB3	XDT_m1230511-032	NA	05/11/23 16:27
ZZZZZ	BLE0342-BLK1	XDT_m1230511-034	Water	05/11/23 16:42
ZZZZZ	BLE0342-BS1	XDT_m1230511-035	Water	05/11/23 16:46
Instrument Blank	SLE0209-IBL4	XDT_m1230511-040	NA	05/11/23 17:10
Instrument Blank	SLE0209-IBL5	XDT_m1230511-042	NA	05/11/23 17:21
Calibration Check	SLE0209-CCV4	XDT_m1230511-043	NA	05/11/23 17:25
Calibration Blank	SLE0209-CCB4	XDT_m1230511-044	NA	05/11/23 17:32
Instrument Blank	SLE0209-IBL9	XDT_m1230511-073	NA	05/11/23 18:29



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	BLE0342-DUP1	XDT_m1230511-075	Water	05/11/23 18:40
ZZZZZ	BLE0342-MS1	XDT_m1230511-076	Water	05/11/23 18:45
ZZZZZ	BLE0342-MSD1	XDT_m1230511-077	Water	05/11/23 18:50
Instrument Blank	SLE0209-IBLA	XDT_m1230511-078	NA	05/11/23 18:55
Calibration Check	SLE0209-CCV7	XDT_m1230511-079	NA	05/11/23 18:59
Calibration Blank	SLE0209-CCB7	XDT_m1230511-080	NA	05/11/23 19:07
Calibration Check	SLE0209-CCV8	XDT_m1230511-082	NA	05/11/23 19:18
Calibration Blank	SLE0209-CCB8	XDT_m1230511-083	NA	05/11/23 19:25
Calibration Check	SLE0209-CCVA	XDT_m1230511-094	NA	05/11/23 19:55
Calibration Blank	SLE0209-CCBA	XDT_m1230511-095	NA	05/11/23 20:00
Instrument Blank	SLE0209-IBLC	XDT_m1230511-100	NA	05/11/23 20:25
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	BLE0143-DUP1	XDT_m1230511-102	Solid	05/11/23 20:35
ZZZZZ	BLE0143-MS1	XDT_m1230511-103	Solid	05/11/23 20:40
ZZZZZ	BLE0143-MSD1	XDT_m1230511-104	Solid	05/11/23 20:44
Instrument Blank	SLE0209-IBLD	XDT_m1230511-105	NA	05/11/23 20:49
Calibration Check	SLE0209-CCVB	XDT_m1230511-106	NA	05/11/23 20:53
Calibration Blank	SLE0209-CCBB	XDT_m1230511-107	NA	05/11/23 21:00
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
Instrument Blank	SLE0209-IBL E	XDT_m1230511-114	NA	05/11/23 21:34
Instrument Blank	SLE0209-IBL F	XDT_m1230511-116	NA	05/11/23 21:46
Calibration Check	SLE0209-CCVC	XDT_m1230511-117	NA	05/11/23 21:50
Calibration Blank	SLE0209-CCBC	XDT_m1230511-118	NA	05/11/23 21:58
Calibration Check	SLE0209-CCVD	XDT_m1230511-120	NA	05/11/23 22:08
Calibration Blank	SLE0209-CCBD	XDT_m1230511-121	NA	05/11/23 22:15
LDW23-SS1804	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
LDW23-SS1804	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
LDW23-SS1804	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW23-SS1804	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
LDW23-SS1803	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
LDW23-SS1803	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
LDW23-SS1803	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
LDW23-SS1803	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
ZZZZZ	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
ZZZZZ	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
ZZZZZ	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
ZZZZZ	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
ZZZZZ	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
ZZZZZ	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
ZZZZZ	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
ZZZZZ	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
Instrument Blank	SLE0209-IBLG	XDT_m1230511-131	NA	05/11/23 23:02
Calibration Check	SLE0209-CCVE	XDT_m1230511-132	NA	05/11/23 23:07
Calibration Blank	SLE0209-CCBE	XDT_m1230511-133	NA	05/11/23 23:14
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLE0209-IBLH	XDT_m1230511-143	NA	05/11/23 23:58
Calibration Check	SLE0209-CCVF	XDT_m1230511-144	NA	05/12/23 00:02
Calibration Blank	SLE0209-CCBF	XDT_m1230511-145	NA	05/12/23 00:09
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-12	XDT_m1230511-148	Solid	05/12/23 00:23
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
Instrument Blank	SLE0209-IBLI	XDT_m1230511-155	NA	05/12/23 00:56
Calibration Check	SLE0209-CCVG	XDT_m1230511-156	NA	05/12/23 01:00
Calibration Blank	SLE0209-CCBG	XDT_m1230511-157	NA	05/12/23 01:07
ZZZZZ	23D0393-04RE1	XDT_m1230511-158	Solid	05/12/23 01:12
ZZZZZ	23D0393-04RE1	XDT_m1230511-158	Solid	05/12/23 01:12
ZZZZZ	BLE0072-DUP3	XDT_m1230511-159	Solid	05/12/23 01:16
ZZZZZ	BLE0072-MS3	XDT_m1230511-160	Solid	05/12/23 01:20
ZZZZZ	BLE0072-MSD3	XDT_m1230511-161	Solid	05/12/23 01:25
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	BLE0072-DUP2	XDT_m1230511-163	Solid	05/12/23 01:34
ZZZZZ	BLE0072-MS2	XDT_m1230511-164	Solid	05/12/23 01:38
ZZZZZ	BLE0072-MSD2	XDT_m1230511-165	Solid	05/12/23 01:43
Instrument Blank	SLE0209-IBLJ	XDT_m1230511-167	NA	05/12/23 01:54
Calibration Check	SLE0209-CCVH	XDT_m1230511-168	NA	05/12/23 01:58
Calibration Blank	SLE0209-CCBH	XDT_m1230511-169	NA	05/12/23 02:05
Instrument Blank	SLE0209-IBLK	XDT_m1230511-176	NA	05/12/23 02:36
Instrument Blank	SLE0209-IBLL	XDT_m1230511-179	NA	05/12/23 02:56
Calibration Check	SLE0209-CCVI	XDT_m1230511-180	NA	05/12/23 03:00
Calibration Blank	SLE0209-CCBI	XDT_m1230511-181	NA	05/12/23 03:07
Calibration Check	SLE0209-CCVJ	XDT_m1230511-183	NA	05/12/23 03:16



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLE0209-CCBJ	XDT_m1230511-184	NA	05/12/23 03:23
ZZZZZ	23D0393-05	XDT_m1230511-185	Solid	05/12/23 03:28
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
Instrument Blank	SLE0209-IBLM	XDT_m1230511-188	NA	05/12/23 03:46
ZZZZZ	23D0412-02	XDT_m1230511-189	Water	05/12/23 03:50
ZZZZZ	23D0412-03	XDT_m1230511-190	Water	05/12/23 03:55
ZZZZZ	23D0412-04	XDT_m1230511-191	Water	05/12/23 03:59
ZZZZZ	23D0412-05	XDT_m1230511-192	Water	05/12/23 04:03
ZZZZZ	23D0412-06	XDT_m1230511-193	Water	05/12/23 04:08
Instrument Blank	SLE0209-IBLN	XDT_m1230511-194	NA	05/12/23 04:12
Calibration Check	SLE0209-CCVK	XDT_m1230511-195	NA	05/12/23 04:17
Calibration Blank	SLE0209-CCBK	XDT_m1230511-196	NA	05/12/23 04:24
ZZZZZ	23D0412-07	XDT_m1230511-197	Water	05/12/23 04:28
ZZZZZ	23D0412-08	XDT_m1230511-198	Water	05/12/23 04:32
ZZZZZ	23D0412-09	XDT_m1230511-199	Water	05/12/23 04:37
ZZZZZ	23D0412-10	XDT_m1230511-200	Water	05/12/23 04:41
ZZZZZ	23D0412-11	XDT_m1230511-201	Water	05/12/23 04:46
ZZZZZ	23D0412-12	XDT_m1230511-202	Water	05/12/23 04:50
ZZZZZ	23D0412-13	XDT_m1230511-203	Water	05/12/23 04:54
ZZZZZ	23D0412-14	XDT_m1230511-204	Water	05/12/23 04:59
ZZZZZ	23D0412-15	XDT_m1230511-205	Water	05/12/23 05:03
Instrument Blank	SLE0209-IBLO	XDT_m1230511-206	NA	05/12/23 05:08
Calibration Check	SLE0209-CCVL	XDT_m1230511-207	NA	05/12/23 05:12
Calibration Blank	SLE0209-CCBL	XDT_m1230511-208	NA	05/12/23 05:19
ZZZZZ	23D0442-03	XDT_m1230511-209	Water	05/12/23 05:23
ZZZZZ	23D0442-04	XDT_m1230511-210	Water	05/12/23 05:28



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0442-06	XDT_m1230511-212	Water	05/12/23 05:36
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
Instrument Blank	SLE0209-IBLP	XDT_m1230511-218	NA	05/12/23 06:04
Calibration Check	SLE0209-CCVM	XDT_m1230511-219	NA	05/12/23 06:09
Calibration Blank	SLE0209-CCBM	XDT_m1230511-220	NA	05/12/23 06:16
ZZZZZ	23D0514-02	XDT_m1230511-221	Water	05/12/23 06:20
ZZZZZ	23D0514-03	XDT_m1230511-222	Water	05/12/23 06:24
ZZZZZ	23D0514-04	XDT_m1230511-223	Water	05/12/23 06:29
ZZZZZ	23D0514-06	XDT_m1230511-224	Water	05/12/23 06:33
Instrument Blank	SLE0209-IBLQ	XDT_m1230511-225	NA	05/12/23 06:37
Instrument Blank	SLE0209-IBLR	XDT_m1230511-230	NA	05/12/23 07:00
Calibration Check	SLE0209-CCVN	XDT_m1230511-231	NA	05/12/23 07:04
Calibration Blank	SLE0209-CCBN	XDT_m1230511-232	NA	05/12/23 07:11
Calibration Check	SLE0209-CCVO	XDT_m1230511-234	NA	05/12/23 07:20
Calibration Blank	SLE0209-CCBO	XDT_m1230511-235	NA	05/12/23 07:27
ZZZZZ	23D0537-02	XDT_m1230511-236	Water	05/12/23 07:31
ZZZZZ	23D0537-03	XDT_m1230511-237	Water	05/12/23 07:36
ZZZZZ	23D0537-04	XDT_m1230511-238	Water	05/12/23 07:40



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLE0209-IBLS	XDT_m1230511-245	NA	05/12/23 08:11
Calibration Check	SLE0209-CCVP	XDT_m1230511-246	NA	05/12/23 08:15
Calibration Blank	SLE0209-CCBP	XDT_m1230511-247	NA	05/12/23 08:22
ZZZZZ	23D0578-02	XDT_m1230511-253	Water	05/12/23 08:46
ZZZZZ	BLE0134-DUP1	XDT_m1230511-254	Water	05/12/23 08:50
ZZZZZ	BLE0134-MS1	XDT_m1230511-255	Water	05/12/23 08:53
Instrument Blank	SLE0209-IBLT	XDT_m1230511-257	NA	05/12/23 09:00
Calibration Check	SLE0209-CCVQ	XDT_m1230511-258	NA	05/12/23 09:04
Calibration Blank	SLE0209-CCBQ	XDT_m1230511-259	NA	05/12/23 09:10
ZZZZZ	23D0587-03	XDT_m1230511-268	Water	05/12/23 09:41
Instrument Blank	SLE0209-IBLU	XDT_m1230511-269	NA	05/12/23 09:45
Calibration Check	SLE0209-CCVR	XDT_m1230511-270	NA	05/12/23 09:48
Calibration Blank	SLE0209-CCBR	XDT_m1230511-271	NA	05/12/23 09:55
ZZZZZ	23D0587-02	XDT_m1230511-272	Water	05/12/23 09:58
ZZZZZ	23D0587-04	XDT_m1230511-273	Water	05/12/23 10:01
ZZZZZ	23D0587-05	XDT_m1230511-274	Water	05/12/23 10:05
ZZZZZ	23D0578-07	XDT_m1230511-275	Water	05/12/23 10:09
ZZZZZ	23D0578-08	XDT_m1230511-276	Water	05/12/23 10:12
ZZZZZ	23D0578-04	XDT_m1230511-277	Water	05/12/23 10:16
ZZZZZ	23D0578-06	XDT_m1230511-278	Water	05/12/23 10:19
ZZZZZ	23D0578-03	XDT_m1230511-279	Water	05/12/23 10:23
ZZZZZ	23D0578-05	XDT_m1230511-280	Water	05/12/23 10:26
Instrument Blank	SLE0209-IBLV	XDT_m1230511-281	NA	05/12/23 10:30
Calibration Check	SLE0209-CCVS	XDT_m1230511-282	NA	05/12/23 10:33
Calibration Blank	SLE0209-CCBS	XDT_m1230511-283	NA	05/12/23 10:39



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0163-IFA1	Arsenic-75a	0	0.0210		ug/L
	Cadmium-111	0	0.0830		ug/L
	Cadmium-114	0	0.0720		ug/L
	Copper-63	0	0.0350		ug/L
	Copper-65	0	0.0420		ug/L
	Zinc-66	0	0.3180		ug/L
	Zinc-67	0	0.1970		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0163-IFB1	Arsenic-75a	20.000	18.983	94.9	ug/L
	Cadmium-111	20.000	19.887	99.4	ug/L
	Cadmium-114	20.000	19.859	99.3	ug/L
	Copper-63	20.000	20.310	102	ug/L
	Copper-65	20.000	20.188	101	ug/L
	Zinc-66	20.000	19.206	96.0	ug/L
	Zinc-67	20.000	17.986	89.9	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0204-IFA1	Arsenic-75a	0	0.0260		ug/L
	Cadmium-111	0	0.0430		ug/L
	Cadmium-114	0	0.0270		ug/L
	Copper-63	0	0.0390		ug/L
	Copper-65	0	0.0330		ug/L
	Zinc-66	0	0.3120		ug/L
	Zinc-67	0	0.2690		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0204-IFB1	Arsenic-75a	20.000	19.651	98.3	ug/L
	Cadmium-111	20.000	18.519	92.6	ug/L
	Cadmium-114	20.000	18.365	91.8	ug/L
	Copper-63	20.000	20.580	103	ug/L
	Copper-65	20.000	20.103	101	ug/L
	Zinc-66	20.000	19.662	98.3	ug/L
	Zinc-67	20.000	17.951	89.8	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Standard ID: L005318

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0209-IFA1	Arsenic-75a	0	0.0210		ug/L
	Cadmium-111	0	0.0470		ug/L
	Cadmium-114	0	0.0440		ug/L
	Copper-63	0	0.0450		ug/L
	Copper-65	0	0.0540		ug/L
	Zinc-66	0	0.2310		ug/L
	Zinc-67	0	0.1630		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Standard ID: L005318

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0209-IFB1	Arsenic-75a	20.000	19.554	97.8	ug/L
	Cadmium-111	20.000	18.852	94.3	ug/L
	Cadmium-114	20.000	18.980	94.9	ug/L
	Copper-63	20.000	20.032	100	ug/L
	Copper-65	20.000	20.081	100	ug/L
	Zinc-66	20.000	19.222	96.1	ug/L
	Zinc-67	20.000	18.232	91.2	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Lab Sample ID: SLE0163-CRL1

Analyte	True	Found	%R	Units	QC Limits
Arsenic-75a	0.20000	0.206	103	ug/L	50 - 150
Cadmium-111	0.10000	0.0970	97.0	ug/L	50 - 150
Cadmium-114	0.10000	0.0950	95.0	ug/L	50 - 150
Copper-63	0.50000	0.703	141	ug/L	50 - 150
Copper-65	0.50000	0.709	142	ug/L	50 - 150
Zinc-66	6.0000	6.20	103	ug/L	50 - 150
Zinc-67	6.0000	5.78	96.3	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Lab Sample ID: SLE0204-CRL1

Analyte	True	Found	%R	Units	QC Limits
Arsenic-75a	0.20000	0.213	107	ug/L	50 - 150
Cadmium-111	0.10000	0.113	113	ug/L	50 - 150
Cadmium-114	0.10000	0.0970	97.0	ug/L	50 - 150
Copper-63	0.50000	0.708	142	ug/L	50 - 150
Copper-65	0.50000	0.727	145	ug/L	50 - 150
Zinc-66	6.0000	6.25	104	ug/L	50 - 150
Zinc-67	6.0000	6.11	102	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Lab Sample ID: SLE0209-CRL1

Analyte	True	Found	%R	Units	QC Limits
Arsenic-75a	0.20000	0.199	99.5	ug/L	50 - 150
Cadmium-111	0.10000	0.0830	83.0	ug/L	50 - 150
Cadmium-114	0.10000	0.0850	85.0	ug/L	50 - 150
Copper-63	0.50000	0.700	140	ug/L	50 - 150
Copper-65	0.50000	0.654	131	ug/L	50 - 150
Zinc-66	6.0000	6.52	109	ug/L	50 - 150
Zinc-67	6.0000	5.95	99.2	ug/L	50 - 150

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Laboratory ID: SLE0163-HCV1

Sequence: SLE0163

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	196	-2.2	10.00
Cadmium-111	200.00	198	-0.9	10.00
Cadmium-114	200.00	200	0.008	10.00
Copper-63	200.00	197	-1.3	10.00
Copper-65	200.00	197	-1.6	10.00
Zinc-66	200.00	194	-2.9	10.00
Zinc-67	200.00	193	-3.5	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Laboratory ID: SLE0163-HCV2

Sequence: SLE0163

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	294	-1.9	10.00
Cadmium-111	300.00	296	-1.3	10.00
Cadmium-114	300.00	298	-0.7	10.00
Copper-63	300.00	298	-0.6	10.00
Copper-65	300.00	292	-2.6	10.00
Zinc-66	300.00	287	-4.2	10.00
Zinc-67	300.00	281	-6.4	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Laboratory ID: SLE0204-HCV1

Sequence: SLE0204

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	194	-3.1	10.00
Cadmium-111	200.00	220	9.8	10.00
Cadmium-114	200.00	220	10.0	10.00
Copper-63	200.00	188	-6.2	10.00
Copper-65	200.00	186	-7.1	10.00
Zinc-66	200.00	189	-5.4	10.00
Zinc-67	200.00	187	-6.7	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Laboratory ID: SLE0204-HCV2

Sequence: SLE0204

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	305	1.7	10.00
Cadmium-111	300.00	293	-2.4	10.00
Cadmium-114	300.00	294	-1.9	10.00
Copper-63	300.00	287	-4.3	10.00
Copper-65	300.00	287	-4.2	10.00
Zinc-66	300.00	285	-4.9	10.00
Zinc-67	300.00	288	-4.1	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Laboratory ID: SLE0209-HCV1

Sequence: SLE0209

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	197	-1.5	10.00
Cadmium-111	200.00	193	-3.7	10.00
Cadmium-114	200.00	194	-3.1	10.00
Copper-63	200.00	191	-4.4	10.00
Copper-65	200.00	190	-4.9	10.00
Zinc-66	200.00	193	-3.5	10.00
Zinc-67	200.00	189	-5.3	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Laboratory ID: SLE0209-HCV2

Sequence: SLE0209

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	296	-1.2	10.00
Cadmium-111	300.00	285	-5.1	10.00
Cadmium-114	300.00	287	-4.2	10.00
Copper-63	300.00	283	-5.5	10.00
Copper-65	300.00	282	-5.8	10.00
Zinc-66	300.00	281	-6.4	10.00
Zinc-67	300.00	275	-8.3	10.00

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/28/23 15:38	23	180	05/11/23 22:35	36	180	
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	04/28/23 15:38	22	180	05/11/23 22:40	36	180	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ICPMS1

Analyte	MDL	RL	Units
Arsenic-75a	0.04	0.20	mg/kg
Cadmium-111	0.03	0.10	mg/kg
Cadmium-114	0.04	0.10	mg/kg
Copper-63	0.17	0.50	mg/kg
Copper-65	0.35	0.50	mg/kg
Zinc-66	2.9	6.0	mg/kg
Zinc-67	0.9	6.0	mg/kg

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCU10
Lot Number: P2-CU682108
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Copper
Starting Material: Cu Metal
Starting Material Lot#: 2095
Starting Material Purity: 99.9996%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10013 ± 30 µg/mL
Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9977 ± 50 µg/mL ICP Assay NIST SRM 3114 Lot Number: 121207
Assay Method #2	10024 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10007 ± 46 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.007542	M Eu < 0.000942	O Na < 0.001434	M Se < 0.016971	M Zn < 0.005657
O Al < 0.000609	O Fe < 0.008700	M Nb < 0.000942	O Si < 0.003052	M Zr < 0.000942
M As < 0.010371	M Ga < 0.000942	M Nd < 0.000942	M Sm < 0.000942	
M Au < 0.001885	M Gd < 0.000942	M Ni < 0.003781	M Sn < 0.005657	
O B < 0.003663	M Ge < 0.005657	M Os < 0.000942	M Sr < 0.000942	
M Ba < 0.004253	M Hf < 0.000942	O P < 0.031668	M Ta < 0.000942	
M Be < 0.000942	O Hg < 0.007064	M Pb < 0.005789	M Tb < 0.000942	
M Bi < 0.000942	M Ho < 0.000942	M Pd < 0.000942	M Te < 0.004714	
O Ca < 0.002304	M In < 0.000942	M Pr < 0.000942	M Th < 0.000942	
M Cd < 0.000942	M Ir < 0.000942	M Pt < 0.000942	O Ti < 0.002801	
M Ce < 0.000942	O K < 0.000763	M Rb < 0.000942	M Tl < 0.000942	
M Co < 0.001890	M La < 0.000942	M Re < 0.000942	M Tm < 0.000942	
M Cr < 0.005657	O Li < 0.000243	i Rh <	M U < 0.000942	
M Cs < 0.000942	M Lu < 0.000942	M Ru < 0.039588	M V < 0.003771	
s Cu <	O Mg < 0.000320	O S < 0.007174	M W < 0.005657	
M Dy < 0.000942	O Mn < 0.000793	M Sb < 0.001885	M Y < 0.000942	
M Er < 0.000942	M Mo < 0.005657	M Sc < 0.000942	M Yb < 0.000942	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 63.55 +2 6 Cu(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cu Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 63 amu	10 ppt	n/a	40Ar23Na 47Ti16O, 14N12C37Cl, 16O12C35Cl, 23Na40Ca
ICP-OES 219.958 nm	0.01/.002 µg/mL	1	Th, Ta, Nb, U, Hf
ICP-OES 224.700 nm	0.01/.001 µg/mL	1	Pb, Ir, Ni, W
ICP-OES 324.754 nm	0.06/.001 µg/mL		Nb, U, Th, Mo, Hf

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 24, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 24, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGPB10
Lot Number: S2-PB713228
Matrix: 0.5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Lead
Starting Material: Lead Nitrate
Starting Material Lot#: 2343
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10042 ± 31 µg/mL
Density: 1.015 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10024 ± 41 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 101026

Assay Method #2 **10054 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000310	M Eu < 0.000310	M Na < 0.001470	M Se < 0.009100	O Zn < 0.006155
O Al < 0.017098	O Fe < 0.002496	M Nb < 0.000310	O Si < 0.003761	O Zr < 0.001700
M As < 0.003100	M Ga < 0.000310	M Nd < 0.000310	M Sm < 0.000310	
M Au < 0.000910	M Gd < 0.000310	O Ni < 0.001709	M Sn < 0.001300	
O B < 0.005600	M Ge < 0.002200	M Os < 0.000310	O Sr < 0.000444	
O Ba < 0.007865	M Hf < 0.000310	O P < 0.038000	M Ta < 0.000310	
O Be < 0.000320	M Hg < 0.002200	s Pb < 0.000610	M Tb < 0.000610	
M Bi < 0.028000	M Ho < 0.000310	M Pd < 0.000610	M Te < 0.000310	
O Ca < 0.019834	M In < 0.000310	M Pr < 0.000310	M Th < 0.000310	
O Cd < 0.000630	M Ir < 0.000310	M Pt < 0.000910	O Ti < 0.005129	
M Ce < 0.004787	O K < 0.008207	M Rb < 0.006700	M Tl < 0.016000	
M Co < 0.000610	M La < 0.001900	M Re < 0.000310	M Tm < 0.000310	
O Cr < 0.001500	O Li < 0.000110	O Rh < 0.007700	M U < 0.000310	
M Cs < 0.006100	M Lu < 0.000310	M Ru < 0.001300	M V < 0.001600	
M Cu < 0.001600	O Mg < 0.003317	O S < 0.052000	M W < 0.000910	
M Dy < 0.000310	O Mn < 0.001600	O Sb < 0.015000	M Y < 0.000310	
M Er < 0.000310	M Mo < 0.000610	O Sc < 0.000630	M Yb < 0.000310	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 207.20 +2 6 Pb(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, HF and HNO₃. Avoid H₂SO₄. Stable with most metals and inorganic anions forming insoluble carbonate, borate, sulfate, sulfite, sulfide, phosphate, oxalate, chromate, tannate, iodate, and cyanide in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Pb Containing Samples (Preparation and Solution) -Metal (Best dissolved in 1:1 H₂O / HNO₃); Oxides (The many different Pb oxides are soluble in HNO₃ with the exception of PbO₂ which is soluble in HCl or HF); Ores and Alloys (Best attacked using 1:1 H₂O / HNO₃); Organic Matrices (Dry ash and dissolve in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 208 amu	5 ppt	n/a	192Pt16O, 192Os16O
ICP-OES 168.215 nm	0.03 / 0.003 µg/mL	1	Co
ICP-OES 217.000 nm	0.09 / 0.03 µg/mL	1	W, Ir, Hf, Sb, Th
ICP-OES 220.353 nm	0.04 / 0.006 µg/mL	1	Bi, Nb

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGZN10
Lot Number: S2-ZN711249
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Zinc
Starting Material: Zinc Metal
Starting Material Lot#: 2349
Starting Material Purity: 99.9988%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9981 ± 56 µg/mL ICP Assay NIST SRM 3168a Lot Number: 120629
Assay Method #2	9987 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10002 ± 32 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.002000	M Eu < 0.000500	O Na < 0.008713	M Se < 0.048000	s Zn <
O Al < 0.011000	O Fe < 0.015467	M Nb < 0.000500	O Si < 0.007842	M Zr < 0.000500
O As < 0.012000	M Ga < 0.004900	M Nd < 0.000500	M Sm < 0.000500	
M Au < 0.006500	M Gd < 0.000500	O Ni < 0.003049	M Sn < 0.002614	
O B < 0.019000	M Ge < 0.009100	M Os < 0.000500	M Sr < 0.000500	
M Ba < 0.000500	M Hf < 0.000500	O P < 0.059000	M Ta < 0.000500	
O Be < 0.000230	O Hg < 0.003800	M Pb < 0.016774	M Tb < 0.000500	
M Bi < 0.002400	M Ho < 0.000500	M Pd < 0.001000	M Te < 0.017000	
O Ca < 0.052283	M In < 0.003500	M Pr < 0.000500	M Th < 0.000500	
O Cd < 0.000588	M Ir < 0.001000	M Pt < 0.000500	M Ti < 0.002000	
M Ce < 0.000500	O K < 0.017209	M Rb < 0.002500	M Tl < 0.000500	
M Co < 0.000653	M La < 0.000500	M Re < 0.000500	M Tm < 0.000500	
O Cr < 0.001089	O Li < 0.000230	M Rh < 0.000500	M U < 0.000500	
M Cs < 0.000500	M Lu < 0.000500	M Ru < 0.005000	M V < 0.000500	
O Cu < 0.001938	O Mg < 0.000871	O S < 0.048000	M W < 0.001000	
M Dy < 0.000500	O Mn < 0.000172	M Sb < 0.004300	M Y < 0.000500	
M Er < 0.000500	M Mo < 0.001500	O Sc < 0.000900	M Yb < 0.000500	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 65.39 +2 4 Zn(OH)(aq)1+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media forming insoluble carbonate and hydroxide. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Zn Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃); Organic based (dry ash at 4500C and dissolve ash in HCl) (sulfuric/peroxide acid digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 66 amu	7 ppt	N/A	50Ti16O,50Cr16O, 50V16O, 34S16O2, 32S16O18O, 32S17O2, 33S16O17O, 32S34S, 33S2
ICP-OES 202.548 nm	0.004/0.0002 µg/mL	1	Nb, Cu, Co, Hf
ICP-OES 206.200 nm	0.006/0.0006 µg/mL	1	Sb, Ta, Bi, Os
ICP-OES 213.856 nm	0.002/0.0004 µg/mL	1	Ni, Cu, V

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 22, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSE10
Lot Number: S2-SE711004
Matrix: 3% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Selenium
Starting Material: Se Metal
Starting Material Lot#: 1962
Starting Material Purity: 99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9955 ± 61 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **9955 ± 50 µg/mL**
ICP Assay NIST SRM 3149 Lot Number: 100901

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/(u_{char\ i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.002242	M Eu <	0.000373	O Na	0.013654	s Se <		O Zn	0.002374
M Al	0.004450	M Fe	0.008478	O Nb <	0.002975	O Si	0.006249	M Zr <	0.001868
O As <	0.022040	M Ga <	0.000373	M Nd <	0.000373	M Sm <	0.000373		
M Au <	0.000373	M Gd <	0.000373	O Ni	0.001843	M Sn	0.000847		
O B <	0.007714	M Ge <	0.002616	M Os <	0.000373	M Sr <	0.001121		
M Ba <	0.001495	M Hf <	0.000373	O P <	0.022040	M Ta <	0.000373		
M Be <	0.001495	M Hg <	0.002240	M Pb	0.006358	M Tb <	0.006353		
M Bi <	0.000373	M Ho <	0.000373	M Pd <	0.000373	M Te <	0.012707		
O Ca	0.006530	M In <	0.000373	M Pr <	0.001495	M Th <	0.002990		
M Cd	0.001165	M Ir <	0.000373	M Pt <	0.000373	M Ti <	0.003363		
M Ce <	0.000373	O K	0.001999	M Rb <	0.001868	M Tl	0.008584		
M Co <	0.000373	M La <	0.001121	M Re <	0.000373	M Tm <	0.000373		
M Cr	0.002861	O Li	0.000062	M Rh <	0.000373	M U <	0.000373		
M Cs <	0.001121	M Lu <	0.000373	M Ru <	0.001493	M V <	0.000747		
M Cu <	0.000747	O Mg	0.001156	O S	0.024591	M W <	0.002242		
M Dy <	0.000373	M Mn <	0.000373	M Sb <	0.002242	M Y <	0.000373		
M Er <	0.000373	O Mo <	0.003195	M Sc <	0.001121	M Yb <	0.000373		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 78.96 +4 6 H₂SeO₃

Chemical Compatibility -Soluble in HCl, HNO₃,H₃PO₄, H₂SO₄ and HF aqueous matrices and water. It is stable with most inorganic anions but many cationic metals form the insoluble selenites under pH neutral conditions. When fluorinated and/or under acidic conditions precipitation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Se Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (readily soluble in water); Minerals and alloys (acid digestion with HNO₃or HNO₃ / HF); Organic Matrices (acid digestion with hot concentrated H₂SO₄ accompanied by the careful dropwise addition of H₂O₂ until clear).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 82 amu	200 ppt	N/A	12C35Cl2
ICP-OES 196.026 nm	0.08/0.006 µg/mL	1	Fe
ICP-OES 203.985 nm	0.2/0.05 µg/mL	1	Sb, Ir, Cr, Ta
ICP-OES 206.279 nm	0.3/0.16 µg/mL	1	Cr, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMO10
Lot Number: S2-MO706255
Matrix: H₂O
tr. NH₄OH
Value / Analyte(s): 10 000 µg/mL ea:
Molybdenum
Starting Material: Ammonium Molybdate
Starting Material Lot#: 2361
Starting Material Purity: 99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10026 ± 47 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10032 ± 68 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

Assay Method #2 **10020 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000590	M Eu < 0.000300	M Na < 0.008739	M Se < 0.008000	M Zn < 0.005942
M Al < 0.005592	M Fe < 0.006500	M Nb < 0.029000	i Si < 0.001800	M Zr < 0.001800
M As < 0.002100	M Ga < 0.000300	i Nd < 0.000300	M Sm < 0.000300	
M Au < 0.000300	M Gd < 0.000300	M Ni < 0.008000	M Sn < 0.008900	
M B < 0.003300	M Ge < 0.000300	M Os < 0.000590	M Sr < 0.001747	
M Ba < 0.016778	M Hf < 0.001800	i P < 0.004200	M Ta < 0.004200	
M Be < 0.000890	M Hg < 0.003300	M Pb < 0.000300	M Tb < 0.000300	
M Bi < 0.000890	M Ho < 0.000300	M Pd < 0.001800	M Te < 0.021000	
O Ca < 0.062920	M In < 0.032000	M Pr < 0.013000	M Th < 0.000300	
O Cd < 0.026000	M Ir < 0.000300	M Pt < 0.000300	O Ti < 0.032000	
M Ce < 0.008300	M K < 1.293372	M Rb < 0.045442	M Tl < 0.012584	
M Co < 0.005942	M La < 0.000300	M Re < 0.000300	M Tm < 0.000300	
M Cr < 0.005243	O Li < 0.000594	M Rh < 0.000300	M U < 0.005300	
M Cs < 0.005243	M Lu < 0.000300	M Ru < 0.079000	M V < 0.000890	
M Cu < 0.022371	M Mg < 0.005592	i S < 0.873900	M W < 0.873900	
M Dy < 0.000300	M Mn < 0.005900	M Sb < 0.015031	M Y < 0.000300	
M Er < 0.000300	s Mo < 0.001200	M Sc < 0.001200	M Yb < 0.000300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9

[MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 04, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGTL10
Lot Number: T2-TL714687
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Thallium
Starting Material: TINO₃
Starting Material Lot#: 2118
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10030 ± 42 µg/mL
Density: 1.036 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10040 ± 43 µg/mL**
ICP Assay NIST SRM 3158 Lot Number: 151215

Assay Method #2 **10010 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000200	M Eu < 0.000200	O Na < 0.002489	M Se < 0.011019	O Zn < 0.002298
O Al < 0.004184	O Fe < 0.002824	M Nb < 0.000200	O Si < 0.003760	M Zr < 0.000200
M As < 0.002003	M Ga < 0.000200	M Nd < 0.000200	M Sm < 0.000200	
O Au < 0.002824	M Gd < 0.000200	M Ni < 0.001724	M Sn < 0.000601	
O B < 0.004184	M Ge < 0.000801	M Os < 0.000198	O Sr < 0.000313	
M Ba < 0.000400	M Hf < 0.000200	O P < 0.010460	M Ta < 0.000200	
O Be < 0.000104	M Hg < 0.000794	M Pb < 0.000811	M Tb < 0.000200	
M Bi < 0.005209	M Ho < 0.000200	M Pd < 0.000400	M Te < 0.005008	
O Ca < 0.002436	M In < 0.000200	M Pr < 0.000200	M Th < 0.000200	
M Cd < 0.001318	M Ir < 0.000198	M Pt < 0.000801	O Ti < 0.001255	
M Ce < 0.000200	O K < 0.006175	M Rb < 0.000200	s Tl <	
M Co < 0.000601	M La < 0.000200	M Re < 0.000200	M Tm < 0.000200	
M Cr < 0.000801	O Li < 0.000177	M Rh < 0.000200	M U < 0.000200	
M Cs < 0.003606	M Lu < 0.000200	M Ru < 0.000397	M V < 0.002203	
M Cu < 0.001001	O Mg < 0.000529	O S < 0.015690	M W < 0.000601	
M Dy < 0.000200	M Mn < 0.000801	M Sb < 0.000400	M Y < 0.000200	
M Er < 0.000200	M Mo < 0.001202	O Sc < 0.000711	M Yb < 0.000200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Ti(H₂O)₆¹⁺
Chemical Compatibility - Soluble in HCl, HNO₃, and H₂SO₄. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ti Containing Samples)Preparation and Solution) -Metal (Best dissolved in HNO₃ which forms chiefly the Ti¹⁺ ion.); Oxide (The thalious oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in Pt₀ followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 08, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **February 08, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCD10
Lot Number: S2-CD710508
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Cadmium
Starting Material: Cd Metal
Starting Material Lot#: 1953
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10008 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10010 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	10011 ± 30 µg/mL ICP Assay NIST SRM 3108 Lot Number: 130116
Assay Method #3	10003 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

O Ag <	0.003200	O Eu <	0.002500	O Na	0.005499	M Se <	0.005700	O Zn <	0.001100
O Al	0.008903	O Fe	0.000602	M Nb <	0.000400	O Si	0.016758	O Zr <	0.002600
M As <	0.003600	M Ga <	0.001200	M Nd <	0.000800	M Sm <	0.000400		
M Au <	0.000810	M Gd <	0.000400	M Ni <	0.003600	M Sn <	0.003200		
O B	0.004189	O Ge <	0.012000	M Os <	0.000810	O Sr <	0.000330		
M Ba <	0.002400	M Hf <	0.000400	O P <	0.022000	M Ta <	0.000800		
M Be <	0.000400	M Hg <	0.001700	M Pb <	0.002400	M Tb <	0.000400		
M Bi <	0.000400	M Ho <	0.000400	M Pd <	0.001200	M Te <	0.008000		
O Ca	0.011259	O In <	0.013000	M Pr <	0.000400	M Th <	0.000400		
s Cd <		M Ir <	0.000410	M Pt <	0.000400	O Ti	0.000602		
M Ce <	0.000400	O K	0.005237	M Rb <	0.004400	M Tl	0.000523		
M Co <	0.000400	M La <	0.000400	M Re <	0.000400	M Tm <	0.000400		
O Cr <	0.005100	O Li <	0.000054	M Rh <	0.000400	M U <	0.000400		
M Cs <	0.002400	M Lu <	0.000400	M Ru <	0.002500	M V <	0.002000		
O Cu <	0.004800	O Mg	0.000288	O S <	0.022000	M W <	0.000400		
M Dy <	0.000400	O Mn <	0.000860	O Sb <	0.018000	M Y <	0.000400		
M Er <	0.000400	M Mo <	0.001600	O Sc <	0.000430	M Yb <	0.000400		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 112.41 +2 4 Cd₂(OH)₃+ and Cd(OH)₂(aq)

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, and HF. Avoid basic media forming insoluble carbonate and hydroxide.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃ / LDPE container.

Cd Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (soluble in HCl or HNO₃); Ores (dissolve in HCl /HNO₃ then take to fumes with H₂SO₄. The silica and lead sulfate are filtered off after the addition of water); Organic based (dry ash at 450°C and dissolve ash in HCl), (sulfuric / peroxide acid digestion).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 111 amu	11 ppt	n/a	95Mo16O
ICP-OES 214.438 nm	0.003 / 0.0003 µg/mL	1	Pt, Ir
ICP-OES 226.502 nm	0.003 / 0.0003 µg/mL	1	Ir
ICP-OES 228.802 nm	0.003 / 0.0003 µg/mL	1	Co, Ir, As, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 01, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 01, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMN10
Lot Number: S2-MN704240
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Manganese
Starting Material: Mn Metal
Starting Material Lot#: 2275
Starting Material Purity: 99.9909%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10011 ± 30 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9989 ± 69 µg/mL ICP Assay NIST SRM 3132 Lot Number: 050429
Assay Method #2	10011 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10024 ± 47 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001500	M Eu < 0.000730	O Na 0.176097	M Se < 0.006600	M Zn 0.009925
O Al 0.004322	M Fe < 0.650000	M Nb < 0.000730	O Si 0.097654	M Zr < 0.000730
M As < 0.008000	M Ga 0.004322	M Nd < 0.001500	M Sm < 0.000730	
M Au < 0.000730	M Gd < 0.000730	M Ni 0.024013	M Sn < 0.002200	
M B 0.068838	M Ge < 0.004400	M Os < 0.000730	O Sr 0.000928	
M Ba < 0.001500	M Hf < 0.000730	i P <	M Ta < 0.000730	
M Be < 0.000730	M Hg < 0.002200	M Pb 0.007364	M Tb < 0.000730	
M Bi < 0.003000	M Ho < 0.000730	M Pd < 0.000730	M Te < 0.019000	
O Ca 0.062434	M In < 0.003000	M Pr < 0.000730	M Th < 0.000730	
M Cd < 0.001500	M Ir < 0.000730	M Pt < 0.000730	O Ti < 0.006500	
M Ce < 0.007300	O K 0.006403	M Rb < 0.006600	M Tl < 0.000730	
O Co 0.014728	M La < 0.003000	M Re < 0.000730	M Tm < 0.000730	
O Cr 0.272151	O Li 0.000416	M Rh < 0.003000	M U < 0.001500	
M Cs < 0.000730	M Lu < 0.000730	M Ru < 0.004400	M V < 0.000730	
O Cu 0.007684	O Mg 0.320177	i S <	M W < 0.004400	
M Dy < 0.001500	s Mn <	M Sb < 0.021000	O Y 0.001360	
M Er < 0.001500	M Mo 0.010245	O Sc < 0.004100	M Yb < 0.000730	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 54.94 +2 6 Mn(H₂O)₆2+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃/LDPE container.

Mn Containing Samples (Preparation and Solution) -Metal (Soluble in dilute acids); Oxides (Soluble in dilute acids); Ores (Dissolve with HCl. If silica is present add HF and then fume off silica by adding H₂SO₄ and heat to SO₃ fumes - dense white fumes).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 55 amu	10 ppt	n/a	40Ar14N1H,39K16 O,37Cl18O,40Ar15 N,38Ar17O,36Ar18O 1H ,38Ar16O1H,37Cl17 O1H,23Na32S
ICP-OES 257.610 nm	0.0014 / 0.00002 µg/mL	1	Ce, W, Re
ICP-OES 259.373 nm	0.0016 / 0.00002 µg/mL	1	U, Ta, Mo, Fe, Nb
ICP-OES 260.569 nm	0.0021 / 0.00002 µg/mL	1	Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 17, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGSB10
 Lot Number: R2-SB688559
 Matrix: 3% (v/v) HNO3
 3% (w/v) tartaric acid
 Value / Analyte(s): 10 000 µg/mL ea:
 Antimony
 Starting Material: Antimony Metal
 Starting Material Lot#: 1857
 Starting Material Purity: 99.9894%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10003 ± 47 µg/mL
Density: 1.061 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 10003 ± 41 µg/mL
 ICP Assay NIST SRM 3102a Lot Number: 140911

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.000200	M Eu <	0.000300	O Na	0.140000	M Se <	0.007300	O Zn	0.005000
M Al	0.003200	O Fe	0.060000	M Nb <	0.000100	O Si	0.150000	O Zr <	0.006300
M As <	0.004400	M Ga <	0.000400	M Nd <	0.000100	M Sm <	0.000100		
M Au <	0.000210	M Gd <	0.000100	O Ni	0.004800	M Sn <	0.001800		
M B <	0.011000	M Ge <	0.000600	M Os <	0.000110	O Sr	0.000750		
O Ba <	0.004900	M Hf <	0.000100	O P	0.540000	M Ta	0.003300		
M Be <	0.000400	M Hg <	0.000110	M Pb <	0.000400	M Tb <	0.000100		
M Bi <	0.000200	M Ho <	0.000100	M Pd <	0.000210	M Te <	0.000600		
O Ca	0.110000	M In <	0.000100	M Pr <	0.001600	M Th <	0.000100		
M Cd <	0.000200	M Ir <	0.000110	M Pt <	0.000600	M Ti <	0.002800		
M Ce	0.006500	O K	0.020000	M Rb <	0.001000	M Tl <	0.000100		
M Co <	0.000200	O La <	0.016000	M Re <	0.000100	M Tm <	0.000100		
M Cr	0.006900	O Li <	0.000430	M Rh <	0.000300	M U <	0.000100		
M Cs <	0.000200	M Lu <	0.000100	M Ru <	0.000310	M V <	0.000800		
M Cu <	0.000600	O Mg	0.021000	n S <		M W <	0.000200		
M Dy <	0.000100	O Mn	0.001900	s Sb <		M Y <	0.000100		
M Er <	0.000100	M Mo <	0.000500	O Sc <	0.002300	M Yb <	0.000100		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 121.75 +3 6 Sb(O)C4H4O6-1

Chemical Compatibility - Stable in conc. HCl, dilute or conc. HF. Stable in dilute HNO3 as the fluoride or tartrate complex. Avoid basic media. Stable with most metals and inorganic anions in acidic media as the tartrate provided the acidity is not too high or the acid is oxidizing causing loss of the stabilizing tartrate ion. The fluoride complex of antimony is stable in strong acid but you should only mix with other metals that are fluorinated.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-2% HNO3 / LDPE container.

Sb Containing Samples (Preparation and Solution) - Metal and alloys (Soluble in H2O / HF / HNO3 mixture); Oxides (Soluble in HCl and tartaric acid or H2O / HF / HNO3 mixtures); Ores (fusion with Na2CO3 in Pt0 followed by dissolving the fuseate in a H2O / HF / HNO3 mixture); Organic based (sulfuric acid / hydrogen peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 121 amu	5 ppt	N/A	105Pd16O, 89Y16O2
ICP-OES 206.833 nm	0.03/0.003 µg/mL	1	Ta, Cr, Ge, Hf
ICP-OES 217.581 nm	0.05/0.005 µg/mL	1	Nb, W, Re, Fe
ICP-OES 231.147 nm	0.06/0.006 µg/mL	1	Ni, Co, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 30, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 30, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAS10
Lot Number: T2-AS718260
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Arsenic
Starting Material: As Metal
Starting Material Lot#: 2208
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10060 ± 40 µg/mL
Density: 1.037 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10062 ± 46 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 100818

Assay Method #2 **10055 ± 76 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.003200	M Eu < 0.000530	O Na < 0.032544	M Se < 0.006300	O Zn < 0.001952
M Al < 0.007593	O Fe < 0.001475	O Nb < 0.012000	O Si < 0.238658	O Zr < 0.004100
s As < 0.000530	M Ga < 0.000530	M Nd < 0.000530	M Sm < 0.000530	
M Au < 0.003100	M Gd < 0.000530	M Ni < 0.002100	M Sn < 0.000530	
M B < 0.026035	M Ge < 0.001600	M Os < 0.000520	M Sr < 0.000530	
M Ba < 0.000530	M Hf < 0.000530	O P < 0.043000	M Ta < 0.000530	
O Be < 0.000360	M Hg < 0.001600	M Pb < 0.002100	M Tb < 0.000530	
M Bi < 0.000530	M Ho < 0.000530	M Pd < 0.001100	M Te < 0.004700	
O Ca < 0.004339	M In < 0.023000	M Pr < 0.005300	M Th < 0.000530	
M Cd < 0.001100	M Ir < 0.000520	M Pt < 0.000530	O Ti < 0.002300	
M Ce < 0.000530	O K < 0.002061	M Rb < 0.000530	M Tl < 0.000530	
M Co < 0.000530	M La < 0.001100	M Re < 0.000530	M Tm < 0.000530	
O Cr < 0.001800	O Li < 0.000120	M Rh < 0.000530	M U < 0.000530	
M Cs < 0.005300	M Lu < 0.000530	M Ru < 0.000520	M V < 0.002700	
M Cu < 0.001600	O Mg < 0.000154	O S < 0.028205	M W < 0.012000	
M Dy < 0.000530	O Mn < 0.000154	M Sb < 0.000530	M Y < 0.000530	
M Er < 0.000530	M Mo < 0.000530	O Sc < 0.001700	M Yb < 0.000530	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 74.92 ; mix of +3 and +5 ; 6 ; H3AsO4 and HAsO2

Chemical Compatibility - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3, H3PO4, H2SO4 and HF aqueous matrices water and NH4OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container.

As Containing Samples (Preparation and Solution) - Metal (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphous form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (one gram of powdered sample is fused in a Ni crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a Ni crucible. The fuseate is extracted with water and acidified with HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 75 amu	20 ppt	N/A	40Ar35Cl, 59Co16O, 36Ar38Ar1H,8Ar37C I,Ar39K, 150Nd2+,150Sm2+
ICP-OES 189.042 nm	0.05/0.005 µg/mL	1	Cr
ICP-OES 193.696 nm	0.1/0.01 µg/mL	1	V, Ge
ICP-OES 228.812 nm	0.1/0.01 µg/mL	1	Cd, Pt, Ir, Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGBA10
 Lot Number: R2-BA692576
 Matrix: 2% (v/v) HNO3
 Value / Analyte(s): 10 000 µg/mL ea:
 Barium
 Starting Material: Barium Nitrate
 Starting Material Lot#: 1969
 Starting Material Purity: 99.9982%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL
Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10018 ± 50 µg/mL ICP Assay NIST SRM 3104a Lot Number: 140909
Assay Method #2	10023 ± 31 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #3	10023 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000410	O Eu < 0.005200	O Na 0.004610	M Se < 0.003700	O Zn 0.000658
M Al < 0.003100	O Fe 0.015707	M Nb < 0.000210	O Si 0.005573	M Zr < 0.001300
M As < 0.001300	M Ga < 0.000210	M Nd < 0.000210	O Sm < 0.021000	
M Au < 0.001300	M Gd < 0.000210	M Ni < 0.000810	M Sn < 0.000410	
O B < 0.005200	M Ge < 0.002500	M Os < 0.000410	O Sr 0.003850	
s Ba <	M Hf < 0.000810	O P < 0.026000	M Ta < 0.000410	
O Be < 0.000320	M Hg < 0.000210	M Pb < 0.002300	M Tb < 0.000210	
M Bi < 0.000210	M Ho < 0.000210	M Pd < 0.000210	M Te < 0.001900	
O Ca 0.007093	M In < 0.000210	M Pr < 0.000210	M Th < 0.000210	
M Cd < 0.000210	M Ir < 0.000210	M Pt < 0.000210	M Ti < 0.002100	
M Ce < 0.001300	O K 0.035467	M Rb < 0.002100	M Tl < 0.000210	
M Co < 0.000410	O La < 0.005200	M Re < 0.000210	M Tm < 0.000410	
M Cr < 0.001700	O Li < 0.000630	M Rh < 0.000210	M U < 0.000210	
M Cs < 0.003300	M Lu < 0.001700	M Ru < 0.000210	O V < 0.005200	
M Cu < 0.001300	O Mg 0.000861	O S 0.268539	M W < 0.000410	
M Dy < 0.000210	M Mn < 0.000410	M Sb < 0.001300	O Y < 0.005200	
M Er < 0.001300	M Mo < 0.000410	M Sc < 0.000410	M Yb < 0.001300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 137.33 +2 6 Ba(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, iodate, molybdate, sulfite and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1 -10,000 ppm solutions chemically stable for years in 1-3.5% HNO₃ / LDPE container.

Ba Containing Samples (Preparation and Solution) -Metal(is best dissolved in diluted HNO₃); Ores(Carbonate fusion in Pt0 followed by HCl dissolution. If sulfate is present dissolve the fuseate using HCl / tartaric acid to prevent BaSO₄ precipitate); Organic Matrices (dry ash and dissolve in dilute HCl.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 138 amu	1 ppt	N/A	122Sn16O, 122Te16O
ICP-OES 230.424 nm	0.004/0.0005 µg/mL	1	Mo, Ir, Co
ICP-OES 233.527 nm	0.004/0.0003 µg/mL	1	
ICP-OES 455.403 nm	0.002/0.0001 µg/mL	1	Zr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 11, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 11, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGBE10
Lot Number: R2-BE692992
Matrix: 6% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Beryllium
Starting Material: Beryllium Acetate
Starting Material Lot#: 2281
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10032 ± 41 µg/mL
Density: 1.128 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10042 ± 67 µg/mL**
ICP Assay NIST SRM 3105a Lot Number: 090514

Assay Method #2 **10025 ± 51 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_i)^2 (u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001100	M Eu < 0.000270	O Na < 0.040962	M Se < 0.005000	M Zn < 0.013054
O Al < 0.016205	O Fe < 0.015754	M Nb < 0.000270	O Si < 0.024307	O Zr < 0.001900
M As < 0.002900	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000520	M Gd < 0.000270	M Ni < 0.003700	M Sn < 0.000790	
M B < 0.091000	M Ge < 0.000270	M Os < 0.000260	M Sr < 0.000630	
M Ba < 0.002700	M Hf < 0.000270	O P < 0.066000	M Ta < 0.000270	
s Be < 0.000530	M Hg < 0.000520	M Pb < 0.000270	M Tb < 0.000270	
M Bi < 0.072022	M Ho < 0.000270	M Pd < 0.000520	M Te < 0.003700	
O Ca < 0.000790	M In < 0.000790	M Pr < 0.000270	M Th < 0.000270	
M Cd < 0.000270	M Ir < 0.000260	M Pt < 0.000270	O Ti < 0.000400	
M Ce < 0.000270	O K < 0.045014	M Rb < 0.000270	M Tl < 0.000790	
O Co < 0.003200	M La < 0.000270	M Re < 0.000270	M Tm < 0.000270	
O Cr < 0.001800	O Li < 0.000660	M Rh < 0.001100	M U < 0.000270	
M Cs < 0.001440	M Lu < 0.000270	M Ru < 0.000260	M V < 0.000790	
M Cu < 0.002100	O Mg < 0.016205	i S < 0.000270	M W < 0.000530	
M Dy < 0.000270	M Mn < 0.001215	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.000530	O Sc < 0.000930	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 9.01 +2 4 Be(H₂O)₄+2

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1 % HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 5-10 % HNO₃ / LDPE container.

Be Containing Samples (Preparation and Solution) - Meta I(is best dissolved in diluted H₂SO₄); BeO (boiling nitric, hydrochloric, or sulfuric acids or KHSO₄ fusion); Ores (H₂SO₄/HF digestion or carbonate fusion in Pt0); Organic Matrices (sulfuric/peroxide digestion or nitric/sulfuric/perchloric acid decomposition, or dry ash and dissolution according to the BeO procedure above).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 9 amu	4 ppt	N/A	
ICP-OES 234.861 nm	0.0003/0.00016 µg/mL	1	Fe, Ta, Mo
ICP-OES 313.042 nm	0.0003/0.00009 µg/mL	1	V, Ce, U
ICP-OES 313.107 nm	0.0007/0.0005 µg/mL	1	Ce, Th, Tm

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION, PERIOD OF VALIDITY AND REVISION HISTORY

11.1 Certification Issue Date

May 13, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 13, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.4 Revision Status

- Revision 1 - Revised on Thursday, Jan 14, 2021 by utruong. Revision was made for the following reason: Modified Section 7 Chemical Form in Solution.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCO10
 Lot Number: R2-CO695285
 Matrix: 3% (v/v) HNO3
 Value / Analyte(s): 10 000 µg/mL ea:
 Cobalt
 Starting Material: Co Metal
 Starting Material Lot#: 2326
 Starting Material Purity: 99.9934%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10012 ± 31 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10031 ± 67 µg/mL ICP Assay NIST SRM 3113 Lot Number: 190630
Assay Method #2	10019 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10000 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/CRM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.014660	M Eu	<	0.000590	O Na	0.007534	M Se	<	0.019000	M Zn	0.003461	
M Al	<	0.024000	M Fe	0.050905	M Nb	<	0.000590	O Si	0.075340	M Zr	<	0.001200
i As	<		M Ga	<	0.000590	M Nd	<	0.000590	M Sm	<	0.000590	
M Au	<	0.004100	M Gd	<	0.000590	O Ni	0.427608	M Sn	<	0.001200		
M B	<	0.031000	M Ge	<	0.003000	M Os	<	0.000590	O Sr	<	0.000260	
M Ba	<	0.000590	M Hf	<	0.000590	n P	<		M Ta	<	0.001200	
O Be	<	0.001300	M Hg	<	0.001800	M Pb	0.003257	M Tb	<	0.000590		
M Bi	<	0.003000	M Ho	<	0.000590	M Pd	<	0.000590	M Te	<	0.005300	
O Ca	0.010588	M In	<	0.001200	M Pr	<	0.000590	M Th	<	0.000590		
M Cd	<	0.004700	M Ir	<	0.001200	M Pt	<	0.002400	M Ti	<	0.014000	
M Ce	<	0.000590	O K	0.008144	M Rb	<	0.000590	M Tl	0.002647			
s Co	<		M La	<	0.000590	M Re	<	0.000590	M Tm	<	0.000590	
M Cr	<	0.021000	O Li	<	0.000130	M Rh	<	0.000590	M U	<	0.000590	
M Cs	<	0.002400	M Lu	<	0.000590	M Ru	<	0.007100	O V	<	0.000880	
M Cu	0.189369	O Mg	0.001893	n S	<			M W	<	0.000590		
M Dy	<	0.000590	M Mn	<	0.001800	M Sb	<	0.003600	M Y	<	0.000590	
M Er	<	0.000590	M Mo	<	0.002400	O Sc	<	0.001600	M Yb	<	0.000590	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.93 +2 6 Co(H₂O)₆²⁺

Chemical Compatibility - Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 59 amu	2 ppt	n/a	42Ca16O1H , 40Ar18O1H , 36Ar23Na, 43Ca16O, 24Mg35Cl
ICP-OES 228.616 nm	0.01/0.001 µg/mL	1	
ICP-OES 237.862 nm	0.01/0.002 µg/mL	1	W, Re, Al, Ta
ICP-OES 238.892 nm	0.01/0.002 µg/mL	1	Fe, W, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 04, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 04, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAG10
Lot Number: S2-AG712977
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Silver
Starting Material: Ag Shot
Starting Material Lot#: 2289
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10051 ± 30 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10051 ± 52 µg/mL ICP Assay NIST SRM 3151 Lot Number: 160729
Assay Method #2	10051 ± 19 µg/mL Volhard NIST SRM 999c Lot Number: 999c
Assay Method #3	10049 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

s Ag <	M Eu <	0.000260	O Na	0.003811	M Se <	0.003900	O Zn	0.048146	
M Al	0.002688	O Fe	0.006419	M Nb <	0.000260	O Si	0.005215	M Zr <	0.000260
M As <	0.001100	M Ga <	0.000260	M Nd <	0.000260	M Sm <	0.000260		
M Au <	0.000260	M Gd <	0.000260	O Ni	0.001765	M Sn	0.020060		
O B <	0.004300	M Ge <	0.002300	M Os <	0.001100	O Sr <	0.000110		
M Ba <	0.000520	M Hf <	0.000260	O P <	0.017000	M Ta <	0.000260		
O Be <	0.001100	M Hg <	0.000770	M Pb <	0.003600	M Tb <	0.000260		
M Bi	0.004814	M Ho <	0.000260	M Pd	0.044134	M Te <	0.009000		
O Ca	0.005215	M In	0.003691	M Pr <	0.000260	M Th <	0.000260		
M Cd <	0.000260	M Ir <	0.000520	M Pt <	0.001100	O Ti <	0.000440		
M Ce <	0.002100	O K <	0.008700	M Rb <	0.001100	M Tl <	0.004100		
O Co <	0.000330	M La <	0.000260	M Re <	0.000260	M Tm <	0.000260		
O Cr <	0.002500	O Li <	0.000110	M Rh <	0.000520	M U <	0.000260		
M Cs <	0.002600	M Lu <	0.000260	M Ru <	0.000260	M V <	0.000260		
O Cu	0.357085	O Mg	0.001203	O S <	0.017000	M W <	0.000260		
M Dy <	0.000260	O Mn <	0.000220	M Sb <	0.014000	M Y <	0.000260		
M Er <	0.000260	M Mo <	0.000260	O Sc <	0.000220	M Yb <	0.000260		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 107.87 +1 6 Ag(H₂O)₆⁺
Chemical Compatibility - Stable in HNO₃, and HF. Avoid basic media. Ag forms more insoluble salts than any other metal. It also is subject to photochemical reduction to the metal in HCl media although 10 µg/mL solutions in 10% HCl [AgCl_x1-x] are commonly used in the analytical laboratory. The most common solubility problems exist with arsenate, arsenite, bromide, chloride, iodide, carbonate, chromate, cyanide, iodate, oxalate, oxide, sulfate, sulfide, tartrate, and thiocyanate in aqueous media. The addition of nitric acid renders many of these salts soluble.

Stability - 2-100 ppb levels stable for 75+ days when mixed with equivalent levels of all other elements including the precious metals (where chloride is present) when in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ag Containing Samples (Preparation and Solution) - Metal (Soluble in HNO₃); Oxides (Soluble in HNO₃); Ores (Digestion with conc. HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 107 amu	1 ppt	N/A	91Zr16O
ICP-OES 243.779 nm	0.12/0.01 µg/mL	1	Mn, Th, Ni, Rh
ICP-OES 328.068 nm	0.007/0.0007 µg/mL	1	Ce, Rh, V
ICP-OES 338.289 nm	0.013/0.001 µg/mL	1	Ce, Cr, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCR(3)10
Lot Number: S2-CR709784
Matrix: 10% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Chromium
Starting Material: Cr Metal
Starting Material Lot#: 2328
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10027 ± 41 µg/mL
Density: 1.072 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10027 ± 40 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 170630

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.001700	M	Eu <	0.003400	O	Na	0.090372	M	Se <	0.012000	O	Zn <	0.006100
M Al	0.034916	O	Fe	0.246471	M	Nb <	0.017000	n	Si <		M	Zr <	0.007800
M As <	0.028000	O	Ga <	0.013000	M	Nd <	0.013000	M	Sm <	0.006900			
M Au <	0.001700	M	Gd <	0.000560	M	Ni	0.016020	M	Sn	0.006983			
O B <	0.025000	O	Ge <	0.014000	M	Os <	0.000560	M	Sr	0.006367			
M Ba <	0.008900	M	Hf <	0.000560	i	P <		M	Ta <	0.000560			
M Be <	0.013000	M	Hg <	0.001700	M	Pb	0.010064	M	Tb <	0.000560			
M Bi <	0.002300	M	Ho <	0.000560	M	Pd <	0.021000	M	Te <	0.010000			
O Ca	0.075995	M	In <	0.000560	M	Pr <	0.001700	M	Th <	0.000560			
M Cd <	0.000560	M	Ir <	0.000560	M	Pt <	0.001200	O	Ti	0.013555			
M Ce <	0.001200	O	K	0.043132	i	Rb <		M	Tl <	0.000560			
M Co <	0.002600	M	La <	0.001200	M	Re <	0.001200	O	Tm <	0.013000			
s Cr <		O	Li	0.000390	M	Rh <	0.095000	M	U <	0.000560			
M Cs <	0.007800	M	Lu <	0.000560	M	Ru <	0.087000	O	V	0.014993			
O Cu	0.007599	O	Mg	0.000883	i	S <		M	W <	0.049000			
M Dy <	0.000560	M	Mn	0.008626	M	Sb <	0.003400	M	Y <	0.001700			
M Er <	0.019000	M	Mo <	0.032000	M	Sc	0.003080	M	Yb <	0.000560			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 52.00 +3 6 Cr(H₂O)₆3+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cr₃ Containing Samples (Preparation and Solution) -Metal (soluble in HCl); Oxides/Ores (Chrome ore/oxides are very difficult to dissolve. The following procedures [A-D] are commonly used: A. Fusion with KHSO₄ and extraction with hot KCl. The residue fused with Na₂CO₃ and KClO₃, 3:1. B. Fusion with NaKSO₄ and NaF 2:1, C. Fusion with magnesia or lime and sodium or potassium carbonates, 4:1. D. Fusion with Na₂O₂ or NaOH and KNO₃ or NaOH and Na₂O₂. Nickel, iron, copper, or silver crucibles should be used for D. Platinum may be used for A, <, C); Organic Matrices (ash at 4500C followed by one of the fusion methods above or sulfuric/hydrogen peroxide acid digestions may be applicable to non oxide containing samples).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 52 amu	40 ppt	N/A	36S16O, 36Ar16O - The 50Cr, 53Cr, 54Cr lines suffer from many more potential interferences from sulfur, chlorine and argon compounds of oxygen, nitrogen and carbon.
ICP-OES 205.552 nm	0.006/0.0008 µg/mL	1	Os
ICP-OES 276.654 nm	0.01/0.001 µg/mL	1	Cu, Ta, V
ICP-OES 284.325 nm	0.008/0.0007 µg/mL	1	

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 26, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 26, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNI10
Lot Number: P2-NI686384
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Nickel
Starting Material: Ni Metal
Starting Material Lot#: 2277 and 2282
Starting Material Purity: 99.9992%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9979 ± 30 µg/mL
Density: 1.038 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9971 ± 54 µg/mL ICP Assay NIST SRM 3136 Lot Number: 120619
Assay Method #2	9970 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	9993 ± 33 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.002606	M Eu	<	0.001100	O Na	0.004965	O Se	<	0.067000	M Zn	0.006578	
M Al	<	0.013000	O Fe	0.018618	M Nb	<	0.001100	O Si	0.010923	M Zr	<	0.001100
O As	<	0.067000	M Ga	<	0.001100	M Nd	<	0.001100	M Sm	<	0.001100	
M Au	<	0.002100	M Gd	<	0.001100	s Ni	<		M Sn	<	0.016000	
M B	<	0.017000	M Ge	<	0.004200	M Os	0.002110	O Sr	<	0.000940		
M Ba	<	0.001100	M Hf	<	0.001100	i P	<		M Ta	<	0.001100	
O Be	<	0.000410	M Hg	0.014895	M Pb	0.006578	M Tb	<	0.001100			
M Bi	<	0.004200	M Ho	<	0.001100	M Pd	<	0.001100	M Te	<	0.015000	
O Ca	0.003351	M In	<	0.001100	M Pr	<	0.001100	M Th	<	0.001100		
M Cd	0.001365	M Ir	0.004716	M Pt	<	0.001100	M Ti	<	0.004200			
M Ce	<	0.001100	O K	0.004716	M Rb	<	0.001100	M Tl	<	0.001100		
O Co	0.017377	M La	<	0.001100	M Re	0.001737	M Tm	<	0.001100			
O Cr	<	0.006700	O Li	<	0.000140	M Rh	<	0.006300	M U	<	0.001100	
M Cs	<	0.007300	M Lu	<	0.001100	M Ru	<	0.019000	M V	<	0.002100	
M Cu	0.004096	O Mg	0.000372	i S	<			M W	<	0.006300		
M Dy	<	0.001100	O Mn	<	0.001900	M Sb	0.005833	O Y	<	0.000540		
M Er	<	0.001100	M Mo	<	0.008400	M Sc	<	0.002100	M Yb	<	0.001100	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.69 +2 6 Ni(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ni Containing Samples (Preparation and Solution) -Metal (Soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 60 amu	100 ppt	n/a	43Ca16O1H , 44Ca16O, 23Na37Cl
ICP-OES 221.647 nm	0.01 / 0.0009 µg/mL	1	Si
ICP-OES 231.604 nm	0.02 / 0.002 µg/mL	1	Sb, Ta, Co
ICP-OES 232.003 nm	0.02 / 0.006 µg/mL	1	Cr, Re, Os, Nb, Ag, Pt, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGV10
Lot Number: S2-V711005
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Vanadium
Starting Material: Vanadium Pentoxide
Starting Material Lot#: 1782
Starting Material Purity: 99.9877%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10014 ± 30 µg/mL
Density: 1.104 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10017 ± 42 µg/mL**
ICP Assay NIST SRM 3165 Lot Number: 160906

Assay Method #2 **10013 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000110	M Eu < 0.000110	O Na 0.120000	M Se < 0.009400	M Zn 0.009400
O Al 0.120000	O Fe 0.460000	M Nb < 0.001300	O Si 0.270000	M Zr < 0.002900
M As < 0.000210	M Ga < 0.009300	M Nd < 0.000610	M Sm < 0.000110	
M Au < 0.004700	M Gd < 0.000110	M Ni 0.012000	M Sn 0.003900	
M B 0.051000	M Ge < 0.000410	M Os < 0.000110	O Sr 0.007100	
M Ba 0.003600	M Hf < 0.000110	O P < 0.034000	M Ta < 0.000110	
O Be < 0.000560	M Hg < 0.000410	M Pb 0.001400	M Tb < 0.000110	
M Bi < 0.000210	M Ho < 0.000110	M Pd < 0.000410	M Te < 0.000110	
O Ca 0.730000	M In < 0.000110	M Pr < 0.000110	M Th < 0.000210	
M Cd < 0.000610	M Ir < 0.000110	M Pt < 0.000110	M Ti 0.017000	
M Ce < 0.000610	M K 0.052000	M Rb < 0.000310	M Tl < 0.000110	
M Co < 0.001300	M La < 0.000410	M Re 0.001700	M Tm < 0.000110	
O Cr 0.170000	M Li < 0.000810	M Rh < 0.000110	M U < 0.000410	
M Cs 0.005600	M Lu < 0.000110	M Ru < 0.000110	s V <	
M Cu < 0.001300	M Mg 0.053000	i S <	M W 0.002000	
M Dy < 0.000110	M Mn 0.007900	M Sb 0.078000	M Y < 0.000110	
M Er < 0.000110	M Mo 0.094000	M Sc < 0.000410	M Yb < 0.000110	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 50.94 +5 6 H₂V₁₀O₂₈4-

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄, HF, H₃PO₄ and strong basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

V Containing Samples (Preparation and Solution) -Metal (Fusion with NaOH or KOH in NiO or Na₂CO₃ / KNO₃); Oxides (V₂O₃ - use HCl, V₂O₄ - use HCl or HNO₃, V₂O₅ - use concentrated acids); Ores (Na₂CO₃ / KNO₃ in PtO caution - nitrates attack PtO followed by water extraction of fuseate); Organic Matrices (Ash at 450 EC followed by dissolving according to V₂O₅ above) .

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 51 amu	4 ppt	N/A	34S16O1H, 35Cl16O, 38Ar13C, 36Ar15N, 36Ar14N1H, 37Cl14N,36S15N, 33S18O, 34S17O, 102Ru+2,02Pd+2
ICP-OES 290.882 nm	0.008 / 0.0008 µg/mL	1	Hf, Nb
ICP-OES 292.402 nm	0.006 / 0.001 µg/mL	1	Th
ICP-OES 309.311 nm	0.005 / 0.001 µg/mL	1	Mg, U, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAL10
Lot Number: T2-AL716102
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Aluminum
Starting Material: Aluminum Nitrate Nonahydrate
Starting Material Lot#: 2460
Starting Material Purity: 99.9938%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10049 ± 31 µg/mL
Density: 1.087 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10059 ± 40 µg/mL ICP Assay NIST SRM 3101a Lot Number: 140903
Assay Method #2	10044 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10049 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.002100	M Eu < 0.002100	O Na < 0.352819	M Se < 0.005200	M Zn < 0.006018
s Al < 0.002100	O Fe < 0.074714	M Nb < 0.000520	O Si < 0.017848	O Zr < 0.004358
M As < 0.008716	O Ga < 0.112072	M Nd < 0.000520	M Sm < 0.000520	
M Au < 0.008400	M Gd < 0.001100	O Ni < 0.006000	M Sn < 0.000747	
O B < 0.014000	M Ge < 0.005200	M Os < 0.000650	O Sr < 0.000518	
O Ba < 0.012867	M Hf < 0.004100	n P < 0.000520	M Ta < 0.000520	
O Be < 0.000270	M Hg < 0.002000	M Pb < 0.002282	M Tb < 0.000520	
M Bi < 0.001930	M Ho < 0.000520	M Pd < 0.000520	M Te < 0.001100	
O Ca < 0.076790	M In < 0.002100	M Pr < 0.000520	M Th < 0.000520	
M Cd < 0.000520	M Ir < 0.000650	M Pt < 0.000520	O Ti < 0.001930	
M Ce < 0.001100	O K < 0.043583	M Rb < 0.000520	M Tl < 0.000520	
O Co < 0.005400	M La < 0.002100	M Re < 0.000520	M Tm < 0.000520	
O Cr < 0.006018	O Li < 0.000112	M Rh < 0.000520	M U < 0.000520	
M Cs < 0.000643	M Lu < 0.000520	M Ru < 0.002000	M V < 0.001286	
O Cu < 0.008300	O Mg < 0.068488	i S < 0.000520	M W < 0.009800	
M Dy < 0.002100	O Mn < 0.000913	M Sb < 0.003100	M Y < 0.001100	
M Er < 0.000520	M Mo < 0.005396	O Sc < 0.000950	M Yb < 0.000520	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 26.98 +3 6 Al(H₂O)₆+3

Chemical Compatibility -Soluble in HCl, HNO₃, vF and v₂SO₄. Avoid neutral media. Soluble in strongly basic NaOH forming the Al(OH)₄(H₂O)₂⁻ species. Stable with most metals and inorganic anions. The phosphate is insoluble in water and only slightly soluble in acid.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Al Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO₃); a- Al₂O₃ (Na₂CO₃ fusion in PtO);

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 27 amu	30 ppt	N/A	12C15N, 13C14N, 1H12C14N, 11B16O, 54Cr ²⁺ , 54Fe ²⁺
ICP-OES 167.078 nm	0.1/0.009 µg/mL	1	Fe
ICP-OES 394.401 nm	0.05/0.006 µg/mL	1	U, Ce
ICP-OES 396.152 nm	0.03/0.006 µg/mL	1	Mo, Zr, Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 22, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGK10
Lot Number: S2-K711973
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Potassium
Starting Material: KNO₃
Starting Material Lot#: 2313
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.024 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9987 ± 24 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	10004 ± 84 µg/mL ICP Assay NIST SRM 3141a Lot Number: 140813
Assay Method #3	10007 ± 45 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001400	M Eu < 0.000660	O Na < 0.246220	M Se < 0.007900	O Zn < 0.018056
O Al < 0.001592	O Fe < 0.005909	M Nb < 0.000660	O Si < 0.011490	O Zr < 0.001600
M As < 0.005300	M Ga < 0.000660	M Nd < 0.000660	M Sm < 0.000660	
M Au < 0.002000	M Gd < 0.000660	O Ni < 0.004900	M Sn < 0.000660	
O B < 0.005600	M Ge < 0.002000	M Os < 0.003300	O Sr < 0.000055	
O Ba < 0.000860	M Hf < 0.000660	O P < 0.032000	M Ta < 0.000660	
O Be < 0.000082	M Hg < 0.002000	M Pb < 0.002300	M Tb < 0.000660	
M Bi < 0.006600	M Ho < 0.000660	M Pd < 0.000660	M Te < 0.017000	
O Ca < 0.031187	M In < 0.000660	M Pr < 0.000660	M Th < 0.000660	
O Cd < 0.000450	M Ir < 0.000660	M Pt < 0.002700	M Ti < 0.000660	
M Ce < 0.000660	s K <	M Rb < 0.476026	M Tl < 0.000660	
O Co < 0.000780	M La < 0.000660	M Re < 0.000660	M Tm < 0.000660	
O Cr < 0.000541	O Li < 0.000084	M Rh < 0.000660	M U < 0.000660	
M Cs < 0.000660	M Lu < 0.000660	M Ru < 0.000660	O V < 0.001100	
M Cu < 0.002700	O Mg < 0.006237	O S < 0.027905	M W < 0.000660	
M Dy < 0.000660	O Mn < 0.000476	M Sb < 0.000660	M Y < 0.000660	
M Er < 0.000660	M Mo < 0.000660	O Sc < 0.000340	O Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 39.10 +1 (6) K+(aq)

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Avoid use of HClO₄ due to insolubility of the perchlorate. Stable with all metals and inorganic anions except ClO₄⁻.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

K Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Sodium carbonate fusion in Pt0 followed by HCl dissolution-blank levels of K in sodium carbonate critical); Organic Matrices (Sulfuric/peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 39 amu	10 ppt	n/a	38ArH, 23Na16O, 78Se
ICP-OES 404.721 nm	1.1 / 0.05 µg/mL	1	U, Ce
ICP-OES 766.490 nm	0.4 / 0.001 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 771.531 nm	1.0 / 0.03 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 10, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 10, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMG10
Lot Number: S2-MG704239
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Magnesium
Starting Material: Magnesium Metal
Starting Material Lot#: 2168
Starting Material Purity: 99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10053 ± 30 µg/mL
Density: 1.053 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10022 ± 62 µg/mL ICP Assay NIST SRM 3131a Lot Number: 140110
Assay Method #2	10078 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10033 ± 26 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

O Ag	0.002106	M	Eu <	0.000910	O Na	0.071075	O Se <	0.048000	O Zn	0.003299
M Al	0.003553	M	Fe	0.002538	M Nb <	0.000460	O Si <	0.032000	O Zr <	0.002700
M As <	0.001400	M	Ga <	0.000460	M Nd <	0.000910	M Sm <	0.000460		
M Au <	0.001400	M	Gd <	0.000460	O Ni <	0.001600	M Sn <	0.002300		
O B	0.006853	M	Ge <	0.001400	M Os <	0.000460	O Sr	0.000279		
O Ba	0.000964	M	Hf <	0.000460	O P	0.015230	M Ta <	0.000460		
O Be <	0.000120	M	Hg <	0.000460	M Pb <	0.000460	M Tb <	0.000460		
M Bi <	0.000460	M	Ho <	0.000460	M Pd <	0.003200	M Te <	0.007300		
O Ca	0.053306	M	In <	0.000460	M Pr <	0.000460	M Th <	0.000460		
O Cd <	0.000360	M	Ir <	0.000460	M Pt <	0.001900	O Ti <	0.001700		
M Ce <	0.002300	M	K	0.048229	M Rb	0.002411	M Tl	0.003046		
M Co <	0.000910	M	La <	0.002800	M Re <	0.000460	M Tm <	0.000460		
M Cr <	0.002300	O	Li	0.027922	M Rh <	0.000460	M U <	0.000460		
M Cs	0.001040	M	Lu <	0.000460	M Ru <	0.000460	M V <	0.000460		
O Cu <	0.003000	s	Mg <		O S <	0.190000	M W <	0.000460		
M Dy <	0.000460	O	Mn	0.015230	M Sb	0.020814	O Y <	0.000720		
M Er <	0.000460	M	Mo <	0.000910	O Sc <	0.000480	M Yb <	0.000460		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 24.31 +2 6 Mg(H₂O)₆+2

Chemical Compatibility -Soluble in HCl, HNO₃, and H₂SO₄ avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicates, carbonates, hydroxides, oxides, and tungstates in neutral and slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Mg Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Oxide (Readily soluble in above compatible aqueous acidic solutions); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition, or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 24 amu	42 ppt	n/a	7Li17O, 48Ti+2 , 48Ca+2
ICP-OES 279.553 nm	0.0002 / 0.00003 µg/mL	1	Th
ICP-OES 280.270 nm	0.0003 / 0.00005 µg/mL	1	U, V
ICP-OES 285.213 nm	0.002 / 0.00003 µg/mL	1	U, Hf, Cr, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 23, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 23, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCA10
Lot Number: T2-CA716103
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Calcium
Starting Material: CaCO₃
Starting Material Lot#: 2472
Starting Material Purity: 99.9950%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10005 ± 30 µg/mL
Density: 1.039 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10005 ± 45 µg/mL ICP Assay NIST SRM 3109a Lot Number: 130213
Assay Method #2	10005 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10005 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001200	M Eu < 0.001200	O Na < 0.006112	M Se < 0.024000	M Zn < 0.005362
M Al < 0.065419	O Fe < 0.009115	M Nb < 0.001200	O Si < 0.139417	O Zr < 0.006700
O As < 0.013000	M Ga < 0.015000	M Nd < 0.020000	M Sm < 0.001200	
M Au < 0.017000	M Gd < 0.004800	O Ni < 0.000793	M Sn < 0.003600	
O B < 0.001179	M Ge < 0.003600	M Os < 0.001200	M Sr < 0.081505	
O Ba < 0.002788	M Hf < 0.001200	O P < 0.041000	M Ta < 0.001200	
O Be < 0.000410	M Hg < 0.004800	M Pb < 0.001608	M Tb < 0.001200	
M Bi < 0.001608	M Ho < 0.001200	M Pd < 0.001200	M Te < 0.003600	
s Ca <	M In < 0.001200	M Pr < 0.000257	M Th < 0.001200	
O Cd < 0.001300	M Ir < 0.001200	M Pt < 0.003600	O Ti < 0.001900	
M Ce < 0.001029	O K < 0.009759	M Rb < 0.001200	M Tl < 0.001200	
O Co < 0.000418	M La < 0.001823	M Re < 0.001200	M Tm < 0.001200	
O Cr < 0.003324	O Li < 0.007300	M Rh < 0.001200	M U < 0.002144	
M Cs < 0.007399	M Lu < 0.000128	M Ru < 0.001200	M V < 0.001286	
O Cu < 0.011000	M Mg < 1.286934	O S < 0.055767	O W < 0.024000	
M Dy < 0.002400	O Mn < 0.004611	M Sb < 0.009600	O Y < 0.000536	
M Er < 0.002400	M Mo < 0.003539	O Sc < 0.001400	M Yb < 0.001200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 40.08 +2 6 Ca(H₂O)₆+2
Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₂SO₄, vF, v3PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Ca Containing Samples)Preparation and Solution -Metal (best dissolved in diluted HNO₃); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (dry ash and dissolution in dilute HCl. Do not heat when dissolving to avoid precipitation of SiO₂). The oxide, hydroxide, carbonate, phosphate, and fluoride of calcium are soluble in % levels of HCl or HNO₃. The sulfates (gypsum, anhydrite, etc.), certain silicates, and complex compounds require fusion with Na₂CO₃ followed by HCl / water dissolution. Note that contamination is a very real problem when analyzing for trace levels.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 44 amu	1200 ppt	n/a	16O212C, 28Si16O, 88Sr
ICP-OES 393.366 nm	0.0002 / 0.00004 µg/mL	1	U, Ce
ICP-OES 396.847 nm	0.0005 / 0.00006 µg/mL	1	Th
ICP-OES 422.673 nm	0.01 / 0.001 µg/mL	1	Ge

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 14, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 14, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNA10
Lot Number: T2-NA717221
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Sodium
Starting Material: Na₂CO₃
Starting Material Lot#: 2358 and 2453
Starting Material Purity: 99.9977%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9977 ± 30 µg/mL
Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9974 ± 18 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	9977 ± 34 µg/mL ICP Assay NIST SRM 3152a Lot Number: 200413
Assay Method #3	9987 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000930	M Eu < 0.000930	s Na <	M Se < 0.003800	O Zn < 0.000138
M Al < 0.004409	O Fe < 0.002393	M Nb < 0.000930	O Si < 0.056696	O Zr < 0.003200
O As < 0.023000	M Ga < 0.000930	M Nd < 0.000930	M Sm < 0.000930	
O Au < 0.004100	M Gd < 0.000930	O Ni < 0.003000	M Sn < 0.002800	
O B < 0.001385	M Ge < 0.004700	M Os < 0.000930	O Sr < 0.000251	
M Ba < 0.004031	M Hf < 0.000930	O P < 0.010205	M Ta < 0.000930	
O Be < 0.000130	M Hg < 0.000930	M Pb < 0.000930	M Tb < 0.000930	
M Bi < 0.000930	M Ho < 0.000930	M Pd < 0.000930	M Te < 0.001900	
O Ca < 0.176388	M In < 0.000930	M Pr < 0.000930	M Th < 0.000352	
O Cd < 0.000860	M Ir < 0.000930	M Pt < 0.000930	O Ti < 0.000592	
M Ce < 0.001900	O K < 0.302380	M Rb < 0.000930	M Tl < 0.000930	
O Co < 0.001800	O La < 0.002100	M Re < 0.000930	M Tm < 0.000930	
M Cr < 0.002800	O Li < 0.000031	M Rh < 0.000930	M U < 0.000930	
M Cs < 0.000930	M Lu < 0.000930	M Ru < 0.001900	O V < 0.001600	
O Cu < 0.003900	O Mg < 0.026458	O S < 0.040317	O W < 0.028000	
M Dy < 0.000930	O Mn < 0.000740	M Sb < 0.000930	O Y < 0.000860	
M Er < 0.000930	O Mo < 0.003600	O Sc < 0.000610	O Yb < 0.000250	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2 , 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 20, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 20, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGU1
Lot Number: S2-U707914
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Uranium
Starting Material: Uranyl Nitrate Hexahydrate
Starting Material Lot#: P2-2322
Starting Material Purity: 99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 5 µg/mL
Density: 1.010 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 5 µg/mL**
ICP Assay NIST SRM 3164 Lot Number: 080521

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000270	M Eu < 0.000270	M Na < 0.011000	M Se < 0.009300	M Zn < 0.002358
M Al < 0.011000	M Fe < 0.003222	M Nb < 0.000270	M Si < 0.160000	M Zr < 0.001100
M As < 0.002400	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000270	M Gd < 0.000270	M Ni < 0.020000	M Sn < 0.011000	
M B < 0.000270	M Ge < 0.000800	M Os < 0.001900	M Sr < 0.000270	
M Ba < 0.003800	M Hf < 0.000270	i P < 0.000270	M Ta < 0.000270	
M Be < 0.000270	M Hg < 0.000540	M Pb < 0.002200	M Tb < 0.000270	
M Bi < 0.000270	M Ho < 0.000270	M Pd < 0.000540	M Te < 0.003800	
M Ca < 0.140000	M In < 0.000270	M Pr < 0.000270	M Th < 0.000129	
M Cd < 0.000270	M Ir < 0.000270	M Pt < 0.000270	M Ti < 0.002700	
M Ce < 0.000540	O K < 0.250000	M Rb < 0.000800	M Tl < 0.000270	
M Co < 0.000800	M La < 0.000117	M Re < 0.064000	M Tm < 0.000270	
M Cr < 0.000943	M Li < 0.003000	M Rh < 0.000270	s U < 0.000270	
M Cs < 0.000106	M Lu < 0.000270	M Ru < 0.000540	M V < 0.000540	
M Cu < 0.001100	M Mg < 0.003000	i S < 0.000270	M W < 0.000540	
M Dy < 0.000270	M Mn < 0.006900	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.006400	M Sc < 0.000540	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 238.03 +6 8 UO₂²⁺(uranyl)

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₃PO₄. H₂SO₄ and HF matrices should not be a problem depending upon [U]. Although the UO₂²⁺ ion is distinctly basic, any U+4 will precipitate in basic media. UO₂²⁺salts are generally soluble in water and UO₂²⁺ is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF₄ and UF₆ are water soluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO₃); Oxide (Soluble in HNO₃); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO₃. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H₂SO₄.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: AR-ICVMS-2
Lot Number: T2-MEB719895
Matrix: 3% (v/v) HNO3
tr. HF
Value / Analyte(s): 2.5 µg/mL ea:
Molybdenum, Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	2.499 ± 0.015 µg/mL	Molybdenum, Mo	2.500 ± 0.017 µg/mL

Density: 1.014 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/(u_{char\ i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	AR-ICVMS-3	
Lot Number:	T2-MEB719896	
Matrix:	7% (v/v) HNO ₃	
Value / Analyte(s):	250 µg/mL ea:	
	Aluminum,	Calcium,
	Iron,	Potassium,
	Magnesium,	Sodium,
	4 µg/mL ea:	
	Selenium,	
	2.5 µg/mL ea:	
	Thorium,	Thallium,
	Uranium,	Vanadium,
	Zinc,	Manganese,
	Cadmium,	Cobalt,
	Chromium,	Copper,
	Arsenic,	Barium,
	Beryllium,	Nickel,
	Lead,	Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.500 ± 0.018 µg/mL
Barium, Ba	2.501 ± 0.013 µg/mL	Beryllium, Be	2.501 ± 0.015 µg/mL
Cadmium, Cd	2.501 ± 0.013 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.015 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.014 µg/mL	Iron, Fe	250.0 ± 1.0 µg/mL
Lead, Pb	2.500 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.014 µg/mL	Nickel, Ni	2.500 ± 0.014 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.002 ± 0.024 µg/mL
Silver, Ag	2.501 ± 0.017 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.500 ± 0.017 µg/mL	Thorium, Th	2.499 ± 0.013 µg/mL
Uranium, U	2.501 ± 0.015 µg/mL	Vanadium, V	2.500 ± 0.014 µg/mL
Zinc, Zn	2.500 ± 0.014 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2

V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928
Zn	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } j}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

<u>Isotope</u>	<u>Atom %</u>
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

<https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver>

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

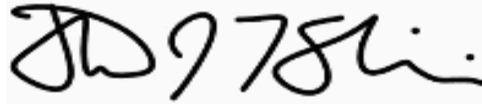
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: AR-6020ICS-0A10
 Lot Number: T2-MEB719898
 Matrix: 1.4% (v/v) HNO3
 Value / Analyte(s):
 1 000 µg/mL ea:
 Chloride,
 200 µg/mL ea:
 Carbon,
 100 µg/mL ea:
 Calcium, Aluminum,
 Iron, Potassium,
 Magnesium, Sodium,
 Phosphorus, Sulfur,
 2 µg/mL ea:
 Titanium, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Calcium, Ca	100.0 ± 0.5 µg/mL
Carbon, C	200.1 ± 0.5 µg/mL	Chloride, Cl	1 000 ± 5 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Magnesium, Mg	100.0 ± 0.5 µg/mL
Molybdenum, Mo	2.001 ± 0.014 µg/mL	Phosphorus, P	100.0 ± 0.6 µg/mL
Potassium, K	100.0 ± 0.5 µg/mL	Sodium, Na	100.0 ± 0.5 µg/mL
Sulfur, S	100.0 ± 0.5 µg/mL	Titanium, Ti	2.001 ± 0.015 µg/mL

Density: 1.009 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cl	Acidimetric	84L	84L
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

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$$X_{\text{CRM/RM}} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.
- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 07, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 07, 2027**

- The date after which this CRM/RM should not be used.
- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

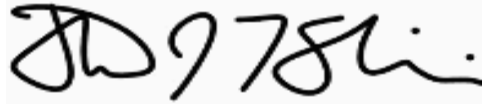
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SS1804

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-01 C SDG: 23D0136
 Sampled: 04/05/23 11:45 Prepared: 06/19/23 13:26 File ID: CubeData_06232023@1311-021
 % Solids: 47.25 Preparation: No Prep Wet Chem Analyzed: 06/21/23 02:24
 Batch: BLF0522 Sequence: SLF0283 Initial/Final: 0.5304 g Wet / 0.5304 g
 Instrument: TOC Cube Calibration: GE00052

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.87	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1804

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-02 C SDG: 23D0136
 Sampled: 04/05/23 12:15 Prepared: 06/19/23 13:26 File ID: CubeData_06232023@1311-037
 % Solids: 49.80 Preparation: No Prep Wet Chem Analyzed: 06/21/23 10:27
 Batch: BLF0522 Sequence: SLF0283 Initial/Final: 0.0702 g Wet / 0.0702 g
 Instrument: TOC Cube Calibration: GE00052

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.22	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SS1803

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-03 B SDG: 23D0136
 Sampled: 04/05/23 16:05 Prepared: 06/19/23 13:26 File ID: CubeData_06232023@1311-038
 % Solids: 48.35 Preparation: No Prep Wet Chem Analyzed: 06/21/23 10:57
 Batch: BLF0522 Sequence: SLF0283 Initial/Final: 0.1926 g Wet / 0.1926 g
 Instrument: TOC Cube Calibration: GE00052

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.64	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1803

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0136-04 C SDG: 23D0136
 Sampled: 04/05/23 16:30 Prepared: 06/19/23 13:26 File ID: CubeData_06232023@1311-041
 % Solids: 49.32 Preparation: No Prep Wet Chem Analyzed: 06/21/23 12:28
 Batch: BLF0522 Sequence: SLF0283 Initial/Final: 0.1057 g Wet / 0.1057 g
 Instrument: TOC Cube Calibration: GE00052

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.30	1	0.02	0.02	



PREPARATION BATCH SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC SDG: 23D0136
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLF0522 Batch Matrix: Solid Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1804	23D0136-01	eData_06232023@1311	06/19/23 13:26	
LDW23-SC1804	23D0136-02	eData_06232023@1311	06/19/23 13:26	
LDW23-SS1803	23D0136-03	eData_06232023@1311	06/19/23 13:26	
LDW23-SC1803	23D0136-04	eData_06232023@1311	06/19/23 13:26	
Blank	BLF0522-BLK1	eData_06232023@1311	06/19/23 13:26	
LCS	BLF0522-BS1	eData_06232023@1311	06/19/23 13:26	
LDW23-SS1804	BLF0522-DUP1	eData_06232023@1311	06/19/23 13:26	
MRL Check	BLF0522-MRL1	eData_06232023@1311	06/19/23 13:26	
LDW23-SS1804	BLF0522-MS1	eData_06232023@1311	06/19/23 13:26	
Reference	BLF0522-SRM2	eData_06262023@1011	06/19/23 13:26	



Form I
METHOD BLANK DATA SHEET
EPA 9060A m
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLF0522

Laboratory ID: BLF0522-BLK1

Prepared: 06/19/23 13:26

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 06/20/23 20:23

Sequence: SLF0283

Calibration: GE00052

Instrument: TOC Cube

CAS NO.	Analyte	Concentration (% wet)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.02	0.02	U



LCS / LCS DUPLICATE RECOVERY
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>06/20/23 22:23</u>
Batch:	<u>BLF0522</u>	Laboratory ID:	<u>BLF0522-BS1</u>
Preparation:	<u>No Prep Wet Chem</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>0.0237 g / 0.0237 g</u>		

COMPOUND	SPIKE ADDED (% wet)	LCS CONCENTRATION (% wet)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	44.4	45.6		103	80 - 120

* Indicates values outside of QC limits



DUPLICATES

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLF0522-DUP1

Batch: BLF0522

Lab Source ID: 23D0136-01

Preparation: No Prep Wet Chem

Initial/Final: 0.5257 g / 0.5257 g

Source Sample Name: LDW23-SS1804

% Solids: 47.25

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Organic Carbon	20	2.87	3.10	7.51	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



MS / MS DUPLICATE RECOVERY
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>06/21/23 03:24</u>
Batch:	<u>BLF0522</u>	Laboratory ID:	<u>BLF0522-MS1</u>
Preparation:	<u>No Prep Wet Chem</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>0.5525 g / 0.5525 g</u>	Source Sample:	<u>LDW23-SS1804</u>

COMPOUND	SPIKE ADDED (% dry)	SAMPLE CONCENTRATION (% dry)	Q	MS CONCENTRATION (% dry)	Q	MS % REC. #	QC LIMITS REC.
Total Organic Carbon	1.31	2.87		4.46		121	75 - 125

* Values outside of QC limits



ANALYSIS BATCH (SEQUENCE) SUMMARY

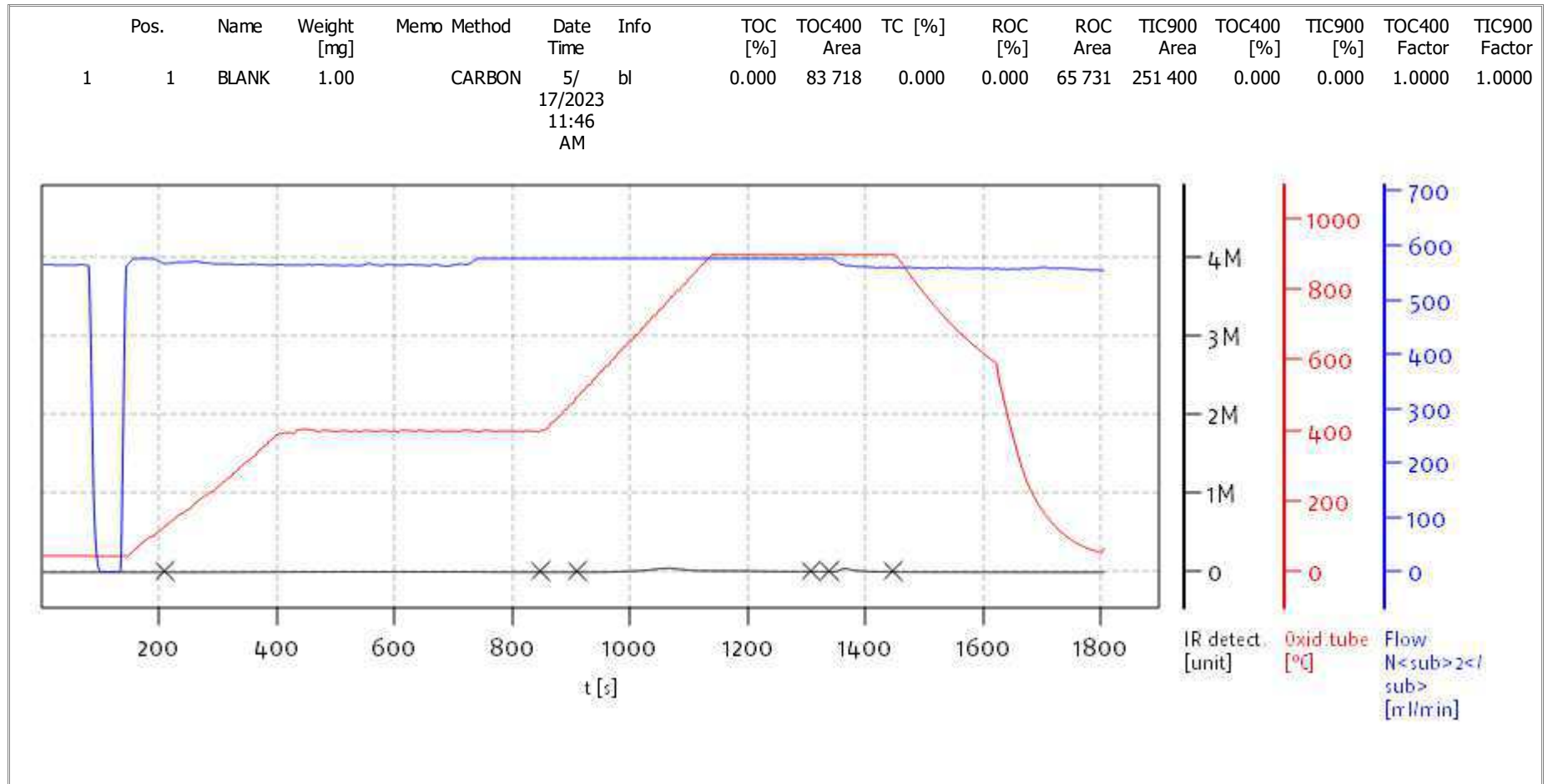
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0136</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0270</u>	Instrument:	<u>TOC Cube</u>
		Calibration:	<u>GE00052</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SLE0270-CAL1	CubeData_05182023@1024b-101	NA	05/17/23 12:46
Cal Standard	SLE0270-CAL2	CubeData_05182023@1024b-102	NA	05/17/23 13:16
Cal Standard	SLE0270-CAL3	CubeData_05182023@1024b-103	NA	05/17/23 13:46
Cal Standard	SLE0270-CAL4	CubeData_05182023@1024b-104	NA	05/17/23 14:16
Cal Standard	SLE0270-CAL5	CubeData_05182023@1024b-105	NA	05/17/23 14:47
Cal Standard	SLE0270-CAL6	CubeData_05182023@1024b-106	NA	05/17/23 15:17
Cal Standard	SLE0270-CAL7	CubeData_05182023@1024b-107	NA	05/17/23 15:47
Cal Standard	SLE0270-CAL8	CubeData_05182023@1024b-108	NA	05/17/23 16:17
Cal Standard	SLE0270-CAL9	CubeData_05182023@1024b-109	NA	05/17/23 16:47
Cal Standard	SLE0270-CALA	CubeData_05182023@1024b-110	NA	05/17/23 17:17
Cal Standard	SLE0270-CALB	CubeData_05182023@1024b-111	NA	05/17/23 17:47
Cal Standard	SLE0270-CALC	CubeData_05182023@1024b-112	NA	05/17/23 18:18
Cal Standard	SLE0270-CALD	CubeData_05182023@1024b-113	NA	05/17/23 18:48
Cal Standard	SLE0270-CALE	CubeData_05182023@1024b-114	NA	05/17/23 19:18
Cal Standard	SLE0270-CALF	CubeData_05182023@1024b-115	NA	05/17/23 19:48
Cal Standard	SLE0270-CALG	CubeData_05182023@1024b-116	NA	05/17/23 20:18
Cal Standard	SLE0270-CALH	CubeData_05182023@1024b-117	NA	05/17/23 20:48
Cal Standard	SLE0270-CALI	CubeData_05182023@1024b-118	NA	05/17/23 21:19
Cal Standard	SLE0270-CALJ	CubeData_05182023@1024b-119	NA	05/17/23 21:49
Cal Standard	SLE0270-CALK	CubeData_05182023@1024b-120	NA	05/17/23 22:19
Initial Cal Check	SLE0270-ICV1	CubeData_05182023@1024b-128	NA	05/18/23 02:21
Initial Cal Blank	SLE0270-ICB1	CubeData_05182023@1024b-127	NA	05/18/23 02:51
Calibration Check	SLE0270-CCV1	CubeData_05182023@1024b-126	NA	05/18/23 04:21
Calibration Blank	SLE0270-CCB1	CubeData_05182023@1024b-125	NA	05/18/23 04:52
Cal Standard	SLE0270-CALL	CubeData_05182023@1024b-121	NA	05/18/23 09:47
Cal Standard	SLE0270-CALM	CubeData_05182023@1024b-122	NA	05/18/23 09:48
Cal Standard	SLE0270-CALN	CubeData_05182023@1024b-123	NA	05/18/23 09:49
Cal Standard	SLE0270-CALO	CubeData_05182023@1024b-124	NA	05/18/23 09:49



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

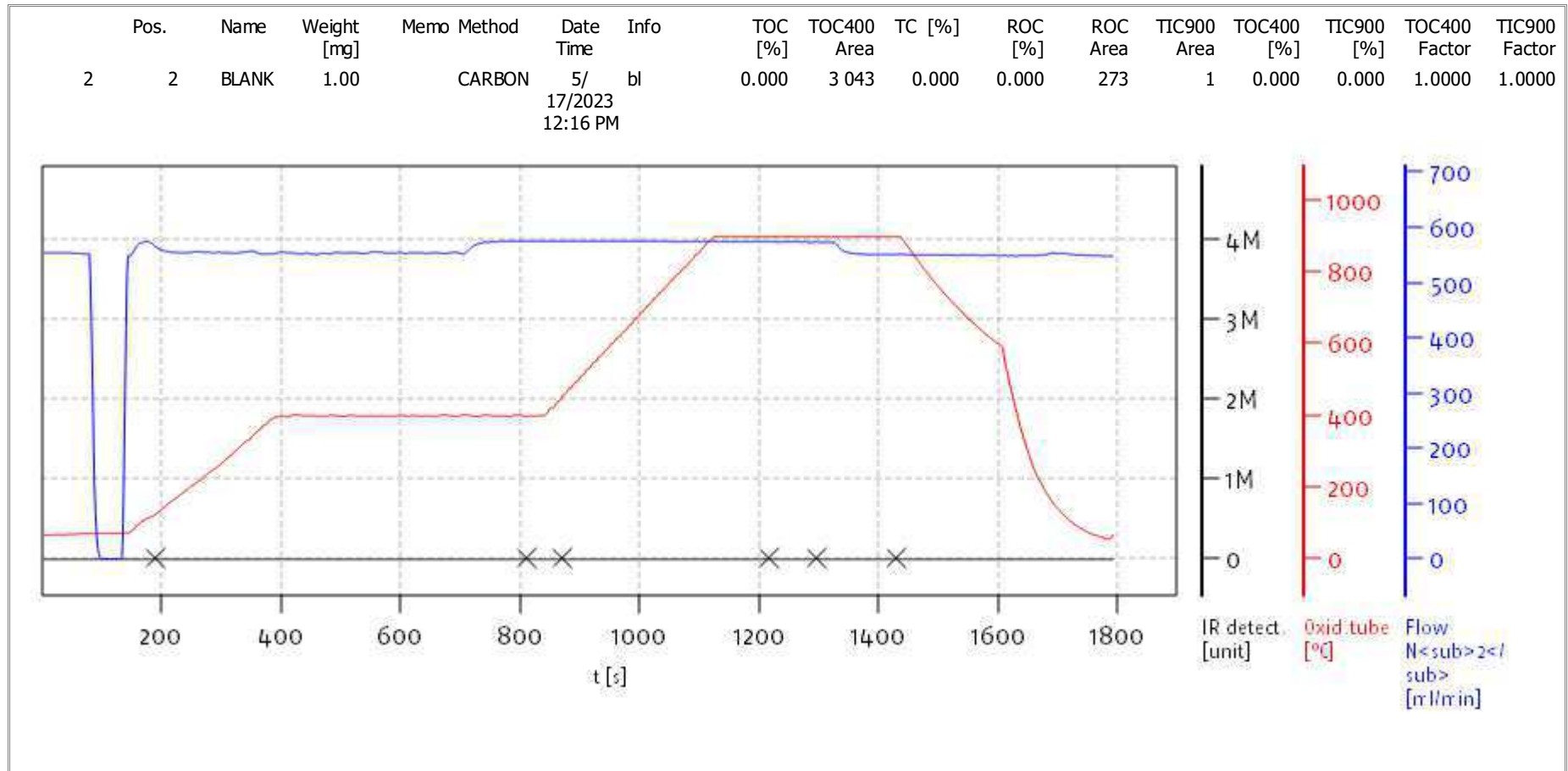
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

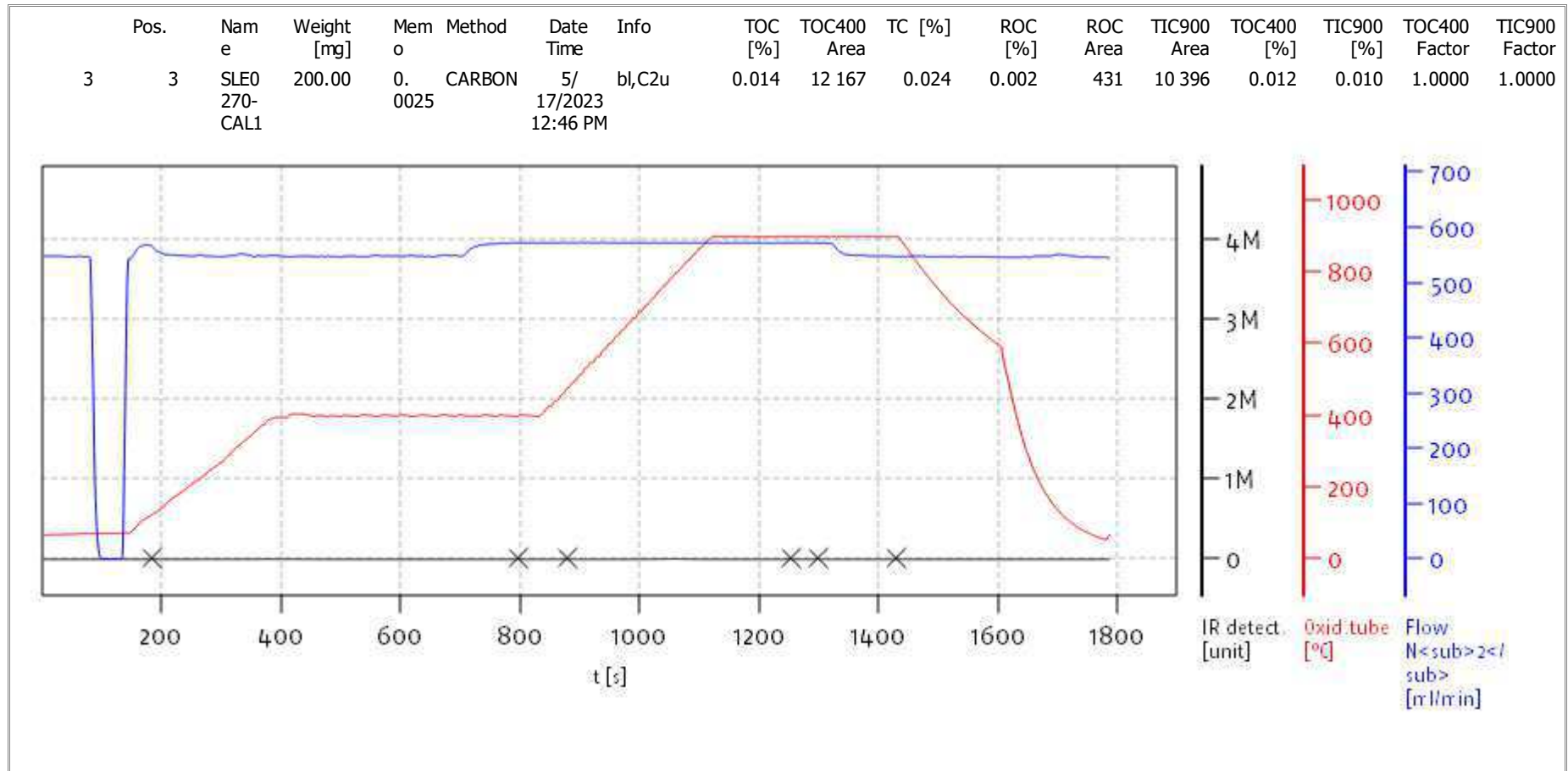
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Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

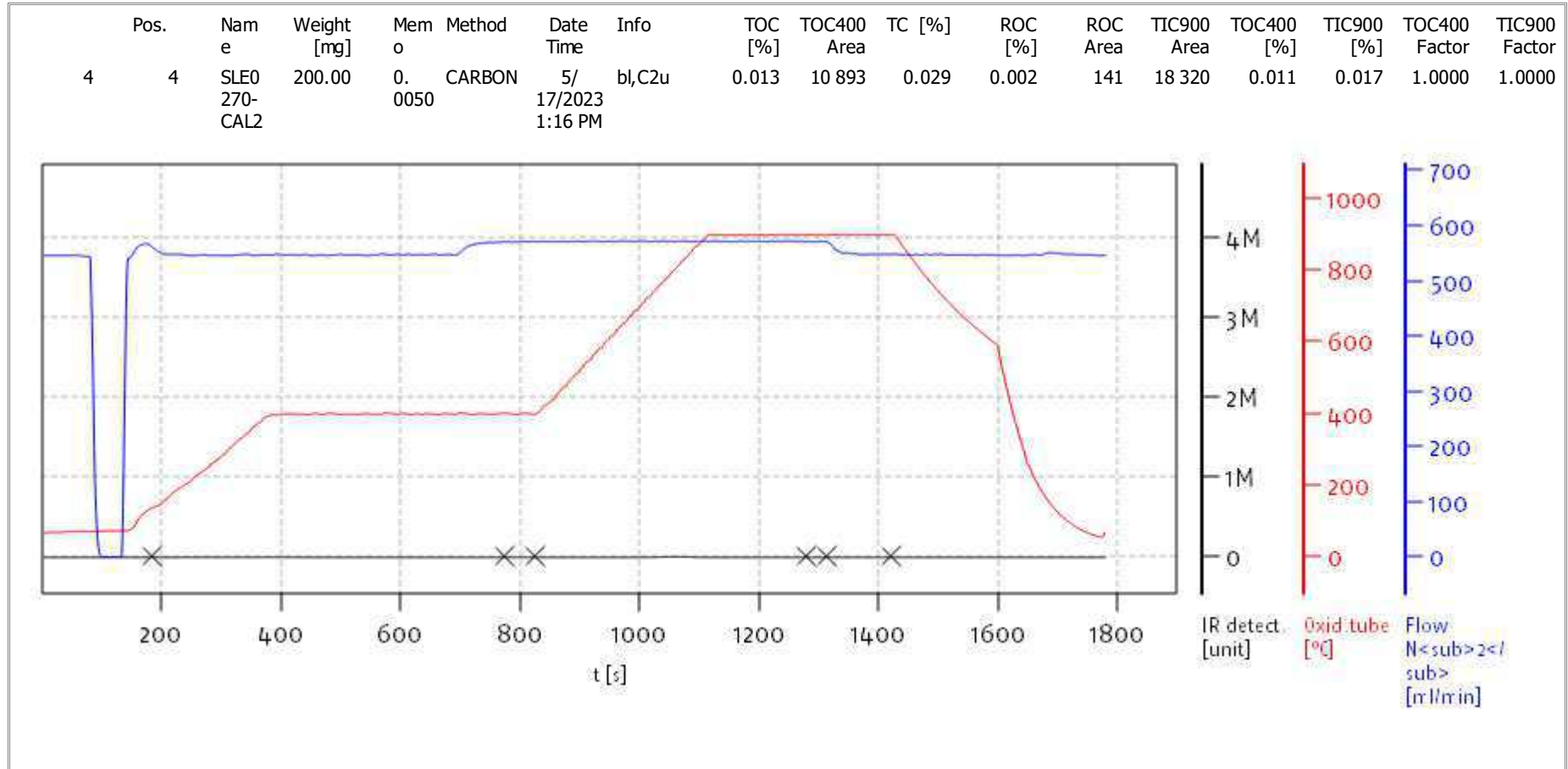
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

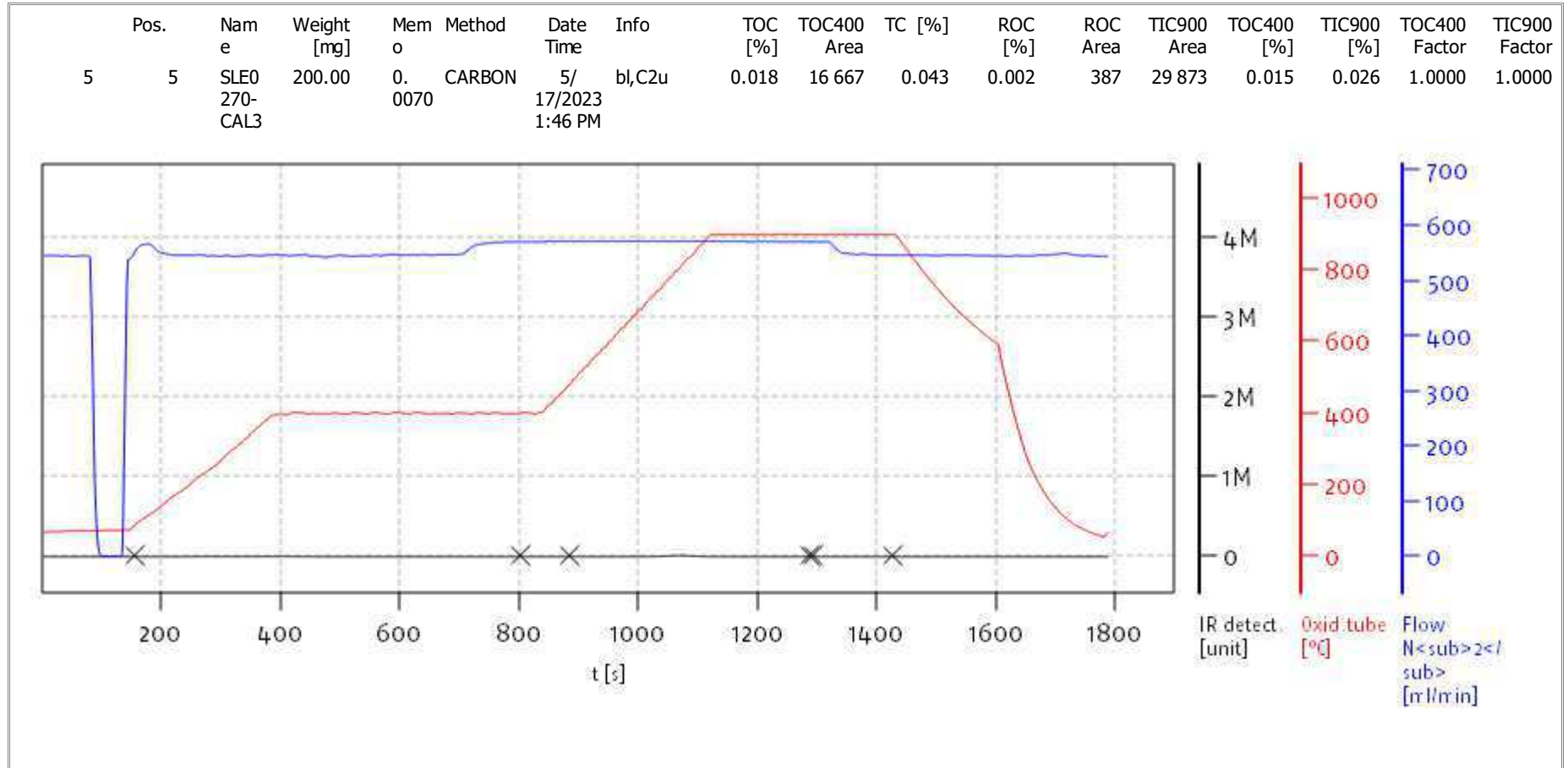
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Balance: BAL3
Analyst: CDE



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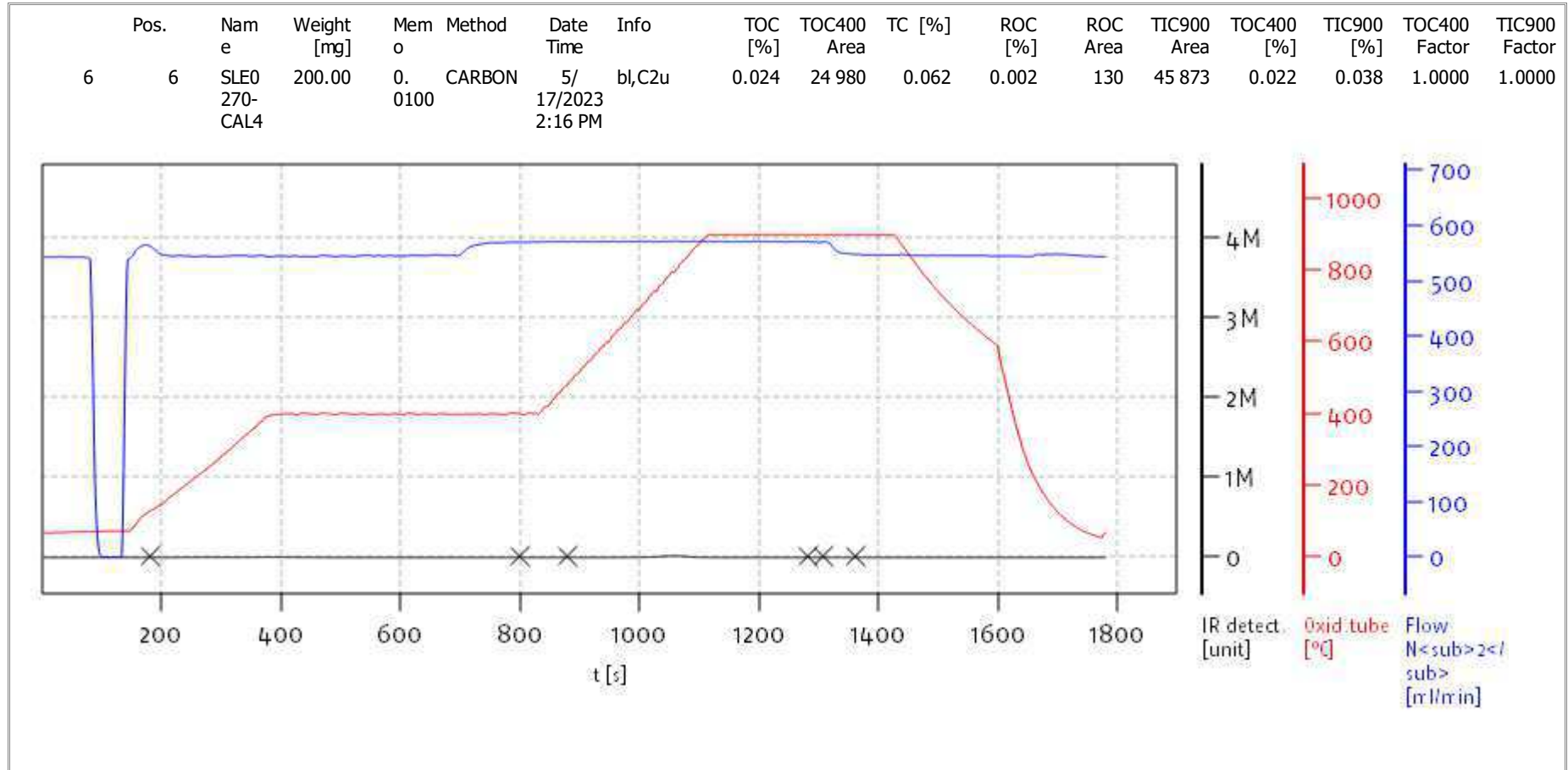
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

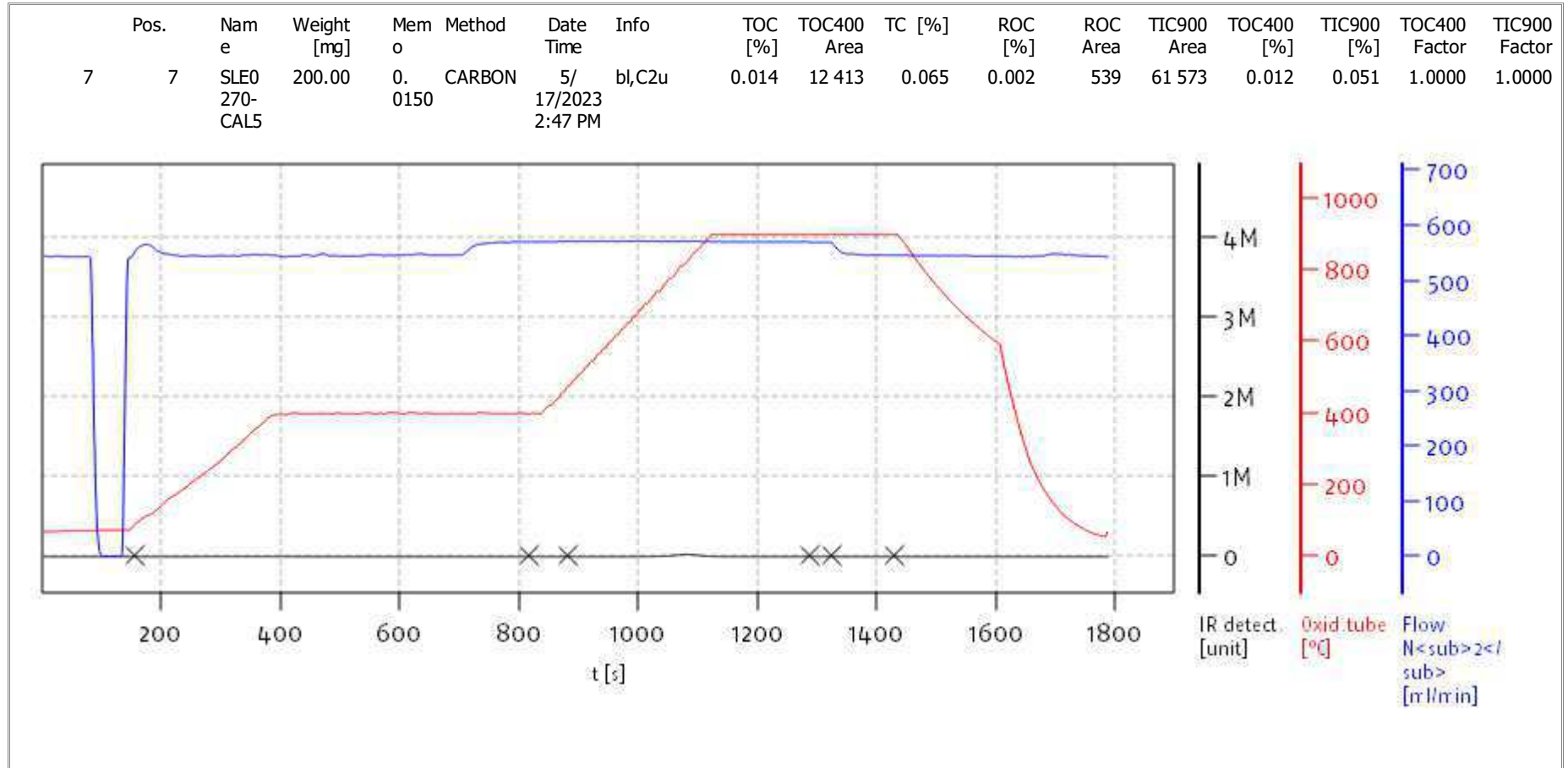
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

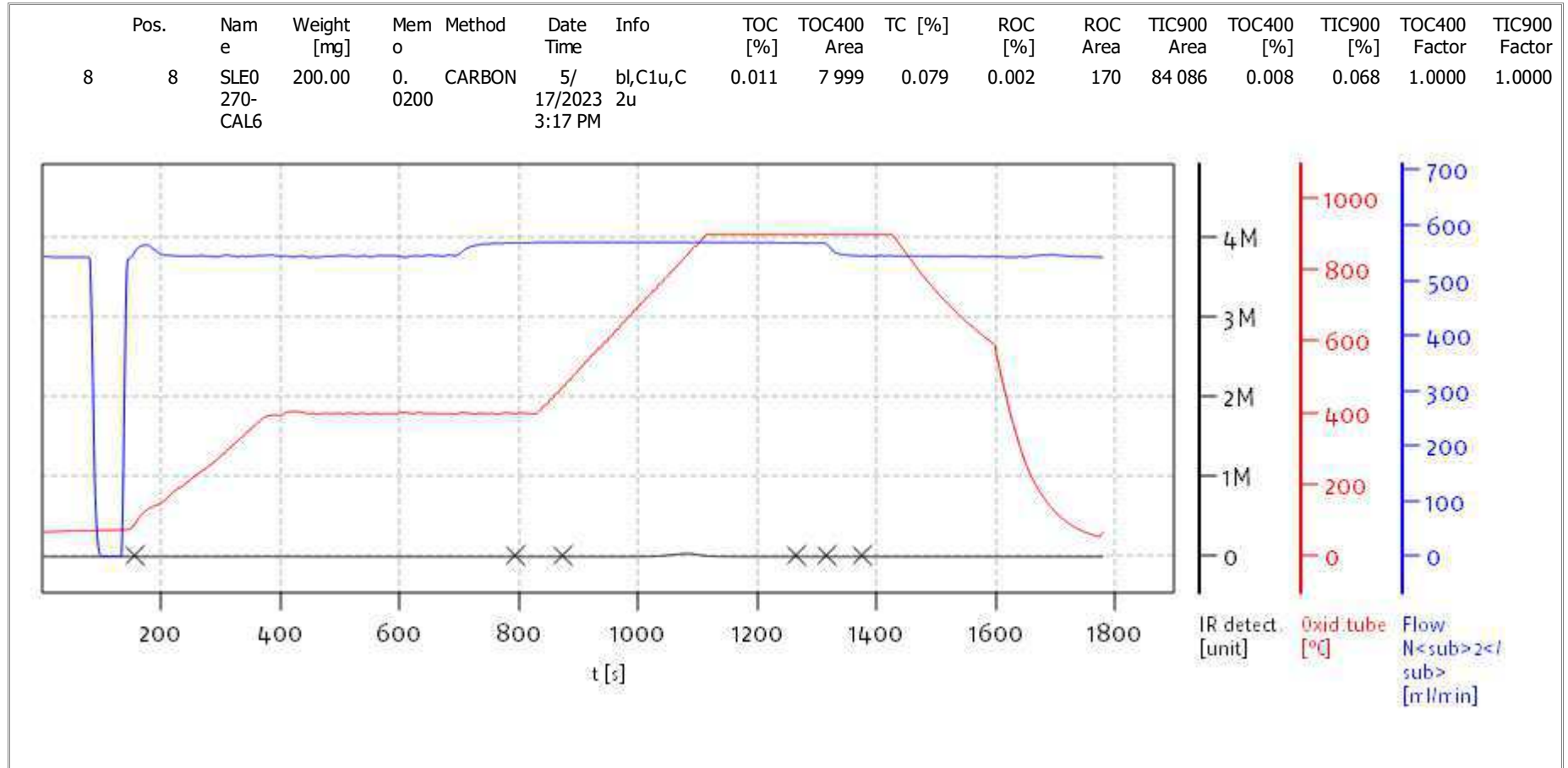
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Analyst: CDE



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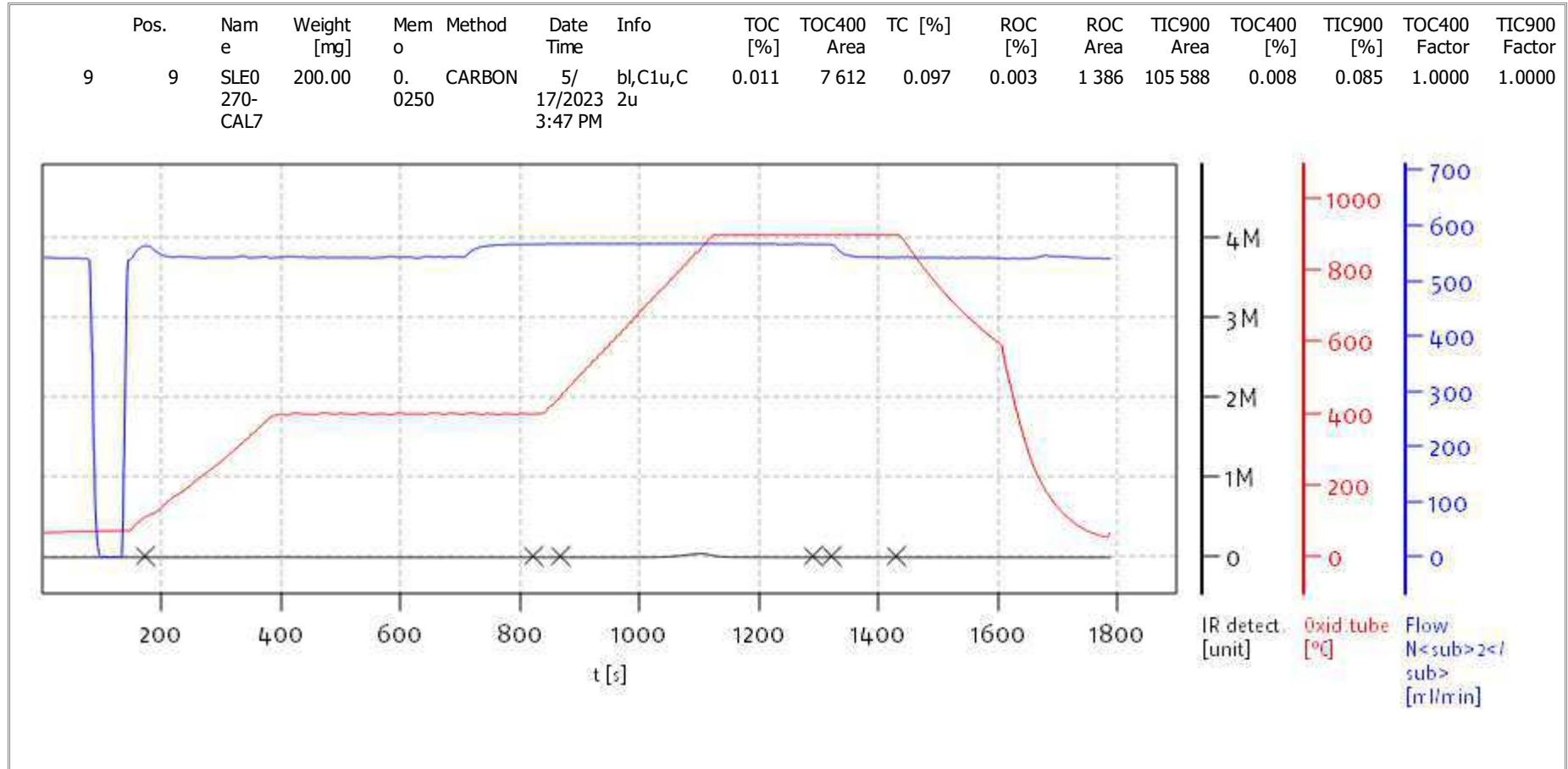
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Mode CCC



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Balance: BAL3
Analyst: CDE



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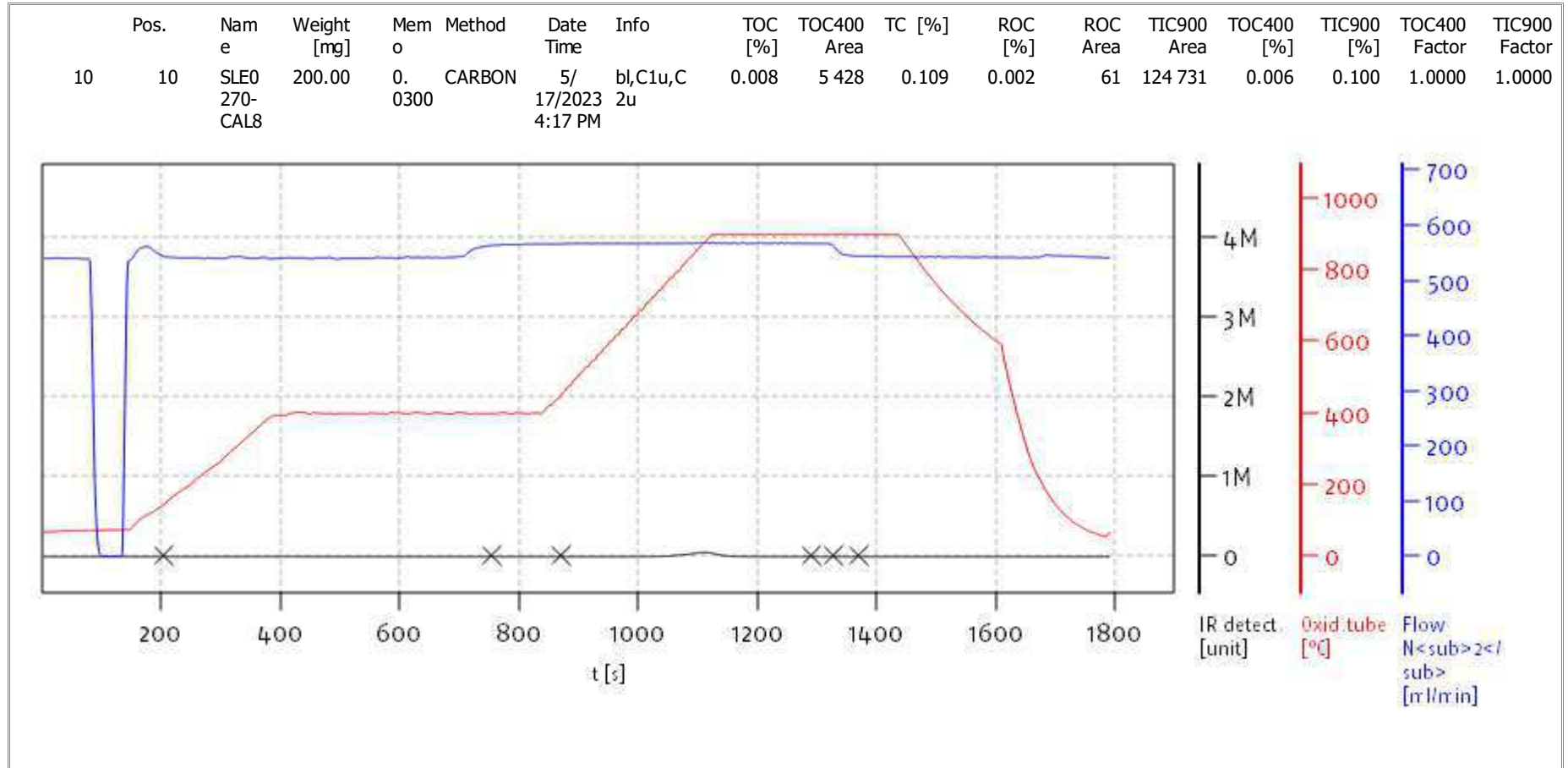
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Balance: BAL3
Analyst: CDE



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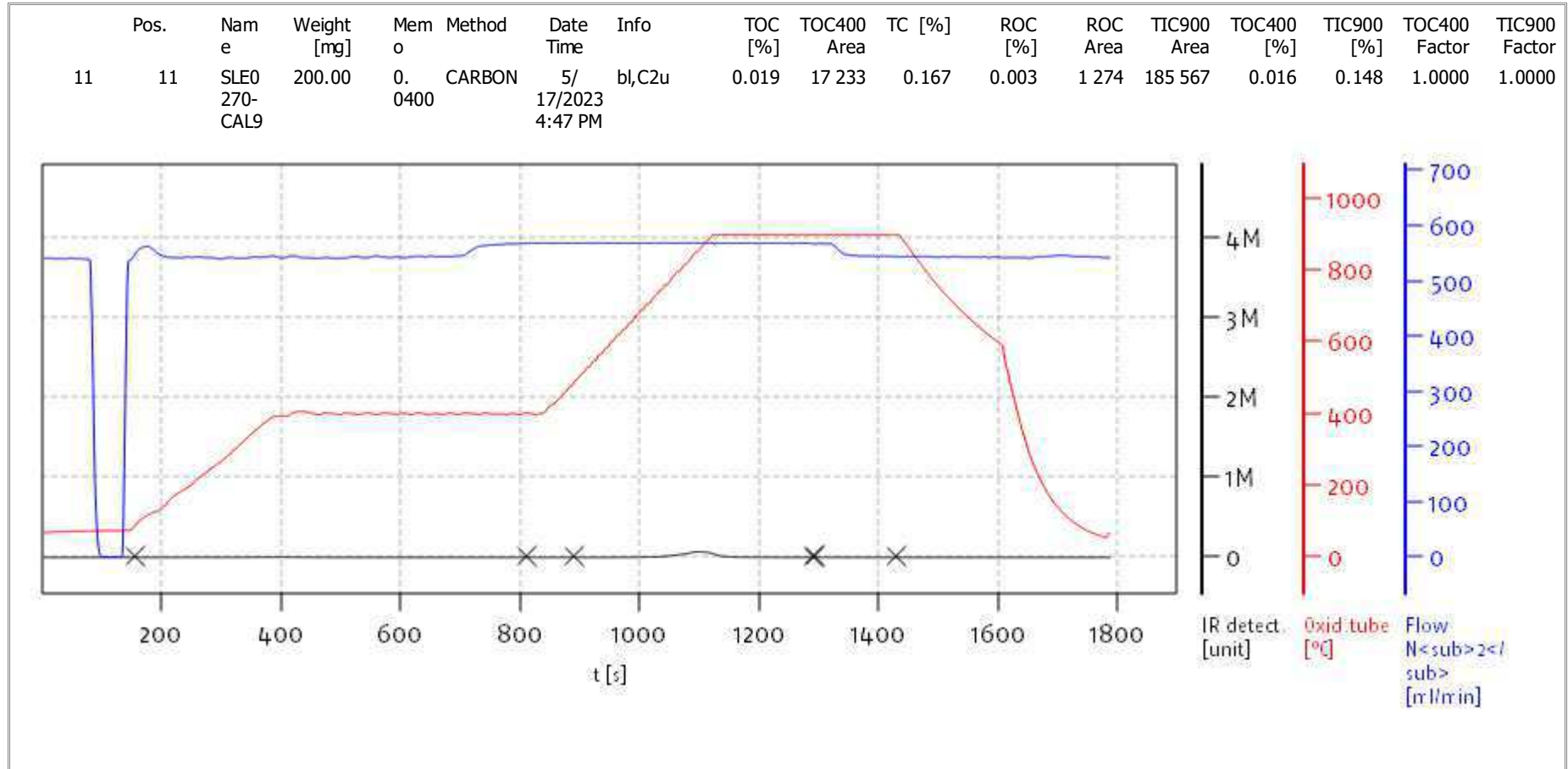
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

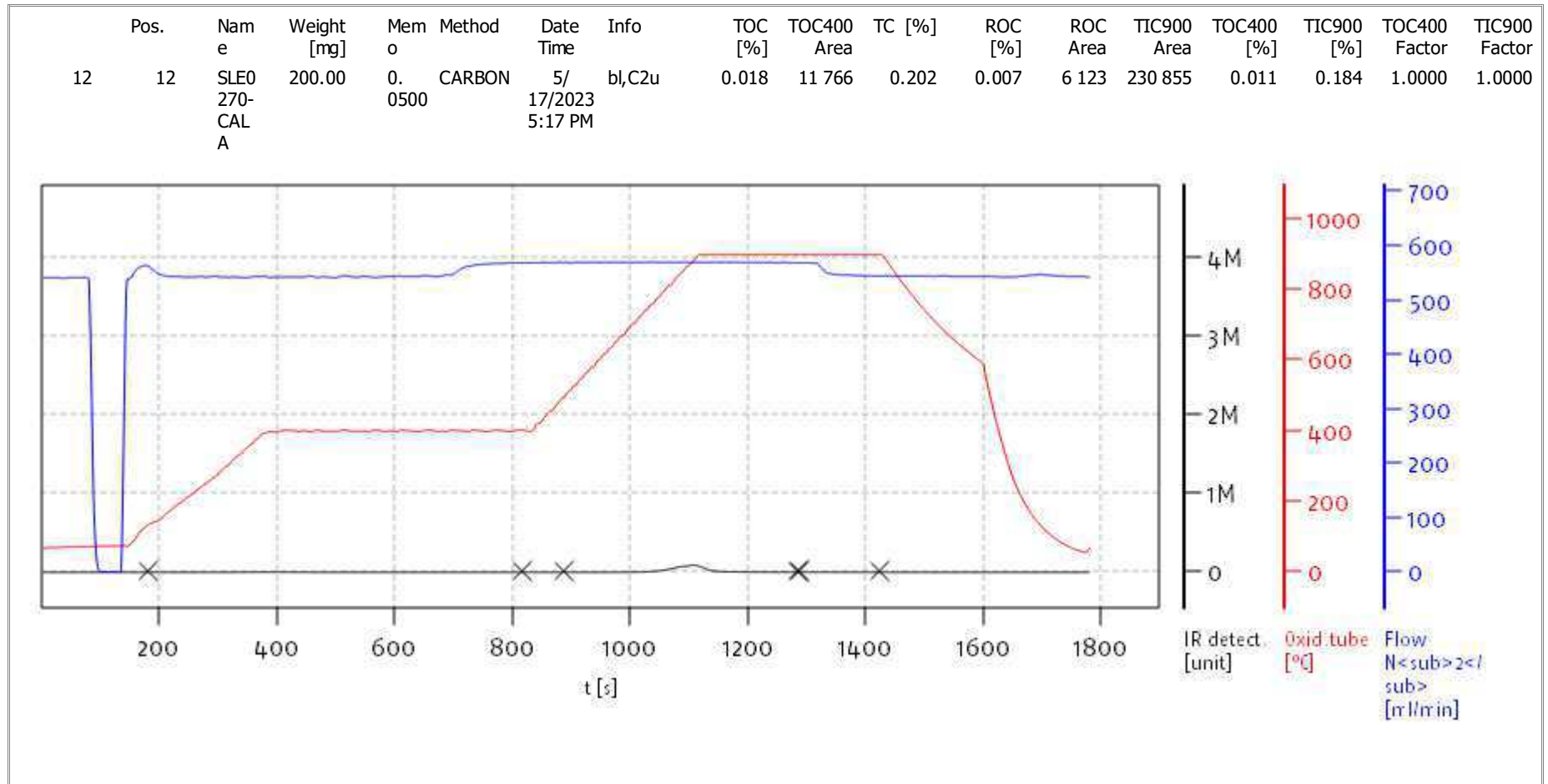
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

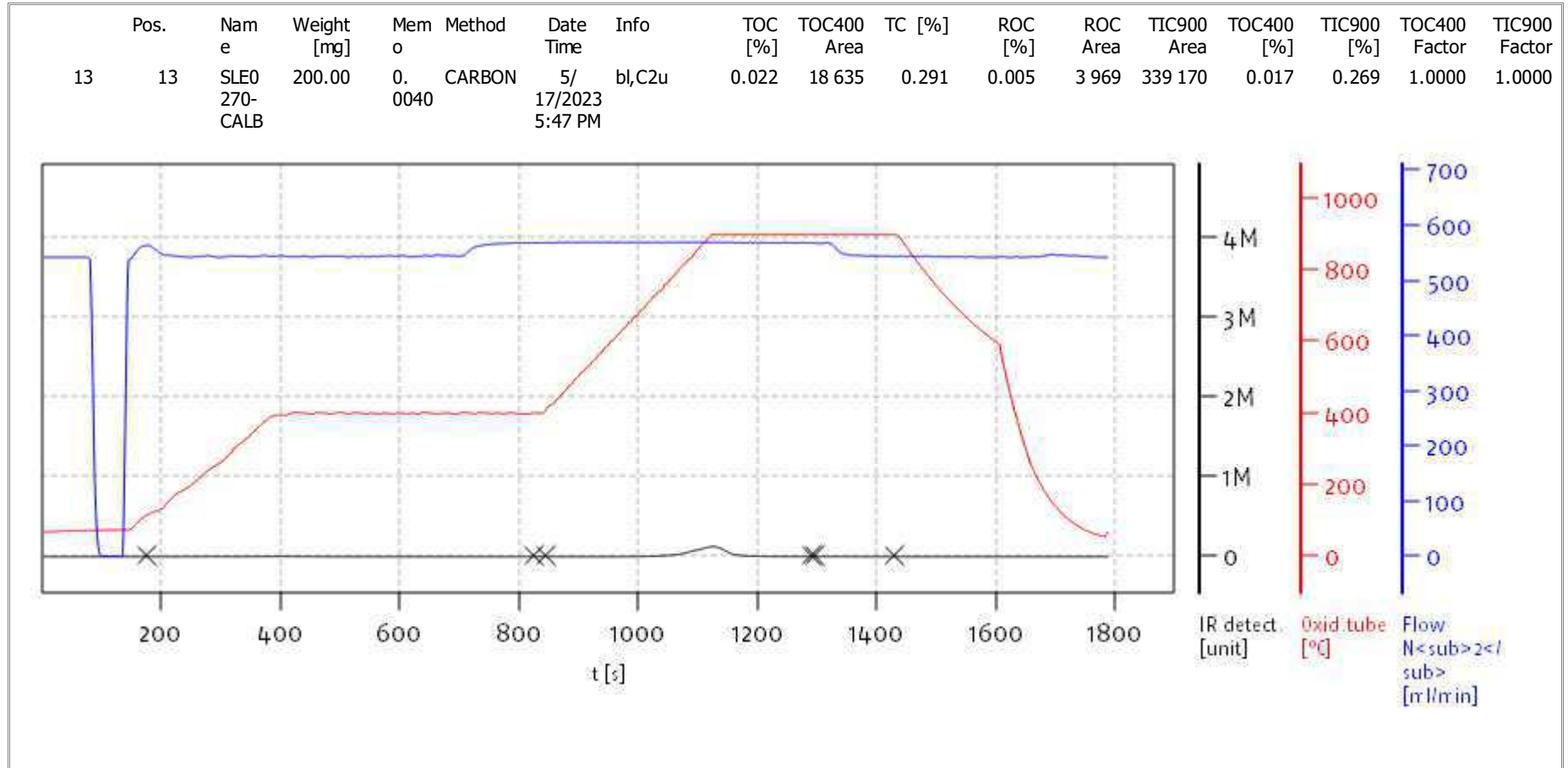
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

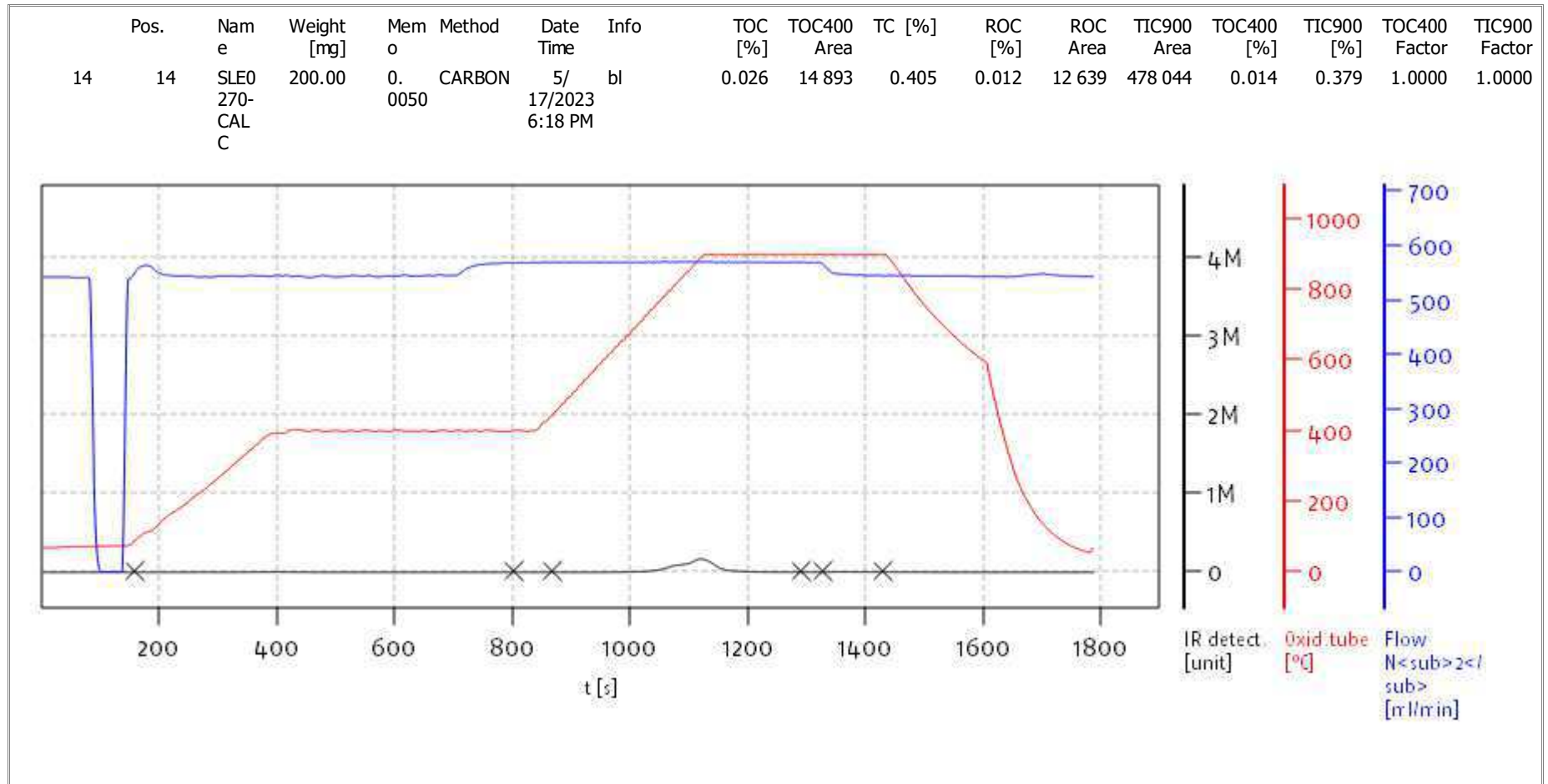
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

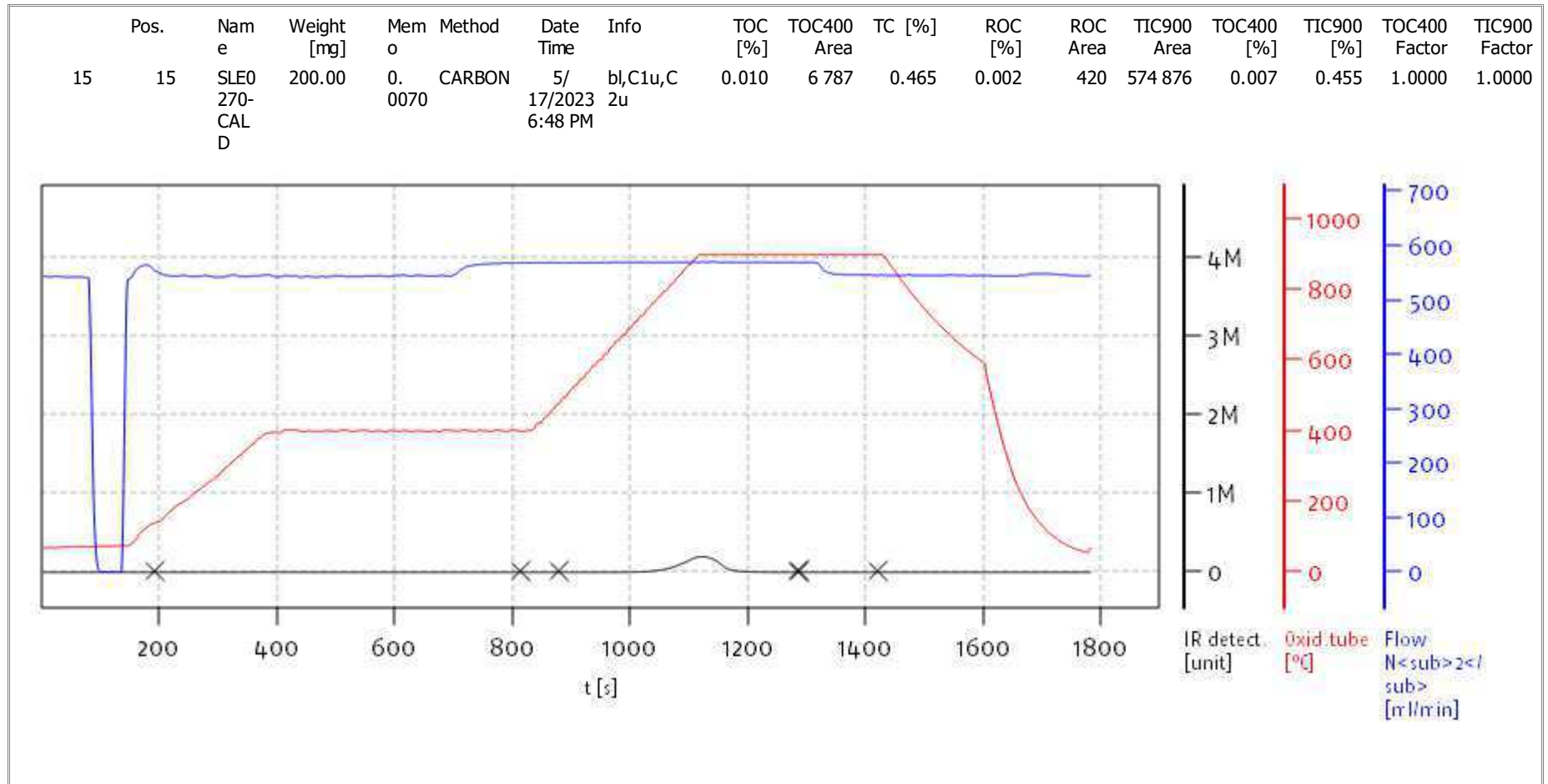
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

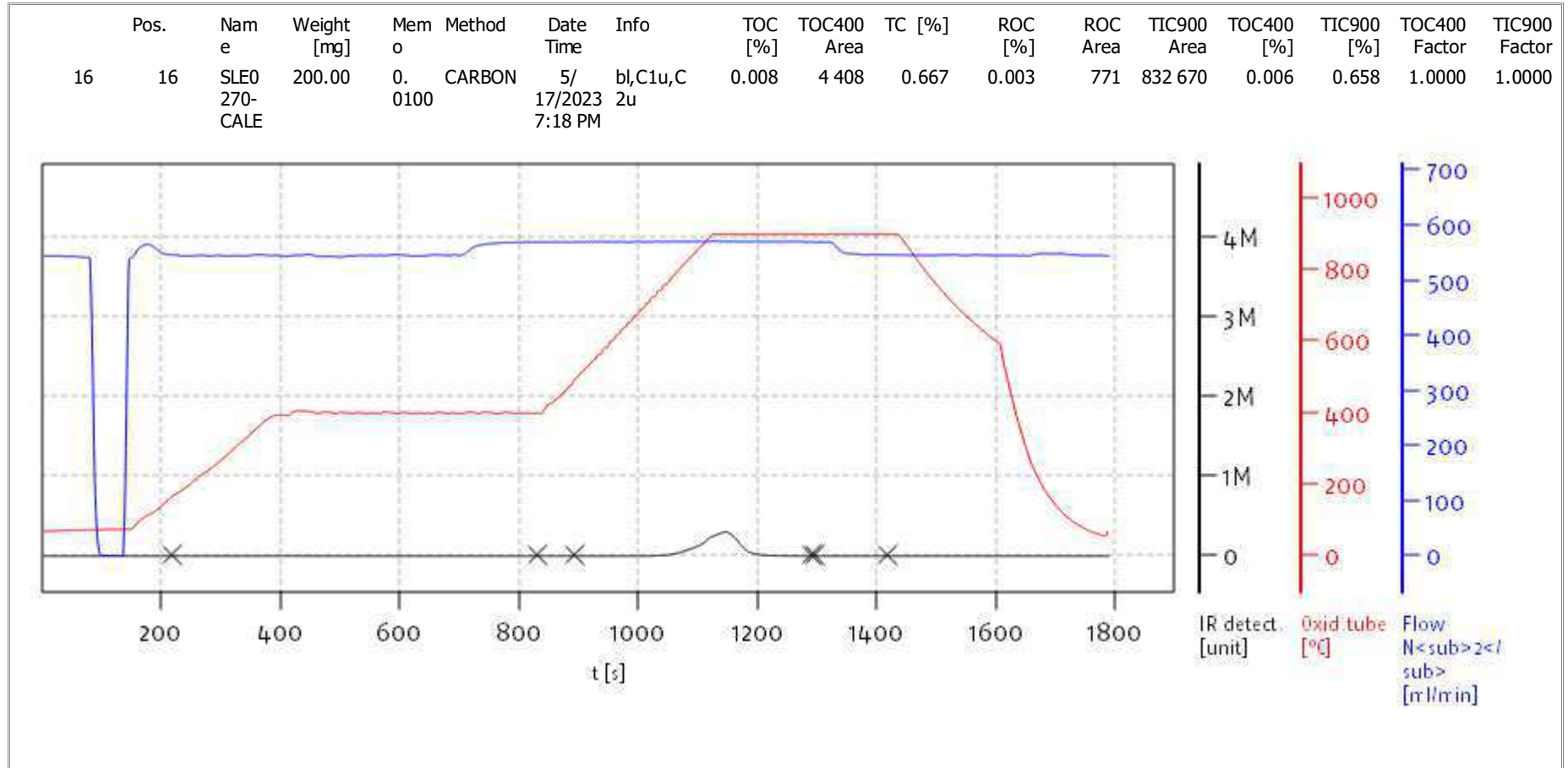
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

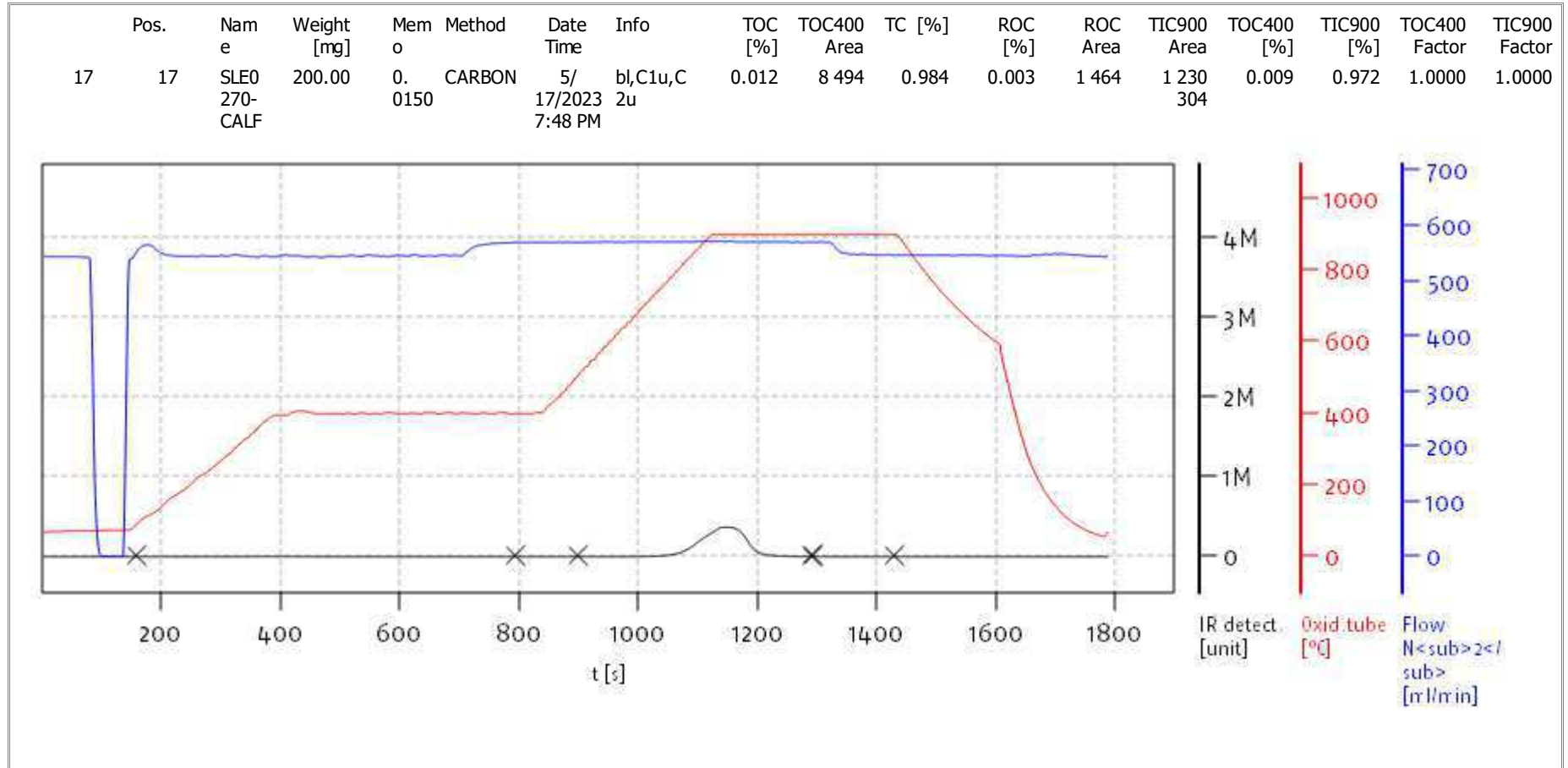
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Mode CCC



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Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

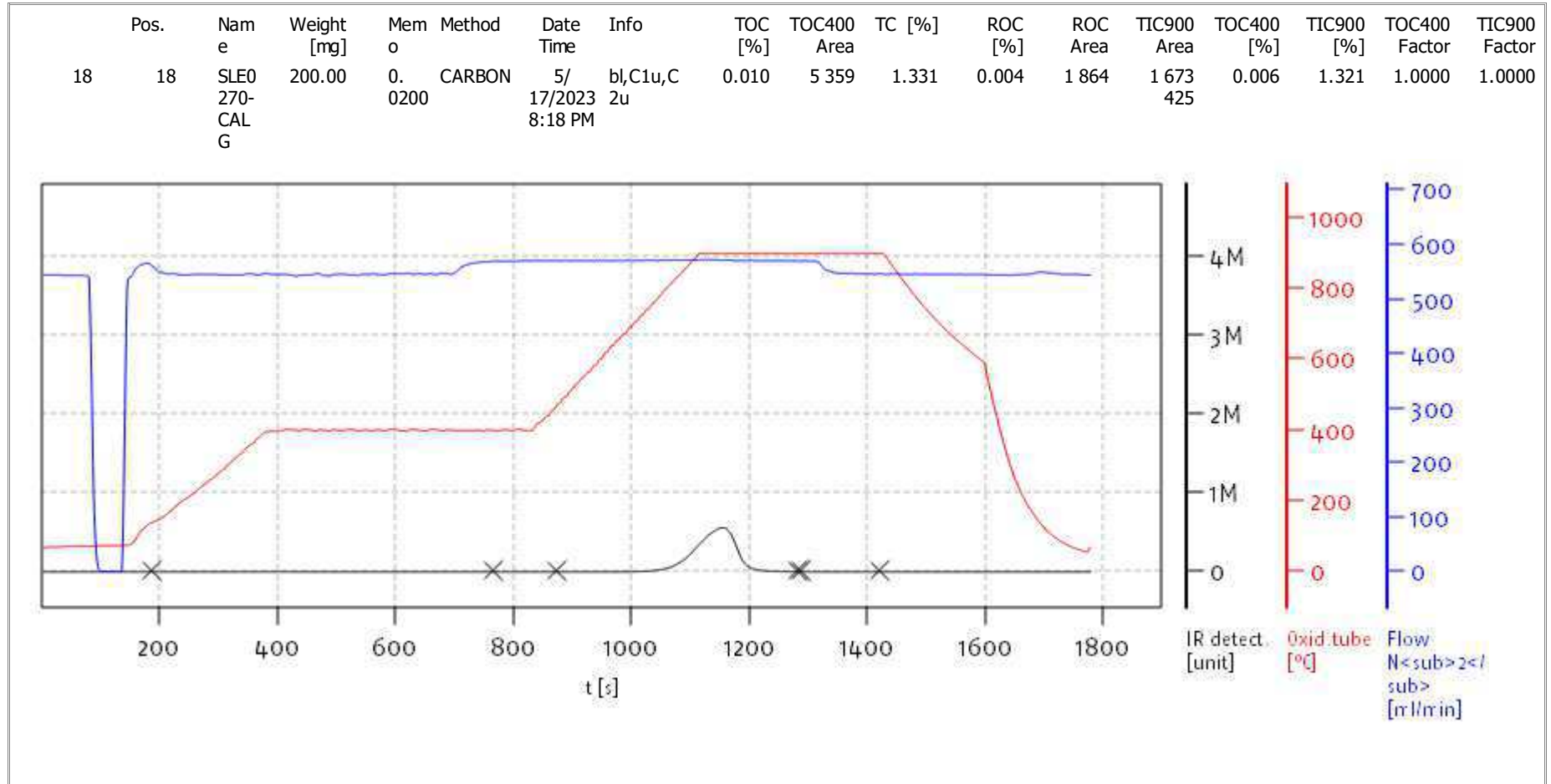
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

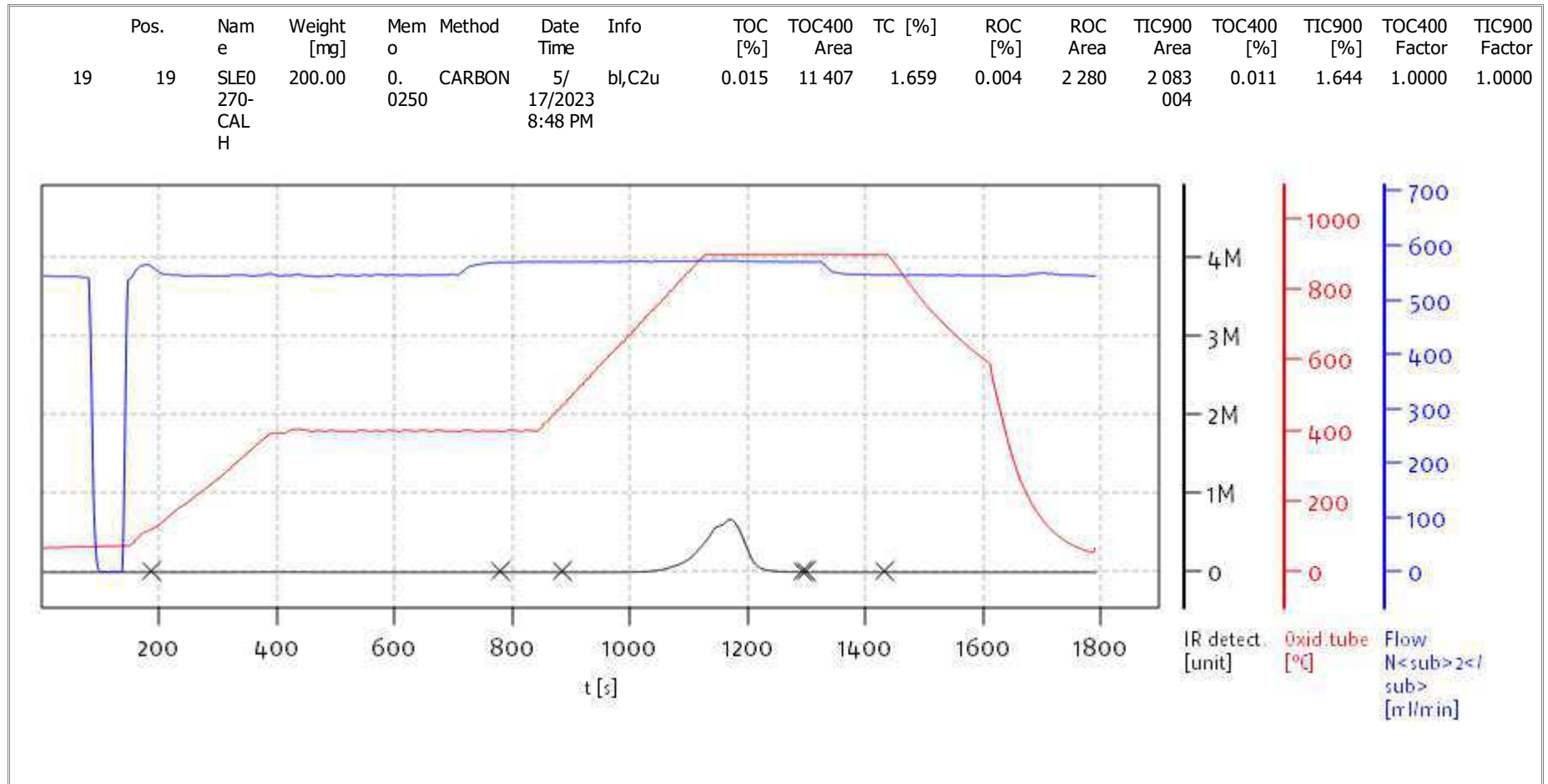
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

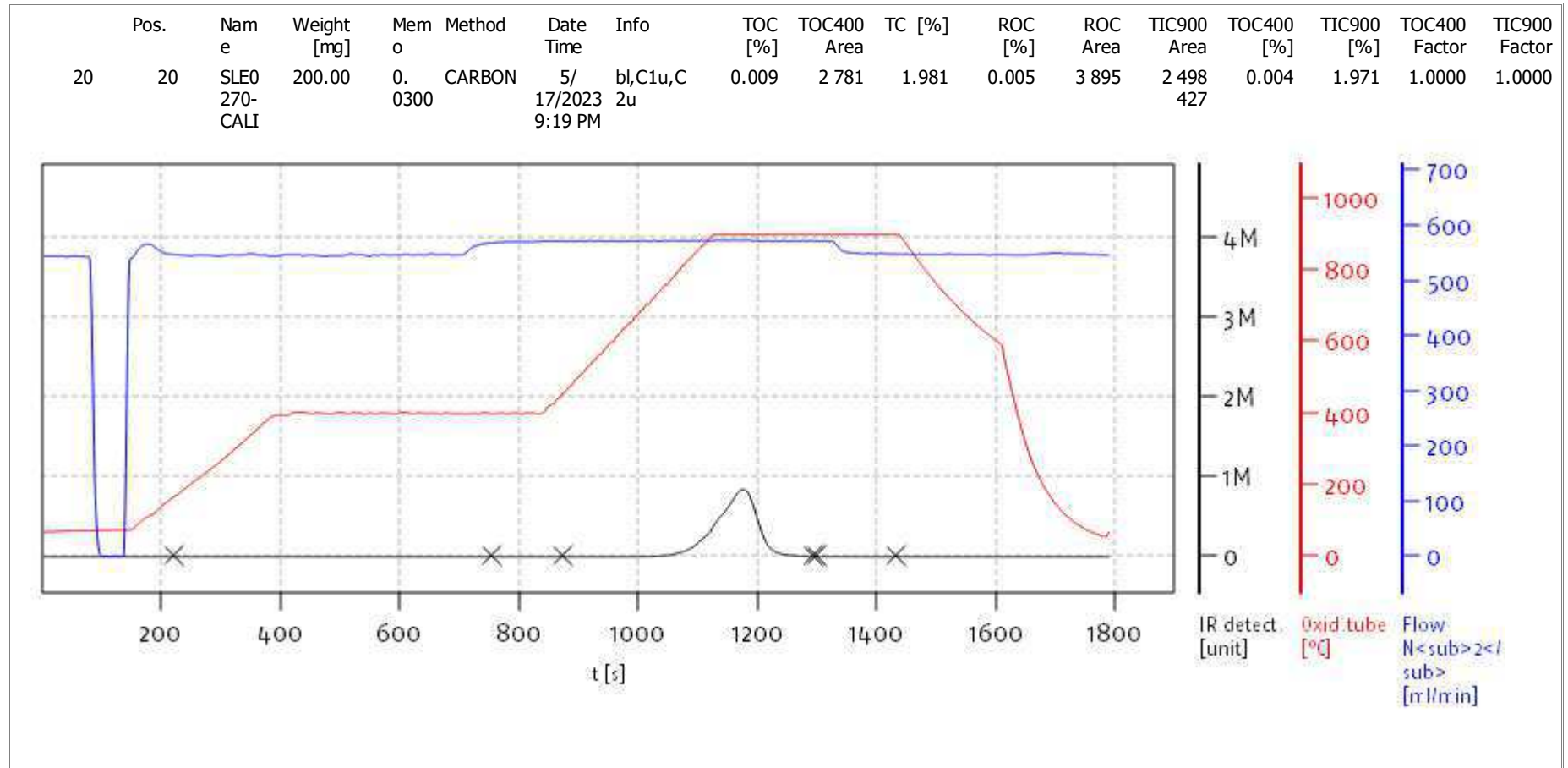
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

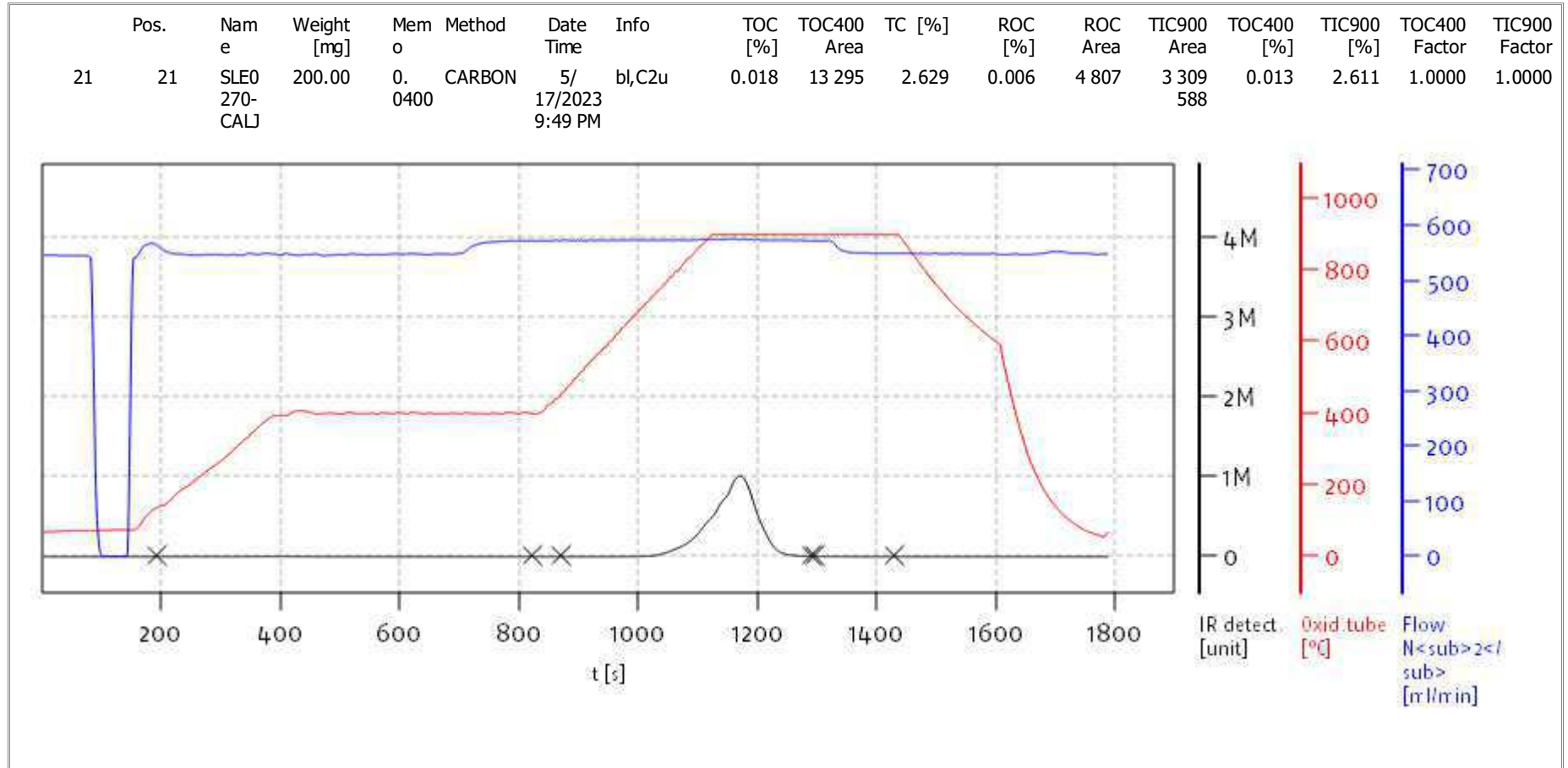
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

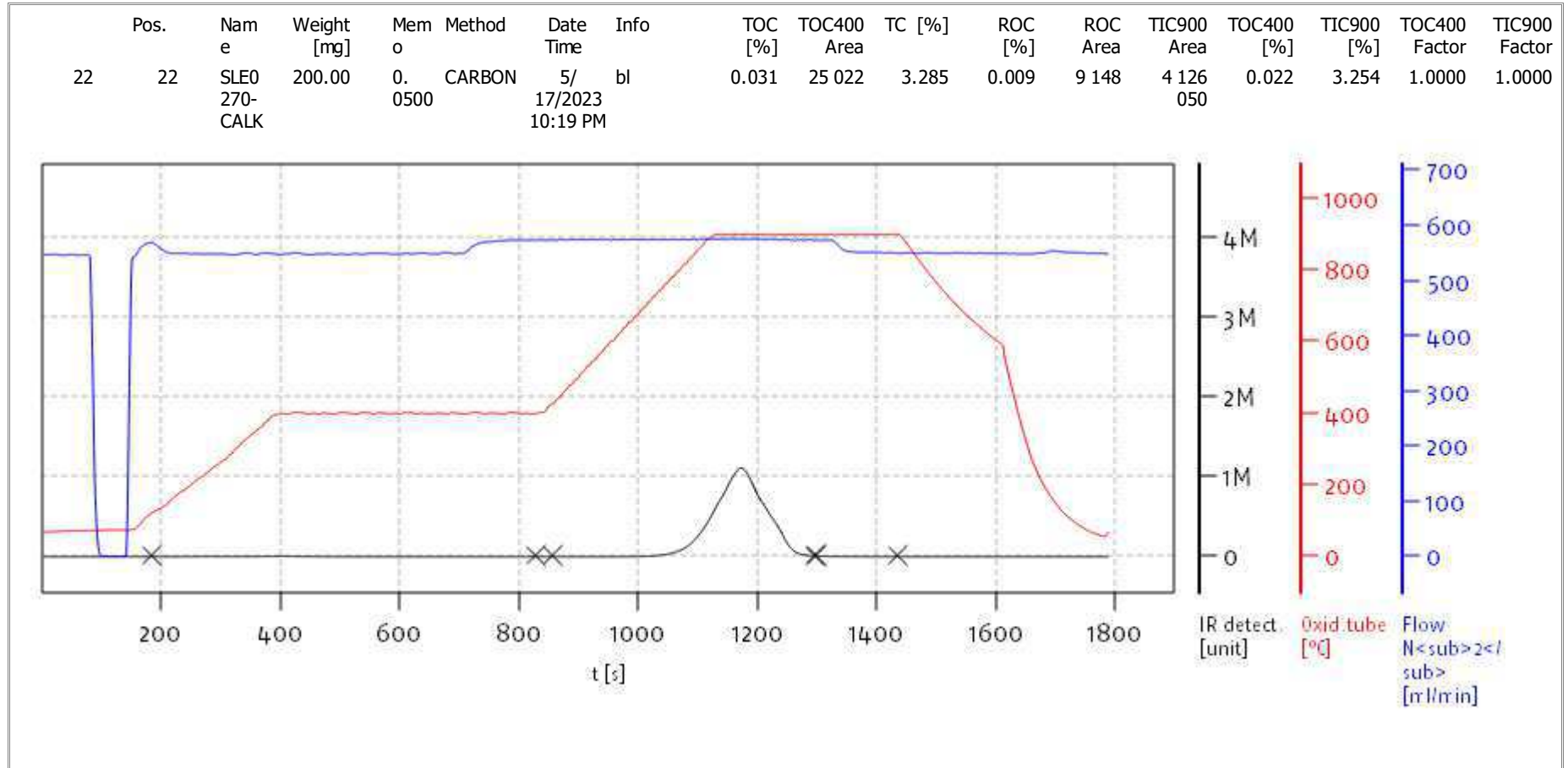
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

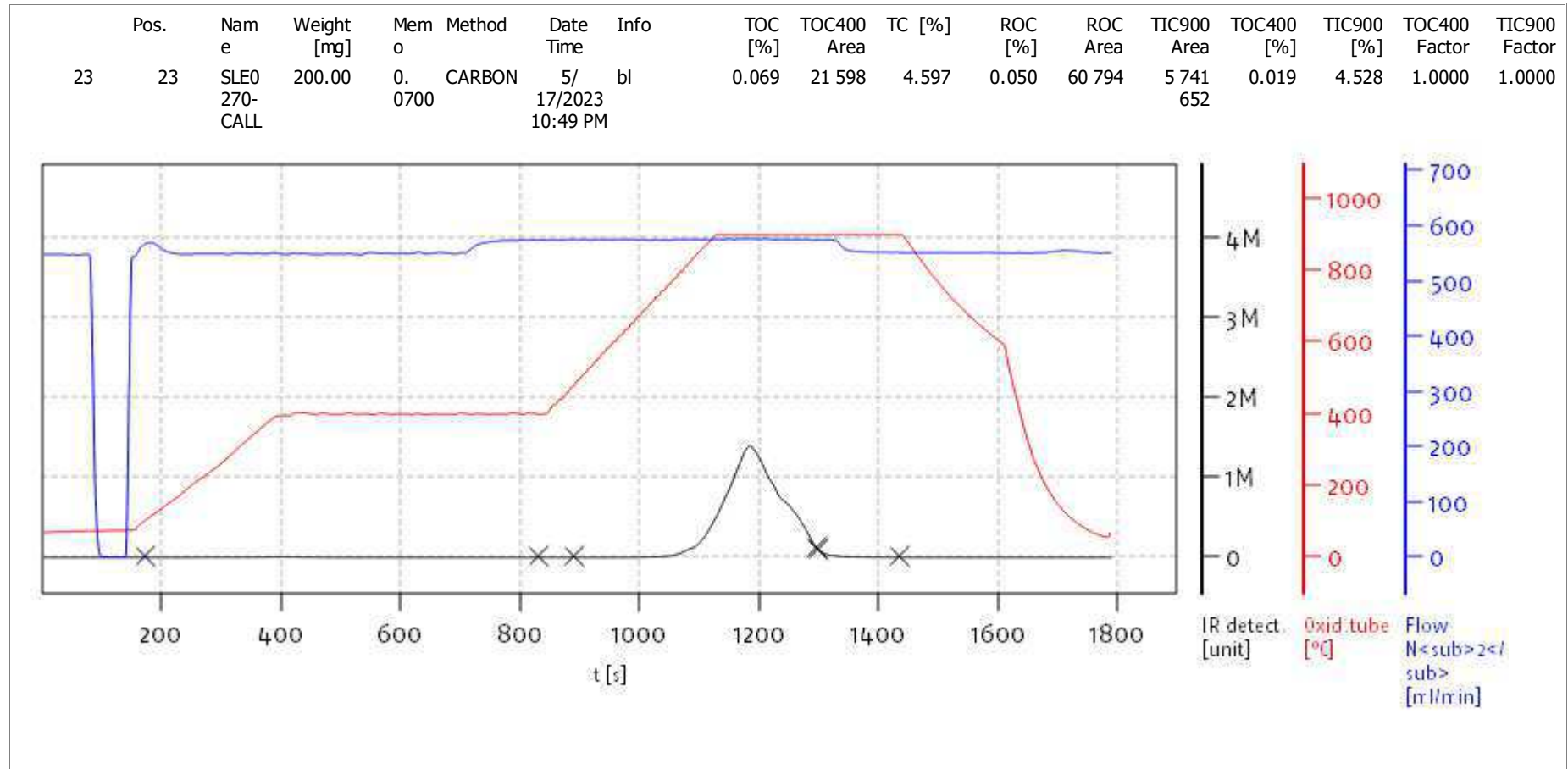
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

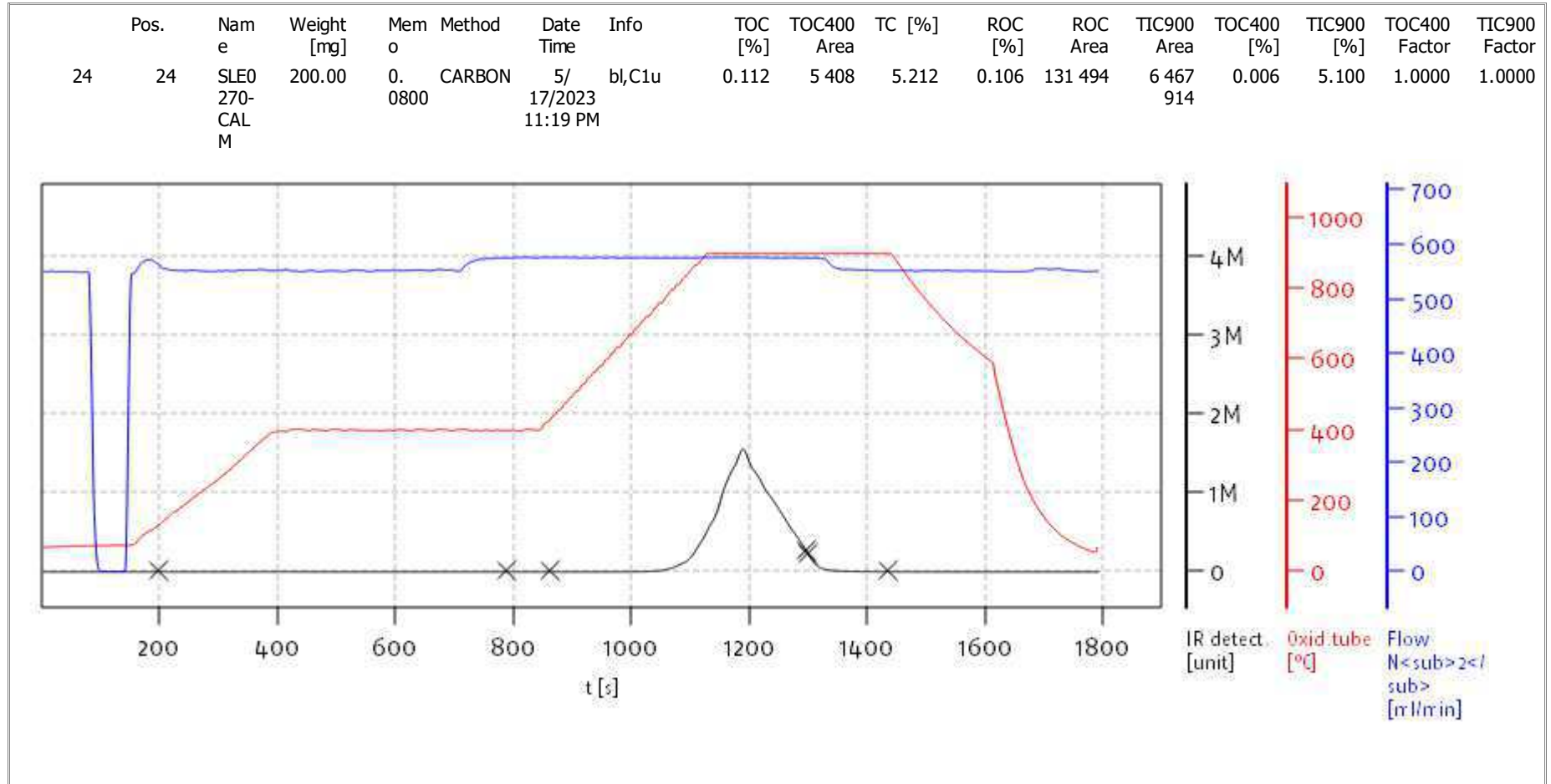
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

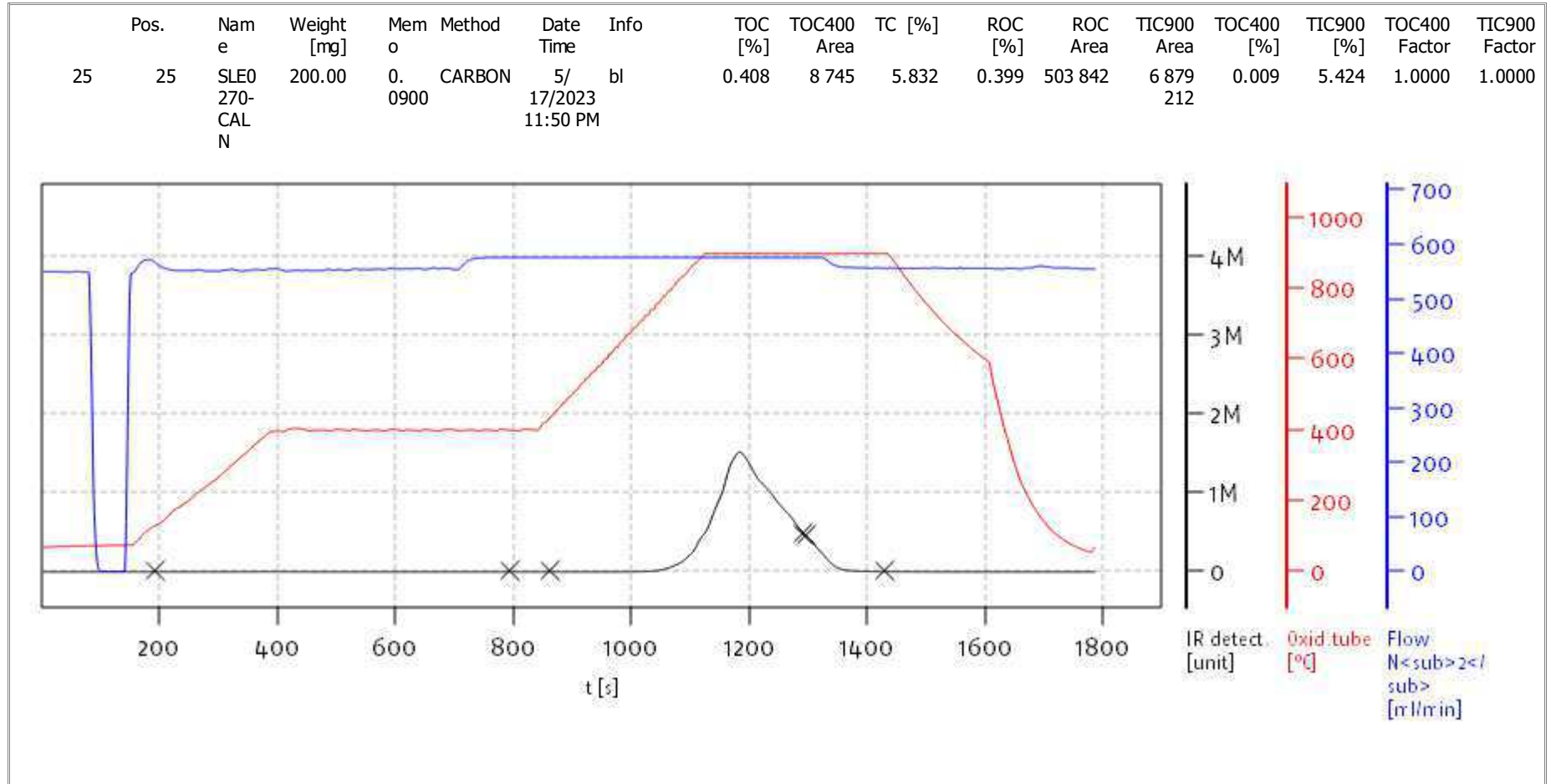
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solITOC V2.0.2 (31015f9) 2018-11-19
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

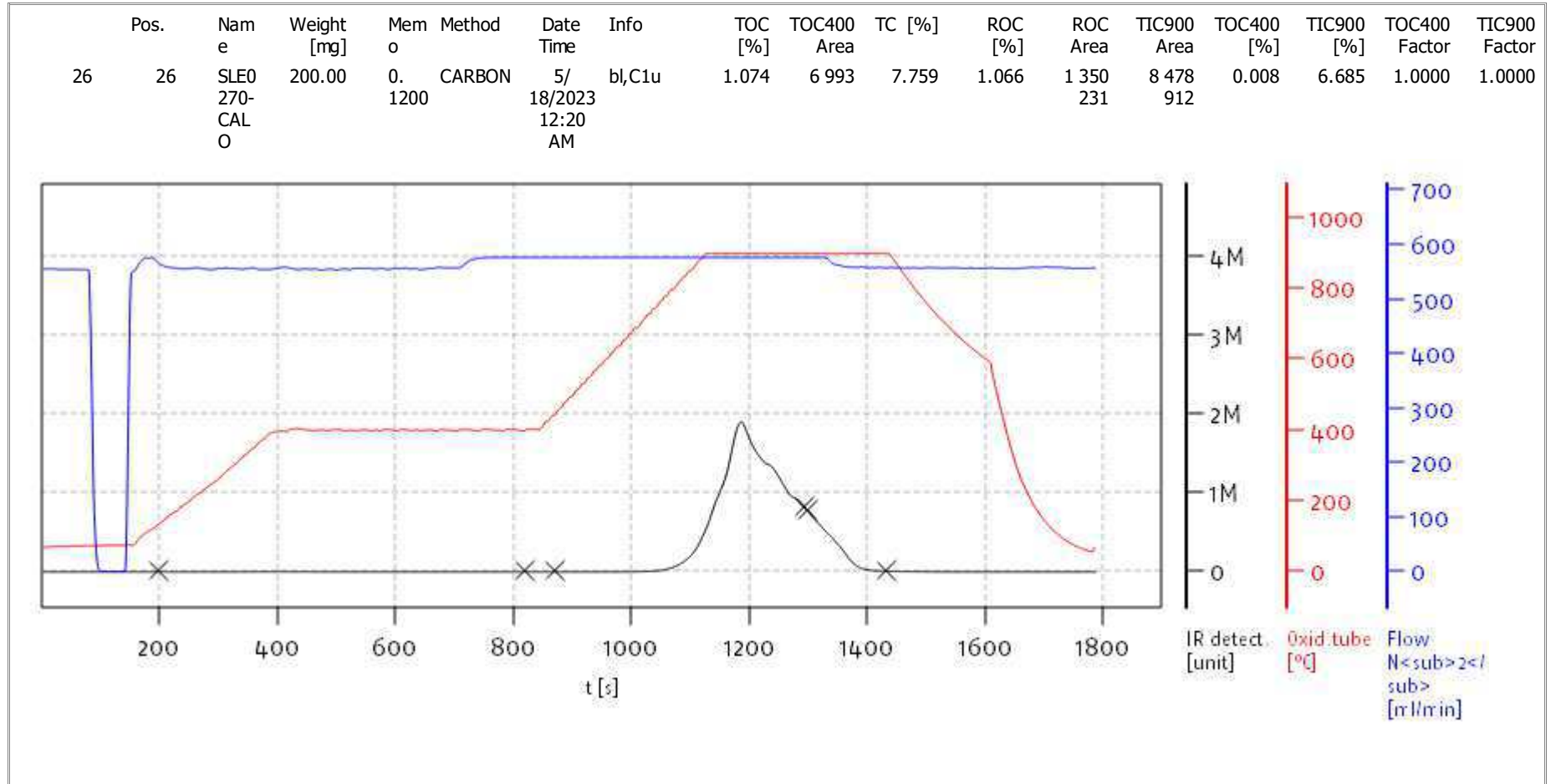
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solITOC V2.0.2 (31015f9) 2018-11-19
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
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Name:

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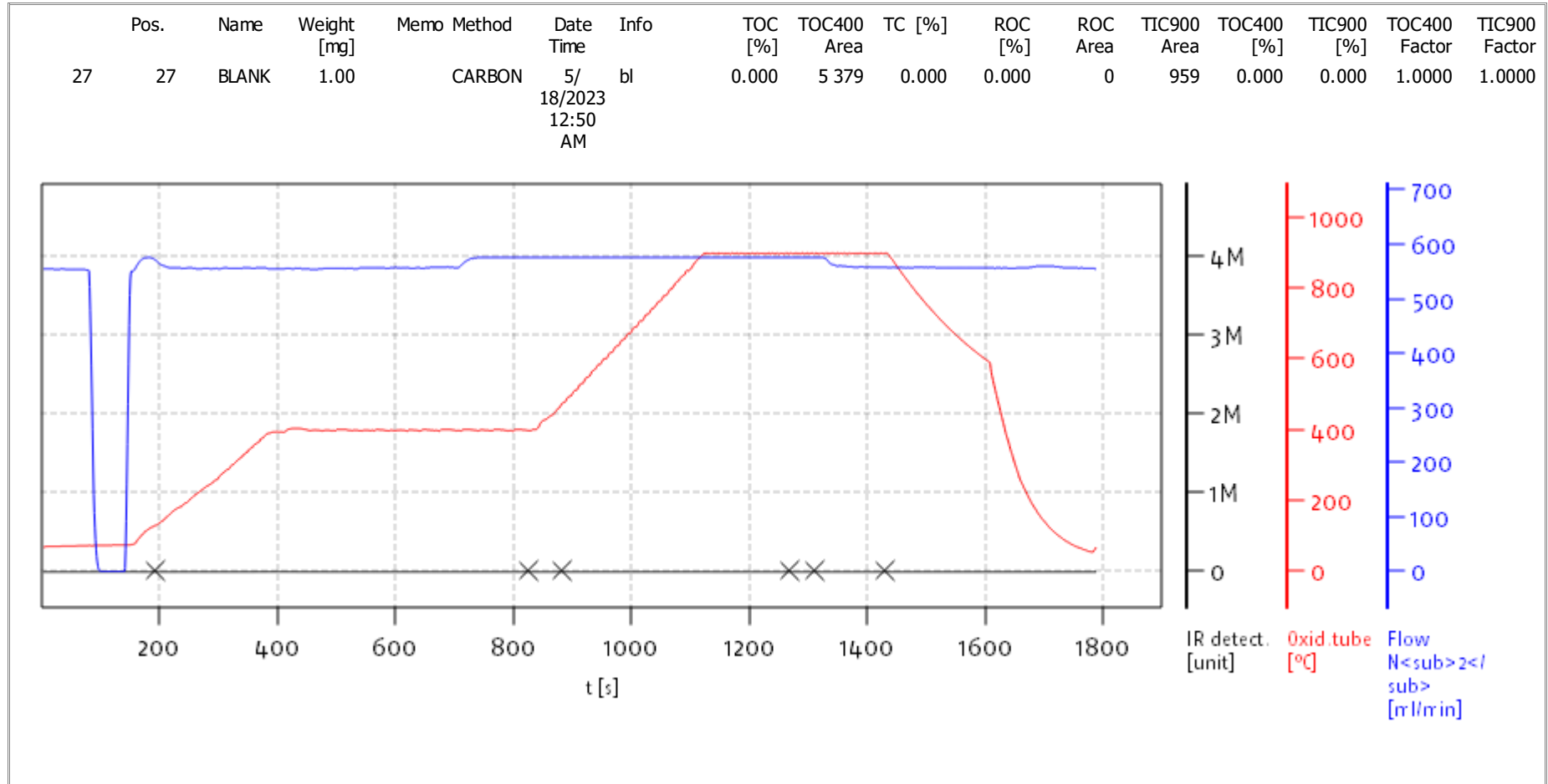
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
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Soli TOC Cube, Carbon
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Name:

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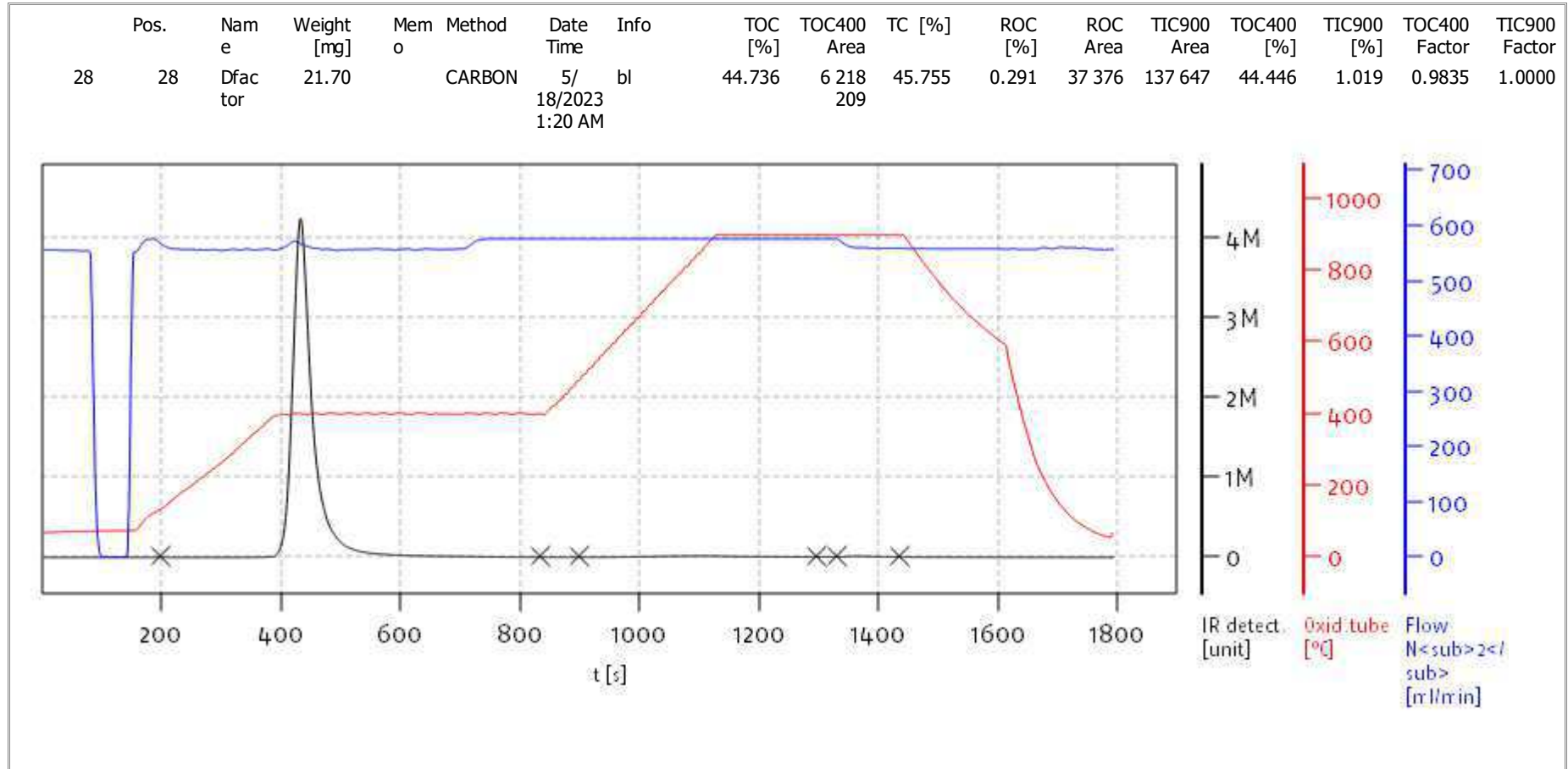
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Soli TOC Cube, Carbon
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Name:

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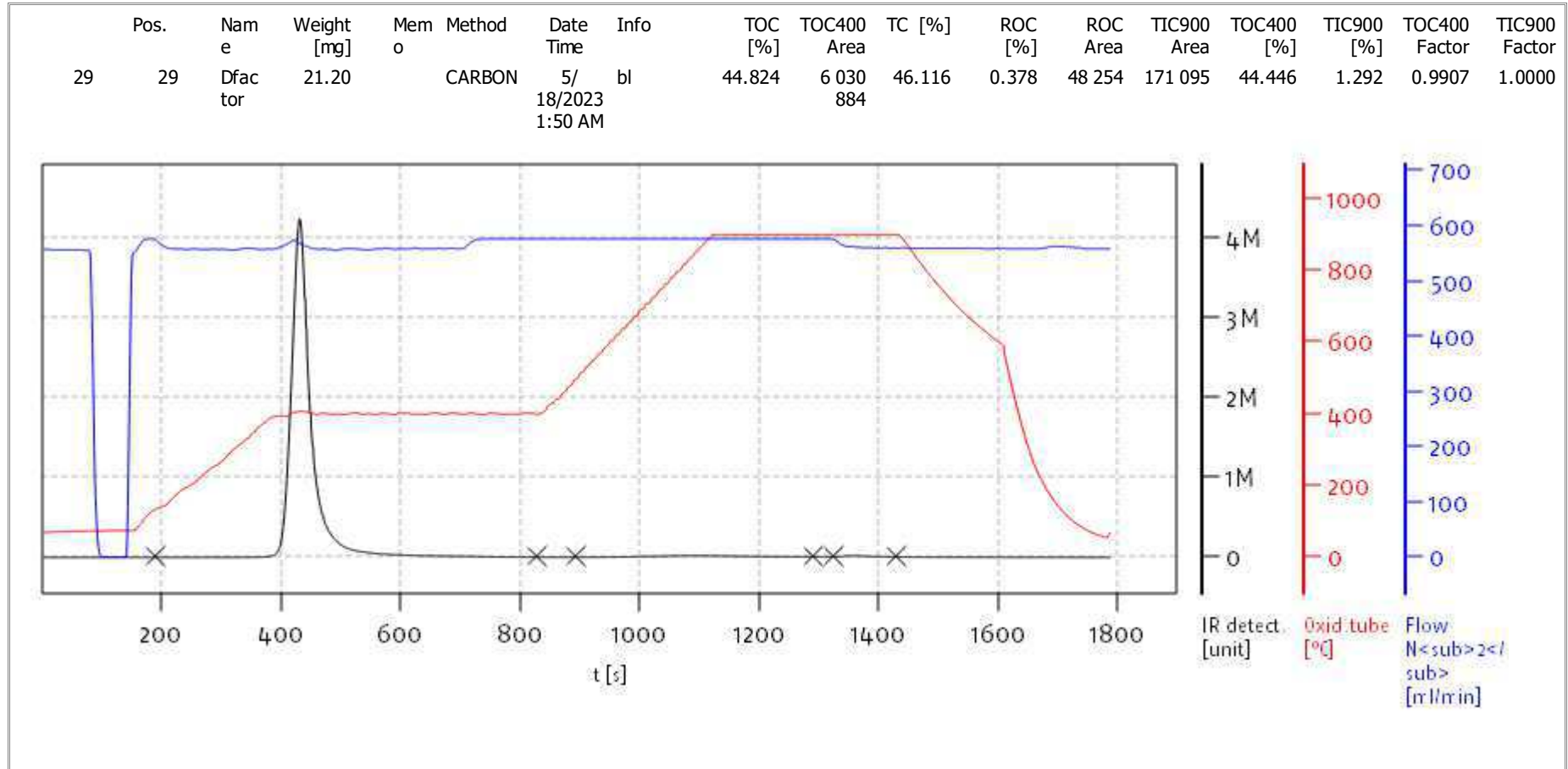
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Soli TOC Cube, Carbon
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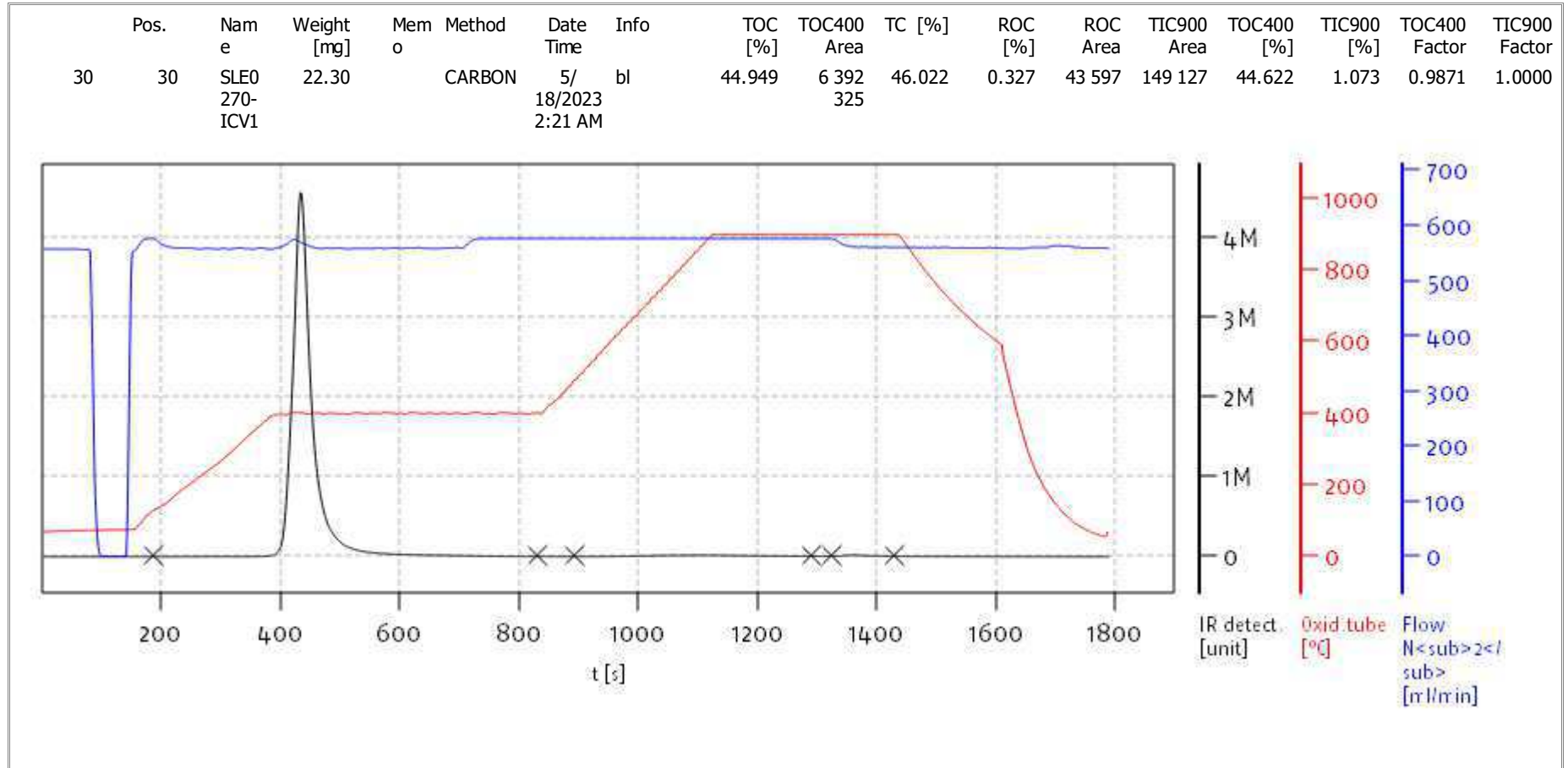
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Serial No: 0300.181017
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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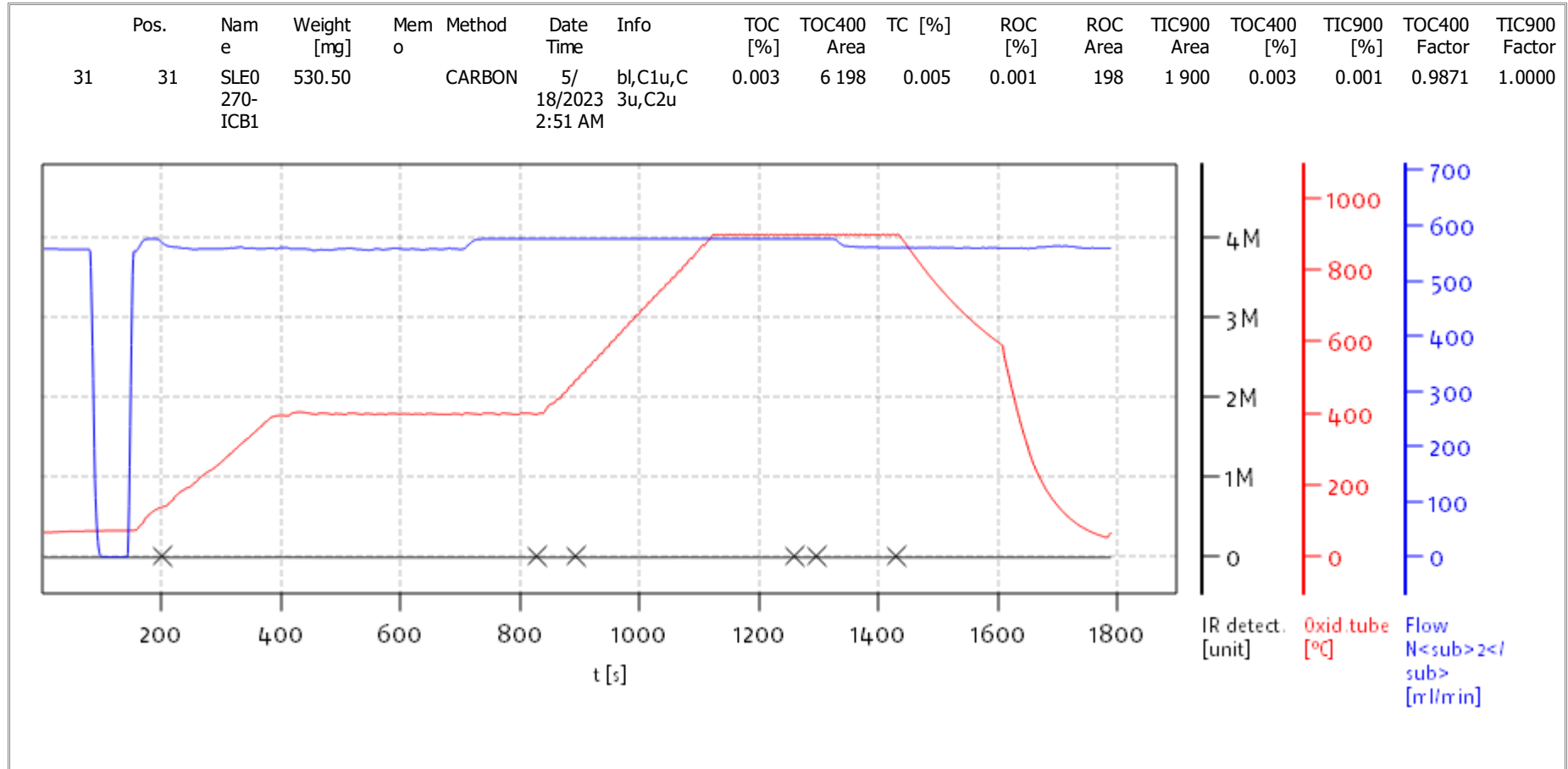
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Soli TOC Cube, Carbon
Balance: BAL3
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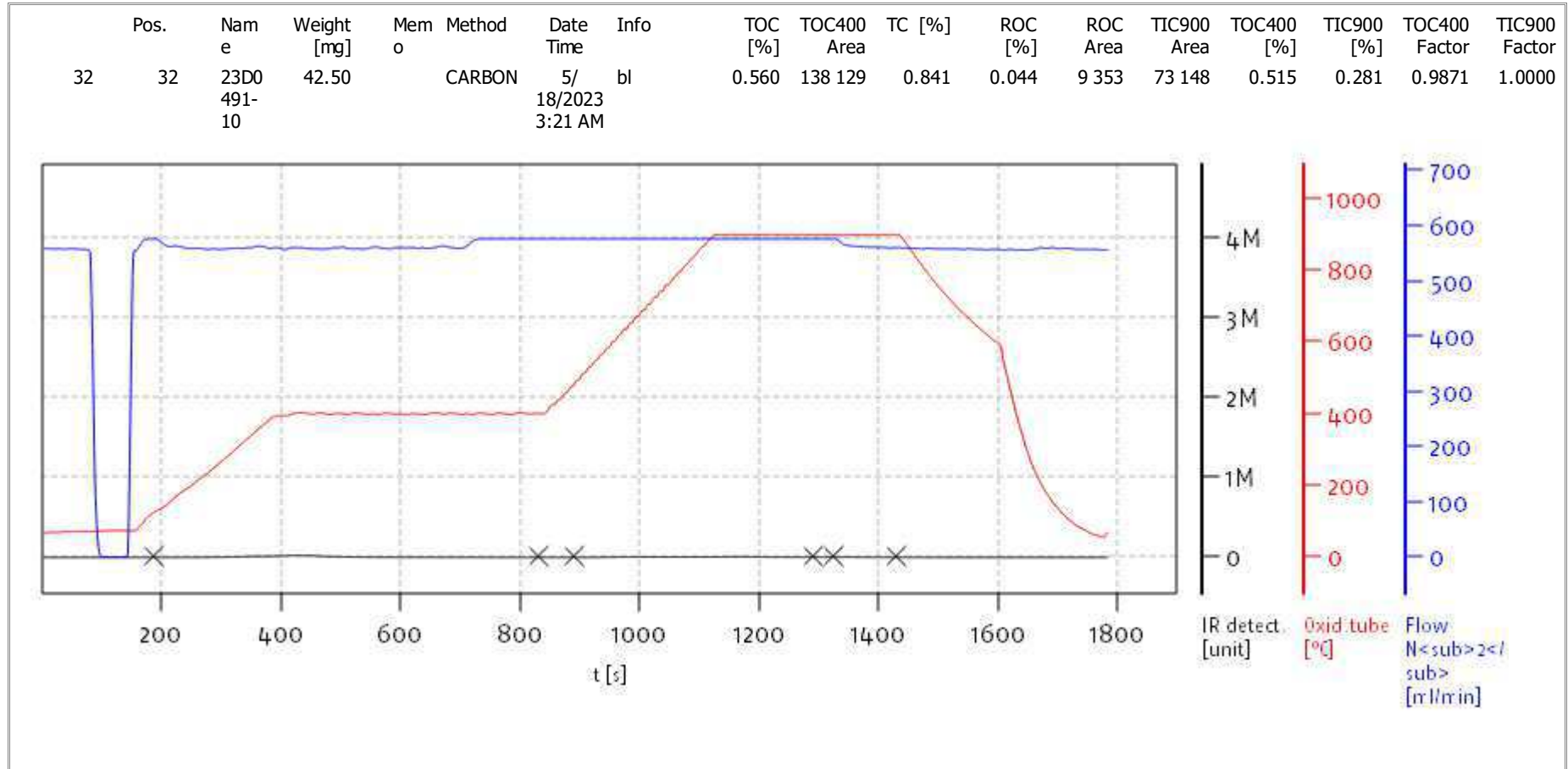
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Soli TOC Cube, Carbon
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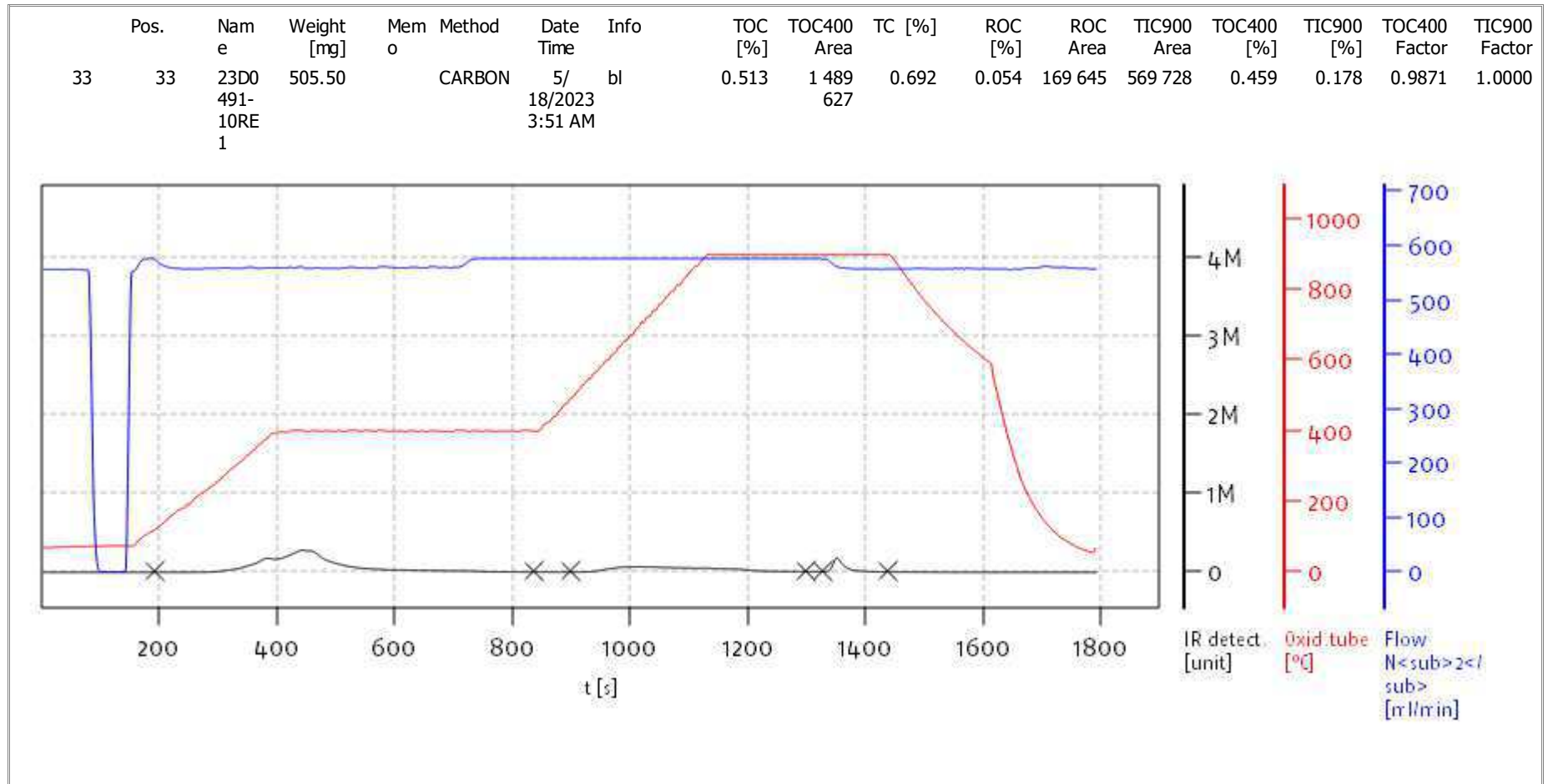
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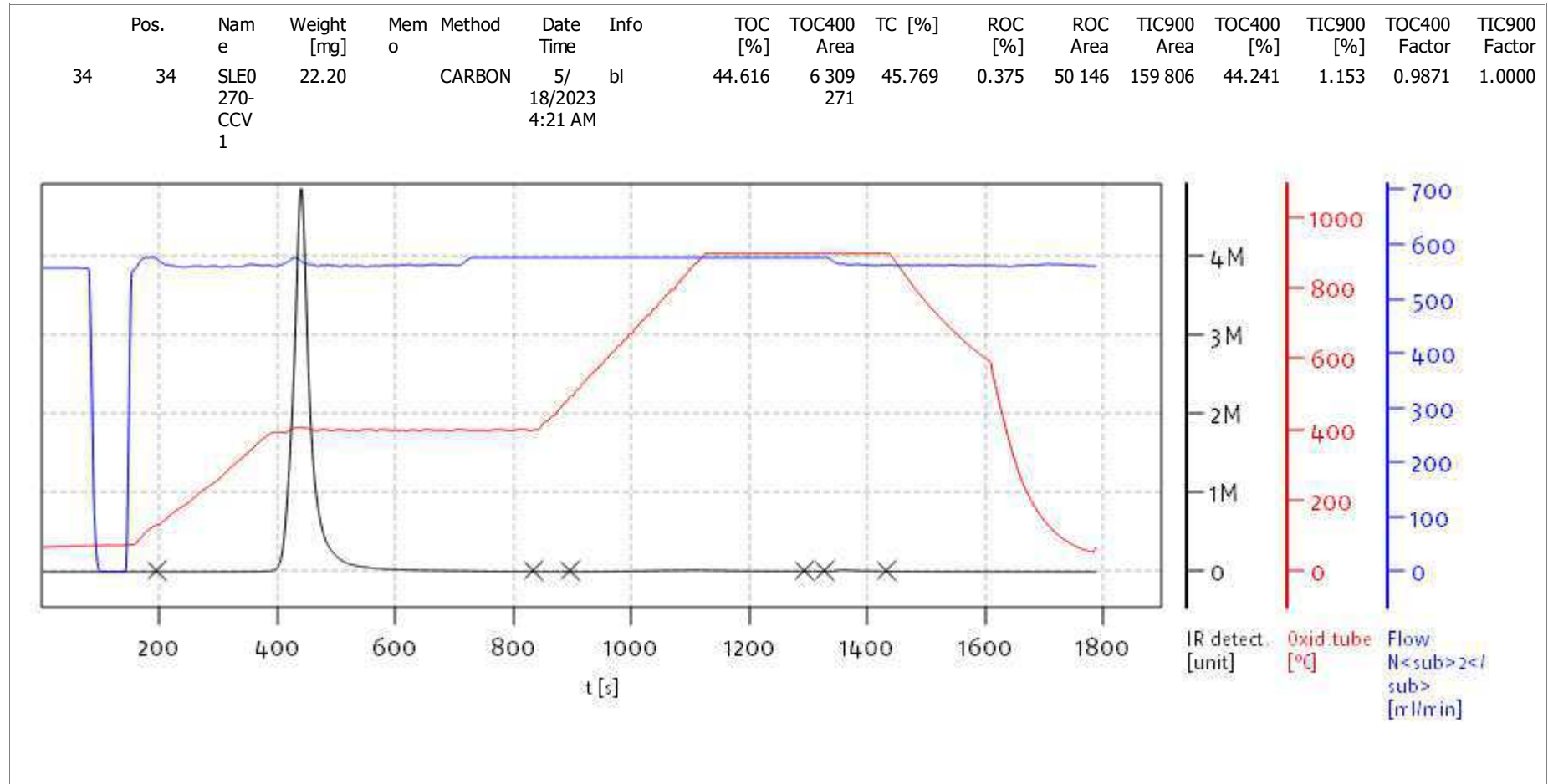
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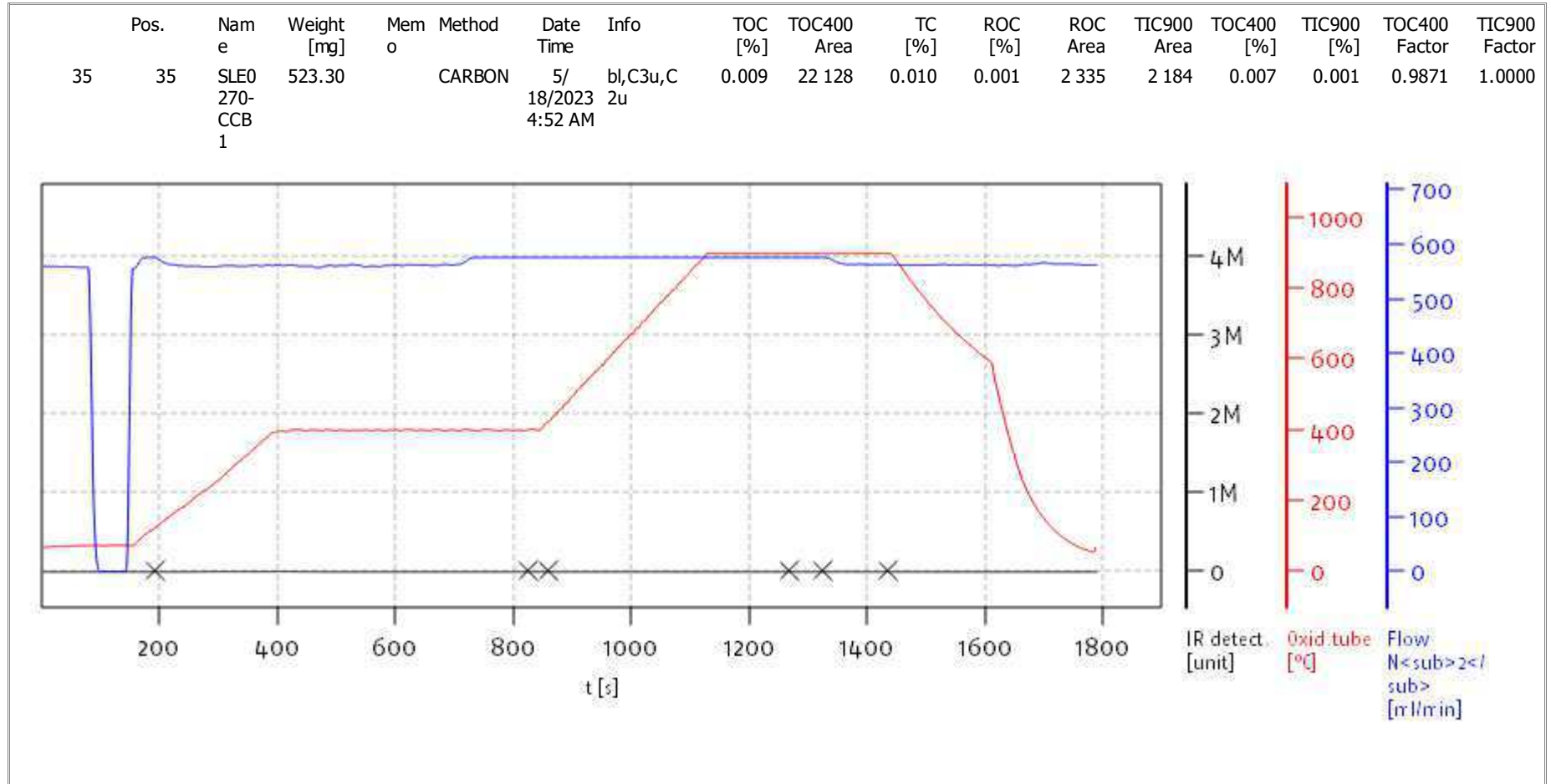
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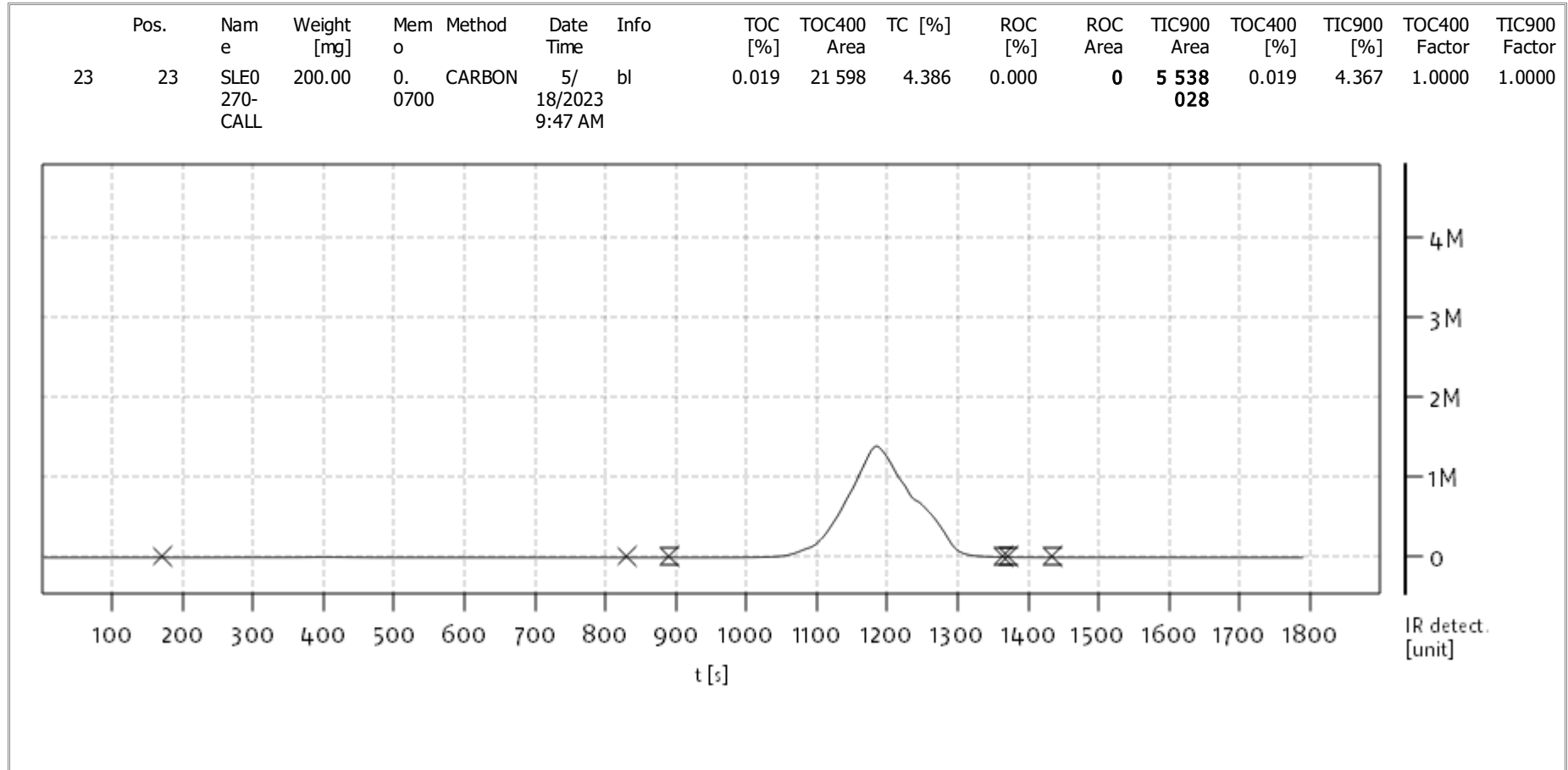
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Soli TOC Cube, Carbon
Balance: BAL3
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Name:

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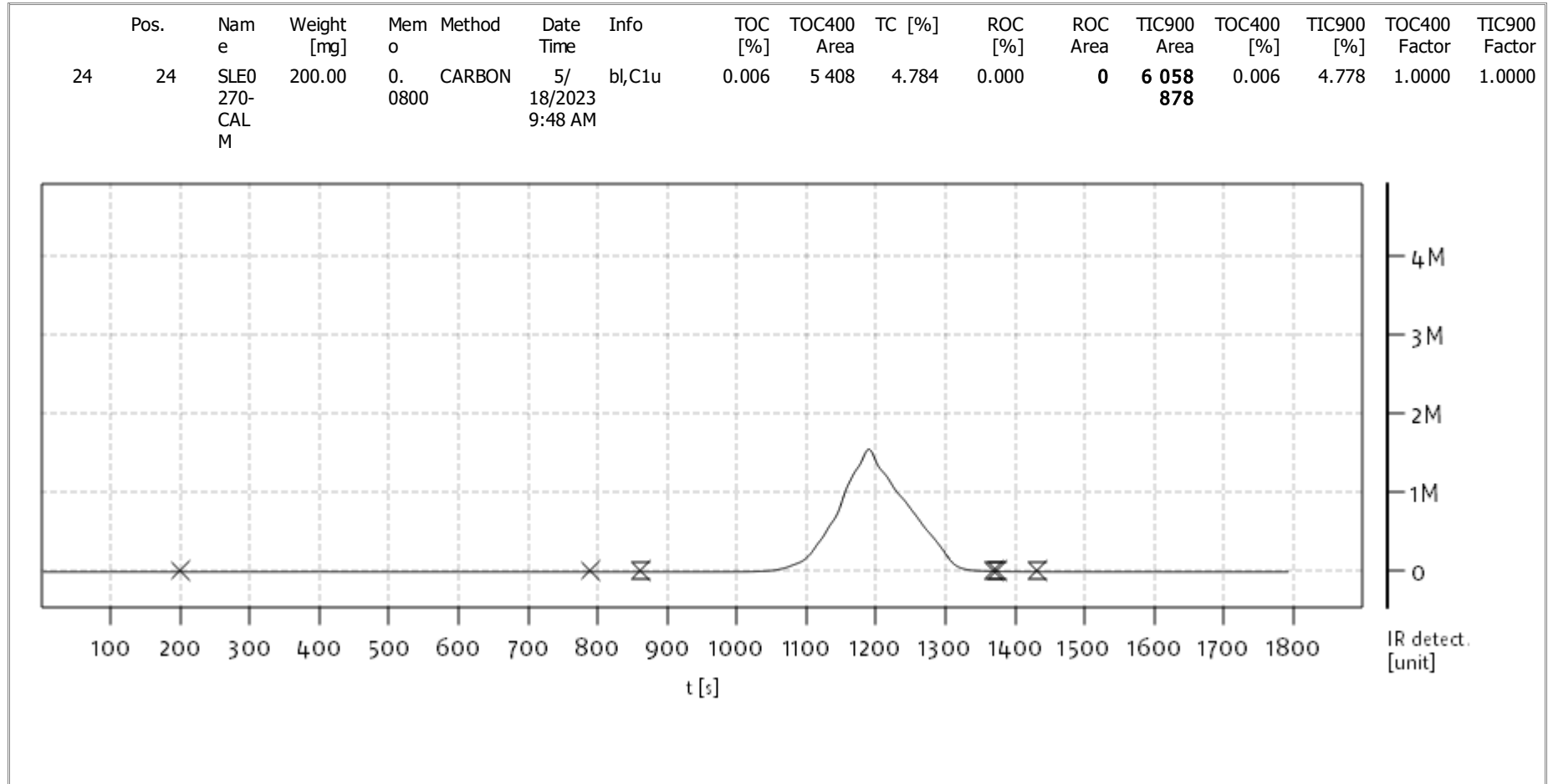
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

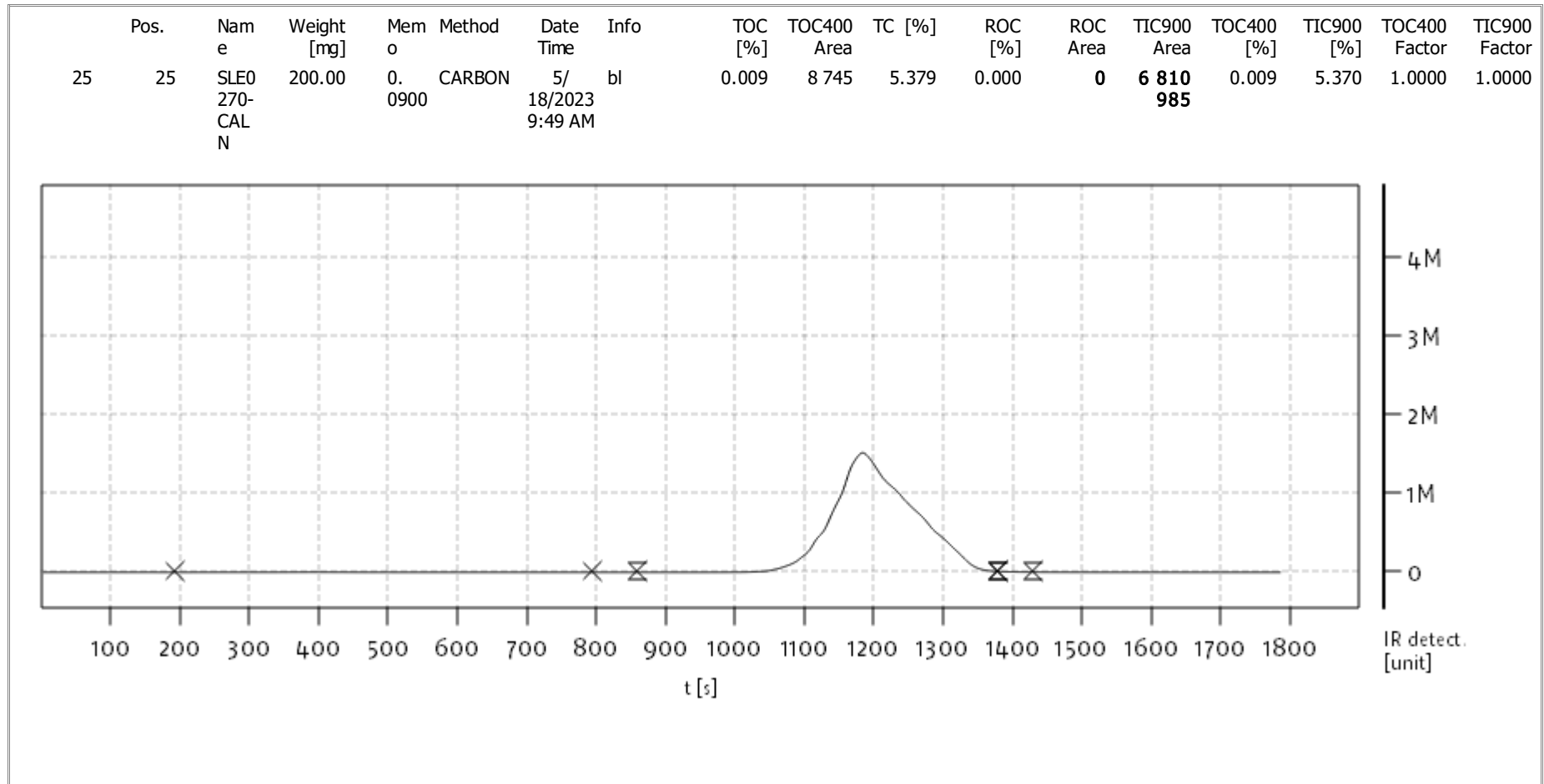
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
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Soli TOC Cube, Carbon
Balance: BAL3
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Name:

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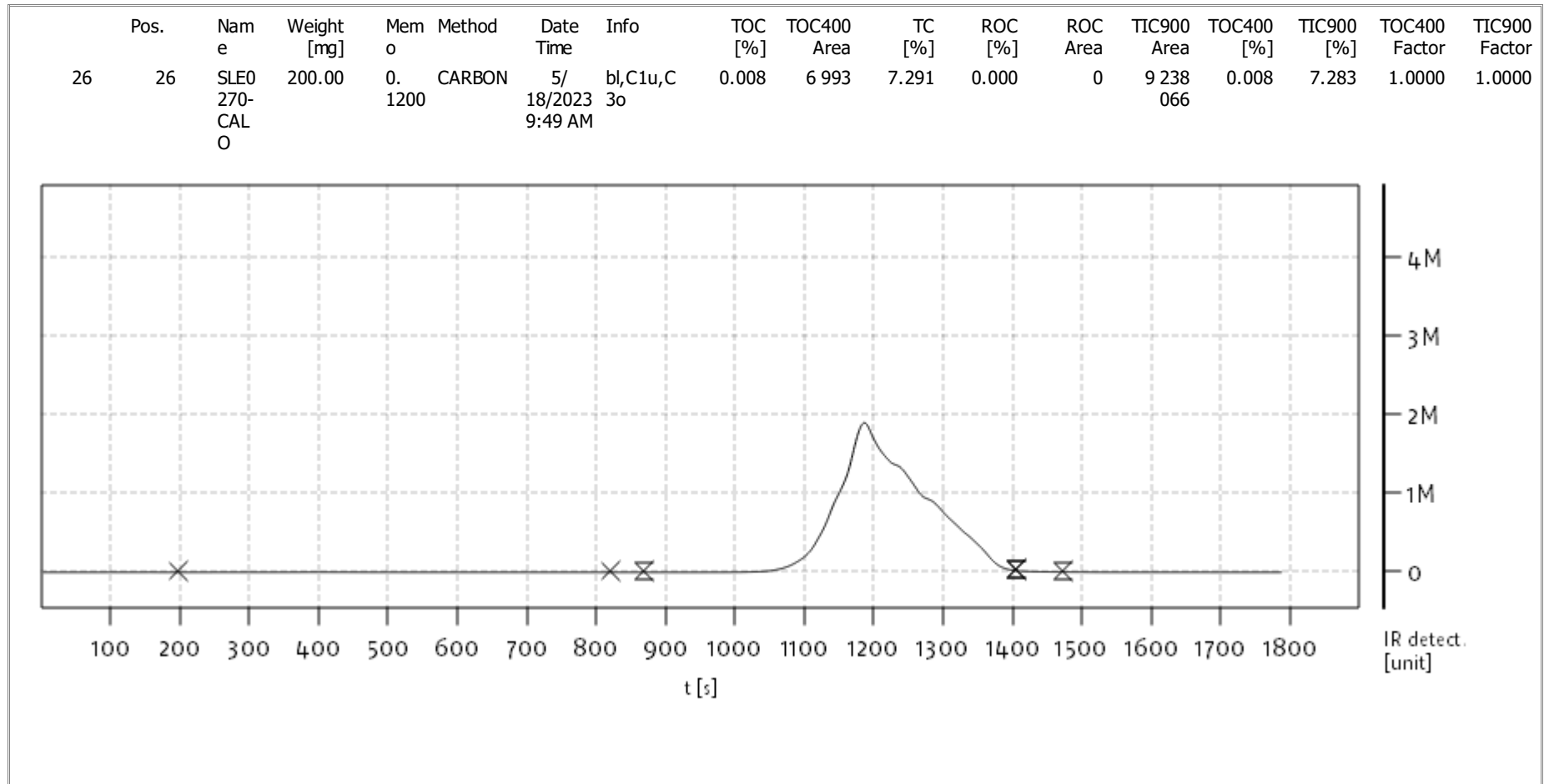
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Date: Thu May 18 09:50:12 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLF0283

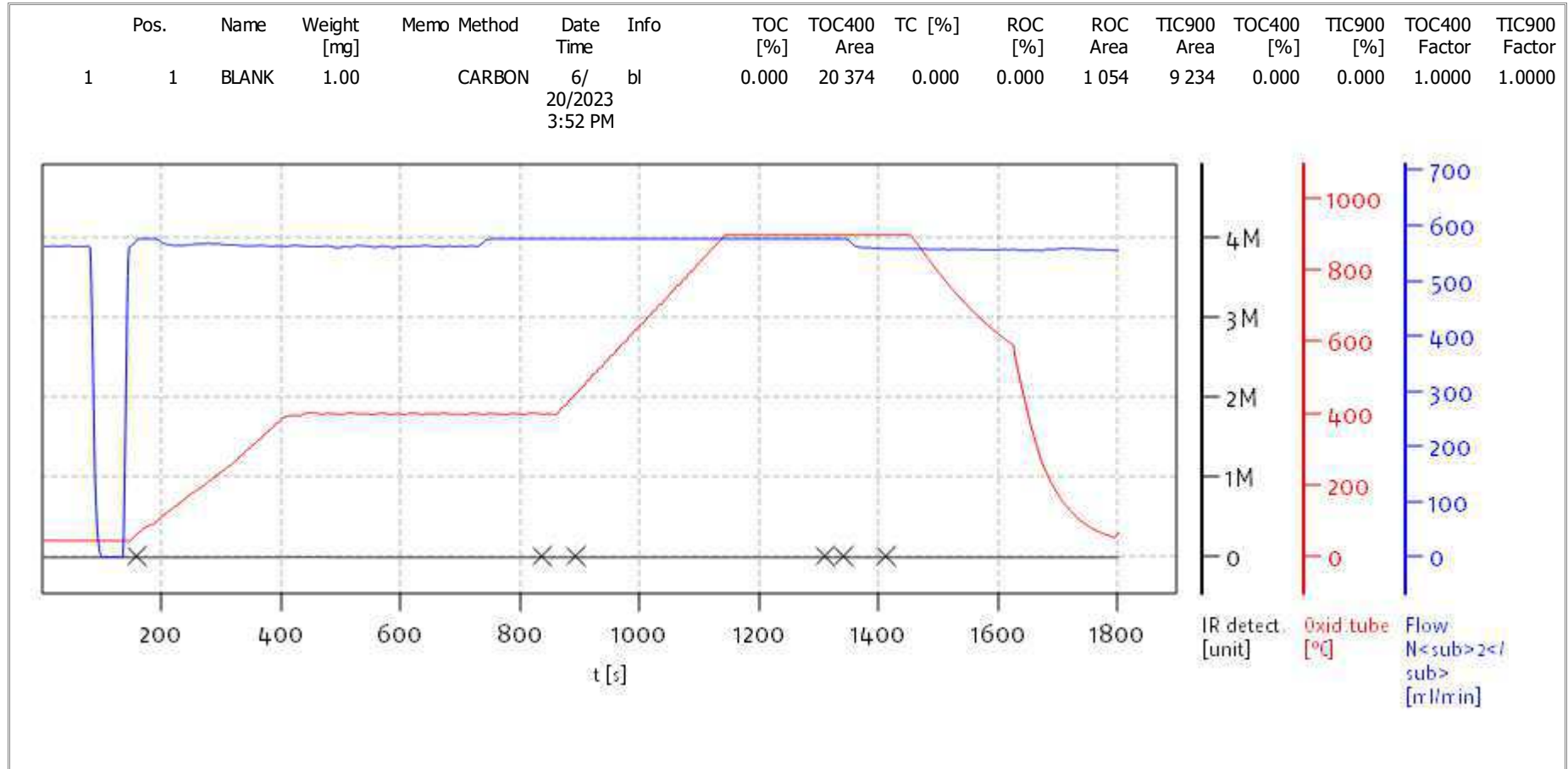
Instrument: TOC Cube

Calibration: GE00052

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SLF0283-ICV1	CubeData_06232023@1311-003	NA	06/20/23 17:22
Initial Cal Blank	SLF0283-ICB1	CubeData_06232023@1311-004	NA	06/20/23 17:53
MRL Check	BLF0522-MRL1	CubeData_06232023@1311-005	Solid	06/20/23 18:23
Blank	BLF0522-BLK1	CubeData_06232023@1311-009	Solid	06/20/23 20:23
LCS	BLF0522-BS1	CubeData_06232023@1311-013	Solid	06/20/23 22:23
Calibration Check	SLF0283-CCV1	CubeData_06232023@1311-015	NA	06/20/23 23:23
Calibration Blank	SLF0283-CCB1	CubeData_06232023@1311-016	NA	06/20/23 23:53
LDW23-SS1804	23D0136-01	CubeData_06232023@1311-021	Solid	06/21/23 02:24
LDW23-SS1804	BLF0522-DUP1	CubeData_06232023@1311-022	Solid	06/21/23 02:54
LDW23-SS1804	BLF0522-MS1	CubeData_06232023@1311-023	Solid	06/21/23 03:24
Calibration Check	SLF0283-CCV2	CubeData_06232023@1311-027	NA	06/21/23 05:25
Calibration Blank	SLF0283-CCB2	CubeData_06232023@1311-028	NA	06/21/23 05:55
LDW23-SC1804	23D0136-02	CubeData_06232023@1311-037	Solid	06/21/23 10:27
LDW23-SS1803	23D0136-03	CubeData_06232023@1311-038	Solid	06/21/23 10:57
Calibration Check	SLF0283-CCV3	CubeData_06232023@1311-039	NA	06/21/23 11:27
Calibration Blank	SLF0283-CCB3	CubeData_06232023@1311-040	NA	06/21/23 11:57
LDW23-SC1803	23D0136-04	CubeData_06232023@1311-041	Solid	06/21/23 12:28
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

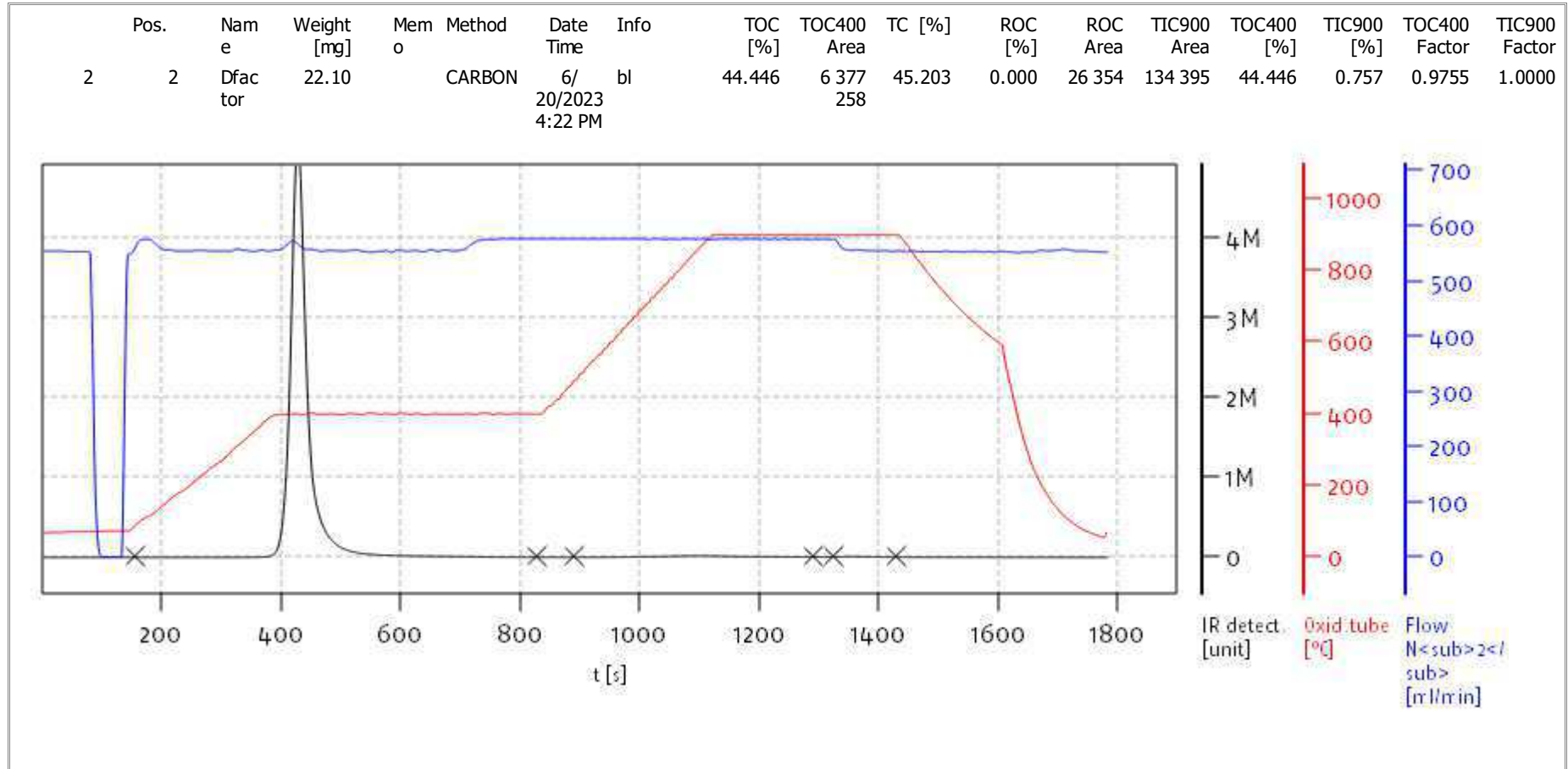
Date: Fri Jun 23 12:52:31 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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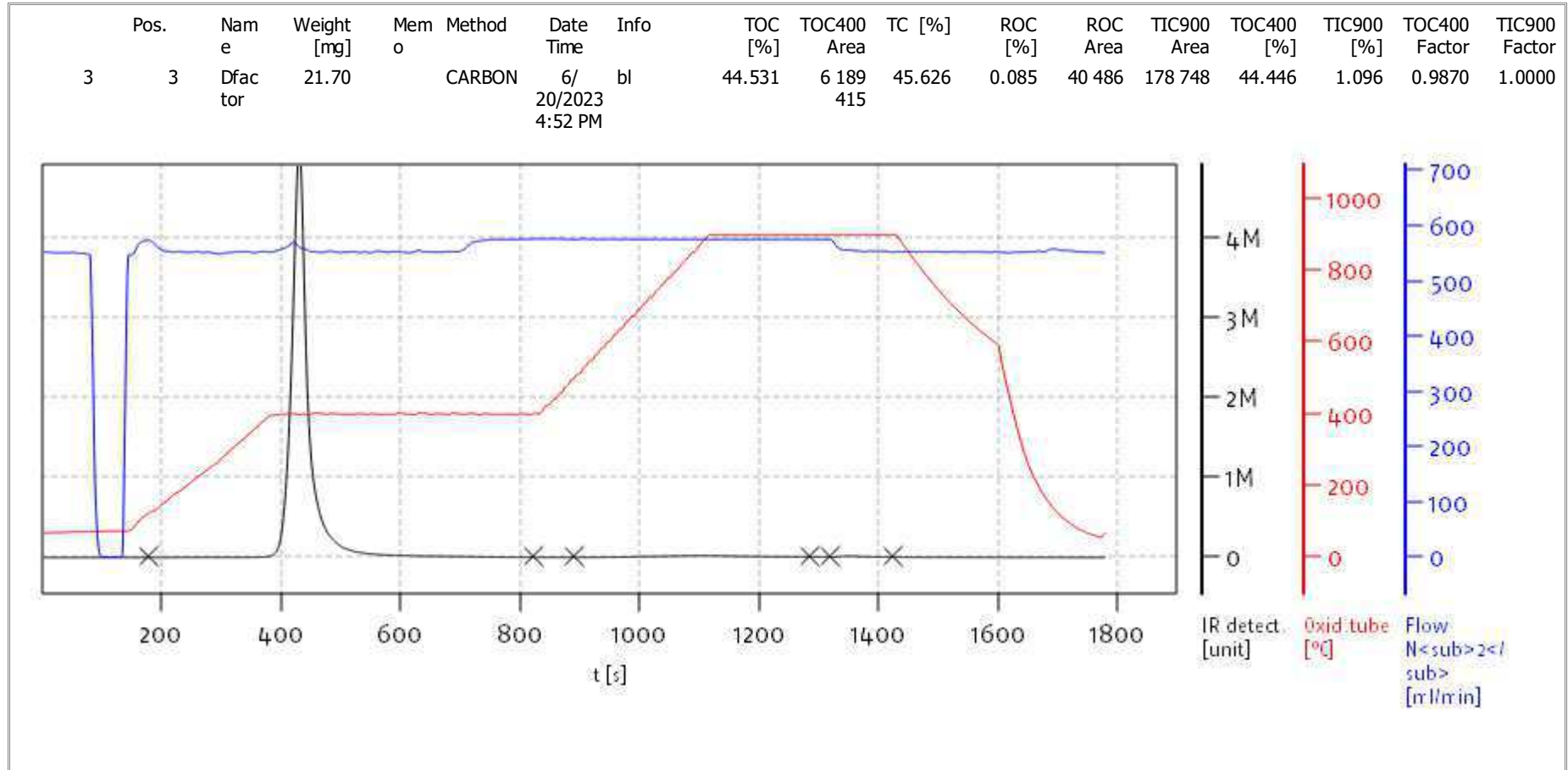
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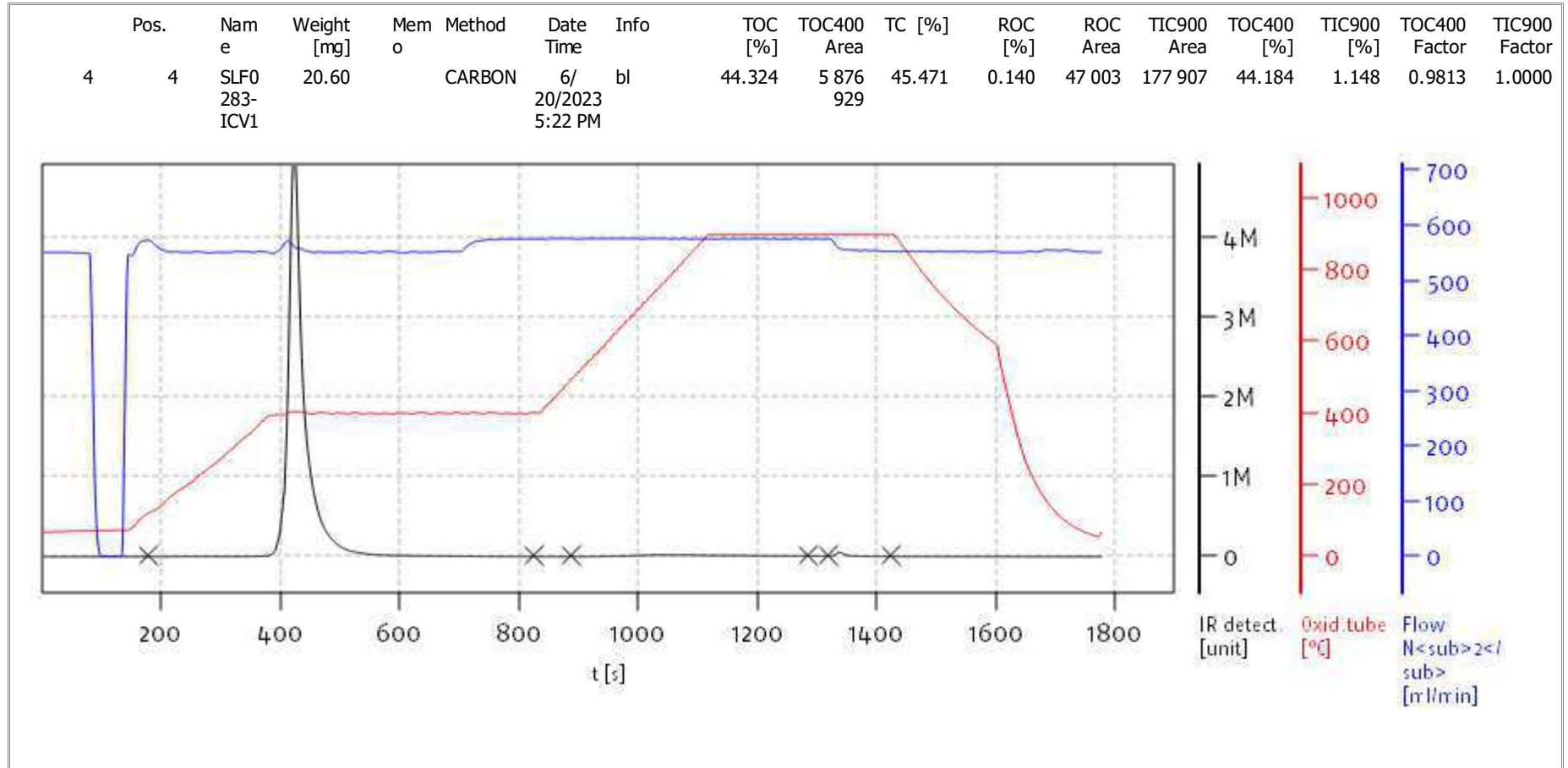
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Soli TOC Cube, Carbon
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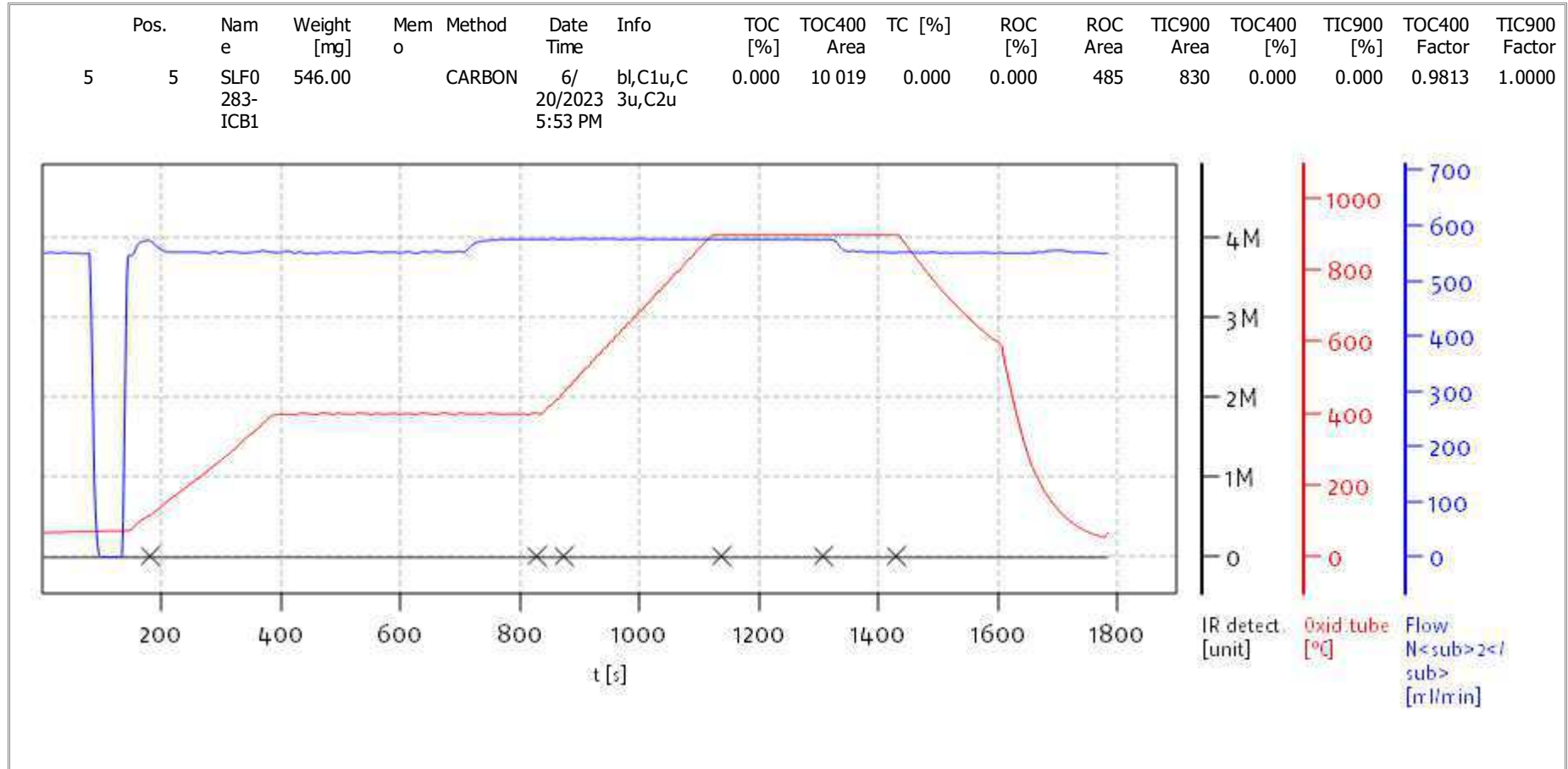
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Soli TOC Cube, Carbon
Balance: BAL3
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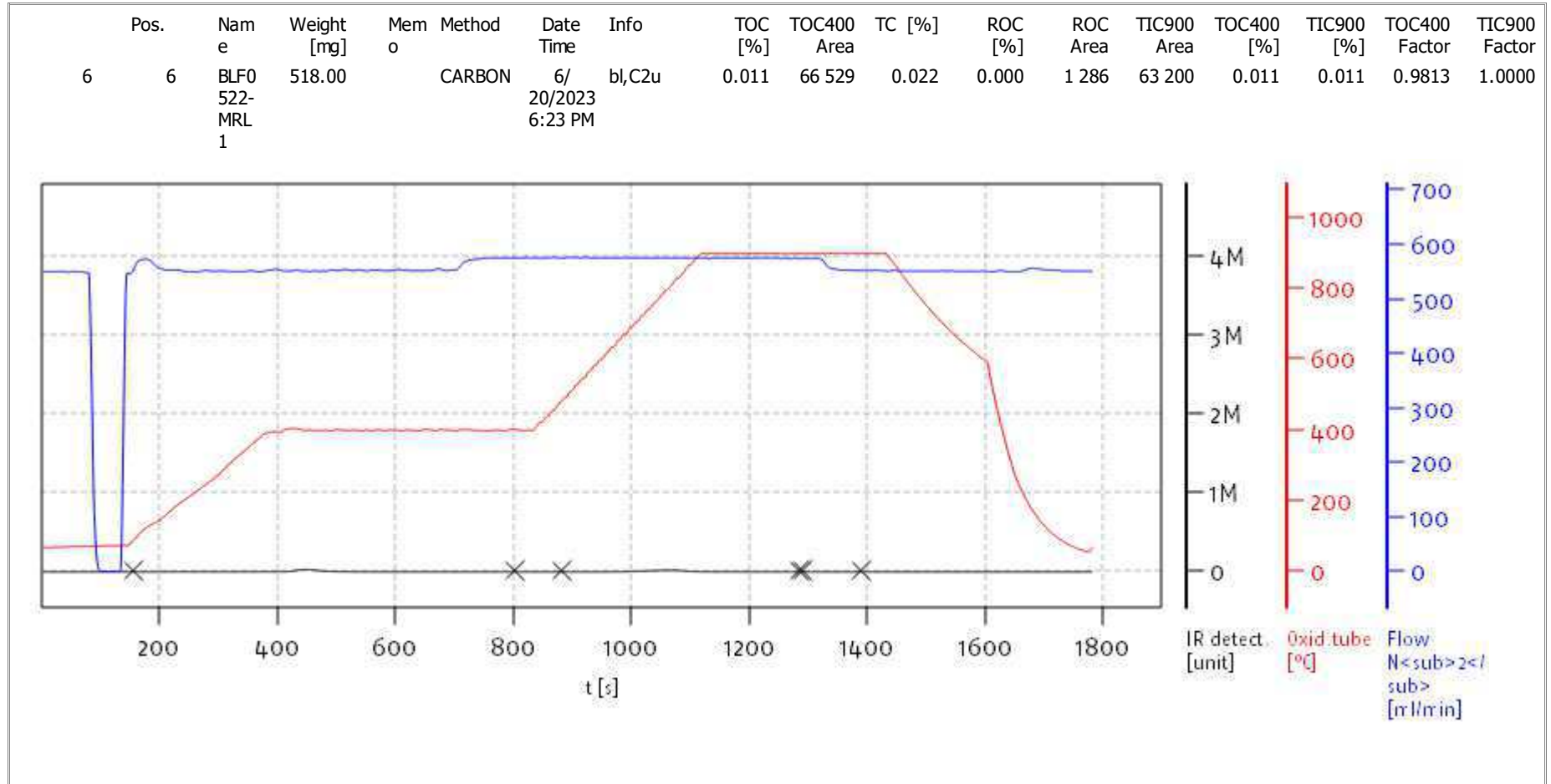
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Soli TOC Cube, Carbon
Balance: BAL3
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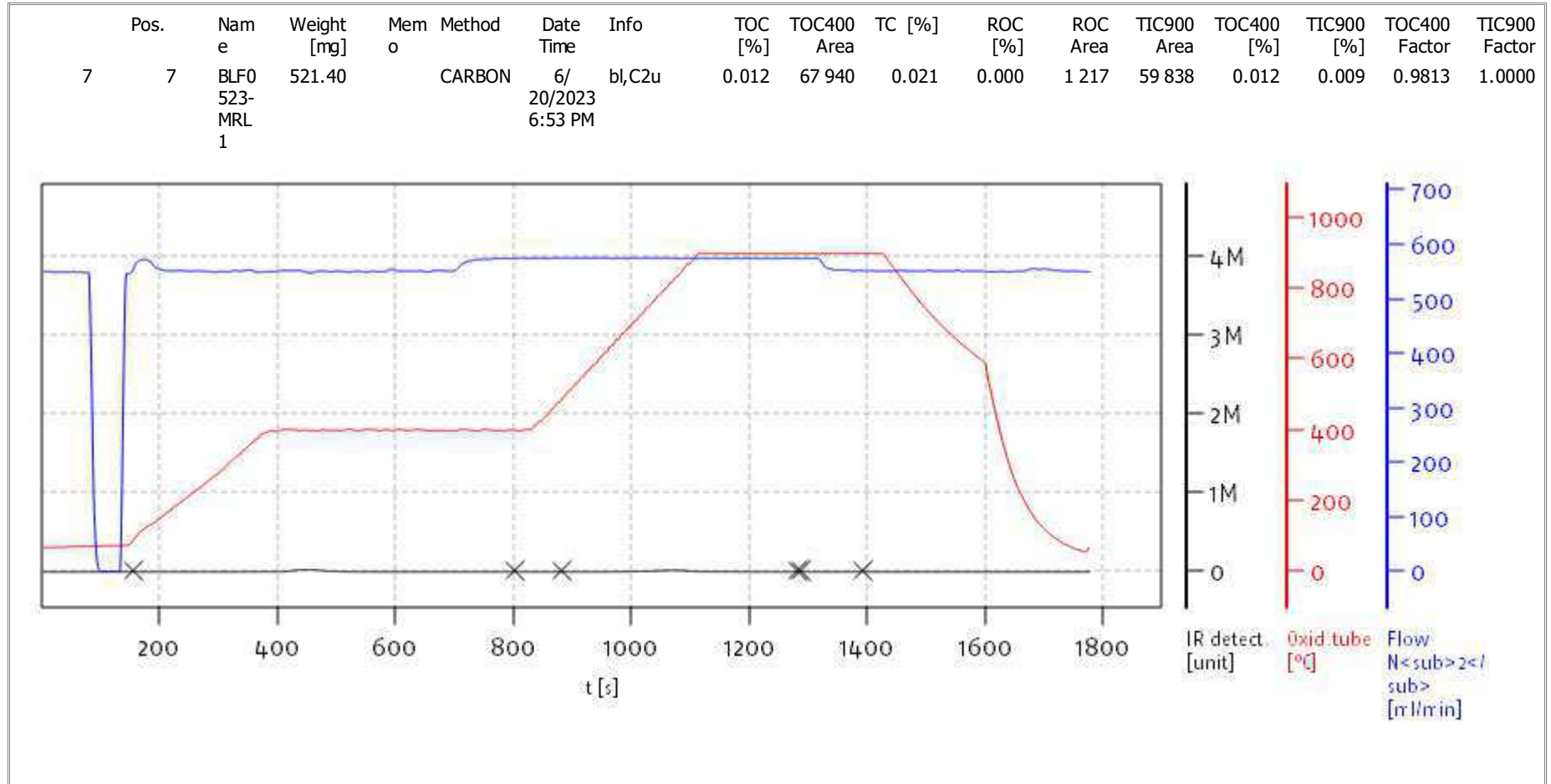
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Balance: BAL3
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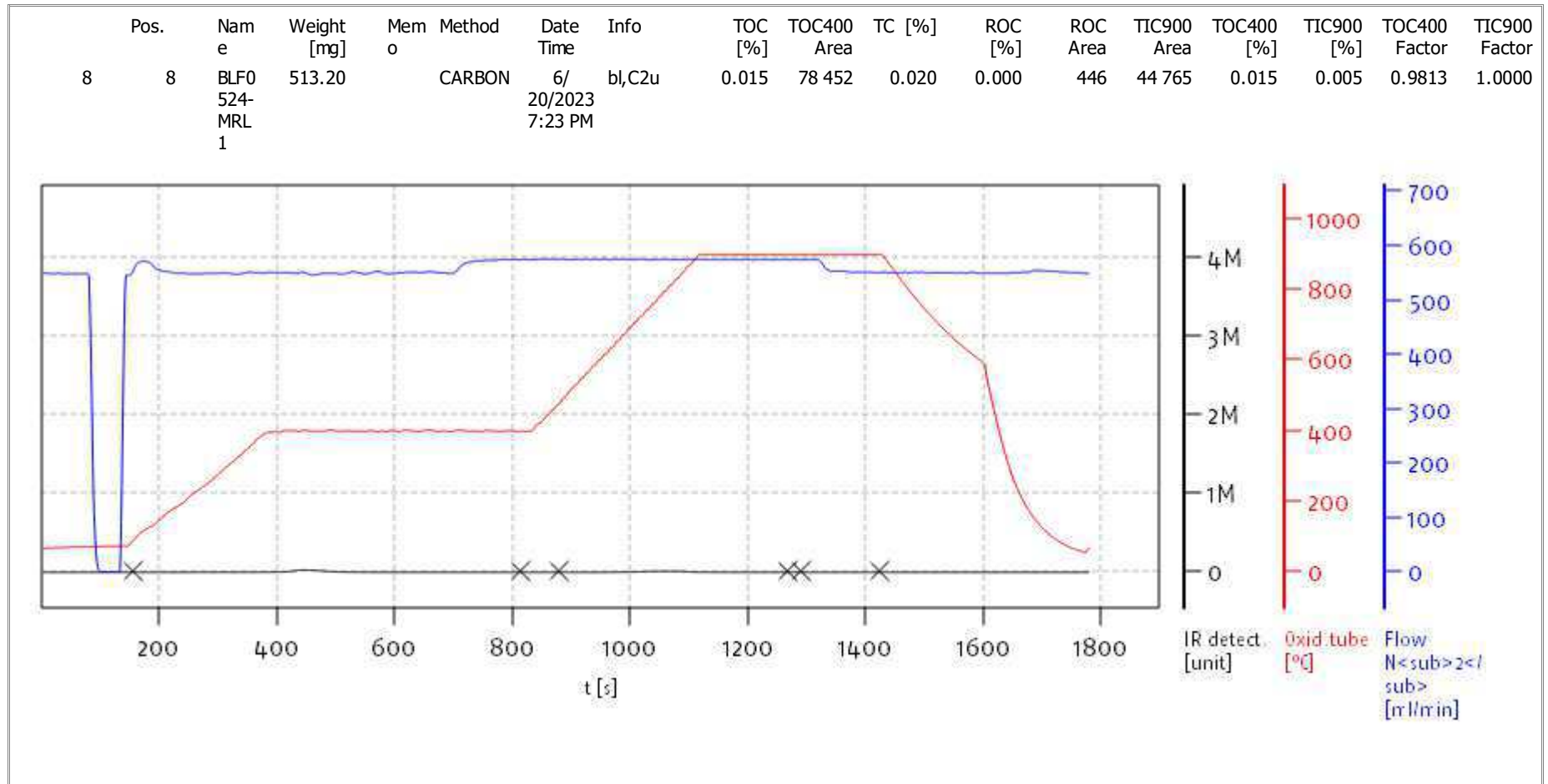
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Name:

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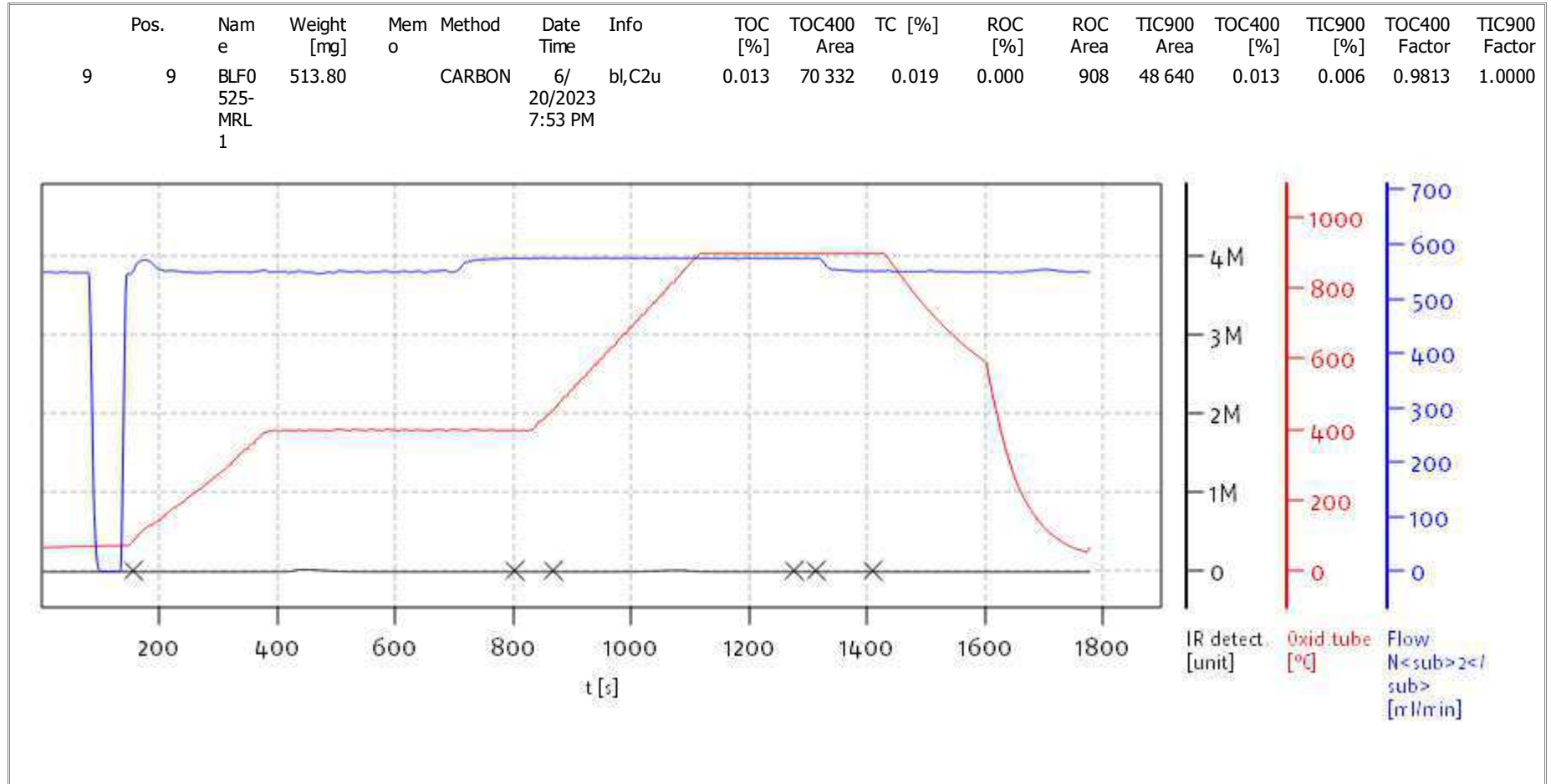
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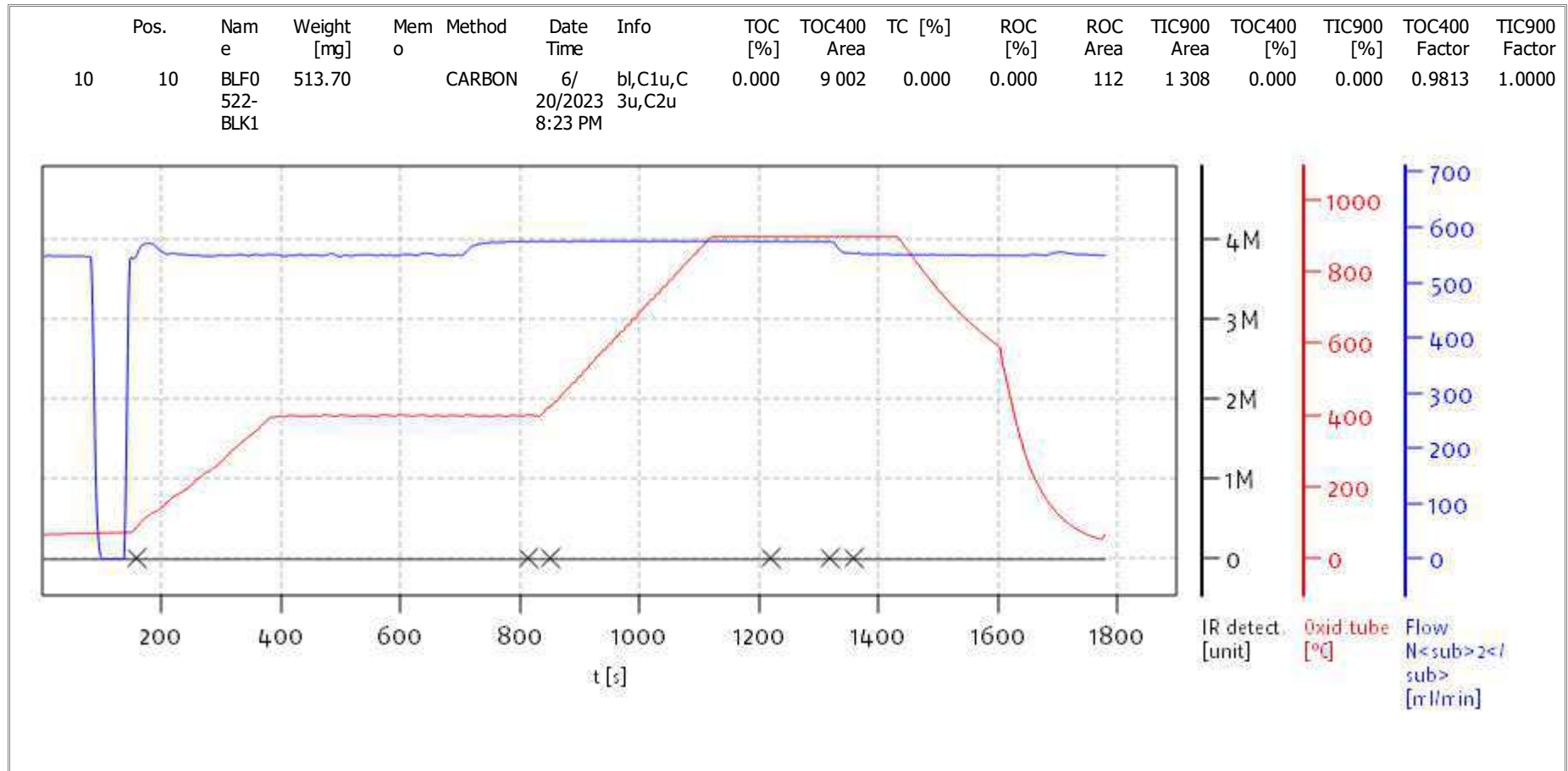
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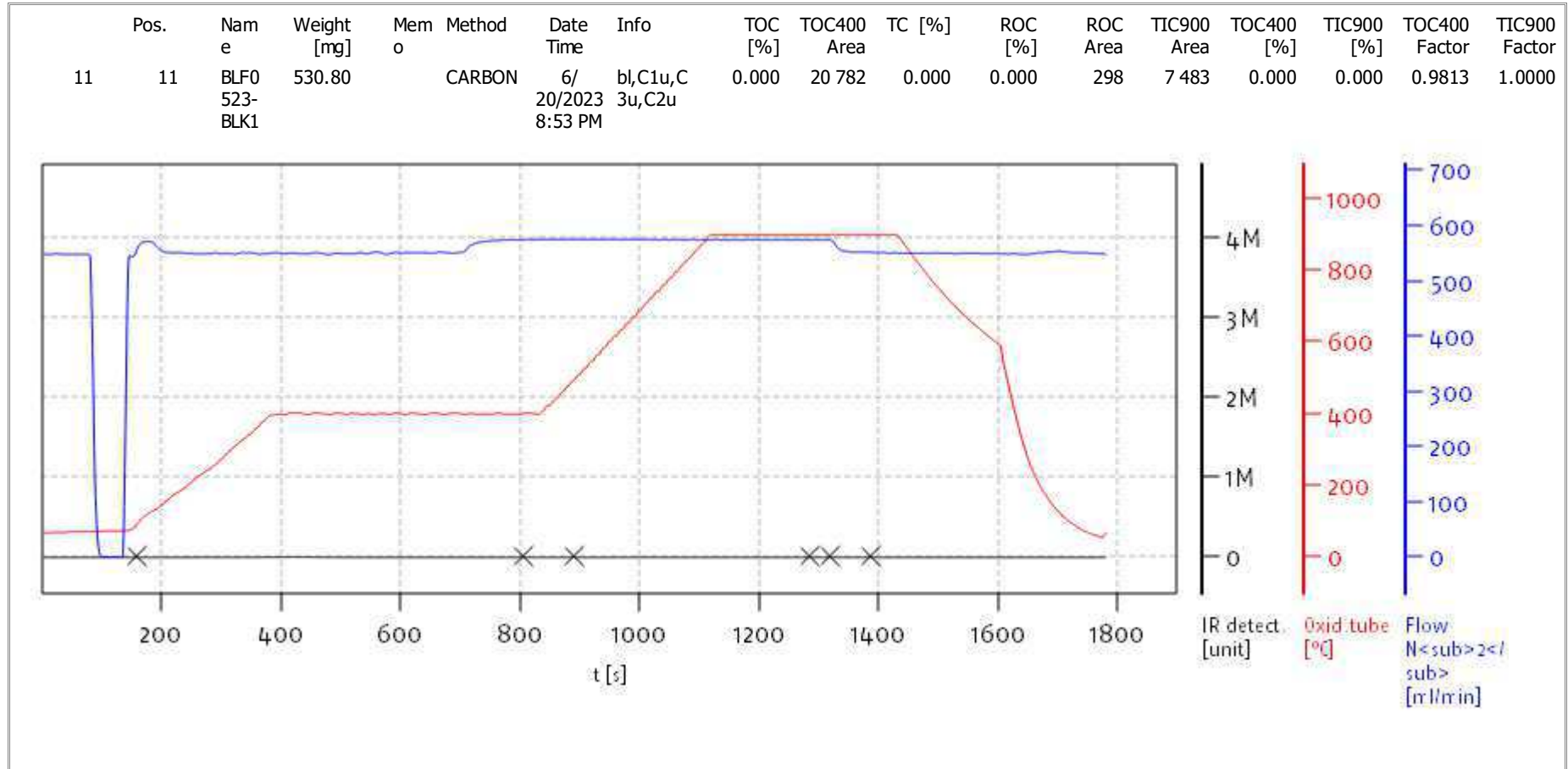
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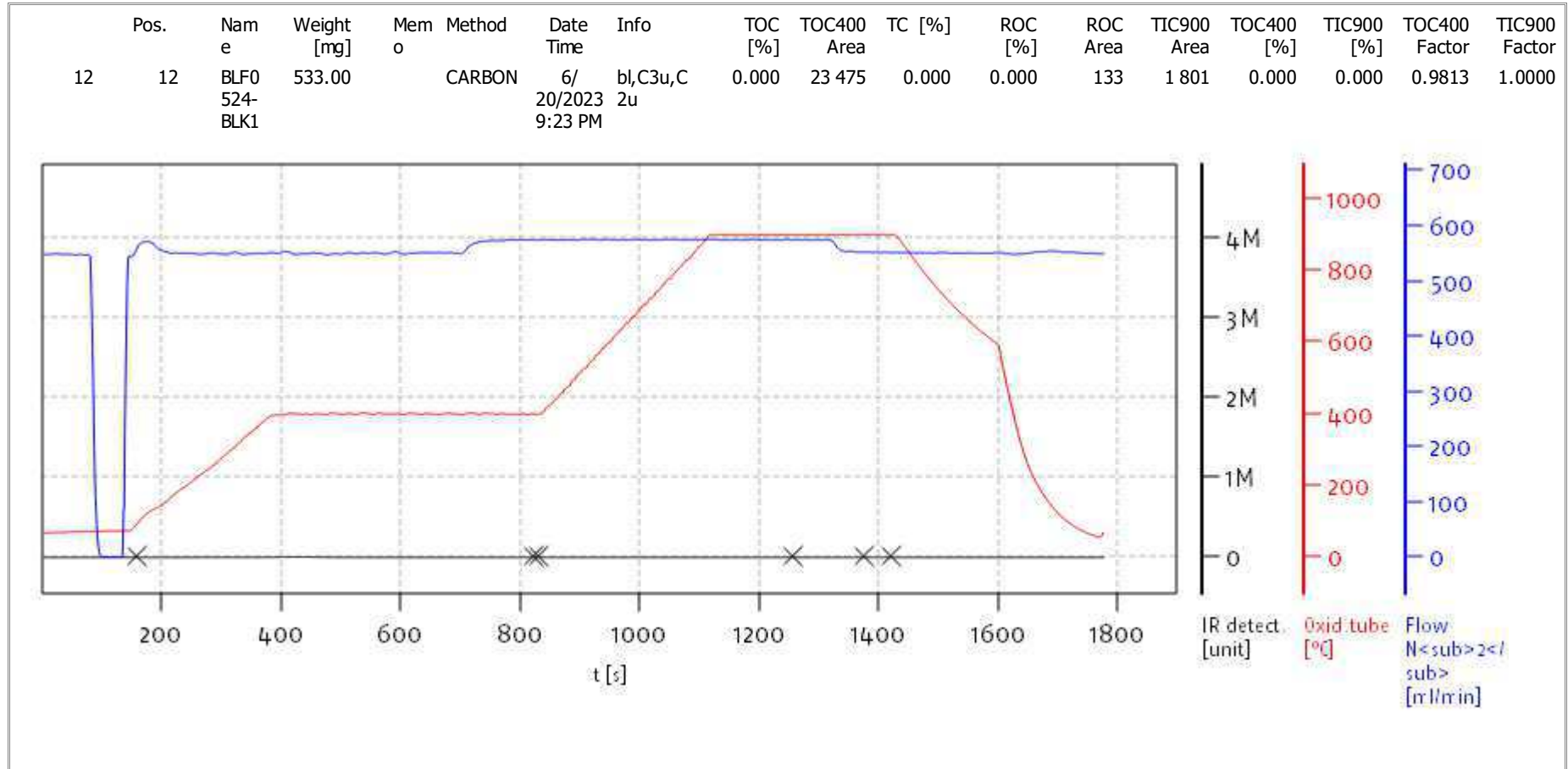
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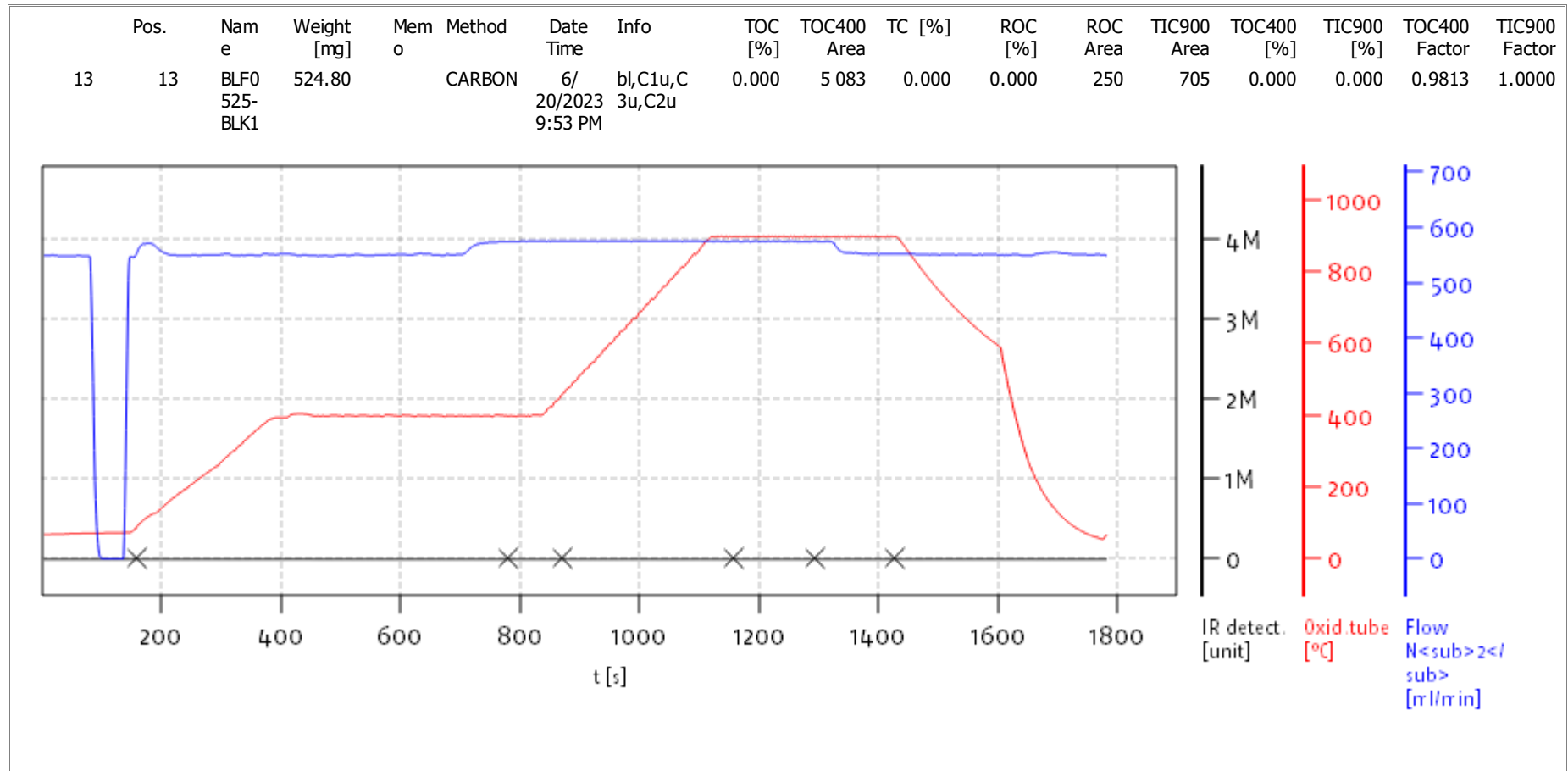
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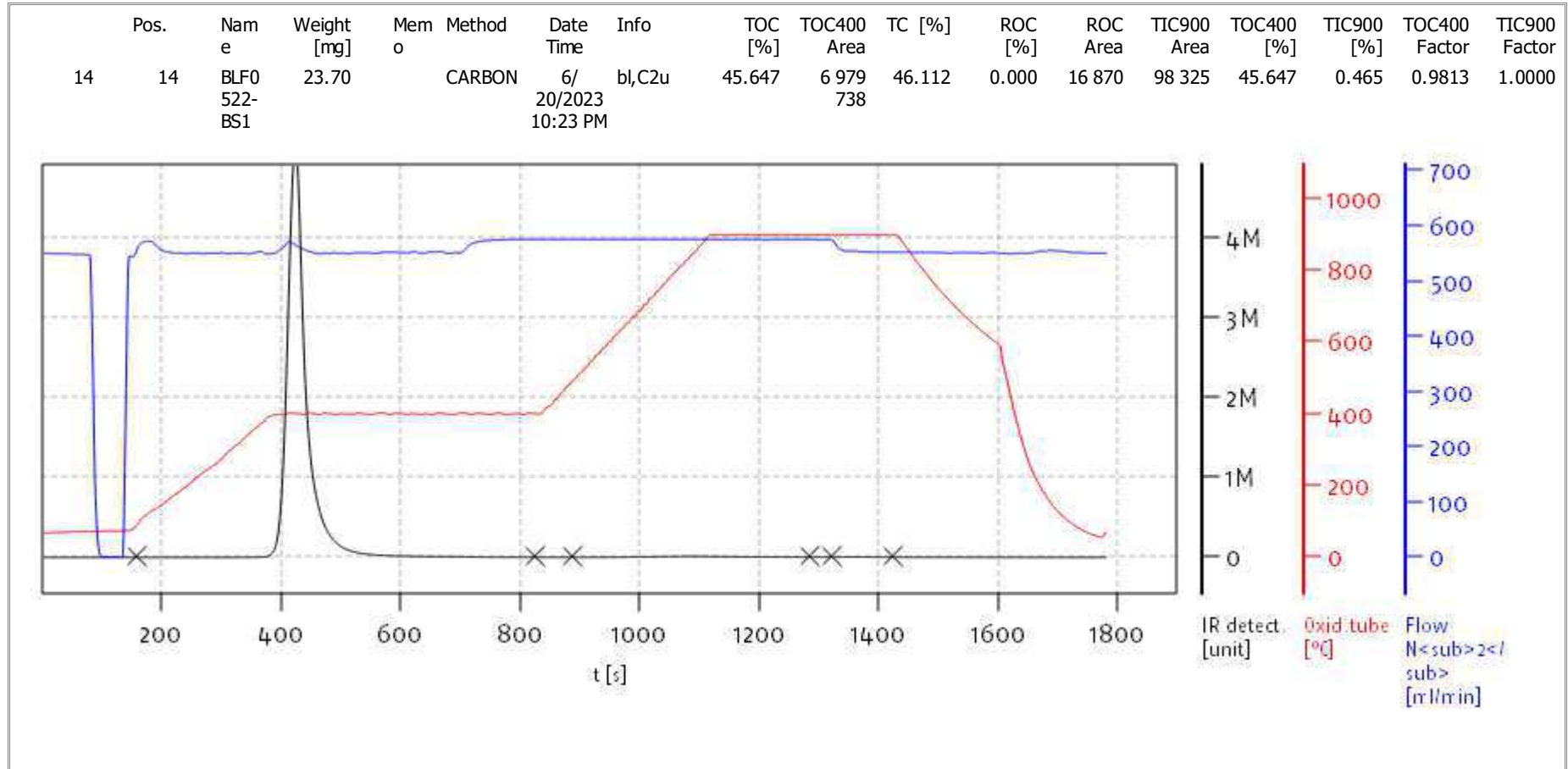
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Soli TOC Cube, Carbon
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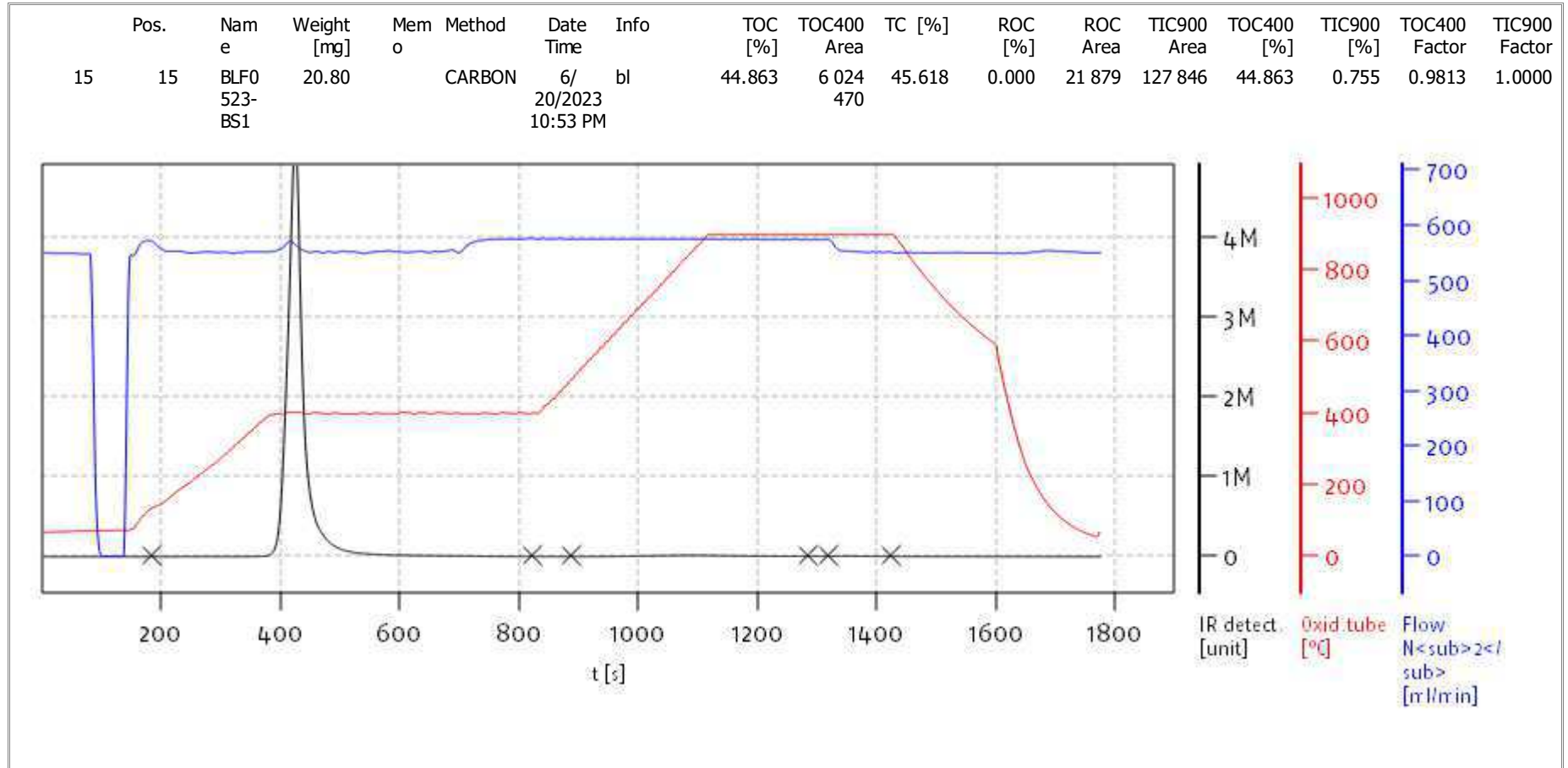
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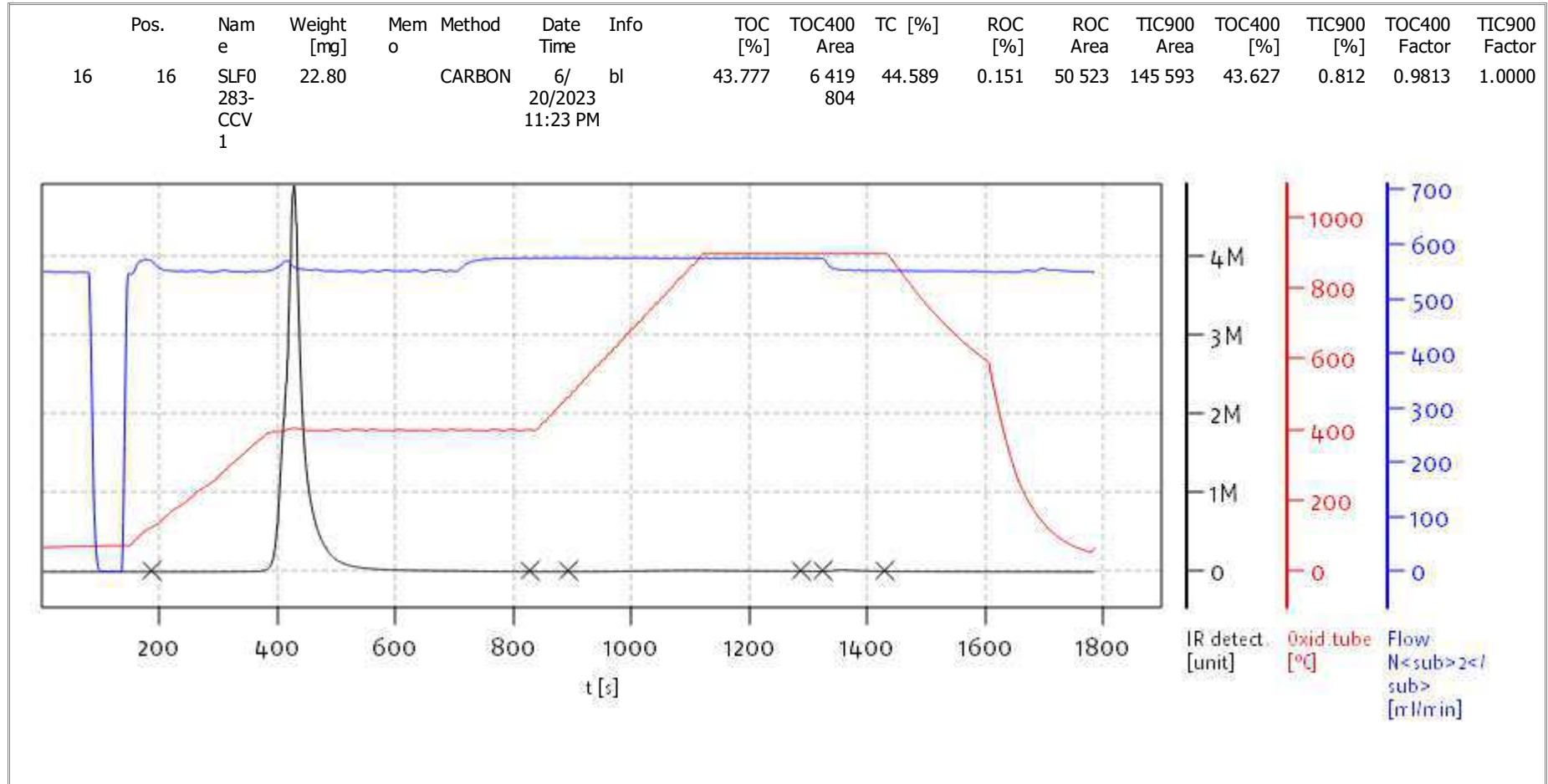
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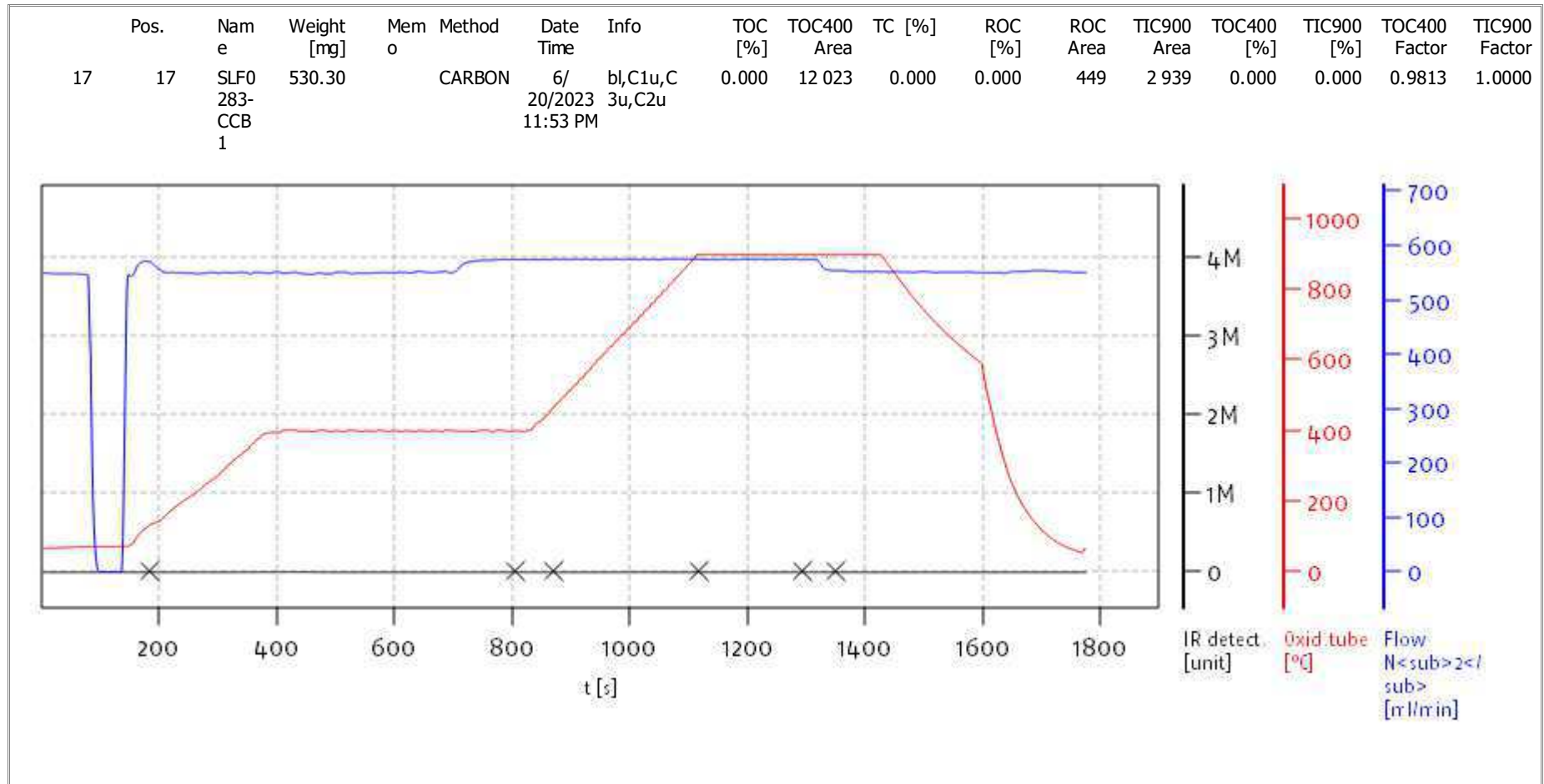
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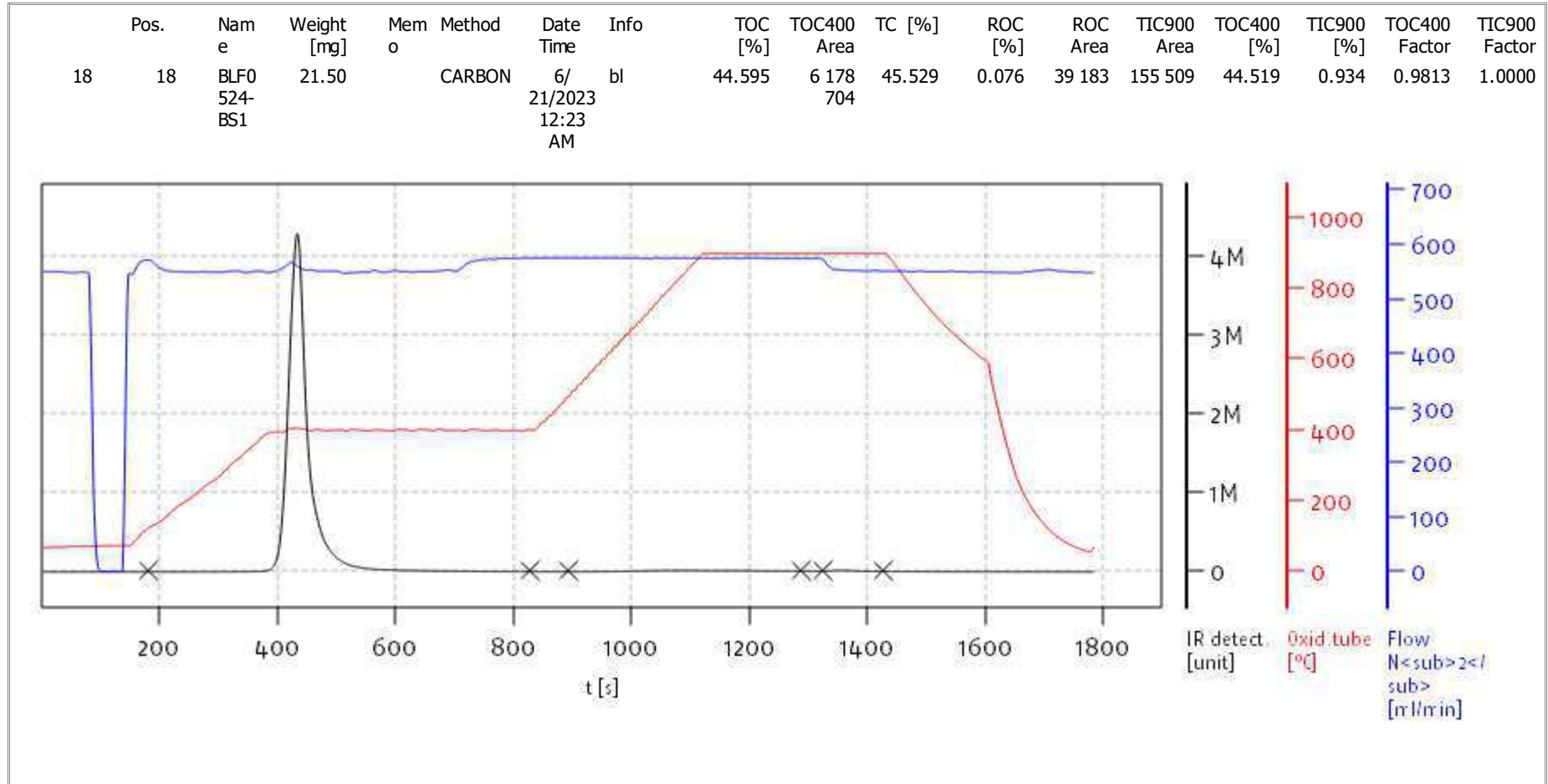
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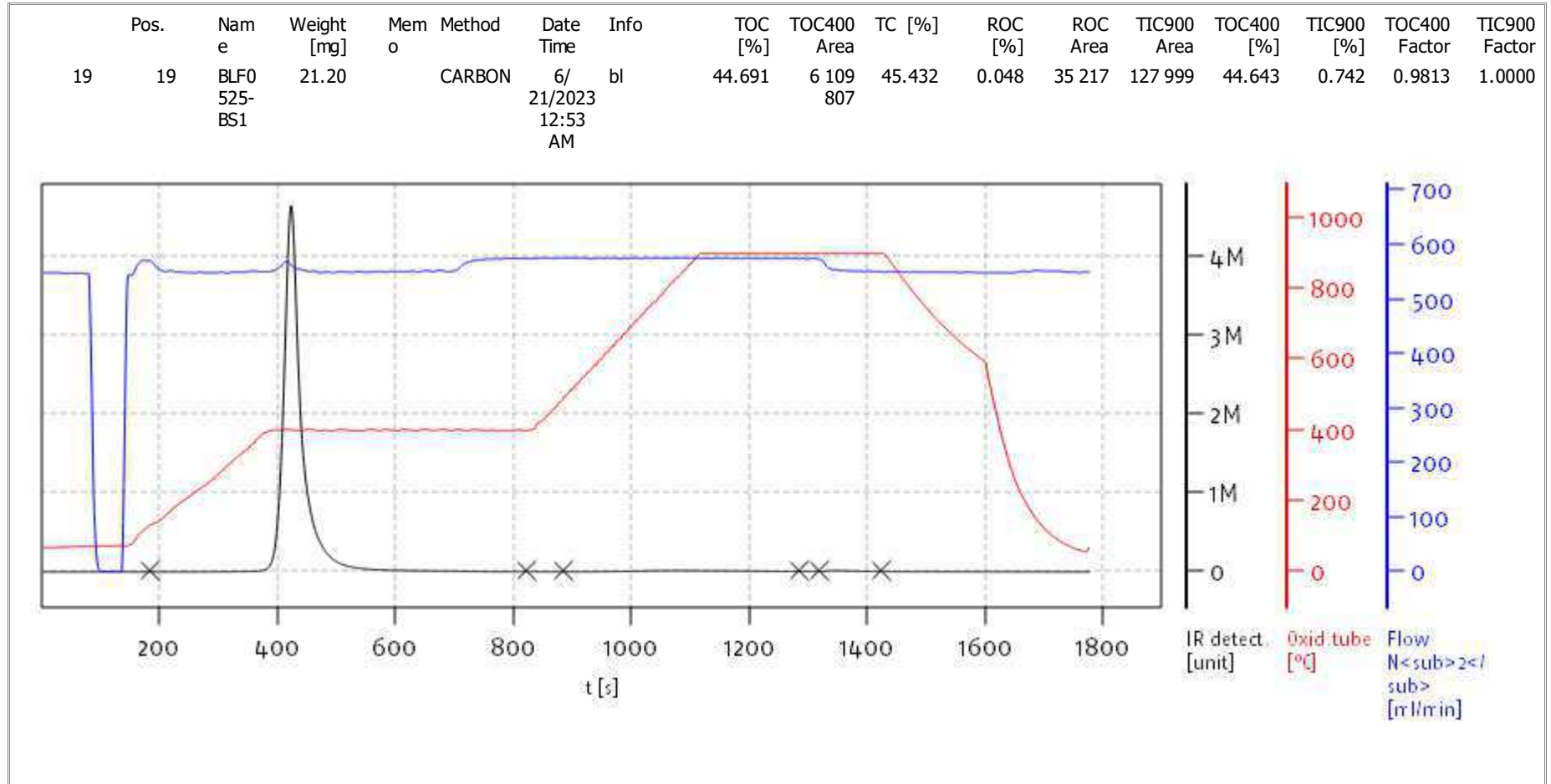
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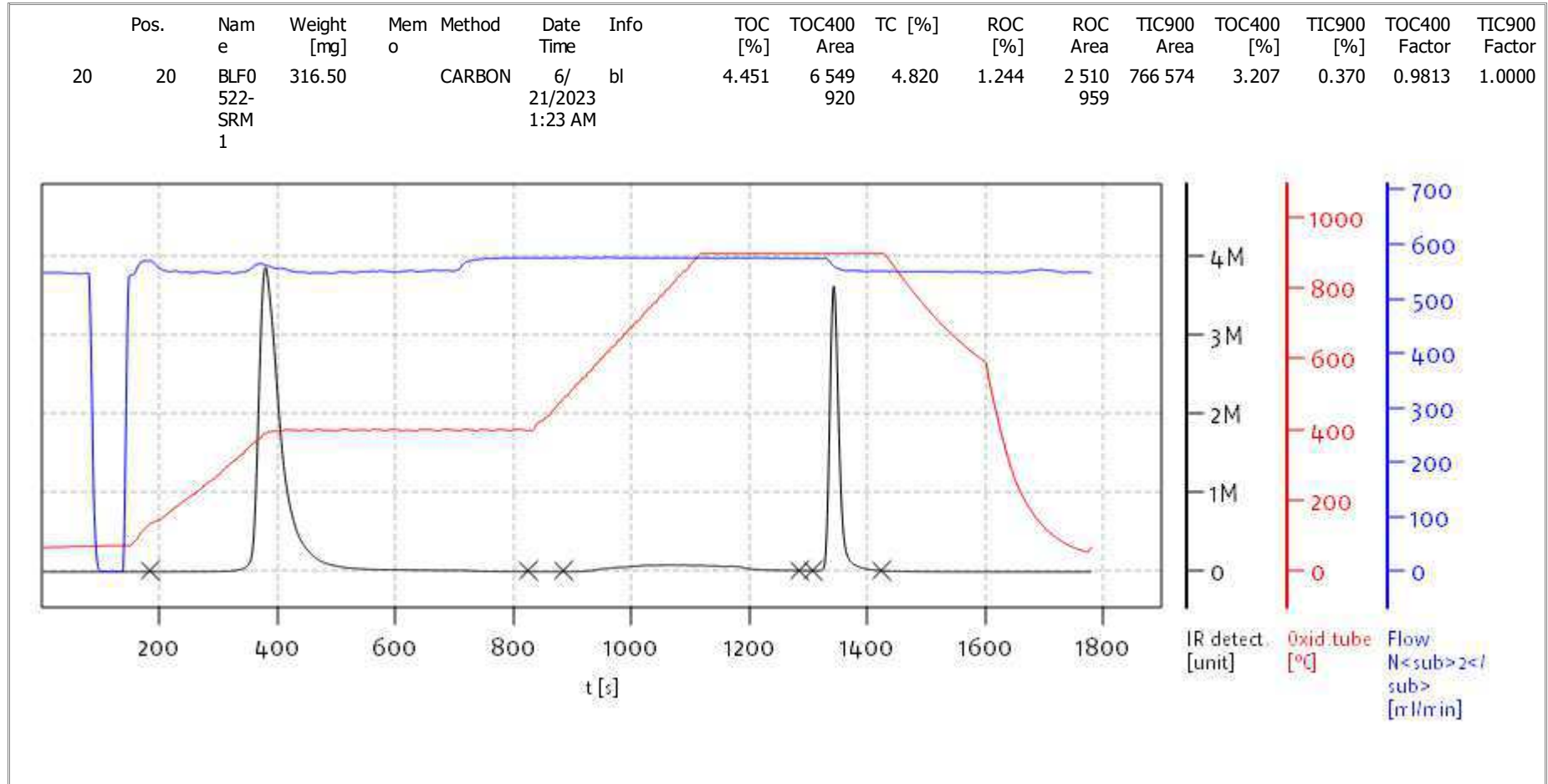
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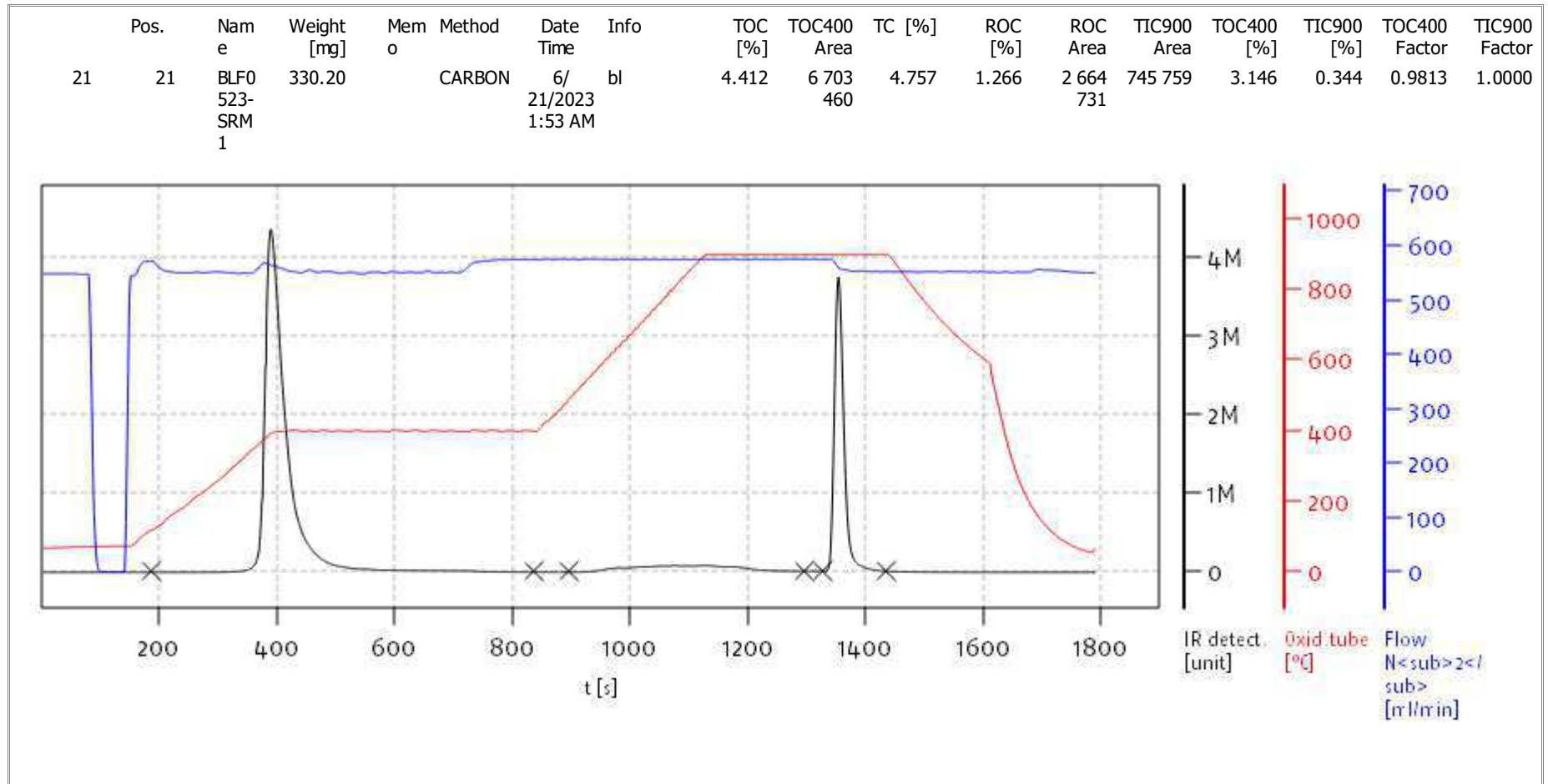
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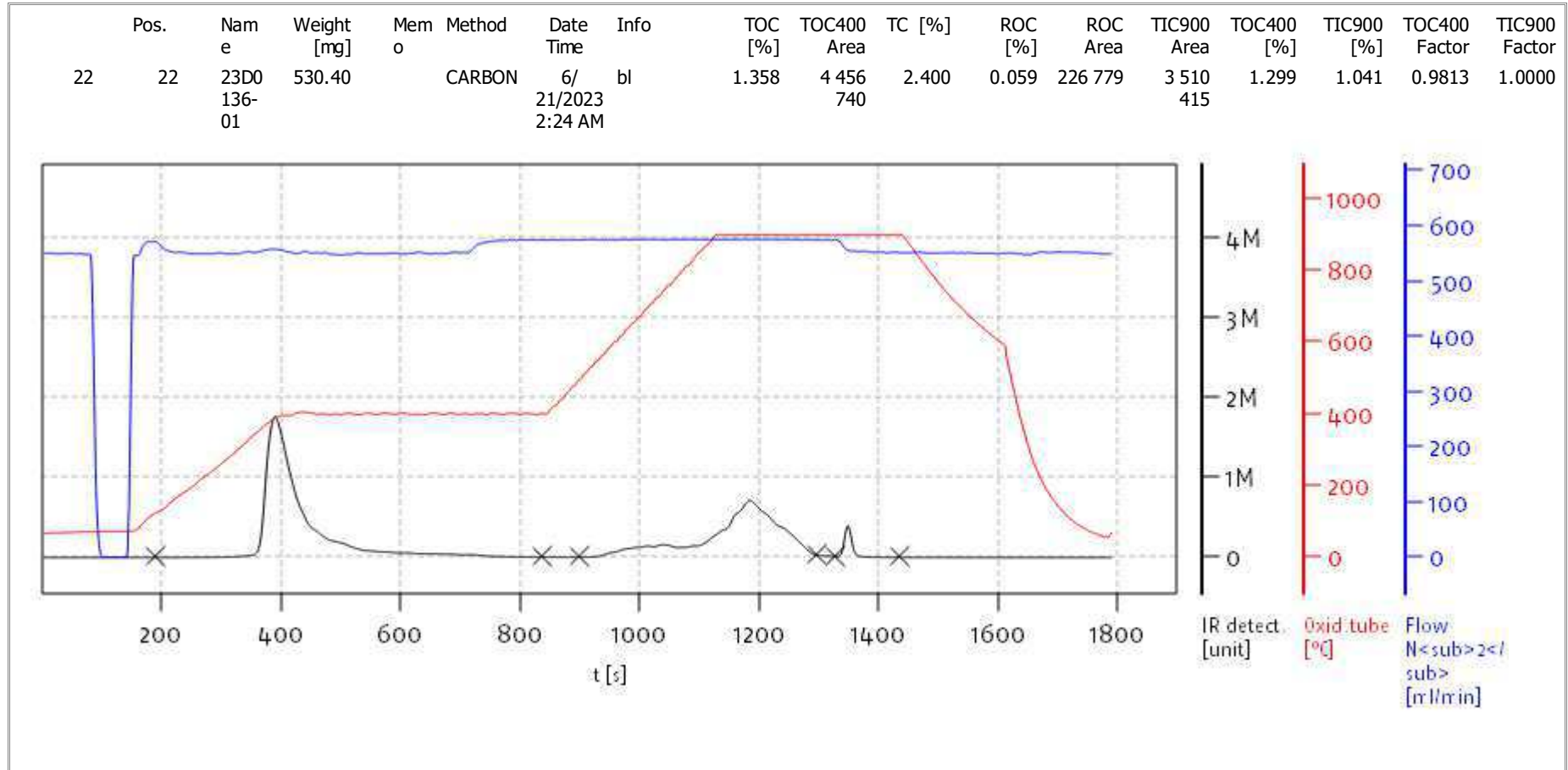
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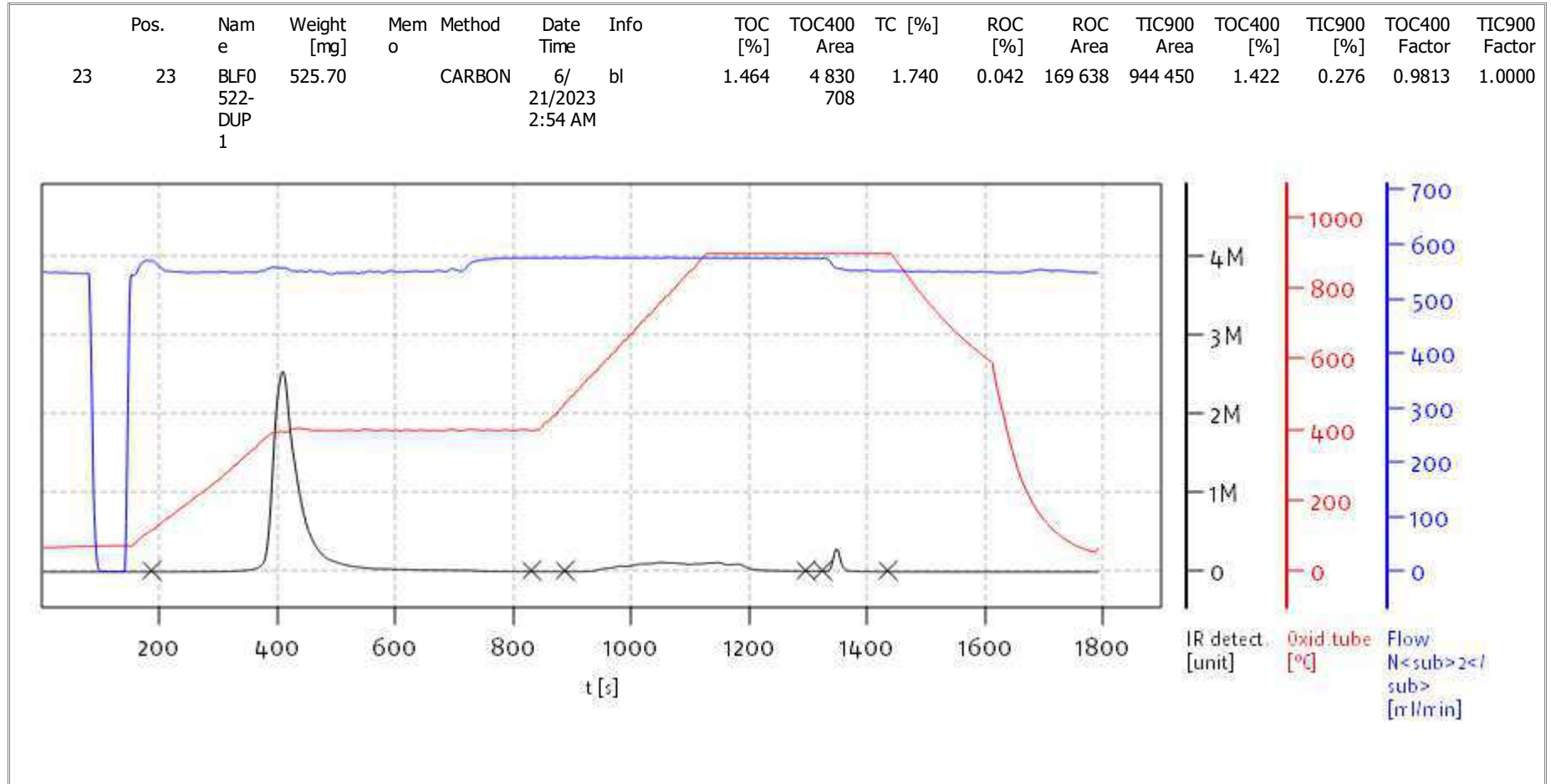
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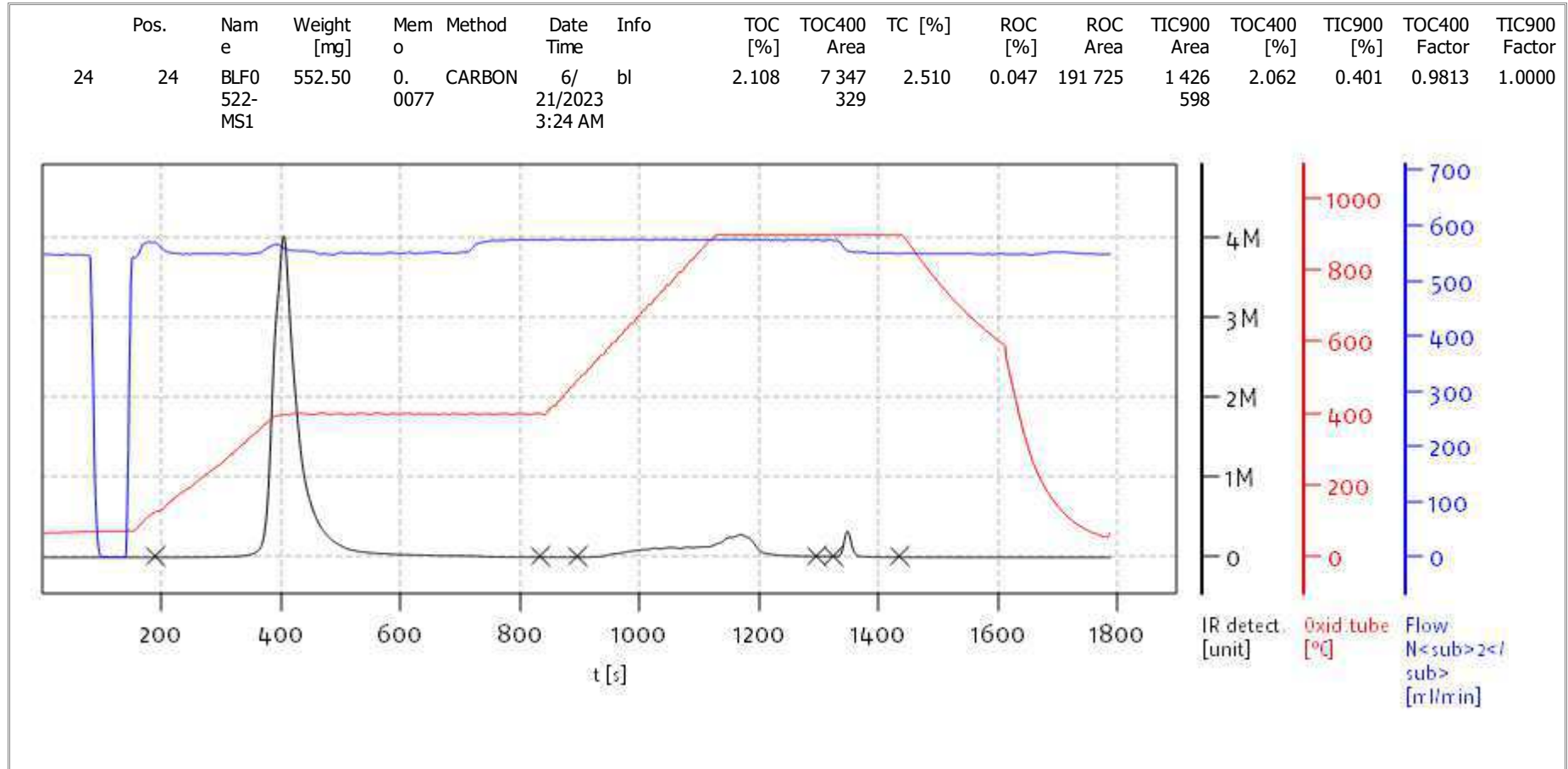
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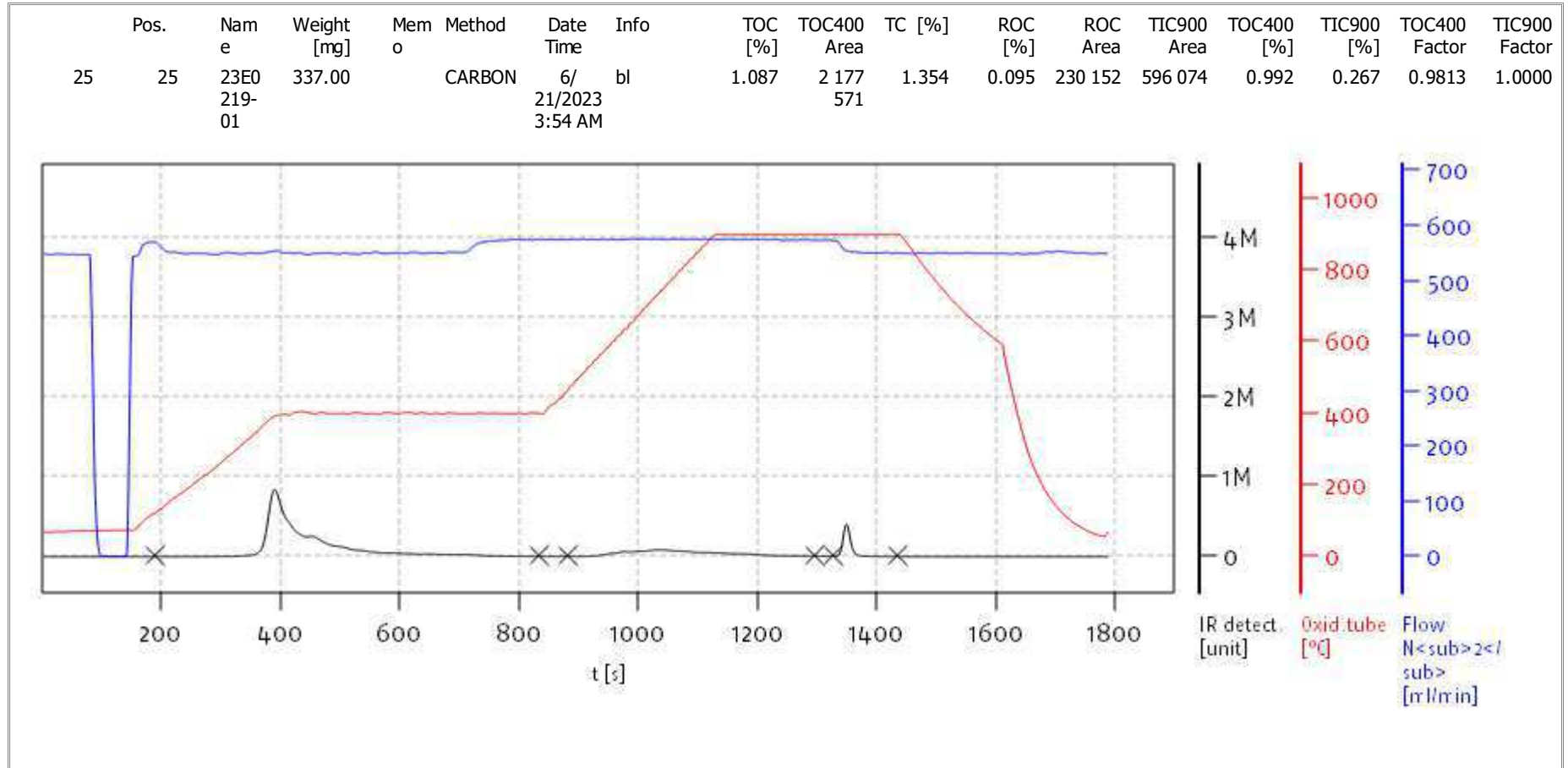
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Soli TOC Cube, Carbon
Balance: BAL3
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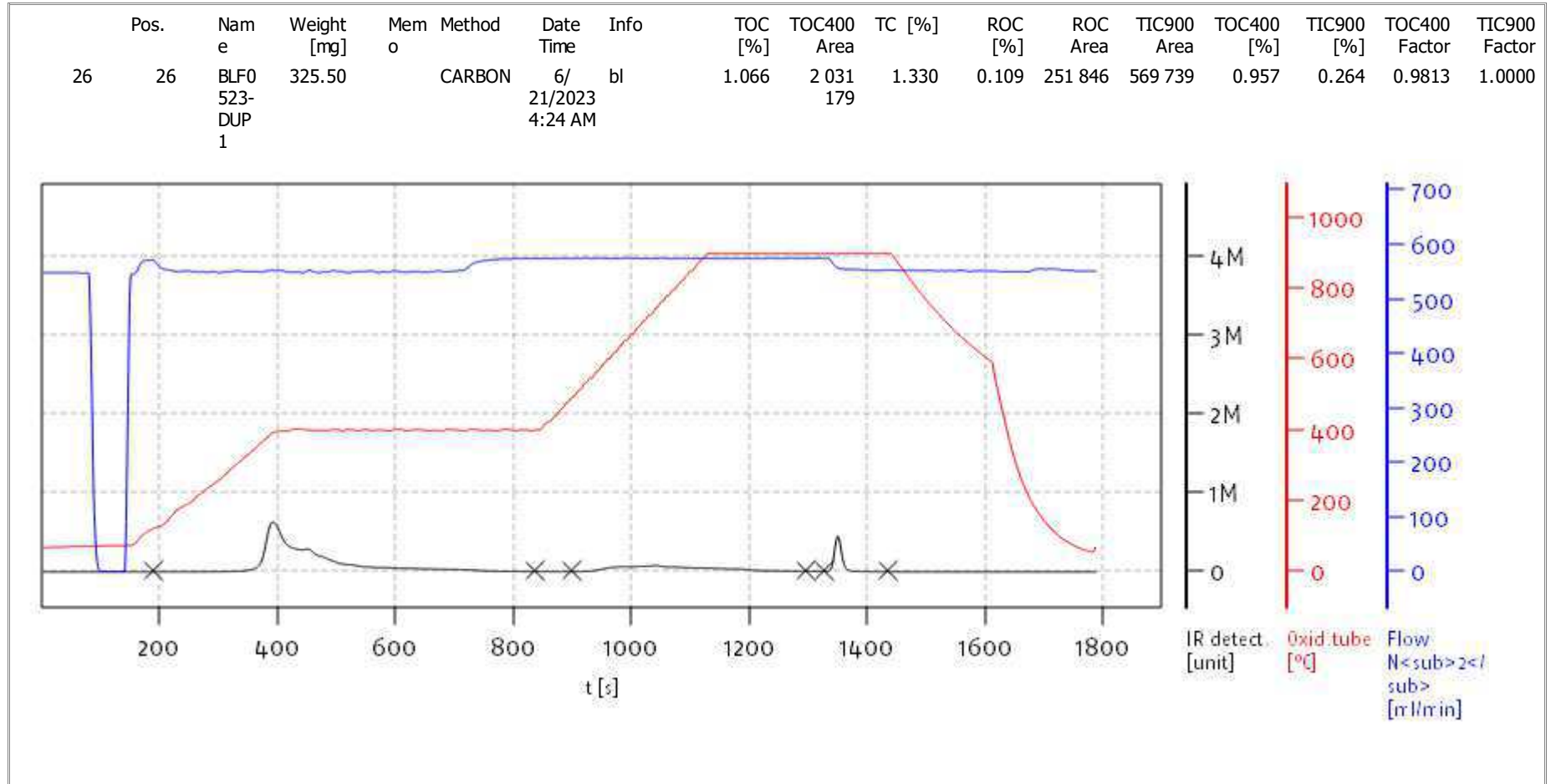
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

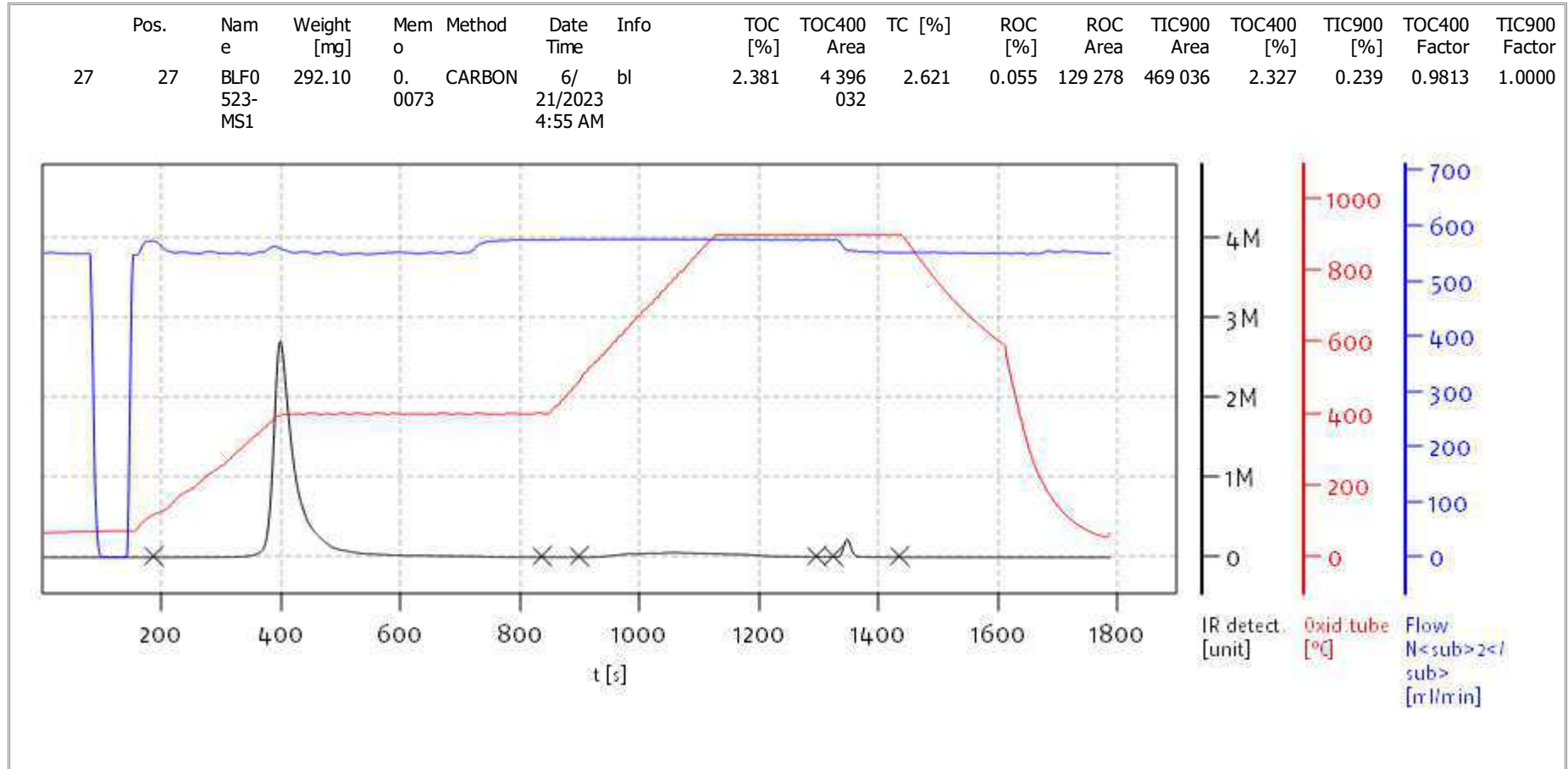
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

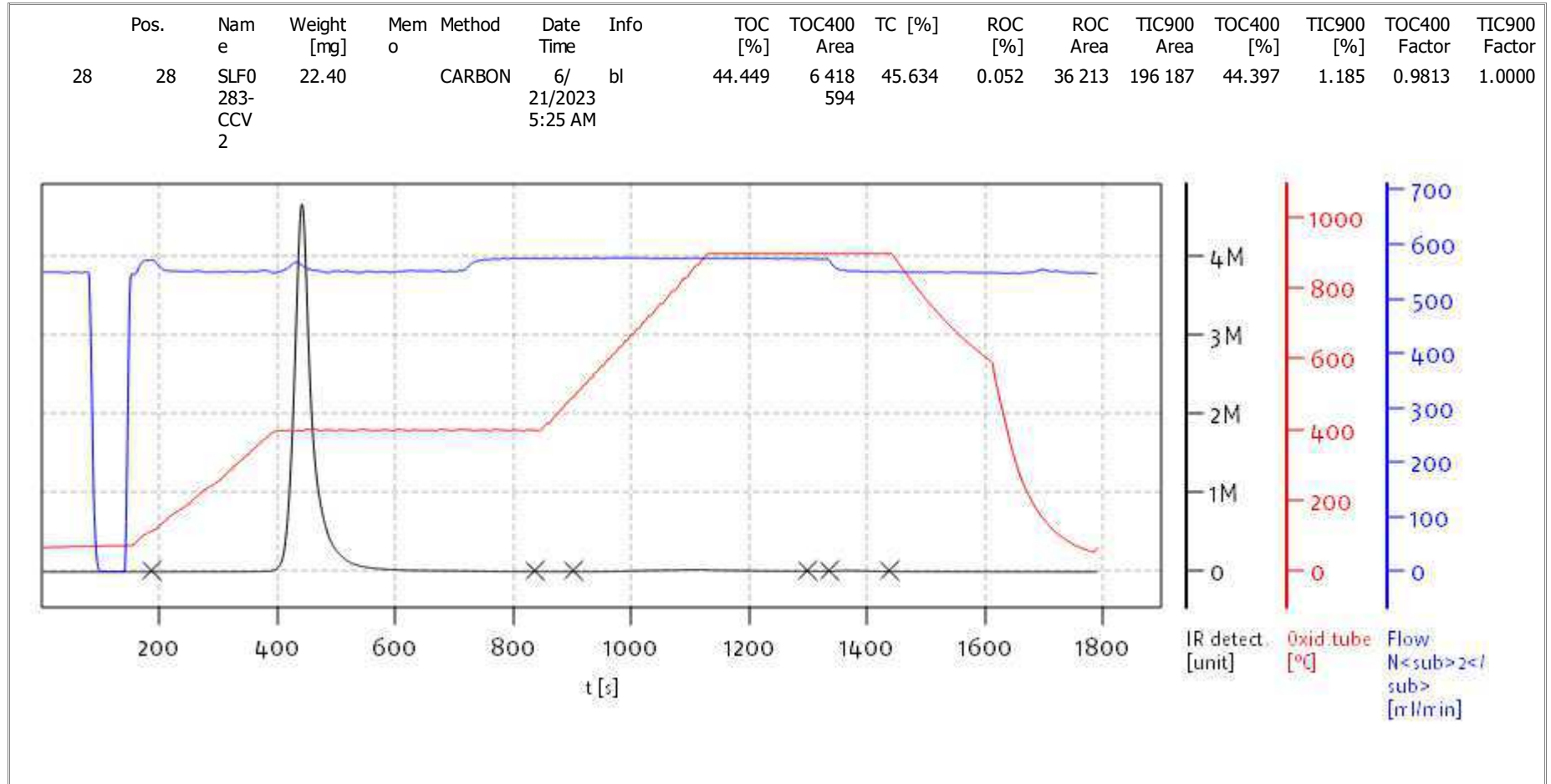
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
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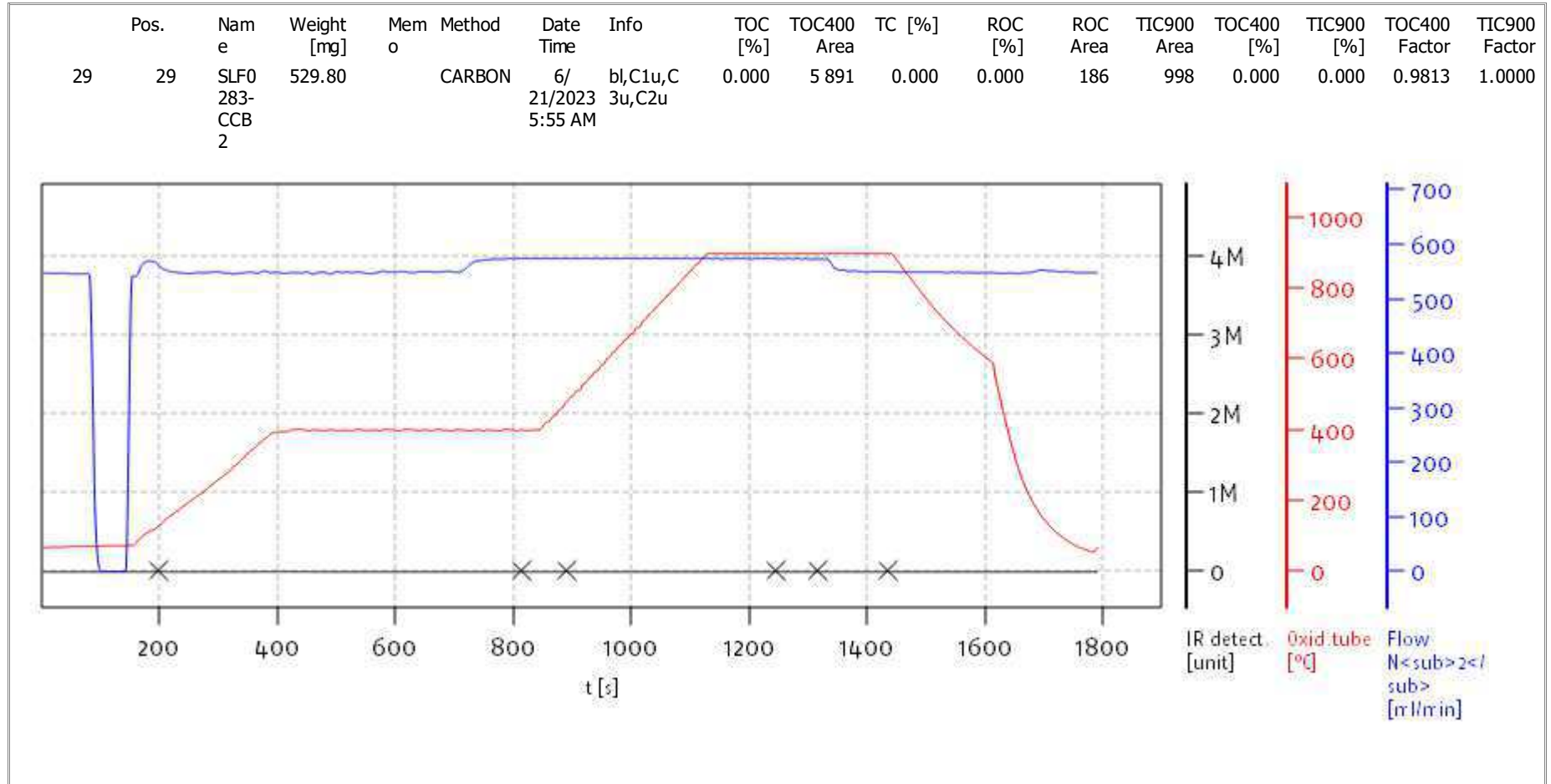
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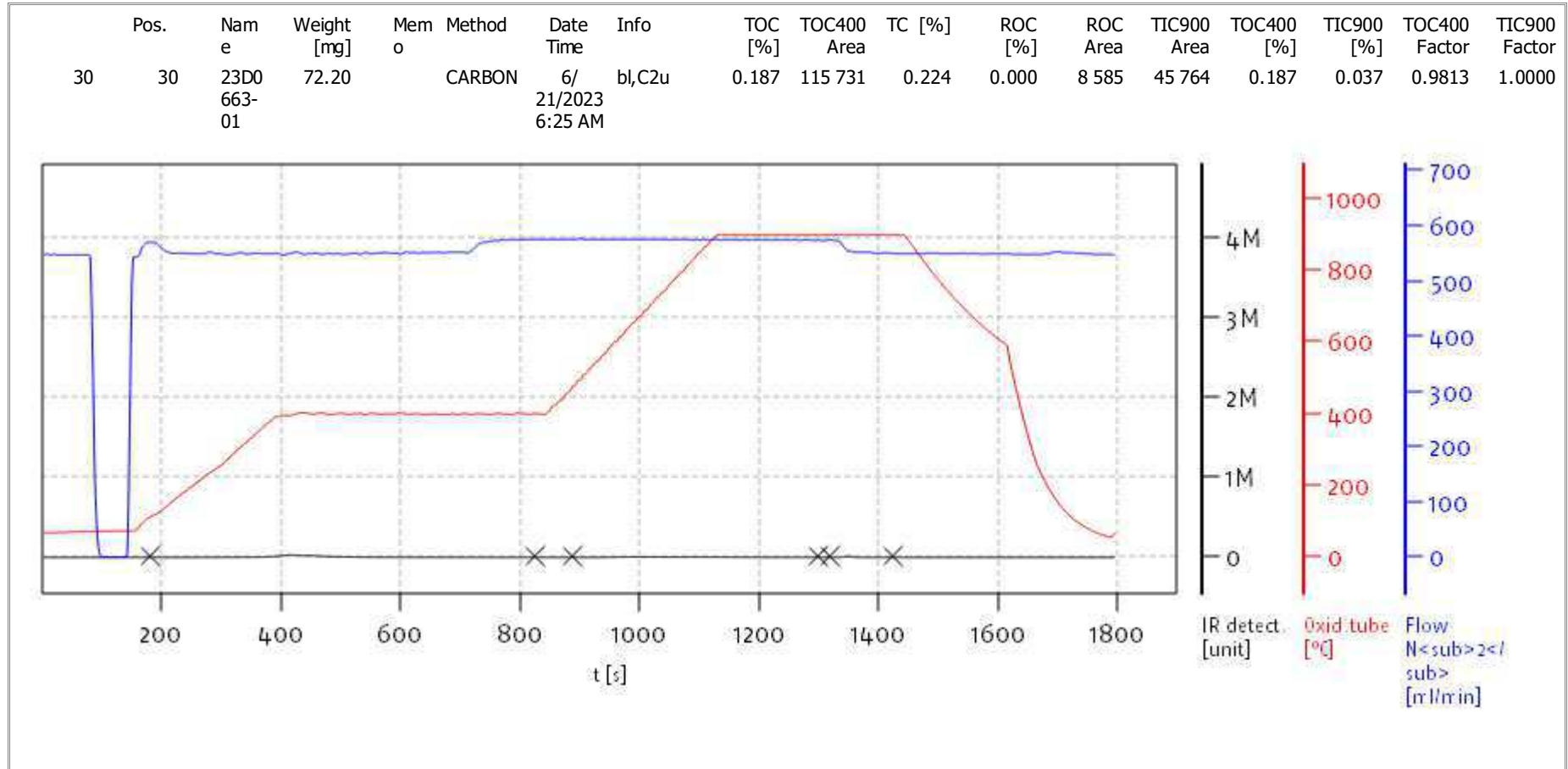
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Soli TOC Cube, Carbon
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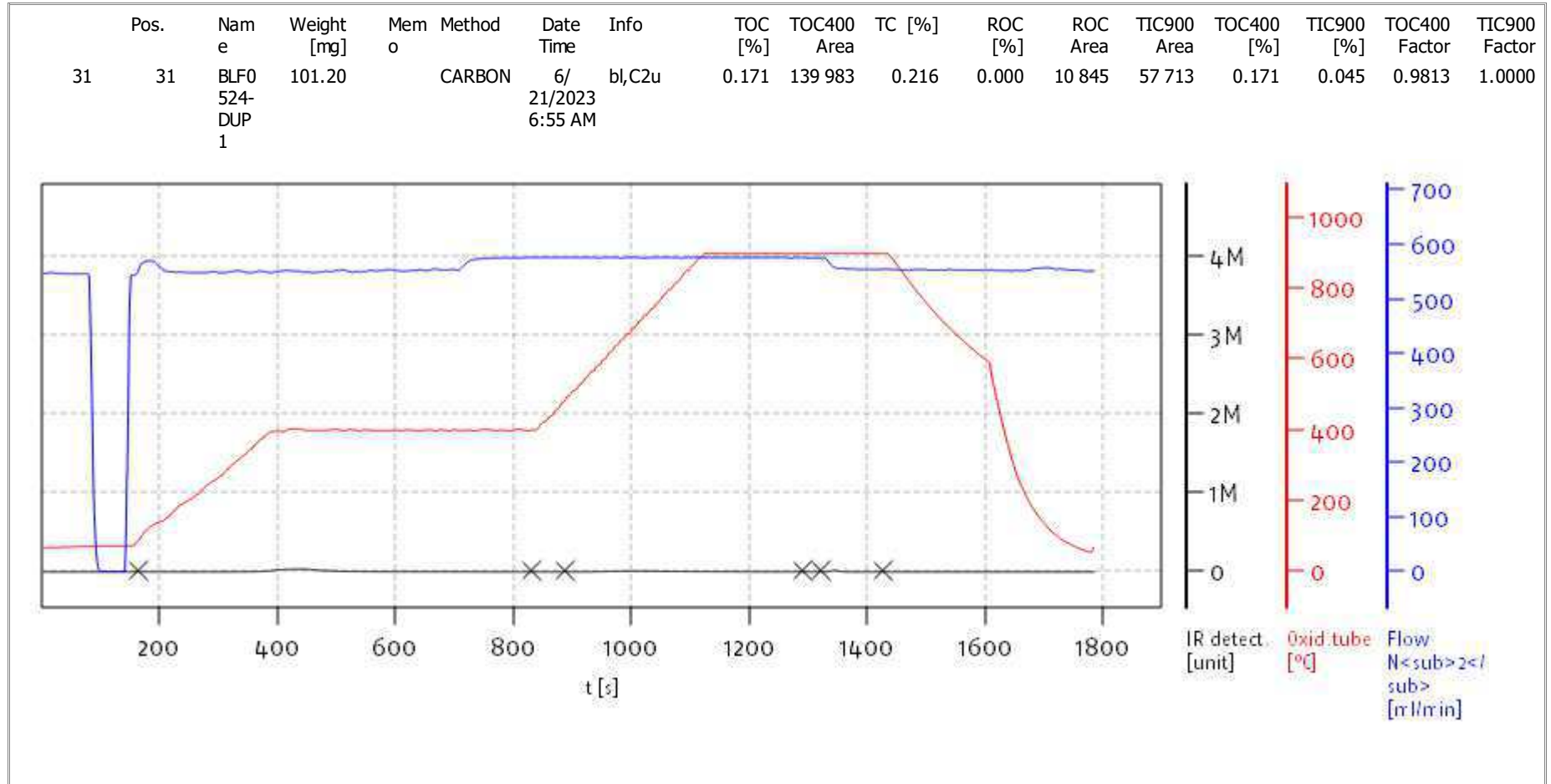
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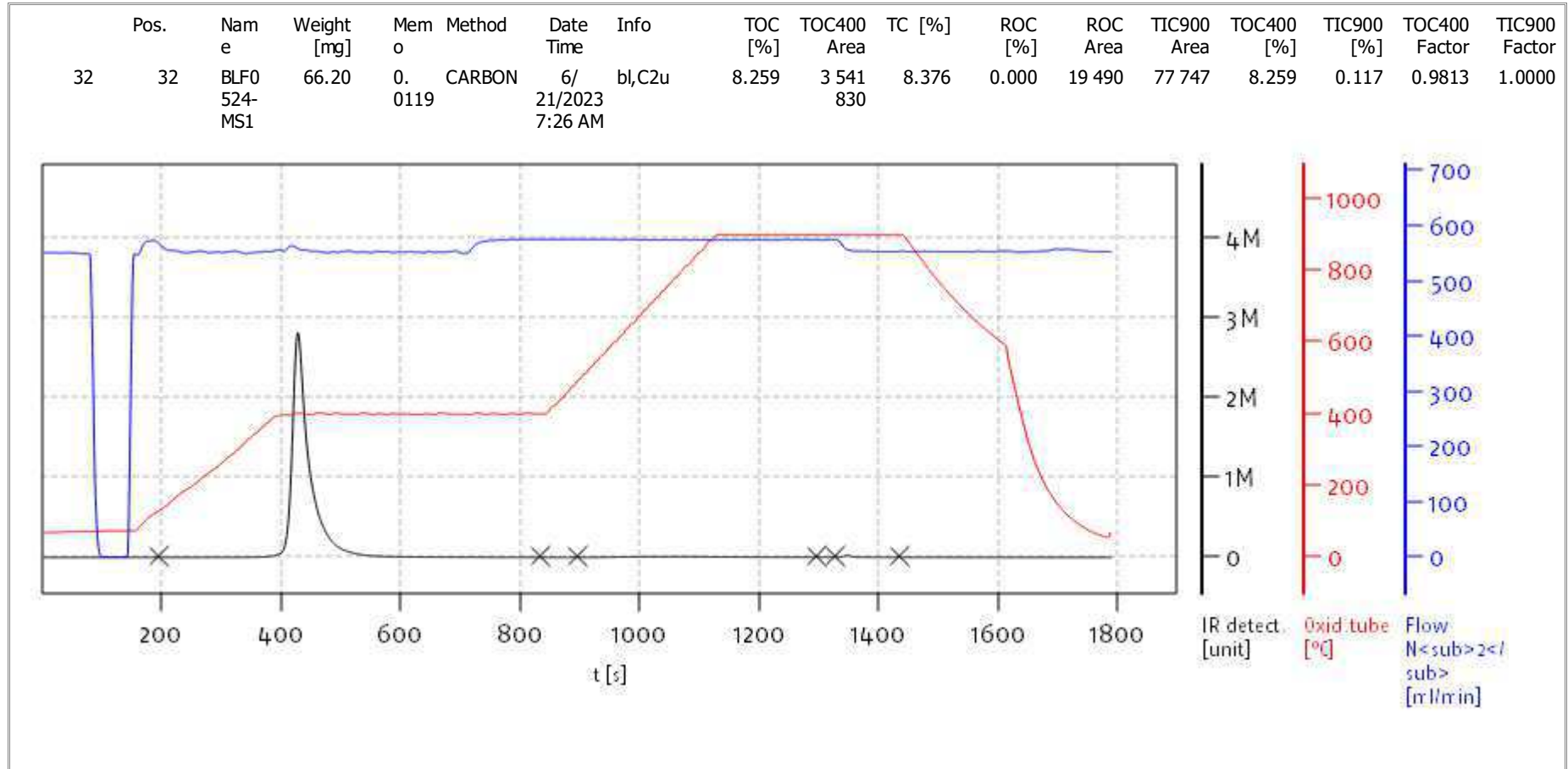
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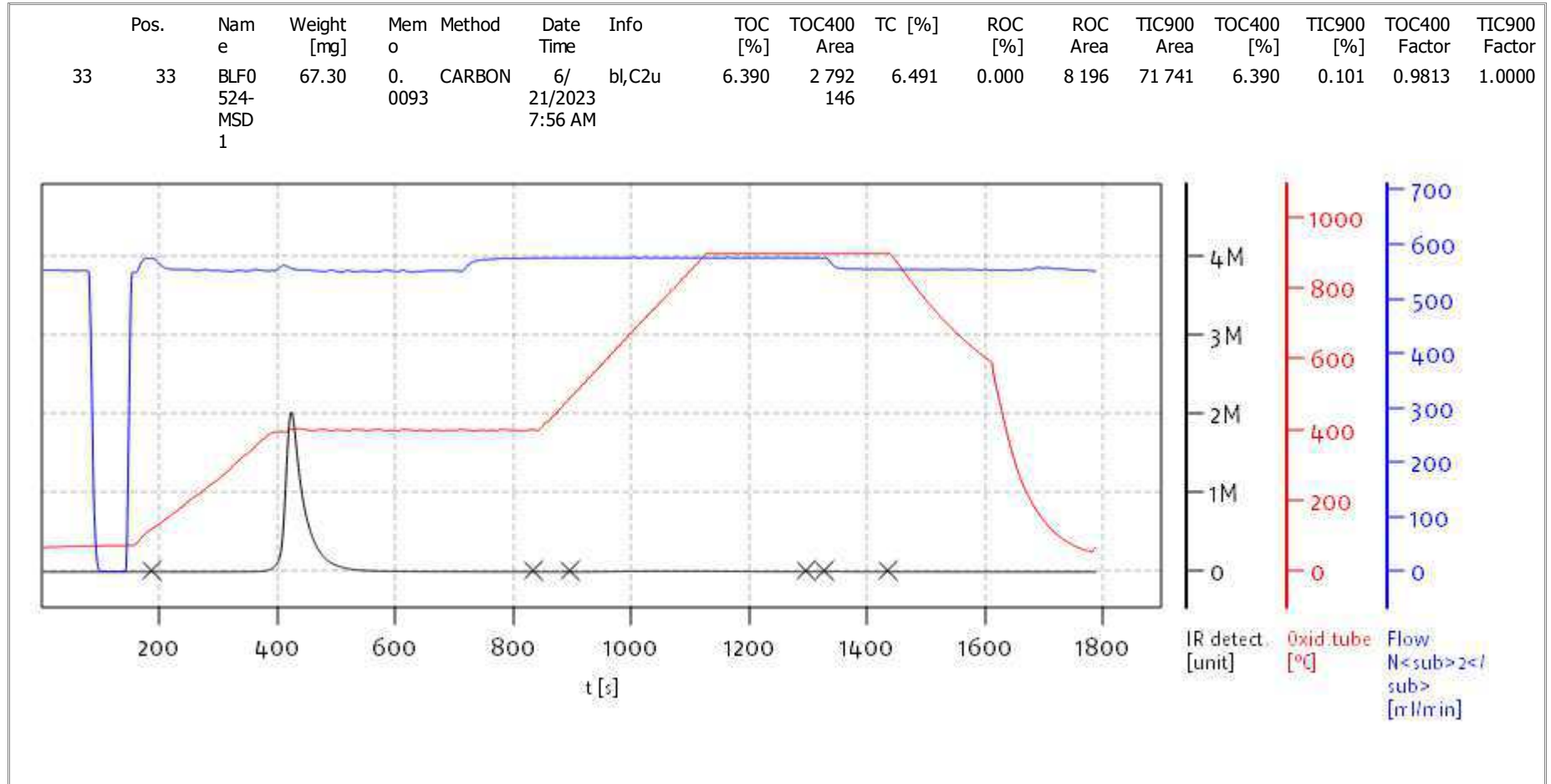
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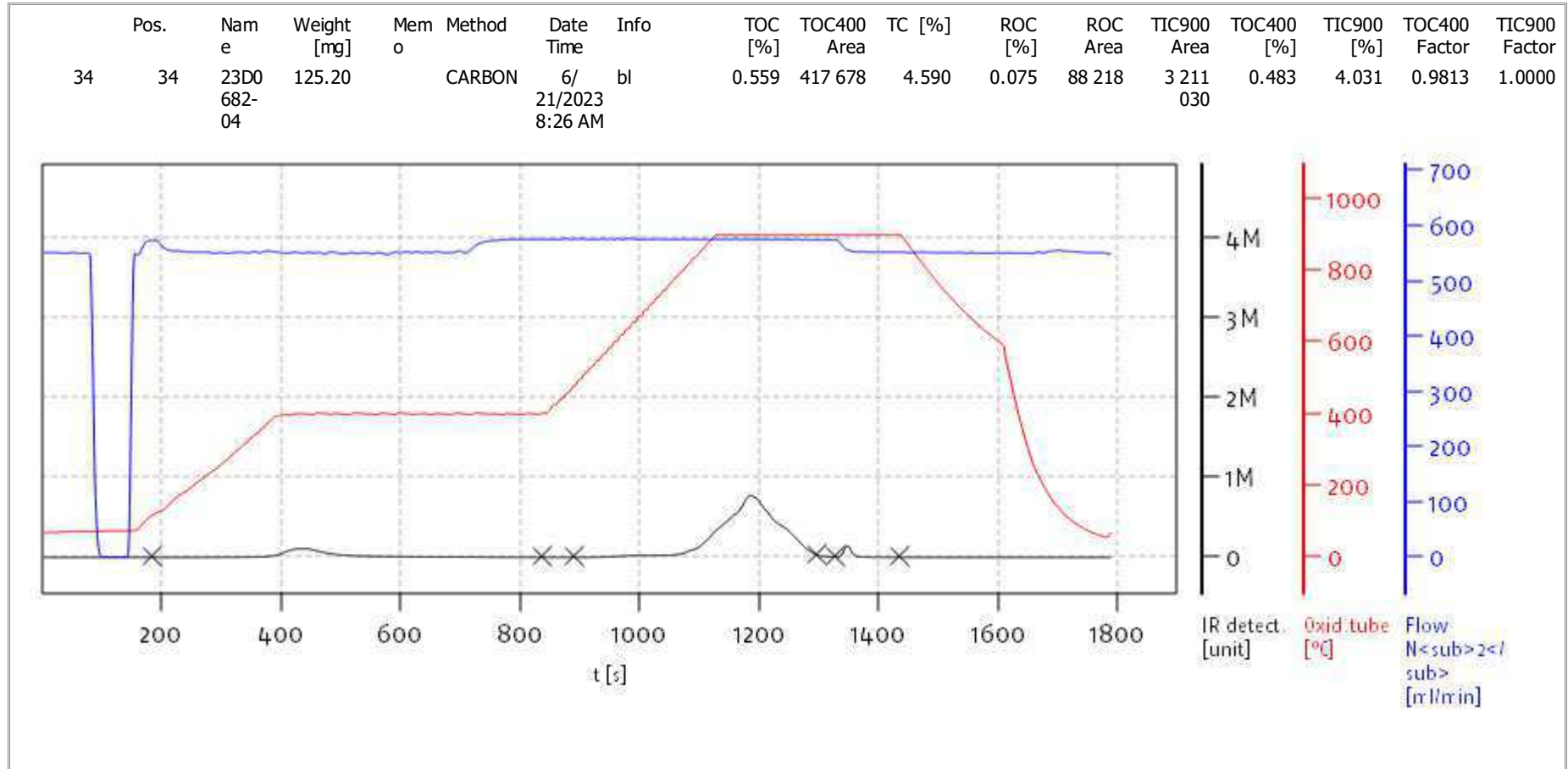
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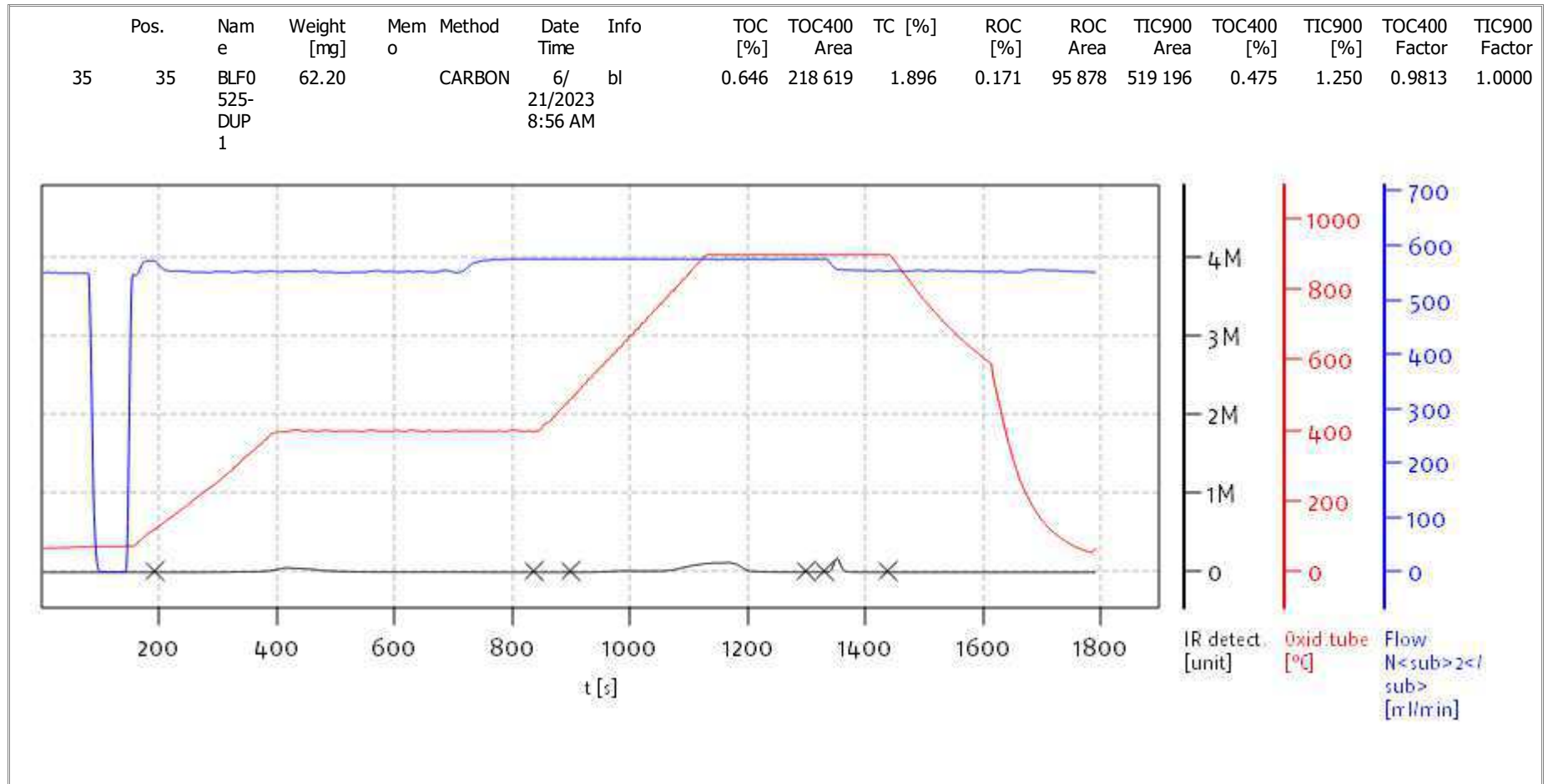
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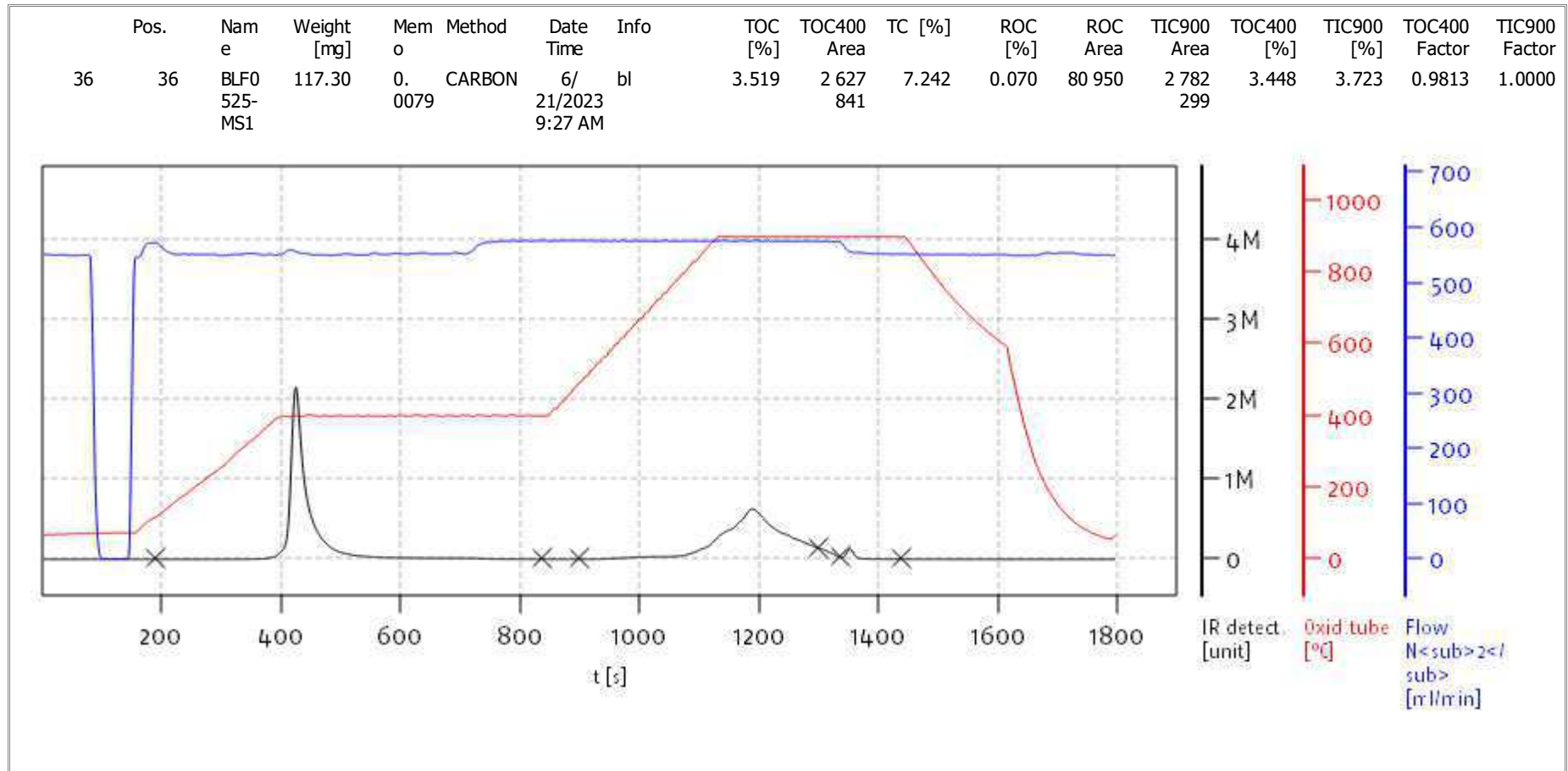
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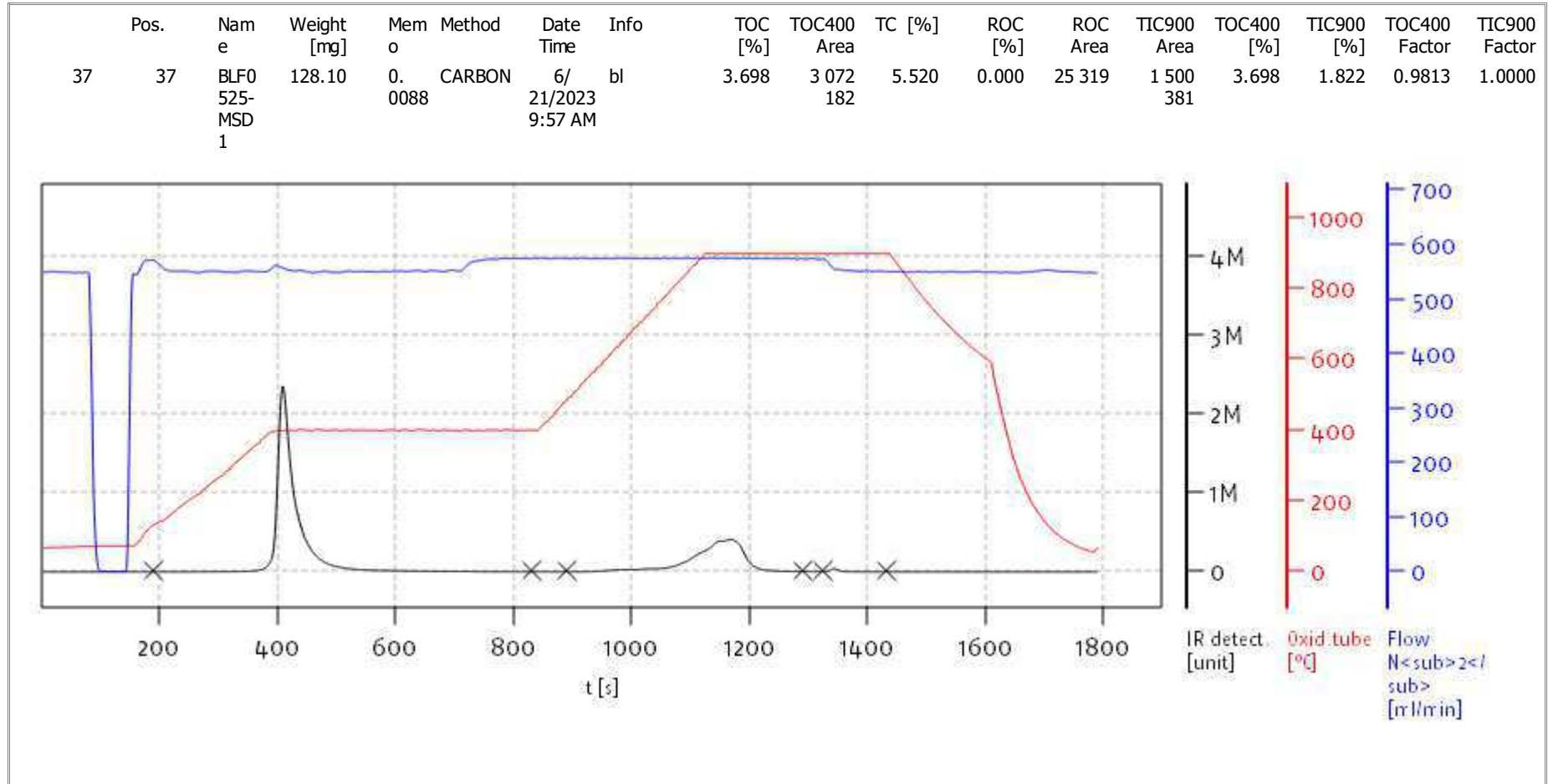
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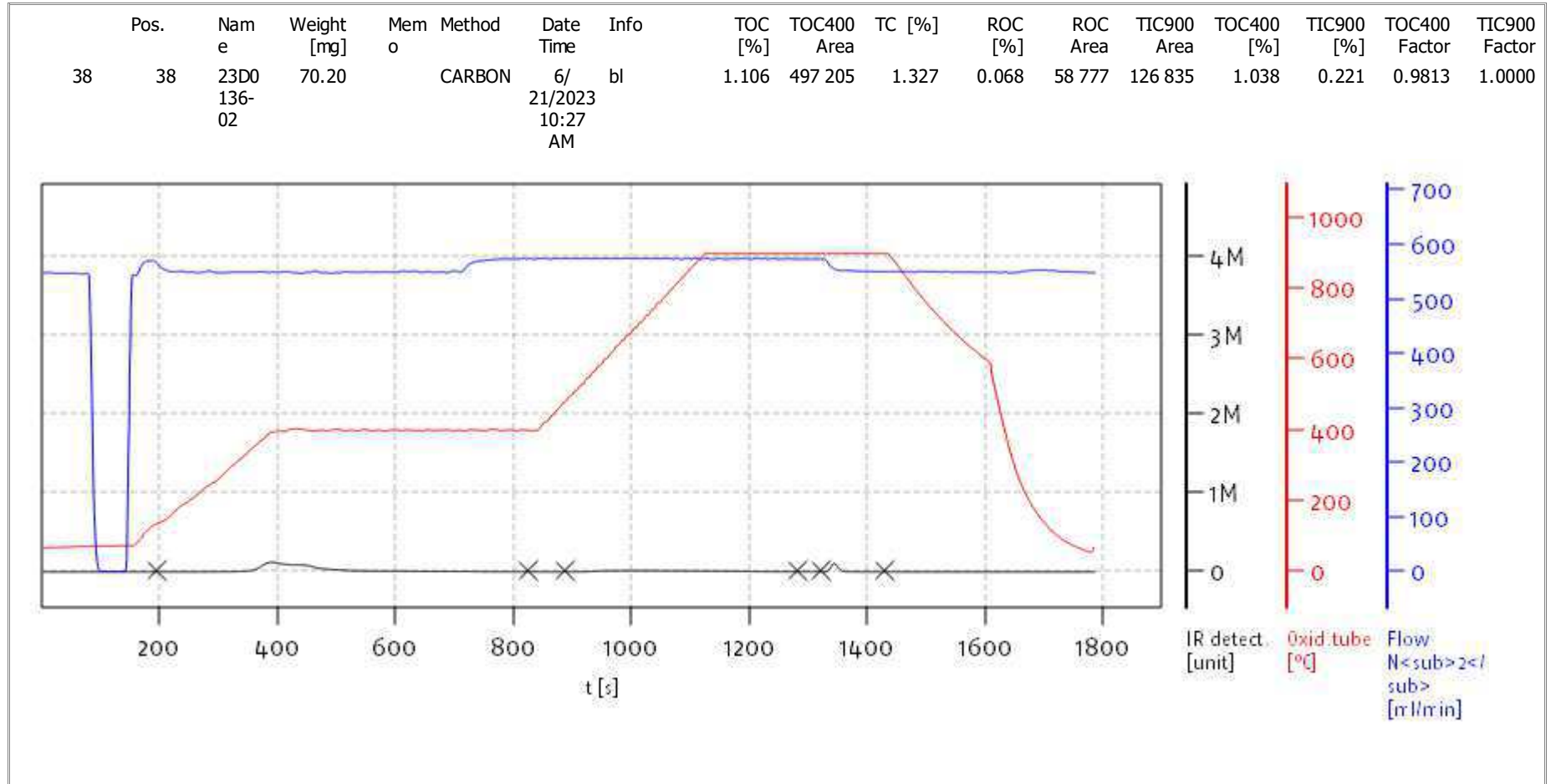
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Soli TOC Cube, Carbon
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Name:

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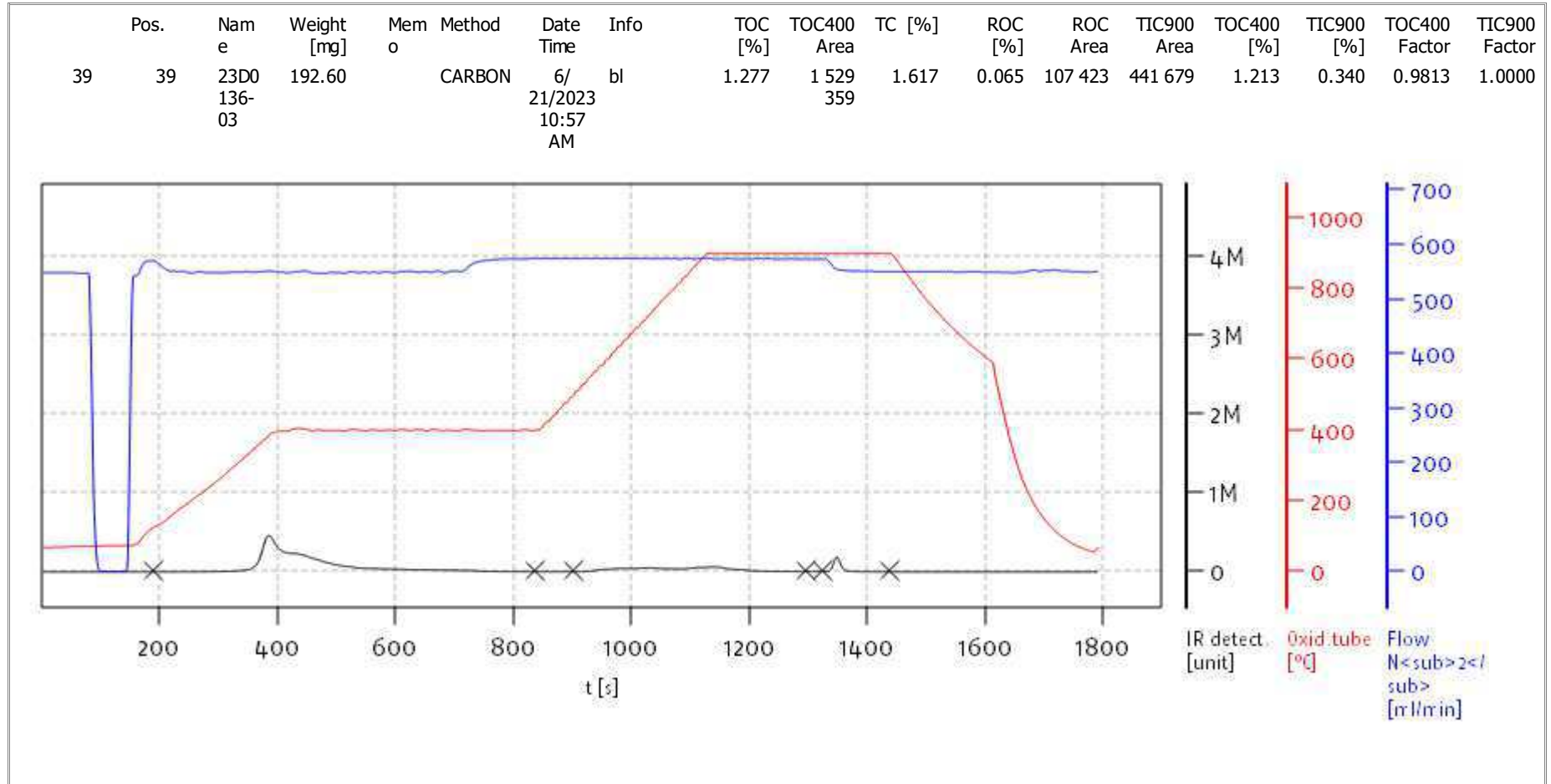
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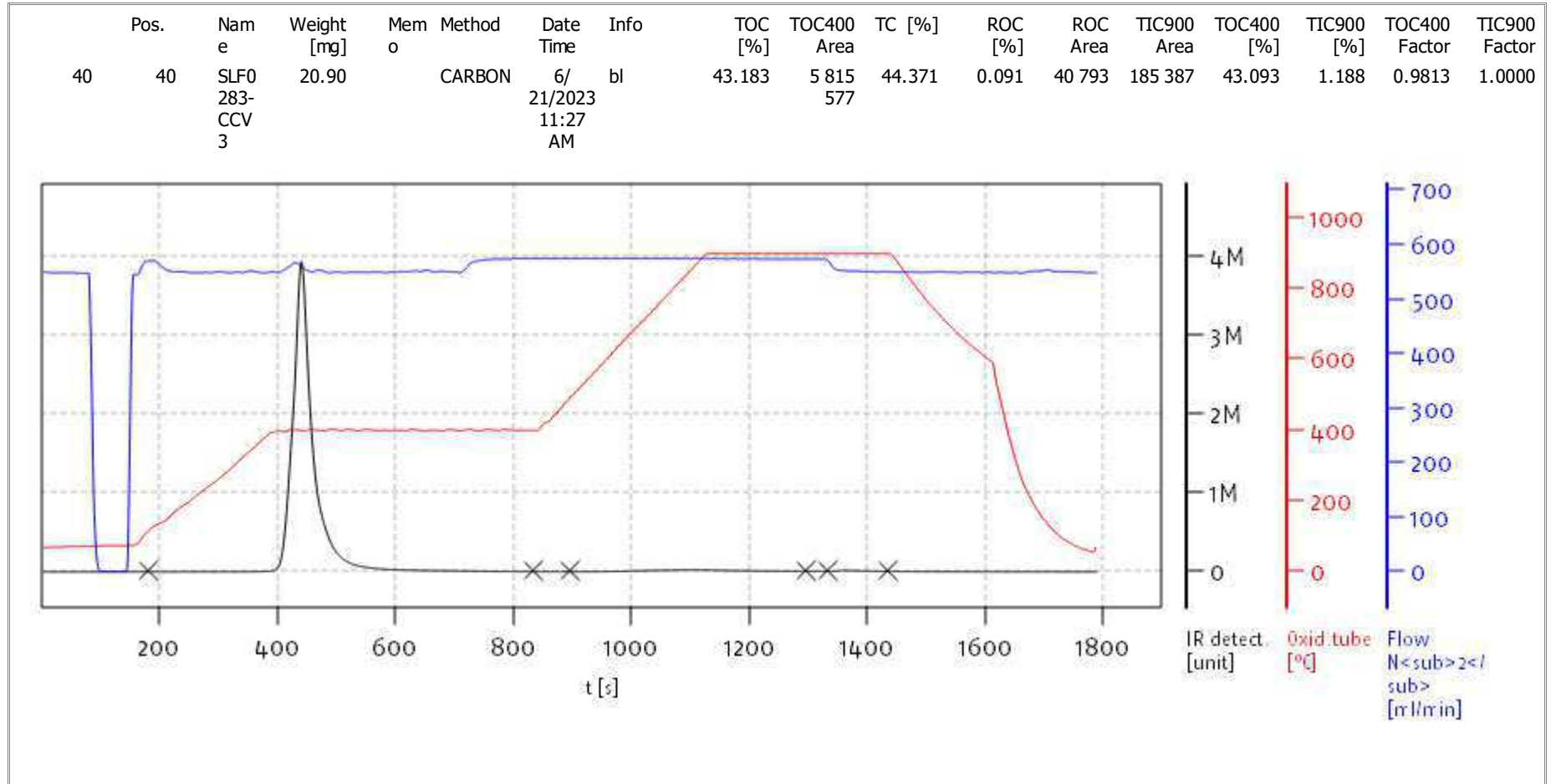
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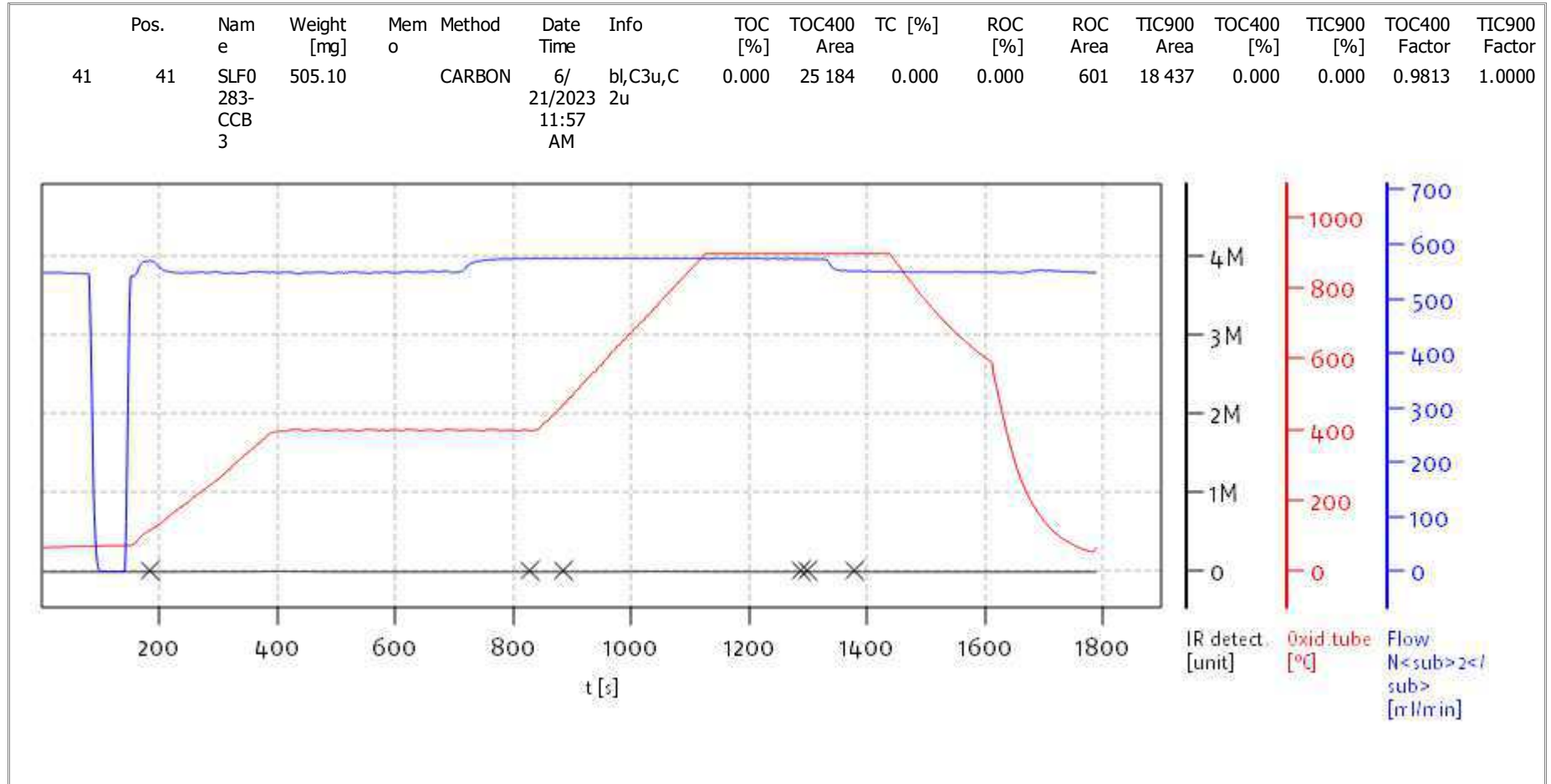
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Soli TOC Cube, Carbon
Balance: BAL3
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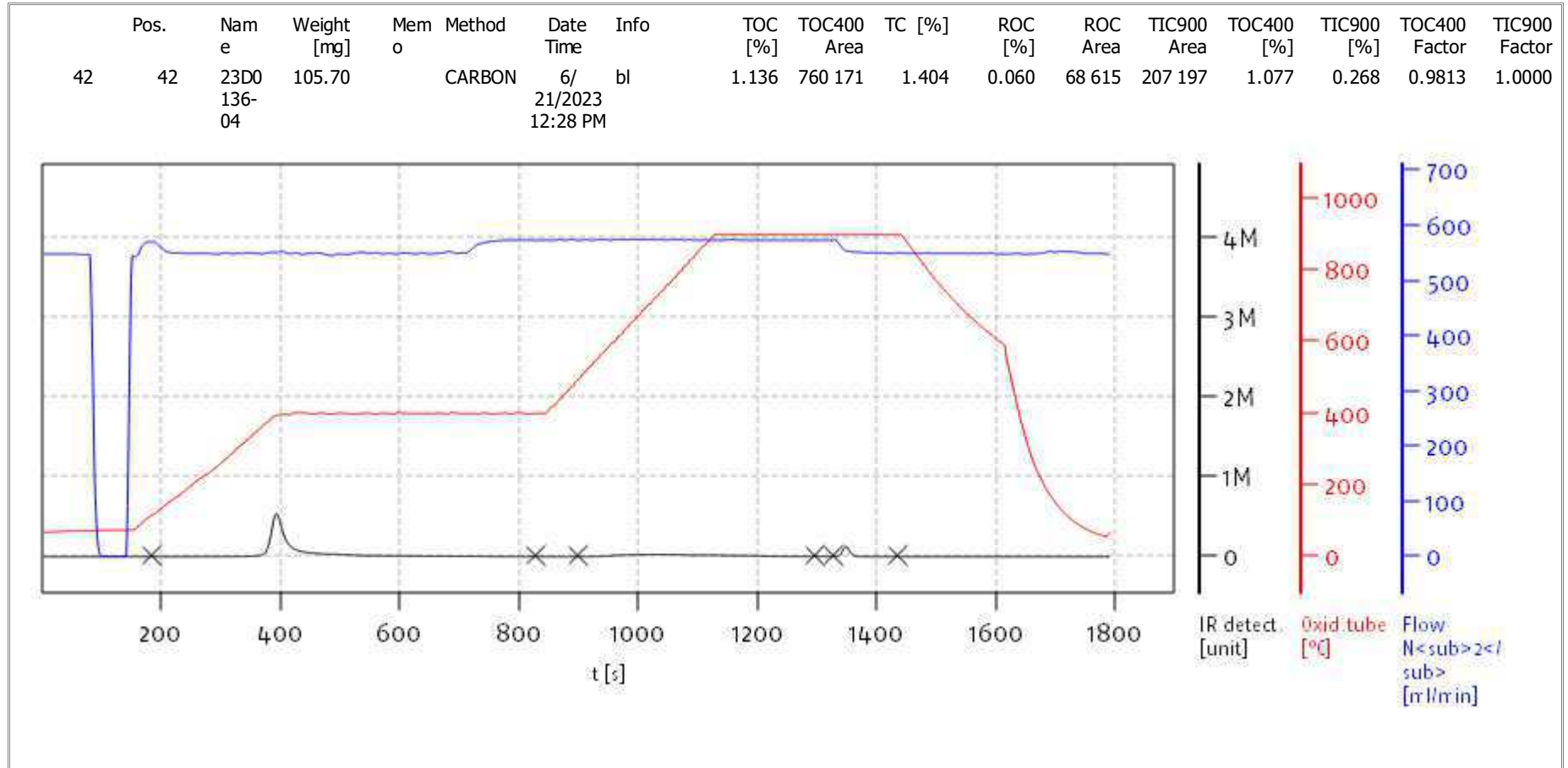
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Soli TOC Cube, Carbon
Balance: BAL3
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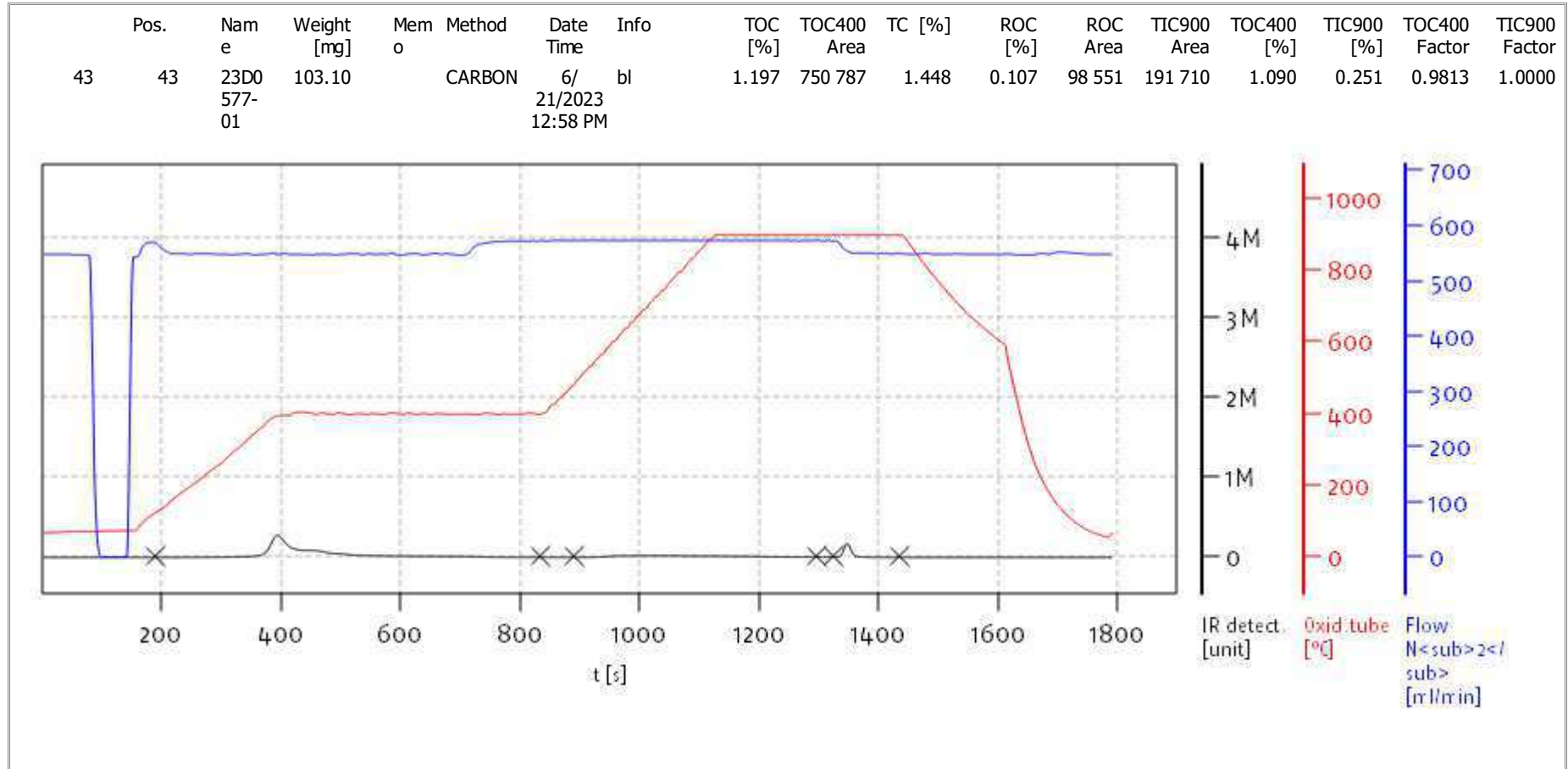
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Soli TOC Cube, Carbon
Balance: BAL3
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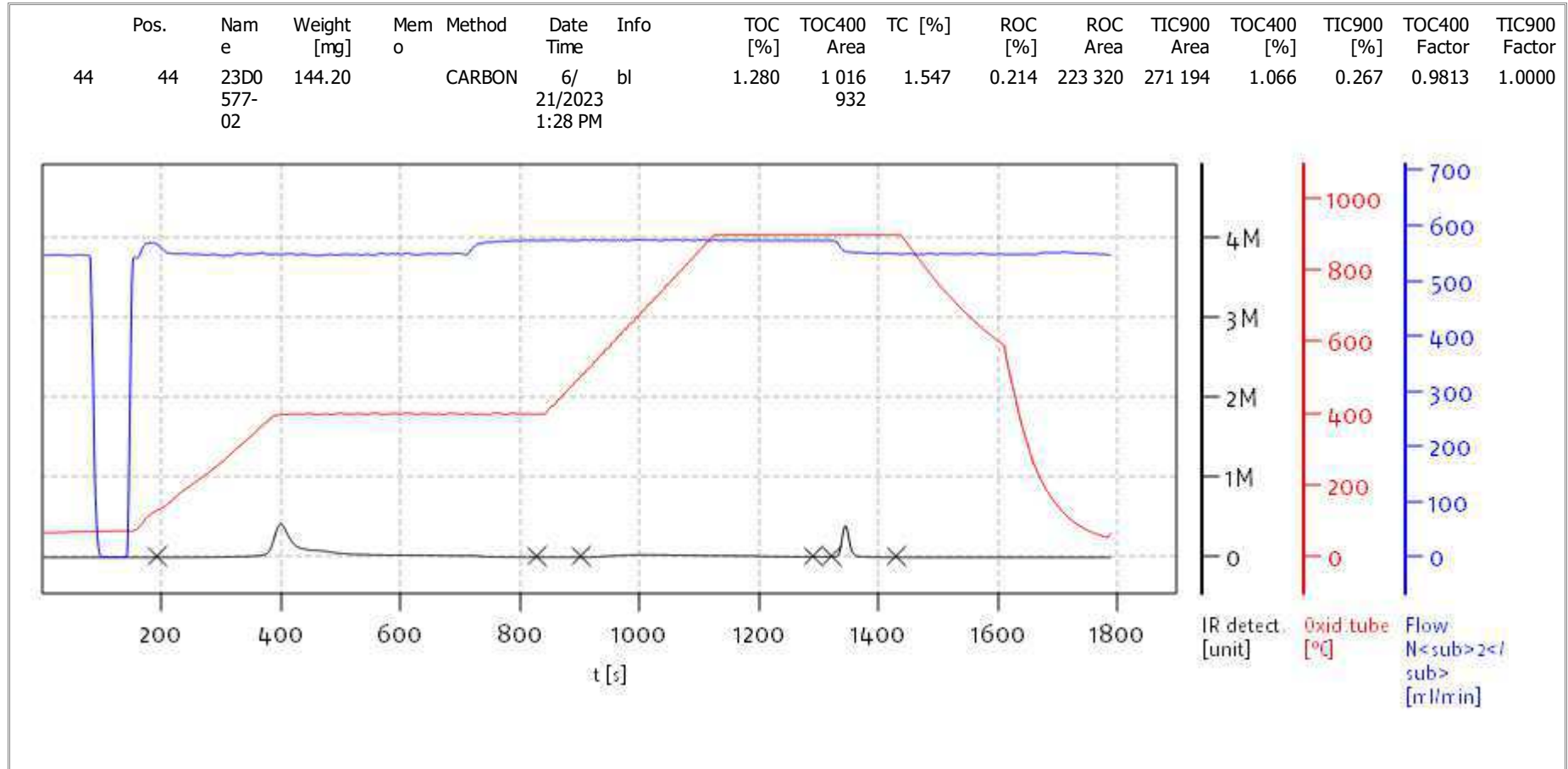
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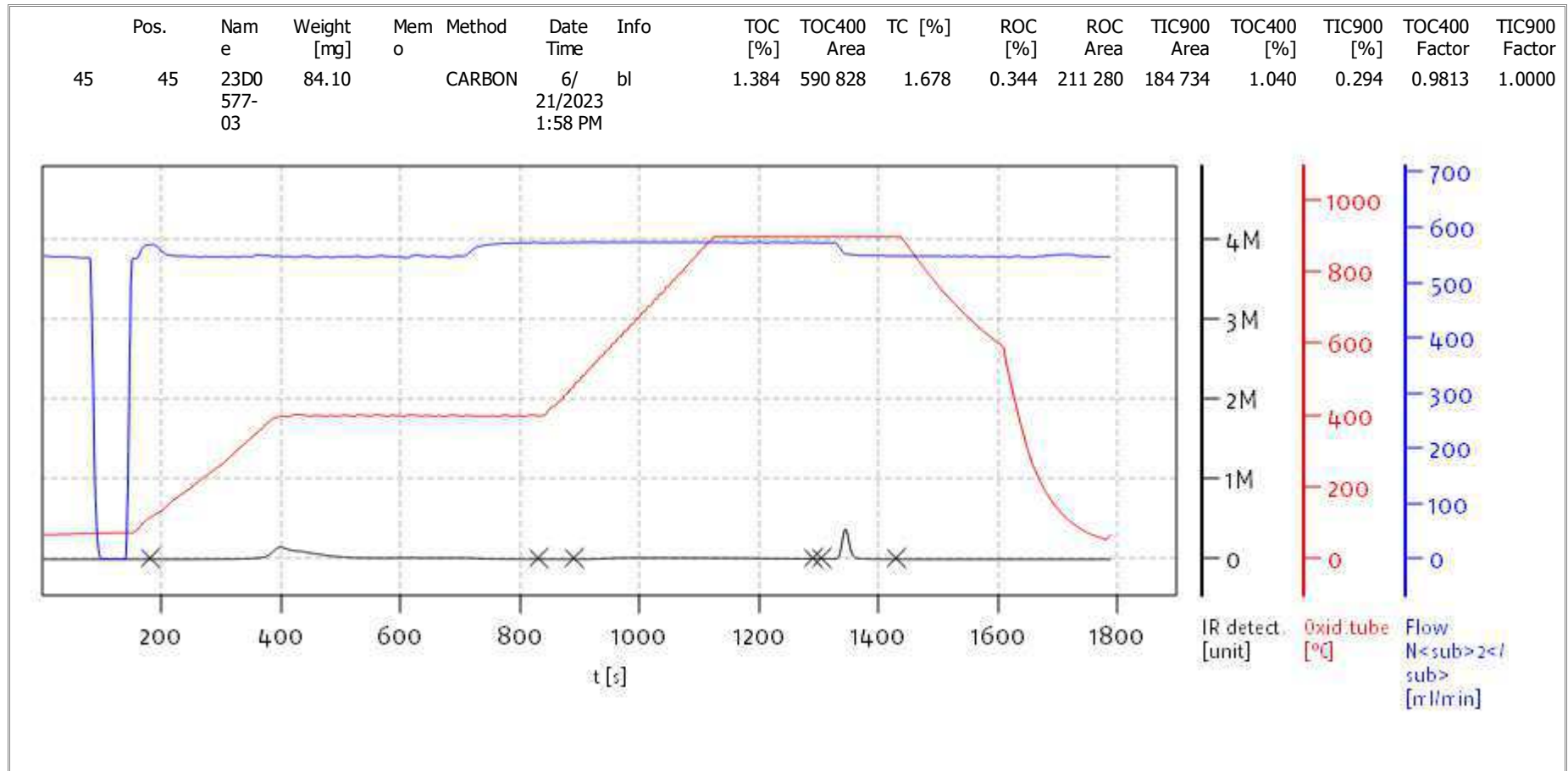
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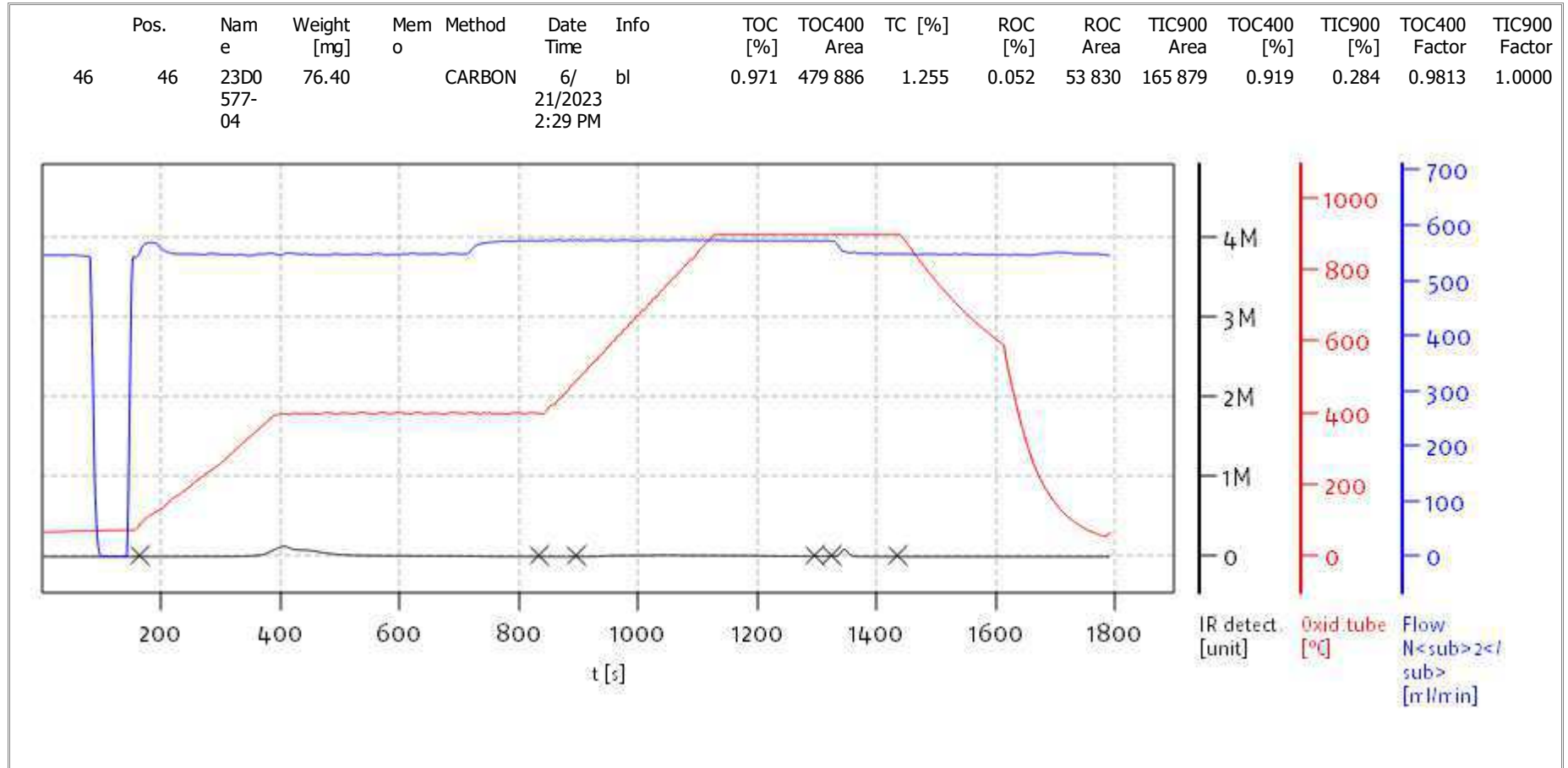
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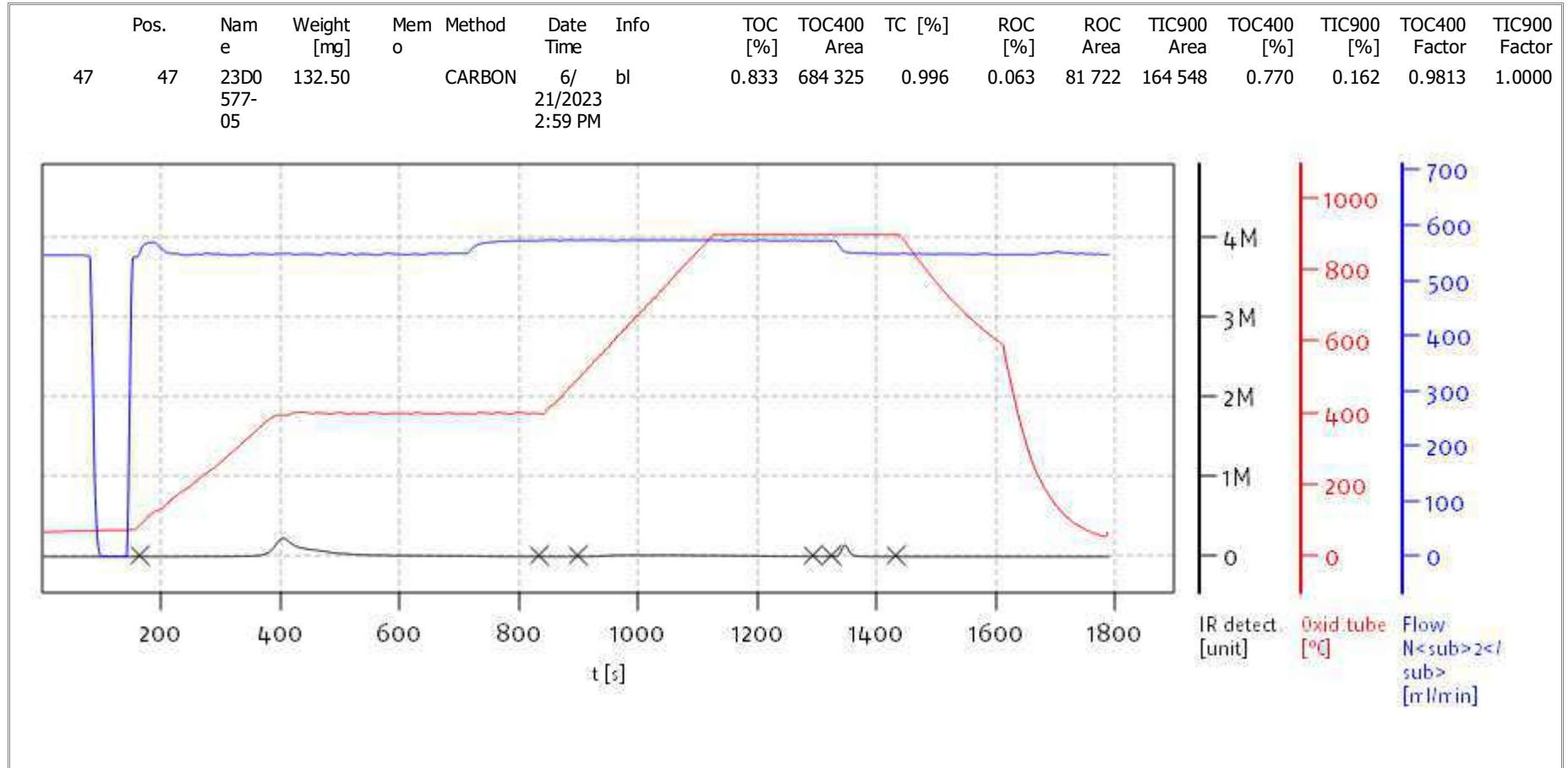
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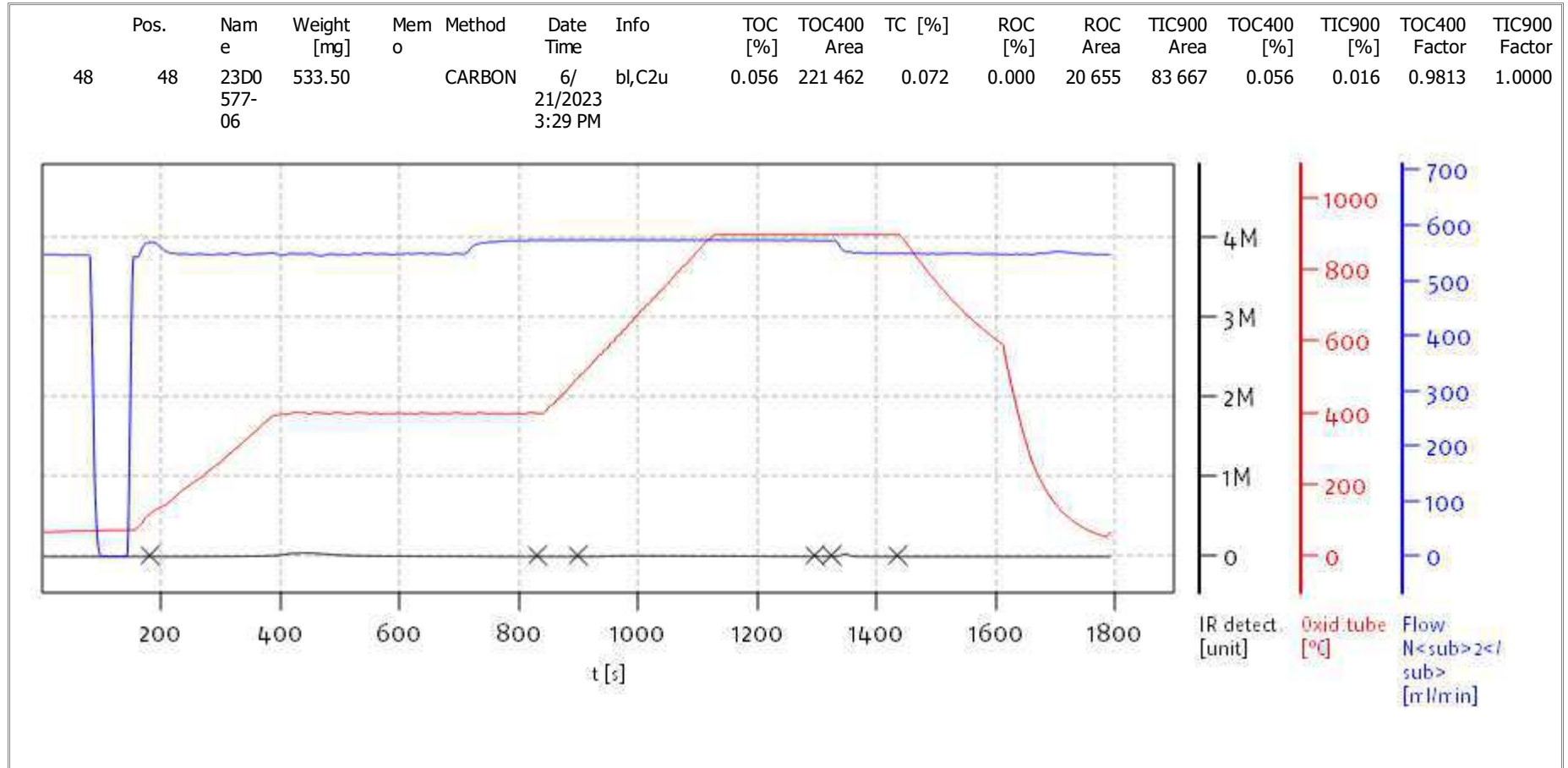
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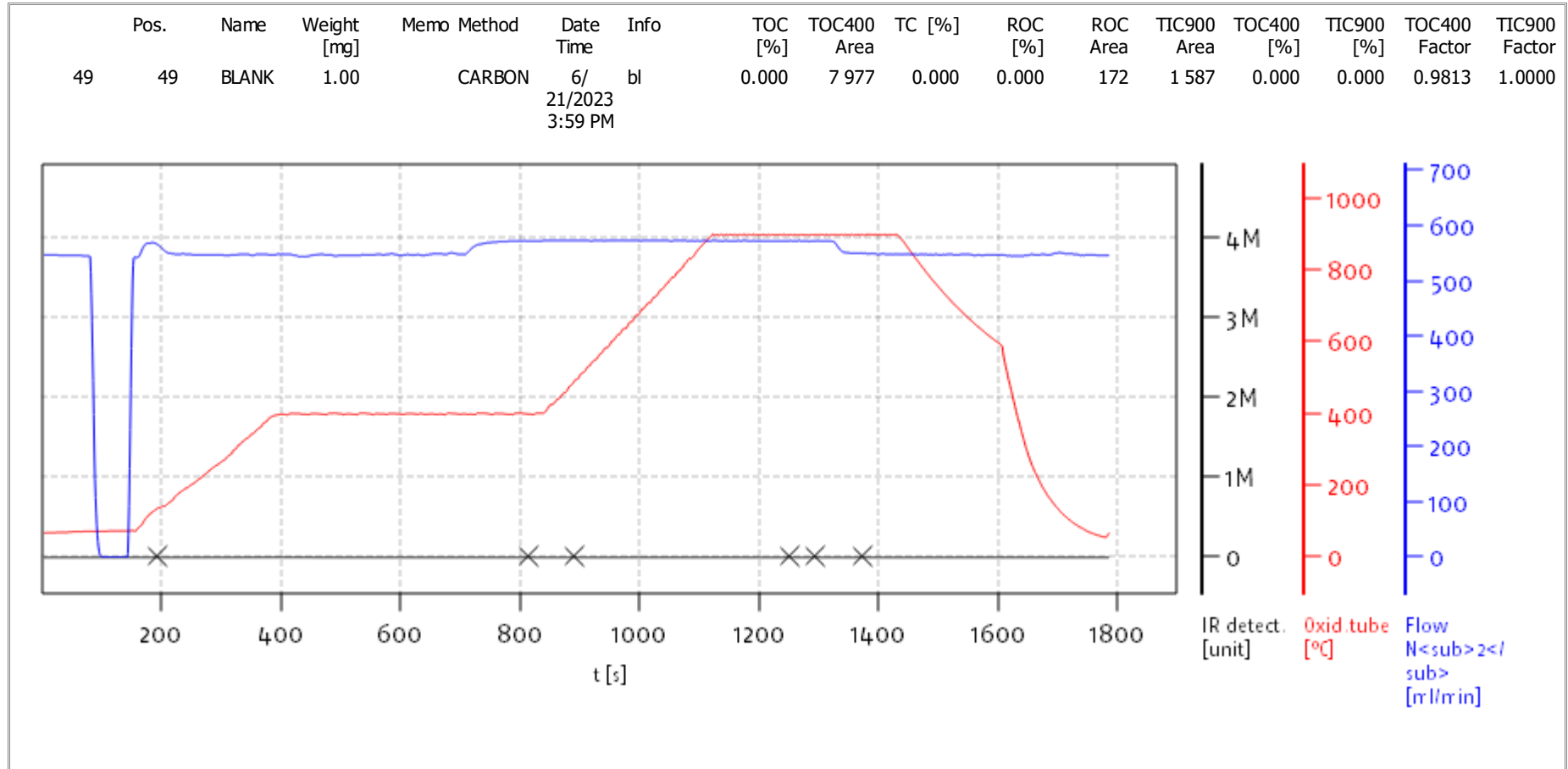
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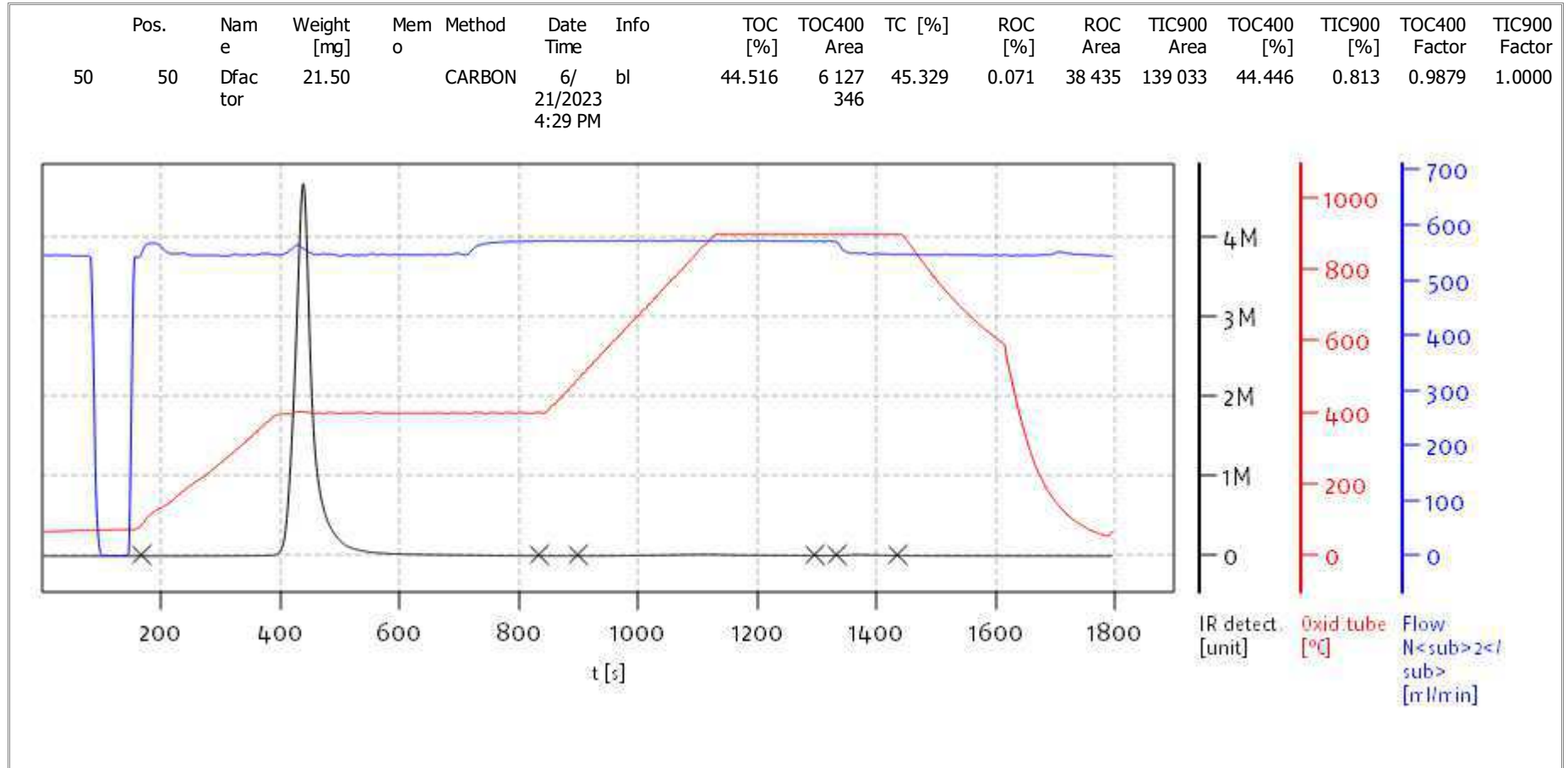
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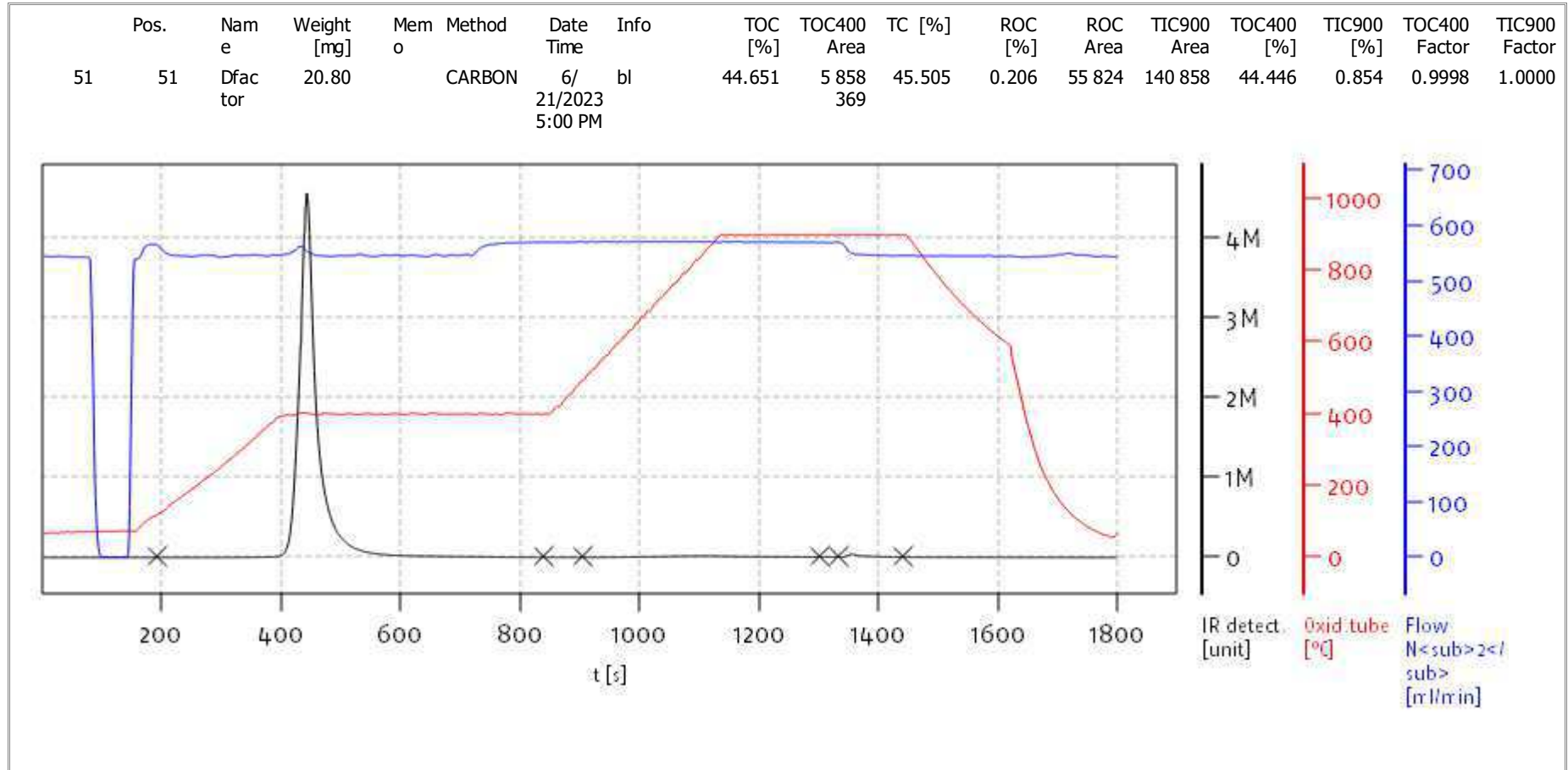
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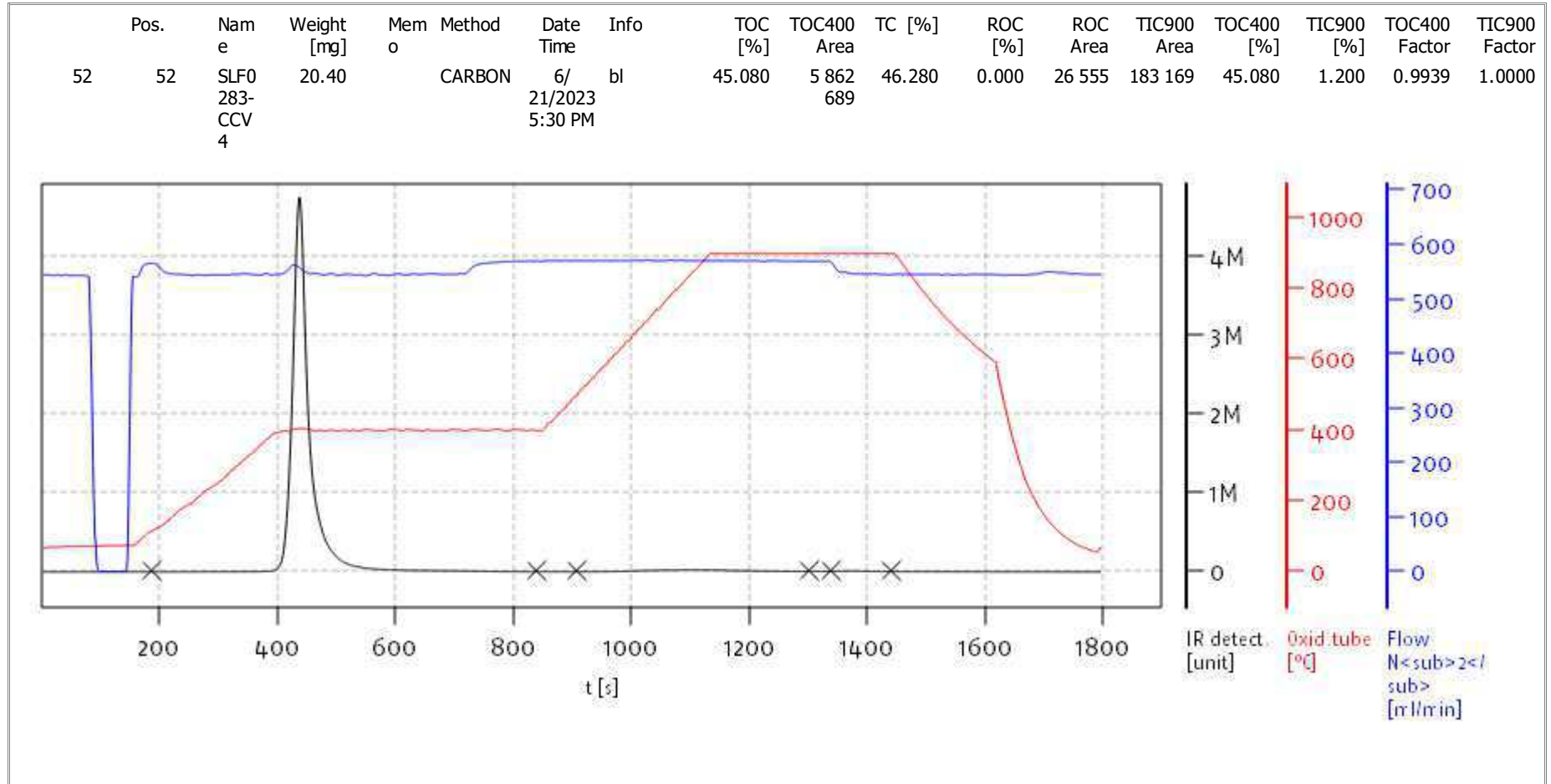
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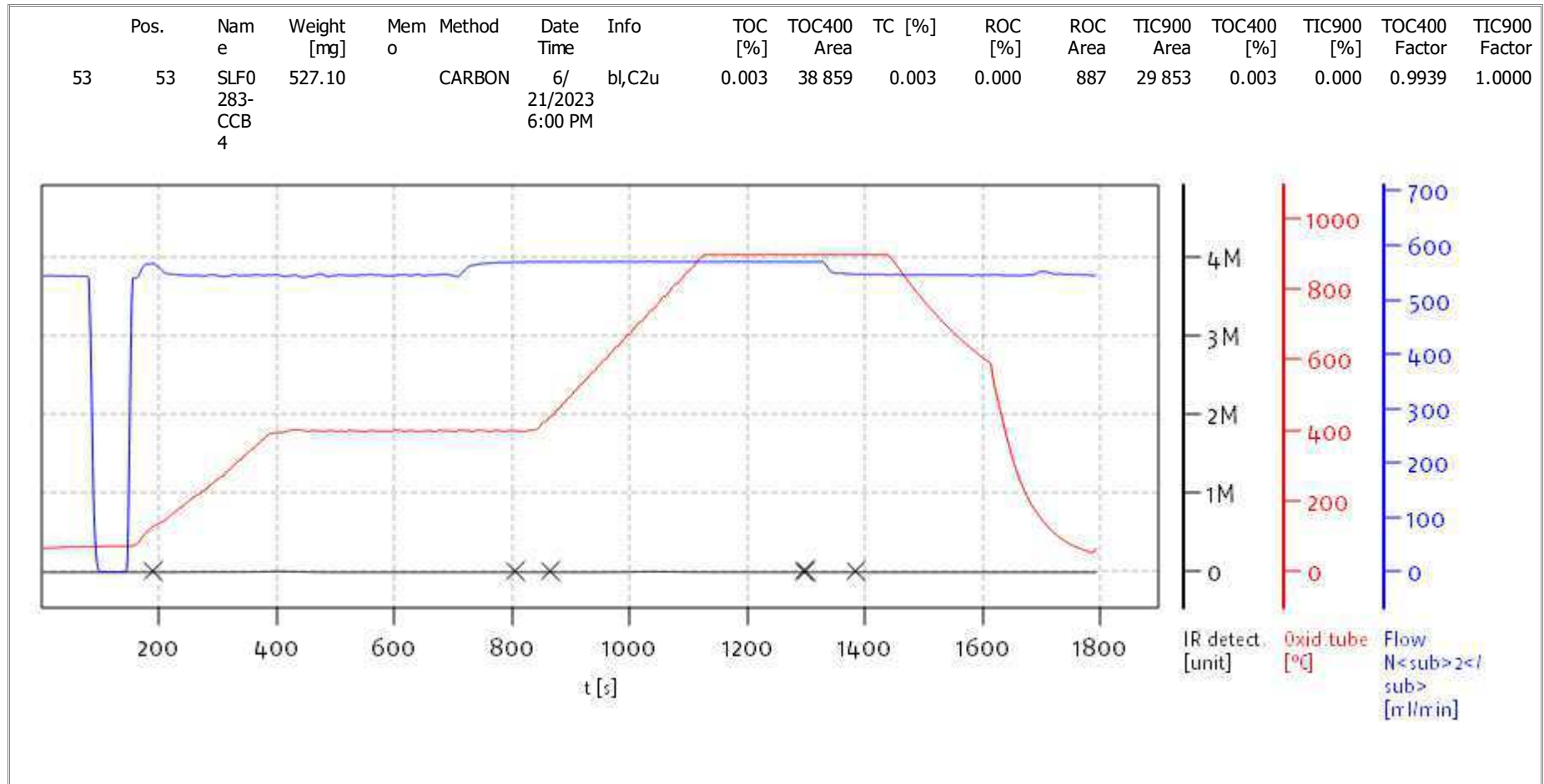
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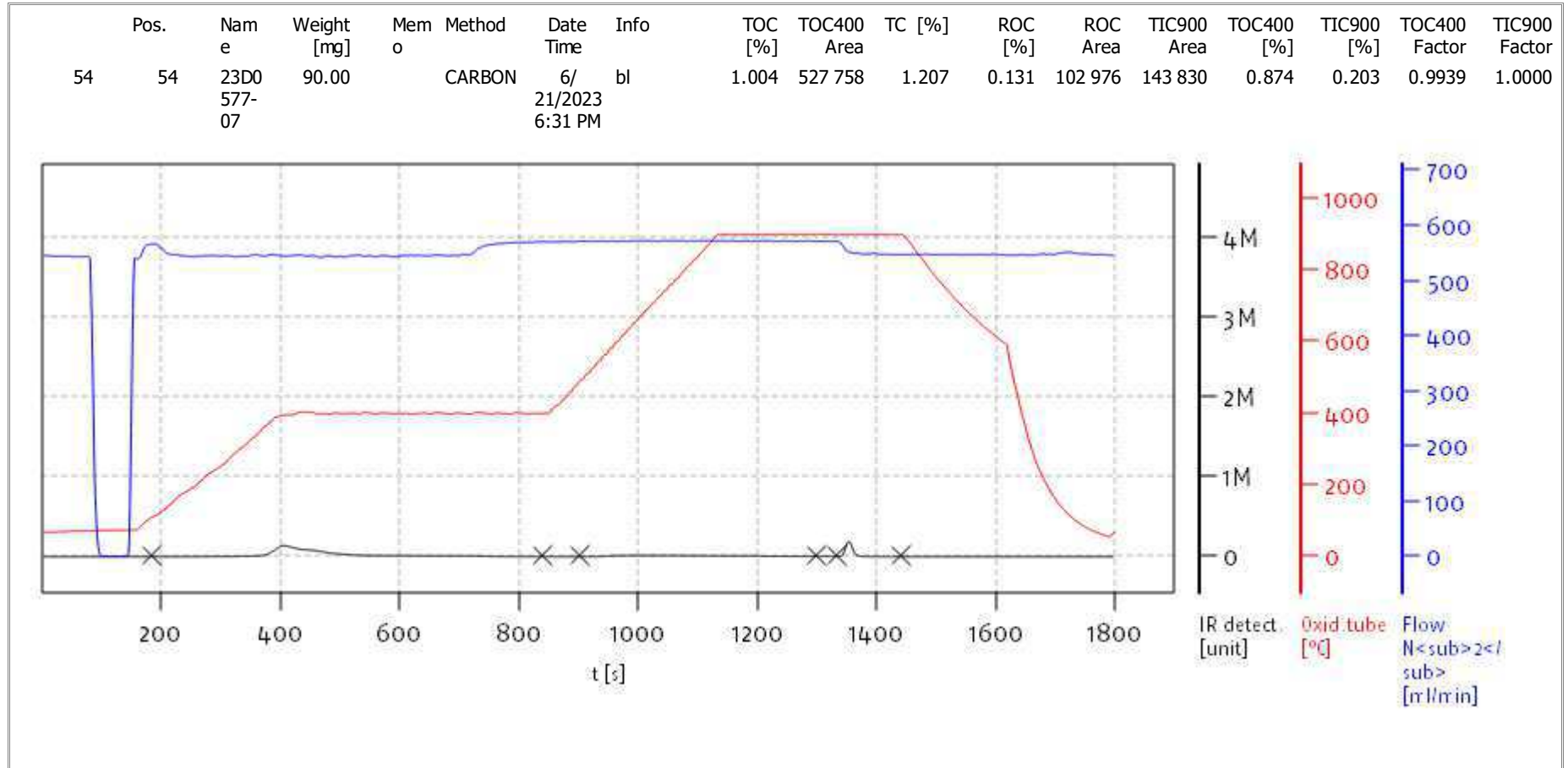
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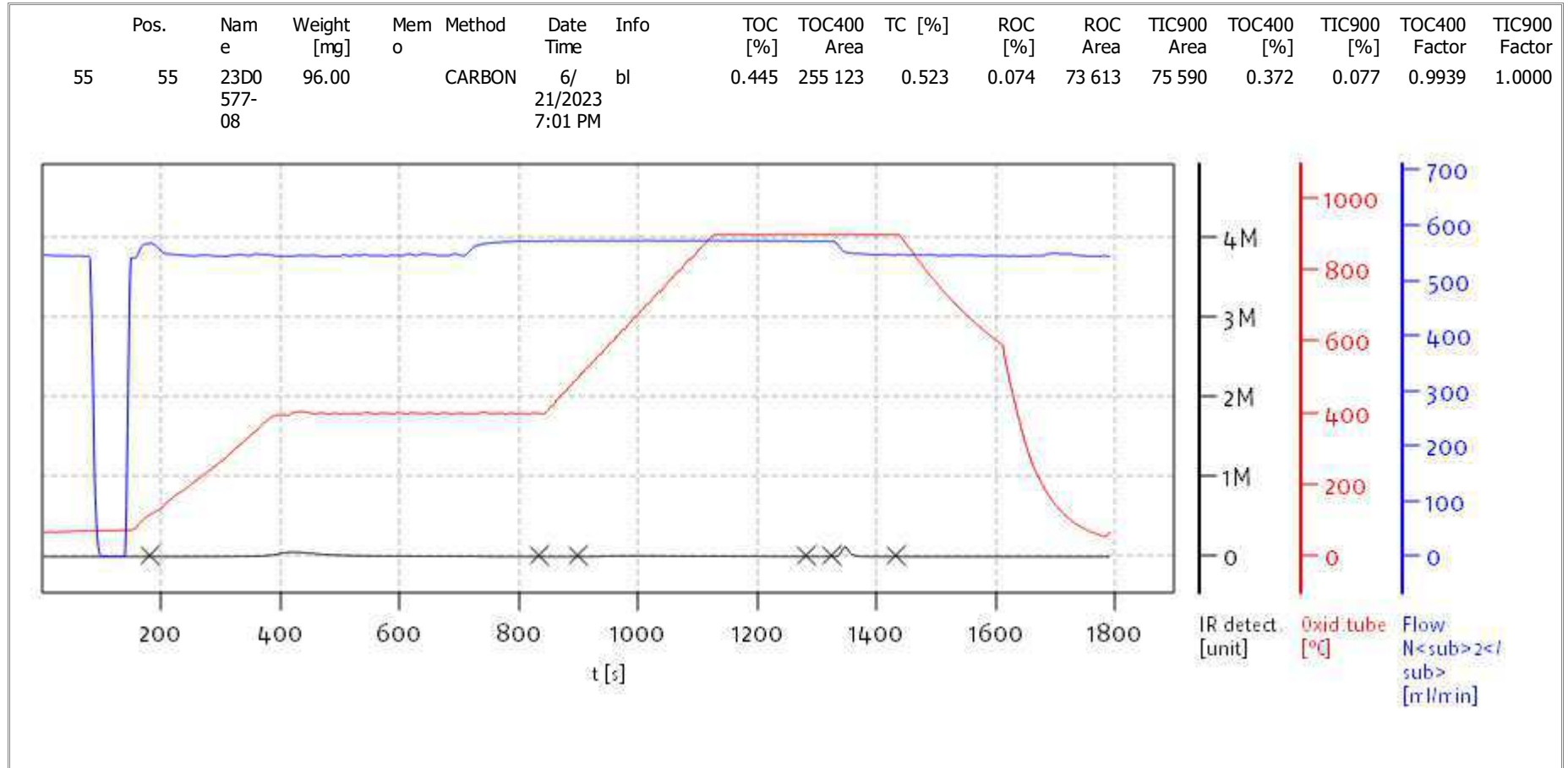
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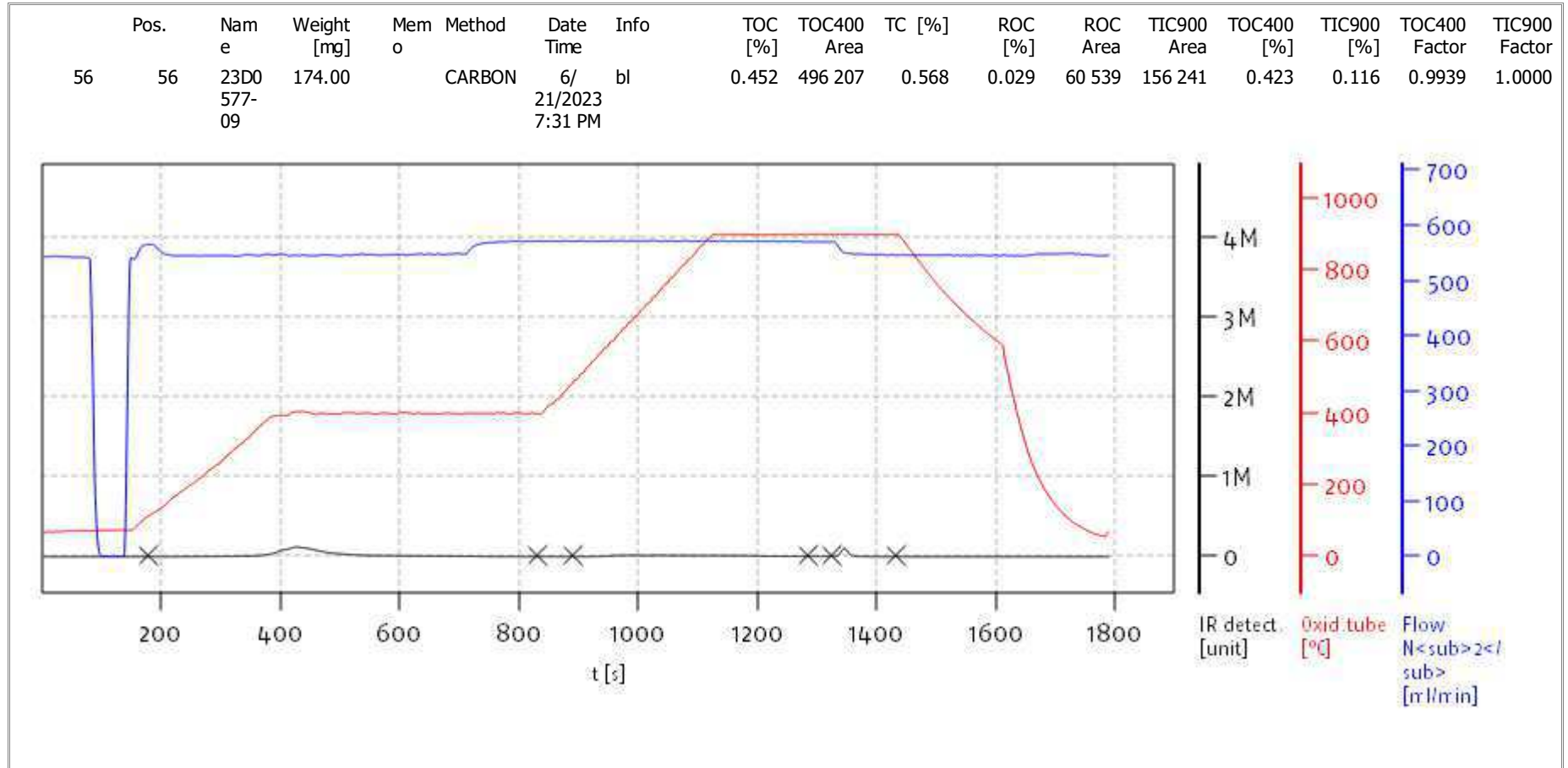
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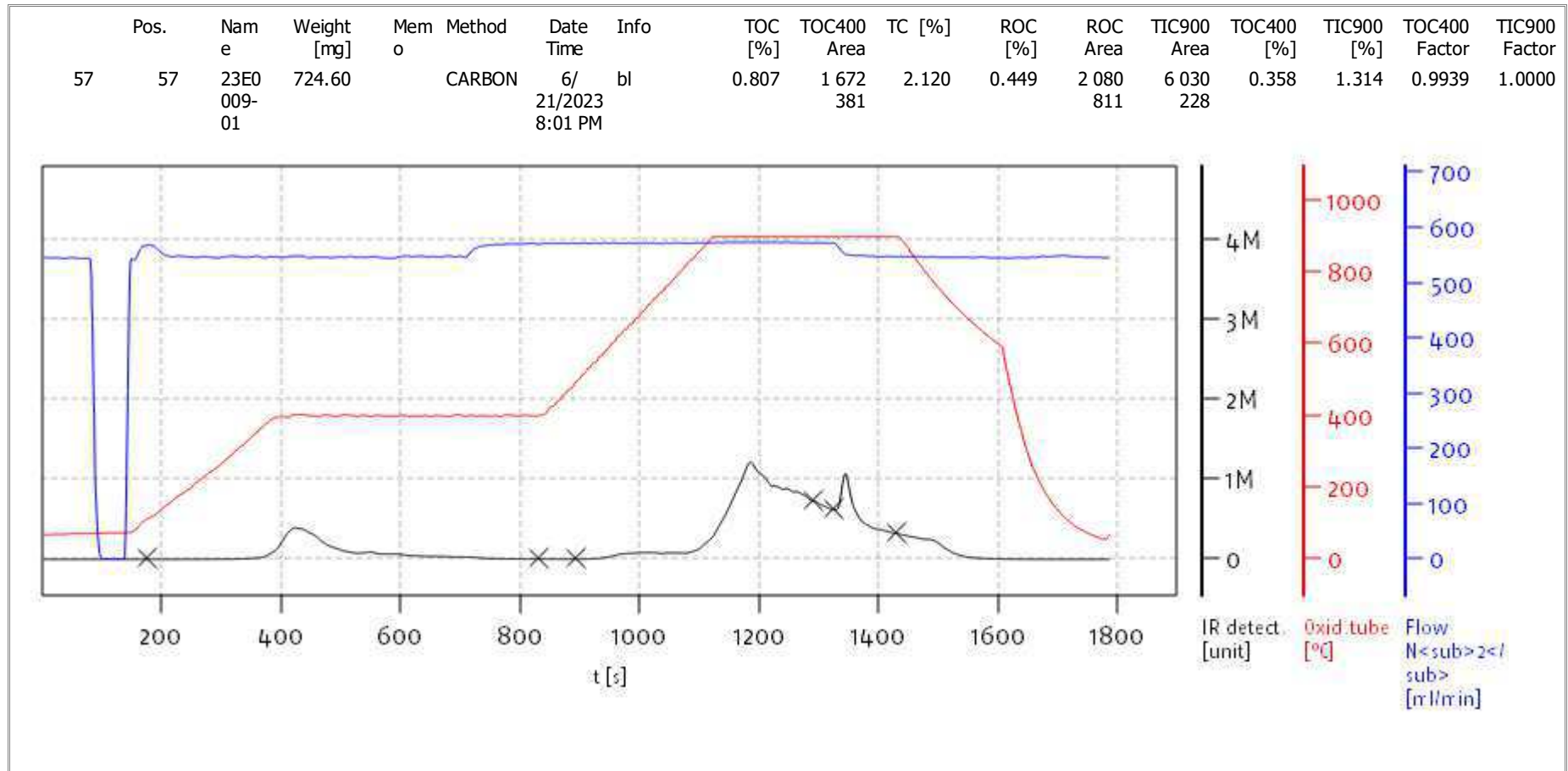
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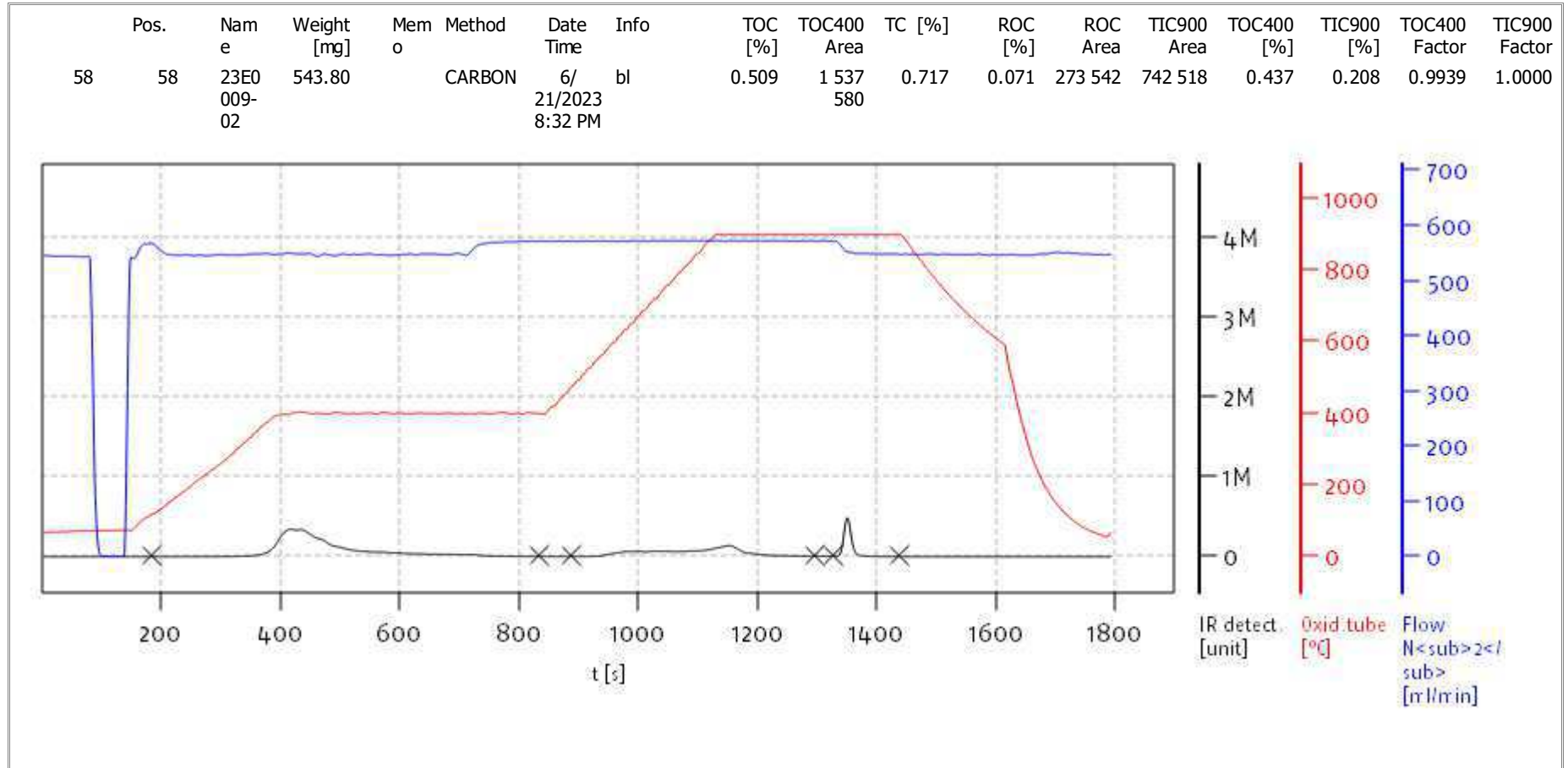
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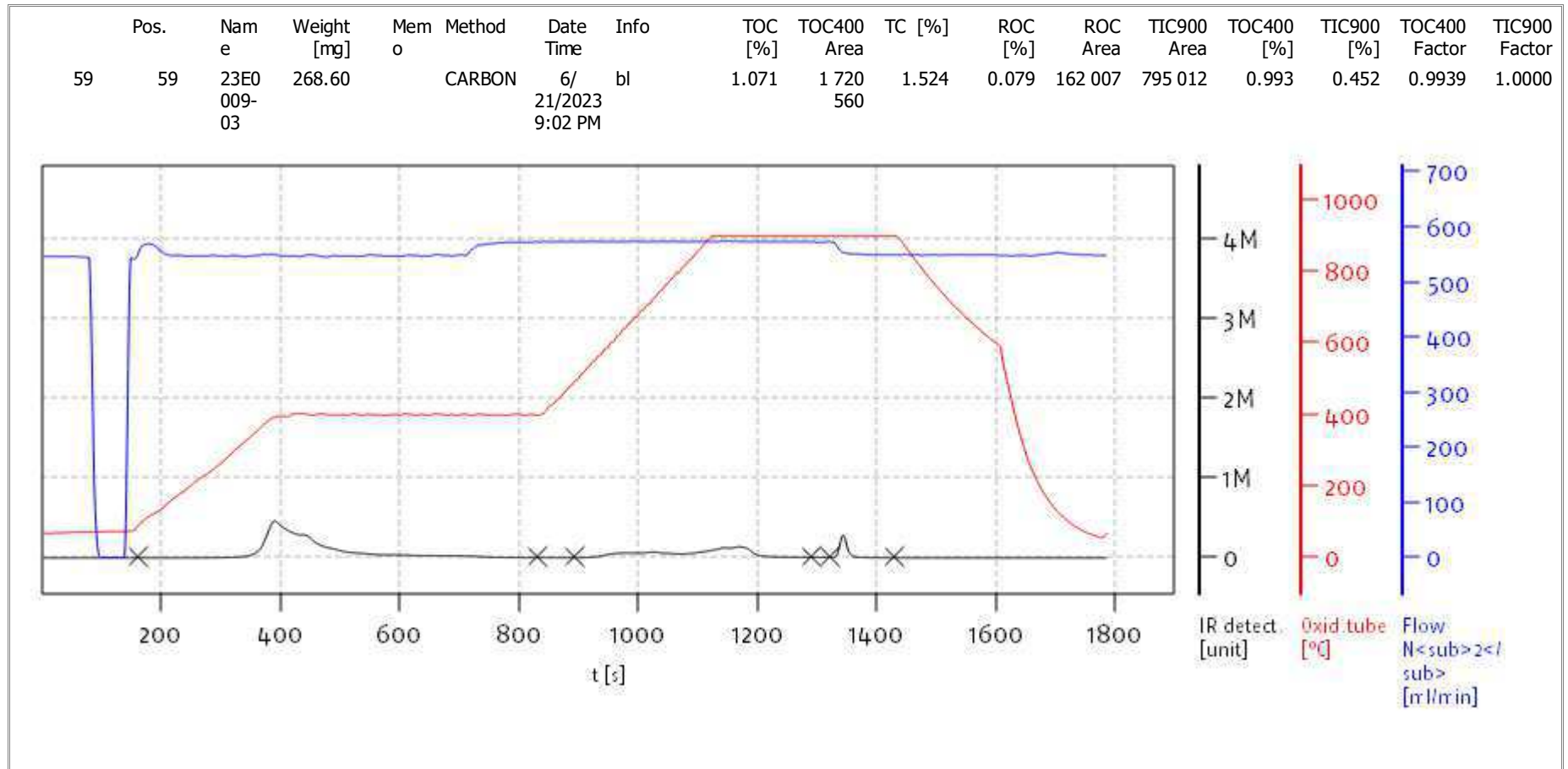
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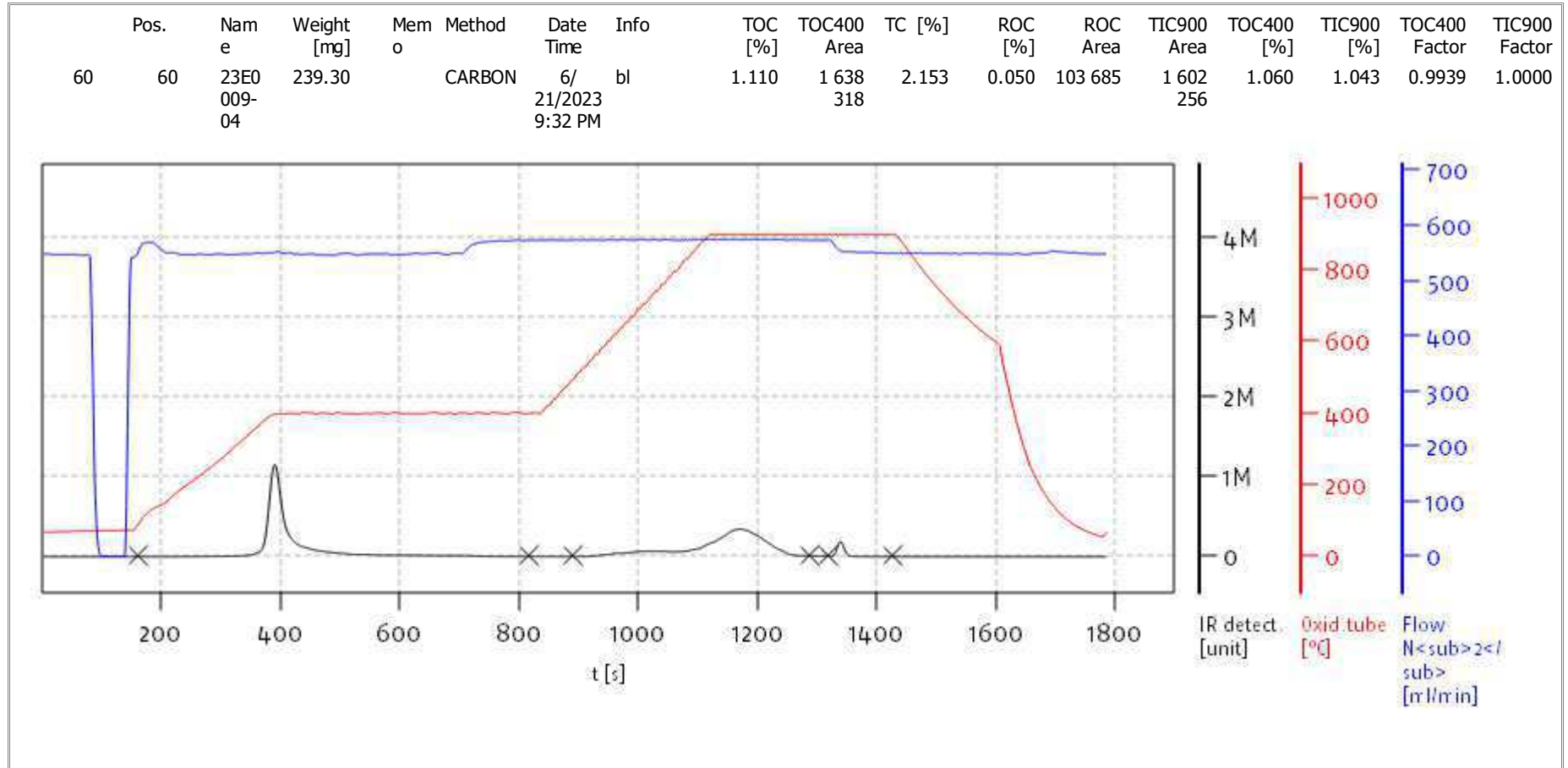
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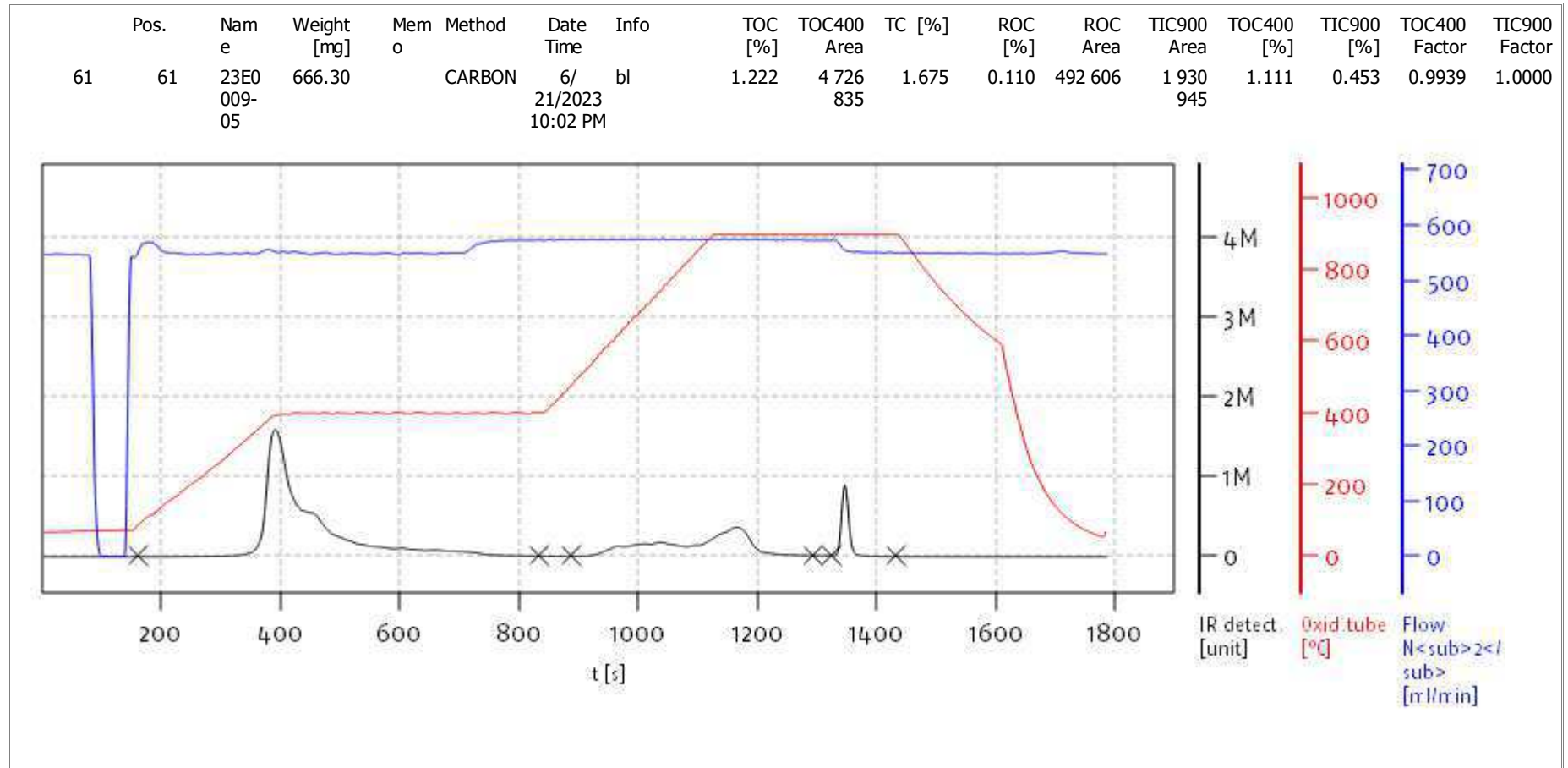
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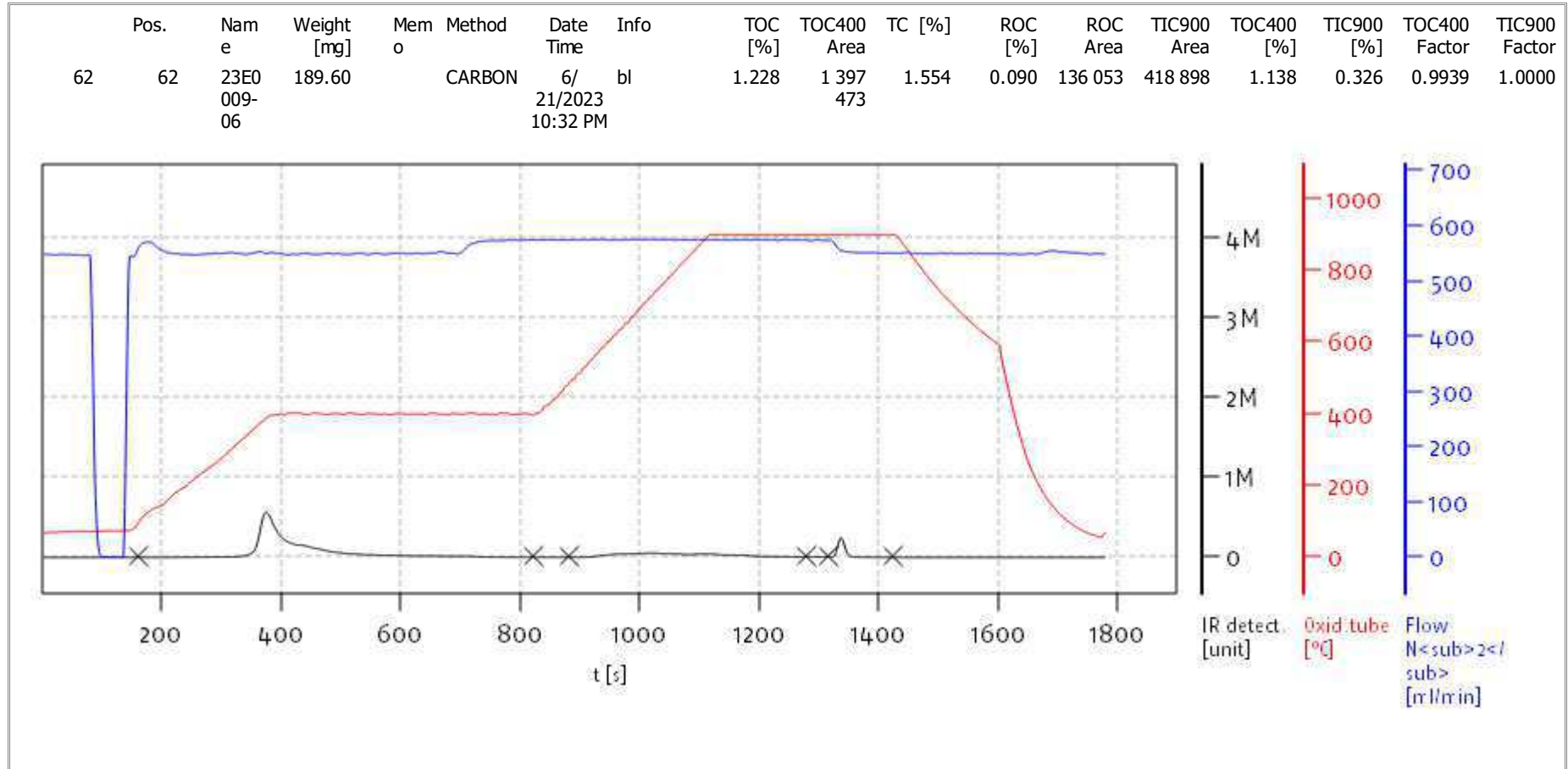
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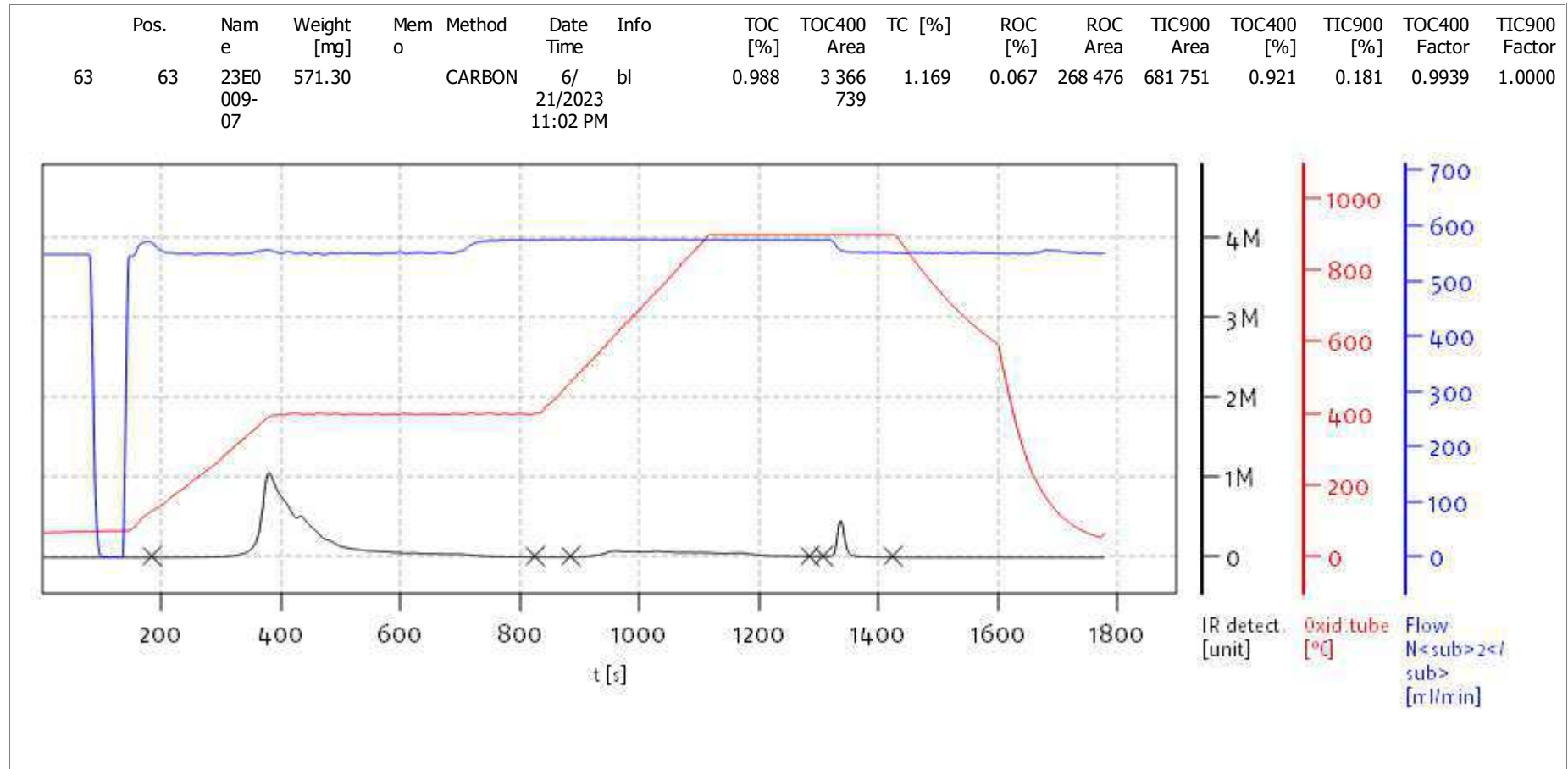
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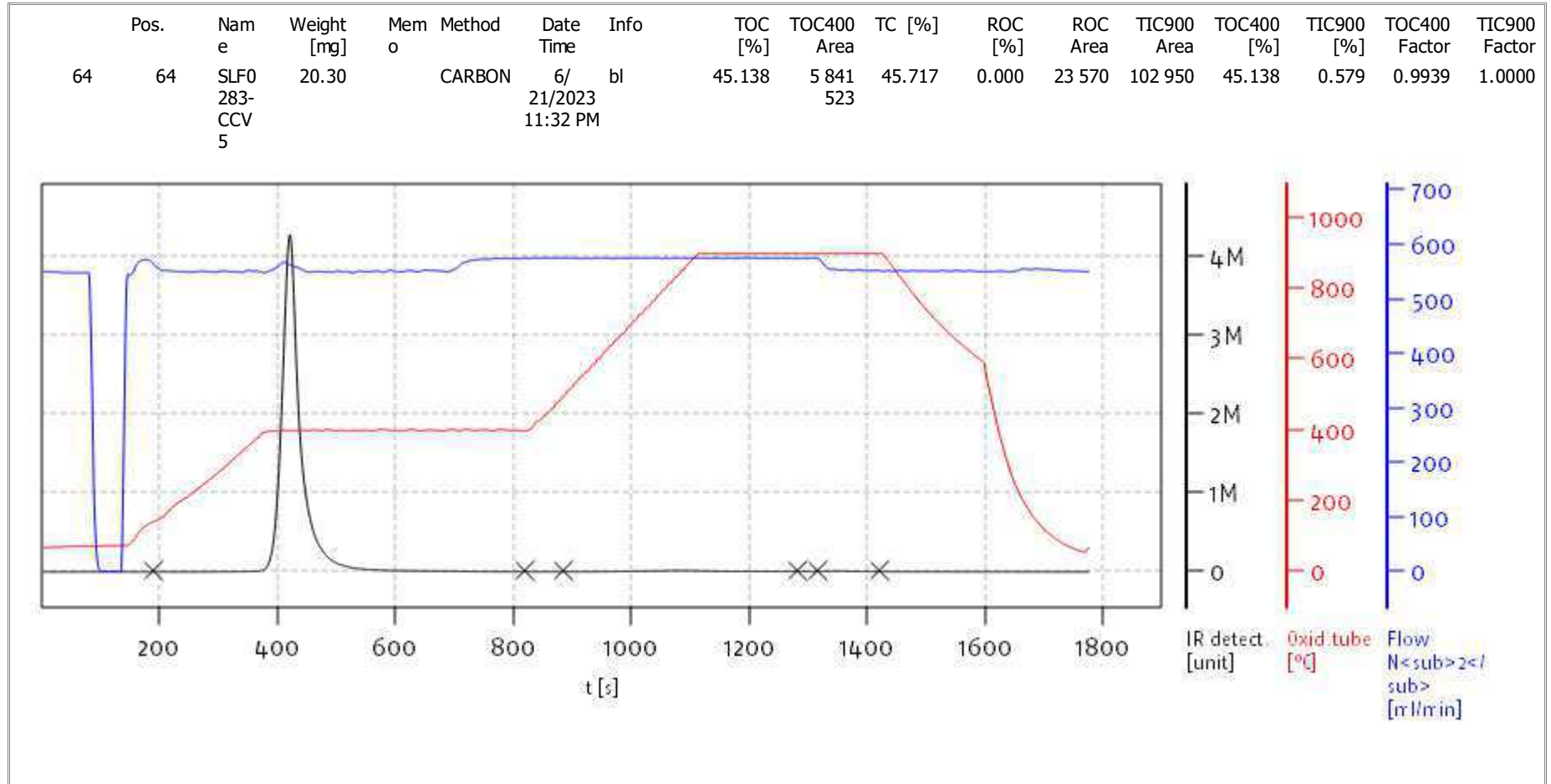
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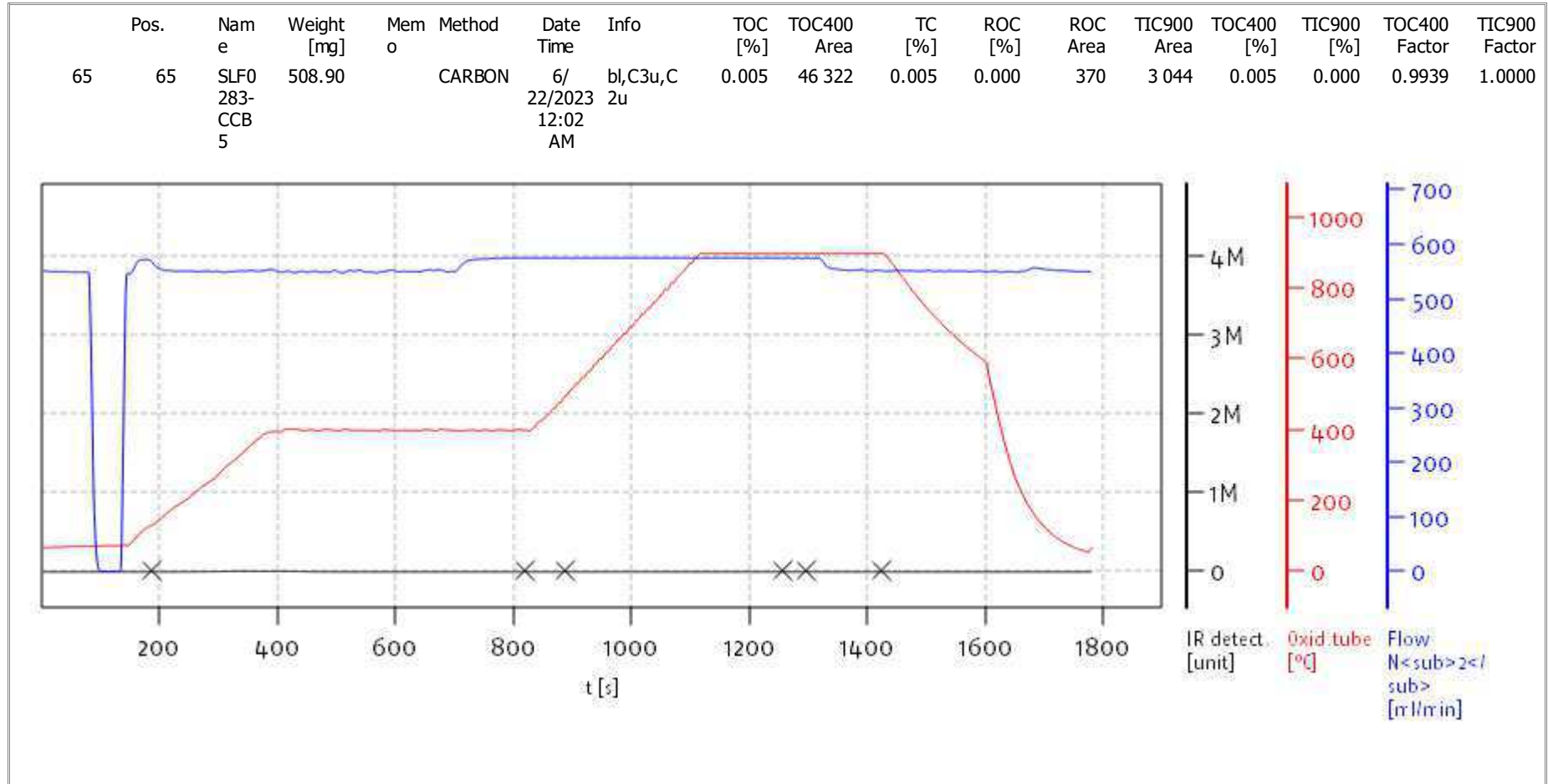
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLF0370

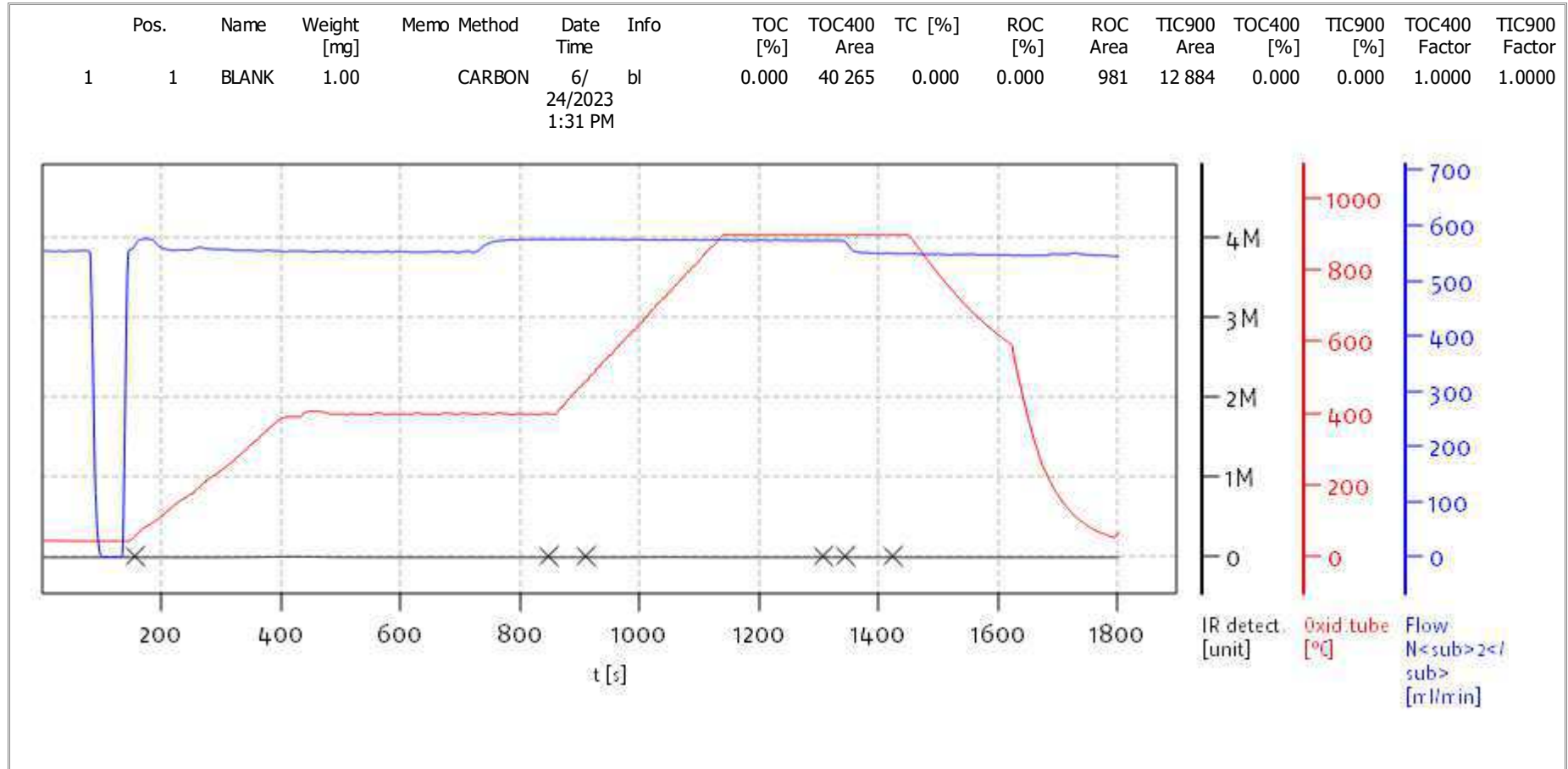
Instrument: TOC Cube

Calibration: GE00052

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
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Initial Cal Blank	SLF0370-ICB1	CubeData_06262023@1011-004	NA	06/24/23 15:31
Reference	BLF0522-SRM2	CubeData_06262023@1011-008	Solid	06/24/23 17:32
Calibration Check	SLF0370-CCV1	CubeData_06262023@1011-015	NA	06/24/23 21:02
Calibration Blank	SLF0370-CCB1	CubeData_06262023@1011-016	NA	06/24/23 21:32
Calibration Check	SLF0370-CCV2	CubeData_06262023@1011-027	NA	06/25/23 03:04
Calibration Blank	SLF0370-CCB2	CubeData_06262023@1011-028	NA	06/25/23 03:35
Calibration Check	SLF0370-CCV3	CubeData_06262023@1011-039	NA	06/25/23 09:07
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Calibration Check	SLF0370-CCV4	CubeData_06262023@1011-050	NA	06/25/23 15:10
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Calibration Blank	SLF0370-CCB5	CubeData_06262023@1011-063	NA	06/25/23 21:43
Calibration Check	SLF0370-CCV6	CubeData_06262023@1011-074	NA	06/26/23 03:15
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

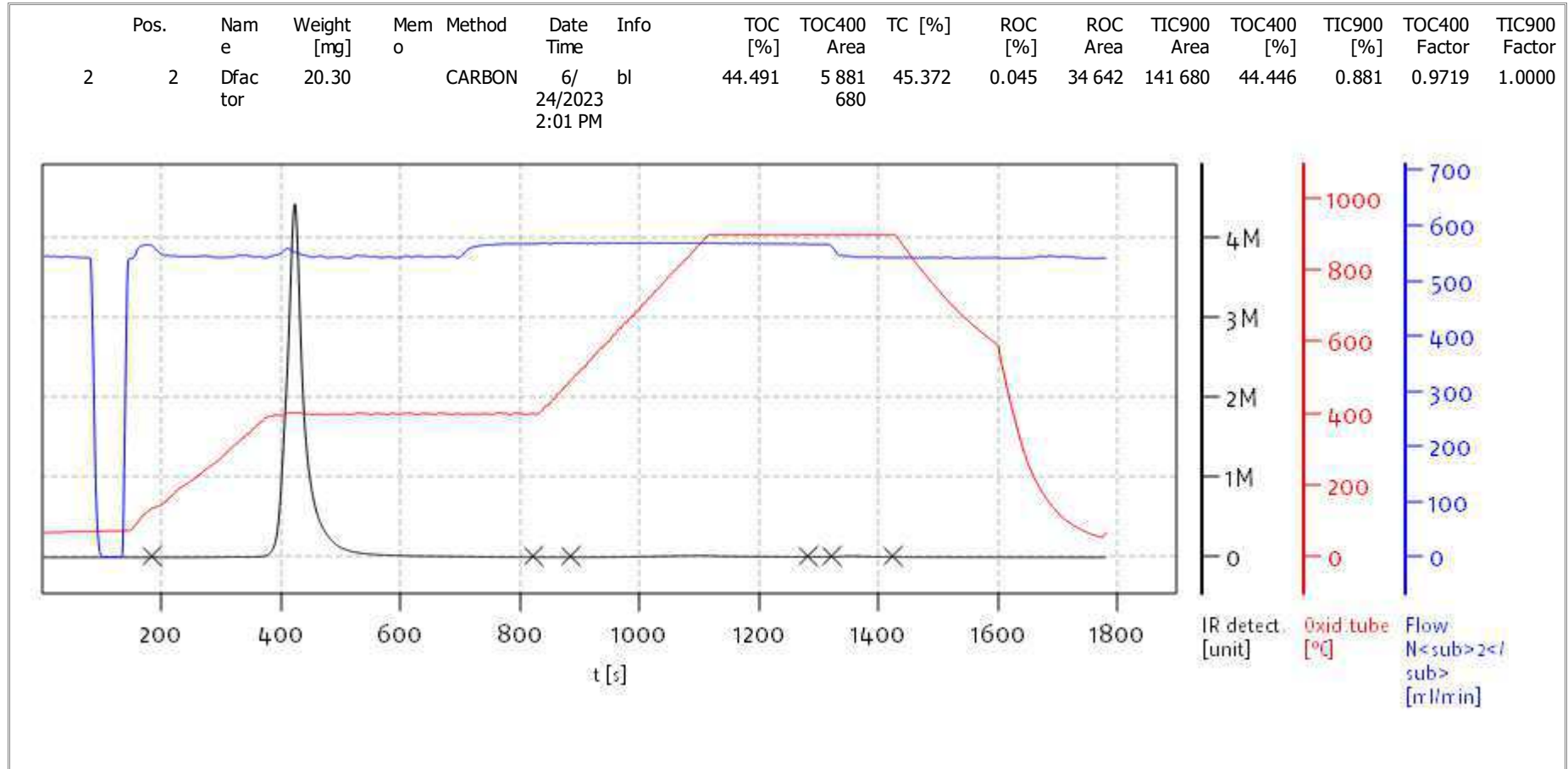
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

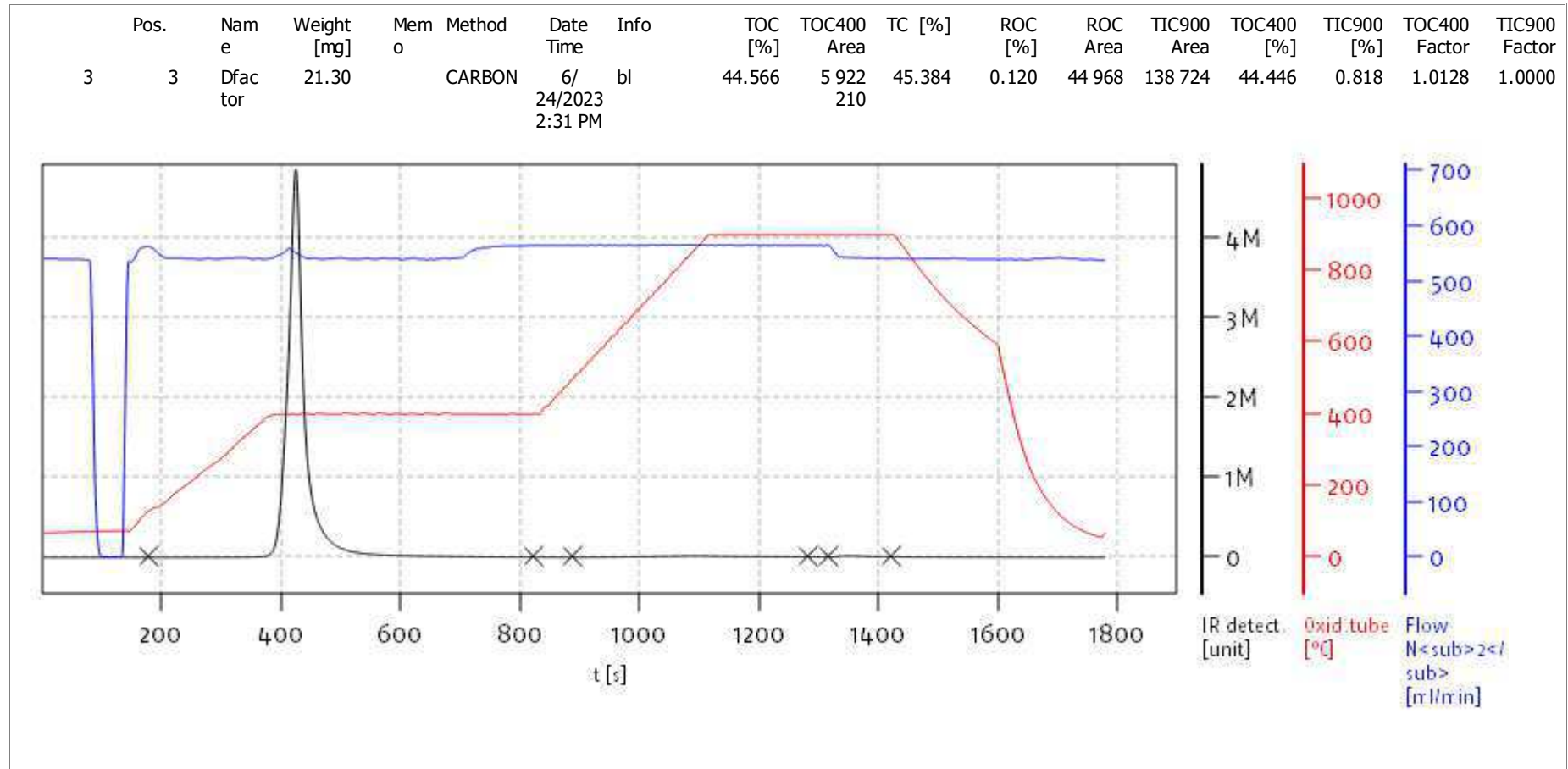
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

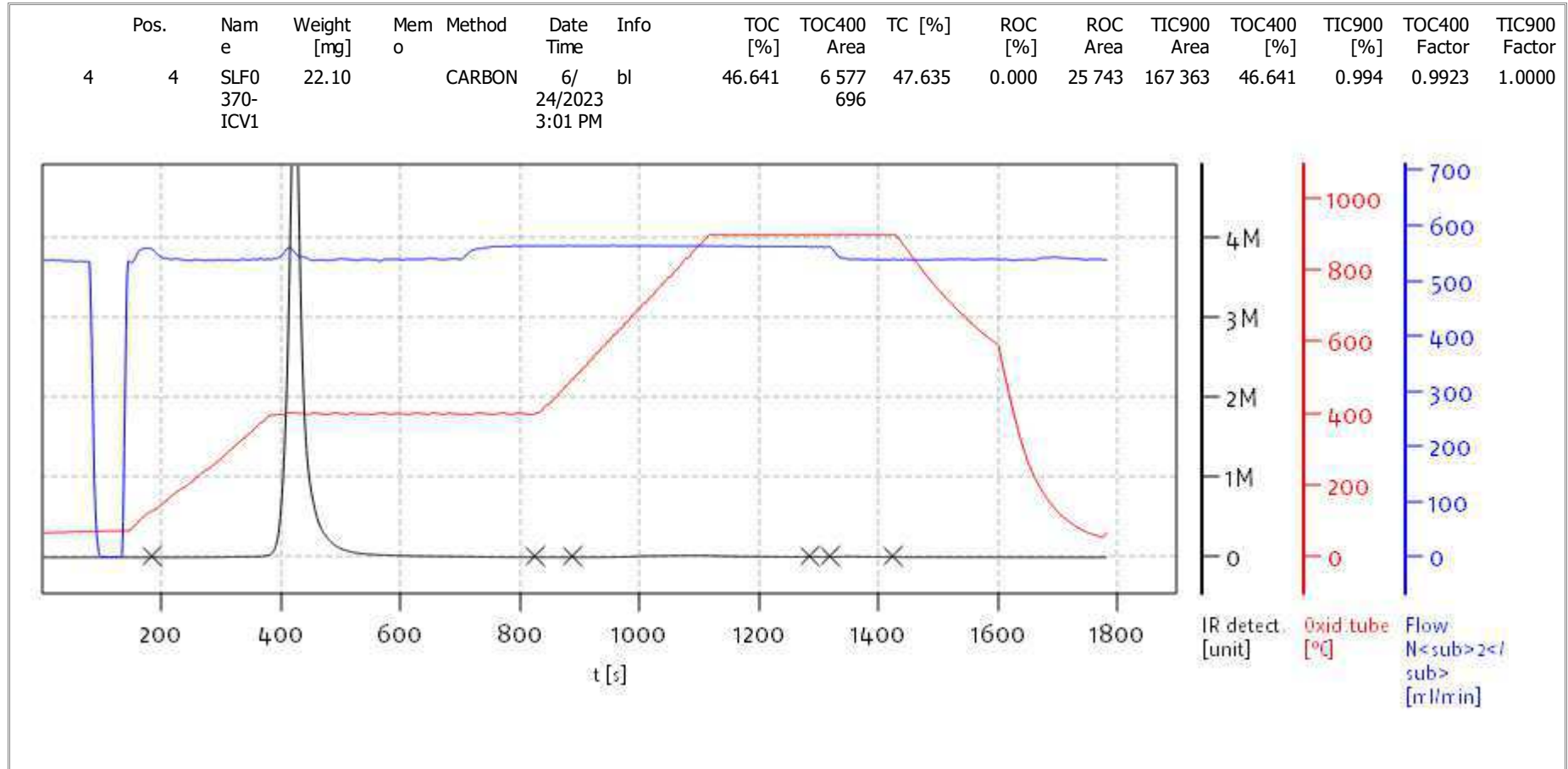
Date: Mon Jun 26 10:08:08 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

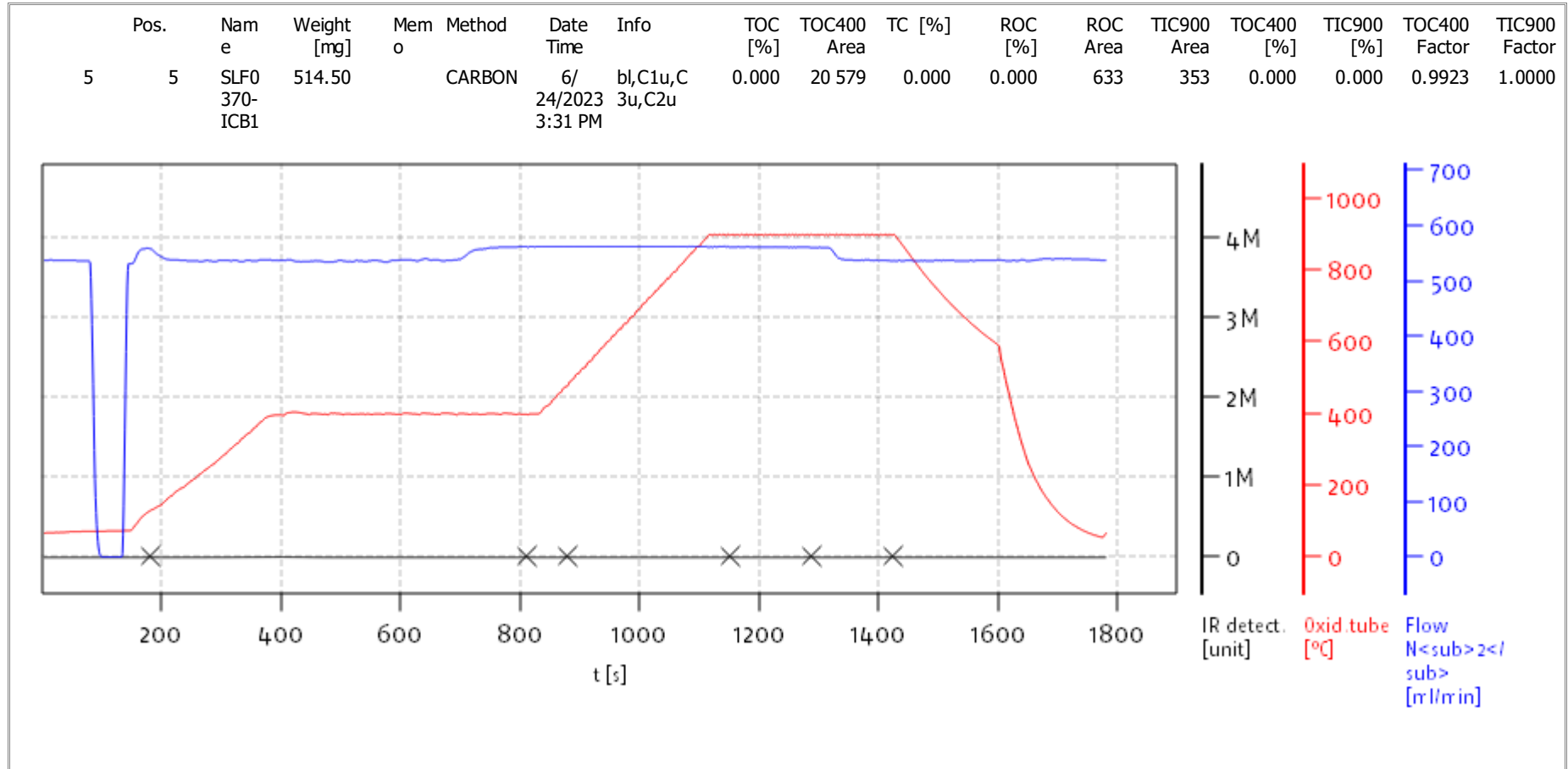
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Mode CCC



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Analyst: CDE



Name:

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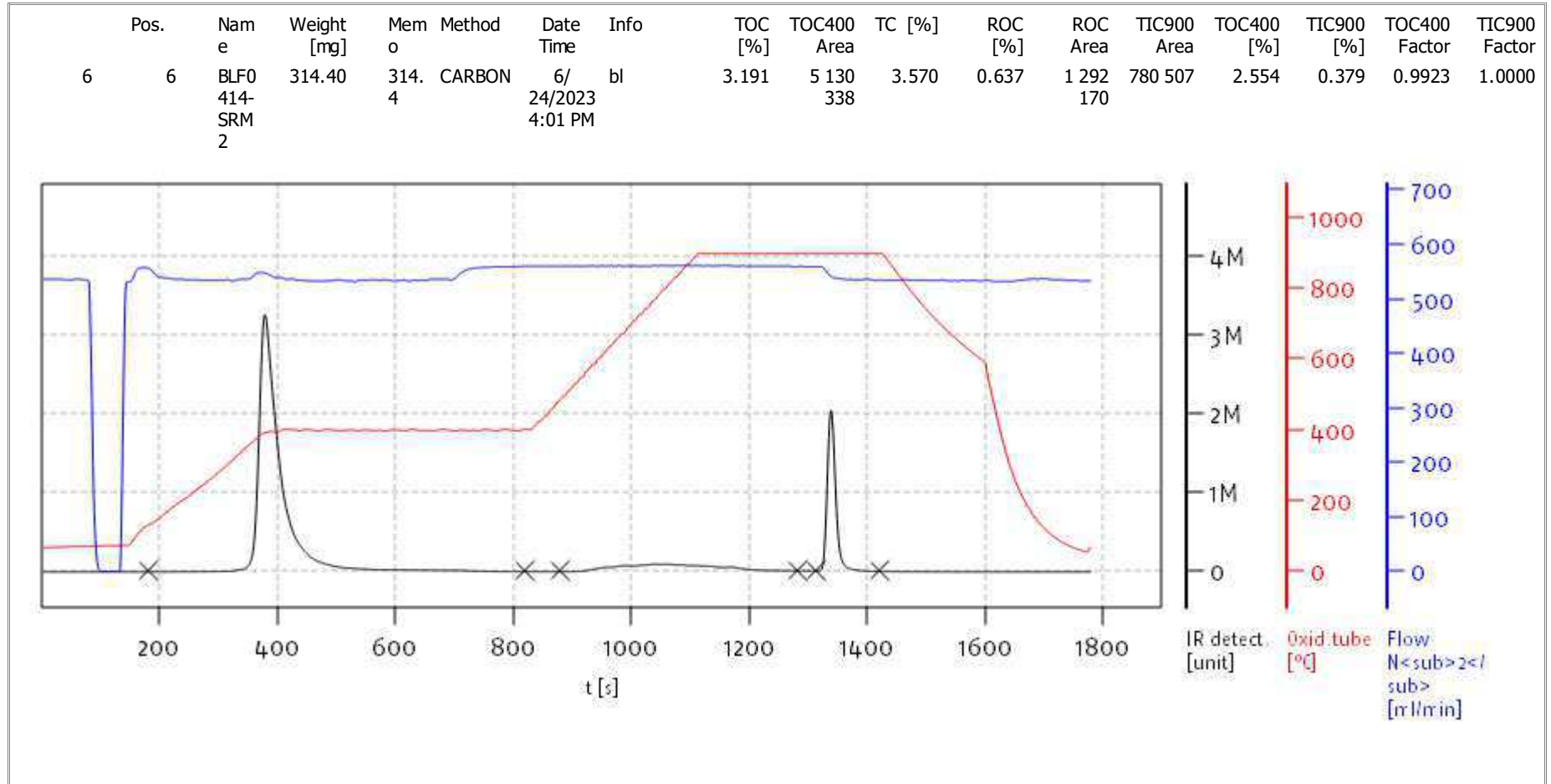
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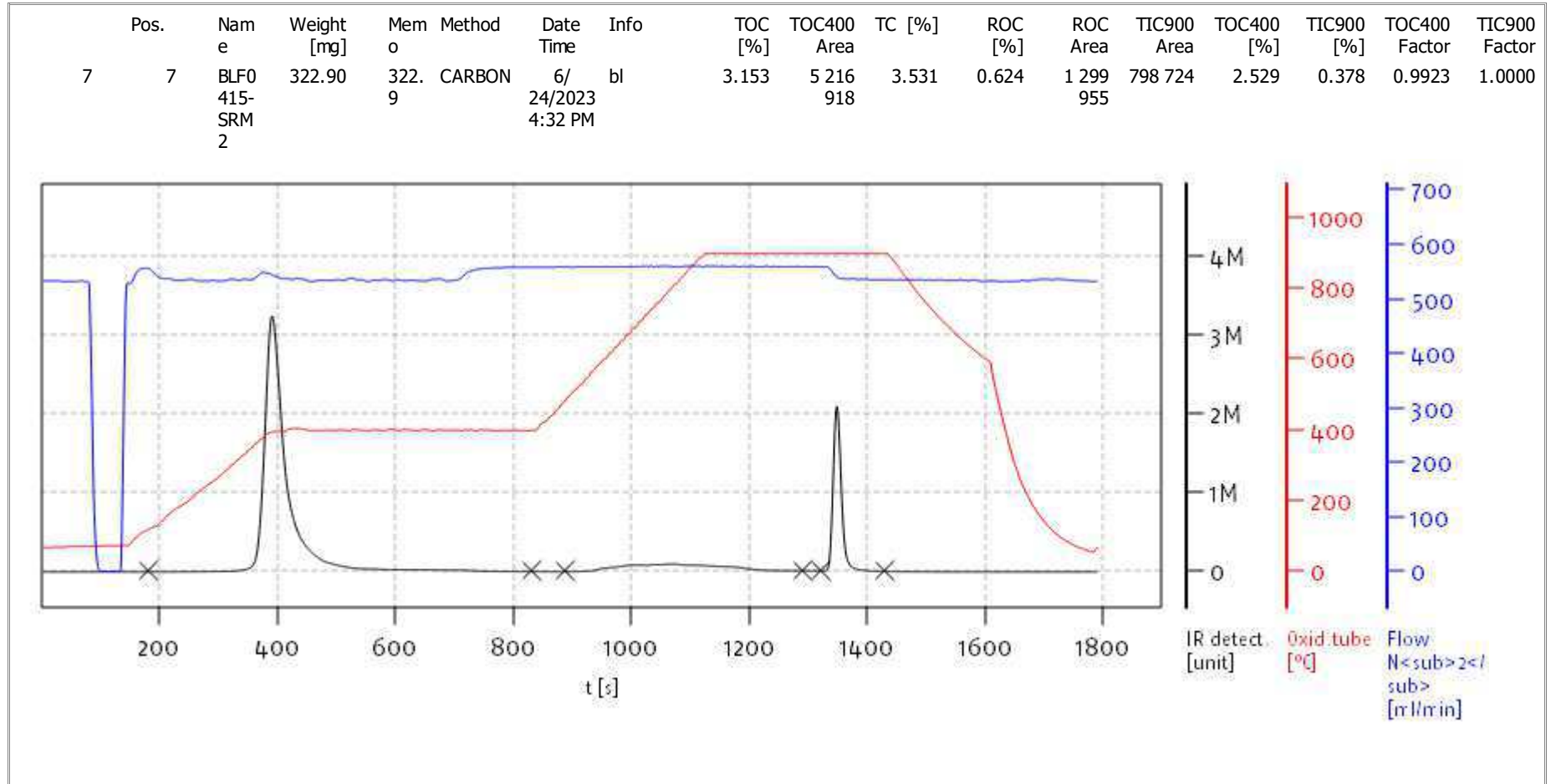
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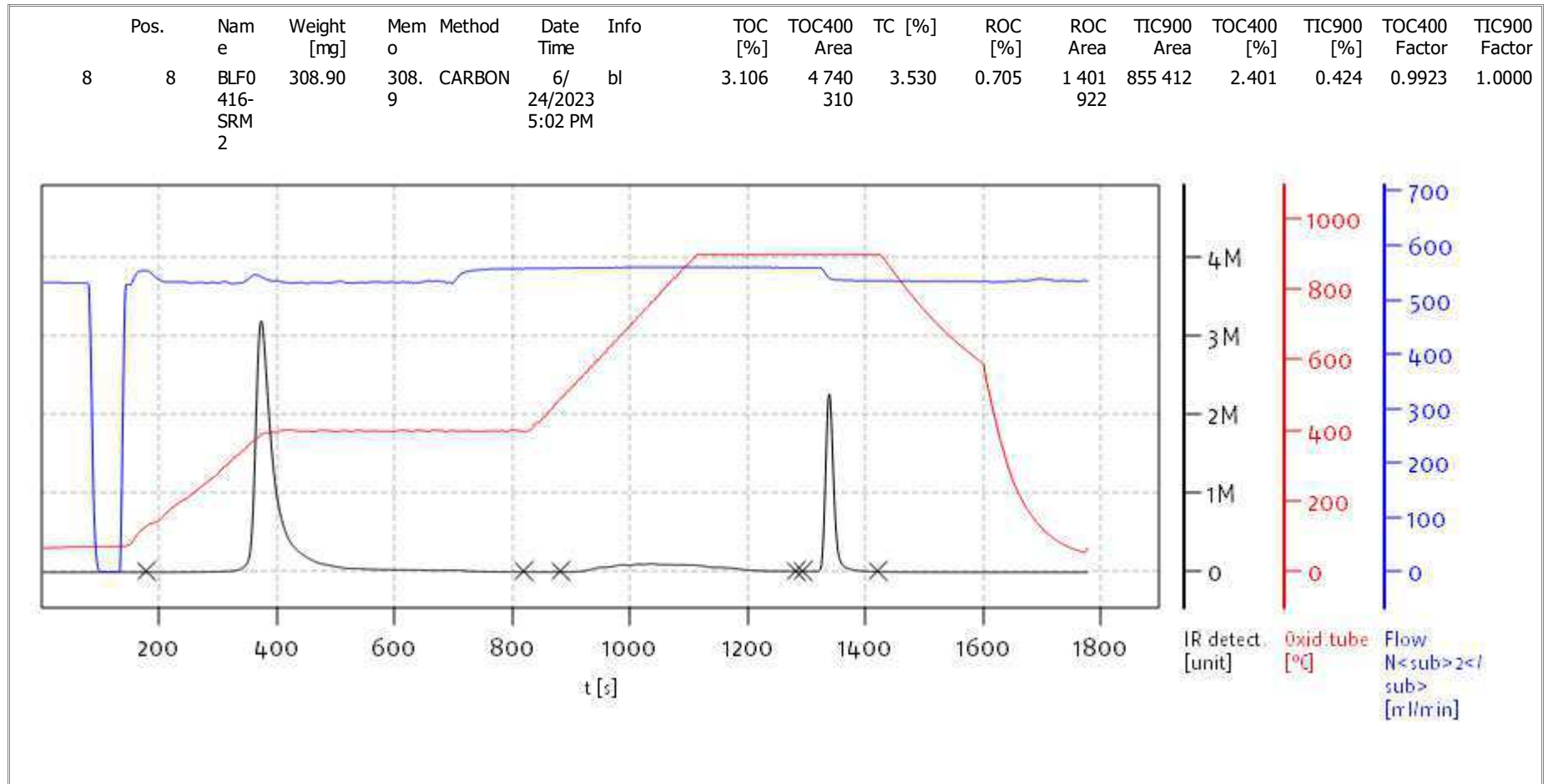
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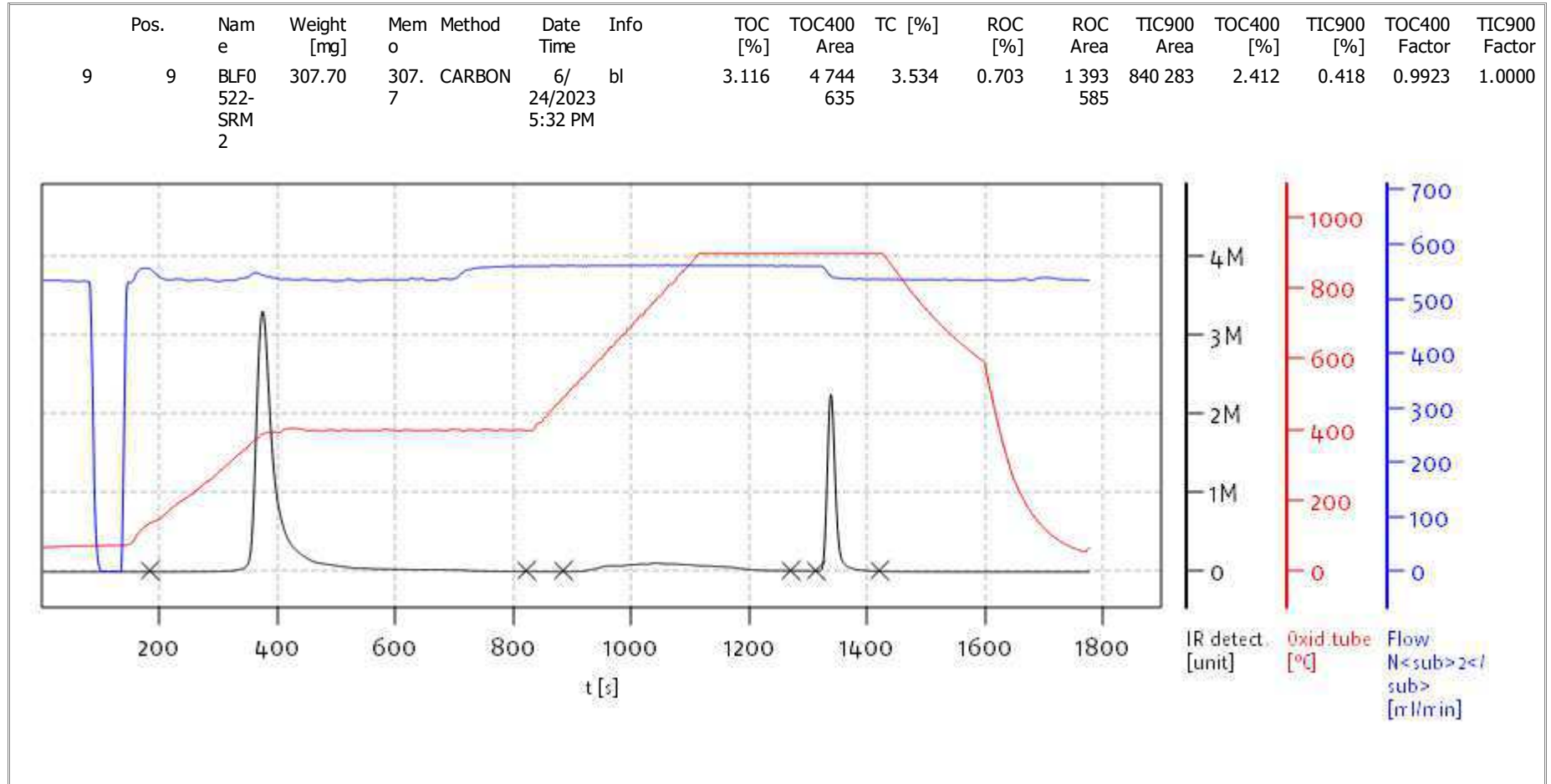
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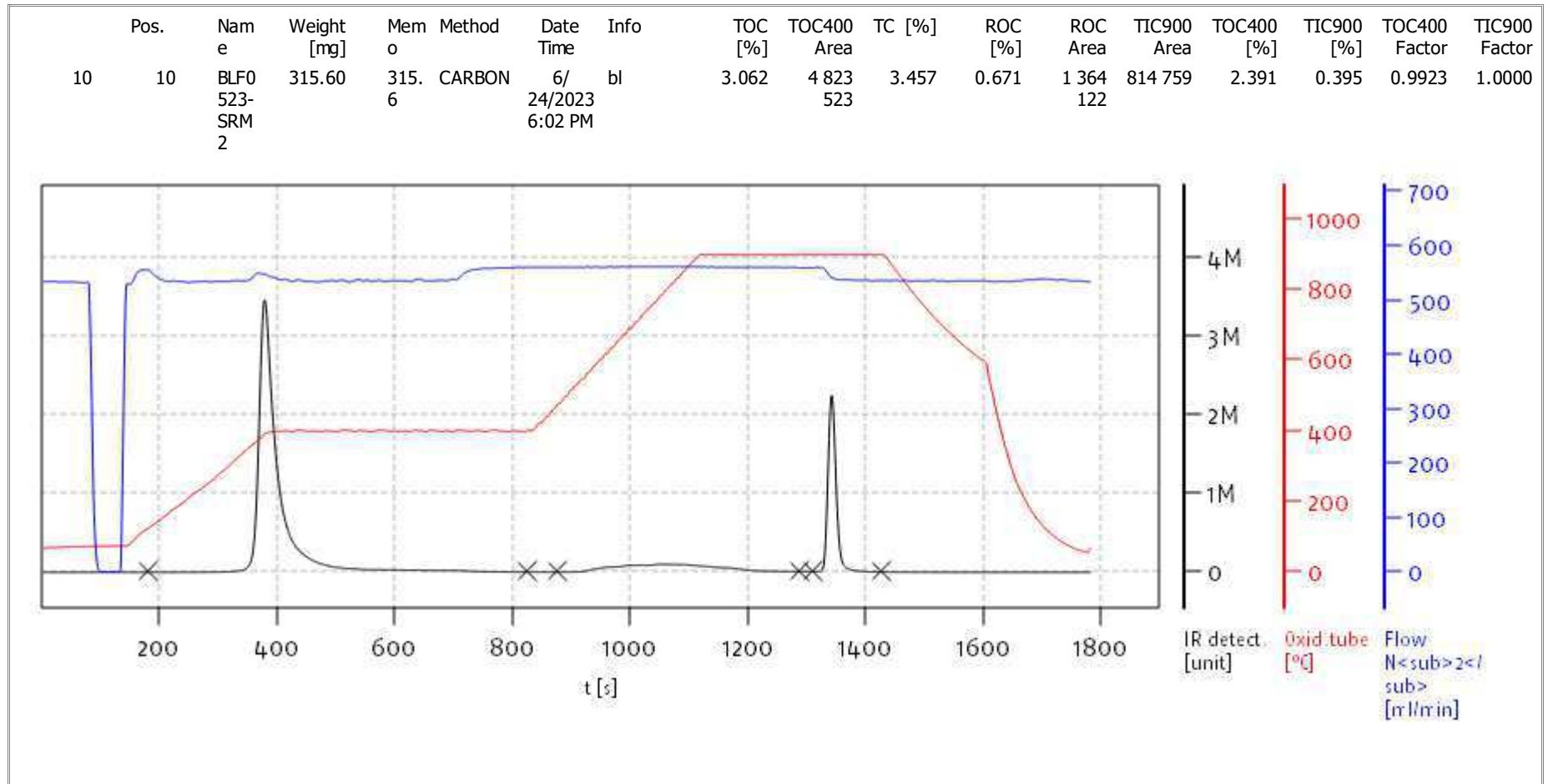
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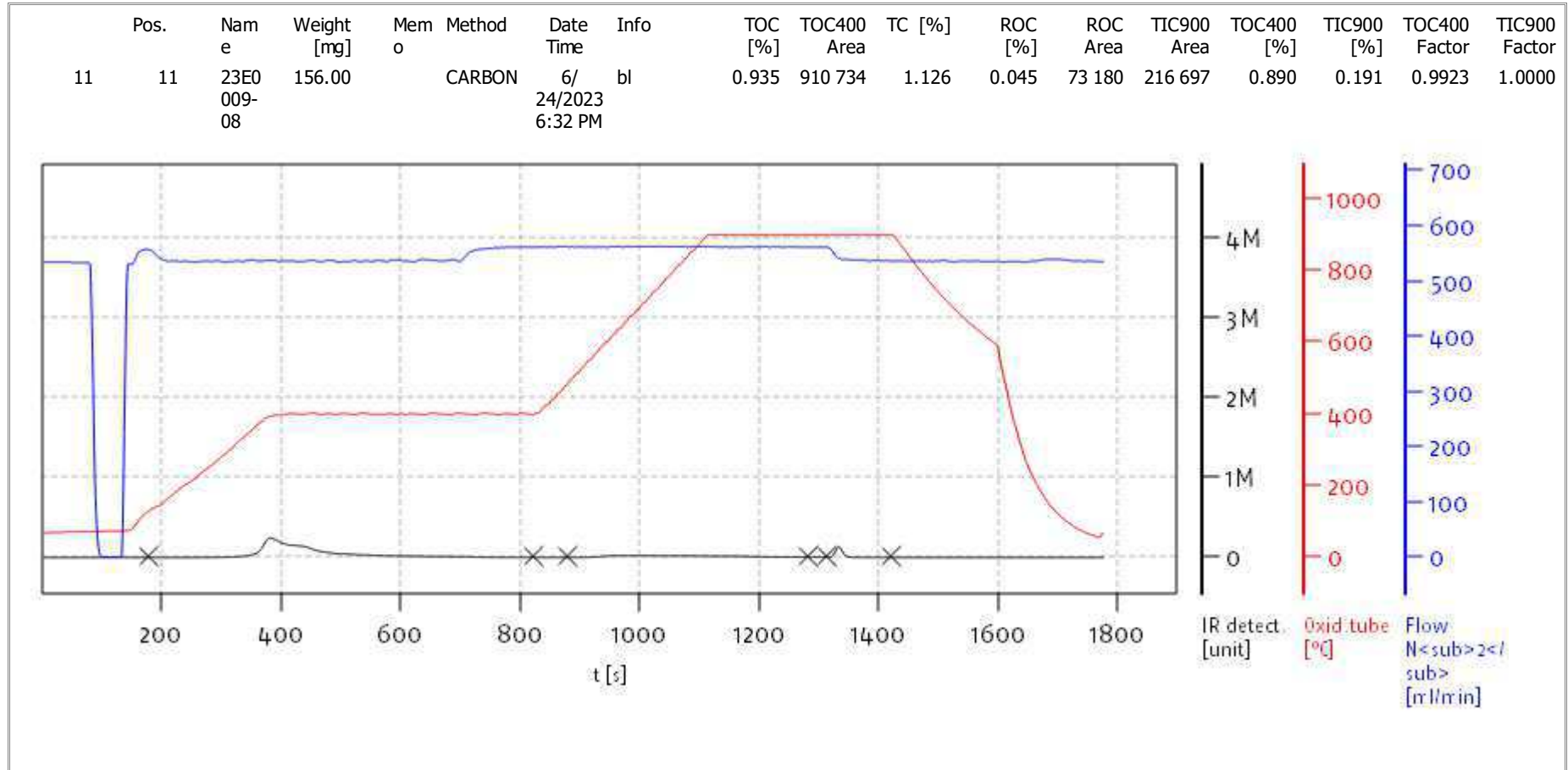
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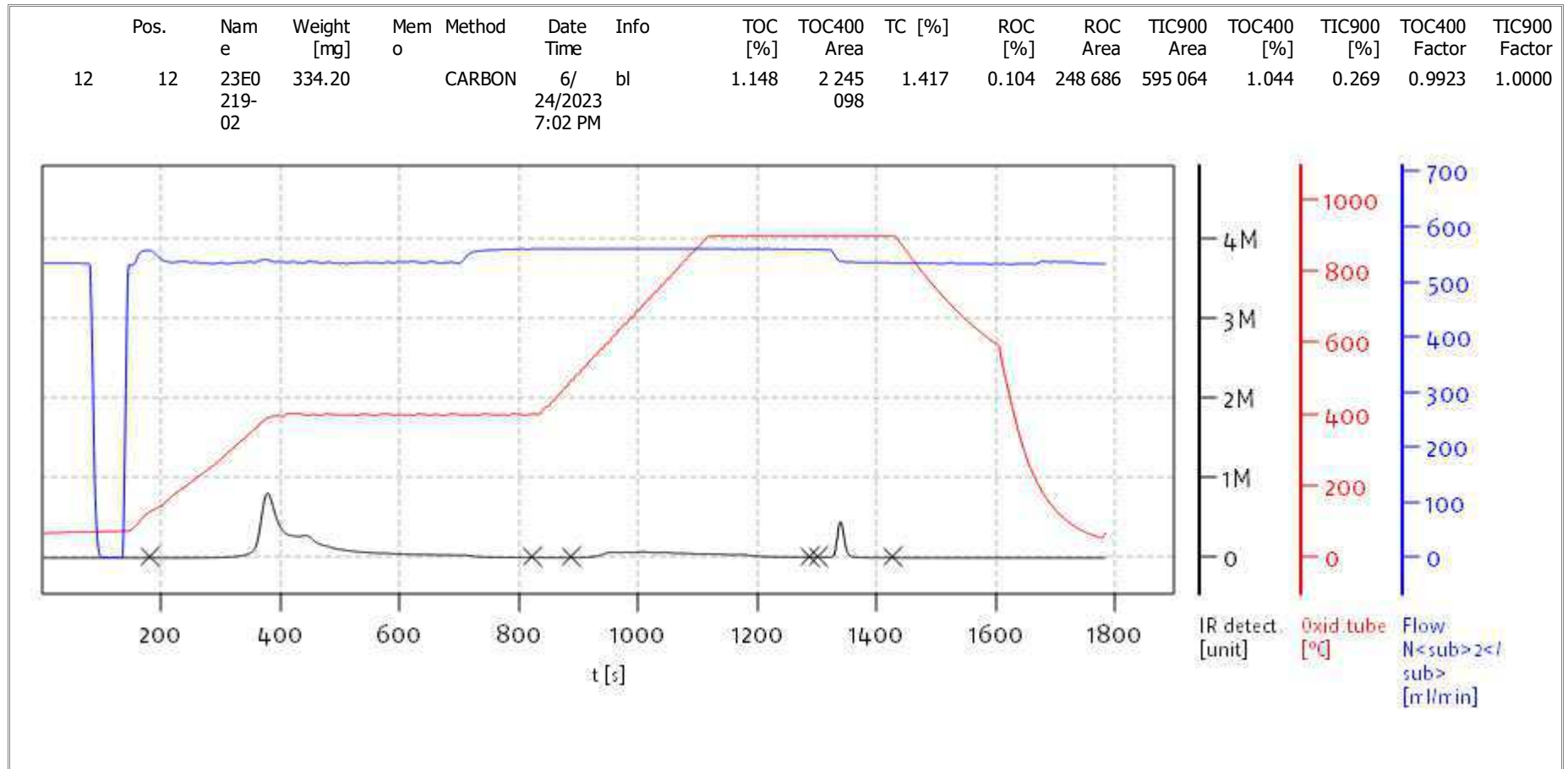
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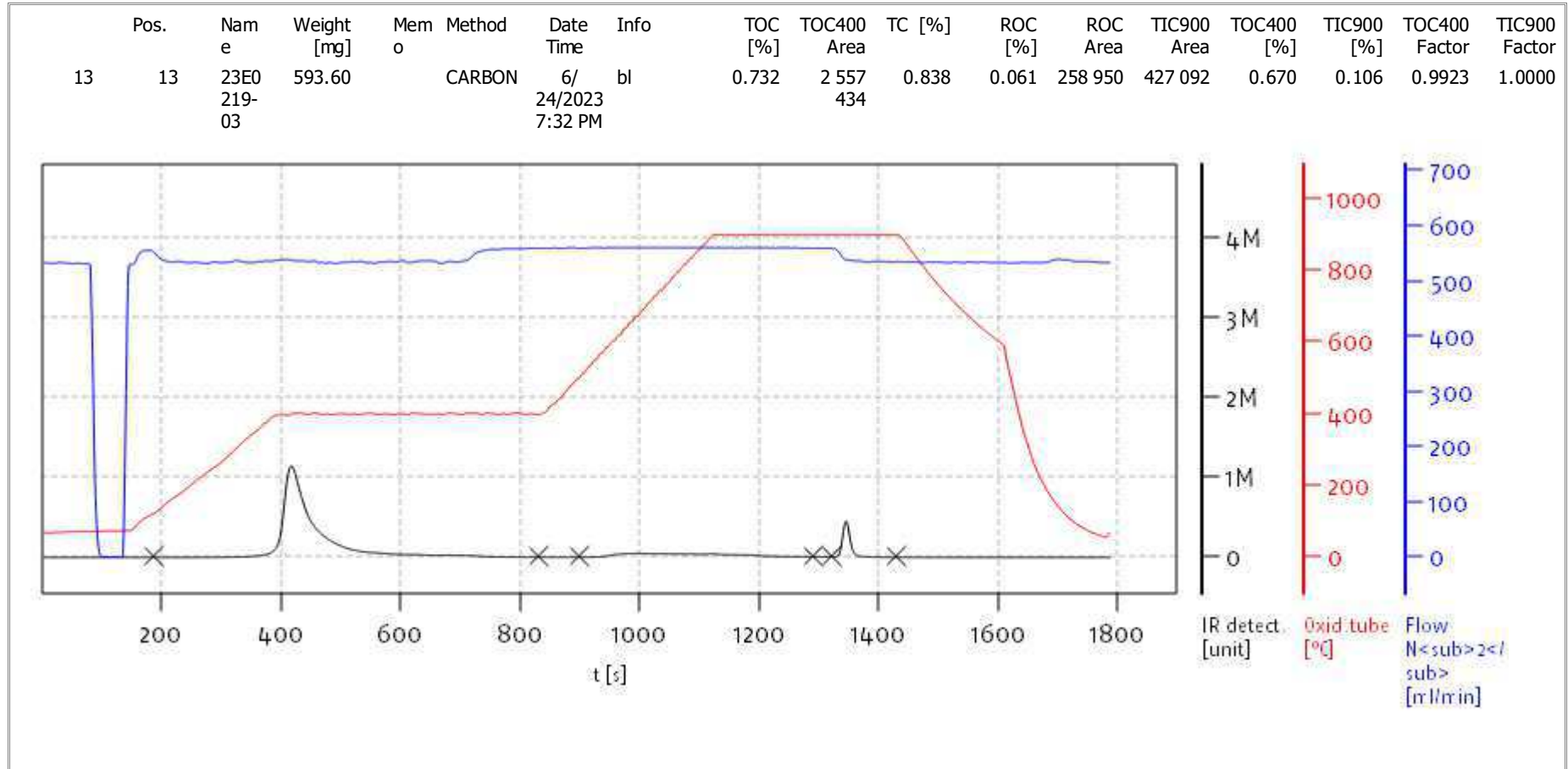
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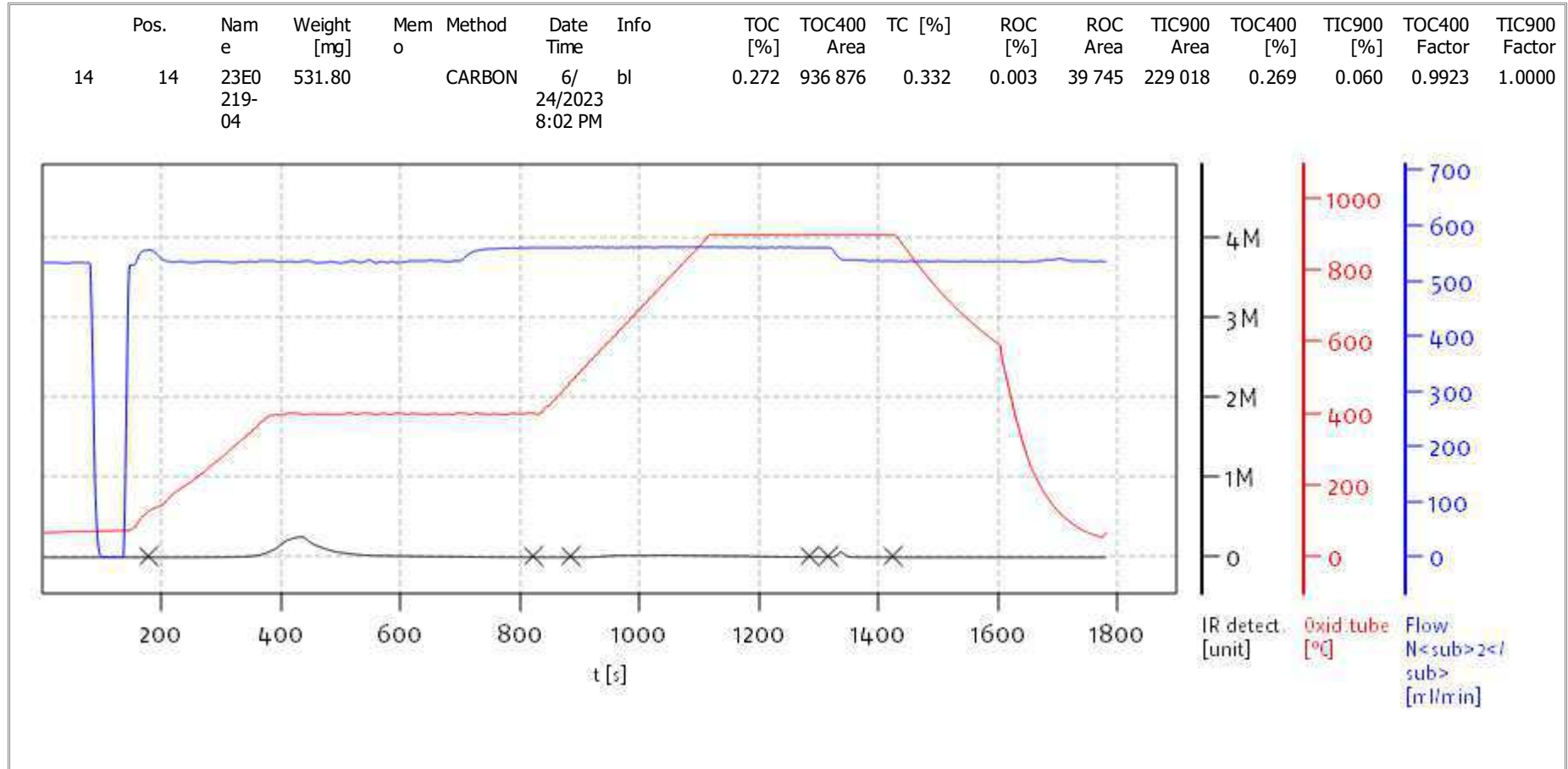
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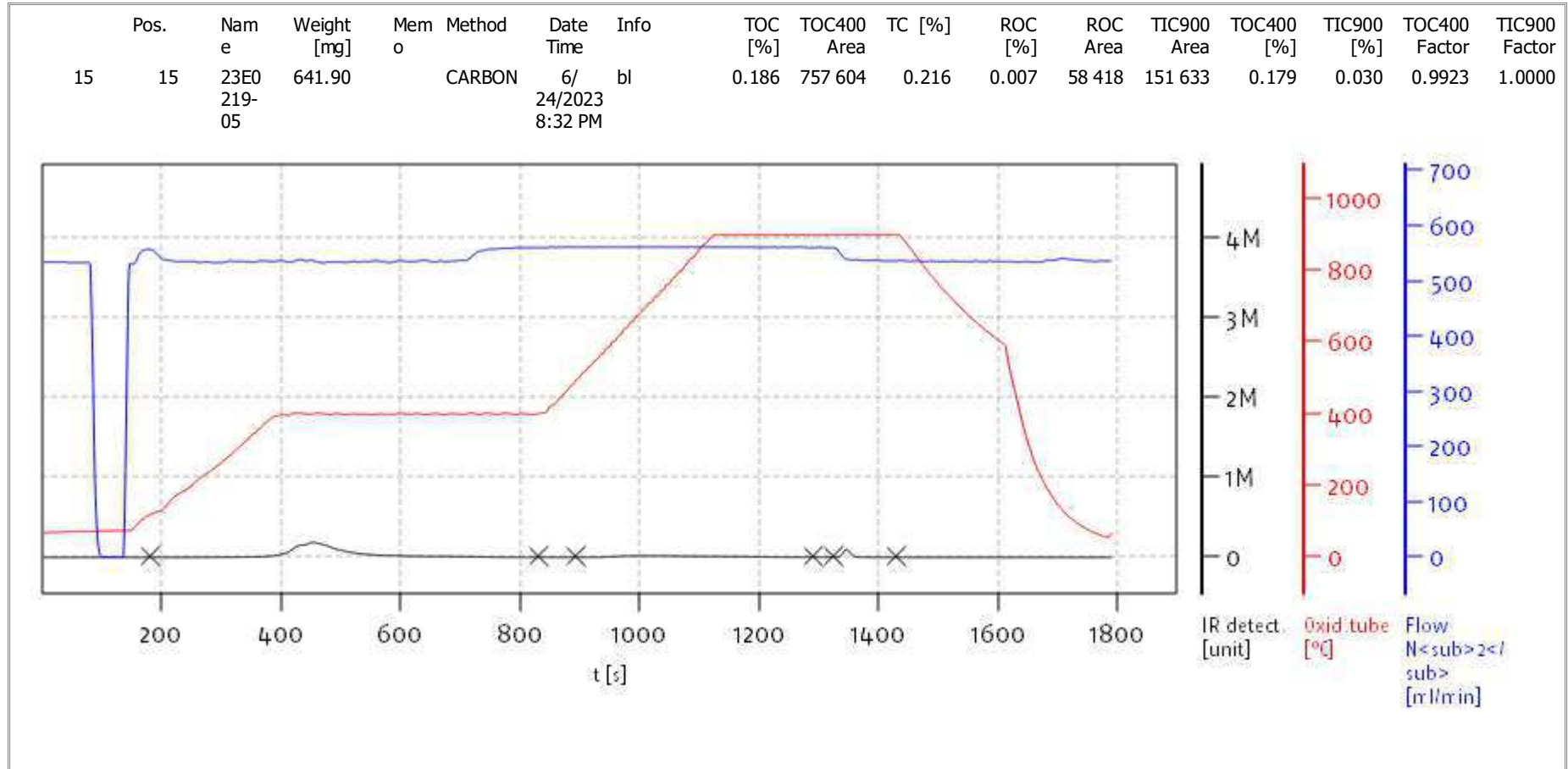
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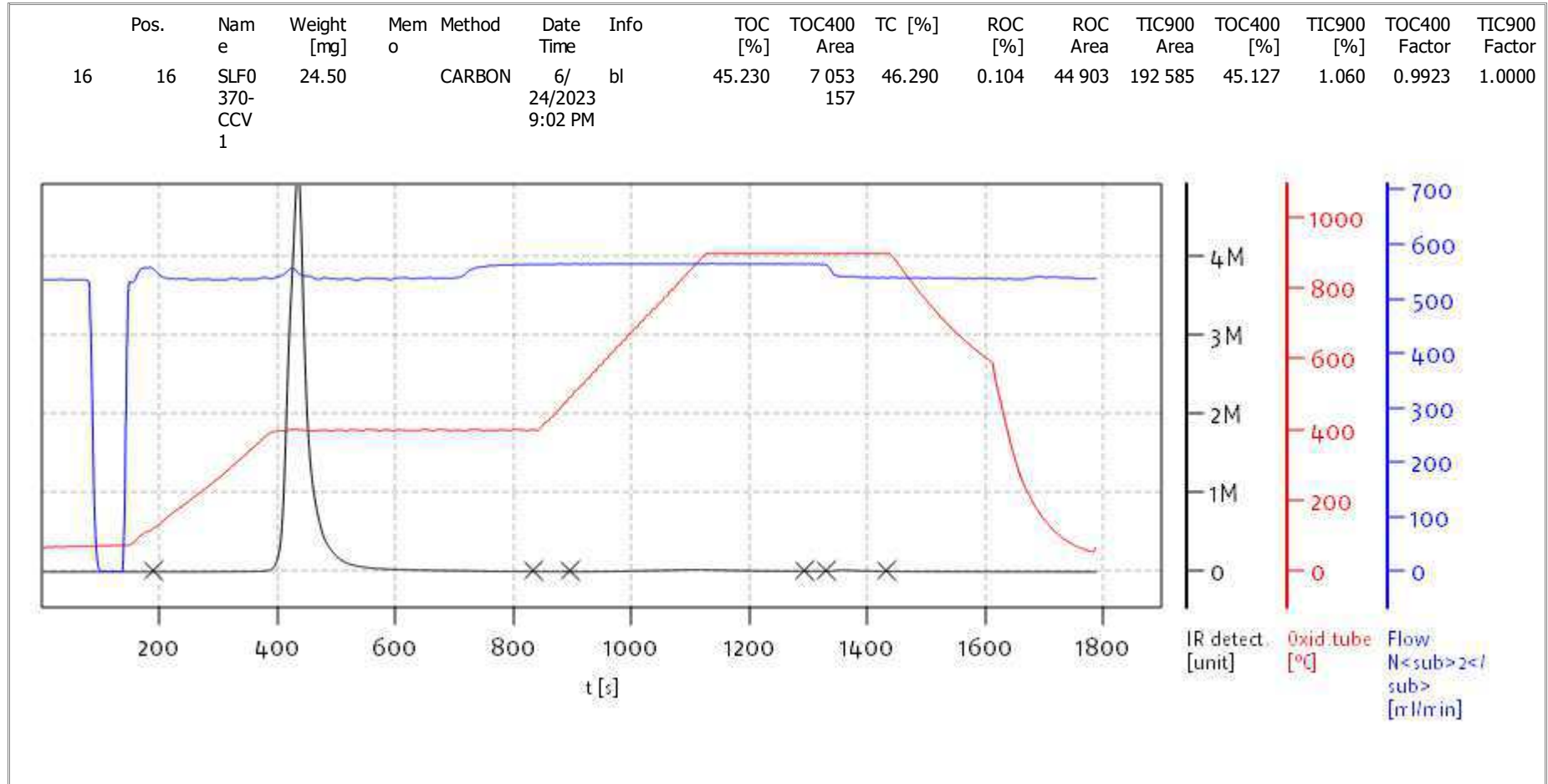
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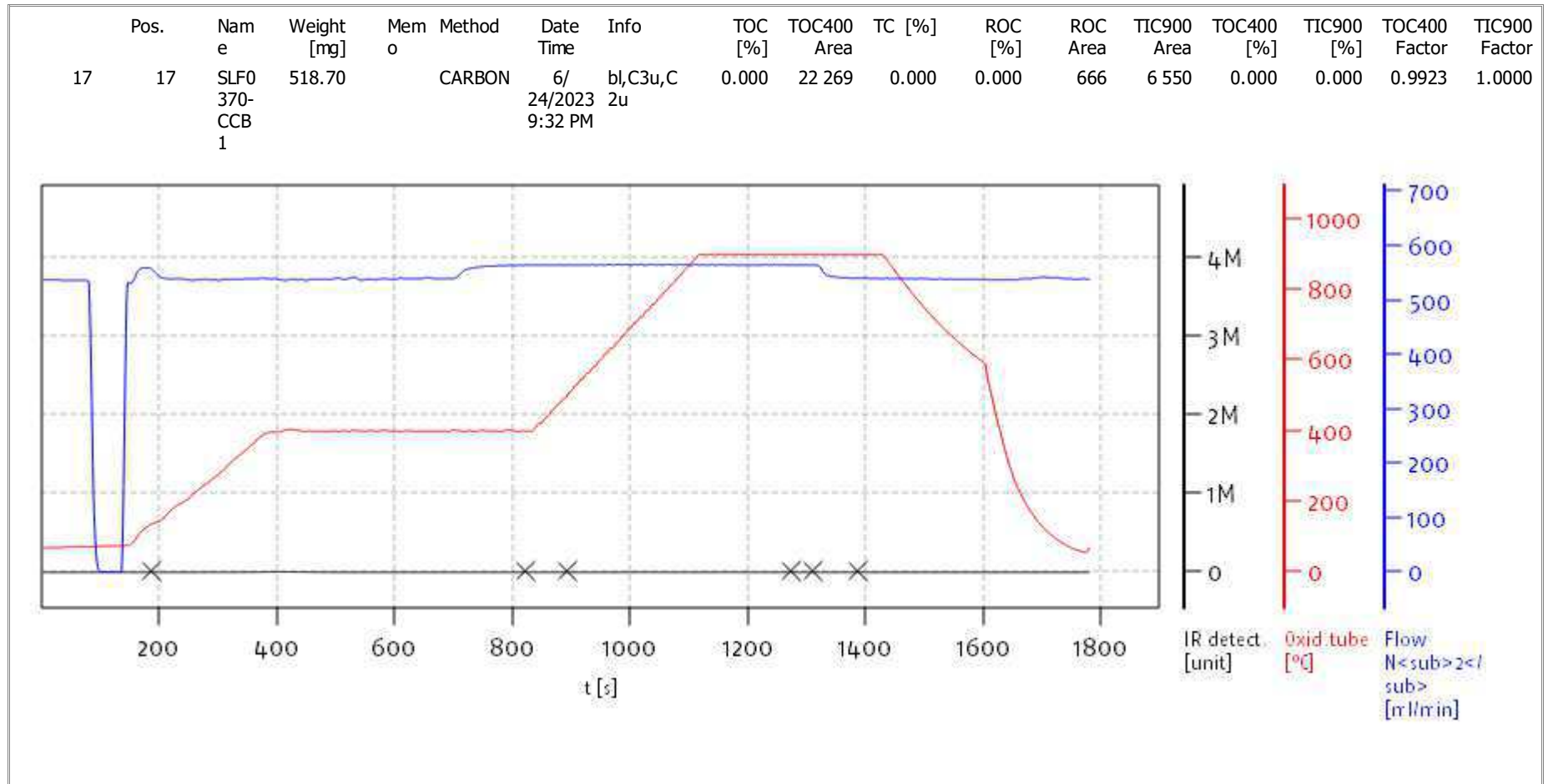
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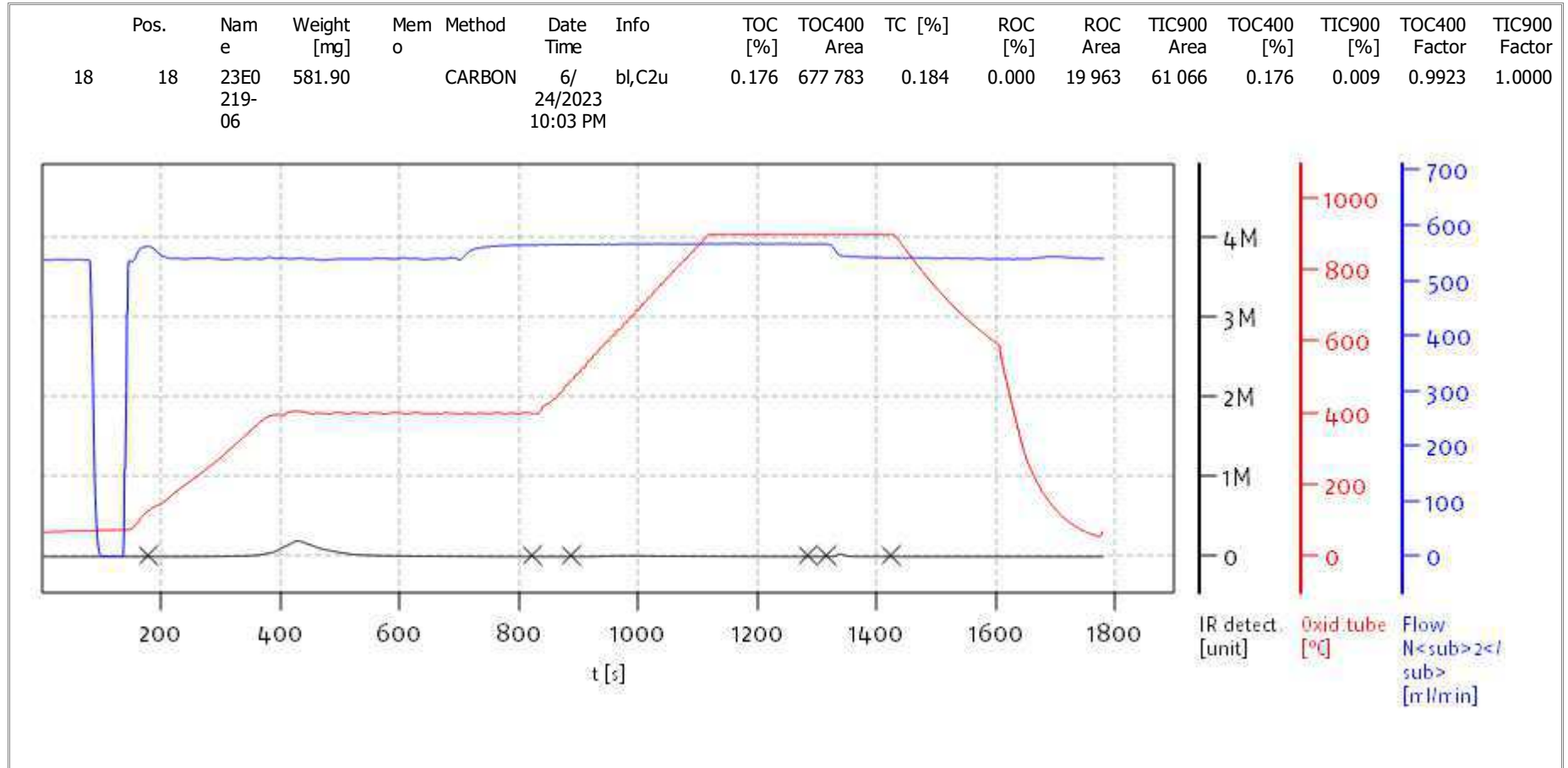
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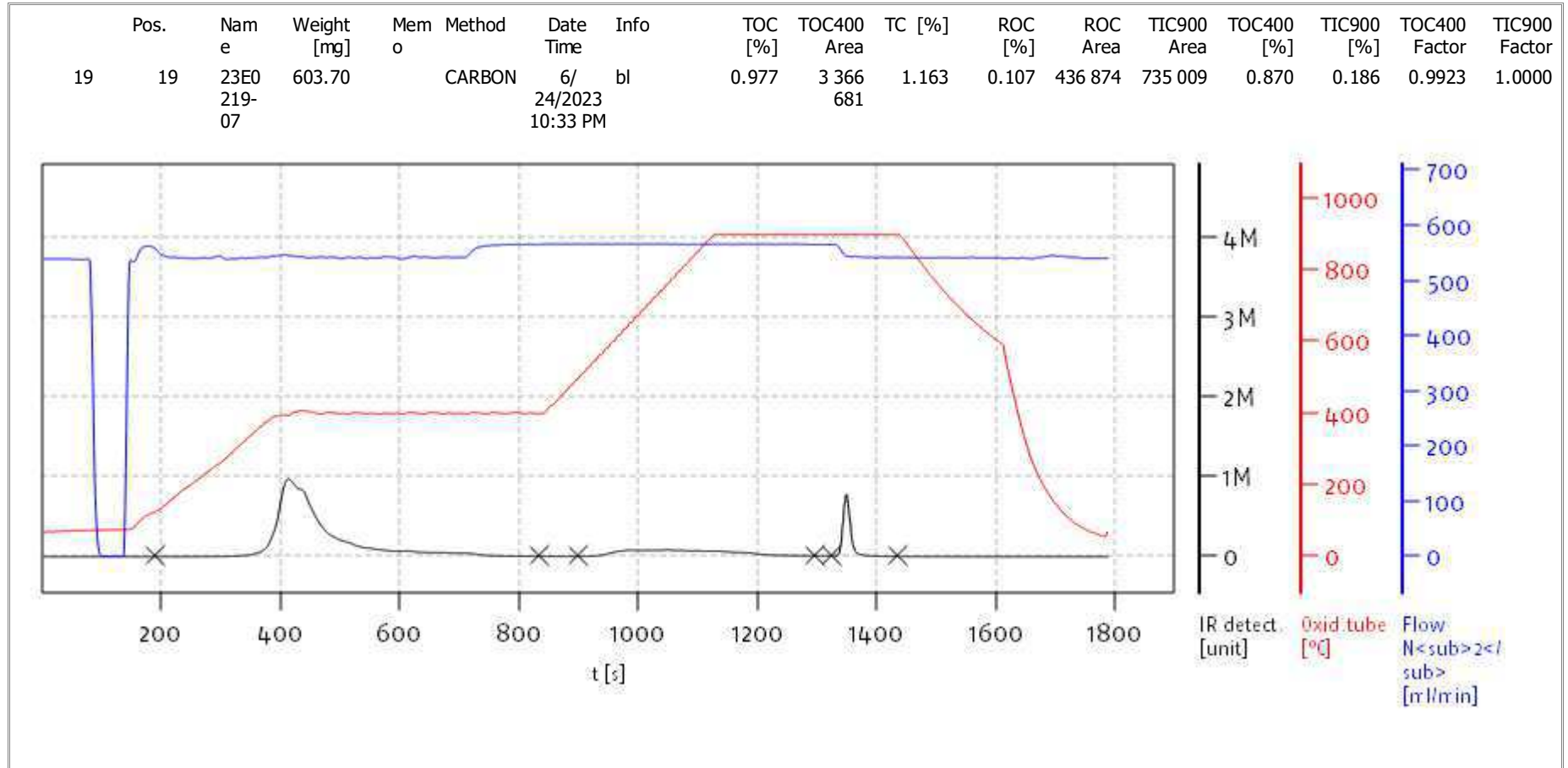
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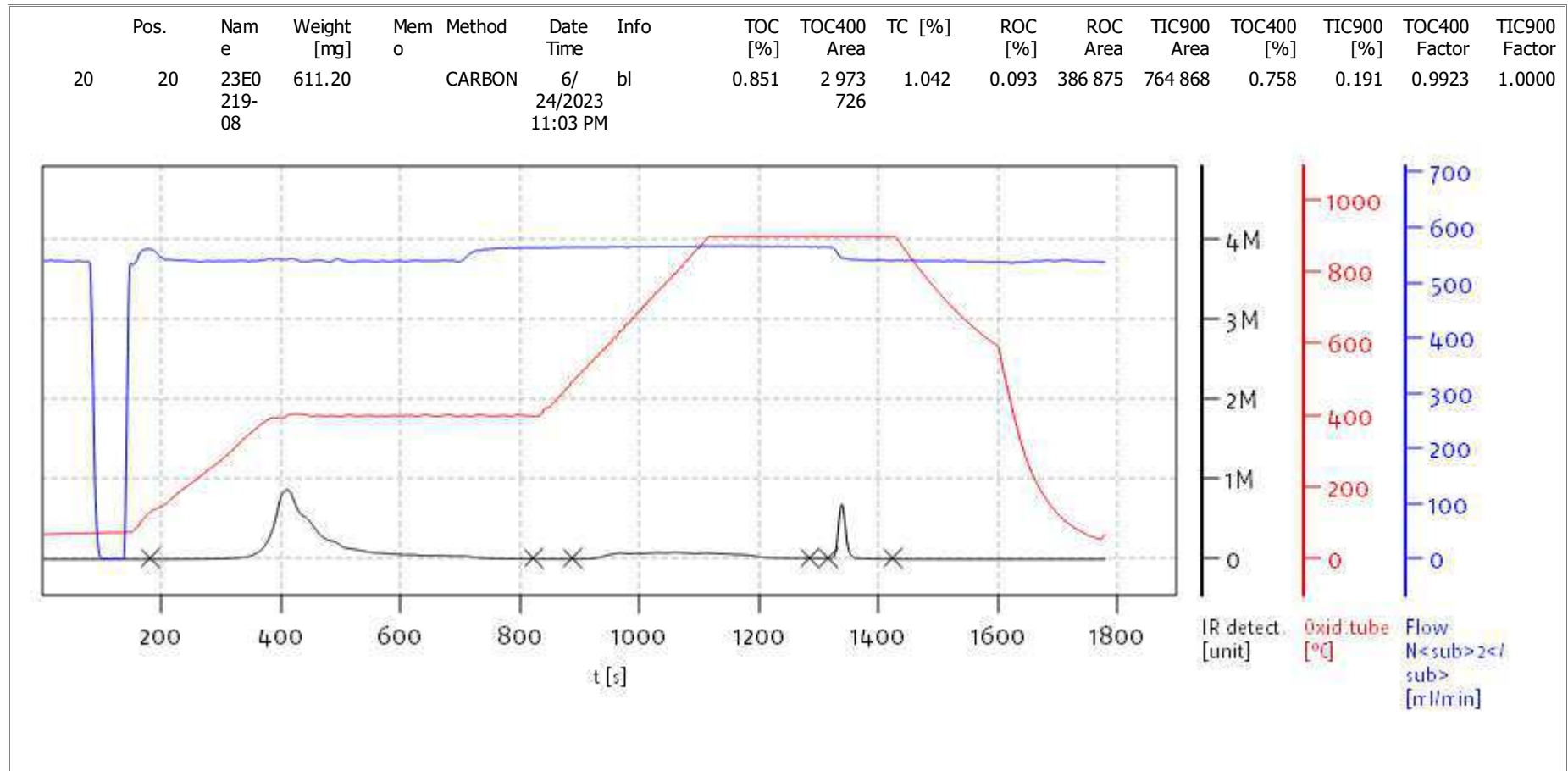
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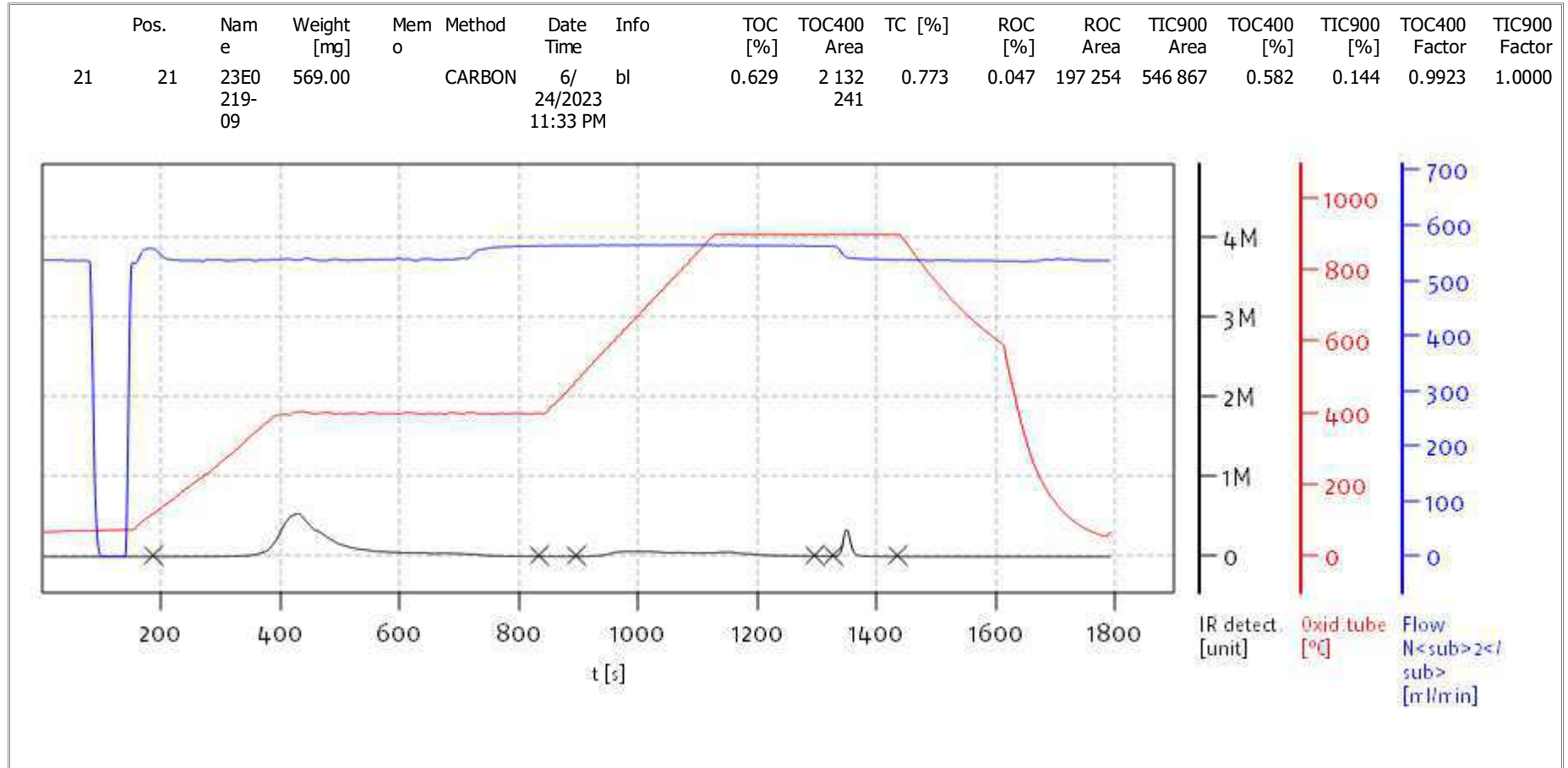
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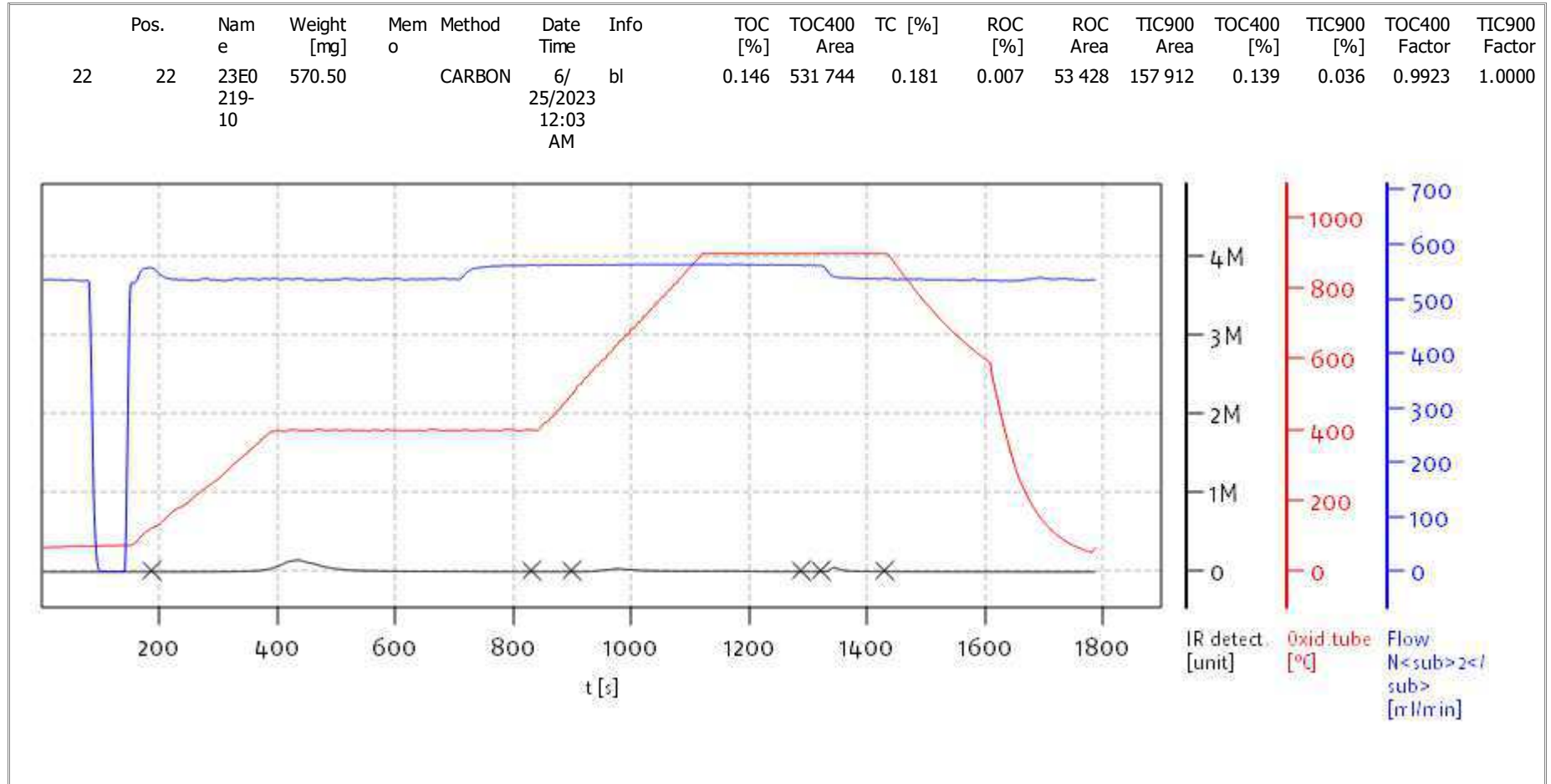
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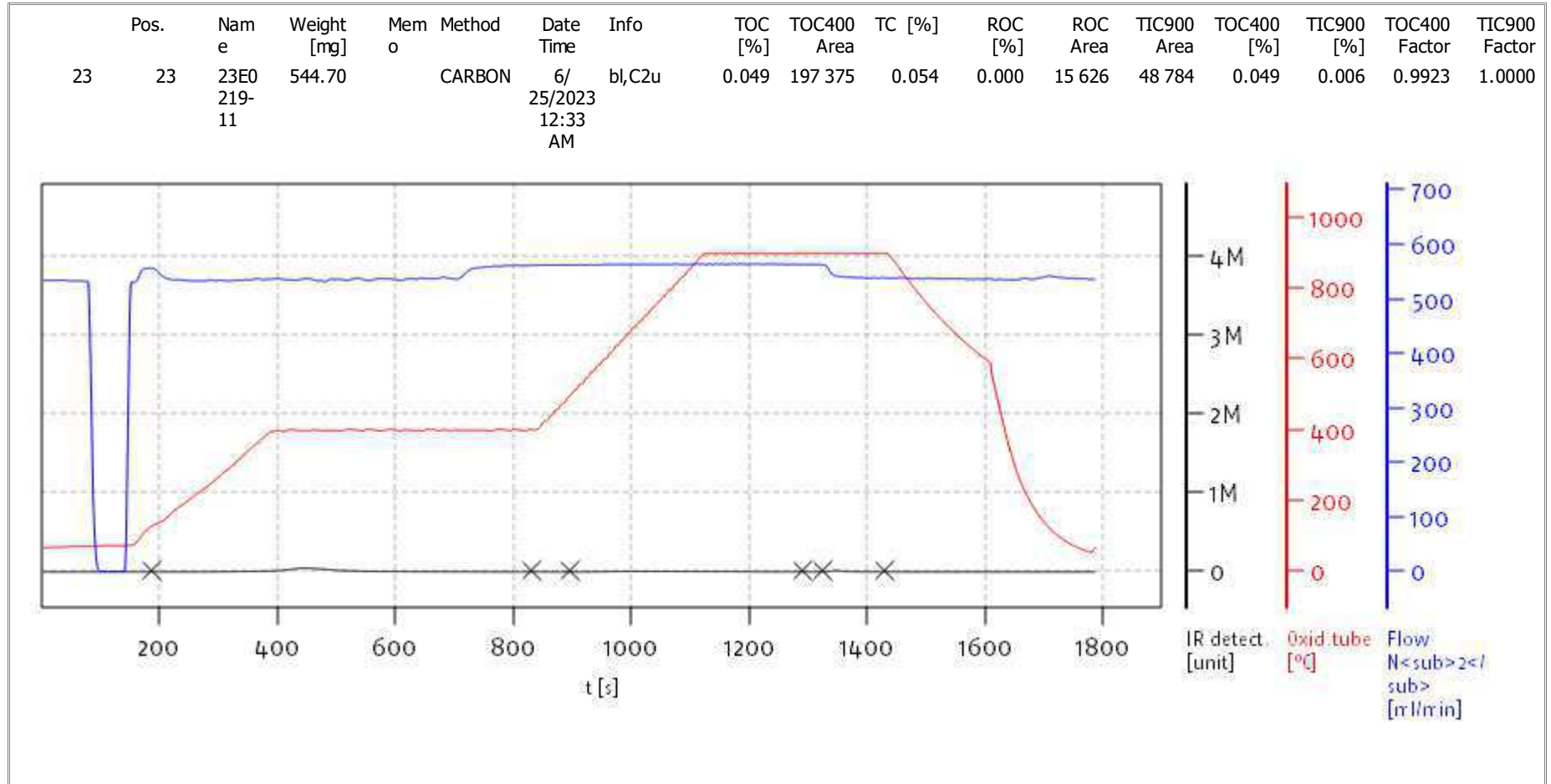
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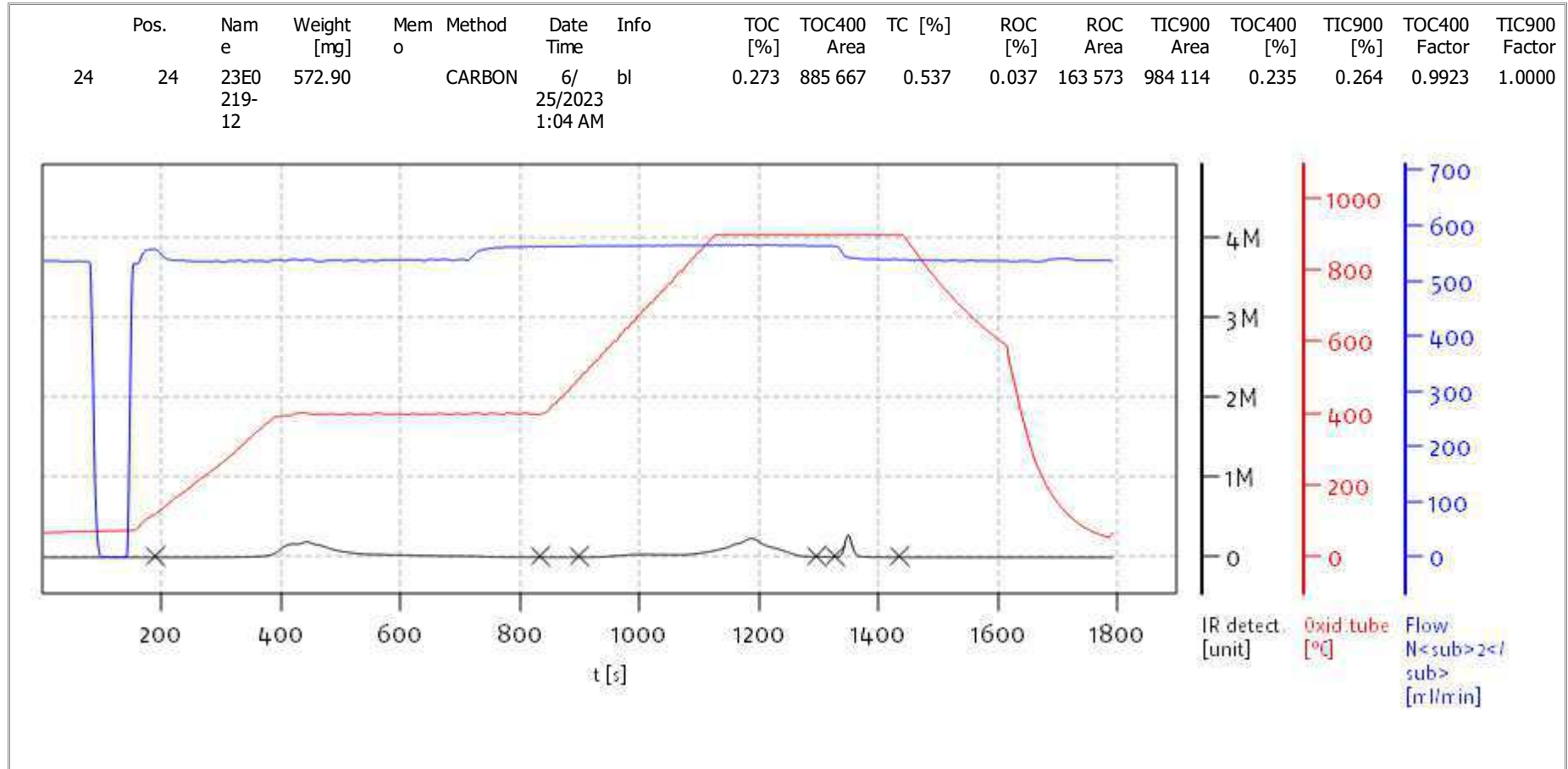
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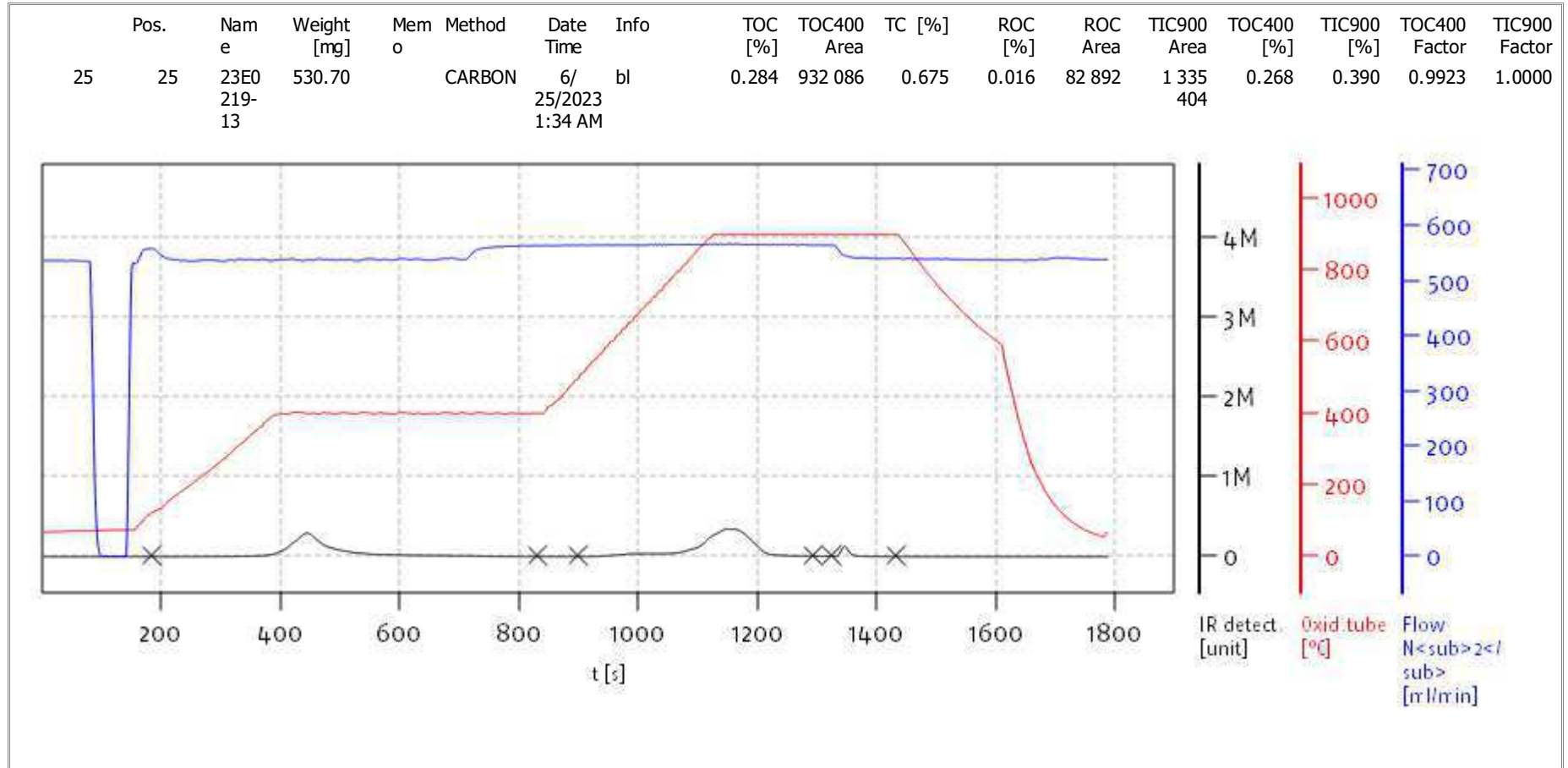
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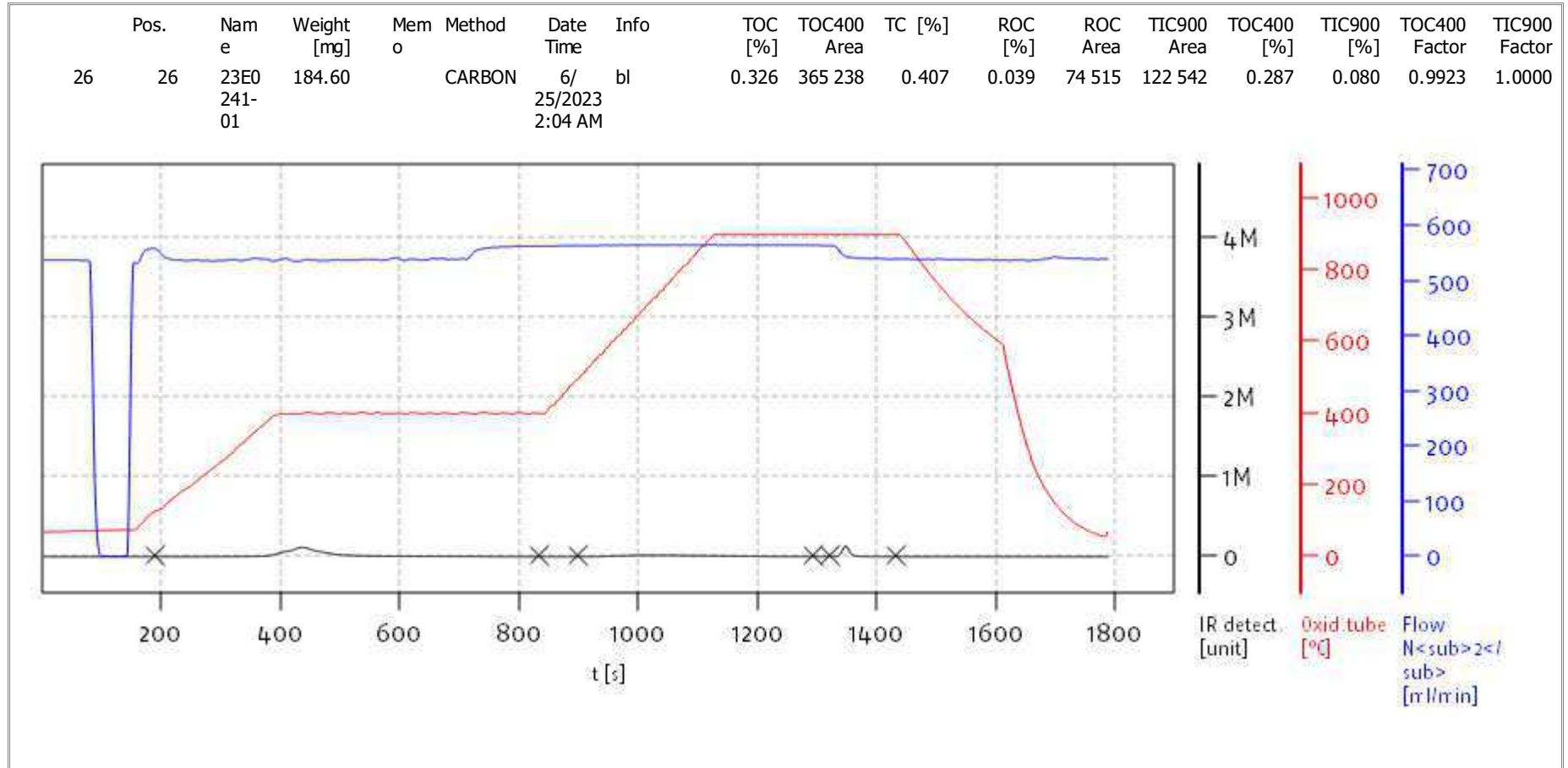
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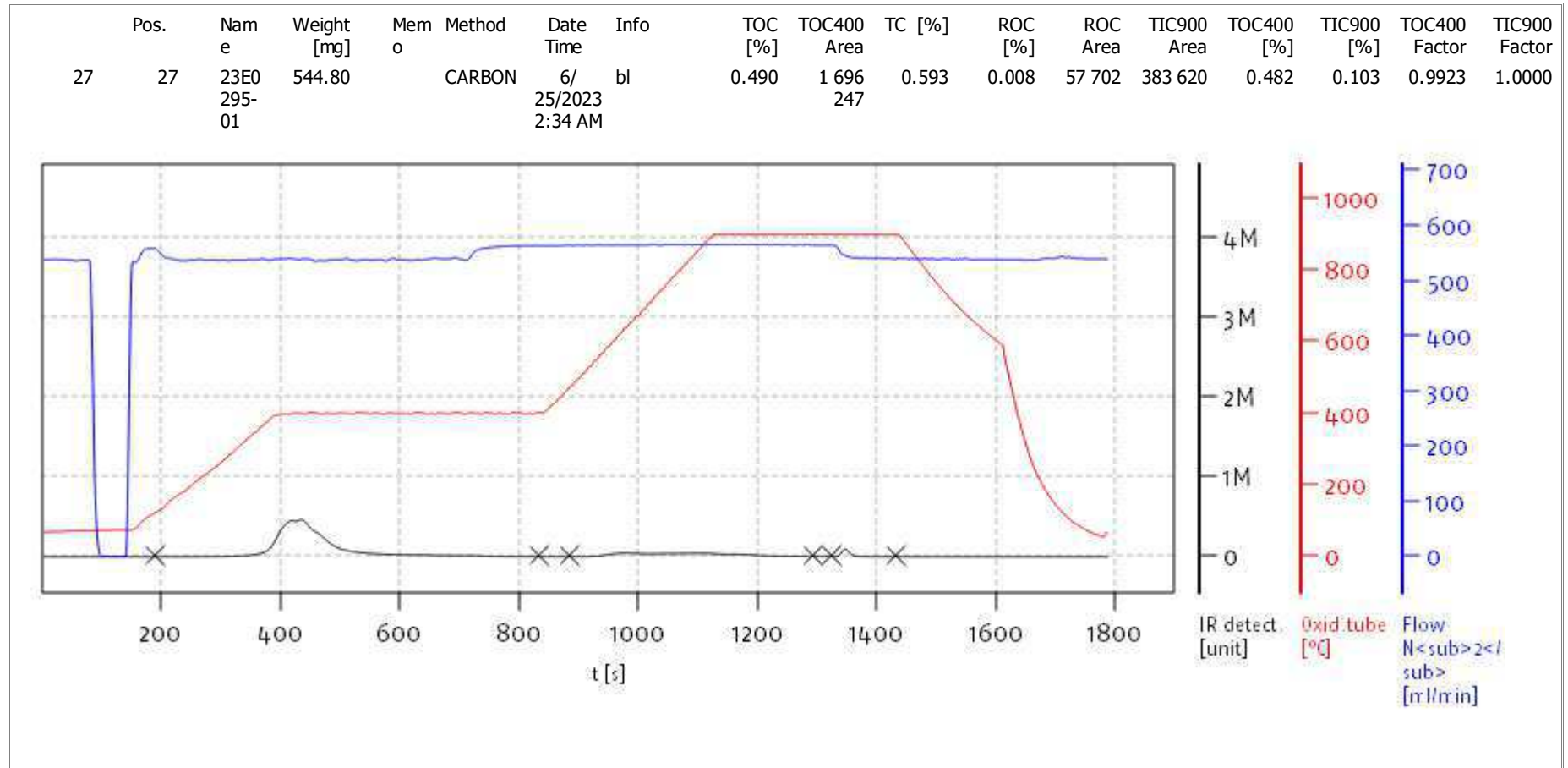
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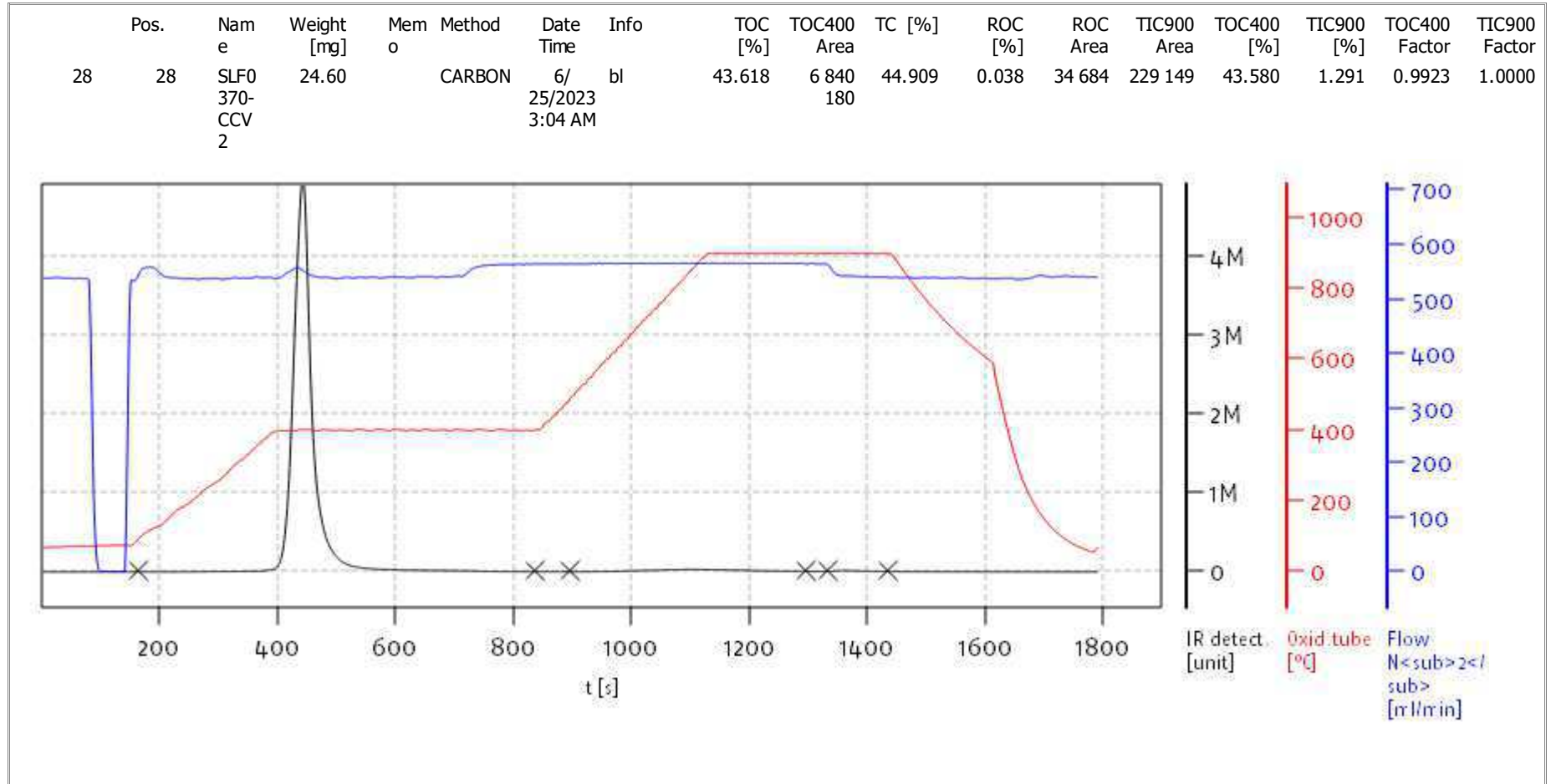
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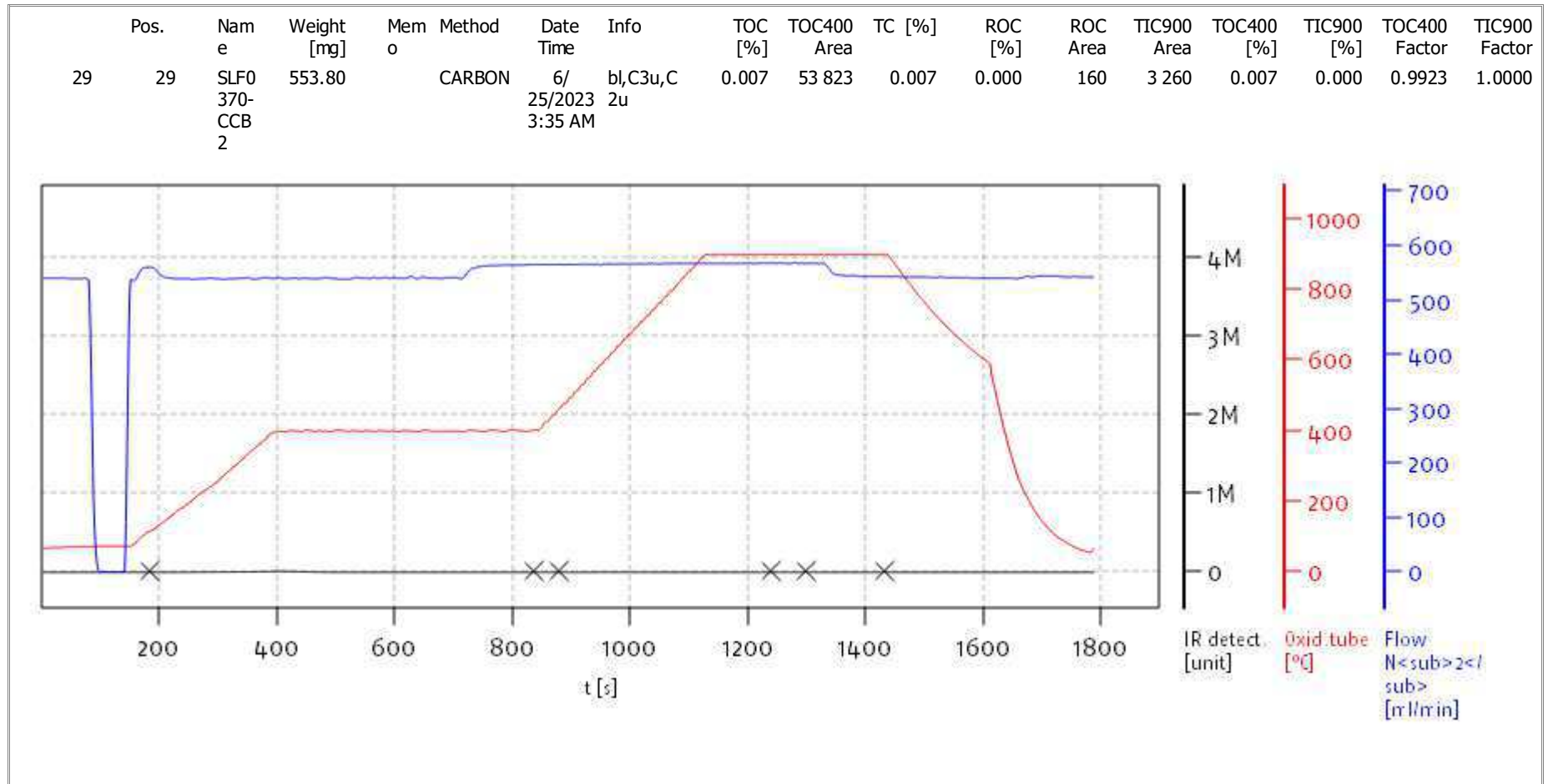
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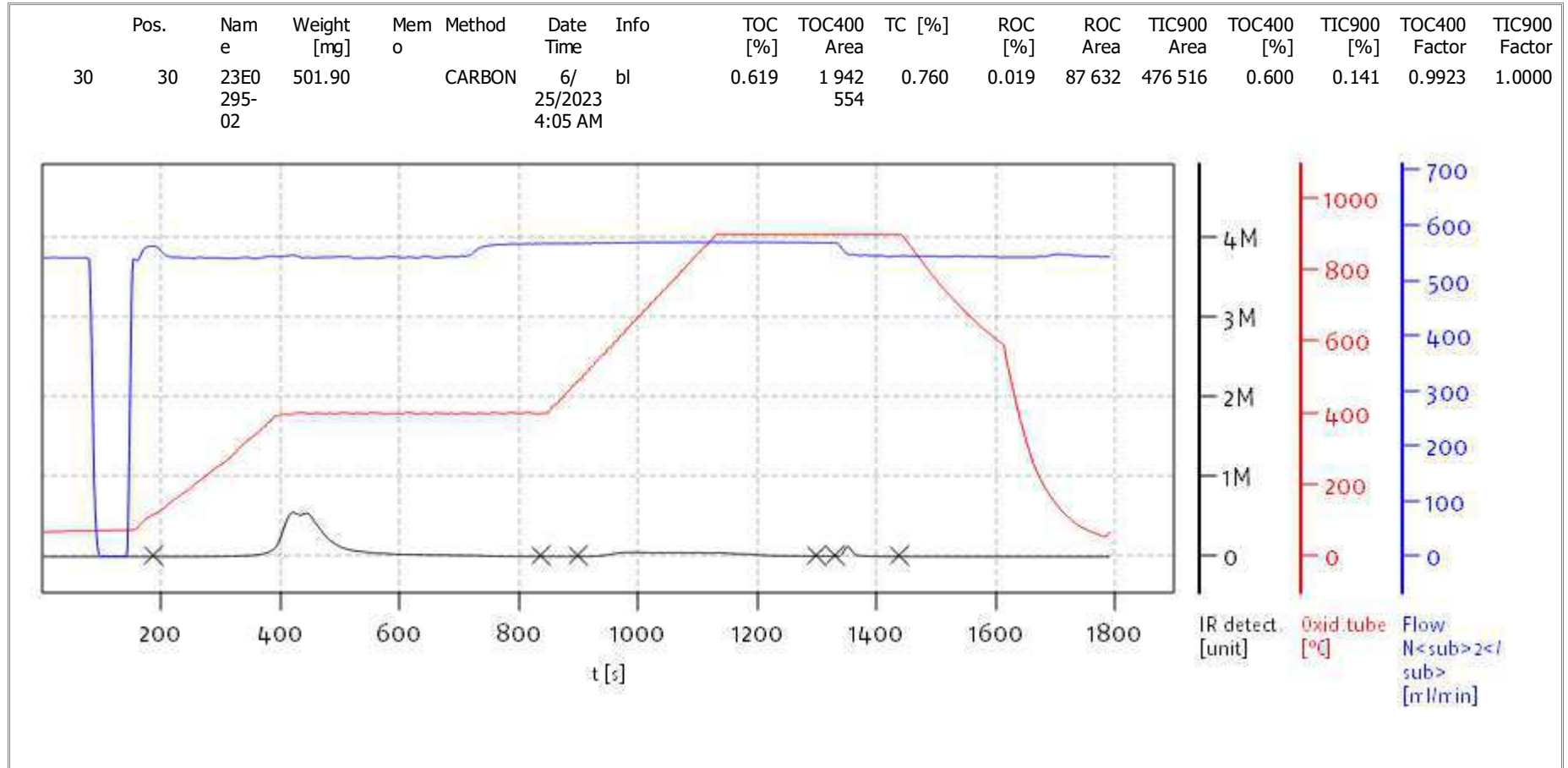
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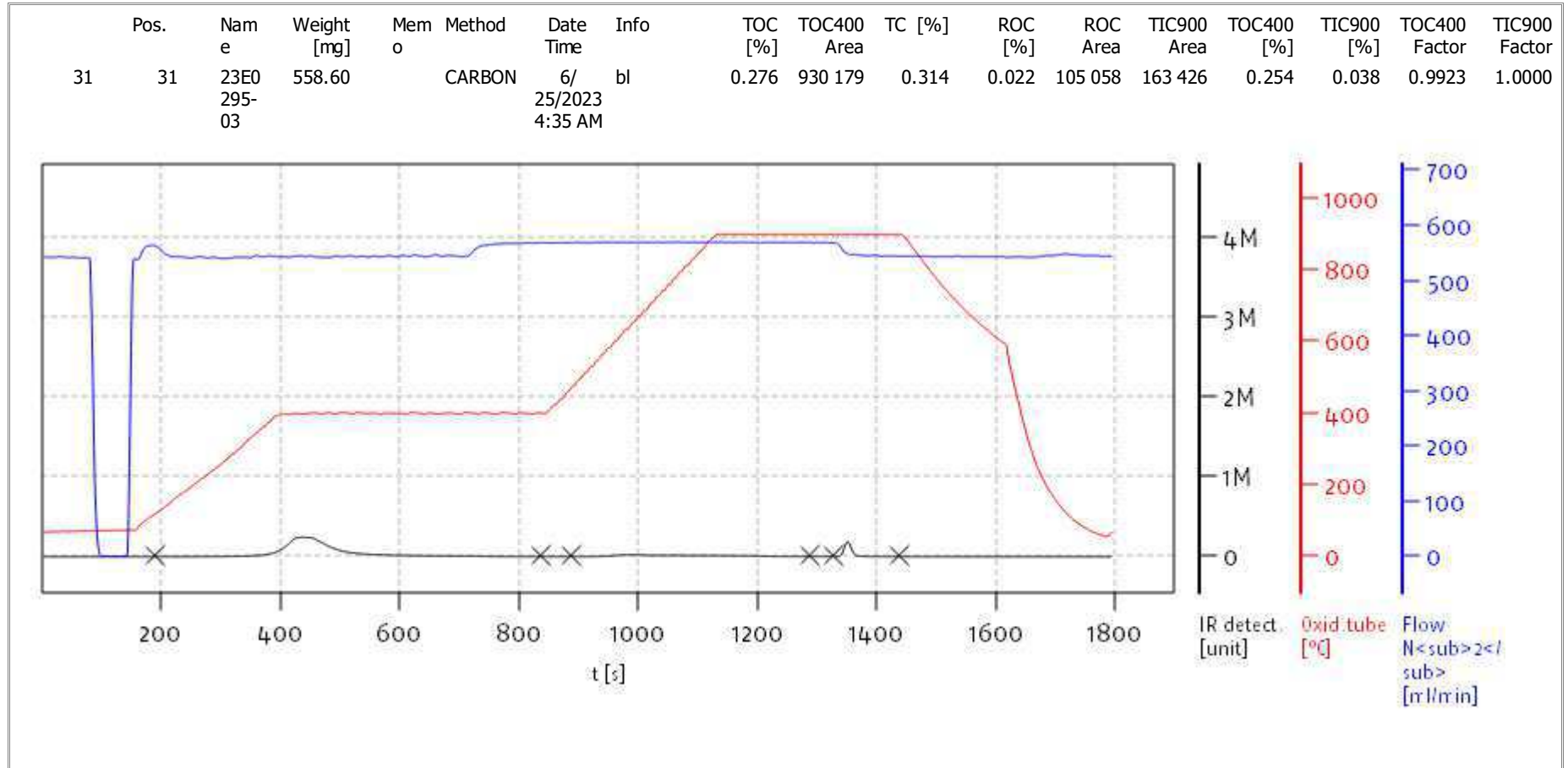
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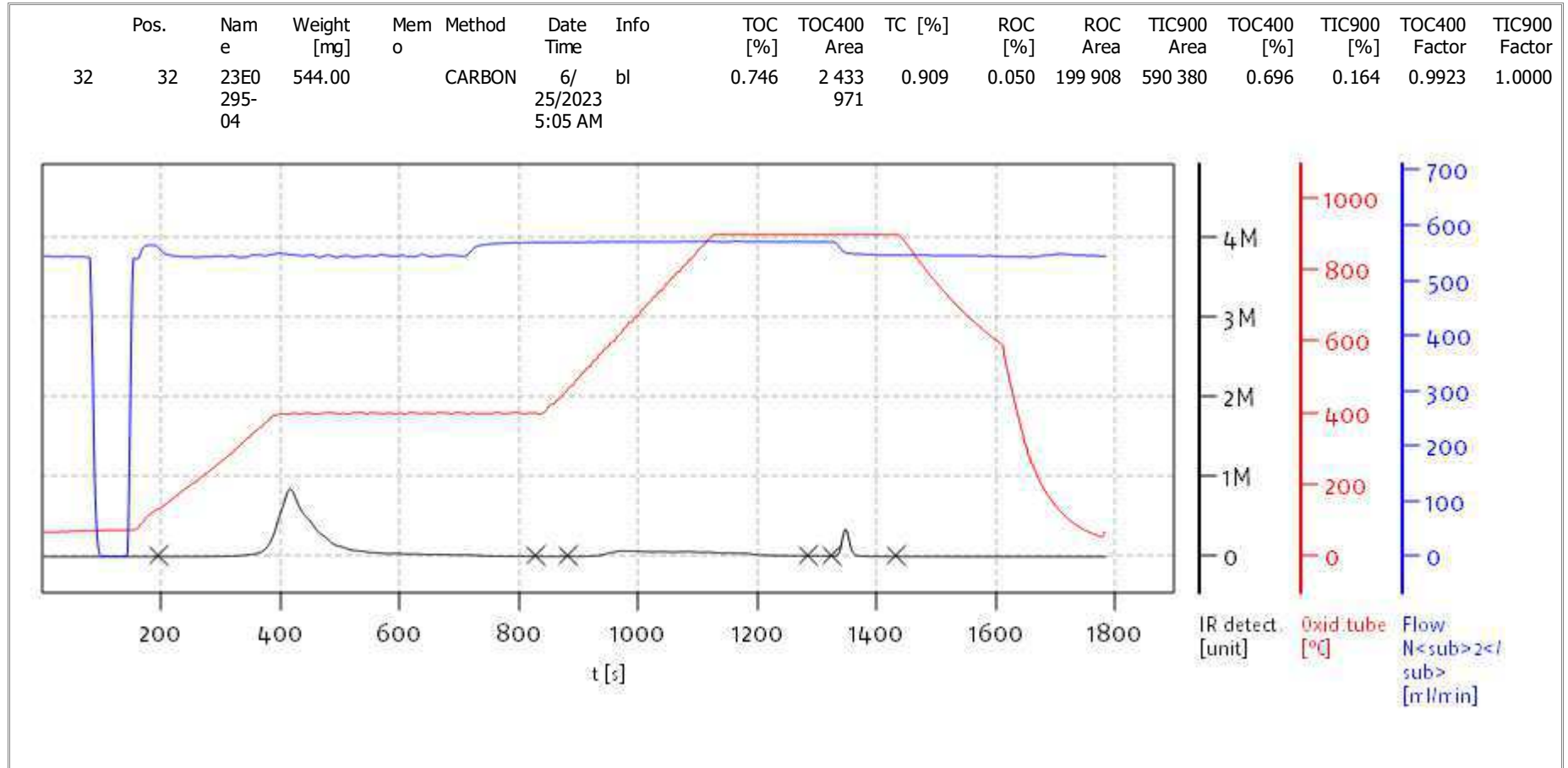
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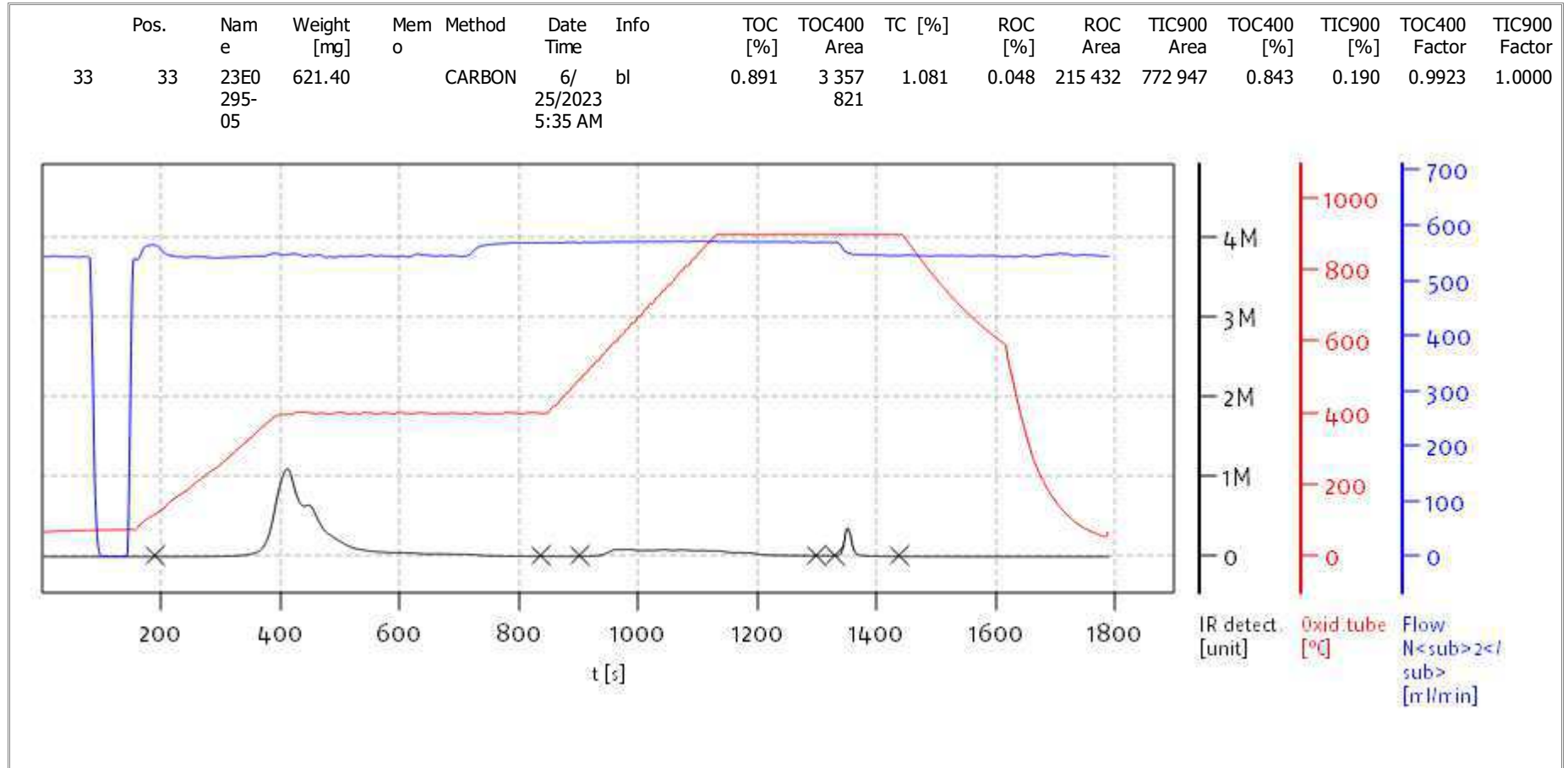
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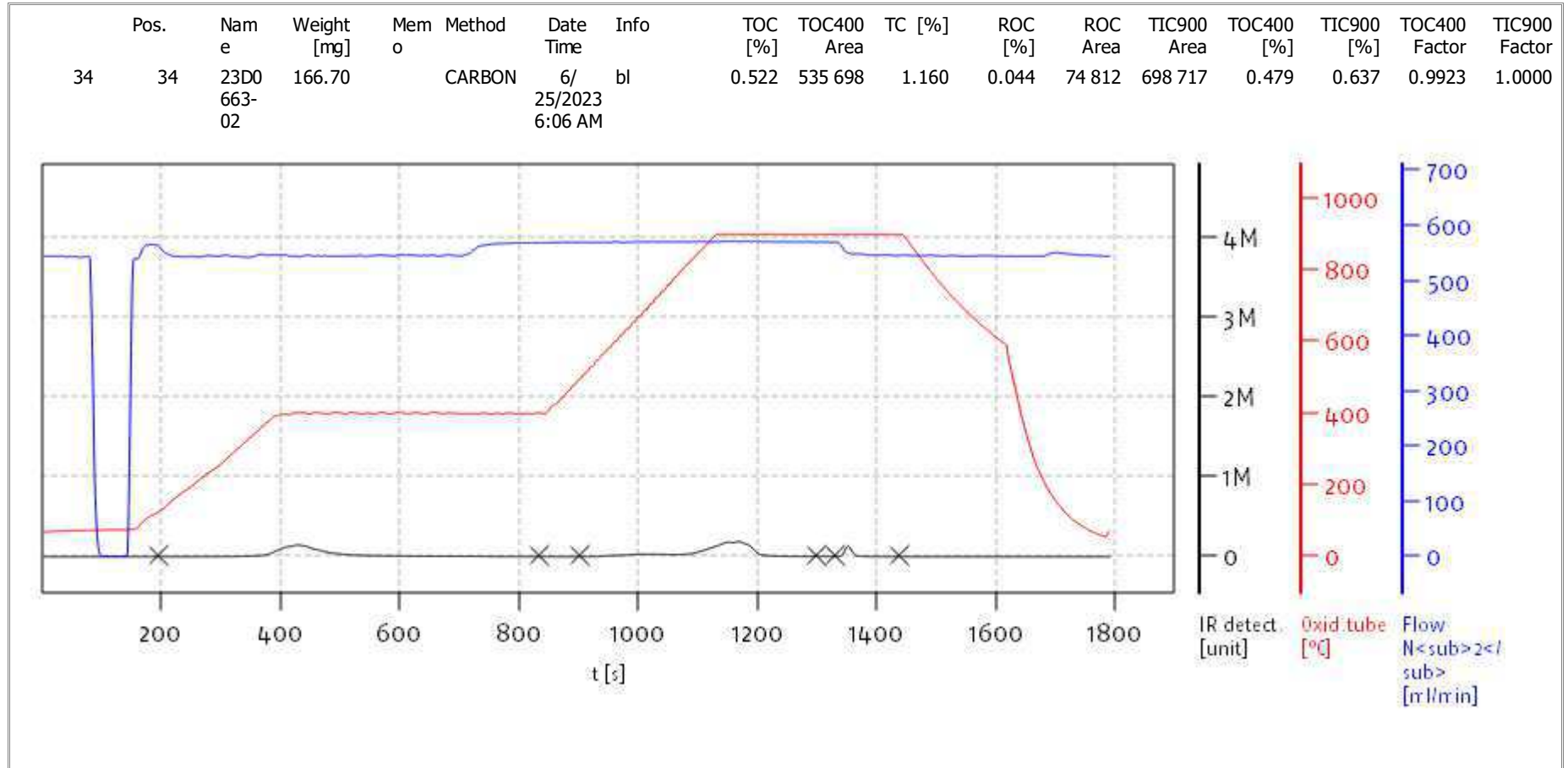
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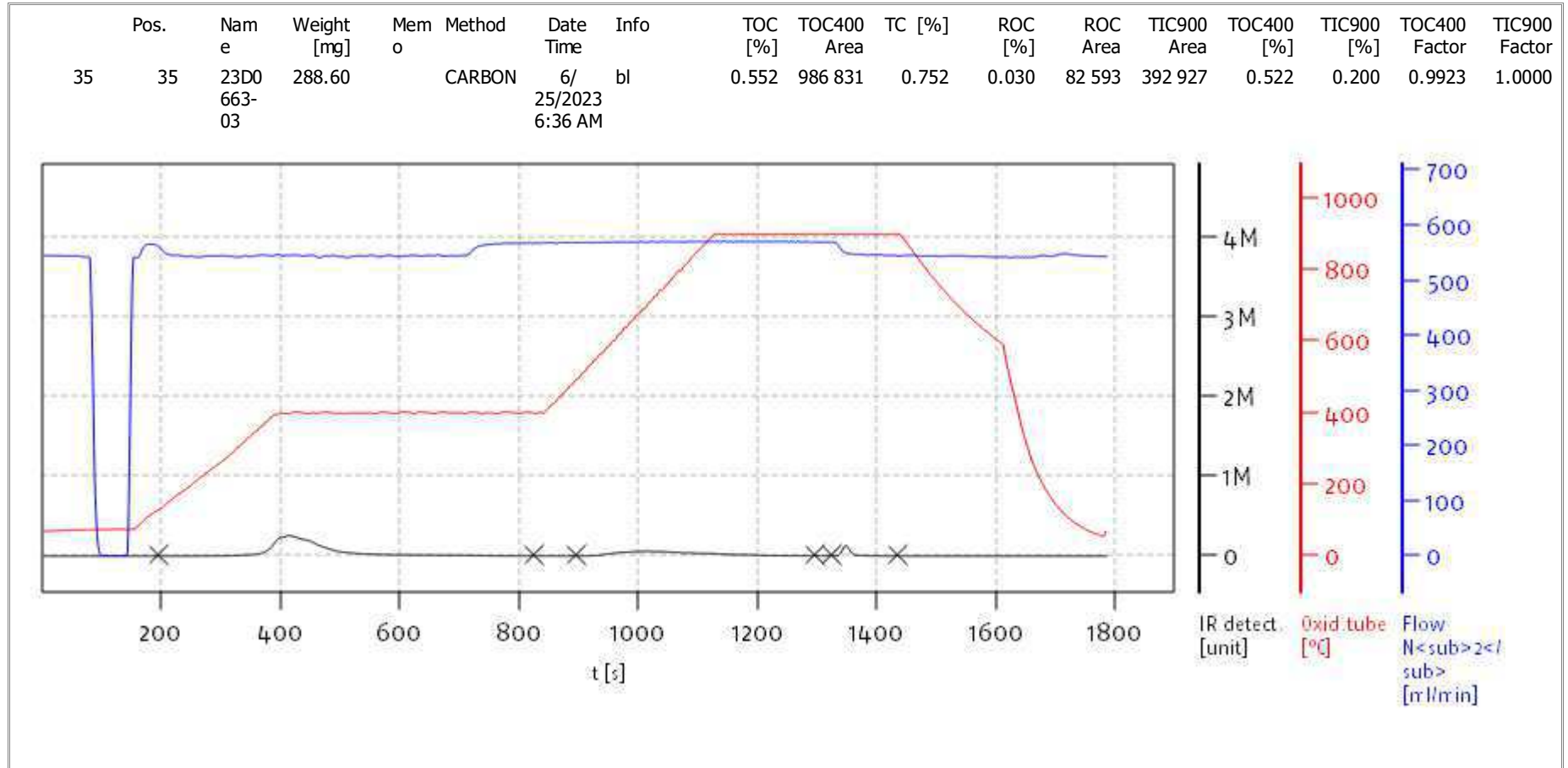
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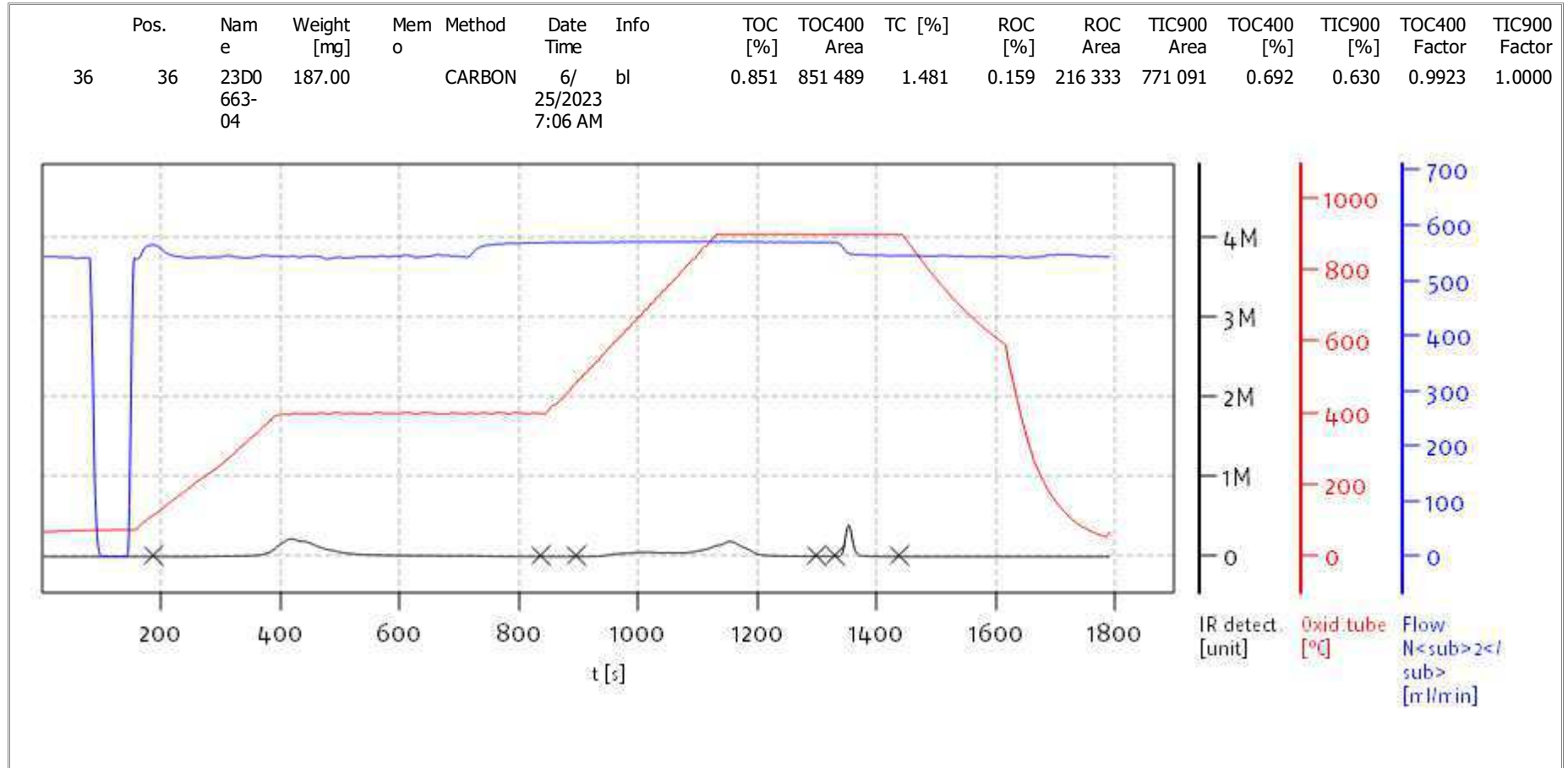
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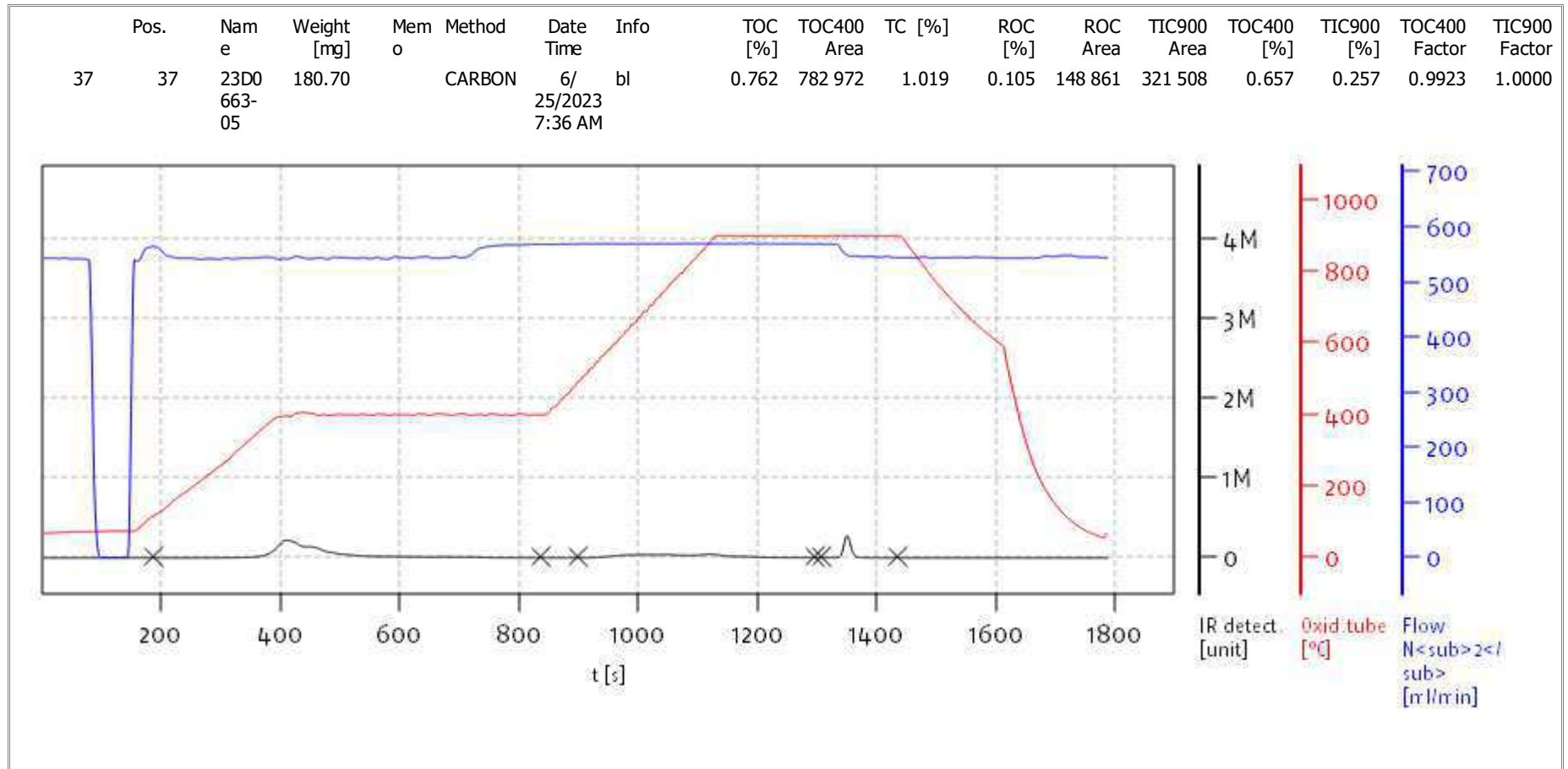
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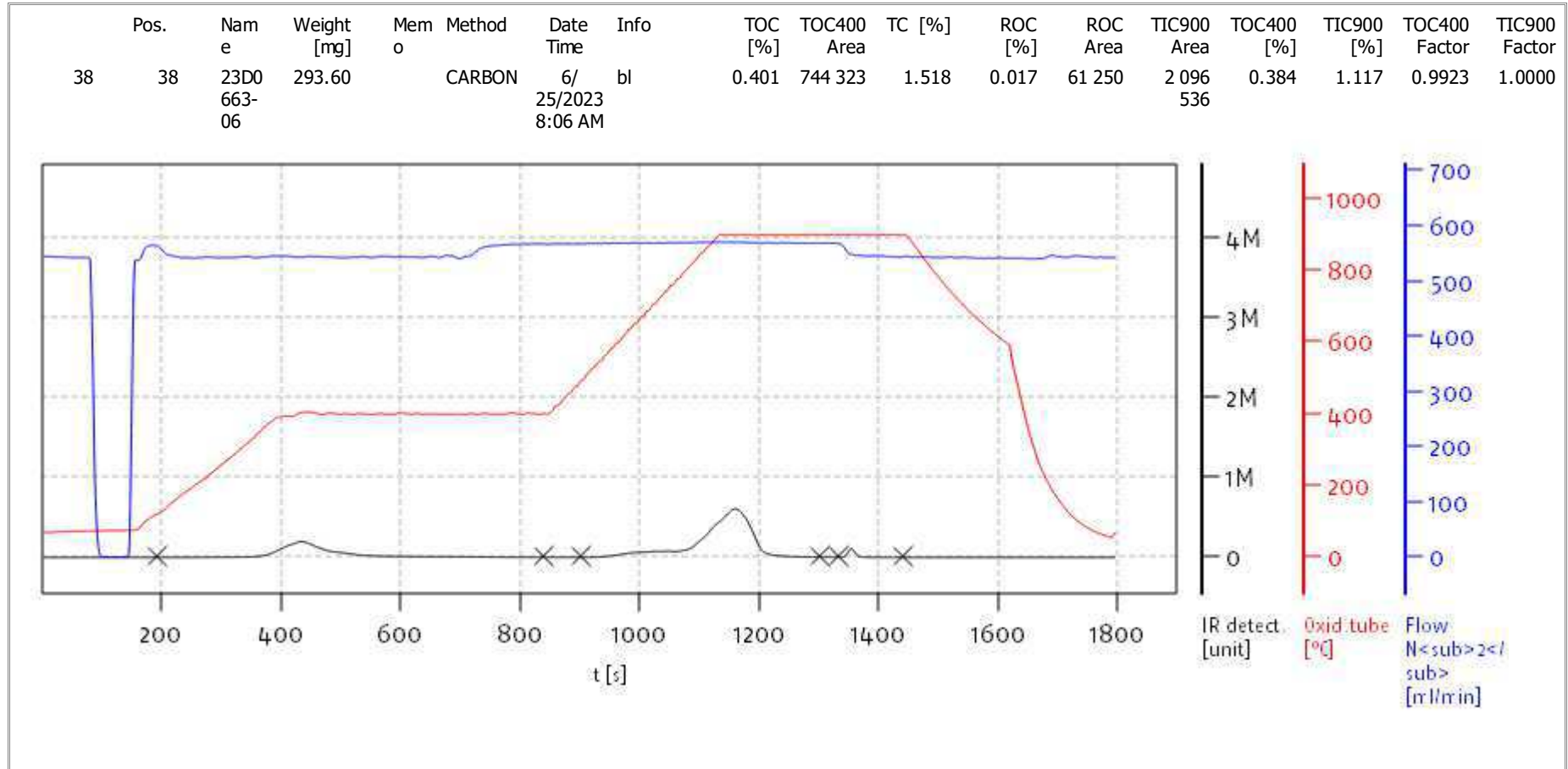
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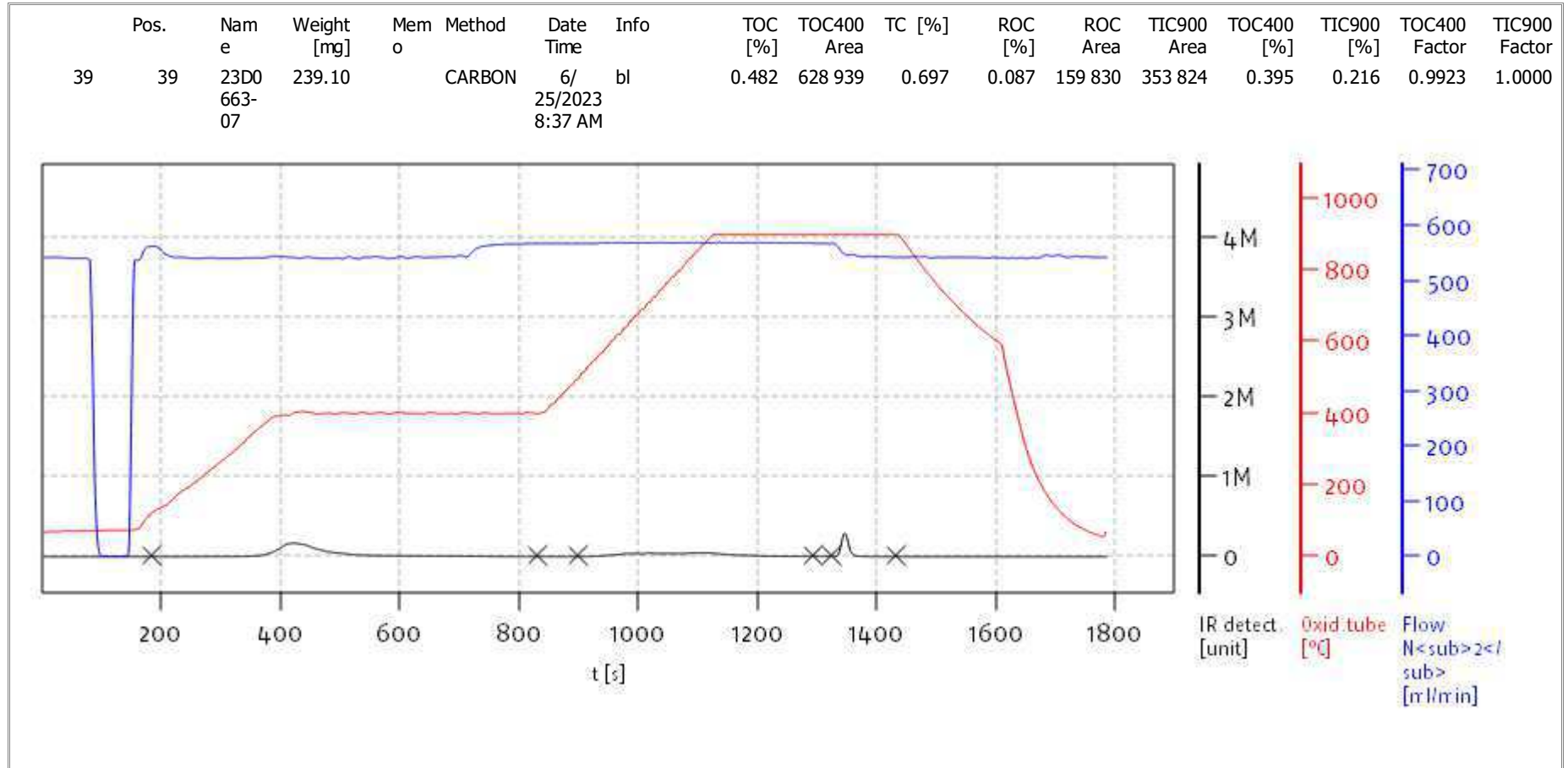
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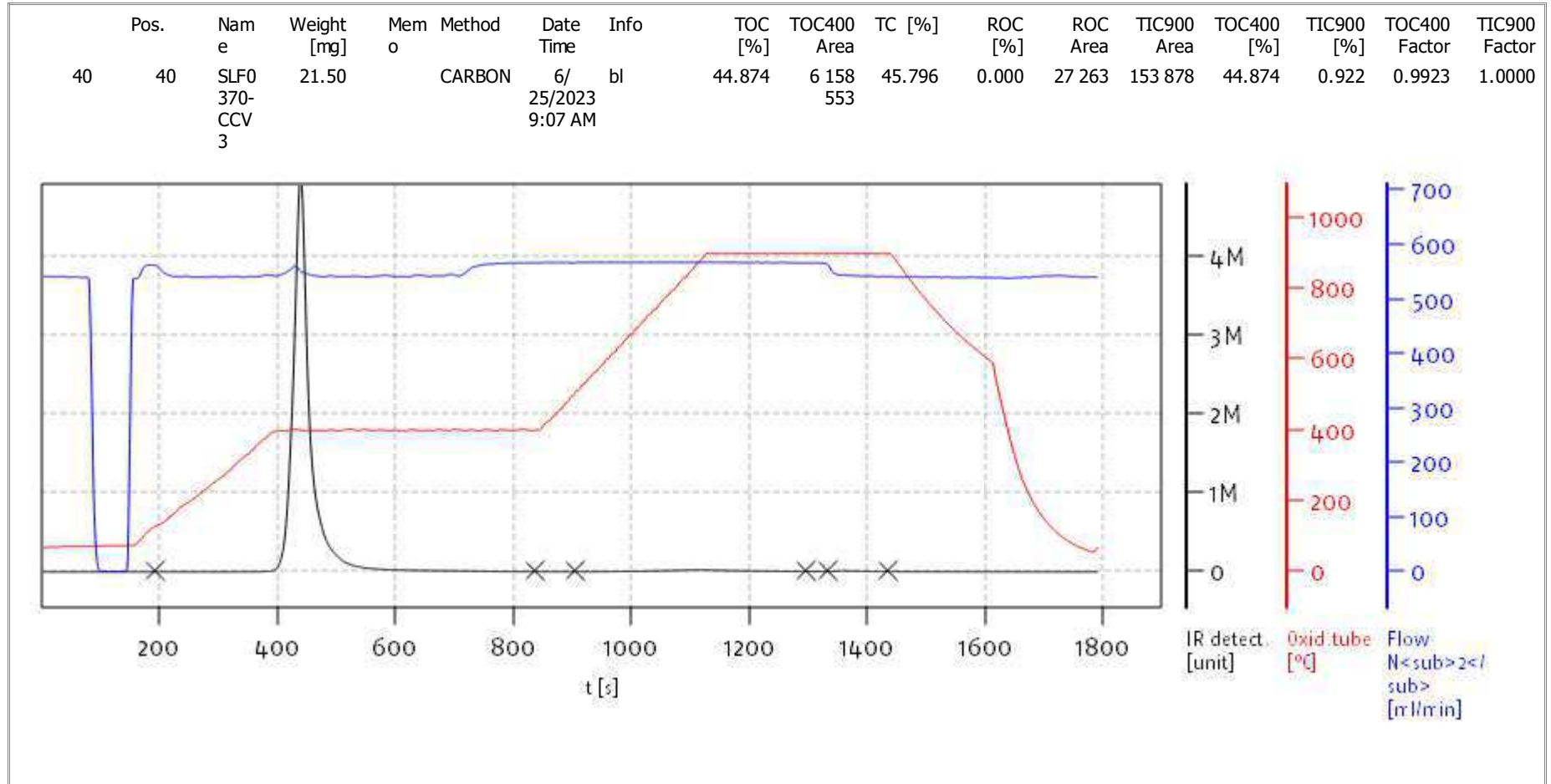
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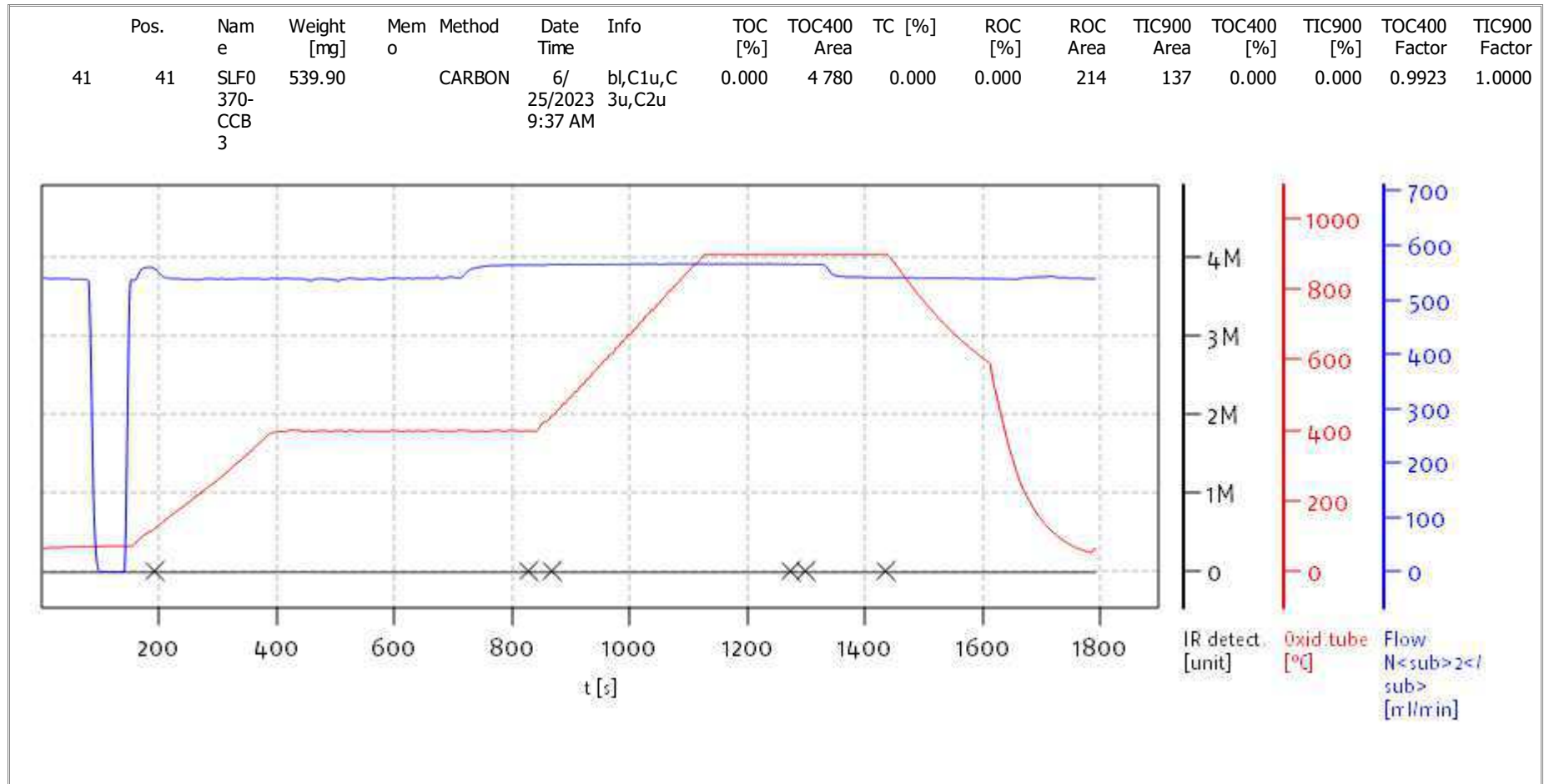
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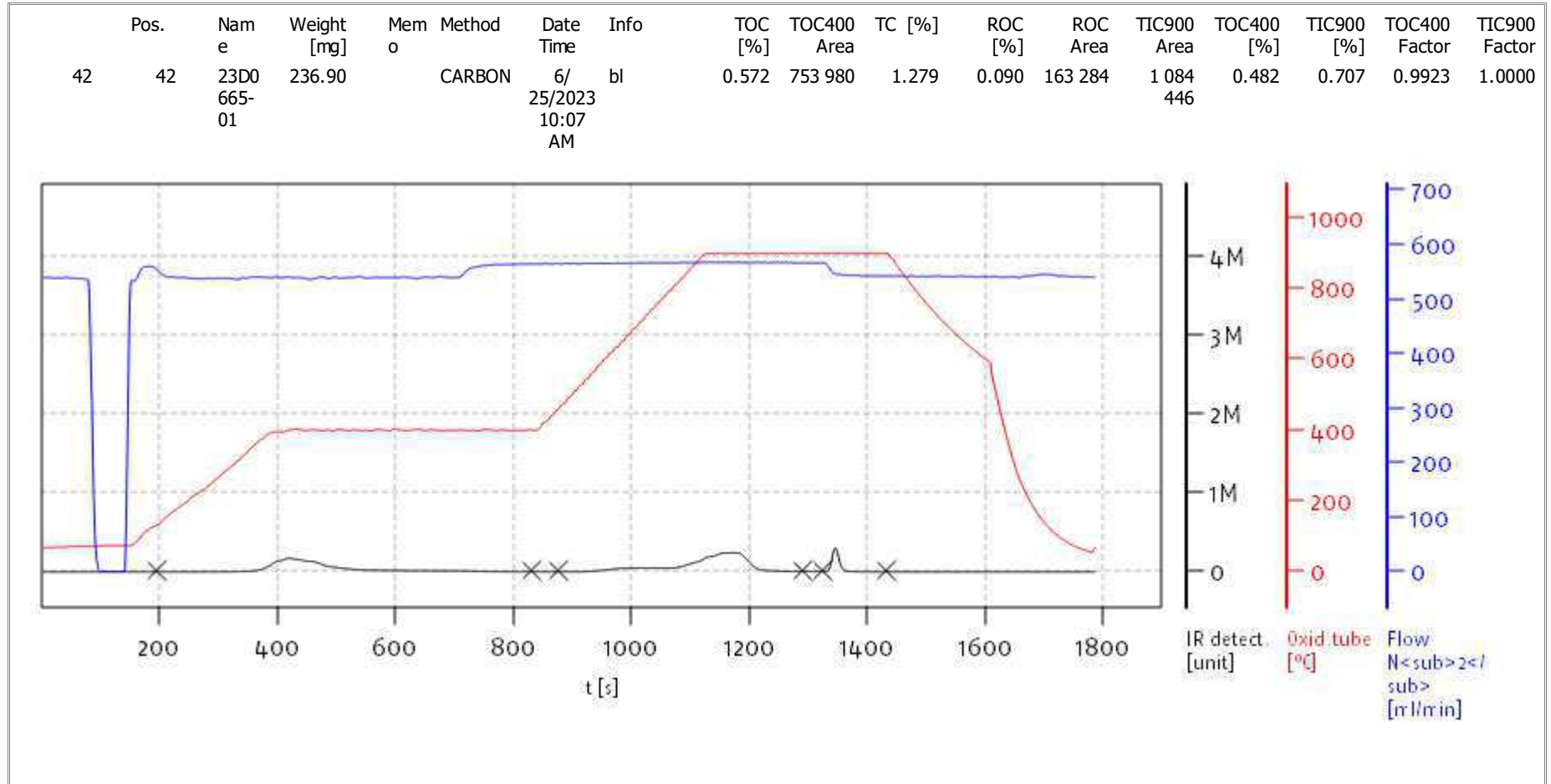
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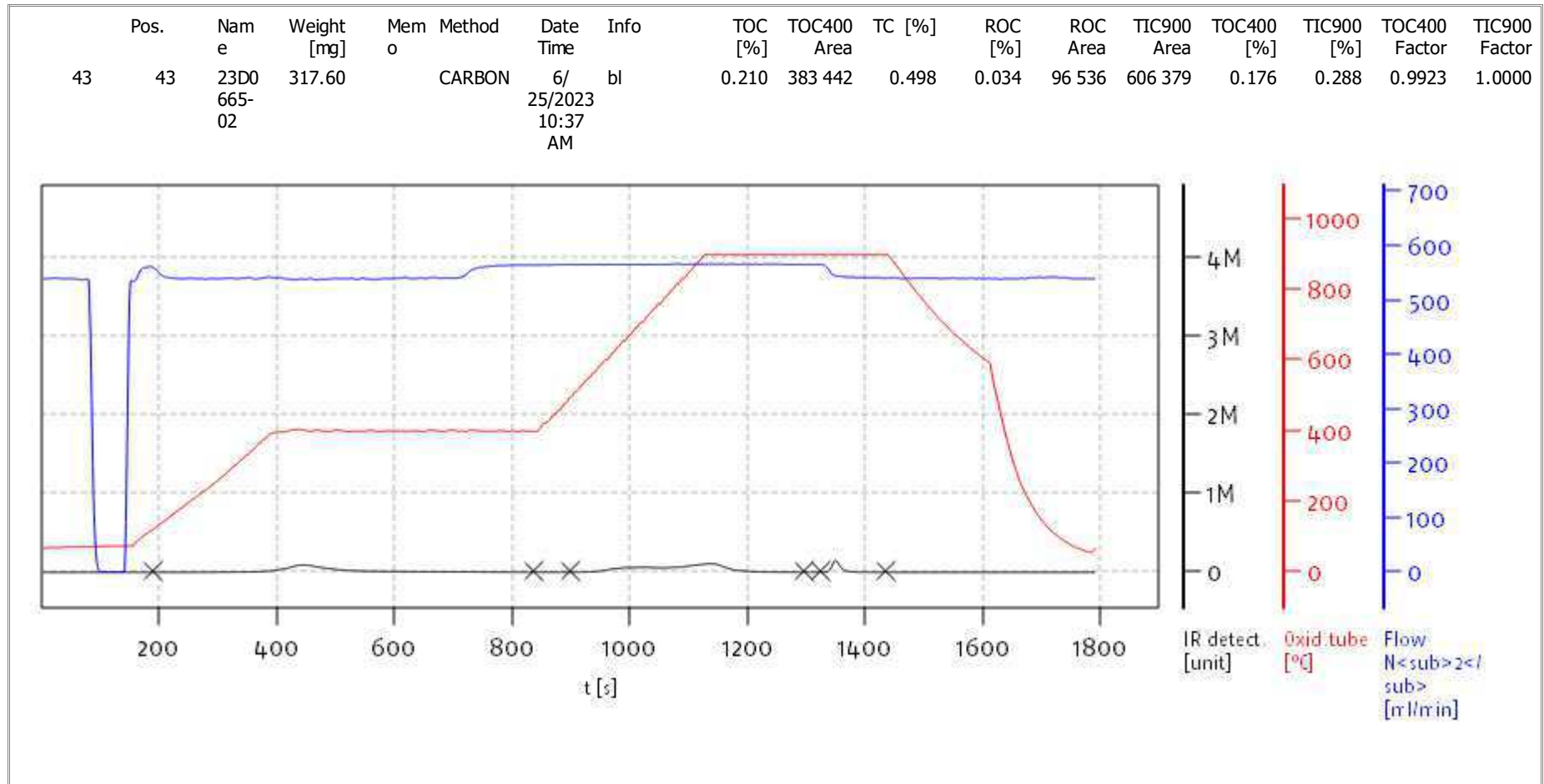
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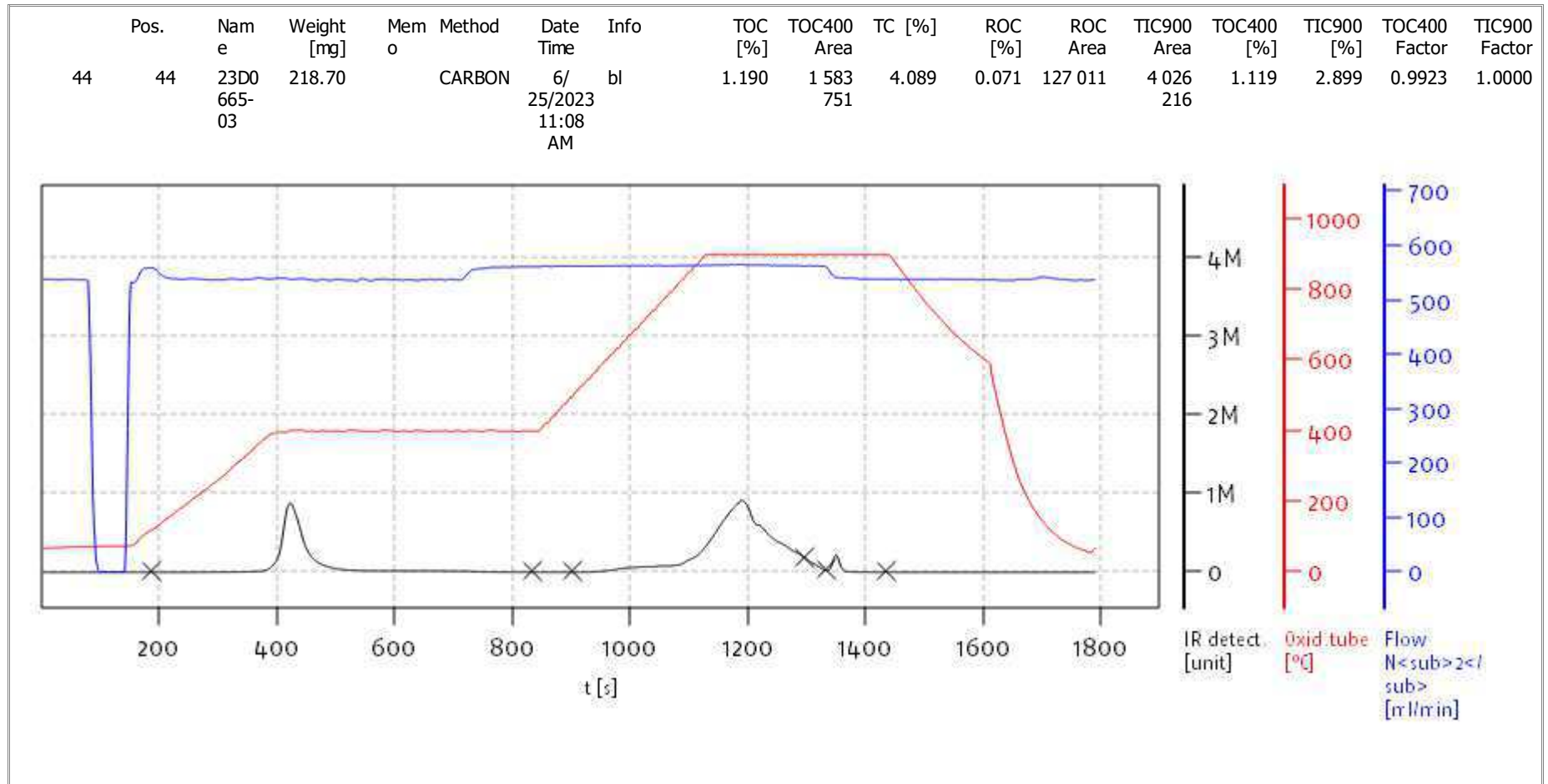
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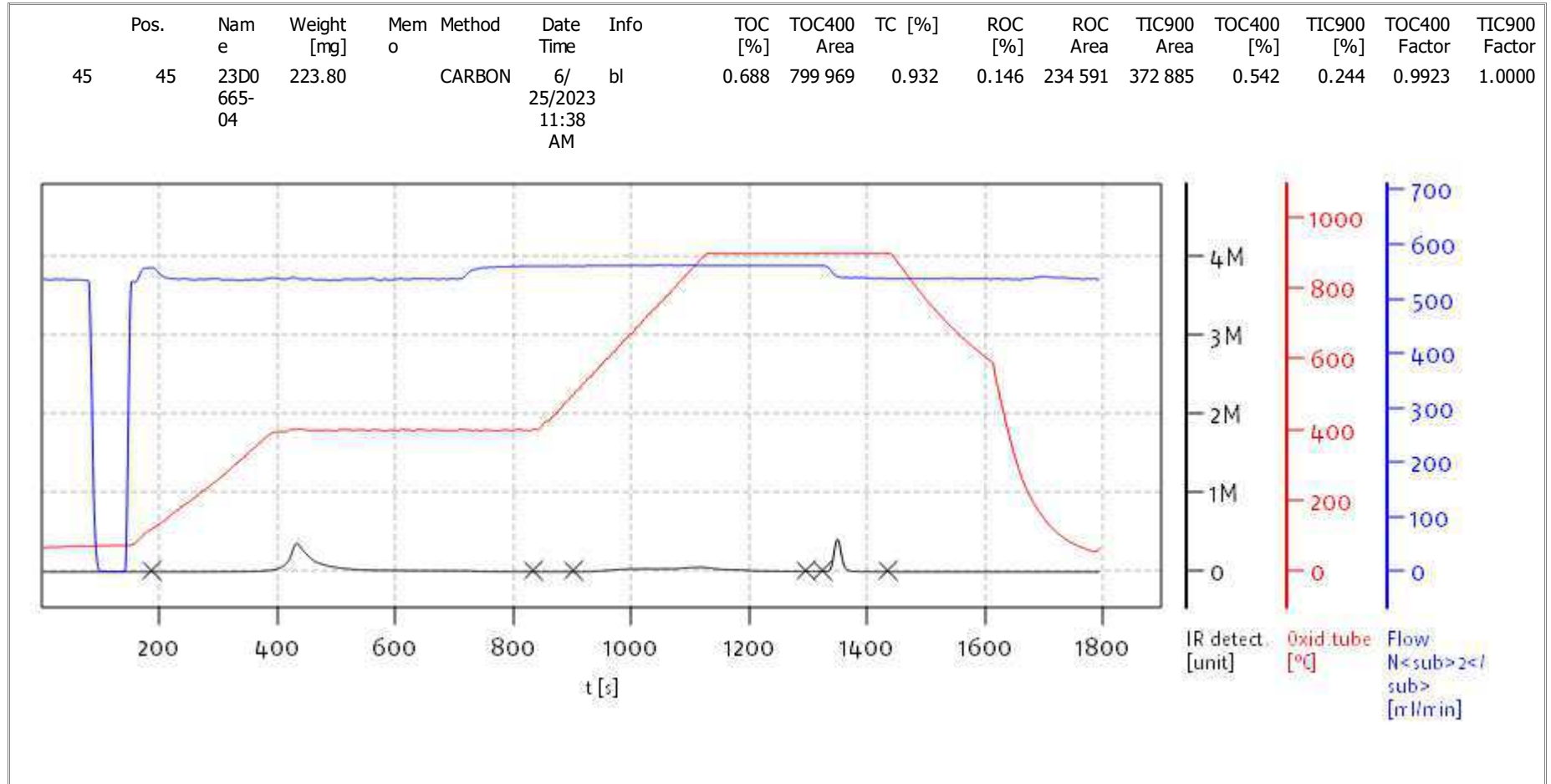
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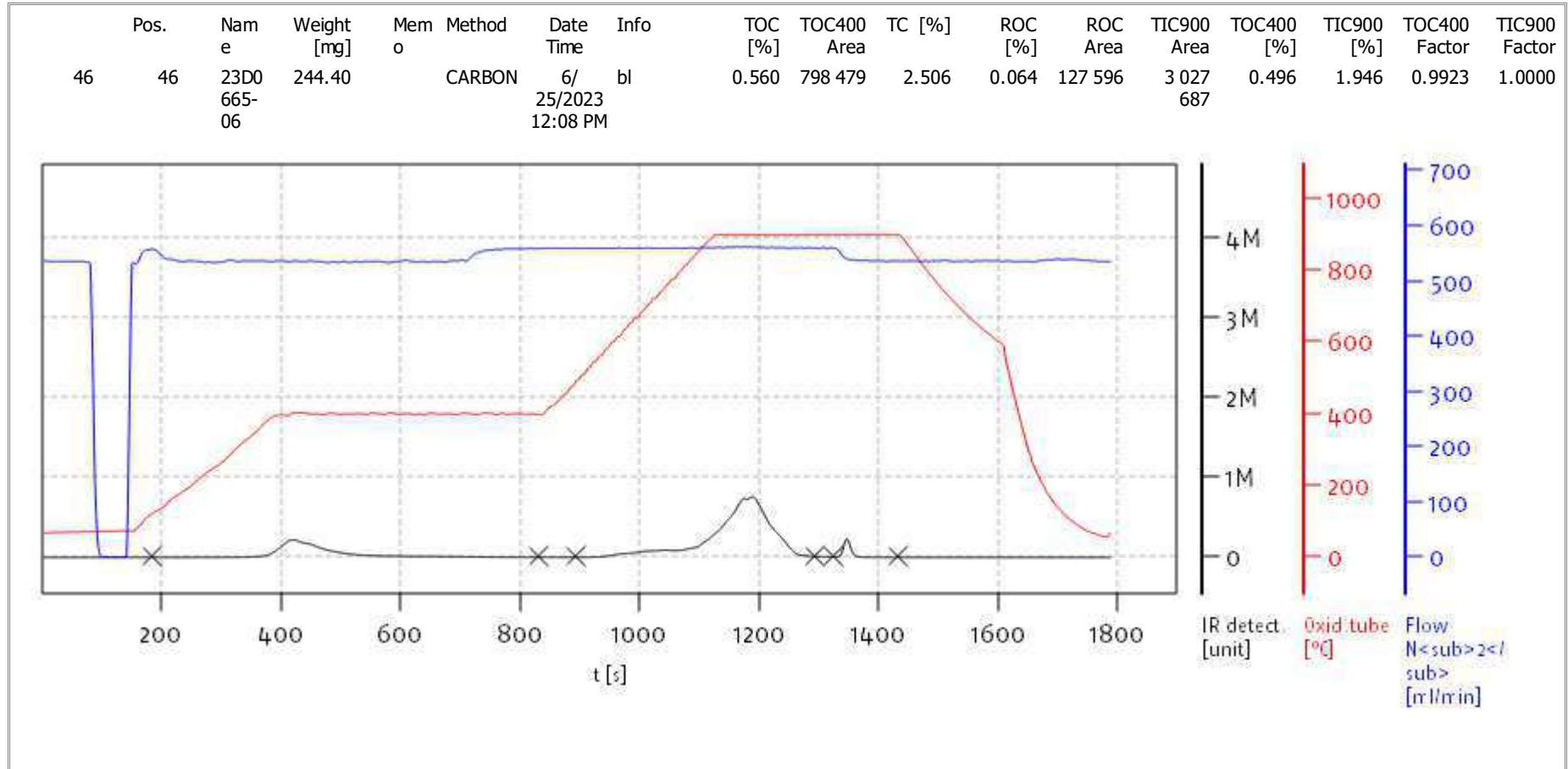
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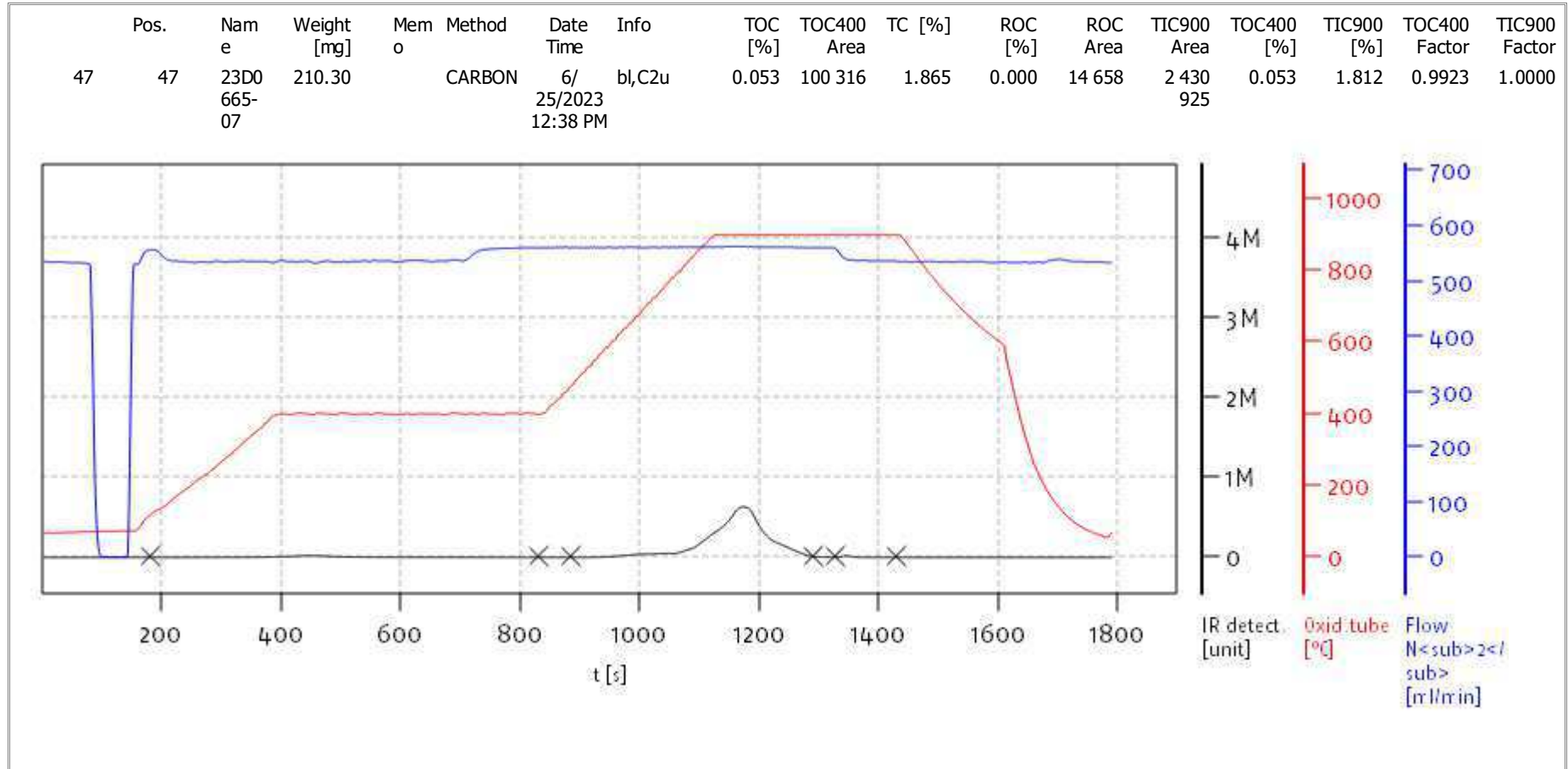
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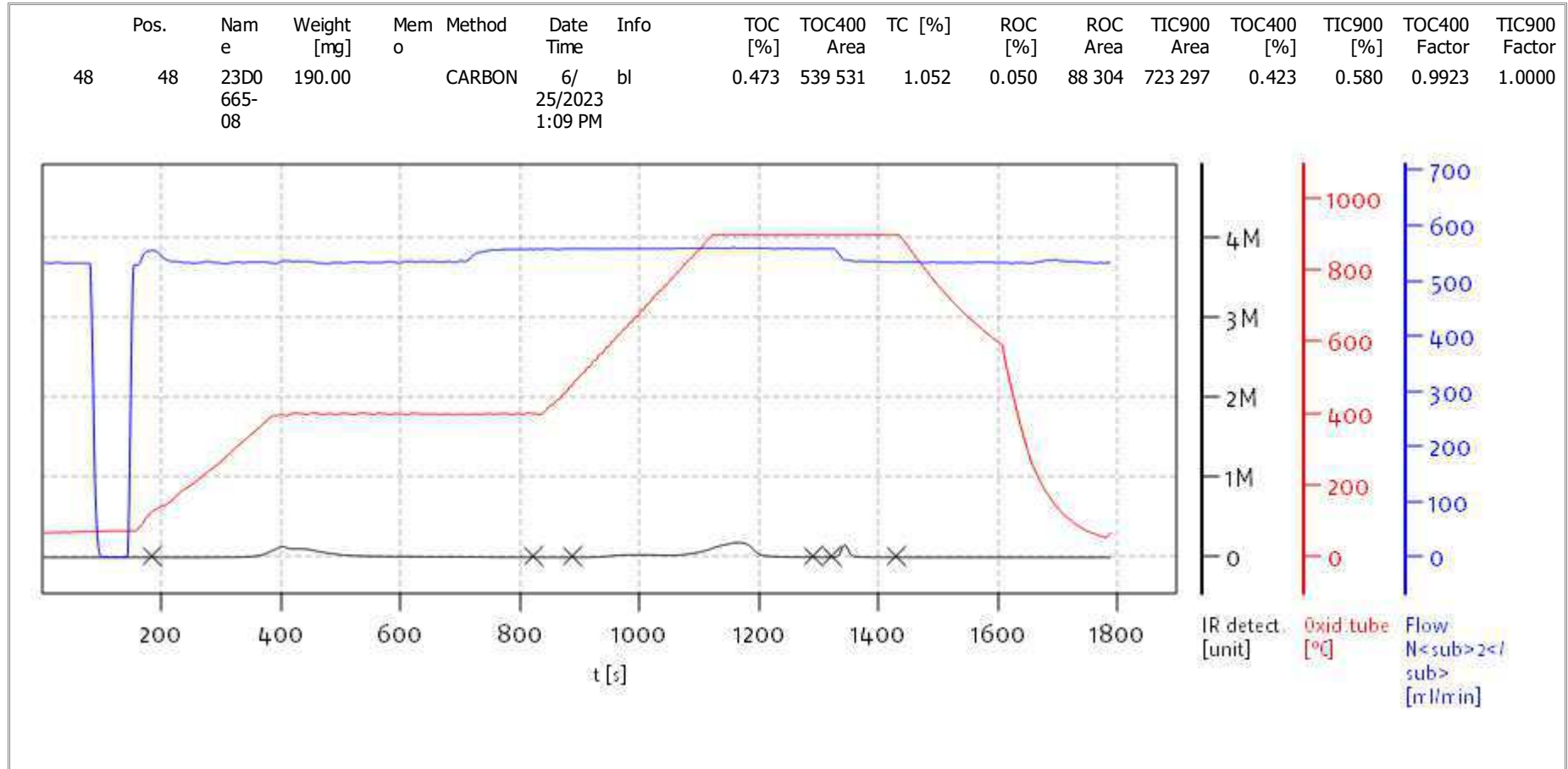
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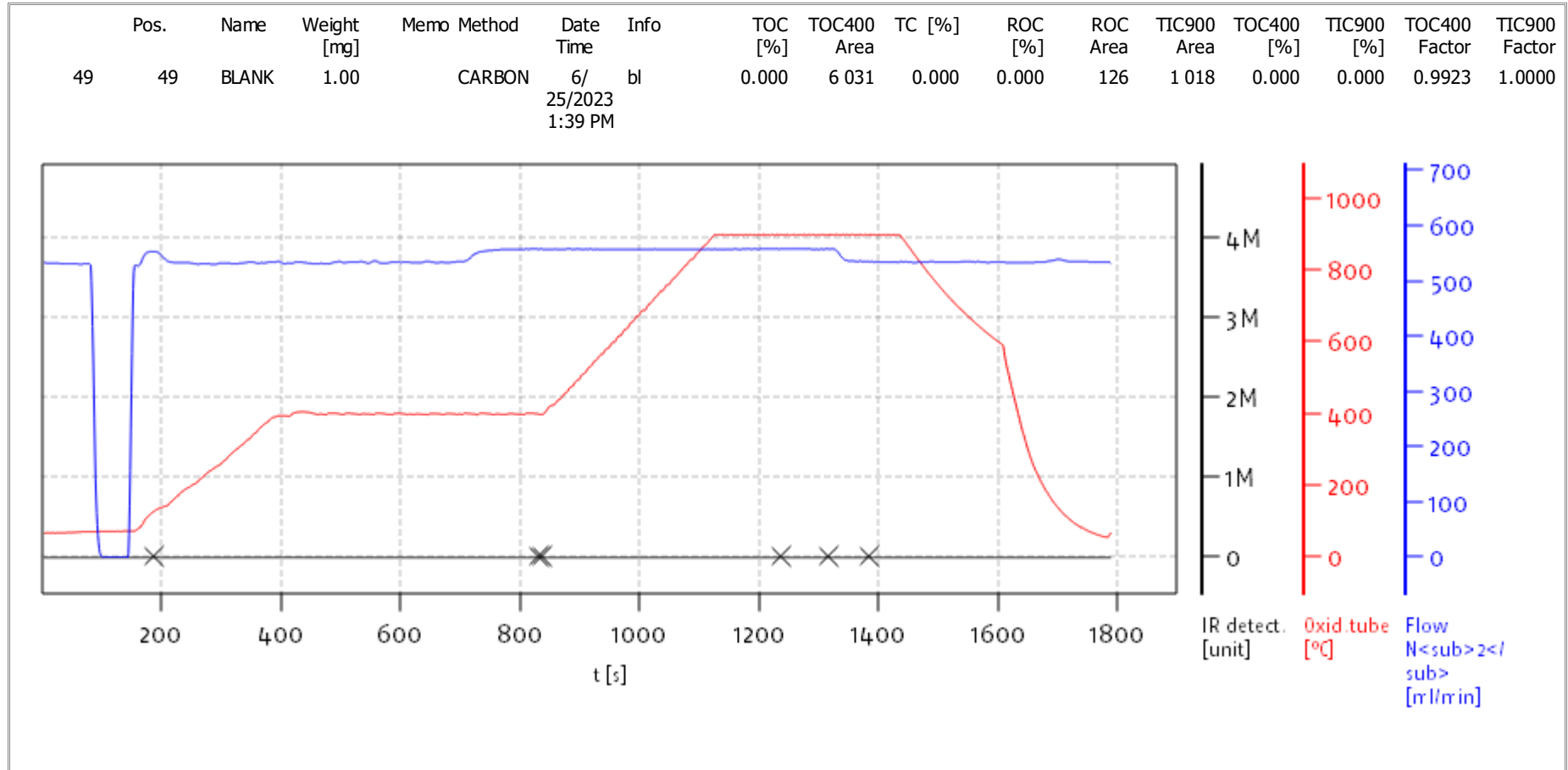
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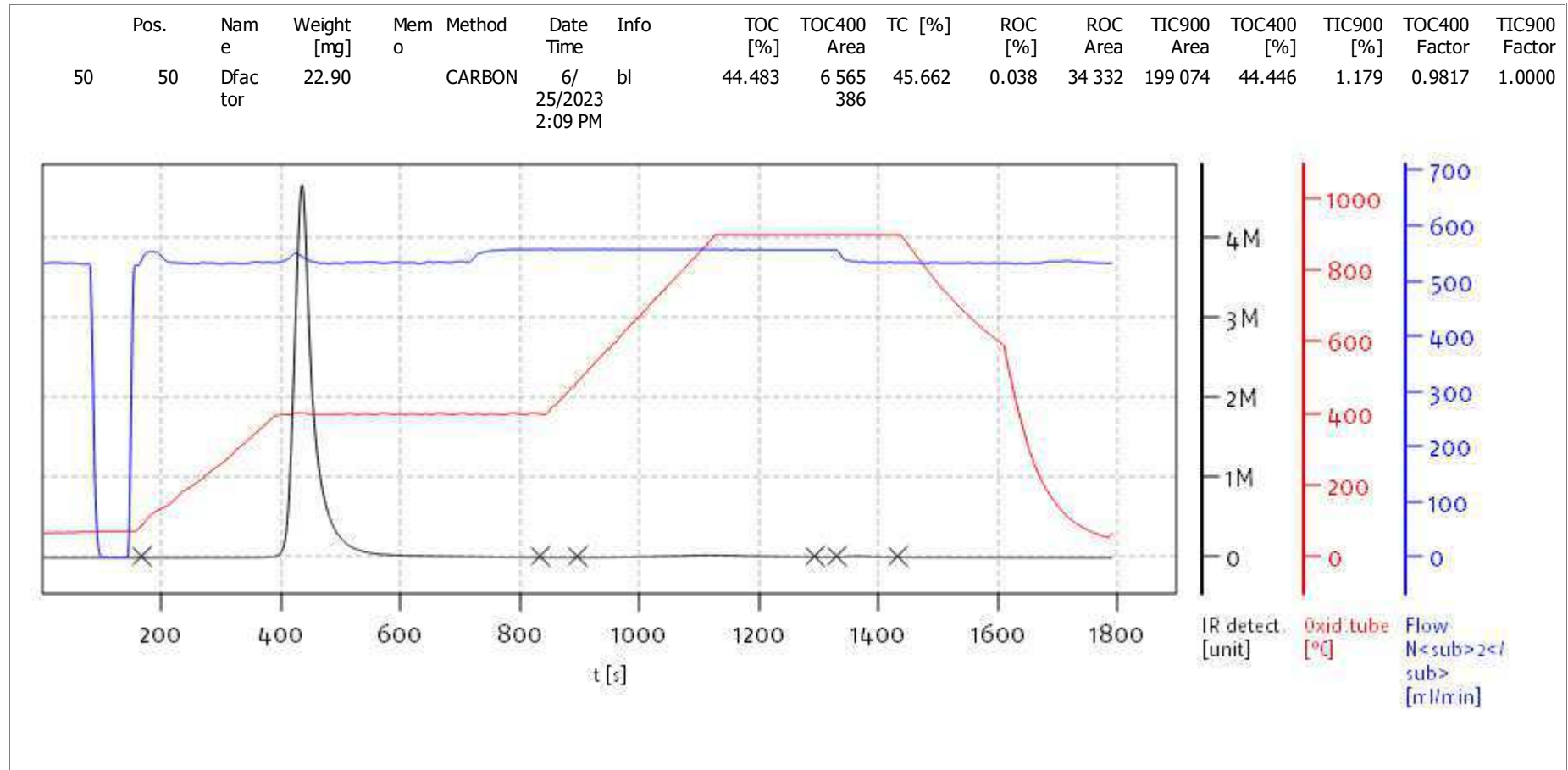
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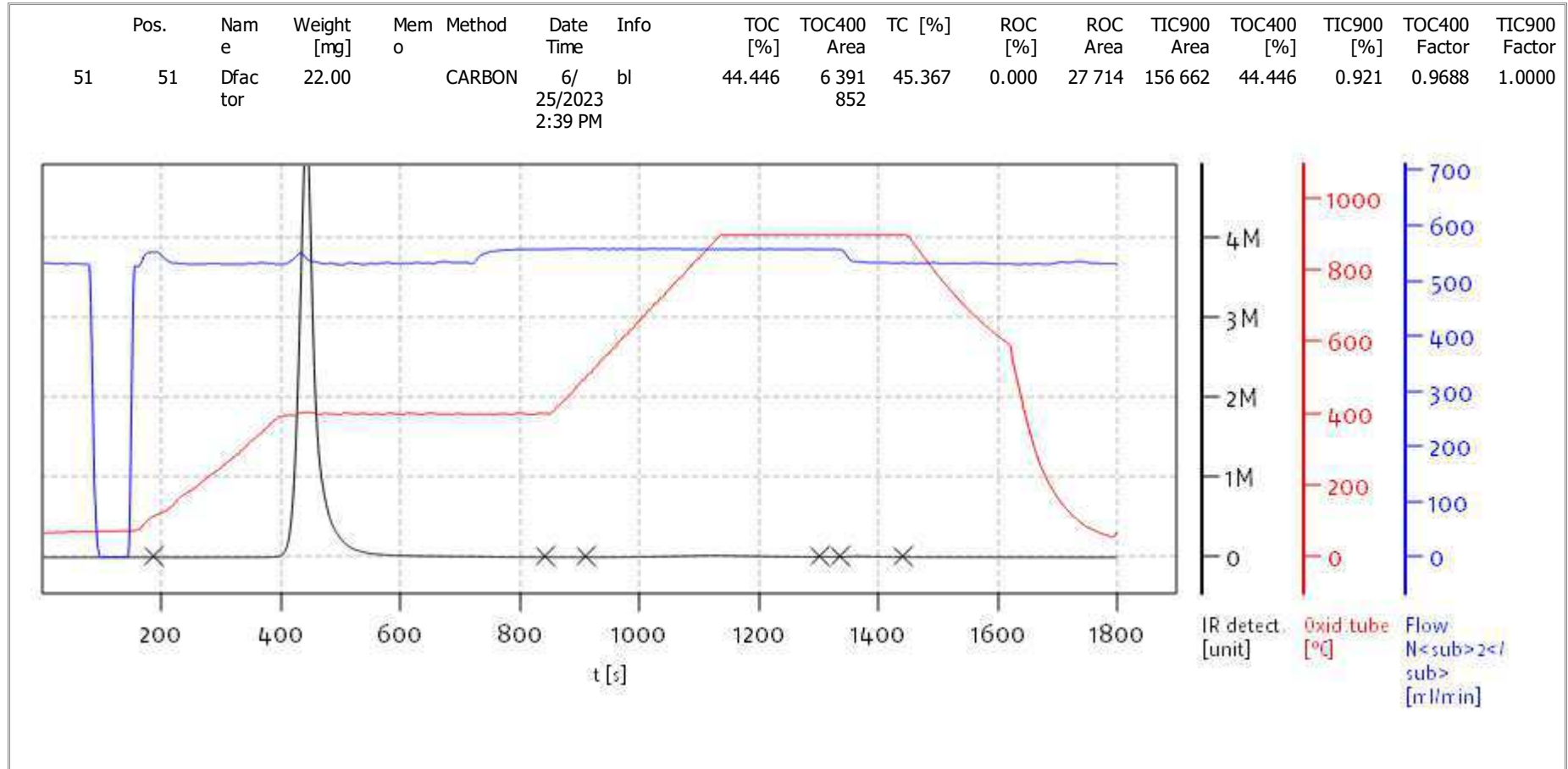
Date: Mon Jun 26 10:08:08 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

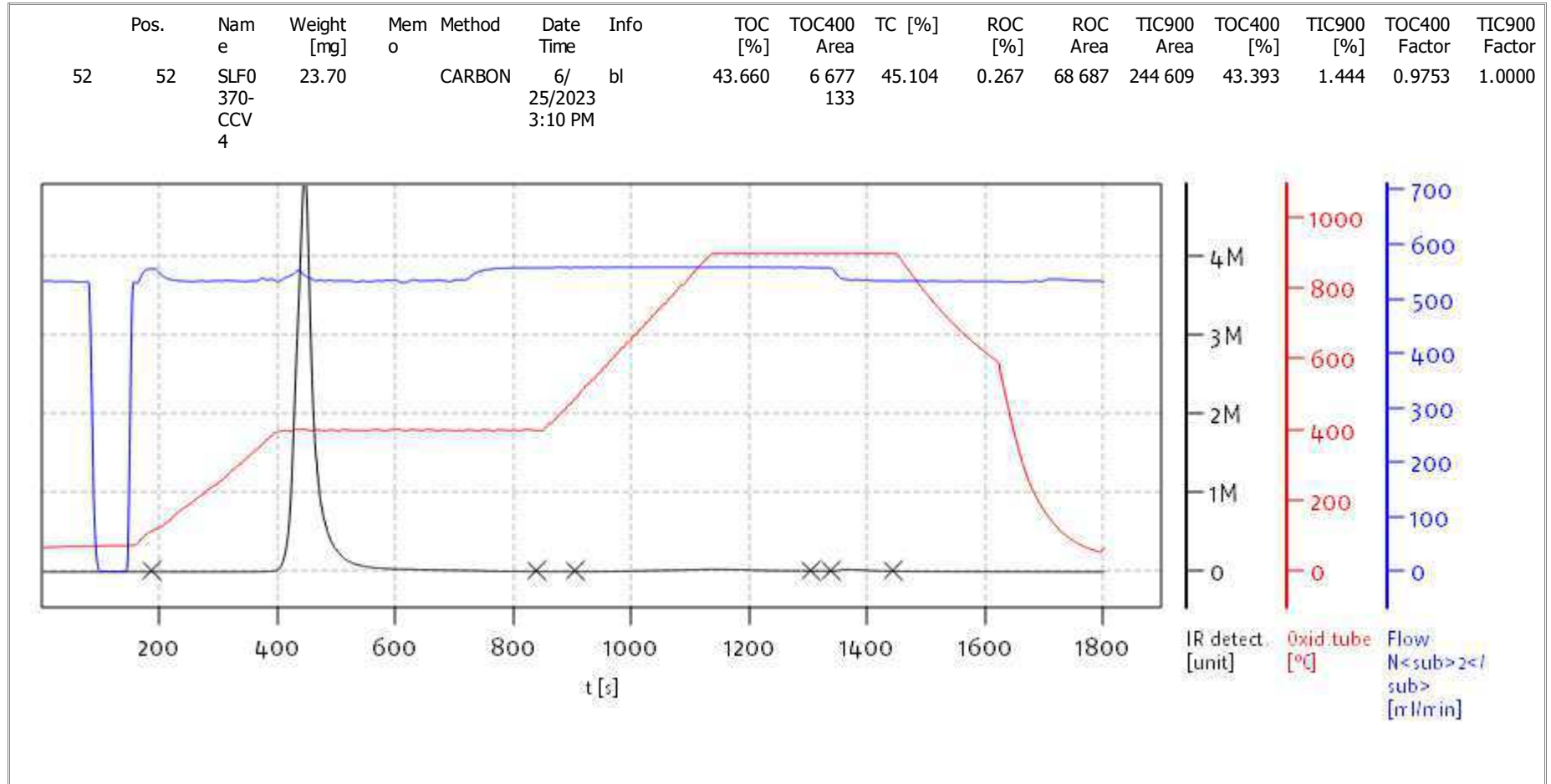
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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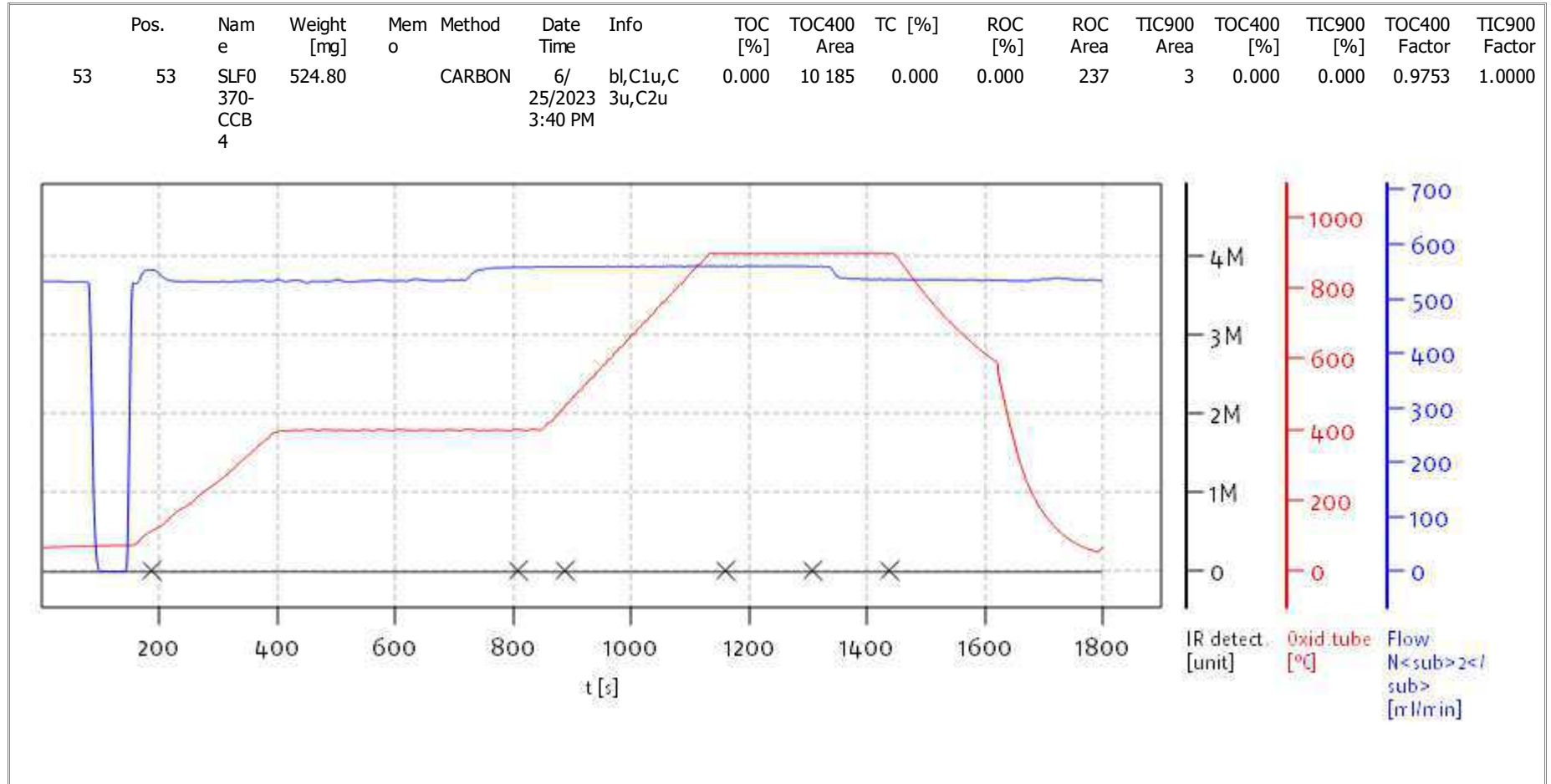
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Soli TOC Cube, Carbon
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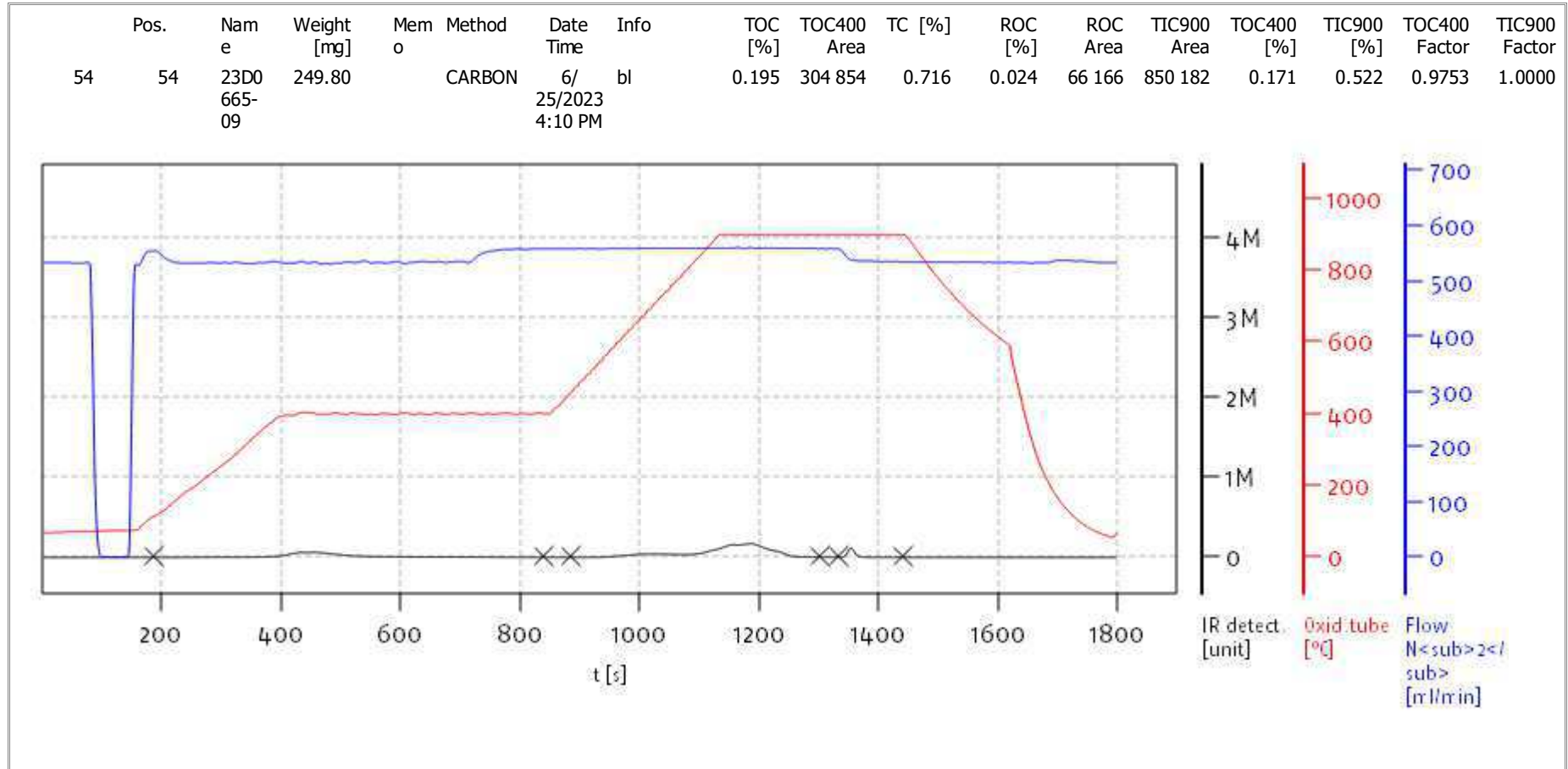
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Serial No: 0300.181017
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Soli TOC Cube, Carbon
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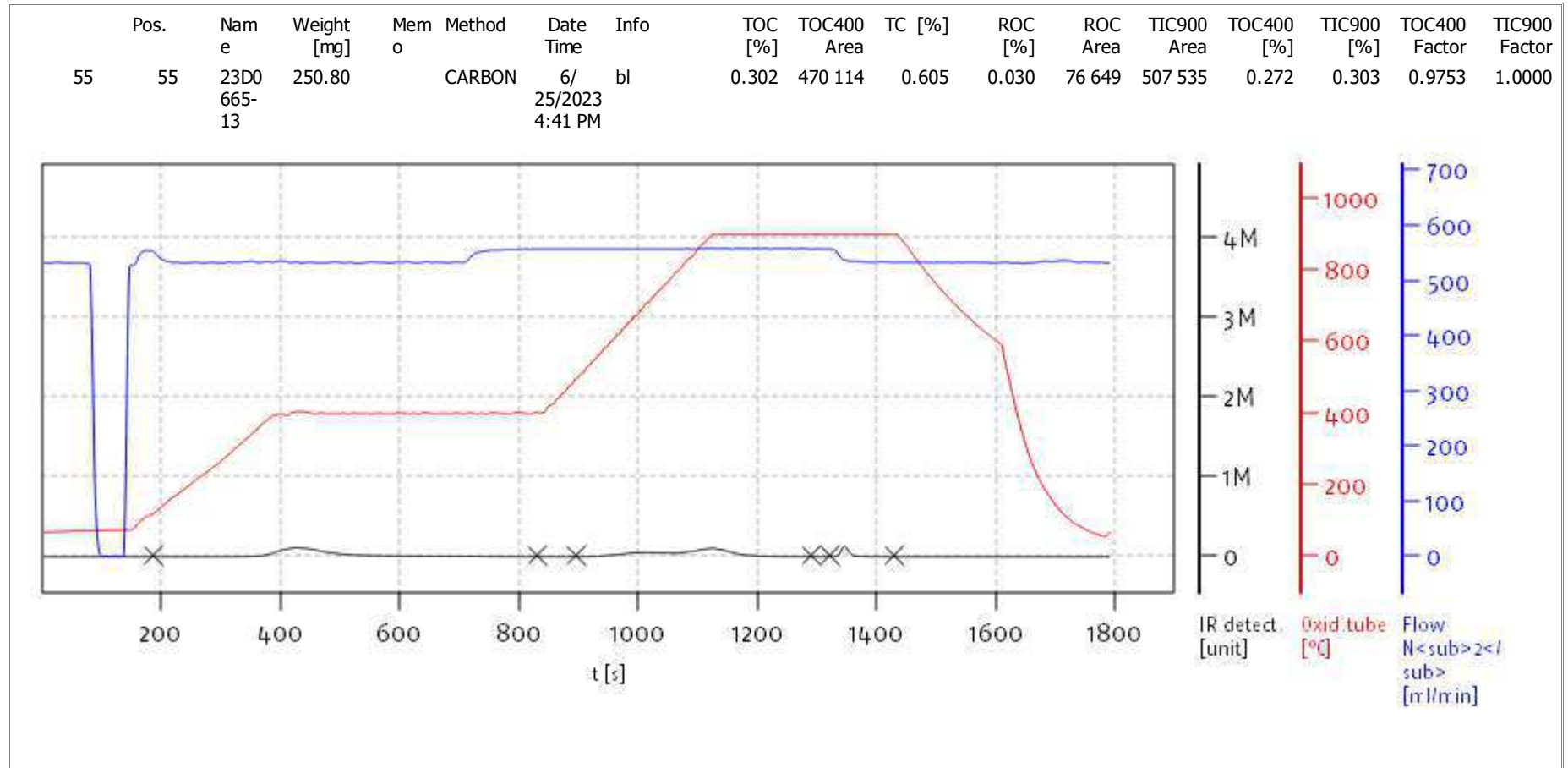
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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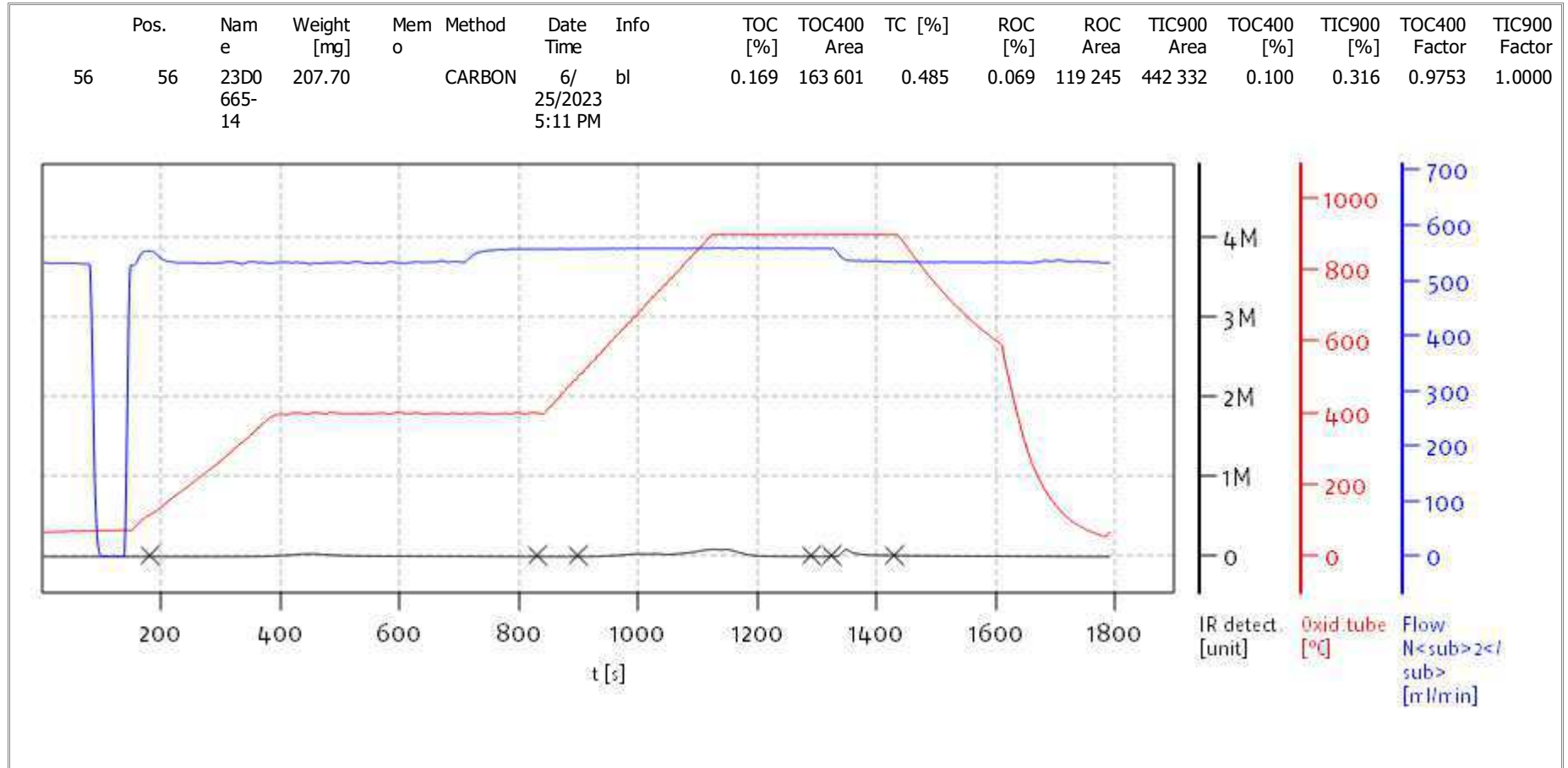
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

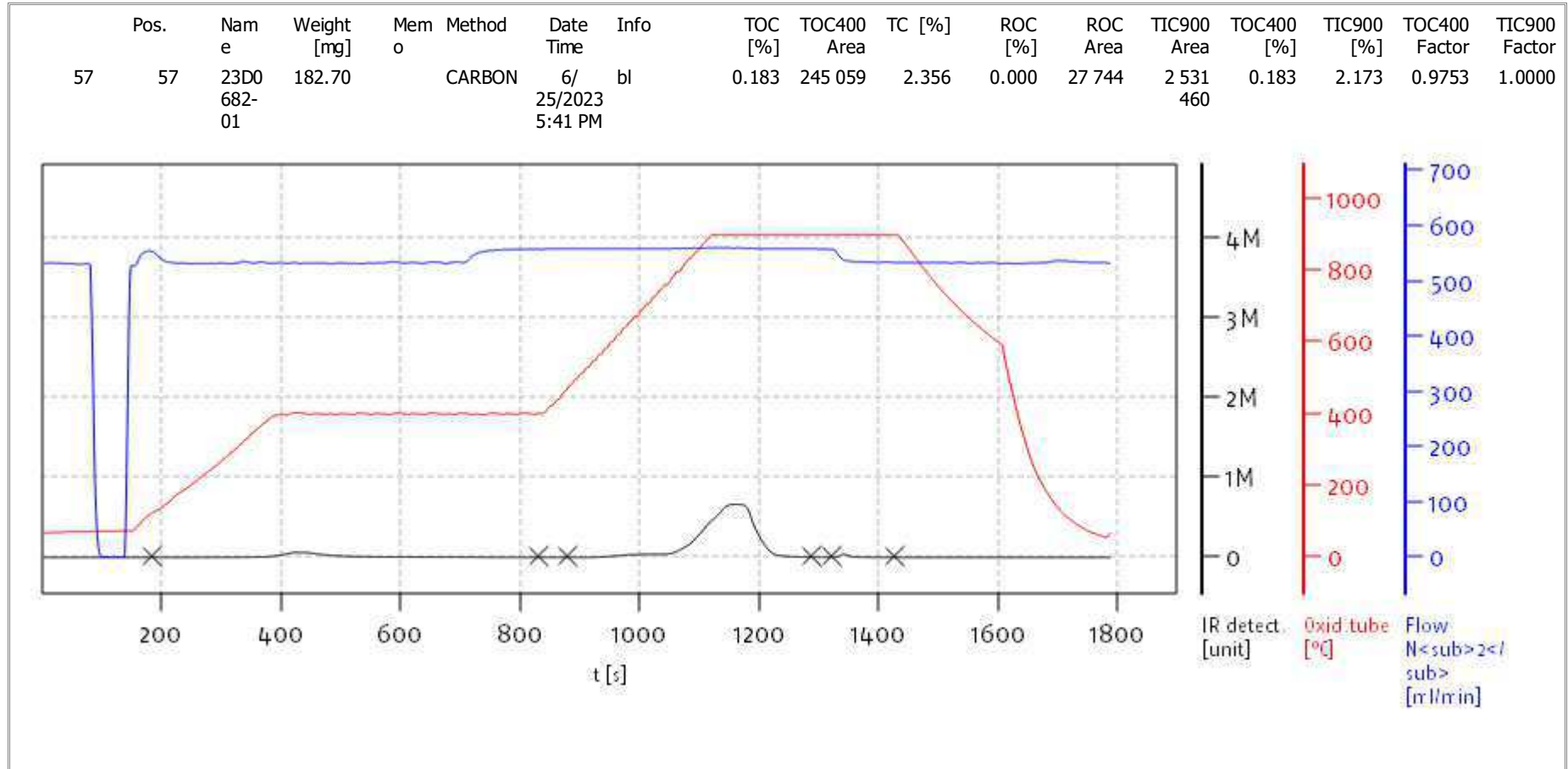
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solITOC V2.0.2 (31015f9) 2018-11-19
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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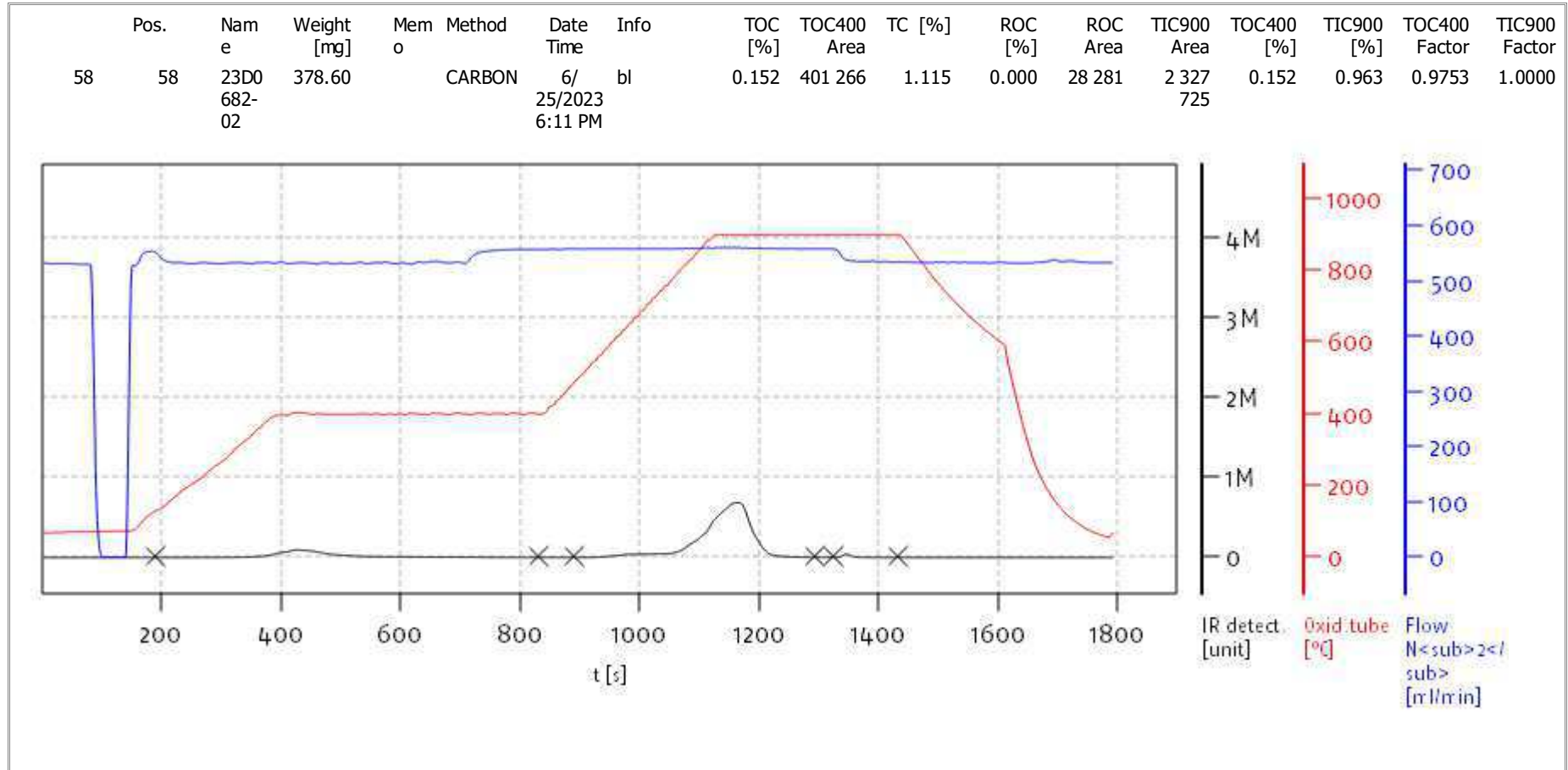
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solITOC V2.0.2 (31015f9) 2018-11-19
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

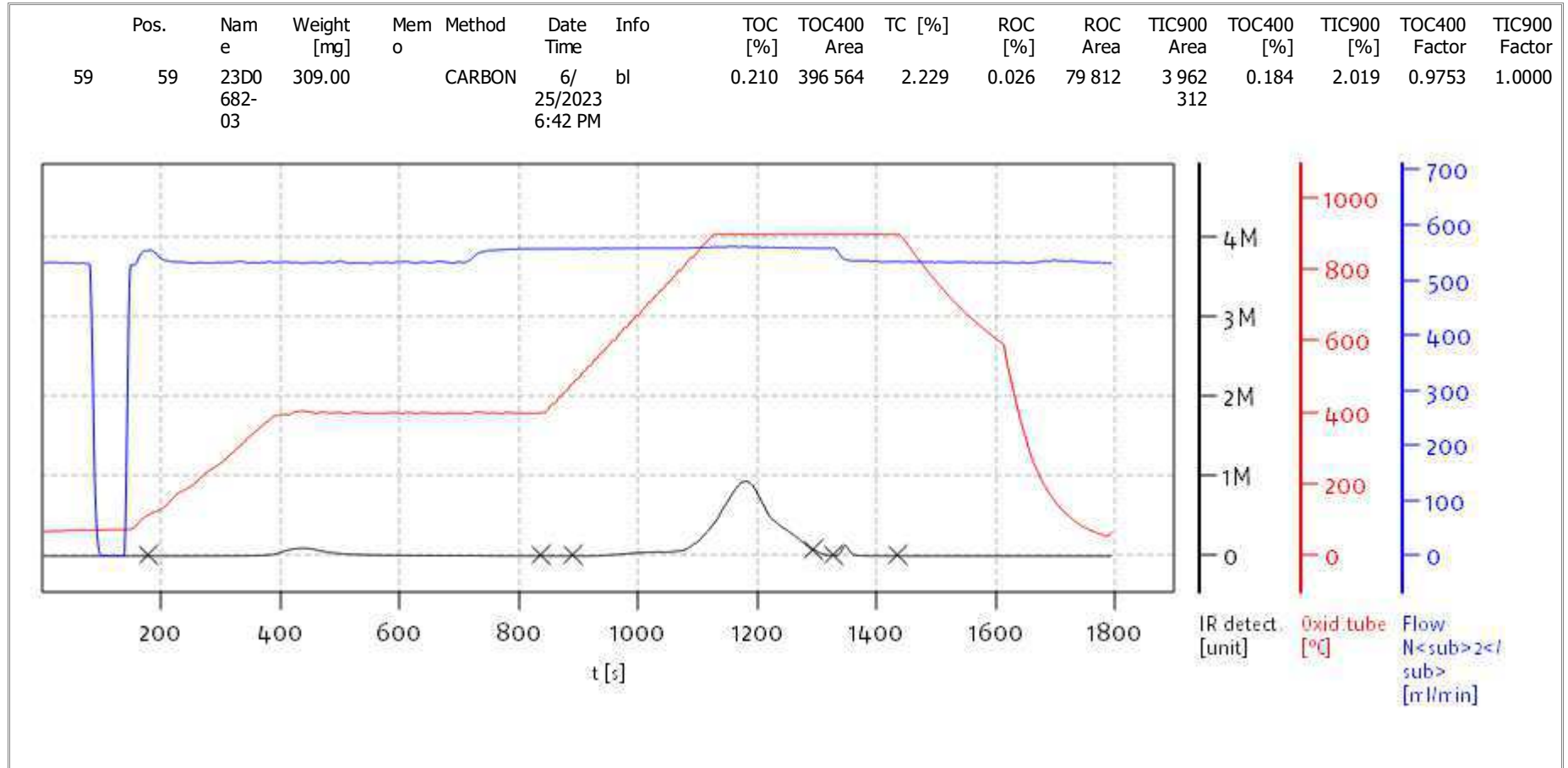
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solITOC V2.0.2 (31015f9) 2018-11-19
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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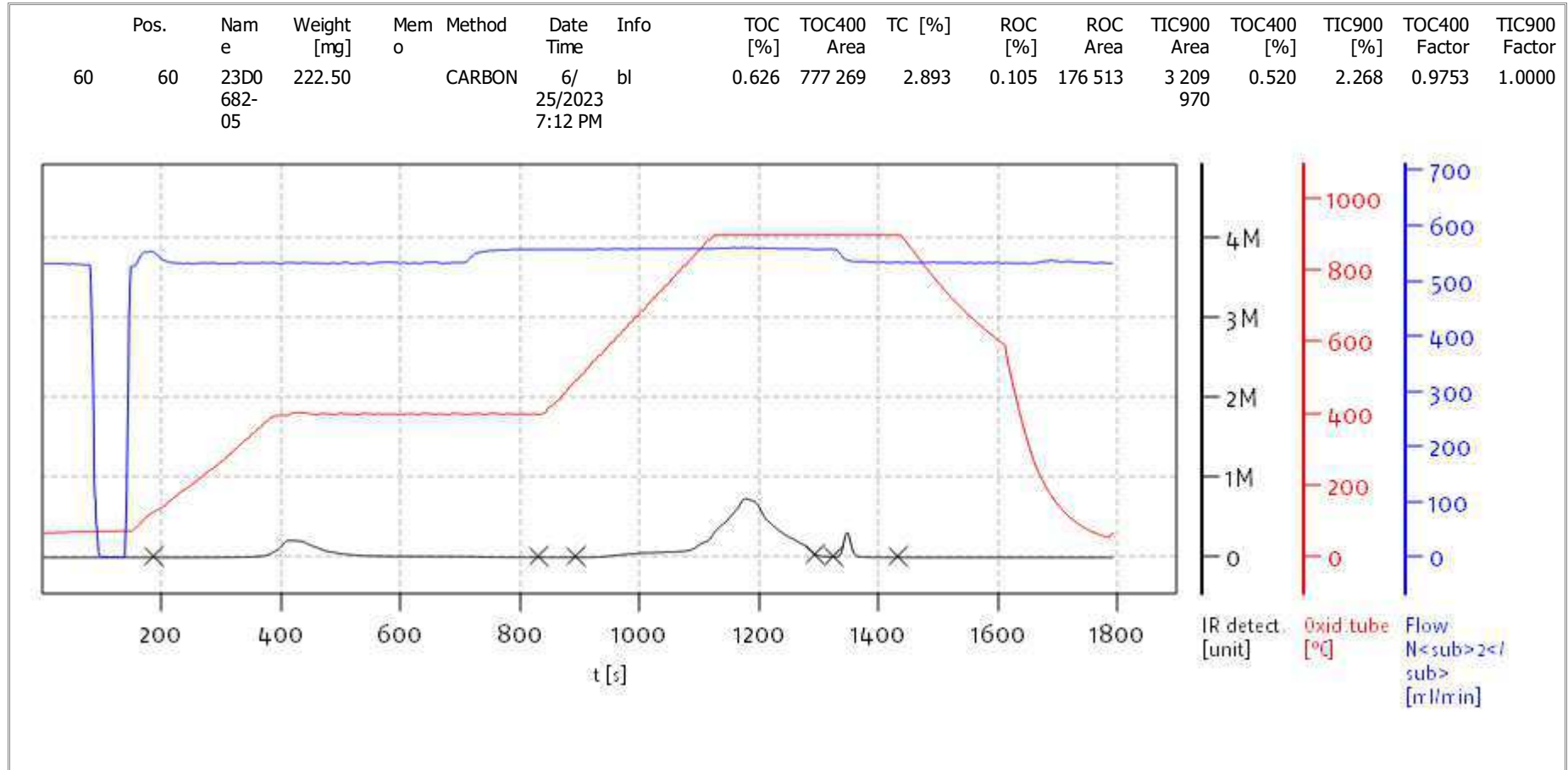
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solITOC V2.0.2 (31015f9) 2018-11-19
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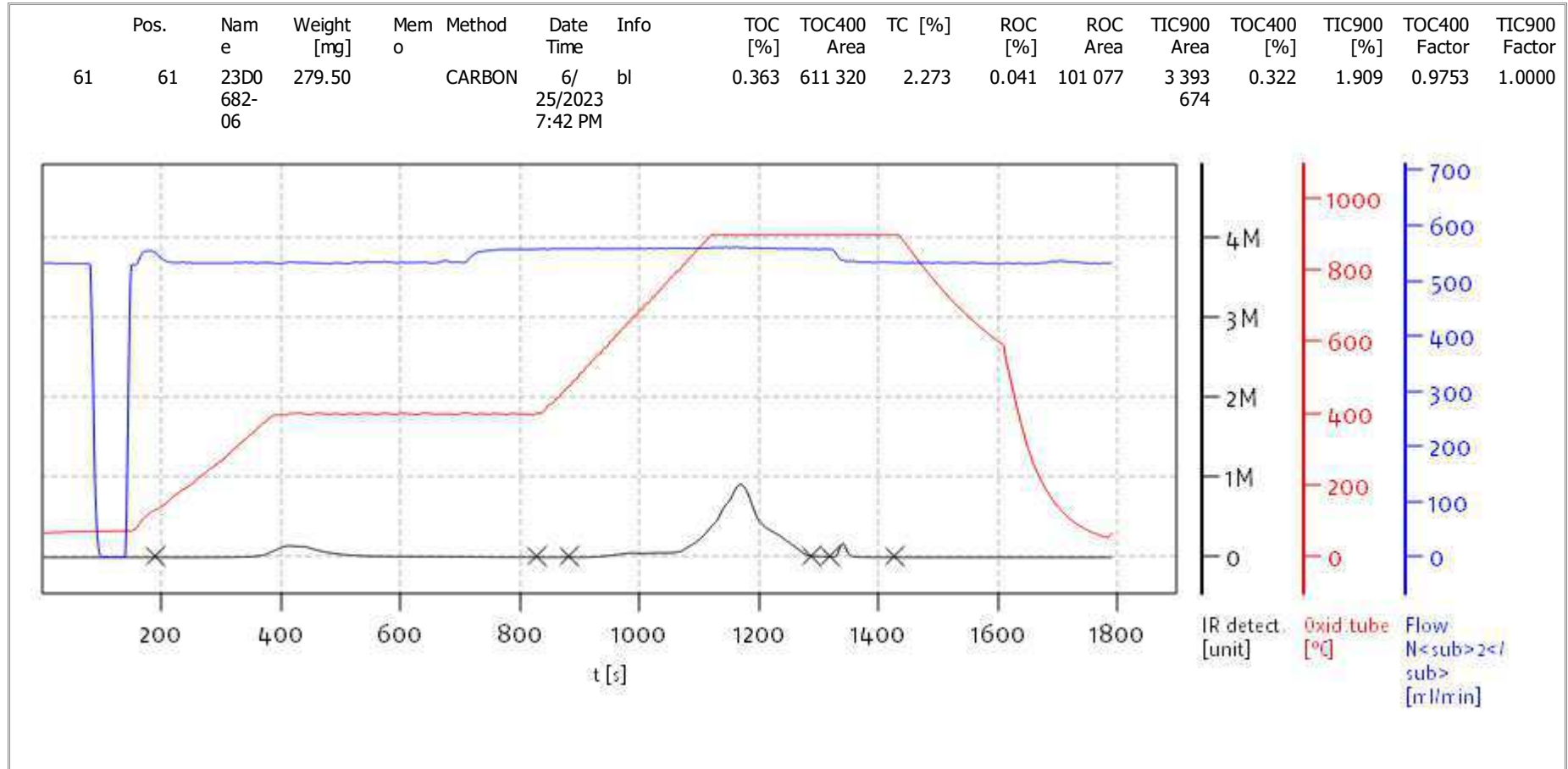
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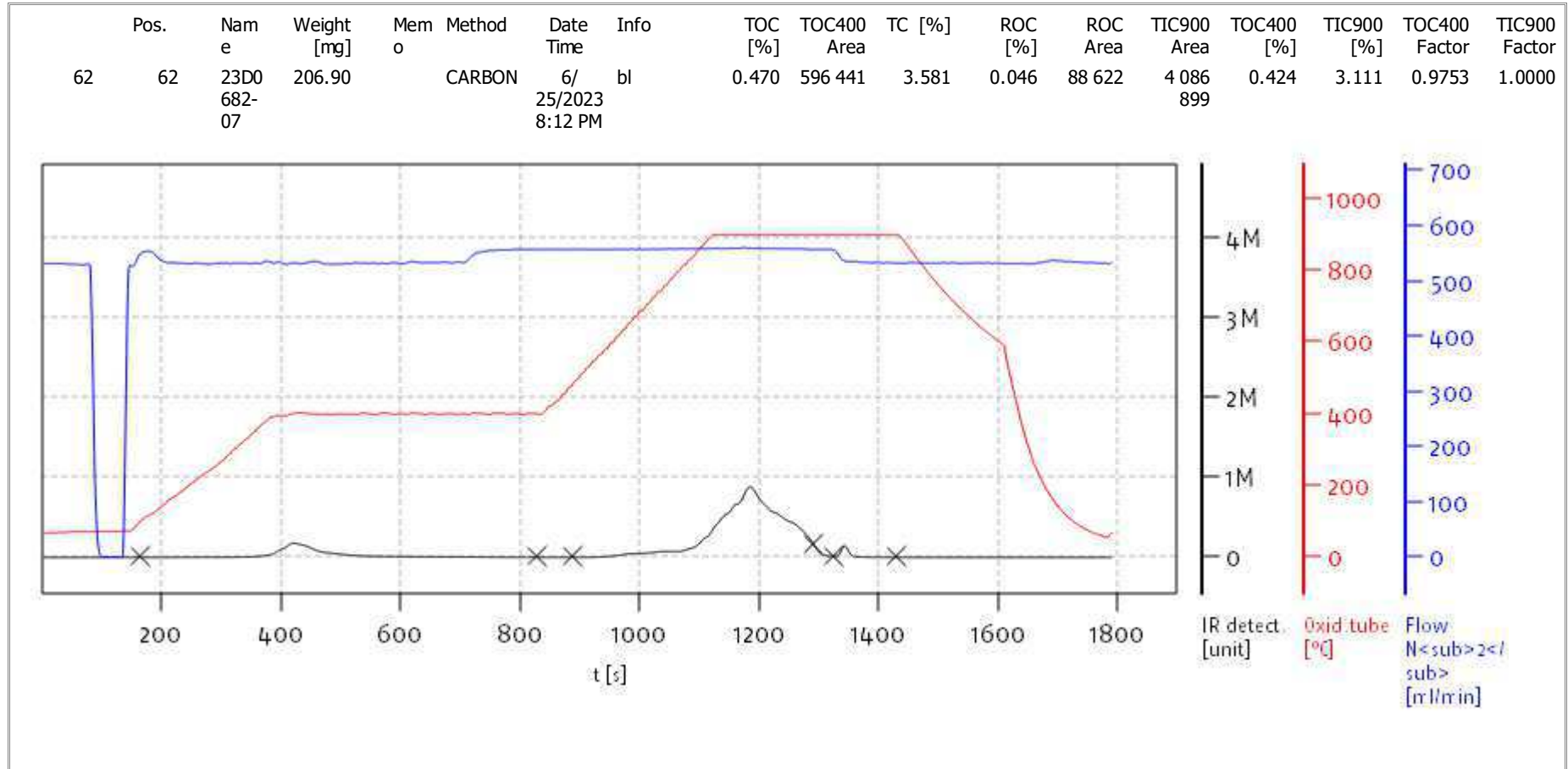
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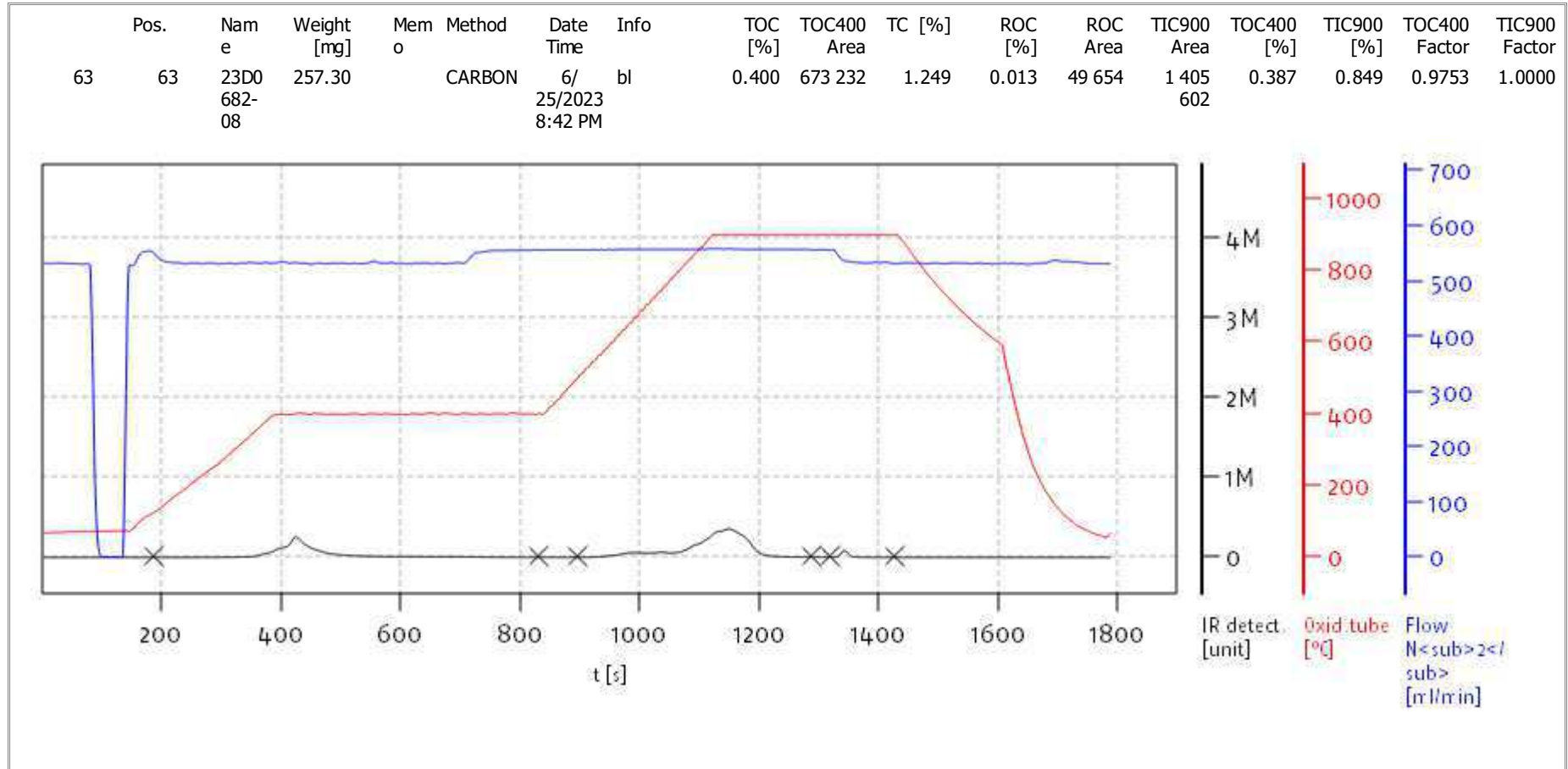
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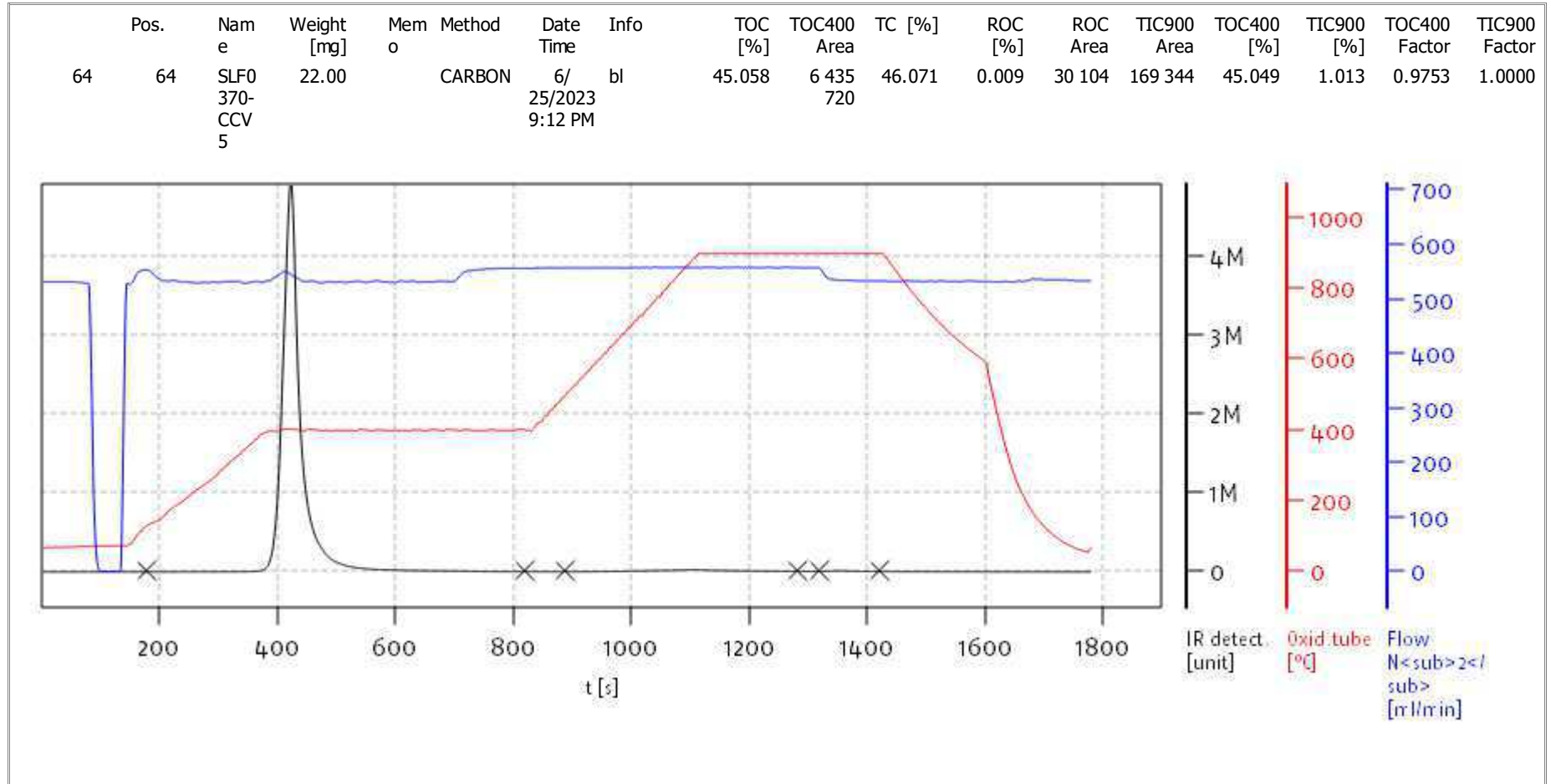
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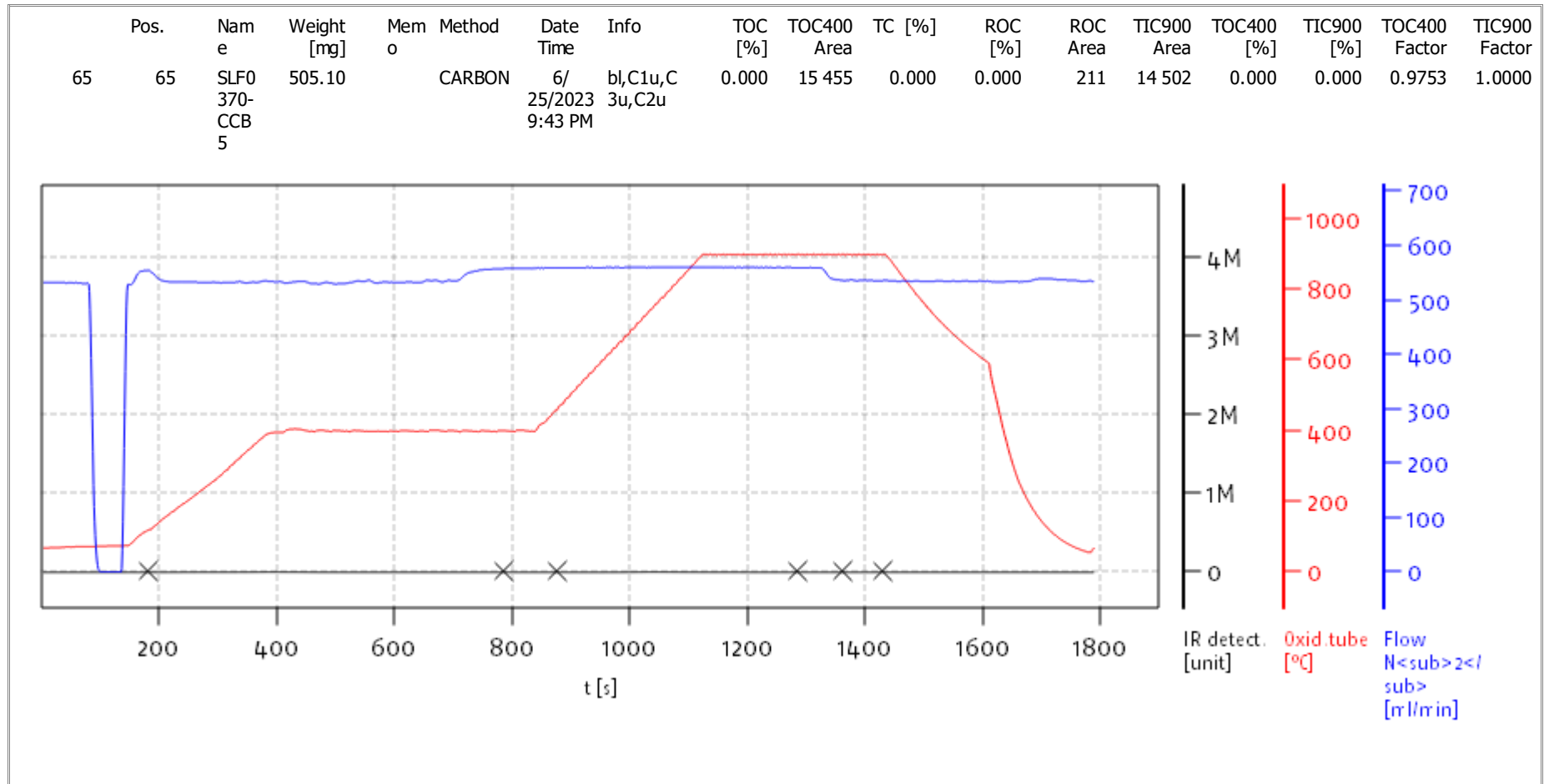
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Soli TOC Cube, Carbon
Balance: BAL3
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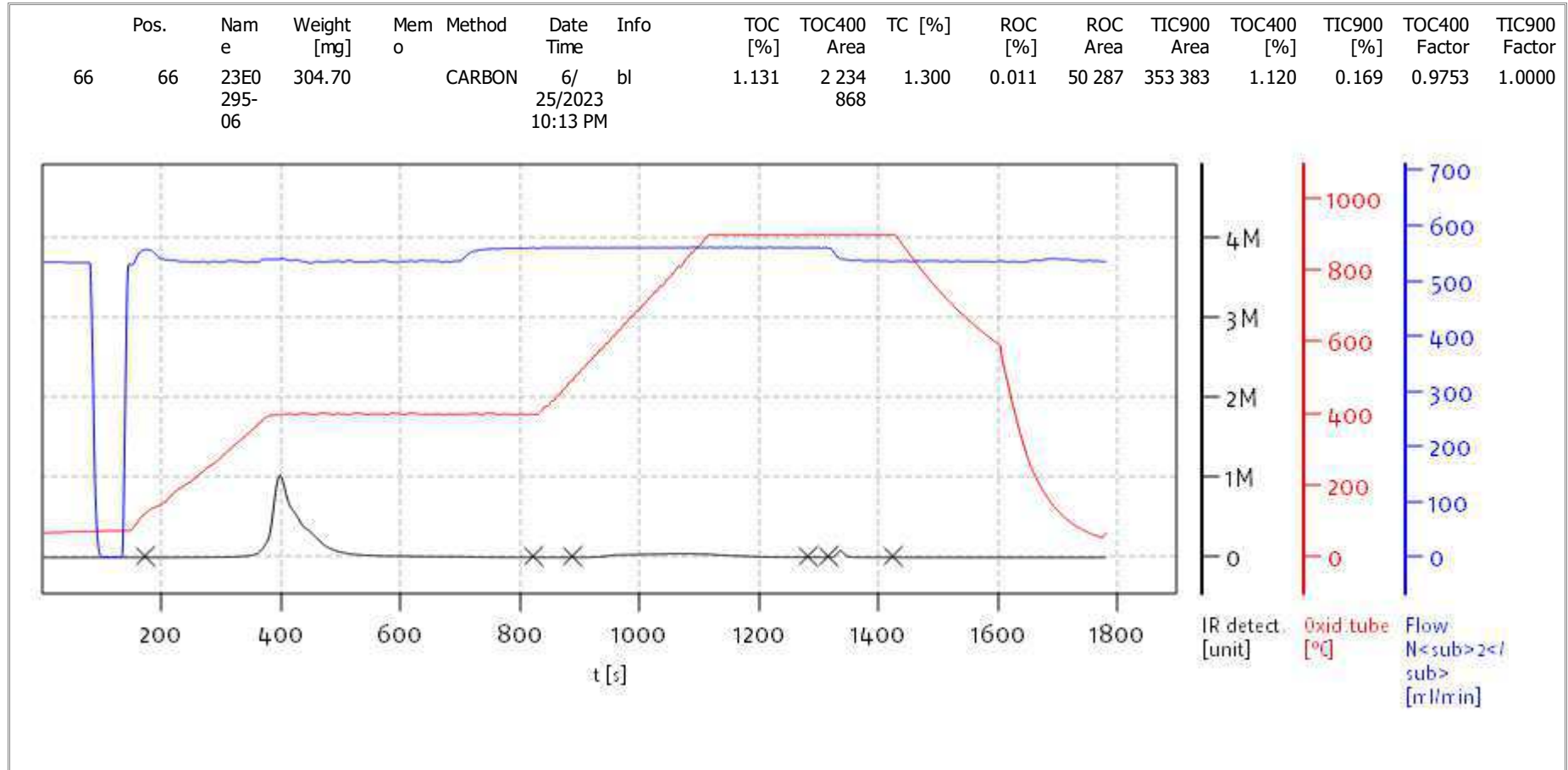
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Soli TOC Cube, Carbon
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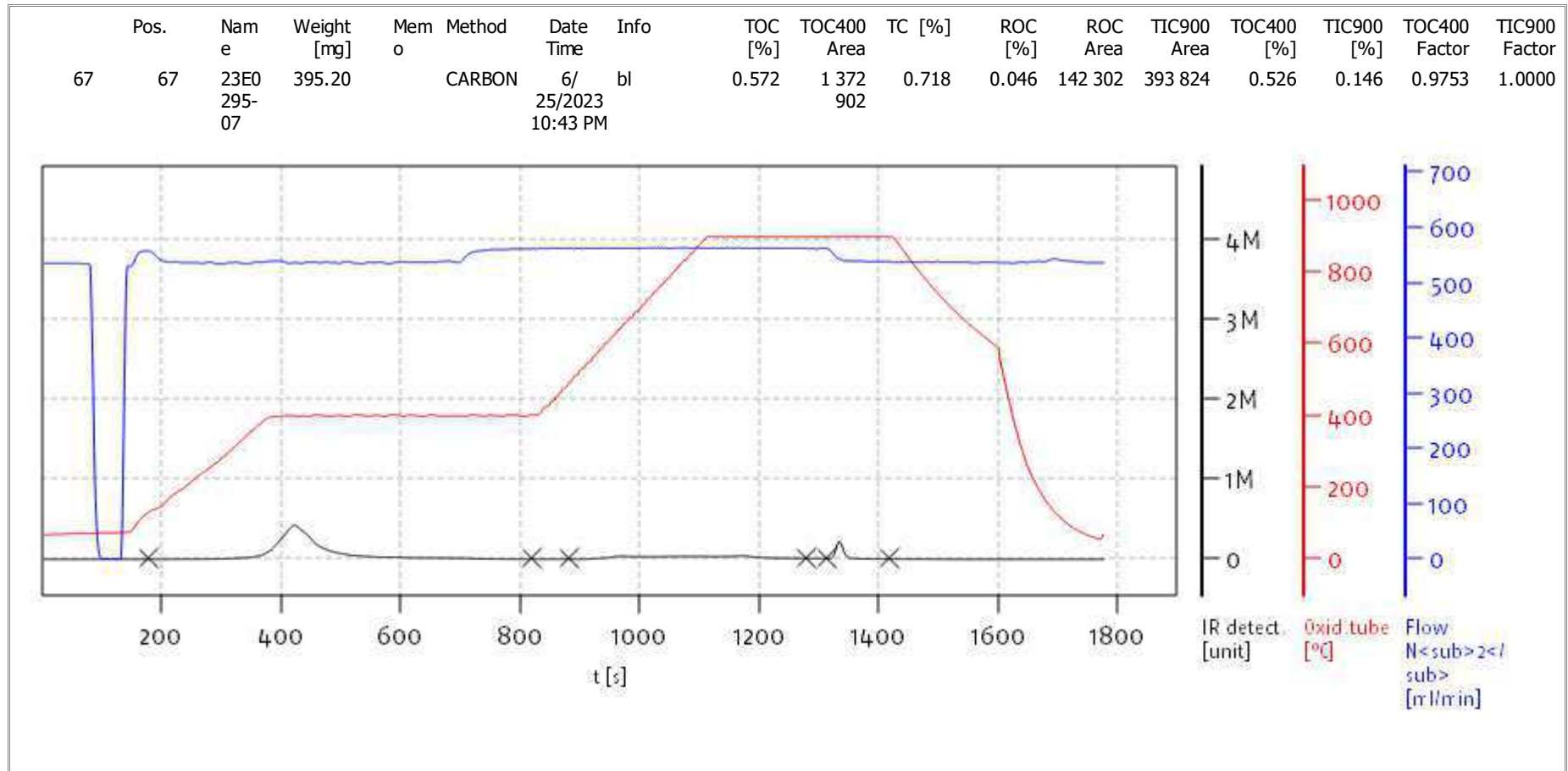
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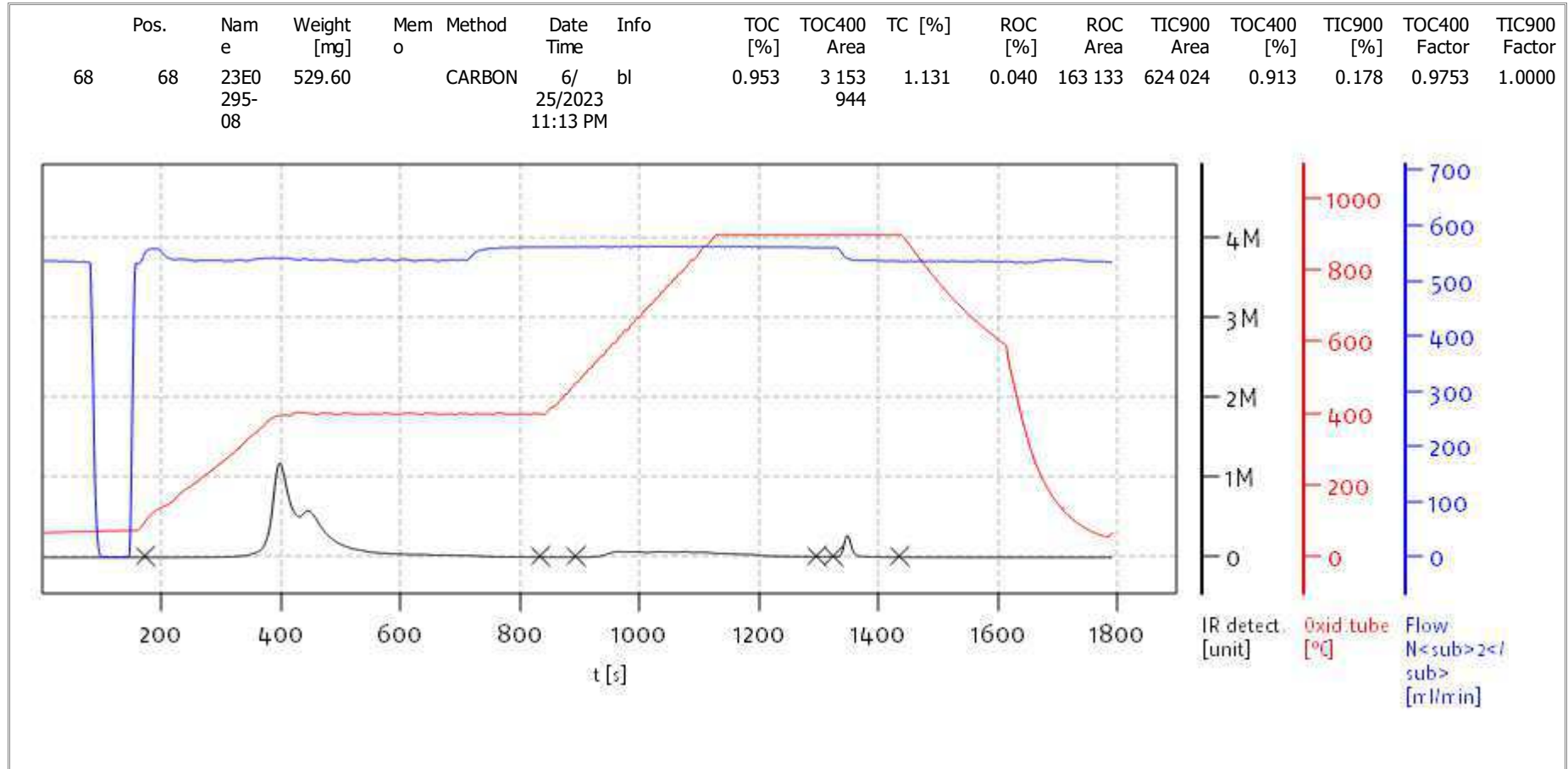
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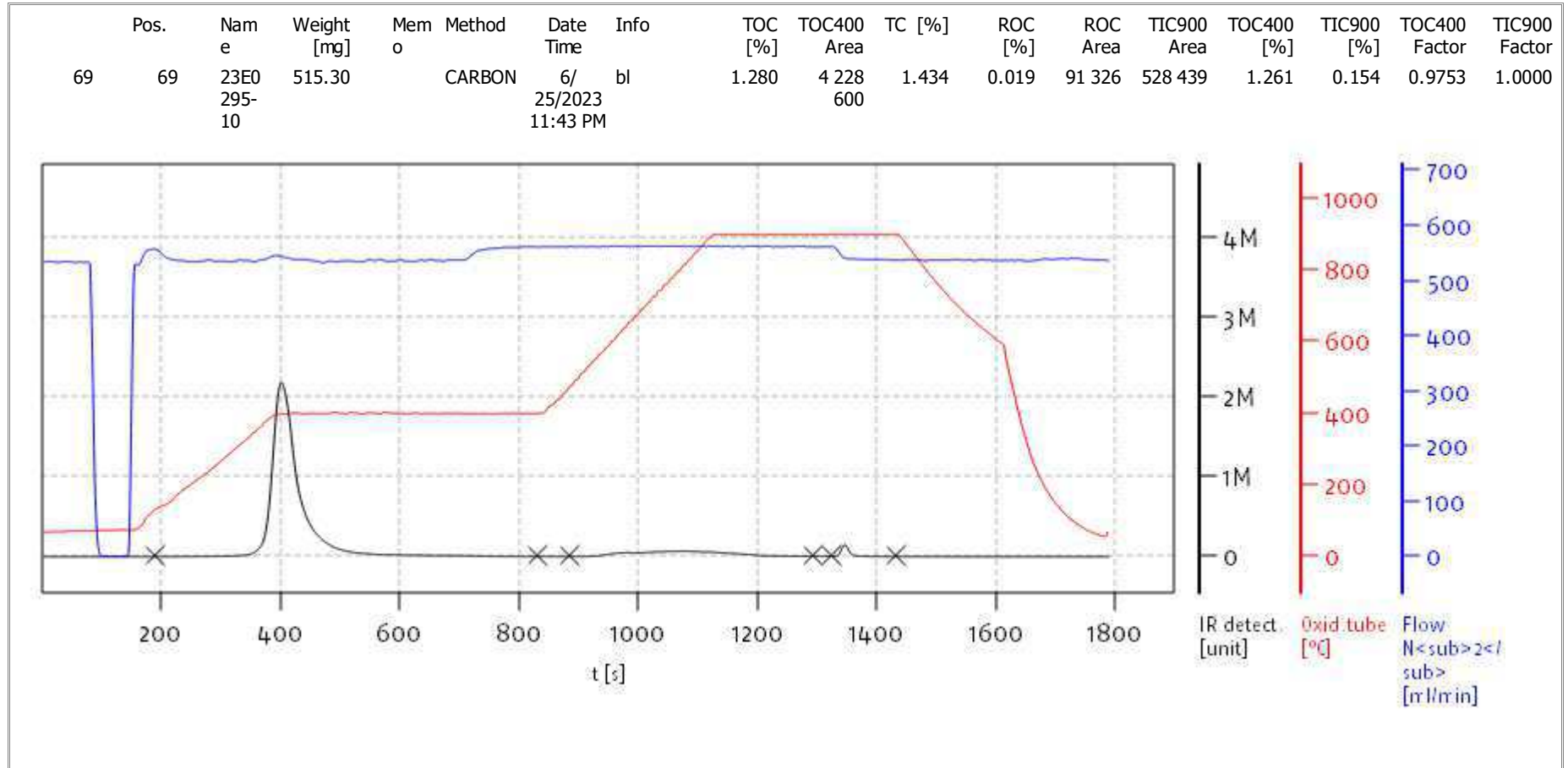
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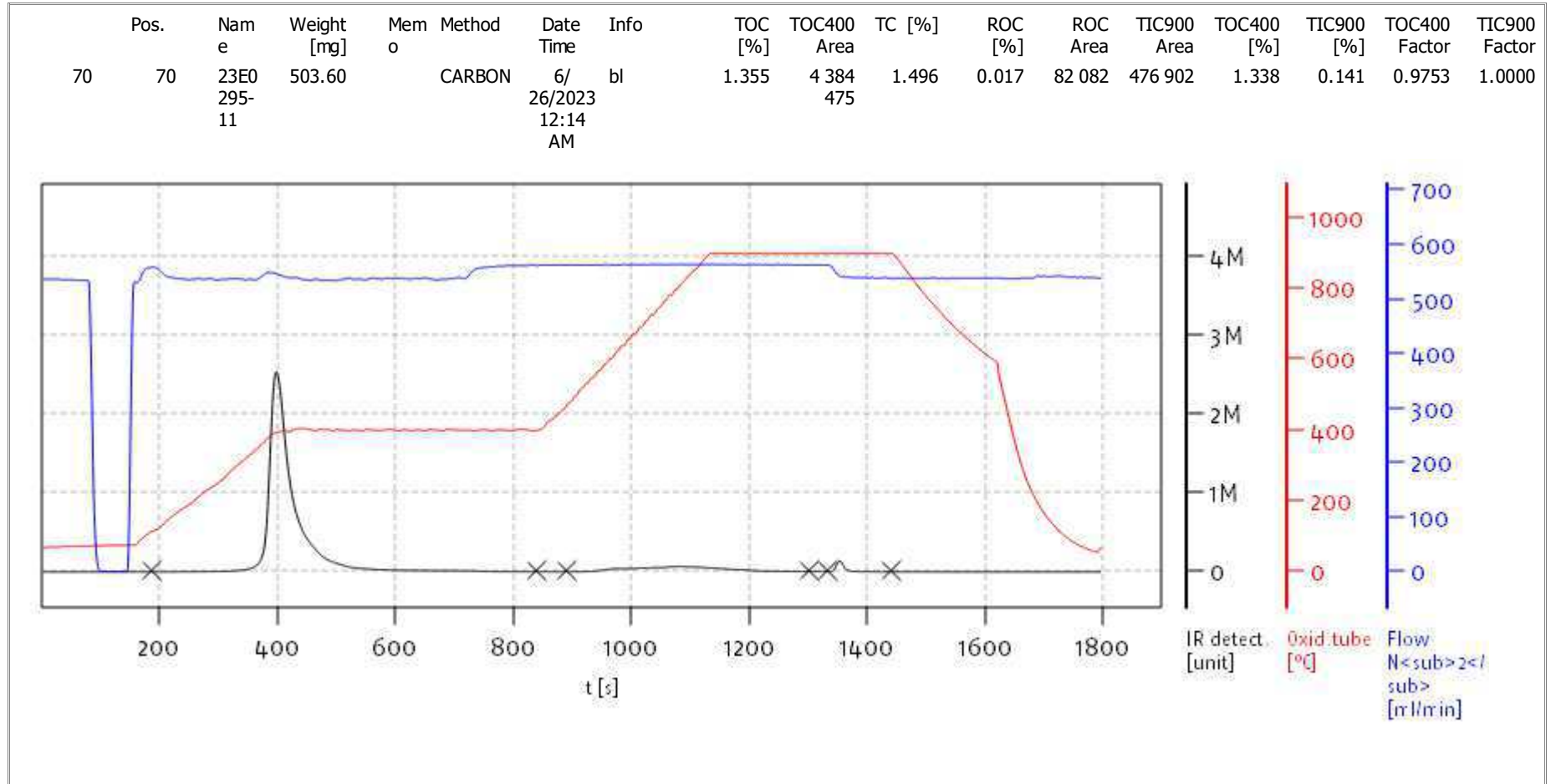
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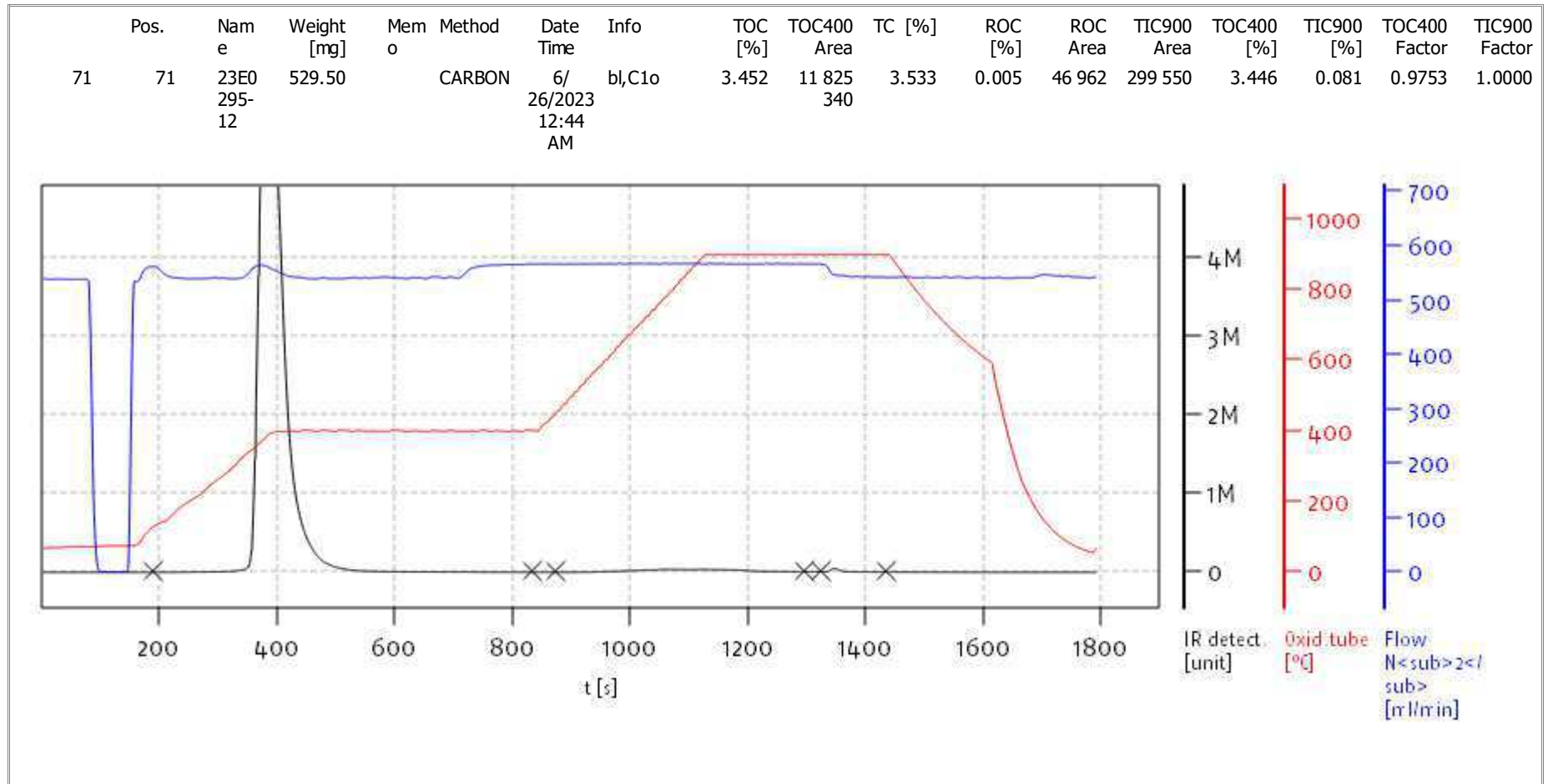
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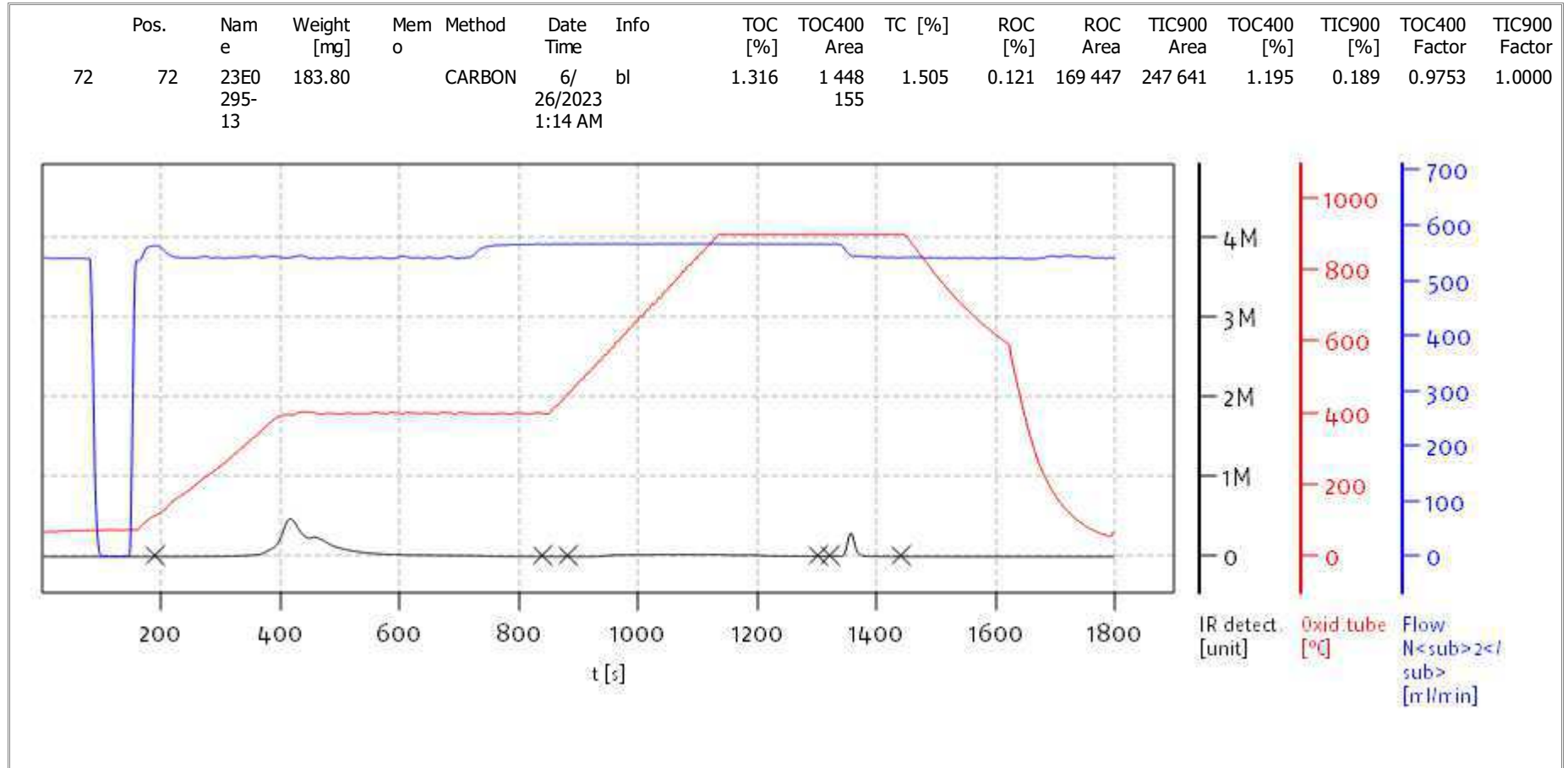
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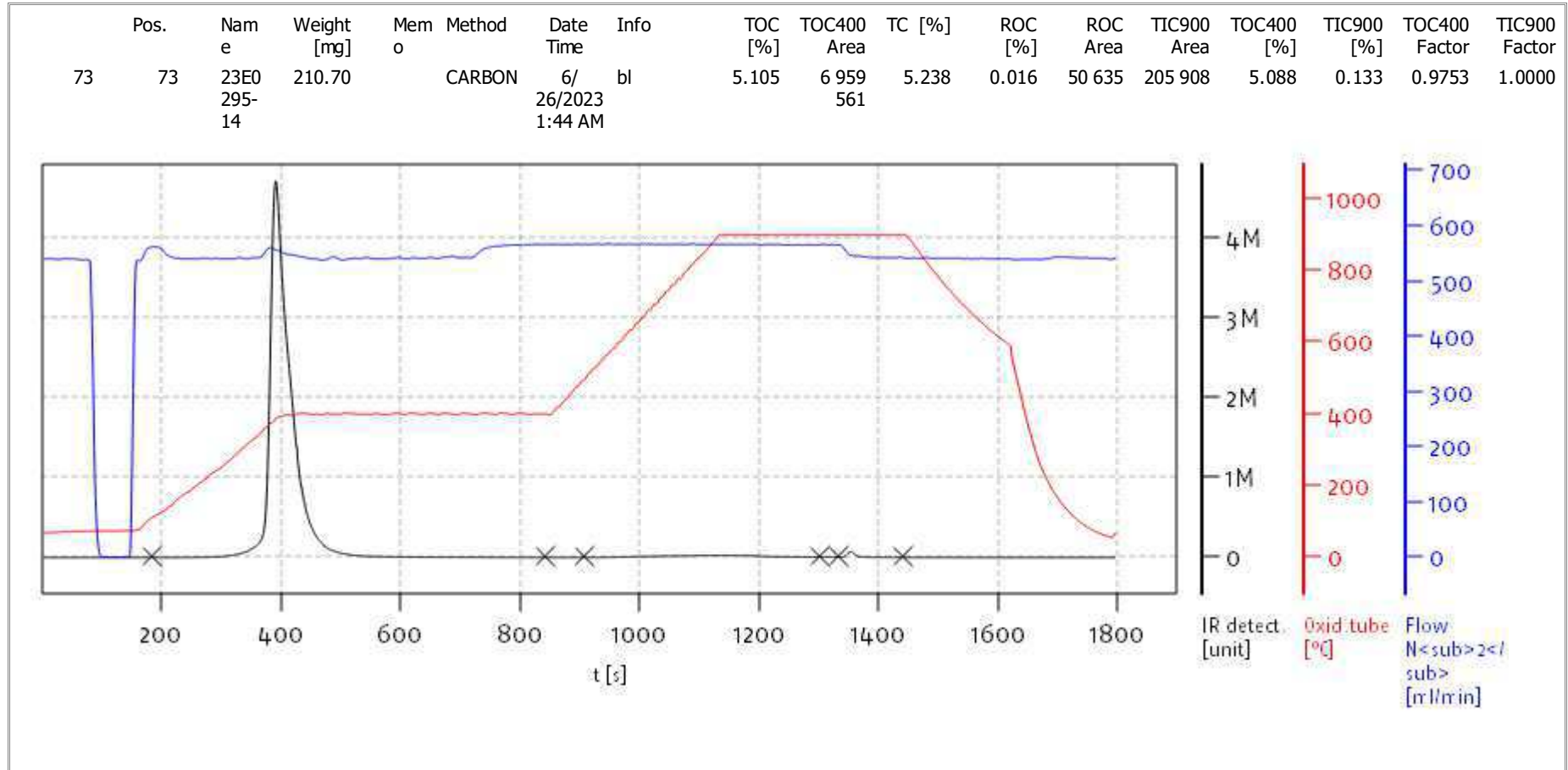
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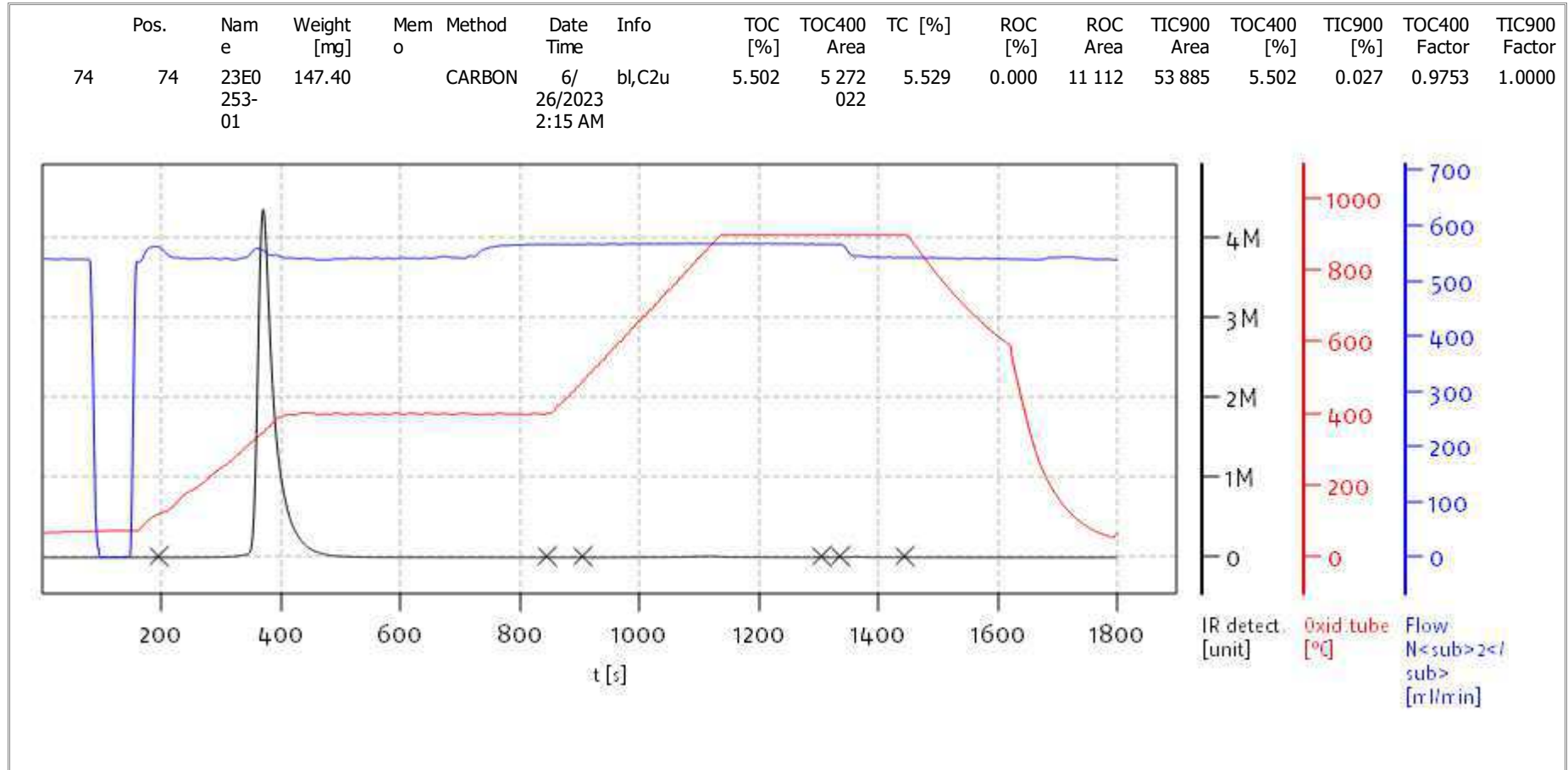
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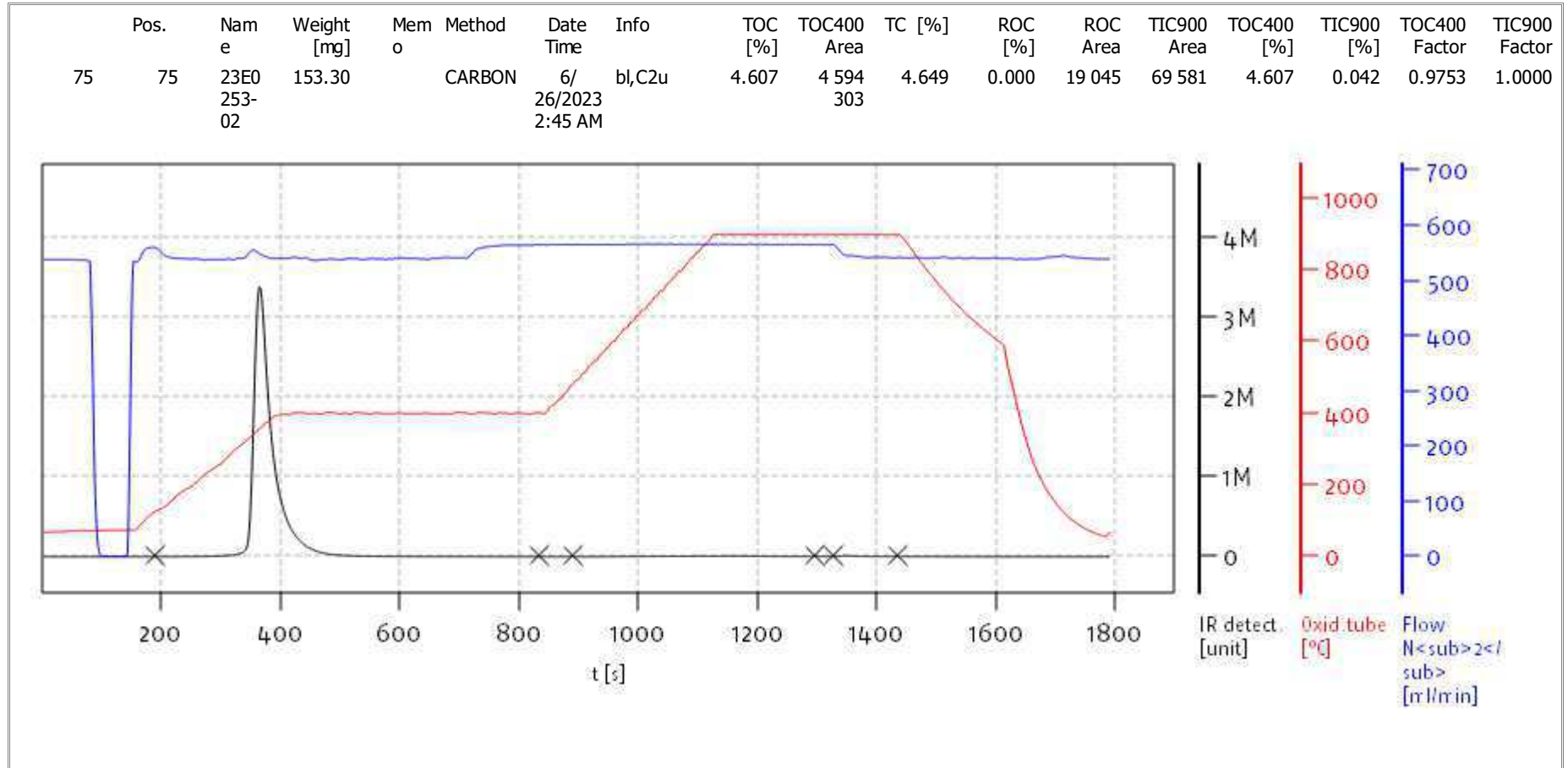
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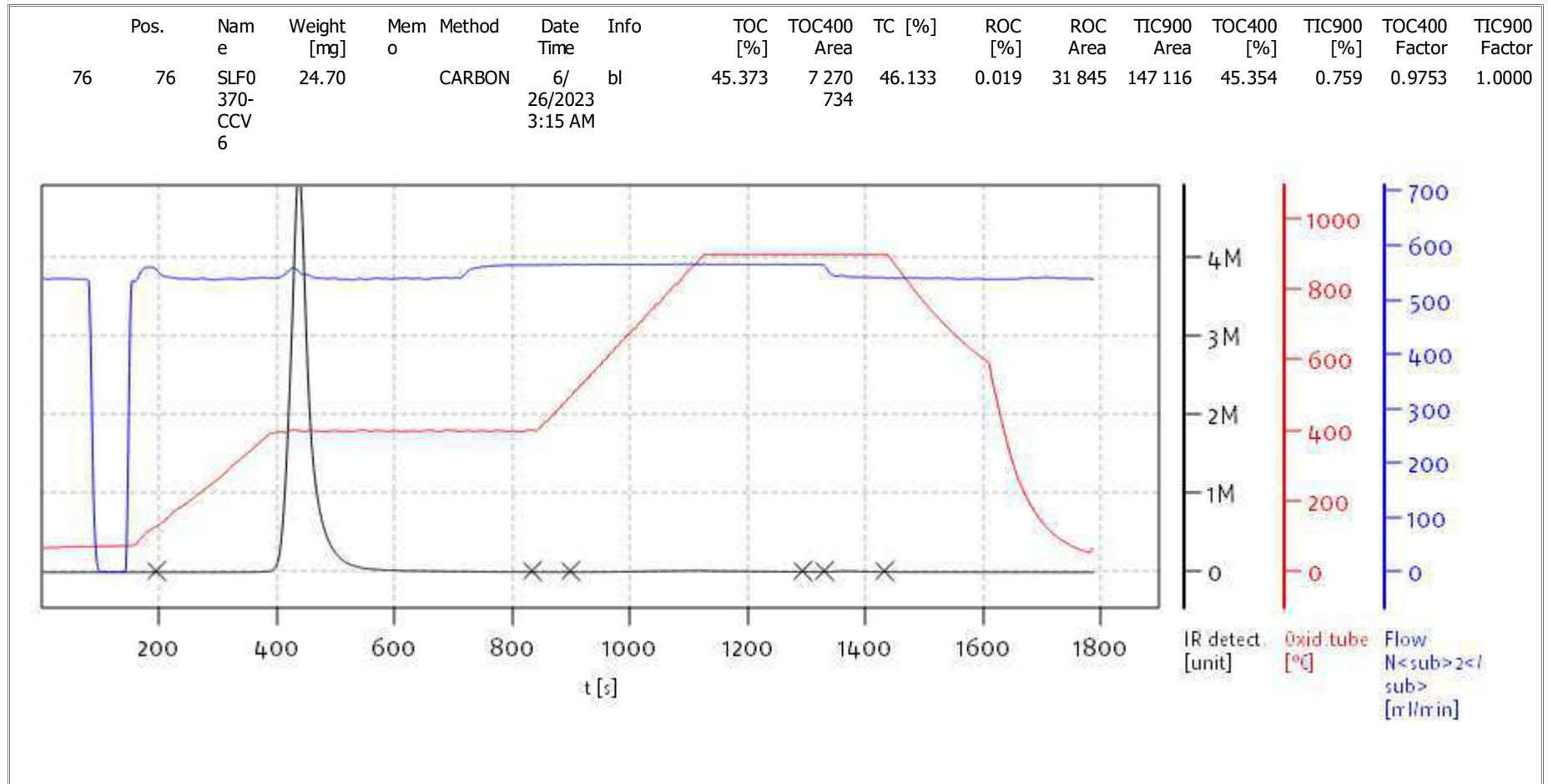
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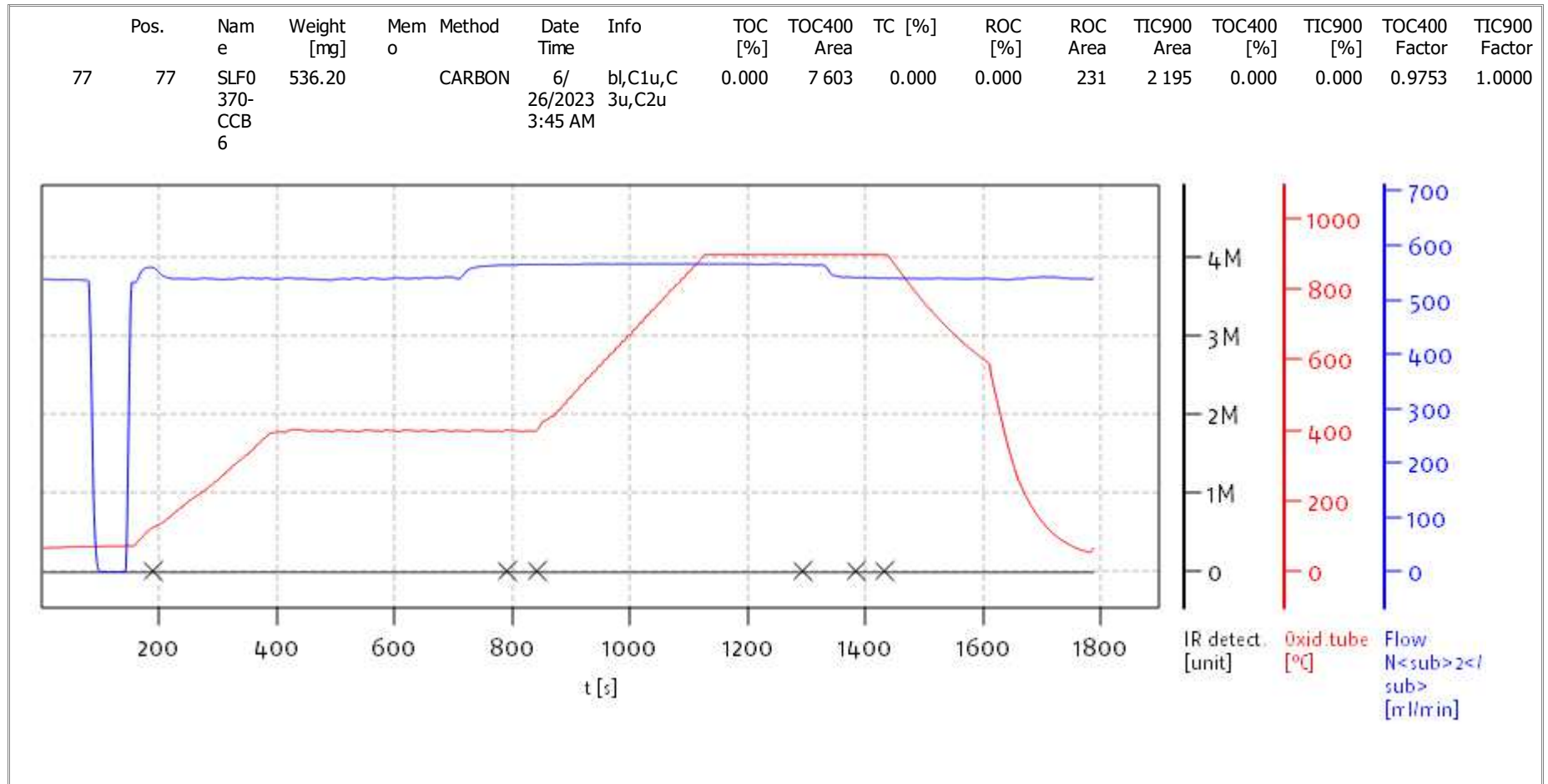
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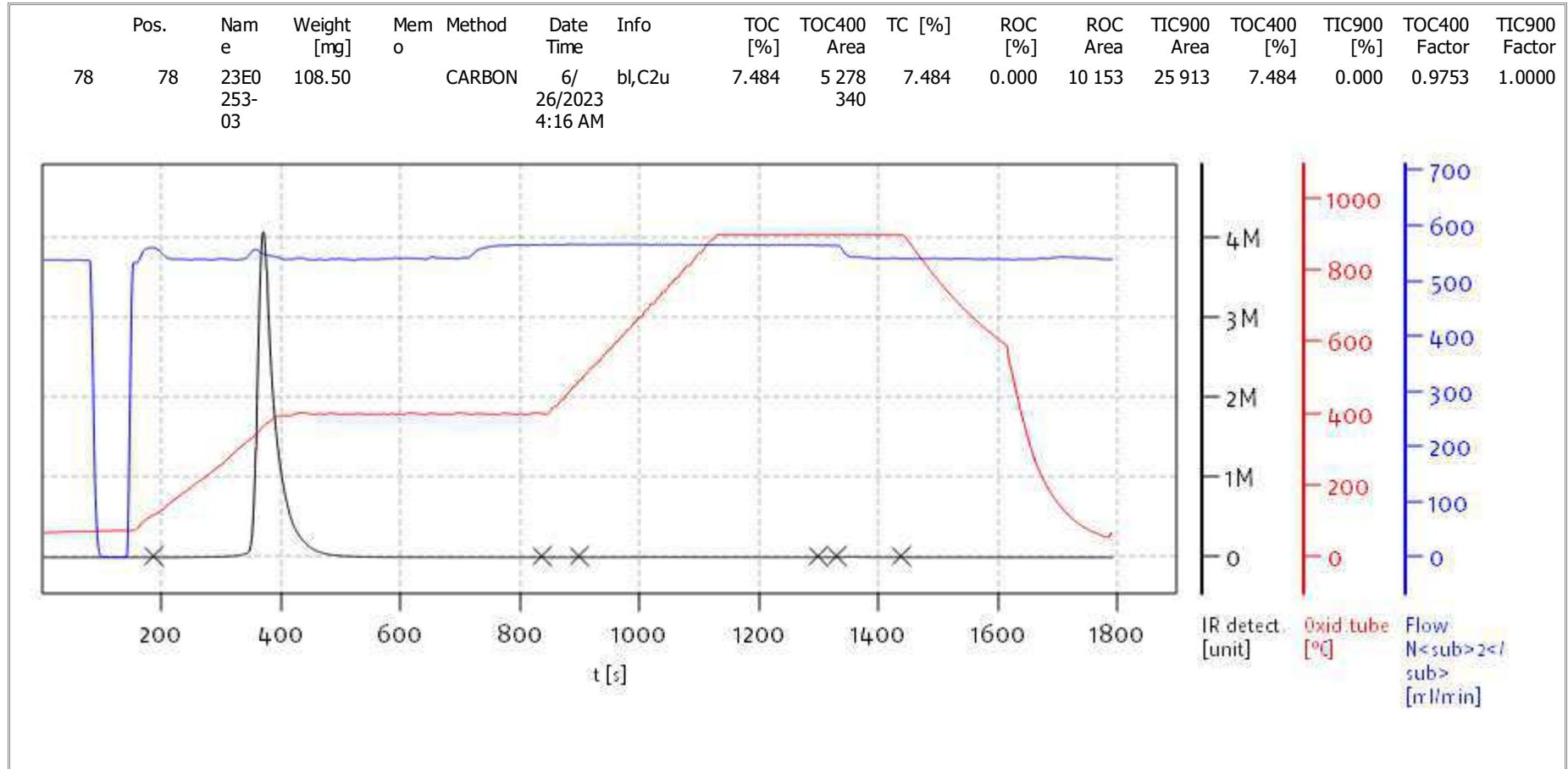
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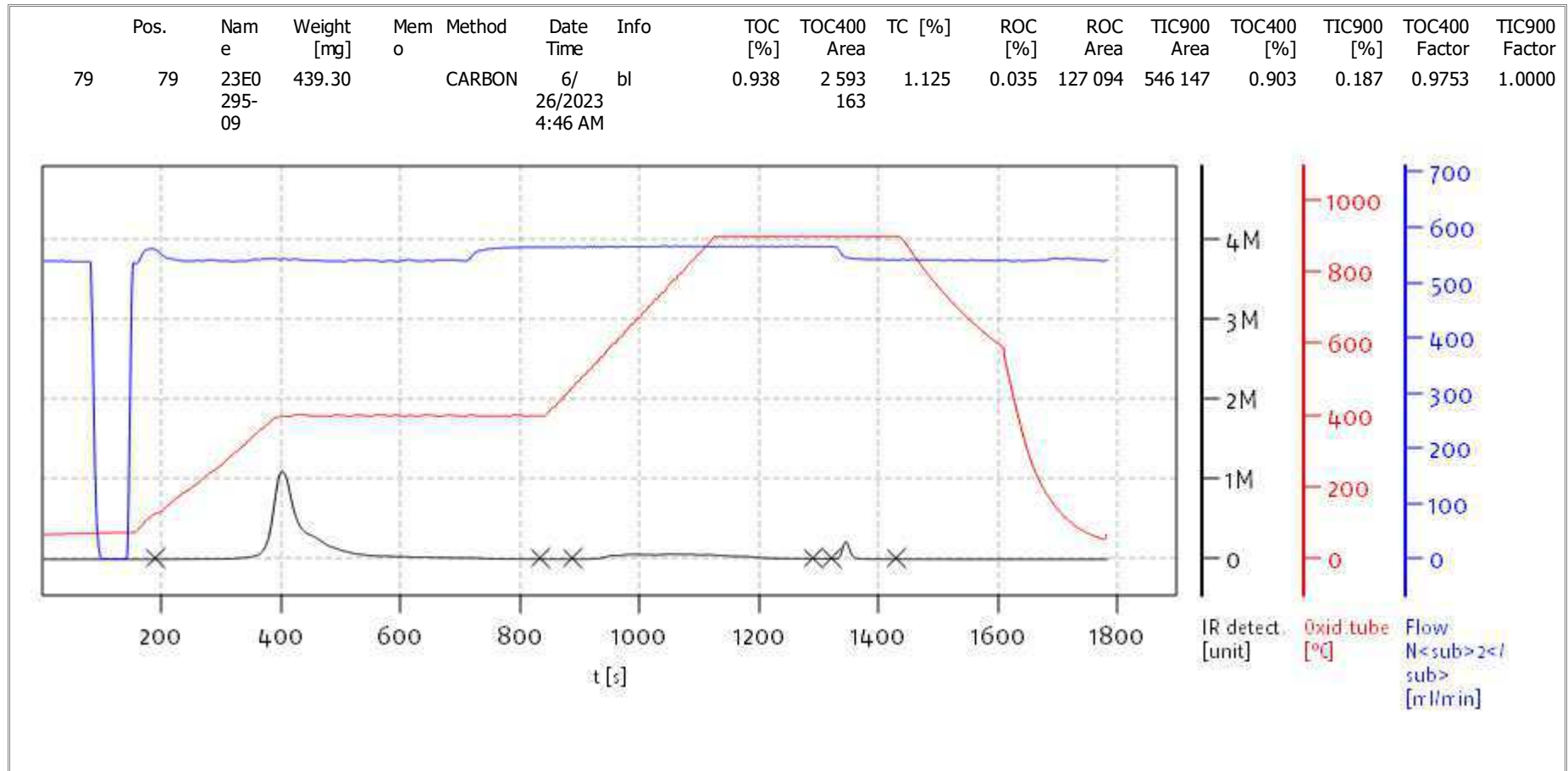
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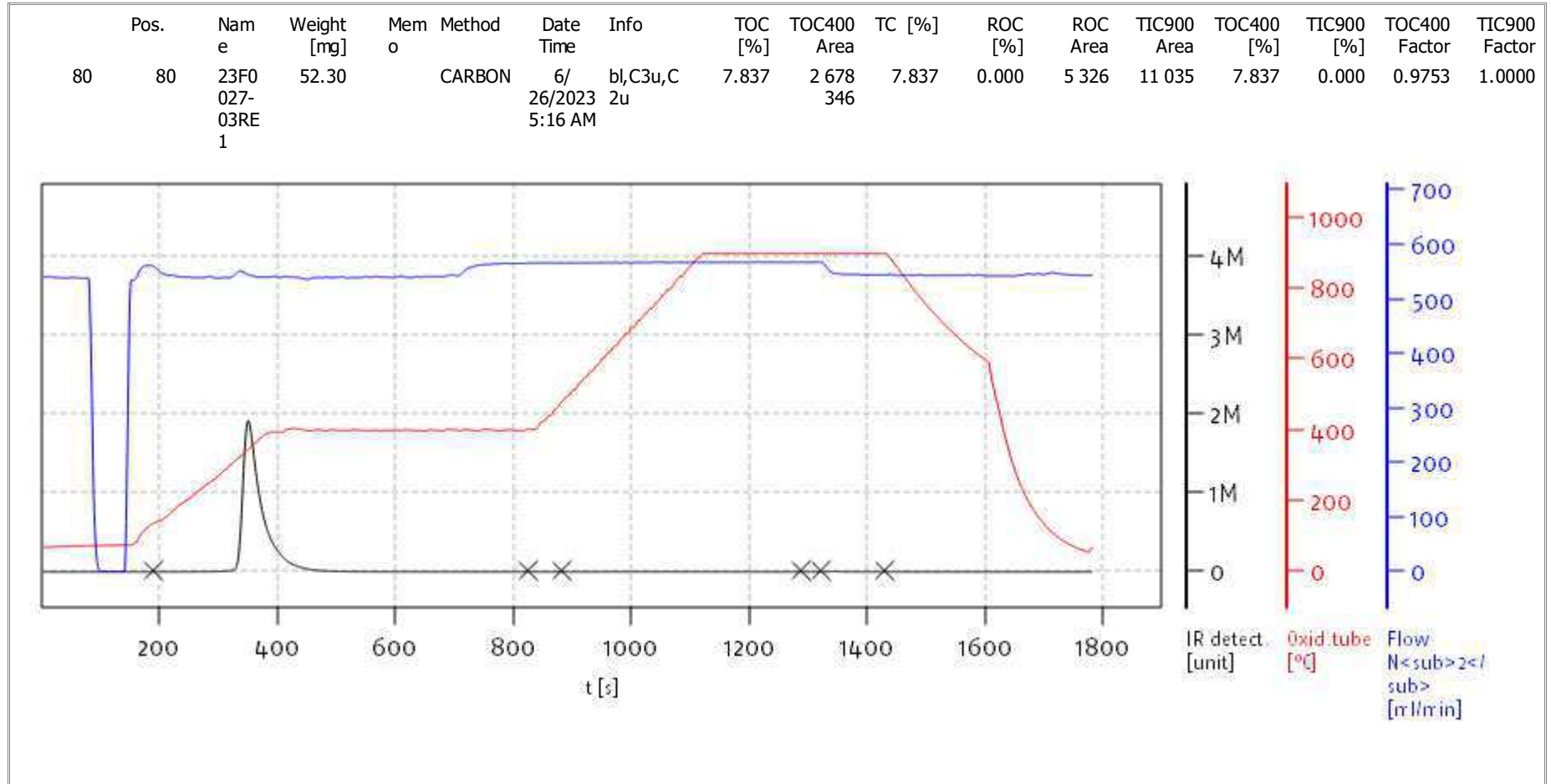
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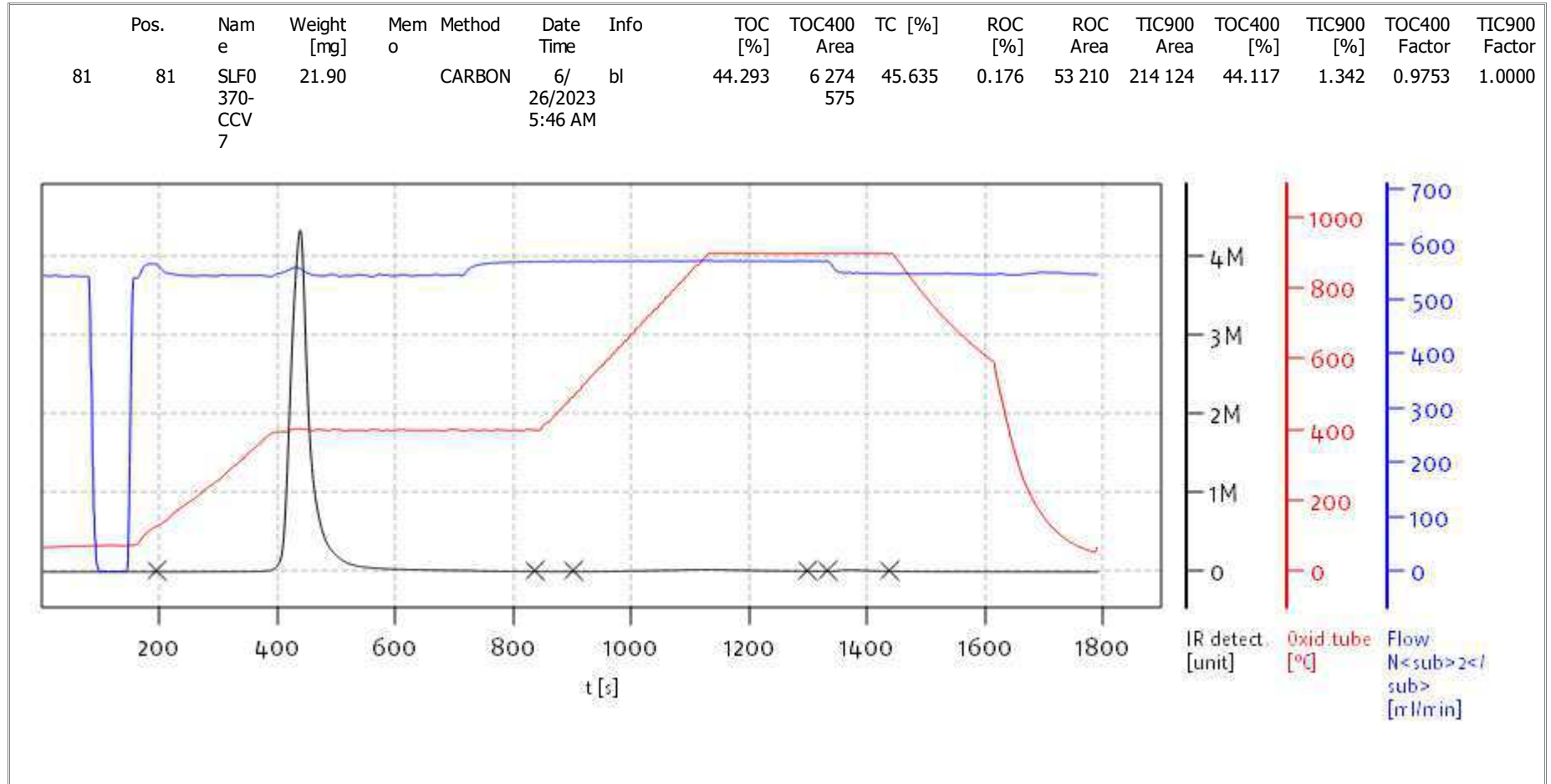
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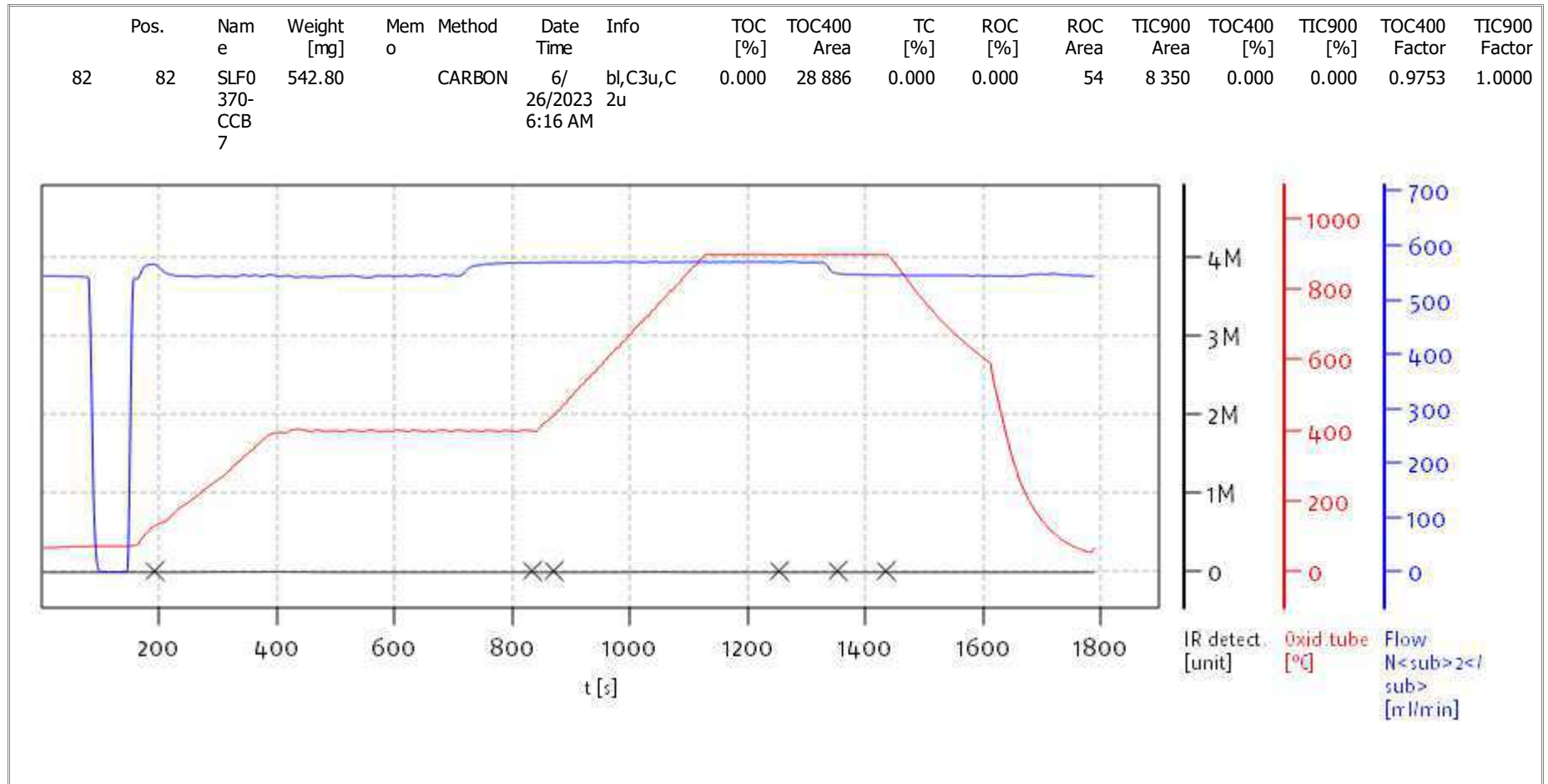
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Soli TOC Cube, Carbon
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Date: Mon Jun 26 10:08:08 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00052

Instrument: TOC Cube

Calibration Date: 05/17/2023 10:07

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.0081413	2824365	0.015378	1908831	0.02171	2161539	0.030153	2354094	0.04523	1647690	0.060306	1529782
Total Carbon	0.0081413	2824365	0.015378	1908831	0.02171	2161539	0.030153	2354094	0.04523	1647690	0.060306	1529782
Total Inorganic Carbon	0.0081413	2824365	0.015378	1908831	0.02171	2161539	0.030153	2354094	0.04523	1647690	0.060306	1529782
% Soot	0.0081413	2824365	0.015378	1908831	0.02171	2161539	0.030153	2354094	0.04523	1647690	0.060306	1529782



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00052

Instrument: TOC Cube

Calibration Date: 05/17/2023 10:07

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.075081	1526165	0.092268	1411324	0.12031	1696235	0.15107	1646548	0.24	1507392	0.306	1652209
Total Carbon	0.075081	1526165	0.092268	1411324	0.12031	1696235	0.15107	1646548	0.24	1507392	0.306	1652209
Total Inorganic Carbon	0.075081	1526165	0.092268	1411324	0.12031	1696235	0.15107	1646548	0.24	1507392	0.306	1652209
% Soot	0.075081	1526165	0.092268	1411324	0.12031	1696235	0.15107	1646548	0.24	1507392	0.306	1652209



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00052

Instrument: TOC Cube

Calibration Date: 05/17/2023 10:07

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.426	1366392	0.606	1382589	0.894	1387318	1.206	1393572	1.506	1392225	1.806	1387100
Total Carbon	0.426	1366392	0.606	1382589	0.894	1387318	1.206	1393572	1.506	1392225	1.806	1387100
Total Inorganic Carbon	0.426	1366392	0.606	1382589	0.894	1387318	1.206	1393572	1.506	1392225	1.806	1387100
% Soot	0.426	1366392	0.606	1382589	0.894	1387318	1.206	1393572	1.506	1392225	1.806	1387100



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00052

Instrument: TOC Cube

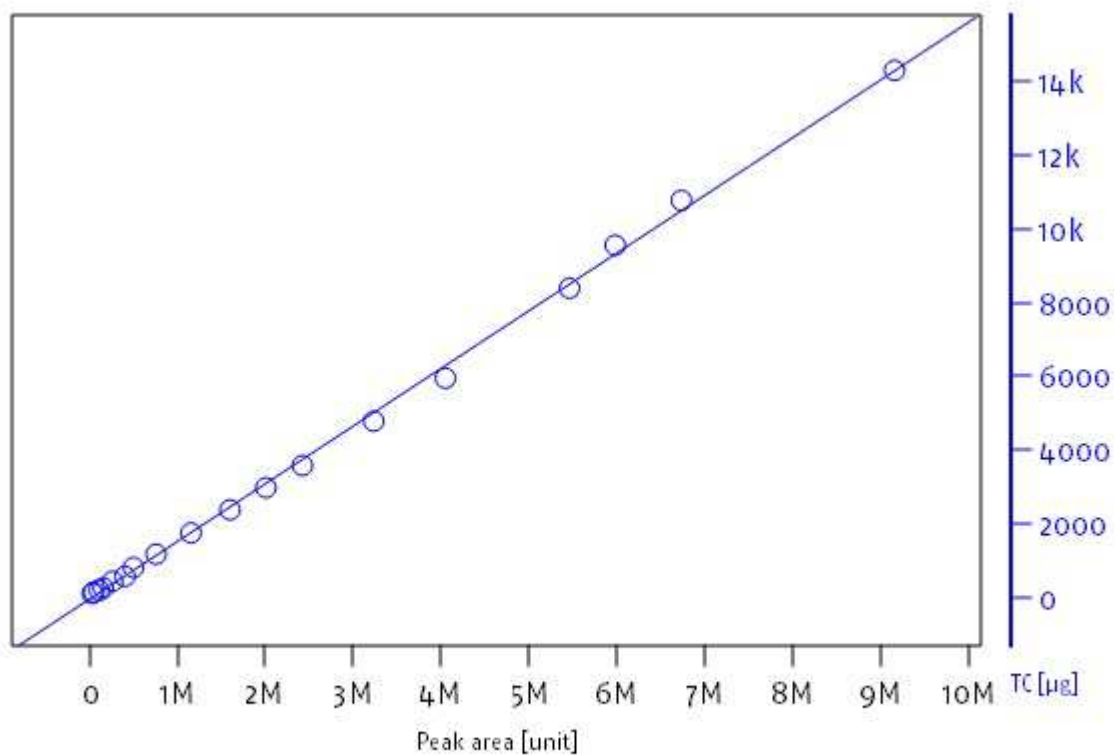
Calibration Date: 05/17/2023 10:07

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	2.406	1383080	2.988	1392309	4.206	1321832	4.788	1266559	5.394	1264318	7.152	1292654
Total Carbon	2.406	1383080	2.988	1392309	4.206	1321832	4.788	1266559	5.394	1264318	7.152	1292654
Total Inorganic Carbon	2.406	1383080	2.988	1392309	4.206	1321832	4.788	1266559	5.394	1264318	7.152	1292654
% Soot	2.406	1383080	2.988	1392309	4.206	1321832	4.788	1266559	5.394	1264318	7.152	1292654

Calibration parameters TC, Whole range

a	+9.122373e-03
b	+1.560792e-06
c	+0.000000e+00
d	+0.000000e+00
e	+0.000000e+00
r	0.998690
r_old	0.998690
Proc.-SD	155.562438 µg

Calibration graph TC, Whole range



Name:

Access: solITOC superuser

Date: Thu May 18 10:02:15 2023



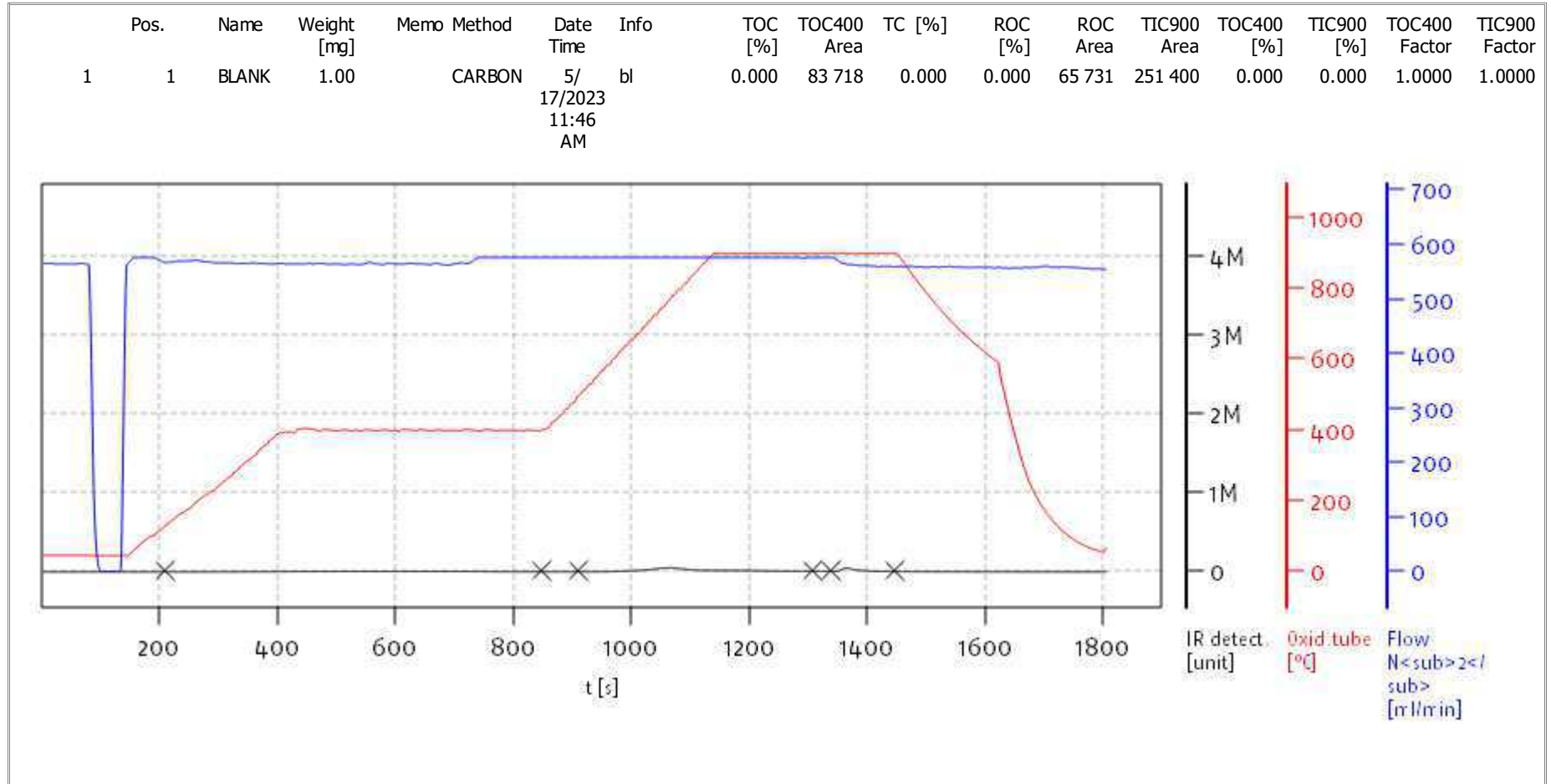
solITOC V2.0.2 (31015f9) 2018-11-19

Serial No: 0300.181017

Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

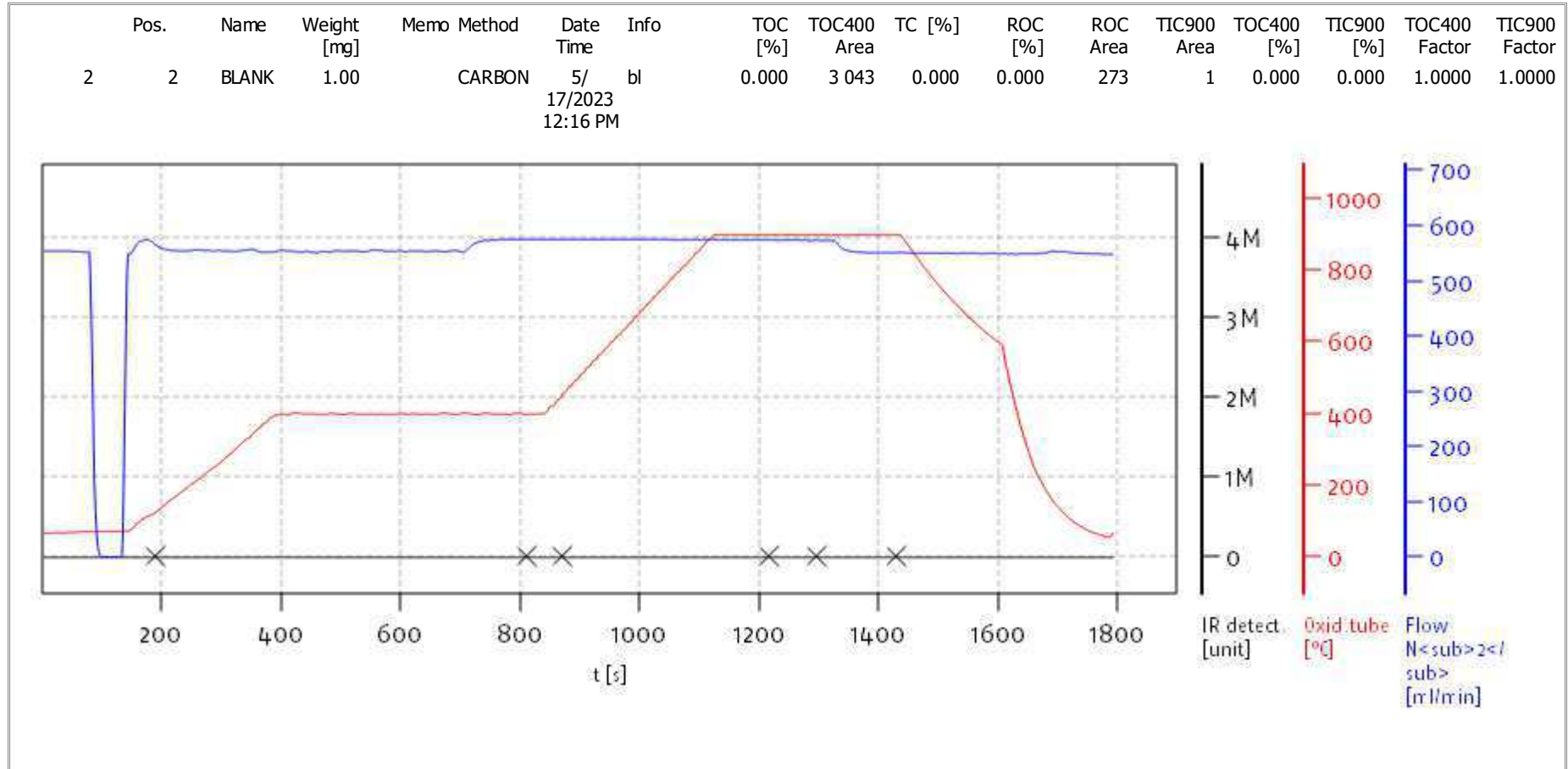
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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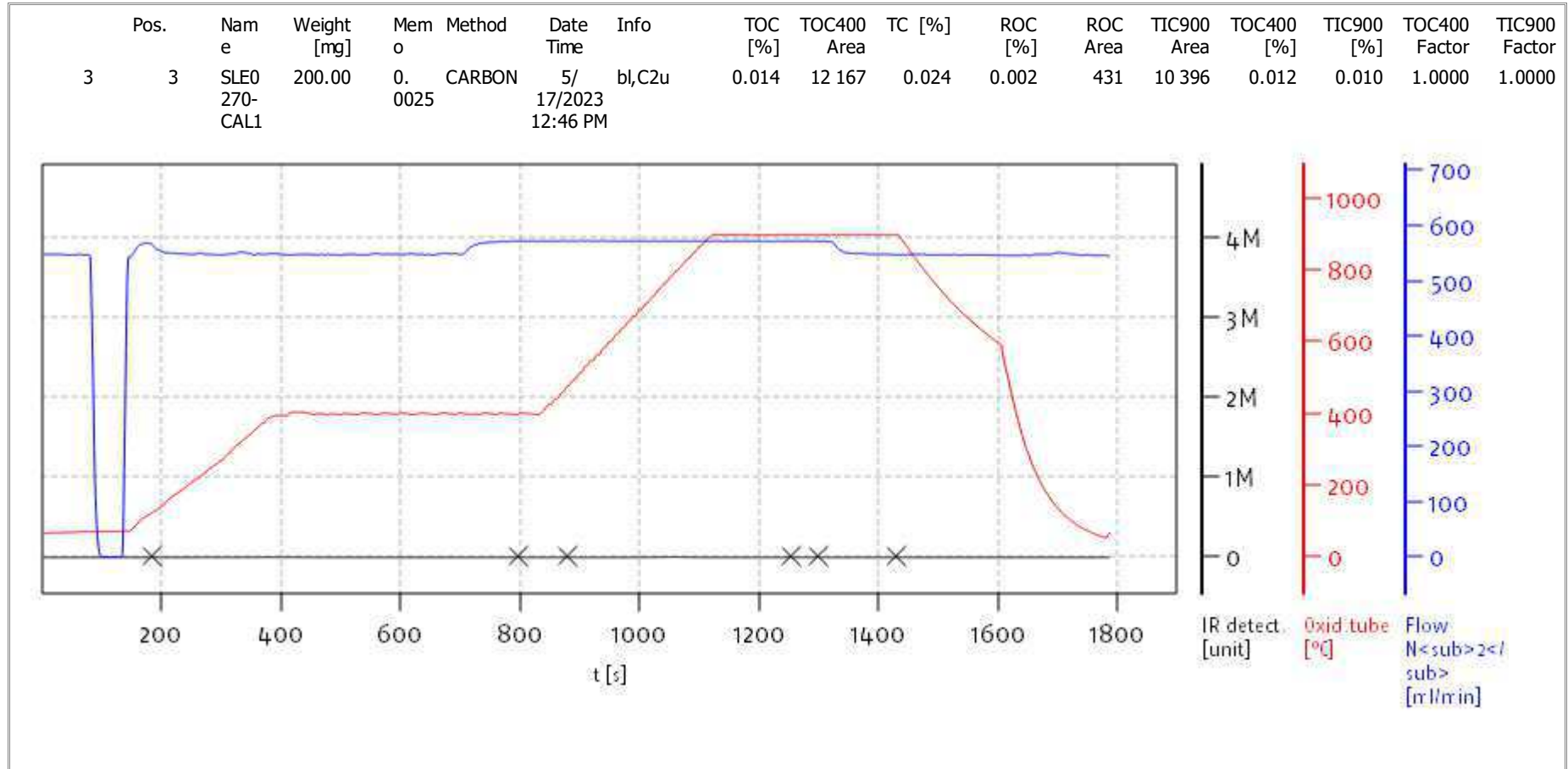
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solITOC V2.0.2 (31015f9) 2018-11-19
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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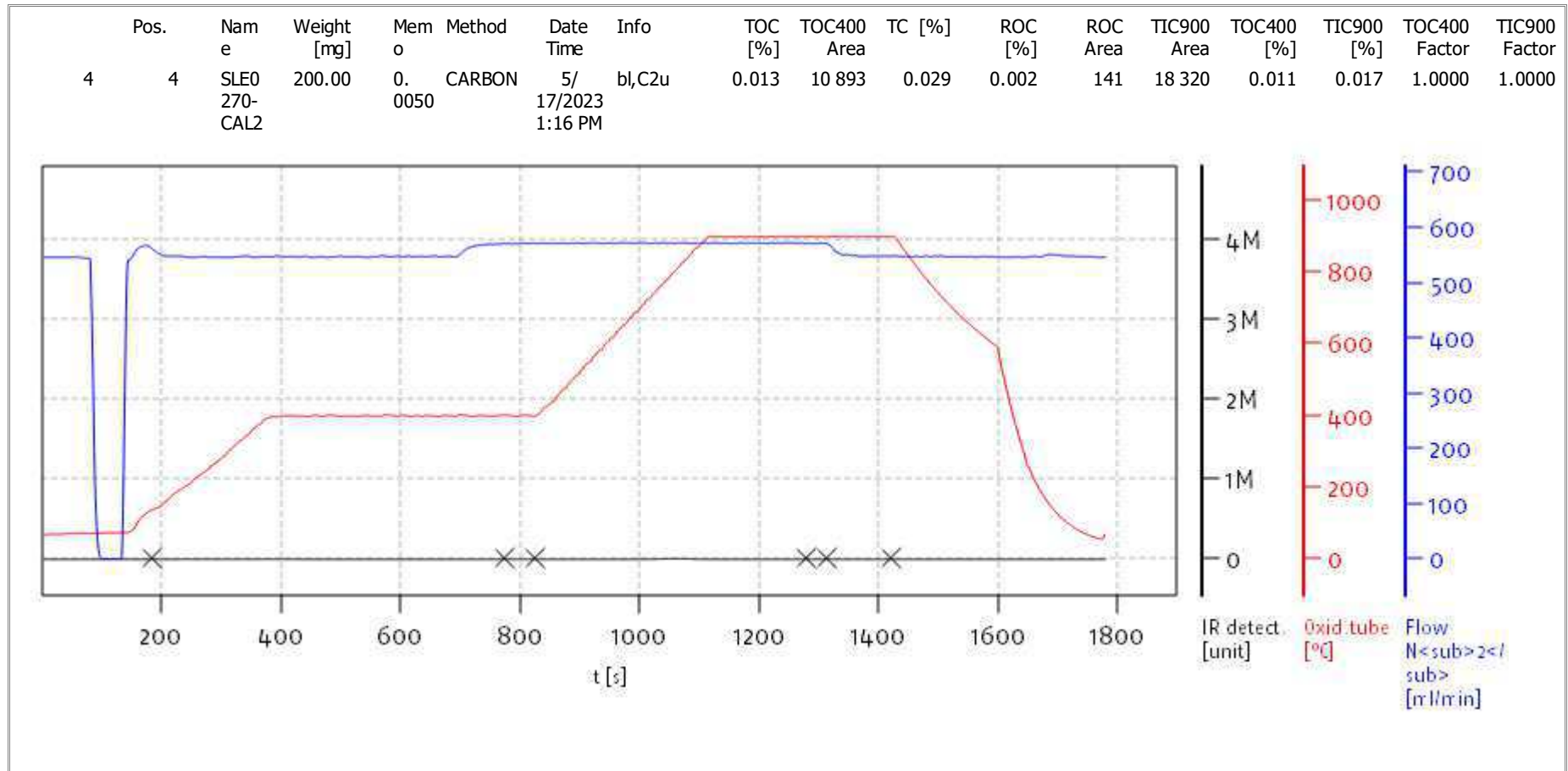
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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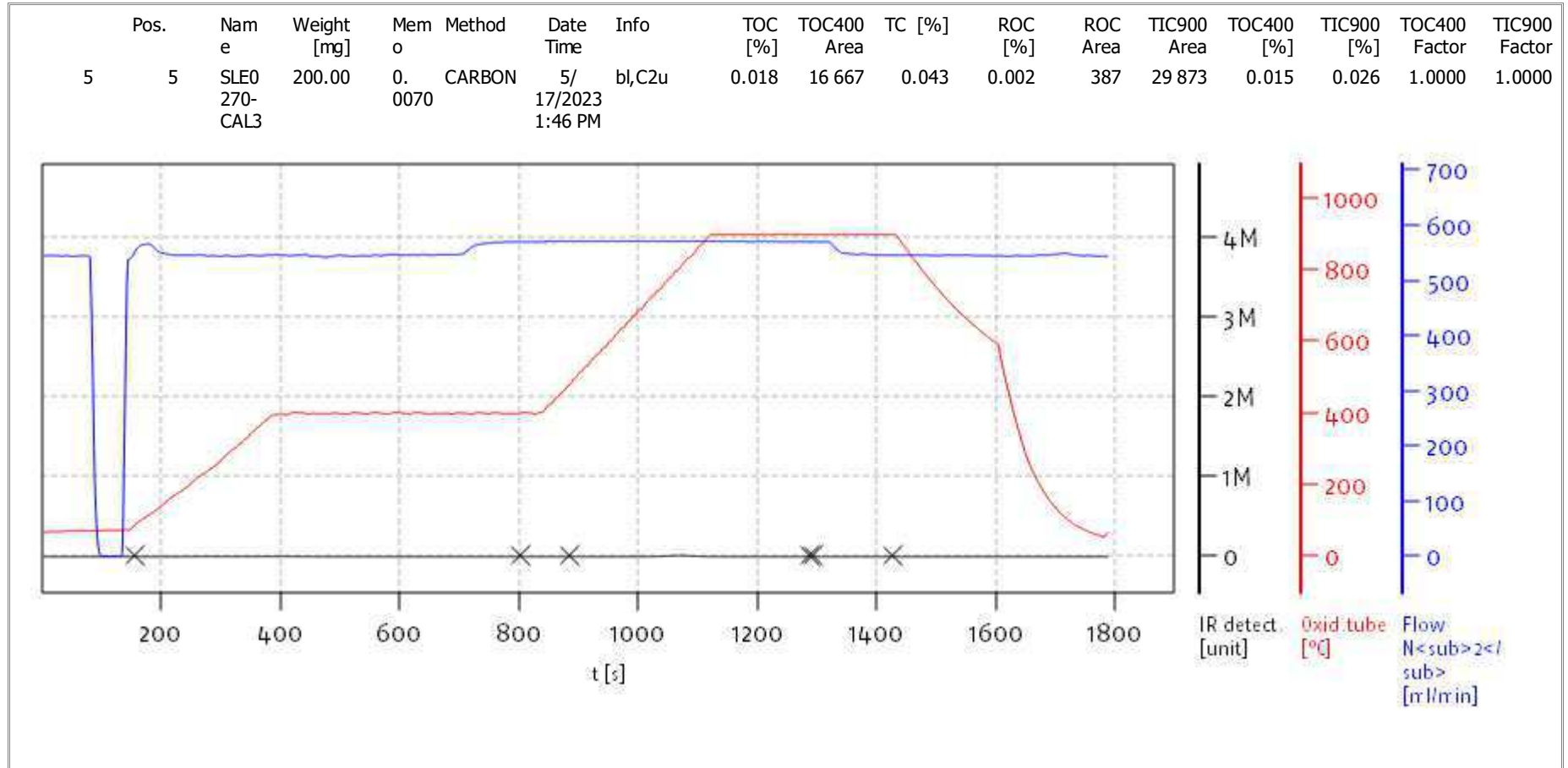
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Serial No: 0300.181017
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

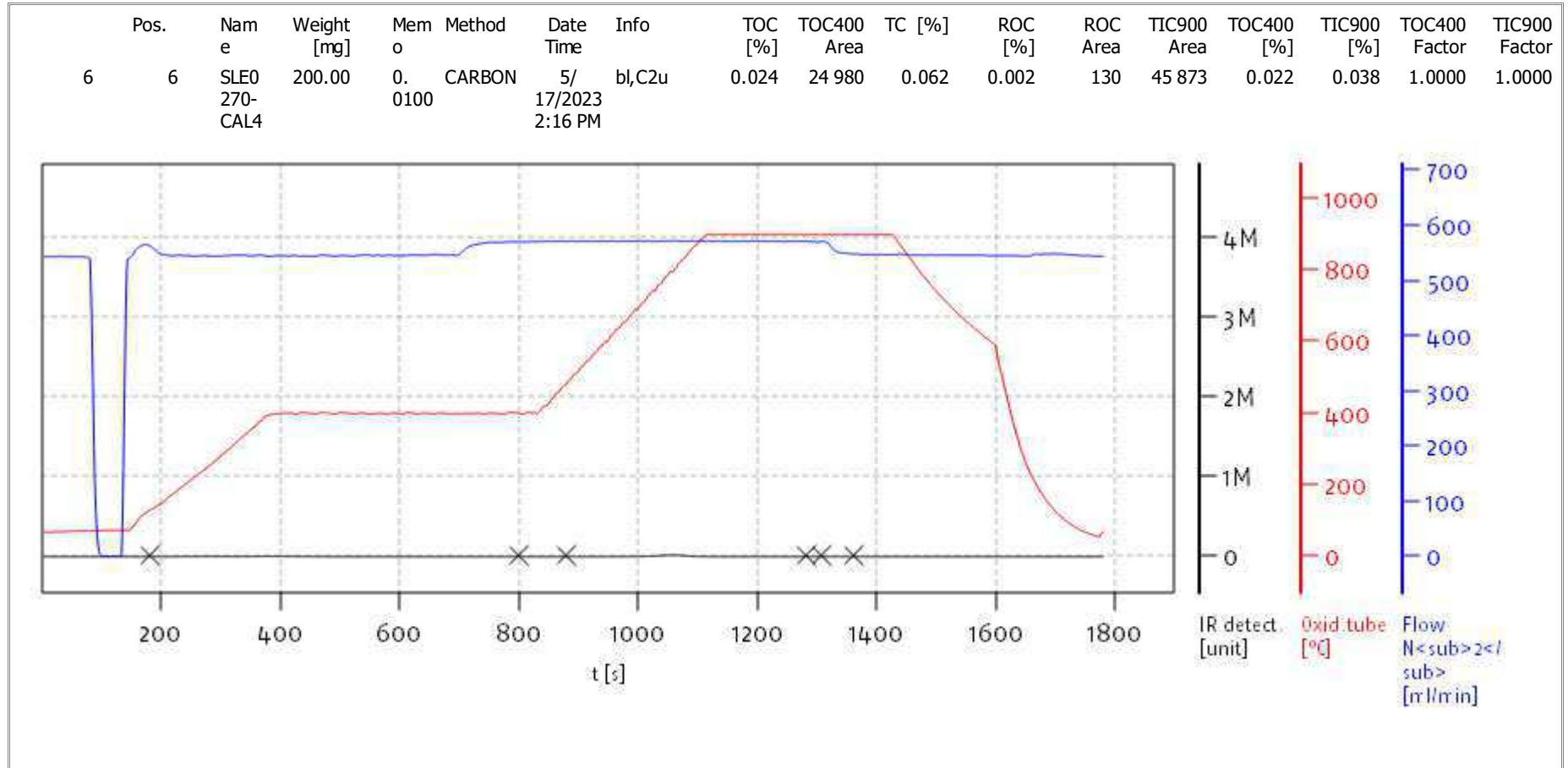
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

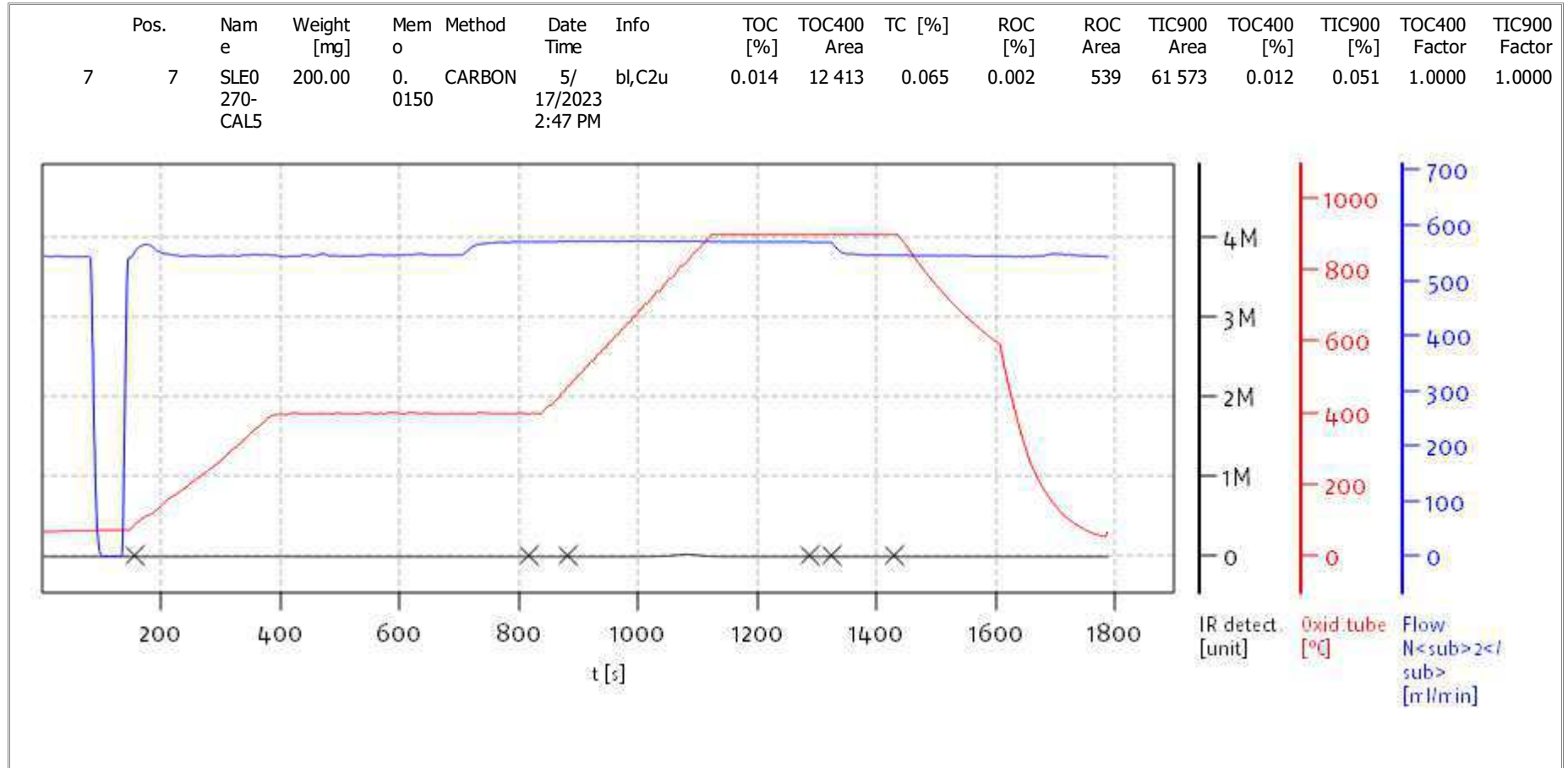
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

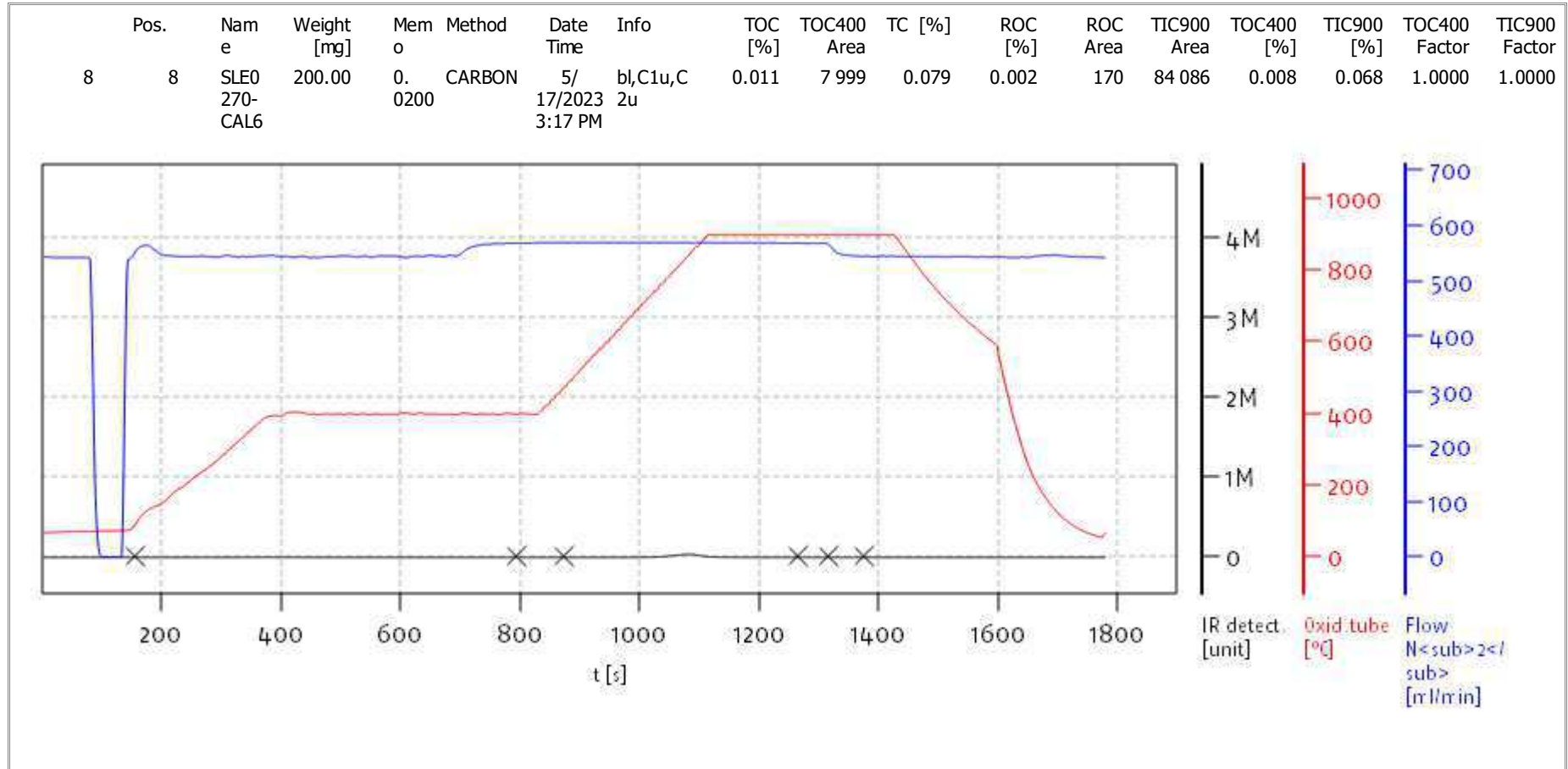
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

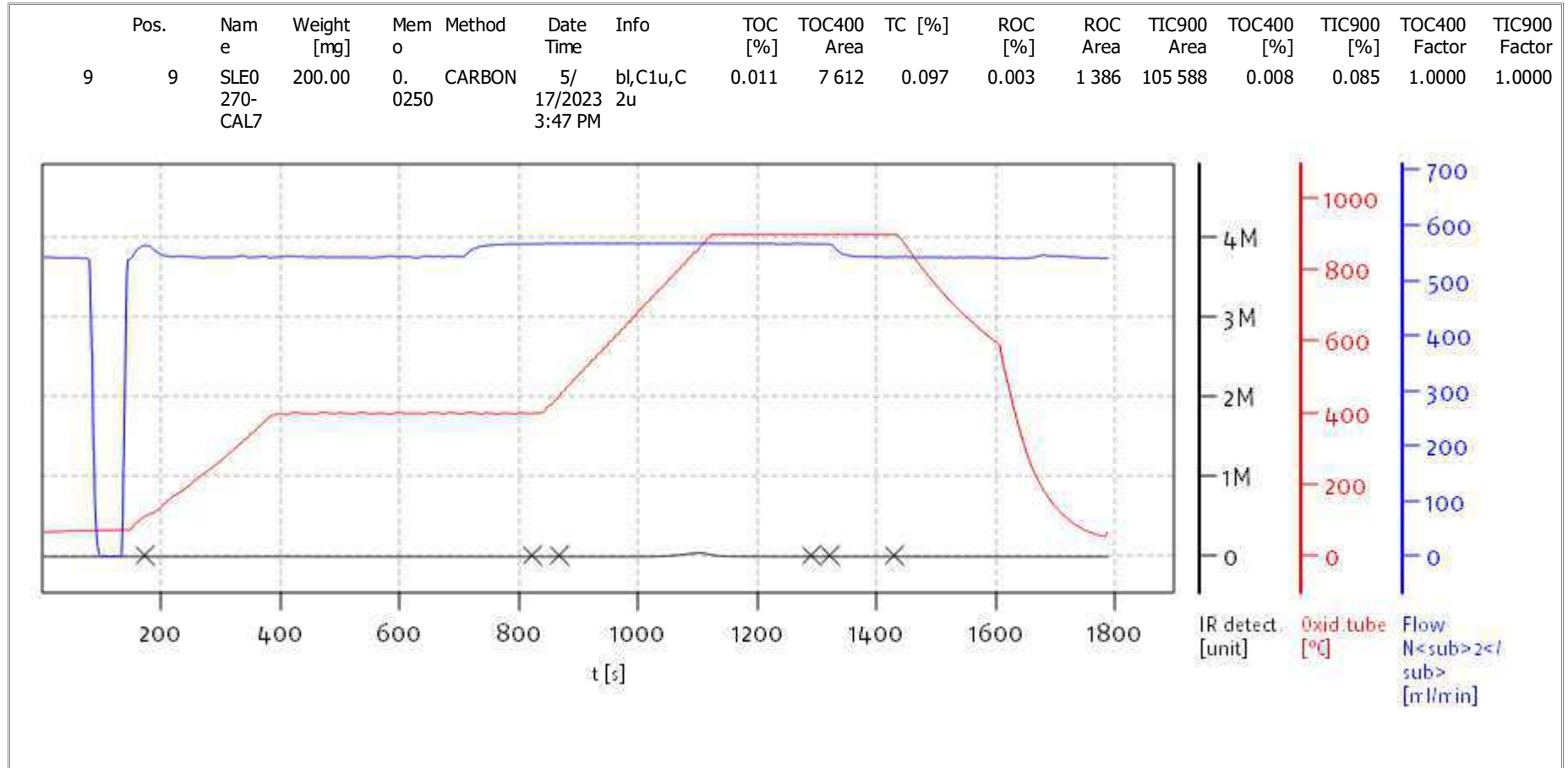
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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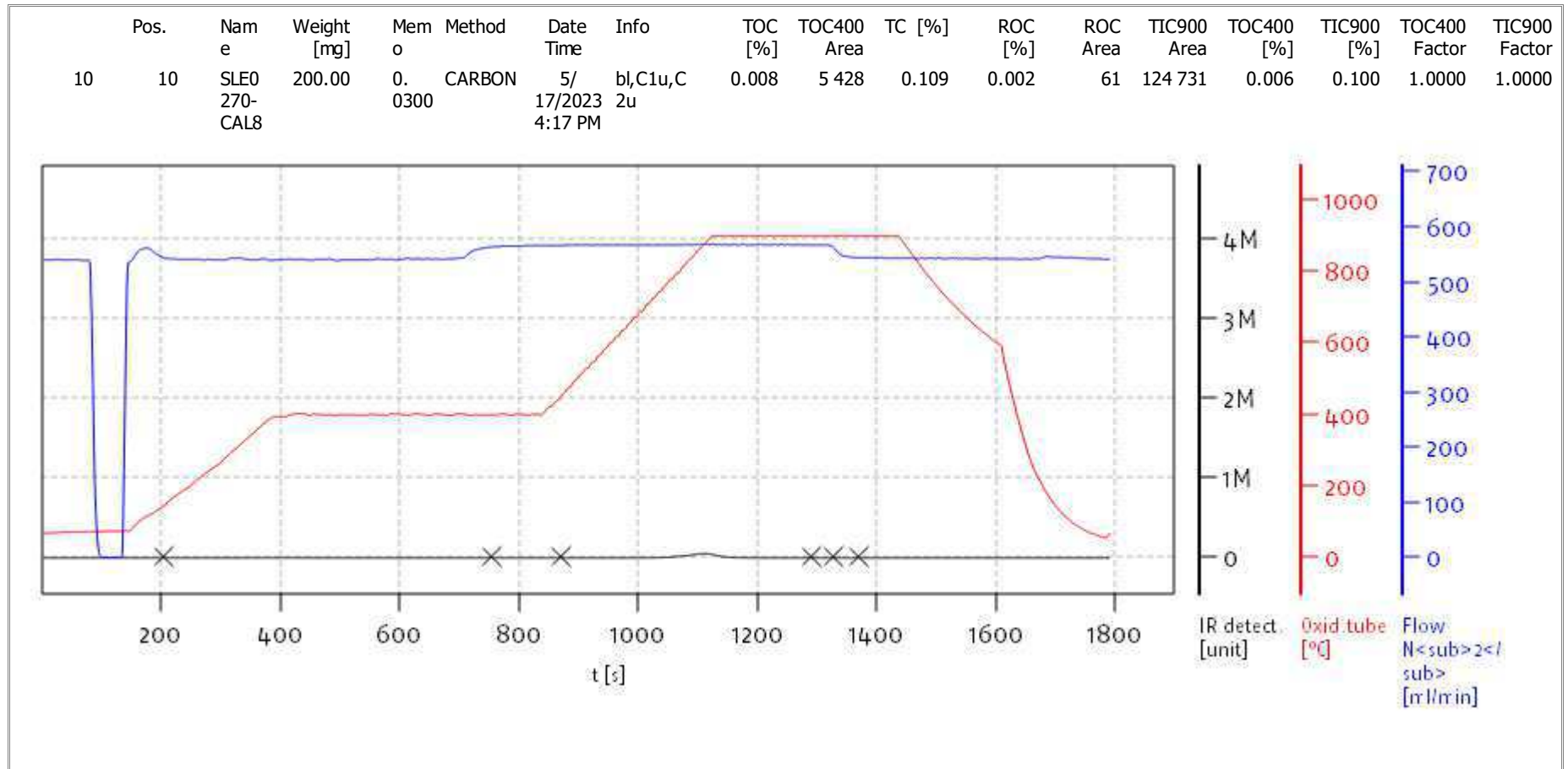
Date: Thu May 18 09:43:39 2023



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Mode CCC



Soli TOC Cube, Carbon
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Name:

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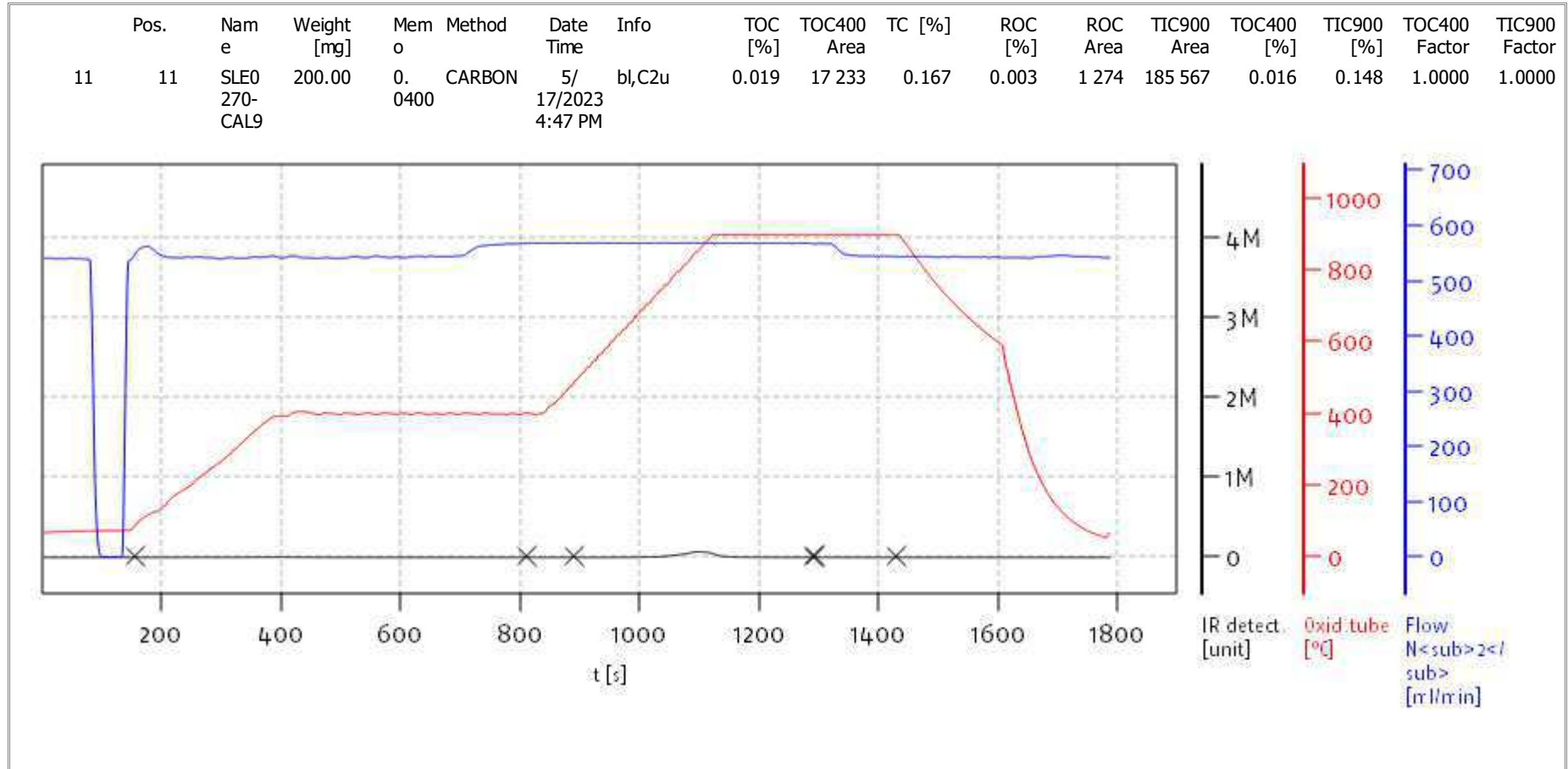
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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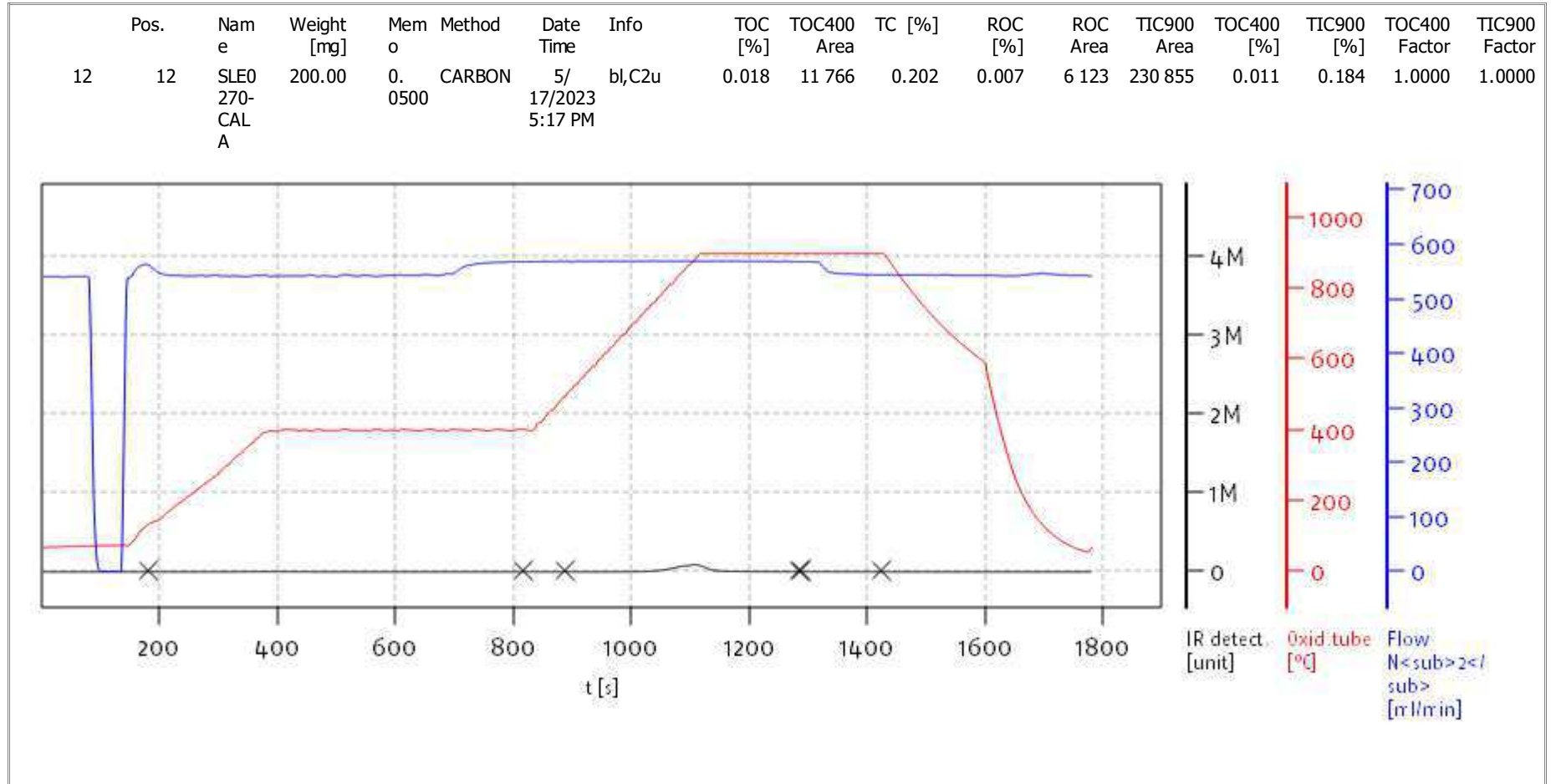
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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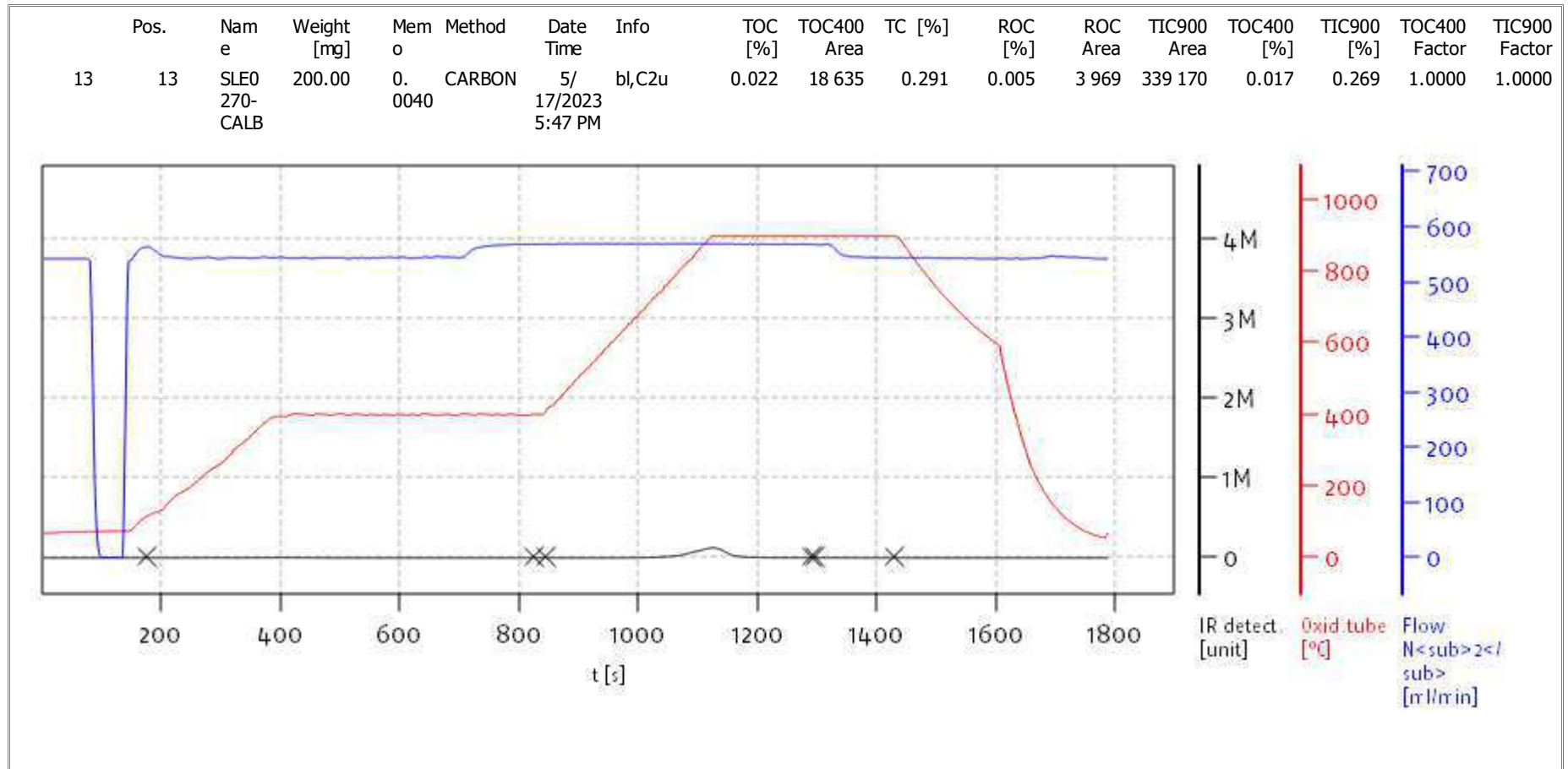
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

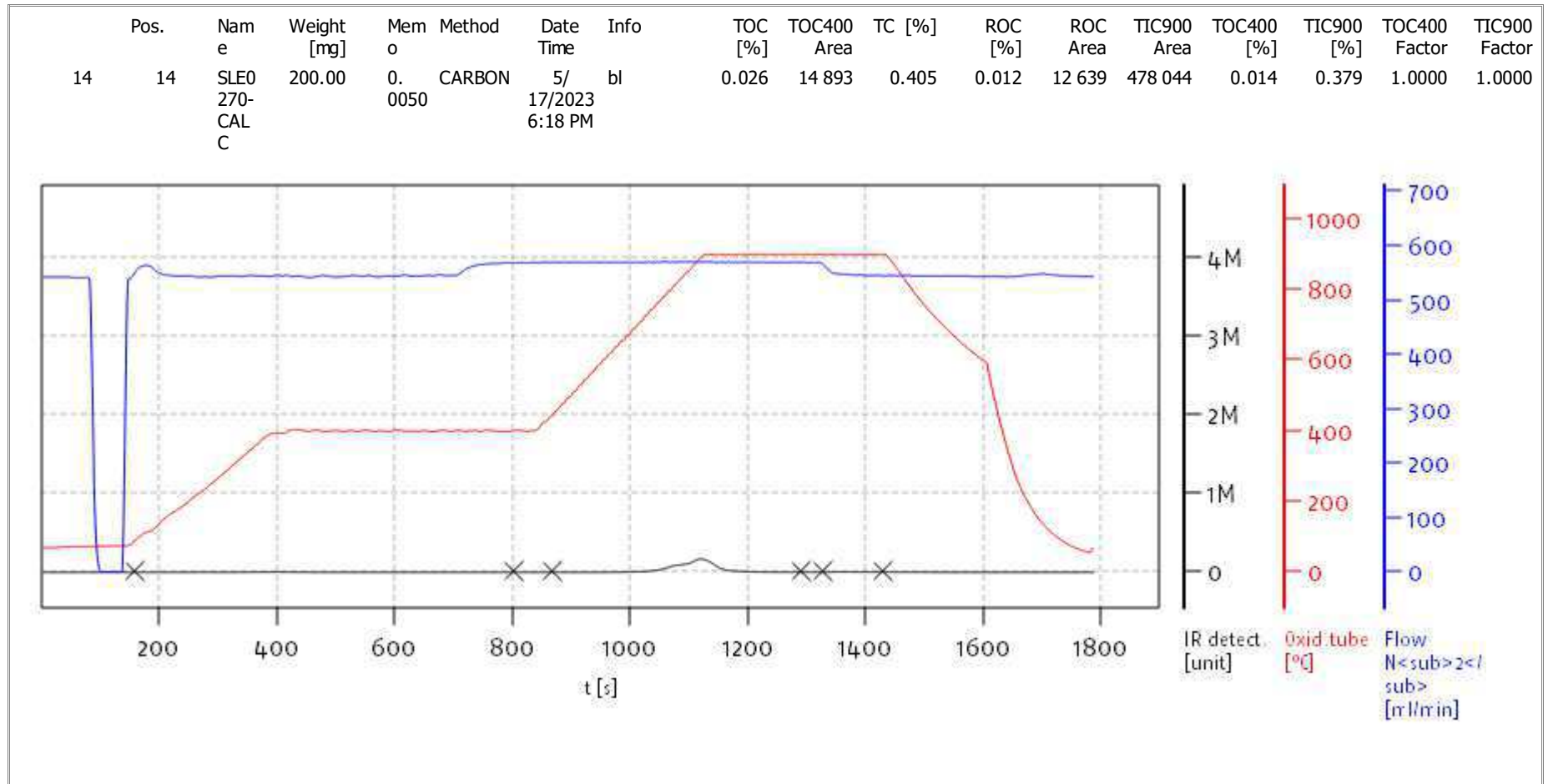
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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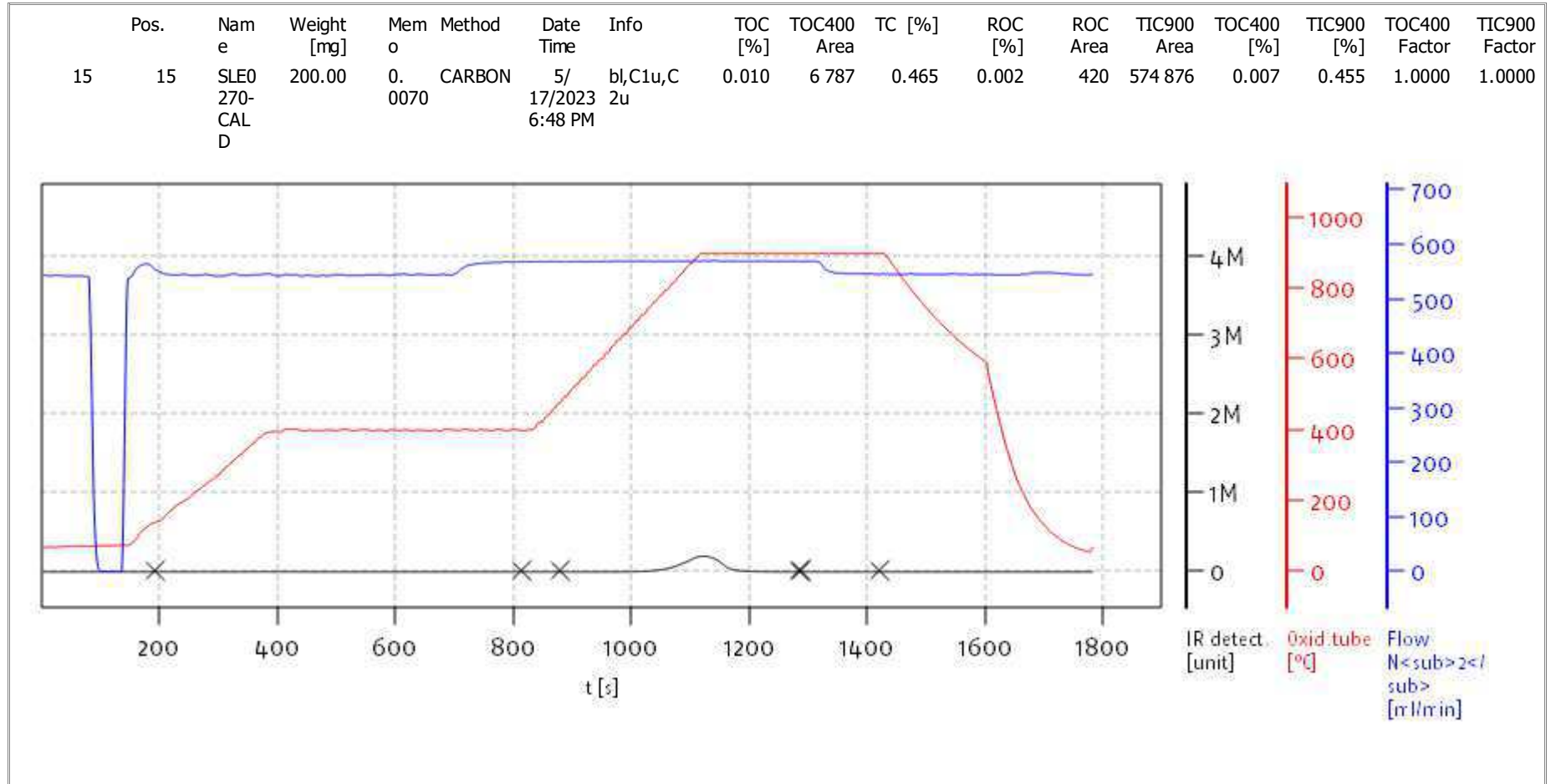
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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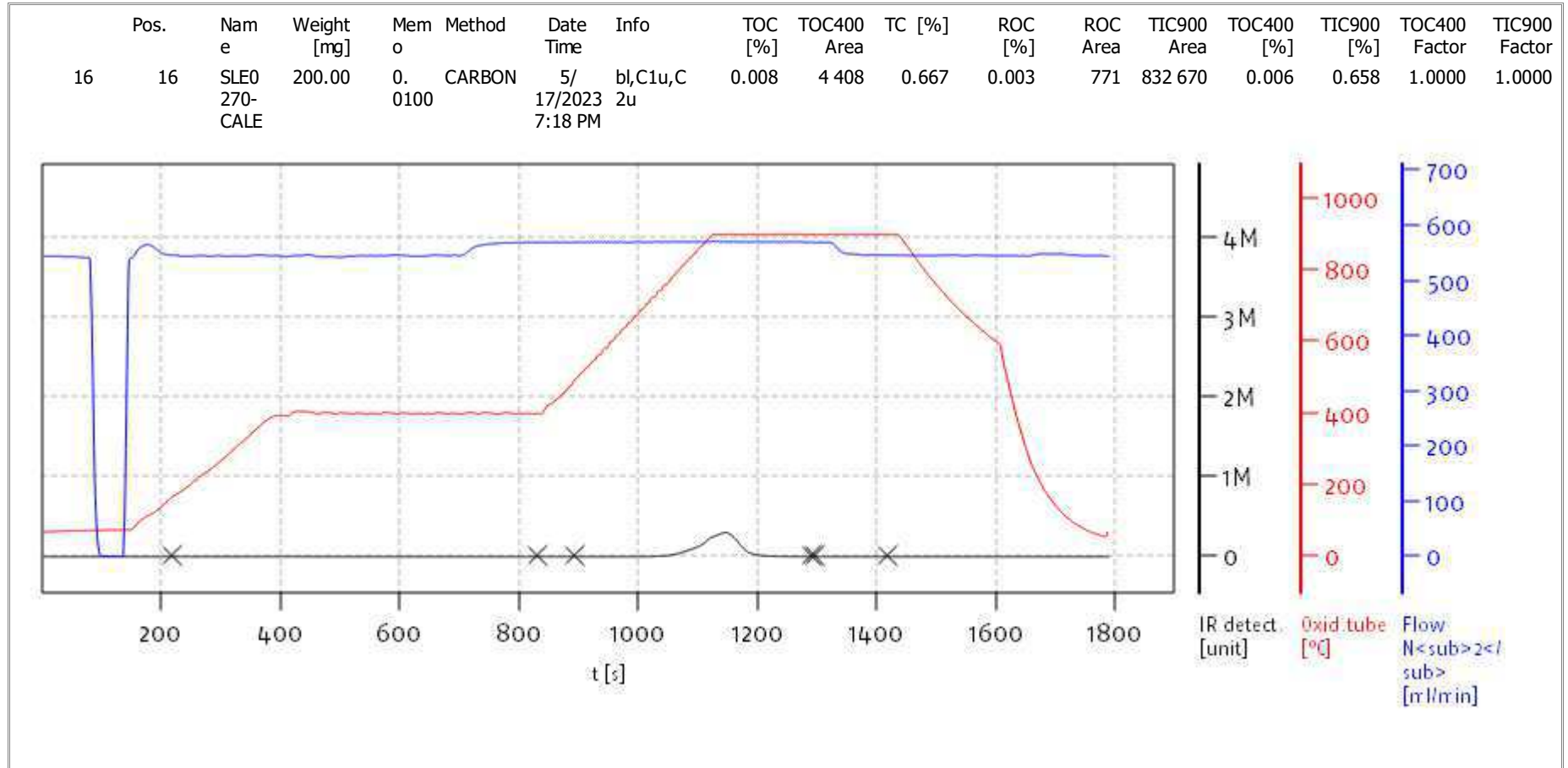
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

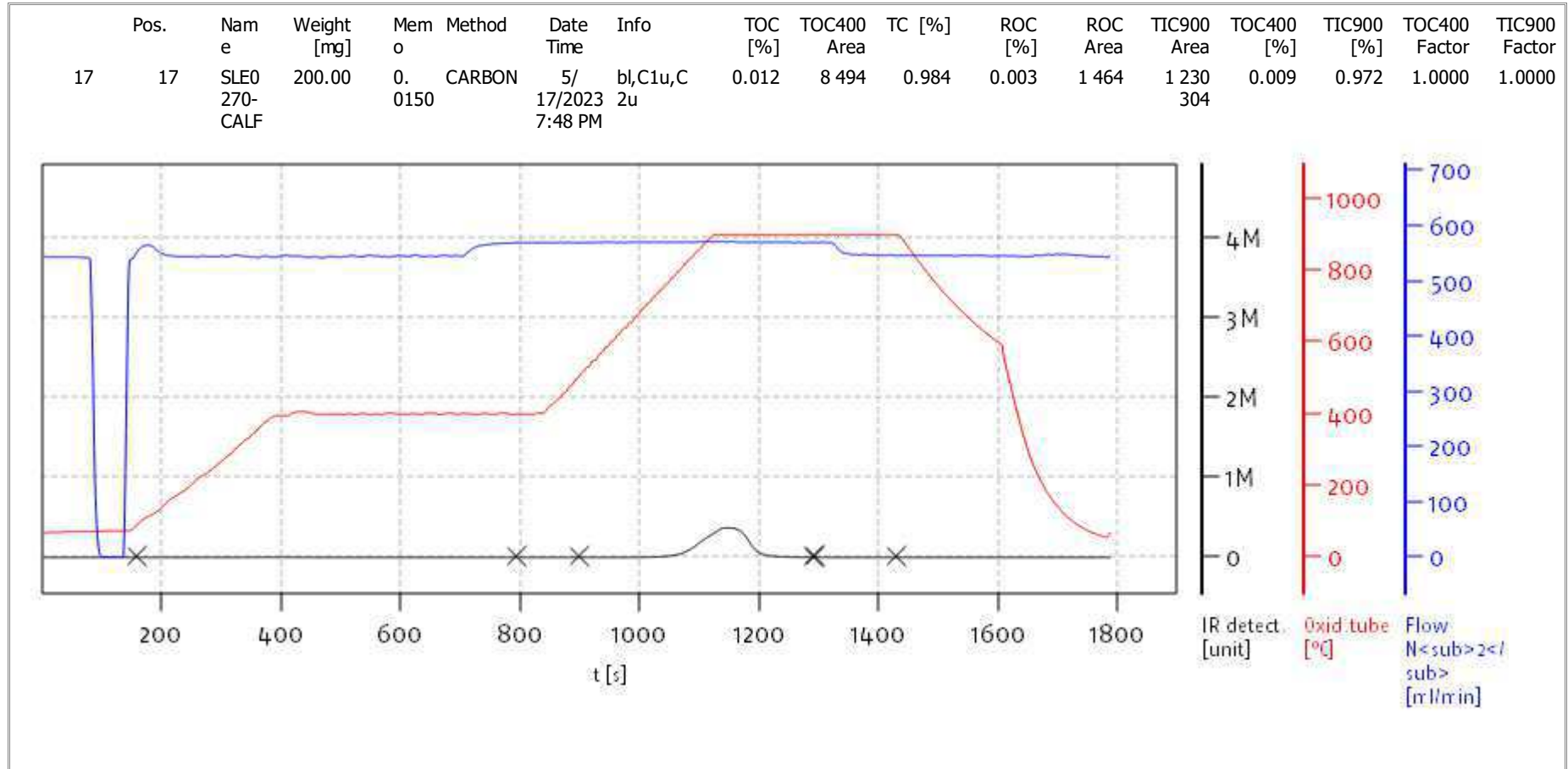
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Serial No: 0300.181017
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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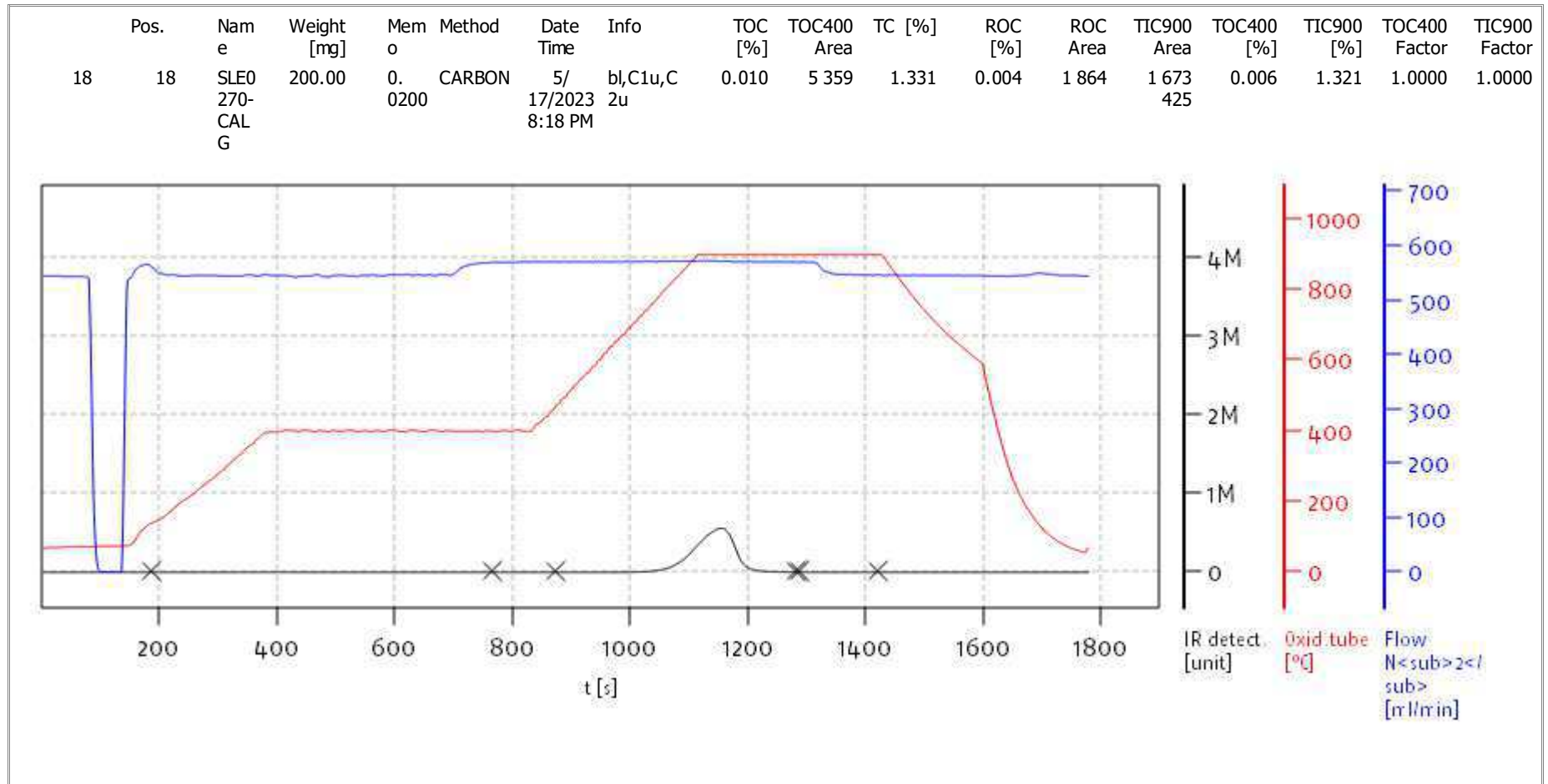
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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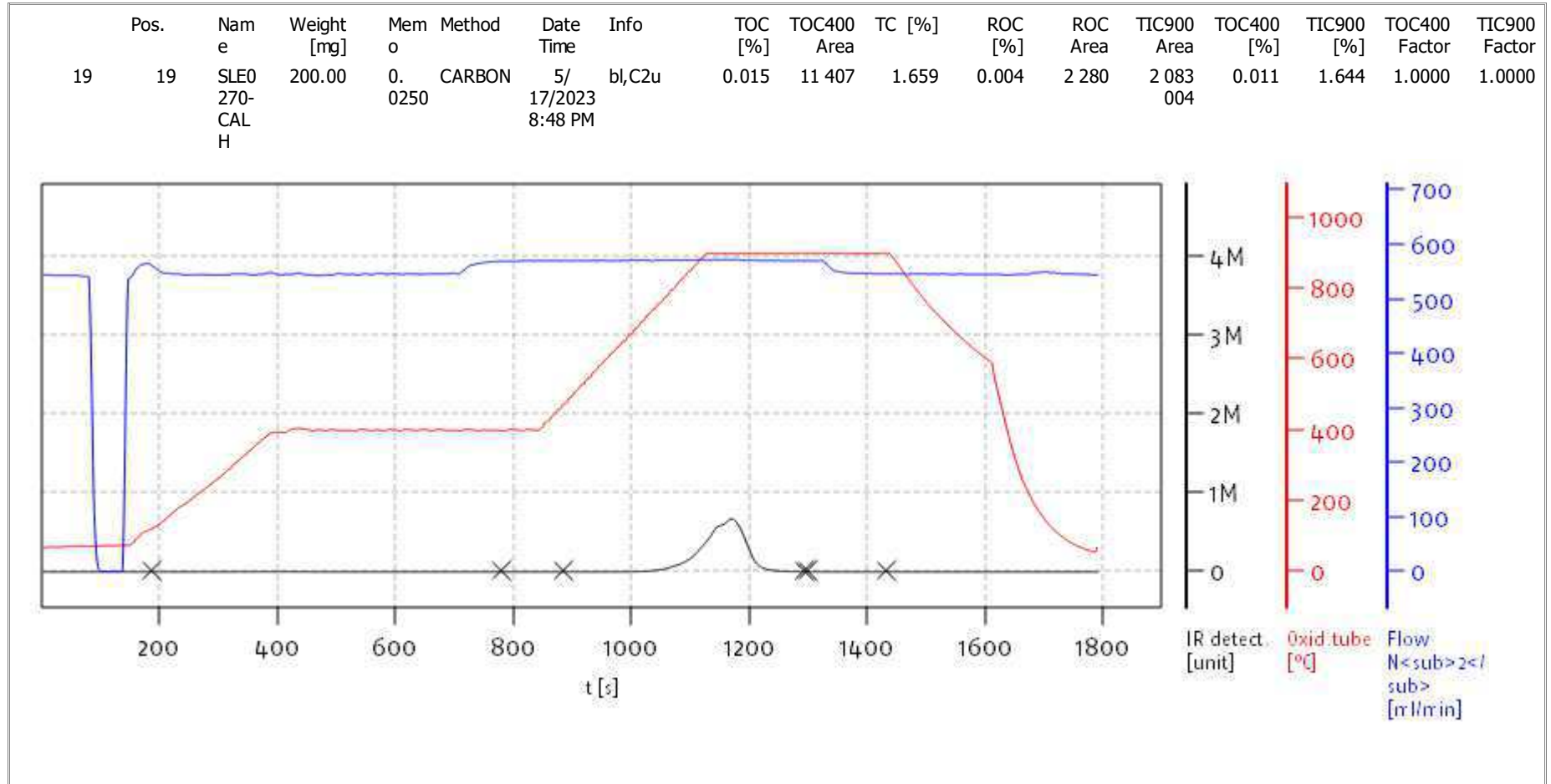
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Balance: BAL3
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Name:

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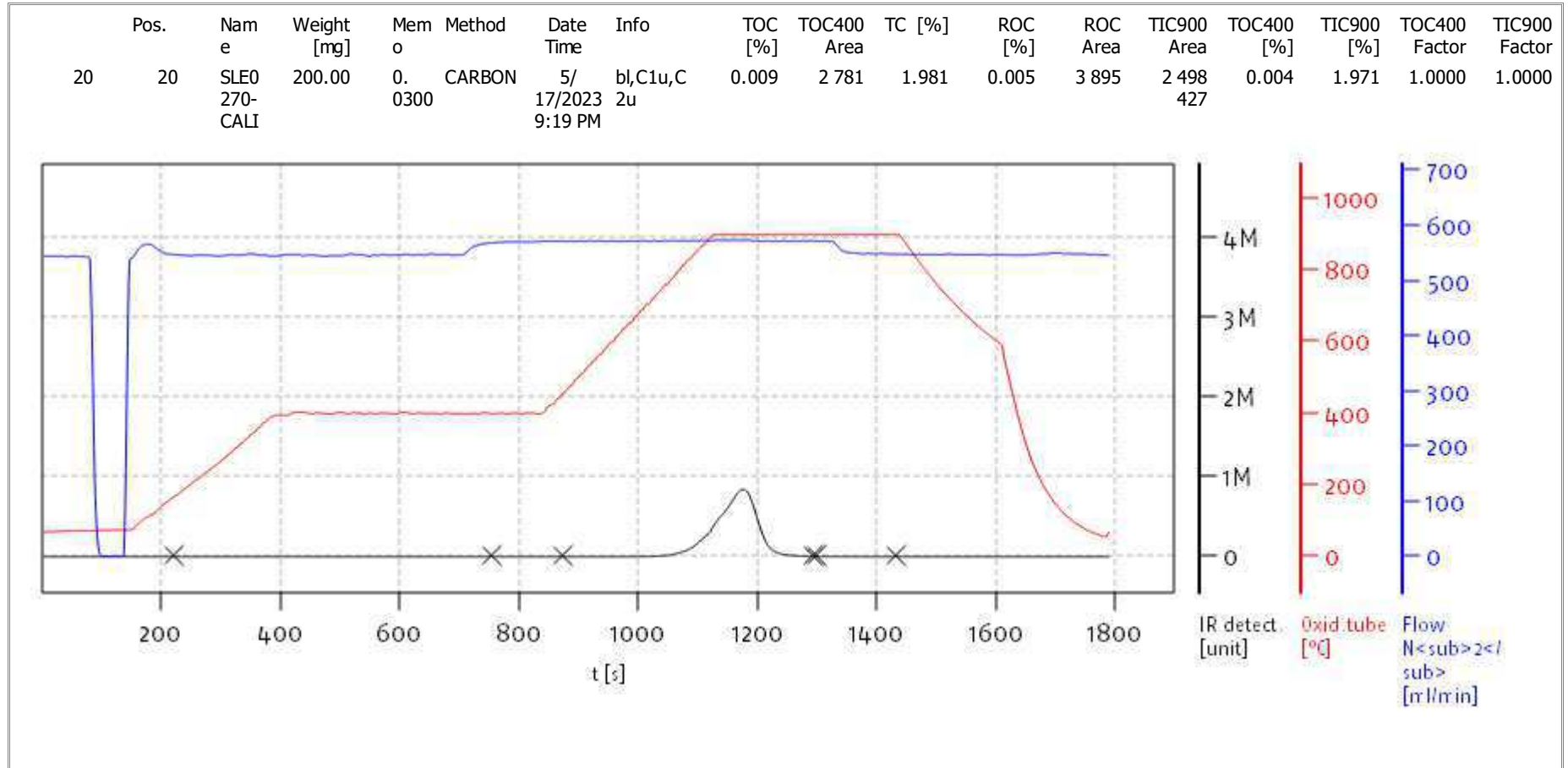
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Soli TOC Cube, Carbon
Balance: BAL3
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Name:

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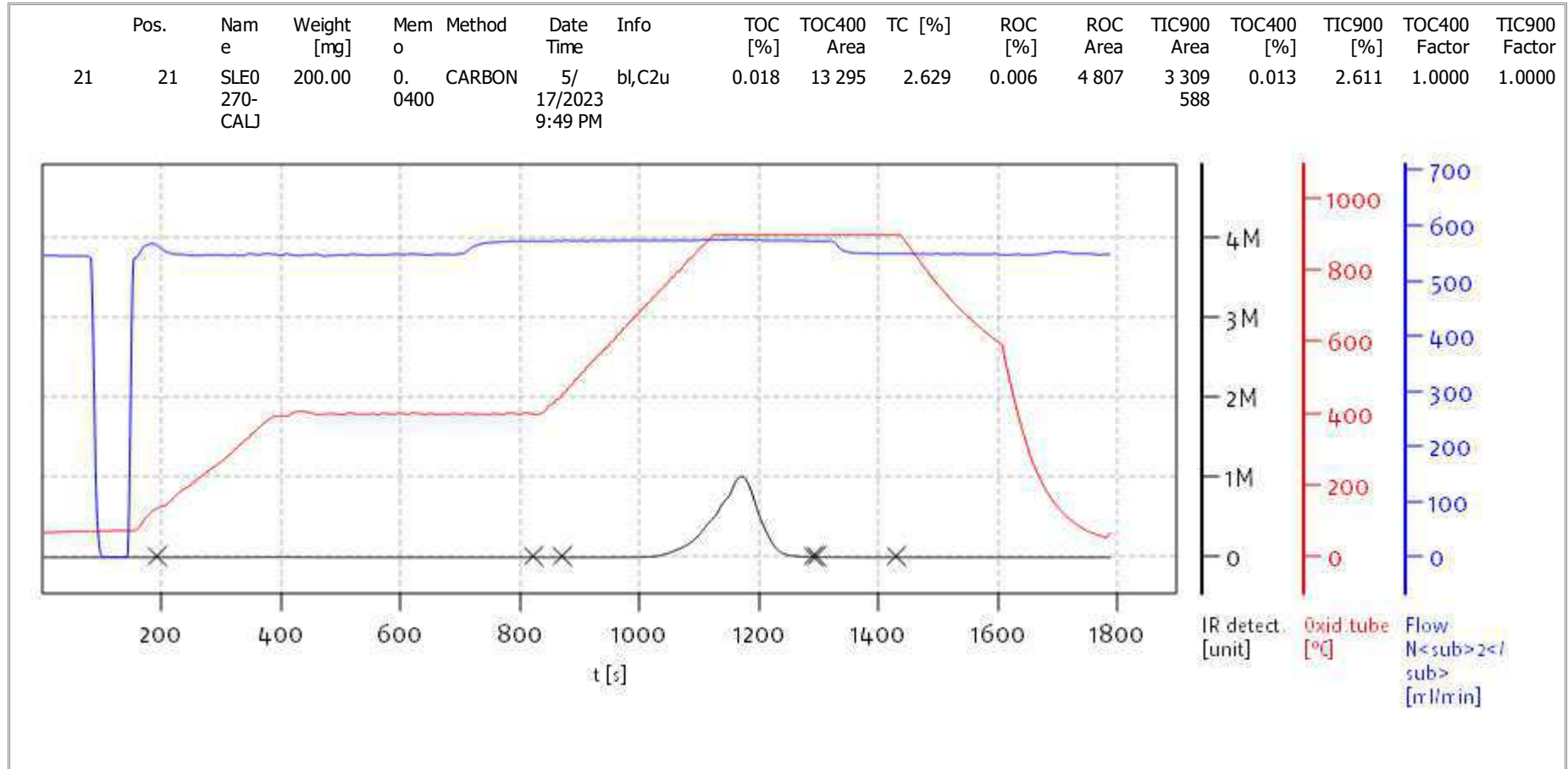
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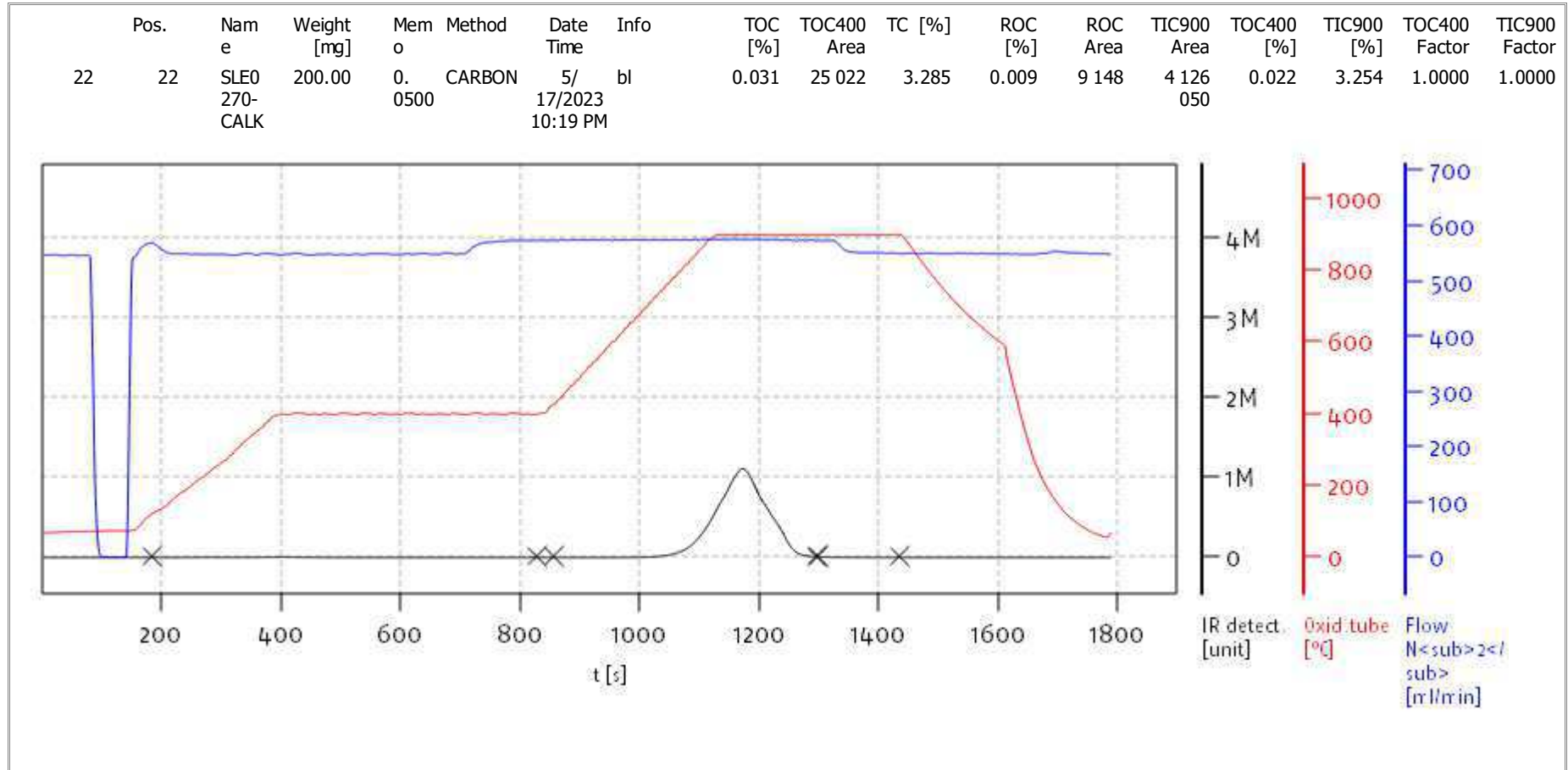
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Serial No: 0300.181017
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Balance: BAL3
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Name:

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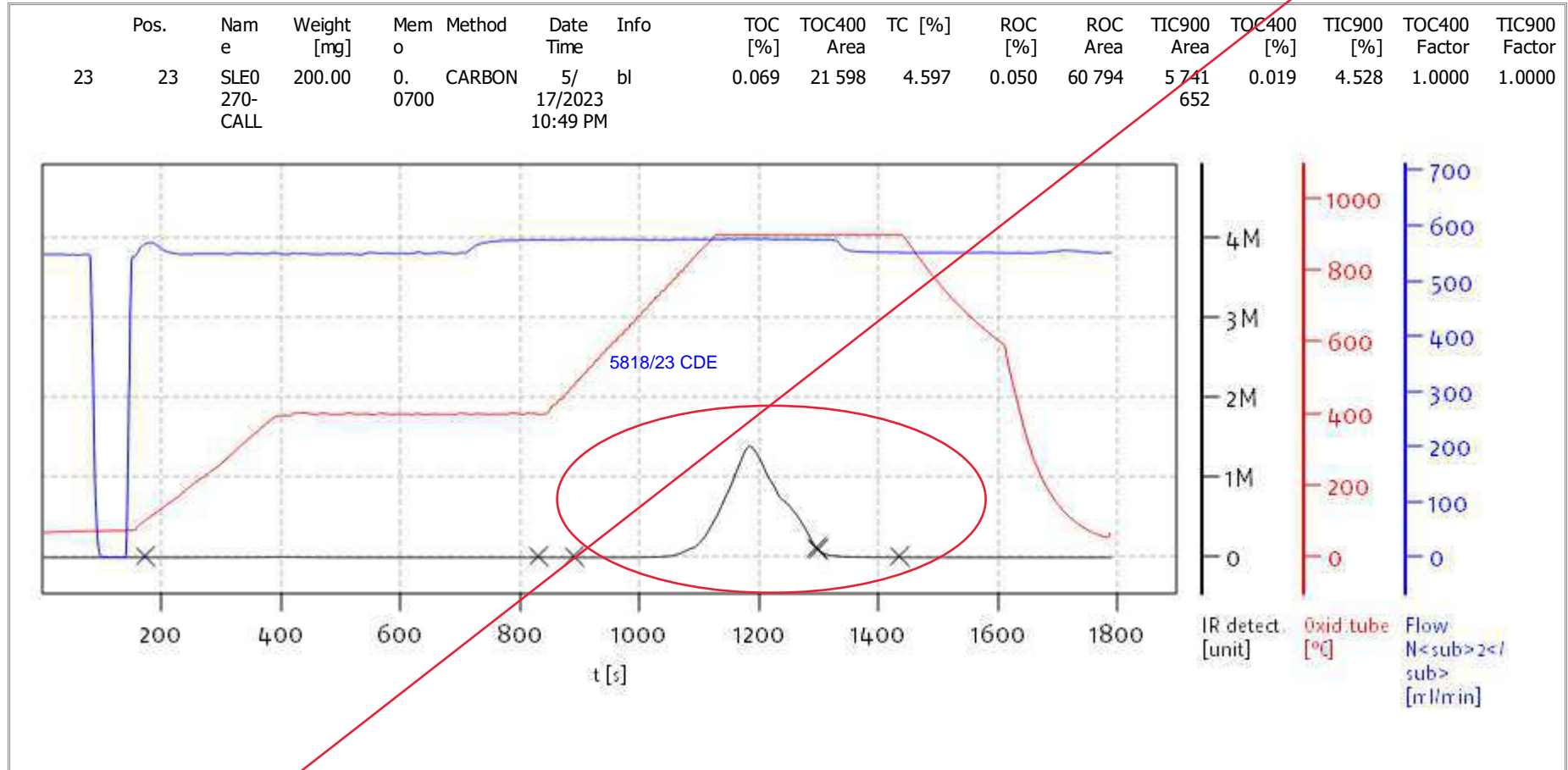
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Serial No: 0300.181017
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Balance: BAL3
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Name:

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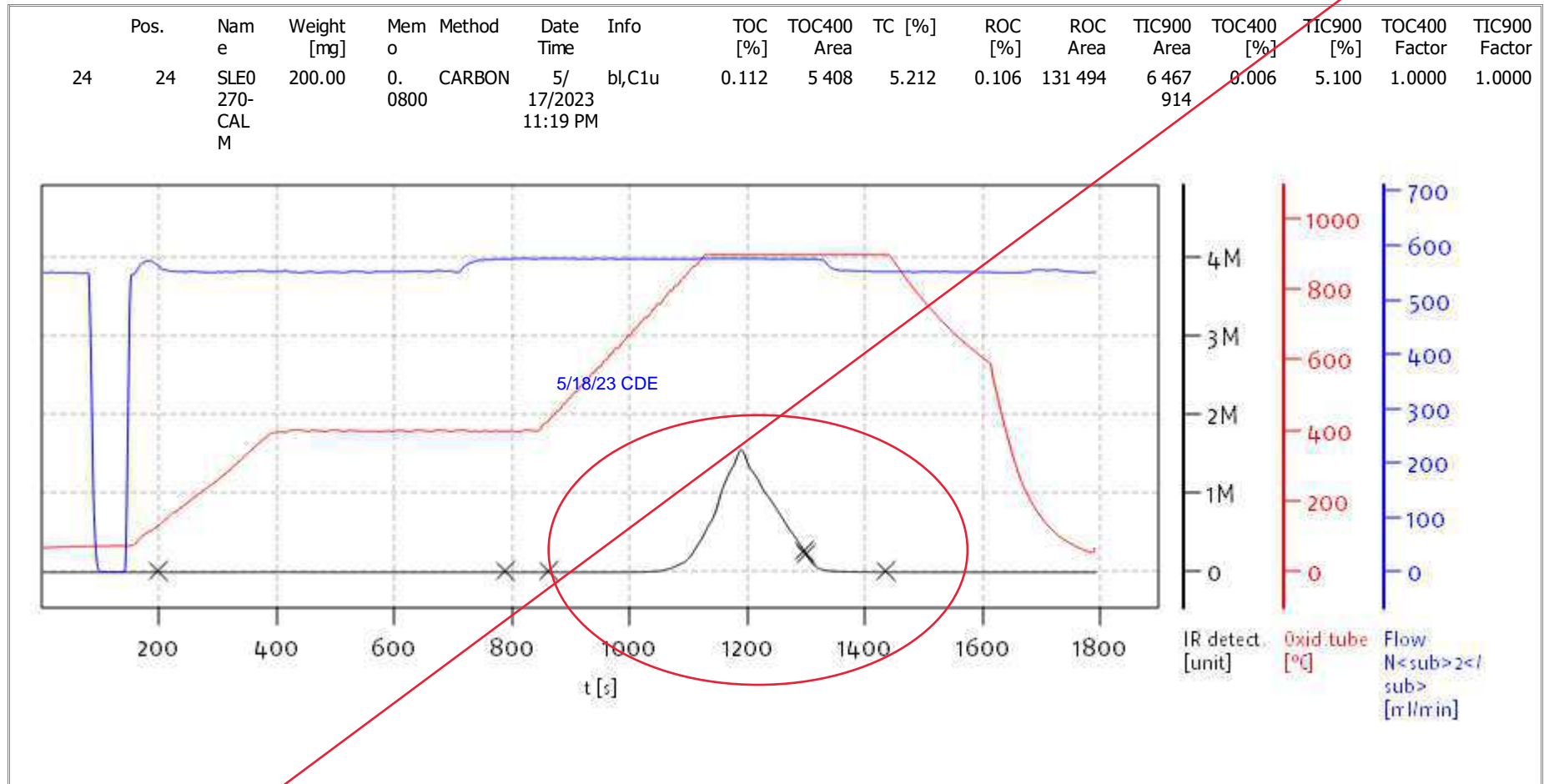
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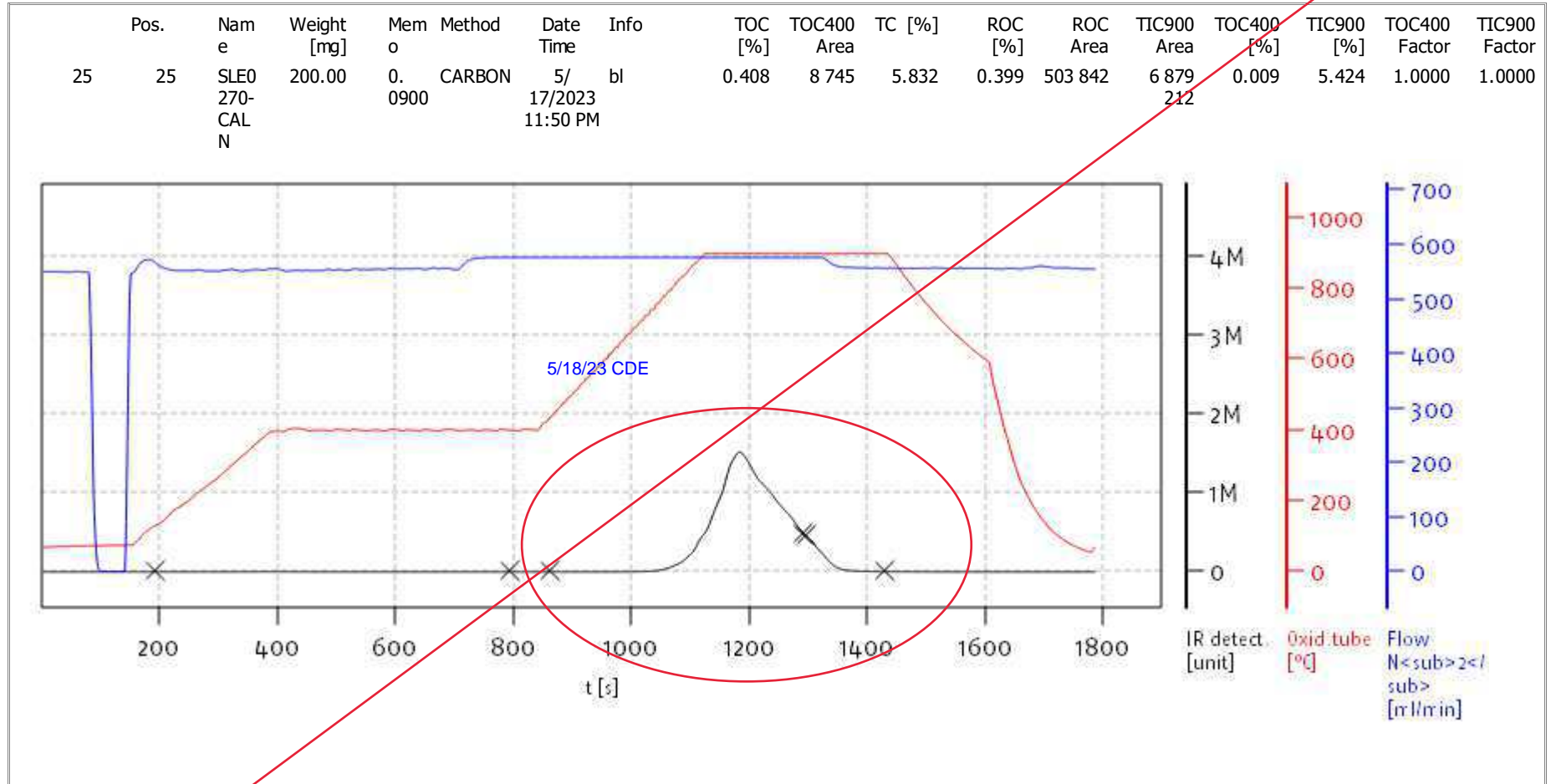
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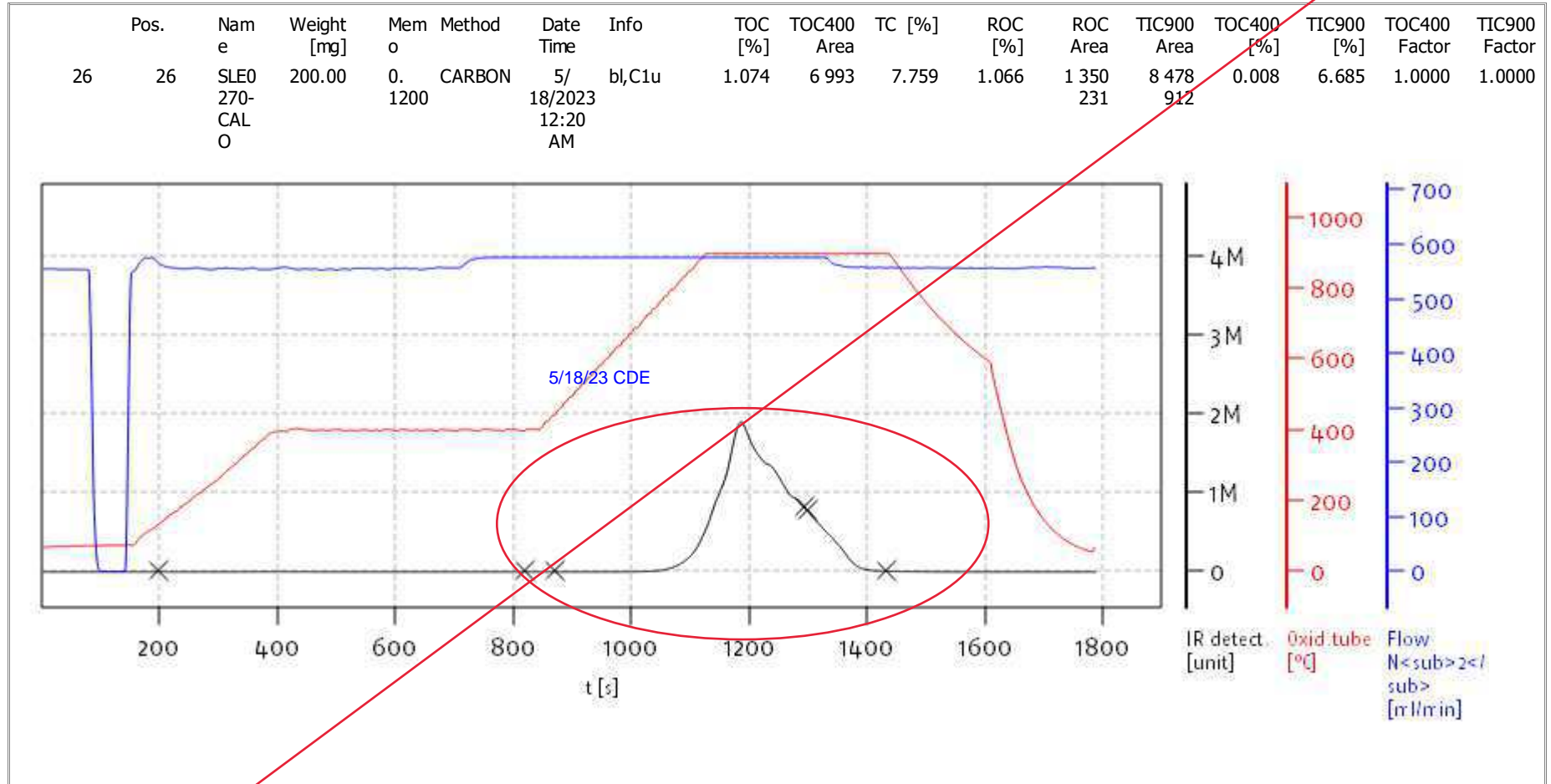
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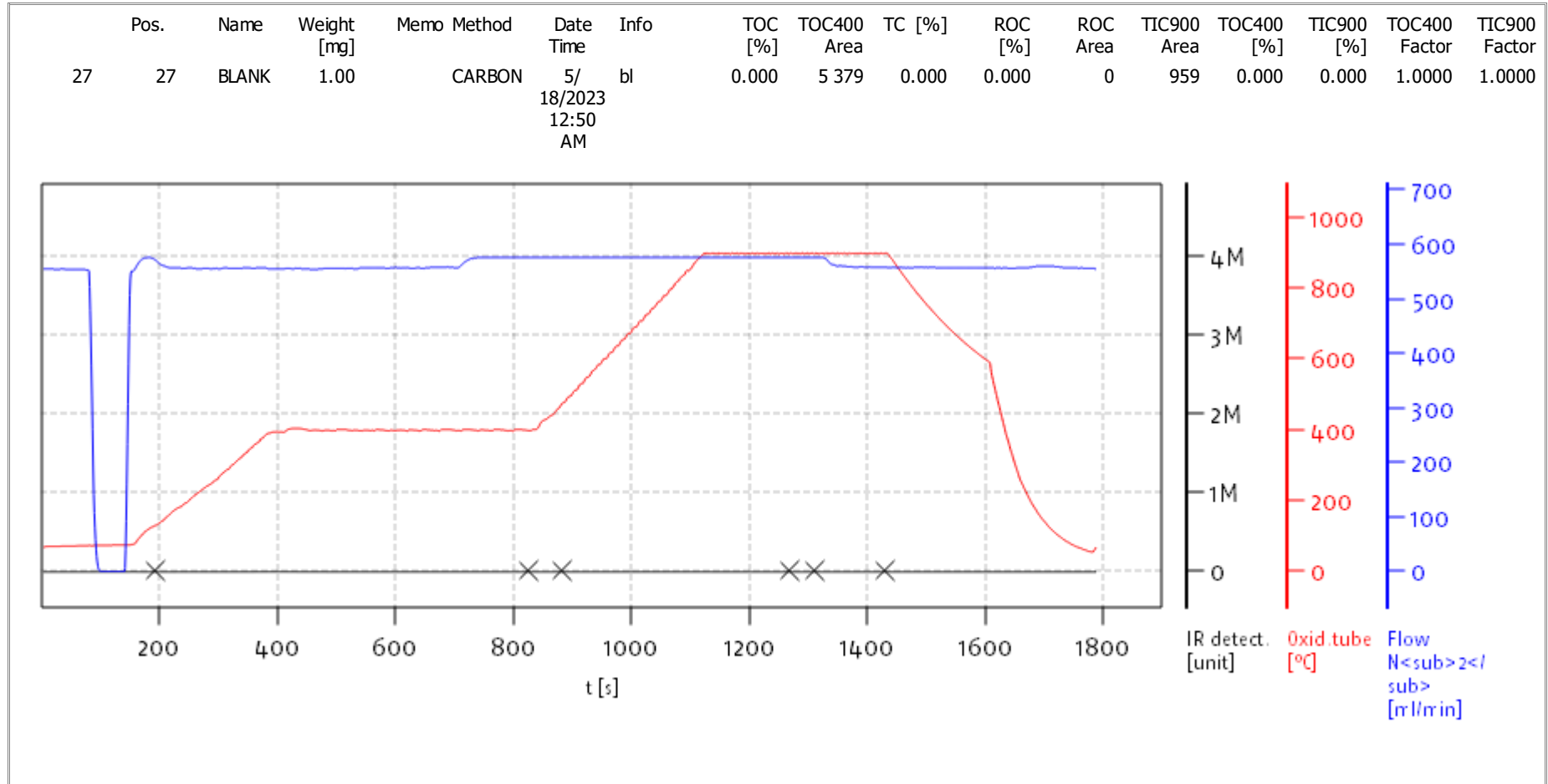
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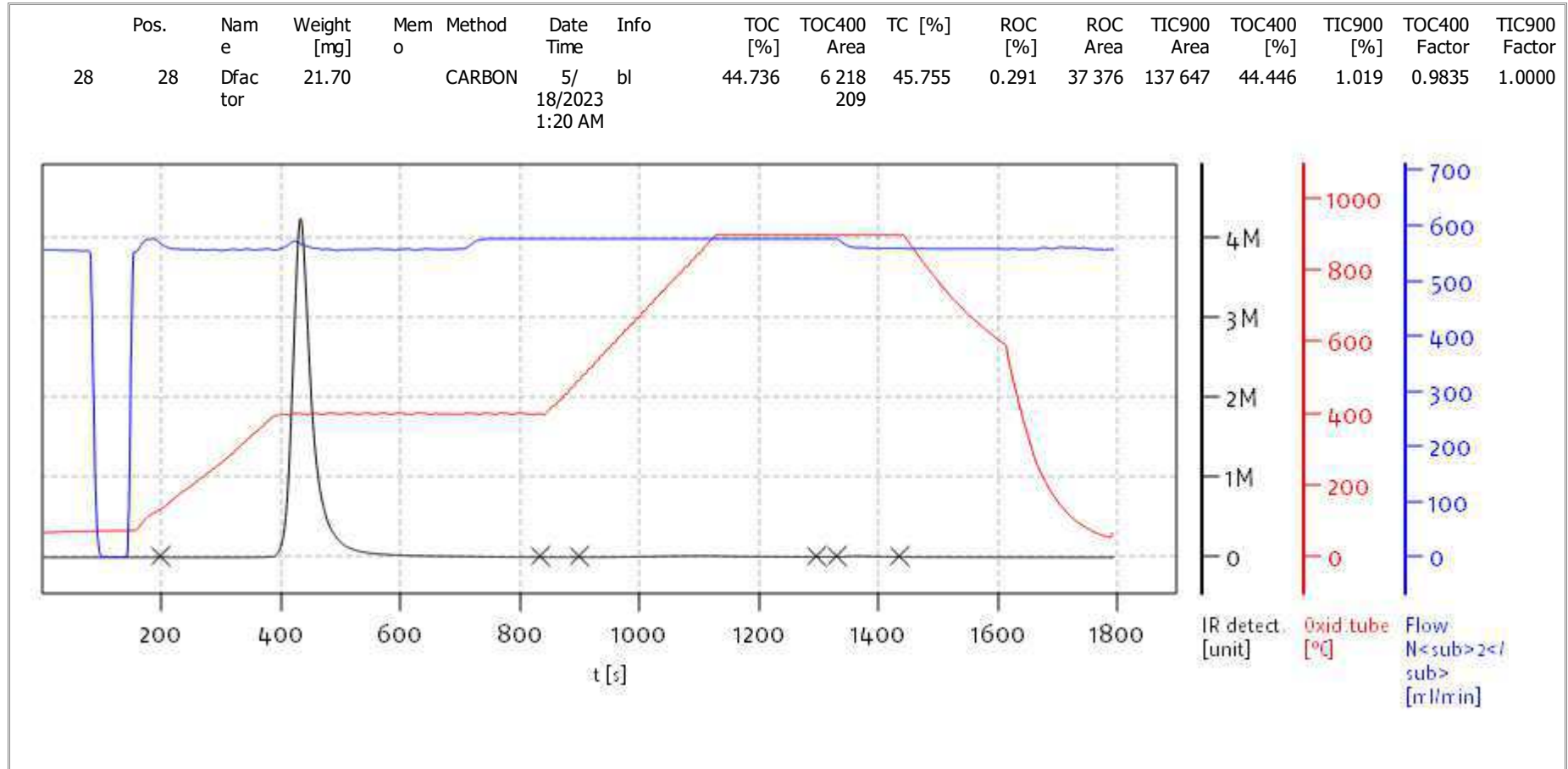
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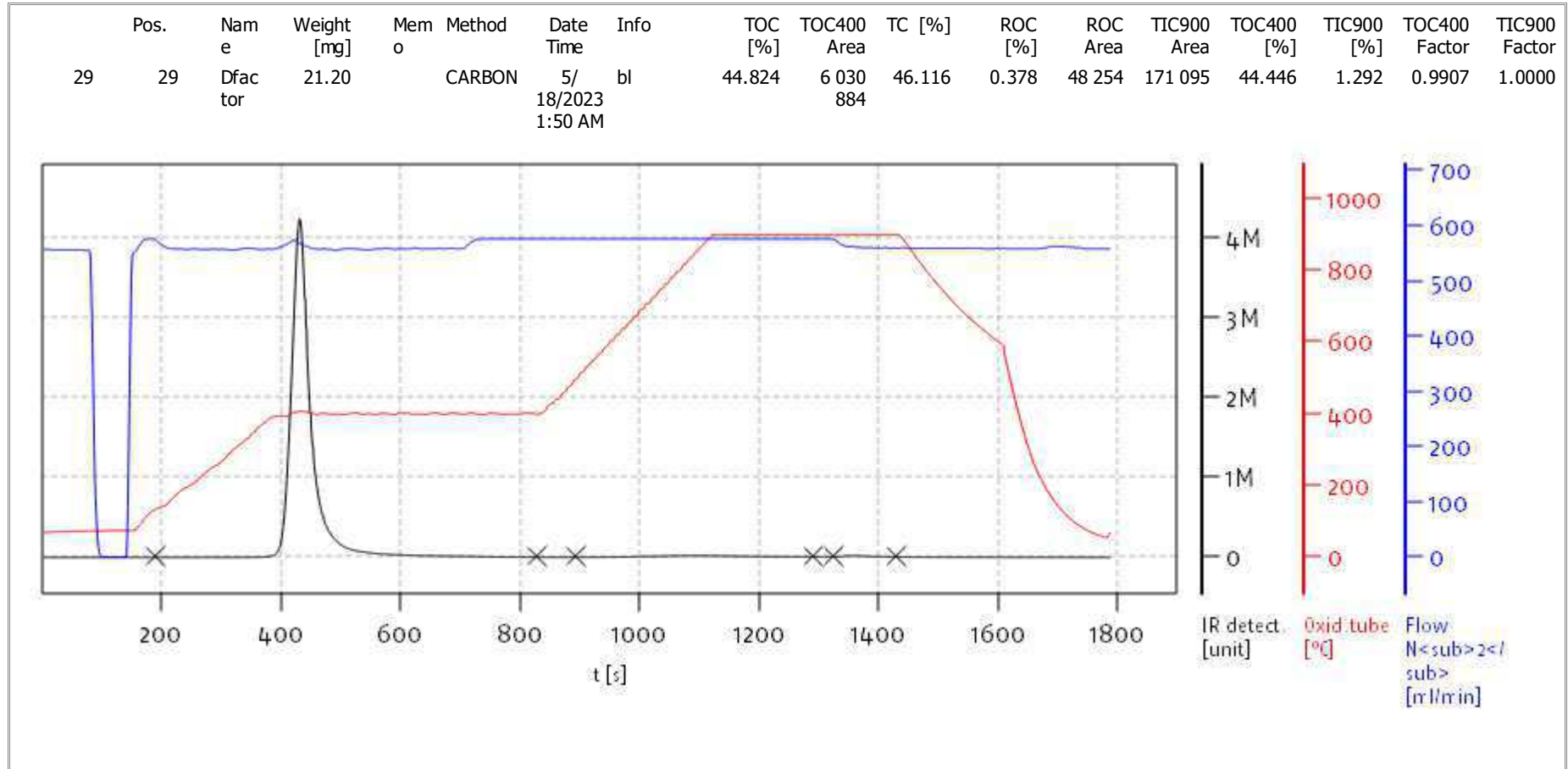
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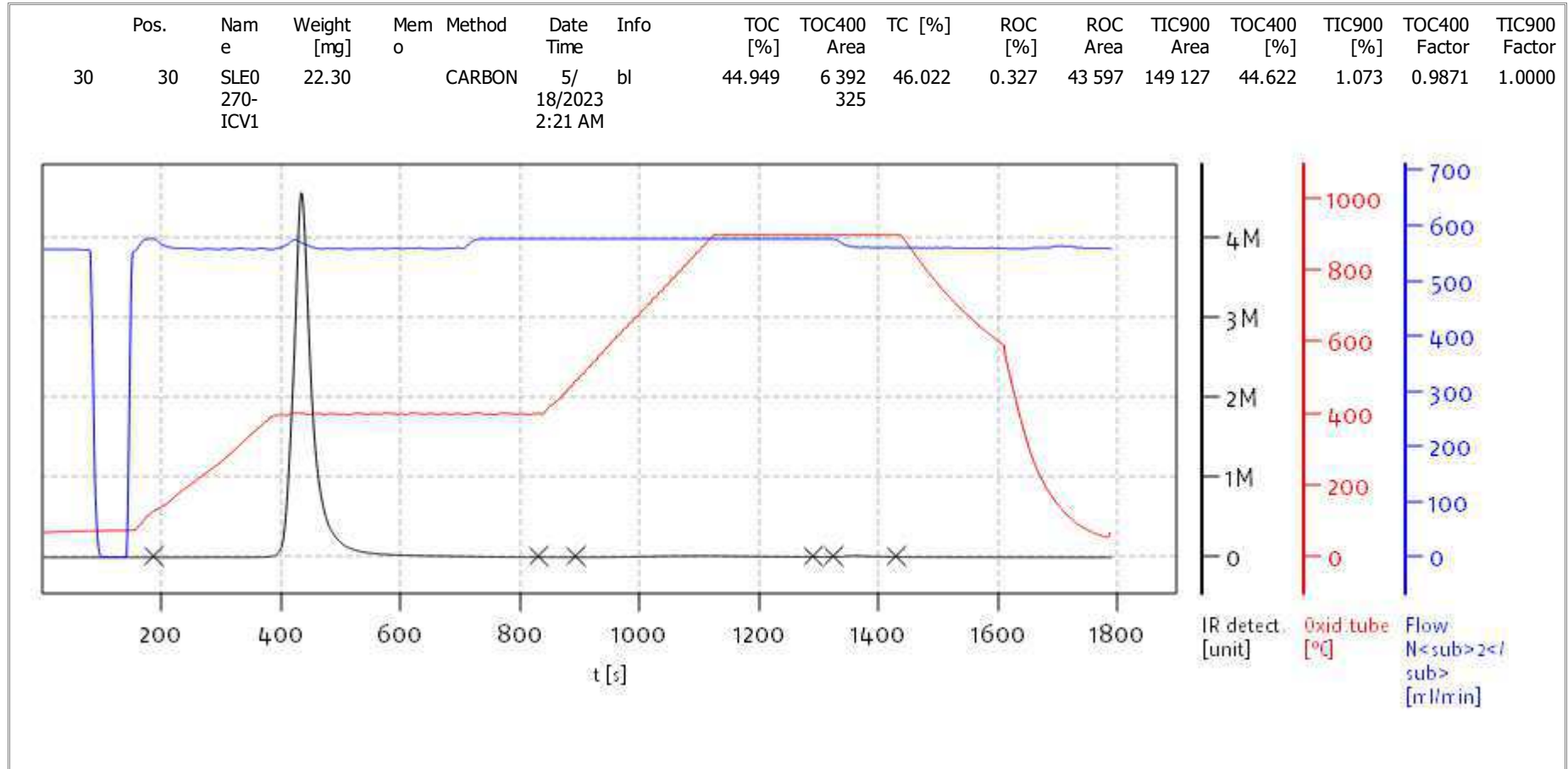
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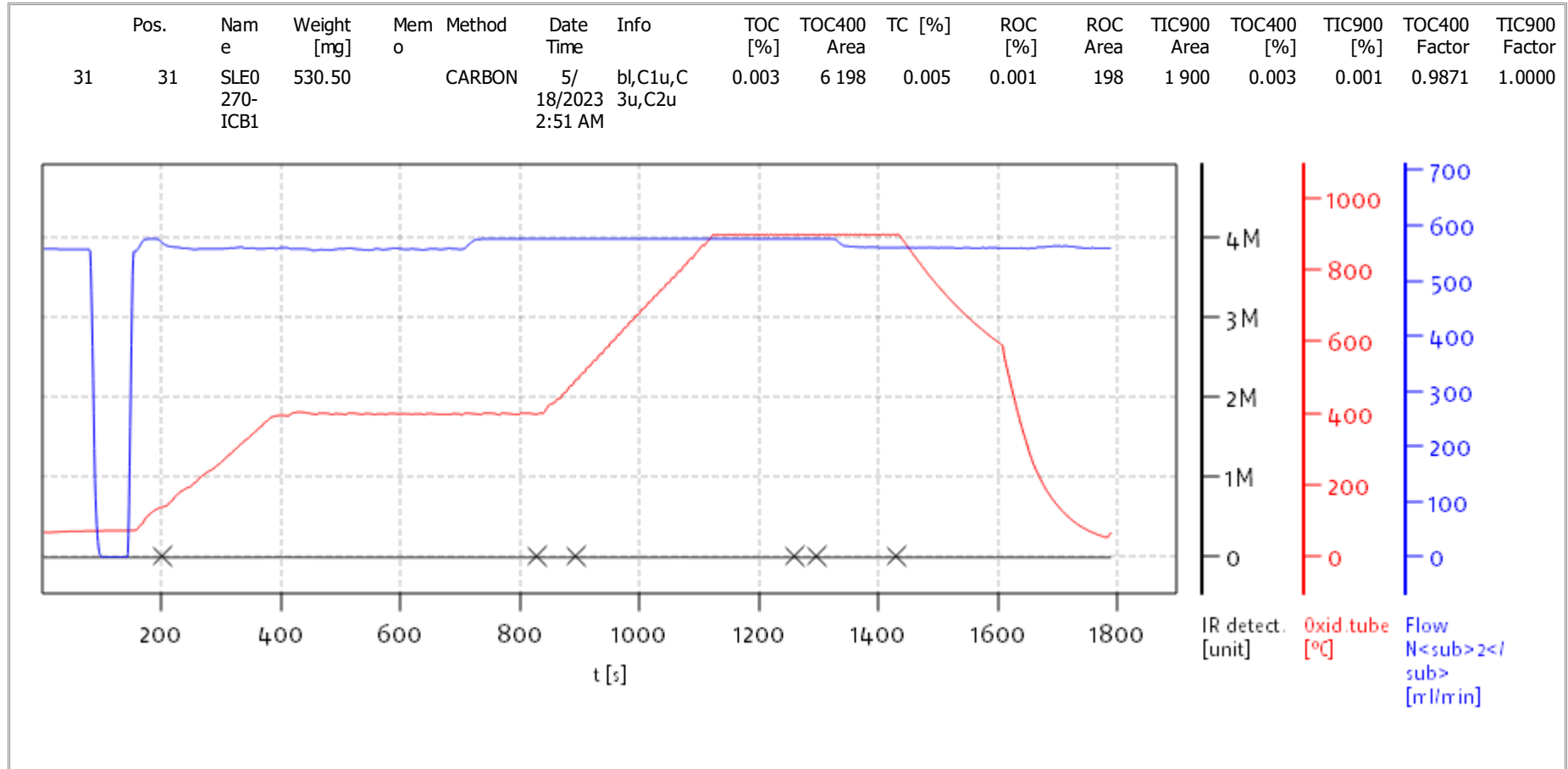
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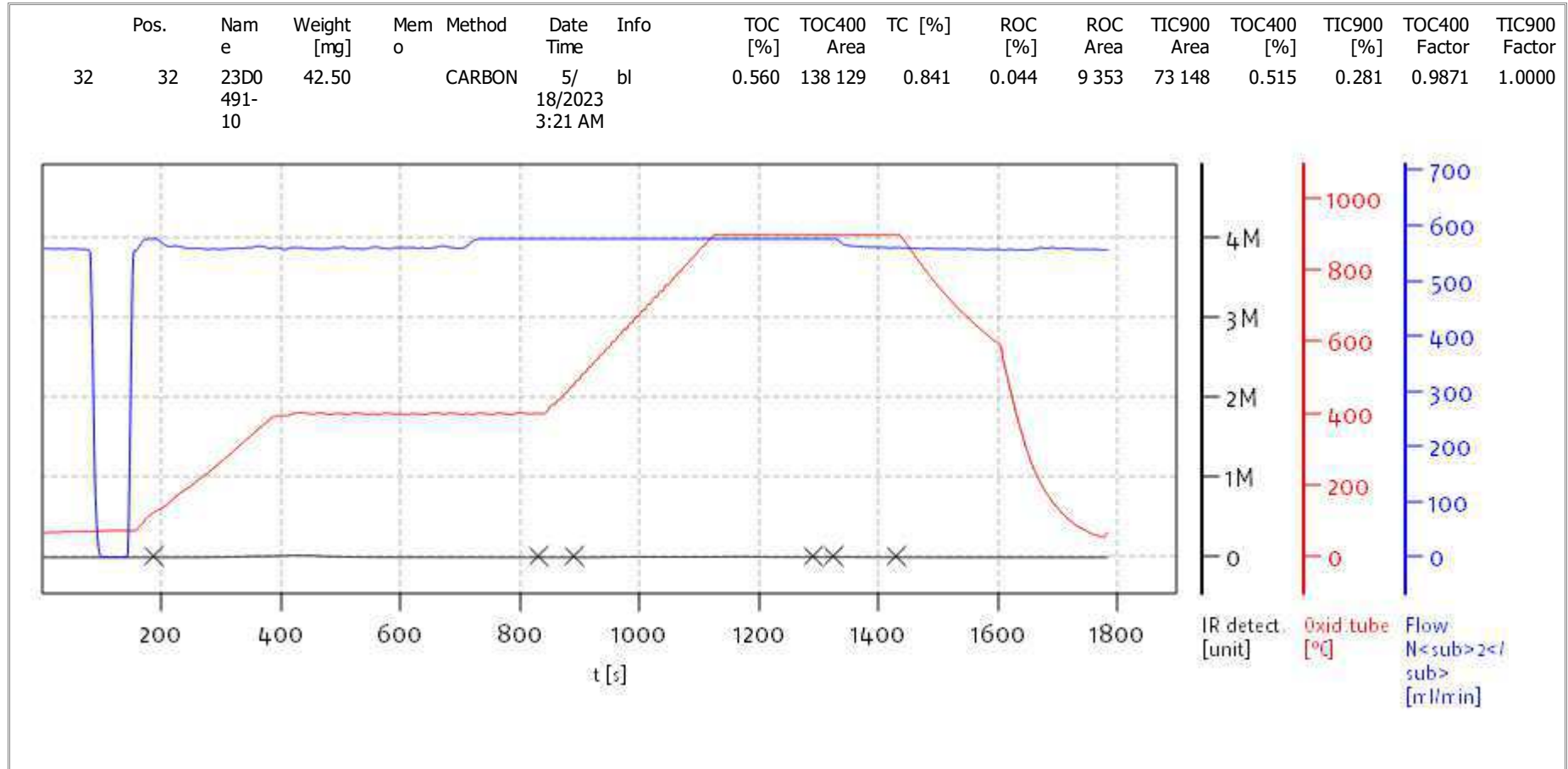
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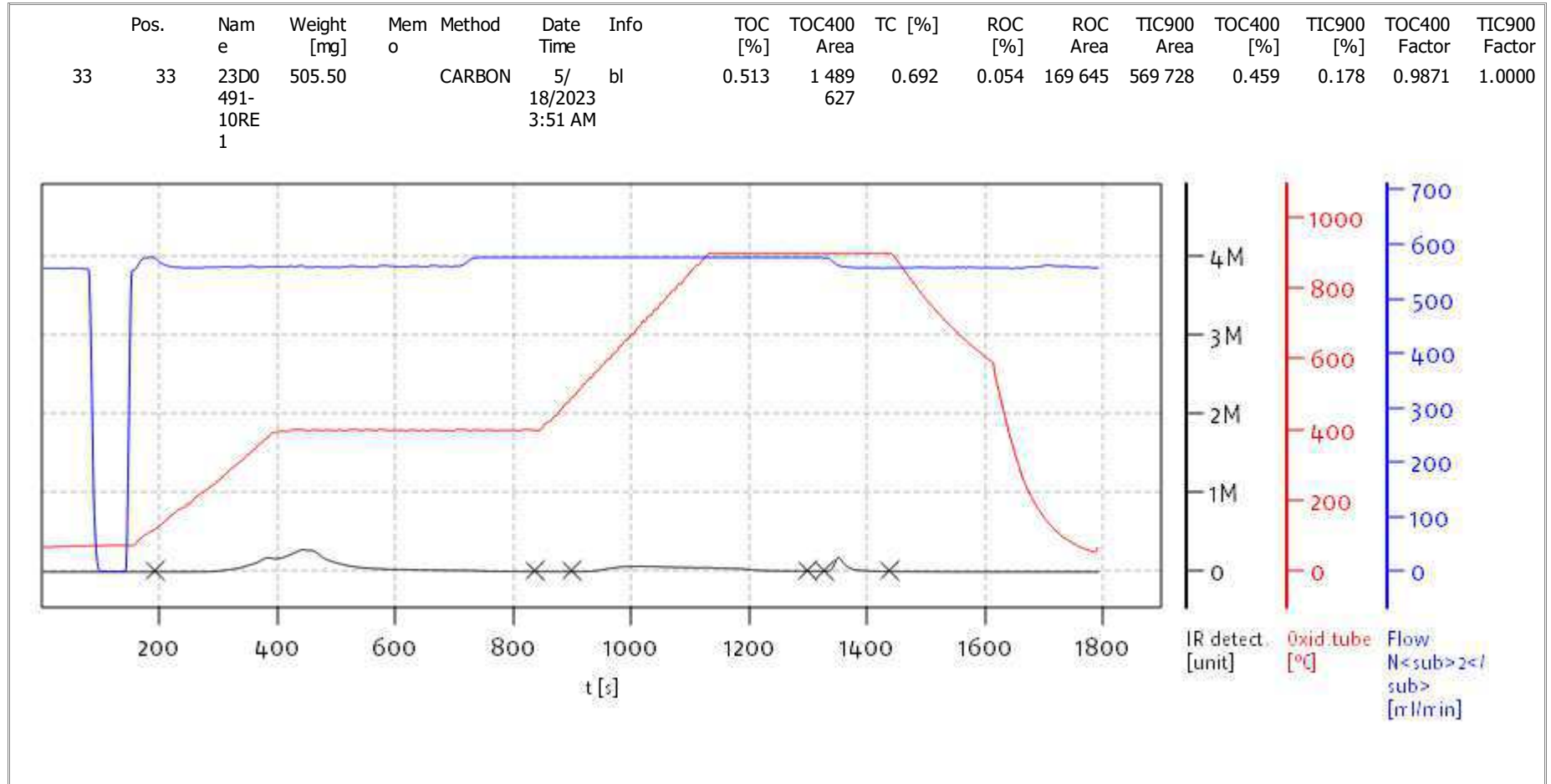
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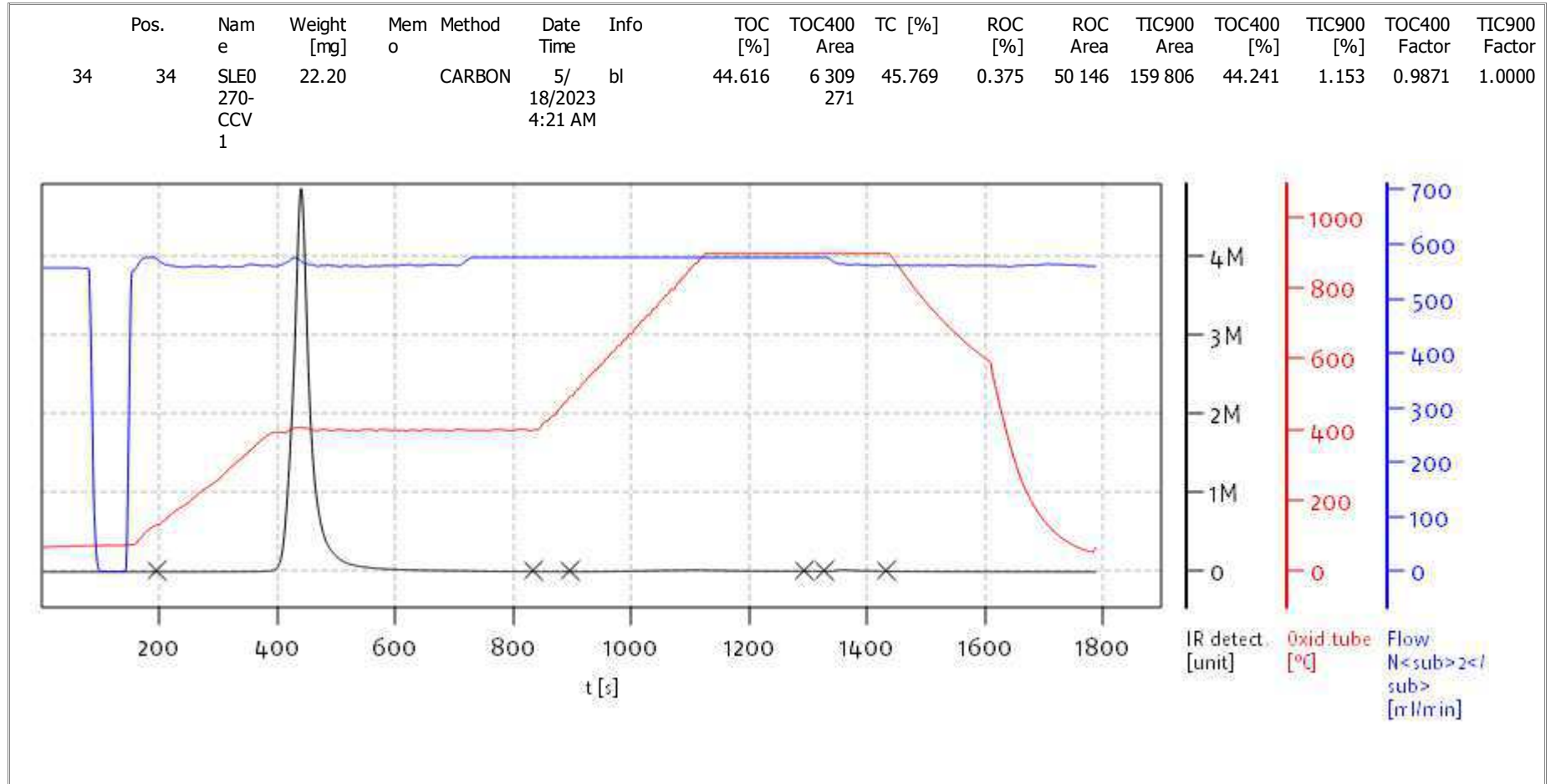
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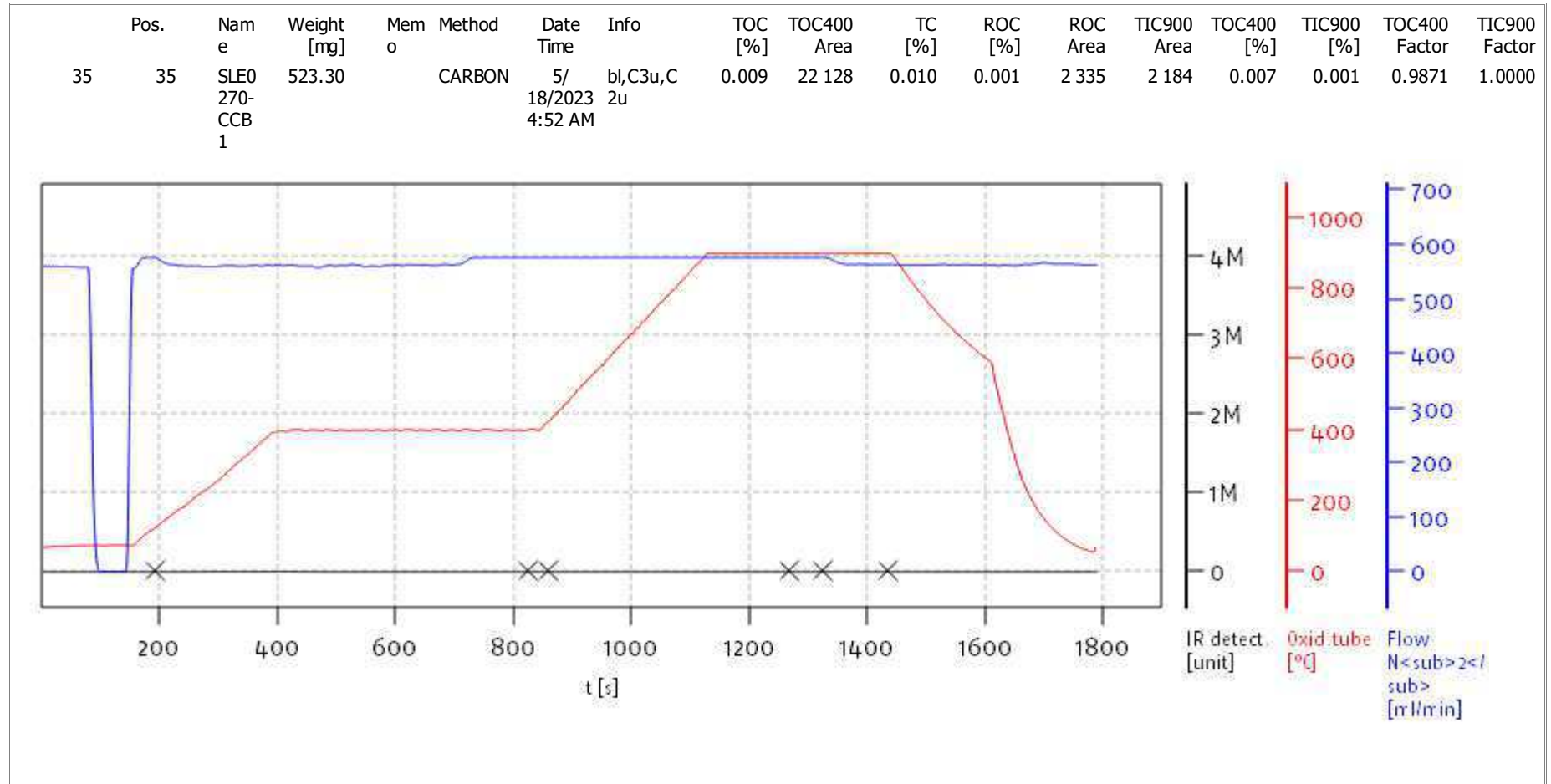
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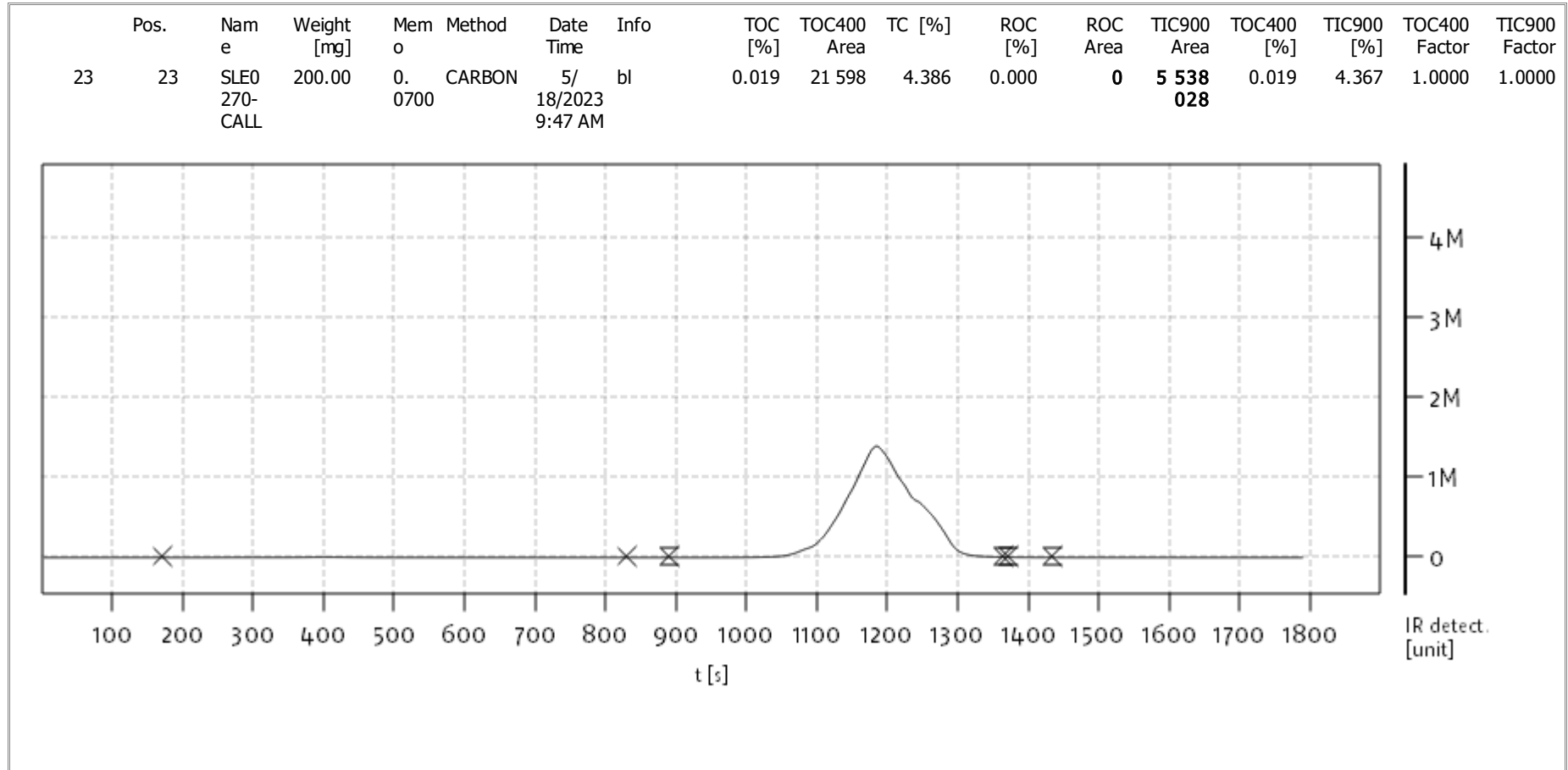
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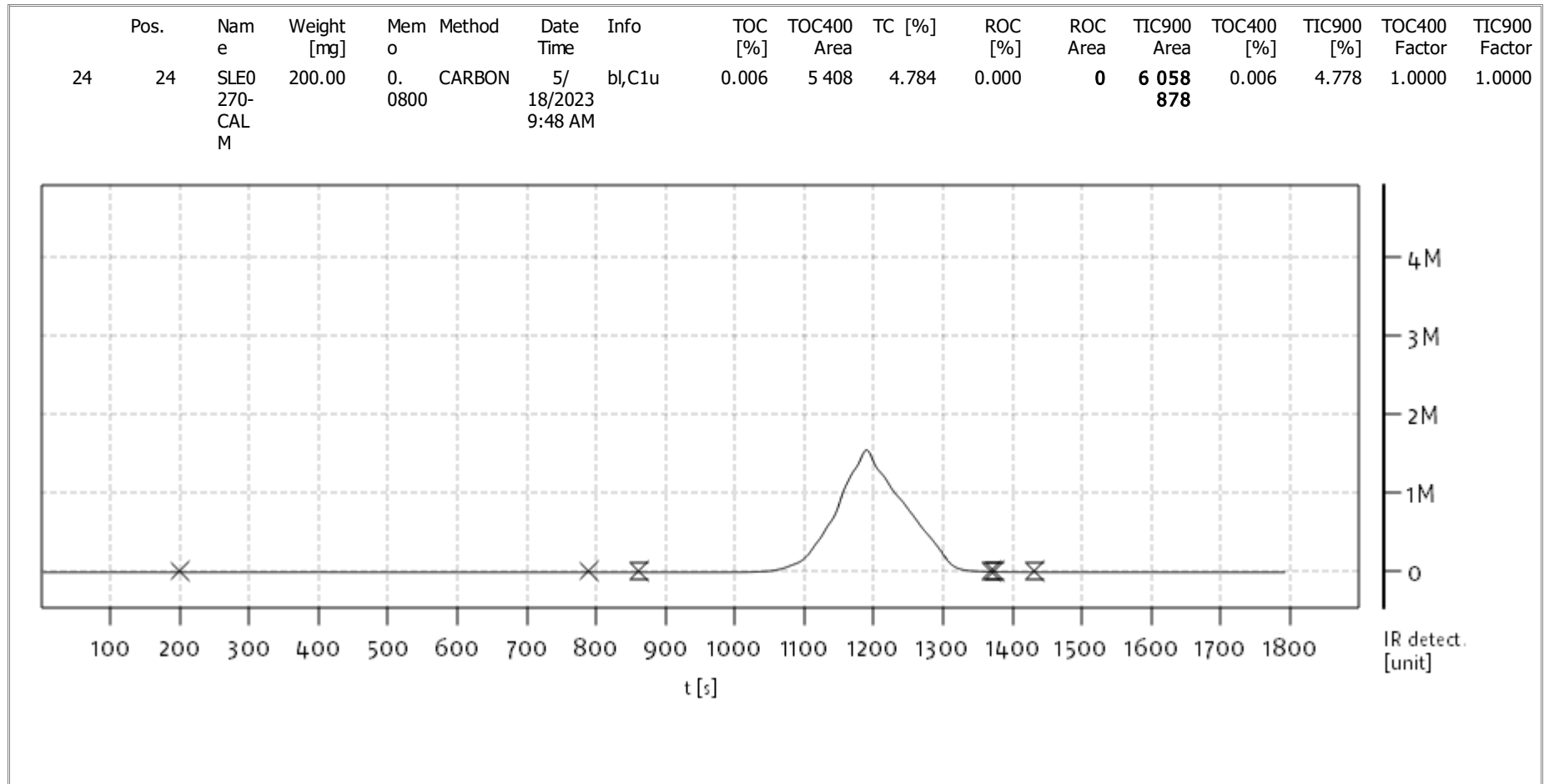
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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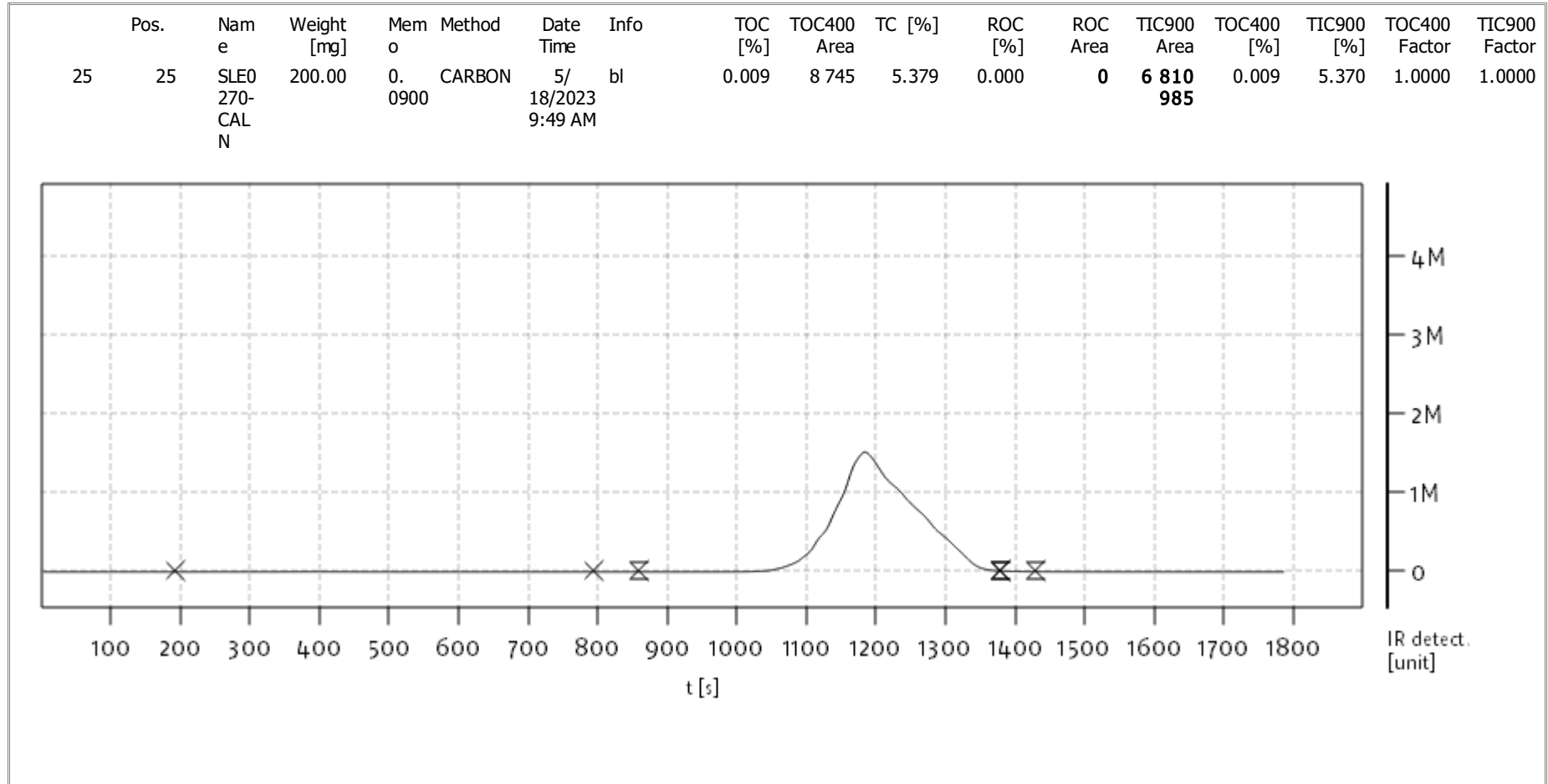
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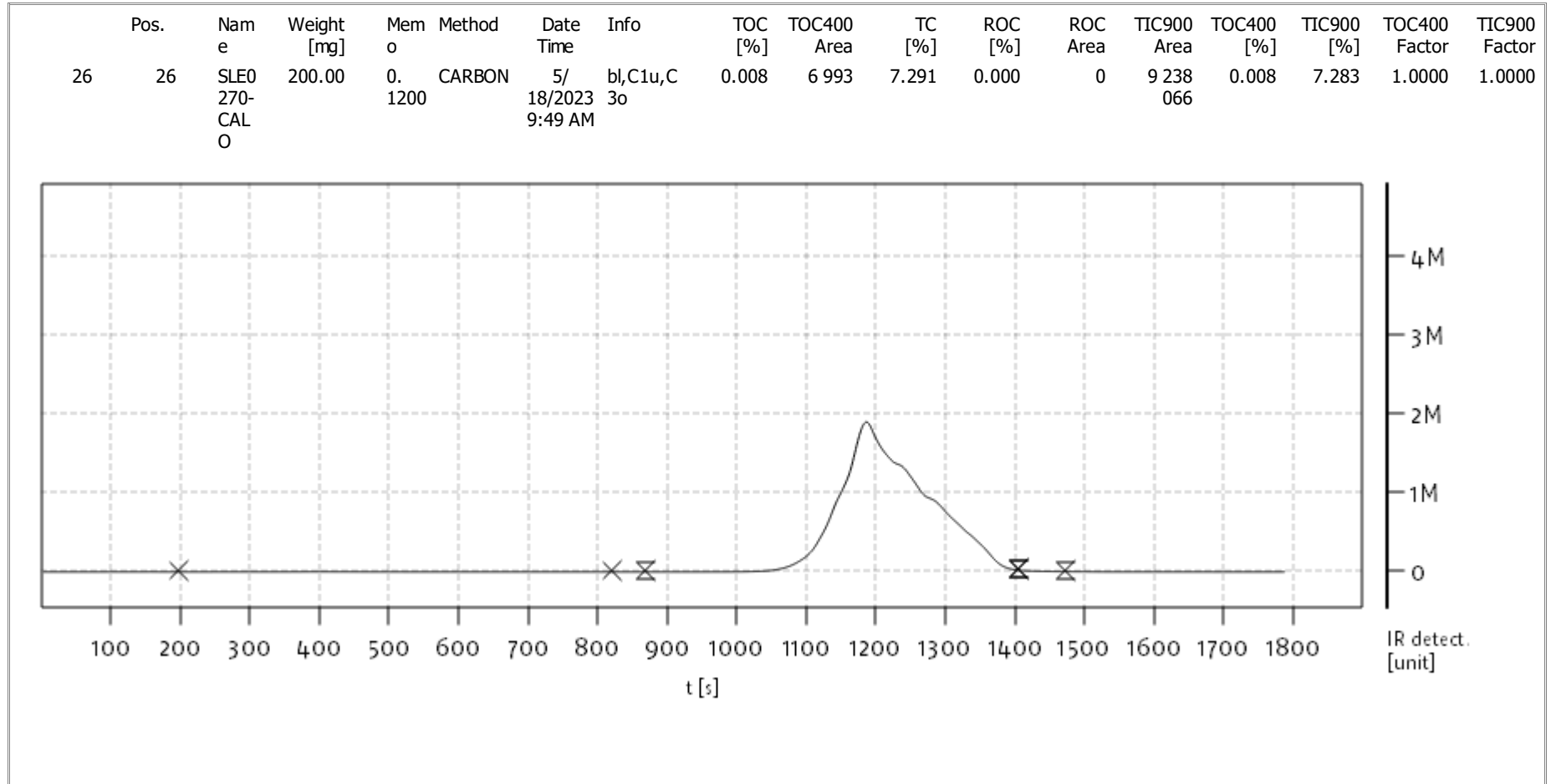
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Name:

Access: solITOC superuser

Date: Thu May 18 09:50:12 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Sequence: SLE0270

Date Analyzed: 05/18/23 02:51

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0270-ICB1	Total Organic Carbon	0.003	0.02	0.02	%	
SLE0270-CCB1	Total Organic Carbon	0.009	0.02	0.02	%	



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Sequence: SLF0283

Date Analyzed: 06/20/23 17:53

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLF0283-ICB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0283-CCB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0283-CCB2	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0283-CCB3	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0283-CCB4	Total Organic Carbon	0.003	0.02	0.02	%	
SLF0283-CCB5	Total Organic Carbon	0.005	0.02	0.02	%	



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Sequence: SLF0370

Date Analyzed: 06/24/23 15:31

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLF0370-ICB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0370-CCB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0370-CCB2	Total Organic Carbon	0.007	0.02	0.02	%	
SLF0370-CCB3	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0370-CCB4	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0370-CCB5	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0370-CCB6	Total Organic Carbon	0.00	0.02	0.02	%	
SLF0370-CCB7	Total Organic Carbon	0.00	0.02	0.02	%	



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 9060A m**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Control Limit: +/- 10.00%

Sequence: SLE0270

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0270-ICV1	Total Organic Carbon	44.446	45.4	102	%	EPA 9060A m
	Total Carbon	44.446	45.4	102	%	EPA 9060A m
	Total Inorganic Carbon	0.0000	45.4		%	EPA 9060A m
	% Soot	0.0000	45.4		%	EPA 9060A m
SLE0270-CCV1	Total Organic Carbon	44.446	45.2	102	%	EPA 9060A m
	Total Carbon	44.446	45.2	102	%	EPA 9060A m
	Total Inorganic Carbon	0.0000	45.2		%	EPA 9060A m
	% Soot	0.0000	45.2		%	EPA 9060A m

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 9060A m**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Control Limit: +/- 10.00%

Sequence: SLF0283

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLF0283-ICV1	Total Organic Carbon	44.446	44.3	99.7	%	EPA 9060A m
SLF0283-CCV1	Total Organic Carbon	44.446	43.8	98.5	%	EPA 9060A m
SLF0283-CCV2	Total Organic Carbon	44.446	44.4	100	%	EPA 9060A m
SLF0283-CCV3	Total Organic Carbon	44.446	43.2	97.2	%	EPA 9060A m
SLF0283-CCV4	Total Organic Carbon	44.446	45.1	101	%	EPA 9060A m
SLF0283-CCV5	Total Organic Carbon	44.446	45.1	102	%	EPA 9060A m

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 9060A m**

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Control Limit: +/- 10.00%

Sequence: SLF0370

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLF0370-ICV1	Total Organic Carbon	44.446	46.6	105	%	EPA 9060A m
SLF0370-CCV1	Total Organic Carbon	44.446	45.2	102	%	EPA 9060A m
SLF0370-CCV2	Total Organic Carbon	44.446	43.6	98.1	%	EPA 9060A m
SLF0370-CCV3	Total Organic Carbon	44.446	44.9	101	%	EPA 9060A m
SLF0370-CCV4	Total Organic Carbon	44.446	43.7	98.2	%	EPA 9060A m
SLF0370-CCV5	Total Organic Carbon	44.446	45.1	101	%	EPA 9060A m
SLF0370-CCV6	Total Organic Carbon	44.446	45.4	102	%	EPA 9060A m
SLF0370-CCV7	Total Organic Carbon	44.446	44.3	99.7	%	EPA 9060A m

* Values outside of QC limits



STANDARD REFERENCE MATERIAL RECOVERY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLF0522-SRM2

Batch: BLF0522

Initial/Final: 0.3077 g / 0.3077 g

Preparation: No Prep Wet Chem

Analyzed: 06/24/2023 17:32

Standard ID: L005590

Expires: 04/14/2032

Standard Lot#: 1941 B

Description: 1941B- Organics in Marine Sediment

ANALYTE	TRUE (% wet)	FOUND (% wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Total Organic Carbon	2.9900	3.12	0.02	0.02		104	80 - 120

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	06/19/23 13:26	75	180	06/21/23 02:24			
LDW23-SC1804 23D0136-02	04/05/23 12:15	04/06/23 10:30	06/19/23 13:26	75	180	06/21/23 10:27			
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	06/19/23 13:26	74	180	06/21/23 10:57			
LDW23-SC1803 23D0136-04	04/05/23 16:30	04/06/23 10:30	06/19/23 13:26	74	180	06/21/23 12:28			
Duplicate BLF0522-DUP1	04/05/23 11:45	04/06/23 10:30	06/19/23 13:26	75	180	06/21/23 02:54			
Matrix Spike BLF0522-MS1	04/05/23 11:45	04/06/23 10:30	06/19/23 13:26	75	180	06/21/23 03:24			

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: TOC Cube

Analyte	MDL	RL	Units
Total Organic Carbon	0.02	0.02	%



Analytical Standard Record
Standard ID: B000871

Printed: 5/25/2023 9:17:22AM

Description:	Calcium Carbonate 99.9% for Calibration	Expires:	31-Oct-2030
Standard Type:	Reagent	Prepared:	28-Jun-2013
Solvent:	NA/I2605	Prepared By:	Susan Dunnihoo
Final Volume (mls):	500	Department:	Conventionals
Vials:	1	Last Edit:	08-Jul-2019 12:16 by CDE
Vendor:	Mallinckrodt	Lot #:	4072 KDHD
Vendor Catalog #:	4072-03		

Comments

Analyte	CAS Number	Concentration	Units
Total Organic Carbon		120000	ppm
Total Inorganic Carbon		120000	ppm
Total Carbon		120000	ppm
Calcium carbonate	471-34-1	1000000	ppm
% Soot		120000	ppm



MP Biomedicals, LLC

29525 Fountain Parkway
Solon, Ohio 44139

Telephone: 440/337-1200
Toll Free: 800/854-0530

Fax: 440/337-1180
web: www.mpbio.com

Certificate of Analysis

Product Description: Microcrystalline Cellulose Powder_
Catalog Number: 191499_
Lot: Q9483_

Formula: (C₆H₁₀O₅)_n **Formula Weight:** N/A
CAS #: 9004-34-6 **Storage:** 15 - 30°C
Physical Description: White Powder

Test	Specification	Result
Identity Test	Passes	Passes
Purity	97.0 - 102.0%	97.0 - 102.0%
Moisture	<5.0%	3.4%
Particle Size/Mesh	Wt %	
+60 mesh	<8%	<1%
+200 mesh	>45%	55%
pH	5 - 7	6.73
Residue on Ignition	<0.05%	<0.05%
Water Soluble Substances	<12.0 mg/5 g	4.5 mg/5 g
Heavy Metals	<10 ppm	<10 ppm

H001822
Microcrystalline Cellulose Powder (TOC)
Expires 11/30/2022
Prepared By Casey English 2/22/2019

Identification A & B: Passes
Bulk Density: 0.29 g/ml
Bulk Density (graduated cylinder): 0.31 g/ml
Conductivity: 18 µS/cm
Starch: Negative
Ether Soluble Substances: 0.01%
Total Aerobic microbial Count: 100 cfu/g
Total Mold and Yeast Count: 20 cfu/g
Staphylococcus aureus: Absent/1 g
Pseudomonas aeruginosa: Absent/1 g
E. coli: Absent/1 g
Salmonella: Absent/10 g
Particle size:

- 450 mesh: 77%
- d10: 37 um
- d50: 139 um
- d90: 271 um
TUP: <9/600 cm²
Degree of brightness: >88%
Powder flow-angle of repose: <42°
Recommended Retest Date: 11/30/2022



07/26/2018 - John Huang, PhD
MP Biomedicals, LLC.
Quality Control Manager

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Formula: (C₆H₁₀O₅)_n **Formula Weight:** N/A
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Test	Specification	Result
Identity Test	Passes	Passes
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Moisture	<5.0%	3.4%
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+200 mesh	>45%	55%
pH	5 - 7	6.73
Residue on Ignition	<0.05%	<0.05%
Water Soluble Substances	<12.0 mg/5 g	4.5 mg/5 g
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H001822
Microcrystalline Cellulose Powder (TOC)
Expires 11/30/2022
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Identification A & B: Passes
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Bulk Density (graduated cylinder): 0.31 g/ml
Conductivity: 18 µS/cm
Starch: Negative
Ether Soluble Substances: 0.01%
Total Aerobic microbial Count: 100 cfu/g
Total Mold and Yeast Count: 20 cfu/g
Staphylococcus aureus: Absent/1 g
Pseudomonas aeruginosa: Absent/1 g
E. coli: Absent/1 g
Salmonella: Absent/10 g
Particle size:

- 450 mesh: 77%
- d10: 37 um
- d50: 139 um
- d90: 271 um
TUP: <9/600 cm²
Degree of brightness: >88%
Powder flow-angle of repose: <42°
Recommended Retest Date: 11/30/2022



07/26/2018 - John Huang, PhD
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Quality Control Manager

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Standard Reference Material® 1941b
Organics in Marine Sediment
CERTIFICATE OF ANALYSIS

Purpose: This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. Non-certified values are also provided for total organic carbon (TOC), total carbon, hydrogen, and nitrogen. All of the constituents for which certified and non-certified values are provided in SRM 1941b were naturally present in the sediment before processing.

Description: A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Certified Values: Certified mass fraction values for PAHs, PCB congeners, and chlorinated pesticides are provided in Table 1 through Table 3. The certified values for the PAHs, PCB congeners, and chlorinated pesticides are based on the agreement of results obtained at NIST from two or more chemically independent analytical techniques along with results from an interlaboratory comparison study [1]. A NIST certified value is a value for which NIST has the highest confidence in its accuracy in that all known or suspected sources of bias have been investigated or taken into account [1].

Non-Certified Values: Non-certified values are provided in the Appendix A.

Additional Information: Additional information is provided in Appendices B-D.

Period of Validity: The certified values delivered by SRM 1941b are valid within the measurement uncertainty specified until 14 April 2032. The certified values are nullified if the material is stored or used improperly, damaged, contaminated, or otherwise modified.

Maintenance of Certified Values: NIST will monitor this SRM over the period of its validity. If substantive technical changes occur that affect the certification, NIST will issue an amended certificate through the NIST SRM website (<https://www.nist.gov/srm>) and notify registered users. SRM users can register online from a link available on the NIST SRM website or fill out the user registration form that is supplied with the SRM. Registration will facilitate notification. Before making use of any of the values delivered by this material, users should verify they have the most recent version of this documentation, available through the NIST SRM website (<https://www.nist.gov/srm>).

Table 1. Certified Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions ^(a) ($\mu\text{g}/\text{kg}$)
Naphthalene ^(b,c,d,e,f,g)	848 \pm 95 ^(h)
Fluorene ^(b,c,d,e,f,g)	85 \pm 15 ^(h)
Phenanthrene ^(b,c,d,e,f,g)	406 \pm 44 ^(h)
Anthracene ^(b,c,d,e,f,g)	184 \pm 18 ^(h)
3-Methylphenanthrene ^(b,c,d)	105 \pm 13 ^(h)
2-Methylphenanthrene ^(b,c,d)	128 \pm 14 ^(h)
1-Methylphenanthrene ^(b,c,d,g)	73.2 \pm 5.9 ^(h)
Fluoranthene ^(b,c,d,e,f,g)	651 \pm 50 ^(h)
Pyrene ^(b,c,d,e,f,g)	581 \pm 39 ^(h)
Benz[<i>a</i>]anthracene ^(b,c,d,e,f,g)	335 \pm 25 ^(h)
Chrysene ^(d,f)	291 \pm 31 ^(h)
Triphenylene ^(d,f)	108 \pm 5 ⁽ⁱ⁾
Benzo[<i>b</i>]fluoranthene ^(c,e)	453 \pm 21 ^(h)
Benzo[<i>k</i>]fluoranthene ^(b,c,d,e)	225 \pm 18 ^(h)
Benzo[<i>e</i>]pyrene ^(b,c,d,g)	325 \pm 25 ^(h)
Benzo[<i>a</i>]pyrene ^(b,c,d,f,g)	358 \pm 17 ^(h)
Perylene ^(b,c,d,f,g)	397 \pm 45 ^(h)
Benzo[<i>ghi</i>]perylene ^(b,c,d,f,g)	307 \pm 45 ^(h)
Indeno[1,2,3- <i>cd</i>]pyrene ^(b,c,d,f,g)	341 \pm 57 ^(h)
Dibenz[<i>a,j</i>]anthracene ^(b,c,d,f)	48.9 \pm 4.6 ^(h)
Dibenz[<i>a,c</i>]anthracene ^(c,f)	36.7 \pm 5.2 ^(h)
Dibenz[<i>a,h</i>]anthracene ^(c,f)	53 \pm 10 ^(h)
Benzo[<i>b</i>]chrysene ^(b,c,d,f)	53 \pm 12 ^(h)
Picene ^(b,c,d)	46.6 \pm 4.7 ^(h)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(c) GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(d) GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(e) LC-FL (total) of total PAH fraction after PFE with DCM.

^(f) LC-FL (isomer) of isomeric PAH fractions after PFE with DCM.

^(g) 1999 Interlaboratory Comparison Study [2] with 21 to 29 laboratories submitting data for each PAH.

^(h) Certified values are weighted means of the results from two to six analytical methods [3]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [4,5]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

⁽ⁱ⁾ The certified value is an unweighted mean of the results from two analytical methods. The uncertainty listed with the value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [6] with a pooled, within-method variance following the ISO/JCGM Guide [4,5]. The measurand is the total mass fraction of the constituent listed and the value is metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 2. Certified Mass Fraction Values for PCB Congeners^(a) in SRM 1941b

PCB Congeners		Mass Fractions ^(b) ($\mu\text{g}/\text{kg}$)
PCB 8	(2,4'-Dichlorobiphenyl) ^(c,d,e,f,g)	1.65 \pm 0.19 ^(h)
PCB 18	(2,2',5'-Trichlorobiphenyl) ^(c,d,e,f,g)	2.39 \pm 0.29 ^(h)
PCB 28	(2,4,4'-Trichlorobiphenyl) ^(c,d,e,f,g)	4.52 \pm 0.57 ^(h)
PCB 31	(2,4',5'-Trichlorobiphenyl) ^(c,e,f)	3.18 \pm 0.41 ^(h)
PCB 44	(2,2',3,5'-Tetrachlorobiphenyl) ^(c,d,e,f,g)	3.85 \pm 0.20 ⁽ⁱ⁾
PCB 49	(2,2',4,5'-Tetrachlorobiphenyl) ^(c,d,e,f)	4.34 \pm 0.28 ⁽ⁱ⁾
PCB 52	(2,2',5,5'-Tetrachlorobiphenyl) ^(c,d,e,f,g)	5.24 \pm 0.28 ⁽ⁱ⁾
PCB 66	(2,3',4,4'-Tetrachlorobiphenyl) ^(c,e,f,g,i)	4.96 \pm 0.53 ⁽ⁱ⁾
PCB 87	(2,2',3,4,5'-Pentachlorobiphenyl) ^(c,d,f,i)	1.14 \pm 0.16 ^(h)
PCB 95	(2,2',3,5',6'-Pentachlorobiphenyl) ^(c,e,f,g)	3.93 \pm 0.62 ⁽ⁱ⁾
PCB 99	(2,2',4,4',5'-Pentachlorobiphenyl) ^(c,d,e,f,g)	2.90 \pm 0.36 ⁽ⁱ⁾
PCB 101	(2,2',4,5,5'-Pentachlorobiphenyl) ^(c,e,f,g,i)	5.11 \pm 0.34 ⁽ⁱ⁾
PCB 105	(2,3,3',4,4'-Pentachlorobiphenyl) ^(c,d,e,f,g,i)	1.43 \pm 0.10 ⁽ⁱ⁾
PCB 110	(2,3,3',4',6'-Pentachlorobiphenyl) ^(c,e,f,i)	4.62 \pm 0.36 ⁽ⁱ⁾
PCB 118	(2,3',4,4',5'-Pentachlorobiphenyl) ^(c,d,e,f,g,i)	4.23 \pm 0.19 ⁽ⁱ⁾
PCB 128	(2,2',3,3',4,4'-Hexachlorobiphenyl) ^(c,d,e,f,g,i)	0.696 \pm 0.044 ⁽ⁱ⁾
PCB 138	(2,2',3,4,4',5'-Hexachlorobiphenyl) ^(c,e,f,i)	3.60 \pm 0.28 ⁽ⁱ⁾
PCB 149	(2,2',3,4',5',6'-Hexachlorobiphenyl) ^(c,d,e,i)	4.35 \pm 0.26 ^(h)
PCB 153	(2,2',4,4',5,5'-Hexachlorobiphenyl) ^(c,d,e,f,g,i)	5.47 \pm 0.32 ⁽ⁱ⁾
PCB 156	(2,3,3',4,4',5'-Hexachlorobiphenyl) ^(c,d,e,f,i)	0.507 \pm 0.090 ⁽ⁱ⁾
PCB 170	(2,2',3,3',4,4',5'-Heptachlorobiphenyl) ^(c,d,e,f,g,i)	1.35 \pm 0.09 ⁽ⁱ⁾
PCB 180	(2,2',3,4,4',5,5'-Heptachlorobiphenyl) ^(c,d,e,f,g,i)	3.24 \pm 0.51 ⁽ⁱ⁾
PCB 183	(2,2',3,4,4',5',6'-Heptachlorobiphenyl) ^(c,d,e,i)	0.979 \pm 0.087 ^(h)
PCB 187	(2,2',3,4',5,5',6'-Heptachlorobiphenyl) ^(c,d,e,f,g,i)	2.17 \pm 0.22 ⁽ⁱ⁾
PCB 194	(2,2',3,3',4,4',5,5'-Octachlorobiphenyl) ^(c,d,e,i)	1.04 \pm 0.06 ^(h)
PCB 195	(2,2',3,3',4,4',5,6'-Octachlorobiphenyl) ^(c,e,g,i)	0.645 \pm 0.060 ⁽ⁱ⁾
PCB 201	(2,2',3,3',4,5',6',6'-Octachlorobiphenyl) ^(c,e,i)	0.777 \pm 0.034 ^(h)
PCB 206	(2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl) ^(c,e,f,g,i)	2.42 \pm 0.19 ⁽ⁱ⁾
PCB 209	Decachlorobiphenyl ^(c,d,e,f,g,i)	4.86 \pm 0.45 ⁽ⁱ⁾

^(a) PCB congeners are numbered according to the scheme proposed by Ballschmitter and Zell [7] and later revised by Schulte and Malisch [8] to conform to IUPAC rules, except PCB 201. Under the Ballschmitter and Zell numbering system, the IUPAC PCB 201 is listed as PCB 200.

^(b) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(c) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(d) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(e) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(f) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(g) 1999 Interlaboratory Comparison Study [2] with 13 to 31 laboratories submitting data for each PCB congener.

^(h) Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [6] with a pooled, within method variance following the ISO/JCGM Guide [4,5]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

⁽ⁱ⁾ Certified values are weighted means of the results from three to six analytical methods [3]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [4,5]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(j) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

Table 3. Certified Mass Fraction Values for Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions ^(a) ($\mu\text{g}/\text{kg}$)
Hexachlorobenzene ^(b,c,d,e)	5.83 \pm 0.38 ^(f)
<i>cis</i> -Chlordane ^(b,c,d,e,g)	0.85 \pm 0.11 ^(h)
<i>trans</i> -Chlordane ^(b,c,e)	0.566 \pm 0.093 ^(f)
<i>cis</i> -Nonachlor ^(b,c,g)	0.378 \pm 0.053 ^(h)
<i>trans</i> -Nonachlor ^(b,c,d,e,g)	0.438 \pm 0.073 ^(f)
4,4'-DDE ^(b,d,e,g)	3.22 \pm 0.28 ^(h)
4,4'-DDD ^(b,d,e,g)	4.66 \pm 0.46 ^(h)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(c) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(d) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(e) 1999 Interlaboratory Comparison Study [2] with 13 to 31 laboratories submitting data for each pesticide.

^(f) Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [6] with a pooled, within-method variance following the ISO/JCGM Guide [4,5]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(g) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(h) Certified values are weighted means of the results from three to five analytical methods [3]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [4,5]. The measurand is the total mass fraction of the chlorinated pesticides listed and the values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Safety: This material is naturally occurring marine sediment from an urban area and may contain constituents of unknown toxicities; therefore, caution and care should be exercised during its handling and use.

Storage: SRM 1941b must be stored in its original bottle at temperatures less than 30 °C and away from direct sunlight.

Use: Prior to removal of subsamples for analysis, the contents of the bottle should be mixed. The mass fractions of constituents in SRM 1941b are reported on a dry-mass basis. The SRM, as received, contains a mass fraction of approximately 2.4 % moisture (see "Conversion to Dry-Mass Basis"). The sediment sample should be dried to a constant mass before weighing for analysis; or a separate subsample of the sediment should be removed from the bottle at the time of analysis and dried to determine the mass fraction on a dry-mass basis. If the constituents of interest are volatile, then the moisture must be determined with a separate subsample.

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Certificate Revision History: 25 April 2022 (Change of period of validity; updated format; editorial changes); 16 January 2015 (Corrected IUPAC name for PCB-56 and PCB-107; editorial changes); 10 June 2014 (Units corrected from mg/kg to µg/kg in Tables 8 and 9; editorial changes); 10 April 2012 (Reference value added for alkylated PAH groups, hopanes, and steranes; extension of certification period; editorial changes); 01 December 2011 (Extension of certification period; editorial changes); 16 August 2004 (Reference values for the butyl tins removed; editorial changes); 15 July 2002 (Original certificate date).

Certain commercial equipment, instruments, or materials may be identified in this Certificate of Analysis to adequately specify the experimental procedure. Such identification does not imply recommendation or endorsement by the National Institute of Standards and Technology, nor does it imply that the materials or equipment identified are necessarily the best available for the purpose.

Users of this SRM should ensure that the Certificate of Analysis in their possession is current. This can be accomplished by contacting the Office of Reference Materials 100 Bureau Drive, Stop 2300, Gaithersburg, MD 20899-2300; telephone (301) 975-2200; e-mail srminfo@nist.gov; or the Internet at <https://www.nist.gov/srm>.

* * * * * End of Certificate of Analysis * * * * *

APPENDIX A

Non-Certified Values: Non-certified mass fraction values for additional PAHs (some in combination), additional PCB congeners, and additional chlorinated pesticides are provided in Table A1 through Table A4. Non-certified values for alkylated PAH groups are provided in Table A5 and for selected hopanes and steranes in Table A6. A non-certified value for total organic carbon is provided in Table A7. Non-certified values are values that are the best estimate of the true value; however, the values do not meet the NIST criteria for certification and are provided with associated uncertainties that may reflect only measurement precision, may not include all sources of uncertainty, or may reflect a lack of sufficient statistical agreement among multiple analytical methods [1].

Additional Non-Certified Mass Fraction Values: Non-certified mass fraction values are provided in Table A8 for carbon, hydrogen, and nitrogen.

Table A1. Non-certified Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions ^(a) ($\mu\text{g}/\text{kg}$)		
1-Methylnaphthalene ^(b,c,d,e)	127	\pm	14 ^(f)
2-Methylnaphthalene ^(b,c,d,e)	276	\pm	53 ^(f)
2,6-Dimethylnaphthalene ^(b,c,d,e)	75.9	\pm	4.5 ^(f)
2,3,5-Trimethylnaphthalene ^(b,c,d,e)	25.5	\pm	5.1 ^(f)
Biphenyl ^(b,c,d,e)	74.0	\pm	8.0 ^(f)
Acenaphthylene ^(b,c,d,e)	53.3	\pm	6.4 ^(f)
Acenaphthene ^(b,c,d,e)	38.4	\pm	5.2 ^(f)
9-Methylphenanthrene ^(e)	63.5	\pm	2.5 ^(g)
4-Methylphenanthrene and 9-Methylphenanthrene ^(b,d)	80.1	\pm	4.8 ^(f)
2-Methylanthracene ^(c,d)	36	\pm	15 ^(f)
8-Methylfluoranthene ^(b)	49.5	\pm	2.7 ^(g)
7-Methylfluoranthene ^(b)	45.4	\pm	1.5 ^(g)
1-Methylfluoranthene ^(b)	42.4	\pm	2.1 ^(g)
3-Methylfluoranthene ^(b)	28.8	\pm	1.3 ^(g)
2-Methylpyrene ^(b)	78.7	\pm	4.0 ^(g)
4-Methylpyrene ^(b)	66.4	\pm	2.6 ^(g)
1-Methylpyrene ^(b)	52.5	\pm	2.3 ^(g)
Acphenanthrene ^(d)	30.5	\pm	1.9 ^(g)
Benzo[<i>c</i>]phenanthrene ^(b,c,d)	58	\pm	15 ^(f)
Benzo[<i>a</i>]fluoranthene ^(b,c,d)	73	\pm	18 ^(f)
Benzo[<i>j</i>]fluoranthene ^(e)	217	\pm	5 ^(g)
Indeno[1,2,3- <i>cd</i>]fluoranthene ^(d)	9.63	\pm	0.34 ^(g)
Pentaphene ^(d)	25.3	\pm	1.0 ^(g)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(c) GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(d) GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(e) 1999 Interlaboratory Comparison Study [2] with 14 to 26 laboratories submitting data for each PAH.

^(f) Non-certified values are weighted means of the results from two to four analytical methods [3]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [4,5]. The measurand is the total mass fraction of PAHs listed as determined by the methods indicated. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(g) Non-certified values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution for the associated degrees of freedom (19 for footnote b and 5 for footnotes c and d) and 95 % confidence level for each analyte. The measurand is the total mass fraction of the PAHs listed as determined by the method indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table A2. Non-certified Mass Fraction Values for PAHs of Molecular Mass 300 and 302 in SRM 1941b

PAHs of Molecular Mass 300 and 302	Mass Fractions ^(a,b,c) ($\mu\text{g}/\text{kg}$)	
Coronene	72.6	\pm 4.7
Dibenzo[<i>b,e</i>]fluoranthene	10.3	\pm 0.3
Naphtho[1,2- <i>b</i>]fluoranthene	91.0	\pm 3.1
Naphtho[1,2- <i>k</i>]fluoranthene and Naphtho[2,3- <i>j</i>]fluoranthene	79.8	\pm 2.5
Naphtho[2,3- <i>b</i>]fluoranthene	23.5	\pm 0.3
Dibenzo[<i>b,k</i>]fluoranthene	95.6	\pm 3.1
Dibenzo[<i>a,k</i>]fluoranthene	26.6	\pm 0.4
Dibenzo[<i>j,l</i>]fluoranthene	63.8	\pm 1.8
Dibenzo[<i>a,l</i>]pyrene	11.1	\pm 1.0
Naphtho[2,3- <i>k</i>]fluoranthene	10.7	\pm 0.6
Naphtho[1,2- <i>a</i>]pyrene	16.7	\pm 1.4
Naphtho[2,3- <i>e</i>]pyrene	33.2	\pm 2.3
Dibenzo[<i>a,e</i>]pyrene	76.1	\pm 3.6
Naphtho[2,1- <i>a</i>]pyrene	59.2	\pm 1.8
Dibenzo[<i>e,l</i>]pyrene	35.0	\pm 2.4
Naphtho[2,3- <i>a</i>]pyrene	16.5	\pm 0.6
Benzo[<i>b</i>]perylene	38.2	\pm 1.2
Dibenzo[<i>a,l</i>]pyrene	25.5	\pm 1.0
Dibenzo[<i>a,h</i>]pyrene	6.94	\pm 0.29

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) Non-certified values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = ku_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution for two degrees of freedom and 95 % confidence level for each analyte. The measurand is the total mass fraction of the constituent listed as determined by the method indicated. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(c) GC/MS on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM [9].

Table A3. Non-certified Mass Fraction Values for PCB Congeners^(a) in SRM 1941b

PCB Congeners			Mass Fractions ^(b,c) ($\mu\text{g}/\text{kg}$)		
PCB	45	(2,2',3,6-Tetrachlorobiphenyl) ^(d,e)	0.73	\pm	0.12
PCB	56	(2,3,3',4'-Tetrachlorobiphenyl) ^(d,f,g)	1.21	\pm	0.11
PCB	63	(2,3,4',5-Tetrachlorobiphenyl) ^(e,f,g)	0.213	\pm	0.040
PCB	70	(2,3',4',5-Tetrachlorobiphenyl) ^(e,f,g)	4.99	\pm	0.29
PCB	74	(2,4,4',5-Tetrachlorobiphenyl) ^(e,f,g)	2.04	\pm	0.15
PCB	77	(3,3',4,4'-Tetrachlorobiphenyl) ^(h)	0.31	\pm	0.03
PCB	107	(2,3,3',4',5-Pentachlorobiphenyl) ^(d,e,f,g)	0.628	\pm	0.028
PCB	132	(2,2',3,3',4,6'-Hexachlorobiphenyl) ^(d,f,g)	1.28	\pm	0.27
PCB	146	(2,2',3,4',5,5'-Hexachlorobiphenyl) ^(e,f,g)	1.22	\pm	0.12
PCB	158	(2,3,3',4,4',6-Hexachlorobiphenyl) ^(d,e,f,g)	0.65	\pm	0.15
PCB	163	(2,3,3',4',5,6-Hexachlorobiphenyl) ^(e,f,g)	1.28	\pm	0.06
PCB	174	(2,2',3,3',4,5,6'-Heptachlorobiphenyl) ^(d,e,f,g)	1.51	\pm	0.39
PCB	193	(2,3,3',4',5,5',6-Heptachlorobiphenyl) ^(d,e,f,g)	0.292	\pm	0.075

^(a) PCB congeners are numbered according to the scheme proposed by Ballschmiter and Zell [7] and later revised by Schulte and Malisch [8] to conform with IUPAC rules, except PCB 107. Under the Ballschmiter and Zell numbering system, the IUPAC PCB 107 is listed as PCB 108.

^(b) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(c) For these PCB congeners except PCB 77, the non-certified values are unweighted means of the results from two to four analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [6] with a pooled within-method variance following the ISO/JCGM Guide [4,5]. For PCB 77, the non-certified value is the mean of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution corresponding to two degrees of freedom and 95 % confidence level for PCB 77. The measurand is the total mass fraction of the PCB Congeners listed as determined by the method or methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as microgram per kilogram on a dry-mass basis.

^(d) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(e) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(f) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(g) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(h) GC/MS NICI on a 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC-ECD (I) fractionated using a PYE column.

Table A4. Non-certified Mass Fraction Values for Selected Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions ^(a,b) ($\mu\text{g}/\text{kg}$)		
2,4'-DDE ^(c,d)	0.38	\pm	0.12
4,4'-DDT ^(e,f)	1.12	\pm	0.42

^(a) Mass Fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) The non-certified values are unweighted means of the results from two analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [6] with a pooled, within-method variance following the ISO/JCGM Guide [4,5]. The measurand is the total mass fraction of the chlorinated pesticides listed as determined by the methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(c) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(d) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(e) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(f) 1999 Interlaboratory Comparison Study [2] with 10 laboratories submitting data for 4,4'-DDT.

Table A5. Non-certified Mass Fraction Values for Alkylated PAH Groups in SRM 1941b

Alkylated PAH Group	Mass Fraction ^(a,b) (µg/kg)
C2-decalins	18 ± 5
C4-decalins	41 ± 4
C2-naphthalenes	187 ± 53
C3-naphthalenes	158 ± 42
C1-benzothiophenes	25 ± 14
C2-benzothiophenes	20 ± 11
C3-benzothiophenes	22 ± 13
C4-benzothiophenes	18 ± 5
C1-fluorenes	57 ± 18
C2-fluorenes	122 ± 43
C3-fluorenes	128 ± 31
C1-phenanthrenes/anthracenes	313 ± 99
C2-phenanthrenes/anthracenes	247 ± 62
C3-phenanthrenes/anthracenes	165 ± 46
C4-phenanthrenes/anthracenes	87 ± 36
C1-dibenzothiophenes	54 ± 13
C2-dibenzothiophenes	91 ± 18
C3-dibenzothiophenes	84 ± 15
C4-dibenzothiophenes	57 ± 13
C1-fluoranthenes/pyrenes	252 ± 48
C2-fluoranthenes/pyrenes	205 ± 38
C3-fluoranthenes/pyrenes	102 ± 22
C4-fluoranthenes/pyrenes	121 ± 59
C1-benzanthracenes/chrysenes/triphenylenes	208 ± 43
C2-benzanthracenes/chrysenes/triphenylenes	120 ± 24
C3-benzanthracenes/chrysenes/triphenylenes	73 ± 31
C4-benzanthracenes/chrysenes/triphenylenes	41 ± 11

^(a) The non-certified mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U , is calculated as $U = ku_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the alkylated PAH groups listed as determined by the interlaboratory study methods. The values listed are metrologically traceable to the SI unit of mass fraction, expressed as micrograms per kilogram on a dry-mass basis.

^(b) Data from the interlaboratory study [10].

Table A6. Non-certified Mass Fraction Values for Hopanes and Steranes in SRM 1941b

Hopane or Sterane	Mass Fraction ^(a,b) (µg/kg)
17 α (H)-22,29,30-Trisnorhopane	54 ± 18
17 α (H)-21 β (H)-30-Norhopane	137 ± 21
17 α (H)-21 β (H)-30-Hopane	215 ± 44
17 α (H)-21 β (H)-22R-Homohopane	44 ± 10
17 α (H)-21 β (H)-22S-Homohopane	48 ± 13
5 α (H)-14 α (H),17 α (H)-Cholestane 20R	41 ± 11
5 α (H)-14 β (H),17 β (H)-Cholestane 20R	27 ± 6
5 α (H)-14 β (H),17 β (H)-24-Methylcholestane 20R	21 ± 8
5 α (H)-14 α (H),17 α (H)-24-Ethylcholestane 20R	19 ± 5
5 α (H)-14 β (H),17 β (H)-24-Ethylcholestane 20R	41 ± 9

^(a) The non-certified mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U , is calculated as $U = ku_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the constituent listed as determined by the methods used during the interlaboratory study. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(b) Data from the interlaboratory study [10].

Table A7. Non-certified Mass Fraction Value for Total Organic Carbon in SRM 1941b

Total Organic Carbon (TOC) 2.99 % ± 0.24 %^(a,b)

^(a) Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) The non-certified value for total organic carbon is a weighted mean value from routine measurements made by two laboratories [1]. The uncertainty listed is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance. The reporting follows the ISO/JCGM Guides [11]. The measurand is the total mass fraction of TOC listed as determined by the methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as a percent on a dry-mass basis.

Table A8. Additional Non-Certified Mass Fraction Values for SRM 1941b

Elements	Mass Fractions ^(a) (%)
Carbon	3.3
Hydrogen	1.2
Nitrogen	<0.5

^(a) Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.

Maintenance of Non-Certified Values: NIST will monitor this material to the end of its period of validity. If substantive technical changes occur that affect the non-certified values during this period, NIST will update this Appendix and notify registered users. SRM users can register online from a link available on the NIST SRM website or fill out the user registration form that is supplied with the SRM. Registration will facilitate notification. Before making use of any of the values delivered by this material, users should verify they have the most recent version of this documentation, available through the NIST SRM website (<https://www.nist.gov/srm>).

* * * * * End of Appendix A * * * * *

APPENDIX B

Coordination of the technical measurements leading to the certification of this material was under the leadership of S.A. Wise of the NIST Chemical Sciences Division and M.M. Schantz, formerly of NIST

Analytical measurements for the certification of SRM 1941b were performed at NIST by J.R. Kucklick, D.L. Poster, and L.L. Yu of the NIST Chemical Sciences Division and B.J. Porter, M.M. Schantz, P. Schubert, and S. Tutschku, formerly of NIST.

Measurements for TOC were provided by a commercial laboratory and T.L. Wade of the Geochemical and Environmental Research Group, Texas A&M University (College Station, TX). The carbon, hydrogen, and nitrogen data were provided by a commercial laboratory. Results for the PAHs, PCBs, and chlorinated pesticides from 38 laboratories (see Appendix C) that participated in an interlaboratory comparison exercise coordinated by NIST were used. Results for the alkylated PAH groups, hopanes, and steranes from 33 laboratories (see Appendix D) that participated in another interlaboratory comparison exercise coordinated by NIST were also used.

Collection and preparation of SRM 1941b were performed by M.P. Cronise and C.N. Fales of the NIST Office of Reference Materials and B.J. Porter and M.M. Schantz, formerly of the NIST Chemical Sciences Division. The sediment material was collected with the assistance of G.G. Lauenstein, J. Collier, and J. Lewis (National Oceanic and Atmospheric Administration, Silver Spring, MD).

Consultation on the statistical design of the experimental work and evaluation of the data were provided by S.D. Leigh and J.H. Yen of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Office of Reference Materials.

Sample Collection and Preparation: The sediment used to prepare this SRM was collected from the Chesapeake Bay at the mouth of the Baltimore (MD) Harbor near the Francis Scott Key Bridge (39°12.3'N and 76°31.4'W). This location is very near the site where SRM 1941 and SRM 1941a were collected. The sediment was collected using a Kynar-coated modified Van Veen-type grab sampler. A total of approximately 3300 kg of wet sediment was collected from the site. The sediment was freeze-dried, sieved at 150 μm (100 % passing), homogenized in a cone blender, radiation sterilized (^{60}Co), and then packaged in screw-capped amber glass bottles each containing approximately 50 g.

Conversion to Dry-Mass Basis: The results for the constituents in SRM 1941b are reported on a dry-mass basis; however, the material "as received" contains residual moisture. The amount of moisture in SRM 1941b was determined by measuring the mass loss after freeze-drying subsamples of 1.1 g to 1.3 g for four days at 1 Pa with a $-10\text{ }^{\circ}\text{C}$ shelf temperature and a $-50\text{ }^{\circ}\text{C}$ condenser temperature. The moisture content in SRM 1941b at the time of the certification analyses was $2.39\% \pm 0.08\%$ (95 % confidence level). Analytical results for the organic constituents were determined on an as-received basis and then converted to a dry-mass basis by dividing by the conversion factor of 0.9761 (gram dry mass per gram as-received mass).

Polycyclic Aromatic Hydrocarbons: The general approach used for the value assignment of the PAHs in SRM 1941b was similar to that reported in detail elsewhere [11]. The approach consisted of combining results from analyses using various combinations of different extraction techniques and solvents, clean-up/isolation procedures, and chromatographic separation and detection techniques: Soxhlet extraction and pressurized-fluid extraction (PFE) using dichloromethane (DCM) or a hexane/acetone mixture, cleanup of the extracts using solid-phase extraction (SPE) or normal-phase liquid chromatography (LC), followed by analysis using the following techniques: (1) reversed-phase liquid chromatography with fluorescence detection (LC-FL) analysis of the total PAH fraction, (2) reversed-phase LC-FL analysis of isomeric PAH fractions isolated by normal-phase LC (i.e., multidimensional LC), (3) gas chromatography/mass spectrometry (GC/MS) analysis of the PAH fraction on three stationary phases of different selectivity, i.e., a 5 % (all column compositions are given as mole fractions in %) phenyl-substituted methylpolysiloxane phase, a 50 % phenyl-substituted methylpolysiloxane phase, and a relatively non-polar proprietary phase.

Three sets of GC/MS results, designated as GC/MS (I), GC/MS (II), and GC/MS (III), were obtained using three columns with different selectivities for the separation of PAHs. For GC/MS (I) analyses, duplicate subsamples of approximately 1 g from ten bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added

to the extract to remove elemental sulfur. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 2 % DCM in hexane (all solvent concentrations are given as volume fractions in %). The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5 MS, J&W Scientific, Folsom, CA). The GC/MS (II) analyses were performed using 5 g subsamples from six bottles of SRM 1941b. These samples were extracted using PFE with DCM. The high molecular mass compounds were removed from the extracts using size exclusion chromatography (SEC) with a preparative-scale divinylbenzene-polystyrene column (10 μm particle size with 10 nm diameter pores), and the sulfur was removed from the extracts by adding copper powder. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The analysis was by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17 MS, J&W Scientific). For the GC/MS (III), 9 g subsamples from six bottles of SRM 1941b were Soxhlet-extracted for 18 h with 250 mL of a mixture of 50 % hexane/50 % acetone. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific).

Two sets of LC-FL results, designated as LC-FL (total) and LC-FL (isomer), were used in the certification process. For the LC-FL (total), subsamples of approximately 1 g from six bottles of SRM 1941b were extracted using PFE with a mixture of 50 % hexane/50 % acetone. The extracts were concentrated and then processed through an aminopropylsilane SPE cartridge using 2 % DCM in hexane to obtain the total PAH fraction. For the LC-FL (isomer), a 5 g subsample from the six bottles was extracted using PFE with DCM and processed through an aminopropylsilane SPE cartridge using 10 % DCM in hexane; the PAH fraction was then fractionated further on a semi-preparative aminopropylsilane column (μBondapak NH₂, 9 mm i.d. × 30 cm, Waters Associates, Milford, MA) to isolate isomeric PAH fractions as described previously [12–15]. The total PAH fraction and the isomeric PAH fractions were analyzed using a 5 μm particle-size polymeric octadecylsilane (C₁₈) column (4.6 mm i.d. × 25 cm, Hypersil-PAH, Keystone Scientific, Inc., Bellefonte, PA) with wavelength-programmed fluorescence detection [13,14].

For the GC/MS and LC-FL measurements described above, selected perdeuterated PAHs were added to the sediment prior to solvent extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [2]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PAHs in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

Homogeneity Assessment for PAHs: The homogeneity of SRM 1941b was assessed by analyzing duplicate samples of approximately 1 g from ten bottles selected by stratified random sampling. Samples were extracted, processed, and analyzed as described above for GC/MS (I). No statistically significant differences among bottles were observed for the PAHs at this sample size.

PAH Isomers of Molecular Mass 300 and 302: For the determination of the molecular mass 300 and 302 isomers, three subsamples of approximately 5 g each were extracted using PFE with DCM. The extracts were then concentrated with a solvent change to hexane and passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17MS, J&W Scientific). Perdeuterated dibenzo[*a,i*]pyrene was added to the sediment prior to extraction for use as an internal standard [9].

PCBs and Chlorinated Pesticides: The general approach used for the determination of PCBs and chlorinated pesticides in SRM 1941b consisted of combining results from analyses using various combinations of different extraction techniques and solvents, cleanup/isolation procedures, and chromatographic separation and detection techniques. Techniques and solvents included Soxhlet extraction and PFE using DCM or a hexane/acetone mixture, clean-up/isolation using SPE or LC, followed by analysis using GC/MS and gas chromatography with electron capture detection (GC-ECD) on two columns with different selectivity for the separation of PCBs and chlorinated pesticides. The analytical methods are described in detail elsewhere [11].

Six sets of results were obtained and designated as GC-ECD (I) A and B, GC/MS (I) A and B, GC/MS (II), and Interlaboratory Comparison Exercise. For the GC-ECD (I) analyses, approximately 10 g subsamples from six bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added to the extract to remove elemental sulfur, and SEC, as described above, was used to remove the high molecular mass compounds. The concentrated extract was then fractionated on a semi-preparative aminopropylsilane column to isolate two fractions containing:

(1) the PCBs and lower-polarity pesticides and (2) the more polar pesticides. GC-ECD analyses of the two fractions were performed on two columns of different selectivities for PCB separations: 0.25 mm × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 µm film thickness; DB-5, J&W Scientific), and a 0.25 mm × 60 m fused silica capillary column with a non-polar proprietary phase (0.25 µm film thickness; DB-XLB, J&W Scientific). The results from the 5 % phenyl phase are designated as GC-ECD (IA) and the results from the proprietary phase are designated as GC-ECD (IB). For the GC-ECD analyses, two PCB congeners that are not significantly present in the sediment extract (PCB 103 and PCB 198 [7,8]) and endosulfan I-*d*₈, 4,4'-DDE-*d*₈, 4,4'-DD-*d*₈, and 4,4'-DDT-*d*₈ were added to the sediment prior to extraction for use as internal standards for quantification purposes.

Two sets of results were obtained by GC/MS. For GC/MS (I), approximately 9 g subsamples from six bottles were Soxhlet- extracted with a mixture of 50 % hexane/50 % acetone for approximately 18 h. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS with two ionization modes, electron impact (EI) and negative ion chemical ionization (NICI). The GC/MS EI method, GC/MS (IA), used a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 µm film thickness; DB-XLB, J&W Scientific). The GC/MS NICI method, GC/MS (IB), used a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 µm film thickness; DB-5MS, J&W Scientific). The GC/MS (II) results were obtained in the same manner as the GC/MS (IA) analyses except that three subsamples were Soxhlet-extracted with DCM for approximately 18 h. For the GC/MS analyses, selected carbon-13 labeled PCB congeners and chlorinated pesticides were added to the sediment prior to extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [7]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PCB congeners and chlorinated pesticides in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

The non-certified value for PCB 77 was determined from a separate fraction. The samples were extracted and processed as for GC-ECD (I) above. The first (PCB and lower-polarity pesticide) fraction from the semi-preparative aminopropylsilane column was further fractionated using a Cosmosil PYE (pyrenylethyl group bonded) column (5 µm particle size, 4.6 mm i.d. × 25 cm ; Phenomenex, Torrance, CA) [16]. Three fractions were collected: the first fraction contained the pesticides and multi-*ortho* PCBs, the second fraction contained the polychlorinated naphthalenes, non-*ortho* PCB congeners, and some mono-*ortho* PCB congeners, and the third fraction removed the residual planar compounds from the column. The second fraction was analyzed by GC/MS NICI using the same column as GC/MS (IB) above. Carbon-13 labeled PCB 77 was used as an internal standard for quantification purposes.

Alkylated PAH Groups, Hopanes, and Steranes: SRM 1941b was used in an interlaboratory comparison exercise in 2011 [10]. Results from 33 laboratories that participated in this exercise were used in the determination of the non-certified values for alkylated PAH groups, hopanes, and steranes in SRM 1941b. Note that not all laboratories returned data for each analyte. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest. For the alkylated PAHs, the majority of the laboratories (>90 %) used the parent PAH for determination of the response factor for the corresponding alkylated group.

Total Organic Carbon (TOC): Two laboratories provided results for TOC using similar procedures. Briefly, subsamples of approximately 200 mg were reacted with 6 mol/L hydrochloric acid and rinsed with deionized water prior to combustion in a gas fusion furnace. The carbon monoxide and carbon dioxide produced were measured and compared to a blank for calculation of the percent TOC. Each laboratory analyzed subsamples from three bottles of SRM 1941b. One of the laboratories also analyzed three subsamples from three bottles of SRM 1941b for carbon, hydrogen, and nitrogen.

* * * * * End of Appendix B * * * * *

APPENDIX C

The laboratories listed below performed measurements that contributed to the certification of PAHs, PCBs, and chlorinated pesticides in SRM 1941b Organics in Marine Sediment.

Arthur D. Little, Inc (Cambridge, MA, USA)
Axys Analytical Services (Sidney, BC, Canada)
B & B Laboratories (College Station, TX, USA)
Battelle Ocean Sciences (Duxbury, MA, USA)
Bedford Institute of Oceanography (Dartmouth, NS, Canada)
California Department of Fish and Game (Rancho Cordova, CA, USA)
Central Contra Costa Sanitary District (Martinez, CA, USA)
Chesapeake Biological Laboratory (Solomons, MD, USA)
Centro de Investigaciones Energeticas Medioambientales y Tecnologicas (Madrid, Spain)
City of Los Angeles Environmental Monitoring Division (Playa del Rey, CA, USA)
City of San Jose Environmental Services Department (San Jose, CA, USA)
Columbia Analytical Services (Kelso, WA, USA)
East Bay Municipal Utility District (Oakland, CA, USA)
Florida Department of Environmental Protection (Tallahassee, FL, USA)
Manchester Environmental Laboratory (Port Orchard, WA, USA)
Murray State University (Murray, KY, USA)
Massachusetts Water Resources Authority Central Lab (Winthrop, MA, USA)
National Research Council of Canada (Ottawa, Ontario, Canada)
National Oceanic and Atmospheric Association (NOAA), National Marine Fisheries Service (NMFS), Auke Bay Laboratory (Juneau, AK, USA)
NOAA, National Ocean Service/Center for Coastal Environmental Health and Biomolecular Research (Charleston, SC, USA)
NOAA, NMFS, Sandy Hook Marine Laboratory (Highlands, NJ, USA)
NOAA, NMFS, Northwest Fisheries Science Center (Seattle, WA, USA)
Orange County Sanitation District (Fountain Valley, CA, USA)
Philip Analytical Services (Burlington, Ontario, Canada)
Serv de Hidrografia Naval (Buenos Aires, Argentina)
Skidaway Institute of Technology (Savannah, GA, USA)
Southwest Laboratory of Oklahoma (Broken Arrow, OK, USA)
Severn Trent Knoxville Laboratory (Knoxville, TN, USA)
Texas A&M University, Geochemical and Environmental Research Group (College Station, TX, USA)
Texas Parks and Wildlife Department (San Marcos, TX, USA)
University of California at Los Angeles, Institute of Geophysics and Planetary Physics (Los Angeles, CA, USA)
University of Connecticut, Environmental Research Institute (Storrs, CT, USA)
University of Rhode Island, Graduate School of Oceanography (Narragansett, RI, USA)
US Department of Agriculture, Environmental Chemistry Laboratory (Beltsville, MD, USA)
US Environmental Protection Agency, Atlantic Ecology Division (Narragansett, RI, USA)
US Geological Survey, National Water Quality Laboratory (Denver, CO, USA)
Woods Hole Group Environmental Lab (Raynham, MA, USA)
Wright State University (Dayton, OH, USA)

* * * * * End of Appendix C * * * * *

APPENDIX D

The laboratories listed below performed measurements that contributed to the certification of alkylated PAH groups, hopanes, and steranes in SRM 1941b Organics in Marine Sediment.

Alpha Analytical, Inc.; Mansfield, MA
Analytical Resources, Inc.; Tukwila, WA
Axy's Analytical Services; Sydney, BC, Canada
Battelle Analytical & Environmental Chemistry Laboratory; Duxbury, MA
Center for Laboratory Sciences; Pasco, WA
Columbia Analytical Services; Jacksonville, FL
Columbia Analytical Services; Rochester, NY
Columbia Analytical Services, Kelso, WA
Florida Department of Environmental Protection; Tallahassee, FL
Florida International University; North Miami, FL
Michigan Department of Natural Resources and Environment; Lansing, MI
Mississippi State Chemical Laboratory; Mississippi State, MS
NIST; Charleston, SC
NIST; Gaithersburg, MD
NOAA/NCCOS/NOS; Charleston, SC
NOAA/NMFS/Alaska Fisheries Science Center; Juneau, AK
NY State Department of Health; Albany, NY
Pace Analytical Services, Inc. Minneapolis; Minneapolis, MN
RJ Lee Group, Inc; Monroeville, PA
TDI/B&B Laboratories, Inc.; College Station, TX
TestAmerica Laboratories; Mobile, AL
TestAmerica Laboratories; West Sacramento, CA
TestAmerica Laboratories; University Park, IL
TestAmerica Laboratories; Schriever, LA
TestAmerica Laboratories; Edison, NJ
TestAmerica Laboratories; Knoxville, TN
TestAmerica Laboratories; Pittsburgh, PA
TestAmerica Laboratories; South Burlington, VT
TestAmerica Laboratories; Tacoma, WA
US Army Engineer Research and Development Center; Vicksburg, MS
USGS Columbia Environmental Research Center; Columbia, MO
University of Iowa, State Hygienic Laboratory; Iowa City, IO
Washington State Public Health Laboratories; Shoreline, WA

* * * * * End of Appendix D * * * * *



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Visit us at
<http://www.nist.gov/srm>

Thank you.

PURCHASE INFORMATION		
SRM/RM Number:	1941b	
Date Shipped:	May 18, 2023	
NIST Division:	646	
NIST Sales Order Number: Example (0800000)	O-0000049409	
Customer Purchase Order Number:		
Lot Number:	None	
Serial Number:	Not Serialized	
Purchased directly from NIST?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
CUSTOMER INFORMATION		
User First Name:		
User Surname:		
Organization/Company:		
Address:		
Address (continued):		
City, State/Province:	City:	State/Province:
Country, Postal Code:	Country:	Postal Code:
E-mail:		
Phone:		
Fax:		

Best Method of Contact: Email Phone Fax

Do NOT cut.

Fold, staple, and mail.

Do NOT cut.

Please rate your SRM purchasing experience and product by checking the appropriate box in the table below.

Category	Question	Excellent	Very Good	Good	Fair*	Poor*	N/A
Website	Navigation and usability of the SRM web site						
	Web presentation of SRM product information						
	Overall website experience						
Order Placement	SRM availability for purchase						
	Ease with getting in touch with SRM Sales and Customer Service						
	Response time with your request for a quote or order						
	Overall experience with order placement (via online, email, phone, or fax)						
Order Fulfillment	Once the order for available items was placed, timeliness of delivery						
	Carrier treatment of shipment						
	Packaging of SRM(s)						
Product	SRM Certificate or Report of Investigation information						
	Material Safety Data sheet or SRM Exemption Letter information						
	Overall SRM Quality						
	Overall SRM Value						

How could NIST serve you better in the future?

*Let us know why any score was Fair or Poor.

What is the intended use of this SRM to your work?

Other comments?

How did you hear about NIST Standard Reference Materials?

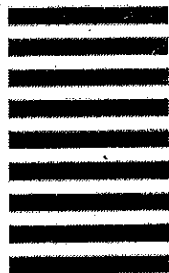
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OFFICE OF REFERENCE MATERIALS, MS 2300
PO BOX 7139
GAITHERSBURG MD 20898-7139



SAFETY DATA SHEET

1. SUBSTANCE AND SOURCE IDENTIFICATION

Product Identifier

SRM Number: 1941b
SRM Name: Organics in Marine Sediment
Other Means of Identification: Not applicable.

Recommended Use of This Material and Restrictions of Use

This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. All of the constituents for which certified and non-certified values are provided in SRM 1941b were naturally present in the sediment before processing. A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Company Information

National Institute of Standards and Technology
 Standard Reference Materials Program
 100 Bureau Drive, Stop 2300
 Gaithersburg, Maryland 20899-2300

Telephone: 301-975-2200
 E-mail: SRMMSDS@nist.gov
 Website: <https://www.nist.gov/srm>

Emergency Telephone ChemTrec:
 1-800-424-9300 (North America)
 +1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Classification

Physical Hazard: Not classified.
Health Hazard: Not classified.

Label Elements

Symbol
 No Symbol/Pictogram

Signal Word
 Not applicable.

Hazard Statement(s): Not applicable.

Precautionary Statement(s): Not applicable.

Hazards Not Otherwise Classified: Not applicable.

Ingredients(s) with Unknown Acute Toxicity: Not applicable.

3. COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

Substance: Marine sediment

Other Designations: Sediment.

This material is naturally occurring marine sediment from an urban area. The material contains trace amounts of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and should be handled with care. Components are listed in compliance with OSHA's 29 CFR 1910.1200; for the actual values see the Certificate of Analysis.

Hazardous Component(s)	CAS Number	EC Number (EINECS)	Nominal Mass Concentration (%)
Marine Sediment	Not available	Not available	100

4. FIRST AID MEASURES

Description of First Aid Measures:

Inhalation: If adverse effects occur, remove to uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.

Skin Contact: Wash skin with soap and water.

Eye Contact: Flush eyes with water for at least 15 minutes. If necessary, seek medical attention.

Ingestion: If adverse effects occur after ingestion, seek medical treatment.

Most Important Symptoms/Effects, Acute and Delayed: May cause irritation.

Indication of any immediate medical attention and special treatment needed, if necessary: If any of the above symptoms are present, seek medical attention if needed.

5. FIRE FIGHTING MEASURES

Fire and Explosion Hazards: Negligible fire hazard. Avoid generating dust. See Section 9, "Physical and Chemical Properties" for flammability properties.

Extinguishing Media:

Suitable: Use extinguishing media appropriate for surrounding fire.

Unsuitable: None listed.

Specific Hazards Arising from the Chemical: None listed.

Special Protective Equipment and Precautions for Fire-Fighters: Avoid inhalation of material or combustion byproducts. Wear full protective clothing and NIOSH approved self-contained breathing apparatus (SCBA).

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Any accumulated material on surfaces should be removed and properly disposed of. Use suitable protective equipment; see Section 8, "Exposure Controls and Personal Protection".

Methods and Materials for Containment and Clean up: Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

7. HANDLING AND STORAGE

Safe Handling Precautions: Minimize dust generation and accumulation on surfaces. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. See Section 8, "Exposure Controls and Personal Protection".

Storage: Store and handling in accordance with all current regulations and standards.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits: No occupational exposure limits have been established for marine sediment. This material is a particulate matter and adequate inhalation/respiratory protection should be used to minimize exposure. The exposure limits for Particulates Not Otherwise Regulated (PNOR) are applicable.

OSHA (PEL): 15 mg/m³ (TWA, total particulates not otherwise regulated)

OSHA (PEL) 5 mg/m³ (TWA, respirable particulates not otherwise regulated)

Engineering Controls: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Personal Protection: In accordance with OSHA 29 CFR 1910.132, subpart I, wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.

Respiratory Protection: If workplace conditions warrant a respirator, a respiratory protection program that meets OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for applicable certified respirators.

Eye/Face Protection: Wear splash resistant safety goggles with a face shield. An eye wash station should be readily available near areas of use.

Skin and Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Chemical-resistant gloves should be worn at all times when handling chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

Descriptive Properties:

Appearance (physical state, color, etc.):	amorphous powder
Molecular Formula:	not applicable
Molar Mass (g/mol):	not applicable
Odor:	not available
Odor threshold:	not available
pH:	not available
Evaporation rate:	not applicable
Melting point/freezing point (°C):	not available
Specific Gravity (water=1)	not available
Vapor Pressure (mmHg):	not applicable
Vapor Density (air = 1):	not applicable
Viscosity (cP):	not applicable
Solubility(ies):	not available
Partition coefficient (n-octanol/water):	not available
Particle Size:	<150 µm

Thermal Stability Properties:

Autoignition Temperature (°C):	not available
Thermal Decomposition (°C):	not available
Initial boiling point and boiling range (°C):	not available
Explosive Limits, LEL (Volume %):	not available
Explosive Limits, UEL (Volume %):	not available
Flash Point (°C):	not available
Flammability (solid, gas):	not available

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressure.

Stability: X Stable Unstable

Possible Hazardous Reactions: None listed.

Conditions to Avoid: Avoid generating dust.

Incompatible Materials: None listed.

Fire/Explosion Information: See Section 5, "Fire Fighting Measures".

Hazardous Decomposition: Thermal decomposition will produce oxides of carbon.

Hazardous Polymerization: Will Occur X Will Not Occur

11. TOXICOLOGICAL INFORMATION

Route of Exposure: X Inhalation X Skin Ingestion

Symptoms Related to the Physical, Chemical and Toxicological Characteristics: Generated dust may cause irritation if inhaled.

Potential Health Effects (Acute, Chronic and Delayed):

Inhalation: Generated dust may cause irritation.

Skin Contact: May cause mechanical irritation.

Eye Contact: May cause mechanical irritation.

Ingestion: No data available.

Numerical Measures of Toxicity:

Acute Toxicity: Not classified; no data available.

Skin Corrosion/Irritation: Not classified; no data available.

Serious Eye damage/ Eye irritation: Not classified; no data available.

Respiratory Sensitization: Not classified; no data available.

Skin Sensitization: Not classified; no data available.

Germ Cell Mutagenicity: Not classified; no data available.

Carcinogenicity: Not classified.

Listed as a Carcinogen/Potential Carcinogen _____ Yes X No
Marine sediment is not listed by NTP, IARC or OSHA as a carcinogen.

Reproductive Toxicity: Not classified; no data available.

Specific Target Organ Toxicity, Single Exposure: Not classified; no data available.

Specific Target Organ Toxicity, Repeated Exposure: Not classified; no data available.

Aspiration Hazard: Not classified; no data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Data: No data available.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse effects: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of waste in accordance with all applicable federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT and IATA: Not regulated by DOT or IATA.

15. REGULATORY INFORMATION

U.S. Regulations:

CERCLA Sections 102a/103 (40 CFR 302.4): Not regulated.

SARA Title III Section 302 (40 CFR 355.30): Not regulated.

SARA Title III Section 304 (40 CFR 355.40): Not regulated.

SARA Title III Section 313 (40 CFR 372.65): Not regulated.

OSHA Process Safety (29 CFR 1910.119): Not regulated.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21):

ACUTE HEALTH: No.
 CHRONIC HEALTH: No.
 FIRE: No.
 REACTIVE: No.
 PRESSURE: No.

State Regulations:

California Proposition 65: Not listed.

U.S. TSCA Inventory: Not listed.

TSCA 12(b), Export Notification: Not listed.

Canadian Regulations:

WHMIS Information: Not provided for this material.

16. OTHER INFORMATION

Issue Date: 21 April 2022

Sources: 29 CFR Occupational Health and Safety Office (OSHA) 1910.1000, *Limits for Air Contaminants*, Table Z-1; available at <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1000TABLEZ1> (accessed Apr 2022).

Center for Disease Control (CDC) NIOSH Pocket Guide to Chemical Hazards, *Particulates not otherwise regulated*; available at <https://www.cdc.gov/niosh/npg/npgd0480.html> (accessed Apr 2022).

Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists	NRC	Nuclear Regulatory Commission
ALI	Annual Limit on Intake	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
CFR	Code of Federal Regulations	RCRA	Resource Conservation and Recovery Act
DOT	Department of Transportation	REL	Recommended Exposure Limit
EC50	Effective Concentration, 50 %	RM	Reference Material
EINECS	European Inventory of Existing Commercial Chemical Substances	RQ	Reportable Quantity
EPCRA	Emergency Planning and Community Right-to-Know Act	RTECS	Registry of Toxic Effects of Chemical Substances
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act
IATA	International Air Transportation Agency	SCBA	Self-Contained Breathing Apparatus
IDLH	Immediately Dangerous to Life and Health	SRM	Standard Reference Material
LC50	Lethal Concentration, 50 %	STEL	Short Term Exposure Limit
LD50	Lethal Dose, 50 %	TLV	Threshold Limit Value
LEL	Lower Explosive Limit	TPQ	Threshold Planning Quantity
MSDS	Material Safety Data Sheet	TSCA	Toxic Substances Control Act
NIOSH	National Institute for Occupational Safety and Health	TWA	Time Weighted Average
NIST	National Institute of Standards and Technology	UEL	Upper Explosive Limit
		WHMIS	Workplace Hazardous Materials Information System

Disclaimer: The NIST SDS information is specific to the NIST product and is believed to be correct, based upon our current knowledge. The SDS may not necessarily be all inclusive and should be used only as a guide. NIST does not guarantee the accuracy or completeness of this information. The only official source for specific values and uncertainties is the certificate or report.

Users of this SRM should ensure that the SDS in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; e-mail srmmsds@nist.gov; or via the Internet at <https://www.nist.gov/srm>.

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0-0000049409	05/18/2023	05/18/2023	Order		PREPAY	172887	172888

Bill To Address:

Analytical Resources, LLC
 4611 134th Place S.
 #100
 Tukwila, WA 98168-3240

Ship To Address:

Analytical Resources, LLC
 4611 134th Place S.
 #100
 Tukwila, WA 98168-3240

Ship via	FedEx Priority Over Night	Account #		VAT #	
Sales Rep	srmauto	Email	bob.congleton@arilabs.com	Customs / EORI #	
Destination Contact	Bob Congleton	Phone #	206-695-6200	Import License #	

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SRM / RM #	Description	Order Qty	UOM	Shipped Qty
1941b	Organics in Marine sediment Shipping charges Please be sure to include shipping charges that are found on the last page of your quote/proforma with your payment. <div style="text-align: center; font-family: cursive;"> Rec'd 5/19/23 BC </div>	1	Each	1



Reprint Date: 05/18/2023

Packed by	perlson
Total # of Pieces	1



HOLDING TIME SUMMARY

Analysis: ASTM D2216

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1804 23D0136-01	04/05/23 11:45	04/06/23 10:30	04/10/23 14:41	5	28	04/11/23 07:14	6	28	
LDW23-SS1803 23D0136-03	04/05/23 16:05	04/06/23 10:30	04/19/23 14:13	13	28	04/19/23 14:29	14	28	

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

**METHOD DETECTION
AND REPORTING LIMITS**
ASTM D2216

Laboratory: Analytical Resources, LLC

SDG: 23D0136

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument:

Analyte	MDL	RL	Units
Total Solids		0.01	%

TOTAL SOLIDS BENCHSHEET						Batch:	BLD0208	
Method: PSEP 1986 (dry at 103-105 C)						Date:	4/7/2023 14:17	
Instrumentation						Analyst:	CR	
						Drying Oven:	15	
						Analytical Balance:	B139298002	
Batch drying time								
Record times as mm/dd/yy hh:mm			Oven Temp, C	TS (%) calculated as:			Oven Temps, °C	
Date/time in oven:	4/12/2023 8:35		107	Final dry wt (g) = (Dry Wt - Tare Wt)			Start Temp:	107
Date/time out:	4/13/2023 6:40		105	TS = (Final Dry Wt X 100) / (sample & dish - dish tare)			End Temp:	105
Elapsed hrs:	22.1							
SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted		
23D0136-01	0.7900	11.3500	6.0000	5.21	49.34%	No		
23D0136-02	0.7900	11.3100	6.0100	5.22	49.62%	No		
23D0136-03	0.8400	11.5600	5.5900	4.75	44.31%	No		
23D0136-04	0.7900	12.5800	6.5700	5.78	49.02%	No		

TOTAL SOLIDS BENCHSHEET		Batch:	BLD0208
Method: PSEP 1986		Date:	4/7/2023 14:17
(dry at 103-105 C)		Analyst:	CR
Instrumentation		Drying Oven:	015
		Analytical Balance:	B13929 8002
Batch drying time			
Record times as mm/dd/yy hh:mm		Oven Temp, C	TS (%) calculated as:
Date/time in oven:	4/12/23 8:35	107	Final dry wt (g) = (Dry Wt - Tare Wt)
Date/time out:	4/13/23 6:40	105	TS = (Final Dry Wt X 100)/(sample & dish -dish tare)
Elapsed hrs:	0.0		
		Oven Temps, °C	
		Start Temp:	107
		End Temp:	105

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
23D0136-01 A	0.79	11.35	6.00			No
23D0136-02 I	0.79	11.31	0.01			No
23D0136-03 I	0.84	11.56	5.59			No
23D0136-04 A	0.79	12.58	6.57			No

T/S + Screens
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